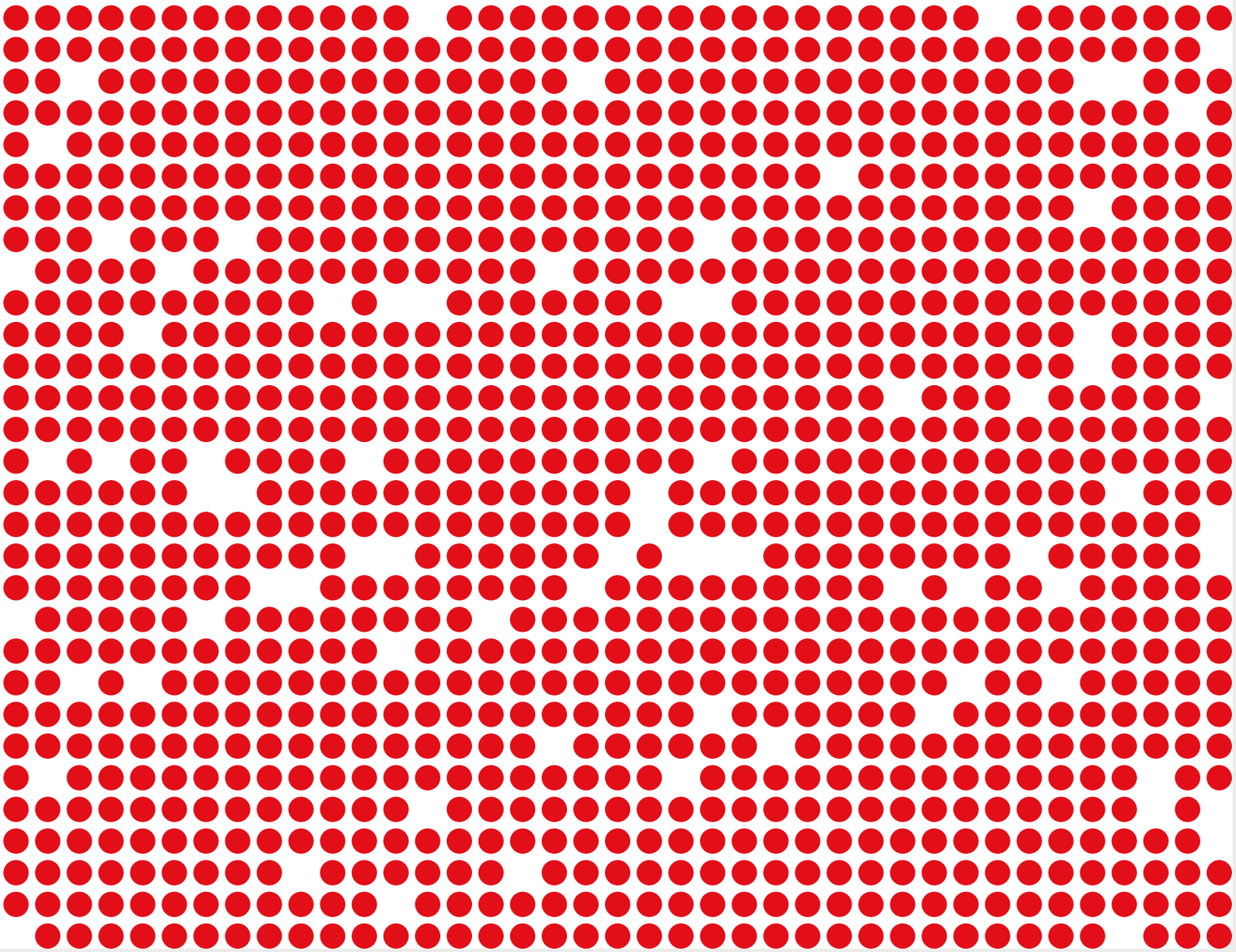
GIMATIC™

Catalogo

Handling Solutions

Engineering Beauty.
Automating the World.





Who We Are

Engineering Beauty. Automating the World

Fondata in Italia nel 1985, Gimatic unisce precisione ingegneristica, innovazione tecnologica e lo spirito dell'artigianalità italiana.
Da oltre 40 anni progettiamo e produciamo soluzioni di automazione intelligenti e modulari che rendono ogni movimento più preciso, intuitivo e mirato. Dalla manipolazione e EOAT alla meccatronica, ai sistemi di presa e alla tecnologia del vuoto, la nostra esperienza copre ogni fase del processo di automazione.
Oggi, una rete globale di filiali, centri di automazione, stabilimenti produttivi e distributori avvicina la tecnologia e il know-how applicativo di Gimatic ai clienti di tutto il mondo.
Ogni soluzione riflette lo stesso approccio: controllo completo, prestazioni affidabili ed ingegneria plasmata con eleganza.

Gimatic in sintesi

- **1985** Fondata in Italia
- **40+** Anni di ingegneria e innovazione
- **350+** Dipendenti nel mondo
- **15** Filiali
- **150+** Brevetti
- **120+** Distributori nel mondo

Engineering Beauty. Automating the World

Born in Italy in 1985, Gimatic brings together engineering precision, technological innovation and the spirit of Italian craftsmanship.
For over 40 years, we have designed and manufactured intelligent, modular automation solutions that make every movement more precise, intuitive and purposeful. From handling and EOAT to mechatronics, gripping systems and vacuum technology, our expertise covers every stage of the automation process.
Today, a global network of subsidiaries, automation centers, production facilities and distributors brings Gimatic technology and application know-how closer to customers around the world.
Every solution reflects the same approach: complete control, reliable performance and engineering shaped with elegance.

Gimatic at a Glance

- ***1985** Founded in Italy*
- ***40+** Years Of engineering and innovation*
- ***350+** Employees worldwide*
- ***15** Subsidiaries*
- ***150+** Patents*
- ***120+** Distributors worldwide*

Dai componenti alle soluzioni di automazione globale

Oltre quattro decenni di continua evoluzione hanno trasformato Gimatic da produttore di componenti a partner globale per l'automazione. Attraverso una crescente competenza applicativa, conoscenza del settore e capacità ingegneristiche, supportiamo i clienti non solo con prodotti, ma con soluzioni su misura per le loro sfide produttive.

From Components to Global Automation Solutions

Over four decades of continuous evolution have transformed Gimatic from a component manufacturer into a global automation partner. Through growing application expertise, industry knowledge and engineering capabilities, we support customers not only with products, but with solutions tailored to their manufacturing challenges.



Global Reach. Local Expertise.

Un unico standard globale

Una cultura ingegneristica condivisa, standard qualitativi uniformi e un supporto locale reattivo consentono a Gimatic di fornire soluzioni di automazione in qualsiasi parte del mondo.
Un progetto può essere ingegnerizzato in Europa, prodotto in Asia e installato negli Stati Uniti: senza interruzioni, sotto un unico standard Gimatic.

- **15** Filiali
- **70+** Paesi serviti
- **120+** Distributori
- Rete globale di ingegneria e assistenza

One Global Standard

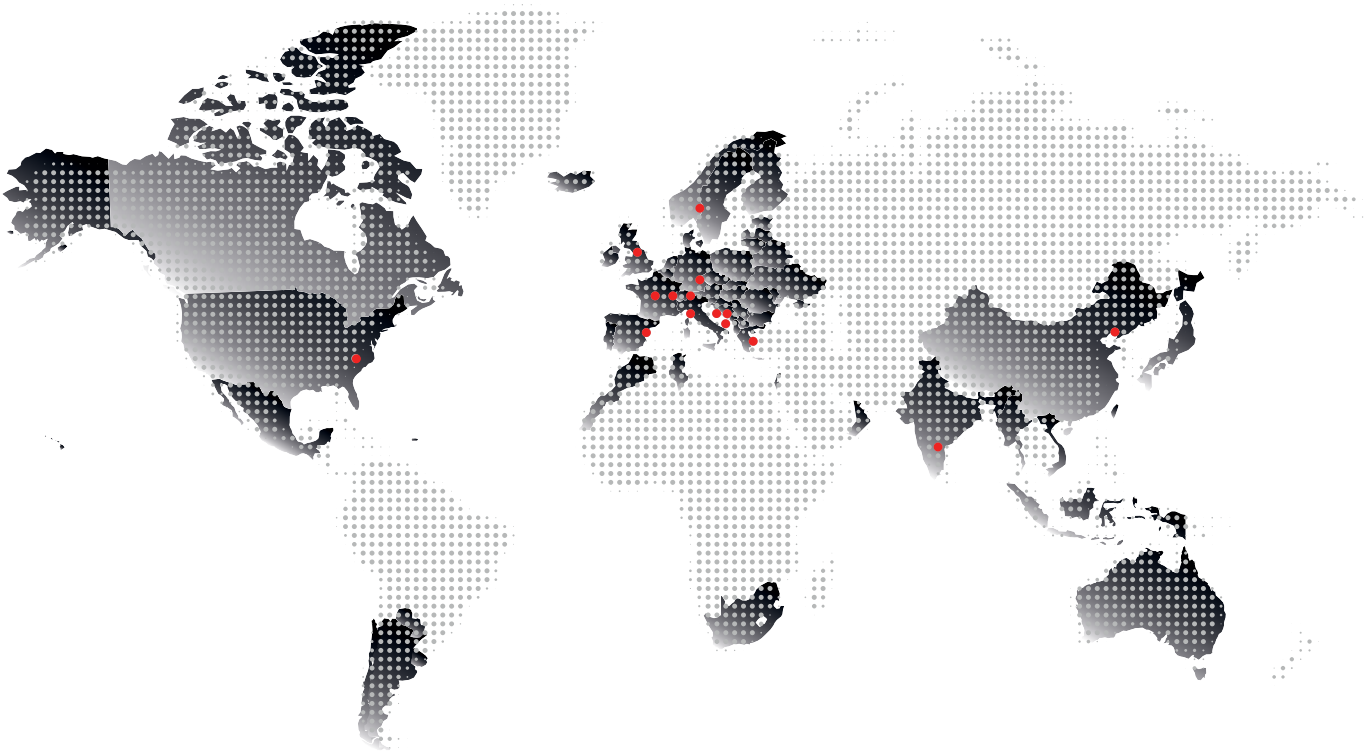
A shared engineering culture, consistent quality standards and responsive local support enable Gimatic to deliver automation solutions anywhere in the world.
A project can be engineered in Europe, manufactured in Asia and installed in the United States – seamlessly, under one Gimatic standard.

- ***15** Subsidiaries*
- ***70+** Countries Served*
- ***120+** Distributors*
- *Worldwide Engineering & Service Network*

- Bulgaria
- China
- Czechia
- France
- Germany
- India
- Italy
- Poland
- Romania
- Serbia
- Spain
- Sweden
- Türkiye
- United Kingdom
- USA

Attraverso una rete mondiale di filiali, centri di automazione e stabilimenti produttivi, Gimatic supporta i clienti in ogni fase del percorso di automazione.

Through a worldwide network of subsidiaries, automation centers and manufacturing facilities, Gimatic supports customers across every phase of the automation journey.



End Of Arm Tooling

Che cosa è un EOAT?
E' il telaio (con tutti i componenti necessari) montato su un robot per lo scarico della pressa di stampaggio.
Le sue funzioni sono:

- estrarre il pezzo dallo stampo;
- afferrarlo saldamente;
- separarlo dalle materozze;
- afferrare le materozze dopo il taglio;
- scaricare le materozze nel riciclatore;
- depositare il pezzo smaterozzato su pallet o nastro trasportatore.

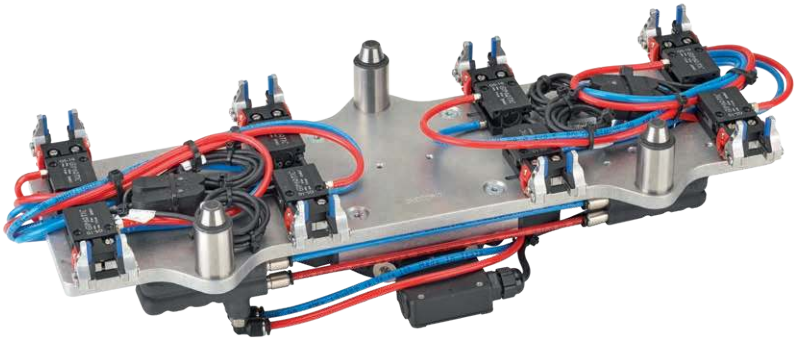
End-Of-Arm Tooling

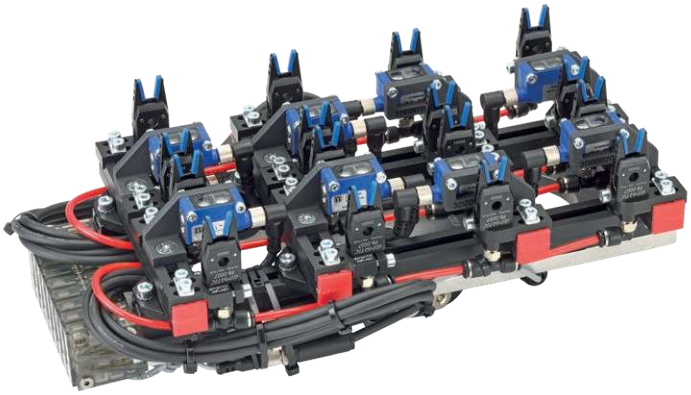
What is an EOAT?
It is the frame (with all the necessary components) mounted on a robot for unloading the hydraulic moulding machine.
Its functions are:

- *to extract the piece from the die;*
- *to grip the piece firmly;*
- *to cut it from the sprues;*
- *to grip the sprues after the cut;*
- *to discharge the sprues into the recycler;*
- *to place the piece without sprue onto a pallet or conveyor belt.*

Manipolazione componenti per sistema iniezione.

Handling of injection system components.



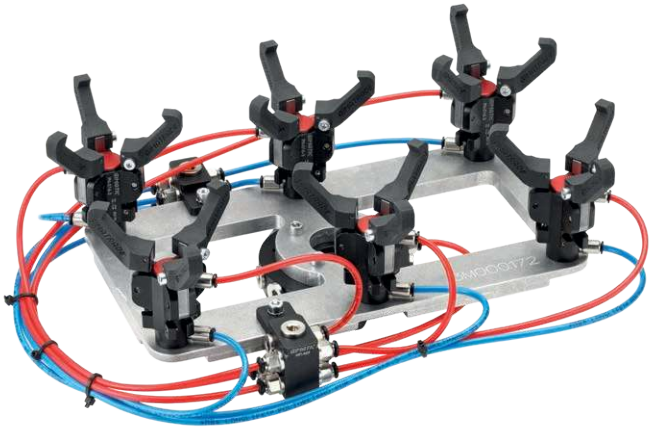


Manipolazione di Cover in silicone morbido.

Handling of soft silicone covers.

Manipolazione lenti per occhiali post stampata con pinze PN-016-3 e dita di presa personalizzate in stampa 3d.

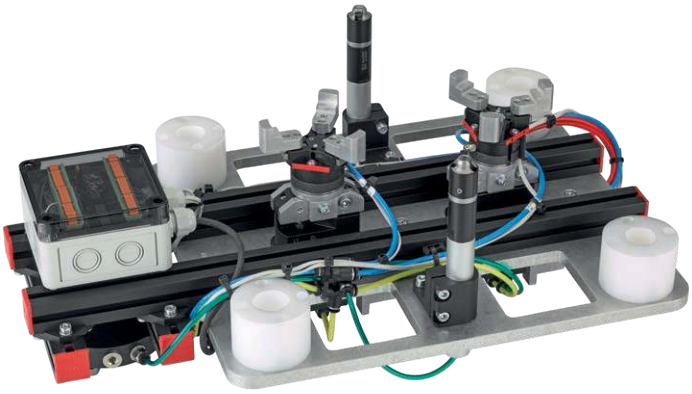
Handling of post-moulded spectacle lenses with PN-016-3 grippers and customised 3D-printed gripper fingers.





Manipolazione cassettiere in alluminio. Soluzione custom dotata di ventose antialone VG.CF in HNBR, pompa EJ-XPRO con logica di controllo integrata e pompe decentralizzate per alimentazione di ventose VG.IS per la manipolazione dell'interfalda di protezione.

Handling of aluminium drawer units. Custom solution with VG.CF mark-free suction cups in HNBR, EJ-XPRO vacuum pump with built-in control logic and decentralized pumps for feeding VG.IS suction cups for handling the protection interlayer.



Presa e caricamento nello stampo di un anello in rame con pinza a tre griffe TH, sulla parte opposta della mano gruppo di presa per scarico cuscinetto co-stampato.

Gripping and loading a copper ring into the mould with a TH three-jaw gripper, on the opposite side of the EOAT for gripping and unloading the co-moulded bearing.



Manipolazione di materiale costampato.
Presa e caricamento nello stampo di componenti in plastica, manipolazione del prodotto finito dopo processo di sovrastampaggio e rivestimento in gomma.
Tastiera per centralina Automotive.

Handling of co-moulded material.
Gripping and loading plastic components into the mould, handling the finished product after the overmoulding and rubber coating processes.
Keypad for Automotive control unit.

I nostri EOAT
Our EOATS

CAMBIA UTENSILE

> Manuali o automatici
> Con o senza valvole di controllo dell'aria
> Intrinsecamente sicuri

QUICK CHANGER

> *Manual or automatic*
> *With or without air control valves*
> *Inherently safe*

RIBALTATORI

> La gamma più completa sul mercato con capacità da 60g a 60kg

TILT UNITS

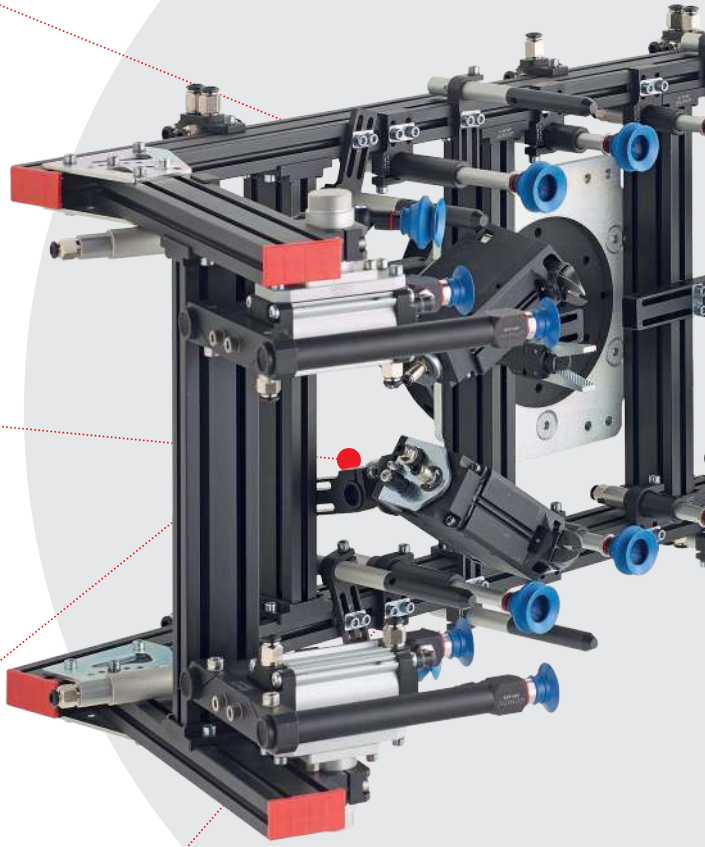
> *The most complete range on the market with capacities from 60g to 60kg*

PROFILI E STAFFE

> Elevata precisione di posizionamento tra profilo e staffa
> Elevata rigidità degli snodi
> Tutti i gradi di libertà necessari a raggiungere ogni posizione

PROFILES AND BRACKETS

> *High positioning accuracy betwee profile and bracket*
> *High joint rigidity*
> *All the degrees of freedom needed to reach each position*

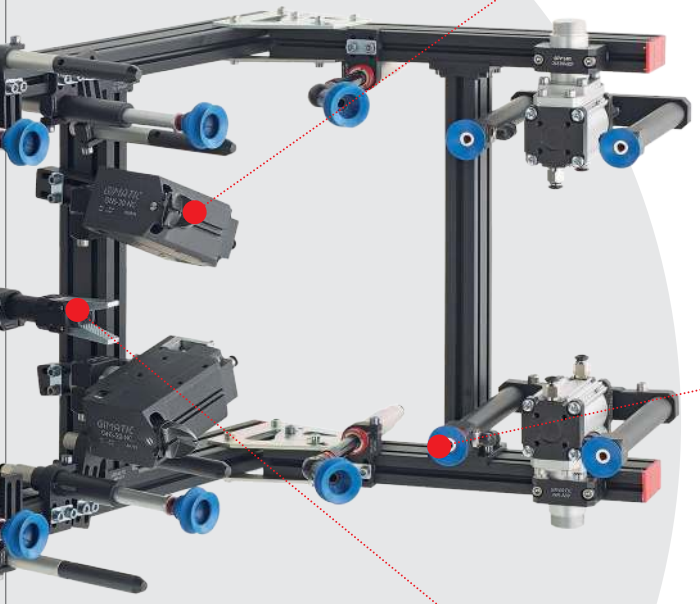


SENSORI

> Magnetici, induttivi, ottici, ultrasonici
> Per un monitoraggio completo e sicuro di tutte le funzioni dell'EOAT
> Varie sensor box per gestire la logica dei segnali ricevuti dai sensori

SENSORS

> *Magnetic, inductive, optical, ultrasonic*
> *For complete and secure monitoring of all EOAT functions*
> *Various sensor boxes to manage the logic of the signals received from the sensors*



+2.500 EOATS
installati l'anno
installed per year

TAGLIERINI

> A cesoia o a ghigliottina
> Sensori integrati
> Lame intercambiabili
> Sistema di riscaldamento integrato

NIPPERS

> *Scissor or thrust-cut type*
> *Integrated sensors*
> *Interchangeable blades*
> *Integrated heating system*

SOSPENSIONI E VUOTO

> Sospensioni leggere con molla integrata e protetta
> Nessuna presenza di lubrificante
> Ventose anti-alone
> Pompe per vuoto con controsoffio ed energy saving

SUSPENSIONS AND VACUUM

> *Lightweight suspensions with integrated, protected spring*
> *Lubricant-free*
> *Mark-free suction cups*
> *Vacuum pumps with blow-off and energy saving*

PINZE

> La più ampia gamma nel mercato Plastics: parallele, angolari, a 3 griffe, a espansione e magnetiche
> Concetti esclusivi e brevettati

GRIPPERS

> *The widest range in the Plastics market: parallel, angular, 3-jaw, expansion and magnetic grippers*
> *Exclusive and patented concepts*

+150 brevetti */patents*
+2.000.000 elementi prodotti l'anno*/items produced per year*
+5.000 codici a catalogo */product codes on catalogue*

Unità roranti
Rotary units

25

Cambia utensile
Quick changer

61

Profili e staffe
Profiles and brackets

157

Pinze
Grippers

237

Attuatori
Linear actuators

491

Sospensioni
Suspensions

533

Taglierini
Nippers

557

Kit-Robot
Robot-kit


575

Accessori Opzionali
Options

587

Sensori
Sensors

613

Indice generale
General index

Unità rotanti
Rotary units *25*



26
RBT
Ribaltatori
Tilt units



32
OFN
Ribaltatore pneumatico per piccoli EOAT
Pneumatic tilt unit for small EOATs



34
RT
Attuatori rotanti
Swivelling units



38
R
Attuatori rotanti
Swivelling units



46
MRE
Attuatori rotanti elettrici
Electric rotary actuators



52
ITSC
Tavole rotanti
Rotary indexing tables



56
AR
Attuatori rotanti
Swivelling units



58
PRP
Attuatori rotanti
Swivelling units

Cambia utensile
Quick changer *61*



62
QC
Cambia utensile
Quick changer



88
MCQC
Moduli di connessione elettrica per QC.
Electrical connection modules for QC



98
QC75
Cambia utensile per robot collaborativi
Quick changer for collaborative robots



102
SQC
Cambia utensile quadro
Square quick changer



112
EQC
Cambia utensile elettrico
Electric quick changer



122
PQC NEW
Cambia utensile pneumatico automatico
Automatic pneumatic tool changer

Profili e staffe
Profiles and brackets

157



158
EM
Travi
Beams



225
MFM
Moduli di fissaggio in metallo
Metal Fastening Modules



162
MFI
Moduli di fissaggio universali
Universal mounting clamps



234
PLA
Piastra per Eoat
Plate for EOAT



222
MFP
Moduli di fissaggio in plastica
Plastic Fastening Modules



235
MCD
Mini compensatore
Mini compensator

Pinze
Grippers

237



238
AGG
Pinza per agganciamento
Gripper for engagement



268
BB
Pinze in zama non autocentranti per materozze
Non-self-centering sprue grippers in zamak



240
AA
Pinze autocentranti per materozze
Self-centering sprue grippers



270
DD
Pinze autocentranti per materozze
Self-centering sprue grippers



245
DC
Pinza per materozze
Sprue gripper



280
GW
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



246
PB
Pinze non autocentranti per materozze
Non-self-centering sprue grippers



286
PN
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



292
TFA
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



296
MPBM
Pinze elettriche angolari a 2 griffe
2-jaw angular electric grippers



300
PS
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



302
PS-P
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



306
GX-S
Pinze radiali a 2 griffe
2-jaw radial-acting grippers



312
PT
Pinze ad aghi
Needle gripper



316
SGP-S
Pinze parallele a 2 griffe
2-jaw parallel grippers



326
GS
Pinze parallele a 2 griffe
2-jaw parallel grippers



334
SZ
Pinze parallele a 2 griffe
2-jaw parallel grippers



338
PQ
Pinze parallele a 2 griffe
2-jaw parallel grippers



342
MGX
Pinze parallele a 2 griffe
2-jaw parallel grippers



346
MG
Pinze parallele a 2 griffe
2-jaw parallel grippers



352
GM
Pinze parallele a 2 griffe
2-jaw parallel grippers



358
SX
Pinze parallele a 2 griffe
2-jaw parallel grippers



360
PE
Pinze parallele a 2 griffe
2-jaw parallel grippers



368
DHG
Pinze parallele a 2 griffe
2-jaw parallel grippers



380
SP
Pinze parallele a 2 grife
2-jaw parallel grippers



386
JP
Pinze parallele a 2 griffe
2-jaw parallel grippers



388
HS
Pinze parallele a 2 griffe
2-jaw parallel grippers



392
X
Pinze pneumatiche autocentranti
Self-centering pneumatic grippers



398
MPPM
Pinze elettriche parallele a 2 griffe
2-jaw parallel electric grippers



402
SS-GMP
Soluzione per manipolazione in camera bianca
Cleanroom gripping solution



406
MPXM
Pinze elettriche parallele a 2 griffe
2-jaw parallel electric grippers



410
MPLM
Pinze elettriche parallele a 2 griffe
2-jaw parallel electric grippers



414
LS-GMP
Soluzione per manipolazione in camera bianca
Cleanroom gripping solution



418
MPLF
Pinza servo elettrica paralella corsa lunga 2 griffe autocentrante
Self-centering 2-jaw servo-electric parallel gripper with long stroke



424
MPCF
Pinza servo elettrica paralella corsa lunga 2 griffe autocentrante con drive incorporato
Self-centering 2-jaws servo-electric parallel gripper with long stroke and embedded drive



430
TGP
Pinza pneumatica autocentrante a 3 griffe
3-jaw self-centring pneumatic gripper



432
T
Pinze autocentranti a 3 griffe
3-jaw self-centering grippers



434
TH
Pinze autocentranti a 3 griffe
3-jaw self-centering grippers



452
SXT
Pinze autocentranti a 3 griffe
3-jaw self-centering grippers



454
MPTM
Pinze autocentranti a 3 griffe
3-jaw self-centering grippers



458
MFD / MFU
Pinze ad espansione
Air Hands



465
IFU
Micro pinze ad espansione per interni
ID expansion micro grippers



466
OFD
Pinza elastica mono-dito
One finger elastic module



468
OF
Pinze per staffaggio
Grippers for clamping



480
OFP
Pinze per staffaggio angolari, con dito in plastica
Angular grippers for clamping with finger in polymer



484
OFX
Pinze per staffaggio perpendicolari
Perpendicular grippers for clamping



486
MAG
Pinza magnetica
Magnetic gripper

Attuatori
Linear actuators

491



492
OFL
Cilindro a corsa breve
Short stroke cylinder



494
OFB
Cilindro guidato
Guided cylinder



498
OFC
Mini cilindri
Mini cylinders



504
ZL
Slitte pneumatiche per EOAT
Pneumatic slides for the EOATs



510
ZE-P
Slitte
Slides



514
Z
Slitte
Slides



524
ZJ
Slitta a doppia corsa
Double stroke slide



526
ZG
Slitte per taglierini pneumatici serie GN
Slides for GN pneumatic nippers



528
VAQ
Attuatori a depressione
Vacuum actuator

Sospensioni
Suspensions

533



534
VS-INTRO
Sospensioni per ventose
Vacuum cup suspensions



536
VSL
Sospensioni telescopiche anti-rotazione con corpo liscio
Smooth-body non-rotative telescopic suspensions



537
VSC
Sospensioni telescopiche anti-rotazione con corpo filettato
Threaded-body non-rotative telescopic suspensions



538
VSR
Sospensioni rotanti con corpo liscio
Smooth-body rotative suspensions



539

VSRT

Sospensioni rotanti con corpo filettato
Threaded-body rotative suspensions



540

VSE

Sospensioni anti-rotazione con giunto angolare integrato e corpo liscio
Smooth-body non-rotative suspensions with integral elbow arms



541

VSET

Sospensioni anti-rotazione con giunto angolare integrato e corpo filettato
Threaded-body non-rotative suspensions with integral elbow arms



542

VVX

Sospensioni inox anti-rotazione per carichi elevati
Non-rotative heavy duty stainless suspensions



543

VSRTG

Sospensioni inox rotanti con corpo filettato
Rotative stainless suspensions with threaded body



544

VSNG

Sospensioni anti-rotazione con corpo liscio
Smooth-body non-rotative telescopic suspensions



545

VSNTG

Sospensioni anti-rotazione con corpo filettato
Threaded-body non-rotative suspensions



546

VSS

Sospensioni telescopiche auto-ritraenti
Telescopic self-retracting suspensions



547

VSD

Sospensioni anti-rotazione con cravatta regolabile e corpo liscio
Non-rotative suspensions with smooth-body and adjustable clamp



548

AF

Nippli filettati
Threaded nipples



549

VAM

Giunti angolari
Elbow arms



550

VAC

Giunti angolari
Elbow arms



551

VSX

Pressore a molla
Spring rod



552

VMK

Sospensioni universali
Universal suspensions

Taglierini
Nippers

557



558

GNB
Portalama
Blade holder



559

CH102
Regolatore di temperatura
Temperature regulator



560

GN-
Taglierini a ghigliottina
Thrust Cut Nippers



562

GNS
Attuatori pneumatici per taglierini
Air nipper actuators



568

GN
Attuatori pneumatici per taglierini
Air nipper actuators



570

G.N
Lame per taglierini pneumatici serie GN
Blades for GN pneumatic nippers



573

JG
Griffe per taglierini pneumatici serie GN
Fingers for GN pneumatic nippers

Kit-Robot
Robot-kit

575



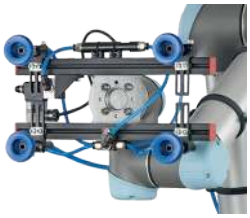
576

KIT-UR-G
Pinza elettrica a 2 griffe con copertura in plastica e capacitor box (kit per robot UR)
2-jaw electric gripper with plastic cover and capacitor box (kit for UR robot)



577

KIT-UR-J
Pinza elettrica a parallelogramma con capacitor box integrato (kit per robot UR)
Parallelogram electric gripper with built-in capacitor box (kit for UR robot)



578

KIT-UR-V
End Of The Arm Tool (EOAT) per operazioni pick-and-place in depressione (kit per robot UR)
End Of The Arm Tool (EOAT) for vacuum based pick & place operations (kit for UR robot)



579

KIT-UR-EQC20
Cambia utensile elettrico con connettore elettrico (kit per robot UR)
Electric quick changer with electric connector (kit for TM robot)



580

KIT-UR-QC
Cambia utensile manuale con connettore elettrico (kit per robot UR)
Manual quick changer with electric connector (kit for UR robot)



581

KIT-UR-QC75
Cambia utensile manuale con connettore elettrico (kit per robot UR)
Manual quick changer with electric connector (kit for UR robot)



582

KIT-TM-J

Pinza elettrica a parallelogramma con capacitor box integrato (kit per robot TM)
Parallelogram electric gripper with built-in capacitor box (kit for TM robot)



583

KIT-TM-V

End Of The Arm Tool (EOAT) per operazioni pick-and-place in depressione (kit per robot TM)
End Of The Arm Tool (EOAT) for vacuum based pick & place operations (kit for TM robot)



584

KIT-TM-EQC20

Cambia utensile elettrico con connettore elettrico (kit per robot TM)
Electric quick changer with electric connector (kit for TM robot)



585

KIT-TM-QC75

Cambia utensile manuale con connettore elettrico (kit per robot TM)
Manual quick changer with electric connector (kit for TM robot)

Accessori Opzionali
Options

587



588

RG.

Raccordi
Fittings



604

RQC

Tecnologia Opzioni
Technology and options



596

VITE

Dadi
Nuts



605

CAP BOX

Accessori
Accessories



597

TU

Tubi flessibili
Hoses



607

MPS

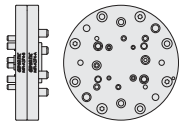
Tecnologia Opzioni
Technology and options



598

MECHA

Tecnologia Opzioni
Technology and options



608

A-MECHA

Accessori
Accessories



600

DRV NEW

Tecnologia Opzioni
Technology and options



609

GLO

Glossario
Glossary



614
SENSORS-INTRO



618
SS-G
Sensori magnetici per cave a C con uscita cavo assiale
Magnetic sensors for C slots with axial cable output



620
SN-G
Sensori magnetici per cave a C con uscita cavo angolare
Magnetic sensors for C slots with angular cable output



622
SS-V-G
Sensori magnetici analogici per cave a C con uscita cavo assiale
Analog magnetic sensors for C slots with axial cable output



624
SN-V-G
Sensori magnetici analogici per cave a C con uscita cavo angolare
Analog magnetic sensors for C slots with angular cable output



626
SSY-G
Sensori magnetici per cave a C a isteresi ridotta
Magnetic sensors for C slots with low hysteresis



628
SSQ-G
Sensori magnetici per cave a C a isteresi ultra bassa
Magnetic sensors for C-slots with very low hysteresis



630
PRO-SS-G
Sensori magnetici programmabili con uscita cavo assiale
Programmable magnetic sensors with axial cable output



632
PRO-SN-G
Sensori magnetici programmabili con uscita cavo angolare
Programmable magnetic sensors with angular cable output



364
PRO-SN-HS
Sensori magnetici programmabili per pinze SGP-S
Programmable magnetic sensors for SGP-S grippers



636
PRO-SSR
Sensori magnetici programmabili
Programmable magnetic sensors



638
PRO-SNR
Sensori magnetici programmabili
Programmable magnetic sensors



640
PRO-SSR-HS NEW
Sensori magnetici programmabili
Programmable magnetic sensors



642
PRO-SNR-HS NEW
Sensori magnetici programmabili
Programmable magnetic sensors



644
PRO-SNL NEW
usa sensori programmabili IO-Link
Uses programmable IO-Link sensors



646
PRO-SSL NEW
usa sensori programmabili IO-Link
Uses programmable IO-Link sensors



648
SL-G
Sensori magnetici per cave a T ad inserimento assiale
Magnetic sensors for T slots with axial insertion



650
SA-G
Sensori magnetici per cave a T ad inserimento verticale
Magnetic sensors for T slots with vertical insertion



652
CB-G
Sensori magnetici per cave a coda di rondine
Magnetic sensors for dovetail slots



654
SM-G
Sensori magnetici a tiranti
Magnetic sensors with tie-rods



656
SM-G-IP68
Sensori magnetici IP68 a tiranti
IP68 magnetic sensors with tie-rods



658
SM-G-NC
Sensori magnetici normalmente chiusi a tiranti
Normally closed magnetic sensors with tie-rods



660
SI
Sensori induttivi
Inductive sensors



662
SO
Sensori ottici
Optical sensors



664
SOQ
Sensori ottici cubici
Cubical optical sensors



666
SU
Sensori ultrasonici
Ultrasonic sensors



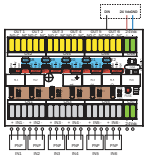
668
SR-G
Sensori tattili
Touch sensors



670
SB
Sensor box
Sensor box



678
SBM
Sensor box modulare
Modular sensor box



682
SB-APPLICATION EXAMPLE
Scatole di derivazione per sensori - esempi di utilizzo
Sensor boxes – application examples



690
K
Adattatori per cave
Slot adapters



692
SW / XF
Fascette per micro cilindri
Mounting clamps for microcylinders



694
ST
Staffe per cilindri
Mounting brackets for cylinders



696
CF
Connettori elettrici
Electrical connectors



711
CUSTOM
Sensori personalizzati su richiesta cliente
Sensors customised to customer's requirements



712
AUTOMOTIVE
Sensori magnetici per applicazioni AUTOMOTIVE
Magnetic sensors for AUTOMOTIVE applications



713
3D
Servizio stampa 3D
3D printing service



714
3L
Servizio laser
Laser service



714
3M
Servizio lavorazione metallica
Metal processing service

715
Condizioni generali di fornitura
General conditions of sale

UNITÀ ROTANTI

Rotary units



RBT

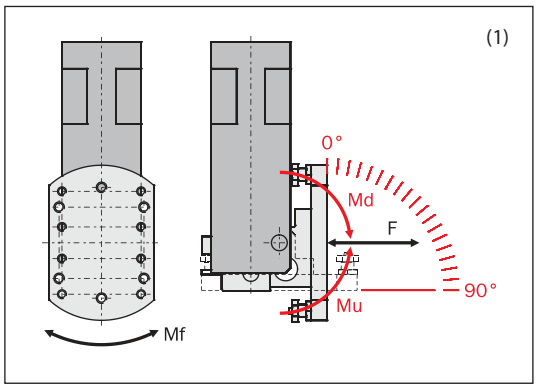
Ribaltatori pneumatici per EOAT serie RBT

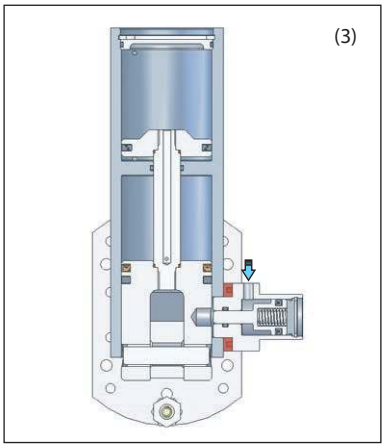
- Rotazione di 90° (1).
- Due fine corsa su gomma regolabili (2).
- Elevata coppia di sollevamento.
- Bloccaggio di sicurezza (3), eccetto RBT30.
- Sensori magnetici opzionali.

Pneumatic tilt units for EOATs, series RBT

- *90° rotation (1).*
- *Two rubber adjustable end-strokes (2).*
- *High lifting torque.*
- *Safety lock (3), except RBT30.*
- *Optional magnetic sensors.*





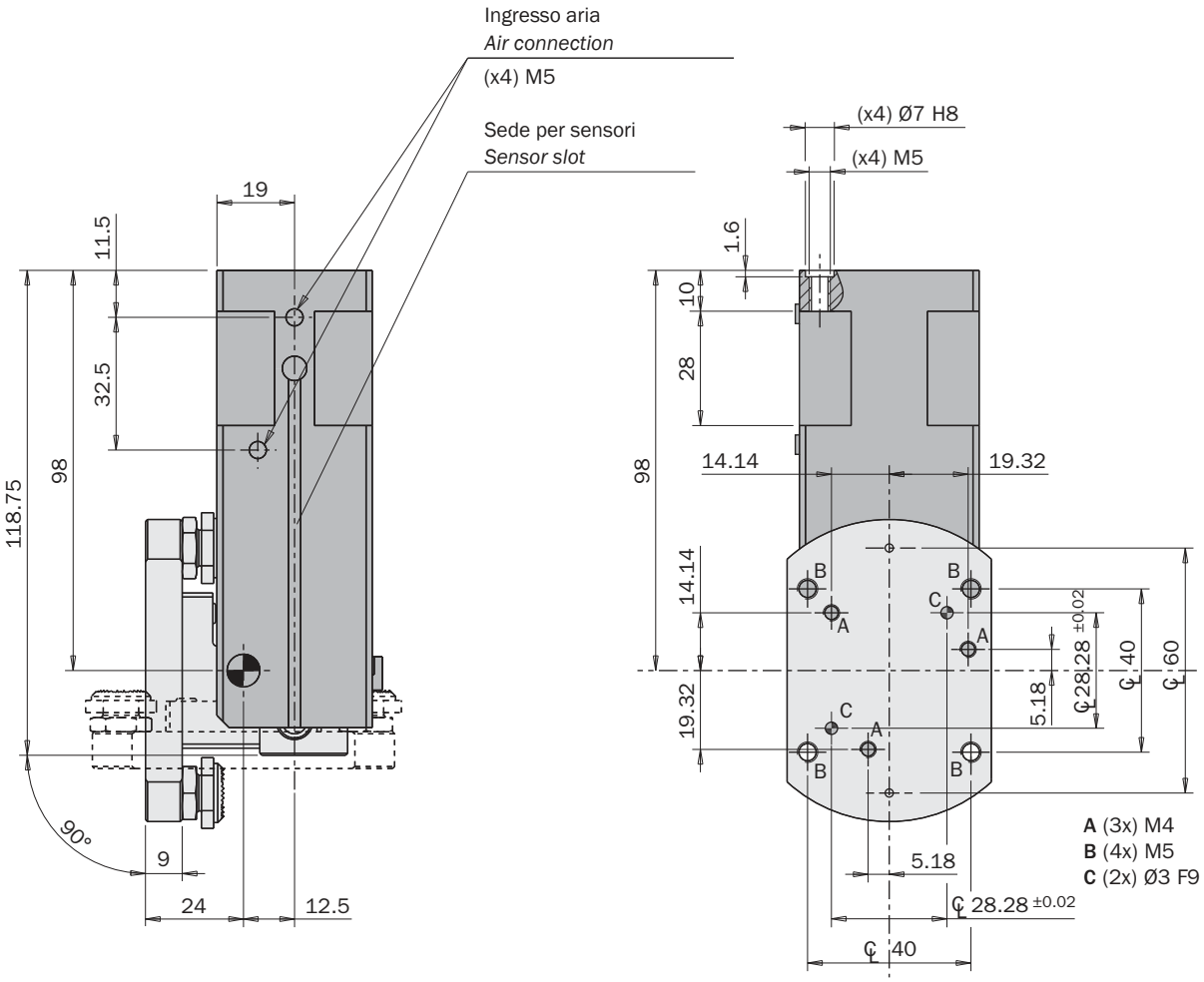


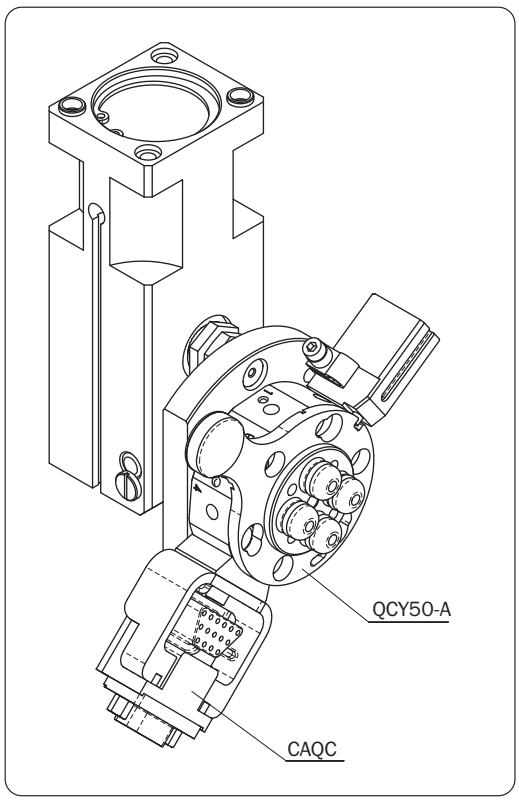


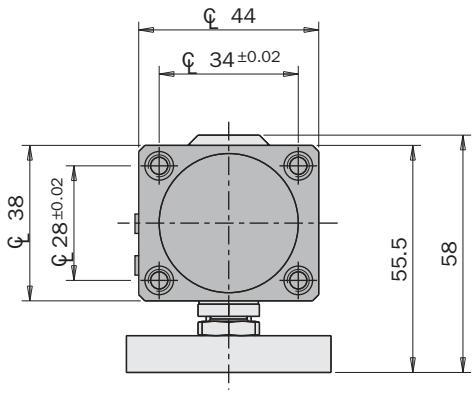
	RBT30	RBT40	RBT50	RBT63	RBT80
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*	2 ÷ 8 bar				
Pressione per sbloccaggio *Unlock pressure*	-	> 3.5 bar			
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.				
Corsa angolare *Tilt angle*	90°				
Regolazione fine-corsa *End stroke adjustment*	± 2°				
Consumo d'aria per ciclo *Cycle air consumption*	56 cm^3	142 cm^3	266 cm^3	462 cm^3	983 cm^3
Coppia di sollevamento a 6 bar (90° → 0°) (Mu) *Lift torque at 6 bar (90° → 0°)*	> 9 Nm	> 24 Nm	> 45 Nm	> 78 Nm	> 174 Nm
Coppia di abbassamento a 6 bar (0° → 90°) (Md) *Drop torque at 6 bar (0° → 90°)*	> 4 Nm	> 11 Nm	> 22 Nm	> 42 Nm	> 84 Nm
Carico ammissibile (F) *Allowed load*	50 N	100 N	200 N	300 N	600 N
Momento ammissibile (Mf) *Allowed moment*	3 Nm	7 Nm	12 Nm	30 Nm	75 Nm
Peso *Weight*	520 g	1050 g	1600 g	2600 g	6500 g

Dimensioni (mm)
Dimensions (mm)

RBT30



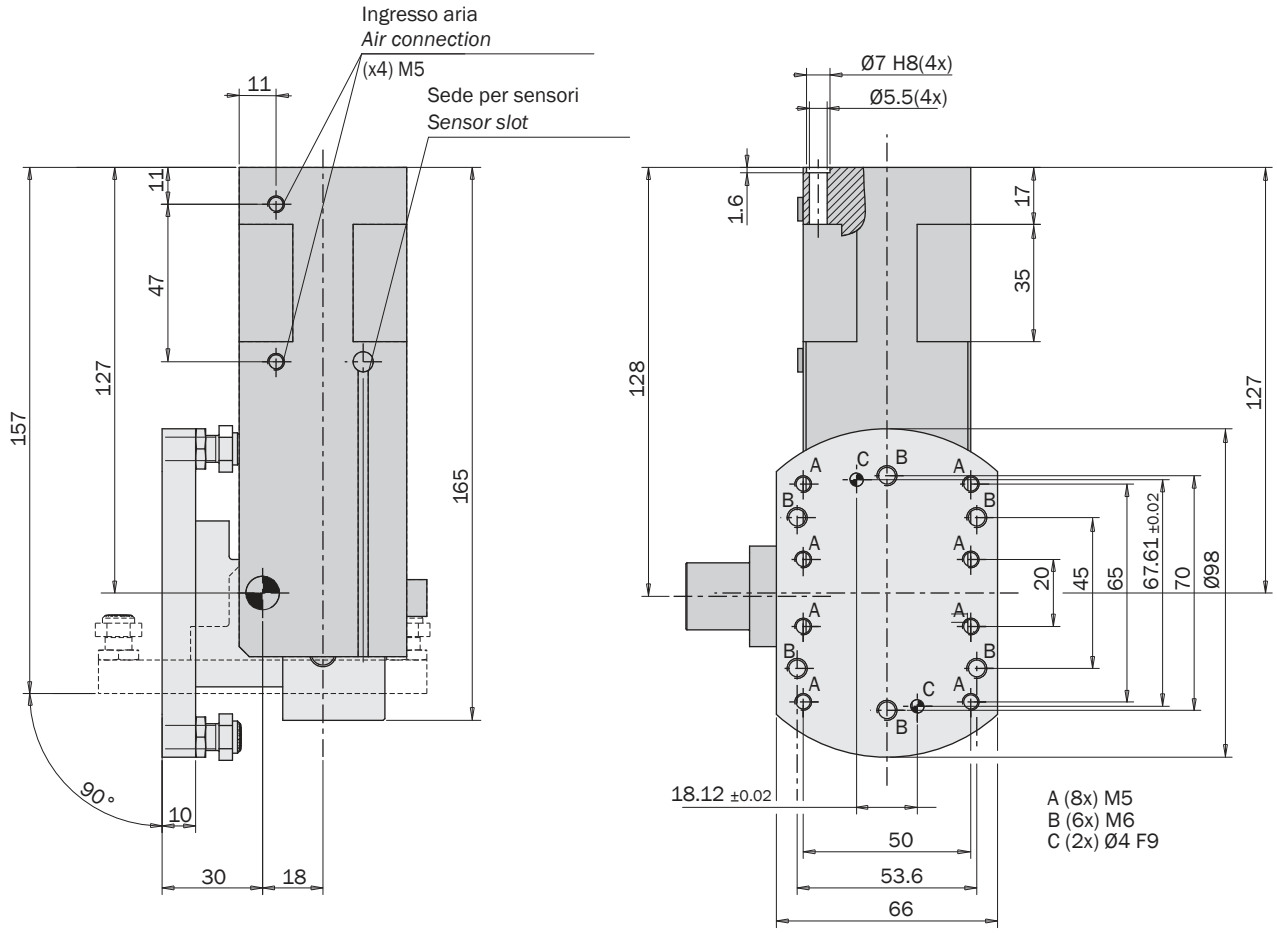


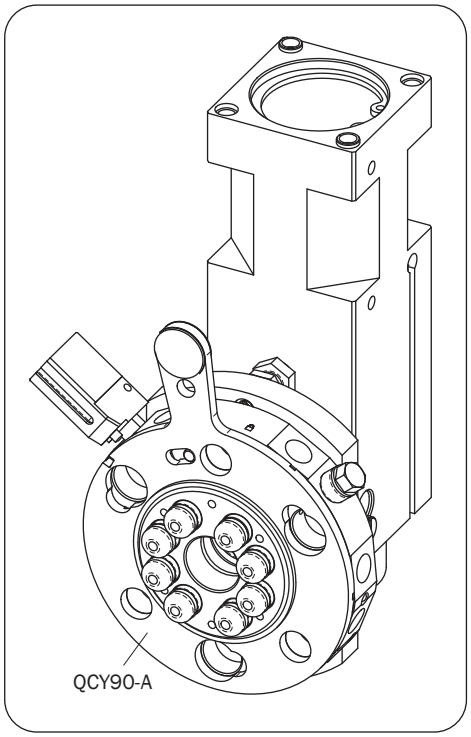


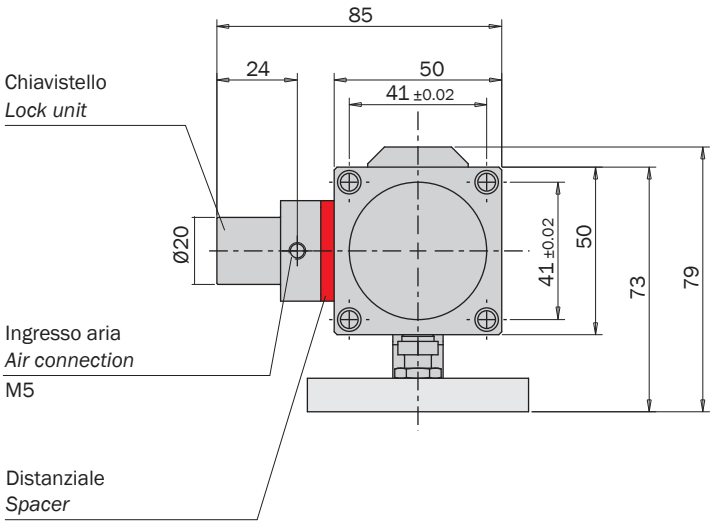
FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

RBT40





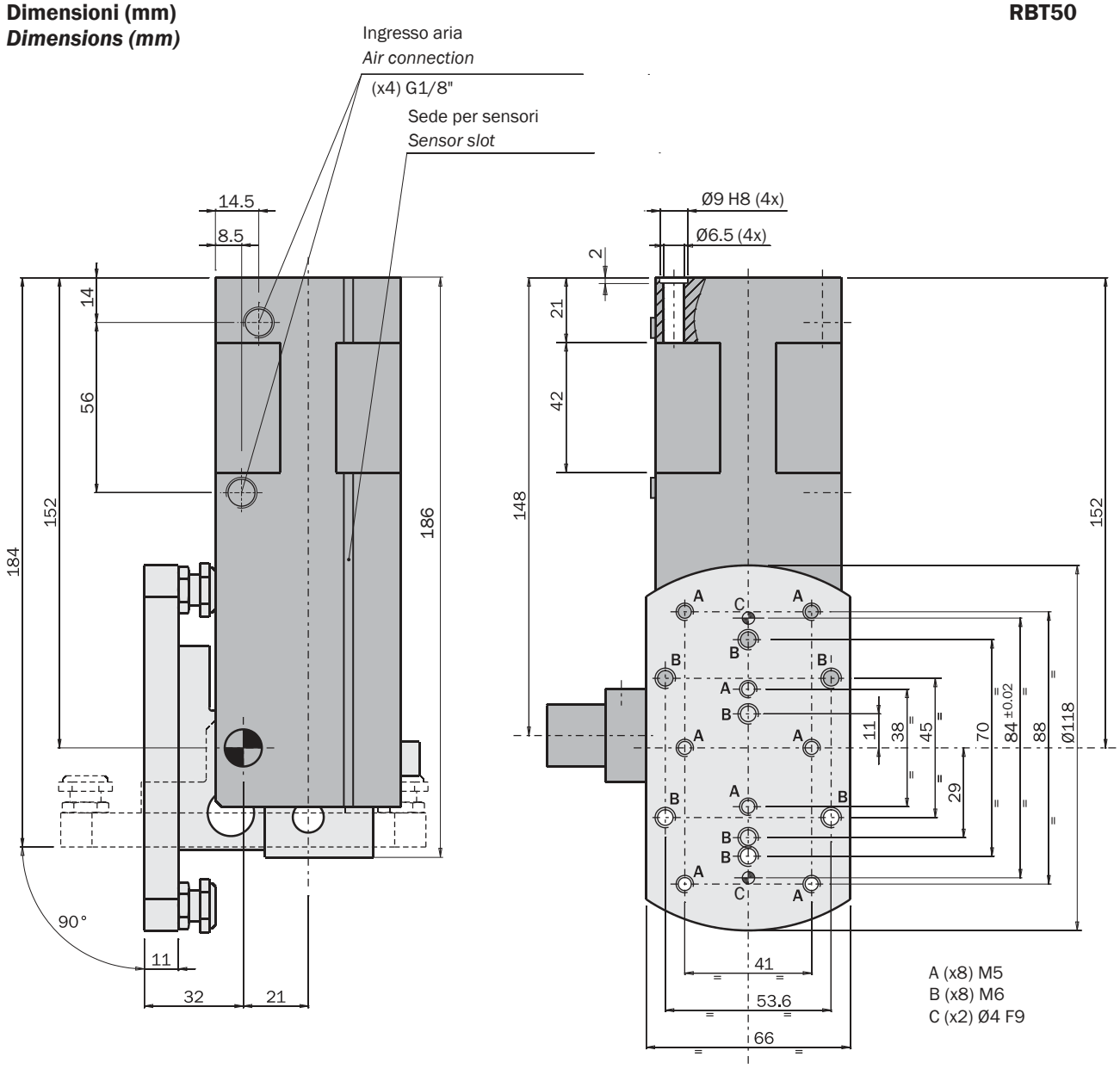


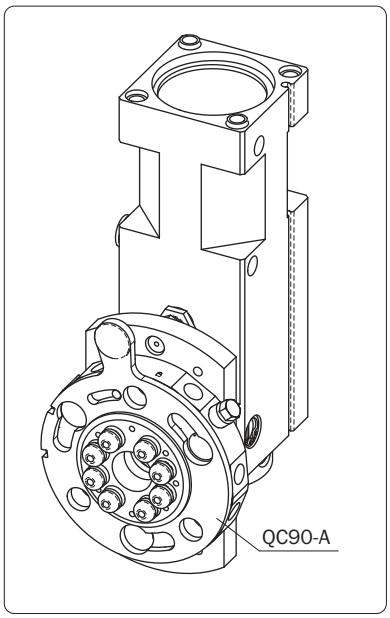
FIRST ANGLE PROJECTION

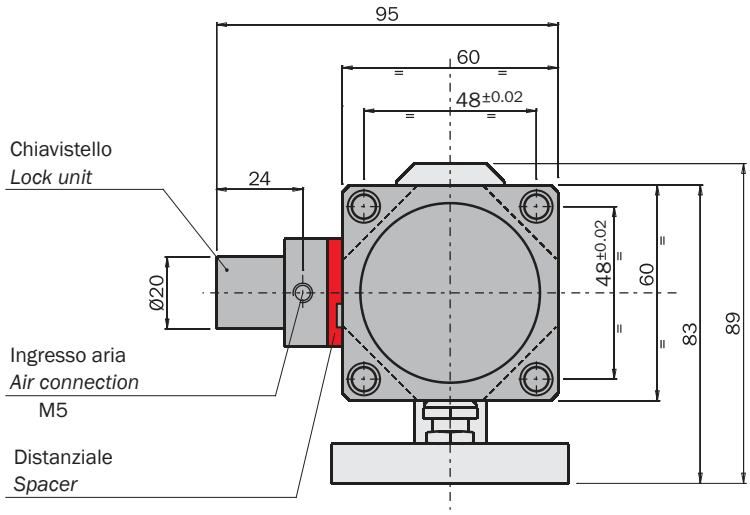
07/2026

Dimensioni (mm)
Dimensions (mm)

RBT50



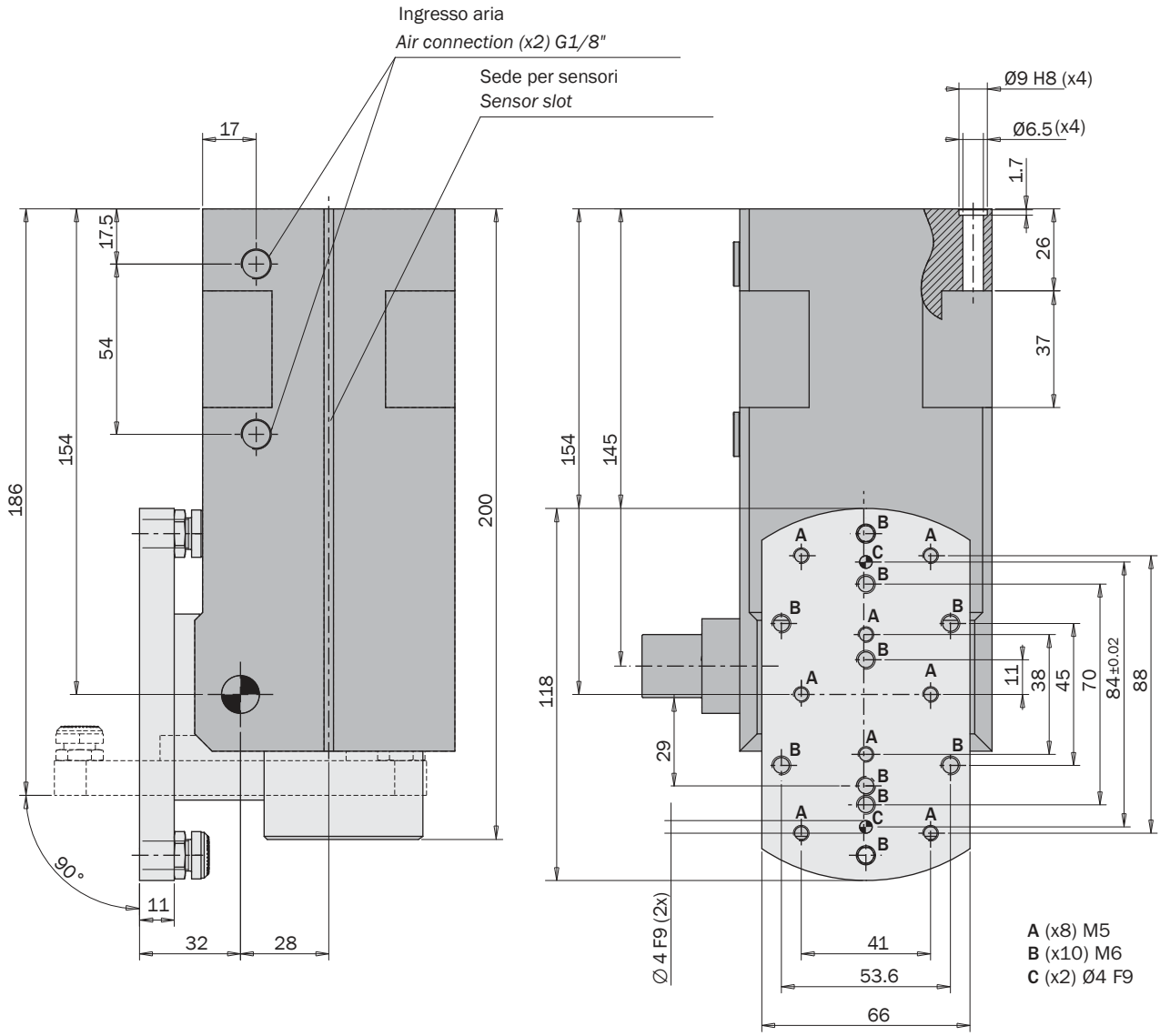


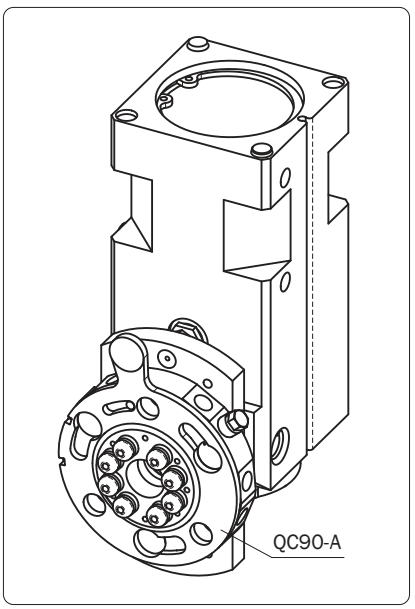


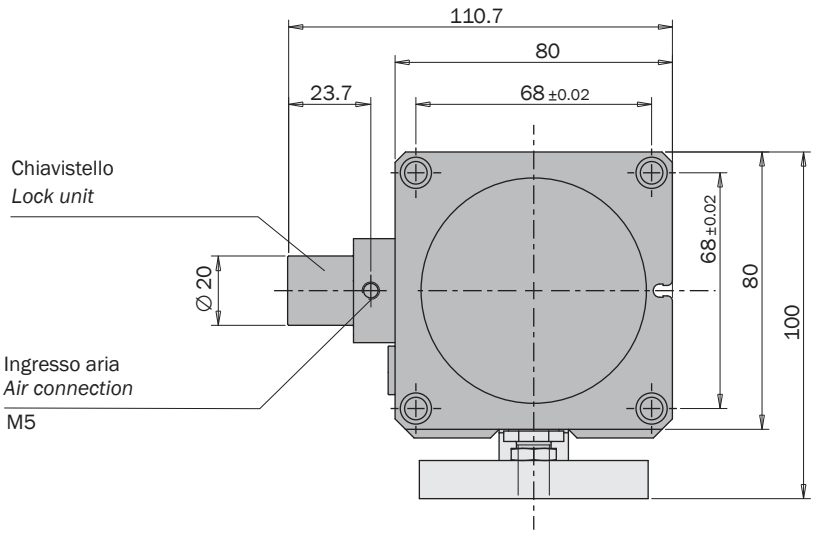
FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

RBT63





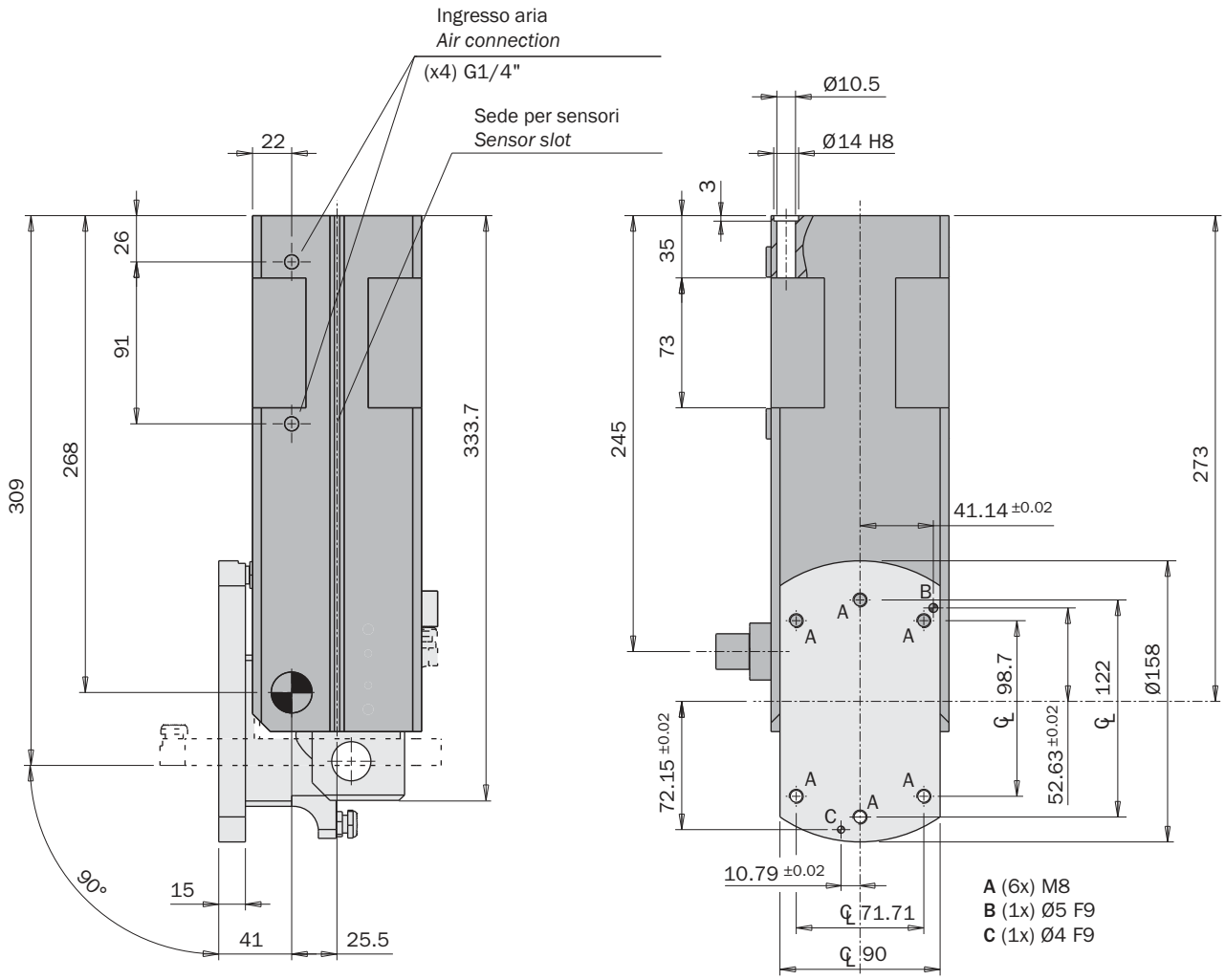


FIRST ANGLE PROJECTION

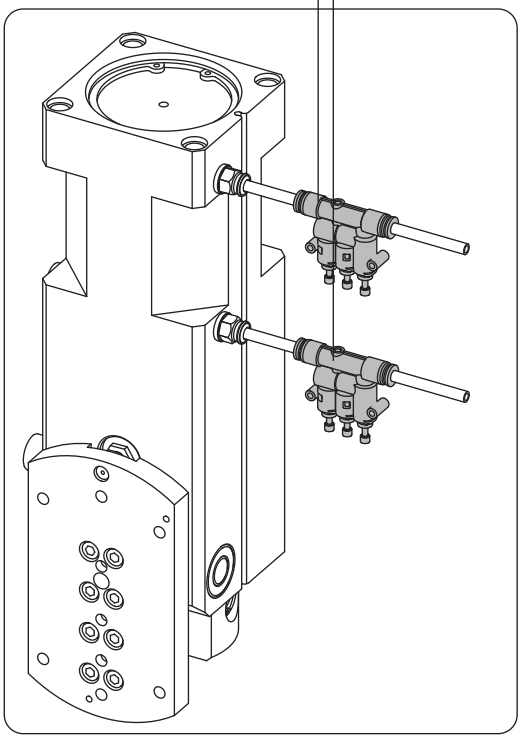
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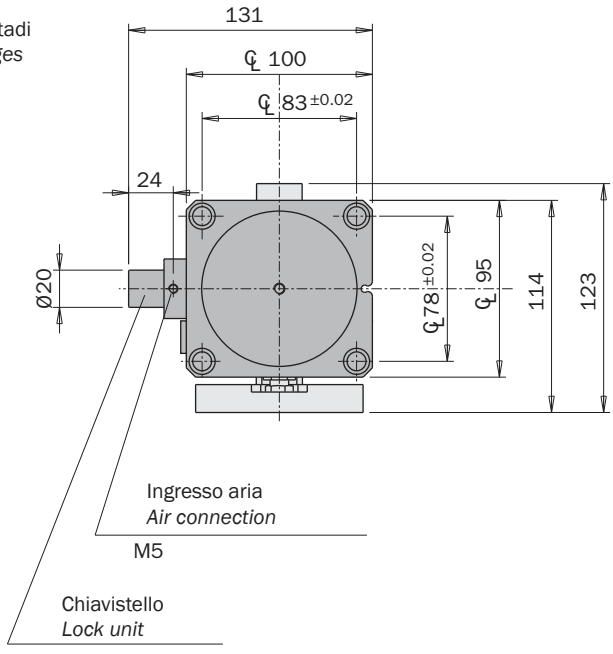
Dimensioni (mm)
Dimensions (mm)

RBT80



RG.BJSU6
Regolatore di flusso a 2 stadi
Flow regulator with 2 stages





FIRST ANGLE PROJECTION

OFN

Ribaltatore pneumatico per piccoli EOAT, serie OFN

- Rotazione di 90°.
- Funzionamento a semplice effetto, o doppio effetto (SD).
- Vari accessori disponibili per il fissaggio.
- Sensori magnetici opzionali da montare con fascetta SWP esterna o diretamente in cava (SD).

Pneumatic tilt unit for small EOATs, series OFN

- *90° rotation.*
- *Single- or double-acting operation (SD).*
- *Several mounting accessories.*
- *Optional magnetic sensors to be fitted with an SWP external clamp or directly into the slot (SD).*

OFN...	SWP-...
OFN20-90	SWP-020
OFN30-90	SWP-030
OFN20-90SD	-
OFN30-90SD	-

OFN... -90 **OFN... -90SD**



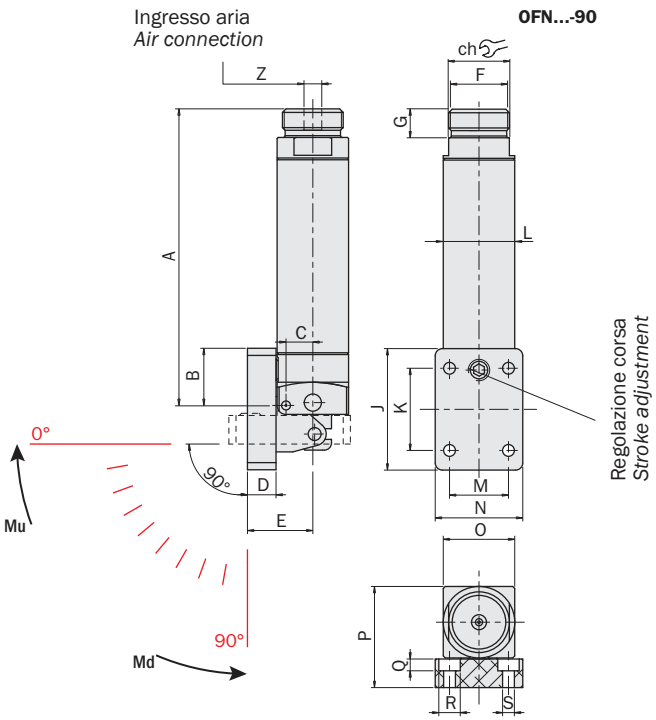


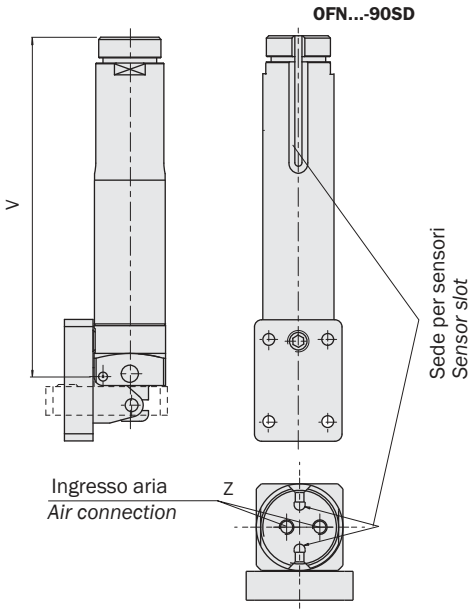
	OFN20-90	OFN20-90SD	OFN30-90	OFN30-90SD
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar	1.5 ÷ 8 bar	2.5 ÷ 8 bar	1.5 ÷ 8 bar
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.			
Corsa angolare *Tilt angle*	90°			
Consumo d'aria per ciclo *Cycle air consumption*	3.52 cm^3	5.53 cm^3	12.9 cm^3	19.6 cm^3
Coppia di sollevamento a 6 bar (90° → 0°) *Lift torque at 6 bar (90° → 0°) (Mu)*	70 Ncm	80 Ncm	300 Ncm	300 Ncm
Coppia di abbassamento a 6 bar (0° → 90°) *Drop torque at 6 bar (0° → 90°) (Md)*	15 Ncm	40 Ncm	30 Ncm	150 Ncm
Peso *Weight*	75 g	88 g	210 g	260 g

Dimensioni (mm)
Dimensions (mm)

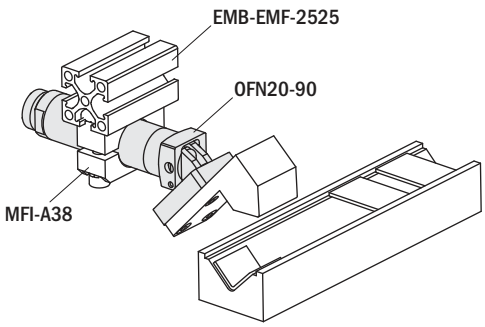
FIRST ANGLE PROJECTION

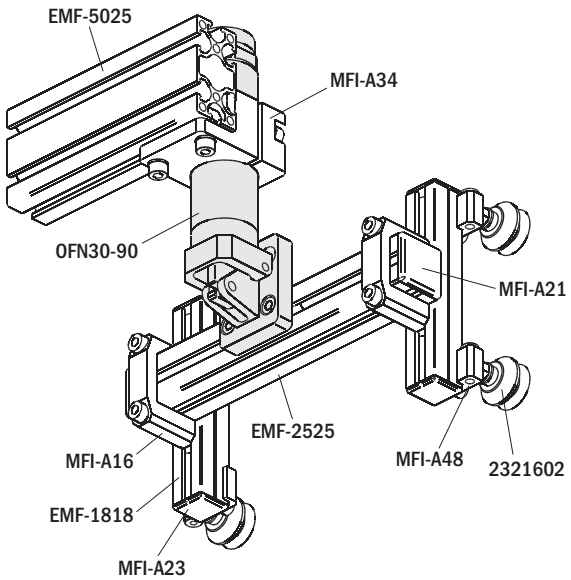
	OFN20-90	OFN20-90SD	OFN30-90	OFN30-90SD
A	83	-	119	-
B	16		18.5	
C	7.5		11	
D	8		10	
E	18.3		25.3	
F	M17x1		M27x1	
G	8		11	
J	34		46	
K	23		25	
L	20		30	
M	16.5		25	
N	24.5		37	
O	20		30	
P	28.3		40.3	
Q	3.3		5.3	
R	6		10	
S	3.3		5.3	
ch	17		27	
V	-	103.5	-	144
Z	M5	M3	M5	M5





Esempi di utilizzo
Application example





RT

Attuatori rotanti pneumatici serie RT

- Movimento a pignone e cremagliera.
- Corsa regolabile in modo continuo.
- Grossi cuscinetti a sfera di supporto.
- Foro passante nel pignone.
- Fine corsa opzionali con gommino (FGD) o deceleratore idraulico.
- Sensori magnetici opzionali.

Pneumatic swivelling units series RT

- *Rack and pinion movement.*
- *Continuously adjustable stroke.*
- *Large ball bearings on the shaft.*
- *Through hole in the pinion.*
- *Optional rubber bumpers (FGD) or hydraulic shock-absorber.*
- *Optional proximity magnetic sensors.*



RT-35



RT-20



RT-25



RT-12



RT-10

	RT-10	RT-12	RT-20	RT-25	RT-35
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*	1.5 ÷ 8 bar				
Temperatura di esercizio *Temperature range*	5° ÷ 60°C.				
Corsa angolare massima *Maximum swivelling angle*	190°				
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	28 Ncm	56 Ncm	198 Ncm	397 Ncm	779 Ncm
Frequenza max funzionamento *Maximum working frequency*	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz
Tempo di rotazione senza carico *Swivelling time without load*	0.05 s	0.06 s	0.11 s	0.19 s	0.08 s
Consumo d'aria per ciclo *Cycle air consumption*	3.3 cm^3	6.3 cm^3	23 cm^3	45 cm^3	92 cm^3
Tolleranza max ripetibilità con deceleratori *Max repeatability tolerance with shock-absorber*	0.02°	0.02°	0.02°	0.02°	0.02°
Peso *Weight*	235 g	560 g	965 g	1680 g	2475 g

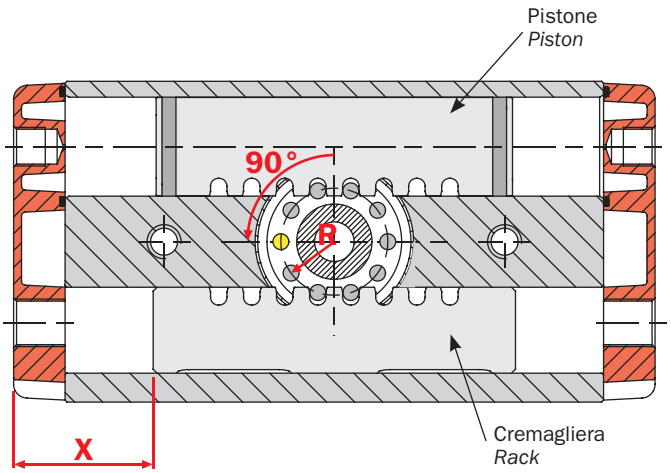
Accessori per fine corsa

Per la regolazione della corsa si possono utilizzare deceleratori idraulici, ammortizzatori di gomma (FGD) o semplici viti a seconda dell'energia cinetica che l'unità deve sopportare.
NON SI DEVE USARE L'ATTUATORE SENZA DISPOSITIVI DI REGOLAZIONE DELLA CORSA.

End stroke accessories

For the stroke adjustment you can use hydraulic shock-absorbers, rubber bumpers (FGD) or only grub screws according to the kinetic energy the unit has to bear.
NEVER USE THE SWIVELLING UNIT WITHOUT STROKE ADJUSTERS.





La tabella mostra i codici dei deceleratori idonei.
I fine corsa opzionali con gommino (FGD) sono prodotti Gimatic.

The table shows the codes of the suitable shock-absorbers.
The bumpers (FGD) are Gimatic products.

		RT-10	RT-12	RT-20	RT-25	RT-35
		M8x1	M10x1	M12x1	M12x1	M14x1.5
Deceleratori per carichi pesanti *Shock-absorbers for heavy loads*	KOGANEI	-	-	-	-	-
	ACE	MC10MH	-	MC75M3-NB-111	MC75M3-NB-111	MC150MH2
	ENIDINE	-	TK10M-1-SP18482	PM15MF-3-SP33881	PM15MF-3-SP33881	PM25MC-3-SP34780
Deceleratori per carichi leggeri *Shock-absorbers for light loads*	KOGANEI	-	KSHK10X5-01	KSHK12X6-01	KSHK12X6-01	KSHK14X7-01
	ACE	MC10ML	MC25M-NB	MC75M2-NB	MC75M3-NB	-
	ENIDINE	PMX8MC-3	TK10M-4	EC015MF-2	EC015MF-2	-
Fine corsa con gommino *Rubber bumpers*		FGD0830 (L=30 mm)	FGD1030 (L=30 mm)	FGD1235 (L=35 mm)	-	-
R (mm)		6	8.25	10.5	13.5	13.5
$X_{90°}$ (mm)		18.5	24	27.5	35.5	37
△X∀1° (mm)		0.1047	0.1417	0.1802	0.2317	0.2296

Dove:
R è il raggio del pignone;
$X_{90°}$ è la lunghezza minima del dispositivo di fine corsa necessaria per ridurre la corsa dell'attuatore a 90°;
△X∀1° è la corsa della cremagliera per ogni grado di rotazione del pignone.

Where:
R is the pinion radius;
$X_{90°}$ is the minimum length of the end-stroke device to reduce the unit stroke to 90°;
△X∀1° is the rack stroke each one degree pinion rotation.

Utilizzando gli accessori della tabella precedente è possibile ridurre la corsa dell'attuatore fino a 90°.
Se è richiesta una riduzione maggiore si deve verificare se è necessario un dispositivo di fine corsa più lungo.
Esempio:
Se è richiesto un angolo di rotazione di 70° con RT-63, la quota X dovrà essere: 60+(20x0.3571)=67.1mm.

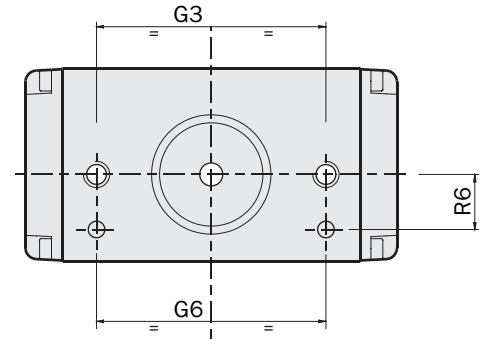
By the accessories in the previous table, it is possible to reduce the unit stroke to 90°.
If a larger stroke reduction is requested, it is necessary to check if a longer end-stroke device must be used.
Example:
If a 70° rotation angle is requested by RT-63, the dimension X will have to be: 60+(20x0.3571)=67.1mm.



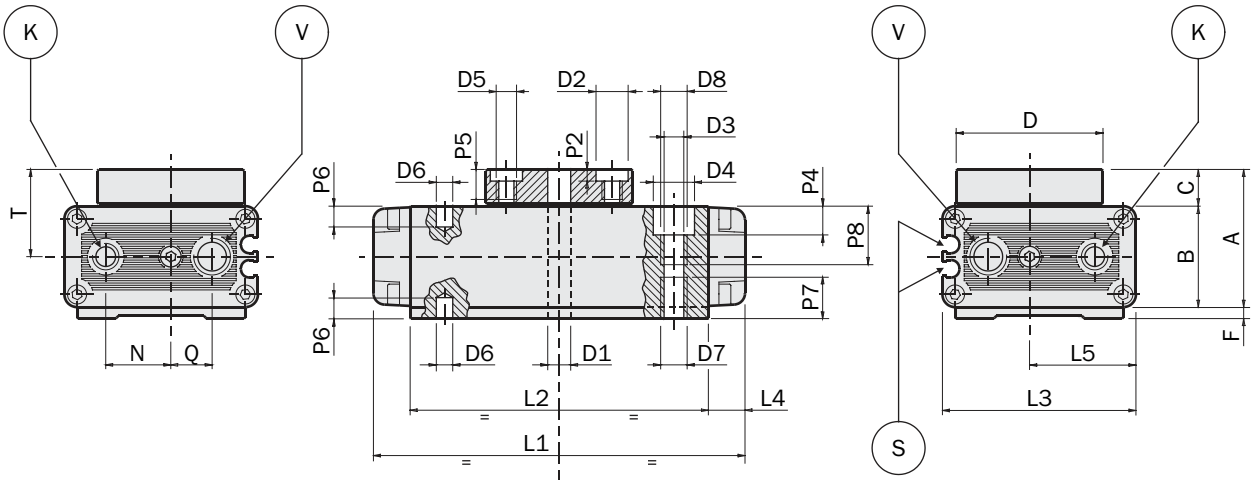


Dimensioni (mm)
Dimensions (mm)

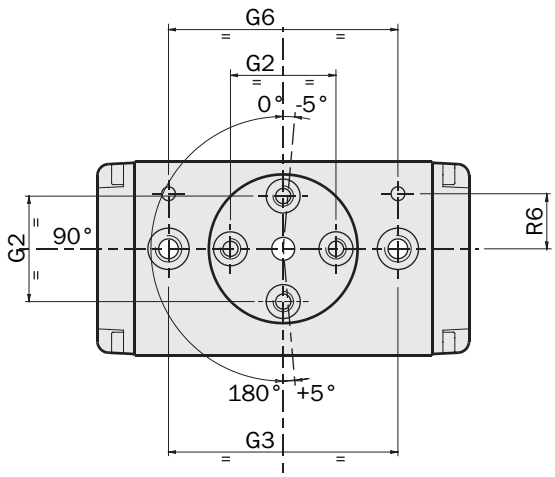
FIRST ANGLE PROJECTION













- **D1** Foro passante
  Through hole
- **K** Foro filettato per ingresso aria
  Threaded hole for air connection
- **V** Foro filettato per regolatori di corsa
  Threaded hole for stroke adjuster
- **S** Sede per sensori serie SS e SN
  SS and SN series sensor groove
- **D2** Foro per boccola di centraggio
  Hole for centering sleeve
- **D3** Foro passante per fissaggio dell'attuatore
  Through hole for the unit fastening
- **D5** Foro filettato per fissaggio applicazione
  Threaded hole for fastening
- **D6** Foro di riferimento dell'attuatore
  Dowel pin hole
- **D7** Foro filettato per fissaggio dell'attuatore
  Threaded hole for the unit fastening

Dimensioni (mm)
Dimensions (mm)

	RT-10	RT-12	RT-20	RT-25	RT-35
A	29.75	42	49	59	71
B	21.75	32	39	45	57
C	8	10	10	14	14
D	Ø32	Ø45	Ø45	Ø65	Ø65
D1	Ø5	Ø6	Ø8	Ø10	Ø12
D2	Ø7 H8	Ø7 H8	Ø7 H8	Ø9 H8	Ø9 H8
D3	Ø4.3	Ø5.2	Ø5.2	Ø6.8	Ø6.8
D4	Ø9	Ø11	Ø11	Ø15	Ø15
D5	M4	M4	M4	M5	M5
D6	Ø3 H8	Ø4 H8	Ø4 H8	Ø6 H8	Ø6 H8
D7	M5	M6	M6	M8	M8
D8	M5	M6	M6	M8	M8
F	2.75	-	-	-	-
G2	23 ±0.02	31.5 ±0.02	31.5 ±0.02	50 ±0.02	50 ±0.02
G3	50	59	72	86	86
G6	50 ±0.02	59 ±0.02	72 ±0.02	86 ±0.02	86 ±0.02
K	M5	M5	M5	1/8	1/8
L1	81	108	130	162	170
L2	65	88	110	136	140
L3	38	50	65	81	100
L4	8	10	10	13	15
L5	19	25	32.5	40.5	53
N	10	13	16	24	28.5
P2	2.5	2.5	2.5	3	3
P4	6	6	6	10	10
P5	6.5	8	8	12	12
P6	3	4	4	6	6
P7	24.5	12	12	14	18
P8	24.5	12	12	14	18
Q	9	13	16	20.5	22
R6	12 ±0.02	13 ±0.02	13 ±0.02	25 ±0.02	25 ±0.02
V	M8x1	M10x1	M12x1	M12x1	M14x1.5
T	19	26	29.5	36.5	42.5

Attuatori rotanti pneumatici a 2 posizioni (serie R)

- Vincitore al concorso IF Design Award 1999 di Hannover.
- Integrabile con gli altri elementi del Gimapick.
- Adatto per rotazioni di 90° o 180°.
- Deceleratori di serie.
- Rotazione su cuscinetti a sfera.
- Distributore rotante dell'aria compressa.
- Alimentazione dell'aria compressa possibile direttamente dalla piastra di fissaggio.
- Sensori magnetici opzionali.

2 position pneumatic swivelling units (series R)

- *Hannover IF Design Award 1999 winner.*
- *Modular with Gimapick system.*
- *Suitable for 90° or 180° rotation angles.*
- *Shock-absorbers.*
- *Ball bearings.*
- *Integrated rotating distributor of compressed air.*
- *Air feeding possible directly from the fixing plate.*
- *Optional magnetic sensors.*



R20 **R32** **R63**

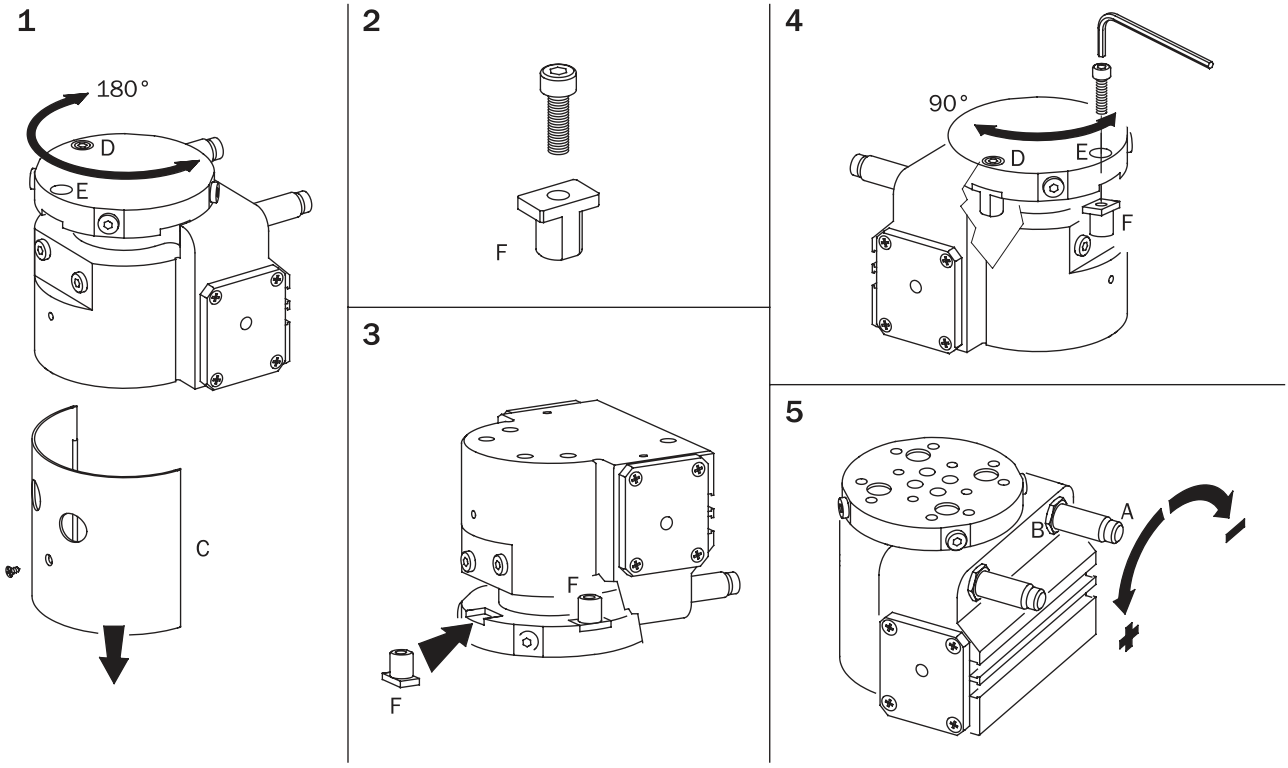
	R20		R32		R63	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2 ÷ 8 bar					
Temperatura di esercizio *Temperature range*	5° ÷ 60°C.					
Corsa angolare *Swivelling angle*	90°	180°	90°	180°	90°	180*
Consumo d'aria *Air consumption*	8 cm^3	14 cm^3	16 cm^3	28 cm^3	115 cm^3	174 cm^3
Tempo di rotazione senza carico *Swivelling time without load*	0.09 s	0.17 s	0.08 s	0.15 s	0.2 s	0.3 s
Frequenza max funzionamento *Maximum working frequency*	1 Hz		0.5 Hz		0.5 Hz	
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	1131 Nmm		4343 Nmm		22444 Nmm	
Regolazione angolo 180° *180° angle adjustment*	± 8°		± 8°		± 8°	
Ripetibilità *Repetition accuracy*	0.02°		0.02°		0.02°	
Peso *Weight*	400 g		1000 g		3400 g	

Angolo di rotazione

Gli attuatori R20, R32 e R63 sono forniti nella configurazione adatta per effettuare rotazioni di 180°, cioè con il blocchetto di fine-corsa (F) inserito nella sede (D).
È comunque fornito nella confezione un secondo blocchetto, che montato nella sede (E), consente di ridurre a 90° l'angolo di rotazione.
Per fare questo è necessario rimuovere la protezione (C).
La vite che fissa il blocchetto va incollata con un frena filetti medio.
Infine è possibile una regolazione micrometrica delle posizioni di fine-corsa, agendo sui deceleratori (A), dopo aver allentato i dadi (B).
Ogni deceleratore può spostare la posizione di fine-corsa di circa ±4°.

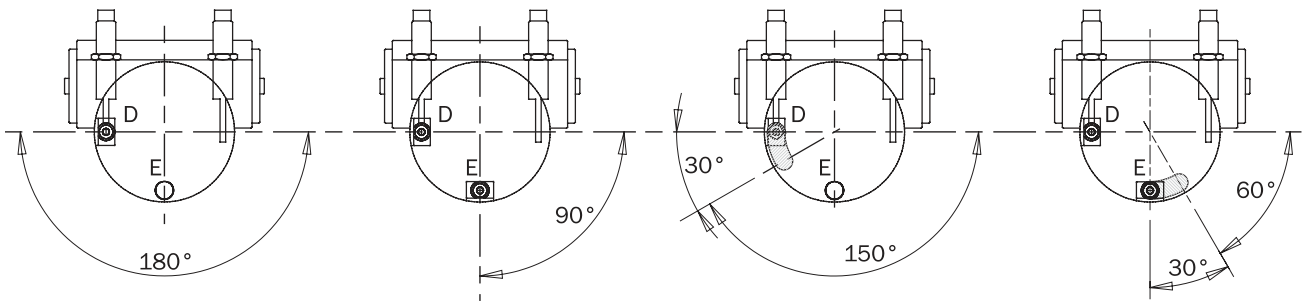
Rotation angle

The units R20, R32 and R63 are supplied with one end-stroke block (F) in the seat (D).
In this configuration they get a 180° rotation angle.
However a second block is supplied in the product packaging: mounting it in the seat (E), it reduces the stroke at 90°.
It is necessary to remove the protection (C), before mounting the second block.
Glue the screw of the second block by an anaerobic adhesive (medium resistance).
At the end the rotation angle can be furthermore adjusted changing the position of the shock-absorbers (A), after loosening the nuts (B).
Each shock-absorber can change the end-stroke position of about ±4°.



Per angoli di rotazione differenti è necessario costruire dei blocchetti fine corsa appositamente sagomati (non forniti).

To get other angles, it is necessary to build end-stroke blocks (not supplied) with a proper shape.



Attuatori rotanti pneumatici a 3 posizioni (serie R)

- Vincitore al concorso IF Design Award 1999 di Hannover.
- Integrabile con gli altri elementi del Gimapick.
- Adatto per rotazioni di 90° e 180°.
- Fine-corsa decelerato in ogni posizione.
- Rotazione su cuscinetti a sfera.
- Costruzione compatta.
- Alimentazione dell'aria compressa possibile direttamente dalla piastra di fissaggio.
- Sensori magnetici opzionali.

3 position pneumatic swivelling units (series R)

- *Hannover IF Design Award 1999 winner.*
- *Modular with Gimapick system.*
- *Suitable for 90° and 180° rotation angles.*
- *Damped end-stroke in every position.*
- *Ball bearings.*
- *Compact design.*
- *Air feeding possible directly from the fixing plate.*
- *Optional magnetic sensors.*



R21 **R33** **R64**

	R21		R33		R64	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	3 ÷ 8 bar					
Temperatura di esercizio *Temperature range*	5° ÷ 60°C.					
Corsa angolar *Swivelling angle*	90°	180°	90°	180°	90°	180*
Consumo d'aria *Air consumption*	8 cm^3	14 cm^3	16 cm^3	28 cm^3	115 cm^3	174 cm^3
Tempo di rotazione senza carico *Swivelling time without load*	0.09 s	0.17 s	0.08 s	0.15 s	0.2 s	0.3 s
Frequenza max funzionamento *Maximum working frequency*	2 Hz		1 Hz		0.5 Hz	
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	1131 Nmm		4343 Nmm		22444 Nmm	
Regolazione angolo 180° *180° angle adjustment*	± 8°		± 8°		± 8°	
Ripetibilità *Repetition accuracy*	0.02°		0.02°		0.02°	
Peso *Weight*	500 g		1200 g		3200 g	

Angolo di rotazione

R21, R33 e R64 sono attuatori rotanti a tre posizioni, cioè 0°, 90° e 180°.
I movimenti seguenti sono possibili:

- Da 0° a 180°.
- Da 180° a 0°.
- Da 0° a 90°.
- Da 90° a 0°.
- Da 90° a 180°, con l'accortezza di equilibrare la pressione nelle due camere del pistone prima di far rientrare il blocchetto mobile (D). Non è possibile il movimento diretto da 180° a 90°.

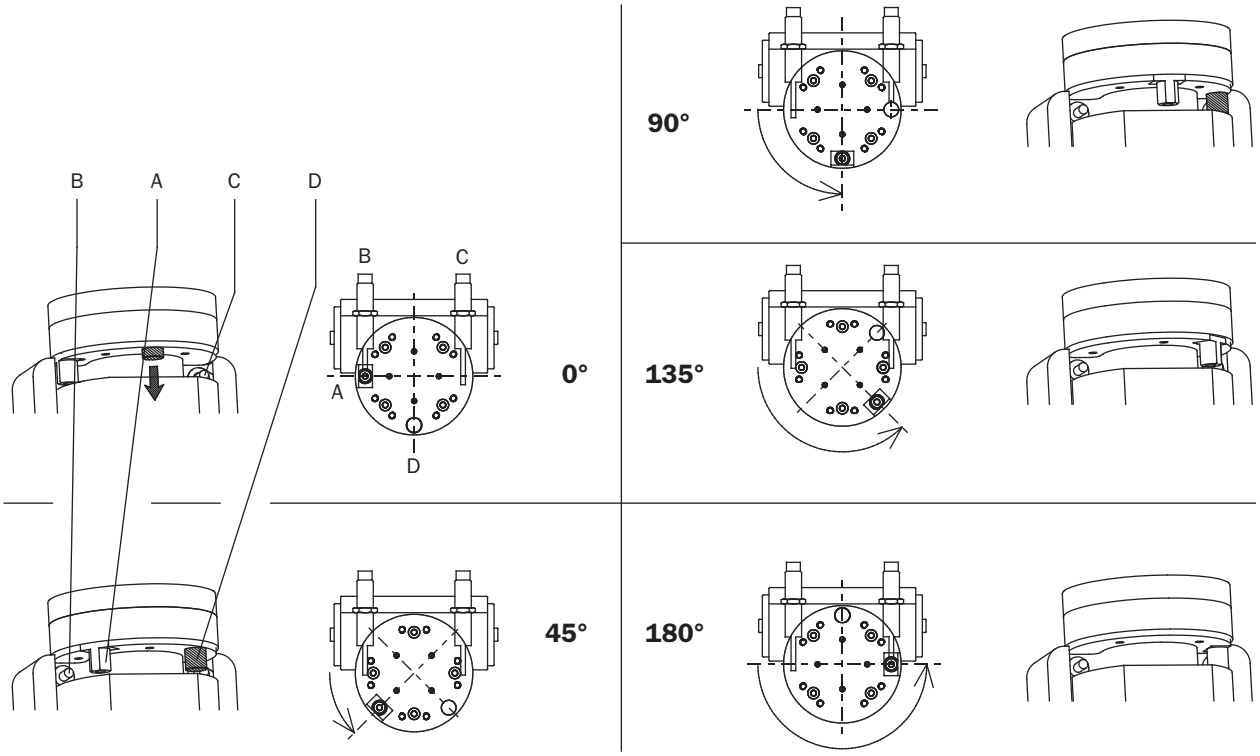
Il blocchetto fisso (A) determina la posizione a 0° contro il deceleratore (B) e a 180° contro il deceleratore (C), mentre il blocchetto mobile (D) determina la posizione a 90° contro il deceleratore (C).
Il blocchetto mobile (D) non deve essere estratto nelle posizioni fra 70° e 180°.

Rotation angle

R21, R33 and R64 are swivelling units with three positions: 0°, 90° and 180°.
These movements are possible:

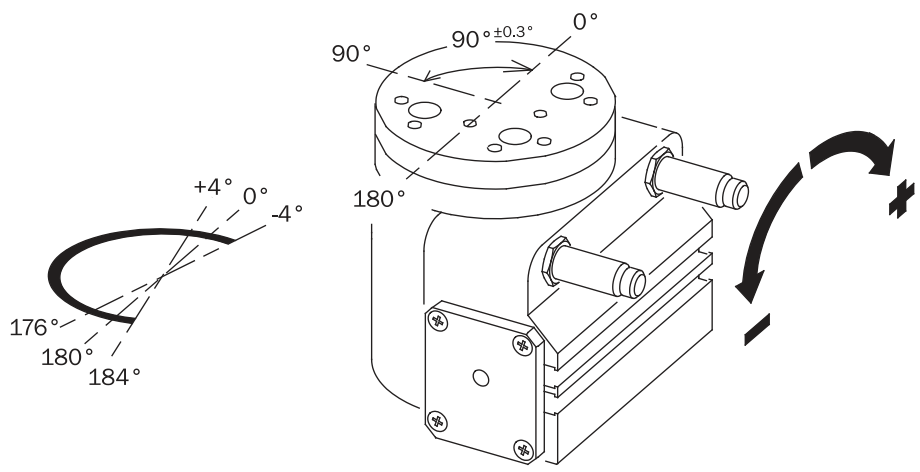
- *From 0° to 180°.*
- *From 180° to 0°.*
- *From 0° to 90°.*
- *From 90° to 0°.*
- *From 90° to 180°, before to retract the moving block (D), the pressure must be balanced on both sides of the piston. The direct rotation from 180° to 90° is not possible.*

The fixed block (A) gives the end-stroke at 0° against the shock-absorber (B) and at 180° against the shock-absorber (C), the moving block (D) at 90° against the shock-absorber (C).
The moving block (D) can't be put out between 70° to 180°.



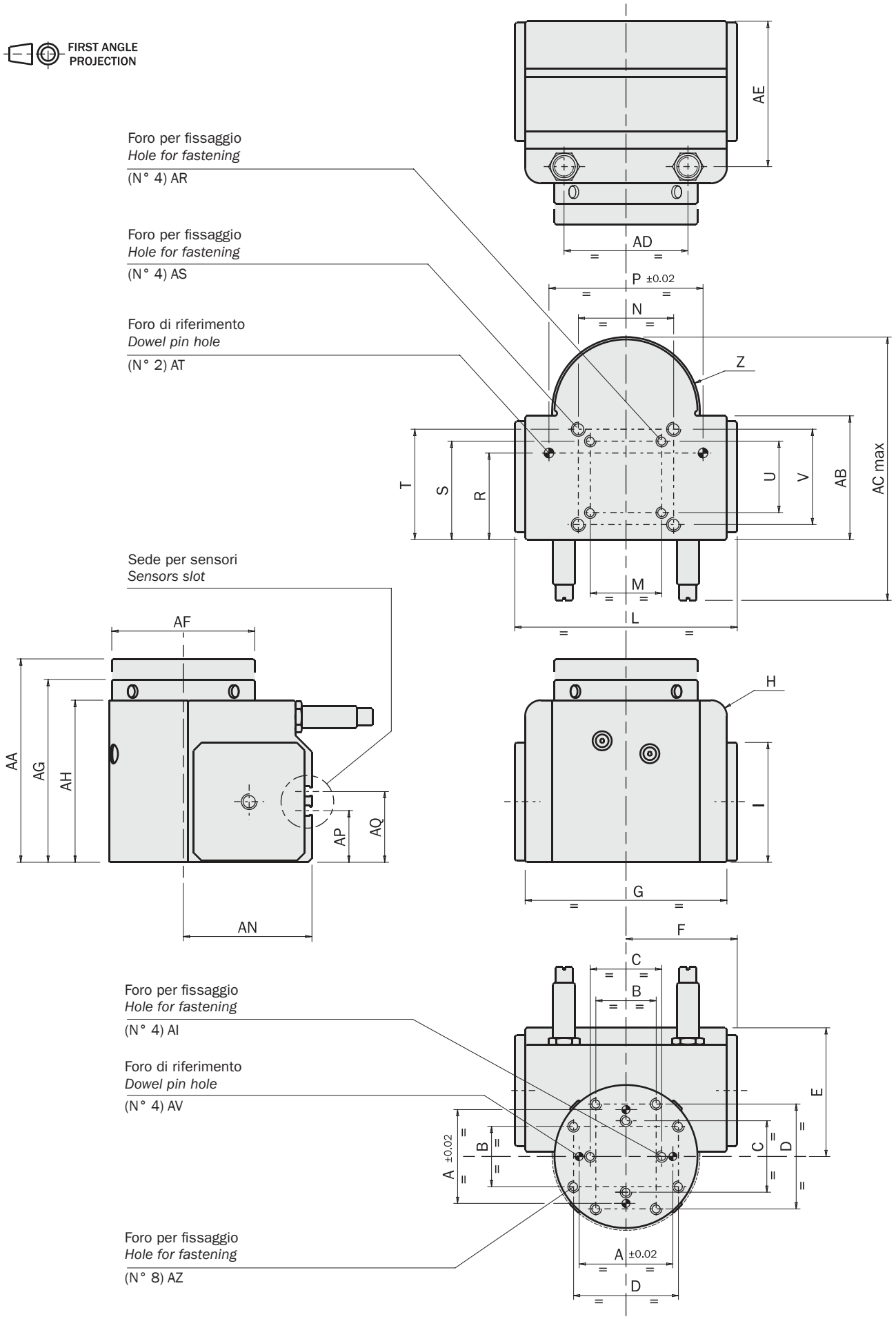
I 180° fra le due posizioni estreme sono regolabili di ±4° per parte, agendo sulla posizione dei deceleratori.
Invece i 90° (tolleranza ±0.3°) non sono registrabili.

You can adjust of about ±4° on both sides the 180° angle, by the shock-absorbers.
It is not possible to adjust the 90° (tolerance ±0.3°) angle.



Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION

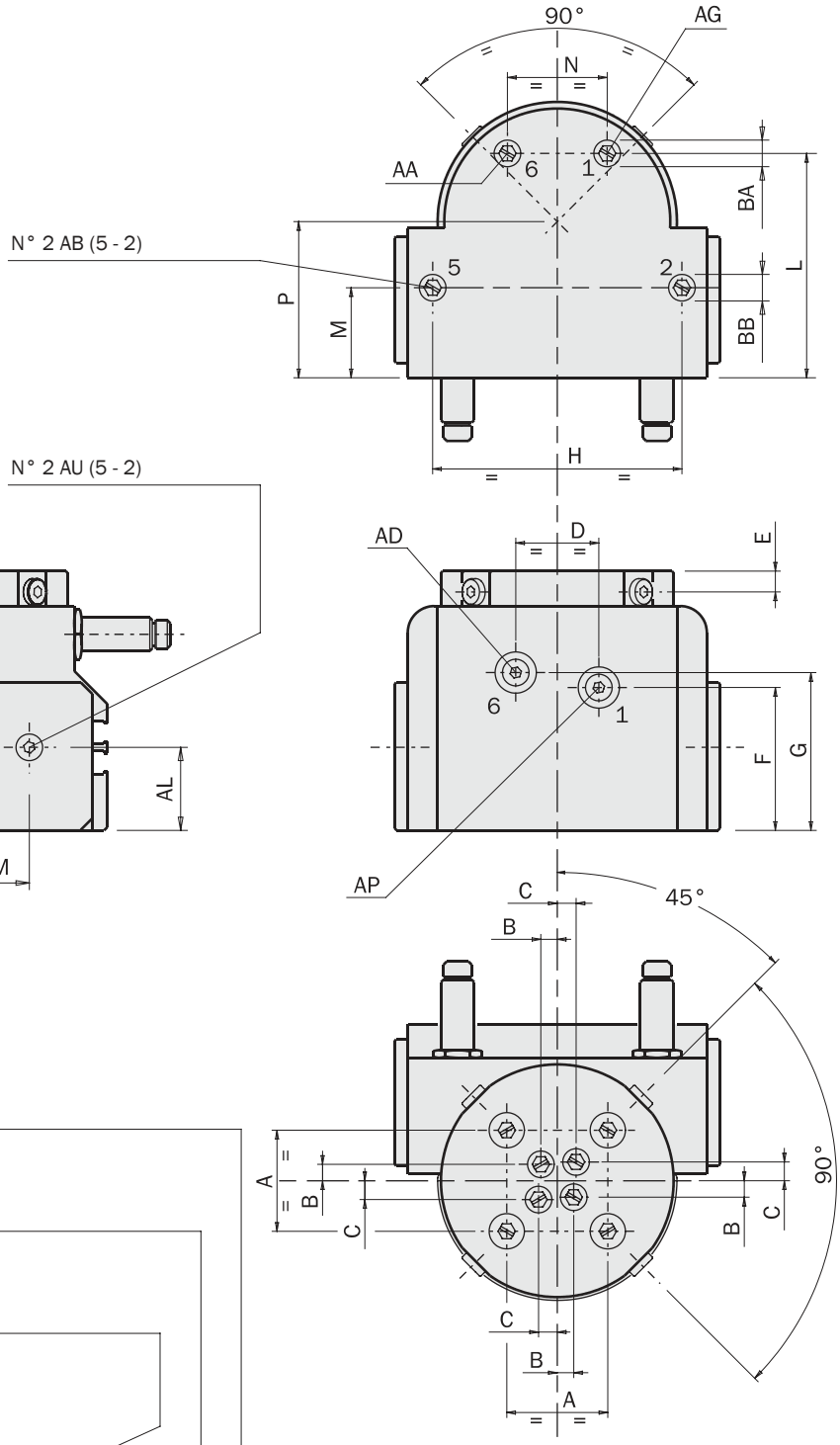


Dimensioni (mm)
Dimensions (mm)

	R20	R21	R32	R33	R63	R64
A	30.4	30.4	30.4	30.4	59	59
B	21	21	27	27	38	38
C	-	-	-	-	45	45
D	37	37	48	48	66	66
E	32	32	47	47	81	81
F	35	35	49	49	70	70
G	64.5	64.5	90	90	127	127
H	R 5	R 5	R 8	R 8	R 10	R 10
I	36	36	44.5	44.5	75.4	75.4
L	70	70	98	98	140	140
M	-	-	-	-	45	45
N	34	34	45	45	60	60
P	30.4	30.4	30.4	30.4	97	97
R	32	32	47	47	54.5	54.5
S	-	-	-	-	62	62
T	40.5	40.5	52.5	52.5	69.5	69.5
U	-	-	-	-	45	45
V	34	34	45	45	60	60
Z	R 26	R 26	R 36	R 36	R 46.5	R 46.5
AA	-	71	-	92	-	134
AB	30.4	30.4	45	45	77.9	77.9
AC	75	75	105	105	170	170
AD	42	42	60	60	78	78
AE	43	43	59	59	91.5	91.5
AF	Ø50	Ø50	Ø70	Ø72	Ø90	Ø90
AG	59	-	78	-	115	-
AH	51	51	67.5	67.5	102	102
AI	-	-	-	-	M6x12 mm	M6x12 mm
AN	32	32	47	47	81	81
AP	14	14	20.5	20.5	40	40
AQ	23	23	29.5	29.5	-	-
AR	-	-	-	-	M6x10 mm	M6x10 mm
AS	M4x8 mm	M4x8 mm	M6x10 mm	M6x10 mm	M8x14 mm	M8x14 mm
AT	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø6 H8x8 mm	Ø6 H8x8 mm
AV	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø3 H8x6 mm	Ø5 H8x8 mm	Ø5 H8x8 mm
AZ	M3x6 mm	M3x6 mm	M4x10 mm	M4x10 mm	M6x12 mm	M6x12 mm

Dimensioni (mm)
Dimensions (mm)

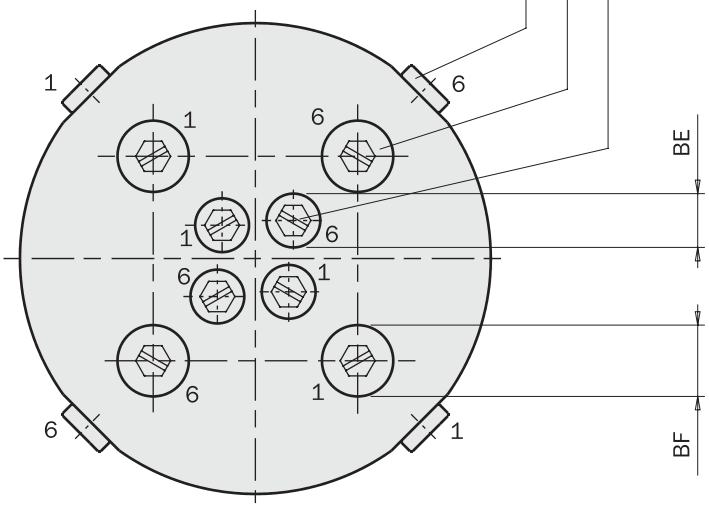
FIRST ANGLE PROJECTION



Uscita per alimentazione diretta
Outlet of direct feeding
N° 4 AE (1 - 6)

Uscita per alimentazione diretta
Outlet of direct feeding
N° 4 AF (1 - 6)

Uscita per alimentazione diretta
Outlet of direct feeding
N° 4 AC (1 - 6)



I fori indicati con lo stesso numero sono fra loro comunicanti

The air ports identified with the same number are communicating

Dimensioni (mm)
Dimensions (mm)

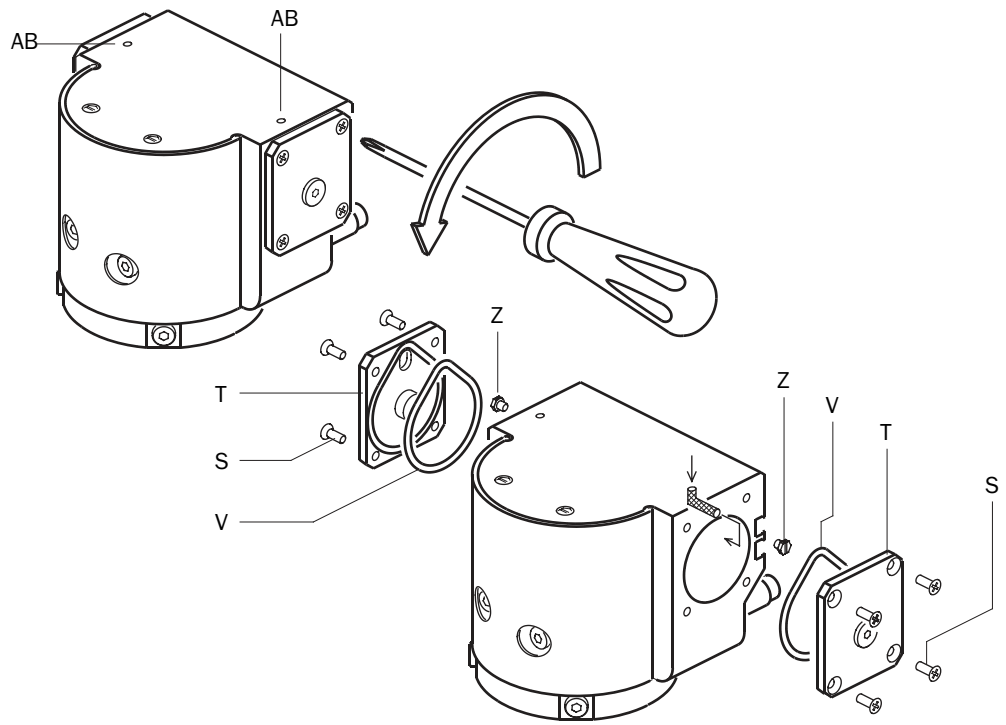
	R20	R21	R32	R33	R63	R64
A	24	-	30.4	-	48	
B	2.7	-	4.9	-	6.2	-
C	3.4	-	5.7	-	7.25	-
D	13	13	25	25	30	30
E	4.5	-	6.25	-	7.5	-
F	32	32	43	43	68.35	68.35
G	37.7	-	47.5	-	76.45	-
H	52	52	75	75	109	109
L	46	46	67.5	67.5	103.5	103.5
M	17	17	27.1	27.1	39.5	39.5
N	13	13	30	30	30	30
P	32	32	47	47	81	81
AA	M3	-	M3	-	M5	-
AB	M3	M3	Ø2	Ø2	M3	M3
AC	M3	-	M5	-	M5	-
AD	M3	-	M5	-	M5	-
AE	M3	-	M3	-	M3	-
AF	M3	-	M3	-	M3	-
AG	M3	M3	M3	M3	M5	M5
AL	18.5	18.5	25	25	38.15	38.15
AM	15	15	23.5	23.5	41.5	41.5
AP	M3	M3	M5	M5	M5	M5
AU	M5	M5	M5	M5	G 1/8	G 1/8
BA	Ø6	Ø6	Ø6	Ø6	Ø9	Ø9
BB	Ø6	Ø6	-	-	Ø6	Ø6
BE	Ø5.5	-	Ø6	-	Ø6	-
BF	Ø9.4x1.3mm	-	Ø9.4x1.3mm	-	Ø9.4x1.3mm	-

Attenzione

Nel caso degli attuatori R32 e R33, se si desidera utilizzare i fori sul fondo (AB), è necessario rimuovere i tappi (Z), posti dietro i coperchi (T), facendo attenzione alla corretta posizione della guarnizione (V) prima di riposizionare le viti (S).

Warning

The direct feeding of the rotary units R32 and R33 from the bottom air ports (AB) is possible only removing the plugs (Z) placed behind the covers (T). Reassembling the covers pay attention to the correct position of the gaskets (V), before placing the screws (S).



MRE

Attuatori rotanti elettrici a 2 posizioni

- Rotazione di 90° oppure 180° meccanicamente impostabile.
- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando l'attuatore è in posizione.
- Nessuna programmazione richiesta.
- Tenuta posizione garantita in caso di interruzione d'energia.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nell'attuatore.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Rotazione su cuscinetti a sfera.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con pinze elettriche MPPM.
- Sensori induttivi opzionali.

2 position electrical rotary actuator

- *Suitable for 90° or 180° rotation angle mechanically set.*
- *Plug & play user friendly gripper.*
- *No electricity consumption when actuator is in position.*
- *No programming required.*
- *Guarantee of position kept in the event of power blackout.*
- *Long life Brushless motor (Brushless DC).*
- *Motor drive integrated in the actuator.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Ball bearings.*
- *Fiber-carbon gear reduction.*
- *10 million cycle maintenance-free.*
- *Weight-dimensions-force best trade off.*
- *Compatible with MPPM electric grippers.*
- *Optional inductive sensors.*



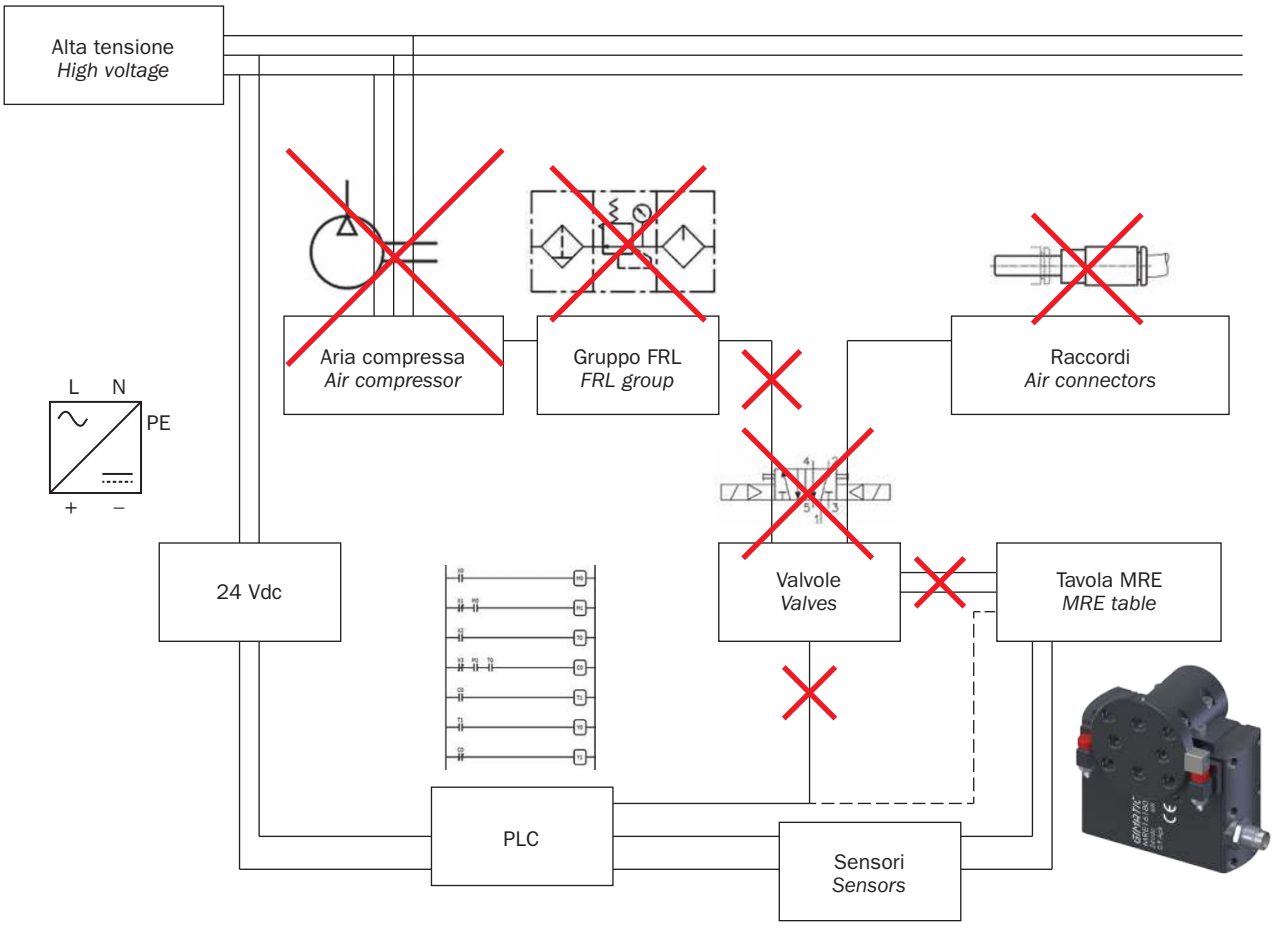
MRE16180



MRE25180



MRE32180



Fraunhofer IPA TESTED DEVICE Gimatic S.p.A. MRE16180 Report No. GI 1302-637



	MRE16180		MRE25180		MRE32180	
Coppia di rotazione *Swivelling torque*	45 Ncm		80 Ncm		138 Ncm	
Corsa angolare *Swivelling angle*	90°	180°	90°	180°	90°	180°
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	0.61 Hz	0.60 Hz	1.46 Hz	0.91 Hz	0.83 Hz	0.62 Hz
Tempo rotazione senza carico *Swivelling time without load*	0.12 s	0.35 s	0.22 s	0.44 s	0.15 s	0.35 s
Tempo di lavoro attuatore *Working actuator time*	0.35 s	0.57 s	0.33 s	0.55 s	0.36 s	0.57 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	46%	66%	99%	100%	39%	79%
Tensione d'alimentazione *Power supply*	24 Vdc ±10%		24 Vdc ±10%		24 Vdc ±10%	
Corrente di picco *Peak current*	0.9 Apk		1.2 Apk		3.8 Apk	
Corrente nominale *Nominal current*	0.3 Arms		0.4 Arms		0.8 Arms	
Potenza motore brushless *Brushless motor power*	6 W		11 W		23 W	
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*					
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*					
Ripetibilità *Repetition accuracy*	0.04°		0.04°		0.04°	
Temperatura di esercizio *Operating temperature*	5 ÷ 60°C		5 ÷ 60°C		5 ÷ 60°C	
Grado di protezione *Environmental Degree*	IP54		IP54		IP54	
Rumorosità *Noise level*	< 70 dB		< 70 dB		< 70 dB	
Massa (motore incluso) *Mass (motor included)*	195 g		400 g		738 g	
Carico inerziale massimo *Maximum inertial load*	6 kgcm^2		15 kgcm^2		20 kgcm^2	
Certificazione Camera Bianca ISO14644-1 *ISO14644-1 Clean Room Certification*	CLASS 5		-		-	
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1					
Tecnologia e opzioni *Technology and options*	Pagina 562 - 563 *Page 562 - 563*					

Angolo di rotazione

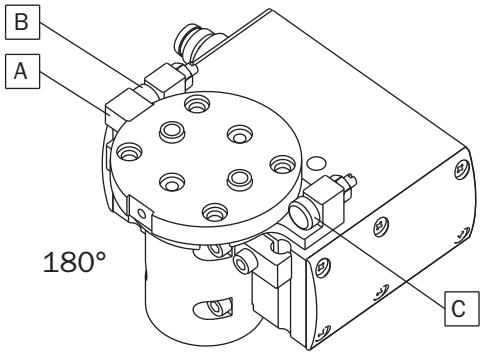
Gli attuatori rotanti elettrici MRE possono compiere rotazioni di 90° oppure 180°.
Il blocchetto fisso (A) determina la posizione a 0° contro la battuta meccanica (B) e a 180° contro la seconda battuta meccanica (C), mentre il blocchetto mobile (D) determina la posizione a 90° sempre contro la battuta meccanica (C).

Le posizioni estreme sono regolabili di +/- 4° per parte, agendo sulla posizione delle battute meccaniche.

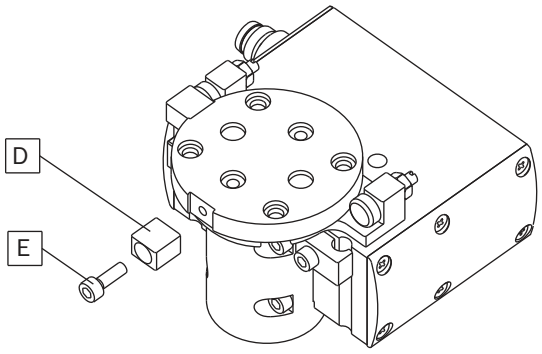
Rotation angle

MRE electrical rotary actuators are able to swivel to 90° or 180°.
The fixed block (A) gives the 0° position against the mechanical stopper (B) and the 180° position against the mechanical stopper (C), while the moving block (D) gives 90° position against the mechanical stopper (C).

Extreme positions can be adjusted by +/- 4° on each side, by acting on the mechanical stoppers.

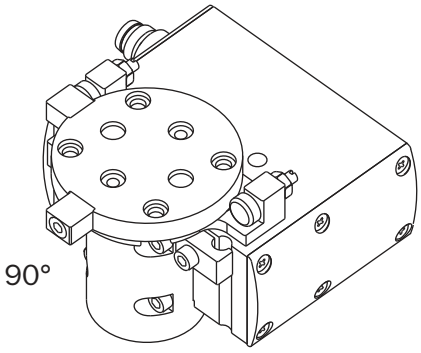


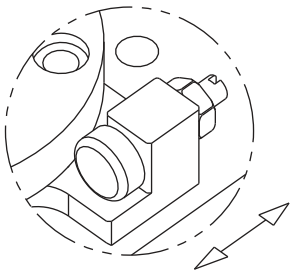
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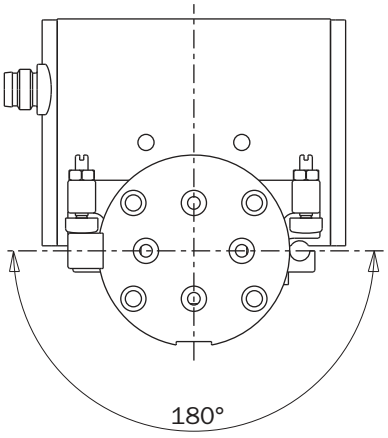


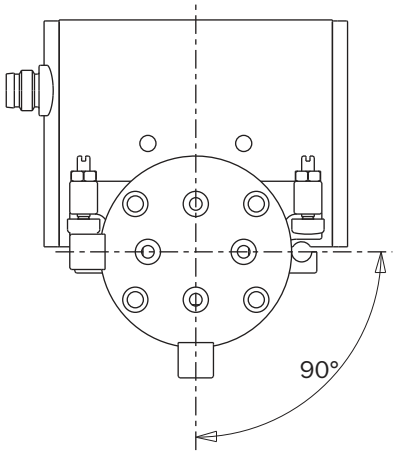
2

3







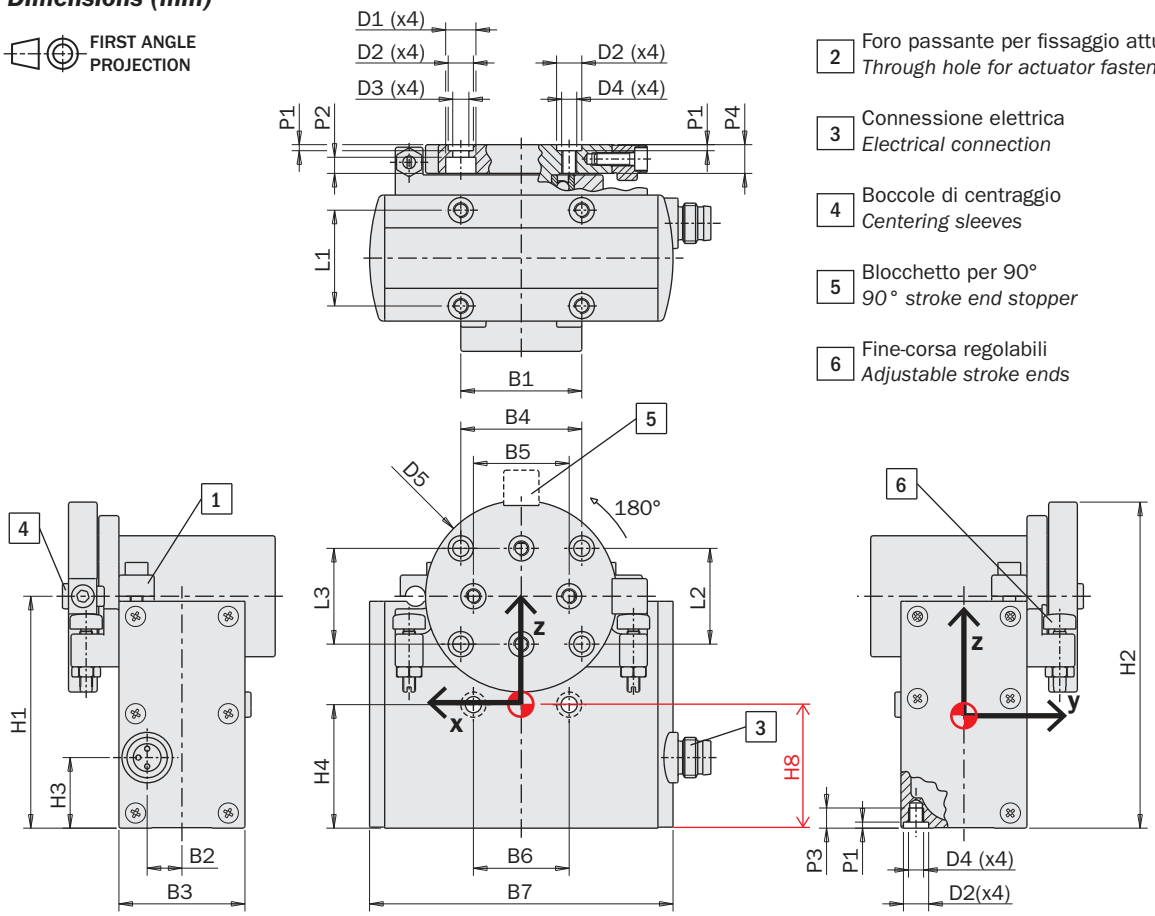


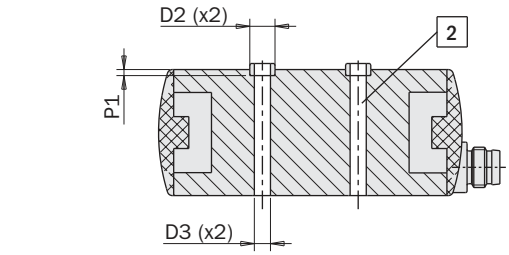
Il carico deve avere un momento d'inerzia J minore di 6/15/20 kgcm².
Un'energia cinetica eccessiva può danneggiare la tavola e comprometterne il funzionamento.

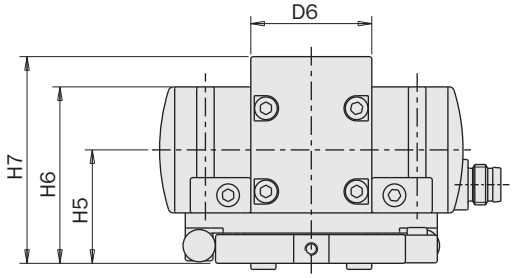
The moment of inertia of the load must be lower than 6/15/20 kgcm².
Excessive kinetic energy can damage the table and compromise its operation.

Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION







1 Bloccasensore induttivo
Inductive sensor bracket

2 Foro passante per fissaggio attuatore
Through hole for actuator fastening

3 Connessione elettrica
Electrical connection

4 Boccole di centraggio
Centering sleeves

5 Blocchetto per 90°
90° stroke end stopper

6 Fine-corsa regolabili
Adjustable stroke ends

		MRE16180	MRE25180	MRE32180
B1	±0.02	24	30	36
B2	±0.02	6.9	10	11
B3		25	32	35
B4	±0.02	24	30	36
B5	±0.02	19	25	30
B6	±0.02	19	25	30
B7		62.2	75	89
D1		Ø6	Ø7.5	Ø9
D2		Ø5 H8	Ø7 H8	Ø7 H8
D3		Ø3.2	Ø4.2	Ø5.2
D4		M3	M4	M5
D5		Ø38	Ø46	Ø55
D6		Ø24	Ø27	Ø31
H1		46	58.8	67.5
H2		65	81.8	95
H3		14	17	19
H4	±0.02	24.5	32	38
H5		22.5	28.5	33
H6		35	43.5	50.5
H7		41	52	60
H8		31.5	41	48
L1	±0.02	19	24	26
L2	±0.02	19	24	26
L3	±0.02	19	25	30
P1		1.2	1.5	1.5
P2	+0.1	3.2	4.1	5
P3		4	6	8
P4		5.7	7.2	8.7

Connessione elettrica

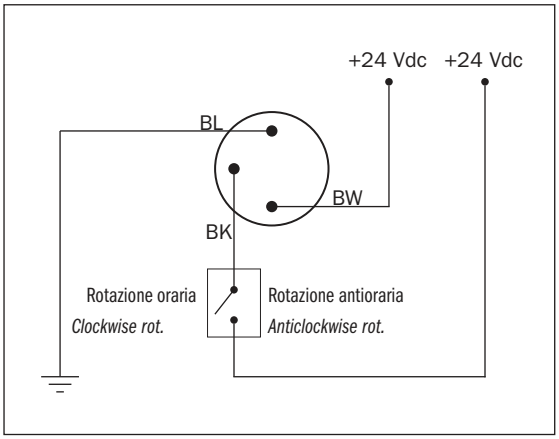
L'attuatore rotante è dotato di connettore M8 a 3 poli per l'alimentazione a 24 Vdc e per il segnale di rotazione.

Non è necessaria un'ulteriore elettronica di comando esterna.

Electrical connection

The rotary actuator is equipped with a 3-pole M8 connector for the 24Vdc power supply and the swiveling signal.

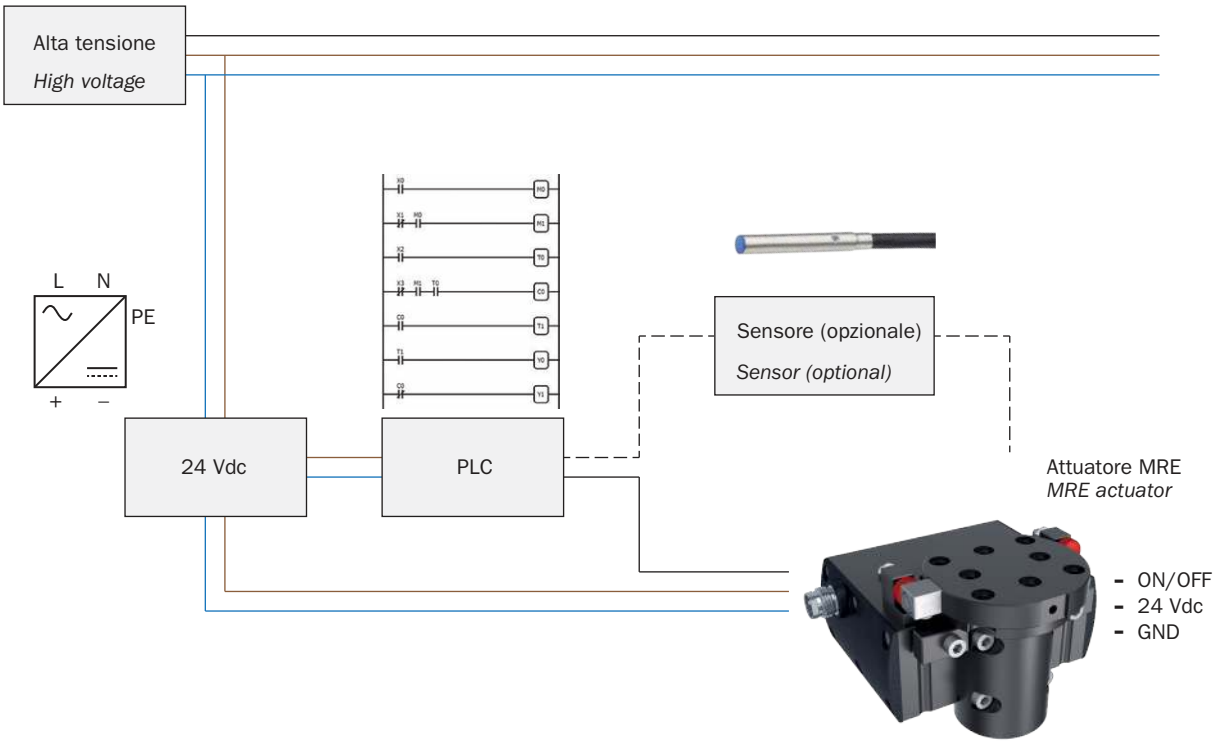
No further electronics is necessary to drive the actuator.

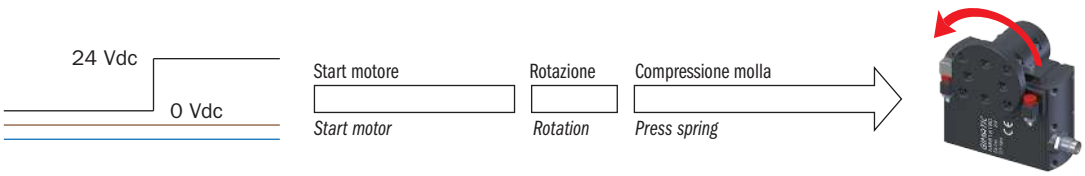


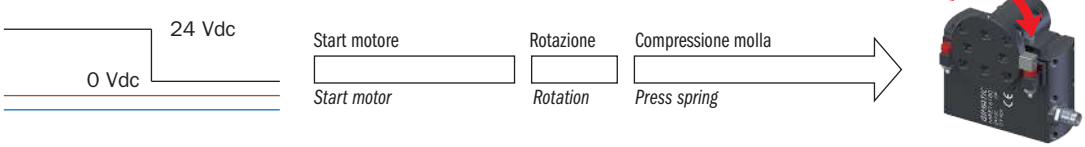


Connettore femmina standard M8x1 opzionale.
Codice Gimatic: CFGM800325P / CFGM890325P.

Optional M8x1 standard female connector.
Gimatic code: CFGM800325P / CFGM890325P.







Fissaggio dell'attuatore rotante

L'attuatore rotante può essere montato in posizione fissa oppure su parti in movimento: in questo caso va considerata la forza d'inerzia cui l'attuatore ed il suo carico sono sottoposti.

- Per fissare l'attuatore sul fondo usare quattro viti (SA) passanti attraverso la piastra di fissaggio ed avvitate nell'attuatore.
- Per fissare l'attuatore su un lato usare due viti (SB) attraverso i fori passanti (D3).

In ogni caso utilizzare per il centraggio due boccole (BA), fornite nella confezione. Rispettare le dimensioni (DA e PA) nella tabella per le loro sedi nella piastra di fissaggio.

Fitting the rotary actuator

The rotary actuator can be fitted in a fixed position or to moving parts.
When on a moving part, you must pay attention to the inertial force to which the gripper and its load are subjected.

- *To fasten the actuator by its base, use four through-screws (SA) through the mounting plate and screw it to the unit.*
- *To fasten the actuator by its side, use two screws (SB) in the through-holes (D3).*

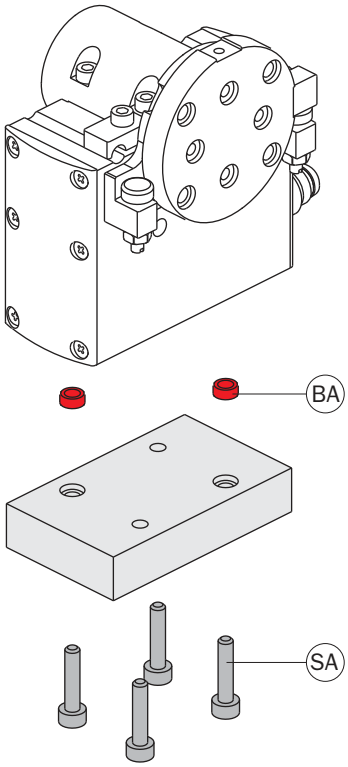
In every case, use the two centering sleeves (BA) supplied in the package. Follow the dimensions (DA and PA) given in the table for their seats in the mounting plate.

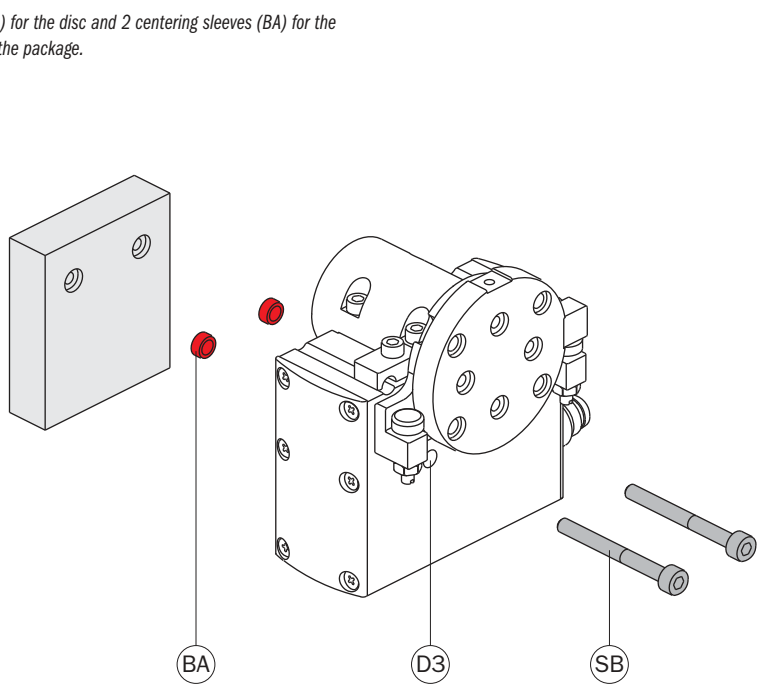
	MRE16180	MRE25180	MRE32180
B4	25	32	35
D3	Ø3.2	Ø4.2	Ø5.2
DA	Ø5 h7	Ø7 h7	Ø7 h7
P3	4	6	8
PA	1.2	1.5	1.5
SA	M3	M4	M5
SB	M3	M4	M5

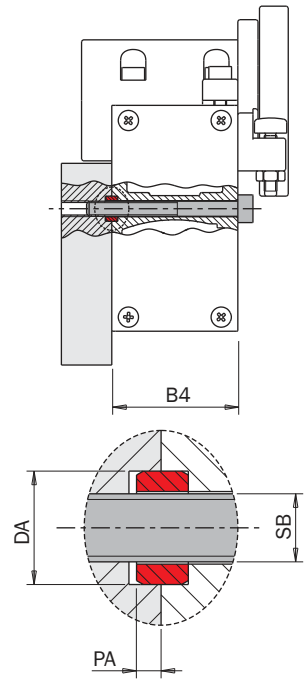


Nella confezione dell'attuatore sono fornite 2 boccole di centraggio (BA) per il disco e 2 boccole (BA) per il corpo.

2 centering rings (BA) for the disc and 2 centering sleeves (BA) for the body are supplied in the package.







ITSC

Tavole rotanti pneumatiche (serie ITSC)

- Disponibili in 2 taglie con 4, 6 o 8 divisioni.
- Verso di rotazione orario o antiorario (suffisso A).
- Elevata coppia disponibile.
- Elevata capacità di carico.
- Foro passante per il passaggio di cavi e tubi.
- Peso ed ingombro limitati.

Pneumatic indexing tables (series ITSC)

- *Available in two sizes with 4, 6 or 8 positions.*
- *Available clockwise or counter clockwise (ending A).*
- *High torque.*
- *Suitable for heavy loads.*
- *Through hole for cables and hoses.*
- *Reduced weight and overall dimensions.*



ITSC-16...

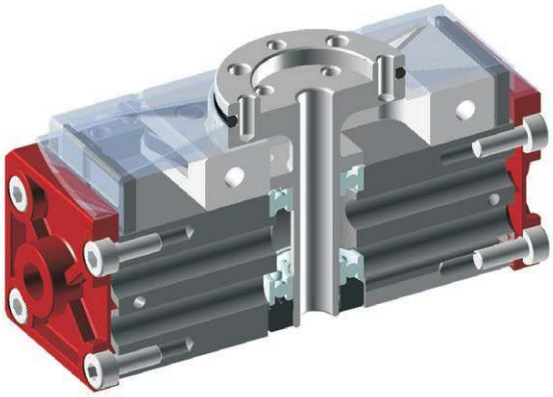


ITSC-45...

	ITSC-164 ITSC-164A	ITSC-166 ITSC-166A	ITSC-168 ITSC-168A	ITSC-454 ITSC-454A	ITSC-456 ITSC-456A	ITSC-458 ITSC-458
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar					
Temperatura di esercizio *Temperature range*	5° ÷ 60°C.					
Corsa angolare *Swivelling angle*	4x90°	6x60°	8x45°	4x90°	6x60°	8x45°
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	1364 Nmm	1672 Nmm	1814 Nmm	22902 Nmm	26442 Nmm	28208 Nmm
Consumo d'aria *Air consumption*	8 cm³ x90°	7 cm³ x60°	7 cm³ x45°	159 cm³ x90°	146 cm³ x60°	136 cm³ x45°
Tempo di rotazione senza carico *Indexing time without load*	0.10 s x90°	0.08 s x60°	0.06 s x45°	0.15 s x90°	0.12 s x60°	0.09 s x45°
Precisione angolare *Angular precision*	± 0.12°	± 0.12°	± 0.12°	± 0.12°	± 0.12°	± 0.12°
Ripetibilità di posizione (360°) *Positioning repeatability*	± 0.02°	± 0.02°	± 0.02°	± 0.02°	± 0.02°	± 0.02°
Peso *Weight*	320 g	320 g	320 g	3740 g	3740 g	3960 g

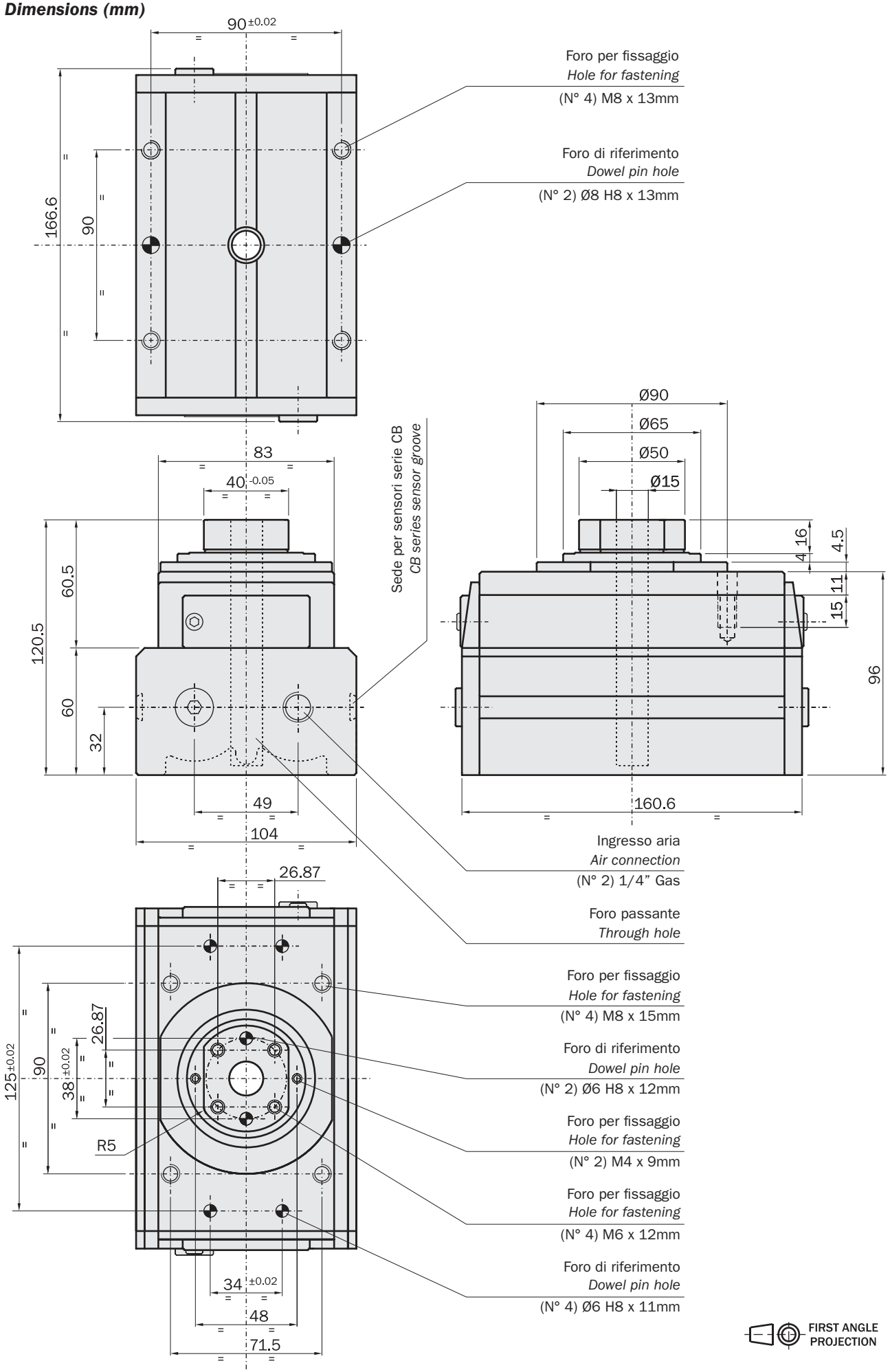
Dimensioni (mm)
Dimensions (mm)

ITSC-16...



Dimensioni (mm)
Dimensions (mm)

ITSC-45...



07/2026

Deceleratori

Sono disponibili per la taglia maggiore (ITSC-45...) degli accessori che consentono di dissipare energia cinetica con uno o due deceleratori e quindi consentono un minor tempo di rotazione.

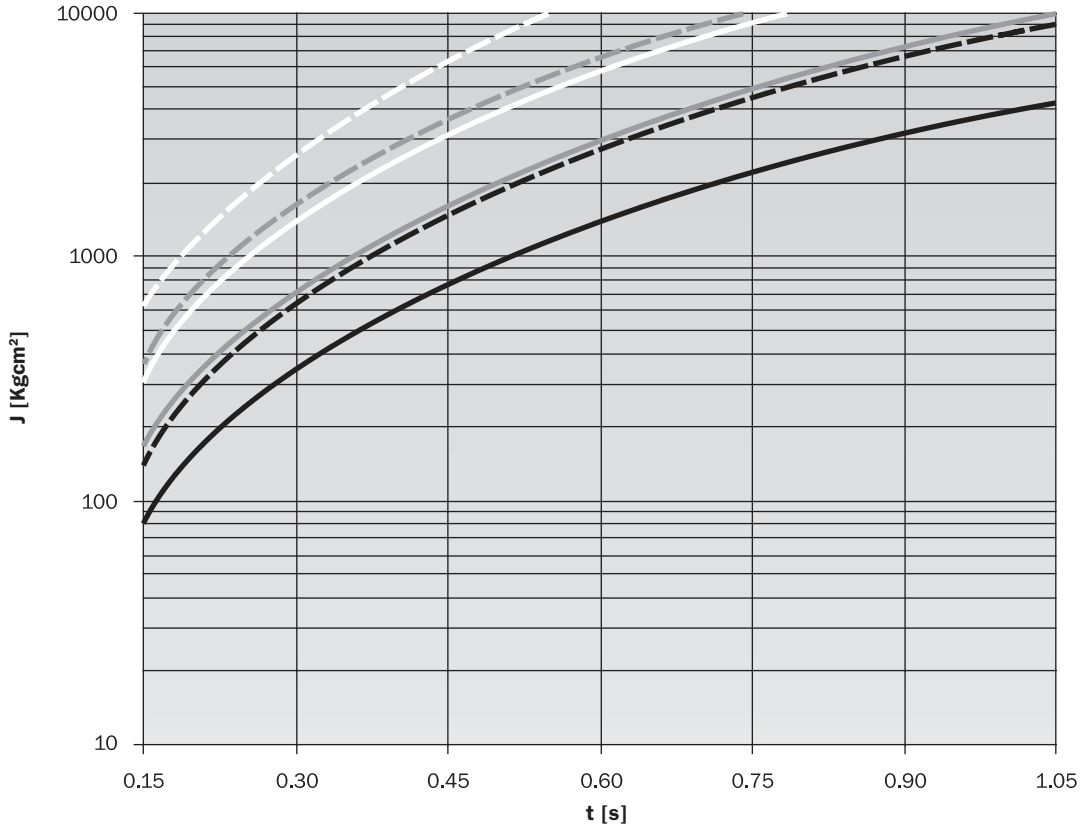
Shock-absorbers

Accessories for ITSC-45... are available to dissipate kinetic energy by means of one or two shock-absorbers. They allow shorter indexing times.



	ITSC-45-DE	ITSC-45-S4	ITSC-45-S6	ITSC-45-S8
Descrizione *Description*	Deceleratore con alloggiamento *Shock-absorber with housing*	Corona per 4 divisioni *4-cam crown*	Corona per 6 divisioni *6-cam crown*	Corona per 8 divisioni *8-cam crown*
Peso *Weight*	290 g	90 g	105 g	120 g
Adatto per: *To use on:*	ITSC-45...	ITSC-454 ITSC-454-A	ITSC-456 ITSC-456-A	ITSC-458 ITSC-458-A

Energia cinetica
Kinetic energy



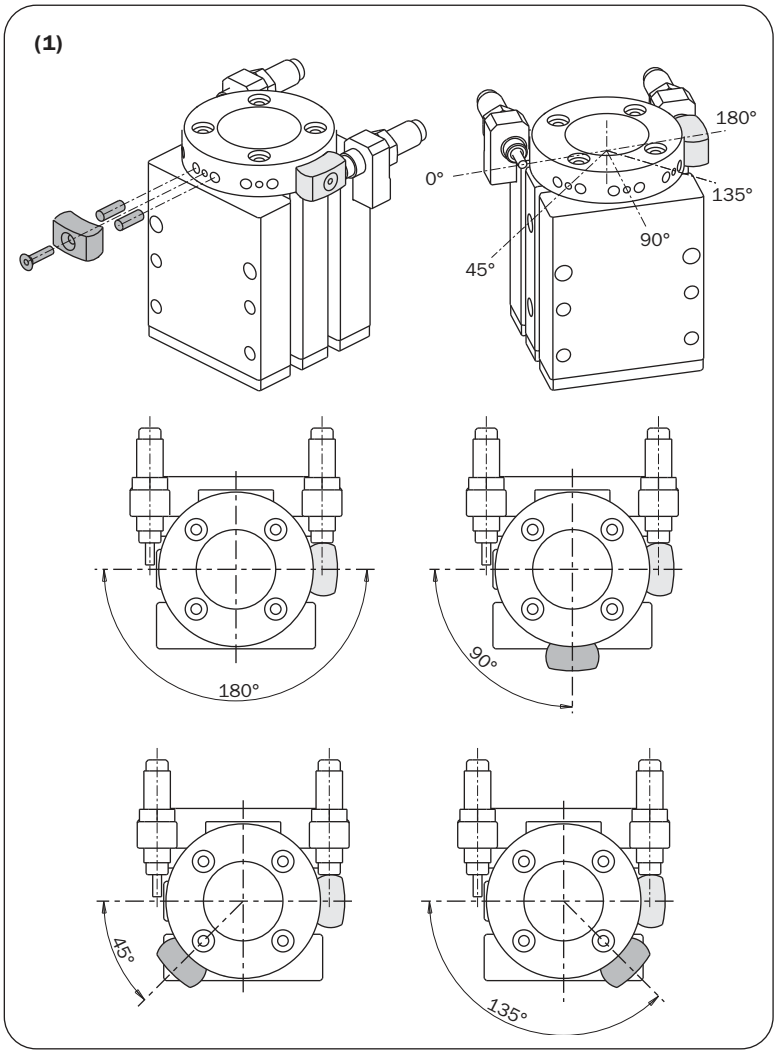
AR

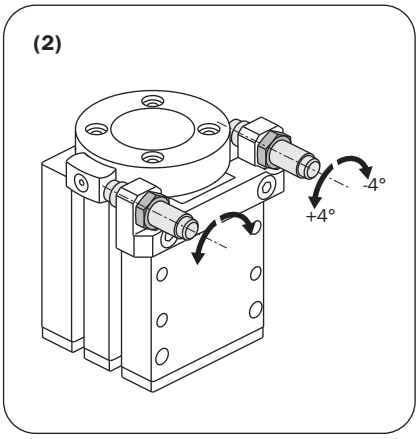
Attuatori rotanti pneumatici a 2 posizioni (serie AR)

- Adatti per rotazioni di 45°/90°/135°/180° (1).
- Rotazione su cuscinetti a sfera.
- Costruzione compatta.
- Deceleratori idraulici (2).
- Sensori magnetici opzionali.

2-position pneumatic rotary actuators (series AR)

- *Suitable for 45°/90°/135°/180° rotation angles (1).*
- *Rotation on ball bearings.*
- *Compact design.*
- *Hydraulic shock-absorbers (2).*
- *Optional magnetic sensors.*

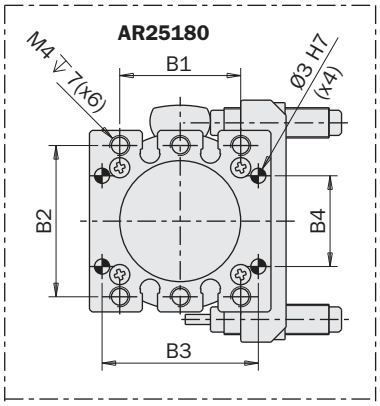


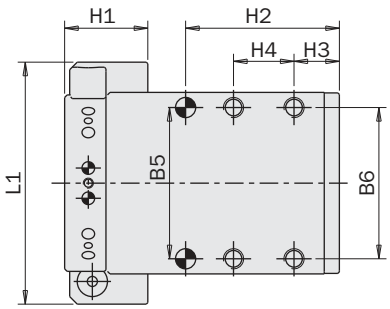


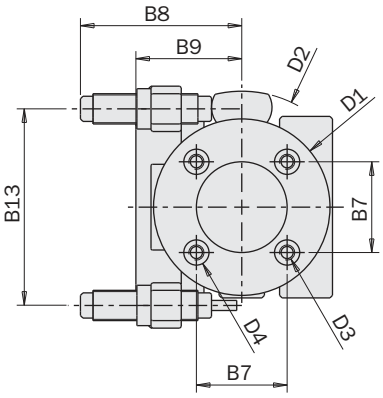


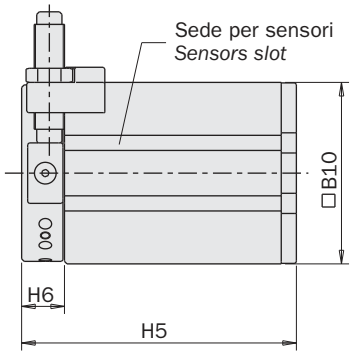
	AR25180			
Fluido *Medium*	Aria compressa filtrata, lubrificata / non lubrificata *Filtered, lubricated / non lubricated compressed air*			
Pressione di esercizio *Operating pressure*	1 ÷ 8 bar			
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C.			
Frequenza max funzionamento *Maximum working frequency*	0.5 Hz			
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	85 Ncm			
Corsa angolare (±8°) *Angular stroke*	45°	90°	135°	180°
Tempo di rotazione senza carico *Rotation time without load*	0.20 s	0.21 s	0.24 s	0.28 s
Consumo d'aria per ciclo *Air consumption per cycle*	9 cm^3	10 cm^3	12 cm^3	13 cm^3
Peso *Weight*	225 g			

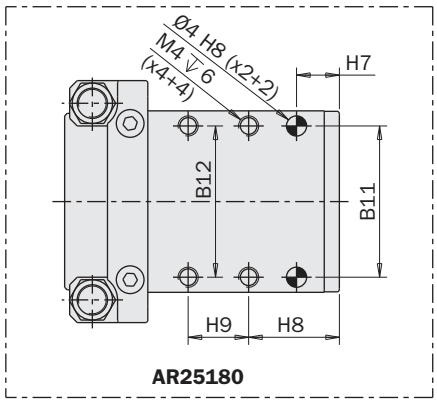
Dimensioni (mm)
Dimensions (mm)

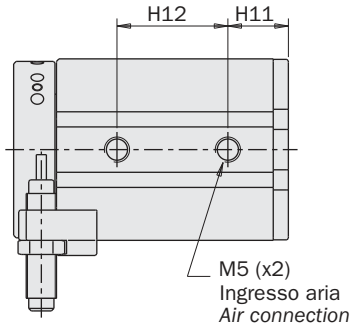












FIRST ANGLE PROJECTION

		AR25180
B1		24
B2		30
B3	±0.02	31
B4	±0.02	18
B5	±0.02	30
B6		30
B7	±0.02	18
B8		32
B9		21
B10		36
B11	±0.02	30
B12		30
B13		39
D1		Ø35
D2		Ø46
D3		M3x8
D4	H8	Ø5
H1		16.5
H2	±0.05	30.5
H3		9
H4		12
H5		54.5
H6		8.5
H7	±0.05	8.5
H8		18
H9		12
H10	±0.02	/
H11		12
H12		22
L1		48

FIRST ANGLE PROJECTION

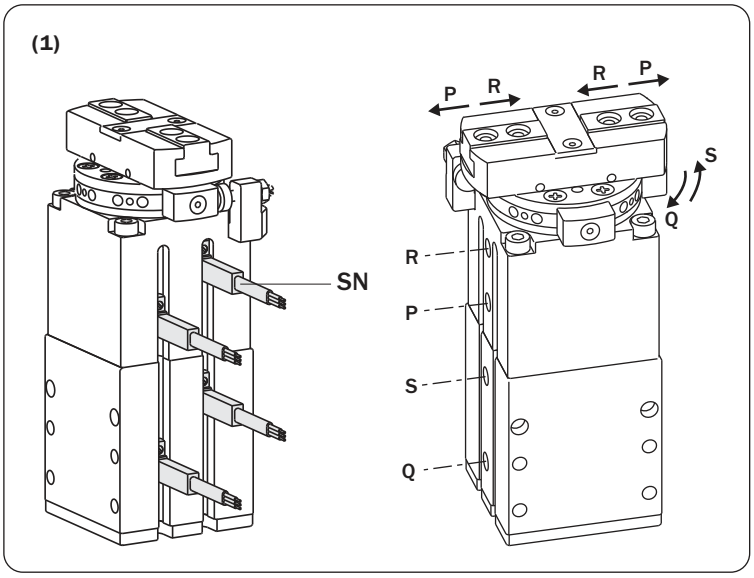
PRP

Attuatore rotante con pinza parallela pneumatica integrata

- Adatti per rotazioni di 45°/90°/135°/180°.
- Pinza e rotary actuatore integrati: i quattro sensori ed i quattro tubi non ruotano (1).
- Sensori magnetici opzionali.
- Disponibile su richiesta anche con molla in chiusura (-NC) o in apertura (-NO).

Rotary actuator with integrated pneumatic parallel gripper

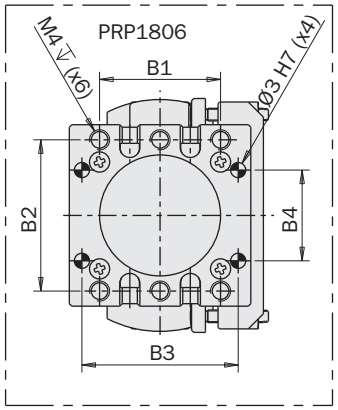
- *Suitable for 45°/90°/135°/180° rotation angles.*
- *Gripper with integrated rotary actuator: the four sensors and the four hoses do not rotate (1).*
- *Optional magnetic sensors.*
- *Normally Closed (-NC) or normally open (-NO) option available upon request.*

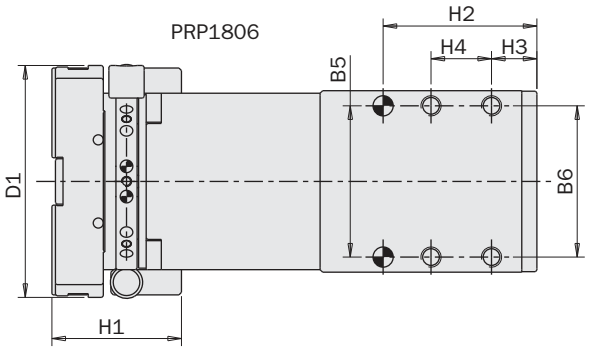


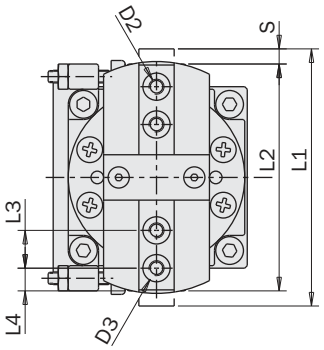


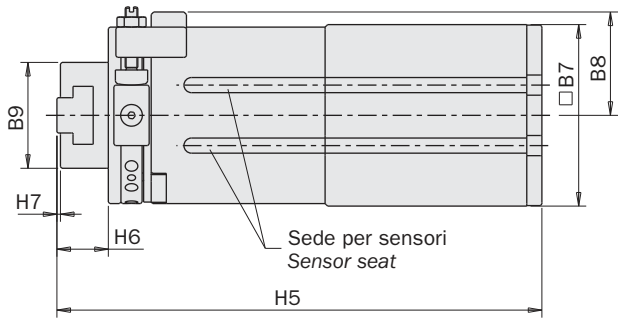
	PRP1806
Fluido *Medium*	Aria compressa filtrata, lubrificata / non lubrificata *Filtered, lubricated / non lubricated compressed air*
Pressione di esercizio *Operating pressure*	3 ÷ 8 bar
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C.
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	68 N
Forza di serraggio totale in apertura a 6 bar *Total opening gripping force at 6 bar*	136 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	60 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	120 N
Corsa totale pinza (±0.3 mm) *Gripper total stroke*	6 mm
Consumo d'aria per ciclo pinza *Air consumption per gripper cycle*	3 cm^3
Tempo minimo di chiusura / apertura pinza *Minimum gripper closing / opening timer*	0.02 s
Coppia di rotazione teorica a 6 bar *Theoretical torque at 6 bar*	85 Ncm
Corsa angolare massima *Maximum angular angle*	180°
Consumo d'aria per ciclo rotary actuatore *Air consumption per rotary actuator cycle*	13 cm^3
Tempo minimo per rotazione di 180° *Minimum time for 180° rotation*	0.25 s
Peso *Weight*	320 g

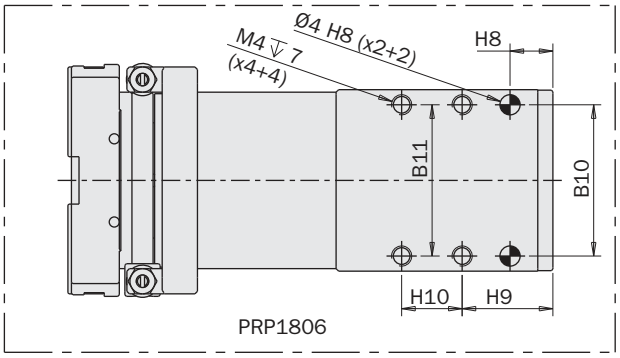
Dimensioni (mm)
Dimensions (mm)

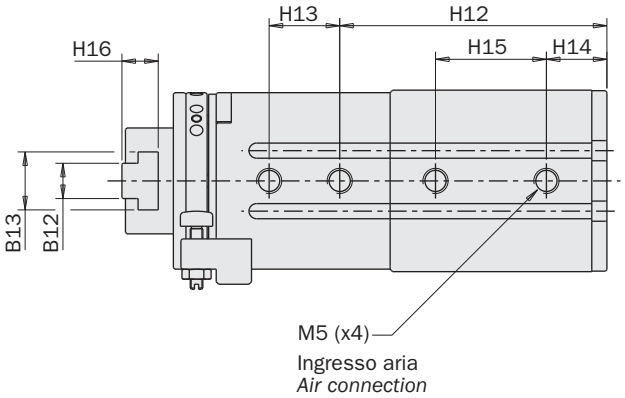










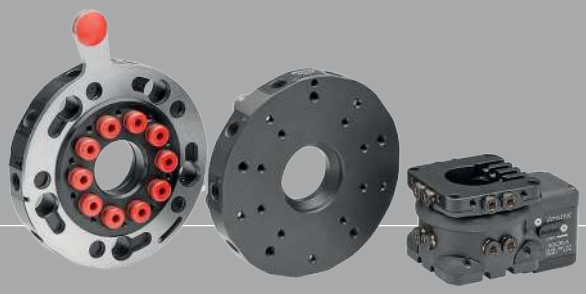


		PRP1806
B1		24
B2		30
B3	±0.02	31
B4	±0.02	18
B5	±0.02	30
B6		30
B7		36
B8		20.5
B9		21
B10	±0.02	30
B11		30
B12		7
B13		11.5
D1		Ø46
D2		M3 P4.7
D3	H8	Ø5
H1		25.7
H2	±0.05	30.5
H3		9
H4		12
H5		96
H6		10.2
H7		0.7
H8	±0.05	8.5
H9		18
H10		12
H11	±0.02	-
H12		53
H13		14
H14		12
H15		22
H16		7.2
L1		51
L2		45
L3	±0.02	7.5
L4	±0.05	4.5

FIRST ANGLE PROJECTION

CAMBIA UTENSILE

Quick changer



QC

Cambia utensile

- Cambio rapido dell'attrezzatura sul robot.
- Adatto anche per canalizzazioni in depressione.
- Evita errori nelle connessioni pneumatiche ed elettriche.
- 4, 8, 10 o 12 connessioni pneumatiche.
- 15 connessioni elettriche.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Il lato robot QCX può anche tagliare l'aria compressa con una valvola di sicurezza.
- Il lato robot QCY taglia l'aria compressa automaticamente durante lo sganciamento.
- Dispositivo di bloccaggio LOQC opzionale.

Quick changer

- *Easy replacement of the EOAT on the robot.*
- *Suitable also with vacuum ports.*
- *Avoids mistakes in pneumatic and electrical connections.*
- *4, 8, 10 or 12 pneumatic connections.*
- *15 electrical connections.*
- *The two parts (robot side and gripper side) are supplied separately.*
- *The robot side QCX unit can also cut off the compressed air with a safety air valve.*
- *The robot side QCY unit cuts off the compressed air automatically during disengagement.*
- *Optional LOQC lock unit.*

QC150-A



QC150-B

QCX150-A



QC150-B

QCY150-A

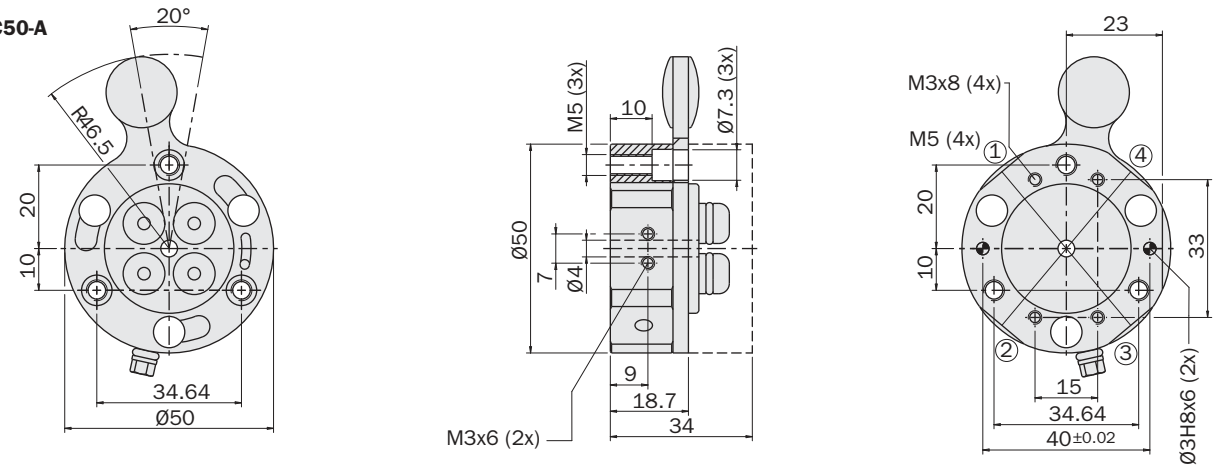


QC150-B

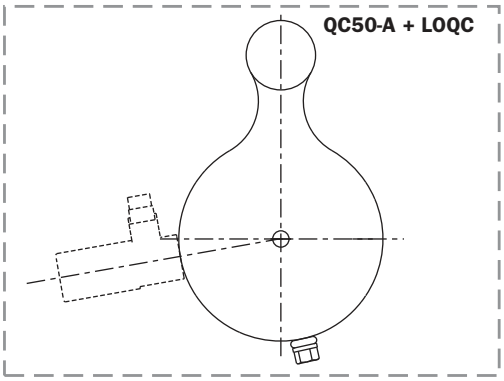
		50	90	150	160	200
Fluido *Medium*		Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*		-1 ÷ 6 bar				
Temperatura di esercizio *Temperature range*		5 ÷ 60 °C				
Cambia utensile lato robot *Robot side quick changer*	**QC...-A**	**QC50-A** (103 g)	**QC90-A** (318 g)	**QC150-A** (1123 g)	**QC160-A** (1200 g)	**QC200-A** (2640 g)
Cambia utensile lato robot con valvola di sicurezza *Robot side quick changer with safety valve*	**QCX...-A**	-	**QCX90-A** (595 g)	**QCX150-A** (2200 g)	**QCX160-A** (2200 g)	**QCX200-A** (4900 g)
Cambia utensile lato robot con valvola automatica *Robot side quick changer with automatic valve*	**QCY...-A**	**QCY50-A** (133 g)	**QCY90-A** (350 g)	**QCY150-A** (1180 g)	-	**QCY200-A** (2700 g)
Cambia utensile lato pinza universale *Universal gripper side quick changer*	**QC...-B**	**QC50-B** (65 g)	**QC90-B** (227 g)	**QC150-B** (827 g)	**QC160-B** (900 g)	**QC200-B** (1890 g)
Cambia utensile lato pinza con flangia *Quick changer on gripper side, with flange*	**QCP...-B**	**QCP50-B** (110 g)	**QCP90-B** (315 g)	**QCP150-B** (1090 g)	**QCP160-B** (1150 g)	**QCP200-B** (2400 g)
Cambia utensile lato pinza, specifico per QCY *Gripper side quick changer, specific for QCY*	**QCY...-B**	-	-	**QCY150-B** (862 g)	-	**QCY200-B** (1875 g)

Dimensioni (mm)
Dimensions (mm)

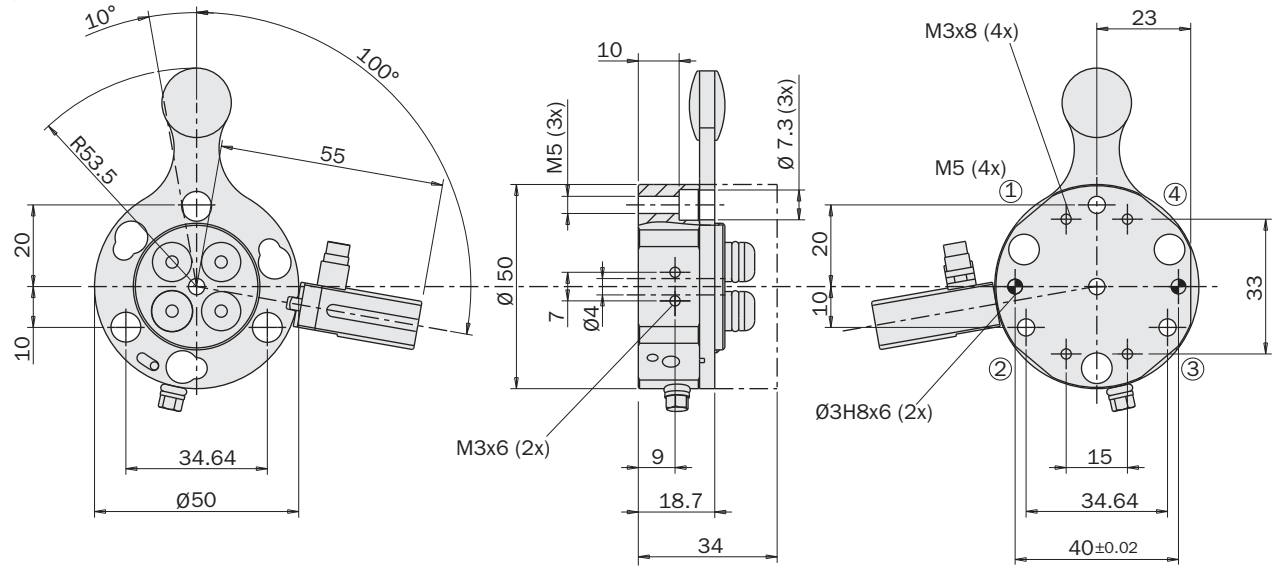
QC50-A



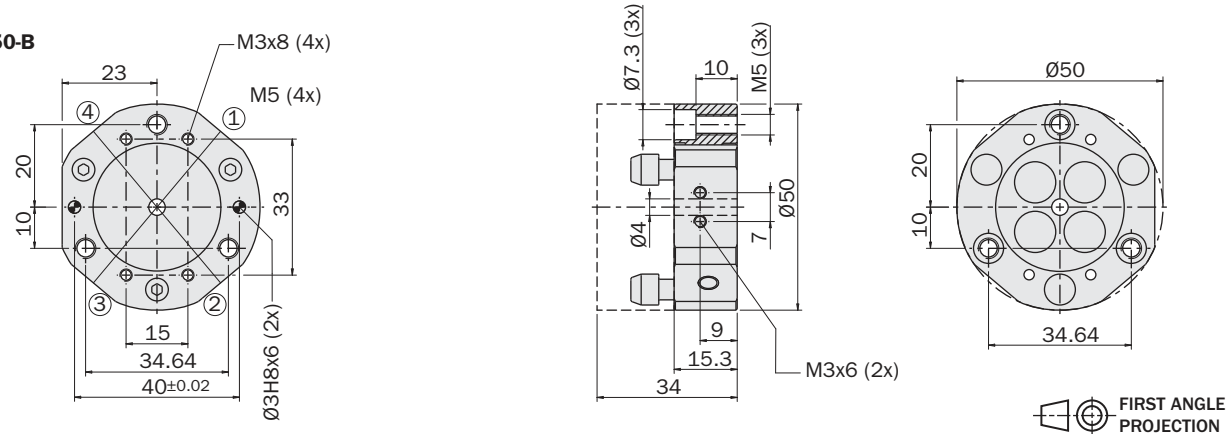
QC50-A + LOQC



QCY50-A

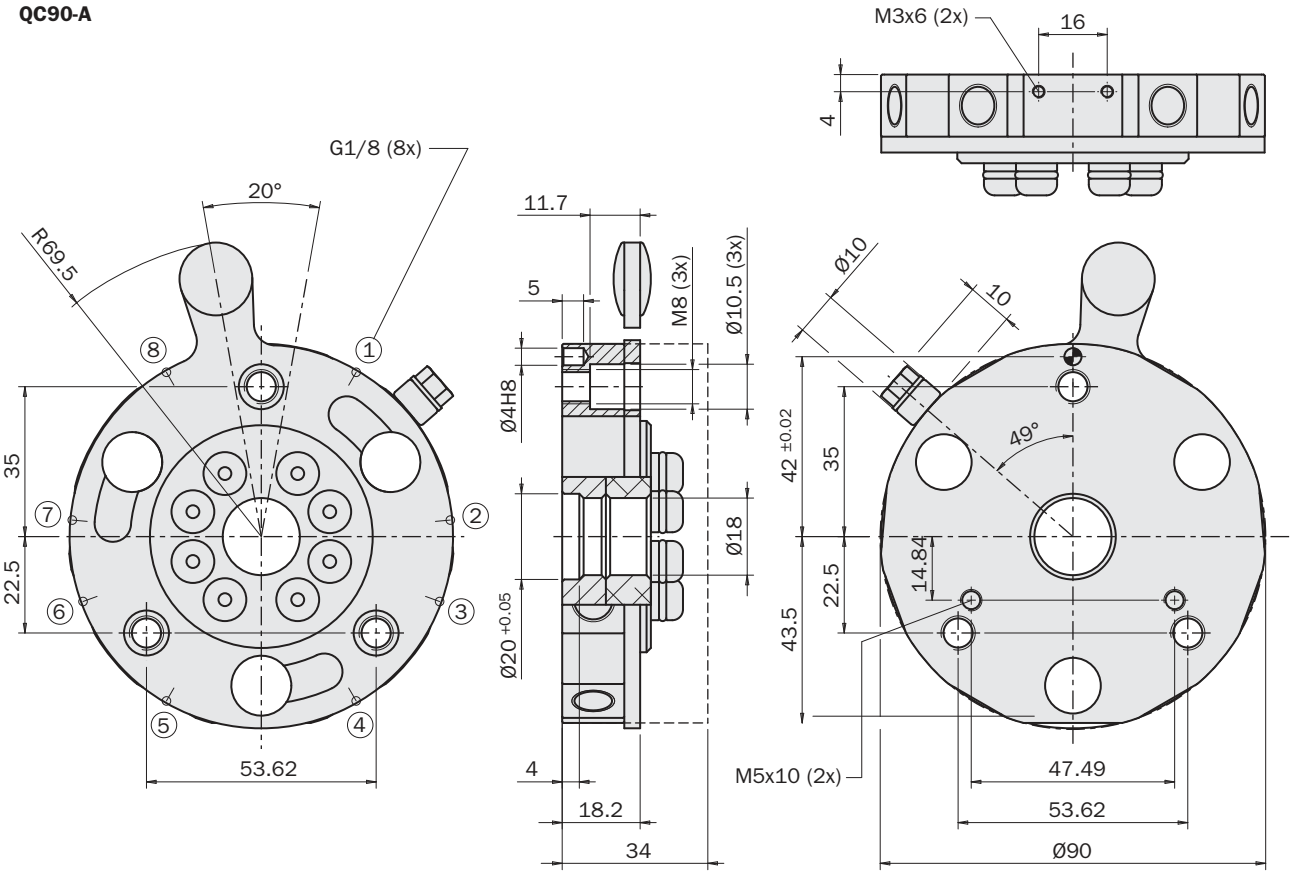


QC50-B



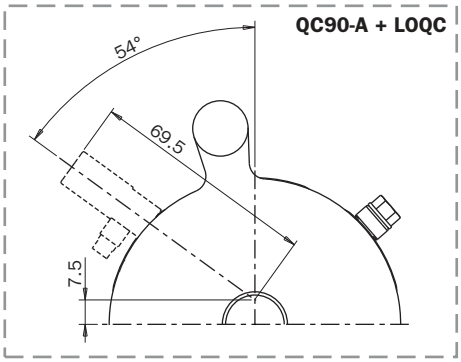
Dimensioni (mm)
Dimensions (mm)

QC90-A

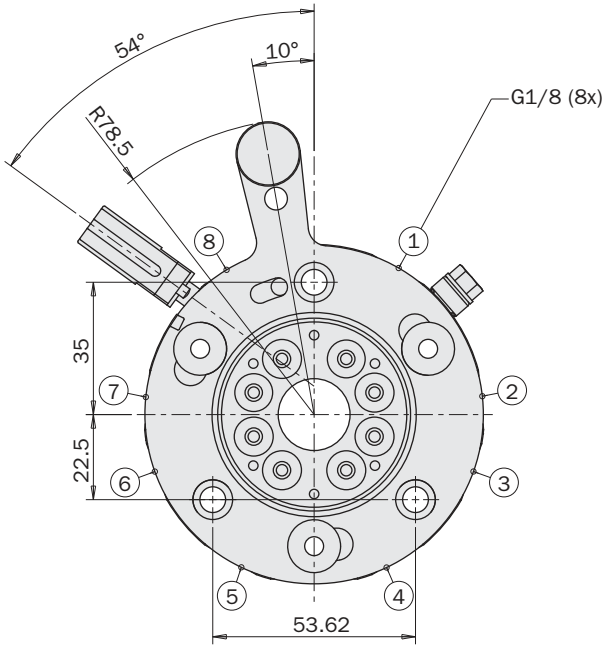


FIRST ANGLE PROJECTION

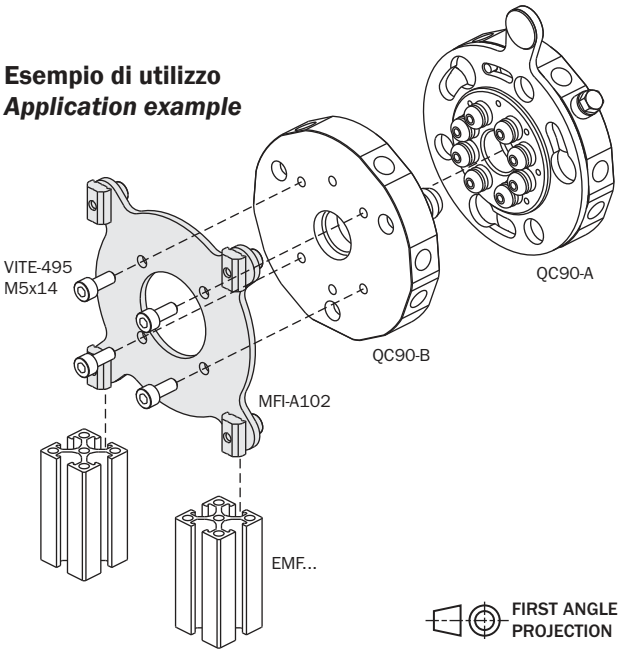
QC90-A + LOQC



QCY90-A



Esempio di utilizzo
Application example

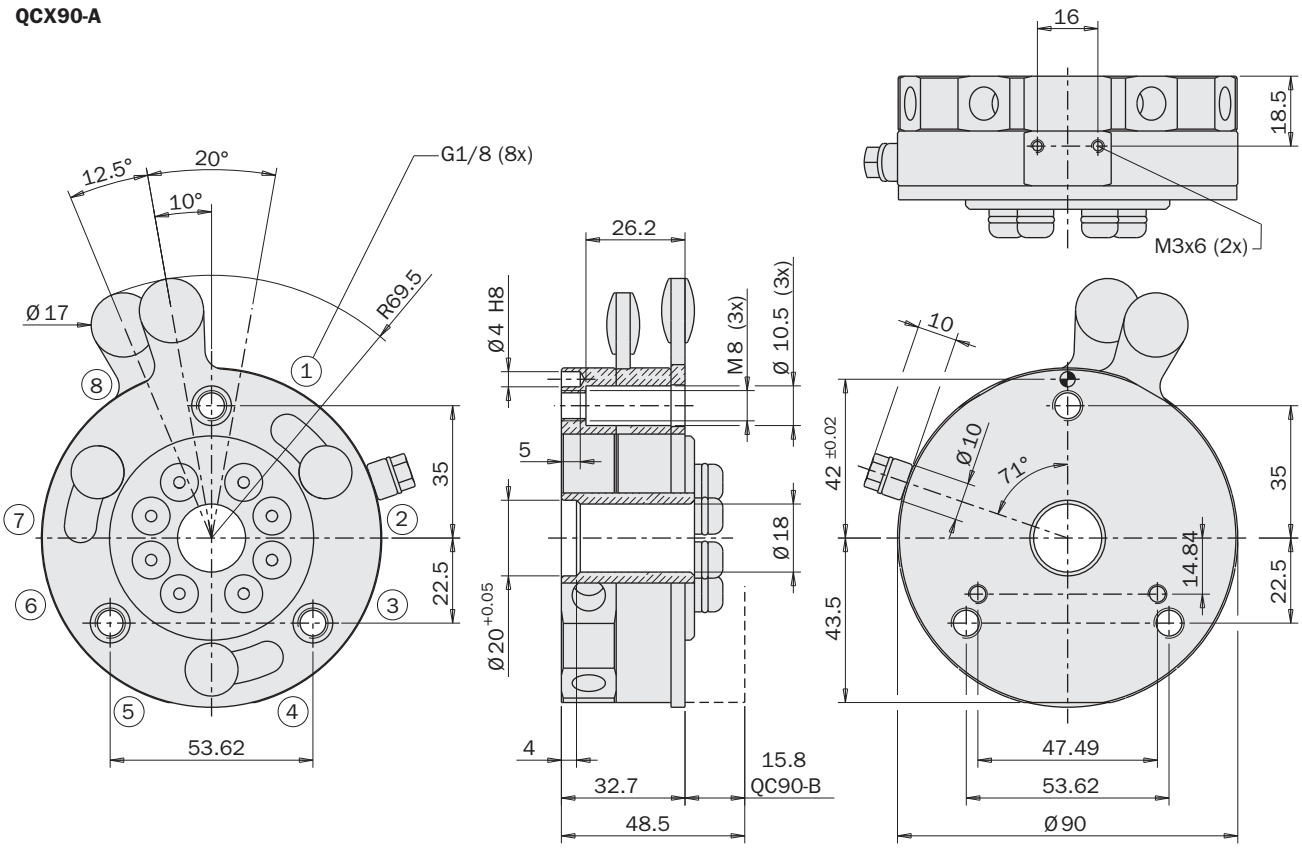


FIRST ANGLE PROJECTION

07/2026

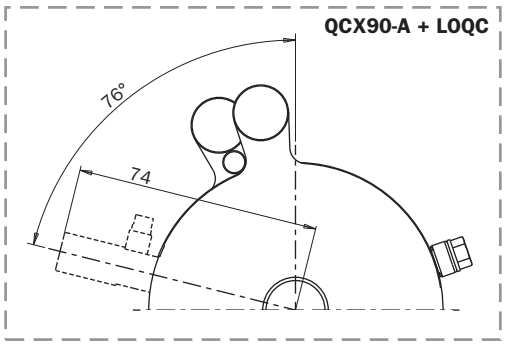
Dimensioni (mm)
Dimensions (mm)

QCX90-A

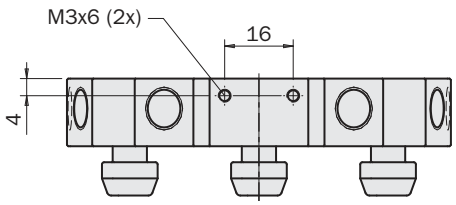


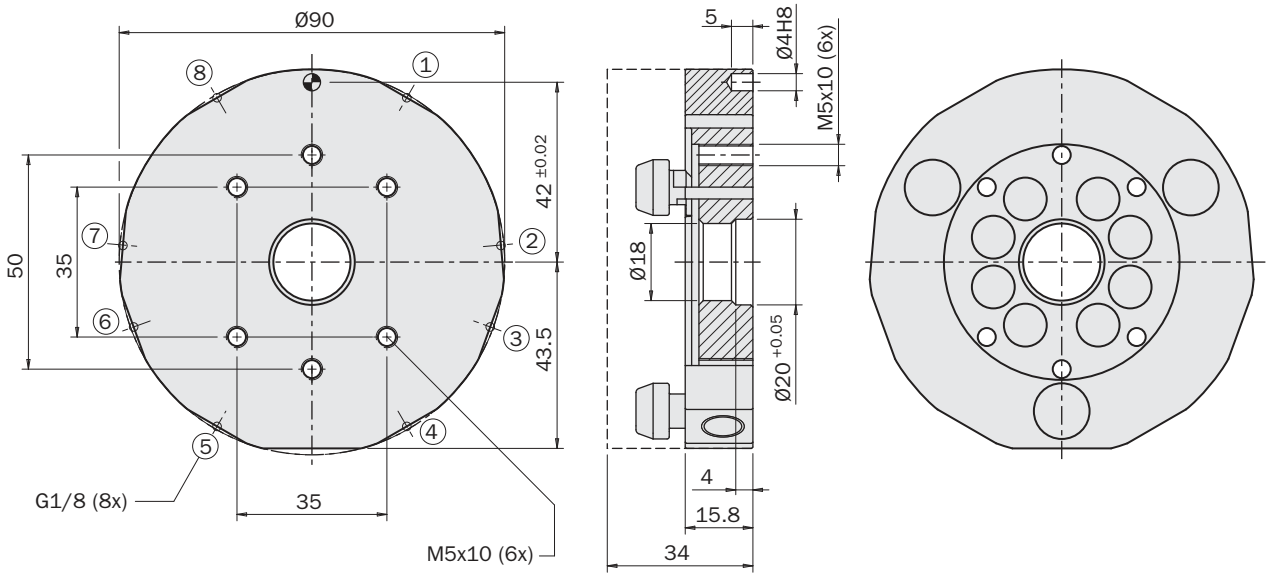


QCX90-A + LOQC



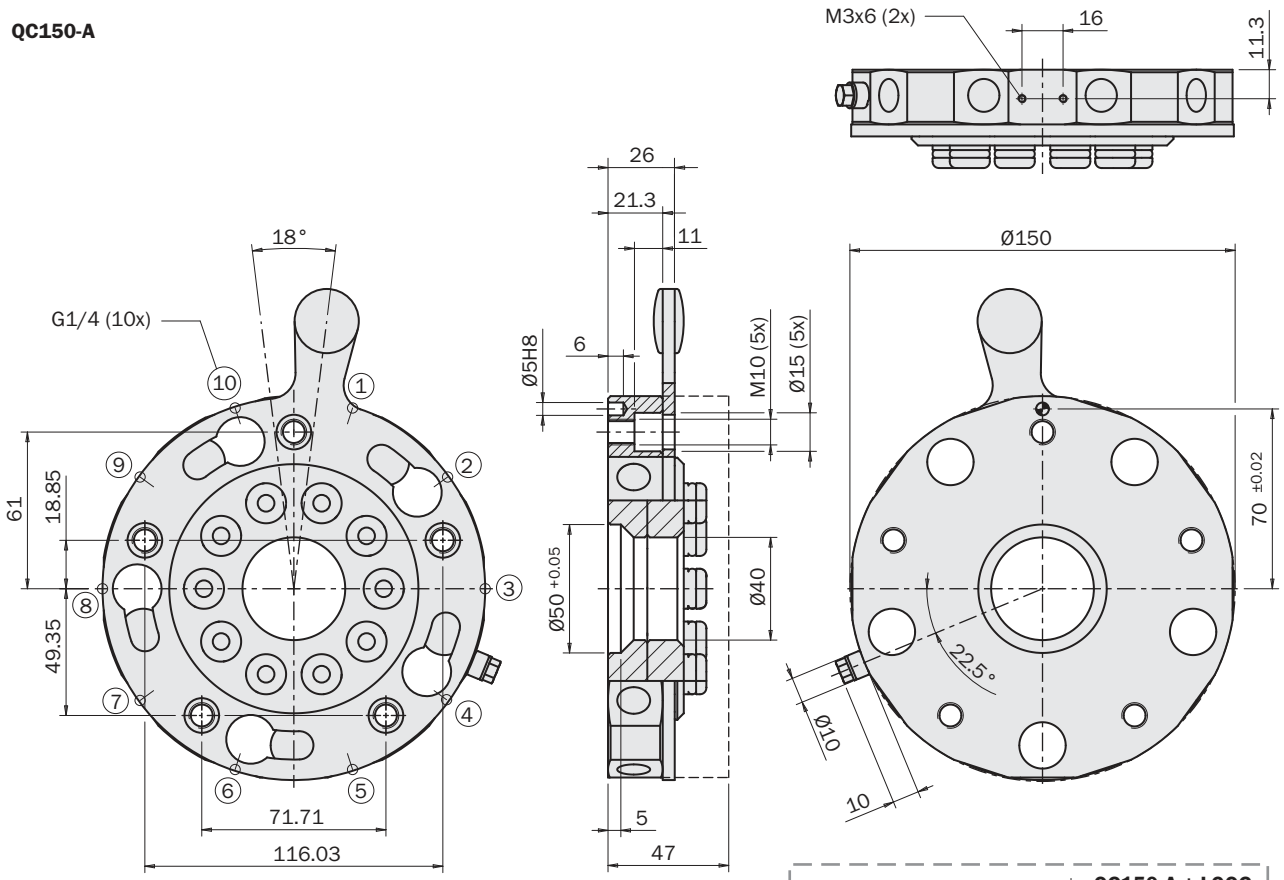
QC90-B



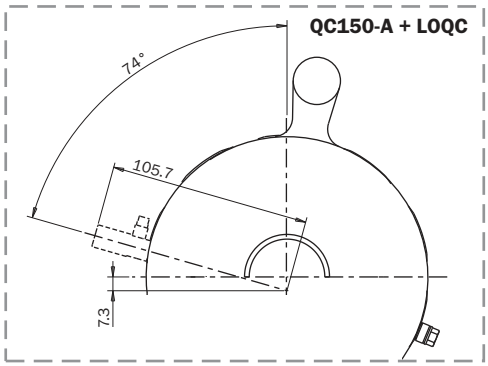


Dimensioni (mm)
Dimensions (mm)

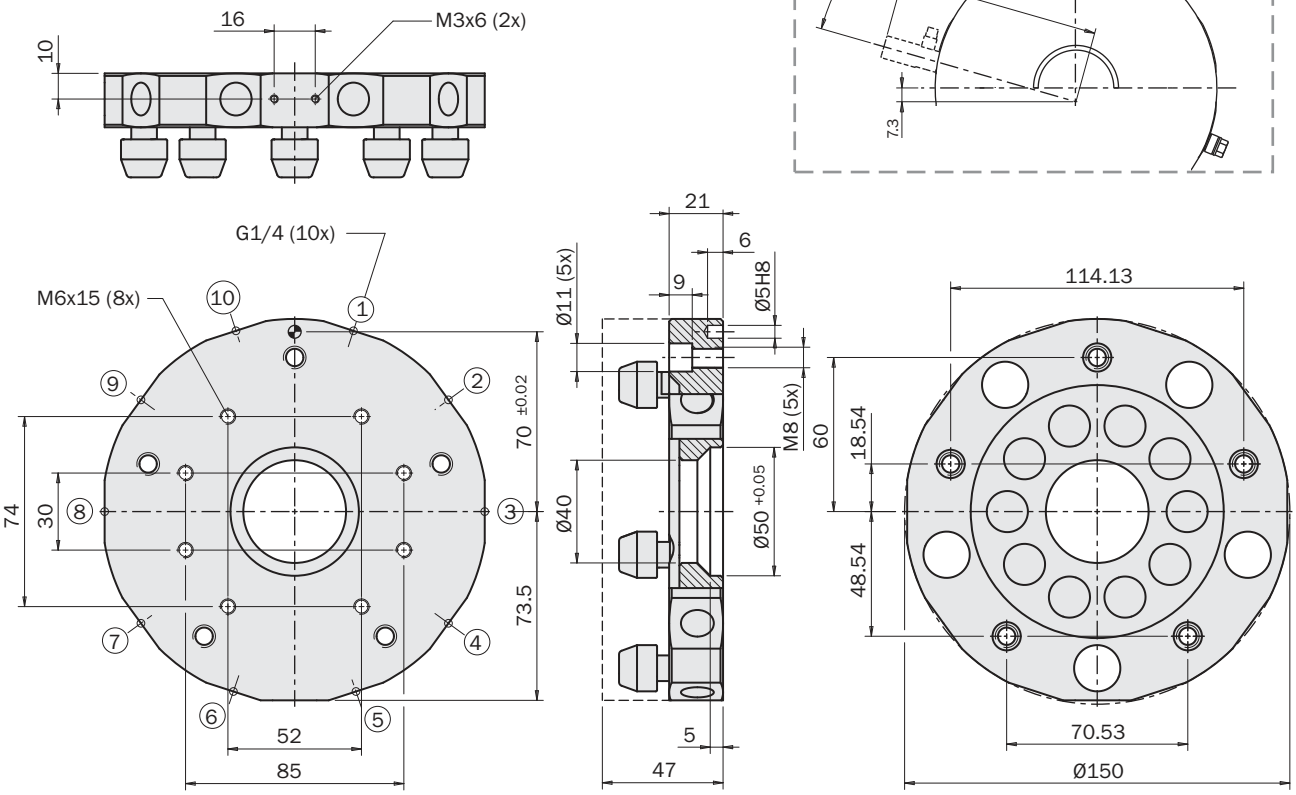
QC150-A



QC150-A + LOQC



QC150-B / QCY150-B

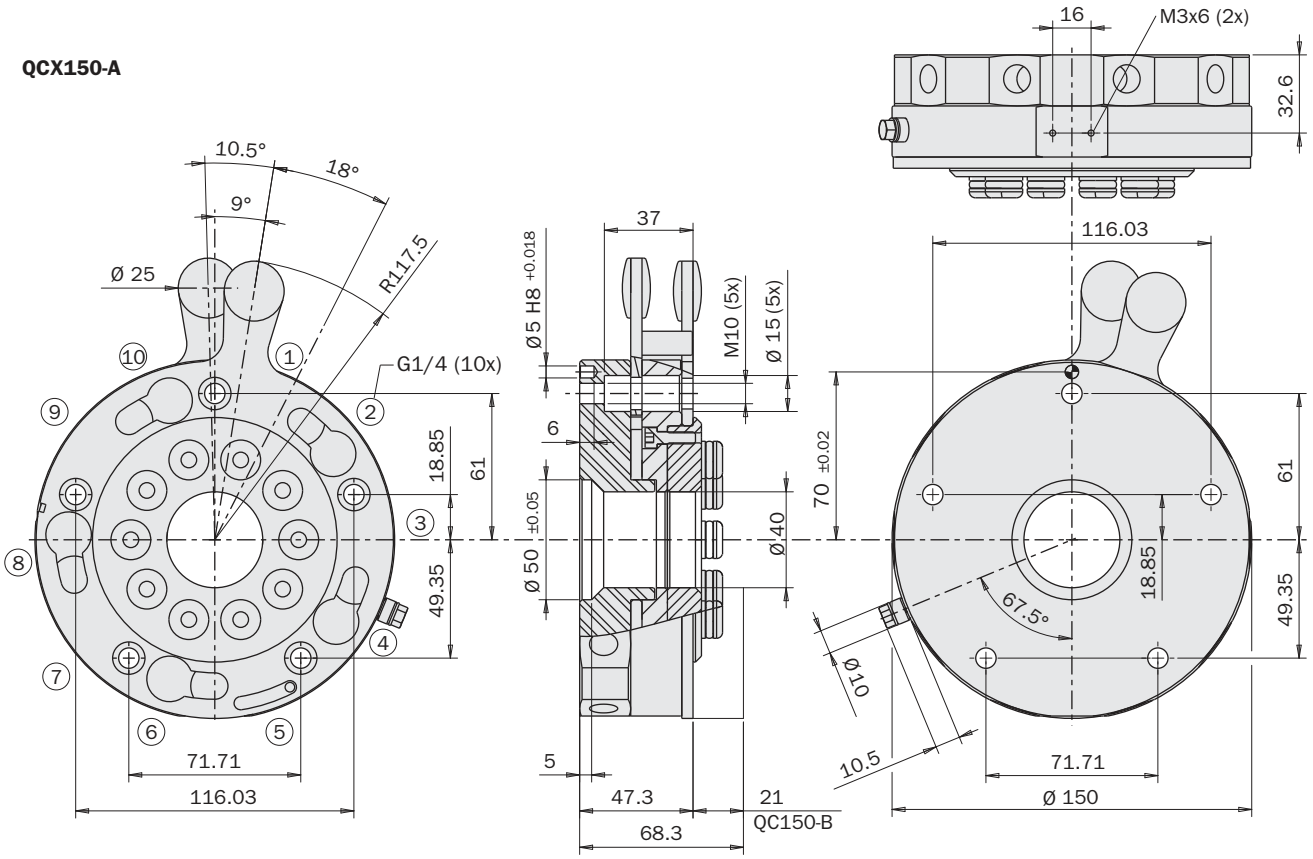


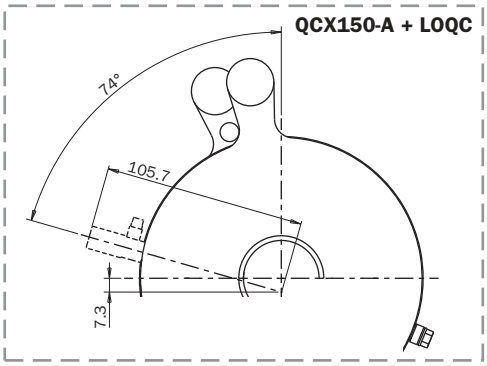
FIRST ANGLE PROJECTION

07/2026

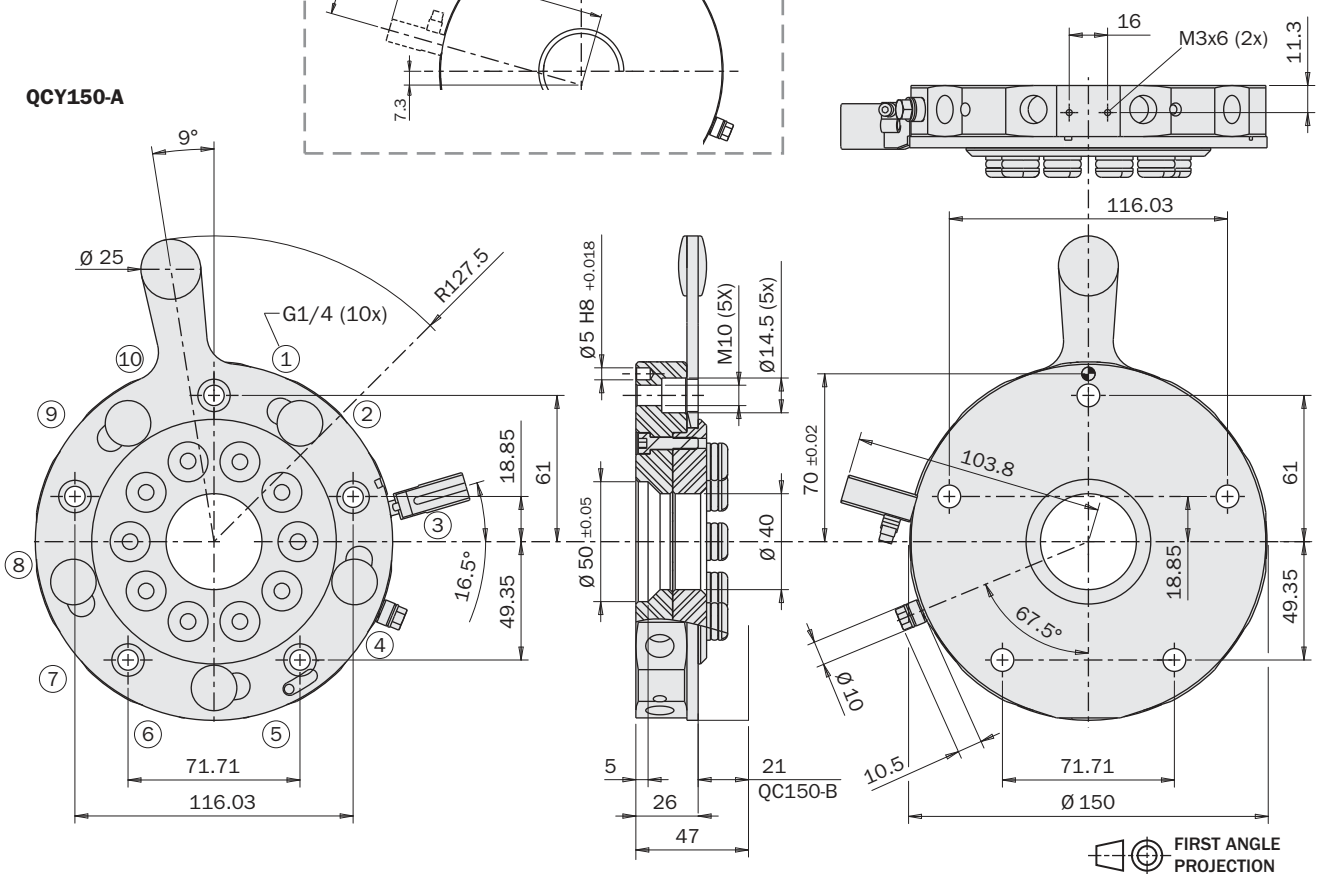
Dimensioni (mm)
Dimensions (mm)

QCX150-A



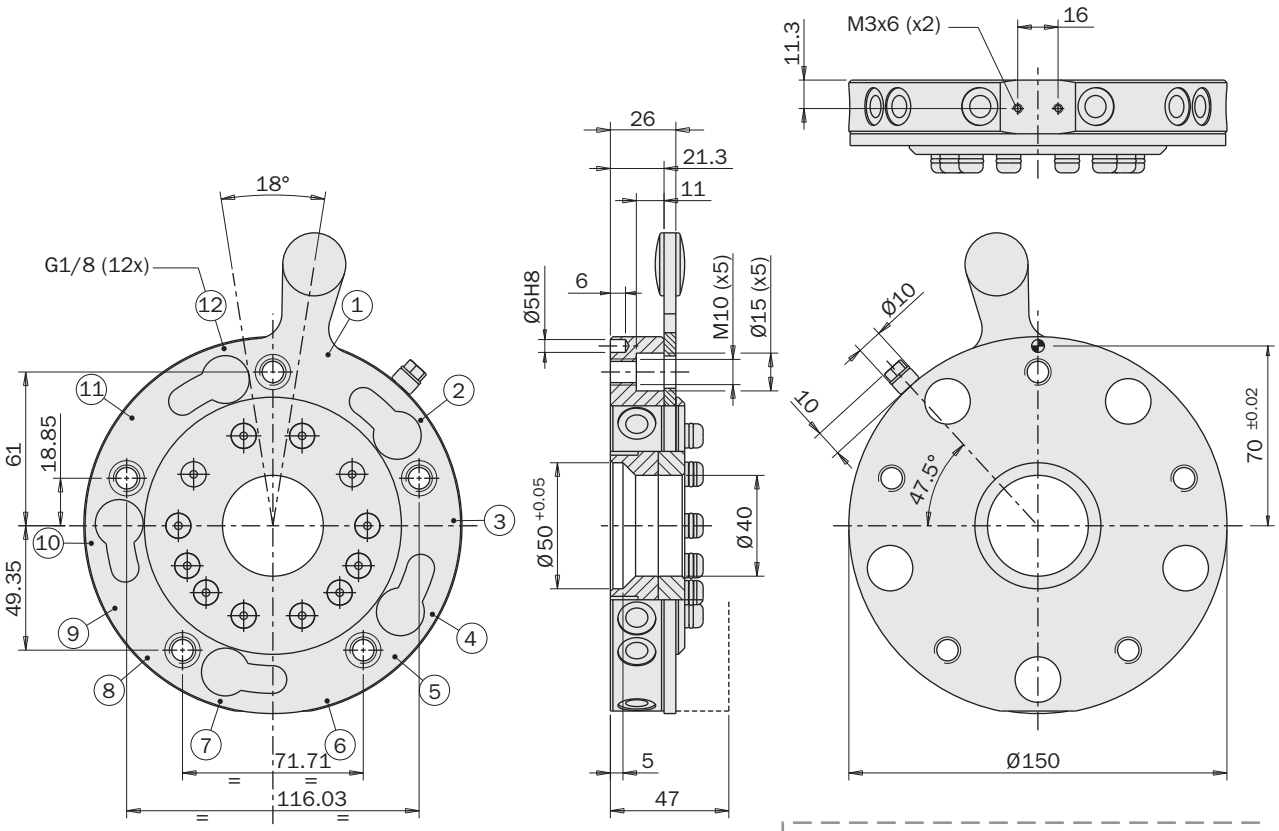


QCY150-A

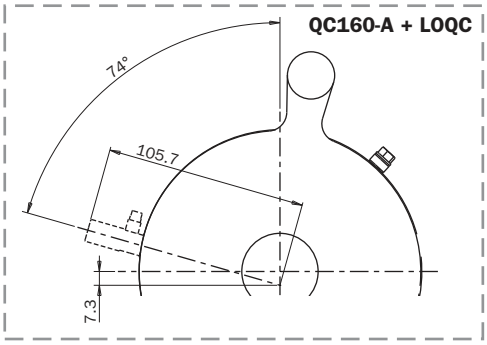


Dimensioni (mm)
Dimensions (mm)

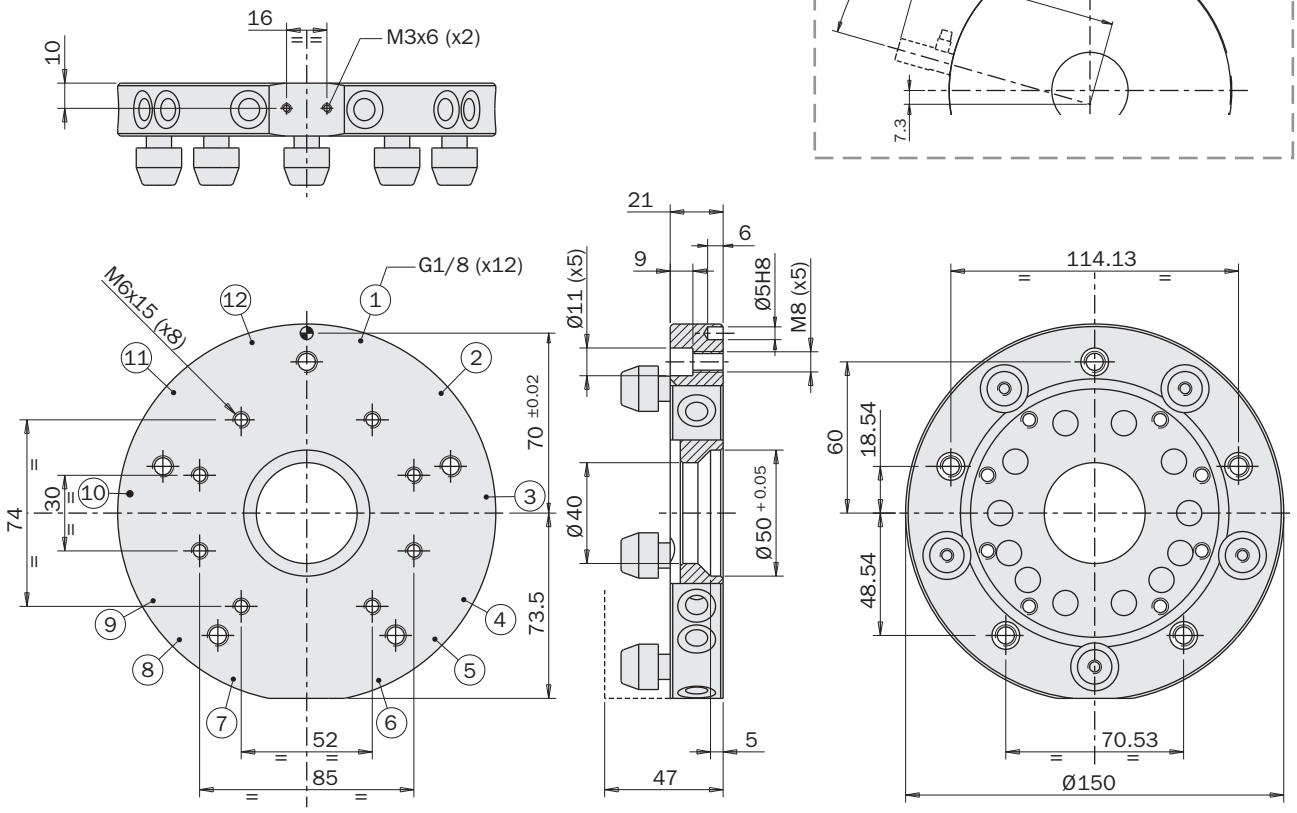
QC160-A



QC160-A + LOQC



QC160-B

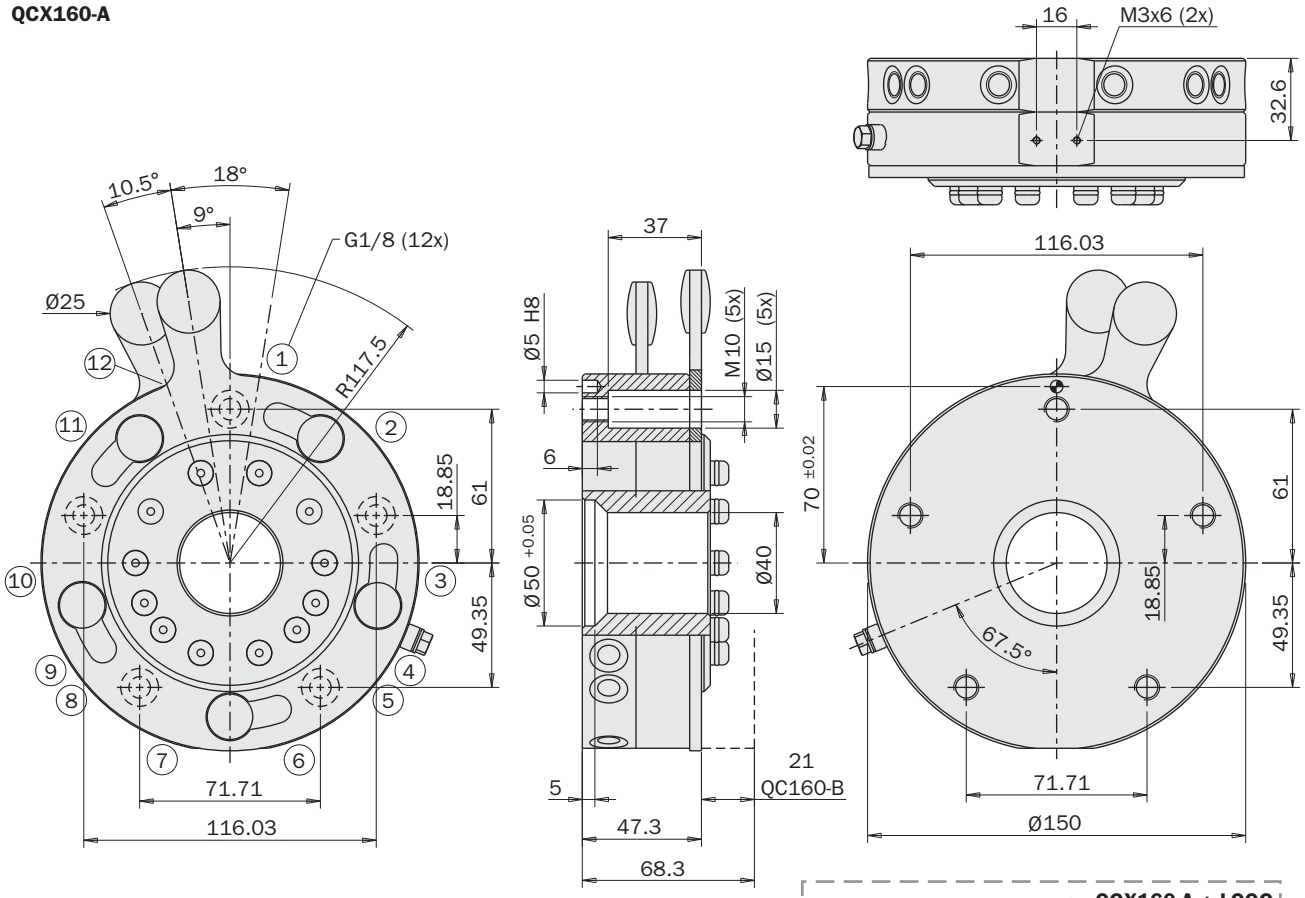


FIRST ANGLE PROJECTION

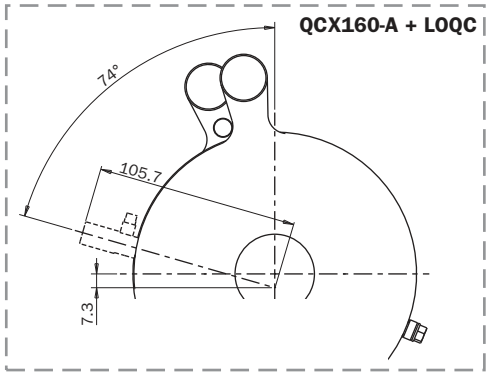
07/2026

Dimensioni (mm)
Dimensions (mm)

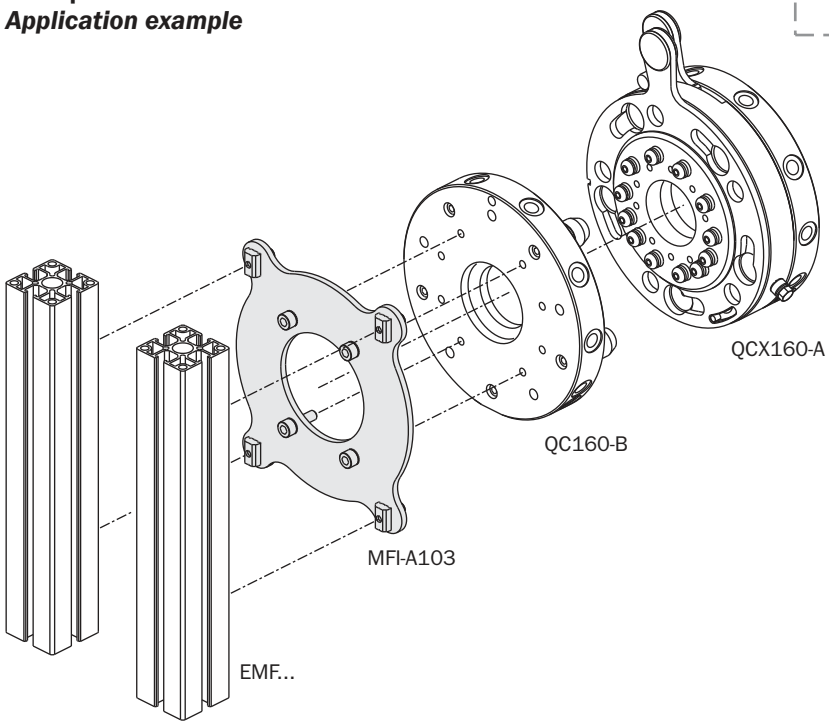
QCX160-A



FIRST ANGLE PROJECTION

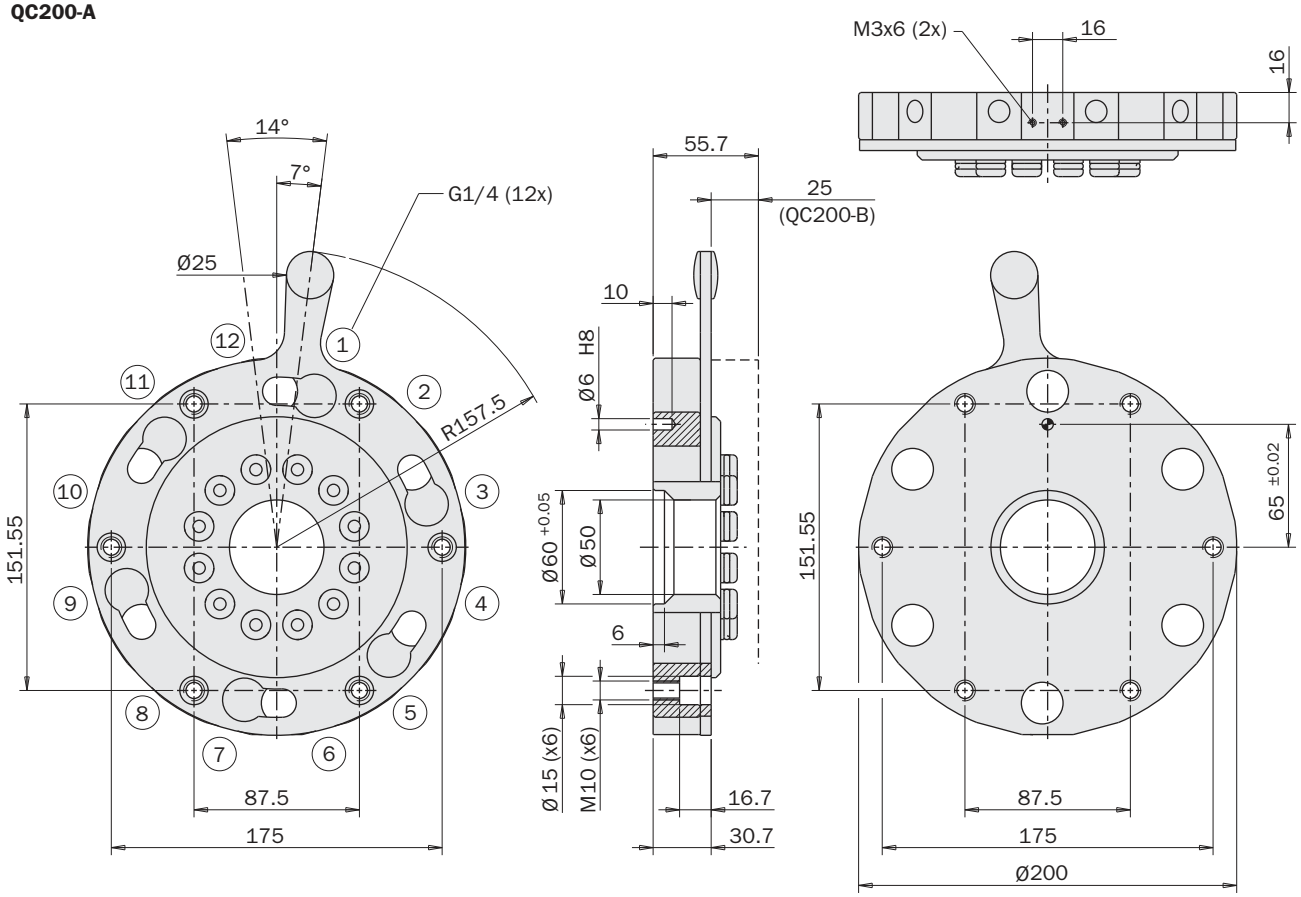


Esempio di utilizzo
Application example

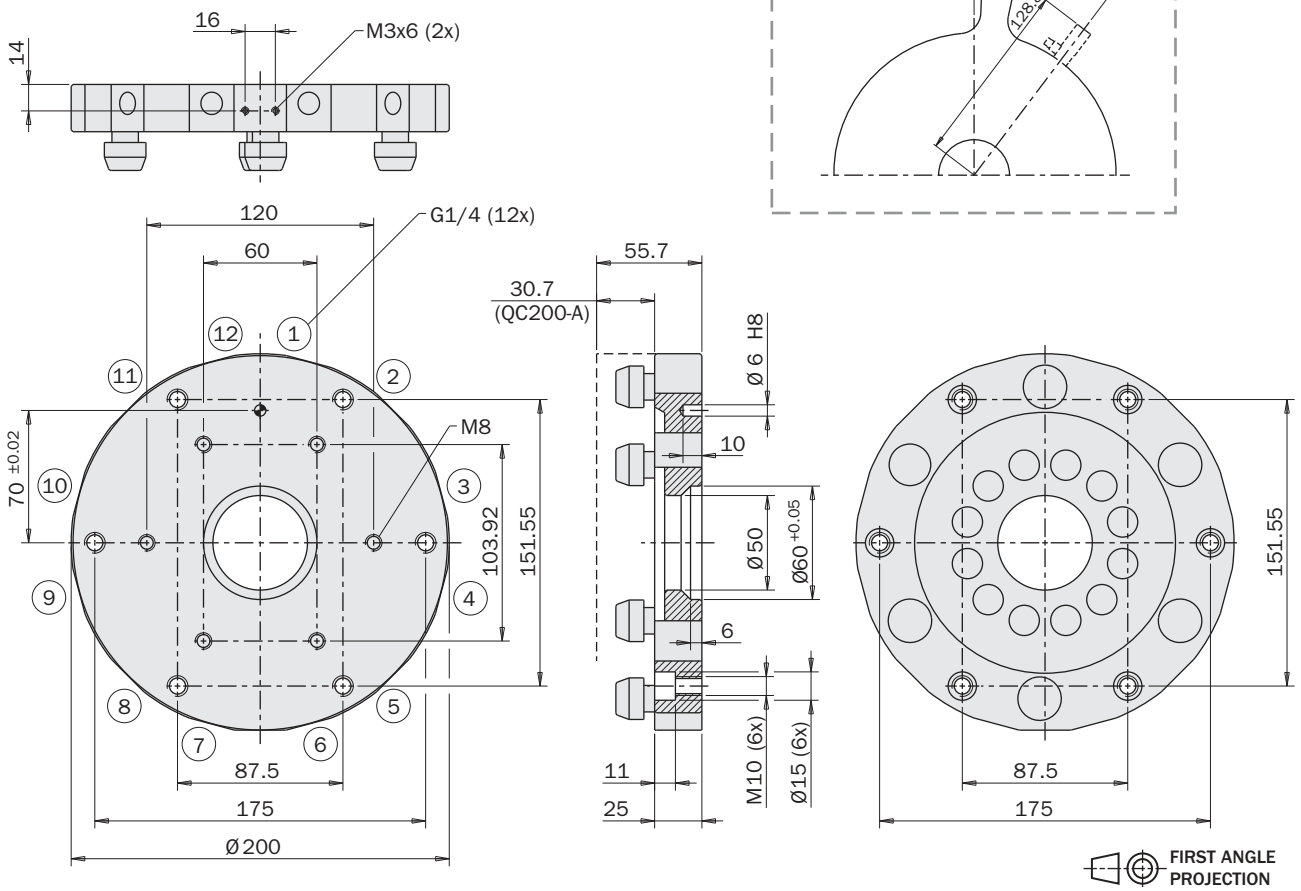


Dimensioni (mm)
Dimensions (mm)

QC200-A



QC200-B / QCY200-B



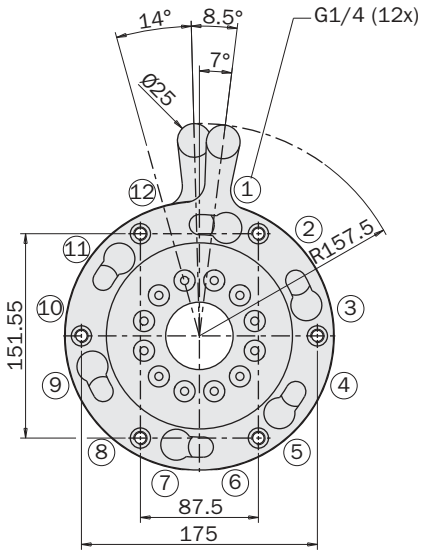
QC200-A + LOQC

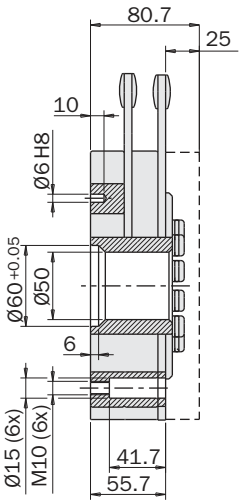
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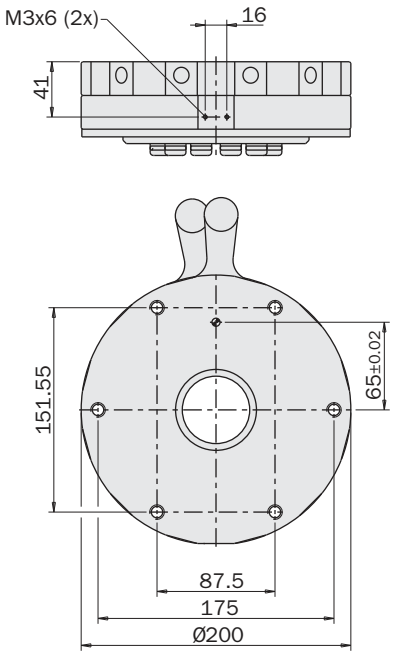
07/2026

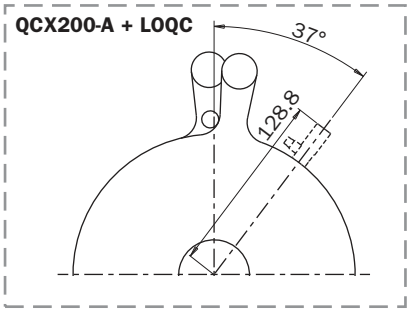
Dimensioni (mm)
Dimensions (mm)

QCX200-A

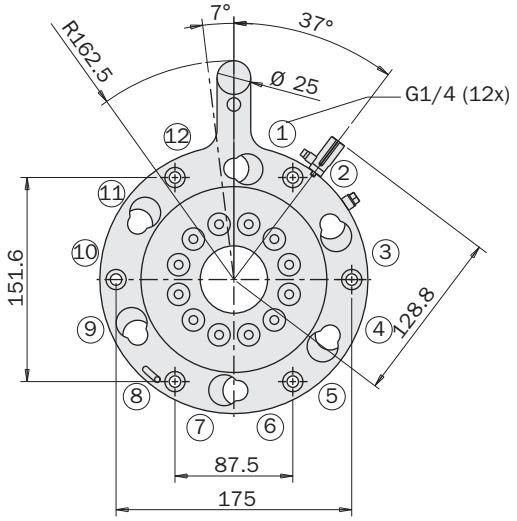


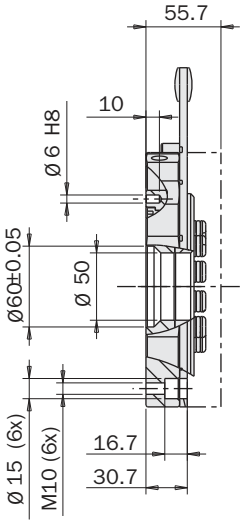


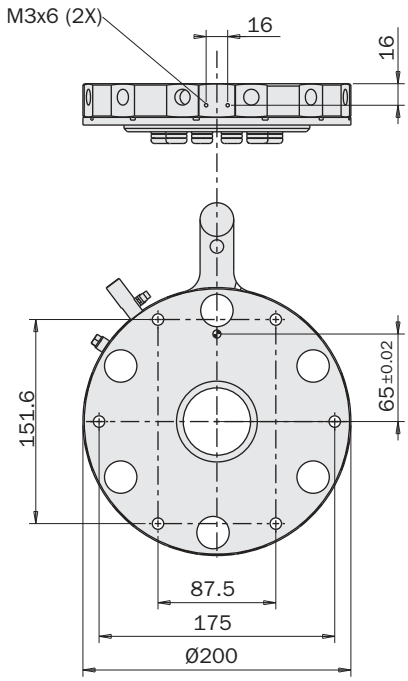




QCY200-A







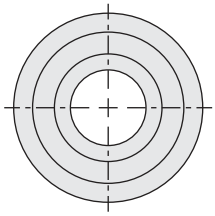
FIRST ANGLE PROJECTION

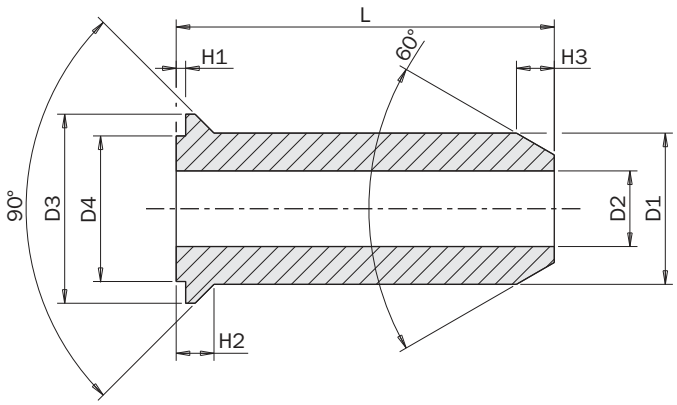
Spina di centraggio

- Da posizionare sul lato robot.
- Aiuta il centraggio manuale di EOAT pesanti.

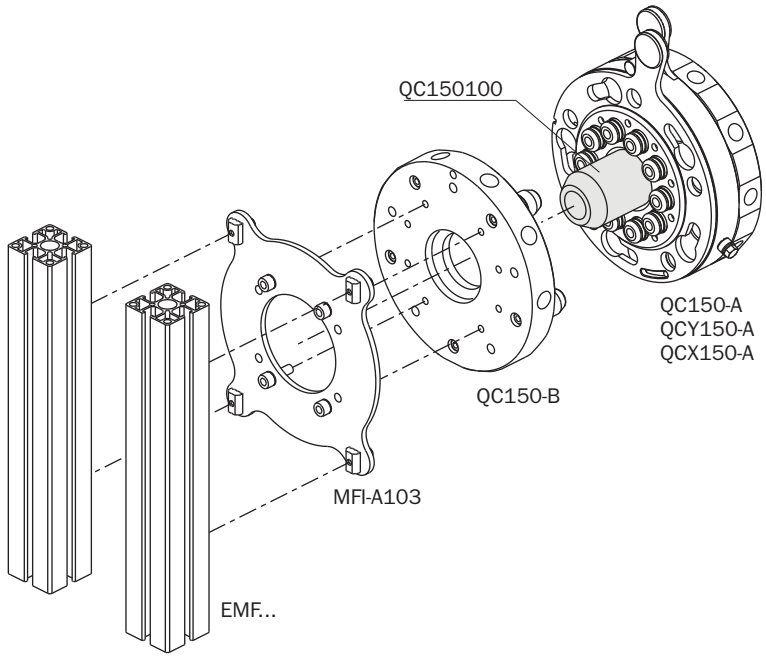
Centering pin

- *To be positioned on the robot side.*
- *It helps the manual centering of heavy EOATs.*





	QC9065	QC150100	QC200120
L	65	100	120
H1	2	2.5	3
H2	5	10	11
H3	5	10	15
D1	Ø18	Ø40	Ø50
D2	Ø8	Ø20	Ø25
D3	Ø20	Ø50	Ø60
D4	Ø14	Ø38.5	Ø43.5

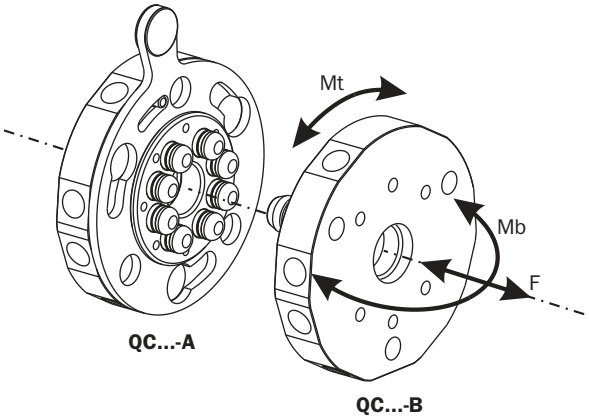


Carichi di sicurezza

Safety loads

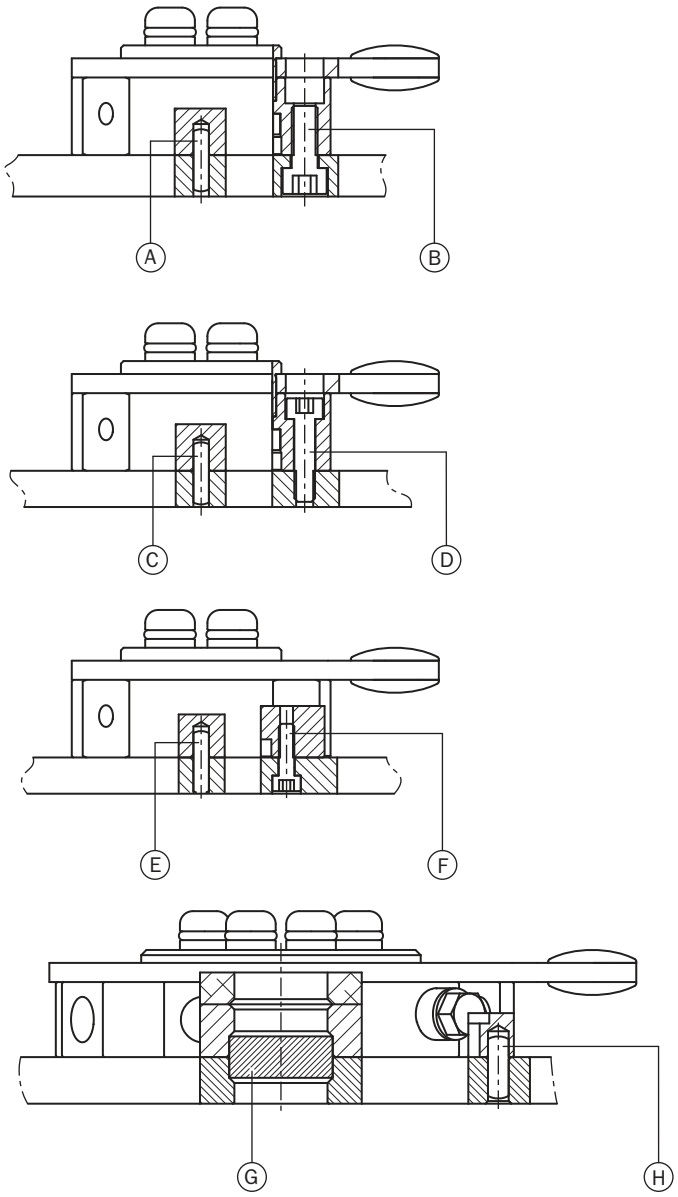
	QC50	QC90	QC150	QC160	QC200
F	350 N	1400 N	3000 N	3000 N	9000 N
Mt	30 Nm	180 Nm	600 Nm	600 Nm	2000 Nm
Mb	15 Nm	100 Nm	350 Nm	350 Nm	1350 Nm
m (*)	5 kg	20 kg	50 kg	50 kg	150 kg

(*)
Massimo carico raccomandato
Maximum recommended load



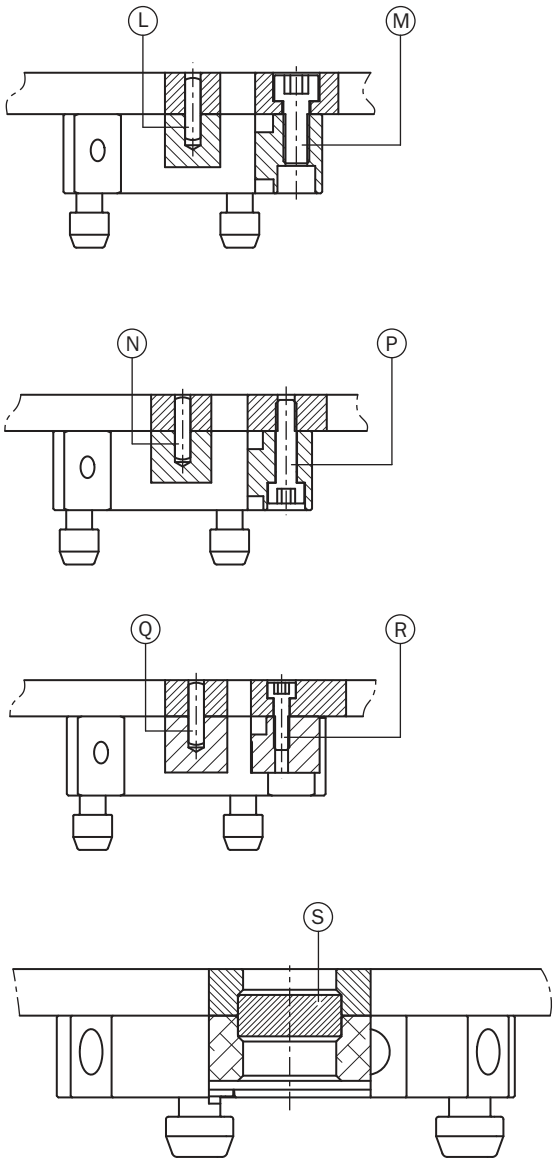
Fissaggio

Lato robot
Robot side



Fastening

Lato pinza
Gripper side



	QC50-A QCY50-A	QC90-A QCX90-A QCY90-A	QC150-A QCX150-A QCY150-A	QC160-A QCX160-A	QC200-A QCX200-A QCY200-A
A	Ø3 (2x)	-	-	-	-
B	M5 (3x)	M8 (3x)	M10 (5x)	M10 (5x)	M10 (6x)
C	Ø3 (2x)	-	-	-	-
D	M4 (3x)	M6 (3x)	M8 (5x)	M8 (5x)	M8 (6x)
E	Ø3 (2x)	-	-	-	-
F	M3 (4x)	M5 (2x)	-	-	-
G	-	Ø20	Ø50	Ø50	Ø60
H	-	Ø4 (1x)	Ø5 (1x)	-	Ø6 (1x)

	QC50-B	QC90-B	QC150-B QCY150-B	QC160-B	QC200-B QCY200-B
L	Ø3 (2x)	-	-	-	Ø6 (1x)
M	M5 (3x)	-	M8 (5x)	M8 (5x)	M10 (6x)
N	Ø3 (2x)	-	-	-	-
P	M4 (3x)	-	M6 (5x)	M6 (5x)	M8 (6x)
Q	Ø3 (2x)	-	-	-	-
R	M3 (4x)	M5 (6x)	M6 (8x)	M6 (8x)	M8 (6x)
S	-	Ø20	Ø50	Ø50	Ø60

QCX
Cambia utensile lato robot con valvola di sicurezza

QCX è equipaggiato con una valvola dell'aria integrata, che chiude automaticamente il flusso di aria compressa (o il vuoto) prima che il sistema sia completamente sganciato (4).

Non è possibile aprire il flusso d'aria, se la flangia non è agganciata (1).

La maniglia rossa sconnette la flangia, ma inoltre muove la maniglia blu tramite la spina nera, che chiude l'aria (2).

Quando il sistema è agganciato il flusso d'aria può essere controllato (on/off) con la maniglia blu (3).

Questa valvola a rubinetto rotante risolve tutti i problemi delle valvole di non ritorno a sfera: l'elevata forza di spinta necessaria per l'aggancio ed i movimenti incontrollati degli attuatori durante lo sganciamento.

QCX è perfettamente compatibile con QC...-B ed ha gli stessi fissaggi di QC...-A, ma con uno spessore maggiore.

QCX
Robot side quick changer with safety valve

QCX is equipped with an integrated air valve, which automatically closes the compressed air (or vacuum) flow before the system is completely disengaged (4).

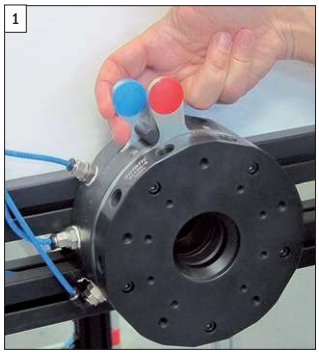
It is not possible to open the air flow, if the flange is not engaged (1).

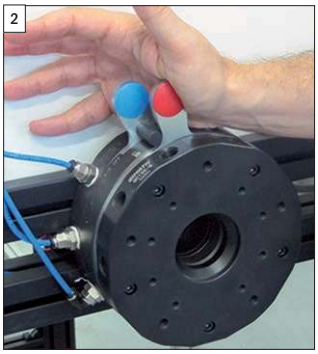
The red handle disengages the flange, but also move the blue handle by the black pin which closes the air (2).

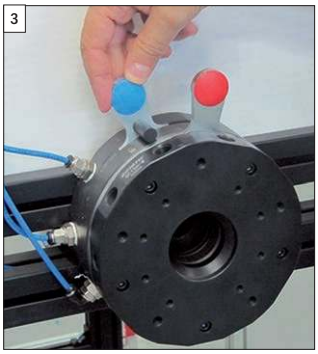
When engaged the air flow can be controlled (on/off) by the blue handle (3).

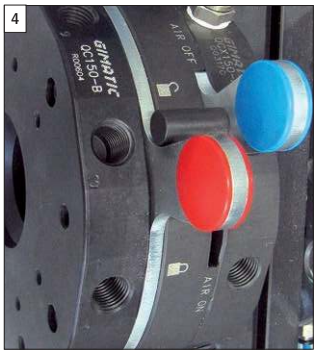
This rotating tap valve solves all the problems of ball valve systems: the high pushing force necessary for engaging and the uncontrolled movements of the actuators when disengaging.

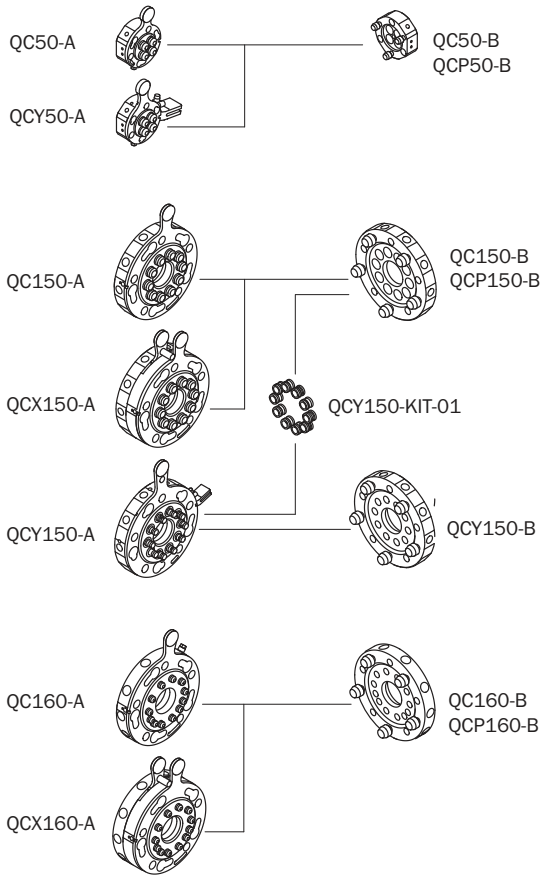
QCX perfectly fit with QC...-B and it has the same mounting pattern of a QC...-A, but with a larger thickness.

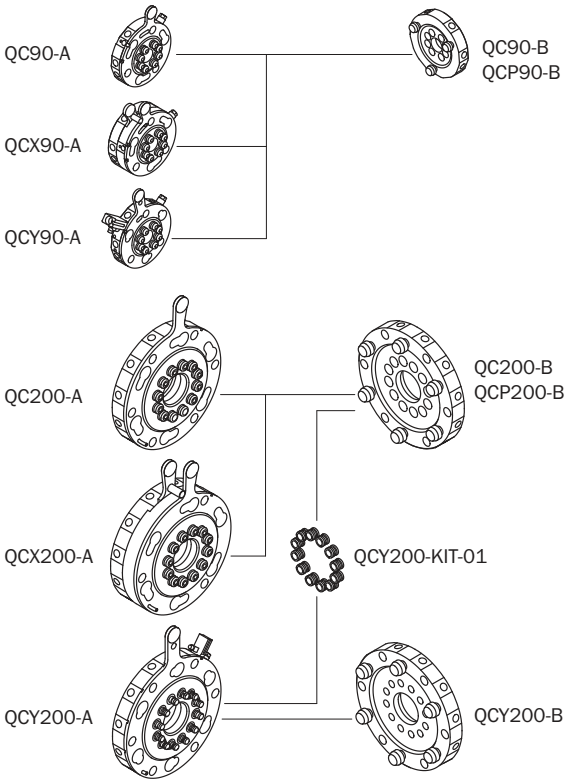












QCY
Cambia utensile lato robot con valvola automatica

QCY è equipaggiato con una valvola dell'aria integrata che chiude automaticamente il flusso dell'aria compressa (o il vuoto) prima che il sistema sia completamente sganciato.
Anche l'apertura del flusso di aria compressa (o del vuoto) è automatica e successiva al completo agganciamento.
Quindi a differenza del QCX una sola maniglia è sufficiente.
Questo riduce le dimensioni del QCY che è intercambiabile con il QC...-A e compatibile con il QC...-B.
Anche questa valvola è a rubinetto rotante e quindi non richiede una forza di spinta elevata per l'aggancio e non causa movimenti incontrollati durante lo sganciamento. Un circuito di sfiato mette in comunicazione con l'atmosfera gli utensili pneumatici a bordo del QC...-B prima che lo sganciamento sia completato.

QCY
Robot side quick changer with automatic valve

The QCY features a built-in air valve, which automatically cuts off the compressed air flow (or vacuum) before the system is completely disengaged.
The opening of the compressed air flow (or vacuum) is also automatic and follows the complete engagement.
Therefore, unlike the QCX, a single handle is sufficient.
This reduces the dimensions of the QCY which is interchangeable with the QC...-A and compatible with the QC...-B.
Also this valve is with rotating tap and therefore does not require a high pushing force for the engagement and does not cause uncontrolled movements during the disengagement. An exhaust circuit connects the pneumatic tools on the QC...-B with the external atmosphere before the disengagement is completed.

QCY-KIT

Il KIT di trasformazione permette di rendere compatibili i modelli QC150-B e QC200-B con i nuovi cambia utensile QCY150-A e QCY200-A.
ATTENZIONE: il QC...-B non sarà più compatibile con i modelli QC...-A e QCX...-A dopo aver assemblato il KIT di trasformazione.

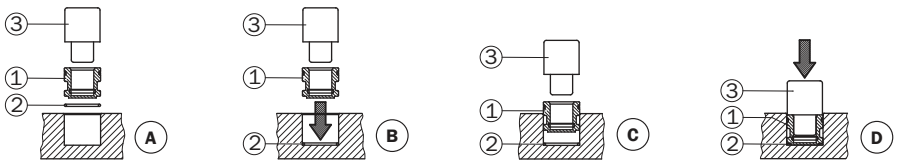
QCY-KIT

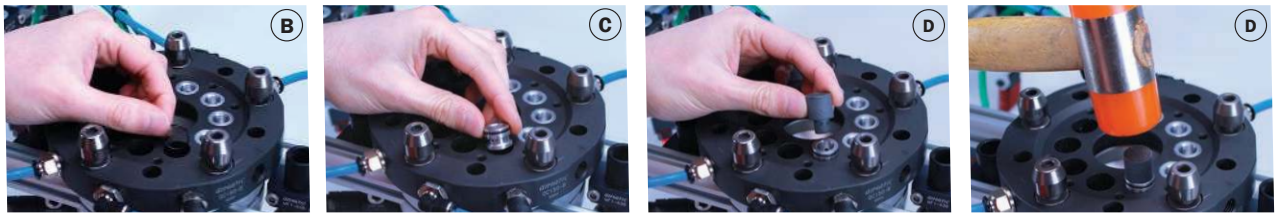
The transformation KIT makes the QC150-B and QC200-B models compatible with the new QCY150-A and QCY200-A quick changers.
ATTENTION: the QC...-B will no longer be compatible with the QC...-A and QCX...-A models after assembling the transformation KIT.

QCY...-A	QC...-B	KIT
QCY150-A	QC150-B, QCP150-B	QCY150-KIT-01
QCY200-A	QC200-B, QCP200-B	QCY200-KIT-01

Procedura di assemblaggio:
- Posizionare l'EOAT su una superficie che ne assicuri la stabilità.
- Pulire i fori del QC...-B dalla presenza di eventuale grasso.
- Introdurre gli o-ring (2) presenti nel KIT in ognuno nei fori del QC...B, accertandosi che siano inseriti a fondo (come da Fig. B).
- Introdurre la boccola di riduzione (1) con il lato aperto rivolto verso l'alto sul foro del QC...B (come da Fig. C).
- Posizionare la spina di inserimento (3) presente nel KIT nella boccola di riduzione.
- Mediante una mazzetta in plastica, inserire la boccola nel QC...--B facendo attenzione a mantenerla perpendicolare durante l'operazione (come da Fig. D). Una porzione eccedente di o-ring potrebbe essere tagliata durante l'operazione.
- Controllare che la boccola di riduzione (1) sia inserita fino in battuta: non deve sporgere rispetto al piano del QC...-B.
- Ripetere le operazioni precedenti per assemblare le altre boccole di riduzione nei fori rimanenti del QC...-B.

Assembly procedure:
- *Place the EOAT on a surface that ensures its stability.*
- *Clean the holes of the QC...-B from the presence of any grease.*
- *Introduce the o-rings (2) present in the KIT into each holes of the QC...-B, making sure that they are inserted fully (as shown in the Pic. B).*
- *Insert the reduction bushing (1) with the open side facing up on the hole of the QC...-B (as shown in the Pic. C).*
- *Place the insertion pin (3) in the KIT into the reduction bushing.*
- *Using a plastic hammer, insert the bushing into the QC...-B taking care to keep it perpendicular during the operation (as shown in the Pic. D). An excess portion of the o-ring could be cut off during the operation.*
- *Make sure that the reduction bushing (1) is in contact with the bottom of the hole: it must not protrude from the plane of the QC...-B.*
- *Repeat the previous steps to assemble the other reduction bushings in the remaining holes of the QC...-B.*





QCP

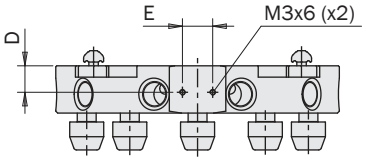
Cambia utensile lato pinza con flangia integrata

- L'interfaccia per le travi in alluminio è integrata.
- Peso ridotto.
- Gioco ridotto.
- Stesse dimensioni.

QCP

Gripper side quick changer with integrated flange

- *The interface for the aluminum beams is integrated.*
- *Reduced weight.*
- *Reduced backlash.*
- *Same dimensions.*

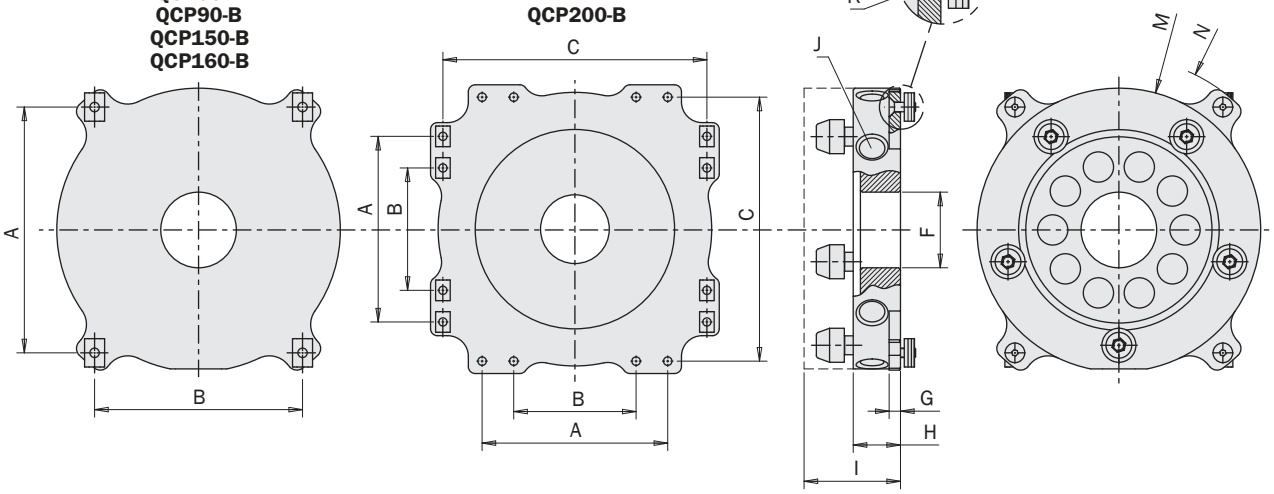


QCP90-B

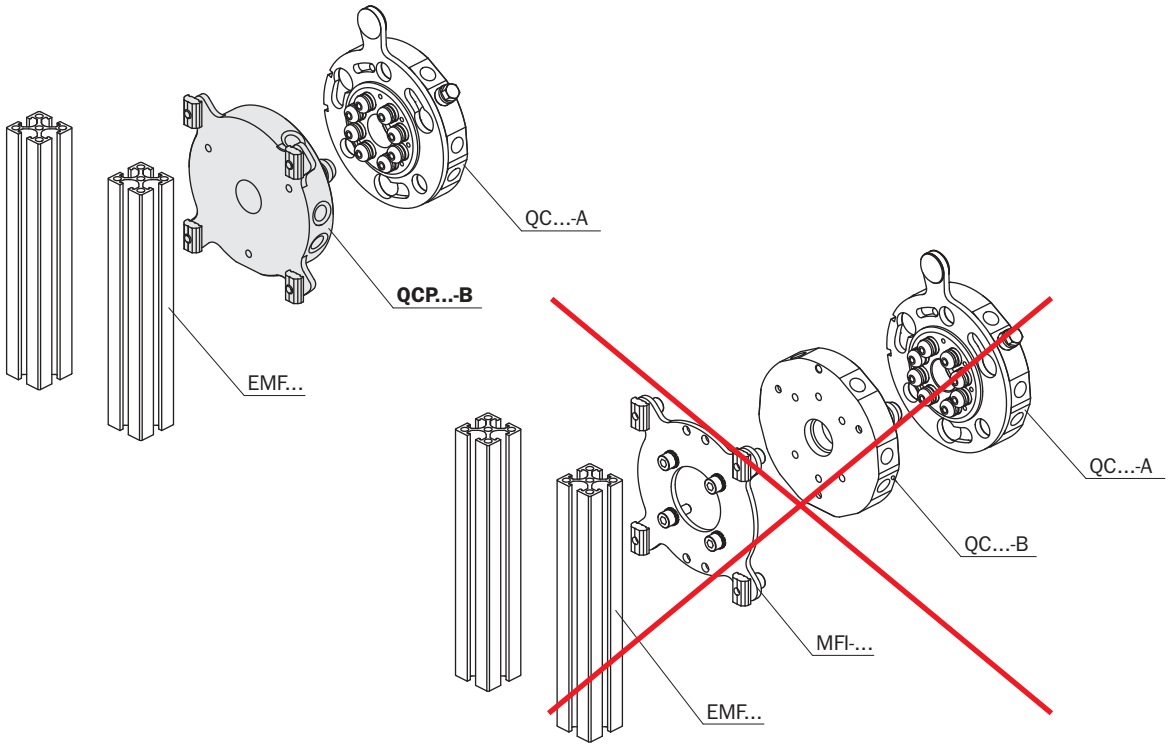


QCP50-B
QCP90-B
QCP150-B
QCP160-B

QCP200-B



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Peso *Weight*
QCP50-B	50	32	-	13	7	Ø4	4	19.3	38	M5 (x4)	M4 (x4)	7.4	Ø50	Ø71.5	110 g
QCP90-B	76	76	-	7	16	Ø18	4	18.8	37	G1/8 (x8)	M5 (x4)	7.4	Ø90	Ø99.5	315 g
QCP150-B	130	110	-	14	16	Ø40	6	25	51	G1/4 (x10)	M5 (x4)	7.4	Ø 150	Ø183	1092 g
QCP160-B	130	110	-	14	16	Ø40	6	25	51	G1/8 (x12)	M5 (x4)	7.4	Ø 150	Ø183	1150 g
QCP200-B	135	89	192	22	16	Ø50	8	33	64	G1/4 (x12)	M6 (x16)	7.4	Ø 200	Ø257	2400 g



QCA

Canali dell'aria aggiuntivi

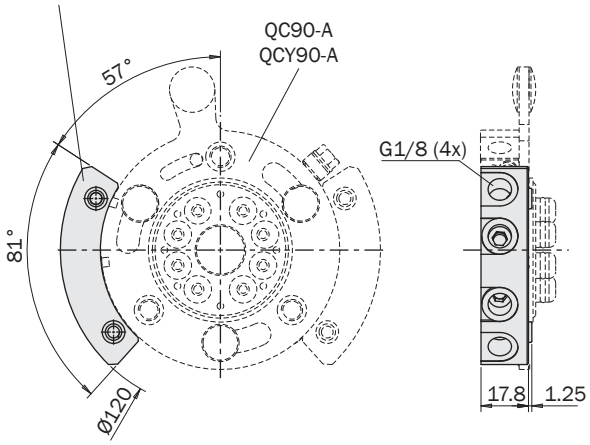
- Accessori per aggiungere 2 o 4 canali dell'aria.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Lo stesso accessorio può essere usato sul lato destro o sul lato sinistro.
- Adatti per il vuoto e per l'aria compressa.
- Due canali con portata elevata per ogni accessorio.

QCA

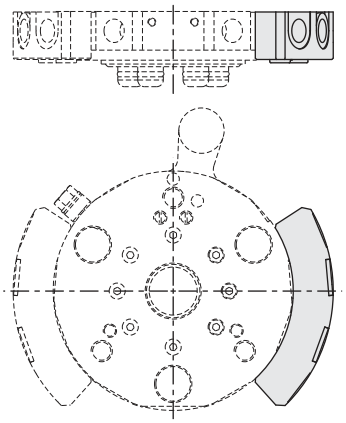
Additional air ports

- *Accessories for adding 2 or 4 extra air ports.*
- *The two parts (robot side and gripper side) are supplied separately.*
- *The accessory can be used on the left or on the right side.*
- *Suitable for vacuum and compressed air.*
- *Two high-flow air ports for each accessory.*

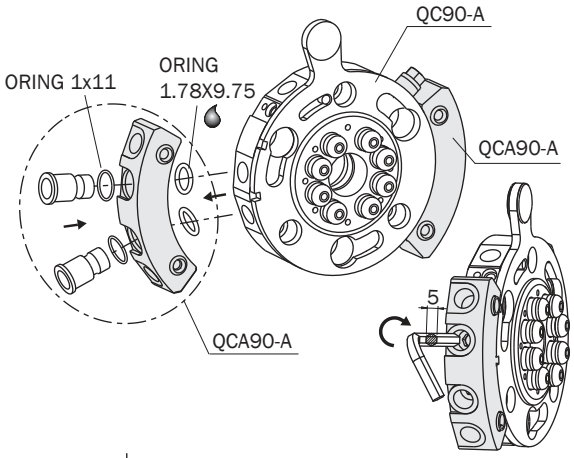
QCA90-A



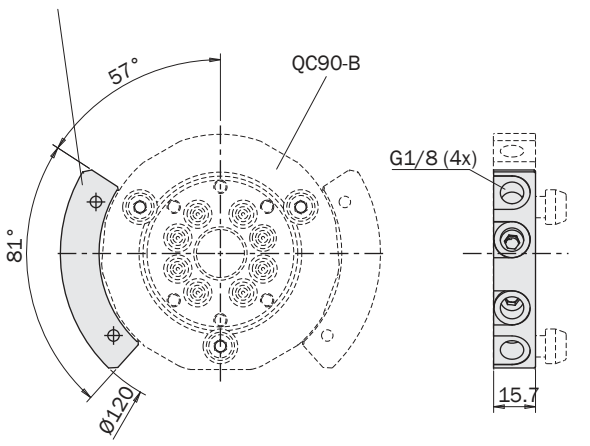




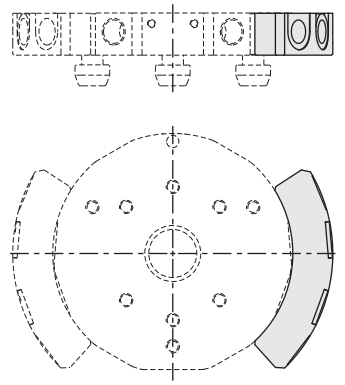
QCA90-A	
Peso *Weight*	53 g



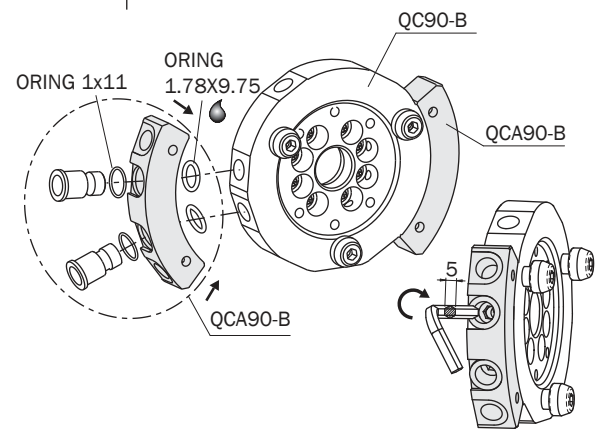
QCA90-B







QCA90-B	
Peso *Weight*	53 g



LOQC

Unità di blocco per cambia utensili QC

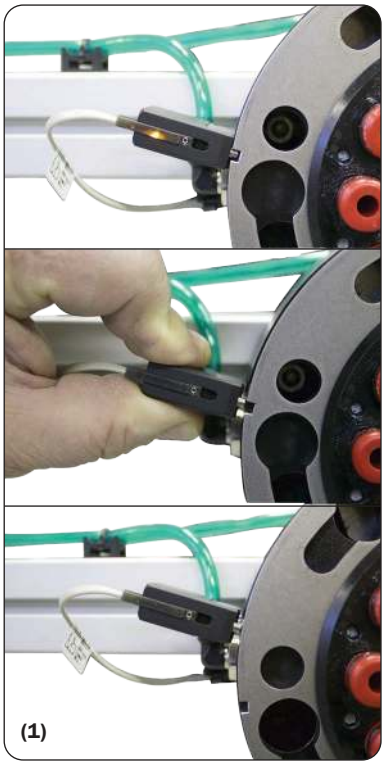
- Accessorio opzionale adatto per QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Di serie su QCY50-A, QCY90-A, QCY150-A, QCY200-A.
- Evita la caduta accidentale dell'EOAT.
- Sicurezza meccanica: blocca la maniglia del cambia utensile, solo se correttamente agganciata (1).
- Sicurezza elettrica: emette un segnale elettrico, solo quando è bloccata (2). Questo segnale darà il consenso per il movimento del robot. In caso di aggancio non corretto, o di un urto distruttivo sul LOQC, o di un guasto elettrico del sensore, il segnale cessa ed il robot si ferma.
- Sensore magnetico (tipo SS) (3) o induttivo (tipo SI) (4) fornito a parte.

LOQC

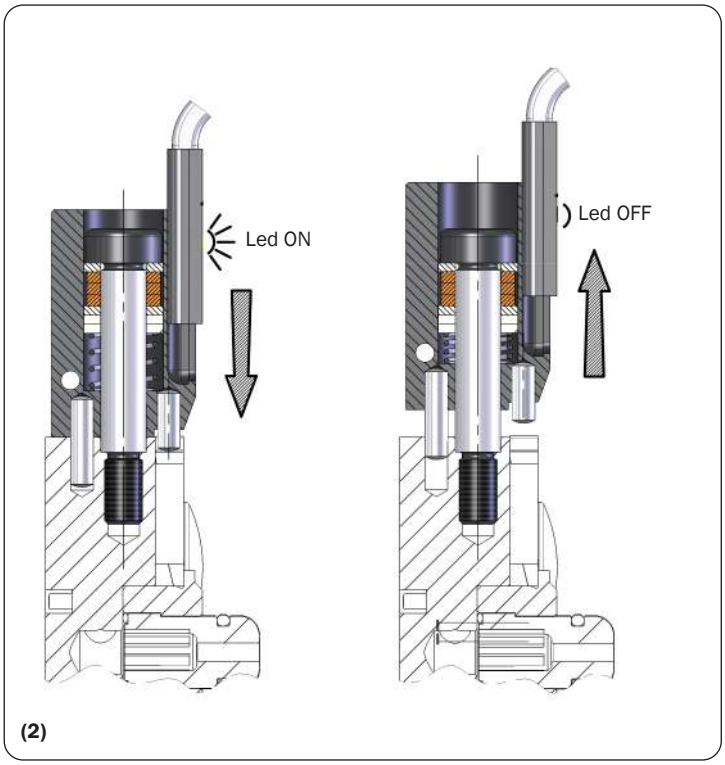
Lock unit for QC quick changers

- *Option suitable for QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.*
- *Standard on QCY50-A, QCY90-A, QCY150-A, QCY200-A.*
- *It prevents accidental falling of the EOAT.*
- *Mechanical safety: it locks the handle of the quick changer, only when correctly engaged (1).*
- *Electrical safety: it emits an electric signal, only when locked (2). This signal will give the consent to the movement of the robot. In the case of incorrect engagement, or destructive impact on the LOQC, or electrical fault of the sensor, the signal drops out and the robot stops.*
- *Magnetic (SS type) (3) or inductive (SI type) (4) sensor supplied a part.*

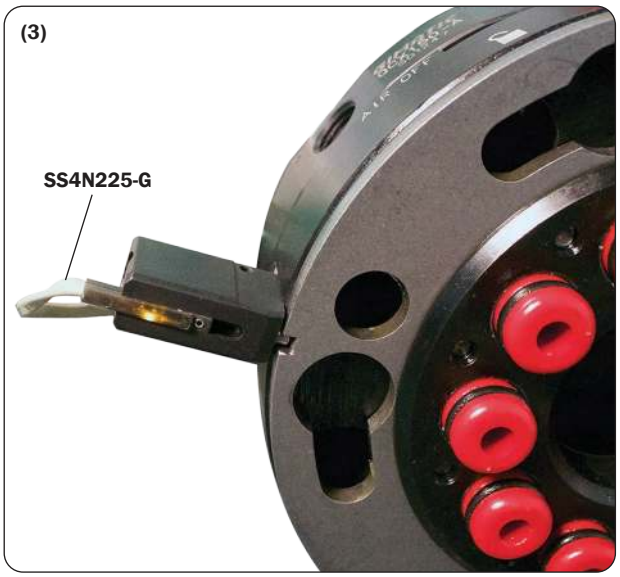
	LOQC
Peso *Weight*	20 g



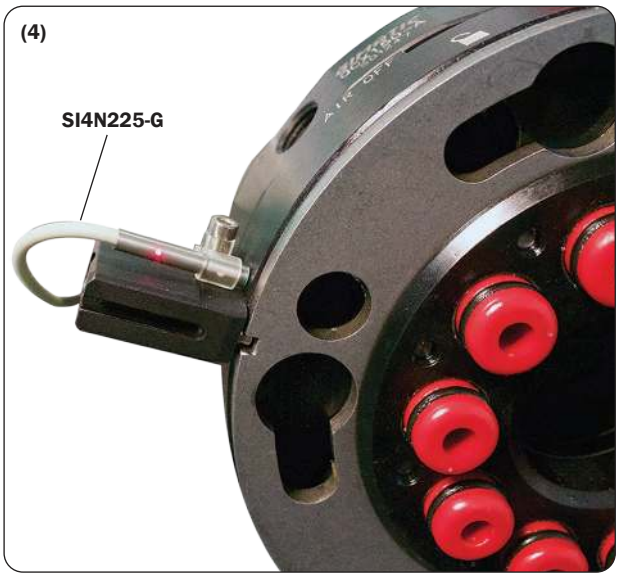
(1)



(2)



(3)



(4)

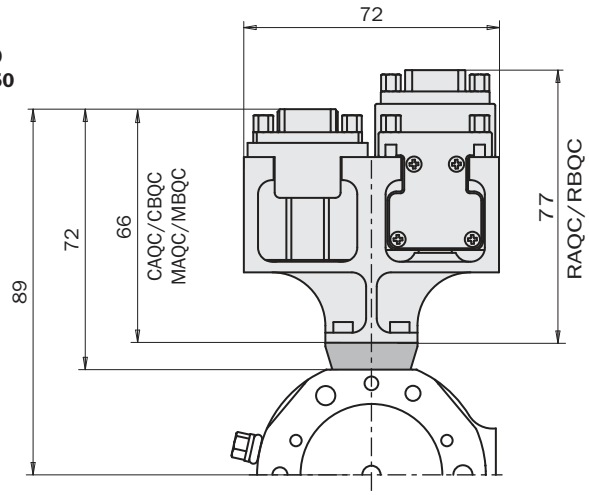
Staffa

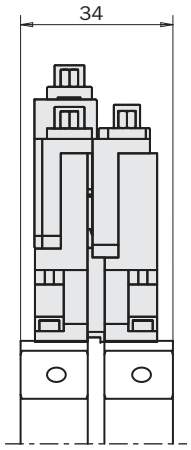
CQC-012 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

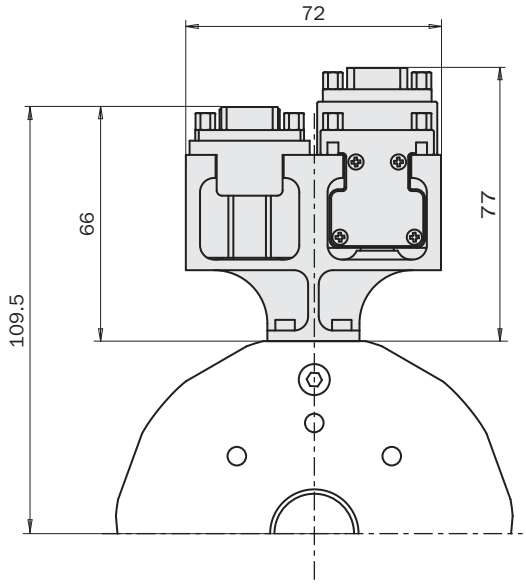
CQC-012 (robot side).
CQC-013 (gripper side).

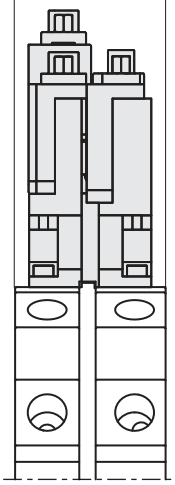
QC50
QCY50



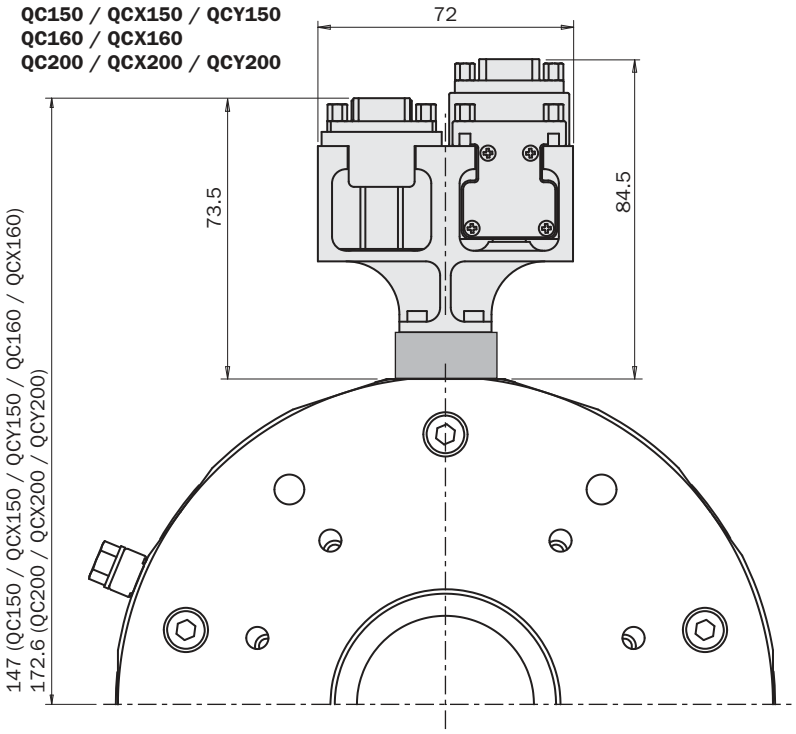


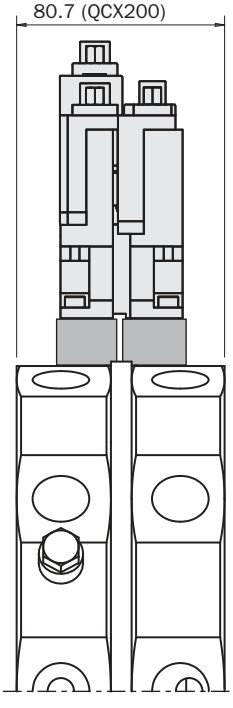
QC90
QCX90
QCY90





QC150 / QCX150 / QCY150
QC160 / QCX160
QC200 / QCX200 / QCY200



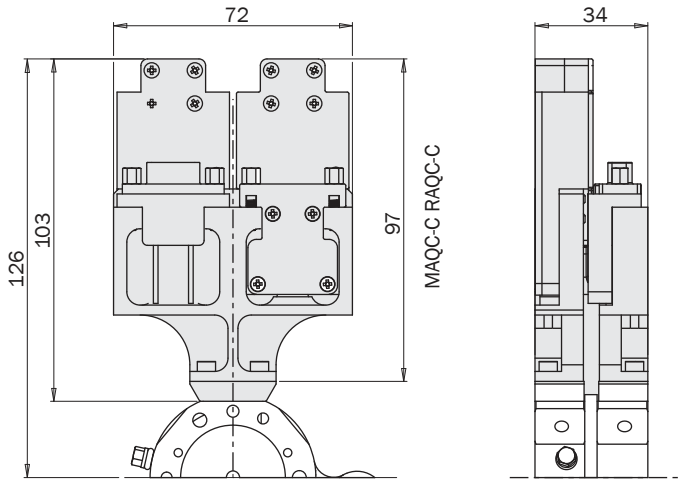


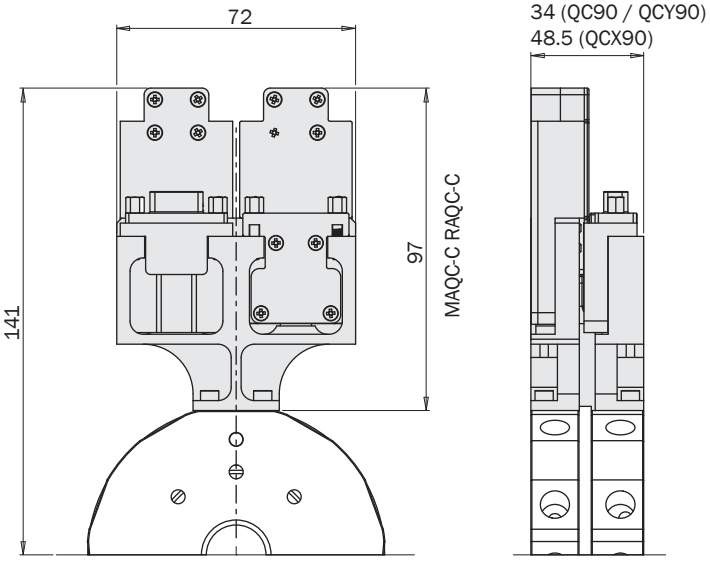
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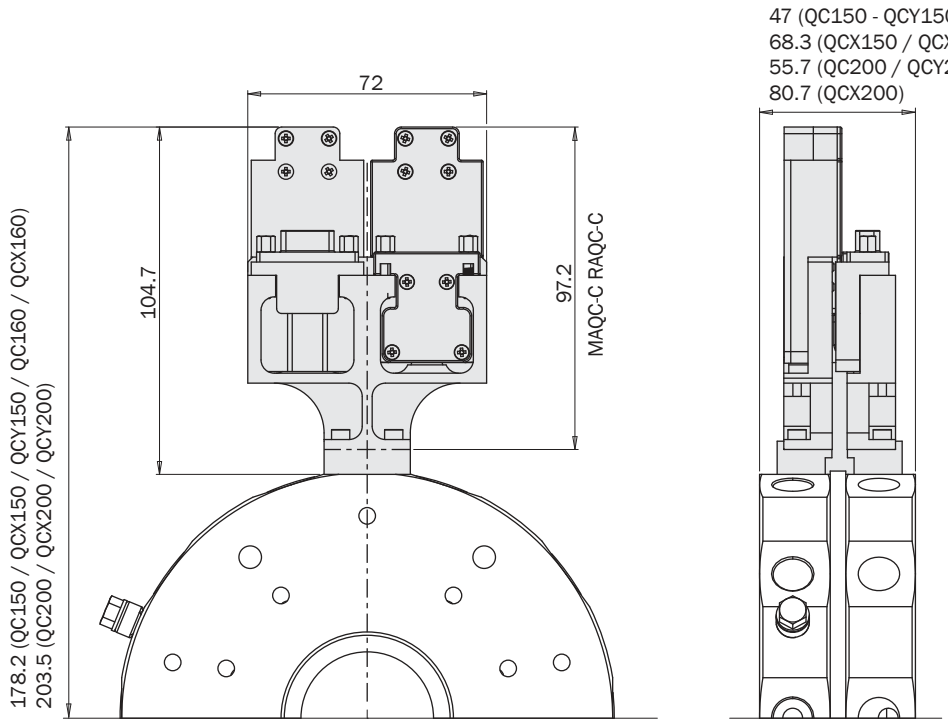
CQC-017 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

CQC-017 (robot side).
CQC-013 (gripper side).





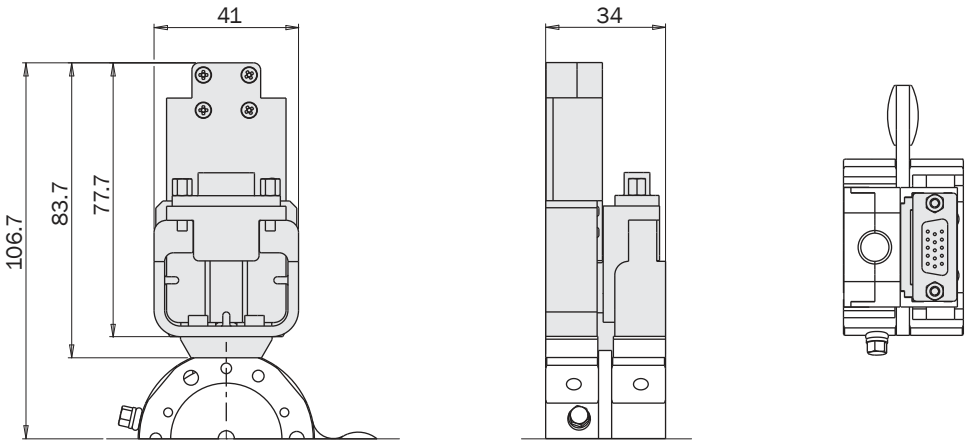


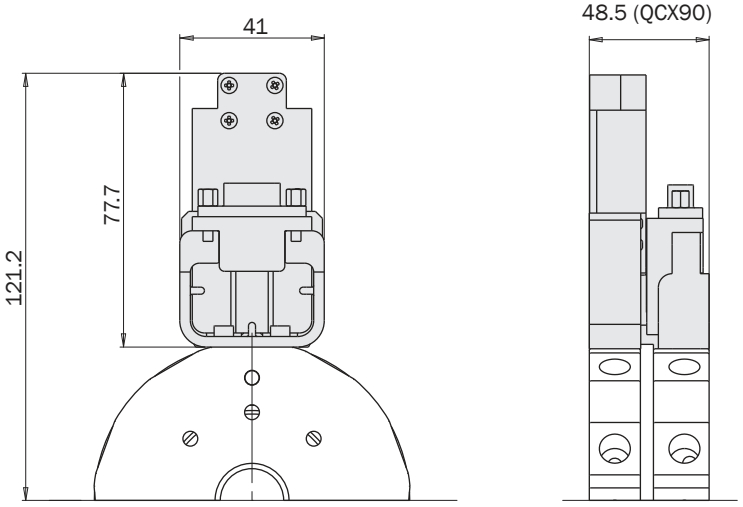
Staffa

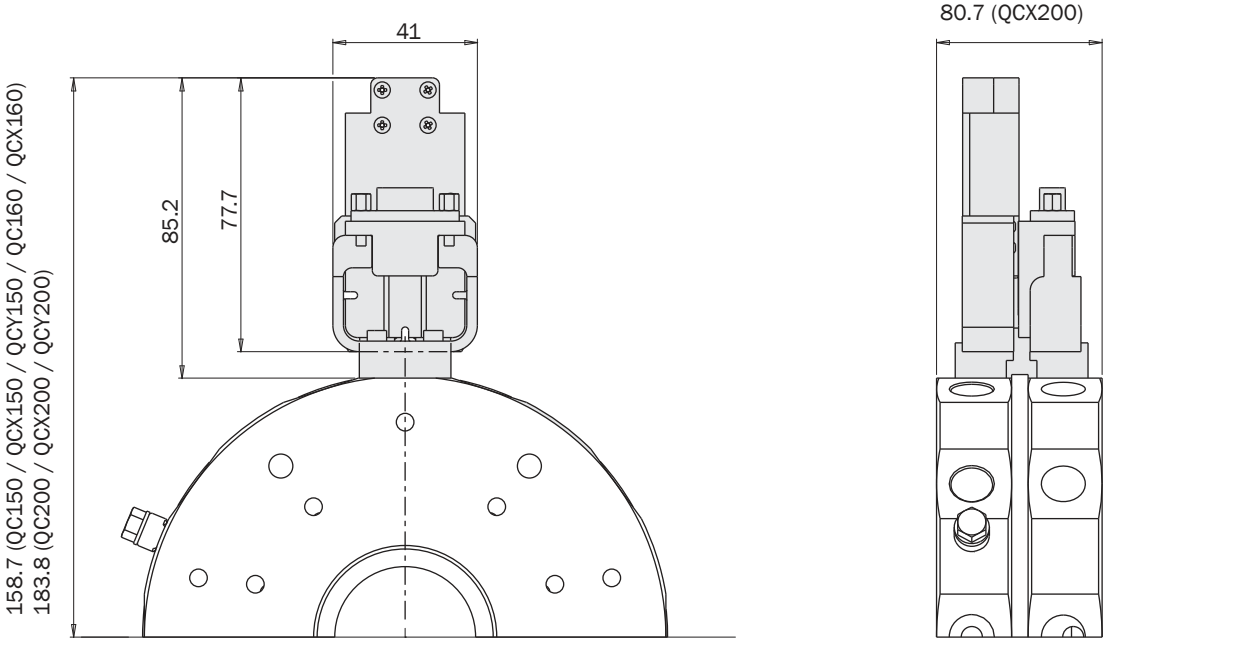
CQC-019 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

CQC-019 (robot side).
CQC-013 (gripper side).







AQC

Attuatore pneumatico per cambia utensile QC

- Aiuta l'operatore in fase di rimozione manuale, quando l'accesso alla maniglia è reso difficile dall'ingombro dell'EOAT.
- Sensori opzionali tipo SS-G per la posizione del pistone (1) e sensori opzionali tipo SI4 per la prossimità del lato pinza QC...-B (2).
- Compatibile con QC90-A e QC150-A senza LOQC (3).

AQC

Pneumatic actuator for quick changer QC

- *It assists in the manual operator removal process of large sized EOAT which can sometimes limit access to QC Lock Lever.*
- *Optional sensors series SS-G to detect the piston position (1) and optional sensors series SI4 to detect the proximity of the QC...-B gripper side (2).*
- *Compatible with QC90-A and QC150-A without LOQC (3).*

	AQC90	AQC150
Peso *Weight*	560 g	1480 g



AQC90



AQC150

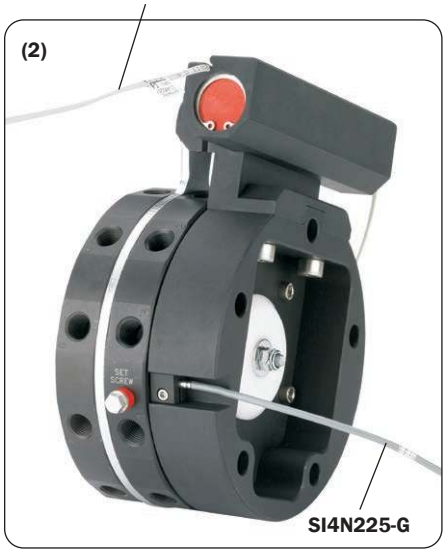
SS4N225-G

(1)



SS4N225-G

(2)



SI4N225-G

(3)

AQC150+QC150

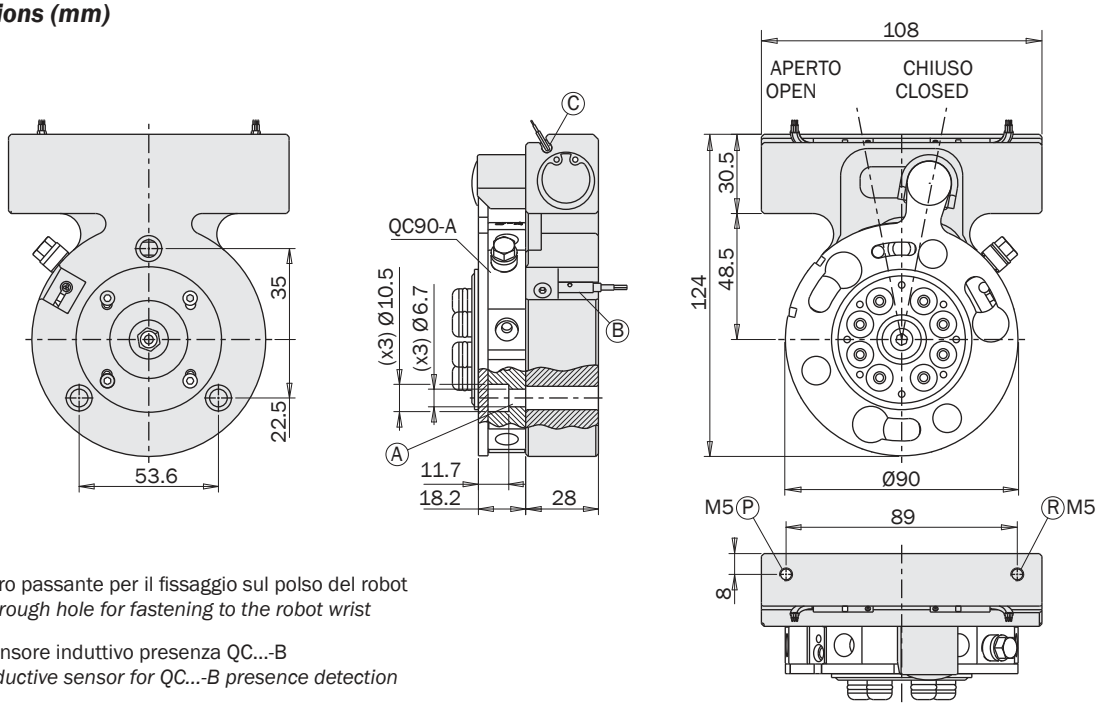


AQC90+QC90



Dimensioni (mm)
Dimensions (mm)

AQC90

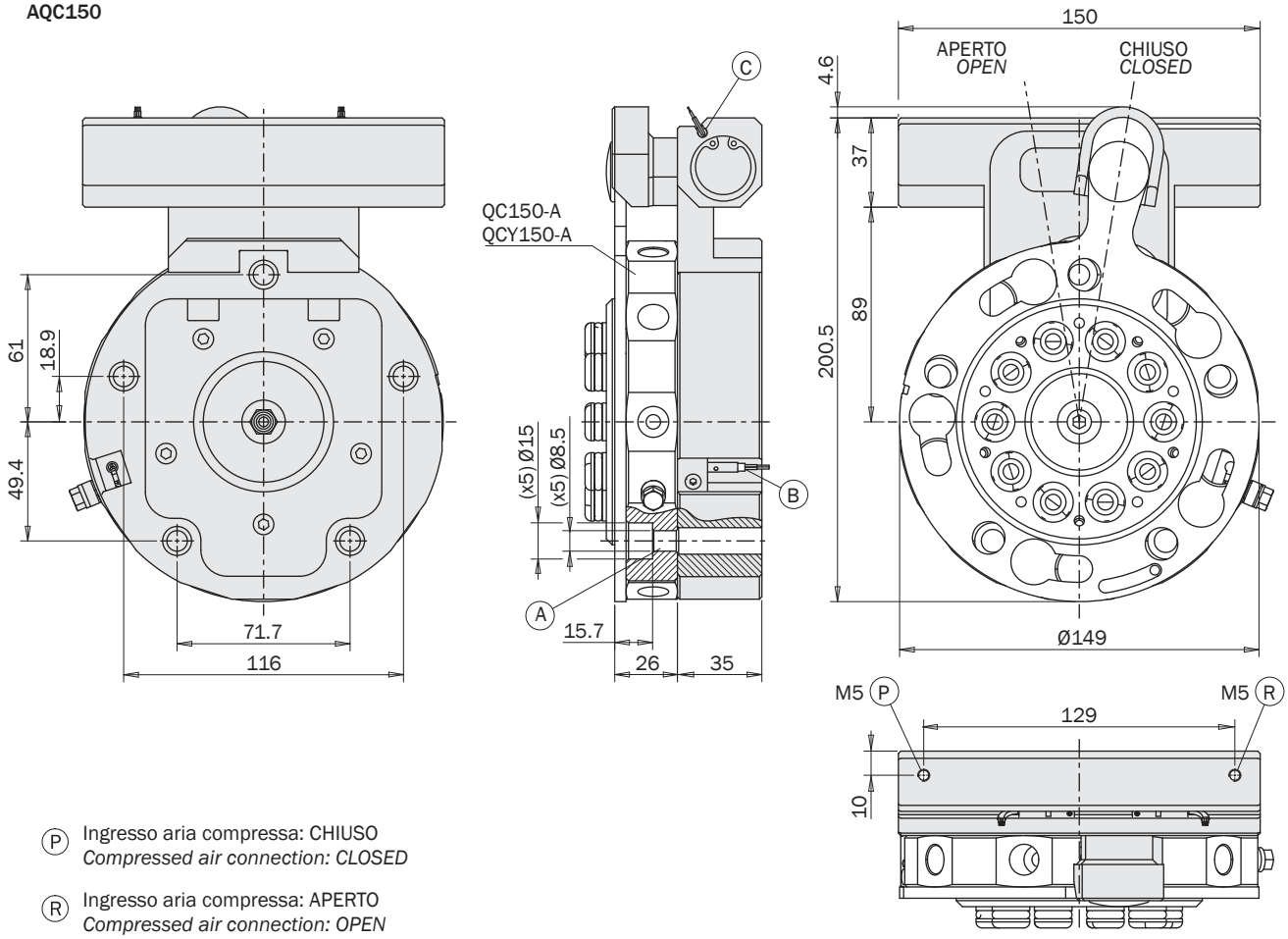


Ⓐ Foro passante per il fissaggio sul polso del robot
Through hole for fastening to the robot wrist

Ⓑ Sensore induttivo presenza QC...-B
Inductive sensor for QC...-B presence detection

Ⓒ Sede per sensori serie SS
Slot for SS series sensors

AQC150



Ⓟ Ingresso aria compressa: CHIUSO
Compressed air connection: CLOSED

Ⓡ Ingresso aria compressa: APERTO
Compressed air connection: OPEN

FIRST ANGLE PROJECTION

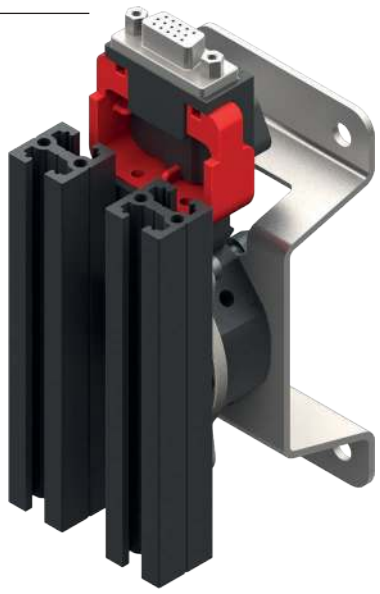
Magazzino per QC50-B

QC50-B Storage

	QC50-H
Peso *Weight*	122 g

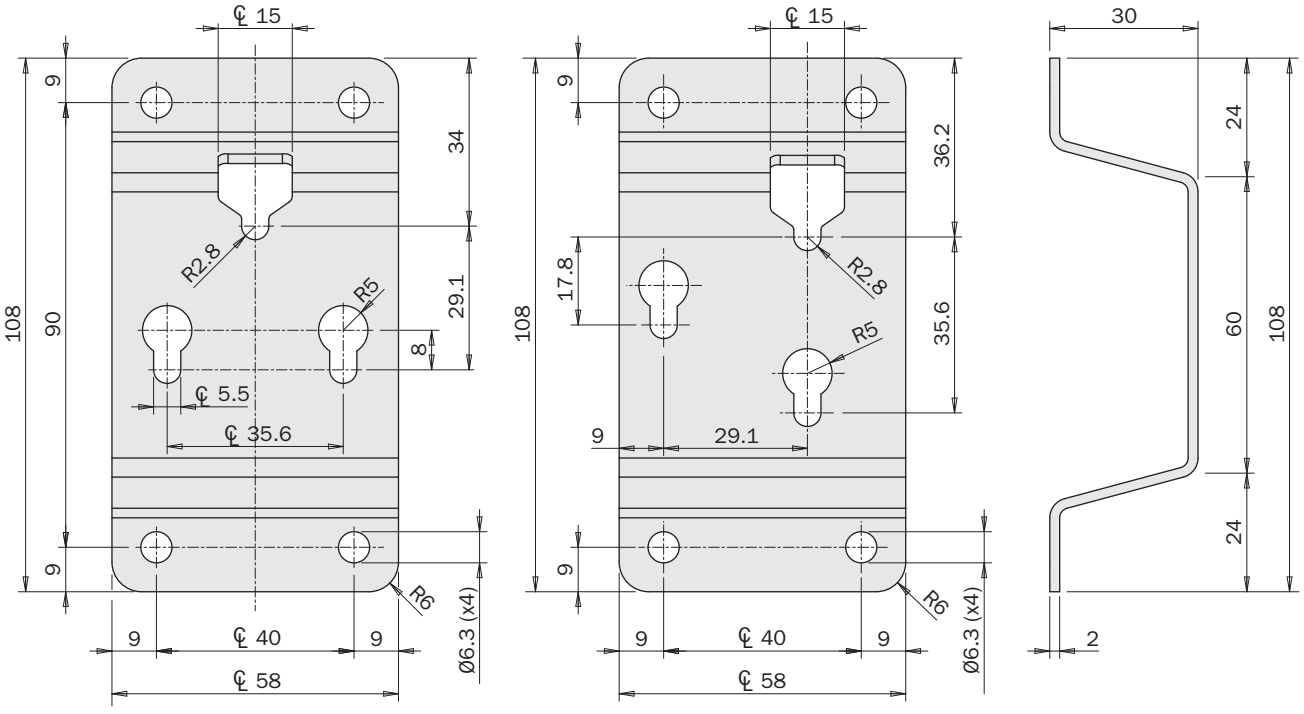


	QC50-V
Peso *Weight*	122 g



Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



QC50-H **QC50-V**

Magazzino per QC90-B

QC90-B Storage

	QC90-H
Peso *Weight*	270 g

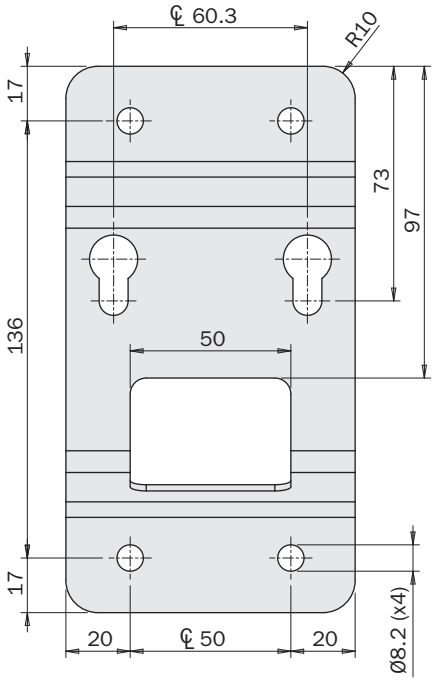


	QC90-V
Peso *Weight*	289 g

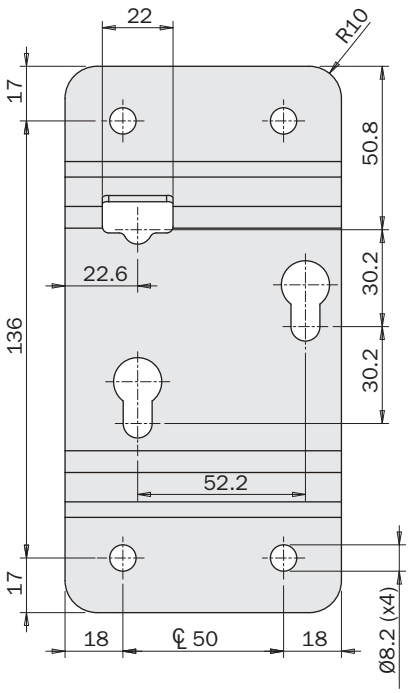


Dimensioni (mm)
Dimensions (mm)

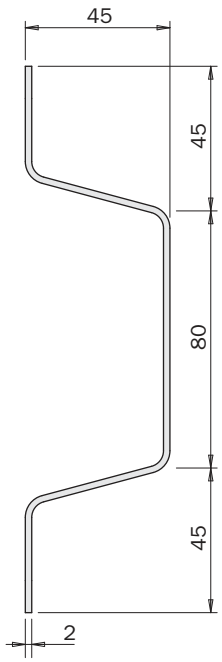
FIRST ANGLE PROJECTION



QC90-H



QC90-V



Magazzino per QC150-B/QC160-B

QC150-B/QC160-B *Storage*

	QC150-H
Peso *Weight*	752 g

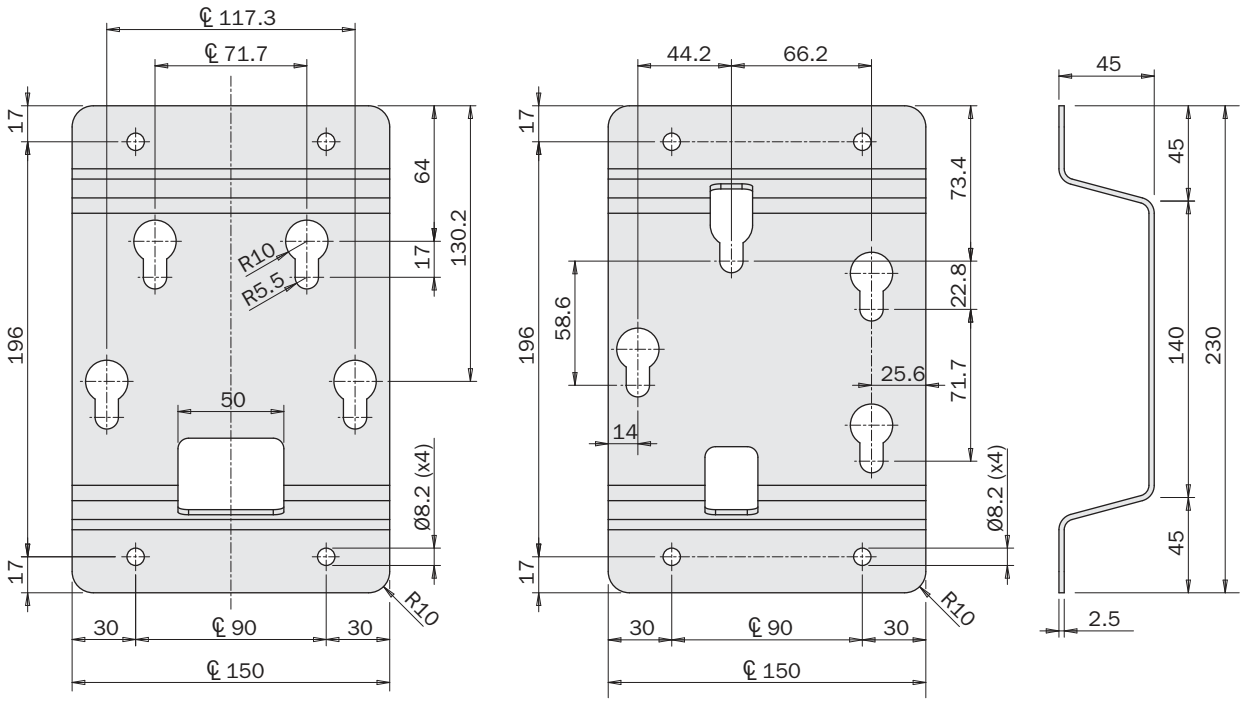


	QC150-V
Peso *Weight*	747 g



Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



QC150-H **QC150-V**

Magazzino per QC200-B

QC200-B *Storage*

	QC200-H
Peso *Weight*	1156 g

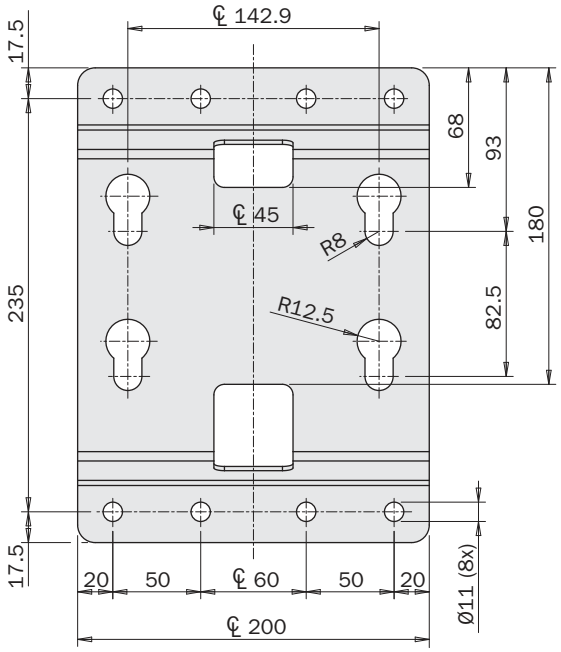


	QC200-V
Peso *Weight*	1177 g

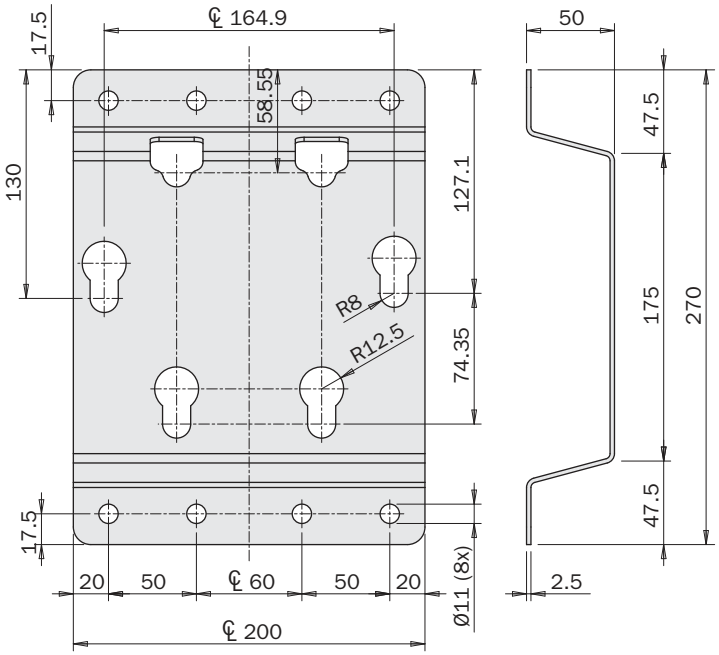


Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



QC200-H



QC200-V

MCQC

Moduli di connessione elettrica

- 15 connessioni elettriche Ø1 mm.
- Le due parti sono fornite separatamente:
  PMAQC/PAQC/MAQC/CAQC - lato robot;
  PMBQC/PBQC/MBQC/CBQC - lato pinza.

Electrical connection modules

- *15 pins Ø1 mm.*
- *The two parts are supplied separately:*
  PMAQC/PAQC/MAQC/CAQC - robot side;
  PMBQC/PBQC/MBQC/CBQC - gripper side.

CAQC



CBQC



MAQC Connettori a molla *Spring connectors*



MBQC Connettori a molla *Spring connectors*



PAQC



PBQC



PMAQC Connettori a molla *Spring connectors*



PMBQC Connettori a molla *Spring connectors*



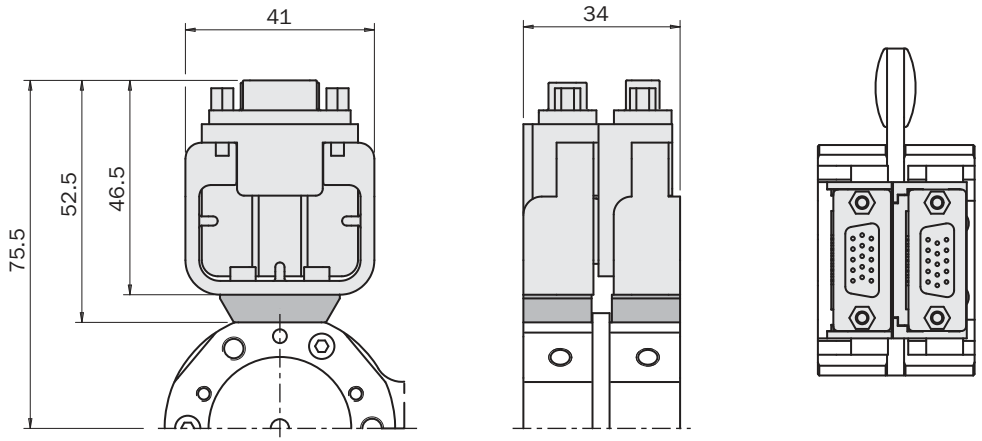
	CAQC	CBQC	MAQC	MBQC	PAQC	PBQC	PMAQC	PMBQC
Tipo di connessione I/O *I/O connection type*	15 pin D-SUB - Connettore alta densità - Tipo VGA *15 pins D-SUB - High density connector - VGA type*				15 pin *15 pins*			
Corrente d'esercizio *Working Current*	2 A (0.5A assoluto con CEQC-A, CEQC-B) *2A (0.5A absolute value with CEQC-A, CEQC-B)*				3A		0.5	
Tensione di scarica *Break down voltage*	0 ÷ 250 Vac							
Temperatura di esercizio *Temperature range*	-55°C ÷ +105°C							
Contatti *Contact*	Dorati *Gold plated*							
Massima sezione dei conduttori *Maximum conductor cross-section*	-				AWG28			
Diametro esterno massimo del cavo *Maximum cable outer diameter*	-				7 mm			

07/2026

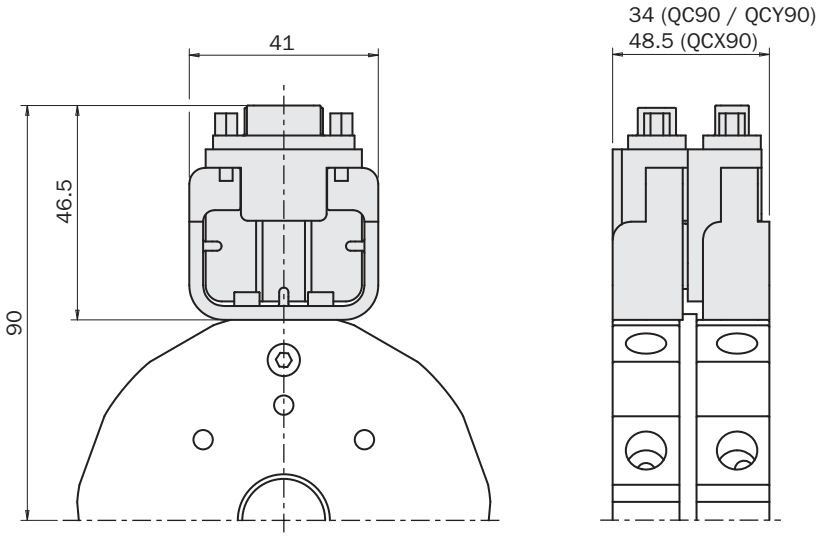
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION

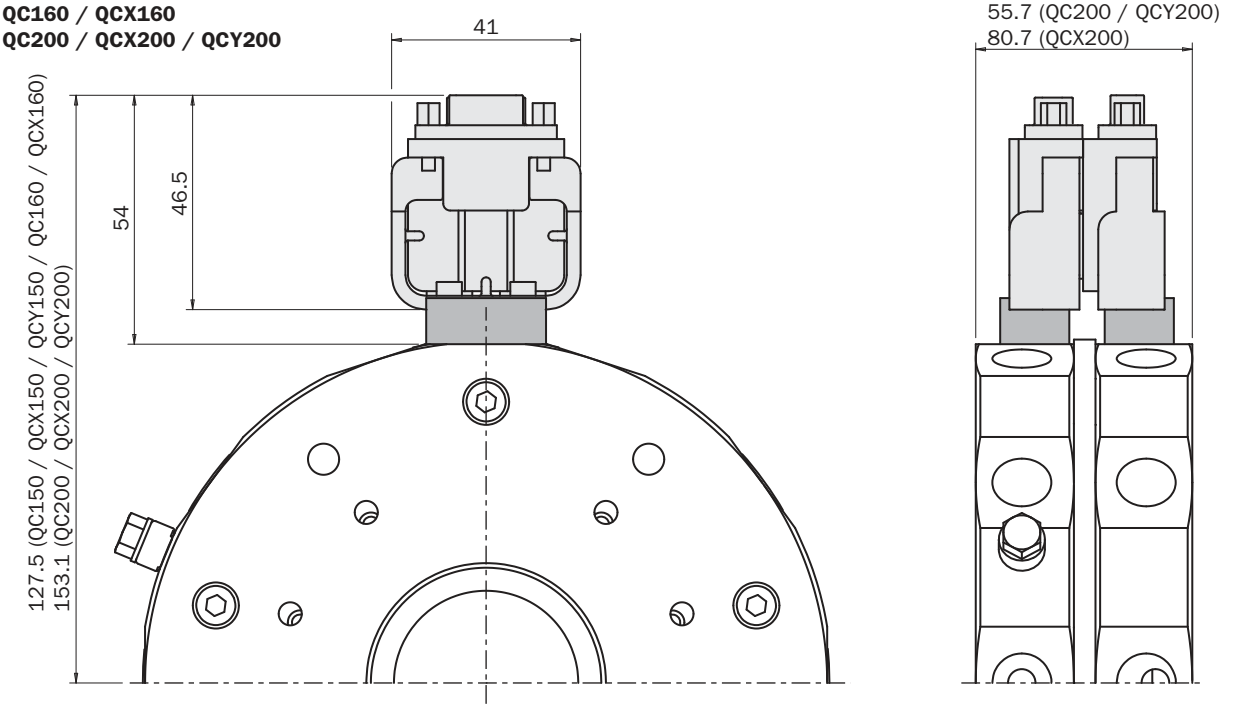
QC50
QCY50



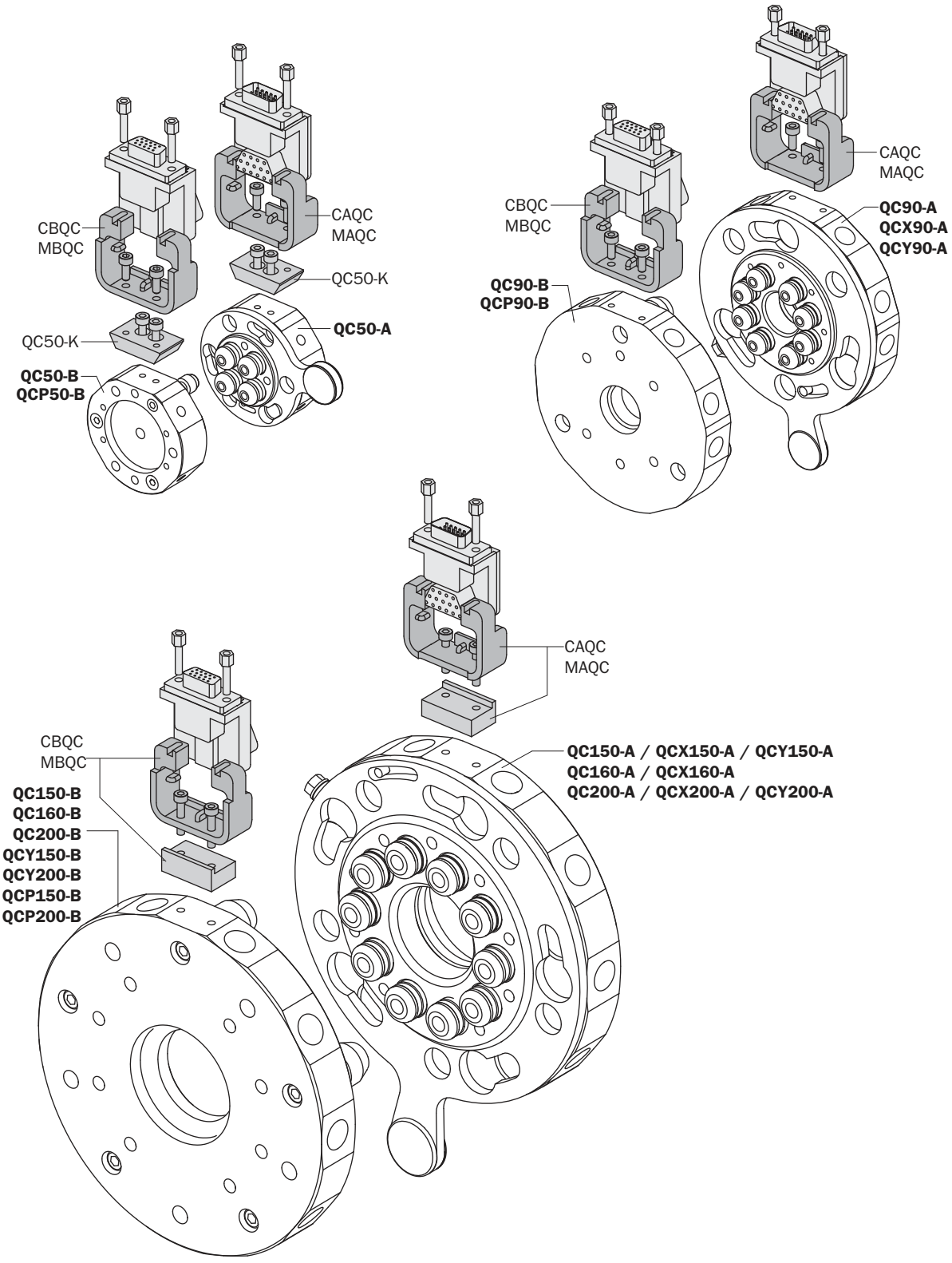
QC90
QCX90
QCY90



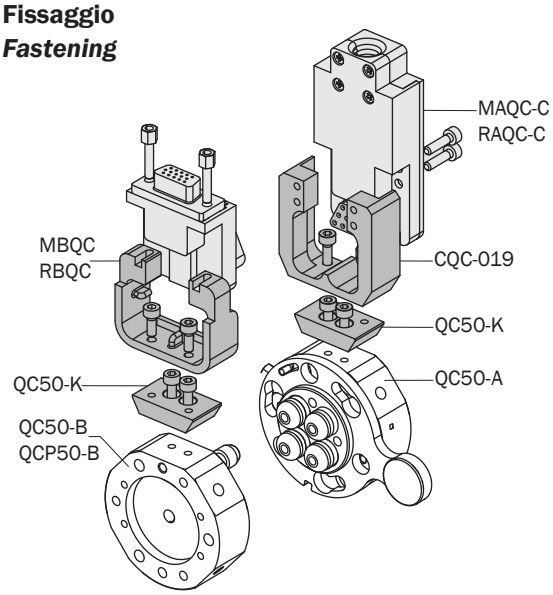
QC150 / QCX150 / QCY150
QC160 / QCX160
QC200 / QCX200 / QCY200

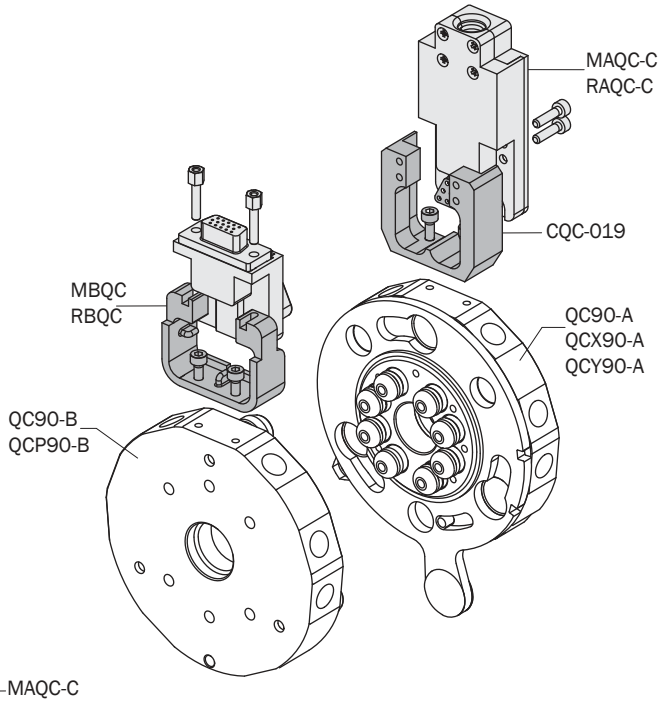


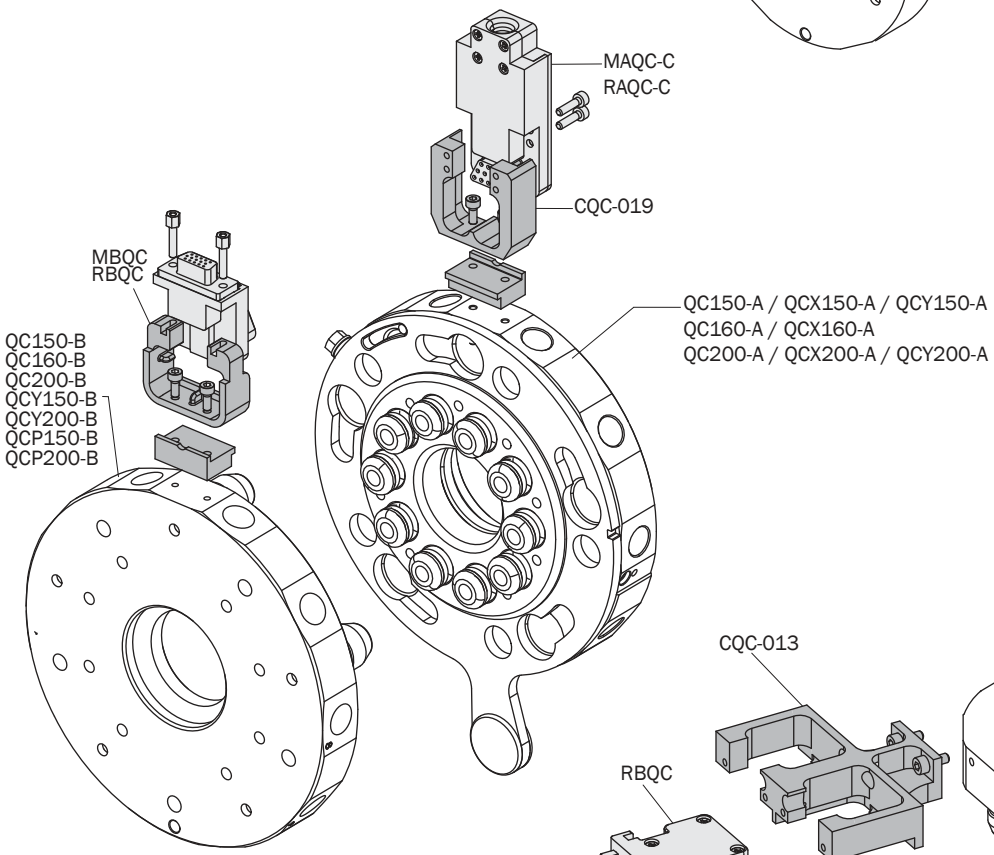
Fissaggio
Fastening

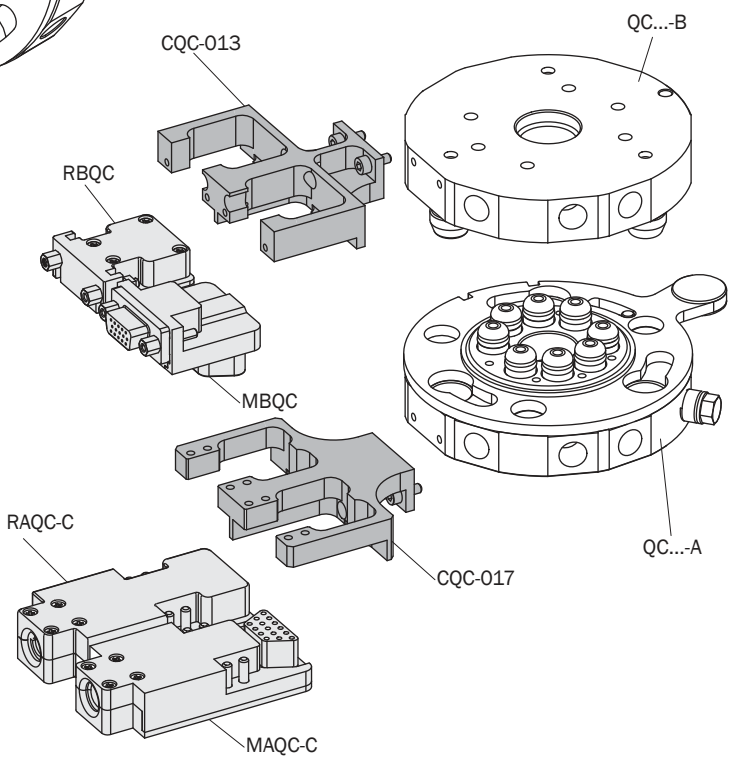


Fissaggio
Fastening





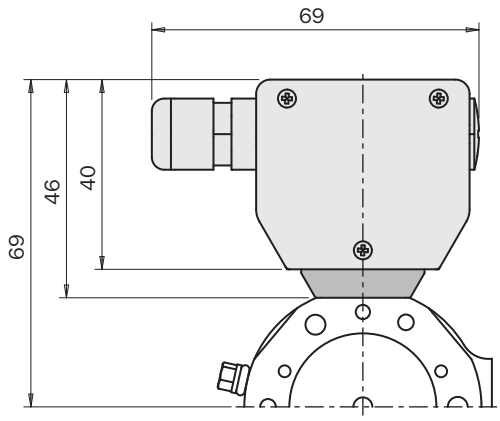


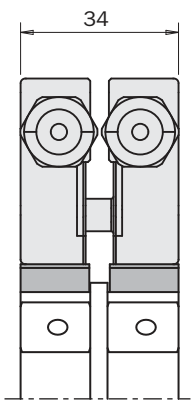


Dimensioni (mm)
Dimensions (mm)

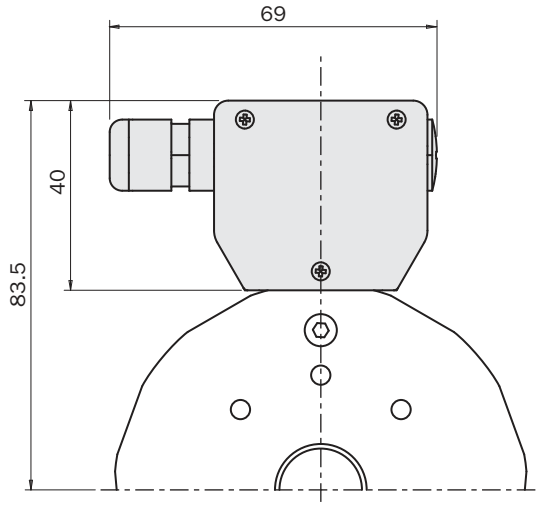
FIRST ANGLE PROJECTION

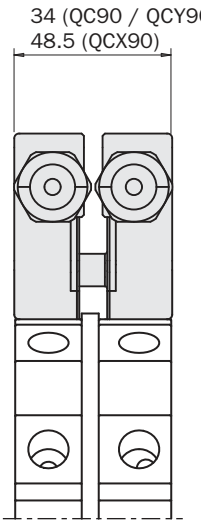
QC50
QCY50



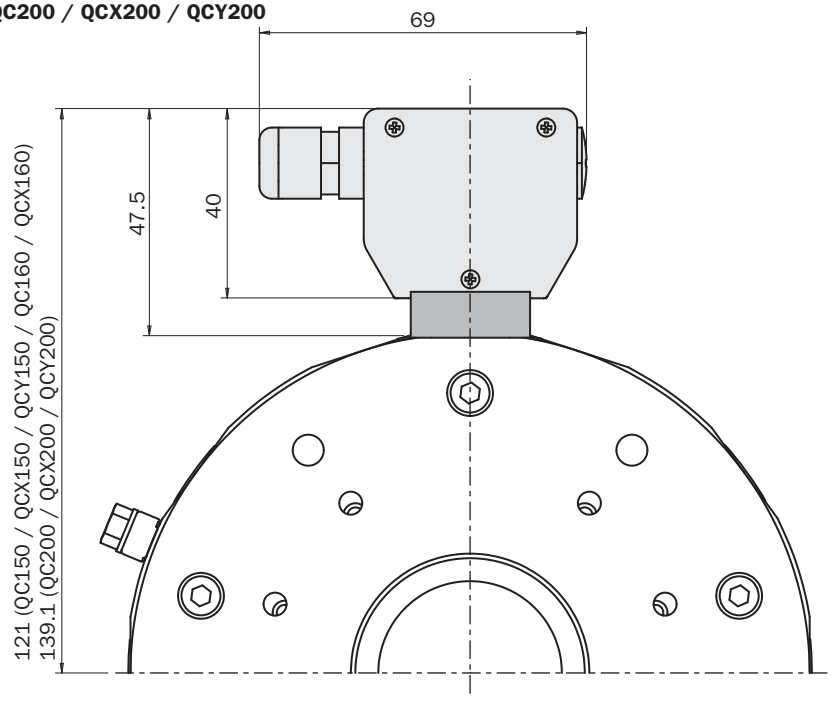


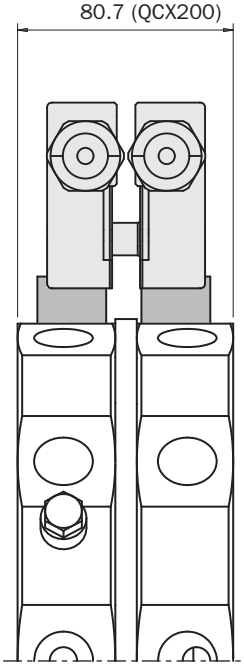
QC90
QCX90
QCY90





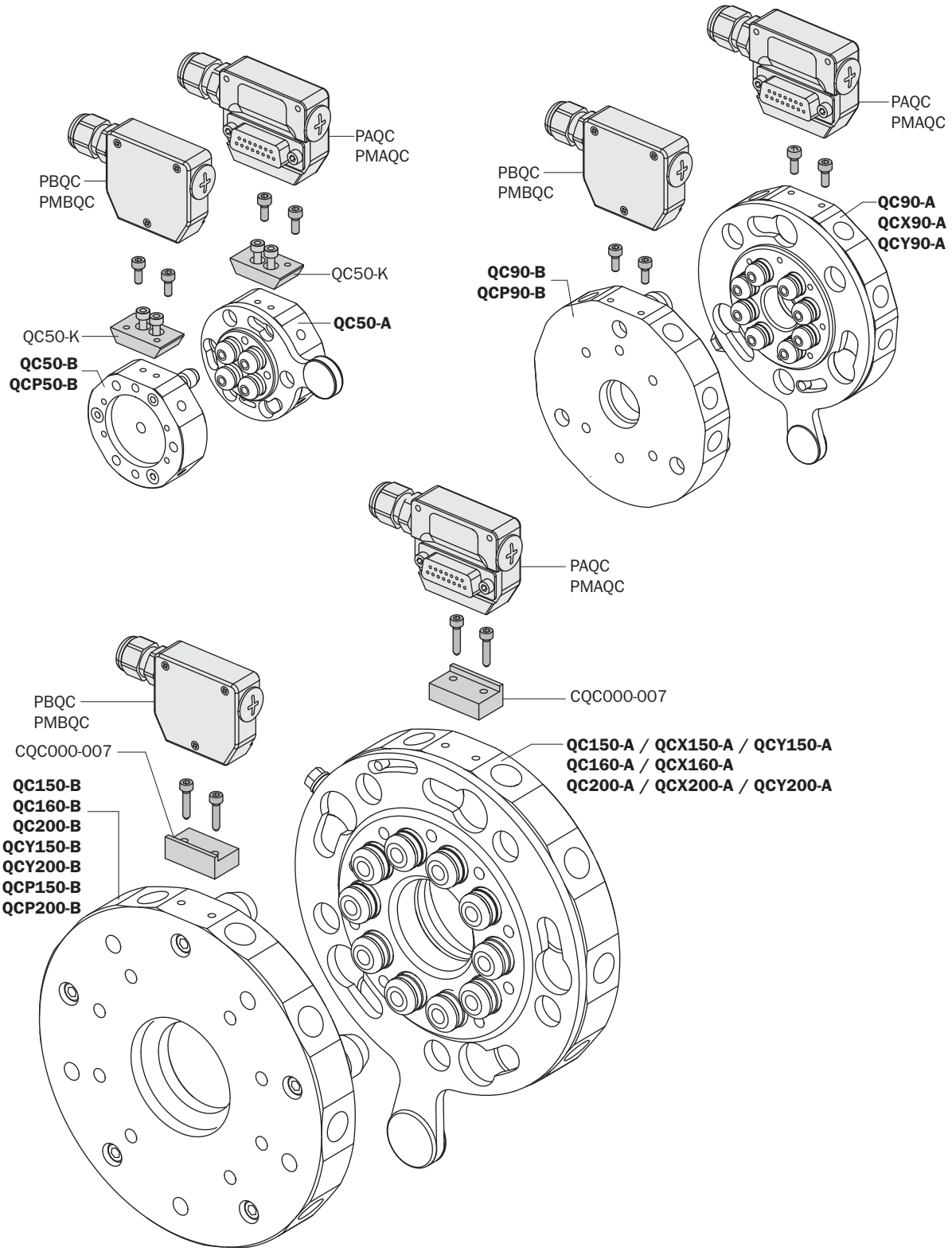
QC150 / QCX150 / QCY150
QC160 / QCX160
QC200 / QCX200 / QCY200





07/2026

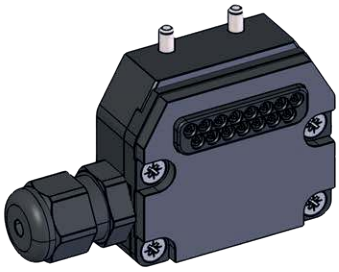
Fissaggio
Fastening

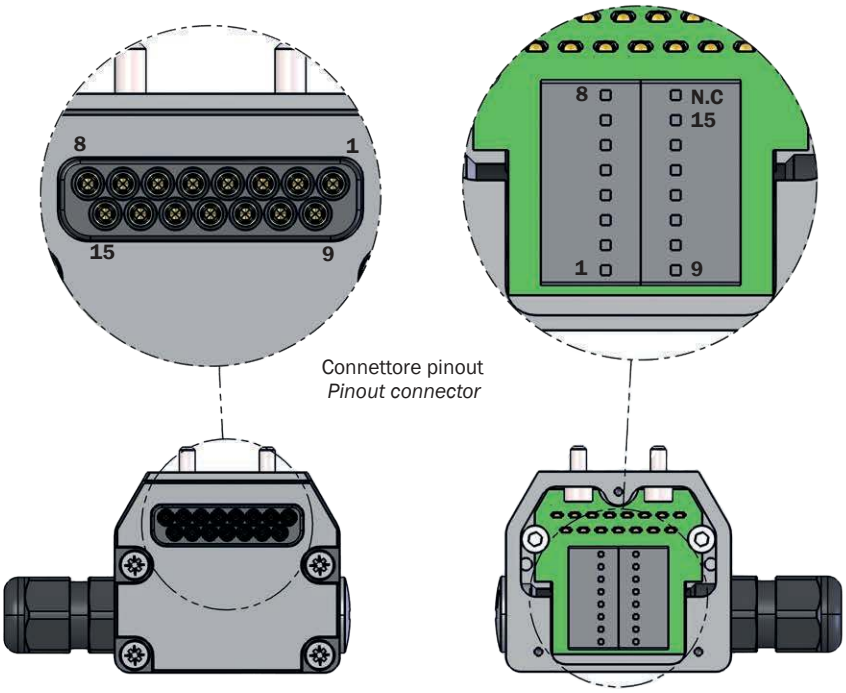


MCQC

PMAQC

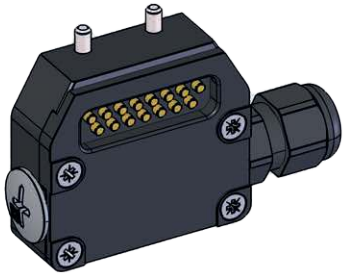
Connettore elettrico femmina
Female electrical connector

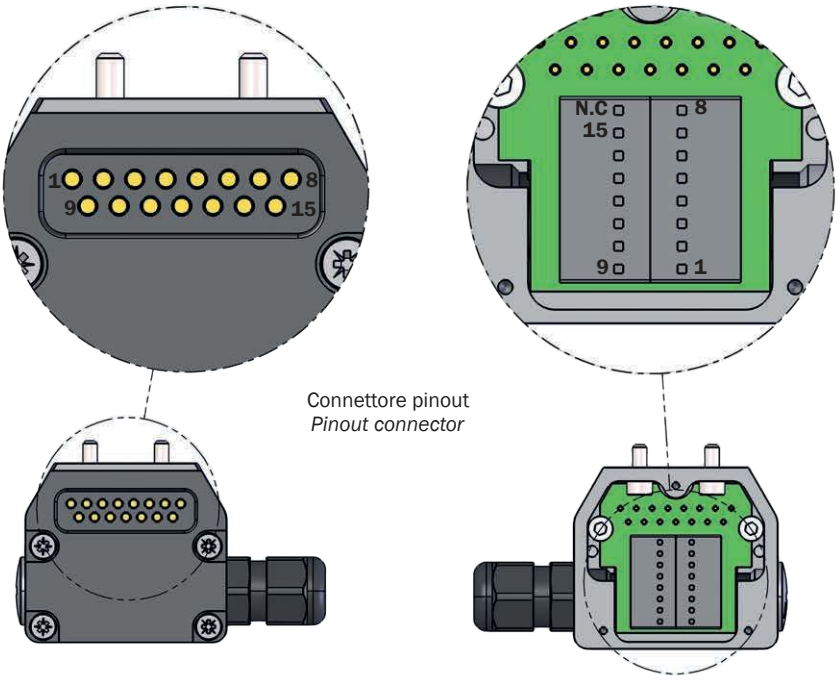




PMBQC

Connettore elettrico maschio
Male electrical connector





RAQC / RBQC

Moduli di identificazione RFID.
Sistema di riconoscimento automatico dell'organo di presa composto da un lettore RFID (RAQC) ed un TAG di memoria (RBQC).

- Fino a 255 utensili distinguibili.
- Codifica binaria dell'utensile tramite 8 uscite digitali 24 Vdc.
- Ingresso digitale per il conteggio dei cicli di esecuzione dell'utensile.
- Uscita digitale per segnalazione intervento manutentivo richiesto dall'utensile al raggiungimento del numero cicli impostato.
- Attacco rapido I/O attraverso connettore VGA.
- Memorizzazione dati tecnici dell'utensile.
- Disponibile area dati utente.
- Le due parti sono fornite separatamente:
  RAQC - lato robot (Lettore);
  RBQC - lato utensile (TAG).

RAQC / RBQC

RFID identification modules.
System for automatic recognition of gripping tool composed of a RFID reader (RAQC) and a memory TAG (RBQC).

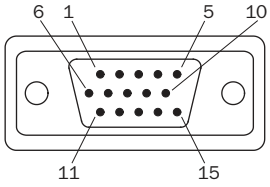
- *Up to 255 identifiable tools.*
- *Binary coding of tools by means of 8 digital outputs 24 Vdc.*
- *Digital input to counting tool cycles execution.*
- *Generation of a maintenance warning signal once the tool reaches the preset number of cycles.*
- *I/O quick change by VGA connector.*
- *Memorization of tool technical data.*
- *User data memory available.*
- *The two parts are supplied separately:*
  RAQC - robot side (Reader);
  RBQC - tool side (TAG).

RAQC

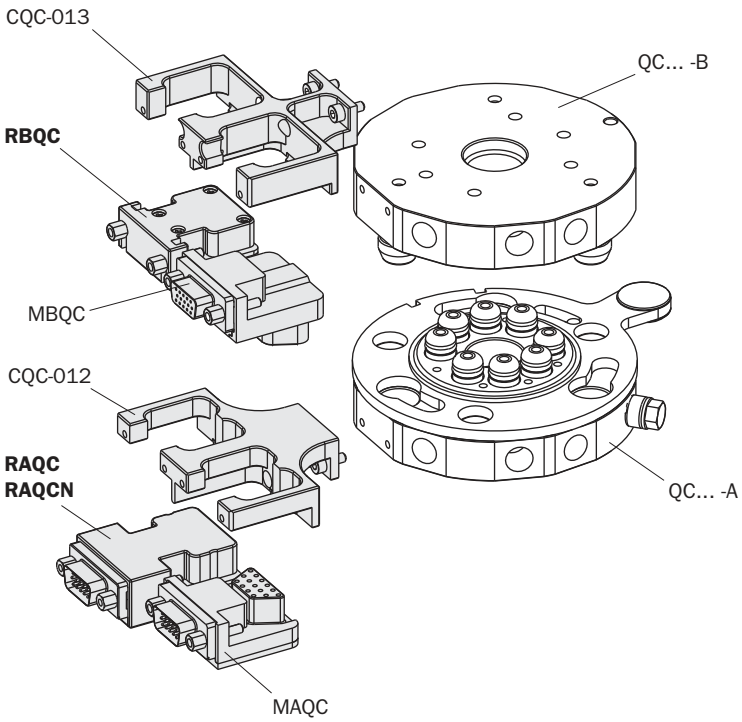


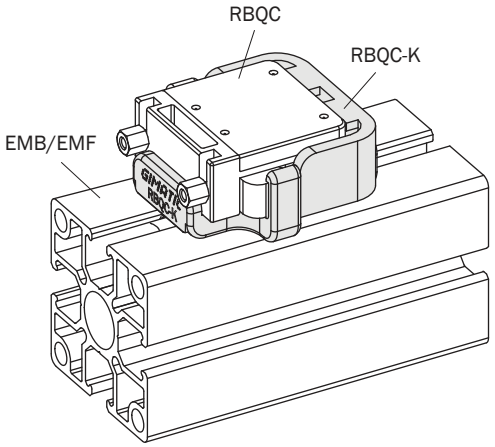
RBQC





1	DOUT1	6	24 Vdc	11	DOUT5
2	DOUT2	7	DOUT_CNT	12	DOUT6
3	N/C	8	DOUT3	13	DOUT7
4	GND	9	DOUT_FAULT	14	DOUT8
5	N/C	10	DOUT4	15	DIN_COUNT





MCQC

CEQC-A, CEQC-B

Sono forniti separatamente i cavi maschio e femmina necessari alla connessione elettrica secondaria.

CEQC-A, CEQC-B

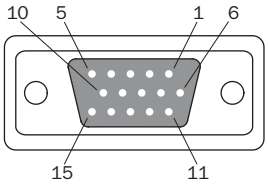
The male and female cables required for the secondary electrical connection are supplied separately.

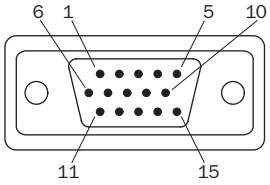
CEQC-A

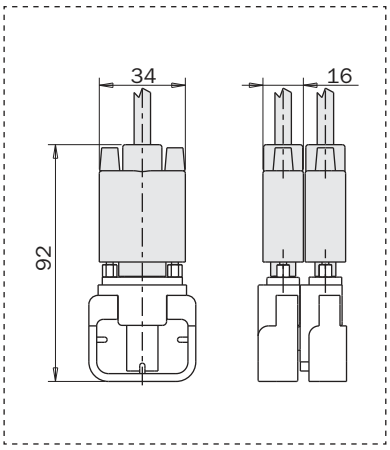


CEQC-B









01	Arancio *Orange*
02	Giallo *Yellow*
03	Verde scuro *Deep Green*
04	Blu *Blue*
05	Verde chiaro *Light Green*
06	Marrone *Brown*
07	Marrone / Bianco *Brown / White*
08	Rosso *Red*

09	Rosso / Bianco *Red / White*
10	Rosa *Pink*
11	Viola *Violet*
12	Grigio *Gray*
13	Bianco *White*
14	Nero *Black*
15	Nero / Bianco *Black / White*

	CEQC-A	CEQC-B
Tipo di connessione I/O *I/O connection type*	15 pin D-SUB - Tipo VGA *15-pin D-SUB - VGA type*	
Lunghezza cavo *Cable length*	1500 mm	
Isolamento *Insulation*	PVC	
Schermatura *Shield*	100% alluminio - Pellicola di mylar - 28÷26 AWG *100% aluminum - Mylar foil - 28 to 26 AWG*	
Guaina *Sheath*	PVC nero *Black PVC*	
Temperatura di esercizio *Temperature range*	-55°C ÷ +105°C	
Gamma di tensione *Voltage range*	0 ÷ 250 Vac	
Corrente massima *Max current*	0.5 A	

CEQC-AC / CEQC-BC

Sono forniti separatamente i connettori a saldare maschio e femmina.

CEQC-AC / CEQC-BC

The male and female solder connectors are supplied separately.

CEQC-AC



CEQC-BC



CEQC-ACA / CEQC-BCA

Sono forniti separatamente i connettori a saldare maschio e femmina angolari.

CEQC-ACA / CEQC-BCA

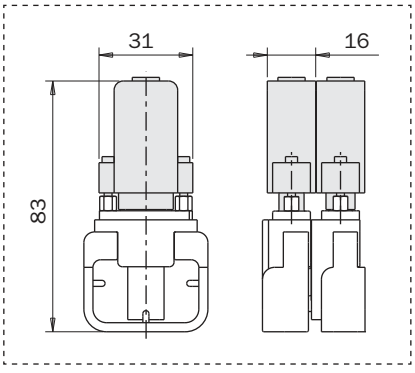
The angular male and female solder connectors are supplied separately.

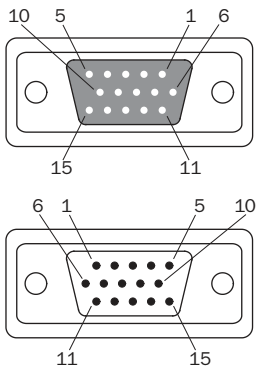
CEQC-ACA

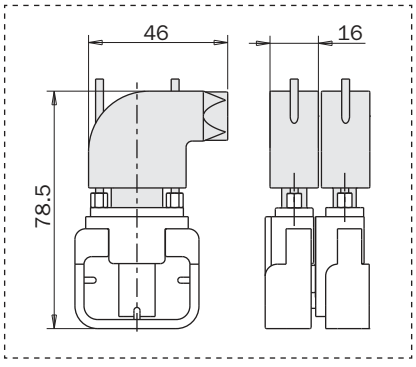


CEQC-BCA









	CEQC-AC	CEQC-BC	CEQC-ACA	CEQC-BCA
Tipo di connessione I/O *I/O connection type*	15 pin D-SUB - Tipo VGA *15-pin D-SUB - VGA type*			
Contatti *Contacts*	Rame *Copper*			
Isolamento *Insulation*	Poliestere *Polyester*			
Temperatura di esercizio *Temperature range*	-20°C ÷ +80°C			
Gamma di tensione *Voltage range*	0 ÷ 300 Vac			
Corrente massima *Max current*	3A			
Massima sezione dei conduttori *Maximum conductor cross-section*	AWG28			
Diametro esterno massimo del cavo *Maximum cable outer diameter*	7 mm			

QC75

Cambia utensile per robot collaborativi

- Superfici arrotondate.
- Fissaggio ISO-9409-1-50-4-M6.
- Foro passante centrale per le connessioni elettriche opzionali.
- 4 canali dell'aria integrati nelle spine.
- Uscita dei tubi dell'aria in linea o perpendicolare.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.

Quick changer for collaborative robots

- *Rounded surfaces.*
- *ISO-9409-1-50-4-M6 coupling system.*
- *Central through hole for optional electric connections.*
- *4 built-in air ports in the pins.*
- *In-line or perpendicular air hose outlet.*
- *The two parts (robot side and gripper side) are supplied separately.*

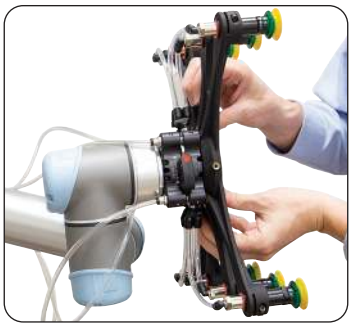




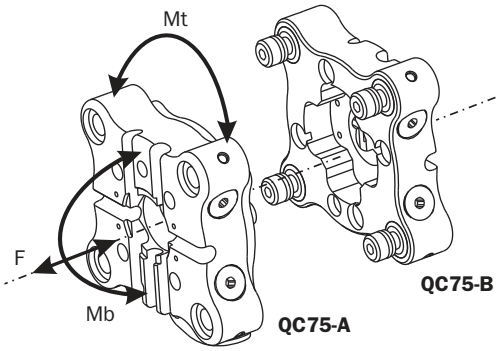
QC75-A



QC75-B





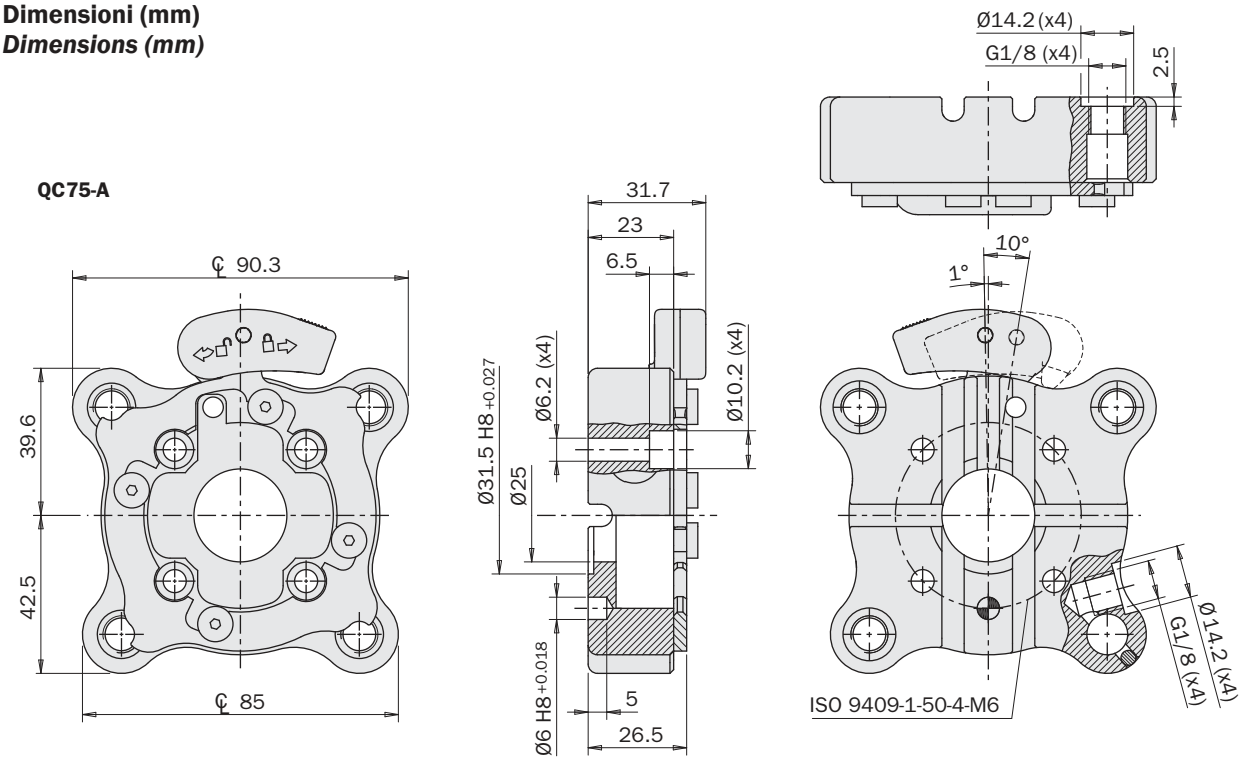




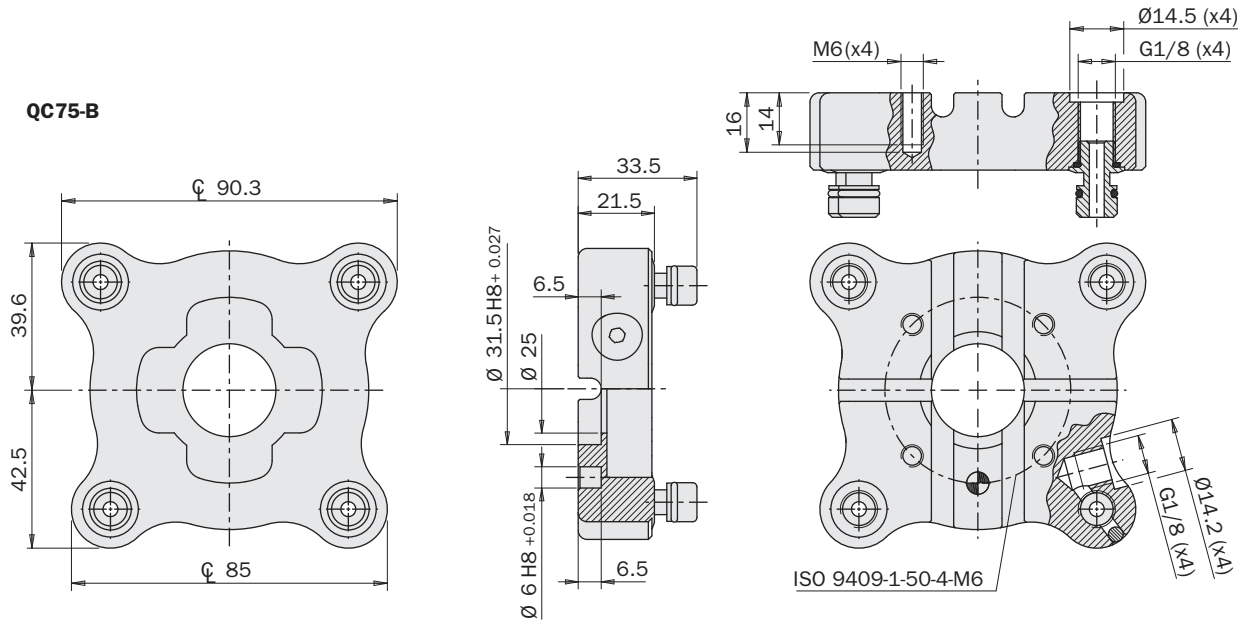
	QC75-A	QC75-B
	Cambia utensile lato robot *Quick changer (robot side)*	Cambia utensile lato pinza *Quick changer (gripper side)*
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Pressure range*	-1 ÷ 8 bar	
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C	
Peso *Weight*	300 g	260 g
F	1000 N	
Mt	150 Nm	
Mb	50 Nm	
Massimo carico raccomandato *Maximum recommended load*	20 Kg	

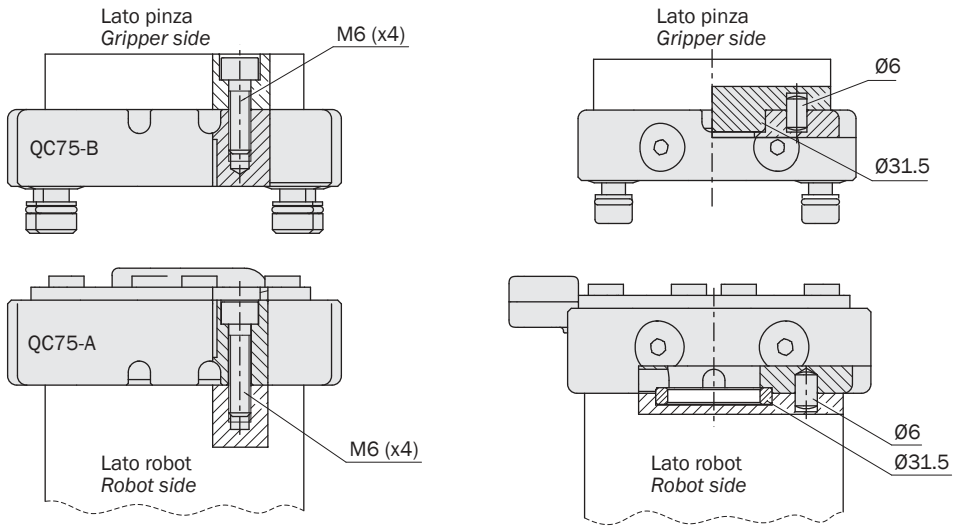
Dimensioni (mm)
Dimensions (mm)

QC75-A



QC75-B



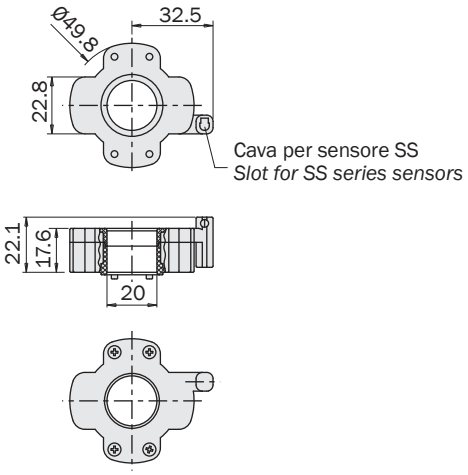


QC75

CSAQC (Lato robot)

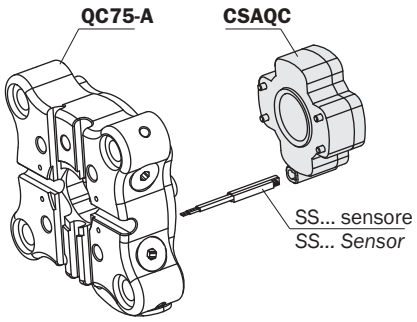
- Scatola porta sensore per la conferma dell'aggancio.

	CSAQC
Peso *Weight*	15 g



CSAQC (Robot side)

- *Sensor holding box for the locking confirmation.*



CMAQC (Lato robot) + CMBQC (Lato pinza)

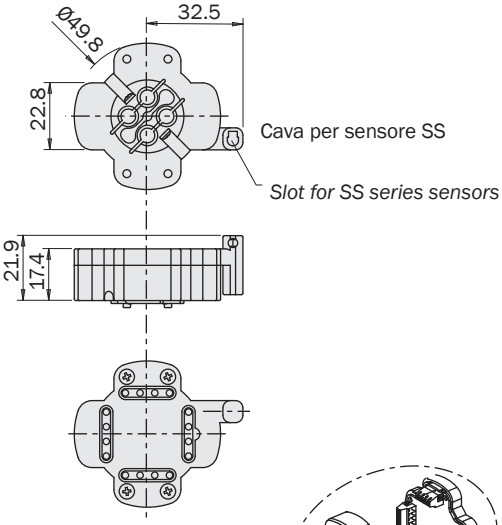
- Le due parti sono fornite separatamente.
- 16 connessioni elettriche configurabili con morsettiere.
- 16 connettori a molla.
- Sede sensore per la conferma dell'aggancio in CMAQC.

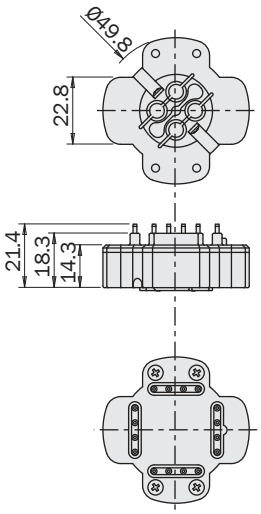
CMAQC (Robot side) + CMBQC (Gripper side)

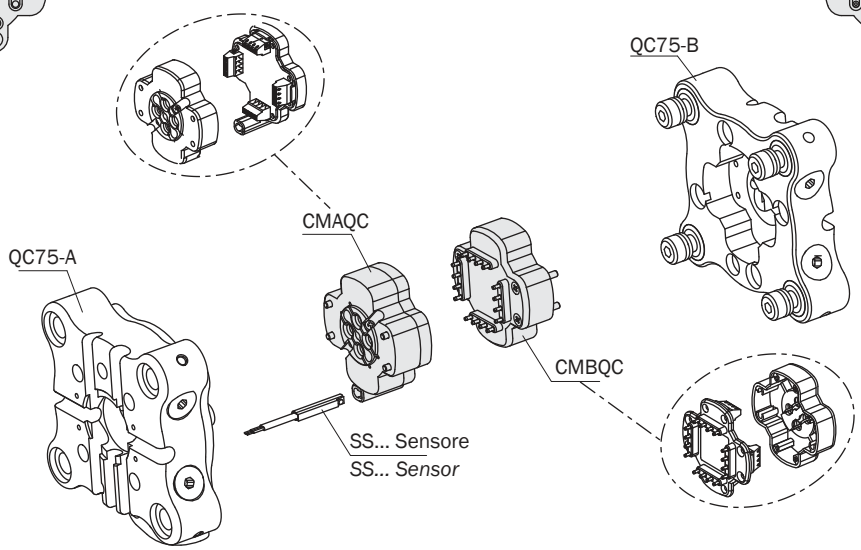
- *The two parts are supplied separately.*
- *16 reconfigurable electric lines with screw terminals.*
- *16 spring connectors.*
- *Sensor slot for the locking confirmation in CMAQC.*

	CMAQC
Peso *Weight*	19 g

	CMBQC
Peso *Weight*	19 g







CRAQC (Lato robot) + CRBQC (Lato pinza)

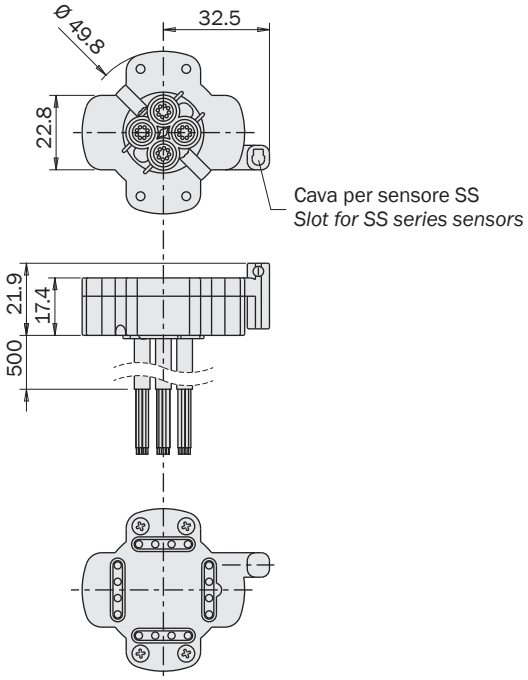
- Le due parti sono fornite separatamente.
- 16 connessioni elettriche precablate a disposizione.
- 16 connettori a molla.
- Sede sensore per la conferma dell'aggancio in CRAQC.
- Lettore RFID precablato (2 cavi aggiuntivi da 8 poli) in CRAQC.
- TAG in CRBQC per il riconoscimento della pinza.

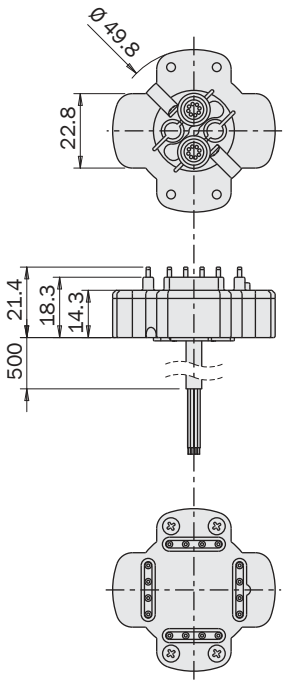
CRAQC (Robot side) + CRBQC (Gripper side)

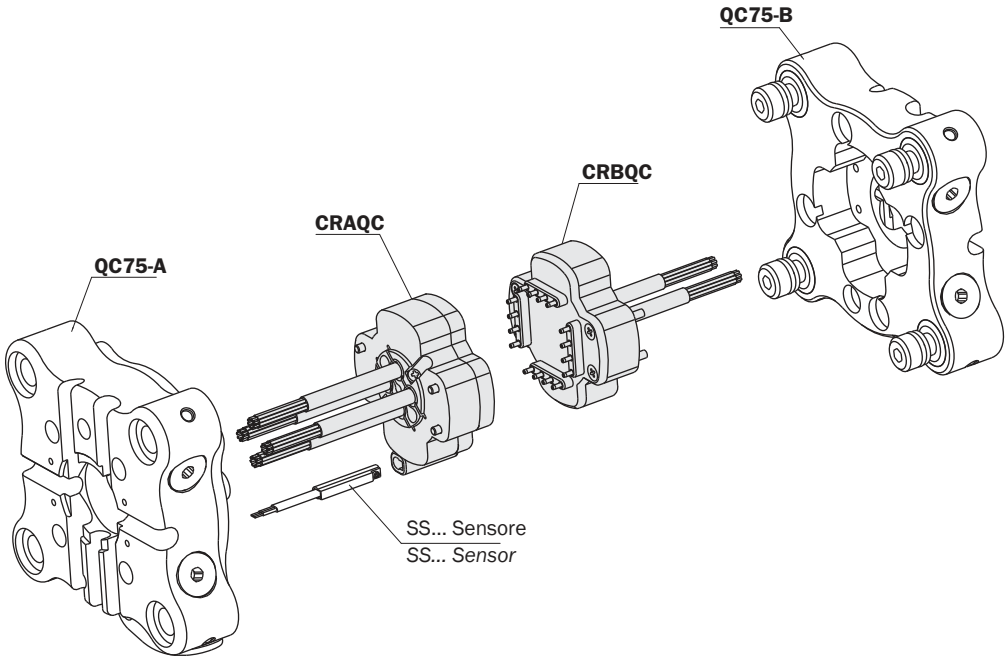
- *The two parts are supplied separately.*
- *16 available prewired electric lines.*
- *16 spring connectors.*
- *Sensor slot for the locking confirmation in CRAQC.*
- *RFID prewired (2 additional 8-pole cables) reader in CRAQC.*
- *TAG in CRBQC for the gripper recognition.*

	CRAQC
Peso *Weight*	140 g

	CRBQC
Peso *Weight*	80 g







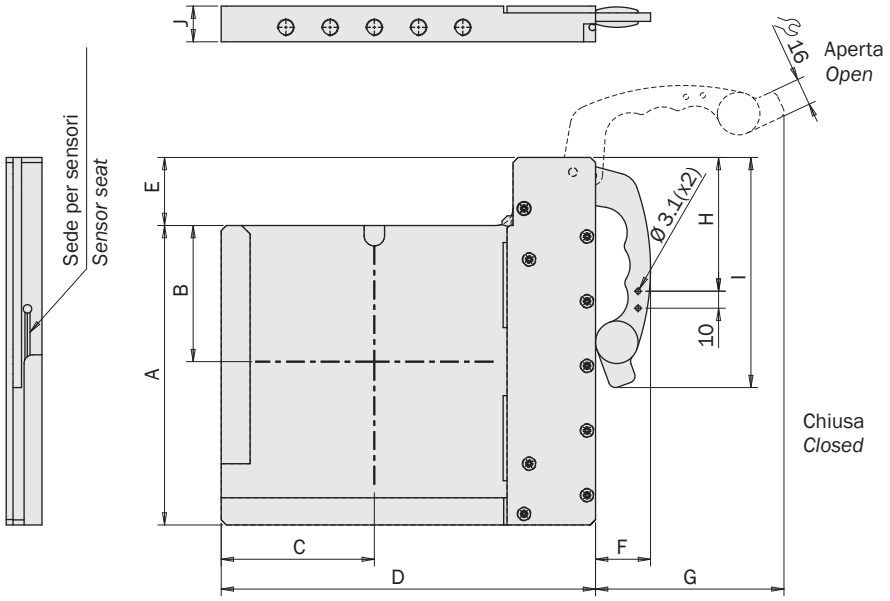
SQC

Cambia utensile quadro (lato robot)

- Una sola maniglia.
- Sicurezza intrinseca.
- Conferma di chiusura con sensore magnetico (opzionale).

Square quick changer (robot side)

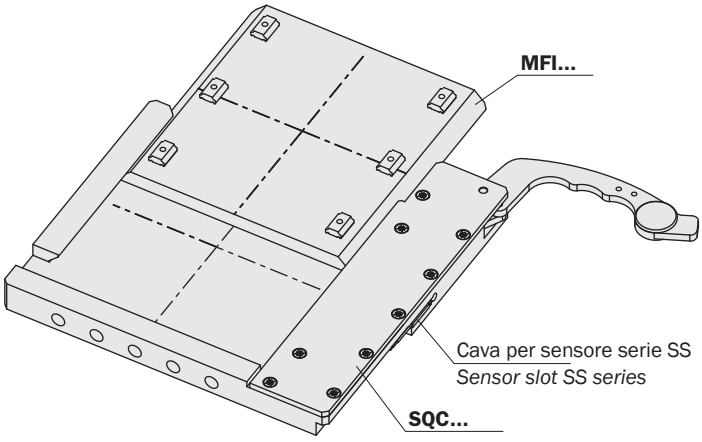
- *One only handle.*
- *Intrinsic safety.*
- *Closure confirmation by an optional magnetic sensor.*



	SQC100-A	SQC160-A	SQC250-A
A	110	176	270
B	50	80	125
C	57	90	150
D	147	220	325
E	5.5	40	40
F	28	32.3	32.3
G	76.6	110.8	110.8
H	55.5	78.6	78.6
I	100	135.3	135.3
J	19	21	20
Peso *Weight*	770 g	2050 g	3720 g
MFI..	MFI-A41	MFI-A43	MFI-A363







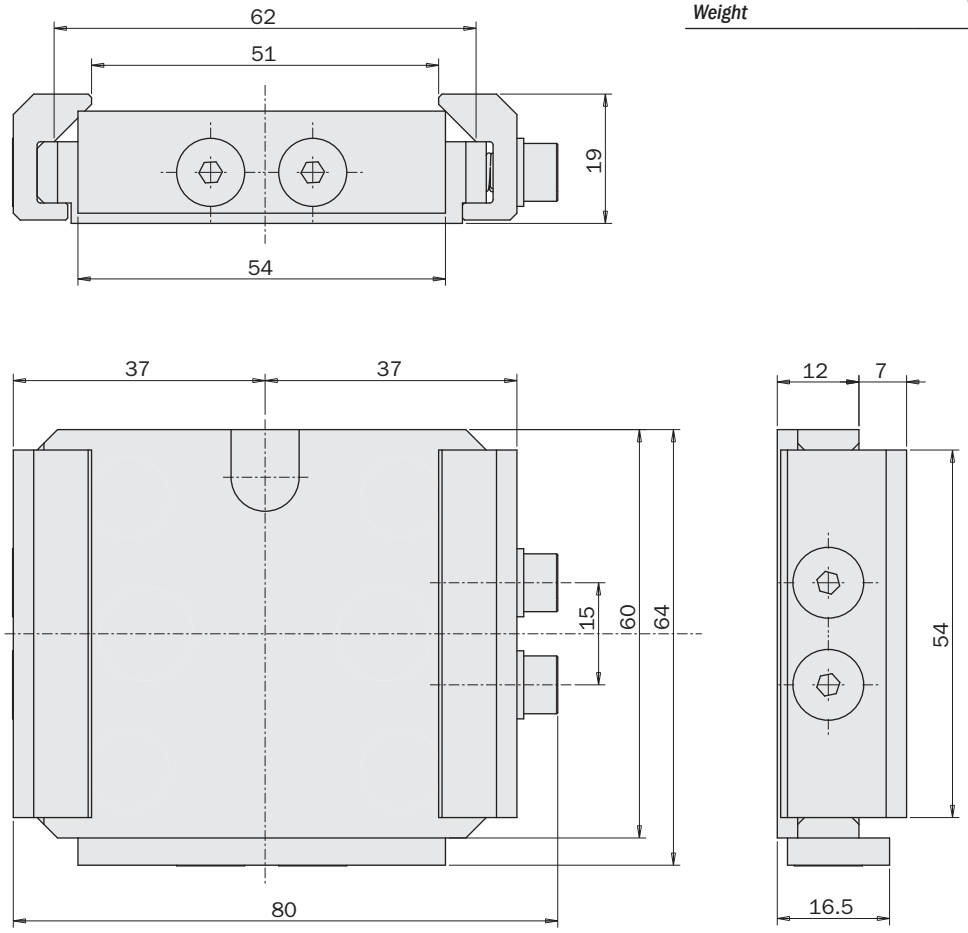
I sensori opzionali sono: *The optional sensors are:*		
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	

Cambia utensile (lato robot)

Quick changer (robot side)

FIRST ANGLE PROJECTION

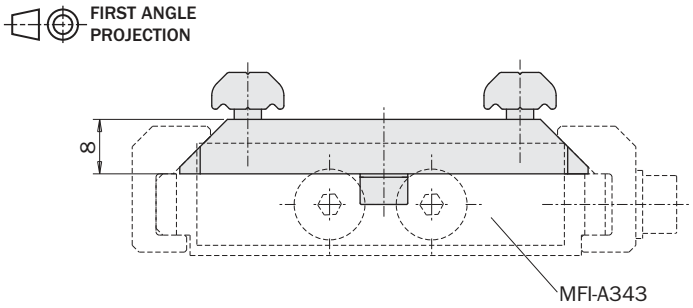
	MFI-A343
Peso *Weight*	170 g



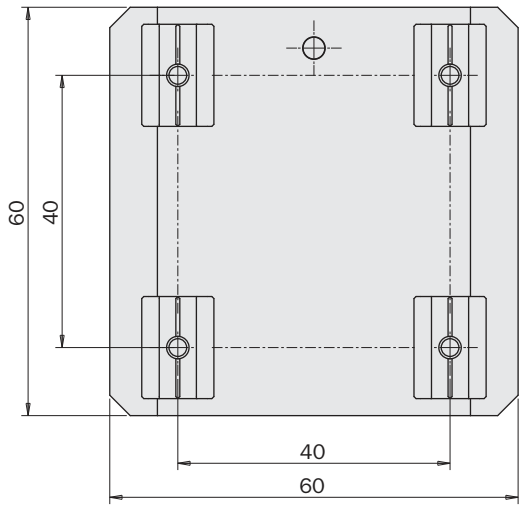


Cambia utensile (lato pinza)

Quick changer (gripper side)



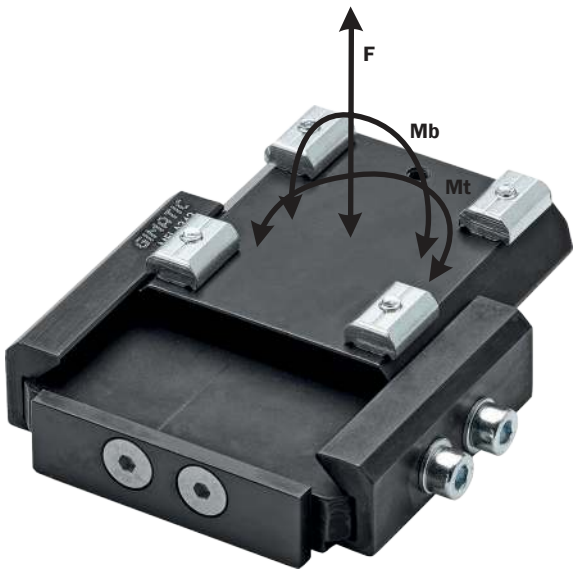
	MFI-A344
Peso *Weight*	65 g





Carichi di sicurezza

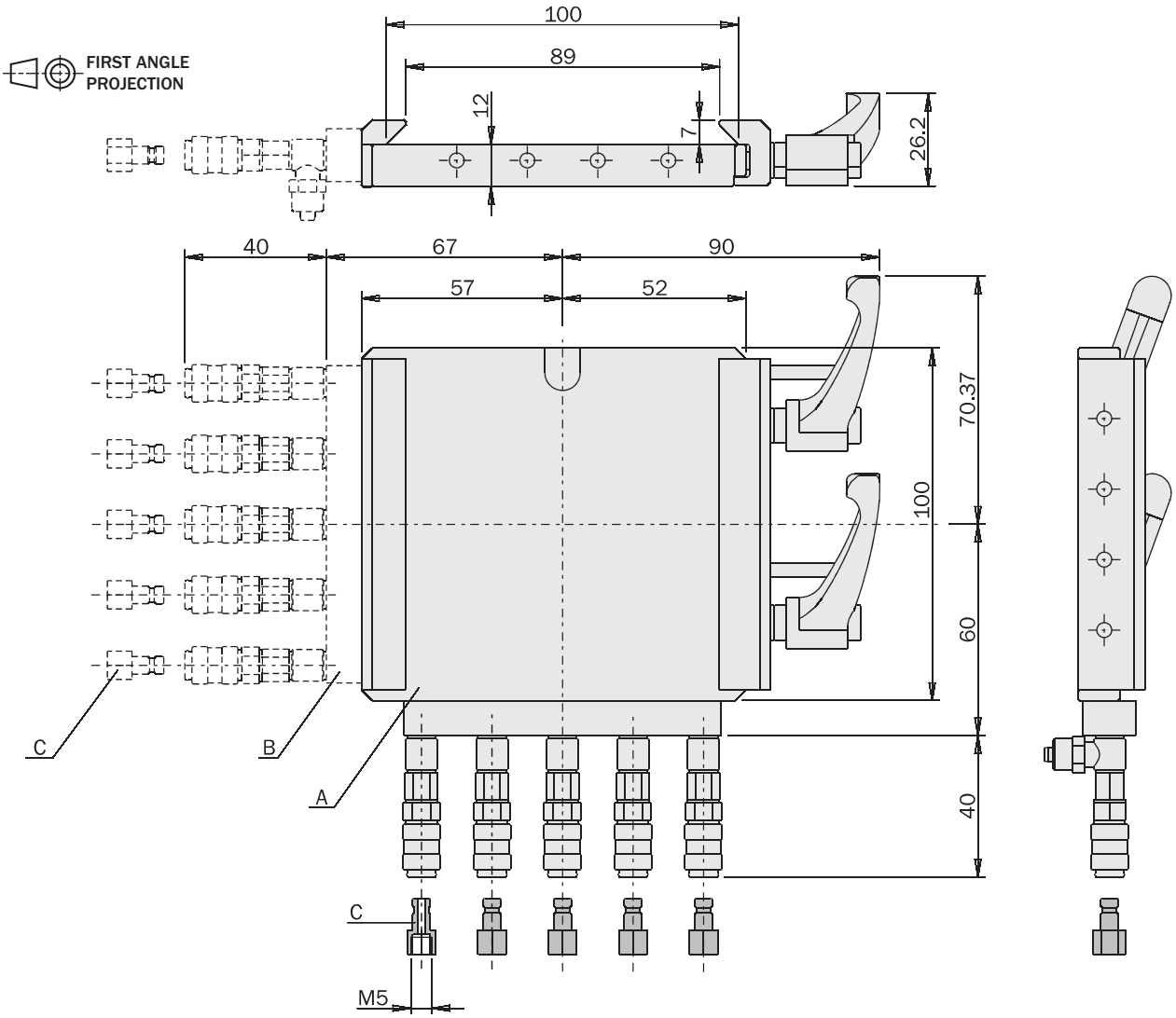
Safety loads



Lato robot ***Robot side***	**MFI-A343**
Lato pinza ***Gripper side***	**MFI-A344**
Carico utile suggerito *Suggested payload*	3kg
F	60N
Mt	9Nm
Mb	6Nm

Cambia utensile (lato robot)

Quick changer (robot side)



	MFI-A40	MFI-A130	MFI-A133	MFI-A135
Peso *Weight*	500 g	620 g	140 g	17 g

MFI-A40



A
MFI-A130



B
MFI-A133



C
MFI-A135



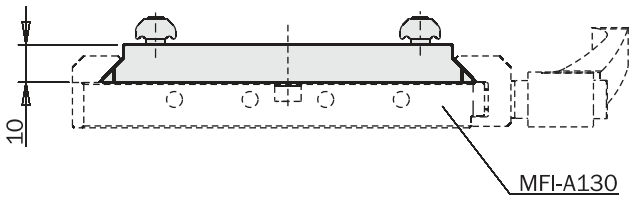
Innesto rapido (n°5 pezzi)
Quick coupling (5 pieces)

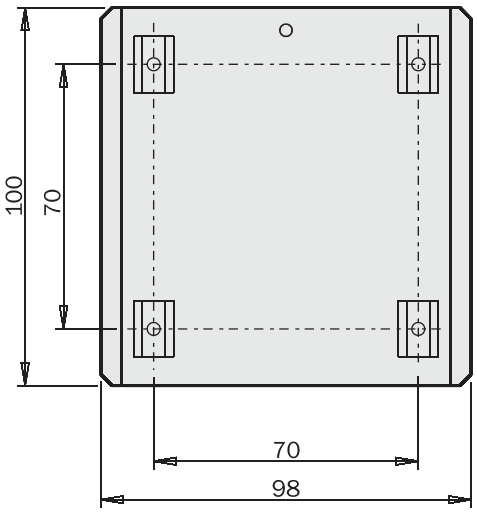
Cambia utensile (lato pinza)

Quick changer (gripper side)

FIRST ANGLE PROJECTION

	MFI-A41
Peso *Weight*	270 g

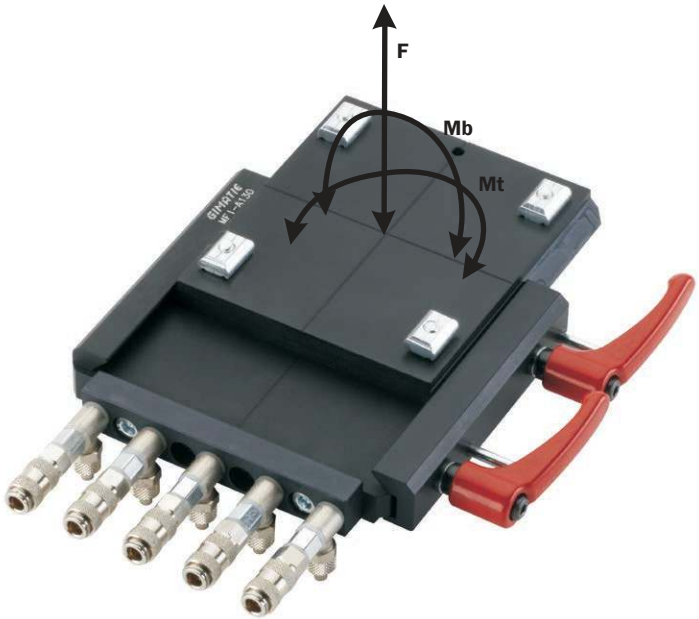






Carichi di sicurezza

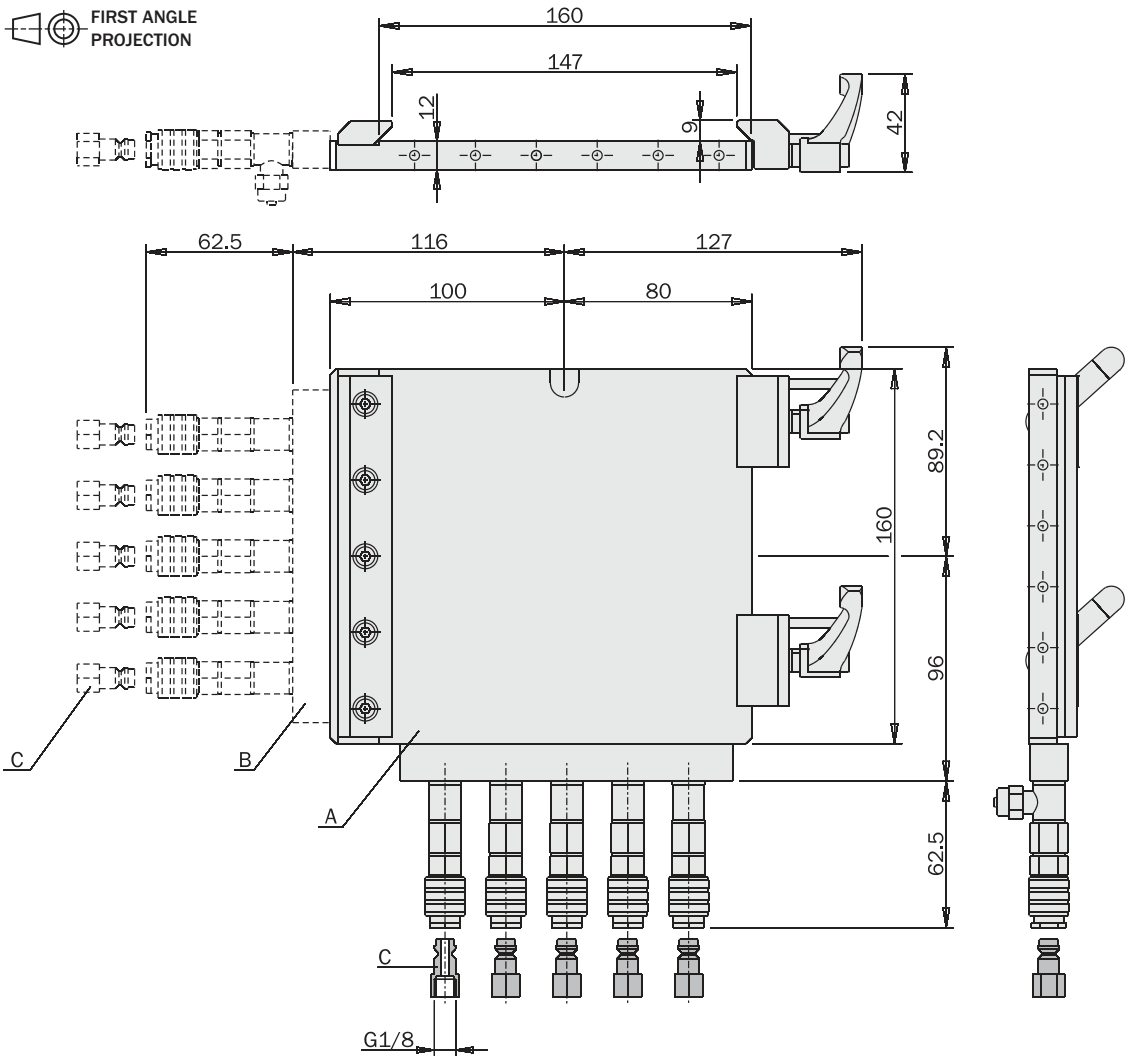
Safety loads



Lato robot a 1 maniglia ***1-Handle robot side***	**SQC100-A**
Lato robot a 2 maniglie ***2-Handle robot side***	**MFI-A40**
Lato pinza ***Gripper side***	**MFI-A41**
Carico utile suggerito *Suggested payload*	10kg
F	200N
Mt	45Nm
Mb	30Nm

Cambia utensile (lato robot)

Quick changer (robot side)

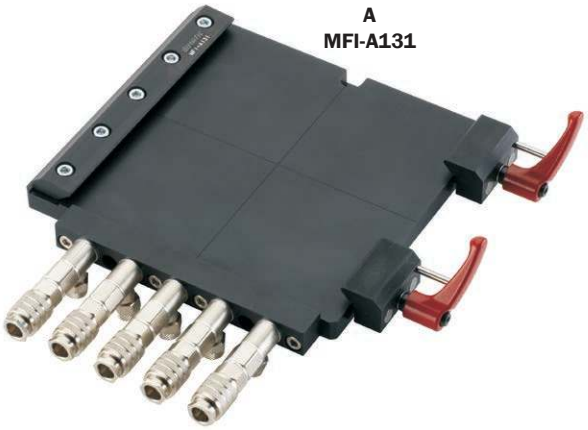


	MFI-A42	MFI-A131	MFI-A132	MFI-A134
Peso *Weight*	1270 g	1650 g	450 g	40 g

MFI-A42



A
MFI-A131



B
MFI-A132



C
MFI-A134

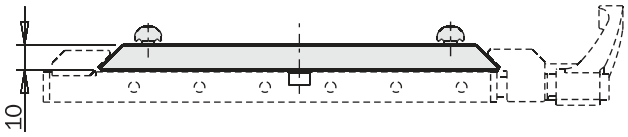


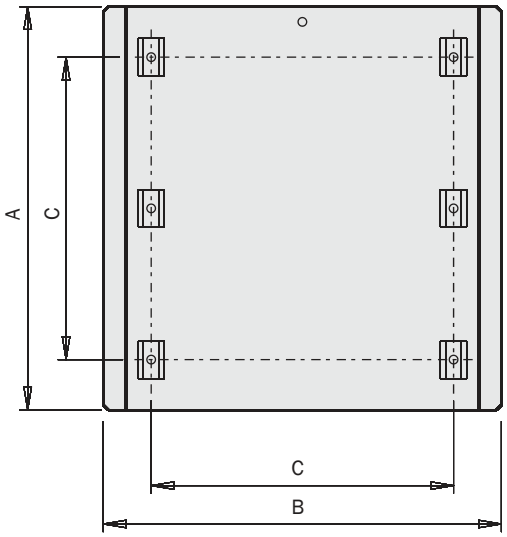
Innesto rapido (n°5 pezzi)
Quick coupling (5 pieces)

Cambia utensile (lato pinza)

Quick changer (gripper side)

FIRST ANGLE PROJECTION





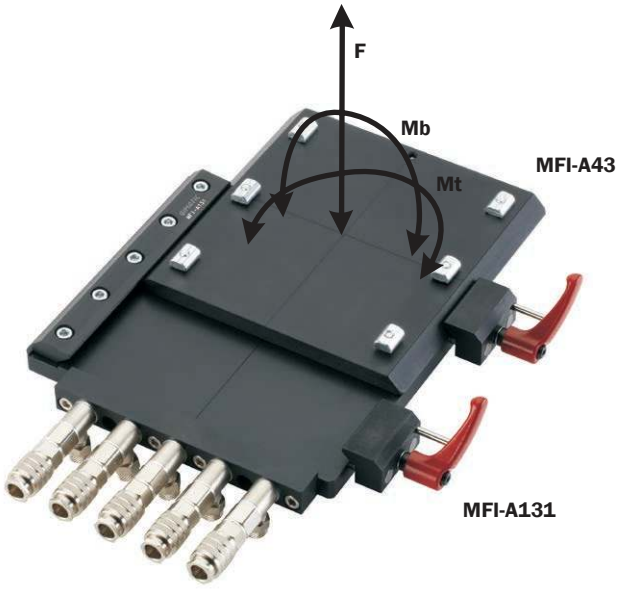
	MFI-A43	MFI-A363
Peso *Weight*	670 g	1600 g
A	160 mm	250 mm
B	159 mm	249 mm
C	120 mm	200 mm

MFI-A43



Carichi di sicurezza

Safety loads



Lato robot a 1 maniglia *1-Handle robot side*	SQC160-A	SQC250-A
Lato robot a 2 maniglie *2-Handle robot side*	MFI-A42	-
Lato pinza ***Gripper side***	**MFI-A43**	**MFI-A363**
Carico utile suggerito *Suggested payload*	20kg	40kg
F	400N	800N
Mt	120Nm	300Nm
Mb	80Nm	200Nm

Magazzino per EOAT MFI-A344-H
(da usare con MFI-A344, 60x60mm)

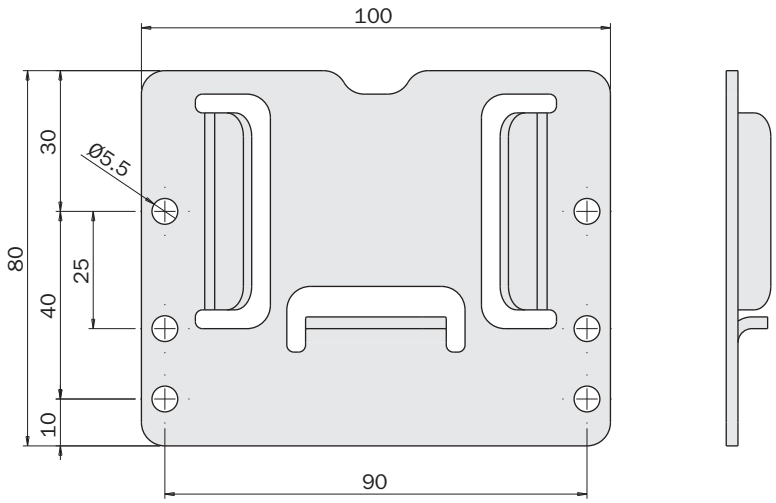
EOAT storage MFI-A344-H
(to be used with MFI-A344, 60x60mm)





Dimensioni (mm)
Dimensions (mm)

	MFI-A344-H
Peso *Weight*	136 g



FIRST ANGLE PROJECTION

Magazzino per EOAT MFI-A41-H
(da usare con MFI-A41, 98x100mm)

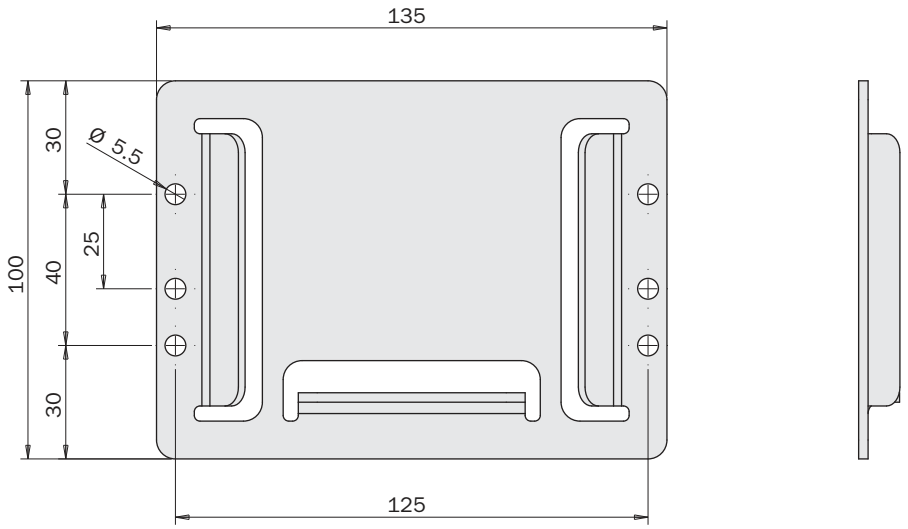
EOAT storage MFI-A41-H
(to be used with MFI-A41, 98x100mm)





Dimensioni (mm)
Dimensions (mm)

	MFI-A41-H
Peso *Weight*	238 g



FIRST ANGLE PROJECTION

07/2026

Magazzino per EOAT MFI-A43-H
(da usare con MFI-A43, 158x160mm)

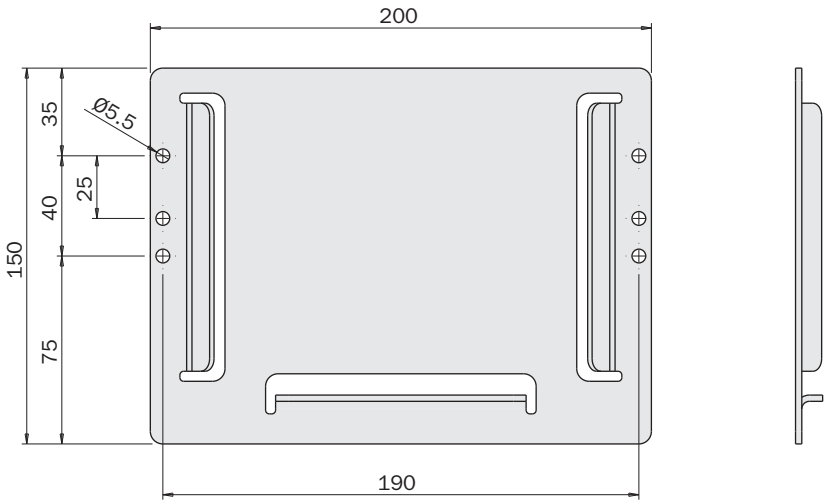
EOAT storage MFI-A43-H
(to be used with MFI-A43, 158x160mm)





Dimensioni (mm)
Dimensions (mm)

	MFI-A43-H
Peso *Weight*	547 g



FIRST ANGLE PROJECTION

EQC

Cambia utensile elettrico

Per le applicazioni che richiedono il cambio automatico dell'organo di presa è disponibile la famiglia di cambia utensili elettrici EQC.
Si tratta di un sistema composto da una parte attiva (lato A) ed una flangia meccanica passiva (lato B).
La parte attiva tipicamente è collegata al polso di un robot mentre una o più flange sono collegate agli organi di presa intercambiabili.

- Versione completamente automatica.
- Sistema Plug & Play.
- Design studiato per applicazioni con i robot collaborativi.
- Flange ISO 9409 opzionali per una interfaccia diretta con i robot.
- Cavo di alimentazione con connettore M8x1 a 8 poli, lunghezza 200 mm.
- Alimentazione a bassa tensione 24 Vdc.
- Fino a 6 collegamenti per utenze pneumatiche.
- Connessioni elettriche opzionali posizionabili nel foro centrale passante.
- Disponibilità di modelli specifici per robot collaborativi UR e TM (EQC05TM-A, EQC20TM-A, EQC05U-A, EQC20U-A).

Electric quick changer

The EQC electric quick changer family is available for applications with automatic change of gripping element.
The system consists of an active part (side A) and a passive mechanical tool plate (side B).
The active part is usually connected to a robot's wrist while one or more flange are connected to the interchangeable gripping elements.

- *Fully automatic version.*
- *Plug & Play system.*
- *Designed to collaborative robot application.*
- *Optional flange ISO 9409 to interface directly with robot.*
- *Power cable with 8-pin M8x1 connector, length 200 mm.*
- *24 Vdc low voltage supply.*
- *Up to 6 user pneumatic connections.*
- *Optional electric connectors to be positioned in the central through hole.*
- *Availability of specific models for UR and TM collaborative robots (EQC05TM-A, EQC20TM-A, EQC05U-A, EQC20U-A).*

EQC05-B



EQC05...-A

EQC20-B



EQC20...-A

EQC100-B



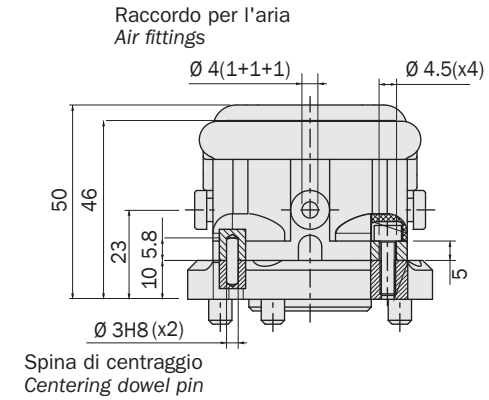
EQC100...-A

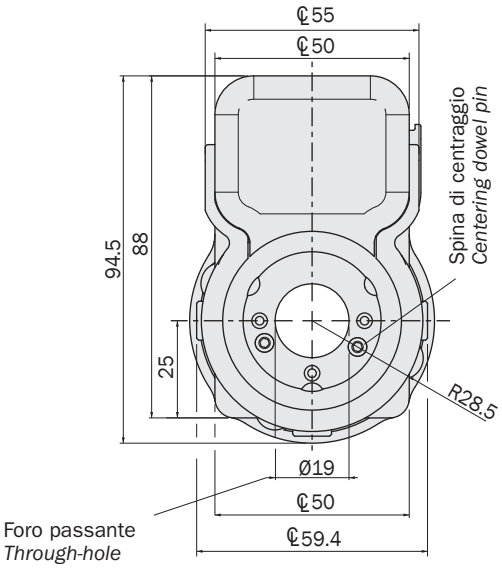
NEW

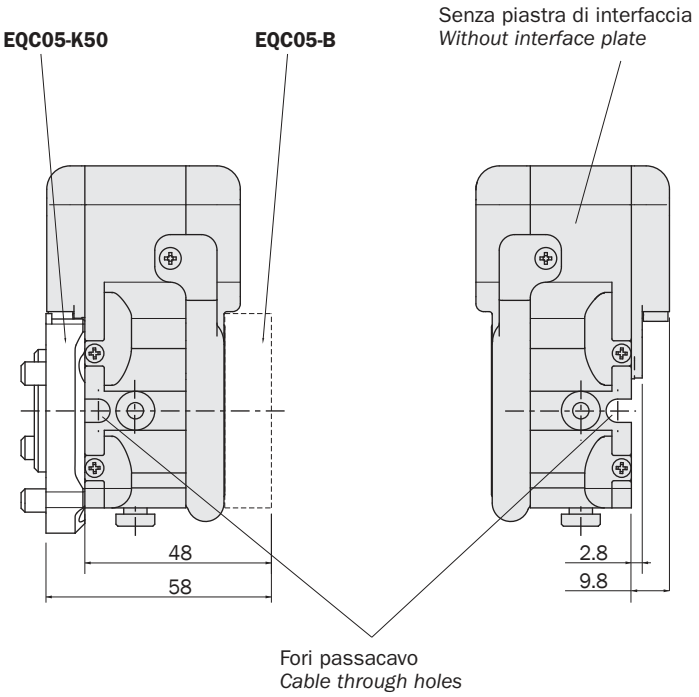
	EQC05/EQC05N EQC05TM/EQC05U	EQC20/EQC20N EQC20TM/EQC20U	EQC100	EQC100N
Massa della parte attiva (lato-A) *Mass of the master plate (side-A)*	500 g	810 g	2700 g	
Massa della flangia (lato-B) *Weight of the tool plate (side-B)*	100 g	210 g	720 g	
Tempo di movimento *Movement time*	1.2 s	1 s	1 s	
Massima distanza di aggancio *Maximum coupling distance*	0.5 mm	1 mm	2 mm	
Disallineamento torsionale *Torsional misalignment*	± 2°	± 2°	± 2.5°	
Disallineamento planare (R) *Planar misalignment (R)*	1 mm	2 mm	2.5 mm	
Ripetibilità *Repeatability*	0.01 mm	0.01 mm	0.01 mm	
Grado di protezione *Protection rating*	IP54	IP54	IP54	
Capacità di carico *Load capacity*	5 kg	20 kg	100 kg	
Intervallo di temperatura di lavoro *Allowed temperature range*	5-60°C			
Alimentazione pneumatica (integrati) *Pneumatic supply (intregrated)*	Ø4 (x3)	Ø6 (x6)	Ø8 (x6)	
Intercambiabilità *Interchangeability*	X-Y: 0.1 mm Z: 0.1 mm			
Ripetibilità *Repeatability*	X-Y: 0.02 mm Z: 0.02 mm			
Momento d'inerzia asse Z (centro della flangia del Robot)(lato-A) *Moment of inertia Z-axis (Center of the robot flange)(side-A)*	3745 g · cm²	13082 g · cm²	109158 g · cm²	
Momento d'inerzia asse Z (centro della flangia del Robot)(lato-B) *Moment of inertia Z-axis (Center of the robot flange)(side-B)*	338 g · cm²	1719 g · cm²	21370 g · cm²	

Dimensioni (mm)
Dimensions (mm)

EQC05...-A

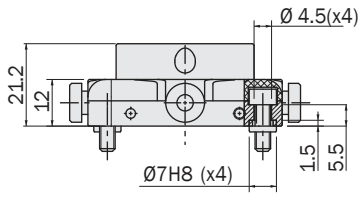


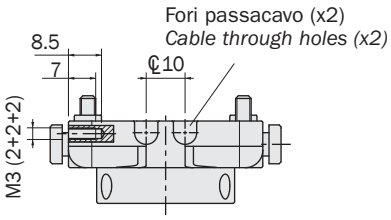


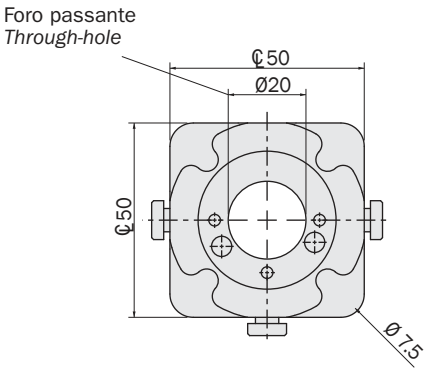


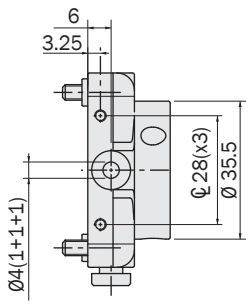
Dimensioni (mm)
Dimensions (mm)

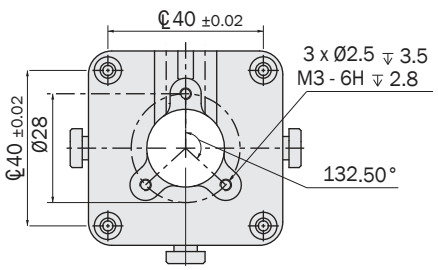
EQC05-B





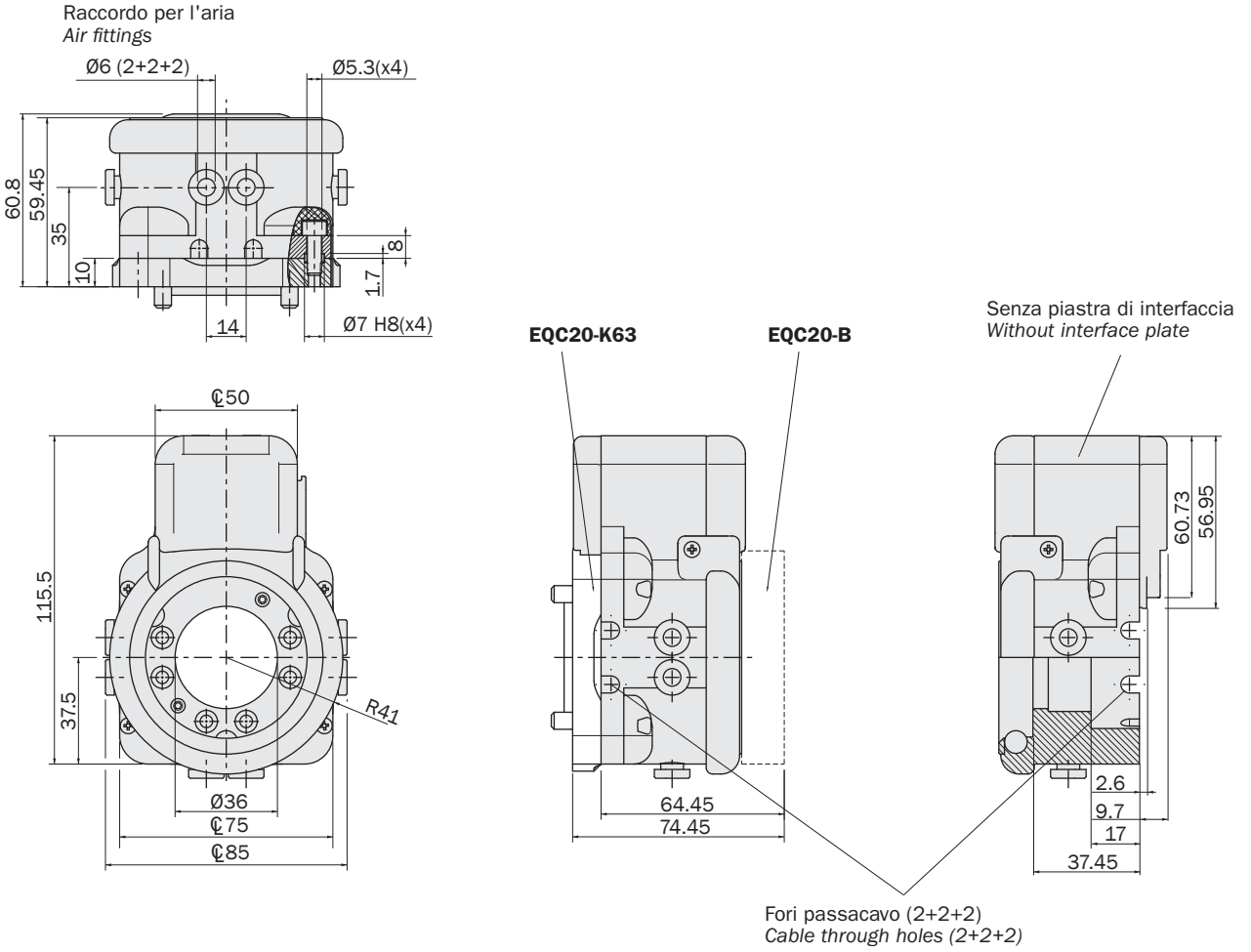






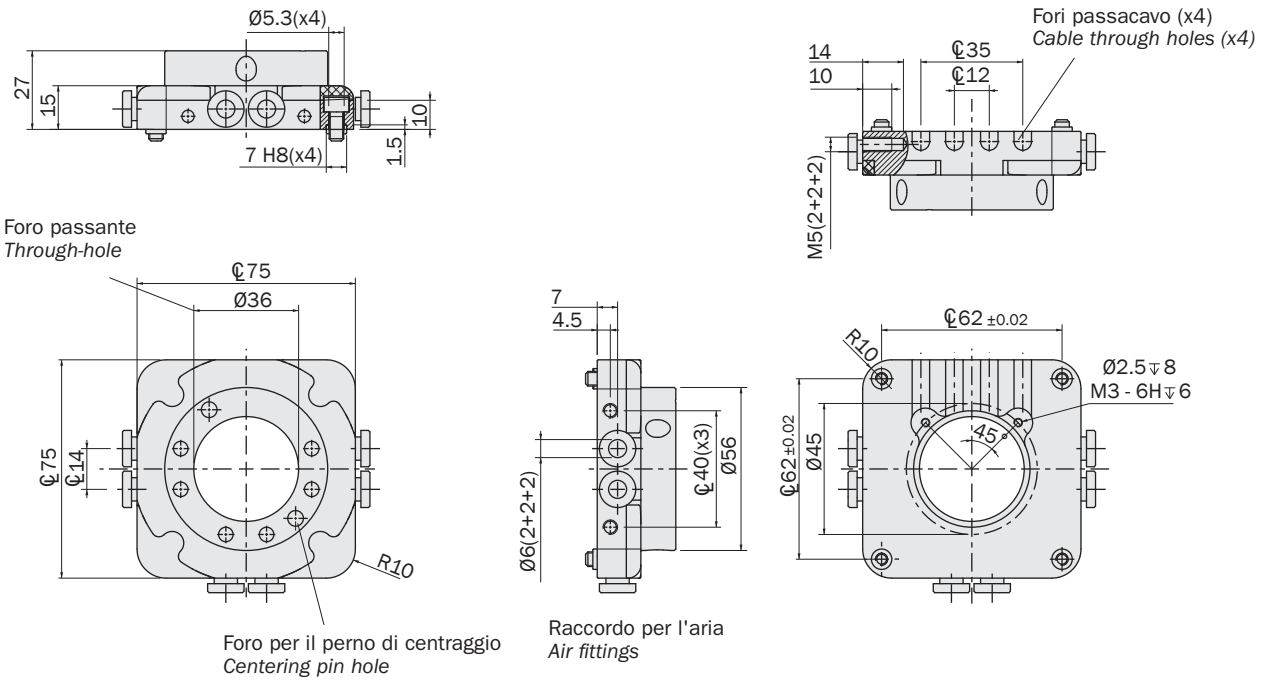
Dimensioni (mm)
Dimensions (mm)

EQC20...-A



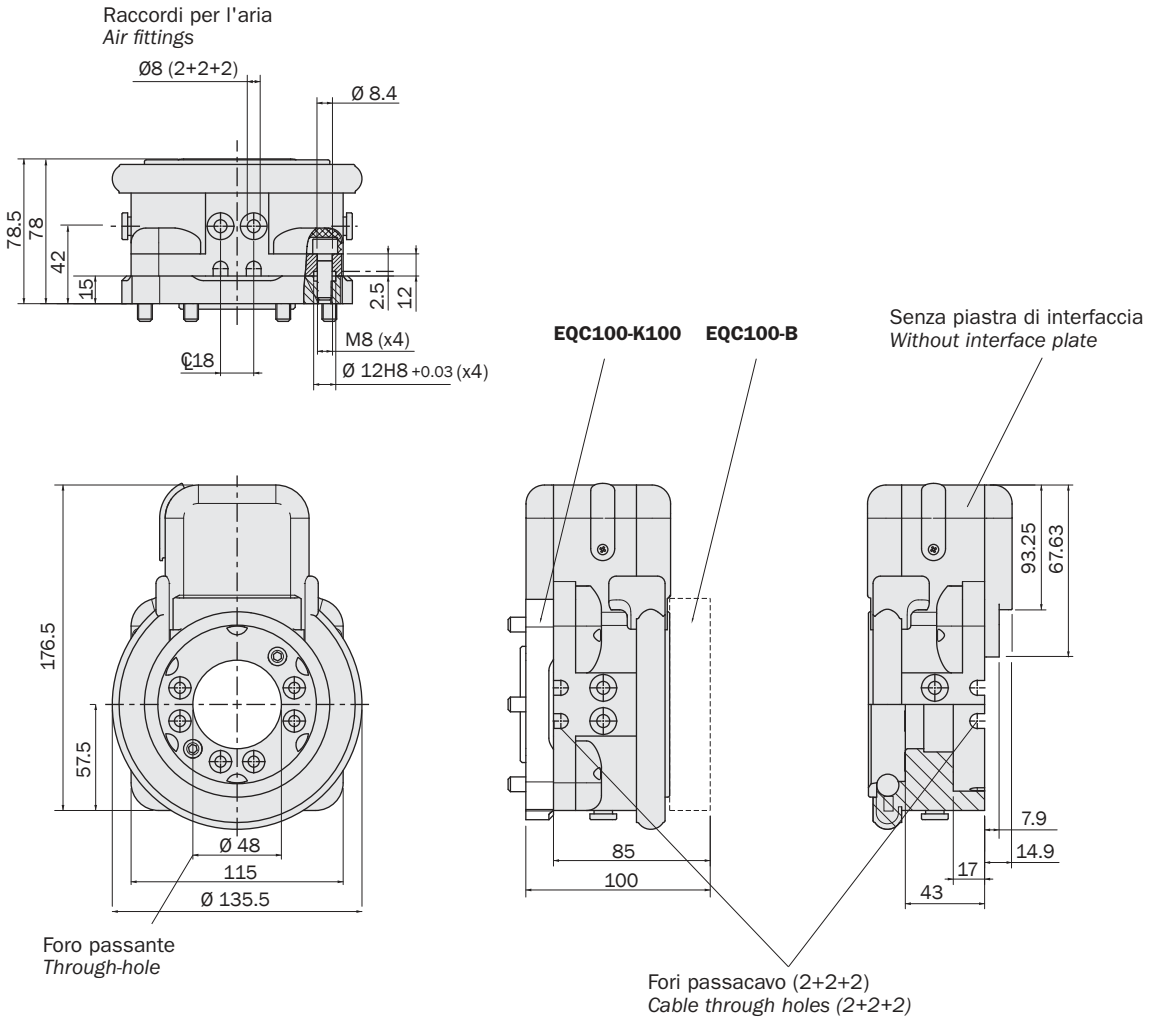
Dimensioni (mm)
Dimensions (mm)

EQC20-B



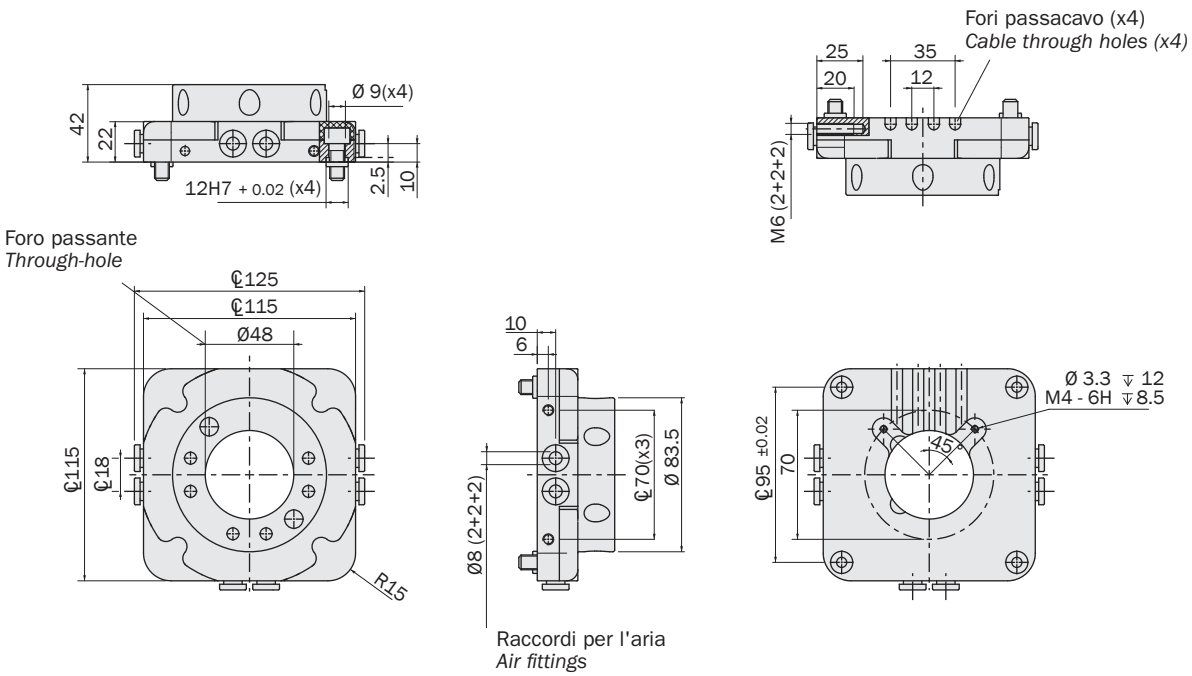
Dimensioni (mm)
Dimensions (mm)

EQC100...-A



Dimensioni (mm)
Dimensions (mm)

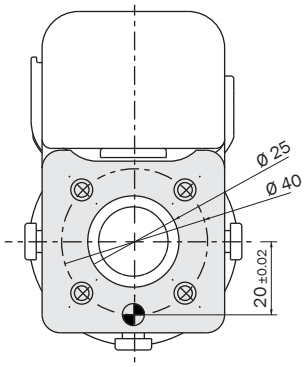
EQC100-B



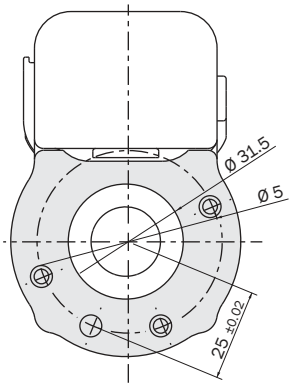
Piastre di interfaccia robot ISO 9409 — *Robot interface plates ISO 9409*

EQC05...-A

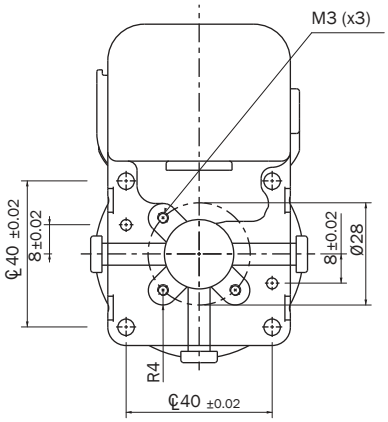
EQC05-K40
ISO 9409-1-40-4-M6



EQC05-K50
ISO 9409-1-50-4-M6

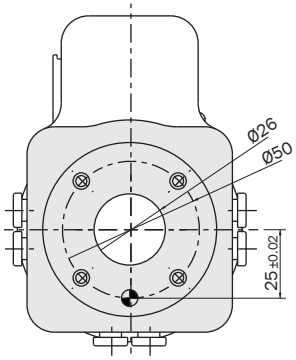


Senza piastra
Without interface plate

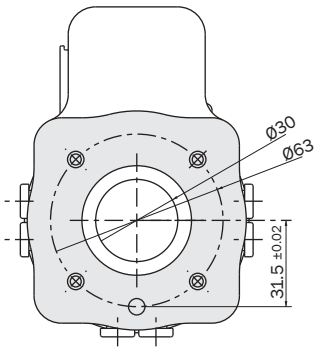


EQC20...-A

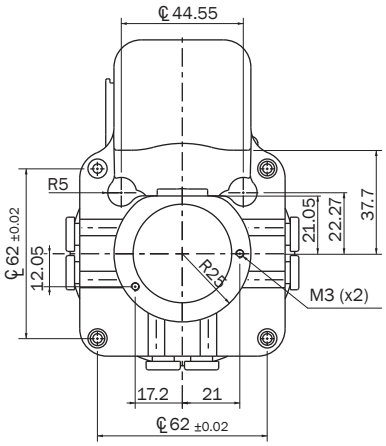
EQC20-K50
ISO 9409-1-50-4-M6



EQC20-K63
ISO 9409-1-63-4-M6

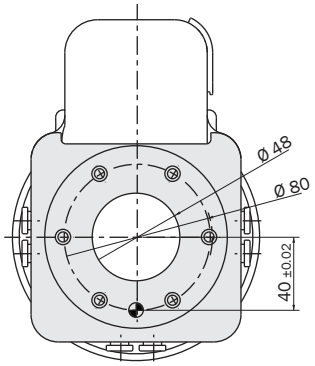


Senza piastra
Without interface plate

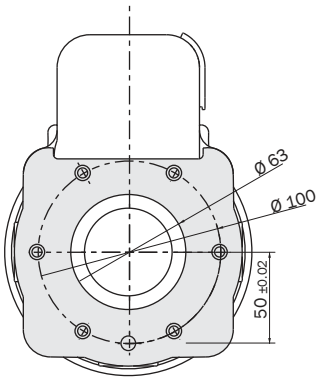


EQC100...-A

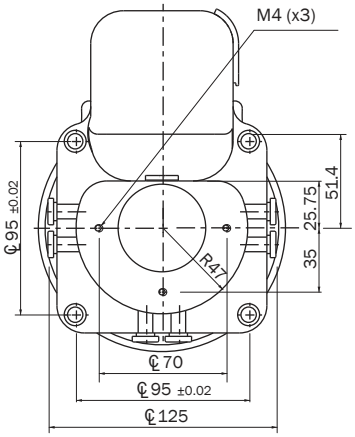
EQC100-K80
ISO 9409-1-80-6-M8



EQC100-K100
ISO 9409-1-100-6-M8



Senza piastra
Without interface plate



Fissaggio

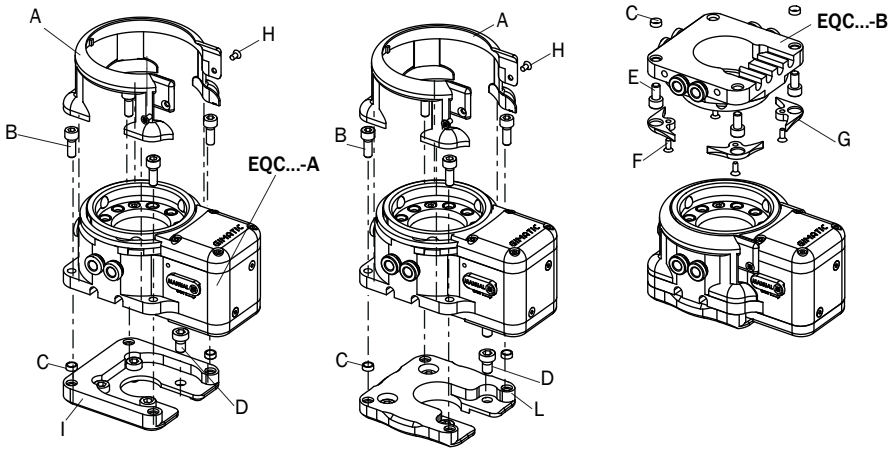
La parte attiva del cambia utensile può essere fissata esclusivamente sul fondo utilizzando quattro viti. La flangia B può essere fissata sul carico in modo analogo. Sia per la parte A che per la parte B, utilizzare per il centraggio due boccole (C), fornite nella confezione.

Fastening

The active part of the quick changer can only be fastened on the bottom using four screws. The tool plate, B, can be fastened on the load in a similar manner. For proper centering of parts A and B, use the two bushes (C) supplied in the package.

Esempio

Example



	EQC05...-A	EQC20...-A	EQC100...-A
A	EQC05-30	EQC20-055	EQC100-19
B	TCEI M4X14 DIN 912	TCEI M5X14 DIN912	TCEI M8X25 DIN 912
C	Ø 3X12 DIN 6325	390677 Ø7xØ5.3x3	354236 Ø12xØ8.4x5
D	TCEI M6X10 DIN 7984	TCEI M6x10 DIN 7984	TCEI M8X16 DIN 912
E	TCEI M4 DIN912	TCEI M5 DIN912	TCEI M8 DIN912
F	TSP M2.5X8 DIN965A	TSP M3x8 DIN 965A	TSP M4X16 DIN965A
G	EQC05-20	EQC20-029	EQC100-26
H	TSP M3X6 DIN965A	TSP M3X6 DIN 965A	TSP M4x10 DIN 965A
I	EQC05-K50 (ISO 9409-1-50-4-M6)	EQC20-K63 (ISO 9409-1-63-4-M6)	EQC100-K80 (ISO 9409-1-80-6-M8)
L	EQC05-K40 (ISO 9409-1-40-4-M6)	EQC20-K50 (ISO 9409-1-50-4-M6)	EQC100-K100 (ISO 9409-1-100-6-M8)

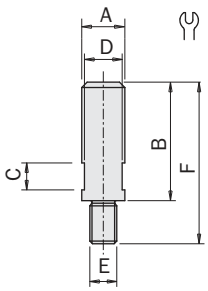
Kit pioli per lo stoccaggio (opzionale)

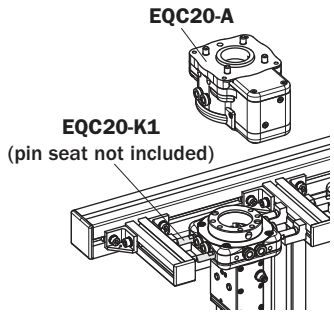
Sono forniti separatamente i pioli necessari allo stoccaggio della flangia in condizioni di non utilizzo.

Kit pin for storage (optional)

The pins required for storage of the tool plate when not in use are supplied separately.

	EQC05-K1	EQC20-K1	EQC100-K1
A	D7	D8	D12
B	15	22	52
C	4+1	5+1	8+1
D	6	7	10
E	M4	M5	M6
F	20	30	70
	5	7	10





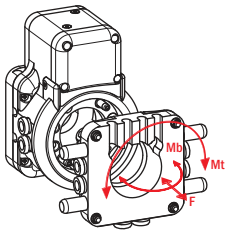
Carichi di sicurezza

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare il sistema e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

Safety loads

Check the table for the maximum loads allowed. Excessive forces or torques can damage the system, cause operation problems and endanger the safety of the operator.

	EQC05...-A	EQC20...-A	EQC100...-A
Mt	8 Nm	150 Nm	600 Nm
Mb	8 Nm	100 Nm	400 Nm
F	500 N	2000 N	8000 N



Connessione elettrica principale

Il cambia utensile elettrico è dotato di un cavo con connettore M8 a 8 poli per l'alimentazione a 24 Vdc, per il segnale di comando di aggancio/sgancio e per la connessione dei segnali digitali di uscita che identificano la configurazione di sistema accoppiato e disaccoppiato. La taglia maggiore di questo cambia utensile elettrico (EQC100*-A) presenta un ulteriore ingresso (SECURE INPUT) per permettere il funzionamento del prodotto in sicurezza. Non è necessaria un'ulteriore elettronica di comando esterna.Si rimanda alle istruzioni di ogni specifico codice per i dettagli sul pinout.

Main electrical connection

The electrical quick changer is equipped with an 8-poles M8 connector that provides a 24Vdc power supply for the locking/ unlocking command and for the connection of the digital outputs that identify the coupled and uncoupled system status.
The major size of this electric tool changer (EQC100-A) has an additional input (SECURE INPUT) to allow the product to operate safely. No additional external electronic control system is required.*

	EQC05...-A	EQC20...-A	EQC100...-A
Connessione elettrica *Electrical connection*	M8, 8 poli *M8, 8-pole*		
Alimentazione *Power supply*	24 Vdc ± 10% 0.35 Arms,0.8 Apk	24 Vdc ± 10% 0.5 Arms, 1.2 Apk	24 Vdc ± 10% 1.5 Arms, 6 Apk
Ritardo di inizializzazione uscite *Output initialisation delay*	200 ms		

Riassunto codici famiglia EQC

Summary of EQC family codes

Lato A *Side A*	Lato B *Side B*	Descrizione *Description*	Caratteristiche cavo *Features of cable (M8 – 8 pins)*	Carico *Load [kg]*	Connettori *Connectors*	Accessori *Accessories*
EQC05-A	EQC05-B	Versione standard, taglia 05, comando PNP, uscite PNP *Standard version, size 05, PNP control, PNP outputs*	Maschio, dritto, Gimatic standard pinout *Male, straight, Gimatic standard pinout*	5	RMAQC05/ RMBQC05	EQC05-K1
EQC05N-A	EQC05-B	Versione standard, taglia 05, comando NPN, uscite PNP *Standard version, size 05, NPN control, NPN outputs*	Maschio, dritto, Gimatic standard pinout *Male, straight, Gimatic standard pinout*	5	RMAQC05/ RMBQC05	EQC05-K1
EQC05TM-A	EQC05-B	Versione per cobot TM, taglia 05, comando NPN, uscite NPN *Version for TM cobot, size 05, NPN control, NPN outputs*	Maschi, angolare, TM pinout *Male, angular, TM pinout*	5	RMAQC05/ RMBQC05	EQC20-K1
EQC20-A	EQC20-B	Versione standard taglia 20, comando PNP, uscite PNP *Standard version, size 20, PNP control, PNP outputs*	Maschio, dritto, Gimatic standard pinout *Male, straight, Gimatic standard pinout*	20	RMAQC/RMBQC RRAQC/RRBQC	EQC20-K1
EQC20N-A	EQC20-B	Versione standard taglia 20, comando NPN, uscite PNP *Standard version, size 20, NPN control, PNP outputs*	Maschio, dritto, Gimatic standard pinout *Male, straight, Gimatic standard pinout*	20	RMAQC/RMBQC RRAQC/RRBQC	EQC20-K1
EQC20TM-A	EQC20-B	Versione per cobot TM, taglia 20, comando NPN, uscite NPN *Version for TM cobot, size 20, NPN control, NPN outputs*	Maschio, angolare, TM pinout *Male, angular, TM pinout*	20	RMAQC/RMBQC RRAQC/RRBQC RMAQC-TM/ RMBQC-TM	EQC20-K1
EQC20U-A	EQC20-B	Versione per cobot UR, taglia 20, comando NPN, uscite PNP *Version for UR cobot, size 20, NPN control, PNP outputs*	Femmina, angolare, UR pinout *Female, angular, UR pinout*	20	RMAQC/RMBQC RRAQC/RRBQC RMAQC-UR/ RMBQC-UR	EQC20-K1
EQC100-A	EQC100-B	Versione standard, taglia 100, commando PNP, uscite PNP *Standard version, size 100, PNP control, PNP outputs*	Maschio, dritto, Gimatic standard *Male, straight, Gimatic standard pinout*	100	RMAQC/RRAQC + EQC100-K2-A RMBQC/RRBQC + EQC100-K2-B	EQC100-K1
EQC100N-A	EQC100-B	Versione standard, taglia 100, commando NPN, uscite PNP *Standard version, size 100, NPN control, PNP outputs*	Standard version, size 100, NPN control, PNP outputs *Male, straight, Gimatic standard pinout*	100	RMAQC/RRAQC + EQC100-K2-A RMBQC/RRBQC + EQC100-K2-B	EQC100-K1

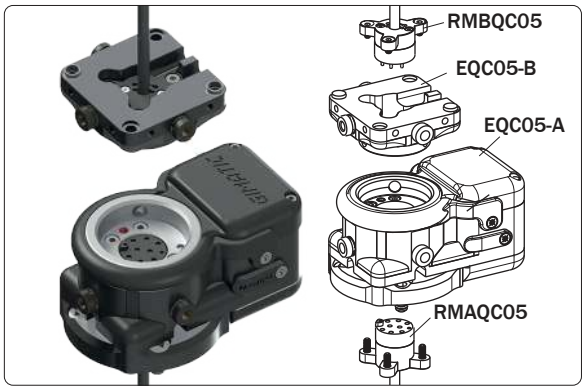
Modulo di connessione elettrica: RMAQC05/ RMBQC05 (optional per EQC05)

- Modulo di connessione elettrica per cambia utensile elettrico EQC05.
- 8 connessioni elettriche a molla.
- 1 uscita a cavo precablato.

Electrical connection module: RMAQC05/ RMBQC05 (optional for EQC05)

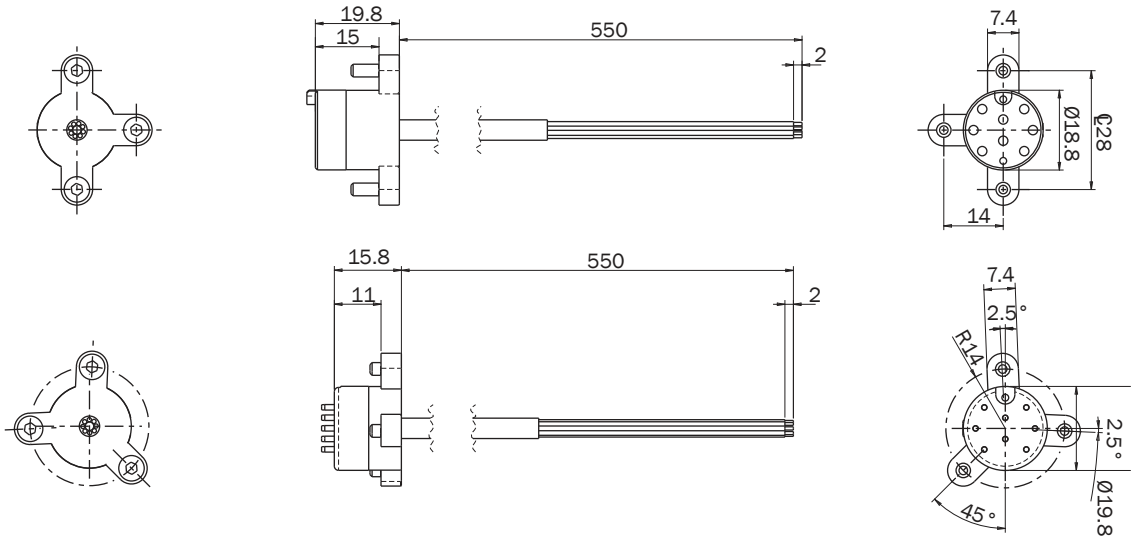
- *Electrical connection module for EQC05 quick changer.*
- *8 electrical spring connections.*
- *1 output with pre-wired cable.*

Esempio di applicazione



Application example





	RMAQC05	RMBQC05
Numero connessioni utente *Number of user connections*	8	
Rivestimento contatti *Contact coating*	Doratura *Gold-plating*	
Tipo di contatto *Type of contact*	Femmina *Female*	Maschio *Male*
Tensione nominale *Rated voltage*	24 Vdc	
Corrente massima per contatto *Max current per contact*	1 A	
Temperatura di esercizio *Operating temperature*	5/60°C	
Grado di protezione *IP rating*	IP40	
Connessione elettrica *Electrical connection*	1 cavo (8 x 0.14mm²) *1 cable (8 x 0.14mm²)*	
Lunghezza cavo *Cable length*	500mm	
Isolamento cavo *Cable insulation*	PUR	
Guaina cavo *Cable sheath*	PUR	
Massa *Weight*	70g	

Modulo di connessione elettrica: RMAQC/RMBQC (optional per EQC20 e EQC100)

- Modulo di connessione elettrica.
- 32 connessioni elettriche.
- Pin a tasteggio autopulenti.
- Uscita: 4 cavi da 8 x 0.14 mm².
- Le due parti sono fornite separatamente:
  RMAQC – lato robot;
  RMBQC – lato utensile.
- Disponibilità di modelli specifici per robot collaborativi UR e TM (RMAQC-UR, RMAQC-TM, RMBQC-UR, RMBQC-TM).



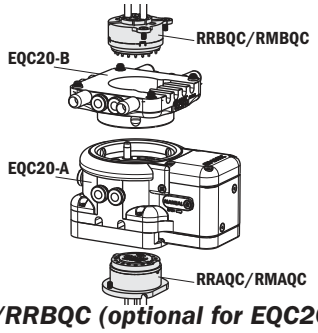
RMAQC



RMBQC

Electrical connection module: RMAQC/RMBQC (optional for EQC20 and EQC100)

- *Electric connection module.*
- *32 electrical connection.*
- *Feeler pin with self-clearing heads.*
- *Output: four 8-pole cable x 0.14 mm².*
- *The two parts are supplied separately:*
  RMAQC – robot side;
  RMBQC - frame side.
- *Availability of specific models for UR and TM collaborative robots (RMAQC-UR, RMAQC-TM, RMBQC-UR, RMBQC-TM).*



RRAQC/RRBQC (optional per EQC20 e EQC100)

Modulo di identificazione RFID + Modulo di connessione elettrica.
Sistema di riconoscimento automatico dell'organo di presa composto da un lettore RFID (RRAQC) ed un TAG di memoria (RRBQC).

- Fino a 255 utensile distinguibili.
- Codifica binaria dell'utensile tramite 8 uscite digitali 24 Vdc.
- Ingresso digitale per il conteggio dei cicli di esecuzione dell'utensile.
- Uscita digitale per segnalazione intervento manutentivo richiesto dall'utensile al raggiungimento del numero cicli impostato.
- Memorizzazione dati tecnici dell'utensile.
- Disponibile area dati utensile.
- 16 connessioni elettriche.
- Pin a tasteggio autopulenti.
- Uscita modulo RFID: 2 cavi da 8 poli x 0.14 mm².
- Uscita modulo connessione elettrica: 2 cavi da 8 x 0.14 mm².
- Le due parti sono fornite separatamente:
  RRAQC – lato robot (lettore) [NPN: RRAQCN];
  RRBQC – lato utensile (TAG).
- Comunicazione anche con il tuo smartphone grazie alla nuova app "Gimatic Android App".

RRAQC/RRBQC (optional for EQC20 and EQC100)

RFID identification modules + Electric connection module.
System for automatic recognition of gripping tool composed of a RFID reader (RRAQC) and memory TAG (RRBQC).

- *Up to 255 identifiable tools.*
- *Binary coding of tools by means of 8 digital outputs 24 Vdc.*
- *Digital input to counting tool cycles execution.*
- *Generation of a maintenance warning signal once the tool reaches the preset number of cycles.*
- *Memorization of tool technical data.*
- *User data memory available.*
- *16 pins connections.*
- *Feeler pin with self-clearing heads.*
- *RFID module output: two 8-pole cable x 0.14 mm².*
- *Electric connection module output: two 8-pole cable x 0.14 mm².*
- *The two parts are supplied separately:*
  RRAQC – robot side (Reader) [NPN: RRAQCN];
  RRBQC – frame side (TAG).
- *Communication also through your smartphone thanks to the new app "Gimatic Android App".*



RRAQC



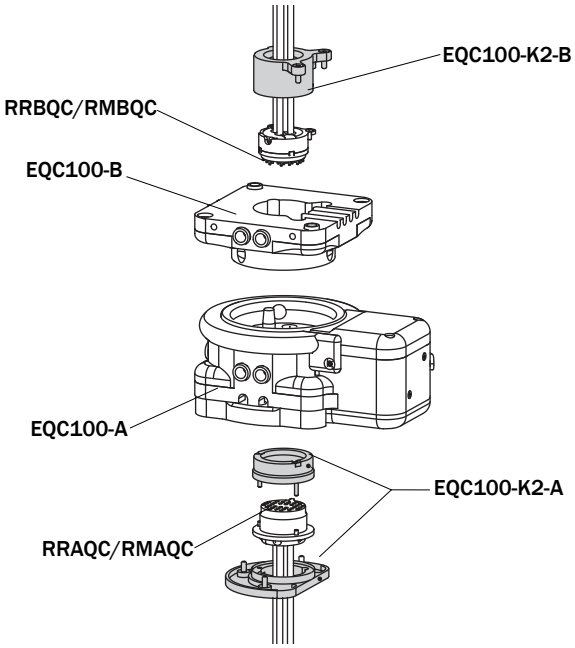
RRBQC



	RRAQC/RRBQC	RMAQC/RMBQC
Numero connessioni utente *Number of user connections*	16	32
RFID	Si *Yes*	No *No*
Connessioni *Connections*	8 x 0.14 mm² 4 cavi (diametro cavo 4.8 mm) *8 x 0.14 mm² 4 cable (cable diametre 4.8 mm)*	
Corrente max per contatto *Max current per contact*	1 A	
Tensione nominale *Rated voltage*	24 Vdc ± 10%	
Contatti *Contacts*	A molla autopulenti con doratura *Self-cleaning spring contacts, gold-plated*	
Temperatura esercizio *Temperature range*	5 ÷ 60°C	

Adattatore per moduli di connessione RMQC/RRQC: EQC100-K2-A/EQC100-K2-B (per EQC100)

Adapter for RMQC/RRQC connection modules: EQC100-K2-A/EQC100-K2-B (for EQC100)



Codice *Code*	Peso *Weight*	Materiale *Material*
EQC100-K2-A	50 g	PA
EQC100-K2-B	32g	PA

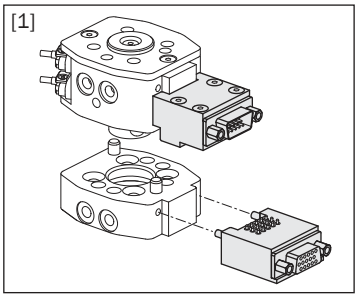
PQC

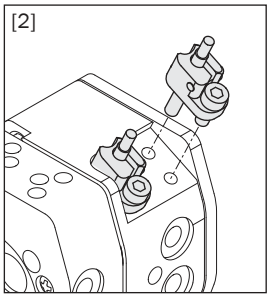
Cambia utensile pneumatico automatico PQC16W

- Cambia utensile pneumatico automatico, per carichi fino a 16 kg.
- 5 canali pneumatici integrati.
- Moduli elettrici opzionali [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sblocco lato robot con sensori induttivi inclusi [2].
- Installazione diretta su interfacce ISO-9409-1-31.5-4-M5 per ridurre l'ingombro verticale (lato robot).
- Compatibile con stoccaggio utensili PQCSU XS (lato uensile).
- Uscite pneumatiche radiali o assiali (lato utensile).

Automatic pneumatic tool changer PQC16W

- *Automatic pneumatic tool changer, max load 16 kg.*
- *5 integrated pneumatic connections.*
- *Optional electrical modules [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Direct installation on ISO-9409-1-31.5-4-M5 interfaces to reduce vertical footprint.*
- *Compatible with PQCSU XS-size tool storage (tool side).*
- *Radial or axial pneumatic connections (tool side).*



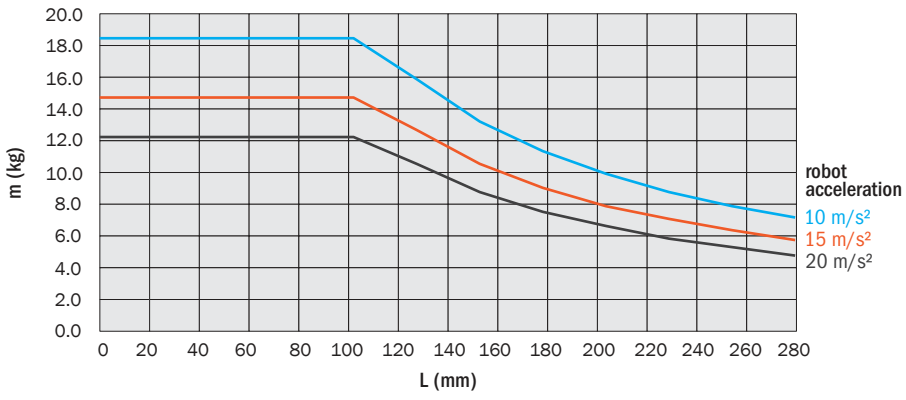


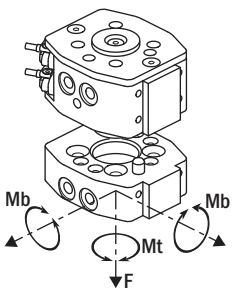




	PQC16W-M5X5-A 7703002	PQC16W-M5X5-B 7703003
Carico massimo consigliato *Suggest maximum payload*	16 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	5x M5	
Interfaccia fissaggio *Mounting interface*	ISO 9409-1-31.5-4-M5	
Temperatura di lavoro *Operating temperate*	+5 ÷ +60 °C	
Interfaccia di montaggio moduli *Module mounting interface*	W (x1)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	6.02 cm³	-
Peso *Weight*	200 g	80 g

Carichi di sicurezza
Safety loads

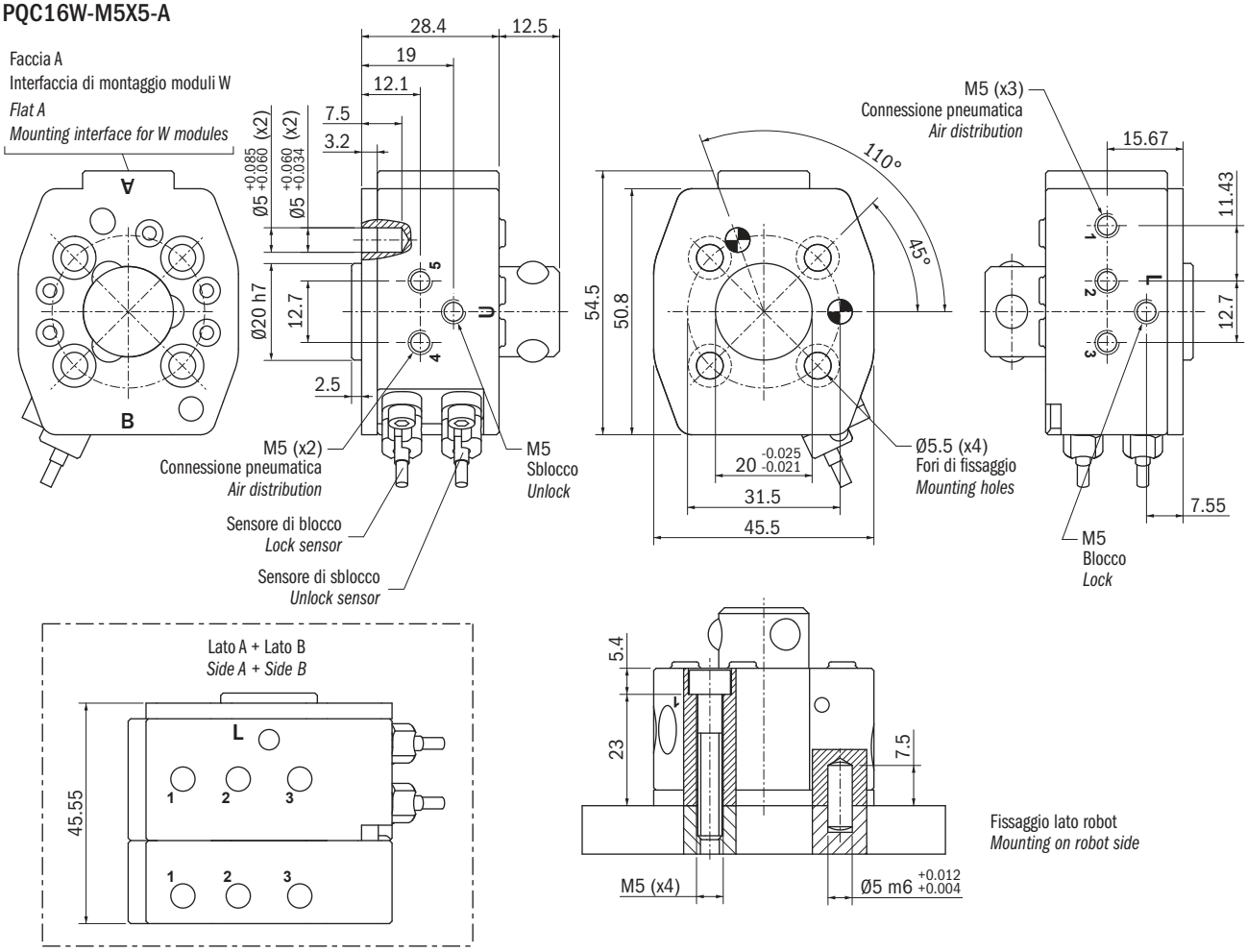




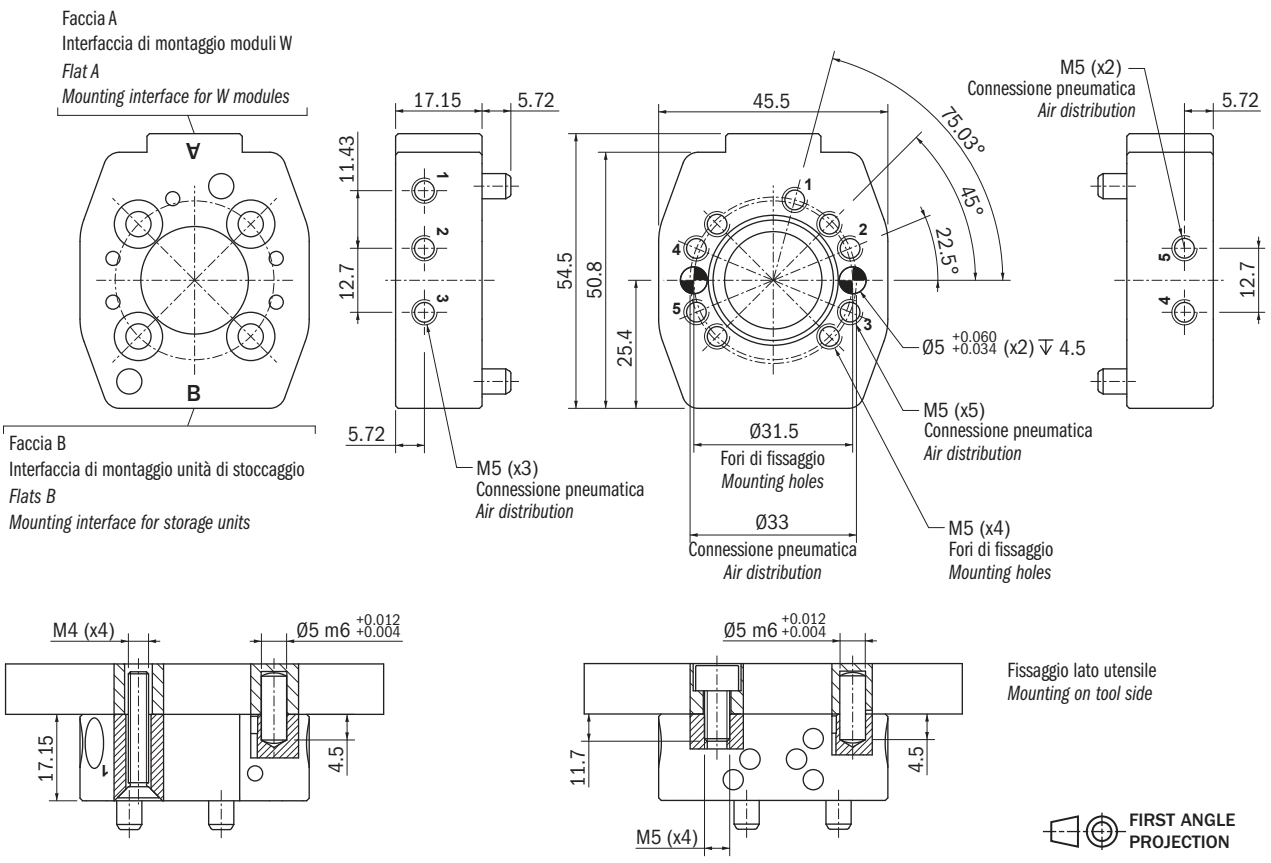
Max Mt	150 Nm
Max Mb	90 Nm
Max F (5.5 bar)	980 N

Dimensioni (mm)
Dimensions (mm)

PQC16W-M5X5-A



PQC16W-M5X5-B

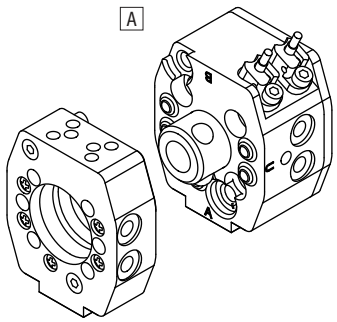


Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC16W-M5X5-A	Cambia utensile pneumatico automatico, portata 16 kg, interfaccia W, connessioni pneumatiche integrate 5x M5, sensori PNP di blocco/sblocco, ISO 9409-1-31.5-4-M5, lato robot *Pneumatic tool changer, 16 kg payload, W interface, integrated pneumatic passthroughs 5x M5, ISO 9409-1-31.5-4-M5, PNP lock/unlock sensors, robot side*	7703002
B	PQC16W-M5X5-B	Cambia utensile pneumatico automatico, portata 16 kg, interfaccia W, connessioni pneumatiche integrate 5x M5, lato utensile *Pneumatic tool changer, 16 kg payload, W interface, integrated pneumatic passthroughs 5x M5, ISO 9409-1-31.5-4-M5, tool side*	7703003

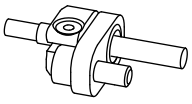
A

B



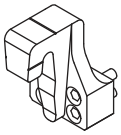
Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS1	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703100
-	PQC16W-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703101
-	CFGM800350FX	Cavo sensore, connettore dritto filettato, 5 m (terminali liberi) *Sensor cable, straight threaded connector, 5 m (flying leads), flexible resistant*	9800107

A

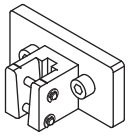


Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-XS-16W	Piastra orizzontale per unità di stoccaggio PQC, taglia extra piccola, interfaccia 16W *PQC storage unit horizontal plate, extra small size, 16W interface*	7703200
B	PQCSU-STAND-XS-TS10	Supporto per unità di stoccaggio PQC, taglia extra piccola, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, extra small ize, T-slot 10 mm 40x90 / 90x90 interface*	7703201
C	PQCSU-STAND-XS-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC extra piccola, contatto NO, PNP, 3 poli, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC extra small size storage unit stand, NO contact, PNP, 3-pin, 10-30 Vdc, 0.2 m cable*	7703202

A



B



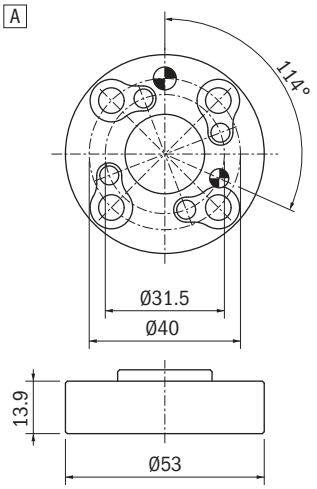
C



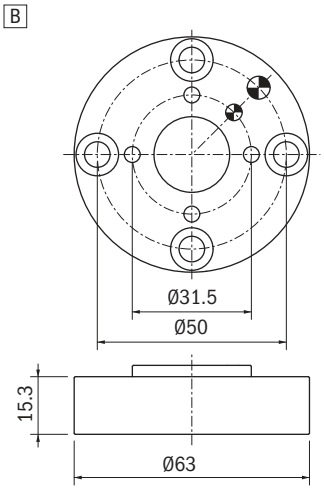
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Interfacce *Interfaces*	Codice ordinazione *Order code*
A	PQC16W-KITI-ISO40-A	Kit flangia ISO 9409-1-40-4-M6, lato robot *Kit interface plate ISO 9409-1-40-4-M6, robot side*	7703110
B	PQC16W-KITI-ISO50-A	Kit flangia ISO 9409-1-50-4-M6, lato robot *Kit interface plate ISO 9409-1-50-4-M6, robot side*	7703111
C	PQC16W-KITI-ISO50-B	Kit flangia ISO 9409-1-50-4-M6, lato utensile *Kit interface plate ISO 9409-1-50-4-M6, tool side*	7703112

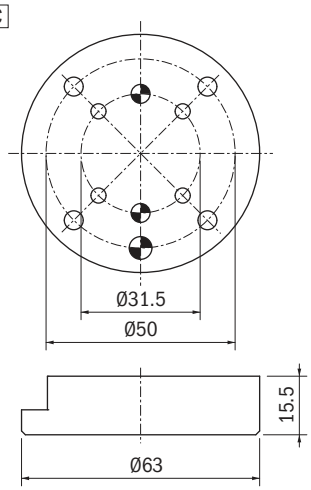
A



B

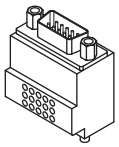


C

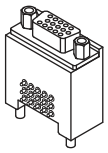


Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCW-15P2A-DSUB-A	Modulo elettrico con interfaccia W, 15 pin 2A/50V, connettore high-density D-sub, lato robot *Electrical module W interface, 15-pin 2A/50V, high-density D-sub connector, robot side*	7703300
B	PQCW-15P2A-DSUB-B	Modulo elettrico con interfaccia W, 15 pin 2A/50V, connettore high-density D-sub, lato utensile *Electrical module W interface, 15-pin 2A/50V, high-density D-sub connector, tool side*	7703301

A

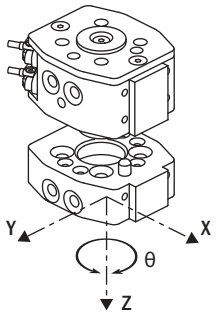


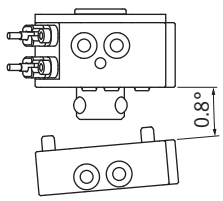
B



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	1.5 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 1 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 2°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 0.8°
Ripetibilità *Repeatability*	0.01 mm





PQC

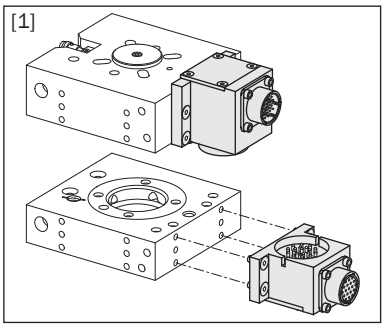
Cambia utensile pneumatico automatico PQC35J

- Cambia utensile pneumatico automatico, per carichi fino a 35 kg.
- 6 canali pneumatici integrati.
- Moduli elettrici e pneumatici opzionali (x3) [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sblocco lato robot con sensori induttivi inclusi [2].
- Installazione diretta su interfacce ISO-9409-1-50-4-M6 per ridurre l'ingombro verticale (lato robot).
- Compatibile con stoccaggio utensili PQCSU S (lato uensile).

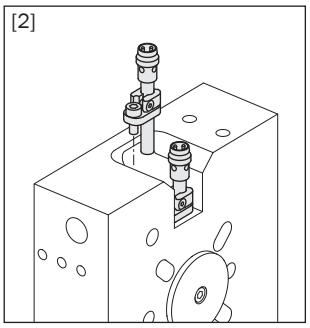
Automatic pneumatic tool changer PQC35J

- *Automatic pneumatic tool changer, max load 35 kg.*
- *6 integrated pneumatic connections.*
- *Optional electrical and pneumatic modules (x3) [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Direct installation on ISO-9409-1-50-4-M6 interfaces to reduce vertical footprint.*
- *Compatible with PQCSU S-size tool storage (tool side).*

[1]



[2]





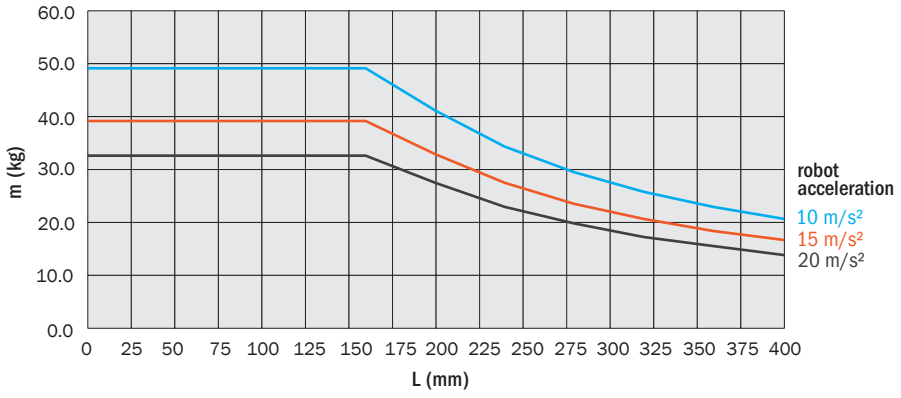
NEW

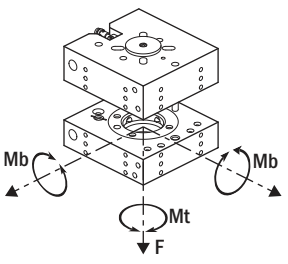


NEW

	PQC35J-G18X2M5X4-A 7703004	PQC35J-G18X2M5X4-B 7703005
Carico massimo consigliato *Suggest maximum payload*	35 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	2x G1/8" - 4x M5	
Interfaccia fissaggio *Mounting interface*	ISO 9409-1-50-4-M6	
Temperatura di lavoro *Operating temperate*	+5 ÷ +60 °C	
Interfaccia di montaggio moduli *Module mounting interface*	J (x3)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	15.4 cm³	-
Peso *Weight*	984 g	671 g

Carichi di sicurezza
Safety loads



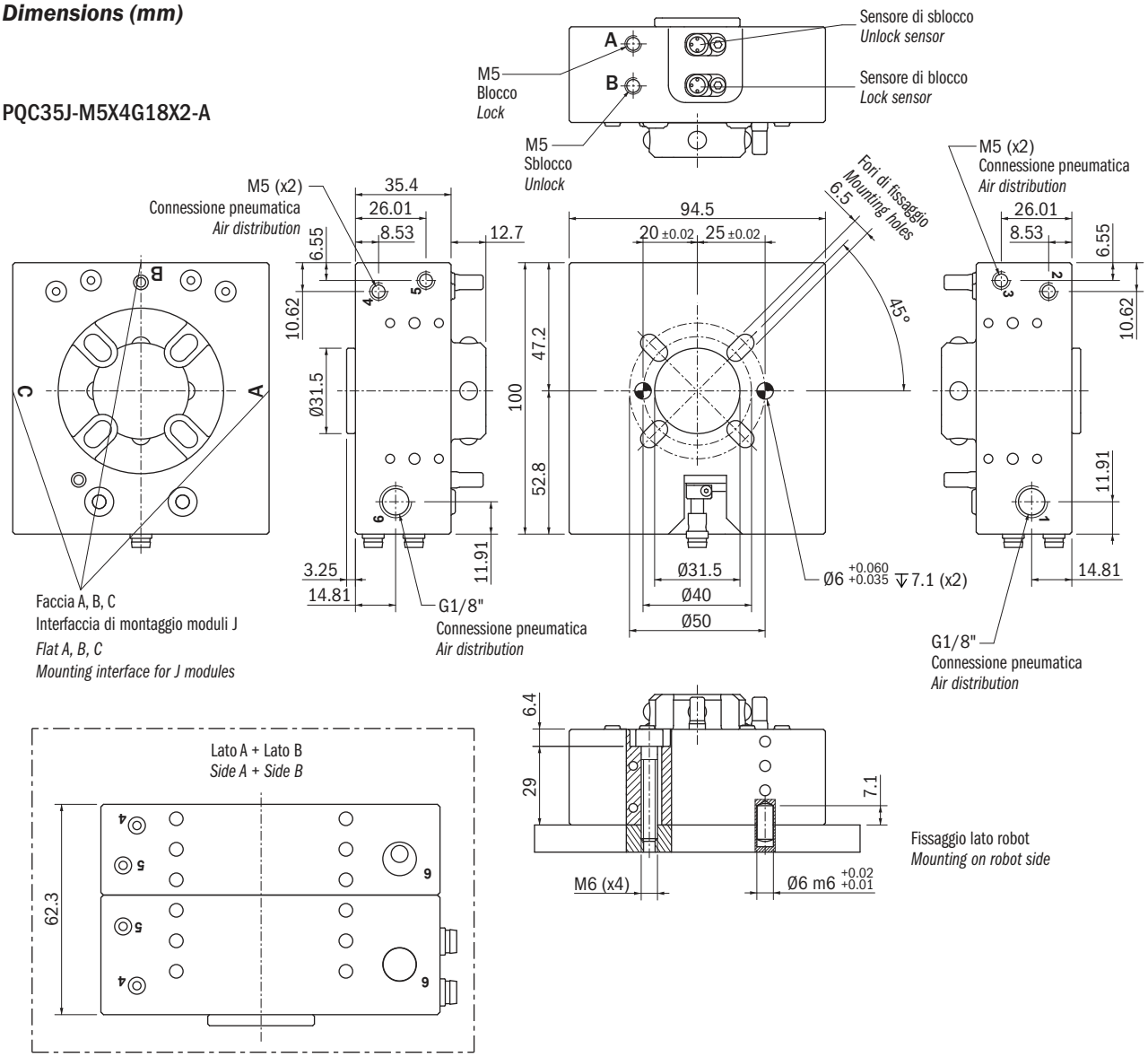


Max Mt	450 Nm
Max Mb	360 Nm
Max F (5.5 bar)	2900 N

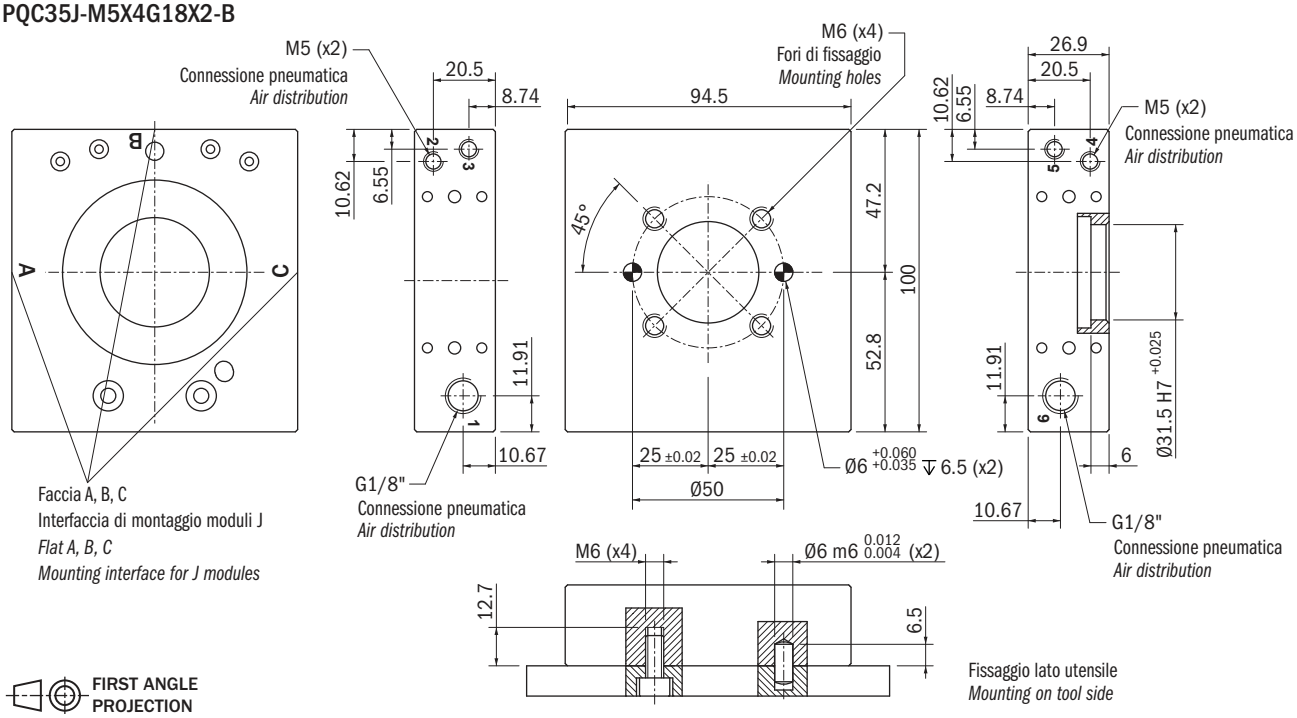
07/2026

Dimensioni (mm)
Dimensions (mm)

PQC35J-M5X4G18X2-A



PQC35J-M5X4G18X2-B



FIRST ANGLE PROJECTION

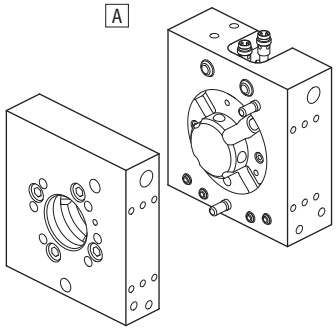
07/2026

Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC35J-G18X2M5X4-A	Cambia utensile pneumatico automatico, portata 35 kg, interfaccia J, connessioni pneumatiche integrate 2x G1/8" e 4x M5, sensori PNP di blocco/sblocco, lato robot *Pneumatic tool changer, 35 kg payload, J interface, integrated pneumatic passthroughs 2x G1/8" and 4x M5, PNP lock/unlock sensors, robot side*	7703004
B	PQC35J-G18X2M5X4-B	Cambia utensile pneumatico automatico, portata 35 kg, interfaccia J, connessioni pneumatiche integrate 2x G1/8" e 4x M5, lato utensile *Pneumatic tool changer, 35 kg payload, J interface, integrated pneumatic passthroughs 2x G1/8" and 4x M5, tool side*	7703005

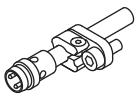
A

B



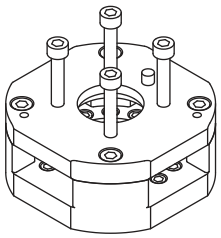
Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS2	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703102
-	PQC35J-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703103
-	CFGM800350FX	Cavo sensore, connettore dritto filettato, 5 m (terminali liberi) *Sensor cable, straight threaded connector, 5 m (flying leads), flexible resistant*	9800107

A



Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Interfacce *Interfaces*	Codice ordinazione *Order code*
A	PQC35W-KITI-ISO64-A	Kit flangia ISO 9409-1-40-604-M6, lato robot *Kit interface plate ISO 9409-1-40-4-M6, robot side*	7703113

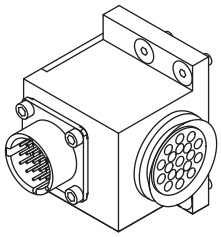
A



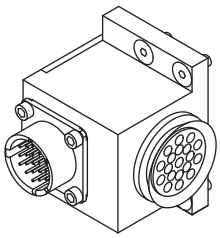
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCJ-19P5A-MST-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore MS, lato robot *Electrical module J interface, 19-pin 5A/250VAC, MS connector, robot side*	7703400
B	PQCJ-19P5A-MST-S9-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore MS con cavo integrato a 90° per sensori blocco/sblocco, lato robot *Electrical module J interface, 19-pin 5A/250VAC, MS connector with Integrated 90° cable for lock/unlock sensor, robot side*	7703402
C	PQCJ-19P5A-MST-B	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore MS, lato utensile *Electrical module J interface, 19-pin 5A/250VAC, MS connector, tool side*	7703401
D	PQCJ-19P3A-M16T-B	Modulo elettrico con interfaccia J, 19 pin 3A/125VAC, connettore M16, lato utensile *Electrical module J interface, 19-pin 3A/125VAC, M16 connector, tool side*	7703403
E	PQCJ-FL-M5X8WT-A	Modulo pneumatico con interfaccia J, M5 x8 canali con passaggio diretto o direzione superiore, lato robot *Pneumatic module J interface, M5 x8 channel with way-through or top direction, robot side*	7703404
F	PQCJ-FL-M5X8WT-B	Modulo pneumatico con interfaccia J, M5 x8 canali con passaggio diretto o direzione superiore, lato utensile *Pneumatic module J interface, M5 x8 channel with way-through or top direction, tool side*	7703405

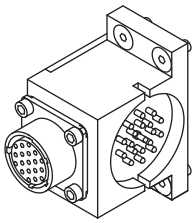
A



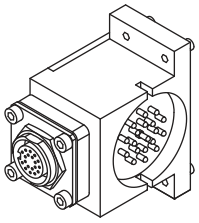
B



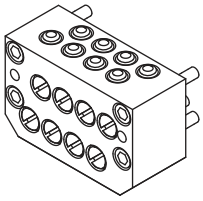
C



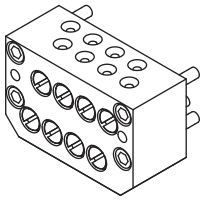
D



E



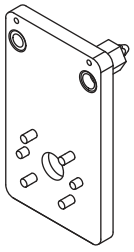
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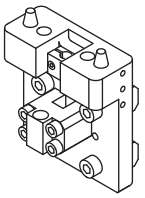
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-S-35J	Piastra orizzontale per unità di stoccaggio PQC, taglia small, interfaccia 35J *PQC storage unit horizontal plate, small size, 35J interface*	7703203
B	PQCSU-STAND-S-TS10	Supporto per unità di stoccaggio PQC, taglia small, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, small size, T-slot 10 mm 40x90 / 90x90 interface*	7703204
C	PQCSU-STAND-S-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC piccola, contatto NO, PNP, 3 poli, M8x1, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC small size storage unit stand, NO contact, PNP, 3-pin, M8x1, 10-30 Vdc, 0.2 m cable*	7703205
D	PQCSU-VTOOL-S-BLK	Piastra verticale per unità di stoccaggio PQC, taglia piccola, priva di forature di interfaccia *PQC storage unit vertical plate, small size, blank interface*	7703206

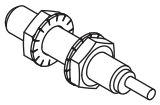
A



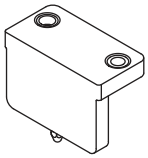
B



C

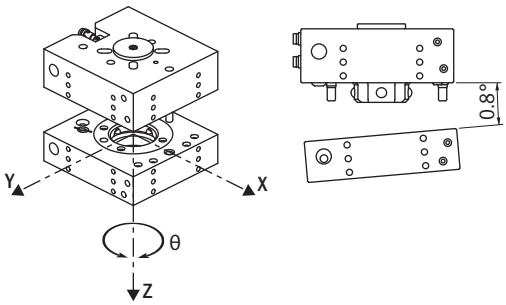


D



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	1.5 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 0.9 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 1°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 0.8°
Ripetibilità *Repeatability*	0.015 mm



Note
Notes

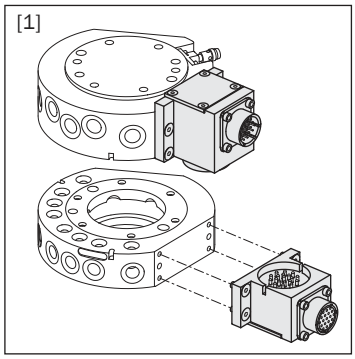
PQC

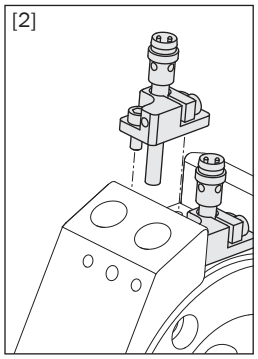
Cambia utensile pneumatico automatico PQC60J

- Cambia utensile pneumatico automatico, per carichi fino a 60 kg.
- 8 canali pneumatici integrati.
- Moduli elettrici e pneumatici opzionali (x2) [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sbocco lato robot con sensori induttivi inclusi [2].
- Compatibile con stoccaggio utensili PQCSU S (lato uensile).

Automatic pneumatic tool changer PQC60J

- *Automatic pneumatic tool changer, max load 60 kg.*
- *8 integrated pneumatic connections.*
- *Optional electrical and pneumatic modules (x2) [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Compatible with PQCSU S-size tool storage (tool side).*



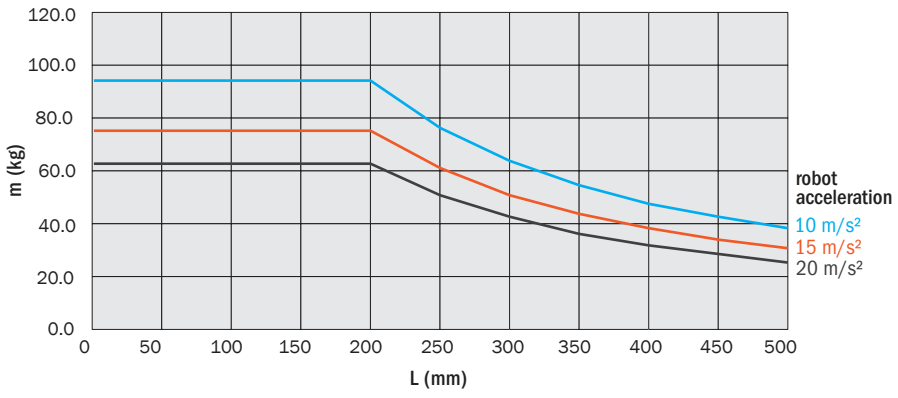


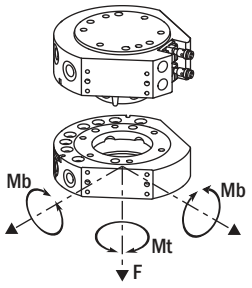

NEW


NEW

	PQC60J-G18X8-A 7703006	PQC60J-G18X8-B 7703007
Carico massimo consigliato *Suggest maximum payload*	60 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	8x G1/8"	
Interfaccia fissaggio *Mounting interface*	personalizzata *custom*	
Temperatura di lavoro *Operating temperate*	-30 ÷ +66 °C	
Interfaccia di montaggio moduli *Module mounting interface*	J (x2)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	41.06 cm³	-
Peso *Weight*	1.25 kg	0.59 kg

Carichi di sicurezza
Safety loads

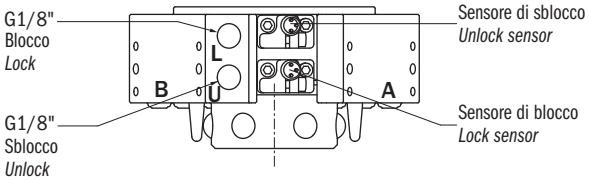


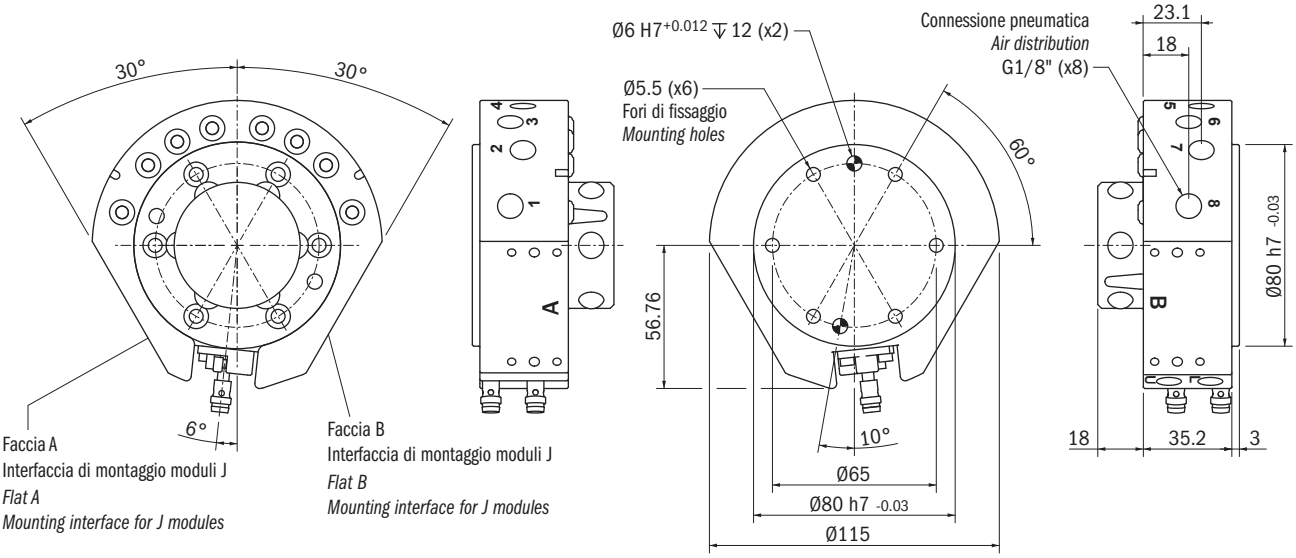


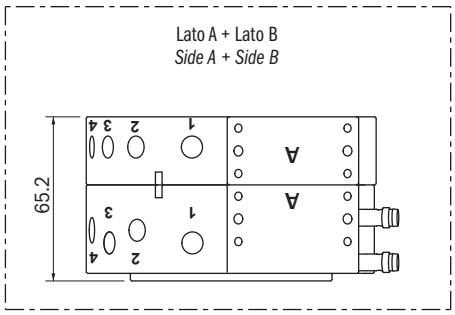
Max Mt	1050 Nm
Max Mb	1050 Nm
Max F (5.5 bar)	5600 N

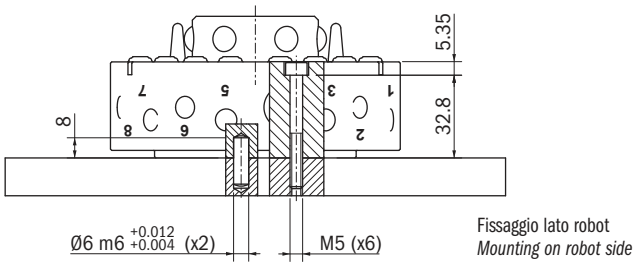
Dimensioni (mm)
Dimensions (mm)

PQC60J-G18X8-A

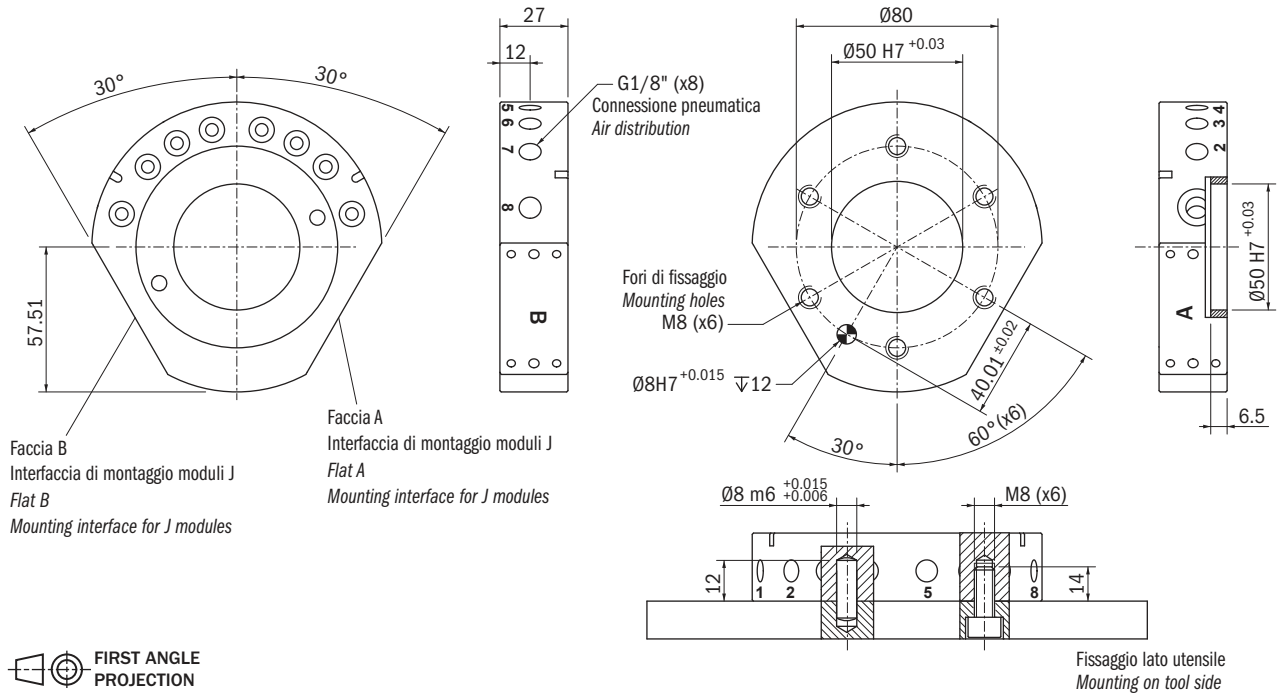








PQC60J-G18X8-B



FIRST ANGLE PROJECTION

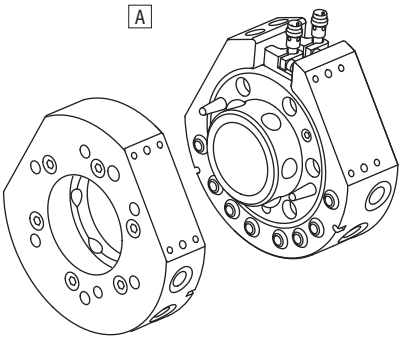
07/2026

Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC60J-G18X8-A	Cambia utensile pneumatico automatico, portata 60 kg, interfaccia J, connessioni pneumatiche integrate 8x G1/8", sensori PNP di blocco/sblocco, lato robot *Pneumatic tool changer, 60 kg payload, J interface, integrated pneumatic passthroughs 8x G1/8", PNP lock/unlock sensors, robot side*	7703006
B	PQC60J-G18X8-B	Cambia utensile pneumatico automatico, portata 60 kg, interfaccia J, connessioni pneumatiche integrate 8x G1/8", lato utensile *Pneumatic tool changer, 60 kg payload, J interface, integrated pneumatic passthroughs 8x G1/8", tool side*	7703007

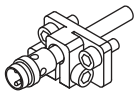
A

B



Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS3	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703104
-	PQC60J-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703105
-	CFGM800350FX	Cavo sensore, connettore dritto filettato, 5 m (terminali liberi) *Sensor cable, straight threaded connector, 5 m (flying leads), flexible resistant*	9800107

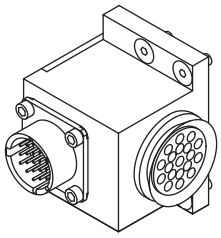
A



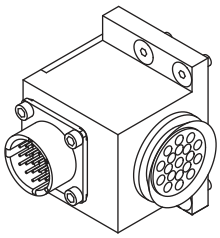
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCJ-19P5A-PTT-A	Modulo elettrico con interfaccia J, 19 pin 5A/260VAC, connettore Amphenol PT, lato robot *Electrical module J interface, 19-pin 5A/260VAC, Amphenol PT connector, robot side*	7703400
B	PQCJ-19P5A-PTT-S9-A	Modulo elettrico con interfaccia J, 19 pin 5A/260VAC, connettore Amphenol PT con cavo integrato a 90° per sensori blocco/sblocco, lato robot *Electrical module J interface, 19-pin 5A/260VAC, Amphenol PT connector with Integrated 90° cable for lock/unlock sensor, robot side*	7703402
C	PQCJ-19P5A-PTT-B	Modulo elettrico con interfaccia J, 19 pin 5A/260VAC, connettore Amphenol PT, lato utensile *Electrical module J interface, 19-pin 5A/260VAC, Amphenol PT connector, tool side*	7703401
D	PQCJ-19P3A-M16T-B	Modulo elettrico con interfaccia J, 19 pin 3A/125VAC, connettore M16, lato utensile *Electrical module J interface, 19-pin 3A/125VAC, M16 connector, tool side*	7703403
E	PQCJ-FL-M5X8WT-A	Modulo pneumatico con interfaccia J, M5 x8 canali con passaggio diretto o direzione superiore, lato robot *Pneumatic module J interface, M5 x8 channel with way-through or top direction, robot side*	7703404
F	PQCJ-FL-M5X8WT-B	Modulo pneumatico con interfaccia J, M5 x8 canali con passaggio diretto o direzione superiore, lato utensile *Pneumatic module J interface, M5 x8 channel with way-through or top direction, tool side*	7703405

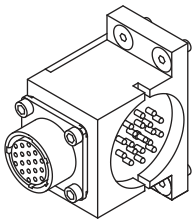
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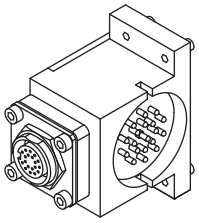
B



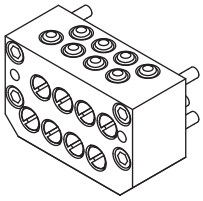
C



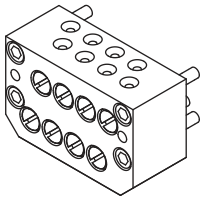
D



E



F

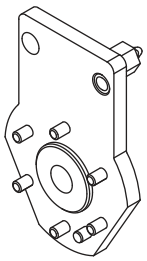


PQC

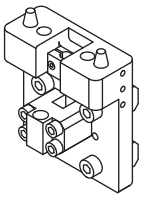
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-S-60J	Piastra orizzontale per unità di stoccaggio PQC taglia small, interfaccia 60J *PQC storage unit horizontal plate, small size, 60J interface*	7703207
B	PQCSU-STAND-S-TS10	Supporto per unità di stoccaggio PQC taglia small, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, small size, T-slot 10 mm 40x90 / 90x90 interface*	7703204
C	PQCSU-STAND-S-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC piccola, contatto NO, PNP, 3 poli, M8x1, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC small size storage unit stand, NO contact, PNP, 3-pin, M8x1, 10-30 Vdc, 0.2 m cable*	7703205
D	PQCSU-VTOOL-S-BLK	Piastra verticale per unità di stoccaggio PQC taglia piccola, priva di forature di interfaccia *PQC storage unit vertical plate, small size, blank interface*	7703206

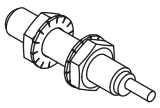
A



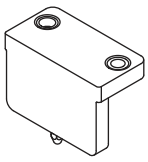
B



C

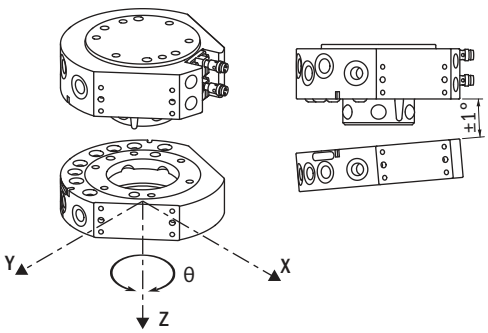


D



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	3 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 2 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 2°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 1°
Ripetibilità *Repeatability*	0.015 mm



Note
Notes

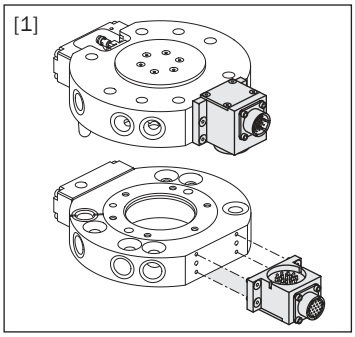
PQC

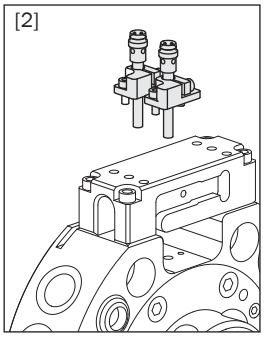
Cambia utensile pneumatico automatico PQC120J

- Cambia utensile pneumatico automatico, per carichi fino a 120 kg.
- 5 canali pneumatici integrati.
- Moduli elettrici e pneumatici opzionali (x2) [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sblocco lato robot con sensori induttivi inclusi [2].
- Installazione diretta su interfacce ISO-9409-1-125-6-M10 per ridurre l'ingombro verticale (lato robot).
- Compatibile con stoccaggio utensili PQCSU M (lato uensile).

Automatic pneumatic tool changer PQC120J

- *Automatic pneumatic tool changer, max load 120 kg.*
- *5 integrated pneumatic connections.*
- *Optional electrical and pneumatic modules (x2) [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Direct installation on ISO-9409-1-125-6-M10 interfaces to reduce vertical footprint.*
- *Compatible with PQCSU M-size tool storage (tool side).*

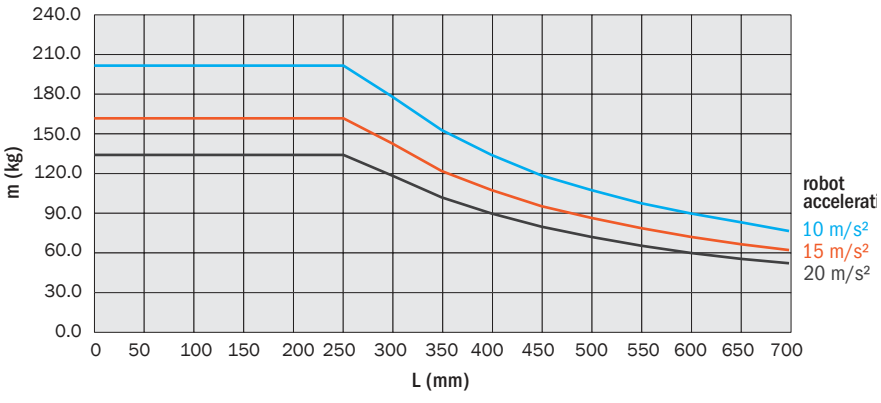


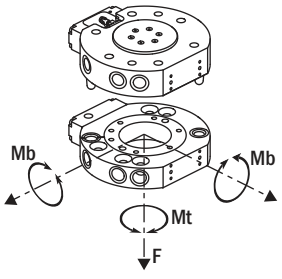




	PQC120J-G38X5-A 7703008	PQC120J-G38X5-B 7703009
Carico massimo consigliato *Suggest maximum payload*	120 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	5x G3/8"	
Interfaccia fissaggio *Mounting interface*	ISO 9409-1-125-6-M10	
Temperatura di lavoro *Operating temperate*	+5 ÷ +60 °C	
Interfaccia di montaggio moduli *Module mounting interface*	J (x2)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	183 cm³	-
Peso *Weight*	2.25 kg	1.42 kg

Carichi di sicurezza
Safety loads



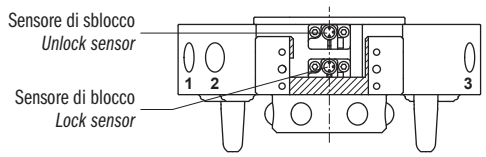


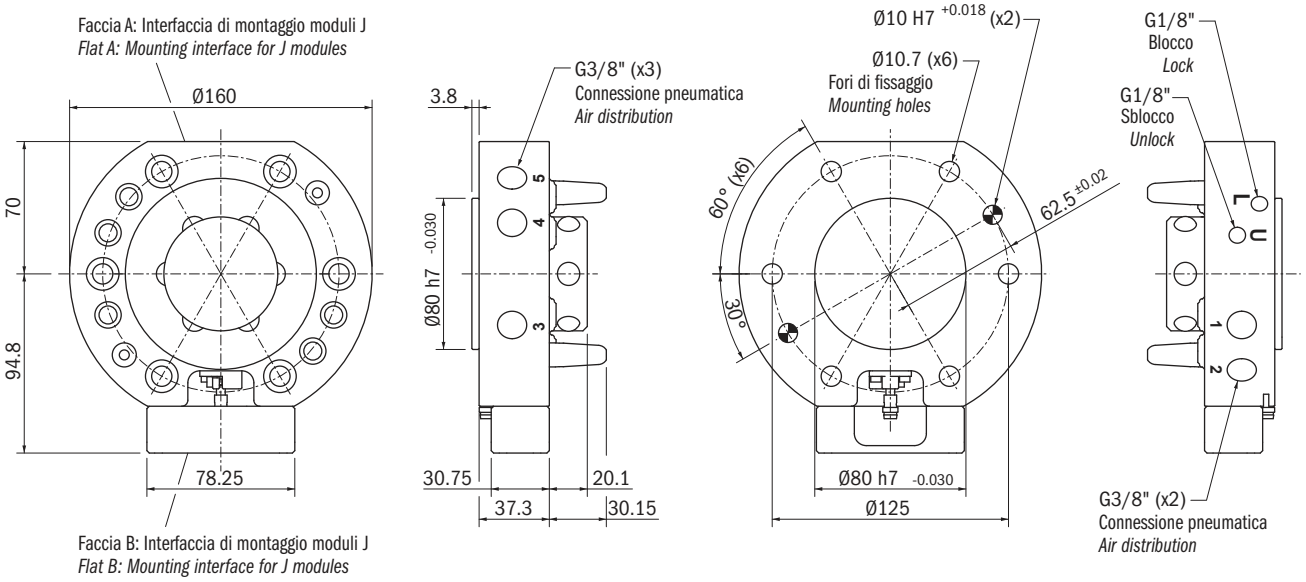
Max Mt	5400 Nm
Max Mb	2400 Nm
Max F (5.5 bar)	12000 N

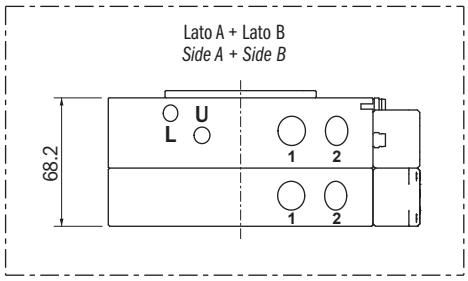
07/2026

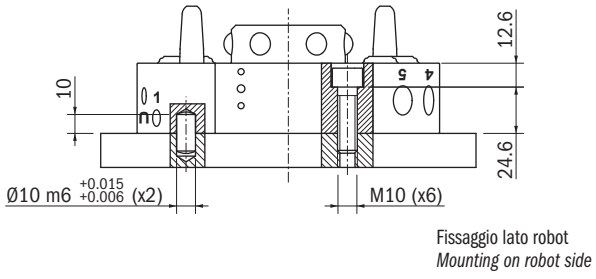
Dimensioni (mm)
Dimensions (mm)

PQC120J-G38X5-A

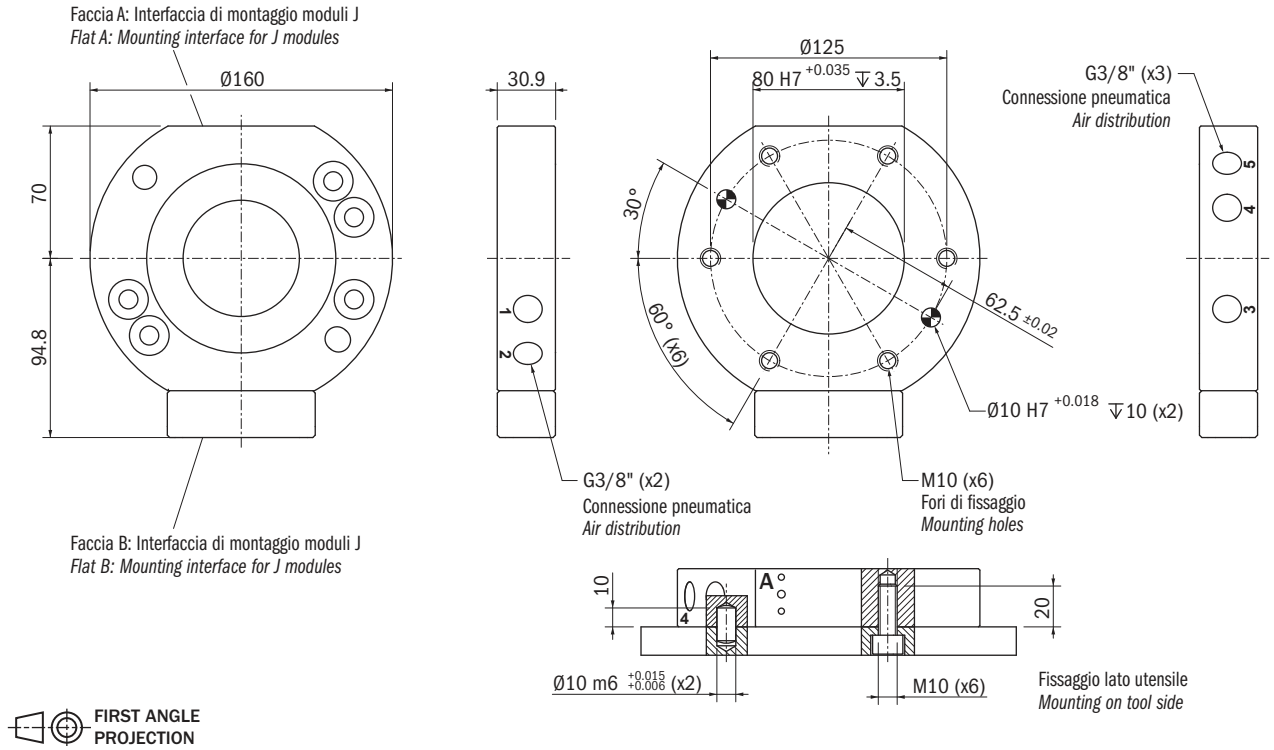








PQC120J-G38X5-B



FIRST ANGLE PROJECTION

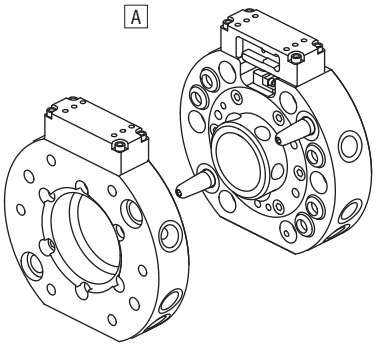
07/2026

Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC120J-G38X5-A	Cambia utensile pneumatico automatico, portata 120 kg, interfaccia J, connessioni pneumatiche integrate 5x G3/8", sensori PNP di blocco/sblocco, lato robot *Pneumatic tool changer, 120 kg payload, J interface, integrated pneumatic passthroughs 5x G3/8", PNP lock/unlock sensors, robot side*	7703008
B	PQC120J-G38X5-B	Cambia utensile pneumatico automatico, portata 120 kg, interfaccia J, connessioni pneumatiche integrate 5x G3/8", lato utensile *Pneumatic tool changer, 120 kg payload, J interface, integrated pneumatic passthroughs 5x G3/8", tool side*	7703009

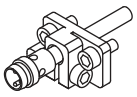
A

B



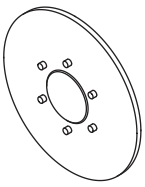
Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS3	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703104
-	PQC120J-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703106
-	CFSM890350FX	Cavo sensore, connettore snap a 90°, 5 m (terminali liberi) *Sensor cable, right angle snap connector, 5 m (flying leads), flexible resistant*	9840707

A



Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Interfacce *Interfaces*	Codice ordinazione *Order code*
A	PQC-KITI-CP80-A	Kit di ricambio interfaccia di centraggio, diametro 80 mm *Spare Kit centering pilot interface, diameter 80 mm*	7703116

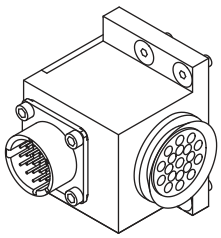
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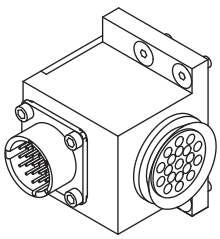
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCJ-19P5A-PTT-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, robot side*	7703400
B	PQCJ-19P5A-PTT-S9-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT con cavo integrato a 90° per sensori blocco/sblocco, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector with Integrated 90° cable for lock/unlock sensor, robot side*	7703402
C	PQCJ-19P5A-PTT-B	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato utensile *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, tool side*	7703401
D	PQCJ-19P3A-M16T-B	Modulo elettrico con interfaccia J, 19 pin 3A/125VAC, connettore M16, lato utensile *Electrical module J interface, 19-pin 3A/125VAC, M16 connector, tool side*	7703403
E	PQCJ-8P20A-MSR-A	Modulo elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato robot *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, robot side*	7703406
F	PQCJ-8P20A-MSR-B	Modulo Elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato utensile *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, tool side*	7703407
G	PQCJI-FL-G18X6T-A	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato robot *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, robot side*	7703408
H	PQCJI-FL-G18X6T-B	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato utensile *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, tool side*	7703409

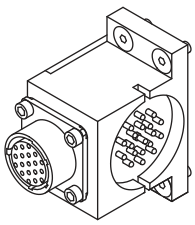
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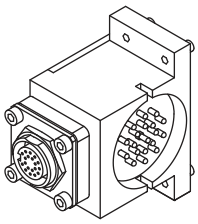
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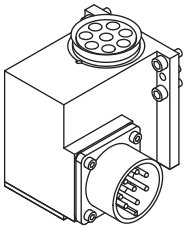
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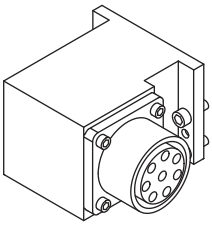
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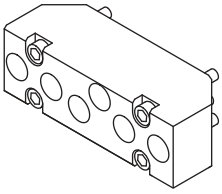
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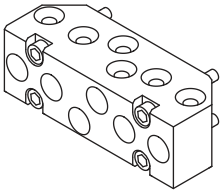
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G



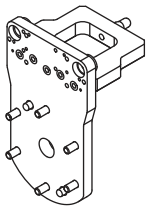
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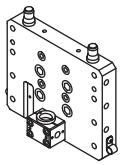
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-M-120J	Piastra orizzontale per unità di stoccaggio PQC taglia medium, interfaccia 120J *PQC storage unit horizontal plate, medium size, 120J interface*	7703208
B	PQCSU-STAND-M-TS10	Supporto per unità di stoccaggio PQC taglia medium, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, medium size, T-slot 10 mm 40x90 / 90x90 interface*	7703209
C	PQCSU-STAND-M-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC taglia media, contatto NO, PNP, 3 poli, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC medium size storage unit stand, NO contact, PNP, 3-pin, 10-30 Vdc, 0.2 m cable*	7703210
D	PQCSU-VTOOL-M-BLK	Piastra verticale per unità di stoccaggio PQC taglia media, priva di forature di interfaccia *PQC storage unit vertical plate, medium size, blank interface*	7703211

A



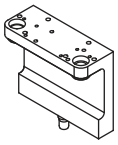
B



C

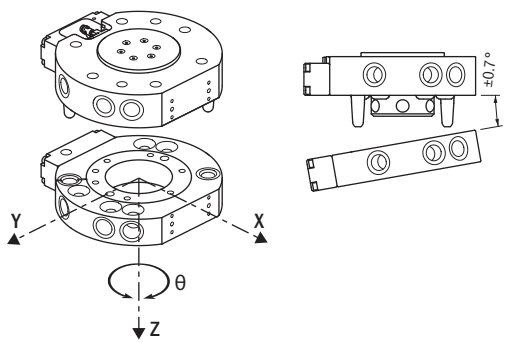


D



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	2 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 1 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 1°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 0.7°
Ripetibilità *Repeatability*	0.015 mm



Note
Notes

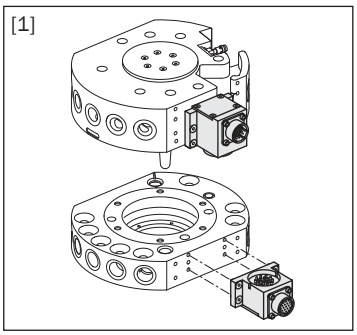
PQC

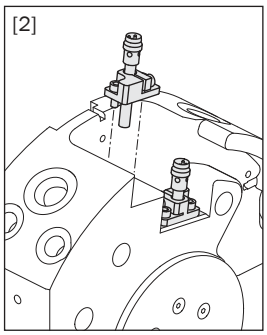
Cambia utensile pneumatico automatico PQC180J

- Cambia utensile pneumatico automatico, per carichi fino a 180 kg.
- 8 canali pneumatici integrati.
- Moduli elettrici e pneumatici opzionali (x2) [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sblocco lato robot con sensori induttivi inclusi [2].
- Installazione diretta su interfacce ISO-9409-1-125-6-M10 per ridurre l'ingombro verticale (lato robot).
- Compatibile con stoccaggio utensili PQCSU M (lato uensile).

Automatic pneumatic tool changer PQC180J

- *Automatic pneumatic tool changer, max load 180 kg.*
- *8 integrated pneumatic connections.*
- *Optional electrical and pneumatic modules (x2) [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Direct installation on ISO-9409-1-125-6-M10 interfaces to reduce vertical footprint.*
- *Compatible with PQCSU M-size tool storage (tool side).*







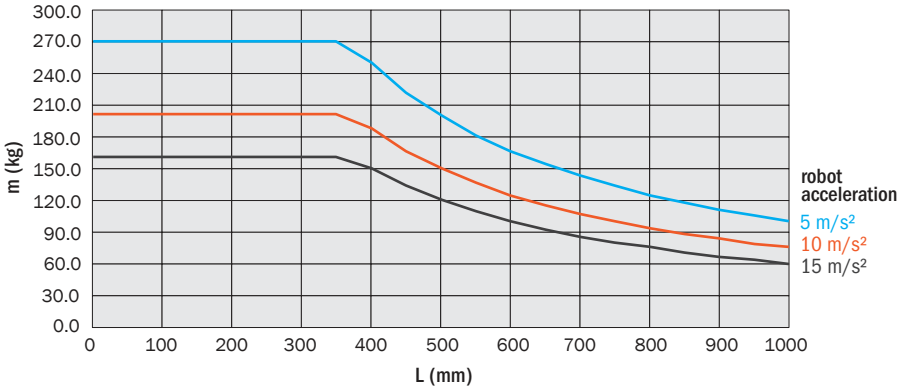
NEW

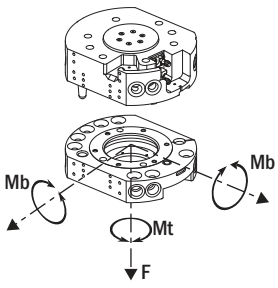


NEW

	PQC180J-G38X8-A 7703010	PQC180J-G38X8-B 7703011
Carico massimo consigliato *Suggest maximum payload*	180 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	8x G3/8"	
Interfaccia fissaggio *Mounting interface*	ISO 9409-1-125-6-M10	
Temperatura di lavoro *Operating temperate*	-30 ÷ +66 °C	
Interfaccia di montaggio moduli *Module mounting interface*	J (x2)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	194 cm³	-
Peso *Weight*	3.63 kg	2.27 kg

Carichi di sicurezza
Safety loads

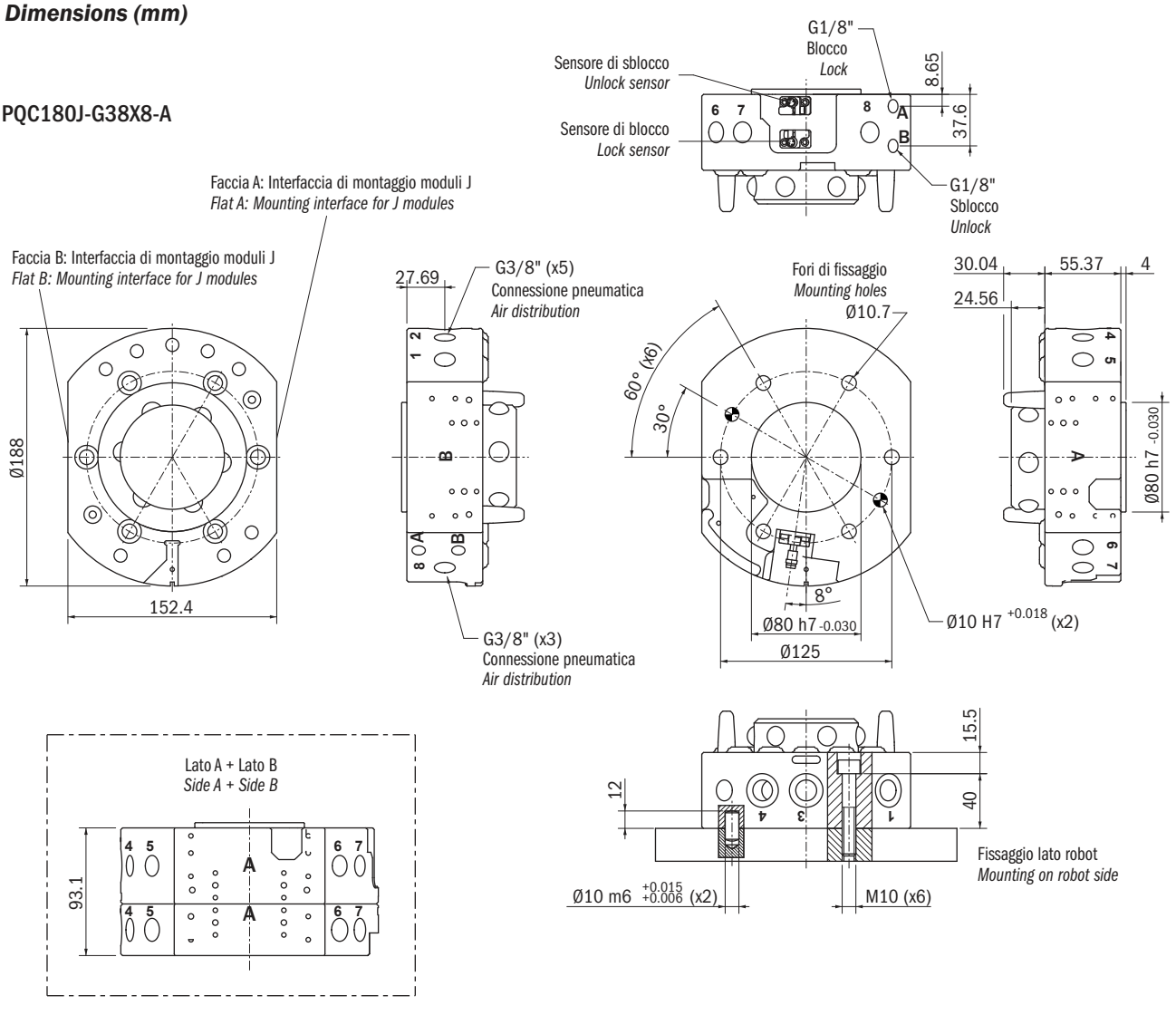




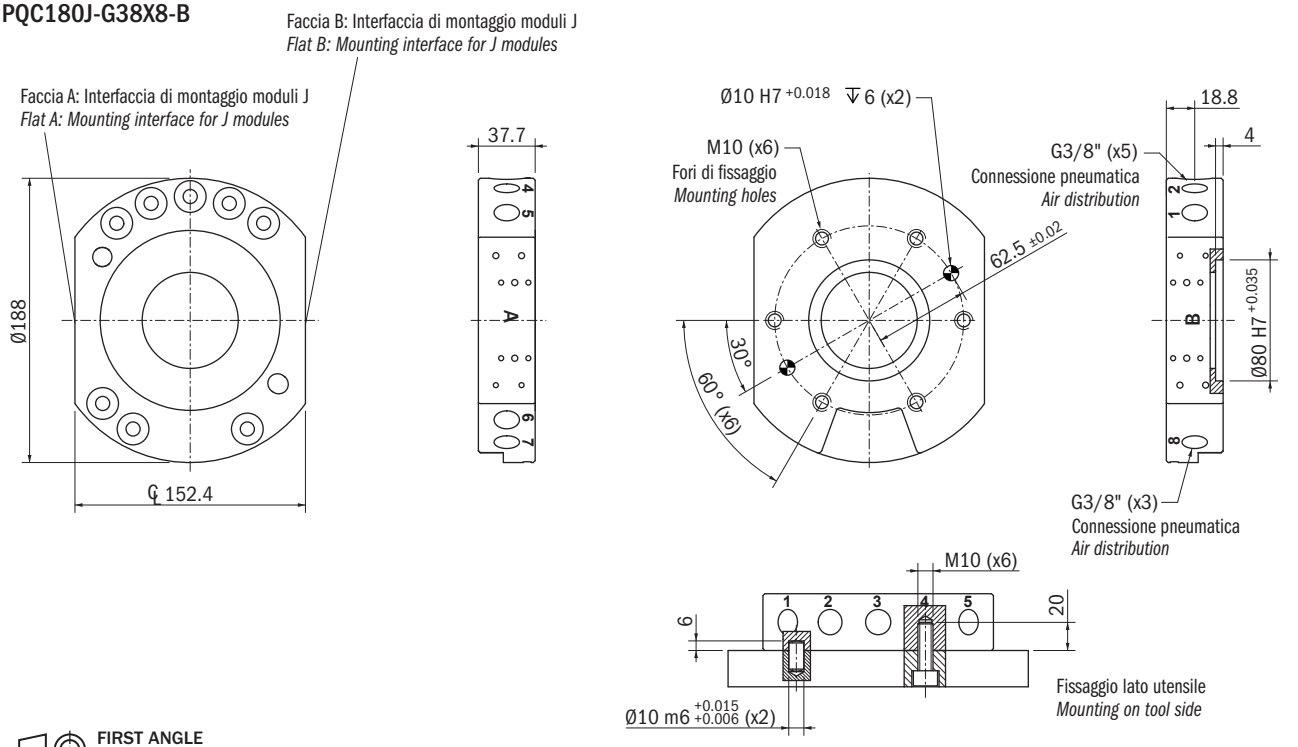
Max Mt	5400 Nm
Max Mb	3000 Nm
Max F (5.5 bar)	12000 N

Dimensioni (mm)
Dimensions (mm)

PQC180J-G38X8-A



PQC180J-G38X8-B



FIRST ANGLE PROJECTION

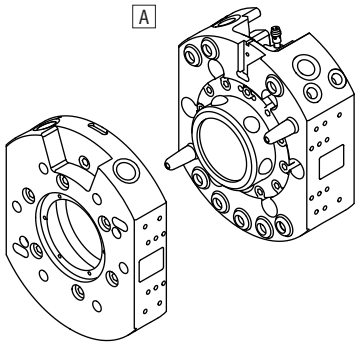
07/2026

Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC180J-G38X8-A	Cambia utensile pneumatico automatico, portata 180 kg, interfaccia J, connessioni pneumatiche integrate 8x G3/8", sensori PNP di blocco/sblocco, lato robot *Pneumatic tool changer, 180 kg payload, J interface, integrated pneumatic passthroughs 8x G3/8", PNP lock/unlock sensors, robot side*	7703010
B	PQC180J-G38X8-B	Cambia utensile pneumatico automatico, portata 180 kg, interfaccia J, connessioni pneumatiche integrate 8x G3/8", lato utensile *Pneumatic tool changer, 180 kg payload, J interface, integrated pneumatic passthroughs 8x G3/8", tool side*	7703011

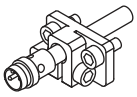
A

B



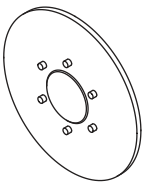
Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS4	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703107
-	PQC100J-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703108
-	CFSM890350FX	Cavo sensore, connettore snap a 90°, 5 m (terminali liberi) *Sensor cable, right angle snap connector, 5 m (flying leads), flexible resistant*	9840707

A



Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Interfacce *Interfaces*	Codice ordinazione *Order code*
A	PQC-KITI-CP80-A	Kit di ricambio interfaccia di centraggio, diametro 80 mm *Spare Kit centering pilot interface, diameter 80 mm*	7703116

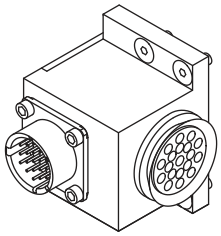
A



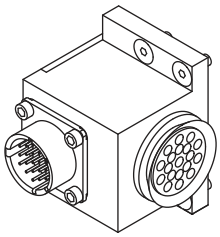
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCJ-19P5A-PTT-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, robot side*	7703400
B	PQCJ-19P5A-PTT-S9-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT con cavo integrato a 90° per sensori blocco/sblocco, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector with Integrated 90° cable for lock/unlock sensor, robot side*	7703402
C	PQCJ-19P5A-PTT-B	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato utensile *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, tool side*	7703401
D	PQCJ-19P3A-M16T-B	Modulo elettrico con interfaccia J, 19 pin 3A/125VAC, connettore M16, lato utensile *Electrical module J interface, 19-pin 3A/125VAC, M16 connector, tool side*	7703403
E	PQCJ-8P20A-MSR-A	Modulo elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato robot *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, robot side*	7703406
F	PQCJ-8P20A-MSR-B	Modulo Elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato utensile *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, tool side*	7703407
G	PQCJI-FL-G18X6T-A	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato robot *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, robot side*	7703408
H	PQCJI-FL-G18X6T-B	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato utensile *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, tool side*	7703409

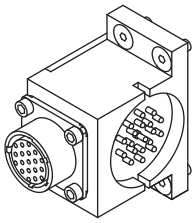
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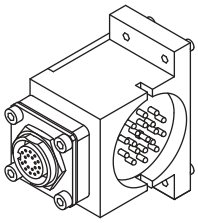
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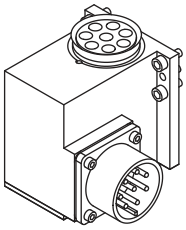
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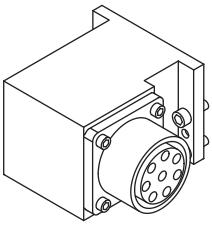
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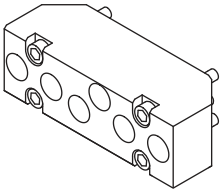
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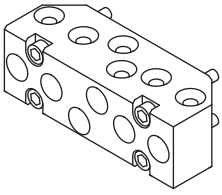
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G



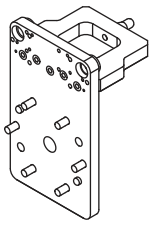
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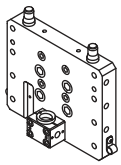
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-M-180J	Piastra orizzontale per unità di stoccaggio PQC taglia medium, interfaccia 180J *PQC storage unit horizontal plate, medium size, 180J interface*	7703212
B	PQCSU-STAND-M-TS10	Supporto per unità di stoccaggio PQC taglia medium, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, medium size, T-slot 10 mm 40x90 / 90x90 interface*	7703209
C	PQCSU-STAND-M-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC taglia media, contatto NO, PNP, 3 poli, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC medium size storage unit stand, NO contact, PNP, 3-pin, 10-30 Vdc, 0.2 m cable*	7703210
D	PQCSU-VTOOL-M-BLK	Piastra verticale per unità di stoccaggio PQC taglia media, priva di forature di interfaccia *PQC storage unit vertical plate, medium size, blank interface*	7703211

A



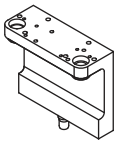
B



C

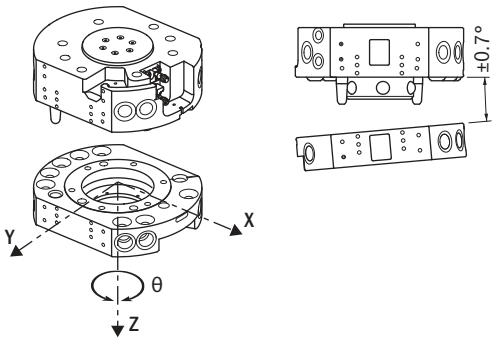


D



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	3 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 1 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 1°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 0.7°
Ripetibilità *Repeatability*	0.015 mm



Note
Notes

Cambia utensile pneumatico automatico PQC300J

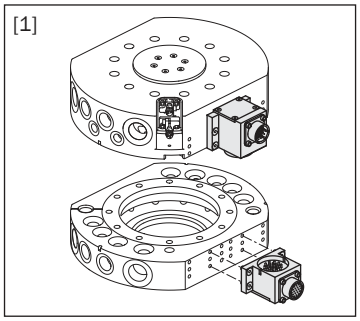
- Cambia utensile pneumatico automatico, per carichi fino a 300 kg.
- 9 canali pneumatici integrati.
- Moduli elettrici e pneumatici opzionali (x4*) [1].
- Bloccaggio irreversibile (anticaduta in mancanza di alimentazione pneumatica).
- Rilevamento blocco/sblocco lato robot con sensori induttivi inclusi [2].
- Installazione diretta su interfacce ISO-9409-1-125-6-M10 per ridurre l'ingombro verticale (lato robot).
- Compatibile con stoccaggio utensili PQCSU L (lato uensile).

Automatic pneumatic tool changer PQC300J

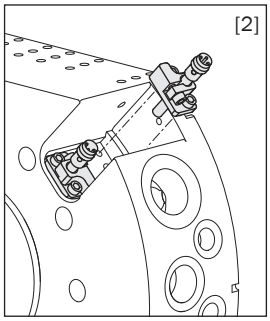
- *Automatic pneumatic tool changer, max load 300 kg.*
- *9 integrated pneumatic connections.*
- *Optional electrical and pneumatic modules (x4*) [1].*
- *Irreversible locking (Fail-Safe locking mechanism).*
- *Lock/Unlock detection on robot side with included inductive sensors [2].*
- *Direct installation on ISO-9409-1-125-6-M10 interfaces to reduce vertical footprint.*
- *Compatible with PQCSU L-size tool storage (tool side).*

(*)
Dipende dal tipo di modulo
Depends on the type of module

[1]



[2]





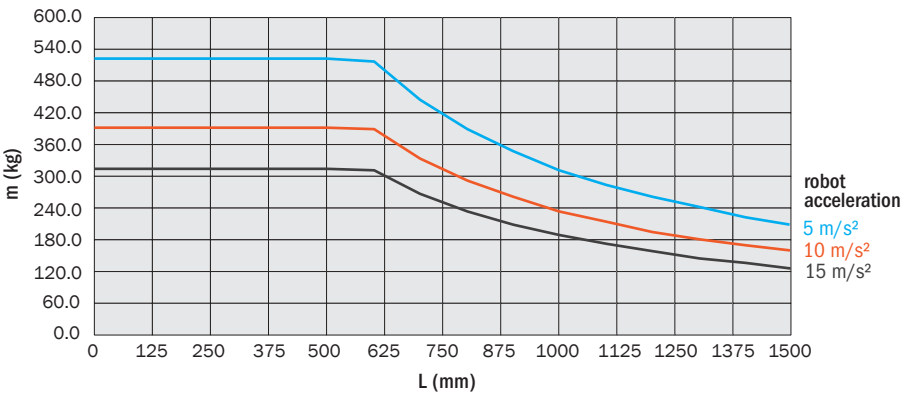
NEW

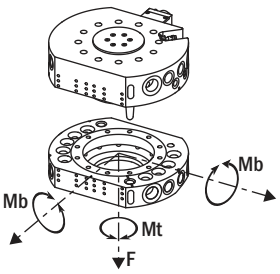


NEW

	PQC300J-G12X4G38X5-A 7703012	PQC300J-G12X4G38X5-B 7703013
Carico massimo consigliato *Suggest maximum payload*	300 kg	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di alimentazione del sistema di blocco/sblocco *Lock/Unlock system supply pressure*	4.1 ÷ 6.9 bar	
Sensori per monitoraggio del meccanismo di blocco/sblocco *Sensors for monitoring the lock/unlock mechanism*	inclusi *included*	–
Canali per il passaggio dell'aria (max. 6.9 bar) *Channels for air pass age (max. 6.9 bar)*	4x G1/2" - 5x G3/8"	
Interfaccia fissaggio *Mounting interface*	ISO 9409-1-125-6-M10	
Temperatura di lavoro *Operating temperate*	-30 ÷ +66 °C	
Interfaccia di montaggio moduli *Module mounting interface*	J (x4)	
Tempo di blocco e sblocco del cambia utensile *Tool changer locking and unlocking time*	0.1 s / 0.1 s	
Consumo aria per ciclo *Cycle air consuption*	291 cm³	-
Peso *Weight*	6.44 kg	2.86 kg

Carichi di sicurezza
Safety loads

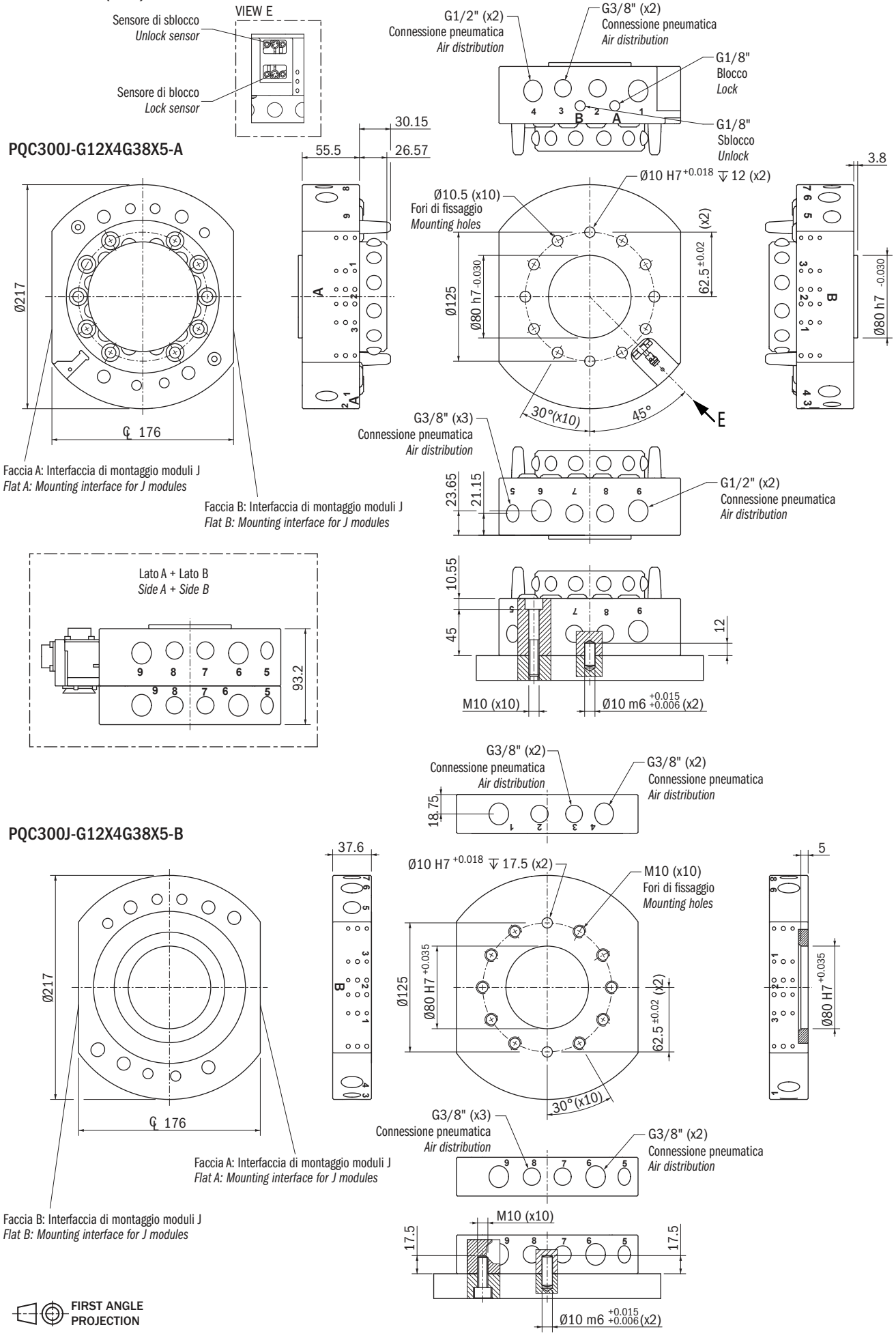




Max Mt	5400 Nm
Max Mb	10500 Nm
Max F (5.5 bar)	31000 N

07/2026

Dimensioni (mm)
Dimensions (mm)

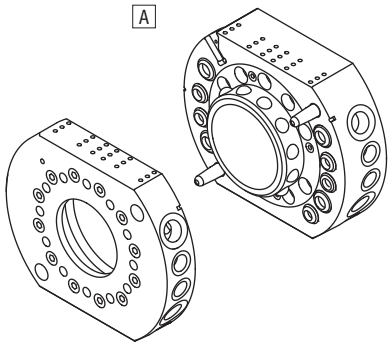


Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Cambia utensile *Tool Changer*	Codice ordinazione *Order code*
A	PQC300J-G12X4G38X5-A	Cambia utensile pneumatico automatico, portata 300 kg, interfaccia J, connessioni pneumatiche integrate 5x G3/8" e 4x G1/2", sensori PNP di blocco/sblocco, lato robot *Pneumatic tool changer, 300 kg payload, J interface, integrated pneumatic passthroughs 5x G3/8" and 4x G1/2", PNP lock/unlock sensors, robot side*	7703012
B	PQC300J-G12X4G38X5-B	Cambia utensile pneumatico automatico, portata 300 kg, interfaccia J, connessioni pneumatiche integrate 5x G3/8" e 4x G1/2", lato utensile *Pneumatic tool changer, 300 kg payload, J interface, integrated pneumatic passthroughs 5x G3/8" and 4x G1/2", tool side*	7703013

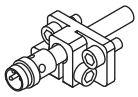
A

B



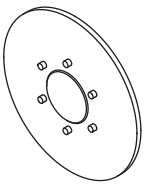
Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Accessori / Ricambi *Accessories / Spare parts*	Codice ordinazione *Order code*
A	PQC-KITS4	Kit sensore PNP blocco/sblocco M8, 3 pin (x1) *Kit lock/unlock PNP sensor M8, 3-pin (x1)*	7703107
-	PQC300J-KITU	Kit guarnizioni NBR *Kit seals NBR*	7703109
-	CFSM800350FX	Cavo sensore, connettore dritto filettato, 5 m (terminali liberi) *Sensor cable, straight threaded connector, 5 m (flying leads), flexible resistant*	9800107

A



Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Interfacce *Interfaces*	Codice ordinazione *Order code*
A	PQC-KITI-CP80-A	Kit di ricambio interfaccia di centraggio, diametro 80 mm *Spare Kit centering pilot interface, diameter 80 mm*	7703116

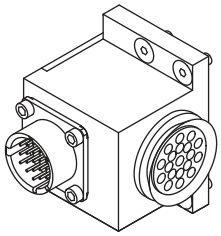
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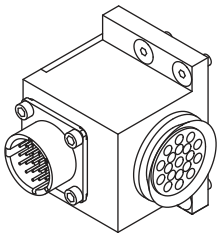
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Moduli *Modules*	Codice ordinazione *Order code*
A	PQCJ-19P5A-PTT-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, robot side*	7703400
B	PQCJ-19P5A-PTT-S9-A	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT con cavo integrato a 90° per sensori blocco/sblocco, lato robot *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector with Integrated 90° cable for lock/unlock sensor, robot side*	7703402
C	PQCJ-19P5A-PTT-B	Modulo elettrico con interfaccia J, 19 pin 5A/250VAC, connettore Amphenol PT, lato utensile *Electrical module J interface, 19-pin 5A/250VAC, Amphenol PT connector, tool side*	7703401
D	PQCJ-19P3A-M16T-B	Modulo elettrico con interfaccia J, 19 pin 3A/125VAC, connettore M16, lato utensile *Electrical module J interface, 19-pin 3A/125VAC, M16 connector, tool side*	7703403
E	PQCJ-8P20A-MSR-A	Modulo elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato robot *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, robot side*	7703406
F	PQCJ-8P20A-MSR-B	Modulo Elettrico con interfaccia J, connettori stile MS a 8 pin 20A/500VAC/700VDC orientamento destro, lato utensile *Electrical module J interface, 8-pin 20A/500VAC/700VDC, MS-style connectors right orientation, tool side*	7703407
G	PQCJI-FL-G18X6T-A	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato robot *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, robot side*	7703408
H	PQCJI-FL-G18X6T-B	Modulo pneumatico con interfaccia J, G1/8" x6 canali passanti con uscita aria verso l'alto, lato utensile *Pneumatic module J interface, G1/8" x6 channel pass-through air ports on top direction, tool side*	7703409

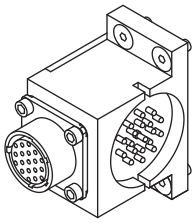
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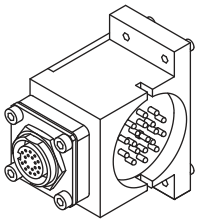
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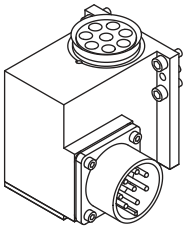
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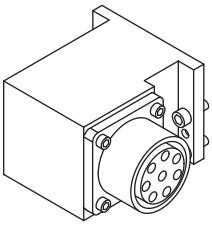
D



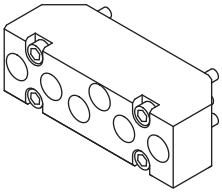
E



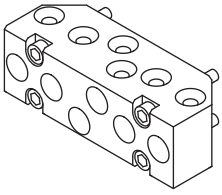
F



G



H

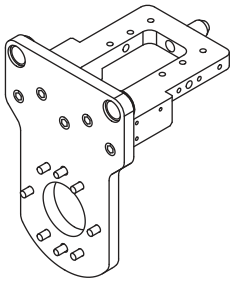


PQC

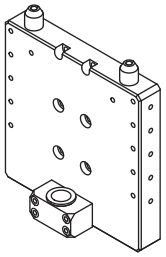
Codici identificativi
Identification codes

Disegno *Drawing*	Codice alfanumerico *Alphanumeric code*	Unità di stoccaggio *Storage unit*	Codice ordinazione *Order code*
A	PQCSU-HTOOL-L-300J	Piastra orizzontale per unità di stoccaggio PQC taglia large, interfaccia 300J *PQC storage unit horizontal plate, large size, 300J interface*	7703213
B	PQCSU-STAND-L-TS10	Supporto per unità di stoccaggio PQC taglia large, interfaccia T-slot 10 mm 40x90 / 90x90 *PQC storage unit stand, large size, T-slot 10 mm 40x90 / 90x90 interface*	7703214
C	PQCSU-STAND-L-KITS	Kit sensore induttivo per supporto unità di stoccaggio PQC taglia large, contatto NO, PNP, 3 poli, 10–30 VDC, cavo da 0.2 m *Kit inductor sensor for PQC large size storage unit stand, NO contact, PNP, 3-pin, 10-30 Vdc, 0.2 m cable*	7703215
D	PQCSU-VTOOL-L-BLK	Piastra verticale per unità di stoccaggio PQC taglia grande, priva di forature di interfaccia *PQC storage unit vertical plate, large size, blank interface*	7703216

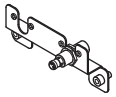
A



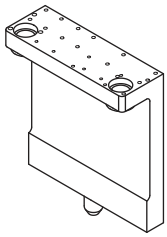
B



C

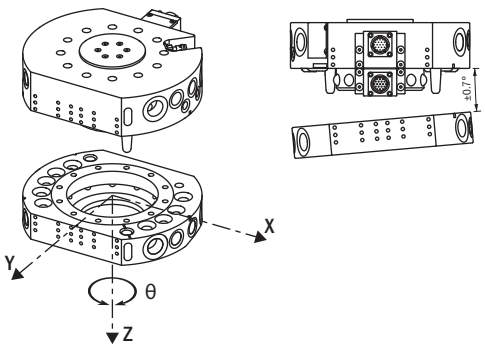


D



Specifiche di Accoppiamento
Coupling Specifications

Distanza massima di accoppiamento (Z) *Maxium cupling distance (Z)*	2 mm
Disallineamento planare massimo consentito (X e Y) *Maximum allowable planar misalignment (X and Y)*	± 1 mm
Disallineamento torsionale massimo (θ) *Maximum torsional misalignment (θ)*	± 1°
Angolo massimo di scostamento rispetto a X e Y *Maximum cocking offset about X and Y*	± 0.7°
Ripetibilità *Repeatability*	0.015 mm



Note
Notes

PROFILI E STAFFE

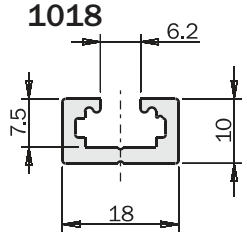
Profiles and brackets



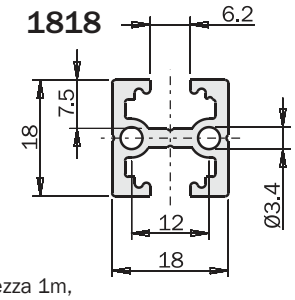
Travi quadre

Square beams

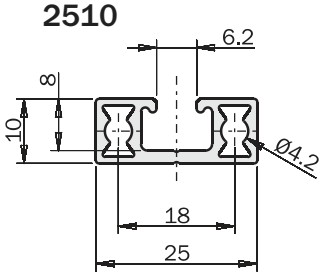
1018



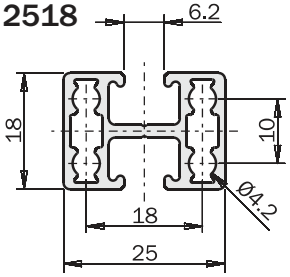
1818



2510



2518

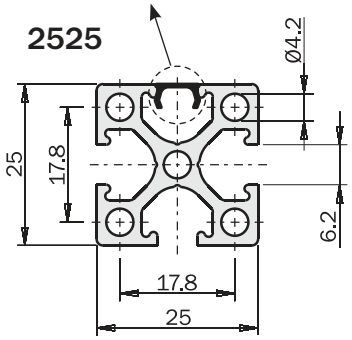


Profilo copri cava in PVC, lunghezza 1m, confezione da 20 pezzi

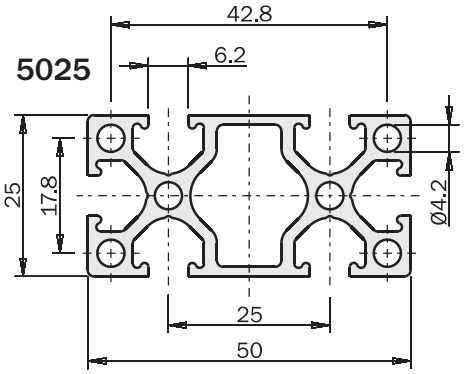
PVC slot cover profile, length 1m, pack of 20 pieces

MFI-A486

2525



5025

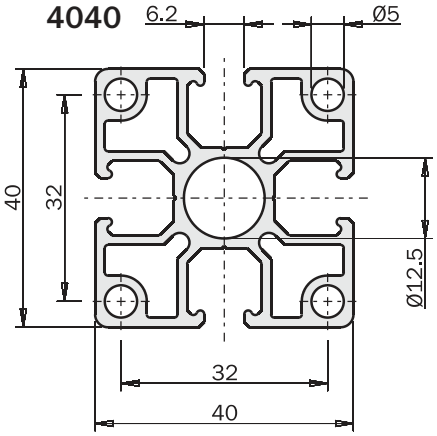


Tappi per estruso
Plugs for profile

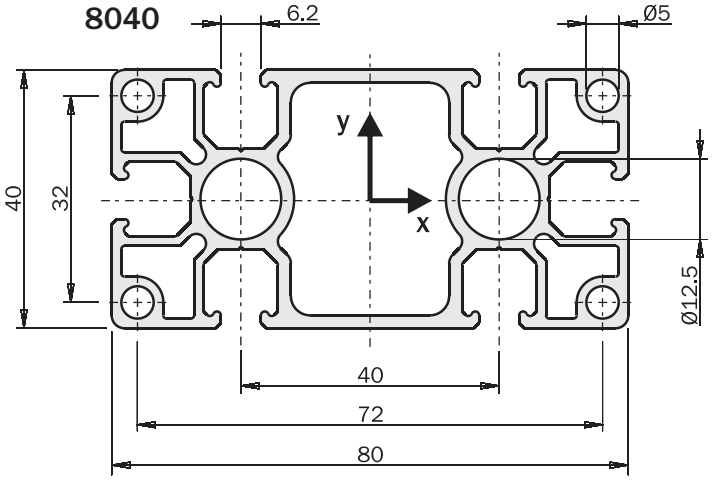
Confezione da 10 pezzi
10 pieces package



4040



8040





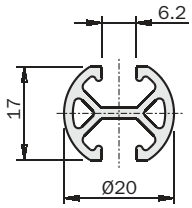


		Lunghezza *Length*	Peso *Weight*	Ix [mm⁴]	Iy [mm⁴]	Tappi *Plugs*	Iz [mm⁴]
EMB-1818-1000	**EMF-1818-1000**	1 m	400 g	4381	6245	MFI-A23	10627
EMB-1818-2000	**EMF-1818-2000**	2 m	800 g	4381	6245	MFI-A23	10627
EMB-2510-1000	**EMF-2510-1000**	1 m	280 g	1305	7300	MFI-A27	8605
EMB-2510-2000	**EMF-2510-2000**	2 m	560 g	1305	7300	MFI-A27	8605
EMB-2518-1000	**EMF-2518-1000**	1 m	400 g	5647	11544	MFI-A28	17191
EMB-2518-2000	**EMF-2518-2000**	2 m	800 g	5647	11544	MFI-A28	17191
EMB-2525-1000	**EMF-2525-1000**	1 m	610 g	16298	16289	MFI-A21	32302
EMB-2525-2000	**EMF-2525-2000**	2 m	1220 g	16298	16289	MFI-A21	32302
EMB-5025-1000	**EMF-5025-1000**	1 m	1040 g	28882	111103	MFI-A22	139483
EMB-5025-2000	**EMF-5025-2000**	2 m	2080 g	28882	111103	MFI-A22	139483
EMB-4040-1000	**EMF-4040-1000**	1 m	1300 g	86387	86387	MFI-A25	172773
EMB-4040-2000	**EMF-4040-2000**	2 m	2600 g	86387	86387	MFI-A25	172773
EMB-8040-1000	**EMF-8040-1000**	1 m	2180 g	155462	587130	MFI-A26	742592
EMB-8040-2000	**EMF-8040-2000**	2 m	4360 g	155462	587130	MFI-A26	742592

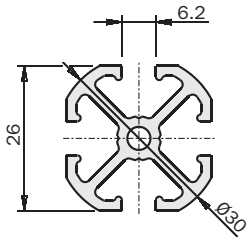
Travi tonde

Round beams

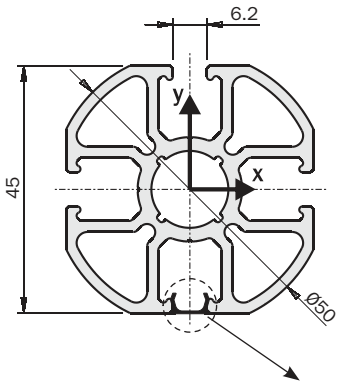
EMB-2017



EMB-3026



EMB-5045

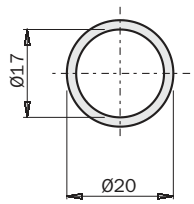


MFI-A486

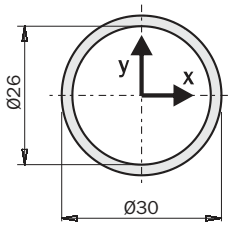
Profilo copri cava in PVC, lunghezza 1m, confezione da 20 pezzi

PVC slot cover profile, length 1m, pack of 20 pieces

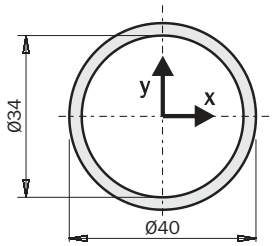
MF-20

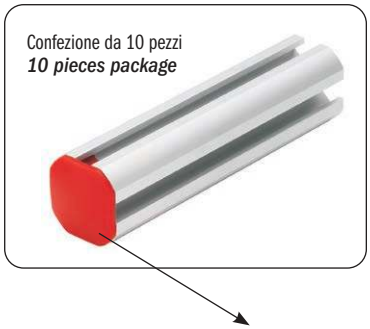


MF-30



MF-40



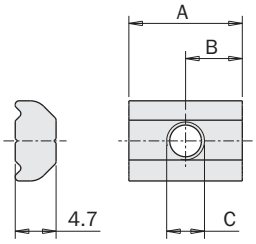


	Materiale *Material*	E [GPa]	Lunghezza *Length*	Peso *Weight*	Ix [mm⁴]	Iy [mm⁴]	Tappi *Plugs*
EMB-2017-1000	Alluminio *Aluminum*	67	1 m	340 g	2534	5003	MFP-K29
EMB-2017-2000	Alluminio *Aluminum*	67	2 m	680 g	2534	5003	MFP-K29
EMB-3026-1000	Alluminio *Aluminum*	67	1 m	700 g	15842	15842	MFP-K28
EMB-3026-2000	Alluminio *Aluminum*	67	2 m	1400 g	15842	15842	MFP-K28
EMB-5045-1000	Alluminio *Aluminum*	67	1 m	1665 g	100773	100773	MFP-K50
EMB-5045-2000	Alluminio *Aluminum*	67	2 m	3330 g	100773	100773	MFP-K50

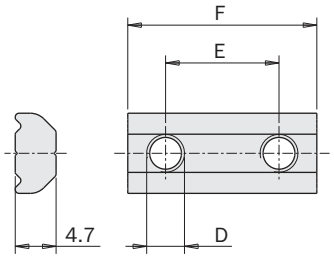
Dadi a T

(materiale: acciaio)









T-Nuts

(material: steel)

	A [mm]	B [mm]	C [mm]	Peso *Weight*
MFI-177	15	7.5	M4	**5 g**
MFI-025	15	7.5	M5	**5 g**
MFI-178	15	7.5	M6	**5 g**

	D [mm]	E [mm]	F [mm]	Peso *Weight*
MFI-003	M4	8	16	**5 g**
MFI-006	M5	10	20	**7 g**
MFI-523	M5	14	25	**9 g**
MFI-009	M5	15	25	**9 g**
MFI-148	M5	17	25	**9 g**
MFI-016	M5	22	32	**11 g**
MFI-027	M5	25	35	**13 g**
MFI-055	M5	28	38	**14 g**
MFI-050	M5	30	40	**15 g**
MFI-029	M5	35	45	**16 g**
MFI-020	M5	40	50	**18 g**
MFI-043	M5	50	60	**22 g**
MFI-022	M5	60	70	**26 g**
MFI-045	M5	90	100	**38 g**
MFI-555	M6	20	32	**11 g**

Dadi a molla

Mantengono la posizione nella cava senza scivolare durante l'assemblaggio.

Adatti per le travi:
EMB-5045
EMB-3026
EMB-2017
EMB/EMF-8040
EMB/EMF-4040
EMB/EMF-5025
EMB/EMF-2525
EMB/EMF-2518
EMB/EMF-2510
EMB/EMF-1818
EMB/EMF-1018

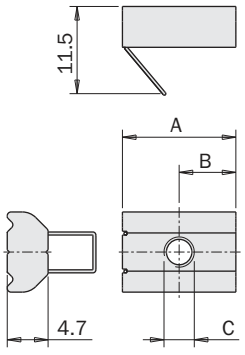
Spring nuts

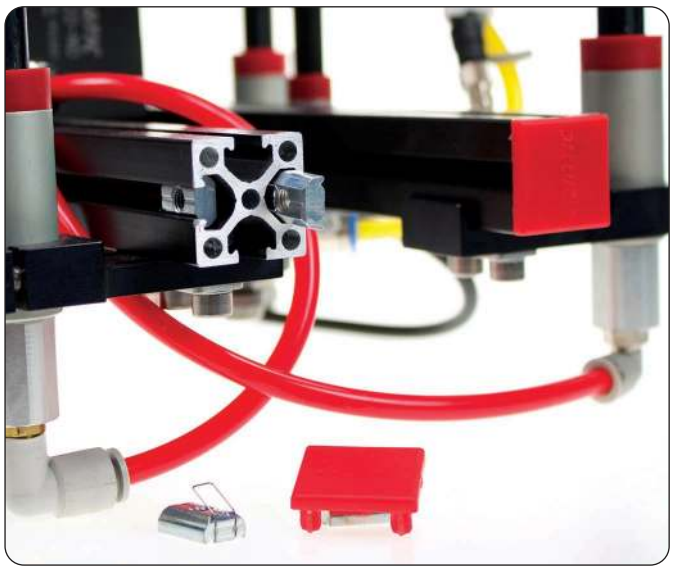
They hold the position in the slot without slipping during assembly.

Suitable for the beams:
EMB-5045
EMB-3026
EMB-2017
EMB/EMF-8040
EMB/EMF-4040
EMB/EMF-5025
EMB/EMF-2525
EMB/EMF-2518
EMB/EMF-2510
EMB/EMF-1818
EMB/EMF-1018

	A [mm]	B [mm]	C [mm]	Peso *Weight*
MFI-A329	15	7.5	M4	5 g
MFI-A331	15	7.5	M5	5 g







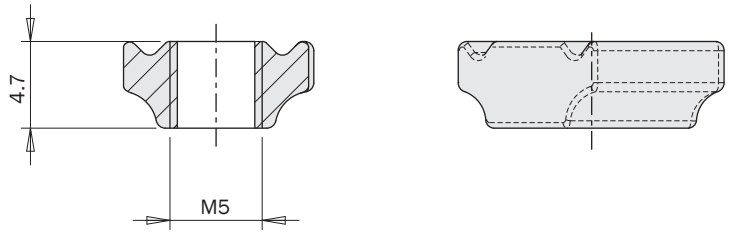
Dado last-minute

(materiale: acciaio)
Da usare quando si deve aggiungere qualcosa ad un EOAT già assemblato.

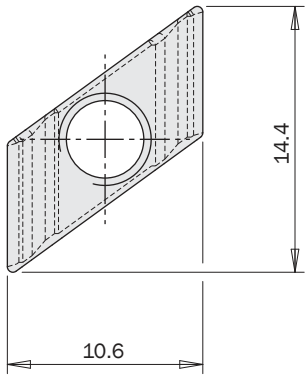
Last-minute nut

(material: steel)
To be used when you need to add something to an already assembled EOAT.

	A	Peso *Weight*
MFI-477	M5	**2 g**
MFI-489	M4	
MFI-490	M3	

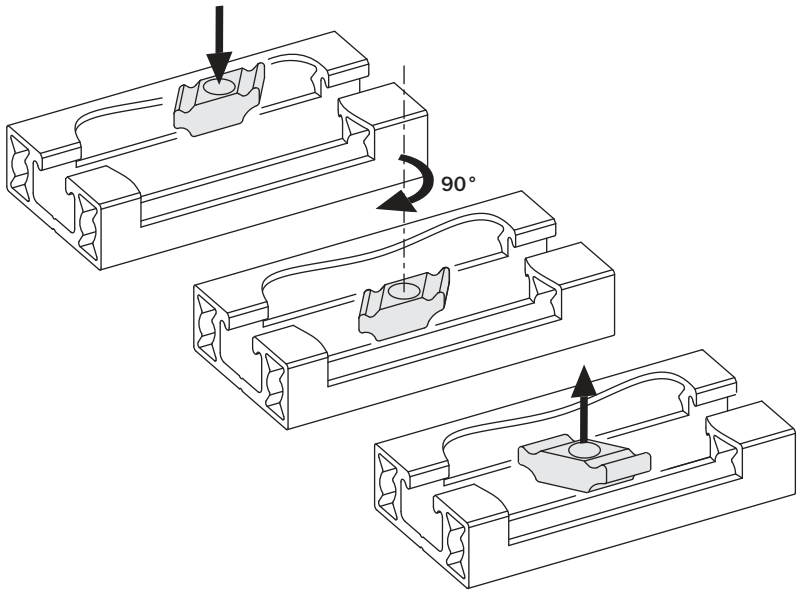










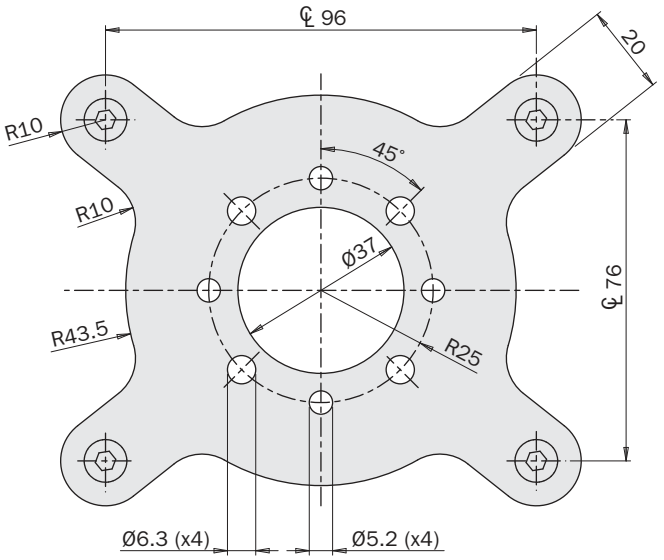


Interfaccia 96x76 mm per fissaggio EOAT su polso ISO 9409-1-50-4-M6 o su QC90-B

(kit completo di viti)
(materiale: acciaio)

Interface 96x76 mm for EOAT mounting on ISO 9409-1-50-4-M6 wrist or on QC90-B

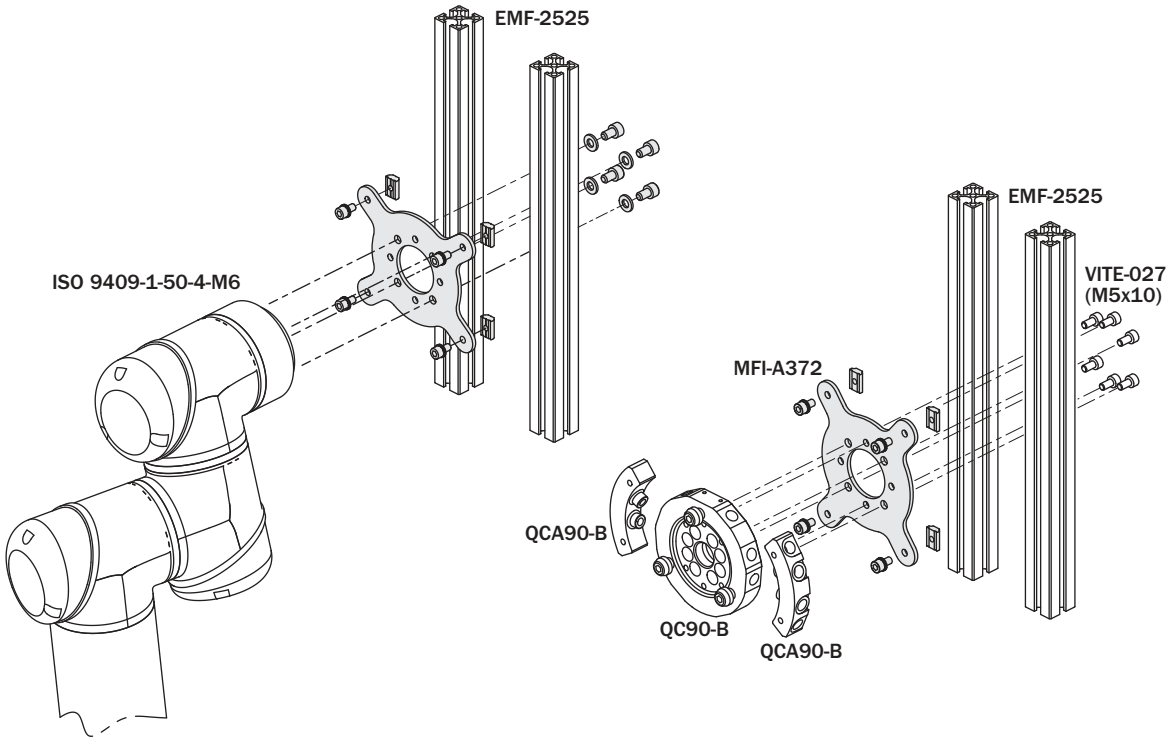
(kit with screws)
(material: steel)



	MFI-A372
Peso *Weight*	218 g



Esempio di utilizzo
Application example

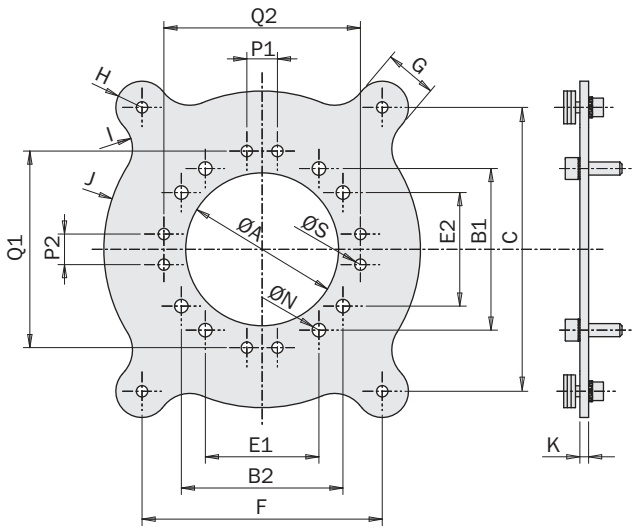


Interfaccia per cambia utensile QC

(kit completo di viti)

Interface for QC quick changer

(kit with screws)



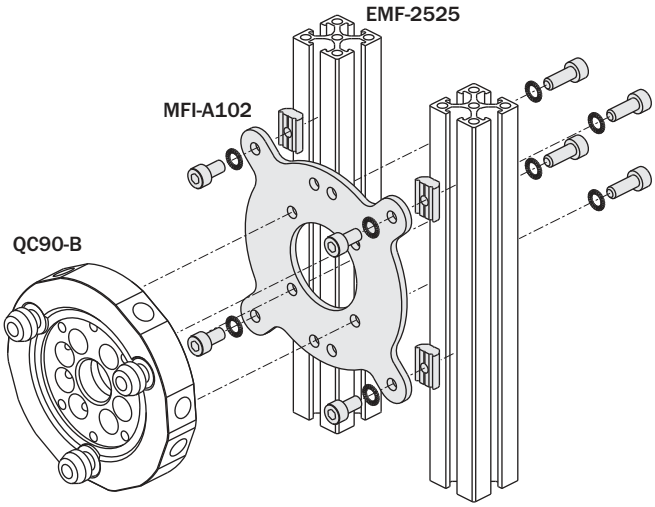
FIRST ANGLE PROJECTION

		MFI-A102	MFI-A103
A	[mm]	Ø37	Ø70
B1	[mm]	35	74
B2	[mm]	-	74
C	[mm]	76	130
E1	[mm]	35	52
E2	[mm]	-	52
F	[mm]	76	110
G	[mm]	16	24
H	[mm]	8	12
I	[mm]	6	15
J	[mm]	43.5	72.5
K	[mm]	3	4
N	[mm]	Ø5.2	Ø6.2
P1	[mm]	14	14
P2	[mm]	-	14
Q1	[mm]	78	90
Q2	[mm]	-	90
S	[mm]	Ø5.2	Ø5.2
QC...-B		QC90-B	QC150-B QC160-B
Peso *Weight*		190 g	540 g





Esempio di utilizzo
Application example

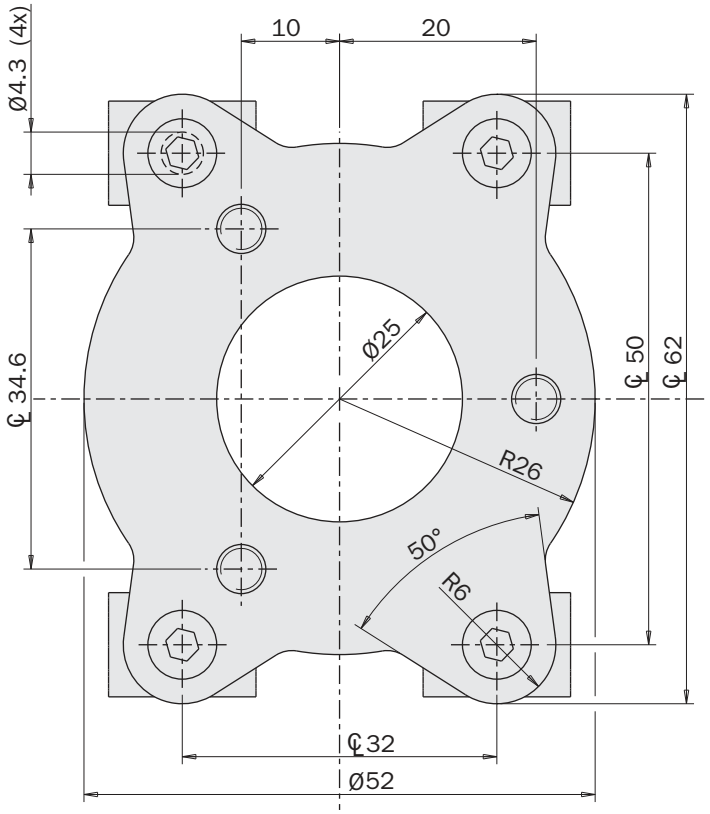


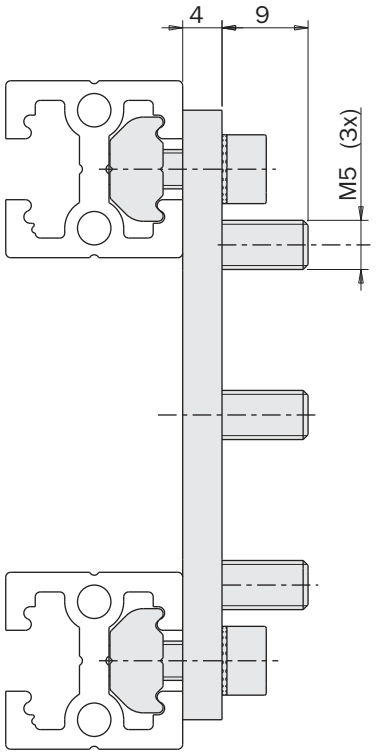
Interfaccia per cambia utensile QC

(kit completo di viti)

Interface for QC quick changer

(kit with screws)

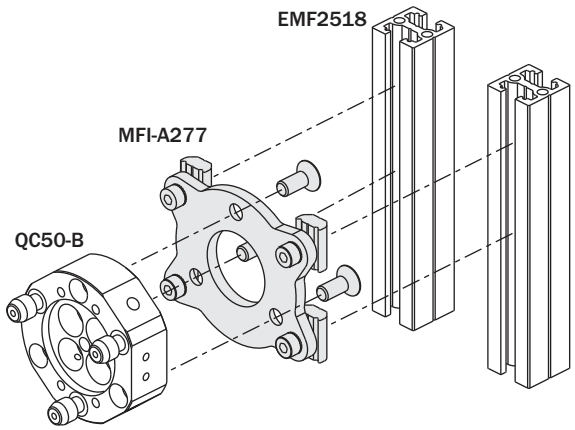




FIRST ANGLE PROJECTION

	MFI-A277
QC...-B	QC50-B
Peso *Weight*	90 g

Esempio di utilizzo
Application example

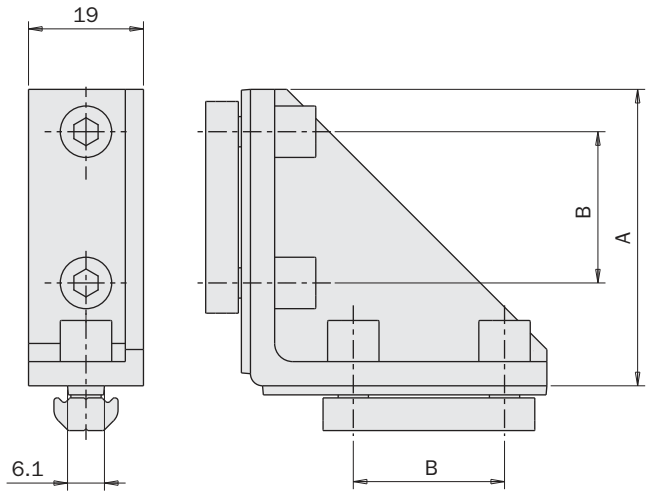


Staffa per fissaggio a 90° di profili

(kit completo di viti)

Angle bracket for profiles

(kit with screws)

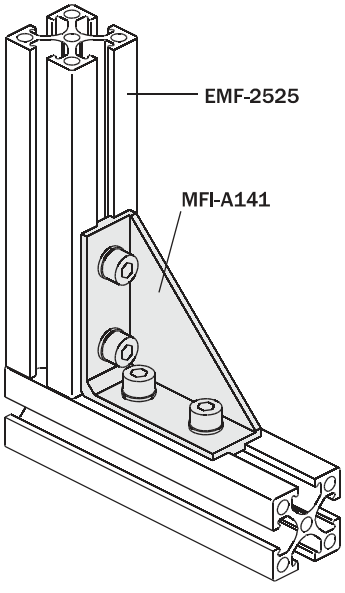


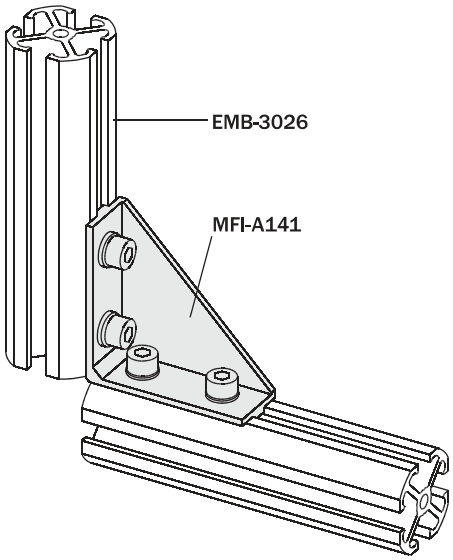
		MFI-A140	MFI-A141
A	[mm]	24.5	49
B	[mm]	-	25
Peso *Weight*		33 g	82 g



FIRST ANGLE PROJECTION

Esempio di utilizzo
Application example





Piastra di fissaggio dritta

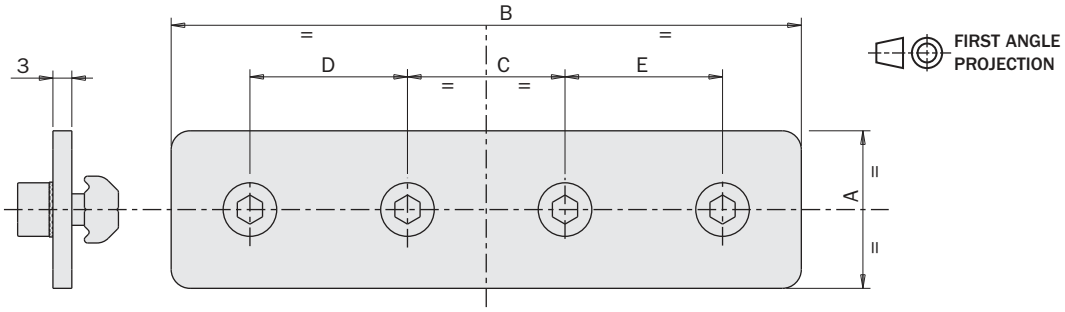
(kit completo di viti)

Straight fixing plate

(kit with screws)

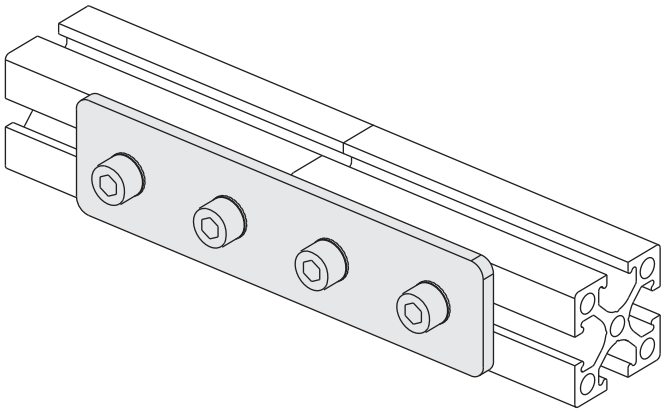


		MFI-A226	MFI-A227	MFI-A228
A	[mm]	25	25	40
B	[mm]	50	100	160
C	[mm]	25	25	40
D	[mm]	-	25	40
E	[mm]	-	25	40
Compatibile con: *Compatible with:*		2510	2510	-
		2518	2518	-
		2525	2525	-
		5025	5025	-
		-	-	4040
		-	-	8040
Peso *Weight*		45 g	95 g	195 g



Esempio di utilizzo

Application example



Piastra di fissaggio a L

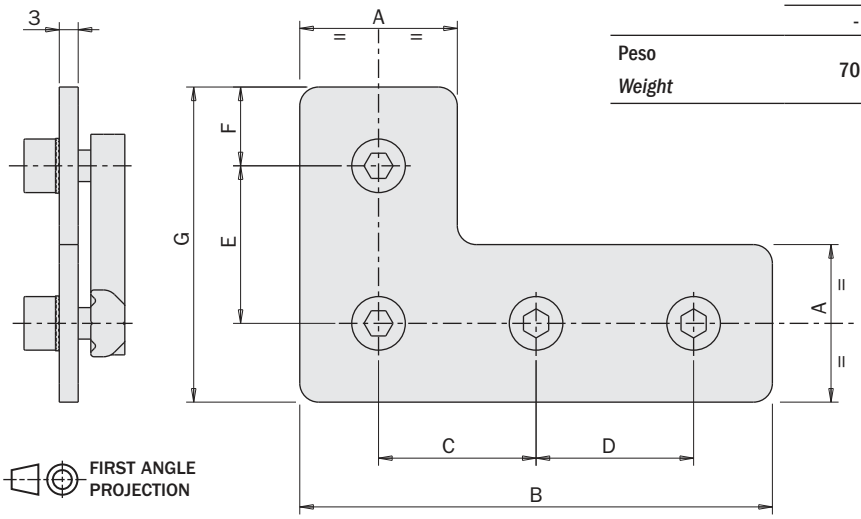
(kit completo di viti)
(materiale: acciaio)

L-shaped fixing plate

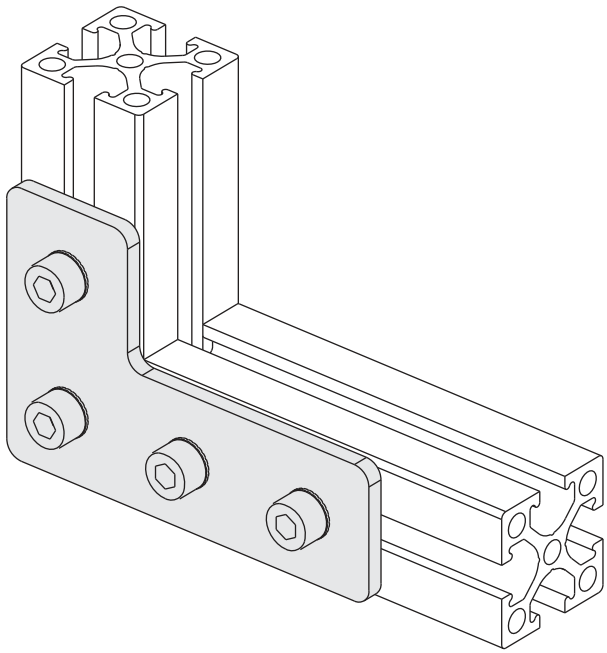
(kit with screws)
(material: steel)



		MFI-A232	MFI-A233	MFI-A234
A	[mm]	25	25	40
B	[mm]	50	75	120
C	[mm]	25	25	40
D	[mm]	-	25	40
E	[mm]	25	25	40
F	[mm]	12.5	12.5	20
G	[mm]	50	50	80
Compatibile con: *Compatible with:*		2510	2510	-
		2518	2518	-
		2525	2525	-
		5025	5025	-
		-	-	4040
		-	-	8040
Peso *Weight*		70 g	104 g	200 g



Esempio di utilizzo
Application example



Piastra di fissaggio a L in alluminio

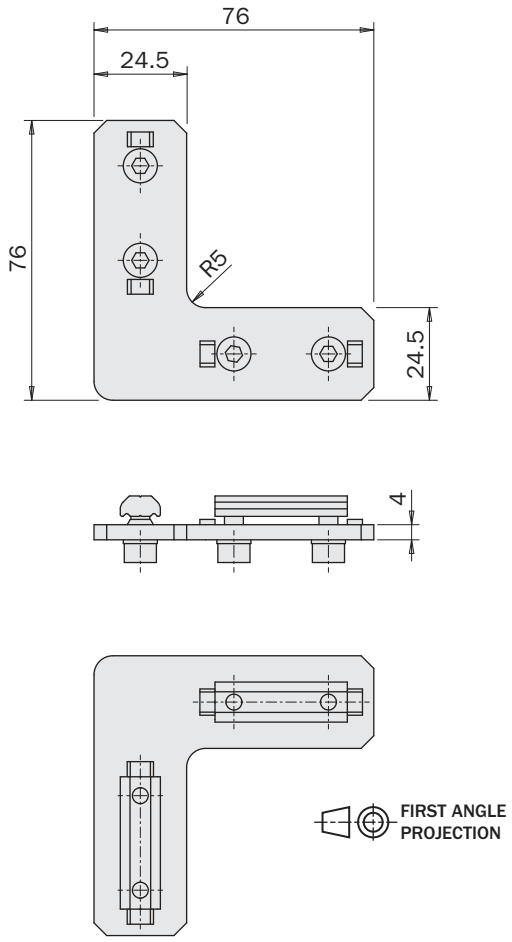
(materiale: alluminio)

- Chiavette di centraggio integrate, per assemblare due travi estruse perpendicolari e senza gioco.
- Chiavette piramidali, per uno scorrimento facile nelle cave delle travi durante l'assemblaggio.
- kit completo di viti.

L-shaped aluminium fixing plate

(material: aluminium)

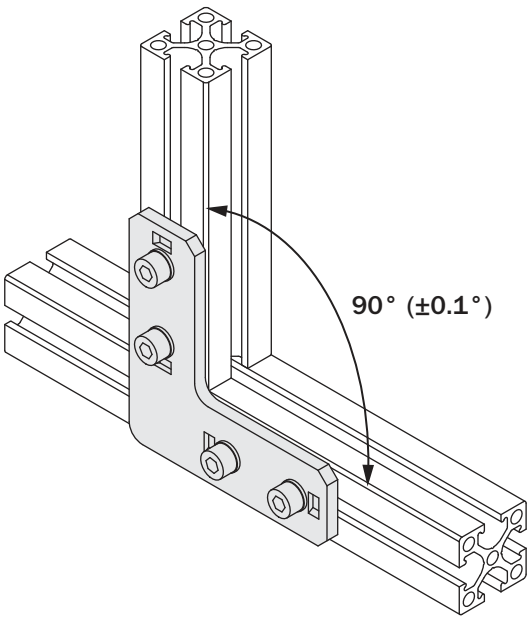
- *Integrated centering keys, for a backlash-free mounting of two perpendicular extruded beams.*
- *Pyramidal keys, for an easy sliding in the beam slots during the assembly.*
- *Kit with screws.*



	MFI-A353
Peso Weight	68 g



Esempio di utilizzo
Application example



Piastra di fissaggio a T

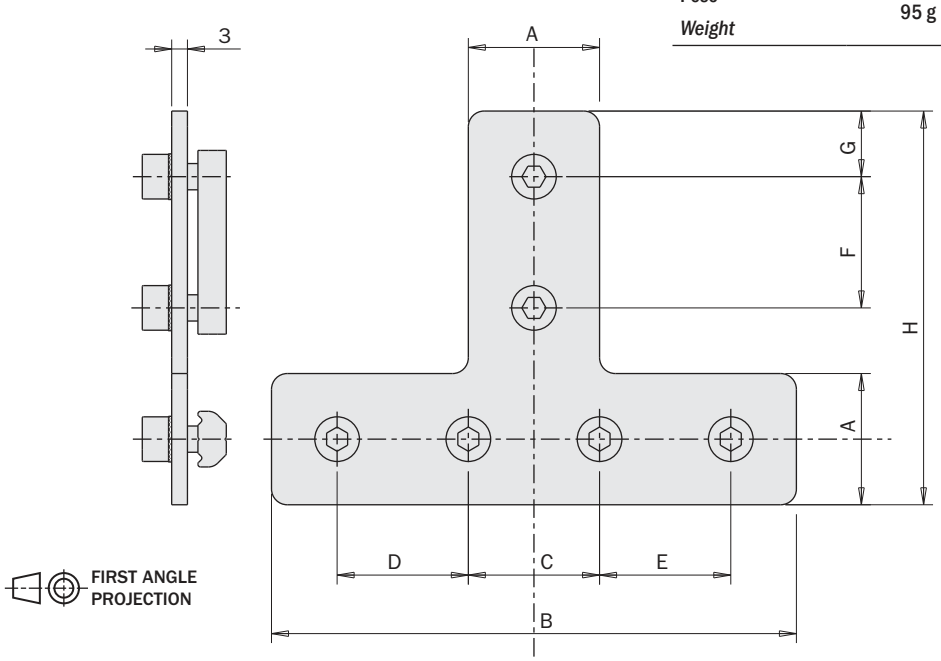
(kit completo di viti)
(materiale: acciaio)

T-shaped fixing plate

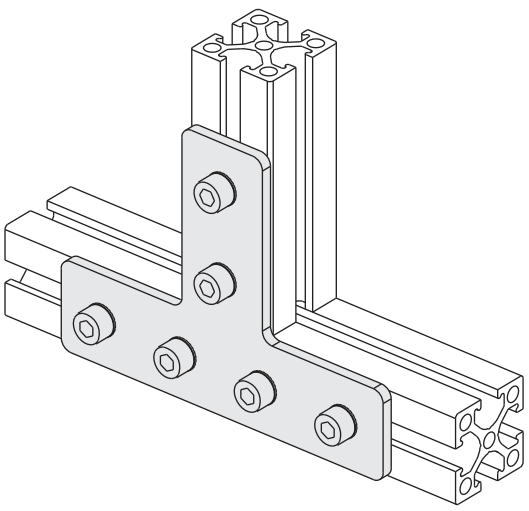
(kit with screws)
(material: steel)



		MFI-A229	MFI-A230	MFI-A231
A	[mm]	25	25	40
B	[mm]	50	100	120
C	[mm]	25	25	90
D	[mm]	-	25	-
E	[mm]	-	25	-
F	[mm]	25	25	40
G	[mm]	12.5	12.5	15
H	[mm]	75	75	110
Compatibile con: *Compatible with:*		2510	2510	-
		2518	2518	-
		2525	2525	-
		5025	5025	-
		-	-	4040
		-	-	8040
Peso *Weight*		95 g	145 g	250 g



Esempio di utilizzo
Application example

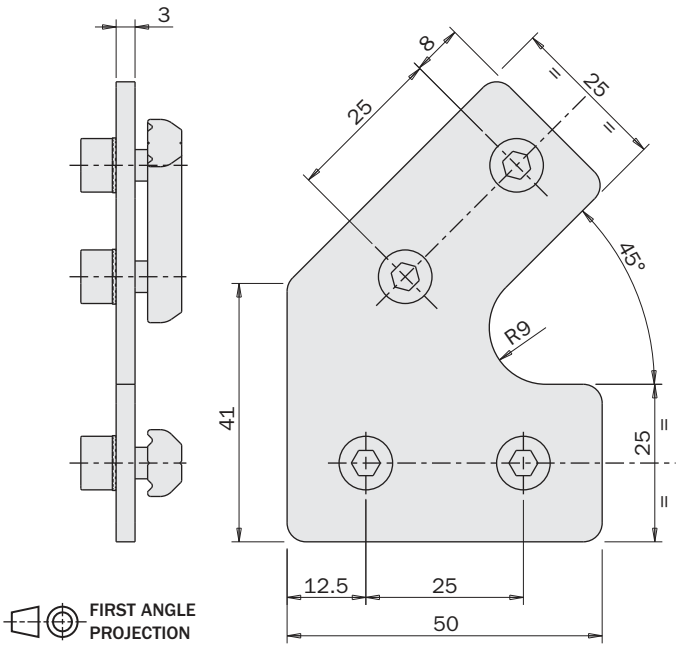


Piastra di fissaggio a 45°

(kit completo di viti)
(materiale: acciaio)

45° fixing plate

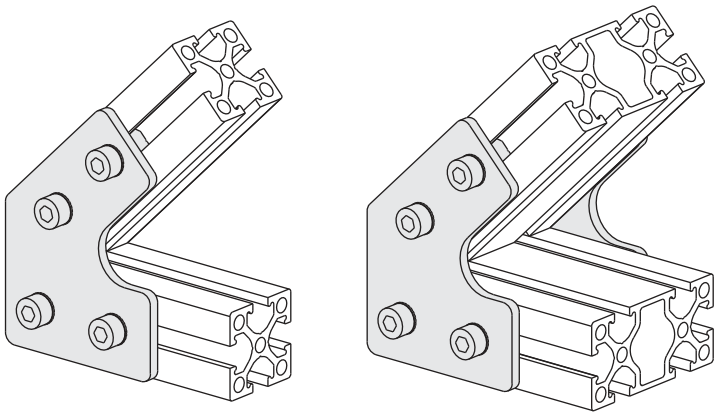
(kit with screws)
(material: steel)



	MFI-A221
Peso *Weight*	100 g



Esempio di utilizzo
Application example

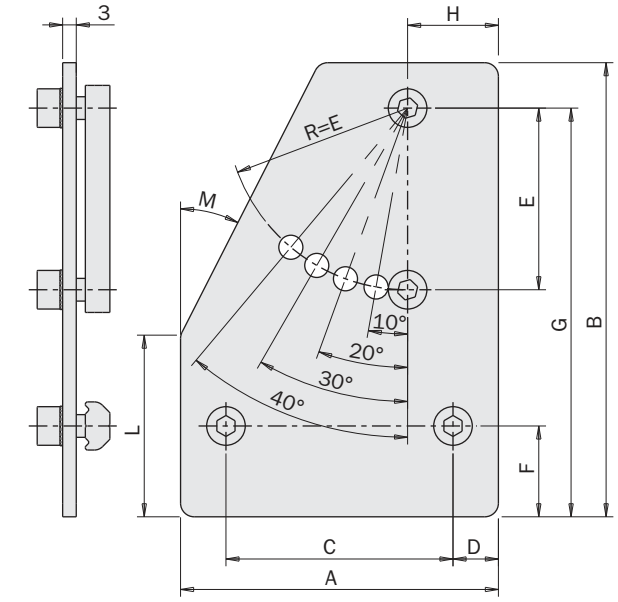


Piastra di fissaggio con angolo regolabile

(kit completo di viti)
(materiale: acciaio)

Fixing plate with adjustable angle

(kit with screws)
(material: steel)

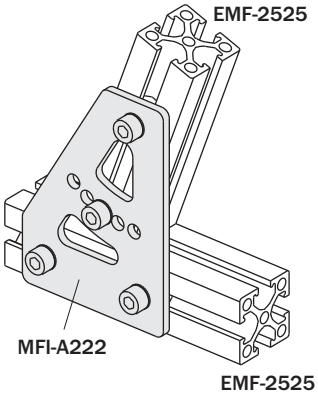


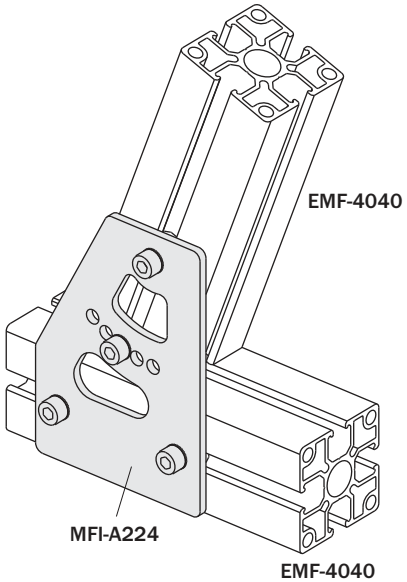
FIRST ANGLE PROJECTION

		MFI-A222	MFI-A224
A	[mm]	60	70
B	[mm]	85	100
C	[mm]	40	50
D	[mm]	10	10
E	[mm]	40	40
F	[mm]	12.5	20
G	[mm]	76	90
H	[mm]	12.5	20
L	[mm]	25	40
M	[mm]	30°	27°
Compatibile con: *Compatible with:*		2510	-
		2518	-
		2525	-
		5025	-
		-	4040
		-	8040
Peso *Weight*		130 g	175 g



Esempio di utilizzo
Application example



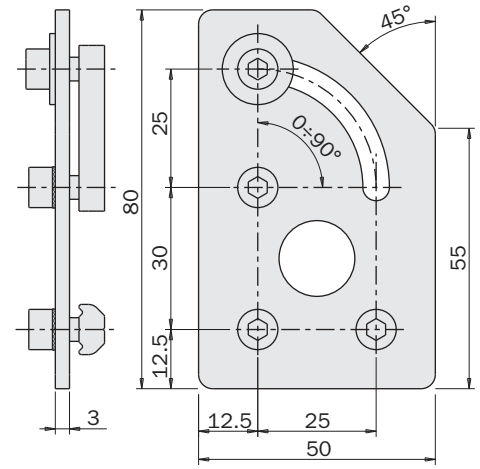


Piastra di fissaggio con angolo regolabile

(kit completo di viti)
(materiale: acciaio)

Fixing plate with adjustable angle

(kit with screws)
(material: steel)

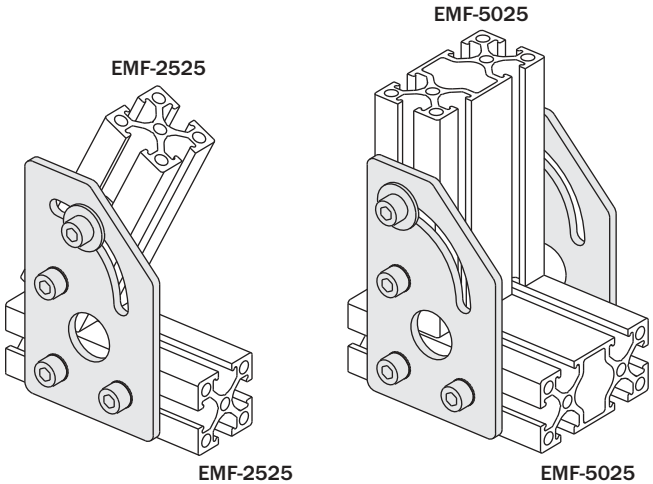


FIRST ANGLE PROJECTION

	MFI-A225
Peso *Weight*	115 g



Esempio di utilizzo
Application example

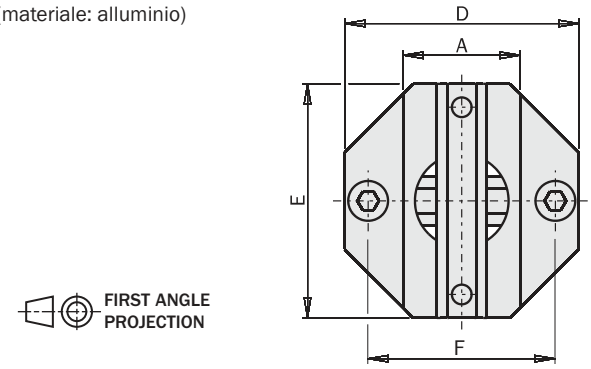


Staffa per fissaggio a croce di profili

(kit completo di viti)
(materiale: alluminio)

Cross mounting bracket for profiles

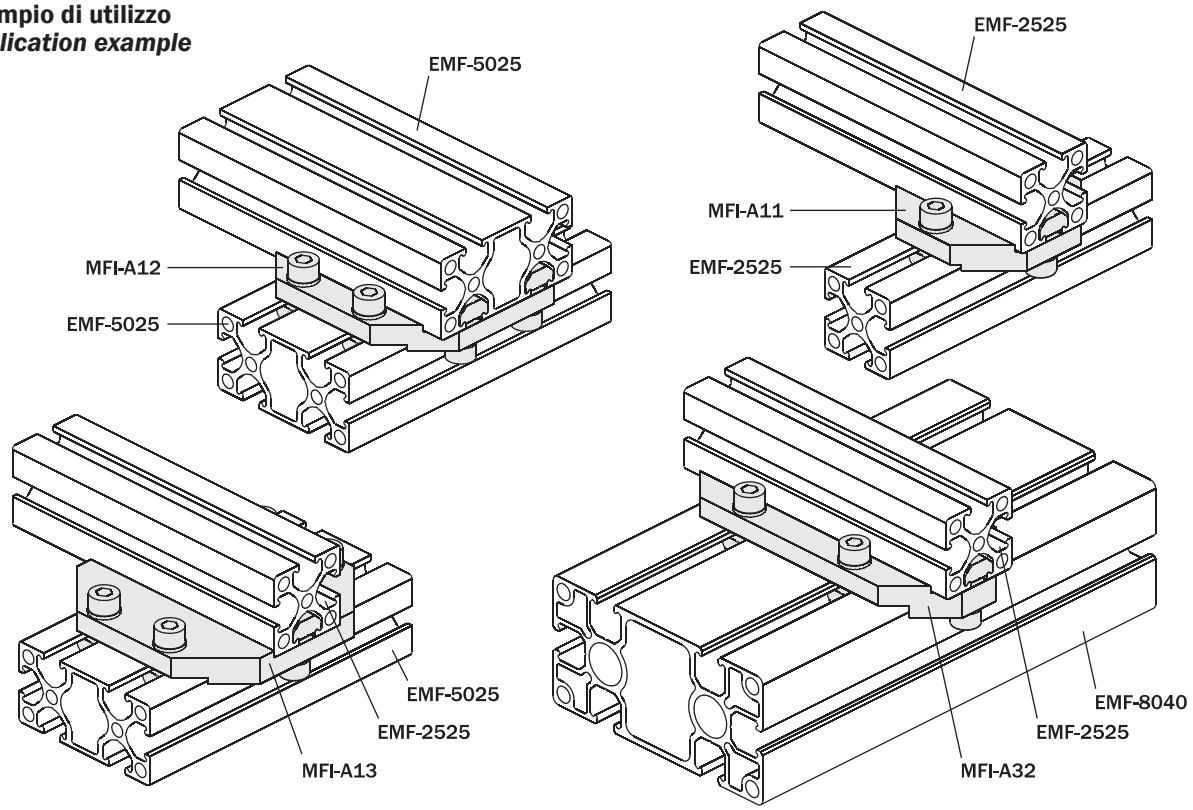
(kit with screws)
(material: aluminium)





		MFI -A175	MFI -A265	MFI -A11	MFI -A12	MFI -A13	MFI -A29	MFI -A29-H	MFI -A30	MFI -A31	MFI -A32	MFI -A33
A	**[mm]**	18	18	25	50	25	40	40	80	40	25	25
B	**[mm]**	18	25	25	50	50	40	40	80	80	80	40
C	**[mm]**	2	4	4	4	4	4	4	4	4	4	4
D	**[mm]**	38	38	45	70	45	60	60	100	60	45	45
E	**[mm]**	38	45	45	70	70	60	60	100	100	100	60
F	**[mm]**	28	35	35	60	35	50	50	90	50	35	35
G	**[mm]**	28	35	35	60	60	50	50	90	90	90	50
H	**[mm]**	M5	M5	M5	M5	M5	M5	M6	M5	M5	M5	M5
EMF-1018		☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐
EMF-1818		☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐
EMF-2510		☐	☑	☑	☐	☑	☐	☐	☐	☐	☑	☑
EMF-2518		☐	☑	☑	☐	☑	☐	☐	☐	☐	☑	☑
EMF-2525		☐	☑	☑	☐	☑	☐	☐	☐	☐	☑	☑
EMF-5025		☐	☑	☑	☑	☑	☐	☐	☐	☐	☑	☑
EMF-4040		☐	☐	☐	☐	☐	☑	☑	☐	☑	☐	☑
EMF-8040		☐	☐	☐	☐	☐	☑	☑	☑	☑	☑	☑
Peso *Weight*		40 g	60 g	75 g	170 g	155 g	85 g	85 g	255 g	175 g	140 g	75 g

Esempio di utilizzo
Application example



Staffa in alluminio per fissaggio a croce

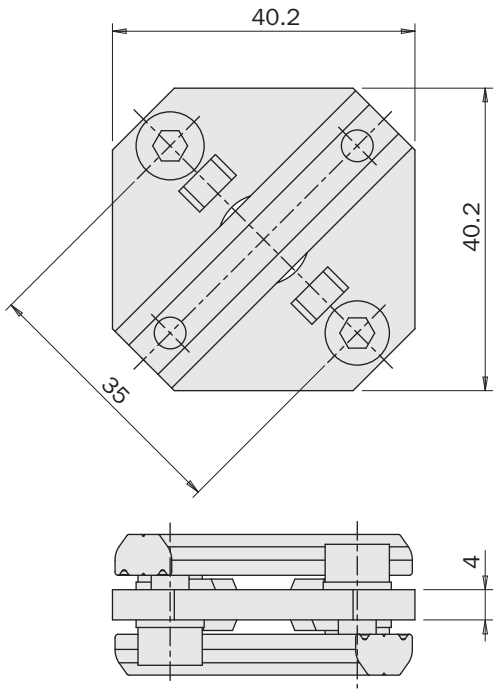
(kit completo di viti)
(materiale: alluminio)

- Chiavette di centraggio integrate, per assemblare due travi estruse perpendicolari e senza gioco.
- Chiavette piramidali, per uno scorrimento facile nelle cave delle travi durante l'assemblaggio.
- kit completo di viti.

Cross mounting aluminium bracket

(kit with screws)
(material: aluminium)

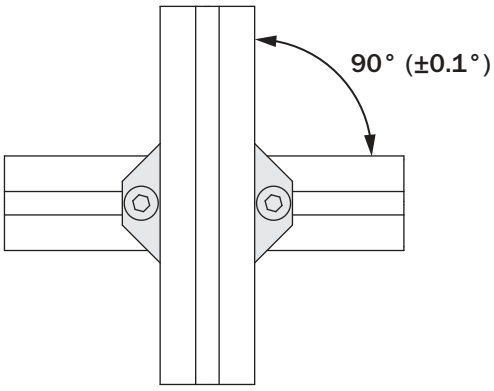
- *Integrated centering keys, for a backlash-free mounting of two perpendicular extruded beams.*
- *Pyramidal keys, for an easy sliding in the beam slots during the assembly.*
- *Kit with screws.*

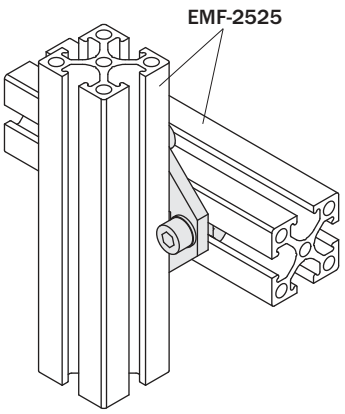


	MFI-A356
Peso *Weight*	53 g



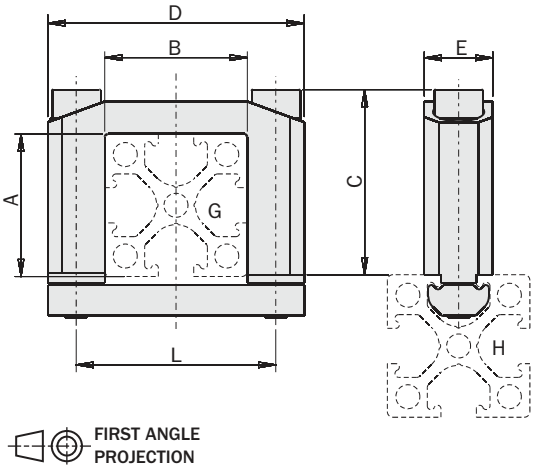
Esempio di utilizzo
Application example





Staffa (quadra) per fissaggio a croce

(kit completo di viti)
(materiale: alluminio)



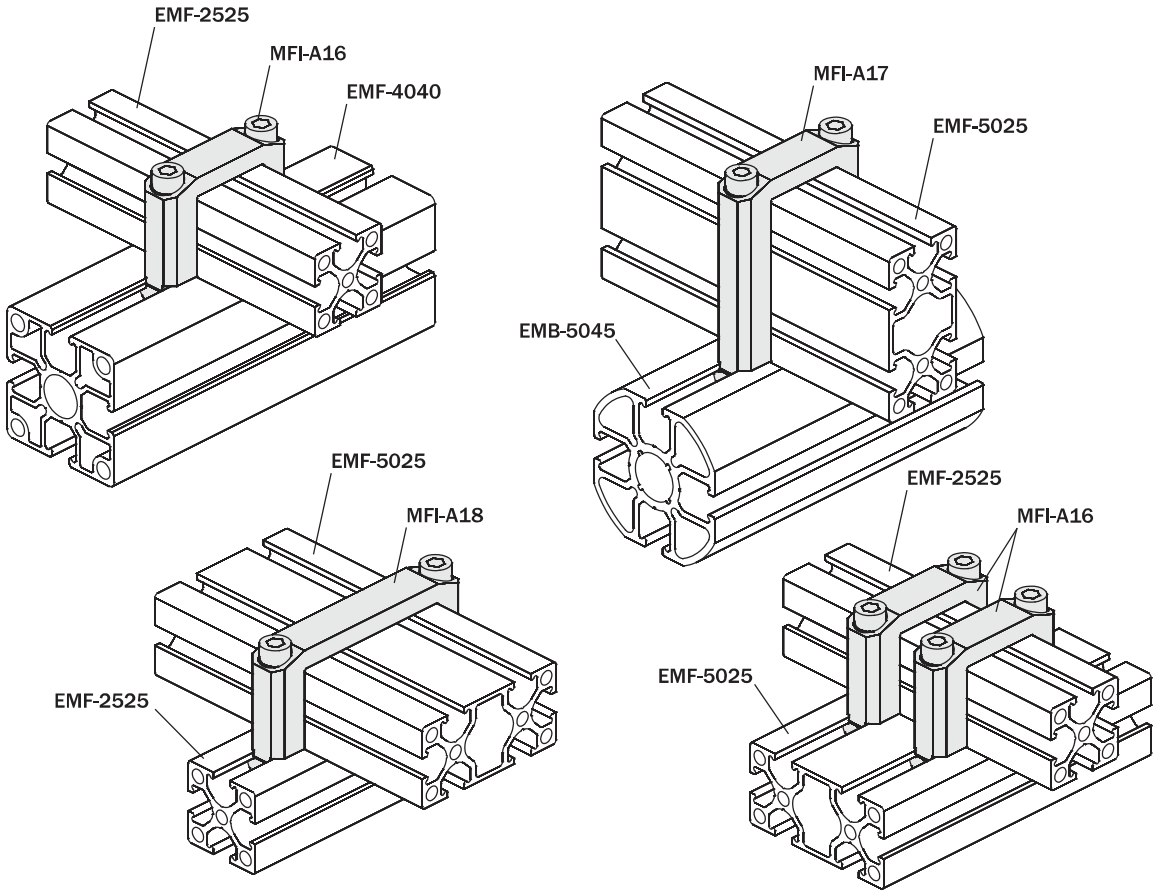


Cross (square) joint connector

(kit with screws)
(material: aluminium)

		MFI-A244	MFI-A16	MFI-A17	MFI-A18
A	[mm]	18	25	50	25
B	[mm]	18	25	25	50
C	[mm]	29	32	57	32
D	[mm]	38	45	45	70
E	[mm]	12	12	12	12
G		EMF-1818	EMF-2525	EMF-5025	EMF-5025
H		EMF-1818	-	-	-
		EMF-2518	-	-	-
		EMF-2510	EMF-2510	-	-
		EMF-2518	EMF-2518	-	-
		EMF-2525	EMF-2525	EMF-2525	EMF-2525
		EMF-5025	EMF-5025	EMF-5025	EMF-5025
		EMF-4040	EMF-4040	EMF-4040	EMF-4040
		EMF-8040	EMF-8040	EMF-8040	EMF-8040
		EMB-3026	EMB-3026	EMB-3026	EMB-3026
		EMB-5045	EMB-5045	EMB-5045	EMB-5045
L	[mm]	28	35	35	60
Peso *Weight*		41 g	45 g	65 g	50 g

Esempio di utilizzo
Application example



Staffa (tonda) per fissaggio a croce

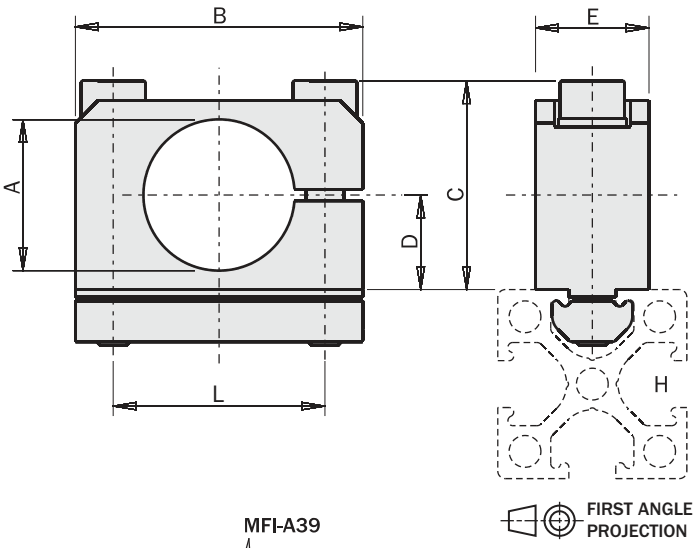
(kit completo di viti)
(materiale: alluminio)

Cross (round) joint connector

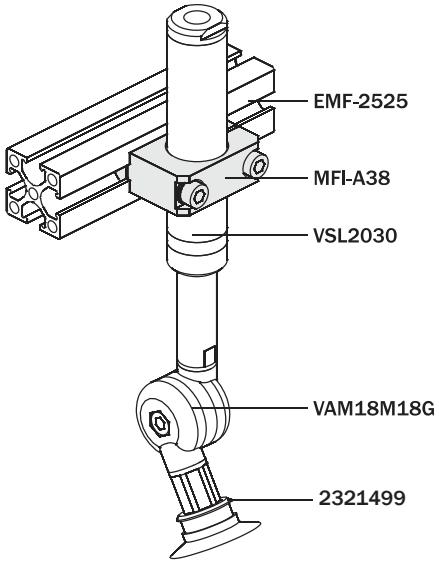
(kit with screws)
(material: aluminium)

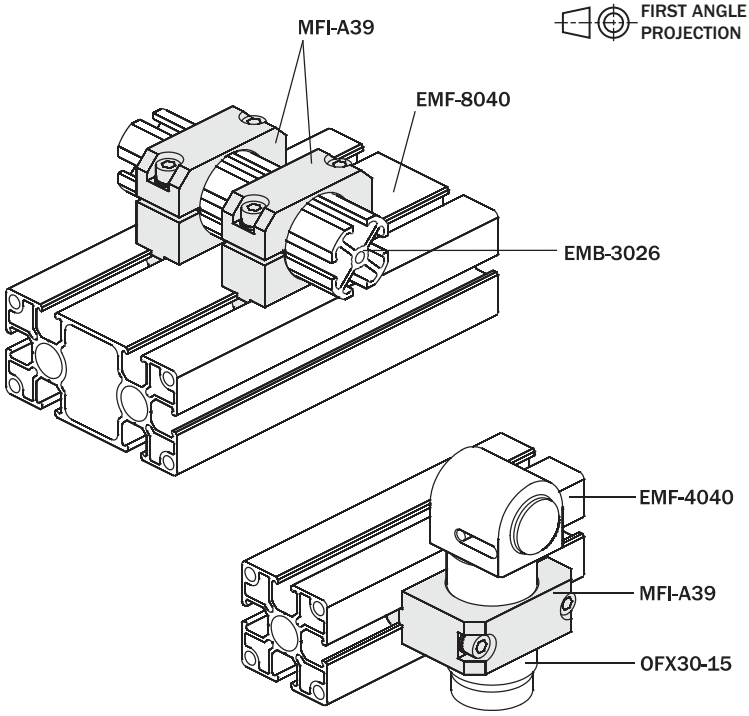
		MFI-A156	MFI-A37	MFI-A38	MFI-A39
A	[mm]	Ø10	Ø14	Ø20	Ø30
B	[mm]	25	32	38	50
C	[mm]	18.5	23	28	34
D	[mm]	7	9	12.5	17
E	[mm]	10	12	15	20
H		EMF-1018	-	-	-
		EMF-1818	-	-	-
		EMF-2510	EMF-2510	-	-
		EMF-2518	EMF-2518	-	-
		EMF-2525	EMF-2525	EMF-2525	EMF-2525
		EMF-5025	EMF-5025	EMF-5025	EMF-5025
		EMF-4040	EMF-4040	EMF-4040	EMF-4040
		EMF-8040	EMF-8040	EMF-8040	EMF-8040
		EMB-2017	-	-	-
		EMB-3026	EMB-3026	EMB-3026	EMB-3026
		EMB-5045	EMB-5045	EMB-5045	EMB-5045
L	[mm]	17	22	28	40
Peso *Weight*		15 g	32 g	45 g	75 g





Esempio di utilizzo
Application example





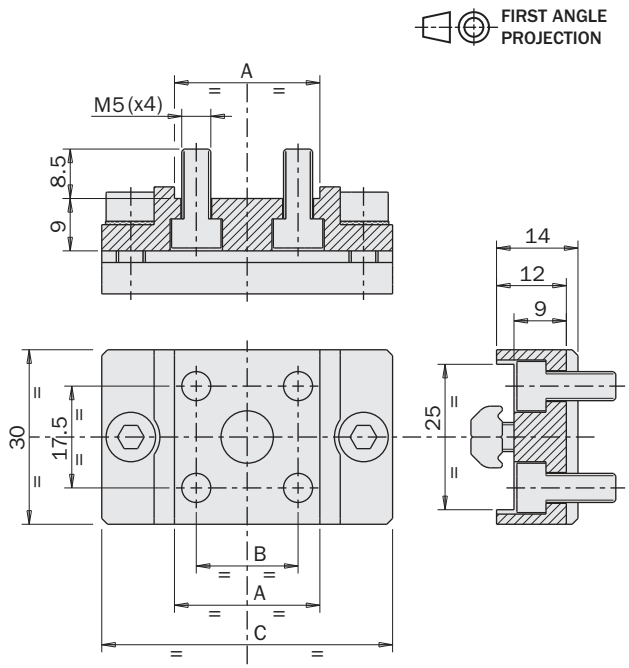
Fissaggio verticale profili

(kit completo di viti)
(materiale: alluminio)

Vertical fastening of the profiles

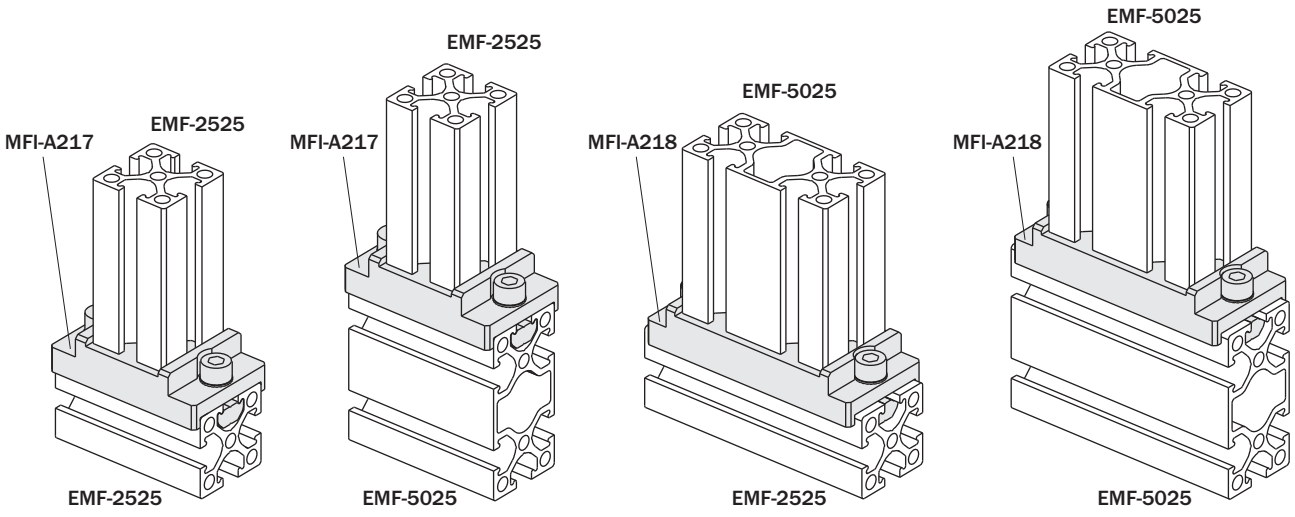
(kit with screws)
(material: aluminium)

		MFI-A217	MFI-A218
A	[mm]	25	50
B	[mm]	17.5	42.5
C	[mm]	50	70
Compatibile con: *Compatible with:*		EMB-2525, EMF-2525	
		EMB-5025, EMF-5025	
Peso *Weight*		65 g	85 g





Esempio di utilizzo
Application example



Fissaggio verticale profili

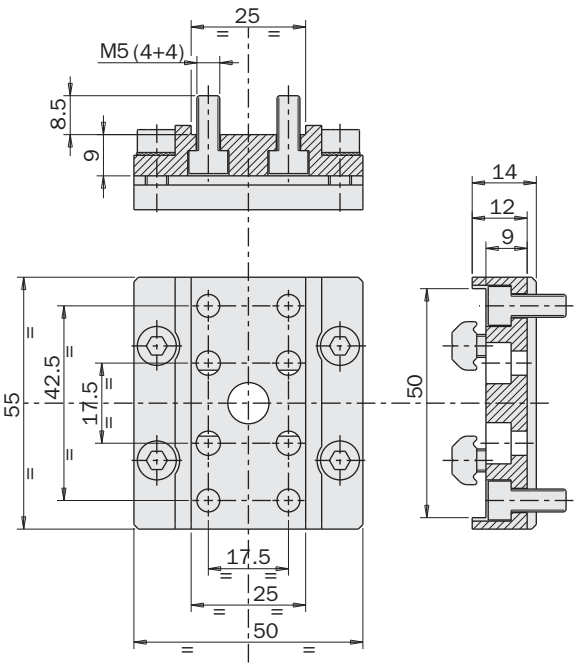
(kit completo di viti)
(materiale: alluminio)

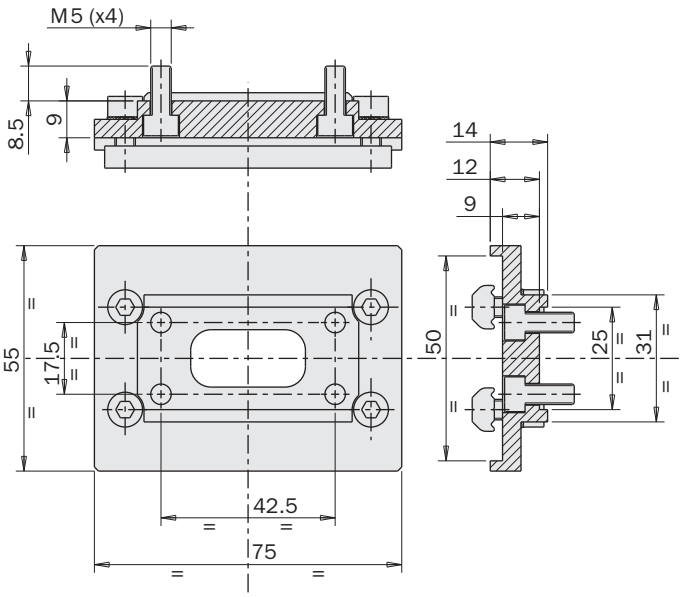
Vertical fastening of the profiles

(kit with screws)
(material: aluminium)

	MFI-A219
Peso *Weight*	110 g

	MFI-A220
Peso *Weight*	140 g

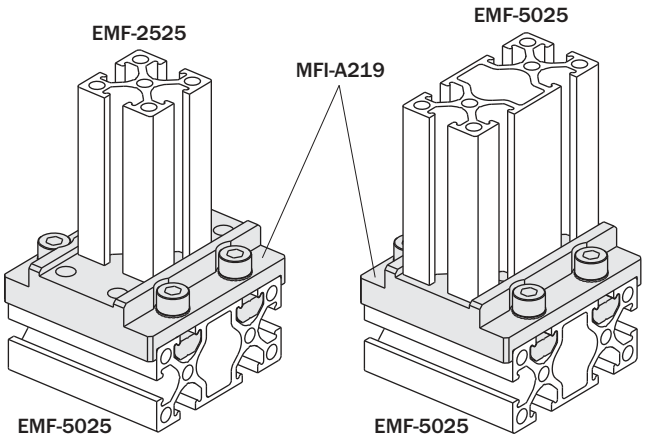


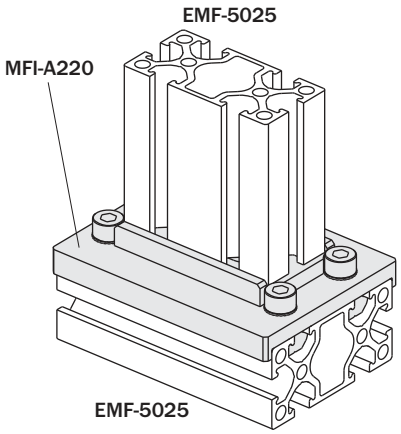


FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example





Interfaccia per braccio a sbalzo

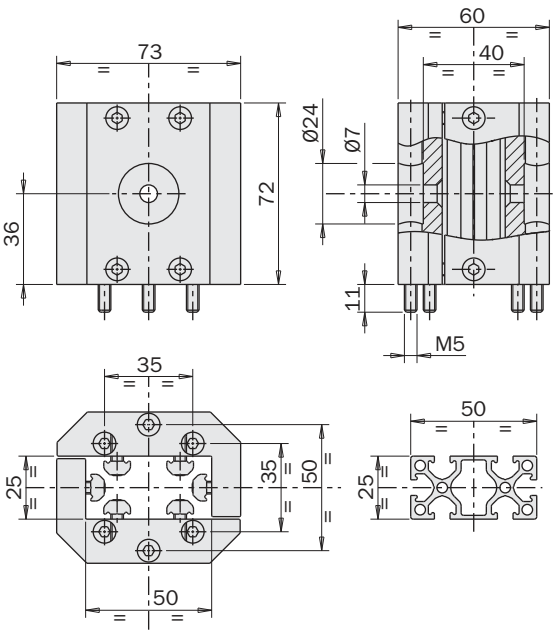
(kit completo di viti)
(materiale: alluminio)

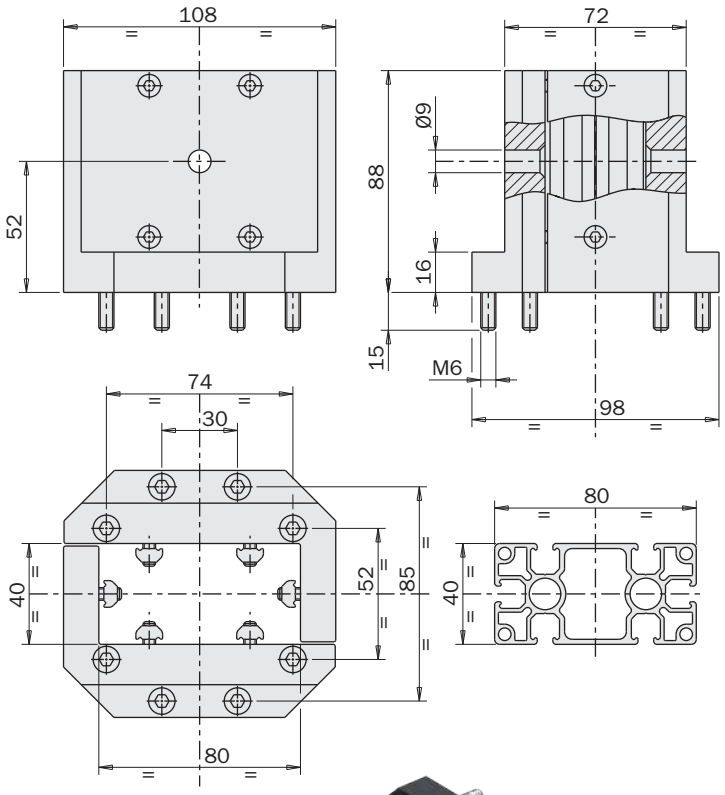
Interface for square profile/Quick Changer

(kit with screws)
(material: aluminium)

	MFI-A254
Peso *Weight*	680 g

	MFI-A255
Peso *Weight*	1300 g



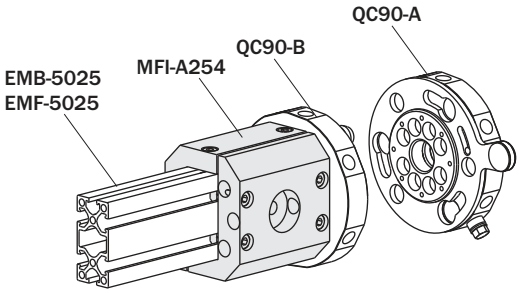


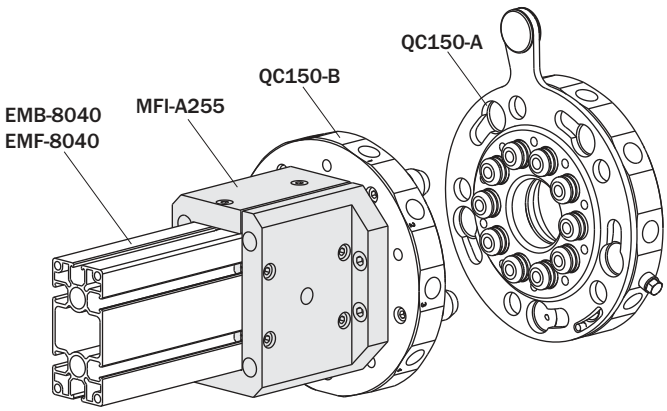
FIRST ANGLE PROJECTION





Esempio di utilizzo
Application example





Staffa

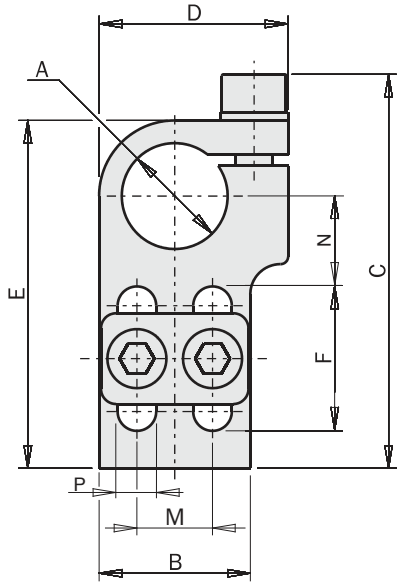
(kit completo di viti)
(materiale: alluminio)

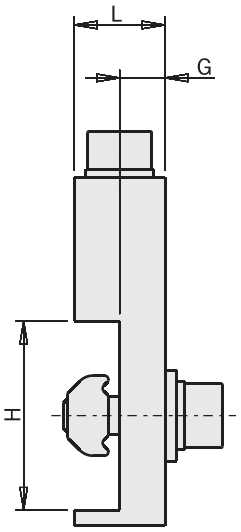
Mounting bracket

(kit with screws)
(material: aluminium)

		MFI-A01	MFI-A270	MFI-A02	MFI-A204	MFI-A03
A	[mm]	Ø10	Ø10	Ø14	Ø20	Ø20
B	[mm]	16	16	20	25	25
C	[mm]	43	49	52.1	57.1	74.1
D	[mm]	20	20	25	30	30
E	[mm]	38	44	46	51.5	68
F	[mm]	14.2	18.2	19.2	19.2	27.2
G	[mm]	4.5	4.5	6	6.2	6
H	[mm]	18	25	25	25	40
L	[mm]	8	8	12	12	12
M	[mm]	8	8	10	15	15
N	[mm]	12.4	12.9	11.9	14.9	19.4
P	[mm]	4.1	4.1	5.1	5.1	5.1
Compatibile con: *Compatible with:*		EMF-1018 EMF-1818	EMF-2510 EMF-2518 EMF-2525 EMF-5025	EMF-2510 EMF-2518 EMF-2525 EMF-5025	EMF-2510 EMF-2518 EMF-2525 EMF-5025	EMF-4040 EMF-8040
Peso *Weight*		20 g	21 g	34 g	45 g	48 g

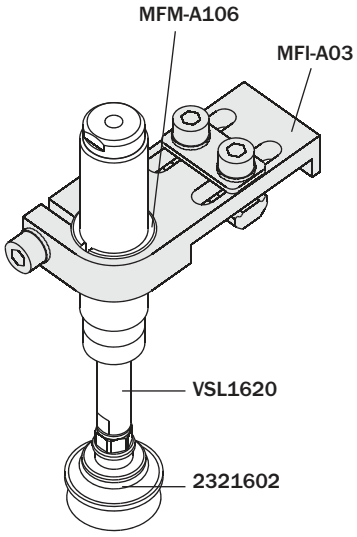
FIRST ANGLE PROJECTION

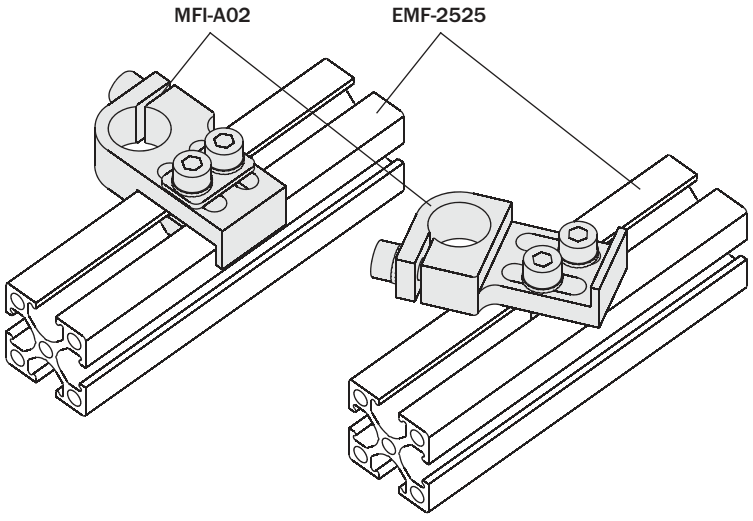






Esempio di utilizzo
Application example





Staffa

(kit completo di viti)
(materiale: alluminio)

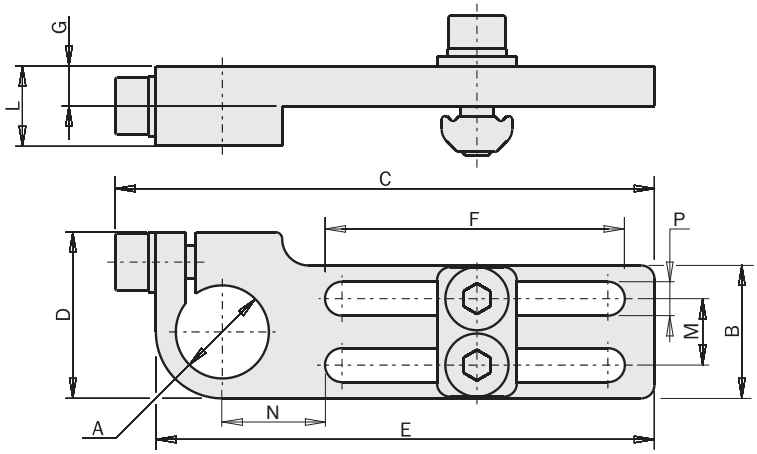
Mounting bracket

(kit with screws)
(material: aluminium)

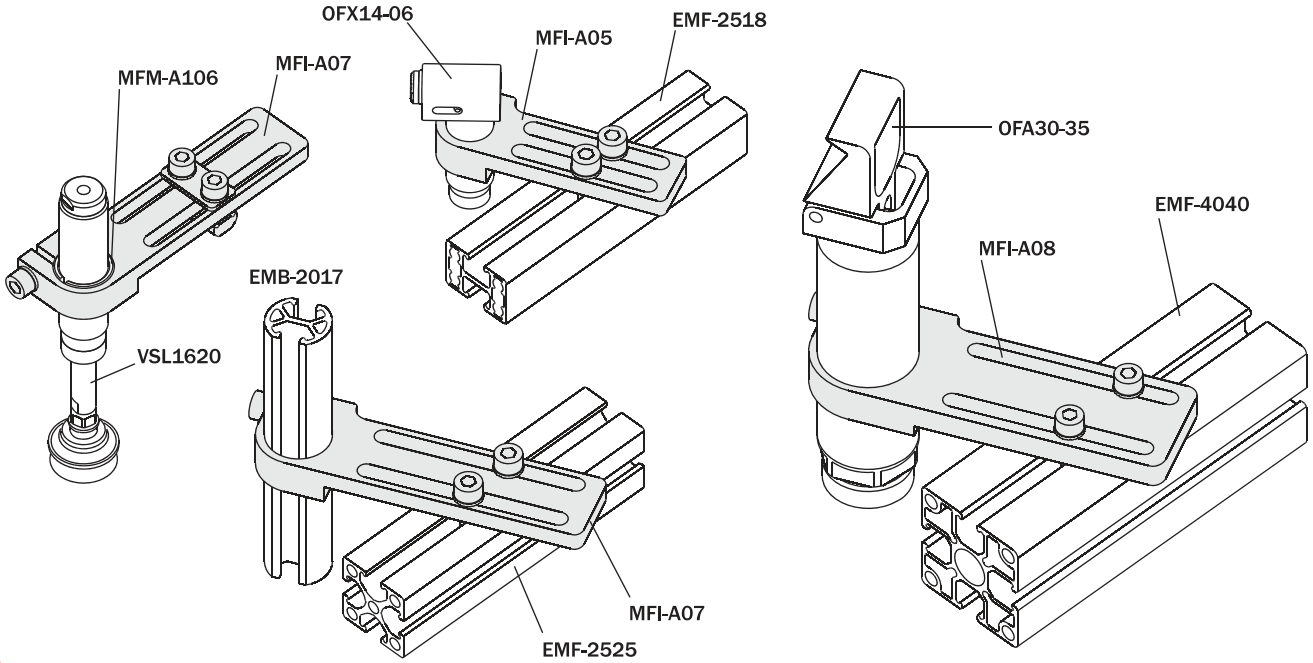
		MFI-A04	MFI-A05	MFI-A06	MFI-A07	MFI-A08
A	[mm]	Ø10	Ø14	Ø14	Ø20	Ø30
B	[mm]	16	20	20	25	35
C	[mm]	75	81.1	91.1	111.1	121.1
D	[mm]	20	25	25	30	42
E	[mm]	70	75	85	105	115
F	[mm]	42.2	45.2	55.2	65.2	65.5
G	[mm]	4.5	6	6	6	8
L	[mm]	8	12	12	12	12
M	[mm]	8	10	10	15	20
N	[mm]	13.9	15.4	15.4	21.4	26.5
P	[mm]	4.1	5.1	5.1	5.1	8
Compatibile con: *Compatible with:*		EMF-1018 EMF-1818 EMF-2510 EMF-2518 EMF-2525 EMF-5025 - - EMB-2017 EMB-3026 EMB-5045	EMF-1018 EMF-1818 EMF-2510 EMF-2518 EMF-2525 EMF-5025 EMF-4040 EMF-8040 EMB-2017 EMB-3026 EMB-5045	EMF-1018 EMF-1818 EMF-2510 EMF-2518 EMF-2525 EMF-5025 EMF-4040 EMF-8040 EMB-2017 EMB-3026 EMB-5045	- - EMF-2510 EMF-2518 EMF-2525 EMF-5025 EMF-4040 EMF-8040 - EMB-3026 EMB-5045	- - EMF-2510 EMF-2518 EMF-2525 EMF-5025 EMF-4040 EMF-8040 - EMB-3026 EMB-5045
Peso *Weight*		23 g	38 g	40 g	55 g	95 g

FIRST ANGLE PROJECTION





Esempio di utilizzo
Application example



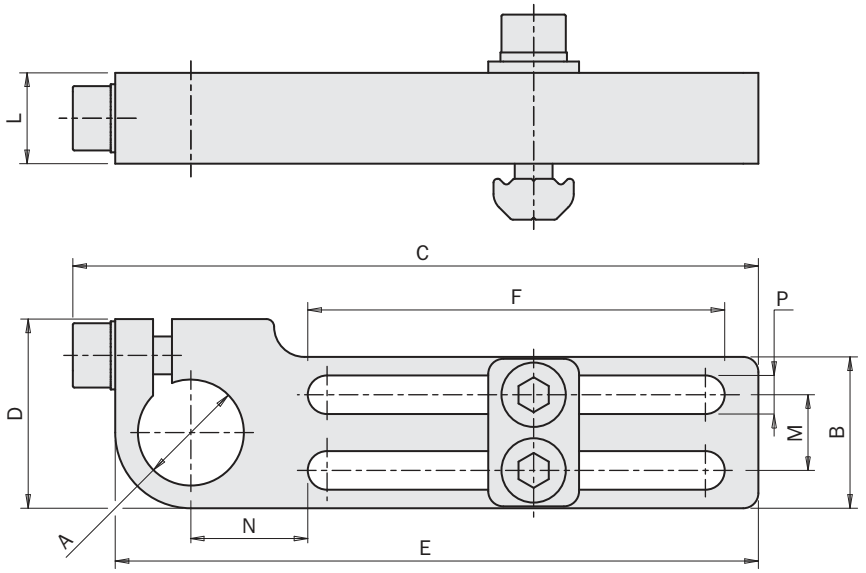
Staffa robusta

(kit completo di viti)
(materiale: alluminio)

Heavy duty mounting bracket

(kit with screws)
(material: aluminium)

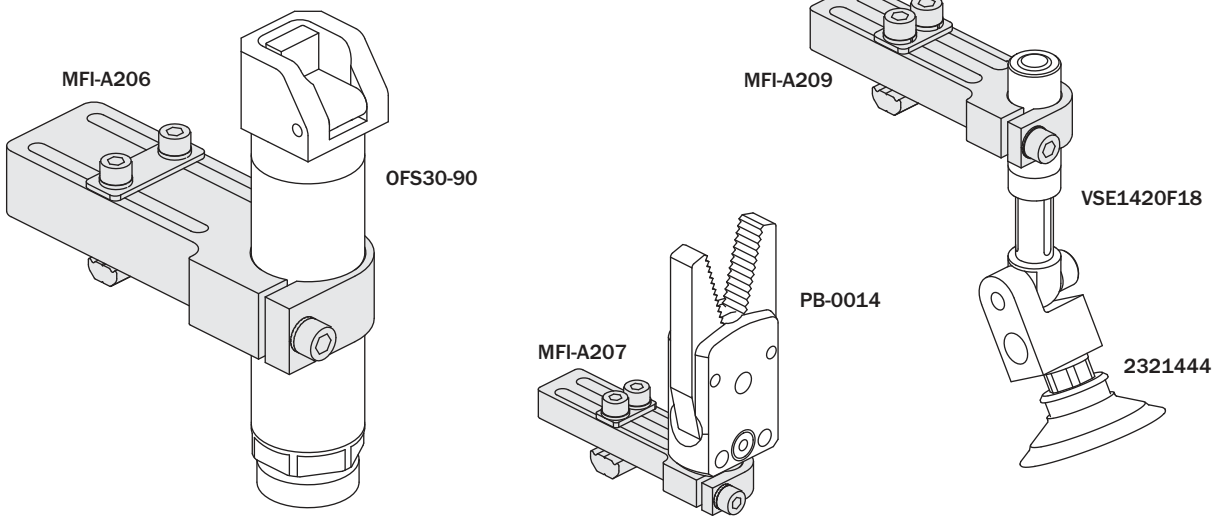
		MFI-A207	MFI-A209	MFI-A205	MFI-A206
A	[mm]	Ø10	Ø14	Ø20	Ø30
B	[mm]	16	20	25	35
C	[mm]	75	90.6	110.6	122.2
D	[mm]	20	25	30	42
E	[mm]	70	85	105	115
F	[mm]	44.2	55.2	65.2	65.5
L	[mm]	8.3	12	15	20
M	[mm]	8	10	15	20
N	[mm]	13.9	15.4	21.4	26.5
P	[mm]	4.1	5.1	5.1	8
Peso *Weight*		30 g	60 g	85 g	175 g



FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example



Staffa robusta con giunto sferico

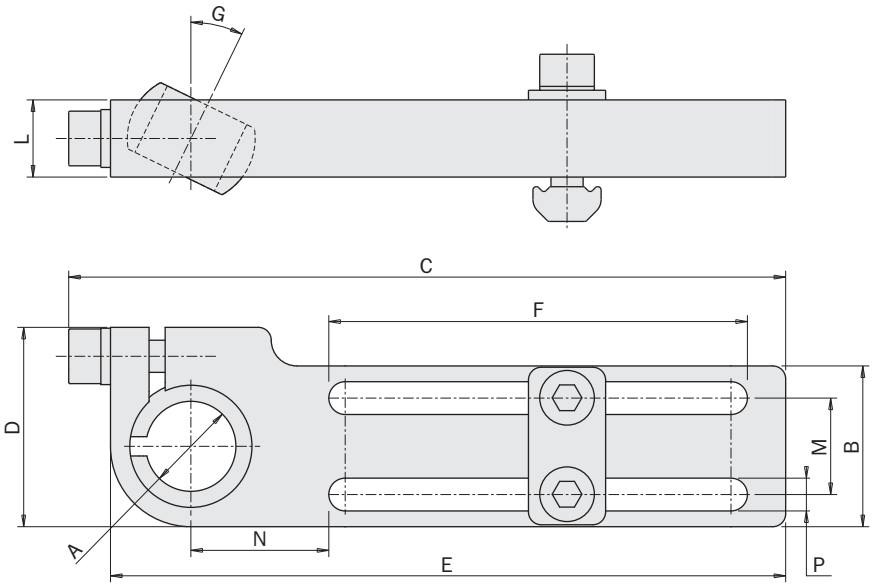
(kit completo di viti)
(materiale: alluminio)

Heavy-duty mounting bracket with ball joint

(kit with screws)
(material: aluminium)

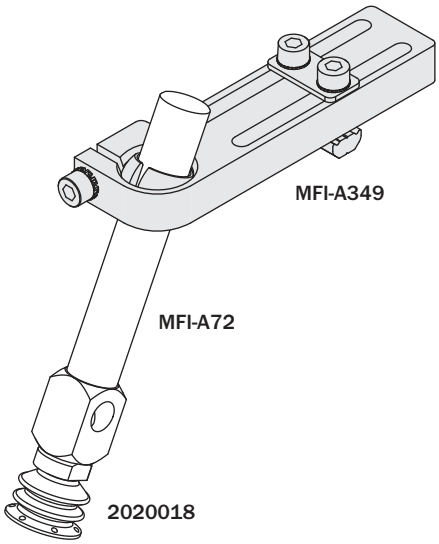


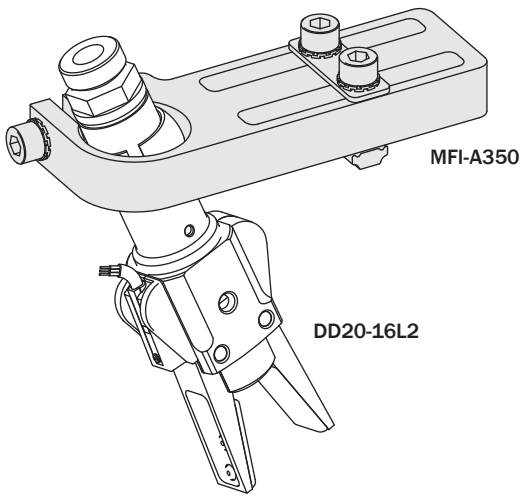
		MFI-A348	MFI-A349	MFI-A350
A	[mm]	Ø10	Ø14	Ø20
B	[mm]	20	25	35
C	[mm]	89.5	111.5	121.8
D	[mm]	25	30	42
E	[mm]	85	105	115
F	[mm]	55.2	65.2	65.5
G		0-26°	0-26°	0-26°
L	[mm]	8.3	12	15
M	[mm]	10	15	20
N	[mm]	15.4	21.4	26.5
P	[mm]	5.1	5.1	8
Peso *Weight*		45 g	86 g	160 g



FIRST ANGLE PROJECTION

Esempio di utilizzo
Application example





Staffa asolata angolare

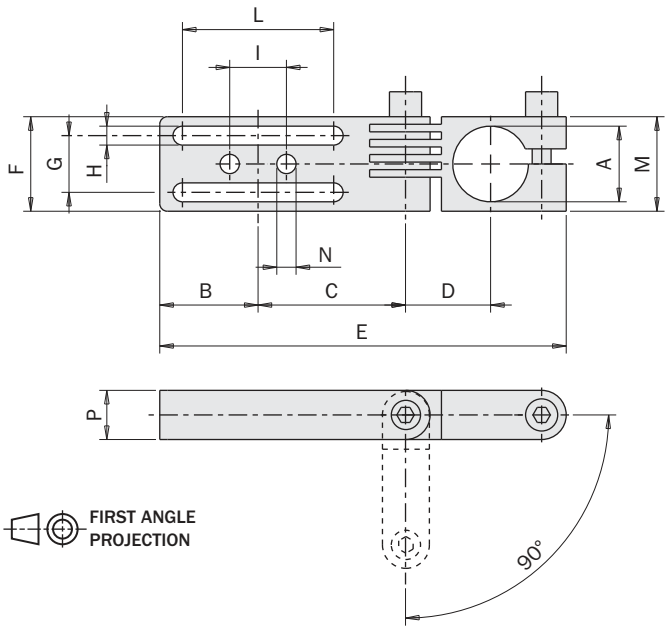
(kit completo di viti)
(materiale: alluminio)

Slotted angular bracket

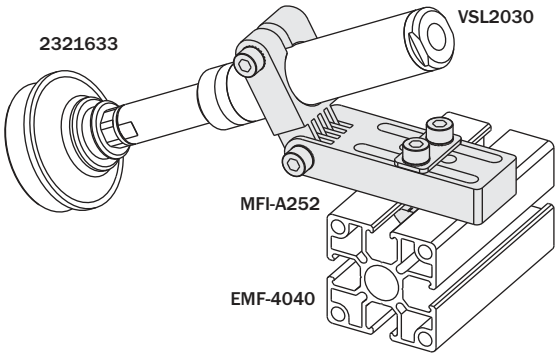
(kit with screws)
(material: aluminium)

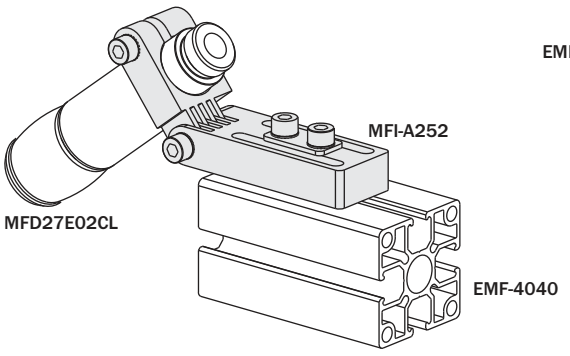
		MFI-A250	MFI-A251	MFI-A252	MFI-A253
A	[mm]	Ø10	Ø14	Ø20	Ø30
B	[mm]	15	21	26	32
C	[mm]	23	31	39	49
D	[mm]	14	17.5	22.5	29
E	[mm]	64.5	85.5	107.5	136.5
F	[mm]	16	25	25	36
G	[mm]	8	15	15	22
H	[mm]	4.1	5.1	5.1	5.1
I	[mm]	-	15	15	22
L	[mm]	20	30	40	50
M	[mm]	16	20	25	36
N	[mm]	-	Ø5.1	Ø5.1	Ø5.1
P	[mm]	9	11	13	16
Peso *Weight*		30 g	50 g	90 g	185 g

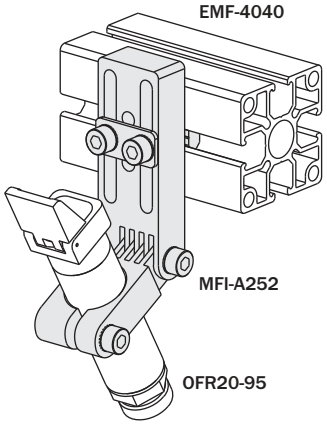




Esempio di utilizzo
Application example







Staffa

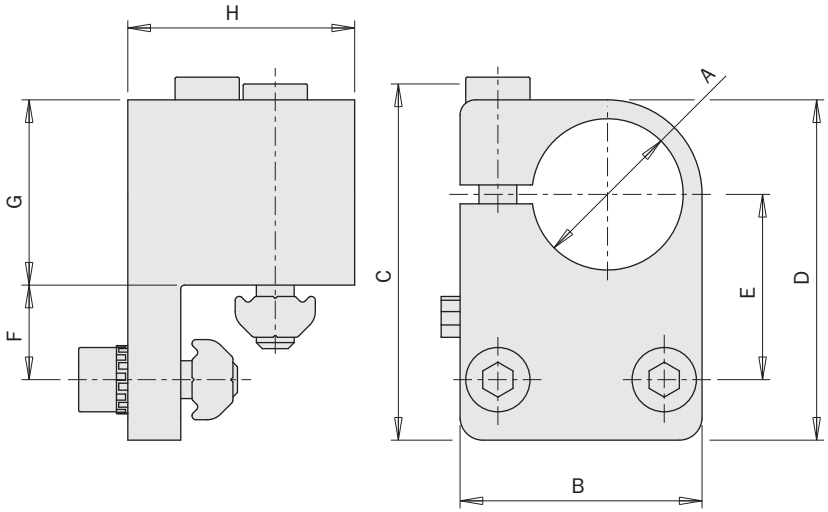
(kit completo di viti)
(materiale: alluminio)

Mounting bracket

(kit with screws)
(material: aluminium)

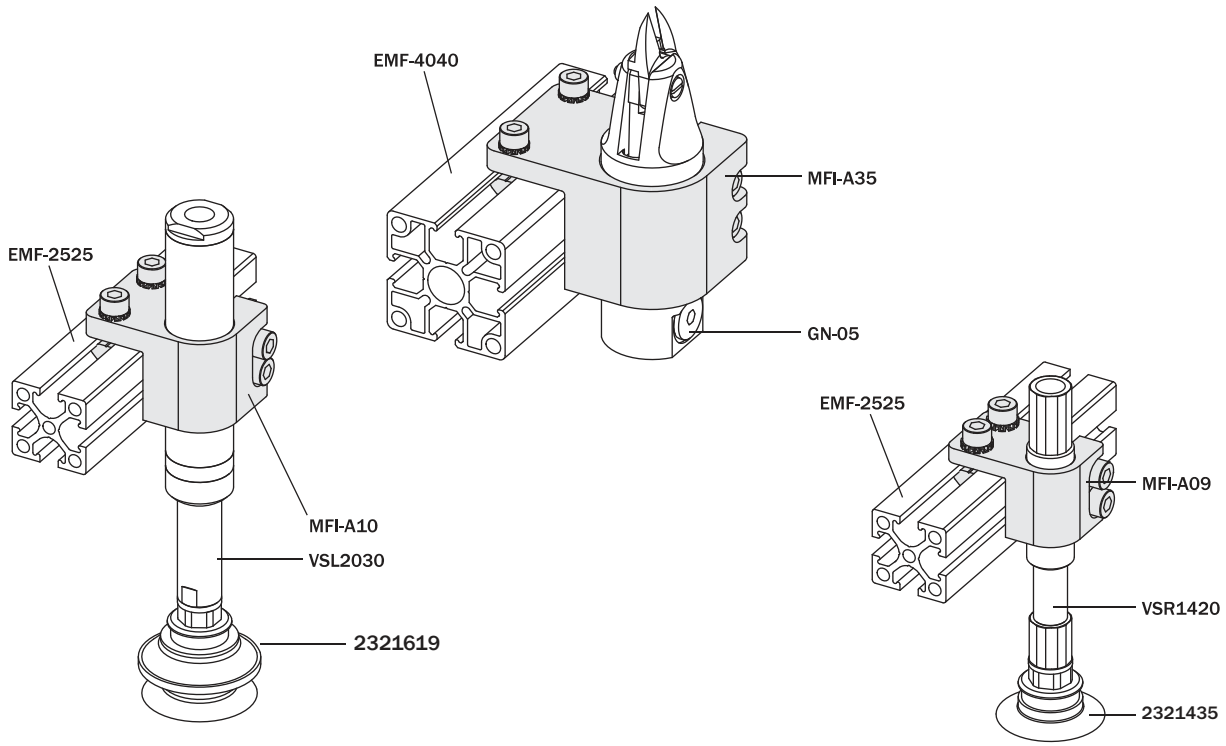
		MFI-A09	MFI-A10	MFI-A36	MFI-A36-H	MFI-A34	MFI-A35	MFI-A35-H
A	[mm]	Ø14	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
B	[mm]	25	32	35	47	40	45	47
C	[mm]	42.6	47.6	54.1	64.7	53.1	64.1	64.7
D	[mm]	40	45	54.5	65.5	55	65.5	65.5
E	[mm]	22	24.5	33	35	29.5	39	39
F	[mm]	12.5	12.5	20	20	12.5	20	20
G	[mm]	19.5	24.5	26.5	37.5	34.5	37.5	37.5
H	[mm]	25	30	35	40	30	40	40
Compatibile con: *Compatible with:*		EMF-2525 EMF-5025	EMF-2525 EMF-5025	EMF-4040 EMF-8040	EMF-4040 EMF-8040	EMF-2525 EMF-5025	EMF-4040 EMF-8040	EMF-4040 EMF-8040
Peso *Weight*		50 g	70 g	95 g	209 g	90 g	150 g	168 g





Esempio di utilizzo
Application example

FIRST ANGLE PROJECTION



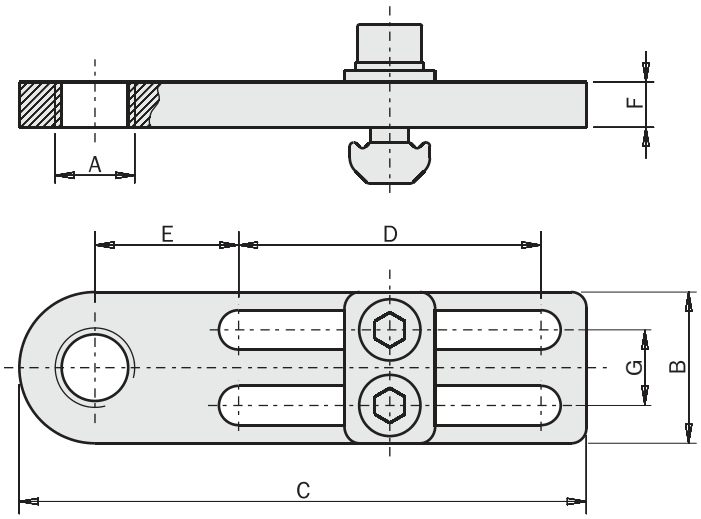
Staffa

(kit completo di viti)
(materiale: alluminio)

Mounting bracket

(kit with screws)
(material: aluminium)

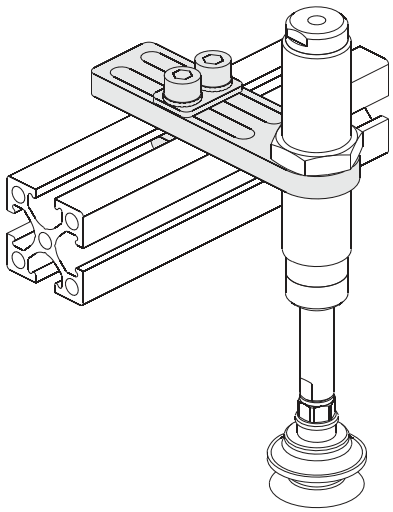
	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Peso *Weight*
MFI-A104	G1/8"	20	75	40	19	6	10	25 g
MFI-A105	G1/8"	25	105	60	26.5	6	15	42 g
MFI-A106	M10x1	20	75	40	19	6	10	30 g
MFI-A107	M10x1	25	105	60	26.5	6	15	40 g
MFI-A266	M12x1	20	75	40	19	6	10	30 g
MFI-A108	M14x1	20	75	40	19	6	10	20 g
MFI-A109	M14x1	25	105	60	26.5	6	15	40 g
MFI-A210	M14x1.5	25	75	40	19	6	10	20 g
MFI-A211	M14x1.5	25	105	60	26.5	6	15	40 g
MFI-A110	M16x1	20	75	40	19	6	10	20 g
MFI-A111	M16x1	25	105	60	26.5	6	15	40 g
MFI-A112	M20x1.5	25	75	40	19	6	15	30 g
MFI-A113	M20x1.5	25	105	60	26.5	6	15	35 g
MFI-A269	M25x1.5	30	115	60	34	8	15	67 g





FIRST ANGLE PROJECTION

Esempio di utilizzo
Application example



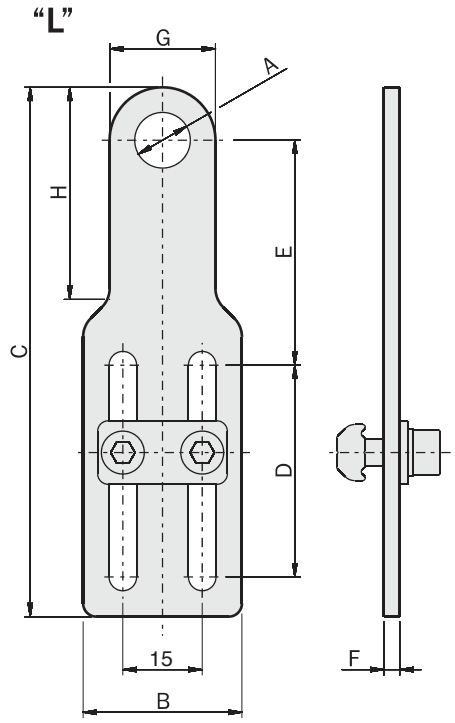
Staffa

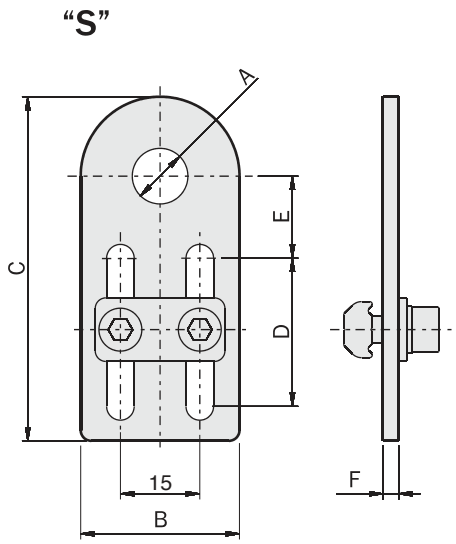
(kit completo di viti)
(materiale: acciaio)

Mounting bracket

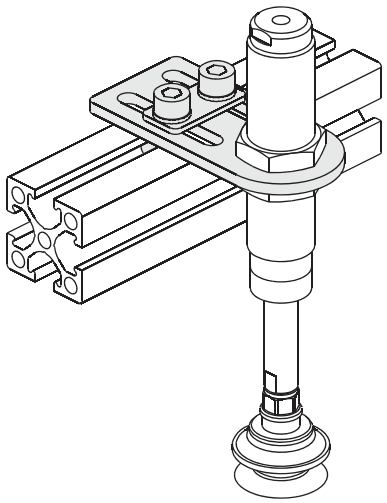
(kit with screws)
(material: steel)

	Tipo *Type*	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Peso *Weight*
MFI-A116	L	10.5	30	100	39.8	42.7	3	20	38	60 g
MFI-A117	L	12.5	30	100	39.8	42.2	3	20	38	60 g
MFI-A118	L	14.5	30	100	39.8	40.7	3	24	38	60 g
MFI-A119	L	16.5	30	100	39.8	39.7	3	30	-	65 g
MFI-A120	L	20.5	30	100	40	37.5	3	30	-	60 g
MFI-A121	S	Ø10.5	30	65	28	15.5	3	-	-	45 g
MFI-A122	S	Ø12.5	30	65	28	15.5	3	-	-	45 g
MFI-A123	S	Ø14.5	30	65	28	15.5	3	-	-	45 g
MFI-A124	S	Ø16.5	30	65	28	15.5	3	-	-	45 g
MFI-A125	S	Ø20.5	30	65	28	15.5	3	-	-	40 g





Esempio di utilizzo
Application example





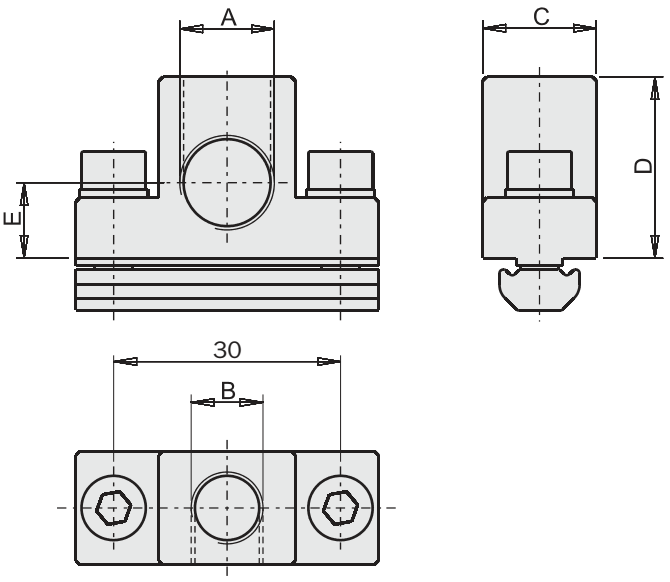
Staffa per attacco diretto ventosa

(kit completo di viti)
(materiale: alluminio)

Direct connector for vacuum cup

(kit with screws)
(material: aluminium)

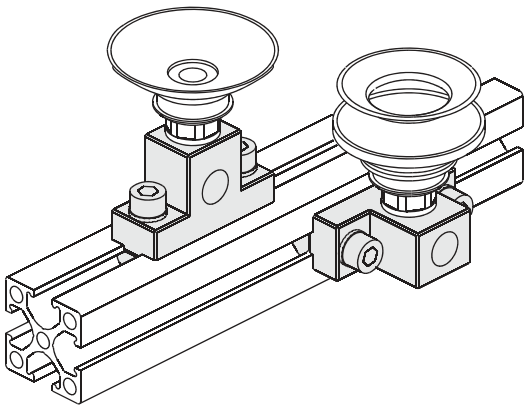
FIRST ANGLE PROJECTION



		MFI-A46	MFI-A47	MFI-A508
A	[mm]			
B	[mm]			
C	[mm]	15	15	35
D	[mm]	24	24	34
E	[mm]	12	10	12
Compatibile con: *Compatible with:*		EMF-1018	-	-
		EMF-1818	-	-
		EMF-2510	EMF-2510	EMF-2510
		EMF-2518	EMF-2518	EMF-2518
		EMF-2525	EMF-2525	EMF-2525
		EMF-5025	EMF-5025	EMF-5025
		EMF-4040	EMF-4040	EMF-4040
		EMF-8040	EMF-8040	EMF-8040
		EMB-2017	-	-
		EMB-3026	EMB-3026	EMB-3026
		EMB-5045	EMB-5045	EMB-5045
Peso *Weight*		42 g	40 g	100 g



Esempio di utilizzo
Application example



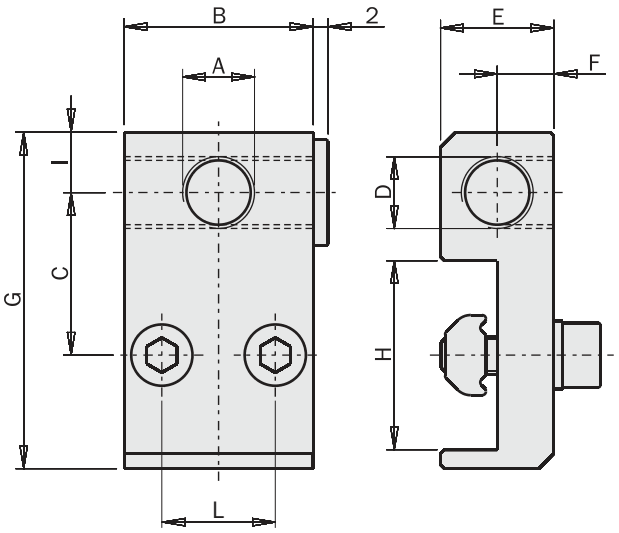
Staffa per ventosa

(kit completo di viti)
(materiale: alluminio)

Mounting bracket for vacuum cup

(kit with screws)
(material: aluminium)

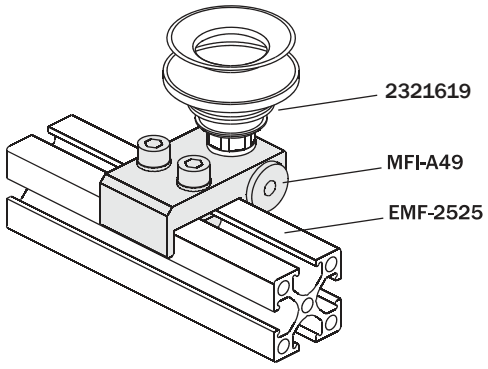
FIRST ANGLE PROJECTION

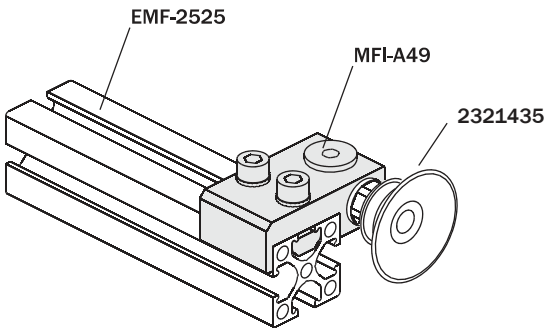


		MFI-A48	MFI-A49	MFI-A50
A	[mm]			
B	[mm]	16	25	25
C	[mm]	13.5	21.5	21.5
D	[mm]			
E	[mm]	8	15	15
F	[mm]	4	7.5	7.5
G	[mm]	29	44.5	46.5
H	[mm]	18	25	25
I	[mm]	4.3	8	10
L	[mm]	8	15	15
Compatibile con: *Compatible with:*		EMF-1818	EMF-2510	EMF-2510
		EMF-1018	EMF-2518	EMF-2518
		-	EMF-2525	EMF-2525
		-	EMF-5025	EMF-5025
Peso *Weight*		15 g	45 g	45 g

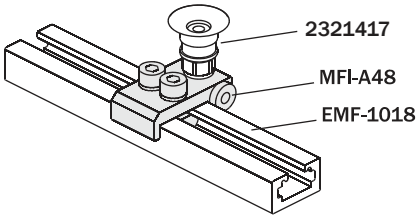


Esempio di utilizzo
Application example





Solo per MFI-A48 e MFI-A49
Only for MFI-A48 and MFI-A49



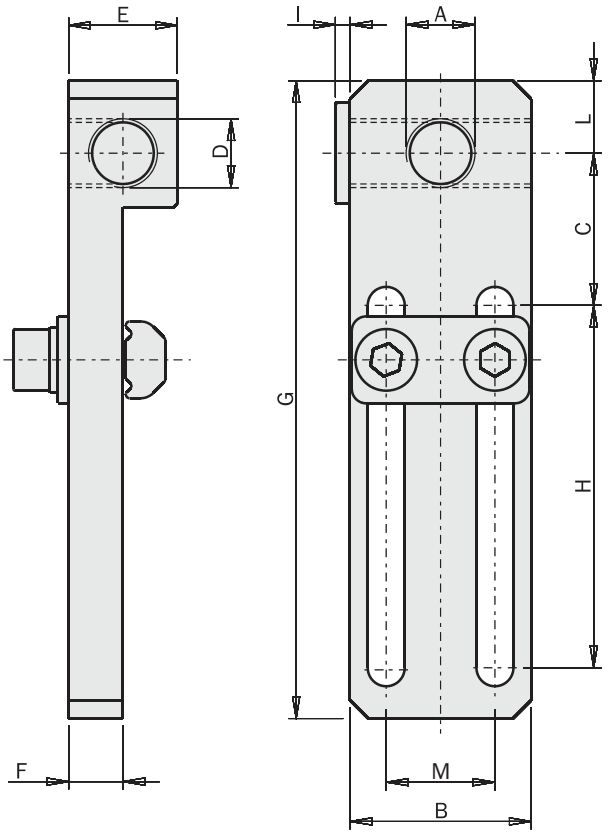
Staffa per attacco diretto ventosa

(kit completo di viti)
(materiale: alluminio)

Direct connector for vacuum cup

(kit with screws)
(material: aluminium)

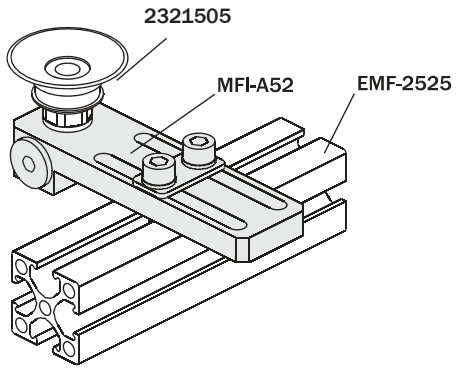
FIRST ANGLE PROJECTION

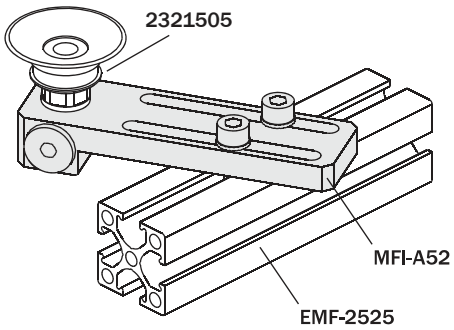


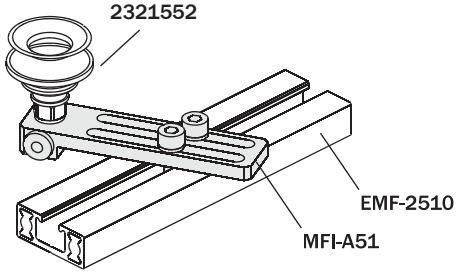
		MFI-A51	MFI-A52	MFI-A53
A	[mm]			
B	[mm]	16	25	25
C	[mm]	14	21	21
D	[mm]			
E	[mm]	8	15	15
F	[mm]	4	7.5	7.5
G	[mm]	65	88	88
H	[mm]	40	50	50
I	[mm]	2	2	2
L	[mm]	6	10	10
M	[mm]	8	15	15
Compatibile con: *Compatible with:*		EMF-1018	EMF-1018	EMF-1018
		EMF-1818	EMF-1818	EMF-1818
		EMF-2510	EMF-2510	EMF-2510
		EMF-2518	EMF-2518	EMF-2518
		EMF-2525	EMF-2525	EMF-2525
		EMF-5025	EMF-5025	EMF-5025
		-	EMF-4040	EMF-4040
		-	EMF-8040	EMF-8040
		EMB-2017	EMB-2017	EMB-2017
		EMB-3026	EMB-3026	EMB-3026
		EMB-5045	EMB-5045	EMB-5045
Peso *Weight*		20 g	60 g	60 g



Esempio di utilizzo
Application example







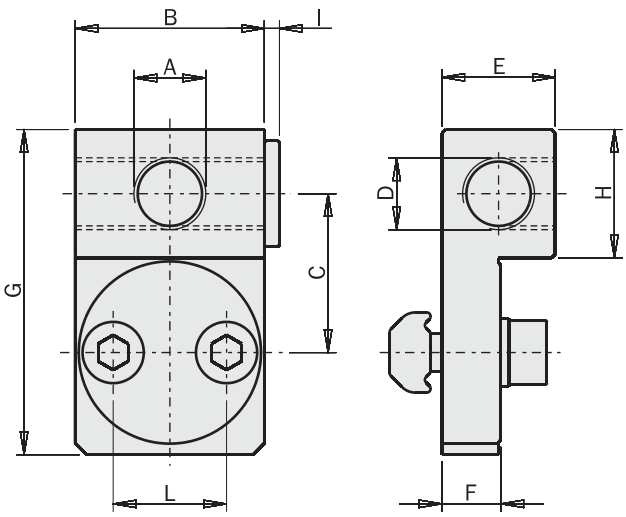
Staffa per ventosa

(kit completo di viti)
(materiale: alluminio)

Mounting bracket for vacuum cup

(kit with screws)
(material: aluminium)

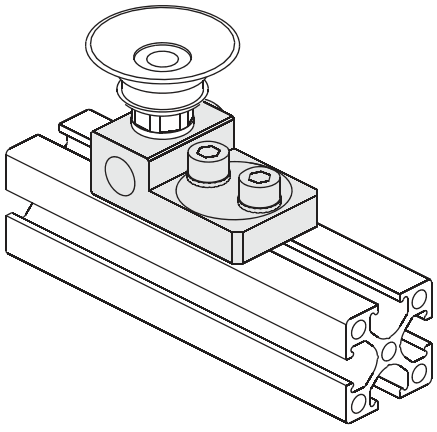
FIRST ANGLE PROJECTION

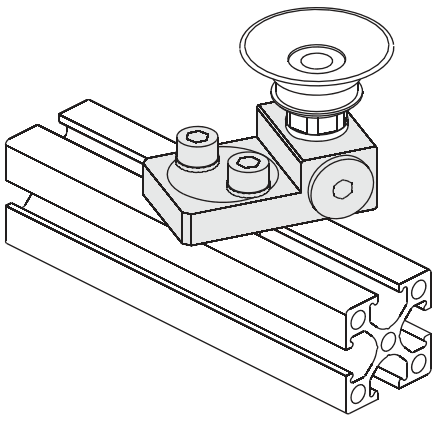


		MFI-A54	MFI-A55	MFI-A56
A	[mm]			
B	[mm]	16	25	25
C	[mm]	13	21	21
D	[mm]			
E	[mm]	10	15	15
F	[mm]	5.3	7.8	7.8
G	[mm]	28	43	43
H	[mm]	10	17	17
I	[mm]	2	2	2
L	[mm]	8	15	15
Compatibile con: *Compatible with:*		EMF-1018	-	-
		EMF-1818	-	-
		EMF-2510	EMF-2510	EMF-2510
		EMF-2518	EMF-2518	EMF-2518
		EMF-2525	EMF-2525	EMF-2525
		EMF-5025	EMF-5025	EMF-5025
		-	EMF-4040	EMF-4040
		-	EMF-8040	EMF-8040
		EMB-2017	EMB-2017	EMB-2017
		EMB-3026	EMB-3026	EMB-3026
		EMB-5045	EMB-5045	EMB-5045
Peso *Weight*		15 g	45 g	42 g



Esempio di utilizzo
Application example





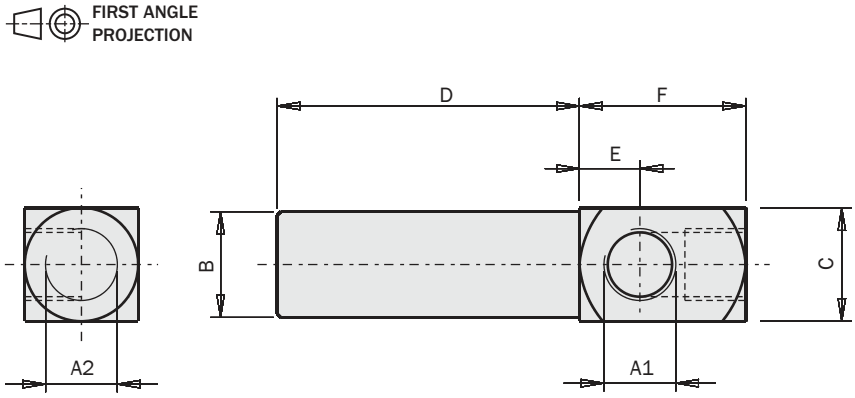
Gambo per ventosa

(materiale: alluminio)

Leg for vacuum cup

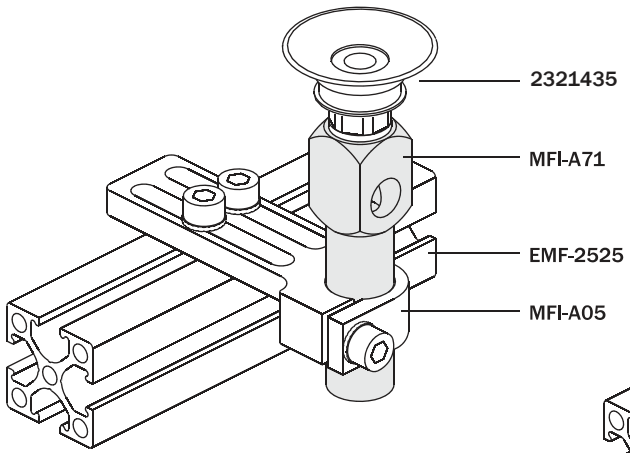
(material: aluminium)

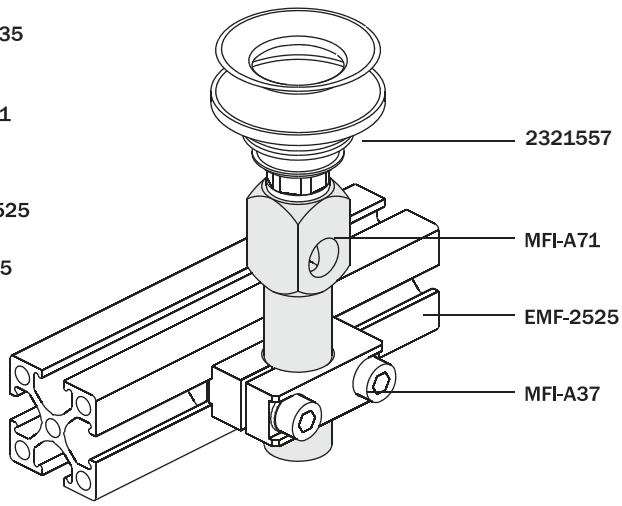
		MFI-A170	MFI-A171	MFI-A172	MFI-A71	MFI-A72	MFI-A73	MFI-A74	MFI-A75	MFI-A76
A1	[mm]	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"
A2	[mm]	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"	G1/4"
B	[mm]	Ø10	Ø10	Ø10	Ø14	Ø14	Ø14	Ø20	Ø20	Ø20
C	[mm]	11	11	11	15	15	15	20	20	20
D	[mm]	30	60	90	40	80	120	50	100	150
E	[mm]	6	6	6	8	8	8	8	8	8
F	[mm]	16	16	16	22	22	22	23	23	23
Peso *Weight*		11 g	17 g	23.5 g	18.5 g	42.5 g	59 g	59 g	101 g	98.5 g





Esempio di utilizzo
Application example



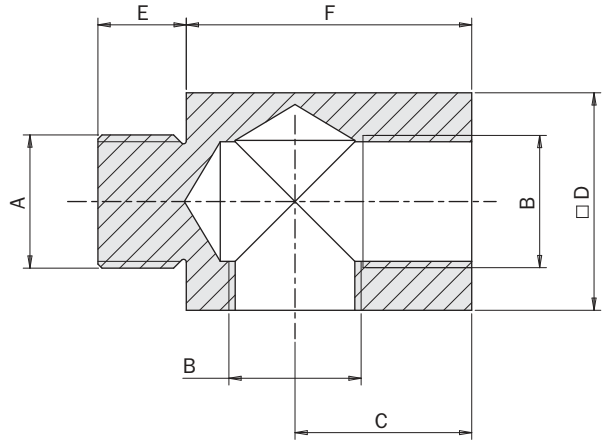


Adattatore per montaggio ventosa
(materiale: alluminio)

Mounting adapter for vacuum cup
(material: aluminium)

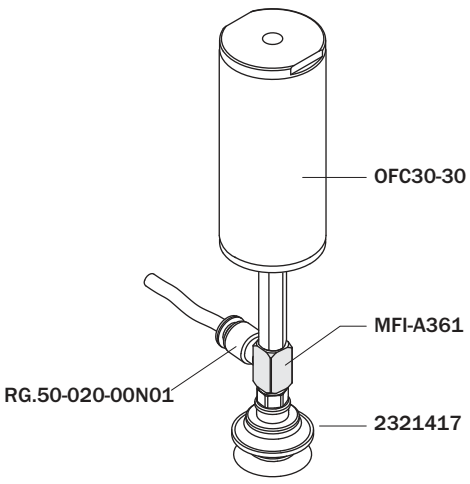
		MFI-A361	MFI-A362	MFI-A364	MFI-A365
A	[mm]	M5	G1/8	M4	M3
B	[mm]	M5	G1/8	M5	M5
C	[mm]	8	13	8	8
D	[mm]	8	16	8	8
E	[mm]	5	6.5	5	4
F	[mm]	14	21	12	12
Peso *Weight*		2.2 g	11.6 g	1.8 g	1.6 g

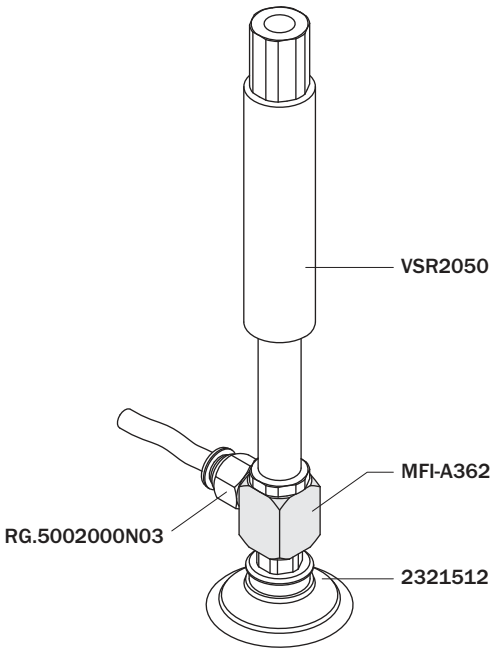
FIRST ANGLE PROJECTION





Esempio di utilizzo
Application example





MFI

Gambo con cravatta

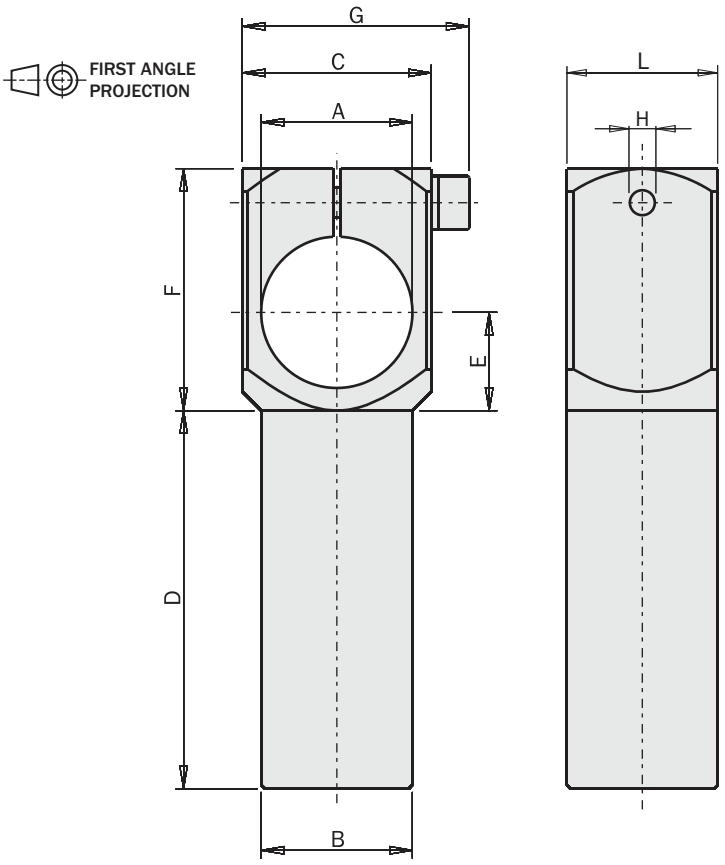
(kit completo di viti)
(materiale: alluminio)

Clamp leg

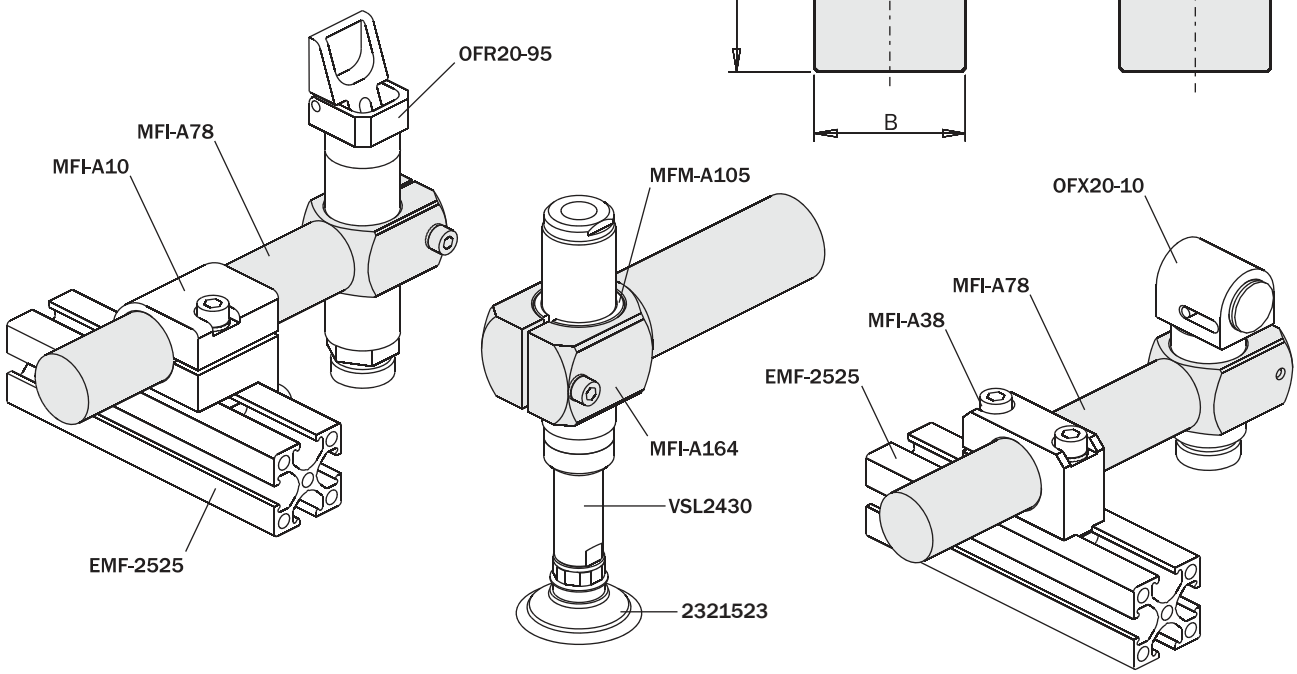
(kit with screws)
(material: aluminium)

	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	L [mm]	Peso *Weight*
MFI-A158	Ø10	Ø10	14	30	7	19	19	M4	10	13 g
MFI-A159	Ø10	Ø10	14	60	7	19	19	M4	10	19.5 g
MFI-A160	Ø10	Ø10	14	90	7	19	19	M4	10	26 g
MFI-A161	Ø14	Ø14	18	40	10	26	24	M5	14	31 g
MFI-A162	Ø14	Ø14	18	80	10	26	24	M5	14	48 g
MFI-A163	Ø14	Ø14	18	120	10	26	24	M5	14	50 g
MFI-A77	Ø20	Ø20	25	50	13	32	32	M6	20	45 g
MFI-A78	Ø20	Ø20	25	100	13	32	32	M6	20	70 g
MFI-A79	Ø20	Ø20	25	150	13	32	32	M6	20	112 g
MFI-A164	Ø30	Ø30	40	80	19	44	46	M6	30	238.5 g
MFI-A165	Ø30	Ø30	40	140	19	44	46	M6	30	353 g
MFI-A165-H	Ø30	Ø30	40	140	19	44	46	2xM6	40	282 g
MFI-A166	Ø30	Ø30	40	200	19	44	46	M6	30	467.5 g
MFI-A166-H	Ø30	Ø30	40	210	19	44	46	2xM6	40	528 g





Esempio di utilizzo
Application example



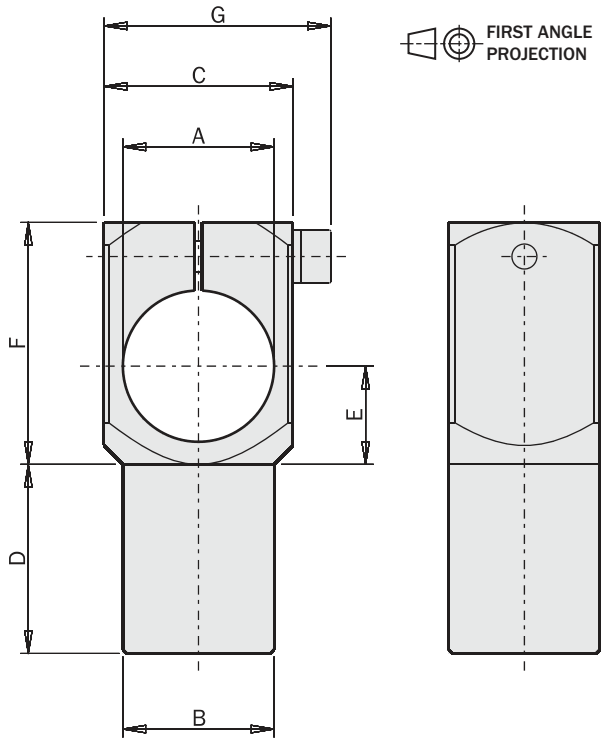
Gambo con cravatta

(kit completo di viti)
(materiale: alluminio)

Clamp leg

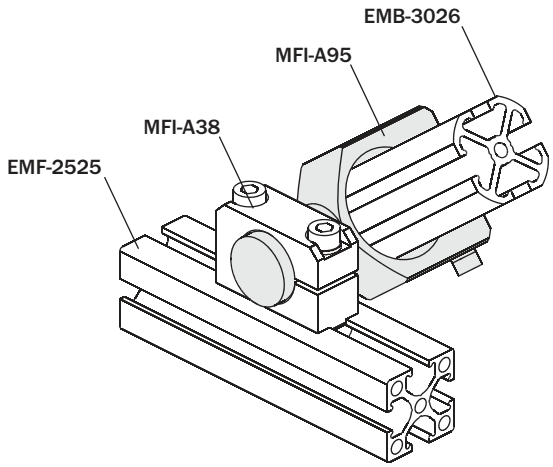
(kit with screws)
(material: aluminium)

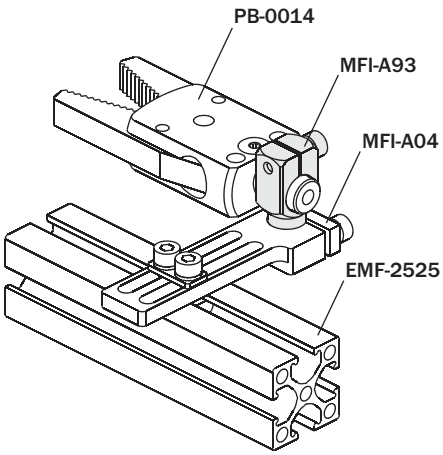
		MFI-A93	MFI-A157	MFI-A94	MFI-A95
A	[mm]	Ø10	Ø14	Ø20	Ø30
B	[mm]	Ø10	Ø14	Ø20	Ø20
C	[mm]	14x10	18x14	25x20	40x20
D	[mm]	15	20	25	25
E	[mm]	7	10	13	19
F	[mm]	19	26	32	44
G	[mm]	19	24	30	45
Peso *Weight*		10 g	23 g	50 g	78 g





Esempio di utilizzo
Application example



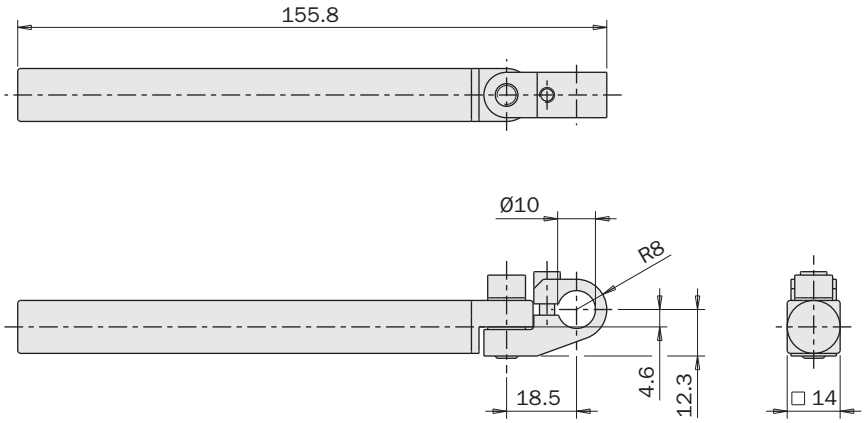


Gambo con cravatta robusto

(kit completo di viti)
(materiale: alluminio)

Heavy duty clamp leg

(kit with screws)
(material: aluminium)

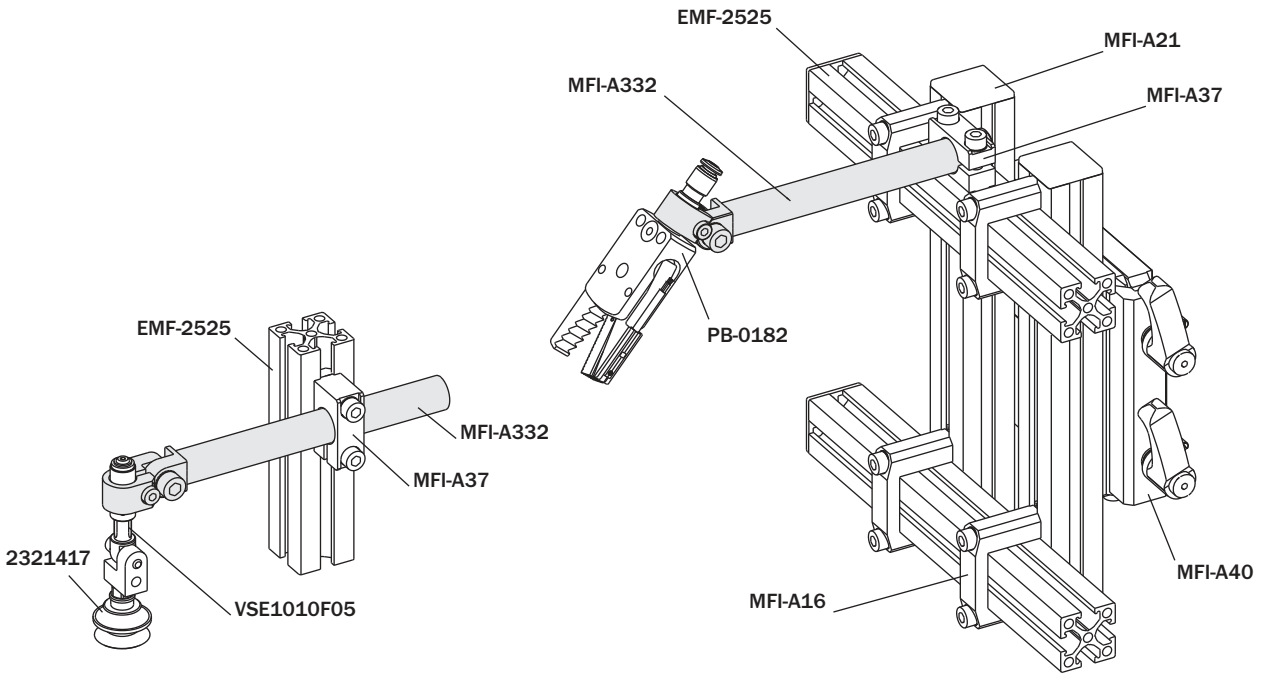


	MFI-A332
Peso *Weight*	72 g

FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example



Blocco distributore laterale (1 canale)

(kit completo di viti)
(materiale: alluminio)

Side manifold block (1 channel)

(kit with screws)
(material: aluminium)



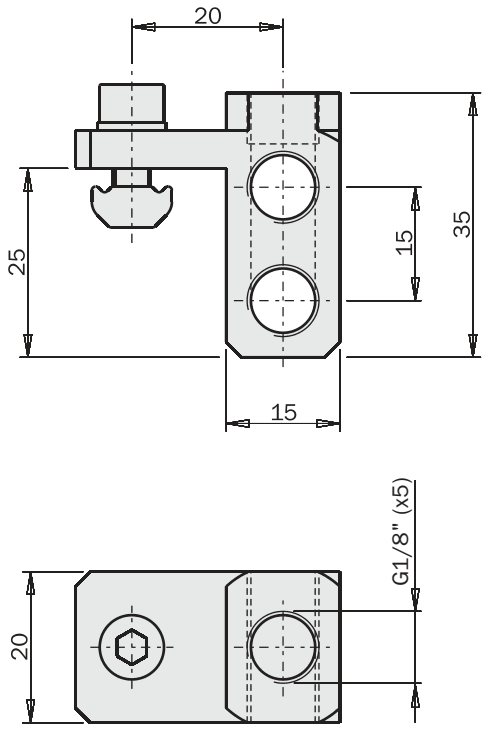
G1/8" (x5)

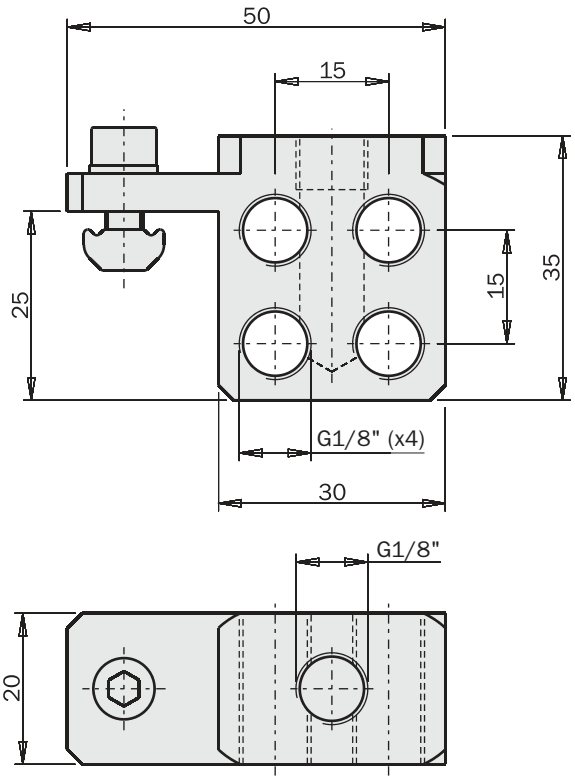


G1/8" (x9)

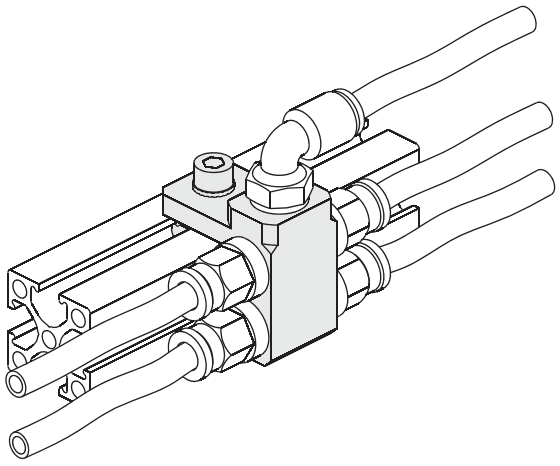
	MFI-A68	MFI-A69
Compatibile con: *Compatible with:*	EMF-2518	EMF-2518
	EMF-2525	EMF-2525
	EMF-5025	EMF-5025
Peso *Weight*	30 g	50 g

FIRST ANGLE PROJECTION





Esempio di utilizzo
Application example



Blocco distributore laterale (2 canali)

(kit completo di viti)
(materiale: alluminio)

Side manifold block (2 channels)

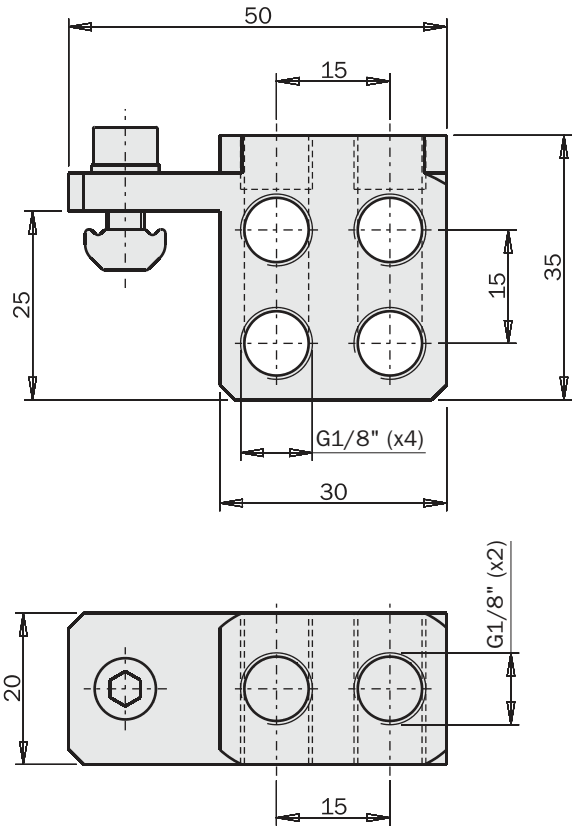
(kit with screws)
(material: aluminium)



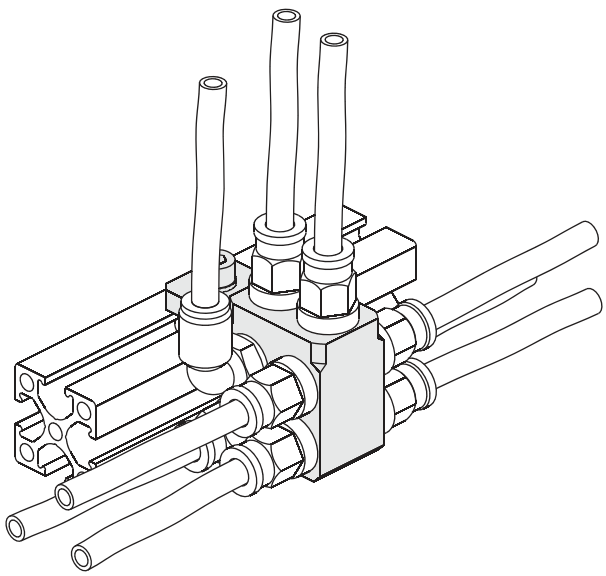
G1/8" (5+5)

	MFI-A70
Compatibile con: *Compatible with:*	EMF-2518
	EMF-2525
	EMF-5025
Peso *Weight*	48 g

FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example

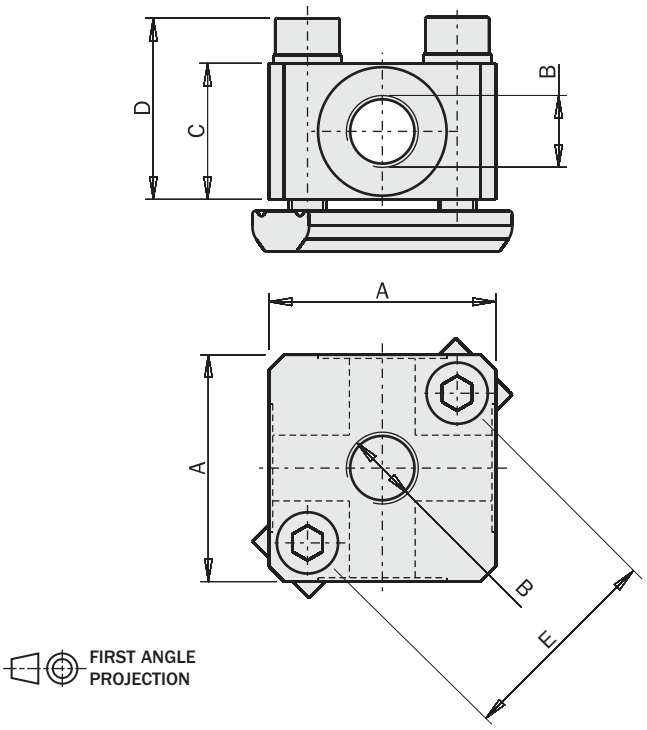


Blocco distributore

(kit completo di viti)
(materiale: alluminio)

Manifold block

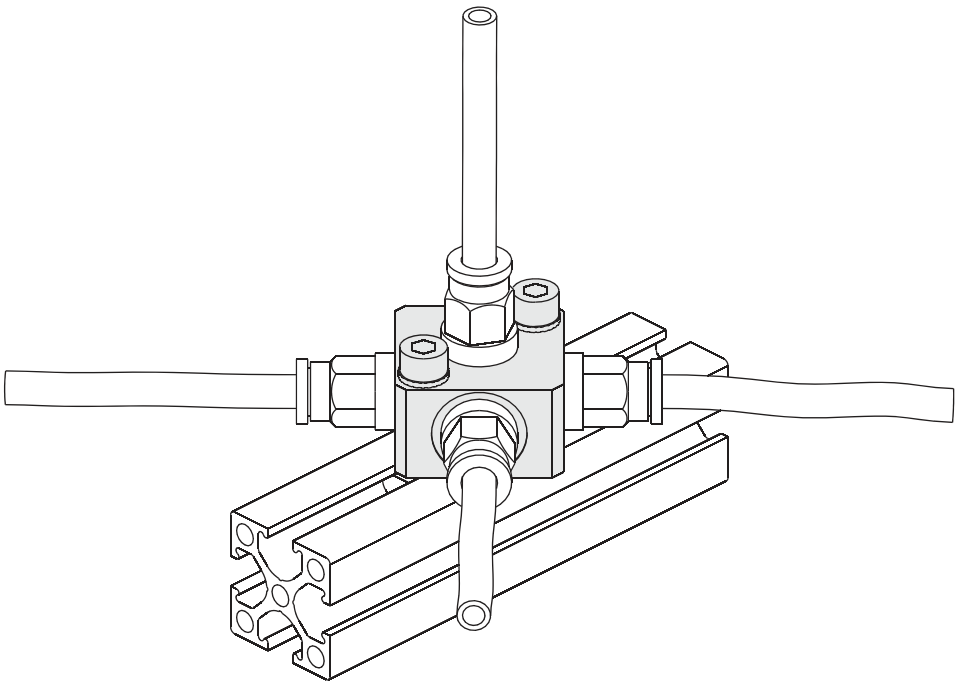
(kit with screws)
(material: aluminium)



		MFI-A66	MFI-A67
A	[mm]	30	40
B	[mm]	(x5) G1/8"	(x5) G1/4"
C	[mm]	18	20
D	[mm]	24	23
E	[mm]	28	35
Peso *Weight*		50 g	80 g



Esempio di utilizzo
Application example



Blocchi distributori universali (1 canale)

(materiale: alluminio)

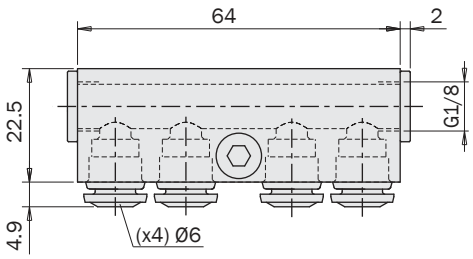
- Adatti a tutte le travi EMB/EMF.
- Orientabili in qualsiasi posizione.
- Raccordi dell'aria integrati.
- Dado last-minute incluso.

Universal distributor blocks (1 channel)

(material: aluminium)

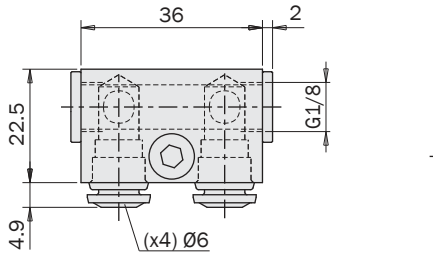
- *Suitable for all EMB/EMF beams.*
- *Adjustable in any position.*
- *Built-in air fittings.*
- *Last-minute nut included.*

	Peso *Weight*
MFI-A379	60 g
MFI-A380	70 g
MFI-A381	110 g
MFI-A384	90 g



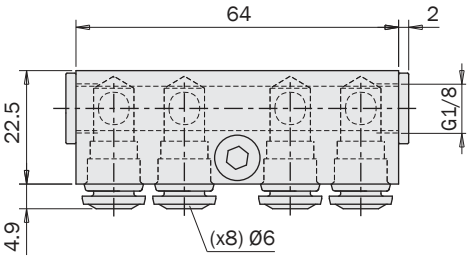


MFI-A379



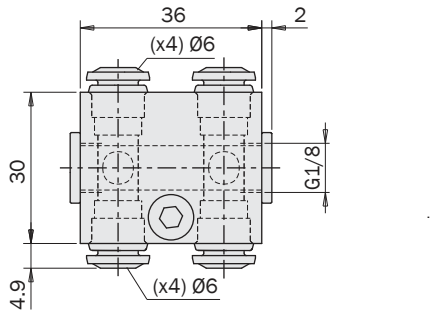


MFI-A380





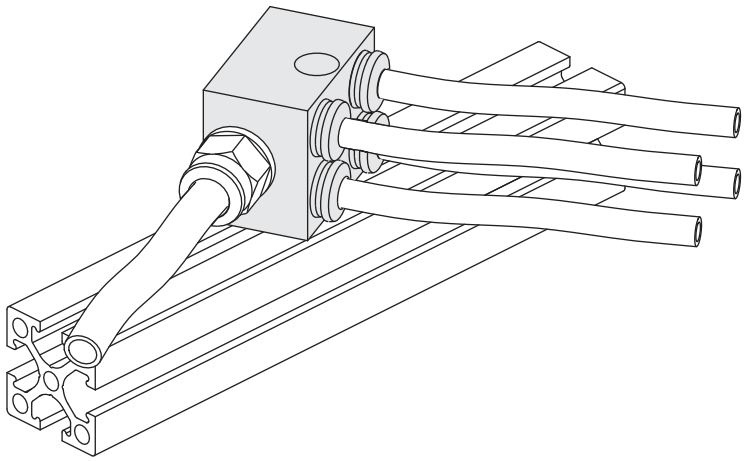
MFI-A381





MFI-A384

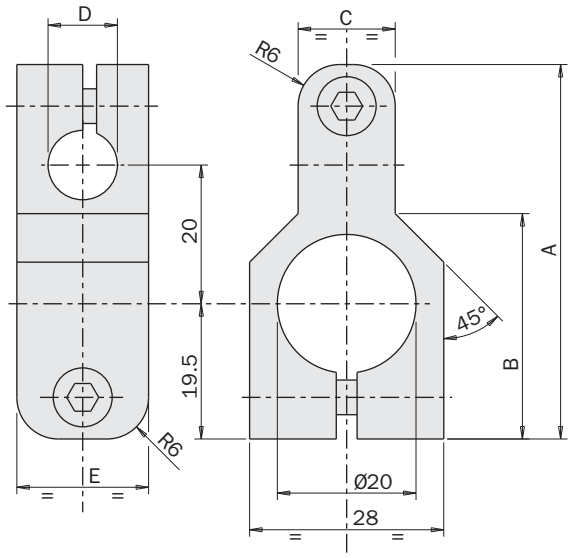
Esempio di utilizzo
Application example



Blocco di connessione a croce

(kit completo di viti)
(materiale: alluminio)

		MFI-A214	MFI-A215
A	[mm]	54	56
B	[mm]	32.5	30.5
C	[mm]	14	18
D	[mm]	Ø10	Ø14
E	[mm]	19	22
Peso *Weight*		40 g	45 g

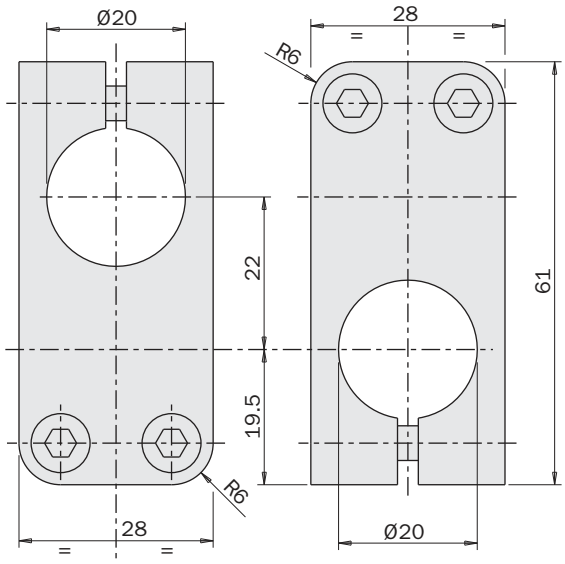




Cross connection block

(kit with screws)
(material: aluminium)

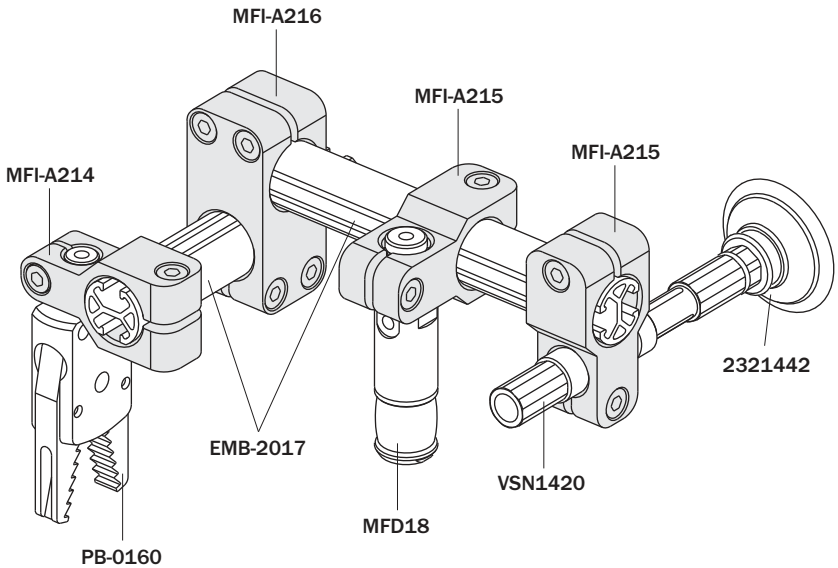
	MFI-A216
Peso *Weight*	70 g



FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example



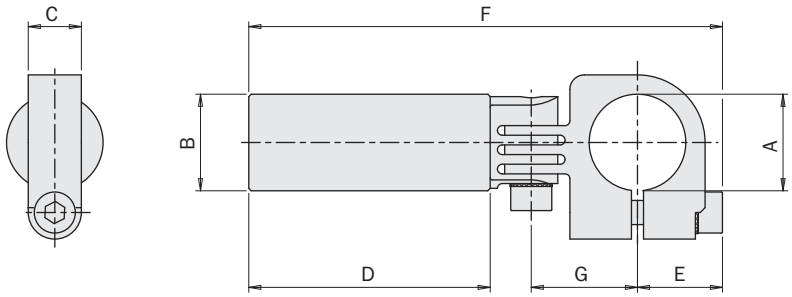
Gomito con cravatta

(kit completo di viti)
(materiale: alluminio)

Elbow arm

(kit with screws)
(material: aluminium)

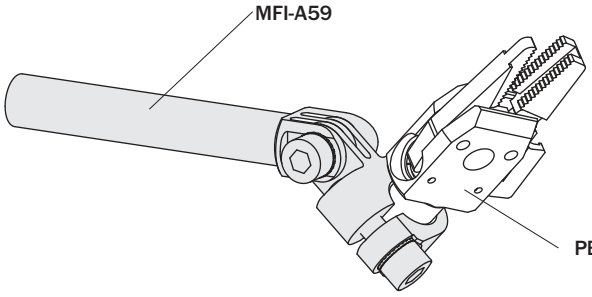
		MFI-A59	MFI-A60	MFI-A61	MFI-A62	MFI-A63	MFI-A64	MFI-A65	MFI-A167	MFI-A168	MFI-A169
A	**[mm]**	Ø10	Ø14	Ø14	Ø14	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
B	**[mm]**	Ø10	Ø14	Ø14	Ø14	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
C	**[mm]**	11	11	11	11	11	11	11	16	16	16
D	**[mm]**	60	40	80	120	50	100	150	80	140	200
E	**[mm]**	12.5	15	15	15	18.5	18.5	18.5	24.7	24.7	24.7
F	**[mm]**	99.5	82.5	124	164	100	150	200	146	206	266
G	**[mm]**	18.5	19	19	19	23	23	23	31	31	31
Peso *Weight*		33 g	43 g	60 g	77 g	75 g	117 g	160 g	230 g	344.5 g	459 g

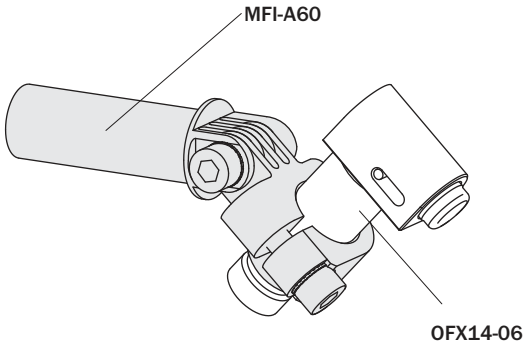


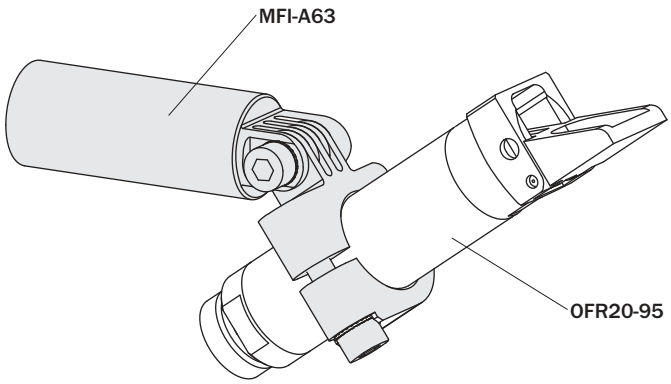




Esempio di utilizzo
Application example







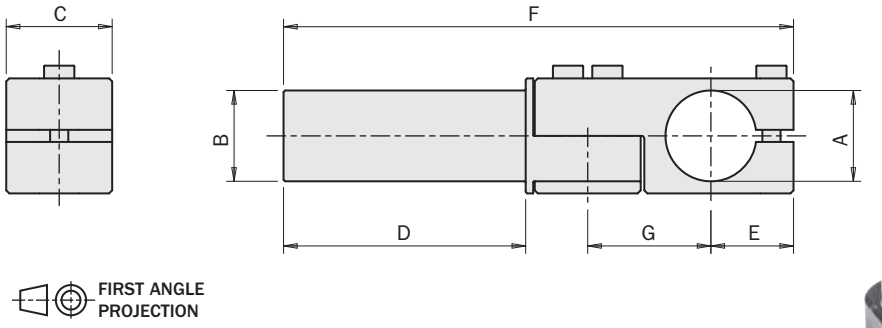
Snodo robusto con cravatta

(kit completo di viti)
(materiale: alluminio)

Heavy duty elbow arm

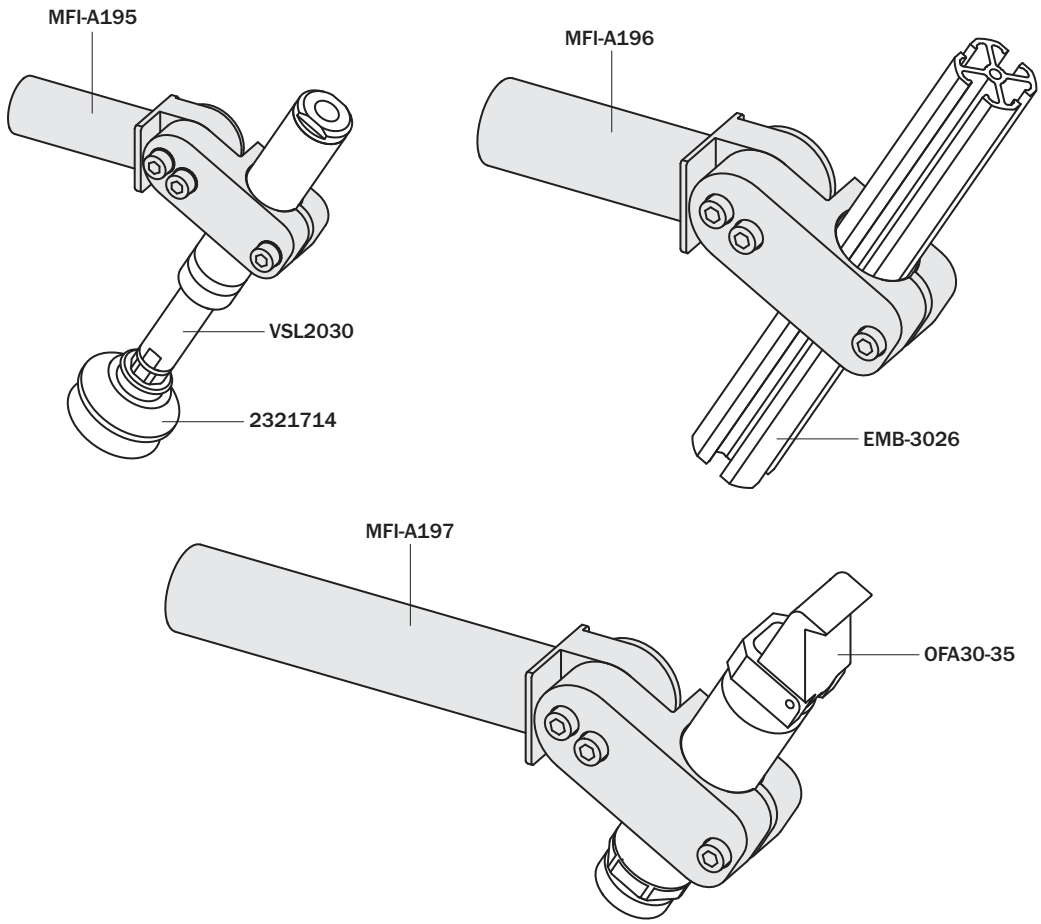
(kit with screws)
(material: aluminium)

		MFI-A195	MFI-A199	MFI-A200	MFI-A196	MFI-A197	MFI-A198
A	[mm]	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
B	[mm]	Ø20	Ø20	Ø20	Ø30	Ø30	Ø30
C	[mm]	25	25	25	35	35	35
D	[mm]	50	100	150	80	140	200
E	[mm]	19.5	19.5	19.5	27.3	27.3	27.3
F	[mm]	113.5	163.5	213.5	168.5	228.5	288.5
G	[mm]	28.7	28.7	28.7	40.7	40.7	40.7
Peso *Weight*		132.5 g	175 g	217 g	393.5 g	482.5 g	597 g





Esempio di utilizzo
Application example



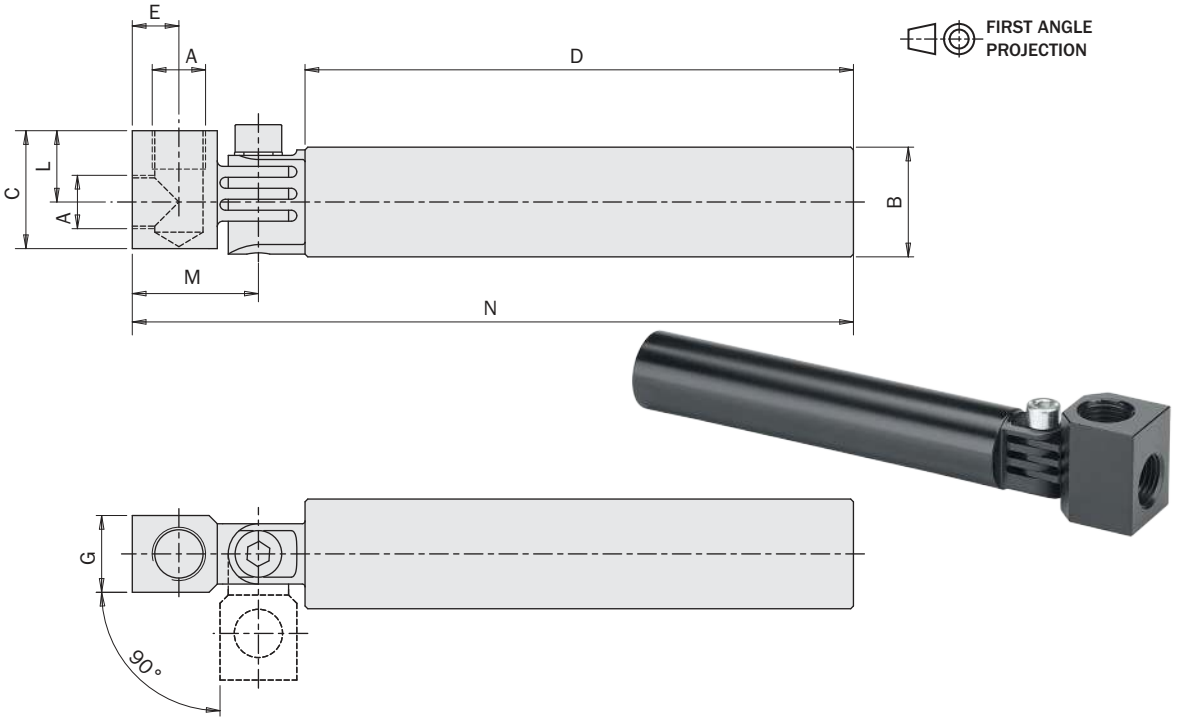
Gomito per ventosa

(kit completo di viti)
(materiale: alluminio)

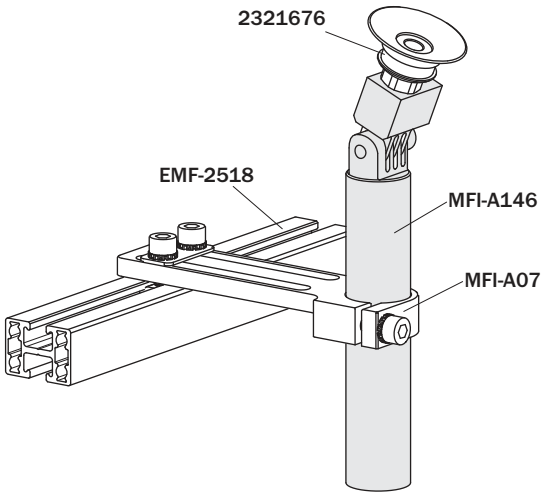
Elbow arm for vacuum cup

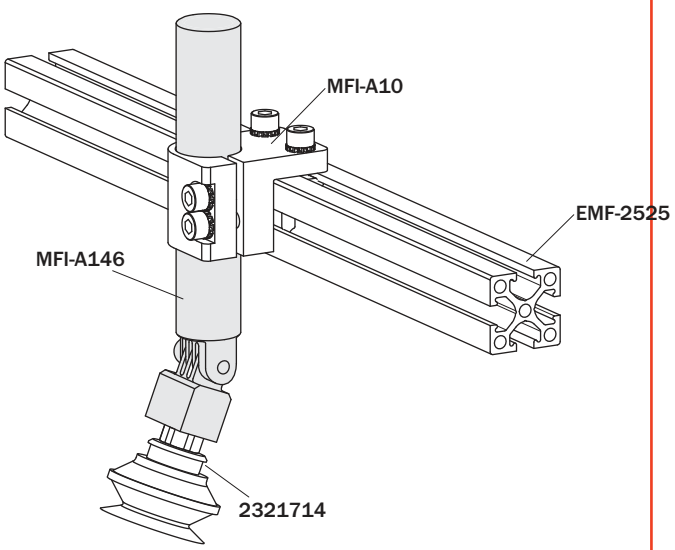
(kit with screws)
(material: aluminium)

	A	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	L [mm]	M [mm]	N [mm]	Peso *Weight*
MFI-A142	M5	Ø10	16	60	5.5	12	8.5	18	86.5	27 g
MFI-A143	M5	Ø10	16	90	5.5	12	8.5	18	116.5	33 g
MFI-A144	G1/8"	Ø14	21.5	80	8.5	14	13	23	113	54 g
MFI-A145	G1/8"	Ø14	21.5	120	8.5	14	13	23	153	71 g
MFI-A146	G1/8"	Ø20	21.5	100	8.5	14	13	23	131.5	104.5 g
MFI-A147	G1/8"	Ø20	21.5	150	8.5	14	13	23	181.5	147 g
MFI-A148	G1/4"	Ø20	26	100	12	20	15.5	28.5	137	115.6 g
MFI-A149	G1/4"	Ø20	26	150	12	20	15.5	28.5	187	158 g
MFI-A507	G 3/8"	Ø30	34	200	21	24	19.5	42.5	253	450 g



Esempio di utilizzo
Application example





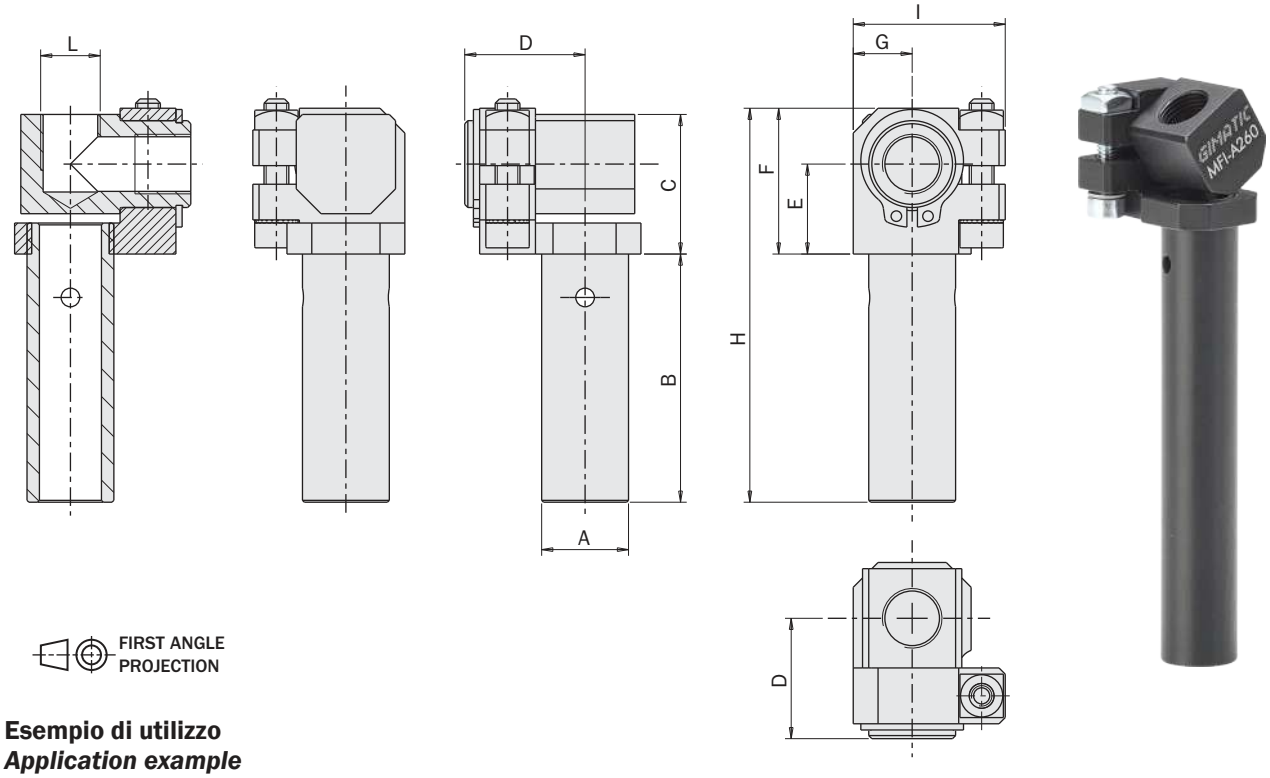
Gomito a cravatta per ventosa

(kit completo di viti)
(materiale: alluminio)

Elbow arm for vacuum cup clamping

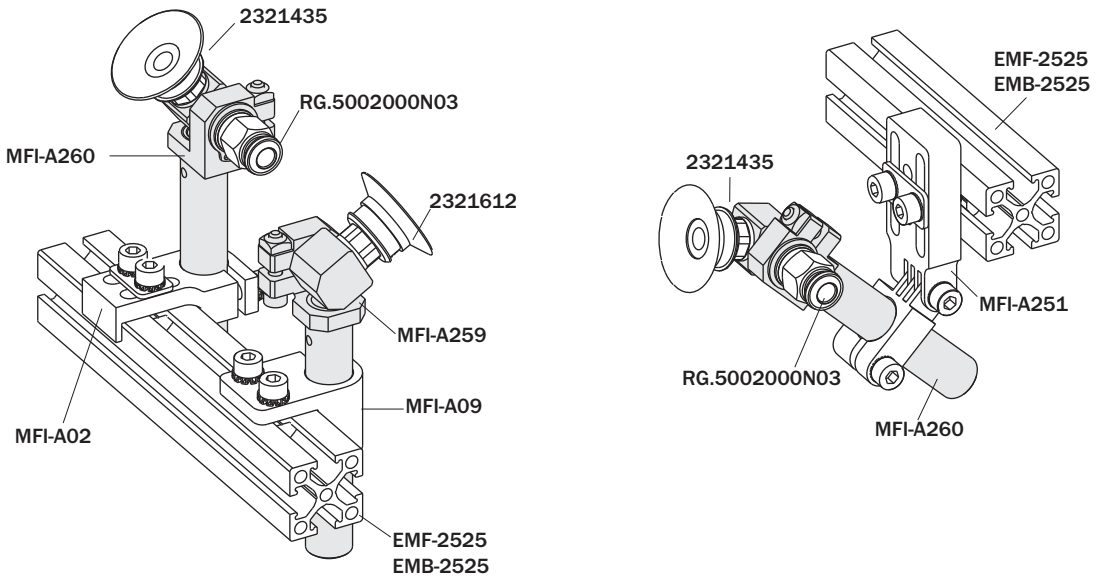
(kit with screws)
(material: aluminium)

	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]	Peso *Weight*
MFI-A256	Ø10	30	17	14.5	11	18	7	48	18.5		14 g
MFI-A257	Ø10	60	17	14.5	11	18	7	78	18.5		17 g
MFI-A258	Ø10	90	17	14.5	11	18	7	108	18.5		20 g
MFI-A259	Ø14	40	22.5	19.4	14.5	23.5	9.5	63.5	24.5		32 g
MFI-A260	Ø14	80	22.5	19.4	14.5	23.5	9.5	103.5	24.5		40 g
MFI-A261	Ø14	120	22.5	19.4	14.5	23.5	9.5	143.5	24.5		48 g
MFI-A290	Ø20	50	28	23.3	18	30	12	80	33		63 g
MFI-A291	Ø20	100	28	23.3	18	30	12	130	33		78 g
MFI-A292	Ø20	150	28	23.3	18	30	12	180	33		93 g
MFI-A262	Ø20	50	30.5	23.3	18	30	12	80	30		58 g
MFI-A263	Ø20	100	30.5	23.3	18	30	12	130	30		73 g
MFI-A264	Ø20	150	30.5	23.3	18	30	12	180	30		88 g



FIRST ANGLE PROJECTION

Esempio di utilizzo
Application example



Prolunga con canale per l'aria

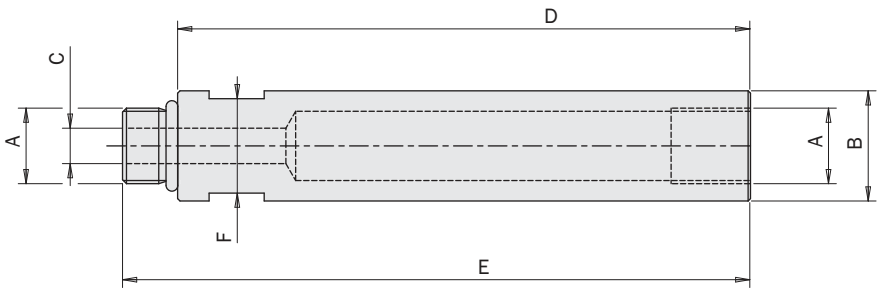
(materiale: alluminio)

Extension tube with air lead

(material: aluminium)

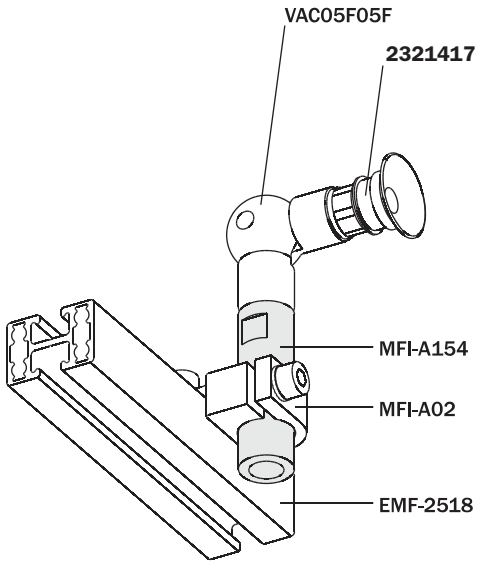
		MFI-A154	MFI-A155	MFI-A150	MFI-A151	MFI-A152	MFI-A153	MFI-A506
A	[mm]	M5	M5	G1/8"	G1/8"	G1/4"	G1/4"	G 3/8"
B	[mm]	Ø10	Ø10	Ø14	Ø14	Ø20	Ø20	Ø30
C	[mm]	Ø2	Ø2	Ø4.5	Ø4.5	Ø6.5	Ø6.5	Ø10
D	[mm]	45	90	45	90	45	90	150
E	[mm]	50	95	52	97	53	98	159
F	[mm]	8	8	12	12	17	17	22
Peso *Weight*		10 g	15 g	15 g	25 g	30 g	55 g	225 g

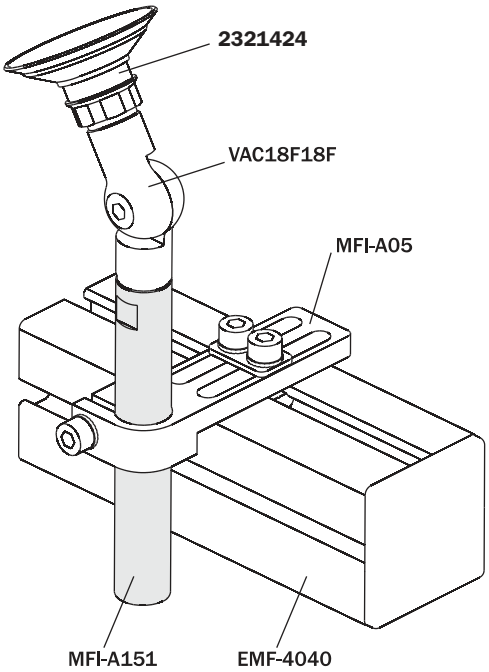
FIRST ANGLE PROJECTION





Esempio di utilizzo
Application example





Staffa per il montaggio della pinza OFP20 su profilo

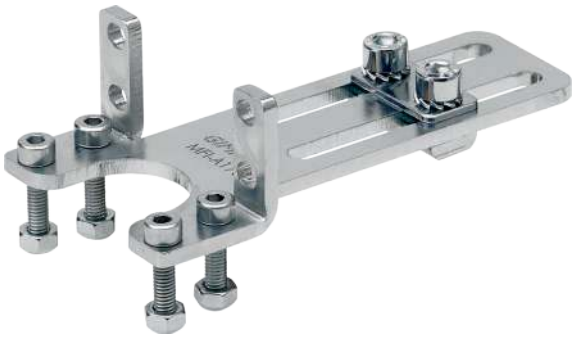
(kit completo di viti)
(materiale: acciaio)

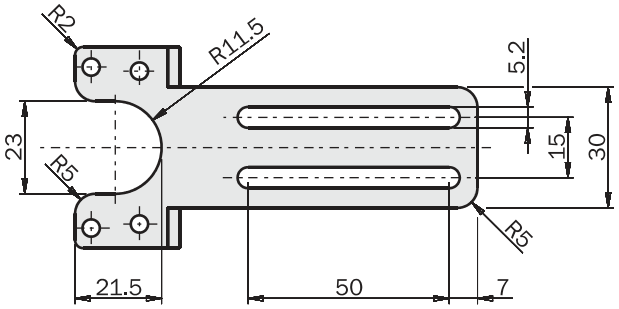
OFP20 gripper mounting bracket, to use with profile

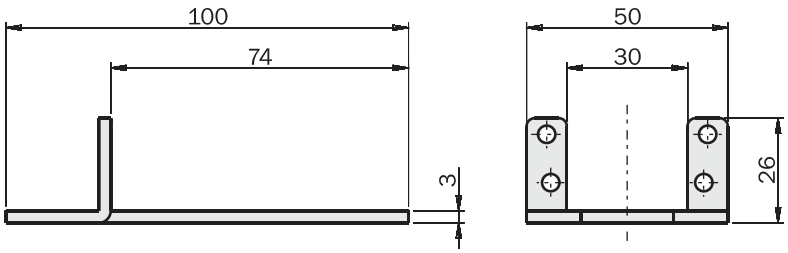
(kit with screws)
(material: steel)

	MFI-A176
Peso *Weight*	95 g

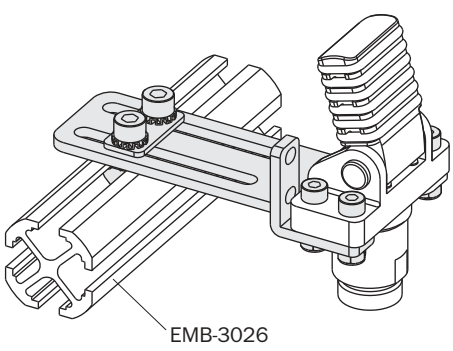
FIRST ANGLE PROJECTION

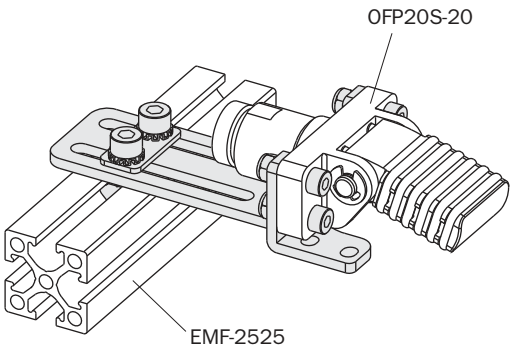






Esempio di utilizzo
Application example



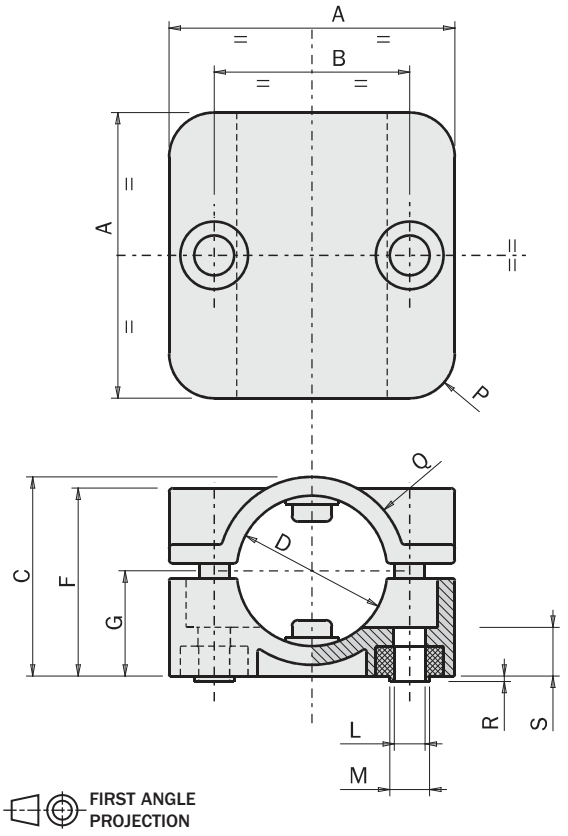


Kit di bloccaggio in plastica per estruso

(kit completo di viti)
(materiale: PA66)

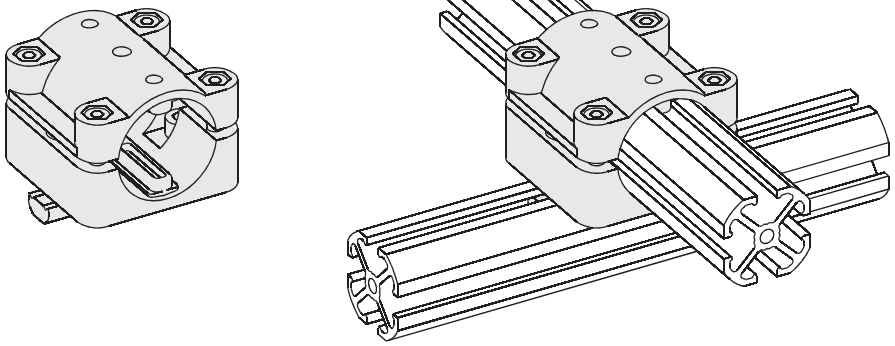
Locking kit in technopolymer for extruded profile

(kit with screws)
(material: PA66)



		MFI-A188	MFI-A189
A	[mm]	38	48
B	[mm]	26	36
C	[mm]	26.5	36.5
D	[mm]	Ø20	Ø30
F	[mm]	25	32
G	[mm]	14	18.5
L	[mm]	Ø4.1	Ø5.1
M	[mm]	Ø5.3	Ø6.4
P	[mm]	6	6
Q	[mm]	12.5	12.5
R	[mm]	0.7	1
S	[mm]	6.5	6.5
Peso *Weight*		48 g	77 g

Esempio di utilizzo
Application example

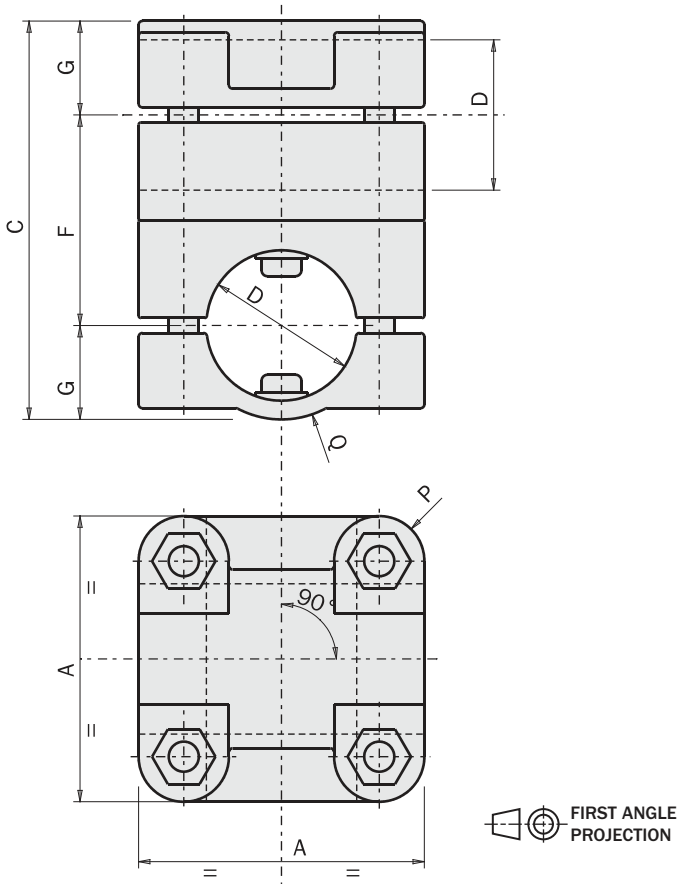


Kit di bloccaggio in plastica per doppio estruso

(kit completo di viti)
(materiale: PA66)

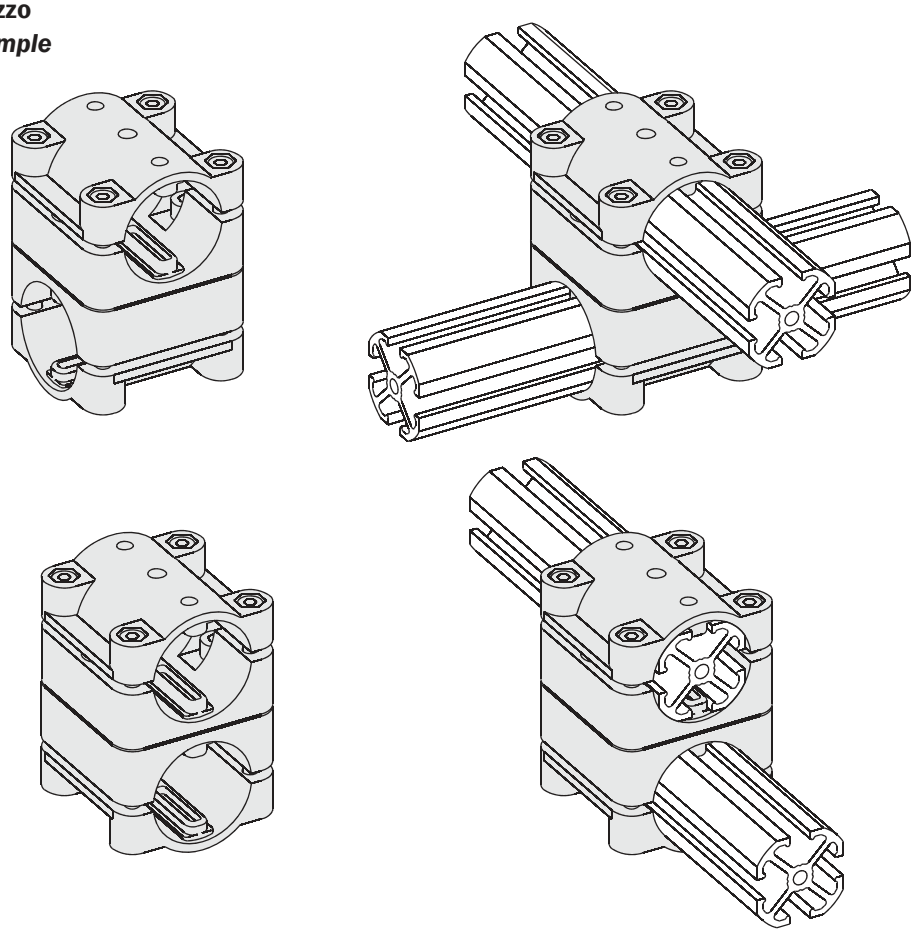
Locking kit in technopolymer for double extruded profile

(kit with screws)
(material: PA66)



		MFI-A191	MFI-A192
A	[mm]	38	48
C	[mm]	53	73
D	[mm]	Ø20	Ø30
F	[mm]	28	37
G	[mm]	12.5	18
P	[mm]	6	6
Q	[mm]	12.5	18
Peso *Weight*		77 g	122 g

Esempio di utilizzo
Application example

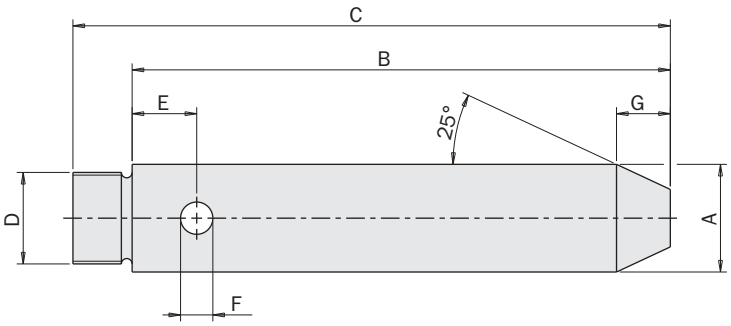


Spina di centraggio filettata
(materiale: POM)

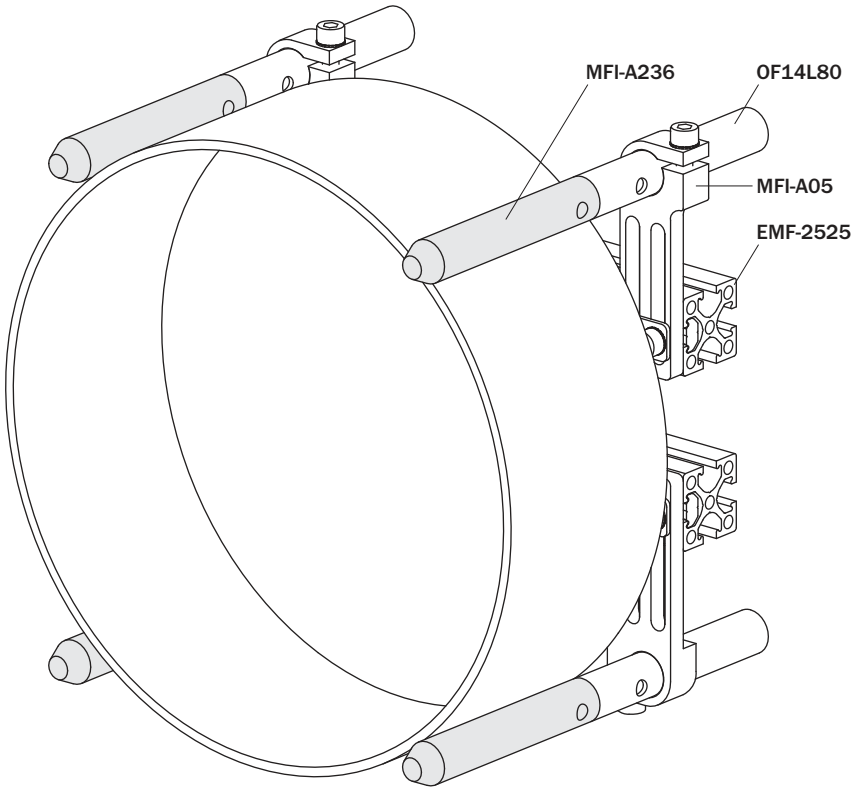
Threaded centering pin
(material: POM)

		MFI-A235	MFI-A236	MFI-A237	MFI-A238
A	[mm]	Ø10	Ø14	Ø20	Ø30
B	[mm]	60	80	100	100
C	[mm]	68	88	111	113
D	[mm]				
E	[mm]	6	8	12	15
F	[mm]	Ø3.5	Ø5	Ø6	Ø8
G	[mm]	5	7	10	14
Peso *Weight*		7 g	20 g	45 g	104 g





Esempio di utilizzo
Application example

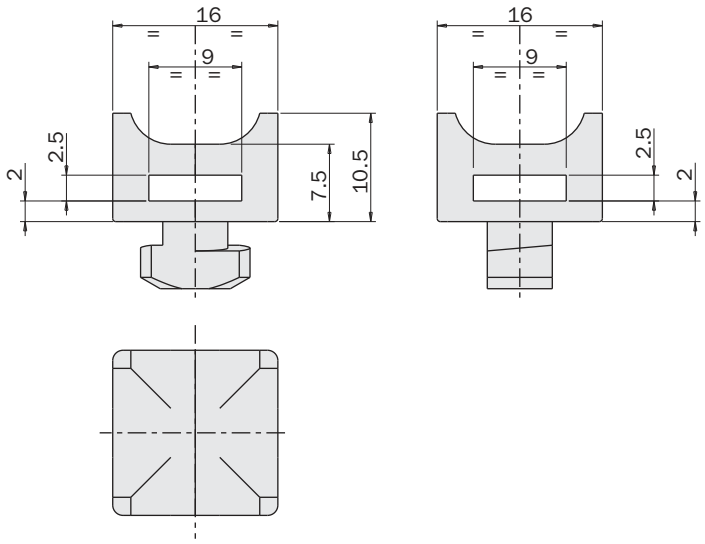


Staffa per fissaggio cavi

(confezione da 10 pezzi)
(materiale: PA66)

Hose mounting bracket

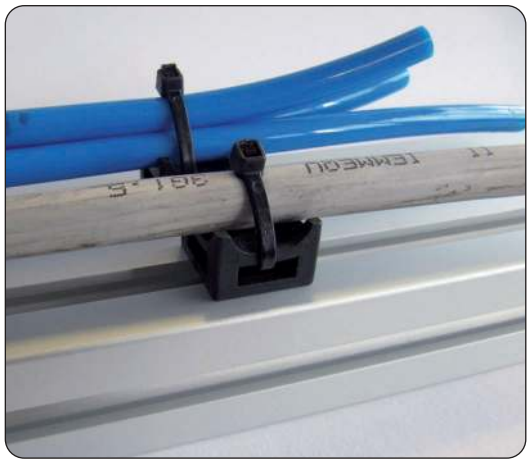
(10 pieces package)
(material: PA66)

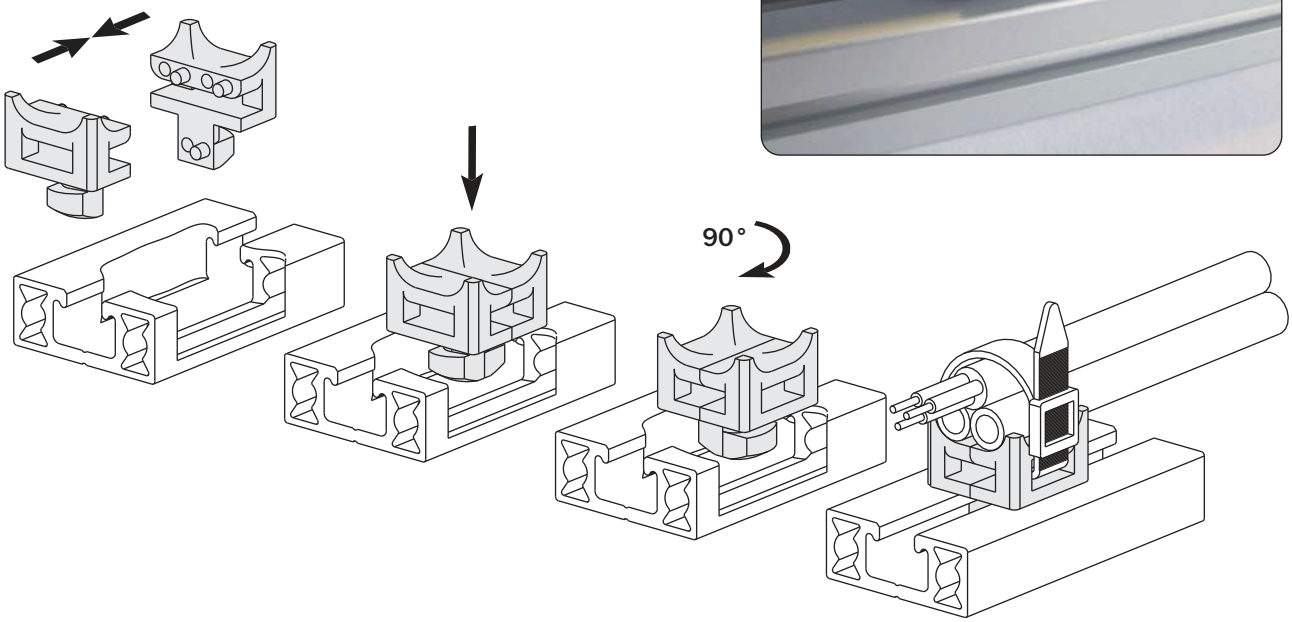


	MFI-A239
Peso *Weight*	20 g



Esempio di utilizzo
Application example



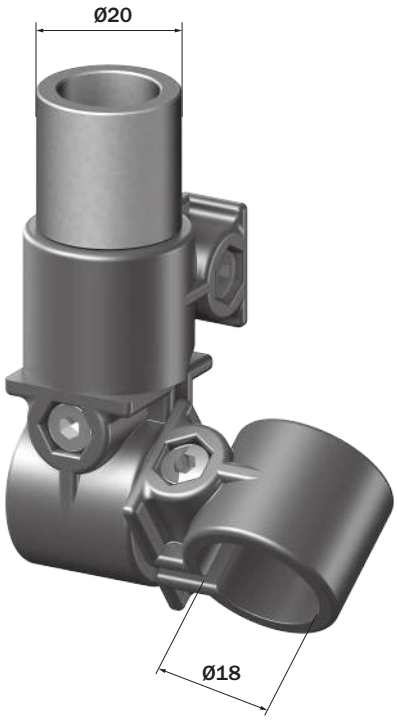


Porta sensore Ø18

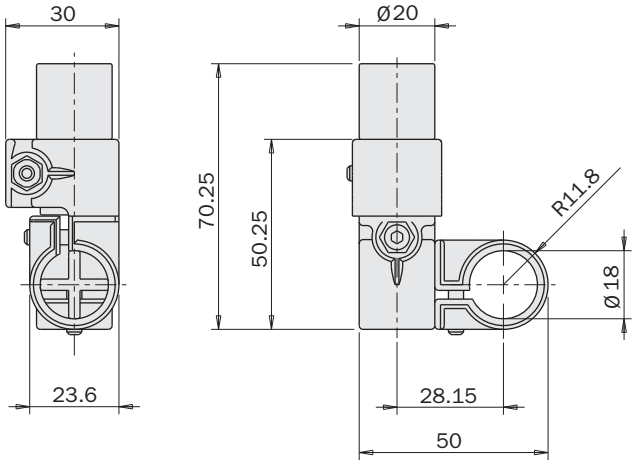
(materiale: PA66 e alluminio)

Sensor holder Ø18

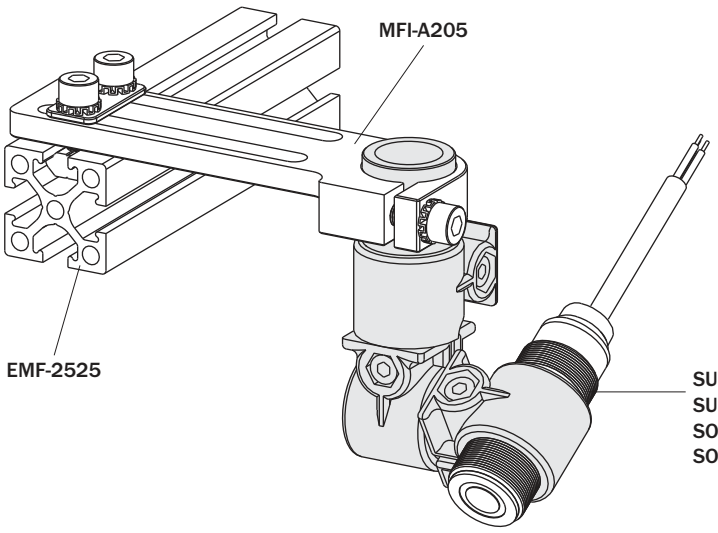
(material: PA66 and aluminium)



	MFI-A310
Peso *Weight*	47 g



Esempio di utilizzo
Application example

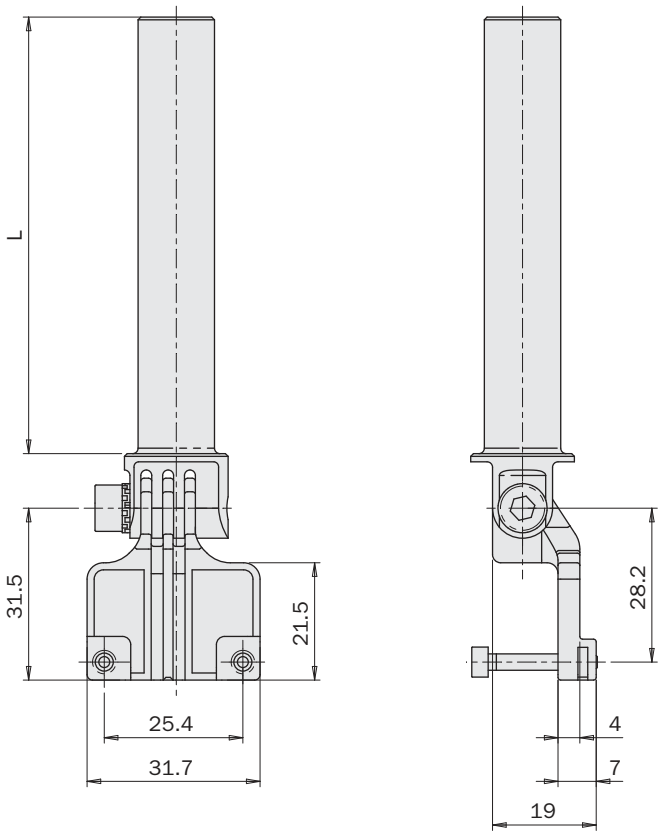


Staffa per sensori ottici
(kit completo di viti)

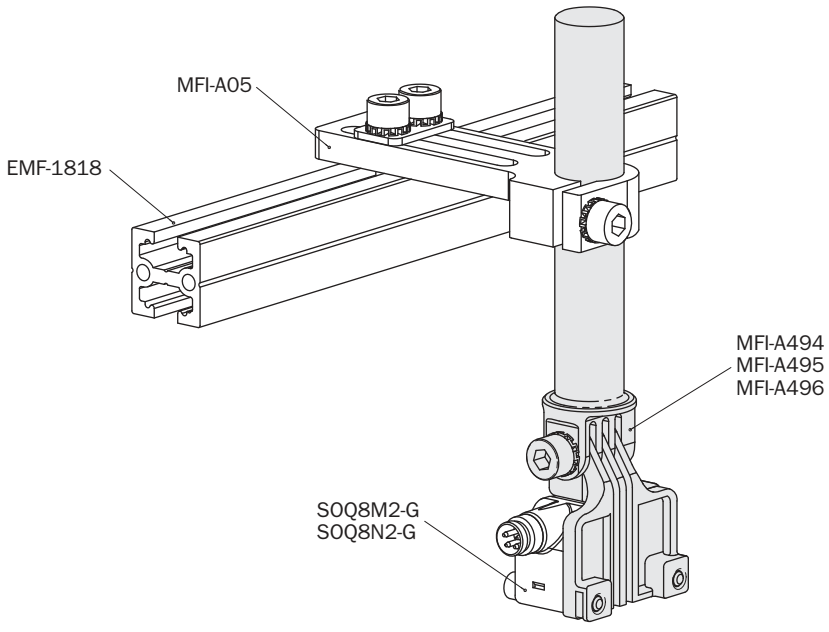
Mounting bracket for optical sensors
(kit with screws)



		MFI-A494	MFI-A495	MFI-A496
L	[mm]	40	80	120
Peso *Weight*		41 g	58 g	75 g



Esempio di utilizzo
Application example



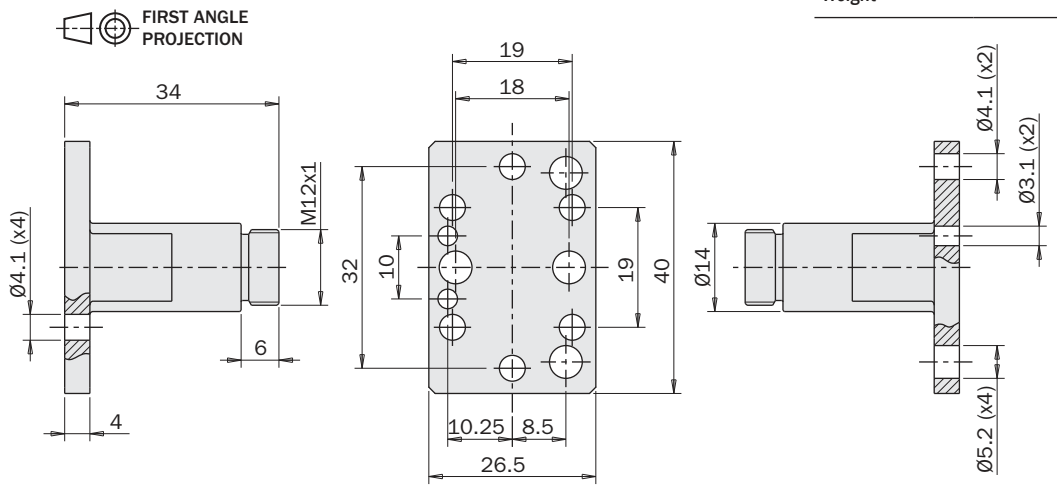
Staffa per fissaggio pinza

(kit completo di viti)
(materiale: alluminio)

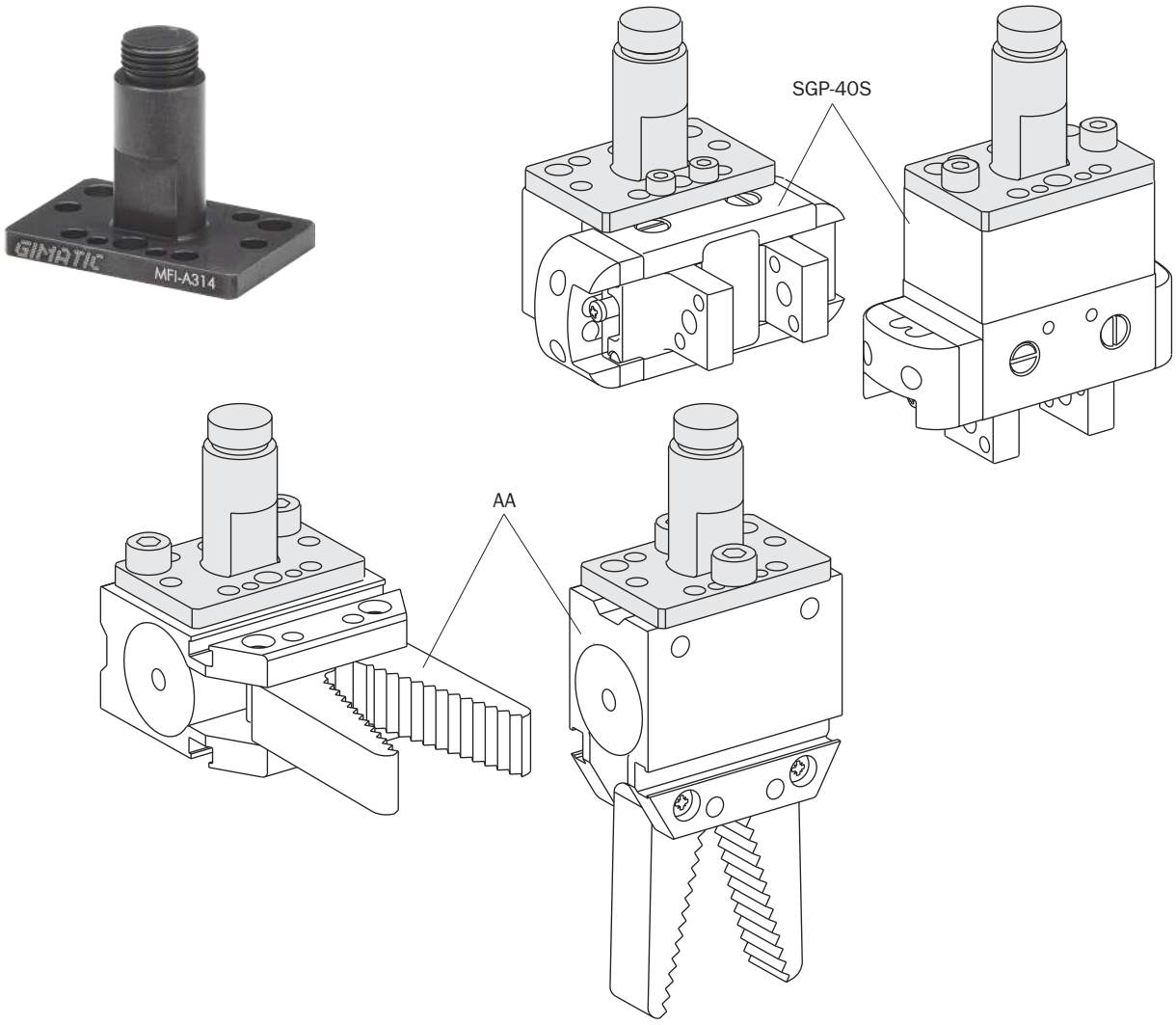
Gripper mounting bracket

(kit with screws)
(material: aluminium)

	MFI-A314
per *for*	AA / SGP-40S
Peso *Weight*	25 g



Esempio di utilizzo
Application example



Staffa per fissaggio pinza

(kit completo di viti)
(materiale: alluminio)

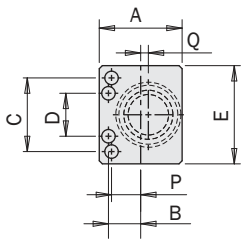
Gripper mounting bracket

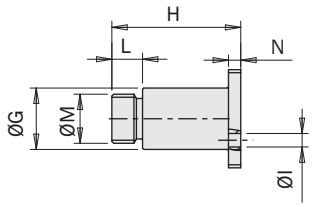
(kit with screws)
(material: aluminium)



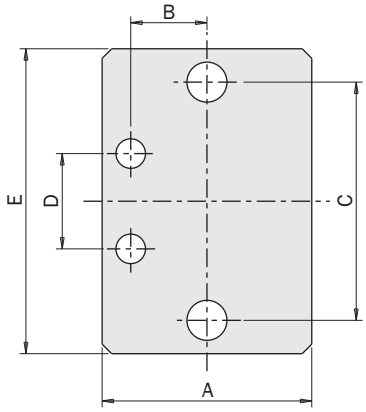
	MFI-A502	MFI-A317	MFI-A316	MFI-A315	MFI-A503
per *for*	SGP-16S	SGP-20S	SGP-25S	SGP-32S	SGP-50S
A [mm]	13.5	16	18	22	30
B [mm]	5.25	5.5	6	8	/
C [mm]	12	15	20	25	40
D [mm]	7	8	10	10	/
E [mm]	16	20	26	32	50
F [mm]	/	Ø2.6	Ø3.1	Ø4.2	Ø5.2
G [mm]	Ø10	Ø10	Ø10	Ø10	Ø20
H [mm]	21	21	22	23	39
I [mm]	Ø2.2	Ø2.6	Ø3.1	Ø3.1	/
L [mm]	5	5	5	5	8
M [mm]	M8x1	M8x1	M8x1	M8x1	M17x1
N [mm]	2	2	3	3	4
P [mm]	4.75	/	/	/	/
Q [mm]	1.25	/	/	/	/
Peso *Weight*	4.67 g	11 g	9 g	7 g	43.25 g

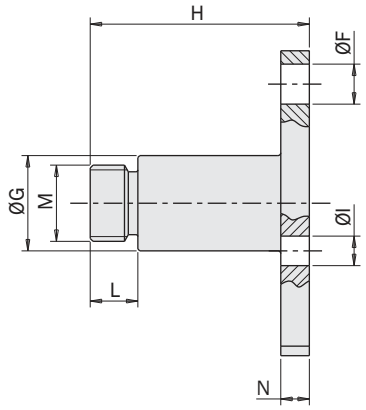
MFI-A502





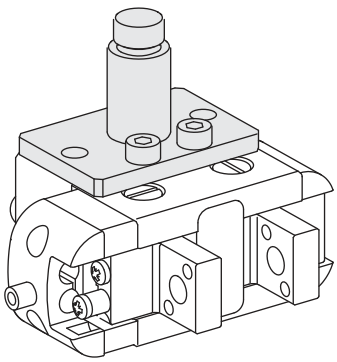
MFI-A315
MFI-A316
MFI-A317
MFI-A503

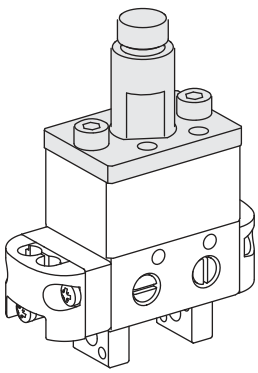




Esempio di utilizzo
Application example

FIRST ANGLE PROJECTION





Staffa per fissaggio pinza

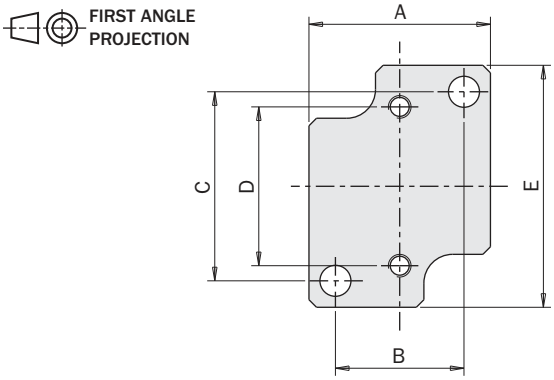
(kit completo di viti)
(materiale: alluminio)

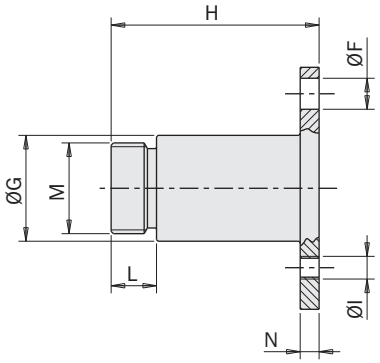
Gripper mounting bracket

(kit with screws)
(material: aluminium)

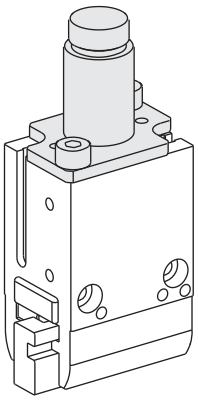


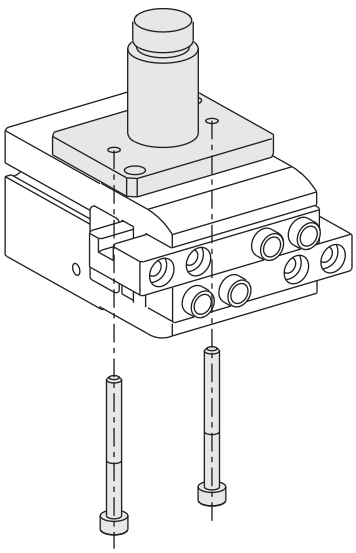
		MFI-A318	MFI-A319
per *for*		PQ1608	PQ2012
A	[mm]	19.5	24
B	[mm]	14	17
C	[mm]	20	25
D	[mm]	17	21
E	[mm]	25.5	32
F	[mm]	Ø3.1	Ø4.2
G	[mm]	Ø10	Ø14
H	[mm]	22	27.5
I	[mm]	M2.5	M3
L	[mm]	5	6
M	[mm]	M8x1	M12x1
N	[mm]	3	2.5
Peso *Weight*		11 g	18 g





Esempio di utilizzo
Application example





Staffa per fissaggio pinza

(kit completo di viti)
(materiale: alluminio)

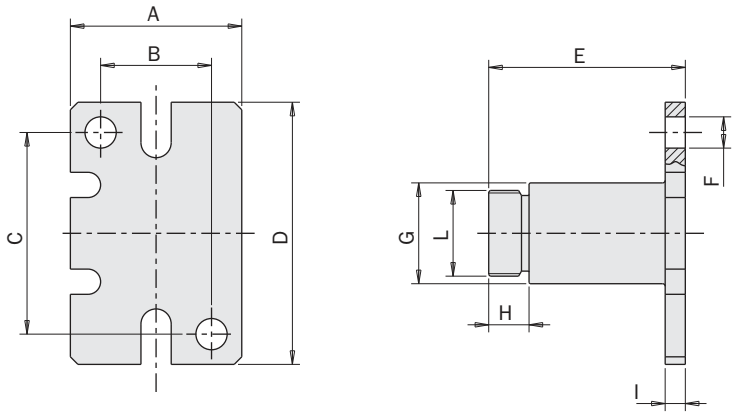
Gripper mounting bracket

(kit with screws)
(material: aluminium)

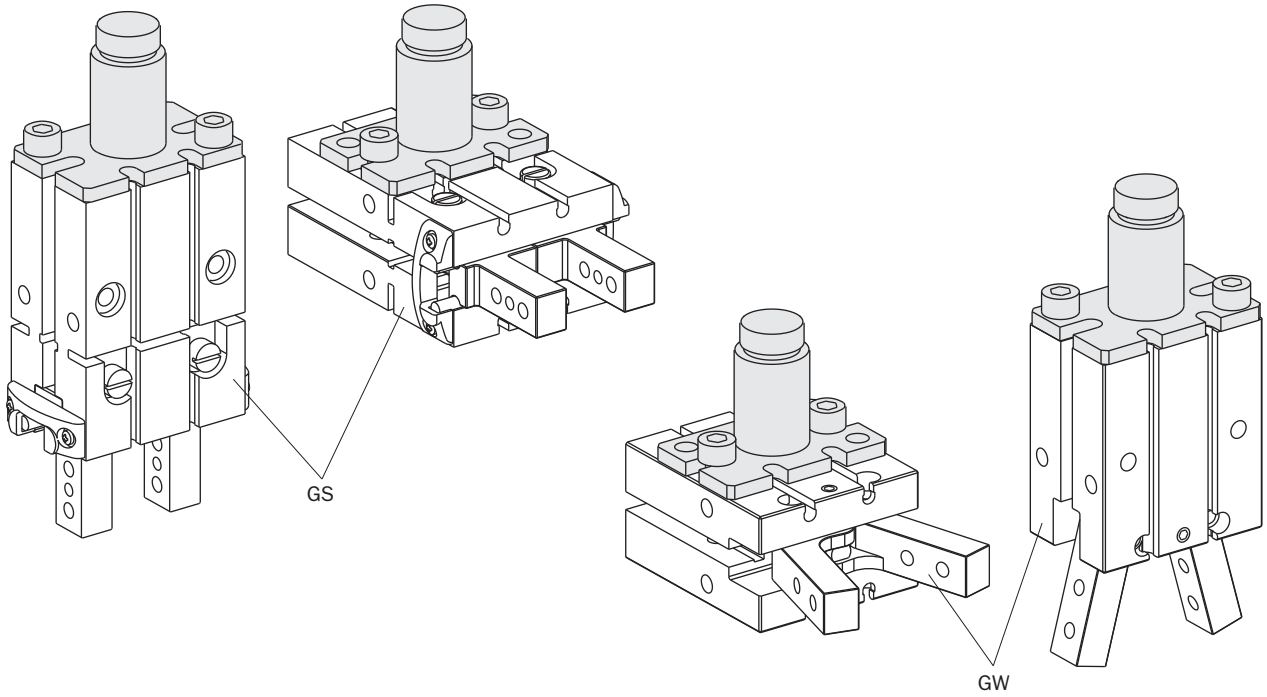


		MFI-A321	MFI-A322	MFI-A323	MFI-A324
per *for*		GS-10 / GW-10	GS-16 / GW-16	GS-20 / GW-20	GS-25 / GW-25
A	[mm]	17.5	24	28	34
B	[mm]	12	15	18	22
C	[mm]	18	22	32	40
D	[mm]	23.5	31	42	52
E	[mm]	21	26.5	30	39
F	[mm]	Ø3.1	Ø4.1	Ø5.2	Ø6.2
G	[mm]	Ø10	Ø14	Ø14	Ø20
H	[mm]	5	6	6	8
I	[mm]	2	2.5	4	4
L	[mm]	M8x1	M12x1	M12x1	M17x1
Peso *Weight*		8 g	18 g	29 g	57 g

FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example



Staffa per fissaggio pinza

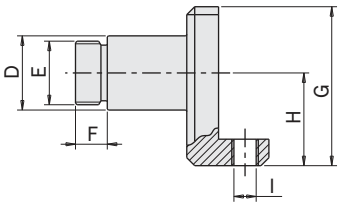
(kit completo di viti)
(materiale: alluminio)

Gripper mounting bracket

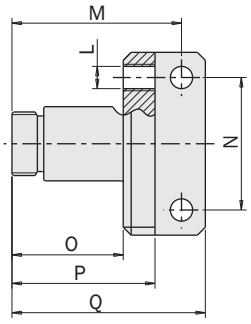
(kit with screws)
(material: aluminium)

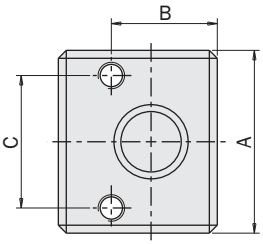


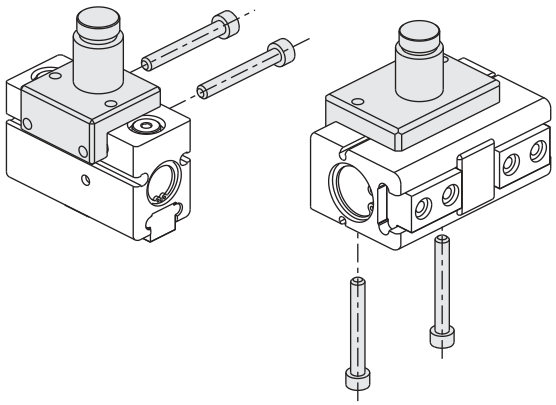
		MFI-A497	MFI-A325	MFI-A326	MFI-A499	MFI-A327
per *for*		SZ08	SZ12	SZ16	SZ20	SZ25
A	[mm]	22	29	34.5	50	62
B	[mm]	-	17	20	25	30
C	[mm]	16	22	25	40	50
D	[mm]	Ø10	Ø14	Ø14	Ø20	Ø20
E	[mm]	M8x1	M12x1	M12x1	M17x1	M17x1
F	[mm]	5	6	6	8	8
G	[mm]	-	28	30	38	45
H	[mm]	-	17	17.5	23	26.5
I	[mm]	M3	M4	M5	M5	M6
L	[mm]	-	M4	M5	M5	M6
M	[mm]	-	32	32	42	46
N	[mm]	-	22	25	40	50
O	[mm]	-	21	21	29	29
P	[mm]	24	27	27	37	39
Q	[mm]	21	35.5	36.5	49	52
R	[mm]	10	-	-	-	-
Peso *Weight*		8 g	33 g	41 g	90 g	140 g

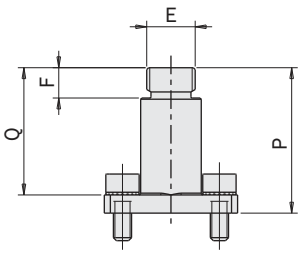


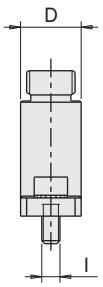
FIRST ANGLE PROJECTION

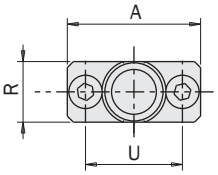


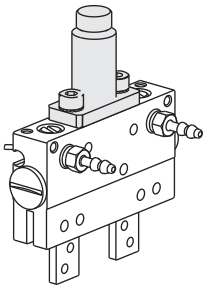


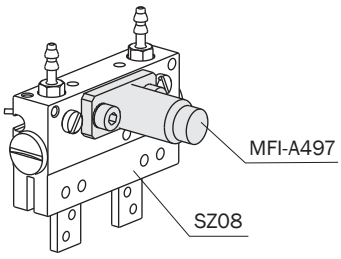












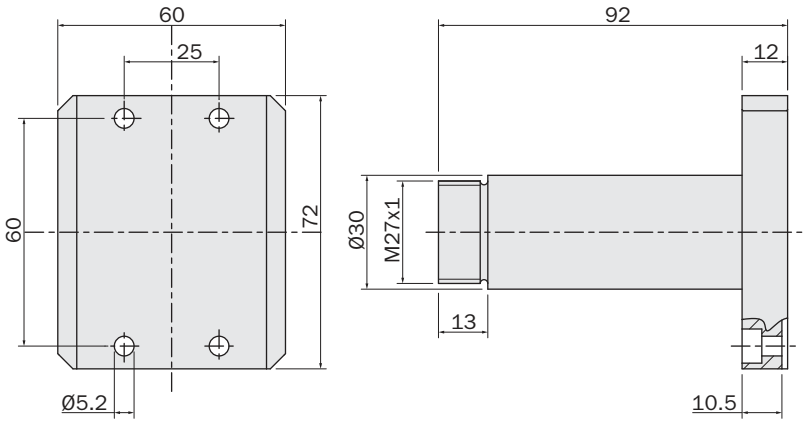
Interfaccia per slitta ZJ

(kit completo di viti)
(materiale: alluminio)

Interface for ZJ slide

(kit with screws)
(material: aluminium)

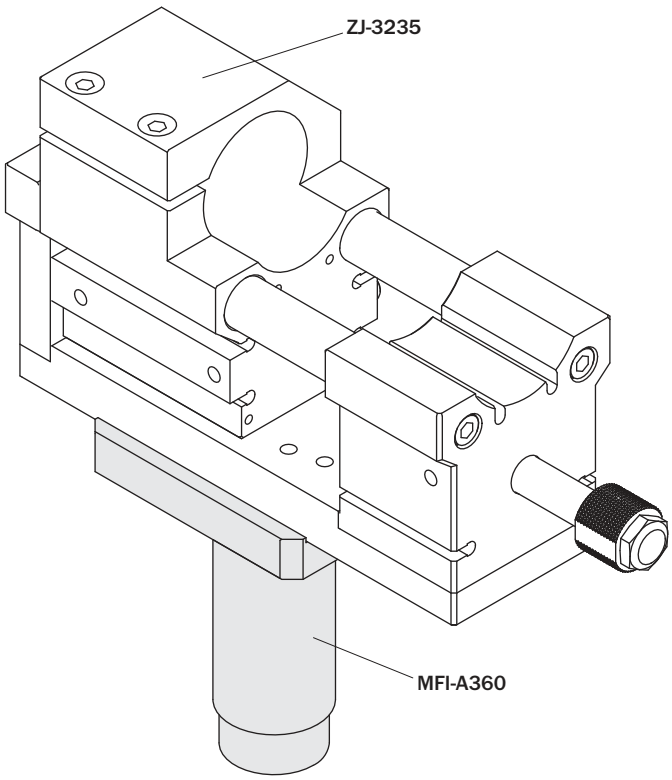
	MFI-A360
per *for*	ZJ-3235
Peso *Weight*	220 g



FIRST ANGLE PROJECTION



Esempio di utilizzo
Application example



Interfaccia per TGP12, TGP20, TGP25

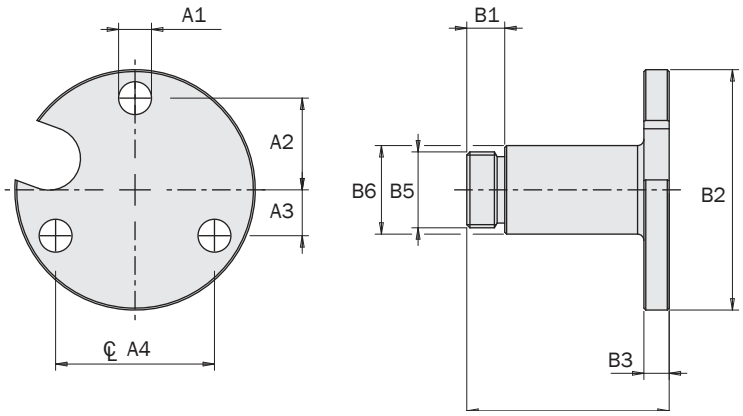
(kit completo di viti)
(materiale: alluminio)

Interface for TGP12, TGP20, TGP25

(kit with screws)
(material: aluminium)

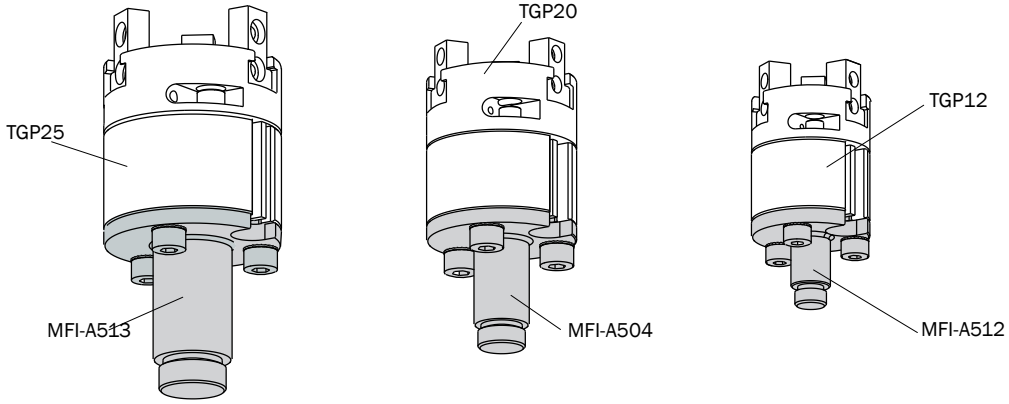


	MFI-A512	MFI-A504	MFIA-513
A1	Ø4.2	Ø5.2	Ø5.2
A2	10.94	14.5	16.9
A3	8.55	7.25	12.37
A4	18.96	25.11	29.27
B1	5	6	8
B2	Ø30	Ø38	Ø45
B3	4	4	4
B4	22	32	42
B5	M8x1	M12x1	M17x1
B6	Ø10	Ø14	Ø20



FIRST ANGLE PROJECTION

Esempio di utilizzo
Application example



Note
Notes

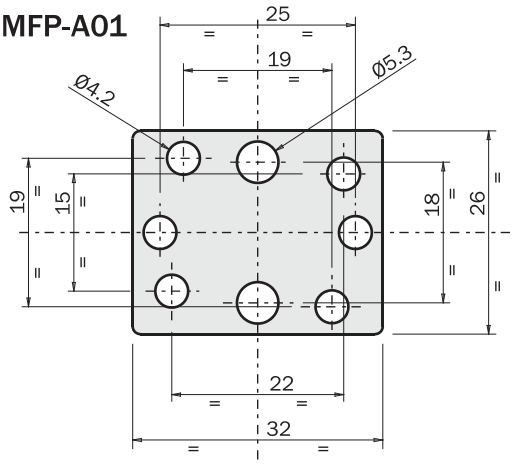
Basetta in plastica per fissaggio pinza

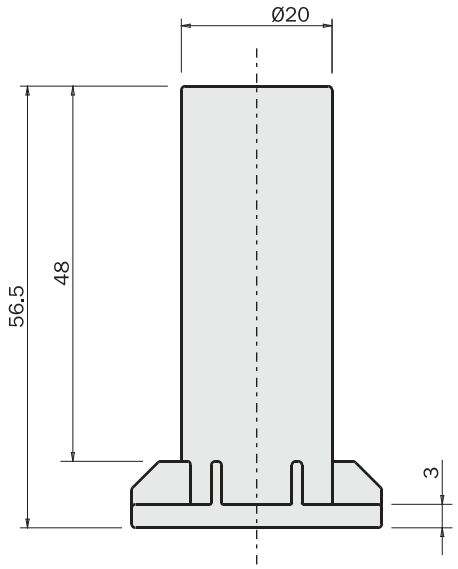
(kit completo di viti)
(materiale: PA66)

Polymer mounting bracket for gripper

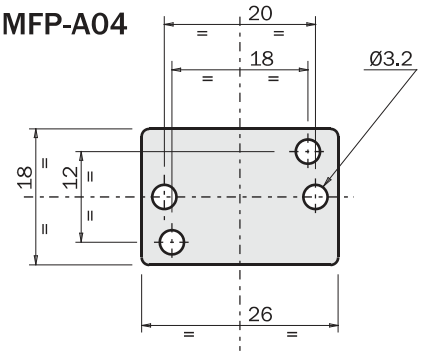
(kit with screws)
(material: PA66)

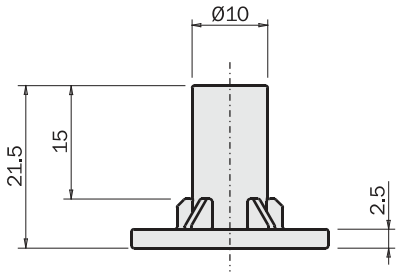
MFP-A01





MFP-A04



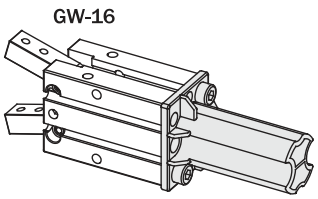


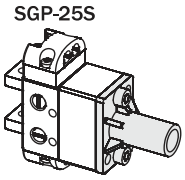


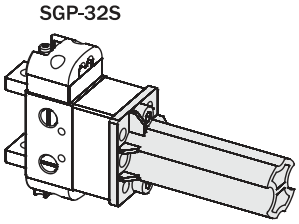


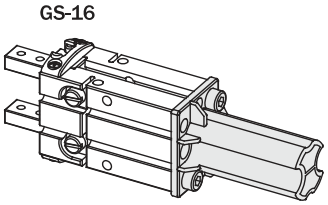
	MFP-A01	MFP-A04
Peso *Weight*	26 g	5 g

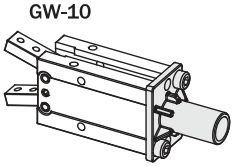
Esempio di utilizzo
Application example

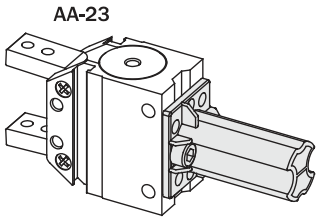


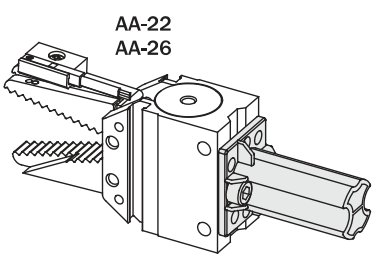


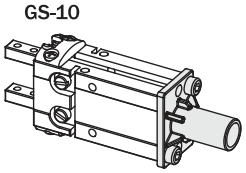










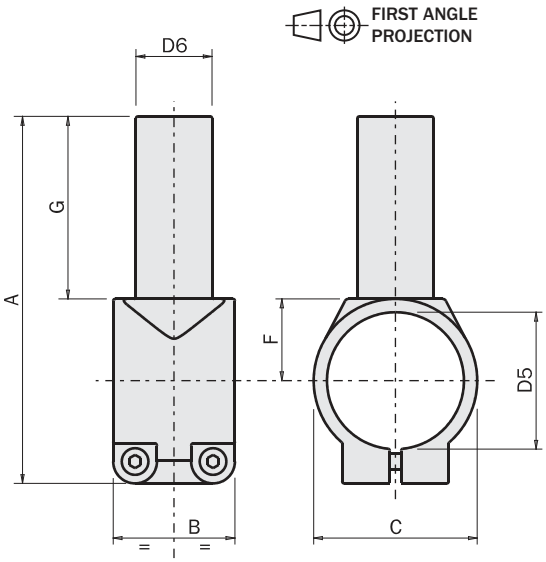


Staffa in plastica

(kit con 2 semicorpi + viti)
(materiale: PA66)

Polymer mounting bracket

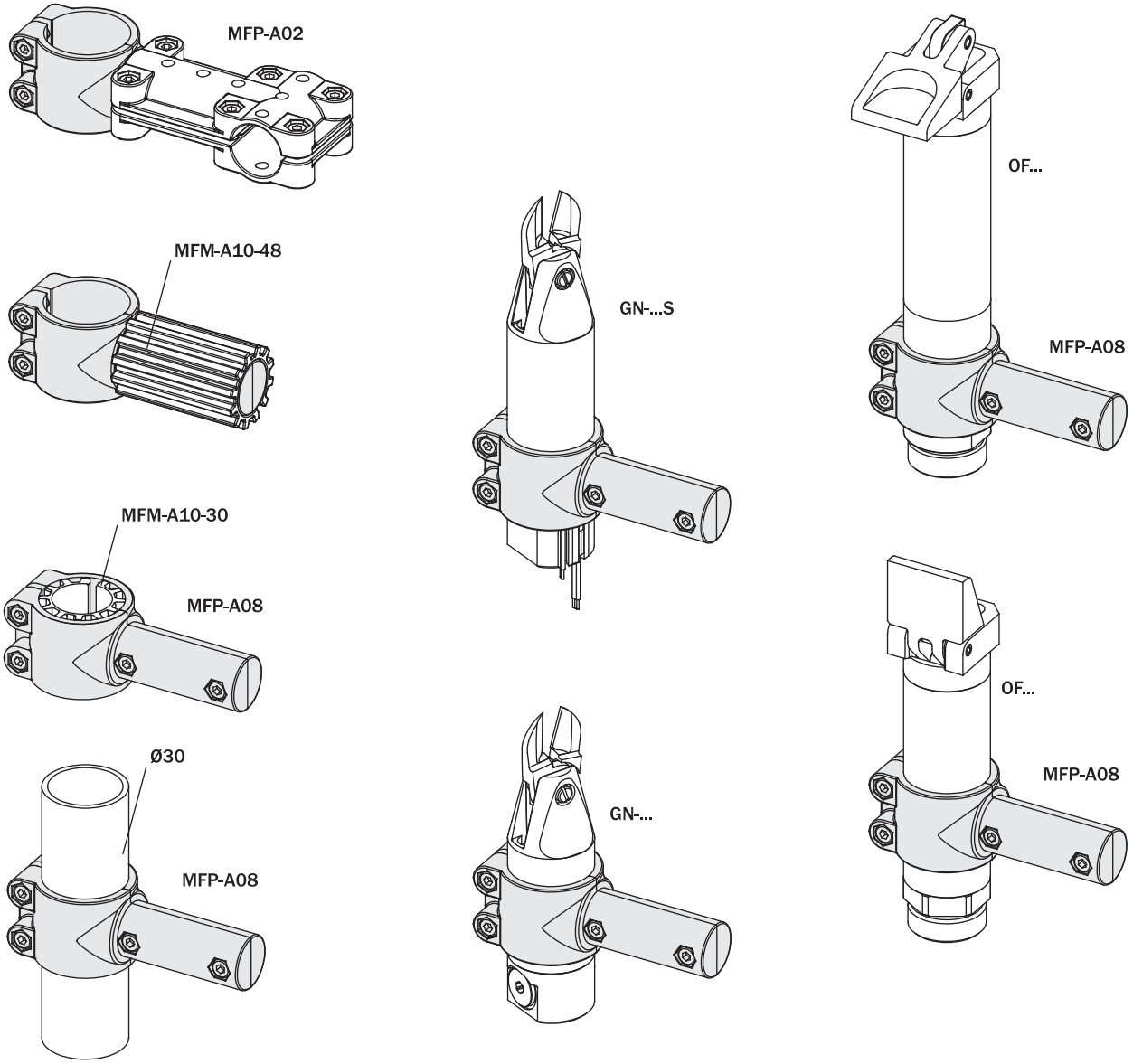
(2 half-pieces + screws)
(material: PA66)



		MFP-A06	MFP-A07	MFP-A08
A	[mm]	107.5	118.5	90
B	[mm]	36	40	30
C	[mm]	Ø52.6	Ø64	Ø36
D5	[mm]	Ø45	Ø56	Ø30
D6	[mm]	Ø20	Ø20	Ø20
F	[mm]	26.3	32	18
G	[mm]	48	48	48
Peso *Weight*		65 g	82 g	48 g



Esempio di utilizzo
Application example

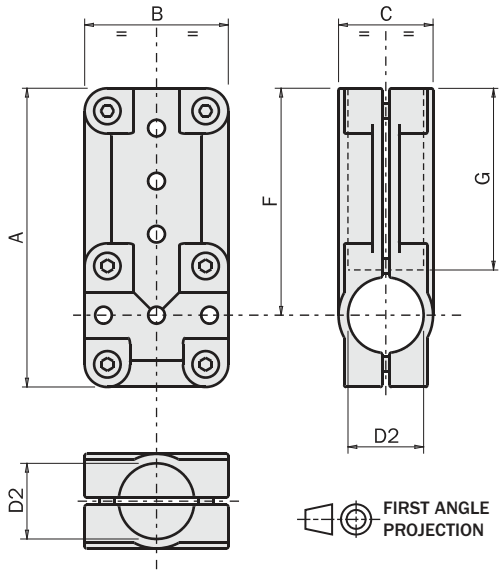


Giunto angolare in plastica

(kit con 2 semicorpi + viti)
(materiale: PA66)

Polymer T connector

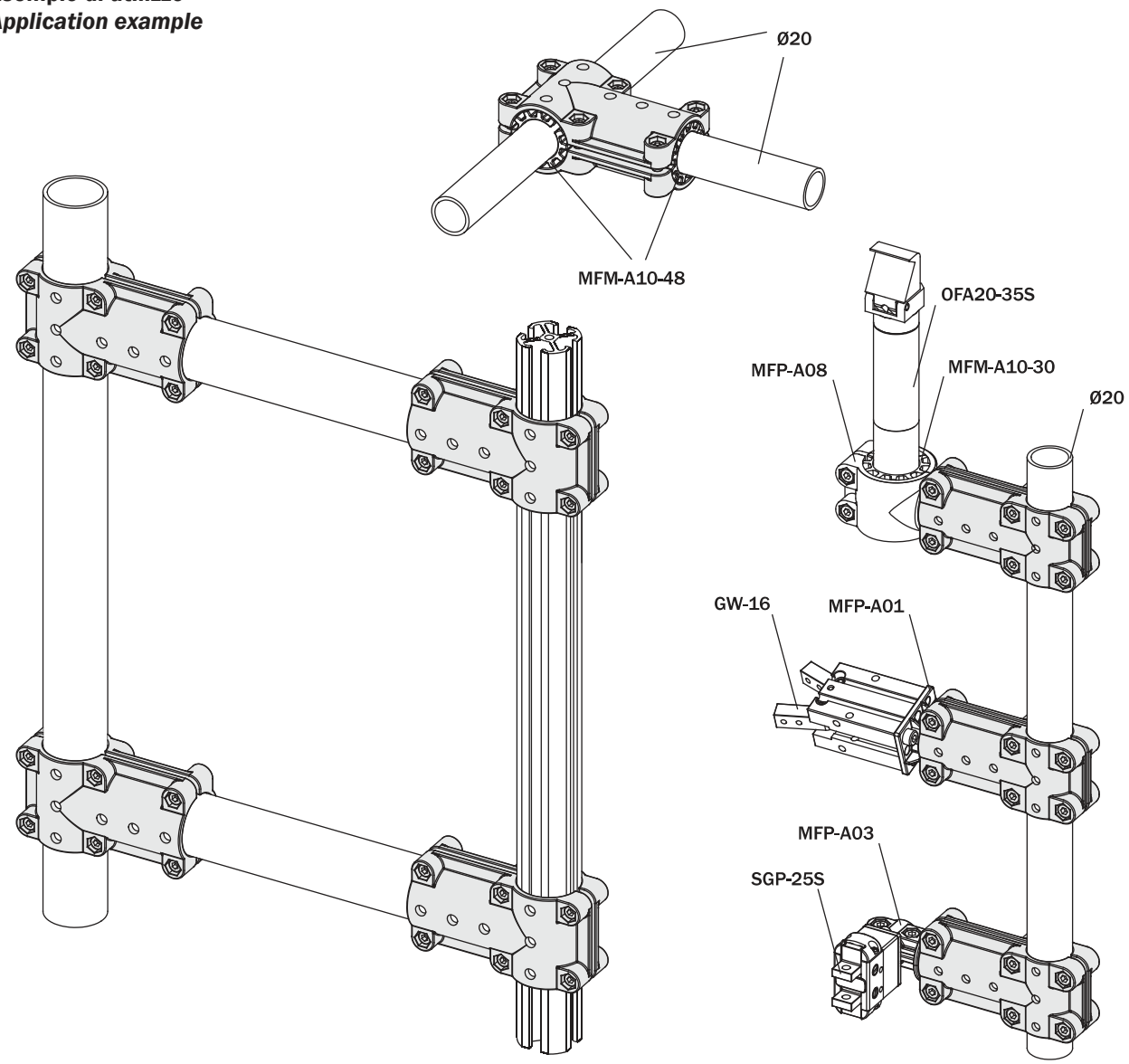
(2 half-pieces + screws)
(material: PA66)



		MFP-A02	MFP-A09
A	[mm]	79	90
B	[mm]	38	48
C	[mm]	25	36
D2	[mm]	Ø20	Ø30
F	[mm]	60	66
G	[mm]	48	48
Peso *Weight*		53 g	82 g



Esempio di utilizzo
Application example

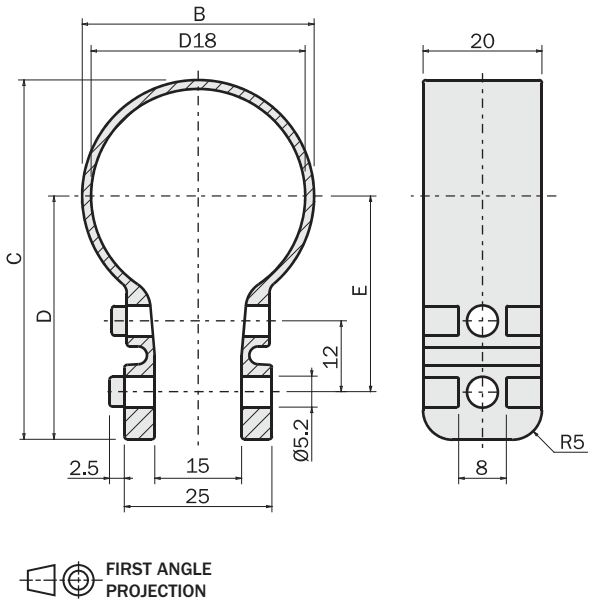


Staffa in acciaio

(kit completo di viti)
(materiale: acciaio)

Steel mounting bracket

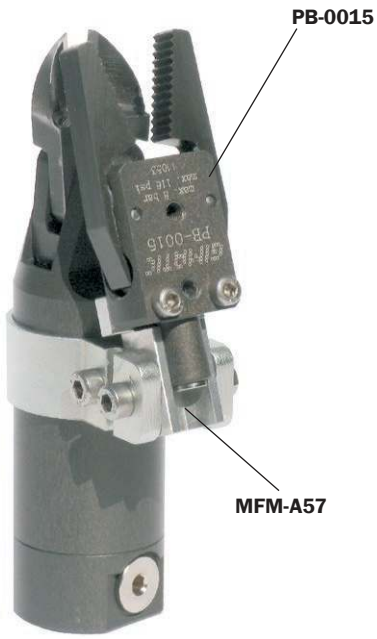
(kit with screws)
(material: steel)

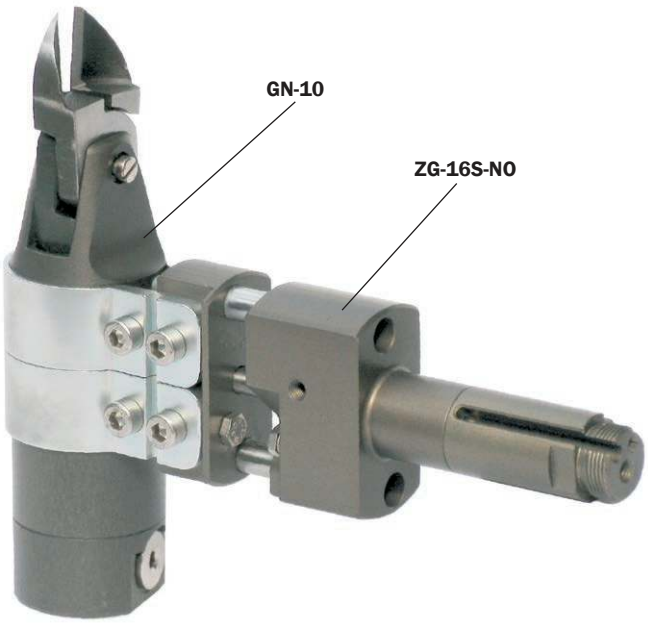


		MFM-A30	MFM-A36	MFM-A45	MFM-A56
D18	[mm]	Ø30	Ø36	Ø45	Ø56
B	[mm]	Ø33	Ø39	Ø48	Ø60
C	[mm]	55	60.5	70	83.5
D	[mm]	38.5	41	46	53.5
E	[mm]	30.5	33	38	45.5
Peso *Weight*		69 g	75 g	80 g	102 g



Esempio di utilizzo
Application example





Staffa in alluminio

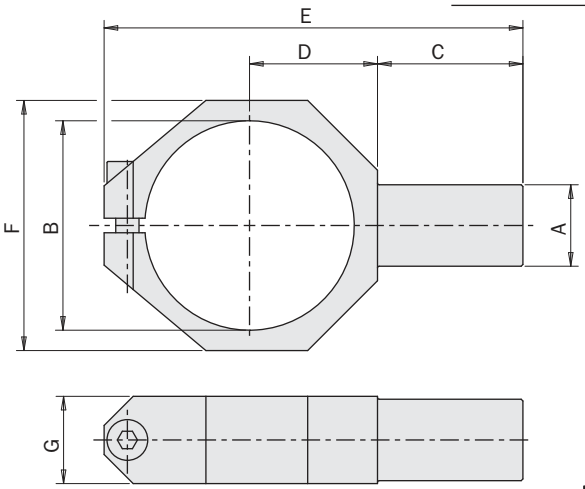
(kit completo di viti)
(materiale: alluminio)

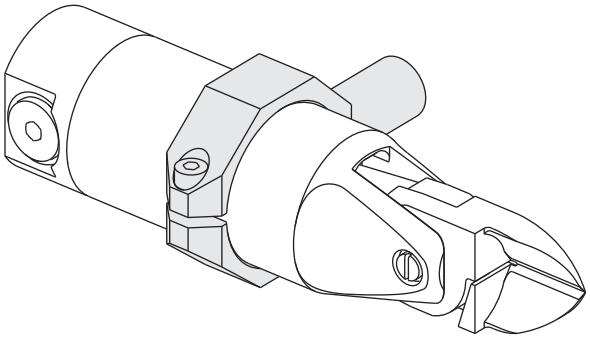
Aluminium mounting bracket

(kit with screws)
(material: aluminium)



		MFM-A110	MFM-A110-H	MFM-A111	MFM-A112	MFM-A11
A	[mm]	Ø14	Ø20	Ø20	Ø20	Ø30
B	[mm]	Ø36	Ø36	Ø45	Ø56	Ø75
C	[mm]	25	50	35	40	48
D	[mm]	22	22	28	33	41
E	[mm]	72	99.5	94.5	111	138
F	[mm]	43	43	53	65	83
G	[mm]	15	20	20	25	40
Peso / *Weight*		35g	88 g	80 g	123 g	308 g





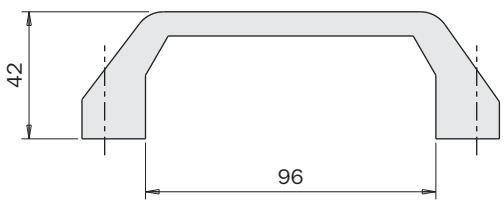
FIRST ANGLE PROJECTION

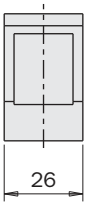
Maniglia per EOAT

(kit con dadi last-minute)
(materiale: POM)

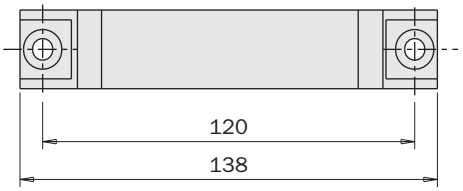
EOAT handle

(kit with last-minute nuts)
(material: POM)

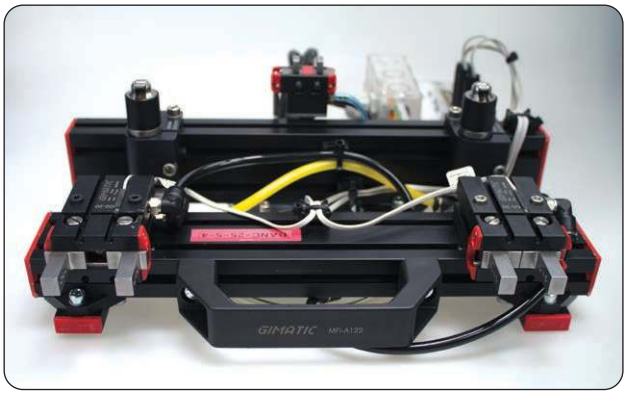




	MFM-A122
Peso / *Weight*	60 g

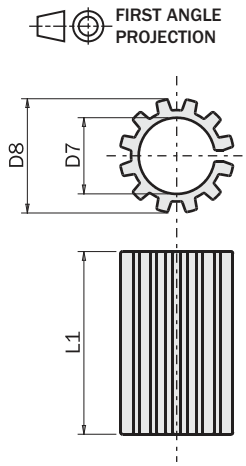






Riduzione

(materiale: alluminio)



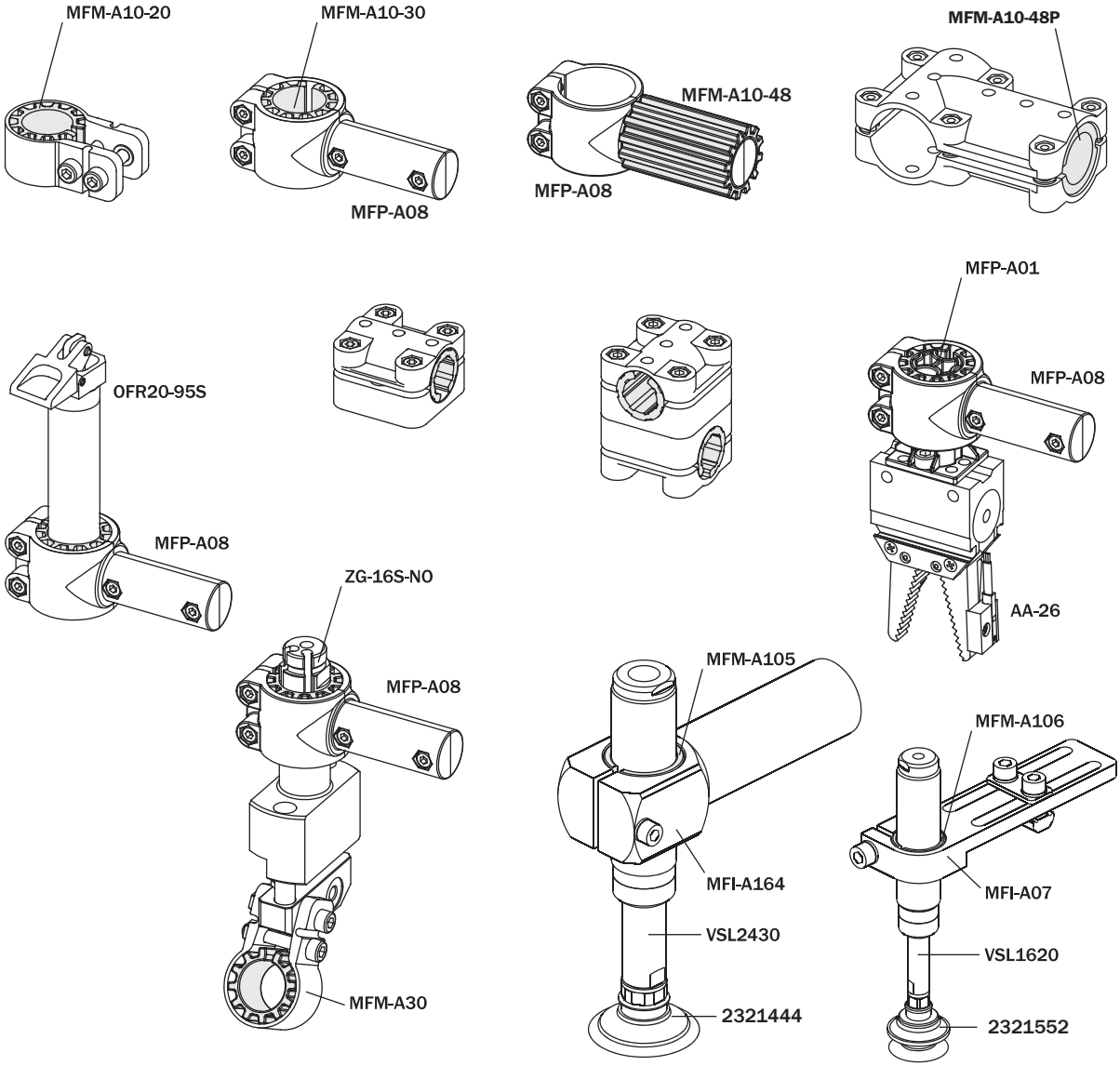
Adapter

(material: aluminium)

	D7 [mm]	D8 [mm]	L1 [mm]	Peso *Weight*
MFM-A120	Ø10	Ø14	13	3 g
MFM-A55-38	Ø14	Ø20	38	16 g
MFM-A55-48	Ø14	Ø20	48	19 g
MFM-A106	Ø16	Ø20	12	5 g
MFM-A115	Ø16	Ø20	20	6 g
MFM-A10-20	Ø20	Ø30	20	13 g
MFM-A10-30	Ø20	Ø30	30	21 g
MFM-A10-48	Ø20	Ø30	48	33 g
MFM-A105	Ø24	Ø30	12	8 g



Esempio di utilizzo
Application example

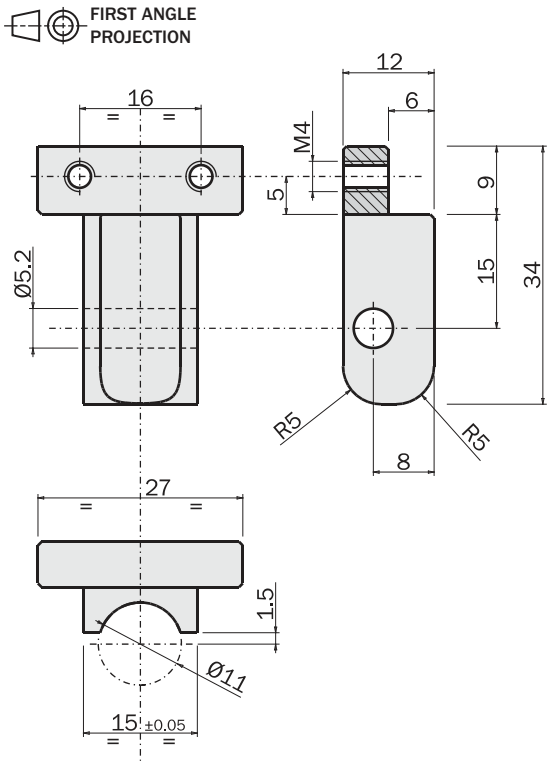


Blocchetto di fissaggio per PB

(kit completo di viti)
(materiale: alluminio)

PB mounting connector

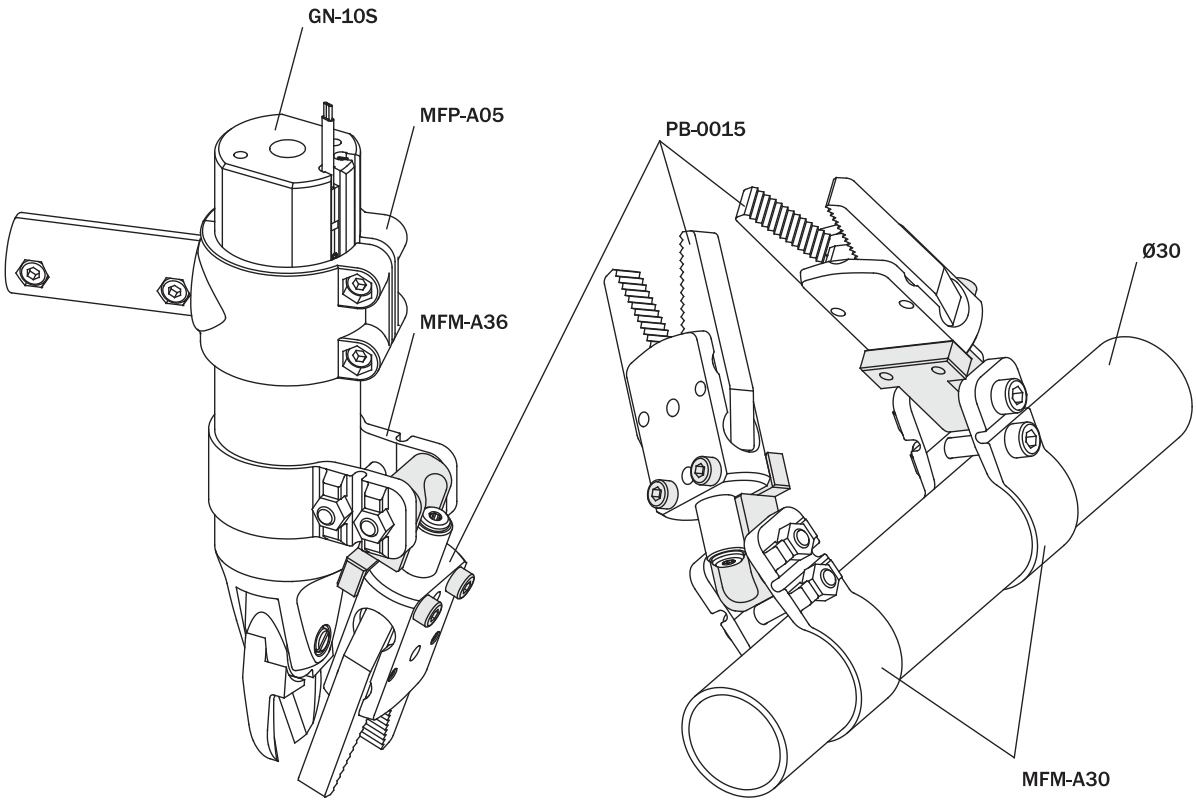
(kit with screws)
(material: aluminium)



	MFM-A57
Peso *Weight*	25 g



Esempio di utilizzo
Application example

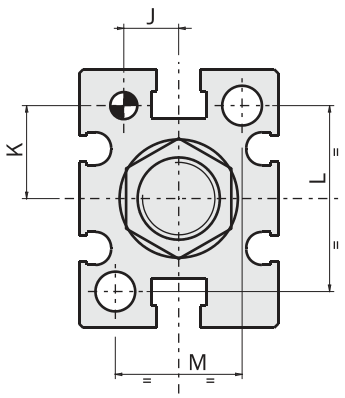


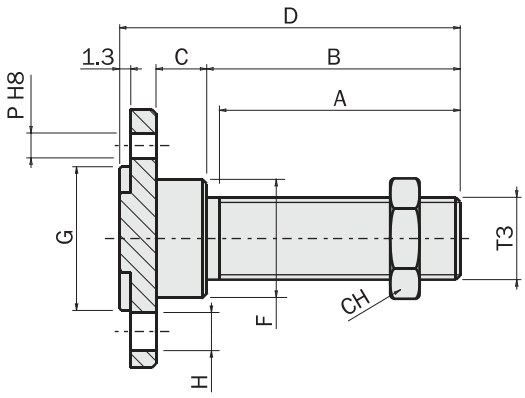
Interfaccia per pinze

(kit completo di viti)
(materiale: alluminio)

Interface for grippers

(kit with screws)
(material: aluminium)



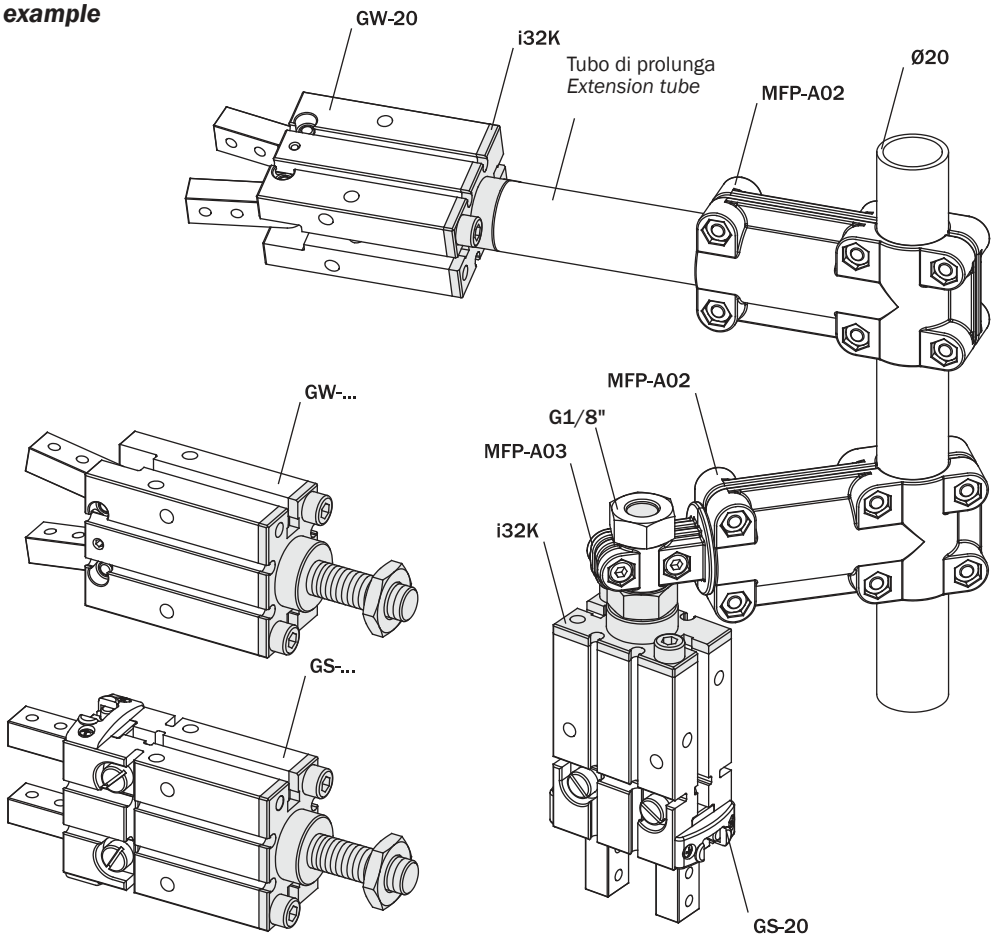


FIRST ANGLE PROJECTION



		i30K	i31K	i32K	i33K
A	[mm]	25	28.5	28.5	28.5
B	[mm]	25	30	30	30
C	[mm]	5	6	7	8
CH	[mm]	14	14	14	17
D	[mm]	34.3	40.3	41.3	44.3
T3	[mm]	G1/8"	G1/8"	G1/8"	M15x1
F	[mm]	Ø10	Ø14	Ø20	Ø20
G	[mm]	Ø11	Ø17	Ø21	Ø26
H	[mm]	Ø3.3	Ø4.5	Ø5.5	Ø6.5
J	[mm]	5.2	6.5	7.5	10
K	[mm]	7.6	11	16	21
L	[mm]	18	22	32	40
M	[mm]	12	15	18	22
P	[mm]	Ø2 H8	Ø3 H8	Ø4 H8	Ø4 H8
per *for*		GS-10/GW-10	GS-16/GW-16	GS-20/GW-20	GS-25/GW-25
Peso *Weight*		9 g	14 g	14 g	43 g

Esempio di utilizzo
Application example

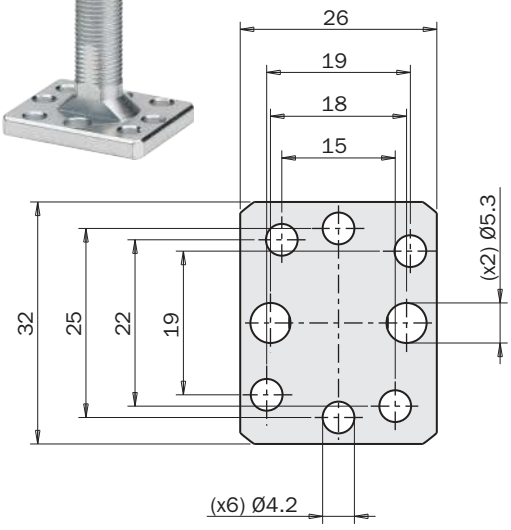


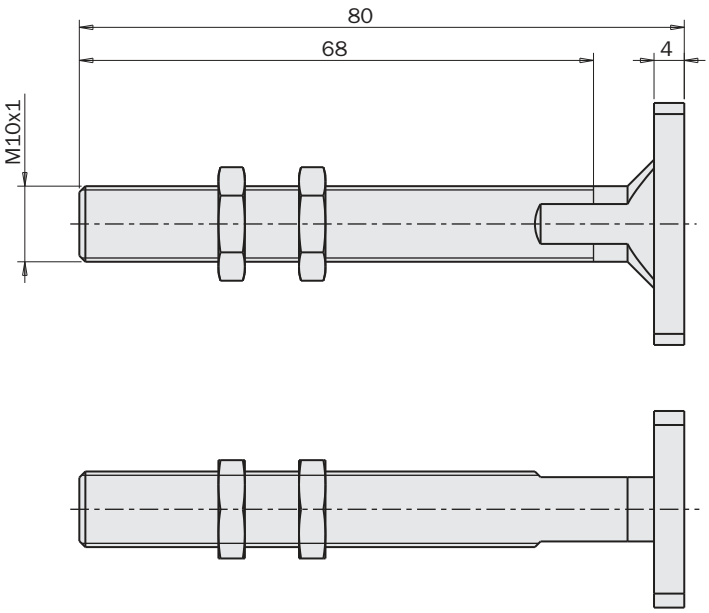
Interfaccia per pinze
(materiale: acciaio)

Interface for grippers
(material: steel)

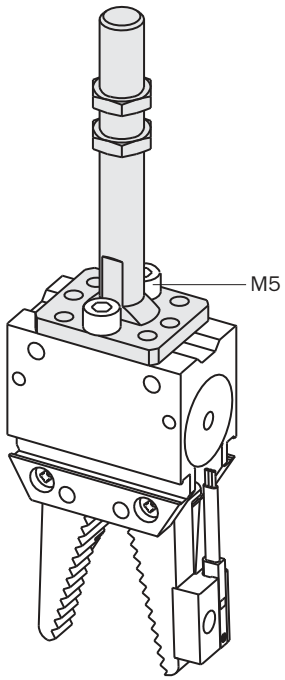


	i37K
Peso *Weight*	85 g

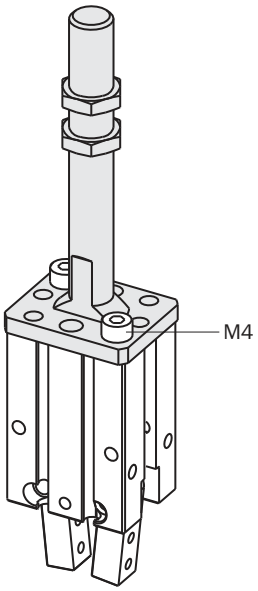




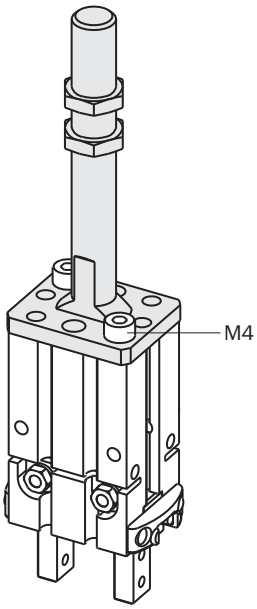
Esempio di utilizzo
Application example



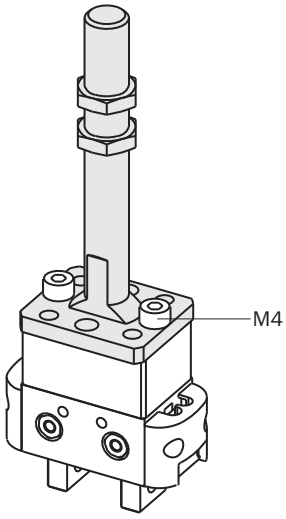
AA-22
AA-23
AA-26



GW-16



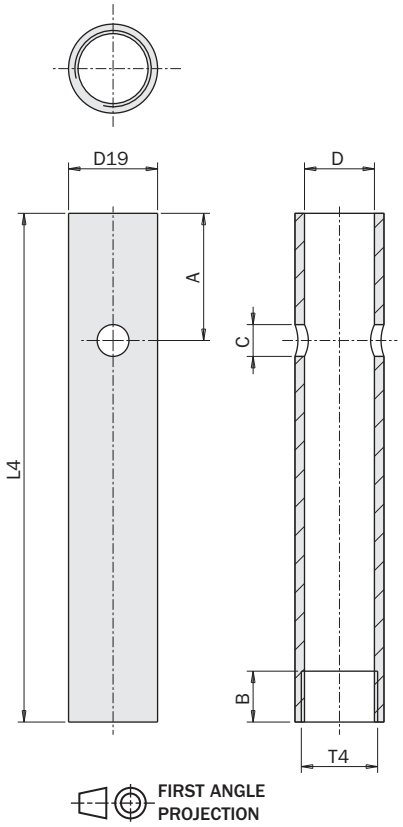
GS-16



SGP-32S

Tubo di prolunga
(materiale: alluminio)

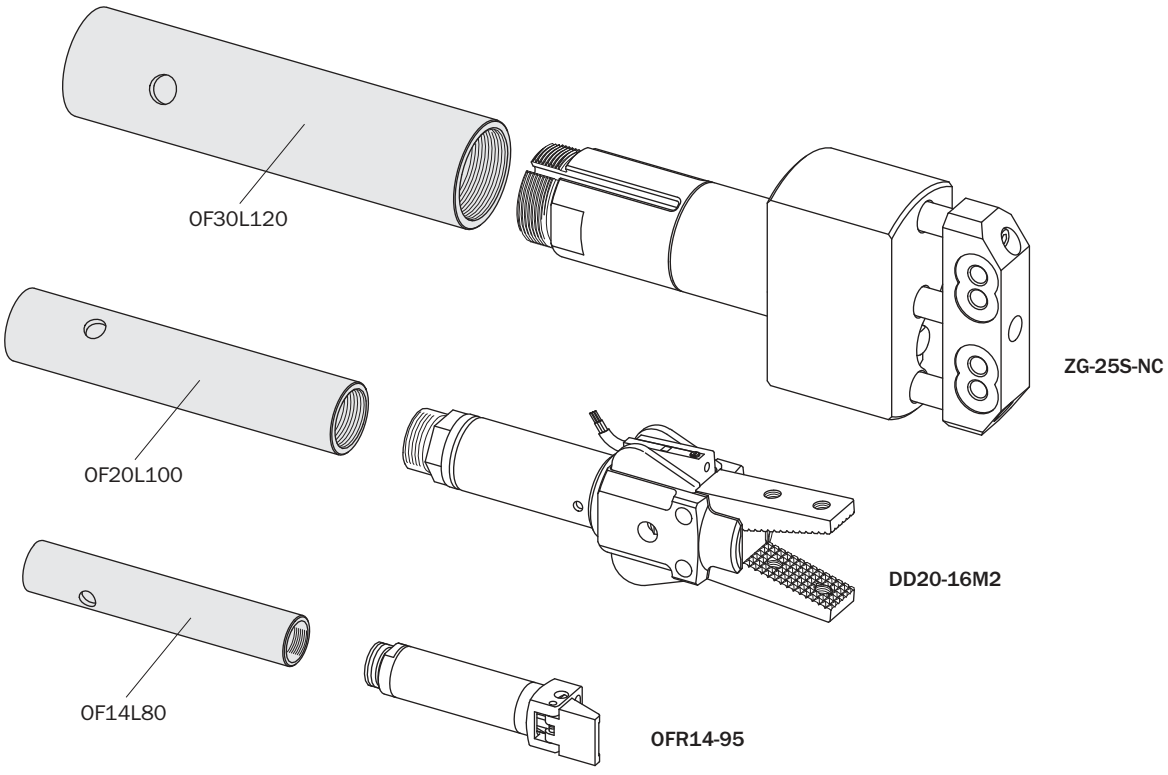
Extension tube
(material: aluminium)



		OF10L60	OF14L80	OF20L100	OF20L250	OF30L120	OF30L250
A	[mm]	15	20	25	125	30	125
B	[mm]	8	8	12	12	14	14
C	[mm]	Ø3.5	Ø5	Ø6	Ø6	Ø8	Ø8
D	[mm]	Ø7	Ø11	Ø16	Ø16	Ø25	Ø25
D19	[mm]	Ø10	Ø14	Ø20	Ø20	Ø30	Ø30
L4	[mm]	60	80	100	250	120	250
T4	[mm]	M8x1	M12x1	M17x1	M17X1	M27x1	M27X1
Peso *Weight*		7 g	10 g	30 g	76 g	65 g	145 g



Esempio di utilizzo
Application example



Interfaccia per taglierino GNS

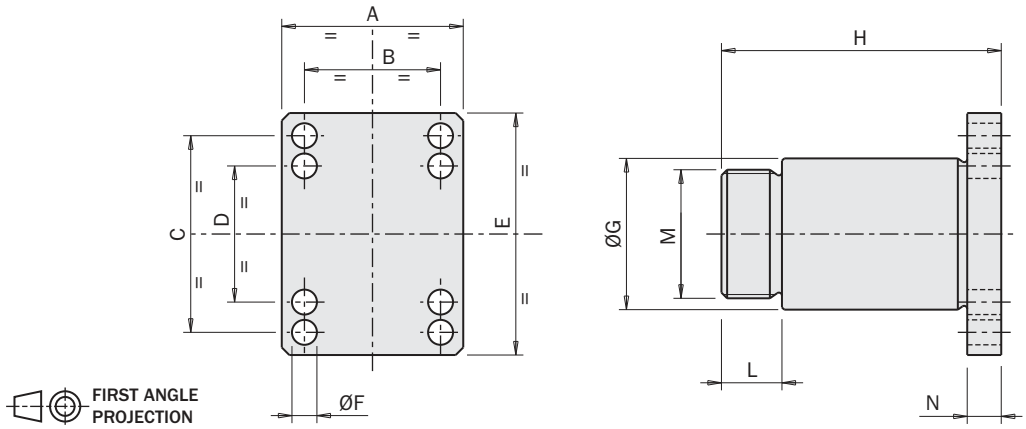
(kit completo di viti)
(materiale: alluminio)

GNS nipper mounting bracket

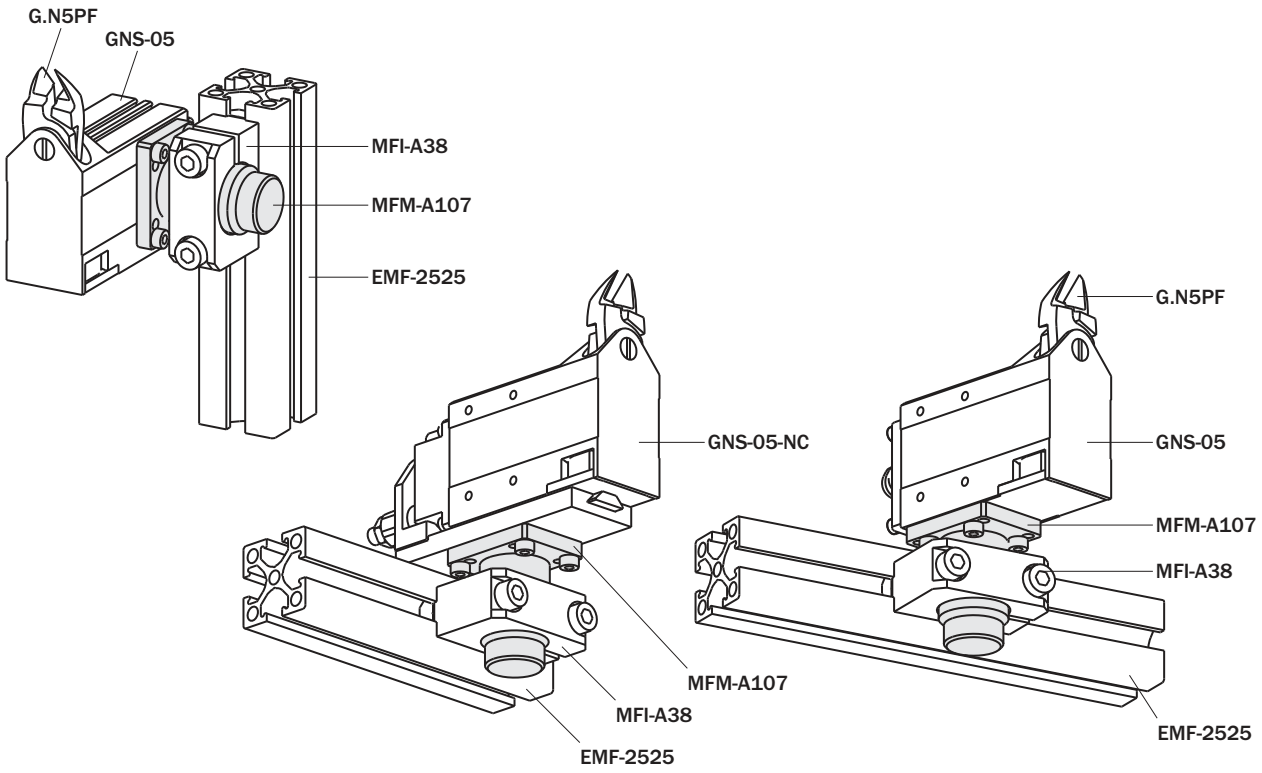
(kit with screws)
(material: aluminium)



		MFM-A107	MFM-A108	MFM-A109
A	[mm]	24	32	39
B	[mm]	18	24	30
C	[mm]	26	32	40
D	[mm]	18	-	-
E	[mm]	32	39	48
F	[mm]	Ø3.3 (x8)	Ø4.3 (x4)	Ø5.3 (x4)
G	[mm]	Ø20	Ø20	Ø30
H	[mm]	37	39	55
L	[mm]	8	8	11
M	[mm]	M17x1	M17x1	M27x1
N	[mm]	4.5	5.5	6.5
per *for*		GNS-05	GNS-10	GNS-20
Peso *Weight*		30 g	35 g	100 g



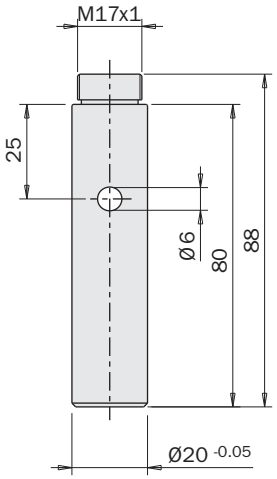
Esempio di utilizzo
Application example



Interfacce per cilindro guidato

(kit completo di viti)
(materiale: alluminio)

	MFM-A117
Peso *Weight*	70 g

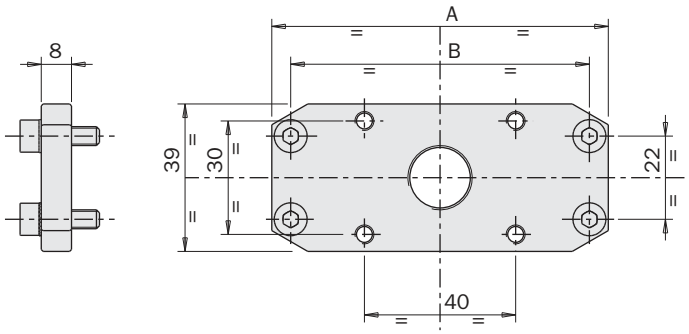


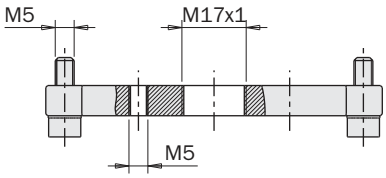


Interfaces for guided cylinder

(kit with screws)
(material: aluminium)

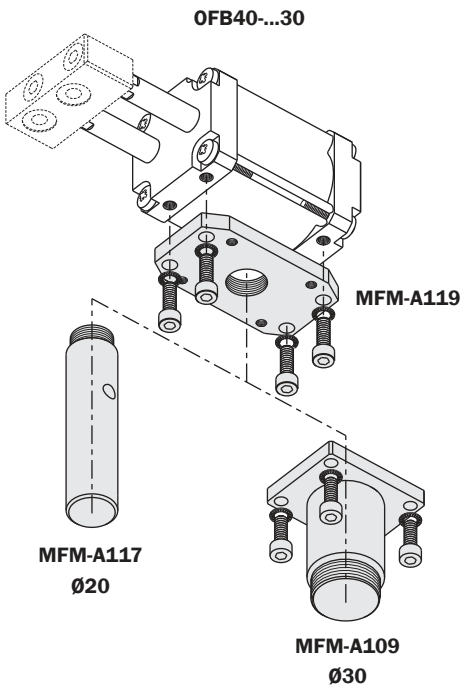
		MFM-A118	MFM-A119
A	[mm]	89	69
B	[mm]	79	59
per *for*		OFB40-...50	OFB40-...30
Peso *Weight*		80 g	60 g

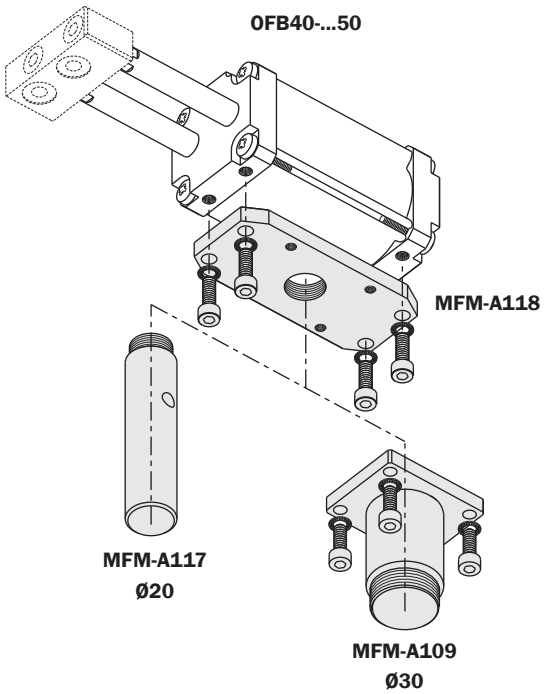






Esempio di utilizzo
Application example





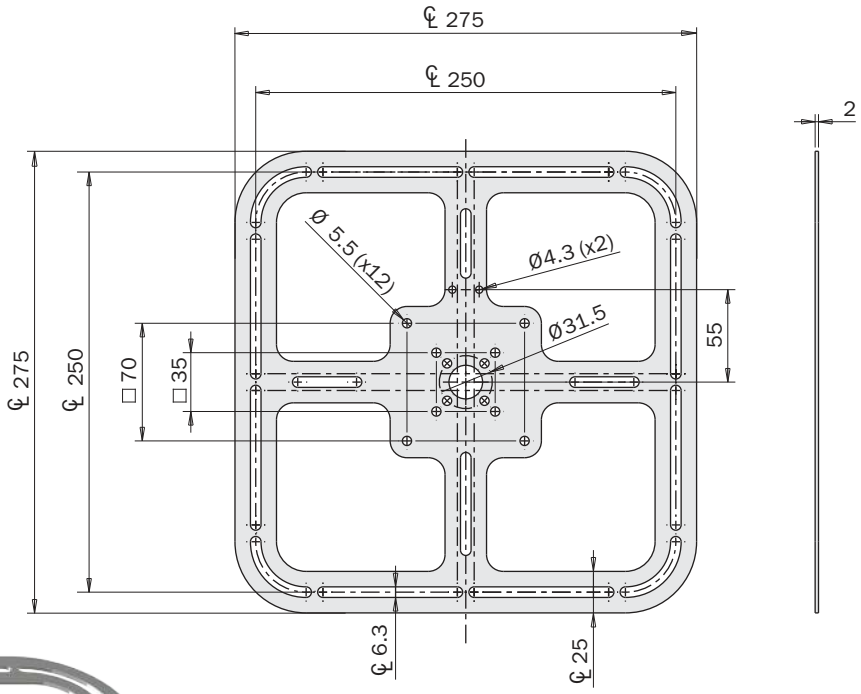
Piastra 250x250 per EOAT basico

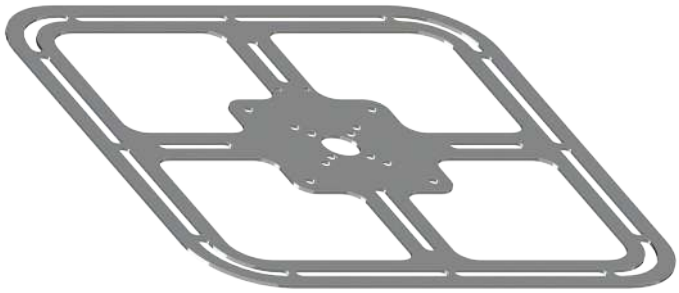
- In acciaio zincato tagliato al laser.
- Schemi di fissaggio preforati per QC90-B (1), MFI-A41 (2), ISO9409-1 (3).
- Compatibile con le staffe ed i dadi MFI.

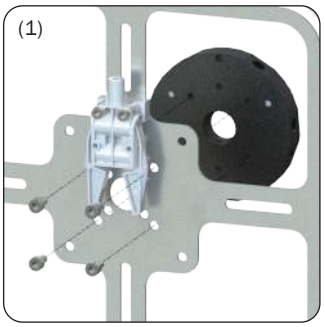
Basic EOAT plate 250x250

- *Laser cut in zinc plated steel.*
- *Drilled mounting patterns for QC90-B (1), MFI-A41 (2), ISO9409-1 (3).*
- *Suitable for the MFI brackets and nuts.*

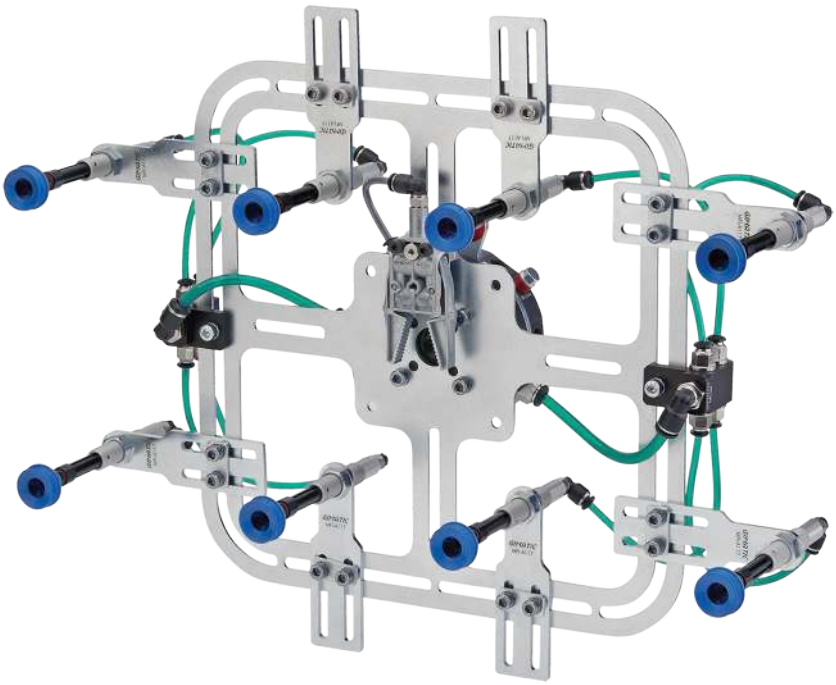
	PLA2525
Peso *Weight*	485 g

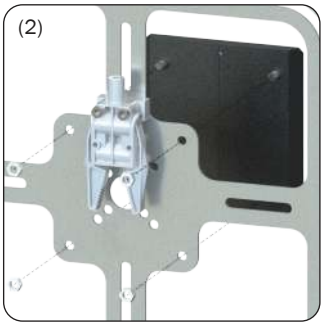


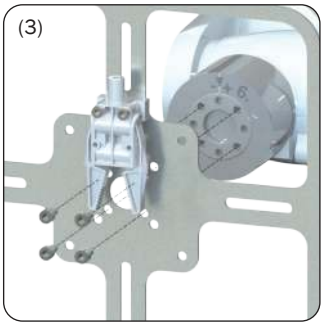




Esempio di utilizzo
Application example







Mini compensatore per pinze piccole

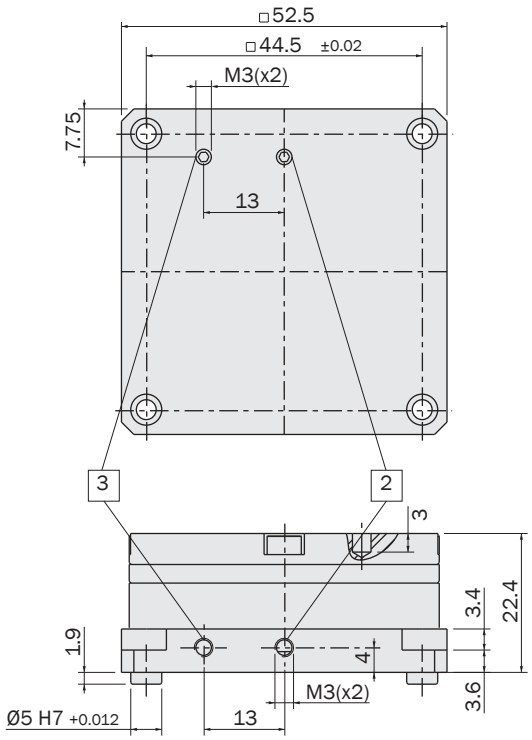
- Compensazione in X-Y e nell'angolo α [1].
- Rigido in direzione Z.
- Un canale dell'aria per avere la posizione di zero centrale [2].
- Un altro canale per il bloccaggio fuori centro [3].

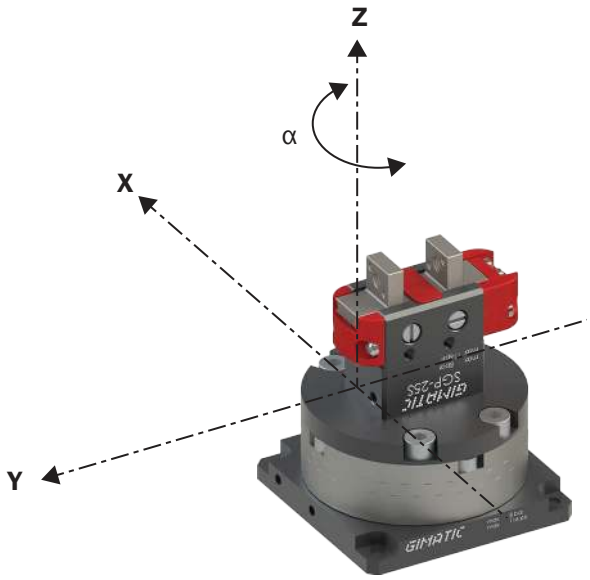
Mini compliance device, for small grippers

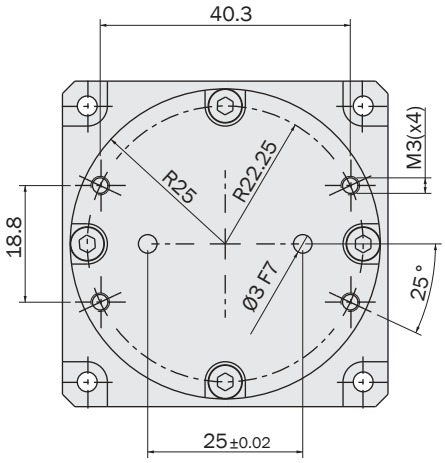
- *X-Y and angle α compliance [1].*
- *Rigid in Z direction.*
- *One air lead to get the central zero position [2].*
- *Another air lead to lock in any offset position [3].*

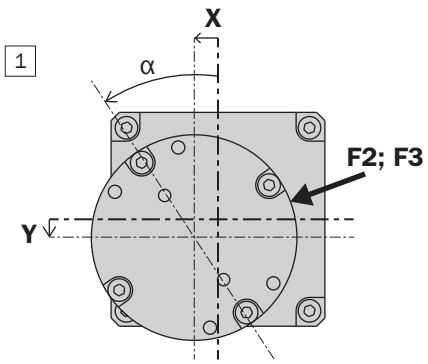


		MCD124
Peso *Weight*		204 g
Compensazione radiale massima *Maximum radial compliance*	$\sqrt{X^2 + Y^2}$	1 mm
Compensazione angolare massima *Maximum angular compliance*	α	10°
Forza di bloccaggio nella posizione centrale *Locking force in central position*	F2	200 N (6 bar)
Forza di bloccaggio fuori centro *Locking force in off-centre position*	F3	20 N (6 bar)









PINZE

Grippers



AGG

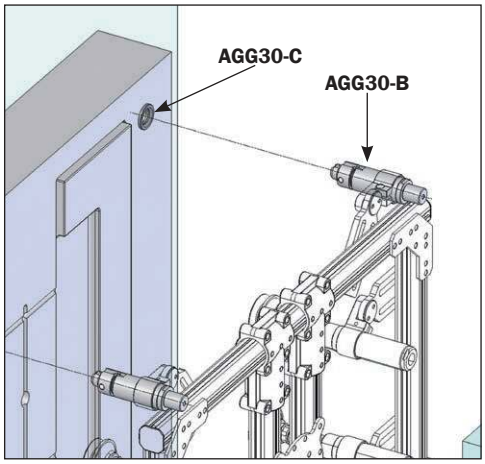
Pinza per agganciamento

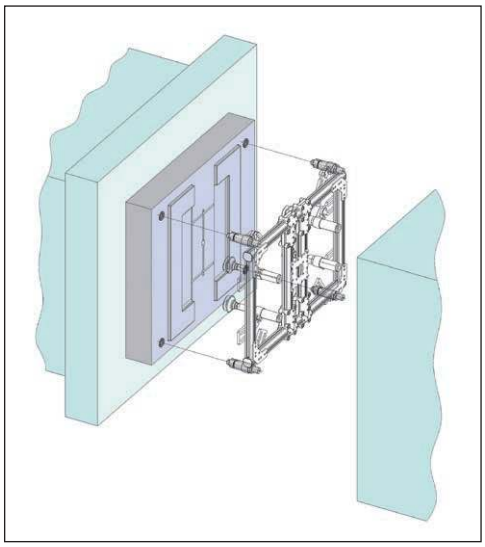
La AGG é usata per centrare in modo preciso il robot sullo stampo. Questo é necessario quando si devono posizionare degli inserti metallici nello stampo, prima di iniettare la plastica.
La pinza AGG...-B è montata sull'EOAT e la bussola AGG...-C in acciaio sullo stampo.
Dopo che il robot si é avvicinato allo stampo, la pinza viene alimentata, così si chiude e si aggrappa sulla bussola.
AGG21-B e AGG30-B sono a doppio effetto con molla di sicurezza che mantiene agganciata la pinza anche in mancanza d'aria (NC).
AGG19-B è a semplice effetto con molla di ritorno (NO).

Gripper for engagement

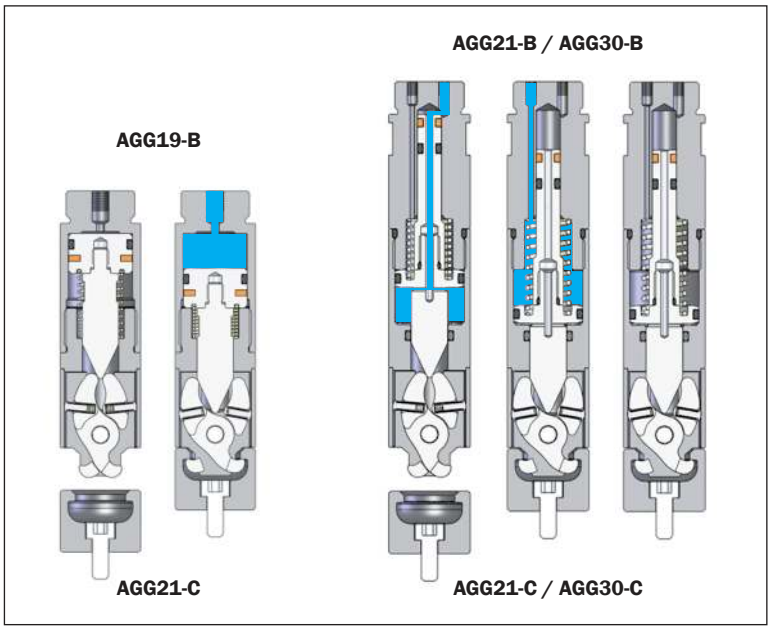
The AGG is used to provide a precise centering between the robot and the mould.
This is necessary when metal inserts must be placed in the mould, before the plastic injection.
The gripper AGG...-B is fitted on the EOAT, while the steel bushing AGG...-C is fitted on the mould.
Once the robot has approached the mould, the gripper is pressurized, thus it closes and engages the bushing.
AGG21-B and AGG30-B are double-acting with a safety spring to keep the gripper engaged even without compressed air (NC).
AGG19-B is single-acting with reset spring (NO).







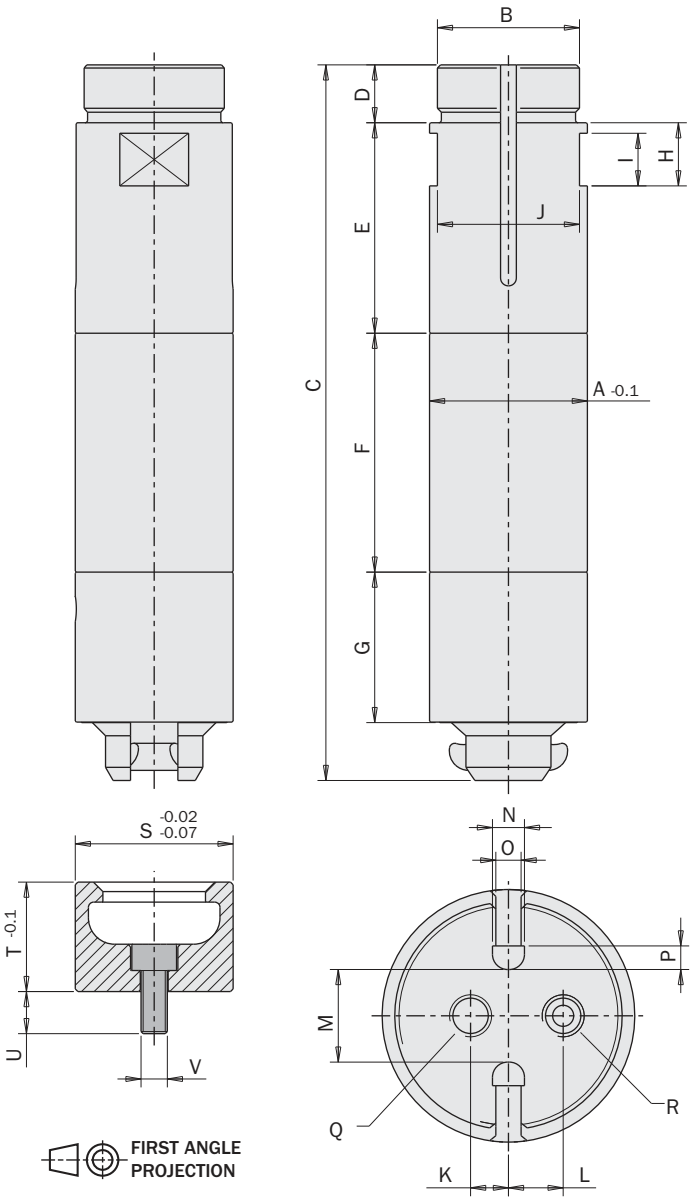
	AGG19-B	AGG21-B	AGG30-B
Massimo carico assiale senza aria compressa prima del rilascio *Maximum axial load without compressed air before releasing*	0 N	600 N	1400 N
Massimo carico assiale con aria compressa prima della rottura *Maximum axial load with compressed air before breakage*	2000 N	2000 N	5000 N
Pressione di esercizio *Pressure range*	2 ÷ 8 bar (NO)	4 ÷ 8 bar (NC)	4.5 ÷ 8 bar (NC)
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		



Dimensioni (mm)
Dimensions (mm)

	AGG19-B	AGG21-B	AGG30-B
A	Ø20	Ø20	Ø30
B	M17x1	M17x1	M27x1
C	70.5	96.5	136
D	8	8	11
E	32	28	40
F	4	34	45.4
G	19.5	19.5	28.6
H	10	10	12
I	8	8	10
J	18	18	27
K	0	2.8	4.5
L	-	4.6	6.5
M	-	6	11
N	-	3.8	3.8
O	-	3	3
P	-	2.8	2.8
Q	M5	M3	M5
R	-	M3	M5
Peso *Weight*	85 g	115 g	390 g

	AGG21-C	AGG30-C
S	Ø20	Ø30
T	15.3	20.8
U	6.7	8
V	M4	M5
Peso *Weight*	25 g	75 g







Pinza pneumatica per materozze, angolare autocentrante a due griffe serie AA

- A doppio effetto o con molla in apertura (-NO).
- Forza di serraggio molto elevata in rapporto al peso ed alle dimensioni.
- Varie possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw self-centering angular pneumatic sprue gripper series AA

- *Double acting or spring open (-NO).*
- *Very high gripping force related to the weight and dimensions.*
- *Different options for fastening.*
- *Optional magnetic sensors.*
- *Food grade grease NSF-H1.*



AA-22-NO



AA-23-NO



AA-25-NO



AA-26-NO



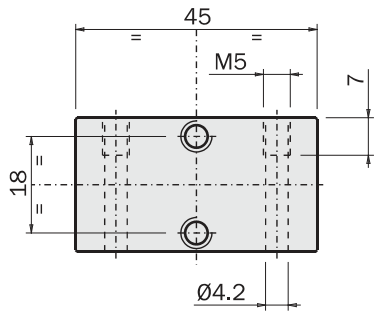
AA-35-NO

(*)
Il sensore SS3N203-G è incluso
The sensor SS3N203-G is included

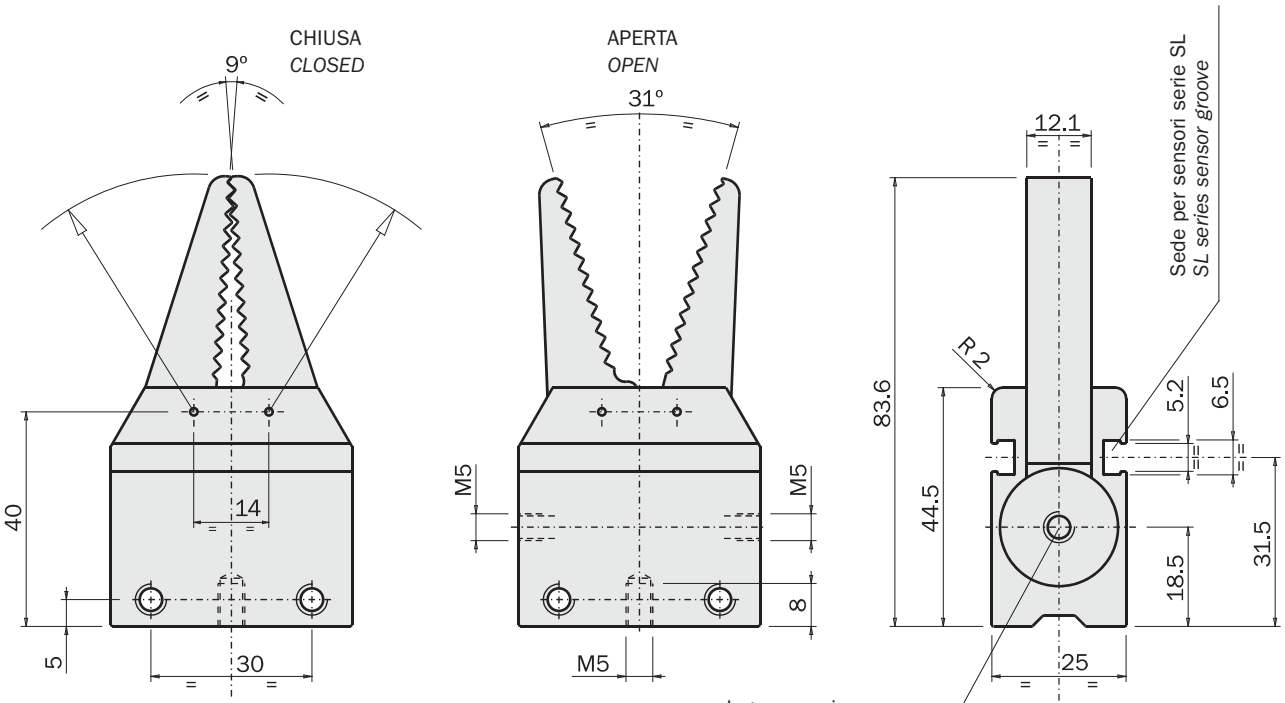
	AA-22	AA-22-NO	AA-23	AA-23-NO AA-25-NO	AA-26	AA-26-NO	AA-35	AA-35-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*							
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar							
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.							
Corsa *Stroke (±1°)*	2 x 20°							
Coppia di chiusura per griffa a 6 bar *Closing torque at 6 bar each jaw*	150 Ncm	125 Ncm	150 Ncm	125 Ncm	150 Ncm	125 Ncm	150 Ncm	125 Ncm
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*	300 Ncm	250 Ncm	300 Ncm	250 Ncm	300 Ncm	250 Ncm	300 Ncm	250 Ncm
Coppia di apertura per griffa a 6 bar *Opening torque at 6 bar each jaw*	150 Ncm	175 Ncm	150 Ncm	175 Ncm	150 Ncm	175 Ncm	150 Ncm	175 Ncm
Coppia di apertura totale a 6 bar *Total opening torque at 6 bar*	300 Ncm	350 Ncm	300 Ncm	350 Ncm	300 Ncm	350 Ncm	300 Ncm	350 Ncm
Coppia di apertura per griffa a 0 bar *Opening torque at 0 bar each jaw*	0 Ncm	25 Ncm	0 Ncm	25 Ncm	0 Ncm	25 Ncm	0 Ncm	25 Ncm
Coppia di apertura totale a 0 bar *Total opening torque at 0 bar*	0 Ncm	50 Ncm	0 Ncm	50 Ncm	0 Ncm	50 Ncm	0 Ncm	50 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	5 cm^3	2 cm^3	5 cm^3	2 cm^3	5 cm^3	2 cm^3	5 cm^3	2 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s
Peso *Weight*	115 g	115 g	100 g	100 g	120 g	120 g	140 g	140 g

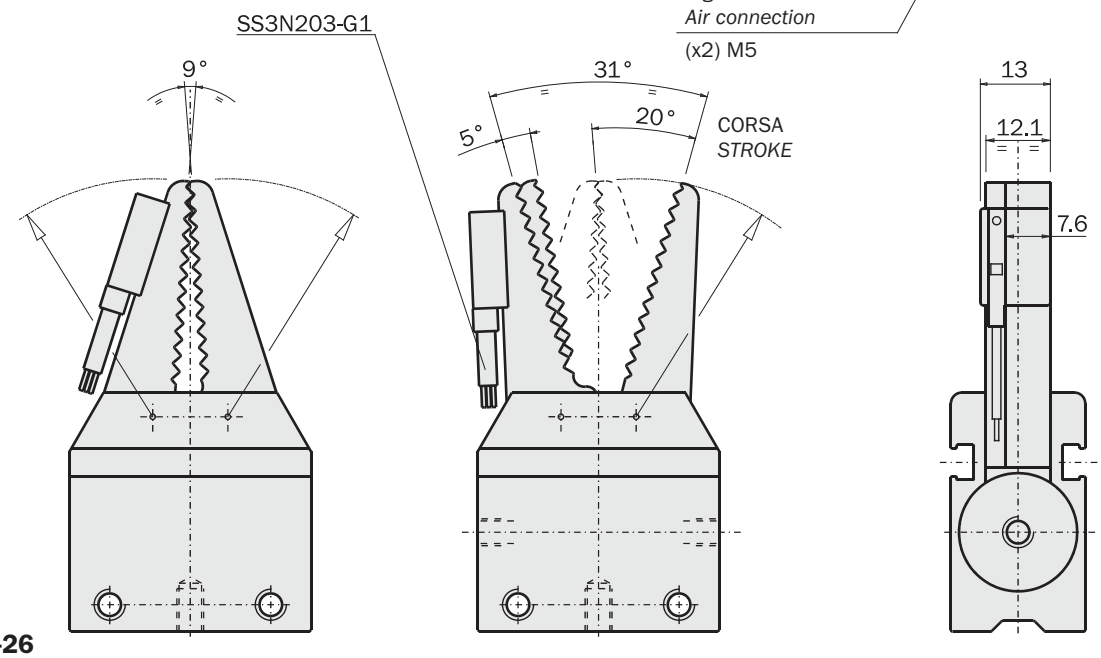
Dimensioni (mm)
Dimensions (mm)

AA-22
AA-22-NO
AA-26
AA-26-NO



AA-22



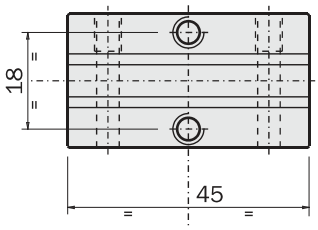


AA-26

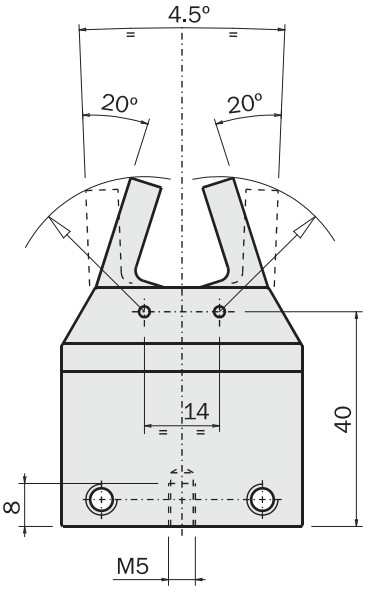
FIRST ANGLE PROJECTION

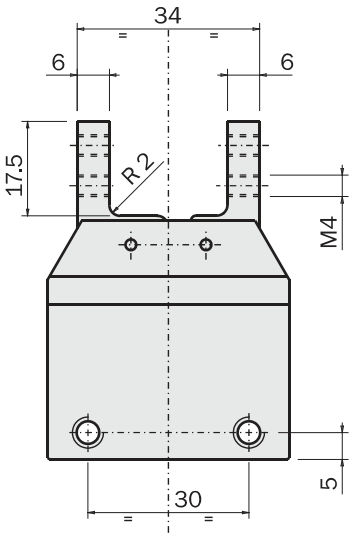
Dimensioni (mm)
Dimensions (mm)

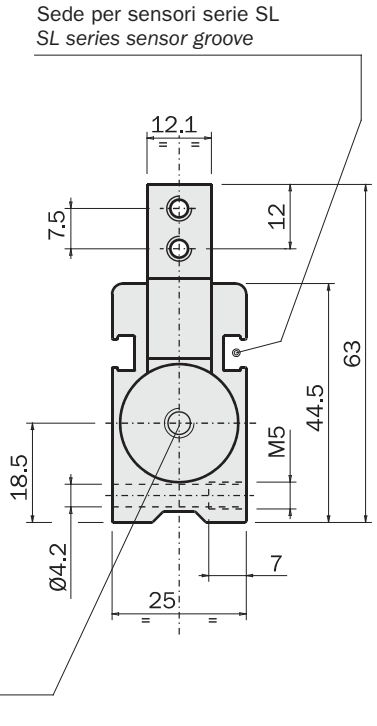
AA-23
AA-23-NO

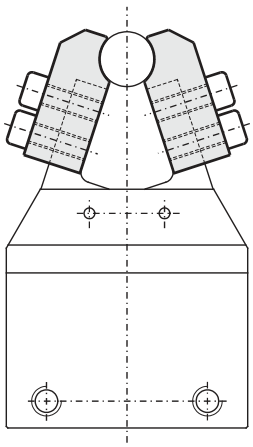


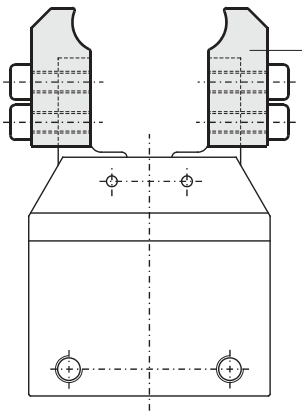
APERTA
OPEN











FIRST ANGLE PROJECTION

07/2026

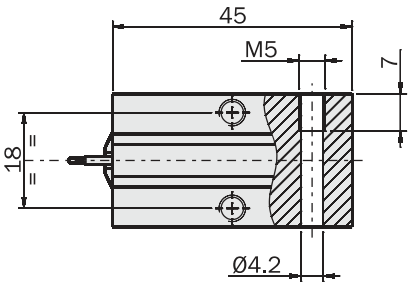
Dimensioni (mm)
Dimensions (mm)

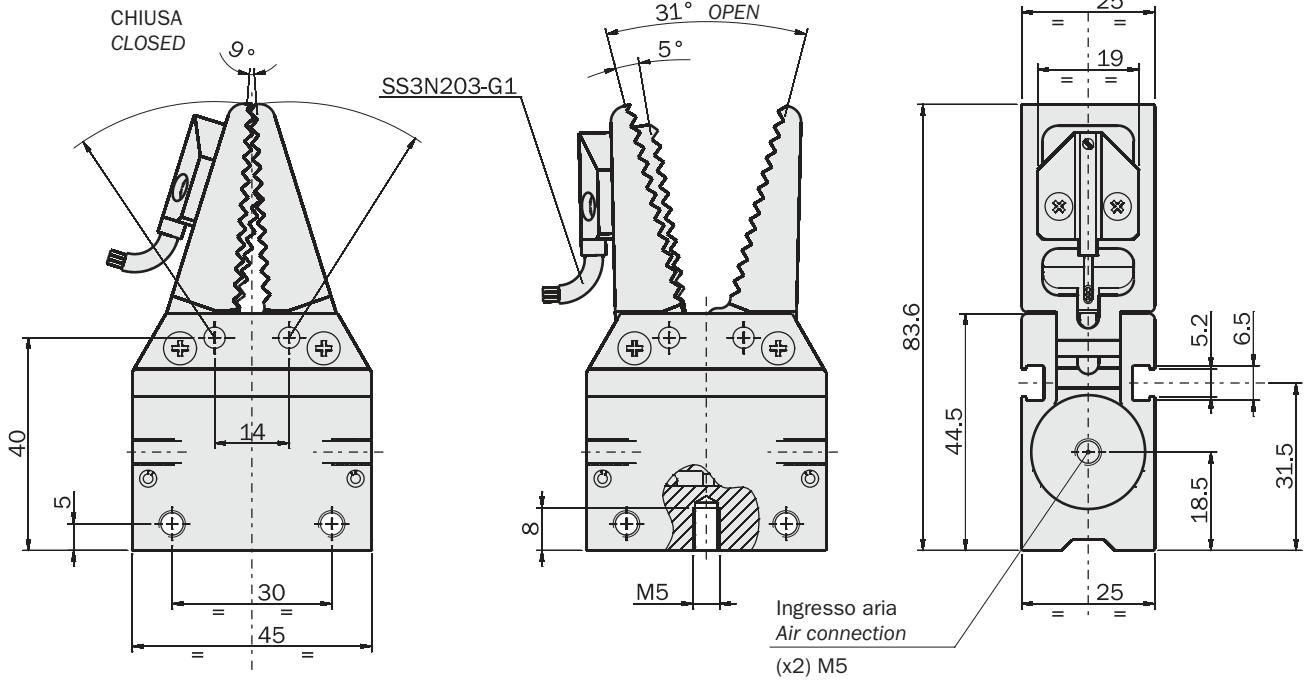
Dita più larghe e scanalate per una presa migliore
Wider, grooved fingers for a better gripping

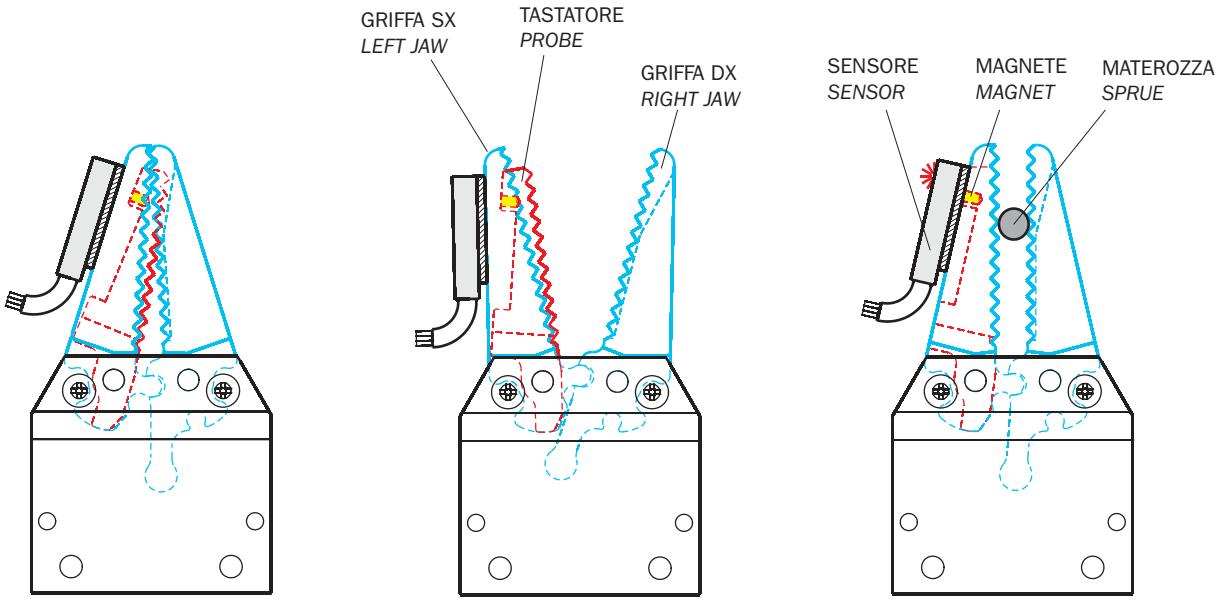
AA-35
AA-35-N0



FIRST ANGLE PROJECTION

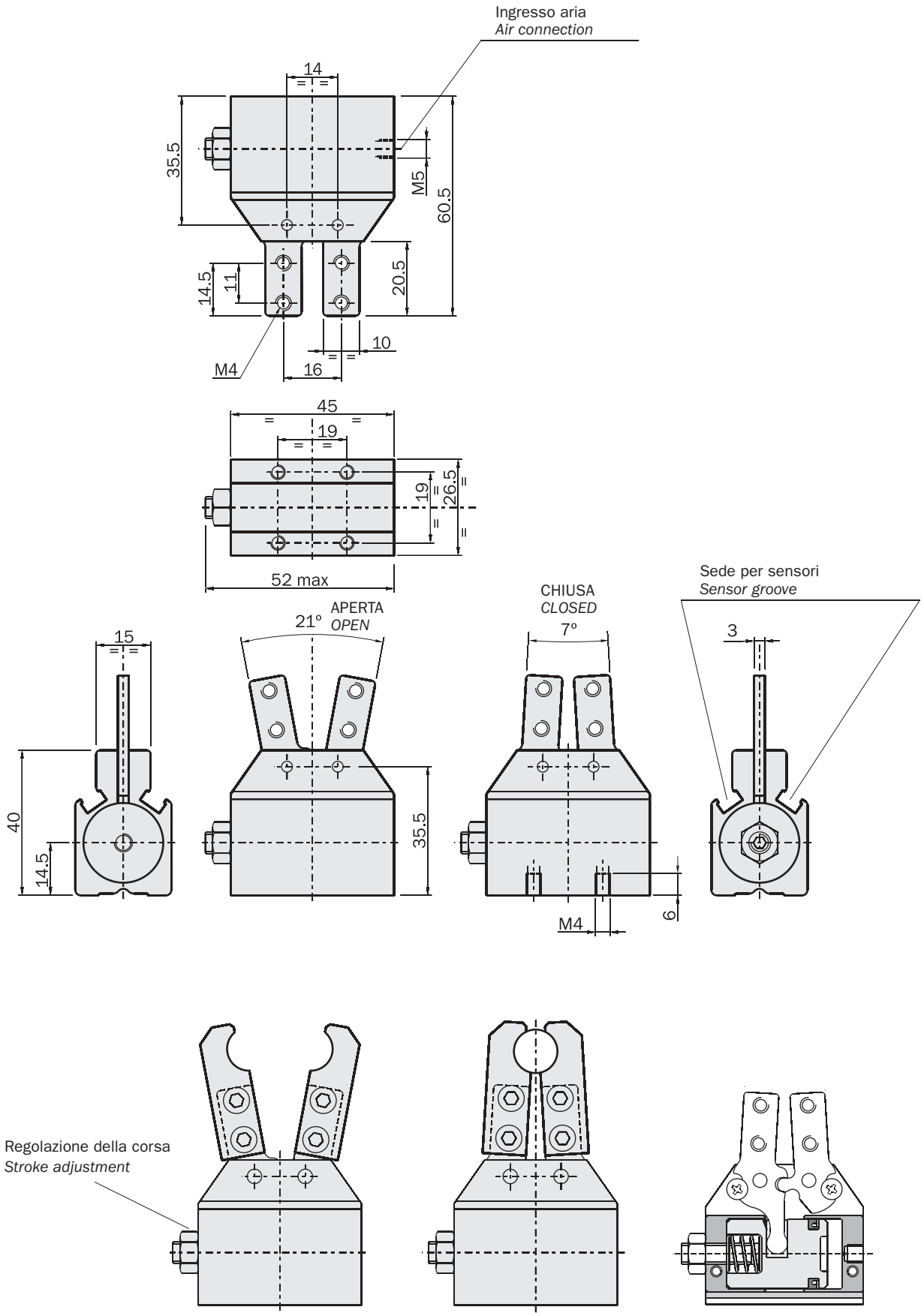






Dimensioni (mm)
Dimensions (mm)

AA-25-N0



FIRST ANGLE PROJECTION

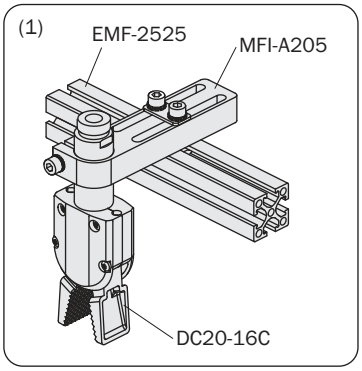
Pinza pneumatica per materozze, angolare autocentrante a due griffe, serie DC

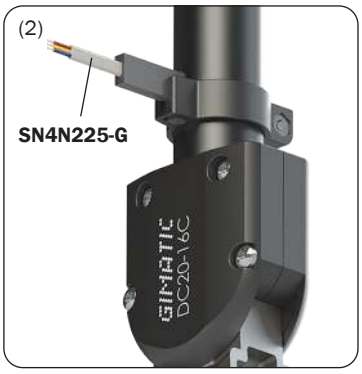
- Azionamento a semplice effetto con apertura a molla.
- Vari accessori disponibili per il fissaggio (1).
- Griffe in acciaio.
- Corpo composito in plastica, acciaio, alluminio.
- Grasso alimentare NSF-H1.
- Sensori e fascette opzionali (2).

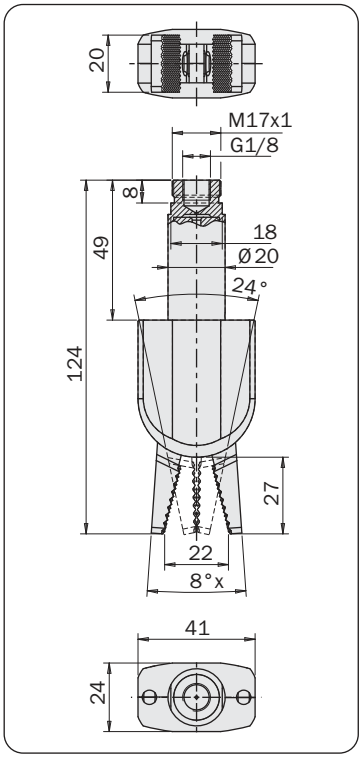
2-jaw self-centering angular pneumatic sprue gripper, series DC

- *Single acting with spring opening (1).*
- *Several mounting accessories.*
- *Steel jaws.*
- *Plastic-steel-aluminium composite body.*
- *NSF-H1 food-grade grease.*
- *Optional sensors and clamps (2).*









	DC20-16C
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*
Pressione di esercizio *Pressure range*	2 ÷ 8 bar
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.
Corsa *Stroke*	2 x 15°
Coppia di chiusura per griffa a 6 bar *Closing torque at 6 bar each jaw*	300 Ncm
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*	600 Ncm
Coppia di apertura per griffa a 0 bar *Opening torque at 0 bar each jaw*	20 Ncm
Coppia di apertura totale a 0 bar *Total opening torque at 0 bar*	40 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	3.6 cm^3
Tempo di chiusura *Closing time*	0.02 s
Peso *Weight*	148 g

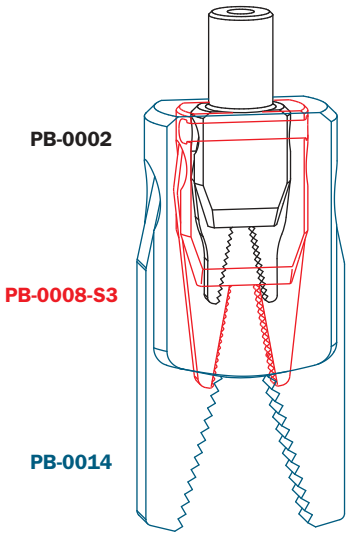
PB

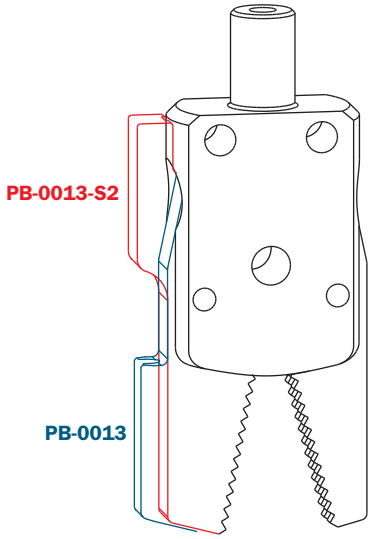
Pinza pneumatica per materozze, angolare non autocentrante a due griffe serie PB

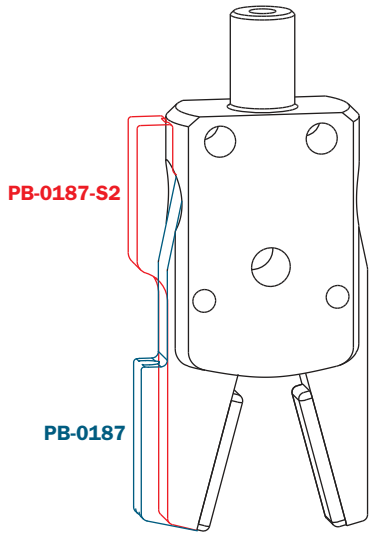
- Grasso alimentare NSF-H1.
- Tre taglie disponibili con alesaggio 6mm, 8mm, 12mm.
- Sensore sulla punta, o sul fondo della griffa.
- Griffe con denti (per presa materozze), o con pastiglie (per contatto morbido).
- Griffe in alluminio o acciaio.

2-jaw non-selfcentering angular pneumatic sprue gripper series PB

- *NSF-H1 food-grade grease.*
- *Three available sizes with piston bore 6mm, 8mm, 12mm.*
- *Sensor on the tip of the jaw, or on the tail.*
- *Jaws with teeth (for sprue gripping), or with pads (for soft contact).*
- *Jaws in aluminium or steel.*







	PB-0002	PB-0007-S3	PB-0008-S3	PB-0013	PB-0013-S2	PB-0170	PB-0014	PB-0015	PB-0017	PB-0160 PB-0181 PB-0182 PB-0140 PB-0150	PB-0180	PB-0180-SV	PB-0180-S2	PB-0187-S2 PB-0187	PB-0187-SV
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*														
Pressione di esercizio *Pressure range*	4 ÷ 8 bar														
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.														
Peso *Weight*	7 g	17 g	18 g	55 g	63 g	57g	50g	50 g	45 g	75 g	60 g	74 g	70 g	58 g	63 g
Corsa *Stroke (±2°)*	2x10°			2x15°				2x16°	2x15°						
Consumo d'aria per ciclo *Cycle air consumption*	0.3 cm^3			1.2 cm^3				1.5 cm^3	1.2 cm^3						
Coppia di serraggio per griffa in chiusura a 6 bar *Closing gripping torque at 6 bar each jaw*	10 Ncm	24 Ncm		80 Ncm				60 Ncm	80 Ncm						
Coppia per griffa in apertura (a 6 bar) *Opening gripping torque (at 6 bar) each jaw*	1 Ncm	2 Ncm		5 Ncm				5 Ncm (25 Ncm)	5 Ncm						
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz														
Tempo di chiusura senza carico *Closing time without load*	0.01 s														

07/2026

PB-0002

- Alesaggio: 6mm.
- 8mm di spessore.
- A semplice effetto con molla in apertura.

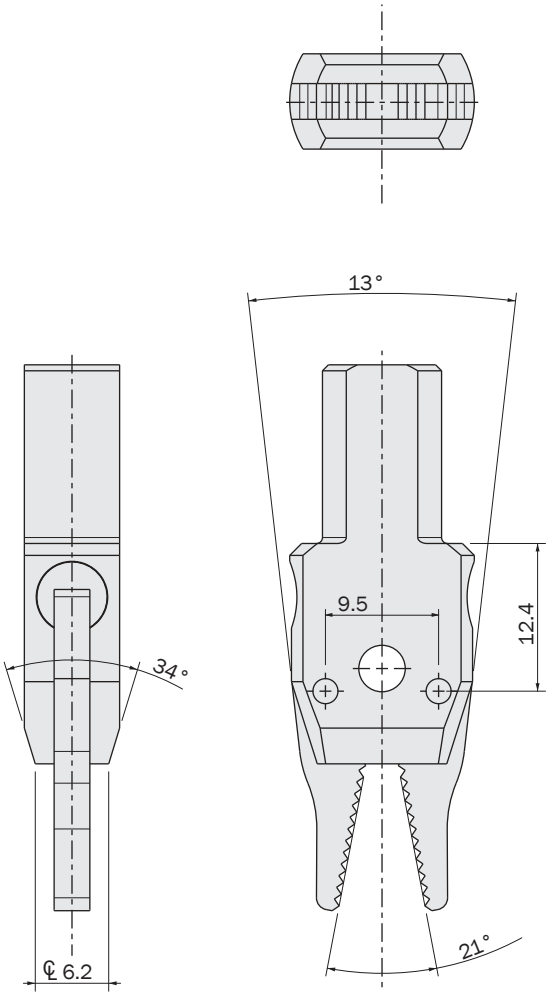
PB-0002

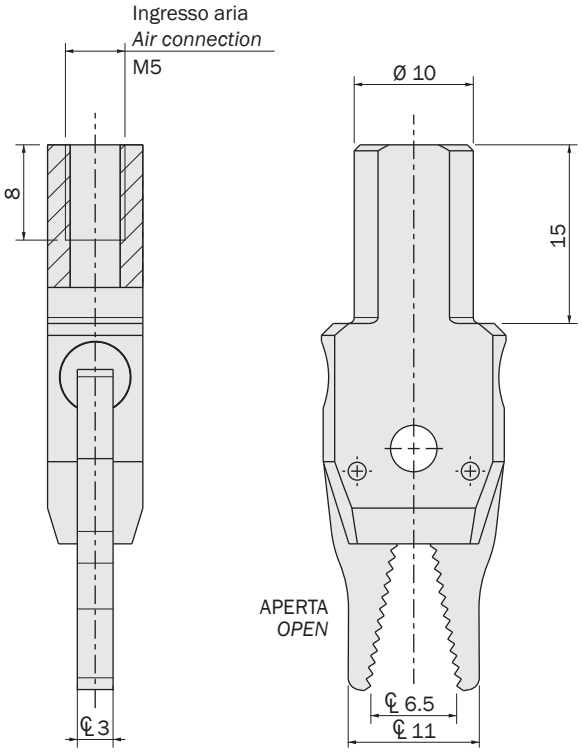
- *Piston bore: 6mm.*
- *8mm thickness.*
- *Single-acting with opening spring.*

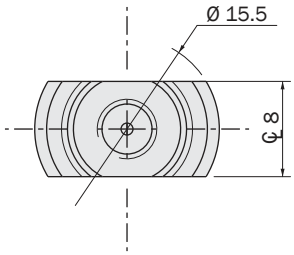
Dimensioni (mm)

Dimensions (mm)

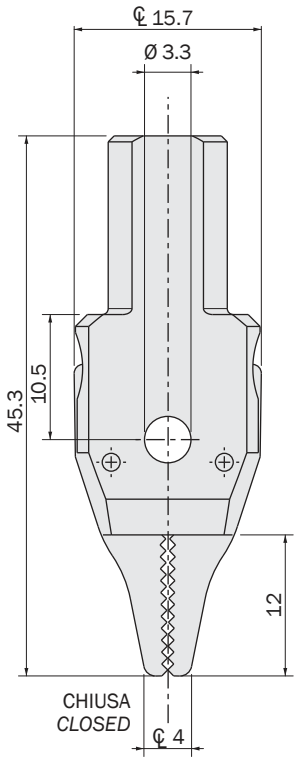
FIRST ANGLE PROJECTION











PB-0007-S3

- Alesaggio: 8mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Predisposta per sensore magnetico programmabile PRO-SSR.
- Spessore minimo rilevabile: 2mm.

PB-0007-S3

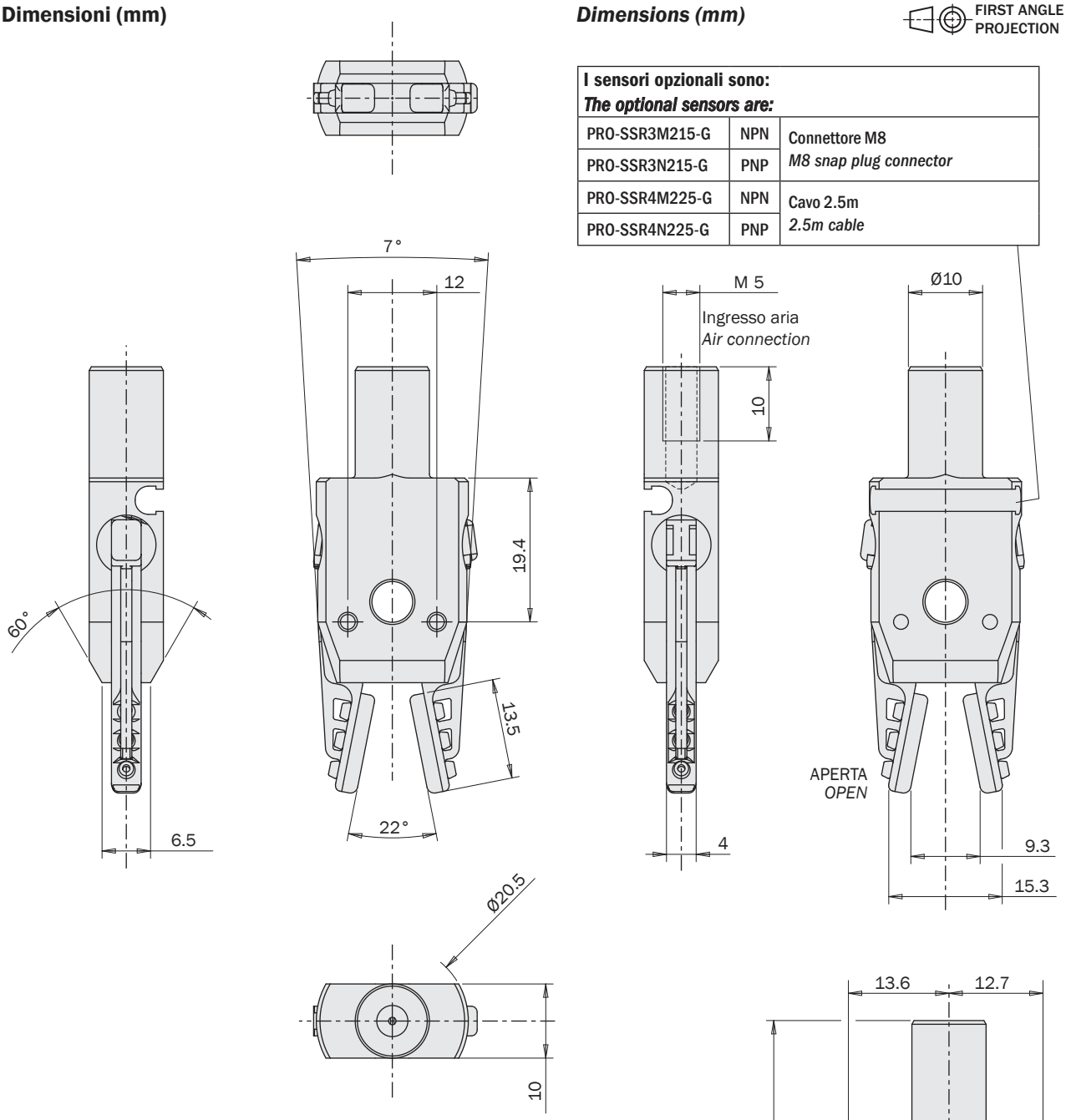
- *Piston bore: 8mm.*
- *Single-acting with opening spring.*
- *Rubber (HNBR) pads for a soft contact.*
- *Ready for PRO-SSR programmable magnetic sensor.*
- *Minimum detectable thickness: 2mm.*

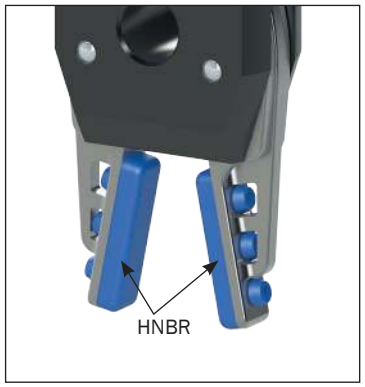
Dimensioni (mm)

Dimensions (mm)

FIRST ANGLE PROJECTION

I sensori opzionali sono: *The optional sensors are:*		
PRO-SSR3M215-G	NPN	Connettore M8 *M8 snap plug connector*
PRO-SSR3N215-G	PNP	
PRO-SSR4M225-G	NPN	Cavo 2.5m *2.5m cable*
PRO-SSR4N225-G	PNP	







PB-0008-S3

- Alesaggio: 8mm.
- A semplice effetto con molla in apertura.
- Predisposta per sensore magnetico programmabile PRO-SSR.
- Spessore minimo rilevabile: 2mm.

PB-0008-S3

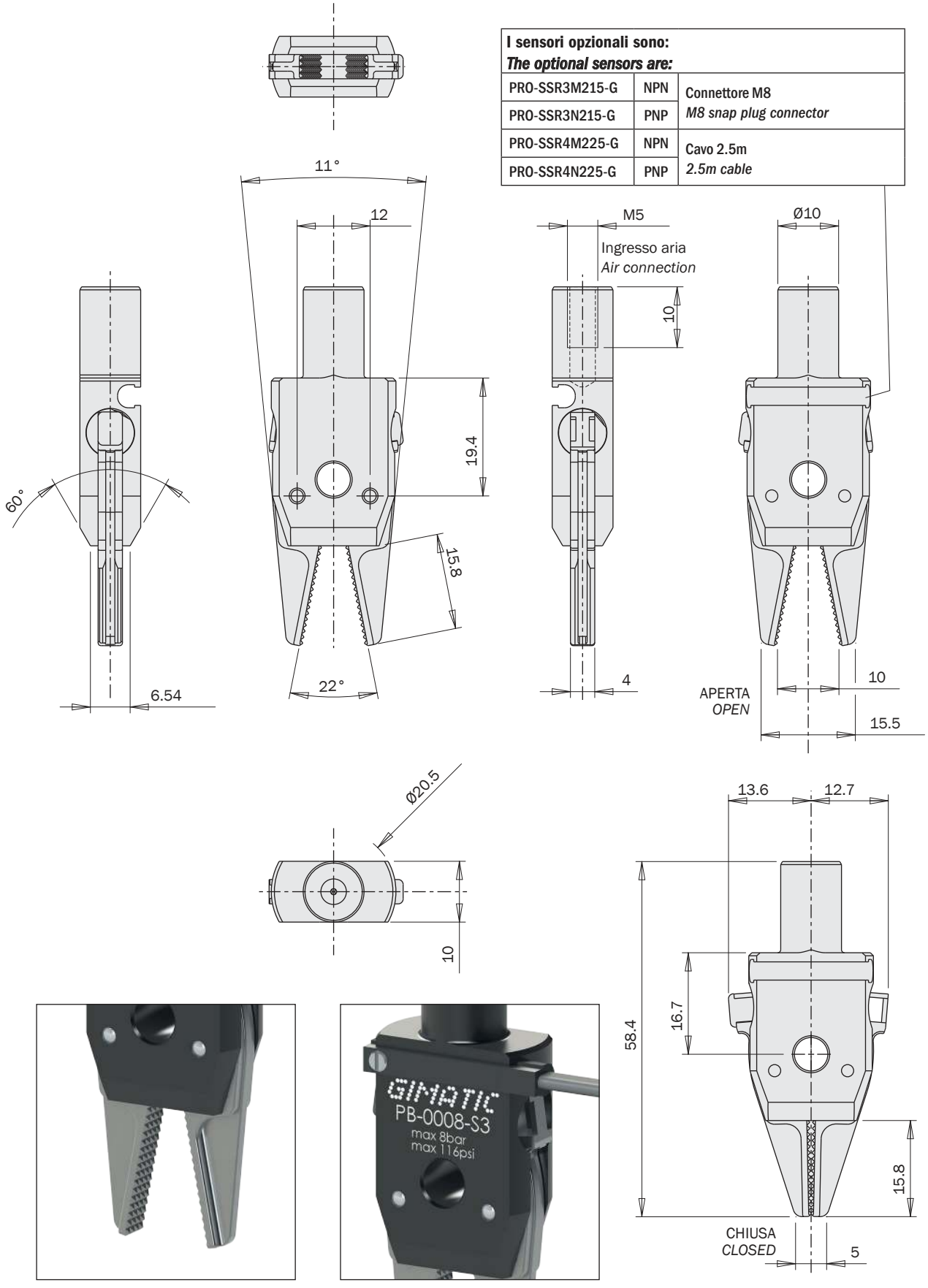
- *Piston bore: 8mm.*
- *Single-acting with opening spring.*
- *Ready for PRO-SSR programmable magnetic sensor.*
- *Minimum detectable thickness: 2mm.*

FIRST ANGLE PROJECTION

Dimensioni (mm)

Dimensions (mm)

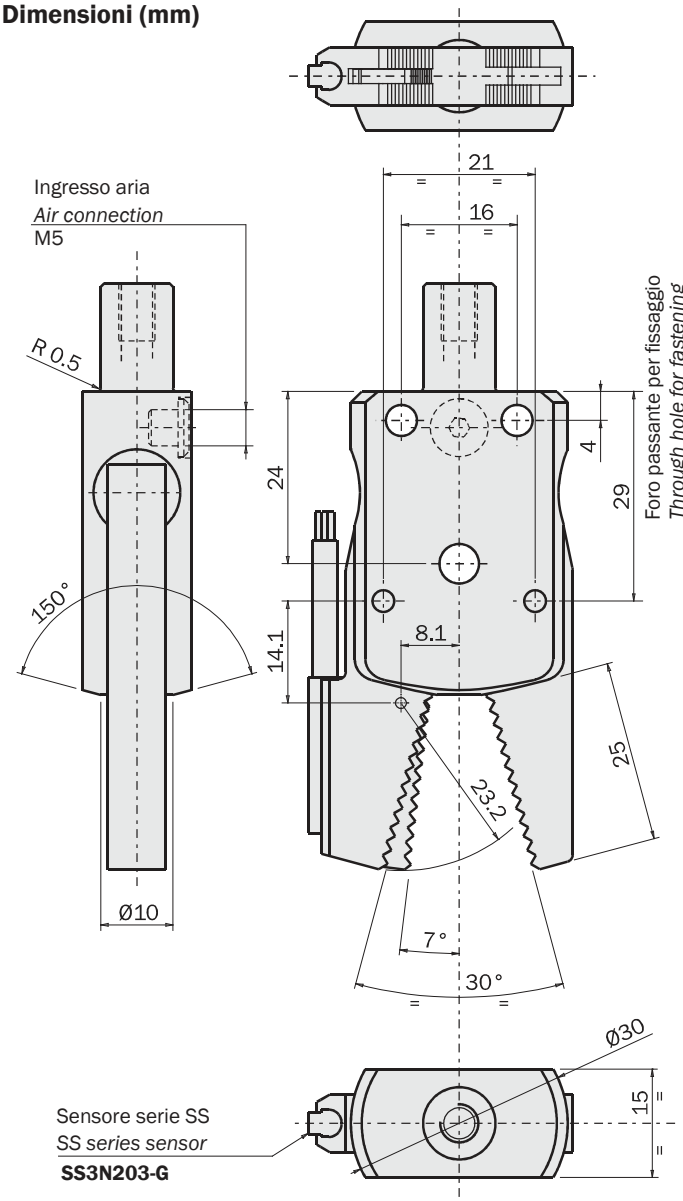
I sensori opzionali sono: *The optional sensors are:*		
PRO-SSR3M215-G	NPN	Connettore M8 *M8 snap plug connector*
PRO-SSR3N215-G	PNP	
PRO-SSR4M225-G	NPN	Cavo 2.5m *2.5m cable*
PRO-SSR4N225-G	PNP	



PB-0013

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.

Dimensioni (mm)



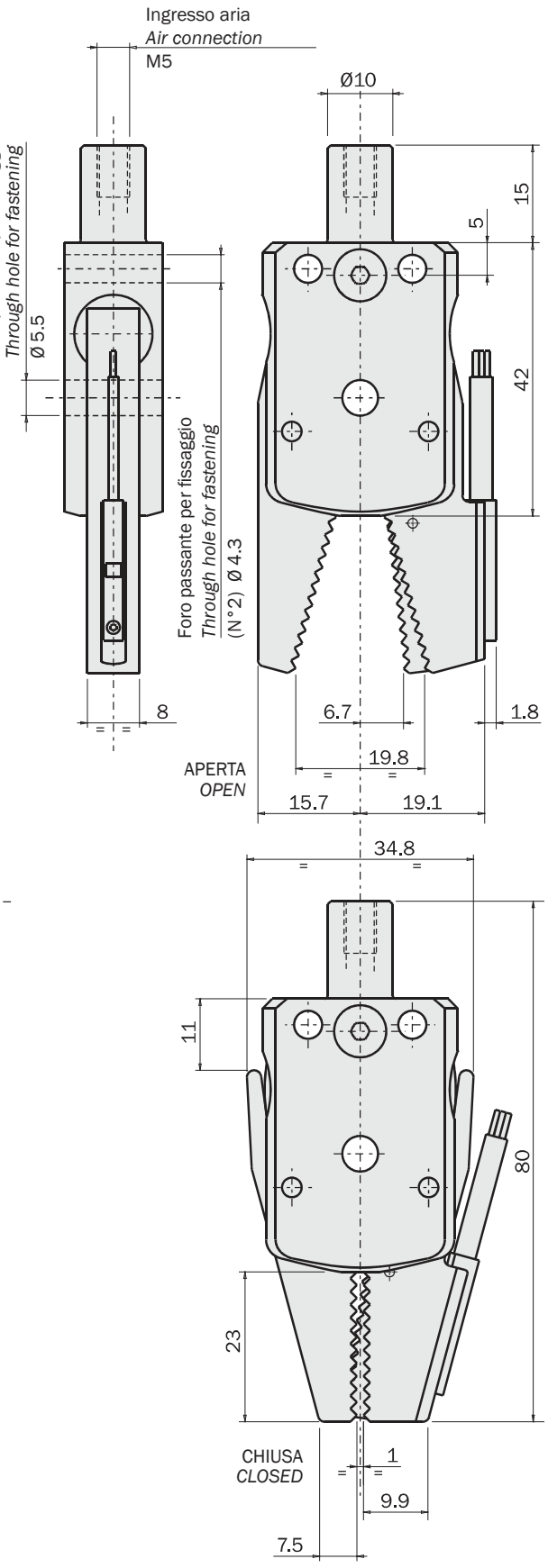


PB-0013

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Sensor SS3N203-G included and fitted to the tip of the jaw.*

Dimensions (mm)





PB-0013-S2

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

Dimensioni (mm)

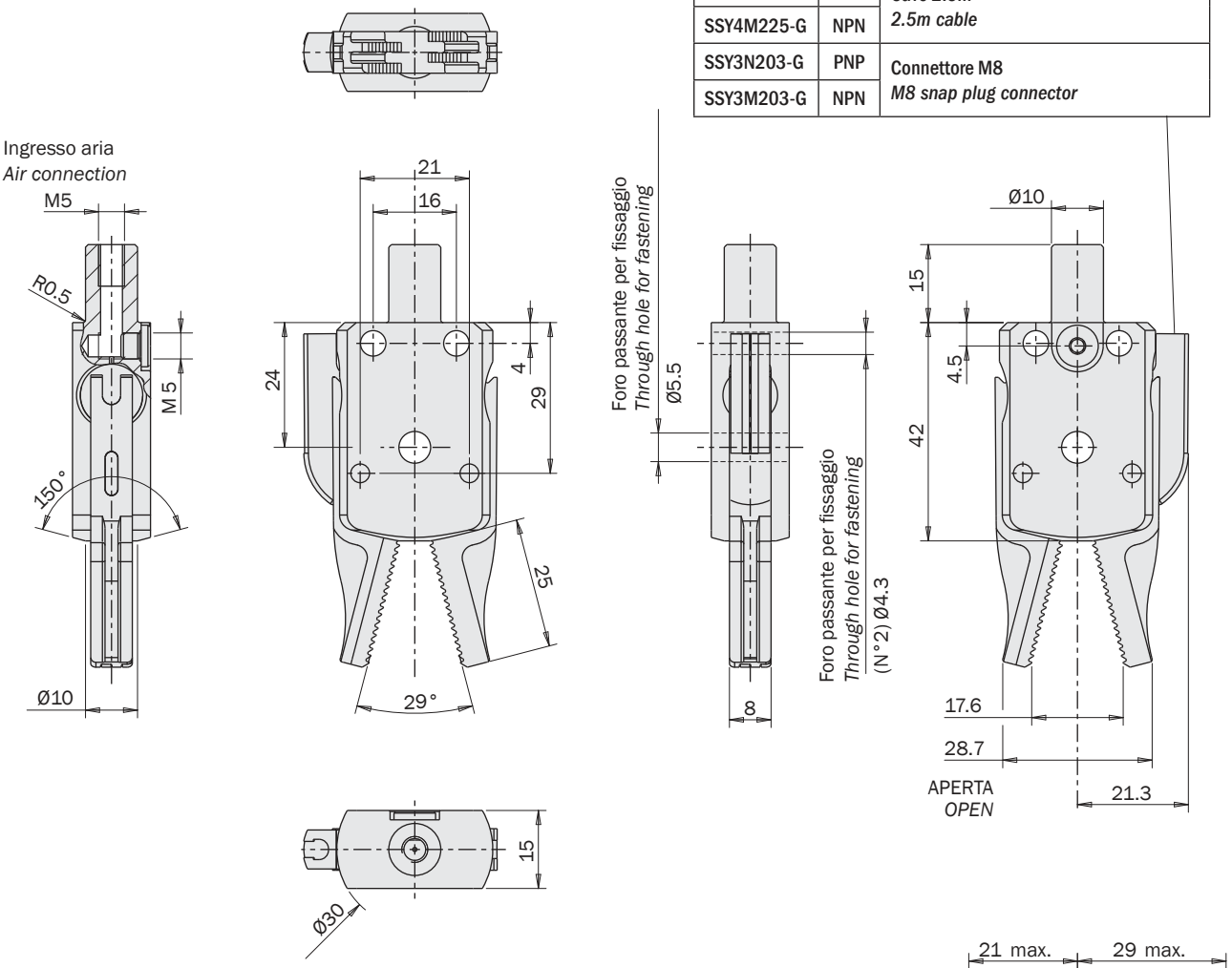
PB-0013-S2

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Optional magnetic sensor SSY with reduced encumbrance in the grip area.*

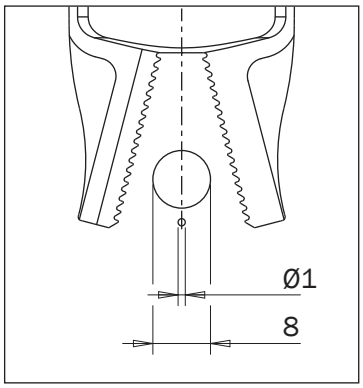
Dimensions (mm)

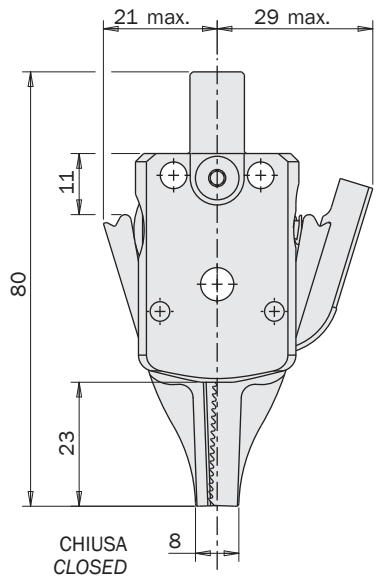
FIRST ANGLE PROJECTION

I sensori opzionali sono: ***The optional sensors are:***		
SSY4N225-G	PNP	Cavo 2.5m *2.5m cable*
SSY4M225-G	NPN	
SSY3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SSY3M203-G	NPN	









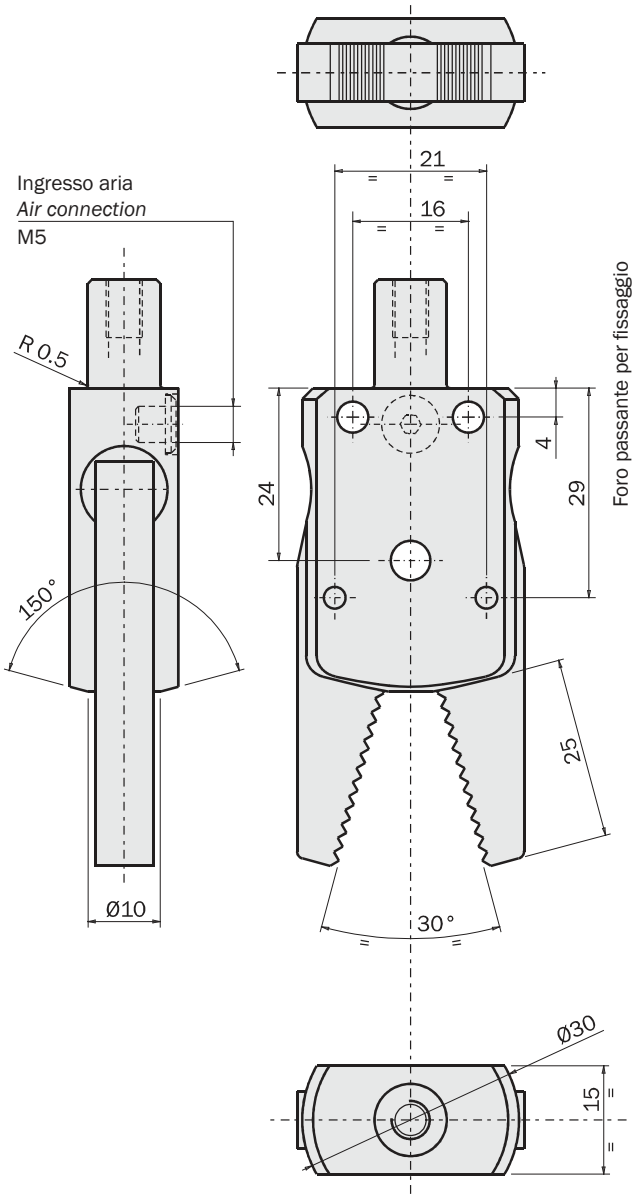
PB-0014

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.

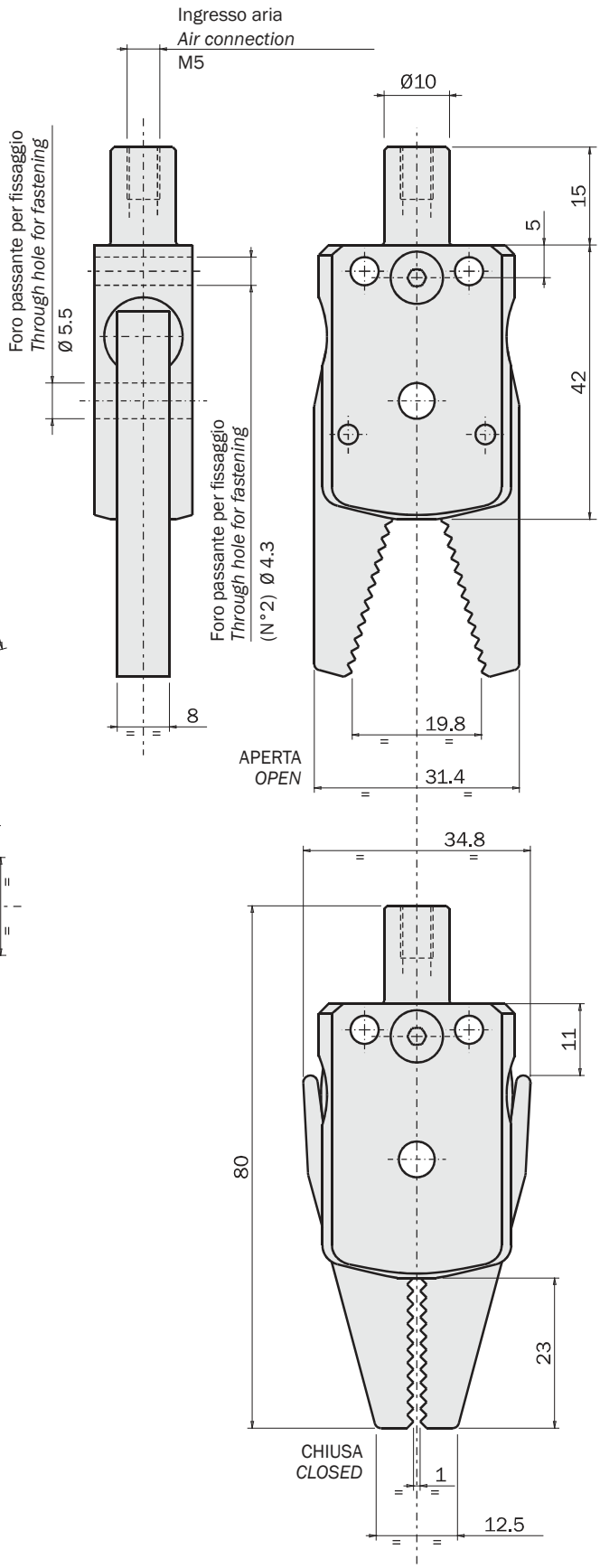
PB-0014

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*

Dimensioni (mm)



Dimensions (mm)





FIRST ANGLE PROJECTION

PB-0015

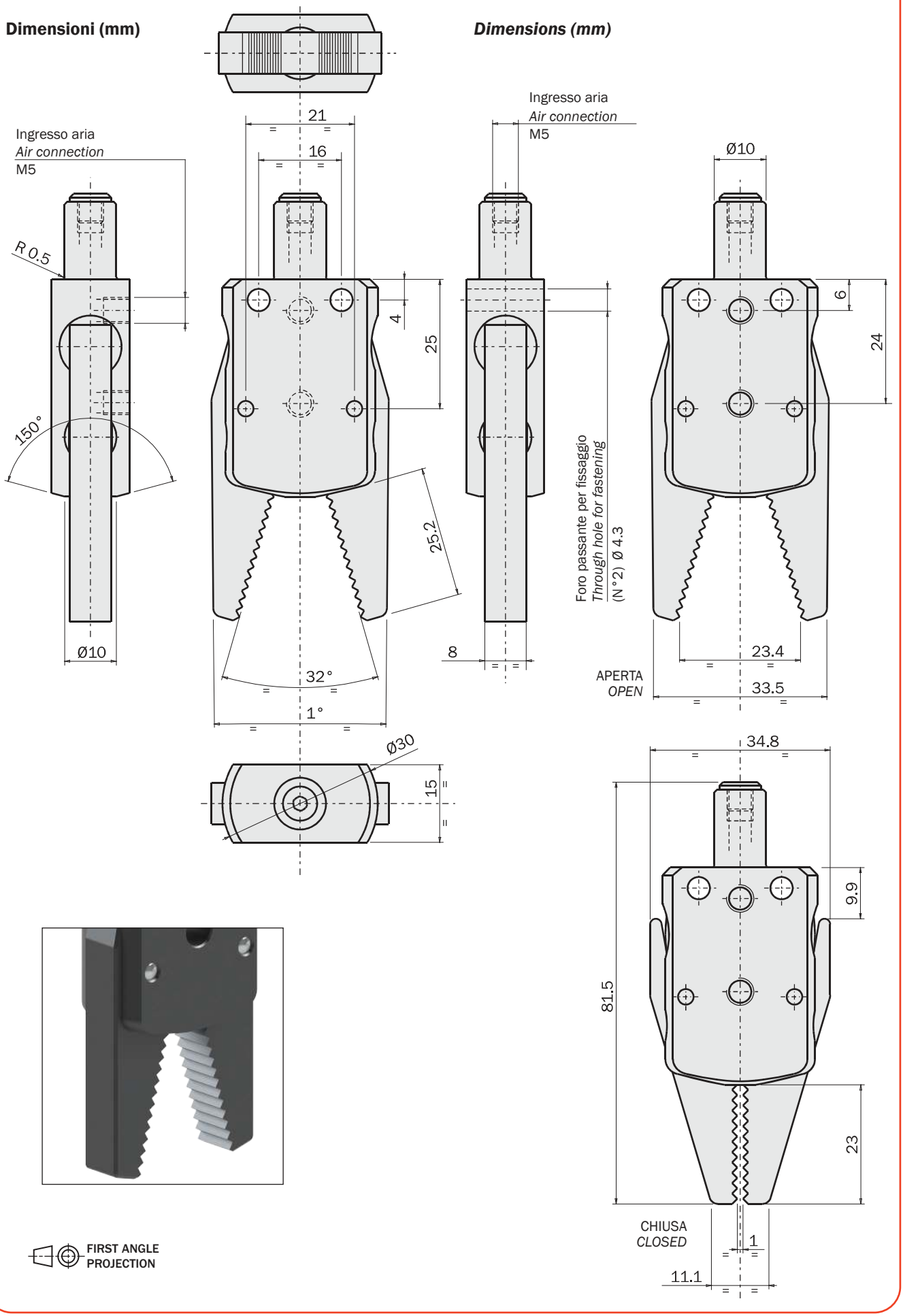
- Alesaggio: 12mm.
- A doppio effetto con molla in apertura.

PB-0015

- *Piston bore: 12mm.*
- *Double-acting with opening spring.*

Dimensioni (mm)

Dimensions (mm)



FIRST ANGLE PROJECTION

07/2026

PB-0017

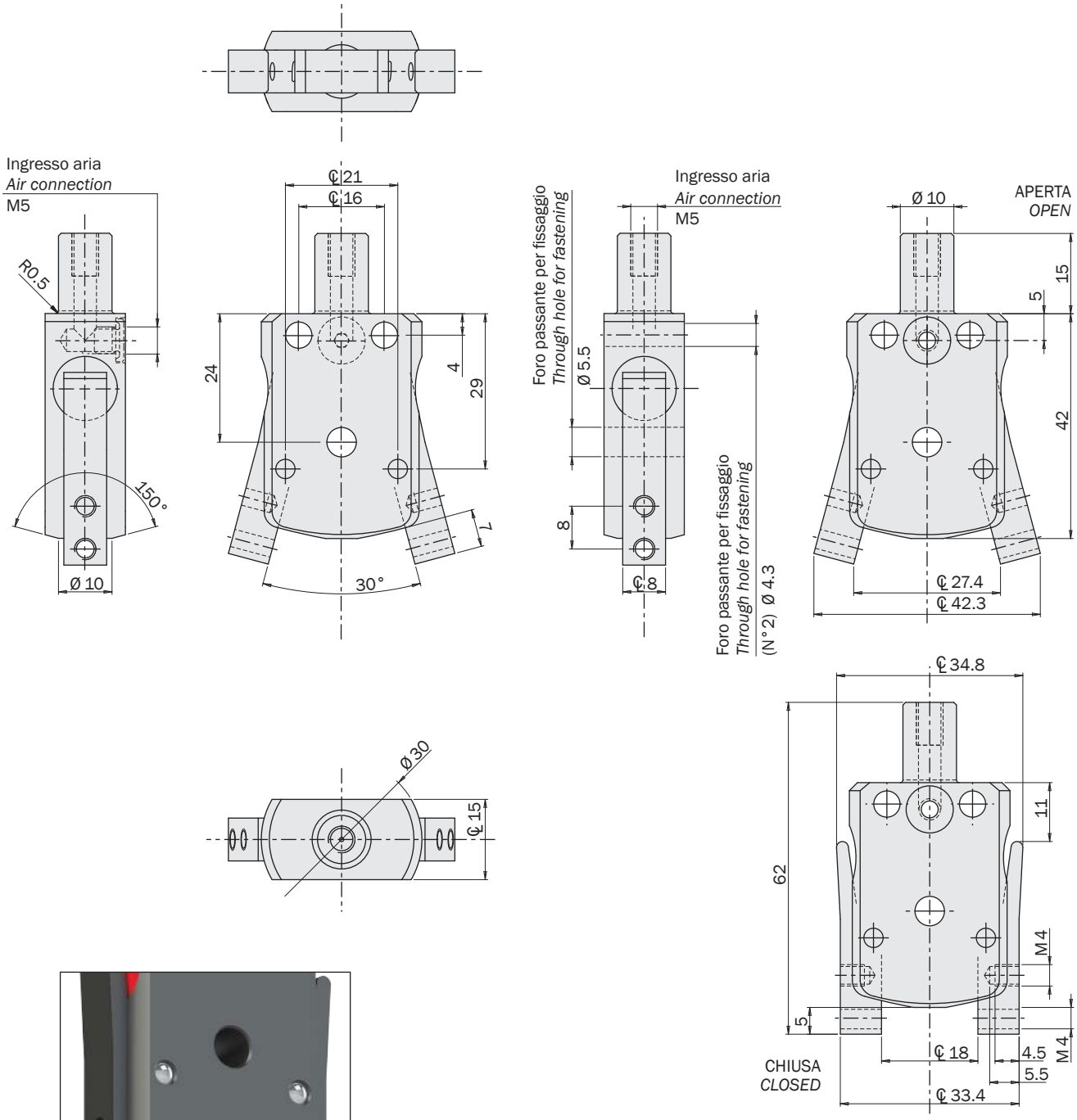
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe personalizzabili.

Dimensioni (mm)

PB-0017

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Custom jaws.*

Dimensions (mm)





FIRST ANGLE PROJECTION

07/2026

PB-0140

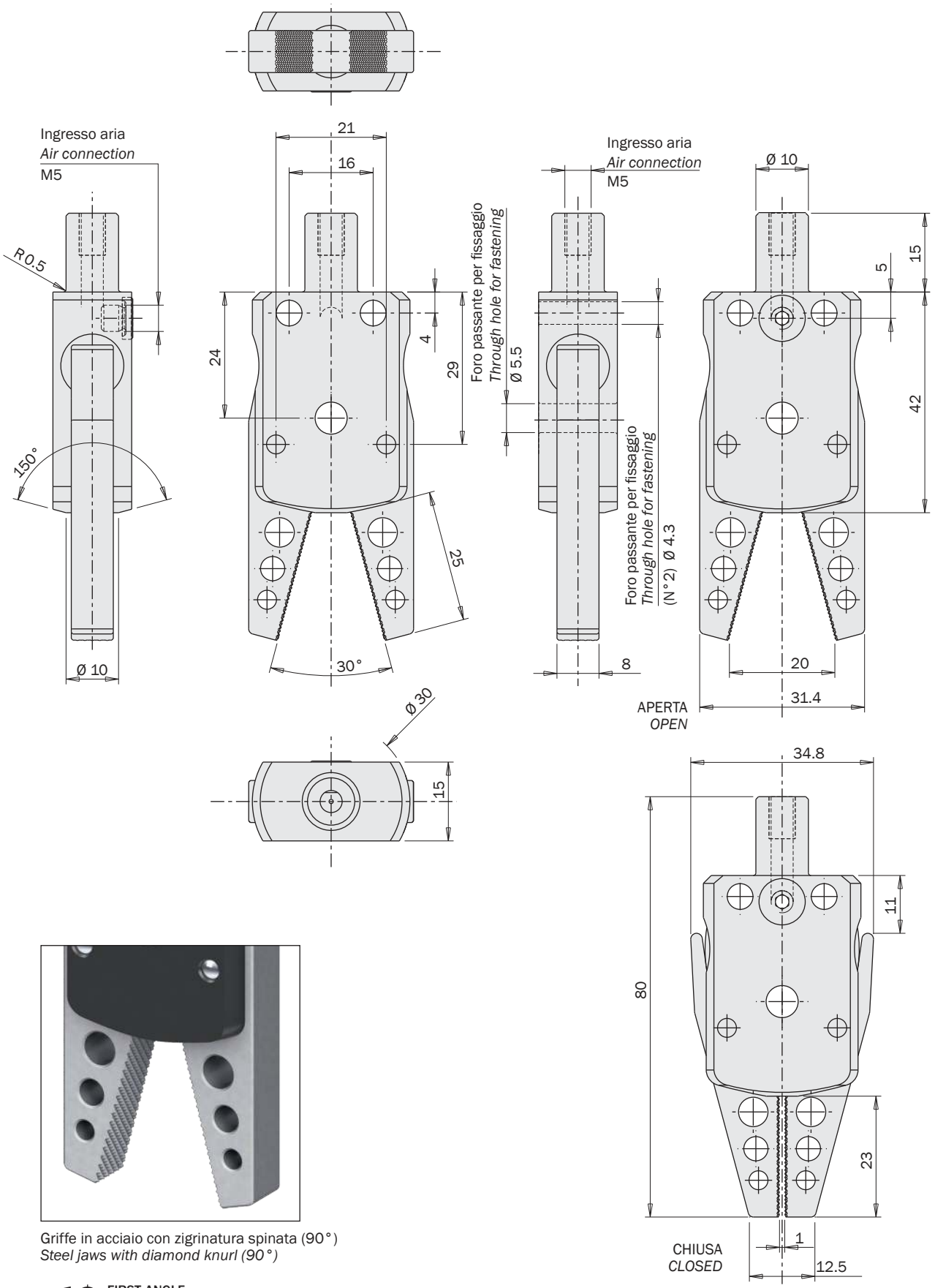
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe in acciaio.

PB-0140

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Steel jaws.*

Dimensioni (mm)

Dimensions (mm)



Griffe in acciaio con zigrinatura spinata (90°)
Steel jaws with diamond knurl (90°)

FIRST ANGLE PROJECTION

07/2026

PB-0150

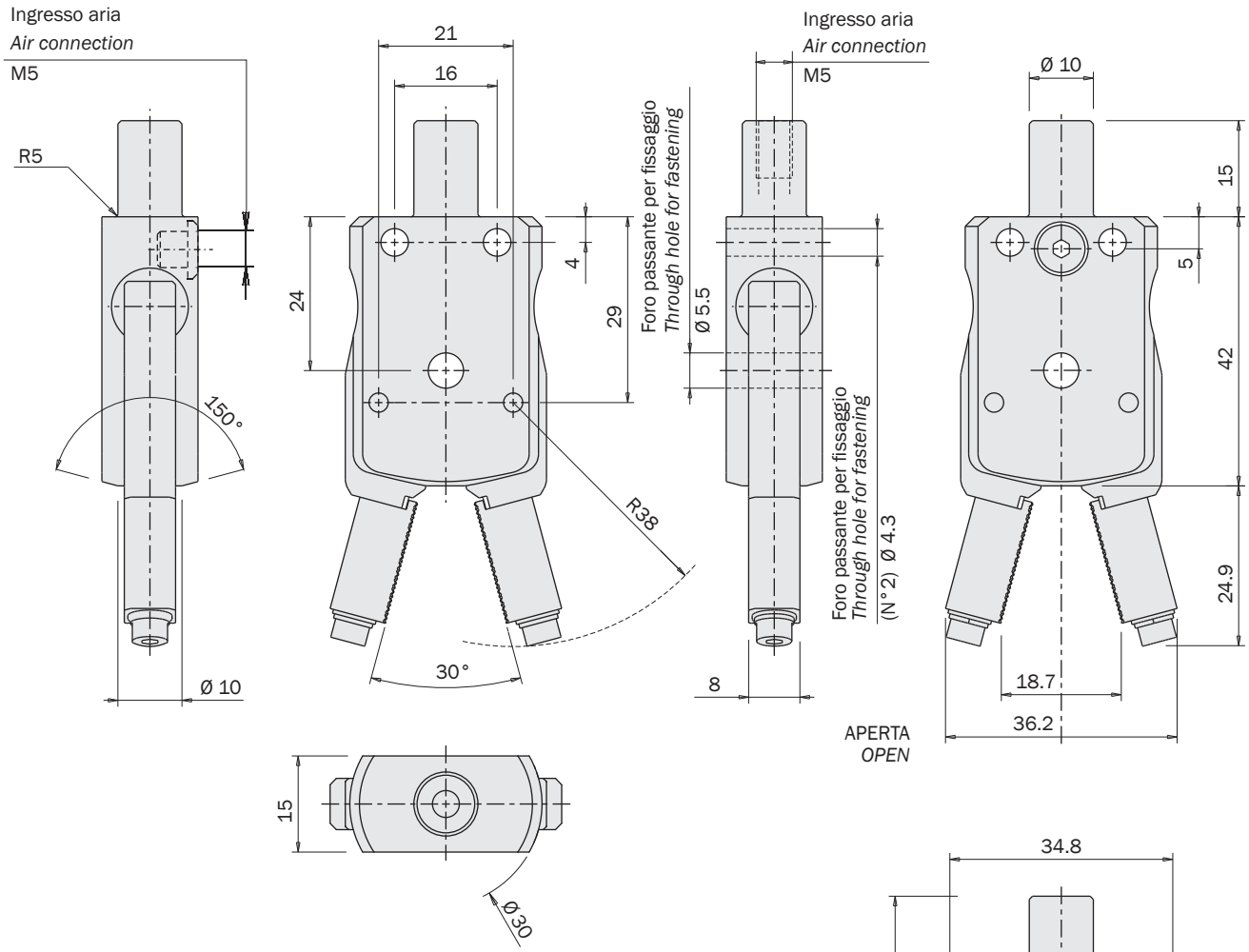
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe oscillanti per materozze coniche.

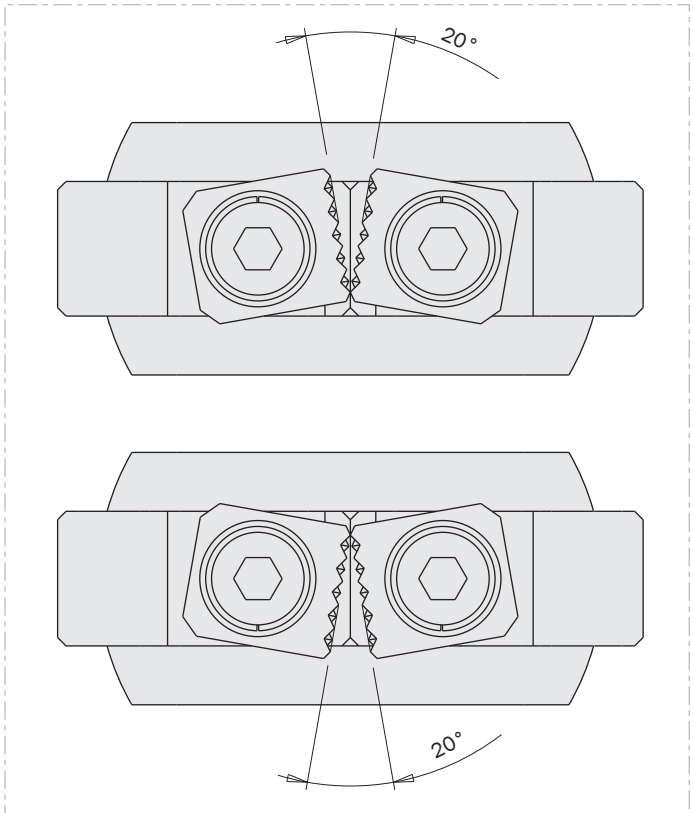
PB-0150

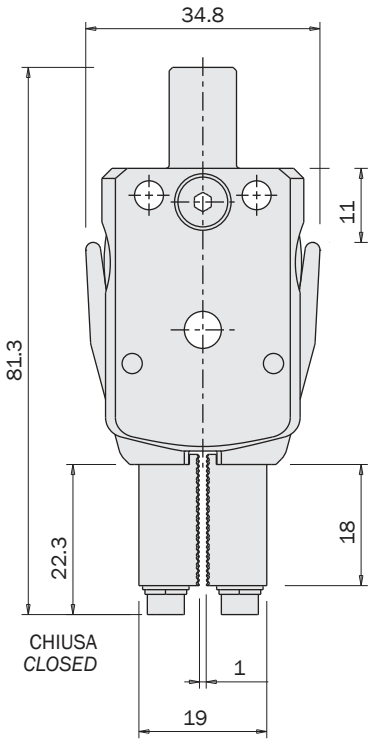
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Swiveling jaws for conical sprues.*

Dimensioni (mm)

Dimensions (mm)







FIRST ANGLE PROJECTION

07/2026

PB-0160

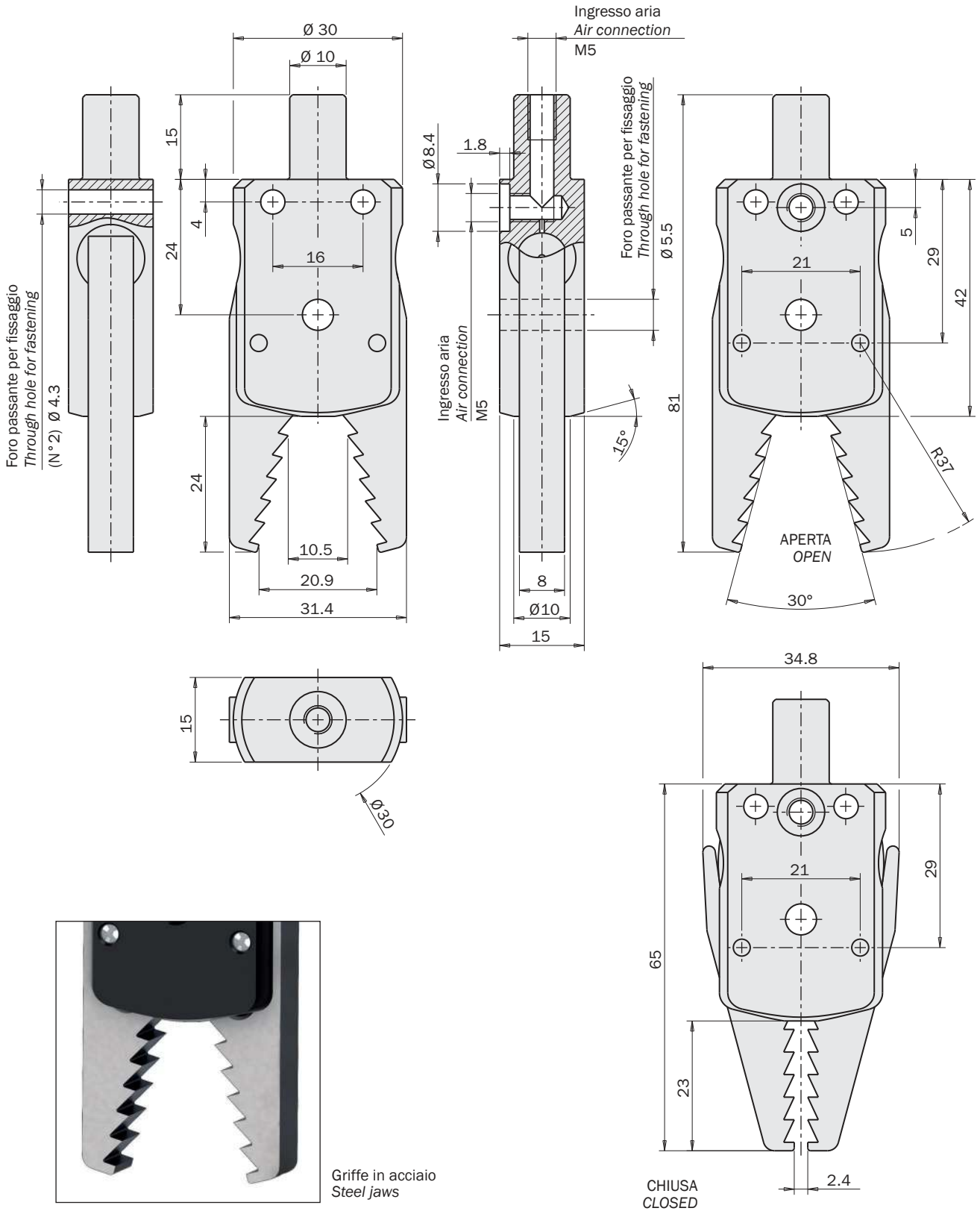
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe in acciaio.

PB-0160

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Steel jaws.*

Dimensioni (mm)

Dimensions (mm)



Griffe in acciaio
Steel jaws

FIRST ANGLE PROJECTION

PB-0170

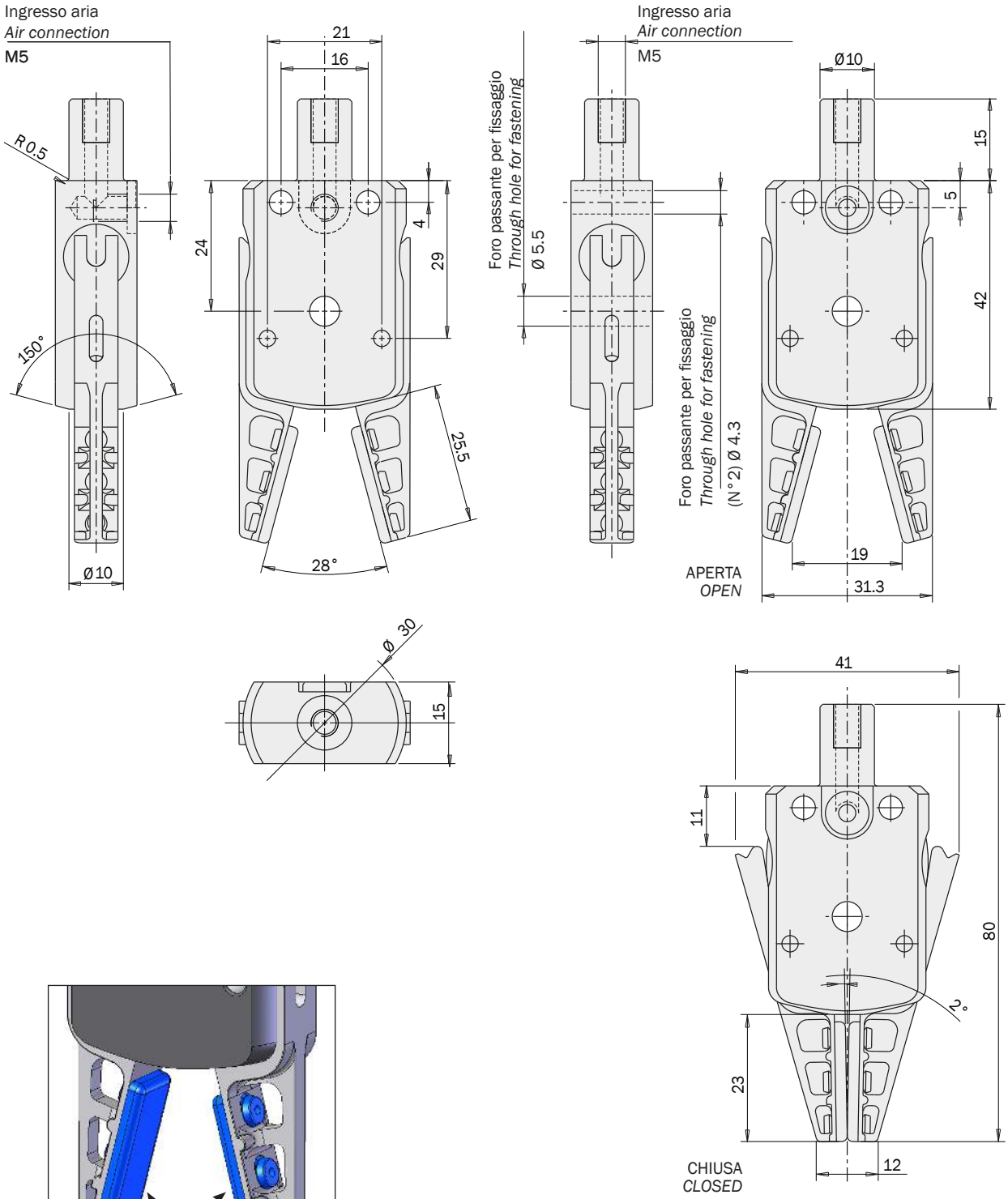
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.

PB-0170

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Rubber (HNBR) pads for a soft contact.*

Dimensioni (mm)

Dimensions (mm)



FIRST ANGLE PROJECTION

PB-0180

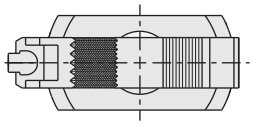
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Tastatore in acciaio.

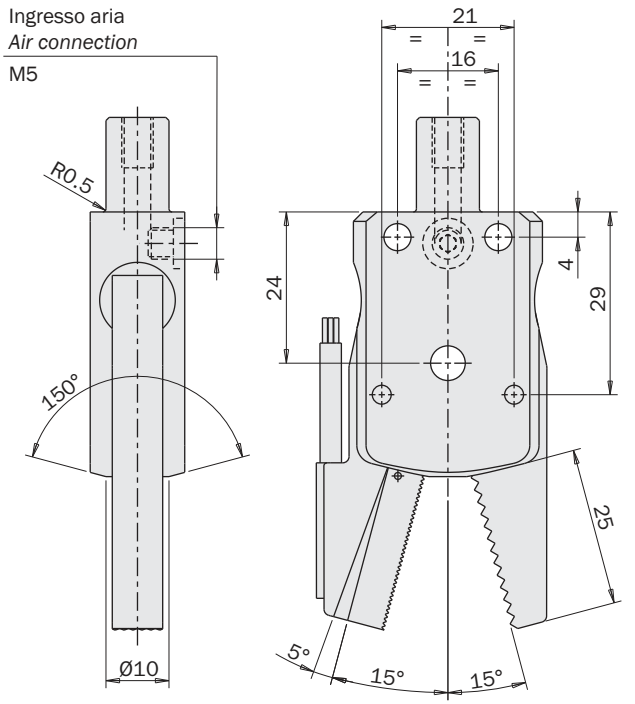
PB-0180

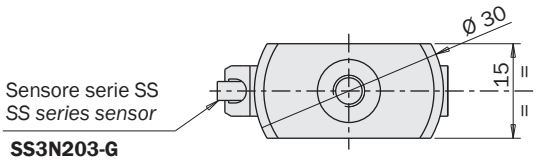
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Sensor SS3N203-G included and fitted to the tip of the jaw.*
- *Steel probe.*

Dimensioni (mm)

Dimensions (mm)

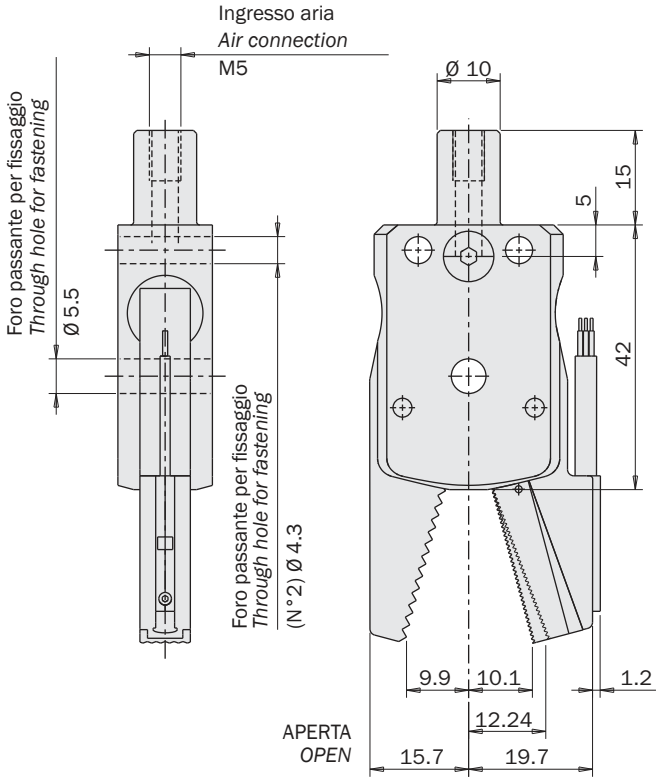


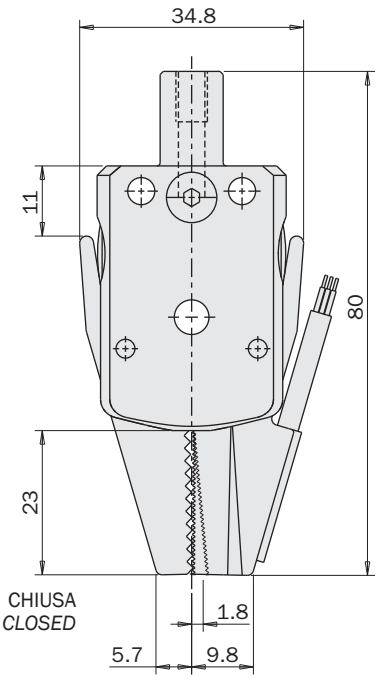






Tastatore in acciaio
Steel probe





FIRST ANGLE PROJECTION

PB-0180-S2

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

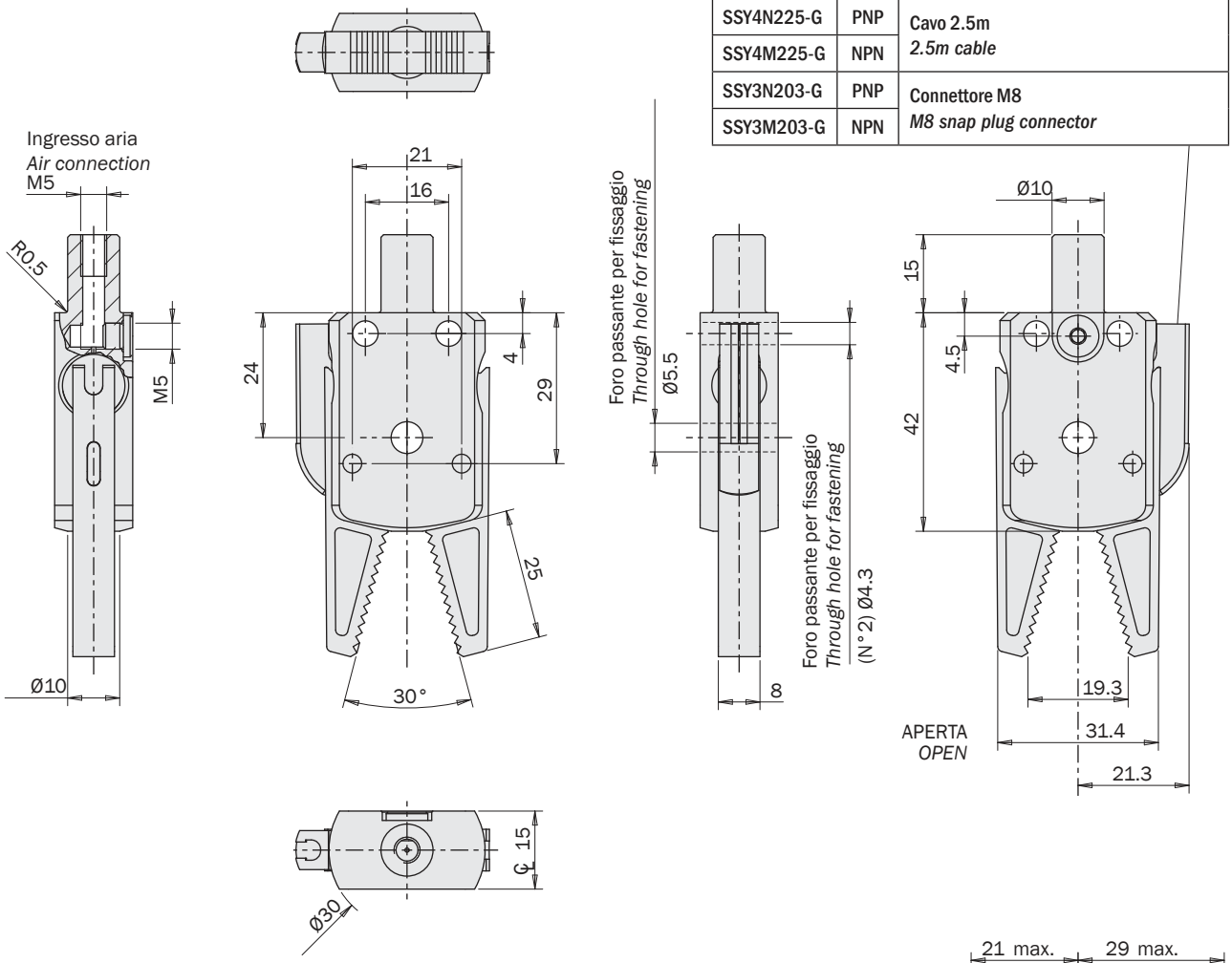
PB-0180-S2

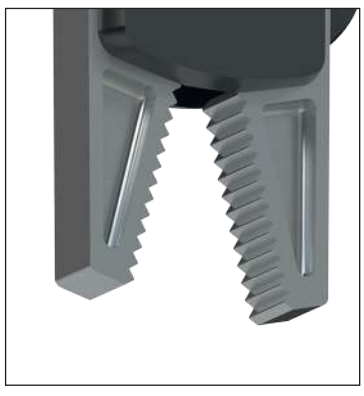
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Optional magnetic sensor SSY with reduced encumbrance in the grip area.*

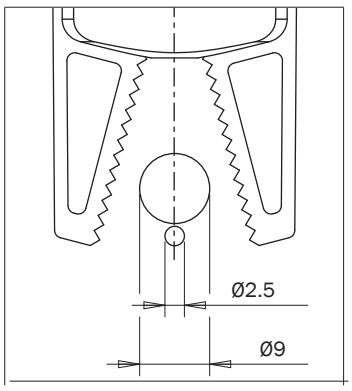
Dimensioni (mm)

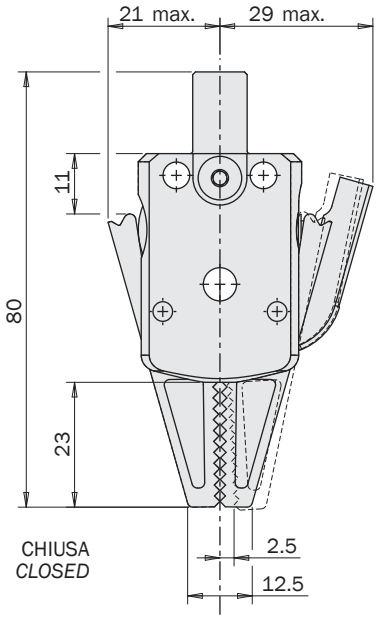
Dimensions (mm)

I sensori opzionali sono: ***The optional sensors are:***		
SSY4N225-G	PNP	Cavo 2.5m *2.5m cable*
SSY4M225-G	NPN	
SSY3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SSY3M203-G	NPN	









FIRST ANGLE PROJECTION

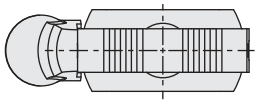
07/2026

PB-0180-SV

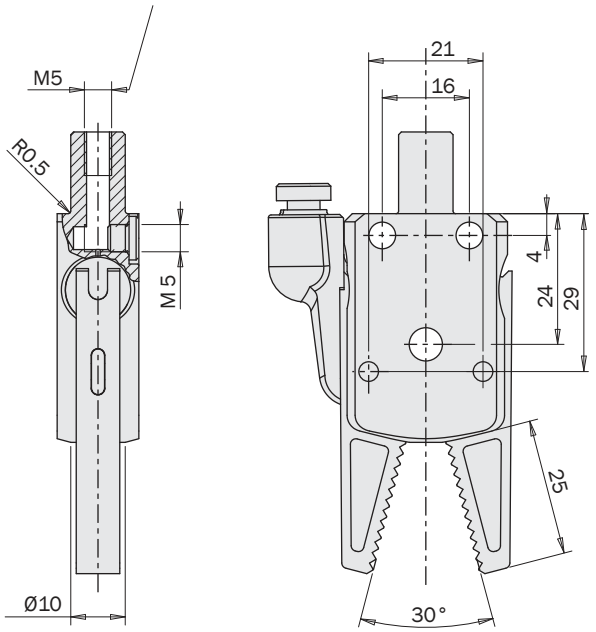
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Rilevamento della presa con sensore di vuoto.

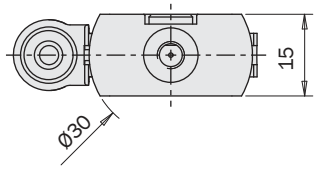
PB-0180-SV

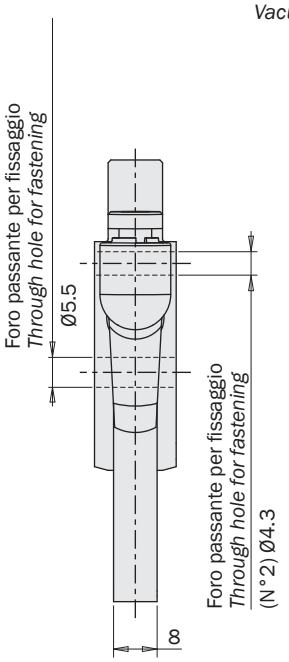
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Grip detection by vacuum sensor.*



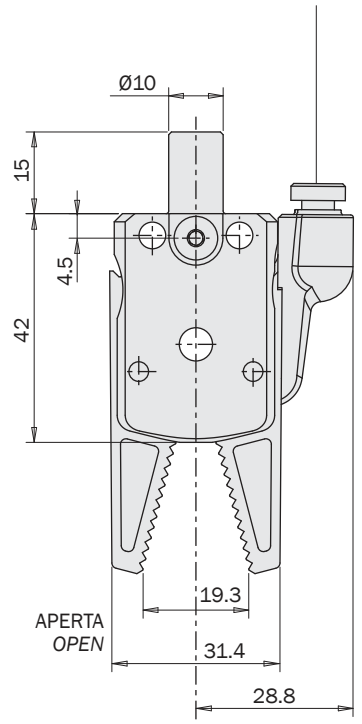
Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)



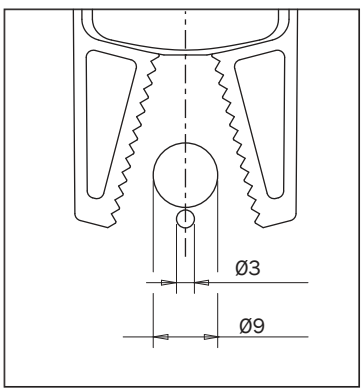


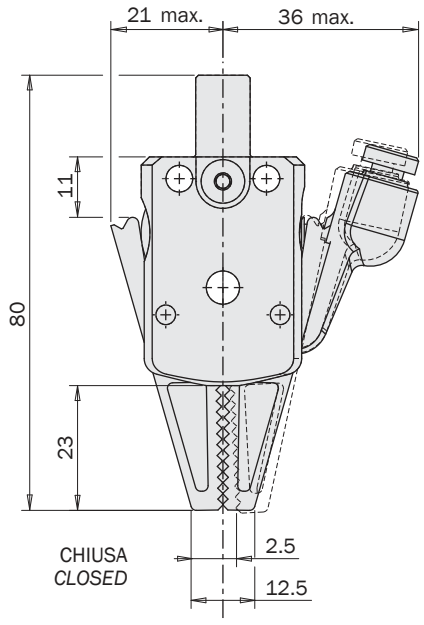


Connessione per vuoto (vacuostato remoto)
Vacuum connection (remote vacuum switch)





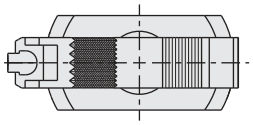


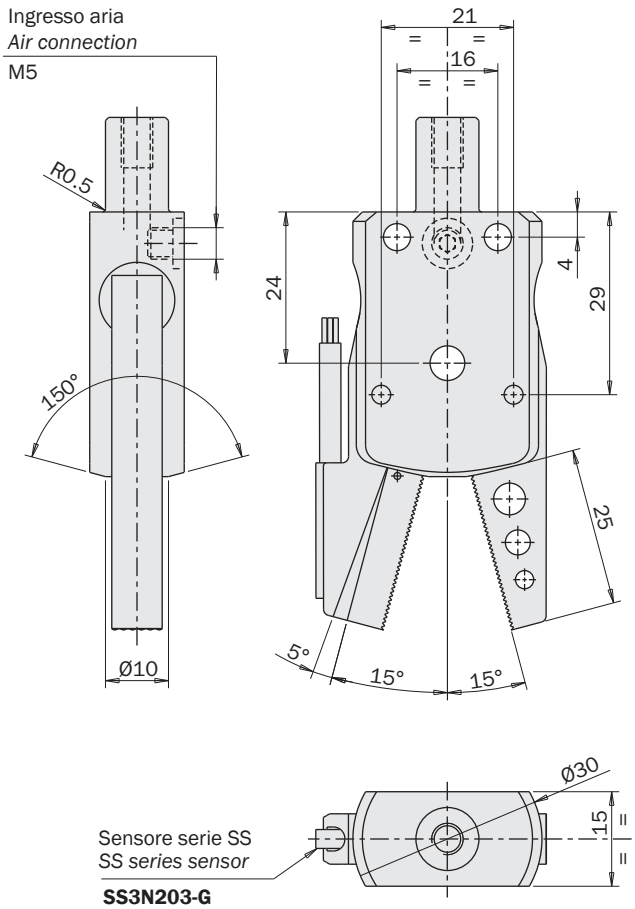


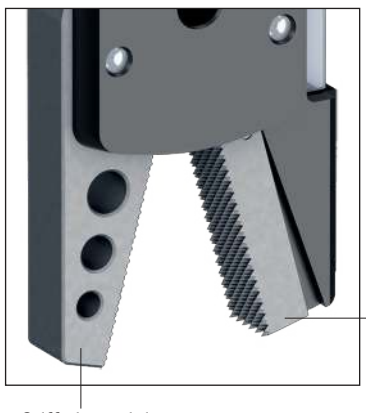
PB-0181

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Griffa e tastatore in acciaio.

Dimensioni (mm)



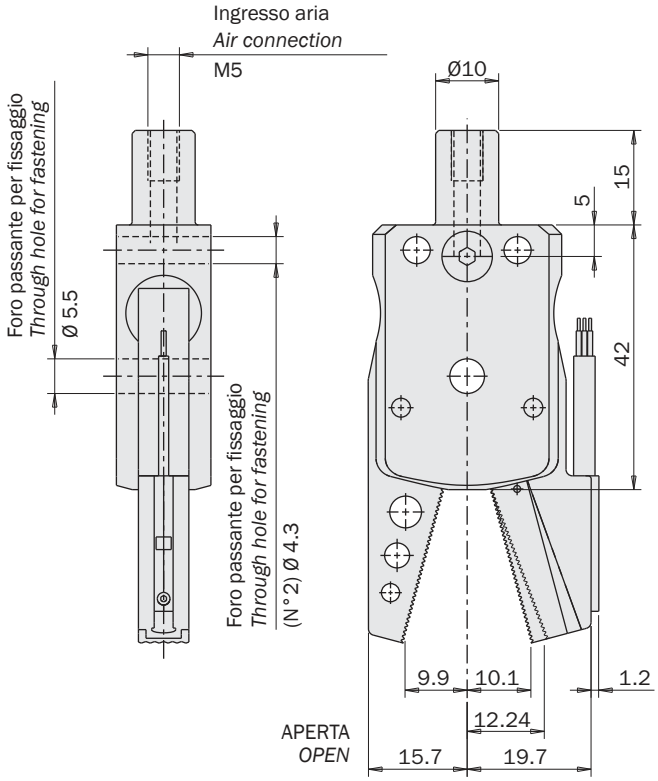


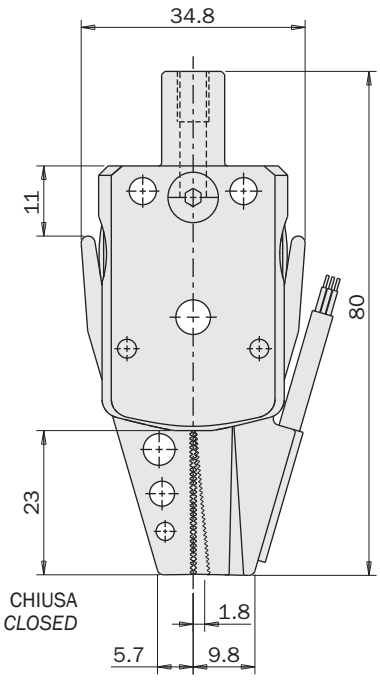


PB-0181

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Sensor SS3N203-G included and fitted to the tip of the jaw.*
- *Steel jaw and probe.*

Dimensions (mm)





FIRST ANGLE PROJECTION

07/2026

PB-0182

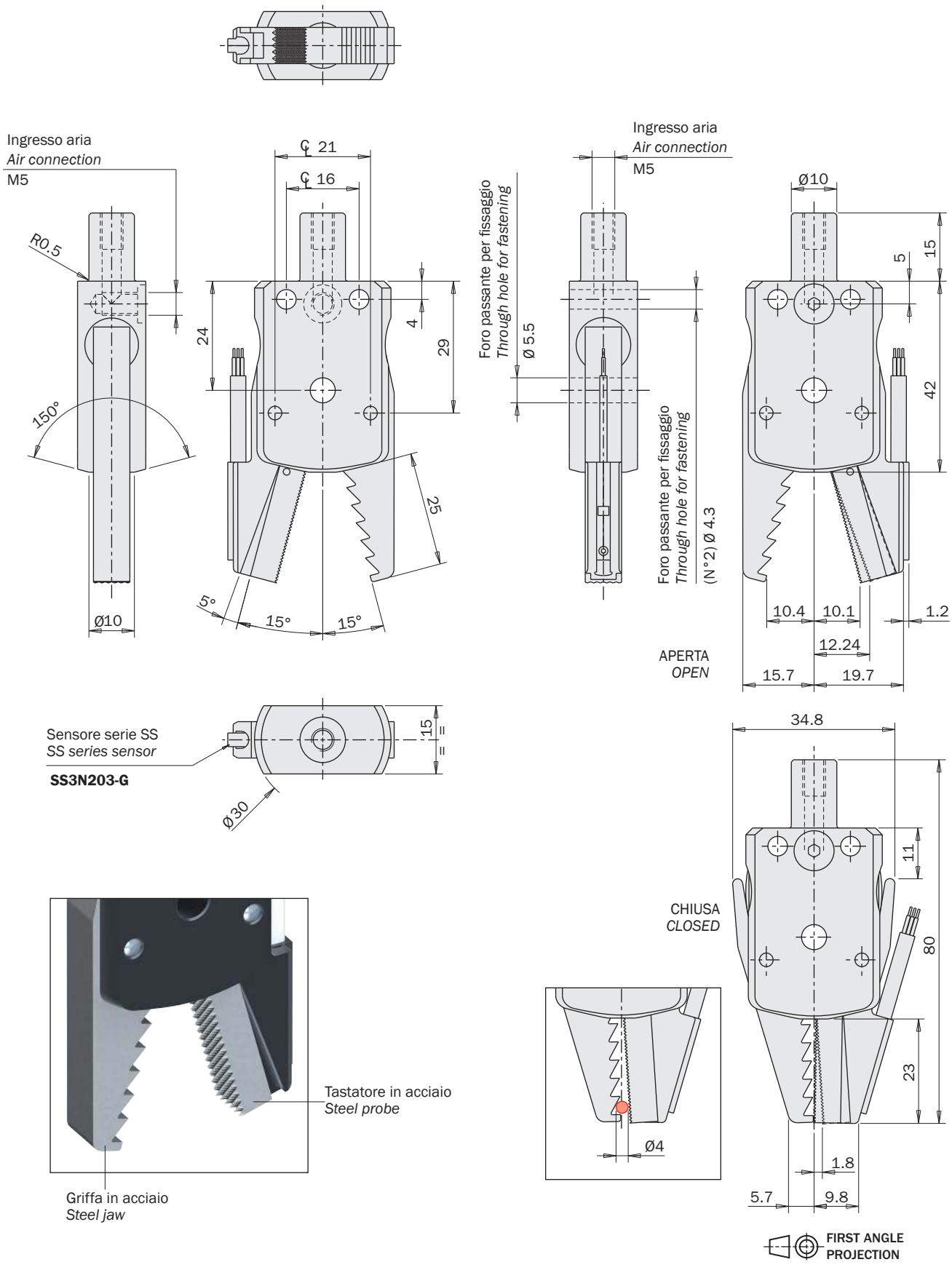
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Griffa e tastatore in acciaio.

PB-0182

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Sensor SS3N203-G included and fitted to the tip of the jaw.*
- *Steel jaw and probe.*

Dimensioni (mm)

Dimensions (mm)



PB-0187

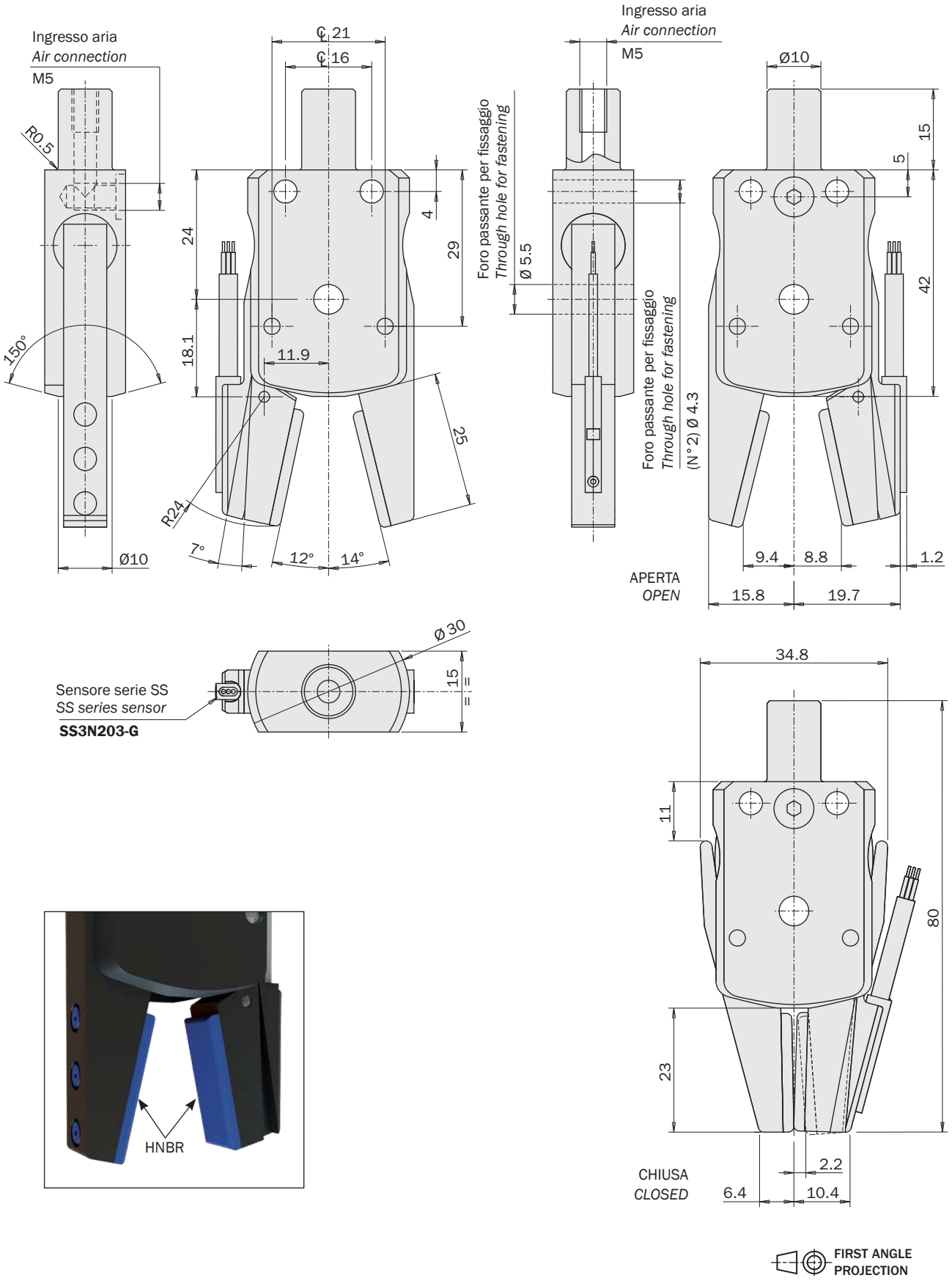
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.

PB-0187

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Rubber (HNBR) pads for a soft contact.*
- *Sensor SS3N203-G included and fitted to the tip of the jaw.*

Dimensioni (mm)

Dimensions (mm)



FIRST ANGLE PROJECTION

07/2026

PB-0187-S2

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

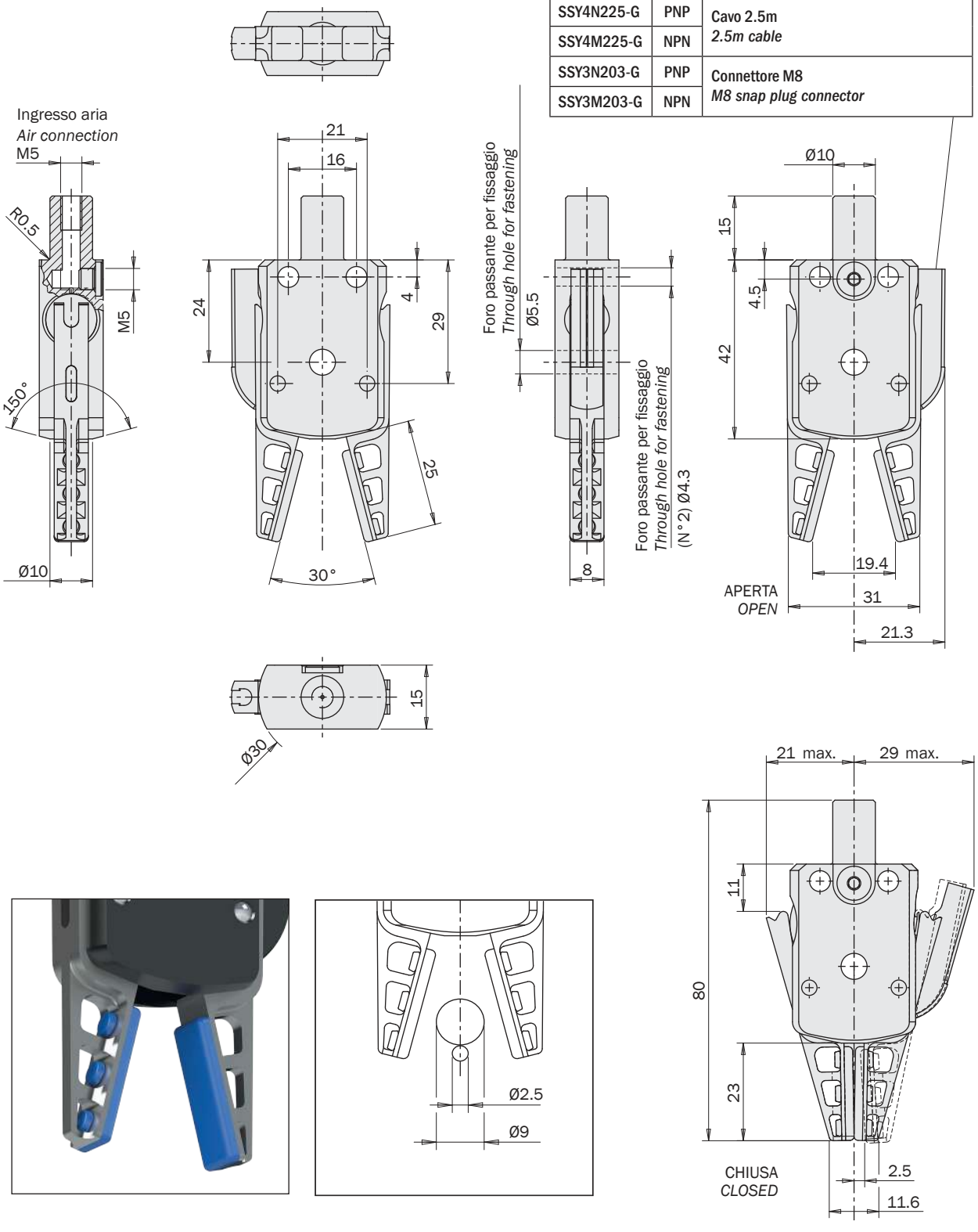
PB-0187-S2

- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Rubber (HNBR) pads for a soft contact.*
- *Optional magnetic sensor SSY with reduced encumbrance in the grip area.*

Dimensioni (mm)

Dimensions (mm)

I sensori opzionali sono: *The optional sensors are:*		
SSY4N225-G	PNP	Cavo 2.5m *2.5m cable*
SSY4M225-G	NPN	
SSY3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SSY3M203-G	NPN	



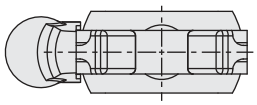
FIRST ANGLE PROJECTION

PB-0187-SV

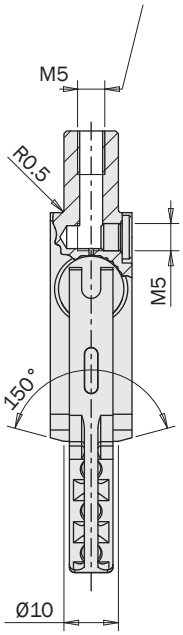
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Rilevamento della presa con sensore di vuoto.

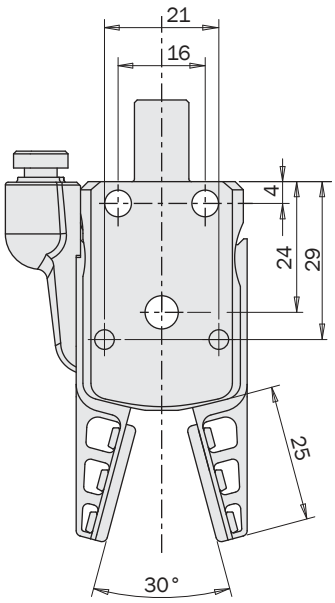
PB-0187-SV

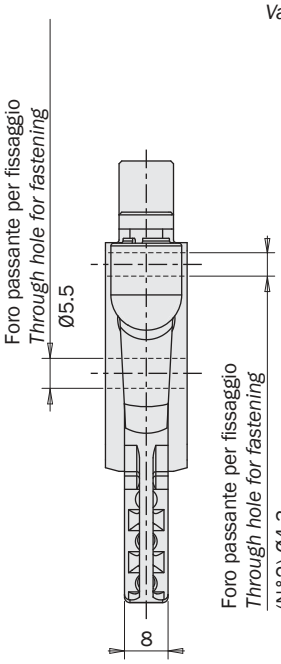
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Grip detection by vacuum sensor.*



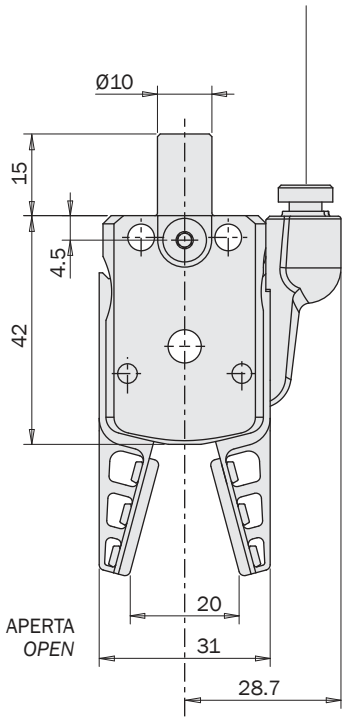
Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)

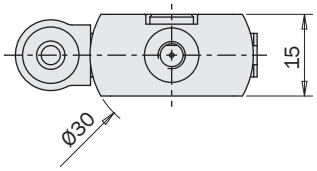


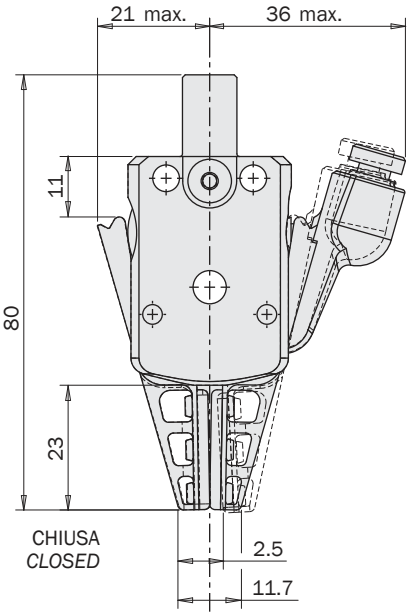




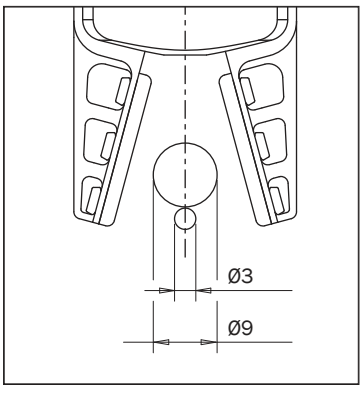
Connessione per vuoto (vacuostato remoto)
Vacuum connection (remote vacuum switch)







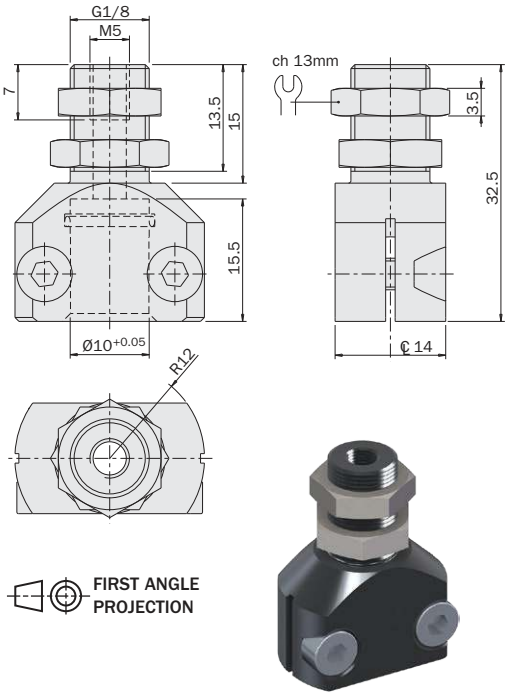




Accessori

AF10G18M

Adattatore per pinze PB
(Non per PB-0002)

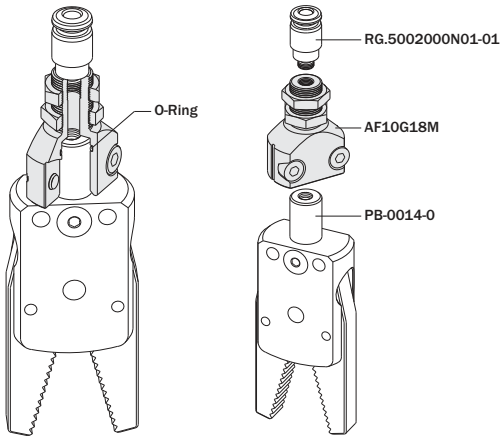


	AF10G18M
Peso *Weight*	18 g

Accessories

AF10G18M

Adapter fitting for PB grippers
(Not for PB-0002)



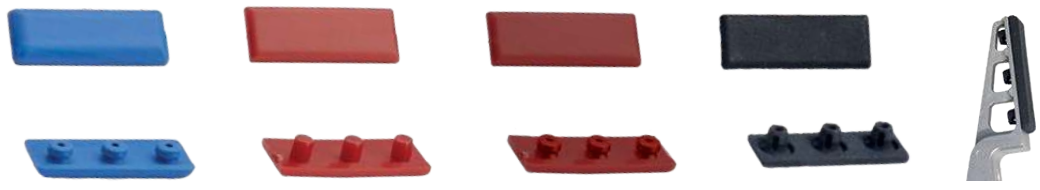


PB-0170-...

Pastiglia di ricambio per PB-0187-SV, PB-0187-S2, PB-0187, PB-0170

PB-0170-...

Replacement pad for PB-0187-SV, PB-0187-S2, PB-0187, PB-0170



PB-0170-05
HNBR 60Sh.A

PB-0170-02
TPU 70Sh.A

PB-0170-08
Silicone 80Sh.A

3D...
Personalizzate con Servizio Stampa 3D (PA12)

Customised with the new 3D printing service (PA12)

BB

Pinza pneumatica per materozze, angolare non autocentrante a due griffe serie BB

- BB-12-00 a doppio effetto.
- BB-12-NO normale aperta.
- BB-13-NO normale aperta con sensore.
- Corpo e griffe fusi in lega di zinco (zama).
- Profilo sottile.
- Doppia possibilità di fissaggio.
- Grasso alimentare NSF-H1.

2-jaw non-selfcentering angular pneumatic sprue gripper series BB

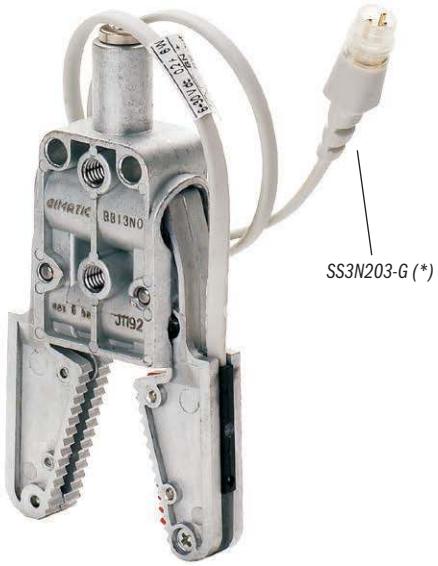
- *BB-12-00 double-acting.*
- *BB-12-NO normally open.*
- *BB-13-NO normally open with sensor.*
- *Housing and jaws die-casted in zinc alloy (zamak).*
- *Flat profile.*
- *Two fastening options.*
- *Food grade grease NSF-H1.*



BB-12-00



BB-12-NO



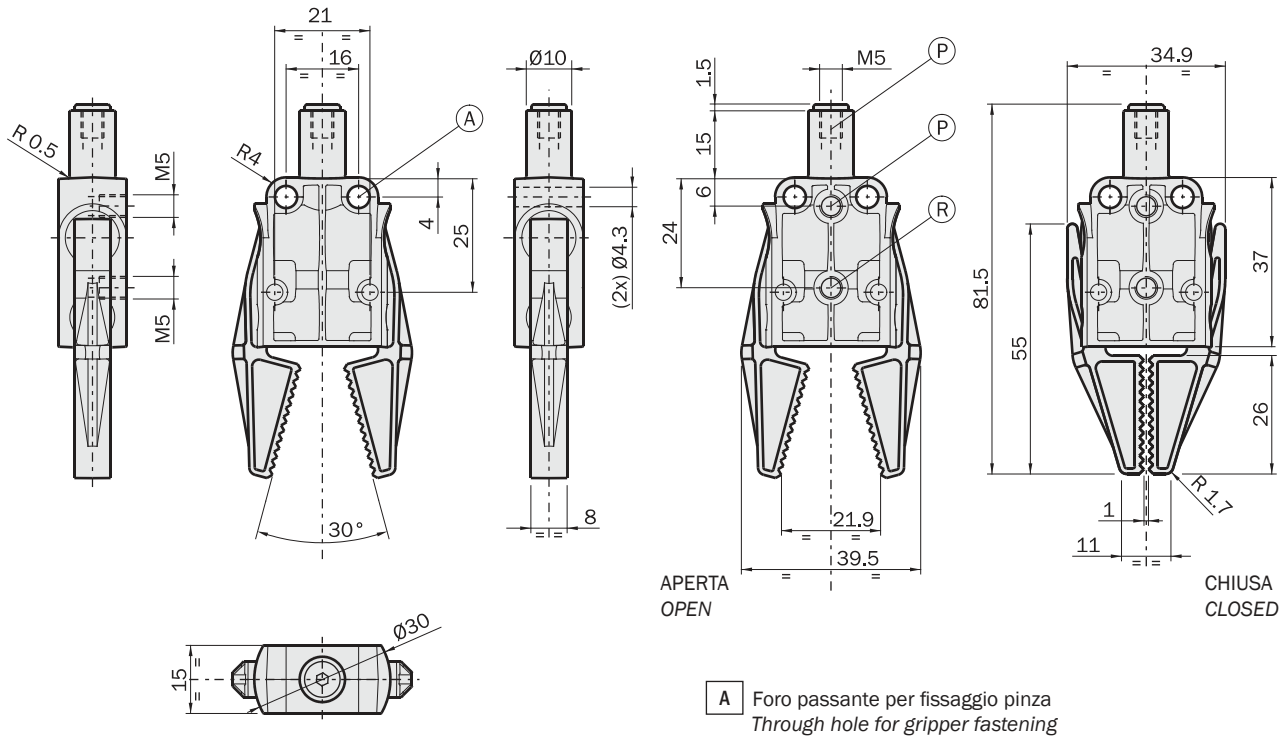
BB-13-NO

(*)
Il sensore SS3N203-G è incluso.
The sensor SS3N203-G is included.

	BB-12-00	BB-12-NO	BB-13-NO
Fluido *Medium*	Aria compressa filtrata, lubrificata / non lubrificata *Filtered, lubricated / non lubricated compressed air*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa (±2°) *Stroke*	2 x 15°		
Coppia di serraggio per griffa in chiusura a 6 bar *Closing gripping torque at 6 bar each jaw*	65 Ncm	60 Ncm	60 Ncm
Coppia per griffa in apertura a 6 bar *Opening gripping torque at 6 bar each jaw*	20 Ncm	-	-
Coppia per griffa in apertura a 0 bar *Opening gripping torque at 0 bar each jaw*	-	5 Ncm	5 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo *Cycle air consumption*	1.5 cm^3	1.1 cm^3	1.1 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.01 s	0.01 s	0.01 s
Peso *Weight*	75 g	77 g	90 g

Dimensioni (mm)
Dimensions (mm)

BB-12-00
BB-12-N0



FIRST ANGLE PROJECTION

A Foro passante per fissaggio pinza
Through hole for gripper fastening

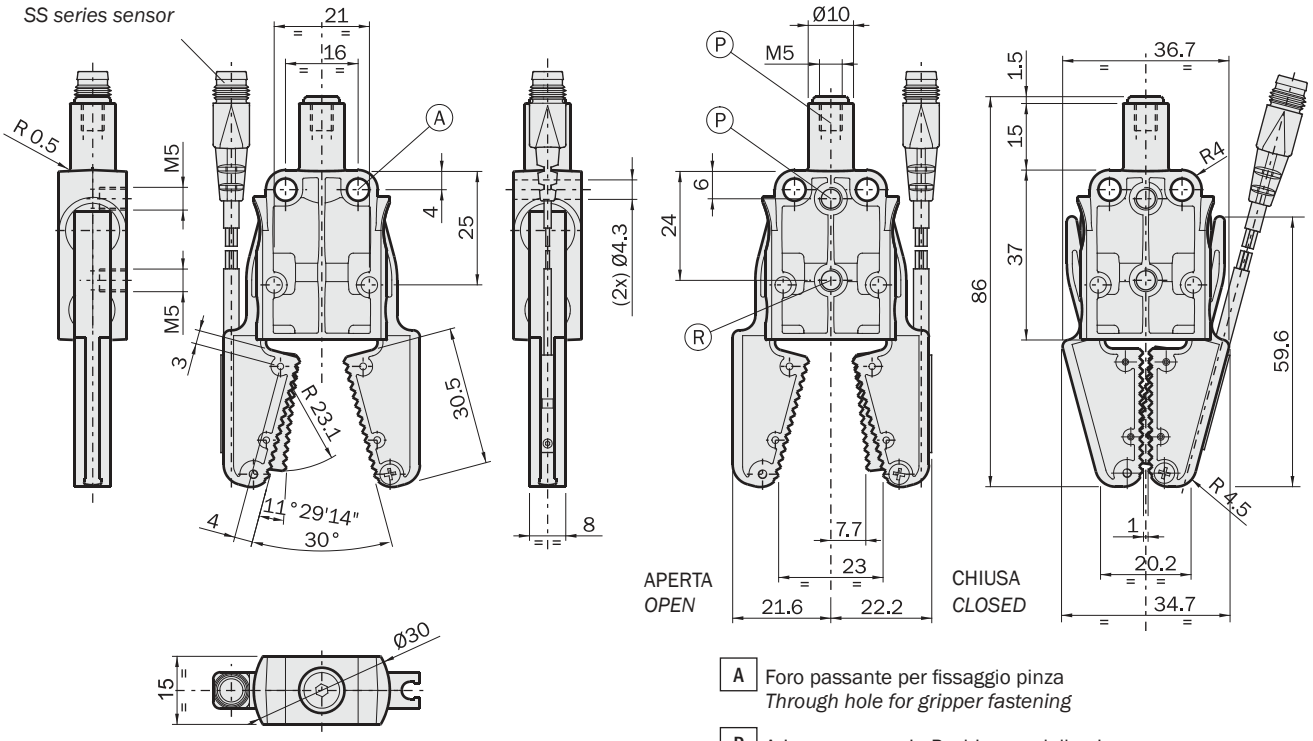
P Aria compressa in P: chiusura della pinza
Compressed air in P: gripper closing

R Aria compressa in R: apertura della pinza
Compressed air in R: gripper opening

Dimensioni (mm)
Dimensions (mm)

BB-13-N0

Sensore serie SS
SS series sensor



FIRST ANGLE PROJECTION

A Foro passante per fissaggio pinza
Through hole for gripper fastening

P Aria compressa in P: chiusura della pinza
Compressed air in P: gripper closing

R Aria compressa in R: apertura della pinza
Compressed air in R: gripper opening

DD

Pinza pneumatica per materozze, angolare autocentrante a due griffe, serie DD

- Nuovo concetto con sensore arretrato e minore ingombro nella zona di presa.
- Sensori magnetici opzionali (1).
- Il sensore è acceso solo quando viene pinzato qualcosa.
- Azionamento a semplice effetto con apertura a molla.
- Elevata forza di serraggio.
- Vari accessori disponibili per il fissaggio (2).
- Griffe in acciaio.
- Grasso alimentare NSF-H1.
- Protezione contro l'ingresso di piccoli corpi estranei (3).
- Fine corsa robusti.

2-jaw self-centering angular pneumatic sprue gripper, series DD

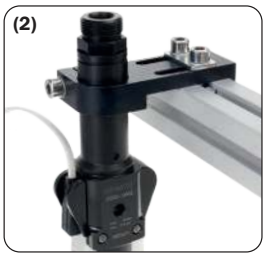
- *New concept with retracted sensor and smaller dimensions in the grip area.*
- *Optional magnetic sensors (1).*
- *The sensor is ON only when something is gripped.*
- *Single acting with spring opening.*
- *Very high closing force.*
- *Several mounting accessories (2).*
- *Steel jaws.*
- *NSF-H1 food-grade grease.*
- *Protection against the entry of small foreign bodies (3).*
- *Heavy-duty end-strokes.*

SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	

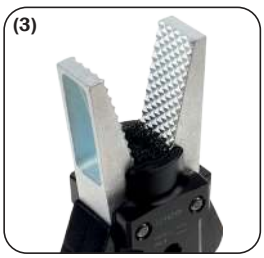
(1)



(2)



(3)



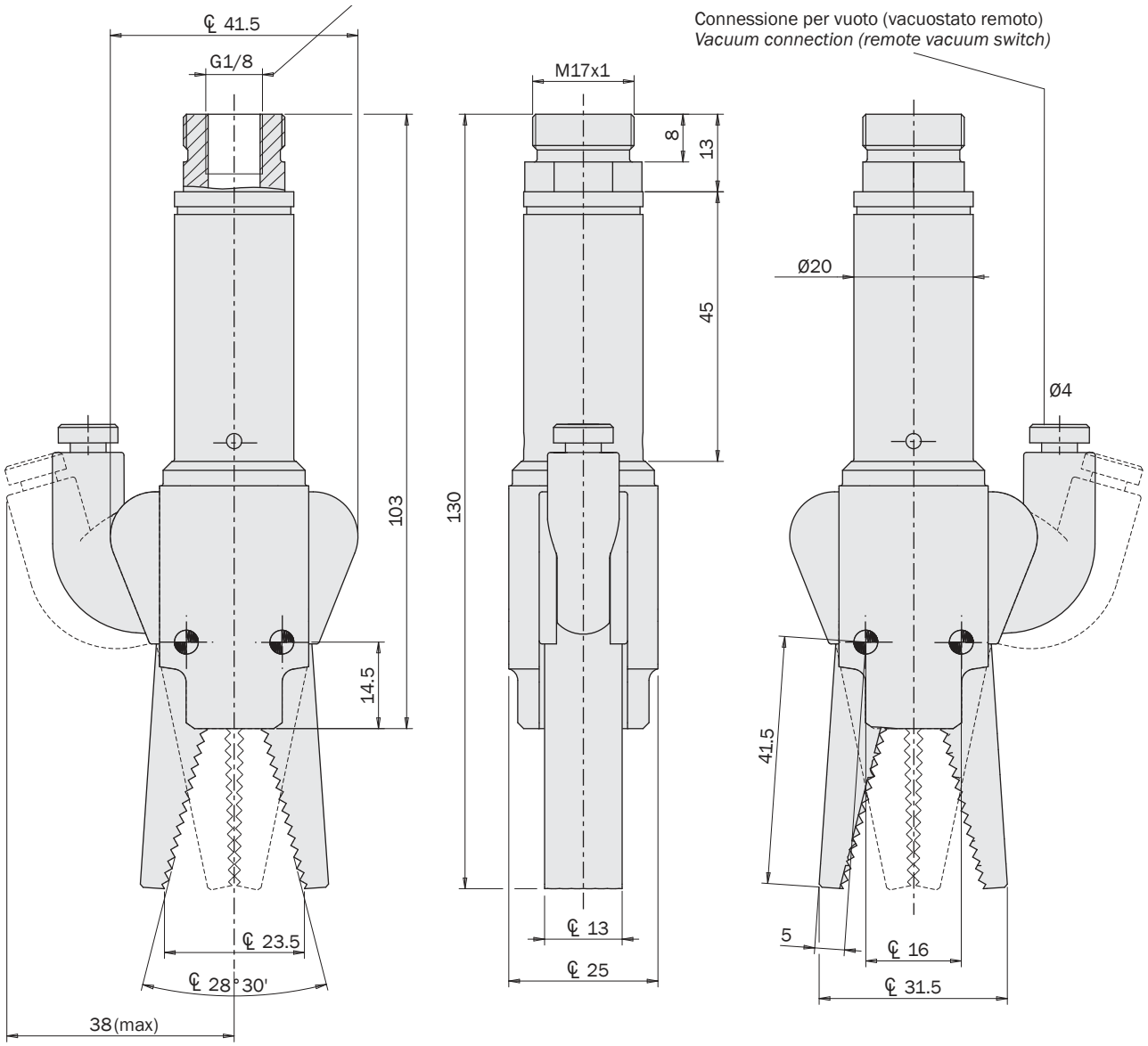


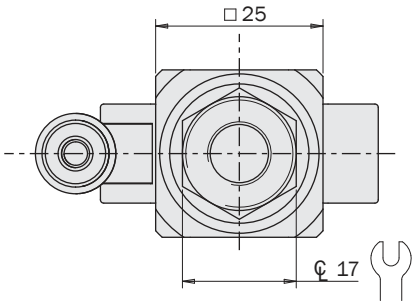
	DD20-16MV	DD20-16LV	DD20-16M2	DD20-16RF	DD20-16L2	DD20-16E2	DD20-16W2	DD20-16B2
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*							
Pressione di esercizio *Pressure range*	3.5 ÷ 8 bar							
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.							
Corsa *Stroke*	2 x 15°							
Coppia di chiusura per griffa a 6 bar *Closing torque at 6 bar each jaw*	300 Ncm							
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*	600 Ncm							
Coppia di apertura per griffa a 0 bar *Opening torque at 0 bar each jaw*	20 Ncm							
Coppia di apertura totale a 0 bar *Total opening torque at 0 bar*	40 Ncm							
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz							
Consumo d'aria per ciclo *Cycle air consumption*	3.6 cm^3							
Tempo di chiusura senza carico *Closing time without load*	0.03 s							
Peso *Weight*	119 g	116 g	114 g	143 g	110 g	123 g	118 g	140 g

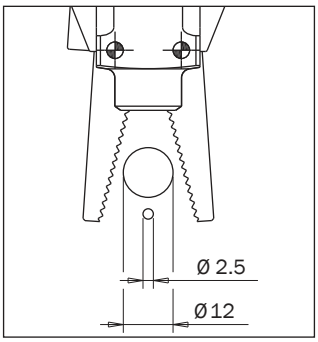
Dimensioni (mm)
Dimensions (mm)

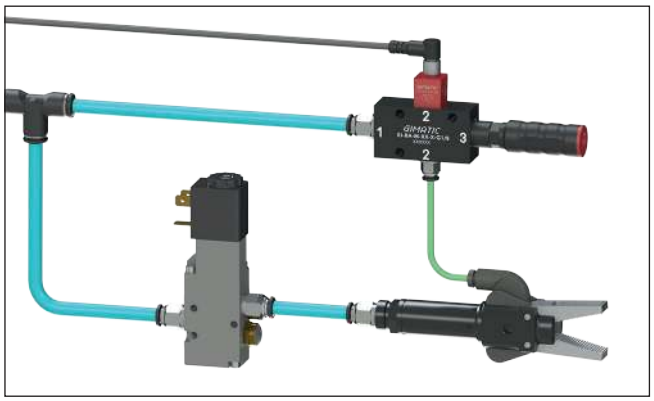
DD20-16MV

Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)





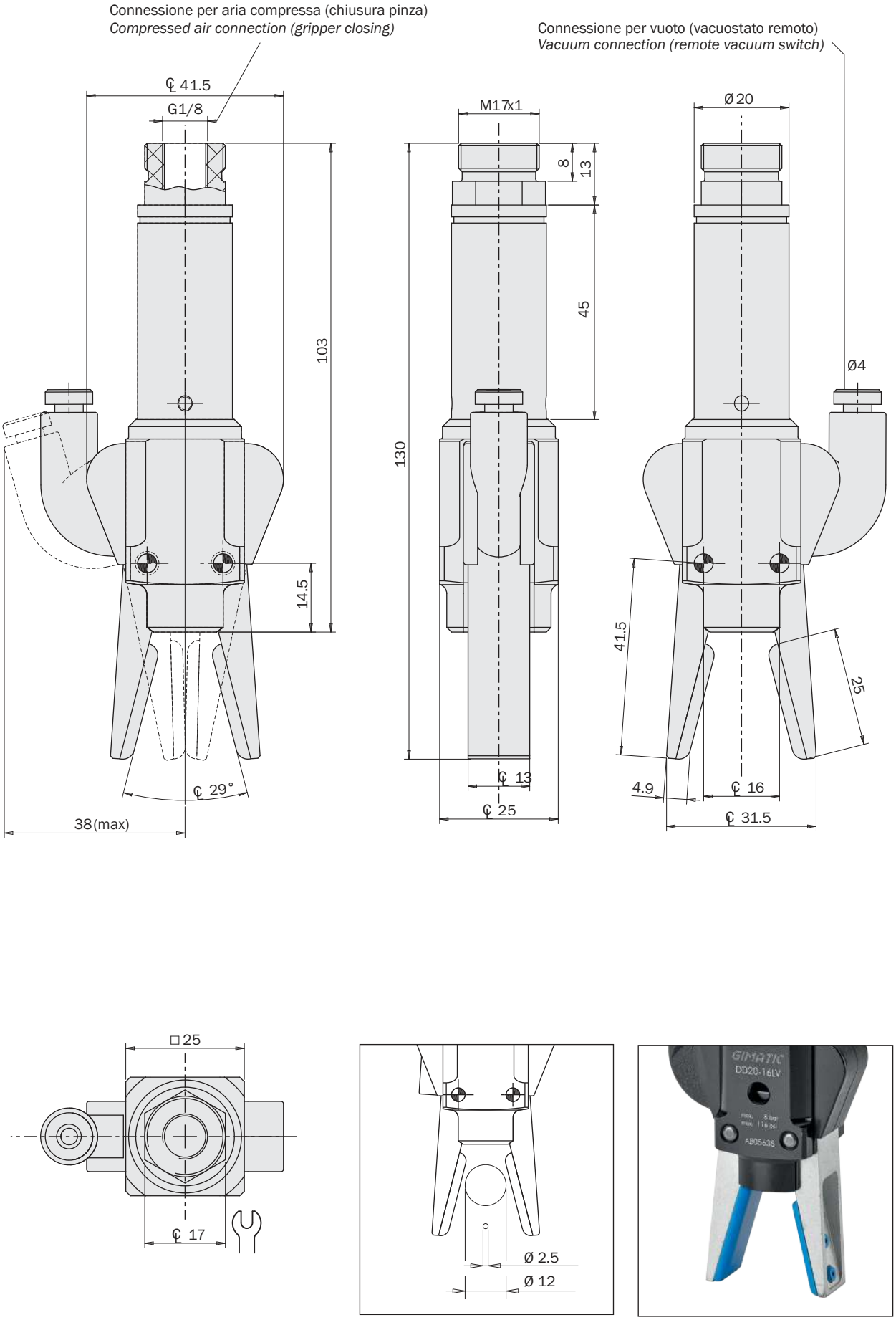






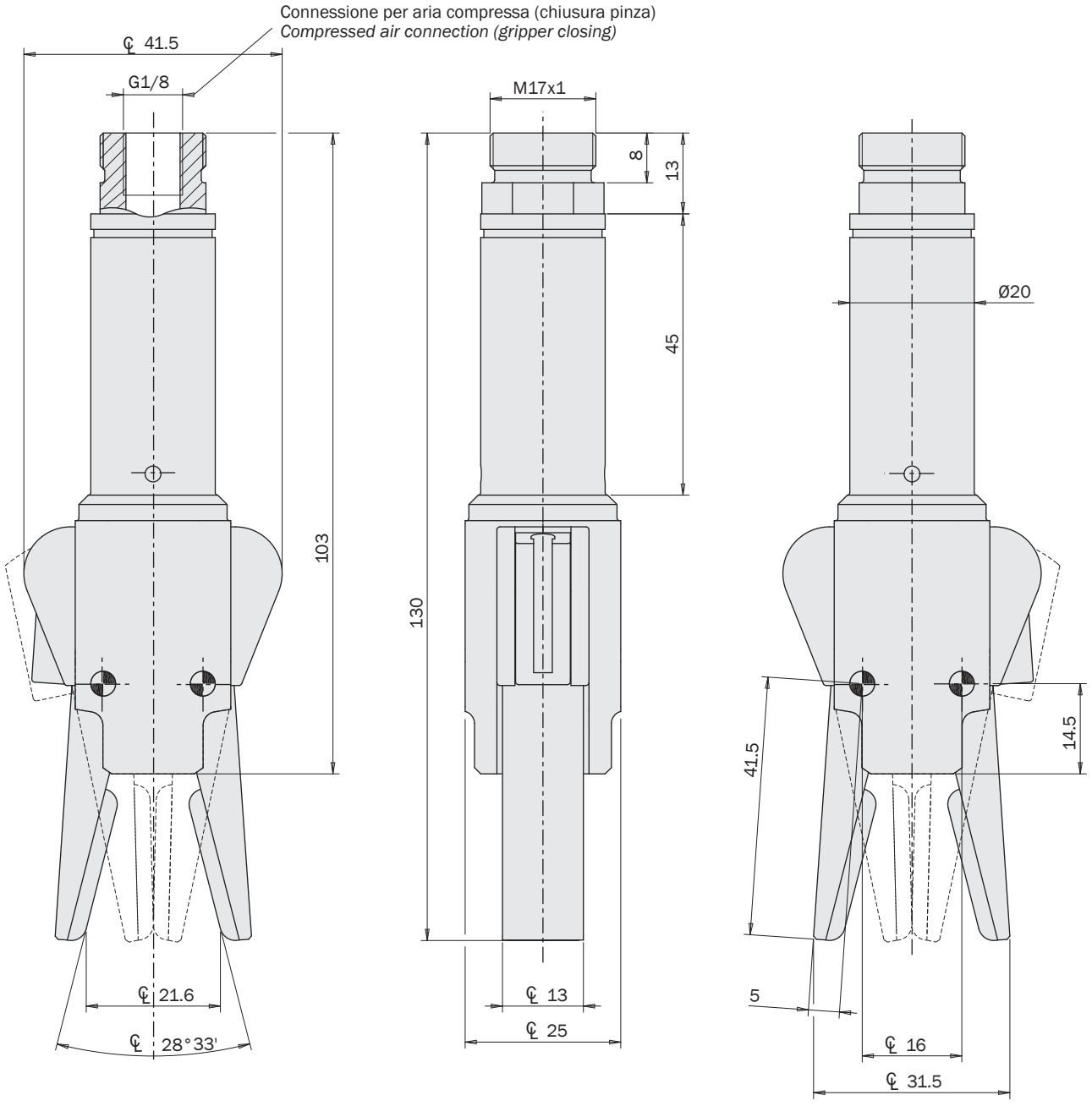
Dimensioni (mm)
Dimensions (mm)

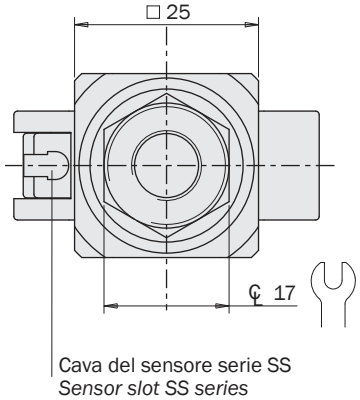
DD20-16LV



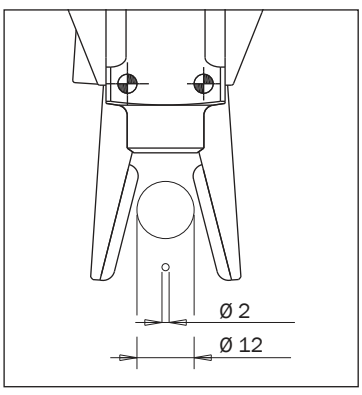
Dimensioni (mm)
Dimensions (mm)

DD20-16L2





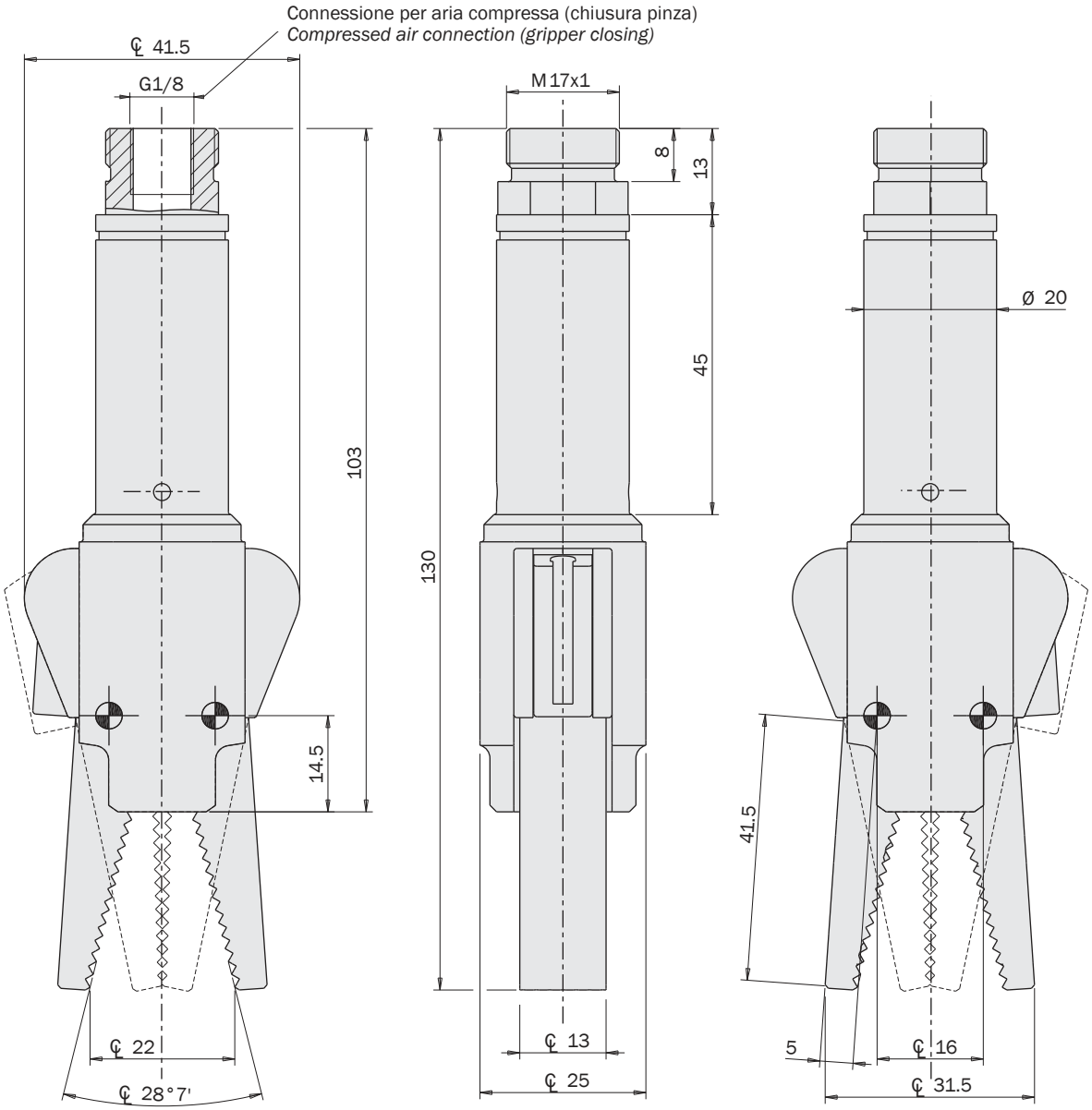
Cava del sensore serie SS
Sensor slot SS series

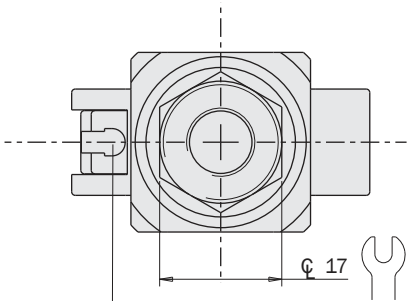




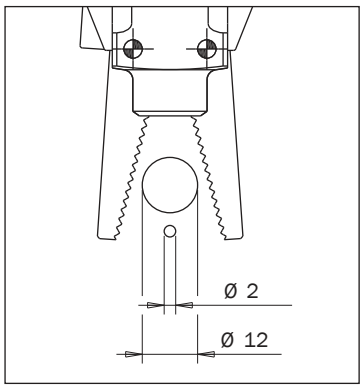
Dimensioni (mm)
Dimensions (mm)

DD20-16M2





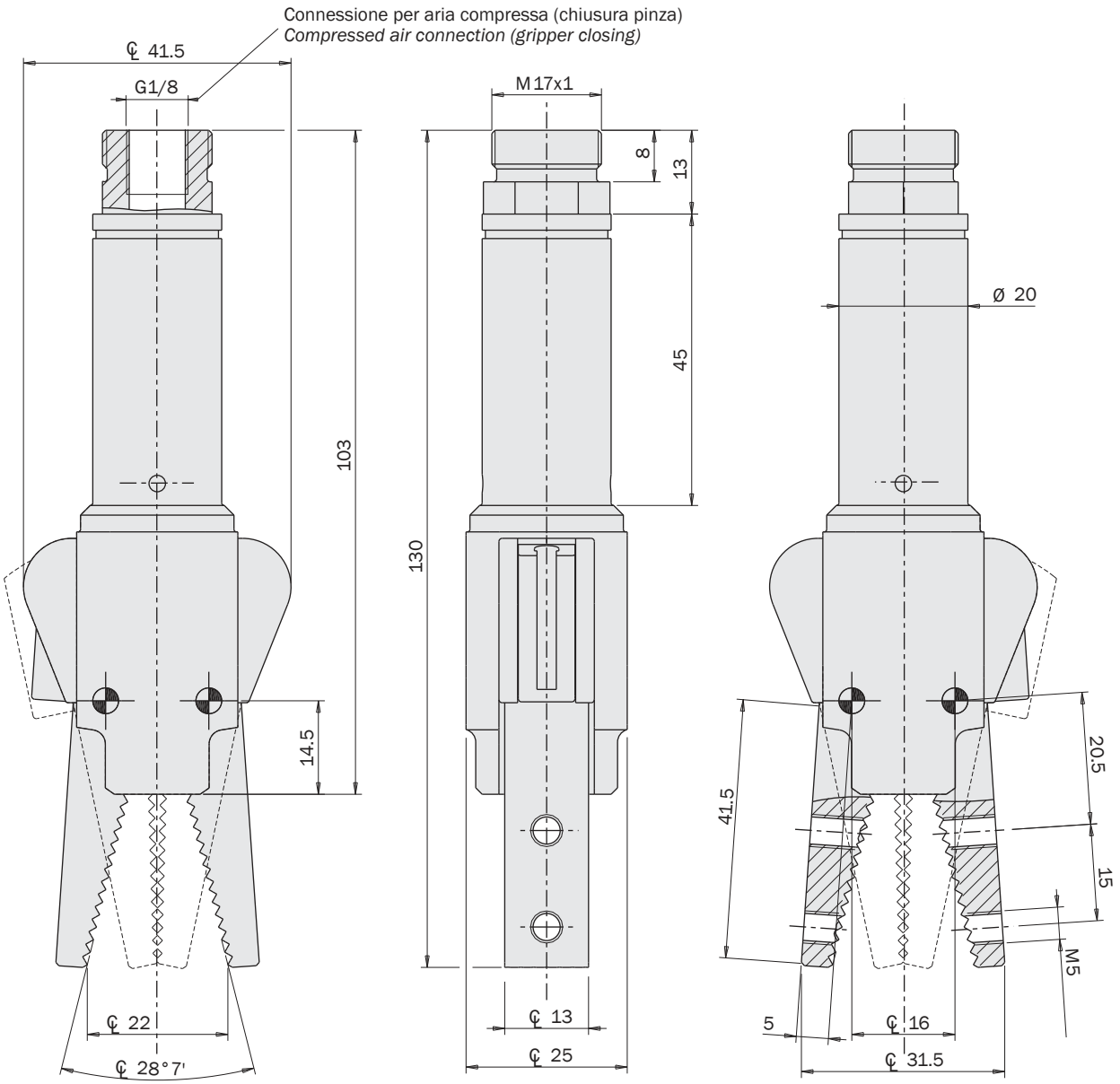
Cava del sensore serie SS
Sensor slot SS series

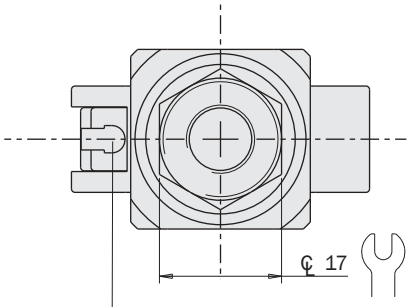


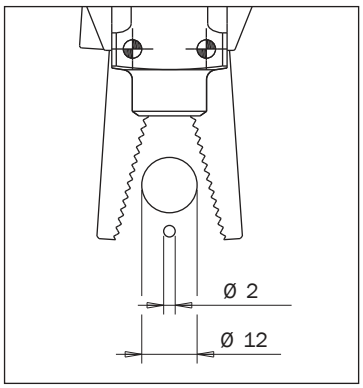


Dimensioni (mm)
Dimensions (mm)

DD20-16RF



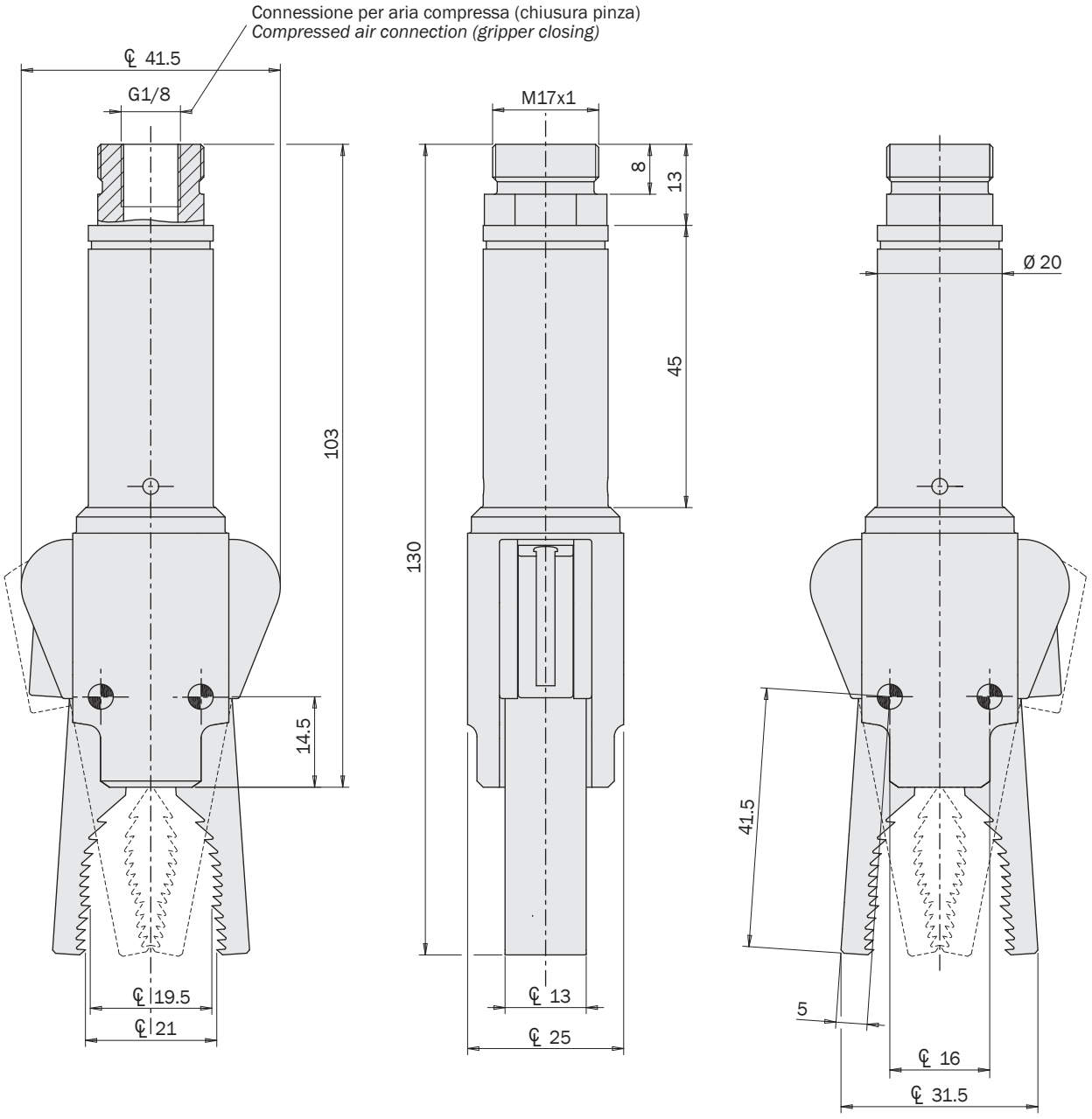


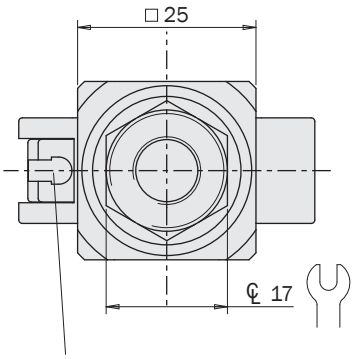




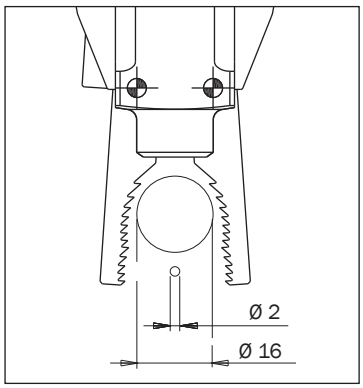
Dimensioni (mm)
Dimensions (mm)

DD20-16E2





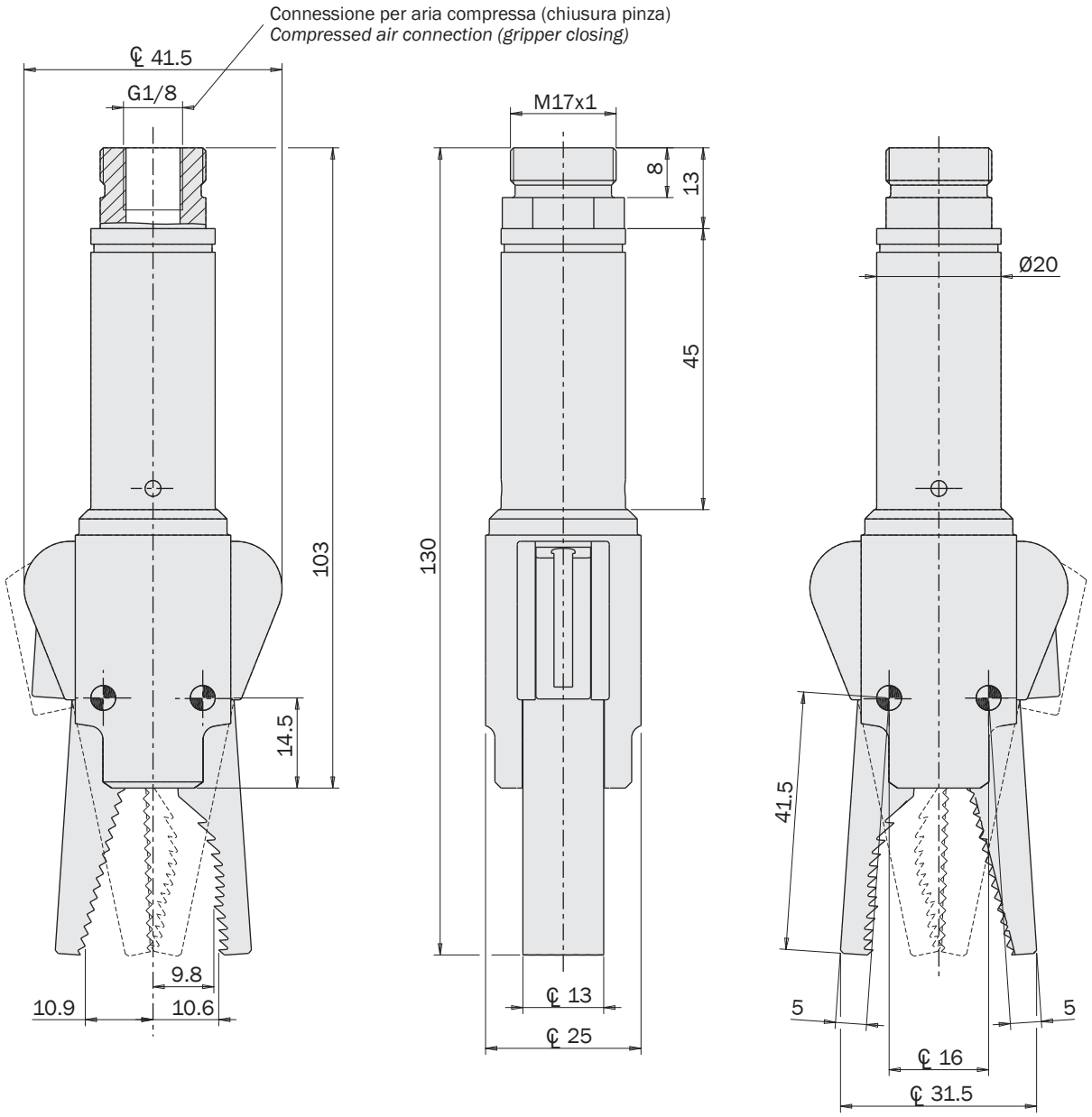
Cava del sensore serie SS
Sensor slot SS series

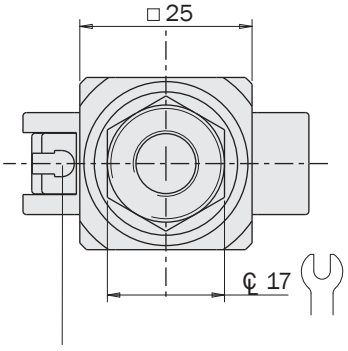




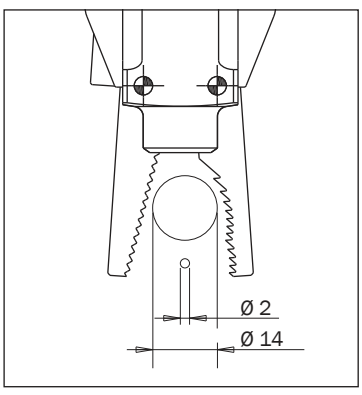
Dimensioni (mm)
Dimensions (mm)

DD20-16W2





Cava del sensore serie SS
Sensor slot SS series

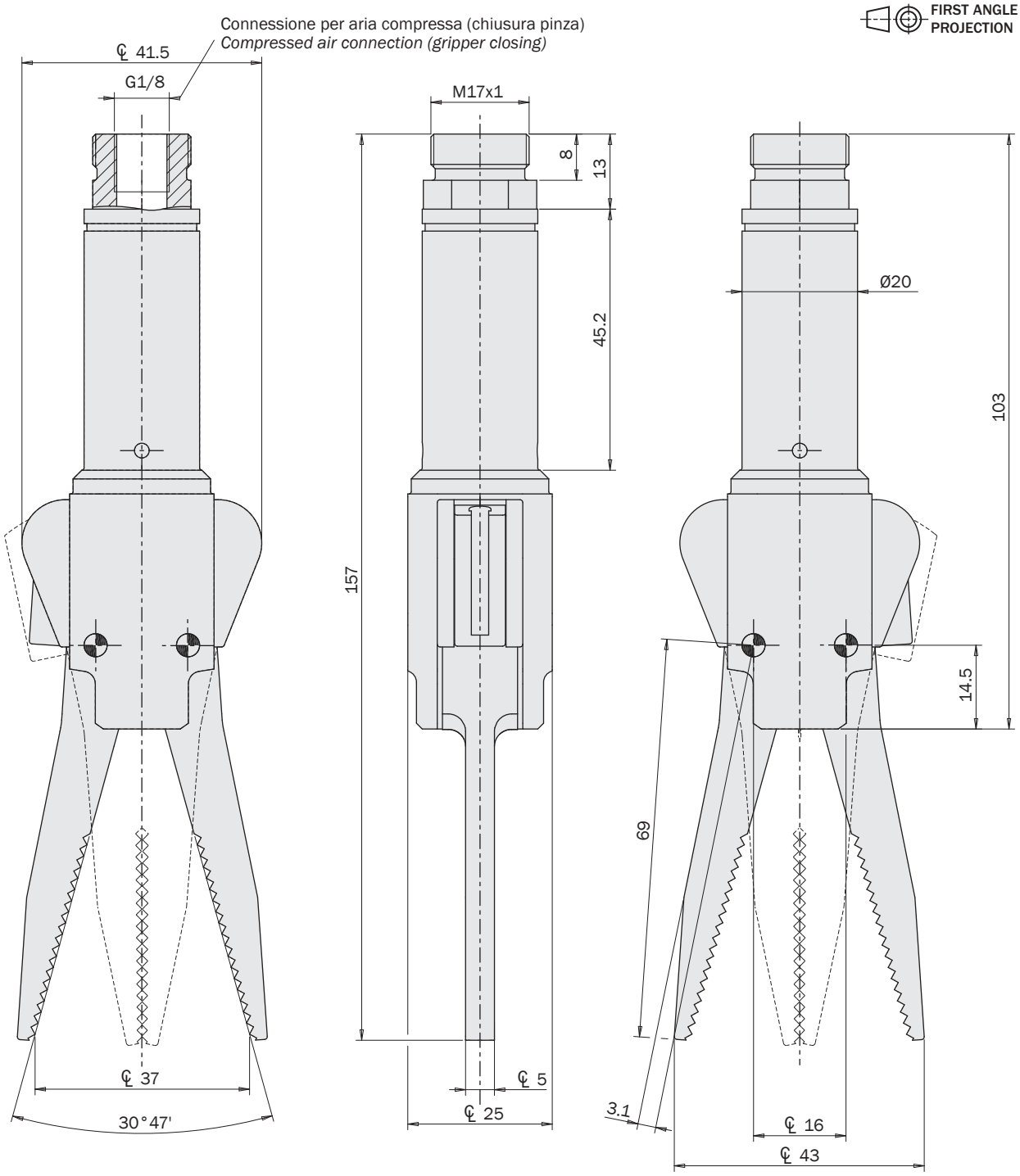


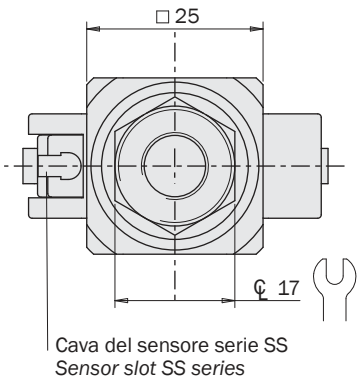


Dimensioni (mm)
Dimensions (mm)

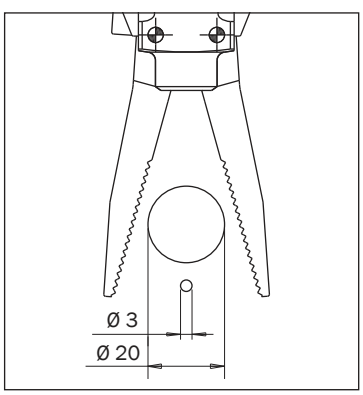
DD20-16B2

FIRST ANGLE PROJECTION





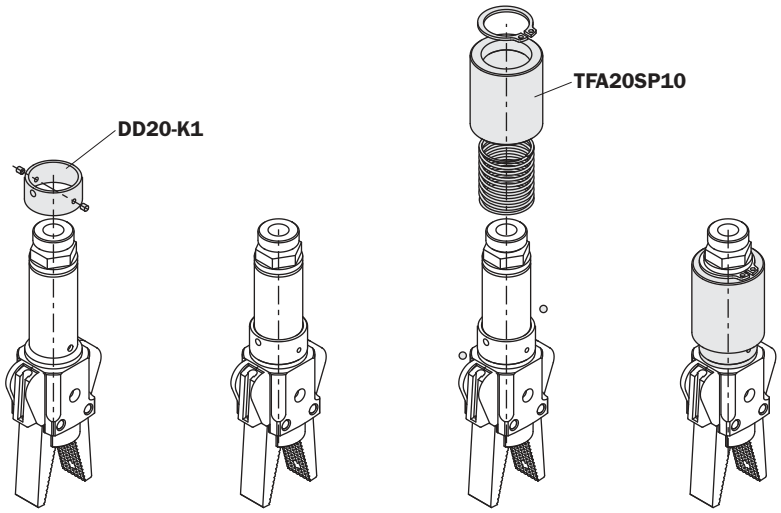
Cava del sensore serie SS
Sensor slot SS series



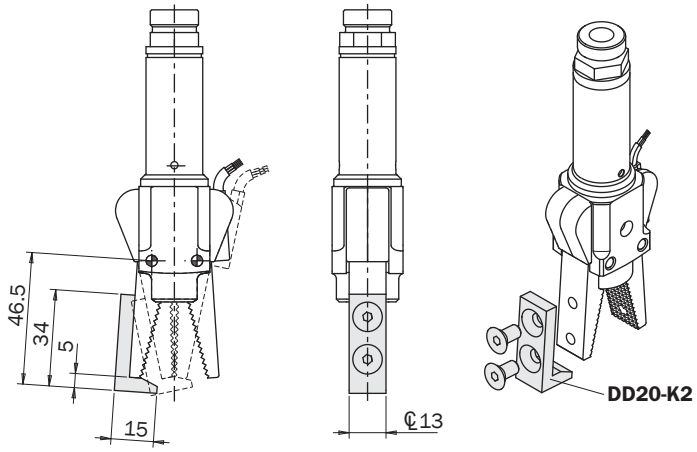


Accessori
Accessories

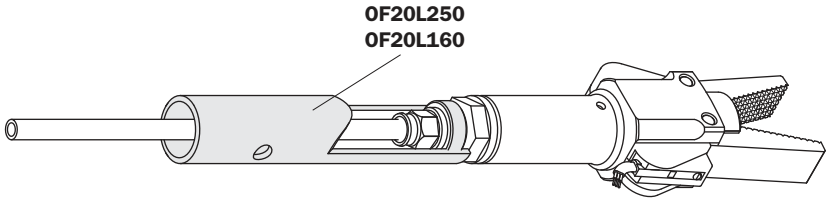
DD20-K1 + TFA20SP10
Sospensione
Suspension



DD20-K2
Dente per griffa DD20-16RF
Tooth for DD20-16RF jaw



0F20L...
Tubo di prolunga
Extension tube



DD20-16-...
Pastiglia di ricambio per DD20-16L2
Spare pad for DD20-16L2



DD20-16P-13
HNBR 60Sh.A

DD20-16P-10
TPU 70Sh.A

DD20-16P-17
PU 70Sh.A

DD20-16P-27
Silicone 80sh.A

3D...
Personalizzate con Servizio Stampa 3D (PA12)

Customised with the new 3D printing service (PA12)

GW

Pinza pneumatica ad azione basculante autocentrante a 2 griffe (serie GW)

- Azionamento a doppio effetto.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare NSF-H1.

2-jaw self centering angular pneumatic gripper (series GW)

- *Double acting.*
- *Long life and reliability, maintenance free.*
- *Various options for fastening.*
- *Optional proximity magnetic sensors.*
- *Spring closed (-NC) or spring open (-NO) option.*
- *NSF-H1 food-grade grease.*



GW-10



GW-16



GW-20

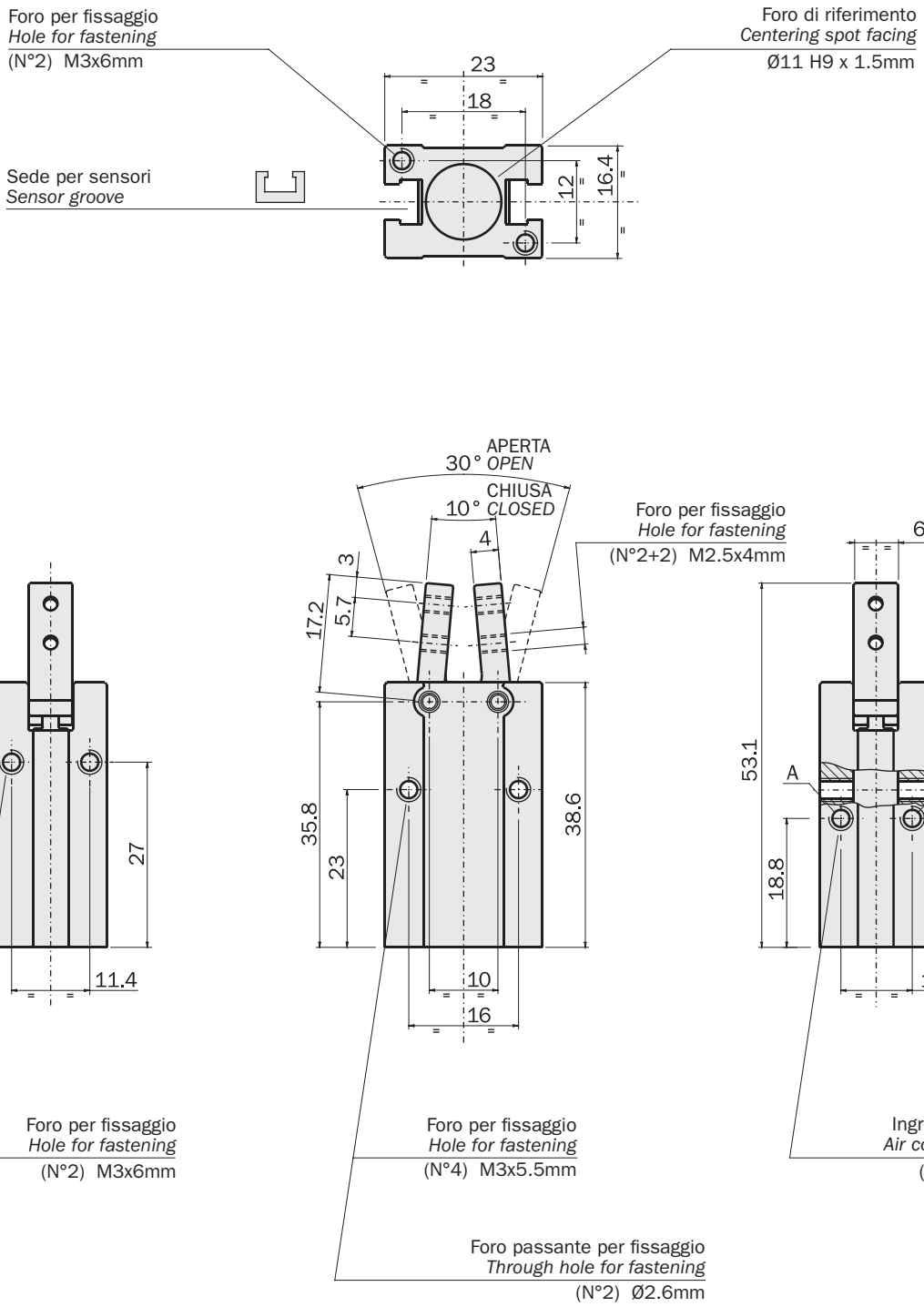


GW-25

	GW-10	GW-16	GW-20	GW-25
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.			
Coppia di serraggio per griffa in apertura a 6 bar *Opening torque at 6 bar on each jaw*	11 Ncm	45 Ncm	89 Ncm	178 Ncm
Coppia di serraggio totale in apertura a 6 bar *Opening total torque at 6 bar*	22 Ncm	90 Ncm	178 Ncm	356 Ncm
Coppia di serraggio per griffa in chiusura a 6 bar *Closing torque at 6 bar on each jaw*	8 Ncm	36 Ncm	78 Ncm	160 Ncm
Coppia di serraggio totale in chiusura a 6 bar *Closing total torque at 6 bar*	16 Ncm	72 Ncm	156 Ncm	320 Ncm
Corsa *Stroke (±1°)*	2x20°	2x20°	2x20°	2x20°
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.7 cm^3	3 cm^3	6 cm^3	11 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.005 s	0.005 s	0.02 s	0.02 s
Ripetibilità *Repetition accuracy*	0.04°	0.04°	0.04°	0.04°
Peso *Weight*	39 g	88 g	180 g	300 g

Dimensioni (mm)
Dimensions (mm)

GW-10



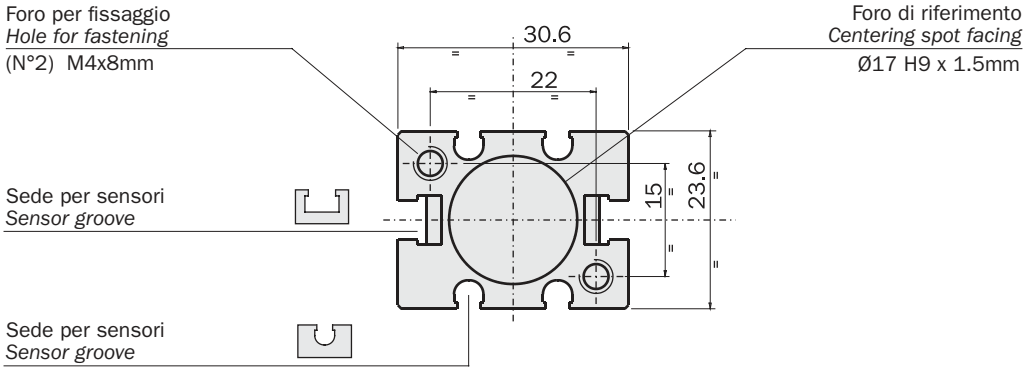
FIRST ANGLE PROJECTION

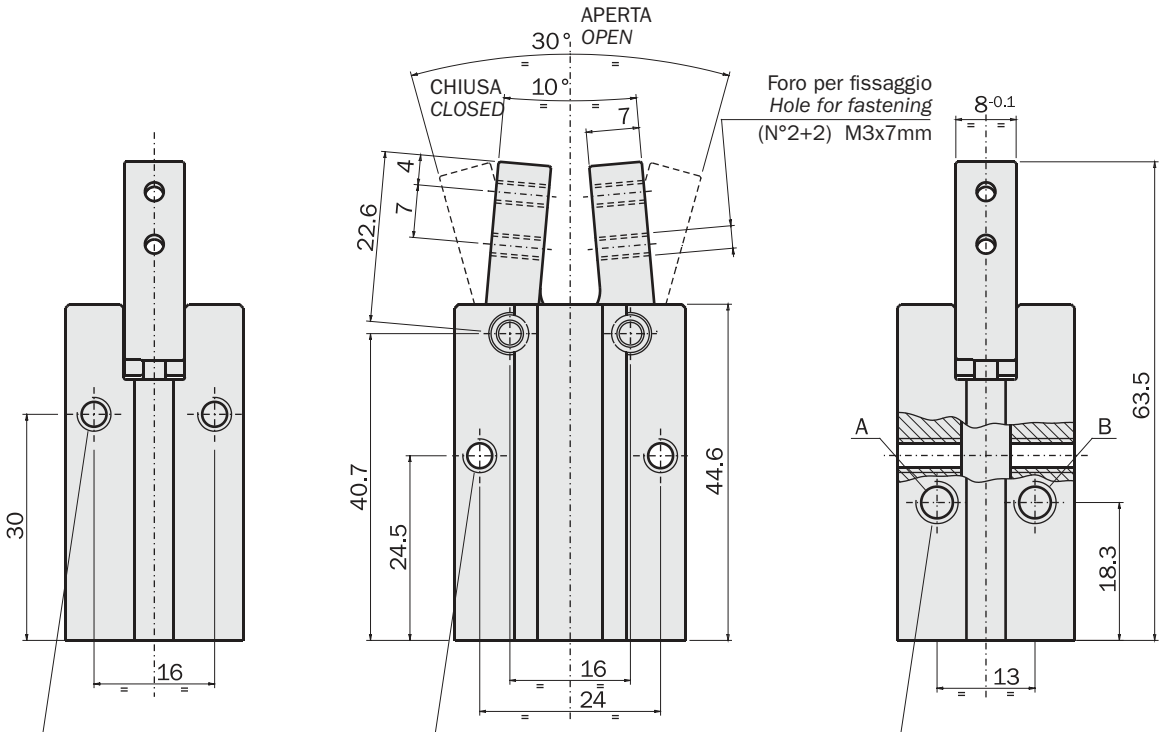
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

Dimensioni (mm)
Dimensions (mm)

GW-16





Foro per fissaggio
Hole for fastening
(N°2) M4x6.5mm

Foro per fissaggio
Hole for fastening
(N°4) M4x8mm

Ingresso aria
Air connection
(N°2) M5

Foro passante per fissaggio
Through hole for fastening
(N°2) Ø3.4mm

Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

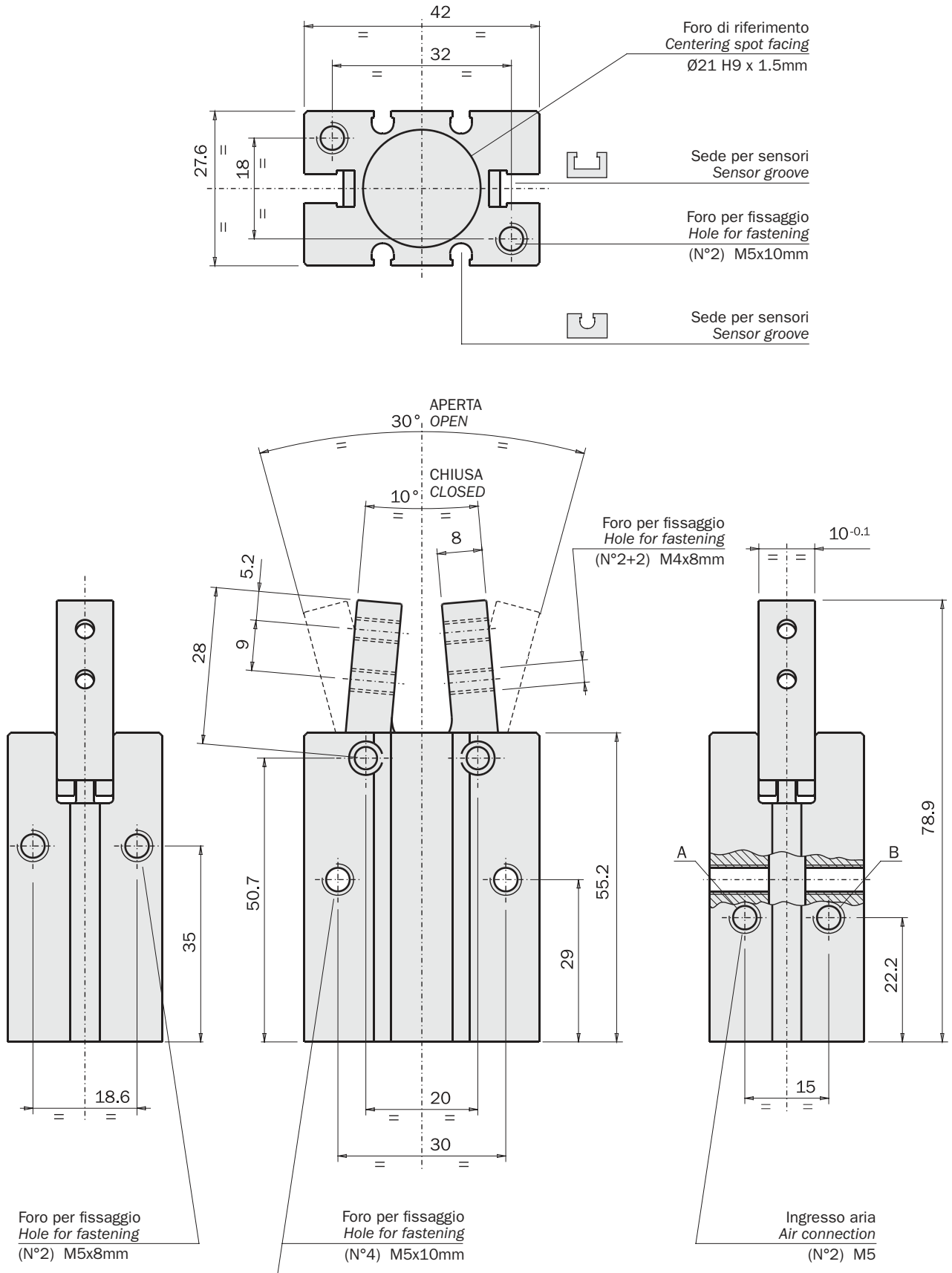
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

GW-20



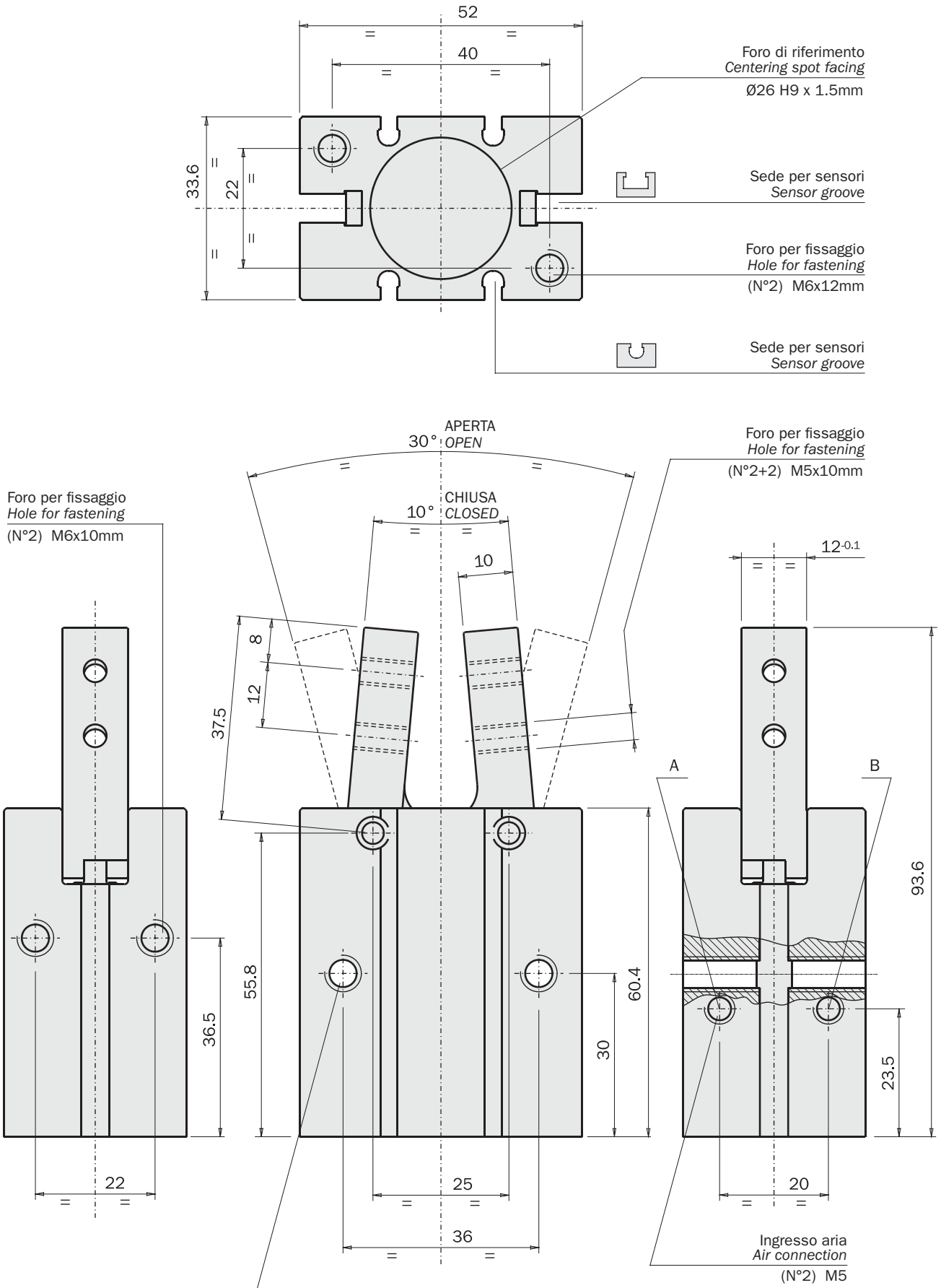
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

GW-25



FIRST ANGLE PROJECTION

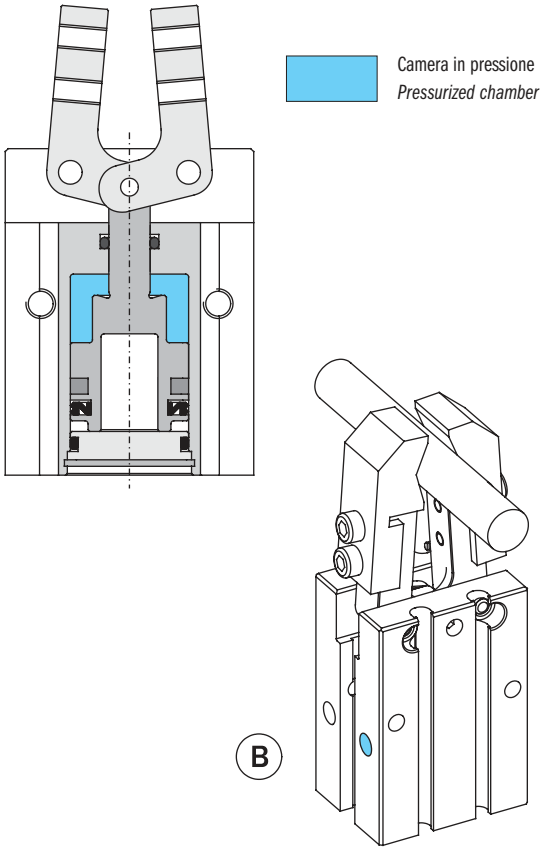
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

07/2026

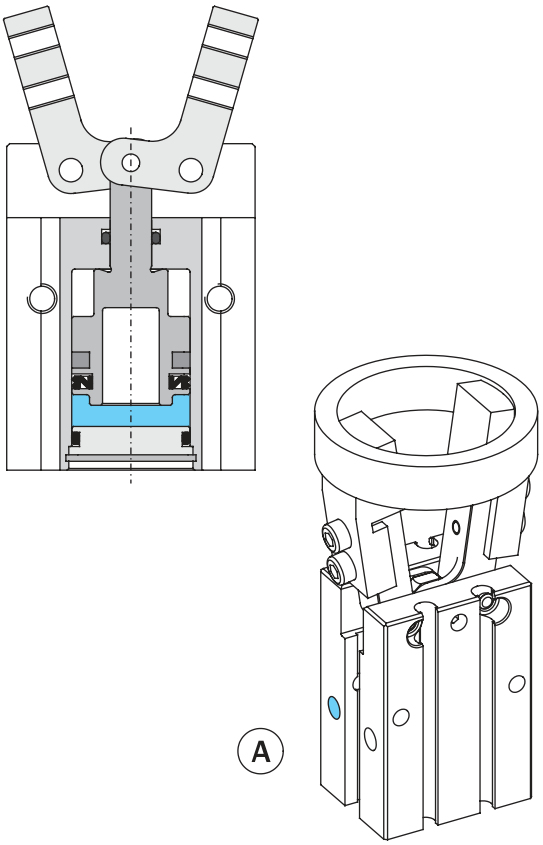
Serraggio

La pinza è a doppio effetto e può quindi essere usata per serrare il carico sia dall'esterno (B) che dall'interno (A).
La forza di serraggio è maggiore in apertura.



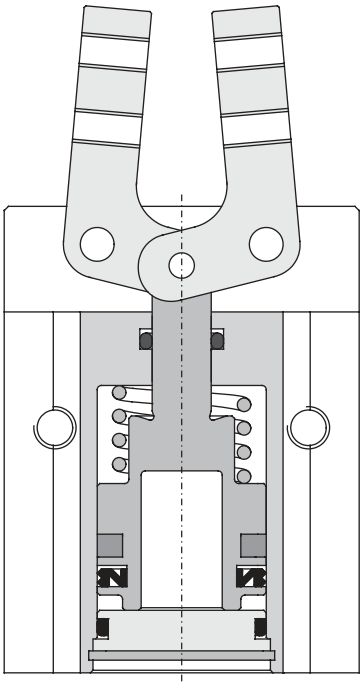
Gripping

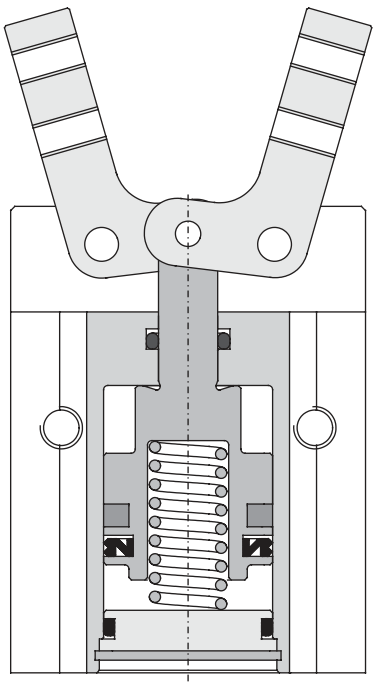
The gripper is double-acting for either internal (A) or external (B) gripping applications.
The opening force is higher.



A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO), che in assenza d'aria garantisce circa un quarto della forza disponibile a 6 bar.

It is also available, on request, with a closing (-NC) or opening (-NO) spring, providing, after a pressure black-out, about one fourth of the output force at 6 bar.





PN

Pinze pneumatiche ad azione basculante autocentrante

- Azionamento a doppio effetto.
- Rendimento ed affidabilità elevati, dovuti all'assenza di organi di trasmissione.
- Possibilità di scelta: 2 o 3 griffe.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

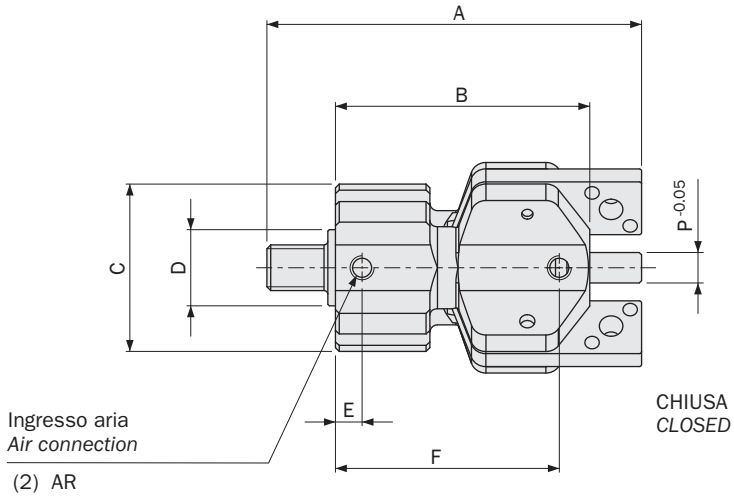
Self-centering angular pneumatic grippers

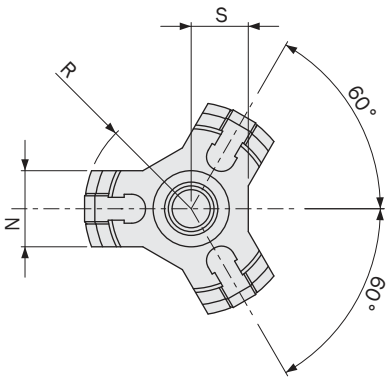
- *Double acting.*
- *High efficiency and reliability due to the lack of driving parts.*
- *2 or 3 jaws.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



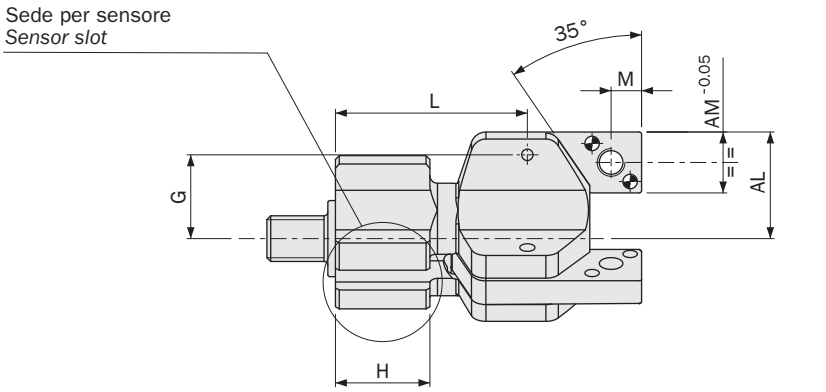
	PN-010-3	PN-010-2	PN-016-3	PN-016-2	PN-025-3	PN-025-2
Azionamento *Design*	Pinza pneumatica ad azionamento basculante autocentrante *Self - centering angular motion gripper*					
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Compressed air control range*	2 ÷ 8 bar					
Corsa (± 1°) *Stroke*	3 x 19°	2 x 19°	3 x 19°	2 x 19°	3 x 19°	2 x 19°
Temperatura di esercizio *Permitted temperature range*	5 ÷ 60°C.					
Coppia di serraggio per ogni griffa a 6 bar *Maximum gripper torque at 6 bar on each jaw*	10 Ncm	15 Ncm	38 Ncm	57 Ncm	166 Ncm	249 Ncm
Coppia di serraggio totale a 6 bar *Total gripper torque at 6 bar*	30 Ncm		114 Ncm		498 Ncm	
Tempo di chiusura a 6 bar senza carico *Closing time at 6 bar without load*	0.02 s		0.03 s		0.06 s	
Frequenza max funzionamento continuativo a 6 bar *Maximum working frequency at 6 bar*	3 Hz				2 Hz	
Consumo d'aria per ciclo a 6 bar *Air consumption for cycle at 6 bar*	0.49 cm^3		2.61 cm^3		10.8 cm^3	
Ripetibilità *Repetition accuracy*	0.1°				0.1°	
Peso *Weight*	36 g	33 g	110 g	100 g	410 g	960 g

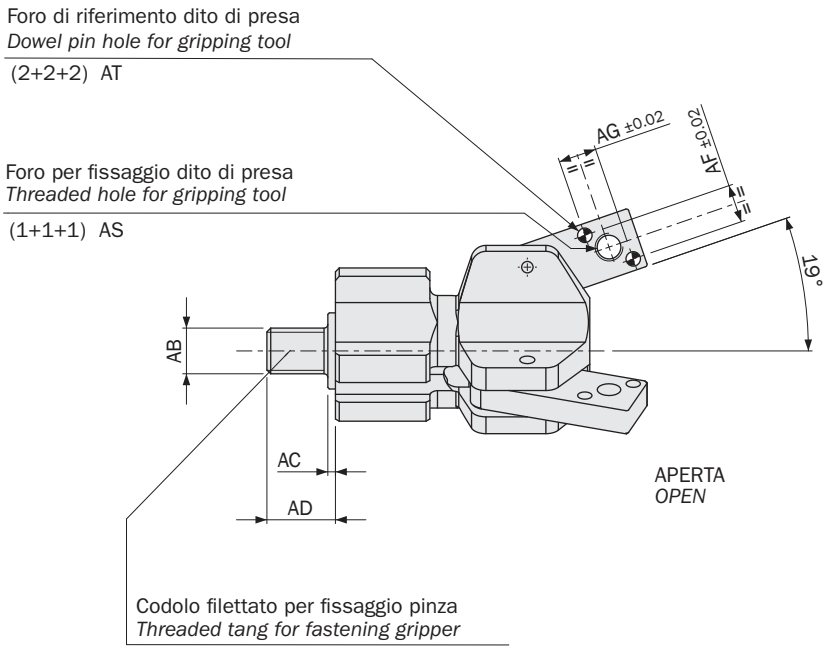
Dimensioni (mm)
Dimensions (mm)





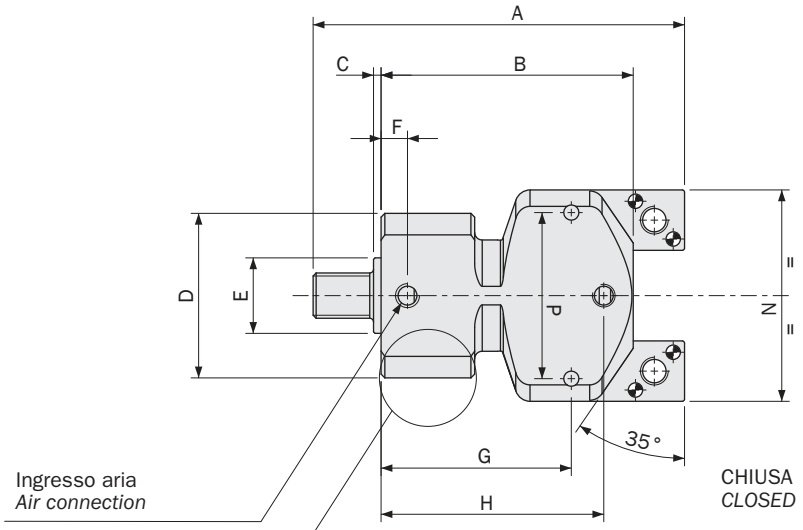
FIRST ANGLE PROJECTION

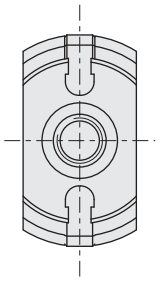




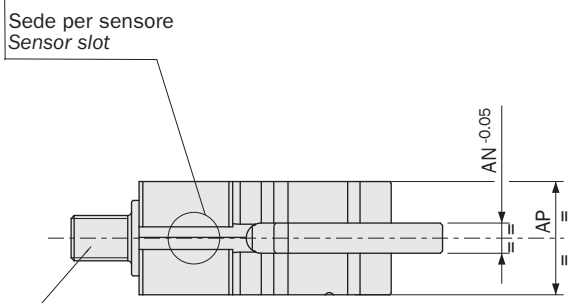
	PN-010-3	PN-016-3
A	49.2	70.5
B	33.4	48.2
C	Ø22	Ø28.8
D	Ø10 h8	Ø10 h8
E	3.5	4.5
F	29.4	41
G	11	17.5
H	12.4	19.5
L	25.2	36
M	4	5.5
N	10	15
P	4	6
R	Ø28	Ø44
S	7.5	11
AB	M6	M8
AC	1	1
AD	9	12.5
AF	5	8
AG	5	7
AL	14	22
AM	8	12
AR	M3	M5
AS	M3	M4
AT	Ø1.5 H8	Ø2 H8

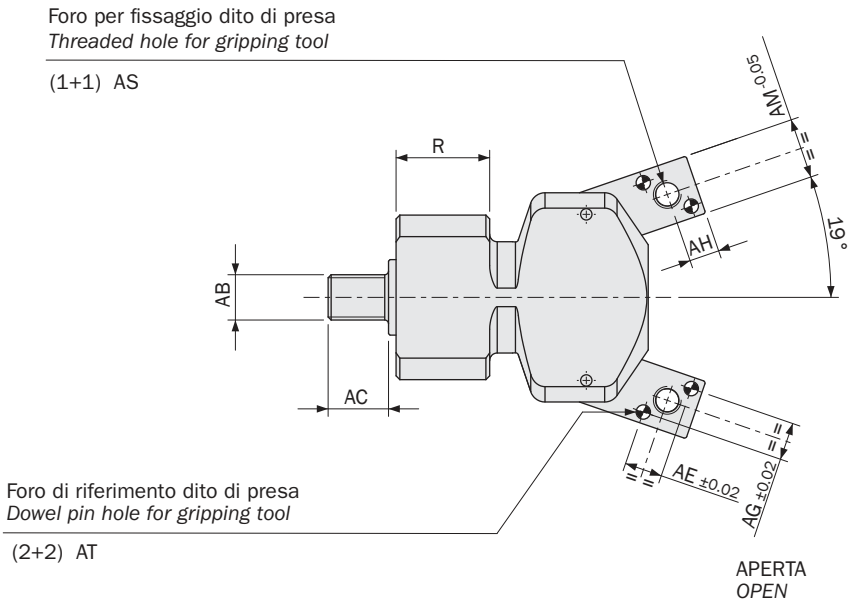
Dimensioni (mm)
Dimensions (mm)





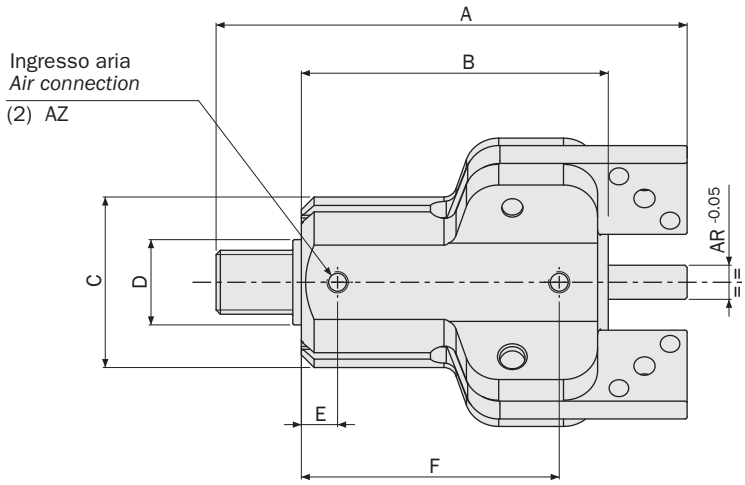


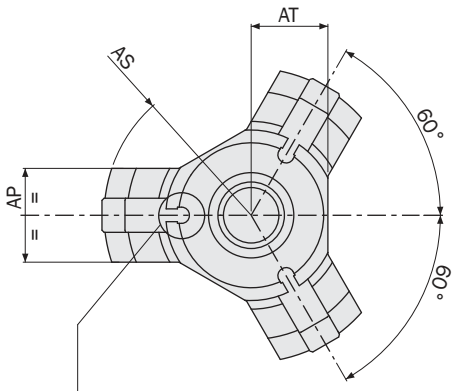




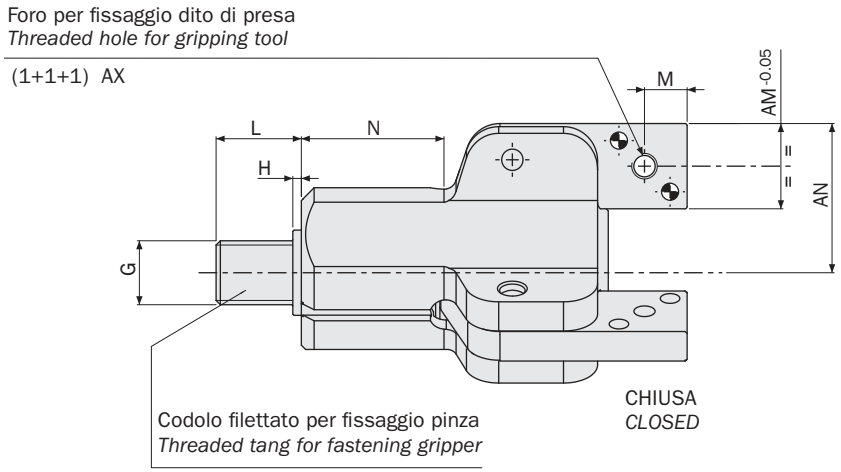
	PN-010-2	PN-016-2
A	49.2	70.5
B	33.4	48.2
C	1	1
D	Ø22	Ø28.8
E	Ø10 h8	Ø10 h8
F	3.5	4.5
G	25.2	36
H	29.5	41
N	28	44
P	22	35
R	12.4	19.5
AB	M6	M8
AC	8	11.5
AE	5	7
AG	5	8
AH	4	5.5
AM	8	12
AN	4	6
AP	15	22
AR	M3	M5
AS	M3	M4
AT	Ø1.5 H8	Ø2 H8
AV	Ø28	Ø44

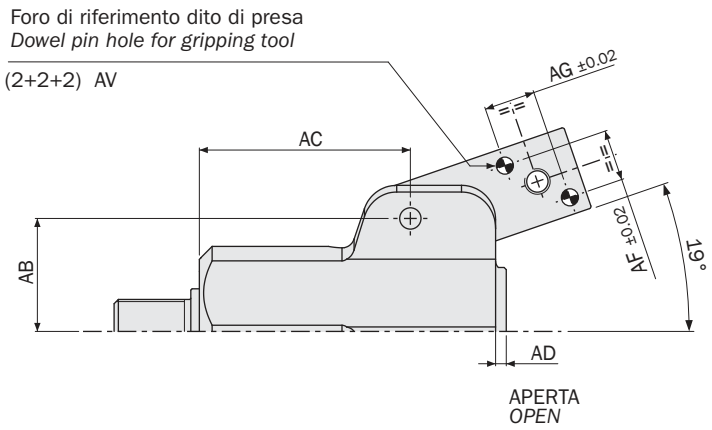
Dimensioni (mm)
Dimensions (mm)





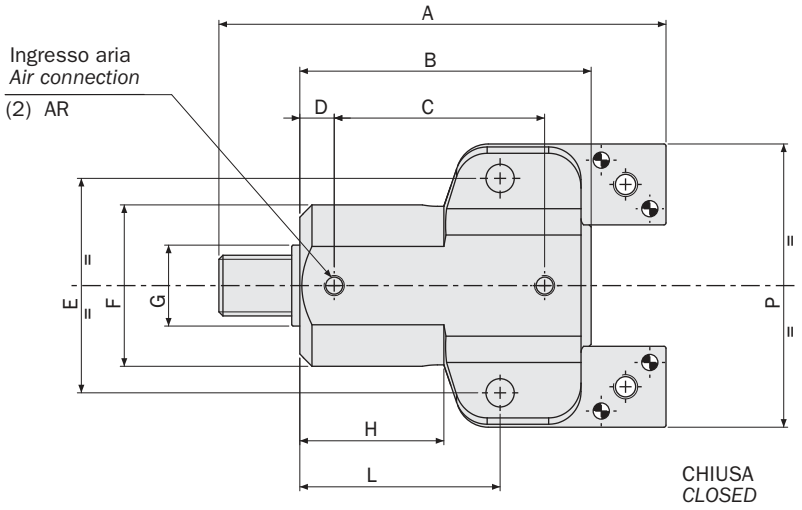
FIRST ANGLE PROJECTION

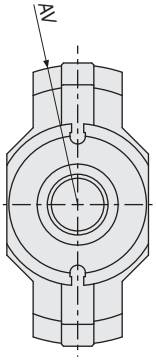




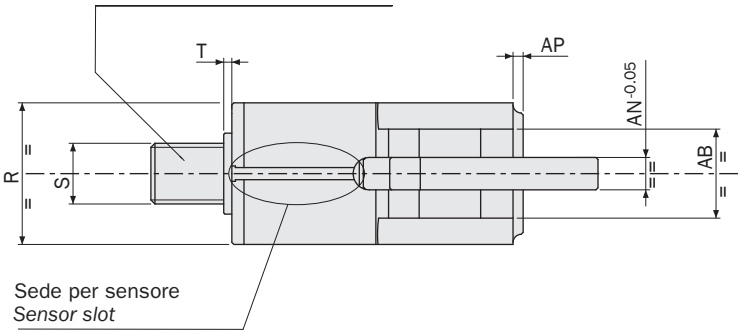
	PN-025-3
A	110.5
B	72
C	Ø40
D	Ø20 f7
E	8.5
F	60.5
G	M15x1
H	2
L	20
M	10
N	33.5
AB	26.5
AC	49.5
AD	2.5
AF	12
AG	12
AM	20
AN	35
AP	22
AR	8
AS	Ø69
AT	18
AV	Ø4 H8
AX	M6
AZ	M5

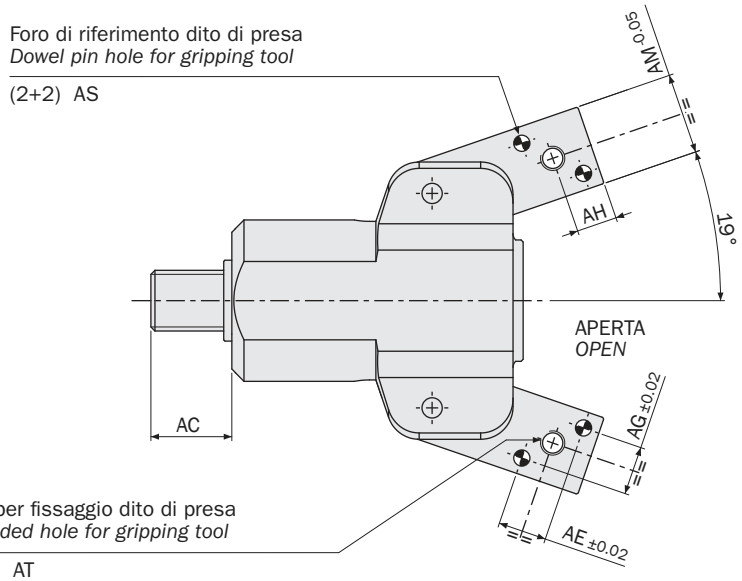
Dimensioni (mm)
Dimensions (mm)





FIRST ANGLE PROJECTION





	PN-025-2
A	110.5
B	72
C	52
D	8.5
E	53
F	Ø40
G	Ø20 f7
H	35.6
L	49.5
P	70
R	35
S	M15x1
T	2
AB	22
AC	20
AE	12
AG	12
AH	10
AM	20
AN	8
AP	2.5
AR	M5
AS	Ø4 H8
AT	M6
AV	Ø69

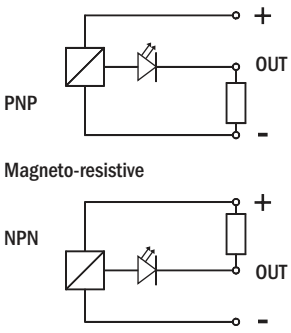
Sensori

Il rilevamento della posizione di lavoro è affidata ad uno o più sensori magnetici di prossimità inseriti nelle guide del corpo pinza.
Essi rilevano la posizione attraverso un magnete applicato sul pistone.

Sensors

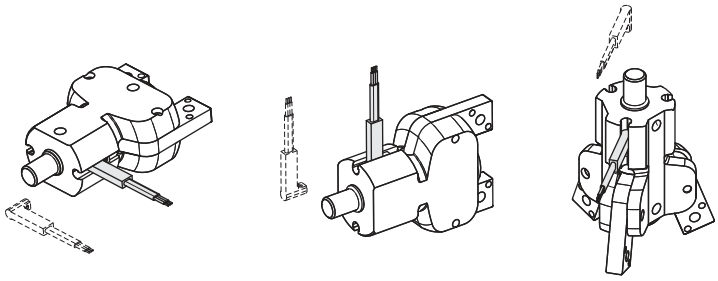
The operating position is detected by proximity magnetic sensors, fitted in the guides of the gripper's body.
These sensors detect the position by means of a magnet placed on the piston.

SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SN3M203-G	NPN	

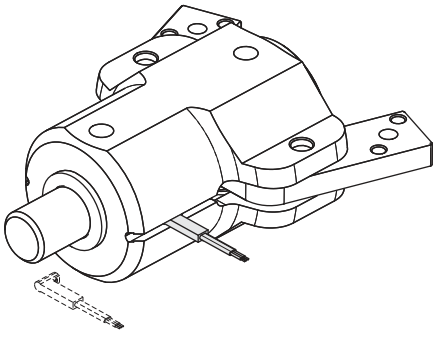


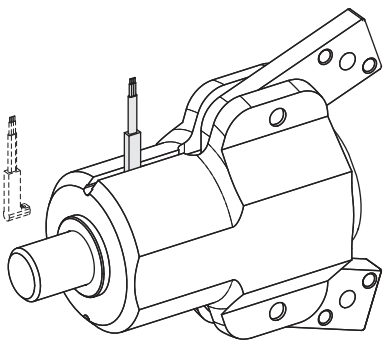
Sono tutti dotati di un cavo piatto a tre fili e di un led.

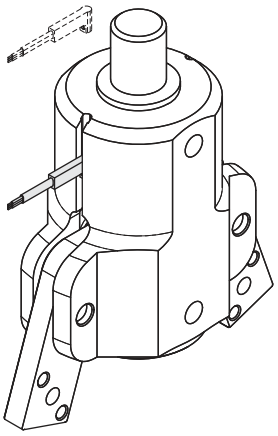
They are all provided with a 3-wire flat cable and a LED.











TFA

Mini pinza angolare a due griffe autocentrante, serie TFA

- Azionamento a semplice effetto con apertura a molla.
- Vari accessori disponibili per il fissaggio.
- Kit opzionale per la sospensione (1).
- Grasso alimentare NSF-H1.

2-jaw self-centering angular mini gripper, series TFA

- *Single acting with spring opening.*
- *Several mounting accessories.*
- *Optional suspension kit (1).*
- *NSF-H1 food-grade grease.*

(1)





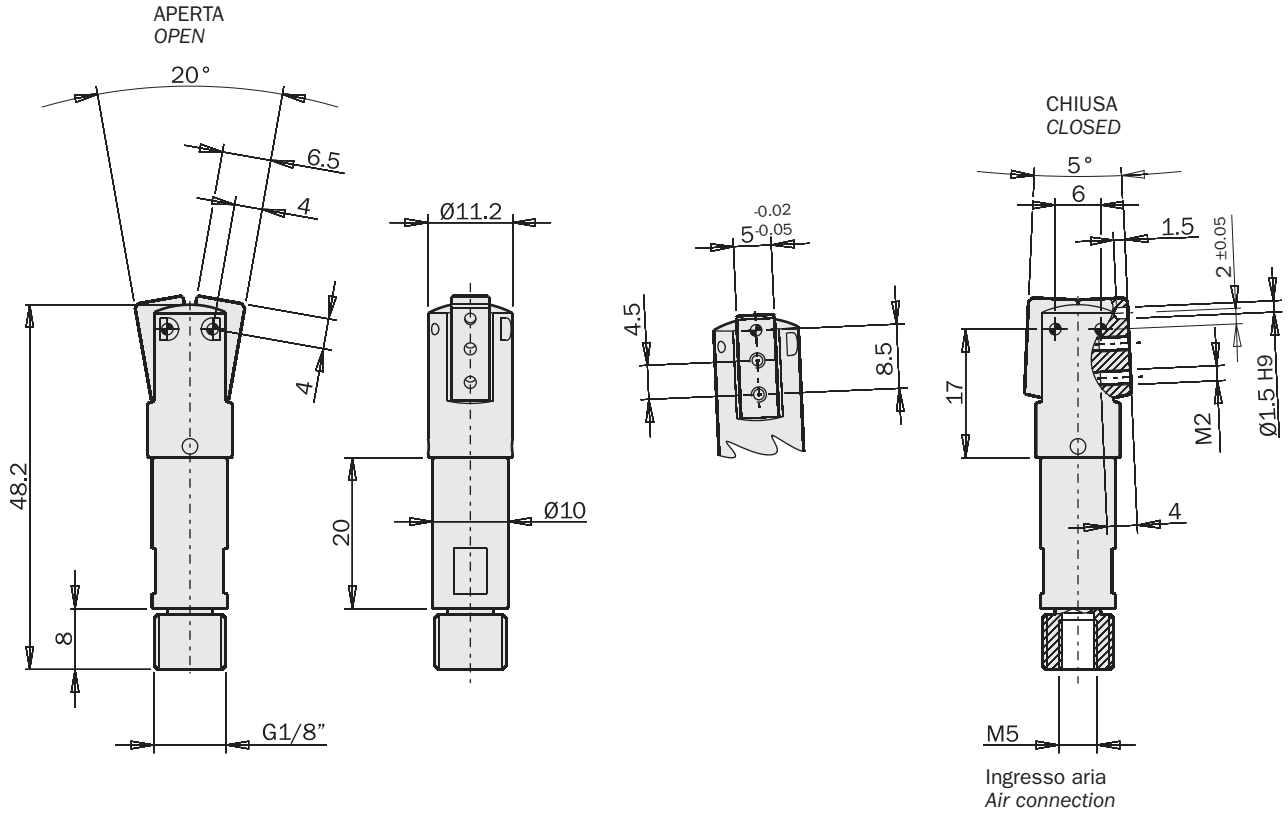
	TFA10-25	TFA14-25	TFA20-25
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	2 x 12.5°		
Coppia di chiusura per griffa a 6 bar *Closing torque at 6 bar each jaw*	17 Ncm	48 Ncm	215 Ncm
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*	34 Ncm	96 Ncm	430 Ncm
Coppia di apertura per griffa a 0 bar *Opening torque at 0 bar each jaw*	0.5 Ncm	0.8 Ncm	1.3 Ncm
Coppia di apertura totale a 0 bar *Total opening torque at 0 bar*	1 Ncm	1.6 Ncm	2.6 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.2 cm^3	0.5 cm^3	2 cm^3
Peso *Weight*	12 g	30 g	95 g (TFA20-25)

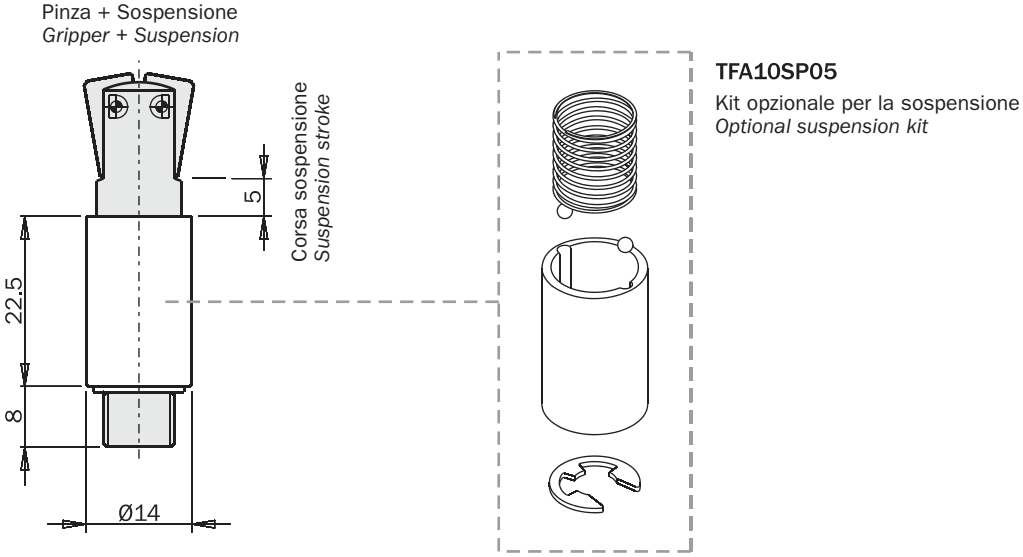
(1)

	TFA10SP05	TFA14SP05	TFA20SP10
Forza della molla *Spring force*	1.9 ÷ 2.2 N	3.0 ÷ 3.5 N	4.1 ÷ 6.7 N
Peso *Weight*	10 g	35 g	85 g

Dimensioni (mm)
Dimensions (mm)

TFA10-25





TFA10SP05

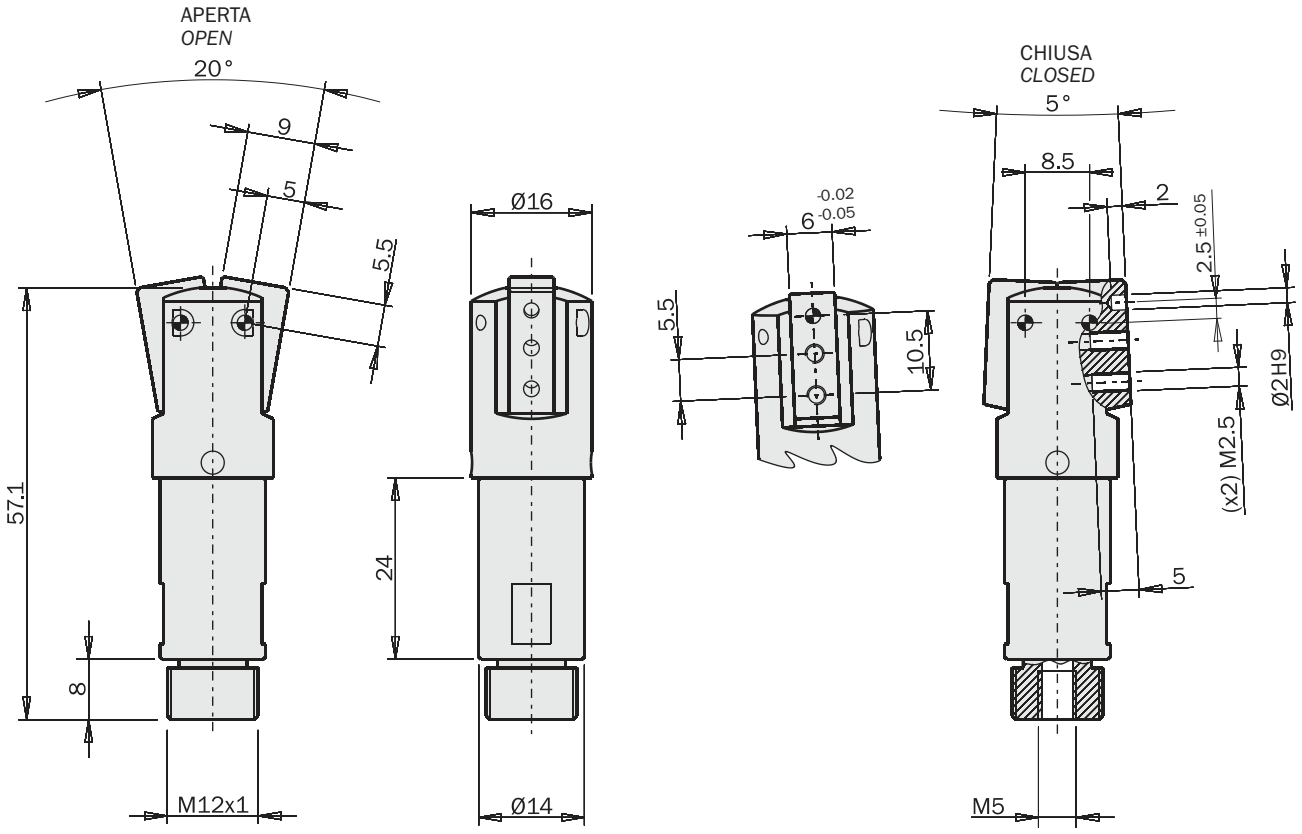
Kit opzionale per la sospensione
Optional suspension kit

FIRST ANGLE PROJECTION

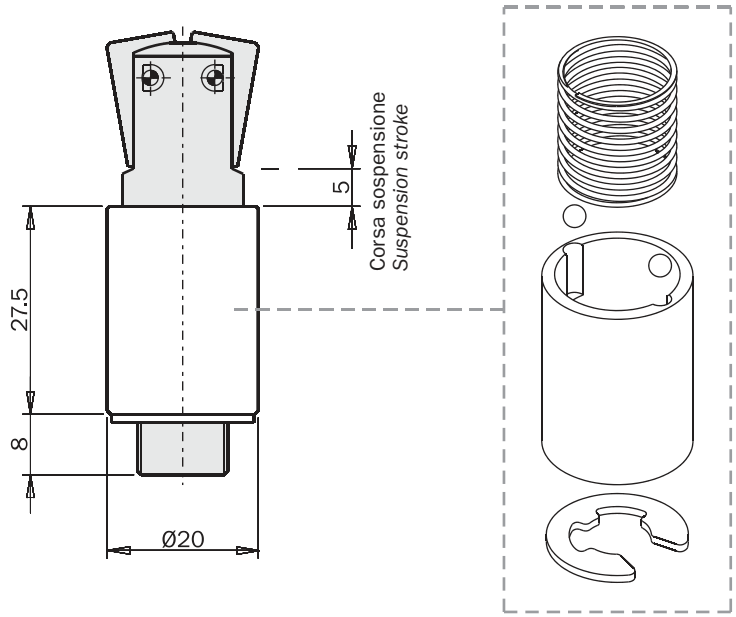
07/2026

Dimensioni (mm)
Dimensions (mm)

TFA14-25



Pinza + Sospensione
Gripper + Suspension

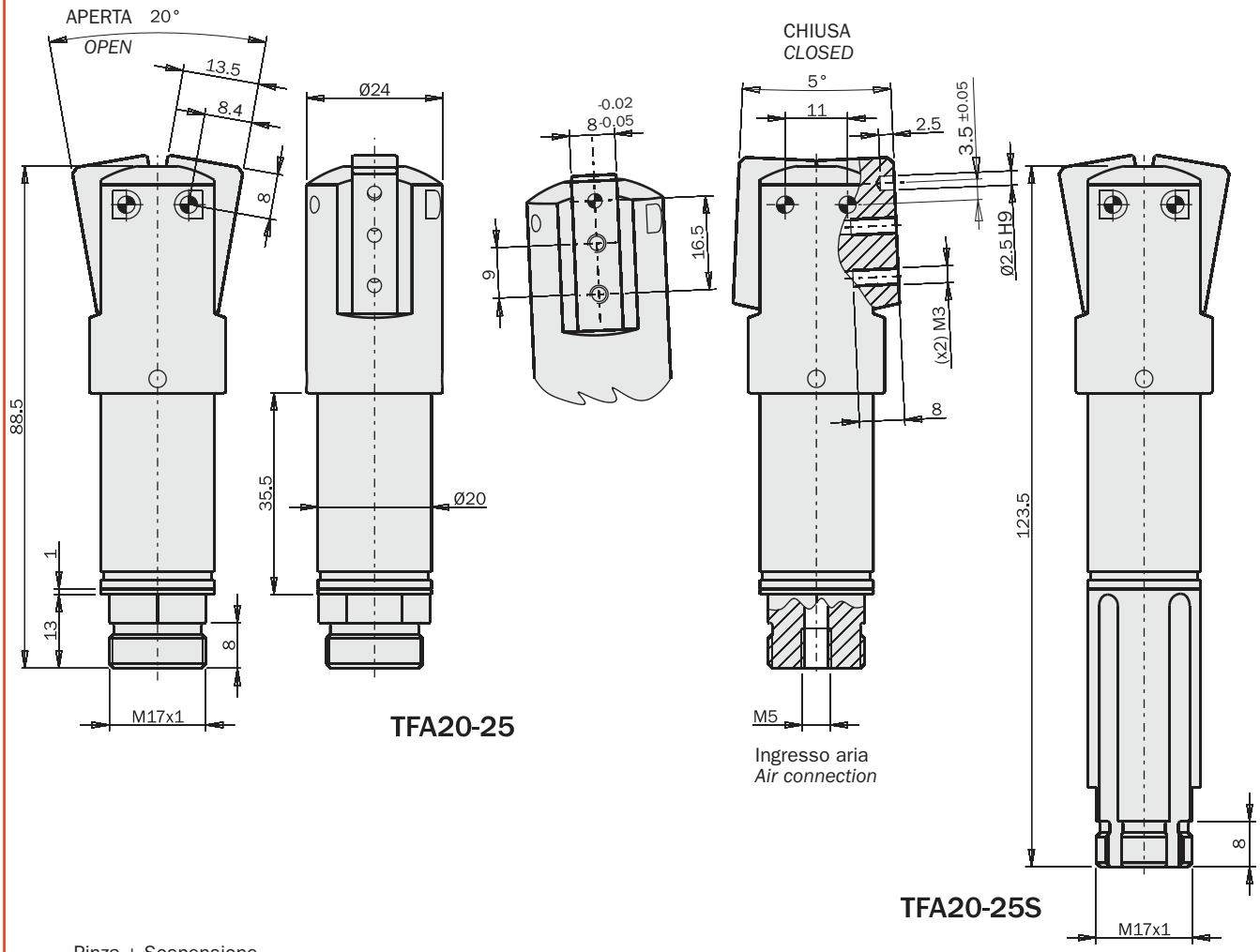


TFA14SP05
Kit opzionale per la sospensione
Optional suspension kit

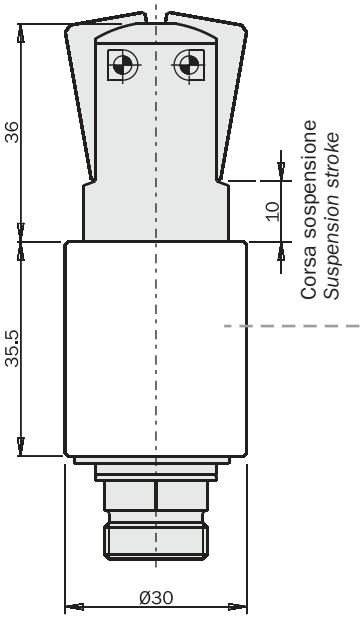
FIRST ANGLE PROJECTION

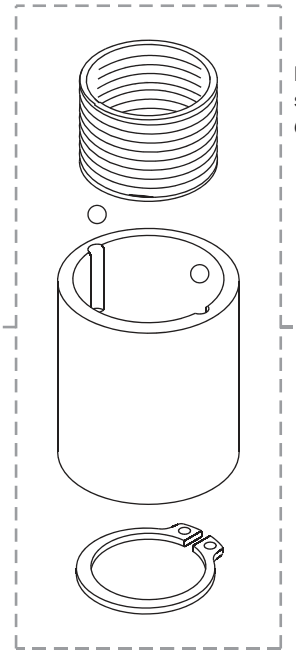
Dimensioni (mm)
Dimensions (mm)

TFA20-25

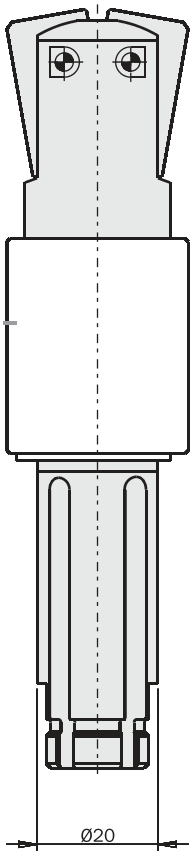


Pinza + Sospensione
Gripper + Suspension





TFA20SP10
Kit opzionale per la sospensione
Optional suspension kit



Pinza + Sospensione
Gripper + Suspension

FIRST ANGLE PROJECTION

07/2026

MPBM

Pinza elettrica angolare 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe contenute nell'ingombro pinza.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw angular self-centering electric gripper

- *Plug & play user friendly gripper.*
- *No electricity consumption when gripper is engaged.*
- *No programming required.*
- *Gripper retention guaranteed in event of blackout.*
- *Self Adapting jaws part.*
- *Long life Brushless motor (Brushless DC).*
- *Built-in motor driver.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Fiber-carbon gear reduction.*
- *10 milion cycle maintenance-free.*
- *Jaws contained within gripper profile.*
- *Weight-dimensions-force best trade off.*
- *Rotary actuator fitting compatible.*
- *Optional magnetic sensors.*



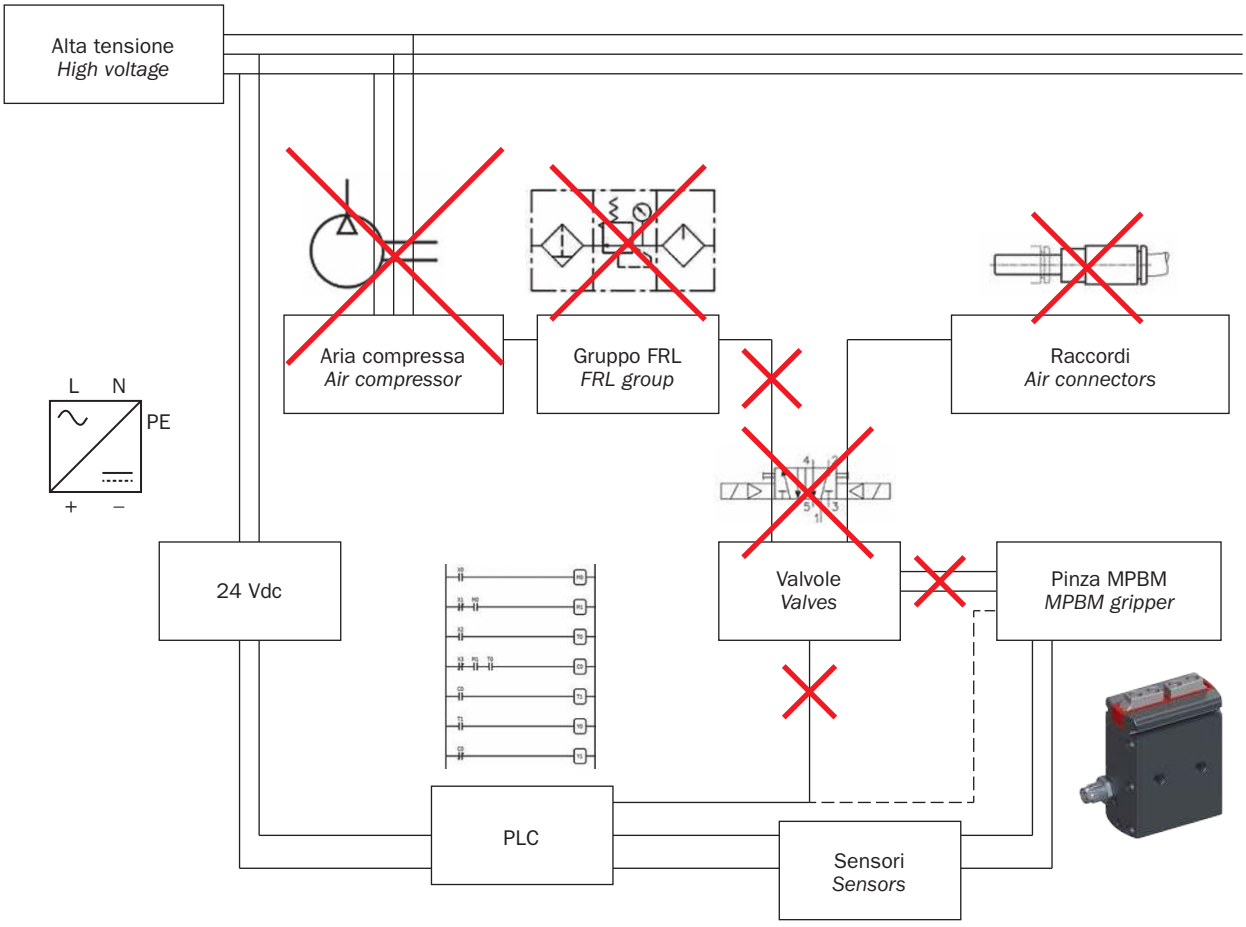
MPBM1640



MPBM2540



MPBM3240

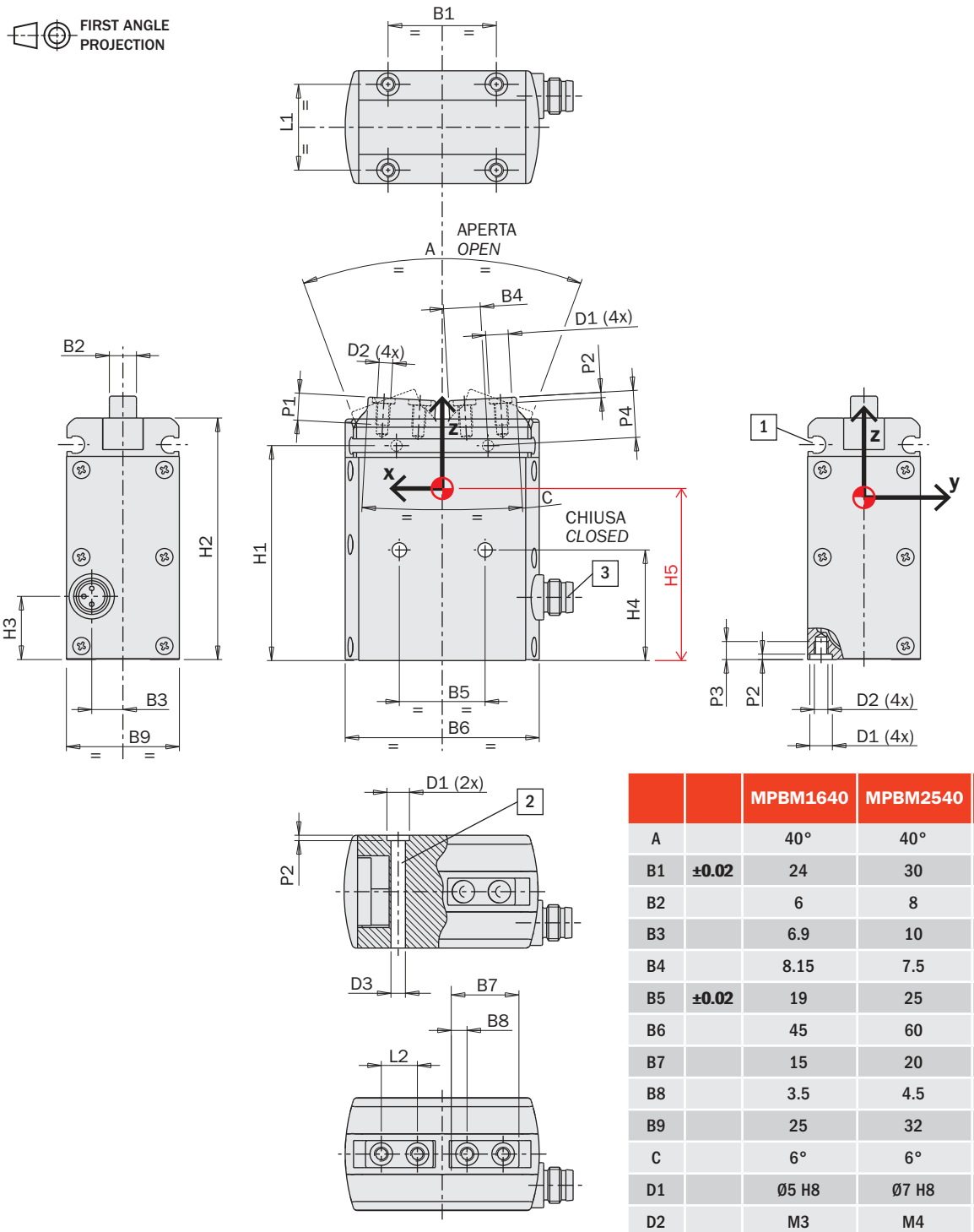






	MPBM1640	MPBM2540	MPBM3240
Coppia di serraggio totale *Total gripping torque*	68 Ncm	151 Ncm	277 Ncm
Corsa *Stroke*	2x23° (±2°)	2x23° (±2°)	2x23° (±2°)
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	0.93 Hz	0.85 Hz	0.81 Hz
Tempo chiusura griffe *Jaw closing time*	0.09 s	0.13 s	0.14 s
Tempo di lavoro pinza *Working gripper time*	0.18 s	0.31 s	0.25 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	34%	53%	41%
Tensione d'alimentazione *Power supply*			
Corrente di picco *Peak current*	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale *Nominal current*	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless *Brushless motor power*	6 W	11 W	23 W
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*		
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*		
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione *Environmental Degree*			
Rumorosità *Noise level*	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) *Mass (motor included)*	140 g	315 g	510 g
Carico inerziale massimo *Maximum inertial load*	-	-	-
Certificazione Camera Bianca IPA *IPA Clean Room Certification*	-	-	-
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale Jxx *Barycentric moment of inertia*	0.42 kgcm²	1.72 kgcm²	3.52 kgcm²
Momento d'inerzia baricentrale Jyy *Barycentric moment of inertia*	0.53 kgcm²	2.18 kgcm²	4.8 kgcm²
Momento d'inerzia baricentrale Jzz *Barycentric moment of inertia*	0.23 kgcm²	0.94 kgcm²	2.15 kgcm²
Tecnologia e opzioni *Technology and options*	Pagina 562 - 563 *Page 562 - 563*		

Dimensioni (mm)
Dimensions (mm)



		MPBM1640	MPBM2540	MPBM3240
A		40°	40°	40°
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		8.15	7.5	12.25
B5	±0.02	19	25	30
B6		45	60	73
B7		15	20	24
B8		3.5	4.5	5
B9		25	32	35
C		6°	6°	6°
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		47.6	63	72
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.3	42.5	48.5
L1	±0.02	19	24	26
L2	±0.02	8	11	14
P1		6	8	10
P2	+0.1	1.2	1.5	1.5
P3		4	6	8
P4		10.4	14	16

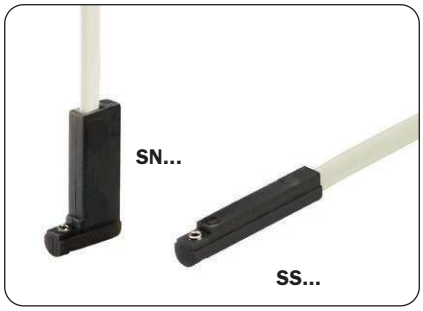
1 Cava per sensore magnetico
Magnetic sensor slot

2 Foro passante per fissaggio pinza
Through hole for gripper fastening

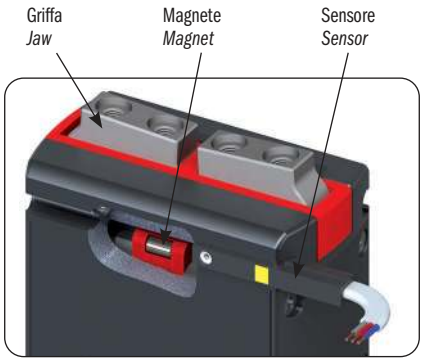
3 Connessione elettrica
Electrical connection

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Per i dettagli si veda la sezione "Accessori".



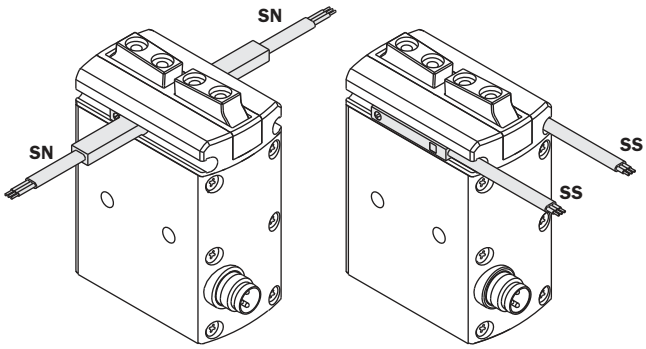
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



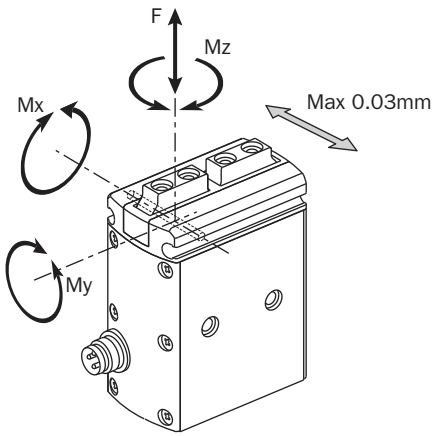
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
J è il massimo momento d'inerzia ammissibile per ogni dito di presa.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
J is the maximum permitted moment of inertia on each gripping tool.
The picture below shows also the jaw maximum backlash.

	MPBM1640	MPBM2540	MPBM3240
F s	40 N	80 N	120 N
Mx s	0.5 Nm	1 Nm	2.5 Nm
My s	1 Nm	2 Nm	5 Nm
Mz s	1 Nm	2 Nm	5 Nm
J	0.4 kgcm²	2 kgcm²	5 kgcm²



PS

Pinza pneumatica radiale autocentrante a 2 griffe (serie PS)

- Azionamento radiale a doppio effetto.
- Forza di serraggio totalmente disponibile su tutta la corsa (da 0° a 90° sia in apertura che in chiusura).
- Basso peso ottenuto con l'impiego di leghe leggere.
- Costruzione robusta.
- Protezione contro la polvere.
- Grasso alimentare NSF-H1.

2-jaw self-centering radial pneumatic gripper (series PS)

- *Double acting radial motion.*
- *The gripping force is totally available on both directions from 0° to 90°.*
- *Light weight, due to its alloy construction.*
- *Rugged construction.*
- *Well protected against dusty environment.*
- *NSF-H1 food-grade grease.*



PS-0030



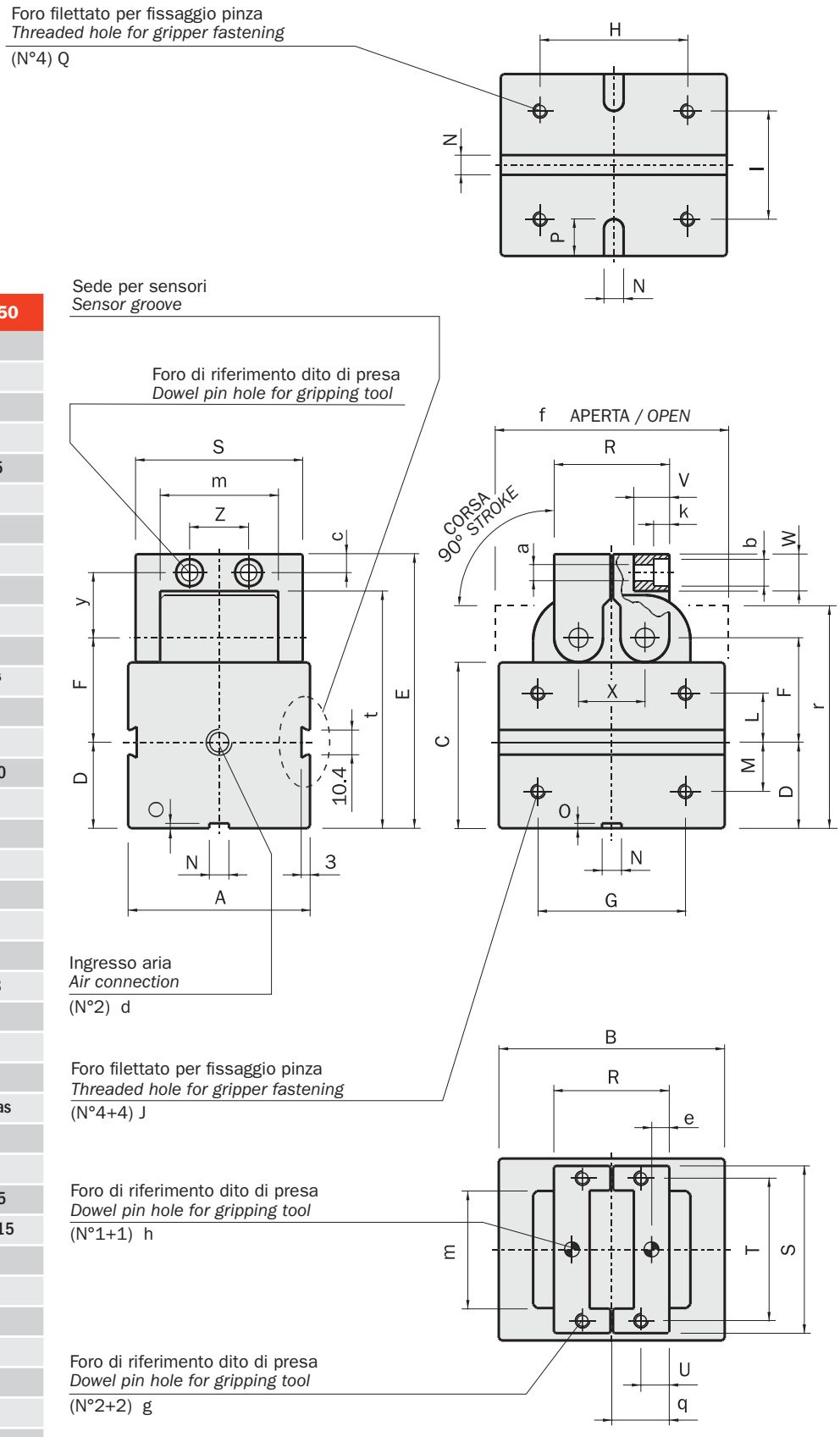
PS-0050

	PS-0030	PS-0050
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.	
Corsa (±1°) *Stroke*	2 x 91°	
Coppia di serraggio per griffa a 6 bar *Gripping torque at 6 bar on each jaw*	200 Ncm	600 Ncm
Coppia di serraggio totale a 6 bar *Total gripping torque at 6 bar*	400 Ncm	1200 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	37 cm^3	105 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.08 s	0.1 s
Ripetibilità *Repetition accuracy*	0.1°	0.1°
Peso *Weight*	750 g	1100 g

Dimensioni (mm)
Dimensions (mm)



	PS-0030	PS-0050
A	49	74
B	81	92
C	45	67.5
D	24	35
E	83	111.5
F	30	42.5
G	50	60
H	65	60
I	39	44
L	11.5	20
M	13.5	20
N	6 $^{+0.05}$	8 $^{+0.05}$
O	2	2
P	12.5	15
Q	M4x8	M5x10
R	41.8	46.8
S	48	68
T	38	58
U	10.2	11.5
V	12.4	14.4
Z	20	24
J	M4x5	M5x8
a	Ø5.5	Ø6.6
b	Ø9	Ø11
c	6	7.5
d	1/8 Gas	1/8 Gas
e	6.4	7.2
f	82	95
g	M4x10	M5x15
h	Ø5H8x12	Ø6H8x15
m	31	48
q	20.3	22.8
r	65.5	90.5
t	70.5	96
k	5.5	6.5
y	23	26.5
w	12	15
x	24	27



PS-P

Pinza pneumatica radiale autocentrante a 2 griffe (serie PS-P)

- Azionamento radiale a doppio effetto.
- Forza di serraggio totalmente disponibile su tutta la corsa (da 0° a 90° sia in apertura che in chiusura).
- Basso peso ottenuto con una costruzione interamente in lega leggera.
- Profilo piatto.
- Protezione contro la polvere.
- Versatilità di gestione anche con più di due sensori alloggiabili nelle cave integrate.
- Grasso alimentare NSF-H1.

2-jaw self-centering radial pneumatic gripper (series PS-P)

- *Double acting radial motion.*
- *The gripping force is totally available on both directions from 0° to 90°.*
- *Lightweight, being totally in light alloy.*
- *Flat profile.*
- *Well protected against dusty environment.*
- *As more than two sensors can be mounted, versatile operating is possible.*
- *NSF-H1 food-grade grease.*



PS-0016-P



PS-0025-P



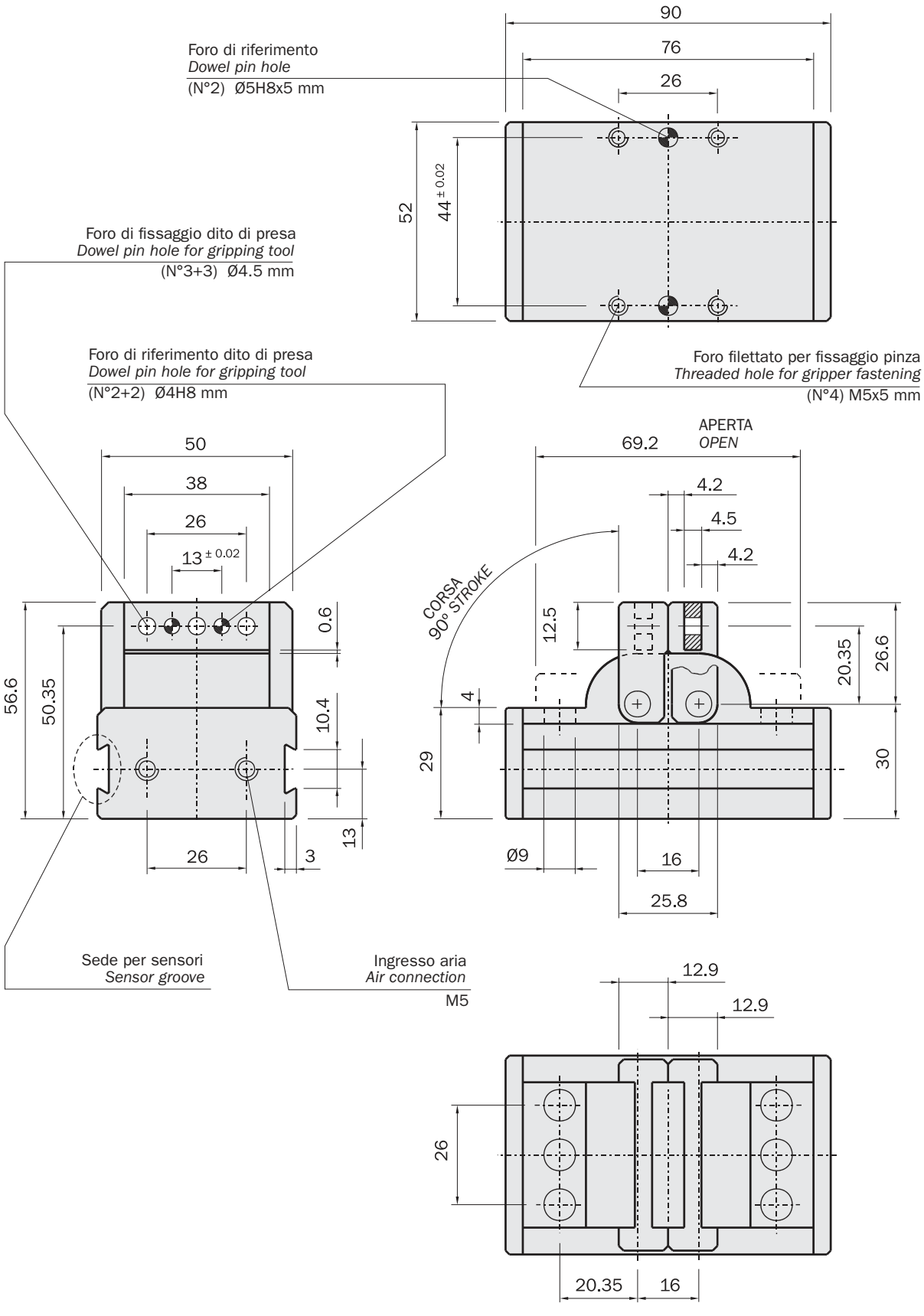
PS-0045-P

	PS-0016-P	PS-0025-P	PS-0045-P
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar		
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.		
Corsa (±1°) *Stroke*	2 x 90°		
Coppia di serraggio per griffa a 6 bar *Gripping torque at 6 bar on each jaw*	100 Ncm	280 Ncm	1800 Ncm
Coppia di serraggio totale a 6 bar *Total gripping torque at 6 bar*	200 Ncm	560 Ncm	3600 Ncm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	16 cm^3	57 cm^3	382 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.06 s	0.09 s	0.15 s
Ripetibilità *Repetition accuracy*	0.1°	0.1°	0.1°
Peso *Weight*	320 g	650 g	2700 g

Dimensioni (mm)
Dimensions (mm)

PS-0016-P

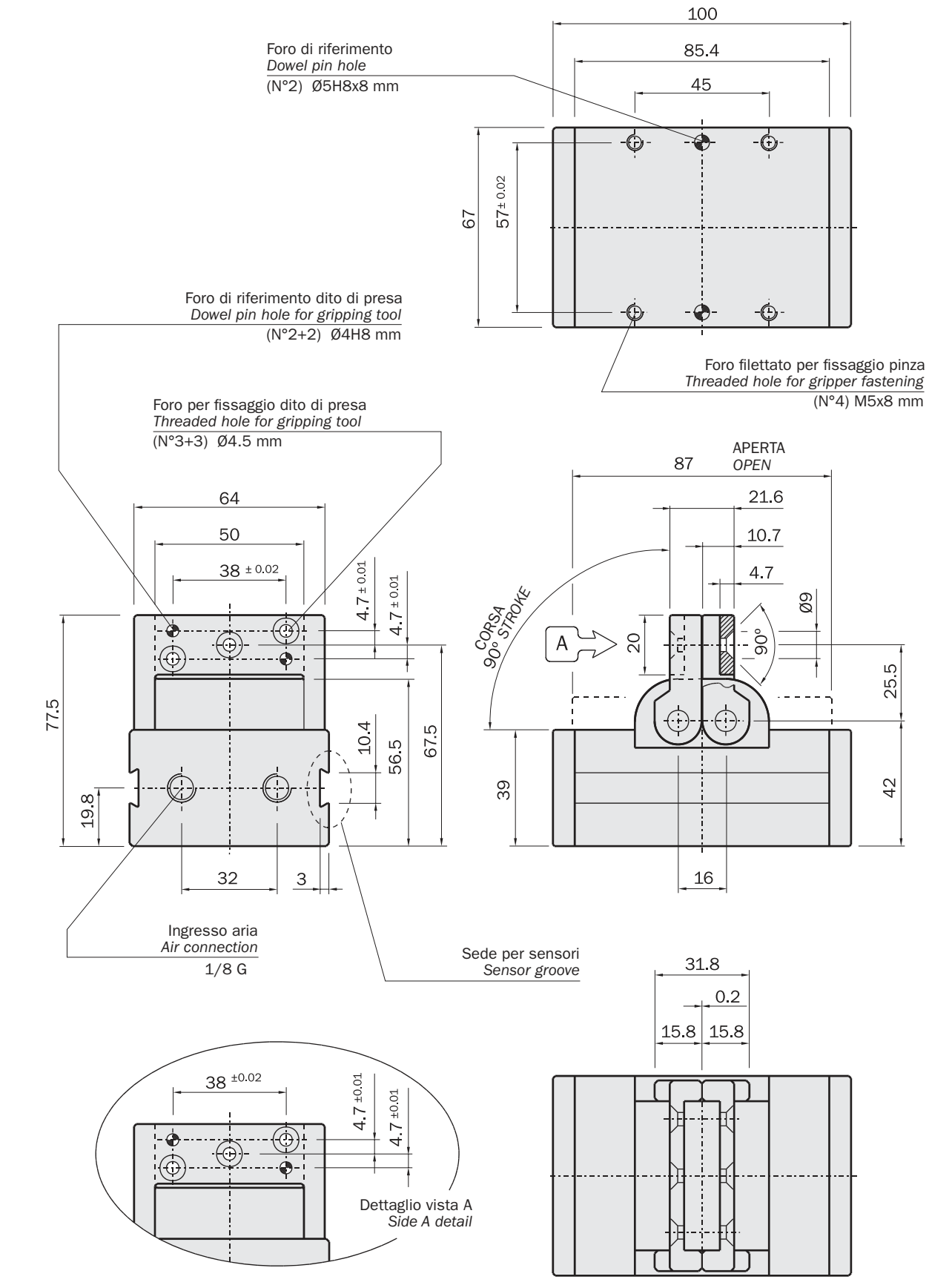
FIRST ANGLE PROJECTION



Dimensioni (mm)
Dimensions (mm)

PS-0025-P

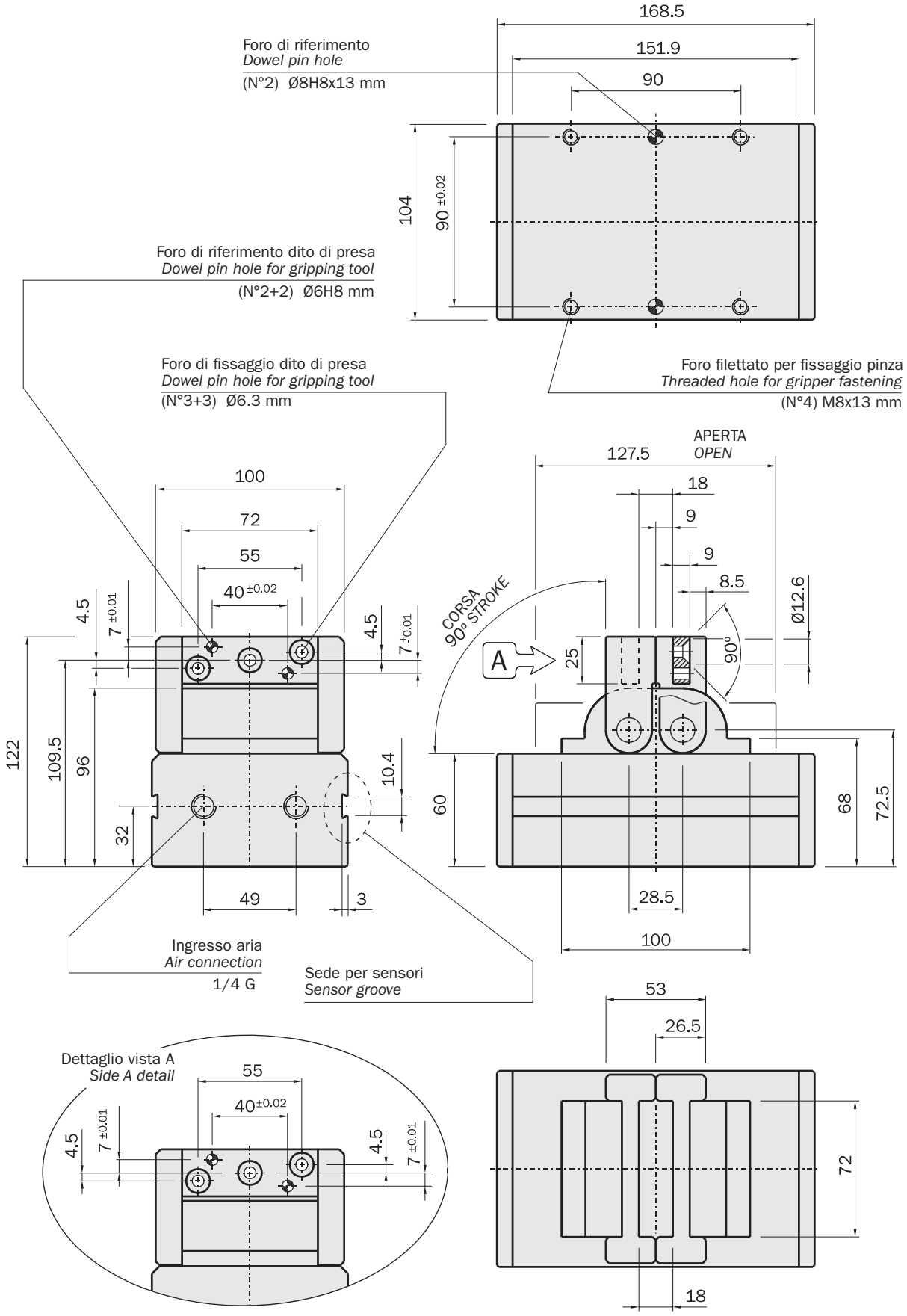
FIRST ANGLE PROJECTION



Dimensioni (mm)
Dimensions (mm)

PS-0045-P

FIRST ANGLE PROJECTION



GX-S

Pinza pneumatica radiale autocentrante a 2 griffe (serie GX-S)

- Azionamento a doppio effetto.
- Elevata forza di serraggio alla fine della corsa di chiusura.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw self centering radial pneumatic gripper (series GX-S)

- *Double acting.*
- *Very high gripping force at the end of the closing stroke.*
- *Long life and reliability, maintenance free.*
- *Various options for fastening.*
- *Optional proximity magnetic sensors.*
- *NSF-H1 food-grade grease.*



GX-10S



GX-16S



GX-20S

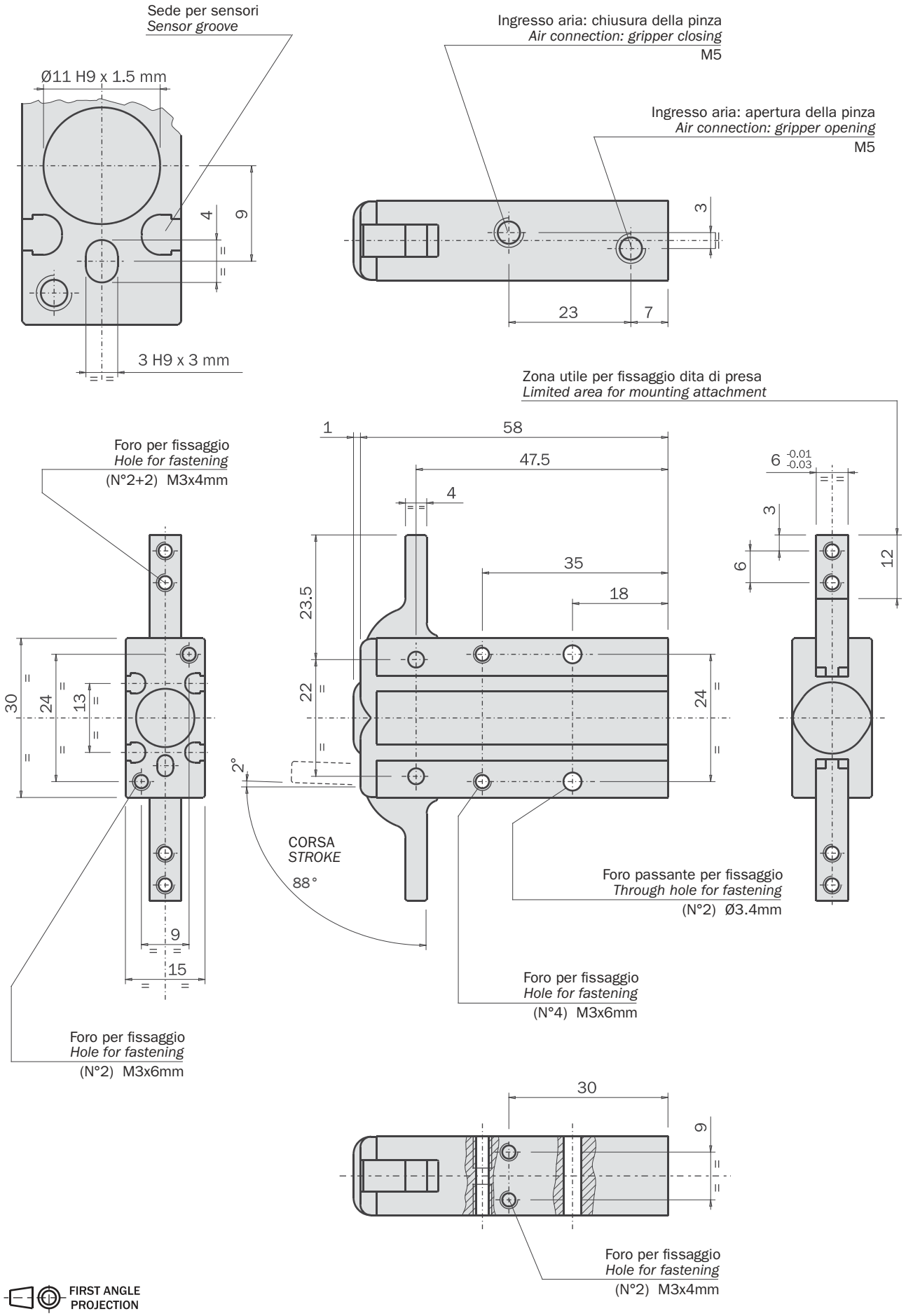


GX-25S

	GX-10S	GX-16S	GX-20S	GX-25S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.			
Coppia massima per griffa in apertura a 6 bar *Opening maximum torque at 6 bar on each jaw*	35 Ncm	120 Ncm	230 Ncm	430 Ncm
Coppia massima totale in apertura a 6 bar *Opening maximum total torque at 6 bar*	70 Ncm	240 Ncm	460 Ncm	860 Ncm
Coppia massima per griffa in chiusura a 6 bar *Closing maximum torque at 6 bar on each jaw*	26 Ncm	105 Ncm	210 Ncm	400 Ncm
Coppia massima totale in chiusura a 6 bar *Closing maximum total torque at 6 bar*	52 Ncm	210 Ncm	420 Ncm	800 Ncm
Corsa (±4°) *Stroke*	2x90°	2x90°	2x90°	2x90°
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	2 cm^3	6 cm^3	11 cm^3	22 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.04 s	0.08 s	0.10 s	0.08 s
Ripetibilità *Repetition accuracy*	0.05°	0.05°	0.05°	0.05°
Peso *Weight*	70 g	140 g	290 g	510 g

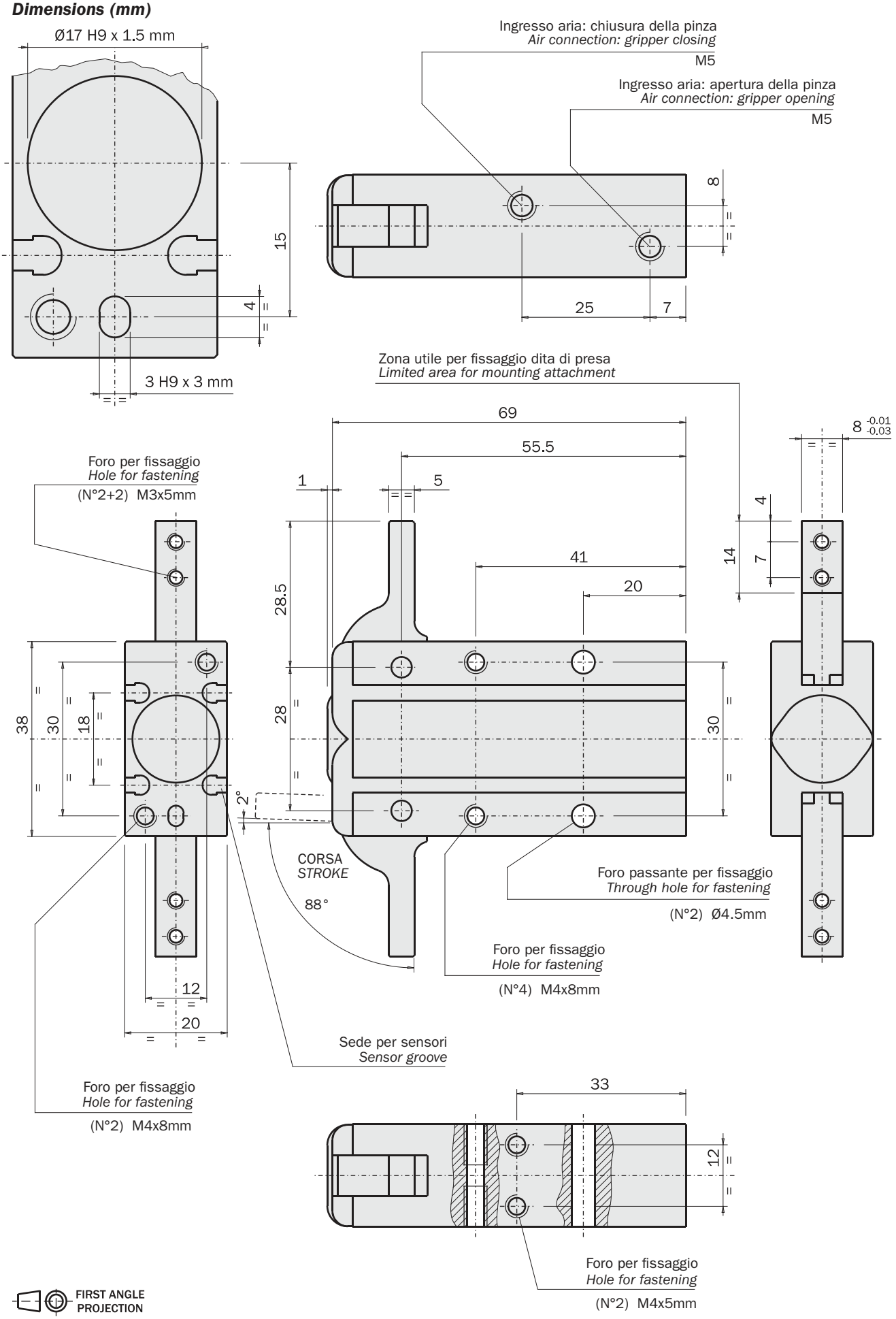
Dimensioni (mm)
Dimensions (mm)

GX-10S



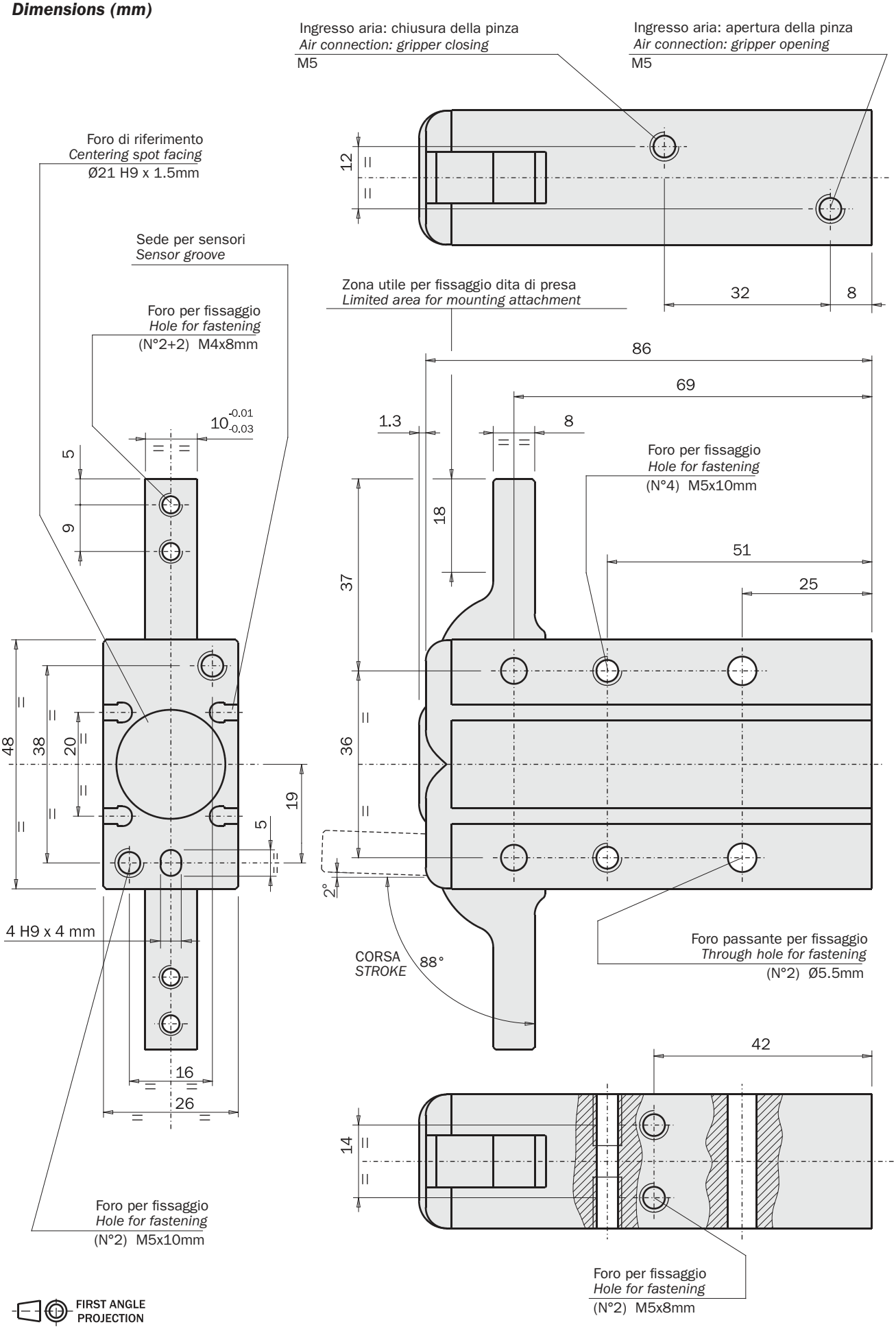
Dimensioni (mm)
Dimensions (mm)

GX-16S



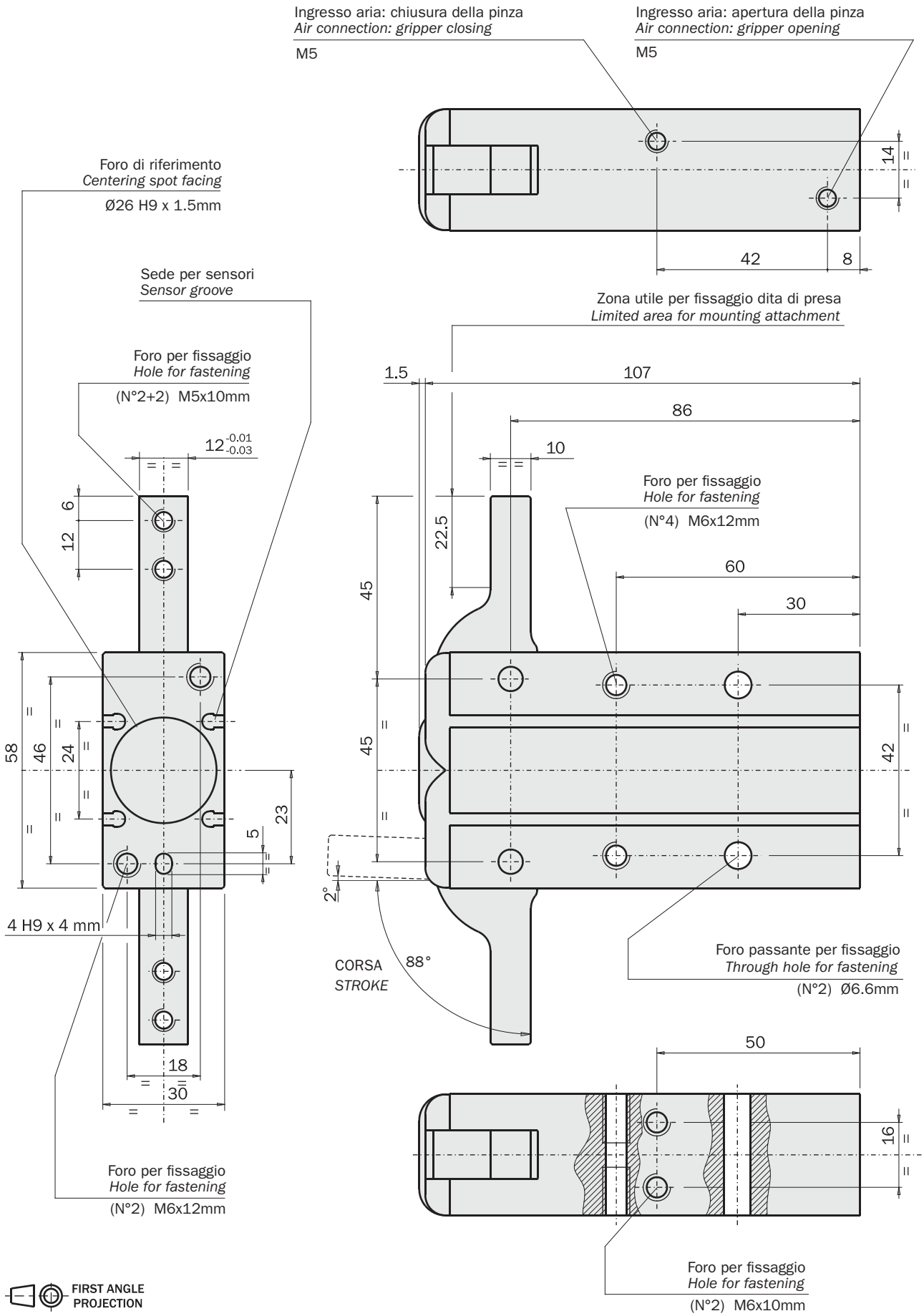
Dimensioni (mm)
Dimensions (mm)

GX-20S



Dimensioni (mm)
Dimensions (mm)

GX-25S

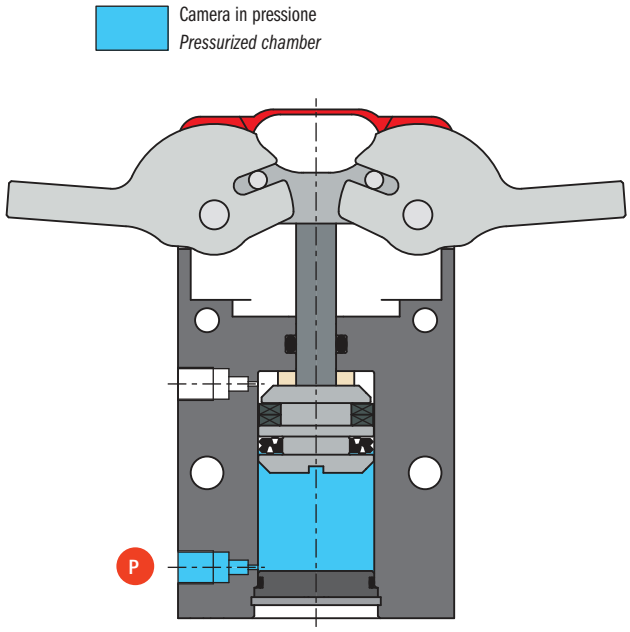


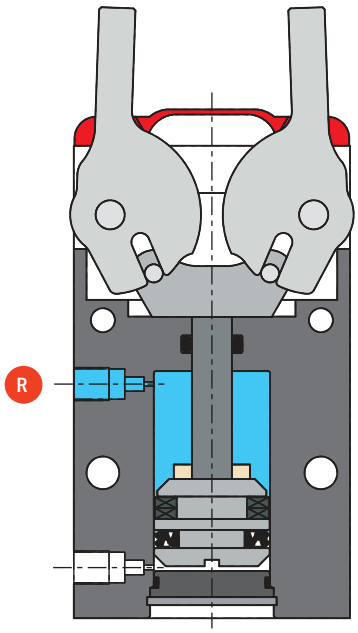
Serraggio

La pinza è a doppio effetto e quindi può essere usata per la presa di un pezzo indifferentemente sia in chiusura che in apertura delle griffe.

Gripping

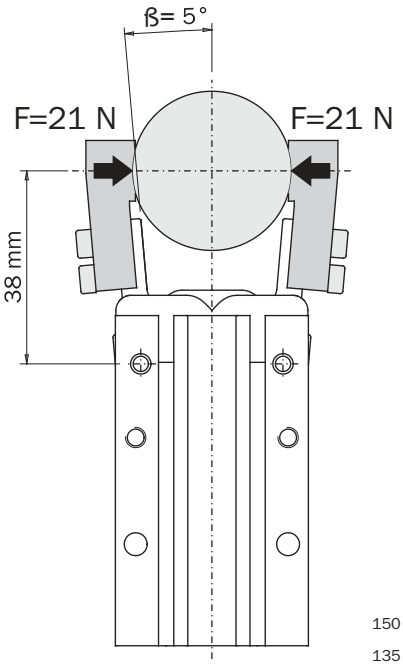
As the gripper has a double acting motion, it can be used like internal or external gripping.

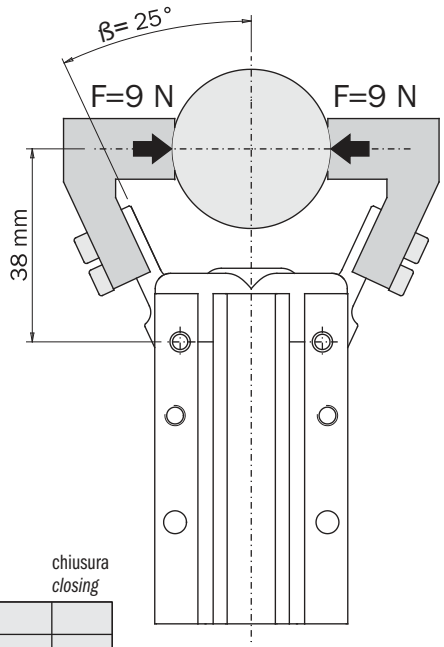


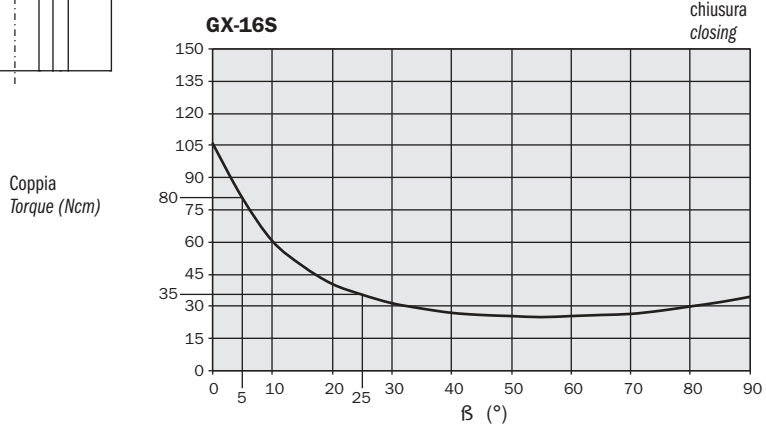


La forza di serraggio dipende dalla forma delle dita.

The gripping force depends on the shape of the gripping tools.





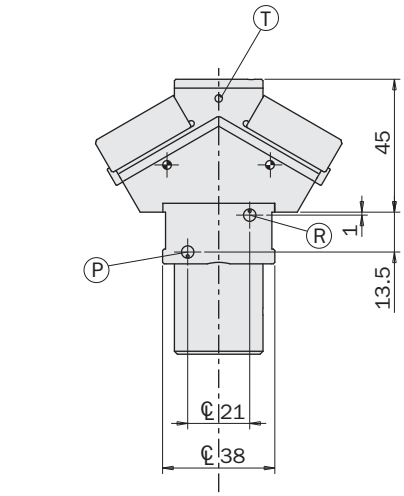


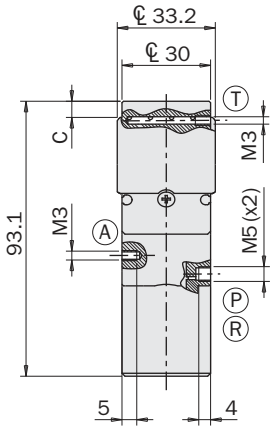
Pinza ad aghi pneumatica autocentrante serie PT

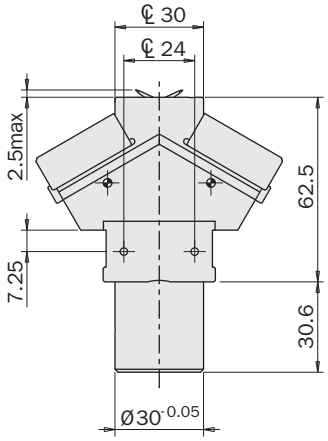
- 4 aghi (PT25) o 8 aghi (PT28) diametro 2mm.
- Adatta per l'industria plastica, tessile e alimentare.
- Azionamento a doppio effetto.
- Regolazione simultanea della corsa degli aghi (1).
- Vari accessori disponibili per il fissaggio (2).
- PT25: Ampio foro passante (3).
- PT28: Canale di soffiaggio (T) per pulizia e rilascio.
- PT28: Pastiglia in PTFE (4) per contatto con superfici calde.
- PT28: Sensori magnetici opzionali (5).

Self-centering pneumatic needle gripper series PT

- *4 needles (PT25) or 8 needles (PT28) with 2mm diameter.*
- *Suitable for plastics, textile and food industry.*
- *Double acting.*
- *Needle simultaneous stroke adjustment (1).*
- *Several mounting accessories (2).*
- *PT25: Large through hole (3).*
- *PT28: Blow-off port (T) for cleaning and releasing.*
- *PT28: Pad in PTFE (4) for hot surface contact.*
- *PT28: Optional magnetic sensors (5).*





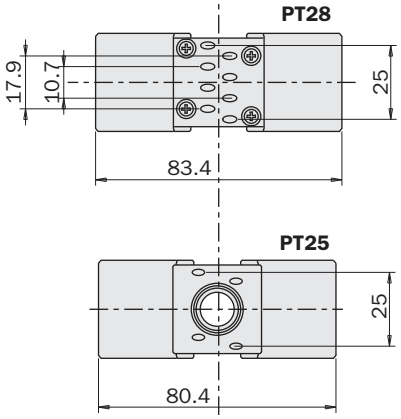


Ⓐ Foro per fissaggio
Hole for fastening

Ⓟ Aghi dentro
Needles in

Ⓣ Soffiaggio
Air connection

Ⓡ Aghi fuori
Needles out







	PT25	PT28
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Pressure range*	3 ÷ 8 bar	
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.	
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	90 N	
Corsa degli aghi *Needle stroke*	1 ÷ 7 mm	
Consumo d'aria per ciclo *Cycle air consumption*	3.5 cm^3	
Peso *Weight*	165 g	182 g

Regolazione della corsa

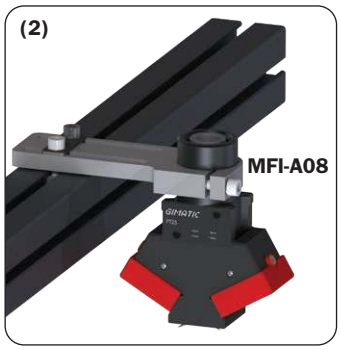
La pinza è autocentrante.
Quindi il fine corsa del pistone determina la corsa di tutti gli aghi.
Questa si può regolare con una moneta da 1 euro, dopo aver allentato il grano di fermo (G).

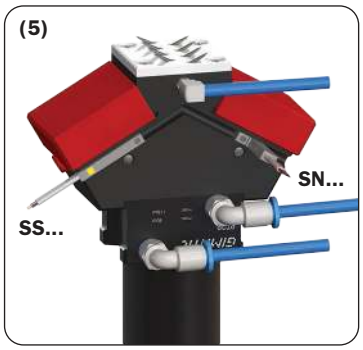
Stroke adjustment

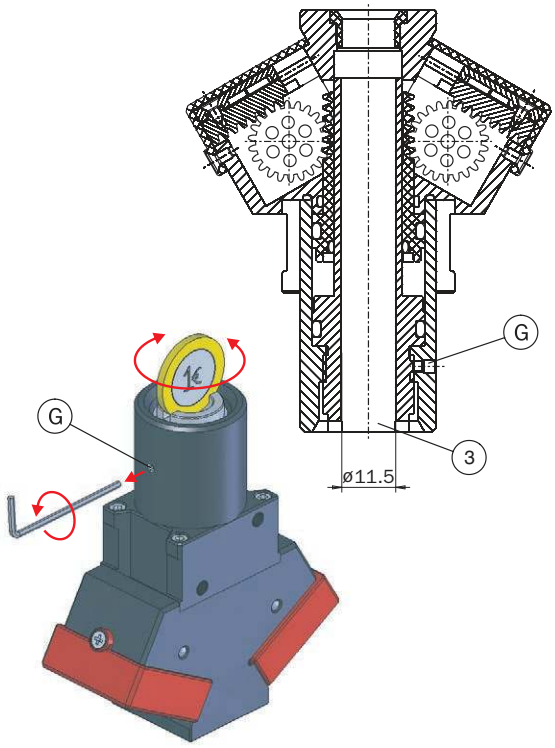
The gripper is self-centering.
Therefore the piston end-stroke determines the stroke of all needles.
It is possible to adjust this stroke, by an 1-euro coin, after the grub screw (G) has been loosened.









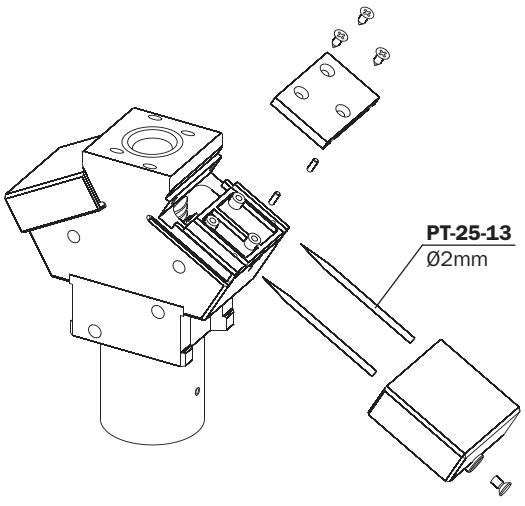


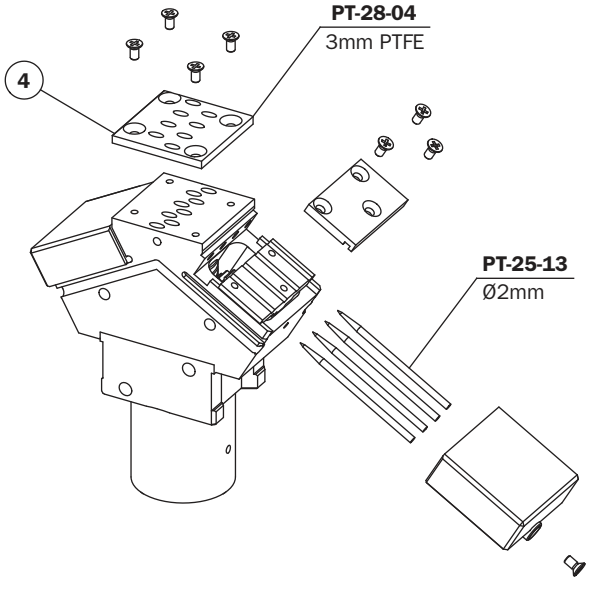
Manutenzione

Quando necessario, gli aghi possono essere facilmente rimpiazzati.
Il codice di ordinazione di un ago é PT-25-13.
Dopo cinque milioni di cicli la pinza deve essere re-ingrassata.
Grasso suggerito: BERULUB FG-H 2 SL
(Lubrificante NSF H1 Registrazione No. 135919).

Maintenance

The needles can be easily replaced, when necessary.
The ordering code of one needle is PT-25-13.
After five million cycles re-lubricate the gripper.
Suggested grease: BERULUB FG-H 2 SL
(Lubricant NSF H1 Registration No. 135919).





Minipinza ad aghi pneumatica autocentrante serie PT

- 4 aghi diametro 1.5mm.
- Adatta per l'industria plastica, tessile e alimentare.
- Azionamento a semplice effetto (normale chiusa).
- Regolazione simultanea della corsa degli aghi [4].
- PT23S e PT30S: fissaggio a cravatta [1].
- PT23A3, PT23N e PT30N: fissaggio su piastra [2].
- Sensori magnetici opzionali per PT23S e PT30S [3].
- PT23A3 con alimentazione laterale [5].

Self-centering pneumatic needle mini-gripper series PT

- *4 needles with diameter 1.5mm.*
- *Suitable for plastics, textile and food industry.*
- *Single acting (normally closed).*
- *Needle simultaneous stroke adjustment[4].*
- *PT23S and PT30S: clamp mounting [1].*
- *PT23A3 PT23N and PT30N: plate mounting [2].*
- *Optional magnetic sensors for PT23S and PT30S [3].*
- *PT23A3 with side air 2 part [5].*

[3]



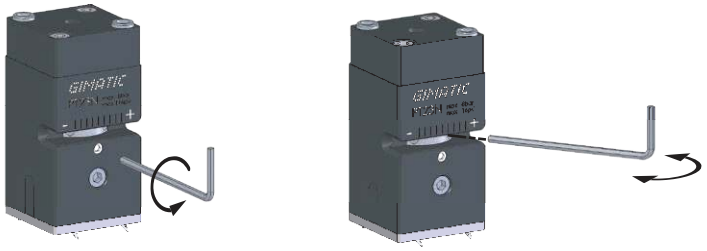
[1]



[2]



[4]



[5]



PT23A3

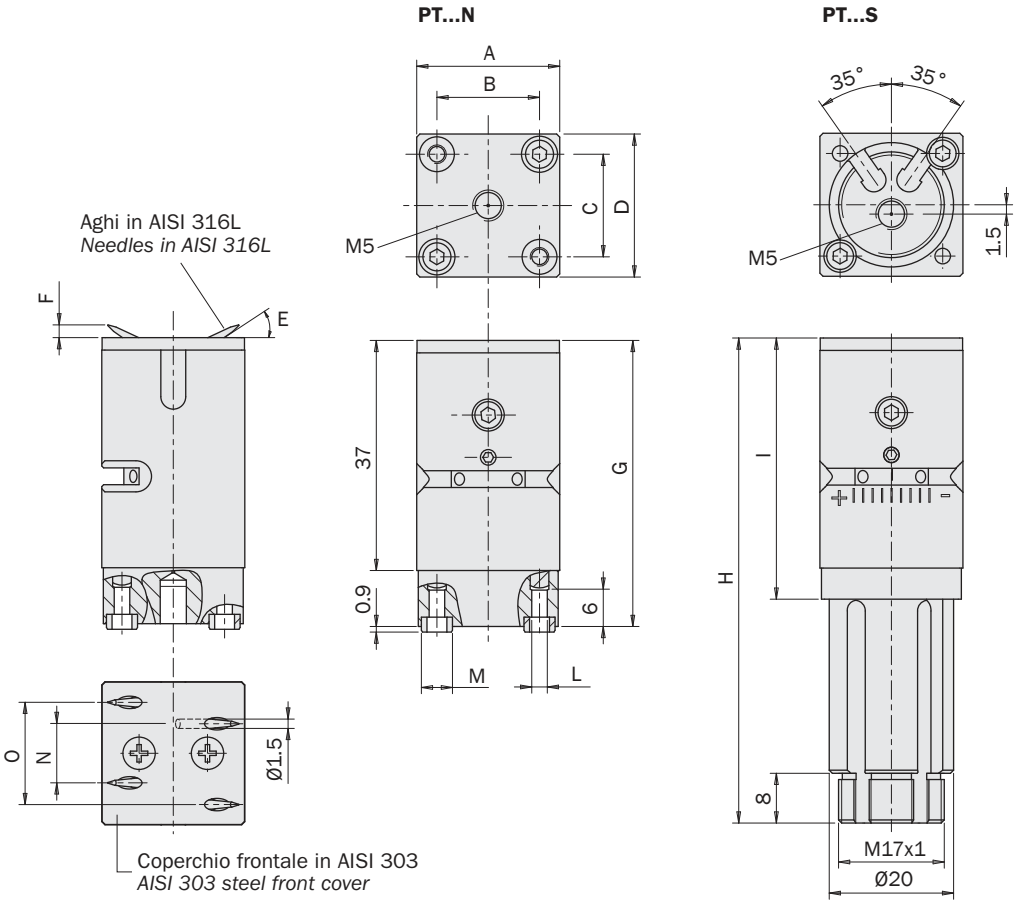


	PT23A3	PT23N	PT23S	PT30N	PT30S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*	3 ÷ 8 bar				
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.				
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	40 N			50 N	
Corsa degli aghi *Needle stroke*	0 ÷ 4 mm			0 ÷ 7 mm	
Consumo d'aria per ciclo *Cycle air consumption*	0.6 cm^3			1.1 cm^3	
Peso *Weight*	63 g	74 g	92 g	115 g	134 g

Dimensioni (mm)
Dimensions (mm)

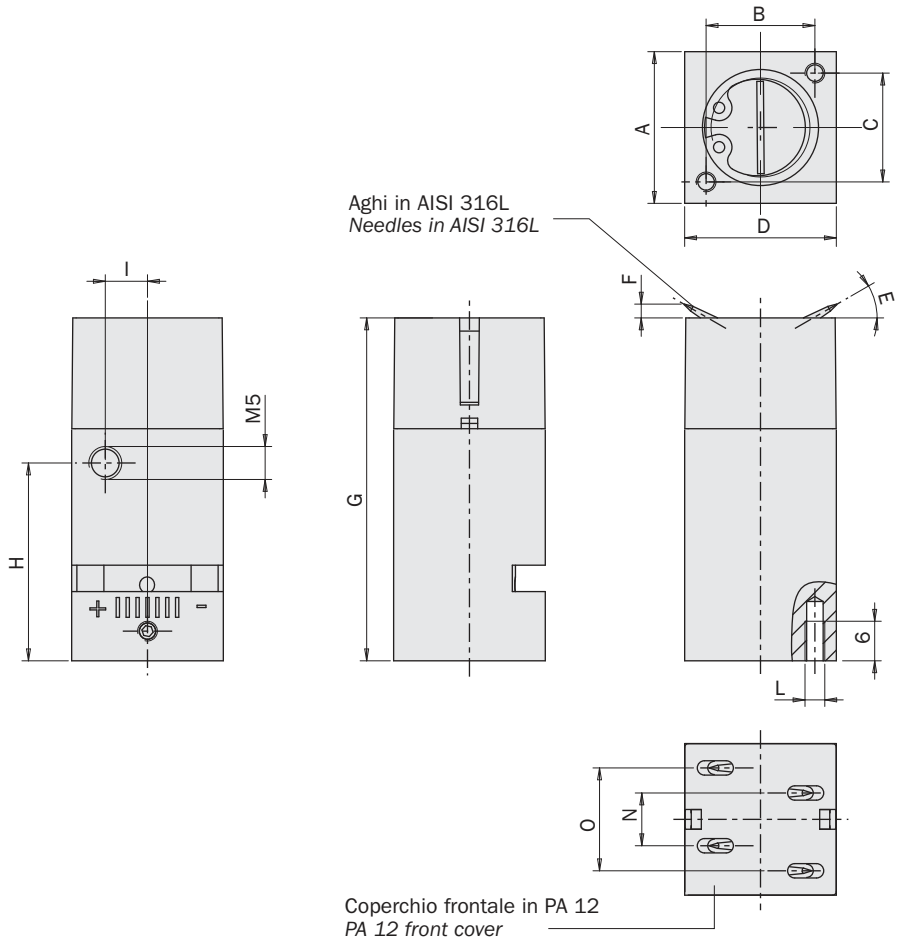
	PT23...	PT30..
A	23	28
B	16.5	18
C	16.5	18
D	23	28
E	30°	35°
F	0÷2	0÷4
G	46.5	54
H	78.5	87.5
I	42.5	51.5
L	M3(x2)	M4(2x)
M	5 h8 (x2)	7 h8 (2x)
N	9.5	9
O	16.5	18





Dimensioni (mm)
Dimensions (mm)

	PT23A3
A	23
B	16.5
C	16.5
D	23
E	30°
F	1÷2
G	52
H	30
I	6.4
L	M3(x2)
M	-
N	8
O	15.6



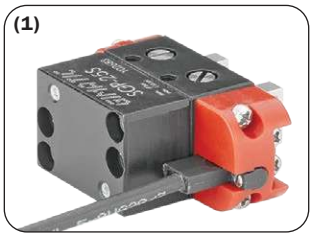
SGP-S

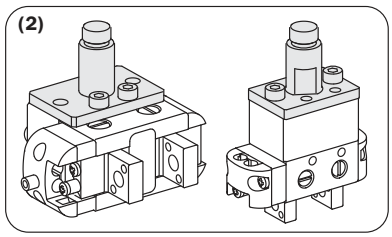
Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SGP-S)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco.
- Prestazioni elevate in dimensioni ridotte.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio e alimentazione.
- Predisposta per sensore magnetico programmabile (1).
- Grasso alimentare NSF-H1.
- Vari accessori disponibili per il fissaggio (2).
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO)

2-jaw parallel self-centering pneumatic gripper (series SGP-S)

- *Double acting.*
- *Backlash adjusting system.*
- *High performance in small dimensions.*
- *The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.*
- *Various fastening and air feeding options.*
- *Ready for programmable magnetic sensor (1).*
- *Food grade grease FDA-H1.*
- *Several mounting accessories (2).*
- *Spring closed (-NC) or spring open (-NO) option*







SGP-16S SGP-20S SGP-25S SGP-32S SGP-40S SGP-50S

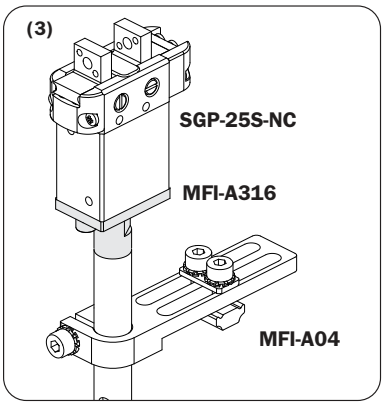
	SGP-16S	SGP-20S	SGP-25S	SGP-32S	SGP-40S	SGP-50S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar		2 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	16 N	23 N	52 N	67 N	80 N	145 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	32 N	46 N	104 N	134 N	160 N	290 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	14 N	20 N	47 N	60 N	73 N	126 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	28 N	40 N	94 N	120 N	146 N	252 N
Corsa totale *Total stroke (±0.3 mm)*	3 mm	4 mm	6 mm	8 mm	12 mm	16 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.2 cm^3	0.5 cm^3	1.4 cm^3	2.4 cm^3	4.5 cm^3	10 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.02 s	0.02 s	0.02 s	0.05 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	19 g	33 g	43 g	86 g	145 g	250 g

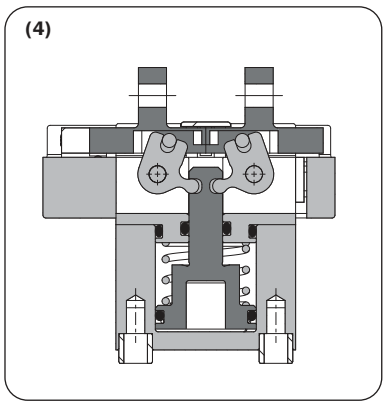
Versione con molla in chiusura (-NC)

- Può essere usata a doppio effetto con valvola 5/2 e forza di chiusura aumentata, oppure a semplice effetto con valvola 3/2.
- Il corpo pinza è più lungo per alloggiare una molla adeguata sopra al pistone (4).
- Vari accessori disponibili per il fissaggio (3).

Spring closed (-NC) version

- *It can be used double-acting with a 5/2 valve and enhanced closing force, or single-acting with a 3/2 valve.*
- *The gripper body is longer to allow a proper spring over the piston (4).*
- *Several mounting accessories (3).*







SGP-16S-NC | SGP-20S-NC | SGP-25S-NC | SGP-32S-NC | SGP-40S-NC | SGP-50S-NC

NEW NEW NEW NEW NEW NEW

	SGP-16S-NC	SGP-20S-NC	SGP-25S-NC	SGP-32S-NC	SGP-40S-NC	SGP-50S-NC
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	4 ÷ 8 bar					
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	9 N	16 N	35 N	45 N	52 N	98 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	18 N	32 N	70 N	90 N	104 N	196 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	21 N	27 N	64 N	82 N	102 N	172 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	42 N	54 N	128 N	164 N	204 N	344 N
Forza di serraggio per griffa in chiusura a 0 bar *Clamping force per jaw at 0 bar*	7 N	7 N	17 N	22 N	30 N	47 N
Forza di serraggio totale in chiusura a 0 bar *Total clamping force at 0 bar (closed position)*	14 N	14 N	34 N	44 N	60 N	94 N
Corsa totale *Total stroke (±0.3 mm)*	3 mm	4 mm	6 mm	8 mm	12 mm	16 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.5 cm³	0.8 cm³	2.6 cm³	3.7 cm³	6.4 cm³	14.2 cm³
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.02 s	0.02 s	0.02 s	0.05 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	22 g	36 g	60 g	104 g	172 g	299 g

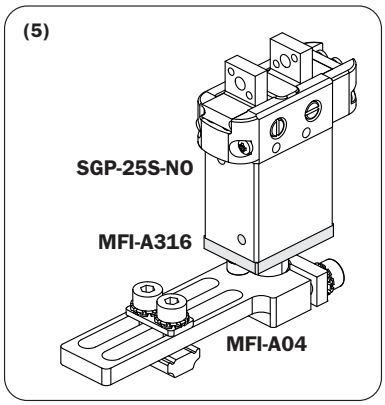
SGP-S

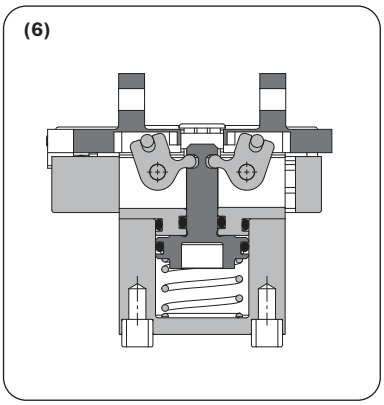
Versione con molla in apertura (-NO)

- Può essere usata a doppio effetto con valvola 5/2 e forza di apertura aumentata, oppure a semplice effetto con valvola 3/2.
- Il corpo pinza è più lungo per alloggiare una molla adeguata sotto al pistone (6).
- Vari accessori disponibili per il fissaggio (5).

Spring open (-NO) version

- *It can be used double-acting with a 5/2 valve and enhanced opening force, or single-acting with a 3/2 valve.*
- *The gripper body is longer to allow a proper spring below the piston (6).*
- *Several mounting accessories (5).*







SGP-16S-NO | SGP-20S-NO | SGP-25S-NO | SGP-32S-NO | SGP-40S-NO | SGP-50S-NO

NEW NEW NEW NEW NEW NEW

	SGP-16S-NO	SGP-20S-NO	SGP-25S-NO	SGP-32S-NO	SGP-40S-NO	SGP-50S-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	4 ÷ 8 bar					
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	22 N	30 N	68 N	89 N	108 N	192 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	44 N	60 N	136 N	178 N	216 N	384 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	8 N	13 N	31 N	38 N	46 N	79 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	16 N	26 N	62 N	76 N	92 N	158 N
Forza di serraggio per griffa in chiusura a 0 bar *Clamping force per jaw at 0 bar*	6 N	7 N	16 N	22 N	26 N	47 N
Forza di serraggio totale in chiusura a 0 bar *Total clamping force at 0 bar (closed position)*	12 N	14 N	32 N	44 N	52 N	94 N
Corsa totale *Total stroke (±0.3 mm)*	3 mm	4 mm	6 mm	8 mm	12 mm	16 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.6 cm^3	0.9 cm^3	2.9 cm^3	4.1 cm^3	6.9 cm^3	15.4 cm^3
Tempo di apertura senza carico *No-load opening time*	0.02 s	0.02 s	0.02 s	0.02 s	0.05 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	21 g	35 g	57 g	98 g	171 g	291 g

Sensori

Le posizioni di funzionamento possono essere verificate grazie ad un sensore programmabile a 3 uscite (non incluso), che rileva la posizione del magnete nella griffa destra.

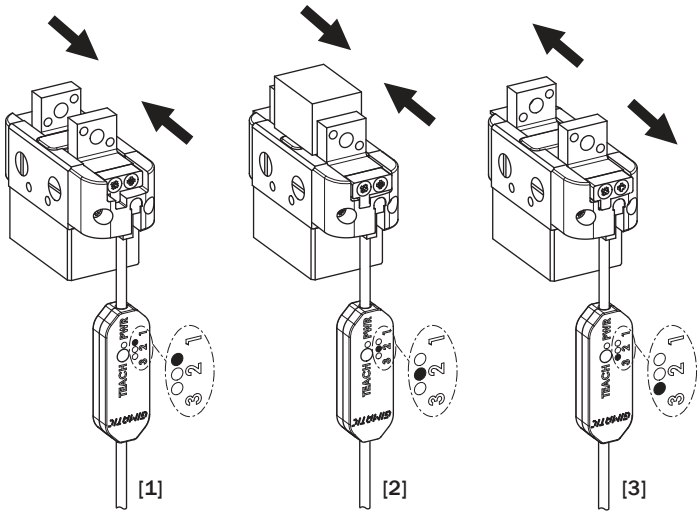
I sensori consigliati per le pinze SGP-20S/25S 32S/40S/50S sono: ***The reccomended sensors for the grippers SGP-20S/25S/32S/40S/50S are:***		
PRO-SN4N225HS-G	PNP	Cavo 2.5m *2.5m cable*
PRO-SN4M225HS-G	NPN	
PRO-SN3N215HS-G	PNP	Connettore M8 *M8 snap plug connector*
PRO-SN3M215HS-G	NPN	

I sensori opzionali per la pinza SGP-16S sono: ***The reccomended sensors for the gripper SGP-16S are:***		
PRO-SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
PRO-SN4M225-G	NPN	
PRO-SN3N215-G	PNP	Connettore M8 *M8 snap plug connector*
PRO-SN3M215-G	NPN	

La posizioni rilevate possono essere regolate tramite la procedura di configurazione, in questo modo le 3 uscite digitali possono essere:
Uscita 1 – griffe completamente chiuse [1];
Uscita 2 – griffe in presa dell'oggetto (posizione intermedia) [2];
Uscita 3 – griffe completamente aperte [3].

Sensors

The operating position can be checked by one 3 - outputs programmable sensor (not included), detecting the position of the magnet on the right jaw.



The detected positions can be adjusted by a teaching procedure, so that 3 digital outputs can be:
Output 1 - totally closed jaws [1];
Output 2 - gripped part (intermediate position) [2];
Output 3 - totally open jaws [3].

Upgrade

Le vecchie pinze possono essere aggiornate per utilizzare il nuovo sensore programmabile [4].

Upgrade

Old grippers can be upgraded in order to use the new teachable sensor [4].

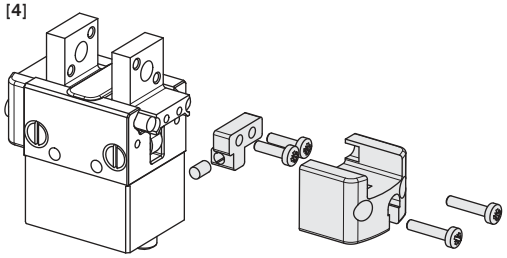
Downgrade

Le nuove pinze possono essere aggiornate per utilizzare i sensori induttivi [5 e 6].

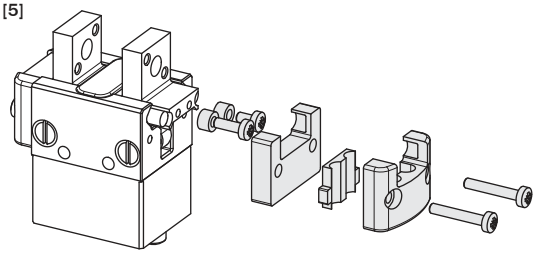
Downgrade

New grippers can be downgraded in order to use the inductive sensors [5 and 6].

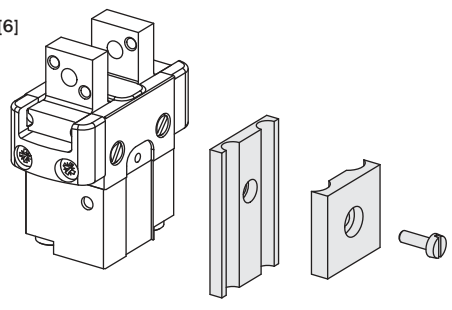
[4]



[5]



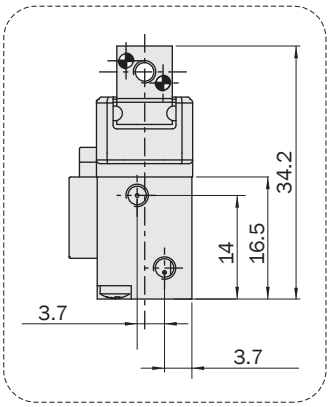
[6]



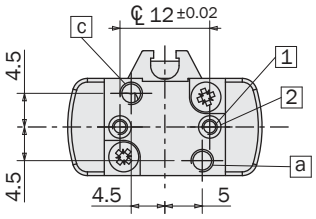
	Upgrade [4]	Downgrade [5]	Downgrade [6]
SGP-16S	-	-	SGP-16S-KD
SGP-20S	SGP-20S-KU	SGP-20S-KD	-
SGP-25S	SGP-25S-KU	SGP-25S-KD	-
SGP-32S	SGP-32S-KU	SGP-32S-KD	-
SGP-40S	SGP-40S-KU	SGP-40S-KD	-
SGP-50S	-	SGP-50S-KD	-

Dimensioni (mm)
Dimensions (mm)

SGP-16S



SGP-16S...-NO/NC

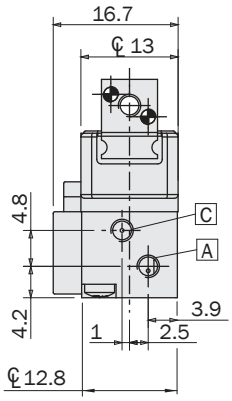


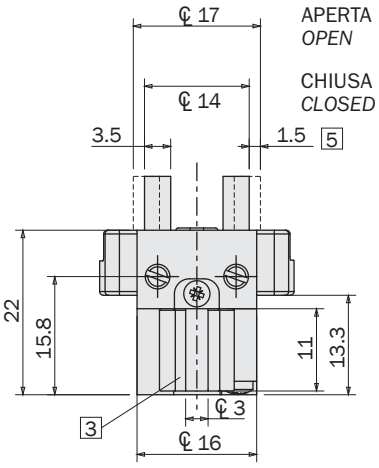
1 (N°2) M2x2.8mm
Foro per fissaggio
Hole for fastening

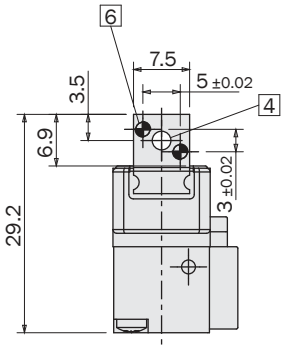
2 (N°2) Ø3H8x1.2mm
Sede per boccole di centraggio
Hole for fastening

3 Supporto per posizionamento sensore magnetico PRO-SN/SS
Magnetic sensor slot (PRO-SN/SS)

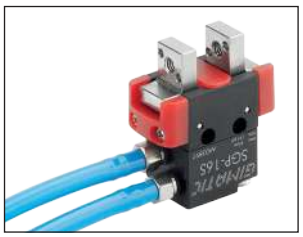
4 M3
Foro passante per fissaggio
Through hole for fastening

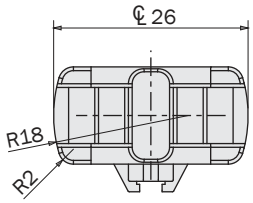






RG.RO-1376-AS1
Raccordo M3 diritto
Straight M3 fitting



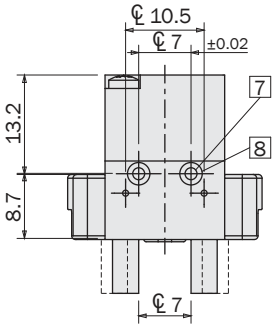


5 Corsa per griffa
Stroke each jaw

6 Ø1.5H8x3.5mm
Foro di riferimento
Dowel pin hole

7 (N°2) M2x1.5mm
Foro per fissaggio
Hole for fastening

8 (N°2) Ø3H8x1.5mm
Foro di riferimento
Hole for fastening



a M2.5
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M3
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

c M2.5
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M3
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

Dimensioni (mm)
Dimensions (mm)

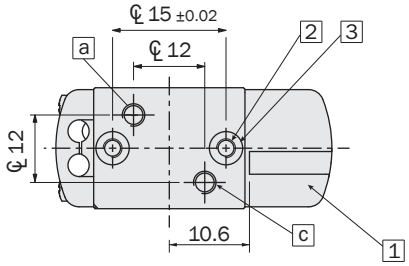
SGP-20S

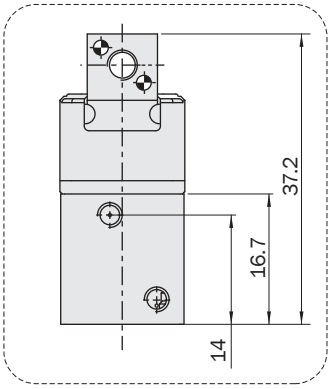
1 Foro per sensore programmabile PRO-SN ...HS
Hole for programmable sensor PRO-SN ...HS

2 (N°2) M2.5x6mm
Foro per fissaggio
Hole for fastening

3 (N°2) Ø4H8x2mm
Sede per boccole di centraggio
Centering sleeve hole

4 M4
Foro passante per fissaggio
Through hole for fastening

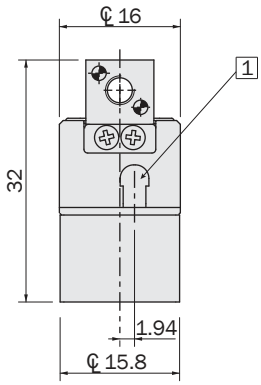


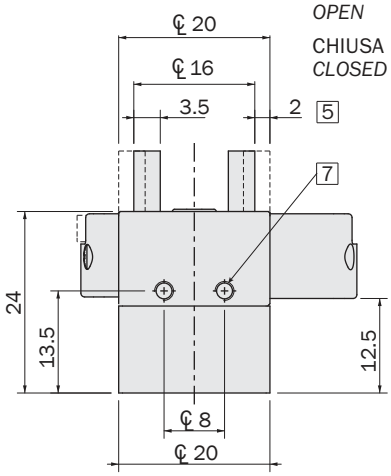


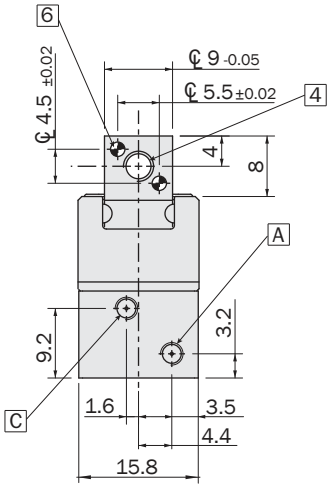
SGP-20S...-NO/NC

APERTA
OPEN

CHIUSA
CLOSED







5 Corsa per griffa
Stroke each jaw

6 Ø1.5H8x3.5mm
Foro di riferimento
Dowel pin hole

7 (N°2) M2.5x4mm
Foro per fissaggio
Hole for fastening

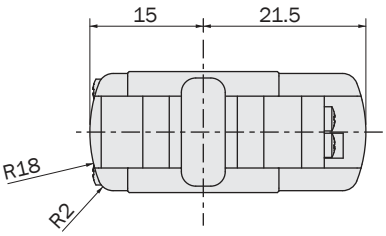
8 Ø1.5H8x3mm
Foro di riferimento
Dowel pin hole

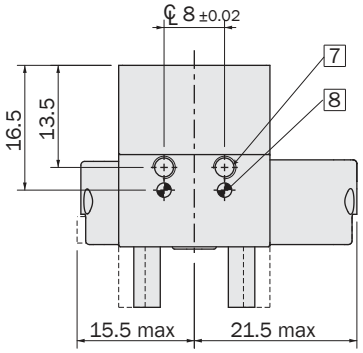
a M2.5
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M3
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

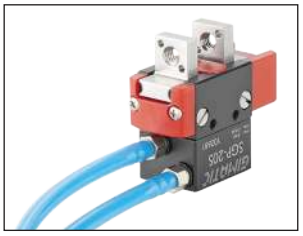
c M2.5
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M3
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

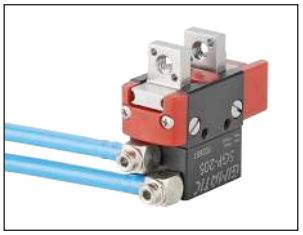




RG.RO-1376-AS1
Raccordo M3 diritto
Straight M3 fitting



RG.RO-1376-AS2
Raccordo M3 orientabile a "L"
Adjustable M3 fitting



FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

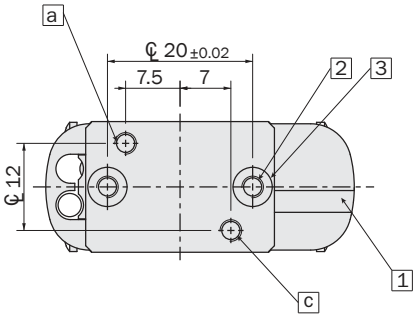
SGP-25S

1 Foro per sensore programmabile PRO-SN...HS
Hole for programmable sensor PRO-SN...HS

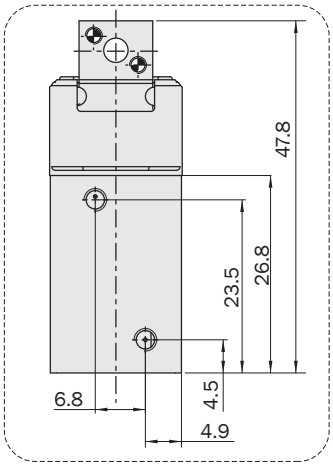
2 (N°2) M3x7mm Foro per fissaggio
Hole for fastening

3 (N°2) Ø5H8x2.4mm Sede per boccole di centraggio
Centering sleeve hole

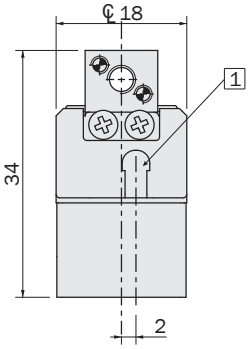
4 M4 Foro passante per fissaggio
Through hole for fastening

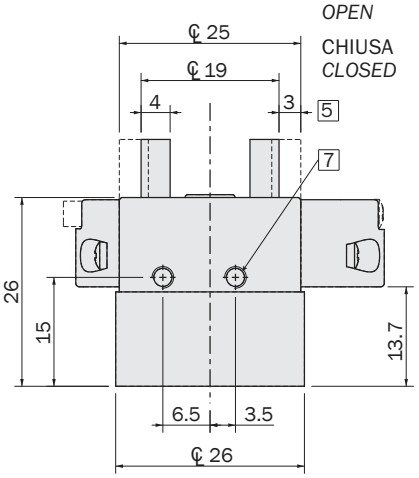


APERTA
OPEN

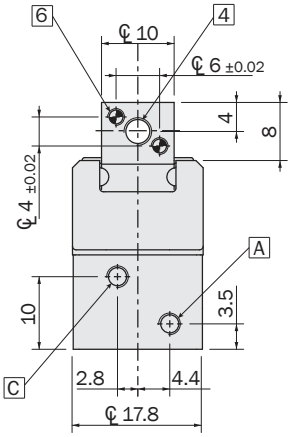


SGP-25S...-NO/NC





CHIUSA
CLOSED



5 Corsa per griffa
Stroke each jaw

6 Ø1.5H8x4mm Foro di riferimento
Dowel pin hole

7 (N°2) M3x5mm Foro per fissaggio
Hole for fastening

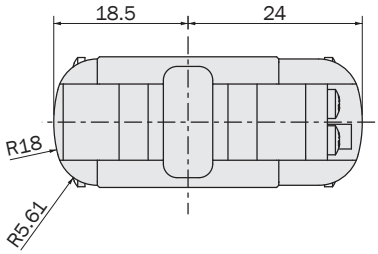
8 Ø2H8x4mm Foro di riferimento
Dowel pin hole

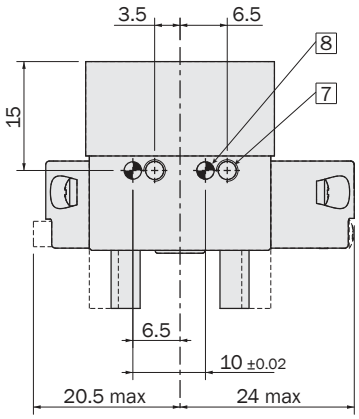
a M3 Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M3 Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

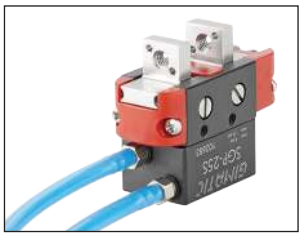
c M3 Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M3 Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

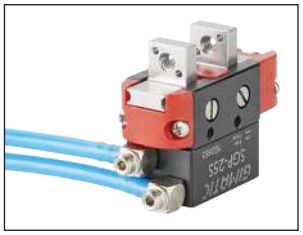




RG.RO-1376-AS1
Raccordo M3 diritto
Straight M3 fitting



RG.RO-1376-AS2
Raccordo M3 orientabile a "L"
Adjustable M3 fitting



FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

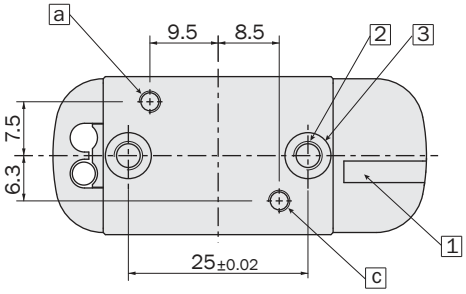
SGP-32S

1 Foro per sensore programmabile PRO-SN...HS
Hole for programmable sensor PRO-SN...HS

2 (N°2) M4x7.5mm Foro per fissaggio
Hole for fastening

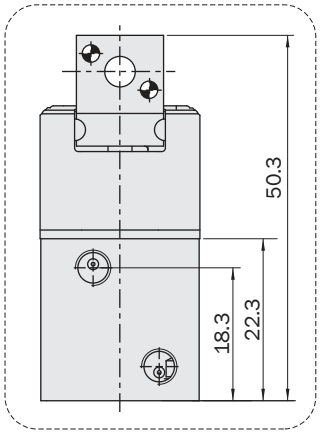
3 (N°2) Ø6H8x2.9mm Sede per boccole di centraggio
Centering sleeve hole

4 M5 Foro passante per fissaggio
Through hole for fastening

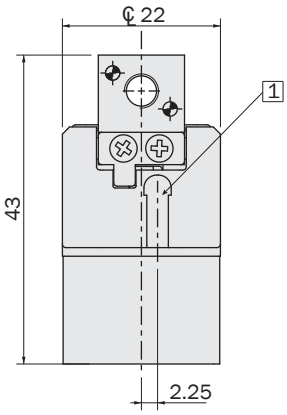


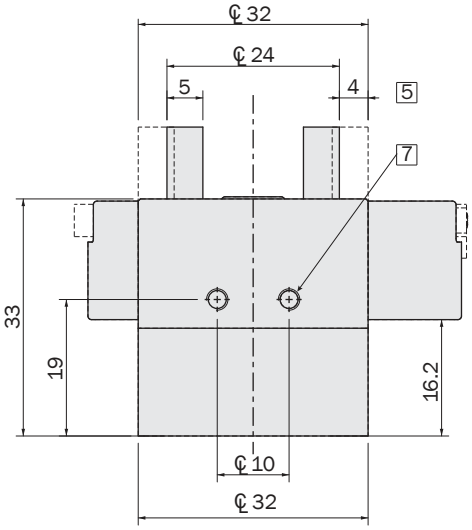
APERTA
OPEN

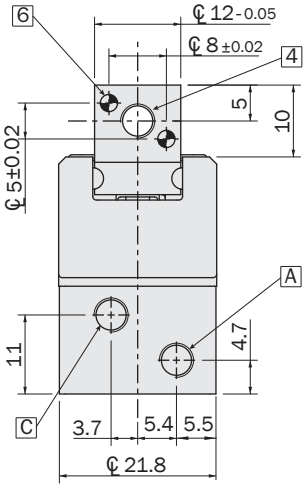
CHIUSA
CLOSED



SGP-32S...-NO/NC







5 Corsa per griffa
Stroke each jaw

6 Ø2H8x5mm Foro di riferimento
Dowel pin hole

7 (N°2) M3x5mm Foro per fissaggio
Hole for fastening

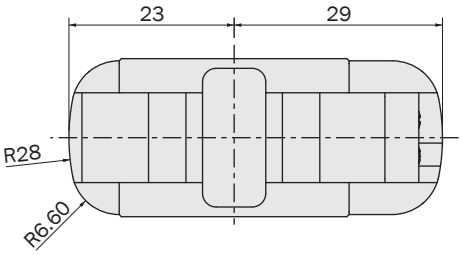
8 Ø2H8x5mm Foro di riferimento
Dowel pin hole

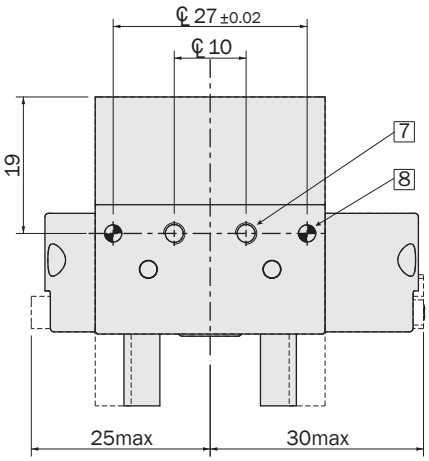
a M3 Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M5 Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

c M3 Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M5 Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing





FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

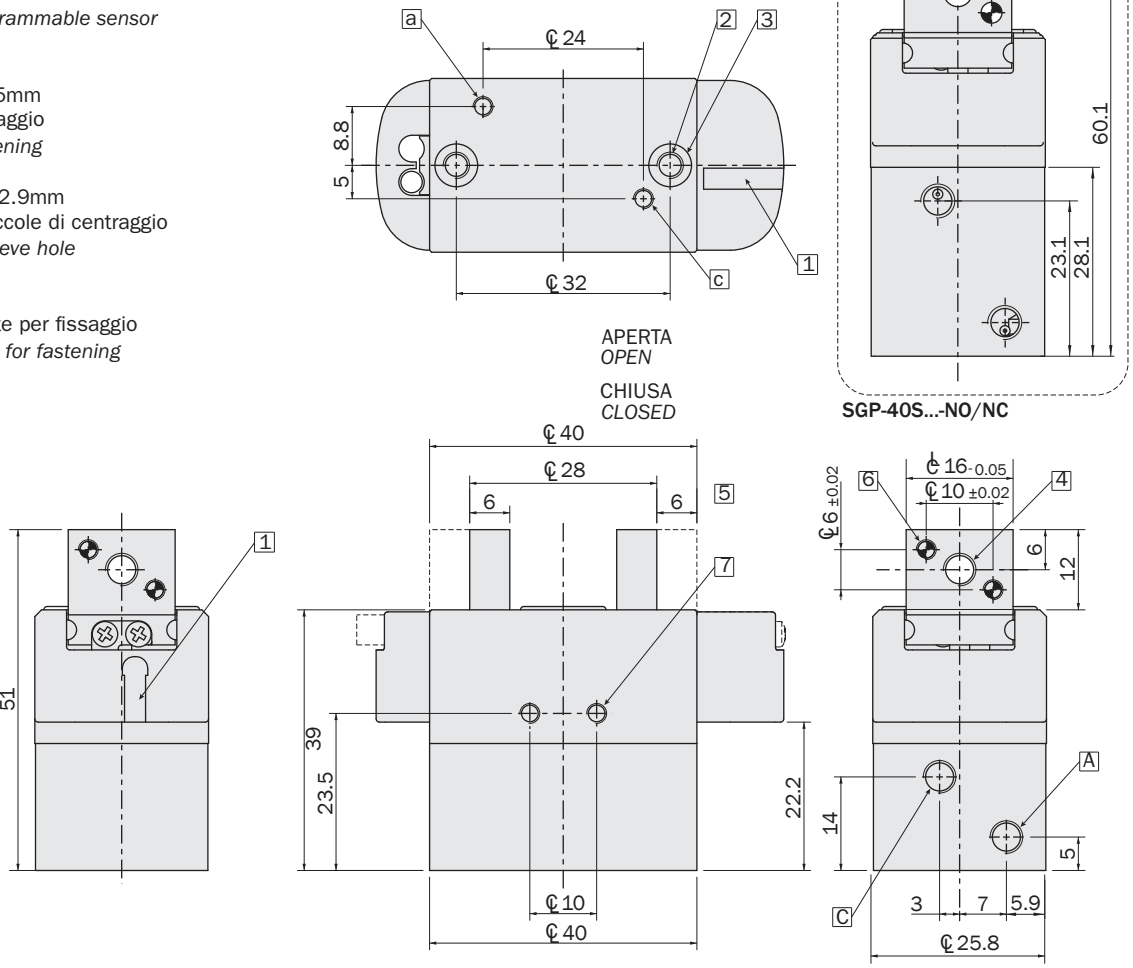
SGP-40S

1 Foro per sensore programmabile PRO-SN...HS
Hole for programmable sensor PRO-SN...HS

2 (N°2) M4x9.5mm Foro per fissaggio
Hole for fastening

3 (N°2) Ø6H8x2.9mm Sede per boccole di centraggio
Centering sleeve hole

4 M5 Foro passante per fissaggio
Through hole for fastening



5 Corsa per griffa
Stroke each jaw

6 Ø2.5H8x6mm Foro di riferimento
Dowel pin hole

7 (N°2) M3x5mm Foro per fissaggio
Hole for fastening

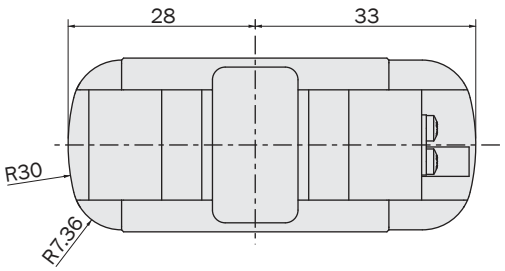
8 Ø2.5H8x6mm Foro di riferimento
Dowel pin hole

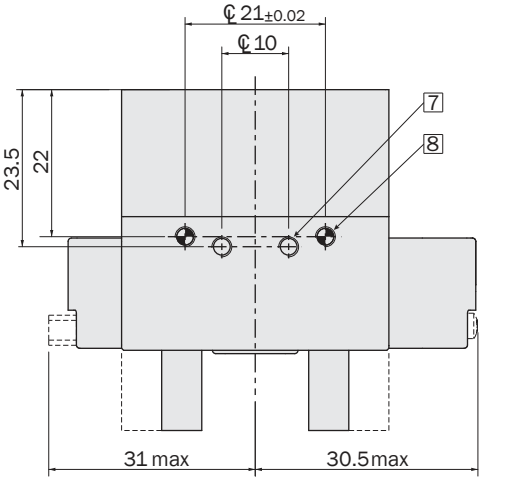
a M3 Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M5 Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

c M3 Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M5 Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing



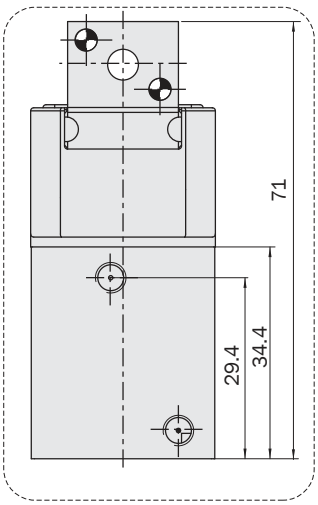


FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

SGP-50S



SGP-50S...-NO/NC

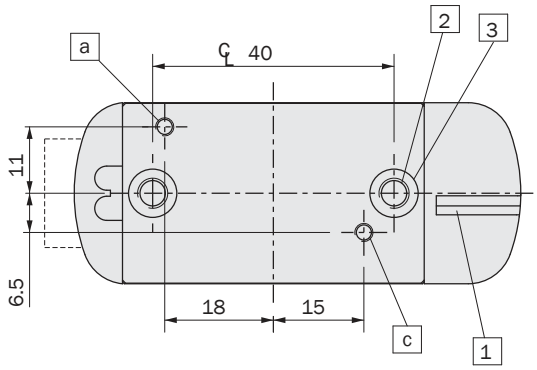
1 Foro per sensore programmabile PRO-SN...HS
Hole for programmable sensor PRO-SN...HS

2 (N°2) M5x5.9mm Foro per fissaggio
Hole for fastening

3 (N°2) Ø8H8x2.9mm Sede per boccole di centraggio
Centering sleeve hole

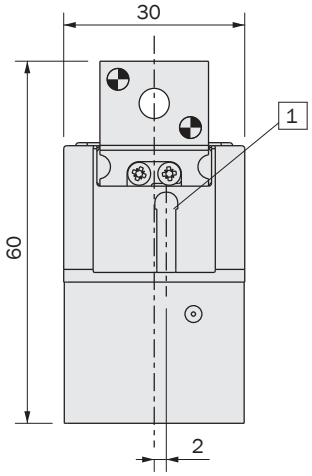
4 M6 Foro passante per fissaggio
Through hole for fastening

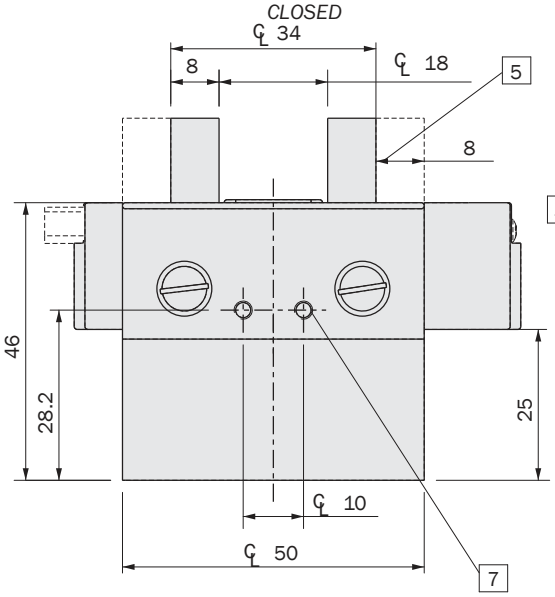
5 Corsa per griffa
Stroke each jaw

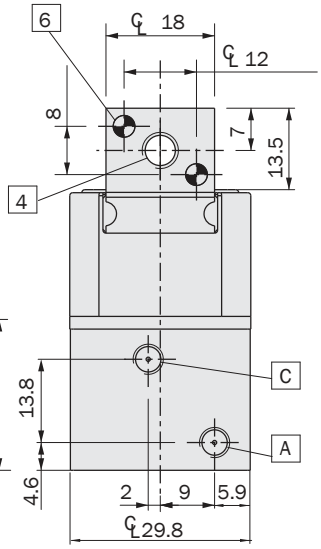


APERTA
OPEN

CHIUSA
CLOSED



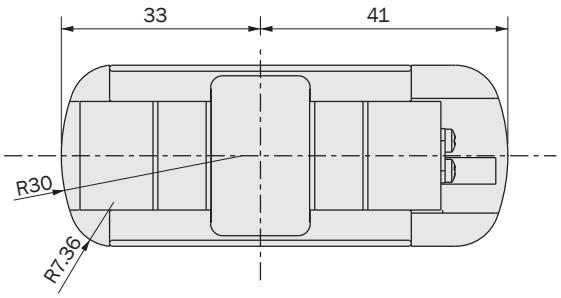




6 Ø3H8x8mm Foro di riferimento
Dowel pin hole

7 (N°2) M5x5.5mm Foro per fissaggio
Hole for fastening

8 Ø8H8x2.5mm
Sede per boccole di centraggio
Centering sleeve hole

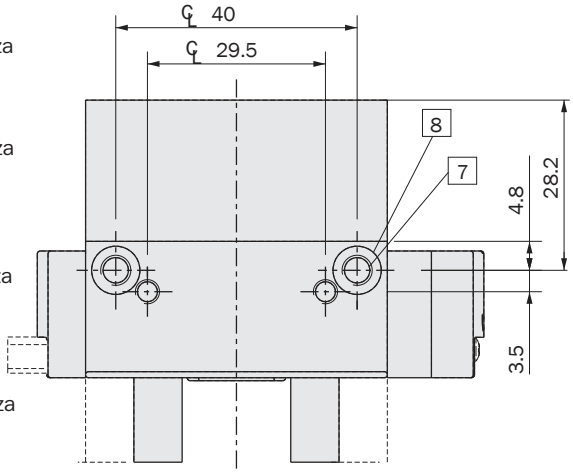


a M3
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M5
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

c M3
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M5
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing



GS

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie GS)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco esclusivo.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare NSF-H1.

2-jaw parallel self-centering pneumatic gripper (series GS)

- *Double acting.*
- *Exclusive backlash adjusting system.*
- *Long life and reliability, maintenance free.*
- *Various options for fastening.*
- *Optional proximity magnetic sensors.*
- *Spring closed (-NC) or spring open (-NO) option.*
- *NSF-H1 food-grade grease.*

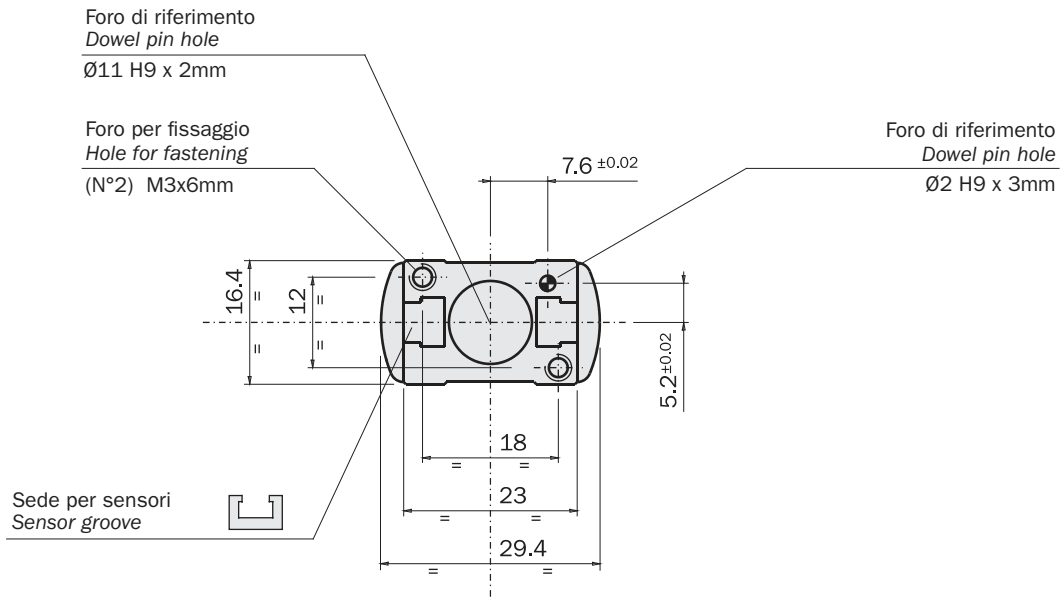


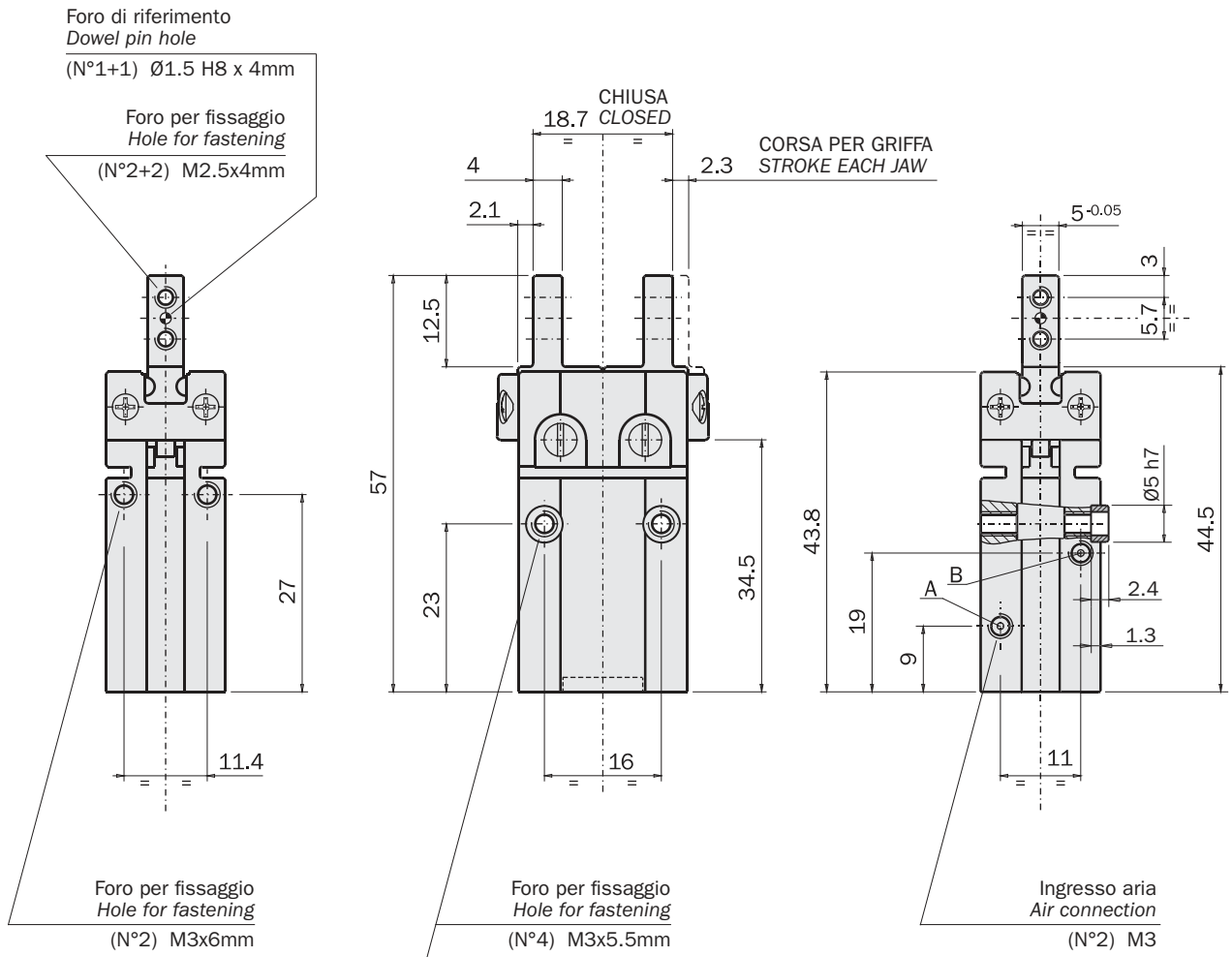
GS-10 **GS-16** **GS-20** **GS-25** **GS-32** **GS-40**

	GS-10	GS-16	GS-20	GS-25	GS-32	GS-40
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar	1.5 ÷ 8 bar			1 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	18 N	50 N	106 N	141 N	250 N	350 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	36 N	100 N	212 N	282 N	500 N	700 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	14 N	43 N	93 N	127 N	215 N	307 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	28 N	86 N	186 N	254 N	430 N	614 N
Corsa totale *Total stroke (±0.3 mm)*	4.6 mm	6.8 mm	10.4 mm	14.4 mm	22 mm	30 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.7 cm^3	3 cm^3	7 cm^3	14 cm^3	28 cm^3	61 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.01 s	0.02 s	0.05 s	0.07 s	0.09 s	0.12 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	45 g	98 g	207 g	365 g	645 g	1155 g

Dimensioni (mm)
Dimensions (mm)

GS-10





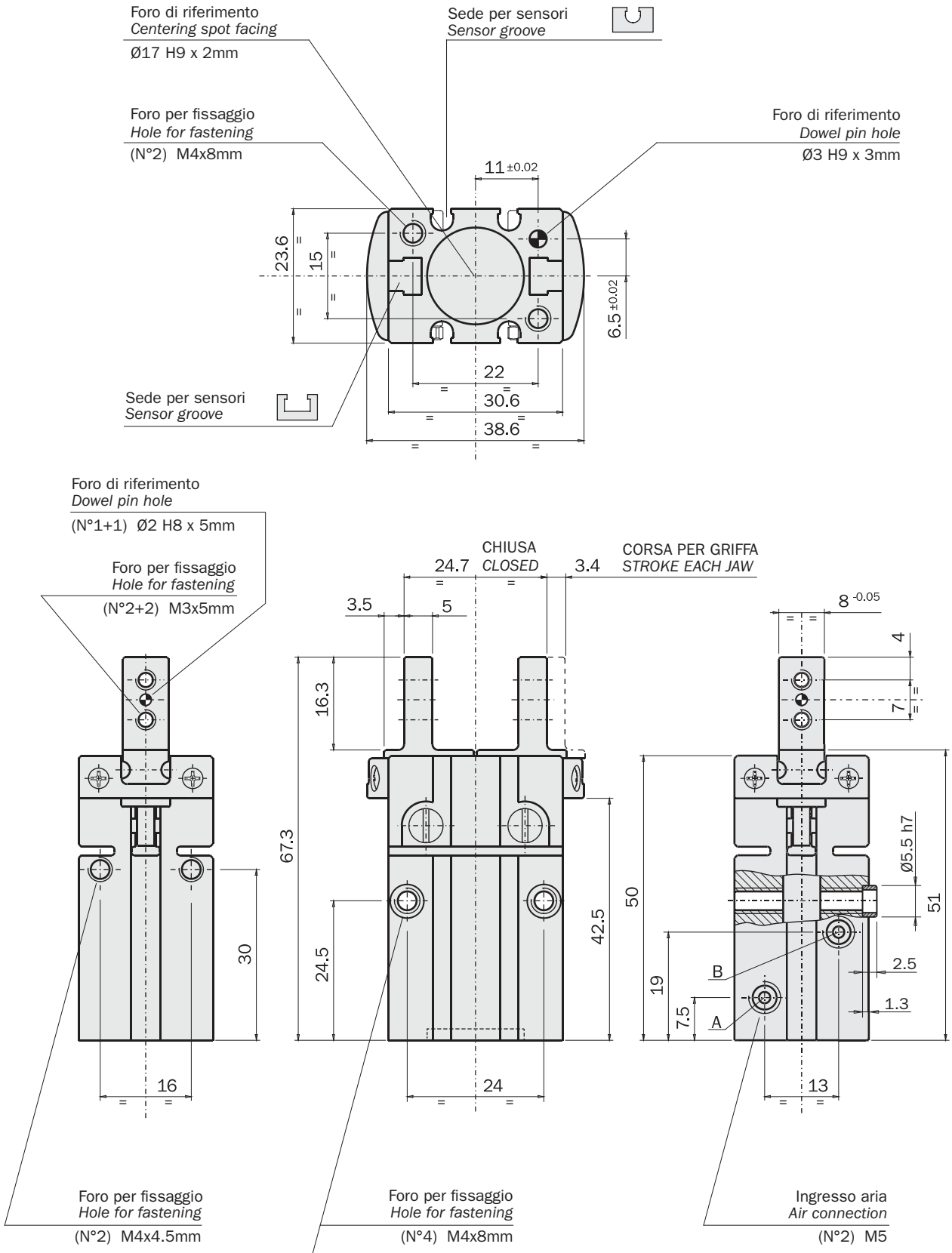
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

GS-16



FIRST ANGLE PROJECTION

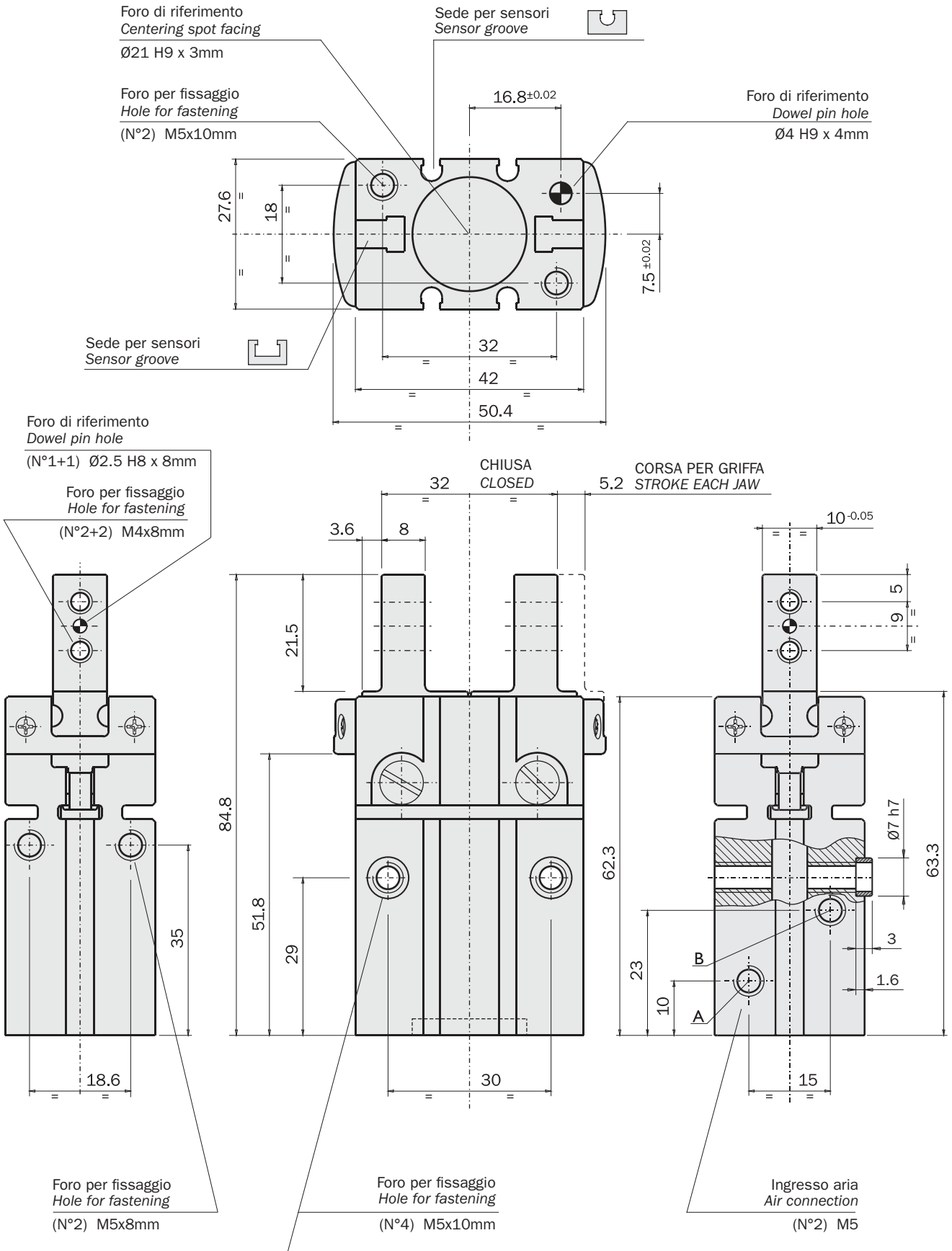
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

07/2026

Dimensioni (mm)
Dimensions (mm)

GS-20



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

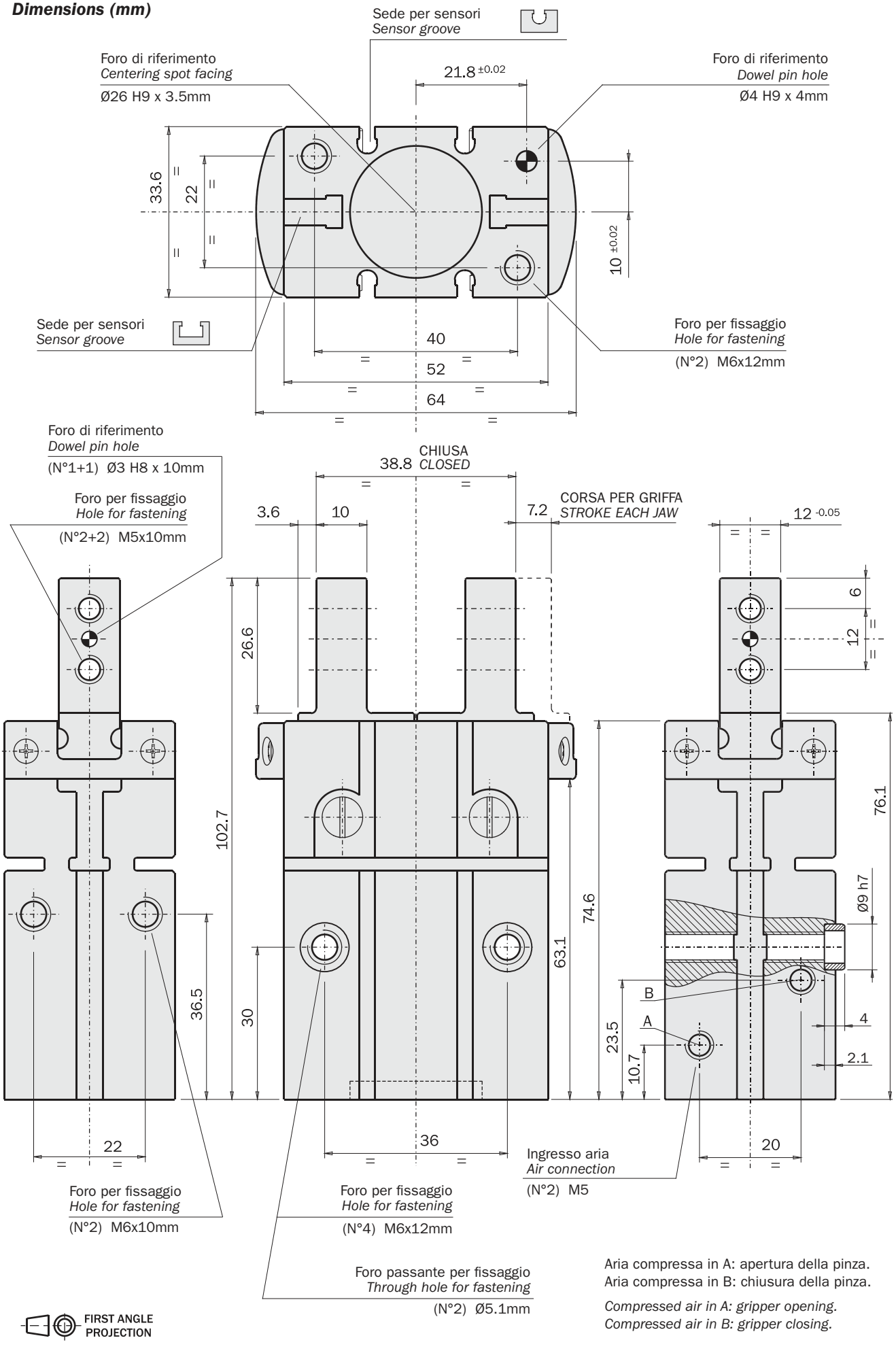
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

GS-25



FIRST ANGLE PROJECTION

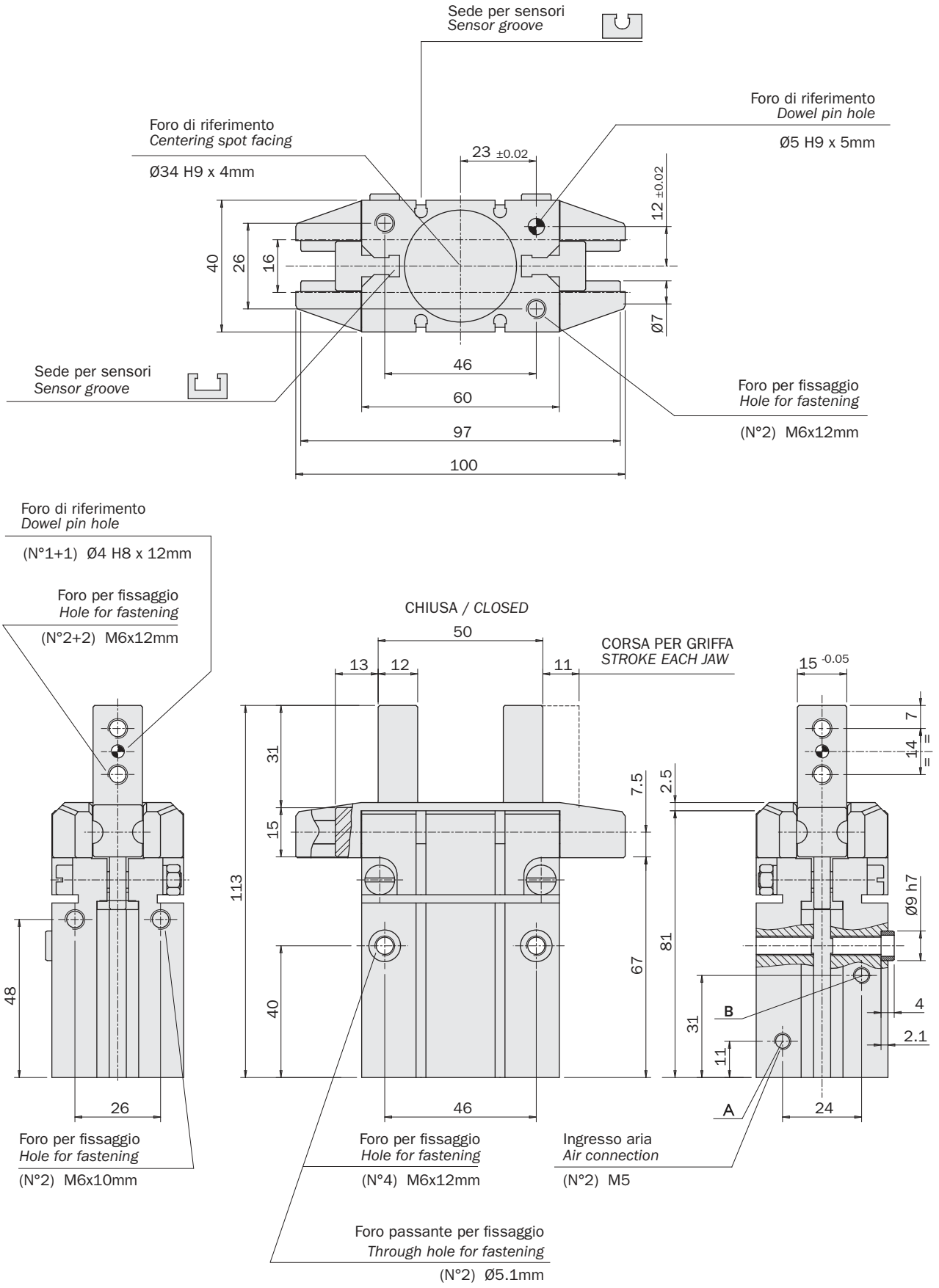
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

07/2026

Dimensioni (mm)
Dimensions (mm)

GS-32



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

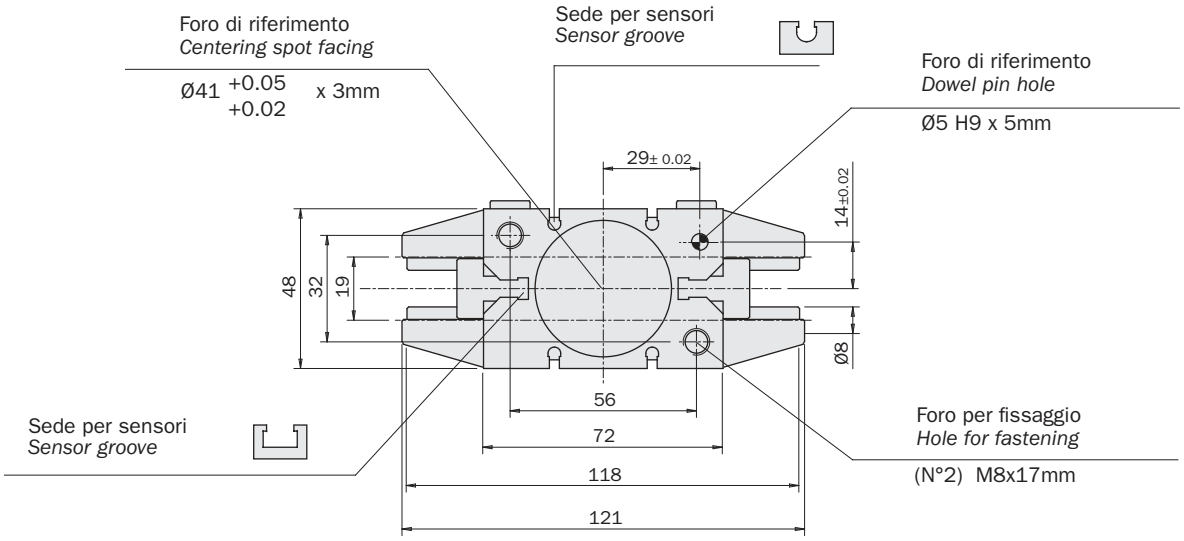
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

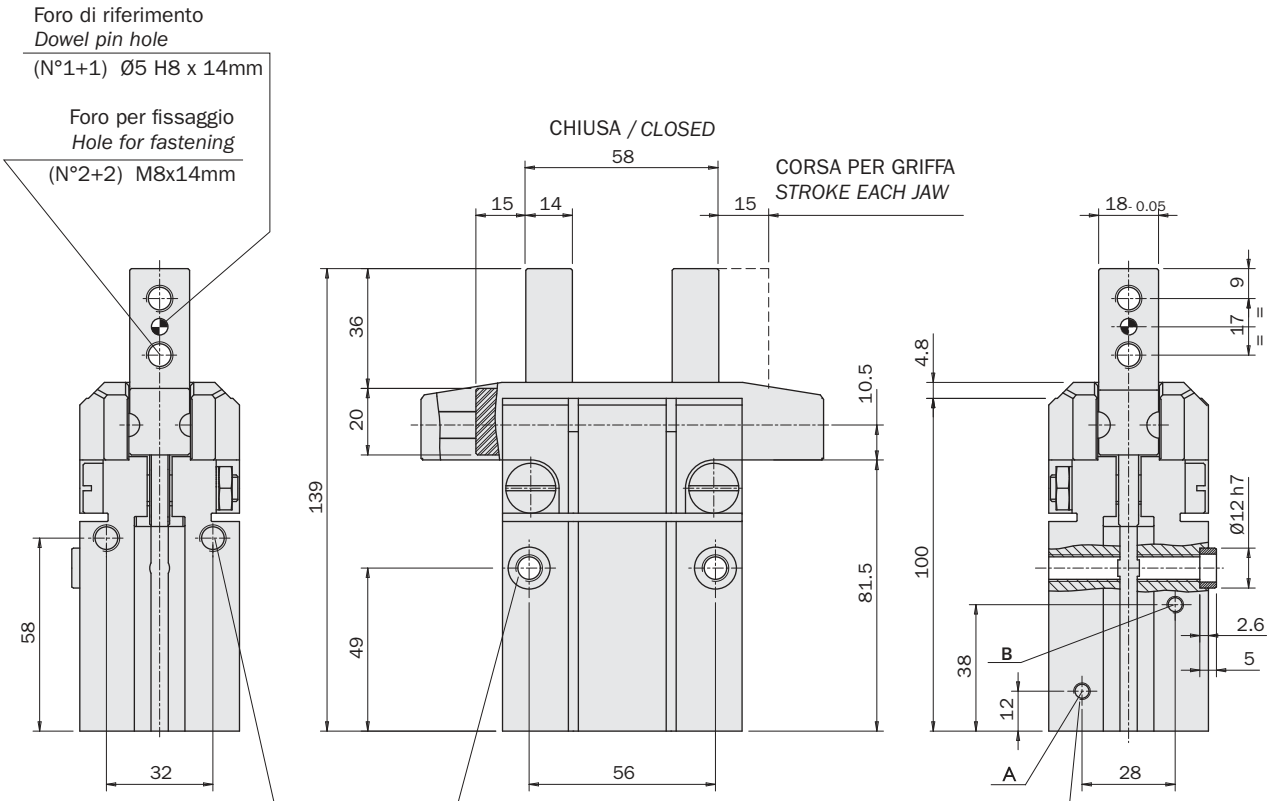
FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

GS-40





Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.

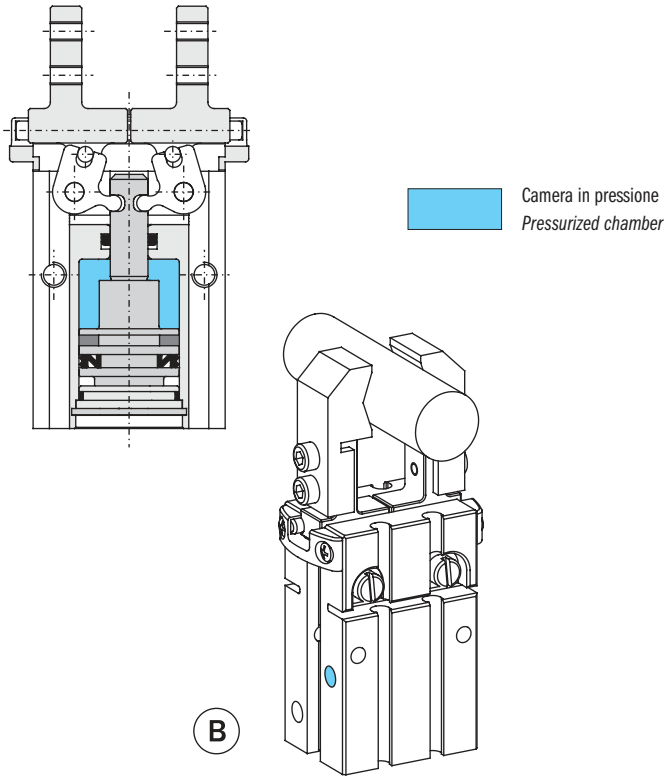
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

FIRST ANGLE PROJECTION

07/2026

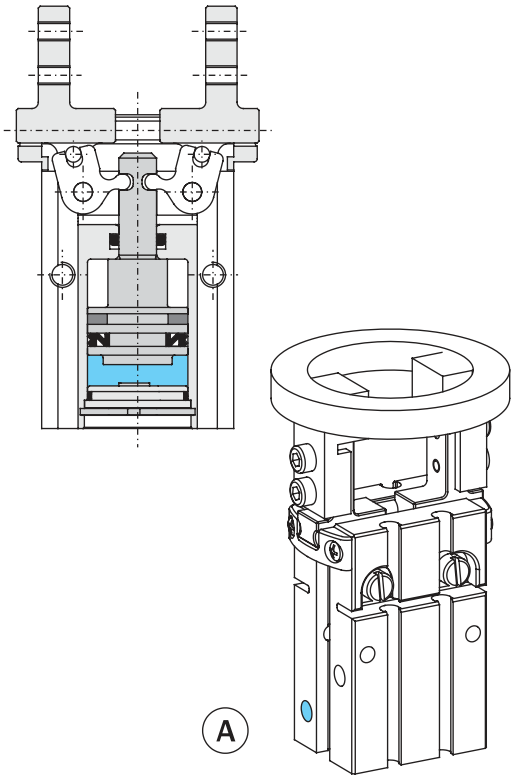
Serraggio

La pinza è a doppio effetto e può quindi essere usata per serrare il carico sia dall'esterno (B) che dall'interno (A).
La forza di serraggio è maggiore in apertura.

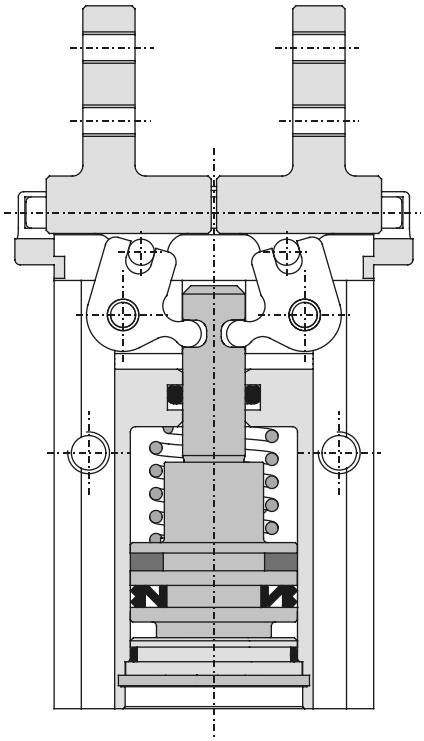


Gripping

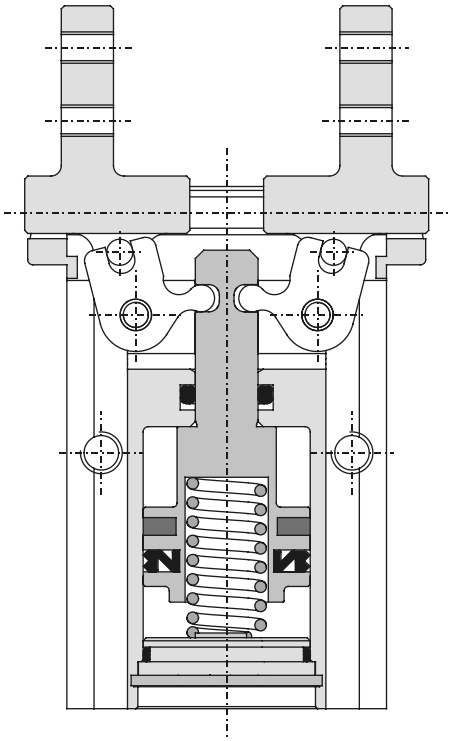
The gripper is double-acting for either internal (A) or external (B) gripping applications. The opening force is higher.



A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO).



It is also available, on request, with a closing (-NC) or opening (-NO) spring.



SZ

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SZ)

- Azionamento a doppio effetto.
- Su richiesta con molla in chiusura o apertura.
- Diverse possibilità di fissaggio e alimentazione.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.
- Griffe in acciaio inox.

2-jaw parallel self-centering pneumatic gripper (series SZ)

- *Double acting.*
- *Available with normally closed or normally open spring on request.*
- *Various options for fastening and feeding.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*
- *Stainless steel jaws.*


SZ25


SZ32


SZ40


SZ08


SZ12


SZ16


SZ20

	SZ08	SZ12	SZ16	SZ20	SZ25	SZ32	SZ40
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*						
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar			1 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.						
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	14 N	25 N	45 N	75 N	115 N	190 N	310 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	28 N	50 N	90 N	150 N	230 N	380 N	620 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	14 N	25 N	45 N	75 N	115 N	190 N	310 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	28 N	50 N	90 N	150 N	230 N	380 N	620 N
Corsa totale (±0.4 mm) *Total stroke*	8 mm	8 mm	12 mm	16 mm	20 mm	25 mm	30 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.5 cm^3	1 cm^3	3 cm^3	7 cm^3	12 cm^3	24 cm^3	48 cm^3
Tempo di apertura / chiusura senza carico *Opening / Closing time without load*	0.02 s	0.02 s	0.03 s	0.05 s	0.06 s	0.08 s	0.10 s
Peso *Weight*	35 g	101 g	164 g	337 g	474 g	783 g	1214 g

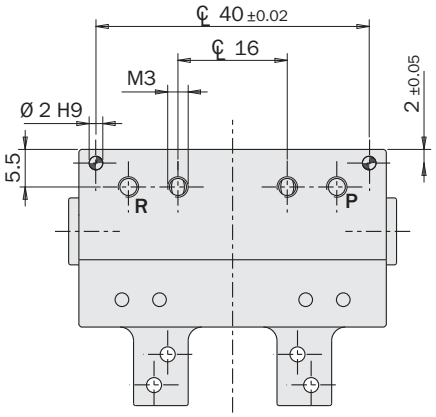
Dimensioni (mm)
Dimensions (mm)

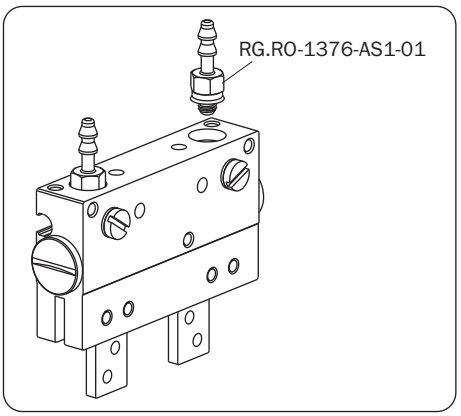
SZ08

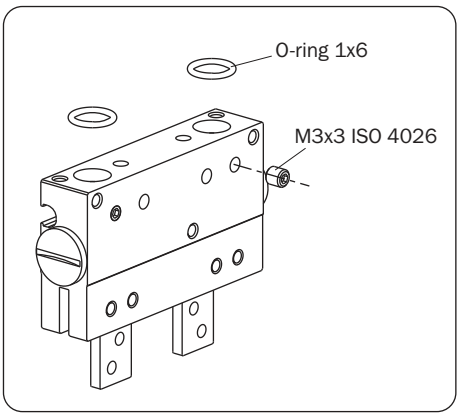
FIRST ANGLE PROJECTION

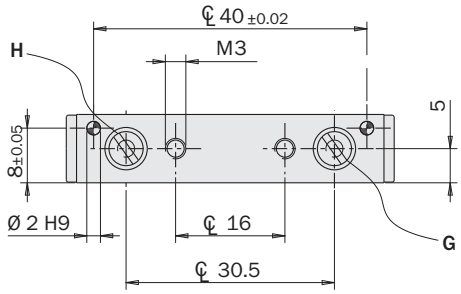
(G) (P) Aria compressa in G/P: apertura della pinza
Compressed air in G/P: gripper opening

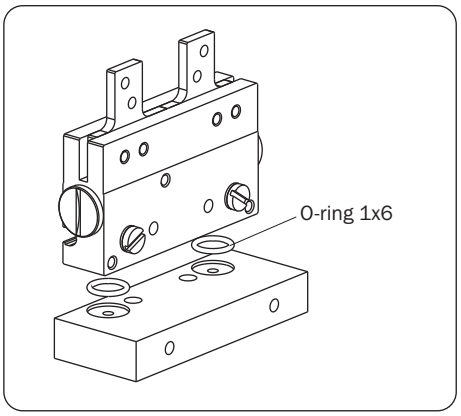
(H) (R) Aria compressa in H/R: chiusura della pinza
Compressed air in H/R: gripper closing

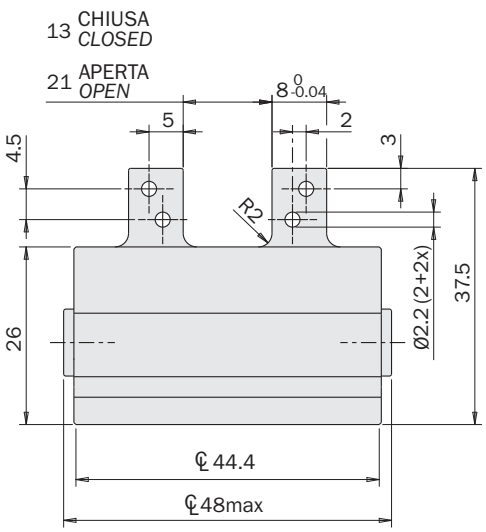


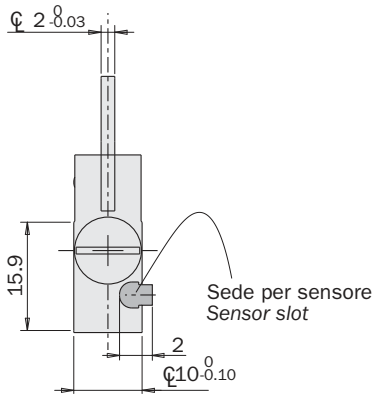






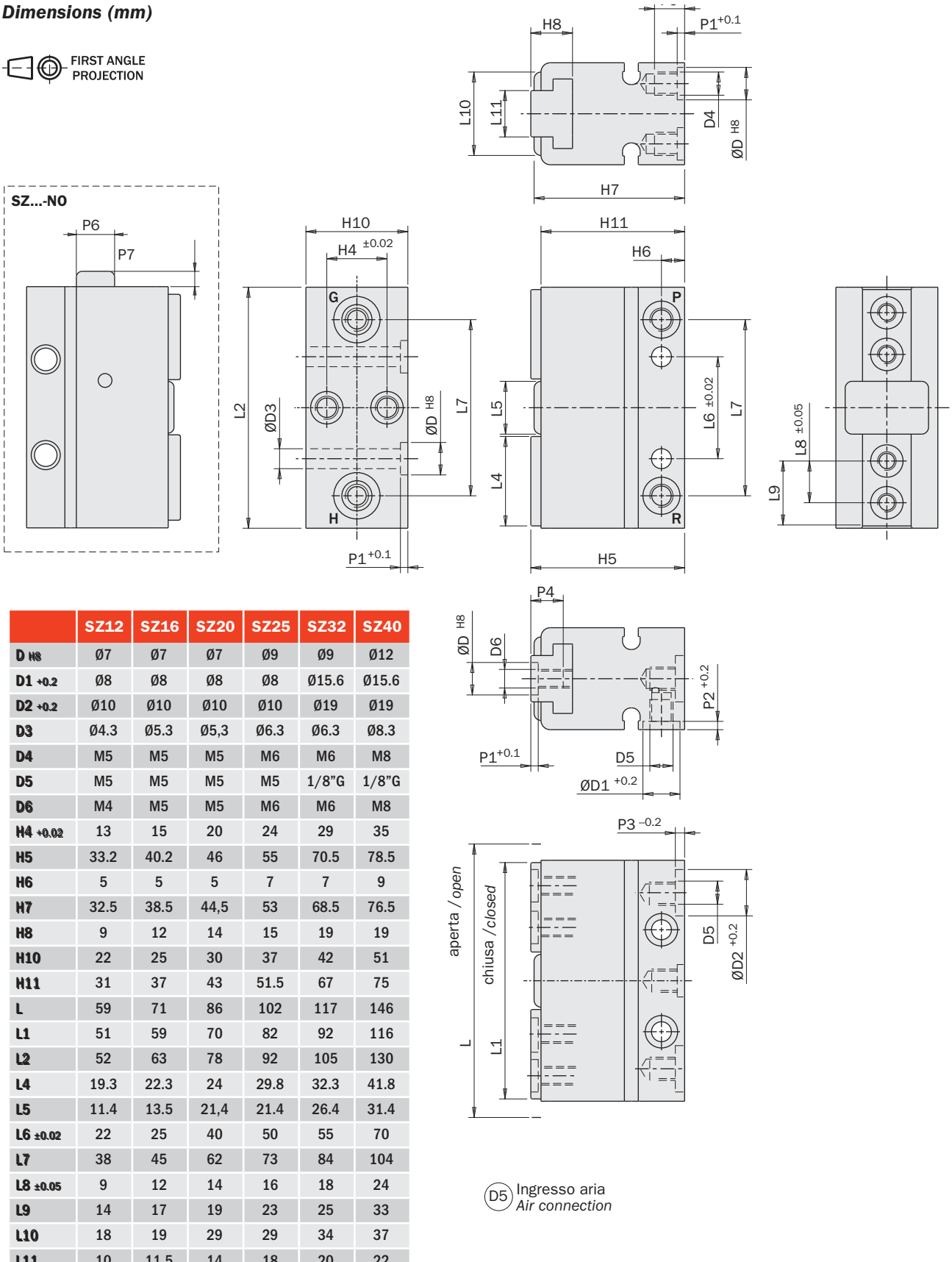






Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



	SZ12	SZ16	SZ20	SZ25	SZ32	SZ40
D H8	Ø7	Ø7	Ø7	Ø9	Ø9	Ø12
D1 +0.2	Ø8	Ø8	Ø8	Ø8	Ø15.6	Ø15.6
D2 +0.2	Ø10	Ø10	Ø10	Ø10	Ø19	Ø19
D3	Ø4.3	Ø5.3	Ø5,3	Ø6.3	Ø6.3	Ø8.3
D4	M5	M5	M5	M6	M6	M8
D5	M5	M5	M5	M5	1/8"G	1/8"G
D6	M4	M5	M5	M6	M6	M8
H4 +0.02	13	15	20	24	29	35
H5	33.2	40.2	46	55	70.5	78.5
H6	5	5	5	7	7	9
H7	32.5	38.5	44,5	53	68.5	76.5
H8	9	12	14	15	19	19
H10	22	25	30	37	42	51
H11	31	37	43	51.5	67	75
L	59	71	86	102	117	146
L1	51	59	70	82	92	116
L2	52	63	78	92	105	130
L4	19.3	22.3	24	29.8	32.3	41.8
L5	11.4	13.5	21,4	21.4	26.4	31.4
L6 ±0.02	22	25	40	50	55	70
L7	38	45	62	73	84	104
L8 ±0.05	9	12	14	16	18	24
L9	14	17	19	23	25	33
L10	18	19	29	29	34	37
L11	10	11.5	14	18	20	22
P1 +0.1	1.6	1.6	1,6	2.1	2.1	2.6
P2 +0.2	1.8	1.8	1,8	1.8	3	3
P3 -0.2	2	2	2	2	1.3	1.3
P4	6.5	9	10	14	15	16
P5	6.5	6.5	6,5	11	11	15
P6	Ø6.5	Ø10	Ø15	Ø19	Ø23.9	-
P7	0.7	4	3,4	2.1	1.7	-

(D5) Ingresso aria
Air connection

(G) (P) Aria compressa in G/P: apertura della pinza
Compressed air in G/P: gripper opening

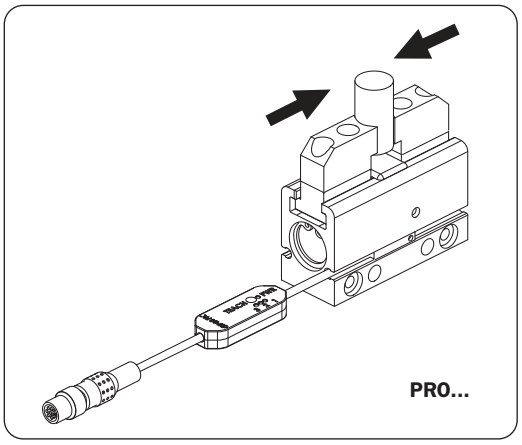
(H) (R) Aria compressa in H/R: chiusura della pinza
Compressed air in H/R: gripper closing

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

Sensors

The operating position is detected by proximity magnetic sensors (optional) through a magnet placed on the piston.
Therefore, avoid using the gripper in the vicinity of intense magnetic fields or near a large mass of ferromagnetic material as this may cause detection errors.



PRO...



SS...



SN...

Codice *Code*	OUTPUT	Connessione *Connection*	Tipo *Type*
PRO-SN3M215-G	3 output NPN	Connettore M8 *M8 plug connector*	Programmabile *Programmable* *3 set point*
PRO-SN3N215-G	3 output PNP		
PRO-SN4M225-G	3 output NPN	Cavo 2.5m *2.5m cable*	
PRO-SN4N225-G	3 output PNP		
PRO-SS3M215-G	3 output NPN	Connettore M8 *M8 plug connector*	Programmabile *Programmable* *3 set point*
PRO-SS3N215-G	3 output PNP		
PRO-SS4M225-G	3 output NPN	Cavo 2.5m *2.5m cable*	
PRO-SS4N225-G	3 output PNP		
PRO-SSR3M215-G	3 output NPN	Connettore M8 *M8 plug connector*	Programmabile *Programmable* *2 set point*
PRO-SSR3N215-G	3 output PNP		
PRO-SSR4M225-G	3 output NPN	Cavo 2.5m *2.5m cable*	
PRO-SSR4N225-G	3 output PNP		
SN4N225-G	1 output PNP	Cavo 2.5m *2.5m cable*	Isteresi standard *Standard hysteresis*
SN4M225-G	1 output NPN		
SN3N203-G	1 output PNP	Connettore M8 *M8 plug connector*	
SN3M203-G	1 output NPN		
SS4N225-G	1 output PNP	Cavo 2.5m *2.5m cable*	Isteresi standard *Standard hysteresis*
SS4M225-G	1 output NPN		
SS3N203-G	1 output PNP	Connettore M8 *M8 plug connector*	
SS3M203-G	1 output NPN		
SSY3NS203-G	1 output PNP	Connettore M8 *M8 plug connector*	Isteresi ridotta *Reduced hysteresis*
SSY3M203-G	1 output NPN		
SSY4N225-G	1 output PNP	Cavo 2.5m *2.5m cable*	
SSY4M225-G	1 output NPN		
SSQ3N203-G	1 output PNP	Connettore M8 *M8 plug connector*	Isteresi ultra bassa *Ultra low hysteresis*
SSQ3M203-G	1 output NPN		
SSQ4N225-G	1 output PNP	Cavo 2.5m *2.5m cable*	
SSQ4M225-G	1 output NPN		

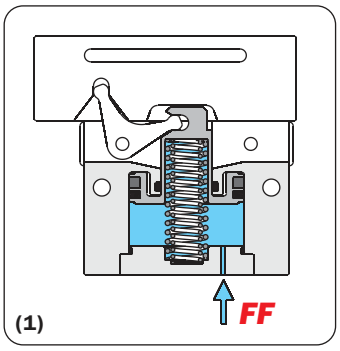
PQ

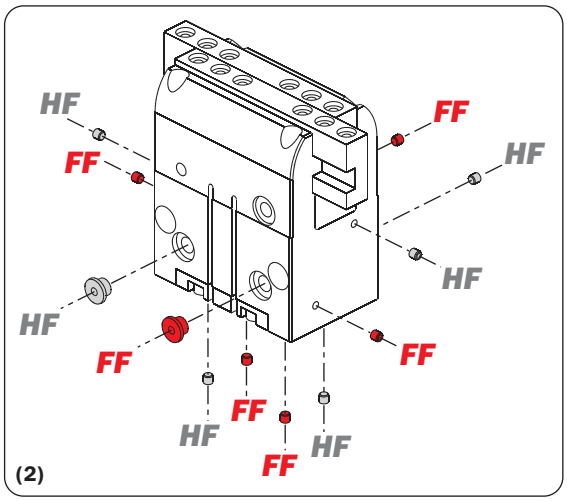
Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie PQ)

- Guida robusta.
- Corsa lunga.
- Molle integrate (1).
- Diverse possibilità di fissaggio ed alimentazione (2).
- Grasso alimentare NSF-H1.

2-jaw self-centering pneumatic parallel gripper (series PQ)

- *Robust guide.*
- *Long stroke.*
- *Integrated springs (1).*
- *Various fastening and air feeding options (2).*
- *NSF-H1 food-grade grease.*





PQ6063



PQ5047





PQ1608



PQ2012



PQ2516



PQ3015



PQ3523



PQ4533

	PQ1608	PQ2012	PQ2516	PQ3015	PQ3523	PQ4533	PQ5047	PQ6063
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*							
Pressione di esercizio *Operating pressure range*	3.5 ÷ 8 bar							
Temperatura di esercizio *Operating temperature range*	5 ÷ 100 °C							
Forza di serraggio per griffa (6 bar in FF) *Gripping force on each jaw (6 bar in FF)*	60 N	90 N	150 N	200 N	280 N	460 N	670 N	930 N
Forza di serraggio totale (6 bar in FF) *Total gripping force (6 bar in FF)*	120 N	180 N	300 N	400 N	560 N	920 N	1340 N	1860 N
Corsa totale (±0.5 mm) *Total stroke*	8 mm	12 mm	16 mm	15 mm	23 mm	33 mm	47 mm	63 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	2 cm^3	4 cm^3	8 cm^3	12 cm^3	23 cm^3	55 cm^3	114 cm^3	210 cm^3
Tempo di serraggio (aria in FF) *Gripping time (air in FF)*	20 ms	40 ms	40 ms	60 ms	60 ms	100 ms	140 ms	190 ms
Tempo di rilascio (aria in HF) *Release time (air in HF)*	20 ms	50 ms	50 ms	110 ms	110 ms	160 ms	230 ms	400 ms
Ripetibilità *Repetition accuracy*	0.02 mm							
Peso *Weight*	63 g	110 g	200 g	330 g	610 g	1270 g	2430 g	4900 g

Circuito pneumatico

Possibili inconvenienti sul circuito di alimentazione dell'aria compressa:
1- Oscillazioni di pressione;
2- Riempimento pinza vuota all'avvio;
3- Velocità di azionamento eccessiva.

Accorgimenti per risolvere i problemi:
1- Serbatoio esterno (A);
2- Valvola di avviamento progressivo (B);
3- Regolatore di flusso (C).

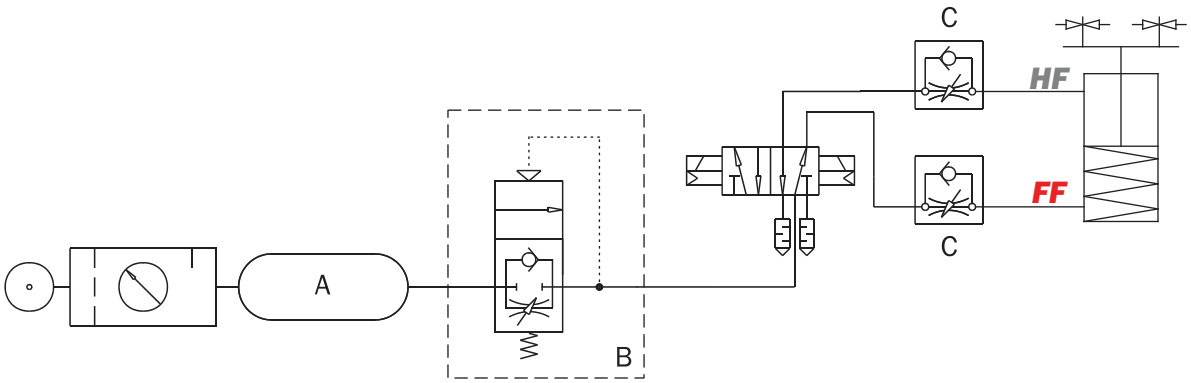
Pneumatic circuit

Possible problems on a compressed air supply circuit:
1- Pressure variation.
2- Pressurizing with empty gripper.
3- Excessive operating speed.

Possible solutions:
1- External air tank (A).
2- Start-up valve (B).
3- Flow controller (C).

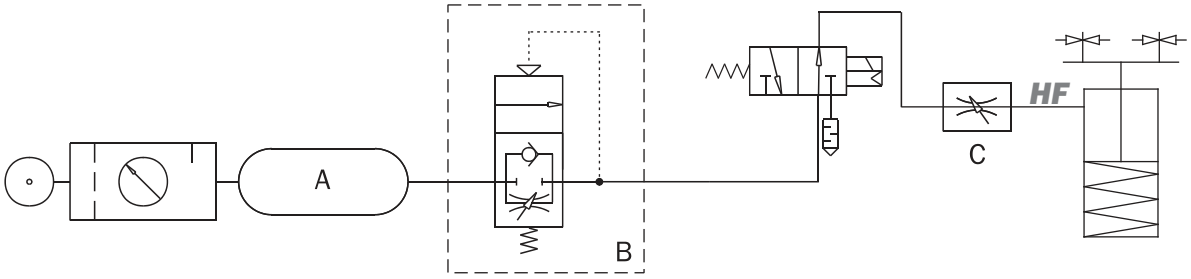
La pinza può funzionare sia a semplice effetto che a doppio effetto.
Quest'ultima soluzione (circuito sotto indicato, con valvola 5/2) è consigliata quando è necessaria una forza di serraggio elevata.

The gripper can operate either in single-effect mode or double-effect mode.
The double-effect mode (see circuit below, with 5/2 valve) is recommended when the highest gripping force is required.

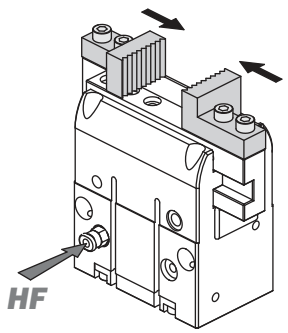


Per un funzionamento a semplice effetto, con molla di reset, il circuito pneumatico deve essere come quello sotto indicato, con valvola 3/2.

For single-effect operation with reset spring, the pneumatic circuit must be similar to that shown below, with a 3/2 valve.

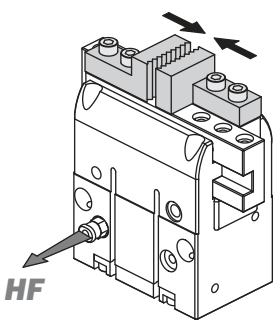


Normalmente aperta
con serraggio esterno



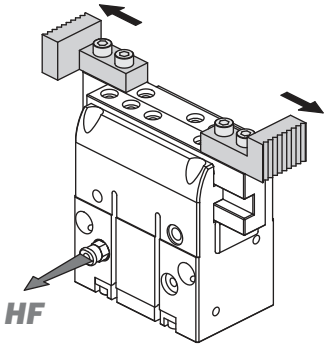
Normally open with outside gripping

Normalmente chiusa
con serraggio esterno



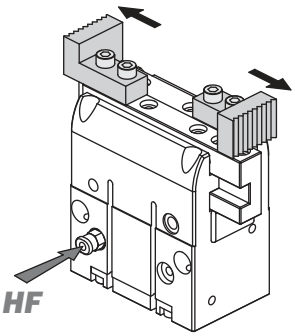
Normally closed with outside gripping

Normalmente aperta
con serraggio interno



Normally open with inside gripping

Normalmente chiusa
con serraggio interno



Normally closed with inside gripping

Dimensioni (mm)
Dimensions (mm)

Z1 Lamatura boccola per centraggio del dito di presa
Spot face for the centering sleeve of the gripping tool

Z2 Foro filettato per fissaggio del dito di presa
Threaded hole for the gripping tool fastening

Z6 Foro passante per fissaggio laterale della pinza
Through hole for the gripper side fastening

Z9 Foro filettato per fissaggio della pinza sulla base
Threaded hole for the gripper fastening on the bottom

Z12 Lamatura boccola per centraggio del corpo pinza
Spot face for the centering sleeve of the gripper body

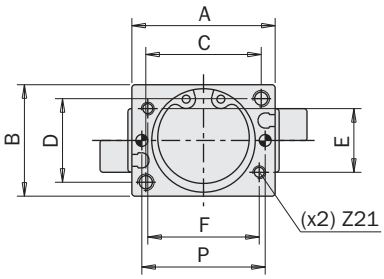
Z21 Fori per alimentazione diretta dal fondo
Ports for direct air supply from the bottom

Z22 Fori per alimentazione
Air supply ports

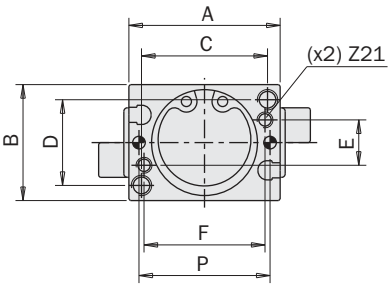
Z23 Fori per alimentazione
Air supply ports

Z31 Cave per sensori magnetici
Magnetic sensor slots

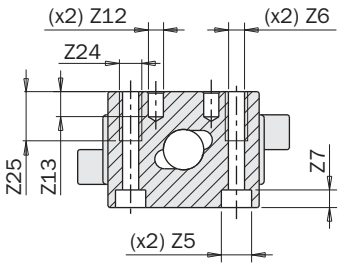
	PQ1608	PQ2012	PQ2516
A	24	30	36
B	18	23	28
C ±0.02	20	25	29
D ±0.02	14	17	21
E	6.6	8	16
F	20	25	28
G	11	13.8	16
H	44	46.5	57
I	32.5	32.5	37.5
J	43.5	46	56
K	17.5	22.4	27
L	32	42	52
M	4	6	8
N	11	13.5	18
O ±0.02	26	26.5	28.5
P	21	26	31
Q	7.5	8.5	11
R ±0.02	17	21	24
S	13.5	15.3	16
T	7	7.5	8
U	3.7	4	8
V	5.5	6.9	8
W	13	17	21
X	9	11	13
Y ±0.02	6	8	9
Z1	Ø5 H8	Ø5 H8	Ø6 H8
Z2	M3	M3	M4
Z3	1.2	1.2	2.5
Z4	4	5	7.5
Z5	Ø5	Ø6	Ø6
Z6	Ø2.6	Ø3.2	Ø3.2
Z7	3	3.5	3.5
Z8	Ø2 H7	Ø2.5 H7	Ø3 H7
Z9	M3	M4	M4
Z10	5	6	6
Z11	3	5	5
Z12	Ø2 H7	Ø3 H7	Ø3 H7
Z13	3	5	5
Z21	M2.5	M2.5	M3
Z22	M3	M3	M5
Z23	M2.5	M3	M3
Z24	M3	M4	M4
Z25	7	7	7
Z30 ±0.02	9	11	12

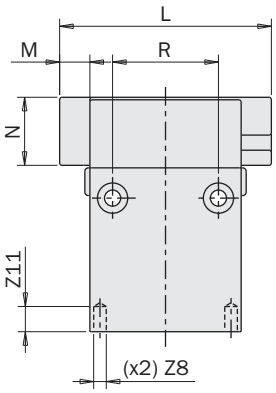


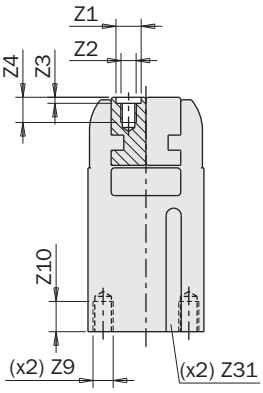
PQ2516

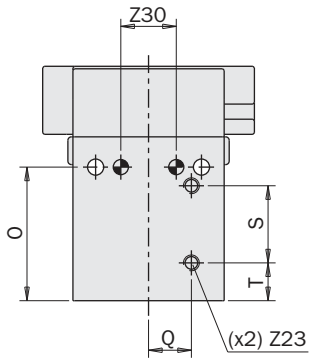


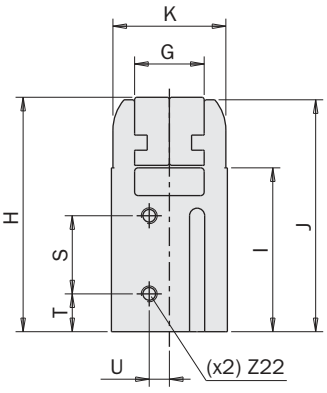
PQ1608
PQ2012

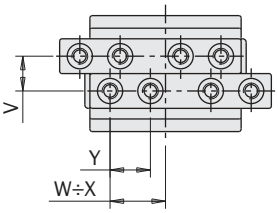










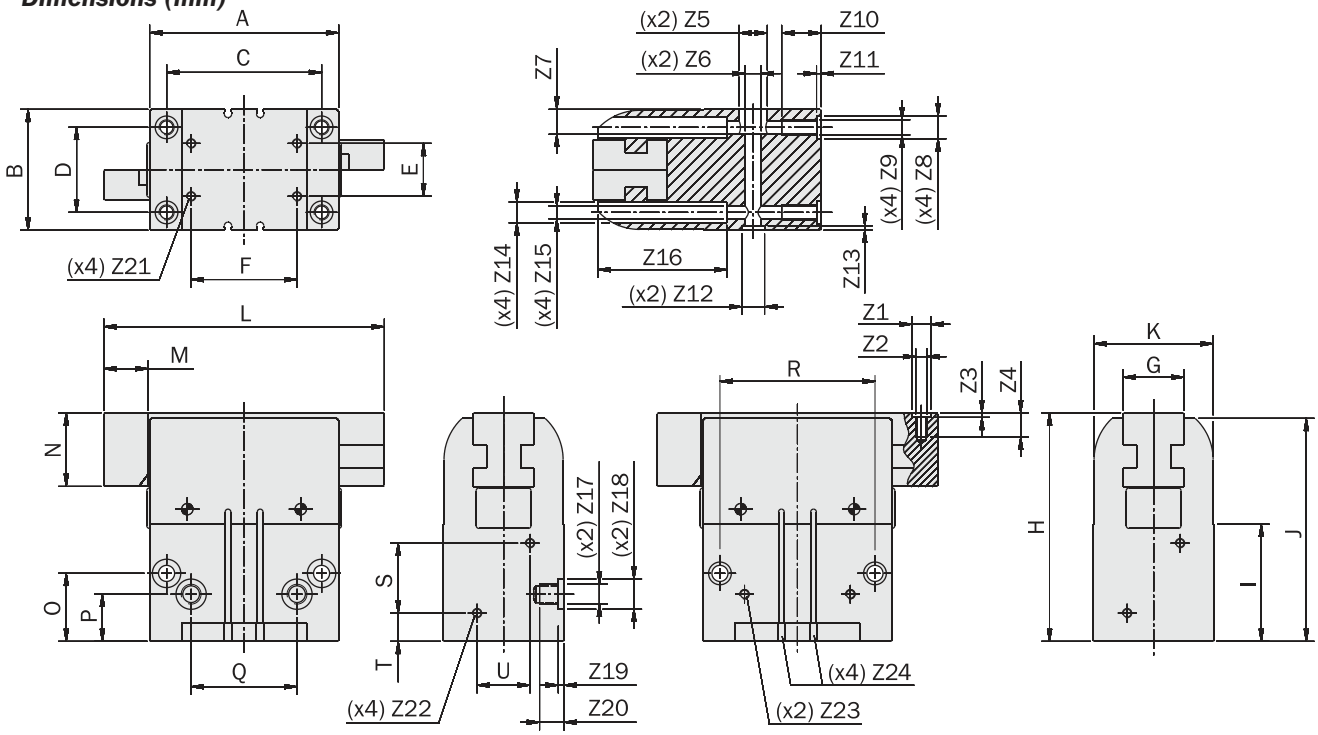


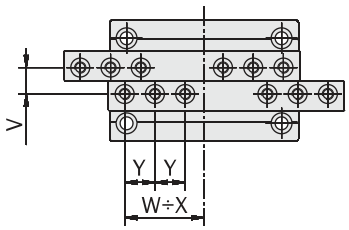
FIRST ANGLE PROJECTION

07/2026

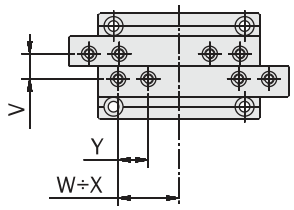
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION





PQ4533
PQ5047
PQ6063



PQ3015
PQ3523

	PQ3015	PQ3523	PQ4533	PQ5047	PQ6063
A	50	64	80	100	125
B	38	42	50	64	80
C ±0.02	42	52	66	82	100
D ±0.02	27	32	38	45	56
E	20	18	26	28	34
F	28	36	44	56	70
G	20	24	28	32	42
H	55	70	93	121	156
I	30	38	45	62	85
J	53	68	90	118	153
K	37.6	41.6	49	63	79
L	65.5	87.5	118.5	148.5	191.5
M	7.5	11.5	16.5	23.5	31.5
N	18	22	33	39	45
O ±0.02	25	22	34	36	55
P	17	25	24	25	40
Q	28	35	44	56	70
R ±0.02	42	52	66	82	100
S	-	-	-	37	44
T	-	-	-	15	24
U	-	-	-	28	34
V	8	10	12	14	16
W	24.8	35.7	52.2	65.6	79.8
X	17.3	24.2	35.7	42	48.3
Y ±0.02	10	12	14	16	20
Z1	Ø5 H8	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8
Z2	M3	M4	M5	M6	M6
Z3	1.2	2.5	2.5	2.5	2.5
Z4	7.2	9.5	11.5	13	12.5
Z5	Ø6	Ø9	Ø11	Ø15	Ø15
Z6	Ø3.5	Ø5.2	Ø6.6	Ø8.5	Ø8.5
Z7	10	10	9	13.2	17
Z8	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8	Ø12 H8
Z9	M4	M5	M6	M8	M8
Z10	10.5	14	18	21	22.5
Z11	2.5	2.5	2.5	2.5	2.5
Z12	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8	Ø12 H8
Z13	2.5	2.5	2.5	2.5	2.5
Z14	Ø6	Ø7.5	Ø9	Ø11	Ø11
Z15	Ø3.3	Ø4.2	Ø5	Ø6.8	Ø6.8
Z16	22	38	45	68	82
Z17	M5	M5	M5	G1/8“	G1/8“
Z18	-	-	Ø10	Ø16	Ø18
Z19	-	-	2.5	3	3
Z20	5	5	9.3	13	16.3
Z21	M3	M4	M5	M5	M5
Z22	-	-	-	M5	M5
Z23	M5	M5	M5	M5	M5

Z1 Lamatura boccola per centraggio del dito di presa
Spot face for the centering sleeve of the gripping tool

Z2 Foro filettato per fissaggio del dito di presa
Threaded hole for the gripping tool fastening

Z6 Foro passante per fissaggio laterale della pinza
Through hole for the gripper side fastening

Z9 Foro filettato per fissaggio della pinza sulla base
Threaded hole for the gripper fastening on the bottom

Z12 Lamatura boccola per centraggio del corpo pinza
Spot face for the centering sleeve of the gripper body

Z15 Foro passante per fissaggio della pinza sulla base
Through hole for the gripper fastening on the bottom

Z17 Connessione principale per raccordi dell’aria
Main port for air fittings

Z21 Fori per alimentazione diretta dal fondo
Ports for direct air supply from the bottom

Z22 Fori per alimentazione
Air supply ports

Z23 Fori per alimentazione
Air supply ports

Z24 Cave per sensori magnetici
Magnetic sensor slots

MGX

Pinza pneumatica a 2 griffe ad azione parallela autocentrante serie MGX

- Profilo piatto.
- Guida robusta.
- Elevata forza di serraggio.
- Peso ed ingombri ridotti.
- Precisione dimensionale elevata.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper series MGX

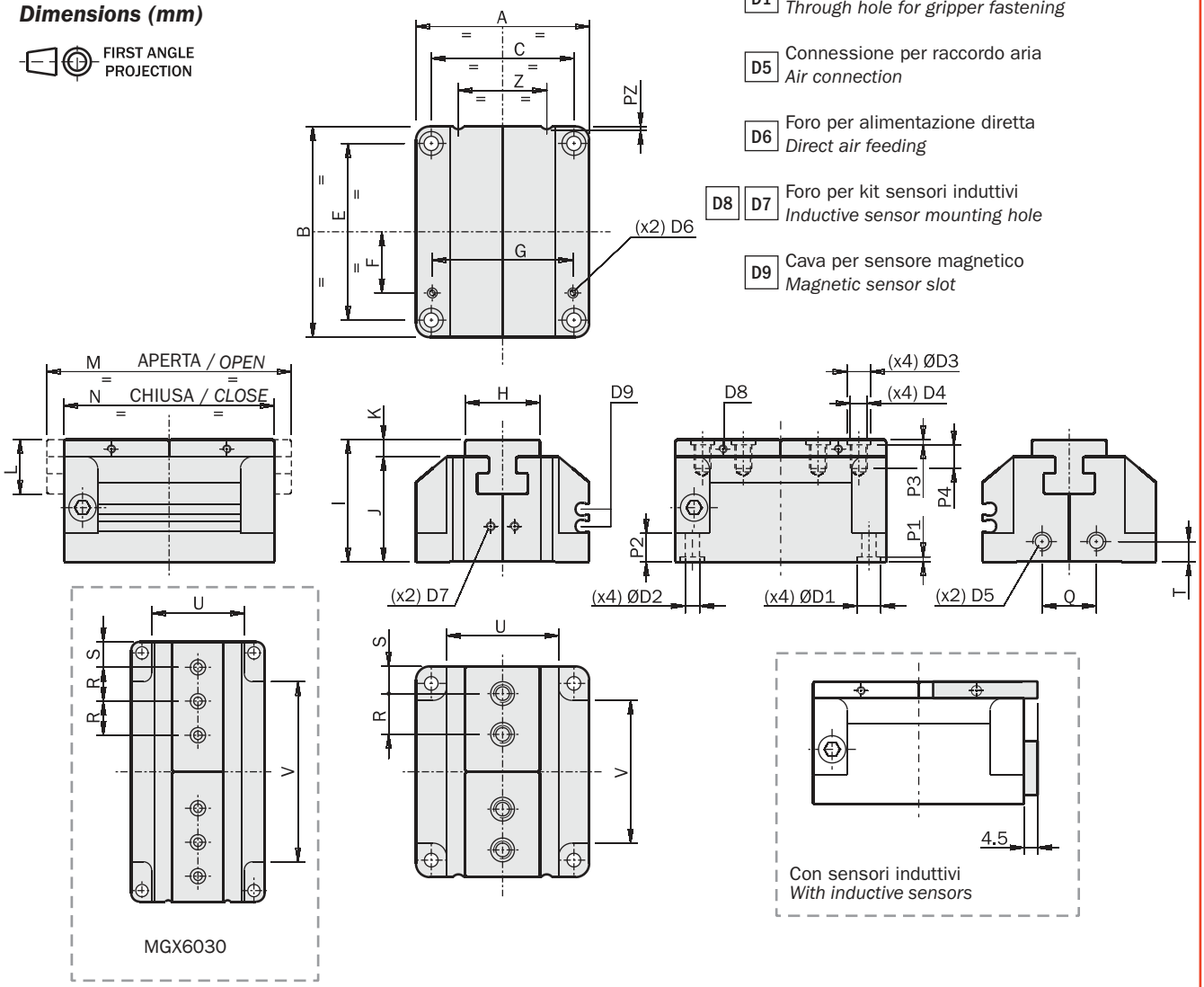
- *Flat profile.*
- *Robust guide.*
- *High gripping force.*
- *Small weight and dimensions.*
- *High dimensional accuracy.*
- *Spring closed (-NC) or spring open (-NO) option.*
- *FDA-H1 food-grade grease.*



	MGX2005	MGX2508	MGX3210	MGX3214	MGX4015	MGX5020	MGX6030
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*						
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	1.5 ÷ 8 bar	1.5 ÷ 8 bar	1.5 ÷ 8 bar	1.5 ÷ 8 bar	1.5 ÷ 8 bar	1.5 ÷ 8 bar
Temperatura di esercizio *Operating temperature range*	5° ÷ 50°C.						
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	90 N	145 N	230 N	160 N	375 N	650 N	830 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	180 N	290 N	460 N	320 N	750 N	1300 N	1660 N
Corsa totale (±0.3 mm) *Total stroke*	5 mm	8 mm	10 mm	14.6 mm	15 mm	20 mm	30 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	5 cm^3	10 cm^3	22 cm^3	22 cm^3	48 cm^3	86 cm^3	169 cm^3
Tempo di apertura / chiusura senza carico *Opening / Closing time without load*	7 ms	10 ms	20 ms	20 ms	50 ms	70 ms	140 ms
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	95 g	150 g	270 g	270 g	545 g	900 g	1525 g

Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



D1 Foro passante per fissaggio pinza
Through hole for gripper fastening

D5 Connessione per raccordo aria
Air connection

D6 Foro per alimentazione diretta
Direct air feeding

D8 D7 Foro per kit sensori induttivi
Inductive sensor mounting hole

D9 Cava per sensore magnetico
Magnetic sensor slot

		MGX2005	MGX2508	MGX3210	MGX3214	MGX4015	MGX5020	MGX6030
A		35.8	42	51	51	61.2	70	78.6
B		44	55	62	62	93	118	153
C	±0.04	28.3	33	42	42	51	58	66
D1		Ø5 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø9 H7	Ø9 H7
D2		Ø3.2	Ø4.2	Ø4.2	Ø4.2	Ø5.2	Ø6.2	Ø6.2
D3		Ø5 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø9 H7	Ø12 H7	Ø9 H7
D4		M3	M4	M5	M5	M6	M8	M6
D5		M5	M5	M5	M5	M5	G1/8"	G1/8"
D6		M3	M3	M3	M3	M3	M3	M3
E	±0.02	36.5	46	52	52	80	105	140
F		12.5	15.5	18	18	27.5	37	43.5
G		27.2	33.6	41.4	41.4	49.6	58.6	67.6
H	±0.05	14	16	22	22	25	28	30
I		26	28.5	36	36	42	49	58
J		22	24	31	31	37	43	51
K		4	4.5	5	5	5	6	7
L		11.2	12.7	16	16	20	25	29
M		49	63	72	76	108	138	183
N		44	55	62	62	93	118	153
P1		1.2	1.5	1.5	1.5	1.5	2	2
P2		5.5	6	8.4	8.4	9	10	13.5
P3		1.2	1.5	1.5	1.5	2	2.5	2.5
P4		5	5.2	7	7	9	12	12
Q		11	12	16	16	31.2	32	40
R	±0.02	9	10	12	12	12	24	20
S		5.5	6	8	8	12.5	14	15
T		5.8	6	6	6	6	8	8
U		20.8	24	33	33	41.2	46	54.6
V		29	37	42	42	65	88	106
Z		17	20	26	26	30	33	35
PZ		0.5	0.5	0.8	0.8	0.8	0.8	0.8

Sensori

Il rilevamento della posizione di lavoro può essere effettuato con sensori magnetici (opzionali), che rilevano il magnete sul pistone, oppure con sensori induttivi (opzionali), che rilevano la presenza delle sfere (SY) inserite nell'appendice (Y).
Due appendici regolabili possono essere fissate alla griffa con le due viti (TY) fornite.
I sensori induttivi devono avere diametro 4mm.

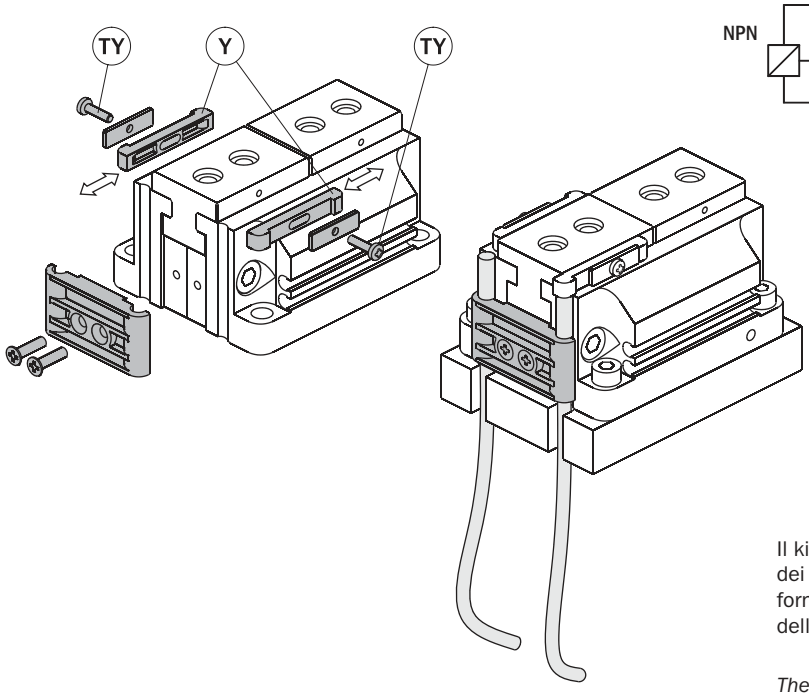
Sensors

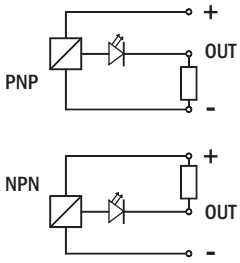
The operating position can be checked by magnetic sensors (optional), detecting the magnet of the piston, or by inductive sensors (optional), detecting the ball (SY) in the appendix (Y).
Two adjustable appendixes can be mounted on the jaw using the supplied screws (TY).
Use 4mm diameter inductive sensors.

Codici di ordinazione dei sensori induttivi:

Ordering codes of the inductive sensors:

SI4M225-G	NPN	Cavo 2.5m *2.5m cable*
SI4N225-G	PNP	









Il kit per il fissaggio dei sensori induttivi è fornito nella confezione della pinza.

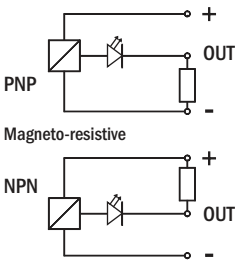
The accessories to fix the inductive sensors are supplied in the packaging.



I sensori magnetici utilizzabili sono i codici Gimatic:

The magnetic sensors from Gimatic are the codes:

SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	





Versioni a molla

A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO), che in assenza d'aria garantisce circa un quarto della forza disponibile a 6 bar.

Spring option

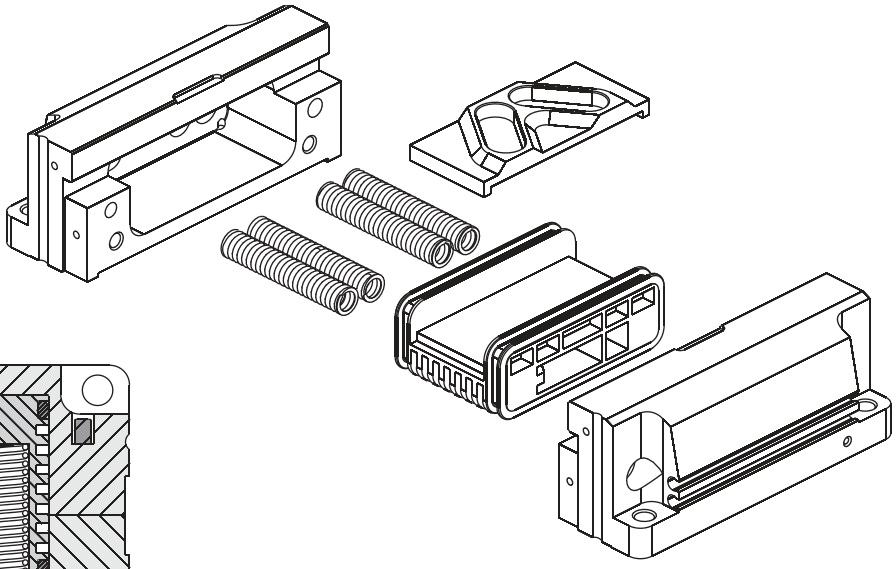
It is also available, on request, with a closing (-NC) or opening (-NO) spring, providing, after a pressure black-out, about one fourth of the output force at 6 bar.

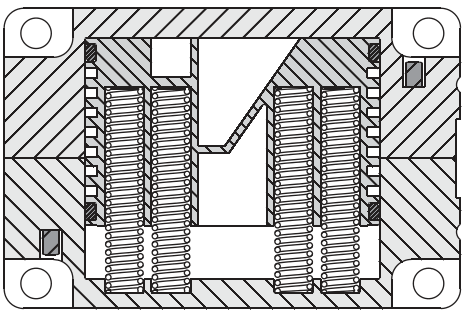
	MGX2005-NC	MGX2508-NC	MGX3210-NC	MGX3214-NC	MGX4015-NC	MGX5020-NC	MGX6030-NC
Forza di chiusura per griffa a 6 bar *Closing force at 6 bar each jaw*	114÷121 N	179÷195 N	285÷306 N	199÷213 N	467÷510 N	792÷871 N	1016÷1110 N
Forza di apertura per griffa a 6 bar *Opening force at 6 bar each jaw*	59÷66 N	95÷111 N	154÷175 N	107÷122 N	240÷283 N	429÷508 N	550÷644 N
Forza di chiusura per griffa a 0 bar *Closing force at 0 bar each jaw*	24÷31 N	34÷50 N	55÷76 N	38÷53 N	92÷135 N	142÷221 N	186÷280 N
Forza di apertura per griffa a 0 bar *Opening force at 0 bar each jaw*	0 N	0 N	0 N	0 N	0 N	0 N	0 N

	MGX2005-NO	MGX2508-NO	MGX3210-NO	MGX3214-NO	MGX4015-NO	MGX5020-NO	MGX6030-NO
Forza di chiusura per griffa a 6 bar *Closing force at 6 bar each jaw*	59÷66 N	95÷111 N	154÷175 N	107÷122 N	240÷283 N	429÷508 N	550÷644 N
Forza di apertura per griffa a 6 bar *Opening force at 6 bar each jaw*	114÷121 N	179÷195 N	285÷306 N	199÷213 N	467÷510 N	792÷871 N	1016÷1110 N
Forza di chiusura per griffa a 0 bar *Closing force at 0 bar each jaw*	0 N	0 N	0 N	0 N	0 N	0 N	0 N
Forza di apertura per griffa a 0 bar *Opening force at 0 bar each jaw*	24÷31 N	34÷50 N	55÷76 N	38÷53 N	92÷135 N	142÷221 N	186÷280 N

Nelle versioni con le molle la lunghezza massima delle estremità di presa deve essere ridotta del 20%.
Nelle versioni con le molle la minima pressione di utilizzo é 3.5 bar.

In the spring versions the maximum gripping tool length should be 20% shorter.
In the spring versions the minimum operating pressure is 3.5 bar.





Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie MG)

- Azionamento a doppio effetto.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Possibilità di scelta su un'ampia gamma di corse e forze di serraggio.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Profilo piatto.
- Predisposta per sensori induttivi.
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series MG)

- *Double acting.*
- *The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.*
- *Wide choice of gripping force and stroke length options.*
- *The gripping force is constant on both directions along total stroke.*
- *Flat profile.*
- *Prepared for mounting inductive sensors.*
- *FDA-H1 food-grade grease.*



MG-0100



MG-0101



MG-0102



MG-0103



MG-0075



MG-0076



MG-0077



MG-0050



MG-0051



MG-0052



MG-0025



MG-0026



MG-0027



MG-0010



MG-0011

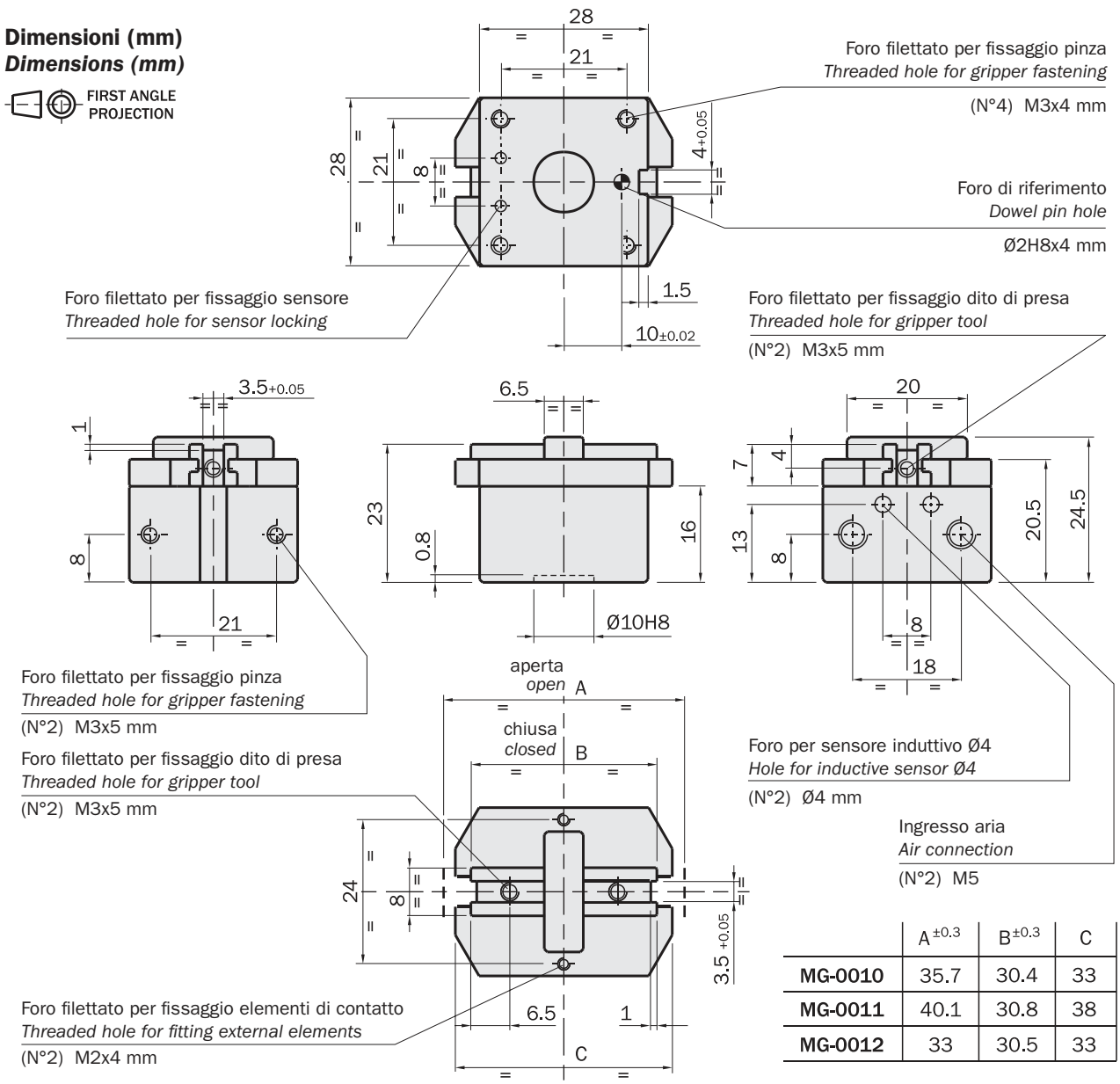


MG-0012

	MG-0010	MG-0011	MG-0012
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2÷8 bar		
Temperatura di esercizio *Operating temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	35 N	18 N	70 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	70 N	36 N	140 N
Corsa totale (±0.3 mm) *Total stroke*	5.3 mm	9.3 mm	2.5 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	1.5 cm^3		
Tempo di chiusura senza carico *Closing time without load*	0.03 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	60 g	65 g	60 g

Dimensioni (mm)
Dimensions (mm)

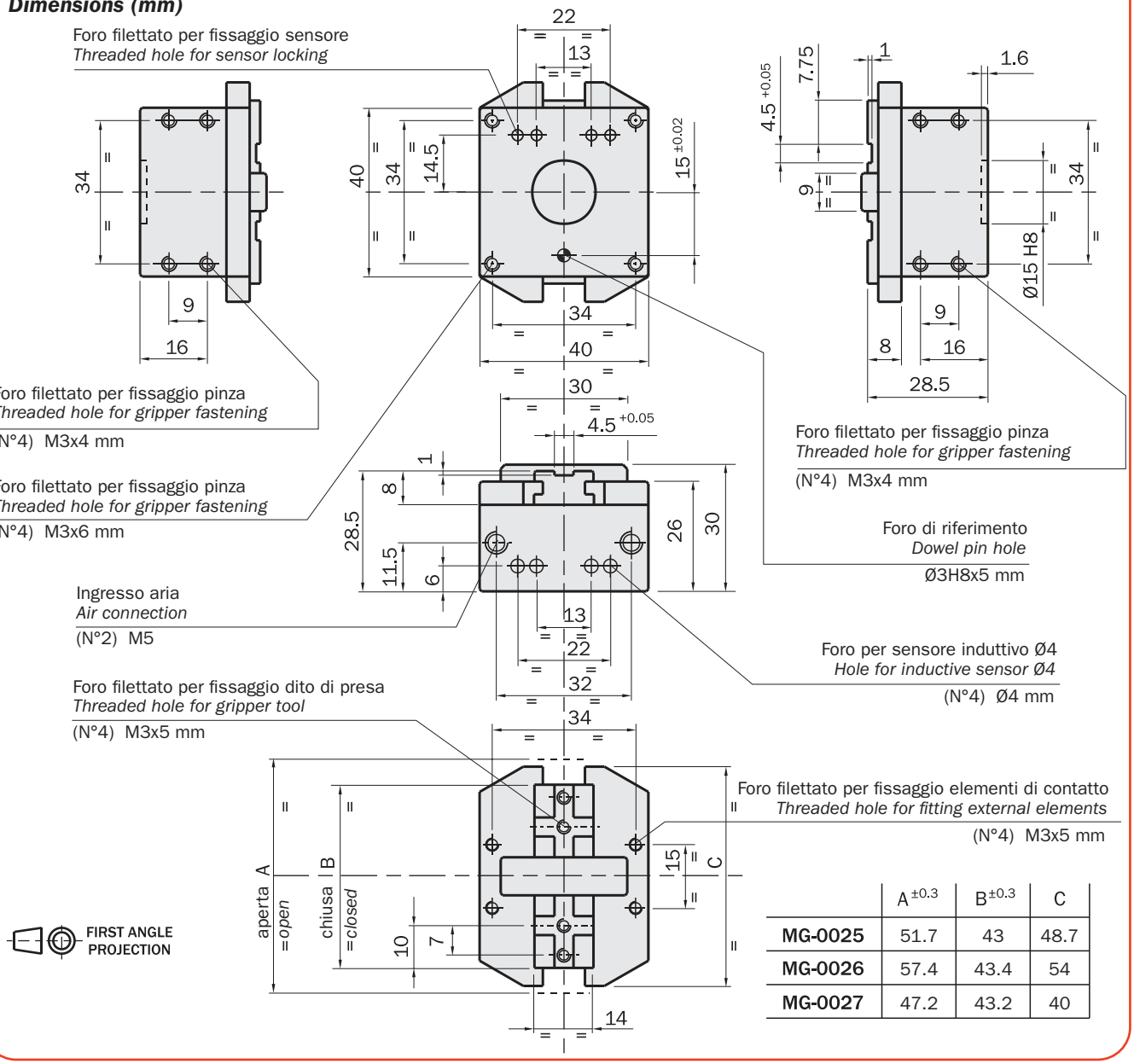
FIRST ANGLE PROJECTION



	A ±0.3	B ±0.3	C
MG-0010	35.7	30.4	33
MG-0011	40.1	30.8	38
MG-0012	33	30.5	33

	MG-0025	MG-0026	MG-0027
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2÷8 bar		
Temperatura di esercizio *Operating temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	70 N	40 N	130 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	140 N	80 N	260 N
Corsa totale (±0.3 mm) *Total stroke*	8.7 mm	14 mm	4 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	3.4 cm^3		
Tempo di chiusura senza carico *Closing time without load*	0.05 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	160 g	170 g	150 g

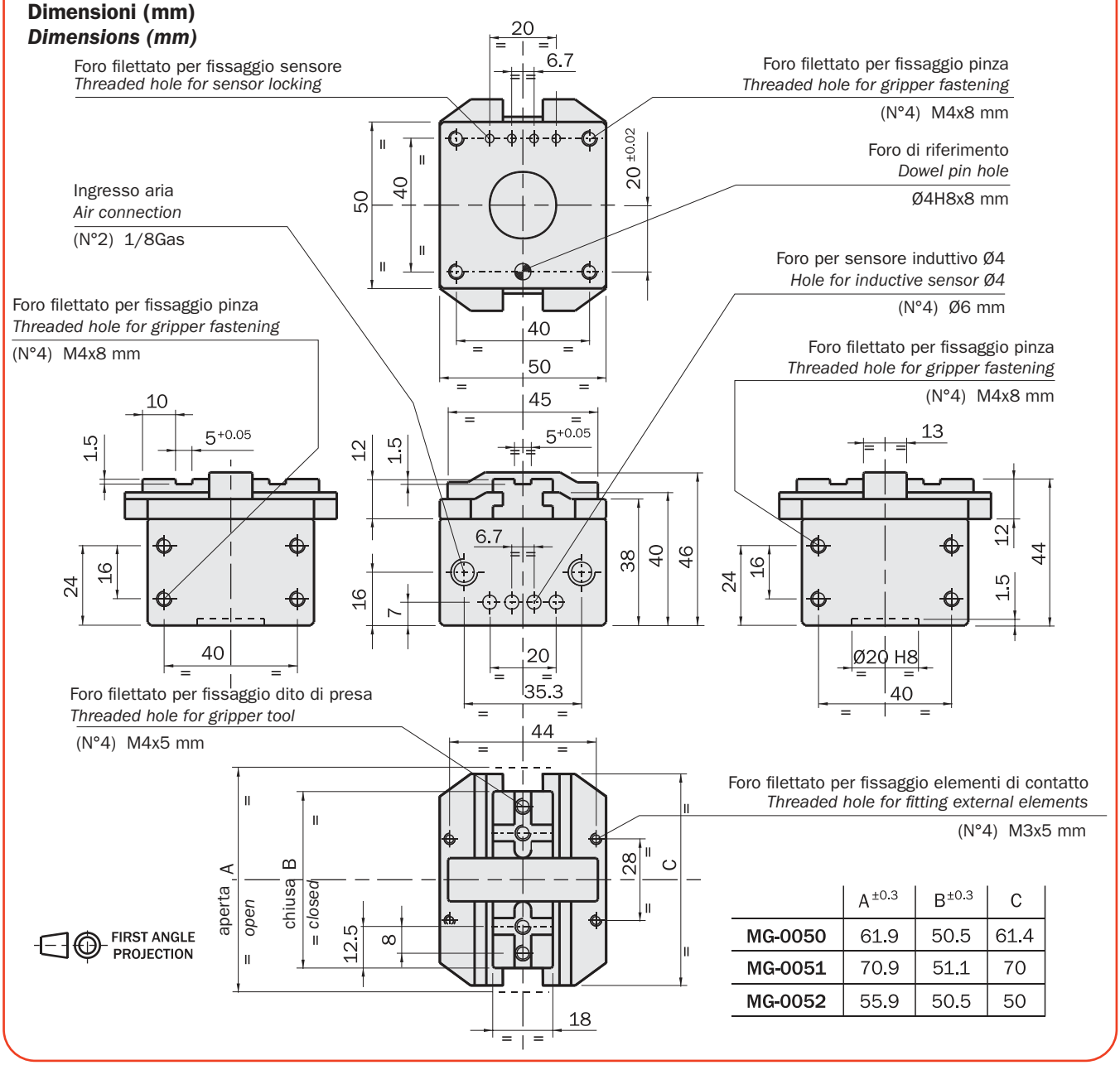
Dimensioni (mm)
Dimensions (mm)



	$A^{\pm 0.3}$	$B^{\pm 0.3}$	C
MG-0025	51.7	43	48.7
MG-0026	57.4	43.4	54
MG-0027	47.2	43.2	40

	MG-0050	MG-0051	MG-0052
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2÷8 bar		
Temperatura di esercizio *Operating temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	160 N	90 N	300 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	320 N	180 N	600 N
Corsa totale (±0.3 mm) *Total stroke*	11.4 mm	19.8 mm	5.4 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	12 cm^3		
Tempo di chiusura senza carico *Closing time without load*	0.09 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	370 g	380 g	350 g

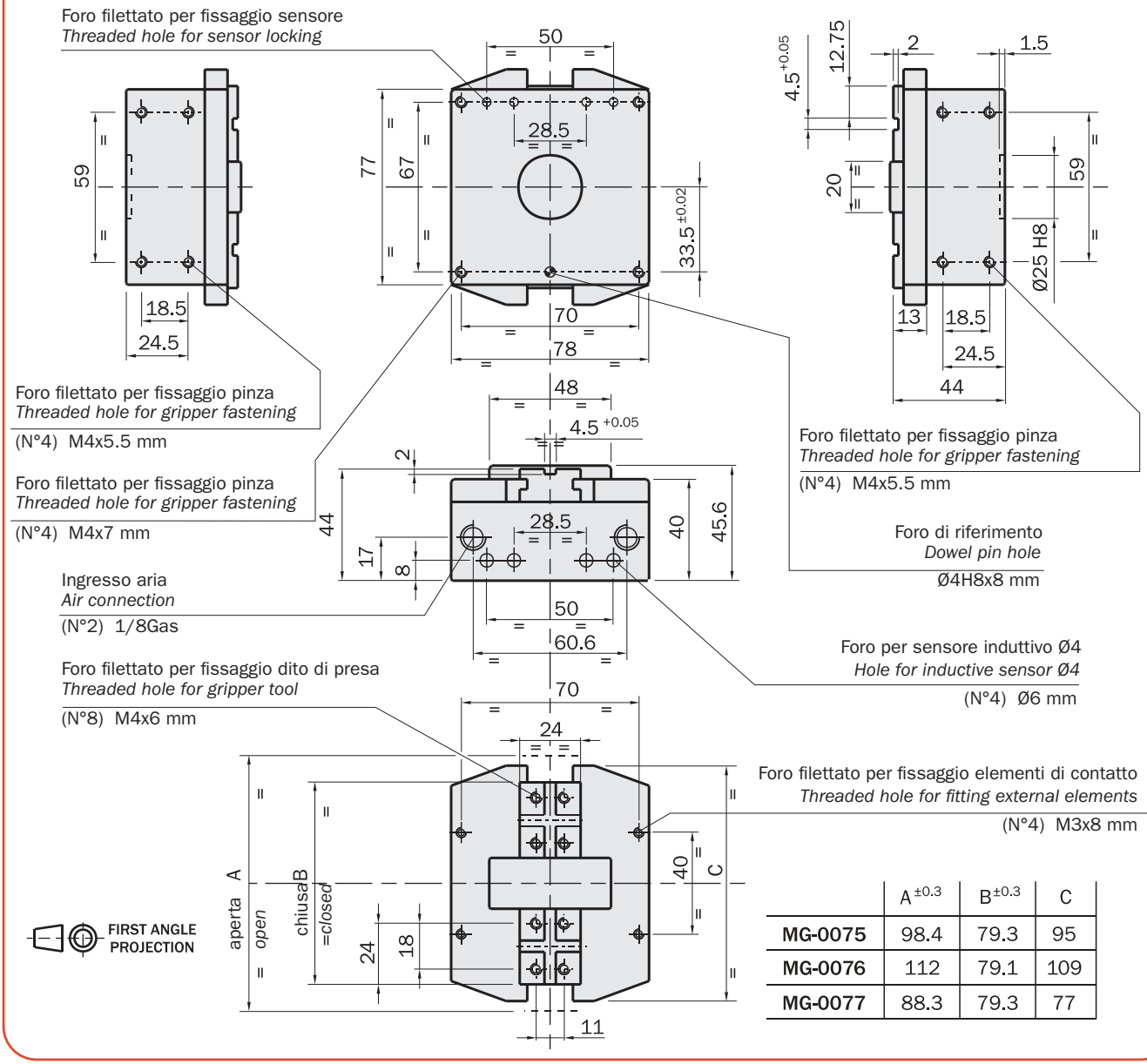
Dimensioni (mm)
Dimensions (mm)



	A ±0.3	B ±0.3	C
MG-0050	61.9	50.5	61.4
MG-0051	70.9	51.1	70
MG-0052	55.9	50.5	50

	MG-0075	MG-0076	MG-0077
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2÷8 bar		
Temperatura di esercizio *Operating temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	250 N	160 N	540 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	500 N	320 N	1080 N
Corsa totale (±0.3 mm) *Total stroke*	19.1 mm	32.9 mm	9 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	34 cm^3		
Tempo di chiusura senza carico *Closing time without load*	0.14 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	940 g	980 g	900 g

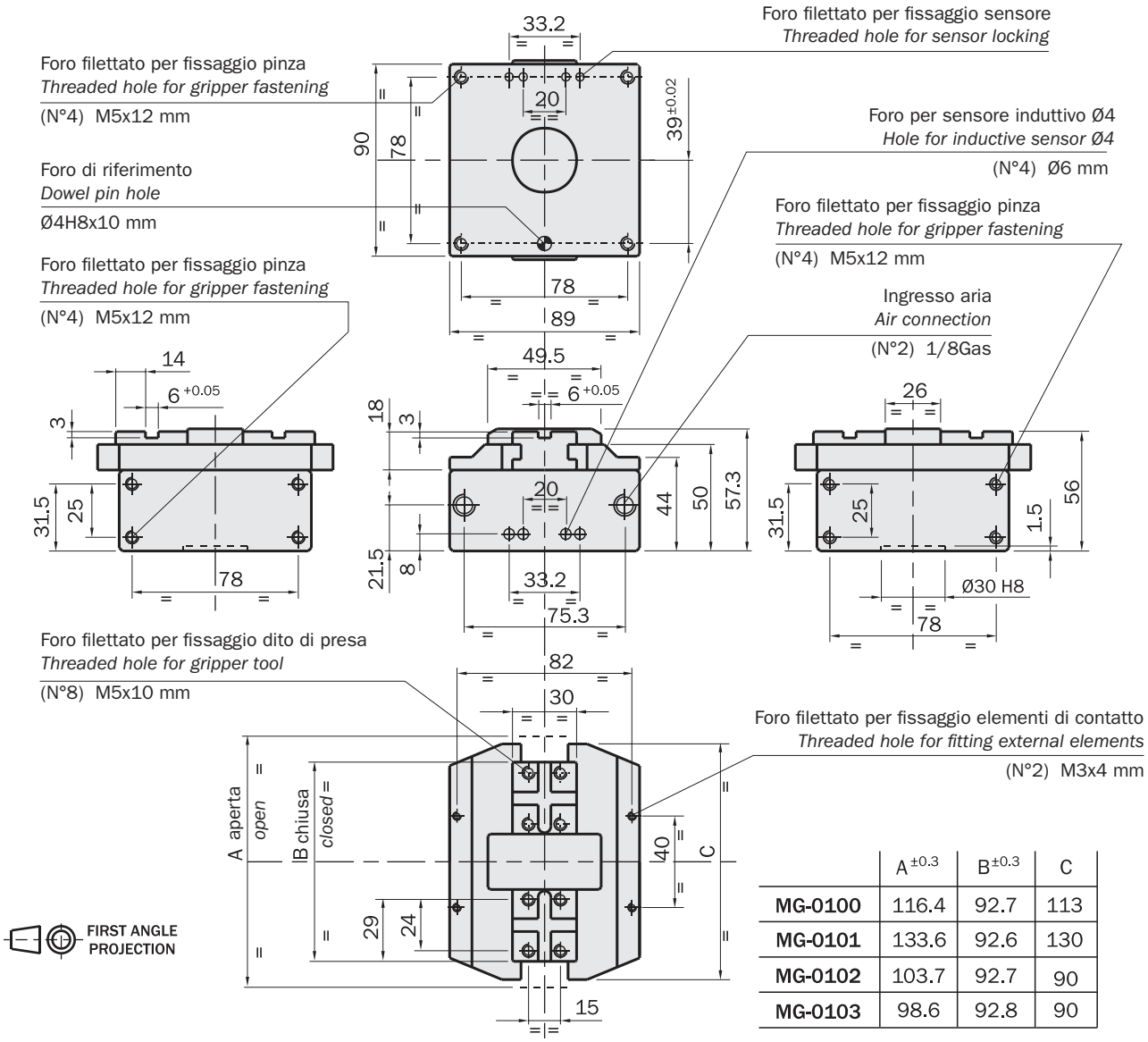
Dimensioni (mm)
Dimensions (mm)



	$A^{\pm 0.3}$	$B^{\pm 0.3}$	C
MG-0075	98.4	79.3	95
MG-0076	112	79.1	109
MG-0077	88.3	79.3	77

	MG-0100	MG-0101	MG-0102	MG-0103
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Operating pressure range*	2÷8 bar			
Temperatura di esercizio *Operating temperature range*	5÷60 °C.			
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	450 N	210 N	770 N	1200 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	900 N	420 N	1540 N	2400 N
Corsa totale (±0.3 mm) *Total stroke*	23.7 mm	41 mm	11 mm	5.8 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz			
Consumo d'aria per ciclo *Cycle air consumption*	61 cm^3			
Tempo di chiusura senza carico *Closing time without load*	0.14 s			
Ripetibilità *Repetition accuracy*	0.02mm			
Peso *Weight*	1500 g	1600 g	1400 g	1400 g

Dimensioni (mm)
Dimensions (mm)



	A ±0.3	B ±0.3	C
MG-0100	116.4	92.7	113
MG-0101	133.6	92.6	130
MG-0102	103.7	92.7	90
MG-0103	98.6	92.8	90

GM

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie GM)

- Azionamento a doppio effetto.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Possibilità di scelta su un'ampia gamma di corse e forze di serraggio.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Profilo piatto.
- Fissaggio semplificato attraverso una flangia dotata di fori passanti.
- Regolazione della corsa.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw parallel self-centering pneumatic gripper (series GM)

- *Double acting.*
- *The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.*
- *Wide choice of stroke length and gripping force options.*
- *The gripping force is constant on both directions along the total stroke.*
- *Flat profile.*
- *Easy fastening by through holes on the flange.*
- *Stroke adjustment.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



GM-0100 **GM-0101** **GM-0102** **GM-0103**



GM-0075 **GM-0076** **GM-0077**



GM-0050 **GM-0051** **GM-0052**



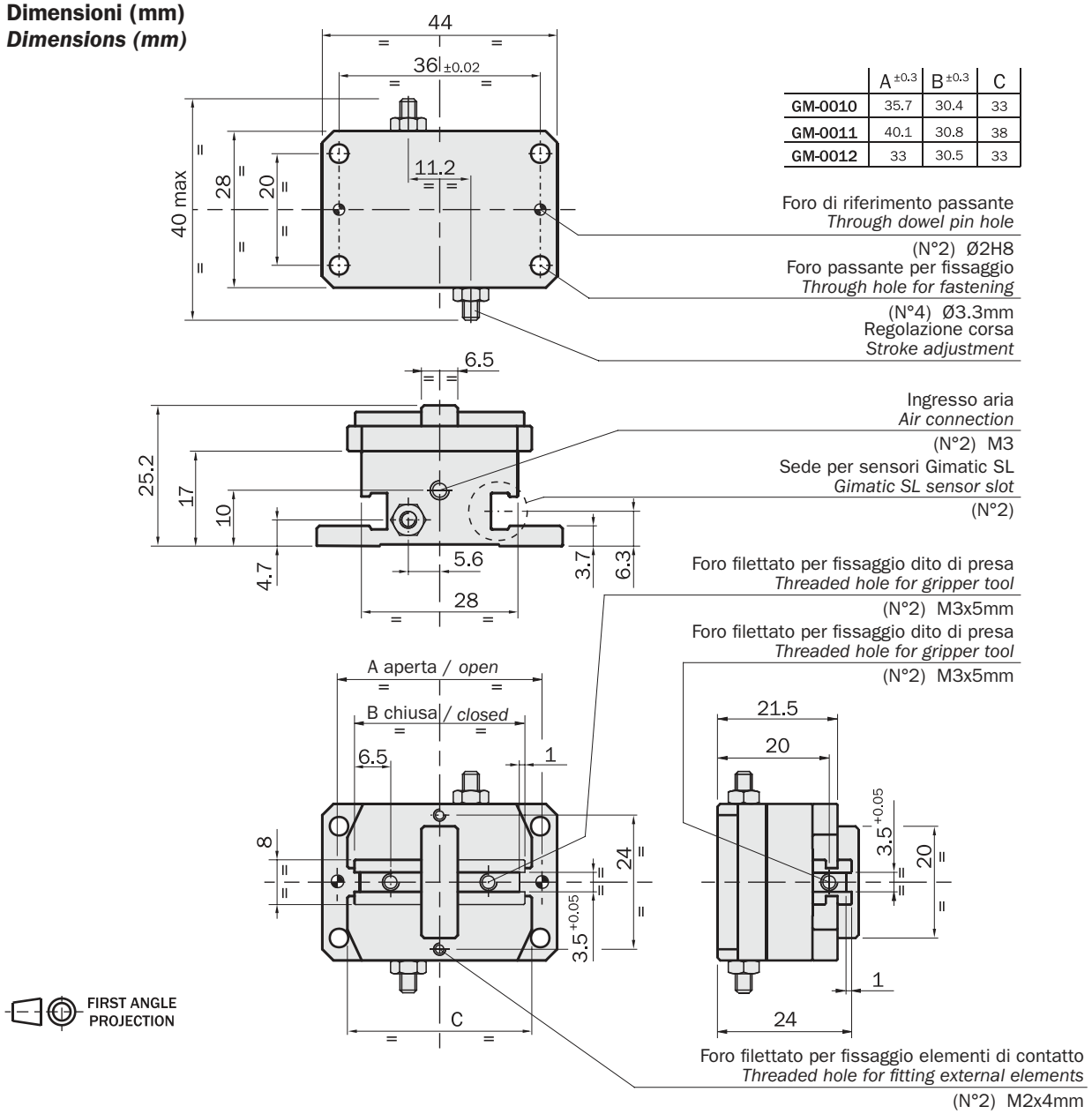
GM-0025 **GM-0026** **GM-0027**



GM-0010 **GM-0011** **GM-0012**

	GM-0010	GM-0011	GM-0012
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	35 N	18 N	70 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	70 N	36 N	140 N
Corsa totale (±0.3 mm) *Total stroke*	5.3 mm	9.3 mm	2.5 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	1.5 cm³		
Tempo di chiusura senza carico *Closing time without load*	0.03 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	70 g	75 g	70 g

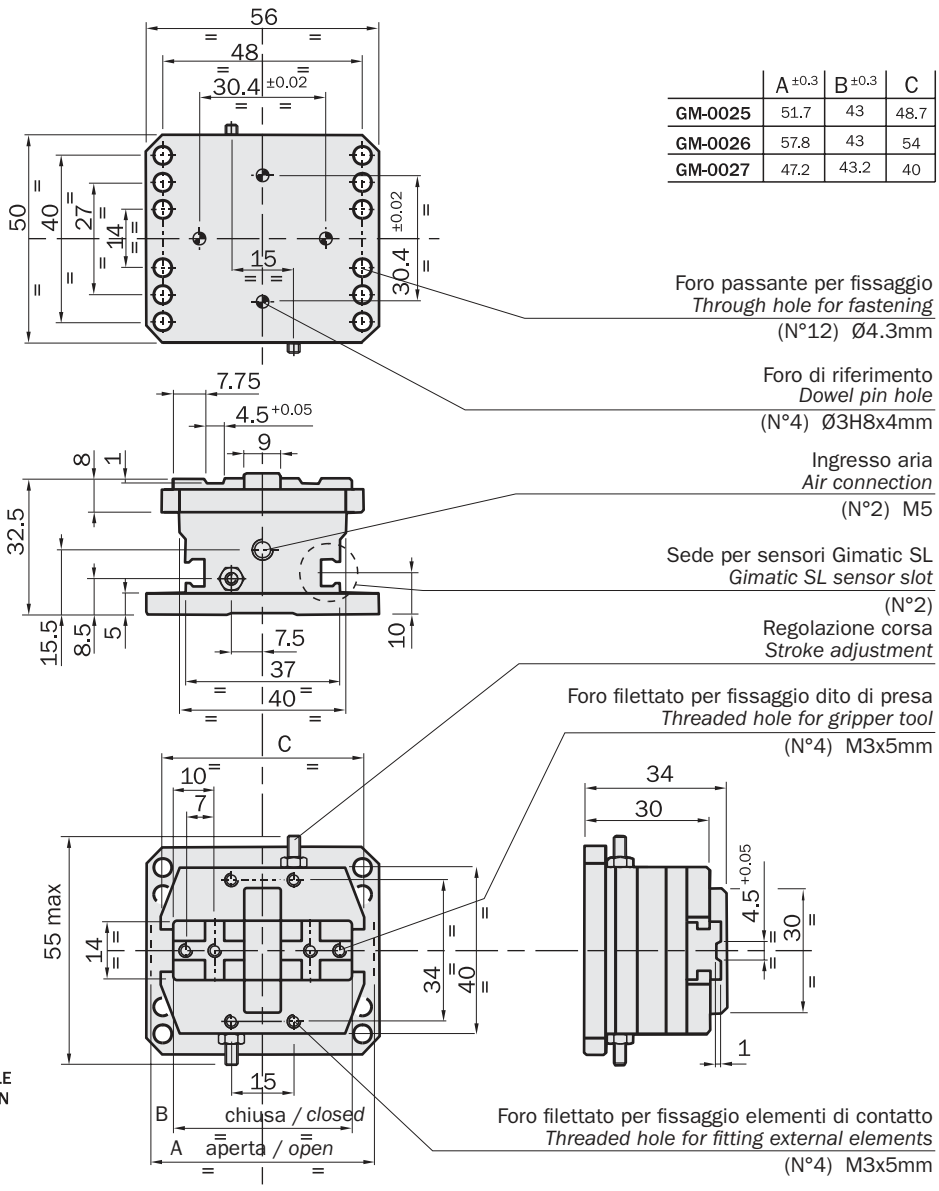
Dimensioni (mm)
Dimensions (mm)



	A ±0.3	B ±0.3	C
GM-0010	35.7	30.4	33
GM-0011	40.1	30.8	38
GM-0012	33	30.5	33

	GM-0025	GM-0026	GM-0027
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2÷8 bar		
Temperatura di esercizio *Operating temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	70 N	40 N	130 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	140 N	80 N	260 N
Corsa totale (±0.3 mm) *Total stroke*	8.7 mm	14.8 mm	4 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	3.4 cm³		
Tempo di chiusura senza carico *Closing time without load*	0.05 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	200 g	210 g	190 g

Dimensioni (mm)
Dimensions (mm)

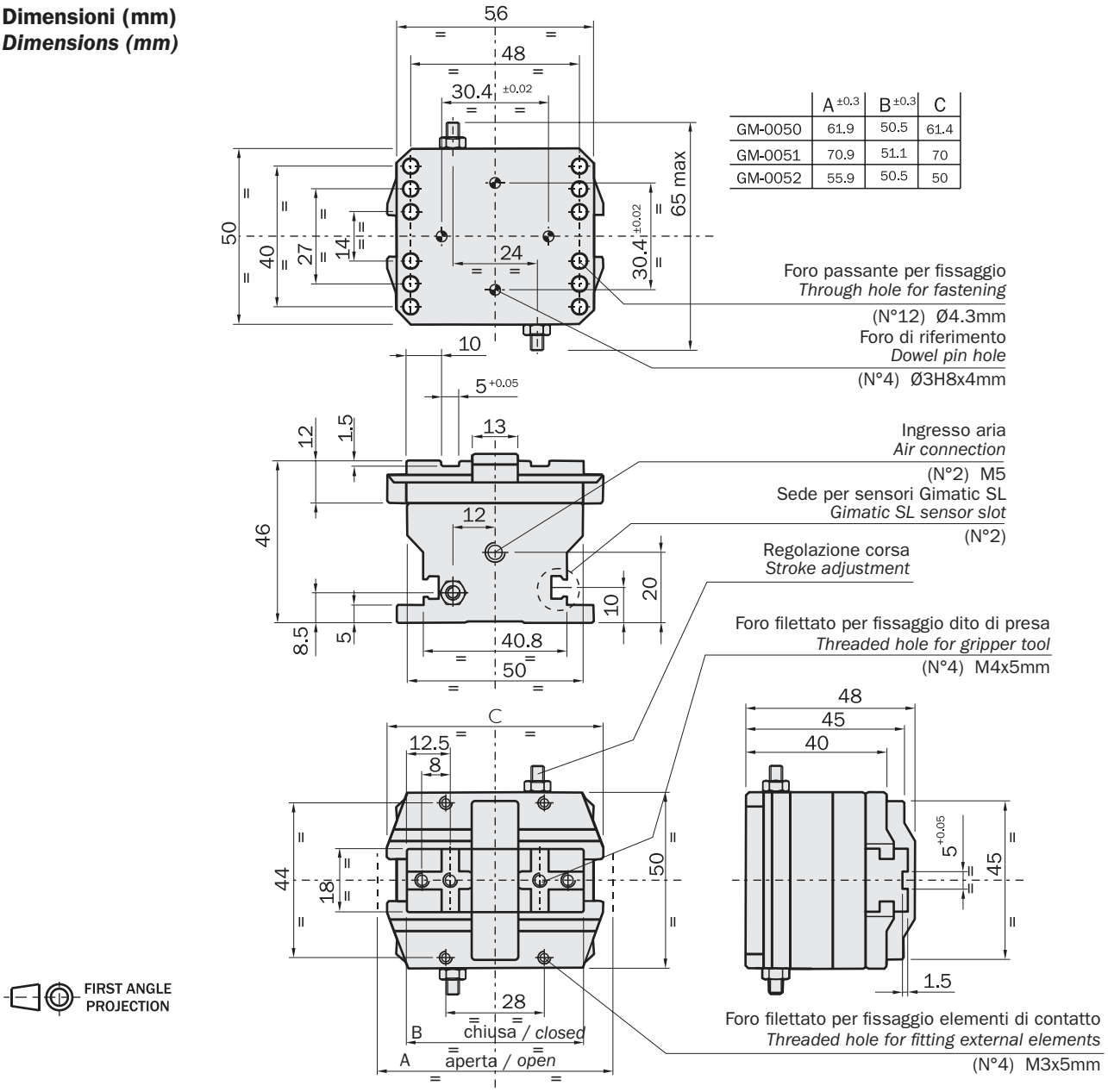


	A ±0.3	B ±0.3	C
GM-0025	51.7	43	48.7
GM-0026	57.8	43	54
GM-0027	47.2	43.2	40

FIRST ANGLE PROJECTION

	GM-0050	GM-0051	GM-0052
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	160 N	90 N	300 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	320 N	180 N	600 N
Corsa totale (±0.3 mm) *Total stroke*	11.4 mm	19.8 mm	5.4 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	12 cm³		
Tempo di chiusura senza carico *Closing time without load*	0.09 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	370 g	380 g	350 g

Dimensioni (mm)
Dimensions (mm)

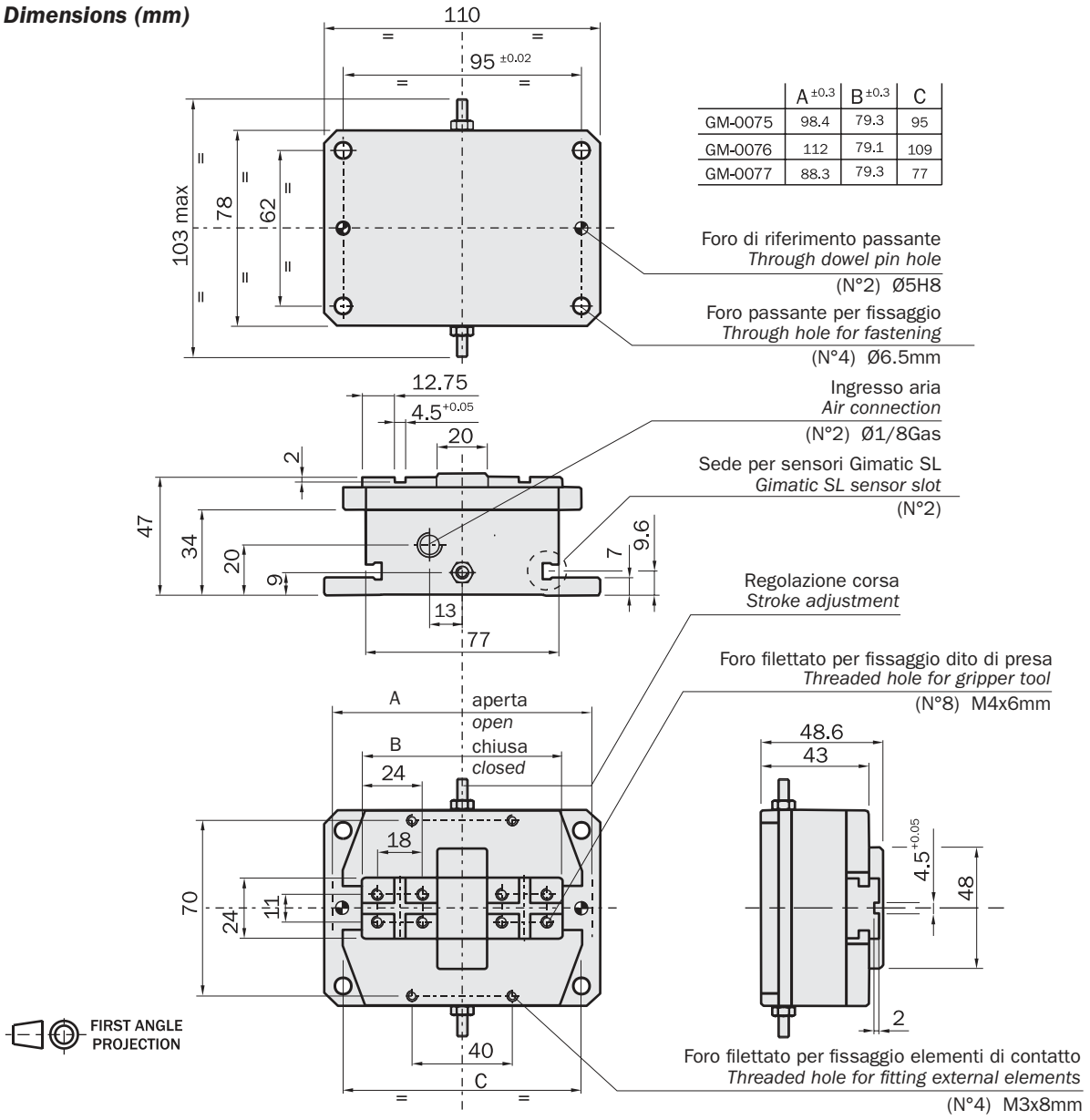


	A ±0.3	B ±0.3	C
GM-0050	61.9	50.5	61.4
GM-0051	70.9	51.1	70
GM-0052	55.9	50.5	50

FIRST ANGLE PROJECTION

	GM-0075	GM-0076	GM-0077
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C.		
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	250 N	160 N	540 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	500 N	320 N	1080 N
Corsa totale (±0.3 mm) *Total stroke*	19.1 mm	32.9 mm	9 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz		
Consumo d'aria per ciclo *Cycle air consumption*	34 cm³		
Tempo di chiusura senza carico *Closing time without load*	0.14 s		
Ripetibilità *Repetition accuracy*	0.02 mm		
Peso *Weight*	1050 g	1100 g	1000 g

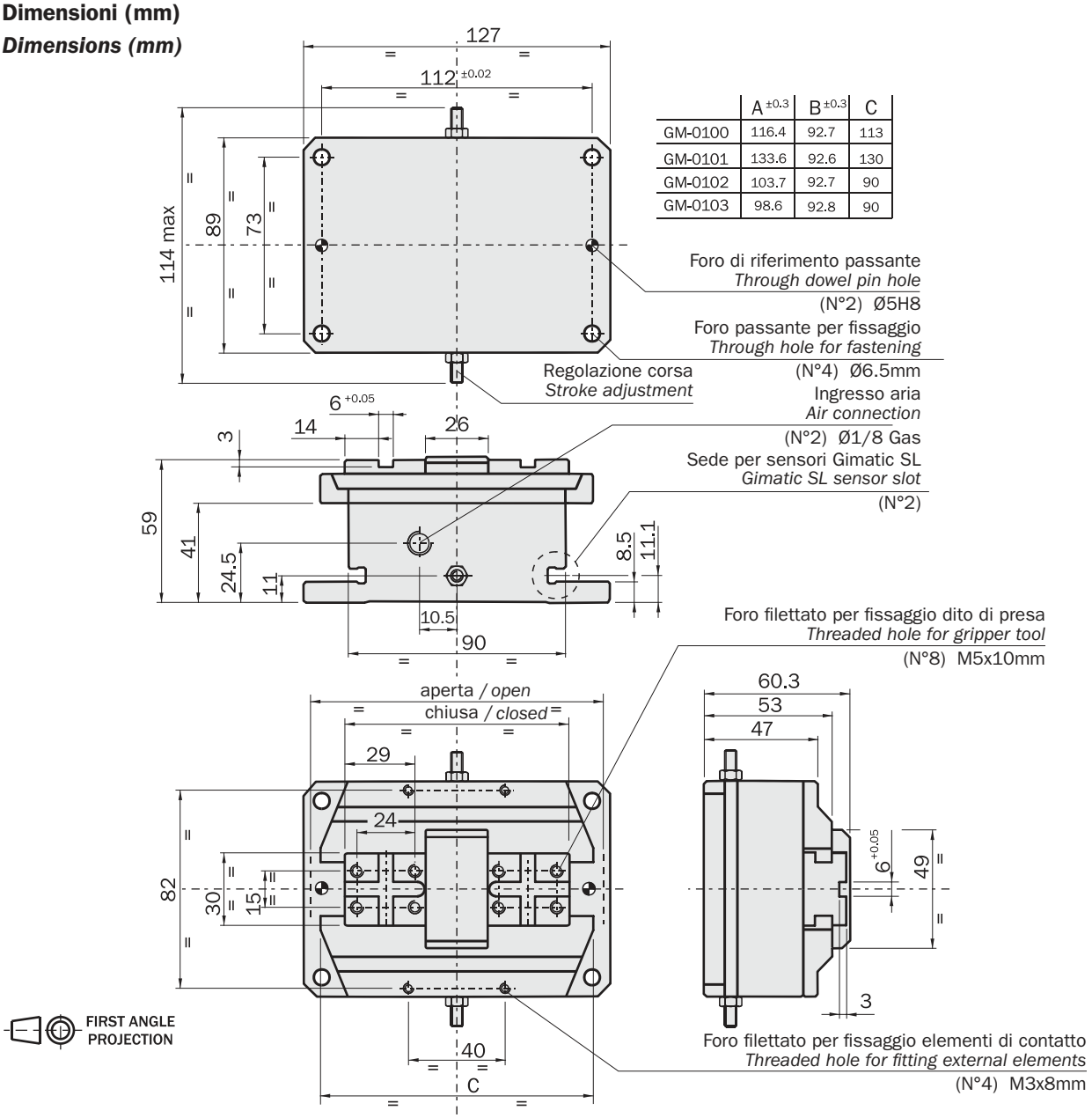
Dimensioni (mm)
Dimensions (mm)



	A ±0.3	B ±0.3	C
GM-0075	98.4	79.3	95
GM-0076	112	79.1	109
GM-0077	88.3	79.3	77

	GM-0100	GM-0101	GM-0102	GM-0103
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2÷8 bar			
Temperatura di esercizio *Temperature range*	5÷60 °C.			
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	450 N	210 N	770 N	1200 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	900 N	420 N	1540 N	2400 N
Corsa totale (±0.3 mm) *Total stroke*	23.7 mm	41 mm	11 mm	5.8 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz			
Consumo d'aria per ciclo *Cycle air consumption*	61 cm³			
Tempo di chiusura senza carico *Closing time without load*	0.14 s			
Ripetibilità *Repetition accuracy*	0.02 mm			
Peso *Weight*	1600 g	1700 g	1600 g	1580 g

Dimensioni (mm)
Dimensions (mm)



	A ±0.3	B ±0.3	C
GM-0100	116.4	92.7	113
GM-0101	133.6	92.6	130
GM-0102	103.7	92.7	90
GM-0103	98.6	92.8	90

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SX)

- Azionamento a doppio effetto.
- Forza di serraggio elevata.
- Grado di protezione IP67.
- Colonne sigillate con doppio O-Ring.
- Adatta per ambienti difficili.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

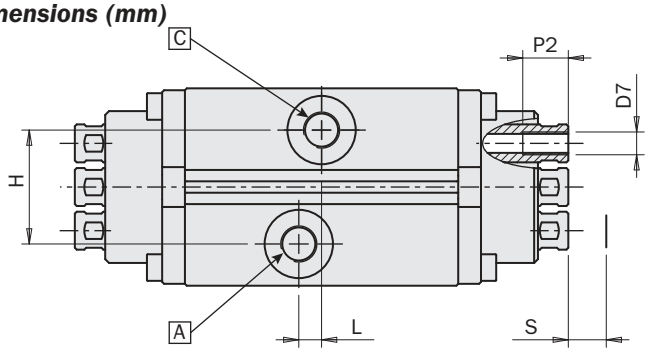
2-jaw self-centering pneumatic parallel gripper (series SX)

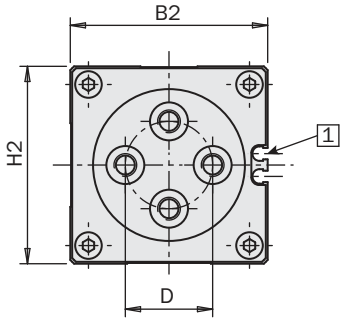
- *Double acting.*
- *High gripping force.*
- *Protection class: IP67.*
- *Double O-Ring sealing on the columns.*
- *Suitable for harsh environments.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*

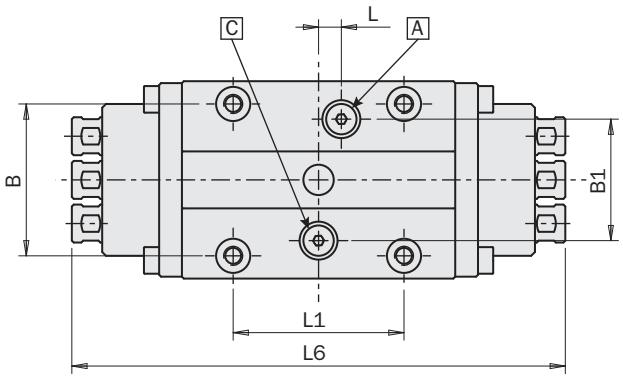


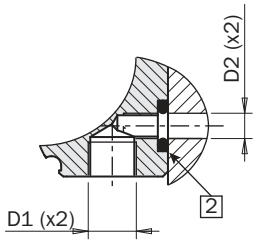
	SX2510	SX2520	SX4020	SX4040	SX5030	SX5060	SX6340	SX6380
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*							
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar							
Temperatura di esercizio *Operating temperature range*	5 ÷ 100 °C							
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	250 N	250 N	650 N	650 N	1050 N	1050 N	1700 N	1700 N
Forza di serraggio totale in apertura a 6 bar *Total opening gripping force at 6 bar*	500 N	500 N	1300 N	1300 N	2100 N	2100 N	3400 N	3400 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	195 N	195 N	500 N	500 N	800 N	800 N	1250 N	1250 N
Forza di serraggio totale in chiusura a 6 bar *Total closing gripping force at 6 bar*	390 N	390 N	1000 N	1000 N	1600 N	1600 N	2500 N	2500 N
Corsa totale (±0.5 mm) *Total stroke*	10 mm	20 mm	20 mm	40 mm	30 mm	60 mm	40 mm	80 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	11 cm^3	20 cm^3	50 cm^3	95 cm^3	115 cm^3	220 cm^3	230 cm^3	450 cm^3
Tempo di apertura / chiusura senza carico *Opening / Closing time without load*	0.03 s	0.05 s	0.03 s	0.08 s	0.06 s	0.10 s	0.20 s	0.30 s
Ripetibilità *Repetition accuracy*	0.05 mm							
Peso *Weight*	260 g	310 g	750 g	900 g	1300 g	1700 g	2800 g	3500 g

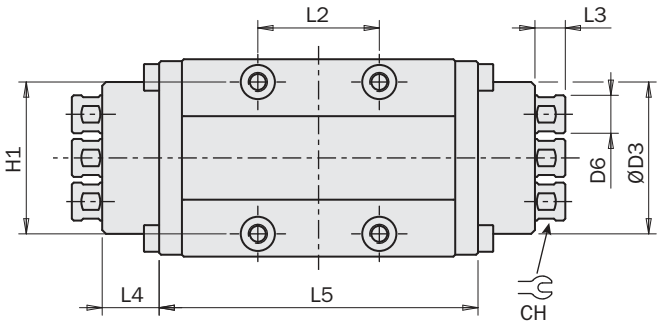
Dimensioni (mm)
Dimensions (mm)

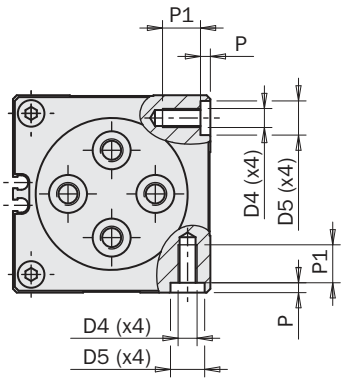












		SX2510	SX2520	SX4020	SX4040	SX5030	SX5060	SX6340	SX6380
B	±0.02	23	23	40	40	50	50	60	60
B1		22.5	22.5	32	32	38	38	45	45
B2		38	38	52	52	64	64	79	79
D	±0.02	15	15	Ø23	Ø23	Ø33	Ø33	Ø38	Ø38
D1		M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8
D2		M5	M5	M5	M5	M5	M5	G1/8	G1/8
D3		27	27	Ø40	Ø40	Ø50	Ø50	Ø63	Ø63
D4		M4	M4	M5	M5	M6	M6	M8	M8
D5	H8	7	7	Ø9	Ø9	Ø9	Ø9	Ø12	Ø12
D6	f7	Ø6	Ø6	Ø10	Ø10	Ø12	Ø12	Ø16	Ø16
D7		M3	M3	M6	M6	M8	M8	M10	M10
H		22.5	22.5	30	30	40	40	45	45
H1	±0.02	23	23	40	40	50	50	60	60
H2		38	38	52	52	64	64	79	79
L		-	-	6	6	10	10	10	10
L1	±0.02	30	30	45	45	50	50	70	70
L2	±0.02	30	30	32	32	35	35	50	50
L3		7.5	7.5	8	8	8.5	8.5	9.5	9.5
L4		7.5	7.5	15	15	18	18	26	26
L5		59	73	84	110	106	146	133	185
L6		89	103	130	156	159	199	204	256
P		2.1	2.1	2.6	2.6	2.6	2.6	2.6	2.6
P1		6.5	6.5	10	10	10	10	15	15
P2		6	6	12	12	20	20	20	20
S (x2)		5	10	10	20	15	30	20	40
CH		5	5	9	9	11	11	14	14

FIRST ANGLE PROJECTION

1

Sede per sensori
Sensor seat

2

O-Ring (non fornito)
O-Ring (not supplied)

A

Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C

Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

PE

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie PE)

- Azionamento a doppio effetto (a semplice effetto su richiesta per PE-25... e PE-45...).
- Assenza di organi di trasmissione: elevato rendimento e affidabilità.
- Possibilità di scelta su un'ampia gamma di corse.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Basso peso ottenuto con una costruzione interamente in lega leggera.
- Grasso alimentare NSF-H1.

2-jaw parallel self-centering pneumatic gripper (series PE)

- *Double acting (single acting upon request for PE-25... and PE-45...).*
- *High efficiency and reliability due to the lack of driving parts.*
- *Wide choice of stroke length options.*
- *The gripping force is constant on both directions along total stroke.*
- *Light weight; due to its alloy construction.*
- *NSF-H1 food-grade grease.*



PE-4580



PE-4560



PE-4540



PE-4520

PE-25100



PE-45200



PE-25200



PE-2560



PE-2540



PE-2520



PE-16200



PE-16150



PE-1680



PE-1640



PE-1625



PE-1610

	PE-1610	PE-1625	PE-1640	PE-1680	PE-16150	PE-16200
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	2÷8 bar					
Temperatura di esercizio *Operating temperature range*	5÷60 °C.					
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	100 N					
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	200 N					
Corsa (±0.25 mm) *Stroke*	2x5 mm	2x12.5 mm	2x20 mm	2x40 mm	2x75 mm	2x100 mm
Frequenza max funzionamento *Maximum working frequency*	3 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	7 cm^3	14 cm^3	21 cm^3	39 cm^3	71 cm^3	97 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.05 s	0.1 s	0.2 s	0.4 s	0.5 s
Ripetibilità *Repetition accuracy*	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm
Peso *Weight*	200 g	250 g	350 g	500 g	900 g	1200 g

Forza di serraggio

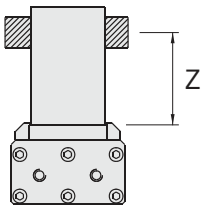
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

Gripping force

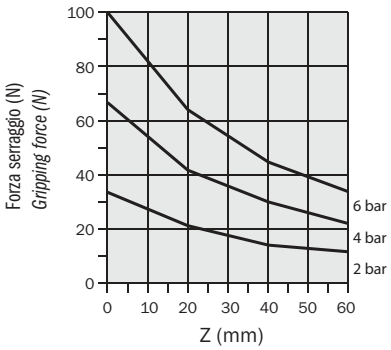
The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

La forza indicata in questi grafici è riferita alla singola griffa.
La forza totale è il doppio.

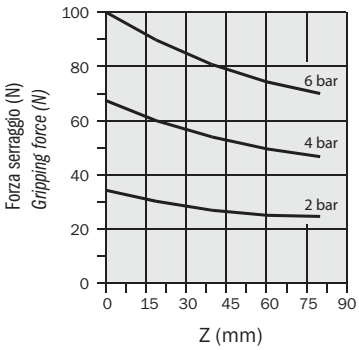
The force shown in these graphs refers to one jaw.
The total force is double.

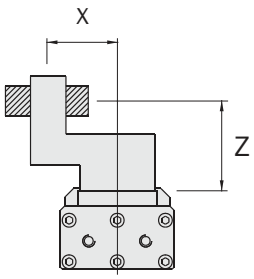


PE-1610

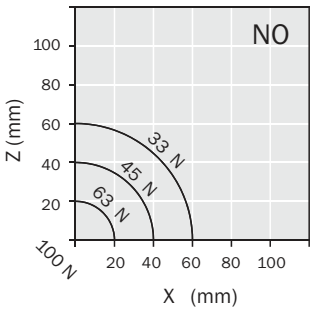


PE-1625/40/80/150/200

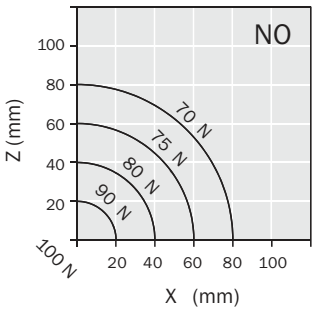




PE-1610 (6 bar)



PE-1625/40/80/150/200 (6 bar)



	PE-2520	PE-2540	PE-2560	PE-25100	PE-25200
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Operating pressure range*	2÷8 bar				
Temperatura di esercizio *Operating temperature range*	5÷60 °C.				
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	230 N				
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	460 N				
Corsa (±0.25 mm) *Stroke*	2x10 mm	2x20 mm	2x30 mm	2x50 mm	2x100 mm
Frequenza max funzionamento *Maximum working frequency*	3 Hz	2 Hz	2 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	44 cm^3	74 cm^3	102 cm^3	146 cm^3	263 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.04 s	0.06 s	0.08 s	0.17 s
Ripetibilità *Repetition accuracy*	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm
Peso *Weight*	700 g	980 g	1285 g	1235 g	2080 g

Forza di serraggio

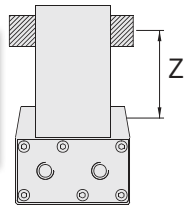
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

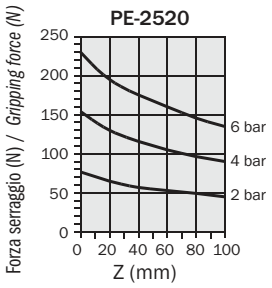
Gripping force

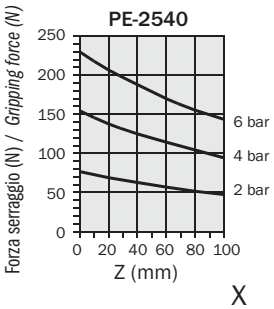
The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

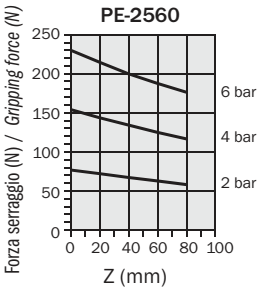
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il doppio.

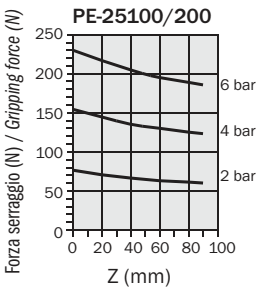
The force shown in these graphs refers to one jaw. The total force is double.

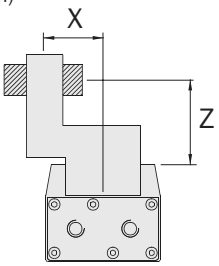


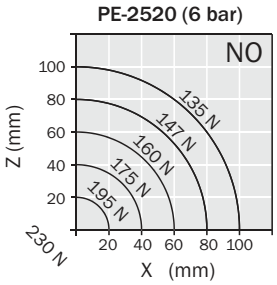


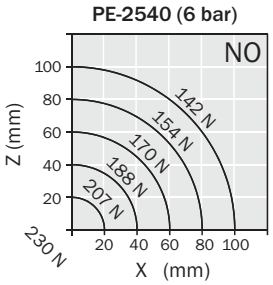


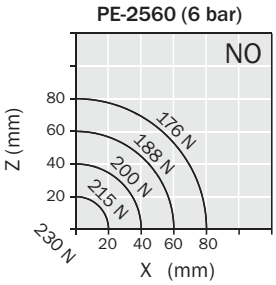


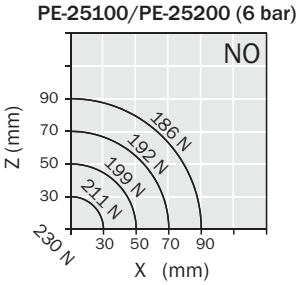












	PE-4520	PE-4540	PE-4560	PE-4580	PE-45200
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Operating pressure range*	2÷8 bar				
Temperatura di esercizio *Operating temperature range*	5÷60 °C.				
Forza di serraggio per griffa a 6 bar *Gripping force at 6 bar on each jaw*	700 N	700 N	700 N	700 N	900 N
Forza di serraggio totale a 6 bar *Total gripping force at 6 bar*	1400 N	1400 N	1400 N	1400 N	1800 N
Corsa (±0.25 mm) *Stroke*	2x10 mm	2x20 mm	2x30 mm	2x40 mm	2x100 mm
Frequenza max funzionamento *Maximum working frequency*	3 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	132 cm^3	208 cm^3	257 cm^3	371 cm^3	940 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.05 s	0.1 s	0.15 s	0.2 s	0.2 s
Ripetibilità *Repetition accuracy*	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm
Peso *Weight*	1840 g	2250 g	2715 g	3300 g	3800 g

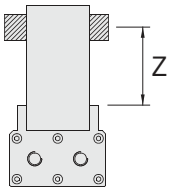
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

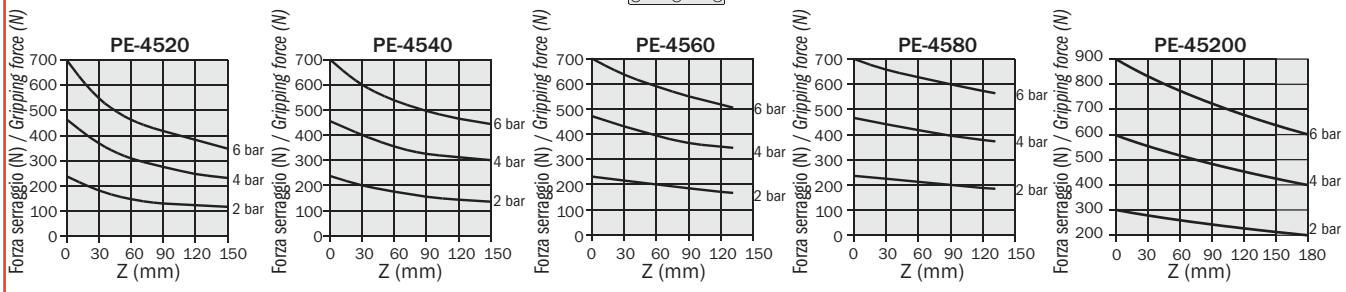
Gripping force

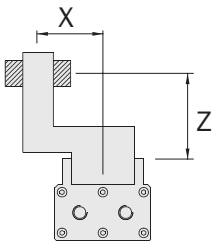
The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

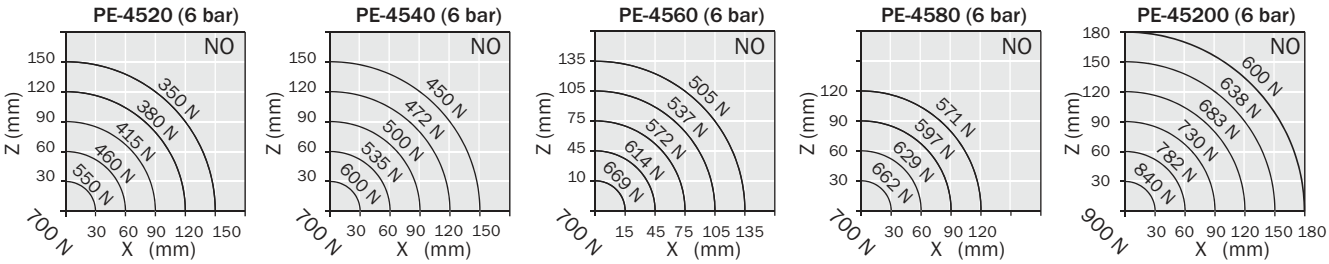
La forza indicata in questi grafici è riferita alla singola griffa.
La forza totale è il doppio.



The force shown in these graphs refers to one jaw.
The total force is double.

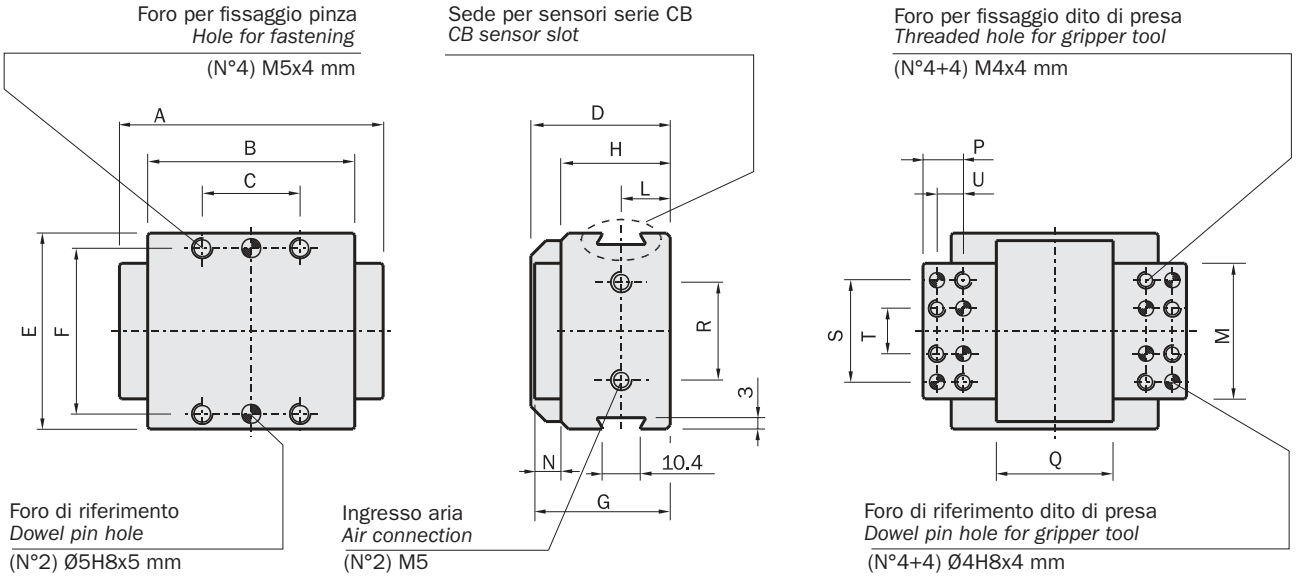




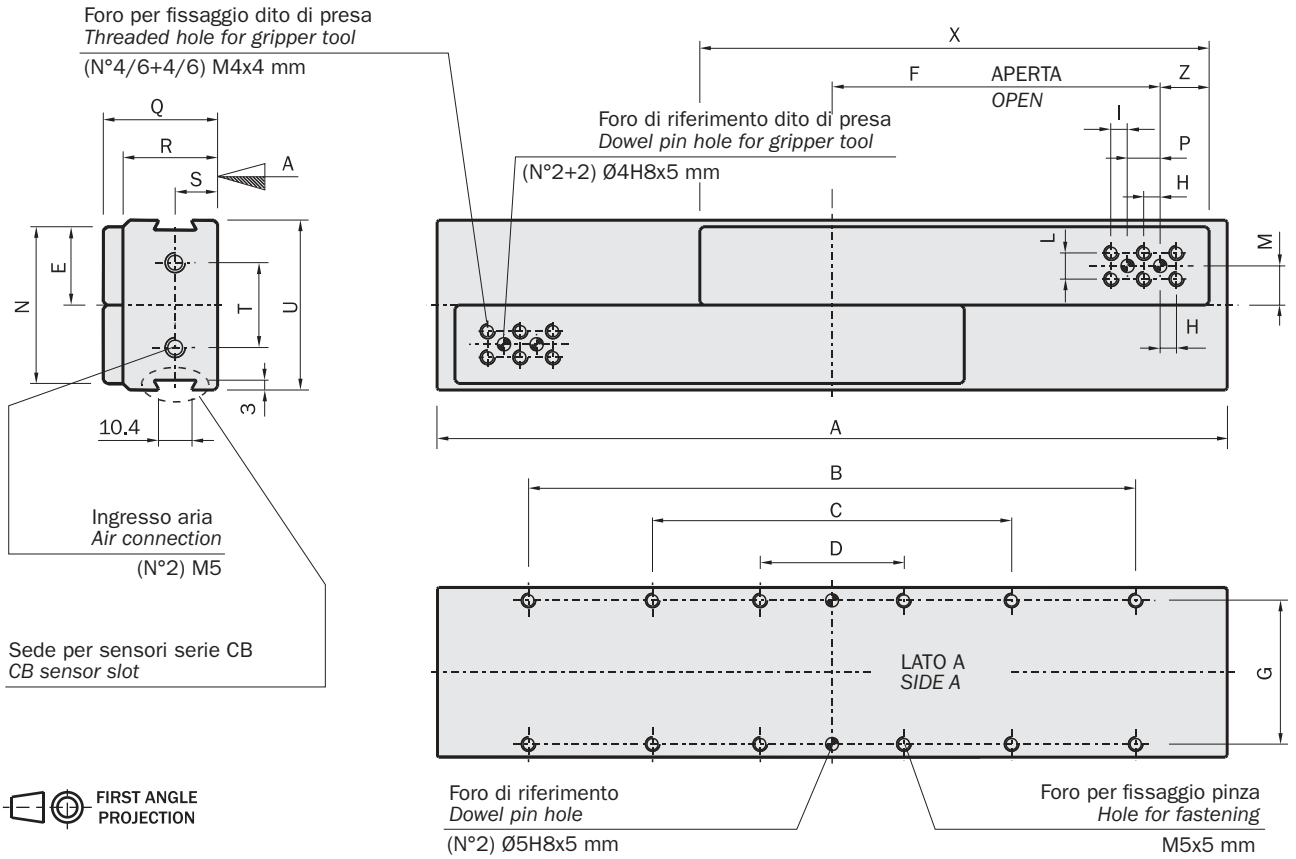


Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E	F ±0.02	G	H	L	M	N	P	Q	R ±0.02	S ±0.02	T ±0.02	U ±0.02
PE-1610	62	60	26	37	52	44	36	29	13	36	7	11.75	31	26	27	12	7

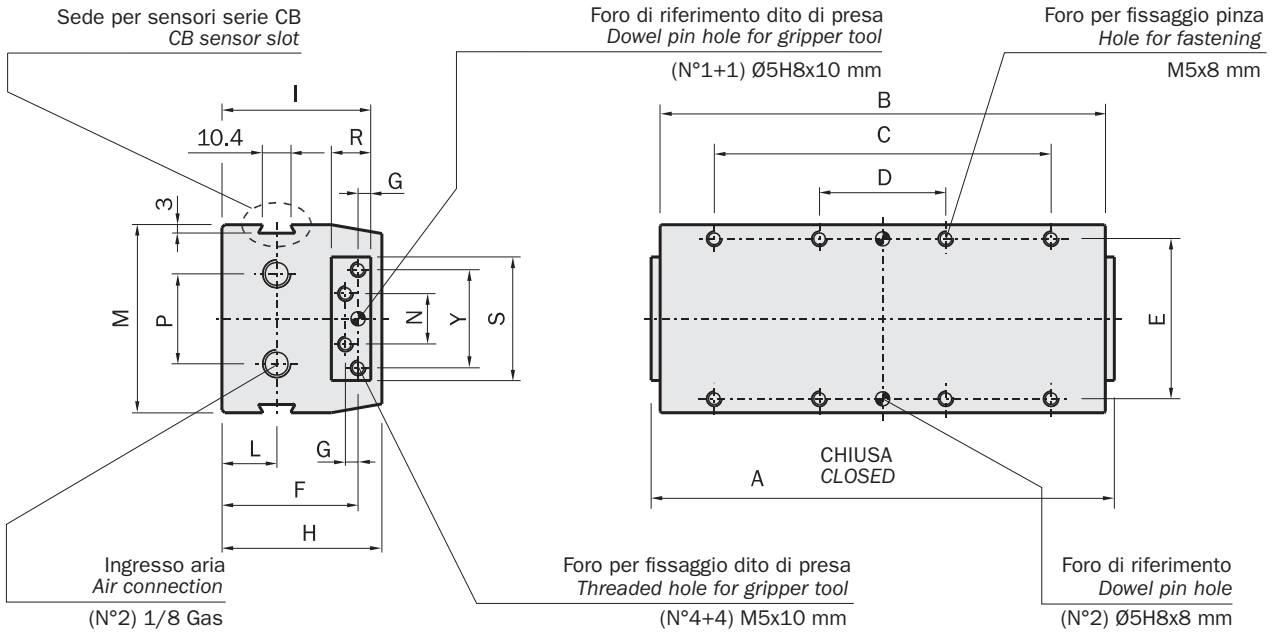


	A	B	C	D	E	F	G ±0.02	H	I	L	M	N	P ±0.02	Q	R	S	T	U	X	Z
PE-1625	70	-	-	26	24	12.5	44	5	-	12	12	48	12	37	29	13	26	52	41.5	14.5
PE-1640	99	-	-	60	24	26.5	44	5	-	8	12	48	10	37	29	13	26	52	63	15
PE-1680	155	-	-	60	24	54.5	44	5	5	8	12	48	10	37	29	13	26	52	99	15
PE-16150	263	-	200	60	24	108.5	44	5	5	8	12	48	10	37	29	13	26	52	172	15
PE-16200	337	280	200	60	24	145.5	44	5	5	8	12	48	10	37	29	13	26	52	221	15

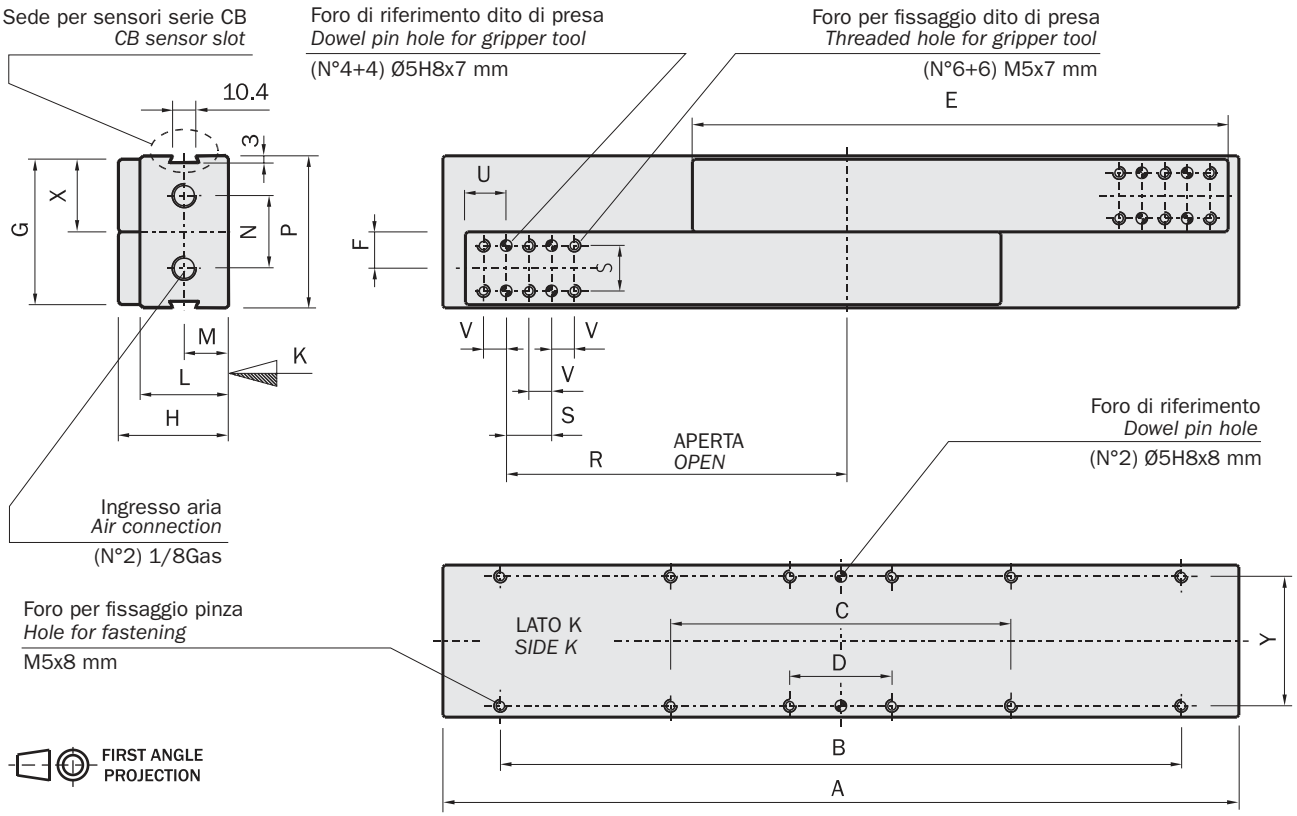


Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E ±0.02	F	G ±0.02	H	I	L	M	N	P	Y	R -0.05	S -0.05
PE-2520	90	83.6	-	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44
PE-2540	130	123.6	-	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44
PE-2560	165	158.6	120	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44

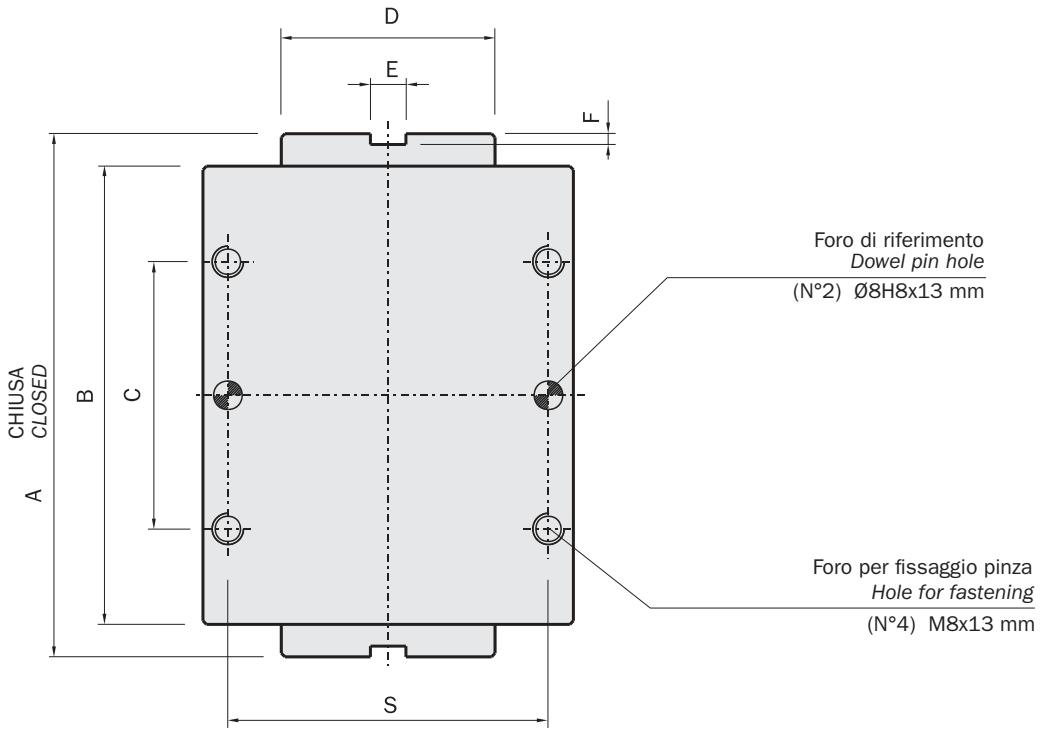


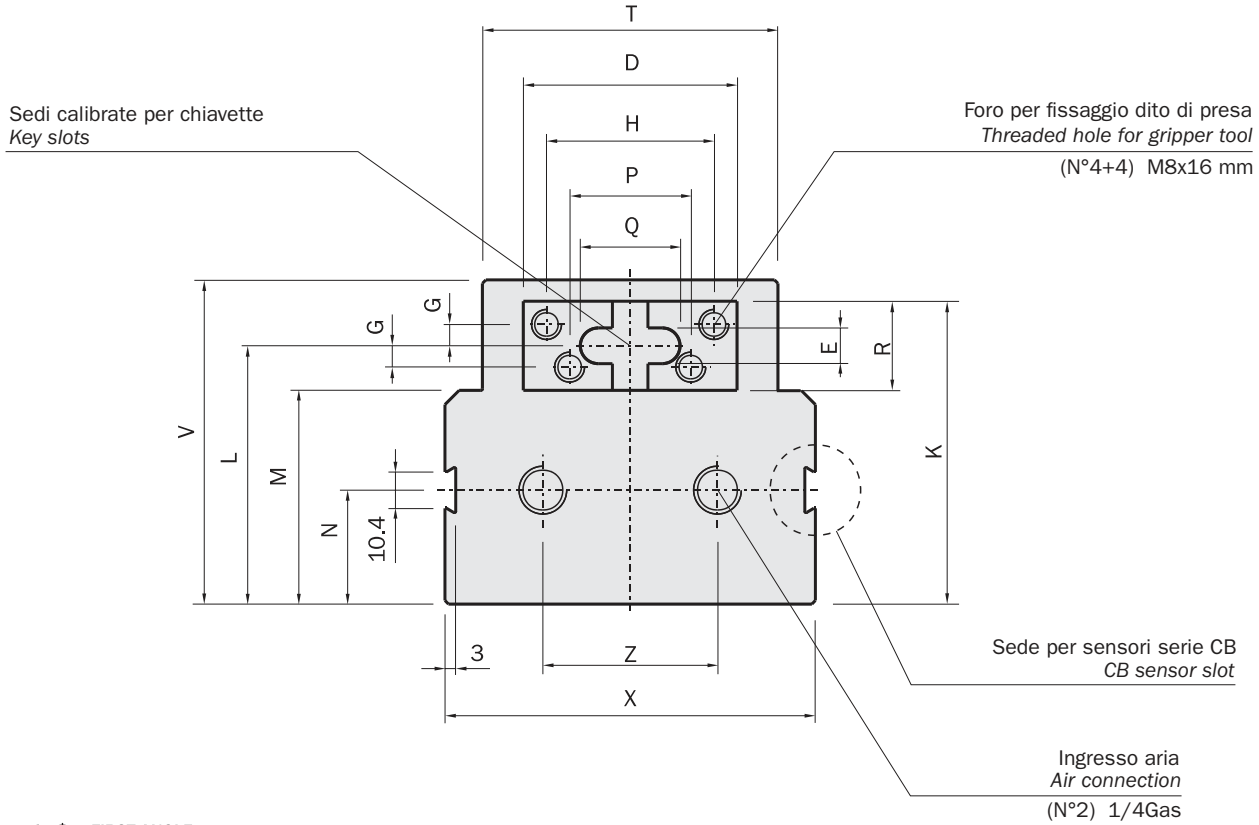
	A	B	C	D	E	F	G	H	L	M	N	P	Y ±0.02	R	S ±0.02	U	X	V
PE-25100	200.6	-	150	45	136	16	64	48.5	39	19.5	32	67	57	75	20	18	32	10
PE-25200	350.6	300	150	45	236	16	64	48.5	39	19.5	32	67	57	150	20	18	32	10



Dimensioni (mm)
Dimensions (mm)

	A	B	C	D -0.05	E +0.05	F	G	H	L	M	N	P	Q	R -0.05	S ±0.02	T	V	X	K	Z
PE-4520	110	100.6	50	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4540	140	128.6	75	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4560	170	160.6	90	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4580	210	200.6	90	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49



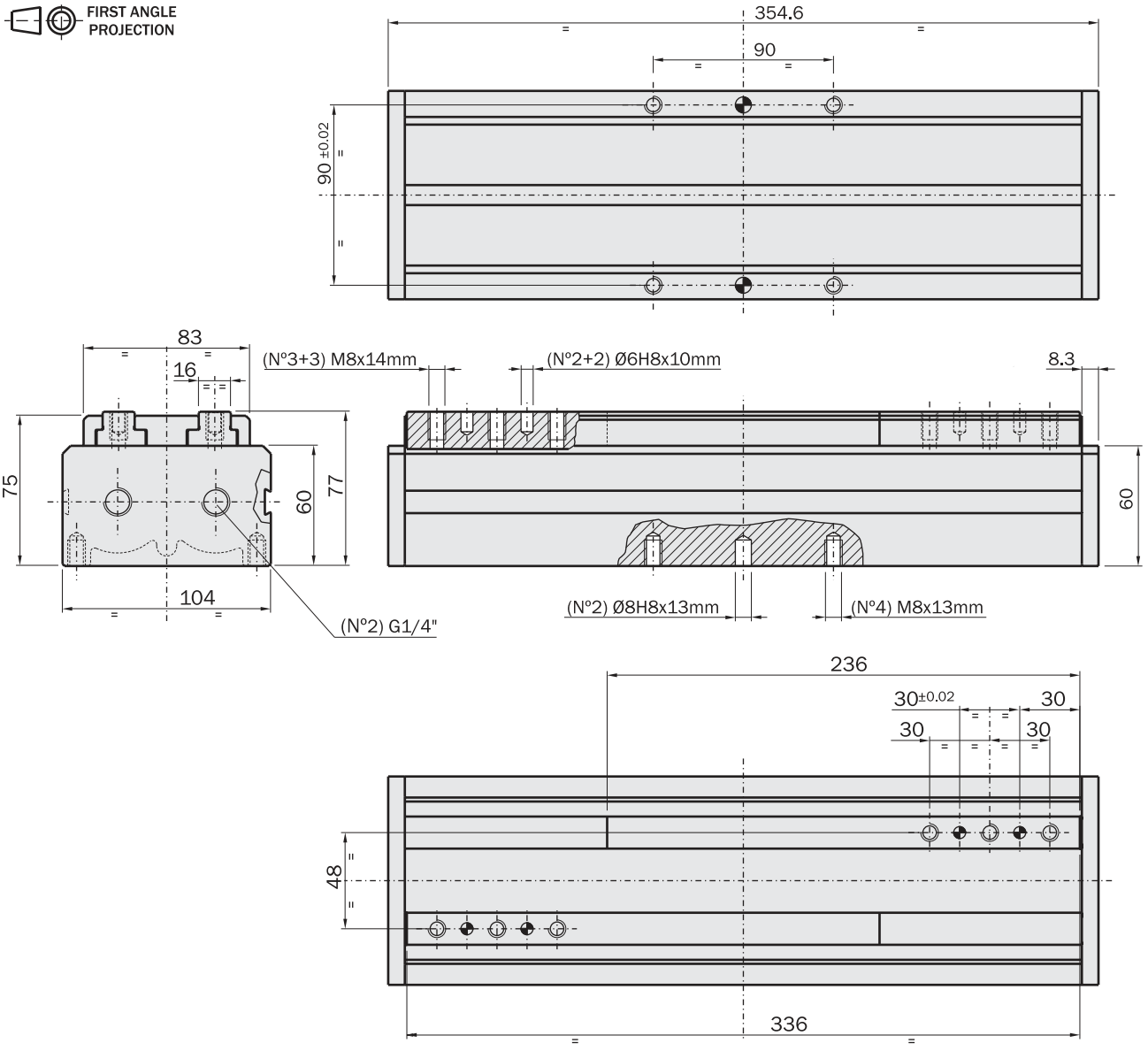


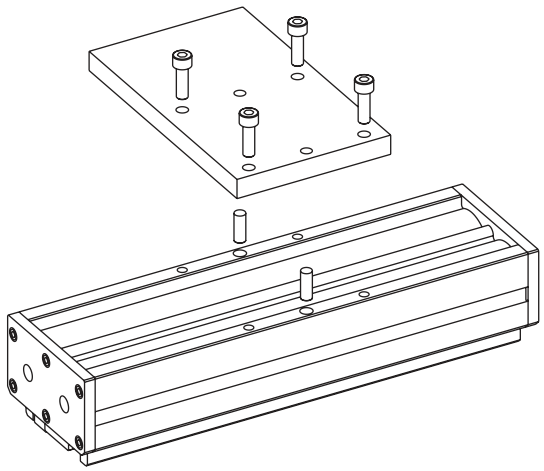
FIRST ANGLE PROJECTION

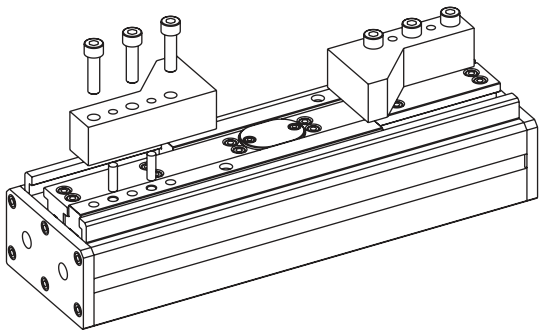
07/2026

Dimensioni (mm)
Dimensions (mm)

PE-45200







DHG

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie DH)

- Azionamento a doppio effetto, con molle opzionali (in chiusura o apertura).
- Corsa lunga o corsa corta (1).
- Possibilità di fissaggio frontale con viti passanti (2).
- Meccanismo di trasmissione ad alta efficienza (1).
- Sensori magnetici o induttivi opzionali (3).
- Grasso alimentare NSF-H1.

2-jaw self-centering pneumatic parallel gripper (series DH)

- *Double acting with optional springs (normally closed or normally open).*
- *Long stroke or short stroke (1).*
- *Possibility of front fastening with through screws (2).*
- *High efficiency force transmission (1).*
- *Optional magnetic or inductive sensors (3).*
- *NSF-H1 food-grade grease.*

COMING SOON



DH160...

COMING SOON



DH125...

COMING SOON



DH100...



DH87...



DH66...



DH55..



DH44...



DH35...



DH27...

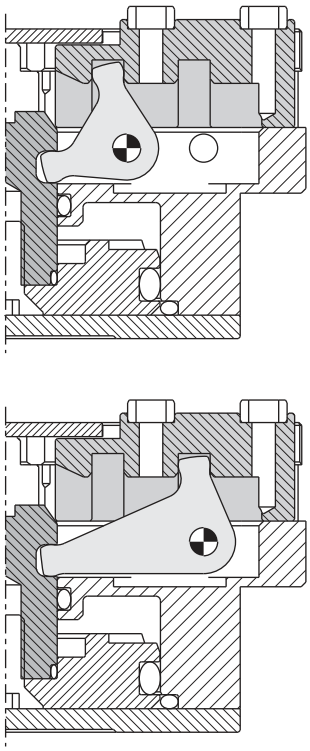


DH22...

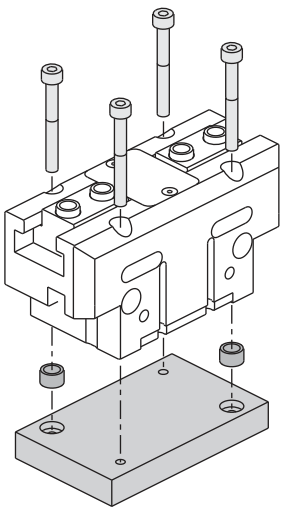


DH19...

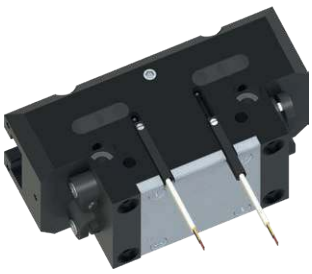
[1]



[2]



[3]



[3]



Sensori (opzionali)

Il rilevamento della posizione di lavoro può essere effettuato con sensori magnetici che rilevano il magnete sul pistone, oppure con sensori induttivi (diametro 4mm), che rilevano una parte metallica (M) la cui posizione nella griffa è regolabile.

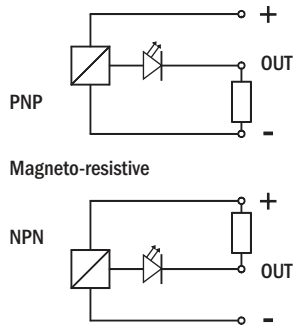
I sensori magnetici utilizzabili sono i codici Gimatic:

Sensors (optional)

The operating position can be checked by magnetic sensors which detect a magnet on the piston, or by inductive sensors (4mm diameter), which detect a metal part (M) in an adjustable position into the jaw.

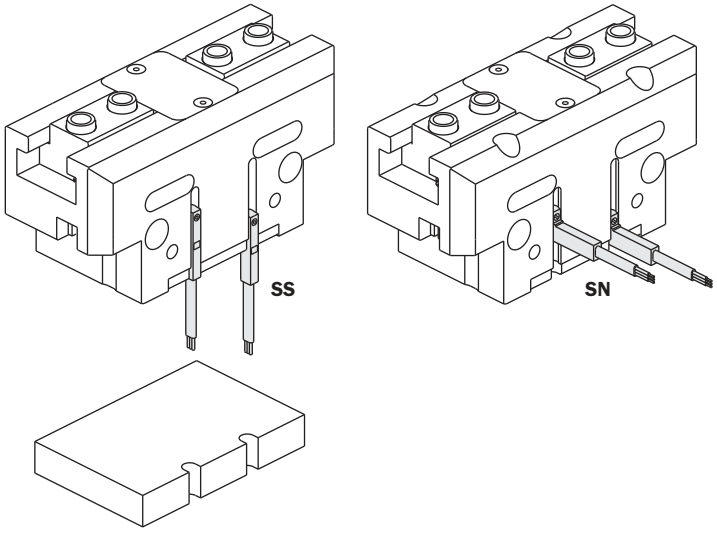
The magnetic sensors from Gimatic are the codes:

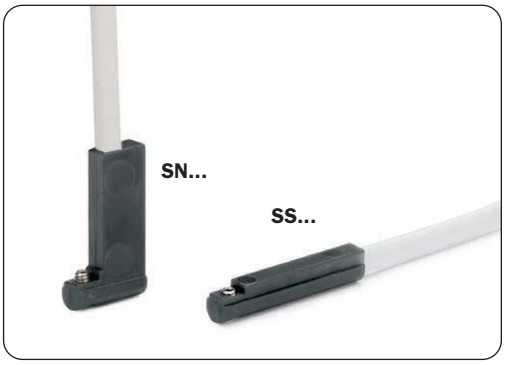
SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SN3M203-G	NPN	
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	



Sono tutti dotati di un cavo piatto a tre fili e di un led.

They are all provided with a 3-wire flat cable and a LED.

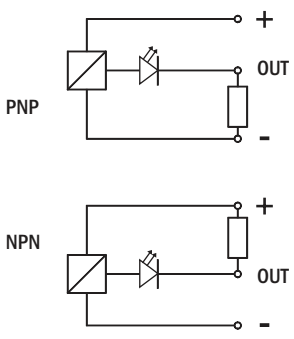




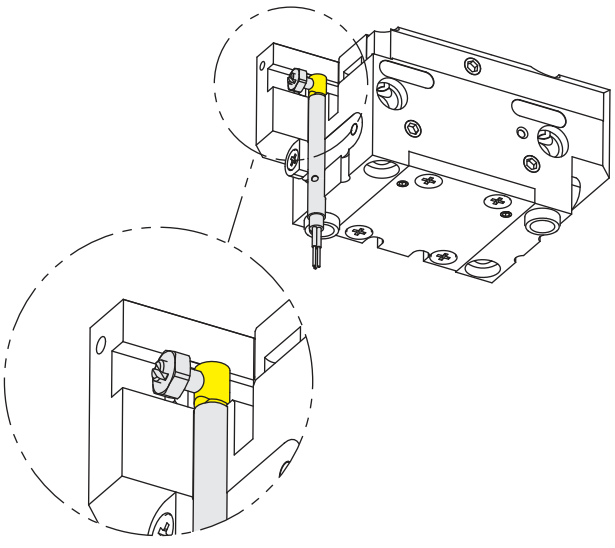
Sensori induttivi regolabili (non per DH19 e DH22):

Adjustable inductive sensors (not for DH19 and DH22):

			DH27 DH35 DH44 DH55 DH66 DH87
SI4M225-G	NPN	Cavo 2.5m *2.5m cable*	☑
SI4N225-G	PNP		







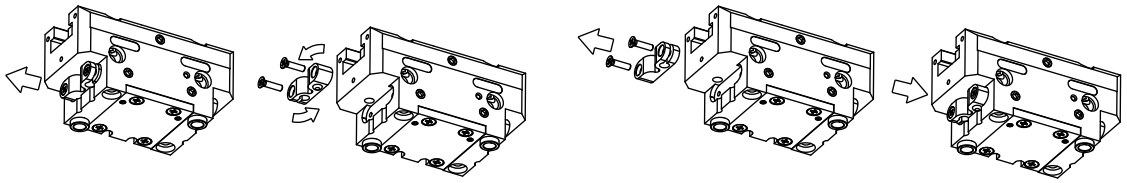
Protezione contro l'accesso di polveri e liquidi

La pinza arriva configurata per l'utilizzo di sensori magnetici.
I fori dei sensori induttivi sono tappati e la pinza è protetta contro l'ingresso di polveri e liquidi IP54.
Se uno o due sensori induttivi devono essere utilizzati, è necessario ruotare le relative staffe, scoprendo i fori di accesso al target del sensore. Dopo aver montato i sensori induttivi la pinza conserva il grado di protezione IP54.

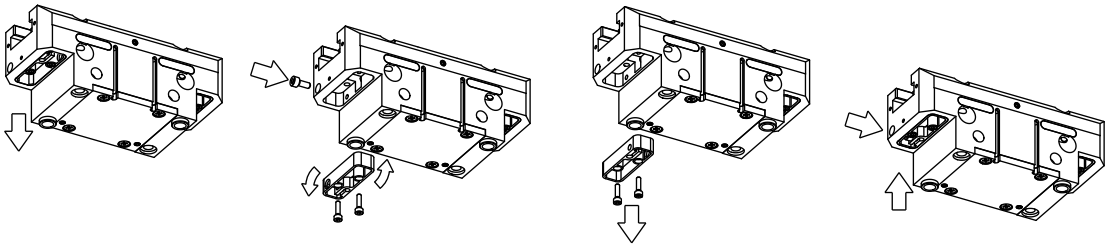
Protection against dust and liquid ingress

The gripper comes preconfigured for the use of magnetic sensors.
The inductive sensor holes are plugged, and the gripper is protected against dust and liquid ingress to IP54.
If one or two inductive sensors are to be used, the corresponding brackets must be rotated, uncovering the holes for access to the sensor target. After mounting the inductive sensors, the gripper retains its IP54 protection rating.

DH27...G
DH35...G
DH44...G



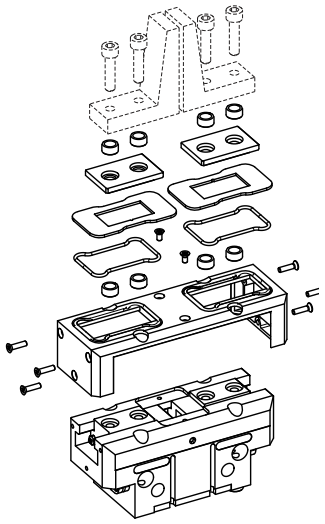
DH55...G
DH66...G
DH87...G
DH100...G
DH125...G
DH160...G



Per incrementare il grado di protezione fino a IP65 è disponibile un kit di copertura, con O-Ring che sigillano la zona delle guide.

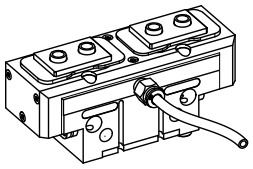
To increase the protection level up to IP65, a cover kit is available, with O-rings sealing the guide area.

KIT	Da utilizzare con: *To be used with:*					
DH19G-K1	DH1905G	DH1905G-NC	DH1905G-NO			
DH22G-K1	DH2208G	DH2208G-NC	DH2208G-NO	DH2204G	DH2204G-NC	DH2204G-NO
DH27G-K1	DH2712G	DH2712G-NC	DH2712G-NO	DH2706G	DH2706G-NC	DH2706G-NO
DH35G-K1	DH3516G	DH3516G-NC	DH3516G-NO	DH3508G	DH3508G-NC	DH3508G-NO
DH44G-K1	DH4420G	DH4420G-NC	DH4420G-NO	DH4410G	DH4410G-NC	DH4410G-NO
DH55G-K1	DH5526G	DH5526G-NC	DH5526G-NO	DH5512G	DH5512G-NC	DH5512G-NO
DH66G-K1	DH6632G	DH6632G-NC	DH6632G-NO	DH6616G	DH6616G-NC	DH6616G-NO
DH87G-K1	DH8750G	DH8750G-NC	DH8750G-NO	DH8728G	DH8728G-NC	DH8728G-NO
DH100G-K1	DH10060G	DH10060G-NC	DH10060G-NO	DH10034G	DH10034G-NC	DH10034G-NO
DH125G-K1	DH12570G	DH12570G-NC	DH12570G-NO	DH12540G	DH12540G-NC	DH12540G-NO
DH160G-K1	DH16090G	DH16090G-NC	DH16090G-NO	DH16052G	DH16052G-NC	DH16052G-NO



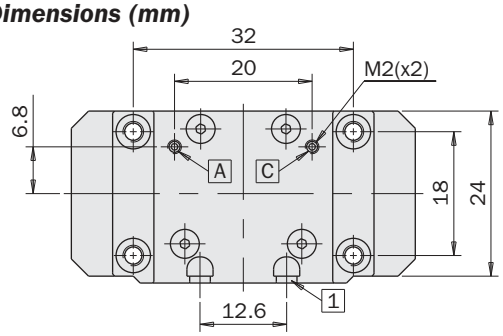
Inoltre si può pressurizzare la zona delle guide (1bar) per evitare ogni ingresso di contaminanti provenienti dall'ambiente esterno.

Additionally, the guide area can be pressurized (1 bar) to prevent any ingress of contaminants from the external environment.

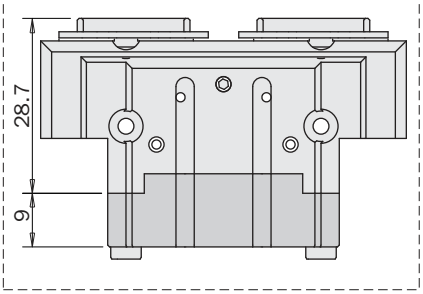


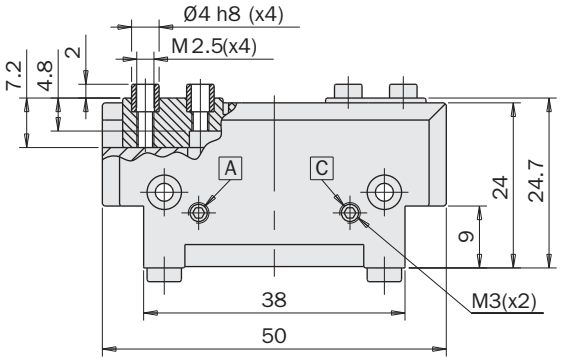
	DH1905G	DH1905G-NC	DH1905G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.		
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	75N	43 ÷ 49N	101 ÷ 107N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	150N	86 ÷ 98N	202 ÷ 214N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	68N	94 ÷ 100N	36 ÷ 42N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	136N	188 ÷ 200N	72 ÷ 84N
Corsa totale (±0.3mm) *Total stroke*	5mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	3Hz		
Consumo d'aria per ciclo *Cycle air consumption*	2cm³	3cm³	3cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.01s / 0.01s	0.01s / 0.02s	0.02s / 0.01s
Ripetibilità *Repetition accuracy*	0.02mm		
Peso *Weight*	86g	98g	96g

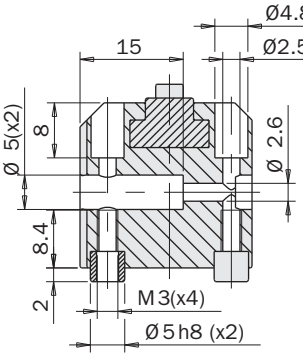
Dimensioni (mm)
Dimensions (mm)

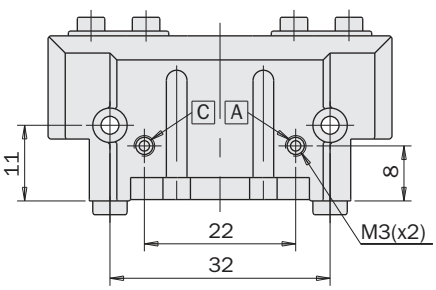


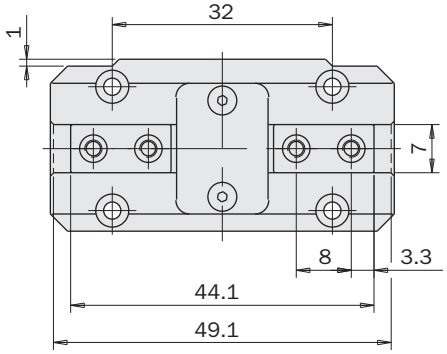
DH1905-NC / DH1905-NO / DH19..K1











FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

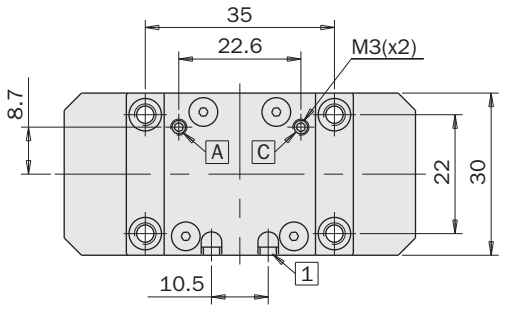
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

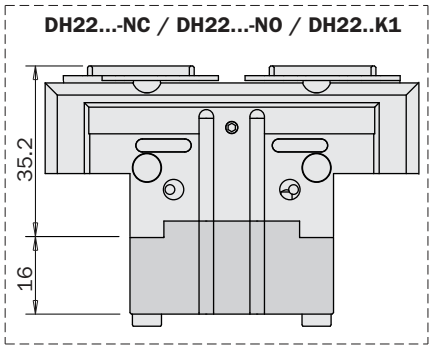
C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

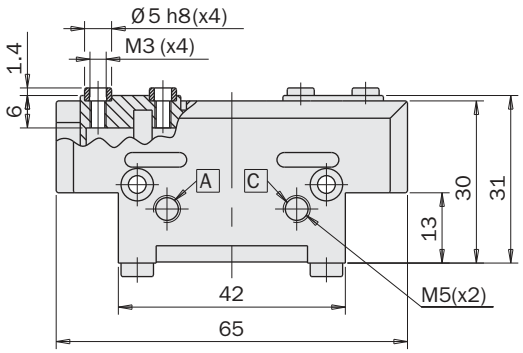
DHG

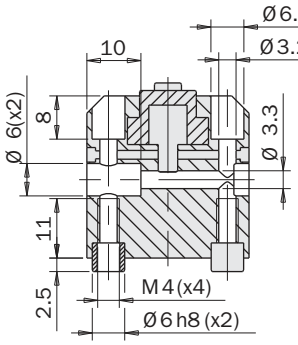
	DH2208G	DH2208G-NC	DH2208G-NO	DH2204G	DH2204G-NC	DH2204G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	100N	58 ÷ 67N	134 ÷ 142N	200N	116 ÷ 133N	267 ÷ 284N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	200N	116 ÷ 134N	268 ÷ 284N	400N	232 ÷ 266N	534 ÷ 568N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	90N	123 ÷ 132N	48 ÷ 56N	180N	247 ÷ 264N	96 ÷ 113N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	180N	246 ÷ 264N	96 ÷ 112N	360N	494 ÷ 528N	192 ÷ 226N
Corsa totale (±0.3mm) *Total stroke*	8mm			4mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	3Hz					
Consumo d'aria per ciclo *Cycle air consumption*	4cm³	7cm³	7cm³	4cm³	7cm³	7cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.02s / 0.02s	0.02s / 0.03s	0.03s / 0.02s	0.02s / 0.02s	0.02s / 0.03s	0.03s / 0.02s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	143g	182g	178g	145g	184g	180g

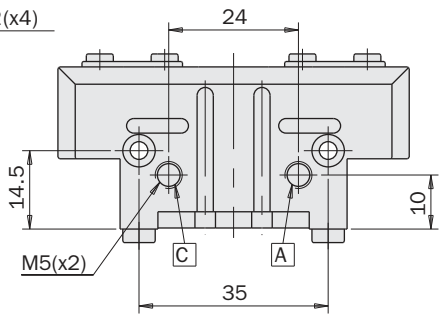
Dimensioni (mm)
Dimensions (mm)

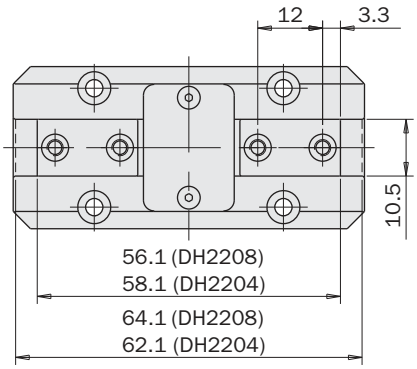












FIRST ANGLE PROJECTION

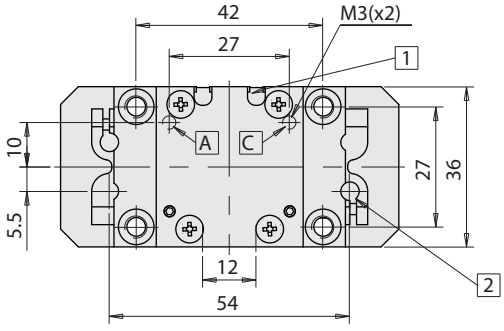
1 Sede per sensori
Sensor groove

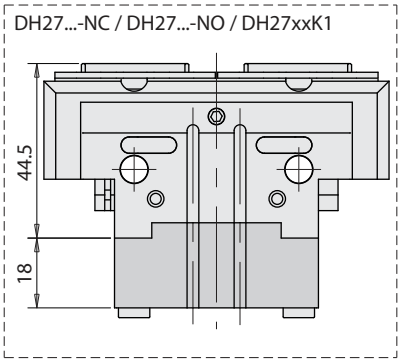
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

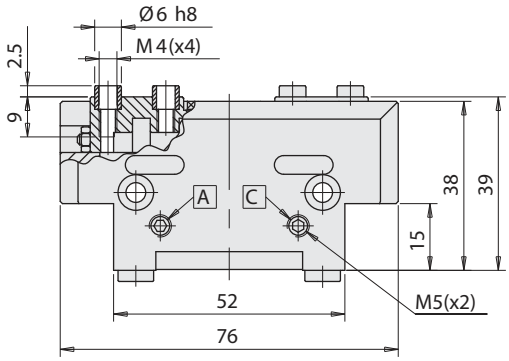
C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

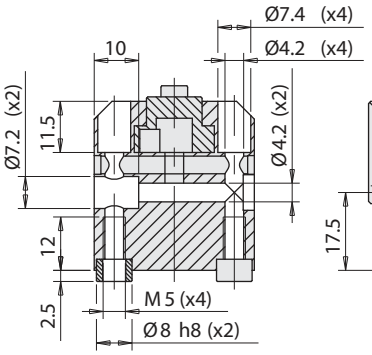
	DH2712G	DH2712G-NC	DH2712G-NO	DH2706G	DH2706G-NC	DH2706G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	145N	85 ÷ 97N	194 ÷ 206N	290N	170 ÷ 194N	389 ÷ 413N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	290N	170 ÷ 194N	388 ÷ 412N	580N	340 ÷ 388N	778 ÷ 826N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	130N	178 ÷ 190N	69 ÷ 81N	260N	356 ÷ 380N	138 ÷ 162N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	260N	356 ÷ 380N	138 ÷ 162N	520N	712 ÷ 760N	276 ÷ 324N
Corsa totale (±0.3mm) *Total stroke*	12mm			6mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	3Hz					
Consumo d'aria per ciclo *Cycle air consumption*	9cm³	13cm³	13cm³	9cm³	13cm³	13cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	260g	320g	315g	260g	325g	320g

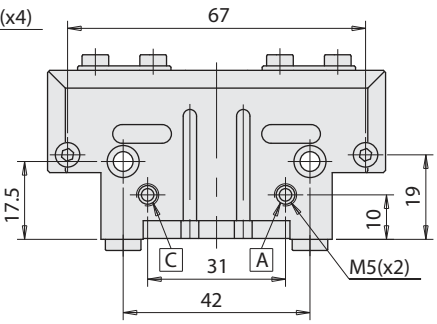
Dimensioni (mm)
Dimensions (mm)

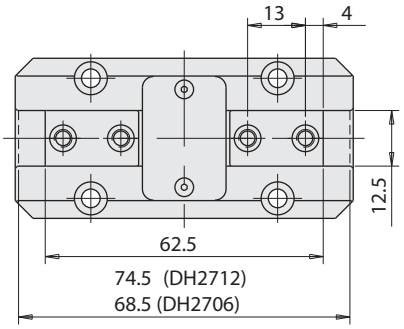












FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

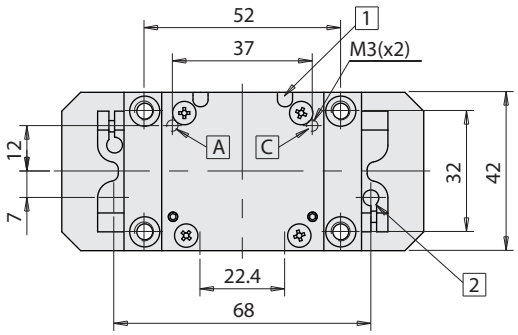
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

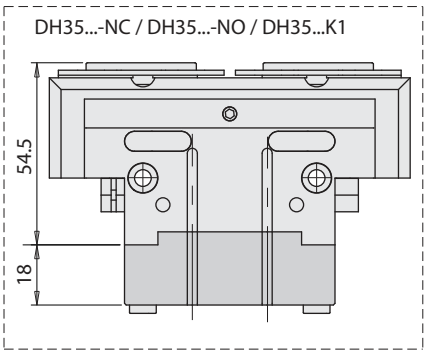
C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

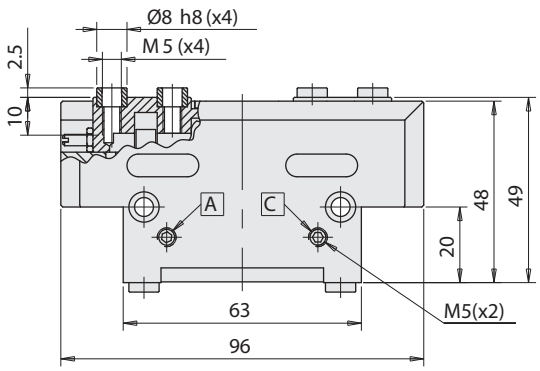
DHG

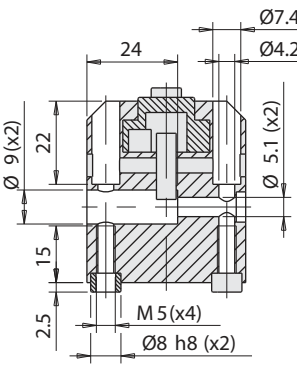
	DH3516G	DH3516G-NC	DH3516G-NO	DH3508G	DH3508G-NC	DH3508G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	250N	140 ÷ 177N	323 ÷ 360N	500N	280 ÷ 353N	647 ÷ 720N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	500N	280 ÷ 354N	646 ÷ 720N	1000N	560 ÷ 706N	1294 ÷ 1440N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	220N	298 ÷ 319N	122 ÷ 143N	440N	595 ÷ 639N	244 ÷ 287N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	440N	596 ÷ 638N	244 ÷ 286N	880N	1190 ÷ 1278N	488 ÷ 574N
Corsa totale (±0.3mm) *Total stroke*	16mm			8mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	3Hz					
Consumo d'aria per ciclo *Cycle air consumption*	18cm³	25cm³	25cm³	18cm³	25cm³	25cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	470g	560g	540g	480g	570g	550g

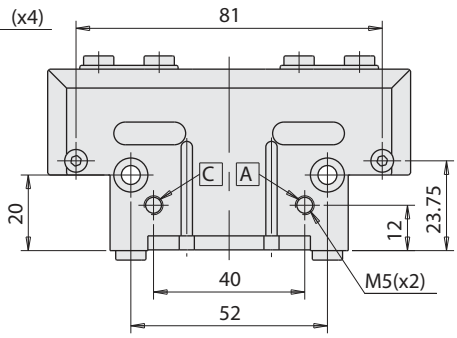
Dimensioni (mm)
Dimensions (mm)

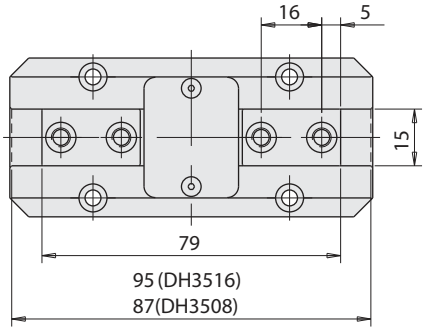












FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

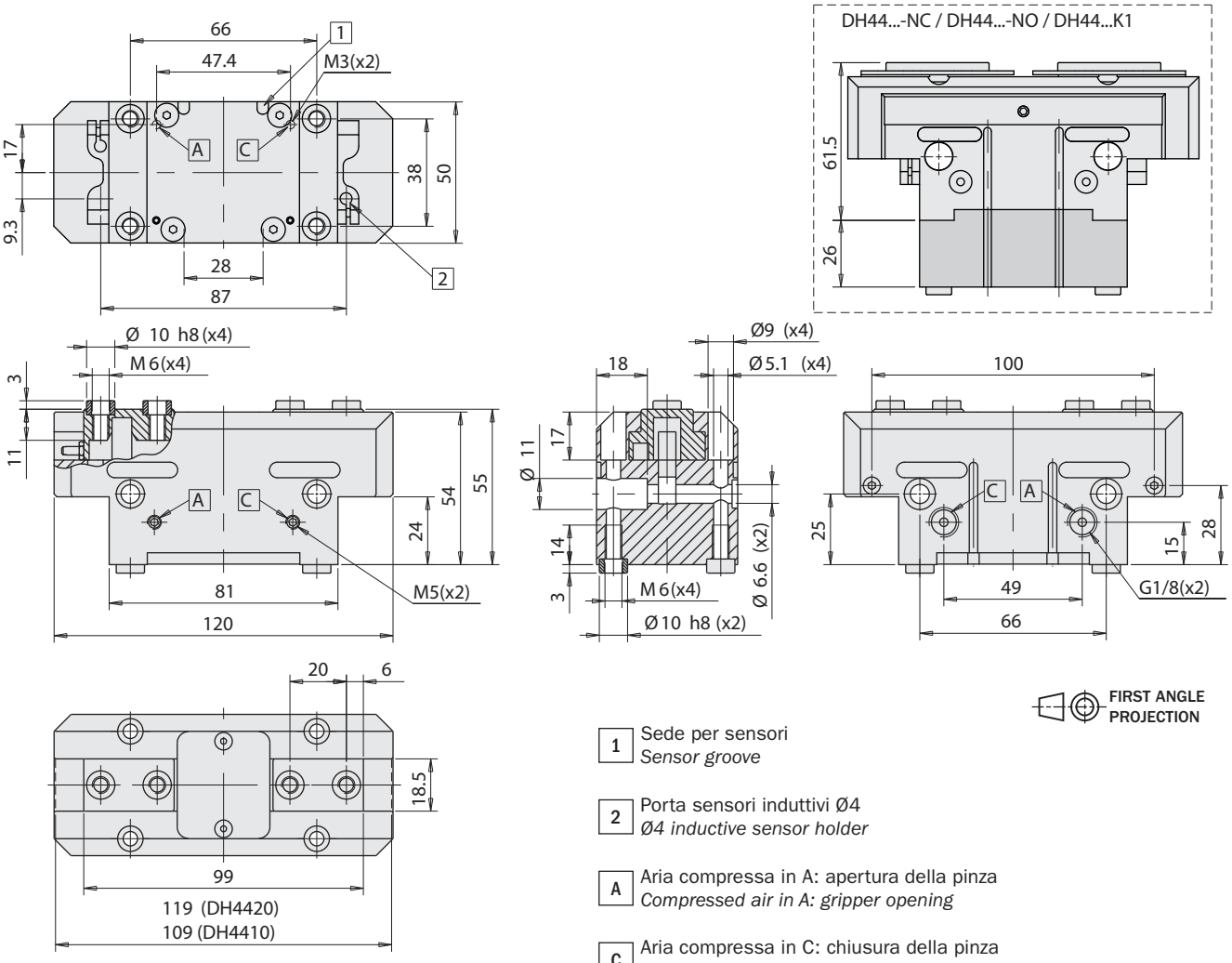
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

07/2026

	DH4420G	DH4420G-NC	DH4420G-NO	DH4410G	DH4410G-NC	DH4410G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	405N	236 ÷ 298N	513 ÷ 575N	810N	472 ÷ 595N	1027 ÷ 1150N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	810N	472 ÷ 596N	1026 ÷ 1150N	1620N	944 ÷ 1190N	2054 ÷ 2300N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	365N	472 ÷ 534N	195 ÷ 257N	730N	945 ÷ 1068N	390 ÷ 513N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	730N	944 ÷ 1068N	390 ÷ 514N	1460N	1890 ÷ 2136N	780 ÷ 1026N
Corsa totale ±0.3mm *Total stroke*	20mm			10mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	2Hz					
Consumo d'aria per ciclo *Cycle air consumption*	36cm³	52cm³	52cm³	36cm³	52cm³	52cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	790g	1000g	980g	810g	1010g	1000g

Dimensioni (mm)
Dimensions (mm)



FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

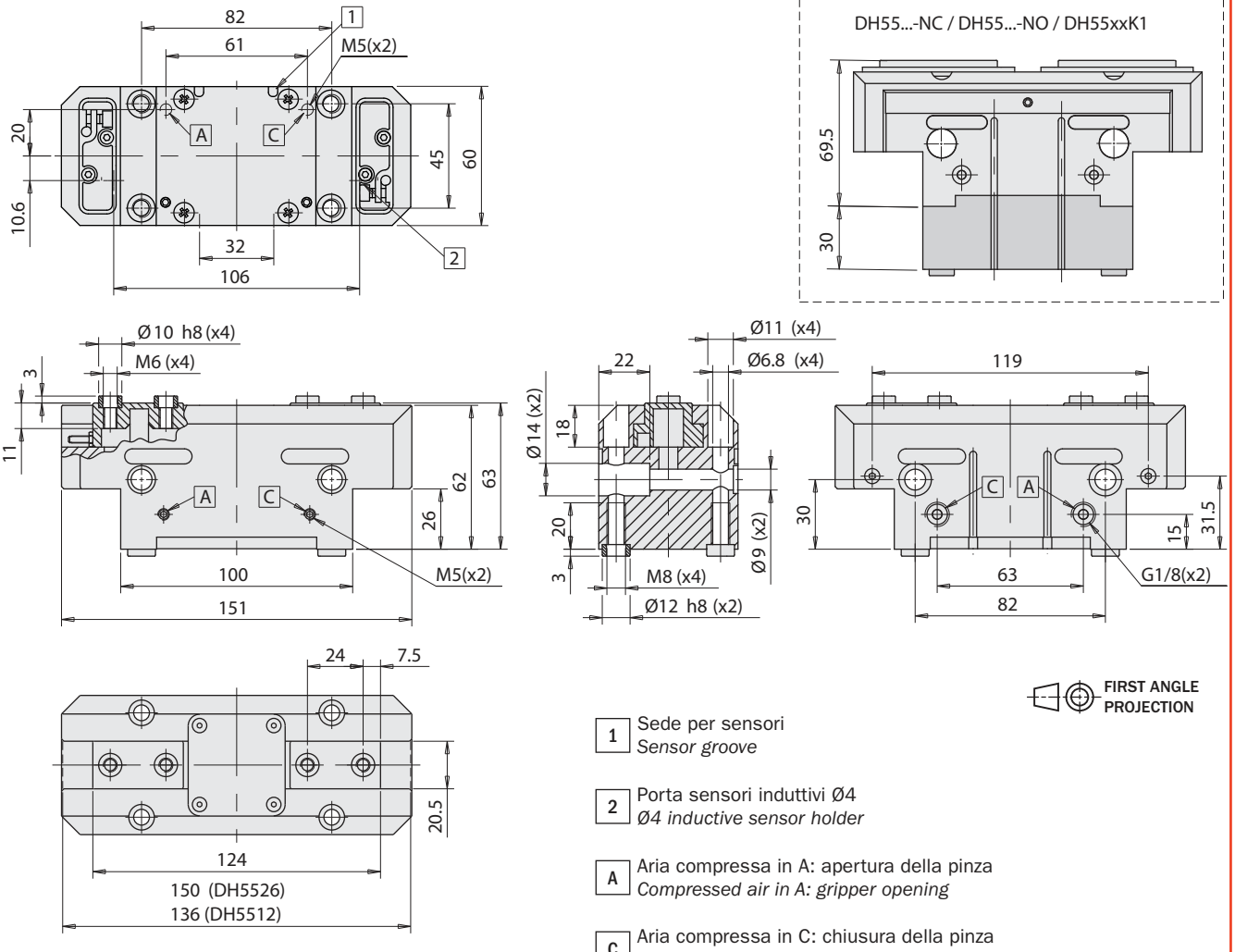
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

DHG

	DH5526G	DH5526G-NC	DH5526G-NO	DH5512G	DH5512G-NC	DH5512G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	625N	359 ÷ 443N	807 ÷ 891N	1350N	774 ÷ 957N	1742 ÷ 1924N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	1250N	718 ÷ 886N	1614 ÷ 1782N	2700N	1548 ÷ 1914N	3484 ÷ 3884N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	555N	739 ÷ 823N	290 ÷ 375N	1200N	1595 ÷ 1777N	627 ÷ 809N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	1110N	1478 ÷ 1646N	580 ÷ 750N	2400N	3190 ÷ 3554N	1254 ÷ 1618N
Corsa totale (±0.3mm) *Total stroke*	26mm			12mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	2Hz					
Consumo d'aria per ciclo *Cycle air consumption*	70cm³	97cm³	97cm³	70cm³	97cm³	97cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.11s / 0.11s	0.08s / 0.13s	0.13s / 0.08s	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	1310g	1750g	1660g	1340g	1740g	1690g

Dimensioni (mm)
Dimensions (mm)



FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

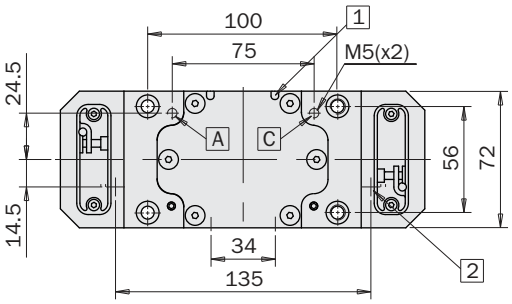
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

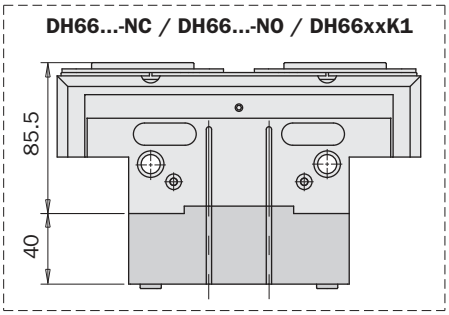
C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

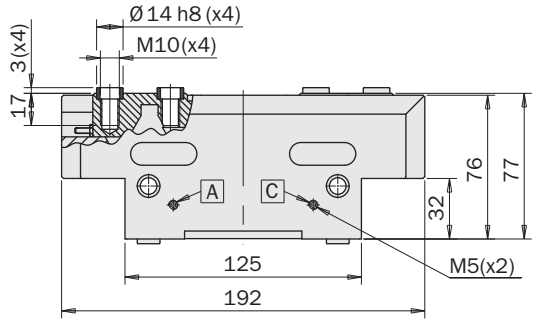
07/2026

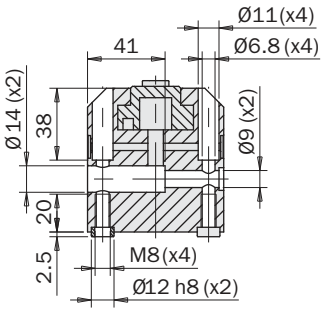
	DH6632G	DH6632G-NC	DH6632G-NO	DH6616G	DH6616G-NC	DH6616G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	920N	559 ÷ 663N	1180 ÷ 1284N	1840N	1119 ÷ 1326N	2361 ÷ 2568N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	1840N	1118 ÷ 1326N	2360 ÷ 2568N	3680N	2238 ÷ 2652N	4722 ÷ 5136N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	820N	1078 ÷ 1181N	457 ÷ 560N	1640N	2156 ÷ 2363N	914 ÷ 1121N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	1640N	2156 ÷ 2362N	914 ÷ 1120N	3280N	4312 ÷ 4726N	1828 ÷ 2242N
Corsa totale (±0.3mm) *Total stroke*	32mm			16mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	2Hz					
Consumo d'aria per ciclo *Cycle air consumption*	127cm³	178cm³	178cm³	127cm³	178cm³	178cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.15s / 0.15s	0.12s / 0.18s	0.18s / 0.12s	0.15s / 0.15s	0.12s / 0.18s	0.18s / 0.12s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	2570g	3370g	3250g	2610g	3410g	3280g

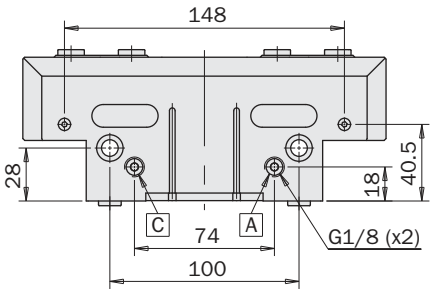
Dimensioni (mm)
Dimensions (mm)

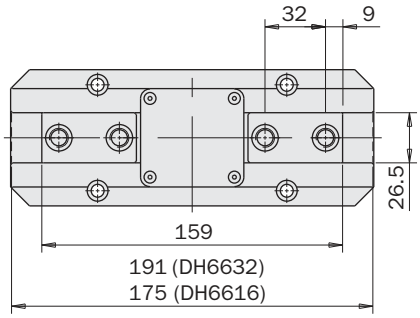












FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

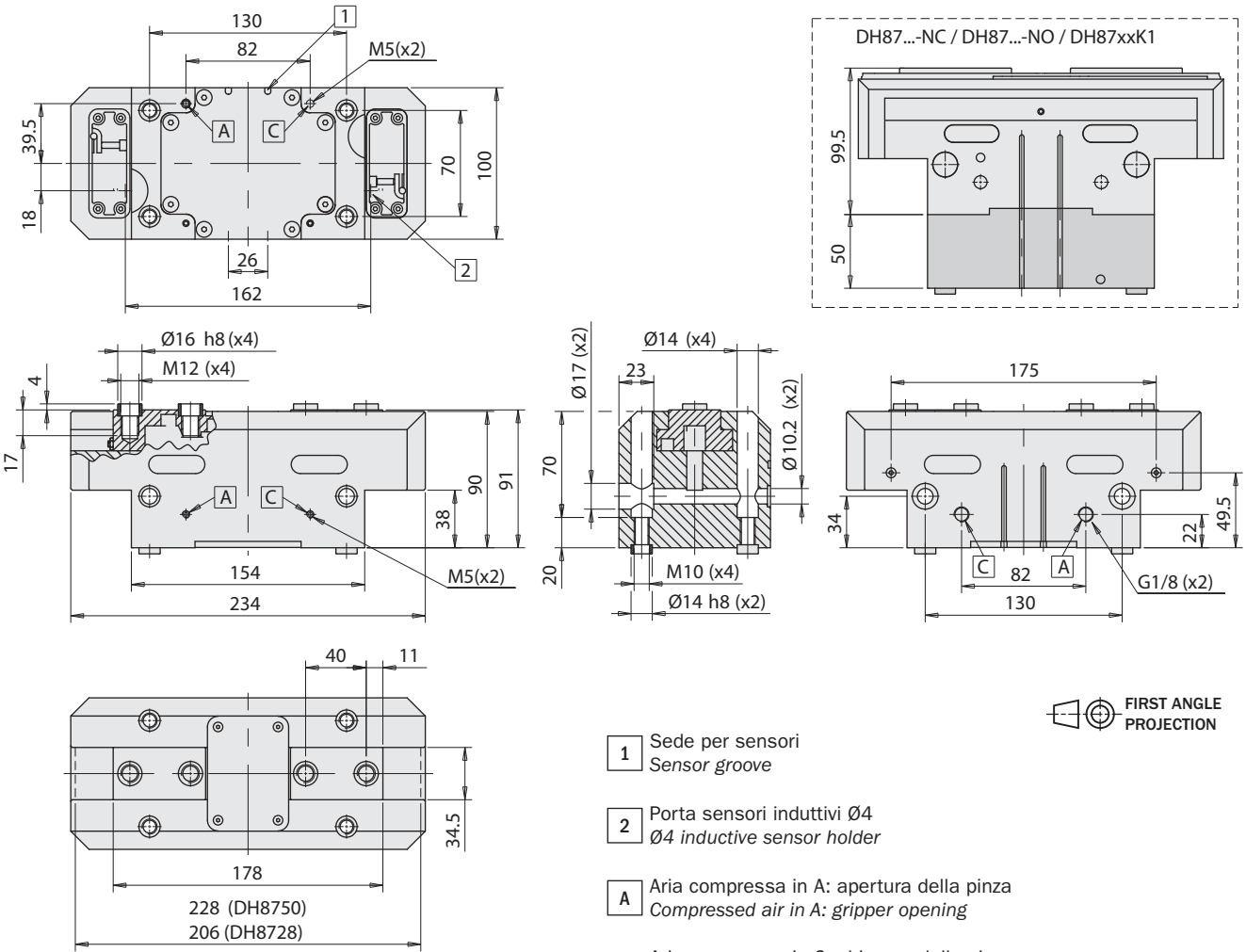
A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

DHG

	DH8750G	DH8750G-NC	DH8750G-NO	DH8728G	DH8728G-NC	DH8728G-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio *Temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar each jaw*	1560N	977 ÷ 1129N	1992 ÷ 2144N	2750N	1720 ÷ 1988N	3509 ÷ 3776N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	3120N	1954 ÷ 2258N	3984 ÷ 4288N	5500N	3440 ÷ 3976N	7018 ÷ 7552N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar each jaw*	1420N	1853 ÷ 2005N	837 ÷ 989N	2500N	3263 ÷ 3531N	1475 ÷ 1742N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	2840N	3706 ÷ 4010N	1674 ÷1978N	5000N	6526 ÷ 7026N	2950 ÷ 3484N
Corsa totale (±0.3mm) *Total stroke*	50mm			28mm		
Frequenza max funzionamento continuativo *Maximum working frequency*	1Hz					
Consumo d'aria per ciclo *Cycle air consumption*	347cm³	472cm³	472cm³	347cm³	472cm³	472cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.21s / 0.21s	0.19s / 0.31s	0.31s / 0.19s	0.21s / 0.21s	0.19s / 0.31s	0.31s / 0.19s
Ripetibilità *Repetition accuracy*	0.02mm					
Peso *Weight*	4810g	6750g	6560g	4880g	6820g	6630g

Dimensioni (mm)
Dimensions (mm)



FIRST ANGLE PROJECTION

1 Sede per sensori
Sensor groove

2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

07/2026

Note
Notes

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SP)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio e alimentazione.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw self-centering parallel pneumatic gripper (series SP)

- *Double-acting drive.*
- *Backlash adjusting system.*
- *Maintenance-free long life and reliability.*
- *Various mounting and feeding options.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



SP-20



SP-25



SP-32



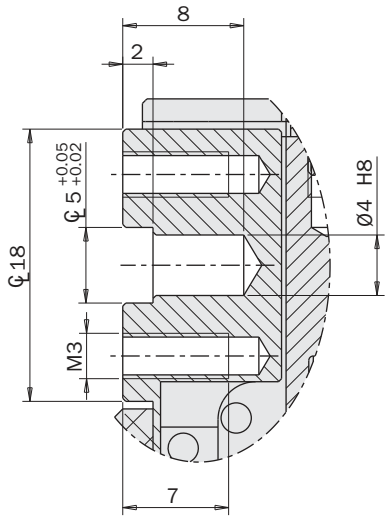
SP-40

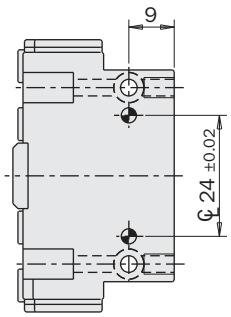
	SP-20	SP-25	SP-32	SP-40
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.			
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	70 N	120 N	220 N	350 N
Forza di serraggio totale in apertura a 6 bar *Total opening gripping force at 6 bar*	140 N	240 N	440 N	700 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	65 N	110 N	200 N	320 N
Forza di serraggio totale in chiusura a 6 bar *Total closing gripping force at 6 bar*	130 N	220 N	400 N	640 N
Corsa totale (± 0.2 mm) *Total stroke*	8 mm	12 mm	16 mm	20 mm
Frequenza max funzionamento continuativo *Maximum continuous operating frequency*	3 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	3 cm^3	6 cm^3	13 cm^3	31 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.03 s	0.05 s	0.05 s	0.05 s
Tolleranza max ripetibilità *Maximum repeatability tolerance*	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm
Peso *Weight*	105 g	210 g	380 g	600 g

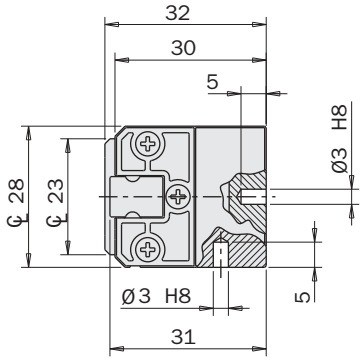
Dimensioni (mm)
Dimensions (mm)

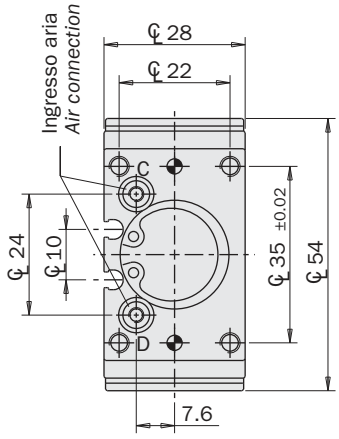
SP-20

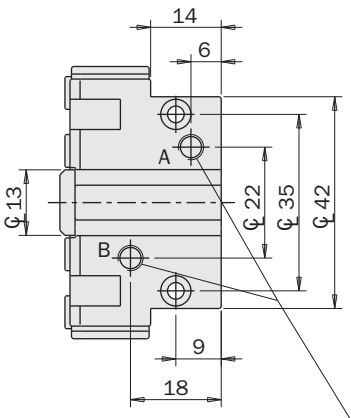
Dettaglio griffa sezionata
Jaw cross section

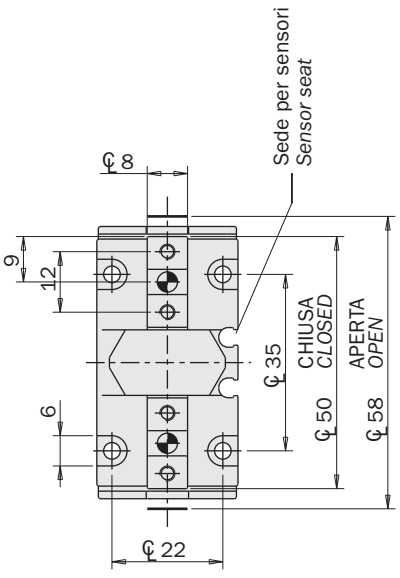




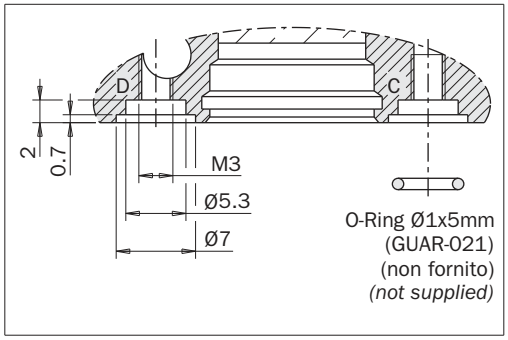


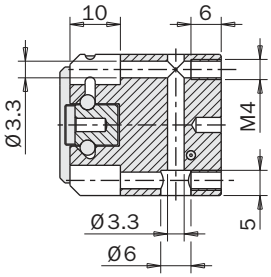






Ingresso aria
Air connection
(N°2) M5



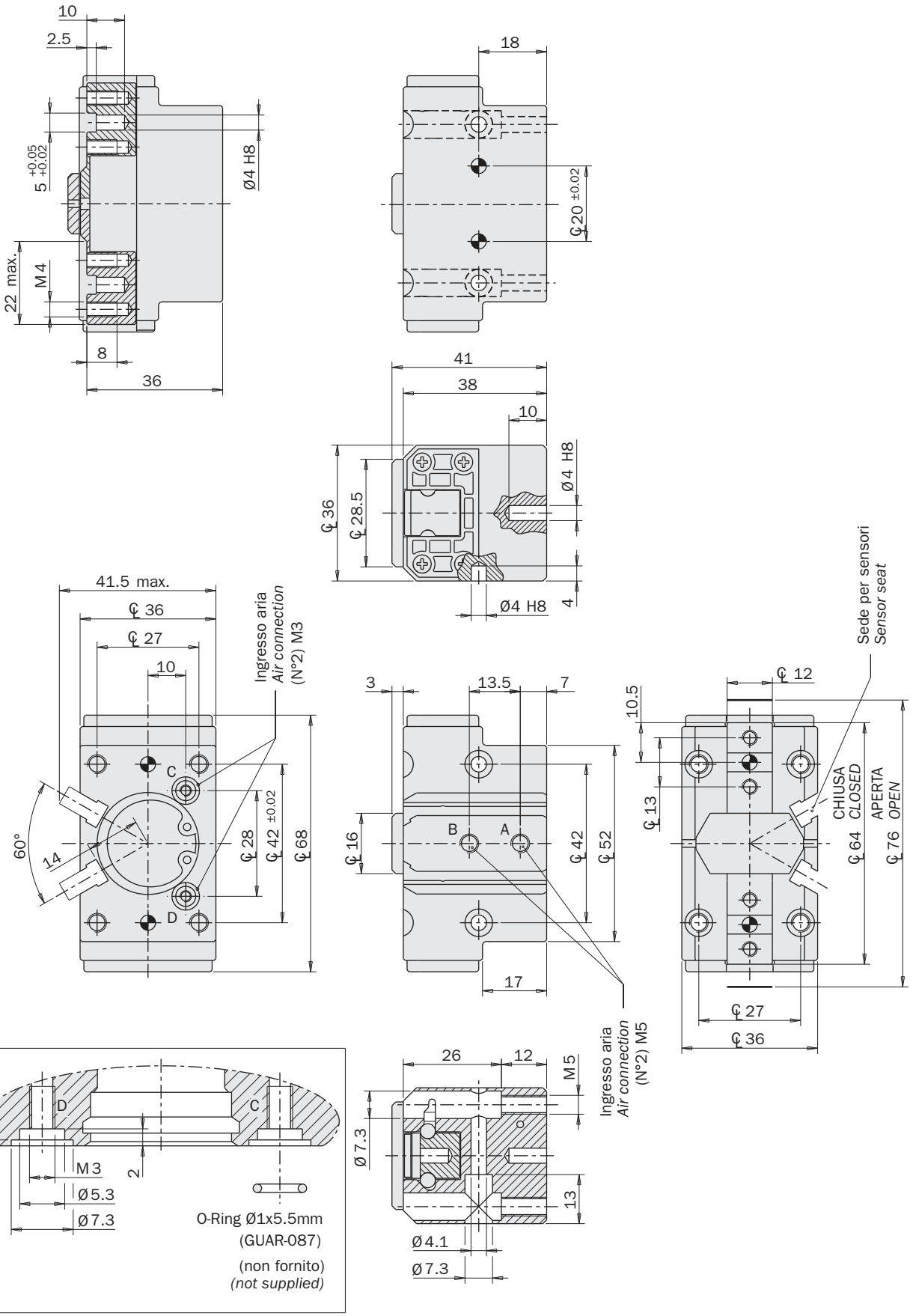


FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

SP-25

Dettaglio griffa sezionata
Jaw cross section

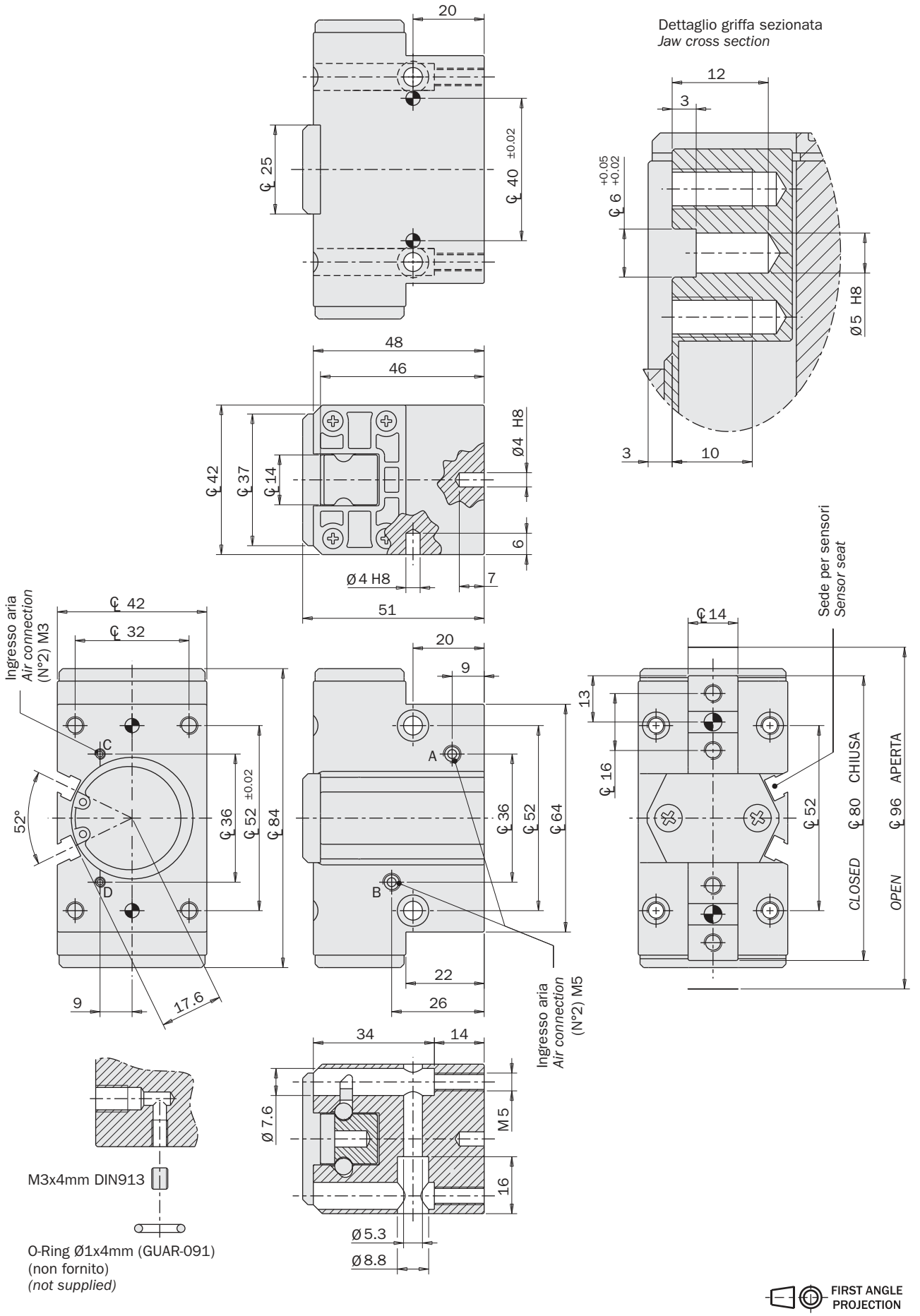


FIRST ANGLE PROJECTION

07/2026

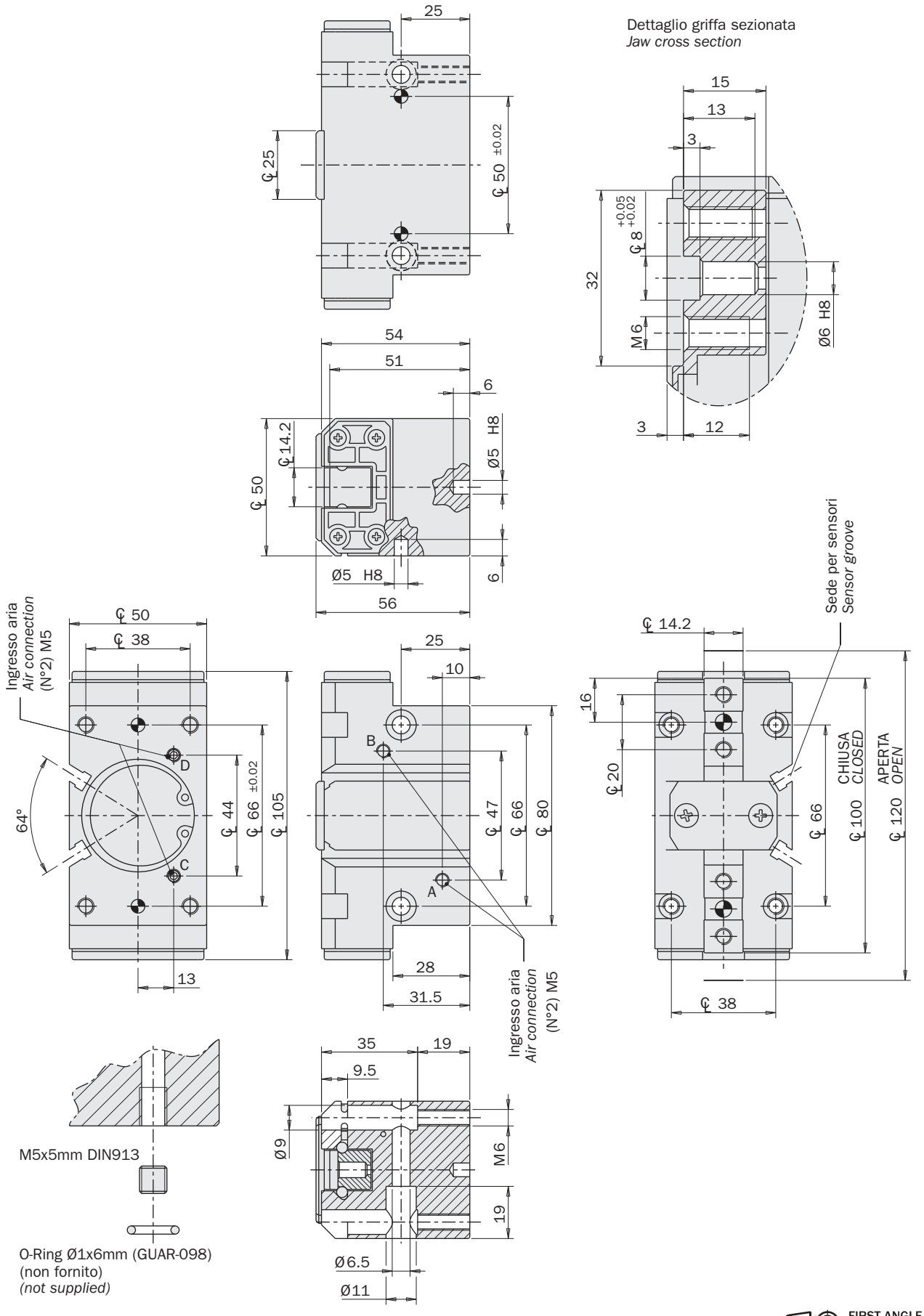
Dimensioni (mm)
Dimensions (mm)

SP-32



Dimensioni (mm)
Dimensions (mm)

SP-40



FIRST ANGLE PROJECTION

07/2026

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone.

Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:

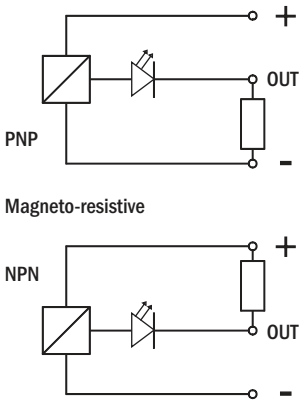
Sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston.

The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:





			SP-20	SP-25 / SP-32 /SP-40
SL4N225-G	PNP	Cavo 2.5m *2.5m cable*	☐	☑
SL4M225-G	NPN			
SL3N203-G	PNP	Connettore M8 *M8 connector*	☐	☑
SL3M203-G	NPN			
SN4N225-G	PNP	Cavo 2.5m *2.5m cable*	☑	☑ (*)
SN4M225-G	NPN			
SN3N203-G	PNP	Connettore M8 *M8 connector*	☑	☑ (*)
SN3M203-G	NPN			
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*	☑	☑ (*)
SS4M225-G	NPN			
SS3N203-G	PNP	Connettore M8 *M8 connector*	☑	☑ (*)
SS3M203-G	NPN			

(*)
Utilizzando l'adattatore SS.004.000 fornito con il sensore.

(*)
Using the adapter SS.004.000 supplied with the sensor.





Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie JP)

- Azionamento a doppio effetto.
- Forza di serraggio elevata.
- Adatta per applicazioni pesanti.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw self-centering pneumatic parallel gripper (series JP)

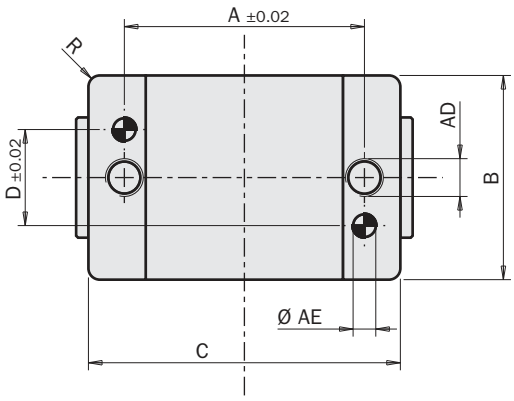
- *Double acting.*
- *High gripping force.*
- *Suitable for heavy duty applications.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*

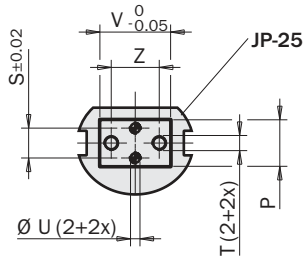


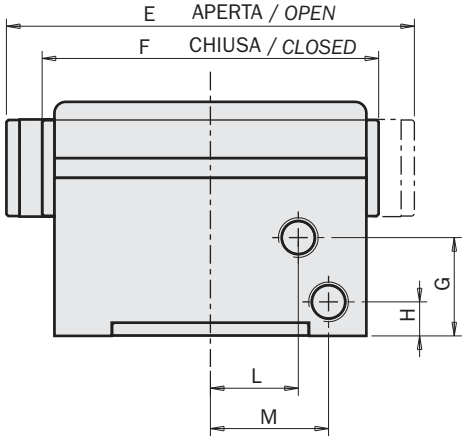
JP-45 **JP-32** **JP-25**

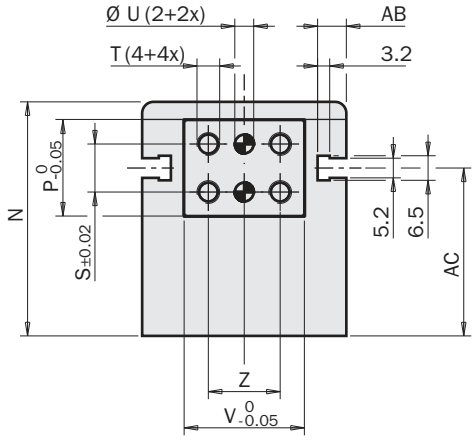
	JP-25	JP-32	JP-45
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.		
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	135 N	350 N	500 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	270 N	700 N	1000 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	120 N	300 N	465 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	240 N	600 N	930 N
Corsa totale (±0.2 mm) *Total stroke*	9.5 mm	12 mm	18.9 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo *Cycle air consumption*	6 cm^3	16 cm^3	20 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.04 s	0.09 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	240 g	450 g	1050 g

Dimensioni (mm)
Dimensions (mm)

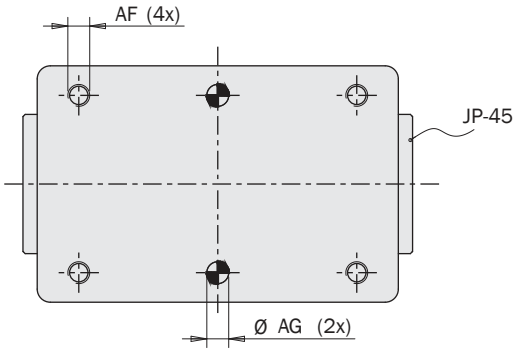








	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V	Z	AB	AC	AD	AE	AF	AG
JP-25	38.1	38.1	50.8	25.4	63.5	54	14.8	6	11.3	18.1	35.9	12.3	2	7.9	M4 x6.5mm	Ø2.5H8 x6mm	18.7	12.7	6.2	26.3	M6 x12mm	Ø5H8 x6mm	-	-
JP-32	50.8	41.3	63.5	19	80	68	22.5	6	-	24	47.3	18.7	3	9.5	M5 x10mm	Ø4H8 x10mm	25	17.5	4.6	33.2	M6 x12mm	Ø5H8 x6mm	-	-
JP-45	63.5	54	82.5	25.4	107.9	89	26	9	23.2	31.2	61.9	25.4	3	12.7	M6 x12mm	Ø5H8 x10mm	31.8	19	7.6	44.4	M10 x18mm	Ø6H8 x12mm	M5x4 mm	Ø5H9x4 x12mm



FIRST ANGLE PROJECTION

HS

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie HS)

- Progettata per macchine ad alta velocità.
- Tempo di chiusura / apertura ridottissimo.
- Basso peso.
- Grande durata e affidabilità senza manutenzione.
- Corsa lunga.
- Possibilità di ridurre la corsa (su richiesta).
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

2-jaw parallel self-centering pneumatic gripper (series HS)

- *Specially suited for high speed machines.*
- *Very short closing/opening time.*
- *Low weight.*
- *Trouble free long life without maintenance.*
- *Long stroke.*
- *Reduced stroke (upon request).*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



HS-2012



HS-2518

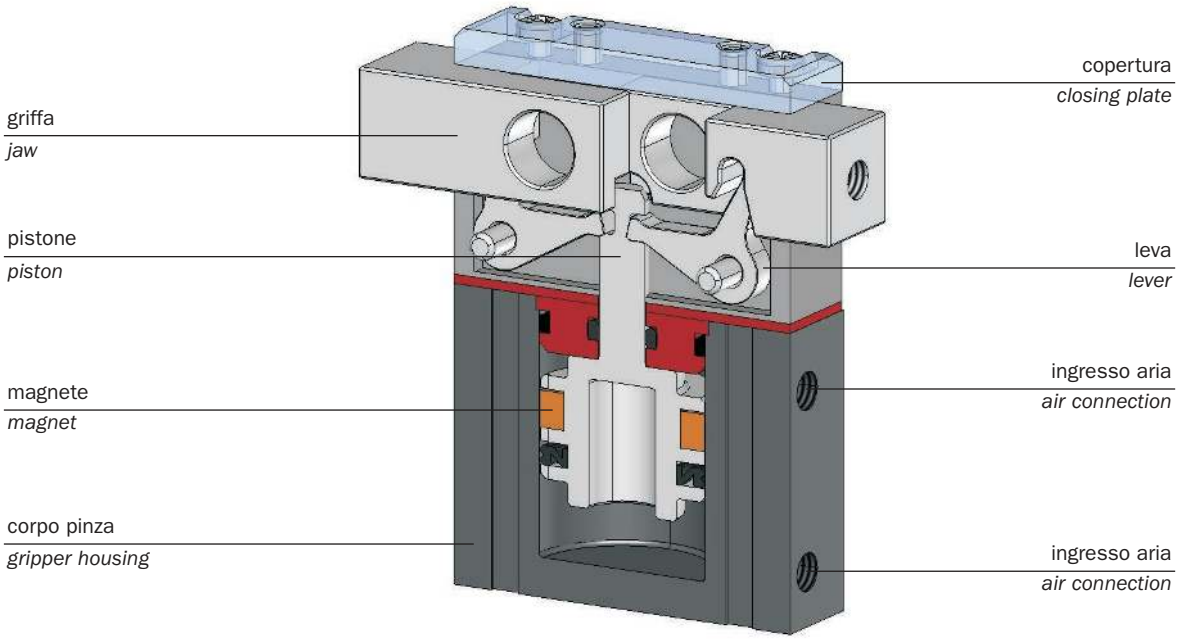
	HS-2012	HS-2518
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.	
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	60 N	90 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	120 N	180 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	55 N	83 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	110 N	166 N
Corsa totale (±0.3 mm) *Total stroke*	11.6 mm	17.6 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	6 Hz	5 Hz
Consumo d'aria per ciclo *Cycle air consumption*	5 cm^3	12 cm^3
Tempo minimo di chiusura / apertura *Closing / opening time minimum*	0.007 s	0.018 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm
Peso *Weight*	144 g	270 g

Schema di funzionamento

Le griffe sono azionate tramite leve dallo stelo del pistone.

Lay-out

The gripper is driven by the piston rod, that operates the jaws by levers.



Riduzione della corsa

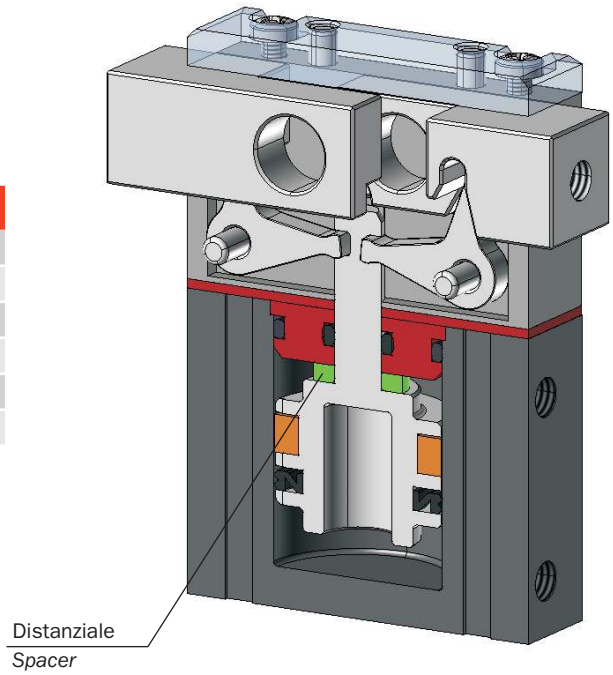
È possibile ridurre la corsa con distanziali che limitano l'apertura delle griffe.
In questo modo diminuisce ulteriormente il tempo di apertura e chiusura della pinza.

Stroke reduction

The stroke can be reduced by spacers which limit the jaw opening. In this way the opening and closing time can be further decreased.

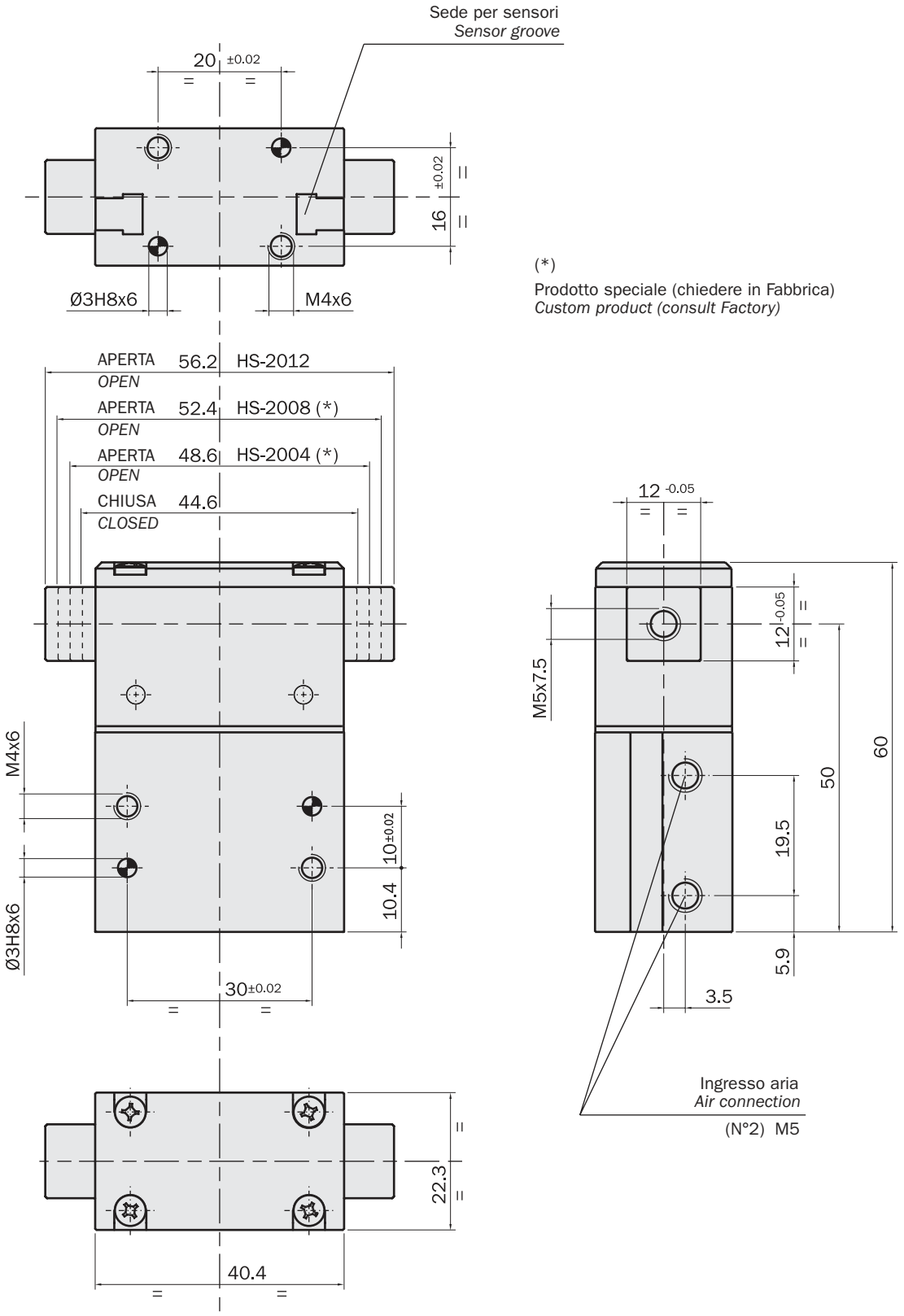
	Distanziale *Spancer*	Corsa *Stroke*
HS-2012	/	2 x 5.8 mm
HS-2008 (*)	1 x XP-16-3	2 x 3.9 mm
HS-2004 (*)	2 x XP-16-3	2 x 2 mm
HS-2518	/	2 x 8.9 mm
HS-2512 (*)	1 x XA-26-3	2 x 6.1 mm
HS-2506 (*)	2 x XA-26-3	2 x 3.25 mm

(*)
Prodotto speciale (chiedere in Fabbrica)
Custom product (consult Factory)



Dimensioni (mm)
Dimensions (mm)

HS-2012



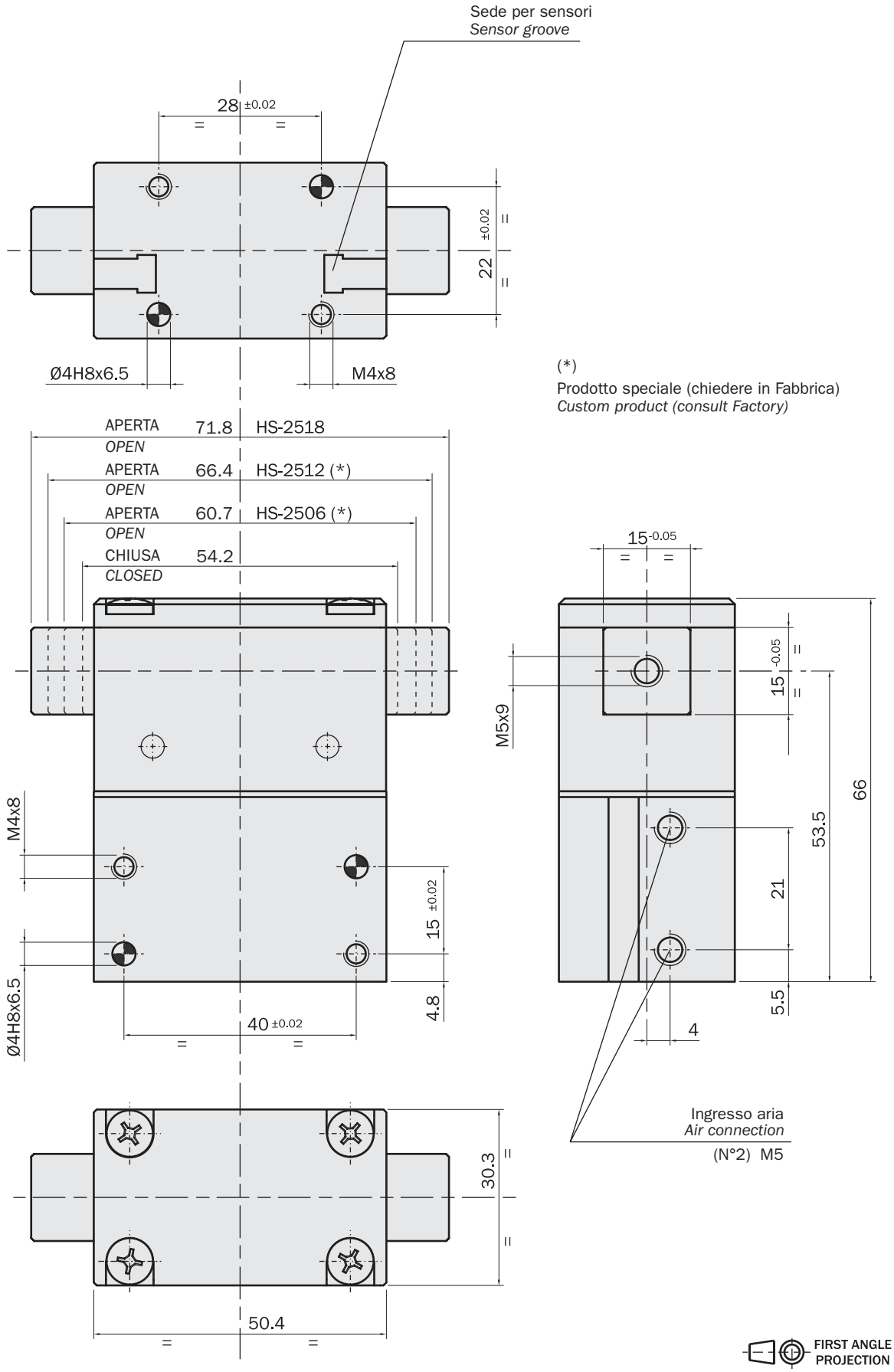
(*)
Prodotto speciale (chiedere in Fabbrica)
Custom product (consult Factory)

FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

HS-2518



(*)
Prodotto speciale (chiedere in Fabbrica)
Custom product (consult Factory)

Pinza pneumatica autocentrante (serie X)

- XP-...: pinza parallela a 2 griffe.
- XT-...: pinza parallela a 3 griffe.
- XA-...: pinza angolare a 2 griffe.
- XR-...: pinza radiale a 2 griffe.
- Azionamento a doppio effetto.
- Rapporto qualità/prezzo molto favorevole.
- Basso peso ottenuto utilizzando leghe leggere e polimeri.
- Doppia possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

Self-centering pneumatic gripper (series X)

- *XP-...: 2 jaw parallel gripper.*
- *XT-...: 3 jaw parallel gripper.*
- *XA-...: 2 jaw angular gripper.*
- *XR-...: 2 jaw radial gripper.*
- *Double acting.*
- *Excellent cost/performance ratio.*
- *Light weight, due to its alloy and plastic resin construction.*
- *Gripper mounting possible on two sides.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



XR-26



XR-20



XA-26



XA-20



XP-26



XP-20



XT-26



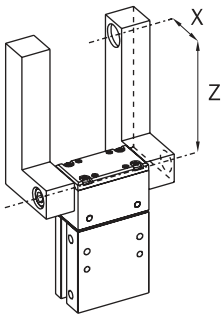
XT-20

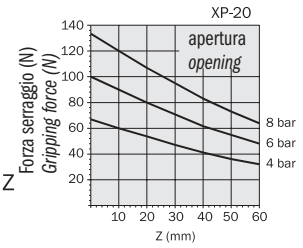
Forza di serraggio

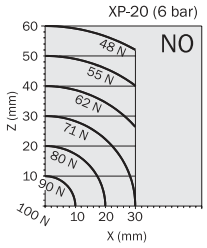
XP-... I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio di leva Z e del disassamento del punto di presa X.

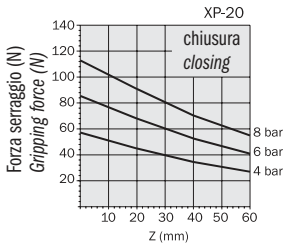
Gripping force

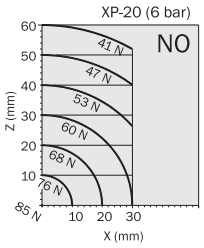
XP-... The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

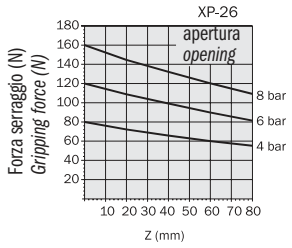


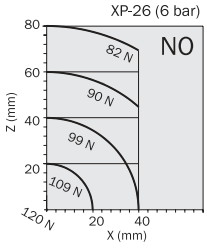


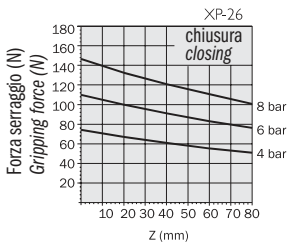


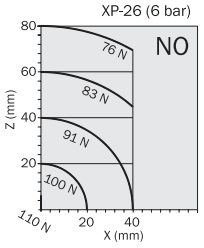










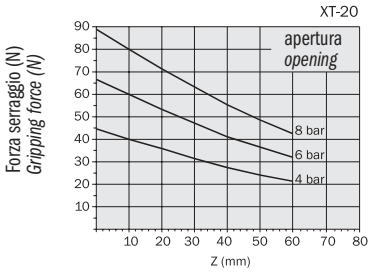


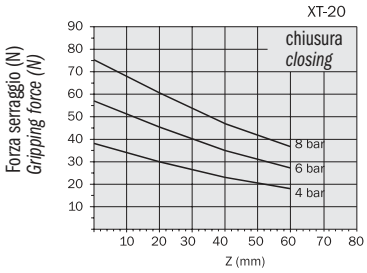
XT-... I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

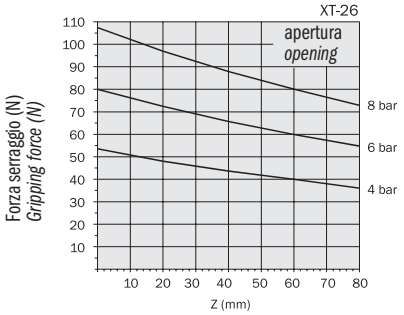
XT-... The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.

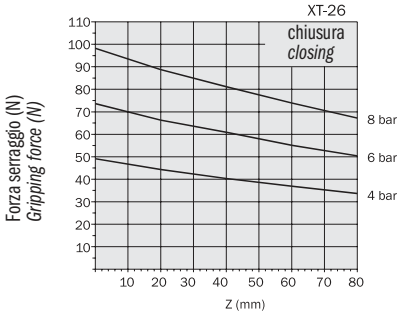
La forza indicata in questi grafici è riferita alla singola griffa.
La forza totale è il doppio.

The force shown in these graphs refers to one jaw.
The total force is double.



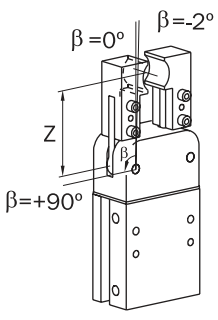


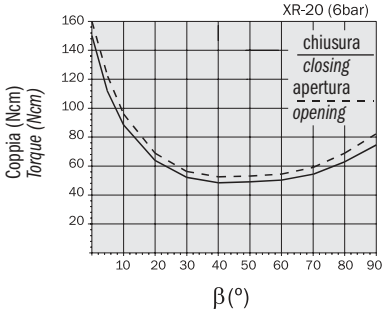


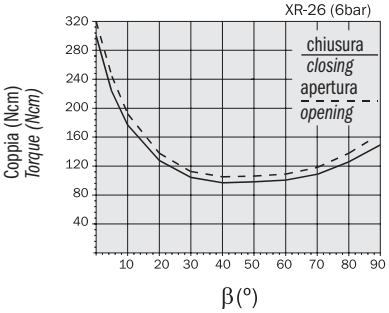


XR-... I grafici mostrano la coppia per griffa espressa dalla pinza in funzione della posizione angolare ß della griffa.

XR-... The graphs show the gripping torque on each jaw, as a function of the angular position ß of the jaw.





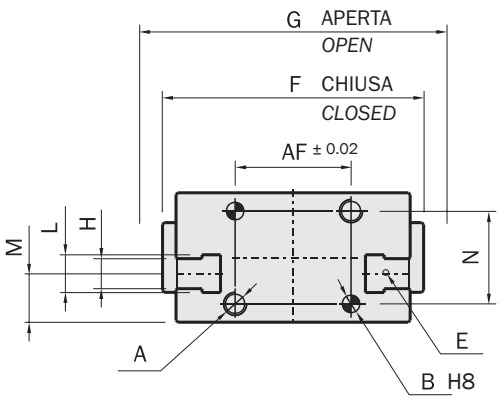


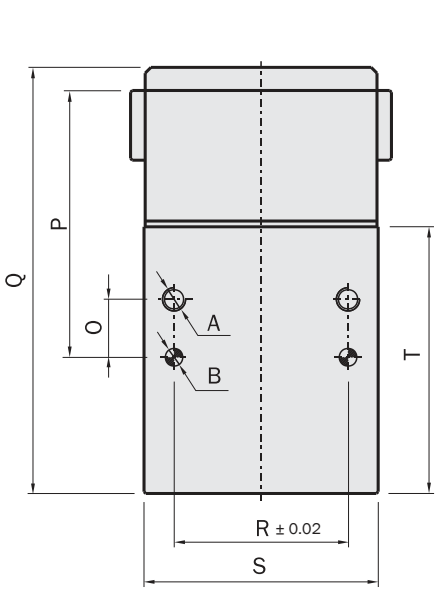
	XP-20	XP-26
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.	
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	85 N	110 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	170 N	220 N
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	100 N	120 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	200 N	240 N
Corsa totale (±0.2 mm) *Total stroke*	8 mm	13.2 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	7 cm^3	12 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm
Peso *Weight*	160 g	300 g

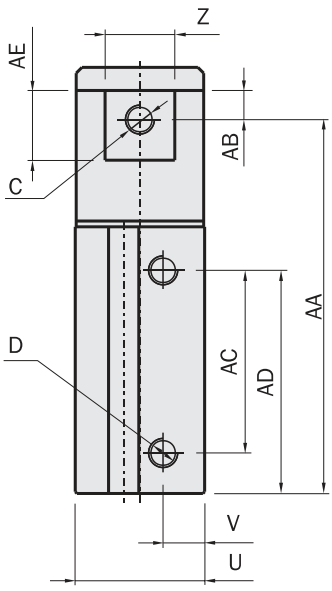
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION

	XP-20	XP-26
A	M4x6	M5x10
B	Ø3x6	Ø4x6
C	M5x8	M6x9
D	M5	
E	SC - SL - SS - SN	
F	44.8	54.6
G	52.8	67.8
H	5.2	
L	6.5	
M	8.35	11.15
N	16	21
O	10	12
P	46	56
Q	73.5	77
R	30	36
S	40.4	50.4
T	46	42.8
U	22.3	30.3
V	7.15	10.15
Z	12	15
AA	64.5	65.5
AB	5	6.5
AC	31.5	30
AD	38.5	36.5
AE	12	15
AF	20	25







A Foro filettato per fissaggio
Threaded hole for fastening

B Foro di riferimento
Dowel pin hole

C Foro filettato per fissaggio dita di presa
Threaded hole for gripping tool fastening

D Ingresso aria
Air connection

E Sede per sensori Gimatic
Gimatic sensor slot

	XT-20	XT-26
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.	
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	57 N	73 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	171 N	219 N
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	67 N	80 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	201 N	240 N
Corsa (±0.2 mm) *Stroke*	3 x 3.6 mm	3 x 6.6 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	7 cm^3	12 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm
Peso *Weight*	210 g	350 g

Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION

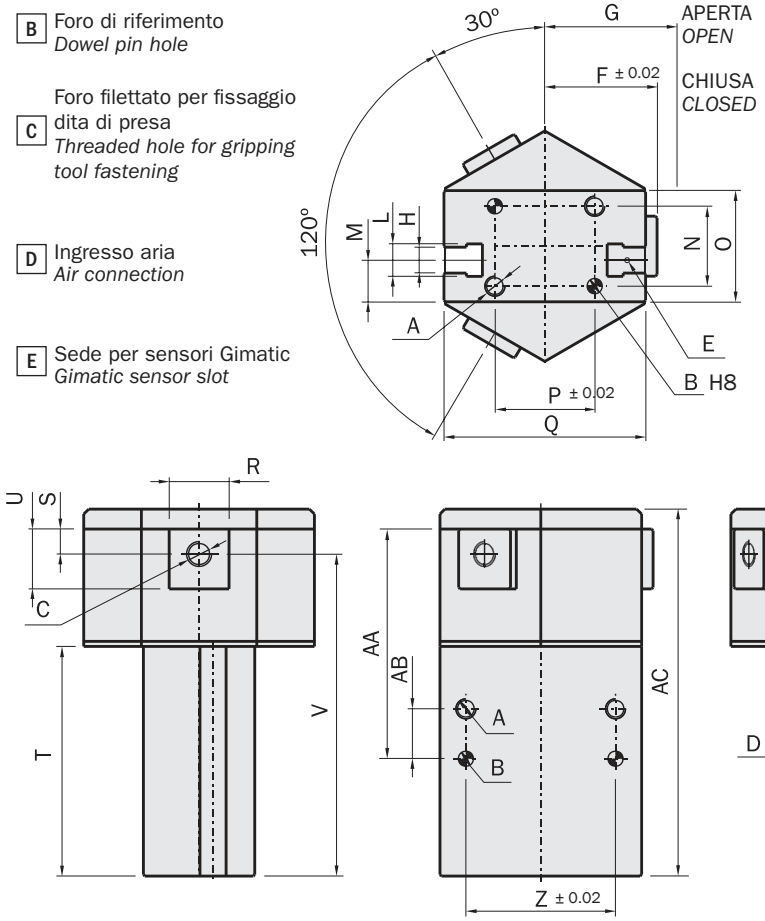
A Foro filettato per fissaggio
Threaded hole for fastening

B Foro di riferimento
Dowel pin hole

C Foro filettato per fissaggio dita di presa
Threaded hole for gripping tool fastening

D Ingresso aria
Air connection

E Sede per sensori Gimatic
Gimatic sensor slot

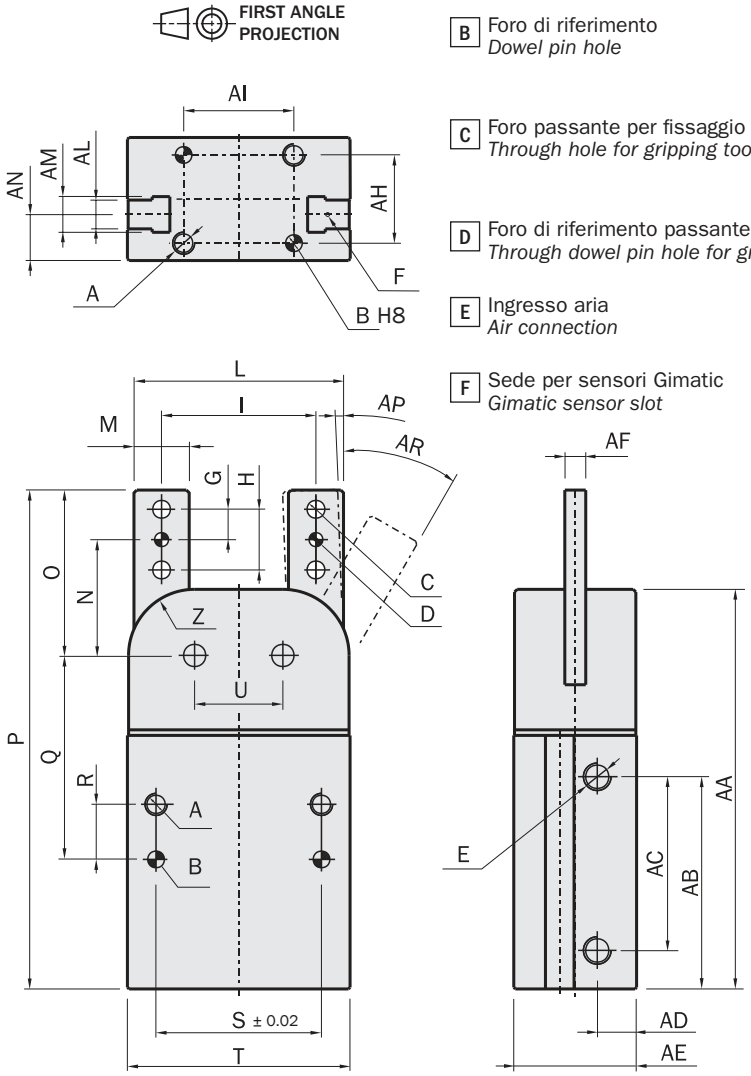


	XT-20	XT-26
A	M4x6	M5x10
B	Ø3x6	Ø4x6
C	M5x8	M6x9
D	M5	
E	SC - SL - SS - SN	
F	22.4	27.1
G	26	33.7
H	5.2	
L	6.5	
M	8.35	11.15
N	16	21
O	22.3	30.3
P	20	25
Q	40.4	50.4
R	12	15
S	5	6.5
T	46	42.8
U	12	15
V	64.5	65.5
Z	30	36
AA	46	56
AB	10	12
AC	73.5	77
AD	31.5	30
AE	38.5	36.5
AF	7.15	10.15

	XA-20	XA-26
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.	
Coppia per griffa in chiusura a 6 bar *Closing torque at 6 bar on each jaw*	46 Ncm	79 Ncm
Coppia totale in chiusura a 6 bar *Closing torque force at 6 bar*	92 Ncm	158 Ncm
Coppia per griffa in apertura a 6 bar *Opening torque at 6 bar on each jaw*	50 Ncm	85 Ncm
Coppia totale in apertura a 6 bar *Opening torque force at 6 bar*	100 Ncm	170 Ncm
Corsa (±2°) *Stroke*	2 x 30°	2 x 32°
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	6 cm^3	11 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.03 s
Ripetibilità *Repetition accuracy*	0.04°	0.04°
Peso *Weight*	140 g	250 g

Dimensioni (mm)
Dimensions (mm)

	XA-20	XA-26
A	M4x6	M5x10
B	Ø3x6	Ø4x8
C	Ø3.2	Ø4.3
D	Ø2.5H8	Ø3H8
G	5.5	6
H	11	12
I	28	31
L	38	45
M	10	14
N	21	25.7
O	30	36.7
P	90.5	95.1
Q	37	42.4
R	10	12
S	30	36
T	40.4	50.4
U	16	19.3
Z	R=12	R=16
AA	72.5	73.6
AB	38.5	36.5
AC	31.5	30
AD	7.15	10.15
AE	22.3	30.3
AF	3.8	5.4
AH	16	21
AI	20	25
AL	5.2	
AM	6.5	
AN	8.35	11.15
AP	4°	2°
AR	26°	30°



A Foro filettato per fissaggio
Threaded hole for fastening

B Foro di riferimento
Dowel pin hole

C Foro passante per fissaggio dita di presa
Through hole for gripping tool fastening

D Foro di riferimento passante per dita
Through dowel pin hole for gripping tool

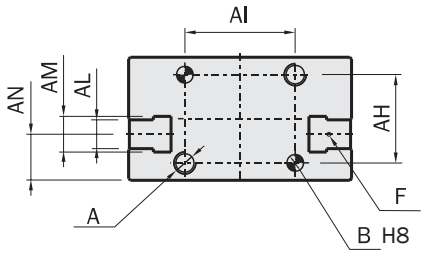
E Ingresso aria
Air connection

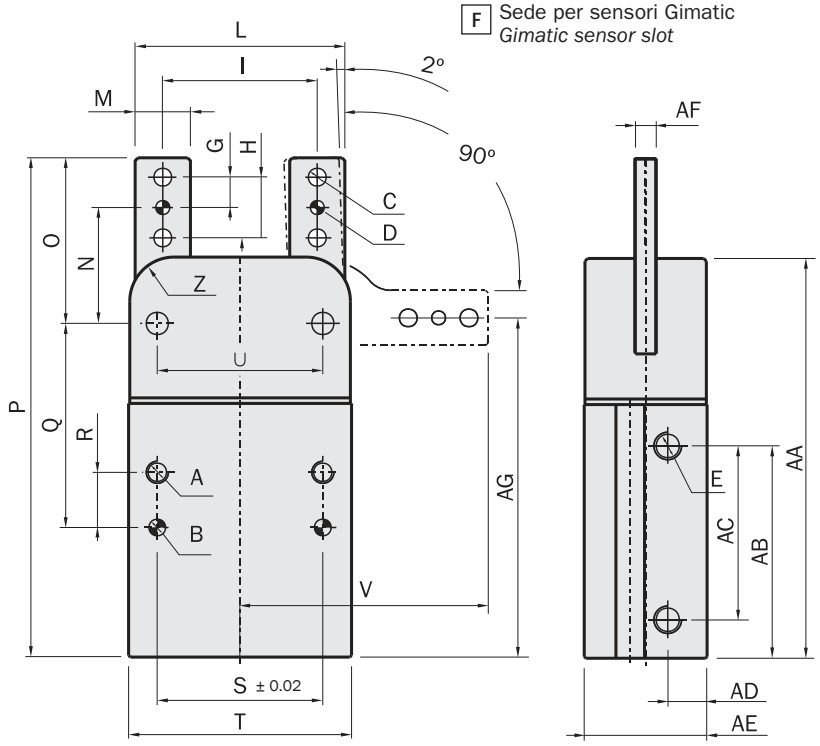
F Sede per sensori Gimatic
Gimatic sensor slot

	XR-20	XR-26
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	
Temperatura di esercizio *Operating temperature range*	5 ÷ 60 °C.	
Coppia massima per griffa in chiusura a 6 bar *Closing maximum torque at 6 bar on each jaw*	150 Ncm	300 Ncm
Coppia massima per griffa in apertura a 6 bar *Opening maximum torque at 6 bar on each jaw*	160 Ncm	320 Ncm
Corsa (±2°) *Stroke*	2 x 92°	2 x 92°
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	11 cm^3	19 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.08 s	0.12 s
Ripetibilità *Repetition accuracy*	0.06°	0.06°
Peso *Weight*	140 g	260 g

Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION





A Foro filettato per fissaggio
Threaded hole for fastening

B Foro di riferimento
Dowel pin hole

C Foro passante per fissaggio dita di presa
Through hole for gripping tool fastening

D Foro di riferimento passante per dita
Through dowel pin hole for gripping tool

E Ingresso aria
Air connection

F Sede per sensori Gimatic
Gimatic sensor slot

	XR-20	XR-26
A	M4x6	M5x10
B	Ø3x6	Ø4x8
C	Ø3.2	Ø4.3
D	Ø2.5H8	Ø3H8
E	M5	
F	SC - SL - SS - SN	
G	5.5	6
H	11	12
I	28	31
L	38	45
M	10	14
N	21	25.7
O	30	36.7
P	90.5	95.1
Q	37	42.4
R	10	12
S	30	36
T	40.4	50.4
U	30	39
V	45	56.2
Z	R=8	
AA	72.5	73.6
AB	38.5	36.5
AC	31.5	30
AD	7.15	10.15
AE	22.3	30.3
AF	3.8	5.4
AG	61.5	62.4
AH	16	21
AI	20	25
AL	5.2	
AM	6.5	
AN	8.35	11.15

MPPM

Pinza elettrica parallela 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw parallel self-centering electric gripper

- *Plug & play user friendly gripper.*
- *No electricity consumption when gripper is engaged.*
- *No programming required.*
- *Gripper retention guaranteed in event of blackout.*
- *Self Adapting jaws part.*
- *Long life Brushless motor (Brushless DC).*
- *Built-in motor driver.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Fiber-carbon gear reduction.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Rotary actuator fitting compatible.*
- *Optional magnetic sensors.*



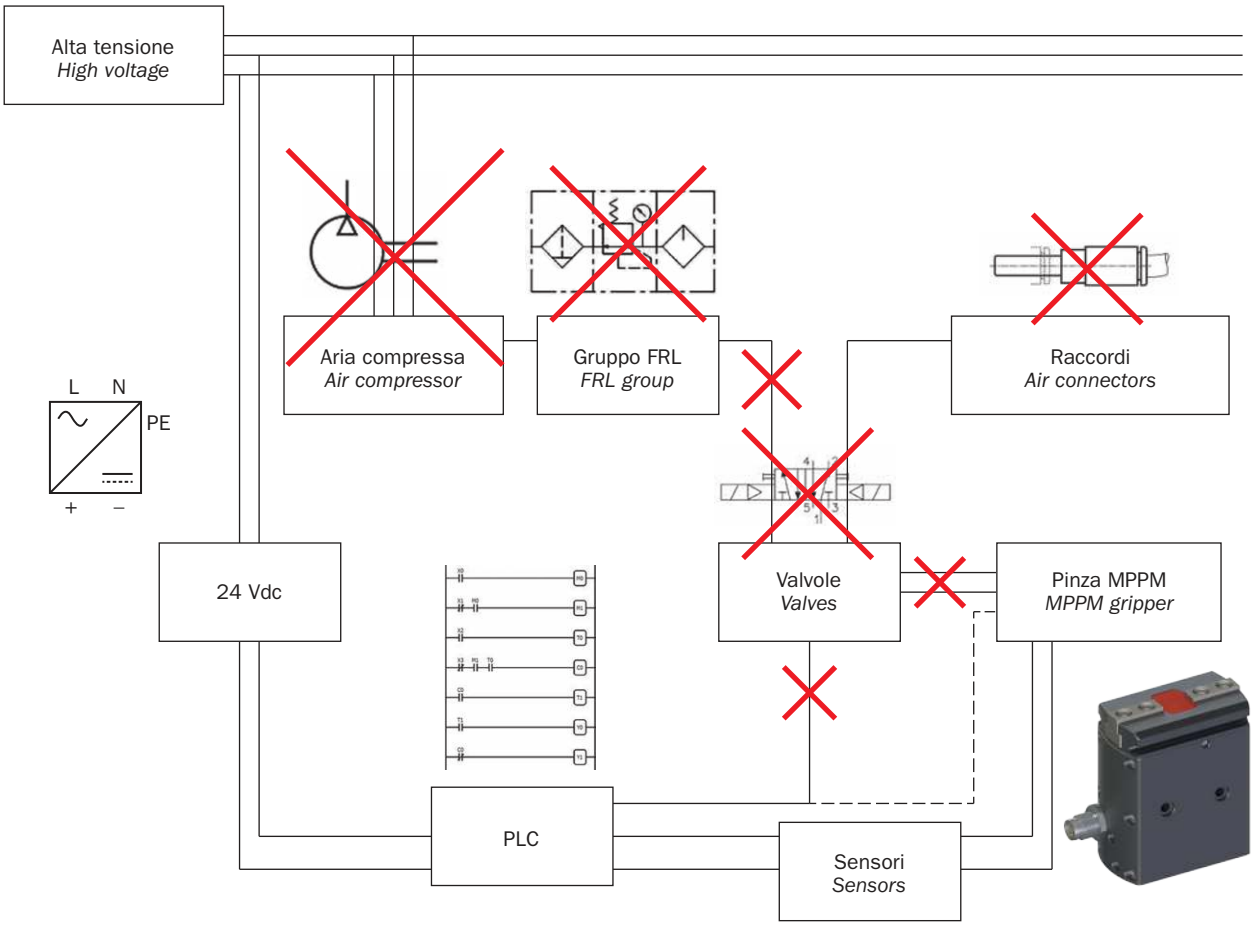
MPPM1606



MPPM2508



MPPM3210

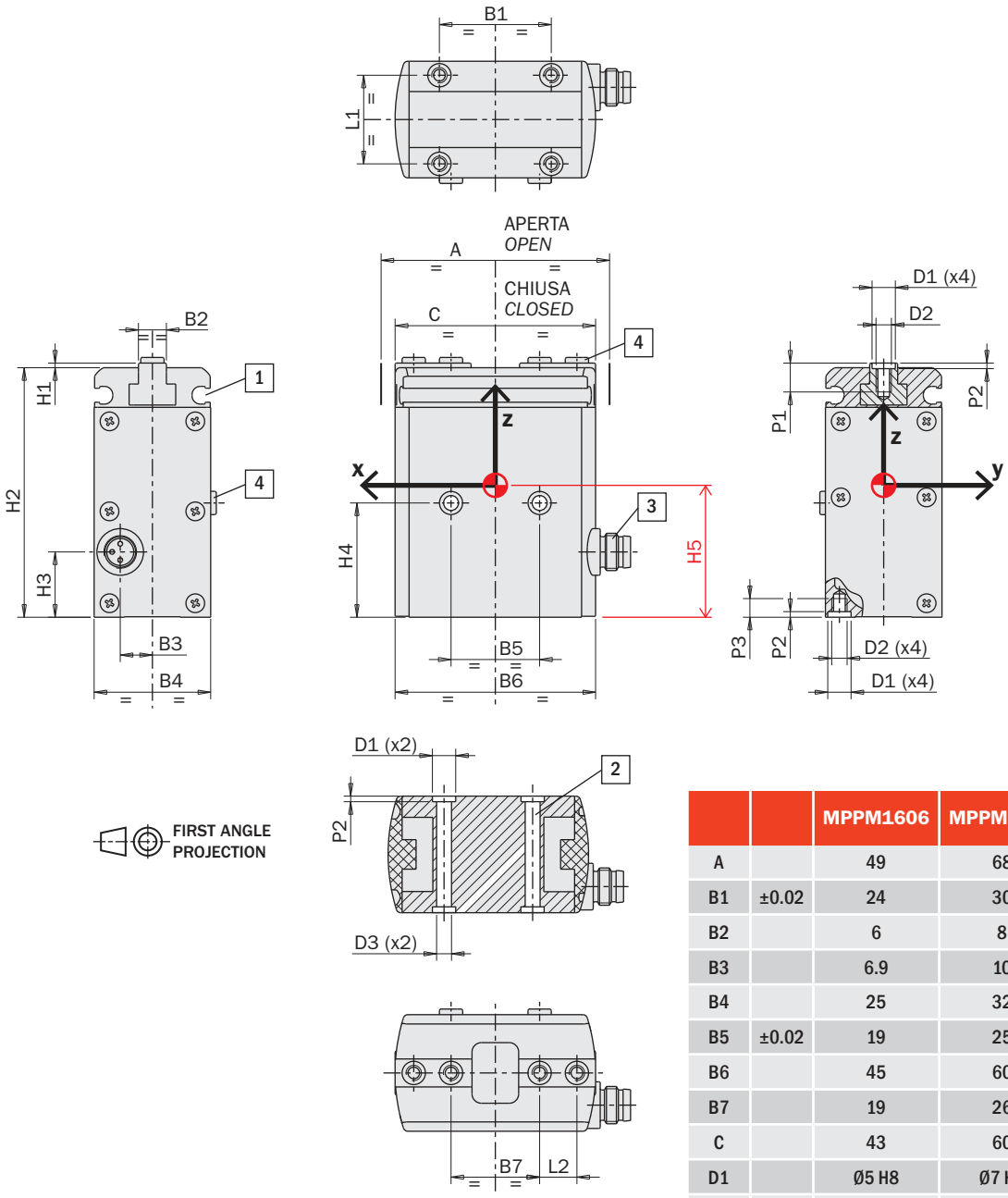






	MPPM1606	MPPM2508	MPPM3210
Forza di serraggio totale *Total gripping force*	67 N	125 N	245 N
Corsa *Stroke*	2x3 mm	2x4 mm	2x5 mm
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	1 Hz	0.91 Hz	0.91 Hz
Tempo chiusura griffe *Jaw closing time*	0.08 s	0.121 s	0.15 s
Tempo di lavoro pinza *Working gripper time*	0.21 s	0.3 s	0.27 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	43%	55%	50%
Tensione d'alimentazione *Power supply*	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco *Peak current*	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale *Nominal current*	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless *Brushless motor power*	6 W	11 W	23 W
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*		
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*		
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione *Environmntal Degree*	IP54	IP54	IP54
Rumorosità *Noise level*	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) *Mass (motor included)*	145 g	330 g	525 g
Certificazione Camera Bianca ISO14644-1 *ISO14644-1 Clean Room Certification*	CLASS 4	-	-
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale Jxx *Barycentric moment of inertia*	0.42 kgcm²	1.68 kgcm²	3.4 kgcm²
Momento d'inerzia baricentrale Jyy *Barycentric moment of inertia*	0.54 kgcm²	2.22 kgcm²	4.83 kgcm²
Momento d'inerzia baricentrale Jzz *Barycentric moment of inertia*	0.25 kgcm²	1.03 kgcm²	2.33 kgcm²
Tecnologia e opzioni *Technology and options*	Pagina 554 - 555 *Page 554 - 555*		

Dimensioni (mm)
Dimensions (mm)



		MPPM1606	MPPM2508	MPPM3210
A		49	68	83
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		25	32	35
B5	±0.02	19	25	30
B6		45	60	73
B7		19	26	32
C		43	60	73
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		1	1	1
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.5	42.6	48.4
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8

1 Cava per sensore magnetico
Magnetic sensor slot

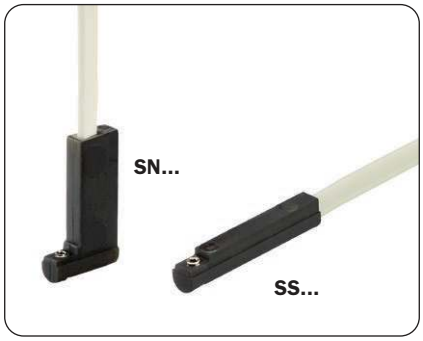
2 Foro passante per fissaggio pinza
Through hole for gripper fastening

3 Connessione elettrica
Electrical connection

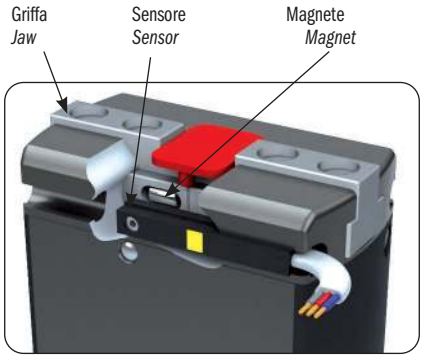
4 Boccole di centraggio
Centering sleeves

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Per i dettagli si veda la sezione "Accessori".



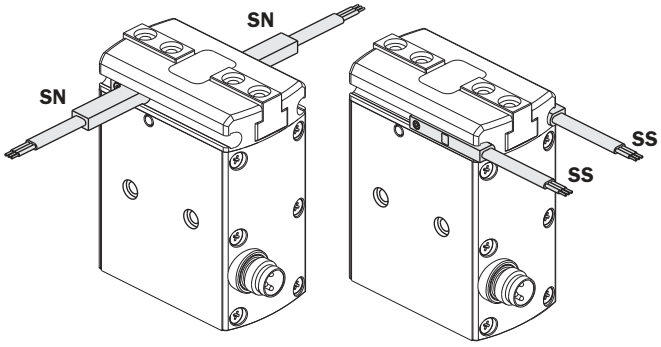
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



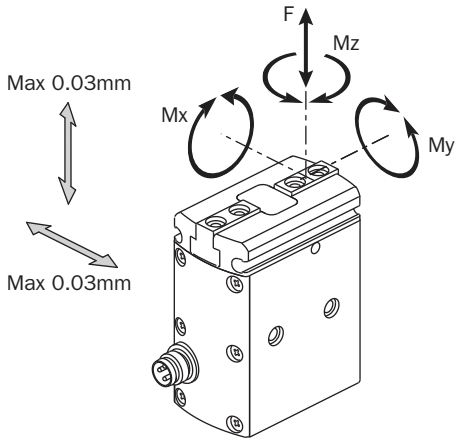
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPPM1606	MPPM2508	MPPM3210
F s	60 N	120 N	200 N
Mx s	3 Nm	8 Nm	20 Nm
My s	3 Nm	8 Nm	20 Nm
Mz s	3 Nm	8 Nm	20 Nm
F d	0.6 N	1.2 N	2 N
Mx d	3 Ncm	8 Ncm	20 Ncm
My d	3 Ncm	8 Ncm	20 Ncm
Mz d	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g



SS-GMP

Soluzione per manipolazione in camera bianca

Le pinze elettriche Gimatic possono operare in aree produttive ad elevato livello di pulizia e igiene mediante integrazione del KIT-GMP-G. L'uso di un adattatore consente di fissare la pinza elettrica ad un'interfaccia robot (non inclusa) e di proteggerne il funzionamento con una cover siliconica sterilizzabile.
Il fissaggio delle dita di presa (non incluse) è reso possibile mediante speciali viti igieniche in acciaio inossidabile.
Il sistema soddisfa i requisiti richiesti dalle massime classi di pulizia GMP (good manufacturing practice) di livello A e B.
Le principali caratteristiche sono:

- Adatto per pinza MPPM1606.
- Classi di pulizia GMP A e B.
- Cover realizzata in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatibile con procedura di pulizia con perossido di idrogeno (VHP-H2O2) e raggi ultravioletti UV.
- Grado di protezione del sistema completo IP65.
- Il Kit MPPM1606-KIT-GMP ha la Certificazione ISO14644-1 per camera bianca ISO 2, mentre la singola pinza MPPM1606 ha la certificazione ISO14644-1 per camera bianca ISO4.
- Viti igieniche in acciaio inossidabile (Novonox).
- Superficie trasparente che permette la lettura dei LED dei sensori interni o dei LED di stato dell'alimentazione.
- Superfici dal design igienico che prevengono l'accumulo di batteri.
- Semplice fissaggio delle dita di presa con sistema antirotazione.

Cleanroom Gripping Solution

Gimatic electric grippers can operate in environments characterised by a high standard of cleanliness and hygiene by integrating the KIT-GMP-G. An adapter enables fastening the electric gripper to a robot interface (not included) and protecting its operation by means of a sterilisable silicone cover. The gripping fingers (not included) can be fastened by means of special hygienic stainless steel screws. The systems meets the most stringent GMP (Good Manufacturing Practice) cleanliness standards for Grade A and B.
Its main characteristics are:

- *Suitable for gripper MPPM1606.*
- *Compliant with GMP Grade A and B cleanliness standards.*
- *Cover made in Silicone Silpuran®Wacker FDA 21 CFR §177.2600.*
- *Compatible with hydrogen peroxide (VHP-H2O2) and UV cleaning procedures.*
- *Complete system with IP65 protection rating.*
- *The MPPM1606-KIT-GMP kit is certified to ISO14644-1 for ISO 2 cleanrooms, while the single gripper MPPM1606 is certified to ISO14644-1 for ISO 4 cleanrooms.*
- *Stainless steel hygienic screws (Novonox).*
- *Transparent surface that enables reading the LEDs of the internal sensors and the power supply status LEDs.*
- *Hygienic design surfaces preventing the build-up of bacteria.*
- *Easy fastening of gripping fingers with anti-rotation system.*





MPPM1606-KIT-GMP
AIR CLEANING CLASS 2

Fraunhofer IPA TESTED® DEVICE
GIMATIC S.r.l.
MPPM1606-KIT-GMP
Report No. GI 2003-1164

MPPM1606
AIR CLEANING CLASS 4

Fraunhofer IPA TESTED® DEVICE
GIMATIC S.r.l.
Parallel gripper MPPM1606
Report No. GI 2003-1164

IP65
ENVIRONMENT DEGREE

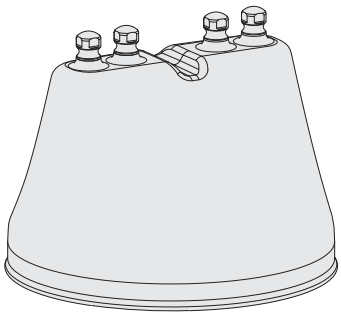
H_2O_2
CLEANING PROCEDURE

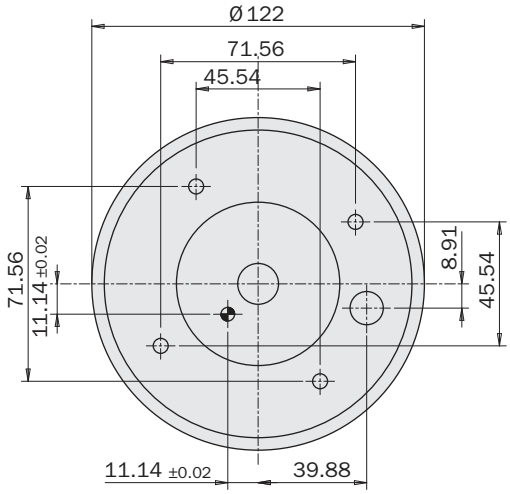
EMC / CE

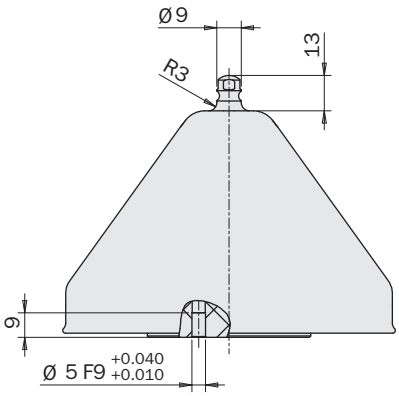


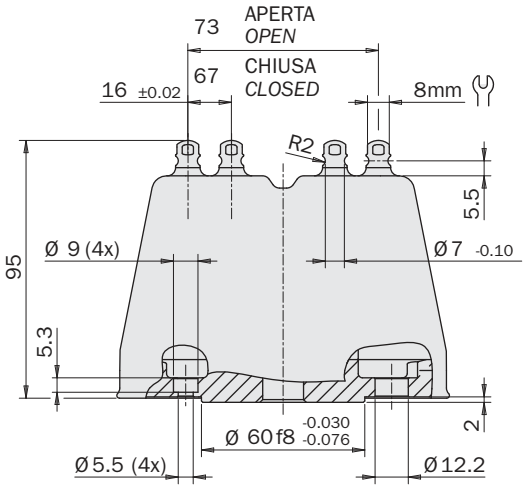
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION

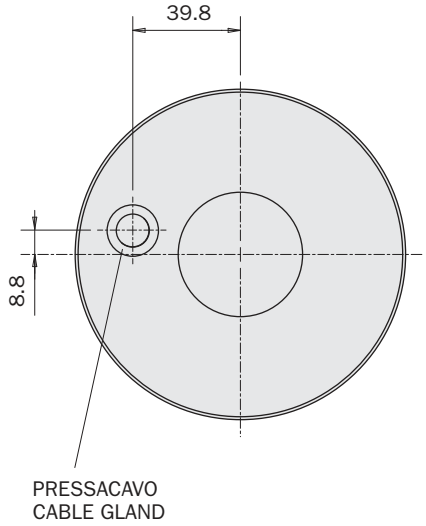


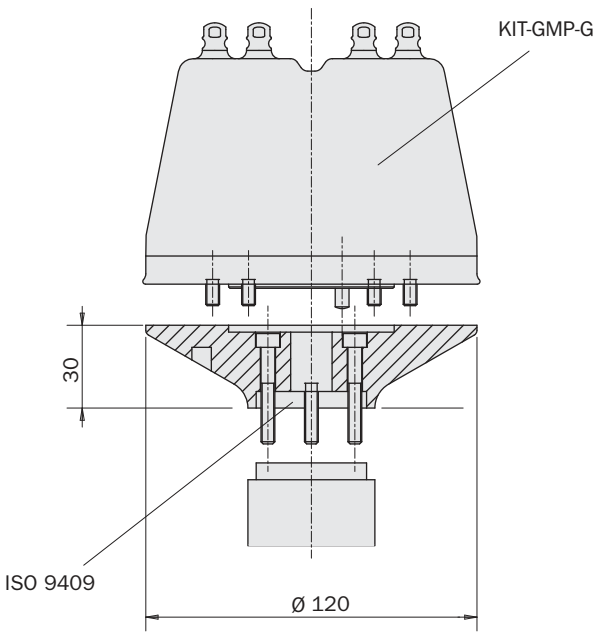




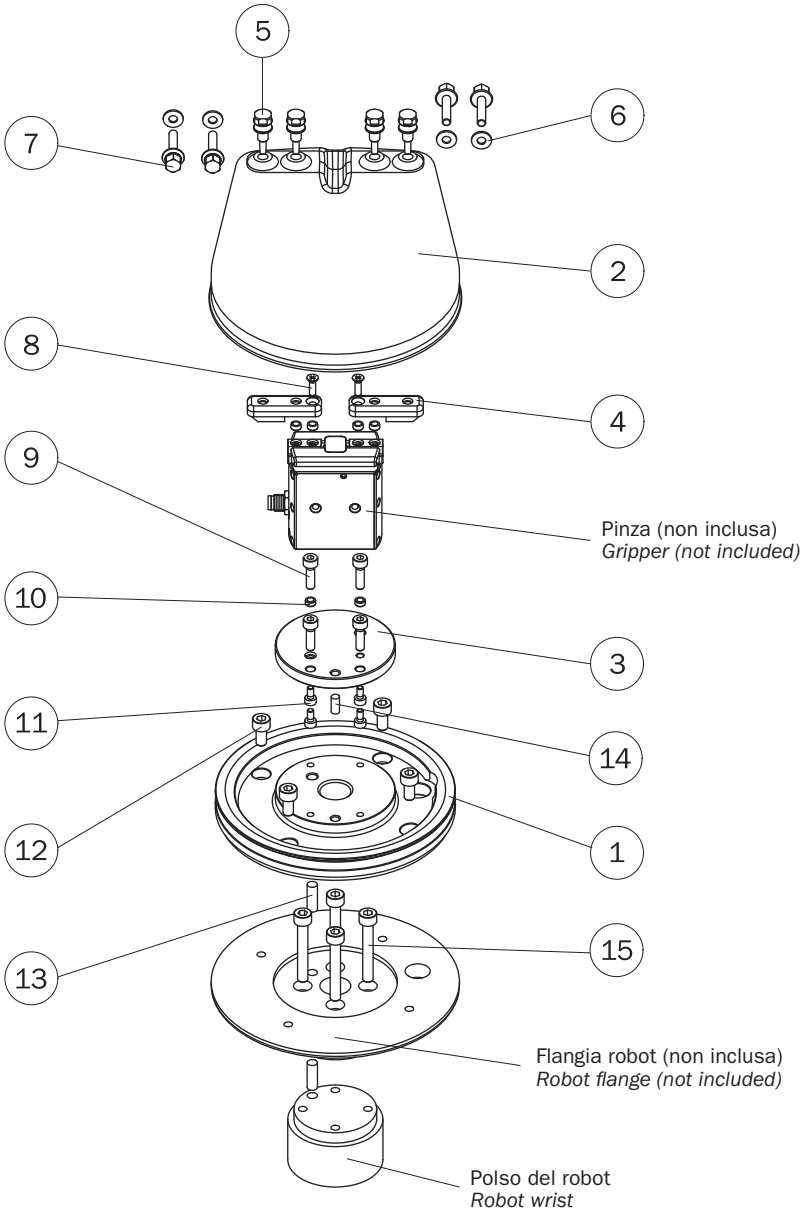


Esempio di applicazione
Application example





Elenco delle parti
Part list



Parti incluse
Included parts

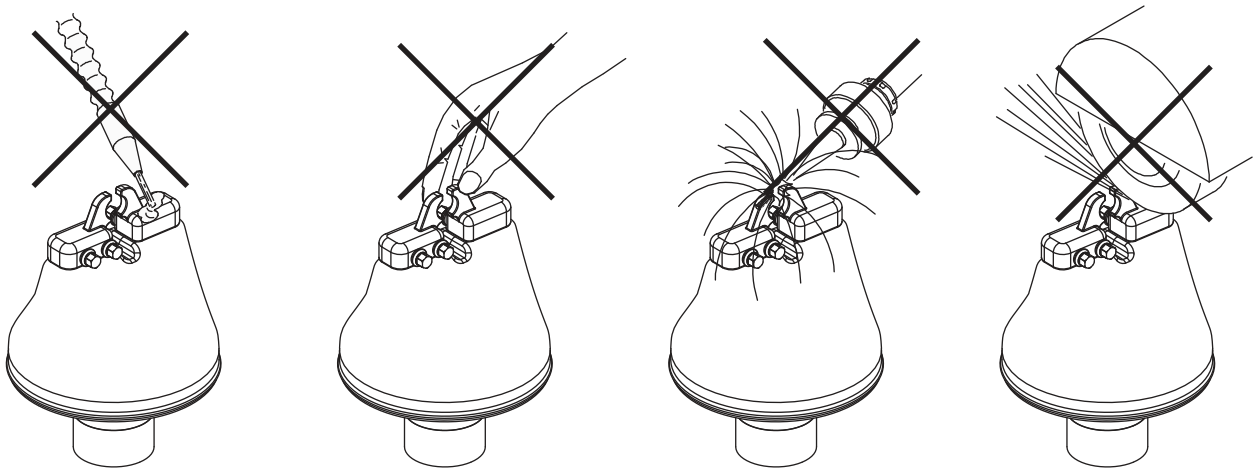
1	Interfaccia robot	1	1 x 142 g	*Robot interface*	*1*
2	Cover	1	1 x 86 g	*Cover*	*2*
3	Interfaccia pinza	1	1 x 41 g	*Gripper interface*	*3*
4	Griffe interne	2	2 x 6.2 g	*Internal jaws*	*4*
5	Spina	4	4 x 5.3 g	*Pin*	*5*
6	Rondella igenica 4.1x9.7 (Novonox)	4	4 x 0.1 g	*Hygienic sealing 4.1x9.7 (Novonox)*	*6*
7	Vite lucidata a testa esagonale M4x20 (Novonox)	4	4 x 5.0 g	*Hex head screw polished M4x20 (Novonox)*	*7*
8	Vite testa svasata taglio a croce M3x10 A4	2	2 x 0.5 g	*Cross recessed flat countersunk head M3x10 A4*	*8*
9	Vite testa cilindrica esagono incassato M4x14 A4	4	4 x 1.8 g	*Hex socket head cap screw M4x14 A4*	*9*
10	Boccole di centraggio Ø5x3.2x2.4	6	6 x 0.3 g	*Centering Sleeve Ø5x3.2x2.4*	*10*
11	Vite testa cilindrica esagono incassato M3x6 A4	4	4 x 0.8 g	*Hex socket head cap screw M3x6 A4*	*11*
12	Vite testa cilindrica esagono incassato M5x10 A4	4	4 x 2.9 g	*Hex socket head cap screw M5x10 A4*	*12*
13	Spina di centraggio Ø5x16 (m6)	1	2 x 1.7 g	*Dowel pin Ø5x16 (m6)*	*13*
14	Spina di centraggio Ø4x10 (m6)	1	1 x 1.5 g	*Dowel pin Ø4x10 (m6)*	*14*
15	Vite testa cilindrica esagono incassato M5x35 A4	4	4 x 6.2 g	*Hex socket head cap screw M5x35 A4*	*15*

Avvertenze

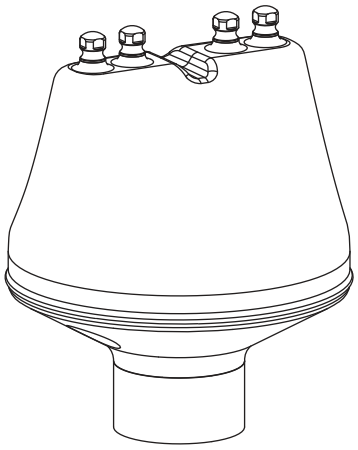
- Non mettere il prodotto in posti dove potrebbe entrare in contatto con corpi estranei, materiali simili a olii, oppure in atmosfere con gas corrosivi, infiammbaili, ne vicino ad altrettanti materiali infiammabili.
- Non installare il prodotto vicino ad elementi riscaldanti.
- Non eseguire il cablaggio ne utilizzare il prodotto con le mani bagnate.
- Non spostare il prodotto tramite il cavo.
- Non forzare il movimento delle griffe manualmente.

Caution

- *Do not place the product in place where it may come in contact with foreign matter such as oil nor in an atmosphere of corrosive gas or flammable gases nor in place near inflammable material.*
- *Do not install the product near heating element.*
- *Do not perform wiring nor operate the product with wet hand.*
- *Do not transfer the product by holding only the cable.*
- *Do not attempt to force gripper jaws' movement by hand.*







Marcatura CE

Il sistema è conforme con:

CE Marking reference

The system is in conformance with:

Directive 2004/108/CE, EN 62233 (2008-04), EN 61000-6-2+EC+IS1 (2005-08; 2005-09; 2005-11), EN 61000-6-3+A1 (2007-01; 2011-03), EN 61000-6-4 (2007-01), EN 55016-2-1+A1 (2004-10; 2005-08), EN 55016-2-3 (2006-12), EN 61000-4-2 (2009-03), EN 61000-4-3+A1+IS1+A2 (2006-05; 2008-02; 2009-02; 2010-07), EN 61000-4-4+A1 (2004-12; 2010-03), EN 61000-4-5 (2006-11), EN 61000-4-6+A1+IS1 (1996-07; 2001-12; 2004-07), EN 61000-4-6 (2009-03), CEI EN 60529 (1997-06).

Certificazioni IPA

Il sistema è dichiarato adatto per l'uso in camera bianca dall'istituto Fraunhofer, come indicato nella relazione N° GI1410-728.

IPA Certification reference

The system has been declared suitable for use in hygienic areas by Fraunhofer IPA Institute as stated in report No. GI 1410-728.

MPXM

Pinza elettrica parallela 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Corsa extra.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw parallel self-centering electric gripper

- *Plug & play user friendly gripper.*
- *No electricity consumption when gripper is engaged.*
- *No programming required.*
- *Gripper retention guaranteed in event of blackout.*
- *Self Adapting jaws part.*
- *Extra stroke.*
- *Long life Brushless motor (Brushless DC).*
- *Built-in motor driver.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Fiber-carbon gear reduction.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Rotary actuator fitting compatible.*
- *Optional magnetic sensors.*



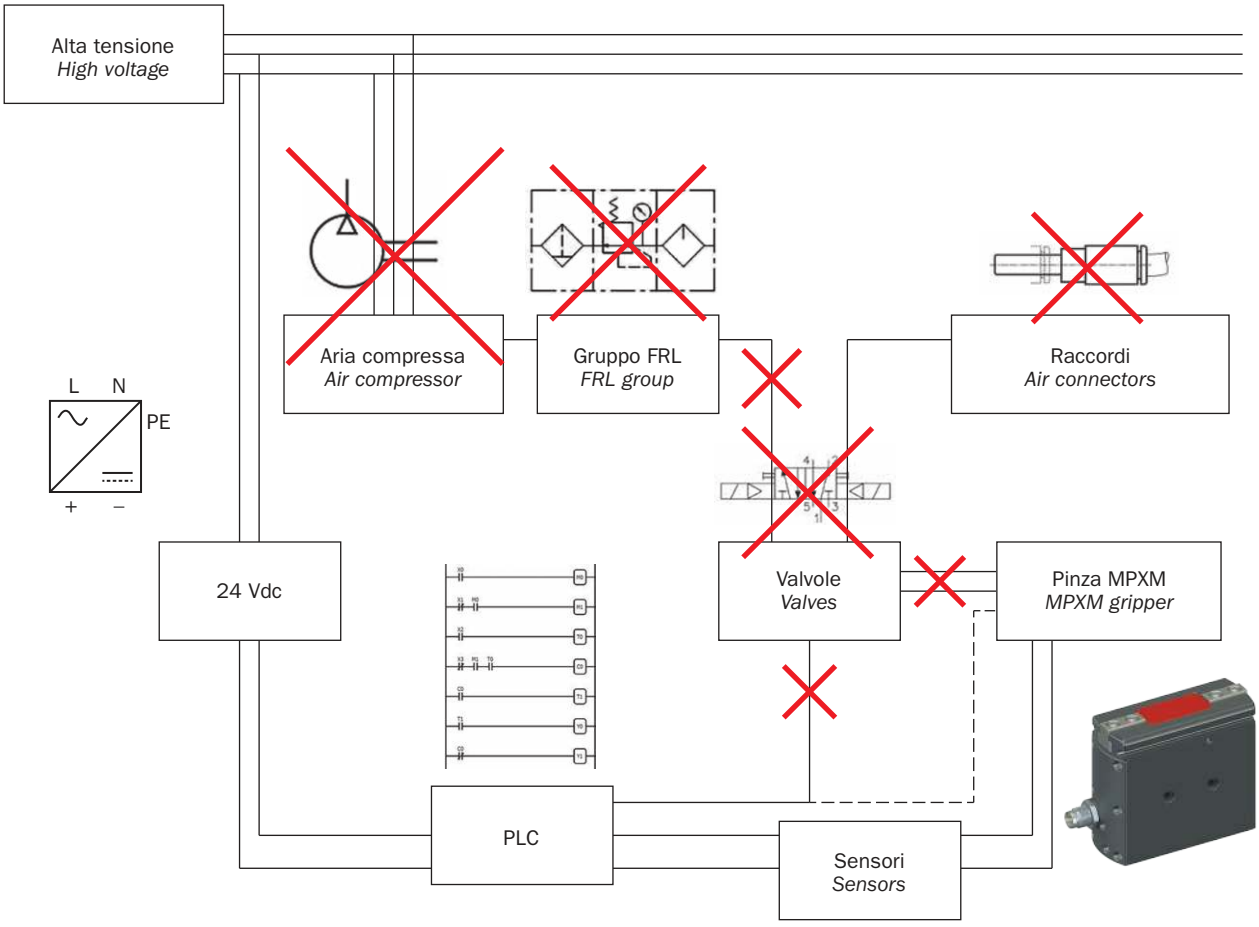
MPXM1612



MPXM2516



MPXM3220

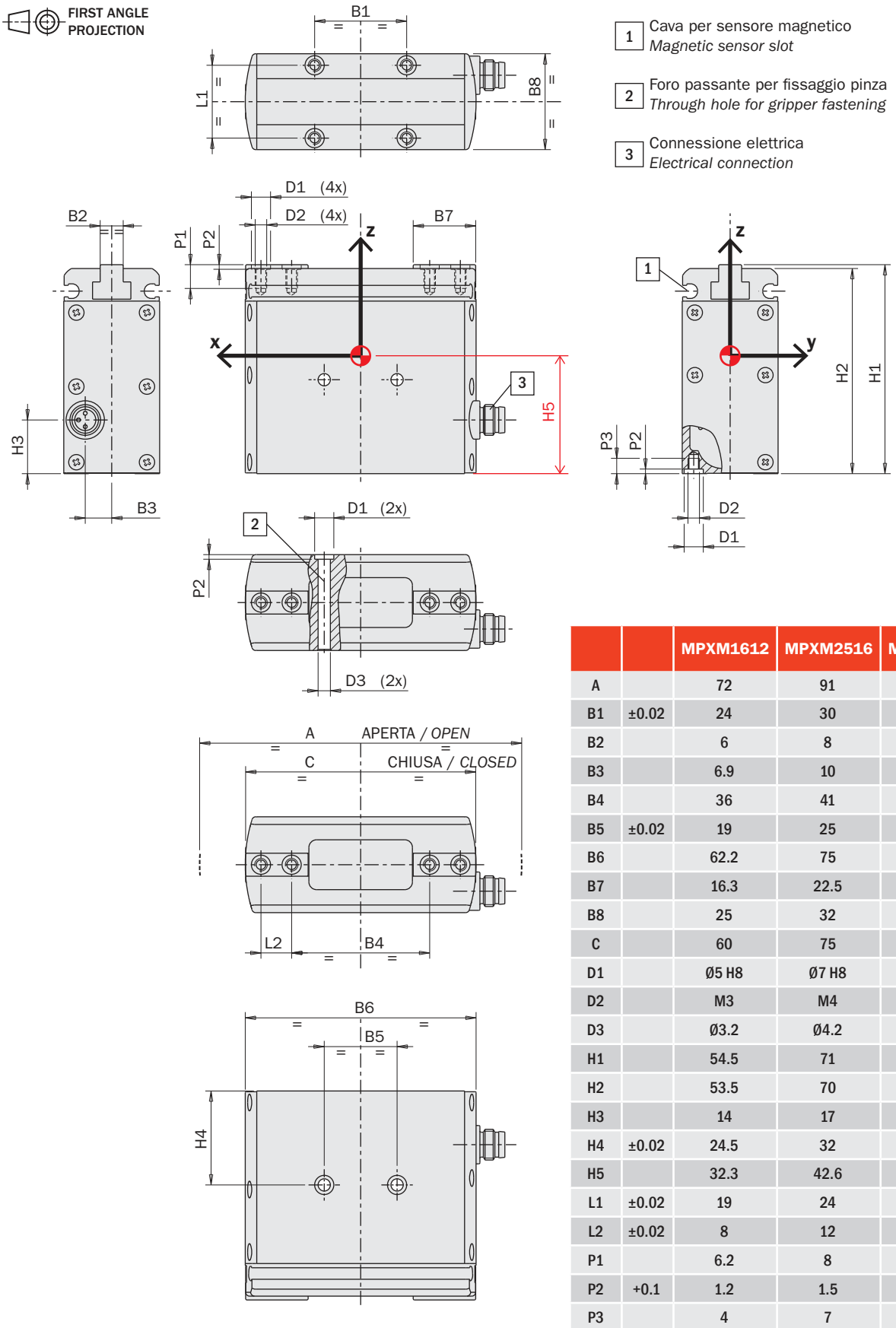






	MPXM1612	MPXM2516	MPXM3220
Forza di serraggio totale *Total gripping force*	68 N	95 N	215 N
Corsa *Stroke*	2x6 mm (±2°)	2x8 mm (±2°)	2x10 mm (±2°)
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	0.75 Hz	1.2 Hz	0.85 Hz
Tempo chiusura griffe *Jaw closing time*	0.21 s	0.19 s	0.23 s
Tempo di lavoro pinza *Working gripper time*	0.3 s	0.28 s	0.3 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	45%	68%	51%
Tensione d'alimentazione *Power supply*	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco *Peak current*	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale *Nominal current*	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless *Brushless motor power*	6 W	11 W	23 W
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*		
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*		
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione *Environmental Degree*	IP54	IP54	IP54
Rumorosità *Noise level*	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) *Mass (motor included)*	184 g	390 g	604 g
Certificazione Camera Bianca IPA *IPA Clean Room Certification*	-	-	-
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale Jxx *Barycentric moment of inertia*	0.55 kgcm²	2.02 kgcm²	3.99 kgcm²
Momento d'inerzia baricentrale Jyy *Barycentric moment of inertia*	0.93 kgcm²	3.18 kgcm²	6.69 kgcm²
Momento d'inerzia baricentrale Jzz *Barycentric moment of inertia*	0.55 kgcm²	1.76 kgcm²	3.78 kgcm²
Tecnologia e opzioni *Technology and options*	Pagina 562 - 563 *Page 562 - 563*		

Dimensioni (mm)
Dimensions (mm)



1 Cava per sensore magnetico
Magnetic sensor slot

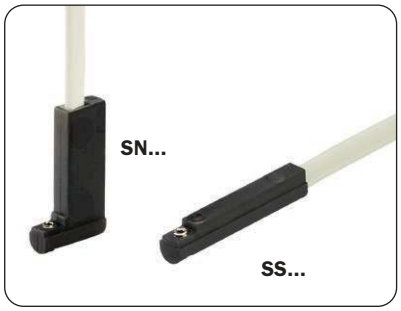
2 Foro passante per fissaggio pinza
Through hole for gripper fastening

3 Connessione elettrica
Electrical connection

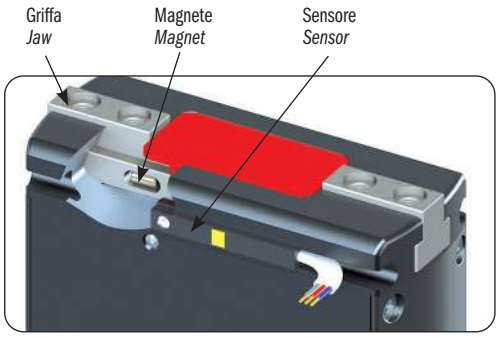
		MPXM1612	MPXM2516	MPXM3220
A		72	91	109
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		36	41	48
B5	±0.02	19	25	30
B6		62.2	75	89
B7		16.3	22.5	28
B8		25	32	35
C		60	75	89
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		54.5	71	81
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.3	42.6	48.4
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	7	8

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Per i dettagli si veda la sezione "Accessori".



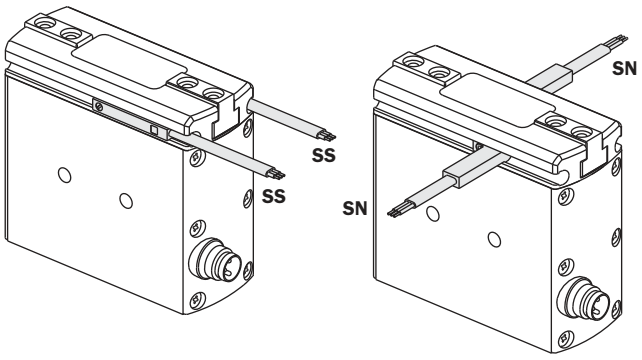
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



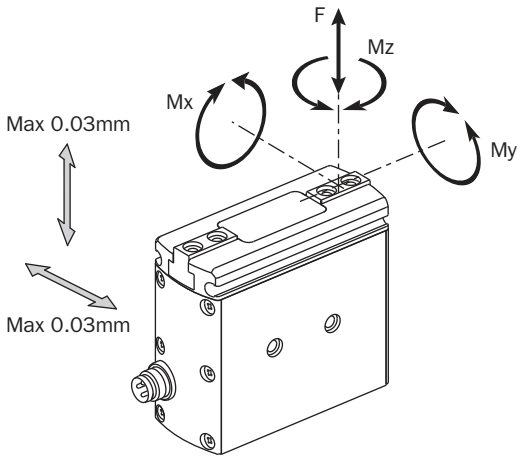
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPXM1612	MPXM2516	MPXM3220
F s	60 N	120 N	200 N
Mx s	3 Nm	8 Nm	20 Nm
My s	3 Nm	8 Nm	20 Nm
Mz s	3 Nm	8 Nm	20 Nm
F d	0.6 N	1.2 N	2 N
Mx d	3 Ncm	8 Ncm	20 Ncm
My d	3 Ncm	8 Ncm	20 Ncm
Mz d	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g



MPLM

Pinza elettrica parallela corsa lunga 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

Self-centering 2-jaw electric parallel gripper with long stroke

- *Plug & play user friendly gripper.*
- *No electricity consumption when gripper is engaged.*
- *No programming required.*
- *Gripper retention guaranteed in event of blackout.*
- *Self Adapting jaws part.*
- *Long life Brushless motor (Brushless DC).*
- *Built-in motor driver.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Fiber-carbon gear reduction.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Rotary actuator fitting compatible.*
- *Optional magnetic sensors.*



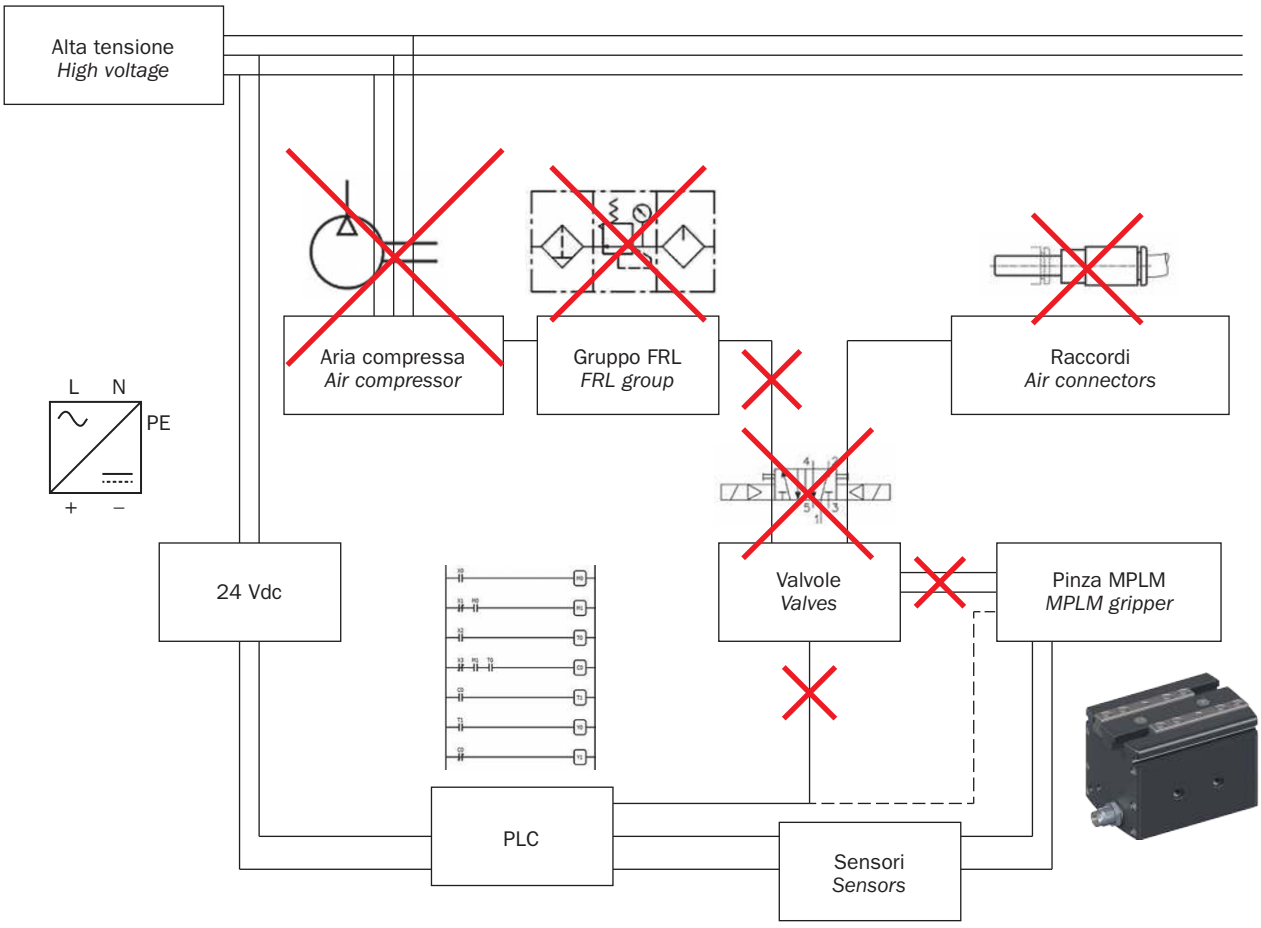
MPLM1630



MPLM2535



MPLM3240





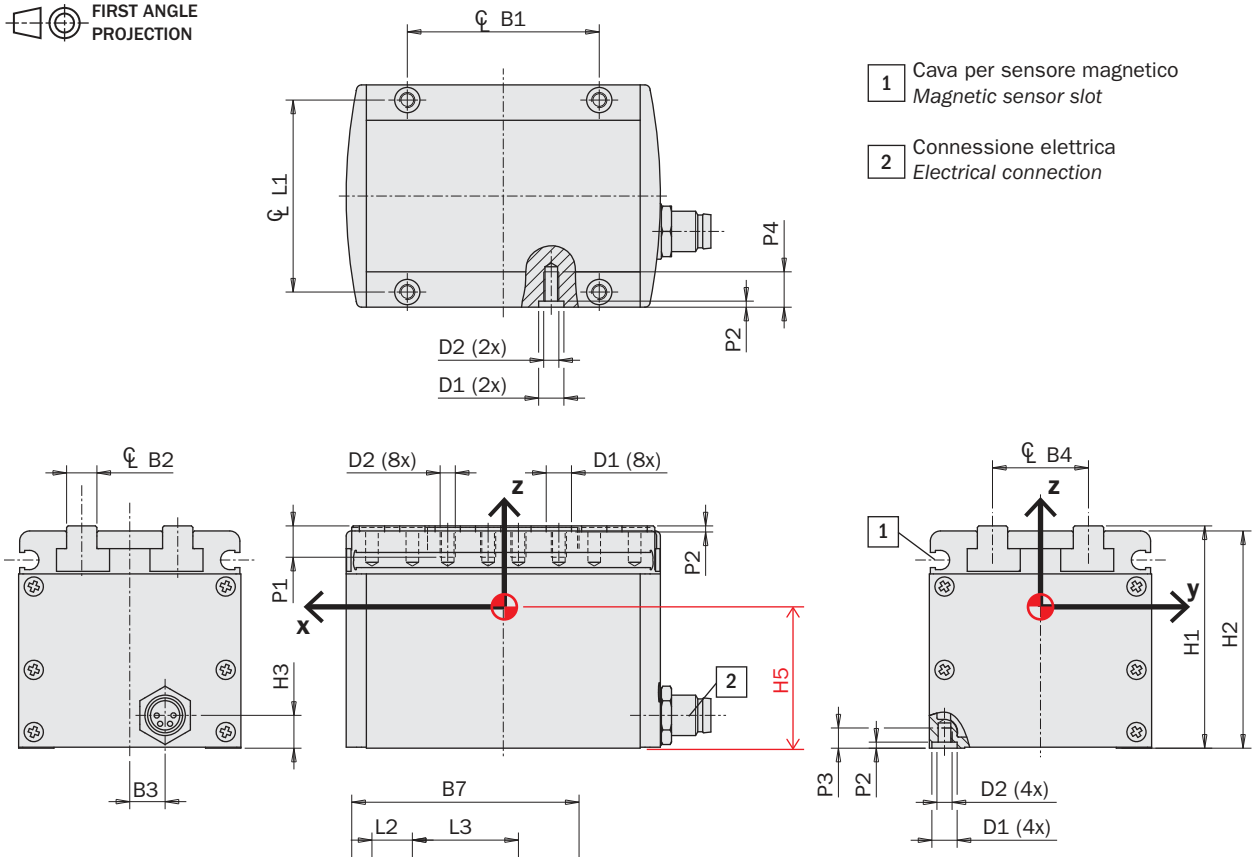




	MPLM1630	MPLM2535	MPLM3240
Forza di serraggio totale *Total gripping force*	63 N	98 N	210 N
Corsa *Stroke (±0.3 mm)*	2x15 mm	2x17.5 mm	2x20 mm
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	0.51 Hz	0.93 Hz	0.70 Hz
Tempo chiusura griffe *Jaw closing time*	0.37 s	0.42 s	0.50 s
Tempo di lavoro pinza *Working gripper time*	0.52 s	0.53 s	0.53 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	54%	100%	74%
Tensione d'alimentazione *Power supply*	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco *Peak current*	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale *Nominal current*	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless *Brushless motor power*	6 W	11 W	23 W
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*		
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*		
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione *Environmntal Degree*	IP54	IP54	IP54
Rumorosità *Noise level*	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) *Mass (motor included)*	263 g	500 g	844 g
Certificazione Camera Bianca IPA *IPA Clean Room Certification*	-	-	-
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale Jxx *Barycentric moment of inertia*	0.82 kgcm²	2.32 kgcm²	5.1 kgcm²
Momento d'inerzia baricentrale Jyy *Barycentric moment of inertia*	1.07 kgcm²	3.03 kgcm²	6.97 kgcm²
Momento d'inerzia baricentrale Jzz *Barycentric moment of inertia*	0.98 kgcm²	2.96 kgcm²	6.79 kgcm²
Tecnologia e opzioni *Technology and options*	Pagina 562 - 563 *Page 562 - 563*		

Dimensioni (mm)
Dimensions (mm)

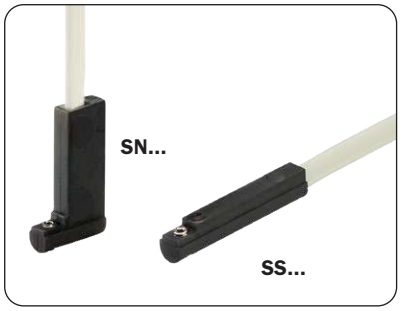
FIRST ANGLE PROJECTION



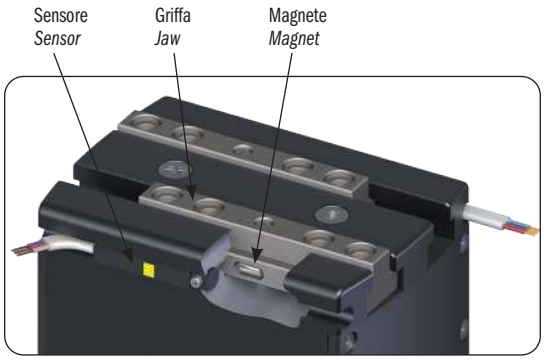
		MPLM1630	MPLM2535	MPLM3240
A		60	74	88
B1	±0.02	38	45	54
B2		6	8	9
B3		7	17	15
B4		19	23	28
B5	±0.02	19	25	30
B6		62.2	77	91
B7		45	56.5	68
B8		4	5	6.5
B9		44	54	62
C		30	39	48
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
H1		44	54	62
H2		43	53	61
H3		6.5	11.7	9.5
H4	±0.02	17	19.5	23
H5		26.6	32.2	36.7
L1	±0.02	38	45	54
L2	±0.02	8	12	14
L3		21	22.5	27
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8
P4		7	6	14

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Per i dettagli si veda la sezione "Accessori".



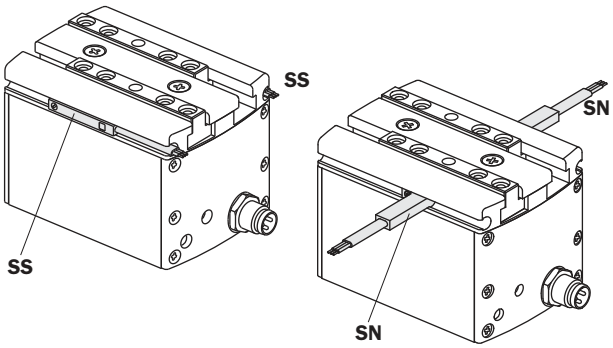
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



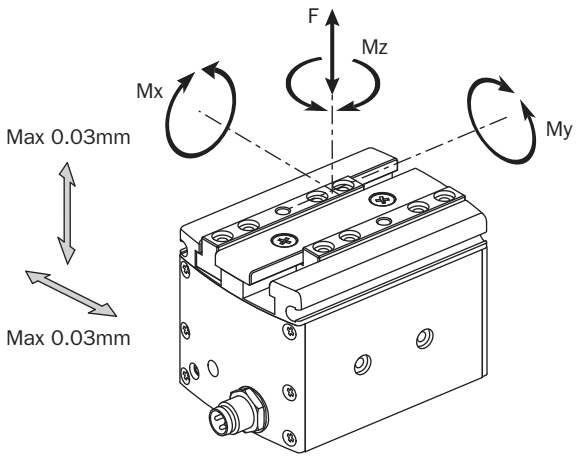
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPLM1630	MPLM2535	MPLM3240
F s	60 N	120 N	180 N
Mx s	3 Nm	8 Nm	20 Nm
My s	3 Nm	8 Nm	20 Nm
Mz s	3 Nm	8 Nm	20 Nm
F d	0.6 N	1.2 N	2 N
Mx d	3 Ncm	8 Ncm	20 Ncm
My d	3 Ncm	8 Ncm	20 Ncm
Mz d	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g



LS-GMP

Soluzione per manipolazione in camera bianca

Le pinze elettriche Gimatic possono operare in aree produttive ad elevato livello di pulizia e igiene mediante integrazione del KIT-GMPLM3240. L'uso di un adattatore consente di fissare la pinza elettrica ad un'interfaccia robot (non inclusa) e di proteggerne il funzionamento con una cover siliconica sterilizzabile.
Il fissaggio delle dita di presa (non incluse) è reso possibile mediante speciali viti igieniche in acciaio inossidabile.
Il sistema soddisfa i requisiti richiesti dalle massime classi di pulizia GMP (good manufacturing practice) di livello A e B.
Le principali caratteristiche sono:

- Adatto per pinze MPLM3240 (1), MPLF3270 (2) e MPCF3270 (3).
- Classi di pulizia GMP A e B.
- Cover realizzata in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatibile con procedura di pulizia con perossido di idrogeno (VHP-H^2O^2) e raggi ultravioletti UV.
- Grado di protezione del sistema completo IP65.
- Certificazione ISO14644-1 per camera bianca.
- Viti igieniche in acciaio inossidabile (Novonox).
- Superficie trasparente che permette la lettura dei LED dei sensori interni o dei LED di stato dell'alimentazione.
- Superfici dal design igienico che prevengono l'accumulo di batteri.
- Semplice fissaggio delle dita di presa con sistema antirotazione.

Cleanroom Gripping Solution

*Gimatic electric grippers can operate in environments characterised by a high standard of cleanliness and hygiene by integrating the KIT-*GMPLM3240. *An adapter enables fastening the electric gripper to a robot interface (not included) and protecting its operation by means of a sterilisable silicone cover. The gripping fingers (not included) can be fastened by means of special hygienic stainless steel screws. The systems meets the most stringent GMP (Good Manufacturing Practice) cleanliness standards for Grade A and B.*
Its main characteristics are:

- *Suitable for the MPLM3240 (1), MPLF3270 (2) and MPCF3270 (3) grippers.*
- *Compliant with GMP Grade A and B cleanliness standards.*
- *Cover made in Silicone Silpuran®Wacker FDA 21 CFR §177.2600.*
- *Compatible with hydrogen peroxide (VHP-H_2O_2) and UV cleaning procedures.*
- *Complete system with IP65 protection rating.*
- *ISO14644-1 certification for cleanrooms.*
- *Stainless steel hygienic screws (Novonox).*
- *Transparent surface that enables reading the LEDs of the internal sensors and the power supply status LEDs.*
- *Hygienic design surfaces preventing the build-up of bacteria.*
- *Easy fastening of gripping fingers with anti-rotation system.*







KIT-GMPLM3240

(1)



MPLM3240 + **MPLM32-KIT-02**

(2)



MPLF3270 + **MPLF-KIT-02**

(3)



MPCF3270 + **MPCF-KIT-01**

Fraunhofer IPA TESTED DEVICE
Gimatic S.R.L. KIT-GMPLM3240 Report No. GI 2404-1518

Fraunhofer IPA TESTED DEVICE
GIMATIC S.r.l. MPM1606-KIT-GMP Report No. GI 2003-1164

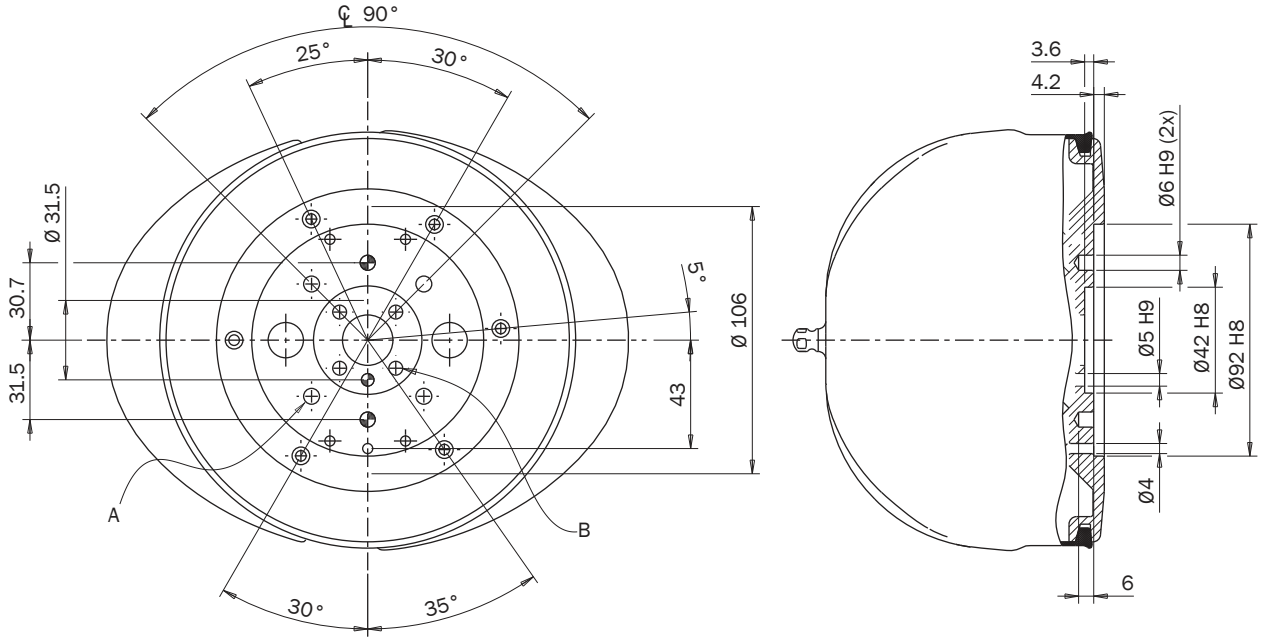
IP65
ENVIRONMENT DEGREE

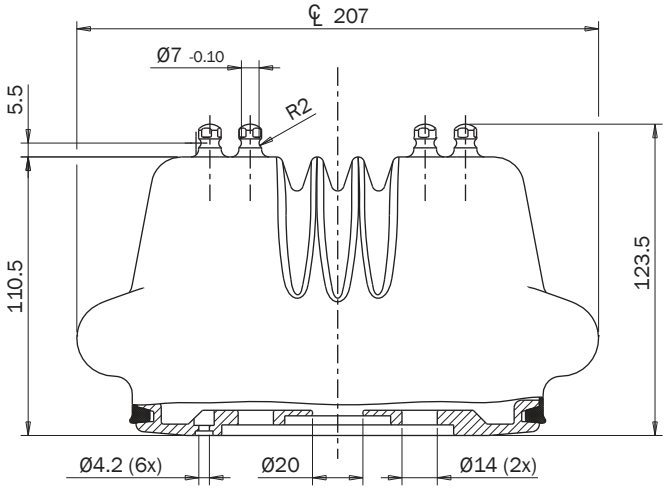
H_2O_2
CLEANING PROCEDURE

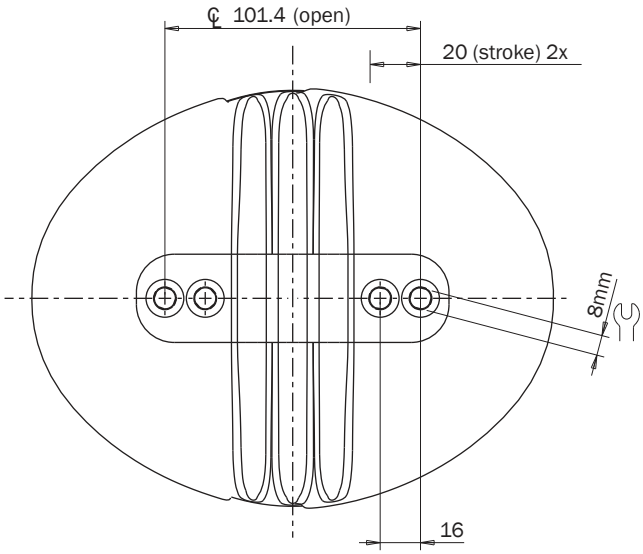
EMC / CE

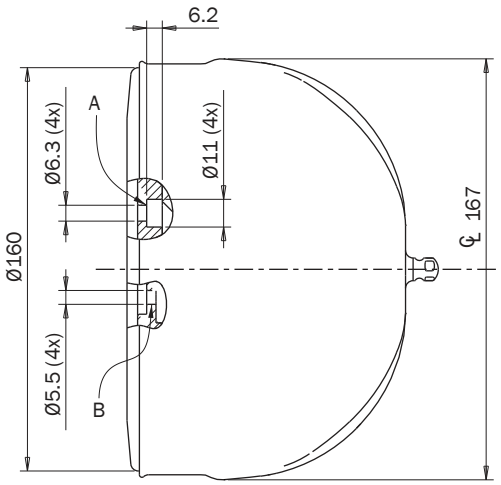
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION







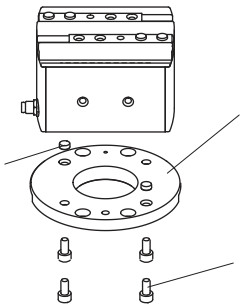


Assemblaggio
Assembly

- Montare la pinza (non inclusa nel KIT-GMPLM3240) sulla piastra di interfaccia della pinza utilizzando le viti a testa cilindrica con esagono incassato e le boccole di centraggio incluse nel kit, formando così il sottosistema pinza.

- *Mount the gripper (not included in the KIT-GMPLM3240 box) onto the gripper interface using the hex socket head cap screws and the centering sleeves included in the box and forming the gripper subsystem.*

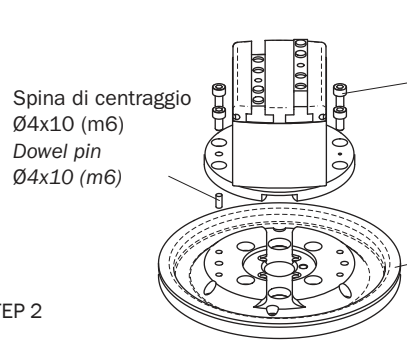
STEP 1



- Connettere il connettore M8 femmina alla pinza ed eventualmente guidare il cavo attraverso il foro al centro della piastra di interfaccia della pinza (a seconda dell'applicazione e della messa in funzione del robot).
- Fissare il sottosistema pinza sulla piastra di interfaccia del robot utilizzando le viti e spine di centraggio, formando così il sotto assieme pinza.
- Coppia di serraggio applicabile alle viti = 1.5 Nm.

- *Connect the female M8 connector to the gripper and eventually drive the cable below the gripper interface along the central groove of the robot interface (depending on the application constraint and commissioning of the robot).*
- *Fix gripper subsystem onto the robot interface using the screws and the centering pin forming the gripper subassembly.*
- *Maximum clamping torque of the screws = 1.5 Nm.*

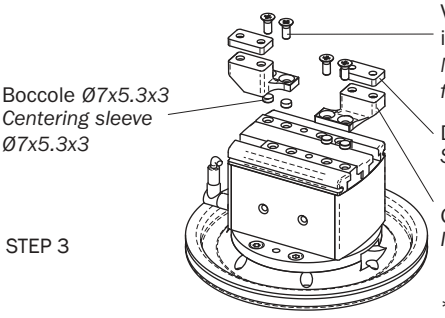
STEP 2



- Fissare le griffe interne e i distanziali utilizzando le viti a testa piana con intaglio a croce e le boccole di centraggio incluse nel kit.

- *Fix the internal jaws and the spacers using the cross recessed countersunk head screws and the centering sleeves included in the box.*

STEP 3

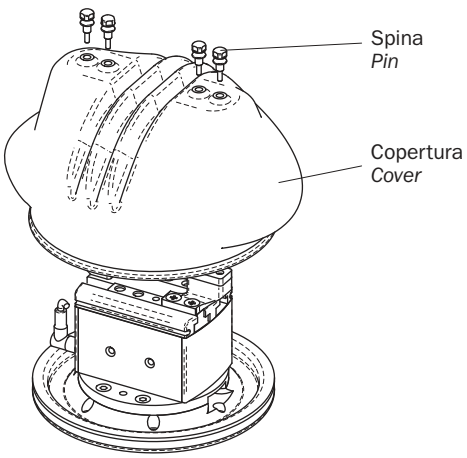


*Non inclusi nel kit
Not included in the kit

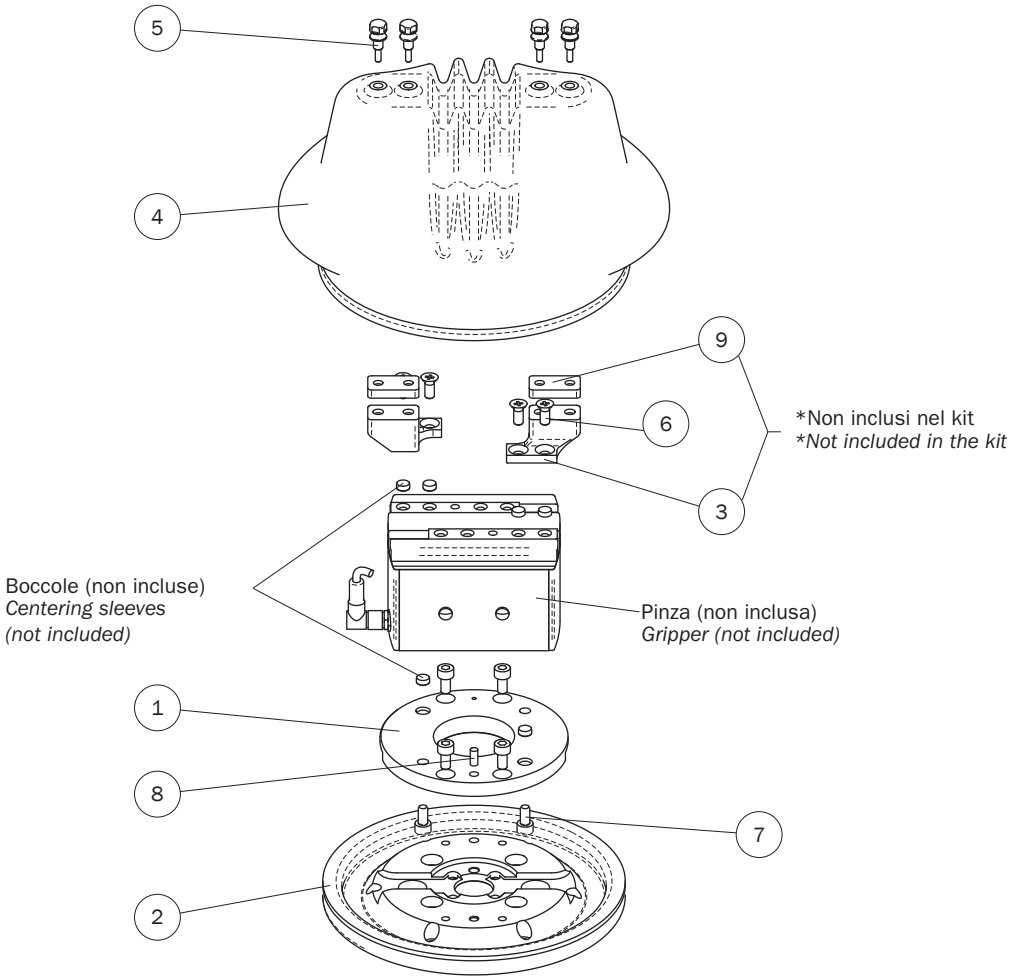
- Infine, installare la cover di silicone e i pin esterni. Prestare attenzione che la cover di silicone sia correttamente inserita in ogni punto nella cava circolare della interfaccia del robot.

- *Finally, install the silicon cover and the external pins. Pay attention the silicon cover is correctly in place inside the circular groove of the robot interface all around the part.*

STEP 4



Elenco delle parti
Part list



Parti incluse
Included parts

1	Interfaccia pinza	1	120 g	*Gripper interface*	*1*
2	Interfaccia robot	1	400 g	*Robot interface*	*2*
4	Cover	1	152 g	*Cover*	*4*
5	Spina	4	5.3 g	*Pin*	*5*
6	Vite testa piana M5x12 inox a2	4	2 g	*Cross recessed flat countersunk head M5x12 inox a2*	*6*
7	Vite testa cilindrica esagono incassato M5x10 inox a2	8	2.9 g	*Hex socket head cap M5x10 inox a2*	*7*
8	Spina di centraggio ø4x10 (m6)	1	1.5 g	*Dowel pin ø4x10 (m6)*	*8*

Marcatura CE

Il sistema è conforme con:

CE Marking reference

The system is in conformance with:

Directive 2004/108/CE, EN 62233 (2008-04), EN 61000-6-2+EC+IS1 (2005-08; 2005-09; 2005-11), EN 61000-6-3+A1 (2007-01; 2011-03), EN 61000-6-4 (2007-01), EN 55016-2-1+A1 (2004-10; 2005-08), EN 55016-2-3 (2006-12), EN 61000-4-2 (2009-03), EN 61000-4-3+A1+IS1+A2 (2006-05; 2008-02; 2009-02; 2010-07), EN 61000-4-4+A1 (2004-12; 2010-03), EN 61000-4-5 (2006-11), EN 61000-4-6+A1+IS1 (1996-07; 2001-12; 2004-07), EN 61000-4-6 (2009-03), CEI EN 60529 (1997-06).

Certificazioni IPA

Il sistema è dichiarato adatto per l'uso in camera bianca dall'istituto Fraunhofer, come indicato nella relazione N° GI 1904-1109.

IPA Certification reference

The system has been declared suitable for use in hygienic areas by Fraunhofer IPA Institute as stated in report No. GI 1904-1109.

MPLF

Pinza servo elettrica paralella corsa lunga 2 griffe autocentrante

- Controllo tramite elettronica esterna.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M12-12 poli standard.
- Meccanismo di autocentraggio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Sensori magnetici opzionali.
- Encoder incrementale integrato.

Self-centering 2-jaw servo-electric parallel gripper with long stroke

- *Control via external electronics.*
- *Long life Brushless motor (Brushless DC).*
- *24 Vdc Low voltage power supply.*
- *M12-12 poles standard connection.*
- *Self-centering system.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Optional magnetic sensors.*
- *Integrated incremental encoder.*



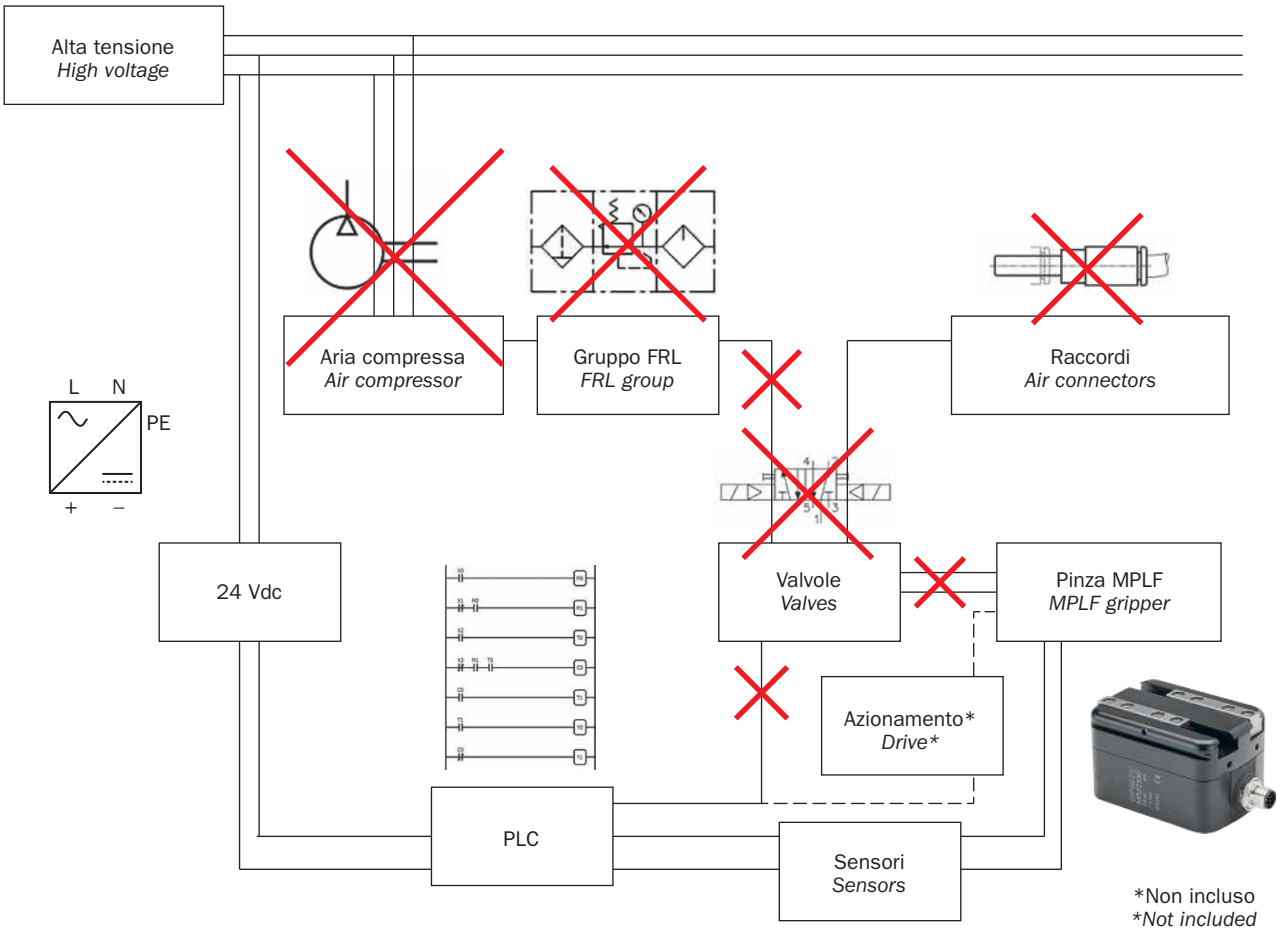
MPLF1630



MPLF2550



MPLF3270



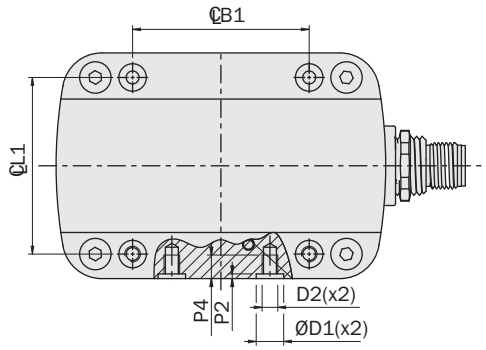
*Non incluso
*Not included



	MPLF1630	MPLF2550	MPLF3270
Corsa *Stroke*	30 mm (2x15mm)	50 mm (2x25mm)	70 mm (2x35mm)
Forza di presa nominale (picco) *Nominal gripping force (peak)*	45 N (100 N)	100 N (250 N)	160 N (470 N)
Tempo di chiusura griffe (corsa completa) *Jaw closing time (full stroke)*	0.15 s	0.2 s	0.31 s
Massa totale *Total mass*	250 g	500 g	840 g
Corrente nominale *Rated current*	0.32 A	0.4 A	1.5 A
Corrente di picco *Peak current*	0.8 A	1.4 A	4.8 A
Alimentazione *Supply*	24 V	24 V	24 V
Velocità senza carico del motore *Motor no load speed*	9500 rpm	4500 rpm	6500 rpm
Numero di coppie polari *Number of Pole Pairs*	4	6	8
Rapporto trasmissione encoder/motore *Gear ratio encoder/motor*	1/5	2/9	1/5
Resistenza fase-fase *Line to Line resistance*	25.8 ohm	12.9 ohm	1.47 ohm
Induttanza fase-fase *Line to Line inductance*	2.8 mH	5.34 mH	0.61 mH
Grado di protezione *Enviromental degree*	IP40		
Temperatura di esercizio *Temperature range*	+5°C - 60°C		
Risoluzione all'asse del motore *Resolution @ motor axis*	51 impulsi / giro *51 pulse/turn*	57 impulsi / giro *57 pulse/turn*	51 impulsi / giro *51 pulse/turn*
Risoluzione all'asse dell'encoder *Resolution @ encoder axis*	256 impulsi / giro *256 pulse/turn*		
Tipo di feedback *Feedback type*	Encoder incrementale ABZ *ABZ incremental encoder*		
Tipo di motore *Motor type*	Motore brushless + sensore Hall *Brushless Motor +Hall sensor*		
Configurazione di avvolgimenti *Winding configuration*	Stella *Star*		
Costante termica motore *Thermal time constant winding*	3 s	5 s	10 s
	RISOLUZIONE ALLE GRIFFE ***POSITION RESOLUTION @ JAWS***		
MPLF1630	0.06 mm/impulsi *0.06 mm/pulse*		
MPLF2550	0.06 mm/impulsi *0.06 mm/pulse*		
MPLF3270	0.07 mm/impulsi *0.07 mm/pulse*		

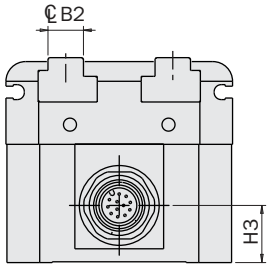
Dimensioni (mm)
Dimensions (mm)

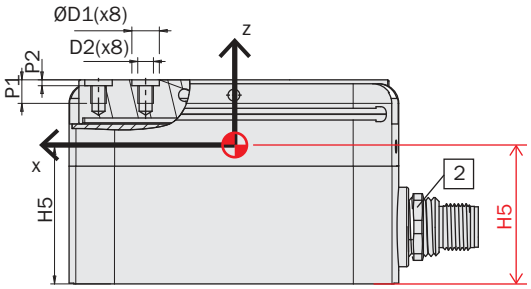
FIRST ANGLE PROJECTION

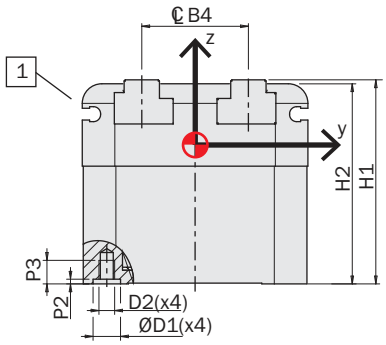


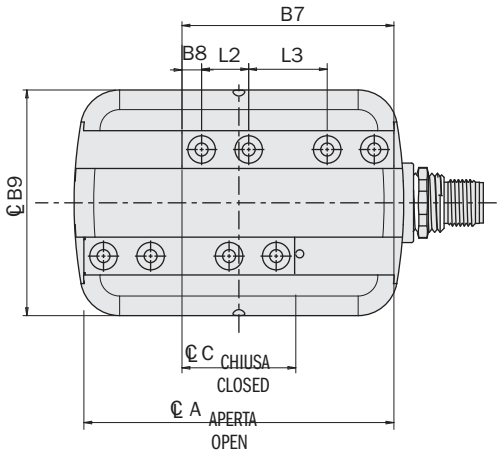
1 Cava per sensore magnetico
Magnetic sensor slot

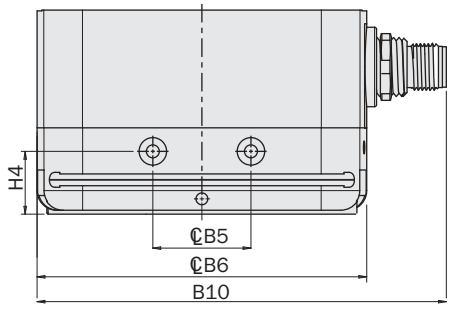
2 Connessione elettrica
Electrical connection

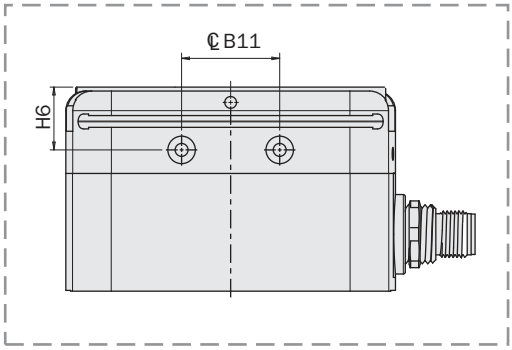












		MPLF 1630	MPLF 2550	MPLF 3270
A		50	79	95
B1	+-0.02	38	45	54
B2		6	9	10
B3		/	/	/
B4		22.2	27.2	30.5
B5		20	25	/
B6		52.2	84	100
B7		35	54	60
B8		4	5	6.5
B9		45.5	57.5	62.5
B10		79.7	105	111
B11		/	/	30
C		20	29	25
D1		5 H8	7 H8	7 H8
D2		M3	M4	M5
H1	+-0.02	47	52	55
H2		46	51	54
H3		14.5	14.5	14.5
H4		14,5	16	/
H5		36.3	29.5	31.5
H6		/	/	20.5
L1	+-0.02	38	45	54
L2		8	12	14
L3		11	20	19
P1		6	6	7.2
P2	+0.1 +0	1.2	1.5	1.5
P3		6	6	8
P4		6	6	8

Connessione elettrica

La pinza è dotata di connettore maschio M12-12 poli per l'alimentazione e la connessione dei sensori di HALL e del feedback (encoder incrementale) con l'elettronica esterna.

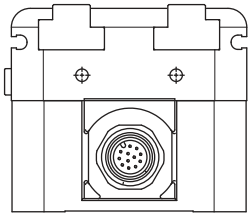
Il motore è un Bruschless con sensori di HALL.

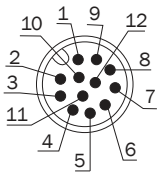
Electrical connection

The gripper is equipped with a M12-12 poles male connector for power supply, HALL sensors and feedback (incremental encoder) with an external drive.

The Brushless motor has HALL sensors.

PIN	Colore *Color*	Nome *Name*	Descrizione *Description*
1	Marrone *Brown*	HU	Sensore HALL 1 *Hall sensor 1*
2	Blu *Blue*	HW	Sensore HALL 3 *Hall sensor 3*
3	Bianco *White*	B	Segnale Encoder *Encoder Signal*
4	Verde *Green*	A	Segnale Encoder *Encoder Signal*
5	Rosa *Pink*	U	Fase 1 *Phase 1*
6	Giallo *Yellow*	V	Fase 2 *Phase 2*
7	Nero *Black*	W	Fase 3 *Phase 3*
8	Grigio *Grey*	GND	GND *Ground*
9	Rosso *Red*	+5V	Alimentazione 5V *Power Supply 5V*
10	Viola *Violet*	HV	Sensore HALL 2 *Hall sensor 2*
11	Grigio-Rosa *Grey-Pink*	Z	Segnale Encoder *Encoder Signal*
12	Rosso-Blu *Red-Blue*	N.C	Non Connesso *Not Connected*





Il segnale Z non è indicativo della corsa, ma solo dei giri del motore.

Z signal doesn't indicate the stroke, but only motor rotations.

Kit di valutazione

La scelta del drive è a discrezione dell'utente. Gimatic offre due Kit di valutazione per le pinze MPLF. Includono drive compatibili, cablaggio e istruzioni d'uso.

MPLF-KIT-01: Basato su drive Maxon Epos4. Può essere configurato tramite applicativo Windows ed è adatto in applicazioni che prevedono un puro nodo CanOpen slave.

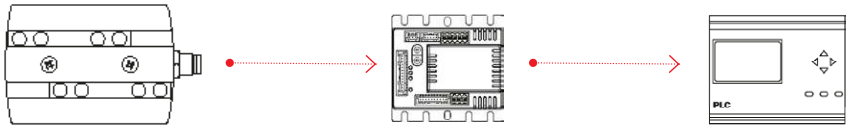
MPLF-KIT-11: Basato su drive miControl mcDSA-E50. Può essere configurato tramite applicativo Windows ed è adatto sia per applicazioni basate su un Fieldbus slave, sia per applicazioni Stand-Alone (interfacciamento tramite I/O e/o programmazione con linguaggio Python).

Evaluation Kits

The choice of the drive is at the user's discretion. Gimatic offers two evaluation kits for MPLF grippers. They include compatible drives, wiring and operating instructions.

MPLF-KIT-01: Based on a Maxon Epos4 drive. This kit can be configured via a Windows application and is suitable for applications involving a pure CanOpen slave node.

MPLF-KIT-11: Based on a miControl mcDSA-E50 drive. This kit can be configured via a Windows application and is suitable for applications based on a Fieldbus slave or for Stand-Alone applications (interfacing via I/O and/or programming in Python language).



MPLF con connettore M12 – 12 poli
MPLF with M12 12 poles connector

Servo Drive 24 Vdc
Servo Drive 24 Vdc

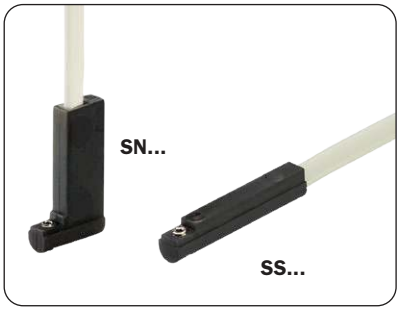
Connessione Fieldbus
Servo Drive 24 Vdc

MPLF

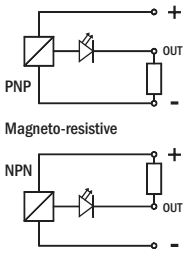
Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:



SN4N225-G SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G SS4M225-G	NPN	Cavo 2.5m *2.5m cable*
SN3N203-G SS3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G SS3M203-G	NPN	Connettore M8 *Snap M8 plug connector*



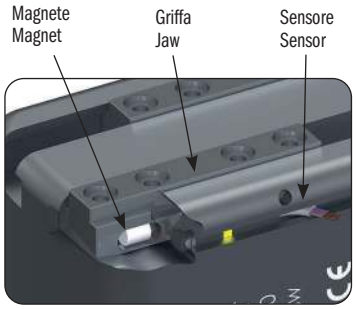
Sono tutti dotati di un cavo piatto a tre fili e di un led.

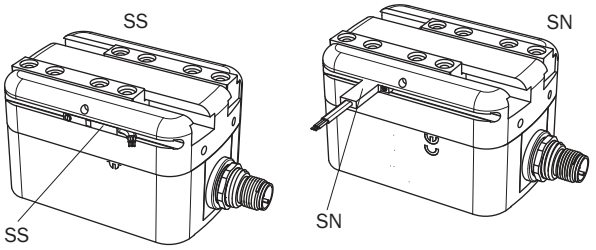
Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
Therefore a near big mass of ferromagnetic material or intense magnetic fields may cause sensing troubles.

Use sensors:

They are all provided with a 3-wire flat cable and a LED.





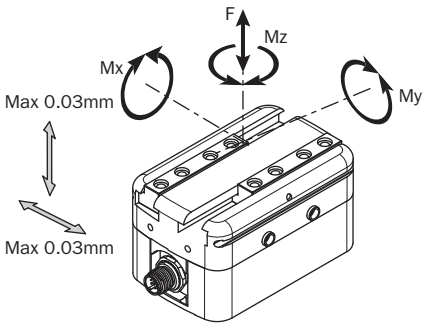
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPLF1630	MPLF2550	MPLF3270
F s	60 N	120 N	180 N
Mx s	3 Nm	8 Nm	20 Nm
My s	3 Nm	8 Nm	20 Nm
Mz s	3 Nm	8 Nm	20 Nm
F d	0.6 N	1.2 N	2 N
Mx d	3 Ncm	8 Ncm	20 Ncm
My d	3 Ncm	8 Ncm	20 Ncm
Mz d	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g

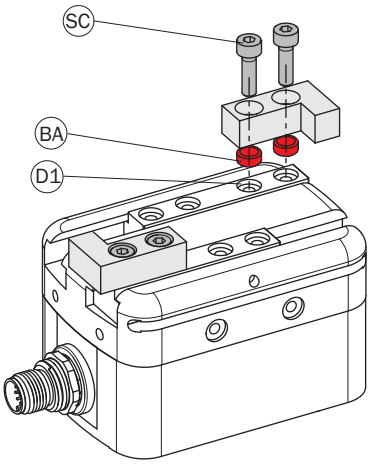


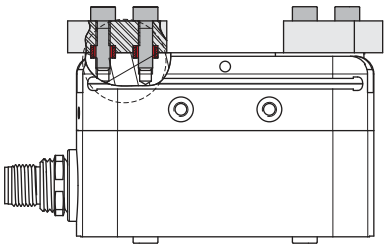
Fissaggio delle estremità di presa

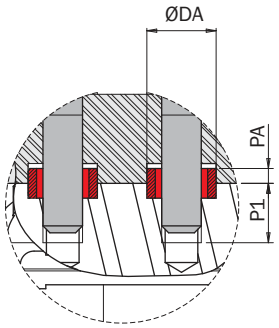
Costruire le dita di presa il più possibile corte e leggere.
Fissarle con due viti (SC) e due boccole di centraggio (BA) nei fori calibrati (D1) delle griffe.

Gripping tool fastening

The gripping tools must be as short and light as possible.
They must be fastened by two screws (SC) and two centering sleeves (BA) in the calibrated holes (D1) of the jaws.







	MPLF1630	MPLF2550	MPLF3270
DA	Ø5 h7	Ø7 h7	Ø7 h7
P1	6.2	8	8.5
PA	1.2	1.5	1.5
SC	M3	M4	M5

Compatibilità serie

E' possibile equipaggiare la pinza MPLF3270 con la cover GMP a corsa lunga (codice: KIT-GMPLM3240 + MPLF-KIT-02).
Questa cover, realizzata in silicone, permette di utilizzare la pinza in ambienti estremamente puliti, come l'industria farmaceutica.
Nell'esempio di utilizzo si può notare un azionamento esterno installato sotto la cover (codice: MPLF-KIT-01).

Serie compatibility

It is possible to equip the gripper MPLF3270 with the cover GMP long stroke (code: KIT-GMPLM3240 + MPLF-KIT-02).
This cover, made of silicone, allows you to use the gripper in extremely clean environments, such as the pharmaceutical industry.
In the example of use you can see an external drive installed under the cover (code: MPLF-KIT-01).



MPCF

Pinza servo elettrica paralella corsa lunga 2 griffe autocentrante con drive incorporato

- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M12-8 poli standard.
- Azionamento elettrico integrato con comunicazione CANbus o Seriale RS-485 Half Duplex.
- Può essere utilizzata in tempo reale come dispositivo generico aderente allo standard CANopen DS-402.
- Funzionamento alternativo sviluppato da Gimatic che ne semplifica l'utilizzo, basato sul richiamo di movimentazioni e ricette di parametri prestabiliti.
- Applicazione Windows dedicata per semplificare e velocizzare la fase di setup e testing.
- Guida utente e software inclusi nella cartella scaricabile direttamente dal sito Gimatic/Download/Utility.
- Meccanismo di autocentraggio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Sensori magnetici opzionali.
- Encoder assoluto integrato sulle griffe.

Self-centering 2-jaws servo-electric parallel gripper with long stroke and embedded drive

- *Long life Brushless motor (Brushless DC).*
- *24 Vdc Low voltage power supply.*
- *M12-8 poles standard connection.*
- *Embedded drive with dual CANopen communication interface and RS485 Half Duplex.*
- *Can be operated in real time as a generic device adhering to the CANopen DS-402 standard.*
- *Alternative operation developed by Gimatic that simplifies its use, based on the recall of movements and recipes of pre-set parameters.*
- *Dedicated Windows application to simplify and speed up setup and testing.*
- *User guide and software included in the downloadable folder directly from the Gimatic/Download/Utility website.*
- *Self-centering system.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Optional magnetic sensors.*
- *Absolute linear encorder on the jaws.*



MPCF con CANbus
MPCF with CANbus

CANopen

MPCF3270



3031159

CONNECTORS*

+24 Vdc = brown
GND = blue

CAN-H = green
CAN-L = yellow
GND = red



External +24 Vdc
Power Supply



USB/CANbus converter



MPCFApplication.exe

*La scelta del connettore appropriato spetta all'utente. In alternativa, Gimatic fornisce un KIT (codice di ordinazione: "MPCF-KIT-02") che include già tutto il necessario per avere una connessione pronta all'uso.

**The choice of appropriate connector is up to the user. Alternatively, Gimatic provides a KIT (ordering code: "MPCF-KIT-02") that already includes all the necessary to have a ready-to-use connection.*

	MPCF3270
Corsa *Stroke*	70 mm (2x35mm)
Forza di presa continuativa (massima) *Continuos (maximum) gripping force*	160 N (470 N)
Tempo di chiusura griffe (corsa completa) *Jaws closing time (full stroke)*	0.31 s
Massa totale *Total mass*	840 g
Corrente nominale *Rated current*	1.58 A
Corrente di picco *Peak current*	4.8 A
Alimentazione *Power supply*	24 Vdc
Grado di protezione *Enviromental degree*	IP40
Temperatura di esercizio *Temperature range*	5°C ÷ 60°C
Costante di coppia *Torque constant*	35.5 mNm/A
Tipo di feedback *Feedback type*	Encorder lineare assoluto alle griffe *Absolute linear encoder on the jaws*
Tipo di motore *Motor type*	Motore Brushless + Hall *Brushless + Hall sensor*
Risoluzione alle griffe *Jaws position resolution*	0.3 µm/impulsi *0.3 µm/pulses*
Lunghezza massima consentita cavo di connessione (schermato) con CANbus *Max permissible length of connection cable (shielded) with CANbus*	5 m
Lunghezza massima consentita cavo di connessione (schermato) con seriale *Max permissible length of connection cable (shielded) with RS485*	5 m

MPCF-KIT-02

Il KIT è composto dal cavo completamente schermato M12 (già cablato con connettore D-SUB) e dal convertitore Peak USB/ CANbus per avere una connessione pronta all'uso. Questo kit include la resistenza da 120 Ohm (integrata nel connettore D-SUB).

MPCF-KIT-02

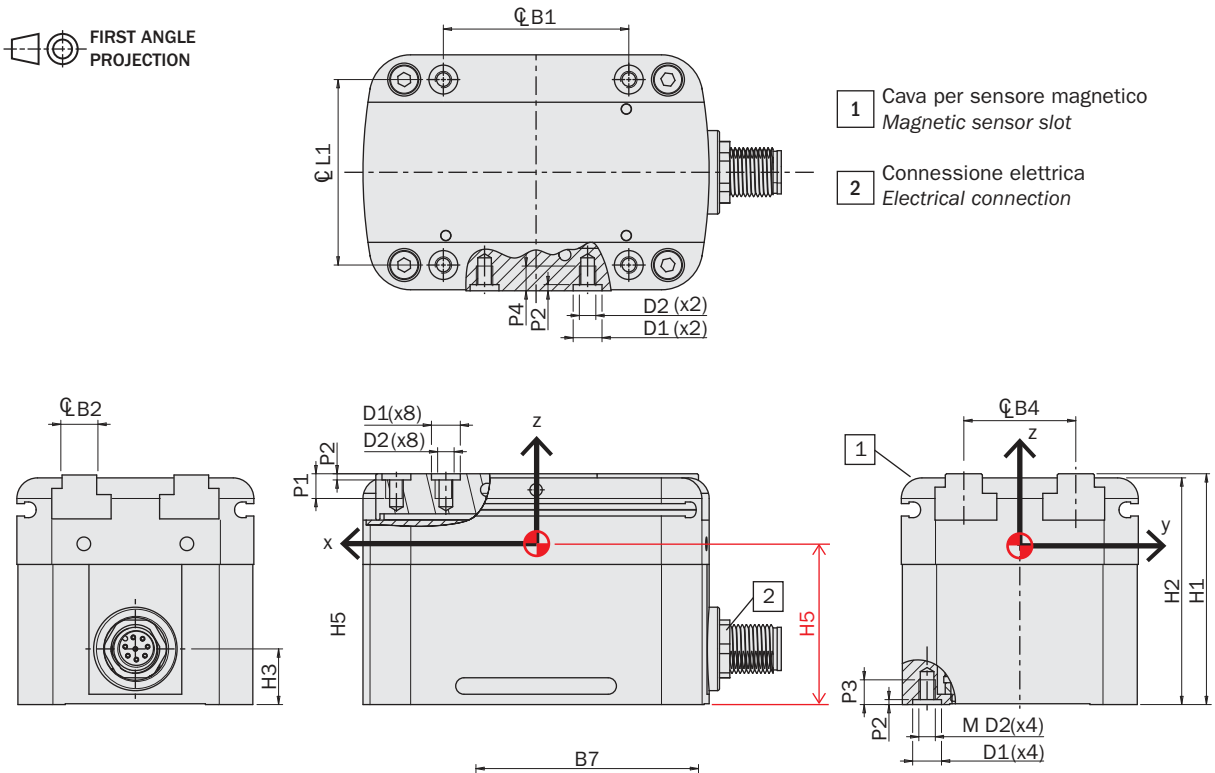
The KIT is composed by the M12 full shielded cable (already wired with a D-SUB connector) and the Peak USB/CANbus converter to have a ready-to-use connection. This kit includes the 120 Ohm resistor (embedded in the D-SUB connector).

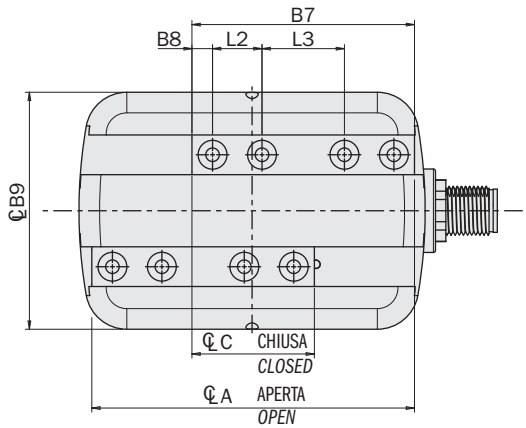


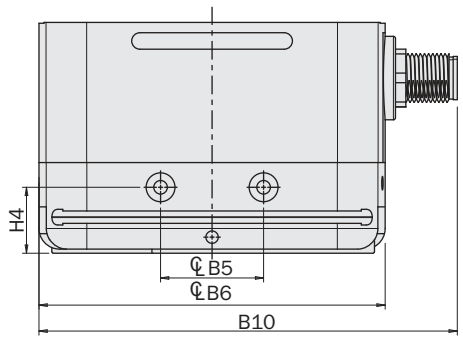


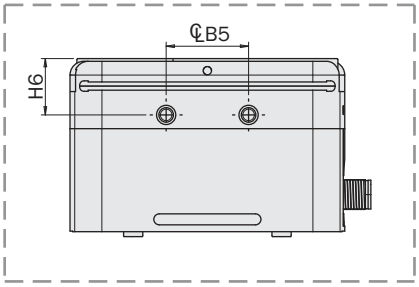
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION









	MPCF3270
A	95
B1	54
B2	10
B3	/
B4	30.58
B5	/
B6	100
B7	60
B8	6.5
B9	62.5
B10	110
B11	30
C	25
D1	7 H8
D2	M5
H1	63
H2	62
H3	13.5
H4	/
H5	44.25
H6	20.5
L1	54
L2	14
L3	19
P1	7.2
P2	1.5
P3	8
P4	8

07/2026

Connessione elettrica

La pinza è dotata di connettore maschio M12-8 poli per l'alimentazione e la comunicazione via CANBus o RS-485.

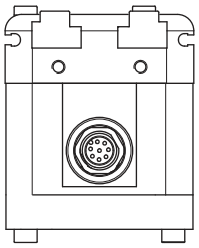
Il motore è un Brushless con sensori di HALL ed è presente un Encoder assoluto su griffe.

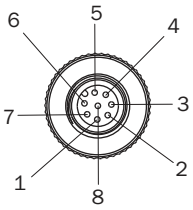
Electrical connection

The gripper is equipped with M12-8 pin male connector for power and communication via CANBus or RS-485.

The motor is a Brushless with HALL sensors and is present an absolute linear encoder on the jaws.

PIN	Funzione *Function*	Colore *Colour*
1	Non usato *Not used*	Bianco *White*
2	+24V	Marrone *Brown*
3	CAN-H	Verde *Green*
4	CAN-L	Giallo *Yellow*
5	RS485-	Grigio *Grey*
6	RS485+	Rosa *Pink*
7	GND (alimentazione) *GND (power supply)*	Blu *Blue*
8	GND (segnale) *GND (signal)*	Rosso *Red*



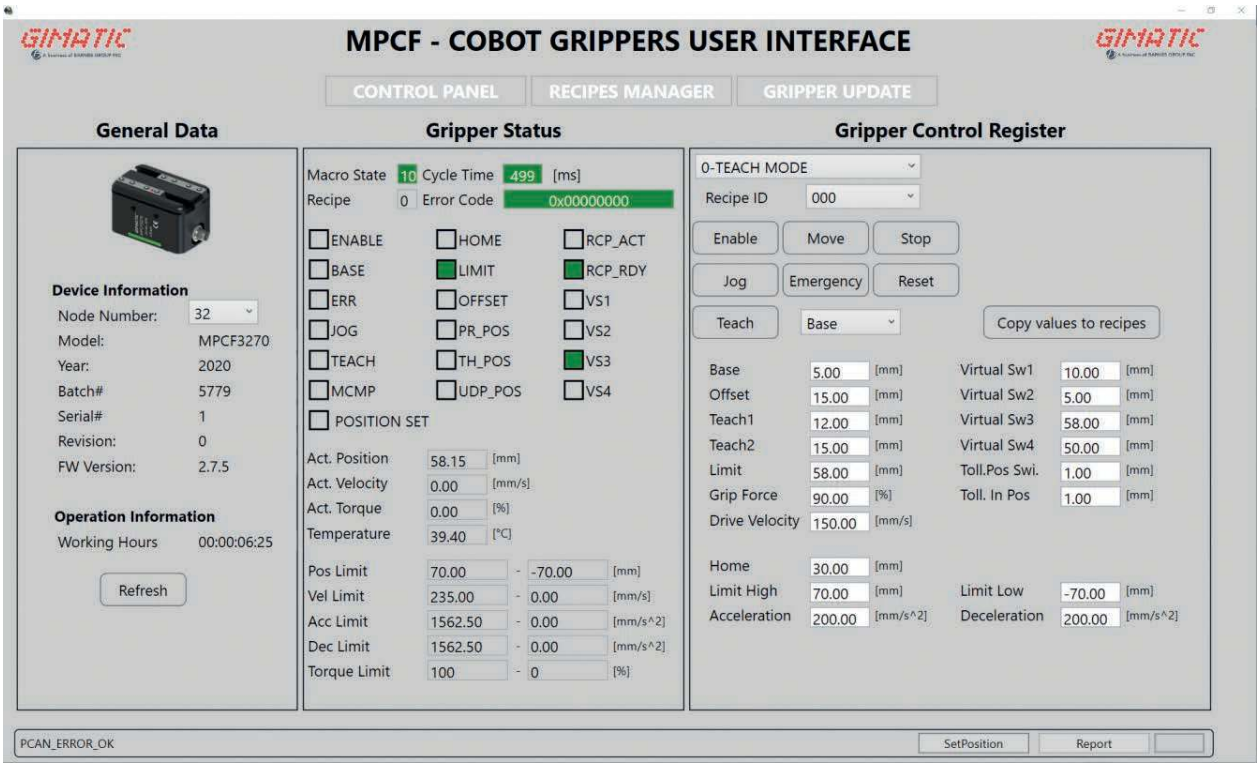


MPCFApplication.exe

Gimatic ha sviluppato un'applicazione Windows dedicata per semplificare e velocizzare le fasi di valutazione e configurazione della pinza. L'applicazione rende possibile interagire con la pinza via CANbus, parametrizzare e richiamare ricette e movimenti, leggere lo stato attuale ed installare eventuali aggiornamenti. Applicazione scaricabile dal sito Gimatic.

MPCFApplication.exe

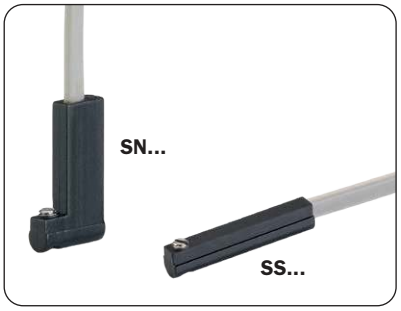
Gimatic has developed a dedicated Windows application to simplify and speed up the evaluation and configuration of the MPCF. The application makes it possible to interact with the gripper via CANbus, parameterize and recall recipes and movements, read the current status and install any updates. Application downloadable from Gimatic website.



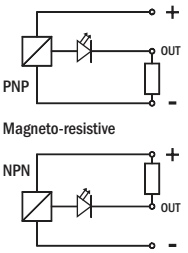
Sensori

Il rilevamento della posizione di lavoro è affidato ad un encoder assoluto posizionato sulle griffe della pinza. È tuttavia possibile utilizzare uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

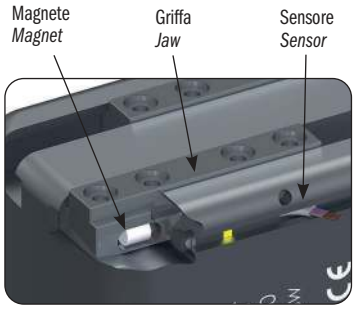
I sensori utilizzabili sono:



SN4N225-G SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G SS4M225-G	NPN	Cavo 2.5m *2.5m cable*
SN3N203-G SS3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G SS3M203-G	NPN	Connettore M8 *Snap M8 plug connector*



Sono tutti dotati di un cavo piatto a tre fili e di un led.

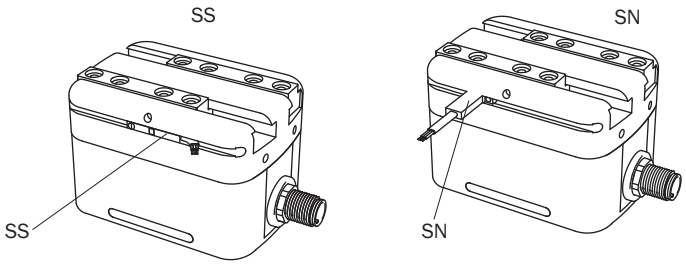


Sensors

The detection of the working position is entrusted to an absolute encoder placed on the jaws of the gripper. It is however possible to use one or more magnetic proximity sensors (optional), which detect the position through the magnets on the jaws. Therefore, for a proper functioning, it is to avoid the use in the presence of strong magnetic fields or in the vicinity of large masses of ferromagnetic material.

Use sensors:

They are all provided with a 3-wire flat cable and a LED.



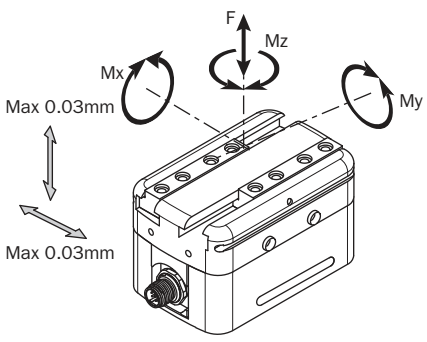
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
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F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPCF3270
F s	180 N
Mx s	20 Nm
My s	20 Nm
Mz s	20 Nm
F d	2 N
Mx d	20 Ncm
My d	20 Ncm
Mz d	20 Ncm
m	200 g

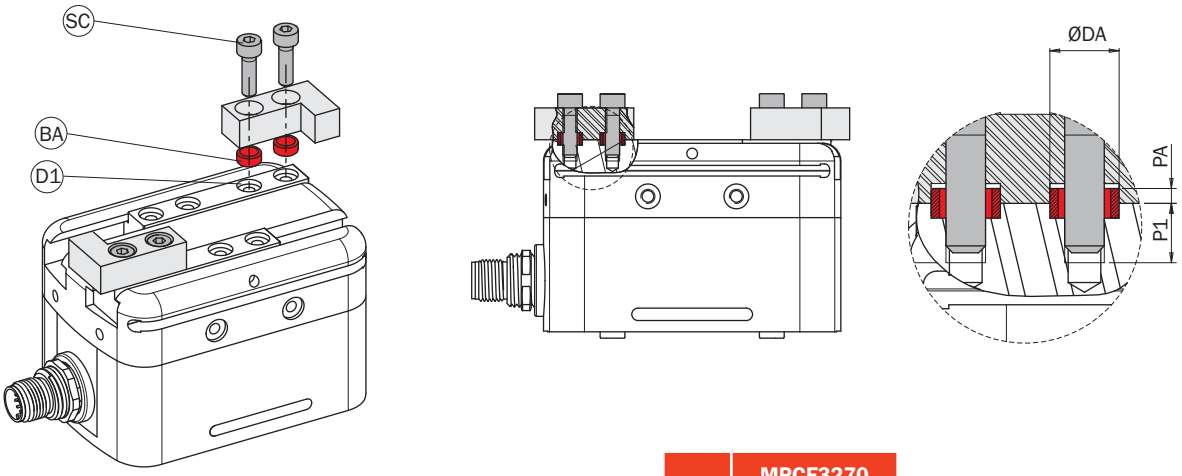


Fissaggio delle estremità di presa

Costruire le dita di presa il più possibile corte e leggere. Fissarle con due viti (SC) e due boccole di centraggio (BA) nei fori calibrati (D1) delle griffe.

Gripping tool fastening

The gripping tools must be as short and light as possible. They must be fastened by two screws (SC) and two centering sleeves (BA) in the calibrated holes (D1) of the jaws.



	MPCF3270
DA	Ø7 h7
P1	8.5
PA	1.5
SC	M5

Compatibilità serie

È possibile equipaggiare la pinza MPCF3270 con la cover GMP a corsa lunga (codice di ordinazione: KIT-GMPLM3240 + MPCF-KIT-01). Questa cover, realizzata in silicone, permette di utilizzare la pinza in ambienti estremamente puliti, come nel caso dell'industria farmaceutica.

Serie compatibility

It is possible to equip the MPCF3270 gripper with the GMP long stroke cover (ordering code: KIT-GMPLM3240 + MPCF-KIT-01). This cover, made of silicone, allows one to use the gripper in extremely clean environments, as in the case of the pharmaceutical industry.



TGP

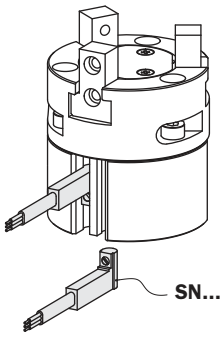
Pinza pneumatica autocentrante a 3 griffe (serie TGP)

- Azionamento a doppio effetto.
- Disponibile anche con molla in apertura (-NO).
- Sensori magneti opzionali [1].
- Grasso alimentare NSF-H1.
- Fornita con boccole di centraggio per griffe [2] e corpo [3].

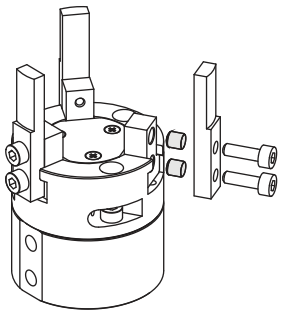
3-jaw self-centring pneumatic gripper (series TGP)

- *Double-acting drive.*
- *Also available with spring open (-NO).*
- *Optional magnetic sensors [1].*
- *NSF-H1 food-grade grease.*
- *Supplied with centring sleeves for jaws [2] and body [3].*

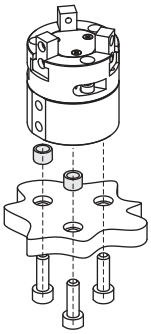
[1]



[2]



[3]



I sensori utilizzabili sono:
Use sensors:

SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G	NPN	



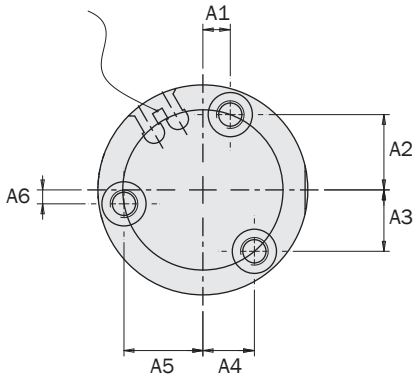


	TGP12	TGP12-NO	TGP20	TGP20-NO	TGP25	TGP25-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar	3.5 ÷ 8 bar	1.5 ÷ 8 bar	3 ÷ 8 bar	1 ÷ 8 bar	2.5 ÷ 8 bar
Temperatura di esercizio *Operating temperature range*	5° ÷ 100°C					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	20 N	24 N	55 N	65 N	88 N	103 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	17 N	13 N	46 N	36 N	79 N	64 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	60 N	72 N	165 N	195 N	264 N	309 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	51 N	39 N	138 N	108 N	237 N	192 N
Corsa (±0.2 mm) *Stroke*	3x2.5 mm		3x4 mm		3x5 mm	
Frequenza max funzionamento continuativo *Maximum working frequency*	3 Hz	2 Hz	3 Hz	2 Hz	3 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3		3 cm3		7 cm3	
Tempo di chiusura senza carico *Closing time without load*	0.02 s	0.03 s	0.02 s	0.03 s	0.03	0.04
Ripetibilità *Repetition accuracy*	0.02 mm					
Peso *Weight*	70 g	72 g	132 g	133 g	201 g	205 g

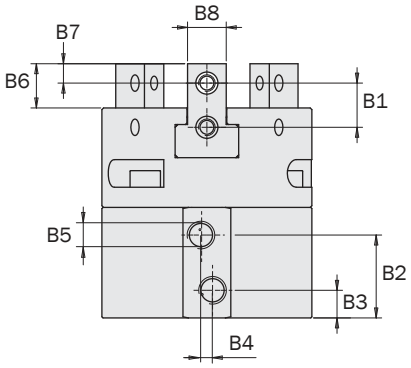
Dimensioni (mm)
Dimensions (mm)

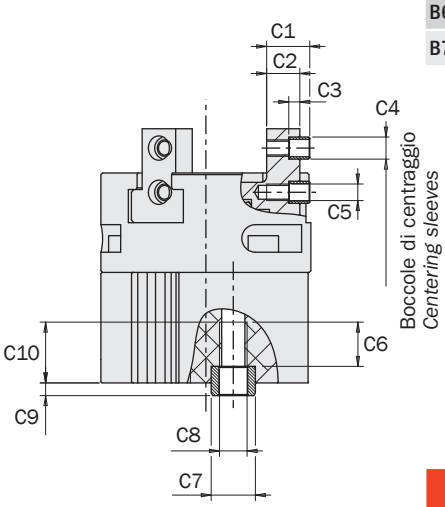
FIRST ANGLE PROJECTION

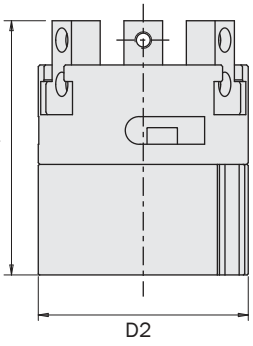
Cava per sensore serie SN
Sensor slot SN series



		TGP12 TGP12-NO	TGP20 TGP20-NO	TGP25 TGP25-NO
A1	±0.02	3.55	4.96	4.53
A2	±0.02	10.94	13.63	16.9
A3	±0.02	8.55	11.11	12.37
A4	±0.02	7.7	9.32	12.37
A5	±0.02	11.26	14.28	16.9
A6	±0.02	2.39	2.52	4.53
B1	±0.02	8	8	10
B2		14.7	15	18.8
B3		3.8	5	6.5
B4		0	0	10
B5		M3	M5	M5
B6		8	8	12
B7		4.5	3.5	6

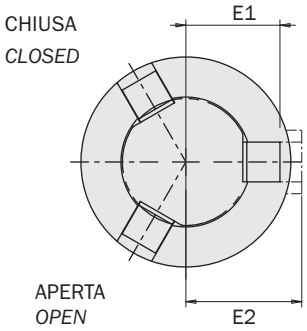




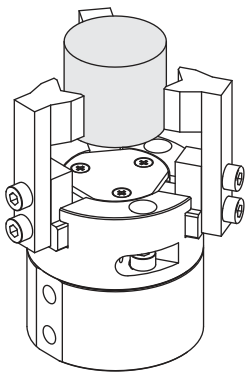


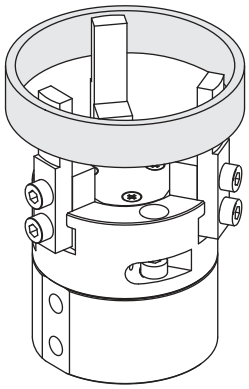
		TGP12 TGP12-NO	TGP20 TGP20-NO	TGP25 TGP25-NO
B8		6	7	8
C1		7.8	7.8	9.3
C2		6	6	6
C3		3.8	2	5.3
C4	h8	Ø4	Ø4	Ø6
C5		M3	M3	M4
C6		10	8	11
C7	h8	Ø6	Ø8	Ø8
C8		M4	M5	M5
C9		2.3	2.3	2.3
C10		13	11	14
D1		40	46	55
D2		Ø30	Ø38	Ø45
E1		13	17	20
E2		15.5	21	25

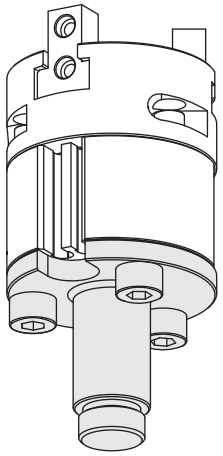
Boccole di centraggio
Centering sleeves



Esempio di utilizzo
Application example







TGP25
TGP20
TGP12

MFI-A513
MFI-A504
MFI-A512

Pinza pneumatica autocentrante a 3 griffe (serie T)

- Integrabile con gli altri elementi del Gimapick.
- Azionamento a doppio effetto.
- Alimentazione dell'aria compressa possibile direttamente dalla piastra di fissaggio.
- Possibilità di fissaggio dalla parte anteriore con viti passanti.
- Elevata forza di serraggio e basso peso.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

3-jaw self-centring pneumatic gripper (series T)

- *Modular with Gimapick system.*
- *Double acting.*
- *Air feeding possible directly from the fixing plate.*
- *Possibility to mount it on front with through screws.*
- *High gripping force with low weight.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



T63



T40

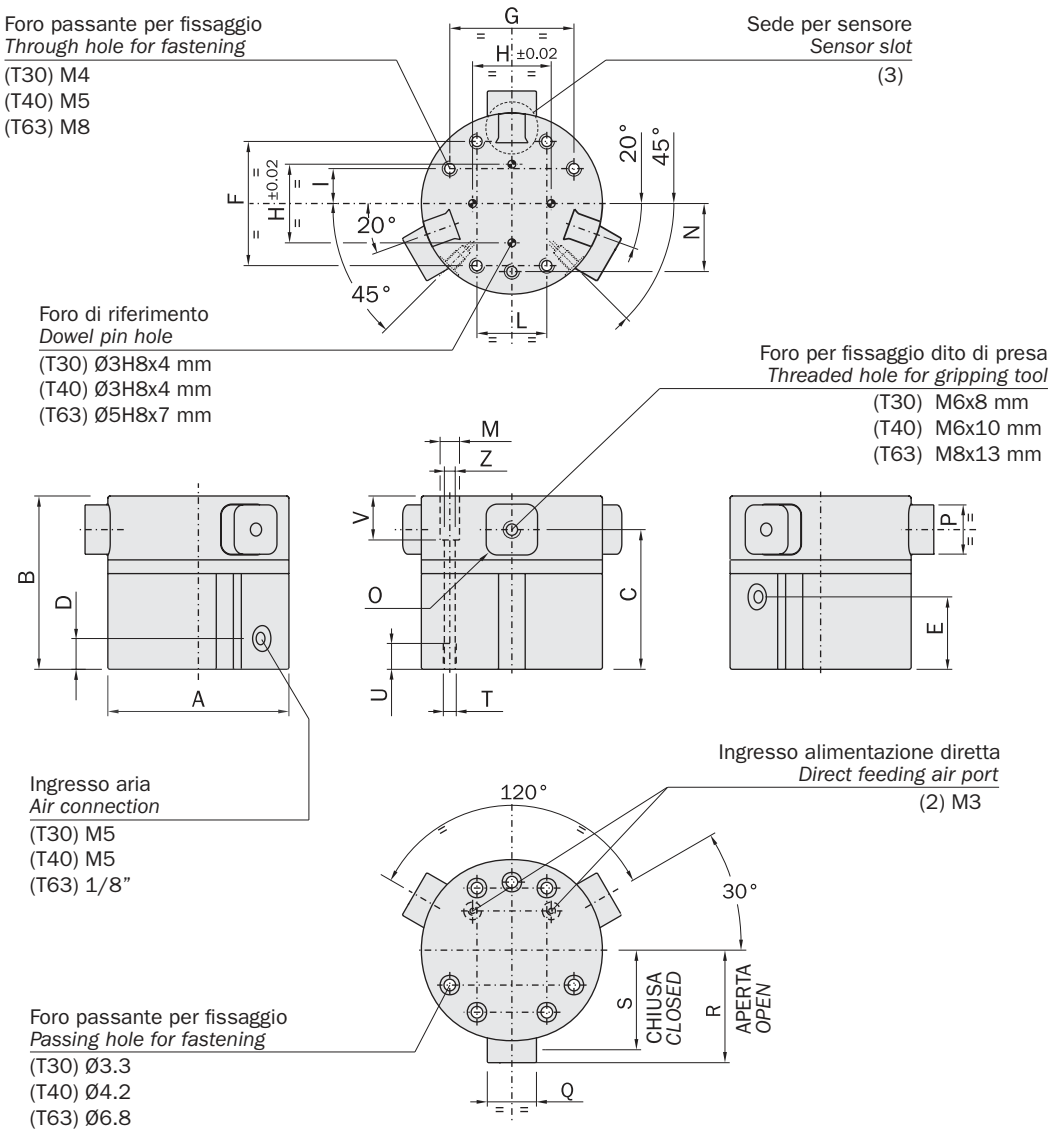


T30

	T30	T40	T63
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Operating temperature range*	5° ÷ 60°C.		
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	115 N	200 N	480 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	105 N	180 N	440 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	345 N	600 N	1440 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	315 N	540 N	1320 N
Corsa (±0.2 mm) *Stroke*	3x3 mm	3x5 mm	3x9 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	4 Hz	3 Hz	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	12 cm^3	19 cm^3	94 cm^3
Tempo di chiusura senza carico *Closing time without load*	0.01 s	0.01 s	0.05 s
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Peso *Weight*	325 g	745 g	1680 g

Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E	F	G	H ±0.02	I	L	M	N	O	P -0.05	Q -0.05	R	S	T	U	V	Z
T30	Ø50	59	49.5	8	27	37	-	30.4	-	21	Ø6	-	3	14	14	30.5	27.5	M4	8	14	Ø3.3
T40	Ø70	67	54	11.9	28	48	48	30.4	13.5	27	Ø7.5	26.3	4	19	19	43.6	38.5	M5	10	17	Ø4.2
T63	Ø90	90.5	72.8	12	38	66	-	59	-	38	Ø10.5	-	5	26	26	60.6	51.5	M8	16	28.5	Ø6.8



Pinza pneumatica autocentrante a 3 griffe (serie TH)

- Azionamento a doppio effetto, con molle opzionali (in chiusura o apertura) (3).
- Corsa lunga o corsa corta (1).
- Possibilità di fissaggio frontale con viti passanti (2).
- Meccanismo di trasmissione ad alta efficienza (1).
- Sensori magnetici o induttivi opzionali.
- Grasso alimentare NSF-H1.

3-jaw self-centring pneumatic gripper (series TH)

- *Double acting with optional springs (normally closed or normally open) (3).*
- *Long stroke or short stroke (1).*
- *Possibility of front fastening with through screws (2).*
- *High efficiency force transmission (1).*
- *Optional magnetic or inductive sensors.*
- *NSF-H1 food-grade grease.*



TH33...



TH76...



TH96...



TH45...



TH54...

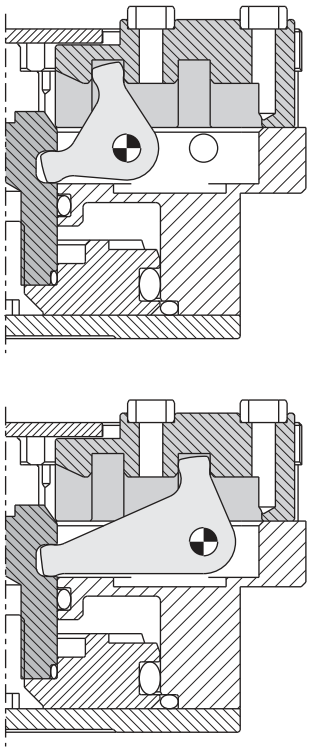


TH27...

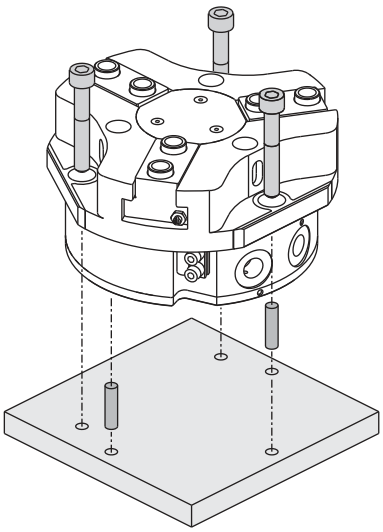


TH125...

(1)

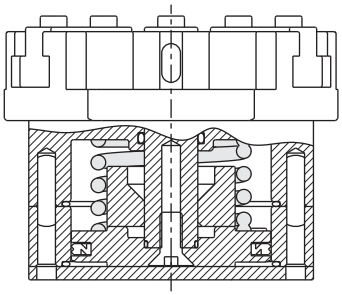


(2)

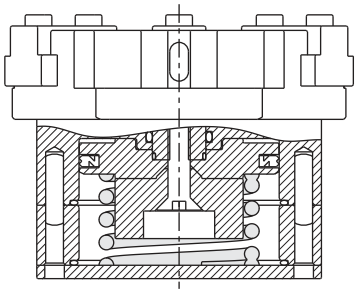


(3)

TH...-NC



TH...-NO

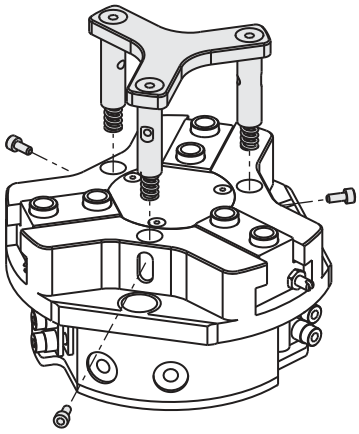


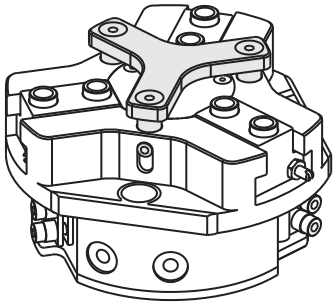
Spintore opzionale

Questo accessorio si può installare sulle pinze TH, per tenere premuto il pezzo durante il rilascio, con una Forza F.
Ad esempio quando si carica il mandrino di una macchina utensile.
Viene fornito smontato, con i codici indicati in tabella.

Optional pusher

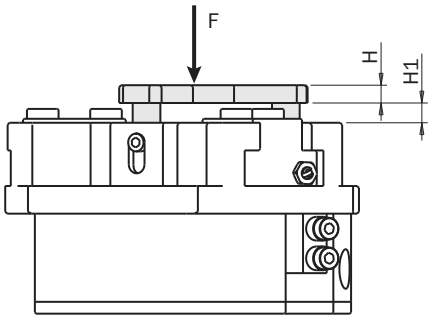
This accessory can be installed in the TH grippers, to hold the payload during the gripper release, by a pushing force F.
As an example, when the chuck of a machining equipment is loaded.
It is supplied disassembled, with the codes in the table below.





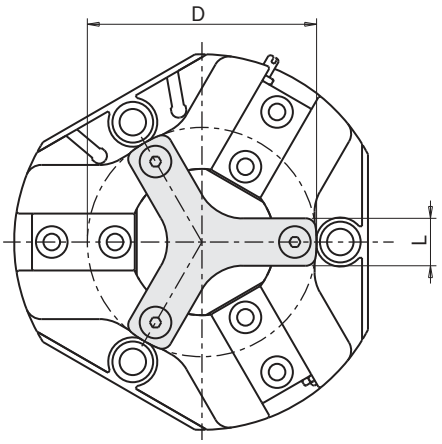
Forza
Force

	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
F	10N	15N	20N	30N	50N	100N	200N



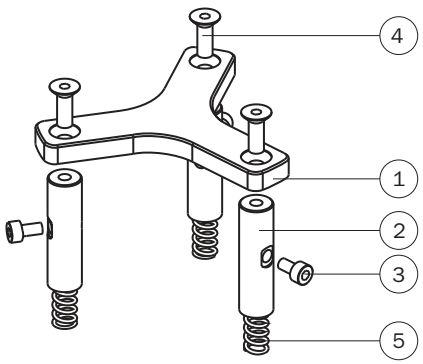
Dimensioni (mm)
Dimensions (mm)

	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
D	Ø28	Ø37	Ø44	Ø58	Ø74	Ø86	Ø118
H	3.5	4	4	4.5	5.5	5.5	6
H1	0÷2.5	0÷3	0÷4	0÷5	0÷5	0÷6	0÷6
L	6.5	8	10	12	14	16	19
m	10g	20g	30g	50g	100g	170g	285g



Elenco delle parti
Part list

	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
1	TH2725-14	TH3304-15	TH4506-09	TH5408-22	TH7610-10	TH9613-10	TH12516-17
2	TH2725-15	TH3304-14	TH4506-10	TH5408-23	TH7610-11	TH9613-11	TH12516-18
3	VITE-434 M1.6x3 DIN7985	VITE-435 M2x4 DIN7985	VITE-436 M2x5 DIN912	VITE-217 M2.5x6 DIN912	VITE-017 M3x6 DIN912	VITE-009 M4x8 DIN912	VITE-275 M4x8 DIN912
4	VITE-068 M2x6 DIN965	VITE-170 M2.5x6 DIN965	VITE-306 M3x8 DIN7991	VITE-305 M4x8 DIN7991	VITE-437 M4x12 DIN7991	VITE-438 M5x12 DIN7991	VITE-438 M5x12 DIN7991
5	TH2725-16	TH3304-16	TH4506-11	TH5408-24	TH7610-12	TH9613-12	TH12516-19



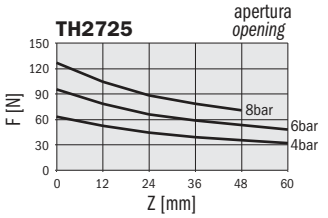
	TH2725	TH2725-NC	TH2725-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.		
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	95N	65 ÷ 70N	121 ÷ 125N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	285N	195 ÷ 210N	363 ÷ 375N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	87N	112 ÷ 117N	57 ÷ 61N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	261N	336 ÷ 351N	171 ÷ 183N
Corsa (±0.2 mm) *Stroke*	3x2.5mm	3x2.5mm	3x2.5mm
Frequenza max funzionamento *Maximum working frequency*	3Hz	3Hz	3Hz
Consumo d'aria per ciclo *Cycle air consumption*	3cm³	6cm³	6cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.02s / 0.02s	0.01s / 0.02s	0.03s / 0.01s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm
Peso *Weight*	117g	140g	139g

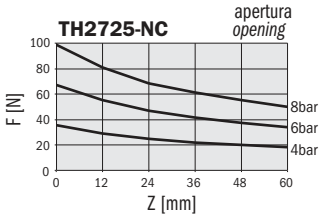
Forza di serraggio

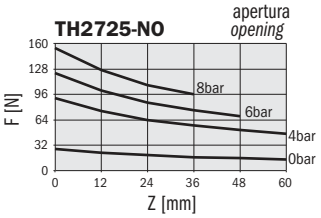
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

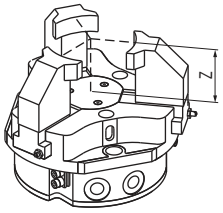
Gripping force

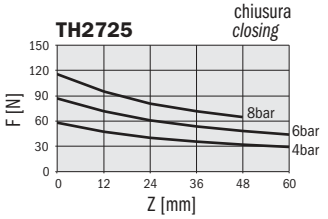
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.

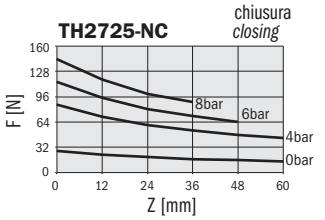


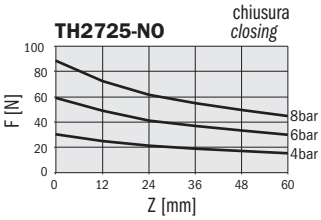










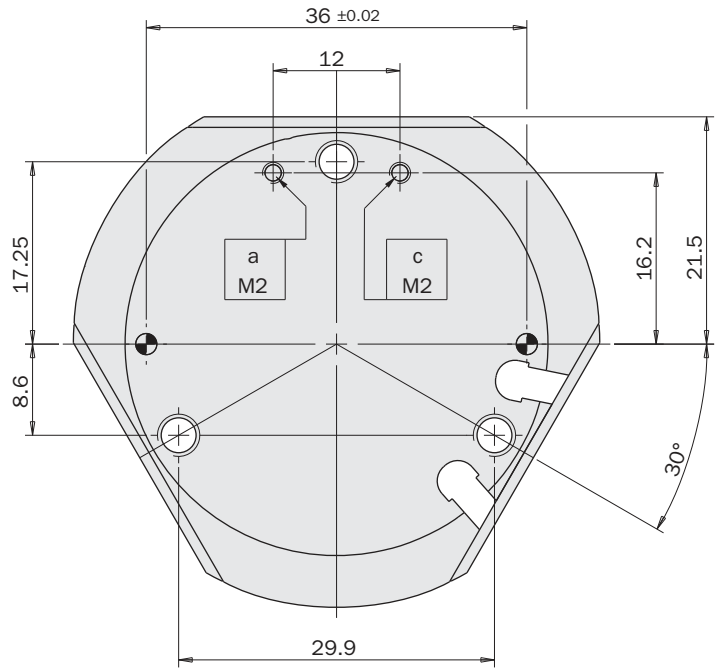


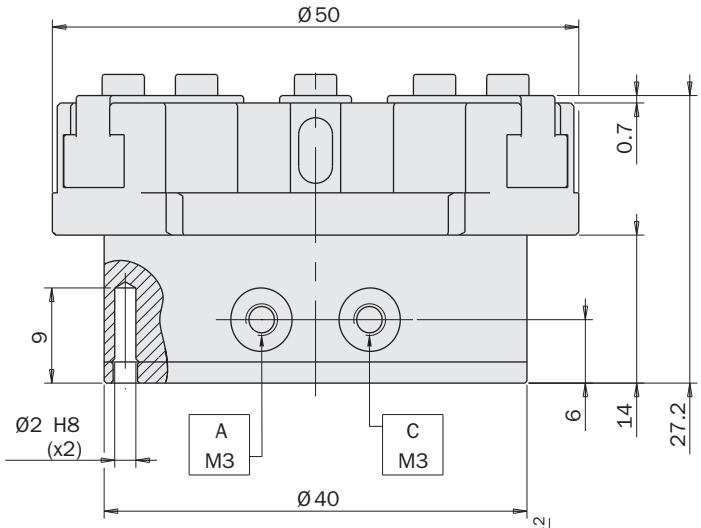
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

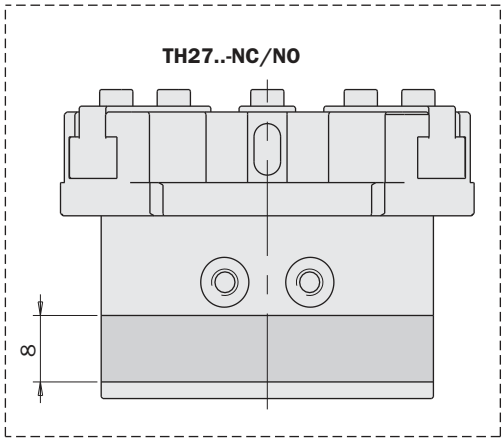
The force shown in these graphs refers to one jaw. The total force is triple.

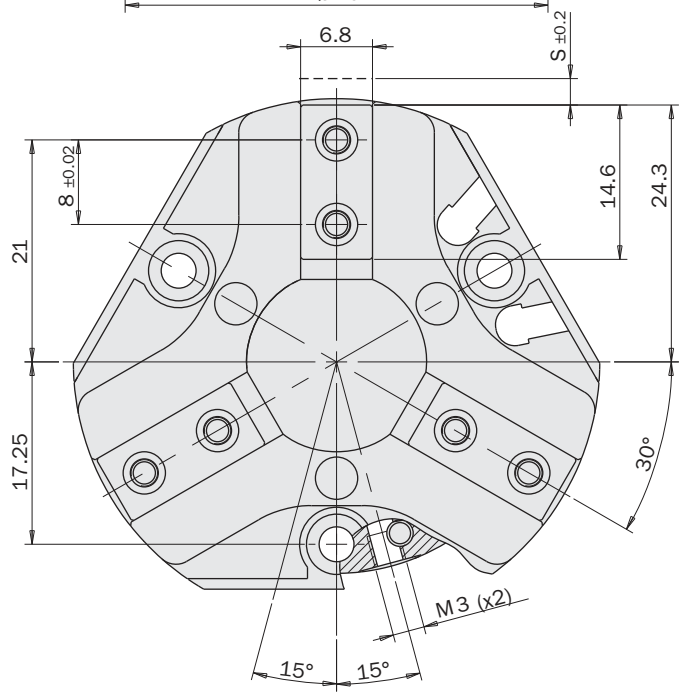
Dimensioni (mm)
Dimensions (mm)

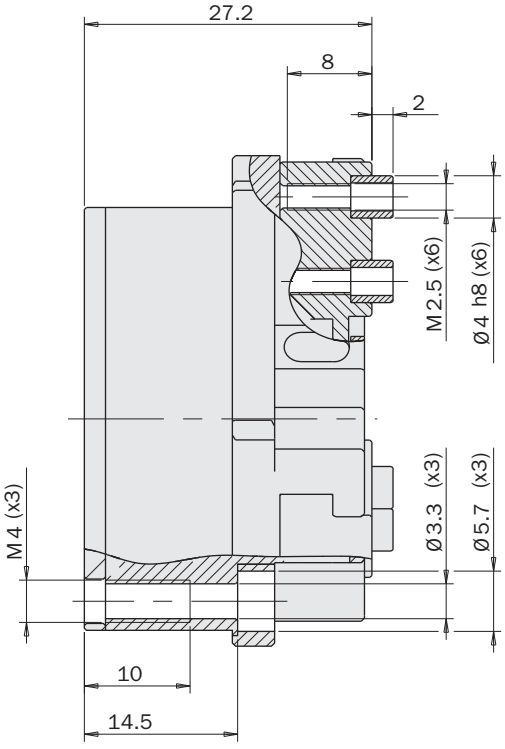
	TH2725	TH2725-NC	TH2725-NO
S	3x2.5mm	3x2.5mm	3x2.5mm











FIRST ANGLE PROJECTION

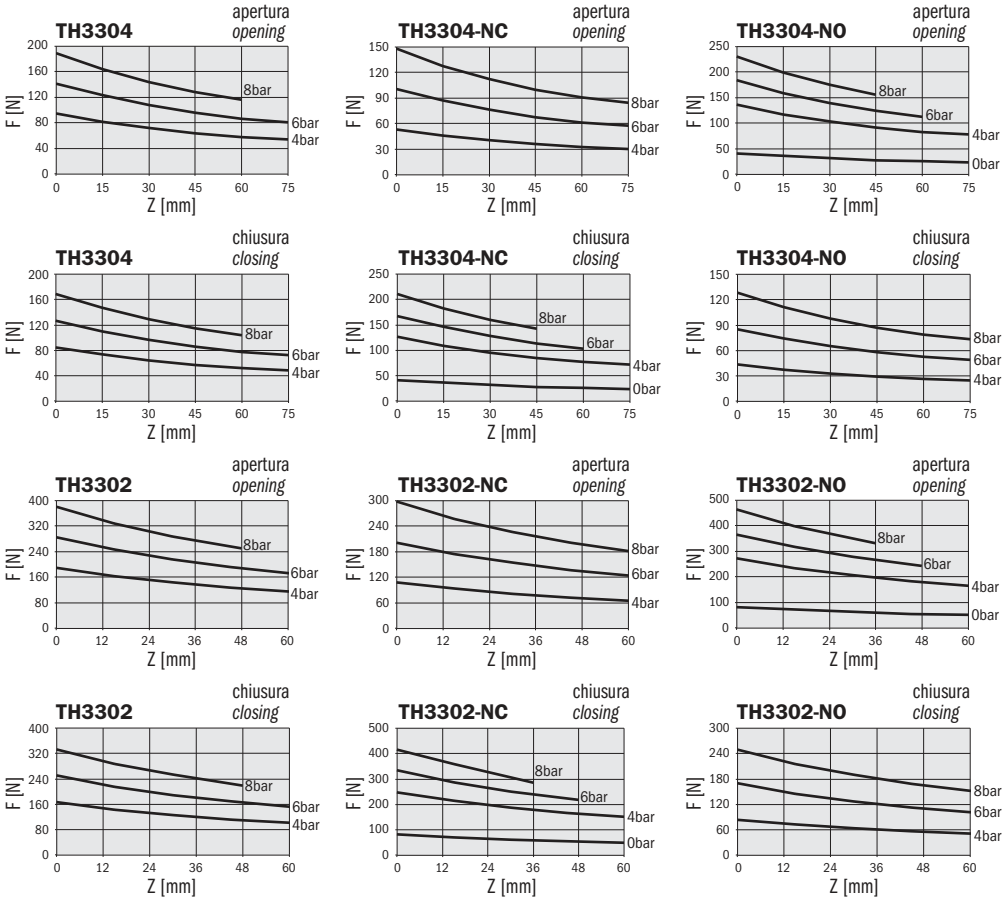
	TH3304	TH3304-NC	TH3304-NO	TH3302	TH3302-NC	TH3302-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	142N	97 ÷ 106N	179 ÷ 188N	285N	192 ÷ 210N	358 ÷ 375N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	426N	291 ÷ 318N	537 ÷ 564N	855N	576 ÷ 630N	1074 ÷ 1125N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	127N	164 ÷ 172N	81 ÷ 90N	250N	326 ÷ 344N	161 ÷ 179N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	381N	492 ÷ 516N	243 ÷ 270N	750N	978 ÷ 1032N	483 ÷ 537N
Corsa (±0.2 mm) *Stroke*	3x4mm	3x4mm	3x4mm	3x2mm	3x2mm	3x2mm
Frequenza max funzionamento *Maximum working frequency*	3Hz	3Hz	3Hz	3Hz	3Hz	3Hz
Consumo d'aria per ciclo *Cycle air consumption*	8cm³	13cm³	13cm³	8cm³	13cm³	13cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	237g	293g	285g	240g	296g	288g

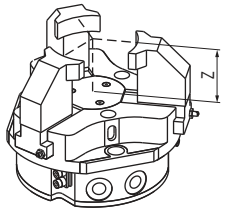
Forza di serraggio

I grafici mostrano la forza (F) per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force (F) on each jaw, as a function of the operating pressure and the gripping tool length Z.





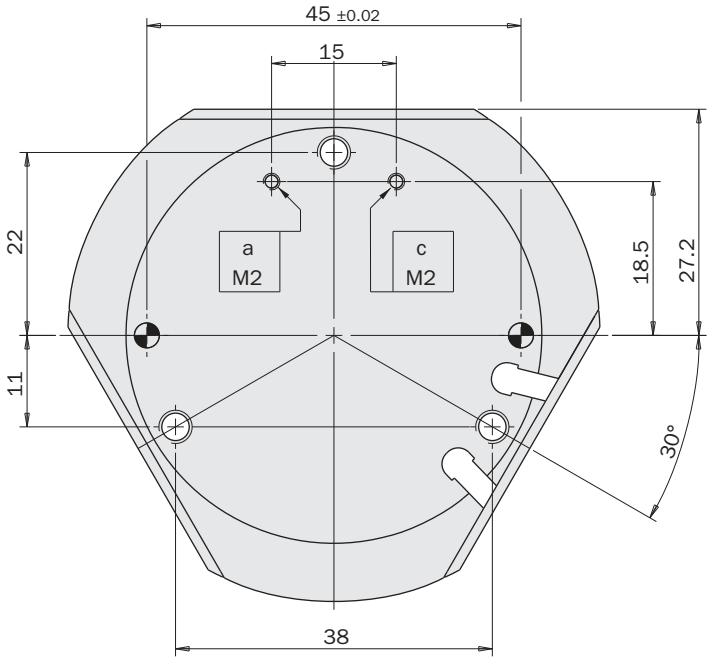
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

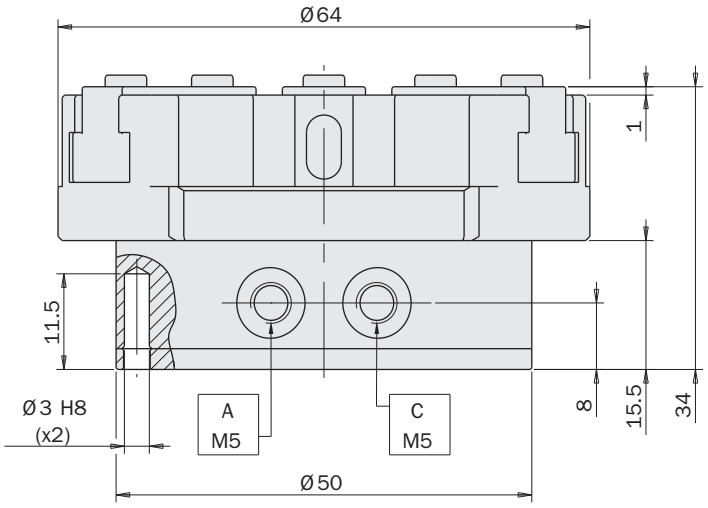
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)

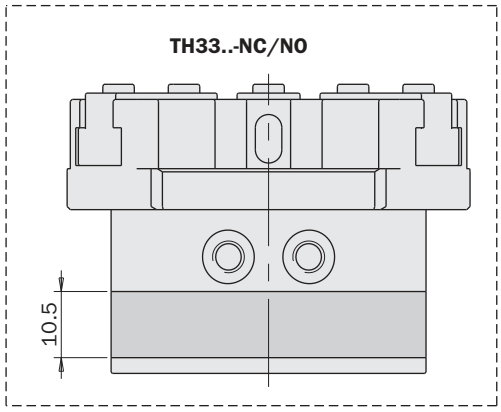
	TH3304	TH3304-NC	TH3304-NO
S	3x4mm	3x4mm	3x4mm

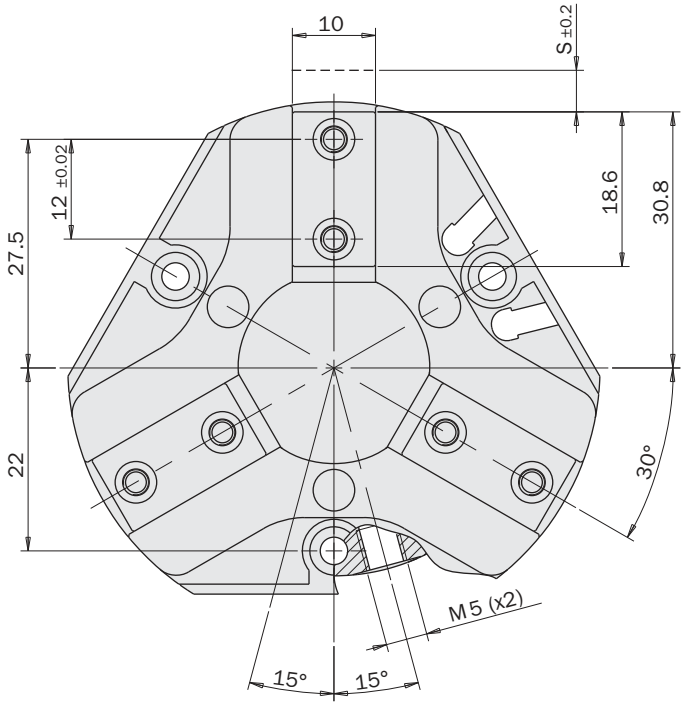
	TH3302	TH3302-NC	TH3302-NO
S	3x2mm	3x2mm	3x2mm

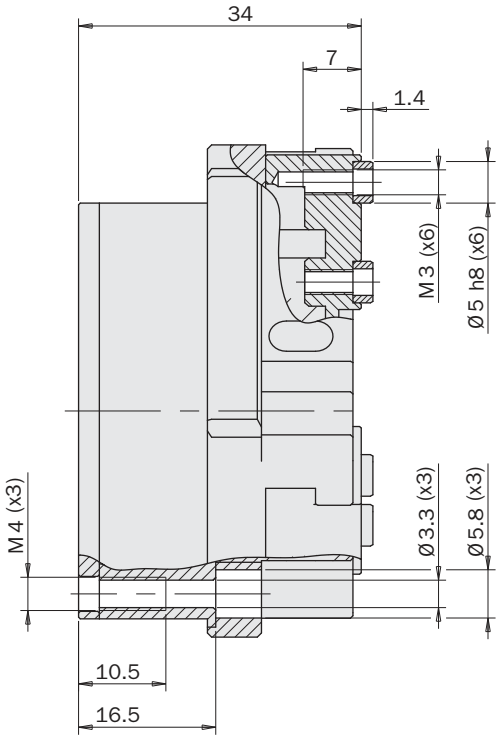




TH33..-NC/NO







FIRST ANGLE PROJECTION

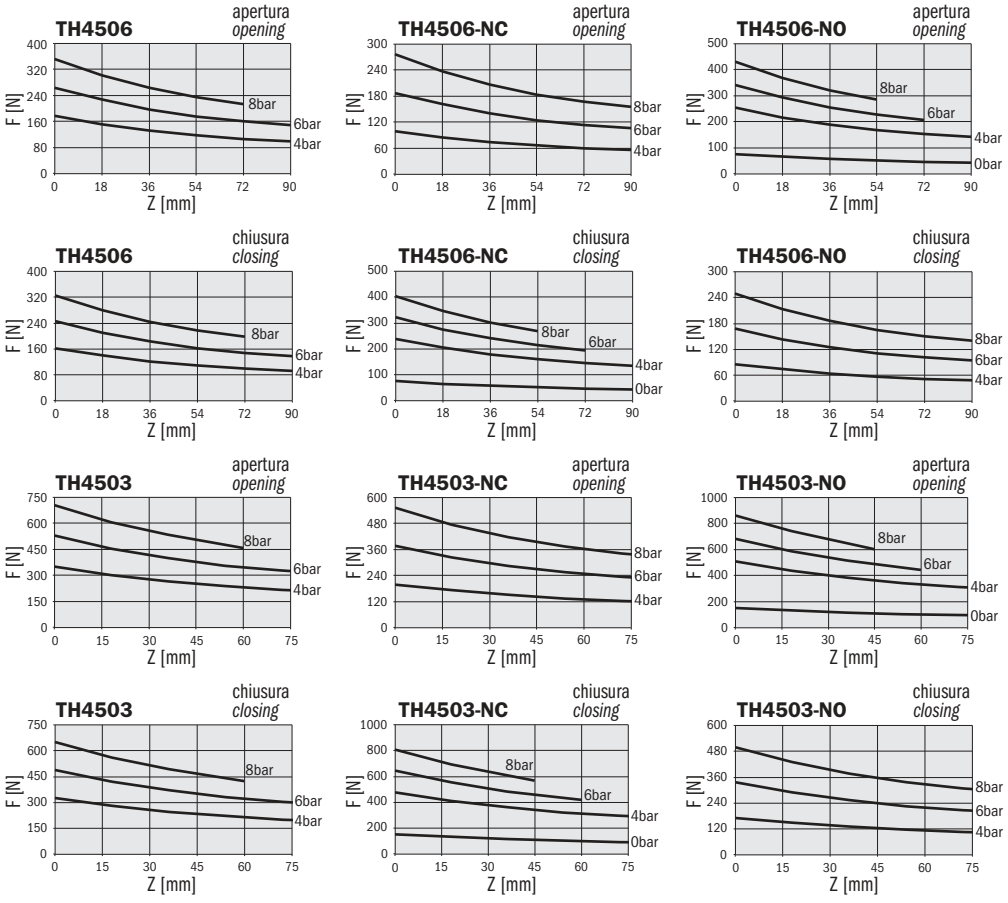
	TH4506	TH4506-NC	TH4506-NO	TH4503	TH4503-NC	TH4503-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	265N	173 ÷ 202N	328 ÷ 356N	530N	346 ÷ 403N	653 ÷ 710N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	795N	519 ÷ 606N	984 ÷ 1068N	1590N	1038 ÷ 1209N	1959 ÷ 2130N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	245N	309 ÷ 337N	155 ÷ 184N	490N	615 ÷ 673N	308 ÷ 366N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	735N	927 ÷ 1011N	465 ÷ 552N	1470N	1845 ÷ 2019N	924 ÷ 1098N
Corsa (±0.2 mm) *Stroke*	3x6mm	3x6mm	3x6mm	3x3mm	3x3mm	3x3mm
Frequenza max funzionamento *Maximum working frequency*	2Hz	2Hz	2Hz	2Hz	2Hz	2Hz
Consumo d'aria per ciclo *Cycle air consumption*	22cm³	37cm³	37cm³	22cm³	37cm³	37cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	430g	540g	530g	440g	550g	530g

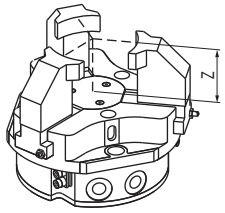
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.





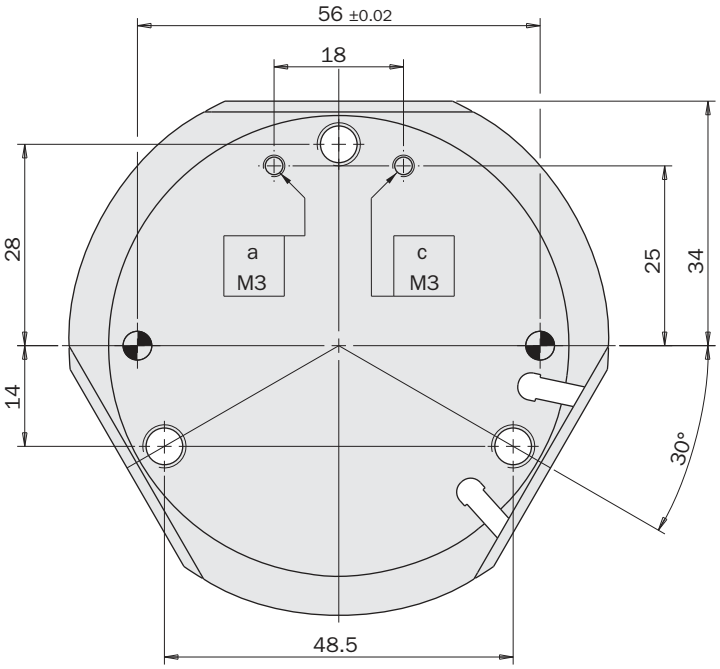
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

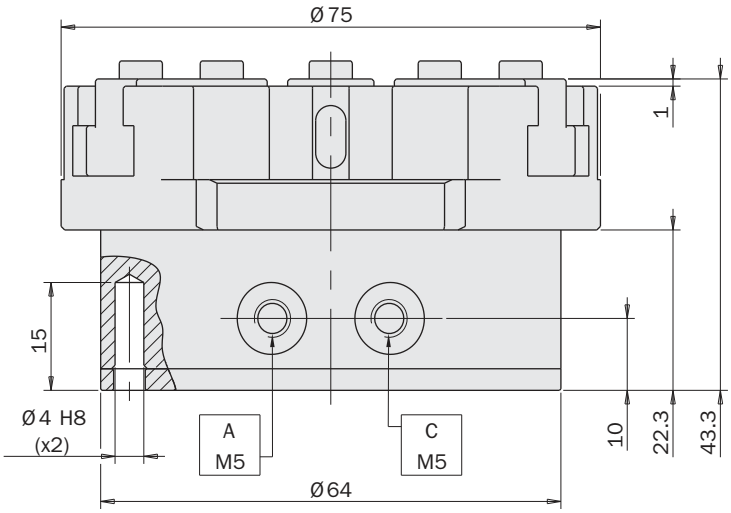
The force shown in these graphs refers to one jaw. The total force is triple.

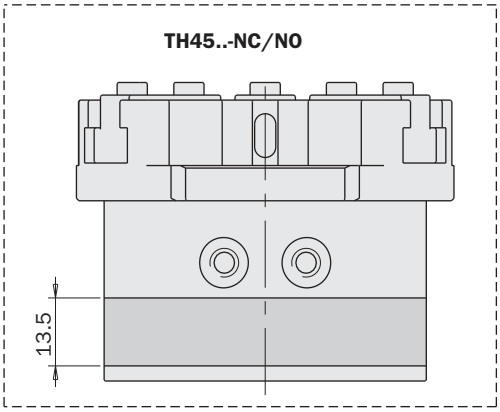
Dimensioni (mm)
Dimensions (mm)

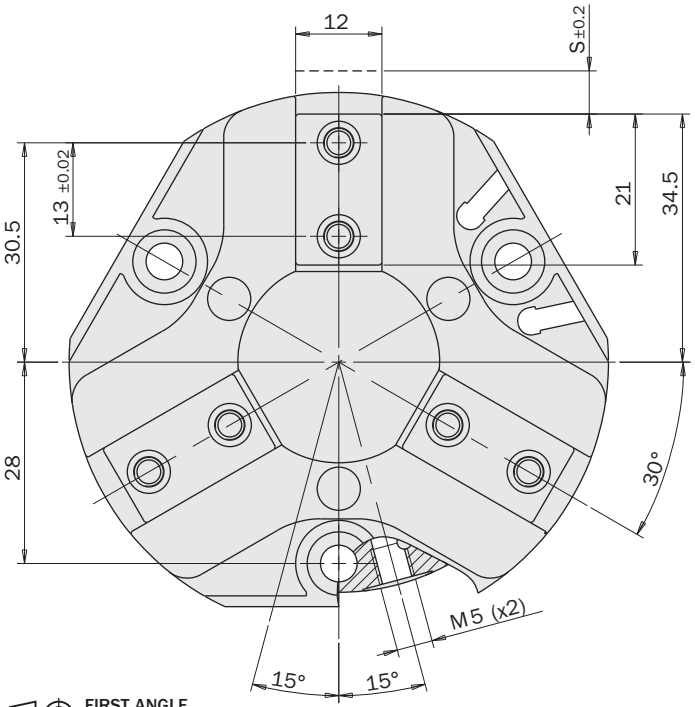
	TH4506	TH4506-NC	TH4506-NO
S	3x6mm	3x6mm	3x6mm

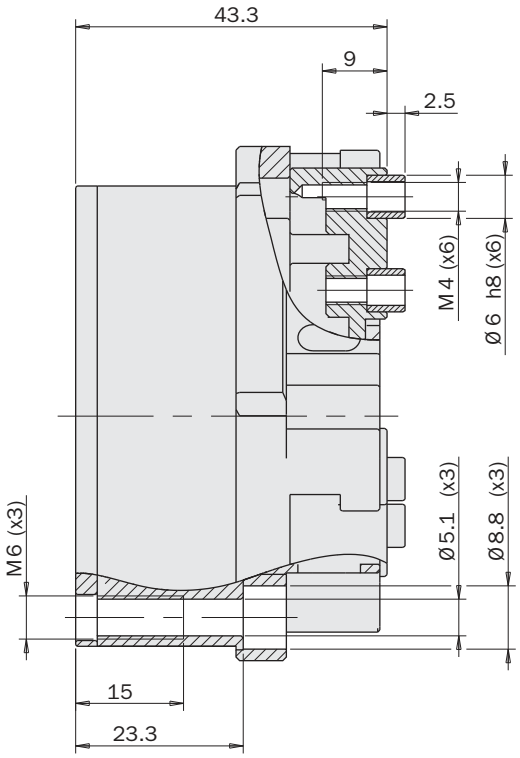
	TH4503	TH4503-NC	TH4503-NO
S	3x3mm	3x3mm	3x3mm











FIRST ANGLE PROJECTION

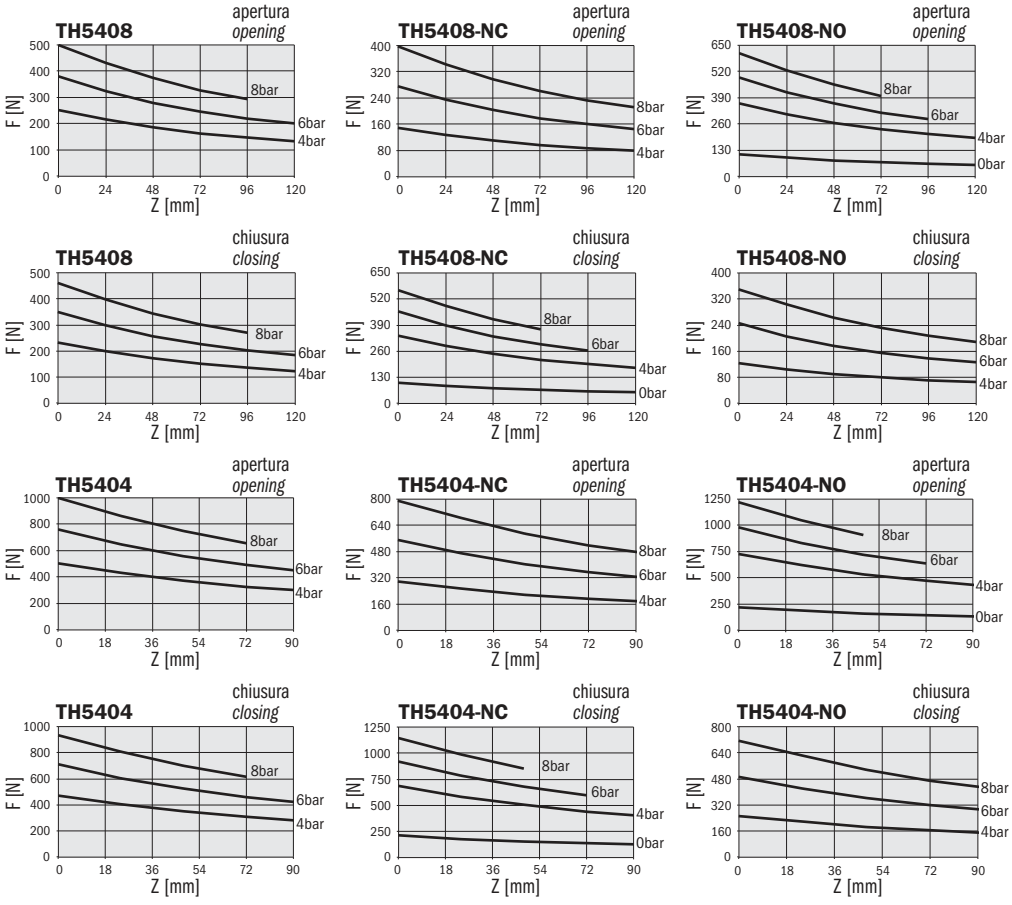
	TH5408	TH5408-NC	TH5408-NO	TH5404	TH5404-NC	TH5404-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	380N	252 ÷ 299N	466 ÷ 514N	760N	504 ÷ 597N	931 ÷ 1029N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	1140N	756 ÷ 897N	1398 ÷ 1542N	2280N	1512 ÷ 1791N	2793 ÷ 3087N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	350N	436 ÷ 483N	220 ÷ 269N	710N	872 ÷ 966N	441 ÷ 538N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	1050N	1308 ÷ 1449N	660 ÷ 807N	2130N	2616 ÷ 2898N	1323 ÷ 1614N
Corsa (±0.2 mm) *Stroke*	3x8mm	3x8mm	3x8mm	3x4mm	3x4mm	3x4mm
Frequenza max funzionamento *Maximum working frequency*	2Hz	2Hz	2Hz	2Hz	2Hz	2Hz
Consumo d'aria per ciclo *Cycle air consumption*	42cm³	67cm³	67cm³	42cm³	67cm³	67cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	760g	930g	920g	770g	940g	930g

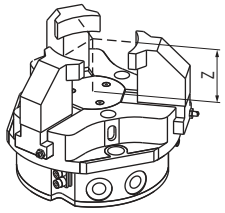
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.





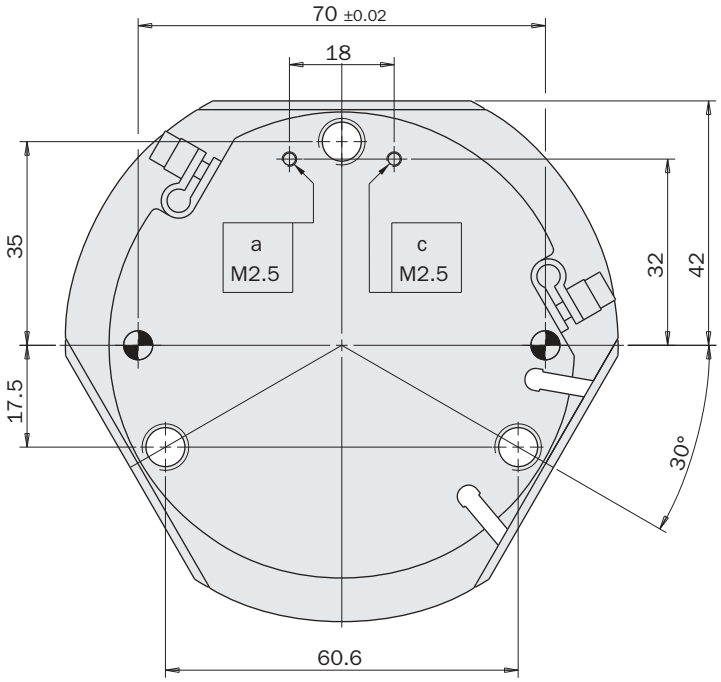
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

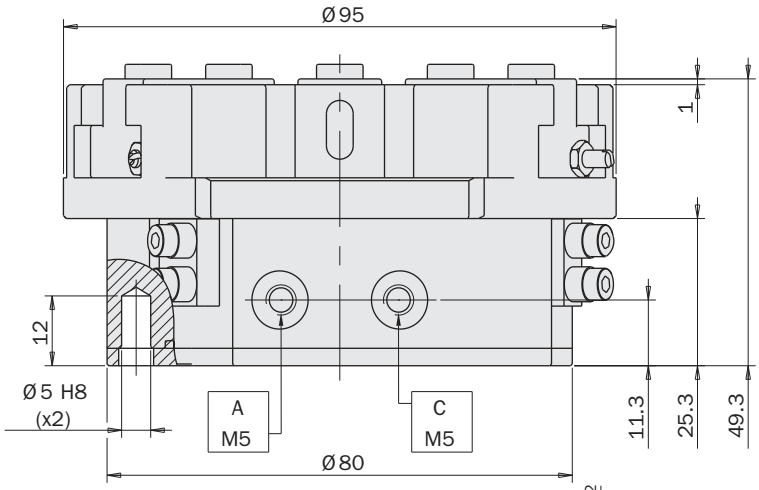
The force shown in these graphs refers to one jaw. The total force is triple.

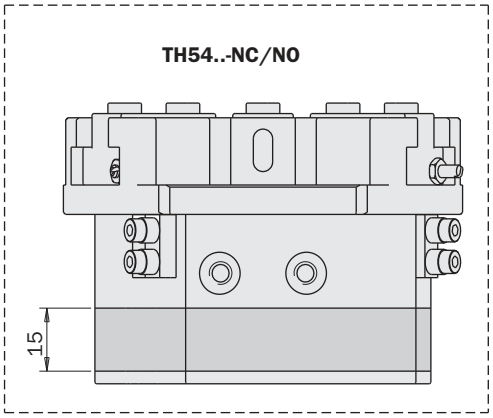
Dimensioni (mm)
Dimensions (mm)

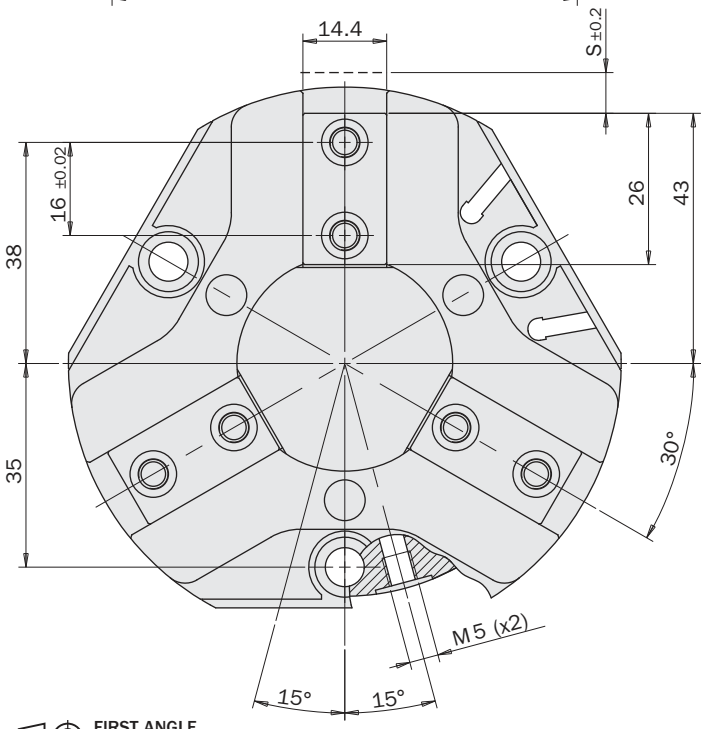
	TH5408	TH5408-NC	TH5408-NO
S	3x8mm	3x8mm	3x8mm

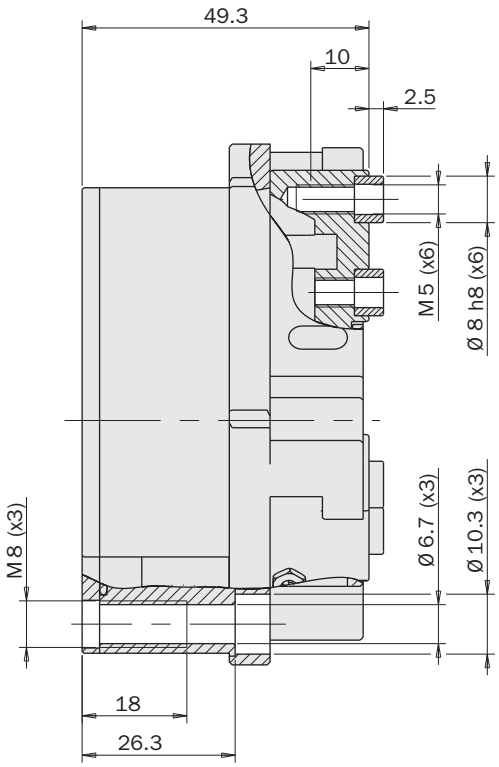
	TH5404	TH5404-NC	TH5404-NO
S	3x4mm	3x4mm	3x4mm











FIRST ANGLE PROJECTION

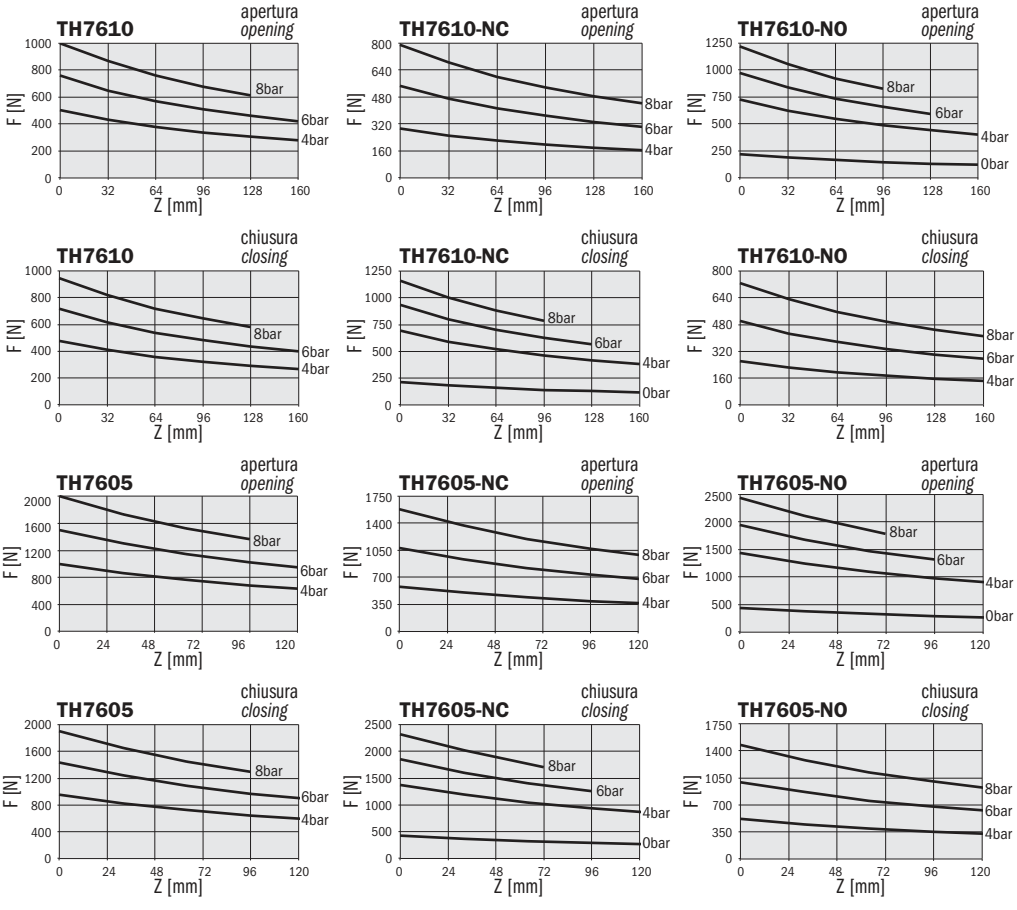
	TH7610	TH7610-NC	TH7610-NO	TH7605	TH7605-NC	TH7605-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	760N	515 ÷ 577N	954 ÷ 1000N	1500N	1024 ÷ 1148N	1896 ÷ 1989N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	2280N	1545 ÷ 1731N	2862 ÷ 3000N	4500N	3072 ÷ 3444N	5688 ÷ 5967N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	720N	890 ÷ 962N	477 ÷ 524N	1430N	1789 ÷ 1913N	948 ÷ 1041N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	2160N	2670 ÷ 2886N	1431 ÷ 1572N	4290N	5367 ÷ 5739N	2844 ÷ 3123N
Corsa (±0.2 mm) *Stroke*	3x10mm	3x10mm	3x10mm	3x5mm	3x5mm	3x5mm
Frequenza max funzionamento *Maximum working frequency*	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo *Cycle air consumption*	106cm³	174cm³	174cm³	106cm³	174cm³	174cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	1420g	1870g	1840g	1430g	1880g	1850g

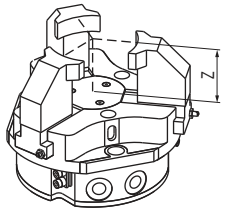
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.





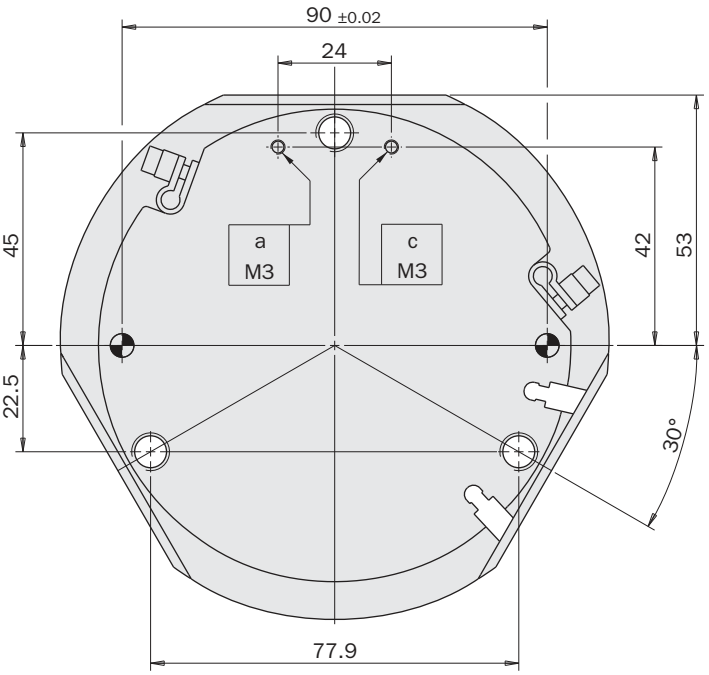
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

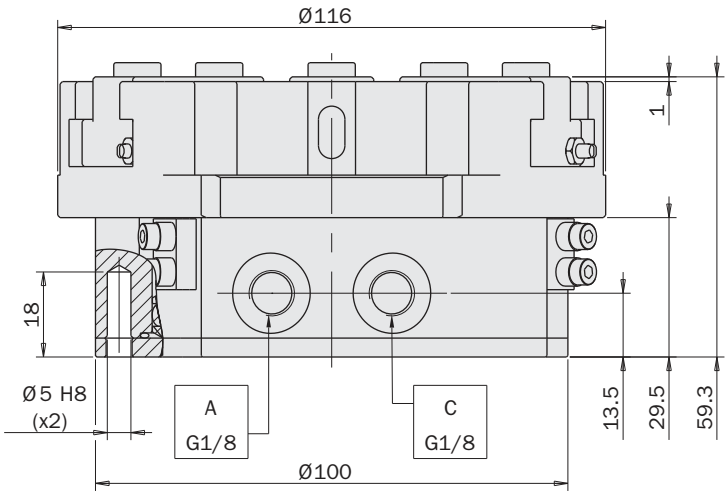
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)

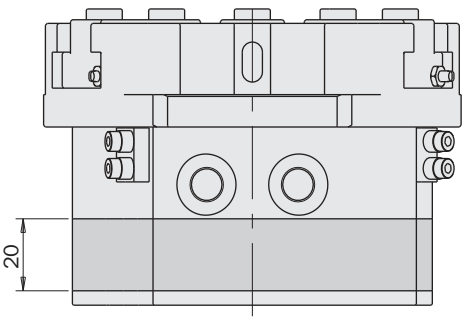
	TH7610	TH7610-NC	TH7610-NO
S	3x10mm	3x10mm	3x10mm

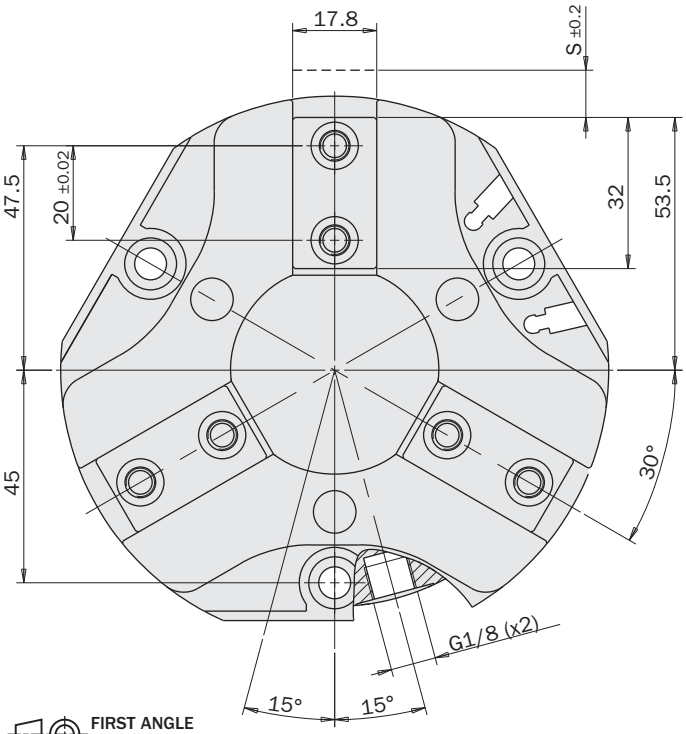
	TH7605	TH7605-NC	TH7605-NO
S	3x5mm	3x5mm	3x5mm

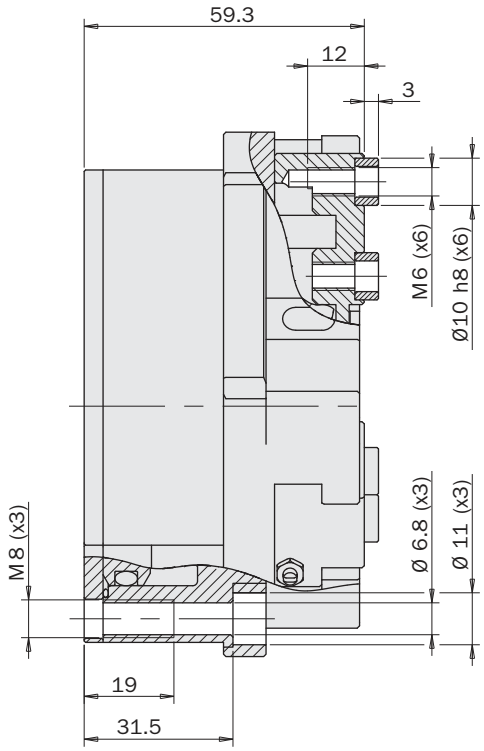




TH76..-NC/NO







FIRST ANGLE PROJECTION

07/2026

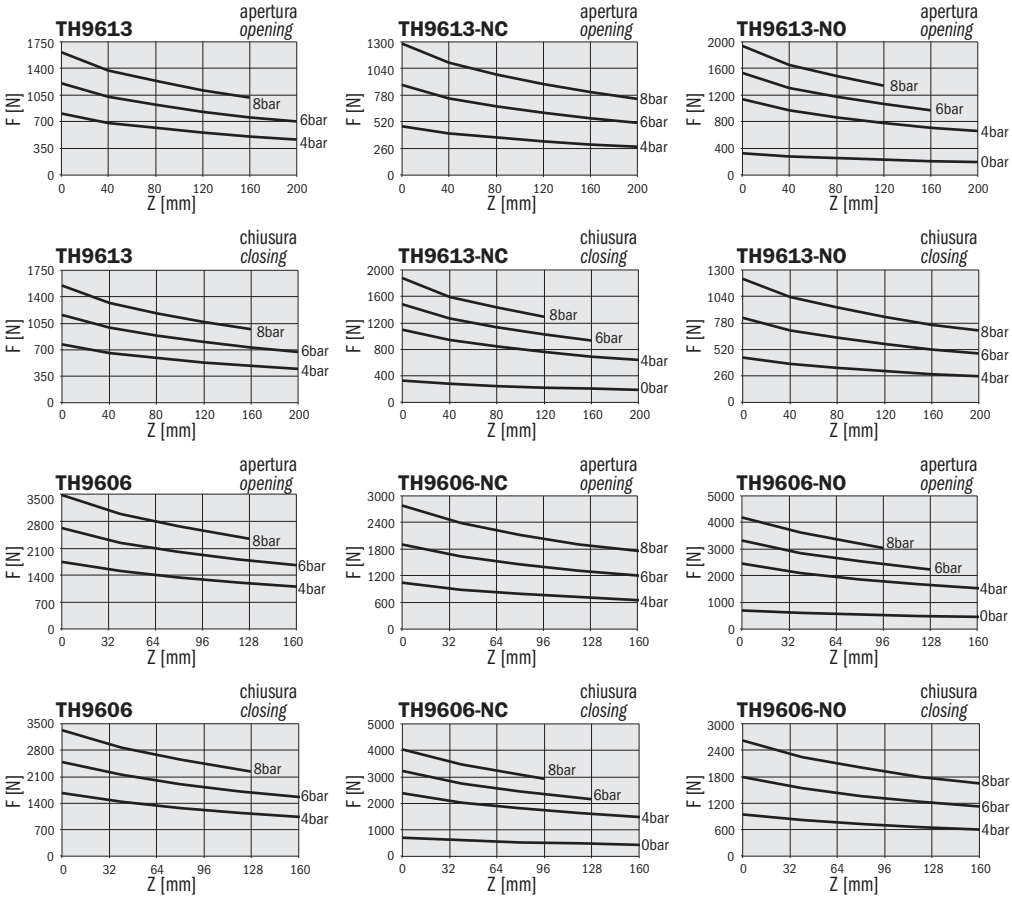
	TH9613	TH9613-NC	TH9613-NO	TH9606	TH9606-NC	TH9606-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	1210N	821 ÷ 946N	1485 ÷ 1594N	2620N	1779 ÷ 2048N	3216 ÷ 3451N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	3630N	2463 ÷ 2838N	4455 ÷ 4782N	7860N	5337 ÷ 6144N	9648 ÷ 10353N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	1160N	1422 ÷ 1564N	774 ÷ 883N	2500N	3079 ÷ 3348N	1675 ÷ 1911N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	3480N	4266 ÷ 4638N	2322 ÷ 2649N	7500N	9327 ÷ 10044N	5025 ÷ 5733N
Corsa (±0.2 mm) *Stroke*	3x13mm	3x13mm	3x13mm	3x6mm	3x6mm	3x6mm
Frequenza max funzionamento *Maximum working frequency*	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo *Cycle air consumption*	221cm³	335cm³	335cm³	221cm³	335cm³	335cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	2450g	3230g	3140g	2490g	3270g	3180g

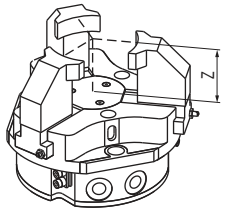
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.





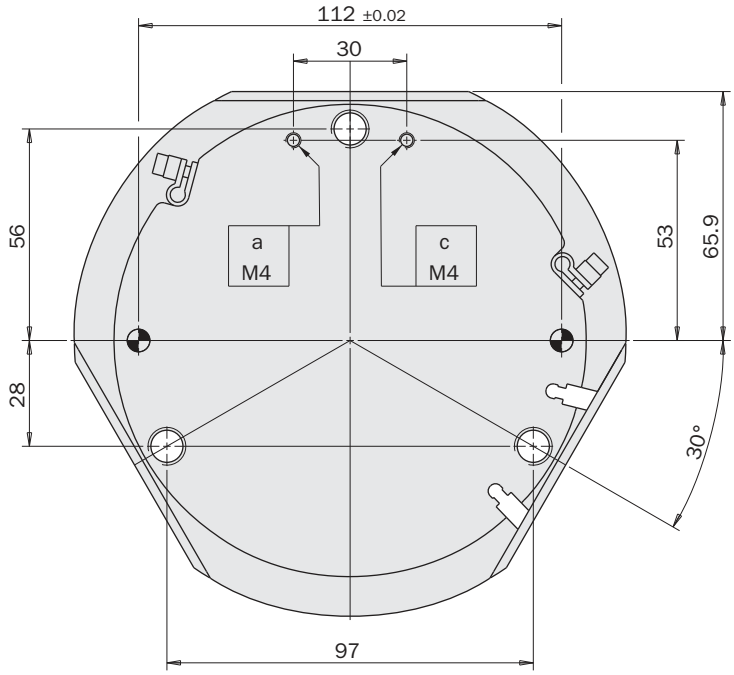
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

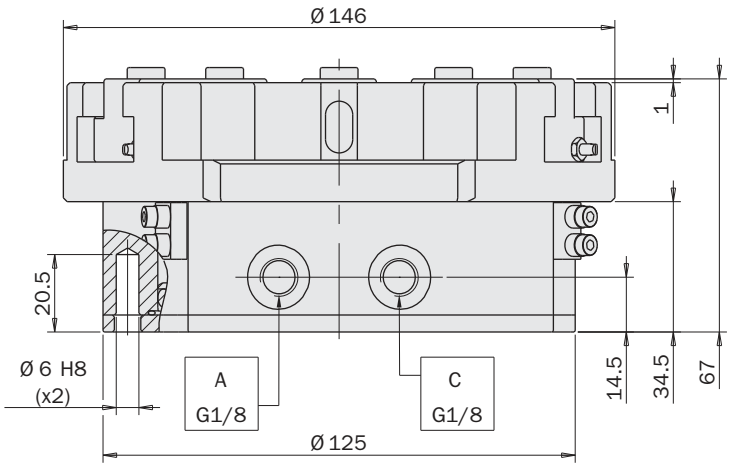
The force shown in these graphs refers to one jaw. The total force is triple.

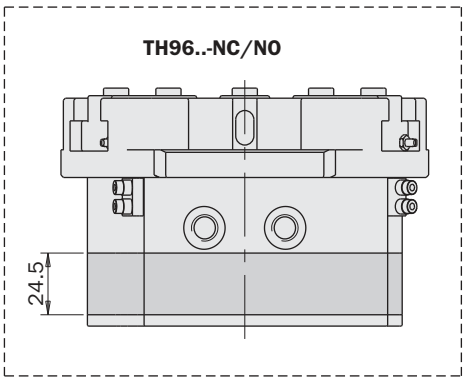
Dimensioni (mm)
Dimensions (mm)

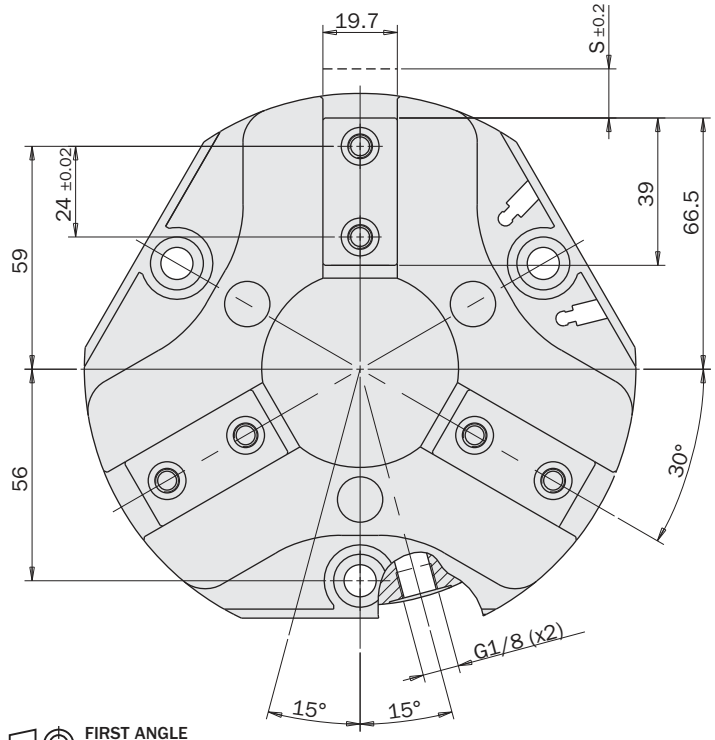
	TH9613	TH9613-NC	TH9613-NO
S	3x13mm	3x13mm	3x13mm

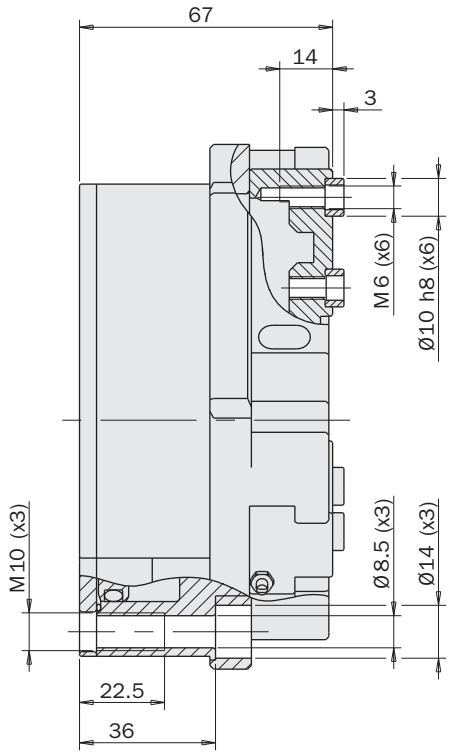
	TH9606	TH9606-NC	TH9606-NO
S	3x6mm	3x6mm	3x6mm











FIRST ANGLE PROJECTION

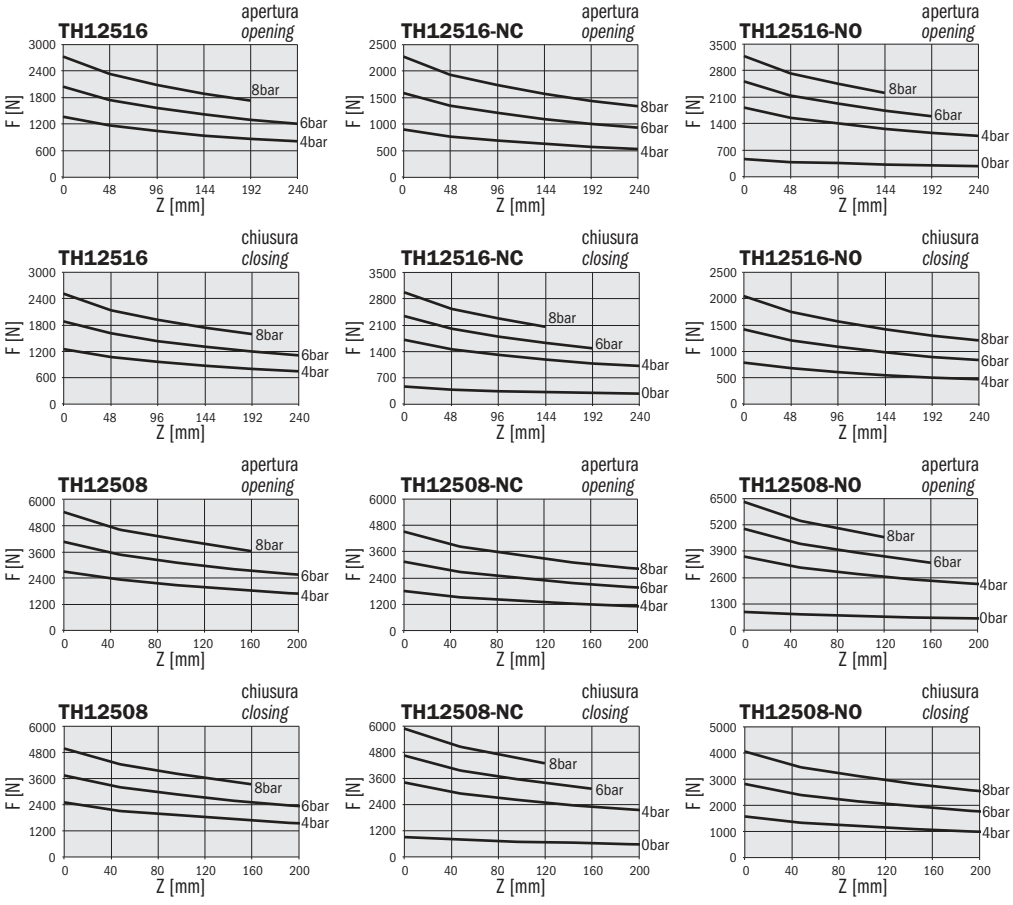
	TH12516	TH12516-NC	TH12516-NO	TH12508	TH12508-NC	TH12508-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Operating pressure range*	1.5 ÷ 8bar	3 ÷ 8bar	3 ÷ 8bar	1.5 ÷ 8bar	3 ÷ 8bar	3z ÷ 8bar
Temperatura di esercizio *Operating temperature range*	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force on each jaw at 6 bar*	2050N	1538 ÷ 1644N	2465 ÷ 2571N	4070N	3050 ÷ 3260N	4888 ÷ 5099N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	6150N	4614 ÷ 4932N	7395 ÷ 7713N	12210N	9150 ÷ 9780N	14664 ÷ 15297N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force on each jaw at 6 bar*	1880N	2294 ÷ 2400N	1367 ÷ 1473N	3740N	4550 ÷ 4761N	2712 ÷ 2922N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	5640N	6882 ÷7200N	4101 ÷ 4419N	11220N	13650 ÷ 14283N	8136 ÷ 8766N
Corsa (±0.2 mm) *Stroke*	3x16mm	3x16mm	3x16mm	3x8mm	3x8mm	3x8mm
Frequenza max funzionamento *Maximum working frequency*	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo *Cycle air consumption*	452cm³	700cm³	700cm³	452cm³	700cm³	700cm³
Tempo minimo di chiusura / apertura *Closing / opening minimum time*	0.3s / 0.3s	0.3s / 0.4s	0.4s / 0.3s	0.3s / 0.3s	0.3s / 0.4s	0.4s / 0.3s
Ripetibilità *Repetition accuracy*	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso *Weight*	4920g	6640g	6460g	4990g	6710g	6530g

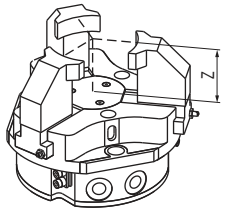
Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.





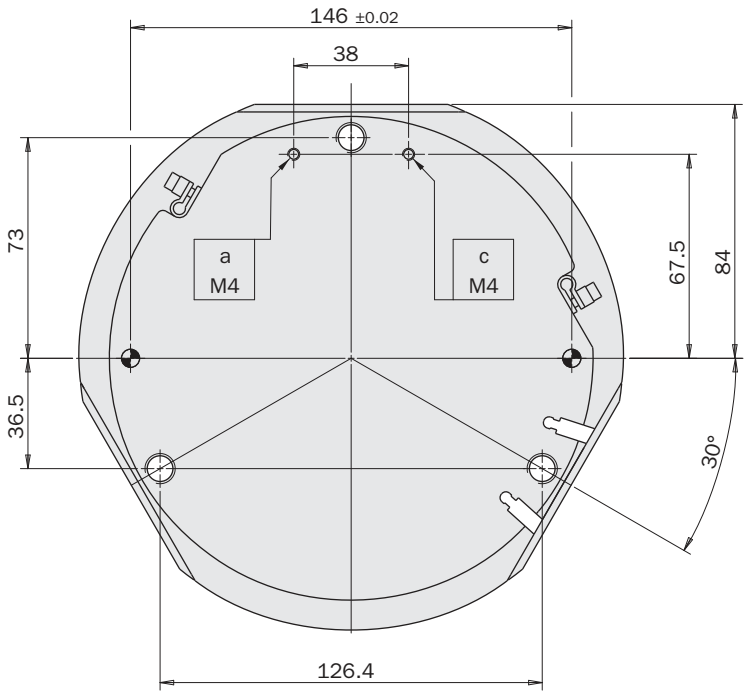
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

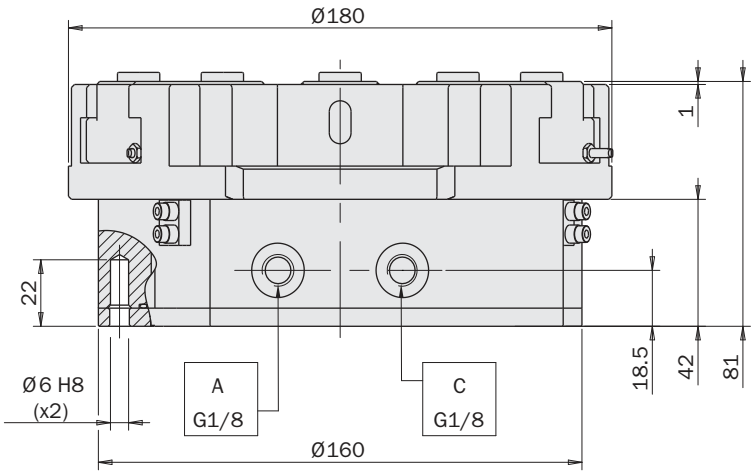
The force shown in these graphs refers to one jaw. The total force is triple.

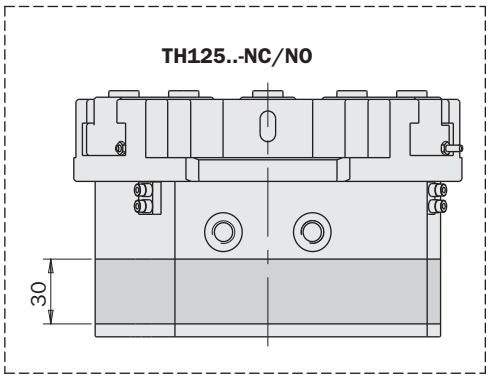
Dimensioni (mm)
Dimensions (mm)

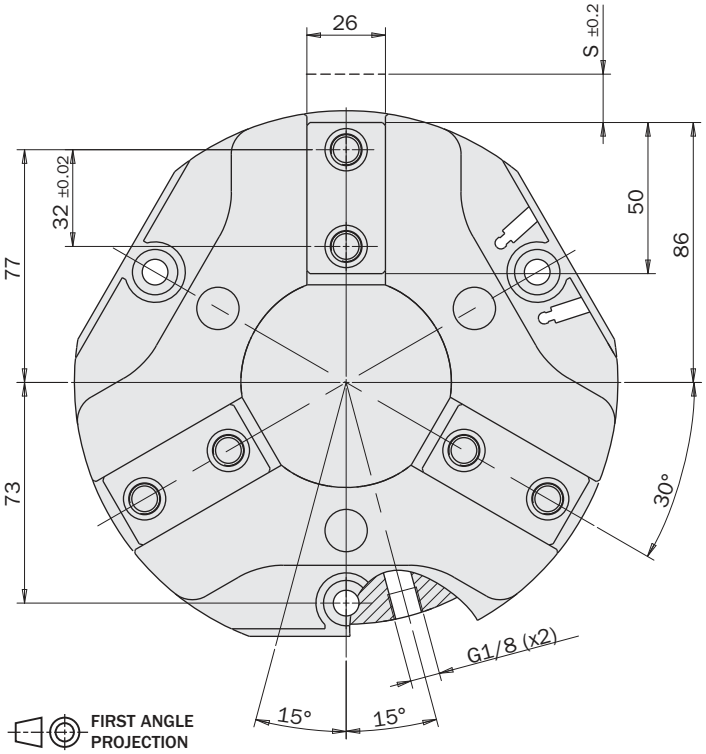
	TH12516	TH12516-NC	TH12516-NO
S	3x16mm	3x16mm	3x16mm

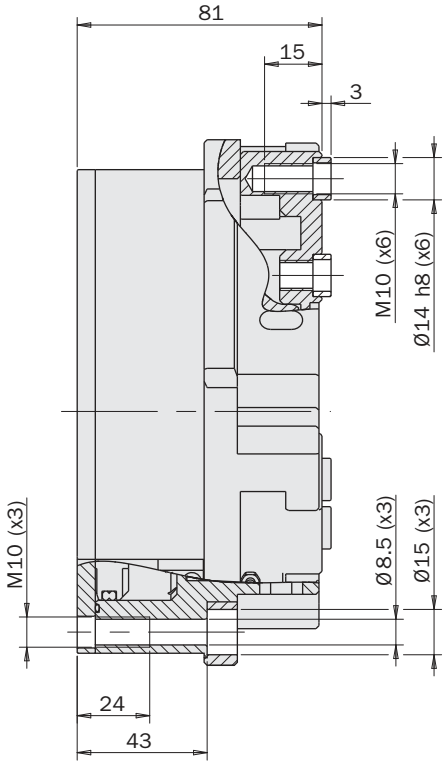
	TH12508	TH12508-NC	TH12508-NO
S	3x8mm	3x8mm	3x8mm











FIRST ANGLE PROJECTION

07/2026

Sensori magnetici (opzionali)

Il rilevamento della posizione di lavoro è affidato a uno o due sensori magnetici di prossimità, che rilevano la posizione attraverso il magnete sul pistone.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

Magnetic sensors (optional)

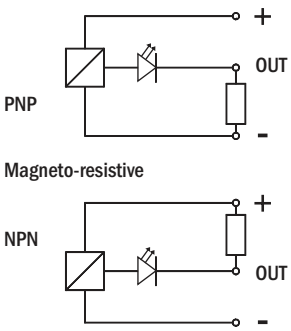
The operating position can be checked by one or two magnetic sensors, that detect the magnet on the piston inside.
Therefore a near big mass of ferromagnetic material or intense magnetic fields may cause sensing troubles.

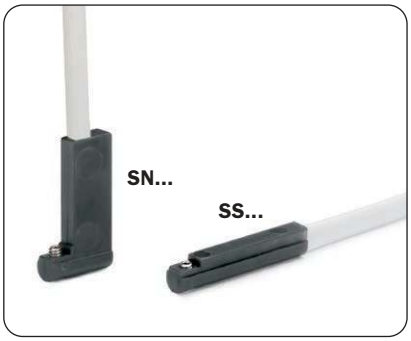
I sensori utilizzabili sono:

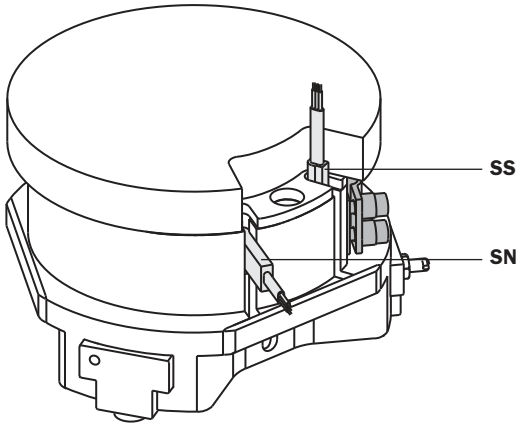
Use sensors:

SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SN3M203-G	NPN	
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	

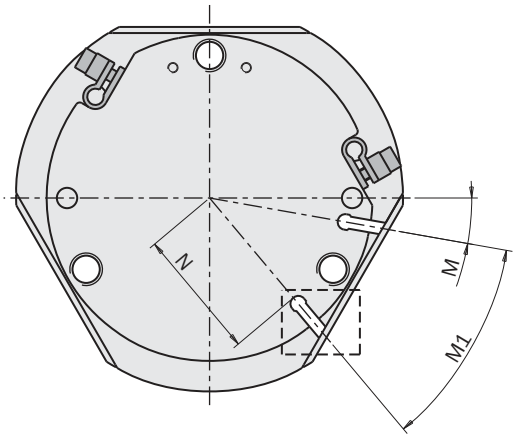


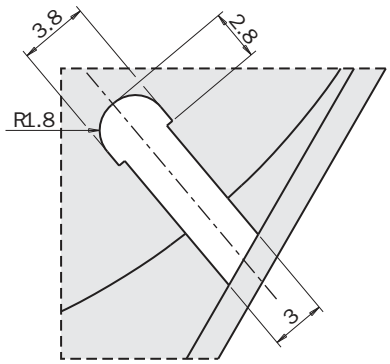






	TH27...	TH33...	TH46...	TH54...	TH76...	TH96...	TH125...
N	15.4	19.6	25.5	32	41.2	53.5	67
M	11.5°	14°	12°	10°	13°	14°	18°
M1	37°	32°	36°	40°	34°	32°	24°





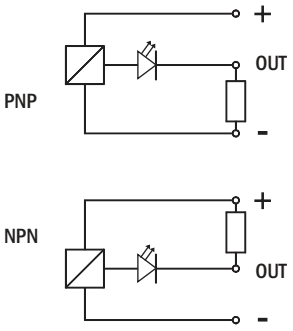
Sensori induttivi (opzionali)

Sulle taglie più grandi é anche possibile usare sensori induttivi di diametro 4mm, che si fissano con i supporti SJJ-A01 (forniti nella confezione).
Dopo aver fissato il sensore va regolata la posizione della parte metallica (M) per stabilire il punto di accensione.

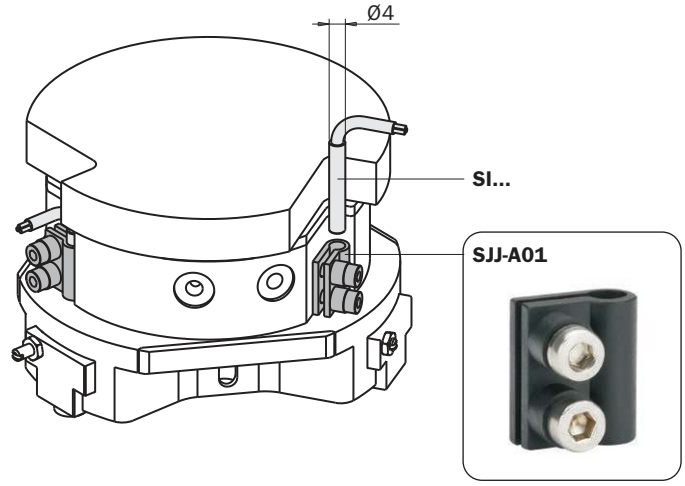
Inductive sensors (optional)

With the larger sizes it is also possible to use inductive sensors diameter 4mm, which can be fastened by the holders SJJ-A01 (supplied).
After the sensor fastening, the position of the metal part (M) must be adjusted to select the on point.

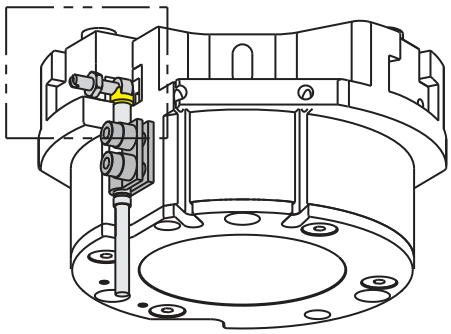
			TH54... TH76... TH96... TH125...
SI4M225-G	NPN	Cavo 2.5m *2.5m cable*	☑
SI4N225-G	PNP		☑

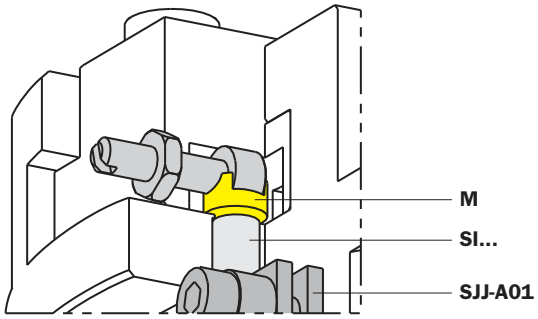


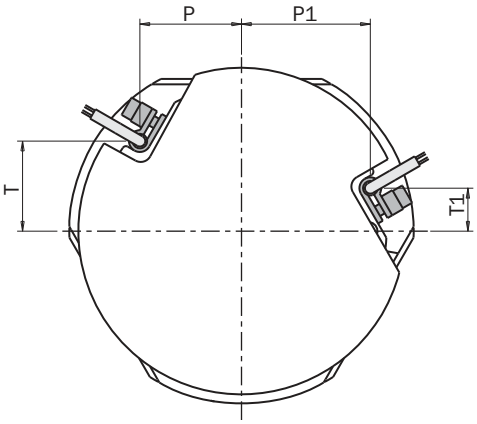












	TH54...	TH76...	TH96...	TH125...
P	28	34.8	45.6	56.8
P1	35.5	44.1	56.2	71.3
T	10.9	14.7	20.2	24.4
T1	24.9	30.8	38.6	49.6

SXT

Pinza pneumatica autocentrante a 3 griffe (serie SXT)

- Azionamento a doppio effetto.
- Forza di serraggio elevata.
- Grado di protezione IP67.
- Colonne sigillate con doppio O-Ring.
- Adatta per ambienti difficili.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

3-jaw self-centring pneumatic gripper (series SXT)

- *Double acting.*
- *Strong gripping force.*
- *Protection class: IP67.*
- *Double O-Ring sealing on the columns.*
- *Suitable for harsh environments.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*



SXT2505



SXT4008



SXT5012

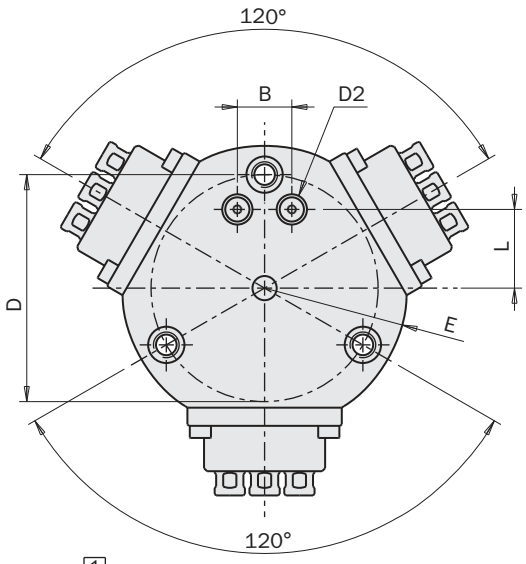


SXT6315

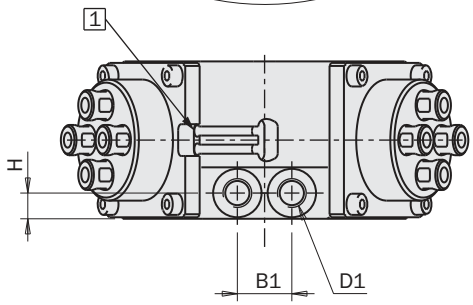
	SXT2505	SXT4008	SXT5012	SXT6315
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Operating pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Operating temperature range*	5 ÷ 100 °C			
Forza di serraggio per griffa in apertura a 6 bar *Opening gripping force at 6 bar on each jaw*	250 N	650 N	1050 N	1650 N
Forza di serraggio totale in apertura a 6 bar *Opening total gripping force at 6 bar*	750 N	1950 N	3150 N	4950 N
Forza di serraggio per griffa in chiusura a 6 bar *Closing gripping force at 6 bar on each jaw*	195 N	500 N	800 N	1200 N
Forza di serraggio totale in chiusura a 6 bar *Closing total gripping force at 6 bar*	585 N	1500 N	2400 N	3600 N
Corsa *Stroke (±0.5)*	3x5 mm	3x8 mm	3x12 mm	3x15 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz	2 Hz	2 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	16 cm^3	60 cm^3	140 cm^3	270 cm^3
Tempo di apertura / chiusura senza carico *Opening / Closing time without load*	0.02 s	0.02 s	0.05 s	0.15 s
Ripetibilità *Repetition accuracy*	0.05 mm	0.05 mm	0.05 mm	0.05 mm
Peso *Weight*	420 g	1100 g	2000 g	3800 g

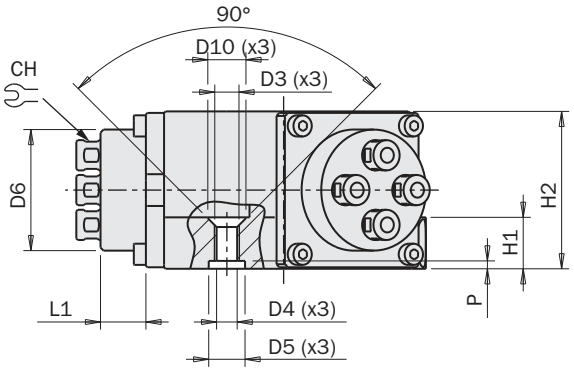
Dimensioni (mm)
Dimensions (mm)

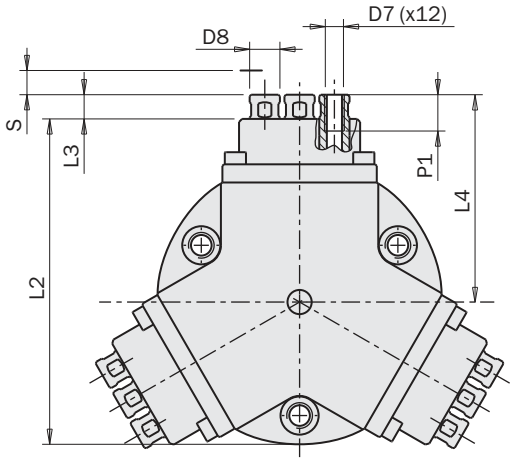
FIRST ANGLE PROJECTION

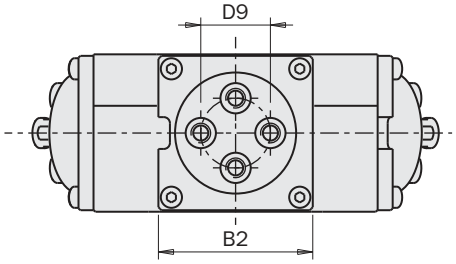


1 Sede per sensori
Sensor groove









		SXT2505	SXT4008	SXT5012	SXT6315
B		16	18	24	24
B1		16	18	24	24
B2		38	51	63	78
D	±0.02	Ø59	Ø75	Ø98	Ø114
D1		M5	G1/8	G1/8	G1/8
D2		M3	M5	M5	M5
D3		Ø5.2	Ø6.8	Ø6.8	Ø8.5
D4		M6	M8	M8	M10
D5	H8	Ø9	Ø12	Ø12	Ø14
D6		Ø27	Ø40	Ø50	Ø63
D7		M3	M6	M8	M10
D8	f7	Ø6	Ø10	Ø12	Ø16
D9	±0.02	15	Ø23	Ø33	Ø38
D10		Ø11.2	Ø12.6	Ø12.6	Ø17.3
E		R36	R47	R58	R69
H		6	8.5	10	11
H1		12	17	20	22
H2		38	52	64	80
L		24	26	38	45
L1		7.5	15	18	26
L2		78	107.5	133	162
L3		7.5	8	8.5	9.5
L4		49.5	68.5	83.5	102.5
P	+0.1	2.1	2.6	2.6	2.6
P1		6	12	20	20
S (x2)		5	8	12	15
CH		5	9	11	14

MPTM

Pinza elettrica autocentrante a 3 griffe

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

3-jaw self-centring electric gripper

- *Plug & play user friendly gripper.*
- *No electricity consumption when gripper is engaged.*
- *No programming required.*
- *Gripper retention guaranteed in event of blackout.*
- *Self Adapting jaws part.*
- *Long life Brushless motor (Brushless DC).*
- *Built-in motor driver.*
- *24 Vdc Low Voltage Power Supply.*
- *M8x1, 3 poles standard connection.*
- *Controllable by PLC as a pneumatic valve.*
- *Fiber-carbon gear reduction.*
- *10 milion cycle maintenance-free.*
- *T-slot style jaws for heavy loads.*
- *Weight-dimensions-force best trade off.*
- *Rotary actuator fitting compatible.*
- *Optional magnetic sensors.*



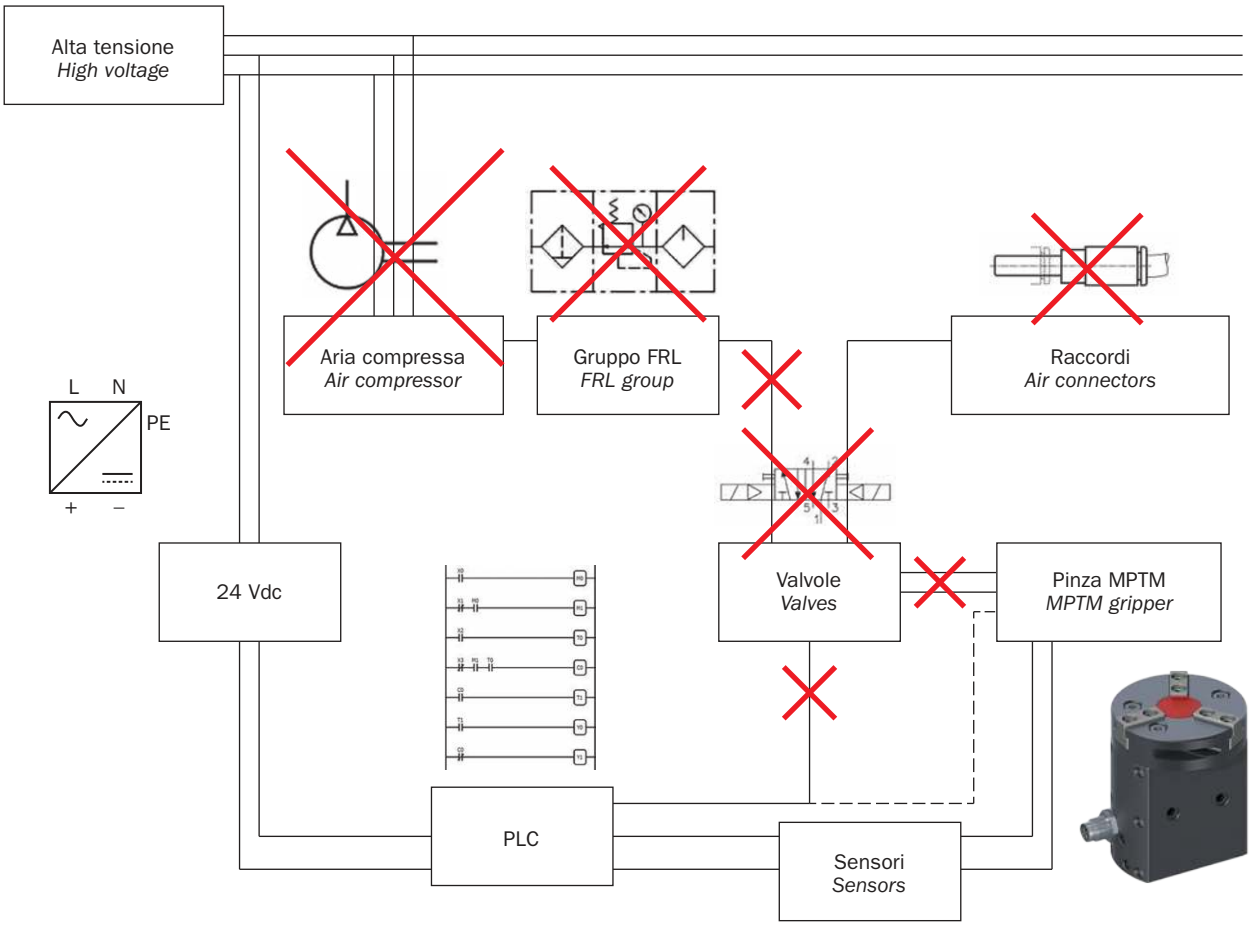
MPTM1606



MPTM2508



MPTM3210



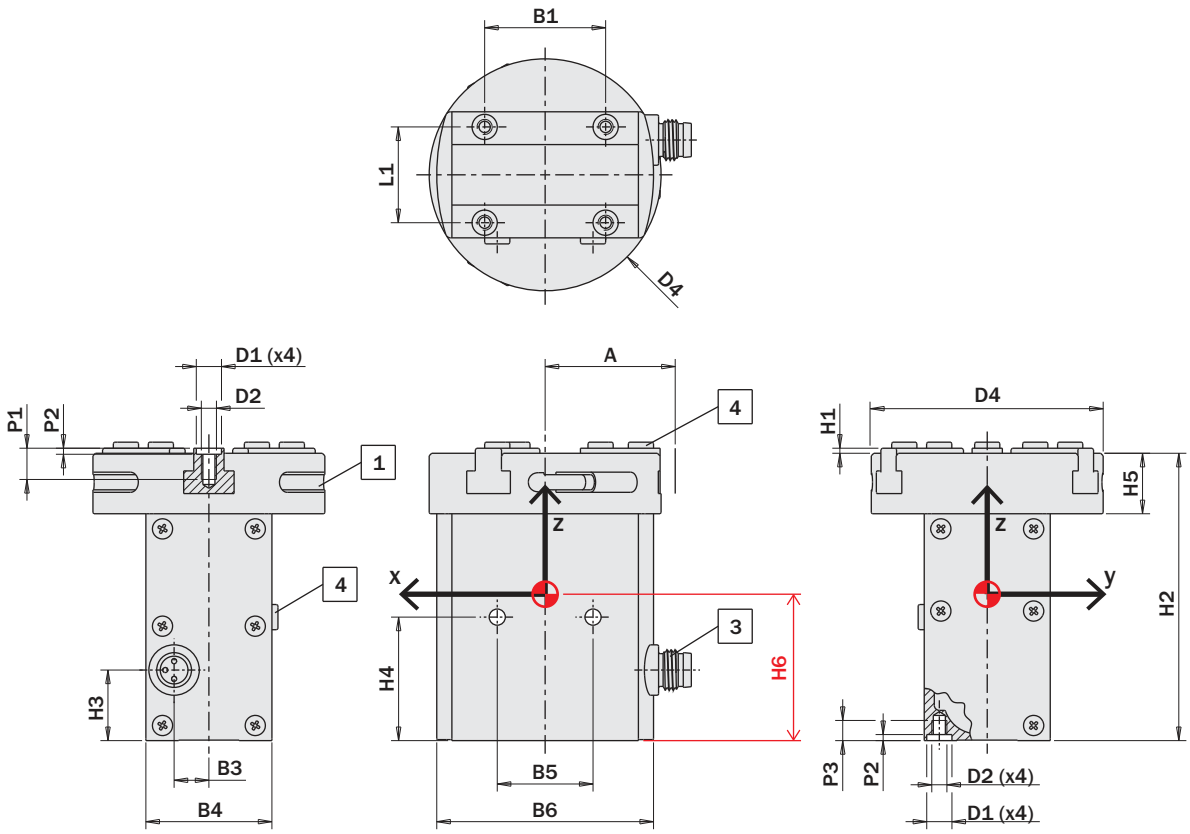




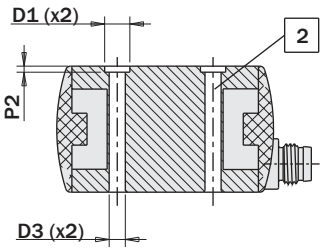


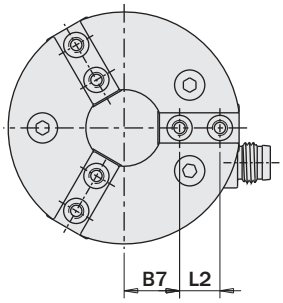
	MPTM1606	MPTM2508	MPTM3210
Forza di serraggio totale *Total gripping force*	57 N	124 N	220 N
Corsa *Stroke*	3x3 mm (±0.2 mm)	3x4 mm (±0.2 mm)	3x5 mm (±0.2 mm)
Frequenza alla temperatura ambiente di 30°C *Frequency at an ambient temperature of 30°C*	0.95 Hz	0.83 Hz	0.85 Hz
Tempo chiusura griffe *Jaw closing time*	0.08 s	0.12 s	0.16 s
Tempo di lavoro pinza *Working gripper time*	0.19 s	0.31 s	0.26 s
Ciclo di lavoro alla temperatura ambiente di 30°C *Duty cycle at an ambient temperature of 30°C*	36%	52%	44%
Tensione d'alimentazione *Power supply*	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco *Peak current*	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale *Nominal current*	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless *Brushless motor power*	6 W	11 W	23 W
Connessione *Connection*	M8 - 3 poli *M8 - 3 poles*		
Segnale d'ingresso apertura/chiusura *Open/closed input signal*	PNP open collector *PNP open collector*		
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio *Operating temperature*	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione *Environmental Degree*	IP54	IP54	IP54
Rumorosità *Noise level*	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) *Mass (motor included)*	183 g	430 g	693 g
Certificazione Camera Bianca ISO14644-1 *ISO14644-1 Clean Room Certification*	CLASS 7	-	-
Normative di riferimento *Reference standards*	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale Jxx *Barycentric moment of inertia*	0.66 kgcm²	2.75 kgcm²	5.78 kgcm²
Momento d'inerzia baricentrale Jyy *Barycentric moment of inertia*	0.75 kgcm²	3.13 kgcm²	6.89 kgcm²
Momento d'inerzia baricentrale Jzz *Barycentric moment of inertia*	0.36 kgcm²	1.6 kgcm²	3.73 kgcm²
Tecnologia e opzioni *Technology and options*	Pagina 580 - 581 *Page 580 - 581*		

Dimensioni (mm)
Dimensions (mm)









		MPTM1606	MPTM2508	MPTM3210
A		25.8	36	44
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		25	32	35
B5	±0.02	19	25	30
B6		45	60	73
B7		11	15	18.5
C		22.8	32	39
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
D4		Ø46	Ø64	Ø78
H1		1	1	1
H2		57	74.5	85.5
H3		14	17	19
H4	±0.02	24.5	32	38
H5		12	15	17
H6		37	49.3	56.5
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8

1 Cava per sensore magnetico
Magnetic sensor slot

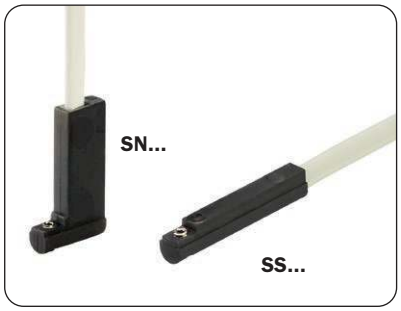
2 Foro passante per fissaggio pinza
Through hole for gripper fastening

3 Connessione elettrica
Electrical connection

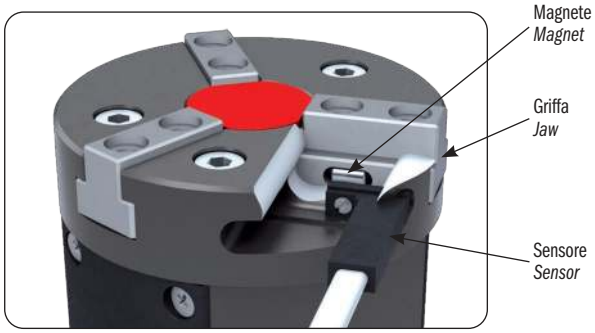
4 Boccole di centraggio
Centering sleeves

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe.
Per i dettagli si veda la sezione "Accessori".



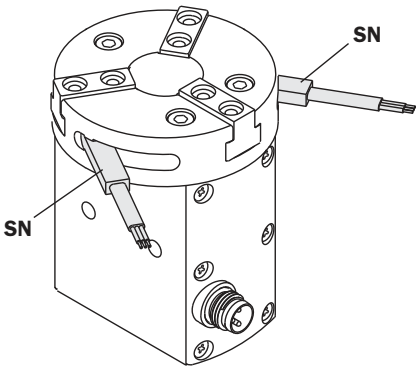
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.
For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



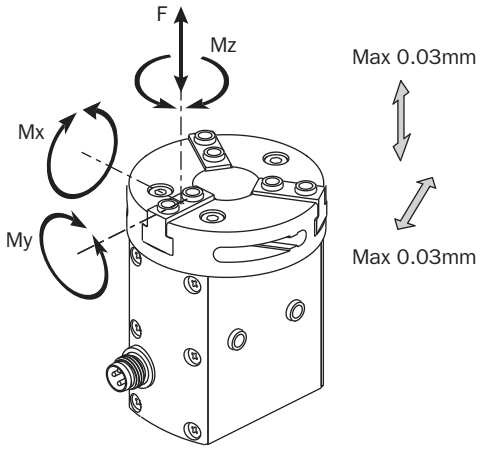
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.
Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.
F s, Mx s, My s, Mz s, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.
F d, Mx d, My d, Mz d, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.
La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.
La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator.
F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws.
F d, Mx d, My d, Mz d, are the maximum permitted loads under dynamic conditions, that is with running jaws.
The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.
The picture below shows also the jaw maximum backlash.

	MPTM1606	MPTM2508	MPTM3210
F s	60 N	120 N	200 N
Mx s	3 Nm	8 Nm	20 Nm
My s	3 Nm	8 Nm	20 Nm
Mz s	3 Nm	8 Nm	20 Nm
F d	0.6 N	1.2 N	2 N
Mx d	3 Ncm	8 Ncm	20 Ncm
My d	3 Ncm	8 Ncm	20 Ncm
Mz d	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g



MFD / MFU

Pinze ad espansione per interni serie MFD/MFU

- Nuovo concetto di pinza innovativa.
- Movimento verso il basso (MFD), o verso l'alto (MFU).
- La parte elastica può essere in Silicone o EPDM.
- Diametro di presa da 8 a 85 mm.
- Coni di centraggio opzionali.
- Sensori magnetici opzionali.
- Vari accessori disponibili per il fissaggio.

ID expansion grippers series MFD/MFU

- *New concept for innovative air hands.*
- *Downward movement (MFD), or upward movement (MFU).*
- *The elastic part can be in Silicone or EPDM.*
- *Grip diameters from 8 to 85 mm.*
- *Optional nose cones for centering.*
- *Optional proximity magnetic sensors.*
- *Several mounting accessories.*

MFD



MFU



M F D 1 6 E 0 2 C L

Direzione del movimento
Actuation direction

D - Verso il basso
D - Downward
U - Verso l'alto
U - *Upward*

Diametro nominale
Base diameter

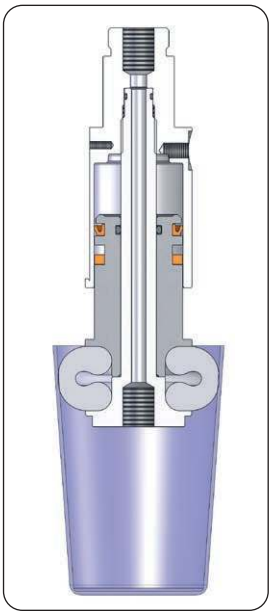
08 - 10 - 12 - 14 - 16 - 18 - 20 - 22
27 - 33 - 41 - 47 - 51 - 63

Alimentazione
Air feeding

C - Con raccordo coassiale
C - With coaxial air fitting
H - Con raccordo laterale e foro passante
H - With side air fitting and through hole

Parte elastica
Elastic part

S01 - in Silicone bianco
S01 in white Silicone
E02 - in EPDM nero
E02 in black EPDM



Foro passante

I modelli ...HL sono dotati di un foro passante, che si può usare per immettere aria compressa o in depressione, allo scopo di raffreddare delle parti o di controllarne la tenuta.

Through hole

The ...HL models have a central through hole. It can be used to blow compressed air, or to provide vacuum, with the purpose to cool a part, or to check the sealing.

Silicone o EPDM?

La parte elastica può essere in Silicone bianco o EPDM nero.
Il Silicone può essere usato su un campo di temperature più ampio e garantisce una maggiore durata, ma non è adatto in alcun settori merceologici, perchè rende difficoltosa la verniciatura o il rivestimento delle parti che tocca.
Invece l'EPDM non lascia impronte e assicura anche un maggior coefficiente di attrito.
La parte elastica in Silicone o EPDM è fornita come ricambio e può essere sostituita, quando usurata.
La vita media della parte elastica in EPDM è di circa 0.5 milioni di cicli.
La vita media della parte elastica in Silicone è di circa 1 milione di cicli.

Silicone or EPDM?

The elastic part can be in white silicone or black EPDM.
Silicone can be used over a wider temperature range and assures a longer life time, but it is not suitable in some industries, because it makes it difficult to paint or to coat the parts that are touched.
EPDM is mark-free and provides a higher coefficient of friction.
The elastic part in Silicone or EPDM is available as a spare part and can be replaced, when worn out.
The expected medium life time of the elastic part in EPDM is about 0.5 million cycles.
The expected medium life time of the elastic part in Silicone is about 1 million cycles.

Ricambio per la parte elastica
Spare elastic part

	T	MFD / MFU												
		Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø22	Ø27	Ø33	Ø41	Ø47	Ø51	Ø63
 Silicone Silicone	-70°C +200°C	IF08S01	IF10S01	IF12S01U	IF14S01U	IF16S01U	IF18S01	IF20S01	IF22S01	IF27S01	IF33S01	IF41S01	IF47S01	IF51S01	IF63S01
 EPDM	-50°C +140°C	IF08E02	IF10E02	IF12E02U	IF14E02U	IF16E02U	IF18E02	IF20E02	IF22E02	IF27E02	IF33E02	IF41E02	IF47E02	IF51E02	IF63E02

T - Temperatura d'esercizio della parte elastica (5÷60°C per il corpo pinza)
T - Operating temperature of the elastic part (5÷60 °C for the gripper body)

Coni di centraggio

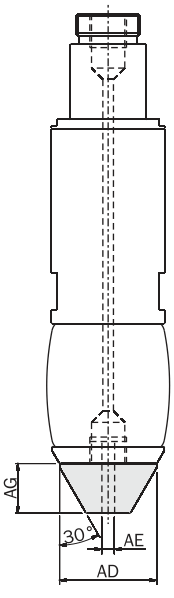
Sono disponibili come accessori dei coni di centraggio in nylon, con la vite inox.
Per le taglie maggiori di 33, sono anche dotati del foro passante.

Centering cones

Centering cones in nylon with the stainless screw, are available as an option.
For the sizes larger than 33, they are also provided with a through hole.



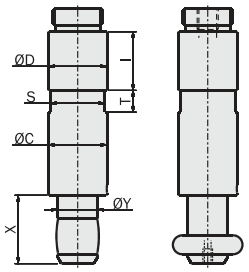
MFD / MFU



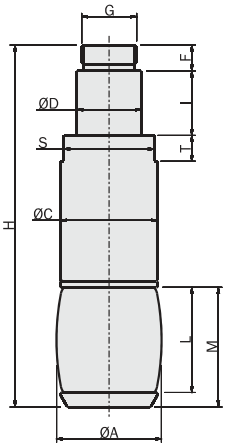
	MFC10	MFC12	MFC14	MFC18	MFC22	MFC27	MFC33	MFC41	MFC51	MFC63
Peso *Weight*	0.5 g	1 g	1 g	1.5 g	2 g	5 g	7 g	12 g	21 g	30 g
ØAD [mm]	7.8	10	11.8	15.5	18.8	21.3	28	37	47	56
ØAE [mm]	-	-	-	-	-	-	4	4	4	4
ØAG [mm]	2.9	3.5	4.5	6.5	8	9.5	12	19	26	30
MFD MFU	Ø10	Ø12	Ø14 Ø16	Ø18 Ø20	Ø22	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63

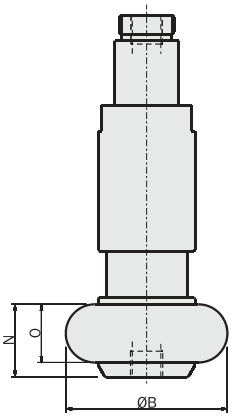
MFD

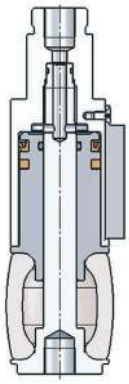
Dimensioni (mm)
Dimensions (mm)



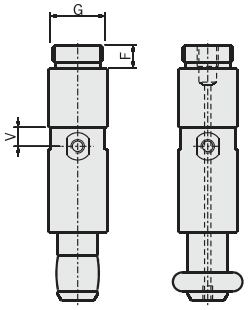
MFD 08/10/12



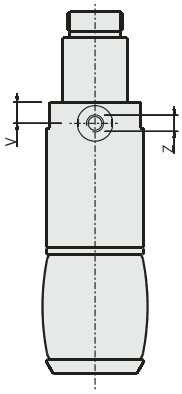


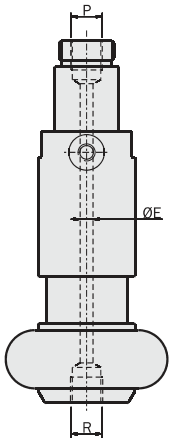


MFD...E02CL
MFD...S01CL



MFD 08/10/12





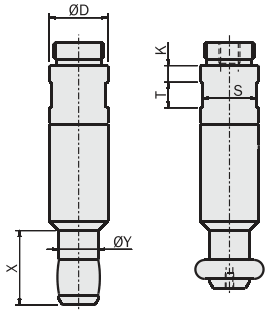


MFD...E02HL
MFD...S01HL

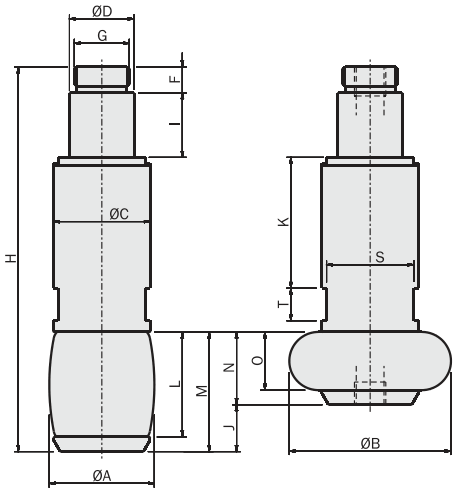
	m	ØA	ØB	ØC	ØD	ØE	F	G	H	I	L	M	N	O	P	R	S	T	V	Z	X	ØY
MFD08...CL MFD08...HL	15g	8	11	14	14	- 1.5	5.5	M12x1	59.2	14	7	9.2	5.7	3.5	M5	M2	13	6	- 4.5	- M3	14.7	7.6
MFD10...CL MFD10...HL	16g	10.5	13.5	14	14	- 1.5	5.5	M12x1	60.7	14	8.5	10.7	6.7	4.5	M5	M2	13	6	- 4.5	- M3	16.2	9.5
MFD12...CL MFD12...HL	17g	13	17	14	14	- 2	5.5	M12x1	62	14	10.5	13	7.5	5	M5	M3	13	6	- 4.5	- M3	16.8	11.8
MFD14...CL MFD14...HL	17g	15	19.5	14	14	- 2	5.5	M12x1	62.3	14	13	15.8	8.8	6	M5	M3	13	6	- 4.5	- M3	-	-
MFD16...CL MFD16...HL	17g	18	21.5	14	14	- 2	5.5	M12x1	62.3	14	13	15.8	8.8	6	M5	M3	13	6	- 4.5	- M3	-	-
MFD18...CL MFD18...HL	28g	19.5	24.5	18	14	- 2.5	5.5	M12x1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	- 5.3	- M5	-	-
MFD20...CL MFD20...HL	28g	22.5	26.5	18	14	- 2.5	5.5	M12x1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	- 5.3	- M5	-	-
MFD22...CL MFD22...HL	43g	24	31.5	21.5	14	- 2.5	5.5	M12x1	80	14	21	24.2	12.2	11	M5	M3	19	7	- 5.5	- M5	-	-
MFD27...CL MFD27...HL	79g	28	36	25	20	- 3	8	M17x1	98	20	26	30	18	14	G1/8	M5	22	8	- 7	- M5	-	-
MFD33...CL MFD33...HL	118g	34	44	30	20	- 4	8	M17x1	112	20	32.5	37	22.5	18	G1/8	G1/8	28	8	- 6.5	- M5	-	-
MFD41...CL MFD41...HL	280g	42	54	40	30	- 4.3	11	M27x1	142.5	30	39.5	45	29.5	24	G1/8	G1/8	36	11	- 7.5	- M5	-	-
MFD47...CL MFD47...HL	280g	50	58	40	30	- 4.3	11	M27x1	142.5	30	39.5	45	29.5	24	G1/8	G1/8	36	11	- 7.5	- M5	-	-
MFD51...CL MFD51...HL	490g	54	68	50	30	- 5.5	11	M27x1	168	30	48	55	37	30	G1/8	G1/8	45	13	- 10.5	- G1/8	-	-
MFD63...CL MFD63...HL	800g	66	84	60	30	- 6	11	M27x1	198	30	61	70	45	36	G1/8	G1/8	54	16	- 14	- G1/8	-	-

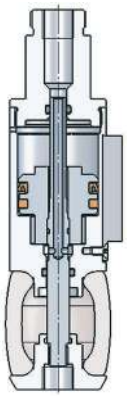
m [Peso]
[Weight]

Dimensioni (mm)
Dimensions (mm)

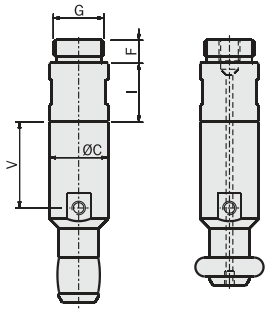


MFU 08/10/12

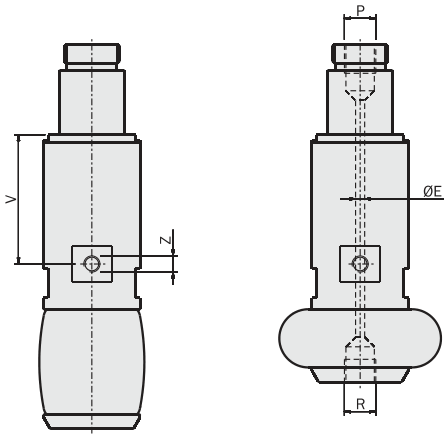


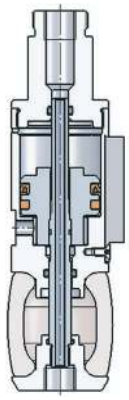


MFU...E02CL
MFU...S01CL



MFU 08/10/12





MFU...E02HL
MFU...S01HL

	m	ØA	ØB	ØC	ØD	ØE	F	G	H	I	J	K	L	M	N	O	P	R	S	T	V	Z	X	ØY
MFU08...CL MFU08...HL	16g	8	11	14	14	- 1.1	5.5	M12x1	61.5	14	3.5	4	7	9.2	5.7	3.5	M5	M2	13	6	- 20	- M3	16.3	7.6
MFU10...CL MFU10...HL	17g	10.5	13.5	14	14	- 1.1	5.5	M12x1	62.5	14	4	4	8.5	10.7	6.7	4.5	M5	M2	13	6	- 20.5	- M3	17.7	9.5
MFU12...CL MFU12...HL	18g	13	17	14	14	- 1.3	5.5	M12x1	65	14	5.5	4	10.5	13	7.5	5	M5	M3	13	6	- 21.5	- M3	20	11.8
MFU14...CL MFU14...HL	20g	15	19.5	14	14	- 1.3	5.5	M12x1	68.5	14	7	24.2	13	15.8	8.8	6	M5	M3	13	6	- 23.2	- M3	-	-
MFU16...CL MFU16...HL	20g	18	21.5	14	14	- 1.3	5.5	M12x1	68.5	14	7	24.2	13	15.8	8.8	6	M5	M3	13	6	- 23.2	- M3	-	-
MFU18...CL MFU18...HL	35g	19.5	24.5	18	14	- 1.3	5.5	M12x1	78	14	7.5	29	16.5	19.5	12	9	M5	M3	16	7	- 28	- M5	-	-
MFU20...CL MFU20...HL	35g	22.5	26.5	18	14	- 1.3	5.5	M12x1	78	14	7.5	29	16.5	19.5	12	9	M5	M3	16	7	- 28	- M5	-	-
MFU22...CL MFU22...HL	50g	24	31.5	21.5	14	- 1.8	5.5	M12x1	86.5	14	10	31.8	21	24.2	14.2	11	M5	M3	20	8	- 31.5	- M5	-	-
MFU27...CL MFU27...HL	100g	28	36	25	20	- 2.5	8	M17x1	108	20	12	37.5	26	30	18	14	G1/8	M5	22	9	- 37	- M5	-	-
MFU33...CL MFU33...HL	130g	34	44	30	20	- 2.8	8	M17x1	119	20	14.5	40.5	32.5	37	22.5	18	G1/8	G1/8	28	10	- 40	- M5	-	-
MFU41...CL MFU41...HL	300g	42	54	40	30	- 4.5	11	M27x1	147	30	15.5	45	39.5	45	29.5	24	G1/8	G1/8	36	12	- 45	- M5	-	-
MFU47...CL MFU47...HL	300g	50	58	40	30	- 4.5	11	M27x1	147	30	15.5	45	39.5	45	29.5	24	G1/8	G1/8	36	12	- 45	- M5	-	-
MFU51...CL MFU51...HL	500g	54	68	50	30	- 5	11	M27x1	169	30	18	54	48	55	37	30	G1/8	G1/8	45	14	- 56.5	- G1/8	-	-
MFU63...CL MFU63...HL	785g	66	84	60	30	- 5	11	M27x1	194	30	25	62	61	70	45	36	G1/8	G1/8	54	16	- 64.5	- G1/8	-	-

m [Peso]
[Weight]

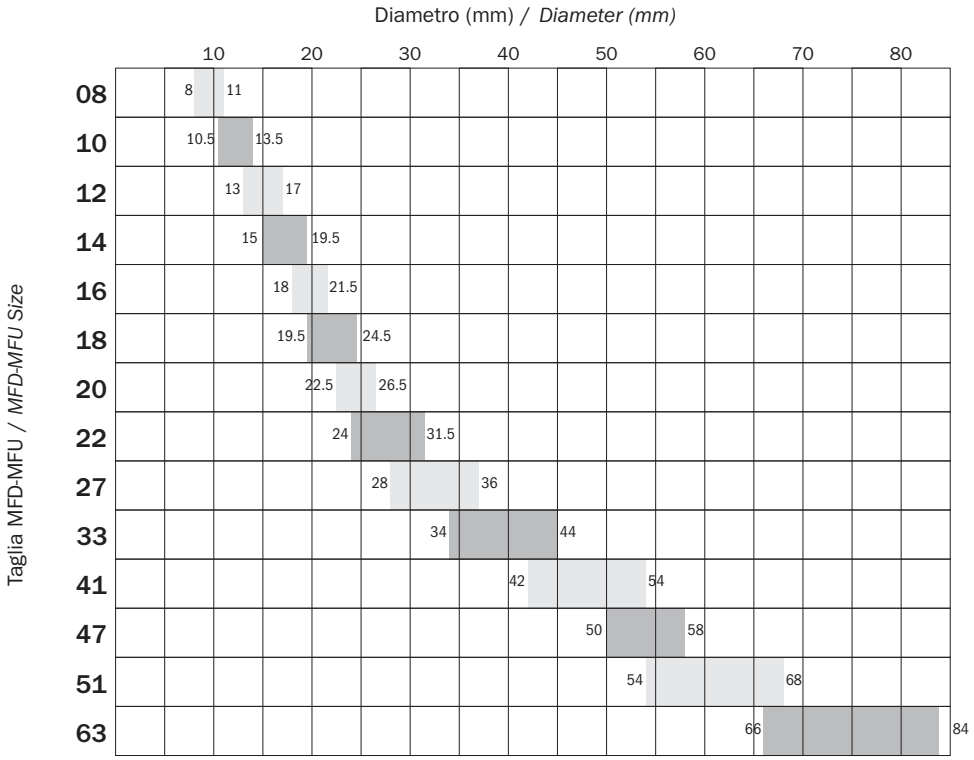
MFD / MFU

Diametri di presa

La taglia è indicata nel codice con un diametro nominale della parte elastica.
Ma ogni modello può lavorare fra un diametro minimo ed un diametro massimo.

Grip diameters

The gripper size is indicated in the gripper code with a nominal diameter of the elastic part.
Each model can work in a diameter range between a minimum and a maximum value.



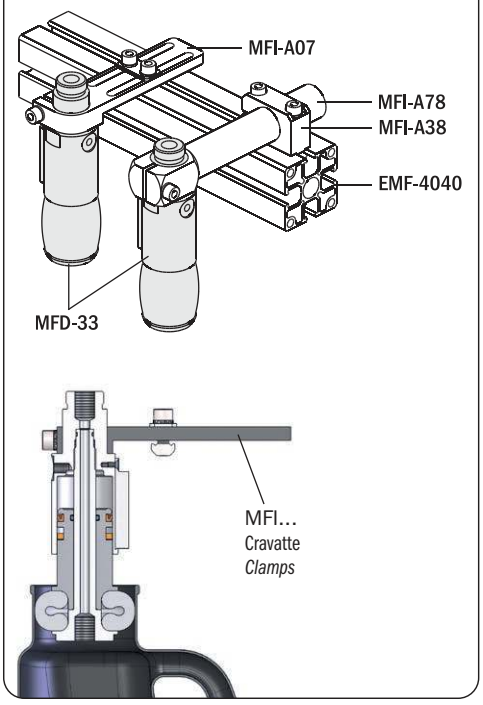
Fissaggio

La pinza può essere montata, con una staffa a cravatta, direttamente sul suo codolo [1].
Con una staffa a cravatta, sulla prolunga opzionale [2].
Oppure attraverso i nippli filettati opzionali [3].

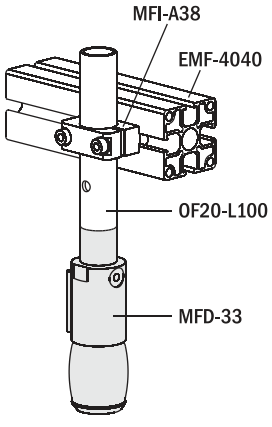
Fastening

The gripper can be fitted with a clamp, either directly on its tail [1], or on the optional extension tube [2].
Alternatively, it can be fitted through the optional threaded nipples [3].

[1]

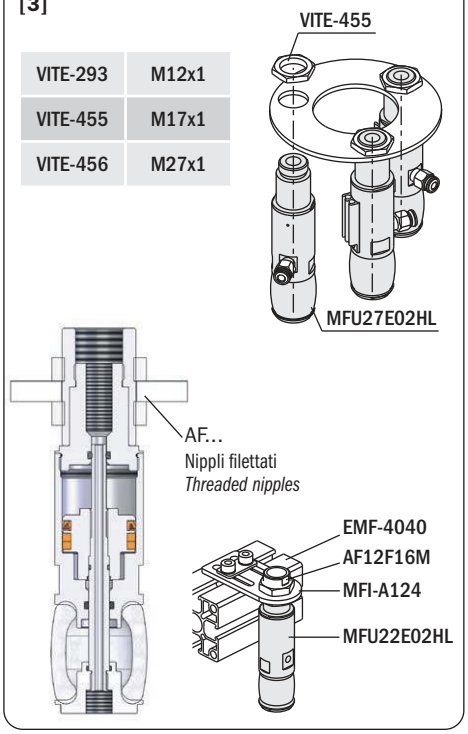


[2]



[3]

VITE-293	M12x1
VITE-455	M17x1
VITE-456	M27x1

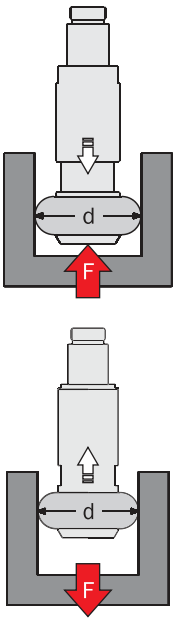


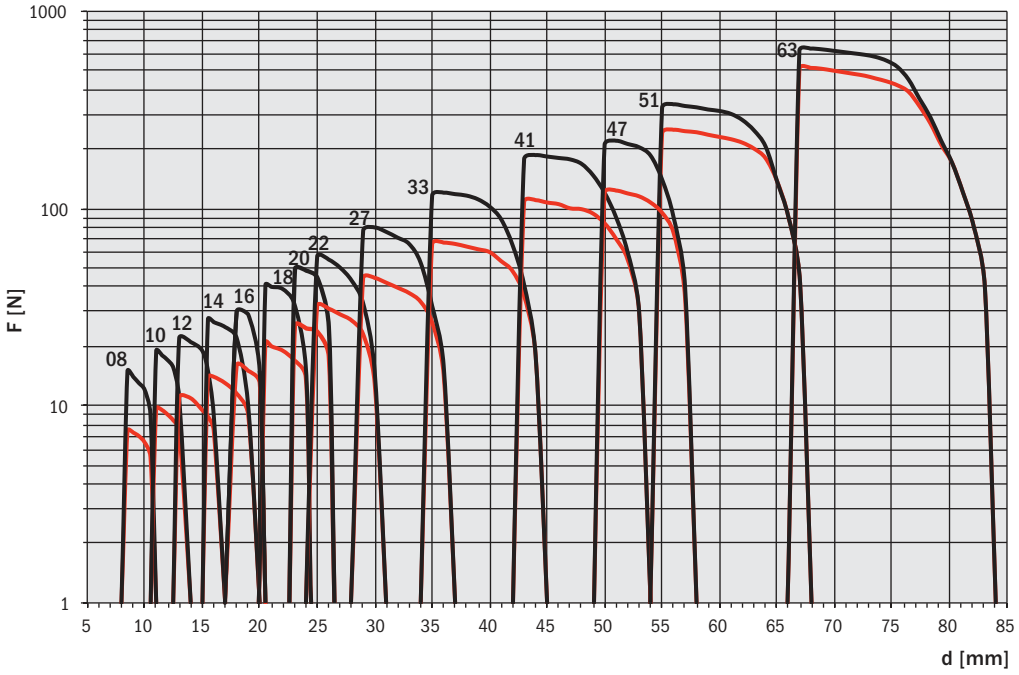
Forza di serraggio

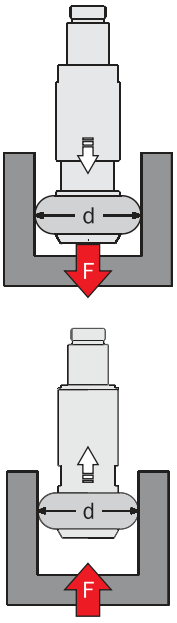
La forza esercitata da una pinza MFD/MFU dipende da molteplici fattori.
Principalmente il diametro dell'oggetto, ma anche la sua finitura superficiale, il coefficiente di attrito e la pressione di alimentazione.
I grafici mostrano la forza di sfilamento (F) di un carico preso con la pinza a espansione, in funzione del diametro (d).
Per le misurazioni sono stati usati anelli di alluminio, con rugosità Ra=0.8 e le pinze alimentate a 6 bar.
Le linee nere si riferiscono alle pinze in EPDM e quelle rosse alle pinze in Silicone.

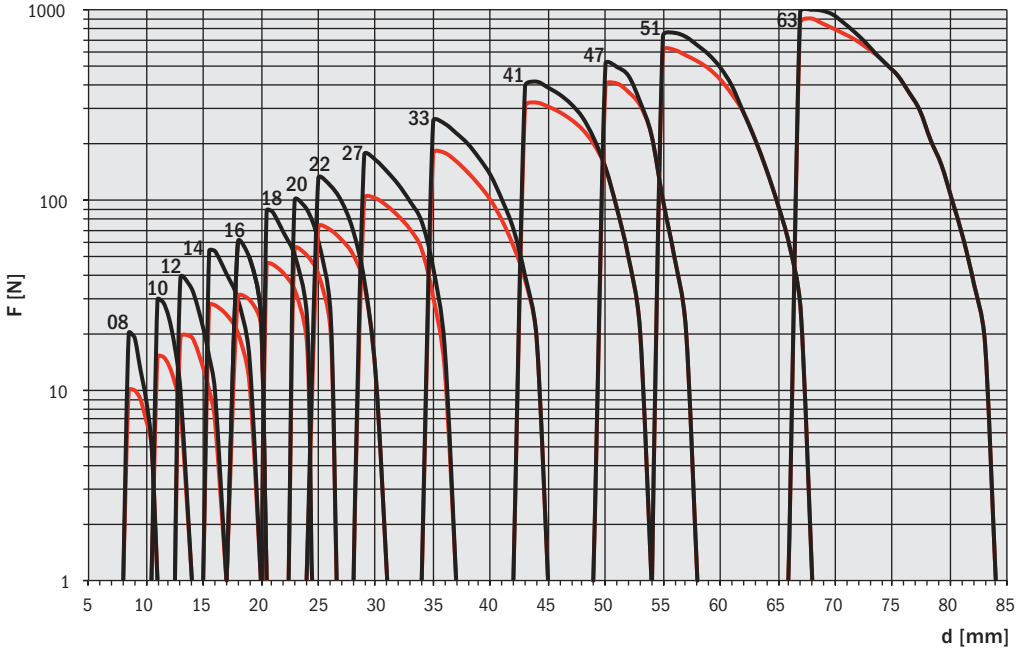
Gripping force

The force output of an MFD/MFU gripper depends on several variables.
Mainly on the diameter of the picked object, but also on the surface finishing, the coefficient of friction and the air pressure.
The graphs show the extraction force (F) on the gripped object as a function of its diameter (d).
Measurements were performed with aluminum rings, with roughness Ra=0.8 while the grippers were fed with 6 bar compressed air.
The black lines refer to the grippers in EPDM, while the red ones to the grippers in Silicone.









MFD / MFU

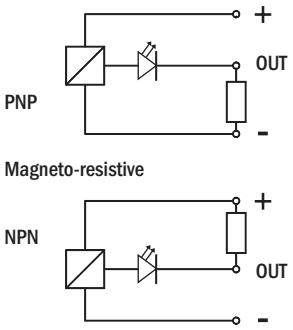
Sensori

Nelle taglie più grandi un magnete è integrato nel pistone.
E' disponibile un accessorio per montare i sensori della serie SN. Possono essere fissati uno o due sensori per pinza.

Sensors

In the larger sizes a magnet is integrated in the piston.
An optional housing for the sensors of the SN series is available.
One or two sensors can be fitted on a gripper.

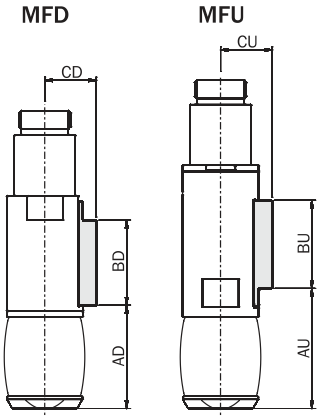
SN		
SN4N225-G	PNP	Cavo 2.5m *2.5m Cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G	NPN	

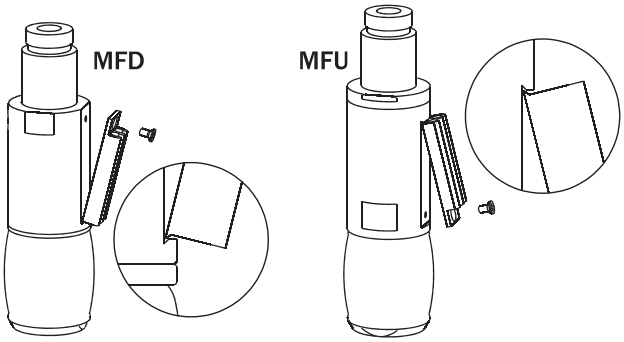




	MFD27-K	MFD33-K	MFD41-K	MFD51-K	MFD63-K
Peso *Weight*	4 g	5 g	5 g	6 g	7 g
AD [mm]	34	41.5	52	65	85.5
BD [mm]	28	34.5	40.5	49	54.5
CD [mm]	17	19.7	23.8	28.5	33.5
MFD	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63

	MFU27-K	MFU33-K	MFU41-K	MFU51-K	MFU63-K
Peso *Weight*	4 g	5 g	5 g	6 g	7 g
AU [mm]	39.5	46.5	55.5	71.5	87.5
BU [mm]	29	33	36.5	39	45
CU [mm]	17	19.8	23.8	28.5	33.5
MFU	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63







Micro pinze ad espansione per interni serie IFU

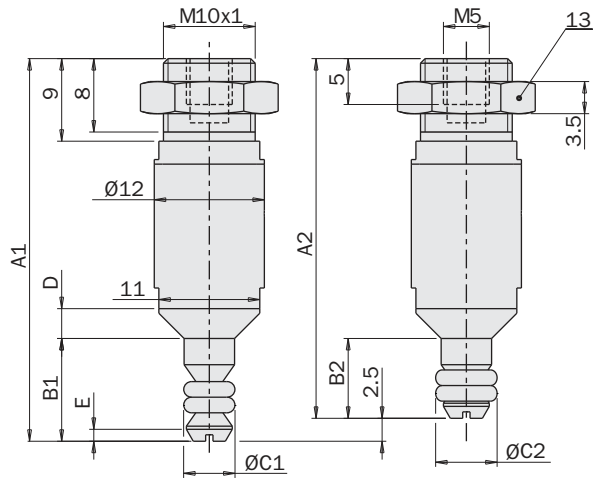
- Nuovo concetto di pinza innovativa.
- Movimento verso l'alto.
- La parte elastica può essere in Silicone o NBR.
- Diametro di presa da 4.5 a 8.7 mm.

ID expansion micro grippers series IFU

- *New concept for innovative air hands.*
- *Upward movement.*
- *The elastic part can be in Silicone or NBR.*
- *Grip diameters from 4.5 to 8.7 mm.*

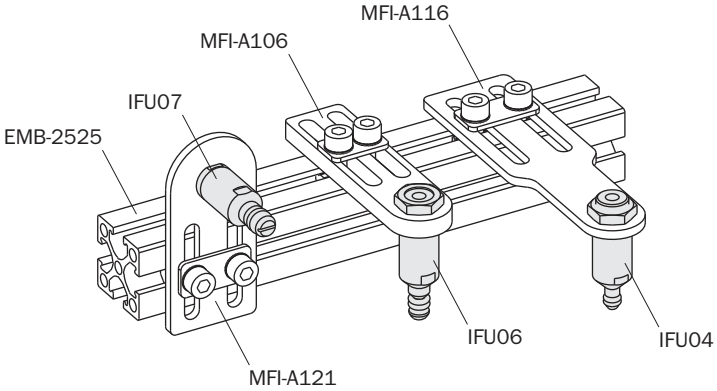






	IFU04S01RT IFU04N03RT	IFU05S01RT IFU05N03RT	IFU06S01RT IFU06N03RT	IFU07S01RT IFU07N03RT
A1	40.9	41.7	42	42
A2	38.4	39.2	39.5	39.5
B1	9.9	11.2	11.5	11.5
B2	7.4	8.7	9	9
C1	Ø4.5	Ø5.6	Ø6.6	Ø7.6
C2	Ø5.4	Ø6.7	Ø7.6	Ø8.7
X1	3	3.4	3.4	3.4
X2	2.7	3.4	3.4	3.4
W1	4	4.8	5.1	5.1
W2	2.7	3.6	3.8	3.9
D	3.75x45°	3.25x45°	2.75x45°	2.4x45°
E	1x60°	1.3x60°	1.4x60°	1.5x60°
Peso *Weight*	7g	7g	8g	9g

Esempi di utilizzo
Application examples



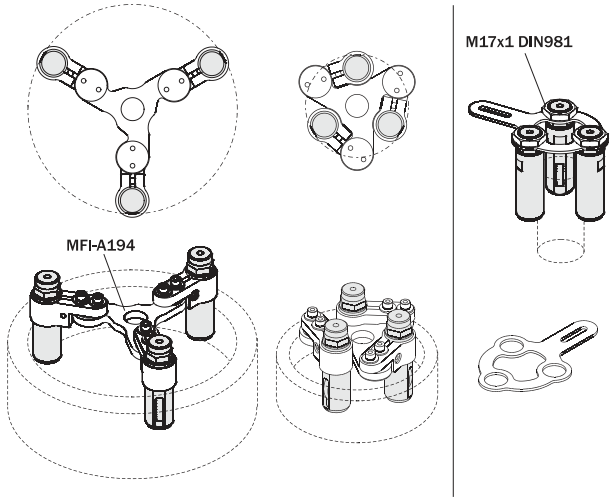
OFD

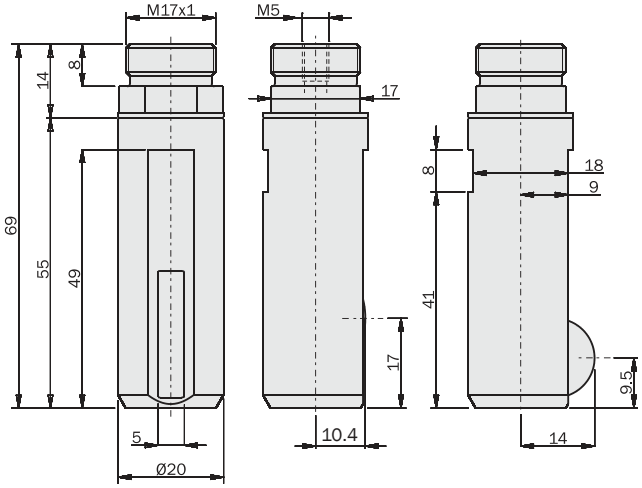
Pinza elastica mono-dito

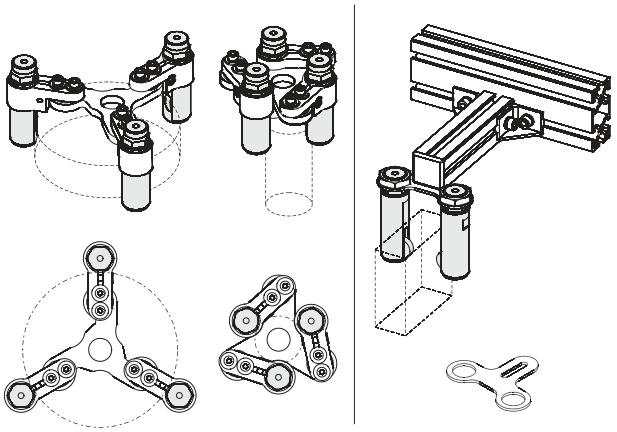
- Azionamento a semplice effetto con ritorno elastico.
- Corpo da Ø20mm cravattabile.
- Vari accessori per il fissaggio.
- Modularità.

One finger elastic module

- *Single acting with spring reset.*
- *Clampable Ø20mm body.*
- *Several mounting accessories.*
- *Modularity.*









	OFD20
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*
Pressione di esercizio *Pressure range*	3 ÷ 8 bar
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.
Forza *Force*	0 ÷ 145 N
Corsa a 6 bar *6 bar stroke*	3.6 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz
Consumo d'aria per ciclo *Cycle air consumption*	3 cm^3
Peso *Weight*	40 g

Note
Notes

OF

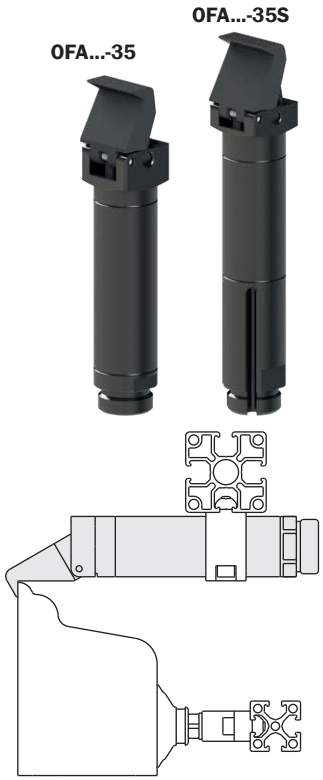
Pinze pneumatiche mono-dito angolari per staffaggio, serie OF

- Azionamento a semplice effetto.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

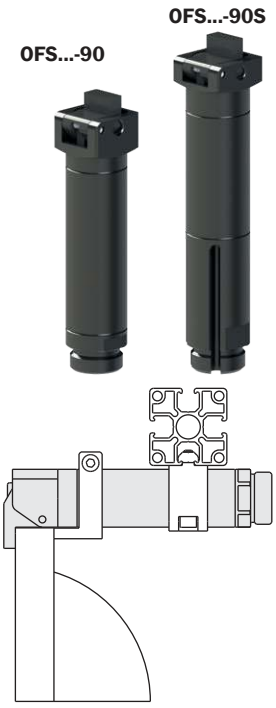
One finger angular pneumatic grippers for clamping, series OF

- *Single acting.*
- *Optional magnetic sensors.*
- *Food grade grease NSF-H1.*

	OFA14-35	OFA20-35 OFA20-35S	OFA30-35 OFA30-35S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Corpo pinza *Gripper body*	Alluminio *Aluminium*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	35°		
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusur a 6 bar *Closing torque at 6 bar*	26 Ncm	100 Ncm	430 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	0.4 cm^3	1.24 cm^3	4.56 cm^3
Peso *Weight*	25 g	65 g 86 g	206 g 272 g



	OFS14-90	OFS20-90 OFS20-90S	OFS30-90 OFS30-90S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Corpo pinza *Gripper body*	Alluminio *Aluminium*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	95°		
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusur a 6 bar *Closing torque at 6 bar*	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	3.52 cm^3	12.9 cm^3
Peso *Weight*	23 g	60 g 80 g	185 g 245 g

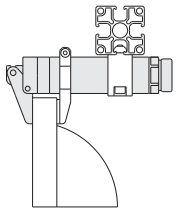


Pinze pneumatiche mono-dito angolari per staffaggio, serie OF

- Azionamento a semplice effetto.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.

One finger angular pneumatic grippers for clamping, series OF

- *Single acting.*
- *Optional magnetic sensors.*
- *Food grade grease NSF-H1.*



	OFR14-95	OFR20-95 OFR20-95S	OFR30-95 OFR30-95S
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Corpo pinza *Gripper body*	Alluminio *Aluminium*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	95°		
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusur a 6 bar *Closing torque at 6 bar*	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	3.52 cm^3	12.9 cm^3
Peso *Weight*	25 g	60 g 81 g	180 g 235 g



	OFR14-95M	OFR20-95M OFR20-95SM	OFR30-95M OFR30-95SM
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Corpo pinza *Gripper body*	Alluminio *Aluminium*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	95°		
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusur a 6 bar *Closing torque at 6 bar*	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	3.52 cm^3	12.9 cm^3
Peso *Weight*	25 g	60 g 81 g	180 g 235 g



	OFR14-95G	OFR20-95G OFR20-95SG	OFR30-95G OFR30-95SG
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Corpo pinza *Gripper body*	Alluminio *Aluminium*		
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.		
Corsa *Stroke*	95°		
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusur a 6 bar *Closing torque at 6 bar*	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	3.52 cm^3	12.9 cm^3
Peso *Weight*	30 g	80 g 100 g	210 g 265 g

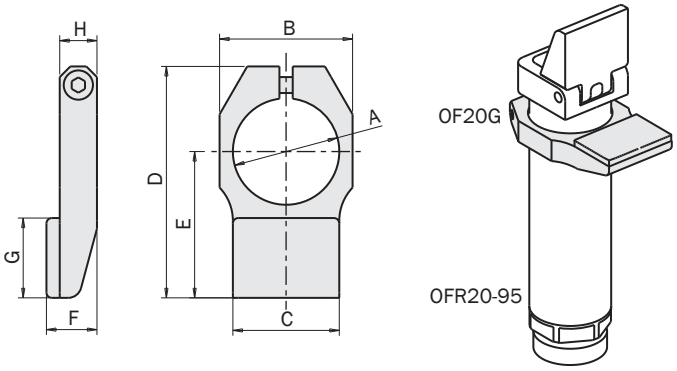


Riscontro per pinze OFR

(kit completo di viti)

Fixed stopper for OFR grippers

(kit with screws)



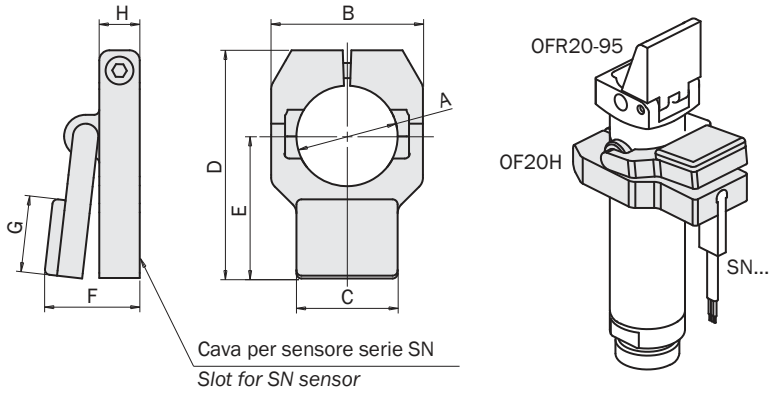
	OF14G	OF20G	OF30G
A [mm]	Ø14	Ø20	Ø30
B [mm]	19	25	37
C [mm]	14	20	30
D [mm]	32	43.5	63
E [mm]	19	27.5	40
F [mm]	10	9.5	12
G [mm]	11	15	20
H [mm]	6	7	9
Peso *Weight*	6g	12g	30g

Riscontro per sensore magnetico

(kit completo di viti)

Stopper for magnetic sensor

(kit with screws)



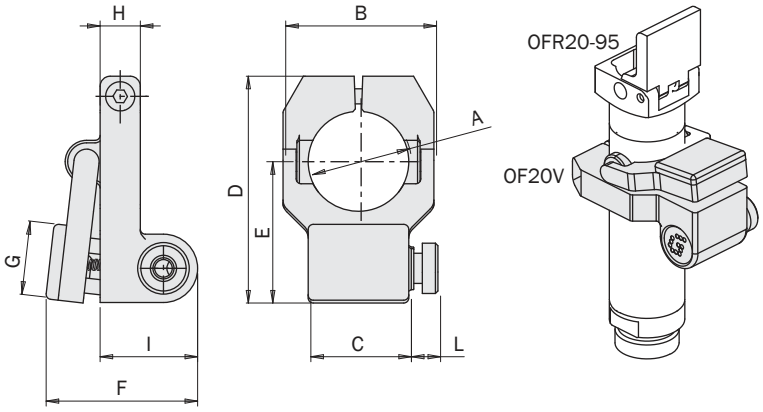
	OF14H	OF20H	OF30H
A [mm]	Ø14	Ø20	Ø30
B [mm]	22	30	42
C [mm]	14	20	30
D [mm]	34.5	45	64
E [mm]	21	28	40
F [mm]	17.6	18.7	25.5
G [mm]	11	15	20
H [mm]	8	8	12
I [mm]	Cava per sensori SN *Slot for SN sensors*		
Peso *Weight*	15g	20g	28g

Riscontro per sensore di vuoto

(kit completo di viti)

Stopper for vacuum sensor

(kit with screws)



	OF14V	OF20V	OF30V
A [mm]	Ø14	Ø20	Ø30
B [mm]	22	30	42
C [mm]	14	20	30
D [mm]	34.5	45.1	64
E [mm]	21	28.1	40
F [mm]	28.9	30.1	38
G [mm]	11	15	20
H [mm]	8	8	12
I [mm]	19.3	19.5	24.4
L [mm]	11.3	5.8	5.8
Peso *Weight*	8.9	13.4	32.7

Sensori magnetici opzionali

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

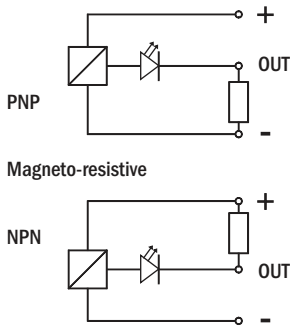
I sensori utilizzabili sono:

Optional magnetic sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston.
The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

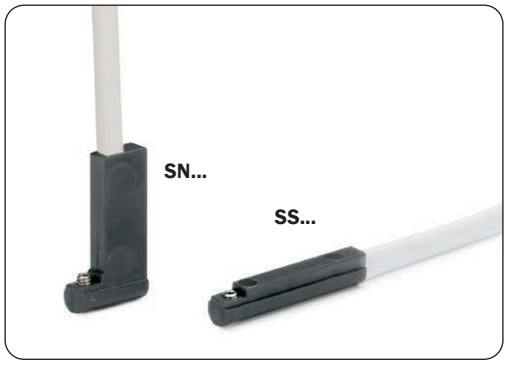
The sensors that can be used are:

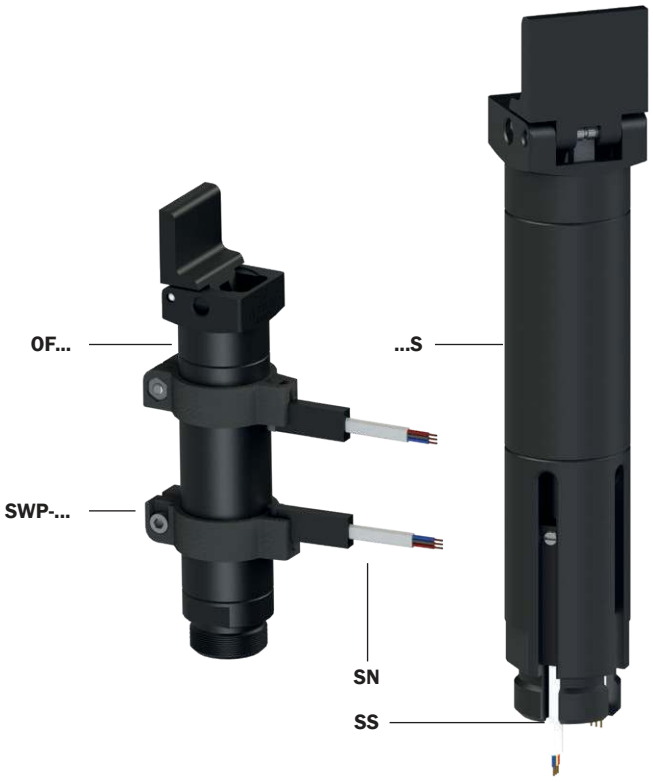
SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G	NPN	
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SS3M203-G	NPN	



Sono tutti dotati di un cavo piatto a tre fili e di un led.

They are all provided with a 3-wire flat cable and a LED.





OF...	SWP-...
OF14...	SWP-014
OF20...	SWP-020
OF30...	SWP-030

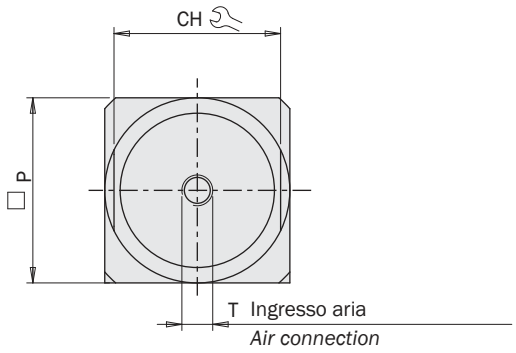
Nelle versioni ...S i sensori sono annegati nelle apposite cave.
Nelle altre versioni è necessaria una fascetta esterna (SWP-...).

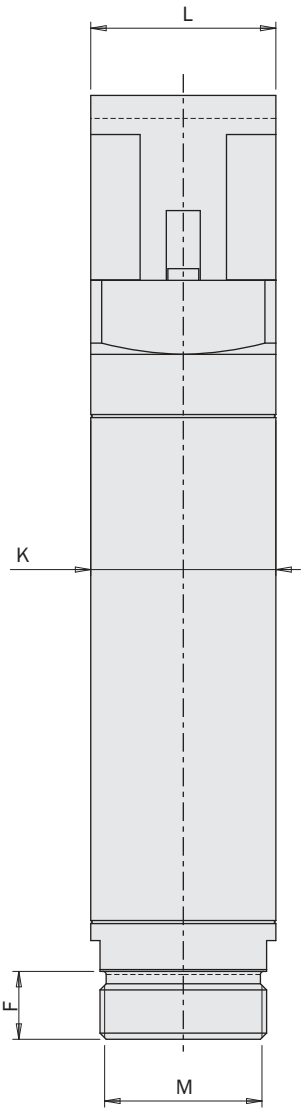
In the ...S versions, the sensors are embedded in their slots.
In the other versions, an external bracket (SWP-...) is required.

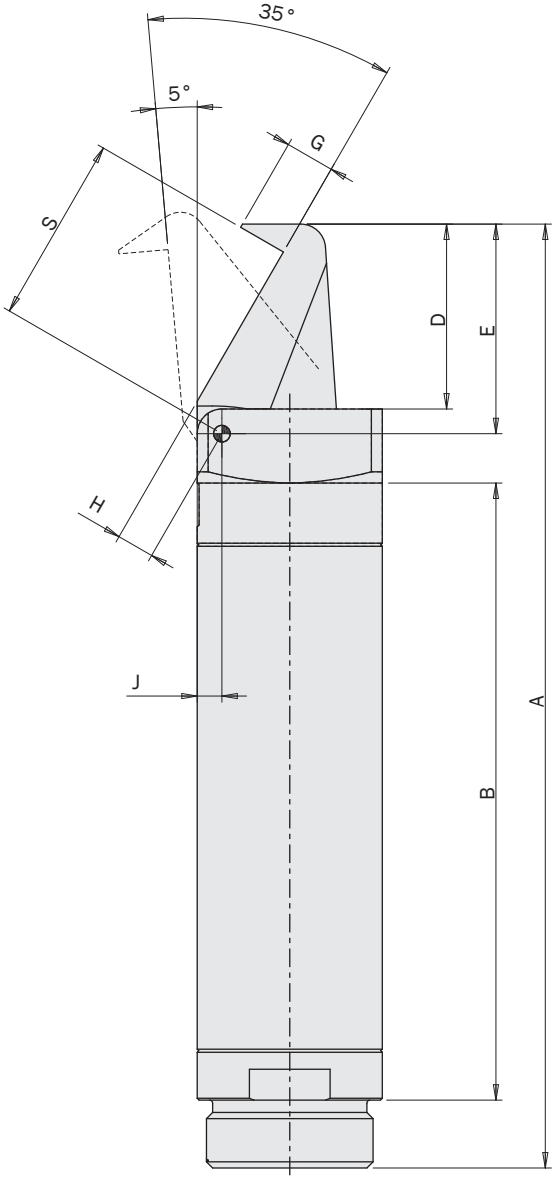
Dimensioni (mm)
Dimensions (mm)

OFA...

	OFA14-35	OFA20-35	OFA30-35
A	74	106	153
B	45.5	68.5	100
D	14	20.5	30
E	16	23	34
F	5.5	8	11
G	4.5	6	8
H	3.4	3.9	6
J	2	2.5	4
K	Ø14	Ø20	Ø30
L	14	20	30
M	M12x1	M17x1	M27x1
P	14	20	30
S	13.5	20.2	30.5
T	M5	M5	M5
CH	12	17	27







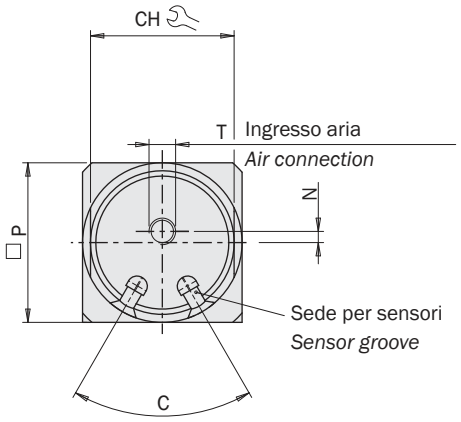
FIRST ANGLE PROJECTION

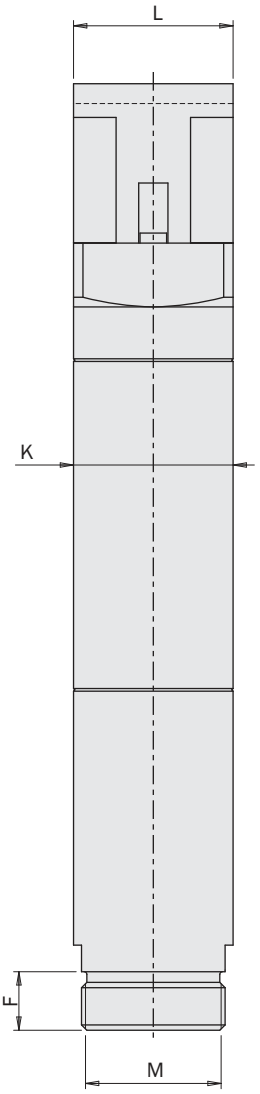
07/2026

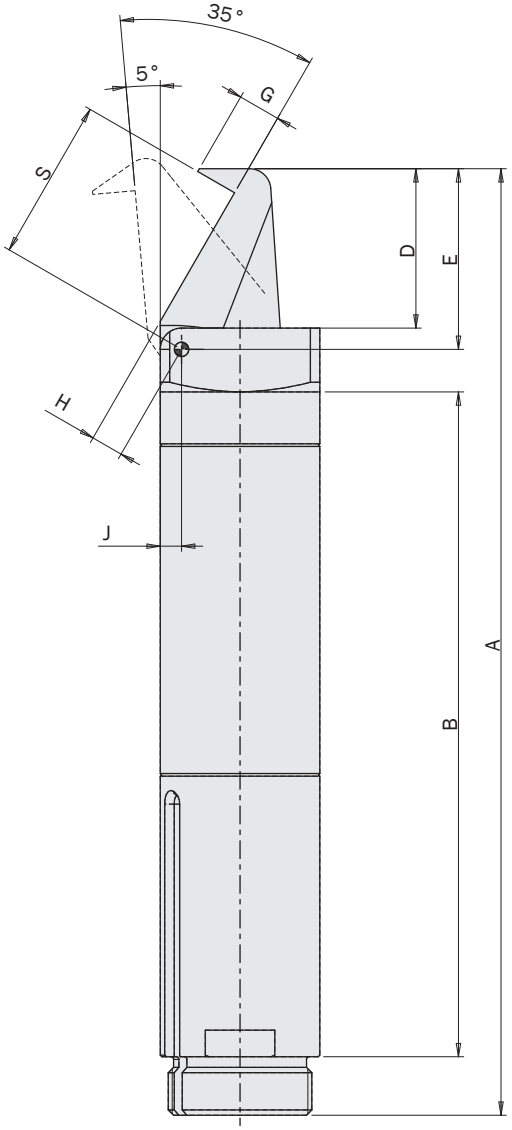
Dimensioni (mm)
Dimensions (mm)

OFA...S

	OFA20-35S	OFA30-35S
A	120.5	178
B	83	125
C	80°	60°
D	20.5	30
E	23	34
F	8	11
G	6	8
H	3.9	6
J	2.5	4
K	Ø20	Ø30
L	20	30
M	M17x1	M27x1
N	1.5	-
P	20	30
S	20.2	30.5
T	M5	M5
CH	17	27







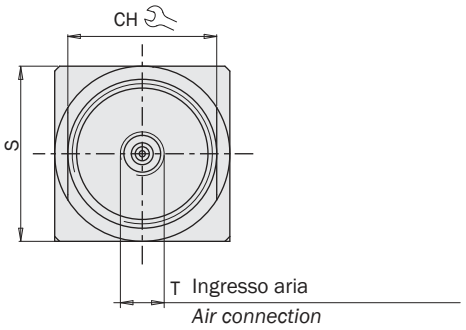
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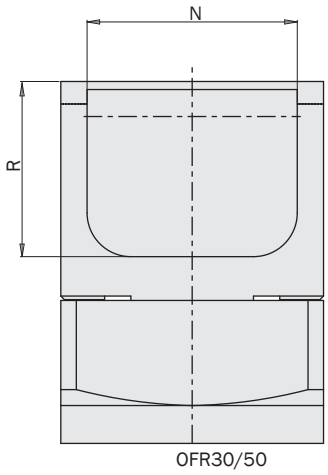
07/2026

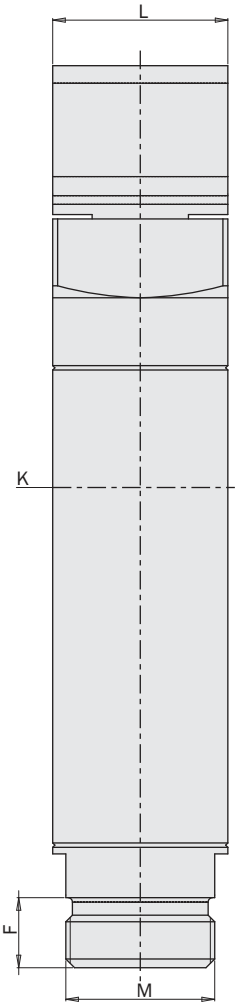
Dimensioni (mm)
Dimensions (mm)

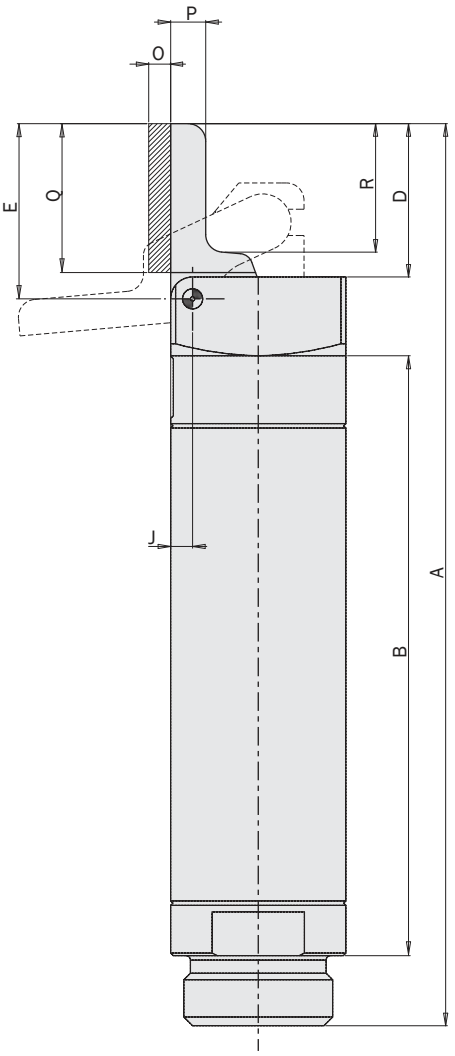
OFR...

	A	B	D	E	F	J	K	L	M	N	O	P	Q	R	S	T	CH
OFR14-95	72	45.5	12	14	5.5	2	Ø14	14	M12x1	-	-	3	-	9.5	14	M5	12
OFR20-95	103	68.5	17.5	20	8	2.5	Ø20	20	M17x1	-	-	4	-	14.5	20	M5	17
OFR30-95	148	100	25	29	11	4	Ø30	30	M27x1	24	-	5	-	20	30	M5	27
OFR14-95M	72	45.5	12	14	5.5	2	Ø14	14	M12x1	-	2.5	3	11	9.5	14	M5	12
OFR20-95M	103	68.5	17.5	20	8	2.5	Ø20	20	M17x1	-	2.5	4	15	14.5	20	M5	17
OFR30-95M	148	100	25	29	11	4	Ø30	30	M27x1	24	3	5	20	20	30	M5	27









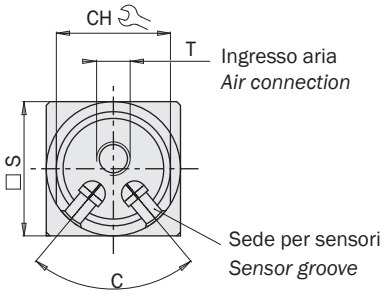
FIRST ANGLE PROJECTION

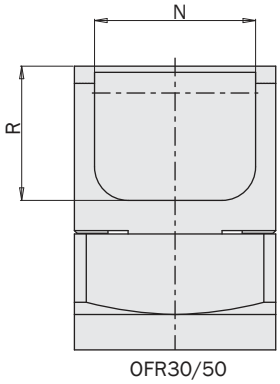
07/2026

Dimensioni (mm)
Dimensions (mm)

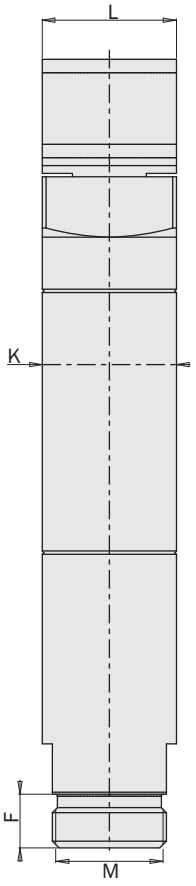
OFR...S

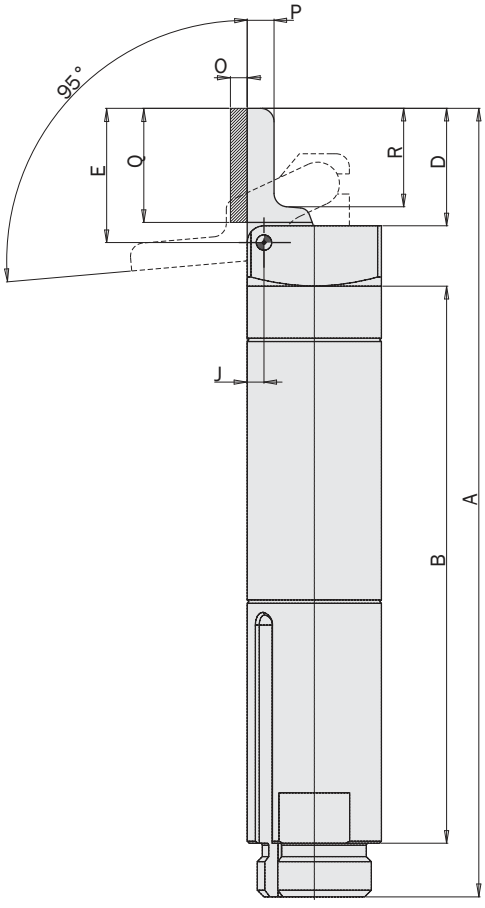
	A	B	C	D	E	F	J	K	L	M	N	O	P	Q	R	S	T	U	CH
OFR20-95S	117.5	83	80°	17.5	20	8	2.5	Ø20	20	M17x1	-	-	4	-	14.5	20	M5	1.5	17
OFR30-95S	173	125	60°	25	29	11	4	Ø30	30	M27x1	24	-	5	-	20	30	M5	-	27
OFR20-95SM	117.5	83	80°	17.5	20	8	2.5	Ø20	20	M17x1	-	2.5	4	15	14.5	20	M5	1.5	17
OFR30-95SM	173	125	60°	25	29	11	4	Ø30	30	M27x1	24	3	5	20	20	30	M5	-	27





OFR30/50



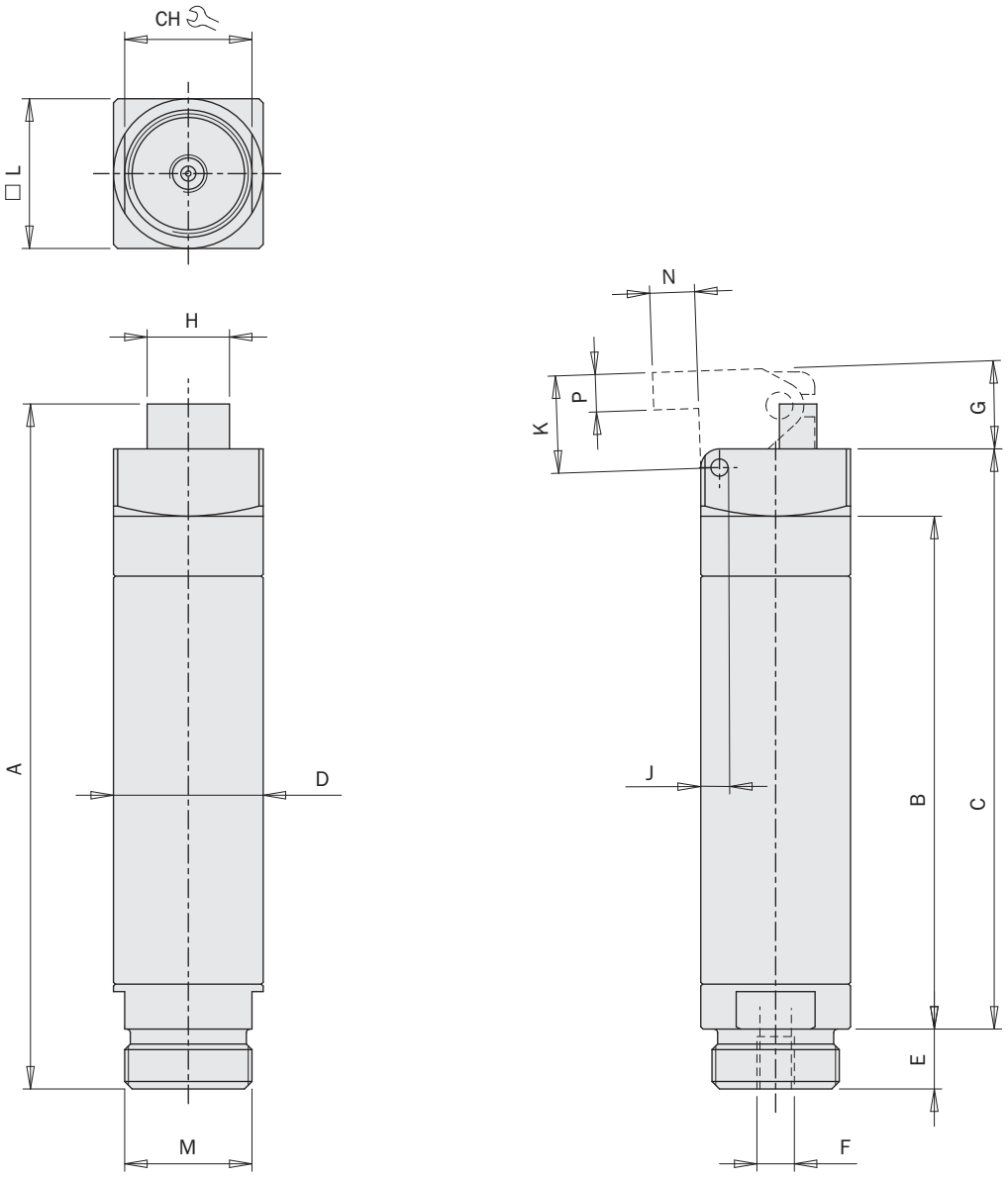


FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

OFS...

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	CH
OFS14-90	64	45.5	54.5	Ø14	5.5	M5	2°	8	2	9	14	M12x1	4	4	12
OFS20-90	91.5	68.5	77.5	Ø20	8	M5	2°	11	2.5	13	20	M17x1	6	5	17
OFS30-90	134	100	112	Ø30	11	M5	2°	14	4	20	30	M27x1	11	6	27



Ingresso aria
Air connection

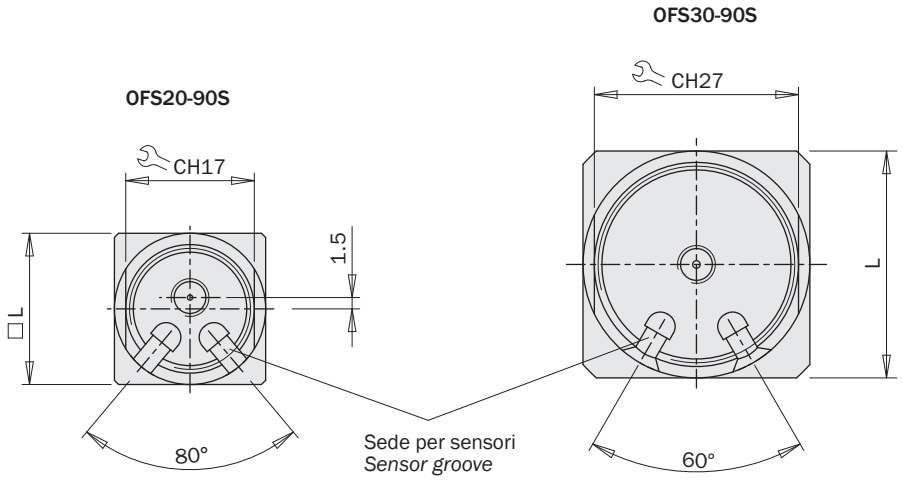
FIRST ANGLE PROJECTION

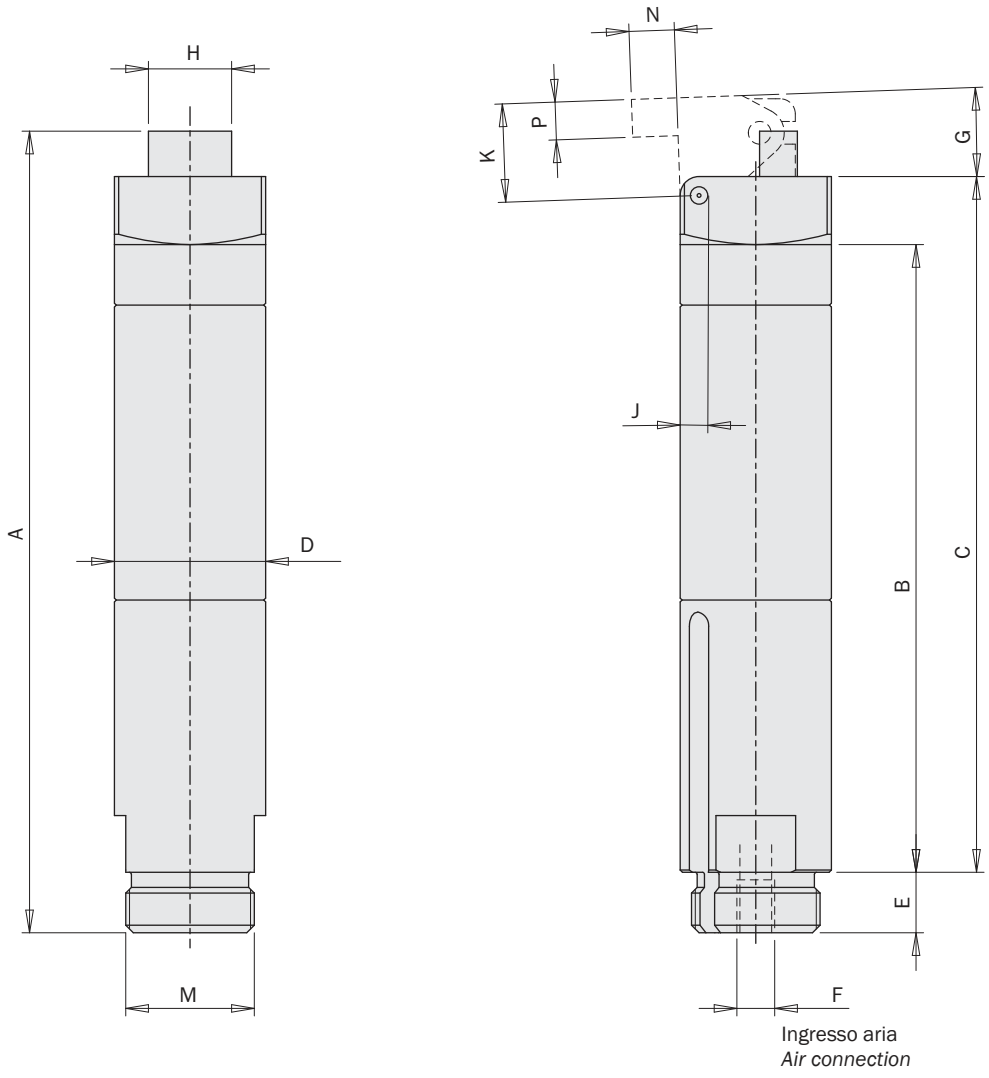
07/2026

Dimensioni (mm)
Dimensions (mm)

OFS...S

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
OFS20-90S	106	83	92	Ø20	8	M5	2°	11	2.5	13	20	M17x1	6	5
OFS30-90S	159	125	137	Ø30	11	M5	2°	14	4	20	30	M27x1	11	6



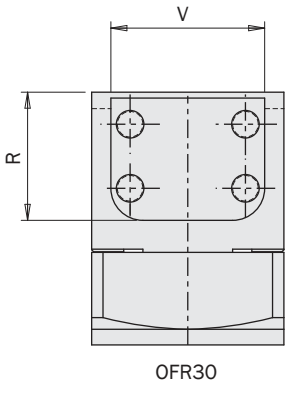


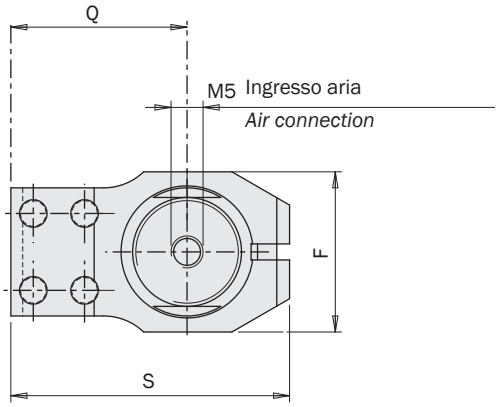
FIRST ANGLE PROJECTION

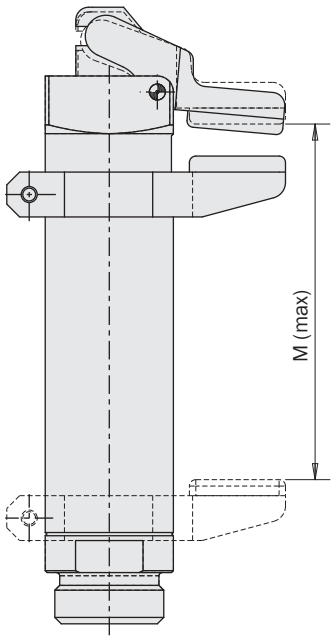
Dimensioni (mm)
Dimensions (mm)

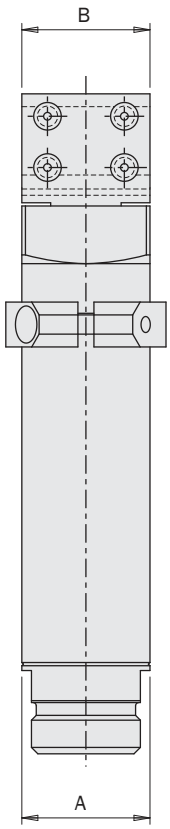
OFR...-95G

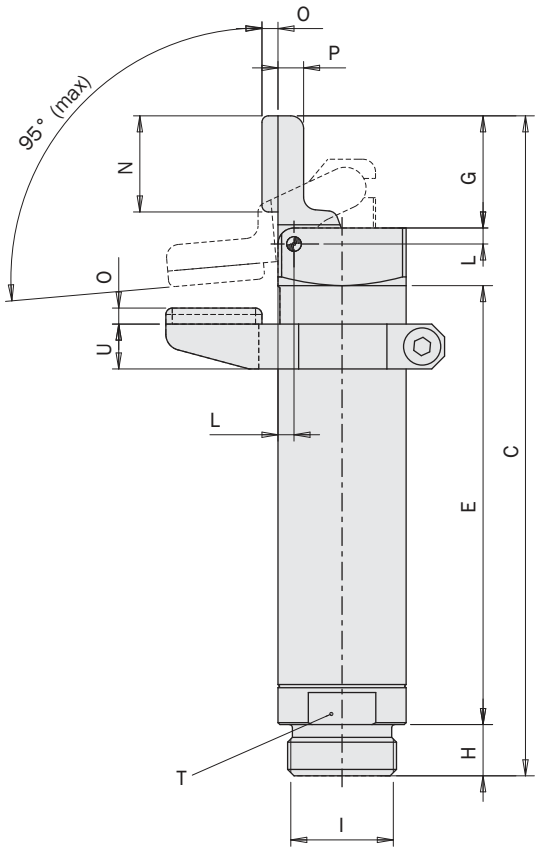
	A	B	C	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	V
OFR14-95G	Ø14	14	72	45.5	19	12	5.5	M12x1	2	32.5	11	2.5	3	19	-	32	12	7.5	-
OFR20-95G	Ø20	20	103	68.5	25	17.5	8	M17x1	2.5	55.5	15	2.5	4	27.5	-	43.5	17	7	-
OFR30-95G	Ø30	30	148	100	37	25.5	11	M27x1	4	84	20	3	5	40	20	63	27	9	24











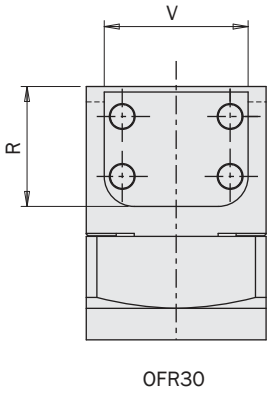
FIRST ANGLE PROJECTION

07/2026

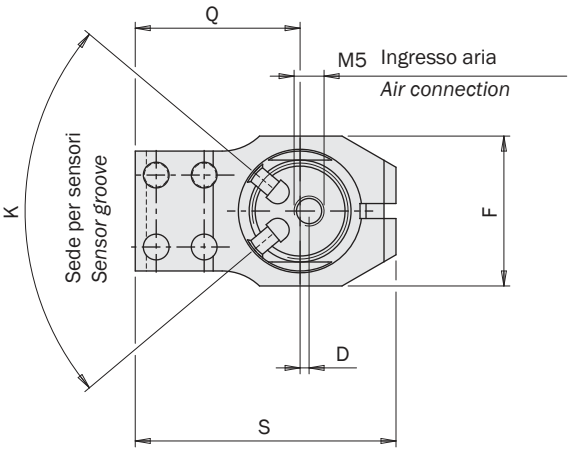
Dimensioni (mm)
Dimensions (mm)

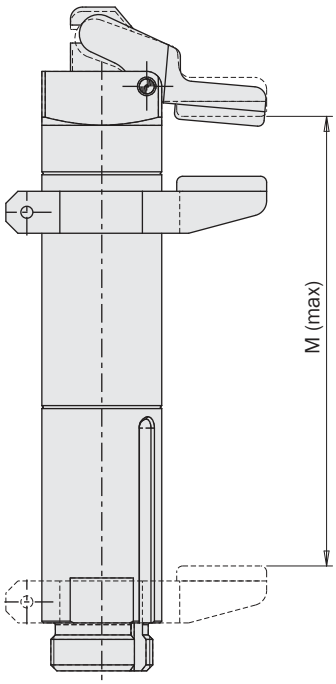
OFR...-95SG

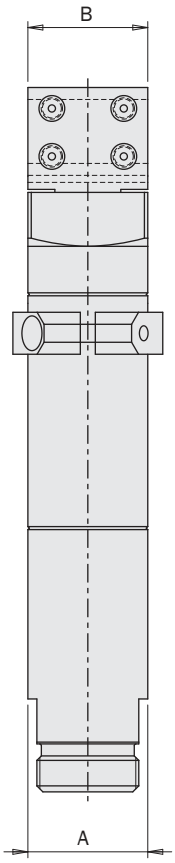
	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V
OFR20-95SG	Ø20	20	117.5	1.5	83	25	17.5	8	M17x1	80°	2.5	75	15	2.5	4	27.5	-	43.5	17	7	-
OFR30-95SG	Ø30	30	173	-	124.7	37	25	11	M27x1	60°	4	113	20	3	5	40	20	63	27	9	24

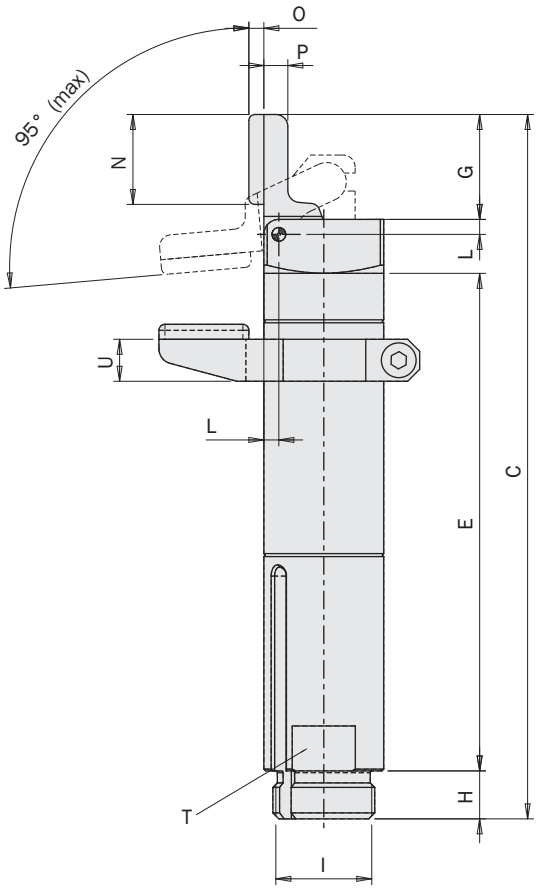


OFR30









FIRST ANGLE PROJECTION

OFP

Pinze pneumatiche mono-dito angolari per staffaggio, serie OFP

- Azionamento a semplice effetto.
- Contatto morbido con pastiglie in HNBR, con dita personalizzate, oppure con O-Ring in NBR, Silicone, Viton.
- Vari accessori per il fissaggio.
- Sensori magnetici e relative staffe in opzione.
- Grasso alimentare NSF-H1.

One finger angular pneumatic grippers for clamping, series OFP

- *Single acting.*
- *Soft contact by means of HNBR pads, custom fingers, or NBR, Silicone or Viton O-rings.*
- *Several mounting accessories.*
- *Magnetic sensors and relevant mounting brackets as option.*
- *Food grade grease NSF-H1.*

OFP20



OFP20P-20 OFP20N-20 OFP20S-20 OFP20V-20 OFP20A-20

OFP21



OFP21P-20 OFP21N-20 OFP21S-20 OFP21V-20 OFP21A-20

OFP14

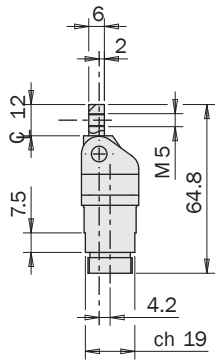


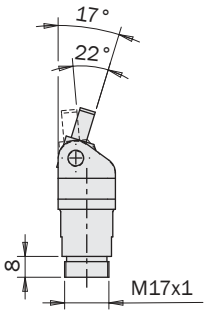
OFP14A-25

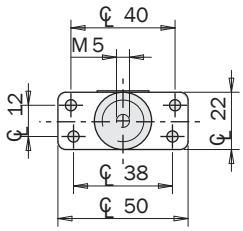
OFP14P-25

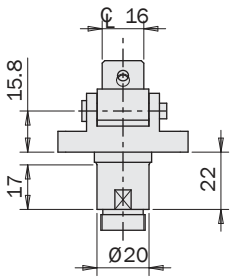
	OFP20A-20	OFP21A-20	OFP14A-25
HNBR	**OFP20P-20**	**OFP21P-20**	**OFP14P-25**
NBR	**OFP20N-20**	**OFP21N-20**	
Silicone *Silicone*	**OFP20S-20**	**OFP21S-20**	
Viton	**OFP20V-20**	**OFP21V-20**	
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.		
Corsa *Stroke*	22°	22°	25°
Alesaggio *Piston bore*	16 mm	16 mm	12 mm
Coppia di chiusura a 6 bar *Closing torque at 6 bar*	100 Ncm	100 Ncm	40 Ncm
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	1 cm^3	0.4 cm^3
Peso *Weight*	40 g	33 g	13 g
Frequenza max funzionamento continuativo *Maximum working frequency*	2 Hz		
Tempo di chiusura senza carico *Closing time without load*	0.02 sec		

Dimensioni (mm)
Dimensions (mm)

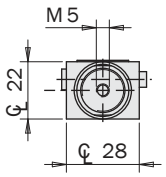


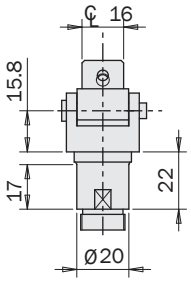




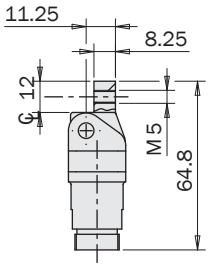


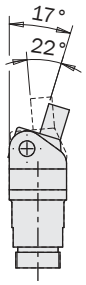
OFP20A-20

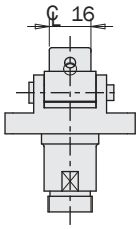




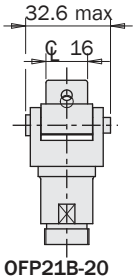
OFP21A-20



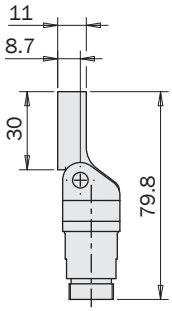


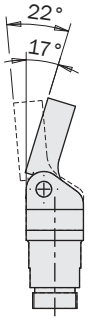


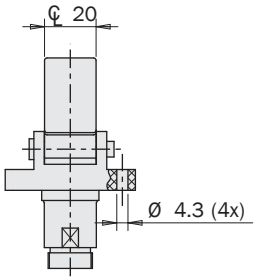
OFP20B-20



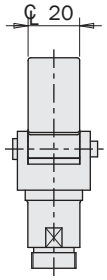
OFP21B-20



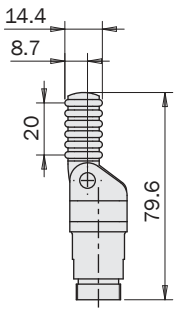


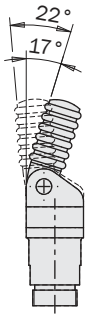


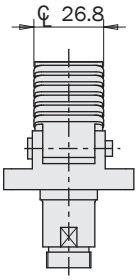
OFP20P-20



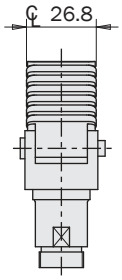
OFP21P-20







OFP20N-20
OFP20S-20

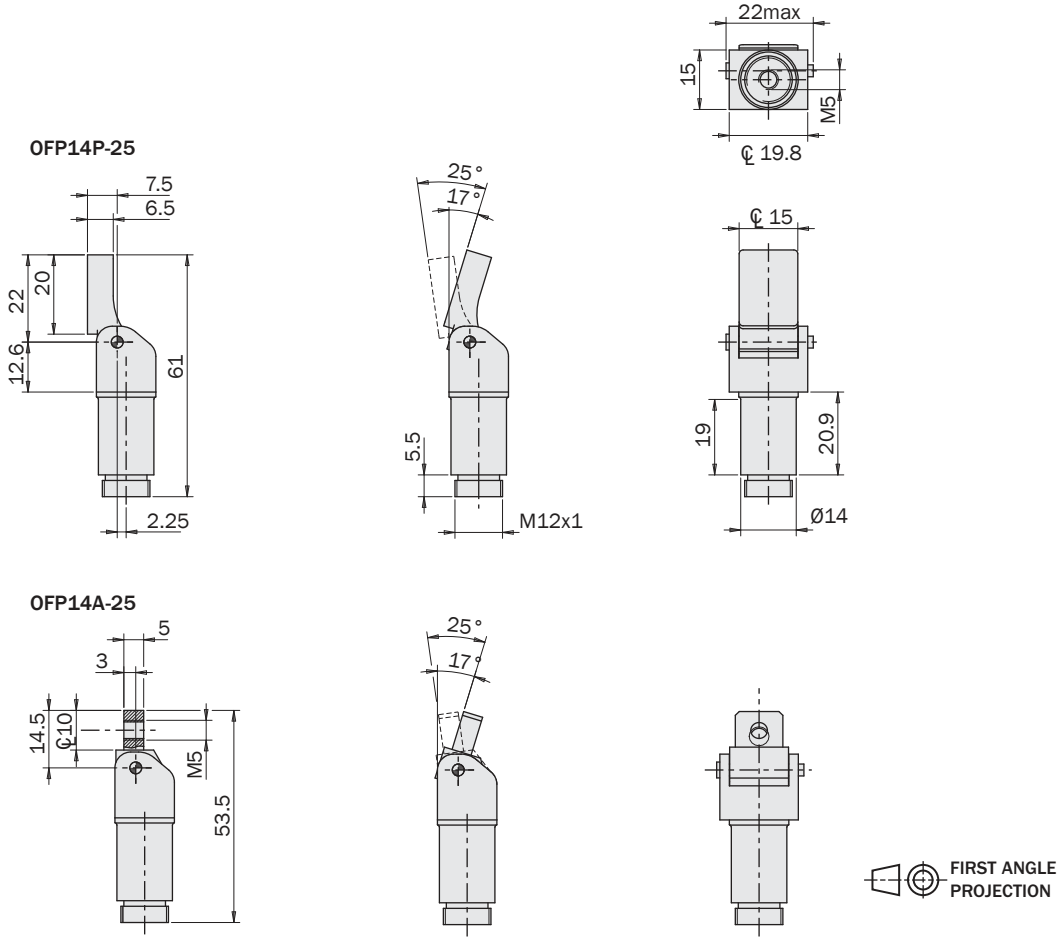


OFP21N-20
OFP21S-20

FIRST ANGLE PROJECTION

OFP

Dimensioni (mm)
Dimensions (mm)



O-Ring di ricambio
Spare O-Ring





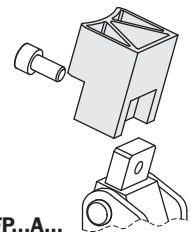
	KIT3-OFP20N	KIT3-OFP20S	KIT3-OFP20V
Materiale *Material*	NBR	Silicone *Silicone*	Viton
Pinza *Gripper*	OFP20N-20 OFP21N-20	OFP20S-20 OFP21S-20	OFP20V-20 OFP21V-20
Temperatura di esercizio *Temperature range*	5° ÷ 100 °C.	5° ÷ 200 °C.	5° ÷ 200 °C.

Pastiglia di ricambio
Spare pad




	OFR20-95-56	OFR30-95-42
Materiale *Material*	HNBR	HNBR
Pinza *Gripper*	OFP14P-25	OFP20P-20 OFP21P-20
Temperatura di esercizio *Temperature range*	5° ÷ 150 °C.	5° ÷ 150 °C.

Custom service HP



OFP...A...

Si può usare il Servizio Stampa 3D di Gimatic per ordinare dita di presa personalizzate.

Custom fingers can be ordered from Gimatic's 3D Printing Service.

Fissaggio

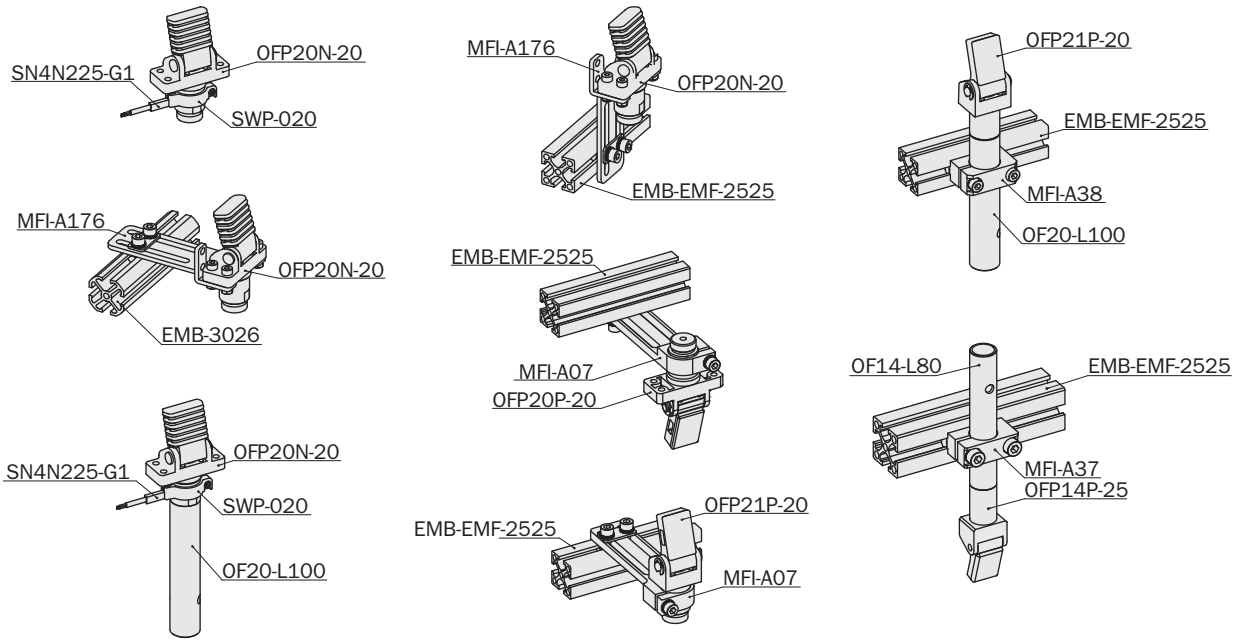
Le pinze OFP hanno il corpo in alluminio e possono essere incravattate con tutti gli accessori MFI con diametro di 14mm e 20mm.

MFI-A176 può essere usato con OFP20.

Fastening

The OFP grippers have an aluminum body and can be clamped with all MFI accessories with 14mm and 20mm diameter.

MFI-A176 can be used with OFP20.



Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone.
Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:

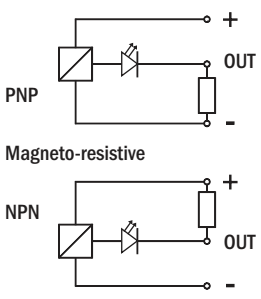
Sensors

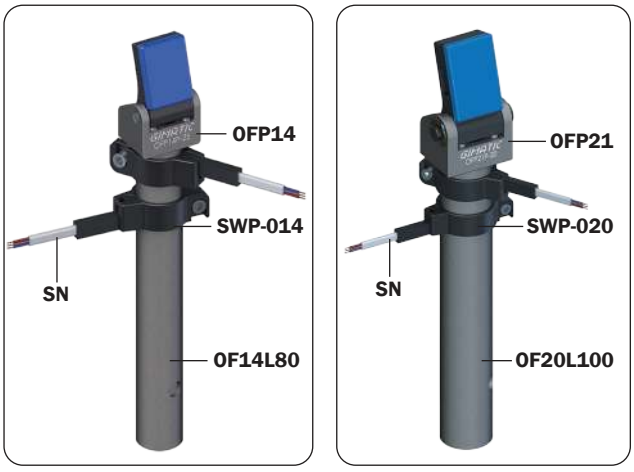
The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston.
The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:

SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G	NPN	







OFX

Pinze pneumatiche perpendicolari per staffaggio mono-dito, serie OFX

- Azionamento con pistone pneumatico a semplice effetto.
- Movimento lineare del dito perpendicolare al pistone.
- Dito con foro passante, per alimentare una ventosa (1).
- Pastiglia rimovibile (2) in gomma (HNBR) sul dito, per contatto morbido.
- Sensori e fascette opzionali (3).
- Grasso alimentare NSF-H1.

One finger, perpendicular acting, pneumatic grippers for clamping, series OFX

- *Single-acting pneumatic piston drive.*
- *Finger linear motion, perpendicular to the piston.*
- *Finger with through hole, to provide vacuum to a cup (1).*
- *Removable HNBR rubber pad (2) on the finger, for a soft touch.*
- *Optional sensors and clamps (3).*
- *NSF-H1 food-grade grease.*







(2)

(1)


(3)


OFX...	SWP-...
OFX14-06	SWP-014
OFX20-10	SWP-020
OFX30-15	SWP-030
OFX50-20	SWP-050

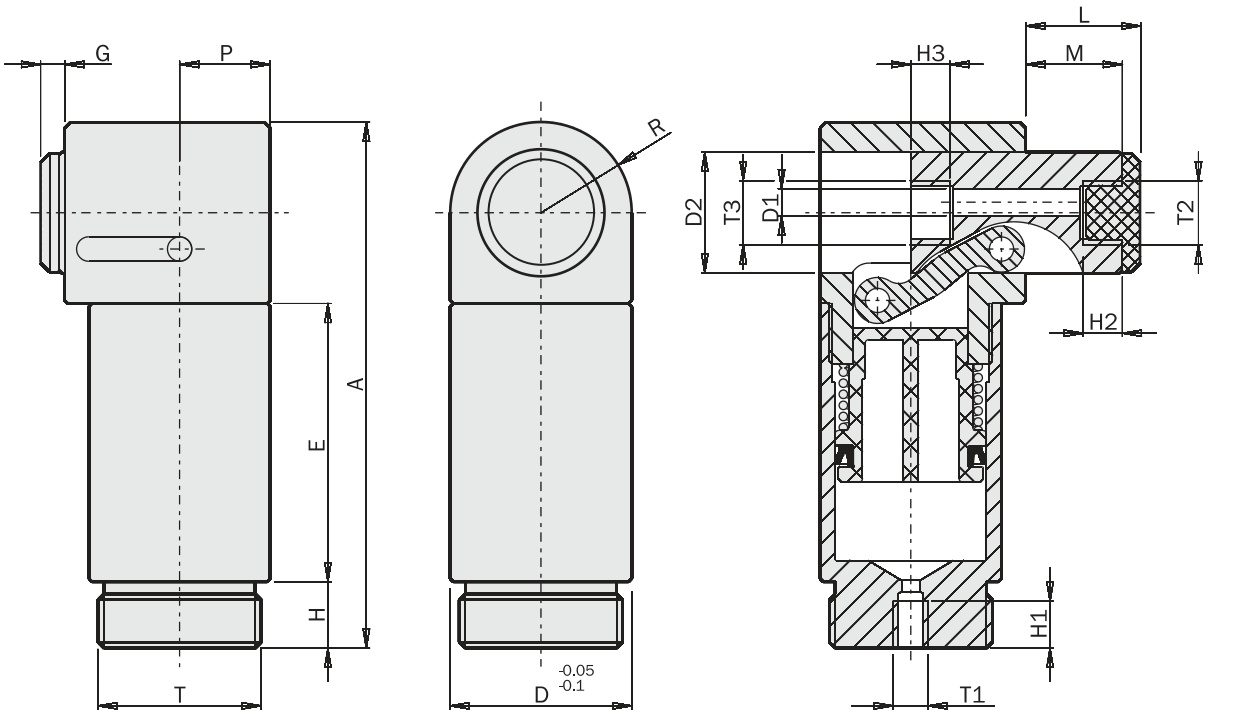


	OFX14-06	OFX20-10	OFX30-15	OFX50-20
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2.5 ÷ 8 bar			
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.			
Forza di serraggio in apertura a 6 bar *Opening gripping force at 6 bar*	13 ÷ 63 N	20 ÷ 115 N	44 ÷ 230 N	100 ÷ 900 N
Corsa totale *Total stroke (±0.2 mm)*	6 mm	10 mm	15 mm	20 mm
Frequenza max funzionamento continuativo *Maximum working frequency*	1 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	0.5 cm^3	3.5 cm^3	15 cm^3	50 cm^3
Peso *Weight*	30 g	65 g	190 g	740 g

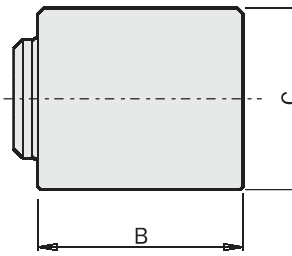
Dimensioni (mm)
Dimensions (mm)

CHIUSA
CLOSED

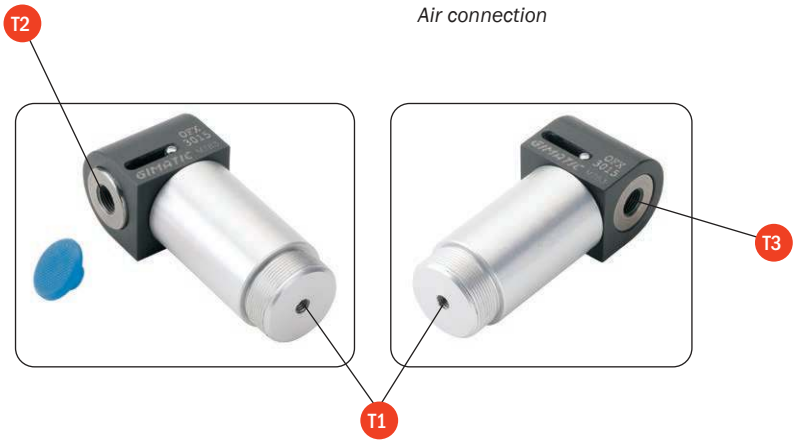
APERTA
OPEN



Ingresso aria
Air connection



FIRST ANGLE PROJECTION



	OFX14-06	OFX20-10	OFX30-15	OFX50-20
A	52	62.5	87	143
B	23	25	34	60
C	14	20	30	50
D	Ø14	Ø20	Ø30	Ø50
D1	Ø1.5	Ø2.4	Ø4.5	Ø9
D2	Ø10	Ø14	Ø20	Ø35
E	30	34.5	46	68
G	3.5	3.5	4	4
H	8	8	11	25
H1	7	7	7	10
H2	5	5	6	9
H3	5	5	6	9
L	9.5	13.5	19	24
M	7	11	16	21
P	9	10	15	25
R	R7	R10	R15	R25
T	M12x1	M17x1	M27x1	M45x1.5
T1	M5	M5	M5	G1/8"
T2	M5	M5	G1/8"	G1/4"
T3	M5	M5	G1/8"	G1/4"

MAG

Pinza pneumatica a magnete

- Pistone pneumatico a doppio effetto.
- Campo magnetico concentrato nel punto di presa.
- Sensori magnetici opzionali.
- Grasso alimentare NSF-H1.
- MAG20: mantenimento pezzo anche in assenza di alimentazione.
- MAG20; adatta per la movimentazione di piccole parti in materiale ferromagnetico e movimentazione di magneti (polarità nel punto di presa: sud).
- MAG20: predisposta per il fissaggio a cravatta sul diametro esterno.
- MAG35: regolazione della forza magnetica per evitare la deformazione dei pezzi e l'attrazione accidentale di un secondo pezzo.
- MAG35: predisposta al fissaggio su piastra laterale o superiore.

Pneumatic magnetic gripper

- *Double-acting pneumatic piston.*
- *Magnetic field concentrated at the holding point.*
- *Optional magnetic sensors.*
- *NSF-H1 food-grade grease.*
- *MAG20: workpiece held even without pneumatic power supply.*
- *MAG20: suitable for handling small ferromagnetic parts and for handling magnets (polarity at the grip point: south).*
- *MAG20: designed to allow mounting with clamp bracket on the outer diameter.*
- *MAG35: adjustment of the magnetic force to prevent the deformation of workpieces and the accidental attraction of a second workpiece.*
- *MAG35: designed to allow mounting on side or upper plate.*

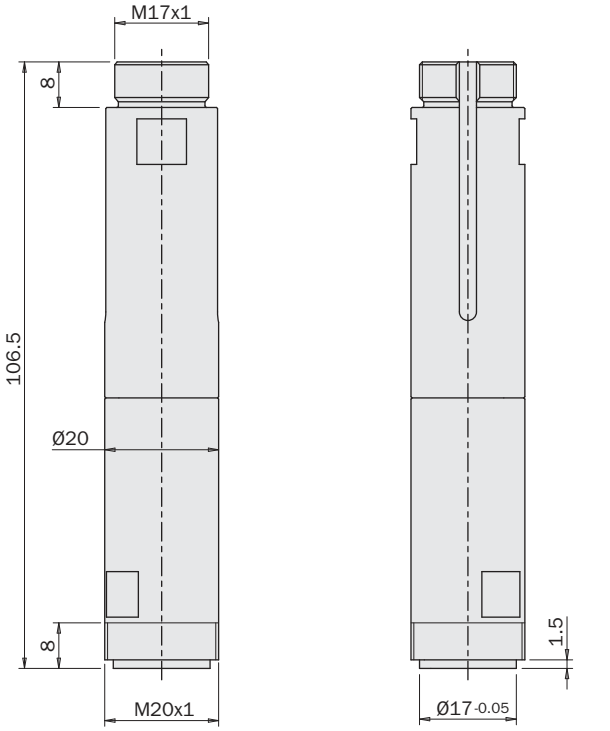




	MAG20	MAG35
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Pressure range*	2 ÷ 8 bar	2 ÷ 6 bar
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C.	
Corsa pistone *Piston stroke*	23 mm	15 mm
Alesaggio pistone *Piston diameter*	Ø16 mm	Ø35 mm
Forza magnetica *Magnetic strength*	7 N	120 N
Frequenza max funzionamento continuativo *Maximum working frequency*	1.5 Hz	1 Hz
Consumo d'aria per ciclo *Cycle air consumption*	11 cm³	40 cm³
Peso *Weight*	72 g	400 g
Tempo di azionamento minimo *Minimum activating time*	0.05 s	0.04 s

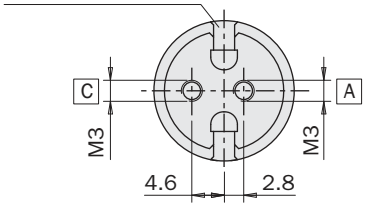
Dimensioni (mm)
Dimensions (mm)

MAG20

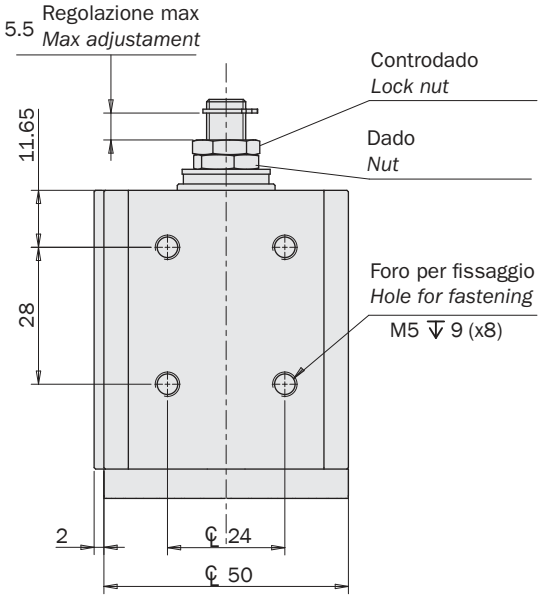


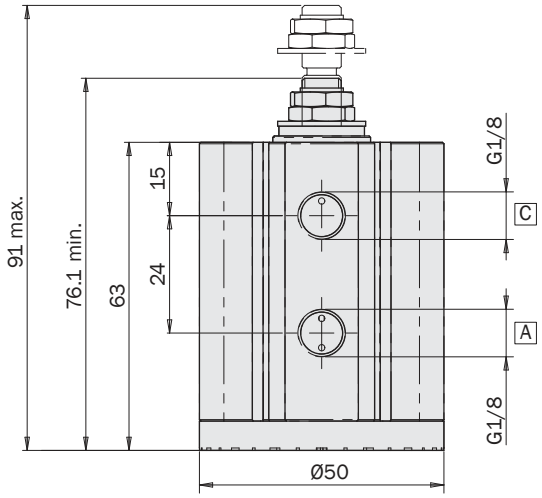


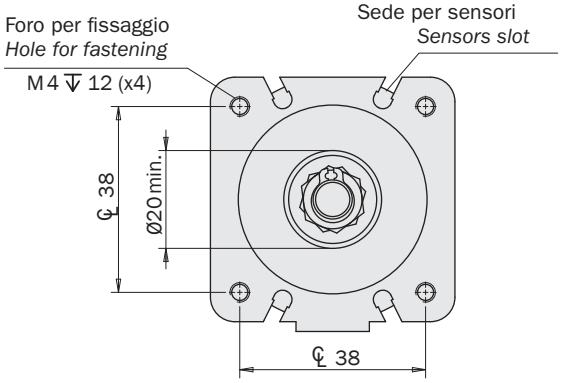
Sede per sensori
Sensors slot



MAG35





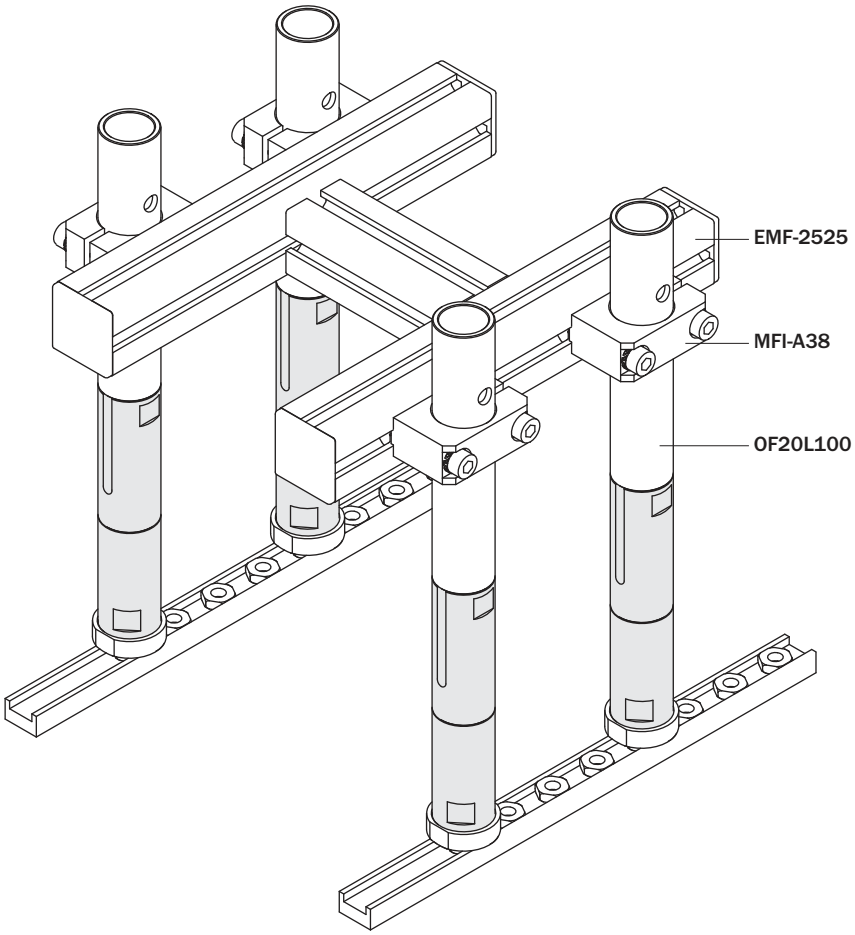


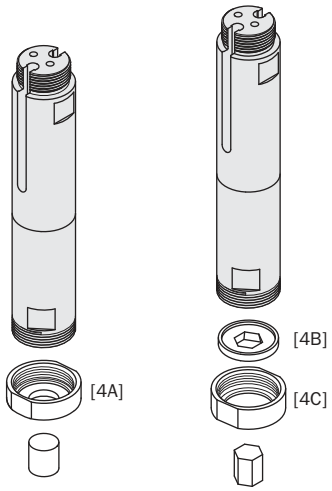
Aria compressa in A: rilascio pezzo
Compressed air in A: workpiece release

Aria compressa in C: presa pezzo
Compressed air in C: workpiece clamping

Esempi di utilizzo
Application examples

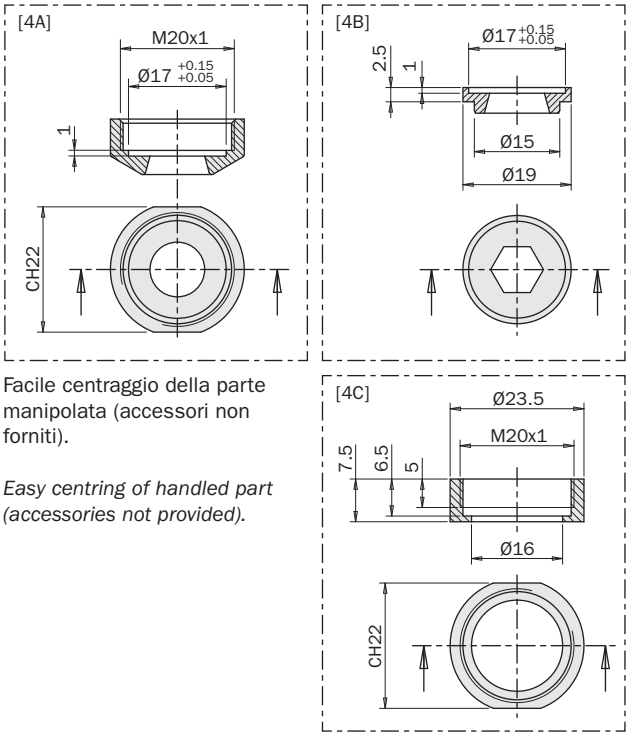
MAG20





(*)

Accessori non forniti
Accessories not supplied

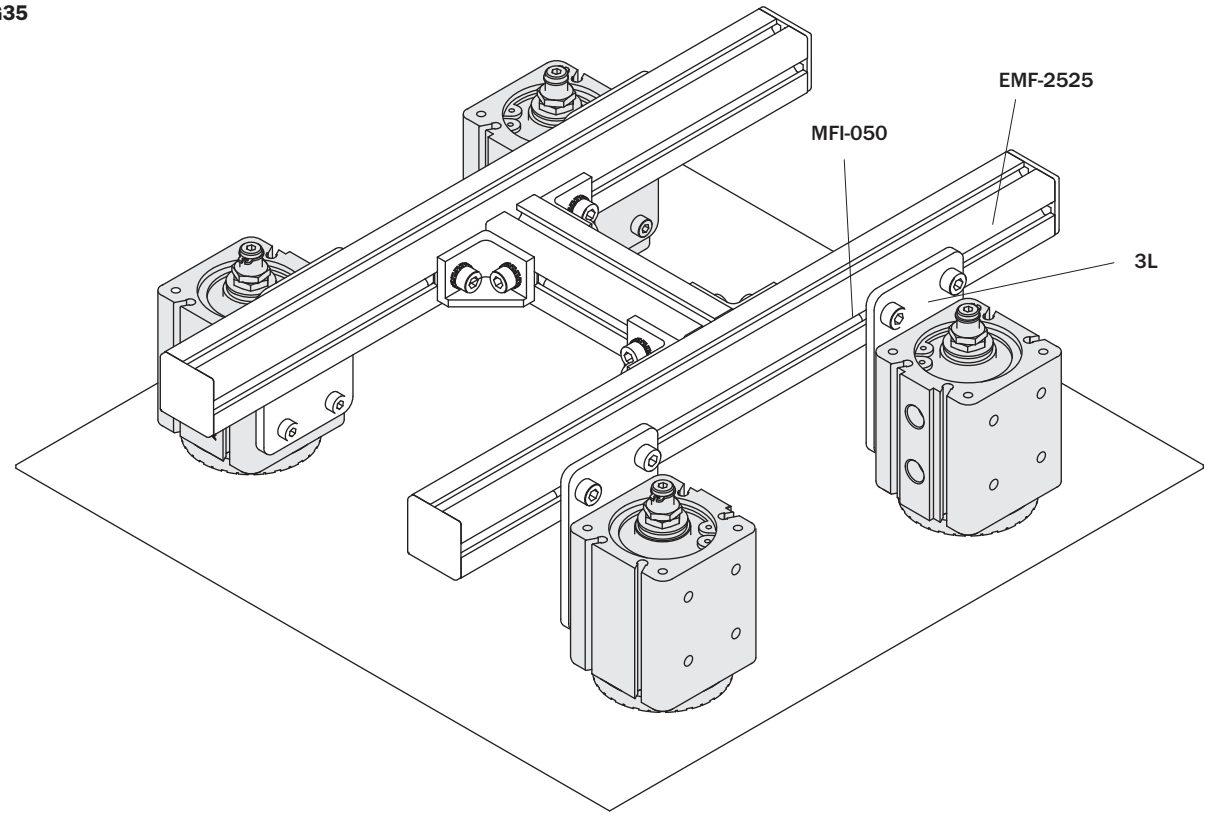


Facile centraggio della parte manipolata (accessori non forniti).

Easy centring of handled part (accessories not provided).

Esempi di utilizzo
Application examples

MAG35

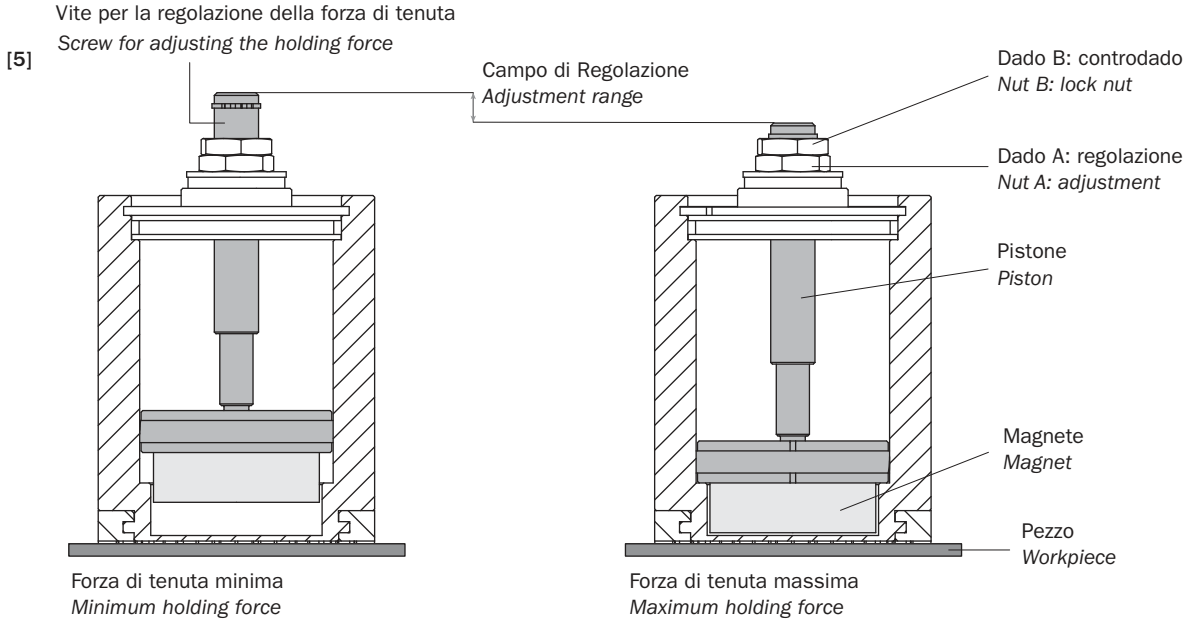


Regolazione forza di tenuta

La forza di tenuta può essere regolata modificando la distanza tra magnete e pezzo.
1- Tenere fermo il dado "A" e svitare il dado "B" per allentarlo.
2- Tenere ferma la vite di regolazione, ruotare il dado "A" fino alla regolazione desiderata .
3- Tenere fermo il dado "A" e serrare il dado "B" a 5.2 Nm.

Holding force adjustament

The holding force can be adjusted by modifying the distance between the magnet and the workpiece.
1- Hold nut „A" in place and unscrew nut „B" to loosen it.
2- Hold the adjusting screw in place, turn nut „A" until the desired adjustment is achieved.
3- Hold nut "A" in place and tighten nut "B" to 5.2 Nm.



ATTUATORI

Linear actuators



OFL

Cilindro pneumatico a corsa breve, con stelo antirotazione, foro passante e codolo

- Azionamento a doppio effetto.
- Due taglie disponibili.
- Foro passante per l'alimentazione di ventose (4).
- Tre cave con sfere per l'anti-rotazione dello stelo (1).
- Codolo standard per il montaggio con i prodotti MFI (2).
- Sensori magnetici opzionali (3).
- Grasso alimentare FDA-H1.
- Versione telescopica (5)

Short stroke pneumatic cylinder, with non-rotative through hole rod and mounting stud

- *Double-effect.*
- *Two sizes available.*
- *Through hole for vacuum cup feeding (4).*
- *Three grooves with balls for non-rotative rod (1).*
- *Clampable stud for mounting by MFI products (2).*
- *Optional magnetic sensors (3).*
- *FDA-H1 food-grade grease.*
- *Telescopic version (5)*



OFL2010



OFL3015



OFL3030



OFL3040T


(1)


(2)



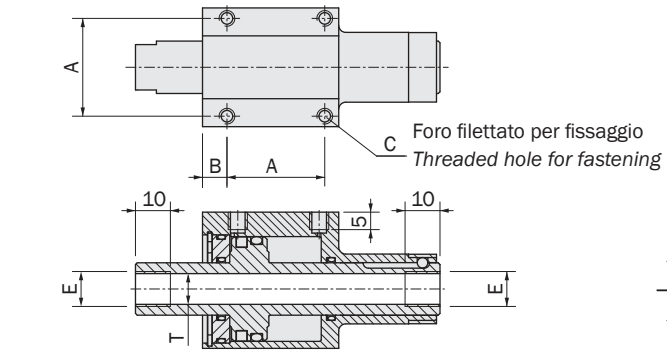
(3)

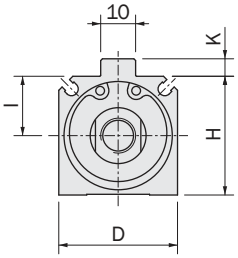

(4)


(5)

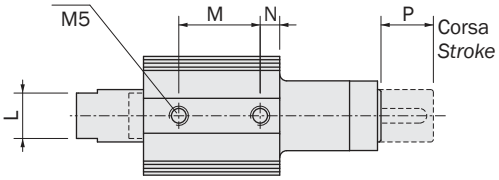
	OFL2010 9900080	OFL3015 9900081	OFL3030 9900082	OFL3040T 9900083
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.			
Corsa *Stroke*	10 mm	15 mm	30 mm	40 mm
Alesaggio *Piston bore*	20 mm	30 mm	30 mm	30 mm
Forza di chiusura / apertura a 6 bar *Closing /opening force at 6 bar*	130 N	300 N	300 N	250 N
Consumo d'aria per ciclo *Cycle air consumption*	4.7 cm^3	16 cm^3	32 cm^3	40 cm^3
Tempo di azionamento minimo *Minimum actuating time*	0.02 s	0.06 s	0.15 s	0.15 s
Peso *Weight*	60 g	110 g	140 g	240 g

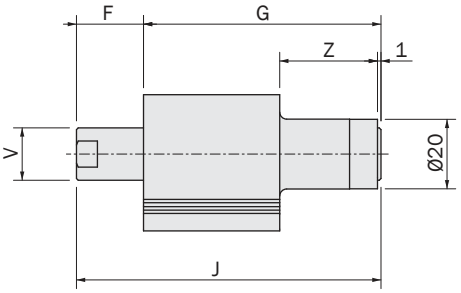
Dimensioni (mm)
Dimensions (mm)





Ingresso aria compressa
Compressed air connection

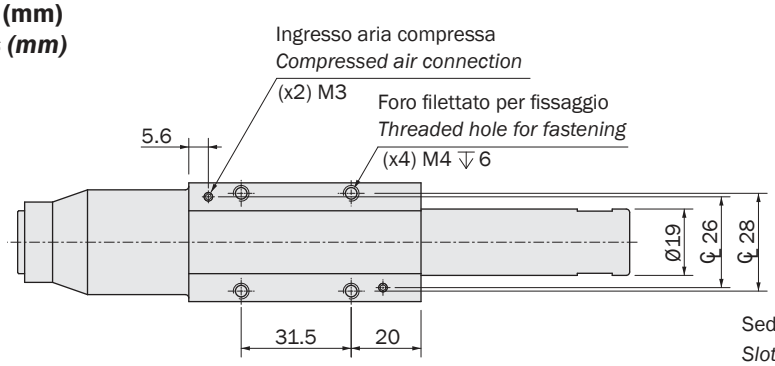




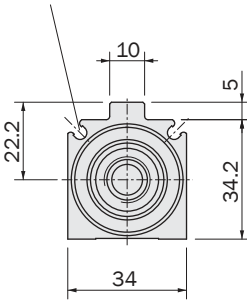
	OFL2010	OFL3015	OFL3030
A	19	28	28
B	9	7	7
C	M3x4	M4x6	M4x6
D	24	34	34
E	M5	G1/8"	G1/8"
F	14.2	19.2	34.2
G	59	68	91
H	25	34	34
I	13	17	17
J	74.2	87.2	125.2
K	4	5	5
L	8	13	13
M	16	23.3	38.3
N	5	5.6	5.6
P	10	15	30
T	Ø4.2	Ø8.8	Ø8.8
V	Ø10	Ø15	Ø15
Z	28	28	36

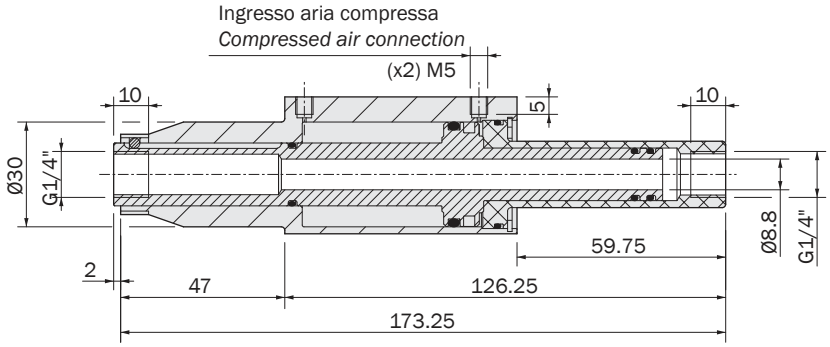
FIRST ANGLE PROJECTION

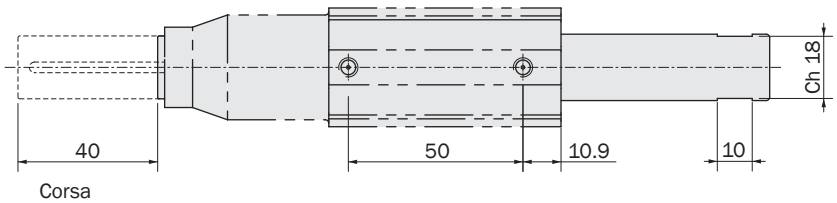
Dimensioni (mm)
Dimensions (mm)



Sede per sensori serie SS / SN
Slot for SS / SN series sensors







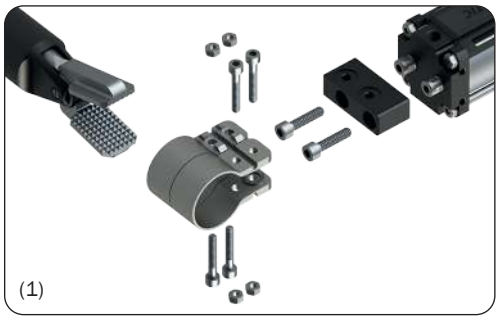
OFB

Cilindro guidato con steli gemellati

- Doppio effetto.
- Alesaggio: 40mm.
- Corsa: 30mm oppure 50mm.
- Vari accessori per il fissaggio (1).
- Sensori magnetici opzionali (2).
- Grasso alimentare FDA-H1.

Guided cylinder with twin rods

- *Double acting.*
- *Piston bore: 40mm.*
- *Stroke: 30mm or 50mm.*
- *Several mounting accessories (1).*
- *Optional magnetic sensors (2).*
- *FDA-H1 food-grade grease.*


(1)


(1)


(2)



OFB40-A30A
OFB40-A50A



OFB40-B30B
OFB40-B50B



OFB40-C30C
OFB40-C50C

	OFB40-A30A	OFB40-A50A	OFB40-B30B	OFB40-B50B	OFB40-C30C	OFB40-C50C
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2 ÷ 8 bar					
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.					
Alesaggio *Piston bore*	Ø40 mm					
Forza di chiusura a 6 bar *Retraction force at 6 bar*	660 N					
Forza di apertura a 6 bar *Extension force at 6 bar*	754 N					
Corsa (±0.3 mm) *Stroke*	30 mm	50 mm	30 mm	50 mm	30 mm	50 mm
Consumo d'aria per ciclo *Cycle air consumption*	71 cm^3	118 cm^3	71 cm^3	118 cm^3	71 cm^3	118 cm^3
Peso *Weight*	475 g	520 g	395 g	445 g	405 g	455 g

Dimensioni (mm)
Dimensions (mm)

A Fori di fissaggio
Fastening holes

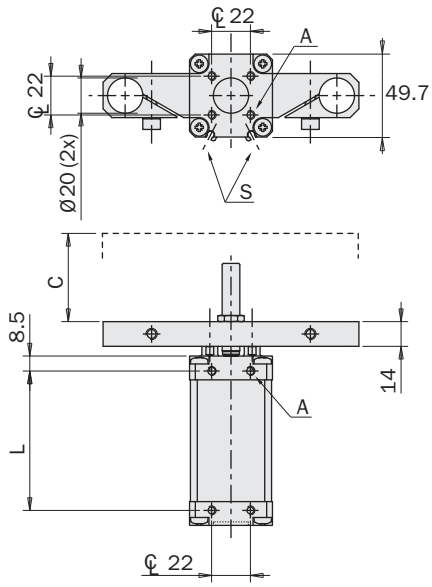
B Connessione per raccordo aria
Air connection port

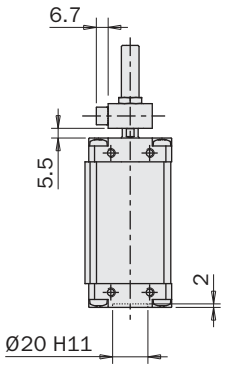
C Corsa
Stroke

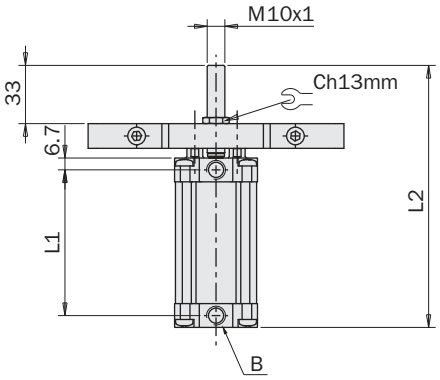
S Cava per sensore magnetico
Magnetic sensor slot

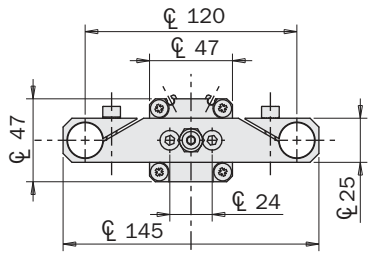
	OFB40-A30A	OFB40-A50A
A	M5x10	M5x10
B	1/8	1/8
C	30	50
L	59	79
L1	62.6	82.6
L2	128.5	148.5

FIRST ANGLE PROJECTION

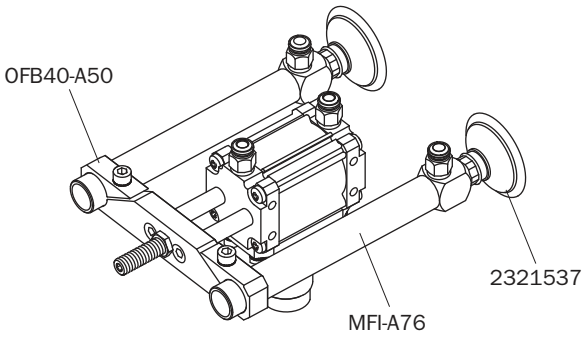






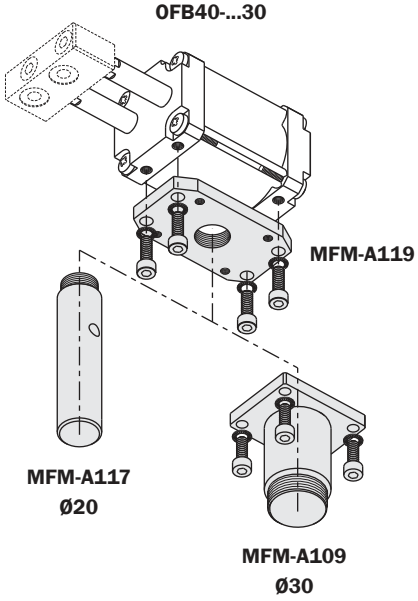


Esempi di utilizzo
Application examples

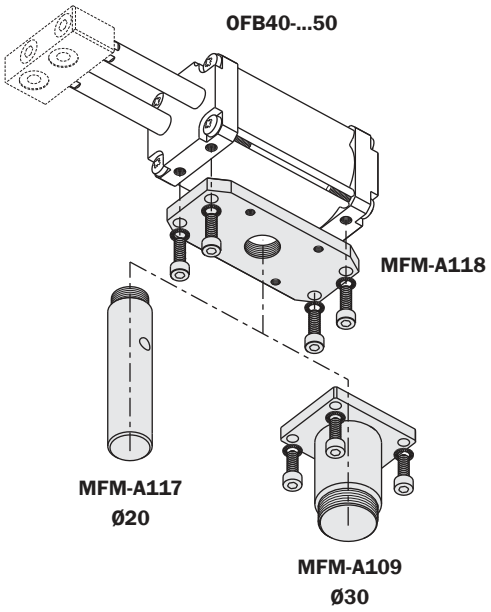


Fissaggio del cilindro
Cylinder mounting

OFB40-...30



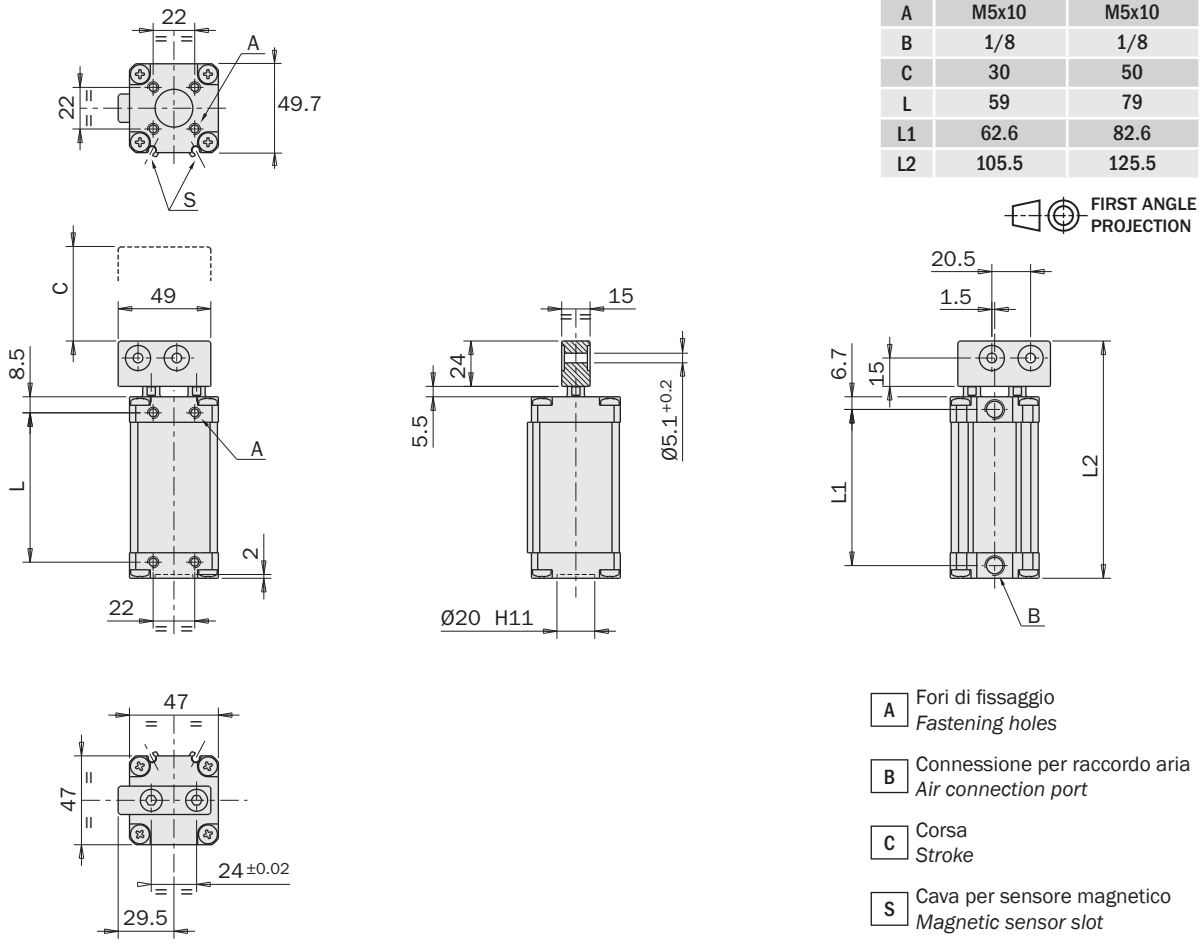
OFB40-...50



Dimensioni (mm)
Dimensions (mm)

	OFB40-B30B	OFB40-B50B
A	M5x10	M5x10
B	1/8	1/8
C	30	50
L	59	79
L1	62.6	82.6
L2	105.5	125.5

FIRST ANGLE PROJECTION



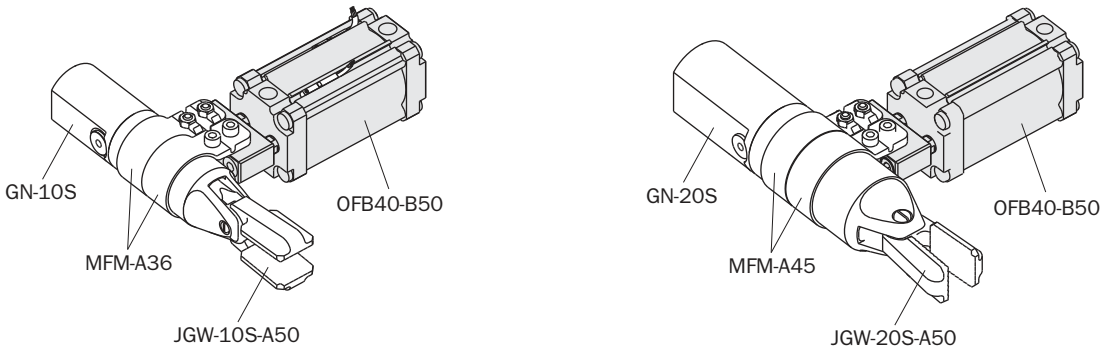
A Fori di fissaggio
Fastening holes

B Connessione per raccordo aria
Air connection port

C Corsa
Stroke

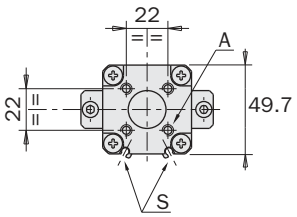
S Cava per sensore magnetico
Magnetic sensor slot

Esempi di utilizzo
Application examples



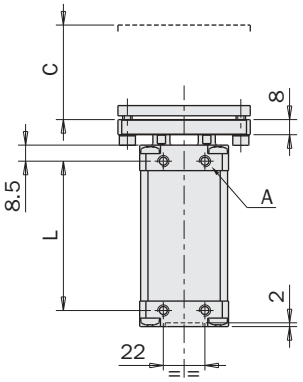


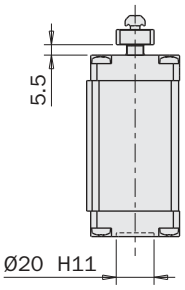
Dimensioni (mm)
Dimensions (mm)

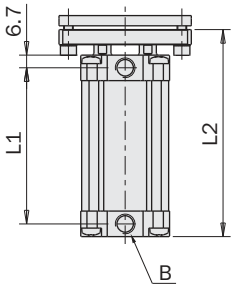


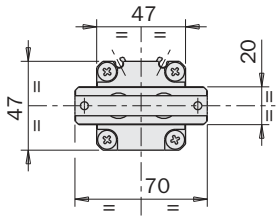
	OFB40-C30C	OFB40-C50C
A	M5x10	M5x10
B	1/8	1/8
C	30	50
L	59	79
L1	62.6	82.6
L2	89.5	109.5

FIRST ANGLE PROJECTION



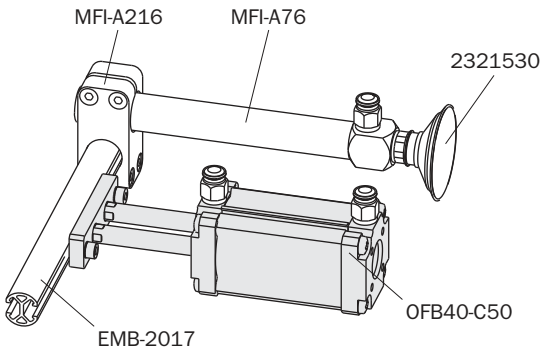


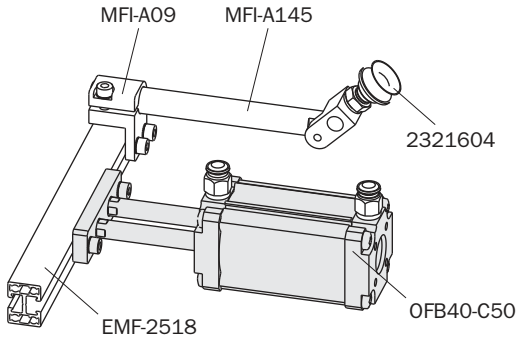


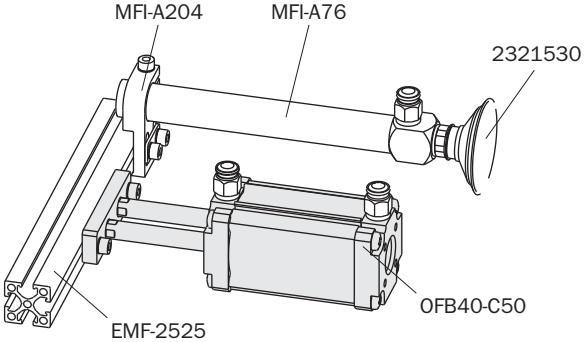


- **A** Fori di fissaggio *Fastening holes*
- **B** Connessione per raccordo aria *Air connection port*
- **C** Corsa *Stroke*
- **S** Cava per sensore magnetico *Magnetic sensor slot*

Esempi di utilizzo
Application examples







OFC

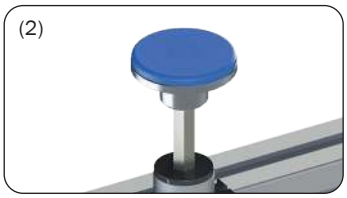
Mini cilindri universali a semplice effetto, antirotazione

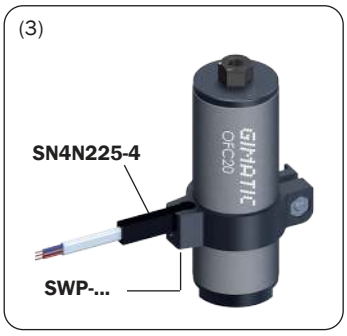
- Alesaggio: 10mm, 16mm, 25mm.
- Corsa: 10mm, 20mm, 30mm.
- Vari accessori MFI... per il fissaggio a cravatta sul diametro esterno (1).
- Vari accessori da montare sullo stelo (2).
- Sensori e fascette opzionali (3).
- Grasso alimentare FDA-H1.

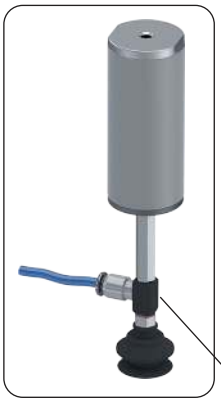
General purpose, single-acting, anti-rotation mini cylinders

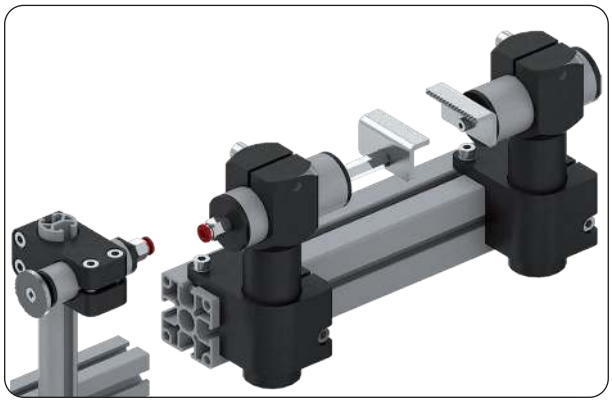
- *Piston bore: 10mm, 16mm, 25mm.*
- *Stroke: 10mm, 20mm, 30mm.*
- *Several accessories MFI... for the clamp mounting on the external diameter (1).*
- *Several accessories to be mounted on the rod (2).*
- *Optional sensors and clamps (3).*
- *Food grade grease FDA-H1.*











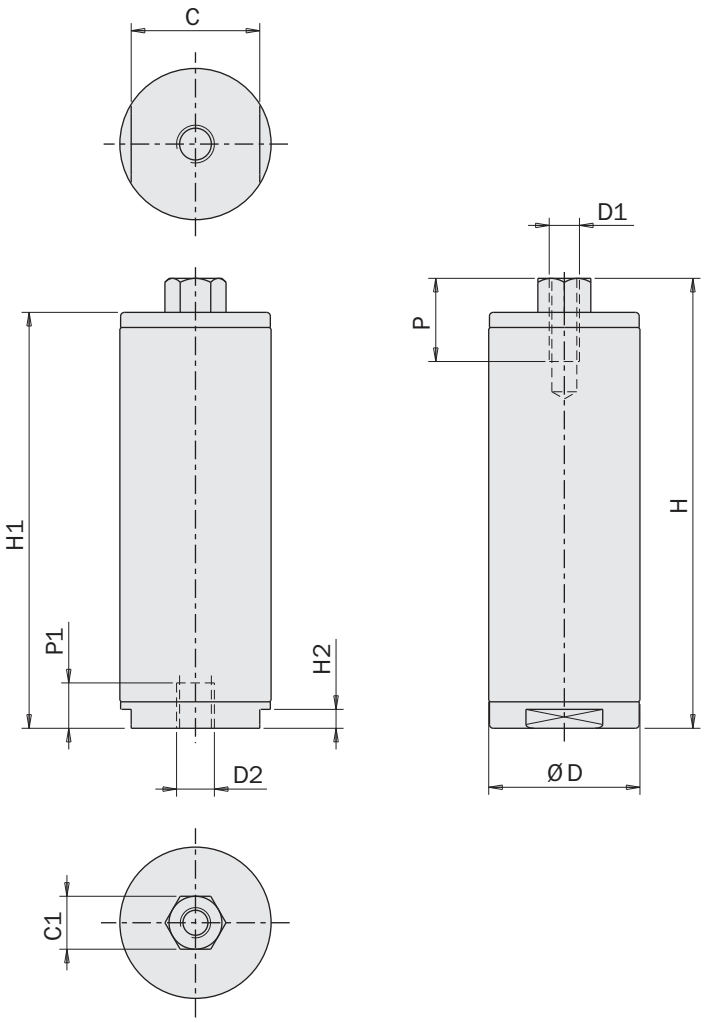


	MFI-A361	MFI-A362	MFI-A364	MFI-A365
A	M5	G1/8	M4	M3
B	M5	G1/8	M5	M5



	OFC14-10	OFC20-20	OFC30-30
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.		
Corsa *Stroke*	10 mm	20 mm	30 mm
Alesaggio *Piston bore*	Ø10 mm	Ø16 mm	Ø25 mm
Forza di chiusura a 0 bar *Closing force at 0 bar*	4 N	8 N	23 N
Forza di apertura a 6 bar *Opening force at 6 bar*	43 N	113 N	271 N
Consumo d'aria per ciclo *Cycle air consumption*	1 cm^3	4 cm^3	15 cm^3
Peso *Weight*	20 g	40 g	85 g

Dimensioni (mm)
Dimensions (mm)



	OFC14-10	OFC20-20	OFC30-30
C	12	17	27
C1	5.5	7	7
D	Ø14	Ø20	Ø30
D1	M3	M4	M4
D2	M5	M5	M5
H	50	59.5	75
H1	45.5	55	70.5
H2	2.5	2.5	2.5
P	7	9	9
P1	6	6	6

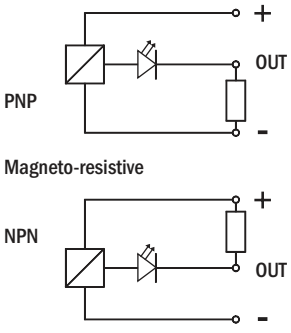
FIRST ANGLE PROJECTION

OFC	SWP-...
OFC14-10	SWP-014
OFC20-20	SWP-020
OFC30-30	SWP-030



SN4N225-4



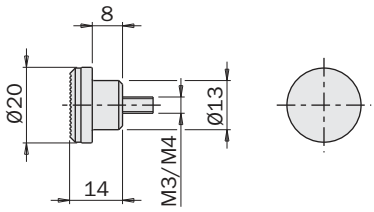


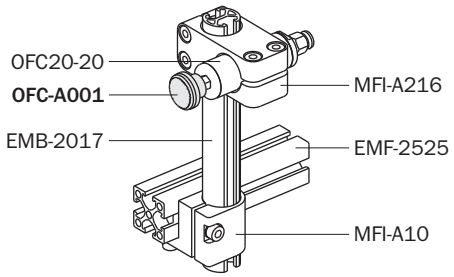
SN...		
SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *Snap M8 plug connector*
SN3M203-G	NPN	

Kit opzionali
Optional kits

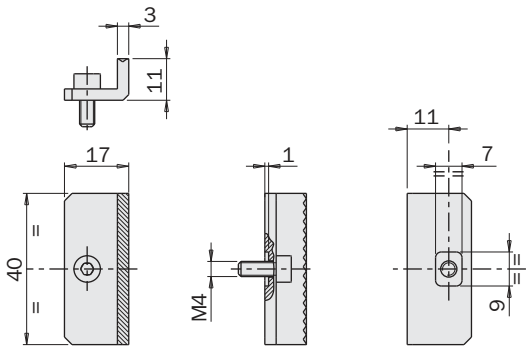
	OFC-A001	OFC-A002	OFC-A003	OFC-A004	OFC-A005	OFC-A006	OFC-A007	OFC-A008
OFC14-10	☑	☑	☑	☐	☑	☑	☐	☑
OFC20-20	☑	☑	☑	☑	☑	☐	☑	☐
OFC30-30	☑	☑	☑	☑	☑	☐	☑	☐
Peso *Weight*	15 g	25 g	15 g	25 g	35 g	19 g	11 g	50 g

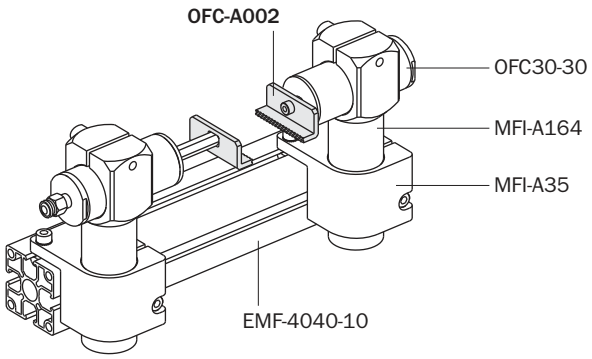
OFC-A001
Bottone con gommino in HNBR
Button with HNBR rubber pad



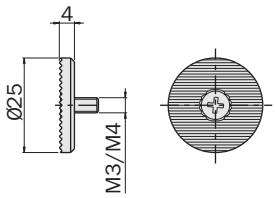


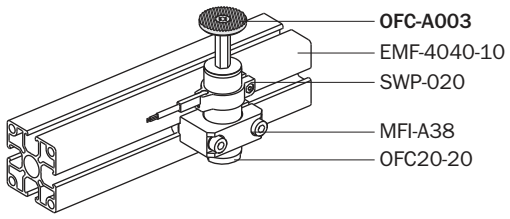
OFC-A002
Artiglio in acciaio
Steel claw



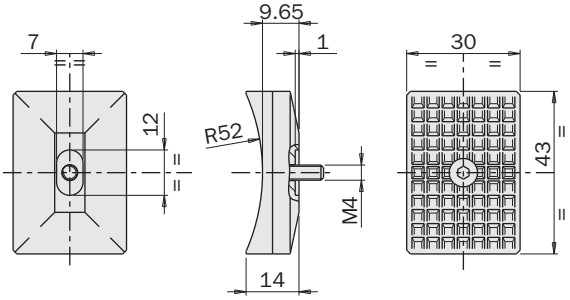


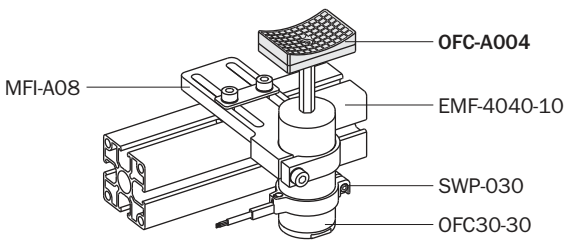
OFC-A003
Bottone in acciaio
Steel button





OFC-A004
Spintore concavo con gommino in TPU
Concave pusher with TPU rubber pad

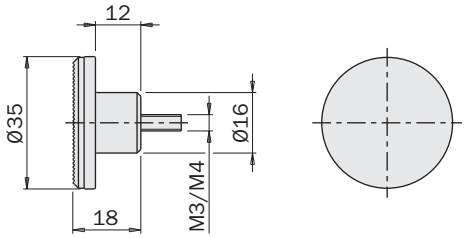


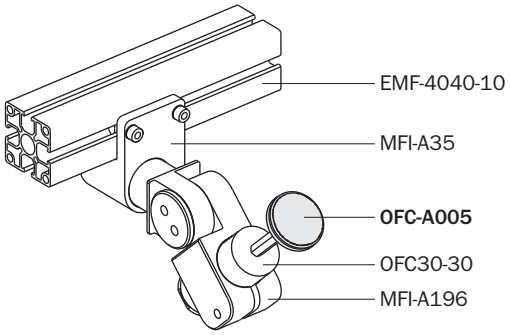


Kit opzionali
Optional kits

OFC-A005

Bottone con gommino in HNBR
Button with HNBR rubber pad

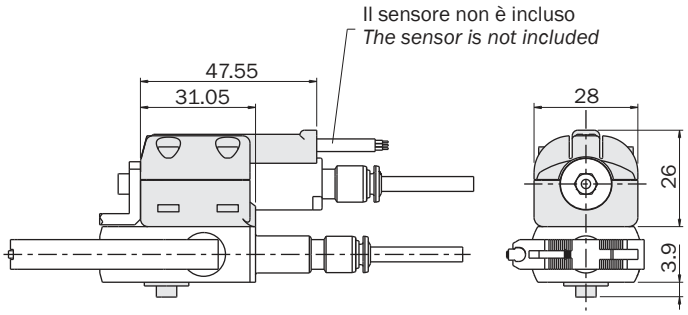


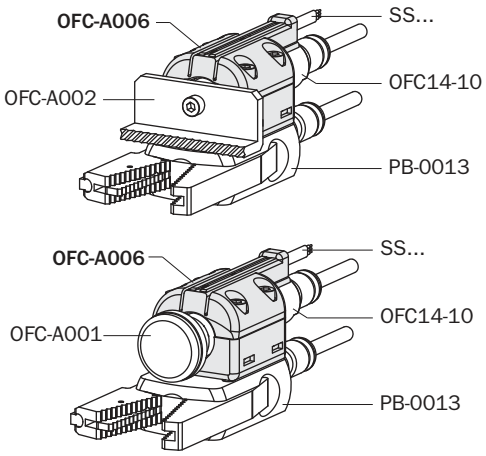


OFC-A006

Staffa per il fissaggio di OFC14-10 sulle pinze PB
- Utile per espellere la materozza quando si incastra sulle dita della pinza.
- Layout compatto di tubi e cavi.
- Sensore magnetico SS opzionale.
- Materiale PA12GB.

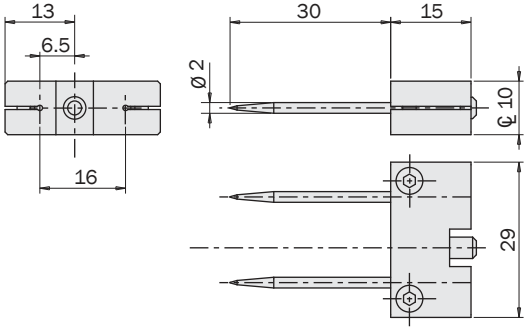
Bracket for mounting cylinder OFC14-10 on PB grippers
- *Useful to extract the sprue when it is stuck on the gripper fingers.*
- *Compact layout of hoses and cables.*
- *Optional SS magnetic sensor.*
- *Material PA12GB.*

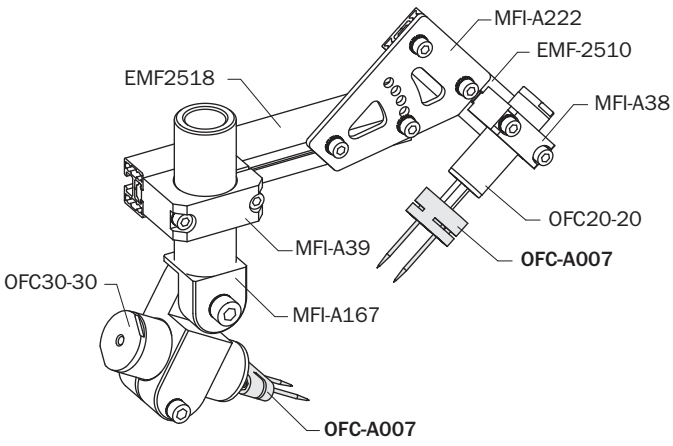




OFC-A007

Porta aghi
Needle holder



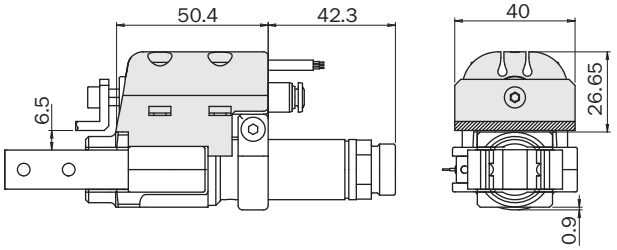


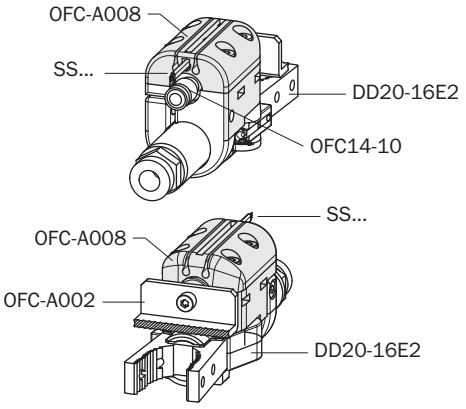
Kit opzionali
Optional kits

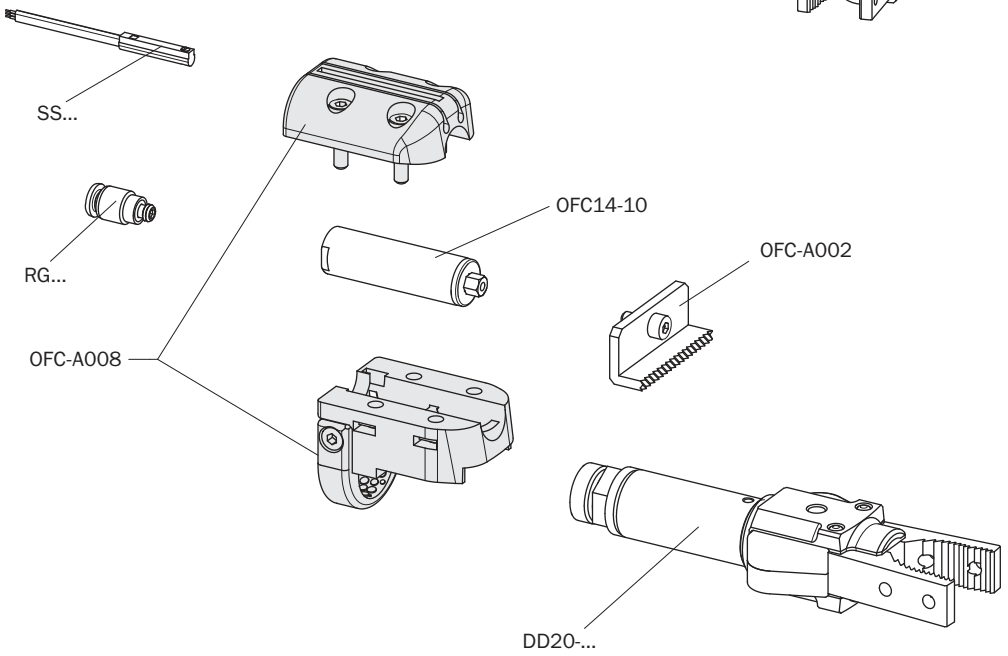
OFC-A008

Staffa per il fissaggio di OFC14-10 sulle pinze DD
- Utile per espellere la materozza quando si incastra sulle dita della pinza.
- Layout compatto di tubi e cavi.
- Sensore magnetico SS opzionale.
- Materiale PA12GB.

Bracket for mounting cylinder OFC14-10 on DD grippers
- *Useful to extract the sprue when it is stuck on the gripper fingers.*
- *Compact layout of hoses and cables.*
- *Optional SS magnetic sensor.*
- *Material PA12GB.*







Note
Notes

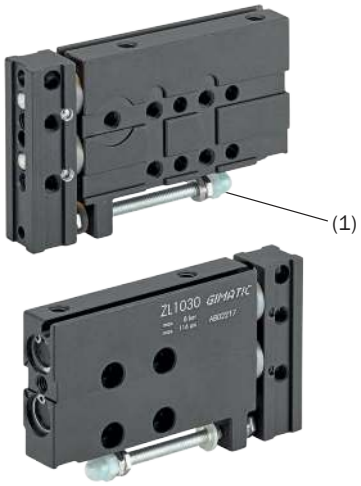
Slitte pneumatiche (serie ZL)

- Disegnate per gli EOAT.
- Azionamento a doppio effetto.
- Profilo piatto.
- Regolazione della corsa di apertura (1).
- Ammortizzatori in poliuretano (2).
- Sensori magnetici opzionali (3).

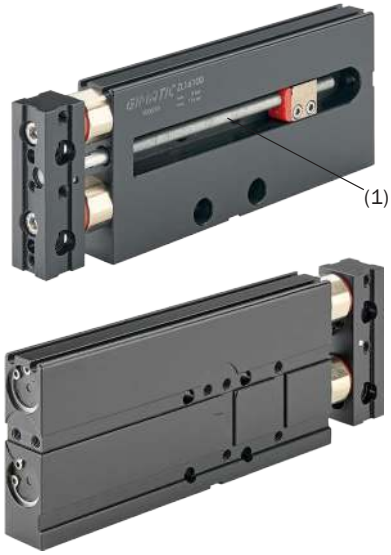
Pneumatic slides (series ZL)

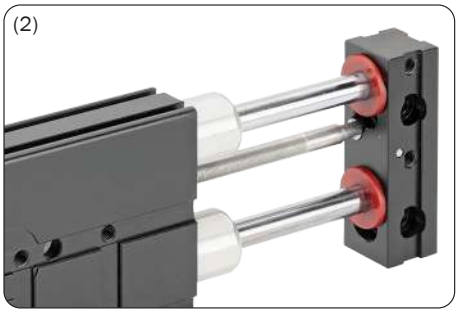
- *Designed for EOATs.*
- *Double-acting.*
- *Flat profile.*
- *Opening stroke adjustment (1).*
- *Polyurethane shock-absorbers (2).*
- *Optional magnetic sensors (3).*

ZL1030



ZL16...
ZL25...







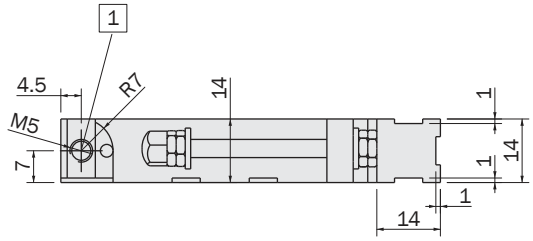
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	

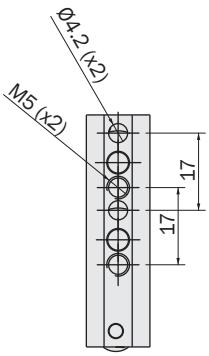
	ZL1030	ZL1650	ZL16100	ZL2550	ZL25100
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*	2 ÷ 8 bar				
Temperatura di esercizio *Temperature range*	5 ÷ 60 °C				
Forza di chiusura a 6 bar *Retraction force at 6 bar*	60 N	150 N		380 N	
Forza di apertura a 6 bar *Extension force at 6 bar*	80 N	200 N		500 N	
Corsa *Stroke (±0.3 mm)*	0 ÷ 30 mm	0 ÷ 50 mm	0 ÷ 100 mm	0 ÷ 50 mm	0 ÷ 100 mm
Consumo d'aria per ciclo *Cycle air consumption*	9 cm³	37 cm³	70 cm³	90 cm³	177 cm³
Tempo di azionamento minimo *Minium actuating time*	0.06 s	0.13 s	0.24 s	0.24 s	0.45 s
Frequenza massima di lavoro *Maximum working frequency*	1 Hz				
Peso *Weight*	0.13 kg	0.41 kg	0.58 kg	0.88 kg	1.16 kg

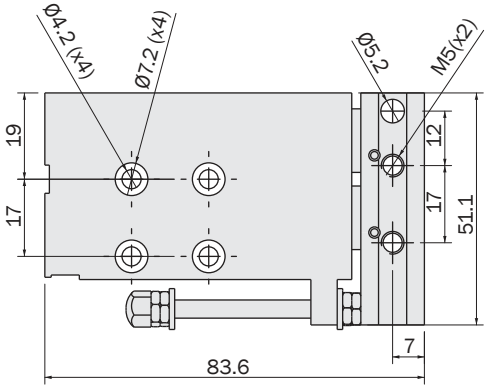
Dimensioni (mm)
Dimensions (mm)

ZL 10

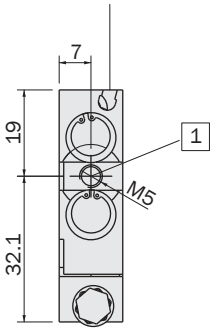
1 Posizione di montaggio per ZL-K14
Mounting position for ZL-K14

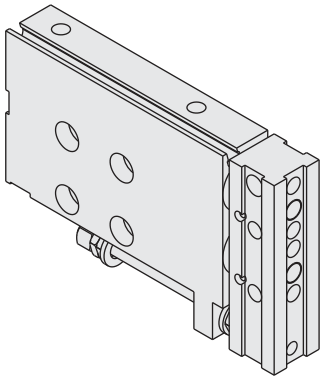




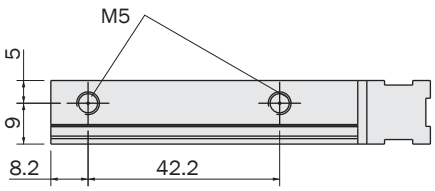


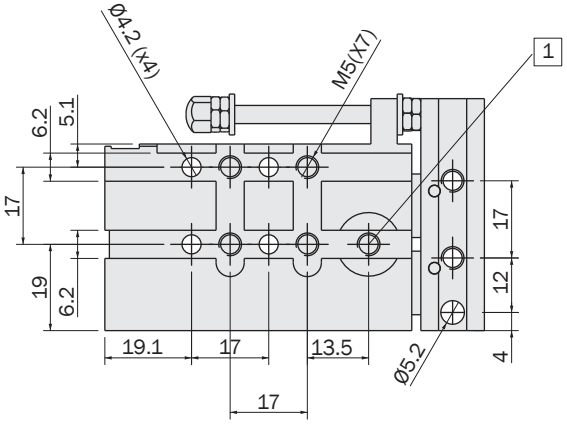
Cava per sensore serie SS
Slot for SS sensor

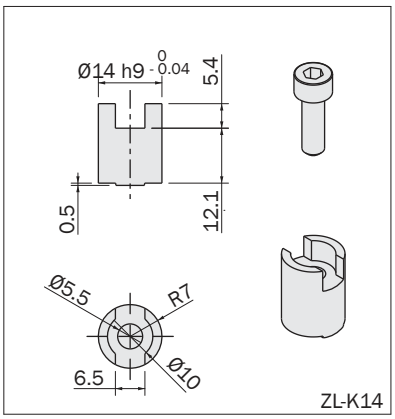




Ingresso aria
Air connection

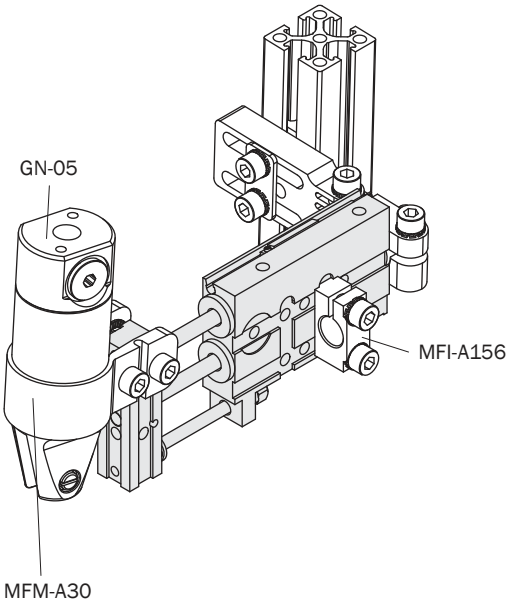


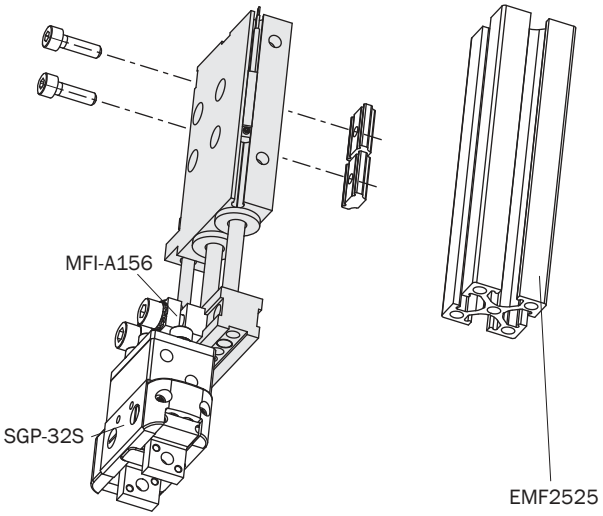


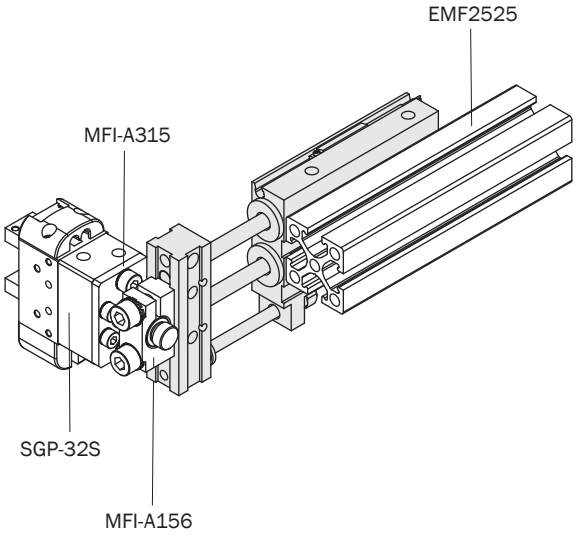


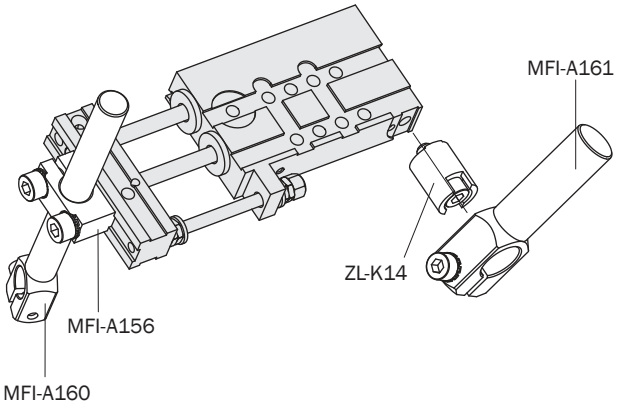
FIRST ANGLE PROJECTION

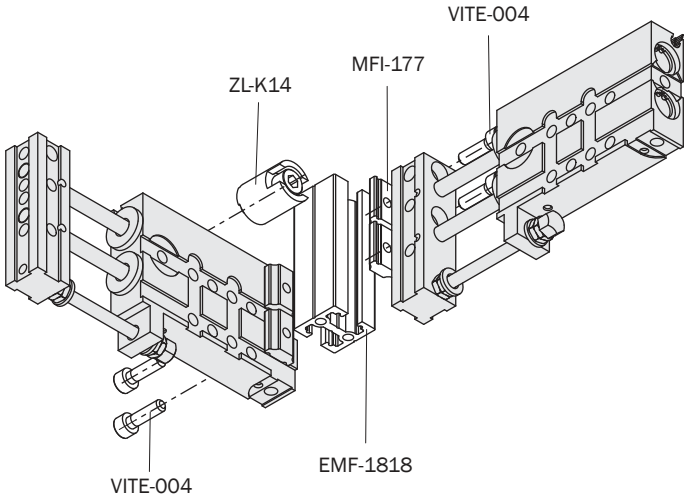
Esempio di utilizzo
Application example









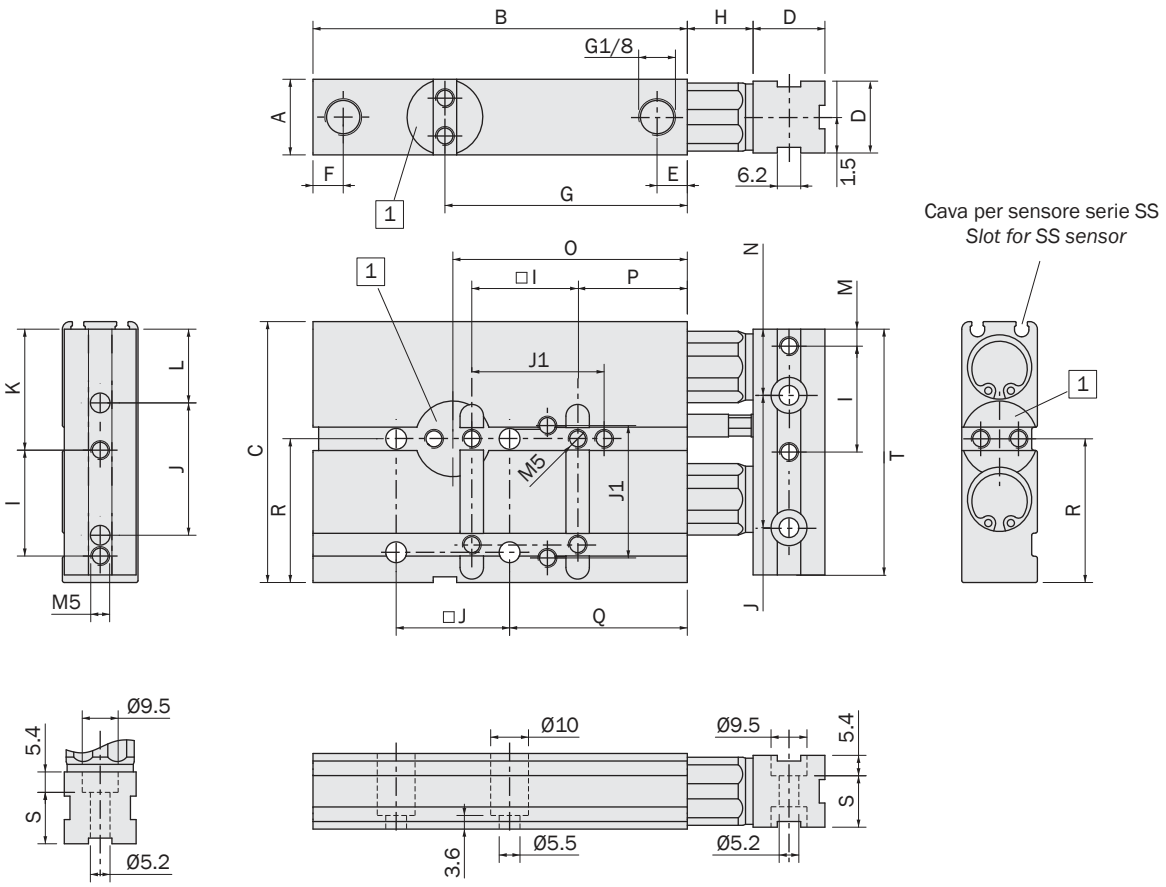


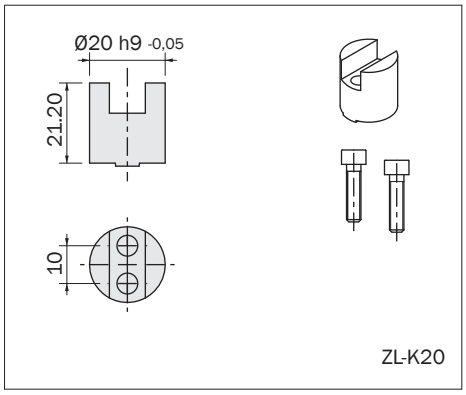
Dimensioni (mm)
Dimensions (mm)

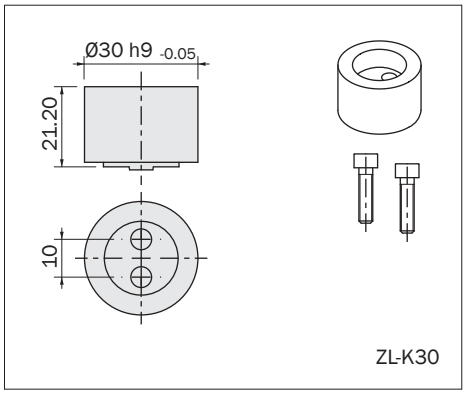
ZL16
ZL25

	A	B	C	D	E	F	G	H	I	J	J1	K	L	M	N	O	P	Q	R	S	T
ZL1650	20	99	69	19	8	8	64.1	17.4	28	30	35	32	19.5	4.5	17.5	62	29	47	38	13.6	65
ZL16100	20	149	69	19	8	8	64.1	17.4	28	30	35	32	19.5	4.5	17.5	62	29	47	38	13.6	65
ZL2550	30	101	87	29	8.5	9.5	64.1	17.4	40	40	-	24.5	31.5	7	22	62	17	37	47	23.6	78
ZL25100	30	151	87	29	8.5	9.5	64.1	17.4	40	40	-	24.5	31.5	7	22	62	17	37	47	23.6	78

1 Posizione di montaggio per ZL-K20 e ZL-K30
Mounting position for ZL-K20 e ZL-K30

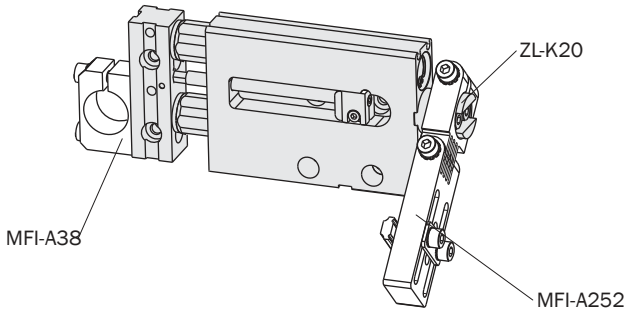


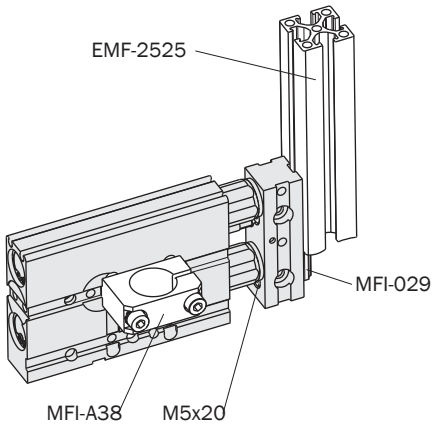


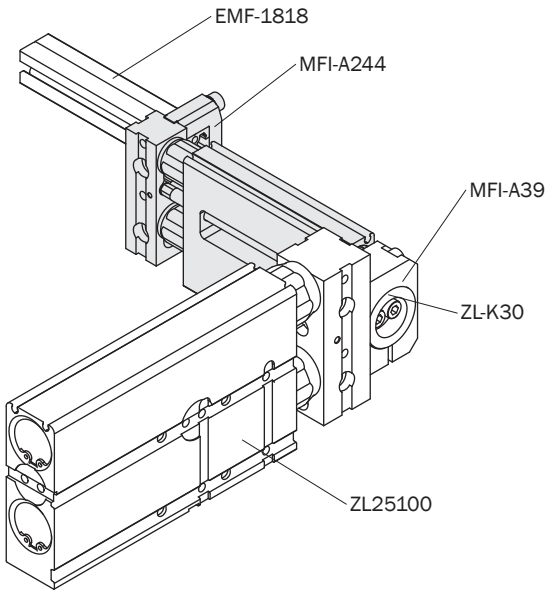


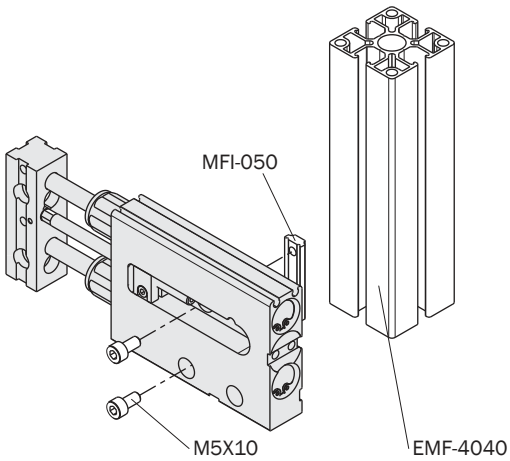
FIRST ANGLE PROJECTION

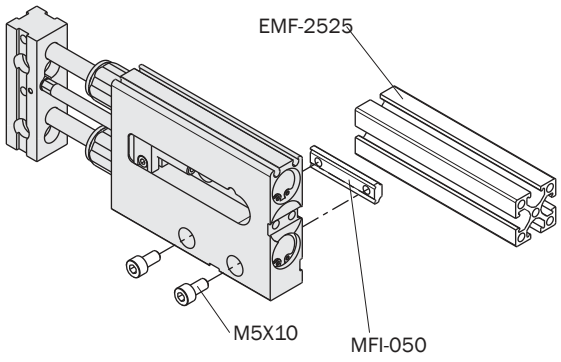
Esempio di utilizzo
Application example

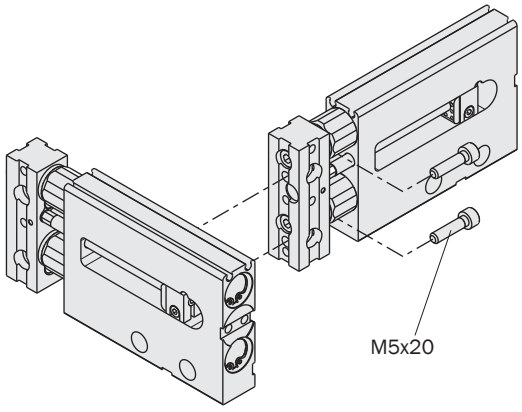






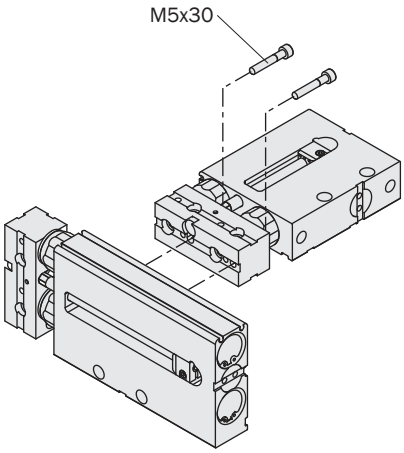


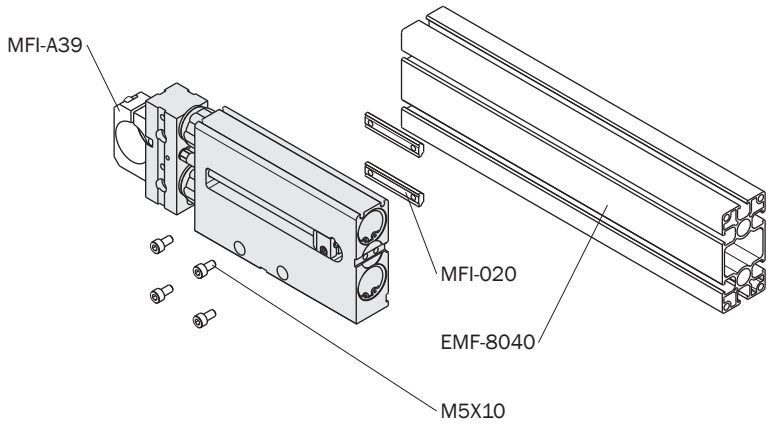


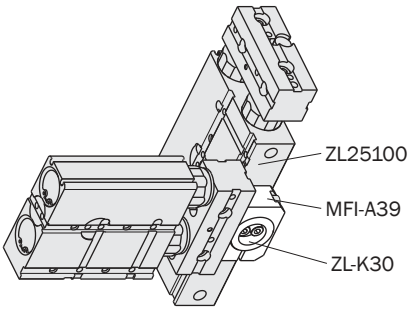


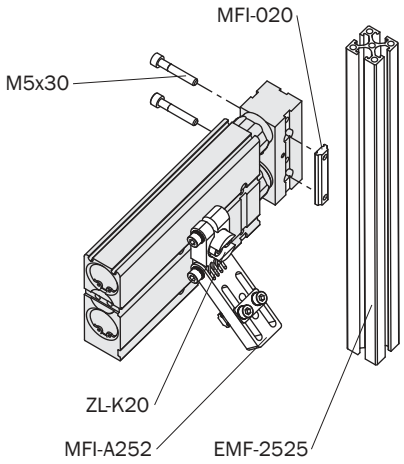
Esempio di utilizzo
Application example

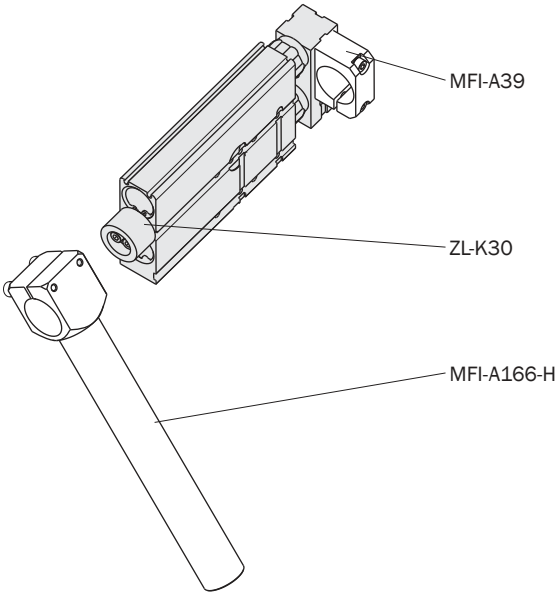
ZL 25

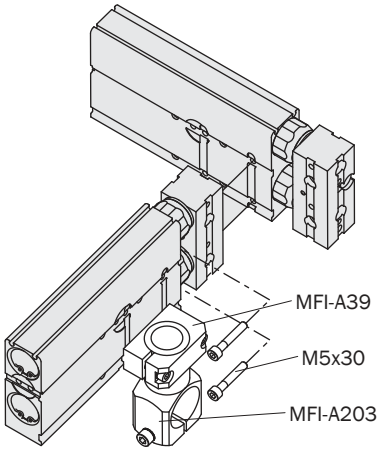












Mini slitte pneumatiche serie ZE-P

- Alesaggio 6, 10 oppure 16 mm.
- Corsa 10, 20, 30 mm.
- Varie possibilità di fissaggio.
- Azionamento a doppio effetto.
- Ammortizzatori elastici interni.
- Sensori magnetici opzionali.

Pneumatic mini-slides series ZE-P

- *Piston bore 6, 10 or 16 mm.*
- *Stroke 10, 20, 30 mm.*
- *Several fastening options.*
- *Double acting.*
- *Internal elastic bumpers.*
- *Optional magnetic sensors.*



ZE0630P **ZE1030P** **ZE1630P**

Pur essendo perfettamente intercambiabile con la precedente serie ZE, la ZE-P può contare su:

1- Cuscinetti lineari a sfere, con gabbia in poliossimetilene.

2- Guida su alberini temprati e rettificati.

3- Carrello monoblocco stampato in zama.

Even if it is completely interchangeable with the previous ZE series, the ZE-P is provided with:

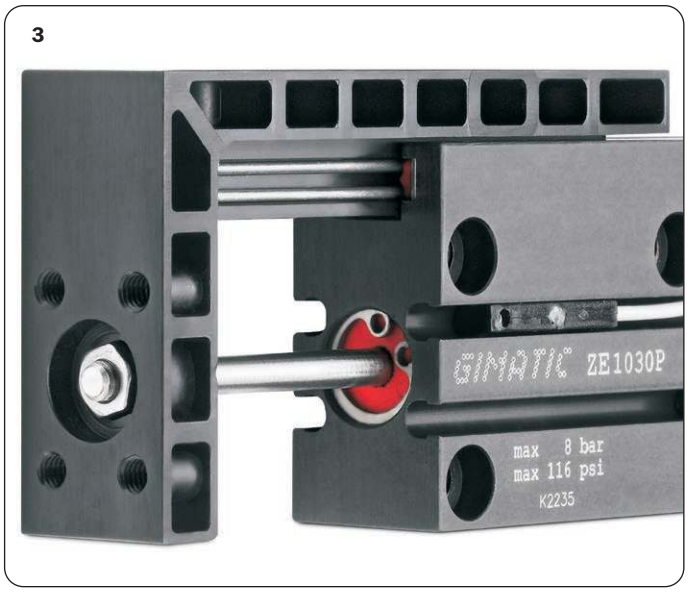
1- Linear ball bearings, with cage in polyoxymethylene.

2- Guide with built-in hardened and ground shafts.

3- One-block carrier moulded in zamak.


1

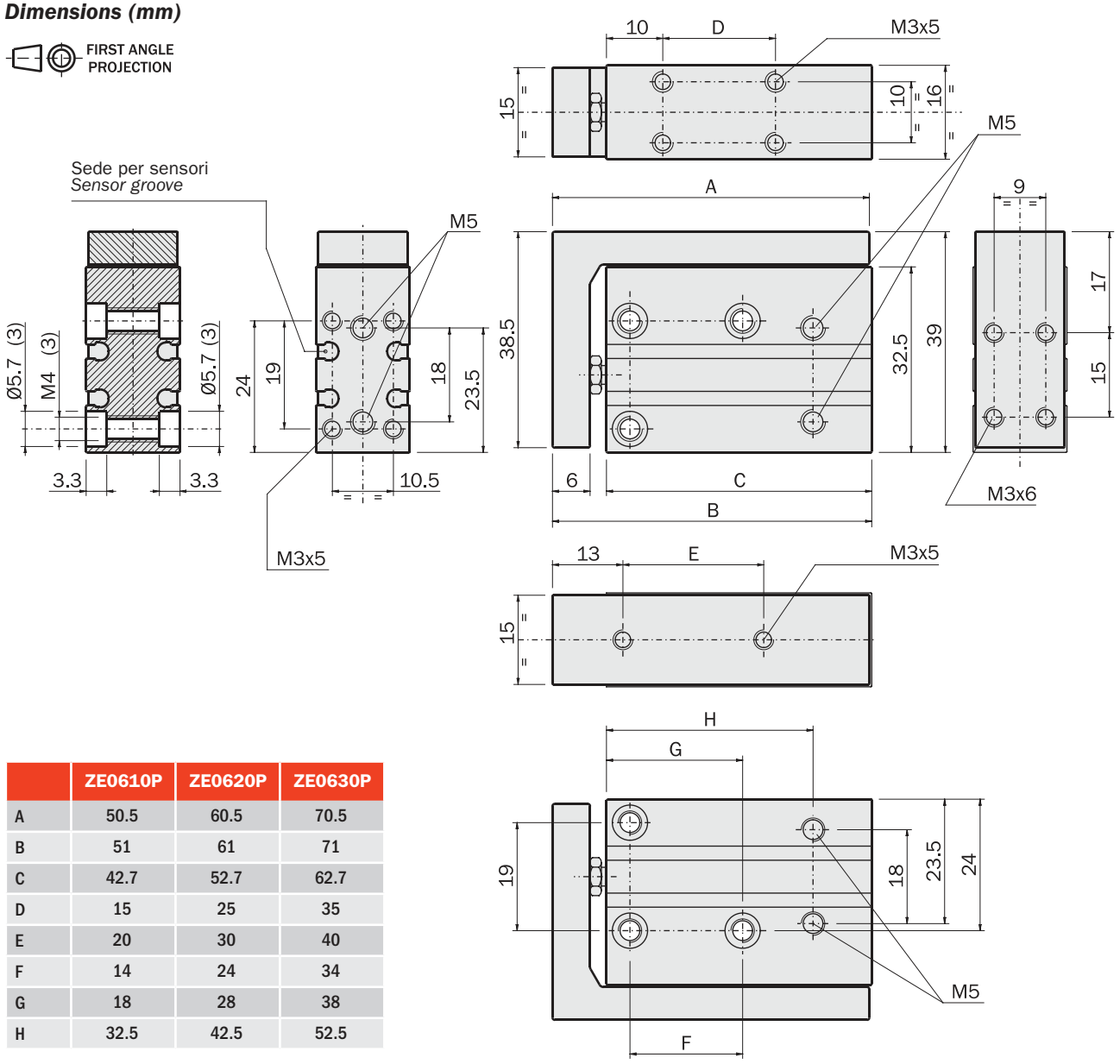

2



	ZE0610P	ZE0620P	ZE0630P
Peso *Weight*	90 g	105 g	120 g
Tempo di azionamento minimo *Minimum actuating time*	0.015 s	0.020 s	0.030 s
Frequenza massima di lavoro *Maximum working frequency*	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	0.7 cm^3	1.3 cm^3	1.9 cm^3
Corsa (+1 mm) *Stroke*	10 mm	20 mm	30 mm
Forza di apertura a 6 bar *Extension force at 6 bar*	13 N		
Forza di chiusura a 6 bar *Retraction force at 6 bar*	10 N		
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C		

Dimensioni (mm)
Dimensions (mm)

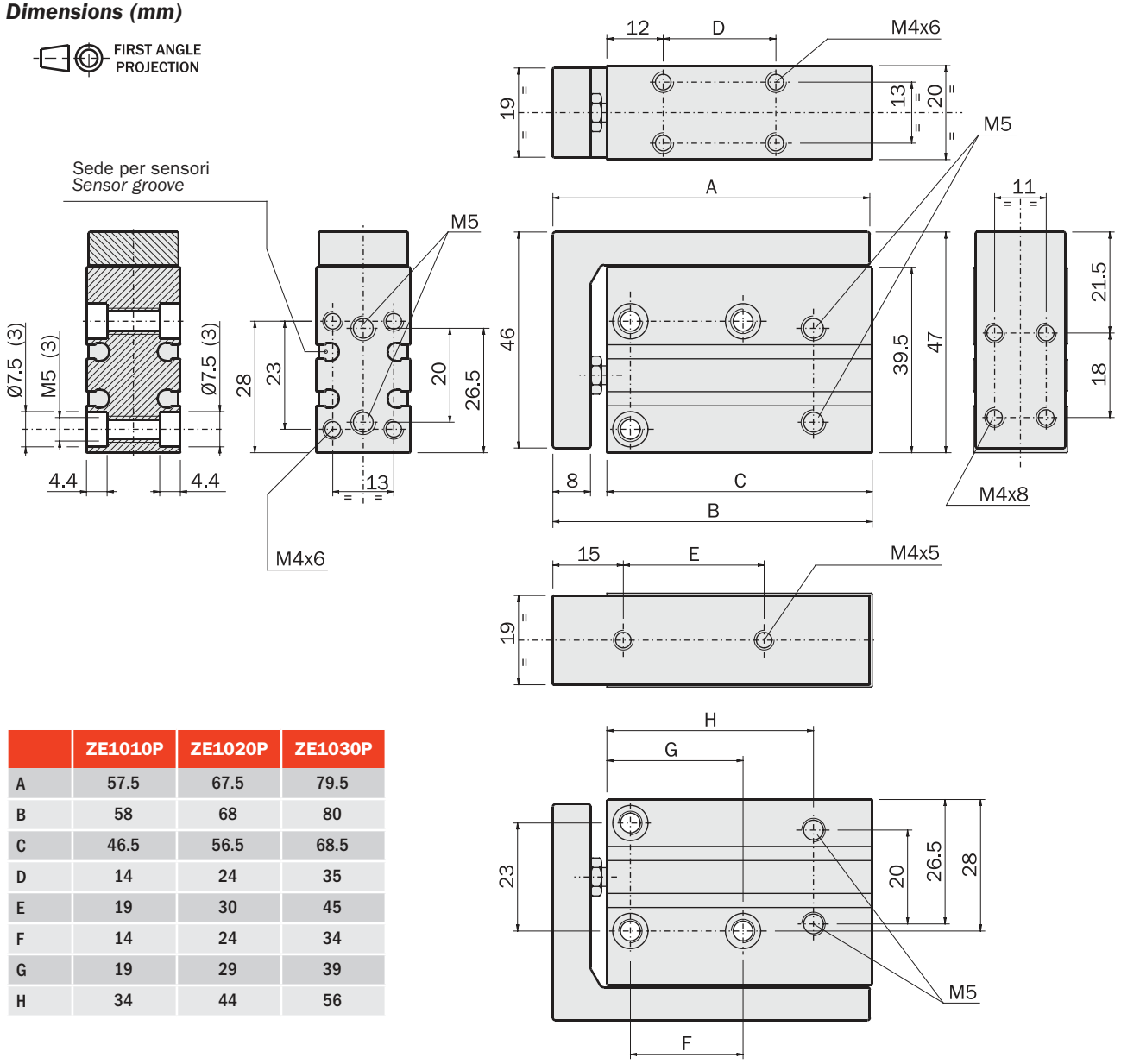
FIRST ANGLE PROJECTION



	ZE0610P	ZE0620P	ZE0630P
A	50.5	60.5	70.5
B	51	61	71
C	42.7	52.7	62.7
D	15	25	35
E	20	30	40
F	14	24	34
G	18	28	38
H	32.5	42.5	52.5

	ZE1010P	ZE1020P	ZE1030P
Peso *Weight*	150 g	175 g	200 g
Tempo di azionamento minimo *Minimum actuating time*	0.030 s	0.050 s	0.060 s
Frequenza massima di lavoro *Maximum working frequency*	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	1.7 cm^3	3.3 cm^3	4.8 cm^3
Corsa (+1 mm) *Stroke*	10 mm	20 mm	30 mm
Forza di apertura a 6 bar *Extension force at 6 bar*	40 N		
Forza di chiusura a 6 bar *Retraction force at 6 bar*	33 N		
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C		

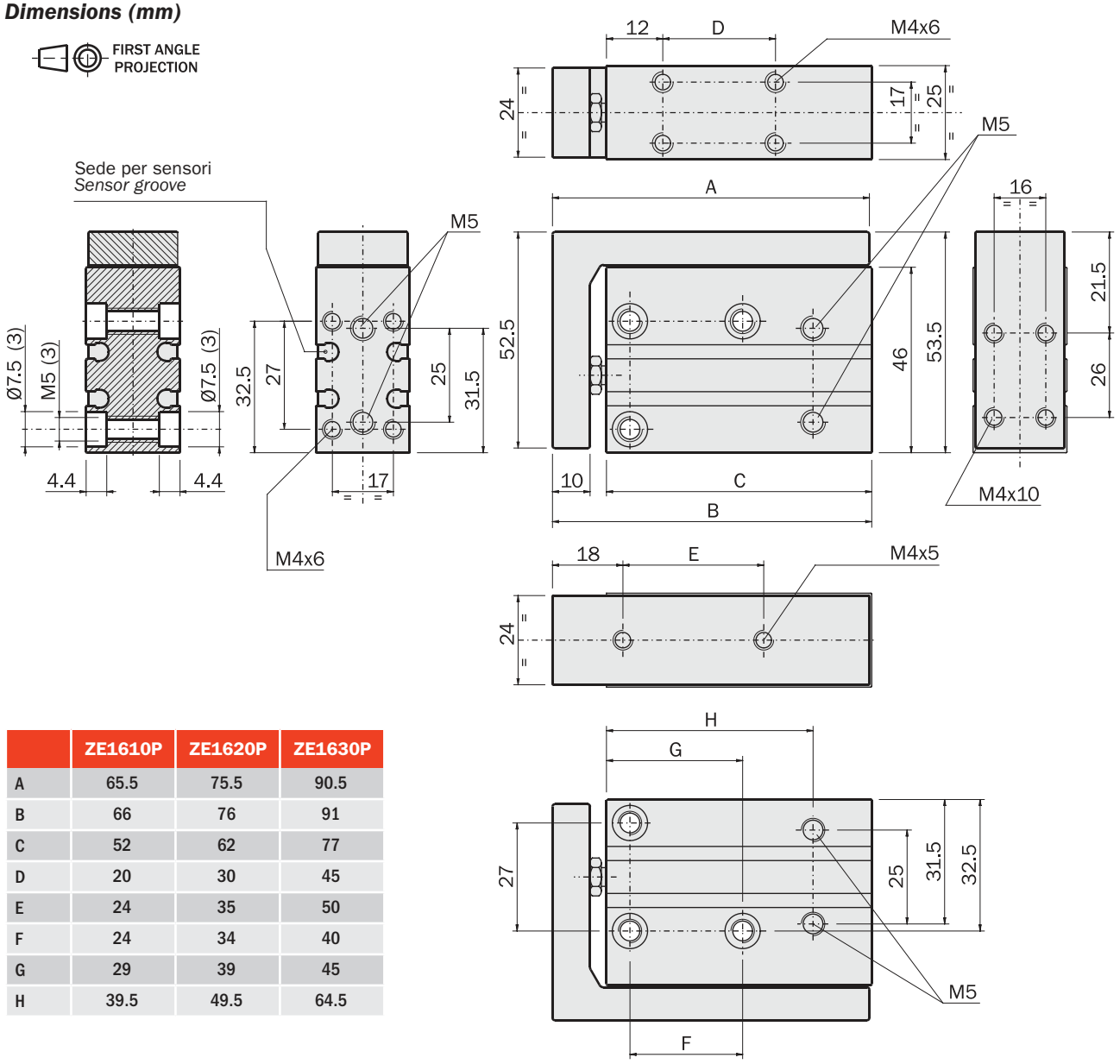
Dimensioni (mm)
Dimensions (mm)



	ZE1010P	ZE1020P	ZE1030P
A	57.5	67.5	79.5
B	58	68	80
C	46.5	56.5	68.5
D	14	24	35
E	19	30	45
F	14	24	34
G	19	29	39
H	34	44	56

	ZE1610P	ZE1620P	ZE1630P
Peso *Weight*	265 g	295 g	340 g
Tempo di azionamento minimo *Minimum actuating time*	0.050 s	0.070 s	0.090 s
Frequenza massima di lavoro *Maximum working frequency*	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	4.4 cm^3	8.3 cm^3	12 cm^3
Corsa (+1 mm) *Stroke*	10 mm	20 mm	30 mm
Forza di apertura a 6 bar *Extension force at 6 bar*	110 N		
Forza di chiusura a 6 bar *Retraction force at 6 bar*	100 N		
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	2÷8 bar		
Temperatura di esercizio *Temperature range*	5÷60 °C		

Dimensioni (mm)
Dimensions (mm)



	ZE1610P	ZE1620P	ZE1630P
A	65.5	75.5	90.5
B	66	76	91
C	52	62	77
D	20	30	45
E	24	35	50
F	24	34	40
G	29	39	45
H	39.5	49.5	64.5

Slitte pneumatiche (serie Z)

- Alesaggio 2x8mm, 2x16mm oppure 2x20mm.
- Corsa 25mm, 50mm, 100mm, 150mm e 200mm.
- Con o senza deceleratori.
- Azionamento a doppio effetto.
- Sensori magnetici opzionali.

Pneumatic slides (series Z)

- *Bore 2x8mm, 2x16 or 2x20mm.*
- *Stroke 25mm, 50mm, 100mm, 150mm and 200mm.*
- *With or without shock-absorbers.*
- *Double acting.*
- *Optional magnetic sensors.*

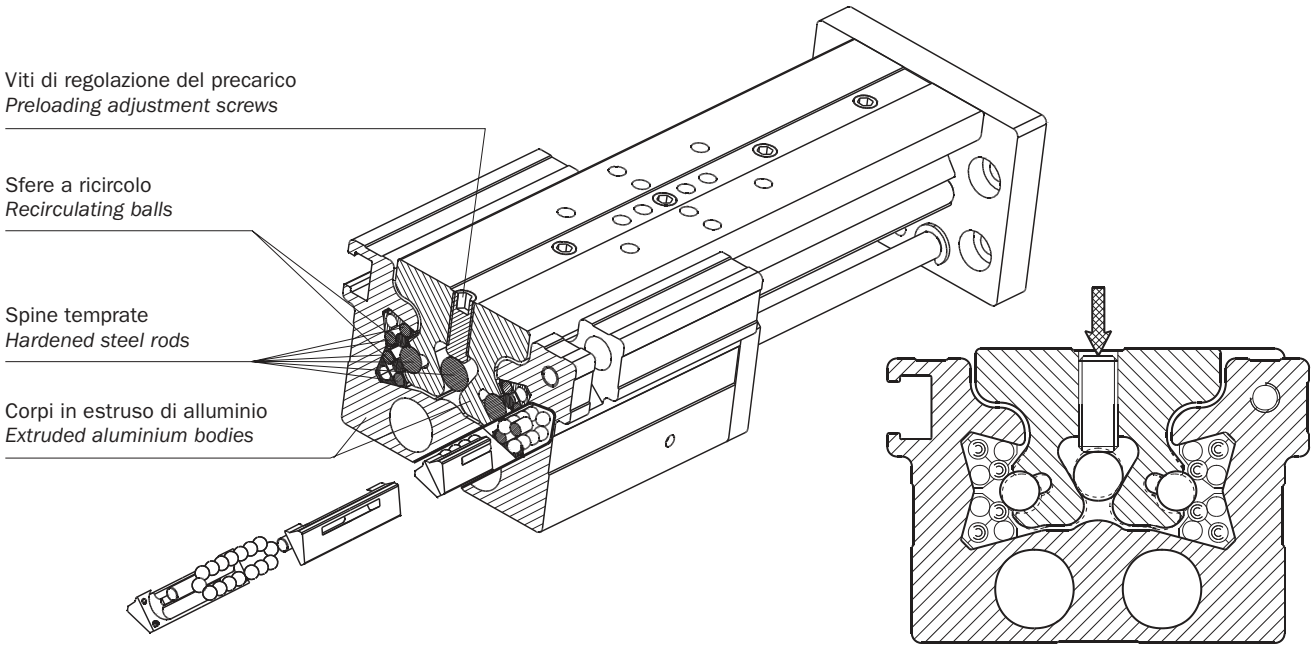


Guida di scorrimento a ricircolo di sfere registrabile

- Struttura in estruso di alluminio quindi peso ridotto.
- Grande rigidità dovuta alle guide in acciaio temprato inserite nella struttura.
- Guida a ricircolo di sfere a bassa usura e lunga durata di vita.
- Possibilità di registrazione del precarico sulla guida con recupero dei possibili giochi.

Adjustable recirculating ball-bearing system

- *Low weight as made from extruded aluminium profile.*
- *High stiffness thanks to the inserted hardened steel rods for guidance.*
- *Recirculating ball-bearing system provides wear resistance and extended performances.*
- *Possible adjustment of the preloading and taking up slack.*



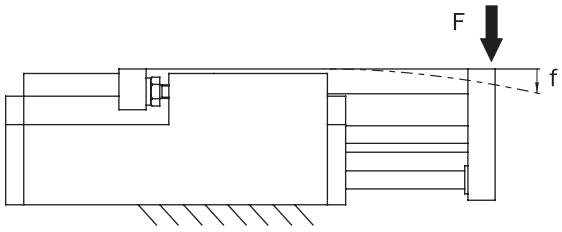
	Z-0825	Z-0825-D	Z-0850	Z-0850-D
Peso *Weight*	230 g	270 g	320 g	360 g
Ripetibilità *Repetition accuracy*	0.2 mm	0.02 mm	0.2 mm	0.02 mm
Tempo di azionamento minimo *Minimum actuating time*	0.054 s	0.100 s	0.080 s	0.130 s
Frequenza massima di lavoro *Maximum working frequency*	2 Hz	1 Hz	2 Hz	1 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	6 cm^3		11 cm^3	
Corsa totale massima *Maximun total stroke*	25 mm		50 mm	
Forza di apertura a 6 bar *Extension force at 6 bar*	50 N			
Forza di chiusura a 6 bar *Retraction force at 6 bar*	37 N			
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Temperature range*	5 ÷ 60°C.			

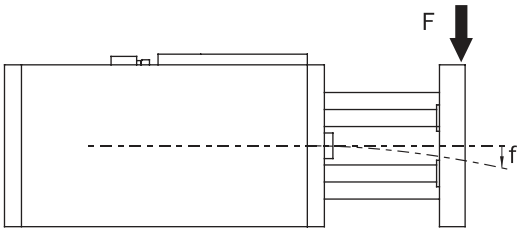
Flessione

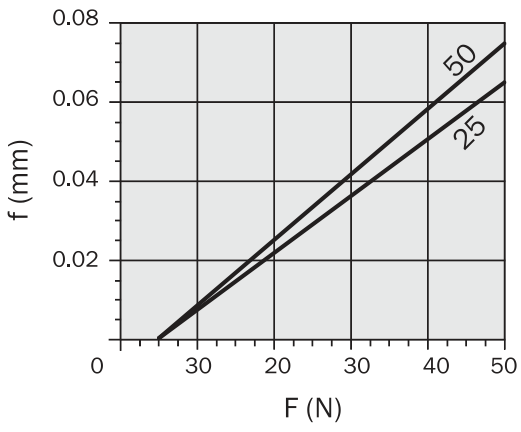
Il grafico mostra la flessione f (mm) nei due sensi indicati, in funzione della forza F (N) e della corsa della slitta.

Deflection

The graph shows the deflection f (mm) in two showed directions, as function of the force F (N) and the stroke of the slide.







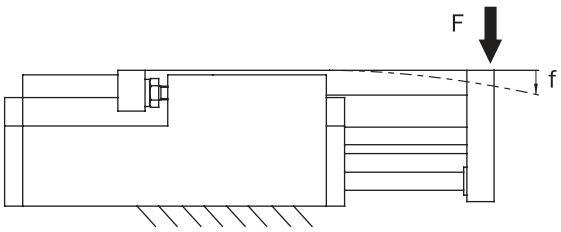
	Z-1650	Z-1650-D	Z-16100	Z-16100-D	Z-16150	Z-16150-D
Peso *Weight*	620 g	730 g	1010 g	1120 g	1340 g	1450 g
Ripetibilità *Repetition accuracy*	0.2 mm	0.02 mm	0.2 mm	0.02 mm	0.2 mm	0.02 mm
Tempo di azionamento minimo *Minimum actuating time*	0.080 s	0.100 s	0.120 s	0.150 s	0.220 s	0.230 s
Frequenza massima di lavoro *Maximum working frequency*	2 Hz	1 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	44 cm^3		95 cm^3		141 cm^3	
Corsa totale massima *Maximun total stroke*	50 mm		100 mm		150 mm	
Forza di apertura a 6 bar *Extension force at 6 bar*	200 N					
Forza di chiusura a 6 bar *Retraction force at 6 bar*	170 N					
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*					
Pressione di esercizio *Pressure range*	2 ÷ 8 bar					
Temperatura di esercizio *Temperature range*	5 ÷ 60°C.					

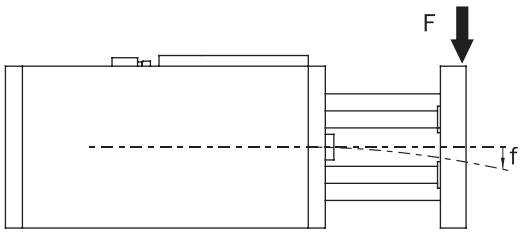
Flessione

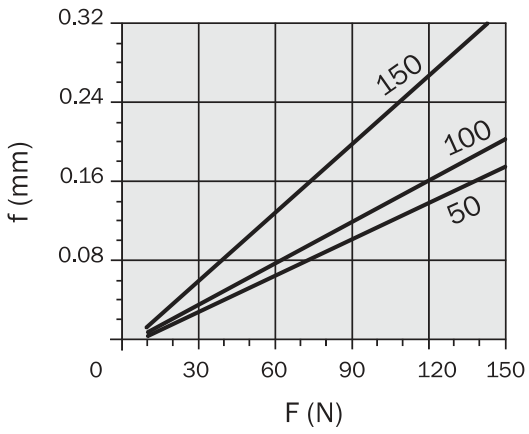
Il grafico mostra la flessione f (mm) nei due sensi indicati, in funzione della forza F (N) e della corsa della slitta.

Deflection

The graph shows the deflection f (mm) in two showed directions, as function of the force F (N) and the stroke of the slide.







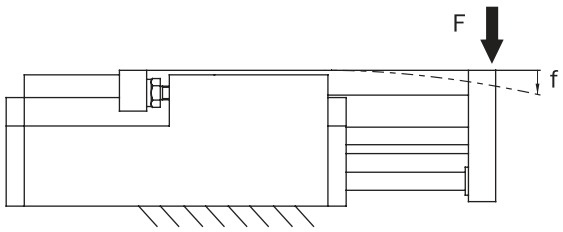
	Z-2050-D	Z-20100-D	Z-20150-D	Z-20200-D
Peso *Weight*	1300 g	1950 g	2500 g	3100 g
Ripetibilità *Repetition accuracy*	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Tempo di azionamento minimo *Minimum actuating time*	0.12 s	0.19 s	0.26 s	0.31 s
Frequenza massima di lavoro *Maximum working frequency*	1 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo *Air consumption per cycle*	76 cm^3	155 cm^3	227 cm^3	310 cm^3
Corsa totale massima *Maximun total stroke*	50 mm	100 mm	150 mm	200 mm
Forza di apertura a 6 bar *Extension force at 6 bar*	330 N			
Forza di chiusura a 6 bar *Retraction force at 6 bar*	300 N			
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	2 ÷ 8 bar			
Temperatura di esercizio *Temperature range*	5 ÷ 60°C.			

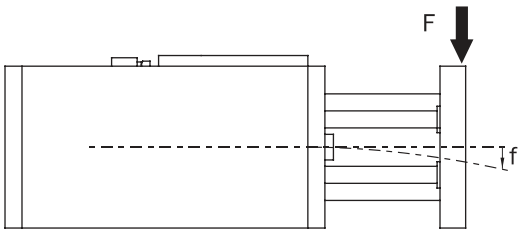
Flessione

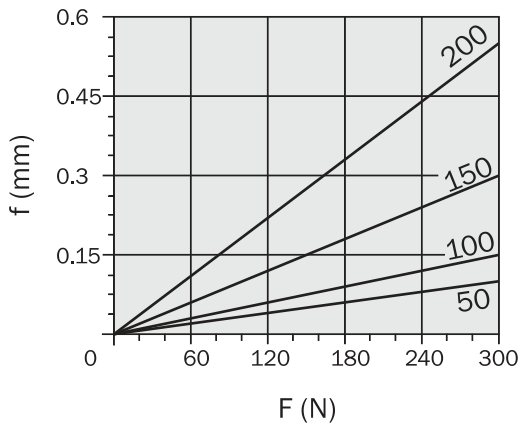
Il grafico mostra la flessione f (mm) nei due sensi indicati, in funzione della forza F (N) e della corsa della slitta.

Deflection

The graph shows the deflection f (mm) in two showed directions, as function of the force F (N) and the stroke of the slide.







Carichi di sicurezza

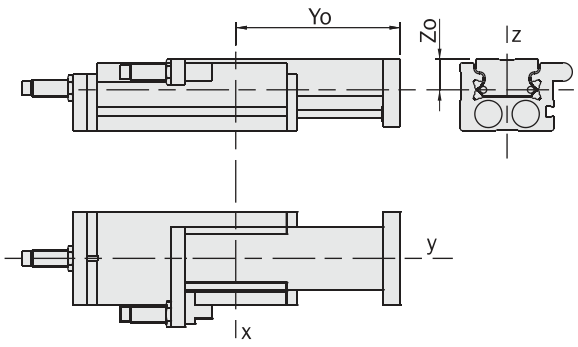
Controllare le tabelle sottostanti.
Carichi eccessivi possono danneggiare la slitta, causare difficoltà di funzionamento e compromettere la sicurezza dell'operatore.
Fx s, Fz s, Mx s, My s, Mz s sono i carichi statici massimi ammissibili.
Fx d, Fz d, Mx d, My d, Mz d sono i massimi carichi dinamici ammissibili.
È indicato il minimo tempo di azionamento t in funzione della massa trasportata m.
(*) Quando il tempo e la massa comportano un'eccessiva energia cinetica si deve diminuire la velocità con regolatori di flusso (non forniti).

Safety loads

Check the tables below.
Excessive loads can damage the slide, cause functioning troubles and endanger the safety of the operator.
Fx s, Fz s, Mx s, My s, Mz s are maximum permitted static loads.
Fx d, Fz d, Mx d, My d, Mz d are maximum permitted dynamic loads.
It is also indicated the minimum actuating time t as a factor of the pay-load m.
(*) When the actuating time and the pay-load produce an excessive kinetic energy you must reduce the speed by flow controllers (not supplied).

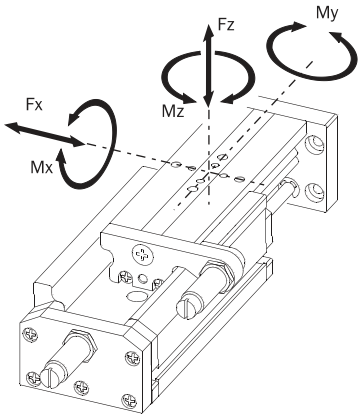
	Z-0825 Z-0825-D	Z-0850 Z-0850-D	Z-1650 Z-1650-D	Z-16100 Z-16100-D	Z-16150 Z-16150-D	Z-2050-D	Z-20100-D	Z-20150-D	Z-20200-D
Zo	14.5 mm	14.5 mm	18 mm	18 mm	18 mm	24 mm	24 mm	24 mm	24 mm
Yo	57 mm	87 mm	97mm	157 mm	217 mm	102 mm	167 mm	227 mm	295 mm
Fx s	60 N	60 N	200 N	250 N	250 N	250 N	350 N	350 N	450 N
Fz s	60 N	60 N	200 N	250 N	250 N	250 N	350 N	350 N	450 N
Mx s	3 Nm	6 Nm	12 Nm	24 Nm	30 Nm	15 Nm	36 Nm	45 Nm	66 Nm
My s	3 Nm	3 Nm	15 Nm	24 Nm	24 Nm	24 Nm	36 Nm	36 Nm	48 Nm
Mz s	3 Nm	6 Nm	12 Nm	24 Nm	30 Nm	15 Nm	36 Nm	45 Nm	66 Nm
Fx d	10 N	10 N	40 N	50 N	50 N	50 N	70 N	70 N	80 N
Fz d	10 N	10 N	40 N	50 N	50 N	50 N	70 N	70 N	80 N
Mx d	0.5 Nm	1 Nm	2 Nm	4 Nm	5 Nm	2.5 Nm	6 Nm	7.5 Nm	11 Nm
My d	0.5 Nm	0.5 Nm	2.5 Nm	4 Nm	4 Nm	4 Nm	6 Nm	6 Nm	8 Nm
Mz d	0.5 Nm	1 Nm	2 Nm	4 Nm	5 Nm	2.5 Nm	6 Nm	7.5 Nm	11 Nm
m max	1 kg	1 kg	4 kg	5 kg	5 kg	5 kg	7 kg	7 kg	8 kg

m	t Z-0825	t Z-0825-D	t Z-0850	t Z-0850-D
0.1 kg	0.054 s	0.180 s	0.113 s (*)	0.140 s
0.2 kg	0.066 s (*)	0.170 s	0.135 s (*)	0.137 s
0.3 kg	0.075 s (*)	0.160 s	0.155 s (*)	0.135 s
0.4 kg	0.084 s (*)	0.150 s	0.172 s (*)	0.133 s
0.5 kg	0.092 s (*)	0.140 s	0.187 s (*)	0.130 s
0.6 kg	0.099 s (*)	0.130 s	0.201 s (*)	0.136 s (*)
0.7 kg	0.106 s (*)	0.120 s	0.215 s (*)	0.142 s (*)
0.8 kg	0.112 s (*)	0.110 s	0.227 s (*)	0.147 s (*)
0.9 kg	0.118 s (*)	0.100 s	0.239 s (*)	0.152 s (*)
1 kg	0.124 s (*)	0.103 s (*)	0.250 s (*)	0.157 s (*)



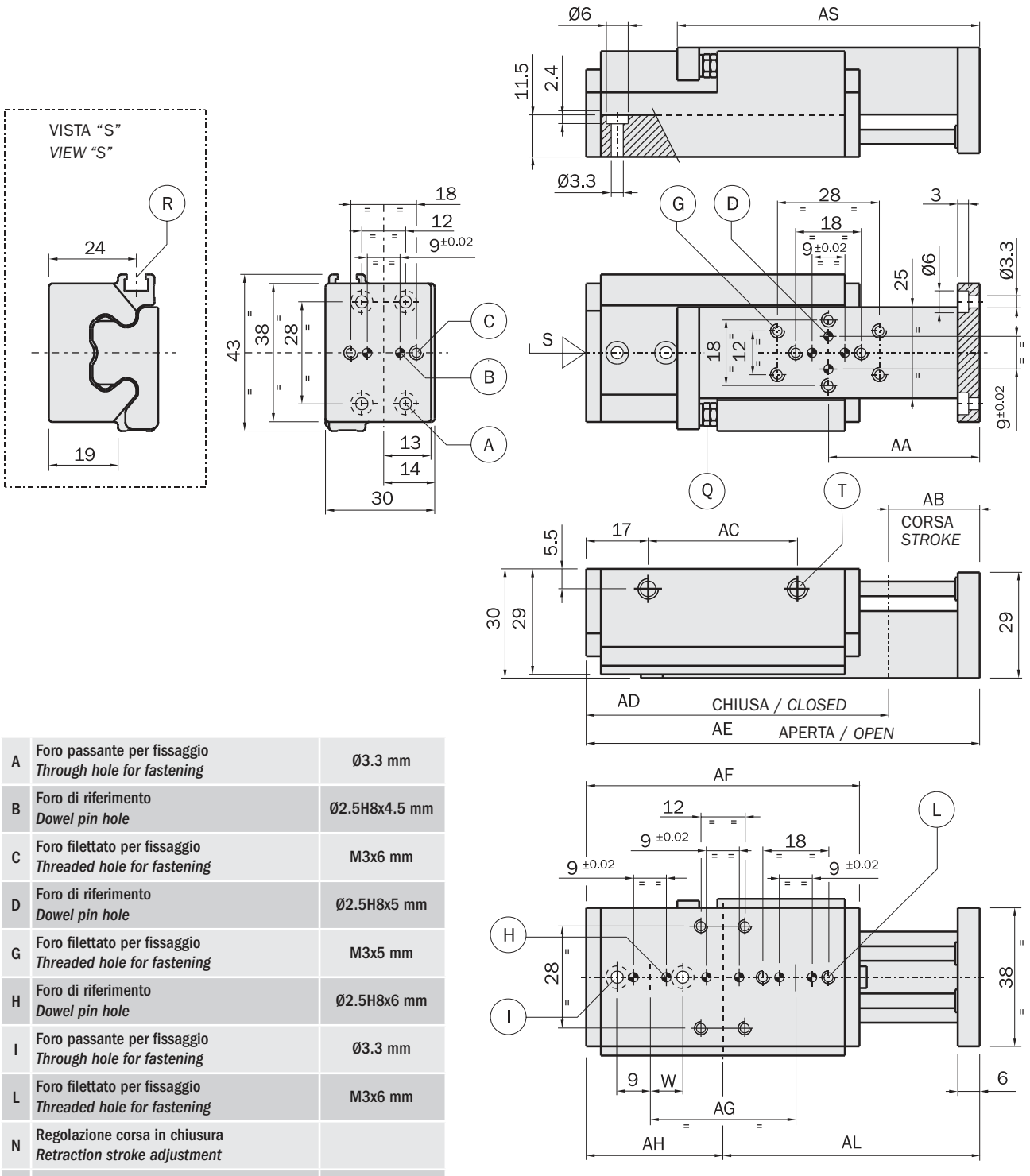
m	t Z-1650	t Z-1650-D	t Z-16100	t Z-16100-D	t Z-16150	t Z-16150-D
0.1 kg	0.080 s	0.120 s	0.163 s (*)	0.160	0.274 s (*)	0.240 s
0.5 kg	0.108 s (*)	0.115 s	0.231 s (*)	0.155	0.367 s (*)	0.230 s
1 kg	0.141 s (*)	0.110 s	0.294 s (*)	0.180 (*)	0.458 s (*)	0.264 s (*)
1.5 kg	0.168 s (*)	0.116 s (*)	0.346 s (*)	0.207 (*)	0.534 s (*)	0.303 s (*)
2 kg	0.191 s (*)	0.128 s (*)	0.392 s (*)	0.230 (*)	0.600 s (*)	0.336 s (*)
2.5 kg	0.212 s (*)	0.138 s (*)	0.432 s (*)	0.251 (*)	0.659 s (*)	0.367 s (*)
3 kg	0.231 s (*)	0.148 s (*)	0.469 s (*)	0.270 (*)	0.714 s (*)	0.395 s (*)
3.5 kg	0.248 s (*)	0.157 s (*)	0.503 s (*)	0.287 (*)	0.765 s (*)	0.421 s (*)
4 kg	0.265 s (*)	0.165 s (*)	0.535 s (*)	0.303 (*)	0.812 s (*)	0.445 s (*)
4.5 kg	-	-	0.566 s (*)	0.319 s (*)	0.857 s (*)	0.468 s (*)
5 kg	-	-	0.594 s (*)	0.334 s (*)	0.900 s (*)	0.490 s (*)

m	t Z-2050-D	t Z-20100-D	t Z-20150-D	t Z-20200-D
1 kg	0.135 s	0.200 s	0.265 s	0.310 s
2 kg	0.130 s	0.195 s	0.260 s	0.319 s (*)
3 kg	0.125 s	0.190 s	0.270 s (*)	0.357 s (*)
4 kg	0.120 s	0.207 s (*)	0.296 s (*)	0.391 s (*)
5 kg	0.129 s (*)	0.224 s (*)	0.320 s (*)	0.422 s (*)
6 kg	-	0.239 s (*)	0.342 s (*)	0.451 s (*)
7 kg	-	0.252 s (*)	0.363 s (*)	0.478 s (*)
8 kg	-	-	-	0.503 s (*)



Dimensioni (mm)
Dimensions (mm)

	AA	AB	AC	AD	AE	AF	AG	AH	AL	W	AS
Z-0825	41.5	25	41	83	108	75	40	37.5	70.5	-	83
Z-0850	59	50	76	118	168	110	50	55	113	9	118

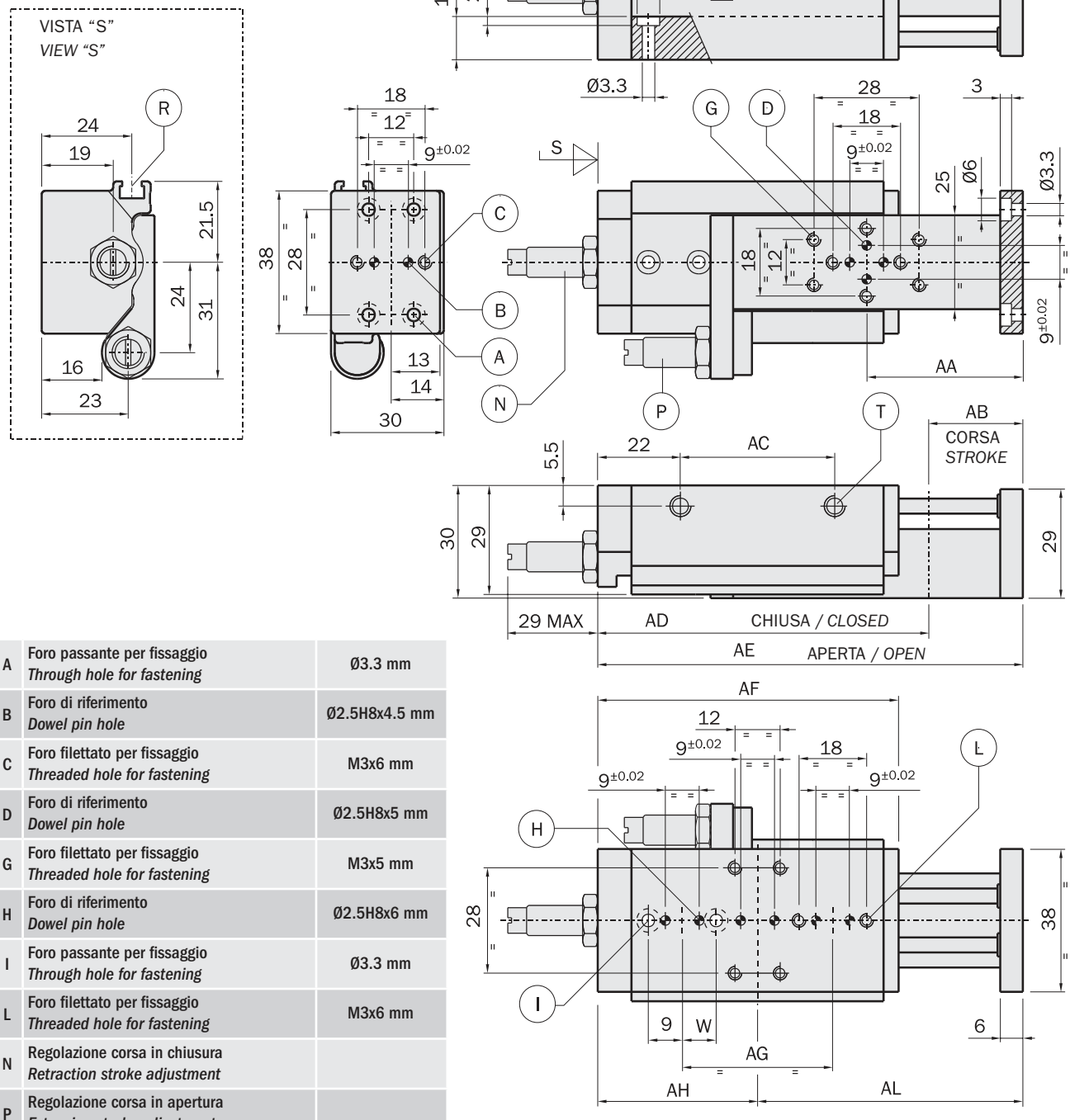


A	Foro passante per fissaggio *Through hole for fastening*	Ø3.3 mm
B	Foro di riferimento *Dowel pin hole*	Ø2.5H8x4.5 mm
C	Foro filettato per fissaggio *Threaded hole for fastening*	M3x6 mm
D	Foro di riferimento *Dowel pin hole*	Ø2.5H8x5 mm
G	Foro filettato per fissaggio *Threaded hole for fastening*	M3x5 mm
H	Foro di riferimento *Dowel pin hole*	Ø2.5H8x6 mm
I	Foro passante per fissaggio *Through hole for fastening*	Ø3.3 mm
L	Foro filettato per fissaggio *Threaded hole for fastening*	M3x6 mm
N	Regolazione corsa in chiusura *Retraction stroke adjustment*	
P	Regolazione corsa in apertura *Extension stroke adjustment*	
R	Sede per sensori Gimatic *Gimatic sensor slot*	
T	Ingresso aria *Air connection*	M5

FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

	AA	AB	AC	AD	AE	AF	AG	AH	AL	W	AS
Z-0825-D	41.5	25	41	88	113	80	40	42.5	70.5	-	83
Z-0850-D	59	50	76	123	173	115	50	60	113	9	118



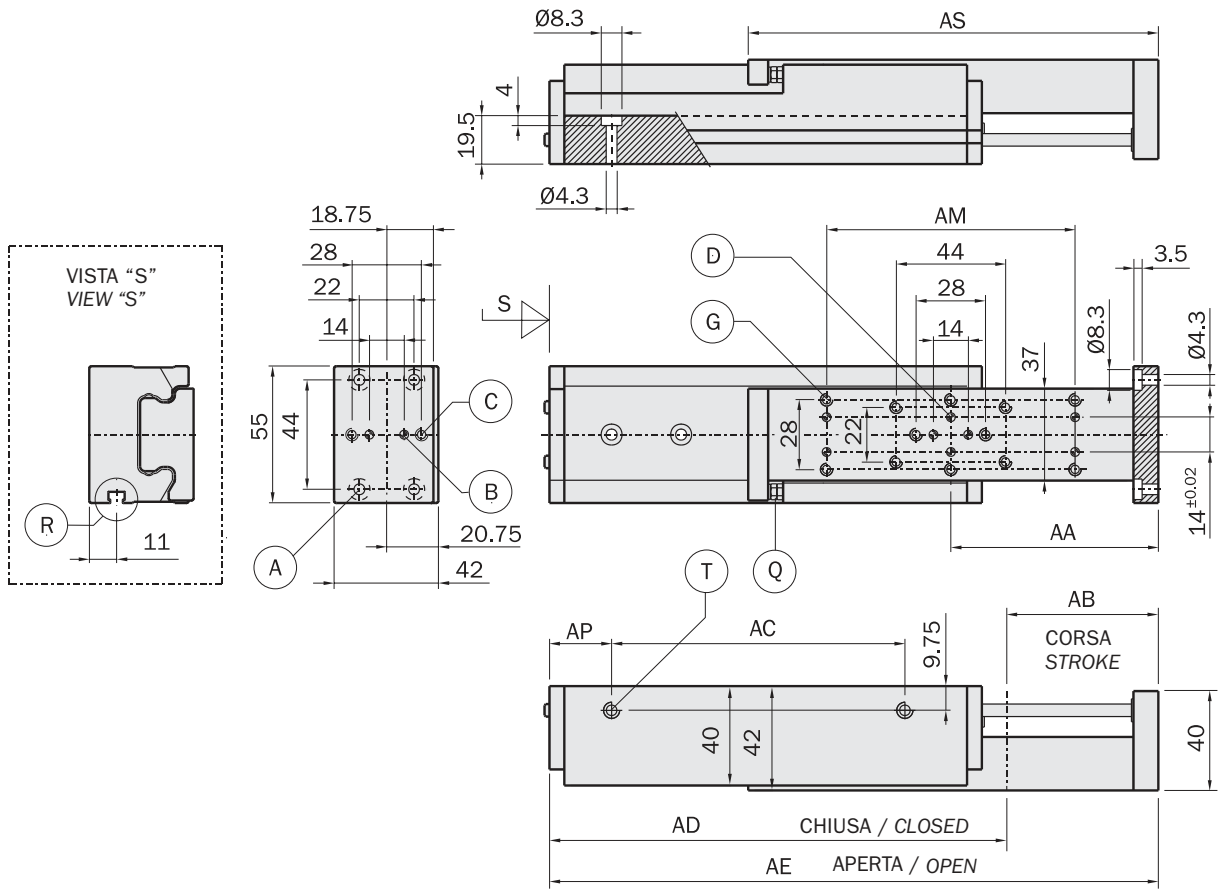
A	Foro passante per fissaggio *Through hole for fastening*	Ø3.3 mm
B	Foro di riferimento *Dowel pin hole*	Ø2.5H8x4.5 mm
C	Foro filettato per fissaggio *Threaded hole for fastening*	M3x6 mm
D	Foro di riferimento *Dowel pin hole*	Ø2.5H8x5 mm
G	Foro filettato per fissaggio *Threaded hole for fastening*	M3x5 mm
H	Foro di riferimento *Dowel pin hole*	Ø2.5H8x6 mm
I	Foro passante per fissaggio *Through hole for fastening*	Ø3.3 mm
L	Foro filettato per fissaggio *Threaded hole for fastening*	M3x6 mm
N	Regolazione corsa in chiusura *Retraction stroke adjustment*	
P	Regolazione corsa in apertura *Extension stroke adjustment*	
R	Sede per sensori Gimatic *Gimatic sensor slot*	
T	Ingresso aria *Air connection*	M5

FIRST ANGLE PROJECTION

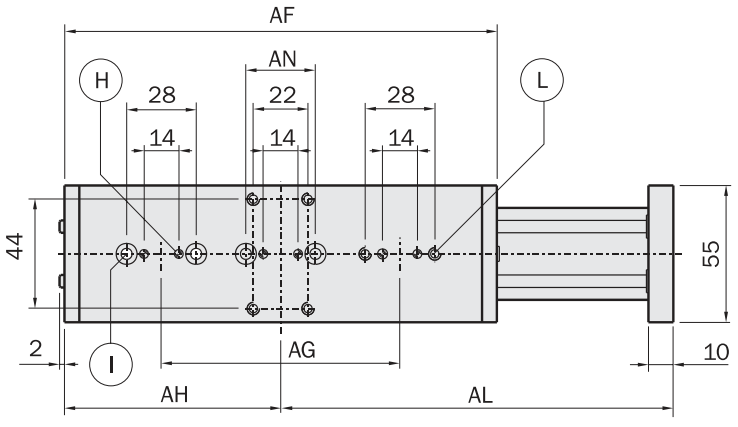
07/2026

Dimensioni (mm)
Dimensions (mm)

	AA	AB	AC	AD	AE	AF	AG	AH	AL	AM	AN	W	AS
Z-1650	68.5	50	82	135	185	124	62	62	123	-	-	21	135
Z-16100	103.5	100	144	205	305	194	100	97	208	120	-	25	205
Z-16150	138.5	150	204	275	425	264	160	132	293	140	28	30	275



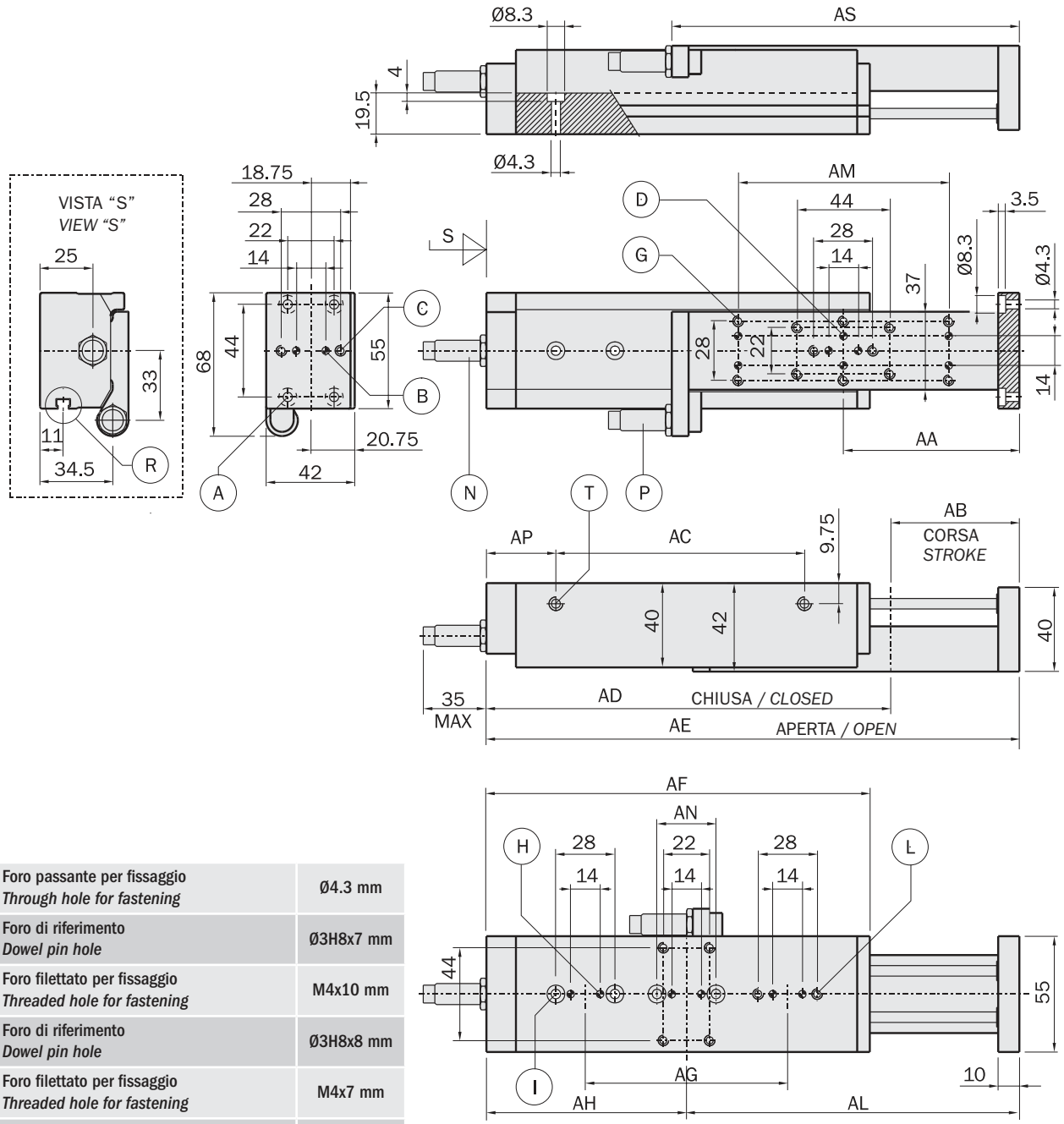
A	Foro passante per fissaggio *Through hole for fastening*	Ø4.3 mm
B	Foro di riferimento *Dowel pin hole*	Ø3H8x7 mm
C	Foro filettato per fissaggio *Threaded hole for fastening*	M4x10 mm
D	Foro di riferimento *Dowel pin hole*	Ø3H8x8 mm
G	Foro filettato per fissaggio *Threaded hole for fastening*	M4x7 mm
H	Foro di riferimento *Dowel pin hole*	Ø3H8x7 mm
I	Foro passante per fissaggio *Through hole for fastening*	Ø4.3 mm
L	Foro filettato per fissaggio *Threaded hole for fastening*	M4x6 mm
Q	Regolazione corsa in apertura *Extension stroke adjustment*	
R	Sede per sensori Gimatic *Gimatic sensor slot*	
T	Ingresso aria *Air connection*	M5



FIRST ANGLE PROJECTION

Dimensioni (mm)
Dimensions (mm)

	AA	AB	AC	AD	AE	AF	AG	AH	AL	AM	AN	AP	AS
Z-1650-D	68.5	50	82	143	193	132	62	70	123	-	-	29	135
Z-16100-D	103.5	100	144	213	313	202	100	105	208	120	-	33	205
Z-16150-D	138.5	150	204	283	433	272	160	140	293	140	28	38	275



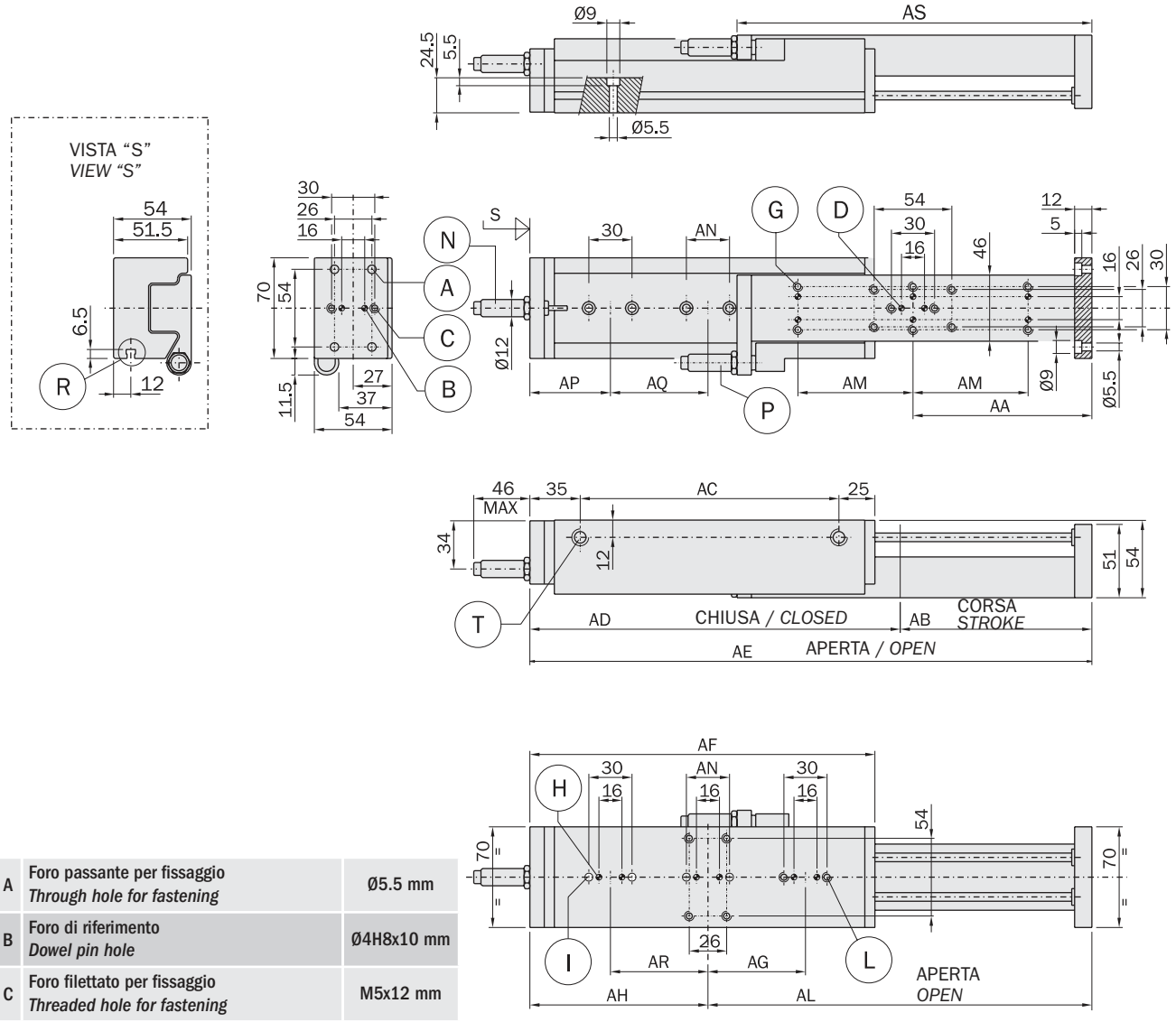
A	Foro passante per fissaggio *Through hole for fastening*	Ø4.3 mm
B	Foro di riferimento *Dowel pin hole*	Ø3H8x7 mm
C	Foro filettato per fissaggio *Threaded hole for fastening*	M4x10 mm
D	Foro di riferimento *Dowel pin hole*	Ø3H8x8 mm
G	Foro filettato per fissaggio *Threaded hole for fastening*	M4x7 mm
H	Foro di riferimento *Dowel pin hole*	Ø3H8x7 mm
I	Foro passante per fissaggio *Through hole for fastening*	Ø4.3 mm
L	Foro filettato per fissaggio *Threaded hole for fastening*	M4x6 mm
N	Regolazione corsa in chiusura *Retraction stroke adjustment*	
P	Regolazione corsa in apertura *Extension stroke adjustment*	
R	Sede per sensori Gimatic *Gimatic sensor slot*	
T	Ingresso aria *Air connection*	M5

FIRST ANGLE PROJECTION

07/2026

Dimensioni (mm)
Dimensions (mm)

	AA	AB	AC	AD	AE	AF	AG	AH	AL	AM	AN	AP	AQ	AR	AS
Z-2050-D	72	50	80	155	205	140	32	75	130	-	-	43	-	32	142
Z-20100-D	112	100	160	235	335	220	35	115	220	-	-	80	-	35	222
Z-20150-D	147	150	230	305	455	290	80	143	312	80	30	63	80	80	292
Z-20200-D	190	200	316	391	591	376	120	193	398	118	30	-	-	-	378



A	Foro passante per fissaggio *Through hole for fastening*	Ø5.5 mm
B	Foro di riferimento *Dowel pin hole*	Ø4H8x10 mm
C	Foro filettato per fissaggio *Threaded hole for fastening*	M5x12 mm
D	Foro di riferimento *Dowel pin hole*	Ø4H8x10 mm
G	Foro filettato per fissaggio *Threaded hole for fastening*	M5x8 mm
H	Foro di riferimento *Dowel pin hole*	Ø4H8x8 mm
I	Foro passante per fissaggio *Through hole for fastening*	Ø5.5 mm
L	Foro filettato per fissaggio *Threaded hole for fastening*	M5x10 mm
N	Regolazione corsa in chiusura *Retraction stroke adjustment*	
P	Regolazione corsa in apertura *Extension stroke adjustment*	
R	Sede per sensori Gimatic *Gimatic sensor slot*	
T	Ingresso aria *Air connection*	1/8" Gas

FIRST ANGLE PROJECTION

Slitta a doppia corsa per grosse pinze per materozze

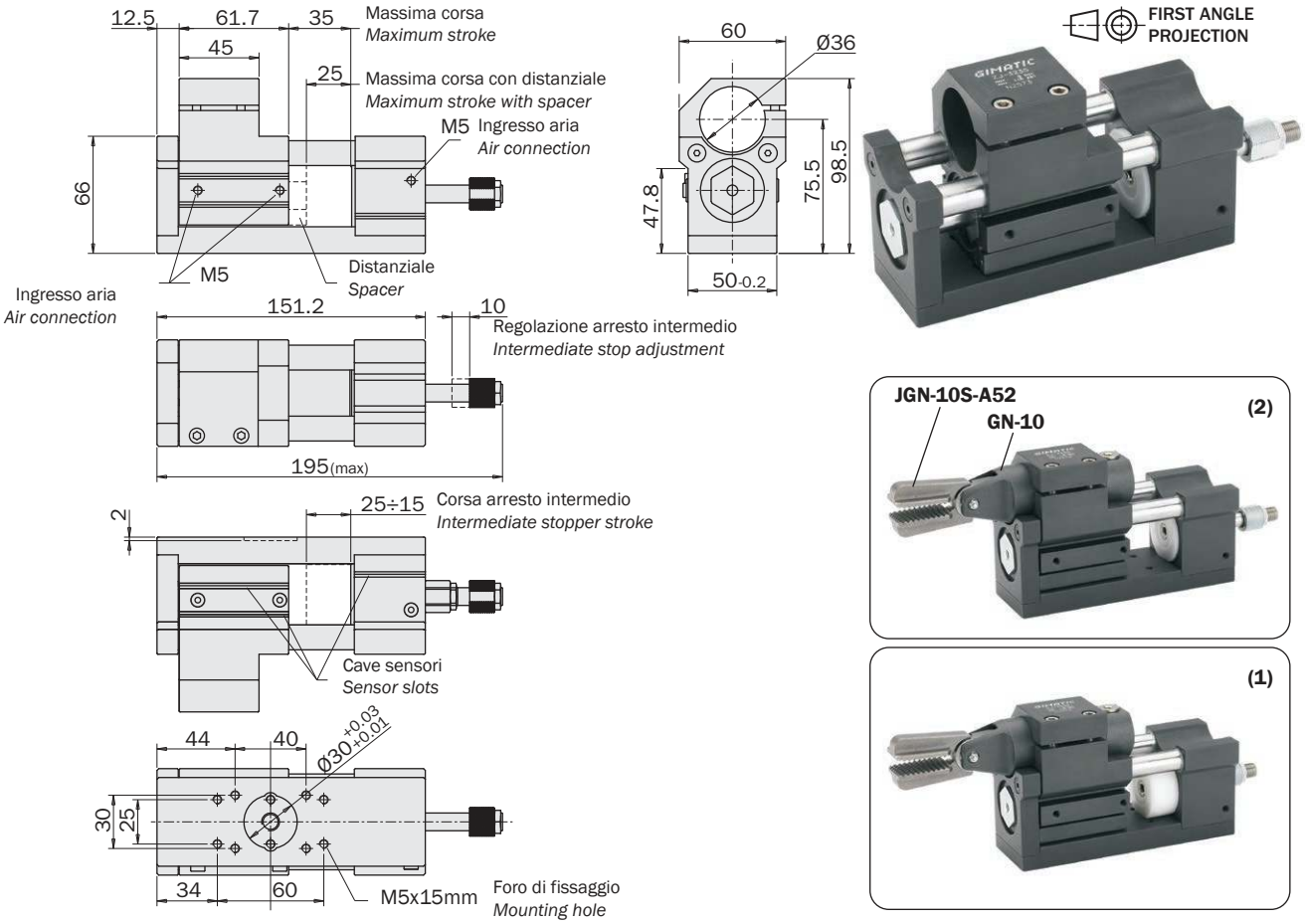
- Cilindro principale a doppio effetto con pistone da 32mm e corsa 35mm.
- Arresto intermedio a semplice effetto (1).
- Cravatta da 36mm per attuatore GN-10 (2).
- Usata per l'estrazione di paraurti.
- Sensori magnetici opzionali.
- Distanziale per riduzione corsa incluso.

Double stroke slide for large sprue grippers

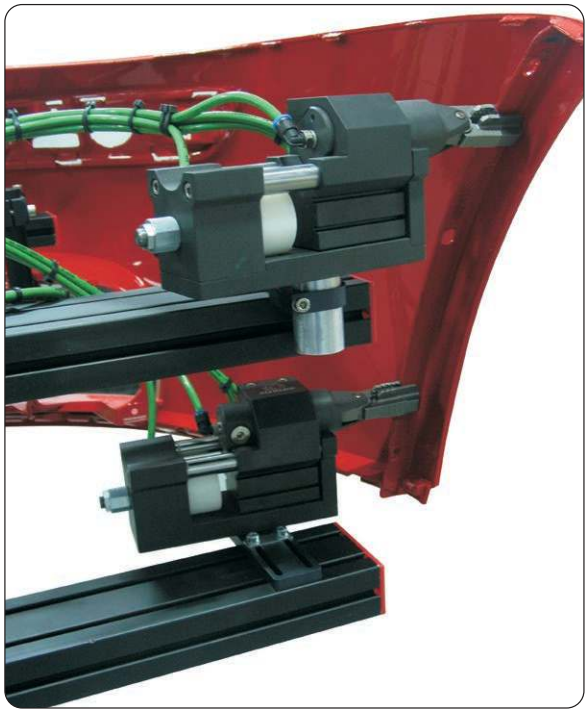
- *Double-effect main cylinder with piston bore 32mm and stroke 35mm.*
- *Single-acting intermediate stopper (1).*
- *Dia. 36mm clamp for GN-10 actuator (2).*
- *Used for car bumpers extracting.*
- *Optional magnetic sensors.*
- *Stroke reduction spacer included.*

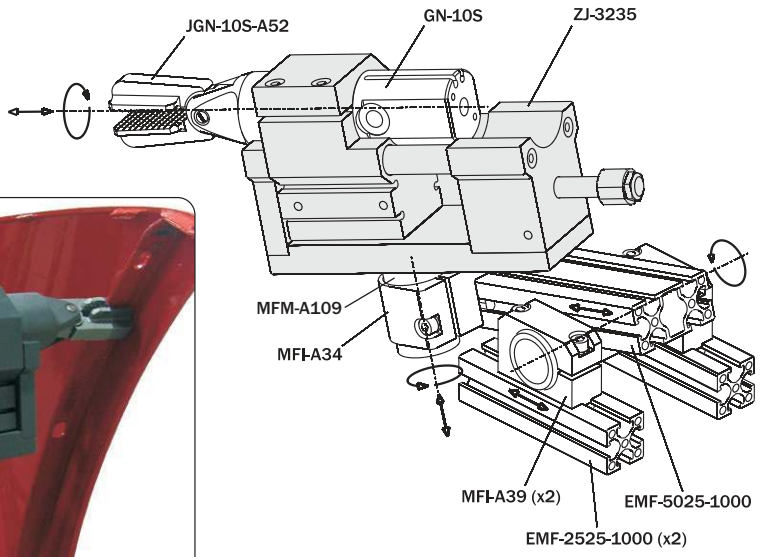
	ZJ-3235
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*
Pressione di esercizio *Pressure range*	2 ÷ 8 bar
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C
Corsa principale senza distanziale *Main stroke without spacer*	35 mm
Corsa intermedia senza distanziale *Intermediate stroke without spacer*	10 ÷ 20 mm
Corsa principale con distanziale *Main stroke with spacer*	25 mm
Corsa intermedia con distanziale *Intermediate stroke with spacer*	0 ÷ 10 mm
Forza di trazione a 6 bar *Pulling force at 6 bar*	450 N
Peso *Weight*	1330 g

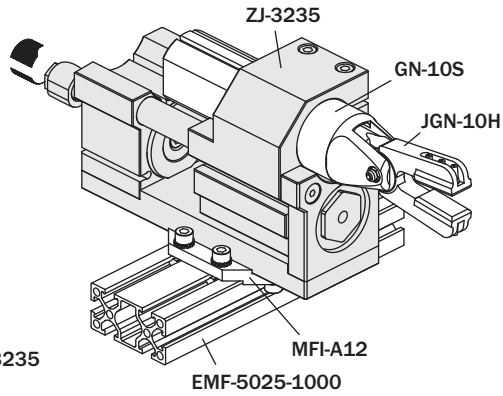
Dimensioni (mm)
Dimensions (mm)

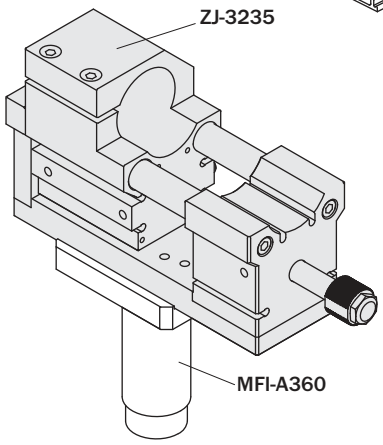


Esempi di utilizzo
Application example

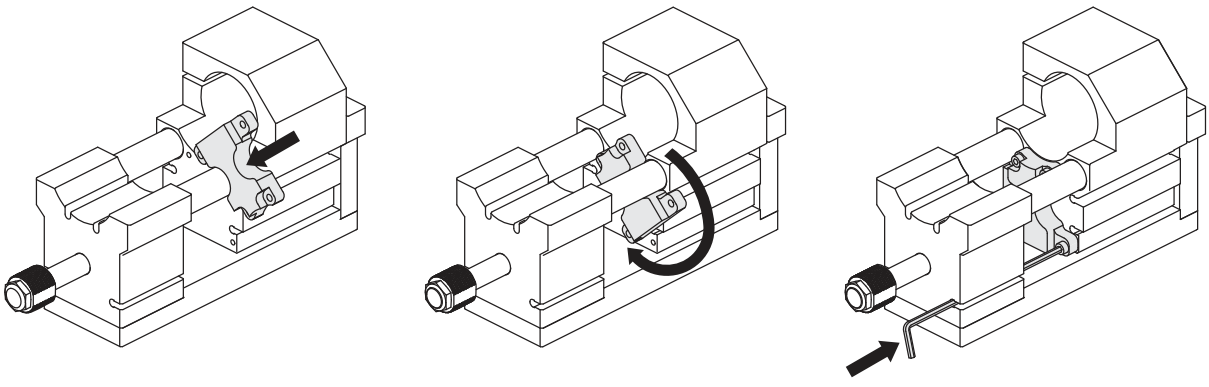








Montaggio del distanziale
Spacer mounting



Slitte per taglierini pneumatici

- Per le materozze più difficili da tagliare è possibile avvicinare il taglierino con una slitta.
- Disponibili in due taglie: alesaggio 16 e 25 mm.
- Con molla in apertura (NO), o in chiusura (NC).
- Con (versione S), o senza predisposizione per i sensori.
- Sensori magnetici opzionali 1 .
- Corsa regolabile (fino a 10mm).

Slides for air nippers actuators

- *Sliding nippers (with multiple cut action for harder to cut sprues) can be assembled.*
- *Available in two sizes: bore 16 and 25 mm.*
- *Spring open (NO), or spring closed (NC).*
- *With (S versions), or without sensor slots.*
- *Optional magnetic sensors* 1 .
- *Adjustable stroke (maximum 10mm).*







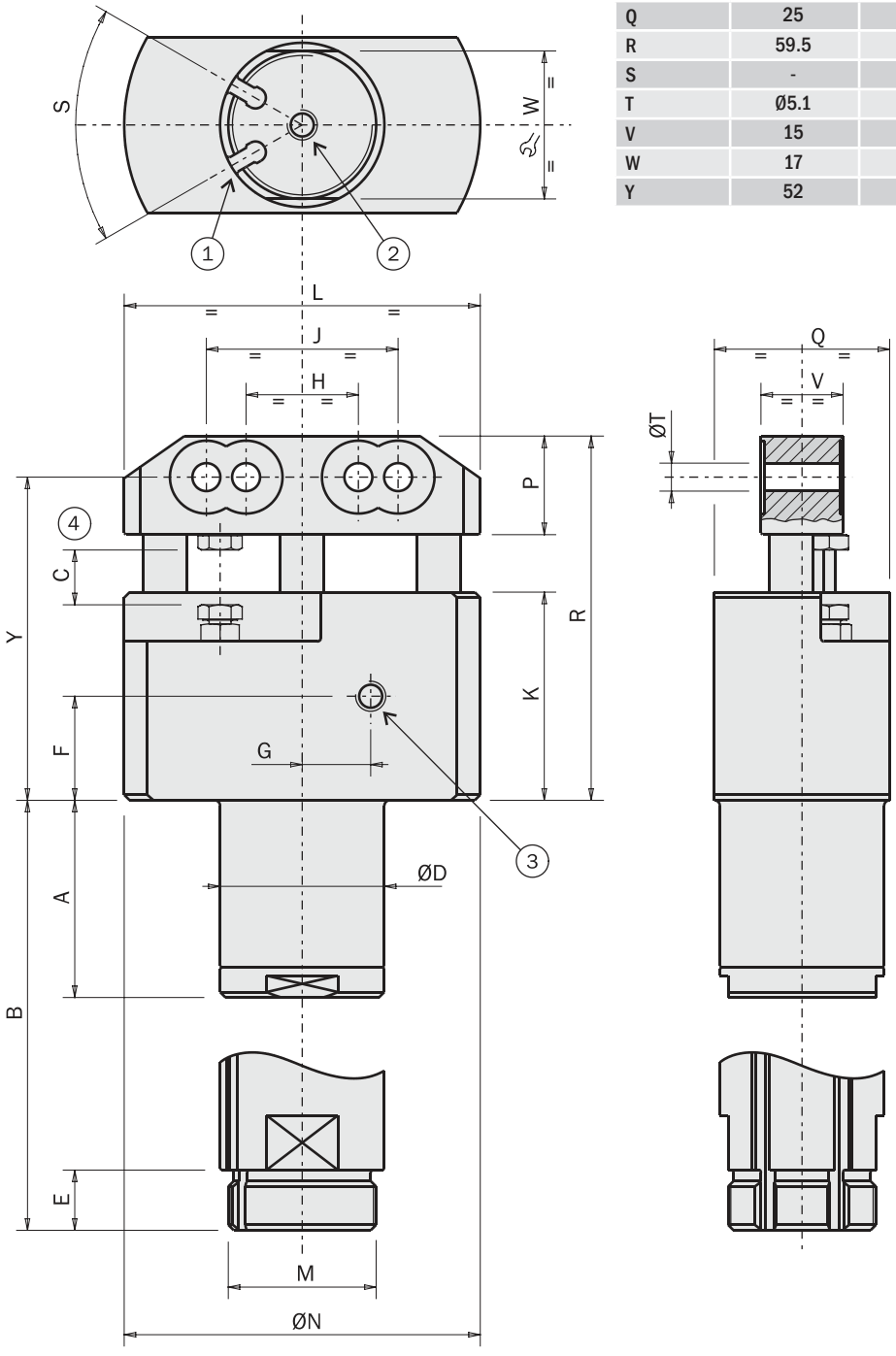
ZG-16-NO ZG-16S-NO ZG-25-NO ZG-25S-NO

	ZG-16-NO ZG-16S-NO	ZG-16-NC ZG-16S-NC	ZG-25-NO ZG-25S-NO	ZG-25-NC ZG-25S-NC
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*			
Pressione di esercizio *Pressure range*	4 ÷ 8 bar			
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C			
Corsa *Stroke*	10 mm	10 mm	10 mm	10 mm
Alesaggio *Piston bore*	Ø16 mm	Ø16 mm	Ø25 mm	Ø25 mm
Forza di chiusura a 6 bar *Retraction force at 6 bar*	65 N	120 N	210 N	275 N
Forza di apertura a 6 bar *Extension force at 6 bar*	135 N	80 N	300 N	240 N
Forza di chiusura a 0 bar *Retraction force at 0 bar*	0 N	25 N	0 N	30 N
Forza di apertura a 0 bar *Extension force at 0 bar*	25 N	0 N	30 N	0 N
Consumo d'aria per ciclo *Cycle air consumption*	5.6 cm^3	5.6 cm^3	21 cm^3	21 cm^3
Peso senza taglierino *Weight without air nipper* ZG-... / ZG-...S-...	180 g / 200 g	180 g / 200 g	360 g / 425 g	360 g / 425 g

Dimensioni (mm)
Dimensions (mm)

1. Sede per sensori
   Sensor groove
2. Alimentazione aria compressa M5
   Air connection M5
3. Alimentazione aria compressa M5
   Air connection M5
4. Corsa regolabile 0÷10 mm
   Adjustable stroke 0÷10 mm

	ZG-16-...	ZG-16S-...	ZG-25-...	ZG-25S-...
A	29	-	36	-
B	-	63	-	78.5
C	10 max	10 max	10 max	10 max
D	Ø20	Ø20	Ø30	Ø30
E	-	8	-	11
F	17	17	19	19
G	6	6	12.5	12.5
H	20.5	20.5	20.5	20.5
J	-	-	35	35
K	31	31	38	38
L	50	50	65	65
M	-	M17x1	-	M27x1
N	Ø50	Ø50	Ø65	Ø65
P	18	18	18	18
Q	25	25	32	32
R	59.5	59.5	66.5	66.5
S	-	80°	-	60°
T	Ø5.1	Ø5.1	Ø5.1	Ø5.1
V	15	15	15	15
W	17	17	27	27
Y	52	52	59	59



FIRST ANGLE PROJECTION

VAQ

Attuatore a depressione serie VAQ

- Azionato solo con il vuoto.
- I movimenti di estensione e ritrazione sono attuati automaticamente.
- La corsa si autoregola.
- Opzione VAQN per stelo anti rotazione.
- La ventosa [1] è da ordinare a parte.

Vacuum actuator series VAQ

- *Operated by vacuum only.*
- *The extension and the retraction movements are automatically actuated.*
- *The stroke is self-adjusting.*
- *Option VAQN for anti-rotation rod.*
- *The suction cup [1] must be ordered separately.*



VAQ1820



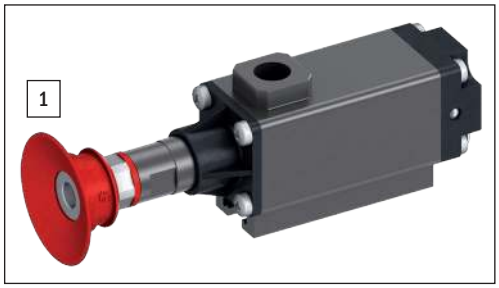
VAQ1840



VAQN1820



VAQN1840



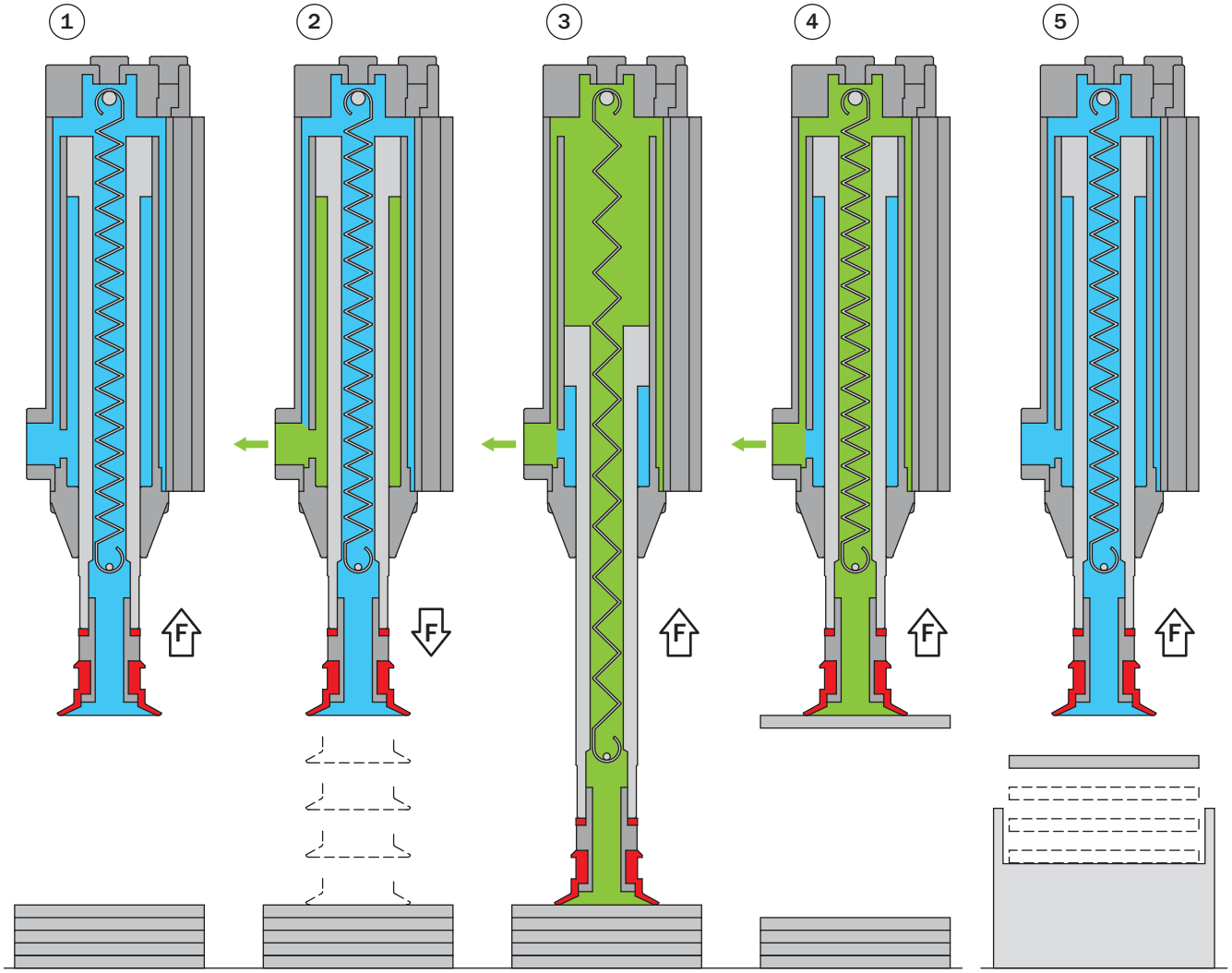
	VAQ1820 9900043	VAQ1840 9900044	VAQN1820 9900045	VAQN1840 9900046
Fluido *Medium*	Vuoto -0.3 ÷ -1 bar *Vacuum -0.3 ÷ -1 bar*			
Temperatura di esercizio *Temperature range*	10 ÷ 40°C.			
Forza di ritrazione a -0.6 bar *Retraction force at -0.6 bar*	10 N			
Carico massimo raccomandato *Maximum recommended load*	5 N			
Corsa totale *Total stroke*	25 mm	55 mm	25 mm	55 mm
Corsa a piena forza *Stroke with full force*	20 mm	40 mm	20 mm	40 mm
Peso *Weight*	90 g	125 g	105 g	145 g

Principio di funzionamento

1- Senza aspirazione, lo stelo viene ritratto dalla forza della molla.
2- Quando si applica il vuoto, la pressione sotto il pistone è inferiore alla pressione sopra il pistone e lo stelo avanza.
3- Le pressioni si invertono non appena la ventosa contatta un oggetto.
4- Così lo stelo si ritrae immediatamente, sollevando l'oggetto.
5- Quando l'aspirazione cessa, l'oggetto viene rilasciato, ma la molla mantiene lo stelo arretrato.
(Invece di interrompere l'aspirazione, si può applicare un impulso di pressione attraverso il raccordo sopra il pistone).

Working principle

1- Without vacuum, the rod is retracted by the spring force.
2- When vacuum is applied, the pressure under the piston is lower than the pressure over the piston and the rod travels forward.
3- The pressures invert as soon as the vacuum cup makes contact with an object.
4- Thus the rod retracts immediately, lifting the object.
5- When the vacuum is removed, the object is released, but the spring holds the rod retracted.
(Acurately, instead of removing vacuum, a pressure impulse can be provided by the air port over the piston).

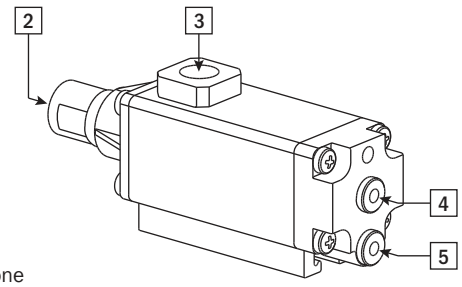


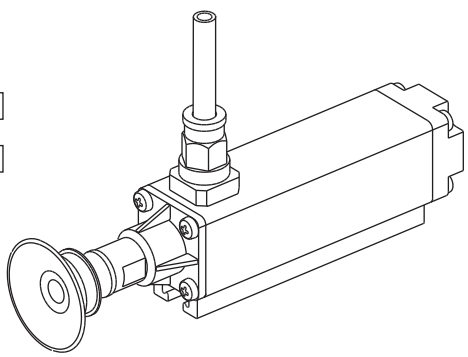
2 G1/8
Filetto femmina per ventosa
Female thread for suction cup

3 G1/8
Connessione per aspirazione
Vacuum supply port

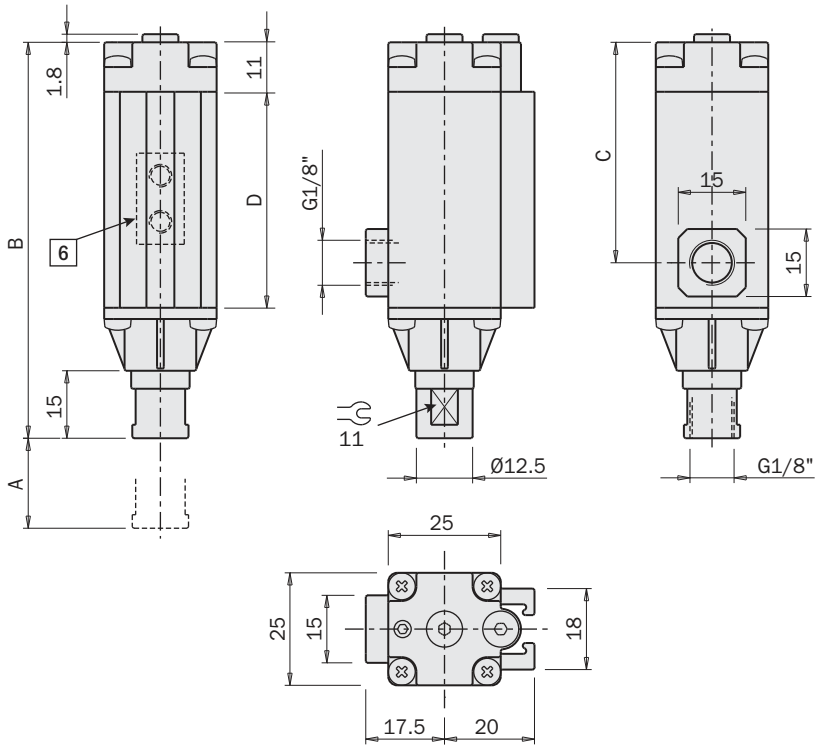
4 M5
Connessione per impulso di pressione
Pressure impulse connection

5 M5
Connessione per sensore di vuoto
Vacuum sensor connection

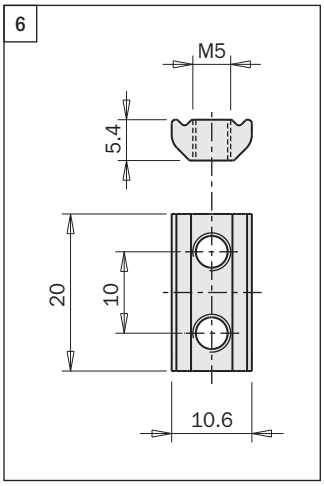


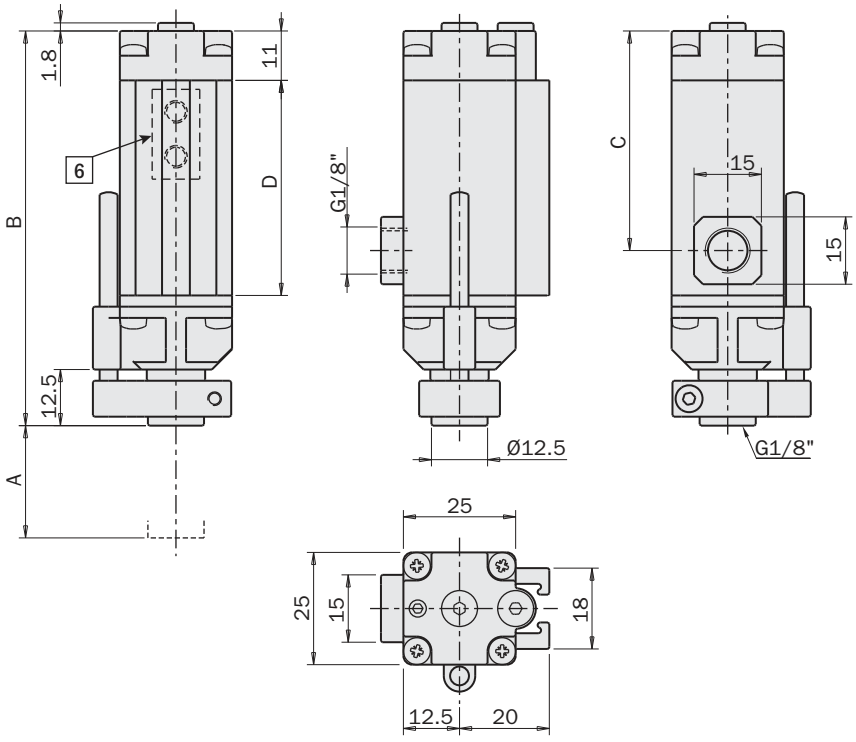


Dimensioni (mm)
Dimensions (mm)



	VAQ1820 VAQN1820	VAQ1840 VAQN1840
A	20	40
B	88	119
C	49	80
D	48	79





FIRST ANGLE PROJECTION

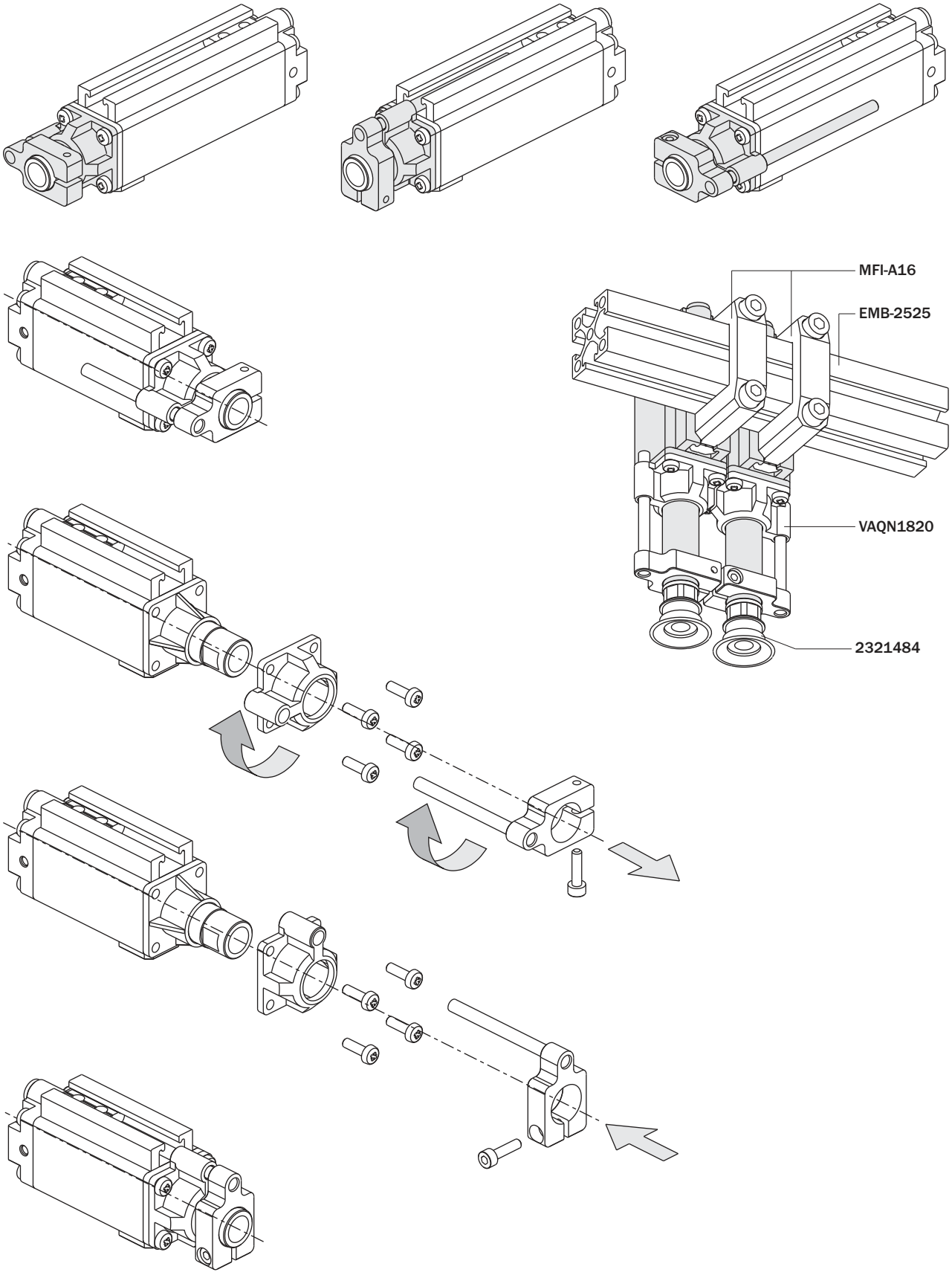
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Accessori

Il dispositivo anti-giro dei VAQN può essere posizionato su 3 lati in base allo spazio disponibile.

Accessories

The anti-rotation device can be positioned on 3 sides, based on the space available.



SOSPENSIONI

Suspensions



Sospensioni per ventose

- Le sospensioni (o buffer, o compensatori di livello) sono usate per tenere in posizione le ventose durante l'avvicinamento del robot.
- Gimatic offre una gamma specificamente progettata per le applicazioni Plastics.
- Tipicamente sono montate su EOAT (End Of Arm Tooling) con le staffe MFI.

Vacuum cup suspensions

- *The suspensions (or buffers, or level compensators) are used to keep the suction cups in position as the robot approaches.*
- *Gimatic offers a range specifically designed for Plastics applications.*
- *They are typically mounted on EOATs (End Of Arm Toolings) with MFI brackets.*

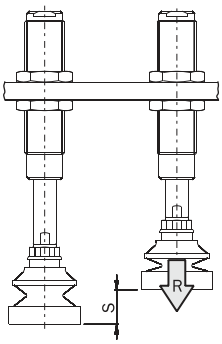
Forza di reazione

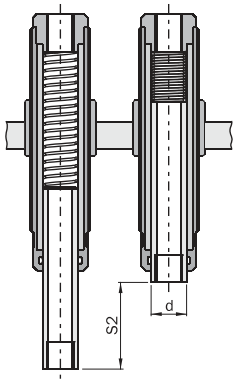
La forza di reazione dipende dalla compressione (S) della molla interna. E anche dal diametro del pistone (d) e dalla pressione di utilizzo (p), nel caso delle sospensioni telescopiche.
Usare la formula seguente per il calcolo.

Reaction force

The reaction force depends on the compression (S) of the internal spring. And also on the piston diameter (d) and operation pressure (p), in the case of telescopic suspensions.
Use the following formula for calculation.

$$R = R1 + K \cdot S + d^2 \cdot \frac{\pi}{40} \cdot p$$





R [N]	Forza di reazione *Reaction force*
R1 [N]	Forza della molla all'inizo della corsa *Spring force at the beginning*
K [N/mm]	Costante elastica della molla *Spring rate*
S [mm]	Corsa effettuata *Compression stroke*
d [mm]	Alesaggio *Piston bore*
p [bar]	Pressione *Pressure*
R2 [N]	Forza della molla alla fine della corsa *Spring force at the end-stroke*
S2 [mm]	Corsa massima *Maximum stroke*
m [g]	Peso *Weight*


VSL


VSC


VSR


VSRT


VSE


VSET


VVX


VSRTG


VSNG

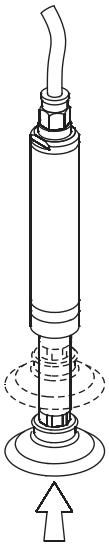

VSNTG


VSS


VSD

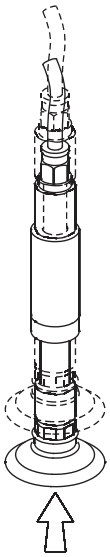
Sospensioni telescopiche
Telescopic suspensions

- VSC
- VSL
- VSS



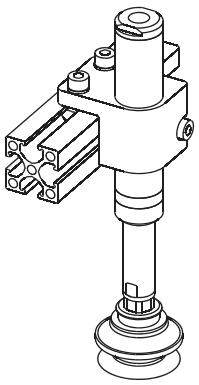
Sospensioni con stelo passante
Through rod suspensions

- VSR
- VSRT
- VSE
- VSET
- VVX
- VSRTG
- VSNG
- VSNTG
- VSD



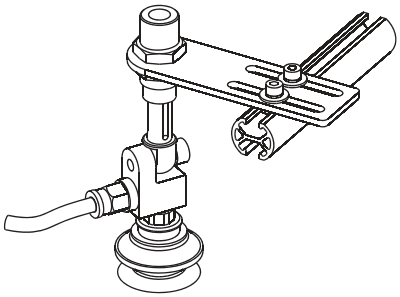
Sospensioni con corpo liscio
Suspensions with smooth body

- VSL
- VSS
- VSR
- VSE
- VVX
- VSNG
- VSD



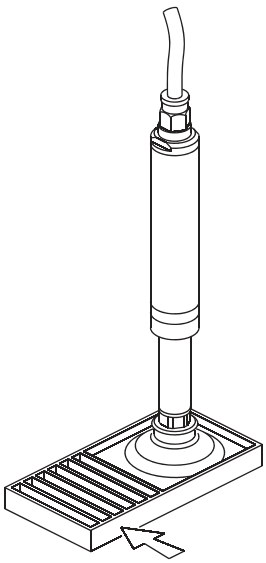
Sospensioni con corpo filettato
Suspensions with threaded body

- VSC
- VSRT
- VSET
- VSRTG
- VSNTG
- VSNTF
- VSRTF



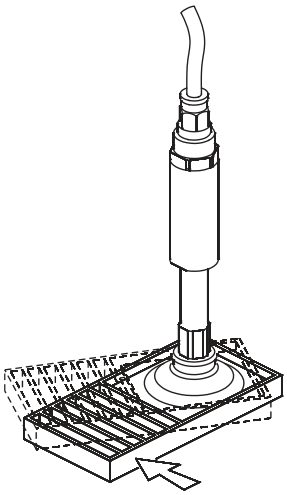
Sospensioni anti-rotazione
Non-rotative suspensions

- VSC
- VSL
- VSE
- VSET
- VVX
- VSNG
- VSNTG
- VSD



Sospensioni rotanti
Rotative suspensions

- VSS
- VSR
- VSRT
- VSRTG



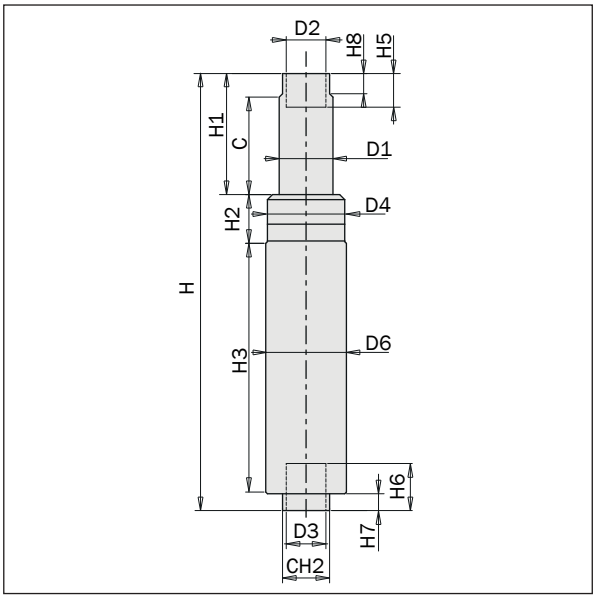
VSL

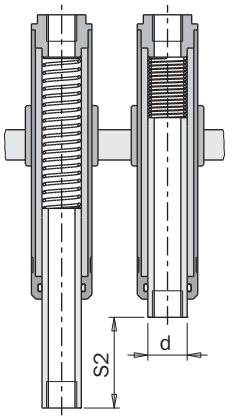
Sospensioni telescopiche anti-rotazione con corpo liscio

- Corpo e stelo in alluminio anodizzato.
- Trattamento anti-frizione sullo stelo.
- Cuscinetto in polimero per un movimento più omogeneo.
- Stelo anti-rotazione con gioco ridotto.
- Movimento telescopico: i raccordi ed i tubi non si muovono.
- Guarnizioni unidirezionali: usabile solo con il vuoto.
- Pressione di utilizzo: -1 ÷ 0 bar.
- Grasso alimentare NSF-H1.

Smooth-body non-rotative telescopic suspensions

- *Body and rod in anodized aluminum.*
- *Anti-friction treatment on the rod.*
- *Smooth movement thanks to the plastic bearing.*
- *Non-rotative rod with reduced tolerance.*
- *Telescopic lay-out: fittings and hoses don't move.*
- *Unidirectional sealing: only for vacuum applications.*
- *Pressure range: -1 ÷ 0 bar.*
- *NSF-H1 food-grade grease.*







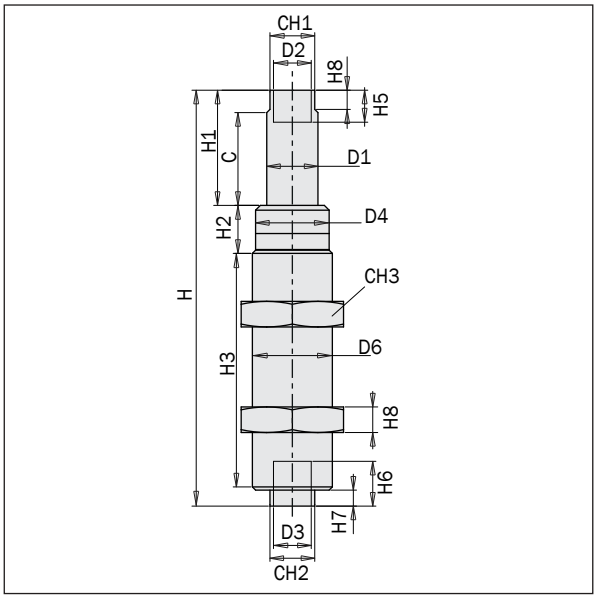
		VSL1620	VSL2030	VSL2430
H	[mm]	100	130	130
H1	[mm]	26	36	36
H2	[mm]	12	14	14
H3	[mm]	57	75	75
H5	[mm]	10	10	10
H6	[mm]	14	14	14
H7	[mm]	5	5	5
H8	[mm]	5	6	6
D1	[mm]	Ø8	Ø13	Ø16
D2		M5	G1/8"	G1/4"
D3		M5	G1/8"	G1/4"
D4	[mm]	Ø14.5	Ø20	Ø23
D6	[mm]	Ø16	Ø20	Ø24
CH17	[mm]	7	12	14
CH27	[mm]	7	12	14
C2	[mm]	20	30	30
S2	[mm]	20	30	30
dD	[mm]	8	13	16
K0	[N/mm]	0.311	0.239	0.334
R1	[N]	9.338	14.80	20.05
R2	[N]	16.04	22.37	30.42
m3	[g]	33	50	70

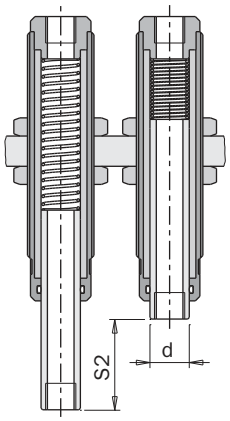
Sospensioni telescopiche anti-rotazione con corpo filettato

- Corpo e stelo in alluminio anodizzato.
- Trattamento anti-frizione sullo stelo.
- Cuscinetto in polimero per un movimento più omogeneo.
- Stelo anti-rotazione con gioco ridotto.
- Movimento telescopico: i raccordi ed i tubi non si muovono.
- Guarnizioni unidirezionali: usabile solo con il vuoto.
- Pressione di utilizzo: -1 ÷ 0 bar.
- Grasso alimentare NSF-H1.

Threaded-body non-rotative telescopic suspensions

- *Body and rod in anodized aluminum.*
- *Anti-friction treatment on the rod.*
- *Smooth movement thanks to the plastic bearing.*
- *Non-rotative rod with reduced tolerance.*
- *Telescopic lay-out: fittings and hoses don't move.*
- *Unidirectional sealing: only for vacuum applications.*
- *Pressure range: -1 ÷ 0 bar.*
- *NSF-H1 food-grade grease.*







		VSC1620	VSC2230	VSC2530
H	[mm]	100	130	130
H1	[mm]	26	36	36
H2	[mm]	12	14	14
H3	[mm]	57	75	75
H5	[mm]	10	10	10
H6	[mm]	14	14	14
H7	[mm]	5	5	5
H8	[mm]	5	6	6
D1	[mm]	Ø8	Ø13	Ø16
D2		M5	G1/8"	G1/4"
D3		M5	G1/8"	G1/4"
D4	[mm]	Ø14.5	Ø20	Ø23
D6		M16x1	M22x1.5	M25x1.5
CH1	[mm]	7	12	14
CH2	[mm]	7	12	14
CH3	[mm]	19	27	32
C	[mm]	20	30	30
S2	[mm]	20	30	30
d	[mm]	8	13	16
K	[N/mm]	0.311	0.239	0.334
R1	[N]	9.338	14.80	20.05
R2	[N]	16.04	22.37	30.42
m	[g]	38	75	115

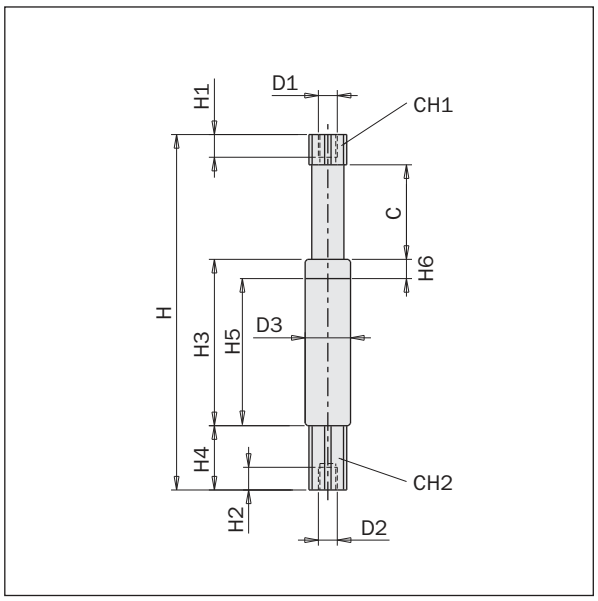
VSR

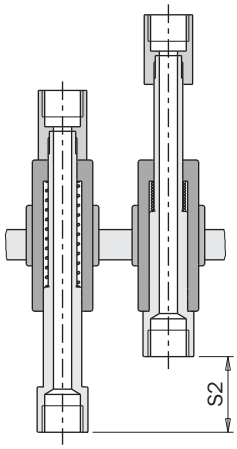
Sospensioni rotanti con corpo liscio

- Corpo e stelo in alluminio anodizzato.
- Stelo girevole.
- Pressione di utilizzo: -1 ÷ 8 bar.
- Molla in acciaio inossidabile.
- Grasso alimentare NSF-H1.

Smooth-body rotative suspensions

- *Body and rod in anodized aluminum.*
- *Rotative rod.*
- *Pressure range: -1 ÷ 8 bar.*
- *Spring in stainless steel.*
- *NSF-H1 food-grade grease.*







		VSR1010	VSR1025	VSR1420	VSR1435	VSR2025F18	VSR2025F14	VSR2050F18	VSR2050F14
H	[mm]	56	90.5	107	142	126	126	183.5	183.5
H1	[mm]	5	5	7	7	10	10	10	10
H2	[mm]	5	5	7	7	10	10	10	10
H3	[mm]	24.5	44	52	72	58	58	90.5	90.5
H4	[mm]	13.5	13.5	22	22	28	28	28	28
H5	[mm]	18.3	37.8	39.6	59.6	45.3	6	77.8	6
H6	[mm]	6.2*	6.2*	12.4*	12.4*	12.7*	58	12.7*	90.5
D1		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
D2		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
D3	[mm]	Ø10	Ø10	Ø14	Ø14	Ø20	Ø20	Ø20	Ø20
CH1	[mm]	8	8	12	12	16	16	16	16
CH2	[mm]	8	8	12	12	16	16	16	16
CH3	[mm]						24		24
C	[mm]	10	25	20	35	25	25	50	50
S2	[mm]	10	25	20	35	25	25	50	50
d	[mm]	0	0	0	0	0	0	0	0
K	[N/mm]	0.213	0.085	0.268	0.15	0.258	0.258	0.129	0.129
R1	[N]	1.49	1.575	3.617	4.267	4.388	4.31	4.452	4.4
R2	[N]	3.619	3.704	8.975	9.507	10.84	10.76	10.90	10.87
m	[g]	7.6	12	30	38	64	60	93	90

*Non clampabile
**Non-clampable*

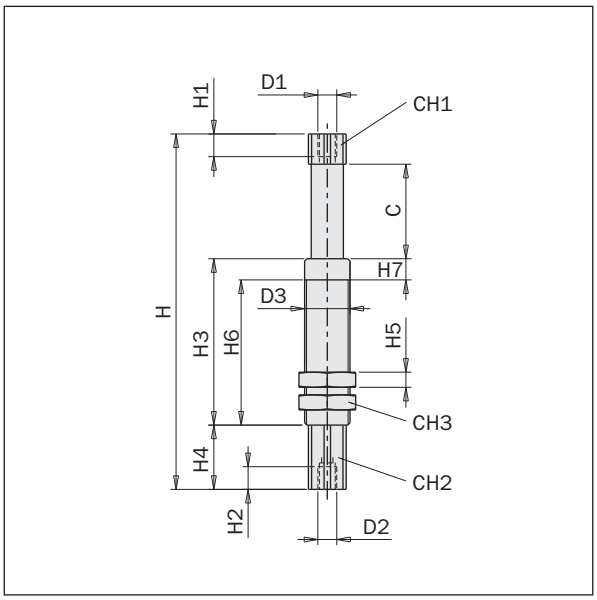
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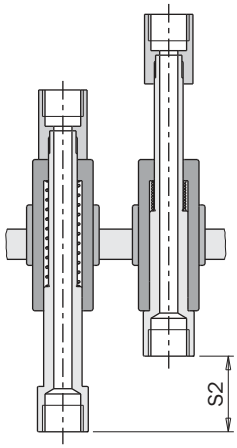
Sospensioni rotanti con corpo filettato

- Corpo e stelo in alluminio anodizzato.
- Stelo girevole.
- Pressione di utilizzo: -1 ÷ 8 bar.
- Molla in acciaio inossidabile.
- Grasso alimentare NSF-H1.

Threaded-body rotative suspensions

- *Body and rod in anodized aluminum.*
- *Rotative rod.*
- *Pressure range: -1 ÷ 8 bar.*
- *Spring in stainless steel.*
- *NSF-H1 food-grade grease.*







NEW NEW

	VSRT1010 9900001	VSRT1025 9900002	VSRT1210 9900049	VSRT1225 9900050	VSRT1420 9900003	VSRT1435 9900004	VSRT1420M1 9900085	VSRT1435M1 9900087	VSRT1620 9900005	VSRT1635 9900006	VSRT2025F18 9900007	VSRT2025F14 9900051	VSRT2050F18 9900008	VSRT2050F14 9900052	VSRT2540 9900047	VSRT2580 9900048
H [mm]	56	90.5	65	99	107	142	107	142	107	142	126	126	183.5	183.5	173	263
H1 [mm]	5	5	5.5	5.5	7	7	7	7	7	7	10	10	10	10	10.5	10.5
H2 [mm]	5	5	5.5	5.5	7	7	7	7	7	7	10	10	10	10	10.5	10.5
H3 [mm]	24.5	44	30	49	52	72	52	72	52	72	58	58	90.5	90.5	90	140
H4 [mm]	13.5	13.5	17	17	22	22	22	22	22	22	28	28	28	28	28	28
H5 [mm]	3.5	3.5	7.2	7.2	4	4	4	4	5	5	6	6	6	6	8	8
H6 [mm]	17.5	37	30	49	39	59	39	59	52	72	58	58	90.5	90.5	90	140
H7 [mm]	*7	*7	/	/	*13	*13	*13	*13	/	/	/	/	/	/	/	/
D1	M5	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"	G3/8"	G3/8"
D2	M5	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"	G3/8"	G3/8"
D3	M10x1		M12X1		M14x1.5		M14x1		M16x1		M20x1.5		M20x1.5		M25x1.5	
CH1 [mm]	8	8	10	10	12	12	12	12	12	12	16	16	16	16	22	22
CH2 [mm]	8	8	10	10	12	12	12	12	12	12	16	16	16	16	22	22
CH3 [mm]	13	13	15	15	17	17	17	17	19	19	24	24	24	24	32	32
C [mm]	10	25	10	25	20	35	20	35	20	35	25	25	50	50	40	80
S2 [mm]	10	25	10	25	20	35	20	35	20	35	25	25	50	50	40	80
d [mm]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K [N/mm]	0.21	0.08	0.2	0.09	0.27	0.15	0.27	0.15	0.25	0.14	0.26	0.26	0.13	0.13	0.26	0.12
R1 [N]	1.49	1.57	1.59	1.52	3.61	4.28	3.62	4.28	3.65	4.32	4.31	4.31	4.4	4.4	5.5	6.25
R2 [N]	3.62	3.70	3.55	3.7	8.98	9.51	8.97	9.51	8.68	9.13	10.76	10.76	10.87	10.87	15.7	15.97
m [g]	12	16.5	19	25	37	47	37	47	46.5	58	85	82	110	111	200	271

*Non filettato
**Not threaded*

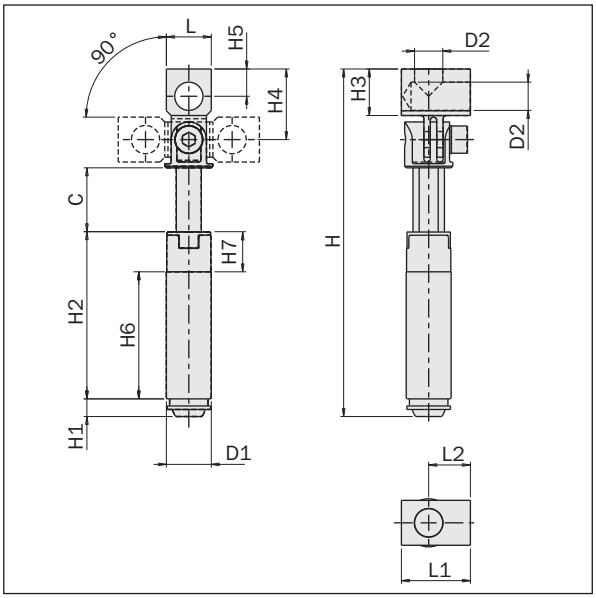
VSE

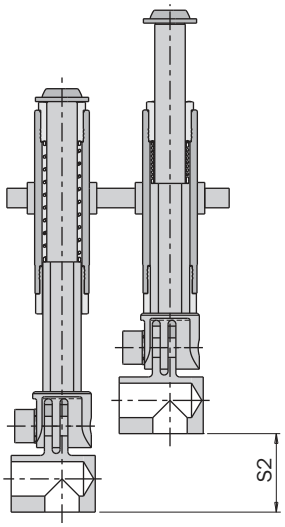
Sospensioni anti-rotazione con giunto angolare integrato e corpo liscio

- L'angolo è regolabile continuamente fra 0° e +/-90°.
- Alimentazione esterna.
- Corpo e stelo in alluminio anodizzato.
- Stelo anti-rotazione con elevata capacità di carico.
- Pressione di utilizzo: -1 ÷ 8 bar.
- Grasso alimentare NSF-H1.

Smooth-body non-rotative suspensions with integral elbow arms

- *It is possible to set continuously the angle between 0° and +/-90°.*
- *External air feeding.*
- *Body and rod in anodized aluminum.*
- *Non-rotative rod with high load capability.*
- *Pressure range: -1 ÷ 8 bar.*
- *NSF-H1 food-grade grease.*







		VSE1010F05	VSE1025F05	VSE1420F18	VSE1435F18	VSE2025F18	VSE2025F14	VSE2050F18	VSE2050F14
H	[mm]	61.8	96.3	108.3	143.3	121.3	127.5	178.8	184.8
H1	[mm]	3.5	3.5	5.5	5.5	6.5	6.5	6.5	6.5
H2	[mm]	24.6	44.1	52.1	72.1	58.1	58.1	90.6	90.6
H3	[mm]	9	9	14.5	14.5	14.5	20.5	14.5	20.5
H4	[mm]	15	15	22	22	22	28	22	28
H5	[mm]	5.5	5.5	8.5	8.5	8.5	12	8.5	12
H6	[mm]	18.4	37.9	38.6	38.6	44.4	44.4	76.9	76.9
H7	[mm]	6.2*	6.2*	13.5*	13.5*	13.7*	13.7*	13.7*	13.7*
D1	[mm]	Ø10	Ø10	Ø14	Ø14	Ø20	Ø20	Ø20	Ø20
D2		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
L	[mm]	10	10	14	14	14	17	14	17
L1	[mm]	16	16	21.5	21.5	21.5	26	21.5	26
L2	[mm]	10.5	10.5	13	13	13	15	13	15
C	[mm]	10	25	20	35	25	25	50	50
S2	[mm]	10	25	20	35	25	25	50	50
d	[mm]	0	0	0	0	0	0	0	0
K	[N/mm]	0.106	0.138	0.268	0.150	0.275	0.275	0.141	0.141
R1	[N]	0.957	3.100	3.617	4.267	4.131	4.131	4.308	4.308
R2	[N]	2.020	6.545	8.975	9.507	11.02	11.02	11	11.37
m	[g]	15	20	45	55	70	90	105	120

*Non clampabile
**Non-clampable*

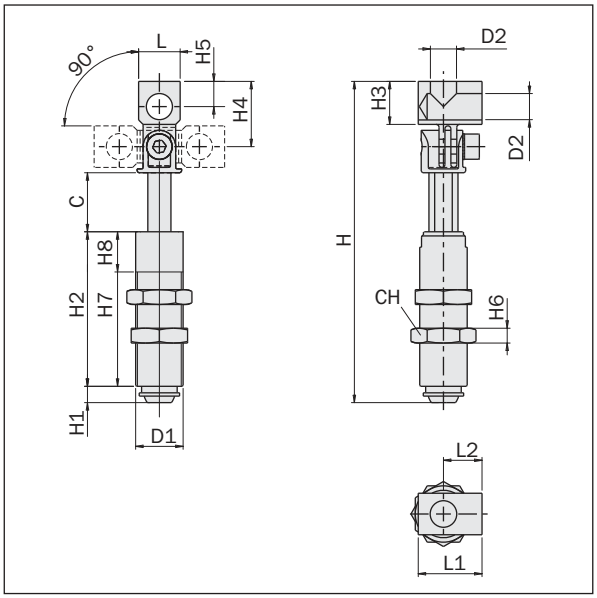
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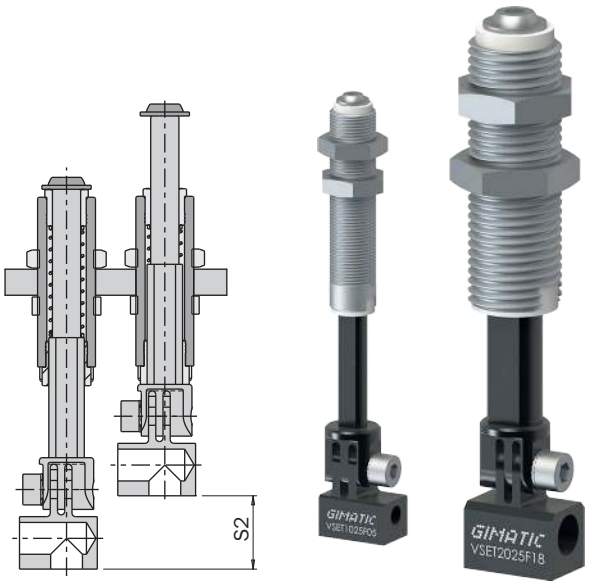
Sospensioni anti-rotazione con giunto angolare integrato e corpo filettato

- L'angolo è regolabile continuamente fra 0° e +/-90°.
- Alimentazione esterna.
- Corpo e stelo in alluminio anodizzato.
- Stelo anti-rotazione con elevata capacità di carico.
- Pressione di utilizzo: -1 ÷ 8 bar.
- Grasso alimentare NSF-H1.

Threaded-body non-rotative suspensions with integral elbow arms

- *It is possible to set continuously the angle between 0° and +/-90°.*
- *External air feeding.*
- *Body and rod in anodized aluminum.*
- *Non-rotative rod with high load capability.*
- *Pressure range: -1 ÷ 8 bar.*
- *NSF-H1 food-grade grease.*





		VSET1010F05 9900009	VSET1025F05 9900010	VSET1620F18 9900011	VSET1635F18 9900012	VSET2025F18 9900013	VSET2025F14 9900014	VSET2050F18 9900015	VSET2050F14 9900016
H	[mm]	61.8	96.3	108.3	143.3	121.3	127.3	178.8	184.4
H1	[mm]	3.5	3.5	5.5	5.5	6.5	6.5	6.5	6.5
H2	[mm]	24.6	44.1	52.1	72.1	58.1	58.1	90.6	90.6
H3	[mm]	9	9	14.5	14.5	14.5	20.5	14.5	20.5
H4	[mm]	15	15	22	22	22	28	22	28
H5	[mm]	5.5	5.5	8.5	8.5	8.5	12	8.5	12
H6	[mm]	3.5	3.5	5	5	6	6	6	6
H7	[mm]	17.5	37	52	72	58	58	90.5	90.5
H8	[mm]	*7.1	*7.1	/	/	/	/	/	/
D1		M10x1	M10x1	M16x1	M16x1	M20x1.5	M20x1.5	M20x1.5	M20x1.5
D2		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
L	[mm]	10	10	14	14	14	17	14	17
L1	[mm]	16	16	21.5	21.5	21.5	26	21.5	26
L2	[mm]	10.5	10.5	13	13	13	15	13	15
C	[mm]	10	25	20	35	25	25	50	50
CH	[mm]	13	13	19	19	24	24	24	24
S2	[mm]	10	25	20	35	25	25	50	50
d	[mm]	0	0	0	0	0	0	0	0
K	[N/mm]	0.213	0.085	0.268	0.150	0.275	0.275	0.141	0.142
R1	[N]	1.490	1.575	3.617	4.267	4.131	4.131	4.308	4.308
R2	[N]	3.619	3.704	8.975	9.507	11.02	11.02	11.37	11.37
m	[g]	18	23	57	70	88	109	125	142

*Non filettato
**Not threaded*

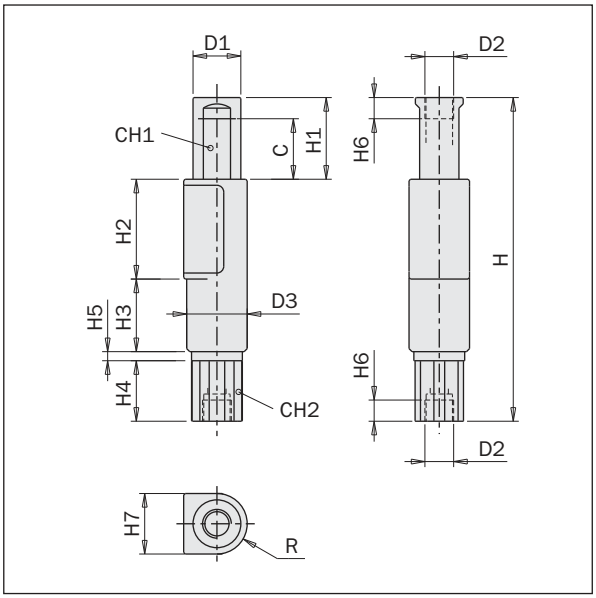
VVX

Sospensioni inox anti-rotazione per carichi elevati

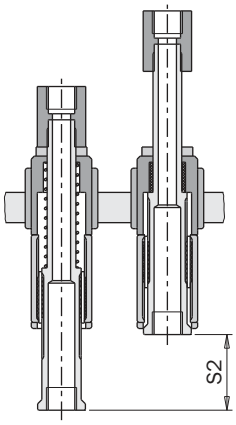
- Corpo, stelo, cuscinetto e molla in acciaio inossidabile.
- Guida a sfere per un'altissima capacità di carico.
- Gioco zero.
- Grasso alimentare NSF-H1.
- Pressione di utilizzo: -1 ÷ 8 bar.

Non-rotative heavy duty stainless suspensions

- *Body, rod, bearing and spring in stainless steel.*
- *Ball bearing for a very high load capability.*
- *Zero backlash.*
- *NSF-H1 food-grade grease.*
- *Pressure range: -1 ÷ 8 bar.*









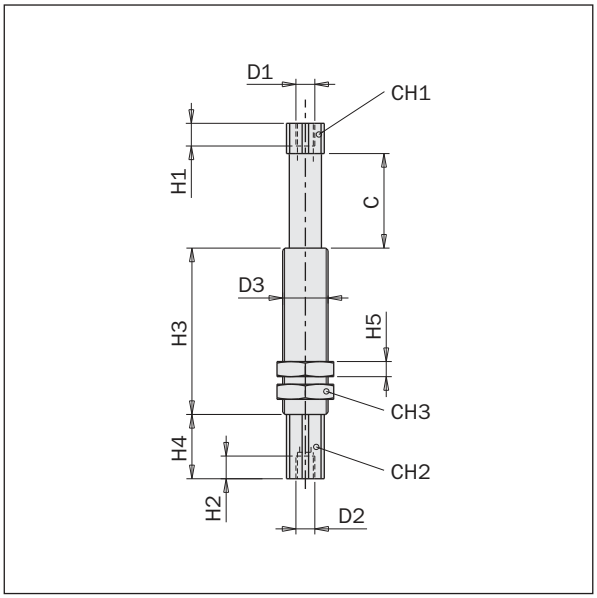
		VVX1010F	VVX1025F	VVX1420F	VVX1435F	VVX2025F	VVX2050F
H	[mm]	63	100.5	99	137	107	169
H1	[mm]	11	26	25	40	27	52
H2	[mm]	23.5	35	31	43	33	50.5
H3	[mm]	12	23	21	32	24	43.5
H4	[mm]	15	15	20	20	20	20
H5	[mm]	10	10	14	14	20	20
H6	[mm]	6	6	7	7	7	7
H7	[mm]	8	8	10	10	11	11
D1	[mm]	Ø7.8	Ø7.8	Ø11.8	Ø11.8	Ø15.8	Ø15.8
D2		M5	M5	G1/8"	G1/8"	G1/8"	G1/8"
D3	[mm]	Ø10	Ø10	Ø14	Ø14	Ø20	Ø20
CH1	[mm]	6	6	10.5	10.5	13	13
CH2	[mm]	8	8	12	12	16	16
C	[mm]	10	25	20	35	25	50
R	[mm]	5	5	7	7	10	10
S2	[mm]	10	25	20	35	25	50
d	[mm]	0	0	0	0	0	0
K	[N/mm]	0.194	0.0786	0.252	0.137	0.258	0.129
R1	[N]	1.548	1.533	3.65	4.325	4.388	4.452
R2	[N]	3.483	3.498	8.685	9.132	10.84	10.9
m	[g]	30	45	80	110	150	235

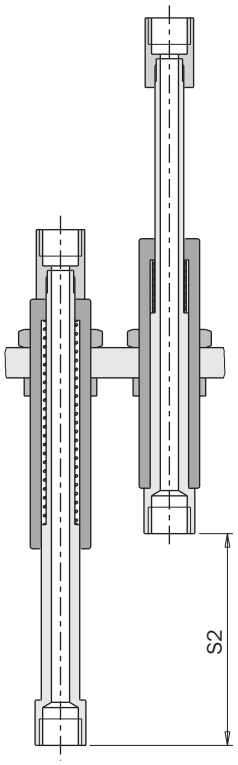
Sospensioni inox rotanti con corpo filettato

- Corpo, stelo e molla in acciaio inossidabile.
- Stelo girevole.
- Grasso alimentare NSF-H1.
- Pressione di utilizzo: -1 ÷ 8 bar.

Rotative stainless suspensions with threaded body

- *Body, rod and spring in stainless steel.*
- *Rotative rod.*
- *NSF-H1 food-grade grease.*
- *Pressure range: -1 ÷ 8 bar.*







	VSRTG1225	VSRTG1635	VSRTG2050	VSRTG2580
H [mm]	94	127.5	170.5	249
H1 [mm]	5.5	9	10	11
H2 [mm]	5.5	7	10	11
H3 [mm]	44	58.5	82.5	121
H4 [mm]	17	20	23	33
H5 [mm]	4	5	6	8
D1	M5	G1/8"	G1/4"	G3/8"
D2	M5	G1/8"	G1/4"	G3/8"
D3	M12x1	M16x1	M20x1.5	M25x1.5
CH1 [mm]	10	12	16	23
CH2 [mm]	10	12	16	23
CH3 [mm]	15	19	24	32
C [mm]	25	35	50	80
S2 [mm]	25	35	50	80
d [mm]	0	0	0	0
K [N/mm]	0.108	0.137	0.129	0.119
R1 [N]	2.112	4.325	4.452	6.005
R2 [N]	4.820	9.132	10.90	15.52
m [g]	50	110	220	560

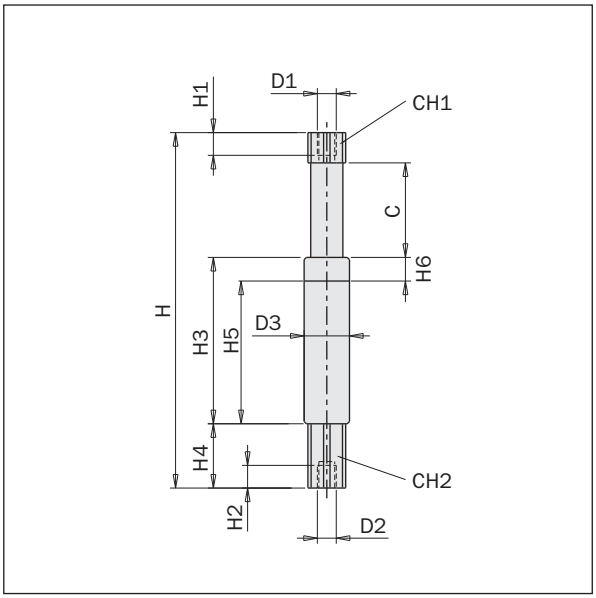
VSNG

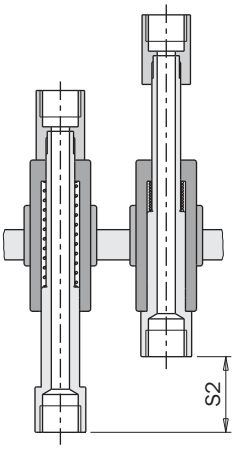
Sospensioni anti-rotazione con corpo liscio

- Corpo e stelo in alluminio anodizzato.
- Molla in acciaio inossidabile.
- Stelo anti-rotazione con elevata capacità di carico.
- Grasso alimentare NSF-H1.

Smooth-body non-rotative telescopic suspensions

- *Body and rod in anodized aluminum.*
- *Spring in stainless steel.*
- *Non-rotative rod with high load capability.*
- *Pressure range: -1 ÷ 8 bar.*
- *NSF-H1 food-grade grease.*







		VSNG1010	VSNG1025	VSNG1420	VSNG1435	VSNG2025F18	VSNG2025F14	VSNG2050F18	VSNG2050F14
H	[mm]	56	90.5	107	142	126	126	183.5	183.5
H1	[mm]	5	5	7	7	10	10	10	10
H2	[mm]	5	5	7	7	10	10	10	10
H3	[mm]	24.5	44	52	72	58	58	90.5	90.5
H4	[mm]	13.5	13.5	22	22	28	28	28	28
H5	[mm]	18.3	36.8	38.4	58.6	44.3	44.3	76.8	76.8
H6	[mm]	6.2*	7.2	13.6	13.4	13.7	13.7	13.7	13.7
D1		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
D2		M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"
D3	[mm]	Ø10	Ø10	Ø14	Ø14	Ø20	Ø20	Ø20	Ø20
CH1	[mm]	8	8	12	12	16	16	16	16
CH2	[mm]	8	8	12	12	16	16	16	16
C	[mm]	10	25	20	35	25	25	50	50
S2	[mm]	10	25	20	35	25	25	50	50
d	[mm]	0	0	0	0	0	0	0	0
K	[N/mm]	0.213	0.085	0.268	0.15	0.275	0.258	0.141	0.129
R1	[N]	1.49	1.575	3.617	4.267	4.131	4.388	4.308	4.452
R2	[N]	3.619	3.704	8.975	9.507	11.02	10.84	11.37	10.90
m	[g]	7.6	12	30	38	67.5	64	96	93

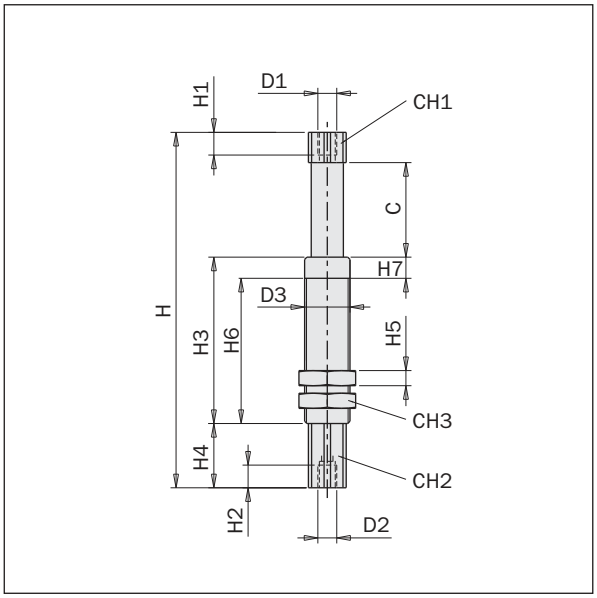
*Non clampabile
**Non-clampable*

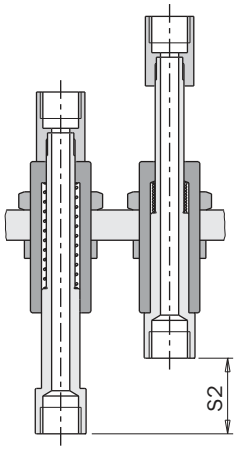
Sospensioni anti-rotazione con corpo filettato

- Corpo e stelo in alluminio anodizzato.
- Molla in acciaio inossidabile.
- Stelo anti-rotazione con elevata capacità di carico.
- Pressione di utilizzo: -1 ÷ 8 bar.
- Grasso alimentare NSF-H1.

Threaded-body non-rotative suspensions

- *Body and rod in anodized aluminum.*
- *Spring in stainless steel.*
- *Non-rotative rod with high load capability.*
- *Pressure range: -1 ÷ 8 bar.*
- *NSF-H1 food-grade grease.*







		VSNTG1010 9900019	VSNTG1025 9900020	VSNTG1210 9900024	VSNTG1225 9900025	VSNTG1420 9900026	VSNTG1435 9900021	VSNTG1420M1 9900084	VSNTG1435M1 9900086	VSNTG1620 9900027	VSNTG1635 9900028	VSNTG2025F18 9900022	VSNTG2025F14 9900018	VSNTG2050F18 9900017	VSNTG2050F14 9900023	VSNTG2540 9900029	VSNTG2580 9900030
H	[mm]	56	90.5	64.5	98.5	107	142	107	142	107	142	126	126	183.5	183.5	173	263
H1	[mm]	5	5	5.5	5.5	7	7	7	7	7	7	10	10	10	10	11	11
H2	[mm]	5	5	5.5	5.5	7	7	7	7	7	7	10	10	10	10	11	11
H3	[mm]	24.5	44	30	49	52	72	52	72	52	72	58	58	90.5	90.5	90	140
H4	[mm]	13.5	13.5	16.7	16.7	22	22	22	22	22	22	28	28	28	28	28	28
H5	[mm]	3.5	3.5	4	4	4	4	4	4	5	5	6	6	6	6	8	8
H6	[mm]	17.5	37	30	49	39	59	39	59	52	72	58	58	90.5	90.5	90	140
H7	[mm]	*7	*7	/	/	*13	*13	*13	*13	/	/	/	/	/	/	/	/
D1		M5	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"	G3/8"	G3/8"
D2		M5	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/8"	G1/4"	G1/8"	G1/4"	G3/8"	G3/8"
D3		M10x1		M12x1		M14x1.5		M14x1		M16x1		M20x1.5				M25x1.5	
CH1	[mm]	8	8	10	10	12	12	12	12	12	12	16	16	16	16	22	22
CH2	[mm]	8	8	10	10	12	12	12	12	12	12	16	16	16	16	22	22
CH3	[mm]	13	13	15	15	17	17	17	17	19	19	24	24	24	24	32	32
C	[mm]	10	25	10	25	20	35	20	35	20	35	25	25	50	50	40	80
S2	[mm]	10	25	10	25	20	35	20	35	20	35	25	25	50	50	40	80
d	[mm]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K	[N/mm]	0.213	0.085	0.277	0.108	0.268	0.15	0.268	0.15	0.252	0.137	0.275	0.258	0.141	0.129	0.230	0.119
R1	[N]	1.49	1.575	1.938	2.112	3.617	4.267	3.617	4.267	3.650	4.325	4.131	4.388	4.308	4.452	6.082	6.005
R2	[N]	3.619	3.704	4.706	4.820	8.975	9.507	8.975	9.507	8.685	9.132	11.02	10.84	11.37	10.90	15.26	15.52
m	[g]	12	16.5	20	26.5	37	47	37	47	46.5	58	90	86	118	115	205	275

*Non filettato
**Not threaded*

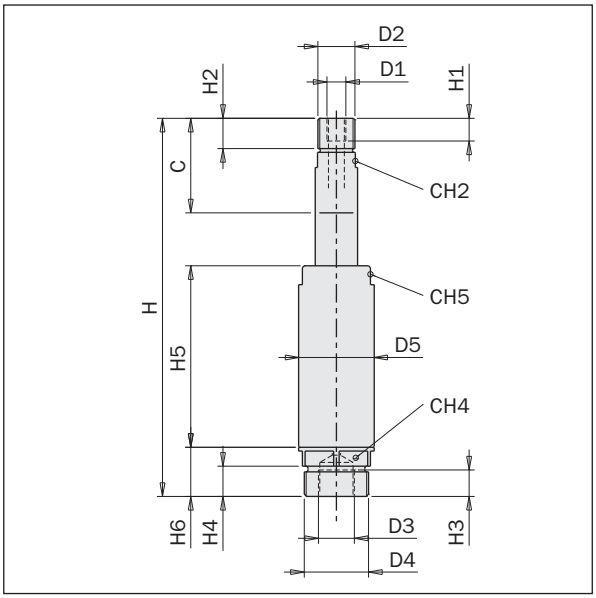
VSS

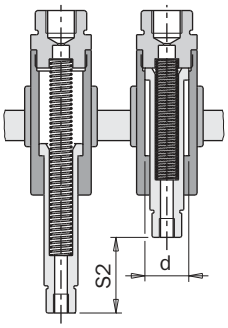
Sospensioni telescopiche auto-ritraenti

- Corpo e stelo in alluminio anodizzato.
- Tenuta senza guarnizioni.
- Usabile solo con il vuoto.
- Quando la ventosa prende un pezzo, il vuoto che agisce sul pistone interno supera la forza della molla e muove lo stelo.
- La velocità del movimento di ritrazione può essere calibrata con un regolatore di flusso standard.
- Quando si rimuove il vuoto, il pezzo viene rilasciato e la molla interna riporta lo stelo a fondo corsa.
- Pressione di utilizzo: -1 ÷ 0 bar.
- Grasso alimentare NSF-H1.

Telescopic self-retracting suspensions

- *Body and rod in anodized aluminum.*
- *Sealing with no seals.*
- *Only for vacuum applications.*
- *When the cup takes a part, the vacuum on the internal piston overtakes the spring force and moves the rod up.*
- *The speed of the retraction movement can be adjusted by a standard throttle valve.*
- *When the vacuum is removed the part is released and the internal spring resets the rod.*
- *Pressure range: -1 ÷ 0 bar.*
- *NSF-H1 food-grade grease.*







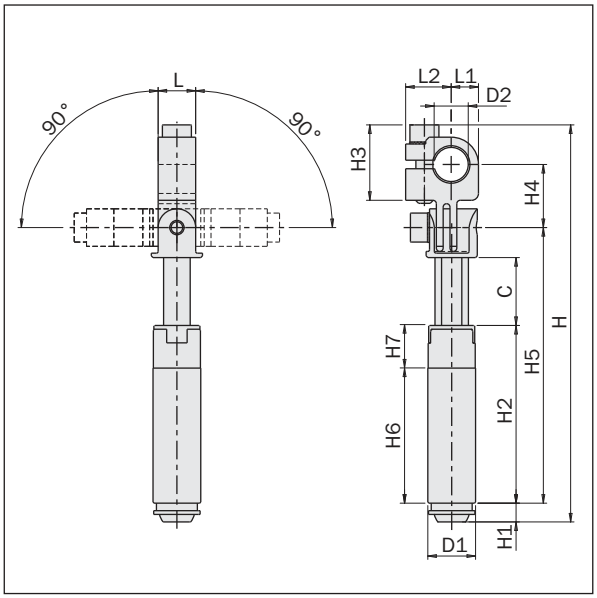
		VSS2025	VSS2050
H	[mm]	100	150
H1	[mm]	6	6
H2	[mm]	8	8
H3	[mm]	8	8
H4	[mm]	8	8
H5	[mm]	48	73
H6	[mm]	13	13
D1		M5	M5
D2		G1/8"	G1/8"
D3		G1/8"	G1/8"
D4		M17x1	M17x1
D5	[mm]	Ø20	Ø20
CH2	[mm]	10	10
CH4	[mm]	18	18
CH5	[mm]	18	18
C	[mm]	25	50
S2	[mm]	25	50
d	[mm]	14.5	14.5
K	[N/mm]	0.085	0.052
R1	[N]	1.525	1.606
R2	[N]	3.642	4.197
m	[g]	40	55

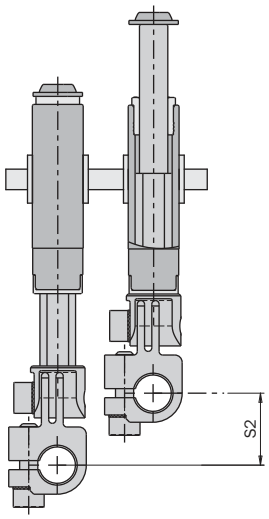
Sospensioni anti-rotazione con cravatta regolabile e corpo liscio

- L'angolo è regolabile continuamente fra 0° e +/-90°.
- Alimentazione esterna.
- Corpo e stelo in alluminio anodizzato.
- Stelo anti-rotazione.
- Grasso alimentare NSF-H1.

Non-rotative suspensions with smooth-body and adjustable clamp

- *It is possible to set continuously the angle between 0° and +/-90°.*
- *External air feeding.*
- *Body and rod in anodized aluminum.*
- *Non-rotative rod.*
- *NSF-H1 food-grade grease.*

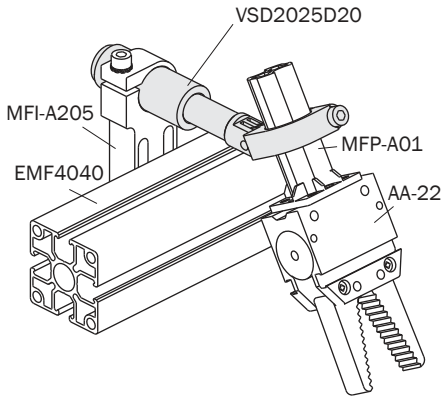


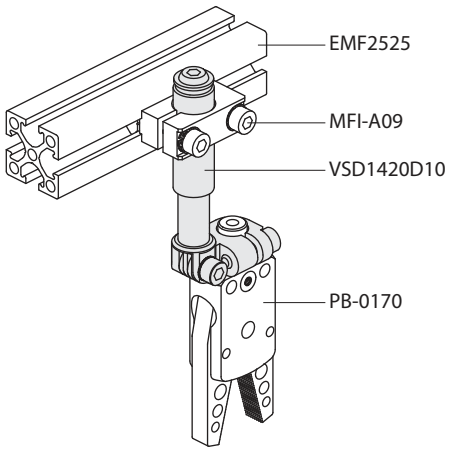




		VSD1420D10	VSD2025D10	VSD2025D20	VSD2050D10	VSD2050D20
H	[mm]	116.4	129.4	141.4	187.7	198.9
H1	[mm]	5.5	6.5	6.5	6.5	6.5
H2	[mm]	52	58.1	58.1	90.6	90.6
H3	[mm]	22.1	22.9	34.1	22.9	34.1
H4	[mm]	18.5	18.5	25	18.5	25
H5	[mm]	80.8	92.8	92.8	150.3	150.3
H6	[mm]	39.6	44.4	44.4	76.9	76.9
H7	[mm]	12.4*	13.7*	13.7*	13.7*	13.7*
D1	[mm]	Ø14	Ø20	Ø20	Ø20	Ø20
D2	[mm]	Ø10	Ø10	Ø20	Ø10	Ø20
L	[mm]	11	11	11	11	11
L1	[mm]	8	8	13.5	8	13.5
L2	[mm]	13.4	13.4	19.3	13.4	19.3
C	[mm]	20	25	25	50	50
S2	[mm]	20	25	25	50	50
d	[mm]	0	0	0	0	0
K	[N/mm]	0.268	0.275	0.275	0.141	0.141
R1	[N]	3.617	4.131	4.131	4.308	4.308
R2	[N]	8.975	11.02	11.02	11.37	11.37
m	[g]	43	70	80	105	115

*Non clampabile
**Non-clampable*



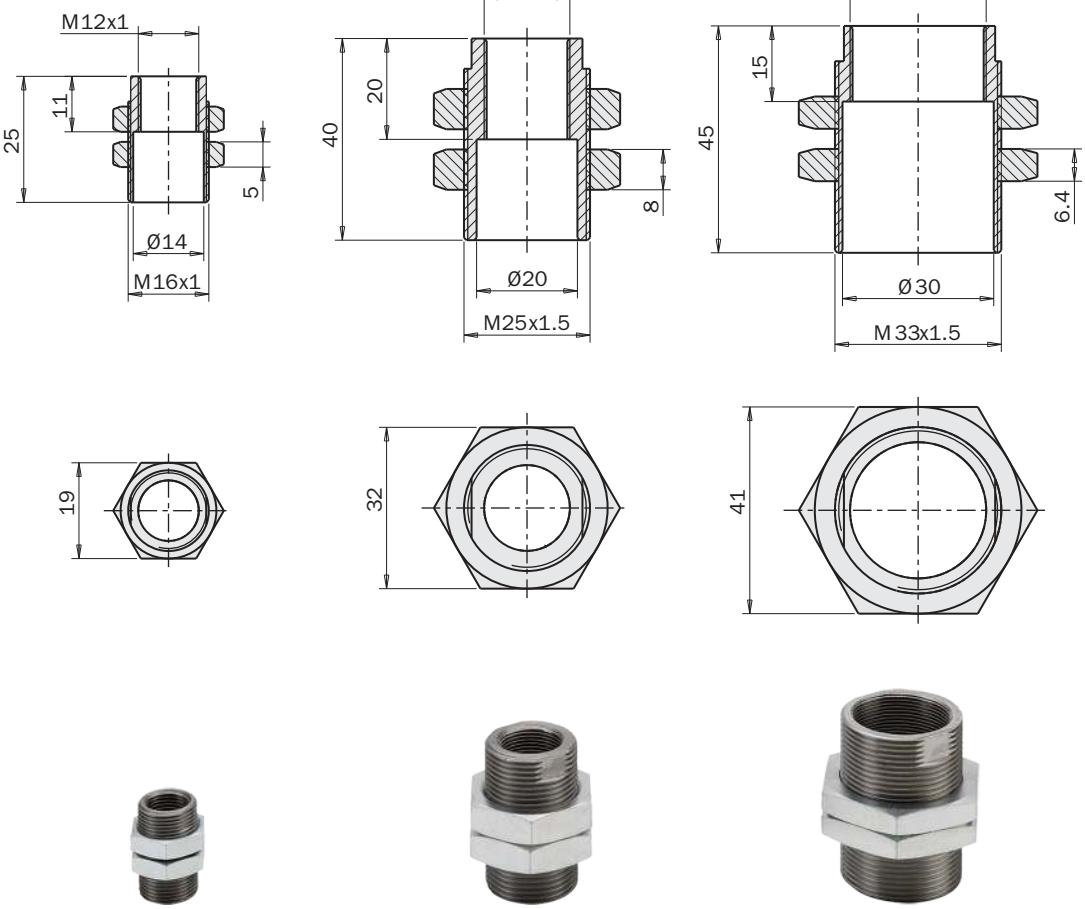


Nippli filettati

Threaded nipples

FIRST ANGLE PROJECTION

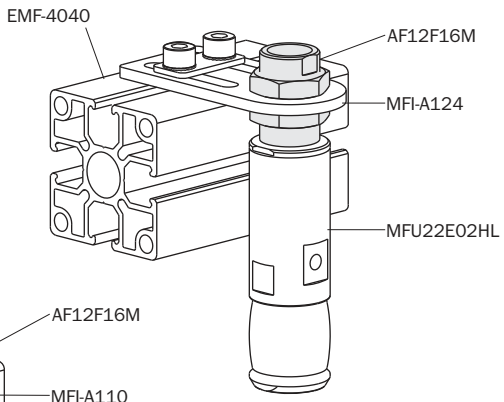


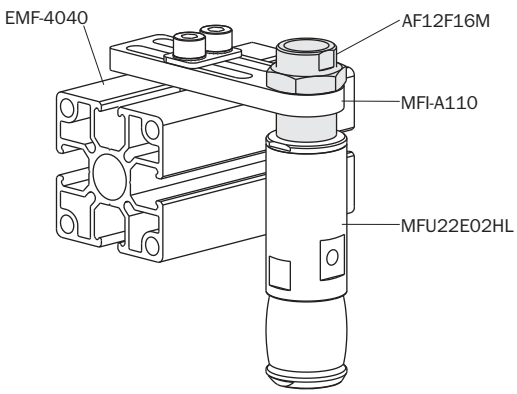


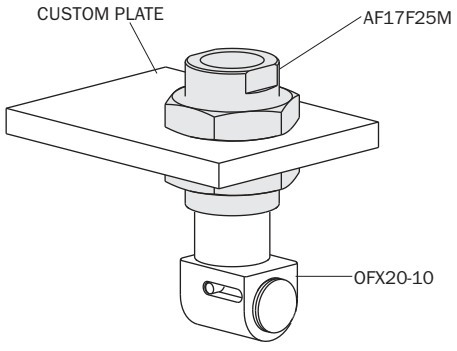
	AF12F16M	AF17F25M	AF27F33M
Peso *Weight*	25 g	130 g	140 g

Esempi di utilizzo

Application examples







Giunti angolari

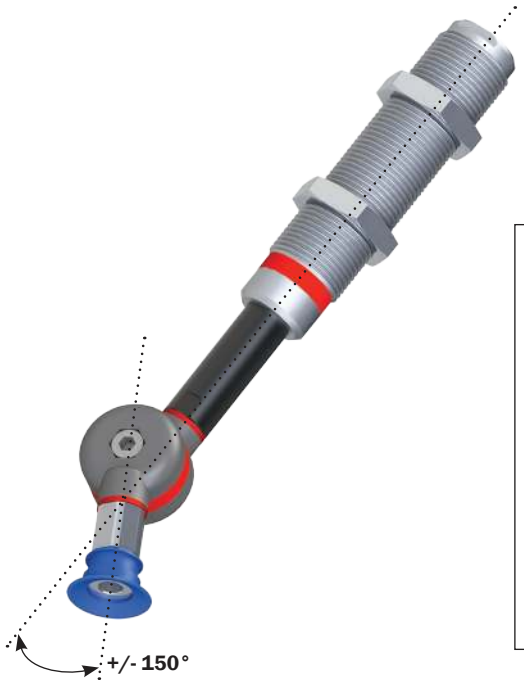
- Si montano fra la ventosa ed il suo supporto con due filetti maschi.
- Consentono di orientare la ventosa di un angolo predefinito rispetto al supporto.
- L'angolo è regolabile fra 0° e +/-150°.
- L'angolo è fissato stringendo una vite.
- Il condotto del vuoto è ricavato all'interno dei due semicorpi.

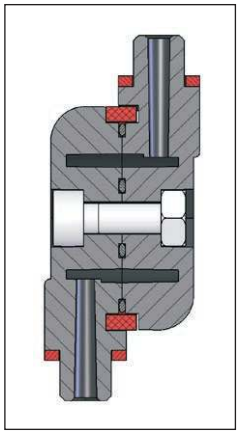
Elbow arms

- *They are mounted between the vacuum cup and its support by two male threads.*
- *They are used to tilt the vacuum cup with respect to the support under a predefined angle.*
- *It is possible to set the angle between 0° and +/-150°.*
- *By tightening a screw the angle is fixed.*
- *The vacuum lead is inside the two half-bodies.*

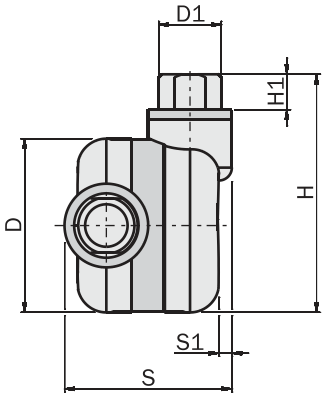


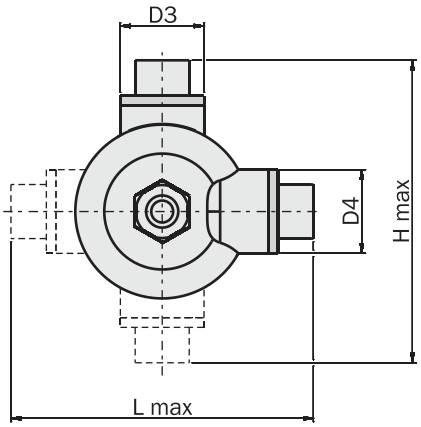
VA	A	B	m [g]
VAM5M5G	M5	M5	28
VAM18M18G	G1/8"	G1/8"	64
VAM18M14G	G1/8"	G1/4"	70
VAM14M14G	G1/4"	G1/4"	76

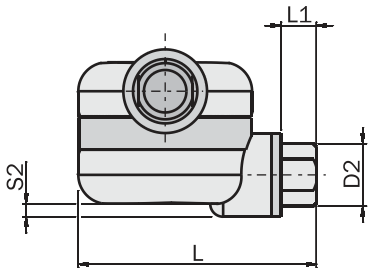




Dimensioni (mm)
Dimensions (mm)







	VAM5M5G	VAM18M18G	VAM18M14G	VAM14M14G
D	Ø22	Ø27	Ø27	Ø27
D1	M5	G1/8"	G1/8"	G1/4"
D2	M5	G1/8"	G1/4"	G1/4"
D3	Ø8	Ø13	Ø13	Ø16.8
D4	Ø8	Ø13	Ø16.8	Ø16.8
H	29	37	37	38
H1	4	5.5	5.5	6.5
H max	36	47	47	49
L	29	37	38	38
L1	4	5.5	6.5	6.5
L max	36	47	49	49
S	15.2	26	27.9	29.8
S1	0.6	2	2	3.9
S2	0.6	2	3.9	3.9

FIRST ANGLE PROJECTION

Giunti angolari

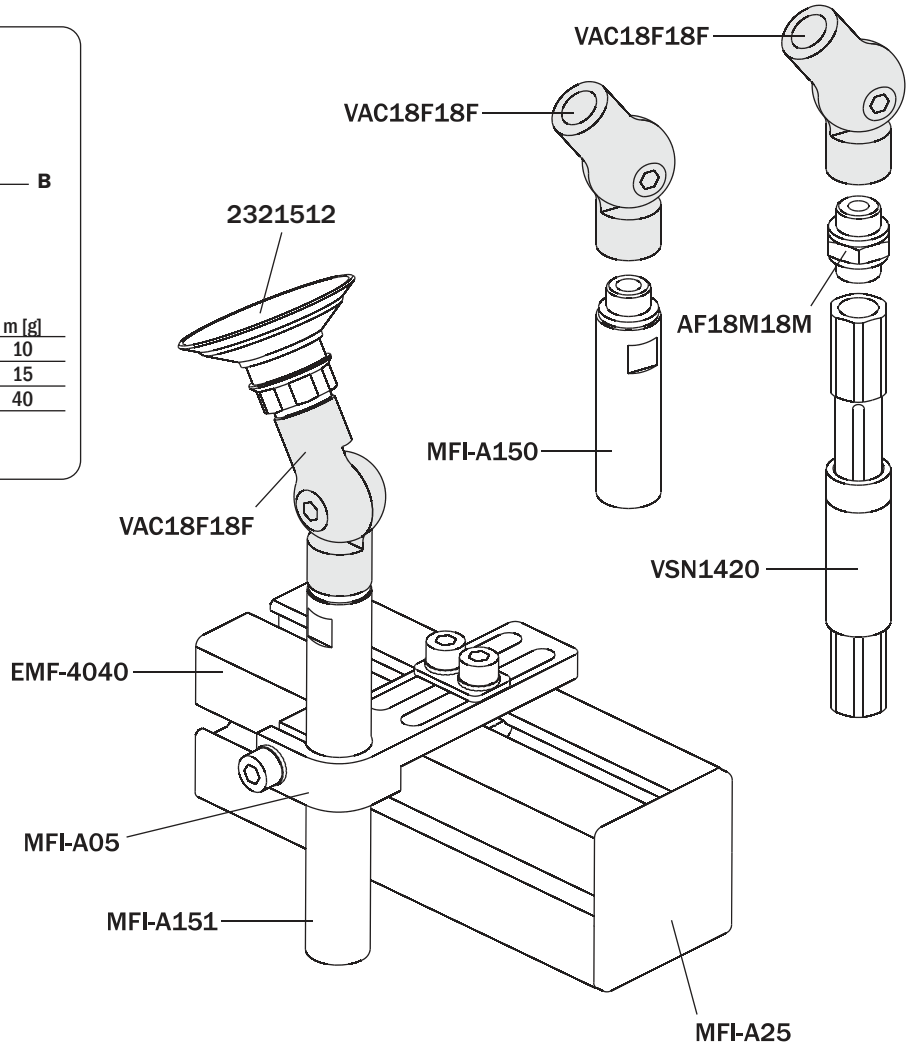
- Si montano fra la ventosa ed il suo supporto con due filetti femmina.
- Consentono di orientare la ventosa di un angolo predefinito rispetto al supporto.
- L'angolo è regolabile continuamente fra 0° e +/-90°.
- L'angolo è fissato stringendo una vite.
- Canale per il vuoto integrato.

Elbow arms

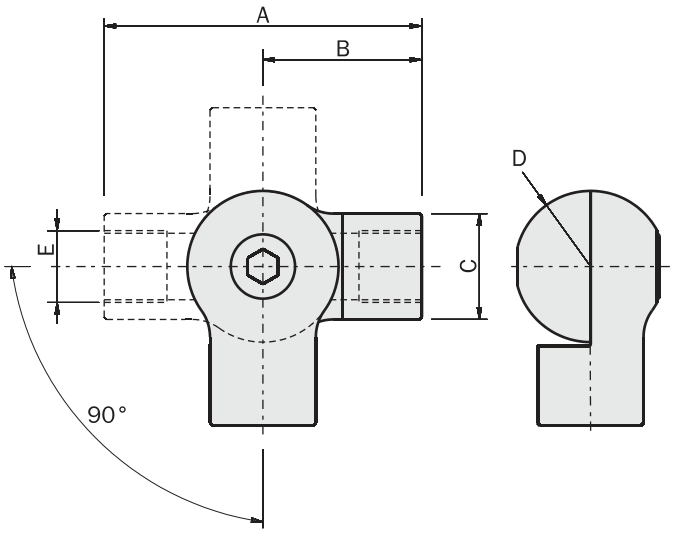
- *They are mounted between the vacuum cup and its support by two female threads.*
- *They are used to tilt the vacuum cup with respect to the support under a predefined angle.*
- *It is possible to set continuously the angle from 0° to +/-90°.*
- *By tightening one screw the angle is fixed.*
- *Integrated vacuum channel.*



VAC	A	B	m [g]
VAC05F05F	M5	M5	10
VAC18F18F	G1/8"	G1/8"	15
VAC14F14F	G1/4"	G1/4"	40



Dimensioni (mm)
Dimensions (mm)

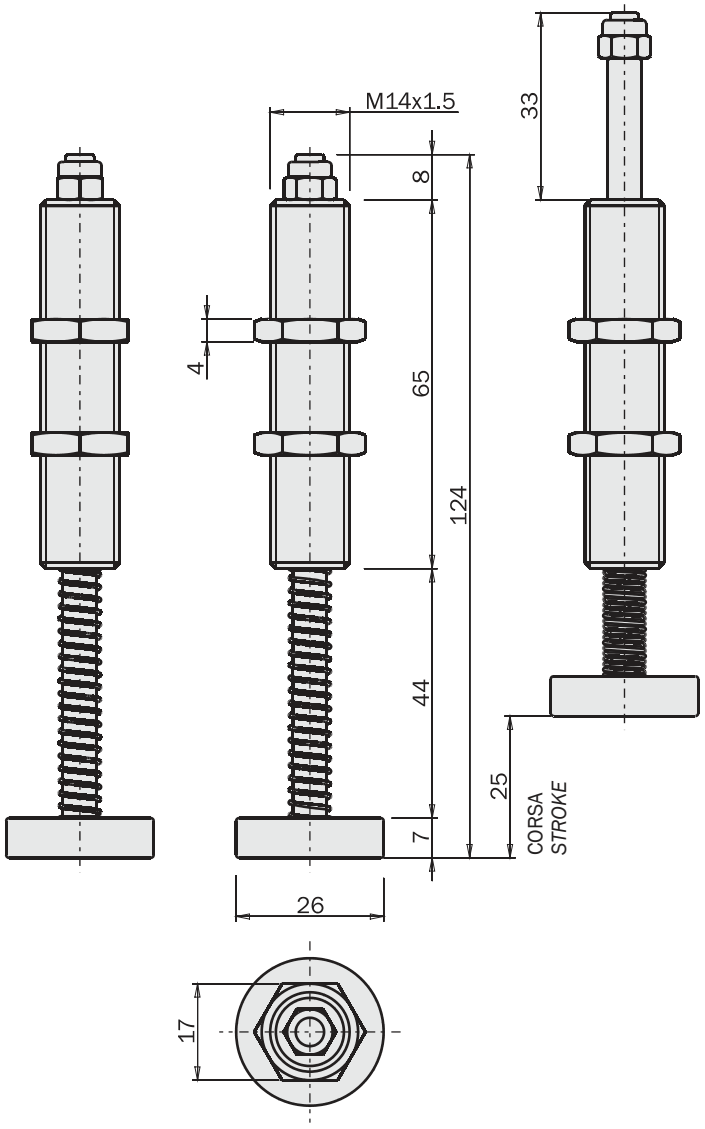


	VAC05F05F	VAC18F18F	VAC14F14F
A	33	42	56
B	16.5	21	28
C	Ø10	Ø14	Ø20
D	R8	R10	R14
E	M5	G1/8"	G1/4"

Pressore a molla

Spring rod

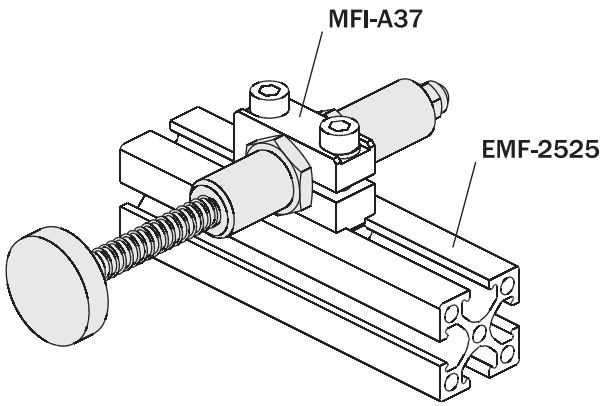
FIRST ANGLE PROJECTION

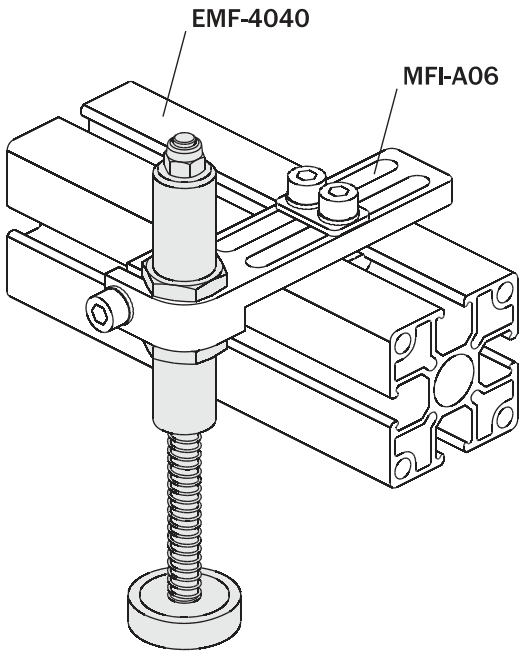


	VSX1425
Peso *Weight*	65 g



Materiale: Gomma TPU
Material: TPU Rubber



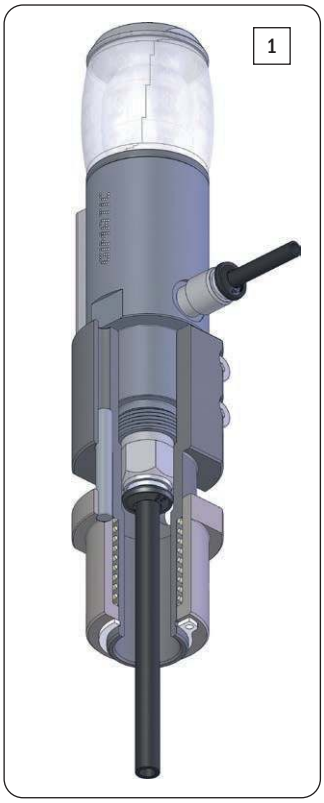


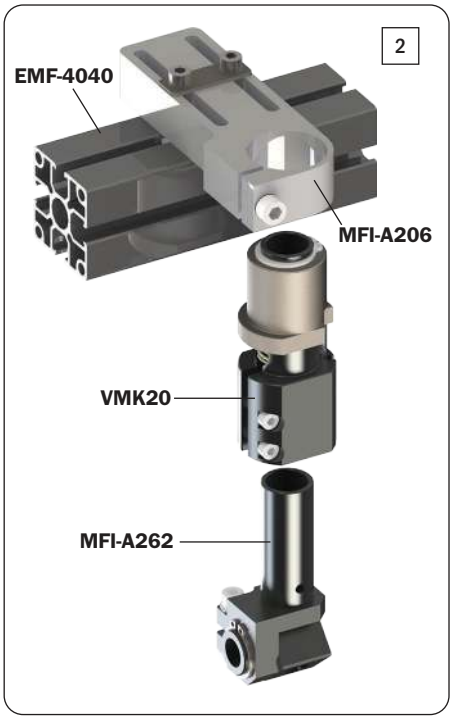
Sospensioni universali anti-rotazione

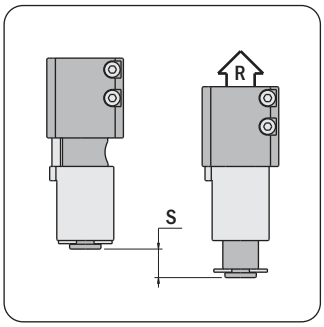
- Per tutti gli attuatori e le staffe con codolo da 14mm, 20mm e 30mm.
- Con foro passante per i tubi dell'aria [1] .
- Fissaggio a cravatta [2] .
- Sensore magnetico opzionale.
- Sensore induttivo opzionale.
- Grasso alimentare NSF-H1.

Non-rotative universal suspensions

- *For all actuators and brackets with 14mm, 20mm and 30mm tang.*
- *With through hole for air hoses* [1] .
- *Clamp mounting* [2] .
- *Optional magnetic sensor.*
- *Optional inductive sensor.*
- *NSF-H1 food-grade grease.*









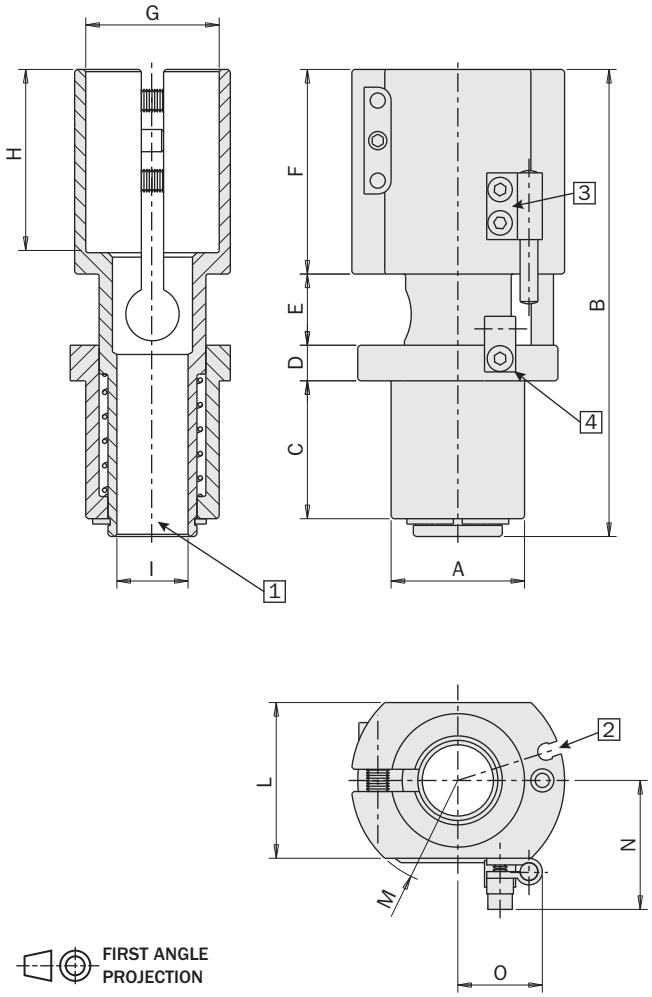


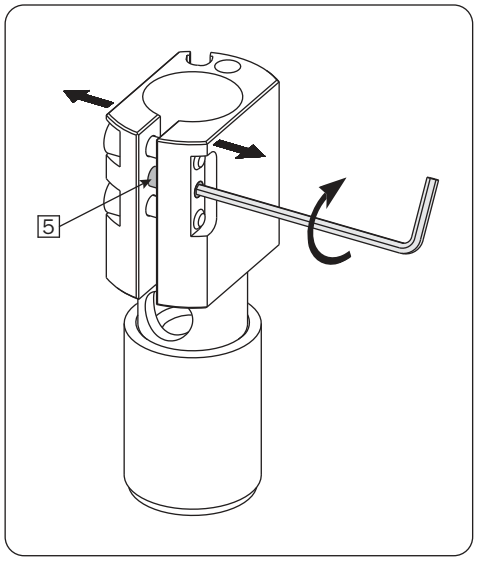


		VMK14	VMK20	VMK30
Forza di reazione della molla *Spring reaction force*	(R)	5 ÷ 6 N	7 ÷ 10 N	7 ÷ 10 N
Corsa della sospensione *Suspension stroke*	(S)	10 mm	13 mm	16 mm
Peso *Weight*		55 g	160 g	250 g

Dimensioni (mm)
Dimensions (mm)

	VMK14	VMK20	VMK30
A	Ø20	Ø30	Ø30
B	67	86	105
C	21	27	31
D	5	7	8
E	10	13	16
F	28	35	46
G	Ø14	Ø20	Ø30
H	14	31.5	41.2
I	Ø6	Ø16	Ø16
L	22	30	35
M	Ø27	Ø37	Ø48
N	22	26.5	29
O	16	16.5	19





E Corsa della sospensione
Suspension stroke

1 Foro passante per i tubi dell'aria
Through hole for hoses

2 Cava per sensore magnetico
Slot for magnetic sensor

3 Staffa per fissaggio sensore induttivo (non per VMK14)
Inductive sensor fastening bracket (not for VMK14)

4 Staffa per spina metallica (non per VMK14)
Bracket for metal pin (not for VMK14)

5 Grano per allargare la cravatta
Grub screw for clamp opening

Sensori (opzionali)

Il rilevamento della posizione compressa della sospensione può essere effettuato con un sensore magnetico, oppure con un sensore induttivo.

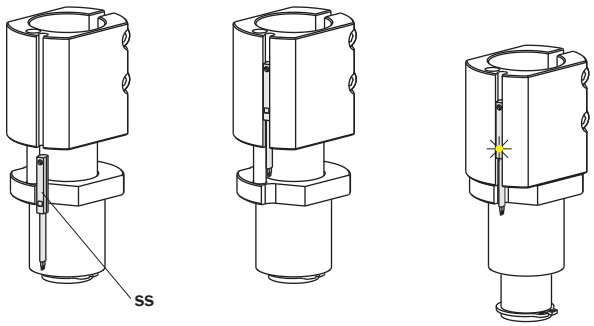
Sensors (optional)

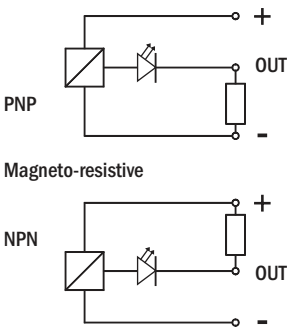
The compressed position of the suspension can be detected by a magnetic sensor, or an inductive sensor.

Sensori magnetici

Magnetic sensors

SN4N225-G	PNP	Cavo 2.5m *2.5m cable*
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SN3M203-G	NPN	
SS4N225-G	PNP	Cavo 2.5m *2.5m cable*
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 *M8 snap plug connector*
SS3M203-G	NPN	



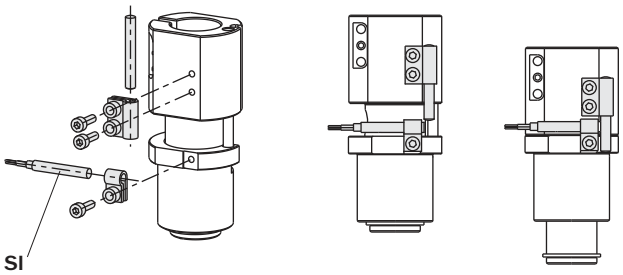


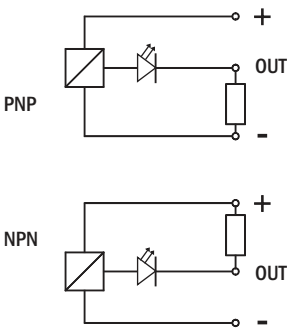


Sensori induttivi

Inductive sensors

SI4M225-G	NPN	Cavo 2.5m *2.5m cable*
SI4N225-G	PNP	

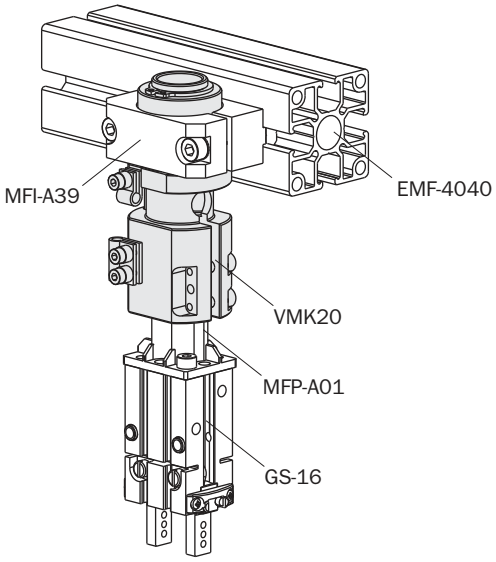




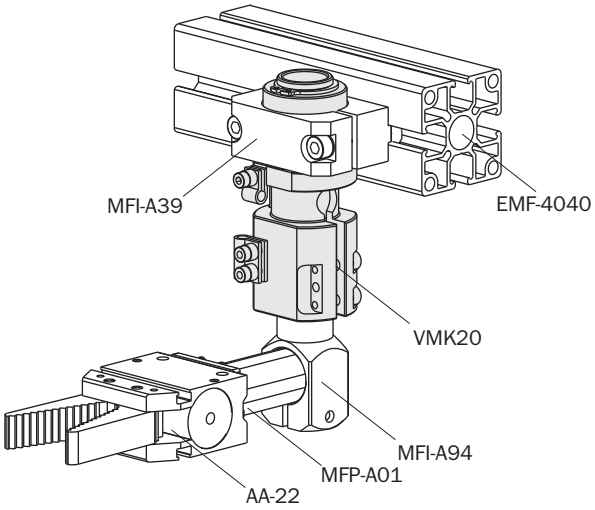


Esempi di applicazione

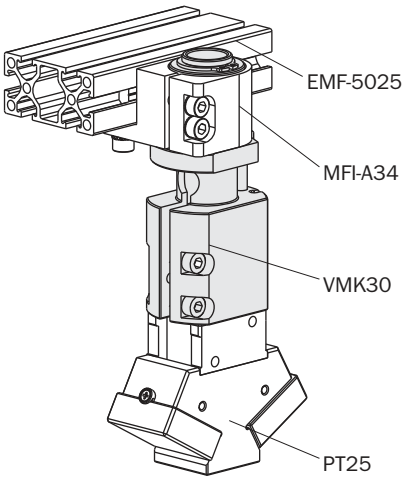
Sospensione di una pinza parallela GS.
Buffering of a parallel gripper GS.



Sospensione di una pinza per materozze AA.
Buffering of a sprue gripper AA.

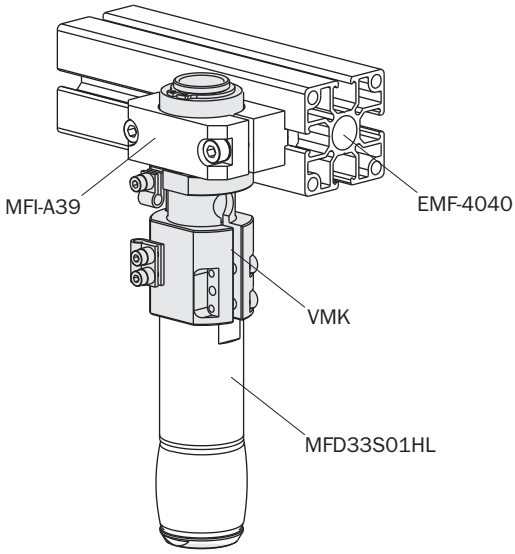


Sospensione di una pinza ad aghi PT.
Buffering of a needle gripper PT.

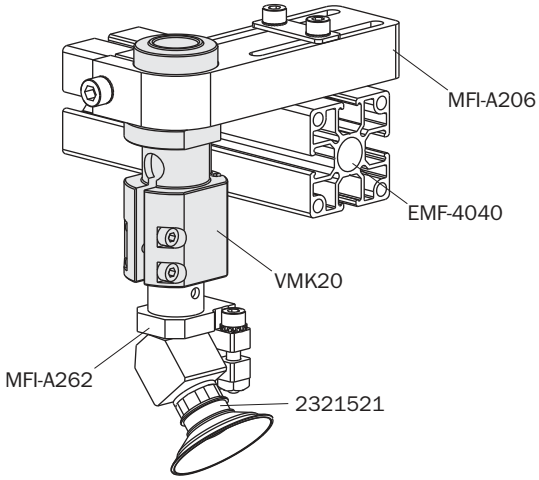


Application examples

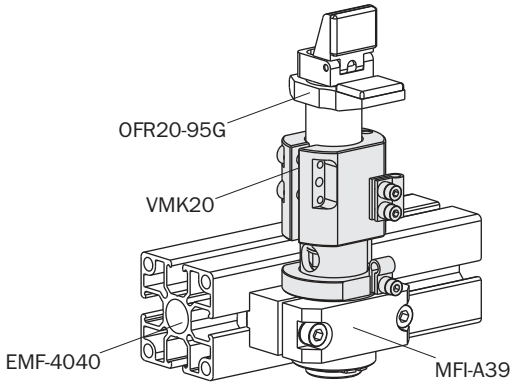
Sospensione di una pinza ad espansione MFD/MFU.
Buffering of an expansion gripper MFD/MFU.



Sospensione di una ventosa V01.
Buffering of a vacuum cup V01.



Sospensione di una pinza monodito OF.
Buffering of an one finger gripper OF.



TAGLIERINI

Nippers



GNB

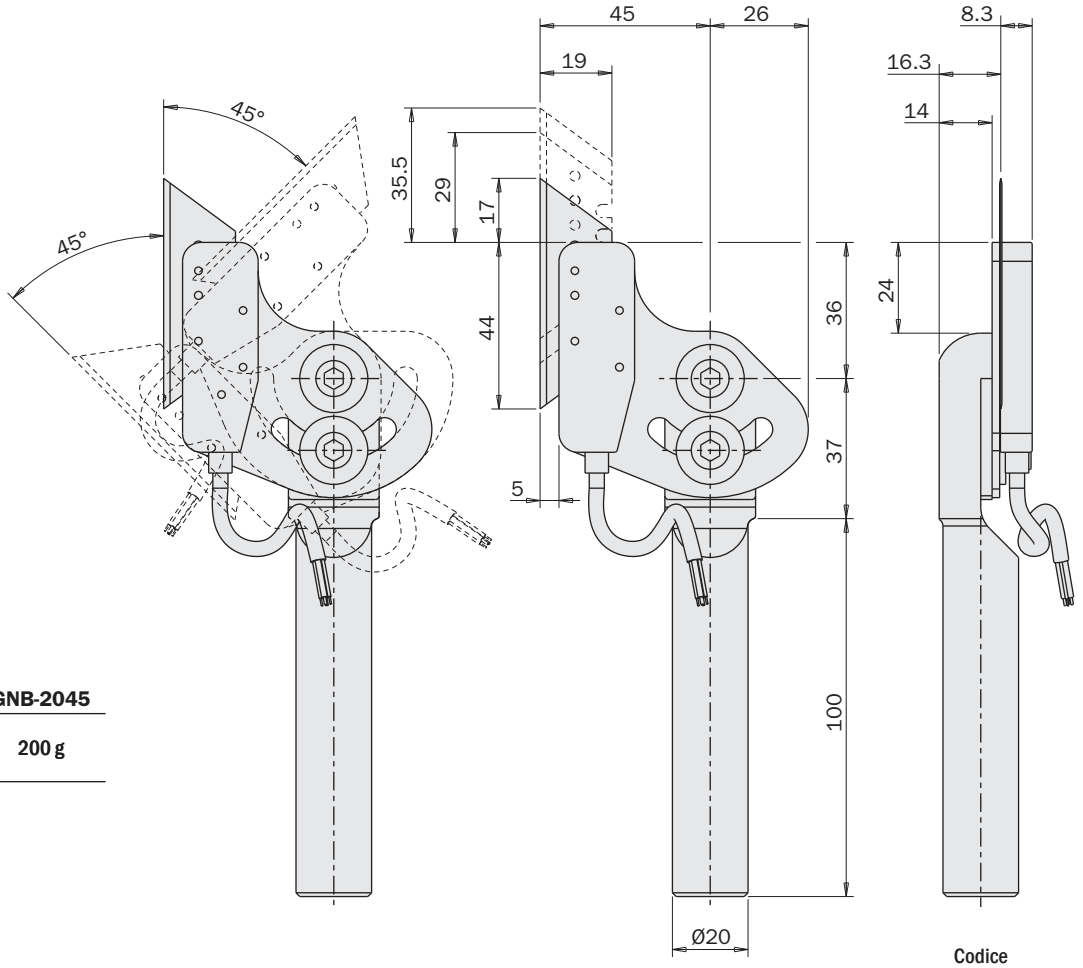
Portalama

- Adatta per taglio, smaterozzamento e sbavatura.
- Angolo continuamente regolabile da -45° a +45°.
- Sistema di riscaldamento opzionale.

Blade holder

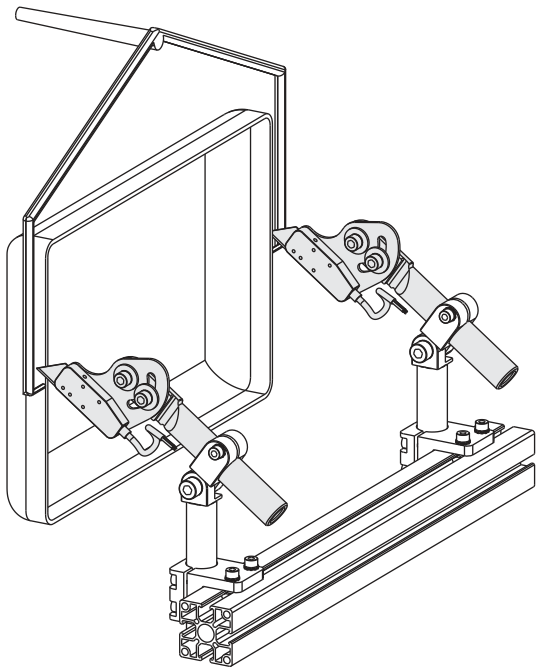
- *Suitable for trimming, degating and deburring.*
- *Continuously adjustable angle from -45° to +45°.*
- *Optional heating system.*



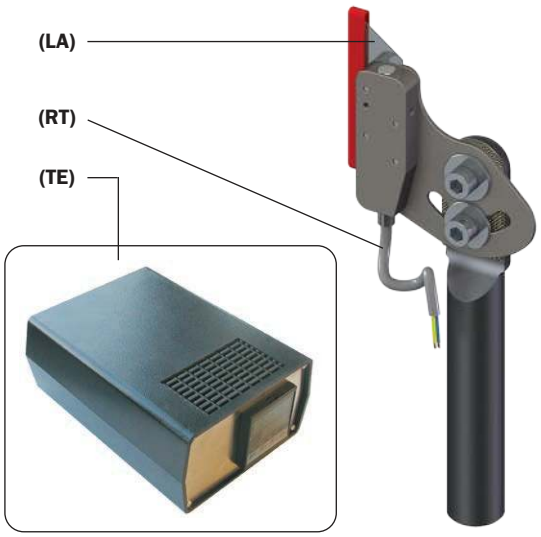


	GNB-2045
Peso *Weight*	200 g

Esempio di utilizzo
Application example



		Codice *Code*
Lame di ricambio (confezione da 100 pezzi) *Spare blade (100 pieces package)*	(LA)	376Y234-100
Resistenza + termocoppia *Cartridge resistance + thermocouple*	(RT)	R60K-G
Temperatura di esercizio *Temperature range*		200÷400°C
Potenza *Power*		100W
Termoregolatore *Heater control box*	(TE)	CH102-G

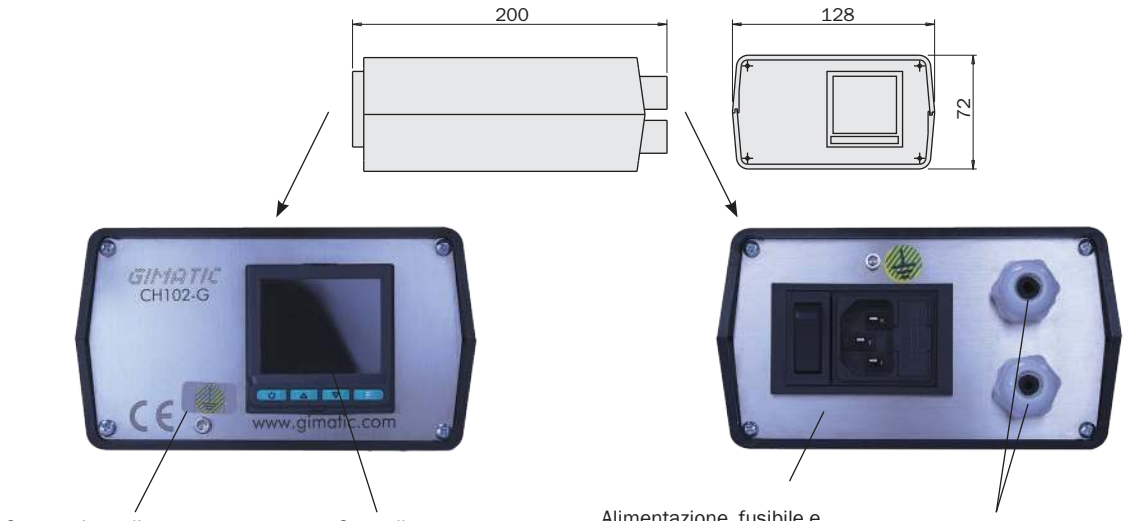


Regolatore di temperatura

- Monitoraggio e controllo della temperatura di processo.
- Configurazione e programmazione semplificate.
- 1 uscita riscaldante e 2 uscite allarme configurabili.
- Consente il pilotaggio di molteplici resistenze a cartuccia collegate in serie.

Temperature regulator

- *Monitoring and controlling of process temperature.*
- *Simplified configuration and programming operations.*
- *1 heating output and 2 configurable alarm outputs.*
- *Several cartridge resistances can be connected in series.*



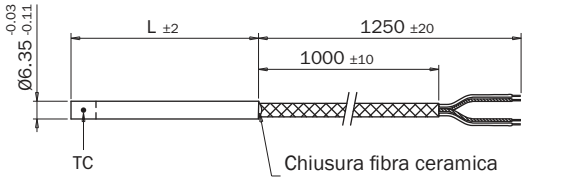
Resistenze a cartuccia

- Due tipi di potenza termica disponibili (100W - 120W).
- Termocoppia integrata tipo K.
- Diametro cartuccia 1/4".
- Chiusura della cartuccia in fibra ceramica.

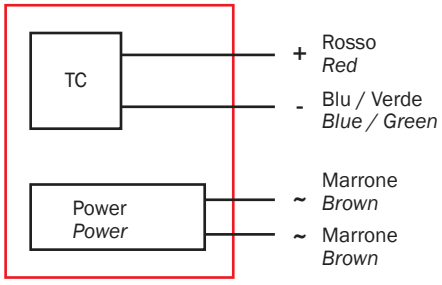
Cartridge resistances

- *2 thermal powers available (100W - 120W).*
- *Embedded thermocouple (TC) type K.*
- *Cartridge outer diameter 1/4".*
- *Cartridge closure in ceramic fiber material.*





	R60K-G	R85K-G
Lunghezza (L) *Cartridge length (L)*	61 mm	86 mm
Potenza *Power*	100 W	120 W
Tipologia TC *TC type*	K	
Intervallo temperatura di utilizzo *Operative temperature range*	> 300°C	
Temperatura massima cartuccia *Cartridge maximum temperature*	500°C	
Materiale tubo resistenza *Material of resistance tube*	AISI 304	
Tipo guaina esterna *External sheath type*	VG - vetro grezzo *VG - Rough Glass*	
Composizione cavi alimentazione *Power supply cables composition*	Nichel - FibraVetro (NiVT) *Nickel - GlassFiber (NiVT)*	
Sezione cavi alimentazione *Power supply cables section*	0.35 mm²	
Composizione cavi TC *TC cables composition*	FibraVetro - Silicone *GlassFiber - Silicon*	
Sezione cavi TC *TC cables section*	0.22 mm²	
Massa *Mass*	50 g	



Avvertenze

Alimentare la resistenza a cartuccia solo se inserita nella massa da scaldare.

Warning

Operate the cartridge only if inserted in the mass.

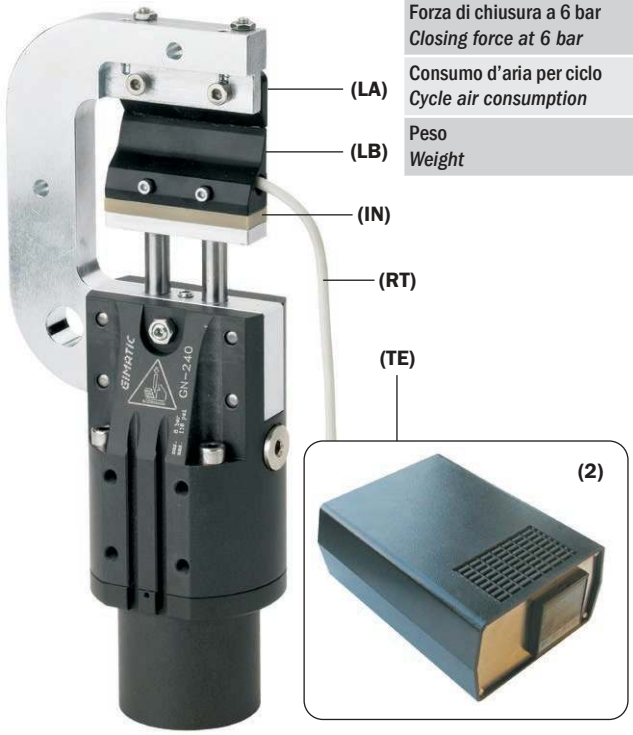
Taglierini a ghigliottina

- Due taglie disponibili.
- Azionamento a doppio effetto con cilindri tandem.
- Sensori magnetici opzionali (1).
- Riscaldamento della lama opzionale (2).
- Le lame (LA e LB) e l'isolatore (IN) sono fornibili come parti di ricambio.

Thrust Cut Nippers

- *Two sizes available.*
- *Double-acting operation with tandem cylinders.*
- *Optional magnetic sensors (1).*
- *Optional blade heating system (2).*
- *The blades (LA and LB) and the insulator (IN) are available as spare parts.*

	GN-240	GN-263
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*	
Pressione di esercizio *Pressure range*	2 ÷ 6 bar	
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C.	
Alesaggio *Piston bore*	Ø40 mm	Ø63 mm
Forza di chiusura a 6 bar *Closing force at 6 bar*	1470 N	3648 N
Consumo d'aria per ciclo *Cycle air consumption*	75 cm^3	291 cm^3
Peso *Weight*	1330 g	2900 g

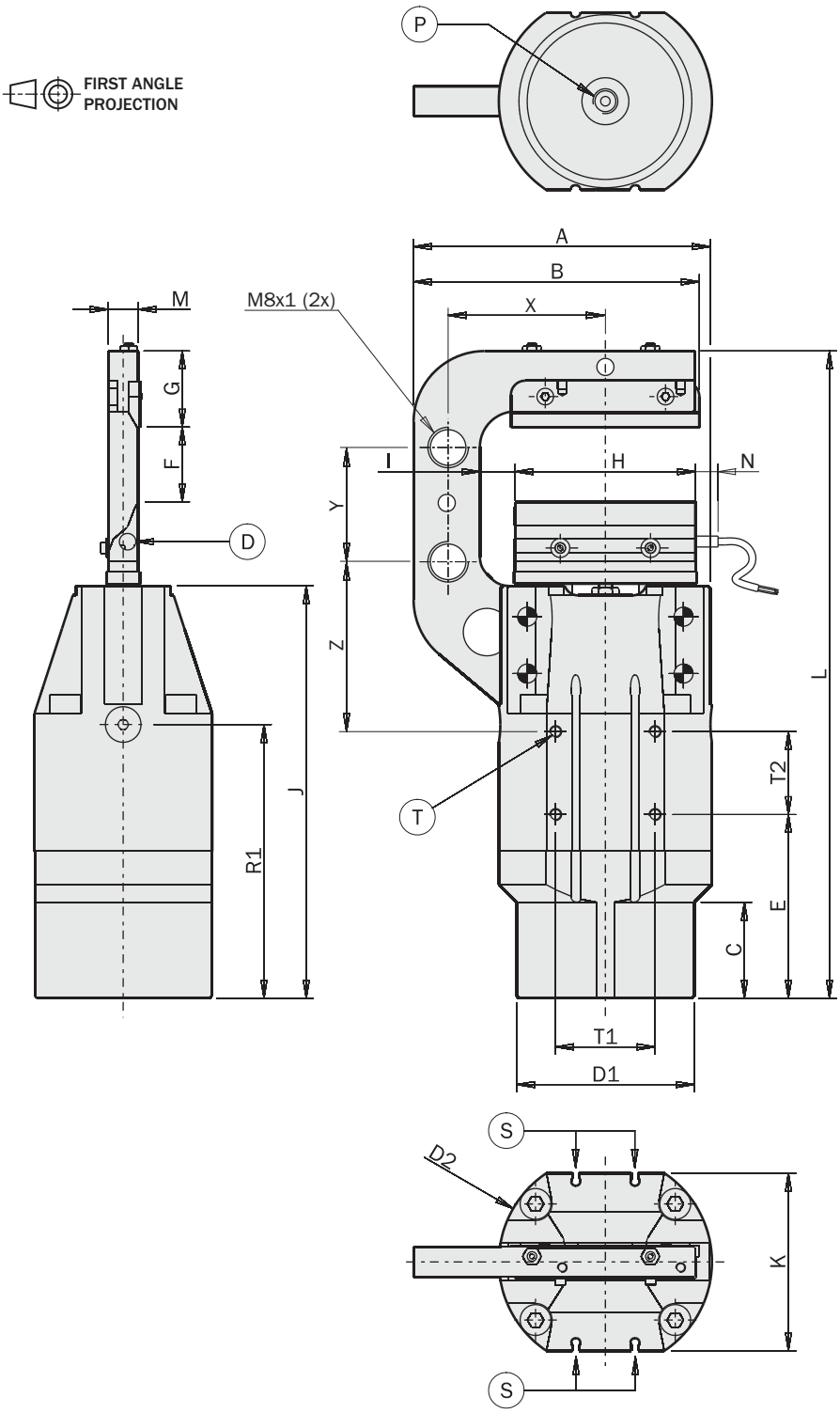




		GN-240 Codice *Code*	GN-263 Codice *Code*
Lame di ricambio *Spare blade*	(LA) (LB)	GN-340-14K GN-340-13K	GN-363-14K GN-363-13K
Isolatore di ricambio per alte temperature *High temperature insulation*	(IN)	GN-340-18	GN-363-18
Resistenza + termocoppia *Cartridge resistance + thermocouple*	(RT)	R60K-G	R85K-G
Temperatura di esercizio *Temperature range*		200÷400°C	200÷400°C
Potenza *Power*		100W	120W
Cavo *Cable*		1.2m	1.2m
Termoregolatore *Heater control box*	(TE)	CH102-G	CH102-G
Tensione di alimentazione *Operating voltage*		100÷240Vac 50/60Hz	100÷240Vac 50/60Hz

Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



	GN-240	GN-263
A	90	126
B	85	120.7
C	39	40.5
D1	Ø45	Ø75
D2	Ø62	Ø90
E	57	77.5
F	18	30
G	30.5	33.5
H	50	76.2
I	10	14.9
J	134.5	174
K	54	74.6
L	220	273
M	12.7	12.7
N	11 max	10 max
P	G1/8"	G1/8"
R	G1/8"	G1/8"
R1	90.25	115.5
T	M5x7mm	M5x9.5mm
T1	25	42
T2	25	35
Z	62.75	66.5
X	47.5	67
Y	40	60

(P) Ingresso aria compressa: CHIUSURA
Compressed air connection: CLOSING

(R) Ingresso aria compressa: APERTURA
Compressed air connection: OPENING

(S) Sede per sensori serie SS
Slot for SS series sensors

(T) Foro filettato per fissaggio
Threaded hole for fastening

(D) Alloggiamento per sistema di riscaldamento Ø6.35
Heating system housing Ø6.35

GNS

Attuatori pneumatici per taglierini GNS

- Tre taglie disponibili.
- Ingombri ridotti.
- Compatibili con vari modelli di lame standard (1).
- Con o senza slitta integrata.
- La slitta è a doppio effetto con molla in chiusura o in apertura.
- Sensori magnetici opzionali.

Air nipper actuators (series GNS)

- *Three sizes available.*
- *Small dimensions.*
- *Usable with several standard blades (1).*
- *With or without integrated slide.*
- *Double-acting slide, spring closed or spring open.*
- *Optional magnetic sensors.*

(1)



GNS-05-NC
GNS-05-NO





GNS-05

GNS-10-NC
GNS-10-NO





GNS-10

GNS-20-NC
GNS-20-NO





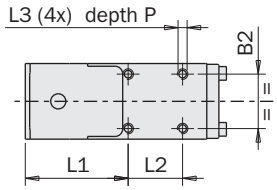
GNS-20

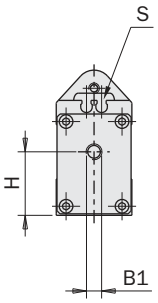
	GNS-05 GNS-05-NC GNS-05-NO	GNS-10 GNS-10-NC GNS-10-NO	GNS-20 GNS-20-NC GNS-20-NO
Fluido *Medium*	Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*		
Pressione di esercizio *Pressure range*	4 ÷ 8 bar		
Temperatura di esercizio *Temperature range*	5° ÷ 60 °C		
Capacità di taglio *Cutting capacity*	Ø3 mm	Ø4 mm	Ø6 mm
Corsa angolare delle lame *Blade angular stroke*	2x5°	2x5°	2x9°
Alesaggio taglierino *Nipper piston bore*	Ø23 mm	Ø30 mm	Ø42 mm
Coppia di chiusura per ogni lama a 6 bar *Closing torque at 6 bar each blade*	14 Nm	34 Nm	42 Nm
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*	28 Nm	68 Nm	84 Nm
Consumo d'aria per ciclo *Cycle air consumption*	6 cm^3	14 cm^3	30cm^3
Peso senza lame *Weight without blade*	112 g 180 g 175 g	355 g 570 g 570 g	480 g 780 g 780 g

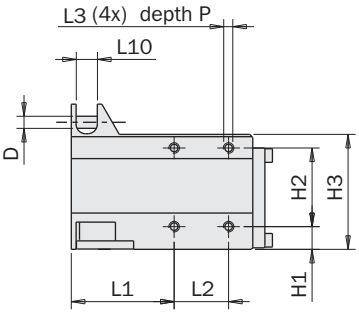
Dimensioni (mm)
Dimensions (mm)

	A	B1	B2	B3	H	H1	H2	H3	H4	H5	D	L1	L2	L3	L4
GNS-05	85°	M5	18	25	21	7.5	26	38	42	48	Ø4	34	18	M3	64
GNS-10	93°	M5	32	39	32	17	32	53	57	67	Ø4	45	24	M4	84
GNS-20	115°	G1/8	40	48	36	15	40	62	63	73	Ø4	49	30	M5	90

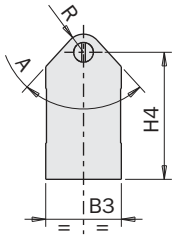
	L5	L6	L10	P	R
GNS-05	66.5	1.6	7	7	6
GNS-10	88	2	12	9	10
GNS-20	94	2	12	9	10

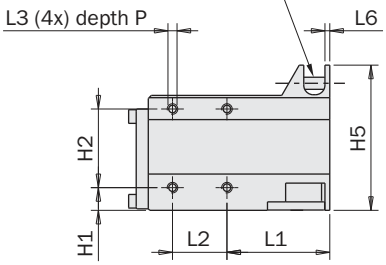


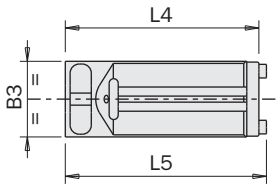




Per lame standard tipo:
For standard blades type:
G.N...AJ
G.N...AP
G.N...PF







B1 Connessione per raccordo aria
Air connection port

L3 Fori di fissaggio
Fastening holes

S Cava per sensore magnetico
Magnetic sensor slot

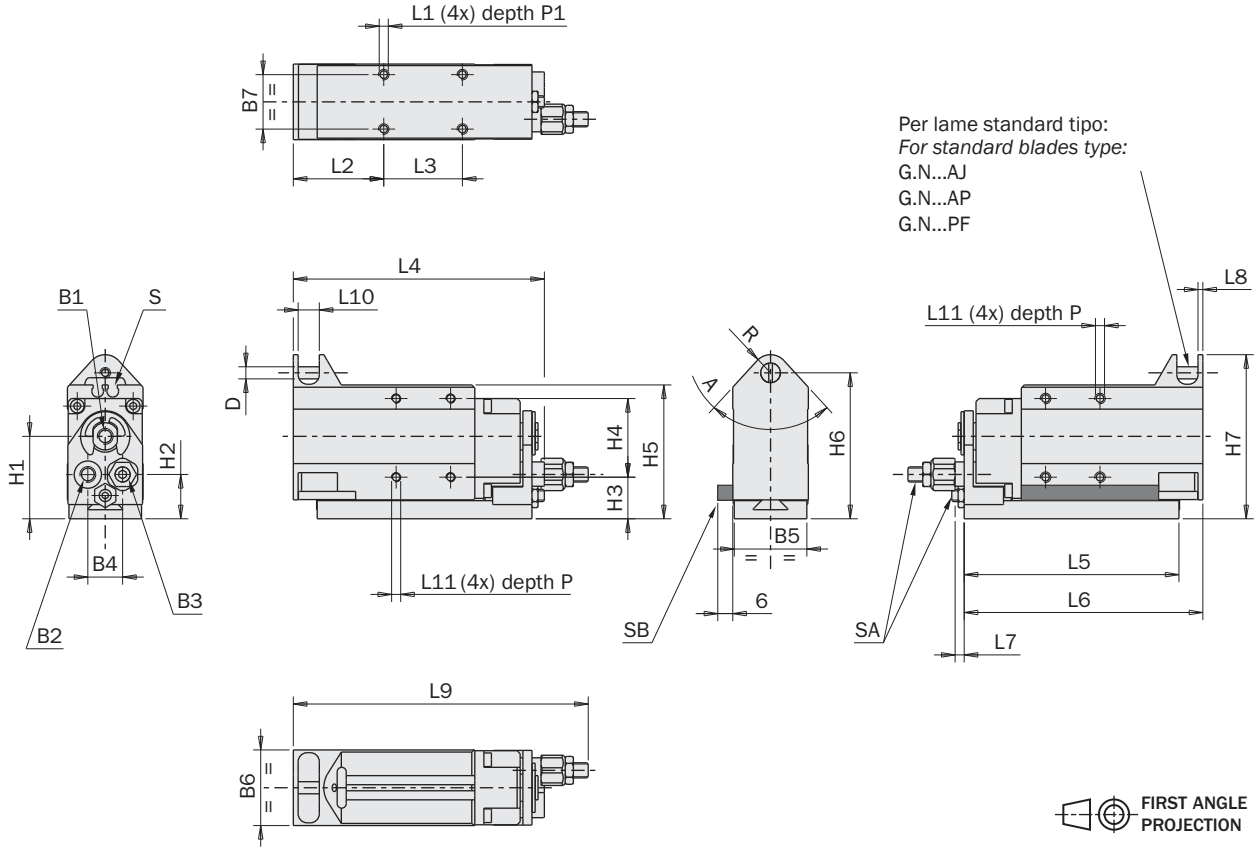
FIRST ANGLE PROJECTION

GNS

Dimensioni (mm)
Dimensions (mm)

	A	B1	B2	B3	B4	B5	B6	B7	D	H1	H2	H3	H4	H5	H6
GNS-05-NC	85°	M5	M5	M5	11.5	24	25	18	Ø4	27.25	14.65	13.75	26	44.25	48.25
GNS-10-NC	93°	M5	M5	M5	13	38	39	24	Ø4	40.3	20.8	25.3	32	61.3	65.3
GNS-20-NC	115°	M5	G1/8	M5	20.6	47	48	30	Ø4	44.3	22.8	24.3	30	70.3	71.4

	H7	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	P	P1	R
GNS-05-NC	54.25	M3	29.9	26	83	71	78.9	3	1.6	97.5	7	M3	7	6	6
GNS-10-NC	75.3	M4	36.05	32	108	90	103	4	2	122	12	M4	9	8	10
GNS-20-NC	81.3	M5	45	40	121	102	115	5	2	135	12	M5	9	8	10



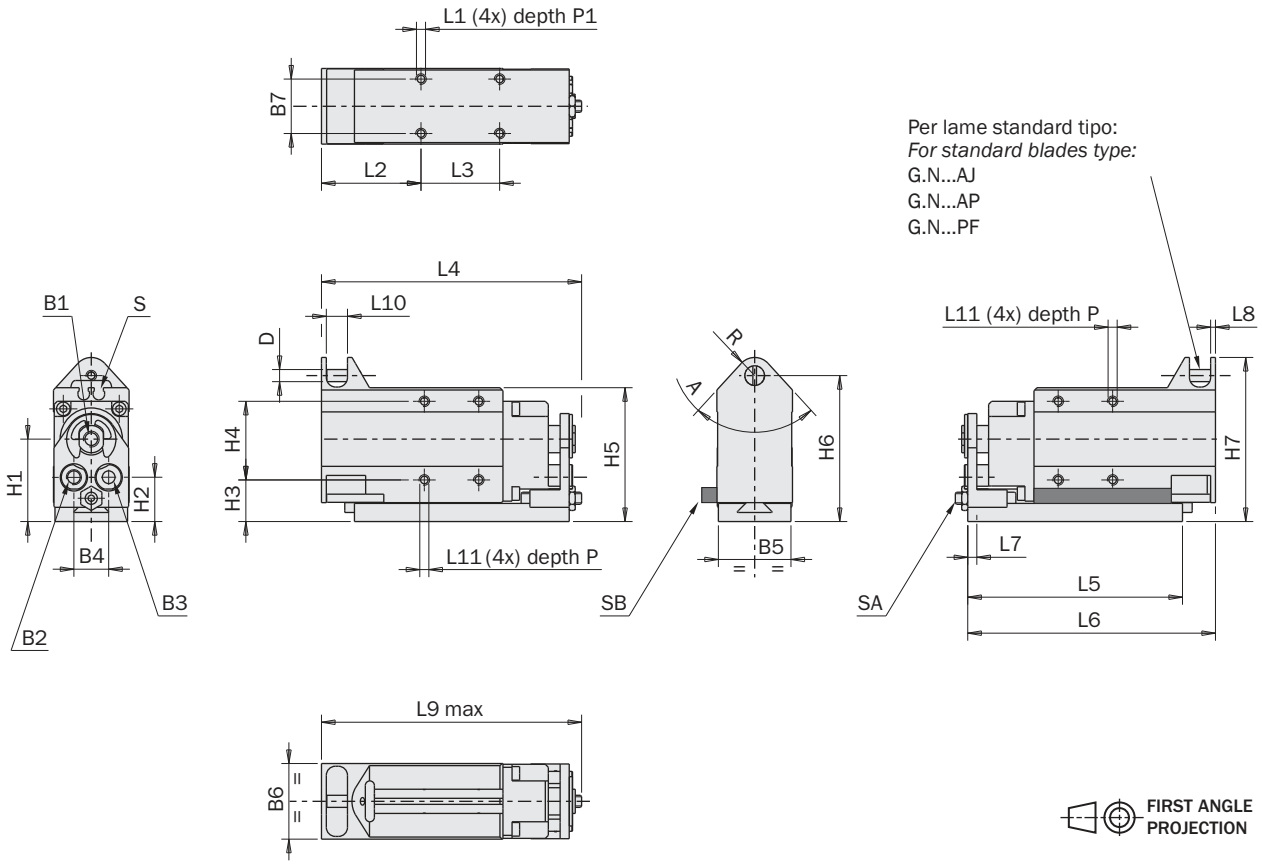
- **B1** Connessione per apertura slitta — *Slide opening port*
- **B2** Connessione per chiusura lame — *Blades closing port*
- **B3** Connessione per chiusura slitta — *Slide closing port*
- **L1** Fori di fissaggio — *Fastening holes*
- **L7** Corsa massima slitta — *Maximun slide stroke*
- **S** Cava per sensore magnetico — *Magnetic sensor slot*
- **SA** Regolazione corsa slitta — *Slide stroke adjustment*
- **SB** Sensore slitta — *Slide sensor*

	GNS-05-NC	GNS-10-NC	GNS-20-NC
Corsa slitta *Slide stroke*	3 mm	4 mm	5 mm
Alesaggio slitta *Slide bore*	18 mm	20 mm	25 mm
Forza di chiusura a 6 bar sulla slitta *Closing force at 6 bar on the slide*	140 N	185 N	290 N
Forza di apertura a 6 bar sulla slitta *Opening force at 6 bar on the slide*	115 N	130 N	240 N
Forza di chiusura a 0 bar sulla slitta *Closing force at 0 bar on the slide*	30 N	50 N	50 N
Forza di apertura a 0 bar sulla slitta *Opening force at 0 bar on the slide*	0 N	0 N	0 N

Dimensioni (mm)
Dimensions (mm)

	A	B1	B2	B3	B4	B5	B6	B7	D	H1	H2	H3	H4	H5	H6
GNS-05-NO	85°	M5	M5	M5	11.5	24	25	18	Ø4	27.25	14.65	13.75	26	44.25	48.25
GNS-10-NO	93°	M5	M5	M5	13	38	39	24	Ø4	40.3	20.8	25.3	32	61.3	65.3
GNS-20-NO	115°	M5	G1/8	M5	20.6	47	48	30	Ø4	44.3	22.8	24.3	30	70.3	71.4

	H7	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	P	P1	R
GNS-05-NO	54.25	M3	29.9	26	83	71	81.9	3	1.6	86	7	M3	7	6	6
GNS-10-NO	75.3	M4	36.05	32	108	90	107	4	2	117	12	M4	9	8	10
GNS-20-NO	81.3	M5	49	40	121	102	120	5	2	129	12	M5	9	8	10



B1 Connessione per apertura slitta
Slide opening port

B2 Connessione per chiusura lame
Blades closing port

B3 Connessione per chiusura slitta
Slide closing port

L1 Fori di fissaggio
Fastening holes

L7 Corsa massima slitta
Maximun slide stroke

S Cava per sensore magnetico
Magnetic sensor slot

SA Regolazione corsa slitta
Slide stroke adjustment

SB Sensore slitta
Slide sensor

	GNS-05-NO	GNS-10-NO	GNS-20-NO
Corsa slitta *Slide stroke*	3 mm	4 mm	5 mm
Alesaggio slitta *Slide bore*	18 mm	20 mm	25 mm
Forza di chiusura a 6 bar sulla slitta *Closing force at 6 bar on the slide*	75 N	85 N	180 N
Forza di apertura a 6 bar sulla slitta *Opening force at 6 bar on the slide*	180 N	230 N	345 N
Forza di chiusura a 0 bar sulla slitta *Closing force at 0 bar on the slide*	0 N	0 N	0 N
Forza di apertura a 0 bar sulla slitta *Opening force at 0 bar on the slide*	35 N	50 N	60 N

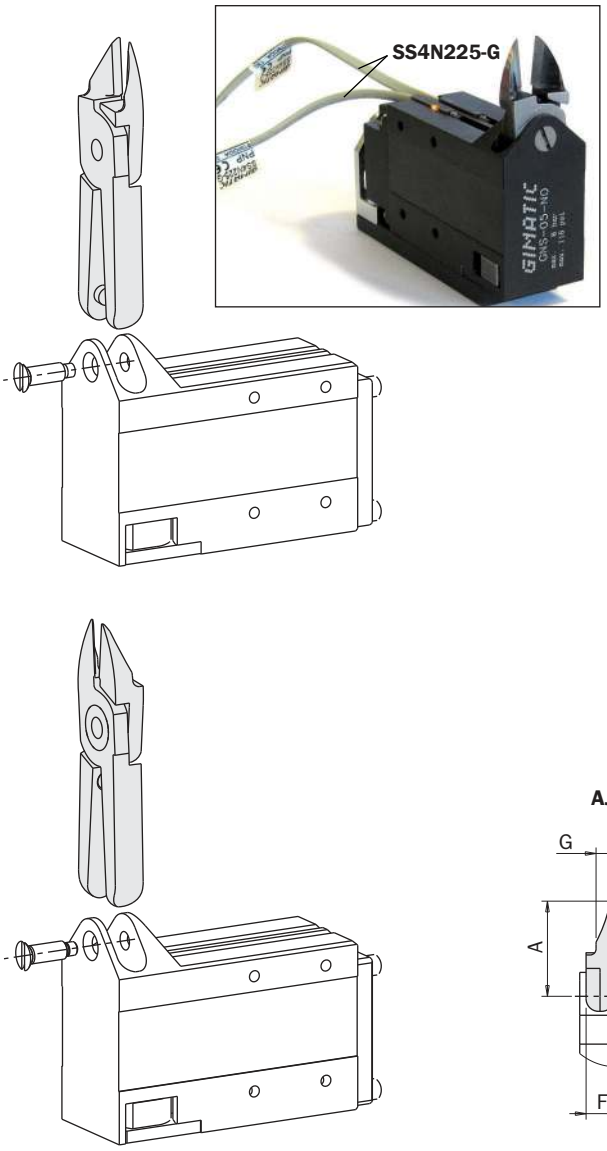
GNS

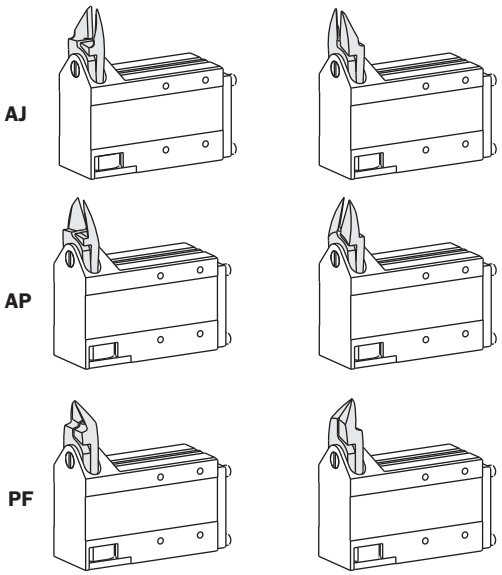
Lame

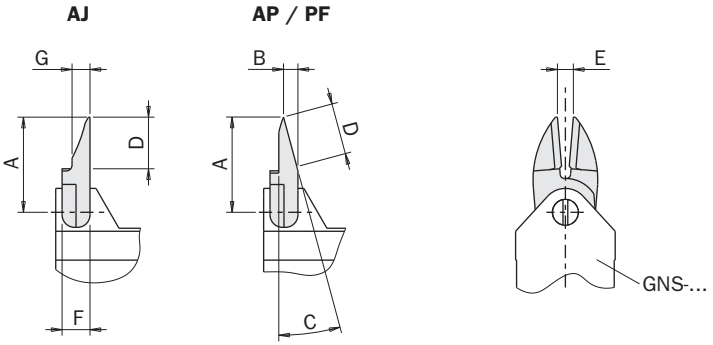
- Le lame possono essere montate in entrambi i sensi.
- Per materozze in plastica

Blades

- *The blades can be mounted on either side.*
- *For plastic sprues*





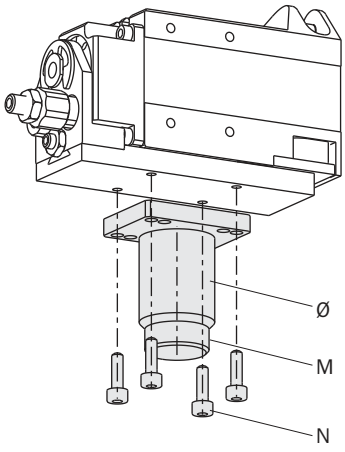


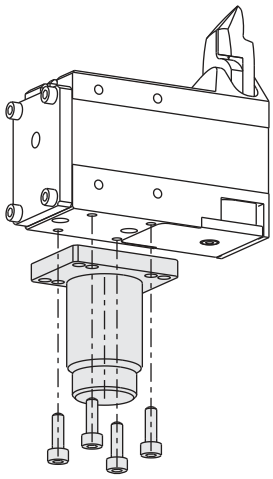
Lame *Blades*	Taglierino *Nipper*	Tipo di lama *Blade style*	A	B	C	D	E	F	G	Peso *Weight*
G.N5AJ	GNS-05-...	dritta *inline*	24	-	-	13	5	7	4.5	33 g
G.N5AP	GNS-05-...	standard *standard*	24	3.6	15°	11.5	4	7	-	34 g
G.N5PF	GNS-05-...	profonda *deep angle*	24	7	40°	9.7	4	7	-	35 g
G.N10LAJ	GNS-10-...	dritta lunga *long inline*	35	-	-	18	6.5	12	8	117 g
G.N10LAP	GNS-10-...	standard lunga *long, standard*	36	5.3	15°	16	6	12	-	115 g
G.N10LPF	GNS-10-...	profonda lunga *long, deep angle*	35	12	40°	13.5	5.5	12	-	112 g
G.N20AJ	GNS-20-...	dritta *inline*	34.5	-	-	18	11.5	12	8	121 g
G.N20AP	GNS-20-...	standard *standard*	35	3.5	15°	16	11	12	-	120 g
G.N20PF	GNS-20-...	profonda *deep angle*	35	12	40°	13.5	11	12	-	124 g
G.N20AJL	GNS-20-...	dritta lunga *long inline*	65	-	-	20	16	12	7.2	220 g

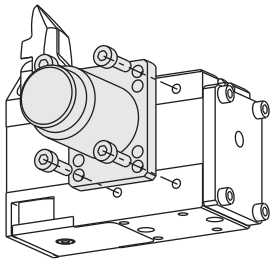
Codolo di montaggio

Assembly bracket

Ø20	M17x1
Ø20	M17x1
Ø30	M27x1





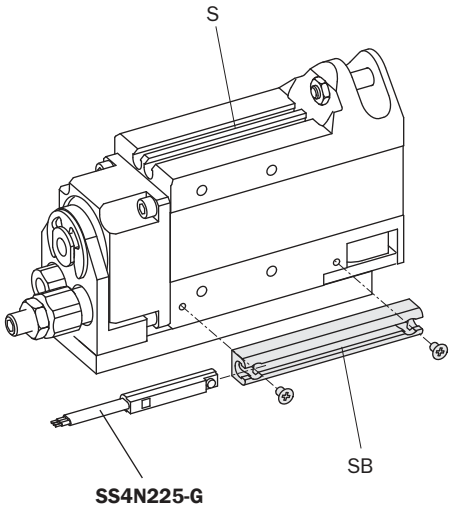


Sensore slitta

Le due cave sensore integrate nel corpo (S) servono per il rilevamento della posizione della lama (aperta e chiusa).
Una cava addizionale (SB) si può montare esternamente, per rilevare la posizione della slitta (aperta o chiusa), quando necessario.
È fornita nella confezione.

Slide sensor

Two sensor slots (S) are machined in the housing, for the detection of the blade position (open and closed).
One additional sensor slot (SB) can be mounted externally, to detect the slide position (open or closed), when necessary.
It is supplied in the packaging.



SS4N225-G

Attuatori pneumatici per taglierini serie GN

- Cinque taglie disponibili.
- Azionamento a semplice effetto.
- Autocentrante.
- Compatibili con vari modelli di lame.
- Pistoni magnetici e predisposizione per sensori (solo GN-...S).
- Sensori magnetici opzionali.

Air nipper actuators series GN

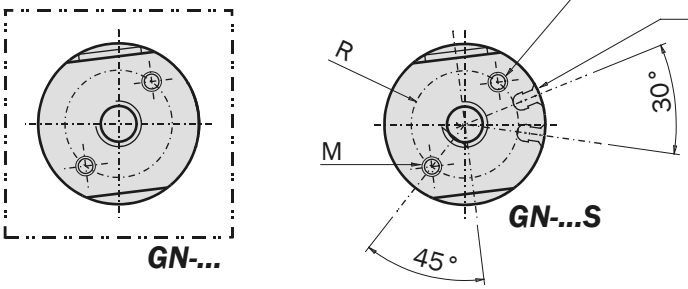
- *Five sizes available.*
- *Single-acting.*
- *Self-centering.*
- *Usable with several standard blades.*
- *Magnetic pistons for sensor detection (GN-...S only).*
- *Optional magnetic sensors.*

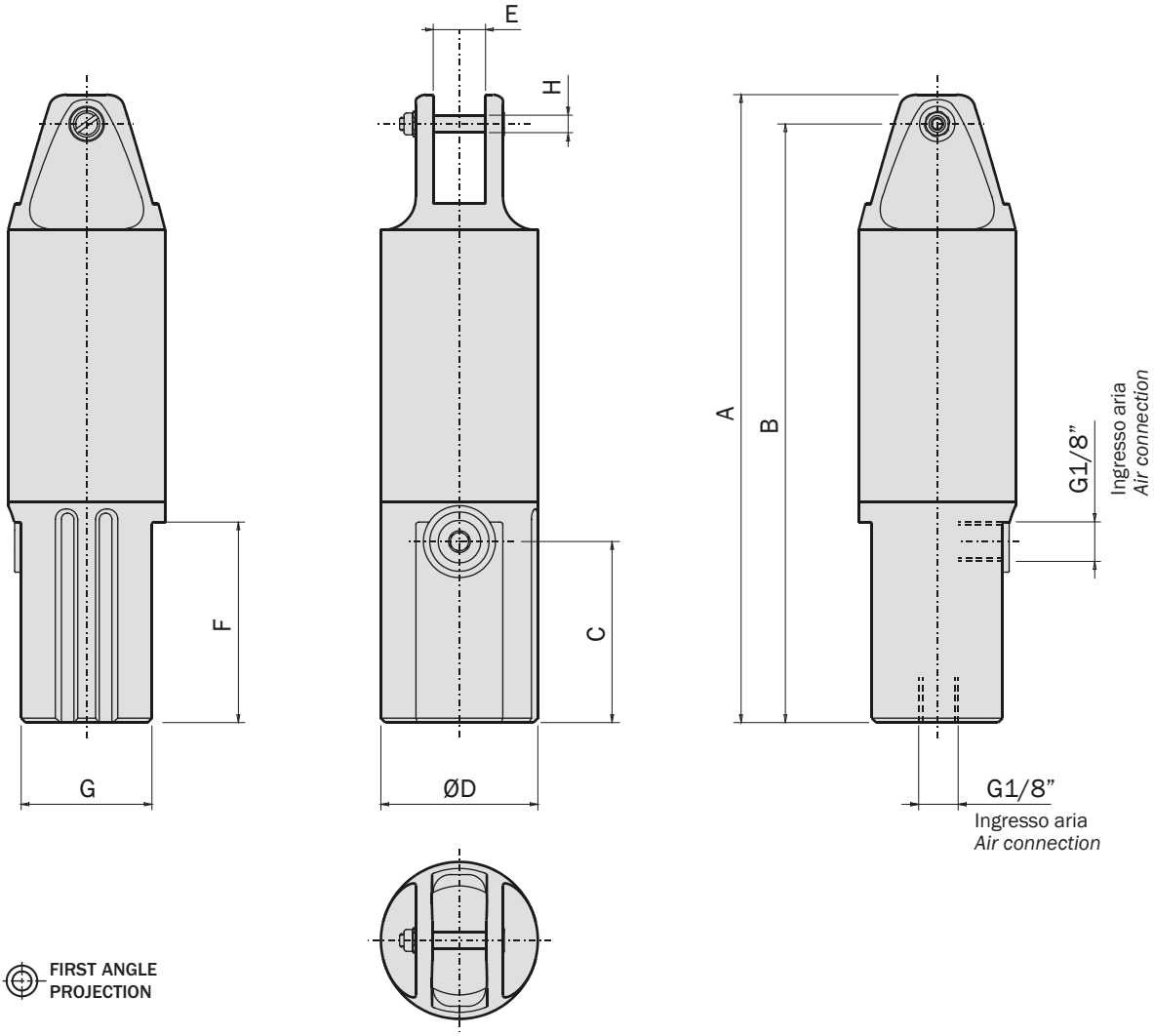


		GN-05 GN-05S	GN-10 GN-10S	GN-20 GN-20S	GN-30 GN-30S	GN-50 GN-50S
Fluido *Medium*		Aria compressa a norma ISO 8573-1:2010 [7:4:4] *Compressed air in compliance with ISO 8573-1:2010 [7:4:4]*				
Pressione di esercizio *Pressure range*		2 ÷ 8 bar				
Temperatura di esercizio *Temperature range*		5° ÷ 60 °C				
Capacità di taglio *Cutting capacity*		Ø2 mm	Ø4 mm	Ø7 mm	Ø10 mm	Ø12 mm
Corsa *Stroke*		2x7°	2x5°	2x7°	2x7.5°	2x12°
Alesaggio *Piston bore*		Ø25 mm	Ø30 mm	Ø40 mm	Ø50 mm	Ø63 mm
Coppia di chiusura per ogni lama a 6 bar *Closing torque at 6 bar each blade*		11 Nm	38 Nm	67 Nm	150 Nm	116 Nm
Coppia di chiusura totale a 6 bar *Total closing torque at 6 bar*		22 Nm	76 Nm	134 Nm	300 Nm	232 Nm
Consumo d'aria per ciclo *Cycle air consumption*		14 cm^3	25 cm^3	78 cm^3	170 cm^3	269 cm^3
Peso senza lame *Weight without blade*	GN-... GN-...S	102 g 125 g	157 g 208 g	263 g 370 g	480 g 715 g	1100 g 1440 g

Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E	F	G	H	M	R
GN-05	94	87	10.5	Ø30	7	15	24	Ø4	M4x6.5	R 10
GN-05S	118	111	34.5	Ø30	7	40	24	Ø4	M4x6.5	R 10
GN-10	113	106.3	10.5	Ø36	12	15	30	Ø4	M4x7	R 12
GN-10S	144	137.3	41.5	Ø36	12	46	30	Ø4	M4x7	R 12
GN-20	129	119.8	10.5	Ø45	12	15	36	Ø4	M5x8	R 15
GN-20S	177	167.8	58.5	Ø45	12	63	36	Ø4	M5x8	R 15
GN-30	165	155	10.5	Ø56	17	15	46	Ø5	M6x12	R 20
GN-30S	230	220	75	Ø56	17	80	46	Ø5	M6x12	R 20
GN-50	178	169	10.5	Ø75	17	15	70	Ø5	M6x12	R 25
GN-50S	238	229	70	Ø75	17	75	70	Ø5	M6x12	R 25





FIRST ANGLE PROJECTION

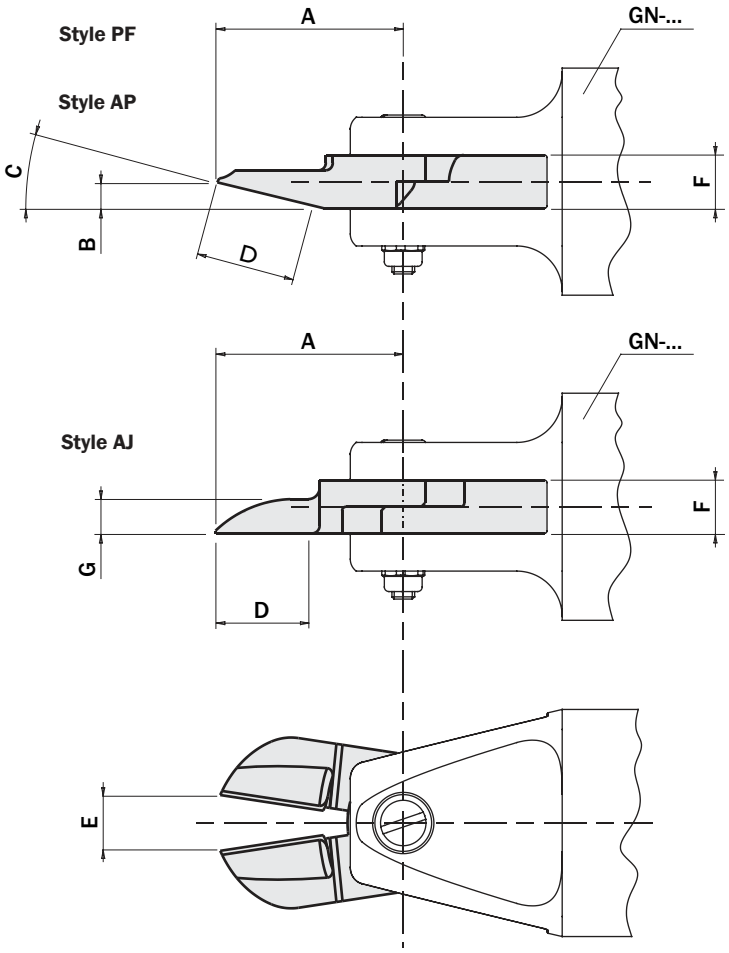
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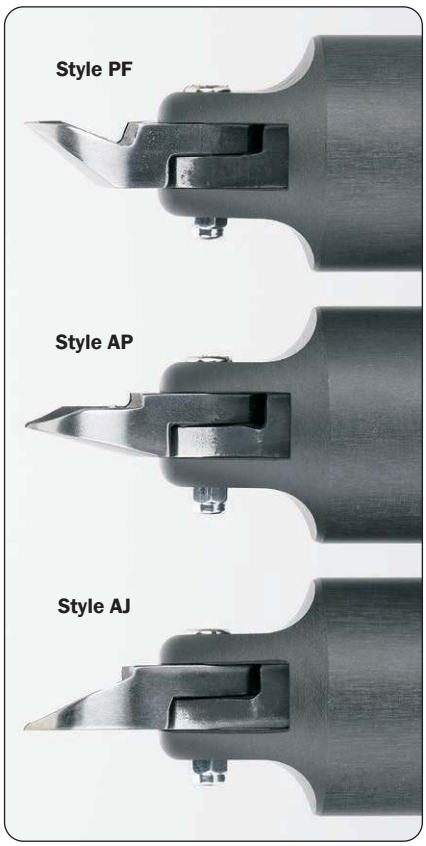
Lame standard

- Per materozze in plastica

Standard blades

- *For plastic sprues*





Lame *Blades*	Taglierino *Nipper*	Tipo di lama *Blade style*	A	B	C	D	E	F	G	Peso *Weight*
G.N5AJ	GN-05...	dritta *inline*	24	-	-	13	4	7	4.5	33 g
G.N5AP	GN-05...	standard *standard*	24	3.6	15°	11.5	4	7	-	34 g
G.N5PF	GN-05...	profonda *deep angle*	24	7	40°	9.7	4	7	-	35 g
G.N10LAJ	GN-10...	dritta lunga *long inline*	35	-	-	18	6	12	8	117 g
G.N10LAP	GN-10...	standard lunga *long, standard*	36	5.3	15°	16	6	12	-	115 g
G.N10LPF	GN-10...	profonda lunga *long, deep angle*	35	12	40°	13.5	6	12	-	112 g
G.N20AJ	GN-20...	dritta *inline*	34.5	-	-	18	12	12	8	121 g
G.N20AP	GN-20...	standard *standard*	35	3.5	15°	16	11.5	12	-	120 g
G.N20PF	GN-20...	profonda *deep angle*	35	12	40°	13.5	11.5	12	-	124 g
G.N20AJL	GN-20...	dritta lunga *long inline*	65	-	-	20	15	12	7.2	220 g
G.N30AJ	GN-30... GN-50...	dritta *inline*	52	-	-	30	12 22	17	8	365 g
G.N30AP	GN-30... GN-50...	standard *standard*	67	11	15°	38	18 30	17	-	380 g
G.N30PF	GN-30... GN-50...	profonda *deep angle*	58	17	30°	27	16 26.5	17	-	388 g

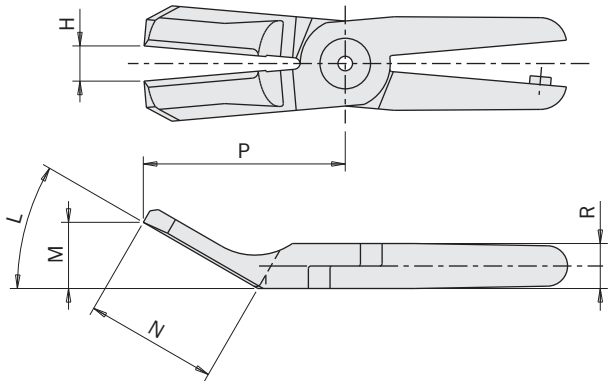
Lame speciali

• Per materozze in plastica

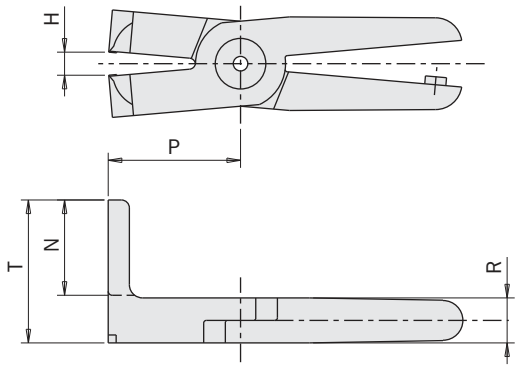
Special blades

• *For plastic sprues*

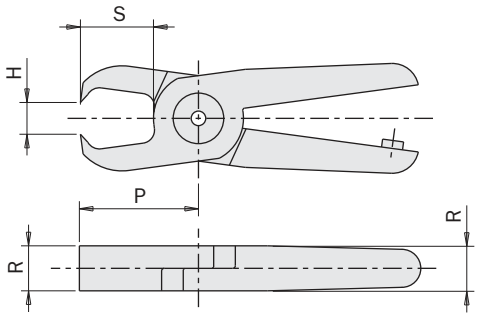
Style AA



Style AL



Style AE



Lame *Blades*	Taglierino *Nipper*	Tipo di lama *Blade style*	H	L	M	N	P	R	S	T	Peso *Weight*
G.N10LAB152	GN-10...	AA	10	15°	9	35	60.5	12	-	-	165 g
G.N20AB360	GN-20...	AA	15	15°	9	35	60.5	12	-	-	185 g
G.N30AA114	GN-30... GN-50...	AA	20 34	30°	25	50	76	17	-	-	385 g
G.N30AA	GN-30... GN-50...	AA	15 26	60°	27.7	32	55	17	-	-	390 g
G.N20ALLLL	GN-20...	AL	11	-	-	18	40	12	-	30	190 g
G.N30FAL	GN-30... GN-50...	AL	14 24	-	-	35	50	17	-	54	455 g
G.N10LAE269	GN-10...	AE	5	-	-	-	28	12	15.5	-	120 g
G.N20AE	GN-20...	AE	8.5	-	-	-	28	12	15.5	-	135 g
G.N30AE	GN-30... GN-50...	AE	12 20	-	-	-	45	17	28	-	395 g

Chiedere al fabbricante se è richiesto un tipo di lama diverso.

Consult manufacturer if a different kind of blade is needed.

Coperchi di protezione per le lame

La maggior parte delle lame, quando non usate, possono essere protette con dei coperchi per evitare ferite.
I coperchi sono forniti con le lame o in confezioni da 10 pezzi (*).
Quando rimossi dalle lame, i coperchi possono essere immagazzinati per mezzo del loro dado o di una catenella.

Blade protection covers

Most blades, when not in use, can be protected with covers to prevent injury.
Covers are supplied with blades or in packs of 10 pieces (*).
When removed from the blades, the covers can be stored by means of their nut or chain.



Lama *Blade*	Coperchio di protezione *Protection cover*
G.N5AJ	COJ05
G.N5AP	COJ05
G.N5PF	COJ05
G.N10LAB152	-
G.N10LAE269	COJ12
G.N10LAJ	COJ12
G.N10LAP	COJ12
G.N10LPF	COJ12
G.N20AB360	-
G.N20AE	COJ12
G.N20AJ	COJ12
G.N20AJL	-
G.N20ALLLL	-
G.N20AP	COJ12
G.N20PF	COJ12
G.N30AA	-
G.N30AA114	-
G.N30AE	COJ30
G.N30AJ	COJ30
G.N30AP	COJ30
G.N30FAL	-
G.N30PF	COJ30

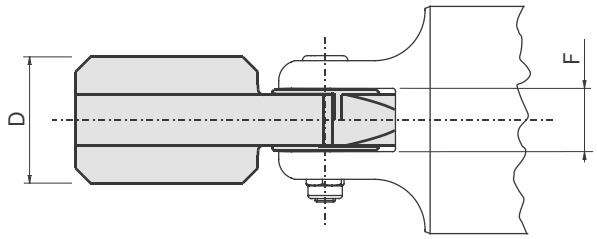
	COJ05-P10 (*)	COJ12-P10 (*)	COJ30-P10 (*)
Peso *Weight*	20 g	50 g	150 g

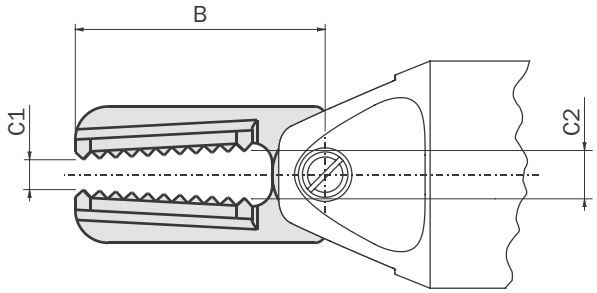


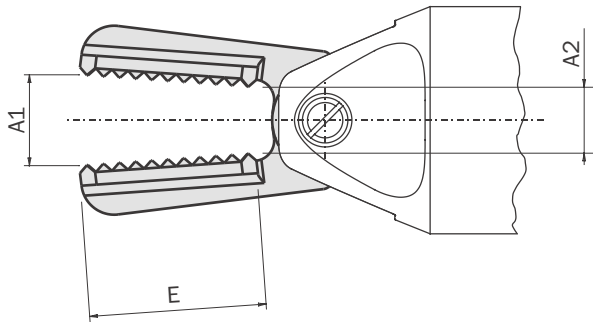




Griffe
Fingers

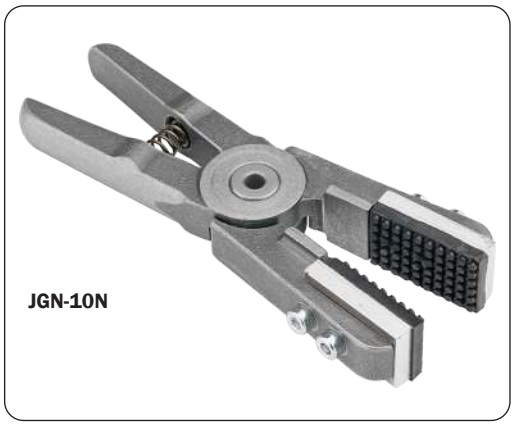












Griffe *Fingers*	Taglierino *Nipper*	Pressione di esercizio *Pressure range*	Tipo di griffa *Finger style*	A1 A2	B	C1 C2	D	E	F	Peso *Weight*
JGW-10S-A50	GN-10...	2 ÷ 5 bar	larga *wide*	16 13	49.5	6 10	25	35	12	175 g
JGW-20S-A50	GN-20...	2 ÷ 5 bar	larga *wide*	18 13	49.5	6 9	25	35	12	185 g
JGN-10S-A52	GN-10...	2 ÷ 5 bar	stretta *narrow*	10 8	49.5	0 3.5	25	35	12	190 g
JGN-20S-A52	GN-20...	2 ÷ 5 bar	stretta *narrow*	9 7	49.5	0 3.5	25	35	12	200 g
JGN-10N	GN-10...	2 ÷ 5 bar	stretta *narrow*	9 7	49.5	0 2	16	24	12	137 g

KIT-ROBOT

Robot-kit



KIT-UR-G

KIT-UR-G

Pinza elettrica a 2 griffe con copertura in plastica e capacitor box. Il sistema può essere montato sui robot collaborativi UR3, UR5 e UR10. Il capacitor box in dotazione consente il collegamento diretto al polso del robot. Sono incluse anche griffe standard. Possibilità di utilizzare il plugin URCap sviluppato da Gimatic per gestire e comandare il dispositivo.

KIT-UR-G

Electric 2-finger parallel gripper with plastic cover and capacitor box. The system can be assembled on the UR3, UR5 or UR10 collaborative robots and the included capacitor box allows for a direct connection to the robot wrist. Standard fingers are also included. Possibility to use the URCap plugin developed by Gimatic to manage and control the device.

Caratteristiche principali

- Un unico design per i robot UR3, UR5 e UR10.
- Non ci sono più cavi elettrici lungo il braccio del robot: il collegamento viene effettuato direttamente al connettore M8 del robot.
- Facile da installare, non richiede alcuna configurazione (soluzione plug & play).
- Incorpora la funzionalità di un sensore di prossimità per la presa o per il rilevamento della posizione di fine corsa.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A unique design for UR3, UR5 and UR10.*
- *No cables along the robot arm: direct connection to M8 plug connector of the robot.*
- *Easy to install and without any configuration (plug & play solution).*
- *Simulated proximity switch functionality embedded for gripping or end of the stroke detection.*
- *Dedicated URCap plugin software available to improve user experience.*





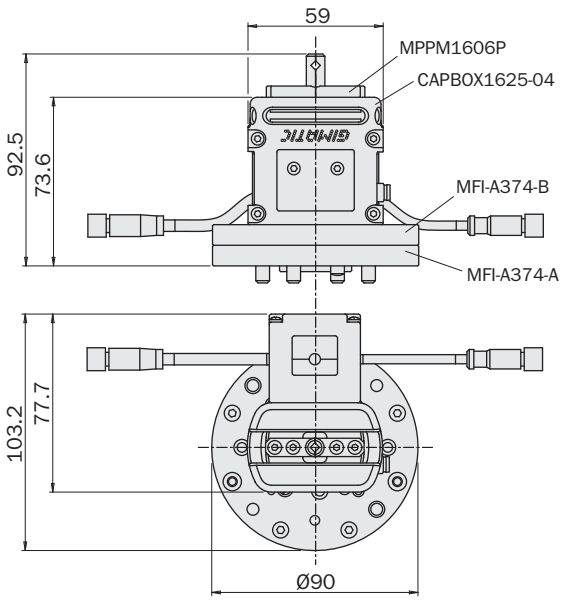
Come funziona?

Mediante la flangia meccanica in dotazione, montare la pinza sul polso del robot e installare la copertura di protezione e il capacitor box. Il sistema può essere collegato elettricamente direttamente al connettore M8 presente sul polso del robot (niente cavi lungo il braccio del robot). Il sistema può essere comandato mediante ingresso e uscita digitali da/verso l'interfaccia delle dita di presa del robot UR.

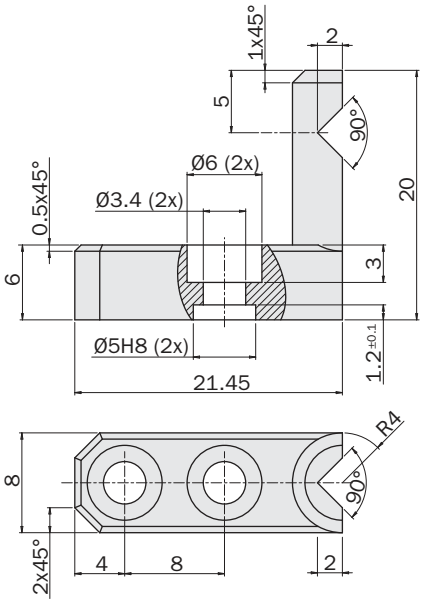
How does it work?

Mount the gripper with the included mechanical flange to the wrist of the robot and install the protective cover and the capacitor box. The system can be electrically connected directly to the M8 plug connector at the wrist of the robot (not cables along the robot arm). The system can be operated via digital input and output to/from the tool interface of the UR robot.

Dimensioni assieme (mm)
Assembly dimensions (mm)



Dimensioni dito di presa (mm)
Gripping finger dimensions (mm)



KIT-UR-J

Pinza elettrica a parallelogramma con capacitor box integrato. La pinza può essere installata su tutti i robot collaborativi Universal Robots (UR3, UR5, UR10) ed il capacitor box integrato permette una connessione diretta al polso del robot. La pinza è adatta a realizzare corse lunghe in tempi brevi di apertura e chiusura e la forza di presa è costante indipendentemente dalla lunghezza delle dita di presa personalizzate. Installando il plugin URCap sviluppato da Gimatic, l'utente può configurare una sola volta il dispositivo, una lista di parti da afferrare, definire il tipo di presa (interna o esterna) ed aggiornare automaticamente il carico applicato al robot e le coordinate nel punto di presa.

KIT-UR-J

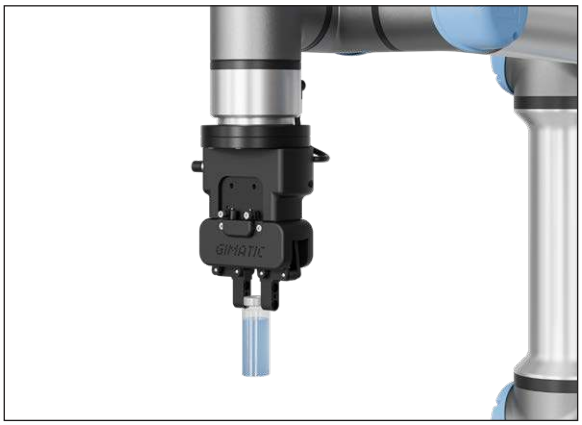
Parallelogram electric gripper with integrated capacitor box. The gripper can be assembled on all the UR collaborative robots (UR3, UR5, UR10) and the included capacitor box allows for a direct connection to the robot wrist. The user can install his/her own fingers connecting to the existing ones. This gripper is suitable for long stroke and fast opening/closing motion and the gripping force is unaffected by the length of the custom fingers. By installing the associated Gimatic URCap the user can configure the device and a list of work pieces (WP) to be gripped just once and simply use a generic grip/release command independently on the internal/external gripping configuration. The plugin also automatically updates the mass distribution of the payload and the final tool center point (TCP) of the gripper.

Caratteristiche principali

- Un unico prodotto per tutti i robot UR3, UR5 e UR10.
- Nessun cavo lungo il braccio del robot: collegamento diretto al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Funzionalità integrata di simulazione dei sensori di finecorsa e di presa del pezzo.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A unique design for UR3, UR5 and UR10 and e-Series.*
- *No cables along the robot arm: direct connection to M8 plug connector of the robot.*
- *Easy to install and without any configuration (plug & play solution).*
- *Simulated proximity switch functionality embedded for gripping or end of the stroke detection.*
- *Dedicated URCap plugin software available to improve user experience.*



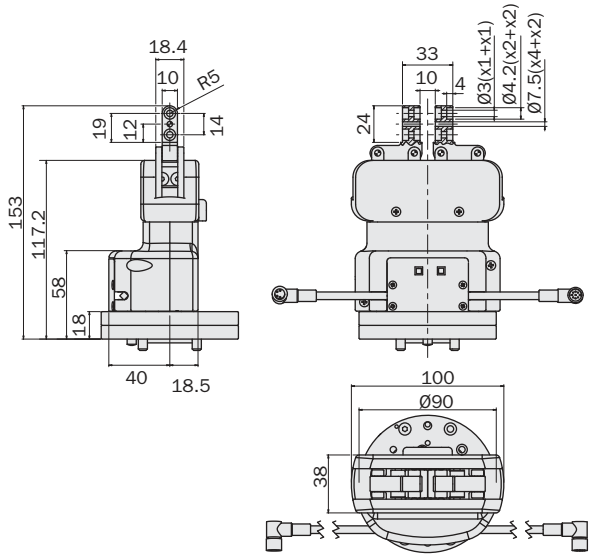


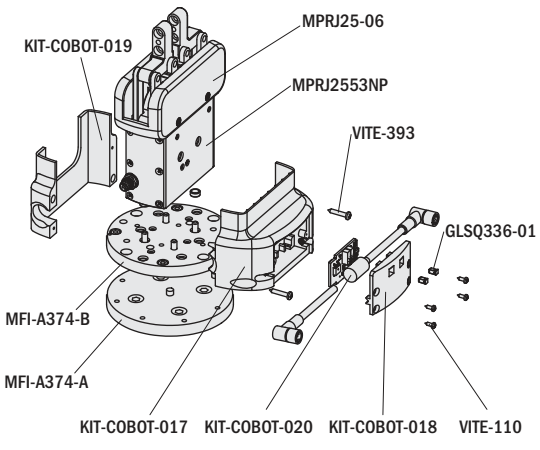
Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa. Il sistema può essere direttamente collegato al connettore M8 presente al polso del robot (assenza di cavi lungo il braccio robotico). Il sistema può essere gestito usando i segnali di input/output digitali presenti al connettore M8 usando il plugin URCap dedicato.

How does it work?

Mount the gripper with the included mechanical flange to the wrist of the robot. The system can be electrically connected directly to the M8 plug connector at the wrist of the robot (not cables along the robot arm). The system can be operated via digital input and output to/from the tool interface of the UR robot of using the Gimatic's URCap.





KIT-UR-V

KIT-UR-V

End Of The Arm Tool (EOAT) per operazioni pick-and-place in depressione. Il sistema può essere montato sui robot collaborativi UR3, UR5 e UR10, e l'attuatore e i componenti pneumatici in dotazione consentono un collegamento al polso del robot e alla fonte di energia pneumatica.
Possibilità di utilizzare il plugin URCap sviluppato da Gimatic per gestire e comandare il dispositivo.

KIT-UR-V

End Of The Arm Tool (EOAT) for vacuum based pick & place operations. The system can be assembled on the UR3, UR5 or UR10 collaborative robots and the included pneumatic actuator and components allow for a direct connection to the robot wrist and to the pneumatic power source. Possibility to use the URCap plugin developed by Gimatic to manage and control the device.

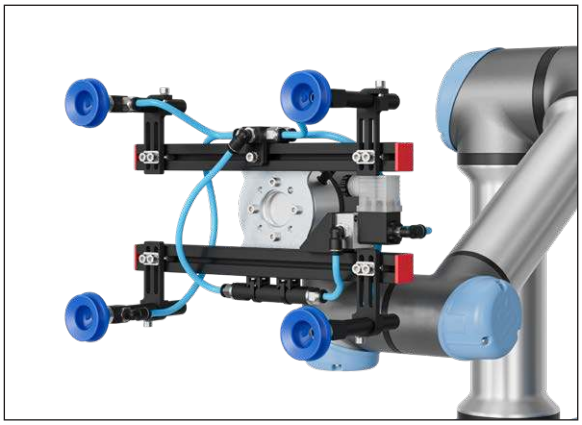
Caratteristiche principali

- Un unico design per i robot UR3, UR5 e UR10.
- Non ci sono più cavi elettrici lungo il braccio del robot: il collegamento viene effettuato direttamente al connettore M8 del robot.
- Facile da installare, non richiede alcuna configurazione (soluzione plug & play).
- Generatore di vuoto, valvola e solenoide incorporati.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A unique design for UR3, UR5 and UR10.*
- *No electric cables along the robot arm: direct connection to M8 plug connector of the robot.*
- *Easy to install and without any configuration (plug & play solution).*
- *Embedded vacuum generator, valve and solenoid.*
- *Dedicated URCap plugin software available to improve user experience.*





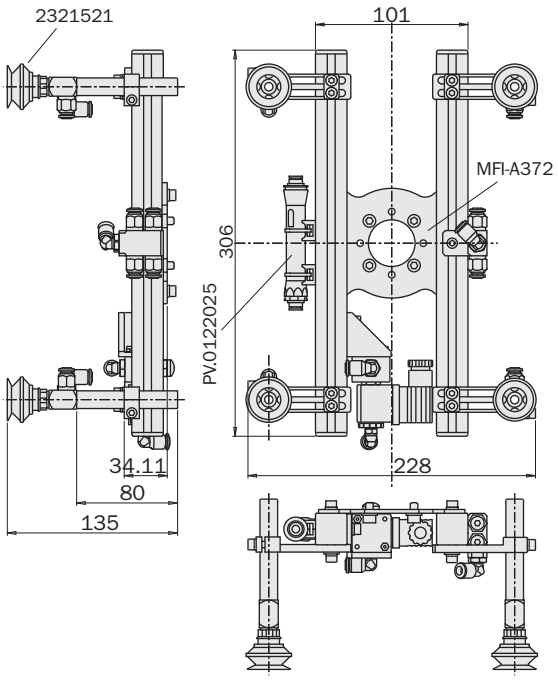
Come funziona?

Mediante la flangia meccanica in dotazione, montare la pinza sul polso del robot e collegare l'entrata principale della valvola alla fonte di alimentazione pneumatica. Il sistema può essere collegato elettricamente direttamente al connettore M8 presente sul polso del robot (niente cavi lungo il braccio del robot). Il sistema può essere comandato dall'uscita digitale dell'interfaccia del robot UR.

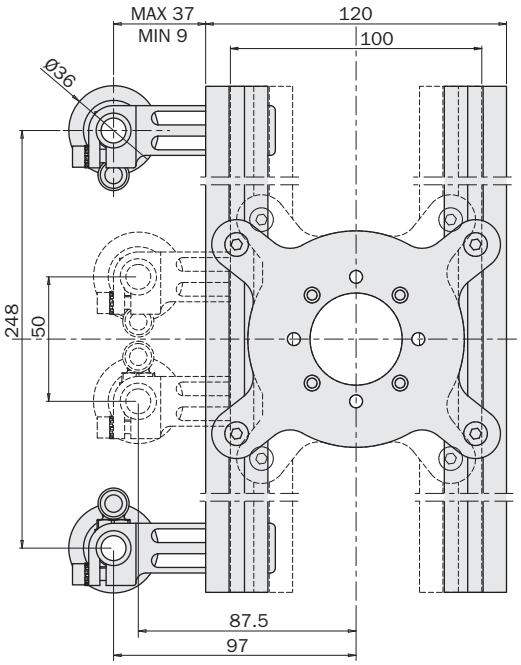
How does it work?

Mount the system with the included mechanical flange to the wrist of the robot and connect the main valve inlet to the pneumatic power source. The system can be electrically connected directly to the M8 plug connector at the wrist of the robot (not cables along the robot arm). The system can be operated via digital output from the tool interface of the UR robot.

Dimensioni (mm)
Dimensions (mm)



Regolazioni (mm)
Adjustments (mm)



KIT-UR-EQC20

Il KIT-UR-EQC20 è un "Cambia utensile elettrico veloce" che permette una facile sostituzione dell'EOAT (End Of Arms Tool) sul robot. E' appositamente progettato per i robot collaborativi della Universal Robot UR3/UR5/UR10 ed è completamente compatibile con i kits KIT-UR-G, KIT-UR-J e KIT-UR-V. Si compone di due parti: una fissata permanentemente sul robot (EQC20U-A) ed una collegata permanentemente all'utensile (EQC20-B). Comandando l'apposita uscita digitale è possibile accoppiare o disaccoppiare le due parti realizzando un cambio di utensile in modo semplice e rapido. L'intero sistema è un dispositivo plug&play che include tutti i componenti necessari a stabilire una connessione sia elettrica che pneumatica per trasferire potenza elettrica e aria compressa (o decompressa) dal robot all'utensile.

KIT-UR-EQC20

The KIT-UR-EQC20 is an "Electric Quick Tool Changer" that allows the EOAT (End of Arm Tooling) to be easily replaced on the robot. It is specially designed for Universal Robot UR3/UR5/UR10 collaborative robots and is fully compatible with KIT-UR-G, KIT-UR-J and KIT-UR-V kits. It consists of two parts: one permanently attached to the robot (EQC20U-A) and one permanently attached to the tool (EQC20-B). By controlling the appropriate digital output, the two parts can be coupled or uncoupled for quick and easy tool changes. The entire system is a plug&play device with all the components necessary to establish electrical and pneumatic connections to transfer electrical power and compressed (or decompressed) air from the robot to the tool.

Caratteristiche principali

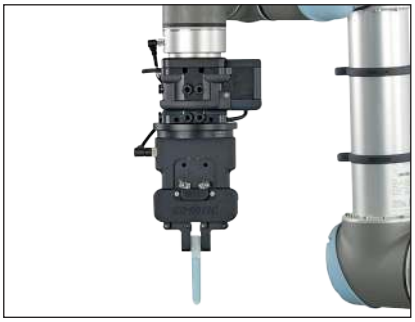
- Un unico design per i robot UR3, UR5 e UR10.
- Assenza di cavi elettrici lungo il braccio del robot: connessione diretta al connettore M8 al polso del robot.
- Facile da installare, non richiede alcuna configurazione (soluzione plug & play).
- Direttamente compatibile con altri Kits UR di Gimatic come il KIT-UR-G, KIT-UR-J ed il KIT-UR-V.
- 6 connessioni pneumatiche.
- Foro centrale per le connessioni elettriche.
- Leggero.
- Carico massimo 20 kg.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A single design for UR3, UR5 and UR10 robots.*
- *No electrical cables along the robot arm: direct connection to the M8 connector at the robot wrist.*
- *Easy to install, no configuration required (plug & play solution).*
- *Directly compatible with other Gimatic UR Kits such as KIT-UR-G, KIT-UR-J and KIT-UR-V.*
- *6 pneumatic connections.*
- *Central hole for electrical connections.*
- *Lightweight.*
- *Maximum load 20 kg.*
- *Dedicated URCap software plug-in available to enhance user experience.*

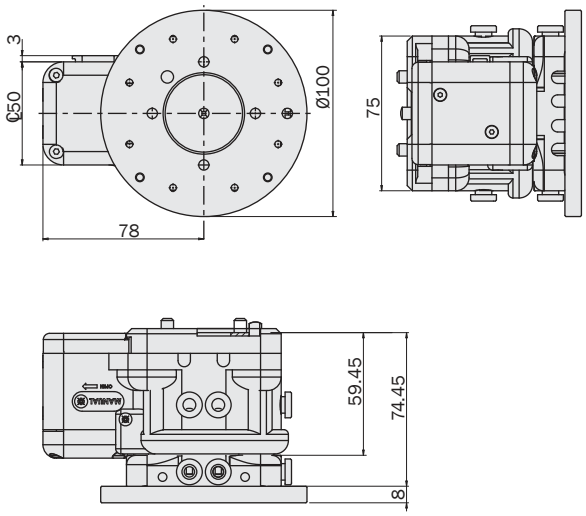






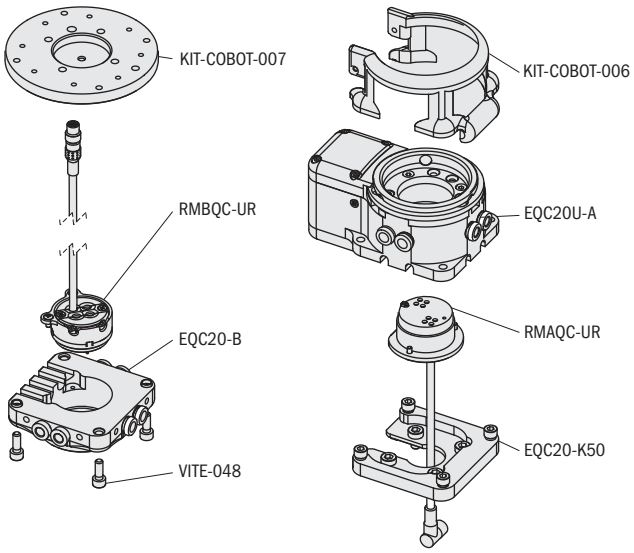
Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa e collegare i raccordi pneumatici ed i connettori elettrici in base alle necessità applicative. Il sistema può essere collegato elettricamente direttamente al connettore M8 del polso del robot e può pertanto essere comandato usando le uscite digitali standard disponibili e tramite l'URCap dedicato.



How does it work?

Install the system on the robot's wrist using the included mechanical flange and connect the pneumatic fittings and the electrical connectors as required. The system can be electrically connected directly to the M8 connector on the robot wrist and can therefore be controlled using the available standard digital outputs and via the dedicated URCap.



KIT-UR-QC

KIT-UR-QC

Il KIT-UR-QC è un kit dedicato ai robot collaborativi Universal Robots per il cambio manuale dell'utensile. Si compone di due parti principali: una fissata in modo permanente al polso del robot (QCY90-A) ed una collegata permanentemente all'utensile (QC90-B). Movimentando manualmente una leva l'utente può collegare o scollegare le due parti realizzando un cambio utensile in modo semplice e rapido. Il sistema può essere assemblato sui robot UR3, UR5 ed UR10 ed include tutti i componenti necessari a stabilire una connessione sia elettrica che pneumatica per trasferire potenza dal robot all'utensile. L'intero sistema è un dispositivo plug&play che si connette direttamente al polso del robot e che può essere usato per trasferire sia aria in pressione che il vuoto. È possibile richiedere ulteriori QC90-B Sper creare sistemi più complessi in cui un singolo robot deve interagire con molteplici utensili.

KIT-UR-QC

The KIT-UR-QC is a manual tool changer kit for UR collaborative robots. It's mainly composed of two parts: one permanently connected to the robot wrist (QCY90-A) and the other permanently connected to a tool (QC90-B). By operating a mechanical lever, the user can dis/connect the two parts allowing for an easy tool replacement. The system can be assembled on the UR3, UR5 or UR10 collaborative robots and it includes both pneumatic and electric connection components useful to connect power sources between robot and tool. The whole system is a plug & play device with direct connection to the robot wrist and it can be used to transfer either pneumatic pressure and vacuum to the tool. It is possible to request additional QC90-B to create. a more complex system where a robot interacts with several tools.

Caratteristiche principali

- Un unico prodotto per tutti i robot UR3, UR5 e UR10.
- Nessun cavo lungo il braccio del robot: collegamento diretto al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Direttamente compatibile con altri prodotti Gimatic dedicati robot Universal Robots come il KIT-UR-G, KIT-UR-J ed il KIT-UR-V.
- Raccordi pneumatici e connettori elettrici inclusi.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A unique design for UR3, UR5 and UR10.*
- *No electric cables along the robot arm: direct connection to M8 plug connector of the robot.*
- *Easy to install and without any configuration (plug & play solution).*
- *Directly compatible with others Gimatic's UR kits like KIT-UR-G, KIT-UR-J and KIT-UR-V.*
- *Embedded pneumatic fittings and electric connectors.*
- *Dedicated URCap plugin software available to improve user experience.*





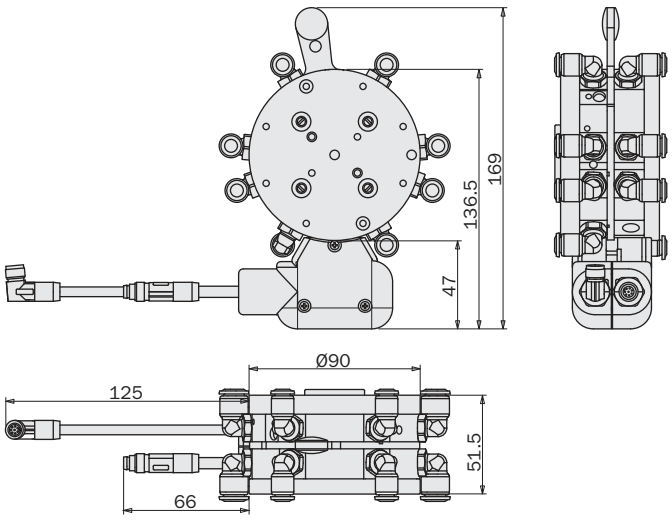


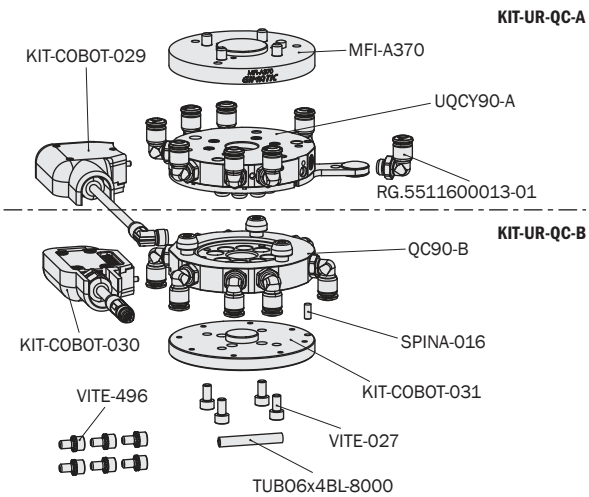
Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa e collegare i raccordi pneumatici ed i connettori elettrici in base alle necessità applicative. Il sistema può essere collegato direttamente al connettore M8 del polso del robot e può pertanto essere comandato usando le uscite digitali standard disponibili e tramite l'URCap dedicato.

How does it work?

Install the system on the robot's wrist using the included mechanical flange and connect the pneumatic fittings and the electrical connectors as required. The system can be connected directly to the M8 connector on the robot's wrist and can therefore be controlled using the standard digital outputs available and through the dedicated URCap.





KIT-UR-QC75

Il KIT-UR-QC75 è un kit dedicato ai robot collaborativi Universal Robot per il cambio manuale dell'utensile. Può essere utilizzato su tutta la serie di cobot UR e si compone di due parti principali: una fissata in modo permanentemente al polso del robot (QC75-A) ed una collegata permanentemente all'utensile (QC75-B). Movimentando manualmente una leva l'utente può collegare o scollegare le due parti realizzando un cambio utensile in modo semplice e rapido. L'intero sistema è un dispositivo plug&play che presenta i componenti necessari a stabilire una connessione sia elettrica che pneumatica per trasferire potenza e aria compressa (o decompressa) dal robot all'utensile. È possibile richiedere ulteriori QC75-B per creare sistemi più complessi in cui un singolo robot deve interagire con molteplici utensili.

KIT-UR-QC75

The KIT-UR-QC75 is a kit for manual tool change specifically designed for Universal Robots collaborative robots. It can be used on the entire range of UR cobots and consists of two main parts: one permanently attached to the robot wrist (QC75-A) and one permanently attached to the tool (QC75-B). By manually moving a lever, the user can connect or disconnect the two parts, performing a quick and easy tool change. The entire system is a plug&play device with all the components necessary to establish electrical and pneumatic connections to transfer electrical power and compressed (or decompressed) air from the robot to the tool. Additional QC75-B units can be ordered to create more complex systems where a single robot has to interact with multiple tools.

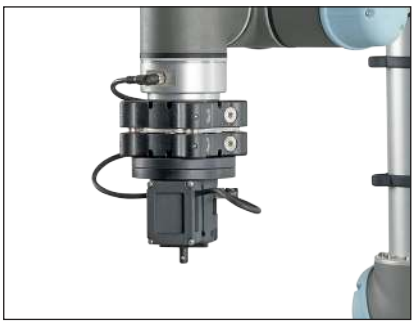
Caratteristiche principali

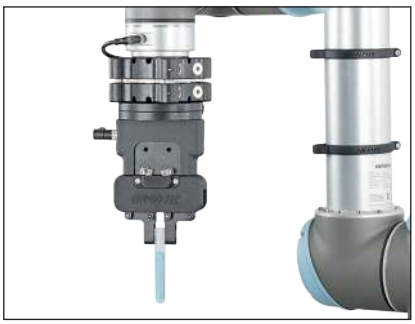
- Un unico design per i robot UR3, UR5 e UR10.
- Non ci sono più cavi elettrici lungo il braccio del robot: il collegamento può essere effettuato direttamente al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Direttamente compatibile con altri Kits UR di Gimatic come il KIT-UR-G, KIT-UR-J ed il KIT-UR-V.
- Software plugin URCap dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *A single design for UR3, UR5 and UR10 robots.*
- *No electrical cables along the robot arm: the connection can be made directly to the M8 connector on the robot wrist.*
- *Simple installation with no configuration required (plug&play solution).*
- *Directly compatible with other Gimatic UR Kits such as KIT-UR-G, KIT-UR-J and KIT-UR-V.*
- *Dedicated URCap software plug-in available to enhance user experience.*





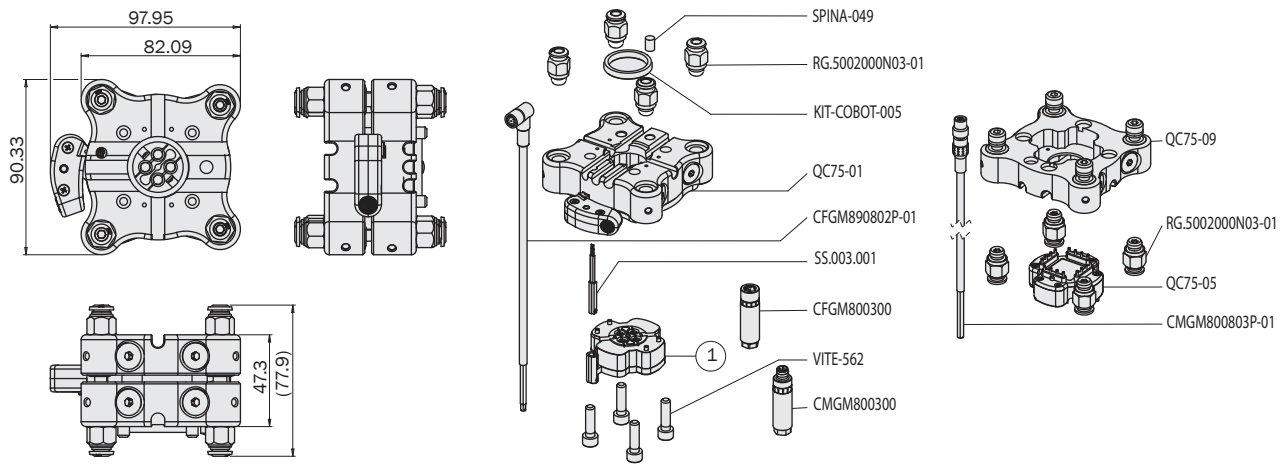


Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa e collegare i raccordi pneumatici ed i connettori elettrici in base alle necessità applicative. Il sistema può essere collegato elettricamente direttamente al connettore M8 del polso del robot e può pertanto essere comandato usando le uscite digitali standard disponibili e tramite l'URCap dedicato.

How does it work?

Install the system on the robot's wrist using the included mechanical flange and connect the pneumatic fittings and the electrical connectors as required. The system can be electrically connected directly to the M8 connector on the robot wrist and can therefore be controlled using the available standard digital outputs and via the dedicated URCap.



KIT-TM-J

KIT-TM-J

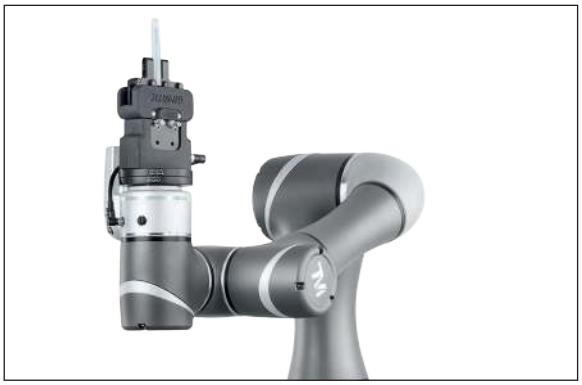
Pinza elettrica a parallelogramma.
La pinza può essere installata su tutta la serie di cobot Techman Robot (serie TM5, TM12 e TM14).
L'utente può installare le proprie dita di presa specifiche sulle griffe esistenti. La pinza è adatta a realizzare corse lunghe in tempi brevi di apertura e chiusura e la forza di presa è costante indipendentemente dalla lunghezza delle dita di presa personalizzate.
Installando il software plug-in sviluppato da Gimatic, l'utente può configurare una sola volta il dispositivo e una lista di parti da afferrare e può usare un generico comando grip/release indipendentemente dalla configurazione di presa interna/esterna. È possibile aggiornare automaticamente il carico applicato al robot e le coordinate nel punto di presa. Il plugin permette inoltre di gestire contemporaneamente molteplici KIT sviluppati da Gimatic all'interno dello stesso programma di movimentazione del robot.

KIT-TM-J

Parallelogram electric gripper.
The gripper can be mounted on the entire range of Techman Robot cobots (TM5, TM12 and TM14 series).
Users can install their own specific gripper fingers on the existing jaws. The gripper is suitable for long strokes with short opening and closing times and the gripping force is constant regardless of the length of the customised gripping fingers.
By installing the software plug-in developed by Gimatic, with a single configuration session the user can set up the device and a list of parts to be gripped and use a generic grip/release command regardless of the internal/external grip configuration. The load applied to the robot and the coordinates of the gripping point can be updated automatically. The plug-in also allows to simultaneously manage multiple Gimatic kits from within the same robot handling programme.

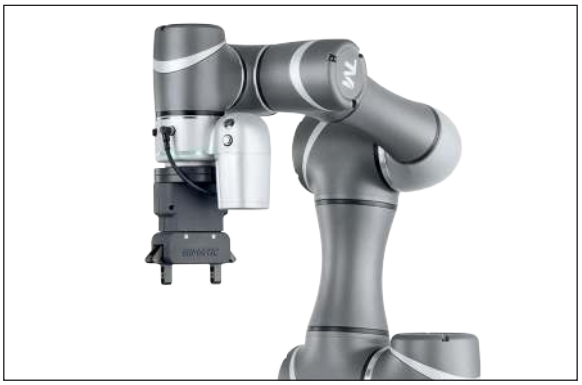
Caratteristiche principali

- Un unico prodotto per tutti i robot TM5/TM12/TM14.
- Assenza di cavi elettrici lungo il braccio del robot: il collegamento può essere effettuato direttamente al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Funzionalità integrata di simulazione dei sensori di fine corsa e di presa del pezzo.
- Software plug-in dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.



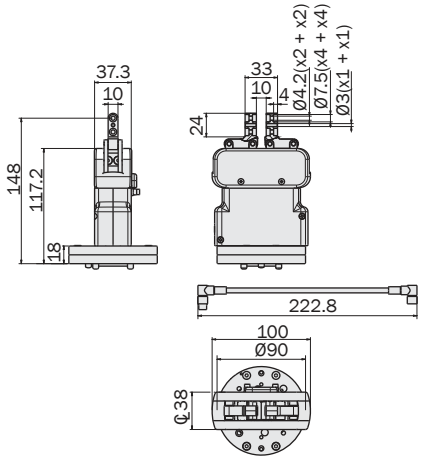
Main features

- *One product for all TM5/TM12/TM14 robots.*
- *No electrical cables along the robot arm: the connection can be made directly to the M8 connector on the robot wrist.*
- *Simple installation with no configuration required (plug&play solution).*
- *Integrated simulation of end-of-stroke sensors and workpiece grip sensors.*
- *Dedicated software plug-in available to enhance user experience.*



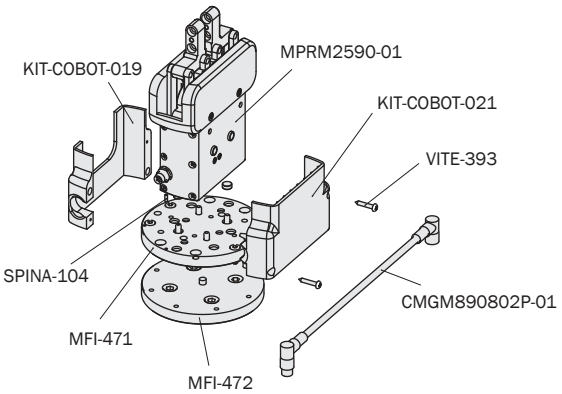
Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa.
Il sistema può essere collegato elettricamente direttamente al connettore M8 presente sul polso del robot (niente cavi lungo il braccio del robot) e può essere comandato usando le uscite digitali standard disponibili e tramite il software plug-in dedicato.



How does it work?

Install the system on the robot wrist using the included mechanical flange.
The system can be electrically connected either directly to the M8 connector on the robot wrist (no cables along the robot arm) and can be controlled using the available standard digital outputs and the dedicated software plug-in.



KIT-TM-V

End Of The Arm Tool (EOAT) per operazioni pick-and-place in depressione. Il sistema può essere montato su tutta la serie di cobot Techman Robot (serie TM5, TM12 e TM14). L'attuatore e i componenti pneumatici in dotazione consentono un collegamento al polso del robot e alla fonte di energia pneumatica.

KIT-TM-V

End of Arm Tooling (EOAT) for vacuum pick-and-place applications. The system can be mounted on the entire range of Techman Robot cobots (TM5, TM12 and TM14 series). The supplied actuator and pneumatic components allow the connection to the robot wrist and to the pneumatic power source.

Caratteristiche principali

- Un unico prodotto per tutti i robot TM5/TM12/TM14.
- Assenza di cavi elettrici lungo il braccio del robot: il collegamento può essere effettuato direttamente al connettore M8 del polso del robot.
- Facile da installare, non richiede alcuna configurazione (soluzione plug & play).
- Generatore di vuoto, valvola e solenoide incorporati.
- Software plug-in dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *One product for all TM5/TM12/TM14 robots.*
- *No electrical cables along the robot arm: the connection can be made directly to the M8 connector on the robot wrist.*
- *Easy to install, no configuration required (plug & play solution).*
- *Built-in vacuum generator, valve and solenoid.*
- *Dedicated software plug-in available to enhance user experience.*





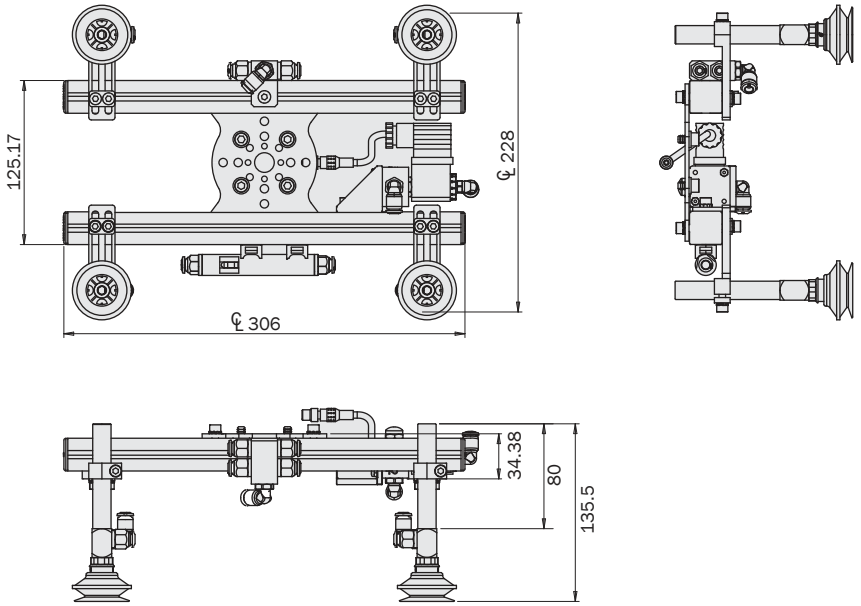


Come funziona?

Mediante la flangia meccanica in dotazione, montare la pinza sul polso del robot e collegare l'entrata principale della valvola alla fonte di alimentazione pneumatica.
Il sistema può essere collegato elettricamente direttamente al connettore M8 presente sul polso del robot (niente cavi lungo il braccio del robot) oppure alla control box e pertanto può essere comandato usando le uscite digitali standard disponibili e tramite il software plug-in dedicato.

How does it work?

Using the mechanical flange provided, mount the gripper on the robot wrist and connect the main inlet of the valve to the pneumatic supply line.
The system can be electrically connected either directly to the M8 connector on the robot wrist (no cables along the robot arm) or to the control box and can therefore be controlled using the available standard digital outputs and the dedicated software plug-in.



KIT-TM-EQC20

KIT-TM-EQC20

Il KIT-TM-EQC20 è un "Cambia utensile elettrico veloce" che permette una facile sostituzione dell'EOAT (End Of Arms Tool) sul robot. È appositamente progettato per tutta la serie di cobot TechMan Robot ed è completamente compatibile con i kits KIT-TM-J e KIT-TM-V. Si compone di due parti: una fissata permanentemente sul robot (EQC20TM-A) ed una collegata permanentemente all'utensile (EQC20-B). Comandando l'apposita uscita digitale è possibile accoppiare o disaccoppiare le due parti realizzando un cambio di utensile in modo semplice e rapido. L'intero sistema è un dispositivo plug&play che include tutti i componenti necessari a fornire sia energia elettrica che pneumatica all'utensile.

KIT-TM-EQC20

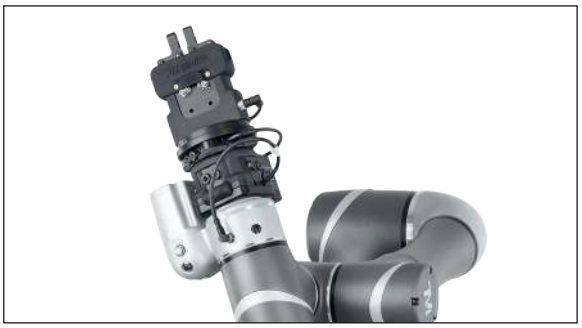
The KIT-TM-EQC20 is an "Electric Quick Tool Changer" that allows the EOAT (End of Arm Tooling) to be easily replaced on the robot. It is specially designed for the entire range of TechMan Robot cobots and is fully compatible with the KIT-TM-J and KIT-TM-V kits. It consists of two parts: one permanently attached to the robot (EQC20TM-A) and one permanently attached to the tool (EQC20-B). By controlling the appropriate digital output, the two parts can be coupled or uncoupled for quick and easy tool changes. The entire system is a plug-and-play device that includes all the components needed to supply both electrical and pneumatic power to the tool.

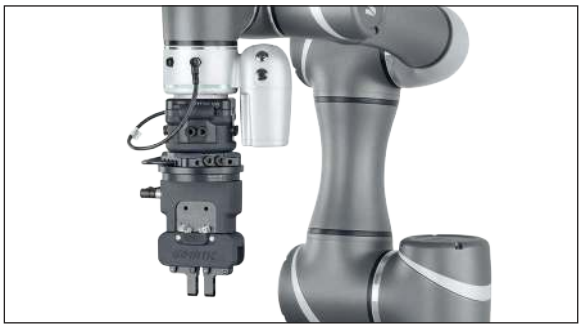
Caratteristiche principali

- Un unico prodotto per tutti i robot TM5/TM12/TM14.
- Assenza di cavi elettrici lungo il braccio del robot: il collegamento può essere effettuato direttamente al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Direttamente compatibile con altri Kits TM di Gimatic come il KIT-TM-J ed il KIT-TM-V.
- 6 connessioni pneumatiche.
- Foro centrale per le connessioni elettriche.
- Leggero
- Carico massimo 20 kg.
- Software plug-in dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *One product for all TM5/TM12/TM14 robots.*
- *No electrical cables along the robot arm: the connection can be made directly to the M8 connector on the robot wrist.*
- *Simple installation with no configuration required (plug&play solution).*
- *Directly compatible with other Gimatic TM Kits such as KIT-TM-J and KIT-TM-V.*
- *6 pneumatic connections.*
- *Central hole for electrical connections.*
- *Lightweight.*
- *Maximum load 20 kg.*
- *Dedicated software plug-in available to enhance user experience.*



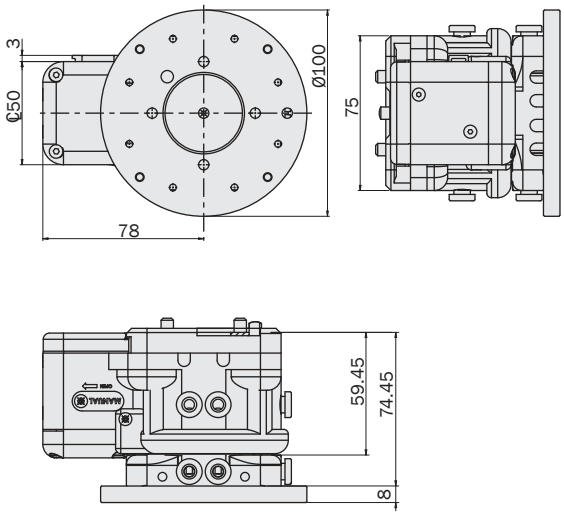


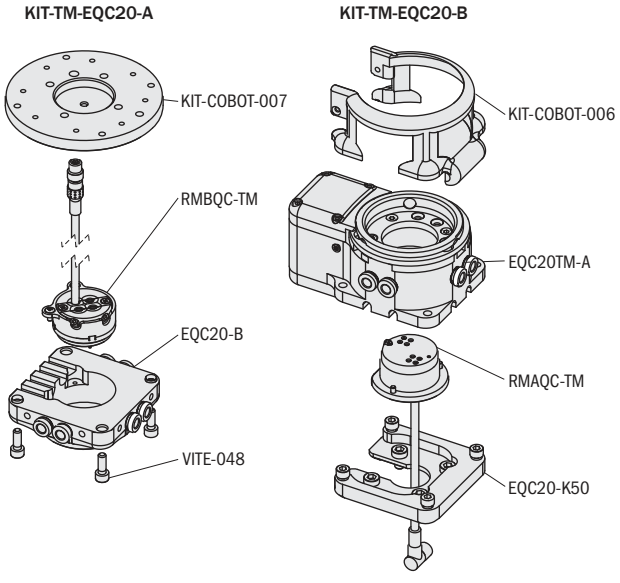
Come funziona?

Installare il sistema al polso del robot usando la flangia meccanica inclusa e collegare i raccordi pneumatici ed connettori elettrici in base alle necessità applicative.
Il sistema può essere collegato elettricamente direttamente al connettore M8 del polso del robot e può pertanto essere comandato usando le uscite digitali standard disponibili e tramite il software plug-in dedicato.

How does it work?

Install the system on the robot's wrist using the included mechanical flange and connect the pneumatic fittings and the electrical connectors based on the application requirements. The system can be electrically connected directly to the M8 connector on the robot wrist and can therefore be controlled using the available standard digital outputs and the dedicated software plug-in.





KIT-TM-QC75

Il KIT-TM-QC75 è un kit dedicato ai robot collaborativi TechMan Robot per il cambio manuale dell'utensile.
Può essere utilizzato su tutta la serie di cobot TM (serie TM5, TM12 e TM14) e si compone di due parti principali: una fissata in modo permanentemente al polso del robot (QC75-A) ed una collegata permanentemente all'utensile (QC75-B). Movimentando manualmente una leva, l'utente può collegare o scollegare le due parti realizzando un cambio utensile in modo semplice e rapido. L'intero sistema è un dispositivo plug&play che presenta i componenti necessari a stabilire una connessione sia elettrica che pneumatica per trasferire potenza elettrica e aria compressa (o decompressa) dal robot all'utensile. È possibile richiedere ulteriori QC75-B per creare sistemi più complessi in cui un singolo robot deve interagire con molteplici utensili.

KIT-TM-QC75

The KIT-TM-QC75 is a kit for manual tool change specifically designed for TechMan Robot collaborative robots.
It can be used on the entire TM range of cobots (TM5, TM12 and TM14 series) and consists of two main parts: one permanently attached to the robot wrist (QC75-A) and one permanently attached to the tool (QC75-B). By manually moving a lever, the user can couple or uncouple the two parts, achieving a quick and easy tool change. The entire system is a plug&play device with all the components necessary to establish electrical and pneumatic connections to transfer electrical power and compressed (or decompressed) air from the robot to the tool. Additional QC75-B units can be ordered to create more complex systems where a single robot has to interact with multiple tools.

Caratteristiche principali

- Un unico prodotto per tutti i robot TM5/TM12/TM14.
- Assenza di cavi elettrici lungo il braccio del robot: il collegamento può essere effettuato direttamente al connettore M8 del polso del robot.
- Semplice installazione senza necessità di configurazione (soluzione plug&play).
- Direttamente compatibile con altri Kits TM di Gimatic come il KIT-TM-J ed il KIT-TM-V.
- Software plug-in dedicato disponibile per migliorare l'esperienza di utilizzo dell'utente.

Main features

- *One product for all TM5/TM12/TM14 robots.*
- *No electrical cables along the robot arm: the connection can be made directly to the M8 connector on the robot wrist.*
- *Simple installation with no configuration required (plug&play solution).*
- *Directly compatible with other Gimatic TM Kits such as KIT-TM-J and KIT-TM-V.*
- *Dedicated software plug-in available to enhance user experience.*



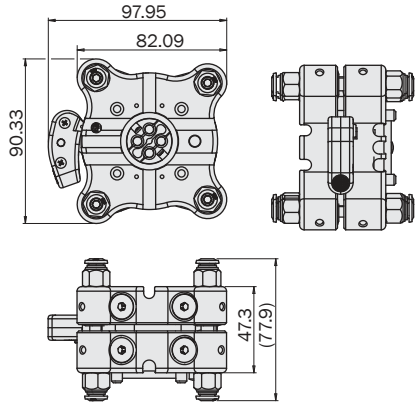


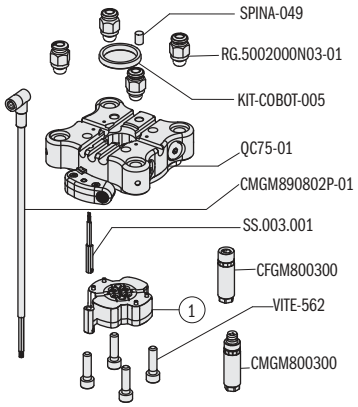
Come funziona?

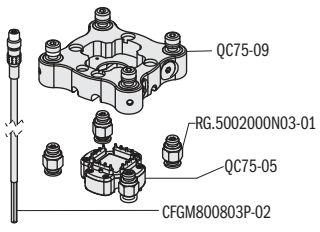
Installare il sistema al polso del robot usando la flangia meccanica inclusa e collegare i raccordi pneumatici ed i connettori elettrici in base alle necessità applicative.
Il sistema può essere collegato elettricamente direttamente al connettore M8 del polso del robot o alla control box e può pertanto essere comandato usando le uscite digitali standard disponibili e tramite il software plug-in dedicato.

How does it work?

Install the system on the robot's wrist using the included mechanical flange and connect the pneumatic fittings and the electrical connectors as required.
The system can be electrically connected either directly to the M8 connector on the robot wrist or to the control box and can therefore be controlled using the available standard digital outputs and the dedicated software plug-in.







ACCESSORI OPZIONALI

Options

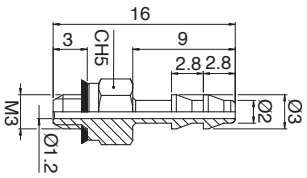


Raccordi
Fittings

Raccordo diritto a calzamento
Straight push-on fitting

	Ø	n°	m
RG.RO-1376-AS1	4	10	50





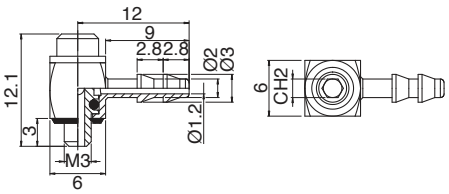
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo orientabile a "L" a calzamento
Adjustable-position push-on elbow fitting

	Ø	n°	m
RG.RO-1376-AS2	4	10	50





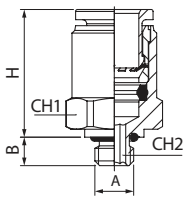
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo diritto maschio cilindrico "mini"
"Mini" straight male adaptor (parallel)

	Ø	A	B	H	CH1	CH2	n°	m
RG.5602000003	3	M3	3	11	6	1.5	10	41
RG.5602000005	4	M3	3	14.5	8	-	10	21
RG.5602000006	4	M5	3.6	14	9	2.5	10	39
RG.5602000008	4	1/8	5	11,5	13	3	10	77
RG.5602000009	6	M5	3.6	16	11	2.5	10	62
RG.5602000011	6	1/8	5	13.5	13	4	10	77





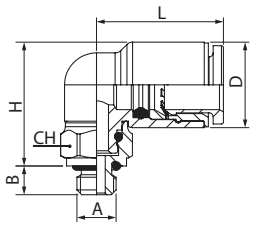
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo a L maschio cilindrico "mini"
"Mini" elbow male adaptor (parallel)

	Ø	A	B	H	L	D	CH	n°	m
RG.5611500005	4	M5	3.6	13.5	14	8.5	8	10	25
RG.5611500006	4	1/8	5	13	14	8.5	13	10	59
RG.5611500008	6	M5	3.6	15.5	16	10.5	8	10	29
RG.5611500009	6	1/8	5	15	16	10.5	13	10	65





Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

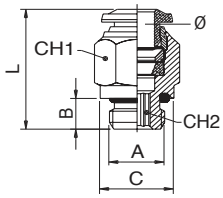
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Raccordo diritto maschio cilindrico
Straight male adaptor (parallel)

	Ø	A	B	C	L	CH1	CH2	n°	m
RG.5002000N02	4	1/8	6	13	20	10	3	10	71
RG.5002000N20	6	M5	4	10	24.5	13	2	10	113
RG.5002000N03	6	1/8	6	13	23.5	13	4	10	129
RG.5002000N04	6	1/4	8	16	23.5	13	4	10	169
RG.5002000N05	8	1/8	6	13	25	14	5	10	134
RG.5002000N06	8	1/4	8	16	23	14	6	10	131
RG.5002000N08	10	1/4	8	16	30.5	17	6	10	242
RG.5002000N09	10	3/8	9	20	27.5	17	8	10	236
RG.5002000N31	10	1/2	10	25	27	14	8	10	380





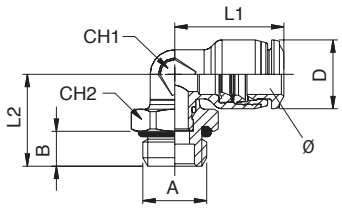
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo a L orientabile maschio cilindrico
Swiveling elbow male adaptor

	Ø	A	B	L1	L2	CH1	CH2	D	n°	m
RG.5511600001	4	M3	3	16.5	12	7	9	10	10	36
RG.5511600002	4	M5	3.6	16.5	13.8	7	9	10	10	49
RG.5511600004	4	1/8	5.4	16.5	15	7	13	10	10	80
RG.5511600011	6	M5	3.6	20.5	14.7	9	9	12	10	61
RG.5511600013	6	1/8	5.4	20.5	15.8	9	13	12	10	91
RG.5511600014	6	1/4	7.1	20.5	17.5	9	16	12	10	140
RG.5511600017	8	1/8	5.4	22	19.4	10	13	14	10	118
RG.5511600018	8	1/4	7.1	22	18.7	10	16	14	10	149
RG.5511600019	8	3/8	8.1	22	20.1	10	20	14	10	240
RG.5511600021	10	1/4	7.1	26.5	22.8	13	16	17	10	189
RG.5511600023	10	1/2	9.6	26.5	23.8	13	25	17	10	406



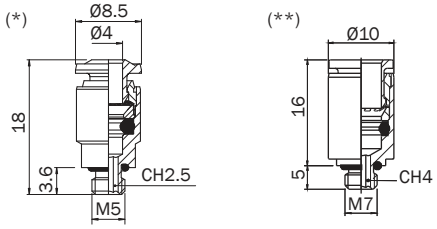


Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo diritto maschio cilindrico "mini" senza esagono esterno
"Mini" straight male adaptor (parallel) without external hexagon

	Ø	A	B	H	CH1	CH2	n°	m
RG.50-020-00N01	(*)	(*)	(*)	(*)	(*)	(*)	10	45
RG.5601000004	(**)	(**)	(**)	(**)	(**)	(**)	10	54



Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

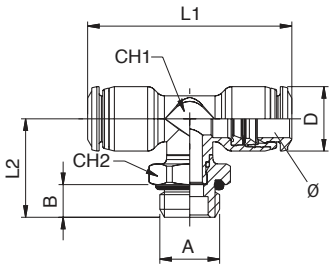
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Raccordo a T orientabile maschio cilindrico
Swiveling T male adaptor – centre leg

	Ø	A	B	L1	L2	CH1	CH2	D	n°	m
RG.5521600002	4	M5	3.6	33	15.5	7	9	10	10	66
RG.5521600011	6	M5	3.6	41	14.7	9	9	12.5	10	83
RG.5521600013	6	1/8	5.4	41	18.4	9	13	12.5	10	116
RG.5521600014	6	1/4	7.1	41	20	9	16	12.5	10	165





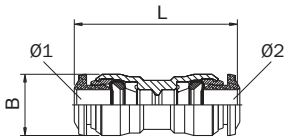
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo diritto intermedio
Straight connector

	Ø1	Ø2	B	L	n°	m
RG.5504000002	4	4	10	31	10	38
RG.5504000004	6	6	12.5	35	10	52
RG.5504000009	6	4	12.5	34	10	51
RG.5504000005	8	8	14	37	10	65
RG.5504000010	8	6	14	37.5	10	67
RG.5504000006	10	10	45	17	10	130
RG.5504000012	12	10	50	20	10	179





Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

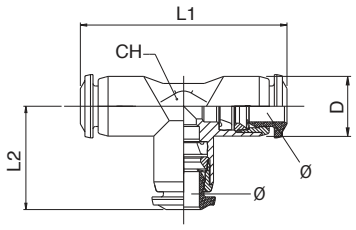
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Raccordo a T intermedio
T connector

	Ø	L1	L2	CH	D	n°	m
RG.5523000002	4	33	16.5	9	10	10	58
RG.5523000004	6	41	20.5	11	12	10	83
RG.5523000005	8	44	22	13	14	10	106





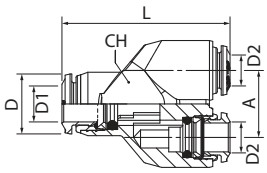
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo a Y intermedio
Y connector

	D1	D2	A	L	CH	D	n°	m
RG.5531000002	4	4	11	31.5	10	10	10	58
RG.5531000004	6	6	13.5	37	12	12	10	58
RG.5531000008	6	4	13.5	36.5	12	12.5	10	90
RG.5531000005	8	8	15.5	40	14	14	10	69





Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

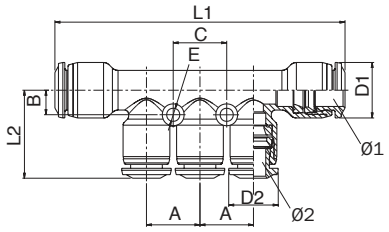
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Raccordo multiplo di riduzione
Reduction manifold

	Ø1-Ø2	A	B	L1	L2	C	D1	D2	E	n°	m
RG.5535000001	6-4	13.5	6	74	21.8	13.5	14	12	3.3	10	173
RG.5535000003	8-6	13.5	6	73	22.3	13.5	14	12.5	3.3	10	161





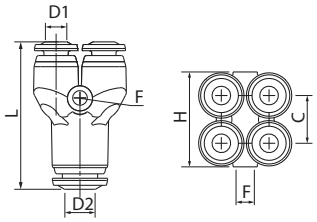
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Raccordo multiplo a Y intermedio con fissaggio M3
Intermediate Y-connector with M3 connection

	D1	D2	C	L	F	H	n°	m
RG.5533000001	4	4	10.8	33.5	3.3	21.5	10	122
RG.5533000002	4	6	10.8	34.5	3.3	21.5	10	111
RG.5533000003	6	6	13.3	39.5	3.3	26.8	10	177





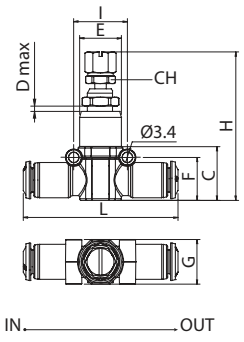
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Regolatore di pressione in linea tubo-tubo
Pipe-pipe inline pressure regulator

	Ø	C	D	E	F	G	H	I	L	CH	n°	m
RG.5597000002	6	18	5	14	14.5	15	48÷56.5	18	52	11	1	40
RG.5597000003	8	20	5	17	16.5	17	55÷65	20	58	13	1	53





Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= 1 ÷ 10bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

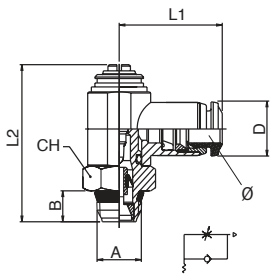
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Regolatore di flusso unidirezionale orientabile (regolazione a cacciavite)
Swiveling unidirectional flow controller (adjustment by screwdriver)

	Ø	A	B	L1	L2	CH	D	n°	m
RG.5590000002	4	M5	5.5	19.5	29.5	8	10	1	9.8
RG.5590000003	4	1/8	5.5	21.5	31	14	10	1	20
RG.5590000007	6	M5	5.5	21	29.5	8	12.5	1	7.7
RG.5590000008	6	1/8	5.5	23	31	14	12.5	1	18
RG.5590000010	8	1/8	5.5	23.5	31	14	14	1	21





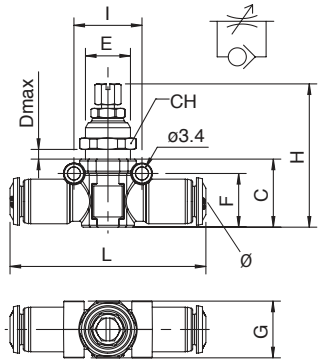
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= 1 ÷ 10bar

Regolatore di flusso in linea unidirezionale tubo-tubo
Pipe/pipe in-line unidirectional flow regulator

	Ø	C	D	E	F	G	H	I	L	CH	n°	m
RG.5594000004	4	18	4	M12X1	14,5	15	37.5÷43.5	18	52	14	1	34
RG.5594000001	6	18	6	M12x1	14.5	15	37.5÷43.5	18	52	14	1	29
RG.5594000002	8	20	6.5	M14x1	16.5	17	39.5÷45.5	20	58	16	1	61





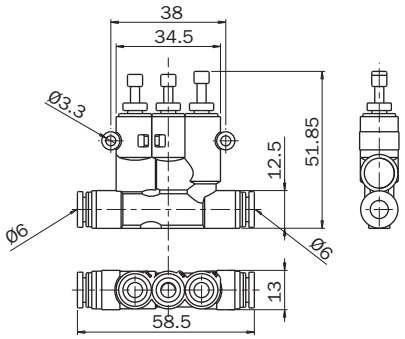
Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= 1 ÷ 10bar

Regolatore di flusso in linea unidirezionale tubo-tubo a 2 stadi
Pipe-pipe unidirectional in-line flow regulator with 2 stages

	Ø	n°	m
RG.BJSU6	6	1	33





Caratteristiche tecniche
Technical characteristics

T= 0° ÷ +60°C
P= 2 ÷ 10bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

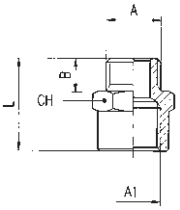
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi
Fittings

Riduzione cilindrica
Reducer (parallel)

	A	A1	B	L	CH	n°	m
RG.0205000012WNB	1/8	1/8	6	17	14	10	109
RG.020500001ATNB	1/8	1/4	6	20.5	17	10	175





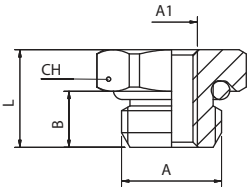
Caratteristiche tecniche
Technical characteristics

T= 300°C max

Riduzione cilindrica
Reducer (parallel)

	A	A1	B	L	CH	n°	m
RG.0209200001	1/8	M5	5.4	9.4	13	10	62
RG.0209200002	1/4	1/8	7.1	11.1	16	10	72
RG.0209200004	3/8	1/4	8.1	12.6	20	10	117
RG.0209200006	1/2	3/8	9.6	14.6	25	10	205
RG.0209200007	3/4	1/2	11.1	16	34	10	470





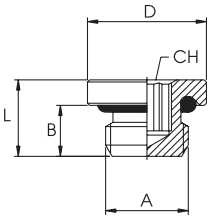
Caratteristiche tecniche
Technical characteristics

T= 300°C max

Tappo maschio cilindrico esagono incassato con O-Ring NBR
Male plug (parallel) with exagon embedded and NBR O-Ring

	A	B	L	D	CH	n°	m
RG.0301500001	1/8	6	8.5	14	5	10	61
RG.0301500002	1/4	8	11	17	6	10	112
RG.0301500003	3/8	9	12.5	20	8	10	182
RG.0301500004	1/2	10	13.5	25	10	10	291





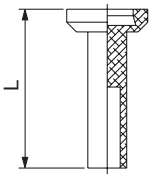
Caratteristiche tecniche
Technical characteristics

T= -20 ÷ +80°C
P= -0.99 ÷ +15bar

Tappo in poliamide
Plug polyamede

	Ø	L	n°	m
RG.086100031X1R0	4	23.5	10	1
RG.086100031X4R0	6	24.5	10	1
RG.086100031X7R0	8	26	10	1





Caratteristiche tecniche
Technical characteristics

T= -20° ÷ +80°C
P= -0.99 ÷ +15bar

Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

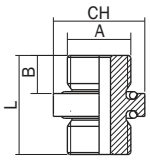
Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Raccordi in alluminio
Aluminum fittings

Nipplo cilindrico con O-ring NBR
Parallel nipple with NBR O-ring

	A	B	L	CH	n°	m
AF05M05M	M5	4	11.5	8	1	0.8
AF18M18M	1/8	6.5	17	13	1	3.3
AF14M14M	1/4	8	21	17	1	7.2

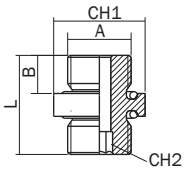




Nipplo cilindrico con O-ring NBR
Parallel nipple with NBR O-ring

	A	B	L	CH1	CH2	n°	m
3100146	1/4	8	22	18	6	1	9
3100142	3/8	10	26	24	6	1	16.5
3100145	1/2	12	30	28	10	1	25.5

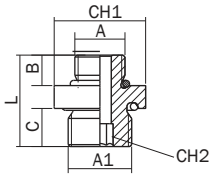




Nipplo di riduzione cilindrico con O-ring NBR
Reducing parallel nipple with NBR O-ring

	A	A1	B	C	L	CH1	CH2	n°	m
3100140	1/4	3/8	8	10	24	24	6	1	14
3100144	1/2	3/8	12	12	30	28	6	1	21

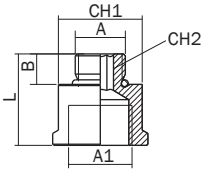




Nipplo di riduzione cilindrico con O-ring NBR
Reducing parallel nipple with NBR O-ring

	A	A1	B	L	CH1	CH2	CH2	n°	m
3100148	1/4	3/8	8	24	22	6	6	1	16
3100141	3/8	1/4	10	26	24	6	6	1	14.5





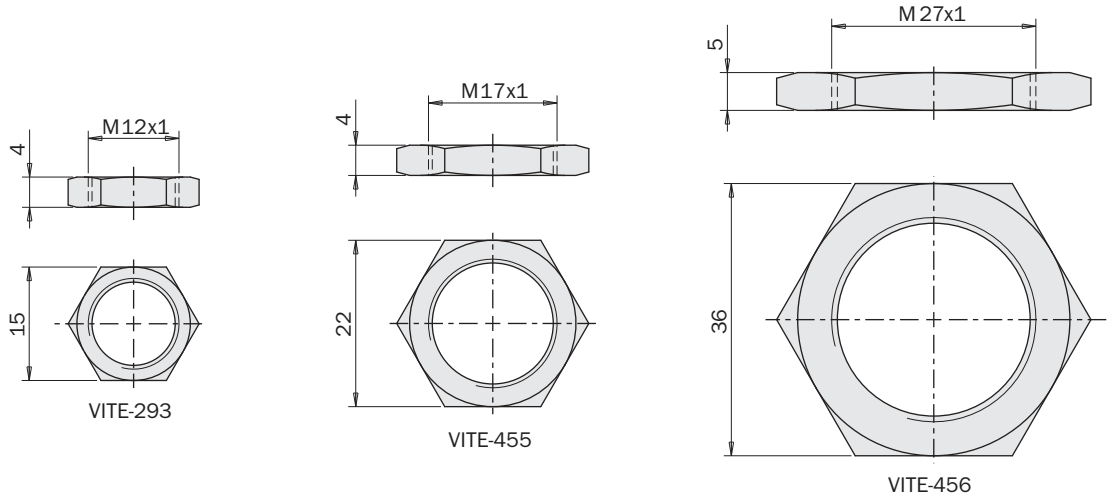
Ø [Diametro esterno tubo (mm)]
n° [Quantità pezzi in confezione]
m [Peso di una confezione da 10 pezzi (g)]
P [Pressione di esercizio]
T [Temperatura di esercizio]
dB [Livello di rumore in dB a 6 bar]
S [Soglia di filtrazione]

Ø *[Hose outer diameter (mm)]*
n° *[Number of pieces in the pack]*
m *[Weight of a 10-piece pack (g)]*
P *[Operating pressure range]*
T *[Operating temperature range]*
dB *[Noise level in dB at 6 bar]*
S *[Filtration threshold]*

Dadi — *Nuts*

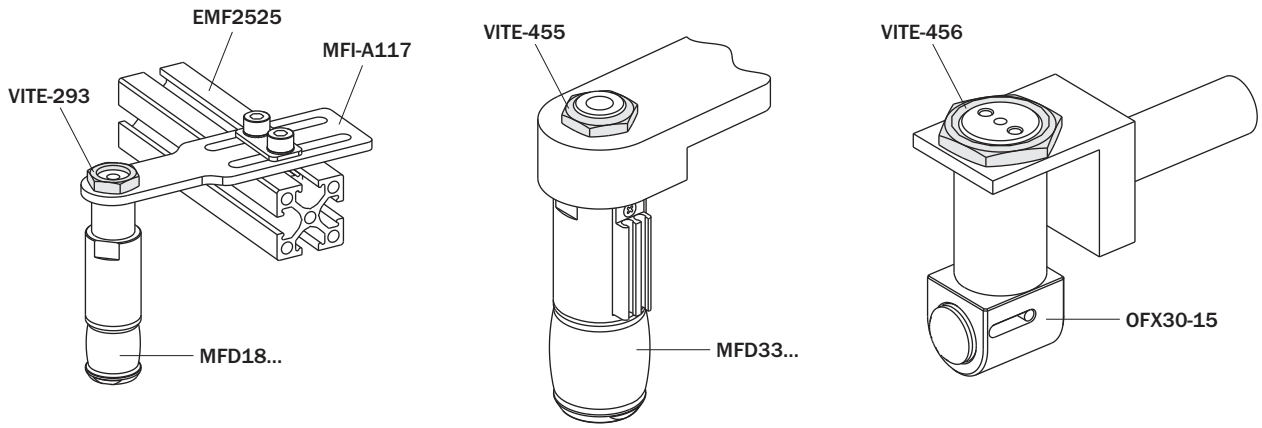
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE PROJECTION



	VITE-293	VITE-455	VITE-456
Peso *Weight*	4 g	7 g	23 g

Esempi di utilizzo
Application examples



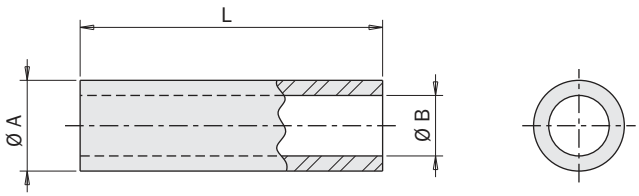
Tubi flessibili

Tubo in poliuretano per aria compressa idoneo all'utilizzo con i raccordi rapidi.

Hoses

Polyurethane hose for compressed air suitable for use with push-in fittings.





Caratteristiche tecniche
Technical characteristics

T= -40° ÷ +60°C
P= -0.99 ÷ +10bar

		ØA [mm]	ØB [mm]	R [mm]	L [m]	Lm [g/m]
TUB04X2,5B	Nero *Black*	4	2.5	20	25	9.49
TUB04X2,5BL	Blu *Blue*	4	2.5	20	25	9.49
TUB04X2,5GR	Verde *Green*	4	2.5	20	25	9.49
TUB04X2,5RE	Rosso *Red*	4	2.5	20	25	9.49
TUB04X2,5SI	Grigio *Silver*	4	2.5	20	25	9.49
TUB04X2,5YE	Giallo *Yellow*	4	2.5	20	25	9.49
TUB06X4B	Nero *Black*	6	4	30	25	19.47
TUB06X4BL	Blu *Blue*	6	4	30	25	19.47
TUB06X4GR	Verde *Green*	6	4	30	25	19.47
TUB06X4RE	Rosso *Red*	6	4	30	25	19.47
TUB06X4SI	Grigio *Silver*	6	4	30	25	19.47
TUB06X4YE	Giallo *Yellow*	6	4	30	25	19.47
TUB08X6B	Nero *Black*	8	6	40	25	30
TUB08X6BL	Blu *Blue*	8	6	40	25	30
TUB08X6SI	Grigio *Silver*	8	6	40	25	30
TUB08X6YE	Giallo *Yellow*	8	6	40	25	30
TUB010x7.5B	Nero *Black*	10	7.5	60	25	42.7
TUB010x7.5BL	Blu *Blue*	10	7.5	60	25	42.7
TUB012x9B	Nero *Black*	12	9	70	25	61.5
TUB012x9BL	Blu *Blue*	12	9	70	25	61.5

A Diametro esterno
B Diametro interno
R Raggio di curvatura minimo
L Lunghezza
Lm Peso lineare
P Pressione di esercizio
T Temperatura di esercizio

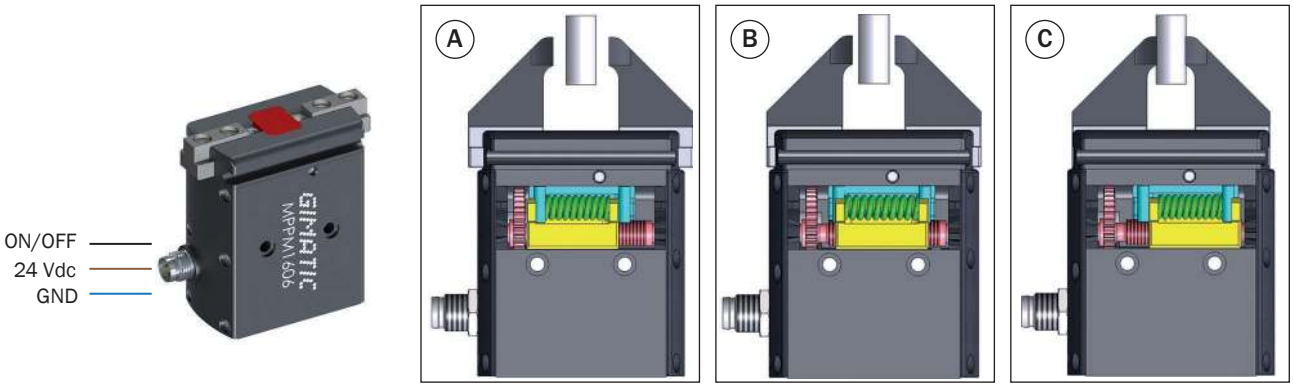
A Outer diameter
B Inner diameter
R Minimum bending radius
L Lenght
Lm Linear mass
P Operating pressure range
T Operating temperature range

Tecnologia mechatronica

Le immagini seguenti mostrano gli stati successivi di funzionamento del sistema di attuazione comune alle pinze, agli attuatori ed alle tavole rotanti elettriche.

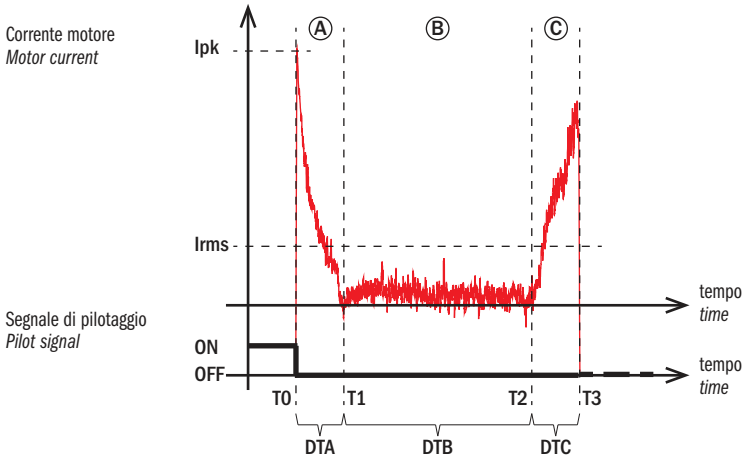
Mechatronics technology

The images below illustrate the operating state sequence of the drive system shared by the grippers, the actuators and the electric indexing tables.



Gli stessi stati sono riconoscibili anche nel profilo di corrente di assorbimento del motore.

These states can also be identified in the motor's power absorption profile.



Descrizione del funzionamento

Al tempo T0 il segnale di pilotaggio passa dallo stato di ON allo stato di OFF comandando la chiusura delle griffe.
Durante il periodo DTA il motore inizia la rotazione causando nella fase A l'estensione della molla inizialmente compressa.
Nella fase B la molla ha assunto la sua lunghezza libera e le griffe compiono un movimento a velocità costante fino al contatto con il pezzo al tempo T2.
Durante la fase 3 le griffe sono a contatto con il pezzo ed inizia la compressione della molla.
Al tempo T3 il motore termina la propria rotazione e grazie al sistema di trasmissione irreversibile la presa è mantenuta anche in assenza di tensione di alimentazione fino al prossimo comando di apertura delle griffe (stato ON).

Operation description

At time T0, the pilot signal switches from ON to OFF status, closing the jaws.
During the DTA time, the motor starts to run; during phase A this causes the extension of the spring, which was initially compressed.
In phase B, the spring has reached its free length and the jaws move at constant speed until they come into contact with the workpiece at time T2.
During phase 3, the jaws are in contact with the workpiece, and compression of the spring starts.
At time T3, the motor stops running and the irreversible transmission system maintains the grip even when not powered up, until the next jaw opening command is given (ON status).

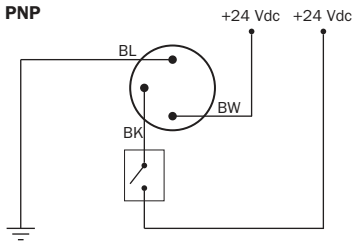


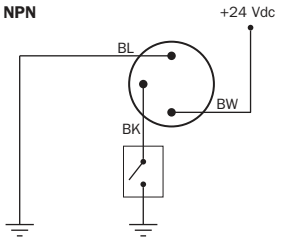
(*)
Articolo in preparazione
Under construction

07/2026

Versioni PNP/NPN

Le pinze sono disponibili nella versione standard con ingresso tipo PNP e nella versione N con ingresso tipo NPN.





PNP/NPN versions

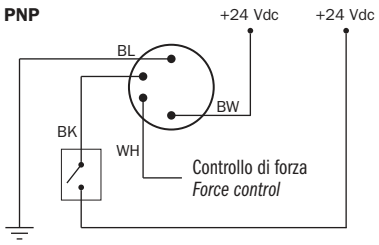
Grippers are available in the standard version with PNP input and in the N version with NPN input.

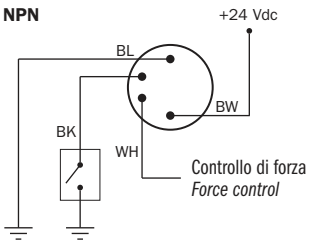
Controllo di forza (versioni con 4 pin)

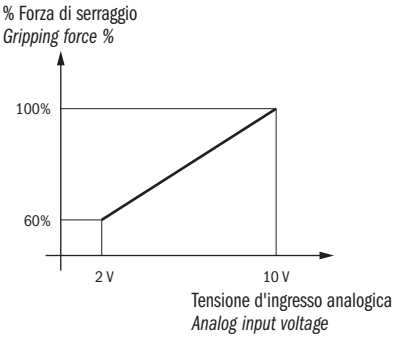
Tra i modelli con connettore M8 a 4 pin sono disponibili versioni con un canale di ingresso analogico. Variando la tensione di riferimento nell'intervallo 2÷10 V è possibile regolare la forza di presa. Un valore di tensione inferiore ai 2 V inibisce il funzionamento del dispositivo consentendo la creazione di logiche di sicurezza di macchina.

Force control (4-pin versions)

In the range of models with 4-pin M8 connector, some versions are available with an analog input channel. By changing the reference voltage in the 2÷10 V range, the gripping force can be adjusted. A voltage value lower than 2 V will inhibit the device operation, allowing the creation of machine safety logics.





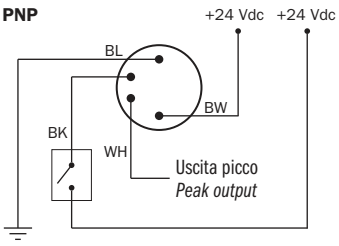


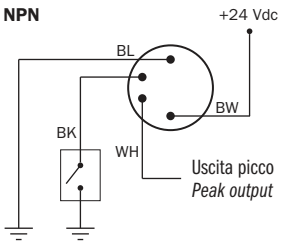
Uscita picco

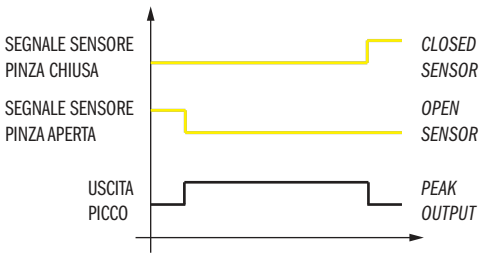
Tra i modelli con connettore M8 a 4 pin sono disponibili versioni con un canale di uscita digitale che è attivato in automatico dal dispositivo una volta che le griffe esercitano la forza di presa. In questo modo si ottiene la funzionalità di un sensore di prossimità integrato che può operare indipendentemente dalla posizione finale delle griffe e pertanto senza alcuna regolazione.

Peak output

In the range of models with 4-pin M8 connector, some versions are available with a digital output channel which is automatically enabled by the device when the jaws exert the gripping force. This will work like an integrated proximity sensor which can operate independently of the final position of the jaws, and therefore with no adjustment.





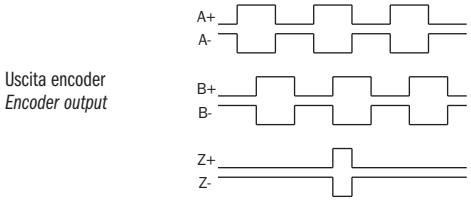


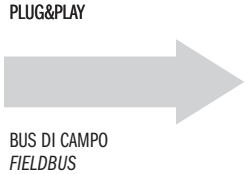
Uscita di posizione e BUS di campo

Saranno prossimamente disponibili versioni con un canale di uscita dedicato alla misura della posizione delle griffe (digitale e/o analogico) e versioni predisposte per la comunicazione basata su BUS di campo digitale.

Position output and fieldbus

Versions with an output channel (digital and/or analog) dedicated to jaw position measurement will soon be available, as well as versions set for communication based on digital fieldbus.





DRV-G

Azionamenti per motori brushless

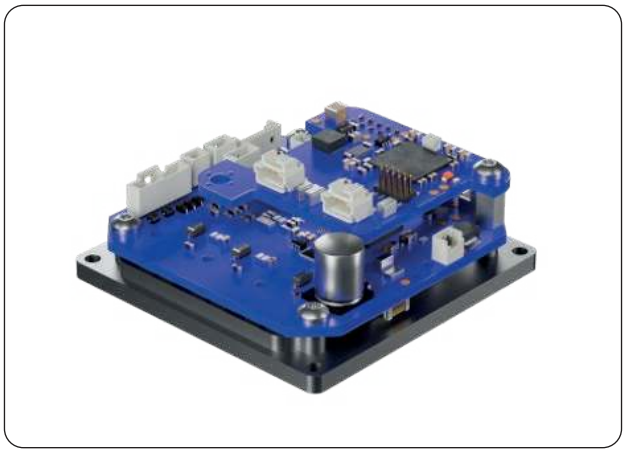
- Alimentazione di potenza: 12 ÷ 36 Vdc
- Alimentazione logica: 12 ÷ 36 Vdc
- Corrente di fase: fino a 12Arms - 36Apeak@24Vdc
- Utilizzabile con tutte le servopinze Gimatic (famiglia MPLF)
- Protezioni contro: sovracorrente, sovratemperatura, sovratensione/sottotensione, inversione di alimentazione
- Feedback disponibile: encoder incrementale (non isolato) 5Vdc TTL/CMOS o sensori Hall o encoder assoluto Biss-C*
- Protocolli disponibili: Profinet, EtherCAT, RS485 Modbus RTU, Modbus TCP/IP*, PowerLink*, Interfacce di comunicazione IP Ethernet (non isolate)
- Interfaccia SCI per la programmazione e il debug in tempo reale
- Facile configurazione: applicazioni Windows disponibili
- Programmabile: ingressi e uscite digitali e analogiche
- Piccole dimensioni: 55 x 55 x 22 mm

*Disponibili su richiesta

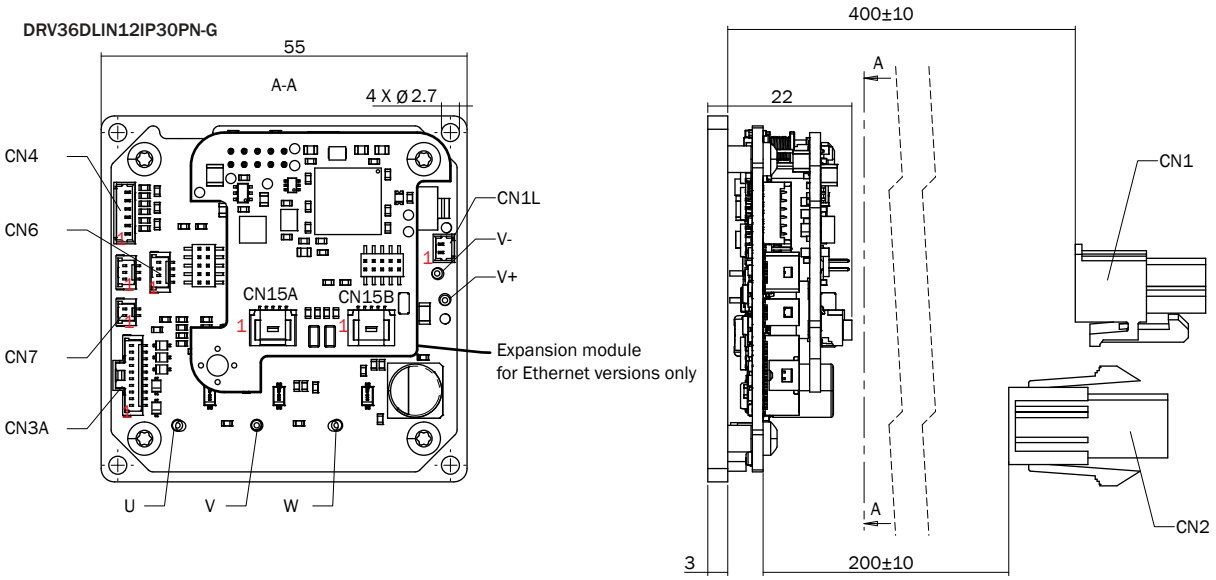
Brushless motor drivers

- *DC power supply: 12 ÷ 36 Vdc*
- *DC logic supply: 12 ÷ 36 Vdc*
- *Phase current: up to 12Arms - 36Apeak@24Vdc*
- *Usable with all Gimatic servogrippers (MPLF family)*
- *Protections against: over current, over temperature, over/under voltage protection, supply inversion*
- *Feedback available: incremental encoder (not isolated) 5Vdc TTL/CMOS or Hall sensors or Absolute Encoder Biss-C**
- *Protocols available: Profinet, EtherCAT, RS485 Modbus RTU, Modbus TCP/IP*, PowerLink*, Ethernet IP communication interfaces (not isolated)*
- *Service SCI interface for programming and real time debugging*
- *Easy setup: Windows applications available*
- *Programmable: digital and analog input and output*
- *Small dimensions: 55 x 55 x 22mm*

**Available on request*



Dimensioni (mm)
Dimensions (mm)



Caratteristiche principali
Main features

Azionamento *Drive*	NEW DRV36DLIN12IP30PN-G	NEW DRV36DLIN12IP30EC-G	NEW DRV36DLIN12IP30MB-G
Protocollo di comunicazione *Communication protocol*	Profinet	EtherCAT	RS485 Modbus RTU
Alimentazione logica (opzionale e non isolata) *Logic power supply (optional and not isolated)*	12 ÷ 36 Vdc		
Alimentazione di potenza *Power supply*	12 ÷ 36 Vdc		
Corrente massima di fase *Maximum phase current*	Fino a 12Arms - 36Apeak@24Vdc, 10Arms - 30Apeak@36Vdc *Up to 12Arms - 36Apeak@24Vdc, 10Arms - 30Apeak@36Vdc*		
Potenza massima motore *Maximum motor power*	360 W		
I/O	4 ingressi digitali (non isolati), 2 uscite digitali (non isolate), 1 ingresso analogico *4 digital inputs (not isolated), 2 digital outputs (not isolated), 1 analog input*		
Frequenza di commutazione *Chopper frequency*	40 kHz		
Modo di controllo *Operating mode*	Modalità a profilo di posizione/velocità/homing, modalità ciclica sincronizzata di posizione/velocità/coppia *Profile position/velocity/homing mode, cyclic sync position/velocity/torque mode*		
Funzioni di protezione *Protective functions*	Sovracorrente, sovratensione/sottotensione, surriscaldamento, inversione dell'alimentazione *Over current, Over/Under Voltage, Overheating, Supply inversion*		
Feedback disponibili *Available feedback*	Encoder incrementale (non isolato) 5Vdc TTL/CMOS o sensori Hall *Incremental encoder (not isolated) 5Vdc TTL/CMOS or Hall sensors*		
Dimensioni *Dimensions*	55 x 55 x 22 mm		
Peso *Weight*	43 g		
Classe di protezione *Protection class*	IP20		
Condizioni ambientali (grado di inquinamento) *Environment conditions (pollution degree)*	2		
Ambiente industriale, secondo EN 61800-3 *Industrial environment, according to EN 61800-3*	Categoria C3 *Category C3*		
Temperatura di stoccaggio *Storage temperature*	-25°C ÷ 55°C		
Temperatura di esercizio *Working temperature*	5°C ÷ 40°C		
Umidità *Humidity*	5% ÷ 85% senza condensazione *5% ÷ 85% non-condensing*		
Set di connettori *Connectors set*	DRV36DLIN12IP30-CN		DRV36DLIN12IP30MB-CN
Software (Cavo SCI di servizio richiesto e disponibile su richiesta) *Software (Service SCI cable required and available on request)*	GStudio, GSpace		
Cavo SCI di servizio *Service SCI cable*	CONV-USB2SERIALE-02		

Pinout

CN1: Connettore di alimentazione
CN2: Connettore delle fasi del motore
CN1L: Connettore di alimentazione logica
CN3A: Connettore ingressi/uscite
CN4: Connettore encoder
CN5A/B: Interfaccia CAN/Modbus
CN6: Interfaccia seriale
CN7: Connettore ingresso analogico
CN15A/B: Connettore multiprotocollo

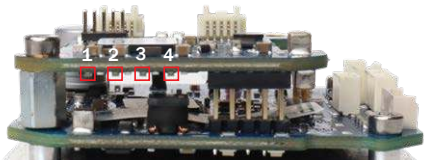
Pinout

CN1: Power Supply connector
CN2: Motor Phases connector
CN1L: Logic Supply connector
CN3A: Input/output connector
CN4: Encoder connector
CN5A/B: CAN/Modbus Interface
CN6: Service Serial Interface
CN7: Analog in connector
CN15A/B: Multiprotocol connector

DRV-G

CN1 - Power supply			
CN1.1	GND	PWR_IN	Ingresso di alimentazione DC negativo (filo nero) *Negative DC power supply input (black wire)*
CN1.2	+Vdc	PWR_IN	Ingresso di alimentazione DC positivo (filo rosso) *Positive DC power supply input (red wire)*
CN1L - Logic supply			
CN1L.1	GND	PWR_IN	Ingresso negativo per la logica (filo nero) *Negative power supply for logic (black wire)*
CN1L.2	+Vdc	PWR_IN	Ingresso positivo per la logica (filo bianco) *Positive power supply for logic (white wire)*
CN2 - Motor connection			
CN2.1	U	PWR_OUT	Fase del motore U (filo giallo) *Motor output phase U (yellow wire)*
CN2.2	V	PWR_OUT	Fase del motore V (filo rosso) *Motor output phase V (red wire)*
CN2.3	W	PWR_OUT	Fase del motore W (filo nero) *Motor output phase W (black wire)*
CN3A - I/O			
CN3A.1	BO_IN0	DIG_IN	Ingresso digitale IN0 *Digital input IN0*
CN3A.2	BO_IN1	DIG_IN	Ingresso digitale IN1 *Digital input IN1*
CN3A.3	BO_IN2	DIG_IN	Ingresso digitale IN2 *Digital input IN2*
CN3A.4	BO_IN3	DIG_IN	Ingresso digitale IN3 *Digital input IN3*
CN3A.5	DIG_OUT0	DIG_OUT	Uscita digitale OUT0 *Digital output OUT0*
CN3A.6	DIG_OUT1	DIG_OUT	Uscita digitale OUT1 *Digital output OUT1*
CN3A.7	GND	PWR_IN	Massa di riferimento per I/O *Reference ground for I/O*
CN3A.8	V_POT	PWR_OUT	Vout per il potenziometro *Vout for potentiometer*
CN3A.9	IN_AN0	AN_IN	Ingresso analogico *Analog input*
CN3A.10	AGND	PWR_IN	Massa di riferimento per analogico *Analog reference ground*
CN4 - Feedback interface			
CN4.1	+5E	PWR_OUT	+5 Vdc
CN4.2	ENC_PHA	DIG_IN	Ingresso segnale Encoder canale A o Ingresso segnale HALL canale A *Encoder Phase A signal input or HALL Effect signal A input*
CN4.3	ENC_PHB	DIG_IN	Ingresso segnale Encoder canale B o Ingresso segnale HALL canale B *Encoder Phase B signal input or HALL Effect signal B input*
CN4.4	ENC_ZERO	DIG_IN	Ingresso segnale Encoder canale Zero o Ingresso segnale HALL canale C *Encoder Phase Zero signal input or HALL Effect signal C input*
CN4.5	N.C.	N.C.	N/C
CN4.6	GND	PWR_OUT	GND
CN5A/B: CAN/Modbus Interface (DRV36DLIN12IP30MB-G)			
CN5.1	CAN_H/DATA+	DIGITAL I/O	Linea bus dominante ALTA *Bus line dominant HIGH*
CN5.2	CAN_L/DATA-	DIGITAL I/O	Linea bus dominante BASSA *Bus line dominant LOW*
CN5.3	GND	PWR_OUT	Massa di riferimento *Signal Ground*
CN6 - Service SCI Interface			
CN6.1	TX/RX		Linea di Trasmissione / Ricezione *Transmit / Receive Line*
CN6.2	DE/RE		Abilitazione Trasmissione Negata / Abilitazione Ricezione *Drive Enable Negated / Receive Enable*
CN6.3	+5V		Uscita alimentazione +5V *+5V power out*
CN6.4	GND		Uscita alimentazione GND *GND power out*
CN15A/B: Multiprotocol connector (DRV36DLIN12IP30PN-G, DRV36DLIN12IP30EC-G)			
CN15.1	TD +		Trasmissione dati + *Transmit Data +*
CN15.2	TD -		Trasmissione dati - *Transmit Data -*
CN15.3	RD +		Ricezione dati + *Receive Data +*
CN15.4	RD -		Ricezione dati - *Receive Data -*
CN15.5	PE		Schermatura *Shield*
CN7 - Analog input			
CN7.1	IN_AN0 / T_MOT	AN_IN	Ingresso analogico *Analog input*
CN7.2	AGND	PWR_IN	Segnale negativo analogico *Negative analog supply*

Stato LED
Status LED



Stato Visualizzazione ***Visualization status***	Descrizione ***Description***	
1	Verde ACCESO *Green ON*	Alimentato *Power ON*
2	Verde ACCESO + Rosso ACCESO *Green ON + Red ON*	Controllato da SW *Controlled by SW*
Su modulo di espansione EtherCAT, Modbus TCP/IP ***On expansion module EtherCAT, Modbus TCP/IP***		
1	Verde *Green*	L/A OUT
2	Rosso *Red*	Errore *Error*
3	Verde *Green*	L/A IN
4	Verde *Green*	Run
Su modulo di espansione Profinet ***On expansion module Profinet***		
1	Verde - Giallo *Green- Yellow*	LINK – Verde RT/TX – Giallo *LINK – Green RT/TX – Yellow*
2	Rosso *Red*	BF
3	Verde - Giallo *Green - Yellow*	LINK – Verde RT/TX - Giallo *LINK – Green RT/TX - Yellow*
4	Verde *Green*	SF

Compatibilità serie

Il drive è compatibile con tutte le servo pinze Gimatic, come la famiglia MPLF o le rotopinze elettriche per l'industria farmaceutica.

Dal sito Gimatic è possibile scaricare i software GSpace e GStudio (a seconda del modello di drive scelto) per configurare e testare drive e pinza direttamente da PC.

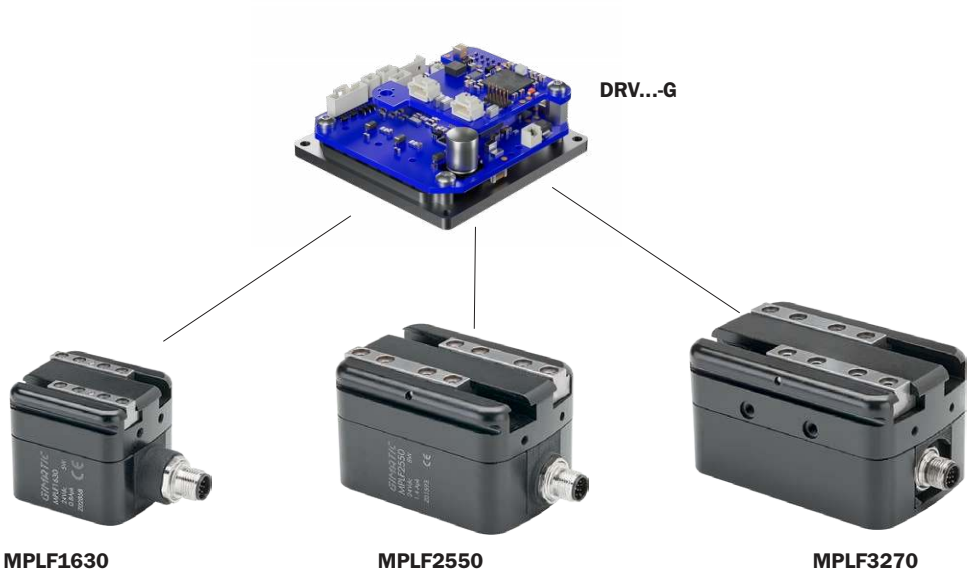
Sono poi scaricabili dal sito file di parametrizzazione del drive (a seconda della pinza scelta) e tutta la documentazione necessaria.

Series Compatibility

The drive is compatible with all Gimatic servo grippers, such as the MPLF family or the electric rotary grippers for the pharmaceutical industry.

From the Gimatic website, one can download the GSpace and GStudio software (depending on the chosen drive model) to configure and test the drive and gripper directly from a PC.

Drive parameterization files (depending on the chosen gripper) and all the necessary documentation can then be downloaded.



RQC

RQCBOX

Il dispositivo RQCBOX permette la connessione e la comunicazione diretta di un lettore Gimatic RFID (sia RAQC che RAQCN) con un computer a scopo di test e di configurazione.

- Comunicazione seriale RS232 utilizzando eventualmente un convertitore USB/RS232 standard.
- Riconoscimento automatico di un lettore con uscite PNP (RAQC) o NPN (RAQCN).
- 8 LED integrati per la segnalazione diretta del TOOL ID memorizzato nel TAG di memoria.
- pulsante integrato per simulare il segnale di consenso normalmente generato da una sensor box per il test del conteggio del numero di cicli del sistema RFID.

RQCBOX

The RQCBOX allows the direct connection and communication of a Gimatic's RIFD reader (either RAQC or RAQCN) with a computer for configuration and testing purposes.

- *RS232 communication, using a standard USB to RS232 converter, if necessary.*
- *Automatic recognition of readers with PNP (RAQC) or NPN (RAQCN) outputs.*
- *8 built-in LEDs for direct signalling of the TOOL ID stored in the memory TAG.*
- *Push-button to simulate the acknowledgment signal normally provided by a sensor box for testing the cycle counter functionality of the RIFD system.*

	RQCBOX	
Materiale del corpo	PA12	*Body material*
Intervallo di temperature di lavoro	-20 ÷ 65°C	*Allowed temperature range*
Dimensioni	45 mm x 42 mm x 15 mm	*Dimensions*
Massa	30 g	*Weight*
Connessioni elettriche	DB 15 pin femmina (HD) *DB 15 pin female (HD)*	*Electrical connections*
Grado di protezione	IP40	*Environmental degree*
Alimentazione	24 Vdc ± 10%, 0.15 Arms	*Power supply*
Interfaccia di comunicazione	RS232	*Communication interface*

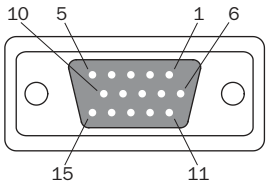
Connessioni elettriche

La connessione elettrica al lettore (sia RAQC che RAQCN) è disponibile tramite un connettore femmina DB standard a 15 pin (alta densità) coerentemente con lo schema seguente.

Electrical connections

The electrical connection to the reader unit (RAQC or RAQCN) is available by means of a standard 15-pin (high density) DB female connector according to the following schema.





	Pin #		
Uscita digitale #1	1	DO_1	*Digital output #1*
Uscita digitale #2	2	DO_2	*Digital output #2*
Segnale RS232 Tx (uso opzionale)	3	RS_TX	*RS232 Tx signal (optional use)*
Massa alimentazione	4	GND	*Power Supply GND*
Segnale RS232 Rx (uso opzionale)	5	RS_RX	*RS232 Rx signal (optional use)*
Alimentazione 24 Vdc	6	24 Vdc	*Power Supply 24 Vdc*
Uscita digitale (allarme manutenzione)	7	DO_Count	*Digital output (maintenance alarm)*
Uscita digitale #3	8	DO_3	*Digital output #3*
Uscita digitale (condizione di errore)	9	DO_Fault	*Digital output (fault condition)*
Uscita digitale #4	10	DO_4	*Digital output #4*
Uscita digitale #5	11	DO_5	*Digital output #5*
Uscita digitale #6	12	DO_6	*Digital output #6*
Uscita digitale #7	13	DO_7	*Digital output #7*
Uscita digitale #8	14	DO_8	*Digital output #8*
Ingresso digitale (segnale esterno di fine ciclo)	15	DI_Count	*Digital input (cycle end external signal)*

Capacitor Box

Il dispositivo Capacitor Box consente il corretto funzionamento delle pinze elettriche Gimatic nei casi in cui si disponga di un'alimentazione limitata in corrente.

- 2 modelli disponibili (un modello dedicato alle taglie 16 e 25, un modello dedicato alla taglia 32).
- Compatibili con tutte le pinze e gli attuatori elettrici Gimatic.
- Dimensioni compatte.
- Connessione integrata di alimentazione, segnale di comando e I/O addizionali.
- Connessione Plug & Play con connettori standard M8 - 8 poli e M8 - 3 poli/4 poli (a seconda della versione) angolari.

Capacitor Box

Capacitor Box allows a correct functionality of Gimatic's electric grippers in all the cases where power supply is limited in peak current (i.e. some collaborative robots).

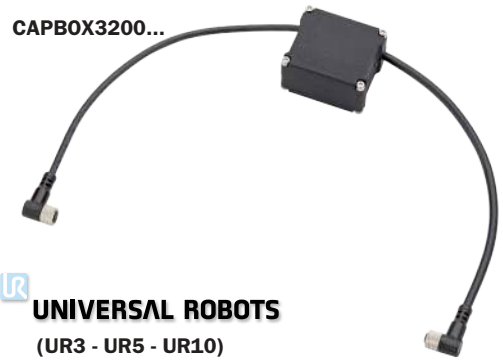
- *2 models available (one for grippers size 16 and 25, one for grippers size 32).*
- *Compatible with all Gimatic electric actuators.*
- *Compact dimensions.*
- *Embedded connection of power supply, command signal and additional I/O.*
- *Plug & Play connection with standard M8 8-pin connectors and angular M8 3-pin/4-pin connectors (depending on the version).*

CAPBOX1625...



UNIVERSAL ROBOTS
(UR3 - UR5 - UR10)

CAPBOX3200...



UNIVERSAL ROBOTS
(UR3 - UR5 - UR10)

	CAPBOX1625-03 CAPBOX3200-03	CAPBOX1625-04 CAPBOX3200-04
Materiale corpo *Body material*	Nylon PA12 *Nylon PA12*	
Massa *Mass*	60 ÷ 70 g	
Intervallo di temperatura ammesso *Allowed temperature range*	5 ÷ 60° C	
Connessioni elettriche *Electrical connection*	Ingresso M8 - 8 poli femmina angolare *Input: M8 8-pin angular female*	
	Uscita M8 - 3 poli femmina angolare *Output: M8 3-pin angular female*	Uscita M8 - 4 poli femmina angolare *Output: M8 4-pin angular female*
Grado di protezione *Environmental degree*	IP66	
Alimentazione *Power supply*	24 Vdc ± 10%, 0.5 Arms	
Segnale di comando in ingresso (Connessione di default) *Input command signal* *(Default connection)*	Ingresso digitale NPN basso: segnale di chiusura alto: segnale di apertura • *NPN digital input* • *low: closing command* *high: opening command*	
Segnale di comando in uscita (Connessione di default) *Output command signal* *(Default connection)*	• Uscita digitale NPN • basso: segnale di chiusura alto:segnale di apertura • *NPN digital output* • *low: closing command* *high: opening command*	
I/O ausiliari *Auxiliary I/O*	• • no *none*	1 segnale (uscita picco o controllo forza in base al modello di pinza) *1 signal* *(peak output or force control depending on gripper model)*
LED di stato ***Status LED***	2 LED Verde: alimentazione presente Giallo: stato comando pinza 2 LED *Green: power supply is present* *Yellow: gripper command status*	

CAPBOX

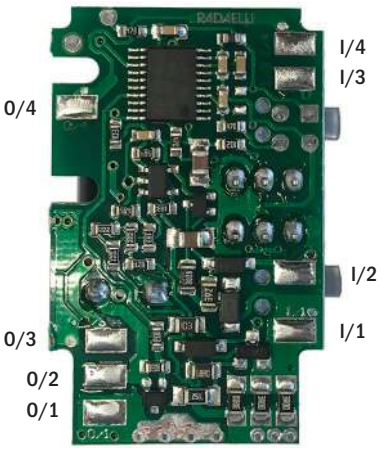
Connessioni Elettriche

Il circuito Capbox rende disponibili delle connessioni sia lato ingresso che lato uscita. Le connessioni lato ingresso sono disponibili con un connettore M8-8 pin femmina (alimentazione, segnale di comando e I/O ausiliari). L'uscita è disponbile con un connettore M8-3 o 4 poli per la connessione diretta alle pinze elettroniche Plug & Play. La configurazione standard prevede segnali di tipo NPN sia per l'ingresso che per l'uscita. L'utente può comunque personalizzare la configurazione semplicemente modificando le connessioni elettriche come mostrato in tabella.

Electrical Connections

The Capacitor Box circuit has an input side and an output side. The input side allows for connection of power supply, command signal and auxiliary I/O by a M8-8pin female connector. The output side allows for direct connection of 3 or 4 pins Plug & Play grippers' models. Default configuration is with both input and output command signals in NPN version. The user can customize configuration by simply modifying electrical connections according to following table.

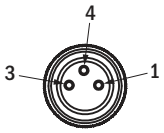




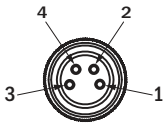
	Cavo d'ingresso standard (*) *Standard input cable (*)*	
I/1	+24Vcc	Grigio *Grey*
I/2	GND	Rosso *Red*
I/3	Ingresso digitale *Digital input*	Blu *Blue*
I/4	I/O ausiliari *Auxiliary I/O*	Giallo *Yellow*

	Cavo d'uscita standard (*) *Standard output cable (*)*	
0/1	+24Vcc	Marrone *Brown*
0/2	GND	Blu *Blue*
0/3	Uscita digitale *Digital output*	Nero *Black*
0/4	I/O ausiliari *Auxiliary I/O*	Bianco *White*

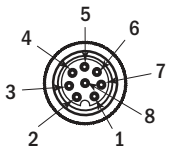
(*) Connessione standard per pinze con ingresso a 3 pin
Standard connection for 3 pins grippers' models



	M8 3 pin femmina *M8 3 pins female*	
1	Marrone	*Brown*
3	Blu	*Blue*
4	Nero	*Black*



	M8 4 pin femmina *M8 4 pins female*	
1	Marrone	*Brown*
2	Bianco	*White*
3	Blu	*Blue*
4	Nero	*Black*

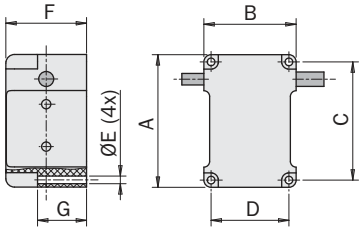


	M8 8 pin femmina *M8 8 pins female*	
1	Bianco	*White*
2	Marrone	*Brown*
3	Verde	*Green*
4	Giallo	*Yellow*
5	Grigio	*Grey*
6	Rosa	*Pink*
7	Blu	*Blue*
8	Rosso	*Red*

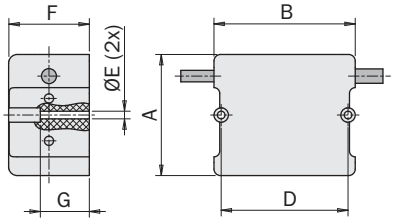


Dimensioni (mm)
Dimensions (mm)

CAPBOX1625



CAPBOX3200



	CAPBOX1625	CAPBOX3200
A	46	42
B	32	49
C	41	-
D	27	44
E	-	Ø2.65
F	28	28
G	-	17

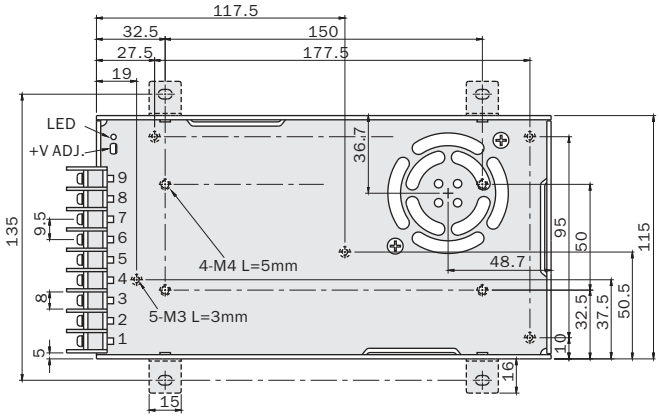
Alimentatori

Alimentatori MEAN WELL serie SP con ingresso universale AC ed uscita a 24 V.

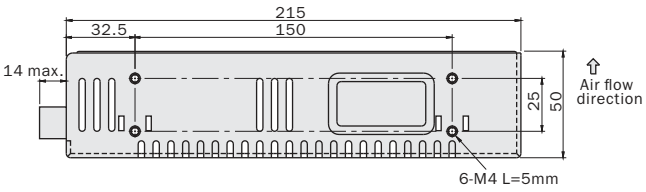
Power supplies

MEAN WELL power supplies (series SP) with universal AC input and 24 V output.





	MPS24-8.4	MPS24-13
Corrente nominale *Rated current*	8.4 A	13 A
Potenza nominale *Rated power*	200 W	320 W



Switch

Alimentatori a tensione variabile per usi generali configurati a 24 V ed equipaggiati con un pulsante per il comando diretto di apertura/chiusura delle pinze e degli attuatori elettrici della serie Mechatronics.
Disponibili nelle due versioni con ingresso PNP o NPN.

Switch

Variable voltage power supplies for general use configured for 24 V and equipped with a button for direct open/close control of the Mechatronics series electric grippers and actuators.
Available in two versions with PNP or NPN input.



	MPS24-1-S-PNP	MPS24-1-S-NPN
Ingresso *Input*	PNP	NPN
Corrente nominale *Rated current*	1 A	
Potenza nominale *Rated power*	25 W	

A-MECHA

Kit per il fissaggio delle pinze Mechatronics su robot con interfaccia ISO 9409-1-50-4-M6

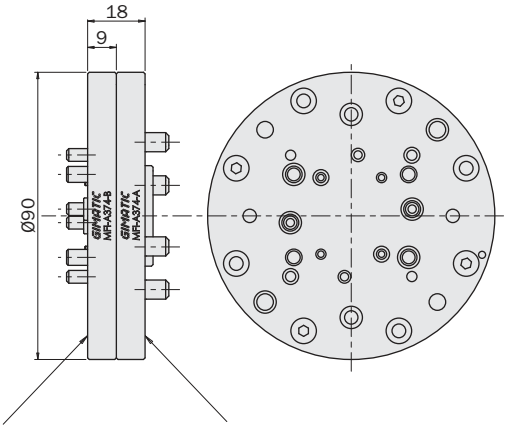
Kit for mounting Mechatronics grippers onto a robot with ISO 9409-1-50-4-M6 interface

MFI-A374-A
- Massa: 50g

MFI-A374-B
- Massa: 55g

MFI-A374-A
- *Mass: 50g*

MFI-A374-B
- *Mass: 55g*

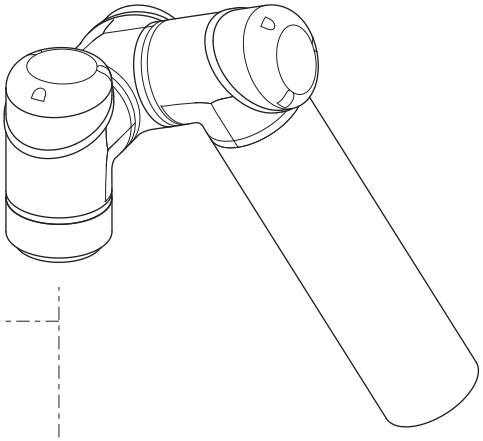


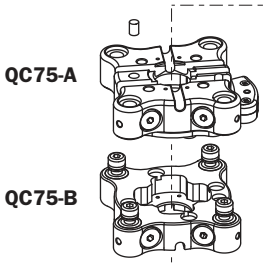
MFI-A374-B

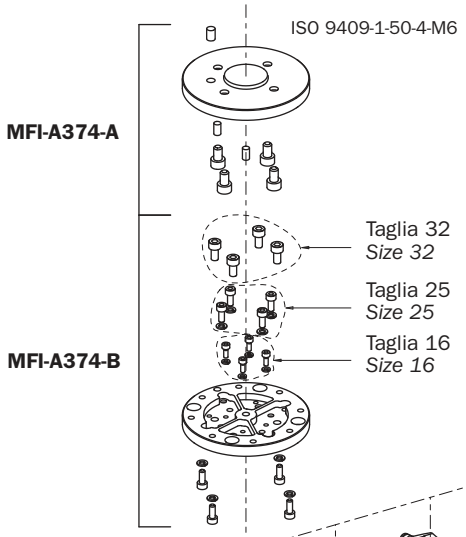
Lato PINZA
GRIPPER side

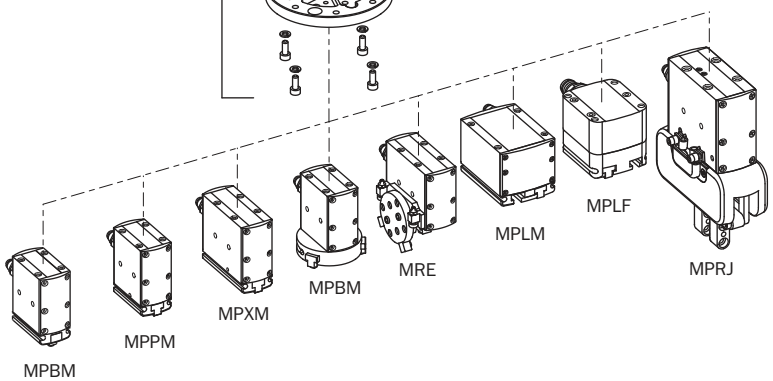
MFI-A374-A

Lato ISO 9409-1-50-4-M6
ISO 9409-1-50-4-M6 side









07/2026

Glossario

Forza di serraggio totale
Valore medio di forza erogata dalle griffe.

Coppia di serraggio totale
Valore medio di coppia erogata dalle griffe.

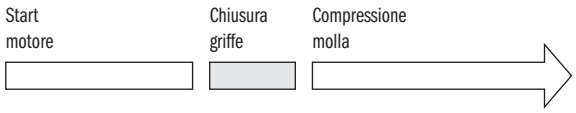
Coppia di rotazione
Valore medio di coppia erogata dal piattello rotante.

Corsa
Valore medio della corsa totale delle griffe.

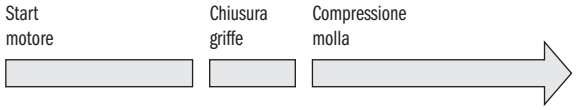
Frequenza
Valore medio di frequenza ciclo composto da apertura, chiusura e tempo di raffreddamento per evitare sovratemperature del motore. Questo valore è determinato senza carico collegato all'attuatore.

$$F_{ciclo}\,(Hz) = \frac{1}{(t_{lavoro\ pinza} + t_{raffreddamento}) \times 2}$$

Tempo chiusura griffe
Tempo del solo movimento meccanico di chiusura griffe dopo lo start motore e prima della compressione molla.



Tempo di lavoro pinza
Tempo totale di start motore, movimentazione griffe e compressione molla.



Ciclo di lavoro
Rapporto tra il tempo operativo dell'attuatore ed il tempo totale di ciclo che comprende anche il tempo di raffreddamento.

$$D\,(\%) = \frac{t_{lavoro\ pinza}}{(t_{lavoro\ pinza} + t_{raffreddamento})}$$

$$t_{raffreddamento}\,(s) = \left(\frac{t_{lavoro\ pinza}}{D\,(\%)}\right) - t_{lavoro\ pinza}$$

Tensione di alimentazione
Tensione continuativa necessaria per alimentare l'attuatore.

Corrente di picco
Corrente massima di alimentazione del motore limitata dalla tensione di BUS, dalla resistenza elettrica del motore (a temperatura prefissata) e da fattori costruttivi.
Per i motori lineari, gli attuatori lineari elettrici e le guide lineari elettriche rappresenta il valore massimo rms.

Potenza motore Brushless
Massima potenza meccanica del motore brushless.

Connessione
Connettore circolare metallico standard M8x1, 3 poli.

Glossary

Total gripping force
Average jaws gripping force.

Total gripping force
Average jaws gripping torque.

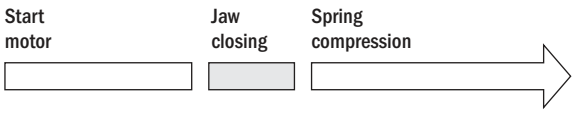
Swivelling torque
Average provided torque on the rotary plate.

Stroke
Average value of the total jaws stroke.

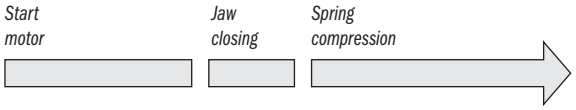
Frequency
Mean frequency value for a cycle comprising opening, closure and cooling time to prevent the motor from overheating.
This value is calculated with no load connected to the actuator.

$$F_{cycle}\,(Hz) = \frac{1}{(t_{working\ gripper} + t_{cooling}) \times 2}$$

Closing jaws time
Mechanical moving jaws time after motor starts running and before spring compression.



Working gripper time
Start motor, jaws movement and spring compression total time.



Duty cycle
Ratio of time that actuator spends in an active state to the time spent to make the total cycle with cooling time included.

$$D\,(\%) = \frac{t_{working\ gripper}}{(t_{working\ gripper} + t_{cooling})}$$

$$t_{cooling}\,(s) = \left(\frac{t_{working\ gripper}}{D\,(\%)}\right) - t_{working\ gripper}$$

Power supply
Necessary continuous voltage to power supply actuator.

Peak current
Maximum motor supply current, limited by the BUS voltage, the motor's electrical resistance (at a set temperature) and constructive factors.
For linear motors, electrical linear actuators and electric linear guideways, it is the maximum rms value.

Brushless motor power
Maximum mechanical brushless motor power.

Connection
Standard metal round M8x1, 3 pole connector.

Glossario

Segnale d'ingresso apertura/chiusura
Logica a collettore aperto pilotabile con +24Vdc e GND.

Temperatura di esercizio
Temperatura ambiente rappresentante le condizioni nominali di funzionamento, limitata dalle caratteristiche dei materiali e dalla viscosità del lubrificante.

Grado di protezione
Codice che riassume il livello di protezione dell'apparecchiatura elettrica contro l'ingresso di parti solide e liquide.

Rumorosità
Valore fondamentale di rumorosità espresso in decibel per area prevalentemente industriale.

Massa
Massa totale dell'attuatore compreso di motore brushless.

Certificazione Camera Bianca IPA
Certifcazione ISO14644-1 per l'utilizzo dell'attuatore in camera bianca eseguita presso Fraunhofer Institute.

Certificazione CE
Compatibilità elettromagnetica (EMC) in accordo alla EN61000-06-2:2005; EN61000-6-3:2007; EN61000-6-4:2007.

Tensione di BUS
Tensione di picco erogata dall'azionamento del motore.

Forza di picco
Forza erogata dal motore con la corrente di picco.

Costante di forza
Costante di proporzionalità diretta tra la corrente di alimentazione e la forza erogata del motore.

Impuntamento
Interazione tra i magneti permanenti e lo statore che genera una forza periodica resistente ad ogni polo.

Forza continuativa
Forza erogabile dal motore con la corrente continuativa.

Corrente continuativa
Corrente con cui il motore può essere alimentato per tempo indefinito e che comporta il raggiungimento della temperatura interna al valore limite prefissato (senza sovratemperatura).

Resistenza di fase
Valore di resistenza elettrica equivalente misurata ai capi di una fase ad una temperatura prefissata.

Induttanza di fase
Induttanza elettrica equivalente misurata ai capi di una fase.

Costante BEMF
Contro-tensione generata da ogni fase quando il motore si muove a 1m/s.

Glossary

Open/closed input signal
Open collector logic system drivable with 24Vdc and GND.

Operating temperature
Room temperature refers to the nominal operating conditions. It is limited by the characteristics of the materials and the viscosity of the lubricant.

Environmental Degree
Degree of protection provided against intrusion of solid objects and water in mechanical casings with electrical enclosures.

Noise level
Industrial area noise level espressed in decibel.

Mass
Total actuator mass with brushless motor included.

IPA Clean Room Certifcation
ISO 146444-1 clean room certification made by Fraunhofer Instutute.

CE certification
Electromagnetic compatibility (EMC) accordingly with EN61000-06-2:2005; EN61000-6-3:2007; EN61000-6-4:2007.

BUS voltage
Peak voltage supplied at motor start-up.

Peak force
Peak current force.

Force coefficient
Constant of direct proportionality between the feed current and the motor force output.

Cogging
Interaction between permanent magnets and stator that causes a periodic detent force at every pole.

Continuous force
Motor force output capacity with continuous current.

Continuous current
Current which can be supplied to the motor indefinitely, at which it reaches the maximum rated internal temperature (without overheating).

Phase resistance
Value of equivalent electric resistance measured across the terminals of a phase at a predetermined temperature.

Phase inductance
Equivalent electric inductance measured across the terminals of a phase.

BEMF constant
Back voltage generated when the motor is 1 m/s moved.

Glossario

Resistenza termica
Valore di surriscaldamento per ogni Watt di potenza prodotto dal motore.

Costante termica
Tempo impiegato dal motore per raggiungere la temperatura a regime.

Massima temperatura di fase
Temperatura massima raggiungibile dagli avvolgimenti.

Valore PTC
Valore della resistenza del sensore di temperatura.

Tensione massima PTC
Tensione di alimetazione massima applicabile ai capi della termoresistenza PTC.

Trasduttore di retroazione
Dispositivo per rilevare e misurare la posizione reciproca motore-slider.

Uscita circuito
Tipologia di segnale generato dal trasdutttore di retroazione verso il controllore.
ABZ: segnale d'uscita a onda quadra.
SIN/COS: segnale d'uscita sinusoidale.
HALL: uscita a bassa risoluzione per fasatura motore.

Segnale d'uscita
Standard di comunicazione utilizzato.

Consumo di corrente
Assorbimento massimo del sensore dall'alimentazione.

Velocità di lavoro
Massima velocità alla quale il sensore riesce a fornire una corretta informazione della posizione.

Risoluzione
Parametro che indica la precisione della rilevazione degli spostamenti meccanici.

$$\text{Risoluzione (µm)} = \frac{\text{Passo polare}}{\text{Impulsi}}$$

Ripetibilità
Esprime la concordanza tra una serie di misure in condizione immutata di misura.

Passo Polare
Distanza lineare tra due poli magnetici uguali consecutivi (Nord > Nord; Sud > Sud).

Impulsi / Sinusoidi
Numero di impulsi oppure onde sinusoidali all'interno di un passo polare.

Glossary

Thermal resistance
Overheating for every Watt power dissipate from the motor.

Thermal constant
Time taken from the motor to reach the maximum temperature.

Max phase temperature
Maximum permissible winding temperature.

PTC value
Resitance value of the temperature sensors (PTC).

PTC max voltage
Maximum feed voltage applicable to the terminals of the PTC thermistor.

Feedback transducer
Electronic device to check and measure the motor/slider respective positions.

Circuit output
Type of signal generated by the feedback transducer toward the controller.
ABZ: square wave incremental output.
SIN/COS: sinusoidal wave encoder output.
HALL: low resolution feedback for motor phasing.

Output signal
Communication standard used.

Current consumption
Maximum sensor current consumption provided from power supply.

Working speed
Maximum sensor speed to get correct position information.

Resolution
Smallest incremental pitch that system can perform.

$$\textit{Resolution (µm)} = \frac{\textit{Pole pitch}}{\textit{pulses}}$$

Repeatabilty
Ability of a system to perform and maintain same measure in routine circumstances.

Pole Pitch
Linear distance between the consecutive same poles (North > North; South > South).

Impulses / Sinusoid
Incremental impulses or sinusoidal waveforms included in a single pole pitch.

SENSORI

Sensors



Codice sensori magnetici

Magnetic sensor encoding

SL	1	C	2	25	-G

Serie
Series

SL

SC/SS /SN/SA/SM/CB/PRO-SS/PRO-SN/SSY

Connessione
Connection

1	Cavo 2 poli	*2-pole cable*
2	Connettore M8 2 poli	*2-pole M8 connector*
3	Connettore M8 3 poli	*3-pole M8 connector*
4	Cavo 3 fili	*3-pole cable*
5	Connettore M12 2 poli	*2-pole M12 connector*
6	Connettore M12 3 poli	*3-pole M12 connector*
7	Cavo 3 fili derivazione M12	*3-pole M12 connector*
8	Connettore AU M8 3 poli	*3-pole AU M8 connector*
9	Connettore AU M12 3 poli	*3-pole AU M12 connector*

Tipo circuito
Circuit type

A	Reed 2 fili NO LED	*NO LED 2-wire reed*
B	Reed 2 fili NO LED + VDR	*NO LED + VDR 2-wire reed*
C	Reed 2 fili	*2-wire reed*
D	Reed PNP 3 fili	*3-wire PNP reed*
E	2 fili magnetoresistivo (PNP-NPN)	*2-wire magnetoresistive (PNP-NPN)*
F	Reed NC 2 fili NO LED	*NO LED 2-wire NC reed*
G	Reed NC 2 fili NO LED + VDR	*NO LED + VDR 2-wire NC reed*
H	Reed NC 2 fili	*2-wire NC reed*
L	NPN magnetoresistivo NC	*Magnetoresistive NPN NC*
M	NPN magnetoresistivo NA	*Magnetoresistive NPN NO*
N	PNP magnetoresistivo NA	*Magnetoresistive PNP NO*
P	PNP magnetoresistivo NC	*Magnetoresistive PNP NC*
S	Reed scambio	*Changeover reed*
V	Analogico 0-10 V	*0-10V analog*

Tensione di alimentazione nominale
Power supply voltage

1	5V dc
2	24 V ac/dc
4	110 V ac/dc
5	250 V ac/dc

Lunghezza cavo
Standard cable length

...	0 m
03	0.3 m
25	2.5 m

Personalizzazione
Personalization

-G	Gimatic S.r.l

Codice tutti gli altri sensori

All other sensor encoding

SI 4 N 2 25 -G

Serie
Series

SI
SIS /SO /SOQ /SU

Connessione — *Connection*

4	Cavo 3 fili	*3-wire cable*
8	Connettore AU M8	*AU M8 connector*
9	Connettore AU M12	*AU M12 connector*

Tipo circuito — *Circuit type*

M	NPN magnetoresistivo	*Magnetoresistive NPN*
N	PNP magnetoresistivo	*Magnetoresistive PNP*

Tensione di alimentazione nominale — *Rated voltage*

2	24 V dc

Lunghezza cavo — *Cable Length*

...	0 m
03	0.3 m
25	2.5 m

Personalizzazione — *Personalization*

-G	Gimatic S.r.l

Codice connettori

Connector encoding

CF G M8 00 3 25 P

Serie
Series

CF

Tipo connettore — *Type*

G	Ghiera metallica	*Metal ring nut*
S	Snap	*Snap*

Filetto — *Thread*

M8	M8x1
M12	M12x1

Orientamento — *Angle*

00	0°
90	90°

Numero poli — *Number of poles*

2
3
4

Lunghezza cavo — *Cable length*

00	no cable
25	2.5 m
30	3 m
50	5 m
1k	10 m

Materiale cavo — *Cable material*

...	PVC
P	PUR

SENSORS

Generalità

I sensori magnetici sono dispositivi che, in presenza di campi magnetici, cambiano lo stato dell'uscita del circuito. Vengono normalmente utilizzati come finecorsa di prossimità su cilindri con magnete permanente nel pistone. Applicando il sensore nell'apposita sede sul corpo esterno del cilindro, si può rilevare la posizione del pistone tramite un contatto elettrico o un segnale in tensione. A seconda del tipo di sensore, l'elemento sensibile può essere rispettivamente un relè REED oppure un chip magneto-resistivo (GMR). I sensori sono disponibili nella versione con uscita cavo oppure con connettore. Il nostro “custom service” è a disposizione dei clienti qualora i nostri prodotti di serie non soddisfacessero le esigenze.

General features

Magnetic sensors are devices that change circuit output status in the presence of magnetic fields. They are normally used as proximity sensors on cylinders with a permanent magnet in the piston. By positioning the sensor in a special housing on the outside of the cylinder body, the position of the piston can be detected via an electric contact or voltage signal. The sensing element may be a reed switch or magneto resistive chip (GMR sensor) depending on the type of sensor. Sensors are available with a cable outlet or connector. A bespoke service is available if our standard products do not meet customer requirements.



Scelta del sensore

Il sensore è un interruttore che solitamente è connesso in serie ad un cavo: è importante quindi che sia installato rispettando le caratteristiche elettriche dichiarate.
I principi di funzionamento sono due:

- RELE' REED dove l'elemento sensibile consiste in un' ampolla di vetro che contiene due lamelle metalliche polarizzate. Queste lamelle si attraggono in presenza di campo magnetico. Può funzionare con alimentazione Vdc o Vac. L'elemento sensibile potrebbe avere malfunzionamenti in presenza di forti vibrazioni.
- ELETTRONICO dove l'elemento sensibile è un chip magneto-resistivo (GMR) che, in presenza di campi magnetici, cambia lo stato di un'uscita. Funziona esclusivamente con alimentazione Vdc ed ha una vita, teoricamente, infinita. L'elemento sensibile è immune alle forti vibrazioni.

La scelta del tipo di uscita tra PNP e NPN è generalmente guidata dall’integrazione nel sistema di automazione pre-esistente: per un corretto funzionamento del sistema, il tipo di uscita del sensore deve corrispondere al tipo di ingresso del controllore (o PLC) utilizzato. In generale la soluzione PNP è più diffusa in Nord America ed in Europa mentre la soluzione NPN è più diffusa in Asia. I sensori di tipo PNP sono vulnerabili ai corti circuiti mentre i sensori di tipo NPN possono generare falsi segnali al controllore in caso di contatto indesiderato verso massa. Infine un’ultima distinzione riguarda la selezione dello stato del sensore in condizione non attiva, ovvero tra sensore normalmente aperto (NA) o normalmente chiuso (NC). Nel primo caso il sensore si comporta secondo una logica di rilevamento positiva, non genera segnale in caso di interruzione di un conduttore ma può generare falsi segnali in caso di corto circuito. Nel secondo caso il sensore si comporta secondo una logica di rilevamento negativa ed un eventuale conduttore interrotto genererebbe un falso segnale.
In entrambi i casi la logica può essere invertita facilmente dal controllore (o PLC).

Choosing a sensor

A sensor is a switch that is usually connected in series to a cable, therefore it must be installed in line with specified electrical characteristics.
There are two principles of operation:

- *a REED SWITCH where the sensing element consists of a glass bulb containing two polarised metal strips. There is an attraction between these strips in the presence of a magnetic field. It can operate with a DC or AC voltage supply. The sensing element could malfunction in the presence of strong vibrations.*
- *ELECTRONICALLY where the sensing element is a magnetoresistive chip (GMR sensor), which changes the status of an output in the presence of magnetic fields. It only operates with a DC voltage supply and has a theoretically infinite lifetime. The sensing element is immune to strong vibrations.*

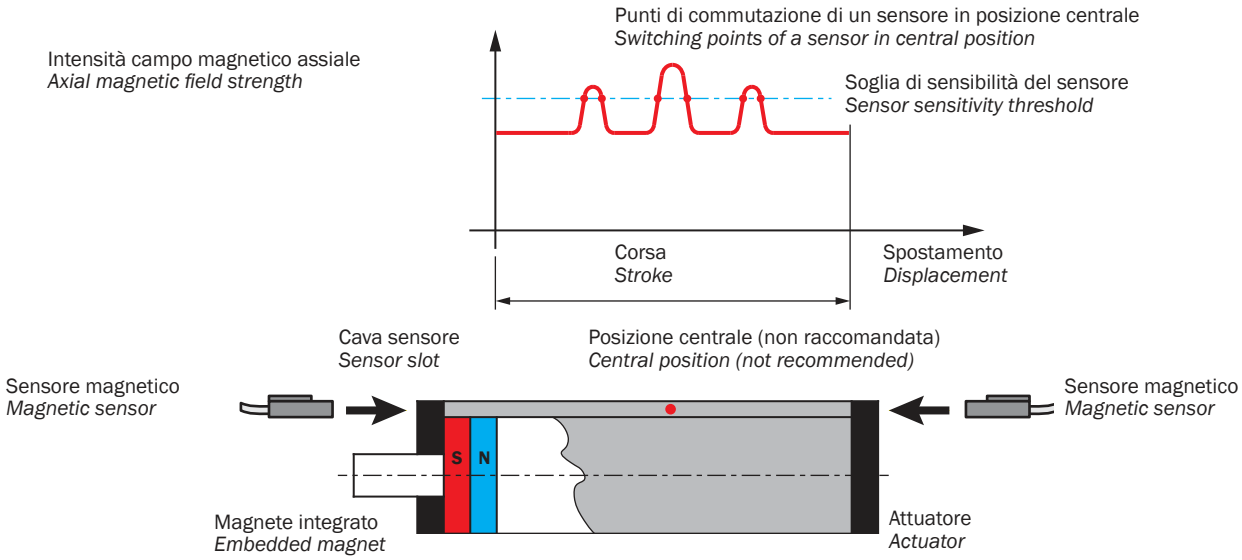
The decision to choose a PNP or NPN output is usually determined by the method of integration in the existing automation system: for correct system operation, the type of sensor output must correspond to the type of controller (or PLC) output used. The PNP solution is generally more widespread in North America and Europe, whereas the NPN solution is more common in Asia. PNP sensors are vulnerable to short circuits, whereas NPN sensors can produce false signals in the controller in the event of an unwanted earth contact. A final consideration is the status of the sensor under active conditions, i.e. between a normally open (NO) or normally closed (NC) sensor. In the first case the sensor behaves according to positive sensing logic, a signal is not generated if a wire is interrupted but false signals may be produced in the event of a short circuit. In the second case the sensor behaves according to negative sensing logic, and an interrupted wire would produce a false signal. The logic can easily be inverted in both cases by the controller (or PLC).

Avvertenze nell'uso dei sensori magnetici

I sensori magnetici sono spesso utilizzati in abbinamento a magneti che ne generano l'attuazione e che sono tipicamente integrati all'interno degli attuatori. La caratteristica principale di un qualsiasi sensore magnetico digitale è la sensibilità che rappresenta il valore di intensità del campo magnetico alla quale il sensore commuta l'uscita. Riferendosi allo schema riportato sotto, il grafico mostra la tipica forma d'onda dell'intensità di campo magnetico assiale misurabile da un gaussmetro in posizione centrale (PC). In base alla sensibilità del sensore e alle caratteristiche del campo magnetico, un sensore posizionato centralmente può commutare l'uscita più volte durante la corsa dell'attuatore. Se non diversamente indicato, in generale una buona pratica di installazione consiste pertanto nel non posizionare il sensore centralmente, bensì di inserire il sensore lateralmente dal fondo della cava del dispositivo e regolare manualmente la posizione di commutazione realizzando più corse dell'attuatore. Normalmente i sensori sono infatti utilizzati per identificare esclusivamente le condizioni di fine corsa. Per altre condizioni operative si prega di contattare il supporto tecnico.

Instructions on using magnetic sensors

Magnetic sensors are often used in combination with magnets to produce magnetic actuation, and are typically embedded in actuators. The main characteristic of any digital magnetic sensor is the sensitivity level representing the magnetic field strength value at which the sensor switches the output. The graph below shows the typical waveform of axial magnetic field strength measured by a Gauss meter in the central position (PC). Depending on the sensitivity level of the sensor and magnetic field characteristics, a sensor placed centrally may switch output several times during the actuator stroke. Unless stated otherwise, it is generally good practice not to install the sensor centrally, but to insert it laterally into the groove and manually adjust the position of the sensor while performing several actuator strokes. In practice, sensors are normally only used to identify end-of-stroke conditions.
For any other operating conditions, please contact the technical support department.



Circuito di protezione per sensori

La commutazione di carichi induttivi da parte dei contatti REED produce un elevato picco di tensione al momento della disinserzione. Per tale motivo, al fine di prevenire eventuali scariche dielettriche oppure un arco voltaico, è necessario introdurre un circuito di protezione. Questo può essere:

- Un circuito R-C in parallelo al finecorsa se alimentato in V dc (Figura 1).
- Un diodo in parallelo al carico se alimentato in V dc (Figura 2).
- N°2 diodi Zener in parallelo al carico se alimentato in V ac/dc (Figura 3).
- Un varistore (VDR) in parallelo al carico se alimentato in V ac/dc (Figura 4).

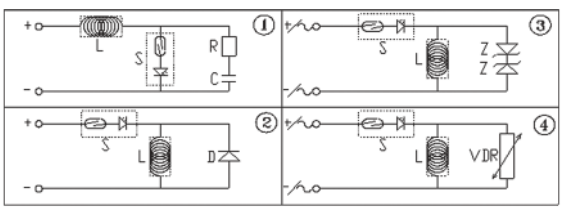
La commutazione di carichi capacitivi o l'impiego di cavi con lunghezza maggiore a metri 10 produce picchi di corrente al momento dell'inserzione. Perciò è necessario introdurre una resistenza di protezione vicino al finecorsa sul filo marrone. In questa fase è necessario mettere attenzione garantendo la minima corrente necessaria per pilotare il sensore (10÷20 mA).

Sensor safety circuit

The switching of inductive loads with reed switches produces a high voltage peak during disconnection. As a result, a safety circuit is required to prevent dielectric discharges or voltaic arcs. This can be:

- *A R-C circuit in parallel with the load in the case of a DC voltage supply (figure 1).*
- *A diode in parallel with the load in the case of a DC voltage supply (figure 2).*
- *2 Zener diodes in parallel with the load with an AC/DC voltage supply (figure 3).*
- *A varistor (VDR) in parallel with the load with an AC/DC voltage supply (figure 4).*

The switching of capacitive loads or the use of cables longer than 10 metres produces current peaks during connection.
As a result, protective resistance is required near the switch on the brown wire. In this phase ensure the minimum current required for the sensor is guaranteed (10÷20 mA).



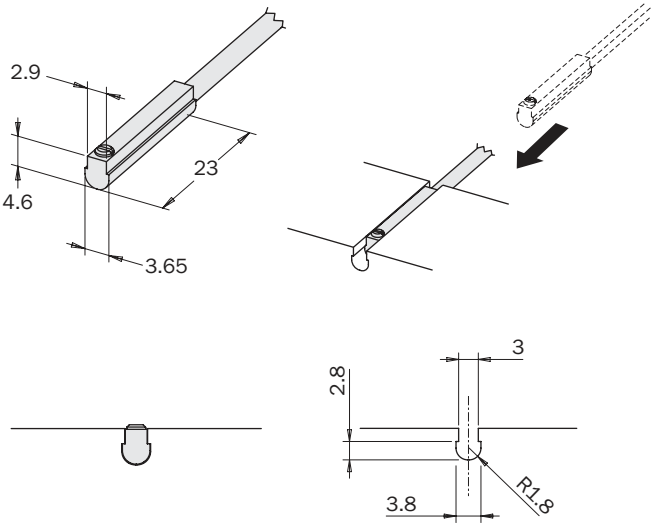
Sensori magnetici per cave a C

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave K-SENS opzionali.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Magnetic sensors for C-slots

- *Reed or magnetoresistive GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot or inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*





Dimensions (mm)

Esempi di utilizzo
Application examples

PB...



AQC...

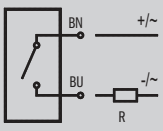
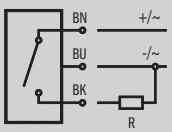
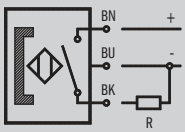
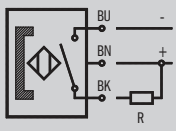
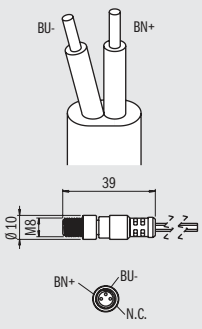
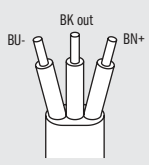
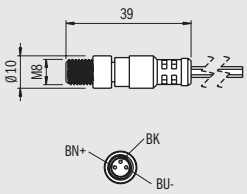


AGG...



Z...



Sensore con cavo *Sensor with cable*	**SS1C225-G**	**SS4D225-G**	**SS4N225-G**	**SS4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 male connector*	**SS2C203-G**	**SS3D203-G**	**SS3N203-G**	**SS3M203-G**
Tipo sensore *Sensor type*	REED 2 fili normalmente Aperto *2-wire REED* *Normally Open*	REED PNP 3 fili normalmente Aperto *3- wire PNP REED* *Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP* *Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN* *Normally Open*
Tensione di alimentazione *Power supply*	3÷30 Vac/dc		6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A			
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W			
Punto di lavoro nominale *Nominal switching point*	15÷20 AT		28±5 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷10 AT		5÷15 Gauss	
Tempo commutazione "ON" *ON switching time*	0.5 ms	2 µs		
Tempo commutazione "OFF" *OFF switching time*	0.1 ms	20 µs		
Temperatura di lavoro *Operating temperature*	-10÷70°C			
Frequenza di lavoro *Switching frequency*	500 kHz		200 kHz	
Vita elettrica *Electric service life*	10^7 imp.		10^9 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s			
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*			
Grado di protezione *Protection rating*	IP 67			
Materiali corpo *Sensor body material*	PA; AISI 303			
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*			
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.			
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²			
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / gold-plated brass*			
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			
Configurazioni circuitali *Wiring diagrams*				
Connessione *Connection*		 		
		Marrone (BN +); Blu (BU -); Nero (BK OUT); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT); Not Connected N.C.*		

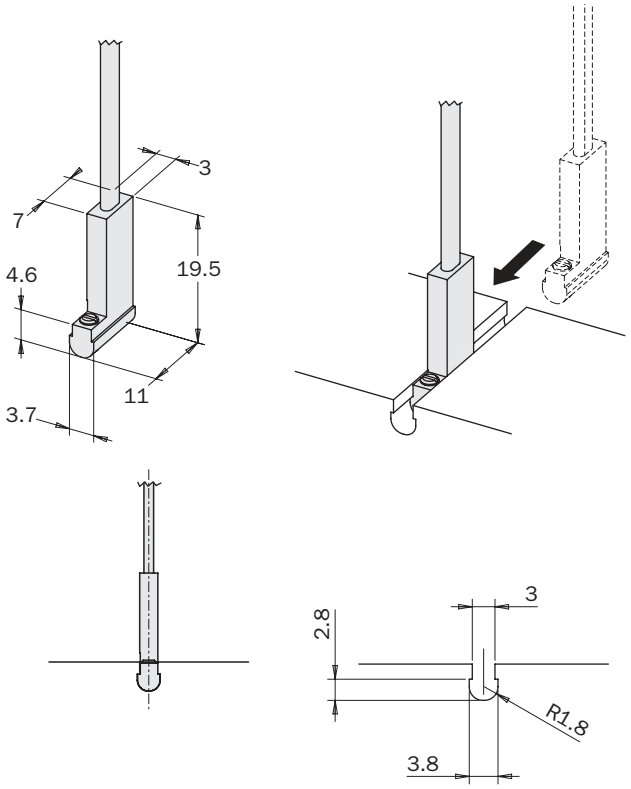
Sensori magnetici per cave a C

- Sensori magnetoresistivi GMR.
- Uscita in logica PNP o NPN.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Magnetic sensors for C-slots

- *GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*

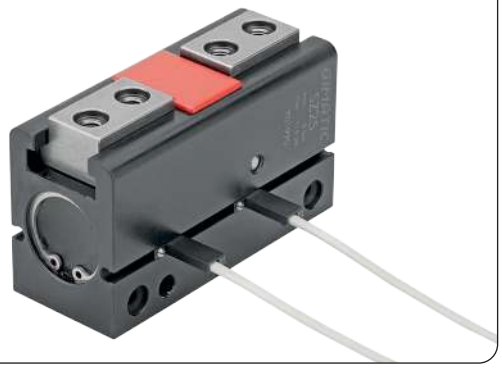




Dimensions (mm)

Esempi di utilizzo
Application examples

SZ...



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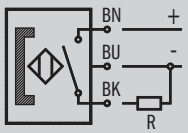
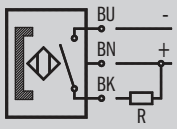
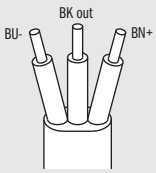
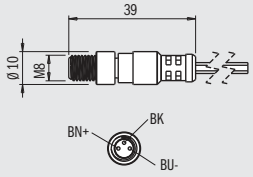


MPLM...



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Sensore con cavo *Sensor with cable*	SN4N225-G	SN4M225-G
Sensore con conn. M8 maschio *Sensor with M8 male connector*	SN3N203-G	SN3M203-G
Tipo sensore *Sensor type*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP* *Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN* *Normally Open*
Tensione di alimentazione *Power supply*	6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W	
Punto di lavoro nominale *Nominal switching point*	28±5 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷15 Gauss	
Tempo commutazione "ON" *ON switching time*	2 µs	
Tempo commutazione "OFF" *OFF switching time*	20 µs	
Temperatura di lavoro *Operating temperature*	-10÷70°C	
Frequenza di lavoro *Switching frequency*	200 kHz	
Vita elettrica *Electric service life*	10^7 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s	
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*	
Grado di protezione *Protection rating*	IP 67	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*	
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / gold-plated brass*	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connection*	 	
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

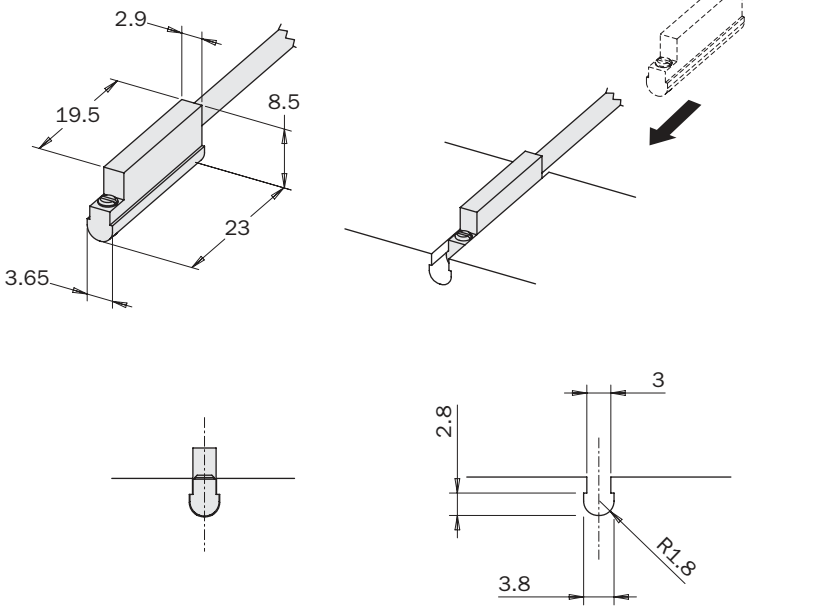
Sensori magnetici analogici

- Sensori magnetoresistivi GMR.
- Uscita analogica 0-10 Vdc.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Applicazione diretta in cava “C“.
- Adattatori per cave su richiesta.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Analog magnetic sensors

- *GMR sensors.*
- *0-10Vdc analog output.*
- *No problems in case of vibration.*
- *Cable or M8 connector output.*
- *Standard C-slot or T-slot direct mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extension.*
- *Axial mounting.*





Esempi di utilizzo
Application examples

Dimensions (mm)

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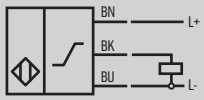
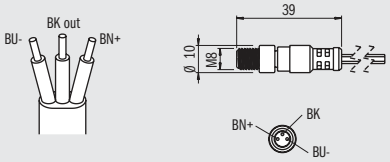


MPLM...



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Sensore con cavo *Sensor with cable*	**SS4V225-G**	**SS4V225HS-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SS3V203-G**	**SS3V203HS-G**
Tipo sensore *Sensor type*	Sensore magnetico con uscita analogica *Analog output magnetic sensor*	
Tensione di alimentazione *Power supply*	12÷24 Vdc	
Intervallo tensione di uscita *Output voltage interval*	0÷10 Vdc	
Intervallo operativo lineare *Nominal operating range*	5÷35 Gauss	1.5÷7.5 Gauss
Livello di saturazione *Saturation level*	50 Gauss	15 Gauss
Frequenza operativa *Switching frequency*	100 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 67	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	PVC CEI2022II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connection*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

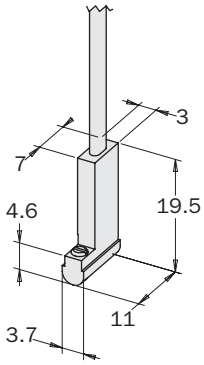
Sensori magnetici analogici

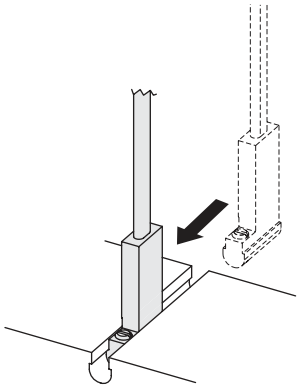
- Sensori magnetoresistivi GMR.
- Uscita analogica 0-10 Vdc.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

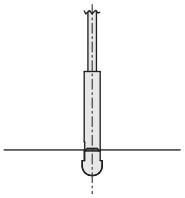
Analog magnetic sensors

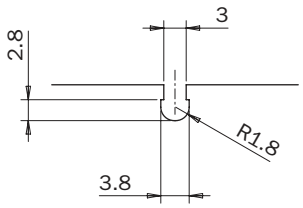
- *GMR sensors.*
- *0-10Vdc analog output.*
- *No problems in case of vibration.*
- *Cable or M8 connector output.*
- *Standard C-slot or T-slot direct mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extension.*
- *Axial mounting.*











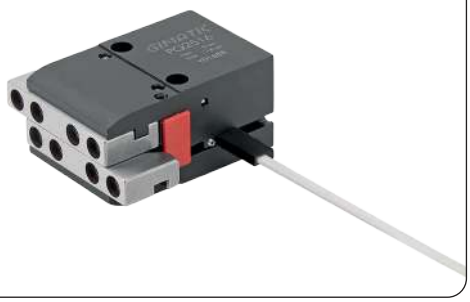
Esempi di utilizzo
Application examples

Dimensions (mm)

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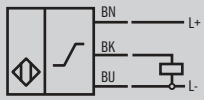
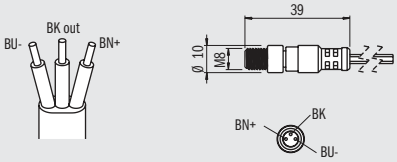


MPLM...



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Sensore con cavo *Sensor with cable*	**SN4V225-G**	**SN4V225HS-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SN3V203-G**	**SN3V203HS-G**
Tipo sensore *Sensor type*	Sensore magnetico con uscita analogica *Analog output magnetic sensor*	
Tensione di alimentazione *Power supply*	12÷24 Vdc	
Intervallo tensione di uscita *Output voltage interval*	0÷10 Vdc	
Intervallo operativo lineare *Nominal operating range*	5÷35 Gauss	1.5÷7.5 Gauss
Livello di saturazione *Saturation level*	50 Gauss	15 Gauss
Frequenza operativa *Switching frequency*	100 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 67	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	PVC CEI2022II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connection*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

SSY-G

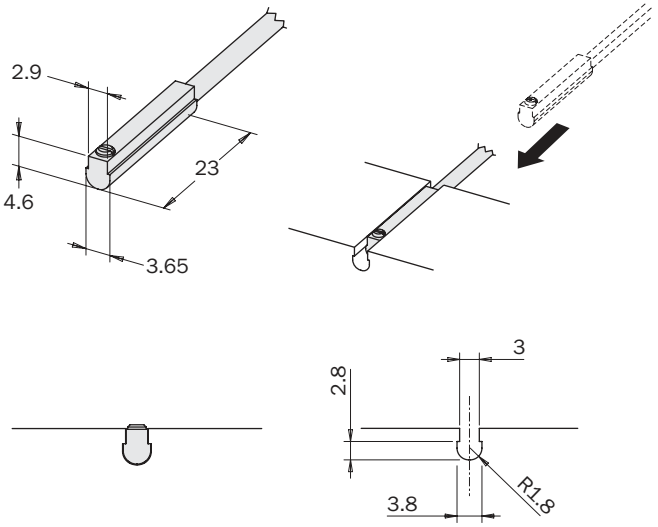
Sensori magnetici per cave a C a isteresi ridotta

- Sensori magnetoresistivi GMR.
- Uscita in logica PNP o NPN.
- Nessun problema in caso di vibrazioni.
- Uscita con cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Prolunghe da 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Magnetic sensors for C-slots with reduced hysteresis

- *GMR sensors.*
- *PNP or NPN logic output.*
- *No problems in case of vibration.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extension.*
- *Axial mounting.*





Dimensions (mm)

Esempi di utilizzo
Application examples

PB...



PB...

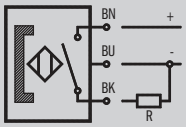
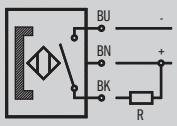
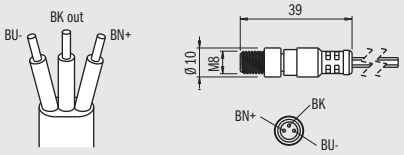


PB...



SZ...



Sensore con cavo *Sensor with cable*	**SSY4N225-G**	**SSY4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SSY3N203-G**	**SSY3M203-G**
Tipo sensore *Sensor type*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN Normally Open*
Tensione di alimentazione *Power supply*	6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W	
Intervallo di attivazione *Switching interval*	21÷48 Gauss	
Isteresi *Hysteresis*	1 Gauss	
Tempo commutazione "ON" *ON switching time*	2 µs	
Tempo commutazione "OFF" *OFF switching time*	1 ms	
Temperatura di lavoro *Operating temperature*	-10÷70°C	
Frequenza di lavoro *Switching frequency*	200 kHz	
Vita elettrica *Electric service life*	10^7 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s	
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*	
Grado di protezione *Protection rating*	IP 67	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*	
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / Gold-plated brass*	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

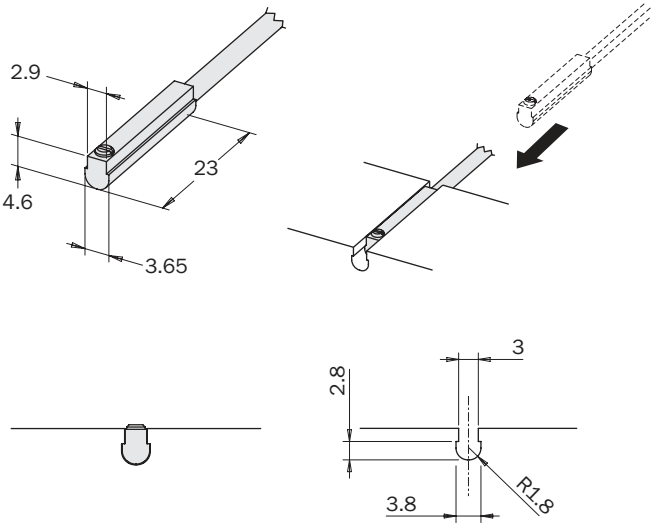
Sensori magnetici per cave a C a isteresi ultra bassa

- Sensori magnetoresistivi GMR.
- Uscita in logica PNP o NPN.
- Nessun problema in caso di vibrazioni.
- Uscita con cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Prolunghe da 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Magnetic sensors for C-slots with very low hysteresis

- *GMR sensors.*
- *PNP or NPN logic output.*
- *No problems in case of vibration.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extension.*
- *Axial mounting.*





Dimensions (mm)

Esempi di utilizzo
Application examples

SZ...



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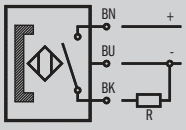
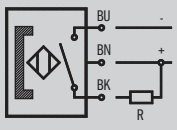
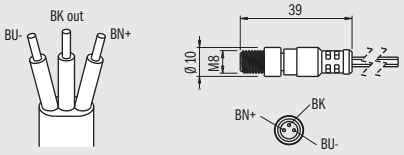


MPLM...



GS...



Sensore con cavo *Sensor with cable*	**SSQ4N225-G**	**SSQ4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SSQ3N203-G**	**SSQ3M203-G**
Tipo sensore *Sensor type*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN Normally Open*
Tensione di alimentazione *Power supply*	6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W	
Intervallo di attivazione *Switching interval*	12÷15 Gauss	
Isteresi *Hysteresis*	1 Gauss	
Tempo commutazione "ON" *ON switching time*	2 µs	
Tempo commutazione "OFF" *OFF switching time*	1 ms	
Temperatura di lavoro *Operating temperature*	-10÷70°C	
Frequenza di lavoro *Switching frequency*	200 kHz	
Vita elettrica *Electric service life*	10^7 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s	
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*	
Grado di protezione *Protection rating*	IP 67	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*	
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / Gold-plated brass*	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

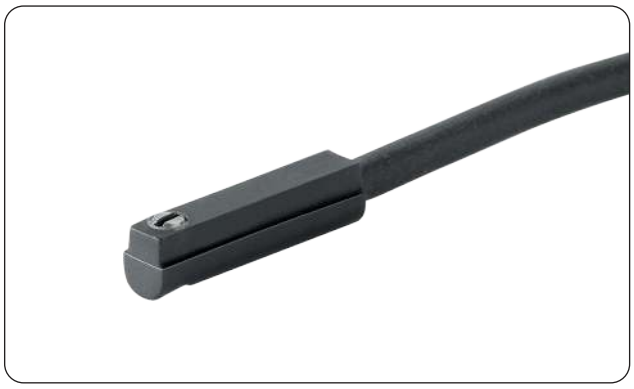
PRO-SS-G

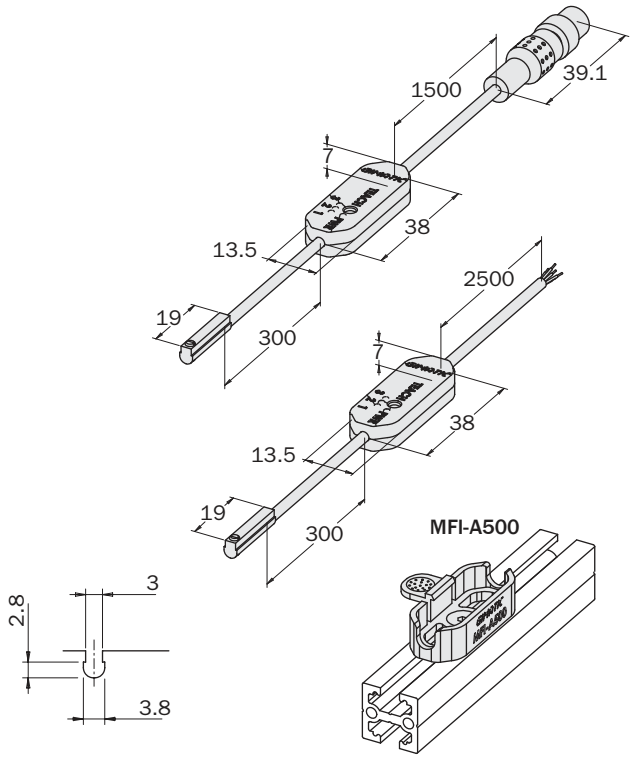
Sensori magnetici programmabili Pro SS

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali indipendenti.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave K-SENS opzionali.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programmmaione remota.

Programmable Pro SS magnetic sensors

- *Programmable GMP sensors.*
- *3 independent digital outputs.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*





Dimensions (mm)

Esempi di utilizzo
Application examples

SZ...



PB...

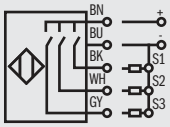
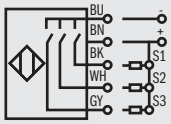
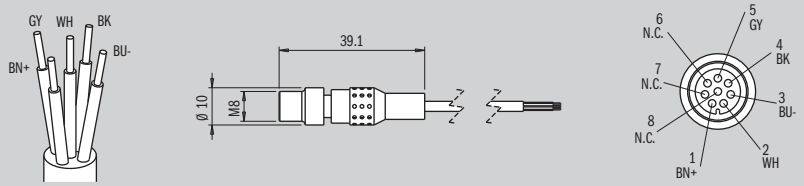


MPPM...



GS...



Sensore con cavo *Sensor with cable*	**PRO-SS4N225-G**	**PRO-SS4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**PRO-SS3N215-G**	**PRO-SS3M215-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0.08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT 1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento (indipendente per ciascuna uscita).
Per questo tipo di sensori la posizione ideale della testa sensibile è a metà della corsa dell'attuatore.

The sensor's remote programming circuit has a button for the configuration and programming of outputs. Following a simple procedure, the user can configure each output as normally open (NO – yellow LED) or normally closed (NC – green LED) and store the switching point (separate for each output).
With this type of sensor the ideal position for the sensitive head is halfway along the actuator stroke.



PRO-SN-G

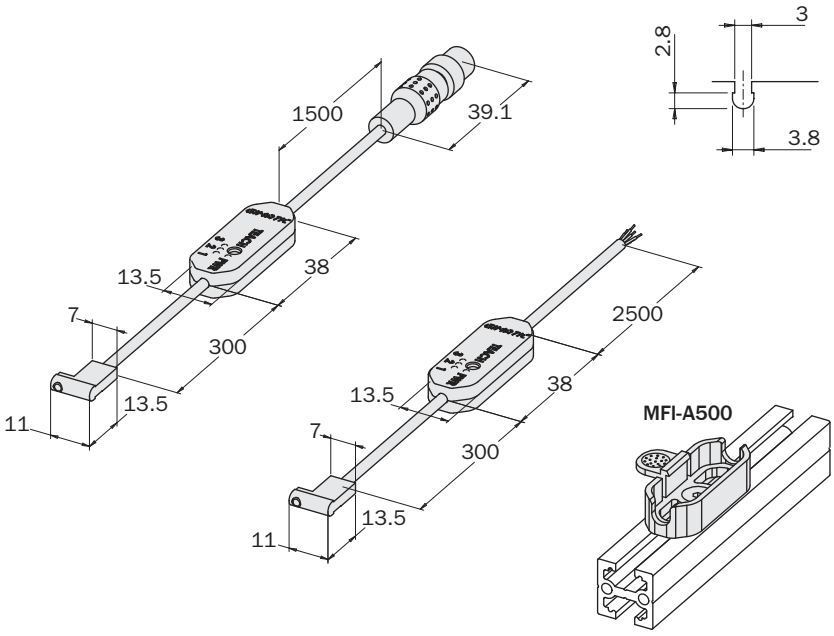
Sensori magnetici programmabili Pro SN

- Sensori magnetoresistivi GMP programmabili.
- 3 uscite digitali indipendenti.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programmmaione remota.

Programmable Pro SN magnetic sensors

- *Programmable GMP magnetoresistive sensors.*
- *3 independent digital outputs.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Slot adaptors on request.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*





Dimensions (mm)

Esempi di utilizzo
Application examples

GS...



GS...

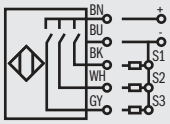
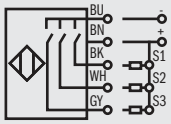
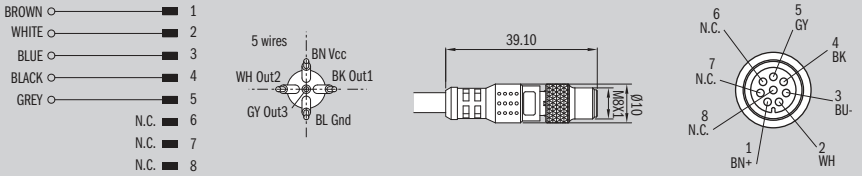


DH...



MPXM...



Sensore con cavo *Sensor with cable*	**PRO-SN4N225-G**	**PRO-SN4M225-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SN3N215-G**	**PRO-SN3M215-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento (indipendente per ciascuna uscita).
Per questo tipo di sensori la posizione ideale della testa sensibile è a metà della corsa dell'attuatore.

The sensor's remote programming circuit has a button for the configuration and programming of outputs. Following a simple procedure, the user can configure each output as normally open (NO – yellow LED) or normally closed (NC – green LED) and store the switching point (separate for each output).
With this type of sensor the ideal position for the sensitive head is halfway along the actuator stroke.



PRO-SN_HS

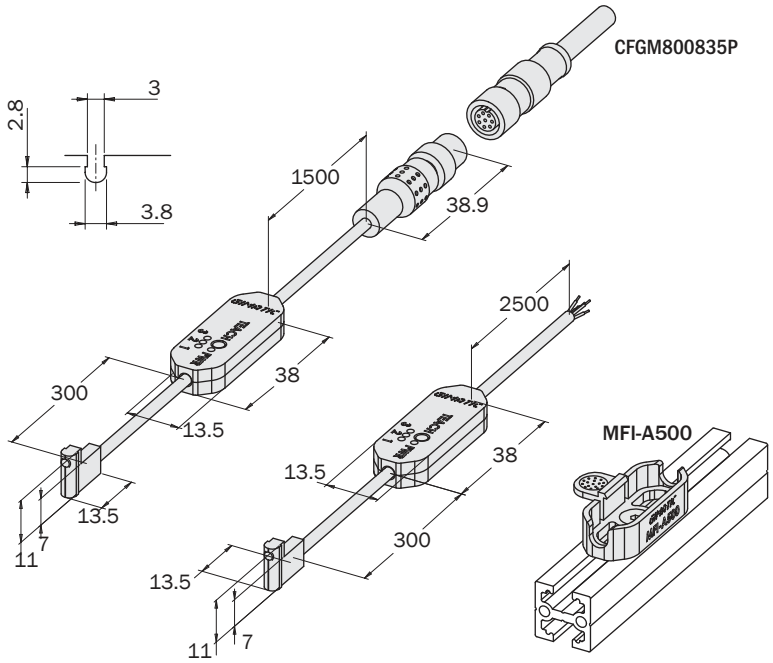
Sensori magnetici programmabili PRO-SN_HS per pinze SGP

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali indipendenti.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programmmaione remota.

Programmable PRO-SN_HS magnetic sensors for SGP grippers

- *Programmable GMR magnetoresistive sensors.*
- *3 independent digital outputs.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Slot adaptors on request.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*





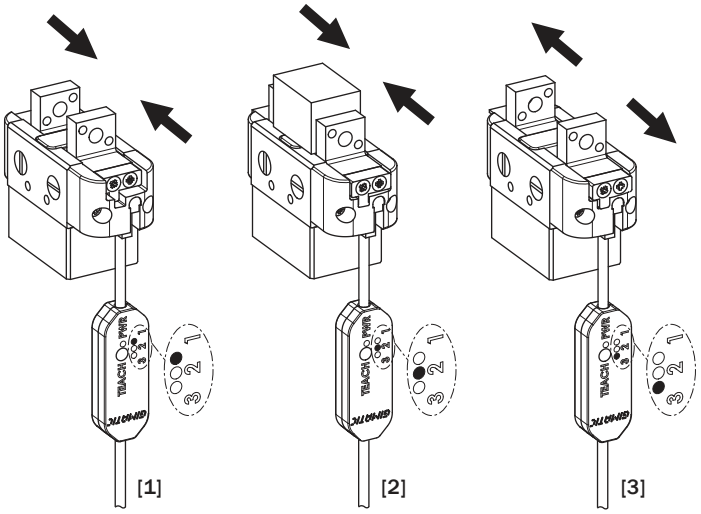
Dimensions (mm)

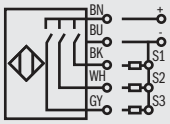
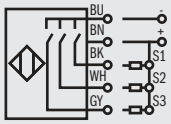
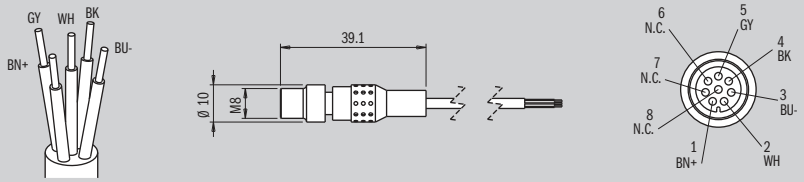
Esempi di utilizzo
Application examples

Il sensore è stato appositamente progettato in abbinamento alle pinze pneumatiche della serie SGP.
La posizioni rilevate possono essere regolate tramite la procedura di configurazione, in questo modo le 3 uscite digitali possono essere:
Uscita 1 – griffe completamente chiuse [1];
Uscita 2 – griffe in presa dell’oggetto (posizione intermedia) [2];
Uscita 3 – griffe completamente aperte [3].

This sensor has been designed to work in combination with SGP pneumatic grippers only.
The detected positions can be adjusted by a teaching procedure, so that 3 digital outputs can be:
Output 1 - totally closed jaws [1];
Output 2 - gripped part (intermediate position) [2];
Output 3 - totally open jaws [3].





Sensore con cavo *Sensor with cable*	**PRO-SN4N225HS-G**	**PRO-SN4M225HS-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SN3N215HS-G**	**PRO-SN3M215HS-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento (indipendente per ciascuna uscita).

The sensor's remote programming circuit has a button for the configuration and programming of outputs. Following a simple procedure, the user can configure each output as normally open (NO – yellow LED) or normally closed (NC – green LED) and store the switching point (separate for each output).



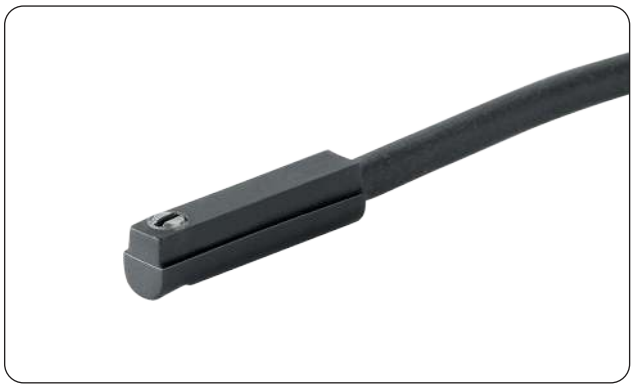
PRO-SSR

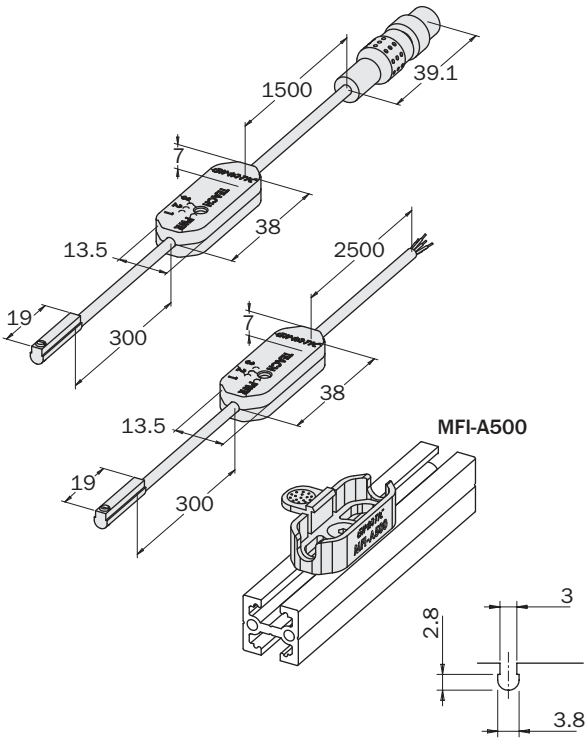
Sensori magnetici programmabili Pro SSR

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali, 2 delle quali programmabili.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava "C".
- Adattatori per cave K-SENS opzionali.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programazione remota.

Programmable Pro SSR magnetic sensors

- *Programmable GMR sensors.*
- *3 digital outputs, 2 of which are programmable.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*

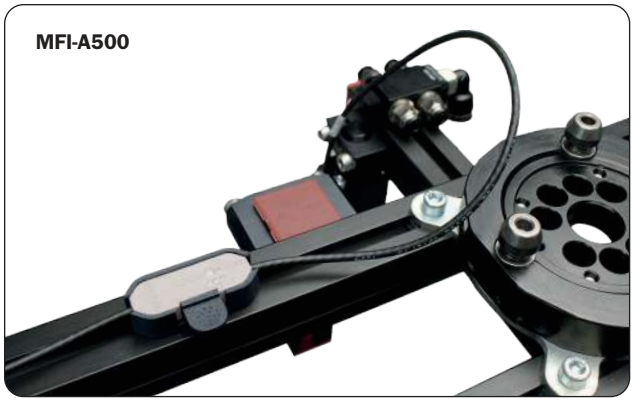




Dimensions (mm)

Esempi di utilizzo
Application examples

MFI-A500



GW...

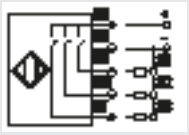
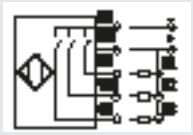
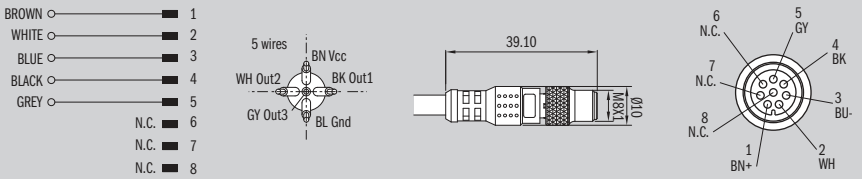


OFR...



PB..



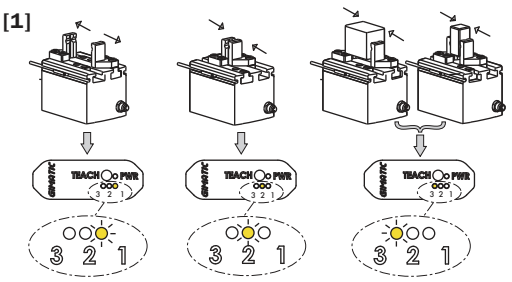
Sensore con cavo *Sensor with cable*	**PRO-SSR4N225-G**	**PRO-SSR4M225-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SSR3N215-G**	**PRO-SSR3M215-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento delle prime due uscite. La terza uscita non programmabile si attiva quando rileva una posizione che è diversa dalle due precedentemente impostate [1].
Per questo tipo di sensori la posizione ideale della testa sensibile è a metà della corsa dell'attuatore.

The sensor's remote programming circuit features a button for the configuration and programming of outputs. Following a simple procedure the user can configure each individual output as normally open (N.O., yellow colour of the led) or normally closed (N.C., green colour of the led) and store the operating point of the first two outputs. The third non-programmable output is activated when it detects a position that is different from the two previously set outputs [1]. For this type of sensors, the ideal position of the sensing head is halfway of the actuator stroke.



[1]



PRO-SNR

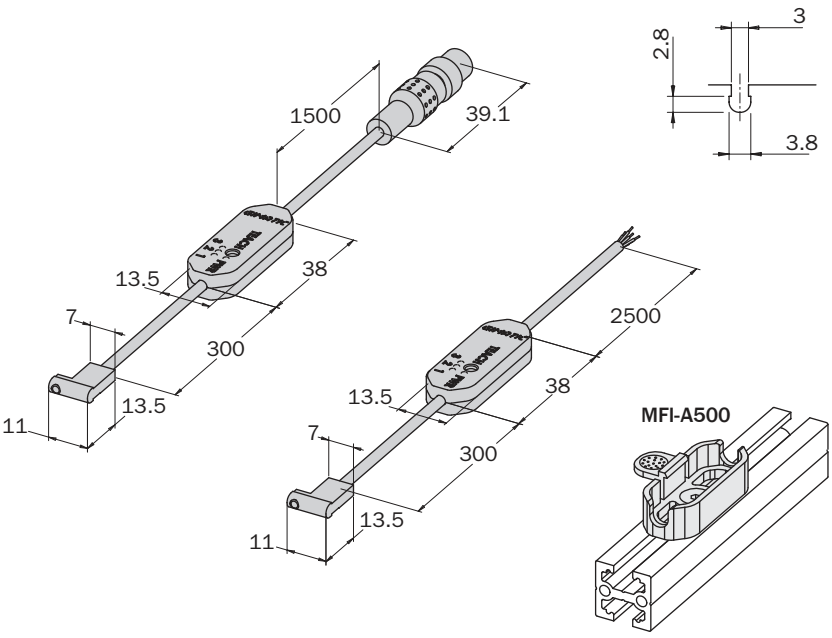
Sensori magnetici programmabili Pro SNR

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali, 2 delle quali programmabili.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava "C".
- Adattatori per cave su richiesta.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programazione remota.

Programmable Pro SNR magnetic sensors

- *Programmable GMR sensors.*
- *3 digital outputs, 2 of which are programmable.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*





Esempi di utilizzo
Application examples

Dimensions (mm)

GS...



GS...



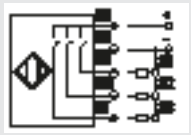
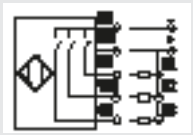
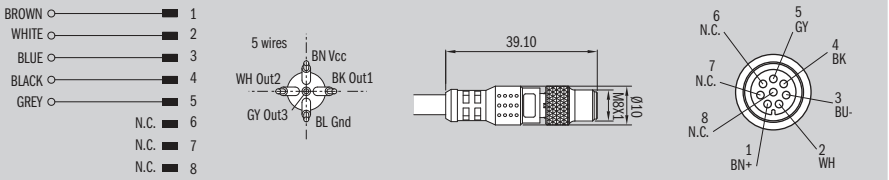
DH...



MPXM...



07/2026

Sensore con cavo *Sensor with cable*	**PRO-SNR4N225-G**	**PRO-SNR4M225-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SNR3N215-G**	**PRO-SNR3M215-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento delle prime due uscite. La terza uscita non programmabile si attiva quando rileva una posizione che è diversa dalle due precedentemente impostate [1].
Per questo tipo di sensori la posizione ideale della testa sensibile è a metà della corsa dell'attuatore.

The sensor's remote programming circuit features a button for the configuration and programming of outputs. Following a simple procedure the user can configure each individual output as normally open (N.O., yellow colour of the led) or normally closed (N.C., green colour of the led) and store the operating point of the first two outputs. The third non-programmable output is activated when it detects a position that is different from the two previously set outputs [1]. For this type of sensors, the ideal position of the sensing head is halfway of the actuator stroke.



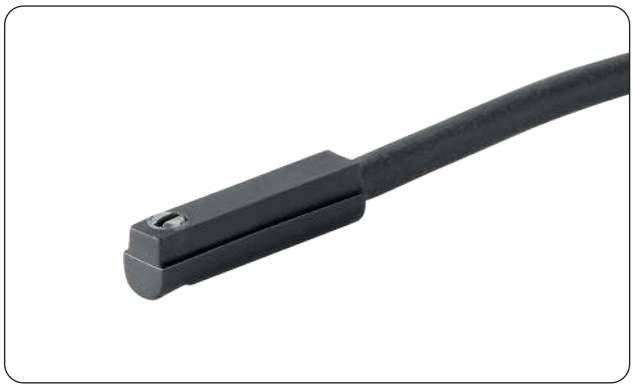
PRO-SSR-HS

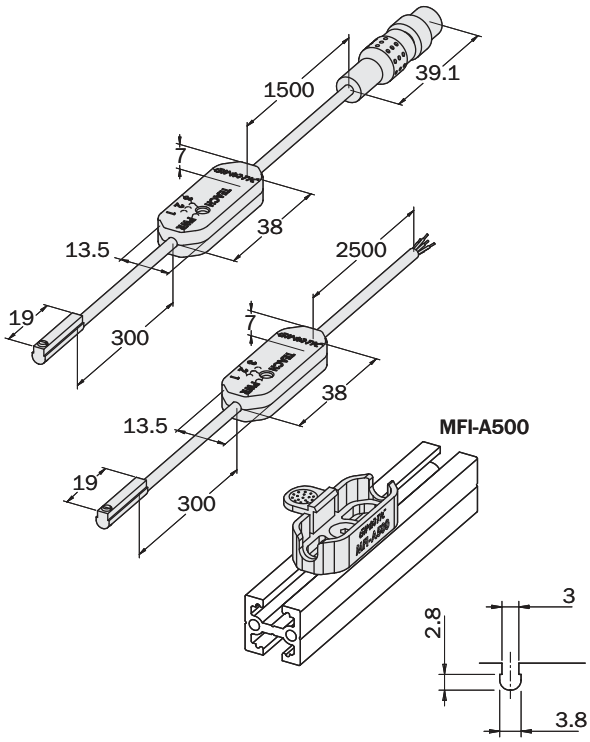
Sensori magnetici programmabili Pro SSR-HS

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali, 2 delle quali programmabili.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “C”.
- Adattatori per cave K-SENS opzionali.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programazione remota.
- Feedback visivo per la ricerca della posizione di fissaggio.

Programmable Pro SSR-HS magnetic sensors

- *Programmable GMR sensors.*
- *3 digital outputs, 2 of which are programmable.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*
- *Visual feedback for locating the mounting position.*





Esempi di utilizzo
Application examples

Dimensions (mm)

GS...



MPPM...

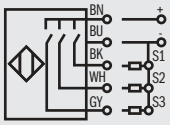
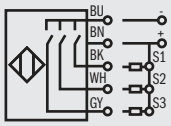
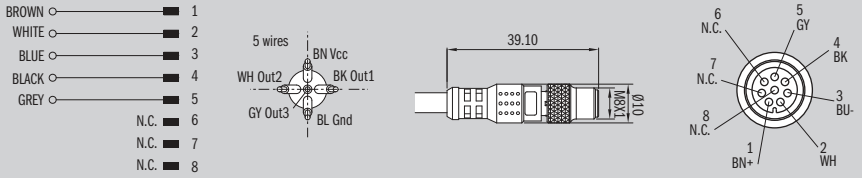


DH...



TH...



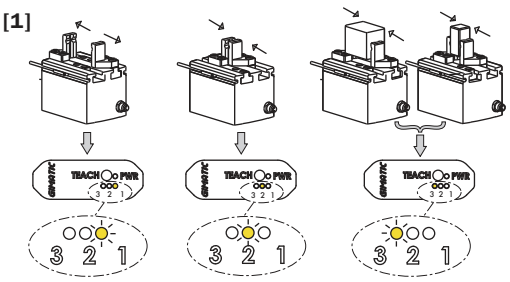
	NEW	NEW
Sensore con cavo *Sensor with cable*	**PRO-SSR4N225HS-G**	**PRO-SSR4M225HS-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SSR3N215HS-G**	**PRO-SSR3M215HS-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento delle prime due uscite. La terza uscita non programmabile si attiva quando rileva una posizione che è diversa dalle due precedentemente impostate [1].

The sensor's remote programming circuit features a button for the configuration and programming of outputs. Following a simple procedure the user can configure each individual output as normally open (N.O., yellow colour of the led) or normally closed (N.C., green colour of the led) and store the operating point of the first two outputs. The third non-programmable output is activated when it detects a position that is different from the two previously set outputs [1].



[1]



PRO-SNR-HS

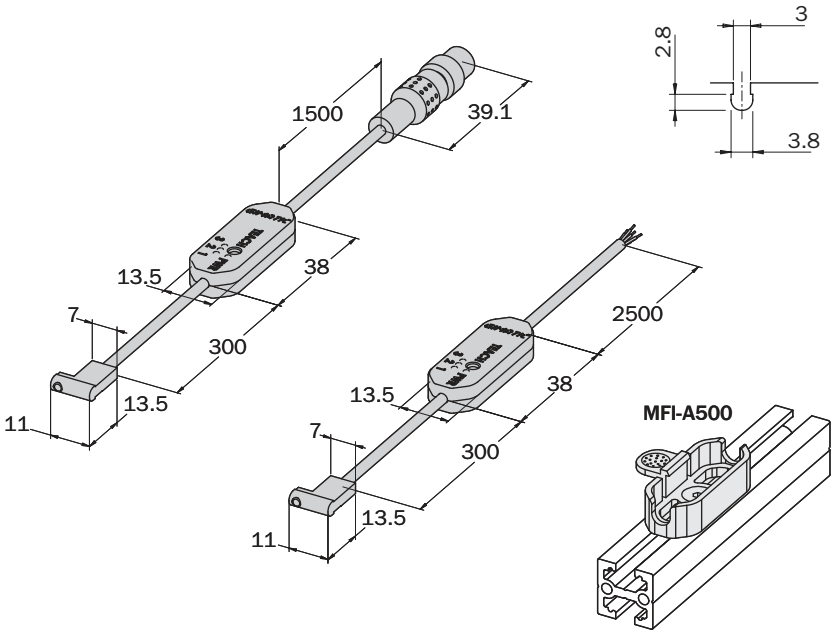
Sensori magnetici programmabili Pro SNR-HS

- Sensori magnetoresistivi GMR programmabili.
- 3 uscite digitali, 2 delle quali programmabili.
- Ciascuna uscita programmabile in logica NO o NC.
- Versioni disponibili con uscite di tipo PNP o NPN.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava "C".
- Adattatori per cave su richiesta.
- Inserimento assiale.
- Supporto opzionale MFI-A500 per la scatola di programazione remota.
- Feedback visivo per la ricerca della posizione di fissaggio.

Programmable Pro SNR-HS magnetic sensors

- *Programmable GMR sensors.*
- *3 digital outputs, 2 of which are programmable.*
- *Each programmable output in NO or NC logic.*
- *Versions available with PNP or NPN outputs.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard C-slot inline mounting.*
- *Optional K-SENS slot adaptors.*
- *Axial mounting.*
- *MFI-A500 optional bracket for remote programming box.*
- *Visual feedback for locating the mounting position.*





Esempi di utilizzo
Application examples

Dimensions (mm)

DH...



GS...



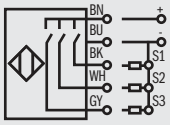
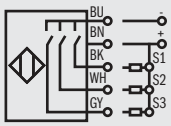
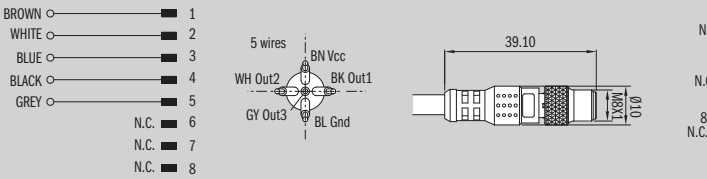
SGP...



TH...



07/2026

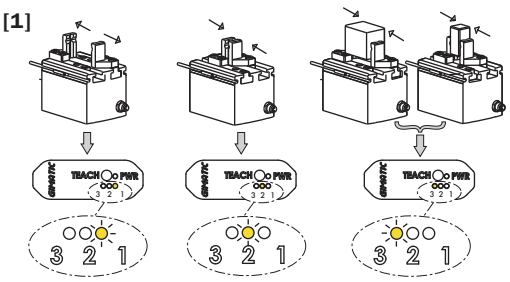
	NEW	NEW
Sensore con cavo *Sensor with cable*	**PRO-SNR4N225HS-G**	**PRO-SNR4M225HS-G**
Sensore con conn. M8 maschio *Sensor with male M8 connector*	**PRO-SNR3N215HS-G**	**PRO-SNR3M215HS-G**
Tipo sensore *Sensor type*	PNP magnetoresistivo *Magnetoresistive PNP*	NPN magnetoresistivo *Magnetoresistive NPN*
Numero di uscite *No. of outputs*	3 uscite (ad esempio: pinza aperta, chiusa, pezzo preso) *3 outputs (e.g. gripper open, closed, workpiece gripped)*	
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*	
Ritardo massimo di attivazione *Maximum switching delay*	50 ms	
Tensione di alimentazione *Power supply*	24 Vdc	
Intervallo operativo *Nominal operating range*	10÷1300 Gauss	
Max frequenza di lavoro *Max. switching frequency*	3 kHz	
Temperatura di lavoro *Operating temperature*	-10÷60 °C	
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*	
Gradi di protezione *Protection rating*	IP 54	
Materiali corpo *Sensor body material*	PA; AISI 303	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M8) *2.5 m (flying cable) - 1.5 m (cable with M8 connector)*	
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*	
Conduttori *Leads*	0,08 mm² / AWG 28	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessione *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT 1); Bianco (WH OUT 2); Grigio (GY OUT 3); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT1); White (WH OUT 2); Grey (GY OUT 3); Not connected N.C.*	

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione e la programmazione delle uscite. Seguendo una semplice procedura l'utente può configurare ogni singola uscita come normalmente aperta (N.O., colore giallo del led) oppure normalmente chiusa (N.C., colore verde del led) e memorizzare il punto di funzionamento delle prime due uscite. La terza uscita non programmabile si attiva quando rileva una posizione che è diversa dalle due precedentemente impostate [1].

The sensor's remote programming circuit features a button for the configuration and programming of outputs. Following a simple procedure the user can configure each individual output as normally open (N.O., yellow colour of the led) or normally closed (N.C., green colour of the led) and store the operating point of the first two outputs. The third non-programmable output is activated when it detects a position that is different from the two previously set outputs [1].



[1]



PRO-SNL

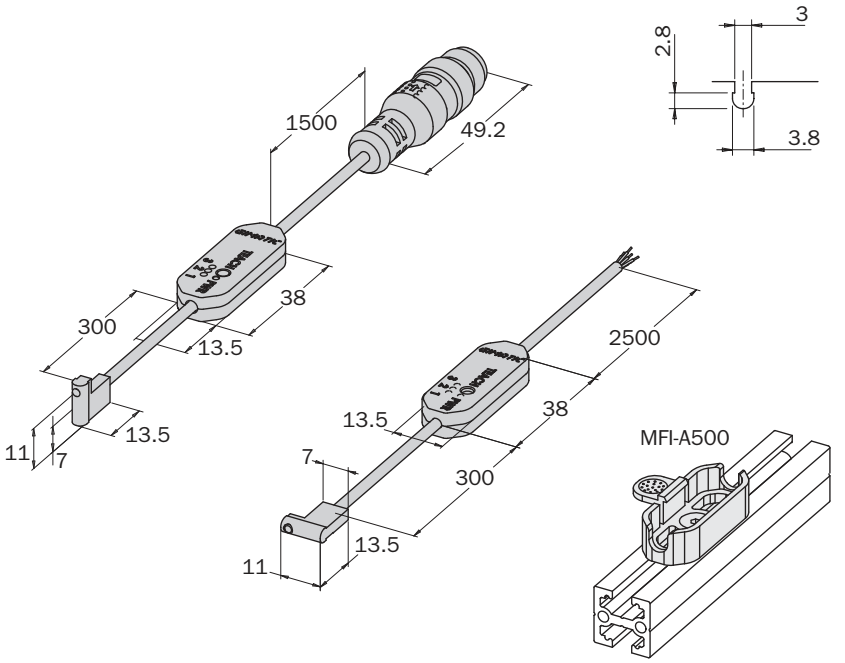
Sensori magnetici programmabili IO-LINK Pro SNL

- Sensori magnetoresistivi GMP programmabili.
- Indicazione stato uscita tramite Led e IO-LINK
- Teach manuale tramite pulsante per ciascuna uscita
- Uscita cavo o connettore M12-5 poli.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Supporto opzionale MFI-A500 per la scatola di programmazione remota.

Magnetic programmable IO-LINK sensors PRO-SNL

- *Programmable magnetoresistive GMP sensors.*
- *Output status indication via LED and IO-LINK.*
- *Manual teaching via button for each output.*
- *Output cable or M12-5 pole connector.*
- *Standard C-slot inline mounting*
- *Slot Adapters on request.*
- *MFI-A500 optional braket for remote programming box.*





Dimensions (mm)

Esempi di utilizzo
Application examples

GS...



GS...



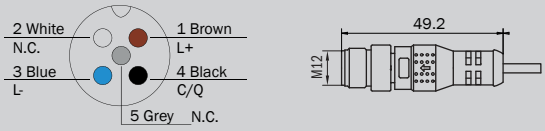
SZ...



MPXM...



NEW

Sensore con cavo *Sensor with cable*	**PRO-SNLA225-G**
Sensore con conn. M12 maschio *Sensor with male M12 connector*	**PRO-SNLB215-G**
N° punti di commutazione *Number of switching points*	3
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*
Ritardo massimo di attivazione/riarmo uscita *Maximum switch ON/OFF delay time for output*	500 ms
Tensione di alimentazione *Power supply*	24 Vdc
Intervallo operativo *Nominal operating range*	10÷1300 Gauss
Max frequenza di lavoro *Max. switching frequency*	3 kHz
Temperatura di lavoro *Operating temperature*	-20÷60 °C
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*
Gradi di protezione *Protection rating*	IP 54
Materiali corpo *Sensor body material*	PA; AISI 303
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M12) *2.5 m (flying cable) - 1.5 m (cable with M12 connector)*
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*
Conduttori *Leads*	0.08 mm² / AWG 28
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11; IEC 61131-2; IEC 61131-9; G.1.7.2; G.1.7.3; G.1.7.4; G.1.7.5;
Connessione *Connections*	 Marrone (BN +); Blu (BU -); Nero (BK CIQ); Bianco (WH N.C); Grigio (NC); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK CIQ); White (N.C); Grey (NC); Not connected N.C.*

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione (NO e NC) e la programmazione dei punti di commutazione. Mediante IO-LINK è possibile configurare ulteriori parametri, ma non è possibile registrare i punti di commutazione. Il file IODD può essere scaricato dal sito www.gimatic.com nella sezione download/utility. Per il corretto funzionamento, è necessario connettere il sensore ad un dispositivo master IO-Link. Il master funge da interfaccia tra il sensore e il sistema di controllo. Senza il dispositivo Master IO-Link il sensore non funziona.

The remote programming circuit of the sensor features a button for configuration (NO and NC) and programming of switching points. Through IO-LINK, it's possible to configure additional parameters, but it's not possible to record the switching points. The IODD file can be downloaded from the website www.gimatic.com in the download/utility section. For proper functioning, it's necessary to connect the sensor to an IO-Link master device. The master serves as an interface between the sensor and the control system. Without the IO-Link Master device, the sensor won't function.



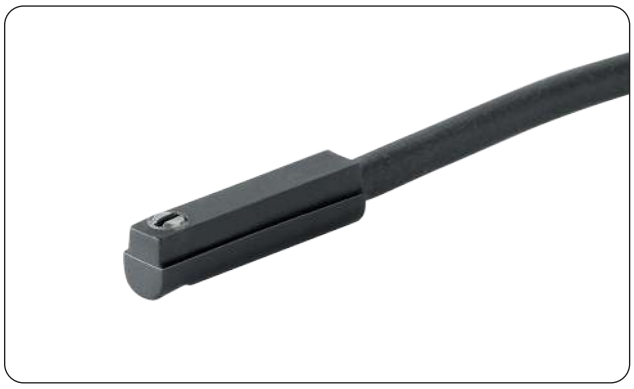
PRO-SSL

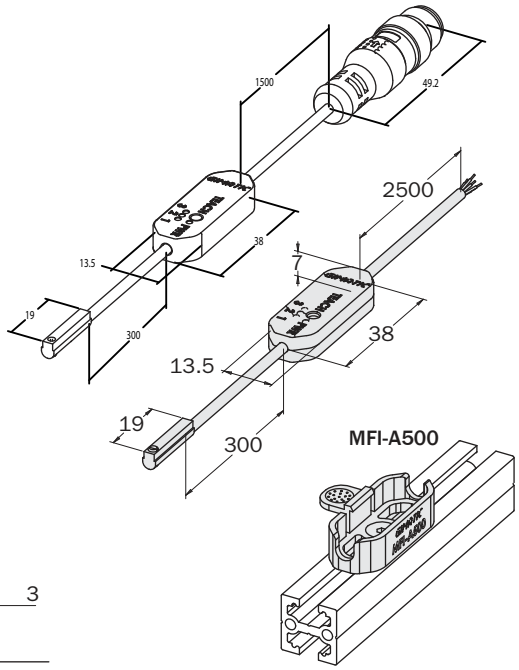
Sensori magnetici programmabili IO-LINK Pro SSL

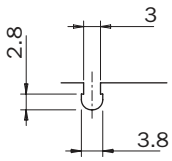
- Sensori magnetoresistivi GMP programmabili.
- Indicazione stato uscita tramite Led e IO-LINK
- Teach manuale tramite pulsante per ciascuna uscita
- Uscita cavo o connettore M12-5 poli.
- Applicazione diretta in cava “C”.
- Adattatori per cave su richiesta.
- Supporto opzionale MFI-A500 per la scatola di programmazione remota.

Programmable Pro SSL magnetic sensors

- *Programmable magnetoresistive GMP sensors.*
- *Output status indication via LED and IO-LINK.*
- *Manual teaching via button for each output.*
- *Output cable or M12-5 pole connector.*
- *Standard C-slot inline mounting*
- *Slot Adapters on request.*
- *MFI-A500 optional braket for remote programming box.*







Esempi di utilizzo
Application examples

Dimensions (mm)

SZ...



PB...



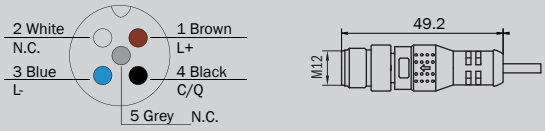
MPXM...



GS...



NEW

Sensore con cavo *Sensor with cable*	**PRO-SSLA225-G**
Sensore con conn. M12 maschio *Sensor with male M12 connector*	**PRO-SSLB215-G**
N° punti di commutazione *Number of switching points*	3
Tipo uscite *Outputs type*	NO/NC configurabili indipendentemente *NO/NC independently configurable*
Ritardo massimo di attivazione/riarmo uscita *Maximum switch ON/OFF delay time for output*	500 ms
Tensione di alimentazione *Power supply*	24 Vdc
Intervallo operativo *Nominal operating range*	10÷1300 Gauss
Max frequenza di lavoro *Max. switching frequency*	3 kHz
Temperatura di lavoro *Operating temperature*	-20÷60 °C
Protezione contro inversione polarità *Reverse polarity protection*	Si *Yes*
Gradi di protezione *Protection rating*	IP 54
Materiali corpo *Sensor body material*	PA; AISI 303
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 1.5 m (cavo con connettore M12) *2.5 m (flying cable) - 1.5 m (cable with M12 connector)*
Guaina – isolamento *Sheathing - insulation*	POLIURETANO FLAME RETARDANT UL 92 V2 *POLYURETHANE FLAME-RETARDANT UL 92 V2*
Conduttori *Leads*	0.08 mm² / AWG 28
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11; IEC 61131-2; IEC 61131-9; G.1.7.2; G.1.7.3; G.1.7.4; G.1.7.5;
Connessione *Connections*	 Marrone (BN +); Blu (BU -); Nero (BK CIQ); Bianco (WH N.C); Grigio (NC); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK CIQ); White (N.C); Grey (NC); Not connected N.C.*

Il circuito di programmazione remota del sensore presenta un pulsante per la configurazione (NO e NC) e la programmazione dei punti di commutazione. Mediante IO-LINK è possibile configurare ulteriori parametri, ma non è possibile registrare i punti di commutazione. Il file IODD può essere scaricato dal sito www.gimatic.com nella sezione download/utility. Per il corretto funzionamento, è necessario connettere il sensore ad un dispositivo master IO-Link. Il master funge da interfaccia tra il sensore e il sistema di controllo. Senza il dispositivo Master IO-Link il sensore non funziona.

The remote programming circuit of the sensor features a button for configuration (NO and NC) and programming of switching points. Through IO-LINK, it's possible to configure additional parameters, but it's not possible to record the switching points. The IODD file can be downloaded from the website www.gimatic.com in the download/utility section. For proper functioning, it's necessary to connect the sensor to an IO-Link master device. The master serves as an interface between the sensor and the control system. Without the IO-Link Master device, the sensor won't function.



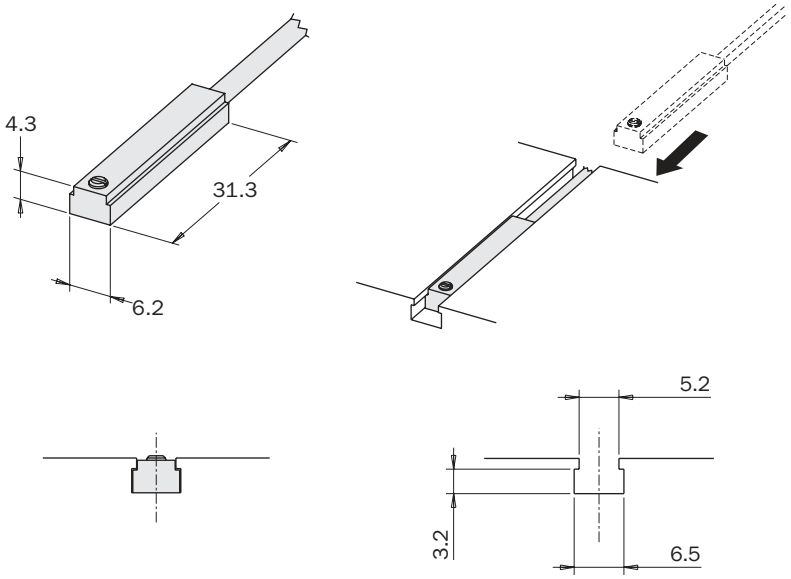
Sensori magnetici per cave a T

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “T” standard.
- Adattatori per cave K-SL opzionali.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

Magnetic sensors for T-slots

- *Reed or GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard T-slot inline mounting.*
- *Optional K-SL slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*





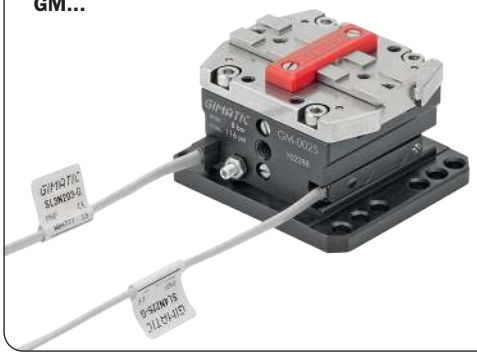
Dimensions (mm)

Esempi di utilizzo
Application examples

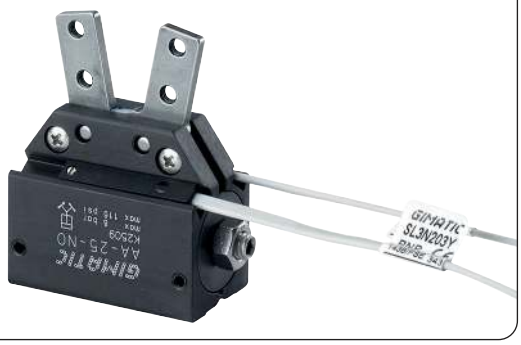
HS...



GM...

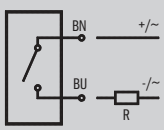
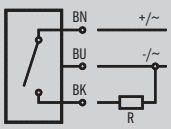
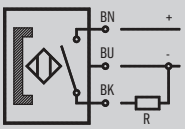
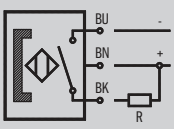
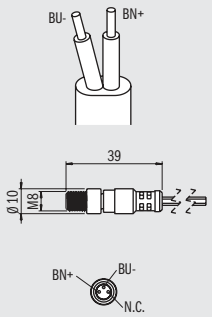
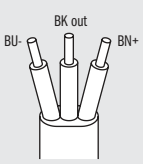
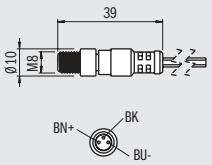


AA...



Z...



Sensore con cavo *Sensor with cable*	**SL1C225-G**	**SL4D225-G**	**SL4N225-G**	**SL4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SL2C203-G**	**SL3D203-G**	**SL3N203-G**	**SL3M203-G**
Tipo sensore *Sensor type*	REED 2 fili normalmente Aperto *2-wire reed* *Normally Open*	REED PNP 3 fili normalmente Aperto *3-wire PNP reed* *Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP* *Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN* *Normally Open*
Tensione di alimentazione *Power supply*	3÷30 Vac/dc		6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A			
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W			
Punto di lavoro nominale *Nominal switching point*	20÷25 AT		40±10 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷10 AT		5÷25 Gauss	
Tempo commutazione "ON" *ON switching time*	0.5 ms			
Tempo commutazione "OFF" *OFF switching time*	0.5 ms			
Temperatura di lavoro *Operating temperature*	-10÷70°C			
Frequenza di lavoro *Switching frequency*	500 kHz		200 kHz	
Vita elettrica *Electric service life*	10^7 imp.		10^9 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s			
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*			
Grado di protezione *Protection rating*	IP 67			
Materiali corpo *Sensor body material*	PA; AISI 303			
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*			
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.			
Conduttori *Conductors*	0.14 mm² / AWG 26 / 36 x 0.07 mm²			
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / gold-plated brass*			
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			
Configurazioni circuitali *Wiring diagrams*				
Connessione *Connections*				
		Marrone (BN +); Blu (BU -); Nero (BK OUT); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT); Not connected N.C.*		

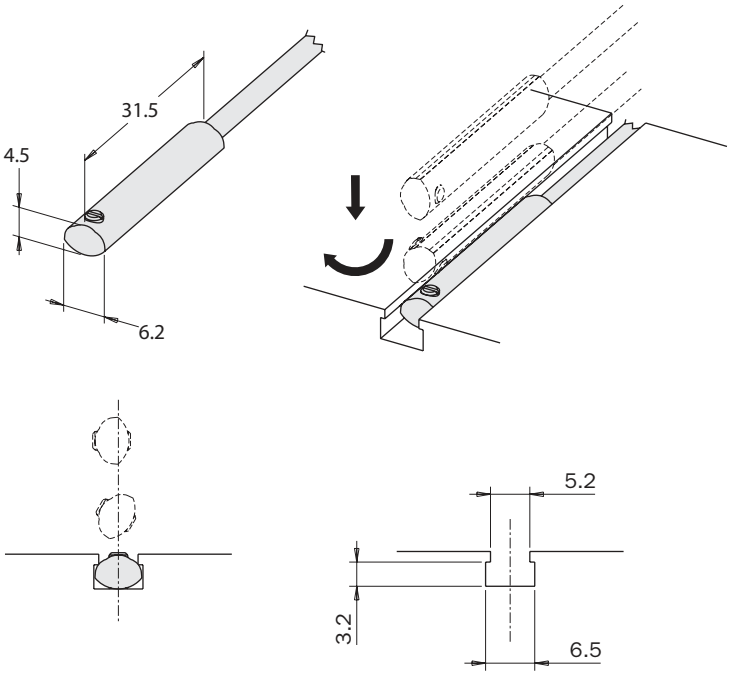
Sensori magnetici per cave a T

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8.
- Tracciabilità 100%.
- Applicazione diretta in cava “T” standard.
- Adattatori per cave K-SL opzionali.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento sia assiale sia verticale.

Magnetic sensors for T-slots

- *Reed or GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or M8 connector output.*
- *100% traceability.*
- *Standard T-slot inline mounting.*
- *Optional K-SL slot adaptors.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial or vertical mounting.*





Dimensions (mm)

Esempi di utilizzo
Application examples

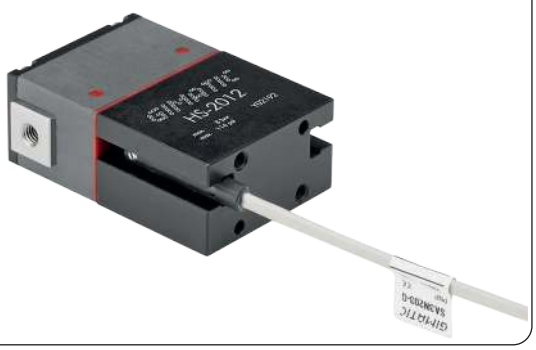
R...



SP...

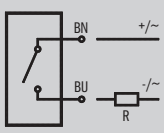
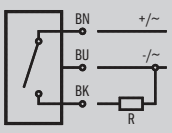
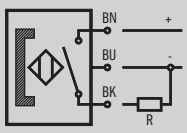
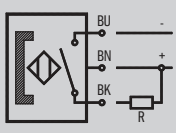
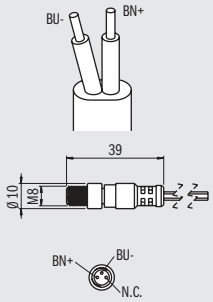
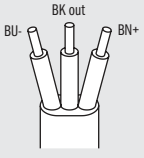
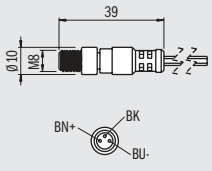


HS...



S...



Sensore con cavo *Sensor with cable*	**SA1C225-G**	**SA4D225-G**	**SA4N225-G**	**SA4M225-G**
Sensore con conn. M8 maschio *Sensor with M8 connector*	**SA2C203-G**	**SA3D203-G**	**SA3N203-G**	**SA3M203-G**
Tipo sensore *Sensor type*	REED 2 fili normalmente Aperto *2-wire reed* *Normally Open*	REED PNP 3 fili normalmente Aperto *3-wire PNP reed* *Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP* *Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN* *Normally Open*
Tensione di alimentazione *Power supply*	3÷30 Vac/dc		6÷30 Vdc	
Corrente di commutazione *Switching current*	0.2 A			
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W			
Punto di lavoro nominale *Nominal switching point*	20÷25 AT		40±10 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷10 AT		5÷25 Gauss	
Tempo commutazione "ON" *ON switching time*	0.5 ms			
Tempo commutazione "OFF" *OFF switching time*	0.5 ms			
Temperatura di lavoro *Operating temperature*	-10÷70°C			
Frequenza di lavoro *Switching frequency*	500 kHz		200 kHz	
Vita elettrica *Electric service life*	10^7 imp.		10^9 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s			
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*			
Grado di protezione *Protection rating*	IP 67			
Materiali corpo *Sensor body material*	PA; AISI 303			
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - 0.3 m (cavo con connettore M8) *2.5 m (flying cable) - 0.3 m (cable with M8 connector)*			
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.			
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²			
Materiali connettore M8 *M8 connector material*	PUR / ottone dorato *PUR / gold-plated brass*			
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			
Configurazioni circuitali *Wiring diagrams*				
Connessione *Connections*				
	Marrone (BN +); Blu (BU -); Nero (BK OUT); Non connesso N.C. *Brown (BN +); Blue (BU -); Black (BK OUT); Not connected N.C.*			

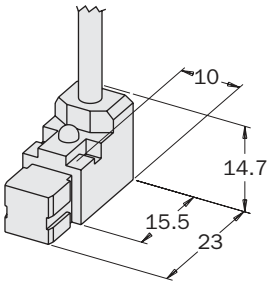
Sensori magnetici a coda di rondine

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore SNAP.
- Tracciabilità 100%.
- Applicazione in molteplici cave a coda di rondine mediante appositi adattatori inclusi nella confezione.
- Adattatori per cave K-CB opzionali.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

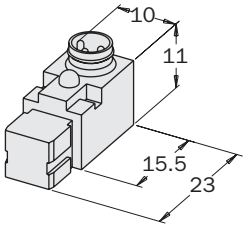
Magnetic sensors for dovetail slots

- *Reed or GMR magnetoresistive sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or SNAP connector output.*
- *100% traceability.*
- *Application in multiple dovetail-slots using special adapter included in the supply.*
- *Optional K-CB slot adapters.*
- *Optional 2.5m, 5m and 10m extensions.*
- *Axial mounting.*





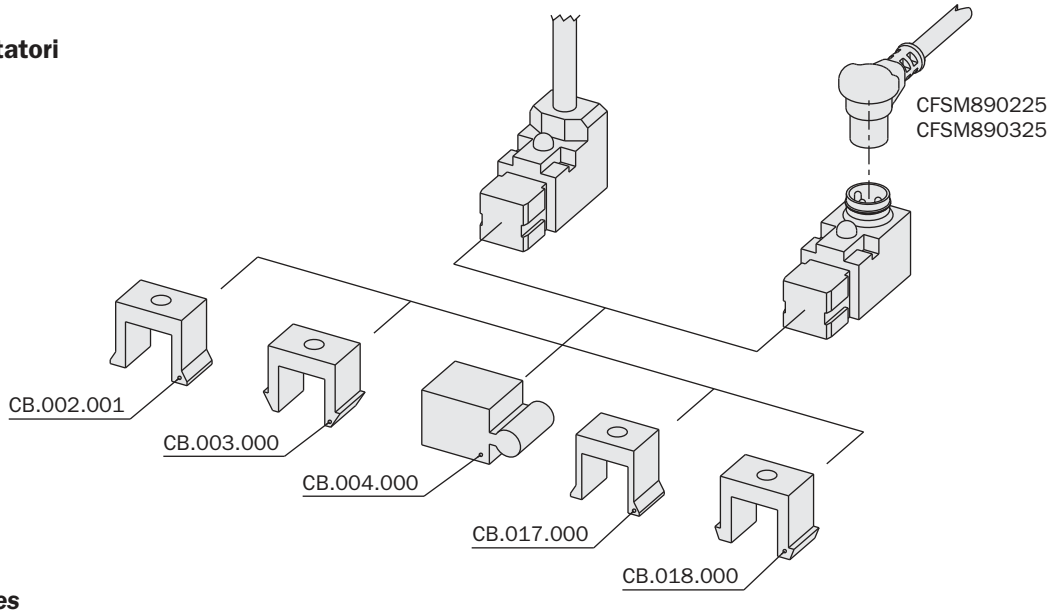
Sensore con cavo (1)
Sensor with cable (1)



Sensore con connettore SNAP (2)
Sensor with SNAP connector (2)

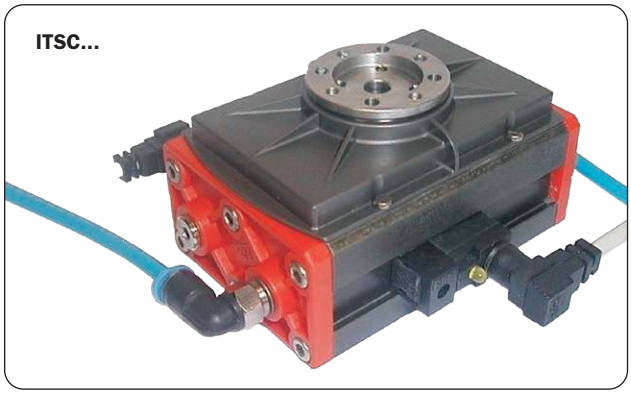
Dimensions (mm)

Fissaggio con adattatori
Fixing with adapter



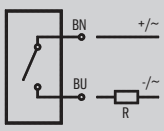
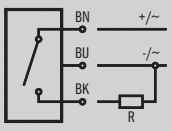
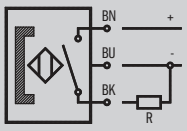
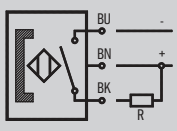
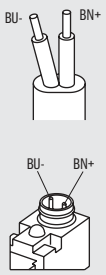
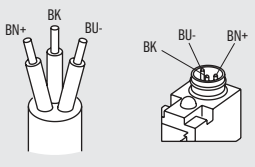
Esempi di utilizzo
Application examples

ITSC...



PE...



Sensore con cavo *Sensor with cable* (1)	CB1C425-G	CB4D225-G	CB4N225-G	CB4M225-G
Sensore con conn. SNAP *Sensor with SNAP connector* (2)	CB2C4-G	CB3D2-G	CB3N2-G	CB3M2-G
Tipo sensore *Sensor type*	REED 2 fili normalmente Aperto *2-wire reed Normally Open*	REED PNP 3 fili normalmente Aperto *3-wire reed Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN Normally Open*
Tensione di alimentazione *Power supply*	3÷110 Vac/dc	3÷30 Vac/dc	6÷30 Vdc	
Corrente di commutazione *Switching current*	0.3 A	1 A	0.25 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	10 W		6 W	
Punto di lavoro nominale *Nominal switching point*	20÷25 AT		15±5 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷10 AT		4÷7 Gauss	
Tempo commutazione "ON" *ON switching time*	0.5 ms			
Tempo commutazione "OFF" *OFF switching time*	0.5 ms			
Temperatura di lavoro *Operating temperature*	-10÷70°C			
Frequenza di lavoro *Switching frequency*	500 kHz		200 kHz	
Vita elettrica *Electric service life*	10^7 imp.		10^9 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s			
Protezione contro inversione di polarità *Reverse polarity protection*	Si *YES*			
Grado di protezione *Protection rating*	IP 67			
Materiali corpo *Sensor body material*	PA + AISI 303			
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - Connettore SNAP *2.5 m (flying cable) - SNAP connector*			
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.			
Conduttori *Leads*	0.25 mm² / AWG 24 / 32 x 0.10 mm²			
Materiali connettore M8 *M8 connector material*	PA / ottone dorato *PA / gold-plated brass*			
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			
Configurazioni circuitali *Wiring diagrams*				
Connessioni *Connections*				
		Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*		

Sensori magnetici a tiranti

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore SNAP o M12.
- Tracciabilità 100%.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

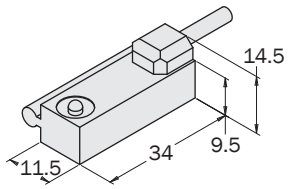
Magnetic sensors for tie-rod cylinders

- *Reed or GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable, SNAP or M12 connector output.*
- *100% traceability.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*

(1)



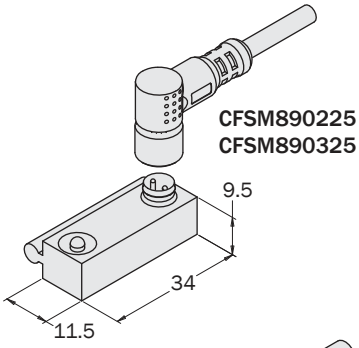
Sensore con cavo
Sensor with cable



(2)



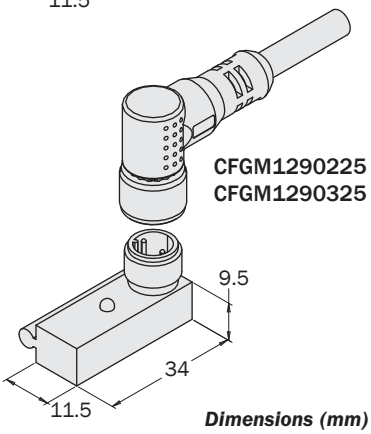
Sensore con connettore SNAP
Sensor with SNAP connector



(3)



Sensore con conn. M12 maschio
Sensor with M12 male connector

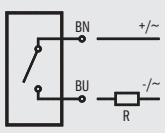
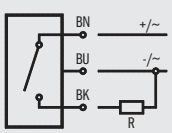
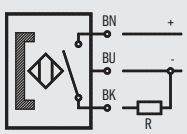
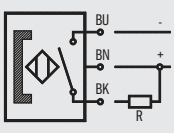
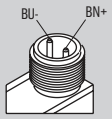
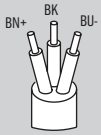
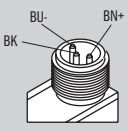


Dimensions (mm)

Esempi di utilizzo
Application examples





Sensore con cavo *Sensor with cable*	*(1)*	**SM1C525-G**	**SM4D225-G**	**SM4N225-G**	**SM4M225-G**
Sensore con conn. SNAP *Sensor with SNAP connector*	*(2)*	**SM2C5-G**	**SM3D2-G**	**SM3N2-G**	**SM3M2-G**
Sensore con conn. M12 maschio *Sensor with M12 male connector*	*(3)*	**SM5C5-G**	**SM6D2-G**	**SM6N2-G**	
Tipo sensore *Sensor type*		REED 2 fili normalmente Aperto *2-wire reed* *Normally Open*	REED PNP 3 fili normalmente Aperto *3-wire reed* *Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP* *Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN* *Normally Open*
Tensione di alimentazione *Power supply*		3÷250 Vac/dc	3÷30 Vac/dc	6÷30 Vdc	
Corrente di commutazione *Switching current*		0.5 A	1 A	0.25 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*		10 W		6 W	
Punto di lavoro nominale *Nominal switching point*		25÷30 AT		15±5 Gauss	
Differenza ON-OFF *ON-OFF differential*		5÷10 AT		4÷7 Gauss	
Tempo commutazione "ON" *ON switching time*		0.5 ms			
Tempo commutazione "OFF" *OFF switching time*		0.5 ms			
Temperatura di lavoro *Operating temperature*		-10÷70°C			
Frequenza di lavoro *Switching frequency*		500 kHz		200 kHz	
Vita elettrica *Electric service life*		10^7 imp.		10^9 imp.	
Velocità di passaggio pistone *Piston speed*		10 m/s			
Protezione contro inversione di polarità *Reverse polarity protection*		Si *Yes*			
Grado di protezione *Protection rating*		IP 67			
Materiali corpo *Sensor body material*		PA; AISI 303; OT63			
Lunghezza cavo standard *Standard cable length*		2.5 m (cavo diretto) - Connettore SNAP/M12 *2.5 m (flying cable) -SNAP/12 connector*			
Guaina - isolamento *Sheathing - insulation*		PVC CEI 20-22II O.R.			
Conduttori *Leads*		0.25 mm² / AWG 24 / 32 x 0.10 mm²			
Materiali connettore M8 *M8 connector material*		PUR / ottone dorato *PUR / gold-plated brass*			
Normative di riferimento CE *CE reference standards*		CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11			
Configurazioni circuitali *Wiring diagrams*					
Connessioni *Connections*		 	  Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*		

SM-G-IP68

Sensori magnetici a tiranti IP68

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore M8 o connettore M12.
- Tracciabilità 100%.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.
- Elevato grado di protezione (IP68).

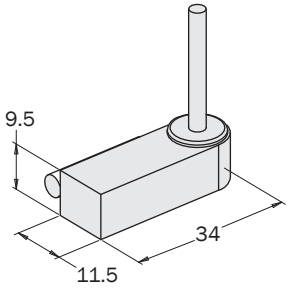
Magnetic sensors for IP68 tie-rod cylinders

- *Reed or GMR sensors.*
- *PNP logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable, M8 or M12 connector output.*
- *100% traceability.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*
- *High protection rating (IP68).*

(1)



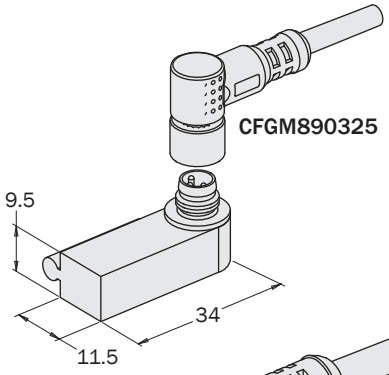
Sensore con cavo
Sensor with cable



(2)



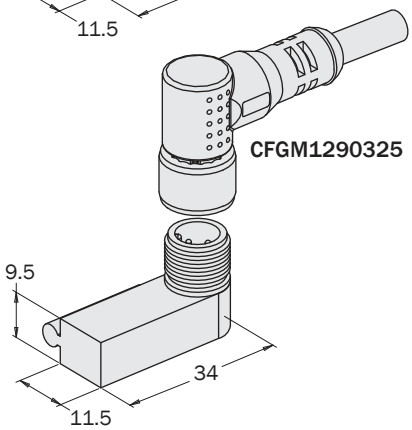
Sensore con connettore M8
Sensor with M8 male connector



(3)



Sensore con connettore M12
Sensor with M12 male connector

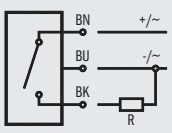
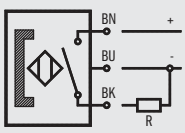
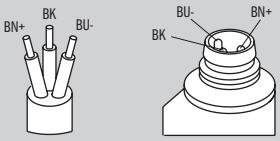


Dimensions (mm)

Esempi di utilizzo
Application examples





Sensore con cavo *Sensor with cable* (1)	**SM7D225-G**	**SM7N225-G**
Sensore con conn. M8 maschio *Sensor with M8 male connector* (2)	**SM8D2-G**	**SM8N2-G**
Sensore con conn. M12 maschio *Sensor with M12 male connector* (3)	**SM9D2-G**	**SM9N2-G**
Tipo sensore *Sensor type*	REED PNP 3 fili normalmente Aperto *3-wire PNP reed Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*
Tensione di alimentazione *Power supply*	3÷30 Vac/dc	6÷30 Vdc
Corrente di commutazione *Switching current*	0.2 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	6 W	
Punto di lavoro nominale *Nominal switching point*	20÷25 AT	40±10 Gauss
Differenza ON-OFF *ON-OFF differential*	5÷10 AT	5÷25 Gauss
Tempo commutazione "ON" *ON switching time*	0.5 ms	
Tempo commutazione "OFF" *OFF switching time*	0.5 ms	
Temperatura di lavoro *Operating temperature*	-10÷70°C	
Frequenza di lavoro *Switching frequency*	500 kHz	200 kHz
Vita elettrica *Electric service life*	10^7 imp.	10^9 imp
Velocità di passaggio pistone *Piston speed*	10 m/s	
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*	
Grado di protezione *Protection rating*	IP 68 - Se connesso con connettore IP68 *IP 68 – If connected with IP68 connector*	
Materiali corpo *Sensor body material*	PA; AISI 303; OT63	
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - Connettore M8/M12 *2.5 m (flying cable) – M8/M12 connector*	
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.	
Conduttori *Leads*	0.14 mm² / AWG 26 / 36 x 0.07 mm²	
Materiali connettore M8 *M8 connector material*	ottone dorato + AU *gold-plated brass*	
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11	
Configurazioni circuitali *Wiring diagrams*		
Connessioni *Connections*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	

SM-G-NC

Sensori magnetici a tiranti normalmente chiusi

- Sensori reed o magnetoresistivi GMR.
- Uscita in logica PNP o NPN per i sensori magnetoresistivi.
- Nessun problema in caso di vibrazioni.
- Uscita cavo o connettore SNAP.
- Tracciabilità 100%.
- Prolunghe 2.5m, 5m e 10m opzionali.
- Inserimento assiale.

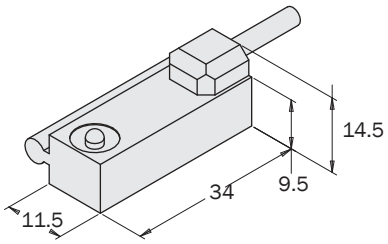
Magnetic sensors with normally-closed tie-rods

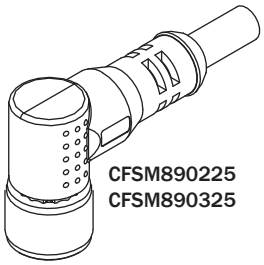
- *Reed or GMR sensors.*
- *PNP or NPN logic output for magnetoresistive sensors.*
- *No problems in case of vibrations.*
- *Cable or SNAP connector output.*
- *100% traceability.*
- *Optional 2.5m, 5m and 10m cable extensions.*
- *Axial mounting.*

(1)



Sensore con cavo
Sensor with cable



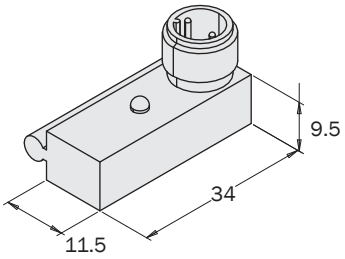


CFSM890225
CFSM890325

(2)



Sensore con connettore SNAP
Sensor with SNAP connector

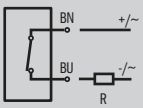
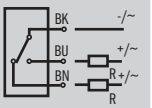
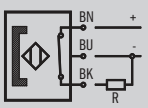
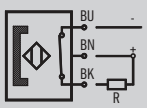
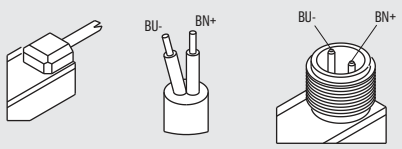
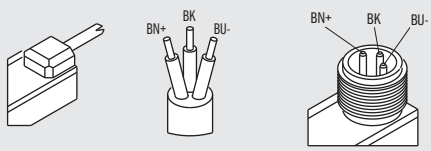


Dimensions (mm)

Esempi di utilizzo
Application examples





Sensore con cavo *Sensor with cable* (1)	**SM1F425-G**	**SM1G425-G**	**SM1H425-G**	**SM4S425-G**	**SM4P225-G**	**SM4L225-G**
Sensore con conn. SNAP *Sensor with SNAP connector* (2)	**SM2F4-G**	**SM2G4-G**	**SM2H4-G**	**SM3S4-G**	**SM3P2-G**	**SM3L2-G**
Tipo sensore *Sensor type*	REED 2 fili *2-wire reed*	REED 2 fili + VDR *2-wire reed + VDR*	REED 2 fili + VDR + LED *2-wire reed + VDR*	REED Scambio *Changeover reed*	PNP Magnetoresistivo *Magnetoresistive PNP*	NPN Magnetoresistivo *Magnetoresistive NPN*
Tensione di alimentazione *Power supply*	0÷110 Vac/dc		3÷110 Vac/dc		6÷30 Vdc	
Corrente di commutazione *Switching current*	1 A		0.5 A		0.25 A	
Potenza (carico ohmico) *Power rating (Ohmic load)*	10 W				6 W	
Punto di lavoro nominale *Nominal switching point*	15÷30 AT				15±5 Gauss	
Differenza ON-OFF *ON-OFF differential*	5÷10 AT				4÷7 Gauss	
Tempo commutazione "ON" *ON switching time*	0.5 ms					
Tempo commutazione "OFF" *OFF switching time*	0.5 ms					
Temperatura di lavoro *Operating temperature*	-10÷70°C					
Frequenza di lavoro *Switching frequency*	500 kHz				200 kHz	
Vita elettrica *Electric service life*	10^7 imp.				10^9 imp.	
Velocità di passaggio pistone *Piston speed*	10 m/s					
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*					
Grado di protezione *Protection rating*	IP 68 - Se connesso con connettore IP68 *IP 68 – If connected with IP68 connector*					
Materiali corpo *Sensor body material*	PA; AISI 303; OT63					
Lunghezza cavo standard *Standard cable length*	2.5 m (cavo diretto) - Connettore SNAP *2.5 m (flying cable) – SNAP connector*					
Guaina - isolamento *Sheathing - insulation*	PVC CEI 20-22II O.R.					
Conduttori *Leads*	0.25 mm² / AWG 24 / 32 x 0.10 mm²					
Materiali connettore M8 *M8 connector material*	PA / ottone dorato *PA / gold-plated brass*					
Normative di riferimento CE *CE reference standards*	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3; CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-6; CEI EN 61000-4-8; CEI EN 61000-4-11					
Configurazioni circuitali *Wiring diagrams*						
Connessioni *Connections*						
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*					

Sensori induttivi

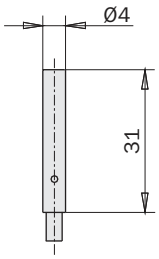
- Sensori induttivi con funzione di anti-interferenza.
- Materiale del corpo in acciaio inox e superficie sensibile in PBT.
- Indicatore LED integrato.
- Uscite in logica PNP o NPN.

Inductive sensors

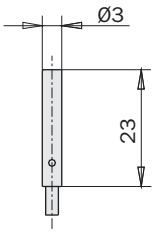
- *Inductive sensors with anti-interference function.*
- *Stainless steel sensor body and PBT sensitive surface.*
- *Embedded LED indicator.*
- *PNP or NPN logic outputs.*



SI...



SIS...



Dimensions (mm)

Esempi di utilizzo
Application examples

AQC...

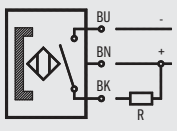
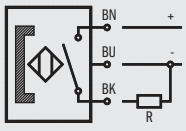
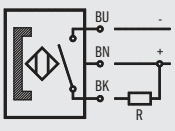
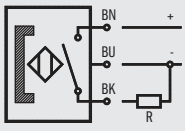
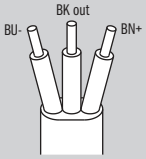


SGP-S...



TH...



	SI4M225-G	SI4N225-G	SIS4M225-G	SIS4N225-G
Tipo sensore *Sensor type*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*	NPN Magnetoresistivo normalmente Aperto *Magnetoresistive NPN Normally Open*	PNP Magnetoresistivo normalmente Aperto *Magnetoresistive PNP Normally Open*
Distanza di rilevazione nominale *Nominal sensing distance*	0.8 mm		0.7 mm	
Isteresi *Hysteresis*	2...20% of Sn			
Indicatore Uscita *Output indicator*	LED rosso *red LED*			
Frequenza di lavoro *Switching frequency*	< 5 kHz			
Tensione di alimentazione *Voltage supply range +Vs*	10 ... 30 VDC			
Corrente massima assorbibile (senza carico) *Current consumption max. (no load)*	12 mA			
Tensione in uscita Vd *Output voltage Vd*	< 2 VDC			
Corrente di commutazione *Switching current*	< 100 mA			
Protezione controllo cortocircuito *Short-circuit protection*	Si *Yes*			
Protezione contro inversione di polarità *Reverse polarity protection*	Si *Yes*			
Forma corpo *Type*	cilindrico e liscio *cylindrical smooth*			
Materiale componente sensibile *Material (sensing face)*	LCP			
Materiale corpo *Housing material*	acciaio inox *stainless steel*			
Dimensioni *Dimensions*	4 mm		3 mm	
Lunghezza corpo *Case length*	31 mm		23 mm	
Lunghezza cavo standard *Standard cable length*	2.5 m			
Temperatura di lavoro *Operating temperature*	-25 ... +75°C			
Grado di protezione *Protection rating*	IP 67			
Configurazioni circuitali *Wiring diagrams*				
Connettore *Connections*	 Marrone BN (+); Blu BU (-); Nero BK (OUT) *Brown BN(+); Blue BU(-); Black BK (OUT)*			

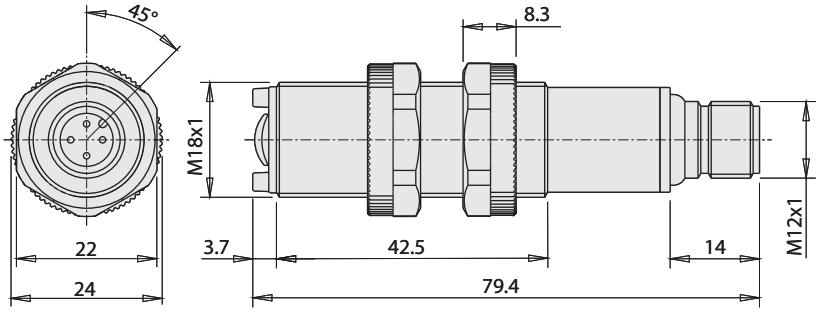
Sensori ottici

- Sensori fotoelettrici M18x1 mm.
- Soppressione di sfondo 100 mm senza regolazione.
- Uscita digitale PNP/NPN programmabile in logica impulso di luce LO oppure impulso di buio DO.
- Indicatore LED integrato.
- Uscita connettore M12, 4 pin.
- Corpo plastico corto e leggero.
- Ghiere e rondelle incluse.

Optical sensors

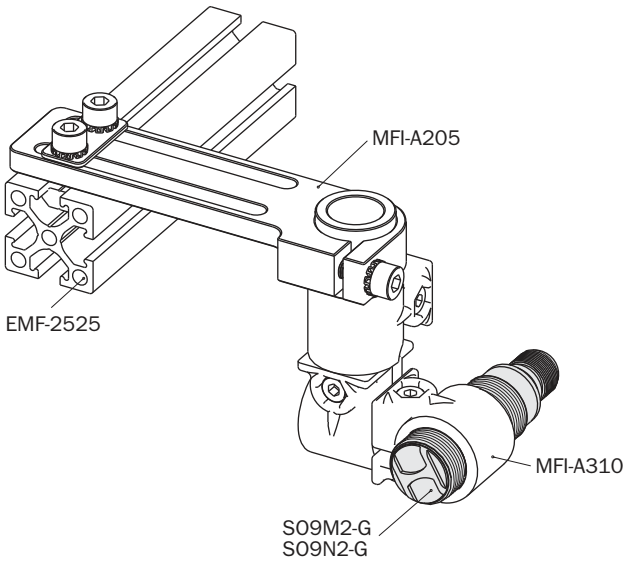
- *M18x1 mm optical sensors.*
- *100 mm background suppression without adjustment.*
- *PNP/NPN digital output, with programmable LO or DO pulse logic.*
- *Embedded LED indicator.*
- *4-pin M12 connector output.*
- *Short and lightweight plastic body.*
- *Lock nuts and washers included.*



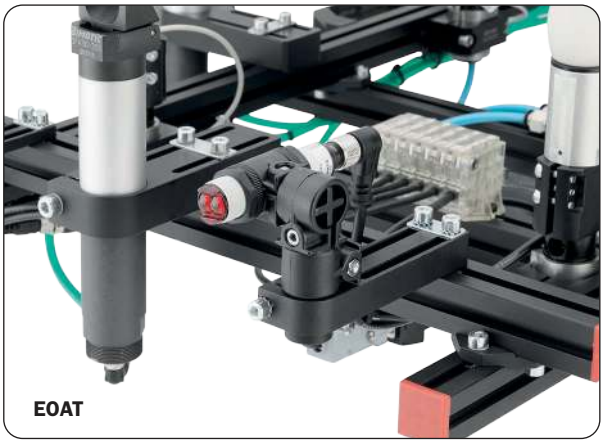


Dimensions (mm)

Esempi di fissaggio
Fixing examples

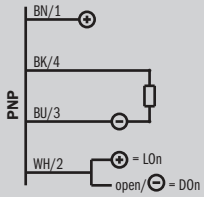
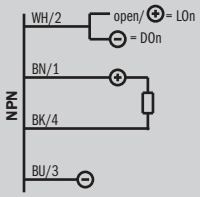


Esempi di utilizzo
Application examples

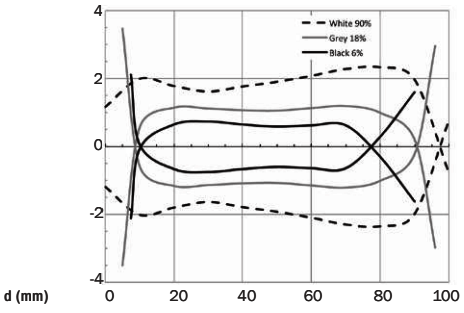


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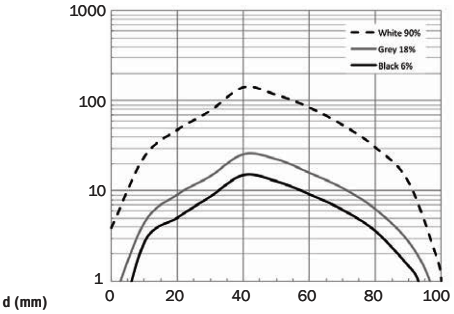


	S09N2-G	S09M2-G
Tipo di uscita *Output type*	PNP	NPN
Distanza di rilevazione nominale *Nominal sensing distance*	100 mm	
Campo di misura *Measurement range*	bianco (90%): 0 ÷ 50 mm - grigio (18%): 5 ÷ 50 mm - nero (6%): 8 ÷ 50 mm *white (90%): 0 ÷ 50 mm - grey (18%): 5 ÷ 50 mm - black (6%): 8 ÷ 50 mm*	
Oggetto minimo rilevabile *Minimum detectable object*	3.5 mm	
Isteresi *Hysteresis*	≤ 10 %	
Ripetibilità *Repeat accuracy*	5%	
Tensione di alimentazione *Operating voltage*	+10 ÷ 30 Vcc	
Corrente di uscita *Output current*	100 mA	
Frequenza di lavoro *Operating frequency*	1 kHz	
Ritardo alla disponibilità *Time delay before availability*	200 ms	
Temperatura di esercizio *Temperature range*	-25°C ÷ +70°C (senza condensa) *(without condensation)*	
Grado di protezione *Protection rating*	IP67 (EN60529)	
Coppia di serraggio *Tightening torque*	1 Nm	
Peso *Weight*	30 g	
Configurazioni circuitali *Wiring schematics*		
Connettore *Connection*	 Marrone (BN +); Blu (BU -); Nero (BK OUT); Bianco (WH OUT) *Brown (BN +); Blue (BU -); Black (BK OUT); White (WH OUT)*	

Disassamento parallelo (mm)
Parallel misalignment (mm)

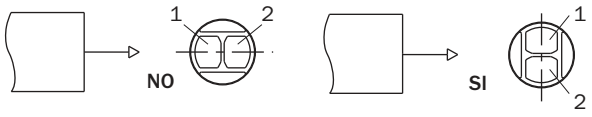


Eccesso di guadagno
Excess of gain



Per un corretto funzionamento del sensore l'oggetto in movimento deve attraversare contemporaneamente l'emettitore (1) ed il ricevitore (2).

For proper sensor operation, the moving object must cross the emitter (1) and the receiver (2) simultaneously.



Sensori ottici cubici

- Sensori fotoelettrici cubici miniaturizzati a soppressione di sfondo.
- Emissione rossa ad alta intensità.
- Regolazione della sensibilità meccanica tramite trimmer.
- Uscita in logica PNP o NPN.
- Uscita selezionabile N.O./N.C.
- Uscita con connettore M8 4 pin.

Optical cubic sensors

- *Miniaturized photo-electric cubic sensors with background suppression.*
- *High-intensity red emission.*
- *Mechanical sensitivity adjustment via a trimmer.*
- *PNP or NPN logic output.*
- *NO/NC selectable output.*
- *Output with M8 4-pin connector.*



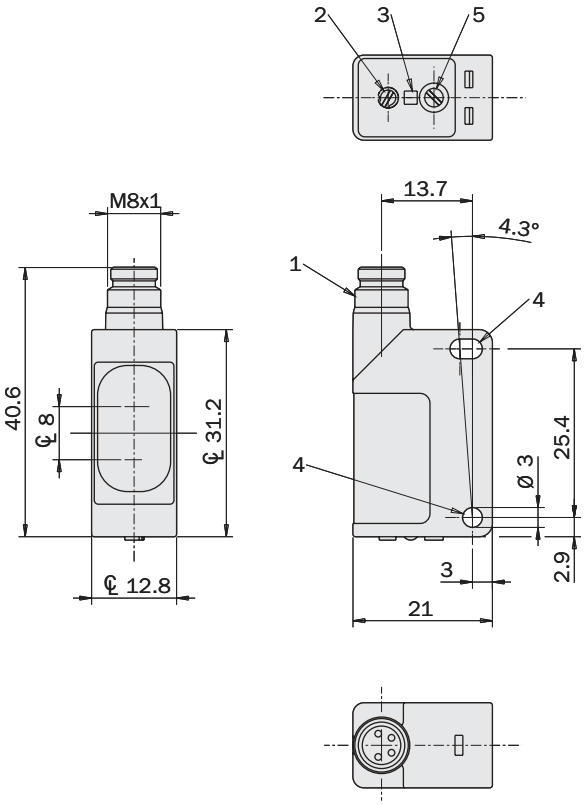
1 Uscita connettore M8x1
M8x1 connector output

2 Trimmer NO/NC
NO/NC trimmer

3 Led
LED

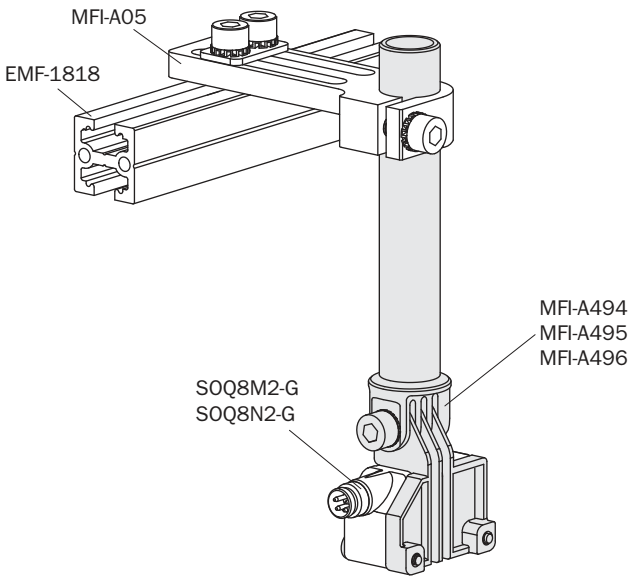
4 Fori di fissaggio
Fixing holes

5 Trimmer regolazione di sensibilità
Sensitivity-adjusting trimmer



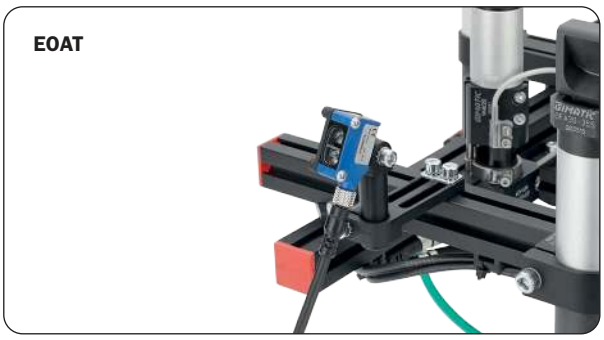
Dimensions (mm)

Esempi di fissaggio
Fixing examples

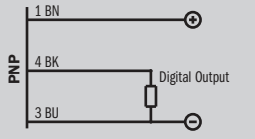
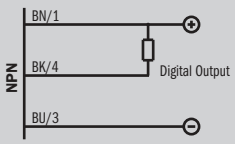
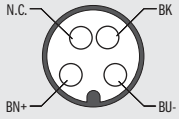


Esempi di utilizzo
Application examples

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	SOQ8N2-G	SOQ8M2-G
Distanza min.di rilevazione *Minimum sensing distance*	5 mm	
Distanza di rilevazione nominale *Nominal sensing distance*	30...200 mm(1)	
Regolazione della sensibilità *Sensitivity adjustment*	Si (4 giri) *Yes (4 rounds)*	
Emissione *Emission*	Rossa (630 nm) *Red (630 nm)*	
Ripetibilità *Repeatability*	5%	
Selezione buio o luce *Dark or Light selection*	Si *Yes*	
Tensione di alimentazione Ue *EU Power supply voltage*	10...30 Vdc	
Ondulazione residua *Ripple*	≤ 10 %	
Corrente di carico *Load current*	≤ 100 mA	
Corrente assorbita a vuoto *No-load input current*	≤ 30 mA	
Corrente max. commutabile in uscita *Maximum output switching current*	≤ 100 mA	
Tipo di uscita *Output type*	PNP NO o NC	NPN NO o NC
Frequenza di commutazione *Switching frequency*	1 kHz	
Tempo di risposta *Response time*	≤ 100 ms	
Protezione elettrica alimentazione *Supply electrical protection*	Inversione di polarità, sovratensione impulsiva *Polarity reversal, overvoltage pulses*	
Protezione elettrica di uscita *Output electrical protection*	Cortocircuito (autoripristinante), sovratensioni *Short-circuiting (auto-reset), overvoltage pulses*	
Temperatura operativa *Operating temperature range*	-25°...+70° C (senza condensazione) *(no condensation)*	
Temperatura di immagazzinamento *Storage temperature*	-30°...+80°C	
Immunità alla luce ambiente *Ambient light immunity*	10.000 lux luce solare - 3.000 lux lampada alta frequenza *10,000 lux sunlight - 3,000 lux high-frequency bulb*	
Grado di protezione *Protection rating*	IP67 (EN60529)	
Materiale del contenitore *Case material*	PA66	
Materiale ottica *Optics material*	PMMA	
Coppia serraggio *Tightening torque*	1Nm	
Peso approssimativo *Approx. weight*	10g	
Configurazioni circuitali *Wiring diagrams*		
Connettore *Connector*	 Marrone BN (+); Blu BU (-); Nero BK (OUT); Non connesso N.C. *Brown BN (+); Blue BU (-); Black BK (OUT); Not connected N.C.*	

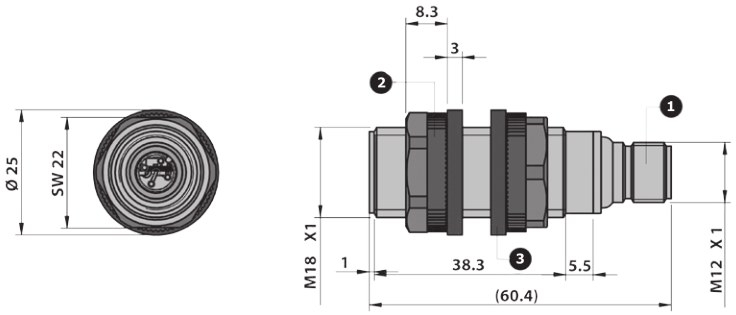
Sensori ultrasonici

- Sensori ultrasuoni M18x1 mm.
- Uscita digitale PNP/NPN programmabile in logica NA o NC.
- Campo di lettura 40-300 mm con punto programmabile a mezzo Teach esterno.
- Uscita connettore M12, 4 pin.
- Corpo plastico corto e leggero.
- Ghiere e rondelle incluse.

Ultrasonic sensors

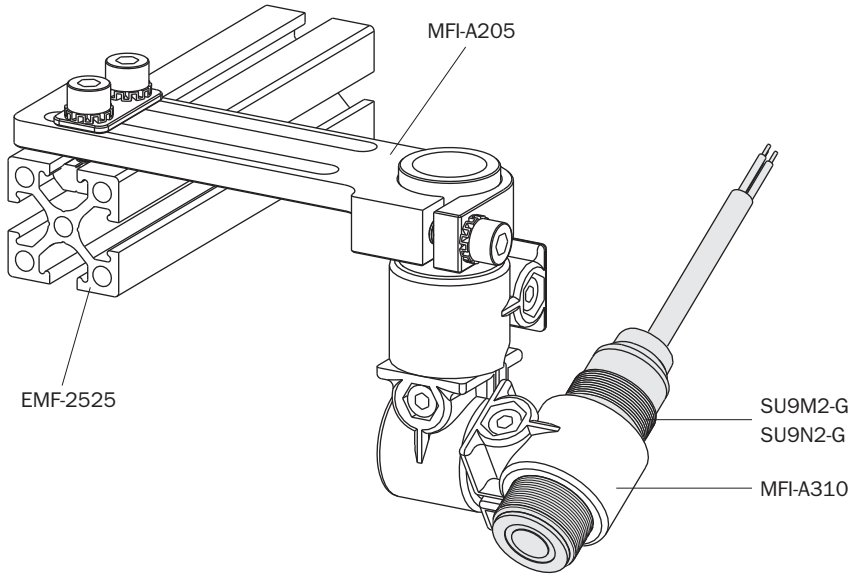
- *M18x1 mm ultrasonic sensors.*
- *PNP/NPN digital output with NO or NC programmable logic.*
- *40-300 mm sensing range with programmable point via External Teach.*
- *4-pin M12 output connector.*
- *Short and lightweight plastic body.*
- *Lock nuts and washers included in the supply.*





Dimensions (mm)

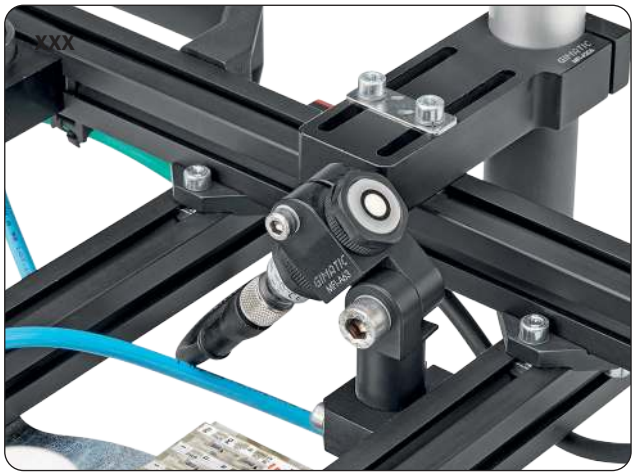
Esempi di fissaggio
Fixing examples

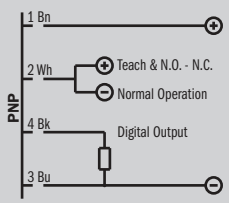
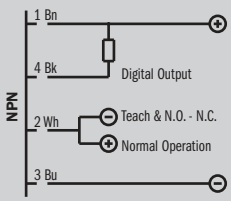
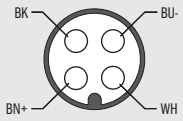


Esempi di utilizzo
Application examples

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	SU9N2-G	SU9M2-G
Tipo di uscita *Output type*	PNP	NPN
Massima distanza di rilevamento *Maximum sensing distance*	300 mm	
Minima distanza di rilevamento (zona morta) *Minimum sensing distance (blind zone)*	40 mm	
Range di regolazione *Sensing range*	40-300 mm	
Apertura fascio angolare *Beam angle*	±10°	
Frequenza di lavoro *Switching frequency*	40 Hz	
Tempo di risposta (uscita digitale) *Response time (digital output)*	13 ms	
Isteresi *Hysteresis*	2%	
Ripetibilità *Repeatability*	2% del valore di fondo scala *2% of full-scale value*	
Errore di linearità *Linearity error*	≤ 3 del valore di fondo scala *≤ 3 of full-scale value*	
Range di temperatura *Temperature range*	-20°÷60°C	
Compensazione in temperatura *Temperature compensation*	Si *Yes*	
Deriva termica *Thermal drift*	≤ 7%	
Tensione di alimentazione *Power supply voltage*	+15÷30 Vcc	
Ondulazione residua *Ripple*	± 5%	
Corrente di perdita *Leakage current*	≤ 10 µA @ 30 Vcc	
Caduta di tensione in uscita *Output voltage drop*	2.2 V max. @ (IL=100 mA)	
Corrente assorbita *Input current*	≤ 40 mA	
Corrente di uscita (uscita digitale) *Output current (digital output)*	100 mA	
Minima resistenza di carico *Minimum load resistance*	500 Ω (uscita analogica in tensione) *500 Ω (energized analog output)*	
Regolazione punto di lavoro *Adjustment set point*	Teach-in esterno *External Teach-in*	
Ritardo alla disponibilità (uscita digitale) *Time delay before availability (digital output)*	≤ 300 ms	
Compatibilità elettromagnetica *Electromagnetic compatibility*	Conforme ai requisiti della normativa CE 2004/108/CE in accordo a EN 60947-5-2 *Complies with Directive 2004/108/EC in accordance with EN 60947-5-2*	
Grado di protezione *Protection rating*	IP67(3)	
Coppia di serraggio *Tightening torque*	1 Nm	
Peso (uscita connettore) *Weight (connector output)*	15 g (uscita connettore) *15 g (output connector)*	
Configurazioni circuitali *Wiring diagrams*		
Connettore *Connector* Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT)		

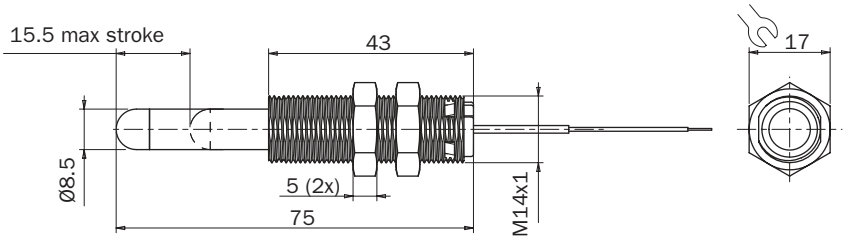
Sensori tattili

- Sensori di tipo reed.
- Uscita digitale attiva una volta superato il punto di commutazione.
- Punta in silicone per evitare danni ai prodotti.
- Tracciabilità 100%.

Touch sensors

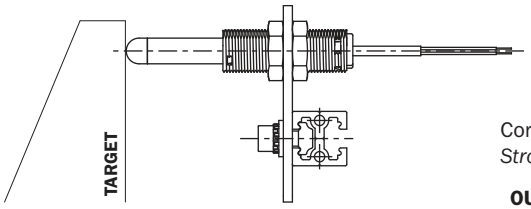
- *Reed sensors.*
- *Digital output activated after passing the switching point.*
- *Tip made in silicone material to avoid any damage to products in contact.*
- *100% traceability.*





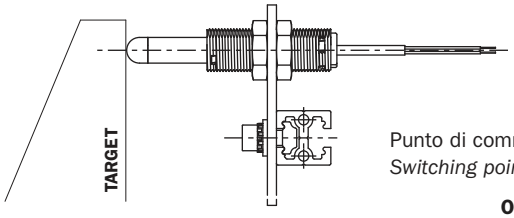
Dimensions (mm)

Esempi di utilizzo
Application examples



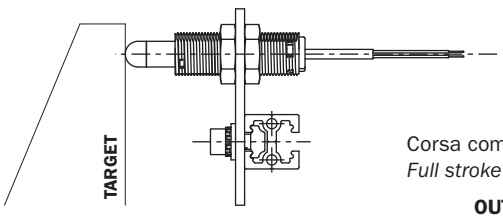
Corsa 0 mm
Stroke 0mm

OUTPUT OFF



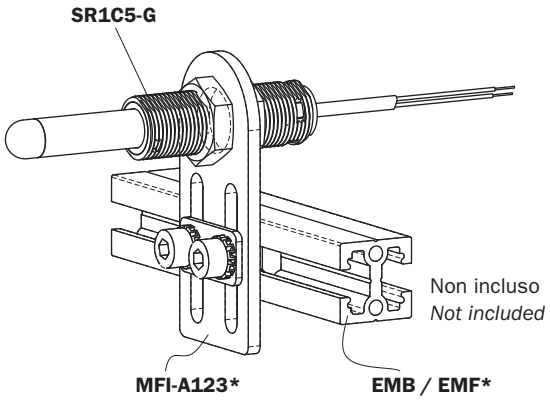
Punto di commutazione
Switching point

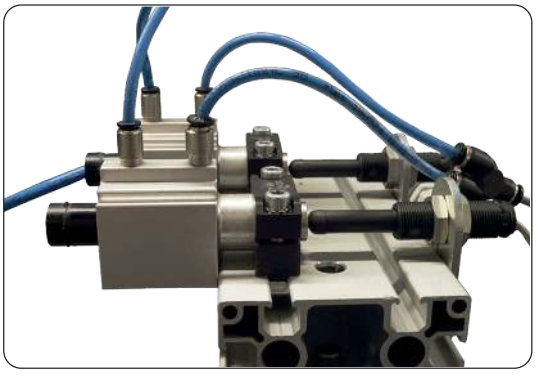
OUTPUT ON

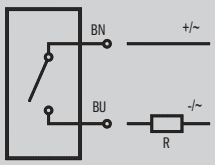
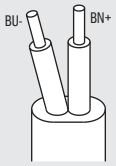


Corsa completa
Full stroke

OUTPUT ON





	SR1C5-G
Tipo connessione *Connection type*	Cavo *Cable*
Lunghezza cavo *Cable length*	2.5 m
Isolamento cavo *Cable insulation*	PVC
Massima tensione *Maximum voltage*	230 V AC/DC
Corrente massima *Maximum electric current*	0.5 A
Massima capacità di contatto *Maximum contact capacity*	10 W
Corsa *Stroke*	15 mm
Punto di commutazione *Switching point*	3÷4 mm
Temperatura di utilizzo *Operating temperature*	-10 ÷ 70 °C
Temperatura di stoccaggio *Storage temperature*	-10 ÷ 70 °C
Tempo di vita *Lifetime*	2.50 x 10^6 times (12 V@ 0.5 A)
Massa *Weight*	40 g
Grado di protezione *IP rating*	IP67
Materiale corpo principale *Main body material*	PA
Materiale punta *Tip material*	Silicone *Silicone*
Materiale ghiera *Ring material*	Ottone Nichelato *Nickel Plated Brass*
Dimensioni ghiera *Ring dimensions*	M14X1
Configurazioni circuitali *Wiring diagrams*	
Connessioni *Connections*	 Marrone BN (+); Blu BU (-) *Brown BN(+); Blu BU(-)*

Scatole di derivazione per sensori serie SB

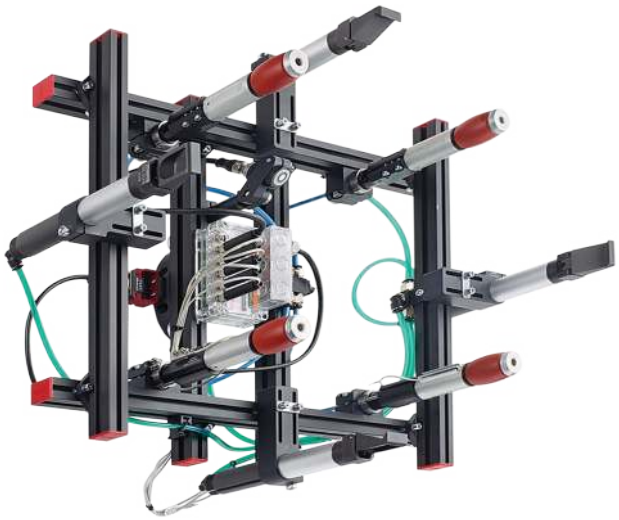
La scatola di connessione sensori è un'interfaccia realizzata per condizionare i segnali dei sensori al fine di condensare l'informazione e renderla idonea all'elettronica di comando tipo PLC (Programmable Logic Controller).

Una scatola di connessione (o sensor box) incorpora diverse funzionalità tra cui la possibilità di connettere in serie sensori anche di tipo diverso, convertirne il tipo di segnale, eseguire ricerche guasti, preservare i circuiti di comando, rigenerare i segnali in caso di lunghi cablaggi e preservare i contatti. Ogni scatola di comando si compone di più aree: un'area dedicata all'alimentazione, un'area di ingresso per la connessione fisica dei sensori, una di configurazione degli ingressi (utilizzata per impostare il tipo di sensore collegato), una di configurazione delle uscite (utilizzata per impostare il tipo di uscita e la logica di elaborazione richiesta) ed un'area di uscita per il prelievo dei segnali generati. Ogni ingresso fisico può essere configurato in base al tipo di sensore connesso (PNP, NPN, 2 fili NO/NC) mediante l'uso di jumper o selettori. I segnali provenienti dai sensori sono condizionati tramite l'uso di relè o micro-processori (in base al modello della scatola di comando) per fornire una o più uscite in base alle necessità di utilizzo. Anche la singola uscita può essere configurata utilizzando un jumper o un selettore allo scopo di definirne il tipo (PNP o NPN) e la modalità di funzionamento normalmente aperta (NO) oppure normalmente chiusa (NC).
Le sensor box sono dotate di una struttura, di fissaggi e di morsettiere che semplificano e agevolano sia l'installazione che il cablaggio dei sensori e delle uscite. La presenza inoltre di un fusibile auto-ripristinante protegge e preserva l'integrità dell'intero apparato elettronico da eventuali situazioni di corto circuito. Le scatole di connessione sono tutte dotate di led di segnalazione visibili attraverso i contenitori in materiale plastico trasparente, utili sia per la ricerca di guasti (troubleshooting) che per riconoscere lo stato di attivazione degli ingressi e delle uscite. In base al modello, le scatole di connessione sono dotate di pressa cavi PG9 che garantiscono un grado di protezione IP65 della scheda elettronica integrata (SBxC, SB6B, SBF) piuttosto che di una struttura modulare (SBM) che permette di limitare al massimo gli ingombri e di fissare la scatola stessa direttamente sugli estrusi di alluminio di cui solitamente si compone il telaio di una mano di presa.

Connection boxes for SB series sensors

The sensor connection box is an interface made to condition sensor signals to condense information and make it suitable for control electronics, such as a programmable logic controller (PLC).

A connection box (or sensor box) has various functions, such as the possibility of connecting different types of sensors in series, converting their signals, troubleshooting, maintaining control circuits, regenerating signals in the case of extensive cabling and maintaining the contacts. Each control box has several areas - a power supply area, an input area for physical sensor connection, an input configuration area (used to set the type of sensor connected), an output configuration area (used to set the type of output and processing logic required), and an output area for collecting the signals generated. Each physical input can be configured on the basis of the type of sensor connected (PNP, NPN, 2-wire NO/NC) using jump wires or selectors. Signals coming from the sensors are conditioned using relay switches or microprocessors (on the basis of the type of control box), to provide one or more outputs depending on operational requirements. Even an individual output can be configured using a jump wire or selector to define the type (PNP or NPN), and normally open (NO) or normally closed (NC) mode of operation. Sensor boxes consist of a frame, clamps and terminal boards to make installation and wiring the sensors and outputs straightforward and easy. Furthermore, the presence of a resettable fuse protects and safeguards the integrity of the electronic equipment from short circuits. All connection boxes have LED warning lights that are visible through transparent plastic containers, which is convenient for troubleshooting and viewing input/output status. The connection boxes have PG9 cable glands depending on the model, which guarantee an IP65 protection grade for integrated electronic boards (SBxC, SB6B, SBF) rather than a modular structure (SBM). This makes it possible to limit size as much as possible, and secure the box directly to the aluminium profiles that usually form gripper frames.





Scatole di derivazione per sensori serie SB

- Usate per il cablaggio dei sensori degli EOAT.
- Segnali PNP ed NPN possono essere convertiti.
- Ingressi ed uscite possono essere di tipo source (PNP), sink (NPN) o contatto pulito.
- Parecchie scatole possono essere connesse in serie per ampliare il numero di sensori gestibili.
- LED di ripetizione del segnale in ingresso per semplificare la ricerca dei guasti (non per SB15).
- Fornite con serracavo e kit per il fissaggio al profilo.

Connection boxes for series SB sensors

- *Used for sensor wiring on EOATs.*
- *PNP and NPN signals can be converted.*
- *Is/Os can be current sourcing (PNP), sinking (NPN) or dry contact.*
- *Several boxes can be connected in series to control more sensors.*
- *Input signal repetition LED for easy troubleshooting (not for SB15).*
- *Provided with strain reliefs and kit for fastening to profiles.*



	SB2C.. ..SB12C	SB8F	SBMM	SBMS	SBMM-E	SBMS-E
Tensione di alimentazione (Vdc) *Power supply unit (Vdc)*	24 (± 10%)		12 ÷ 24 (± 10%)			
Corrente massima uscita (A) *Maximum output current (A)*	1	0.2	0.35			
Metodo di programmazione *Programming method*	jumper *jump wire*	microprocessore e push button *microprocessor and pushbutton panel*	selettori *selectors*			
Struttura *Structure*	rigida (numero fisso di ingressi/uscite) *Rigid (fixed number of inputs/outputs)*		modulare *modular*			
Numero di ingressi *Number of inputs*	2÷12	8	-	1	-	1
Numero di uscite *Number of outputs*	2÷12	1	2 (1NO, 1NC)	-	1 (NO)	-
Grado di protezione *Protection rating*	IP65		IP40			
Ingombri (mm) *Overall dimensions (mm)*	65÷180x94x57	94x65x57	10x36x34 (singolo modulo) *10x36x34 (single module)*			

SB2C-SB4C-SB6C-SB8C-SB12C

Scatole di derivazione con logica a relè NO/NC e connessione a morsetti

- Scatole di connessione sensori in polistirene IP66.
- Ingresso e uscita cavi personalizzabili tramite pressa cavi standard.
- Molteplici modelli disponibili da 2 a 12 sensori in ingresso con led di segnalazione e morsetti di connessione.
- Semplice configurazione tramite jumper del tipo di sensore collegato, del tipo di uscita desiderata e della serie logica di elaborazione dei segnali (singoli o raggruppati).
- Protezione da corto circuito con led rosso di segnalazione e fusibile auto ripristinabile.
- Molteplici scatole possono essere connesse in serie per estendere il numero di sensori collegabili.
- Fino a 1 A come massima corrente di commutazione per la singola uscita.
- Fornita con viti di fissaggio diretto per gli estrusi in alluminio.

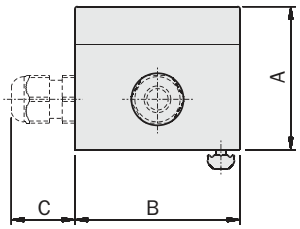
Connection boxes with NO/NC relay logic and clamp connection

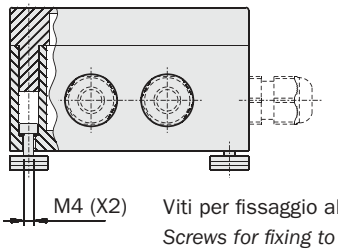
- *IP66 polystyrene sensor junction boxes.*
- *Cable inputs/outputs which can be customised using standard cable glands.*
- *Multiple models available with 2 to 12 input sensors, warning LEDs and connection clamps.*
- *Simple configuration of the type of sensor connected, type of output required, and the signal processing logic (individual or grouped) using jump wires.*
- *Protection from short circuits with red LED warning light and resettable fuse.*
- *Multiple boxes can be connected in series to increase the number of sensors that can be connected.*
- *Up to 1A as maximum switching current for individual outputs.*
- *Provided with screws for securing directly to aluminium profiles.*



Dimensioni (mm)

Dimensions (mm)

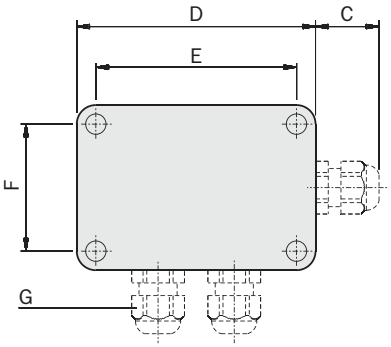


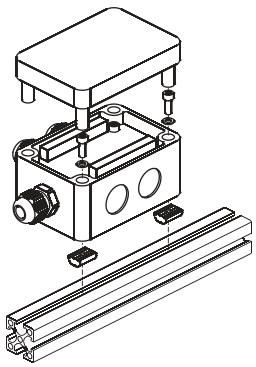


Viti per fissaggio al profilo estruso
Screws for fixing to the extruded profile

Serracavo (G) e viti per fissaggio forniti in confezione

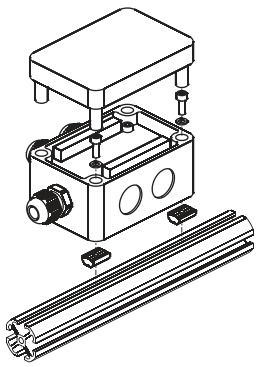
Strain reliefs (G) and fixing screws included in the supply





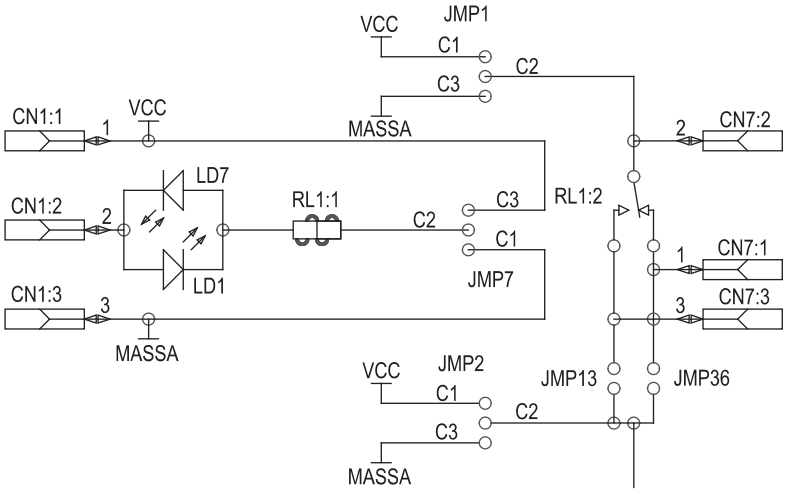
FIRST ANGLE PROJECTION

Serracavo
Strain reliefs

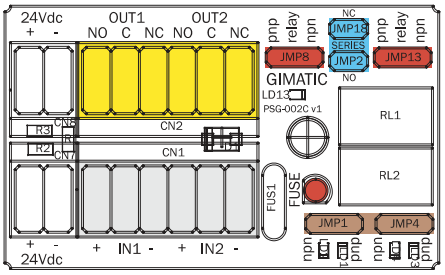


	SB2C	SB4C	SB6C	SB8C	SB12C
A	57	57	57	57	57
B	65	65	94	94	94
C	25	25	25	25	25
D	65	94	94	130	180
E	50	79	79	115	165
F	50	50	79	79	79
G	n°2	n°3	n°4	n°6	n°8
Massa *Mass*	120 g	160 g	190 g	235 g	325 g

Schema circuito singolo ingresso - uscita
Input/output single-circuit diagram

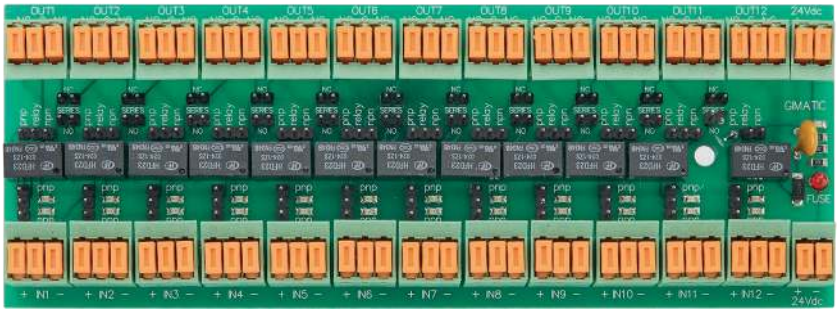


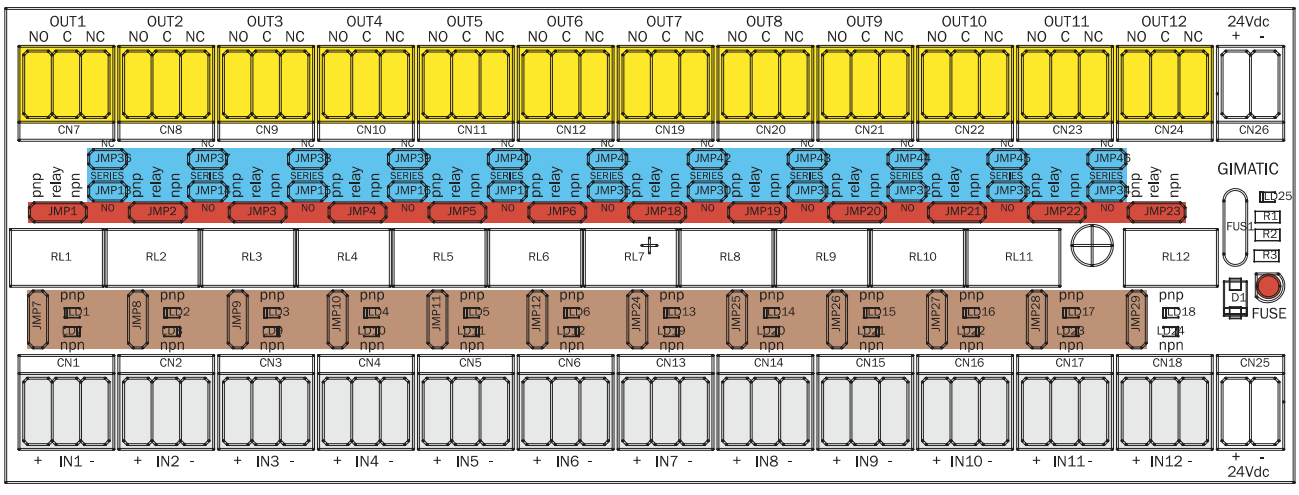
SB2C



- Morsetti di alimentazione
  Power terminals
- Morsetti di connessione sensori di ingresso
  Input sensor connection clamps
- Selettore di configurazione tipo di ingresso (PNP, NPN)
  Input type configuration selector (PNP, NPN)
- Selettore di configurazione tipo di uscita (PNP, NPN)
  Output type configuration selector (PNP, NPN)
- Selettore di configurazione per la logica di elaborazione (serie NO, serie NC)
  Processing logic configuration selector (NO series, NC series)
- Morsetti di connessione uscite
  Output connection clamps

SB12C





SB8F

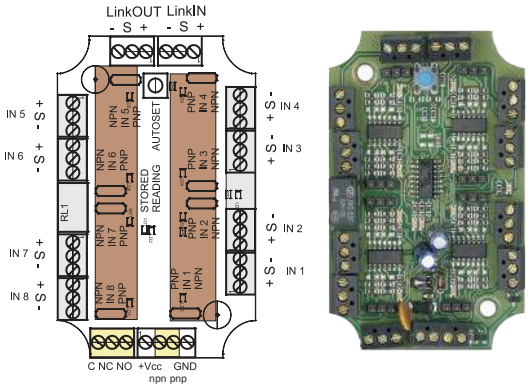
Scatole di derivazione con logica a microprocessore e connessione a morsetti

- Scatole di connessione sensori in polistirene IP66.
- Ingresso e uscita cavi personalizzabili tramite pressa cavi standard.
- Fino a 8 sensori collegabili tramite morsetti e con led di segnalazione, configurazione impostabile mediante jumper.
- Semplice configurazione tramite pressione di un tasto di programmazione.
- Alla pressione del tasto il microprocessore memorizza lo stato di tutti gli ingressi collegati. L'uscita si attiva ogni qual volta si ripresenta lo stesso stato degli ingressi.
- Protezione da corto circuito con fusibile auto ripristinabile.
- Molteplici scatole possono essere connesse in serie per estendere il numero di sensori collegabili (è sufficiente la pressione di un unico tasto per memorizzare lo stato di tutti i sensori).
- Fino a 1 A come massima corrente di commutazione per la singola uscita di tipo relè e 30 mA per la singola uscita di tipo transistor.
- Fornita con viti di fissaggio diretto per gli estrusi in alluminio.

Connection boxes with microprocessor logic and clamp connection

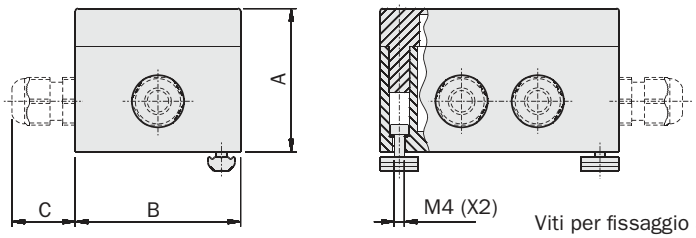
- *IP66 polystyrene sensor junction boxes.*
- *Cable inputs/outputs which can be customised using standard cable glands.*
- *Up to 8 sensors with warning LEDs can be connected using clamps, configuration can be set using jump wires.*
- *Simple configuration by pressing a programming button.*
- *On pressing the button the microprocessor stores the status of all connected inputs. The output is activated every time the same input status is returned.*
- *Short circuit protection with resettable fuse.*
- *Multiple boxes can be connected in series to increase the number of sensors that can be connected (pressing just one button stores the status of all sensors).*
- *Up to 1A as maximum switching current for individual relay outputs and 30 mA for individual transistor outputs.*
- *Provided with screws for securing directly to aluminium profiles.*

Schema circuito
Circuit diagram



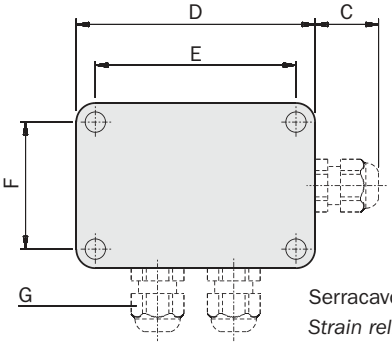
Dimensioni (mm)

Dimensions (mm)



Viti per fissaggio al profilo estruso
Screws for fixing to the extruded profile

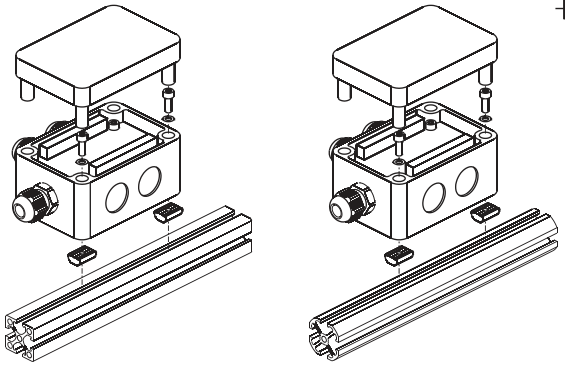
Serracavo (G) e viti per fissaggio forniti in confezione
Strain reliefs (G) and fixing screws included in the supply



Serracavo
Strain reliefs

	SB8F
A	57
B	65
C	25
D	94
E	79
F	50
G	n°3
Peso *Weight*	165 g

FIRST ANGLE PROJECTION



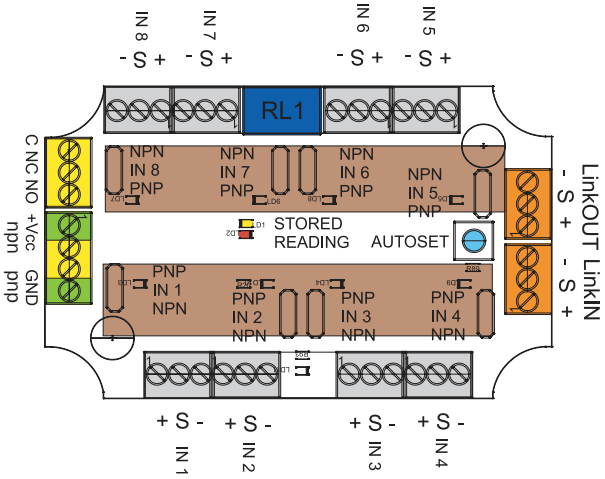
07/2026

Funzionamento

Alimentare la scatola alla tensione di 24Vdc (+/- 10 %) (AREA VERDE).
Quando si preme il pulsante AUTOSET, il microprocessore memorizza lo stato degli ingressi (AREA GRIGIA) opportunamente settati mediante i jumper (AREA MARRONE).
L'uscita (AREA GIALLA) verrà abilitata ogni volta che si presenterà la medesima configurazione degli ingressi. La singola uscita può essere gestita nelle 4 tipologie PNP, NPN, CONTATTO PULITO NC, CONTATTO PULITO NO.
Mediante i canali LINK IN e LINK OUT (AREA ARANCIO) è possibile collegare in serie molteplici scatole. Il numero massimo di scatole collegate sarà in funzione della corrente massima fornibile dall'alimentazione.

Operation

Supply the sensor box with 24Vdc (+10%) (GREEN AREA).
When the AUTOSET button is pressed, the microprocessor stores the state of inputs (GREY AREA) that are properly set using jump wires (BROWN AREA).
The output (YELLOW AREA) is enabled whenever the same input configuration occurs. Each output can be controlled in 4 modes: PNP, NPN, CLEAN NC-CONTACT, CLEAN NO-CONTACT.
Using the LinkIN and LinkOUT (ORANGE AREA) channels, you can connect several blocks in series. The maximum number of connected blocks depends on the maximum current supplied.

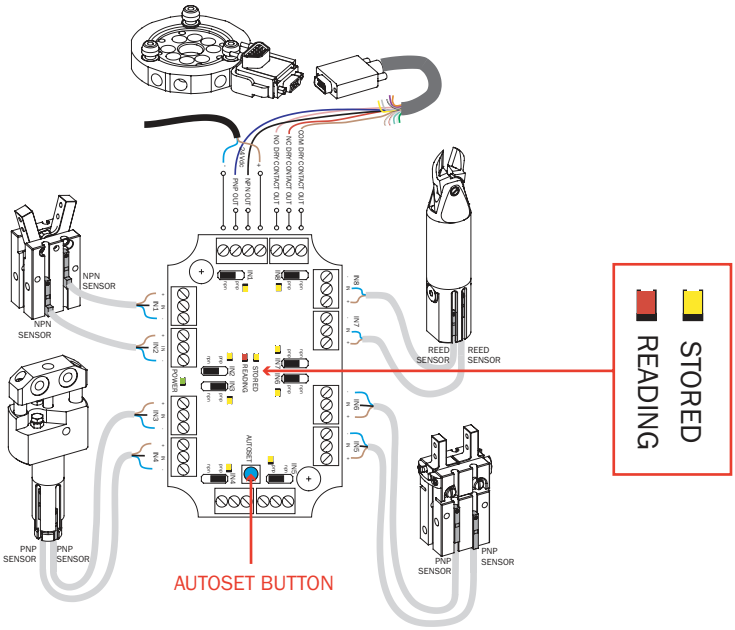


Procedura di programmazione di una singola SB8F

Prima di procedere con la programmazione della scatola, assicurarsi che gli ingressi cablati siano nella configurazione desiderata (ON oppure OFF) per l'attivazione dell'uscita.
Premere il pulsante AUTOSET per almeno 3 secondi fino a quando il led rosso READING inizia a lampeggiare, dopodiche rilasciare il pulsante.
Il lampeggio del led rosso (READING) indica che il microprocessore sta leggendo e memorizzando lo stato di tutti gli ingressi. Terminata la memorizzazione il led rosso si spegne e l'uscita di attiva. L'attivazione dell'uscita è segnalata dell'accensione del led giallo STORED.

Programming a single SB8F

Before programming the sensor box, make sure that the wired inputs are in the configuration (ON/OFF) desired to enable the output.
Press the AUTOSET button and hold it down for 3 seconds until the READING red light starts flashing, then release it.
The red light (READING) flashing indicates that the microprocessor is reading and storing the state of all the inputs. Then the red light goes off and the output is enabled. Output enabling is indicated by the yellow light (STORED).

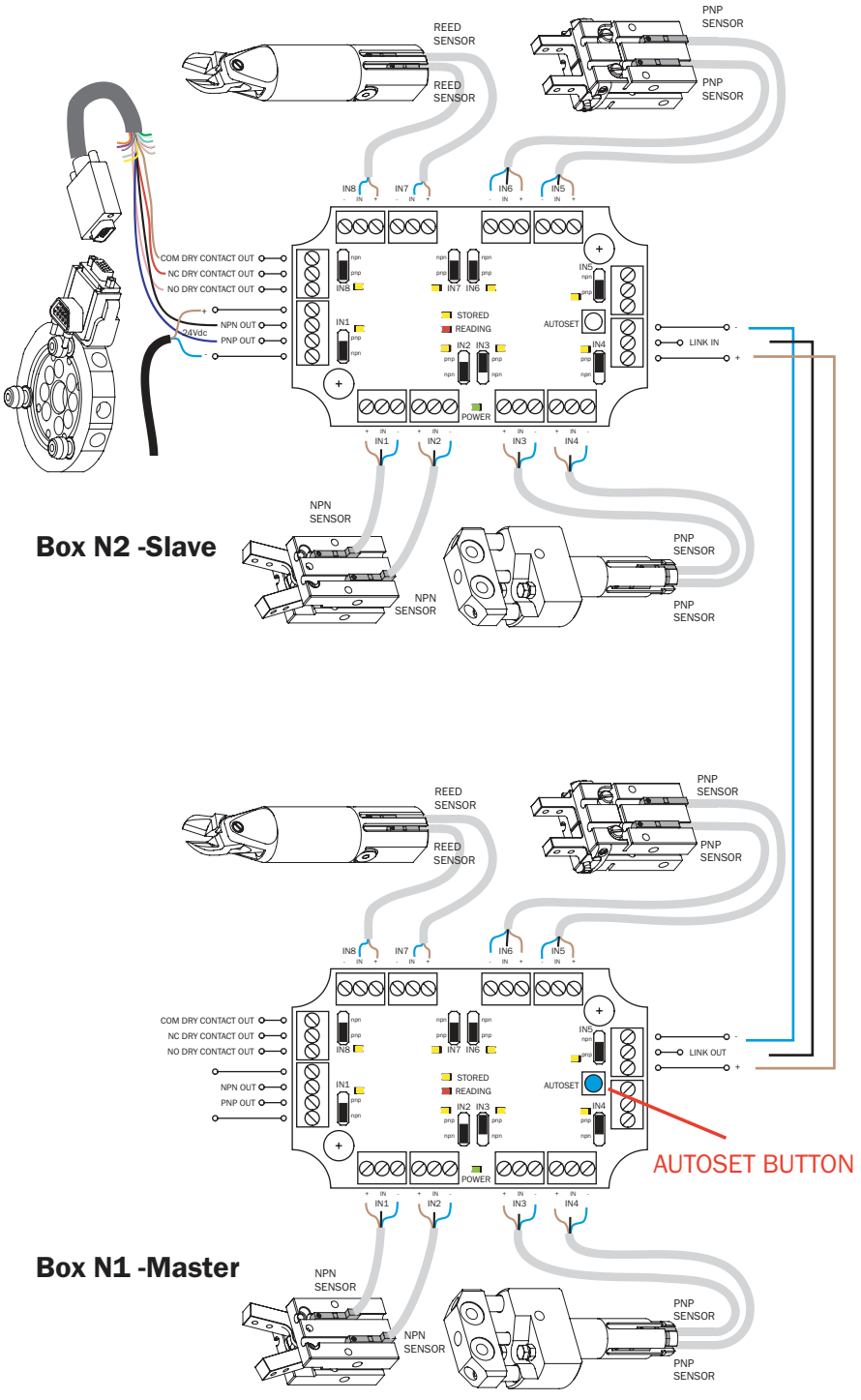


Procedura di programmazione di 2 SB8F collegate in serie

Per collegare in serie 2 (o più) SB8F e sufficiente connettere i canali LINK come indicato nello schema.
La scatola con LINK-OUT cablato (BOX N1) risulterà essere la MASTER box, mentre quella con LINK-IN cablato (BOX N2) sarà la SLAVE box. Per la corretta memorizzazione di tutti gli ingressi cablati a sistema è sufficiente premere il solo pulsante AUTOSET della MASTER box. In fase di lettura e memorizzazione degli ingressi, tutti i led rossi (READING) delle SB8F collegate inizieranno a lampeggiare. Terminata la programmazione, tutti i led gialli (STORED) delle SB8F saranno attivi (cosi come le singole uscite) e resteranno attivi anche i led rossi (READING) (ad indicare lo stato attivo dell'uscita della SB8F collegata in ingresso per ciascuna SB8F sul canale LINK-IN).

Programming 2 SB8F connected in series

To connect two or more SB8Fs in series, you only need to connect the LINK channels as indicated in the diagram. The box with wired LINK-OUT (Box N1) is the MASTER box, while the box with wired LINK-IN (Box N2) is the SLAVE box. For a correct storage of all the system wired inputs you only need to press the AUTOSET button on the MASTER box. During input reading and storing, all the red lights (READING) of the connected SB8Fs will start flashing. At the end of programming, all the SB8F yellow lights (STORED) (and the individual outputs) will be enabled, and also the red lights (READING) will be enabled (indicating that the output of the SB8F connected at the entrance of each SB8F on channel LINK-IN is enabled).



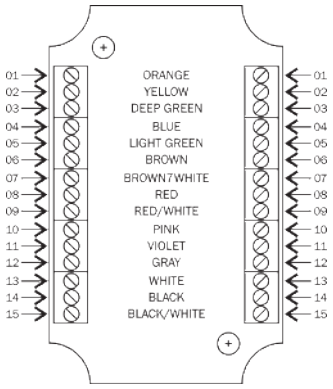
Scatola con morsettiera di connessione

- Scatola di connessione polistirene IP66.
- Ingresso e uscita cavi personalizzabili tramite pressa cavi standard.
- 2 morsetti a vite con connessione diretta di 15 ingressi/uscite.
- Fornita con viti di fissaggio diretto per gli estrusi in alluminio.
- Fino a 1 A come corrente massima per singola linea di connessione.

Sensor box with terminal board

- *IP66 polystyrene sensor box.*
- *Customizable cable input and output with standard cable gland.*
- *2 screw terminals with direct connection of 15 inputs/outputs.*
- *Supplied complete with direct fixing screws for aluminum extruded profiles.*
- *Maximum switching current up to 1A for each connection line.*



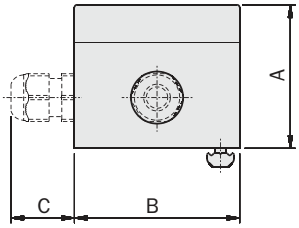


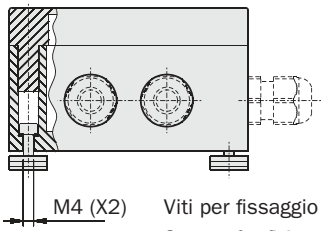
Schema circuito
Circuit diagram



Dimensioni (mm)

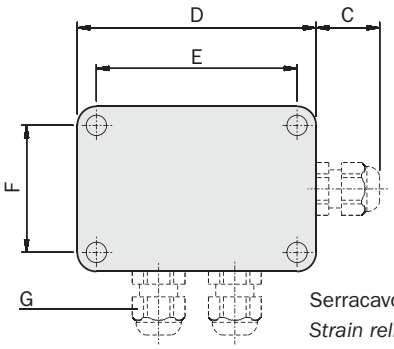
Dimensions (mm)





Viti per fissaggio al profilo estruso
Screws for fixing to the extruded profile

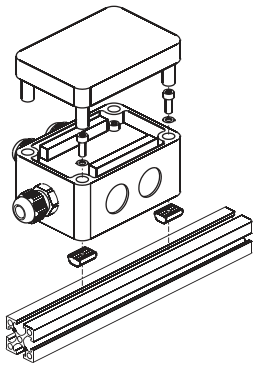
Serracavo (G) e viti per fissaggio forniti in confezione
Strain reliefs (G) and fixing screws included in the package

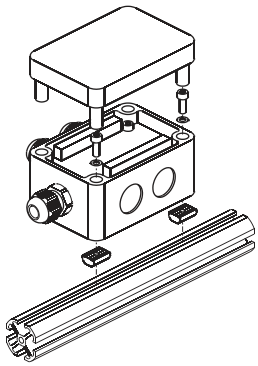


Serracavo
Strain reliefs

FIRST ANGLE PROJECTION

	SB15
A	57
B	65
C	25
D	94
E	79
F	50
G	n°3
Peso *Weight*	150 g





SBM

Sensor box modulare

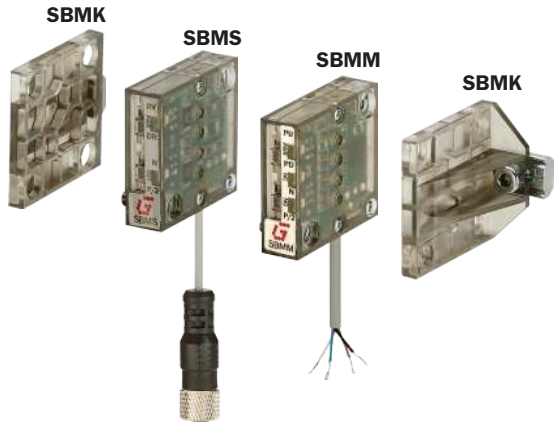
La sensor box modulare SBM è un sistema composto da uno o più moduli master (SBMM), uno o più moduli slave (SBMS) ed una unità di terminazione e fissaggio (SBMK).
Master e slave possono essere connessi in serie creando applicazioni specifiche ed un sistema completamente personalizzabile.

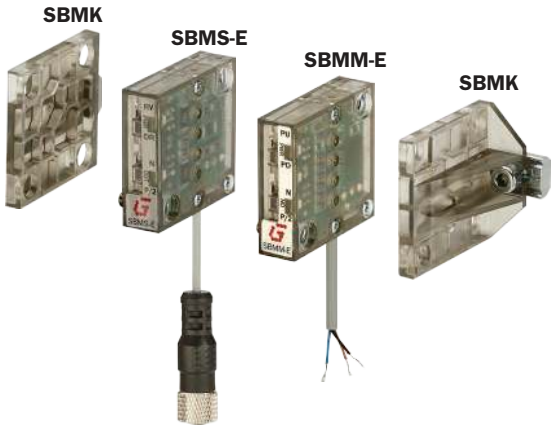
- Modulare, extra compatta e scalabile.
- Rapida configurazione manuale grazie ai selettori.
- Ogni sensore può essere configurato come NO oppure NC.
- Nella versione SBMM-E il modulo master aggiorna un'unica uscita digitale (la serie dei contatti NO).
- Nella versione SBMM, il modulo master aggiorna contemporaneamente due uscite digitali (ovvero la serie dei contatti NO e la serie dei contatti NC).
- Ampio intervallo di tensioni di alimentazione.
- Connessione in serie di massimo 20 moduli slave (sensori).
- Uscita cavi orientabile e cavi flessibili.
- Disponibili cavi/prolunghe per connessioni a sensori (cod. CM800303CF8003P; CM800305CF8003P; CM800312CF8003P; CFGM800325PSB...).
- Fissaggio diretto su profili di alluminio standard.

Modular sensor box

The SBM modular sensor box consists of one or more master modules (SBMM), one or more slave modules (SBMS) and one termination and fixing unit (SBMK).
Master and slave modules can be connected in series by creating specific applications and a fully customizable system.

- *Modular, extra compact and scalable.*
- *Easy manual configuration using selectors.*
- *Each sensor can be configured as NO or NC.*
- *In the SBMM-E version, the master module updates a single digital output (NO contact series).*
- *In the SBMM version, the master module simultaneously updates two digital outputs (i.e. NO contact series and NC contact series).*
- *Wide power supply range.*
- *Series connection of up to 20 slave modules (sensors).*
- *Orientable cable output and flexible cables.*
- *Cable/extensions are available for connections to sensors (codes CM800303CF8003P; CM800305CF8003P; CM800312CF8003P; CFGM800325PSB...).*
- *Direct fixing on standard aluminum profiles.*





	SBMM	SBMM-E	SBMS	SBMS-E
Materiale *Case material*	Durethan T 40			
Dimensione moduli *Module case dimensions*	36 mm x 34 mm x 10 mm			
Peso *Weight*	50 g			
Grado di protezione *Protection rating*	IP40			
Tensione di alimentazione *Power supply voltage*	Vcc da 12 Vdc fino a 24 Vdc (± 10%) *from 12 Vdc to 24 Vdc (+10%)*			
Assorbimento di corrente per modulo *Current input per module*	30 mA			
Temperatura di funzionamento *Operating temperature*	-30 °C ÷ +80°C			
Connessioni elettriche *Electrical connections*	4 fili senza connettore *4 wires without connector*	3 fili senza connettore *3 wires without connector*	1 connettore femmina M8 3 poli *1 M8 3-pole female connector*	
Lunghezza cavi *Cable length*	1 m		150 mm	
Ingressi *Inputs*	2 fili di alimentazione (Blu: GND, Marrone: Vcc) *2 power wires (Blue: GND, Brown: Vdc)*		1 ingresso del tipo PNP/NPN/REED *1 input type PNP/NPN/REED*	
Uscite *Outputs*	2 configurabili PNP oppure NPN *2 PNP or NPN configurable*	1 configurabile PNP oppure NPN *1 PNP or NPN configurable*	nessuna *none*	

SBMM / SBMM-E - Modulo master

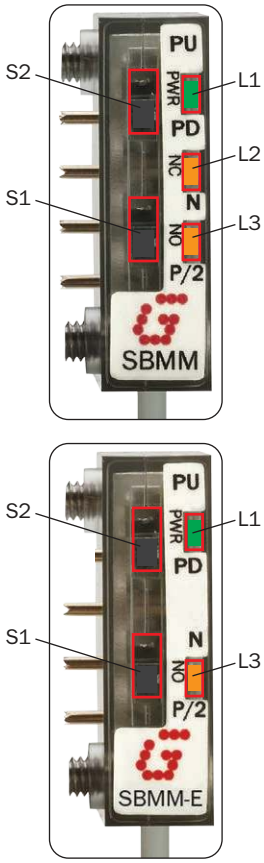
È sempre il primo modulo di una generica SBM e si comporta da fonte di alimentazione per tutti gli altri moduli connessi in serie.
La versione SBMM genera due uscite simultanee aggiornate secondo lo stato delle uscite dei successivi moduli slave (una come serie NO delle uscite degli slave e l'altra come serie NC delle uscite degli slave).
In questo modo con un'unica sensor box è possibile riconoscere contemporaneamente sia lo stato di tutti gli attuatori attivi sia lo stato di tutti gli attuatori non attivi (con le normali sensor box servirebbero due unità).
La versione SBMM-E genera invece un'unica uscita (come serie NO delle uscite degli slave).
Le uscite del master possono essere impostate come PNP oppure NPN tramite un selettore dedicato e le rispettive resistenze di PULL-UP e PULL-DOWN possono essere impostare usando un selettore separato.
Il modulo ha anche due led che permettono una rapida diagnostica.
Esso può essere anche usato come un modulo intermedio di una generica SBM, quando è necessaria una separazione logica (od un raggruppamento logico) dei segnali degli slave.
Lo stato delle uscite del modulo master è comunque sempre legato agli stati dei segnali di tutti i successivi slave fino alla fine della SBM oppure fino al successivo modulo master (riferirsi agli esempi di applicazioni riportati più avanti per ulteriori informazioni).

SBMM / SBMM-E - Master module

This is always the first module of a generic SBM and acts as a power supply for other modules connected in series.
The SBMM version generates two simultaneous outputs that are updated with the output status of the successive slave modules (one as NO series of slave outputs and the other as NC series of slave outputs).
Consequently, one sensor box can simultaneously recognise the status of all active and non-active actuators (with standard sensor, boxes 2 would be required).
The SBMM-E version generates a single output (as NO series of slave outputs).
The master module outputs can be set as PNP or NPN by means of a dedicated selector, and the corresponding PULL-UP and PULL-DOWN resistors can be set with a separate selector.
The module features two LED indicators for rapid diagnostics.
It can also be used as an intermediate module of a generic SBM when the logical separation (or logical grouping) of slave signals is required.
The status of the master module outputs is however always related to the signal status of all successive slave modules, up to the end of the SBM or the next master module (for further information, see application examples below).

Connessioni *Connections*	**SBMM**	**SBMM-E**
Tipo *Type*	4 fili senza connettore *4 wires without connector*	3 fili senza connettore *3 wires without connector*
Formazione *Formation*	4x0.14 mm²	3x0.14 mm²
Materiale *Material*	PUR	
Lunghezza *Length*	1 m	
Blu *Blue*	GND	
Marrone *Brown*	Vcc	
Nero *Black*	USCITA 1: serie dei contatti NO (dipendente dalla configurazione) *OUT1: series of NO contracts (depending on configuration)*	
Bianco *White*	USCITA 2: serie dei contatti NC (dipendente dalla configurazione) *OUT2: series of NC contacts (depending on configuration)*	/

Limitazioni di corrente *Current limitations*	**SBMM**	**SBMM-E**
Massima corrente per l'uscita NO *Maximum current for NO output*	1 A	
Massima corrente per l'uscita NC *Maximum current for NC output*	150 mA	/
Massima corrente di alimentazione *Maximum power supply current*	2 A	



Configurazioni ed indicatori

- S1: permette la selezione del tipo di segnale di uscita, PNP (P/2) oppure NPN (N).
- S2: permette la selezione delle resistenze interne di PULL-UP (PU) o PULL-DOWN (PD) a seconda della selezione NPN or PNP (tramite S1), rispettivamente.
- L1: verde quando è alimentato.
- L2: ambra quando l'uscita della serie NC è commutata (ad esempio in caso di tutti contatti aperti).
- L3: ambra quando l'uscita della serie NO è commutata (ad esempio in caso di tutti contatti chiusi).

Configurations and indicators

- *S1: enables the selection of the type of output signal, PNP (P/2) or NPN (N).*
- *S2: enables the selection of internal PULL-UP (PU) or PULL-DOWN (PD) resistors depending on the NPN or PNP selection (via S1), respectively.*
- *L1: green when powered.*
- *L2: amber when the NC series output is switched (e.g. all contacts open).*
- *L3: amber when the NO series is switched (e.g. all contacts closed).*

SBMS / SBMS-E - Modulo slave

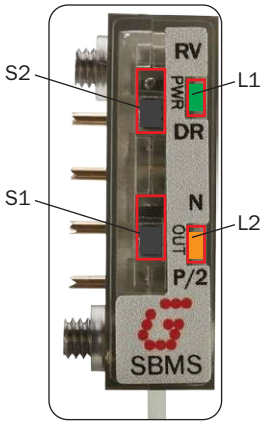
Ciascun singolo modulo slave permette la connessione di un singolo sensore.
Prende l'alimentazione dalla connessione del bus interno (fornita dal modulo master) e attiva la commutazione di due relè a stato solido: un contatto NO ed un contatto NC a seconda dell'uscita del sensore.
Due selettori permettono di configurare il tipo di uscita del segnale del sensore (PNP/2 fili oppure NPN) e la logica di funzionamento (diretta oppure inversa).
Il modulo ha anche due LED di diagnostica.

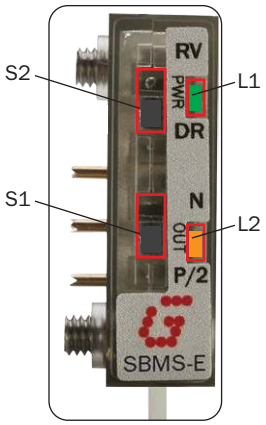
SBMS / SBMS-E - Slave module

Each individual slave module enables the connection of a single sensor.
It is powered from the internal bus connection (provided by the master module) and triggers the commutation of two solid state relays: a NO contact and a NC contact based on sensor output.
Two selectors are available to configure sensor signal output (PNP/2 wires or NPN) and logic (direct or reverse).
The module also has two LED indicators for diagnostics.

Connessioni *Connections*	**SBMS / SBMS-E**
Tipo *Type*	connettore M8 3 poli femmina *M8 3-pole female connector*
Formazione *Formation*	3x0.096 mm²
Materiale *Material*	PUR
Lunghezza *Length*	150 mm
Blu *Blue*	GND
Marrone *Brown*	Vcc
Nero *Black*	Segnale di uscita del sensore (ingresso per il modulo slave) *Sensor output signal (input for the slave module)*

Limitazioni di corrente *Current limitations*	**SBMS / SBMS-E**
Massima corrente di alimentazione del sensore *Maximum power supply to sensor*	200 mA





Configurazioni ed indicatori

- S1: permette la selezione del tipo di segnale di uscita PNP/2 fili (P/2) oppure NPN (N).
- S2: permette la selezione della logica di uscita del sensore come DIRETTA (DR) oppure INVERSA (RV).
- L1: verde quando è alimentato (fornita dal BUS interno).
- L2: ambra quando l'uscita dello slave è commutata (il fatto che l'uscita sia attivata o non attivata dipende sia dal tipo di uscita del sensore che dalla configurazione del modulo).

Configurations and indicators

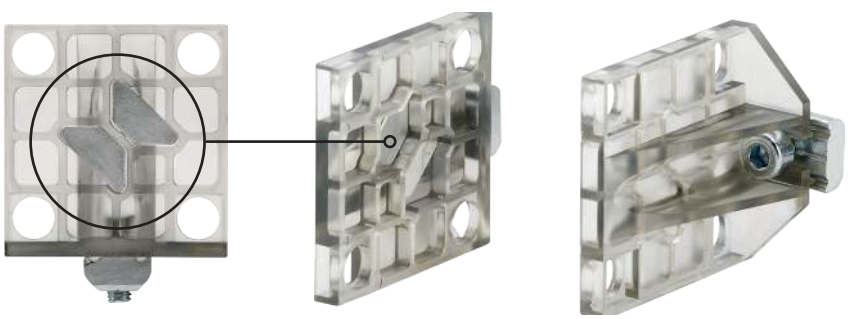
- *S1: enables the selection of the type of output signal, PNP (P/2), NPN (N) or NPN (N).*
- *S2: enables the selection of sensor output logic as DIRECT (DR) or REVERSE (RV), respectively.*
- *L1: green when powered (from internal bus).*
- *L2: amber when the NC series output is switched (output enabling or disabling depends on both the type of sensor output and module configuration).*

SBMK - Modulo di terminazione e di fissaggio

Questo modulo funge da unità di terminazione sia meccanica che elettrica (grazie alla presenza di due contatti) per la connessione in serie degli altri moduli. Consente il fissaggio a profili in alluminio standard e l'orientazione dell'uscita del cavo (diretta oppure ruotata di 90°).

SBMK - Termination and fastening module

This module acts as a mechanical and electrical termination unit for connecting other modules in series (thanks to two contacts).
It enables fastening to standard aluminium profiles and output cable orientation (straight or rotated by 90°).



Principio di funzionamento

Il contesto principale di applicazione del sistema è la gestione automatica industriale dei componenti.
Solitamente per questo scopo viene utilizzato un robot in combinazione con diversi EOAT (End Of The Arm Tools) dotati di diversi sensori e attuatori.
Molto spesso il robot non ha bisogno di conoscere lo stato di ogni uscita dei sensori ma solo un segnale di riconoscimento (ACK) ottenuto come elaborazione logica di tutte le uscite dei sensori (di solito è richiesta una semplice elaborazione logica AND).
In una configurazione minima è possibile assemblare un'unità SBM con diversi moduli slave (uno per ciascun sensore) ed un singolo modulo master le cui uscite (o anche solo una di esse) possono essere utilizzate come segnali ACK dal robot.

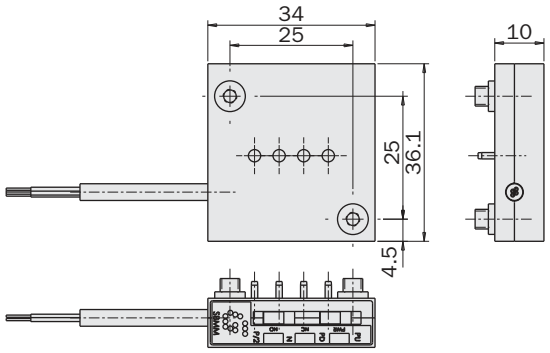
Operating principle

The main system application is industrial component automation. For this purpose a robot is normally used with several EOATs (End Of Arm Tools) equipped with sensors and actuators.
It is often not necessary for the robot to know the status of all sensor outputs, one acknowledgement (ACK) signal obtained as the logical processing of all sensor outputs is sufficient (simple logical AND processing is usually required).
In a minimum configuration, one SBM unit can be assembled with several slave modules (1 per sensor) and a single master module whose outputs (or even just one) can be used as ACK signals from the robot.

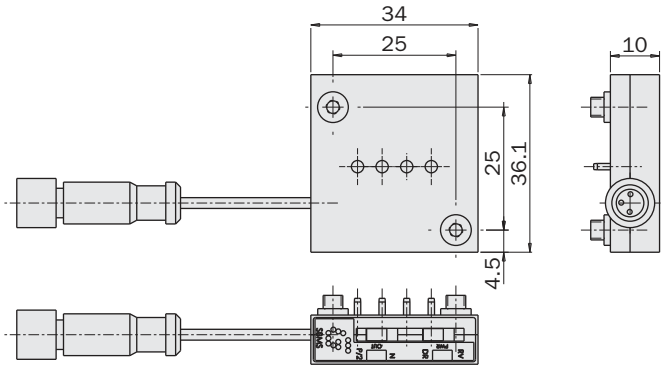
Dimensioni (mm)

Dimensions (mm)

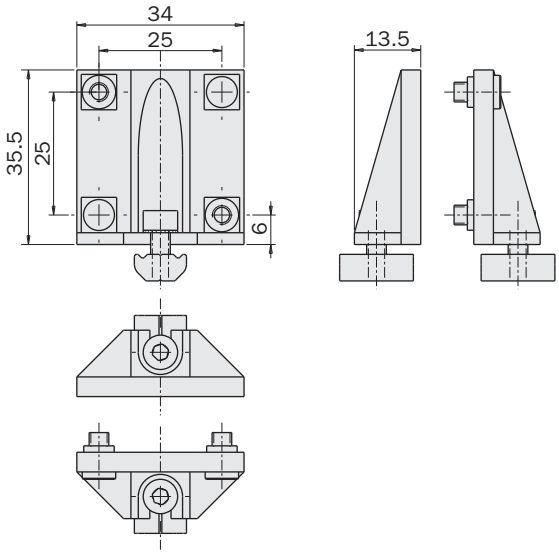
SBMM



SBMS



SBMK



SB - APPLICATION EXAMPLE

Esempio di utilizzo

Modello SB6C

Ingressi
6 INPUTS PNP

Numero di uscite
1

Tipo di uscita
PNP NO (SERIE 6 INGRESSI)

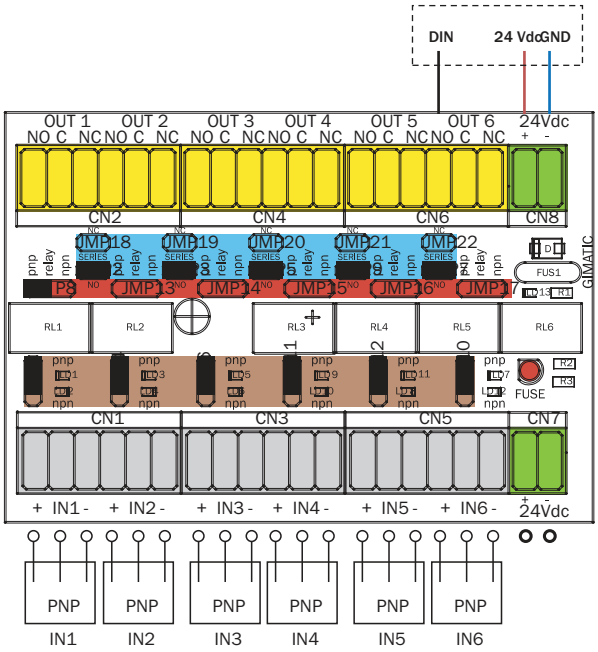
Application example

SB6C model

Inputs
6 PNP INPUTS

Number of outputs
1

Output type
NO PNP (6-INPUT SERIES)



Esempio di utilizzo

Modello SB6C

Ingressi
6 INPUTS PNP

Numero di uscite
2

Tipo di uscita
1 PNP NO (SERIE PRIMI 4 INGRESSI)
1 PNP NO (SERIE ULTIMI 2 INGRESSI)

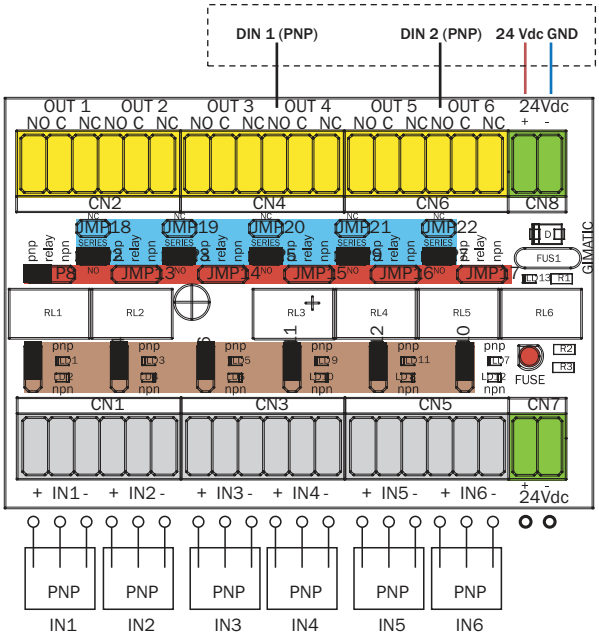
Application example

SB6C model

Inputs
6 PNP INPUTS

Number of outputs
2

Output type
1 NO PNP (4-INPUT SERIES)
1 NO PNP (LAST 2 INPUTS)



Esempio di utilizzo

Modello SB6B

Alimentazione
24 V dc (±10%)

Ingressi
2 PNP INPUTS (IN3/IN6)
2 NPN INPUTS (IN1/IN4)
2 DRY CONTACT (IN2/IN5)

Numero di uscite
2

Tipo di uscita
1 PNP NO (SERIE PRIMI 3 INGRESSI)
1 PNP NO (SERIE ULTIMI 3 INGRESSI)

Application example

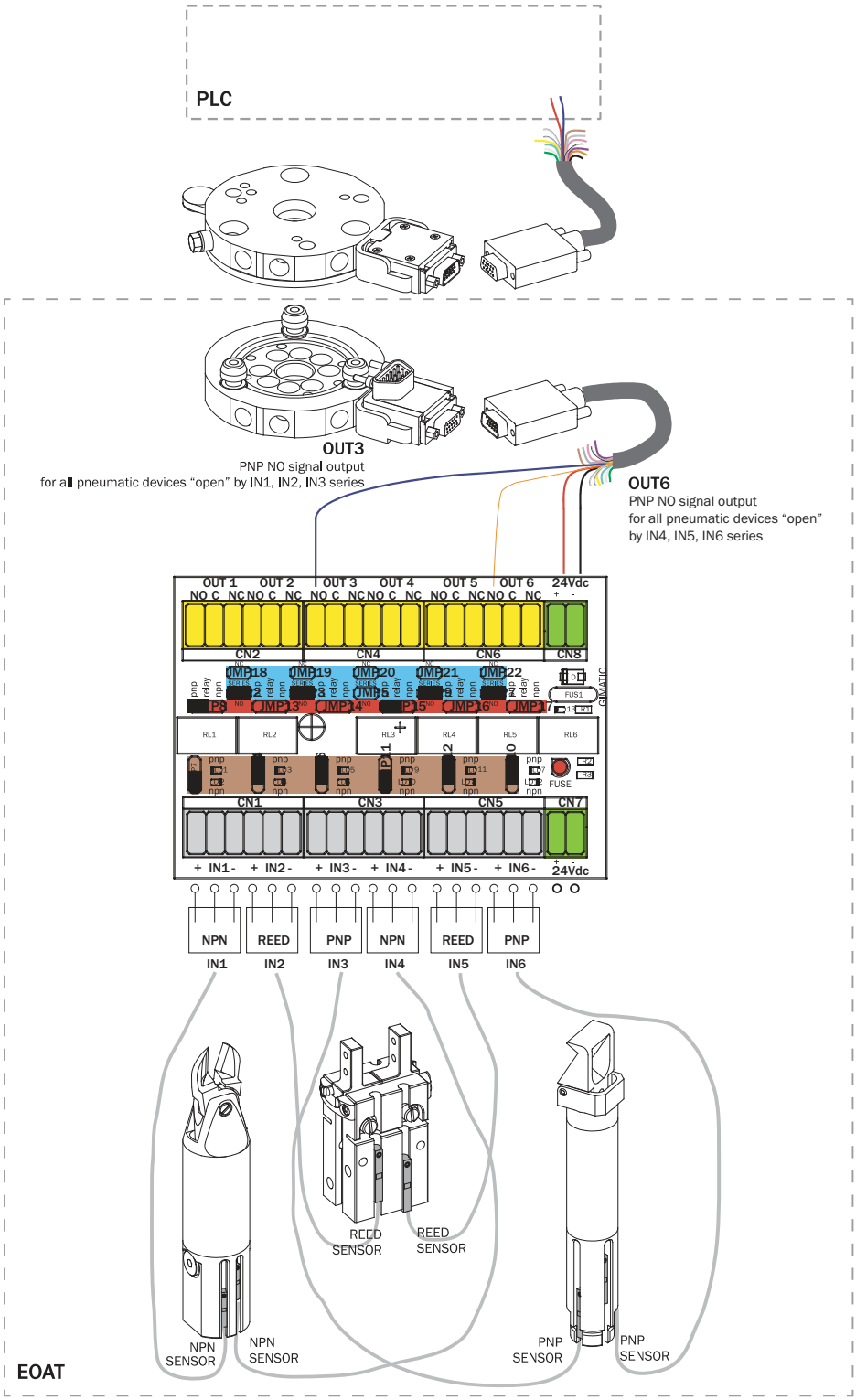
SB6B model

Power supply
24 Vdc (±10%)

Inputs
2 PNP INPUTS (IN3/IN6)
2 NPN INPUTS (IN1/IN4)
2 DRY CONTACT (IN2/IN5)

Number of outputs
2

Output type
1 PNP NO (4-INPUT SERIES)
1 PNP NO (LAST 2 INPUTS)



SB - APPLICATION EXAMPLE

Esempio di utilizzo

Modello 2 SB6C IN SERIE

Ingressi
10 INPUTS PNP

Numero di uscite
1

Tipo di uscita
1 PNP NO (SERIE 10 INGRESSI)

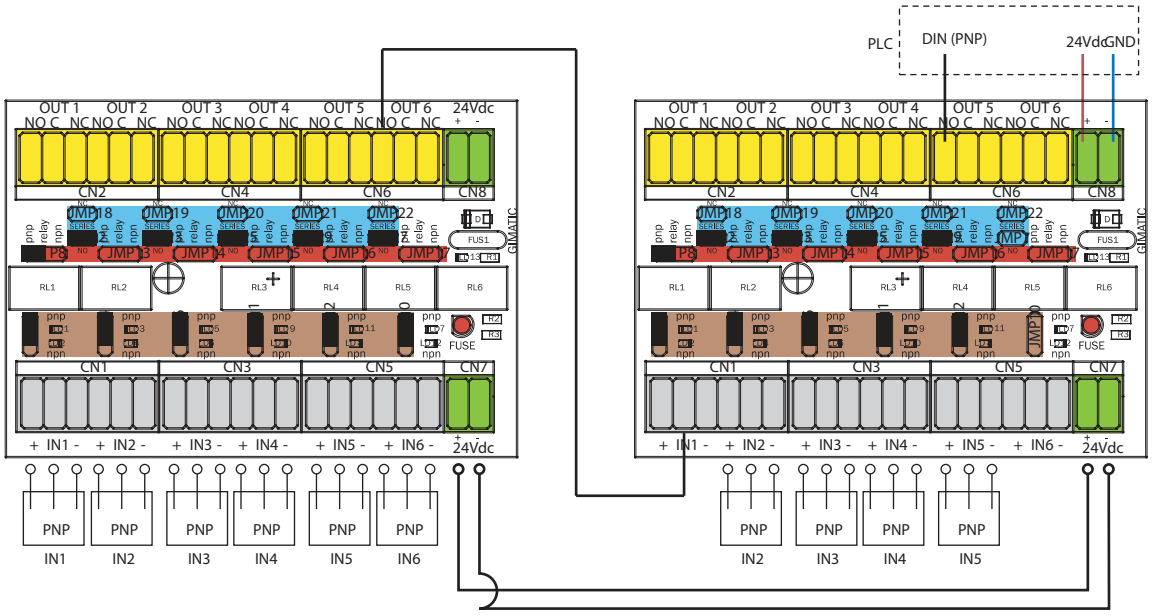
Application example

2 SB6B IN-SERIES model

Inputs
10 PNP INPUTS

Number of outputs
1

Output type
1 PNP NO (10-INPUT SERIES)



Esempio di utilizzo

Modello SB6C

Ingressi
4 INPUTS REED

Numero di uscite
1

Tipo di uscita
NPN NO (SERIE 4 INGRESSI)

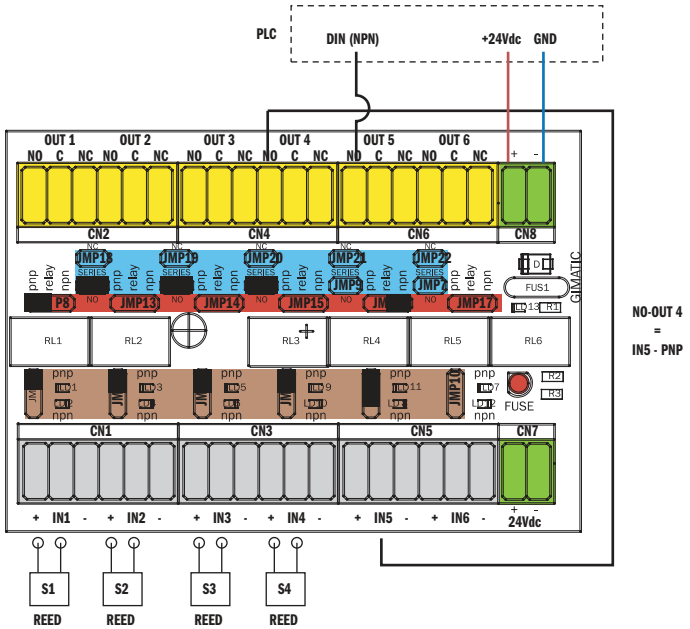
Application example

SB6B model

Inputs
4 REED INPUTS

Number of outputs
1

Output type
1 PNP NO (4-INPUT SERIES)



07/2026

Esempio di utilizzo

Modello SB12C

Ingressi
12 PNP INPUTS

Numero di uscite
4

Tipo di uscita
1 PNP (SERIE PRIMI 6 INGRESSI)
1 PNP (SERIE 3 INGRESSI)
1 PNP (SERIE ULTIMI 2 INGRESSI)
1 PNP (1:1 CON ULTIMO INGRESSO)

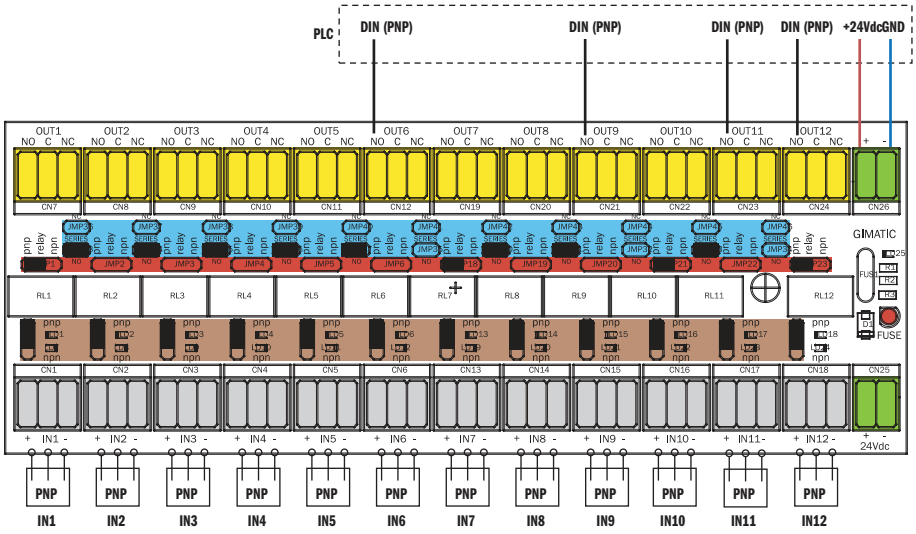
Application example

SB12C model

Inputs
12 PNP INPUTS

Number of outputs
1

Output type
1 PNP (FIRST 6-INPUT SERIES)
1 PNP (2-INPUT SERIES)
1 PNP (LAST 2-INPUT SERIES)
1 PNP (1:1 WITH LAST INPUT)



Esempio di utilizzo

Modello 3 SB8F

Ingressi
6 NPN INPUTS
12 PNP INPUTS
6 DRY CONTACTS

Numero di uscite
1

Tipo di uscita
1 PNP OTPUT
1 NPN OUTPUT
1 DRY CONTACT NC
1 DRY CONTACT NO

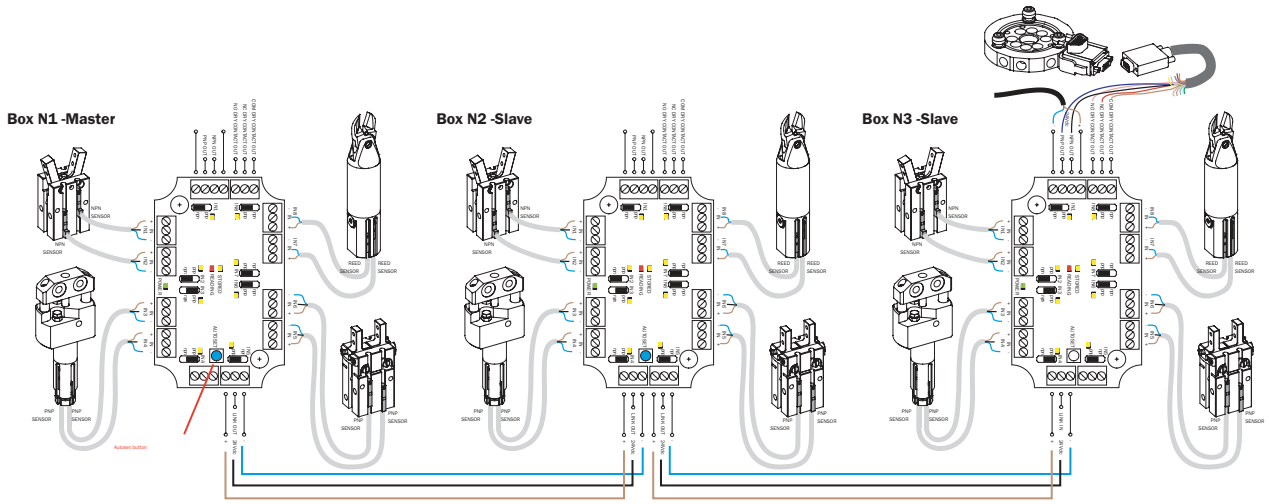
Application example

3 SB8F model

Inputs
6 NPN INPUTS
12 PNP INPUTS
6 DRY CONTACTS

Number of outputs
1

Output type
1 PNP OTPUT
1 NPN OUTPUT
1 DRY CONTACT NC
1 DRY CONTACT NO



SB - APPLICATION EXAMPLE

Esempio di utilizzo

Modello SB15 + 2 SB6B

Ingressi
4 PNP
4 NPN
4 DRY CONTACT

Numero di uscite
4

Tipo di uscita
4 PNP NO

Funzionamento
La scatola SB15 è usata per collegare i moduli CAQC/CBQC alle scatole SB con sensori cablati.

Application example

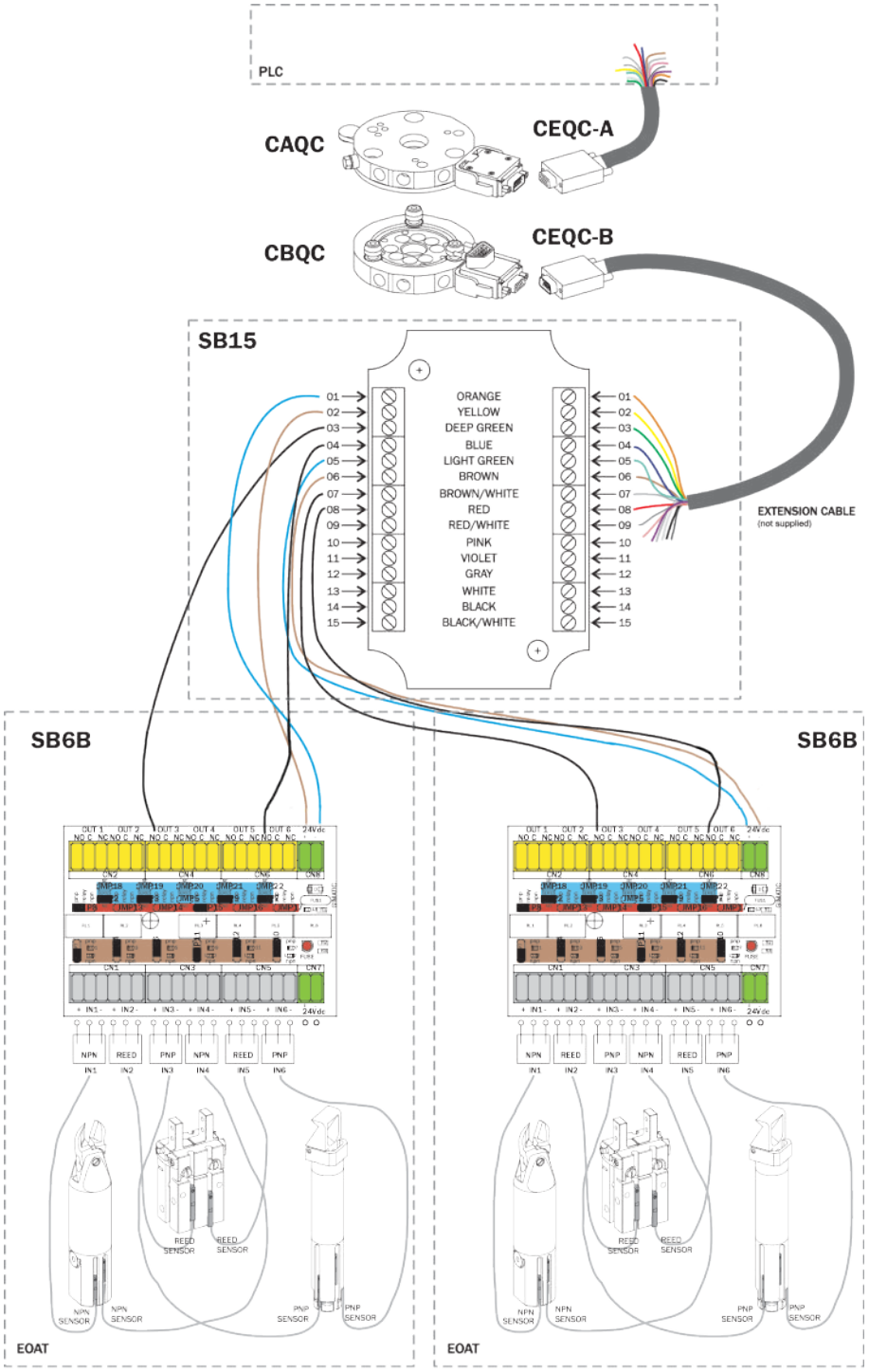
SB15 + 2 SB6B model

Inputs
4 PNP
4 NPN
4 DRY CONTACT

Number of outputs
1

Output type
4 PNP NO

Operation
The SB15 is used to connect CAQC/CBQC modules to SB blocks with wired sensors.



Esempi di utilizzo SBM

Le immagini (1) e (2) mostrano una tipica applicazione in cui solo 1 modulo master (SBMM) è usato in combinazione a 6 moduli slave (SBMS) ed 1 kit di fissaggio (SBMK).
La forma quadrata di ciascun modulo permette di personalizzare l'uscita cavi mantenendo lo stesso fissaggio su una struttura esterna.

SBM application examples

Figures 1 and 2 show a typical application where only 1 master module (SBMM) is used in combination with 6 slave modules (SBMS) and 1 termination module (SBMK).
The square shape of the modules allows the user to customise cable outputs while keeping the same fastening on an external structure.

(1)



(2)



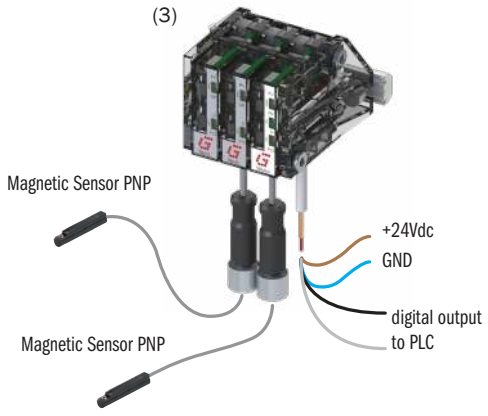
L'immagine (3) mostra la minima configurazione di una SBM, composta da 1 modulo master (SBMM) e 2 moduli slave (SBMS) connessi a due differenti tipi di sensori magnetici.

Figure (3) shows the minimum configuration of an SBM, consisting of 1 master module (SBMM) and 2 slave modules (SMBS) connected to two different types of magnetic sensors.

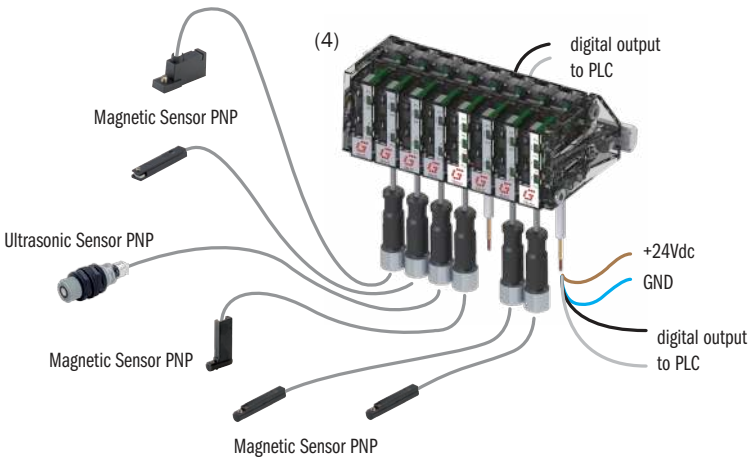
L'immagine (4) mostra una configurazione estesa con 4 moduli slave aggiuntivi ed 1 modulo master aggiuntivo inseriti nel mezzo generando il segnale di uscita relativo solo agli ultimi 4 moduli slave.
Il primo modulo master elabora solo i segnali dei 2 primi moduli slave.
Da notare che i fili di alimentazione del master centrale non sono utilizzati in questo esempio (le connessioni di alimentazione del primo master forniscono alimentazione all'intero sistema utilizzando un BUS interno).

Figure (4) shows an extended configuration with 4 additional slave modules and 1 additional master module inserted in-between, thus generating an output signal relating to the last 4 slave modules only.
The first master module processes the signals of the 2 first slave modules only.
It is worth noticing that the power wires of the central master are not used in this example (the power connections of the first master supply power to the entire system using an internal BUS).

(3)



(4)



SB - APPLICATION EXAMPLE

Esempio di utilizzo

Modello SBMM + 2 SBMS

Ingressi
1 PNP (DR)
1PNP (RV)

Numero di uscite
2

Tipo di uscita
1 PNP NO (S1*S2 (RV))
1 PNP NC (S1+S2 (RV))(RV)

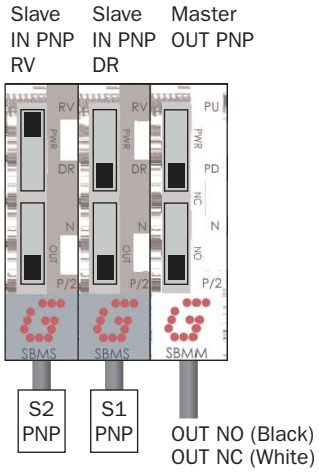
Application example

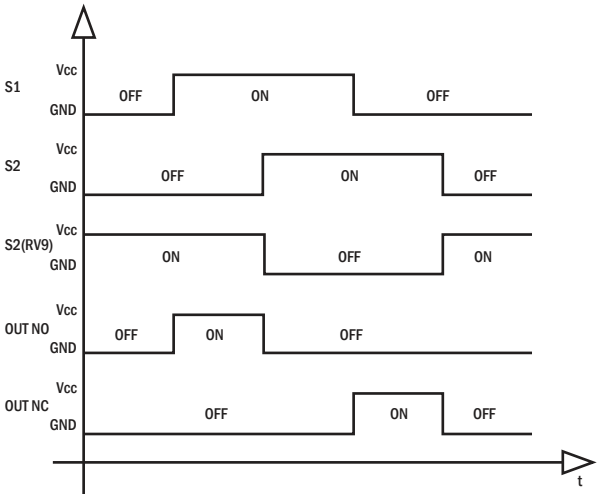
SBMM + 2 SBMS model

Inputs
1 PNP (DR)
1 PNP (DR)

Number of outputs
2

Output type
*1 PNP NO (S1*S2 (RV))*
1 PNP NC (S1+S2 (RV))(RV)





OUT NO = S1 * S2(RV)
OUT NC = (S1+S2(RV))(RV)

Esempio di utilizzo

Modello SBMM + 2 SBMS

Ingressi
1 NPN (DR)
1 PNP (DR)

Numero di uscite
2

Tipo di uscita
1 NPN NO (S1*S2)
1 NPN NC (S1+S2)(RV)

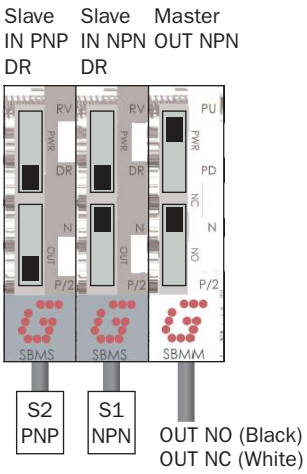
Application example

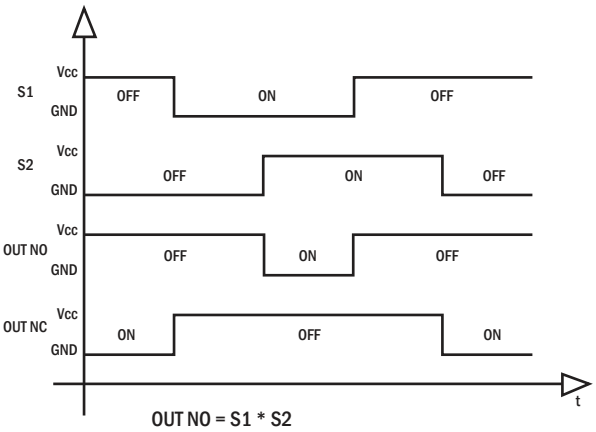
SBMM + 2 SBMS model

Inputs
1 PNP (DR)
1 PNP (RV)

Number of Outputs
2

Output type
*1 NPN NO (S1*S2)*
1 NPN NC (S1+S2)(RV)





OUT NO = S1 * S2
OUT NC = (S1+S2)(RV)

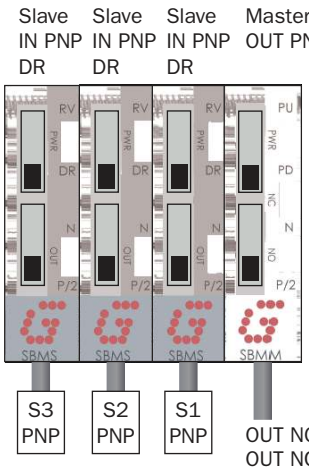
07/2026

Esempi di utilizzo SBM

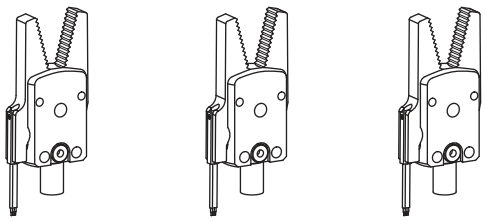
Nel seguente esempio viene dimostrato come in un sistema composto da tre pinze PB, utilizzate per afferrare simultaneamente dei pezzi materozza, ad esempio, è possibile individuare una situazione anomala come il mancato rilascio del pezzo. I sensori utilizzati sono tre SSY con uscita PNP e settati in modo tale da attivarsi quando viene afferrato il pezzo. L'uscita NO del master è attiva quando tutti e tre i sensori sono attivi (presa del pezzo), l'uscita NC è attiva quando tutti e tre i sensori sono disattivi (pinze aperte o chiuse senza presa). In caso di corretto funzionamento del sistema, quindi, le due uscite NO e NC del master saranno sempre attive in maniera alternata. Se tutte e due le uscite sono non attive simultaneamente vi è un'anomalia del sistema, come una mancata presa o mancato rilascio del pezzo.

SBM application examples

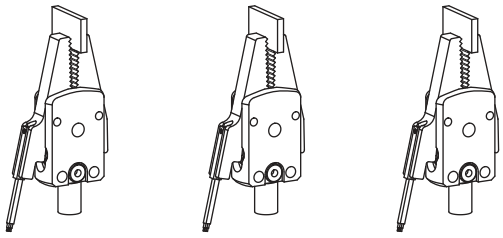
The following example demonstrates how in a system consisting of three PB grippers, used to simultaneously grip sprue pieces, an abnormal situation - such as failure to release a piece - can be detected. Three SSY sensors with PNP output are used, set to activate when the piece is gripped. The NO output of the master is active when all three sensors are active (piece gripped), the NC output is active when all three sensors are inactive (grippers open or closed with no grip). If, therefore, the system is operating correctly, the two NO and NC outputs of the master will always be active alternately. If both outputs are simultaneously inactive there is a system fault, such as a failure to grip or release the piece.



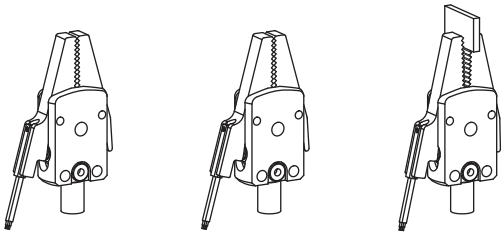




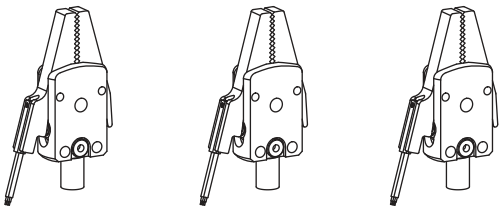
S1	OFF
S2	OFF
S3	OFF
OUT NO (PNP)	OFF
OUT NC (PNP)	ON



S1	ON
S2	ON
S3	ON
OUT NO (PNP)	ON
OUT NC (PNP)	OFF



S1	OFF
S2	OFF
S3	ON
OUT NO (PNP)	OFF
OUT NC (PNP)	OFF



S1	OFF
S2	OFF
S3	OFF
OUT NO (PNP)	OFF
OUT NC (PNP)	ON

Adattatori per cave

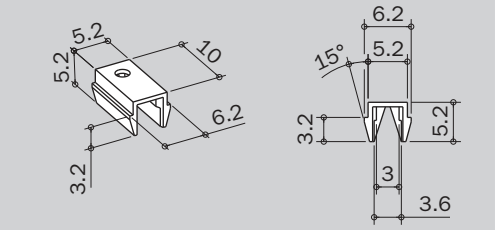
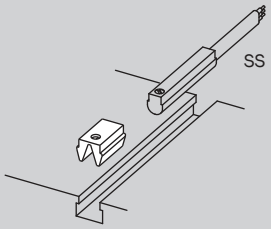
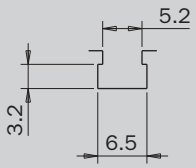
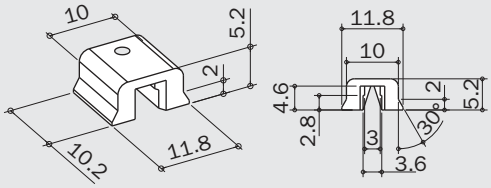
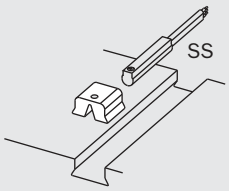
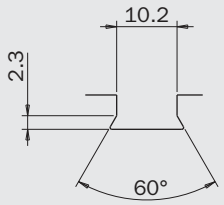
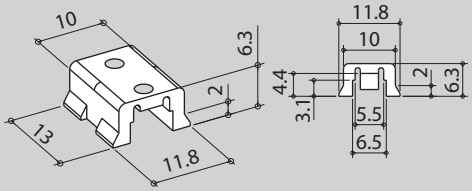
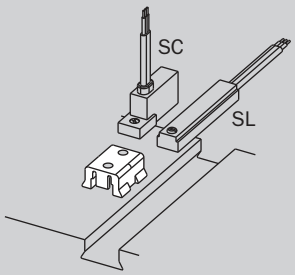
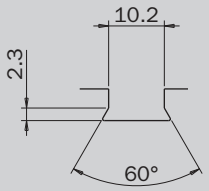
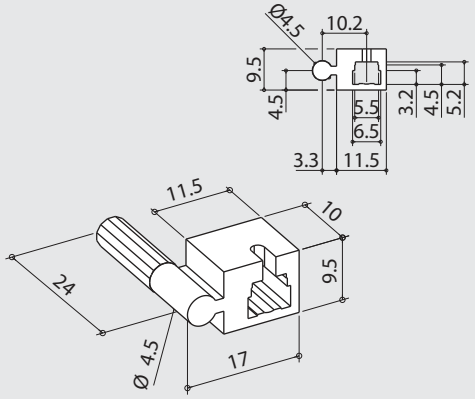
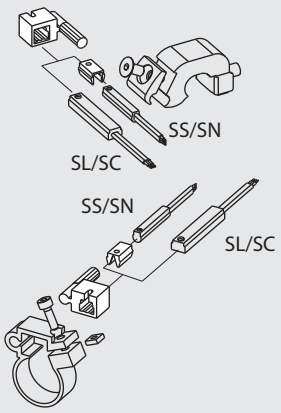
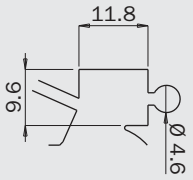
- Kit di adattatori per cave in nylon rinforzato con fibra di vetro.
- Modelli per cave a C, a T e a coda di rondine.

Slot adapters

- *Kit of fiberglass-reinforced nylon slot adapters.*
- *Models for C-, T- and dovetail slots.*

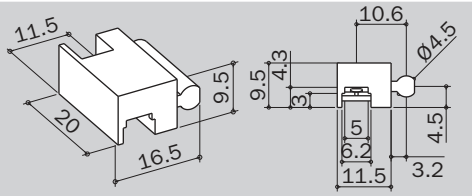
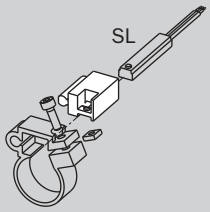
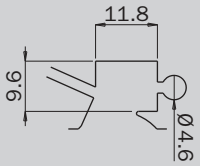
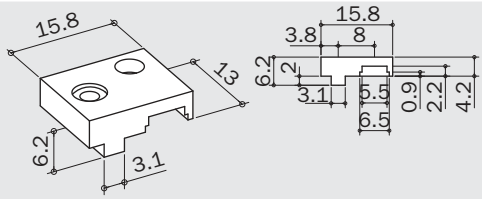
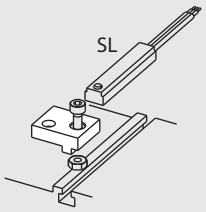
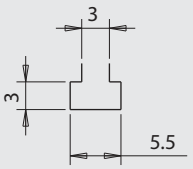
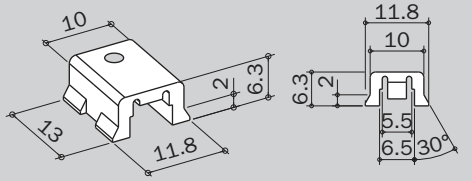
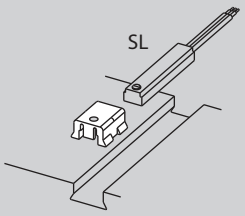
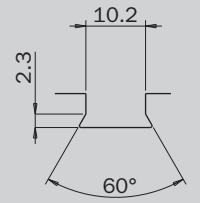
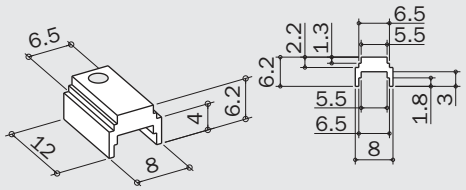
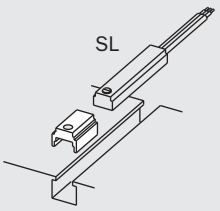
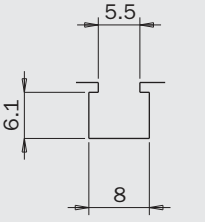
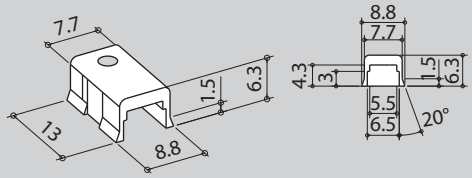
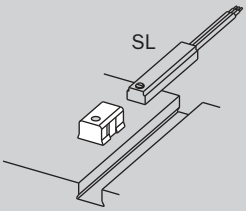
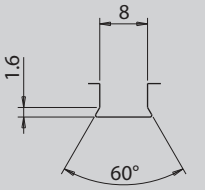
K-SENS



Dimensioni *Dimensions*	Materiale *Materials*	Applicazione *Application*	Cava *Slot*
 **SS.004.000**	PA		
 **SS.007.000**	PA		
 **SL.004.001**	PA		
 **SS.005.000**	PA		

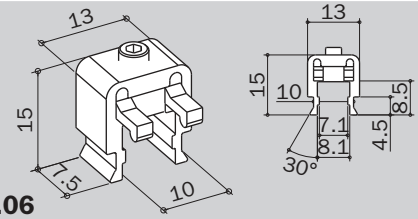
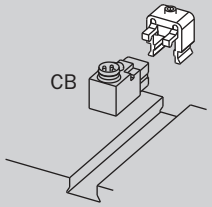
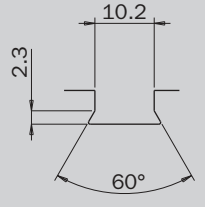
K-SL



Dimensioni *Dimensions*	Materiale *Materials*	Applicazione *Application*	Cava *Slot*
 **SL.005.000**	PA		
 **SL.002.000**	PA		
 **SL.004.000**	PA		
 **SL.002.001**	PA		
 **SL.003.000**	PA		

K-CB



Dimensioni *Dimensions*	Materiale *Materials*	Applicazione *Application*	Cava *Slot*
 **S.06**	PA 6005 A AISI 303		

SW

Fascette per micro-cilindri

- Fascette in nylon per fissaggio sensori su micro-cilindri.
- Molteplici dimensioni disponibili.
- Dado e vite di fissaggio in acciaio inclusi nella confezione.

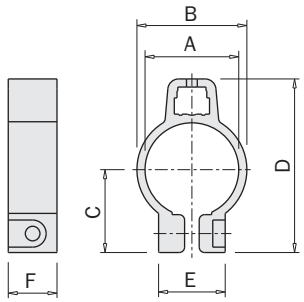
Micro-cylinder fastening clamps

- *Nylon clamps for fastening sensors on micro-cylinders.*
- *Available in various dimensions.*
- *Steel bolts and fixing screws included in the supply.*

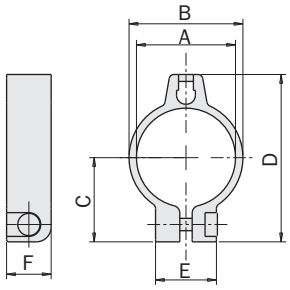
SW... **SWP...**



SW...

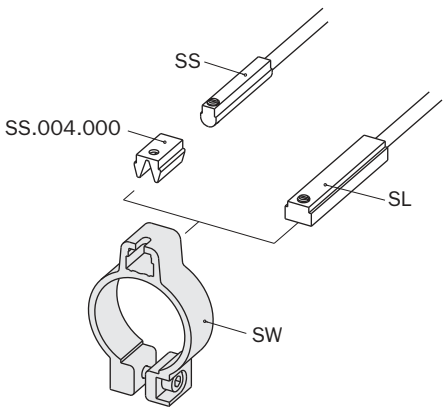


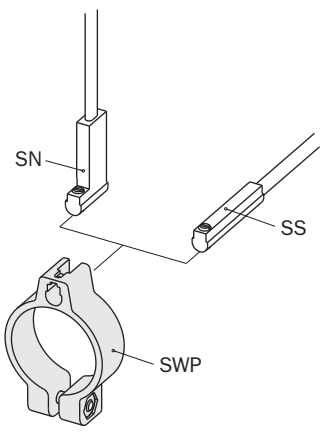
SWP...



	SW-08	SW-10	SW-12	SW-16	SW-20	SW-25	SWP-14	SWP-20	SWP-30	SWP-50
Per cilindri *For cylinders*	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20	Ø 25	OF 14	OF 20	OF 30	OF 50
A mm	Ø 9.3	Ø 11.3	Ø 13.3	Ø 17.3	Ø 21.3	Ø 26.5	Ø 14	Ø 20	Ø 30	Ø 50
B mm	12.3	14.3	16.3	20.3	24.3	29.5	16.8	23	33.2	53.6
C mm	11.1	12.2	13.2	15.3	17.4	20	13.5	17	23	33
D mm	23.9	25.9	28	32.1	36.2	41.4	27.3	33.8	44.8	64.8
E mm	12.3				14		12.3			
F mm	9									
Materiale corpo *Material*	PA; AISI 303									

Esempi di utilizzo
Application examples





OF...



Fascette per micro-cilindri

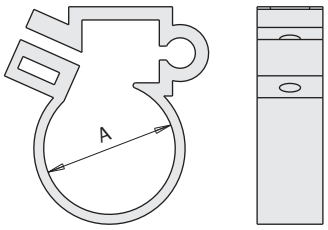
- Fascette in nylon per fissaggio sensori su micro-cilindri.
- Molteplici dimensioni disponibili.
- Dado e vite di fissaggio in acciaio inclusi nella confezione.

Micro-cylinder fastening clamps

- *Nylon clamps for fastening sensors on micro-cylinders.*
- *Available in various dimensions.*
- *Steel bolts and fixing screws included in the supply.*

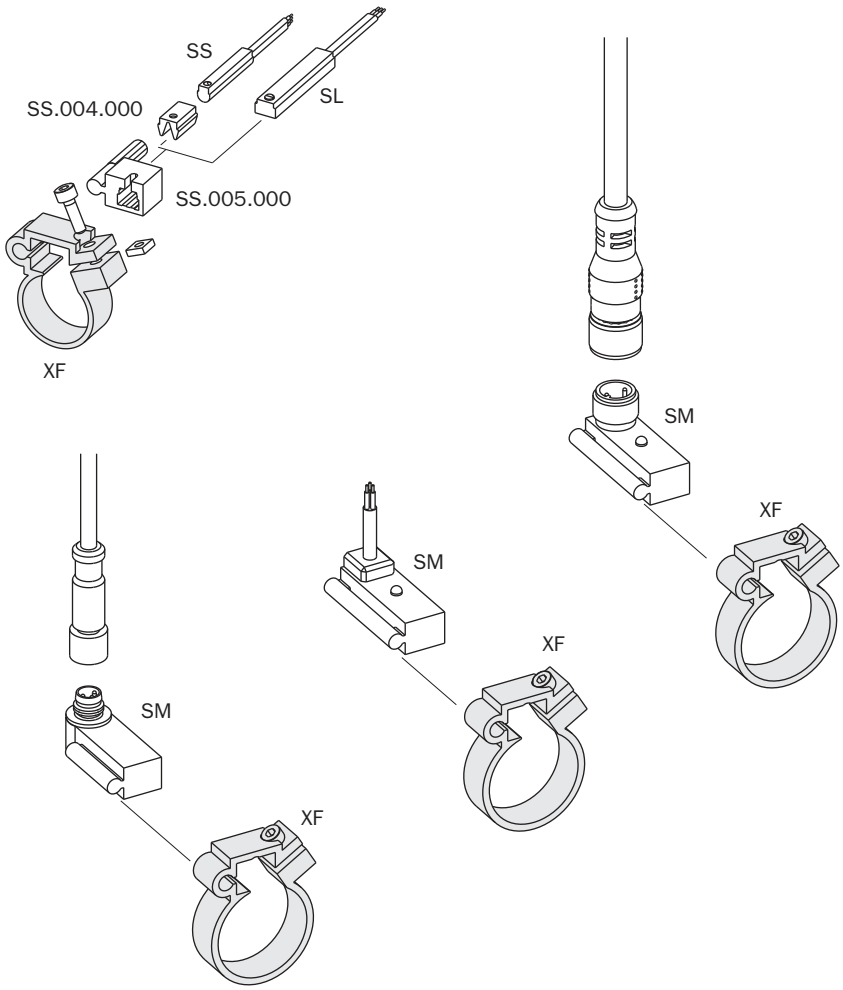
XF..





	XF-09	XF-11	XF-12	XF-13	XF-14	XF-16	XF-17	XF-18	XF-20	XF-21	XF-22	XF-24	XF-26	XF-27	XF-29	XF-30	XF-33	XF-36	XF-41	XF-45	XF-52	XF-65
A mm	Ø 9.3	Ø 11.3	Ø 12	Ø 13.3	Ø 14	Ø 16	Ø 17.3	Ø 18	Ø 20	Ø 21.3	Ø 22	Ø 24	Ø 26.3	Ø 27	Ø 29	Ø 30	Ø 33.6	Ø 36	Ø 41.6	Ø 45	Ø 52.4	Ø 65.4
Materiale corpo *Material*	PA; AISI 303																					

Esempi di utilizzo
Application examples



Staffe per cilindri

- Staffe in alluminio per cilindri lobati o a tirante.
- Molteplici dimensioni disponibili.
- Vite di fissaggio in acciaio e piastrina di bloccaggio incluse nella confezione.

Cylinder-fastening clamps

- *Aluminum clamps for lobed or tie-rod cylinders.*
- *Available in various dimensions.*
- *Bolts and fixing screws made of steel, and locking plate included in the supply.*


ST-10


ST-49


ST-50


ST-51


ST-52


ST-60

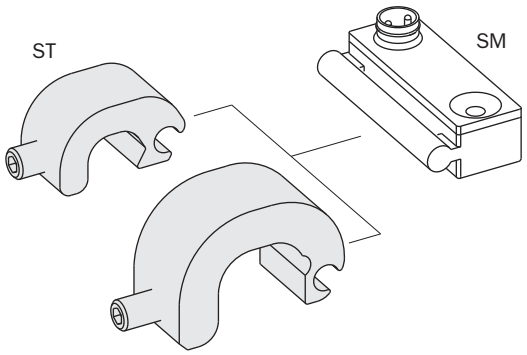

ST-80

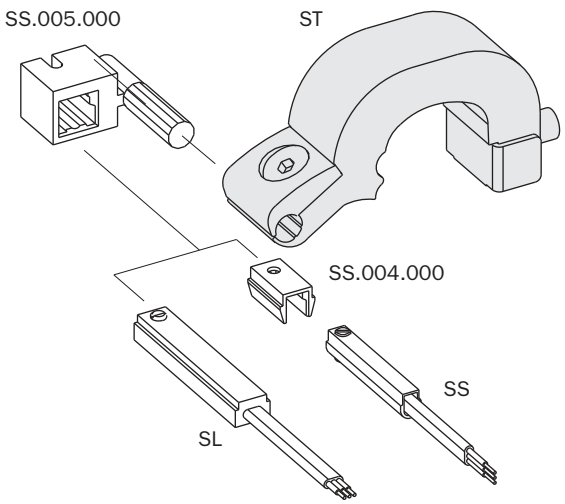

ST-81

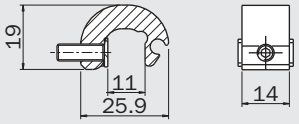
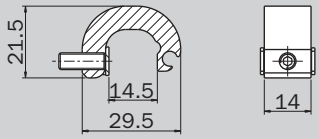
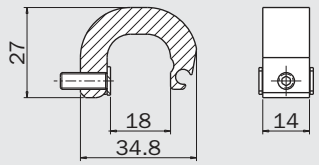
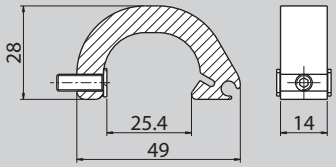
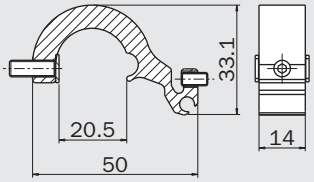
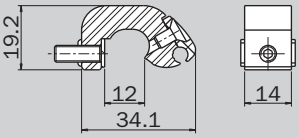
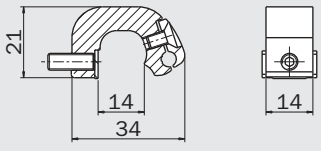
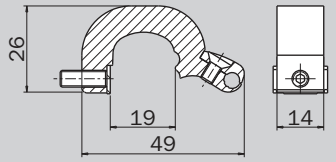
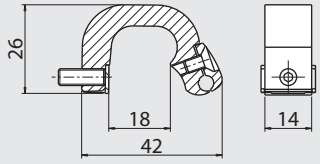

ST-82


ST-83

Esempi di utilizzo
Application examples





	Materiali corpo *Material*	Per cilindri *For cylinders*	Dimensioni *Dimensions*
ST-10	ACC. Z/B; 6060	Ø5 ÷ 9 mm	
ST-49	ACC. Z/B; 6060	Ø 40 mm	
ST-50	ACC. Z/B; 6060	Ø 50 mm	
ST-51	ACC. Z/B; 6060	Ø 63 mm	
ST-52	ACC. Z/B; 6060	Ø 80 mm	
ST-60	ACC. Z/B; 6060	Ø 125 mm	
ST-80	PA; ACC. Z/B; 6060	Ø32 ÷ 40 mm	
ST-81	PA; ACC. Z/B; 6060	Ø50 ÷ 63 mm	
ST-82	PA; ACC. Z/B; 6060	Ø82 ÷ 100 mm	
ST-83	PA; ACC. Z/B; 6060	Ø125 mm	

Connettori elettrici

- Connettori costampati o a cablare per la connessione di sensori e trasduttori.
- Molteplici soluzioni disponibili con uscita cavo sia dritta che angolare.
- Soluzioni con cavo in PVC e PUR.

Electrical connectors

- *Co-molded or wired connectors for the connection of sensors and transducers.*
- *Available in various solutions with straight or angled cable output.*
- *Solutions with PVC and PUR cable.*

CFGM800225



3030146
(CFGM800325)



3030148
(CFGM800325P)



3030149
(CFGM890325P)



CFGM800425P



CFGM890425P



CFGM890425PR



CMGM800310CFGM8003
3030156
(CMGM800320CFGM8003)



CMGM890310CFGM8003
CMGM890320CFGM8003



CFGM1290225



CFGM1290325



CFGM1200430
CFGM120041K



CFGM1290430



CFGM1200525P



3031158
(CFGM1200825SP)



3031159
(CFGM1290825SP)



CFGM1200825P



CFGM800300



CMGM800300



CFGM800400



CMGM800400



CFGM800800



CMGM800800



CFGM1290800C



CFSM890225



CFSM890325



CFGM800825P



CMGM800803P



CFGM1200500



CMGM1200500



CFGM1200800



CMGM1200800



CM800303CF8003P



CM800305CF8003P



CM800312CF8003P



CFGM800325PSB



CFGM890325PSB



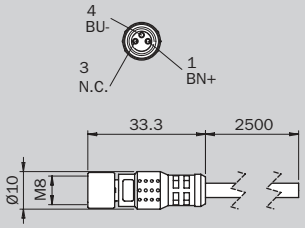
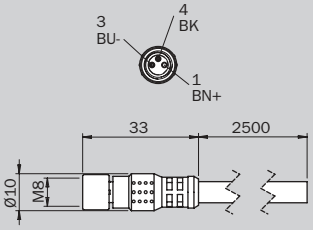
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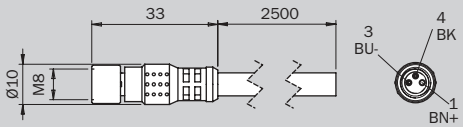
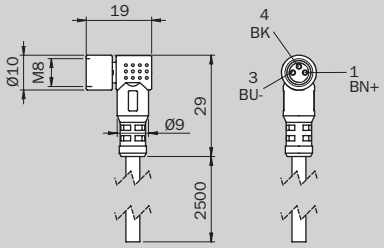


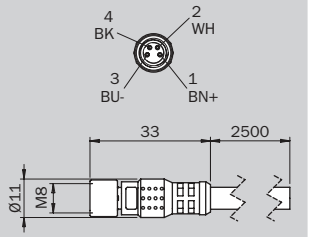
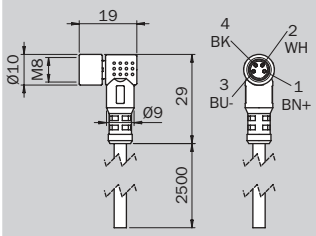
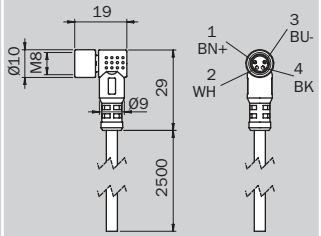
CFGM800425PC

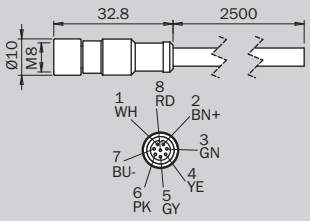
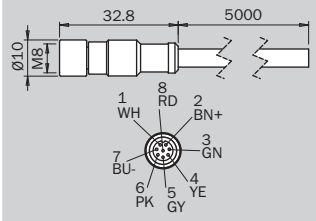
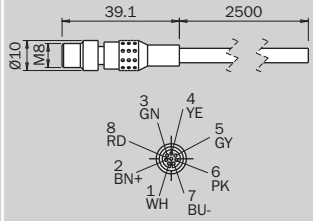


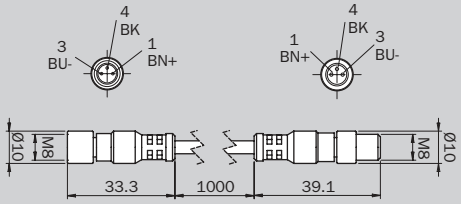
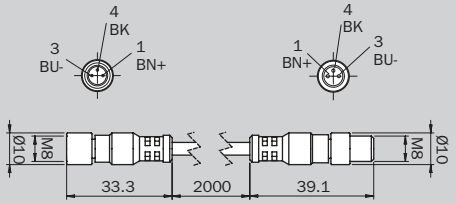
CF

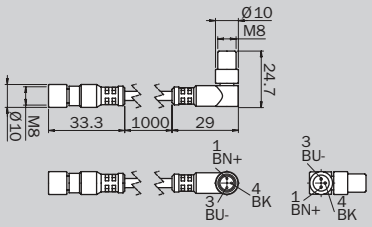
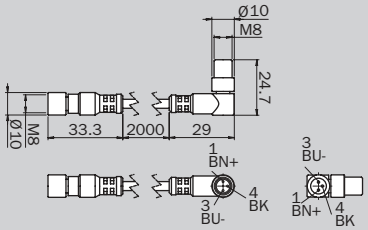
Tipo connettore *Connector type*	CFGM800225	3030146 (CFGM800325)
Descrizione *Description*	Connettore M8 , femmina con cavo in PVC costampato *M8 female connector with molded PVC cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	3	4
Materiale cavo *Cable material*	PVC (CEI2022)	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	2	3
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

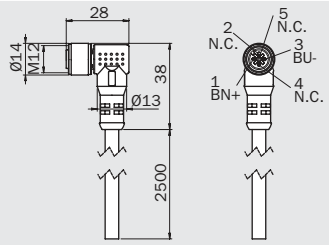
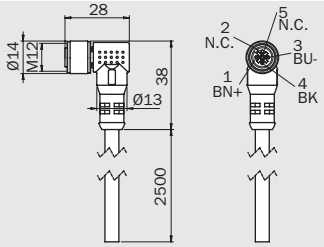
Tipo connettore *Connector type*	3030148 (CFGM800325P)	3030149 (CFGM890325P)
Descrizione *Description*	Connettore M8 , femmina con cavo in PUR costampato *M8 female connector with molded PUR cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	angolare 90° *angled 90°*
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	4.3	
Materiale cavo *Cable material*	PUR UL STYLE 21576	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	3	
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

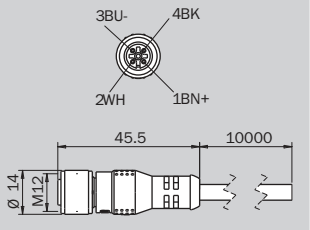
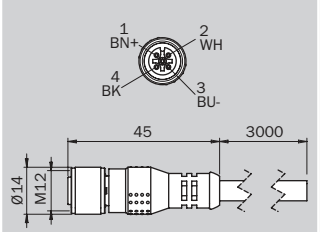
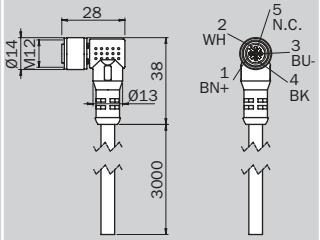
Tipo connettore *Connector type*	CFGM800425P	CFGM890425P	CFGM890425PR
Descrizione *Description*	Connettore M8, femmina con cavo in PUR costampato *M8 female connector with molded PVC cable*		
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	angolare 90° *angled 90°*	angolare 90° non standard *angled 90° not standard*
Grado di protezione *Protection rating*	IP69K		
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*			
	Marrone (BN +); Blu (BU -); Nero (BK OUT); Bianco (WH OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*		
Diametro cavo (mm) *Cable diameter (mm)*	5.3		
Materiale cavo *Cable material*	PUR UL style 21576		
Sezione conduttori *Lead cross section*	0.34 mm² (AWG 22)		
Numero conduttori *Number of leads*	4		
Lunghezza cavo (m) *Cable length (m)*	2.5		
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75		

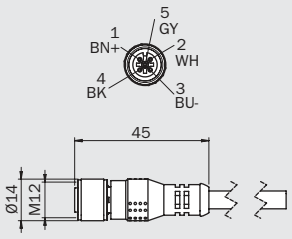
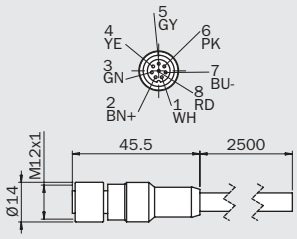
Tipo connettore *Connector type*	CFGM800825P	CFGM800850P	CMGM800803P
Descrizione *Description*	Connettore M8 , femmina con cavo in PUR costampato *M8 female connector with molded PUR cable*		Connettore M8 , maschio con cavo in PUR costampato *M8 male connector with molded PUR cable*
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*		
Grado di protezione *Protection rating*	IP69K		
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*			
	Marrone (BN +); Blu (BU -); Nero (BK OUT); Bianco WH; Verde GN; Giallo YE; Grigio GY; Rosa PK; Rosso RD *Brown (BN +); Blue (BU -); Black (BK OUT); White (WH OUT); Green GN; Yellow YE; Grey GY; Pink PK; Red RD*		
Diametro cavo (mm) *Cable diameter (mm)*	5.2		
Materiale cavo *Cable material*	PUR (CEI2022)		
Sezione conduttori *Lead cross section*	0.14 mm² (AWG 26)		
Numero conduttori *Number of leads*	8		
Lunghezza cavo (m) *Cable length (m)*	2.5	5	0.3
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75		

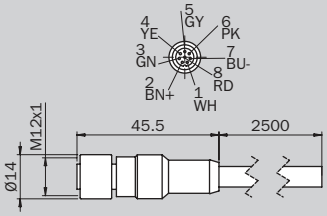
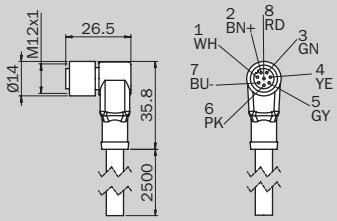
Tipo connettore *Connector type*	CMGM800310CFGM8003	3030156 (CMGM800320CFGM8003)
Descrizione *Description*	Prolunga con connettori M8 maschio-femmina con cavo costampato *Extension with M8 male-female connectors with molded cable*	
Orientamento connettore *Connector angle*	Maschio dritto 180° / Femmina dritto 180° *male straight 180° / female straight 180°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	4	
Materiale cavo *Cable material*	PVC (CEI2022)	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	3	
Lunghezza cavo (m) *Cable length (m)*	1	2
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

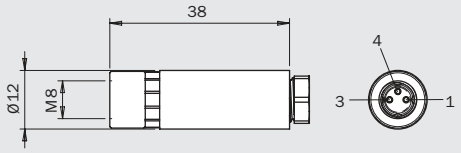
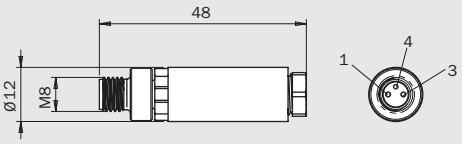
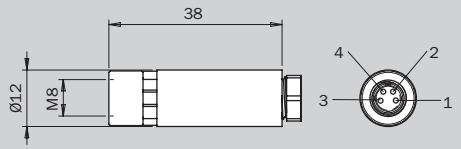
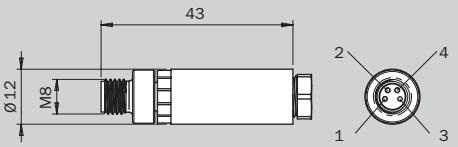
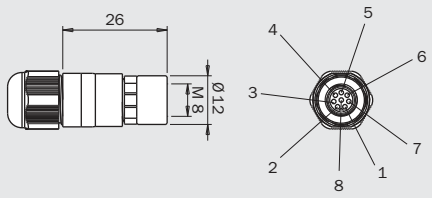
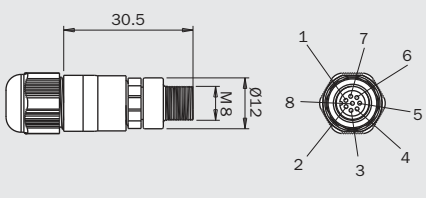
Tipo connettore *Connector type*	CMGM890310CFGM8003	CMGM890320CFGM8003
Descrizione *Description*	Prolunga con connettori M8 maschio-femmina con cavo costampato *Extension with M8 male-female connectors with molded cable*	
Orientamento connettore *Connector angle*	Maschio dritto 90° / Femmina dritto 90° *male straight 90° / female straight 90°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Marrone (BN +); Blu (BU -); Nero (BK OUT) *Brown (BN +); Blue (BU -); Black (BK OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	4	
Materiale cavo *Cable material*	PVC (CEI2022)	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	3	
Lunghezza cavo (m) *Cable length (m)*	1	2
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

Tipo connettore *Connector type*	CFGM1290225	CFGM1290325
Descrizione *Description*	Connettore M12, femmina con cavo in PVC costampato *M12 female connector with molded PVC cable*	
Orientamento connettore *Connector angle*	angolare 90° *angled 90°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone BN (+); Blu BU (-); Nero BK; Non connesso N.C. *Brown BN (+); Blue BU (-); Black BK (OUT) NC not connected*	
Diametro cavo (mm) *Cable diameter (mm)*	3	4
Materiale cavo *Cable material*	PVC (CEI2022)	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	2	3
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

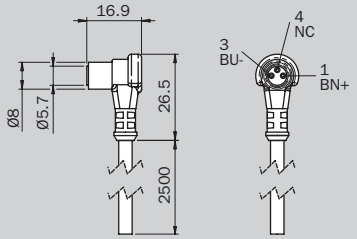
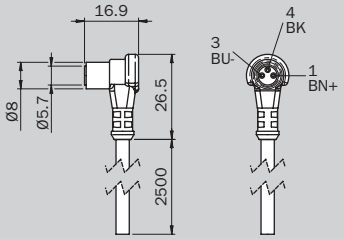
Tipo connettore *Connector type*	CFGM120041K	CFGM1200430	CFGM1290430
Descrizione *Description*	Connettore M12, femmina con cavo in PVC costampato *M12 female connector with molded PVC cable*		
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*		angolare 90° *angled 90°*
Grado di protezione *Protection rating*	IP69K		
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*			
	Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT)*		
Diametro cavo (mm) *Cable diameter (mm)*	5.1		
Materiale cavo *Cable material*	PVC (CEI2022)		
Sezione conduttori *Lead cross section*	0.34 mm² (AWG 22)		
Numero conduttori *Number of leads*	4		
Lunghezza cavo (m) *Cable length (m)*	10	3	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75		

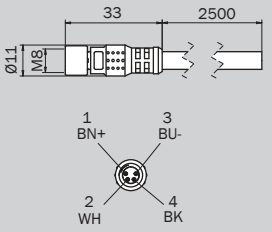
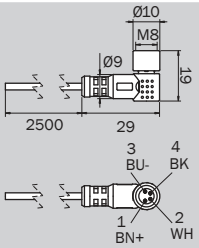
Tipo connettore *Connector type*	CFGM1200525P	3031157 (CFGM1200825P)
Descrizione *Description*	Connettore M12, femmina con cavo in PUR costampato *M12 female connector with molded PUR cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH; Verde GN; Giallo YE; Grigio GY; Rosa PK; Rosso RD *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT); Green GN; Yellow YE; Grey GY; Pink PK; Red RD*	
Diametro cavo (mm) *Cable diameter (mm)*	6.4	6.5
Materiale cavo *Cable material*	PUR UL STYLE	PUR
Sezione conduttori *Lead cross section*	-	0.25 mm² (AWG 24)
Numero conduttori *Number of leads*	5	8
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

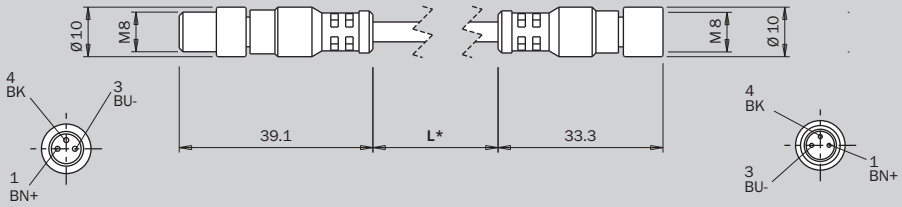
Tipo connettore *Connector type*	3031158 (CFGM1200825SP)	3031159 (CFGM1290825SP)
Descrizione *Description*	Connetore M12, femmina con cavo in PUR schermato costampato *M12 female connector with shielded molded PUR cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	angolare 90° *angled 90°*
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH; Verde GN; Giallo YE; Grigio GY; Rosa PK; Rosso RD *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT); Green GN; Yellow YE; Grey GY; Pink PK; Red RD*	
Diametro cavo (mm) *Cable diameter (mm)*	7	
Materiale cavo *Cable material*	PUR	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	8	
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

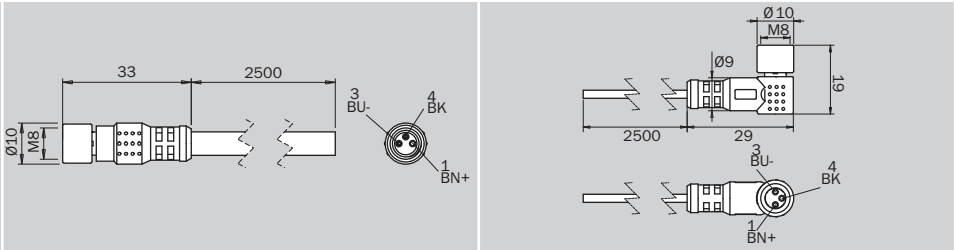
Tipo connettore *Connector type*	CFGM800300	CMGM800300
Descrizione *Description*	Connettore M8 Femmina a cablare *M8 female connector to be wired*	Connettore M8 Maschio a cablare *M8 male connector to be wired*
Numero di poli *Number of poles*	3	
Modo di cablaggio *Wiring method*	Connessione a vite *Screw connector*	
Grado di protezione *Protection rating*	IP67	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
Diametro massimo cavo (mm) *Maximum cable diameter (mm)*	5.5	
Tipo connettore *Connector type*	CFGM800400	CMGM800400
Descrizione *Description*	Connettore M8 Femmina a cablare *M8 Female connector to cable*	Connettore M8 Maschio a cablare *M8 Male connector to cable*
Numero di poli *Number of poles*	4	
Modo di cablaggio *Wiring method*	Connessione a vite *Screw connection*	
Grado di protezione *Protection rating*	IP67	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
Diametro massimo cavo (mm) *Maximum cable diameter (mm)*	5.5	
Tipo connettore *Connector type*	CFGM800800	CMGM800800
Descrizione *Description*	Connettore M8 Femmina a saldare *M8 female connector to be soldered*	Connettore M8 Maschio a saldare *M8 male connector to be soldered*
Numero di poli *Number of contacts*	8	
Modo di cablaggio *Wiring mode*	Connessione a saldare *Solder connection*	
Grado di protezione *Protection class*	IP67	
Dimensioni (mm) *Dimension (mm)* Configurazione PIN *PIN configuration*		
Diametro massimo cavo (mm) *Max cable diameter (mm)*	5.5	

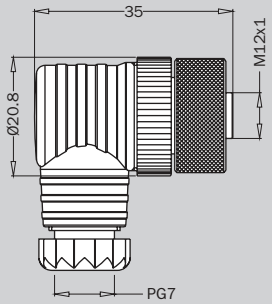
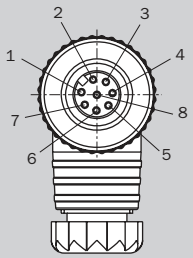
CF

Tipo connettore *Connector type*	CFSM890225	CFSM890325
Descrizione *Description*	Connettore M8 ,SNAP, femmina con cavo in PVC costampato *M8 SNAP female connector with molded PVC cable*	
Orientamento connettore *Connector angle*	angolare 90° *angled 90°*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone BN (+); Blu BU (-); Nero BK (OUT); Non connesso N.C. *Brown BN (+); Blue BU (-); Black BK (OUT); Not connected NC*	
Diametro cavo (mm) *Cable diameter (mm)*	3.6	4.3
Materiale cavo *Cable material*	PVC (CEI2022)	
Sezione conduttori *Lead cross section*	0.25 mm² (AWG 24)	
Numero conduttori *Number of leads*	2	3
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

Tipo connettore *Connector type*	CFGM800425PC	CFGM890425PC
Descrizione *Description*	Connettore M8 , femmina con cavo in PUR costampato *M8 female connector with molded PUR cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	angolare 90° *angled 90°*
Grado di protezione *Protection rating*		
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
	Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	2.5	
Materiale cavo *Cable material*	PUR	
Sezione conduttori *Lead cross section*	0.096 mm²	
Numero conduttori *Number of leads*	4	
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

Tipo connettore *Connector type*	CM800303CF8003P	CM800305CF8003P	CM800312CF8003P
Descrizione *Description*	Prolunga con connettore M8 maschio-femmina con cavo costampato *Extension with M8 male-female connectors with molded cable*		
Orientamento connettore *Connector angle*	Maschio dritto 180°/ femmina dritto 180° *Male straight 180°/ Female straight 180°*		
Grado di protezione *Protection rating*	IP69K		
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Marrone BN (+); Blu BU (-); Nero BK (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT)*		
Diametro cavo (mm) *Cable diameter (mm)*	2.2		
Materiale cavo *Cable material*	PUR		
Sezione conduttori *Lead cross section*	0.096 mm²		
Numero conduttori *Number of leads*	3		
Lunghezza cavo (m) *Cable length (m)* L*	0.3	0.5	1.2
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 +75		

Tipo connettore *Connector type*	CFGM800325PSB	CFGM890325PSB
Descrizione *Description*	Connettore M8 , femmina con cavo in PUR costampato *M8 female connector with molded PUR cable*	
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*	angolare 90° *angled 90°*
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Marrone BN (+); Blu BU (-); Nero BK (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	2.2	
Materiale cavo *Cable material*	PUR	
Sezione conduttori *Lead cross section*	0.096 mm²	
Numero conduttori *Number of leads*	3	
Lunghezza cavo (m) *Cable length (m)*	2.5	
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75	

Tipo connettore *Connector type*	**CFGM1290800C**
Tipo di contatto *Contact type*	Femmina *Female*
Numero contatti *Number of contacts*	8
Materiale del corpo *Case material*	PA66 +30% fibra di vetro *PA66 +30% fiberglass*
Orientamento *Angle*	90°
Colore del corpo *Case color*	Nero *Black*
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 
Pressacavo *Cable gland*	PG7
Tensione nominale *Rated voltage*	30V AC/DC
Corrente nominale *Rated current*	2A
Materiale dei contatti *Contact material*	bronzo fosforoso *phosphor bronze*
Trattamento contatti *Contact treatment*	Dorato Nickel +0.45 µm *Gold-plated nickel +0.45 µm*
Materiale ghiera *Contact treatment*	Zn Al/Ni
O-ring *O-ring*	NBR
Grado di protezione *Protection rating*	IP67
Temperatura di esercizio *Operating temperature*	-25°C ÷ +90°C

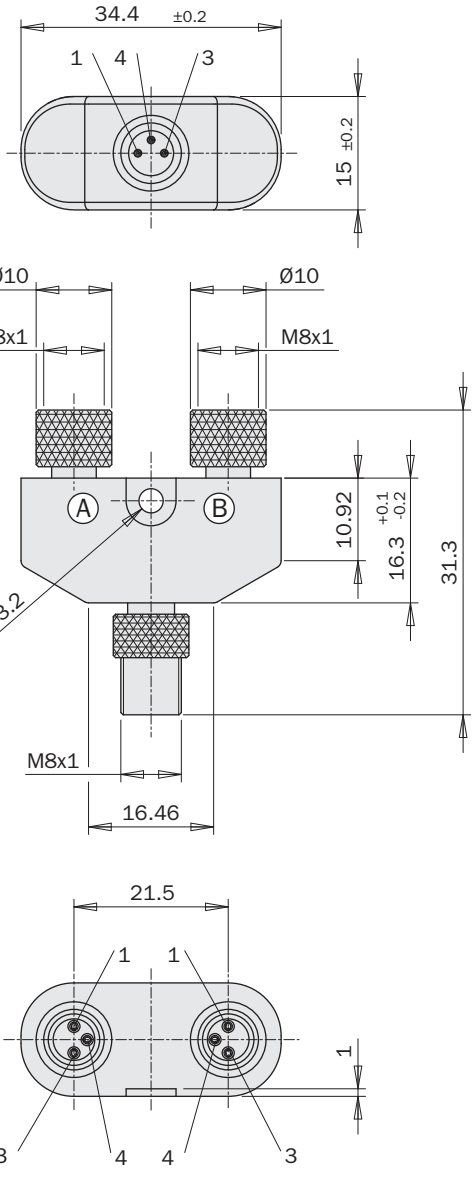
Accoppiatore a T M8, 3 poli

Accoppiatore a T utilizzabile per realizzare la serie logica delle uscite di 2 sensori normalmente aperti (NO) di tipo PNP oppure REED.

M8, 3-pole T-coupler

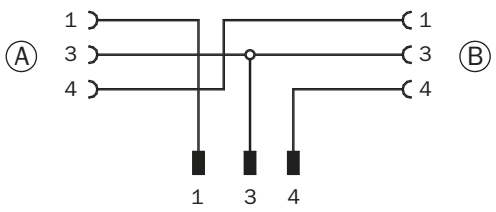
This coupler can be used to create the logic series of the outputs of two normally-open (NO) PNP or REED sensors.

	CMGM8CFGM8X2Y
Materiale del corpo *Case material*	Polipropilene *Polypropylene*
Materiale dei contatti *Contacts material*	Doratura *Gold-plated*
Materiale ghiere *Lock nut material*	Ottone *Brass*
Tipo circuito *Circuit type*	Serie logica di 2 sensori PNP / Reed *PNP/Reed 2-sensor logic series*
Tensione nominale *Rated voltage*	60 V AC/DC
Corrente nominale *Rated current*	4 A
Grado di protezione *Protection rating*	IP67 (EN60529)
Caduta di tensione *Voltage drop*	max 3 V









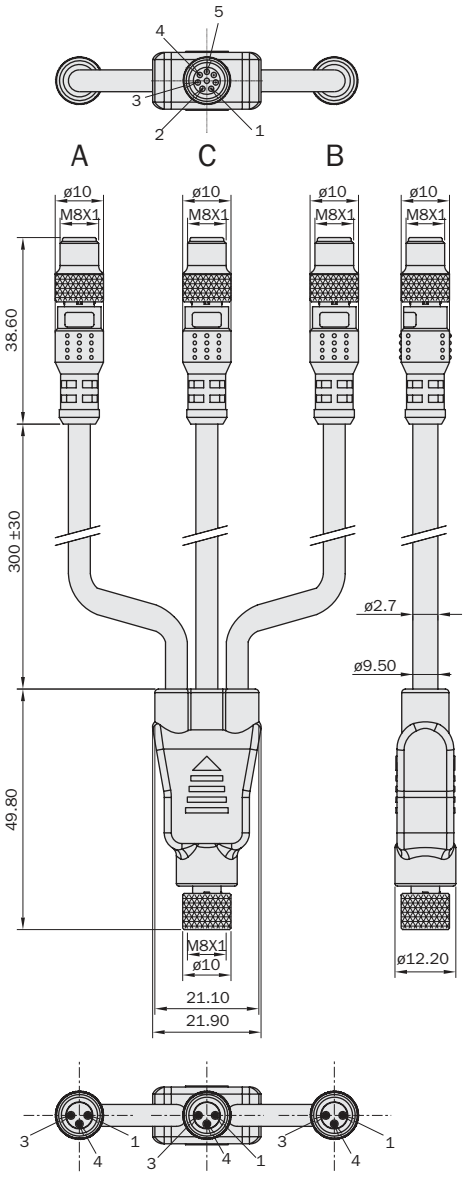
Accoppiatore a Y M8, 8 poli

Accoppiatore a Y utilizzabile in combinazione ai sensori PRO-SS/PRO-SN (con uscita M8) per avere la corretta connessione in applicazione con la versione modulare SENSOR BOX (SBM).

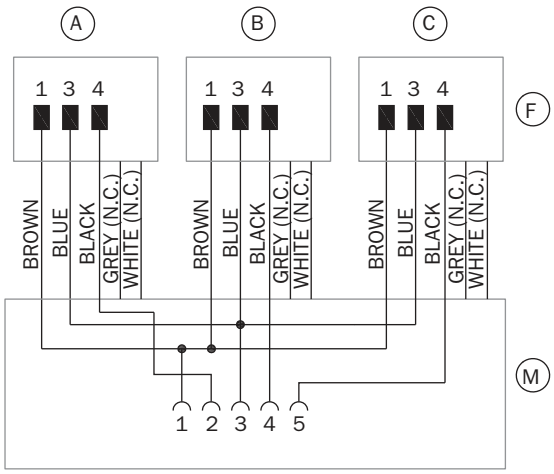
8-pole M8 Y-coupler

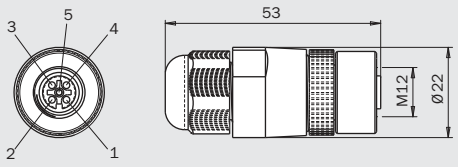
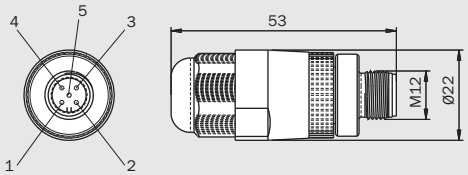
This coupler can be used combined with PRO-SS/PRO-SN sensors (with M8 output) for precise connection, jointly with the SENSOR BOX (SBM) modular version.

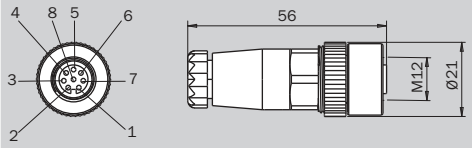
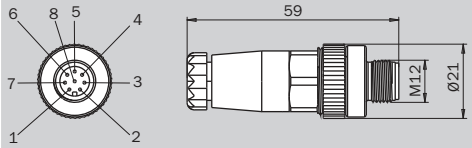
	CFGM8CMGM8X3Y
Materiale del corpo *Case material*	Polipropilene *Polypropylene*
Materiale dei contatti *Contacts material*	Doratura *Gold-plated*
Materiale ghiere *Lock nut material*	Ottone *Brass*
Tipo circuito *Circuit type*	1M8 - 8 poli Femmina / 3xM8 - 3 poli Maschio *1xM8: 8 poles female / 3xM8: 3 poles male*
Tensione nominale *Rated voltage*	30 V AC/DC
Corrente nominale *Rated current*	1.5 A
Grado di protezione *Protection rating*	IP69K

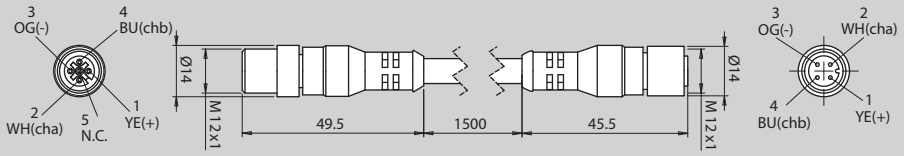


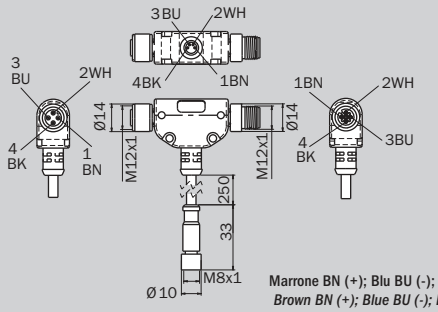
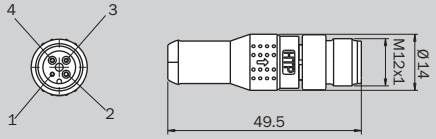




Tipo connettore *Connector type*	CFGM1200500	CMGM1200500
Descrizione *Description*	Connettore M12 Femmina a cablare *M12 female connector to be wired*	Connettore M12 Maschio a cablare *M12 male connector to be wired*
Numero di poli *Number of poles*	5	
Modo di cablaggio *Wiring method*	Connessione a vite *Screw connector*	
Grado di protezione *Protection rating*	IP67	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
Diametro massimo cavo (mm) *Maximum cable diameter (mm)*	8.6	

Tipo connettore *Connector type*	CFGM1200800	CMGM1200800
Descrizione *Description*	Connettore M12 Femmina a cablare *M12 Female connector to cable*	Connettore M12 Maschio a cablare *M12 Male connector to cable*
Numero di poli *Number of poles*	8	
Modo di cablaggio *Wiring method*	Connessione a vite *Screw connection*	
Grado di protezione *Protection rating*	IP67	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*		
Diametro massimo cavo (mm) *Maximum cable diameter (mm)*	6	

Tipo connettore *Connector type*	**CM12CF12-4-15**
Descrizione *Description*	Prolunga con connettori M12 maschio-femmina con cavo costampato *Extension with M12 male-female connectors with molded cable*
Orientamento connettore *Connector angle*	dritto 180° *straight 180°*
Grado di protezione *Protection rating*	IP69K
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Blu BU (-); Bianco WH; Giallo YE; Arancio OG *Blue BU (-); White WH; Yellow YE; Orange OG*
Diametro cavo (mm) *Cable diameter (mm)*	6.6
Materiale cavo *Cable material*	PUR UL style 21576 BUS CAT.5E
Sezione conduttori *Lead cross section*	0.34 mm² (AWG 22)
Numero conduttori *Number of leads*	4
Lunghezza cavo (m) *Cable length (m)*	1.5
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 ÷ 75

Tipo connettore *Connector type*	**CM12CF12CF8T4**	**CM1200400TERM**
Descrizione *Description*	Raccordo elettrico M12 con cavo costampato M8 4poli *M12 electric connector with M8-4 poles molded cable*	Connettore M12 terminale *M12 terminal connector*
Orientamento connettore *Connector angle*	dritto 180° *straight 180*	
Grado di protezione *Protection rating*	IP69K	
Dimensioni (mm) *Dimensions (mm)* Configurazione PIN *PIN configuration*	 Marrone BN (+); Blu BU (-); Nero BK (OUT); Bianco WH (OUT) *Brown BN (+); Blue BU (-); Black BK (OUT); White WH (OUT)*	
Diametro cavo (mm) *Cable diameter (mm)*	5	-
Materiale cavo *Cable material*	PUR	-
Sezione conduttori *Lead cross section*	0.34 mm	-
Numero conduttori *Number of leads*	4	-
Lunghezza cavo (m) *Cable length (m)*	2.5	-
Temperatura di lavoro (°C) *Operating temperature (°C)*	-25 +75	

Sensori Custom

Attiva nel settore dell'automazione e della tecnologia dei sensori da oltre trent'anni, Gimatic S.r.l. è oggi in grado di fornire un servizio di progettazione di sensori personalizzati avvalendosi di varie tecnologie.

- Realizzati in base alle specifiche del cliente.
- Tecnologie disponibili per sensori magnetici, induttivi, ottici e d'impatto.
- Tracciabilità 100%.
- Produzione su larga scala.

Custom sensors

Active in the fields of automation and sensor technology for over thirty years, today Gimatic S.r.l. can provide a service for the design of customized sensors, using various technologies.

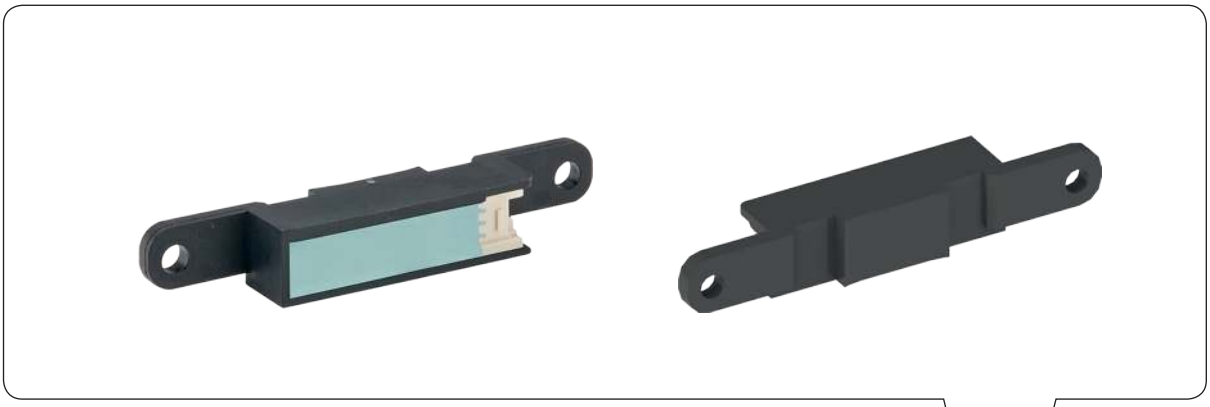
- *Made to customer specifications.*
- *Magnetic, inductive, optical and shock/vibration technologies available.*
- *100% traceability.*
- *Large scale production based.*

Esempio

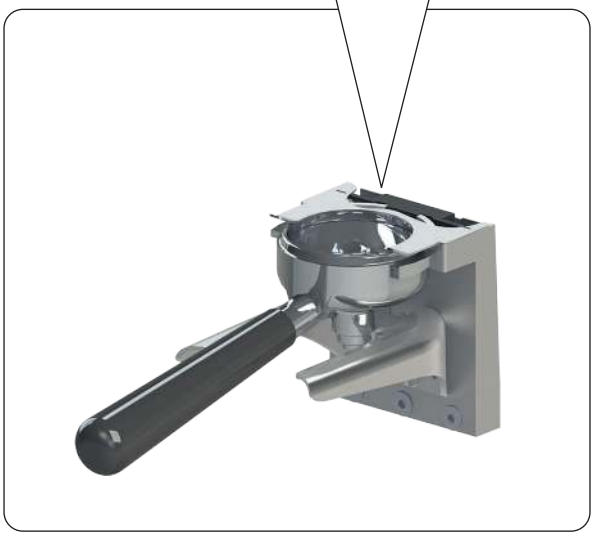
Sensore di prossimità personalizzato, progettato secondo il principio induttivo per il rilevamento affidabile di presenza in una macchina per il caffè. Questo sensore supera i limiti dei sensori induttivi standard, assicurando il corretto funzionamento in condizioni ambientali difficili con ingombri ottimizzati.

Example

Custom proximity sensor designed according to the inductive principle for a reliable presence detection in a coffee machine appliance. This sensor overcomes the limitations of standard inductive sensors, in that it guarantees correct operation under harsh environmental conditions, with optimized overall dimensions.







AUTOMOTIVE

Sensori automotive

Gimatic S.r.l. fornisce soluzioni con sensori magnetici per applicazioni nel settore automotive (quali ad esempio i sensori di avvio e arresto ed i sensori angolo di sterzo). I sensori vengono programmati singolarmente per compensare le differenze di magnete sia nella dimensione che nella magnetizzazione. Le caratteristiche di uscita del segnale possono essere personalizzate nella forma (lineare, lineare a tratti, ecc.) e nel tipo (analogico, corrente, PWM, SENT, ecc.).

Automotive sensors

Gimatic S.r.l. provides magnetic sensor solutions for automotive applications (such as start and stop sensors and active power steering sensors). Sensors are programmed individually to compensate for magnet differences in both dimension and magnetization. The signal output characteristics can be customized in shape (linear, piecewise linear, etc.) and type (analog, current, PWM, SENT, etc.).

Esempio

Sensori Start&Stop realizzati in base alle specifiche per il settore Automotive.
Basati su tecnologia magnetica, permettono il rilevamento progressivo della posizione.
Tracciabilità del prodotto al 100% in quanto in fase di produzione ciascun sensore è programmato singolarmente in base all'applicazione cliente.

Example

Start&Stop sensors made according to the Automotive sector's specifications.
Based on magnetic technology, this sensors allow the progressive detection of position.
Product traceability is 100% guaranteed because each sensor is programmed individually according to the customer's application.

START & STOP SENSOR








Tensione di alimentazione *Power Supply*	+5 Vdc	
Tipo di uscita *Output Type*	PWM	
Output Range *Output Range*	0÷100%	
Output Freq. *Output Freq.*	1KHz	
Corsa *Stroke*	±60°	±30 mm
Linearity Err. *Linearity Err.*	±2%FSO	
IP rating *IP rating*	IP55	IP67

START & STOP SENSOR




Tensione di alimentazione *Power Supply*	+5 Vdc
Tipo di uscita *Output Type*	PWM
Output Range *Output Range*	0÷100%
Output Freq. *Output Freq.*	1KHz
Corsa *Stroke*	±30 mm
Linearity Err. *Linearity Err.*	±2%FSO
IP rating *IP rating*	IP67

ACTIVE POWER STEERING




Tensione di alimentazione *Power Supply*	+5 Vdc
Tipo di uscita *Output Type*	Analog
Output Range *Output Range*	0÷5V
Output Freq. *Output Freq.*	1KHz
Corsa *Stroke*	0÷8 mm
Linearity Err. *Linearity Err.*	±2%FSO
IP rating *IP rating*	IP67

Servizio stampa 3D

Servizio di prototipazione rapida di componenti su disegno cliente: dita di presa (1), posaggi, EOAT (2), etc. con HP Multi Jet Fusion (4) in nylon caricato vetro.

3D printing service

Rapid 3D prototyping service based on customer's design: gripping fingers (1), jigs, EOATs (2) etc. with our HP Multi Jet Fusion 3D printer (4) using glass-fibre-reinforced nylon.

(1)





(2)





Abbinato al servizio di stampa 3D è possibile richiedere la floccatura dei componenti e il montaggio di inserti metallici filettati (3).

On request, the 3D printing service can be combined with the installation of metal inserts (3).

(3)



(4)



Specifiche tecniche materiale ***Material technical specifications***		Metodo *Method*
Materiale *Material*	PA12 Glass Beads	-
Densità del materiale *Density of parts*	1.3 g/cm³	ASTM D792
Resistenza a trazione, massimo carico *Tensile strenght, max load*	30 MPa	ASTM D638
Temperatura di distorsione termica (@ 1.82 MPa) *Heat deflection temperature (@ 1.82 MPa)*	114°C	ASTM D648 Test Method A

- Massime dimensioni stampabili 284x380x380 mm.
- Spedizione in 48 ore.

- *Maximum printable dimensions 284x380x380 mm.*
- *Shipping in 48 hours.*

Rivolgersi al rivenditore Gimatic locale per maggiori informazioni.

Ask your local Gimatic dealer for further information.

3L

Servizio laser

Servizio di taglio laser e piegatura su disegno cliente anche per singole parti (senza lotti minimi).
Tempo di realizzazione: 3 giorni lavorativi.
Materiali:

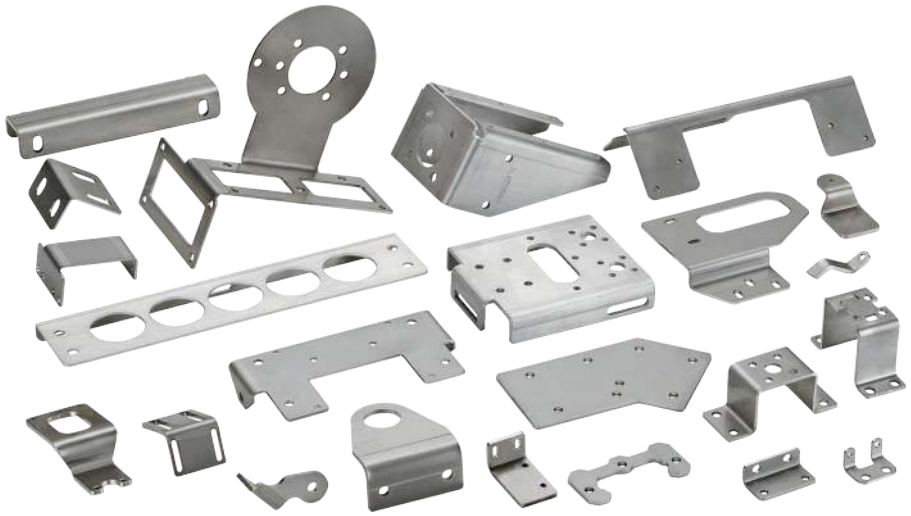
- Acciaio inox AISI 304 (spessore 1, 2 e 3 mm);
- Lega di Alluminio 5754 (spessore 2, 3, 4 e 5 mm).

3L

Laser service

Laser cutting and bending service according to customer's drawing also for individual parts (without minimum quantities).
Lead time: 3 working days.
Materials:

- *AISI 304 stainless steel (thickness: 1, 2 and 3 mm);*
- *Aluminium alloy 5754 (thickness 2, 3, 4 and 5 mm).*



Rivolgersi al rivenditore Gimatic locale per maggiori informazioni.

Ask your local Gimatic dealer for further information.

3M

Servizio lavorazione metallica

Servizio di lavorazione CNC a 5 assi su disegno cliente anche per singole parti.
Tempo di realizzazione: 5 giorni lavorativi.
Materiali:

- Resina acetalica POM;
- Lega di Alluminio serie 6000.

3M

Metal processing service

5-axis CNC machining service according to customer's drawing, also for individual parts.
Lead time: 5 working days.
Materials:

- *Acetal resin (POM);*
- *Aluminium alloy (6000 series).*



Rivolgersi al rivenditore Gimatic locale per maggiori informazioni.

Ask your local Gimatic dealer for further information.

Condizioni generali di fornitura (le Condizioni) praticate alla clientela (i Clienti) da GIMATIC (la Società)

1) Ambito di applicazione delle presenti Condizioni generali di fornitura.

1.1) Per Condizioni si intendono, ai fini della loro applicabilità, le seguenti condizioni generali di fornitura, mentre per Società si intende GIMATIC S.r.l., con sede in Via Enzo Ferrari 2/4, (25030) Roncadelle (BS) ITALIA, ed ogni altra società partecipata o controllata da GIMATIC S.r.l. e infine per Cliente, si intende il soggetto giuridico che entra in rapporto con la Società, per acquistarne prodotti, in caso di acquisto effettuato a favore di terzi, o comunque con consegna in luogo diverso dal destinatario indicato in fattura, entrambi i soggetti, destinatario dei prodotti e destinatario della fatturazione, saranno da considerarsi Clienti ai fini dell'applicazione delle presenti Condizioni.

1.2) Le presenti Condizioni disciplinano il rapporto di fornitura di prodotti di volta in volta instaurato tra la Società e il Cliente, da qualificarsi, come per legge, quale contratto di compravendita di beni mobili da piazza a piazza, anche in difetto di accordo scritto; eventuali ulteriori o diverse condizioni, anche se riportate, o richiamate, in scritture o comunicazioni del Cliente, non potranno essere fatte valere nei confronti della Società, a meno che non siano state con essa espressamente concordate e risultino da apposito accordo scritto e sottoscritto da entrambe le parti.

1.3) Le presenti Condizioni non si applicano qualora tra il Cliente e la Società ricorrano accordi specifici, validamente sottoscritti da entrambe le parti; la Società riconosce validità agli accordi sottoscritti per adesione, specie laddove formalmente richiesti come requisito all'idoneità di contrarre, limitatamente alle sole disposizioni conformi al diritto vigente in Italia, in materia di compravendita di cose mobili da piazza a piazza, se ed in quanto applicabili.

2) Formazione del contratto.

2.1) In difetto di apposita previsione scritta ai sensi di quanto sopra indicato il contratto di fornitura si perfeziona presso la sede della Società con la consegna della merce al vettore; in difetto si deve ritenere il contratto come non concluso, senza che alla società possano essere richiesti addebiti per qualsiasi ragione, aspettativa, pretesa, o diritto.

2.2) In caso di modifica, o mancata accettazione solo parziale, sarà cura della Società comunicare tempestivamente le intervenute variazioni in ordine a quantità, qualità, modalità e date di consegna, e sarà onere del Cliente indicare il proprio diverso avviso, compresa la facoltà di rinuncia, al più tardi il giorno successivo all'invio della comunicazione della Società, e, comunque entro l'eventuale ulteriore termine in essa stabilito; in difetto di ricezione di commenti o altre istruzioni da parte del Cliente le modifiche all'ordine si riterranno pacificamente accettate.

3) Luogo e data di consegna.

3.1) La Società si libera di ogni e qualsiasi obbligo di adempimento mediante consegna dei prodotti al vettore presso la sede del proprio stabilimento sito in Via Enzo Ferrari 2/4, (25030) Roncadelle (BS) ITALIA, di conseguenza è escluso qualsiasi tipo di dazio o altro onere accessorio, anche se specificatamente riconducibile al trasporto, all'esportazione, all'imbarco o a qualsiasi altra modalità di consegna al Cliente.

3.2) Analogamente non possono considerarsi compresi nel prezzo l'eventuale progetto del sistema, l'installazione e/o il collaudo di apparecchiature, corsi di addestramento, assistenza all'installazione e ogni qualsiasi altro onere non espressamente e formalmente concordato, che, comunque, potranno essere quotati separatamente; i prodotti saranno consegnati al vettore nel loro imballaggio originale, eventuali ulteriori richieste o esigenze del Cliente, se concordate e accettate, saranno poste a suo carico direttamente in fattura.

4) Dati tecnici, disegni, documenti e obblighi di riservatezza, origine delle merci.

4.1) I dati riportati nel catalogo ufficiale della Società sono gli unici da intendersi come vincolanti per la valutazione della conformità del prodotto; la Società si riserva la facoltà di apportare ai propri prodotti, in qualunque momento, senza preavviso, modifiche suggerite dal continuo miglioramento tecnico e costruttivo; le modifiche risulteranno dalla scheda prodotto verranno periodicamente pubblicate sul catalogo ufficiale della Società.

General conditions of sale (the Conditions) applied to its customers (the Customers) by GIMATIC (the Company)

1) Context of application of these General Conditions of Sale.

1.1) For the purposes of their applicability, the Conditions are the following general conditions of sale, while the Company is GIMATIC S.r.l., with registered office at Via Enzo Ferrari 2/4, (25030) Roncadelle (Brescia) ITALY, and any other investee company or subsidiary company of GIMATIC S.r.l, while the Customer is the legal entity which establishes a business relationship with the Company for the purchase of its products. In the case of purchases made on behalf of third parties, or in any case with delivery to locations other than the consignee specified in the invoice, both parties, the consignee of the products and the billed party, shall be considered Customers for the purposes of the application of these Conditions.

1.2) These Conditions govern the supplier-customer relationship established on each occasion between the Company and the Customer, which may be legally defined as a contract for the distance sale of movable goods, even in the absence of a written agreement; any additional or other conditions, even if referred to or included in the Customer's documents or communications, shall not be valid in relation to the Company unless specifically agreed with the same and confirmed by a written agreement signed by both parties.

1.3) These Conditions shall not apply if there are specific agreements, validly signed by both parties, between the Customer and the Company; the Company also accepts the validity of agreements signed for acceptance, especially where they are formally required as authorisation to finalise the contract, with regard only to provisions which conform to the law in force in Italy with regard to the distance sale of movable goods, if and to the extent that they are applicable.

2) Formation of the contract.

2.1) In the absence of specific written provisions as referred to above, the sales contract shall be considered finalised at the Company's premises at the time of consignment of the goods to the carrier; failing this, the contract shall be considered not finalised, without any liability on the part of the Company for any reason or with regard to any expectation, claim or right.

2.2) In the event of changes or even partial non-acceptance, the Company shall provide rapid notification of the changes made with regard to quantity, quality and delivery method and dates, and the Customer shall state its disagreement, or exercise the right to withdraw, by no later than the day after the date of dispatch of the Company's notification, or by any later term stated therein; in the event that no comments or other instructions are received from the Customer, the changes to the order shall be considered tacitly accepted.

3) Place and date of delivery.

3.1) The Company fulfils each and every obligation through the consignment of the products to the carrier at its plant located at Via Enzo Ferrari 2/4, (25030) Roncadelle (Brescia) ITALY; it shall therefore not be liable for any kind of customs duty or any other related charges, even if specifically linked to transport, exportation, embarkation or any other method of delivery to the Customer.

3.2) Similarly, the price shall not include any system design, or installation and/or testing of equipment, training courses, assistance for installation and any other cost not specifically and formally agreed which, however, may be quoted for separately; the products shall be consigned to the carrier in their original packaging, and any other requirements or demands on the part of the Customer, if agreed and accepted, shall be charged to the latter directly in the invoice.

4) Technical data, drawings, documents and non-disclosure obligation, origin of the goods.

4.1) The data in the Company's official catalogue are the only binding data for assessment of the product's conformity; the Company reserves the right to make changes to its products in response to continuous improvements in technology and construction, at any time and without notice; the changes shall be recorded in the product datasheet published periodically in the Company's official catalogue.

4.2) Anche qualora i prodotti non siano oggetto di brevetto da parte della Società, la loro configurazione e le loro caratteristiche peculiari sono parte integrante del patrimonio immateriale della Società e non possono essere copiati, replicati, adattati o, comunque utilizzati, nemmeno in modalità “dual use” o con “reverse engineering”.

4.3) Eventuali peculiarità, modi d’uso o altre specifiche tecniche contenute nella documentazione trasmessa al Cliente, se non espressamente pubblicate sul sito ufficiale della Società, sono da considerarsi soggette alla tutela prevista dalle leggi vigenti per il know-how e il segreto industriale.

4.4) Salvo diversa esplicita indicazione i prodotti finiti della Società si presuppongono di origine italiana; resta inteso che la richiesta di certificato d’origine comporta, comunque, l’attesa dei tempi necessari ad un’attenta disamina del caso, con il coinvolgimento di tutti i soggetti coinvolti nella filiera specifica del prodotto, in specie qualora trattasi di ricambi, o materiale di consumo, accessori rispetto al prodotto finito.

5) Pagamenti e riserva di proprietà.

5.1) Salvo diverso accordo i pagamenti devono essere effettuati dal Cliente entro i termini indicati in fattura presso l’istituto di credito pattuito; eventuali contestazioni che dovessero insorgere tra le parti non dispensano il Cliente dall’obbligo di osservare le condizioni e i termini di pagamento.

5.2) In caso di ritardato pagamento il Cliente sarà tenuto al pagamento degli interessi moratori che verranno conteggiati di pieno diritto e senza necessità di costituzione in mora, fino alla misura massima prevista dalla legge, con anatocismo bancario come praticato dall’Istituto di credito pattuito; la Società si riserva comunque la facoltà di chiedere il risarcimento del maggior danno, e di risolvere, di diritto, ogni rapporto contrattuale.

5.3) I prodotti restano di proprietà della Società fino a che il Cliente non abbia pagato integralmente il prezzo pattuito alla Società, o alla partecipata, tramite la quale si è instaurato il rapporto di fornitura.

5.4) Nel caso il Cliente venga meno all’obbligo di pagamento, la Società si riserva il diritto di richiedere la restituzione dei prodotti già consegnati al Cliente, il quale, perderà, con effetto retroattivo il diritto di acquisirne la proprietà.

6) Cessazione del rapporto ed eventuale rifiuto di contrarre.

6.1) Nel caso in cui il Cliente non sia in regola con i pagamenti scaduti, diminuisca le garanzie che aveva dato, o non fornisca le garanzie che aveva promesso, la Società si riserva la facoltà di sospendere il rapporto di fornitura senza necessità di preavviso.

6.2) Salvo diversa ed espressa previsione scritta e validamente sottoscritta da entrambe le parti ogni e qualsiasi rapporto di fornitura, anche derivante da accordi verbali, non sottoscritti, o comunque, risultante da fatti concludenti, si intenderà risolto di diritto senza alcuna necessità di comunicazione qualora il Cliente venga posto in liquidazione o sia assoggettato a una qualsiasi procedura concorsuale.

6.3) In ogni caso la Società si riserva il diritto di rifiutare di adempiere agli ordini del Cliente, anche se già accettati, qualora il Cliente i) abbia omesso i pagamenti dovuti alla Società, a una sua partecipata, o a un suo distributore; ii) sia in lite, o comunque avanzi pretese o contestazioni nei confronti della alla Società, di una sua partecipata, o di un distributore; iii) non osservi gli obblighi di riservatezza previsti dal precedente §4;

7) Legge Applicabile e Foro competente.

7.1) I rapporti di fornitura tra le parti, compresi quelli di forniture rese all’estero, sono regolati dalla legge italiana; per qualsiasi controversia inerente all’esecuzione, interpretazione validità, risoluzione, cessazione di rapporti, e/o contratti, di fornitura intervenuti tra le parti è esclusivamente competente il Foro di Brescia.

4.2) Even if products are not patented by the Company, their distinctive configuration and characteristics form an integral part of the Company's intangible assets and may not be copied, replicated, adapted or used in any way, even in dual use mode or by reverse engineering.

4.3) Unless specifically published on the Company's official site, any specific features, procedures for use or other technical specifications in the documentation provided to the Customer shall be considered protected by the safeguards envisaged by current legislation for know-how and intellectual property.

4.4) Unless otherwise stated, the Company's finished products are assumed to be of Italian origin; however, it is understood that any requests for a certificate of origin shall imply a delay of the times required and a careful analysis on a case-by-case basis, involving all those included in the product's specific supply chain, especially in the case of spare parts, consumables or accessories to the finished product.

5) Payments and retention of ownership.

5.1) Unless otherwise agreed, Customers shall make payments within the terms stated in the invoice, to the agreed bank; any disputes arising between the parties shall not relieve the Customer of the obligation to comply with the payment conditions and terms.

5.2) In the event of late payment, the Customer shall be obliged to pay interest on the arrears, to be calculated as of right and with no need for a formal notice, up to the maximum amount permitted by the law, with the rate of interest applied by the agreed bank; however, the company reserves the right to claim any additional damages and to terminate all contract relationships as of right.

5.3) The Company shall retain ownership of the products until the Customer has made full payment of the agreed price to the Company, or to the investee company through which the sale was made.

5.4) In the event that the Customer defaults on its payment obligation, the Company reserves the right to demand return of the products already delivered to the Customer, which shall forfeit the right to acquire ownership of the same, with retroactive effect.

6) Termination of relationship and refusal to trade.

6.1) In the event that the Customer is in arrears with the payments due, reduces the guarantees it had provided, or fails to provide the guarantees it had promised, the Company reserves the right to suspend the sales relationship without notice.

6.2) Unless otherwise specifically agreed through a written document validly signed by both parties, all supply relationships, including those arising from verbal or unsigned agreements, or any other form of accord, shall be considered terminated as of right, with no need for formal notification, if the Customer is put into liquidation or is the subject of any form of bankruptcy proceedings.

6.3) In all cases, the Company reserves the right to refuse to fulfil the Customer's orders, even those already accepted, if the Customer i) has failed to make payments due to the Company or one of its investee companies or distributors; ii) is in dispute with or has lodged any claims or complaints against the Company or one of its investee companies or distributors; iii) breaches the non-disclosure obligations contained in point 4 above.

7) Applicable Law and Legal Jurisdiction.

7.1) The sales relationships between the parties, including those concerning sales with delivery abroad, are governed by Italian law; Brescia Law Court shall have sole jurisdiction over any dispute relating to the execution, interpretation, validity, termination, and cessation of trading and/or contract relations between the parties.

Indice dei codici
Code index

	Pagina *Page*
3100140	595
3100141	595
3100142	595
3100144	595
3100145	595
3100146	595
3100148	595
376Y234-100	558
3D	713
3L	714
3M	714
A	
AA-22	240
AA-22-NO	240
AA-23	240
AA-23-NO	240
AA-25-NO	240
AA-26	240
AA-26-NO	240
AA-35	240
AA-35-NO	240
AF05M05M	595
AF12F16M	548
AF14M14M	595
AF17F25M	548
AF18M18M	595
AF27F33M	548
AGG19-B	238
AGG21-B	238
AGG21-C	238
AGG30-B	238
AGG30-C	238
AQC150	82
AQC90	82
AR25180	56
B	
BB-12-00	268
BB-12-NO	268
BB-13-NO	268
C	
CAPBOX1625-03	605
CAPBOX1625-04	605
CAPBOX3200-03	605
CAPBOX3200-04	605
CAQC	88
CB1C425-G	653
CB2C4-G	653
CB3D2-G	653
CB3M2-G	653
CB3N2-G	653
CB4D225-G	653
CB4M225-G	653
CB4N225-G	653
CBQC	88
CEQC-A	96
CEQC-AC	97
CEQC-ACA	97
CEQC-B	96
CEQC-BC	97
CEQC-BCA	97
CFGM120041K	701
CFGM1200430	701
CFGM1200500	709
CFGM1200525P	702
CFGM1200800	709
CFGM1200825P	702
CFGM1200825SP	702
CFGM1290225	701
CFGM1290325	701
CFGM1290430	701
CFGM1290800C	706
CFGM1290825SP	702
CFGM800225	698
CFGM800300	703
CFGM800325	698
CFGM800325P	698
CFGM800325PSB	705
CFGM800400	703
CFGM800425P	699
CFGM800425PC	704
CFGM800800	703
CFGM800825P	699
CFGM800850P	699
CFGM890325	698
CFGM890325P	698
CFGM890325PSB	705
CFGM890425P	699
CFGM890425PC	704
CFGM890425PR	699
CFGM8CMGM8X3Y	708
CFSM890225	704
CFSM890325	704
CH102-G	559
CM1200400TERM	710
CM12CF12-4-15	710
CM12CF12CF8T4	710
CM800303CF8003P	705
CM800305CF8003P	705
CM800312CF8003P	705
CMAQC	100
CMBQC	100
CMGM1200500	709
CMGM1200800	709
CMGM800300	703
CMGM800310CFGM8003	700
CMGM800320CFGM8003	700
CMGM800400	703
CMGM800800	703
CMGM800803P	699
CMGM890310CFGM8003	700
CMGM890320CFGM8003	700
CMGM8CFGM8X2Y	707
COJ05	572
COJ12	572
COJ30	572
CQC-013	80
CQC-017	80
CQC-019	81
CRAQC	101
CRBQC	101
CSAQC	100
D	
DC20-16C	245
DD20-16B2	270
DD20-16E2	270
DD20-16L2	270
DD20-16LV	270
DD20-16M2	270
DD20-16MV	270
DD20-16P-10	279
DD20-16P-13	279
DD20-16P-17	279
DD20-16RF	270
DD20-16W2	270
DD20-K1	279
DH1905G	371
DH1905G-NC	371
DH1905G-NO	371
DH2204G	372
DH2204G-NC	372
DH2204G-NO	372
DH2208G	372
DH2208G-NC	372
DH2208G-NO	372
DH2706G	373
DH2706G-NC	373
DH2706G-NO	373
DH2712G	373
DH2712G-NC	373
DH2712G-NO	373
DH3508G	374
DH3508G-NC	374
DH3508G-NO	374
DH3516G	374
DH3516G-NC	374
DH3516G-NO	374
DH4410G	375
DH4410G-NC	375
DH4410G-NO	375
DH4420G	375
DH4420G-NC	375
DH4420G-NO	375
DH5512G	376
DH5512G-NC	376
DH5512G-NO	376
DH5526g	376
DH5526G-NC	376
DH5526G-NO	376
DH6616G	377
DH6616G-NC	377
DH6616G-NO	377
DH6632G	377
DH6632G-NC	377
DH6632G-NO	377
DH8728G	378
DH8728G-NC	378
DH8728G-NO	378
DH8750G	378
DH8750G-NC	378
DH8750G-NO	378
DRV36DLIN12IP30EC-G NEW	601
DRV36DLIN12IP30MB-G NEW	601
DRV36DLIN12IP30PN-G NEW	601
E	
EMB-1818-1000	158
EMB-1818-2000	158
EMB-2017-1000	159
EMB-2017-2000	159
EMB-2510-1000	158
EMB-2510-2000	158
EMB-2518-1000	158
EMB-2518-2000	158
EMB-2525-1000	158
EMB-2525-2000	158
EMB-3026-1000	159
EMB-3026-2000	159
EMB-4040-1000	158
EMB-4040-2000	158
EMB-5025-1000	158
EMB-5025-2000	158
EMB-5045-1000	159
EMB-5045-2000	159
EMB-8040-1000	158
EMB-8040-2000	158
EMF-1818-1000	158
EMF-1818-2000	158
EMF-2510-1000	158
EMF-2510-2000	158
EMF-2518-1000	158
EMF-2518-2000	158
EMF-2525-1000	158
EMF-2525-2000	158
EMF-4040-1000	158
EMF-4040-2000	158
EMF-5025-1000	158
EMF-5025-2000	158
EMF-8040-1000	158
EMF-8040-2000	158
EQC05	112
EQC05-K1	117
EQC05-K40	116
EQC05-K50	116
EQC05N	112
EQC100	112
EQC100-A	115
EQC100-B	115
EQC100-K1	117
EQC100-K100	116
EQC100-K80	116
EQC100N	112
EQC20	112
EQC20-B	114
EQC20-K1	117
EQC20-K50	116
EQC20-K63	116
EQC20N	112
G	
G.N10LAB152	571
G.N10LAE269	571
G.N10LAJ	570
G.N10LAP	570
G.N10LPF	570
G.N20AB360	571
G.N20AE	571
G.N20AJ	570
G.N20AJL	570
G.N20ALLLL	571
G.N20AP	570
G.N20PF	570
G.N30AA	571
G.N30AA114	571
G.N30AE	571
G.N30AJ	570

G.N30AP 570
G.N30FAL 571
G.N30PF 570
G.N5AJ 570
G.N5AP 570
G.N5PF 570
GM-0010 353
GM-0011 353
GM-0012 353
GM-0025 354
GM-0026 354
GM-0027 354
GM-0050 355
GM-0051 355
GM-0052 355
GM-0075 356
GM-0076 356
GM-0077 356
GM-0100 357
GM-0101 357
GM-0102 357
GM-0103 357
GN-05 568
GN-05S 568
GN-10 568
GN-10S 568
GN-20 568
GN-20S 568
GN-240 560
GN-263 560
GN-30 568
GN-30S 568
GN-340-18 560
GN-363-18 560
GN-50 568
GN-50S 568
GNB-2045 558
GNS-05 563
GNS-05-NC 564
GNS-05-NO 565
GNS-10 563
GNS-10-NC 564
GNS-10-NO 565
GNS-20 563
GNS-20-NC 564
GNS-20-NO 565
GS-10 326
GS-16 326
GS-20 326
GS-25 326
GS-32 326
GS-40 326
GW-10 280
GW-16 280
GW-20 280
GW-25 280
GX-10S 306
GX-16S 306
GX-20S 306
GX-25S 306

H

HS-2012 388
HS-2518 388

I

i30K 229
i31K 229
i32K 229
i37K 230
IF08E02 459
IF08S01 459
IF10E02 459
IF10S01 459
IF12E02U 459
IF12S01U 459
IF14E02U 459
IF14S01U 459
IF16E02U 459
IF16S01U 459
IF18E02 459
IF18S01 459
IF20E02 459
IF20S01 459
IF22E02 459
IF22S01 459
IF27E02 459
IF27S01 459
IF33E02 459
IF33S01 459
IF41E02 459
IF41S01 459
IF47E02 459
IF47S01 459
IF51E02 459
IF51S01 459
IF63E02 459
IF63S01 459
IFU04N03RT 465
IFU04S01RT 465
IFU05S01RT 465
IFU06N03RT 465
IFU06S01RT 465
IFU07N03RT 465
IFU07S01RT 465
ITSC-164 52
ITSC-164A 52
ITSC-166 52
ITSC-166A 52
ITSC-168 52
ITSC-168A 52
ITSC-454 52
ITSC-454A 52
ITSC-456 52
ITSC-456A 52
ITSC-458 52

J

JGN-10N 573
JGW-10S-A50 573
JGW-10S-A52 573
JGW-20S-A50 573
JGW-20S-A52 573
JP-25 386
JP-32 386
JP-45 386

K

KIT3-OFP20N 482
KIT3-OFP20S 482
KIT3-OFP20V 482
KIT-GMP-G 402
KIT-GMPLM3240 414
KIT-TM-EQC20 584
KIT-TM-J 582
KIT-TM-QC75 585
KIT-TM-V 583
KIT-UR-EQC20 579
KIT-UR-G 576
KIT-UR-J 577
KIT-UR-QC 580
KIT-UR-QC75 581
KIT-UR-V 578

L

LOQC 78

M

MAG-20 486
MAG-35 486
MAQC 88
MBQC 88
MCD124 235
MF-20-1000 159
MFC10 459
MFC12 459
MFC14 459
MFC18 459
MFC22 459
MFC27 459
MFC33 459
MFC41 459
MFC51 459
MFC63 459
MFD08...CL 460
MFD08...HL 460
MFD10...CL 460
MFD10...HL 460
MFD12...CL 460
MFD12...HL 460
MFD14...CL 460
MFD14...HL 460
MFD16...CL 460
MFD16...HL 460
MFD18...CL 460
MFD18...HL 460
MFD20...CL 460
MFD20...HL 460
MFD22...CL 460
MFD22...HL 460
MFD27...CL 460
MFD27...HL 460
MFD27-K 464
MFD33...CL 460
MFD33...HL 460
MFD33-K 464
MFD41...CL 460
MFD41...HL 460
MFD41-K 464
MFD47...CL 460
MFD47...HL 460
MFD51...CL 460
MFD51...HL 460
MFD51-K 464
MFD63...CL 460
MFD63...HL 460
MFD63-K 464
MFI-003 161
MFI-006 161
MFI-009 161
MFI-016 161
MFI-020 161
MFI-022 161
MFI-025 161
MFI-027 161
MFI-029 161
MFI-043 161
MFI-045 161
MFI-050 161
MFI-055 161
MFI-148 161
MFI-177 161
MFI-178 161
MFI-477 161
MFI-489 161
MFI-490 161
MFI-555 161
MFI-A01 180
MFI-A02 180
MFI-A03 180
MFI-A04 181
MFI-A05 181
MFI-A06 181
MFI-A07 181
MFI-A08 181
MFI-A09 185
MFI-A10 185
MFI-A102 163
MFI-A103 163
MFI-A104 186
MFI-A105 186
MFI-A106 186
MFI-A107 186
MFI-A108 186
MFI-A109 186
MFI-A11 173
MFI-A110 186
MFI-A111 186
MFI-A112 186
MFI-A113 186
MFI-A116 187
MFI-A117 187
MFI-A118 187
MFI-A119 187
MFI-A12 173
MFI-A120 187
MFI-A121 187
MFI-A122 187
MFI-A123 187
MFI-A124 187
MFI-A125 187
MFI-A13 173
MFI-A130 105
MFI-A131 107
MFI-A132 107
MFI-A133 105
MFI-A134 107
MFI-A135 105
MFI-A140 165
MFI-A141 165
MFI-A142 204
MFI-A143 204

MFI-A144	204
MFI-A145	204
MFI-A146	204
MFI-A147	204
MFI-A148	204
MFI-A149	204
MFI-A150	206
MFI-A151	206
MFI-A152	206
MFI-A153	206
MFI-A154	206
MFI-A155	206
MFI-A156	176
MFI-A157	195
MFI-A158	194
MFI-A159	194
MFI-A16	175
MFI-A160	194
MFI-A161	194
MFI-A162	194
MFI-A163	194
MFI-A164	194
MFI-A165	194
MFI-A165-H	194
MFI-A166	194
MFI-A166-H	194
MFI-A167	202
MFI-A168	202
MFI-A169	202
MFI-A17	175
MFI-A170	192
MFI-A171	192
MFI-A172	192
MFI-A175	173
MFI-A176	207
MFI-A18	175
MFI-A188	208
MFI-A189	208
MFI-A191	209
MFI-A192	209
MFI-A195	203
MFI-A196	203
MFI-A197	203
MFI-A198	203
MFI-A199	203
MFI-A200	203
MFI-A204	180
MFI-A205	182
MFI-A206	182
MFI-A207	182
MFI-A209	182
MFI-A210	186
MFI-A211	186
MFI-A214	201
MFI-A215	201
MFI-A216	201
MFI-A217	177
MFI-A218	177
MFI-A219	178
MFI-A220	178
MFI-A221	170
MFI-A222	171
MFI-A224	171
MFI-A225	172
MFI-A226	166
MFI-A227	166
MFI-A228	166
MFI-A229	169
MFI-A230	169
MFI-A231	169
MFI-A232	167
MFI-A233	167
MFI-A234	167
MFI-A235	210
MFI-A236	210
MFI-A237	210
MFI-A238	210
MFI-A239	211
MFI-A244	175
MFI-A250	184
MFI-A251	184
MFI-A252	184
MFI-A253	184
MFI-A254	179
MFI-A255	179
MFI-A256	205
MFI-A257	205
MFI-A258	205
MFI-A259	205
MFI-A260	205
MFI-A261	205
MFI-A262	205
MFI-A263	205
MFI-A264	205
MFI-A265	173
MFI-A266	186
MFI-A269	186
MFI-A270	180
MFI-A277	164
MFI-A29	173
MFI-A290	205
MFI-A291	205
MFI-A292	205
MFI-A29-H	173
MFI-A30	173
MFI-A31	173
MFI-A310	212
MFI-A314	214
MFI-A315	215
MFI-A316	215
MFI-A317	215
MFI-A318	216
MFI-A319	216
MFI-A32	173
MFI-A321	217
MFI-A322	217
MFI-A323	217
MFI-A324	217
MFI-A325	218
MFI-A326	218
MFI-A327	218
MFI-A33	173
MFI-A332	196
MFI-A34	185
MFI-A343	103
MFI-A344	104
MFI-A344-H	109
MFI-A348	183
MFI-A349	183
MFI-A35	185
MFI-A350	183
MFI-A353	168
MFI-A356	174
MFI-A35-H	185
MFI-A36	185
MFI-A360	219
MFI-A361	193
MFI-A362	193
MFI-A363	108
MFI-A364	193
MFI-A365	193
MFI-A36-H	185
MFI-A37	176
MFI-A372	162
MFI-A374-A	608
MFI-A374-B	608
MFI-A379	200
MFI-A38	176
MFI-A380	200
MFI-A381	200
MFI-A384	200
MFI-A39	176
MFI-A40	105
MFI-A41	106
MFI-A41-H	110
MFI-A42	107
MFI-A43	108
MFI-A43-H	111
MFI-A46	188
MFI-A47	188
MFI-A48	189
MFI-A49	189
MFI-A494	213
MFI-A495	213
MFI-A496	213
MFI-A497	218
MFI-A499	218
MFI-A50	189
MFI-A502	215
MFI-A503	215
MFI-A504	220
MFI-A506	206
MFI-A507	204
MFI-A508	188
MFI-A51	190
MFI-A52	190
MFI-A53	190
MFI-A54	191
MFI-A55	191
MFI-A56	191
MFI-A59	202
MFI-A60	202
MFI-A61	202
MFI-A62	202
MFI-A63	202
MFI-A64	202
MFI-A65	202
MFI-A66	199
MFI-A67	199
MFI-A68	197
MFI-A69	197
MFI-A70	198
MFI-A71	192
MFI-A72	192
MFI-A73	192
MFI-A74	192
MFI-A75	192
MFI-A76	192
MFI-A77	194
MFI-A78	194
MFI-A79	194
MFI-A93	195
MFI-A94	195
MFI-A95	195
MFM-A10-20	227
MFM-A10-30	227
MFM-A10-48	227
MFM-A105	227
MFM-A106	227
MFM-A107	232
MFM-A108	232
MFM-A109	232
MFM-A11	226
MFM-A110	226
MFM-A110-H	226
MFM-A111	226
MFM-A112	226
MFM-A115	227
MFM-A117	233
MFM-A118	233
MFM-A119	233
MFM-A120	227
MFM-A122	226
MFM-A36	225
MFM-A45	225
MFM-A55-38	227
MFM-A55-48	227
MFM-A56	225
MFM-A57	228
MFP-A01	222
MFP-A02	224
MFP-A04	222
MFP-A06	223
MFP-A07	223
MFP-A08	223
MFP-A09	224
MFU08...CL	461
MFU08...HL	461
MFU10...CL	461
MFU10...HL	461
MFU12...CL	461
MFU12...HL	461
MFU14...CL	461
MFU14...HL	461
MFU16...CL	461
MFU16...HL	461
MFU18...CL	461
MFU18...HL	461
MFU20...CL	461
MFU20...HL	461
MFU22...CL	461
MFU22...HL	461
MFU27...CL	461
MFU27...HL	461
MFU27-K	464
MFU33...CL	461

MFU33...HL 461
MFU33-K 464
MFU41...CL 461
MFU41...HL 461
MFU41-K 464
MFU47...CL 461
MFU47...HL 461
MFU51...CL 461
MFU51...HL 461
MFU51-K 464
MFU63...CL 461
MFU63-K 464
MG-0010 347
MG-0011 347
MG-0012 347
MG-0025 348
MG-0026 348
MG-0027 348
MG-0050 349
MG-0051 349
MG-0052 349
MG-0075 350
MG-0076 350
MG-0077 350
MG-0100 351
MG-0101 351
MG-0102 351
MG-0103 351
MGX2005 342
MGX2005-NC 345
MGX2005-NO 345
MGX2508 342
MGX2508-NC 345
MGX2508-NO 345
MGX3210 342
MGX3210-NC 345
MGX3210-NO 345
MGX3214 342
MGX3214-NC 345
MGX3214-NO 345
MGX4015 342
MGX4015-NC 345
MGX4015-NO 345
MGX5020 342
MGX5020-NC 345
MGX5020-NO 345
MGX6030 342
MGX6030-NC 345
MGX6030-NO 345
MPBM1640 297
MPBM2540 297
MPBM3240 297
MPCF2550 425
MPCF3270 425
MPCF-KIT-01 414
MPLF1630 419
MPLF2550 419
MPLF3270 419
MPLF-KIT-02 414
MPLM1630 410
MPLM2535 410
MPLM3240 410
MPLM32-KIT-02 414
MPPM1606 399
MPPM2508 399
MPPM3210 399
MPS24-13 607
MPS24-1-S-NPN 607
MPS24-1-S-PNP 607
MPS24-8.4 607
MPTM1606 454
MPTM2508 454
MPTM3210 454
MPXM1612 406
MPXM2516 406
MPXM3220 406
MRE16180 47
MRE25180 47
MRE32180 47

O

OF10L60 231
OF14G 470
OF14H 470
OF14L80 231
OF14V 470
OF20G 470
OF20H 470
OF20L100 231
OF20L250 231
OF20V 470
OF30G 470
OF30H 470
OF30L120 231
OF30L250 231
OF30V 470
OFA14-35 468
OFA20-35 468
OFA20-35S 468
OFA30-35 468
OFA30-35S 468
OFB40-A30A 494
OFB40-A50A 494
OFB40-B30B 494
OFB40-B50B 494
OFB40-C30C 494
OFB40-C50C 494
OFC14-10 498
OFC20-20 498
OFC30-30 498
OFC-A001 500
OFC-A002 500
OFC-A003 500
OFC-A004 500
OFC-A005 501
OFC-A006 501
OFC-A007 501
OFD20 466
OFL2010 492
OFL3015 492
OFL3030 492
OFN20-90 32
OFN20-90SD 32
OFN30-90 32
OFN30-90SD 32
OFP14A-25 480
OFP14P-25 480
OFP20A-20 480
OFP20N-20 480
OFP20P-20 480
OFP20S-20 480
OFP20V-20 480
OFP21A-20 480
OFP21N-20 480
OFP21P-20 480
OFP21S-20 480
OFP21V-20 480
OFR14-95 469
OFR14-95G 469
OFR14-95M 469
OFR20-95 469
OFR20-95-43 482
OFR20-95G 469
OFR20-95M 469
OFR20-95S 469
OFR20-95SG 469
OFR20-95SM 469
OFR30-95 469
OFR30-95-42 482
OFR30-95G 469
OFR30-95M 469
OFR30-95S 469
OFR30-95SG 469
OFR30-95SM 469
OFS14-90 468
OFS20-90 468
OFS20-90S 468
OFS30-90 468
OFS30-90S 468
OFX14-06 484
OFX20-10 484
OFX30-15 484
OFX50-20 484

P

PAQC 88
PB-0002 246
PB-0007-S3 246
PB-0008-S3 246
PB-0013 246
PB-0013-S2 246
PB-0014 246
PB-0015 246
PB-0017 246
PB-0140 246
PB-0150 246
PB-0160 246
PB-0170 246
PB-0180 246
PB-0180-S2 246
PB-0180-SV 246
PB-0181 246
PB-0182 246
PB-0187 246
PB-0187-S2 246
PB-0187-SV 246
PBQC 88
PE-1610 361
PE-16150 361
PE-16200 361
PE-1625 361
PE-1640 361
PE-1680 361
PE-25100 362
PE-2520 362
PE-25200 362
PE-2540 362
PE-2560 362
PE-4520 363
PE-45200 363
PE-4540 363
PE-4560 363
PE-4580 363
PLA2525 234
PMAQC 88
PMBQC 88
PN010-2 286
PN010-3 286
PN016-2 286
PN016-3 286
PN025-2 286
PN025-3 286
PN040-2 286
PN040-3 286
PQ1608 338
PQ2012 338
PQ2516 338
PQ3015 338
PQ3523 338
PQ4533 338
PQ5047 338
PQ6063 338
PRO-SN3M215-G 633
PRO-SN3M215HS-G NEW 635
PRO-SN3N215-G 633
PRO-SN3N215HS-G NEW 635
PRO-SN4M225-G 633
PRO-SN4M225HS-G NEW 635
PRO-SN4N225-G 633
PRO-SN4N225HS-G NEW 635
PRO-SNLA225-G NEW 645
PRO-SNLB215-G NEW 645
PRO-SNR3M215-G 639
PRO-SNR3M215HS-G 643
PRO-SNR3N215-G 639
PRO-SNR3N215HS-G 643
PRO-SNR4M225-G 639
PRO-SNR4M225HS-G 643
PRO-SNR4N225-G 639
PRO-SNR4N225HS-G NEW 643
PRO-SS3M215-G 631
PRO-SS3N215-G NEW 631
PRO-SS4M225-G 631
PRO-SS4N225-G NEW 631
PRO-SSLA225-G 647
PRO-SSLB215-G NEW 647
PRO-SSR3M215-G 637
PRO-SSR3M215HS-G 641
PRO-SSR3N215-G 637
PRO-SSR3N215HS-G 641
PRO-SSR4M225-G 637
PRO-SSR4M225HS-G 641
PRO-SSR4N225-G 637
PRO-SSR4N225HS-G 641
PRP1806 58
PS-0016-P 302
PS-0025-P 302
PS-0030 300

PS-0045-P 302
PS-0050 300
PT23A3 314
PT23N 314
PT23S 314
PT25 312
PT28 312
PT30N 314
PT30S 314

Q

QC150 79
QC150100 72
QC150-A 66
QC150-B 66
QC150-H 86
QC150-V 86
QC160 79
QC160-A 68
QC160-B 68
QC200 79
QC200120 72
QC200-A 70
QC200-B 70
QC200-H 87
QC200-V 87
QC50 79
QC50-A 63
QC50-B 63
QC50-H 84
QC50-V 84
QC75-A 98
QC75-B 98
QC90 79
QC9065 72
QC90-A 64
QC90-B 65
QC90-H 85
QC90-V 85
QCA90-A 77
QCA90-B 77
QCP150-B 76
QCP160-B 76
QCP200-B 76
QCP50-B 76
QCP90-B 76
QCX150 79
QCX150-A 67
QCX160 79
QCX160-A 69
QCX200 79
QCX200-A 71
QCX90 79
QCX90-A 65
QCY150 79
QCY150-A 67
QCY150-B 66
QCY200 79
QCY200-A 71
QCY200-B 70
QCY50 79
QCY50-A 63
QCY90 79
QCY90-A 64

R

R20 38
R21 40
R32 38
R33 40
R60K-G 559
R63 38
R64 40
R85K-G 559
RAQC 95
RAQCN 95
RBQC 95
RBQC-K 95
RBT30 27
RBT40 28
RBT50 29
RBT63 30
RBT80 31
RG.0205000012WNB 594
RG.020500001ATNB 594
RG.0209200001 594
RG.0209200002 594
RG.0209200004 594
RG.0209200006 594
RG.0209200007 594
RG.0301500001 594
RG.0301500002 594
RG.0301500003 594
RG.0301500004 594
RG.086100031X1RO 594
RG.086100031X4RO 594
RG.086100031X7RO 594
RG.50-020-00N01 588
RG.5002000N02 589
RG.5002000N03 589
RG.5002000N04 589
RG.5002000N05 589
RG.5002000N06 589
RG.5002000N08 589
RG.5002000N09 589
RG.5002000N20 589
RG.5002000N31 589
RG.5504000002 590
RG.5504000004 590
RG.5504000005 590
RG.5504000006 590
RG.5504000009 590
RG.5504000010 590
RG.5504000012 590
RG.5511600001 589
RG.5511600002 589
RG.5511600004 589
RG.5511600011 589
RG.5511600013 589
RG.5511600014 589
RG.5511600017 589
RG.5511600018 589
RG.5511600019 589
RG.5511600021 589
RG.5511600023 589
RG.5521600002 590
RG.5521600011 590
RG.5521600013 590
RG.5521600014 590
RG.5523000002 591
RG.5523000004 591
RG.5523000005 591
RG.5531000002 591
RG.5531000004 591
RG.5531000005 591
RG.5531000008 591
RG.5533000001 592
RG.5533000002 592
RG.5533000003 592
RG.5535000001 592
RG.5535000003 592
RG.5590000002 593
RG.5590000003 593
RG.5590000007 593
RG.5590000008 593
RG.5590000010 593
RG.5594000001 593
RG.5594000004 593
RG.5597000002 592
RG.5597000003 592
RG.5602000003 588
RG.5602000005 588
RG.5602000006 588
RG.5602000008 588
RG.5602000009 588
RG.5602000011 588
RG.5611500005 588
RG.5611500006 588
RG.5611500008 588
RG.5611500009 588
RG.BJSU6 593
RG.RO-1376-AS1 588
RG.RO-1376-AS2 588
RMAQC05 119
RMBQC05 119
RQCBOX 604
RT-10 34
RT-12 34
RT-20 34
RT-25 34
RT-35 34
RT-45 34
RT-63 34

S

S.06 691
SA1C225-G 651
SA2C203-G 651
SA3D203-G 651
SA3M203-G 651
SA3N203-G 651
SA4D225-G 651
SA4M225-G 651
SA4N225-G 651
SB15 677
SB8F 674
SBMM 679
SBMM-E 679
SBMS 680
SBMS-E 680
SGP-16S 316
SGP-16S-NC 317
SGP-16S-NO 318
SGP-20S 316
SGP-20S-NC 317
SGP-20S-NO 318
SGP-25S 316
SGP-25S-NC 317
SGP-25S-NO 318
SGP-32S 316
SGP-32S-NC 317
SGP-32S-NO 318
SGP-40S 316
SGP-40S-NC 317
SGP-40S-NO 318
SGP-50S 316
SGP-50S-NC 317
SGP-50S-NO 318
SI4M225-G 661
SI4N225-G 661
SIS4M225-G 661
SIS4N225-G 661
SL.002.000 691
SL.002.001 691
SL.003.000 691
SL.004.000 691
SL.005.000 691
SL1C225-G 649
SL2C203-G 649
SL3D203-G 649
SL3M203-G 649
SL3N203-G 649
SL4D225-G 649
SL4M225-G 649
SL4N225-G 649
SM1C525-G 655
SM1F425-G 659
SM1G425-G 659
SM1H425-G 659
SM2C5-G 655
SM2F4-G 659
SM2G4-G 659
SM2H4-G 659
SM3D2-G 655
SM3L2-G 659
SM3M2-G 655
SM3N2-G 655
SM3P2-G 659
SM3S4-G 659
SM4D225-G 655
SM4L225-G 659
SM4M225-G 655
SM4N225-G 655
SM4P225-G 659
SM4S425-G 659
SM5C5-G 655
SM6D2-G 655
SM6N2-G 655
SM7D225-G 657
SM7N225-G 657
SM8D2-G 657
SM8N2-G 657
SM9D2-G 657
SM9N2-G 657
SN3M203-G 623
SN3N203-G 623
SN3V203-G 625
SN3V203HS-G 625
SN4M225-G 623

SN4N225-G 623
SN4V225-G 625
SN4V225HS-G 625
SO9M2-G 663
SO9N2-G 663
SOQ8M2-G 665
SOQ8N2-G 665
SP-20 380
SP-25 380
SP-32 380
SP-40 380
SQC100-A 102
SQC160-A 102
SQC250-A 102
SR1C5-G 669
SS1C225-G 619
SS2C203-G 619
SS3D203-G 619
SS3M203-G 619
SS3N203-G 619
SS3V203-G 621
SS3V203HS-G 621
SS4D225-G 619
SS4M225-G 619
SS4N225-G 619
SS4V225-G 621
SS4V225HS-G 621
SSQ3M203-G 629
SSQ3N203-G 629
SSQ4M225-G 629
SSQ4N225-G 629
SSY3M203-G 627
SSY3N203-G 627
SSY4M225-G 627
SSY4N225-G 627
ST-10 695
ST-49 695
ST-50 695
ST-51 695
ST-52 695
ST-60 695
ST-80 695
ST-81 695
ST-82 695
ST-83 695
SU9M2-G 667
SU9N2-G 667
SW-08 692
SW-10 692
SW-12 692
SW-16 692
SW-20 692
SW-25 692
SWP-14 692
SWP-20 692
SWP-30 692
SWP-50 692
SX2510 358
SX2520 358
SX4020 358
SX4040 358
SX5030 358
SX5060 358
SX6340 358
SX6380 358
SXT2505 452
SXT4008 452
SXT5012 452
SXT6315 452
SZ08 334
SZ12 334
SZ16 334
SZ20 334
SZ25 334
SZ32 334
SZ40 334

T

T30 432
T40 432
T63 432
TFA10-25 292
TFA10SP05 292
TFA14-25 292
TFA14SP05 292
TFA20-25 292
TFA20SP10 292
TGP20 430
TGP-NO 430
TH12508 448
TH12508-NC 448
TH12508-NO 448
TH12516 448
TH12516-NC 448
TH12516-NO 448
TH125K 435
TH2725 436
TH2725-NC 436
TH2725-NO 436
TH27K 435
TH3302 438
TH3302-NC 438
TH3302-NO 438
TH3304 438
TH3304-NC 438
TH3304-NO 438
TH33K 435
TH4503 440
TH4503-NC 440
TH4503-NO 440
TH4506 440
TH4506-NC 440
TH4506-NO 440
TH45K 435
TH5404 442
TH5404-NC 442
TH5404-NO 442
TH5408 442
TH5408-NC 442
TH5408-NO 442
TH54K 435
TH7605 444
TH7605-NC 444
TH7605-NO 444
TH7610 444
TH7610-NC 444
TH7610-NO 444
TH76K 435
TH9606 446
TH9606-NC 446
TH9606-NO 446
TH9613 446
TH9613-NC 446
TH9613-NO 446
TH96K 435
TUBO10x7.5B 597
TUBO10x7.5BL 597
TUBO12x9B 597
TUBO12x9BL 597
TUBO4X2,5B 597
TUBO4X2,5BL 597
TUBO4X2,5GR 597
TUBO4X2,5RE 597
TUBO4X2,5SI 597
TUBO4X2,5YE 597
TUBO6X4B 597
TUBO6X4BL 597
TUBO6X4GR 597
TUBO6X4RE 597
TUBO6X4SI 597
TUBO6X4YE 597
TUBO8X6B 597
TUBO8X6BL 597
TUBO8X6SI 597
TUBO8X6YE 597

V

VAC05F05F 550
VAC14F14F 550
VAC18F18F 550
VAM14M14G 549
VAM18M14G 549
VAM18M18G 549
VAM5M5G 549
VAQ1820 528
VAQ1840 528
VAQN1820 528
VAQN1840 528
VITE-293 596
VITE-455 596
VITE-456 596
VMK14 552
VMK20 552
VMK30 552
VSC1620 537
VSC2230 537
VSC2530 537
VSD1420D10 547
VSD2025D10 547
VSD2025D20 547
VSE1010F05 540
VSE1025F05 540
VSE1420F18 540
VSE1435F18 540
VSE2025F14 540
VSE2025F18 540
VSE2050F14 540
VSE2050F18 540
VSET1010F05 541
VSET1025F05 541
VSET1620F18 541
VSET1635F18 541
VSET2025F14 541
VSET2025F18 541
VSET2050F14 541
VSET2050F18 541
VSL1620 536
VSL2030 536
VSL2430 536
VSNG1010 544
VSNG1025 544
VSNG1420 544
VSNG1435 544
VSNG2025F14 544
VSNG2025F18 544
VSNG2050F14 544
VSNG2050F18 544
VSR1010 538
VSR1025 538
VSR1420 538
VSR1435 538
VSR2025F14 538
VSR2025F18 538
VSR2050F14 538
VSR2050F18 538
VSRT1010 539
VSRT1025 539
VSRT1210 539
VSRT1225 539
VSRT1420 539
VSRT1420M1 539
VSRT1435 539
VSRT1435M1 539
VSRT1620 539
VSRT1635 539
VSRT2025F14 539
VSRT2025F18 539
VSRT2050F14 539
VSRT2050F18 539
VSRT2540 539
VSRT2580 539
VSRTG1225 543
VSRTG1635 543
VSRTG2050 543
VSRTG2580 543
VSS2025 546
VSS2050 546
VSX1425 551
VVX1010F 542
VVX1025F 542
VVX1420F 542
VVX1435F 542
VVX2025F 542
VVX2050F 542

X

XA-20 396
XA-26 396
XF-09 693
XF-11 693
XF-12 693
XF-13 693
XF-14 693
XF-16 693
XF-17 693
XF-18 693
XF-20 693
XF-21 693
XF-22 693

XF-24	693
XF-26	693
XF-27	693
XF-29	693
XF-30	693
XF-33	693
XF-36	693
XF-41	693
XF-45	693
XF-52	693
XF-65	693
XP-20	394
XP-26	394
XR-20	397
XR-26	397
XT-20	395
XT-26	395
Z	
Z-0825	515
Z-0825-D	515
Z-0850	515
Z-0850-D	515
Z-16100	516
Z-16100-D	516
Z-16150	516
Z-16150-D	516
Z-1650	516
Z-1650-D	516
Z-20100-D	517
Z-20150-D	517
Z-20200-D	517
Z-2050-D	517
ZE0610P	511
ZE0620P	511
ZE0630P	511
ZE1010P	512
ZE1020P	512
ZE1030P	512
ZE1610P	513
ZE1620P	513
ZE1630P	513
ZG-16-NC	526
ZG-16-NO	526
ZG-16S-NC	526
ZG-16S-NO	526
ZG-25-NC	526
ZG-25-NO	526
ZG-25S-NC	526
ZG-25S-NO	526
ZJ-3235	524
ZL1030	504
ZL16100	504
ZL1650	504
ZL25100	504
ZL2550	504
ZL-K20	507
ZL-K30	507

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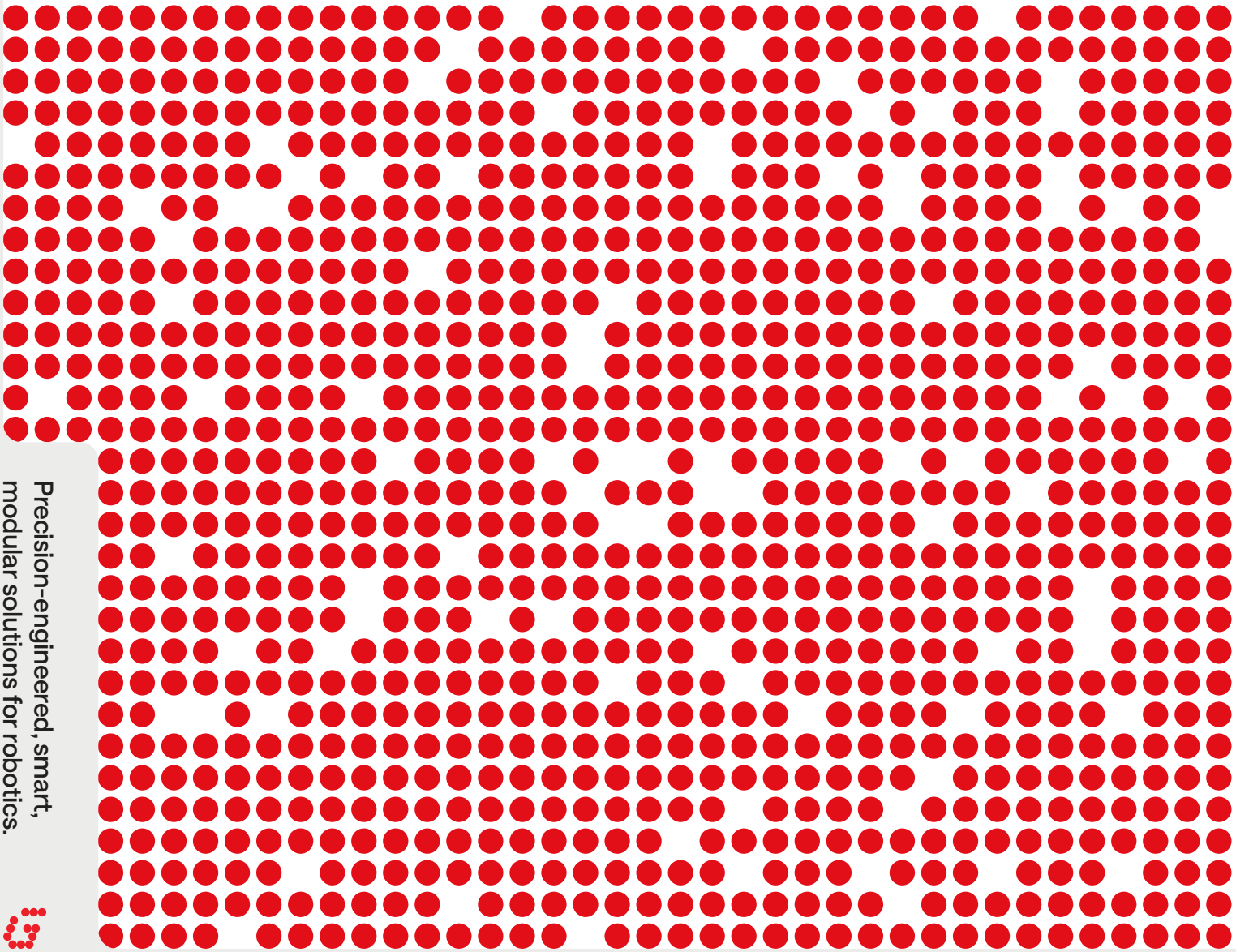
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