

## Series AS3

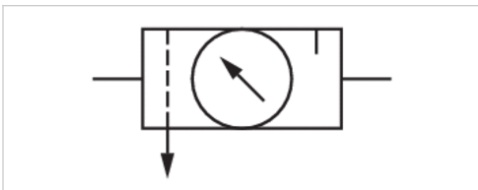


AVENTICS™ Series AS3



# Air preparation unit, 2-part, Series AS3-ACD

- G 3/8 G 1/2
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	2-part, Can be assembled into blocks
Parts	Filter pressure regulator, Lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	3500 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Lubricator reservoir volume	80 cm <sup>3</sup>
Type of filling	Semi-automatic oil filling during operation Manual oil filling
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Working pressure min./max.
			Qn	
R412007298	G 3/8	5 µm	3500 l/min	1.5 ... 16 bar
R412007299	G 3/8	5 µm	3500 l/min	1.5 ... 16 bar
R412007307	G 1/2	5 µm	3500 l/min	1.5 ... 16 bar
R412007308	G 1/2	5 µm	3500 l/min	1.5 ... 16 bar
R412007309	G 1/2	5 µm	3500 l/min	1.5 ... 16 bar
R412007313	G 1/2	5 µm	3500 l/min	1.5 ... 16 bar
R412007314	G 1/2	5 µm	3500 l/min	1.6 ... 16 bar
R412007315	G 1/2	5 µm	3500 l/min	1.5 ... 16 bar

Part No.	Condensate drain	Pressure gauge	Reservoir
R412007298	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412007299	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412007307	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412007308	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412007309	fully automatic, closed without pressure	with pressure gauge	Polycarbonate

Part No.	Condensate drain	Pressure gauge	Reservoir
R412007313	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
R412007314	fully automatic, open without pressure	with pressure gauge	Die cast zinc
R412007315	fully automatic, closed without pressure	with pressure gauge	Die cast zinc

Part No.	Weight
R412007298	1.02 kg
R412007299	1.07 kg
R412007307	1.02 kg
R412007308	1.07 kg
R412007309	1.07 kg
R412007313	1.83 kg
R412007314	1.87 kg
R412007315	1.75 kg

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

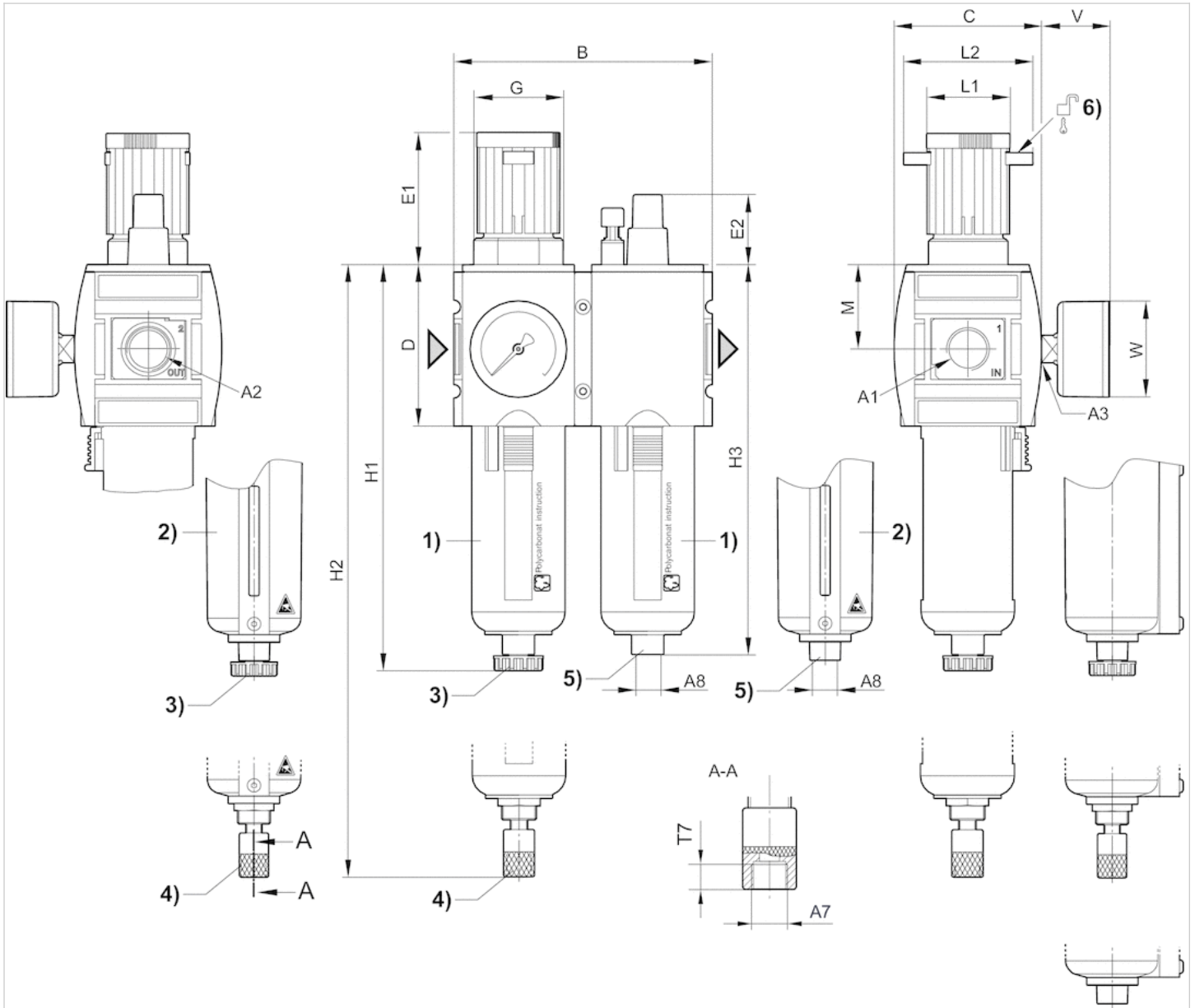
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

# Dimensions

## Dimensions



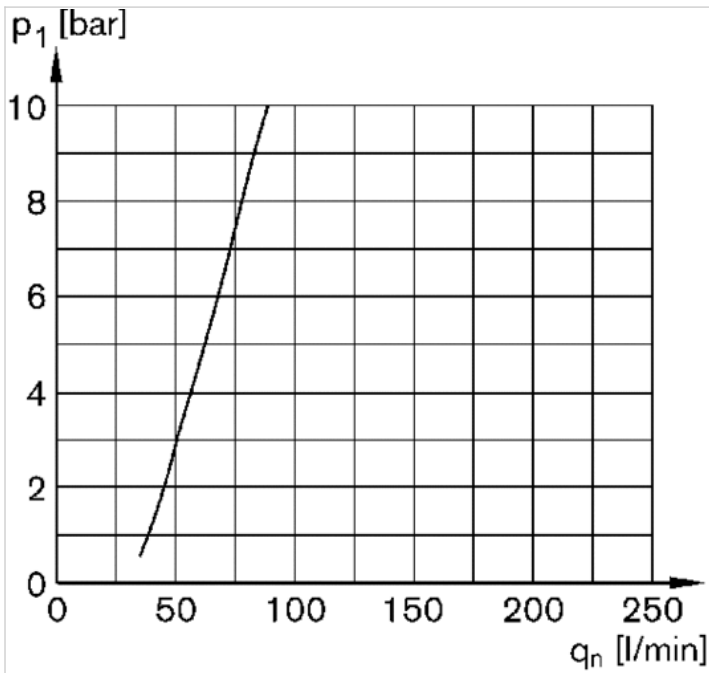
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with level indicator
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain
- 5) Port for semi-automatic oil filling 6) Mounting option for padlocks, max. shackle Ø 8

## Dimensions in mm

A1	A2	A3	A7	A8	B	C	D	E1	E2	G	H1	H2	H3	M	L1	L2	T7	V	W
G 3/8	G 3/8	G 1/4	G 1/8	G 1/8	126	74	80	63.5	27.5	M42x1,5	189.5	206	183	42.5	41	60	8.5	33	50
G 1/2	G 1/2	G 1/4	G 1/8	G 1/8	126	74	80	63.5	27.5	M42x1,5	189.5	206	183	42.5	41	60	8.5	33	50

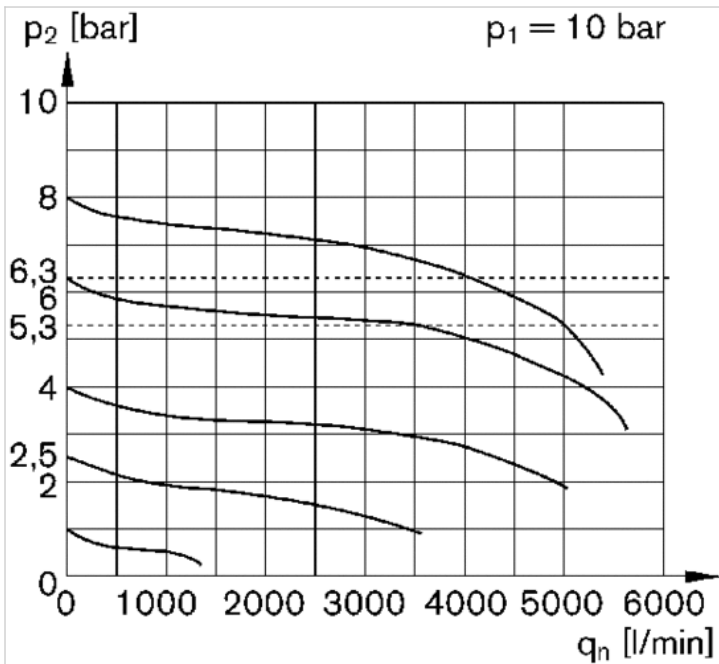
## Diagrams

### Lubricator activation margin



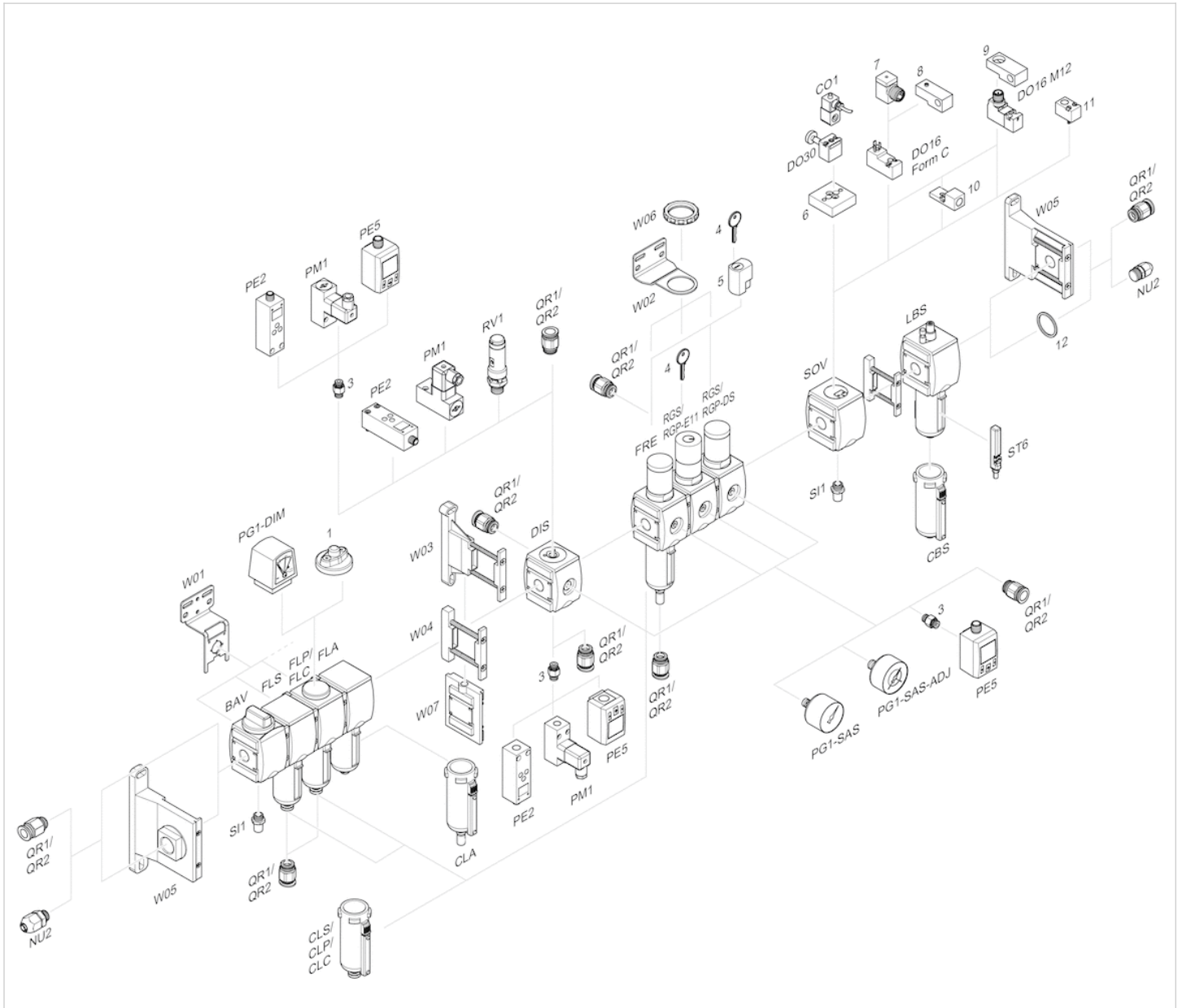
p1 = working pressure  
qn = nominal flow

### Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
p2 = Secondary pressure  
qn = Nominal flow

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Air preparation unit, 2-part, Series AS3-ACC

- G 3/8 G 1/2
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	2-part, Can be assembled into blocks
Parts	Shut-off valve, Filter pressure regulator, Pressure gauge, Silencer, Mountings
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Condensate drain	Pressure gauge
R412027671	G 3/8	5 µm	semi-automatic, open without pressure	with pressure gauge
R412027672	G 1/2	5 µm	semi-automatic, open without pressure	with pressure gauge
R412027674	G 1/2	5 µm	fully automatic, open without pressure	with pressure gauge

Part No.	Weight
R412027671	2.16 kg
R412027672	2.11 kg
R412027674	2.15 kg

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

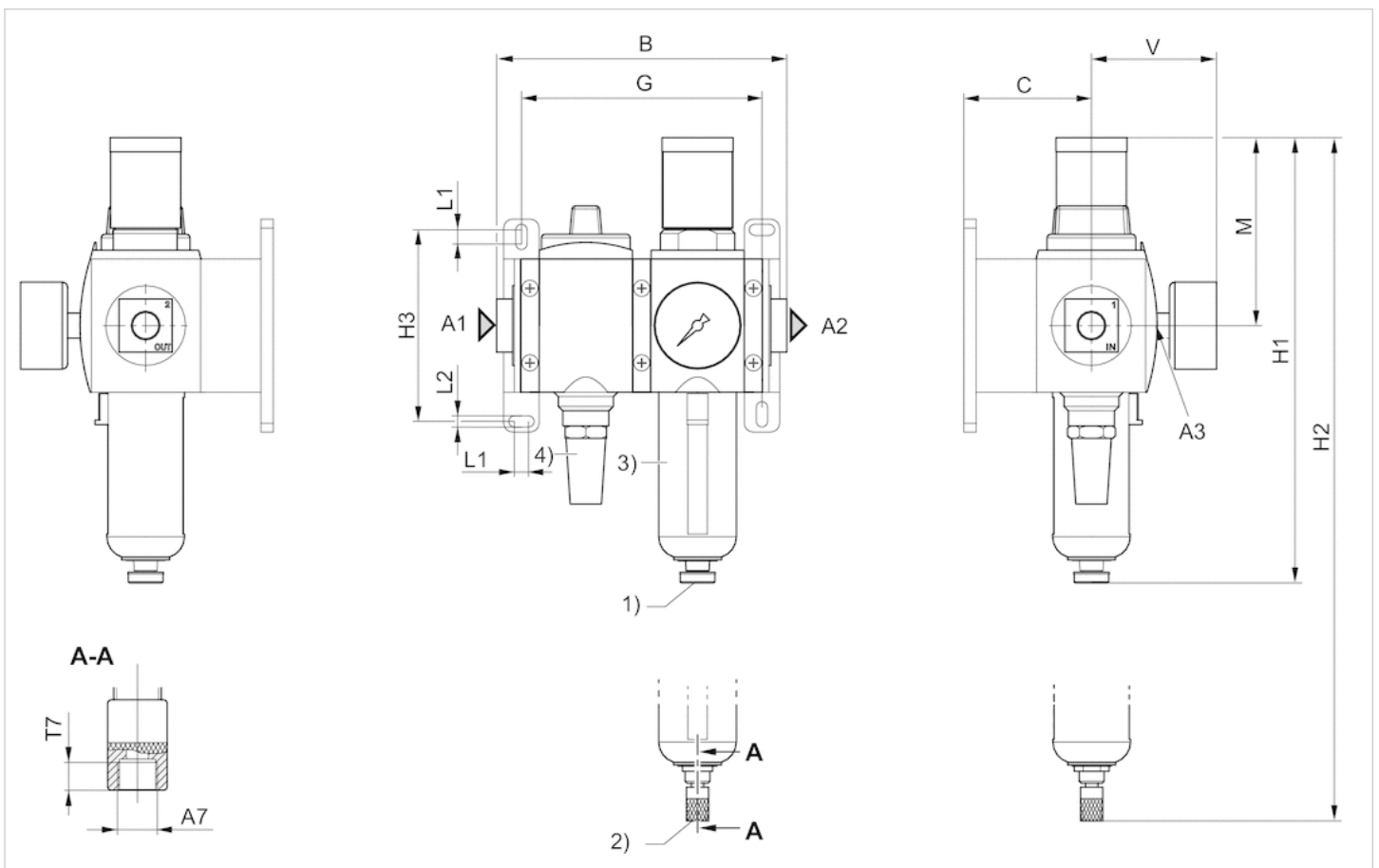
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



- A1 = input
- A2 = output
- A3 = pressure gauge connection
- 1) Semi-automatic condensate drain
- 2) Fully automatic condensate drain
- 3) Plastic reservoir and protective guard with window
- 4) Silencer

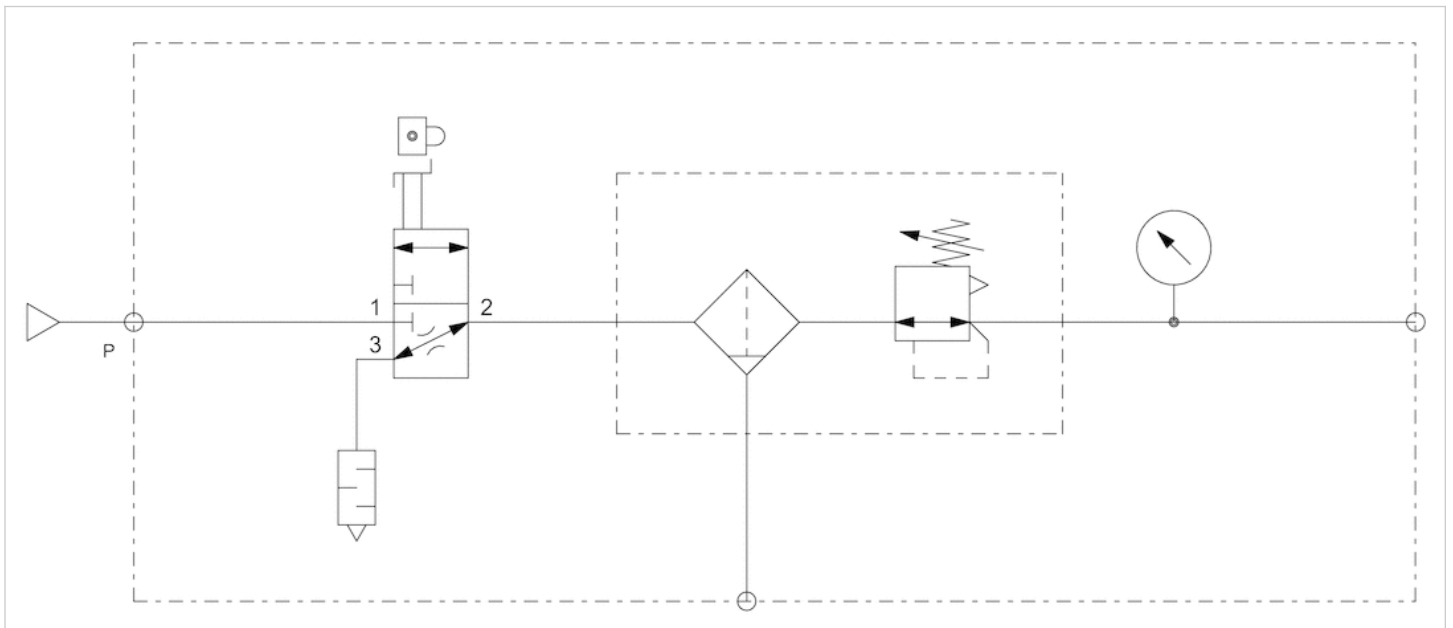


Dimensions in mm

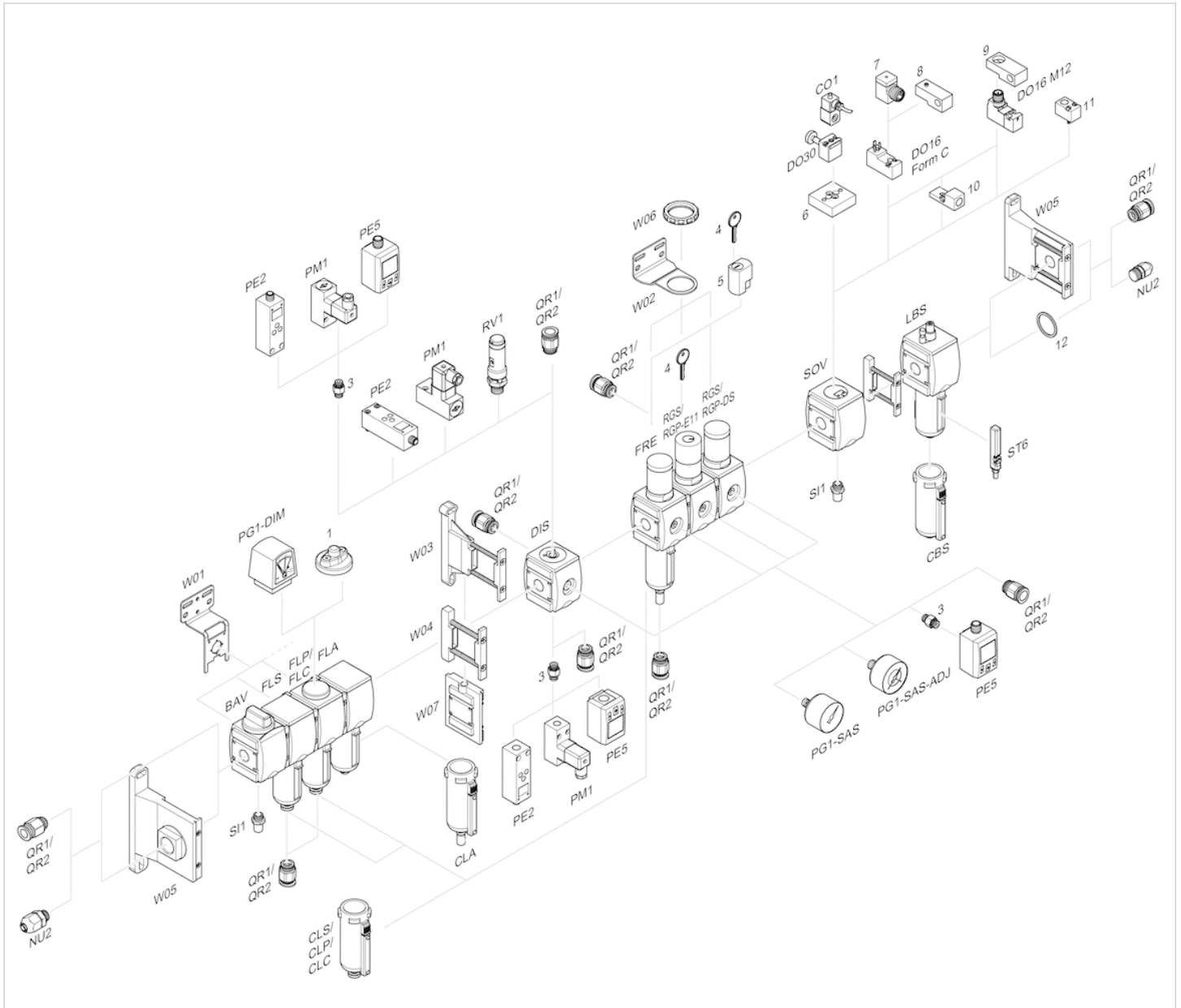
Part No.	A1	A2	A3	A7	B	C	G	H1	H2	H3	L1	L2	M	T7	V
R412027671	G 3/8	G 3/8	G 3/8	-	163,6	72	135,6	251	-	108	8	6,4	106	-	70,5
R412027672	G 1/2	G 1/2	G 1/2	-	163,6	72	135,6	251	-	108	8	6,4	106	-	70,5
R412027674	G 1/2	G 1/2	G 1/2	G 1/8	163,6	72	135,6	-	269,5	108	8	6,4	106	8,5	70,5

Circuit diagram

Block diagram



# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Air preparation unit, 2-part, Series AS3-ACC

- G 1/2
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	2-part, Can be assembled into blocks
Parts	Shut-off valve, Filter pressure regulator, Pressure gauge, Silencer, Mountings
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Weight	1.45 kg

## Technical data

Part No.	Port	filter porosity	Condensate drain	Pressure gauge
R412027673	G 1/2	5 µm	semi-automatic, open without pressure	with pressure gauge

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

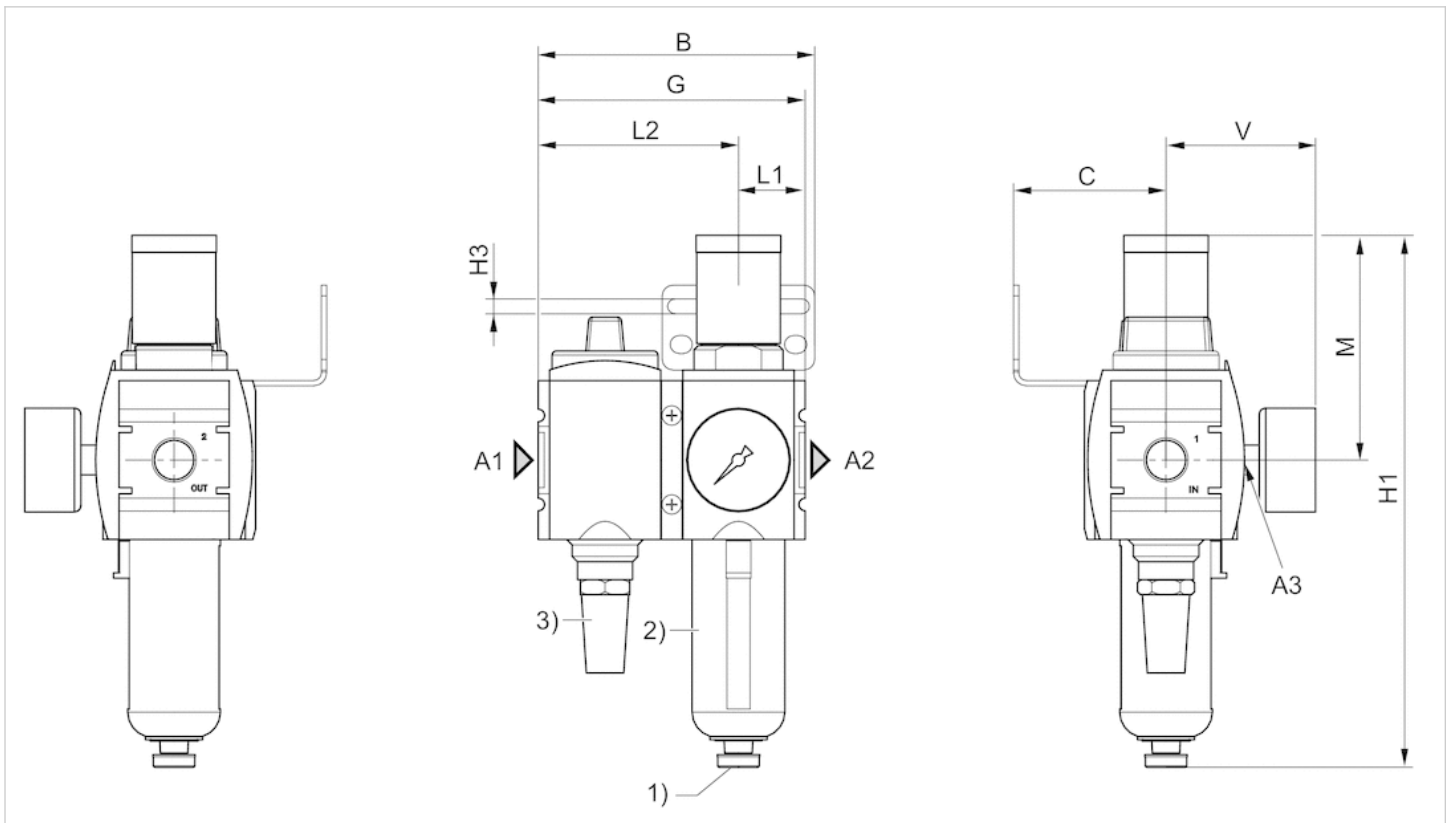
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



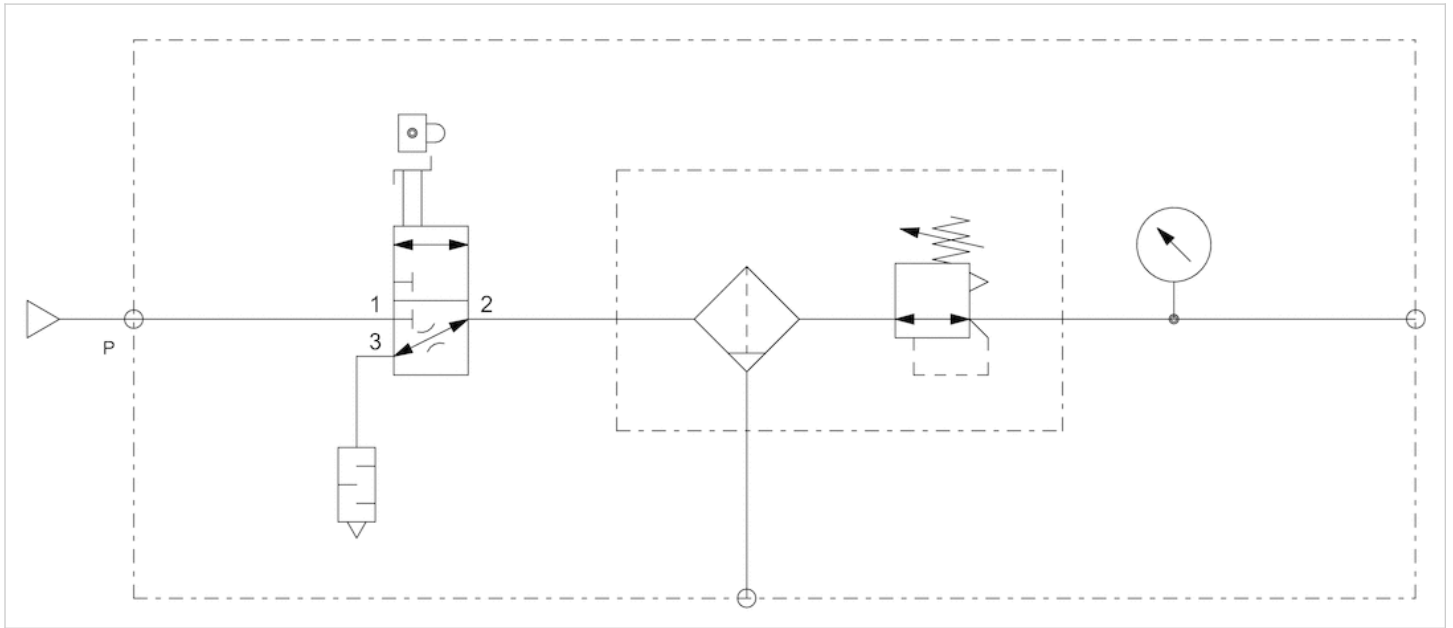
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- 1) Semi-automatic condensate drain
- 2) Plastic reservoir and protective guard with window
- 3) Silencer

### Dimensions in mm

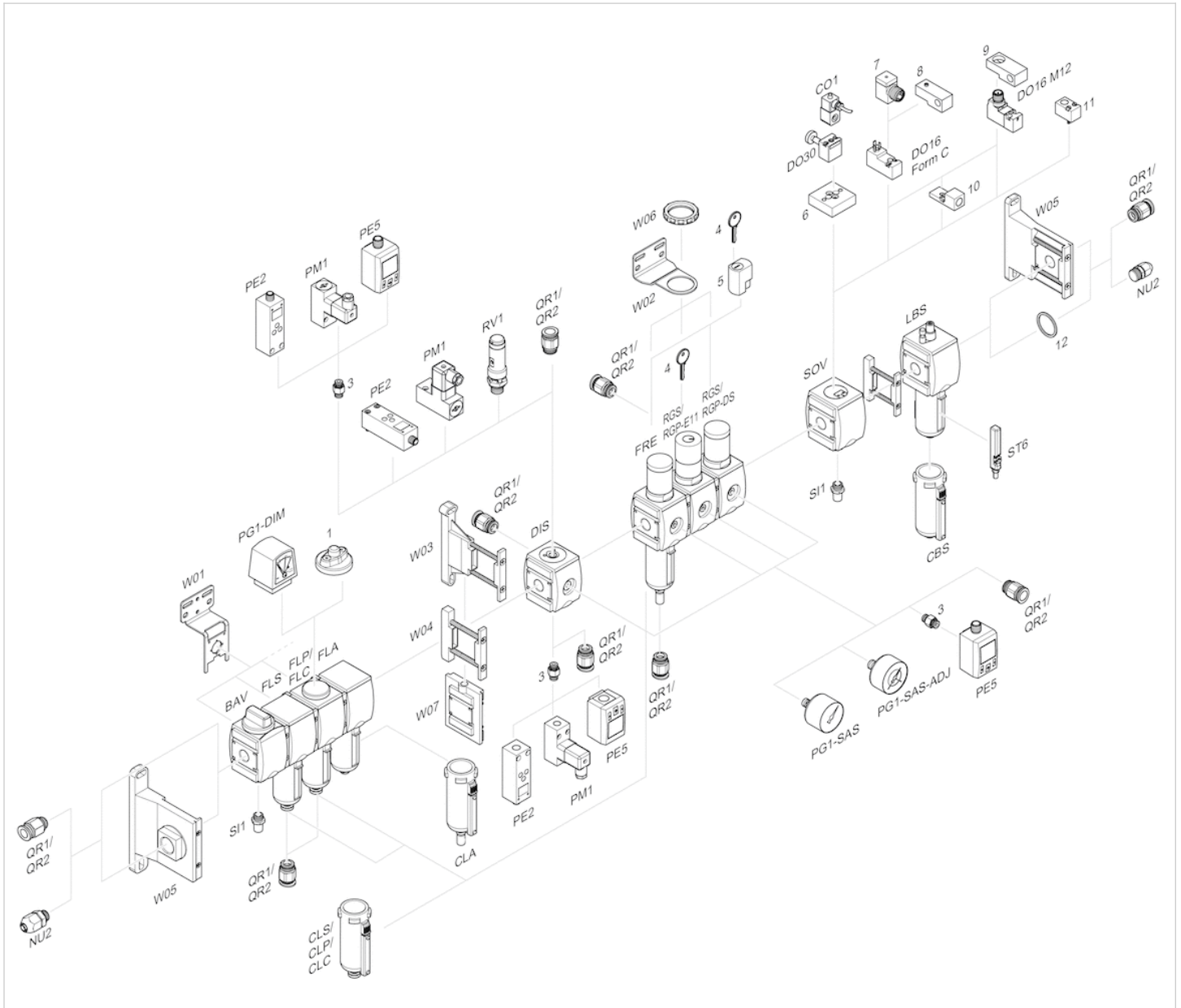
Part No.	A1	A2	A3	B	C	G	H1	H3	L1	L2	M	V
R412027673	G 1/2	G 1/2	G 1/2	130,5	72	126	251	7	31,5	94,5	106	70,5

Circuit diagram

Block diagram



## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

































# Pressure regulator, Series AS3-RGS





- G 3/8 G 1/2
- Qn = 1600-5200 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- for padlocks
- suitable for ATEX



Parts	Pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Lock type	for padlocks
Pressure supply	single
Activation	Mechanical
Weight	See table below

## Technical data

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412007101			G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007103			G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007105			G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007107			G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007109			G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007111			G 3/8	3500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412007100		—	G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007102		—	G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007104		—	G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007106		—	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007108		—	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007110		—	G 3/8	3500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412007113			G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007115			G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007117			G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007119			G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007121			G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007123			G 1/2	4000 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412007112		—	G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007114		—	G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412007116		—	G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007118		—	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007120		—	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007122		—	G 1/2	4000 l/min	0.5 ... 16 bar	0.5 ... 16 bar

Part No.	Pressure gauge	Weight	
R412007101	with pressure gauge	0.6 kg	1)
R412007103	with pressure gauge	0.6 kg	1)
R412007105	with pressure gauge	0.6 kg	1)
R412007107	with pressure gauge	0.6 kg	1)
R412007109	with pressure gauge	0.6 kg	1)
R412007111	with pressure gauge	0.6 kg	1)
R412007100	-	0.528 kg	2)
R412007102	-	0.528 kg	2)
R412007104	-	0.528 kg	2)
R412007106	-	0.528 kg	2)
R412007108	-	0.528 kg	2)
R412007110	-	0.528 kg	2)
R412007113	with pressure gauge	0.6 kg	1)
R412007115	with pressure gauge	0.6 kg	1)
R412007117	with pressure gauge	0.6 kg	1)
R412007119	with pressure gauge	0.6 kg	1)
R412007121	with pressure gauge	0.6 kg	1)
R412007123	with pressure gauge	0.6 kg	1)
R412007112	-	0.528 kg	2)
R412007114	-	0.528 kg	2)
R412007116	-	0.528 kg	2)
R412007118	-	0.528 kg	2)
R412007120	-	0.528 kg	2)
R412007122	-	0.528 kg	2)

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

- 1) Pressure gauge enclosed separately, Suitable for use in Ex zones 1, 2, 21, 22.
- 2) Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Suitable for use in Ex zones 1, 2, 21, 22.

Relieving exhaust ( $\leq 0.3$  bar over set pressure).

With rear exhaust ( $> 3$  bar ).

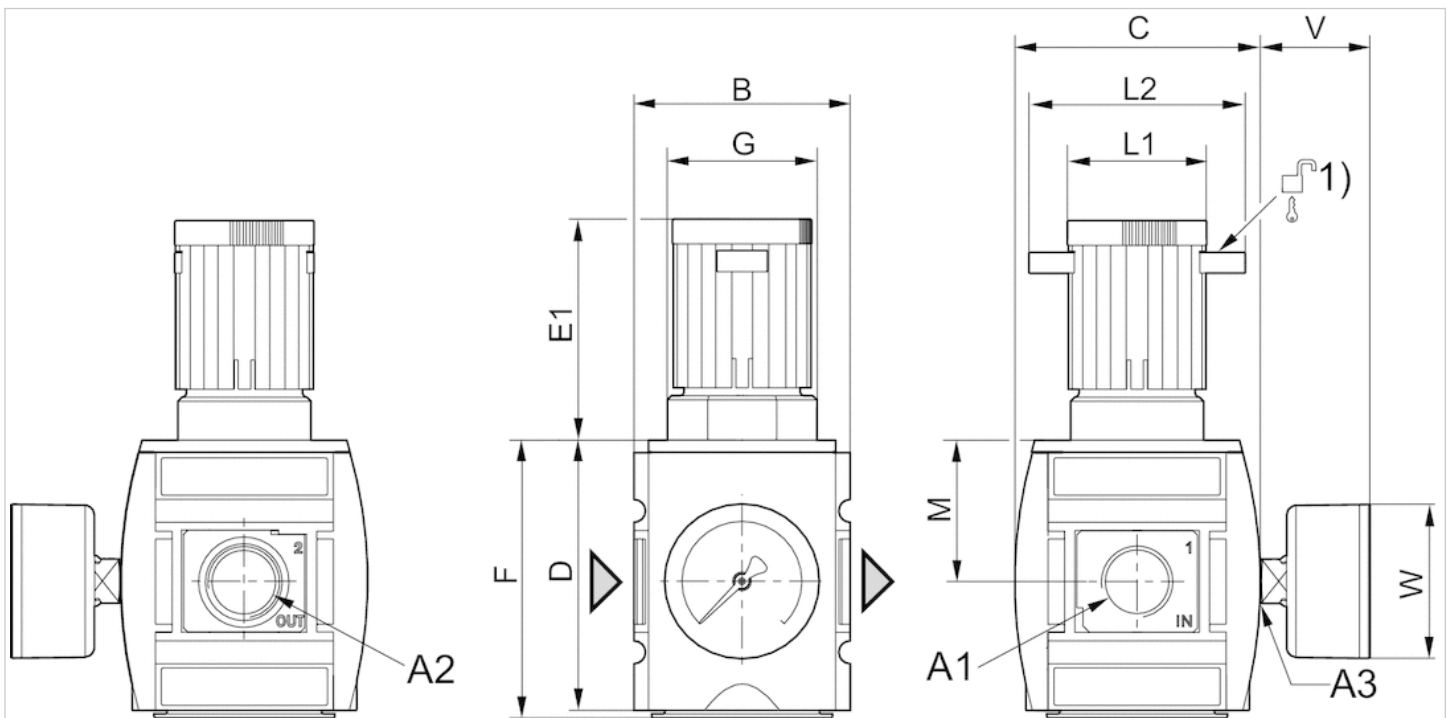


## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

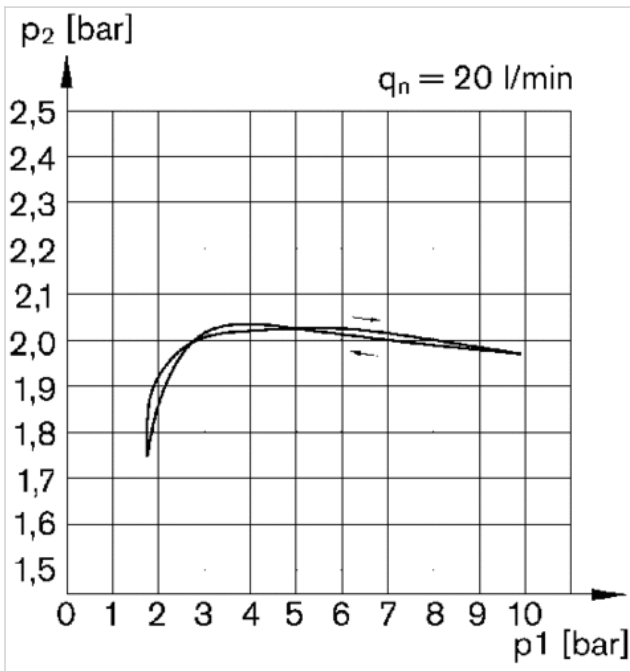
1) Mounting option for padlocks, max. shackle Ø 8

### Dimensions in mm

A1	A2	A3	B	C	D	E1	F	G	L1	L2	M	V	W
G 3/8	G 3/8	G 1/4	63	74	80	63.5	82	M42x1,5	41	60	42.5	33	50
G 1/2	G 1/2	G 1/4	63	74	80	63.5	82	M42x1,5	41	60	42.5	33	50

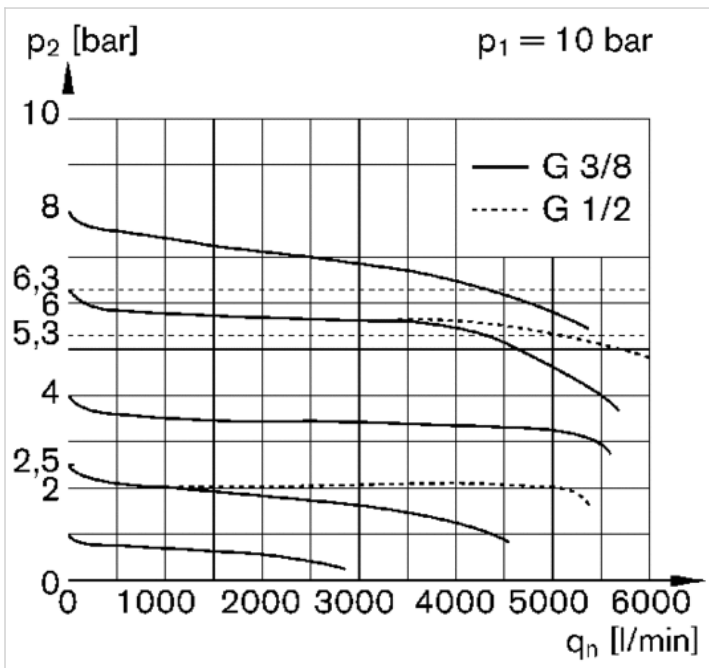
## Diagrams

### Pressure characteristics curve, Standard version



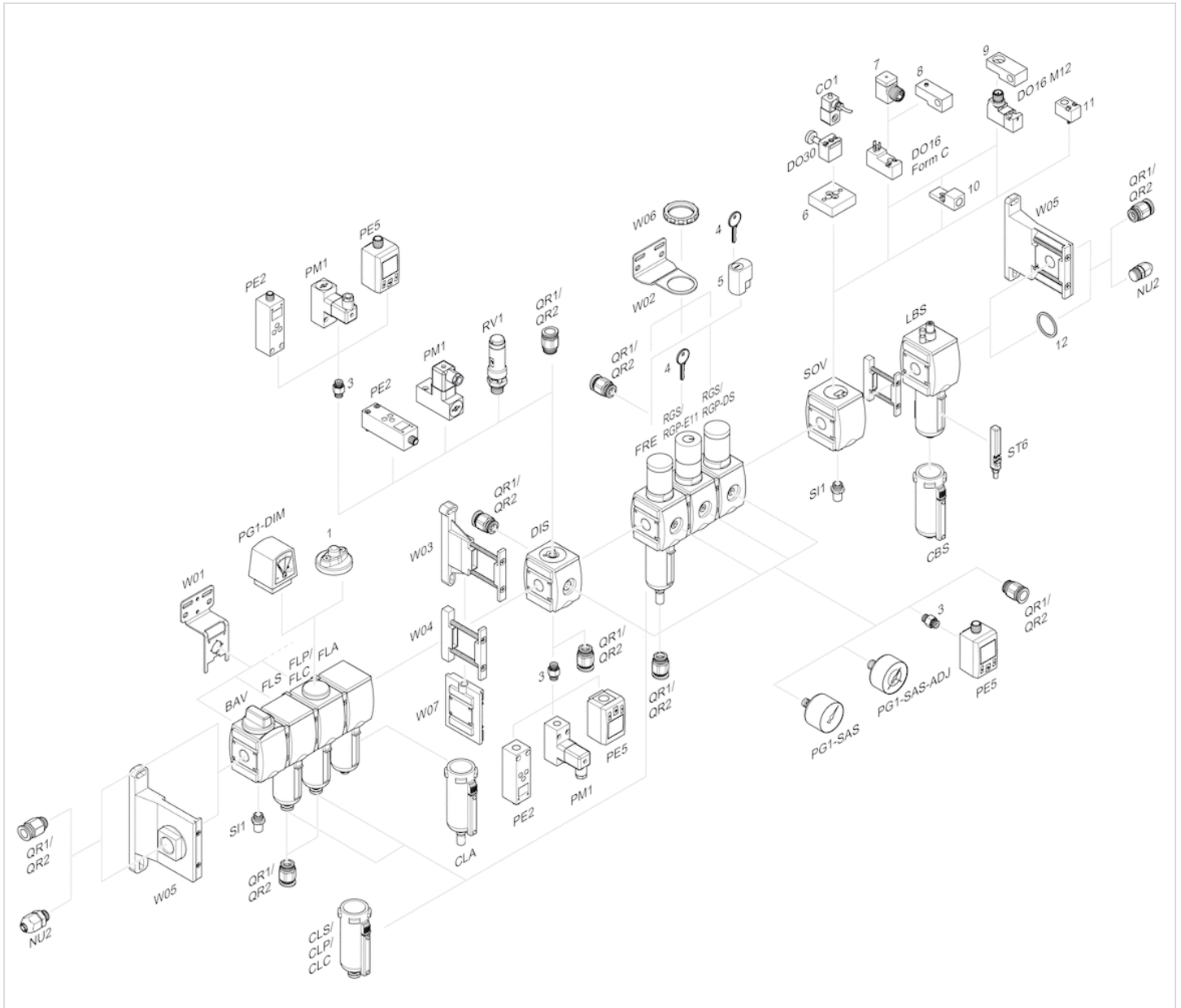
$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

### Flow rate characteristic ( $p_2$ : 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

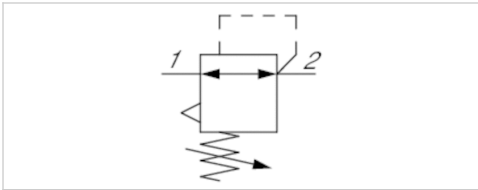
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Pressure regulator, Series AS3-RGS-...-E11

- G 1/2
- Qn = 5200 l/min
- Standard pressure regulator
- Activation Mechanical
- lockable
- with E11 locking



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Lock type	with E11 locking
Pressure supply	single
Activation	Mechanical
Weight	0.528 kg

## Technical data

Part No.	Port	Flow
		Qn
R412007099	G 1/2	5200 l/min

Order pressure gauge separately, Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

## Technical information

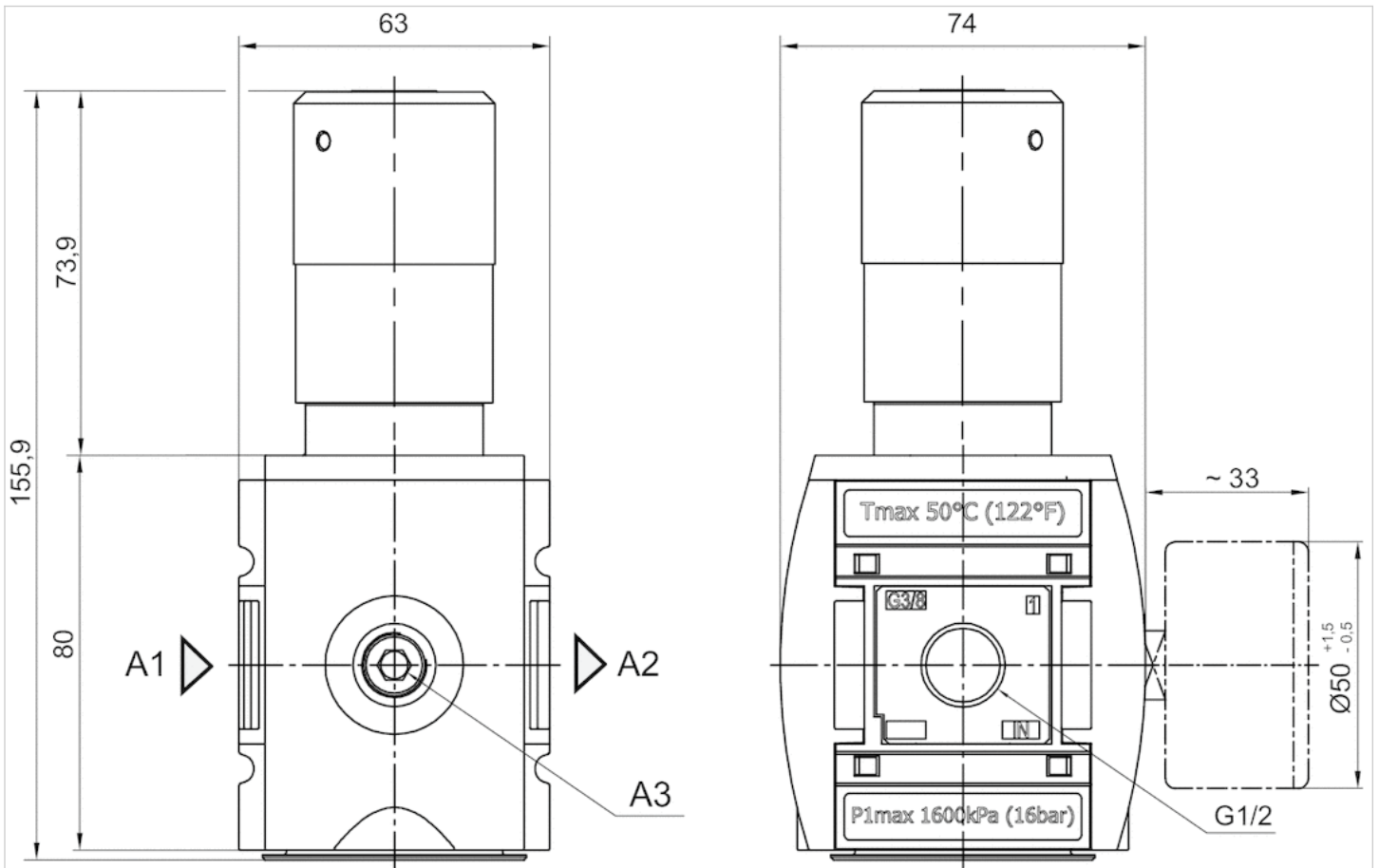
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).  
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.  
 The E11 locking is delivered without a key (see accessories for keys).  
 Relieving exhaust (≤ 0.3 bar over set pressure).  
 With rear exhaust (> 3 bar ).

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

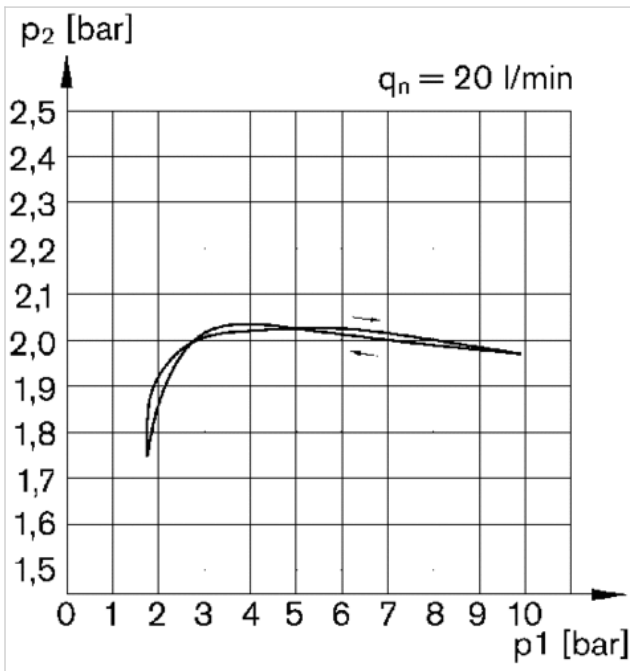
### Dimensions



- A1 = input
- A2 = output
- A3 = pressure gauge connection

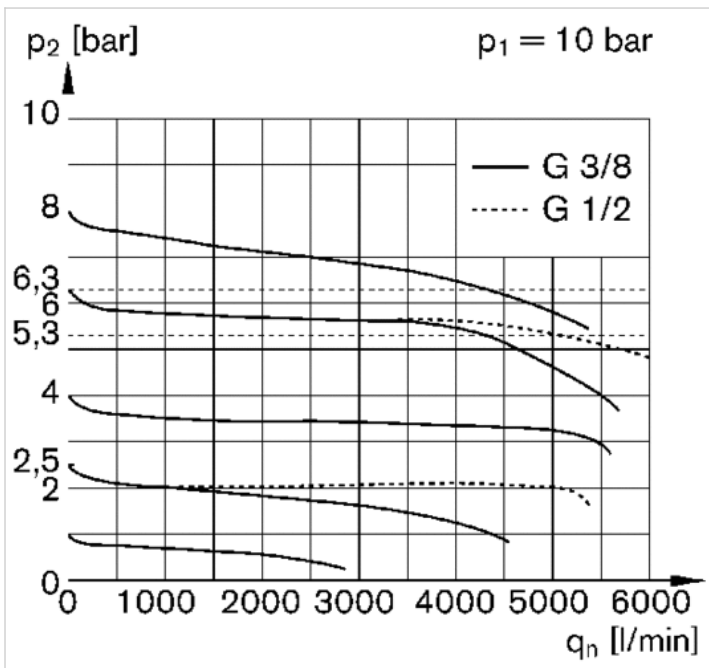
## Diagrams

### Pressure characteristics curve, Standard version



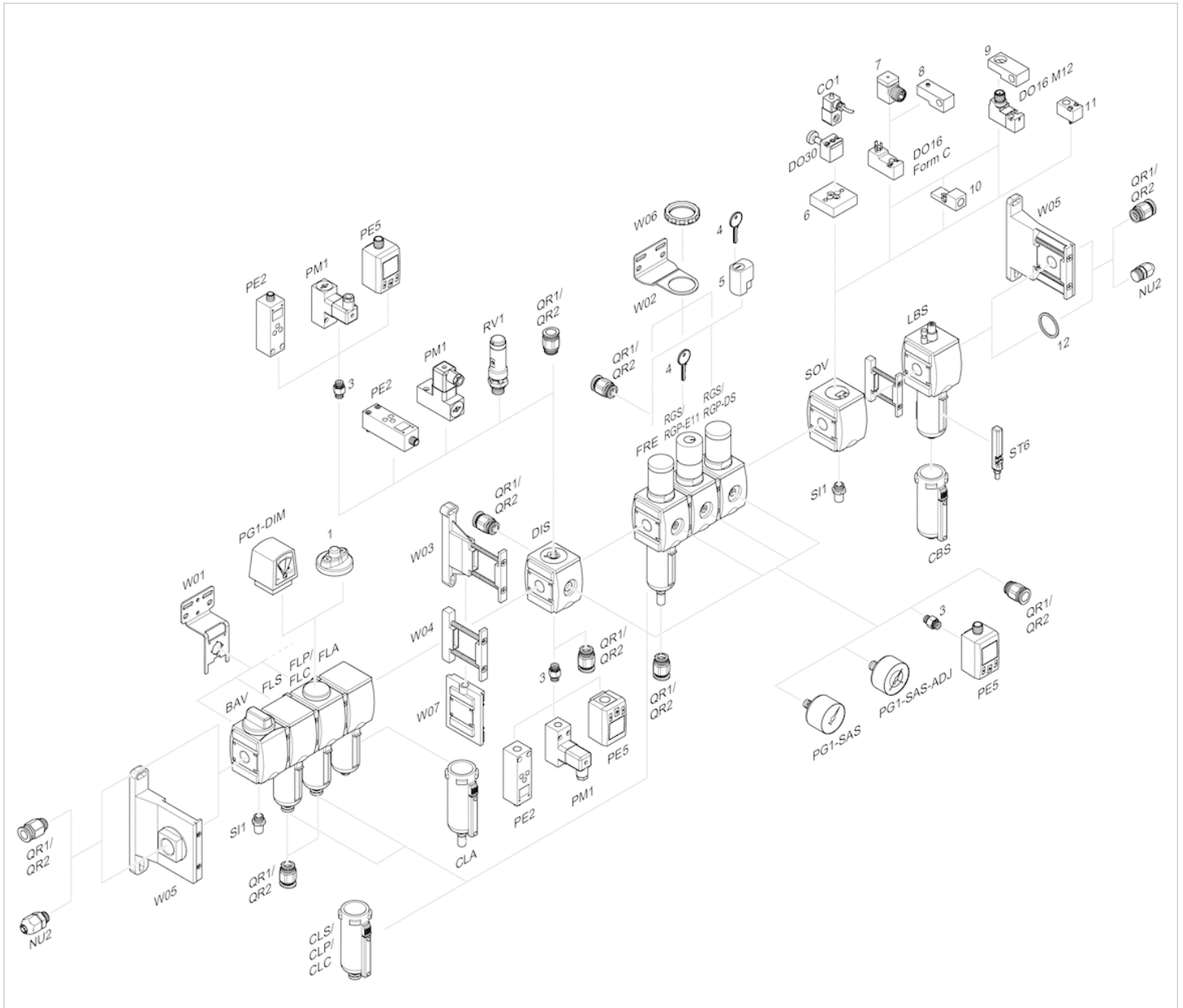
$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

### Flow rate characteristic ( $p_2$ : 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

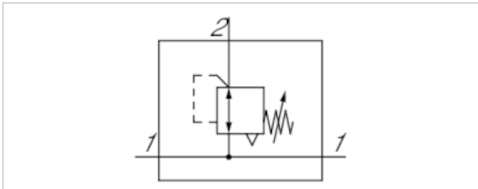
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Pressure regulator, Series AS3-RGS-...-DS

- G 3/8 G 1/2
- Qn = 1600-5200 l/min
- Standard pressure regulator
- Activation Mechanical
- with continuous pressure supply
- lockable
- for padlocks
- suitable for ATEX



## Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Regulator type

Regulator function

Adjustment range min./max.

Lock type

Pressure supply

Activation

Weight

Pressure regulator with continuous pressure supply

Any

suitable for ATEX

See table below

-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

Diaphragm-type pressure regulator Can be assembled into blocks

with relieving air exhaust

See table below

for padlocks

double

Mechanical

0.528 kg

## Technical data

Part No.	Port	Flow	Working pressure min./max.	Adjustment range min./max.
		Qn		
R412007124	G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007125	G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007126	G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007127	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007128	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007129	G 3/8	3500 l/min	0.5 ... 16 bar	0.5 ... 16 bar
R412007130	G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007131	G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007132	G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007133	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007134	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007135	G 1/2	4000 l/min	0.5 ... 16 bar	0.5 ... 16 bar

Part No.	Max. pressure gauge Ø in blocked state
R412007124	50 mm



Part No.	Max. pressure gauge Ø in blocked state
R412007125	50 mm
R412007126	50 mm
R412007127	50 mm
R412007128	50 mm
R412007129	50 mm
R412007130	50 mm
R412007131	50 mm
R412007132	50 mm
R412007133	50 mm
R412007134	50 mm
R412007135	50 mm

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Suitable for use in Ex zones 1, 2, 21, 22.

Relieving exhaust ( $\leq 0.3$  bar over set pressure).

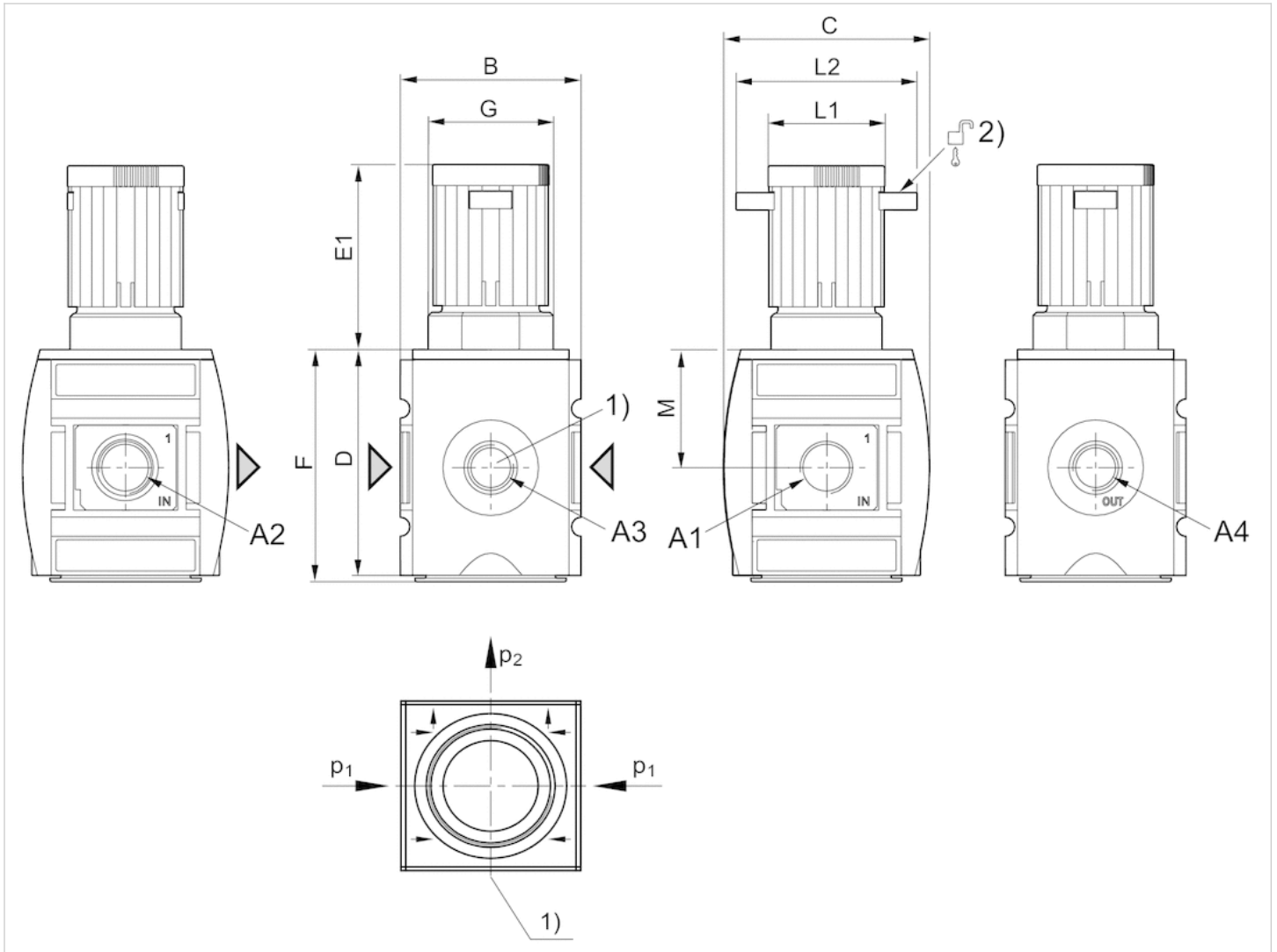
With rear exhaust ( $> 3$  bar ).

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



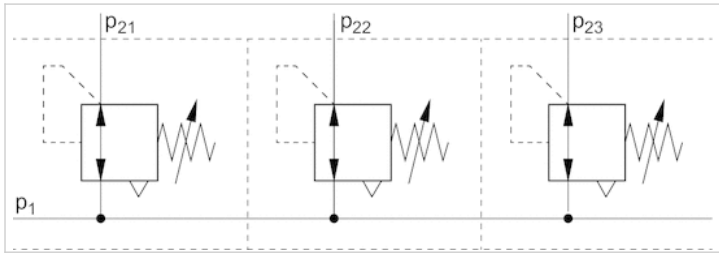
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A4 = output
- 1) Pressure gauge connection
- 2) Mounting option for padlocks, max. shackle Ø 8

### Dimensions in mm

A1	A2	A3	A4	B	C	D	E1	F	G	L1	L2	M
G 3/8	G 3/8	G 1/4	G 3/8	63	74	80	63.5	82	M42x1,5	41	60	42.5
G 1/2	G 1/2	G 1/4	G 3/8	63	74	80	63.5	82	M42x1,5	41	60	42.5

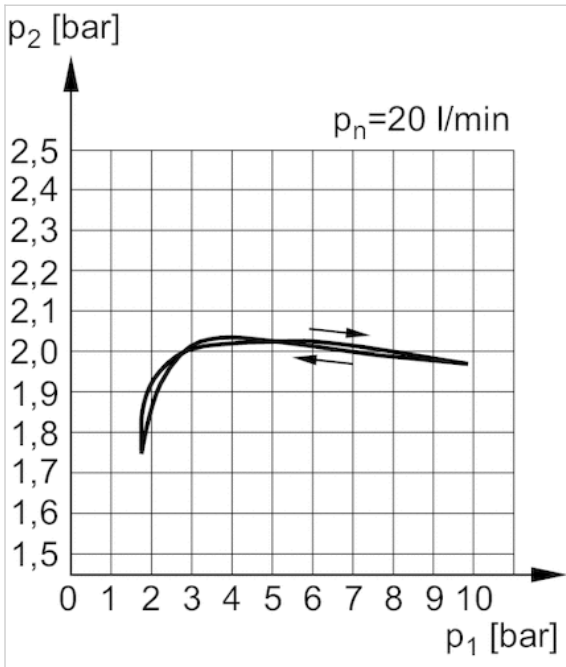
## Diagrams

### Application example



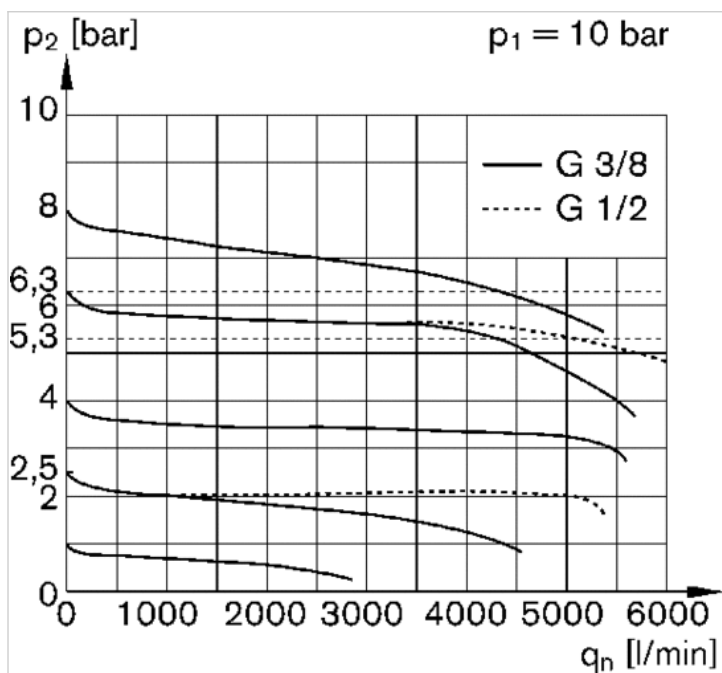
$p_1$  = working pressure

### Pressure characteristics curve



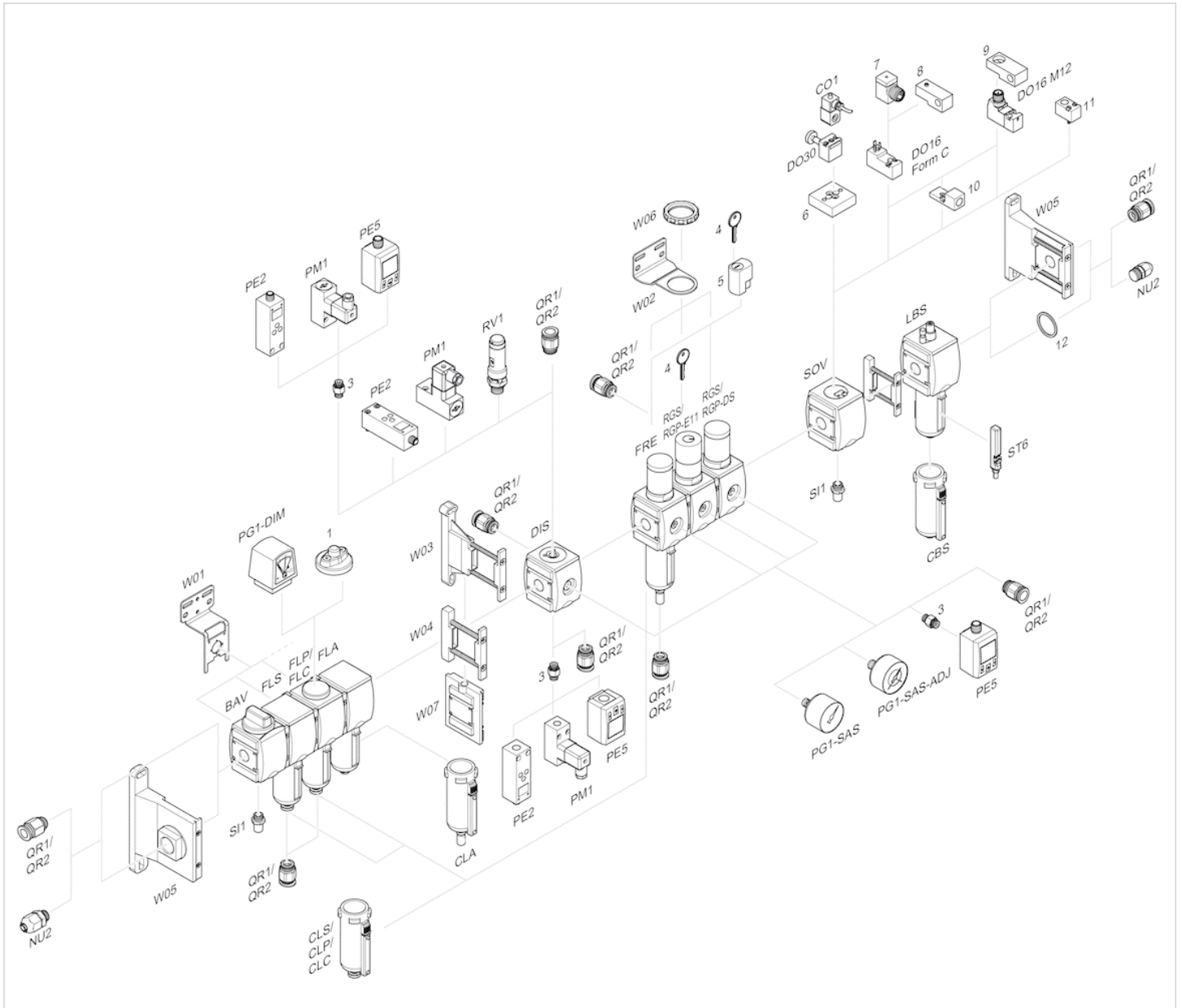
$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring




























# Precision pressure regulator, Series AS3-RGP




- G 3/8 G 1/2
- Qn = 1600-5200 l/min
- Precision pressure regulator
- Activation Mechanical
- lockable
- for padlocks
- suitable for ATEX



Parts	Precision pressure regulator
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	
Adjustment range min./max.	See table below
Lock type	for padlocks
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	2.6 l/min
Weight	See table below

## Technical data

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412007136		—	G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007137			G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007138		—	G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007139			G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007140		—	G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007141			G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007142		—	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007143			G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007144		—	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007145			G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007148		—	G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007149			G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007150		—	G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007151			G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007152		—	G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007153			G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007154		—	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007155			G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar

Part No.			Port	Flow	Working pressure min./max.	Adjustment range min./max.
				Qn		
R412007156		—	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007157			G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar

Part No.	Pressure gauge	Weight	
R412007136	-	0.528 kg	1)
R412007137	with pressure gauge	0.6 kg	2)
R412007138	-	0.528 kg	1)
R412007139	with pressure gauge	0.6 kg	2)
R412007140	-	0.528 kg	1)
R412007141	with pressure gauge	0.6 kg	2)
R412007142	-	0.528 kg	1)
R412007143	with pressure gauge	0.6 kg	2)
R412007144	-	0.528 kg	1)
R412007145	with pressure gauge	0.6 kg	2)
R412007148	-	0.528 kg	1)
R412007149	with pressure gauge	0.6 kg	2)
R412007150	-	0.528 kg	1)
R412007151	with pressure gauge	0.6 kg	2)
R412007152	-	0.528 kg	1)
R412007153	with pressure gauge	0.6 kg	2)
R412007154	-	0.528 kg	1)
R412007155	with pressure gauge	0.6 kg	2)
R412007156	-	0.528 kg	1)
R412007157	with pressure gauge	0.6 kg	2)

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

- 1) Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.
- 2) Pressure gauge enclosed separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filter: 5 µm

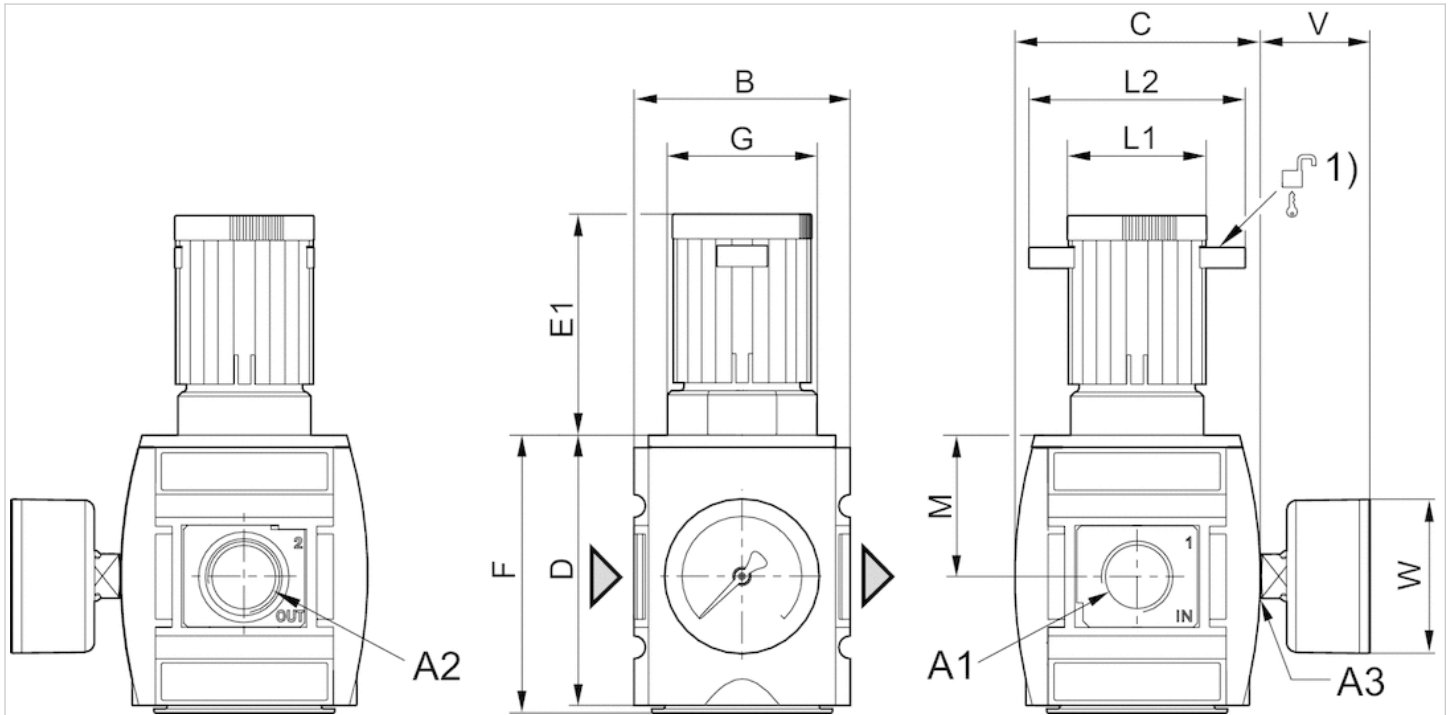
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



A1 = input

A2 = output

A3 = pressure gauge connection

1) Mounting option for padlocks, max. shackle Ø 8

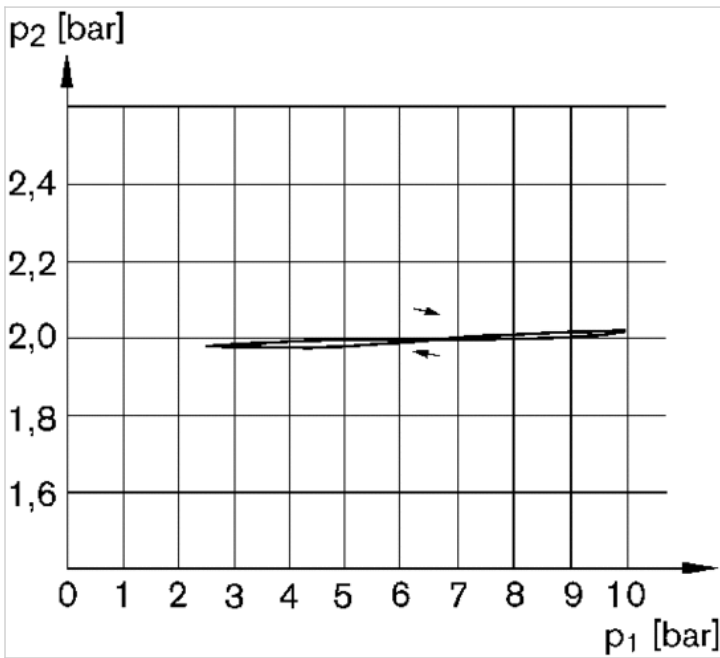
### Dimensions in mm

A1	A2	A3	B	C	D	E1	F	G	L1	L2	M	V	W
G 3/8	G 3/8	G 1/4	63	74	80	63.5	82	M42x1,5	41	60	42.5	33	50
G 1/2	G 1/2	G 1/4	63	74	80	63.5	82	M42x1,5	41	60	42.5	33	50



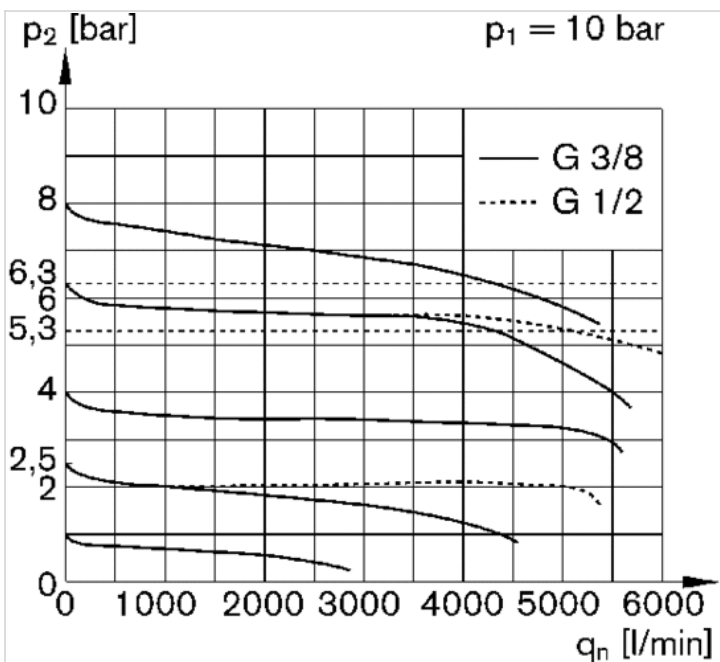
## Diagrams

### Pressure characteristics curve



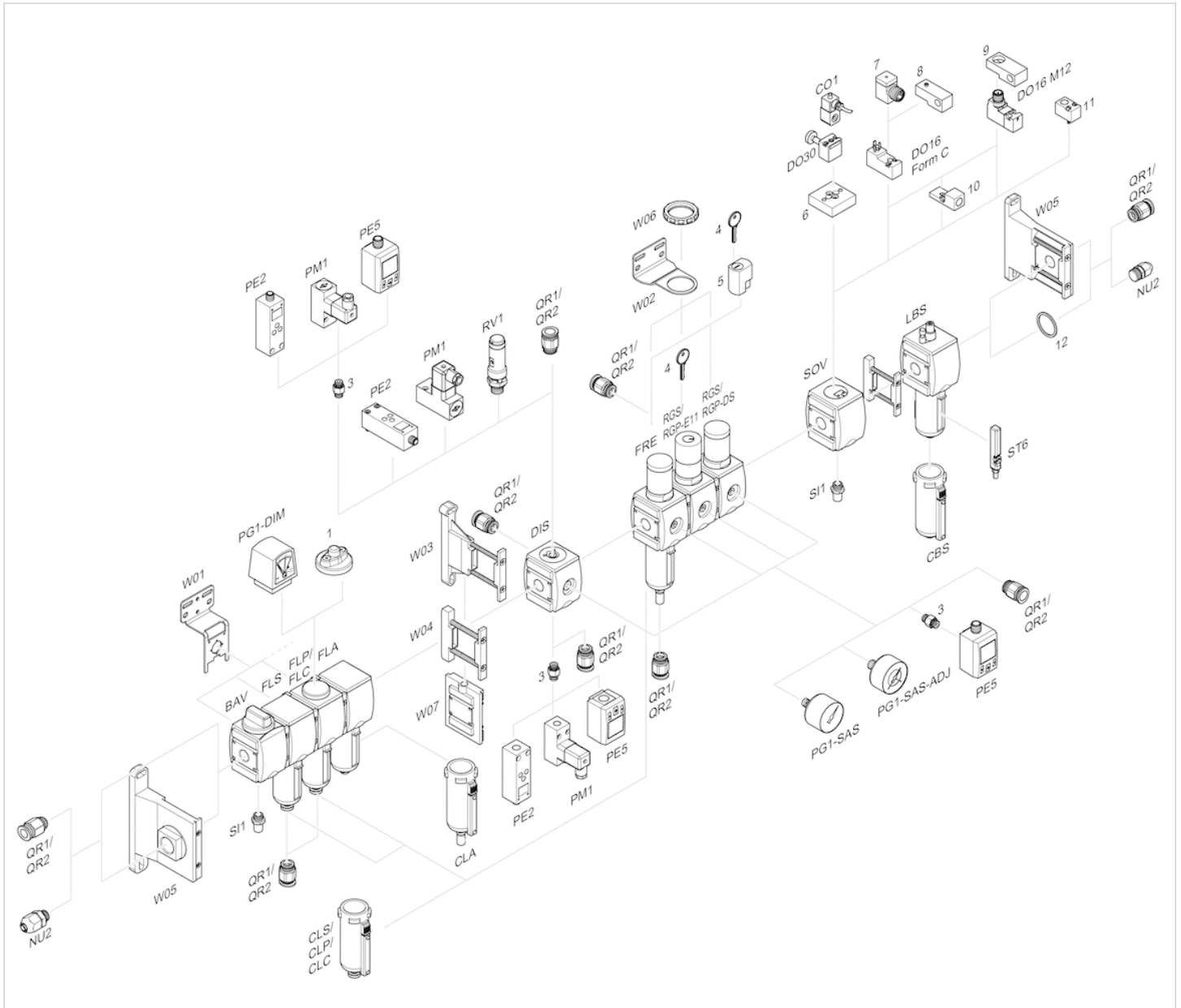
p1 = working pressure  
p2 = secondary pressure

### Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
p2 = Secondary pressure  
qn = Nominal flow

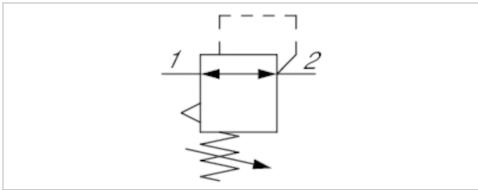
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Precision pressure regulator, Series AS3-RGP-...-E11

- G 1/2
- Qn = 5000 l/min
- Precision pressure regulator
- Activation Mechanical
- lockable
- with E11 locking



Parts	Precision pressure regulator
Mounting orientation	Any
Working pressure min./max.	0.2 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.2 ... 4 bar
Lock type	with E11 locking
Pressure supply	single
Activation	Mechanical
Internal air consumption qv max.	2.6 l/min
Weight	0.528 kg

## Technical data

Part No.	Port	Flow
		Qn
R412007158	G 1/2	5000 l/min

Order pressure gauge separately, Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).  
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.  
 Recommended pre-filter: 5 µm  
 The E11 locking is delivered without a key (see accessories for keys).

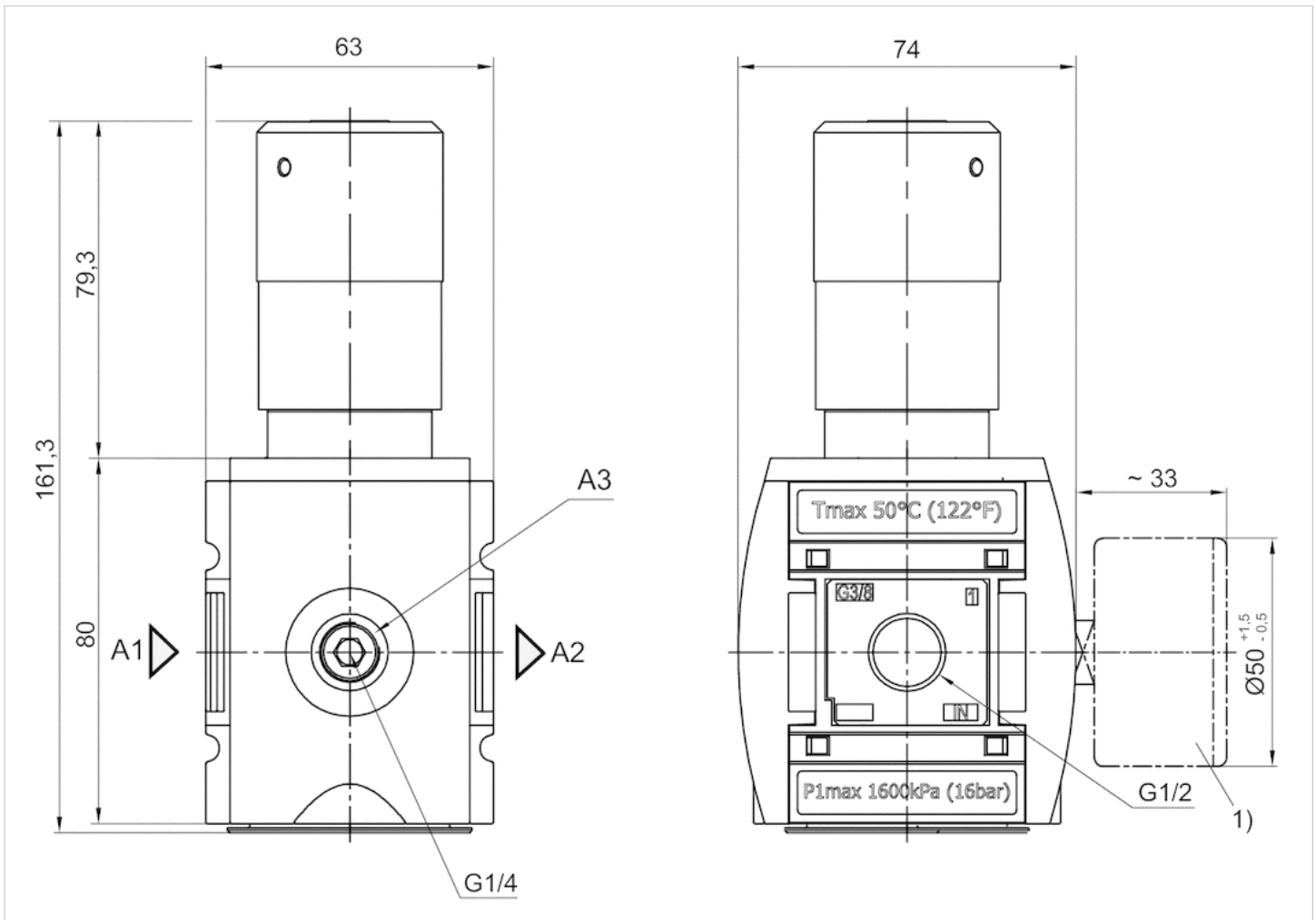
## Technical information

### Material

Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

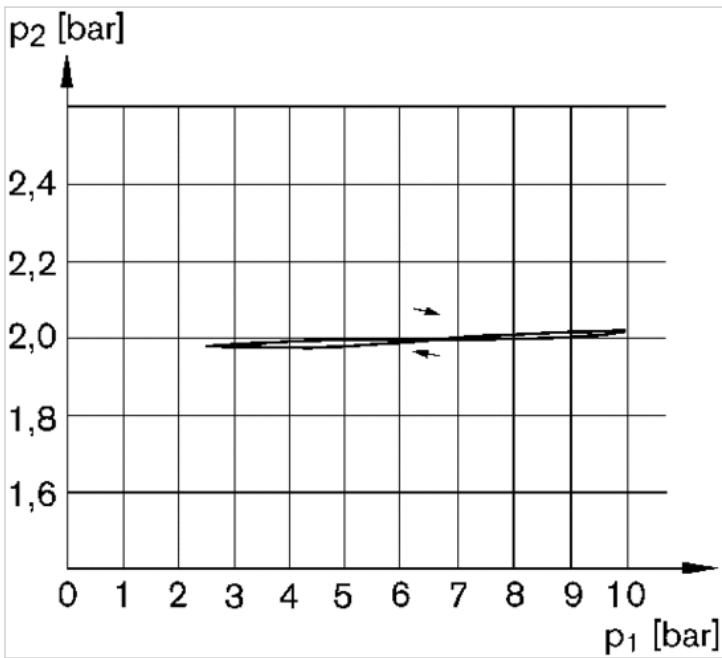
### Dimensions



1) Order pressure gauge separately

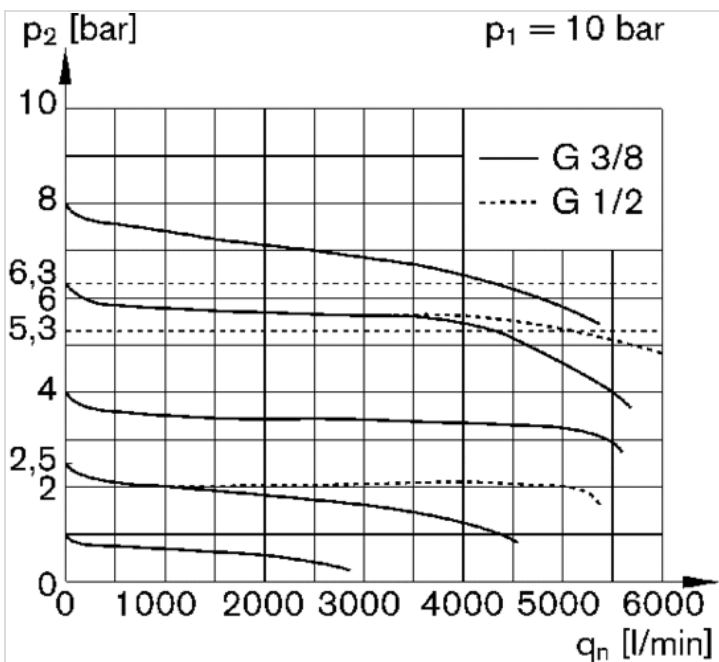
## Diagrams

### Pressure characteristics curve



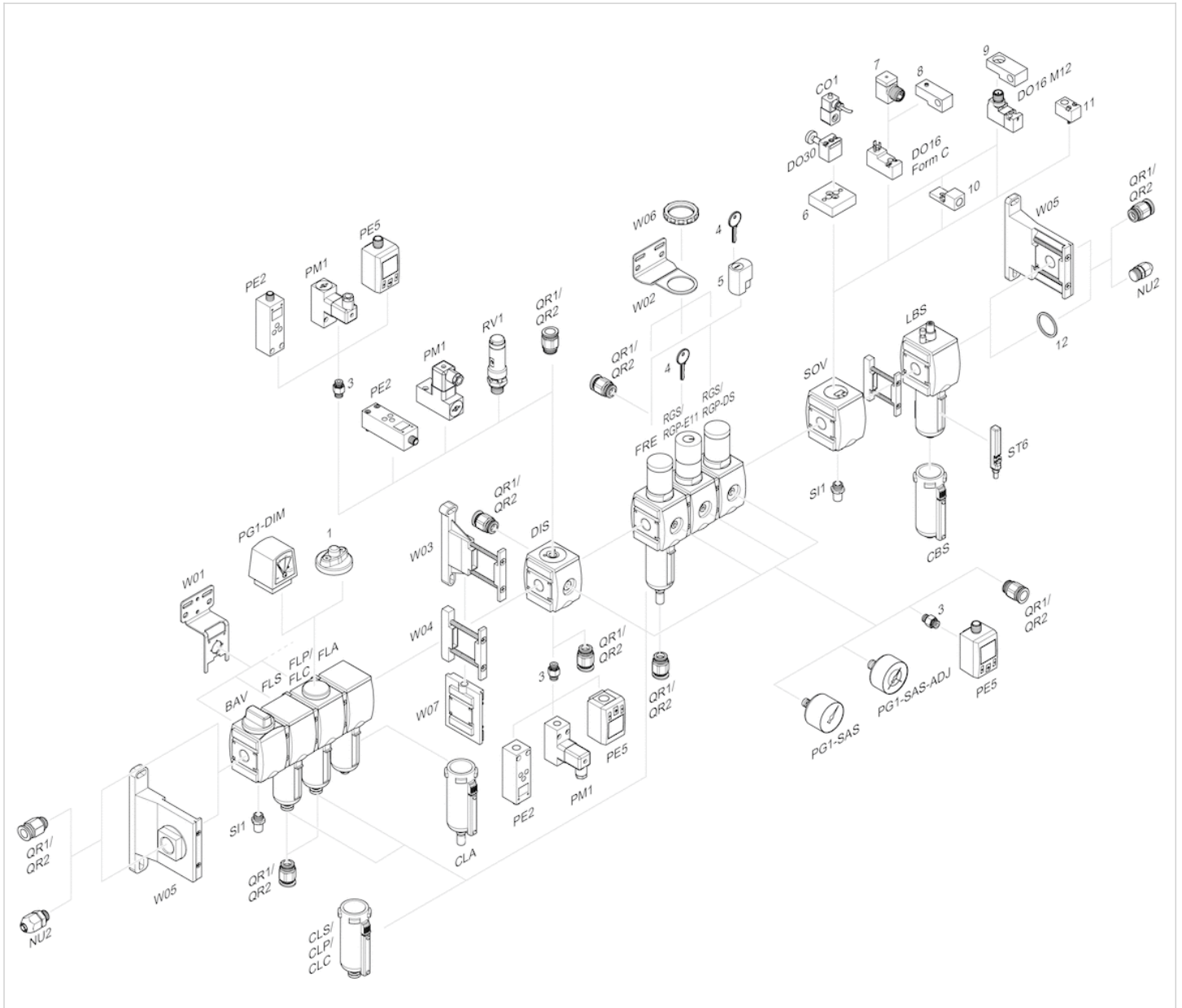
p1 = working pressure  
p2 = secondary pressure

### Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
p2 = Secondary pressure  
qn = Nominal flow

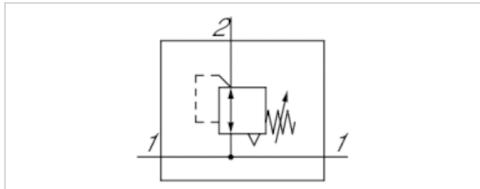
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Precision pressure regulator, Series AS3-RGP-...-DS

- G 3/8 G 1/2
- $Q_n = 1600-5200$  l/min
- Precision pressure regulator
- Activation Mechanical
- with continuous pressure supply
- lockable
- for padlocks
- suitable for ATEX



## Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Regulator type

Regulator function

Adjustment range min./max.

Lock type

Pressure supply

Activation

Internal air consumption  $q_v$  max.

Weight

Precision pressure regulator with continuous pressure supply

Any

suitable for ATEX

See table below

-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

Diaphragm-type pressure regulator Can be assembled into blocks

with relieving air exhaust

See table below

for padlocks

double

Mechanical

2.6 l/min

0.528 kg

## Technical data

Part No.	Port	Flow	Working pressure min./max.	Adjustment range min./max.
		$Q_n$		
R412007160	G 3/8	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007161	G 3/8	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007162	G 3/8	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007163	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007164	G 3/8	4300 l/min	0.5 ... 16 bar	0.5 ... 10 bar
R412007166	G 1/2	1600 l/min	0.1 ... 16 bar	0.1 ... 1 bar
R412007167	G 1/2	4600 l/min	0.1 ... 16 bar	0.1 ... 2 bar
R412007168	G 1/2	5000 l/min	0.2 ... 16 bar	0.2 ... 4 bar
R412007169	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 8 bar
R412007170	G 1/2	5200 l/min	0.5 ... 16 bar	0.5 ... 10 bar

Part No.	Max. pressure gauge $\varnothing$ in blocked state
R412007160	50 mm
R412007161	50 mm
R412007162	50 mm

Part No.	Max. pressure gauge Ø in blocked state
R412007163	50 mm
R412007164	50 mm
R412007166	50 mm
R412007167	50 mm
R412007168	50 mm
R412007169	50 mm
R412007170	50 mm

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

Recommended pre-filter: 5 µm

Suitable for use in Ex zones 1, 2, 21, 22.

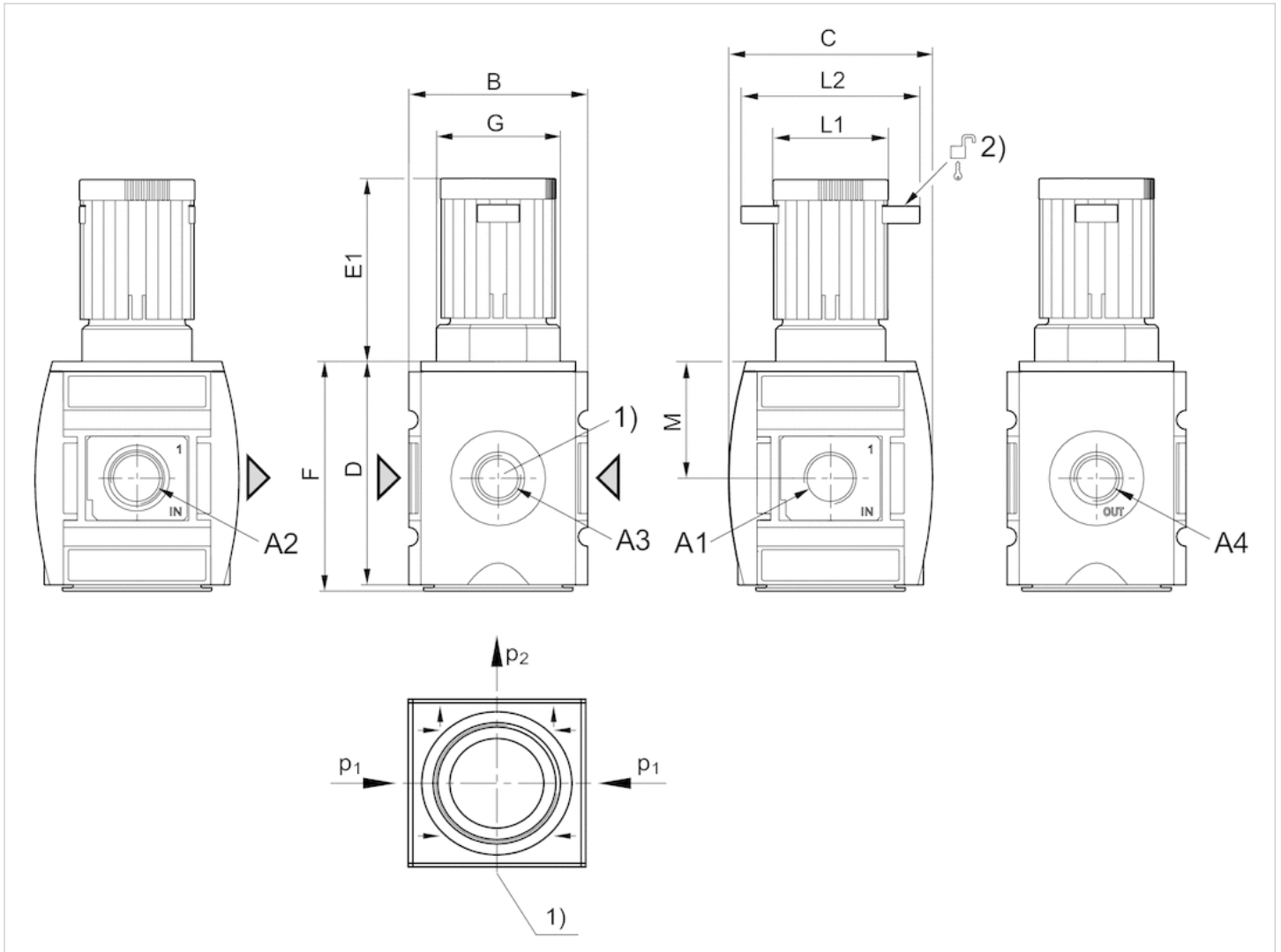
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc



# Dimensions

## Dimensions



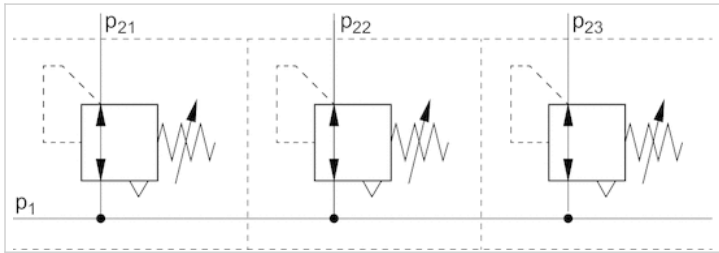
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A4 = output
- 1) Pressure gauge connection
- 2) Mounting option for padlocks, max. shackle  $\varnothing$  8

## Dimensions in mm

G 1/2	G 1/4	G 3/8	63	74	80	63.5	82	M42x1,5	41	60	42.5	R412007168
G 3/8	G 3/8	G 1/4	G 3/8	63	74	80	63.5	82	M42x1,5	41	60	42.5
G 1/2	G 1/2	G 1/4	G 3/8	63	74	80	63.5	82	M42x1,5	41	60	42.5

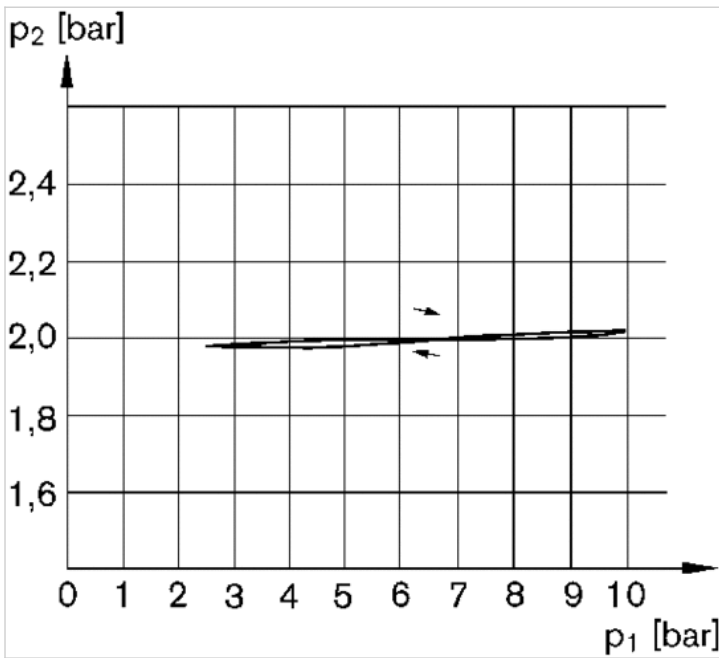
# Diagrams

## Application example



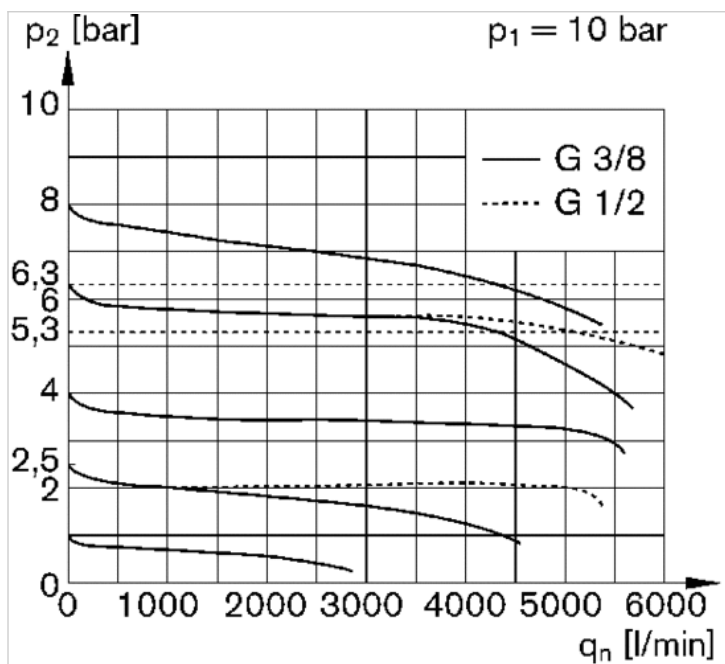
$p_1$  = working pressure

## Pressure characteristics curve



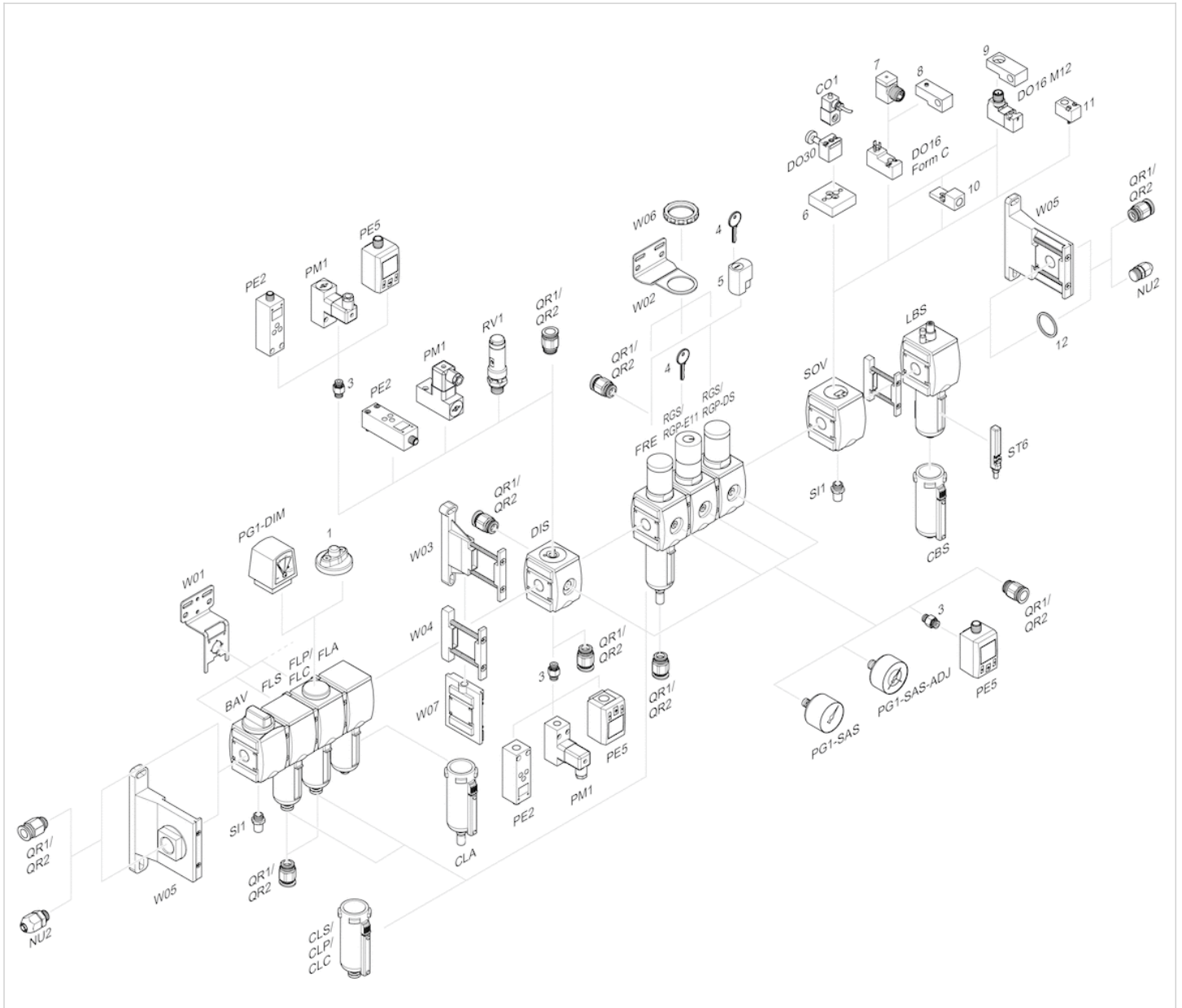
$p_1$  = working pressure  
 $p_2$  = secondary pressure

Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow

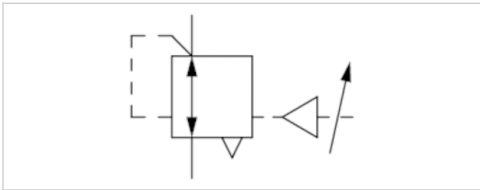
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Pressure regulator, Series AS3-RGS

- G 3/8 G 1/2
- $Q_n = 6500$  l/min
- Standard pressure regulator
- Activation pneumatically



Parts	Pressure regulator
Mounting orientation	Any
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air Neutral gases
Regulator type	Diaphragm-type pressure regulator Can be assembled into blocks with relieving air exhaust
Regulator function	
Adjustment range min./max.	0.5 ... 16 bar
Pressure supply	single
Activation	pneumatically
Weight	0.579 kg

## Technical data

Part No.	Port	Flow
		$Q_n$
R412007094	G 3/8	6500 l/min
R412007095	G 1/2	6500 l/min

Control pressure: see diagram, Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

Order pressure gauge separately

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The rear pressure gauge connection on the pressure regulator is closed with a blanking plug, the front connection is open. Depending on the customer application, a second blanking plug may be necessary. Please order separately (see accessories).

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Relieving exhaust ( $\leq 0.3$  bar over set pressure).

With rear exhaust ( $> 3$  bar ).

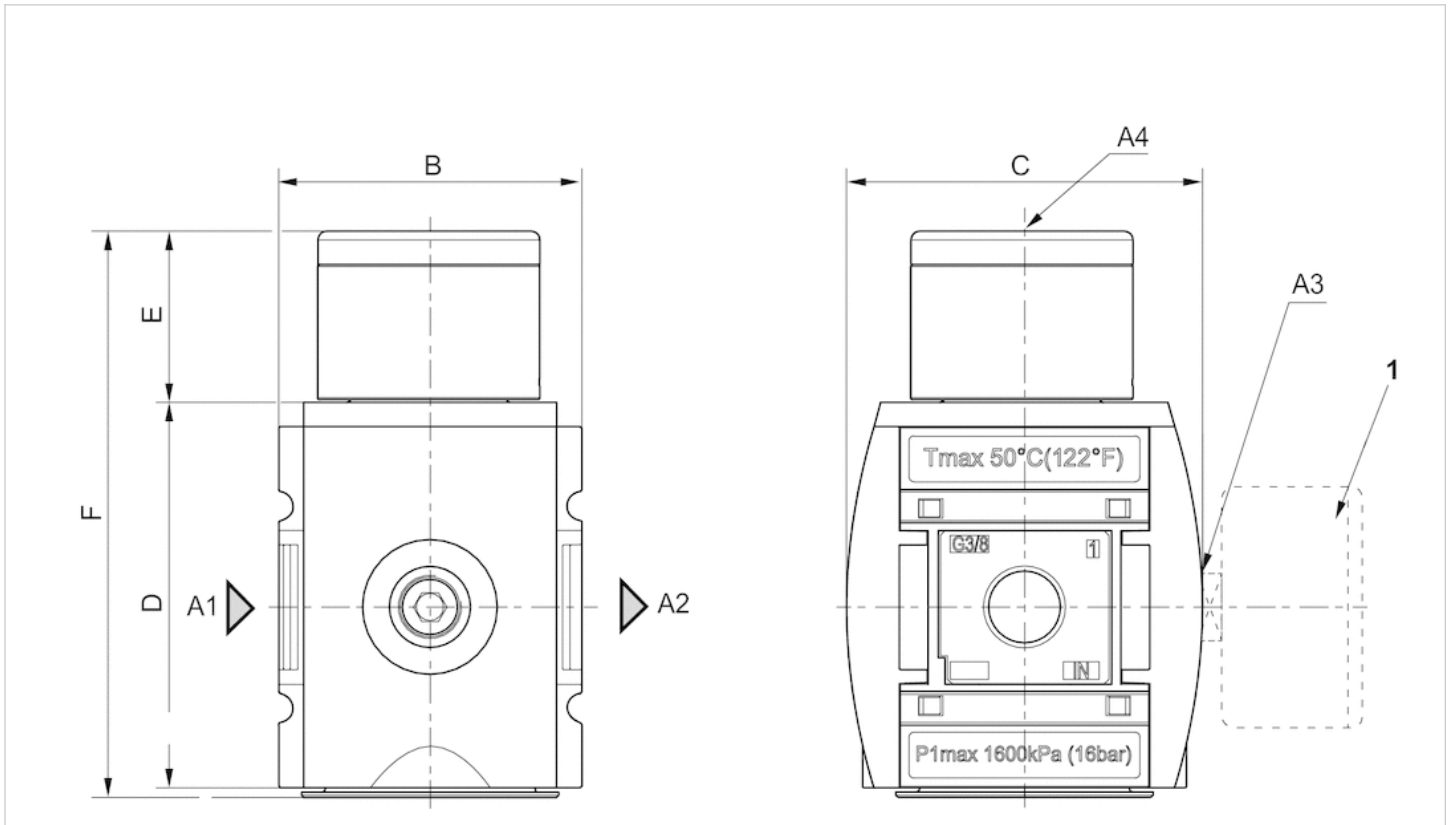
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



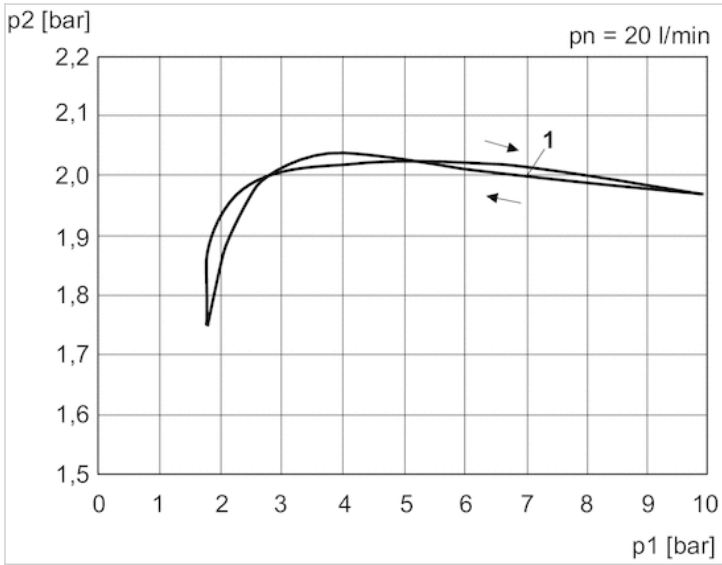
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A4 = control pressure connection
- 1) Order pressure gauge separately

### Dimensions in mm

A1	A2	A3	A4	B	C	D	E	F
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	39.25	121
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	39.25	121

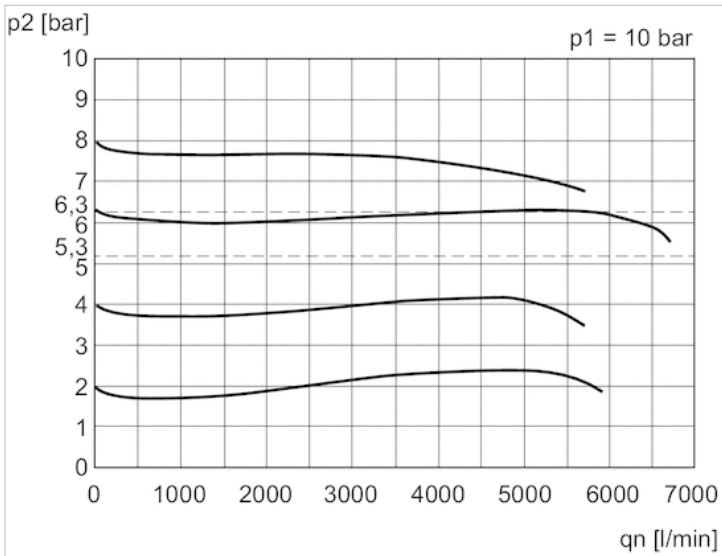
# Diagrams

## Pressure characteristics curve



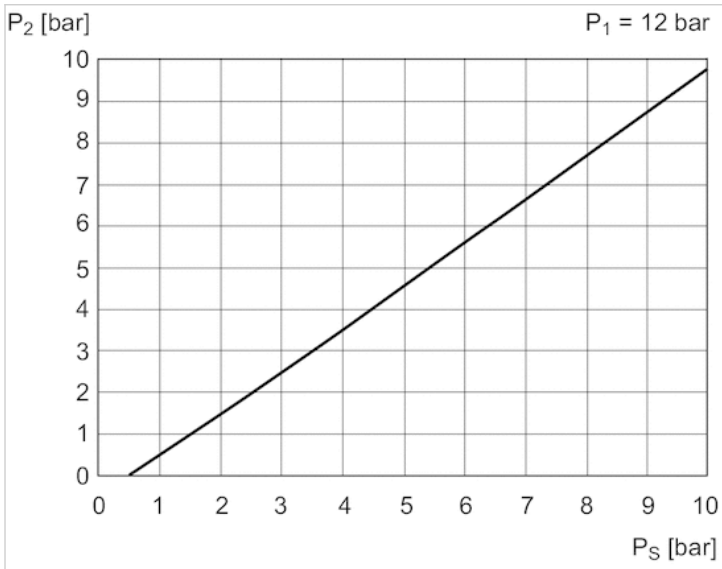
- p1 = Working pressure
- p2 = Secondary pressure
- qn = Nominal flow
- 1) = Starting point

## Flow rate characteristic (p2: 0,5 - 8 bar)



- p1 = Working pressure
- p2 = Secondary pressure
- qn = Nominal flow

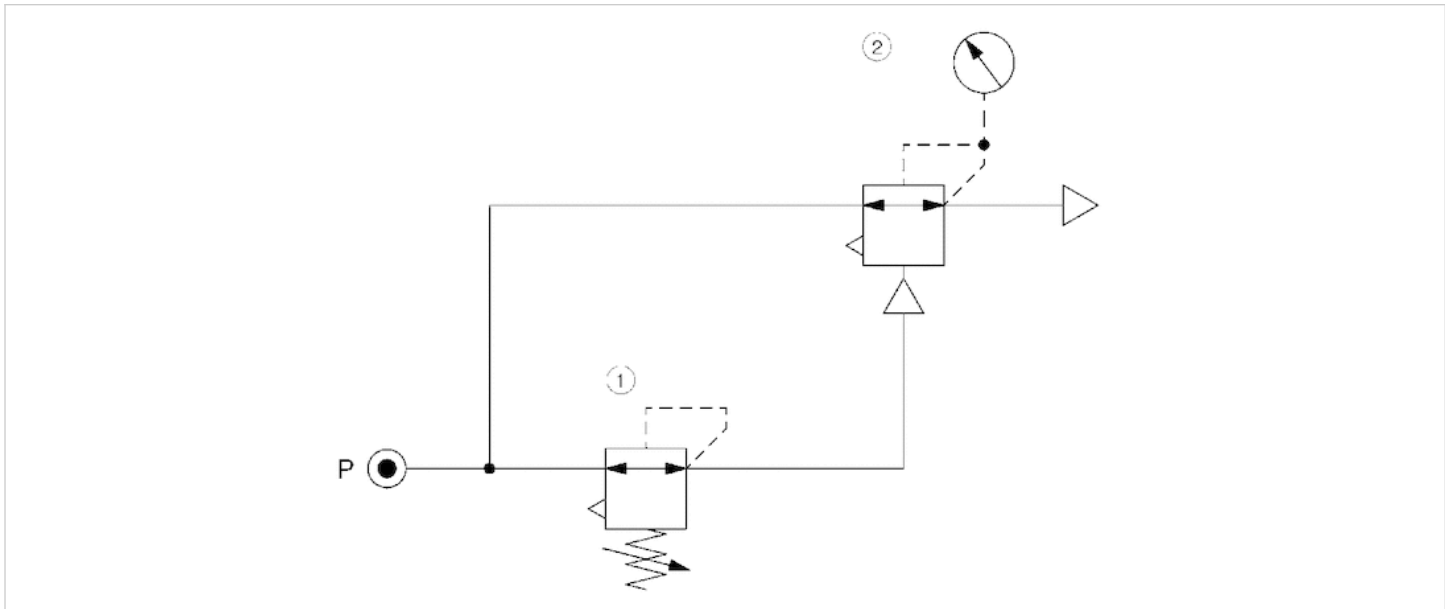
control pressure characteristic



$p_1$  = working pressure  
 $p_2$  = secondary pressure  
 $PS$  = control pressure

Circuit diagram

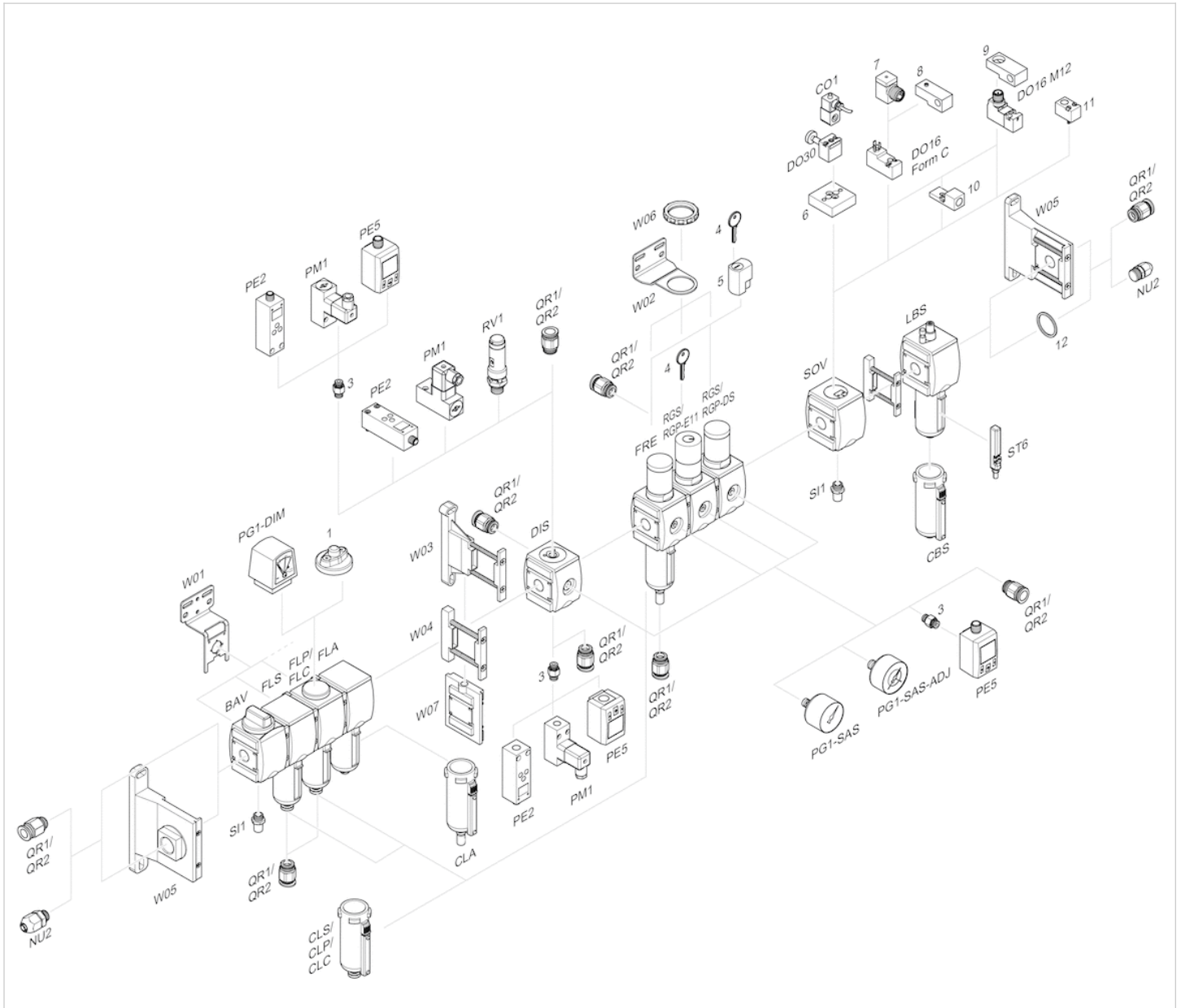
Application example



- 1) precision pressure regulator
- 2) pressure regulator valve, pneumatically operated



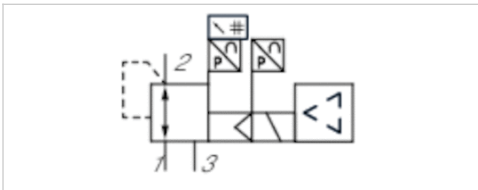
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# E/P pressure regulator, Series EV12

- Pressure supply, left, Display: display
- $Q_n = 6500$  l/min
- Compressed air connection output G 1/2 G 3/8
- Electr. connection M12, 5-pin, A-coded
- serial control IO-Link
- Pilot valves



Version	Poppet valve
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Neutral gases
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	6500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	1.4 kg

## Technical data

Part No.	Pressure setting range min./max.	Compressed air connection
		Input
R414011386	0 ... 10 bar	G 1/2
R414011387	0 ... 10 bar	G 1/2
R414011389	0 ... 10 bar	G 1/2
R414011398	0 ... 10 bar	G 3/8
R414011399	0 ... 10 bar	G 3/8
R414011401	0 ... 10 bar	G 3/8

Part No.	Compressed air connection	Nominal input value	Actual output value	serial control
	Output	Min./max.	Min./max.	
R414011386	G 1/2	0 ... 10 V	0 ... 10 V	-
R414011387	G 1/2	4 ... 20 mA	4 ... 20 mA	-
R414011389	G 1/2	-	-	IO-Link
R414011398	G 3/8	0 ... 10 V	0 ... 10 V	-
R414011399	G 3/8	4 ... 20 mA	0 ... 20 mA	-
R414011401	G 3/8	-	-	IO-Link

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

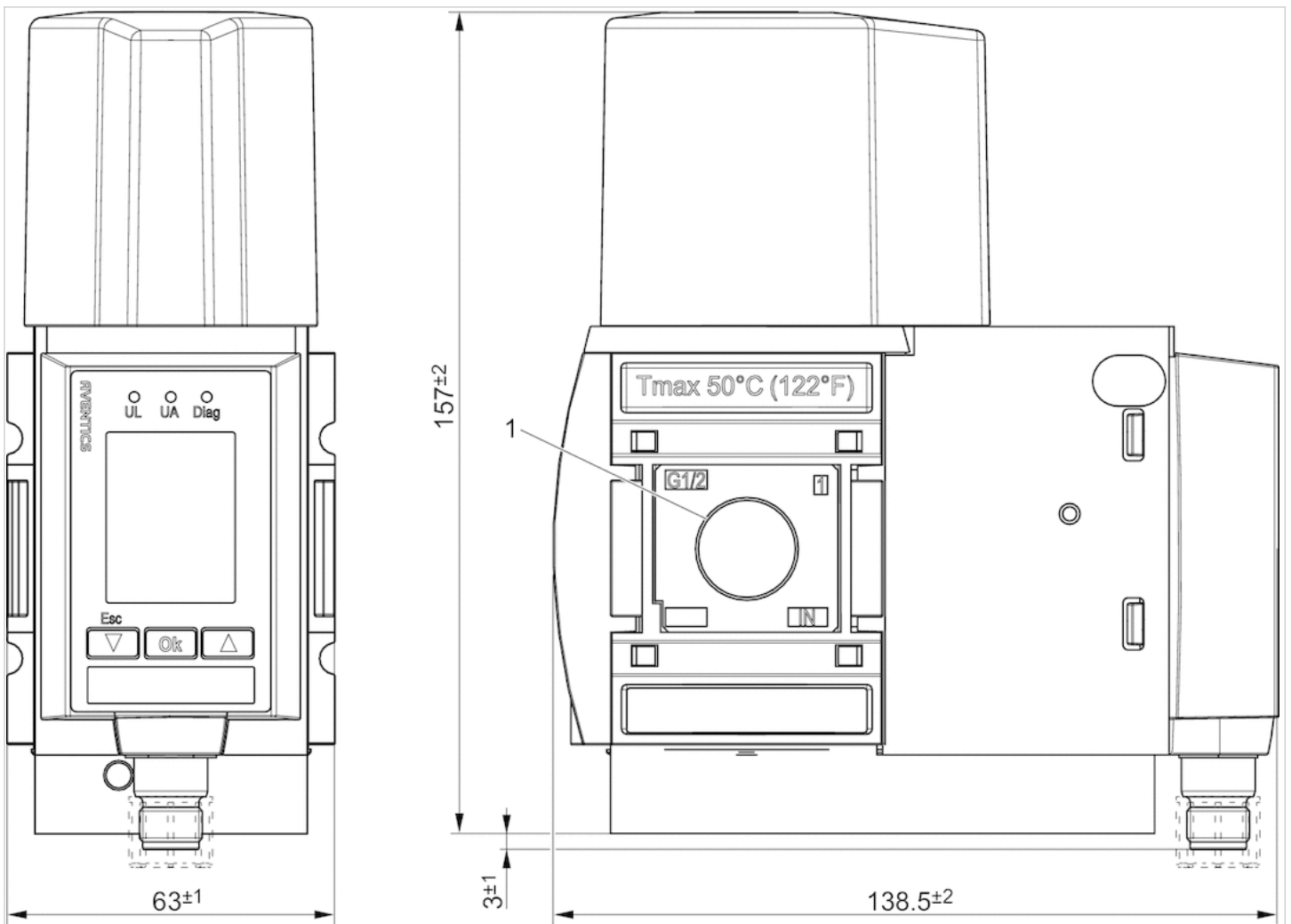
Power outage: maintain pressure

## Technical information

Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

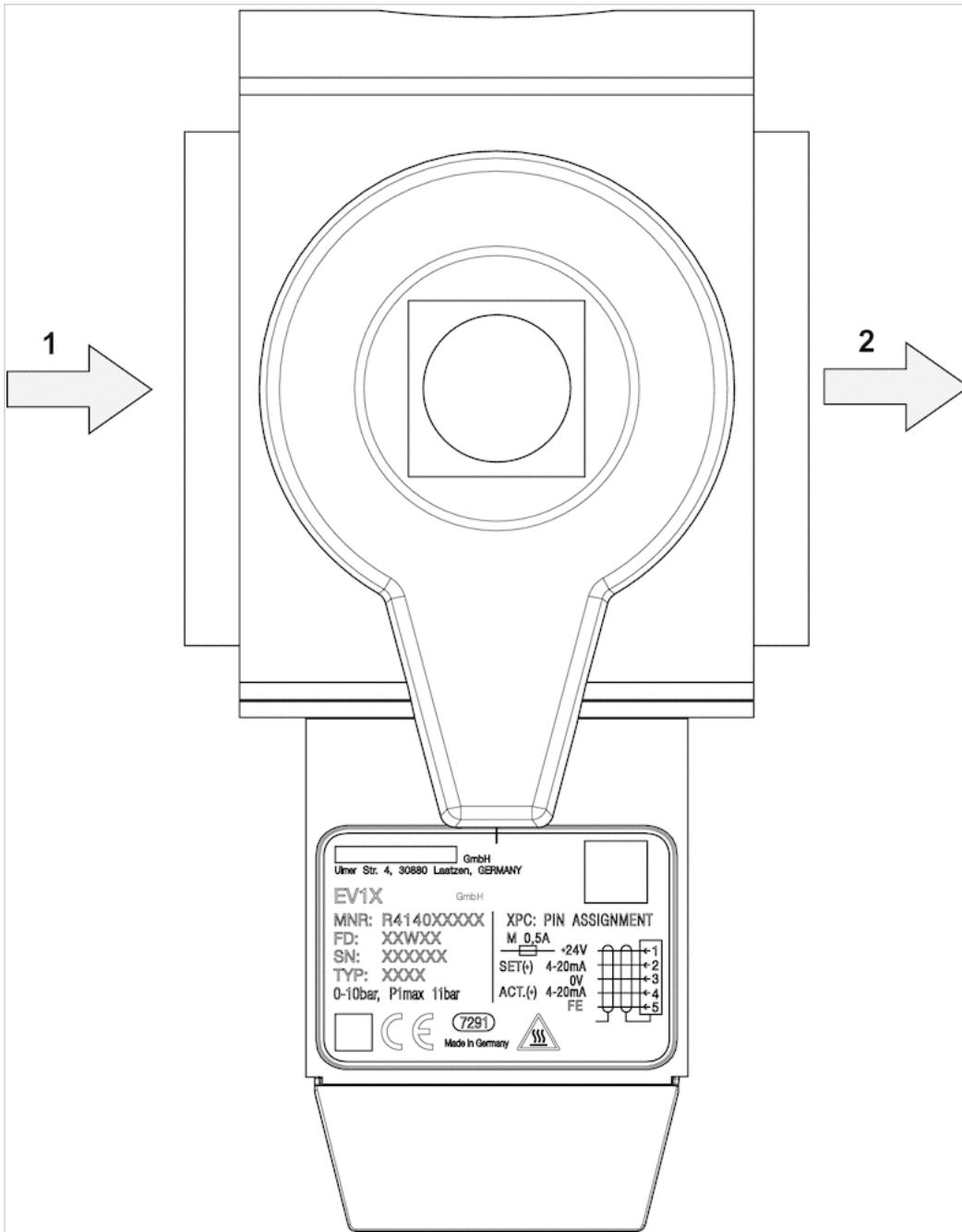
## Dimensions

### Dimensions



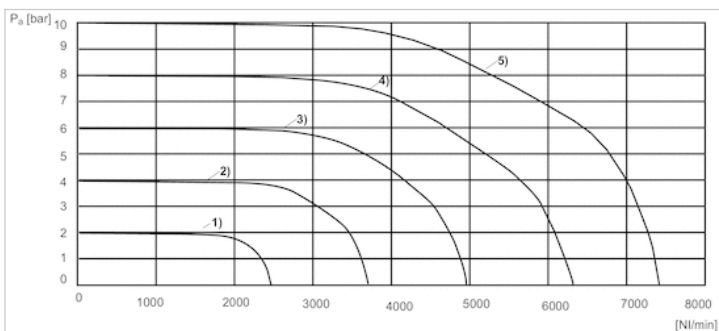
1) Connection thread

Pressure supply, left



Diagrams

Flow characteristic curve

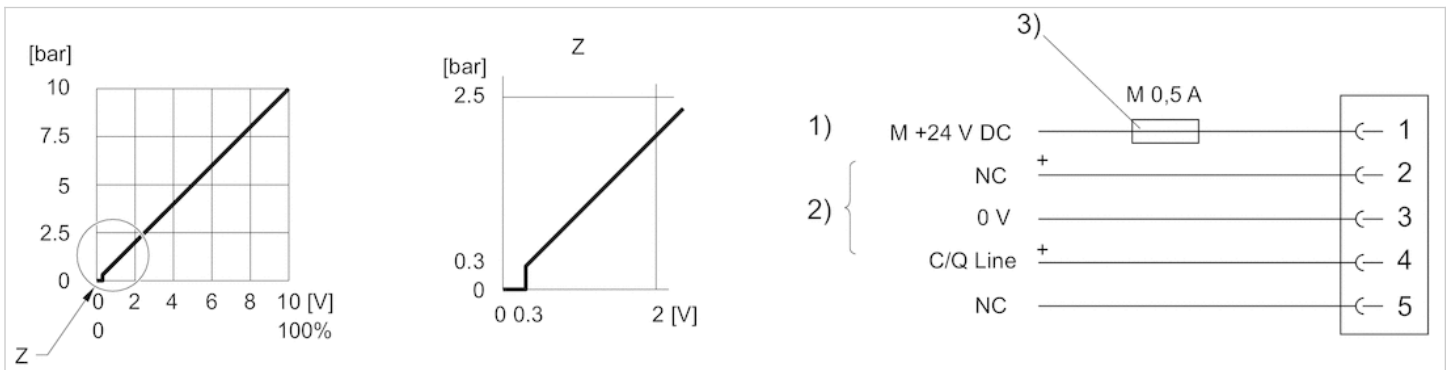


1)  $P_v = 3$  bar

- 2)  $P_v = 5 \text{ bar}$
- 3)  $P_v = 7 \text{ bar}$
- 4)  $P_v = 9 \text{ bar}$
- 5)  $P_v = 11 \text{ bar}$
- $P_v = \text{Supply pressure}$
- $P_a = \text{Working pressure}$
- $P_v = P_a + 1$

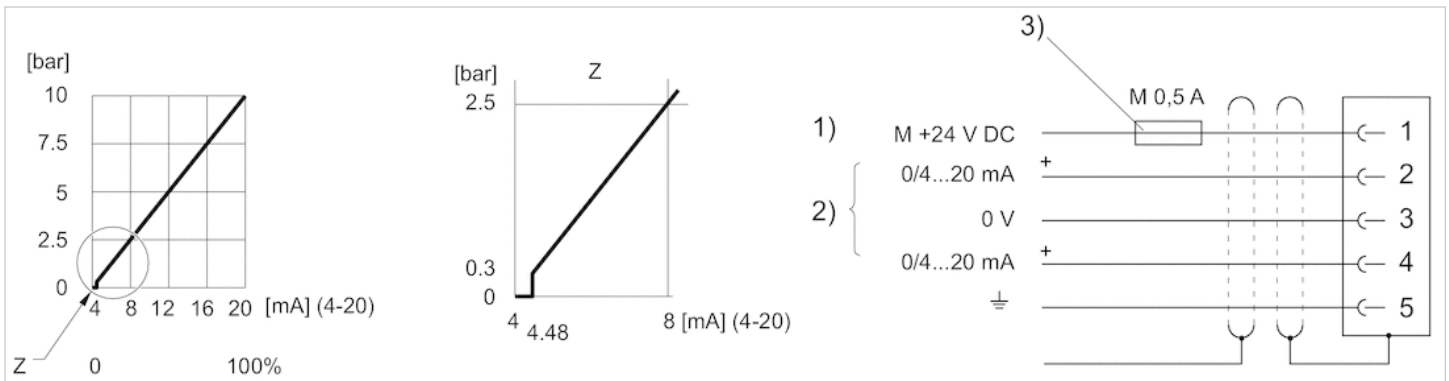
## Circuit diagram

### Characteristic curve and plug assignment for IO-Link version



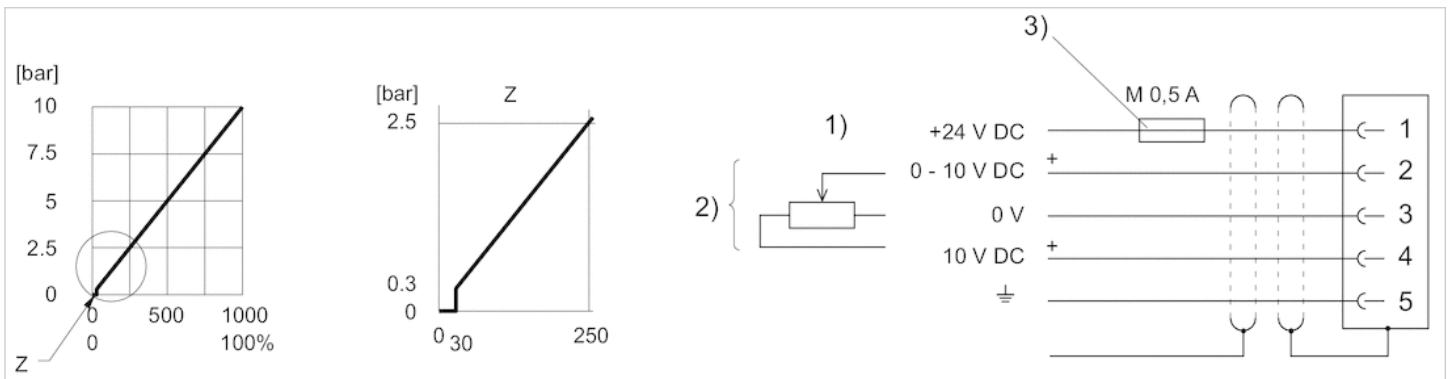
- 1) power supply
  - 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

### Characteristic and pin assignment for current control with actual output value



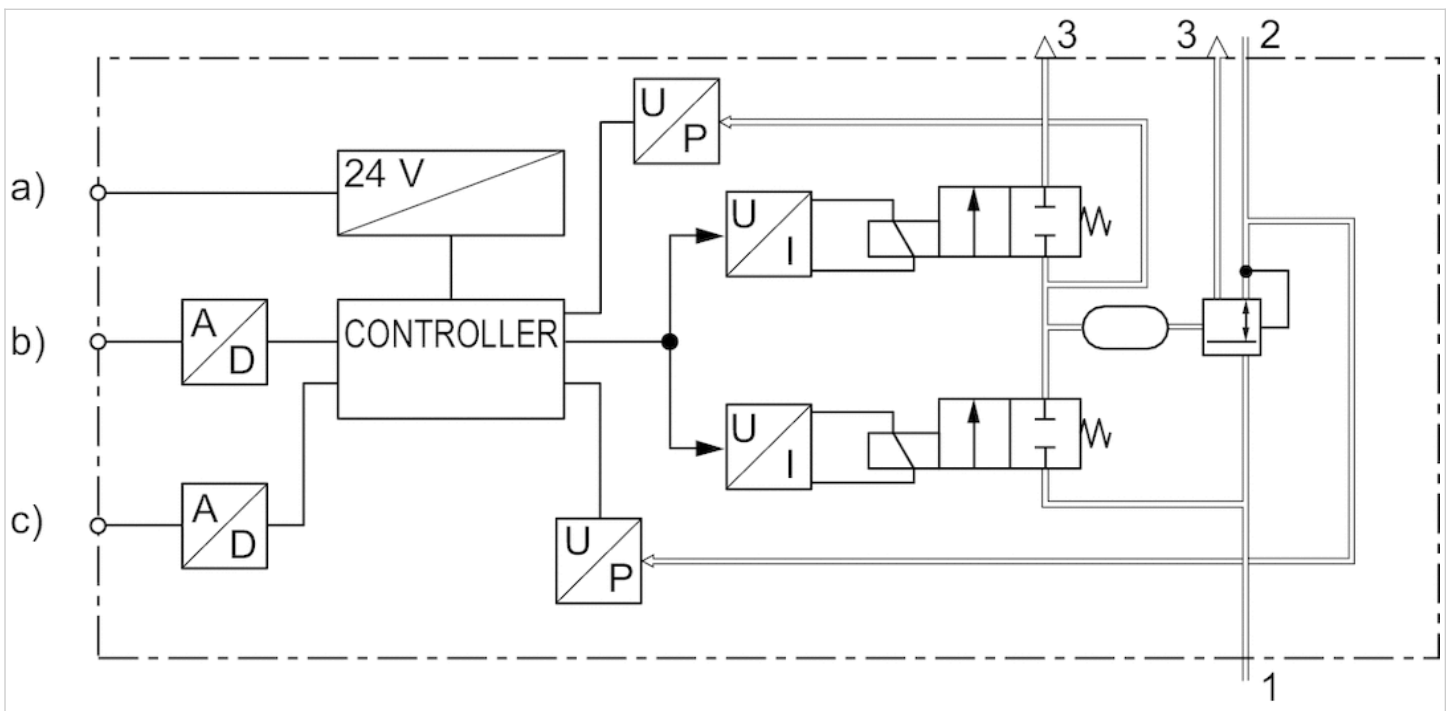
- 1) power supply
  - 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100  $\Omega$ ), actual output value: external ohmic load 300  $\Omega$ . If the power supply is switched off, the nominal input value is high-ohmic.
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



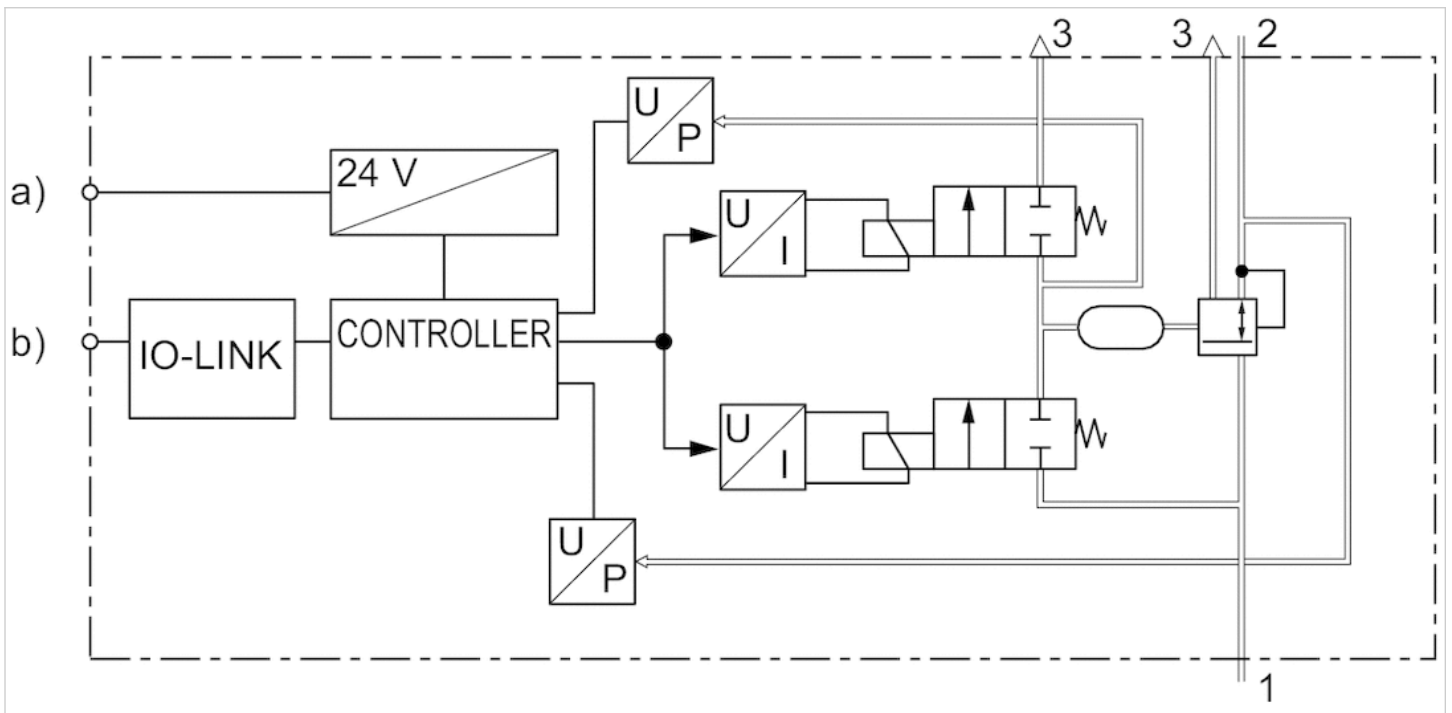
- 1) power supply
- 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value ( $R = 1\text{ M}\Omega$ ), actual output value: min. load resistance  $> 10\text{ K}\Omega$ . If the power supply is switched off, the nominal input value is high-ohmic.
- 3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

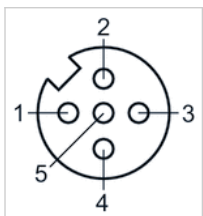
### Functional diagram, IO-Link



- a) Supply Voltage
- b) C/Q Line

### Pin assignments

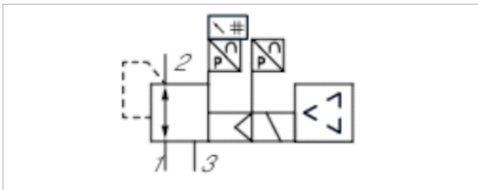
#### Plug assignment



- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

# E/P pressure regulator, Series EV12

- Pressure supply, right, Display: display
- Qn = 6500 l/min
- Compressed air connection output G 1/2 G 3/8
- Electr. connection M12, 5-pin
- serial control IO-Link
- Pilot valves



Version	Poppet valve
Working pressure max	11 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow Qn	6500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	1.4 kg

## Technical data

Part No.	Compressed air connection		Nominal input value Min./max.
	Input	Output	
R414011384	G 1/2	G 1/2	0 ... 10 V
R414011385	G 1/2	G 1/2	4 ... 20 mA
R414011388	G 1/2	G 1/2	-
R414011396	G 3/8	G 3/8	0 ... 10 V
R414011397	G 3/8	G 3/8	4 ... 20 mA
R414011400	G 3/8	G 3/8	-

Part No.	Actual output value Min./max.		serial control
	R414011384	0 ... 10 V	
R414011385	4 ... 20 mA	-	
R414011388	-	IO-Link	
R414011396	0 ... 10 V	-	
R414011397	4 ... 20 mA	-	
R414011400	-	IO-Link	

## Technical information



The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

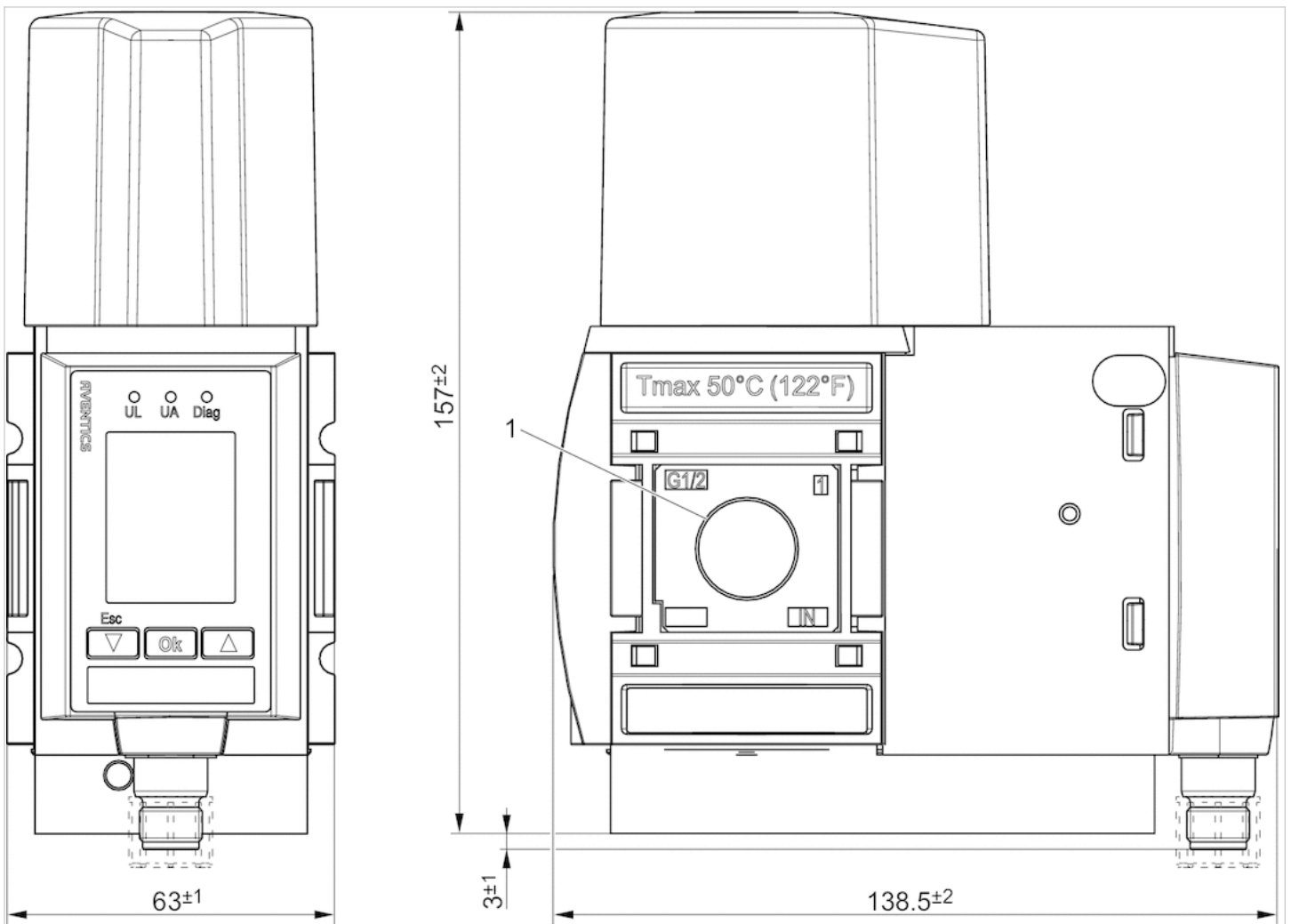
Power outage: maintain pressure

## Technical information

Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

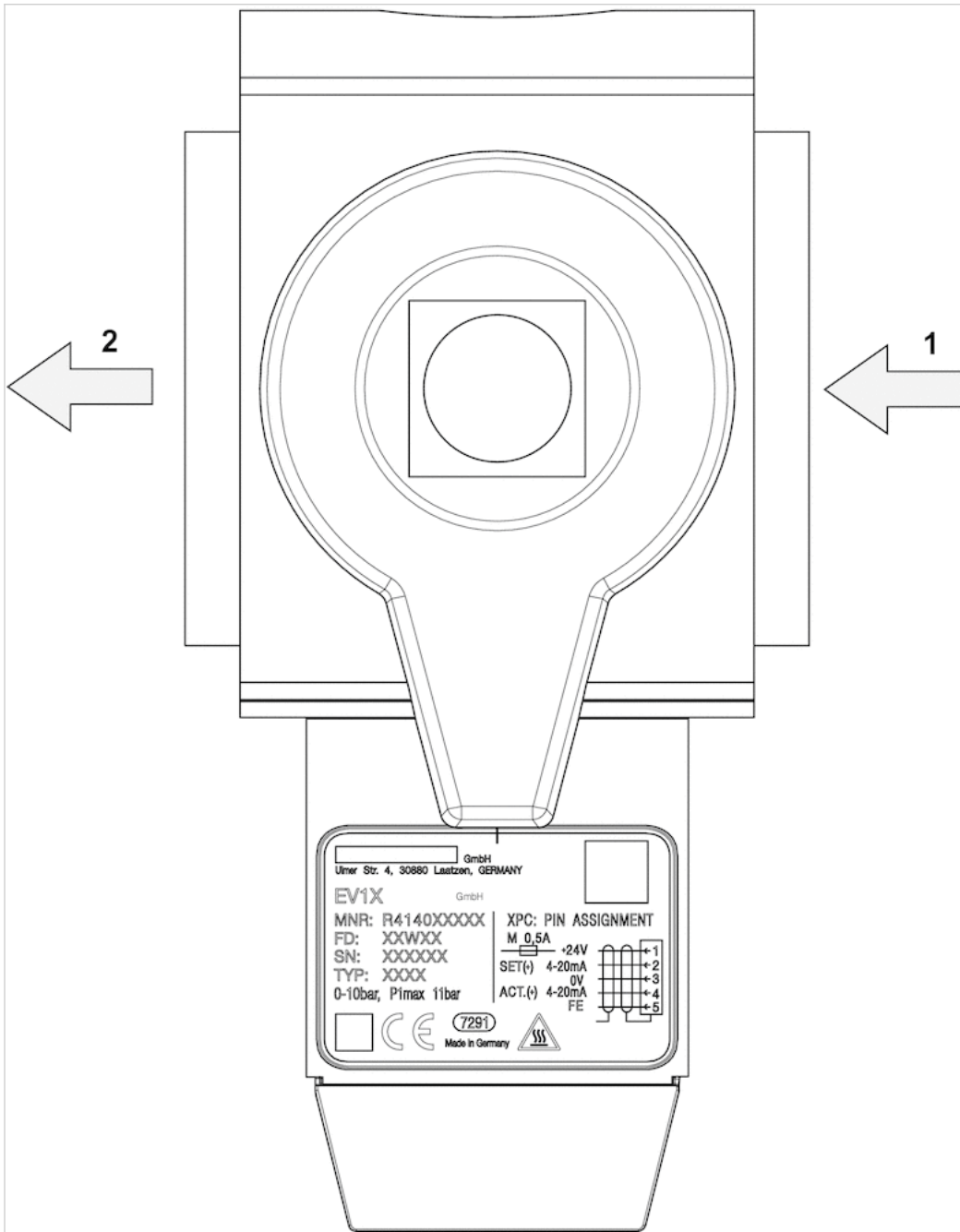
## Dimensions

### Dimensions



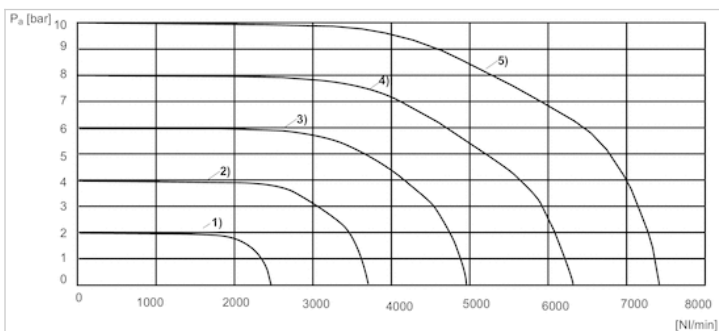
1) Connection thread

Pressure supply, right



Diagrams

Flow characteristic curve

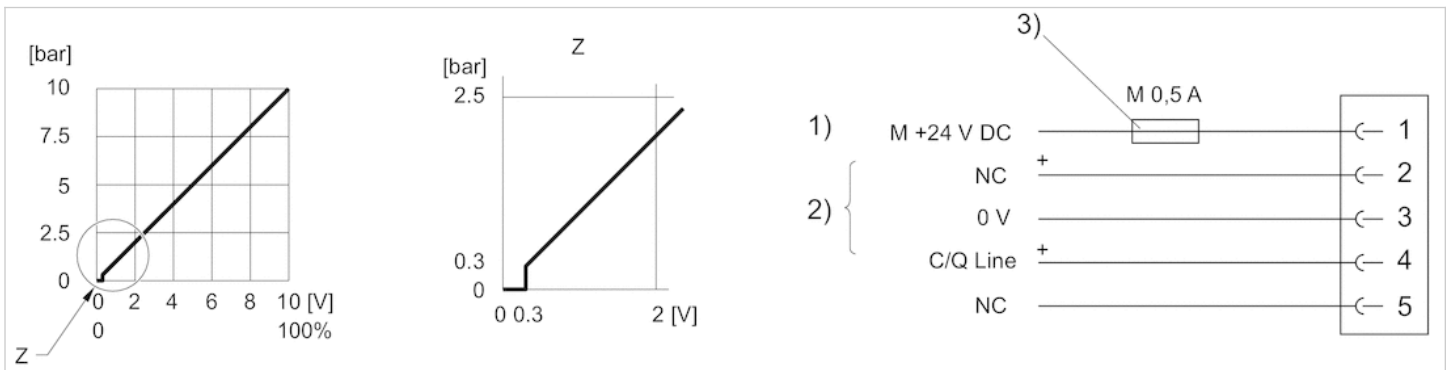


1)  $P_v = 3$  bar

- 2)  $P_v = 5 \text{ bar}$
- 3)  $P_v = 7 \text{ bar}$
- 4)  $P_v = 9 \text{ bar}$
- 5)  $P_v = 11 \text{ bar}$
- $P_v = \text{Supply pressure}$
- $P_a = \text{Working pressure}$
- $P_v = P_a + 1$

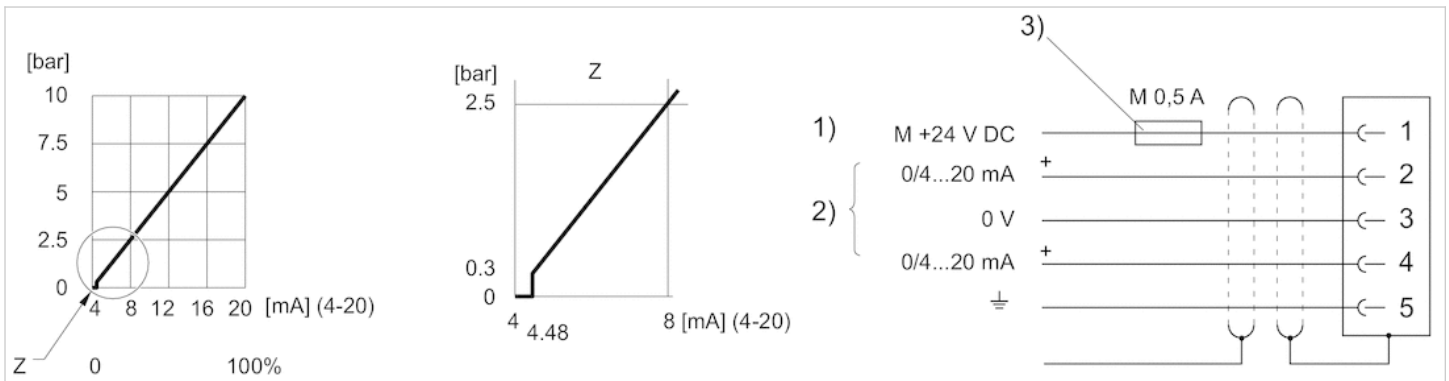
## Circuit diagram

### Characteristic curve and plug assignment for IO-Link version



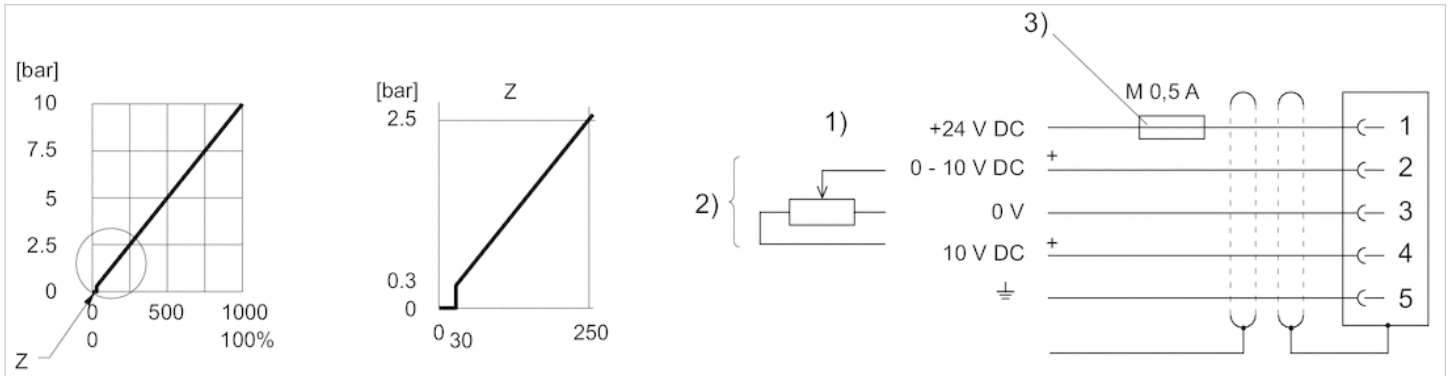
- 1) power supply
  - 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

### Characteristic and pin assignment for current control with actual output value



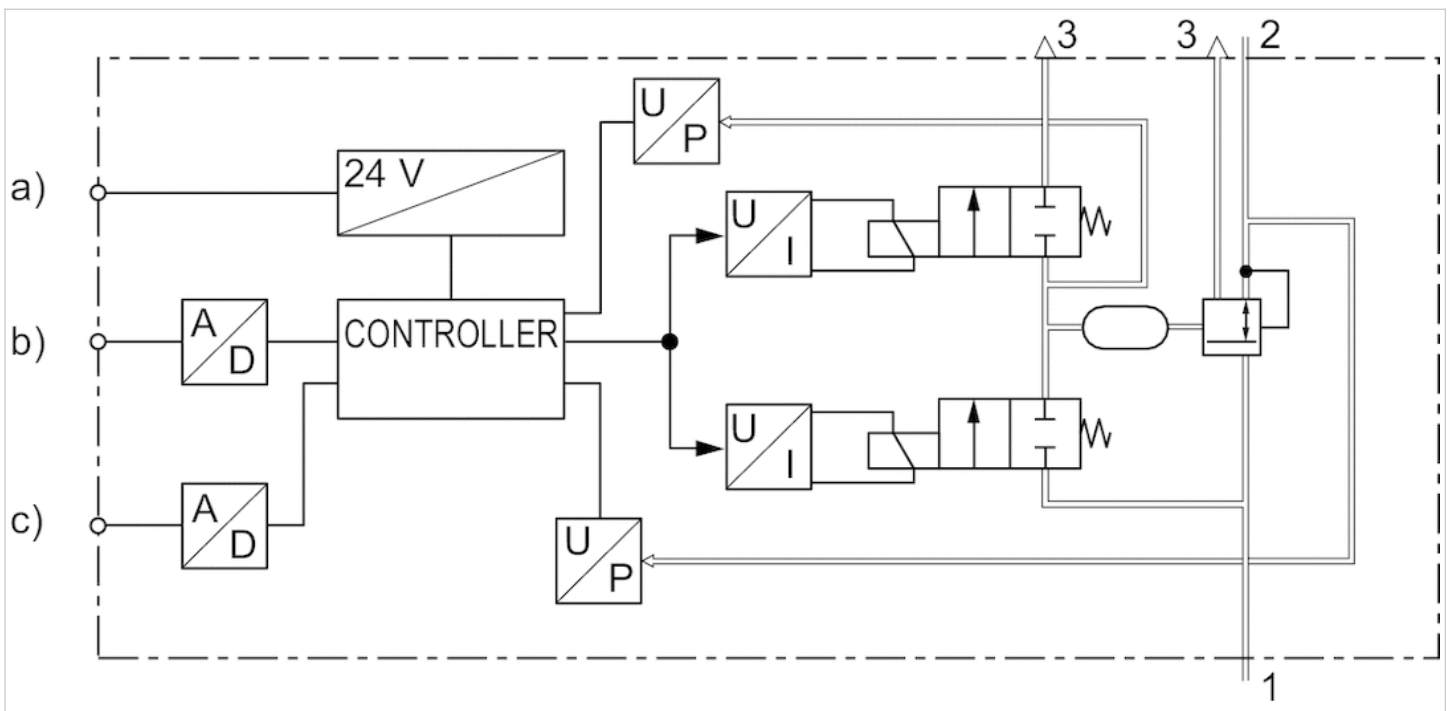
- 1) power supply
  - 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for voltage control with actual output value



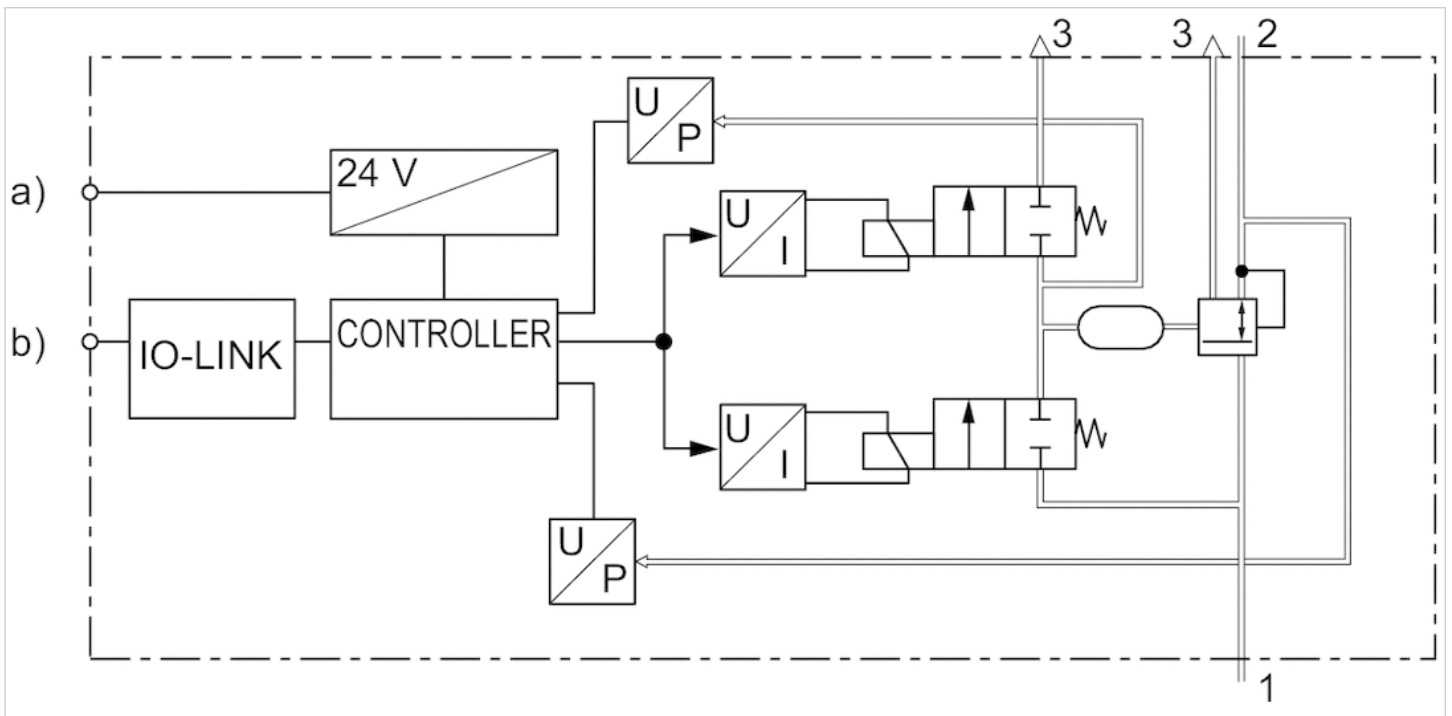
- 1) power supply
- 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value ( $R = 1\text{ M}\Omega$ ), actual output value: min. load resistance  $> 10\text{ K}\Omega$ . If the power supply is switched off, the nominal input value is high-ohmic.
- 3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

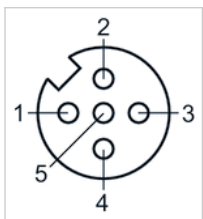
Functional diagram, IO-Link



- a) Supply Voltage
- b) C/Q Line

Pin assignments

Plug assignment



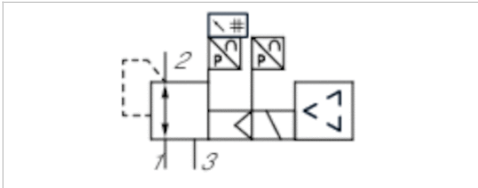
- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

# E/P pressure regulator, Series EV12

- Continuous pressure supply, Display: display
- $Q_n = 6500$  l/min
- Compressed air connection output G 1/2 G 3/8
- Electr. connection M12, 5-pin, A-coded
- serial control IO-Link
- Pilot valves



Version	Poppet valve
Working pressure max	11 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow $Q_n$	6500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar 0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	1.4 kg



## Technical data

Part No.	Compressed air connection		Nominal input value Min./max.
	Input	Output	
R414011390	G 1/2	G 1/2	0 ... 10 V
R414011391	G 1/2	G 1/2	0 ... 20 mA
R414011394	G 1/2	G 1/2	-
R414011402	G 3/8	G 3/8	0 ... 10 V
R414011403	G 3/8	G 3/8	4 ... 20 mA
R414011406	G 3/8	G 3/8	-

Part No.	Actual output value Min./max.		serial control
	R414011390	0 ... 10 V	
R414011391	4 ... 20 mA	-	
R414011394	-	IO-Link	
R414011402	0 ... 10 V	-	
R414011403	4 ... 20 mA	-	
R414011406	-	IO-Link	

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

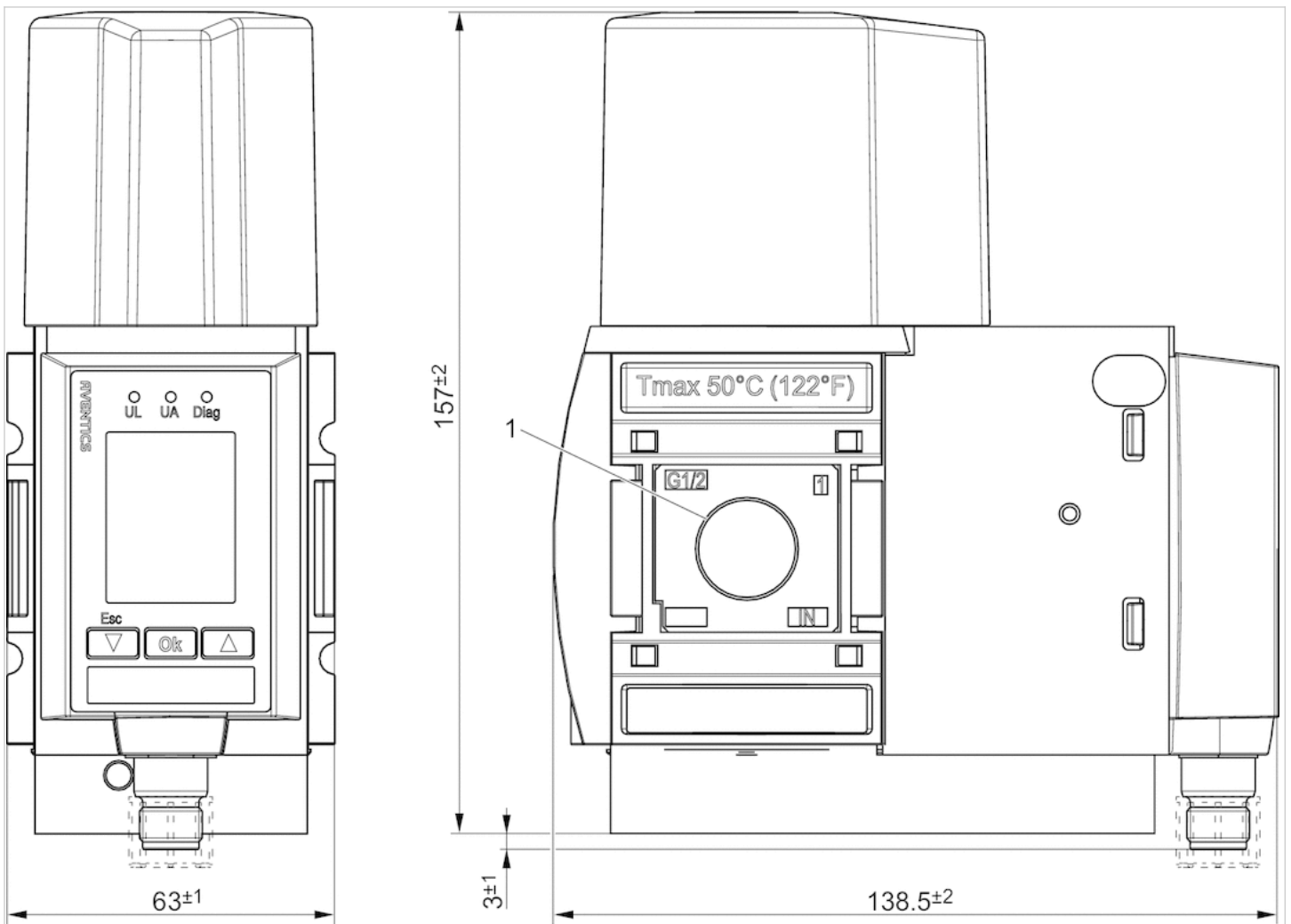
Power outage: maintain pressure

## Technical information

Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

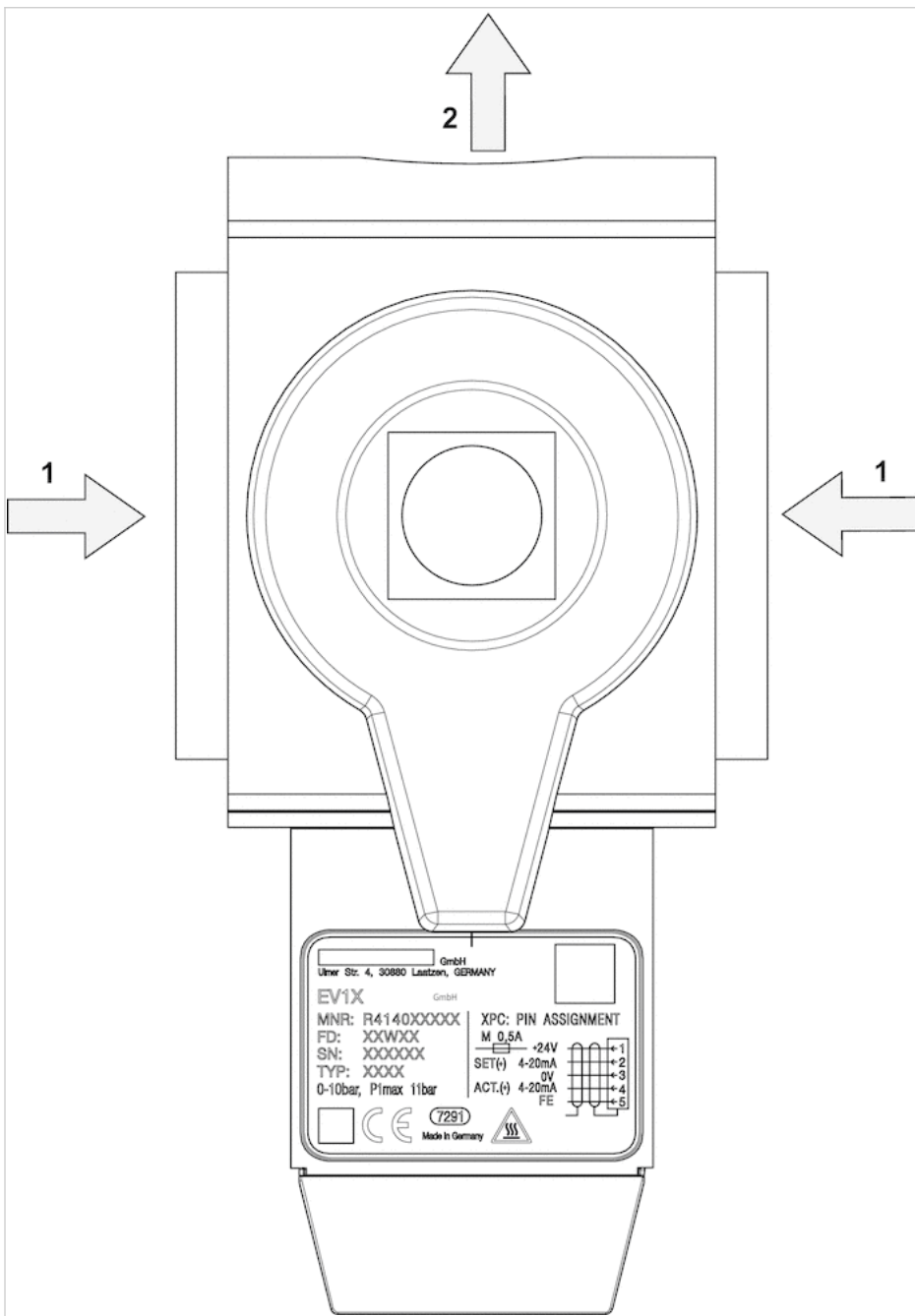
## Dimensions

### Dimensions



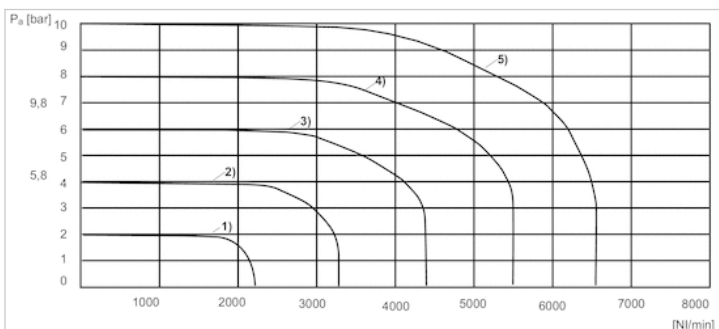
1) Connection thread

Continuous pressure supply



Diagrams

Flow characteristic curve



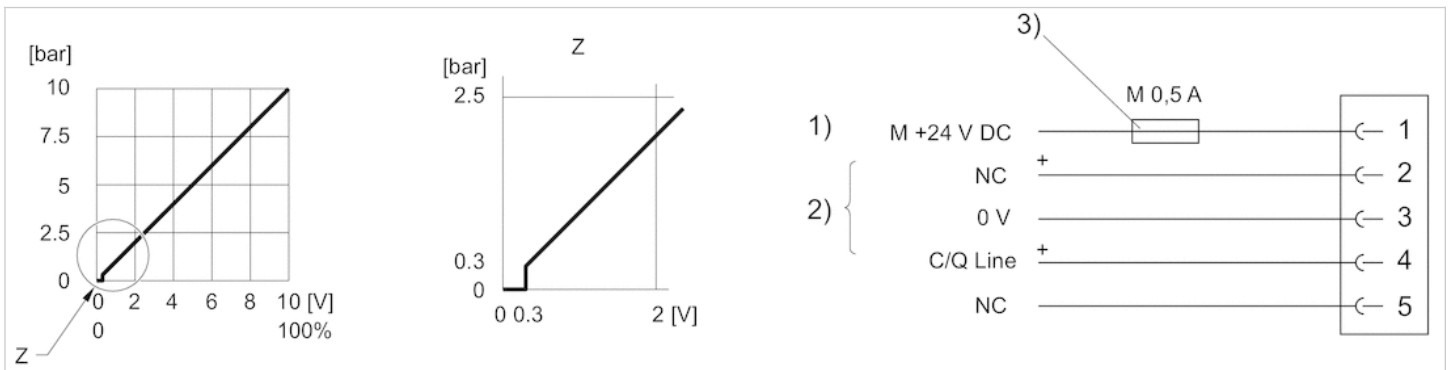
1) P<sub>v</sub> = 3 bar



- 2)  $P_v = 5 \text{ bar}$
- 3)  $P_v = 7 \text{ bar}$
- 4)  $P_v = 9 \text{ bar}$
- 5)  $P_v = 11 \text{ bar}$
- $P_v = \text{Supply pressure}$
- $P_a = \text{Working pressure}$
- $P_v = P_a + 1$

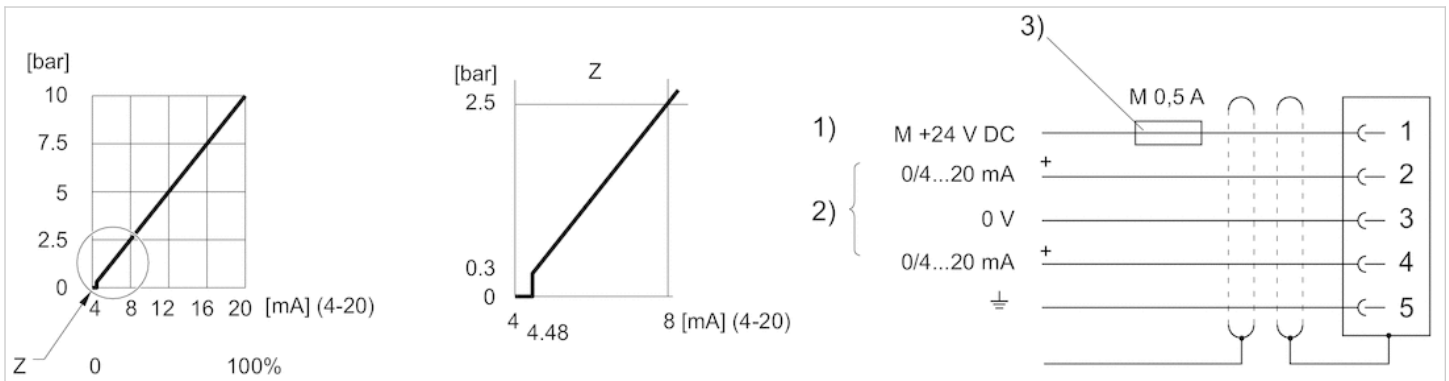
## Circuit diagram

### Characteristic curve and plug assignment for IO-Link version



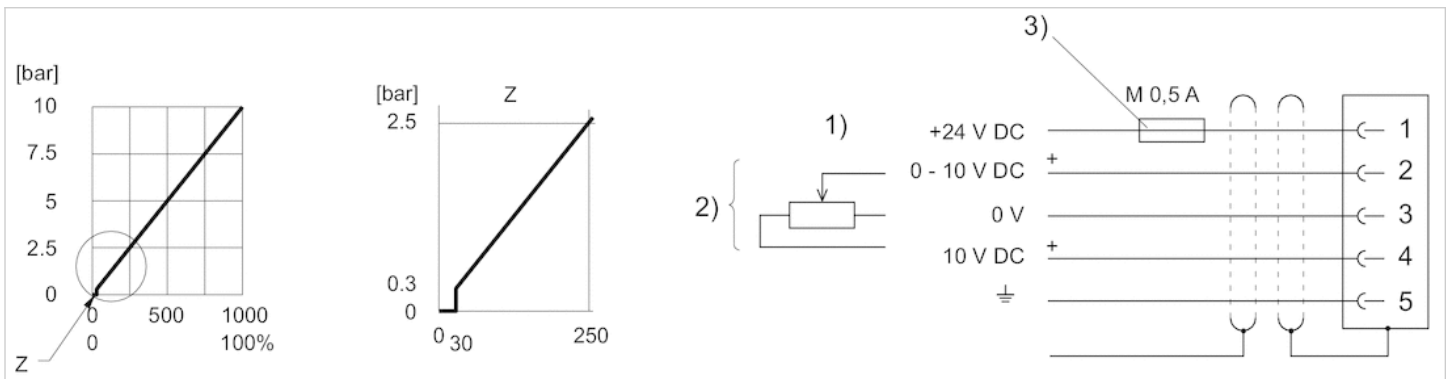
- 1) power supply
  - 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

### Characteristic and pin assignment for current control with actual output value



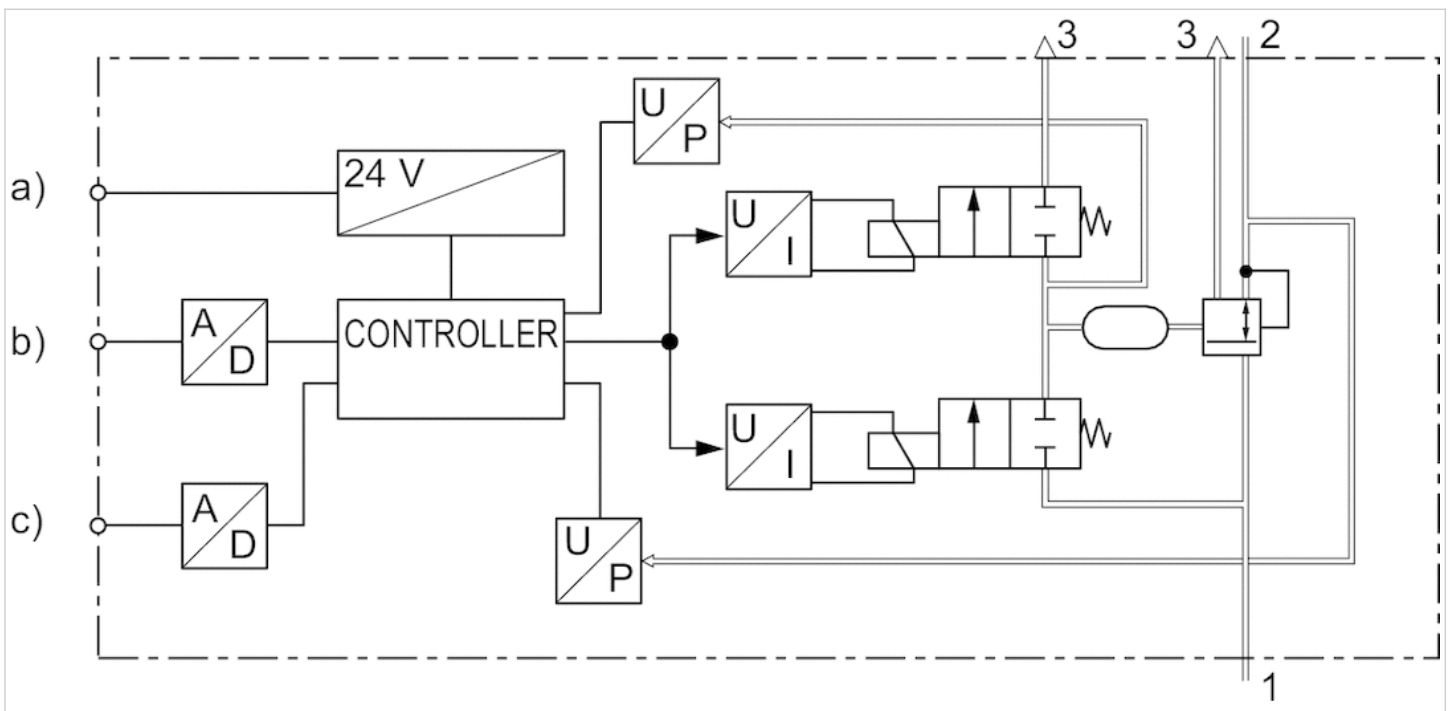
- 1) power supply
  - 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).  
Nominal input value (ohmic load 100  $\Omega$ ), actual output value: external ohmic load 300  $\Omega$ . If the power supply is switched off, the nominal input value is high-ohmic.
  - 3) The power supply must be protected by an external M 0.5 A fuse.
- Connect the plug via a shielded cable to ensure EMC.

### Characteristic and pin assignment for voltage control with actual output value



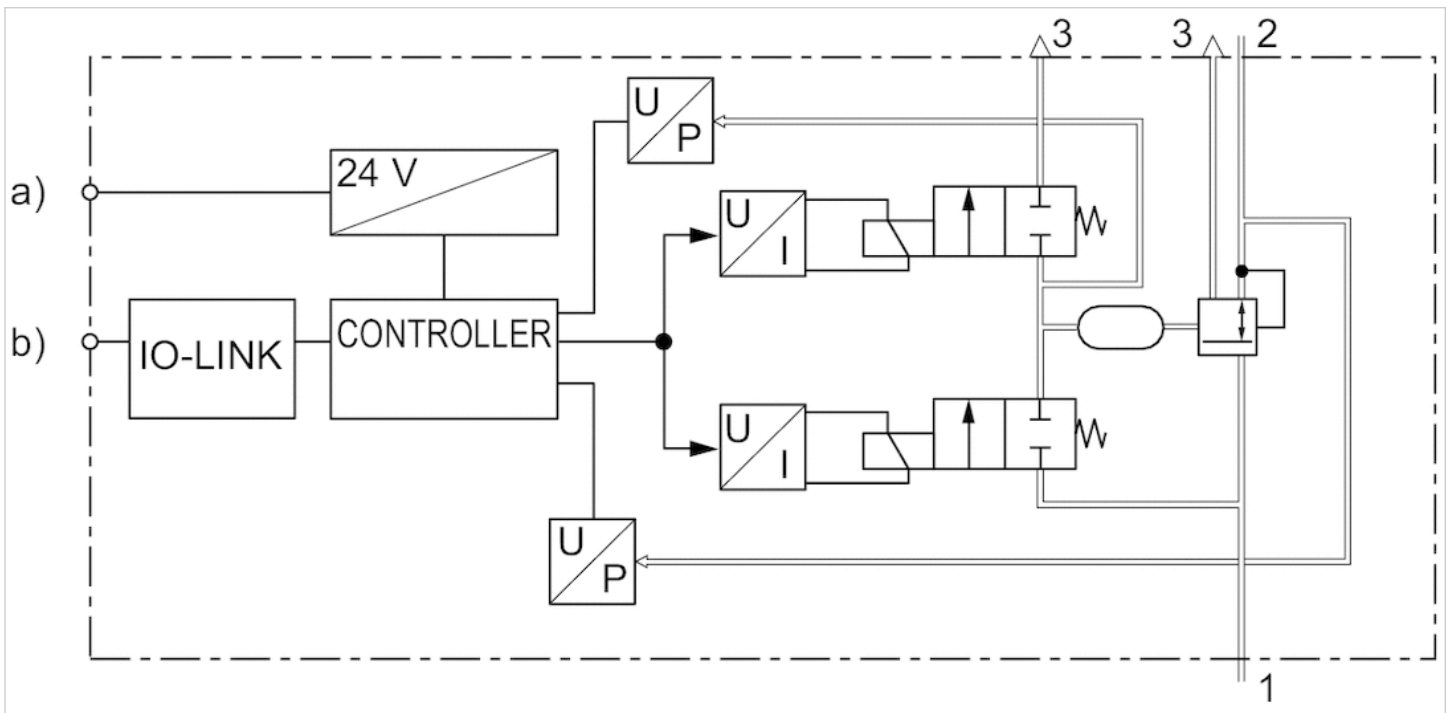
- 1) power supply
- 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).  
Nominal input value ( $R = 1\text{ M}\Omega$ ), actual output value: min. load resistance  $> 10\text{ K}\Omega$ . If the power supply is switched off, the nominal input value is high-ohmic.
- 3) The power supply must be protected by an external M 0.5 A fuse.  
Connect the plug via a shielded cable to ensure EMC.

### Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

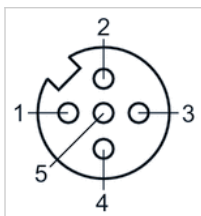
Functional diagram, IO-Link



- a) Supply Voltage
- b) C/Q Line

Pin assignments

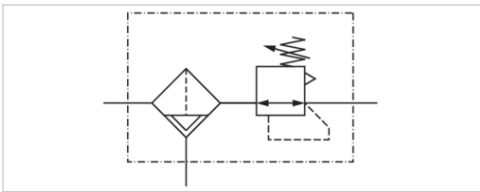
Plug assignment



- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

# Filter pressure regulator, Series AS3-FRE

- G 3/8 G 1/2
- filter porosity 5 µm
- lockable
- for padlocks
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Adjustment range min./max.
			Qn	
R412007175	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007193	G 3/8	5 µm	5100 l/min	0.5 ... 10 bar
R412007176	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007177	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007194	G 3/8	5 µm	5100 l/min	0.5 ... 10 bar
R412007195	G 3/8	5 µm	5100 l/min	0.5 ... 10 bar
R412007181	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007182	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007183	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007184	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007196	G 1/2	5 µm	5100 l/min	0.5 ... 10 bar
R412007190	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007240	G 1/2	5 µm	5100 l/min	0.5 ... 16 bar
R412007185	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007186	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007197	G 1/2	5 µm	5100 l/min	0.5 ... 10 bar
R412007198	G 1/2	5 µm	5100 l/min	0.5 ... 10 bar
R412007238	G 1/2	5 µm	5100 l/min	0.5 ... 16 bar

Part No.	Port	filter porosity	Flow	Adjustment range min./max.
			Qn	
R412007192	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007191	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007241	G 1/2	5 µm	5100 l/min	0.5 ... 16 bar
R412007242	G 1/2	5 µm	5100 l/min	0.5 ... 16 bar

Part No.	Condensate drain	Reservoir	Protective guard	Weight
R412007175	semi-automatic, open without pressure	Polycarbonate	Polyamide	0.586 kg
R412007193	semi-automatic, open without pressure	Polycarbonate	Polyamide	0.818 kg
R412007176	fully automatic, open without pressure	Polycarbonate	Polyamide	0.635 kg
R412007177	fully automatic, closed without pressure	Polycarbonate	Polyamide	0.635 kg
R412007194	fully automatic, open without pressure	Polycarbonate	Polyamide	0.87 kg
R412007195	fully automatic, closed without pressure	Polycarbonate	Polyamide	0.87 kg
R412007181	fully automatic, closed without pressure	Die cast zinc	-	0.818 kg
R412007182	fully automatic, open without pressure	Die cast zinc	-	0.87 kg
R412007183	fully automatic, closed without pressure	Die cast zinc	-	0.87 kg
R412007184	semi-automatic, open without pressure	Polycarbonate	Polyamide	0.586 kg
R412007196	semi-automatic, open without pressure	Polycarbonate	Polyamide	0.586 kg
R412007190	semi-automatic, open without pressure	Die cast zinc	-	0.797 kg
R412007240	semi-automatic, open without pressure	Die cast zinc	-	0.797 kg
R412007185	fully automatic, open without pressure	Polycarbonate	Polyamide	0.635 kg
R412007186	fully automatic, closed without pressure	Polycarbonate	Polyamide	0.635 kg
R412007197	fully automatic, open without pressure	Polycarbonate	Polyamide	0.635 kg
R412007198	fully automatic, closed without pressure	Polycarbonate	Polyamide	0.635 kg
R412007238	fully automatic, closed without pressure	Polycarbonate	Polyamide	0.635 kg
R412007192	fully automatic, closed without pressure	Die cast zinc	-	0.85 kg
R412007191	fully automatic, open without pressure	Die cast zinc	-	0.85 kg
R412007241	fully automatic, open without pressure	Die cast zinc	-	0.85 kg
R412007242	fully automatic, closed without pressure	Die cast zinc	-	0.85 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

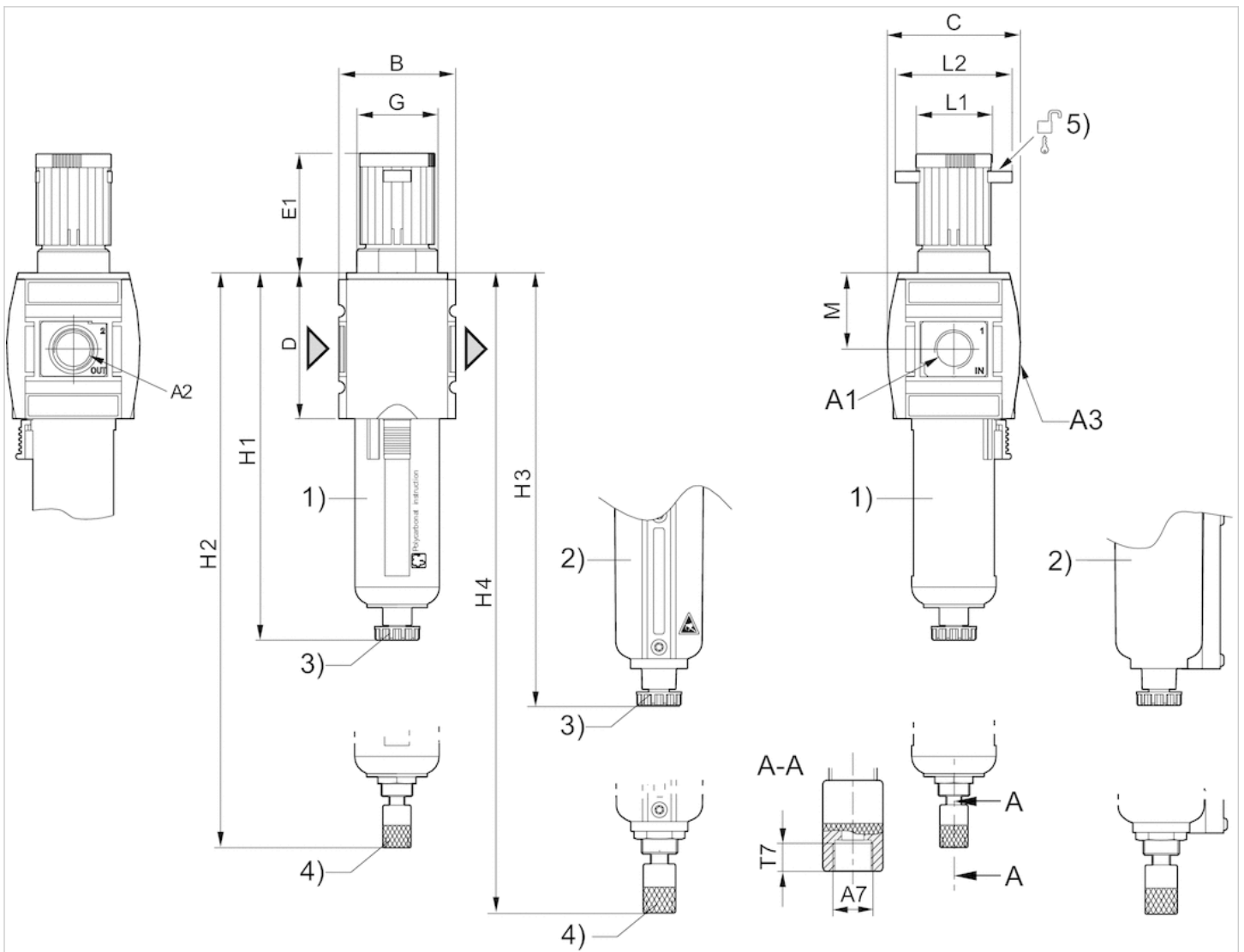
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



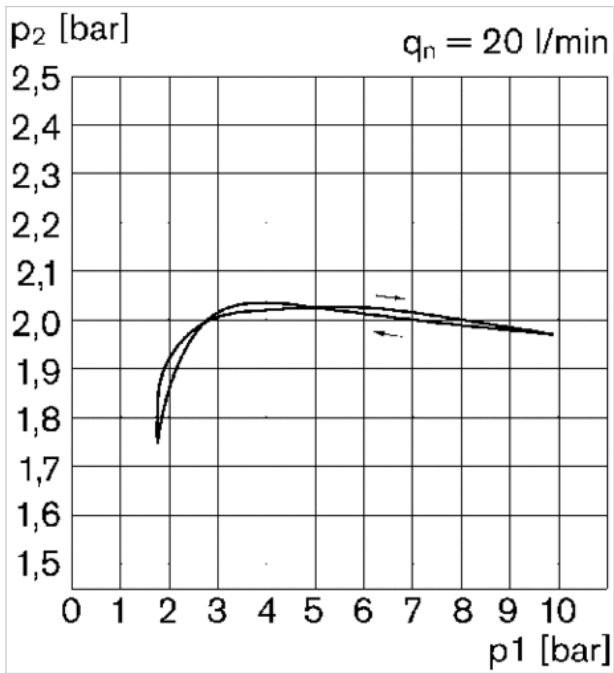
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with level indicator
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain
- 5) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	A7	B	C	D	E1	G	H1	H2	H3	H4	L1	L2	M
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	--	--	--	41	60	42.5
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	206	--	--	41	60	42.5
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	193.5	--	41	60	42.5
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	--	210.5	41	60	42.5
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	--	--	--	41	60	42.5
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	193.5	--	41	60	42.5
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	206	--	--	41	60	42.5
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	--	210.5	41	60	42.5

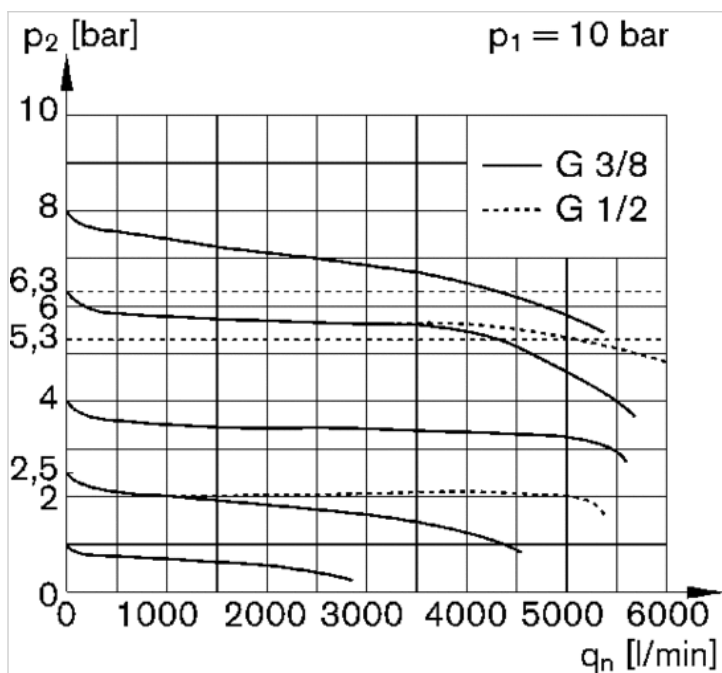
Diagrams

Pressure characteristics curve



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

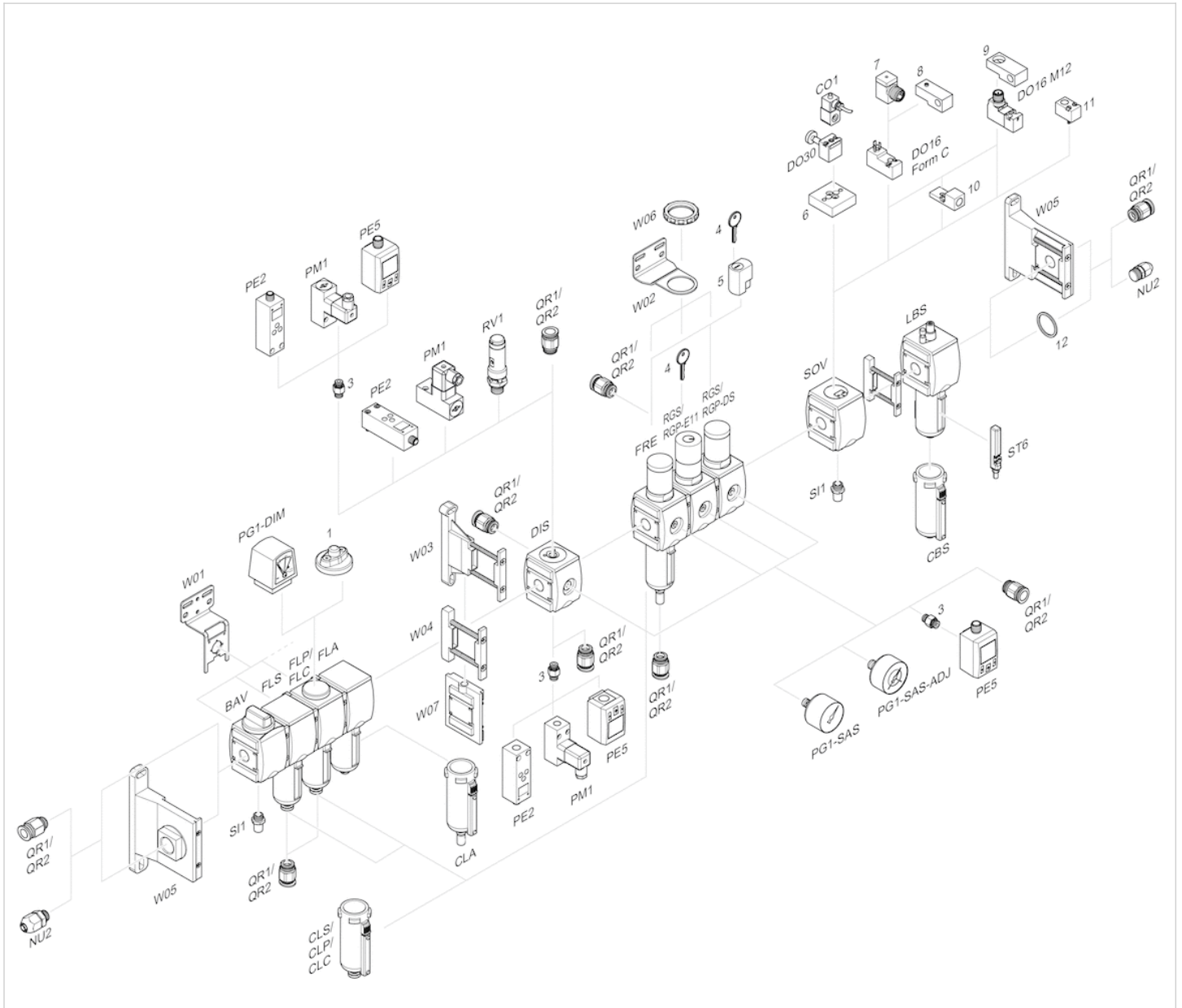
Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow



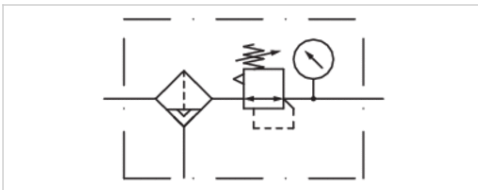
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter pressure regulator, Series AS3-FRE

- G 3/8 G 1/2
- filter porosity 5 µm
- lockable
- for padlocks
- with pressure gauge
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	See table below
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Adjustment range min./max.
			Qn	
R412007200	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007201	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007202	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007206	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007207	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007208	G 3/8	5 µm	5100 l/min	0.5 ... 8 bar
R412007209	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007237	G 1/2	5 µm	5100 l/min	0.5 ... 16 bar
R412007210	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007211	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007215	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007216	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar
R412007217	G 1/2	5 µm	5100 l/min	0.5 ... 8 bar

Part No.	Condensate drain	Pressure gauge	Reservoir
R412007200	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412007201	fully automatic, open without pressure	with pressure gauge	Polycarbonate

Part No.	Condensate drain	Pressure gauge	Reservoir
R412007202	fully automatic, closed without pressure	with pressure gauge	Polycarbonate
R412007206	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
R412007207	fully automatic, open without pressure	with pressure gauge	Die cast zinc
R412007208	fully automatic, closed without pressure	with pressure gauge	Die cast zinc
R412007209	semi-automatic, open without pressure	with pressure gauge	Polycarbonate
R412007237	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412007210	fully automatic, open without pressure	with pressure gauge	Polycarbonate
R412007211	fully automatic, closed without pressure	with pressure gauge	Polycarbonate
R412007215	semi-automatic, open without pressure	with pressure gauge	Die cast zinc
R412007216	fully automatic, open without pressure	with pressure gauge	Die cast zinc
R412007217	fully automatic, closed without pressure	with pressure gauge	Die cast zinc

Part No.	Protective guard	Weight
R412007200	Polyamide	0.658 kg
R412007201	Polyamide	0.707 kg
R412007202	Polyamide	0.707 kg
R412007206	-	0.89 kg
R412007207	-	0.943 kg
R412007208	-	0.943 kg
R412007209	Polyamide	0.658 kg
R412007237	Polyamide	0.658 kg
R412007210	Polyamide	0.707 kg
R412007211	Polyamide	0.707 kg
R412007215	-	0.87 kg
R412007216	-	0.922 kg
R412007217	-	0.922 kg

Pressure gauge enclosed separately, Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

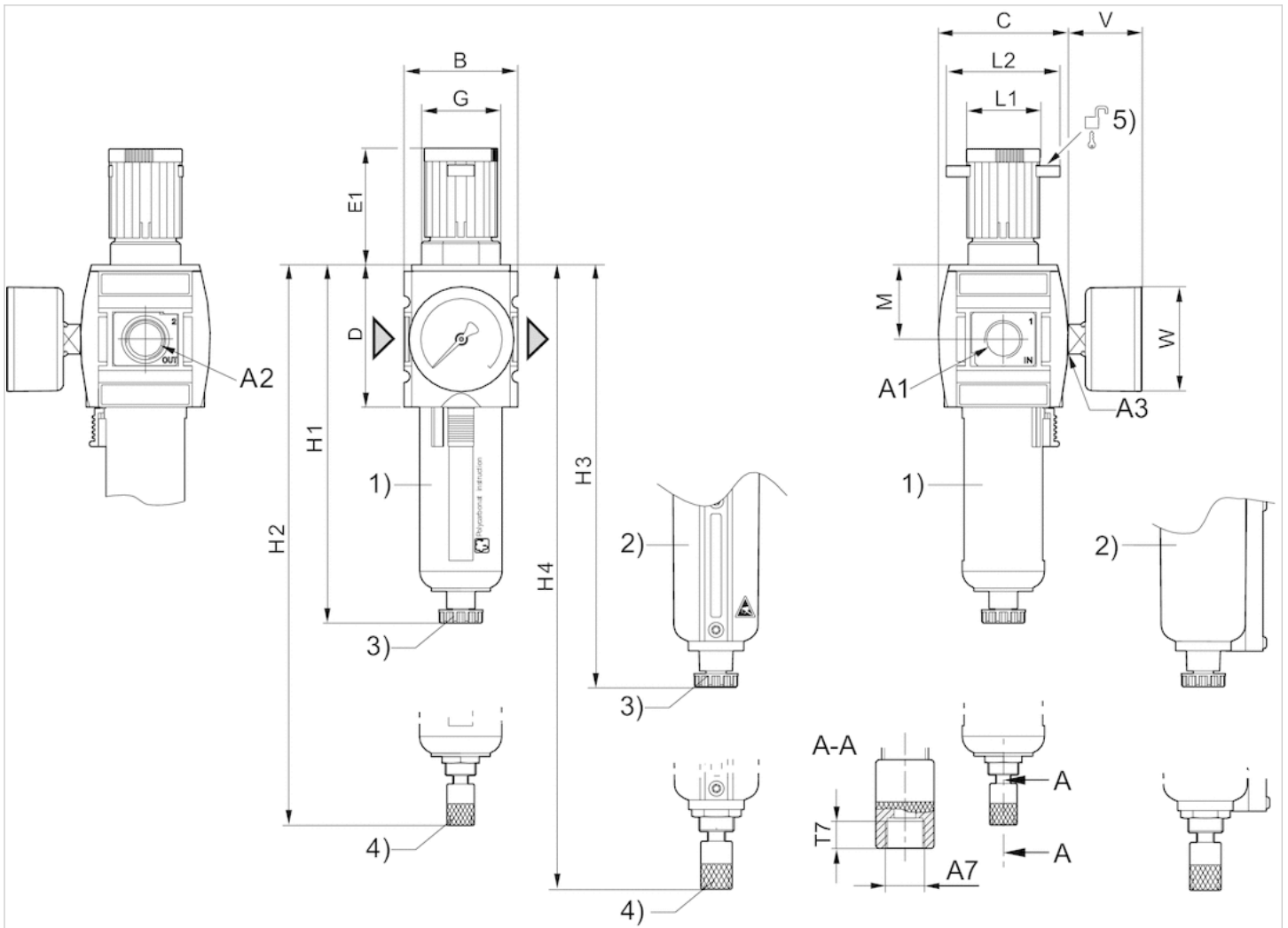
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



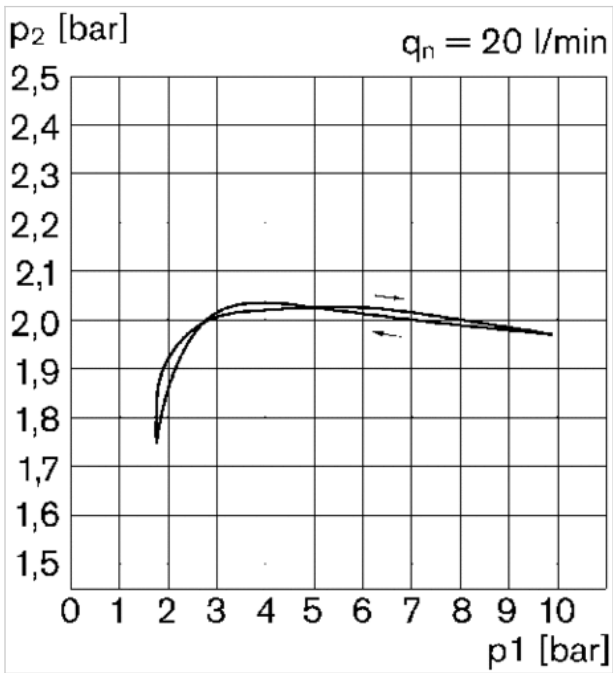
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with level indicator
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain
- 5) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	A7	B	C	D	E1	G	H1	H2	H3	H4	L1	L2	M	T7	V	W
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	--	--	--	41	60	42.5	8.5	33	50
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	206	--	--	41	60	42.5	8.5	33	50
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	193.5	--	41	60	42.5	8.5	33	50
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	--	210.5	41	60	42.5	8.5	33	50
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	--	--	--	41	60	42.5	8.5	33	50
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	206	--	--	41	60	42.5	8.5	33	50
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	193.5	--	41	60	42.5	8.5	33	50
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	--	--	--	210.5	41	60	42.5	8.5	33	50

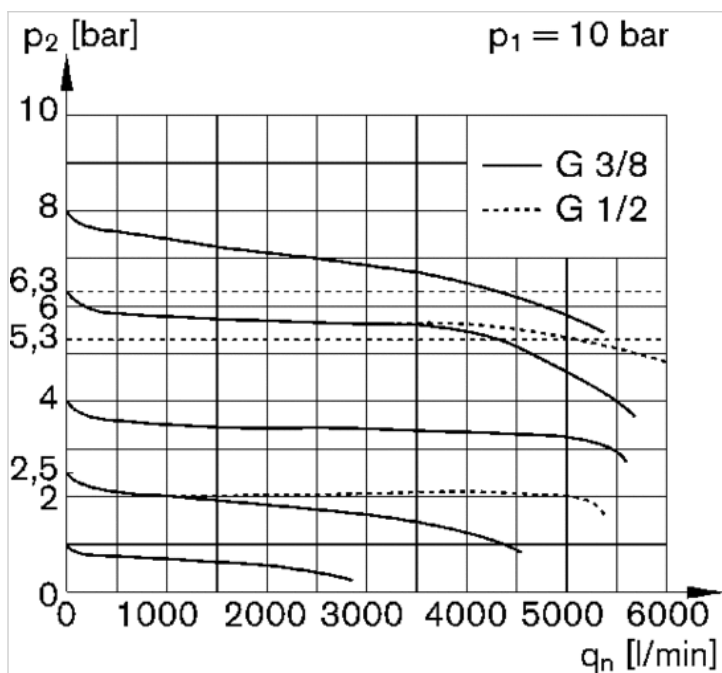
Diagrams

Pressure characteristics curve



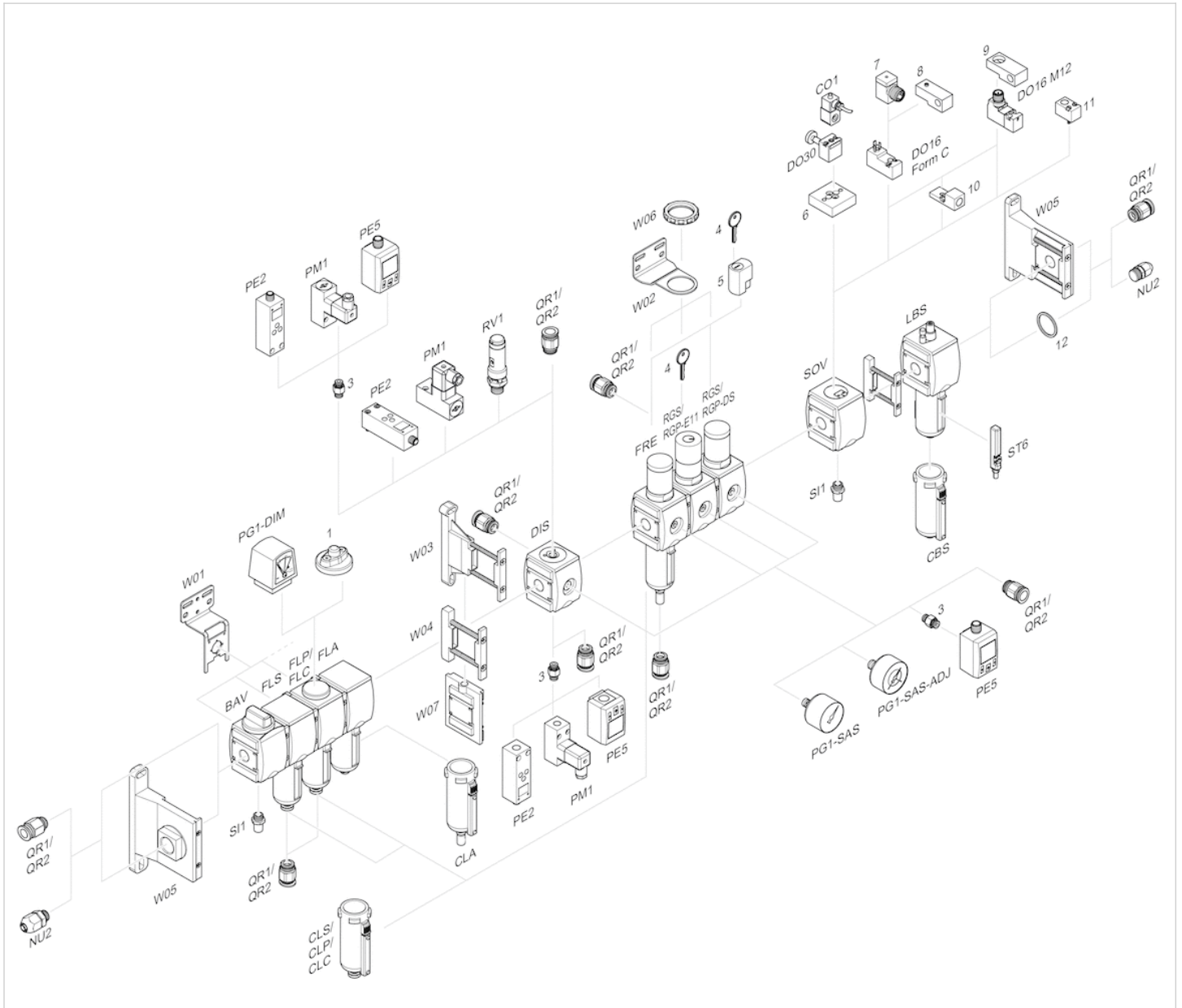
p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow

Flow rate characteristic (p2: 0,5 - 8 bar)



p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow

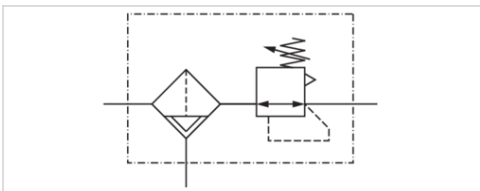
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter pressure regulator, Series AS3-FRE-...-E11

- G 1/2
- filter porosity 5  $\mu\text{m}$
- lockable
- with E11 locking



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	fully automatic, closed without pressure
Weight	0.635 kg

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
R412007203	G 1/2	5 $\mu\text{m}$	5100 l/min	fully automatic, closed without pressure

Order pressure gauge separately, Nominal flow Qn with secondary pressure p<sub>2</sub> = 6 bar at  $\Delta p$  = 1 bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The E11 locking is delivered without a key (see accessories for keys).

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

## Technical information

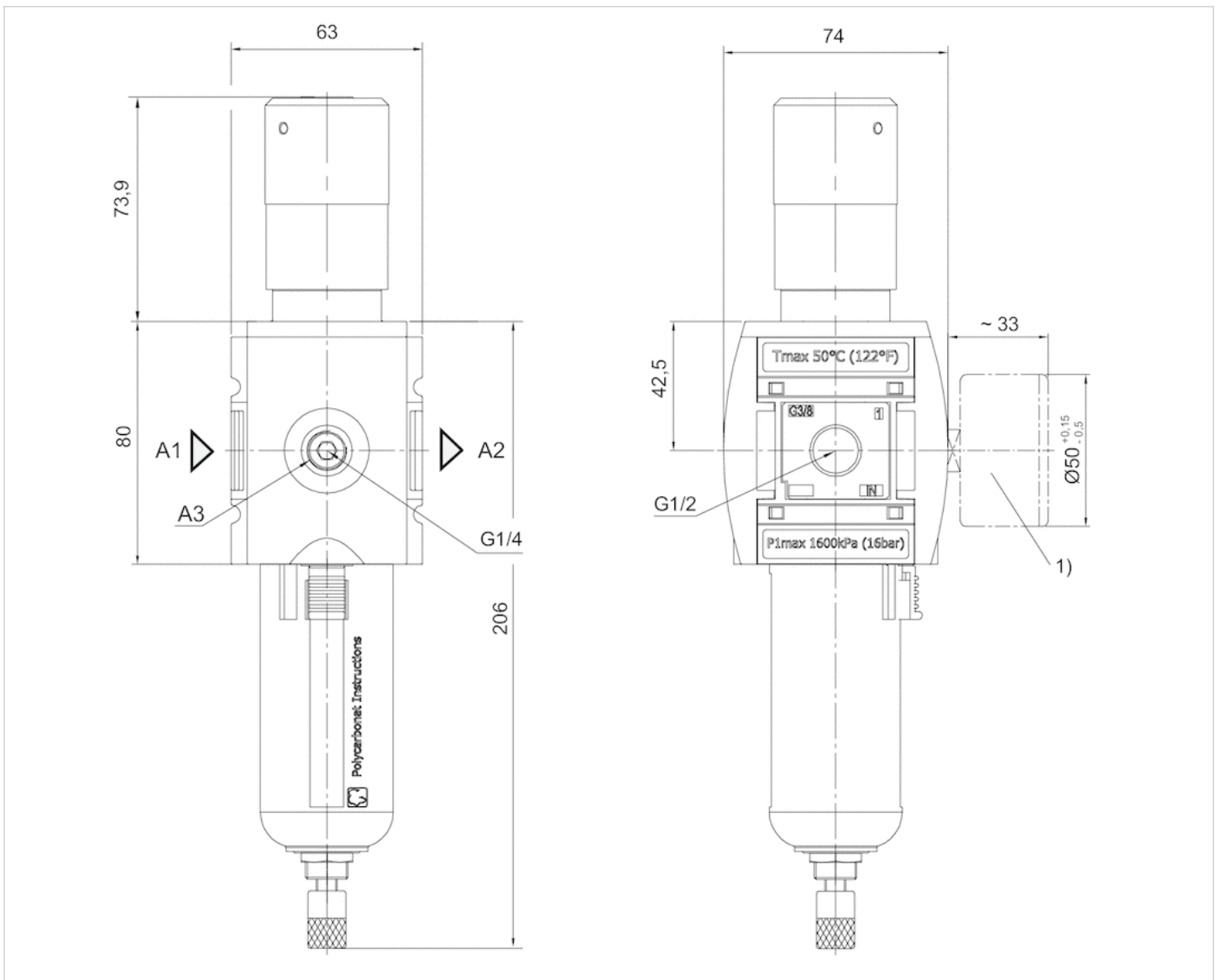
Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene



Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

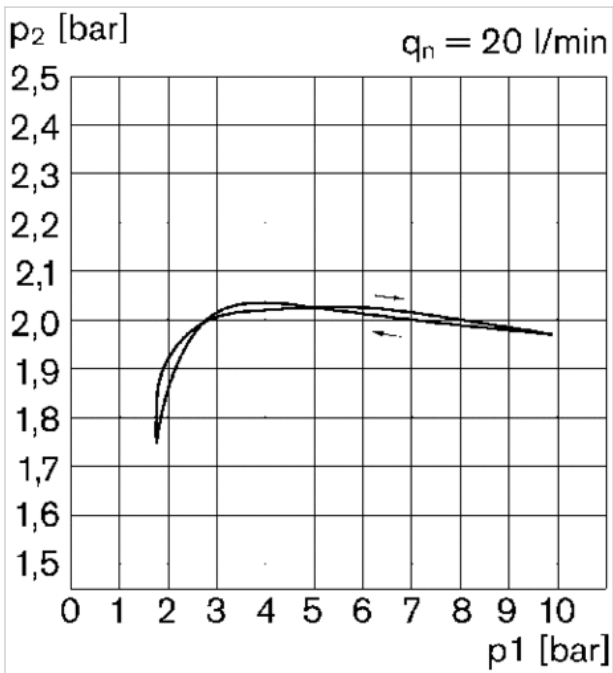
### Dimensions



- A1 = input
- A2 = output
- A3 = pressure gauge connection
- 1) Order pressure gauge separately

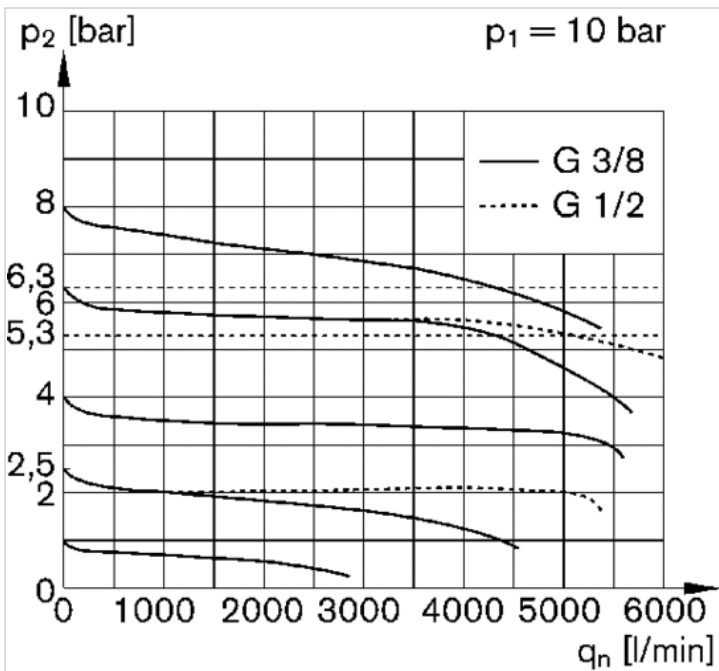
## Diagrams

### Pressure characteristics curve



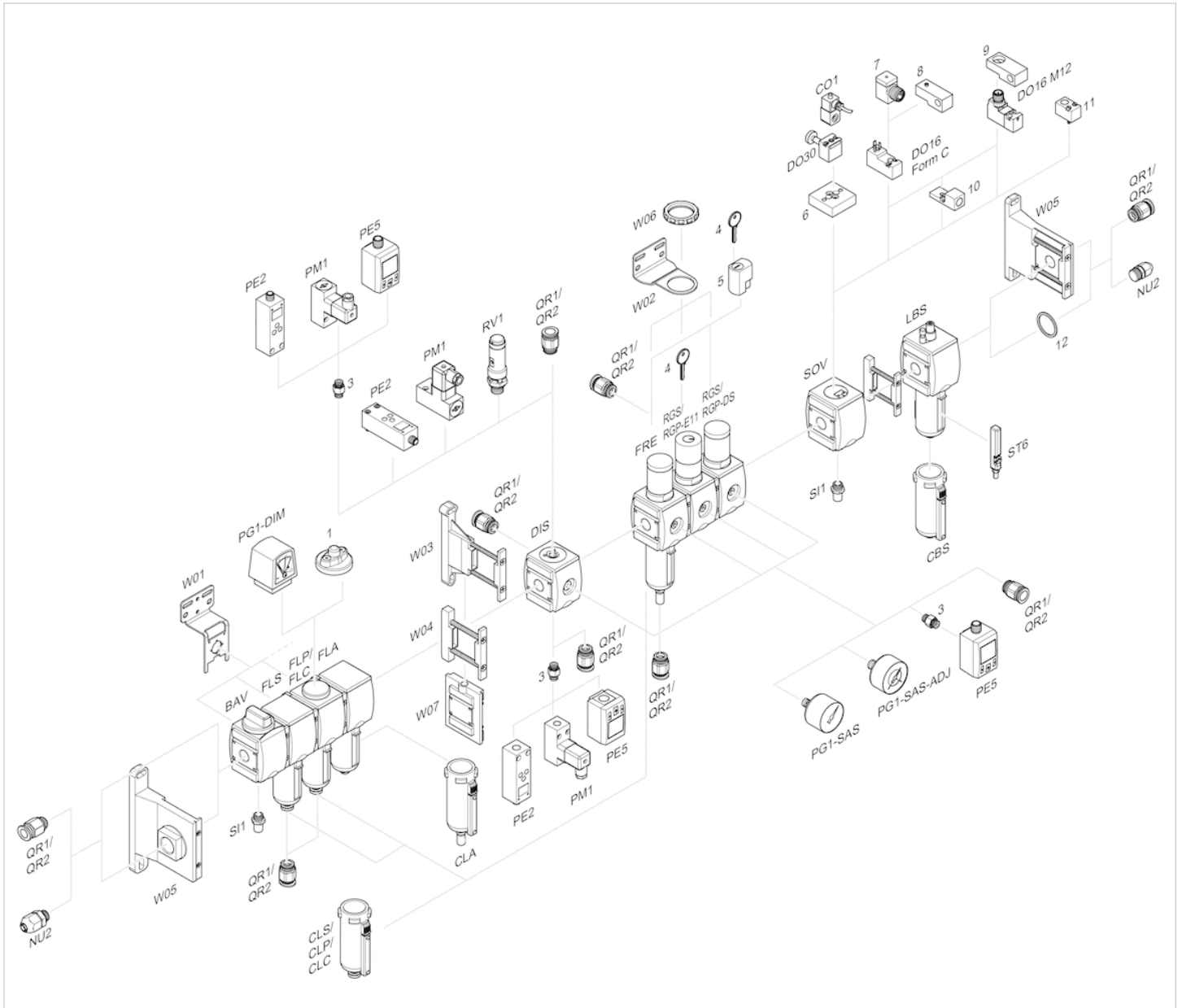
$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

### Flow rate characteristic ( $p_2$ : 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

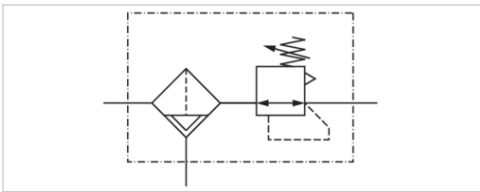
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter pressure regulator, Series AS3-FRE

- G 1/2
- filter porosity 25 µm
- lockable
- for padlocks
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 8 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure
Weight	0.797 kg

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
R412007189	G 1/2	25 µm	5100 l/min	semi-automatic, open without pressure

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

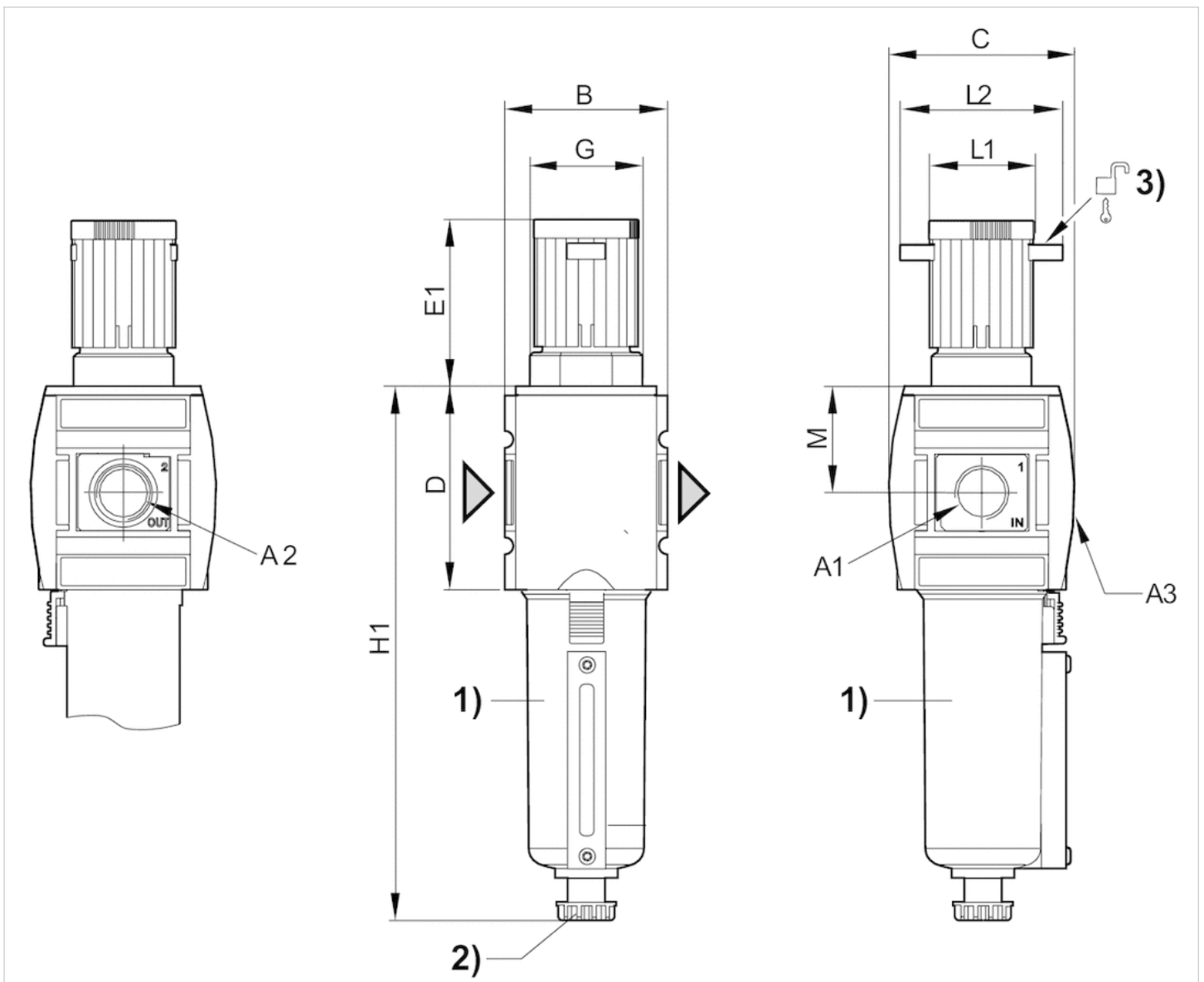
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Die cast zinc
Filter insert	Polyethylene

## Dimensions

### Dimensions



A1 = input  
 A2 = output  
 A3 = pressure gauge connection

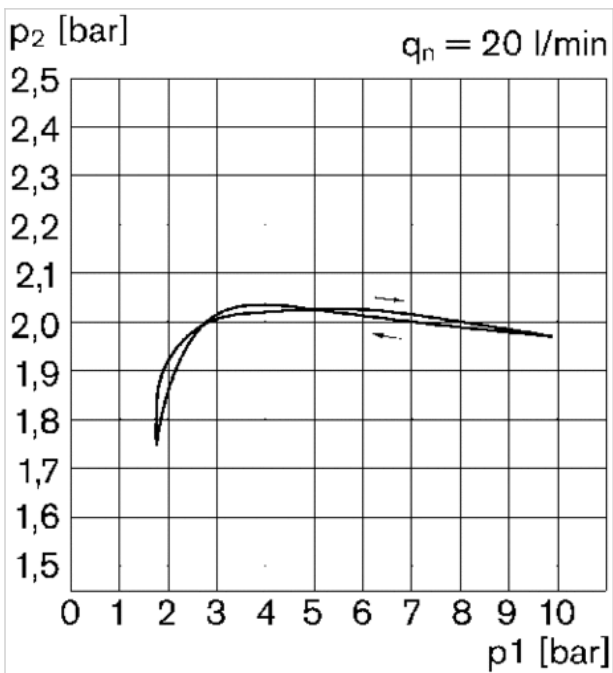
- 1) Metal reservoir with level indicator
- 2) Semi-automatic condensate drain
- 3) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A1	A2	A3	B	C	D	E1	G	H1	L1	L2	M
G 1/2	G 1/2	G 1/4	63	74	80	63.5	M42x1,5	193.5	41	60	42.5

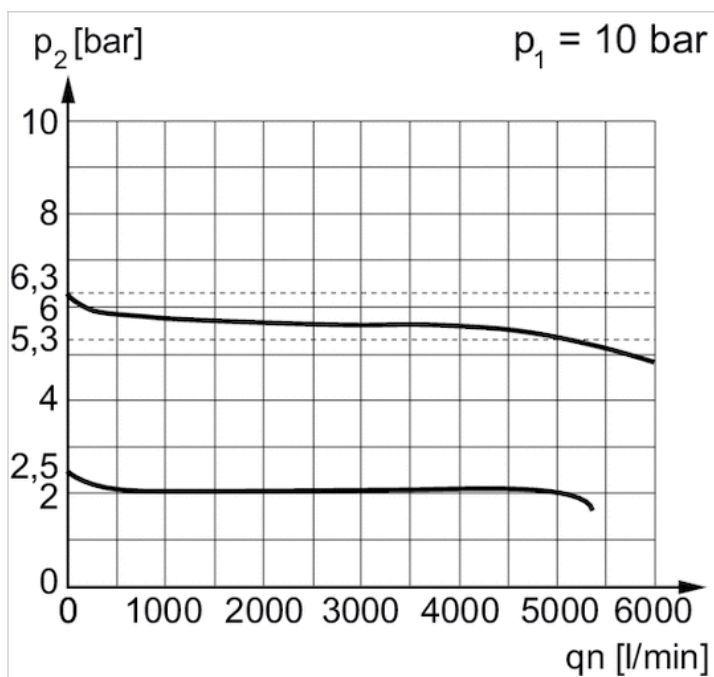
Diagrams

Pressure characteristics curve



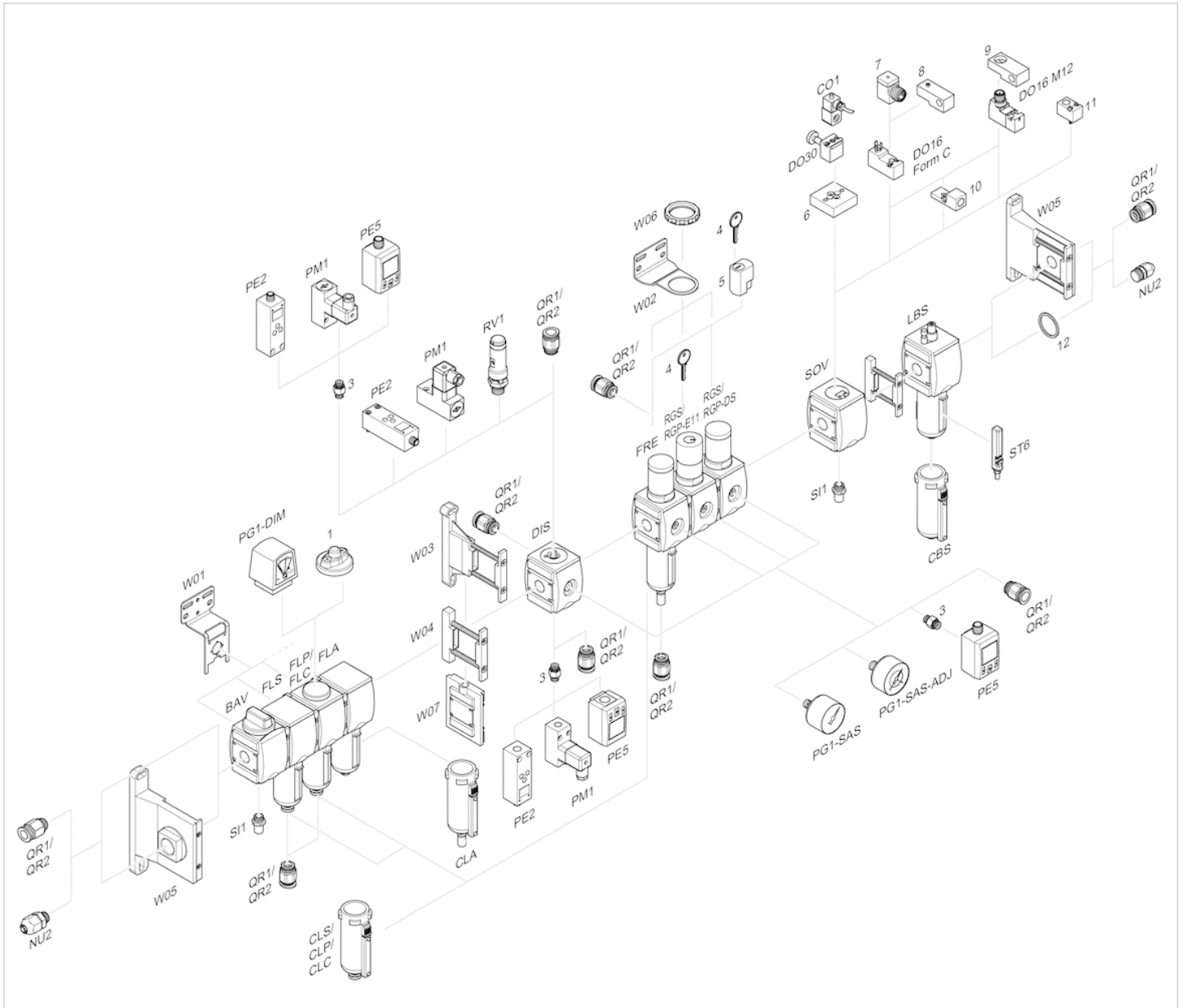
p1 = Working pressure  
 p2 = Secondary pressure  
 qn = Nominal flow

## Flow rate characteristic (p2: 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

## Accessories overview

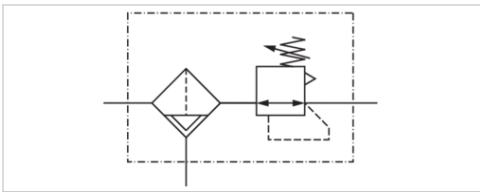


- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring



# Filter pressure regulator, Series AS3-FRE

- G 3/8 G 1/2
- filter porosity 40 µm
- lockable
- for padlocks
- suitable for ATEX



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Weight	See table below

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain	Weight
			Qn		
R412007218	G 3/8	40 µm	5100 l/min	semi-automatic, open without pressure	0.586 kg
R412007219	G 3/8	40 µm	5100 l/min	fully automatic, open without pressure	0.635 kg
R412007220	G 3/8	40 µm	5100 l/min	fully automatic, closed without pressure	0.635 kg
R412007221	G 1/2	40 µm	5100 l/min	semi-automatic, open without pressure	0.586 kg
R412007222	G 1/2	40 µm	5100 l/min	fully automatic, open without pressure	0.635 kg
R412007223	G 1/2	40 µm	5100 l/min	fully automatic, closed without pressure	0.635 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Order pressure gauge separately, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

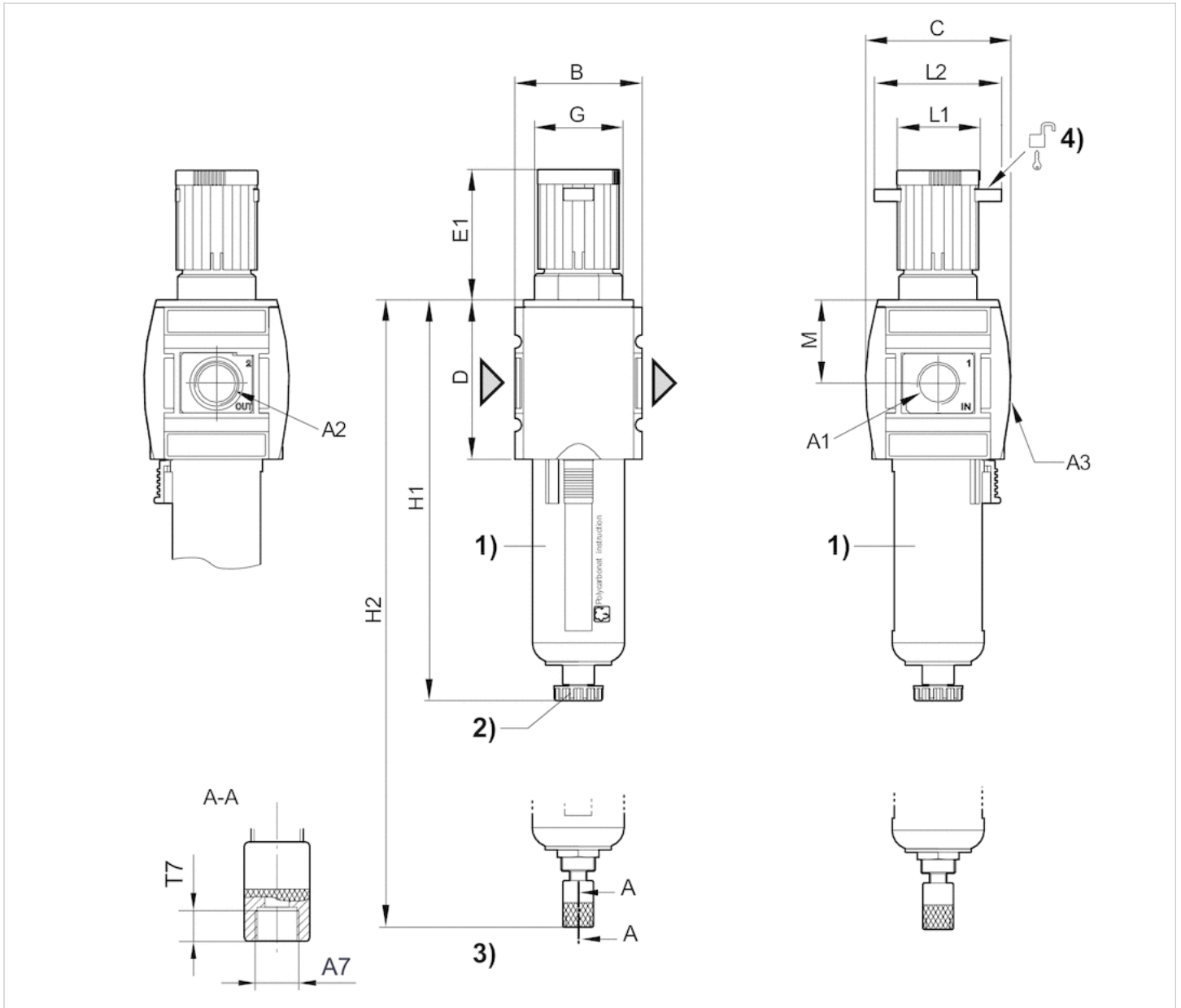
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

# Dimensions

## Dimensions



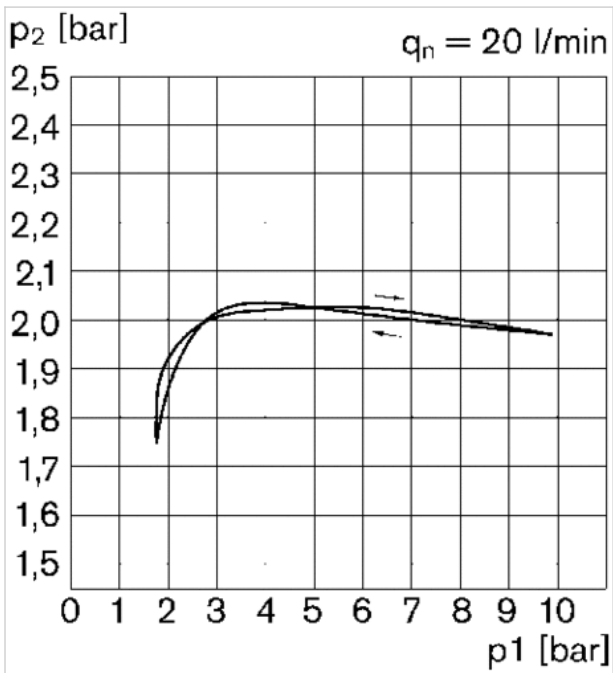
- A1 = input
- A2 = output
- A3 = pressure gauge connection
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Semi-automatic condensate drain
- 3) Fully automatic condensate drain
- 4) Mounting option for padlocks, max. shackle Ø 8

## Dimensions in mm

A1	A2	A3	A7	B	C	D	E1	G	H1	H2	L1	L2	T7	M
G 3/8	G 3/8	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	206	41	60	8.5	42.5
G 1/2	G 1/2	G 1/4	G 1/8	63	74	80	63.5	M42x1,5	189.5	206	41	60	8.5	42.5

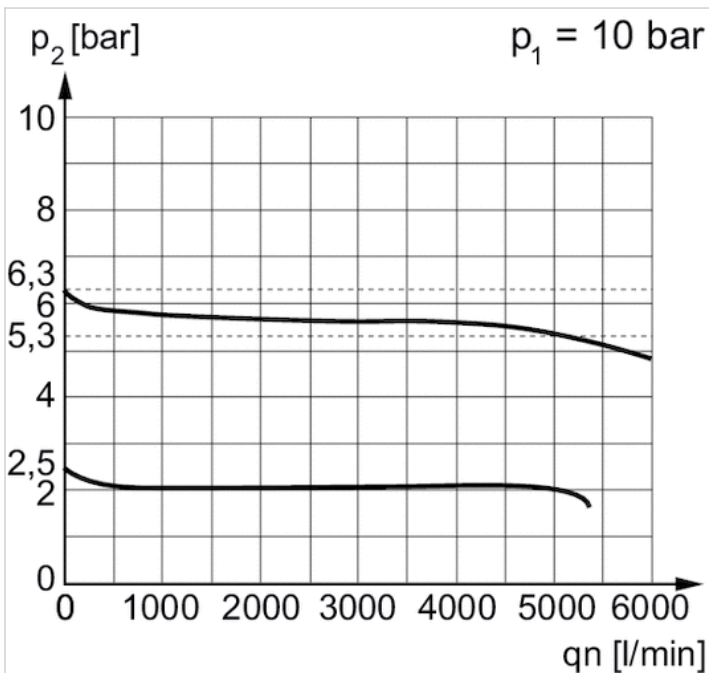
## Diagrams

### Pressure characteristics curve



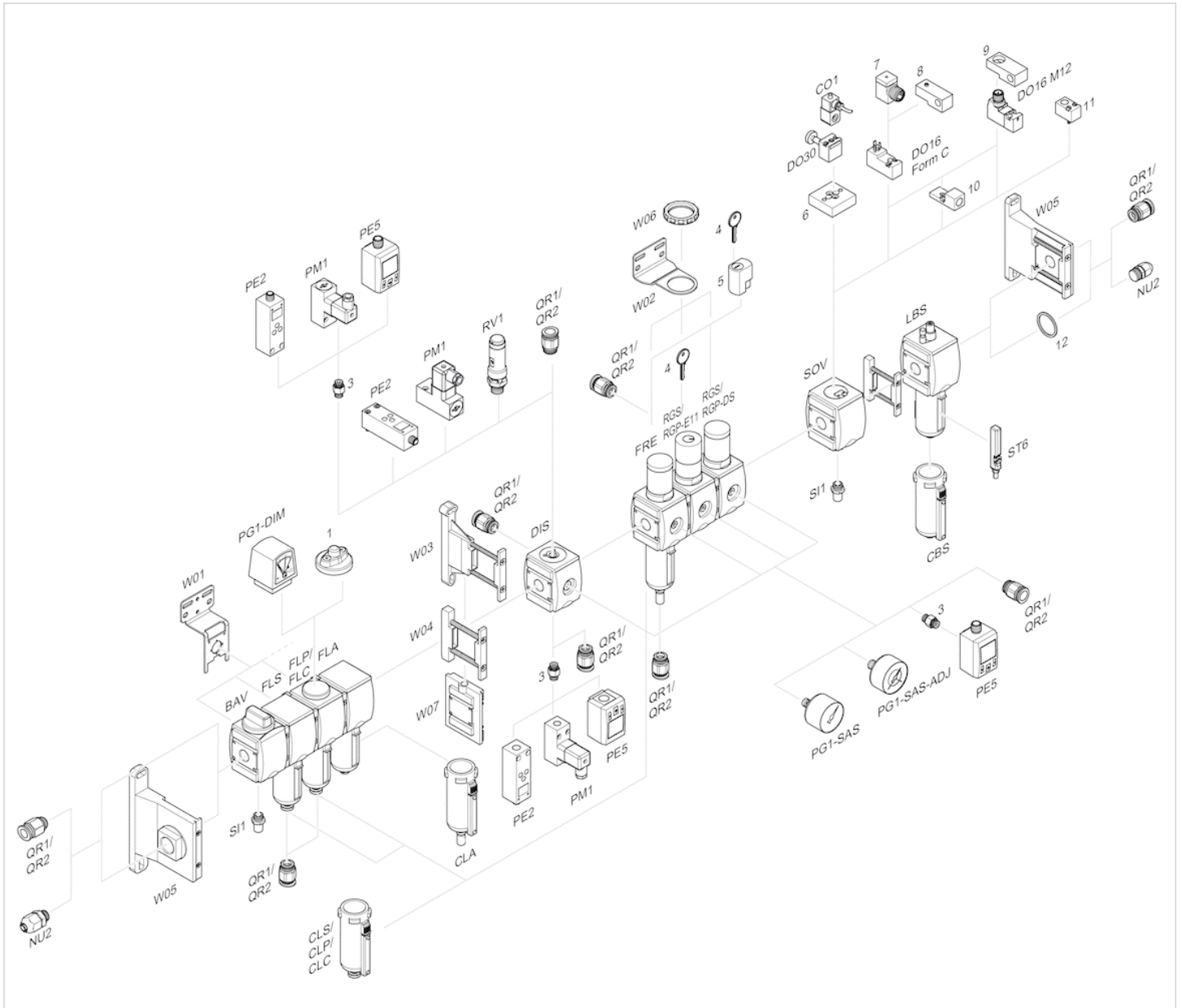
$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

### Flow rate characteristic ( $p_2$ : 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

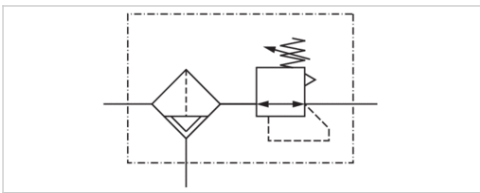
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter pressure regulator, Series AS3-FRE-...-E11

- G 1/2
- filter porosity 40 µm
- lockable
- with E11 locking



Version	1-part, Can be assembled into blocks
Parts	Filter pressure regulator
Mounting orientation	vertical
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Nominal flow Qn	5100 l/min
Regulator type	Diaphragm-type pressure regulator
Regulator function	with relieving air exhaust
Adjustment range min./max.	0.5 ... 10 bar
Pressure supply	single
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	fully automatic, closed without pressure
Weight	0.635 kg

## Technical data

Part No.	Port	filter porosity	Flow	Condensate drain
			Qn	
R412007204	G 1/2	40 µm	5100 l/min	fully automatic, closed without pressure

Order pressure gauge separately, Nominal flow Qn with secondary pressure p<sub>2</sub> = 6 bar at Δp = 1 bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The E11 locking is delivered without a key (see accessories for keys).

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

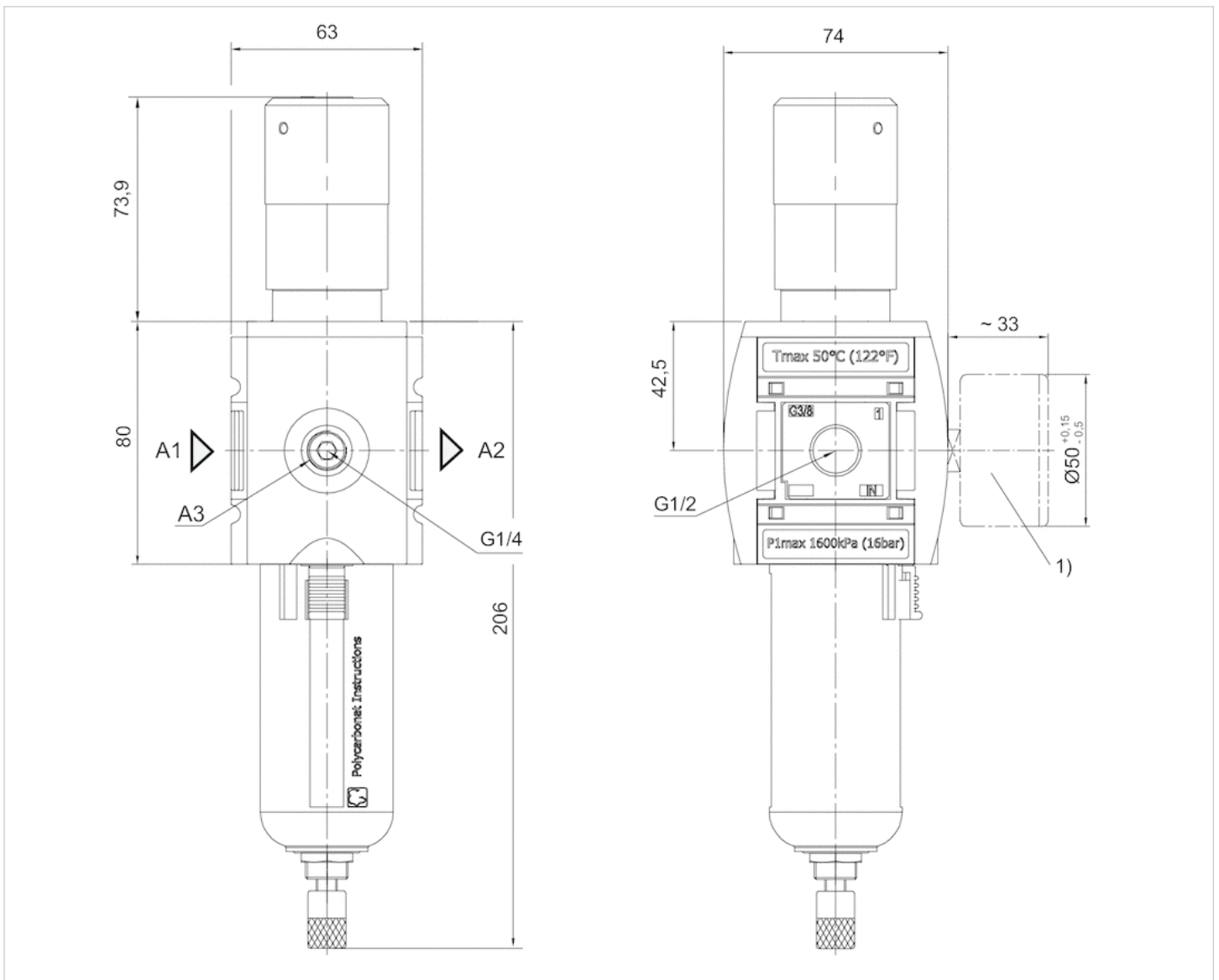
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

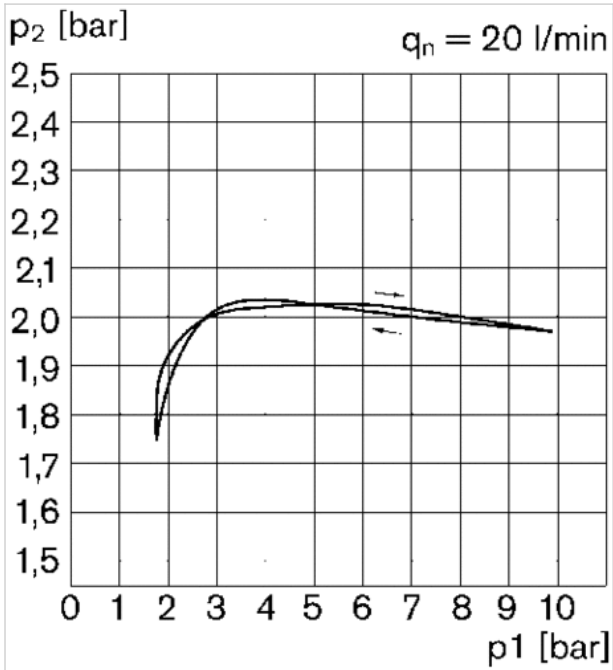
### Dimensions



- A1 = input
- A2 = output
- A3 = pressure gauge connection
- 1) Order pressure gauge separately

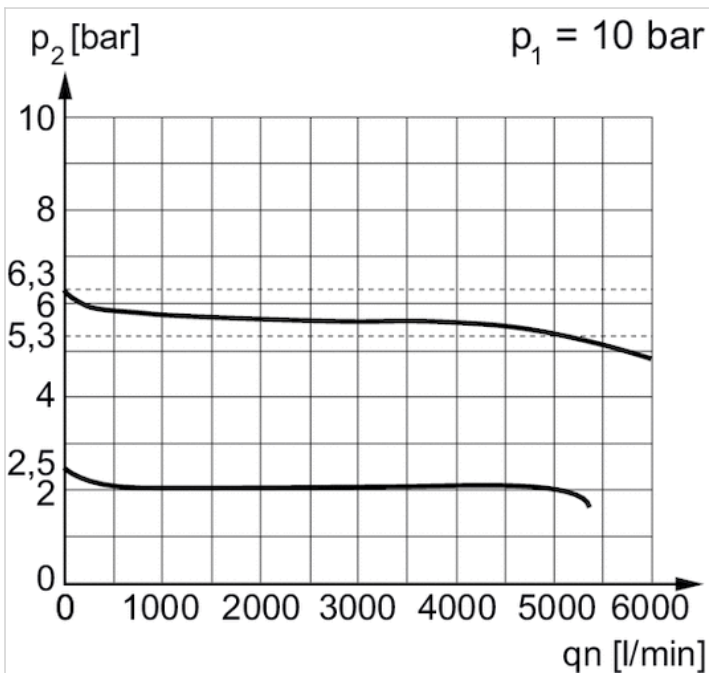
## Diagrams

### Pressure characteristics curve



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

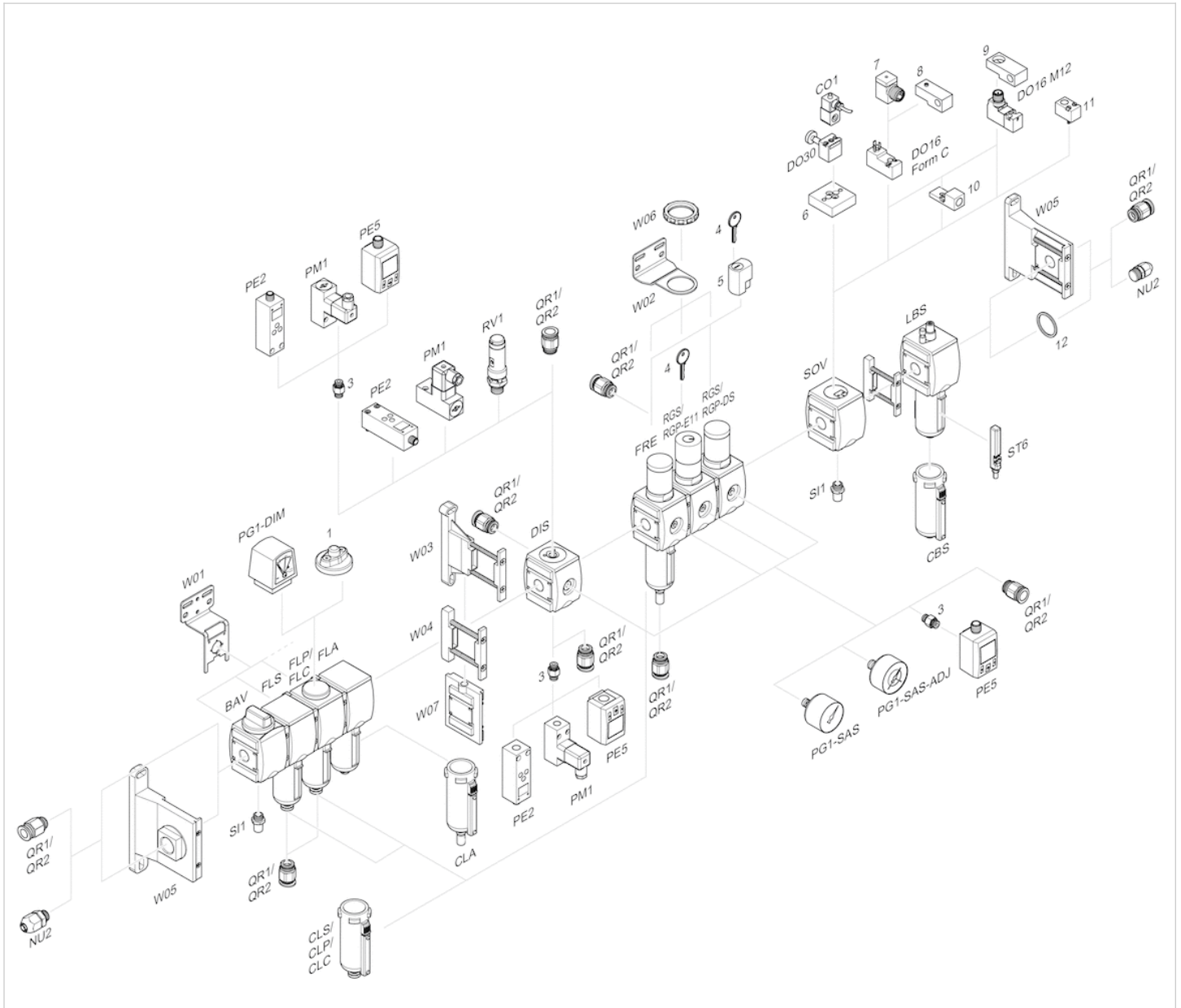
### Flow rate characteristic ( $p_2$ : 0,5 - 8 bar)



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow



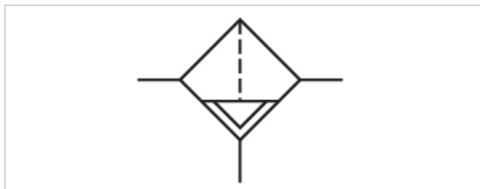
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter, Series AS3-FLS

- G 3/8 G 1/2
- filter porosity 5 µm
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	5 µm
Condensate drain	See table below
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Condensate drain
R412007000	G 3/8	3500 l/min	semi-automatic, open without pressure
R412007001	G 3/8	3500 l/min	fully automatic, open without pressure
R412007002	G 3/8	3500 l/min	fully automatic, closed without pressure
R412007006	G 3/8	3500 l/min	semi-automatic, open without pressure
R412007007	G 3/8	3500 l/min	fully automatic, open without pressure
R412007008	G 3/8	3500 l/min	fully automatic, closed without pressure
R412007009	G 1/2	3500 l/min	semi-automatic, open without pressure
R412007010	G 1/2	3500 l/min	fully automatic, open without pressure
R412007011	G 1/2	3500 l/min	fully automatic, closed without pressure
R412007015	G 1/2	3500 l/min	semi-automatic, open without pressure
R412007016	G 1/2	3500 l/min	fully automatic, open without pressure
R412007017	G 1/2	3500 l/min	fully automatic, closed without pressure

Part No.	Version	Weight
R412007000	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412007001	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007002	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007006	-	0.723 kg
R412007007	-	0.79 kg
R412007008	-	0.79 kg
R412007009	reservoir, polycarbonate, with PA protective guard	0.361 kg

Part No.	Version	Weight
R412007010	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007011	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007015	-	0.716 kg
R412007016	-	0.769 kg
R412007017	-	0.769 kg

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

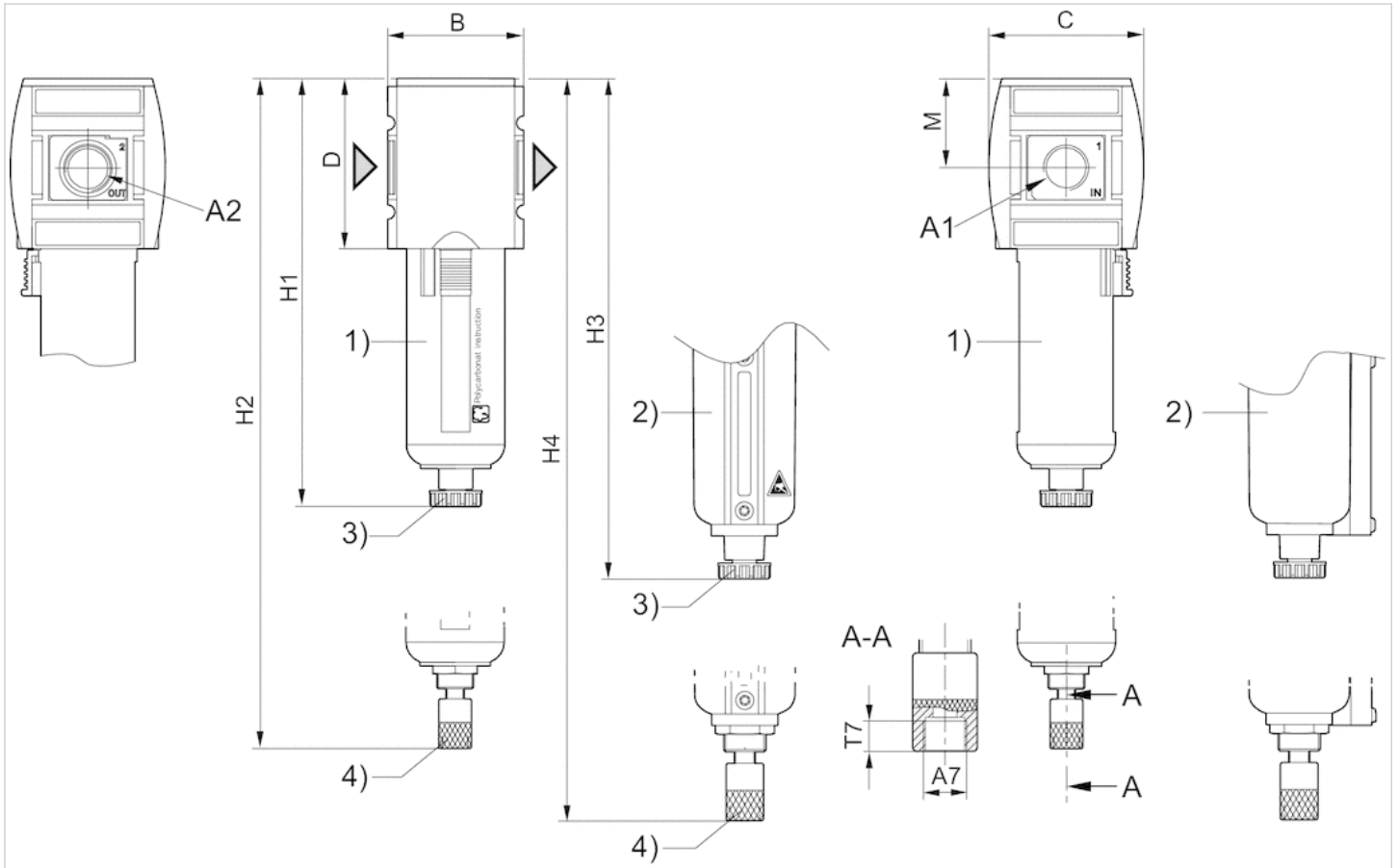
Max. achievable compressed air class acc. to ISO 8573-1:2010 6 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with level indicator

3) Semi-automatic condensate drain

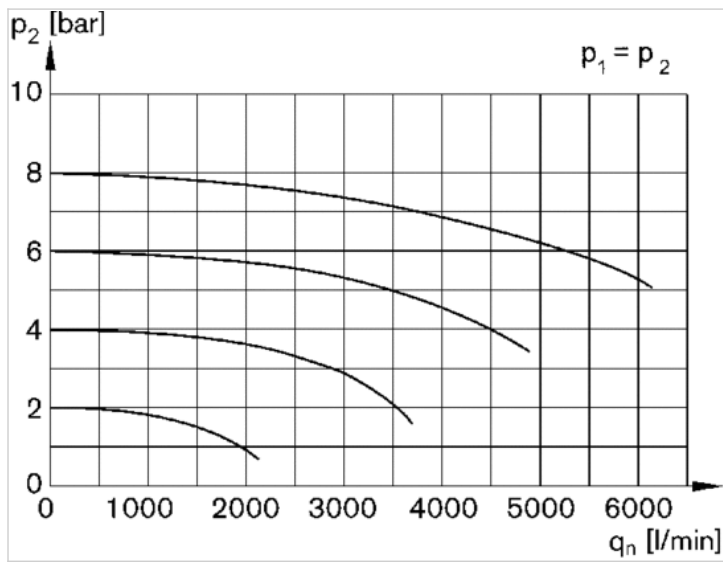
4) Fully automatic condensate drain

### Dimensions in mm

A1	A2	A7	B	C	D	H1	H2	H3	H4	M	T7
G 3/8	G 3/8	G 1/8	63	74	80	189.5	206	193.5	210.5	42.5	8.5
G 1/2	G 1/2	G 1/8	63	74	80	189.5	206	193.5	210.5	42.5	8.5

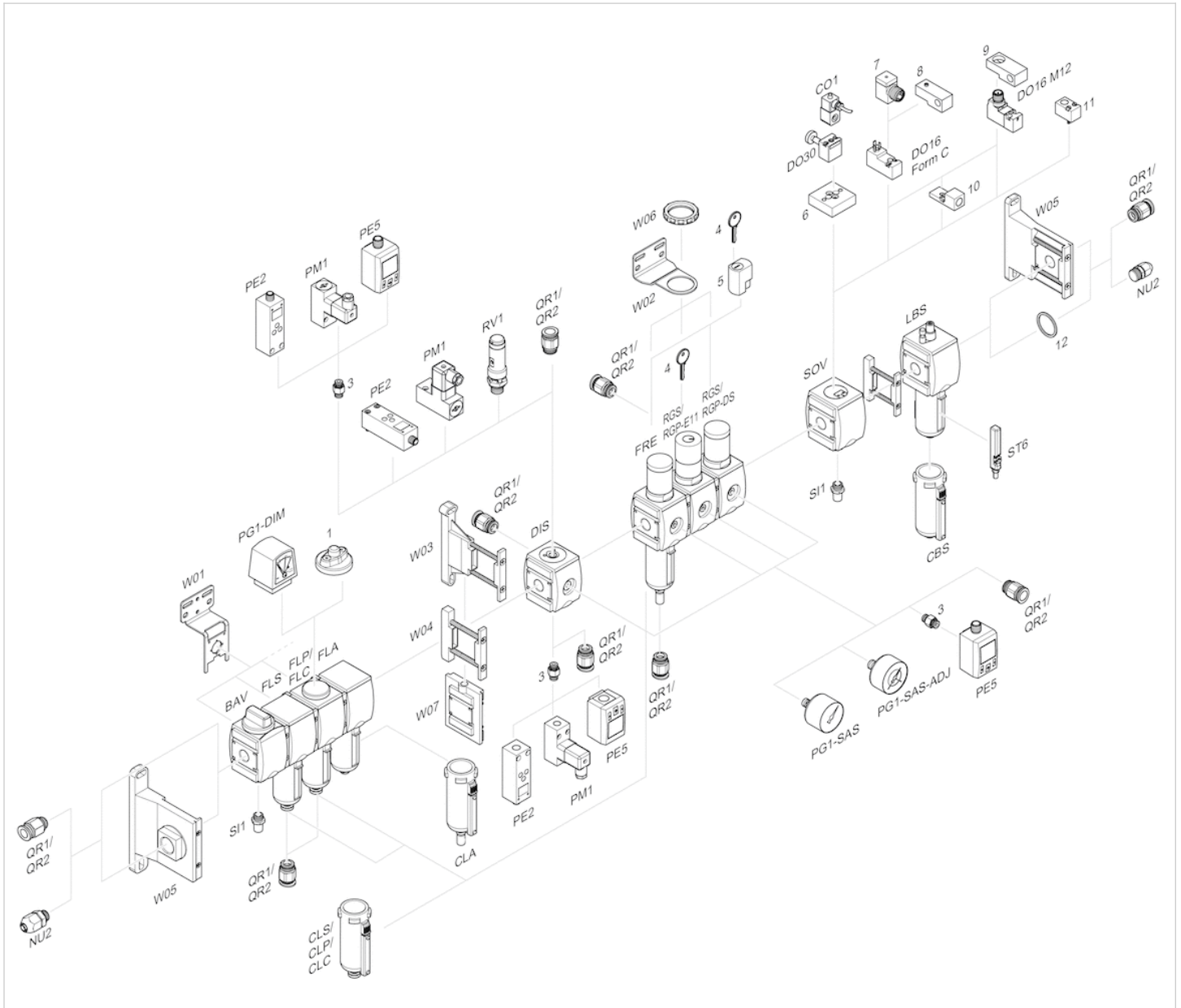
## Diagrams

## Flow rate characteristic



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

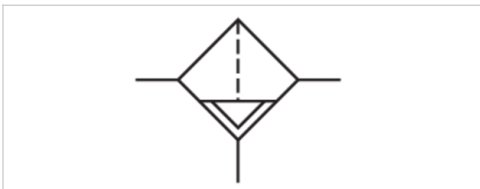
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter, Series AS3-FLS

- G 1/2
- filter porosity 25  $\mu\text{m}$
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	25 $\mu\text{m}$
Condensate drain	semi-automatic, open without pressure
Weight	0.361 kg

## Technical data

Part No.	Port	Flow Qn
R412007090	G 1/2	3500 l/min

Nominal flow Qn with secondary pressure p<sub>2</sub> = 6 bar at  $\Delta p$  = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

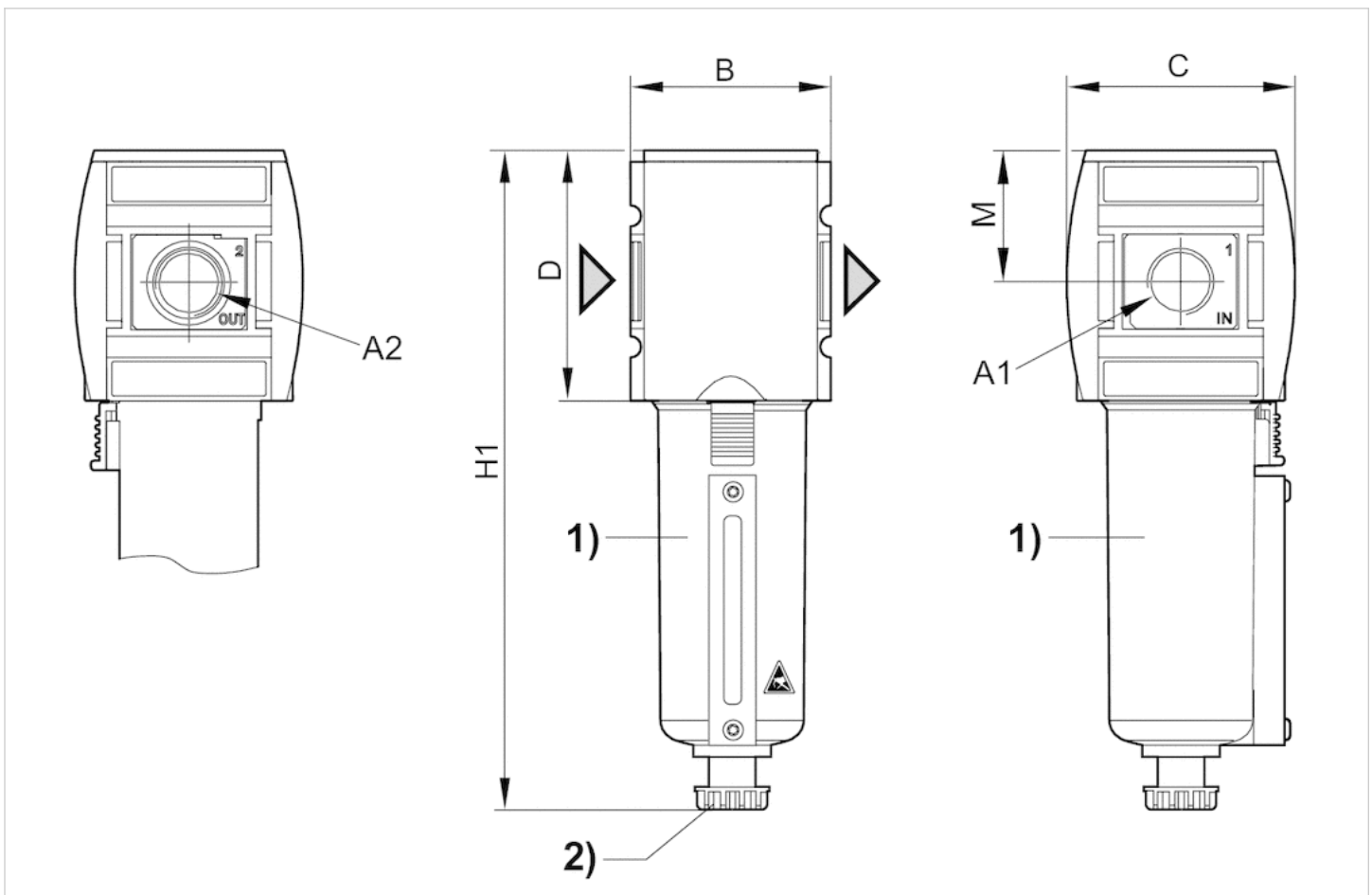
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Die cast zinc
Reservoir	Die cast zinc
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

### Dimensions



- A1 = input
- A2 = output
- 1) Metal reservoir with level indicator
- 2) Semi-automatic condensate drain

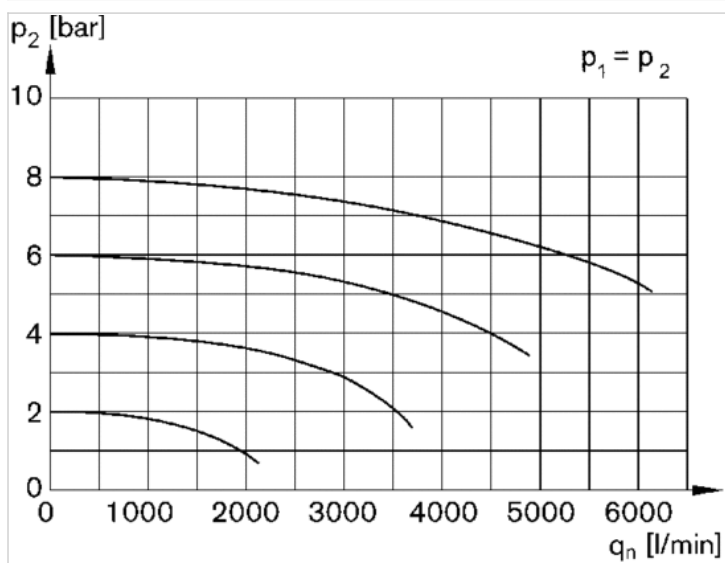
### Dimensions in mm

A1	A2	B	C	D	H1	M
G 1/2	G 1/2	63	74	80	193.5	42.5



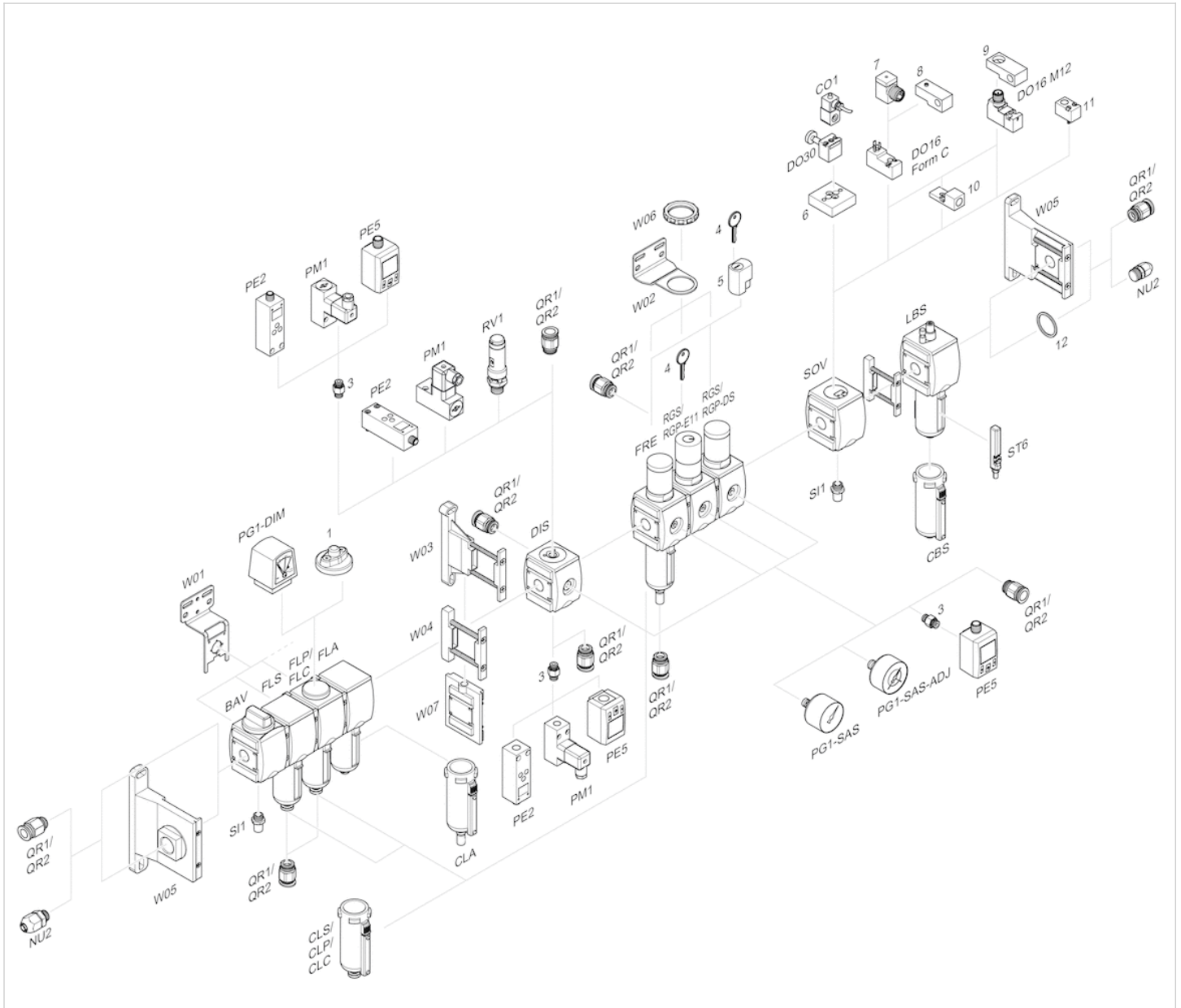
## Diagrams

## Flow rate characteristic



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

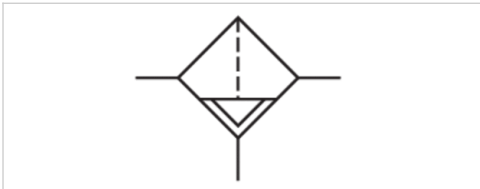
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filter, Series AS3-FLS

- G 3/8 G 1/2
- filter porosity 40 µm
- suitable for ATEX



Version	Standard filter, Can be assembled into blocks
Parts	Filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	40 µm
Condensate drain	See table below
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Condensate drain	Weight	Fig.
R412007003	G 3/8	3500 l/min	semi-automatic, open without pressure	0.361 kg	Fig. 1
R412007004	G 3/8	3500 l/min	fully automatic, open without pressure	0.41 kg	Fig. 2
R412007005	G 3/8	3500 l/min	fully automatic, closed without pressure	0.41 kg	Fig. 2
R412007012	G 1/2	3500 l/min	semi-automatic, open without pressure	0.361 kg	Fig. 3
R412007013	G 1/2	3500 l/min	fully automatic, open without pressure	0.41 kg	Fig. 4
R412007014	G 1/2	3500 l/min	fully automatic, closed without pressure	0.41 kg	Fig. 4

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Also suitable for separation of fluid oil or water due to the design.

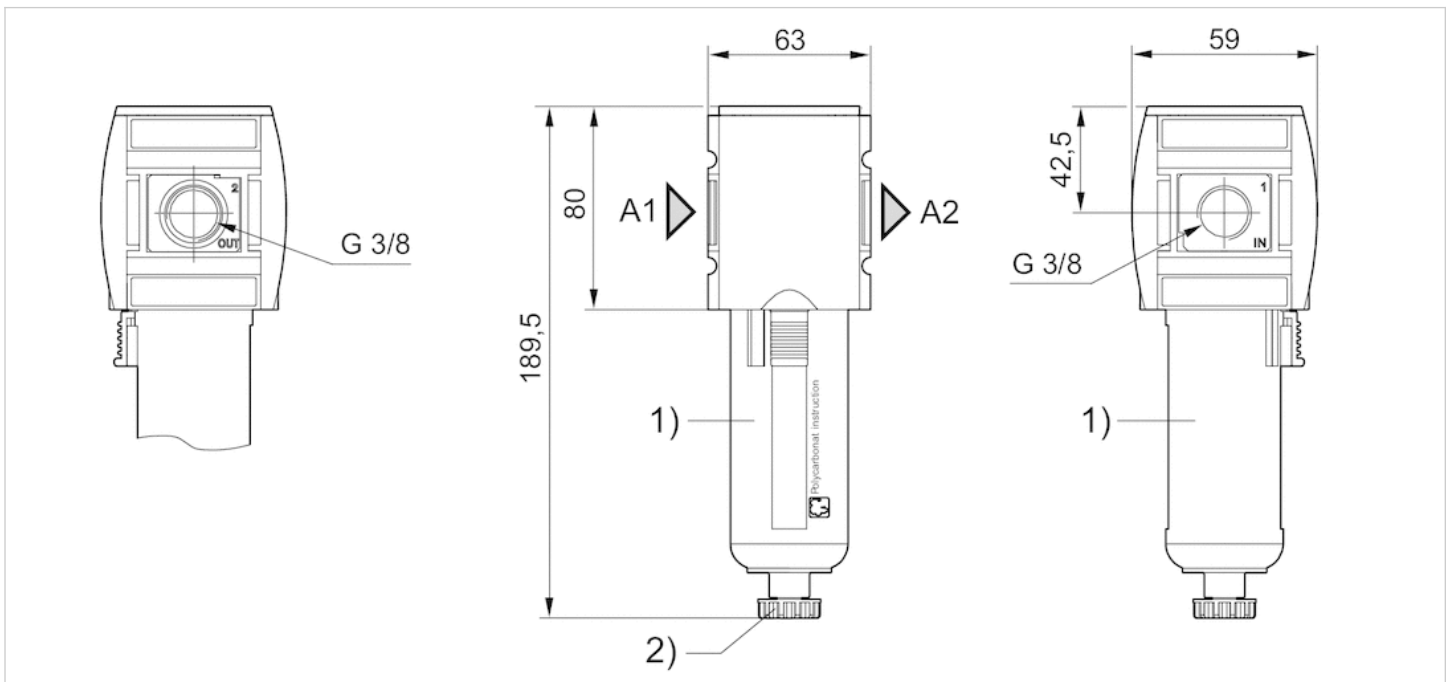
Max. achievable compressed air class acc. to ISO 8573-1:2010 7 : 7 : -

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate
Protective guard	Polyamide
Filter insert	Polyethylene

## Dimensions

Dimensions in mm, Fig. 1



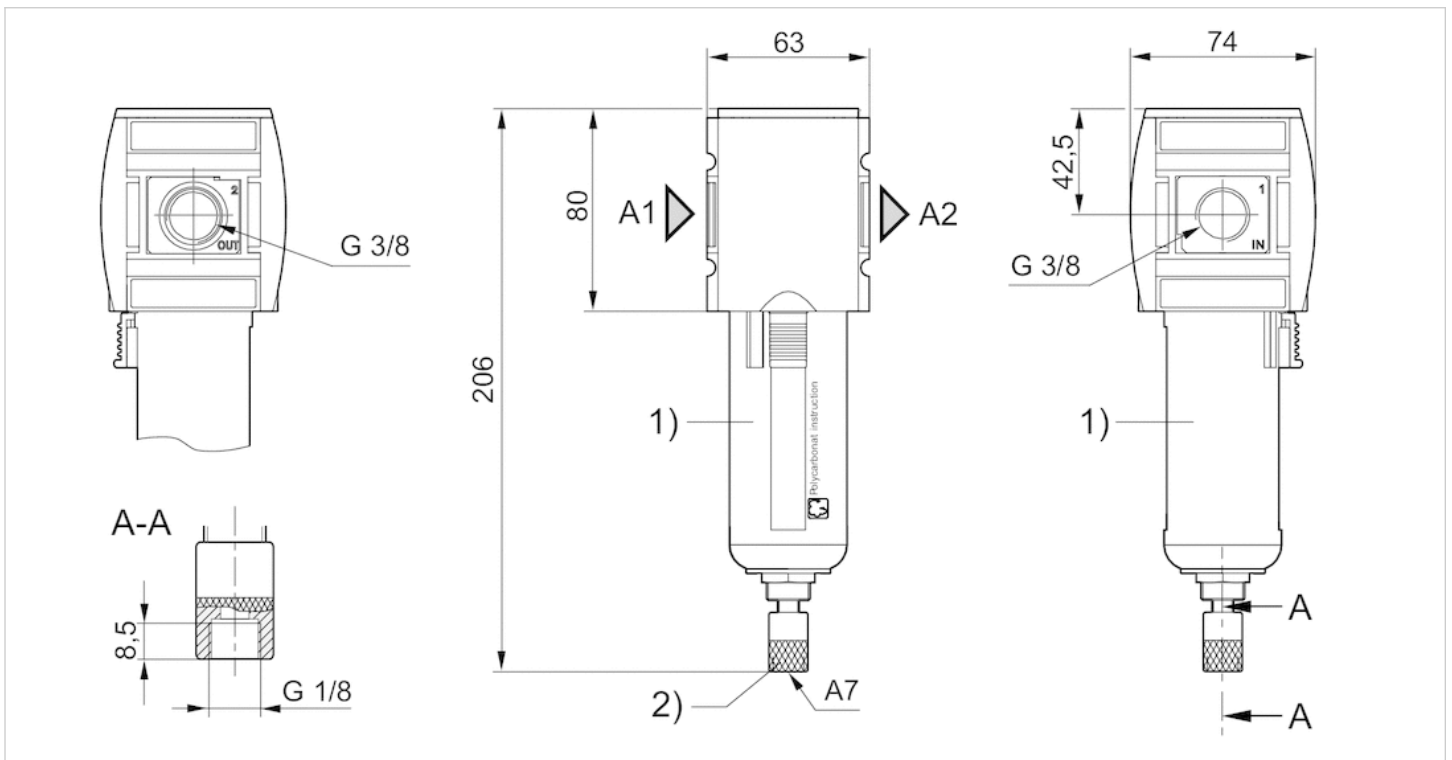
A1 = input

A2 = output

1) Plastic reservoir and protective guard with window

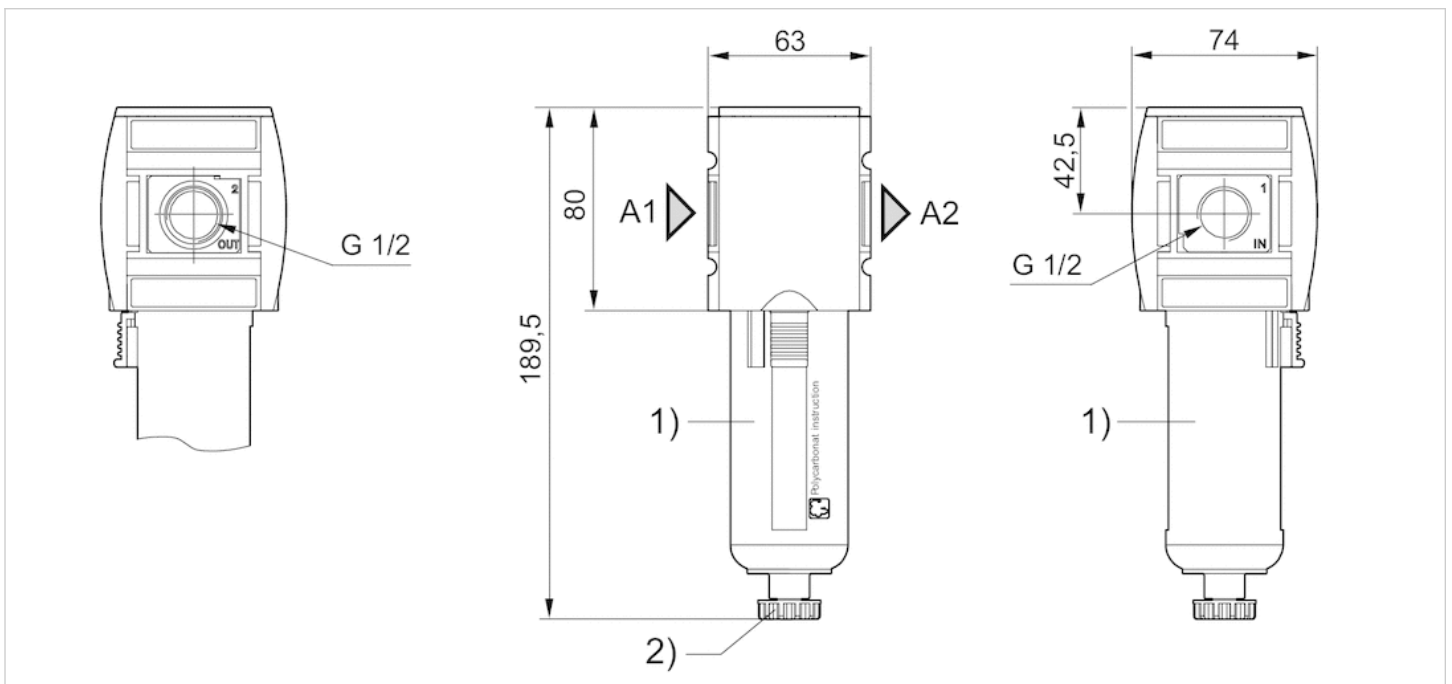
2) Semi-automatic condensate drain

Dimensions in mm, Fig. 2



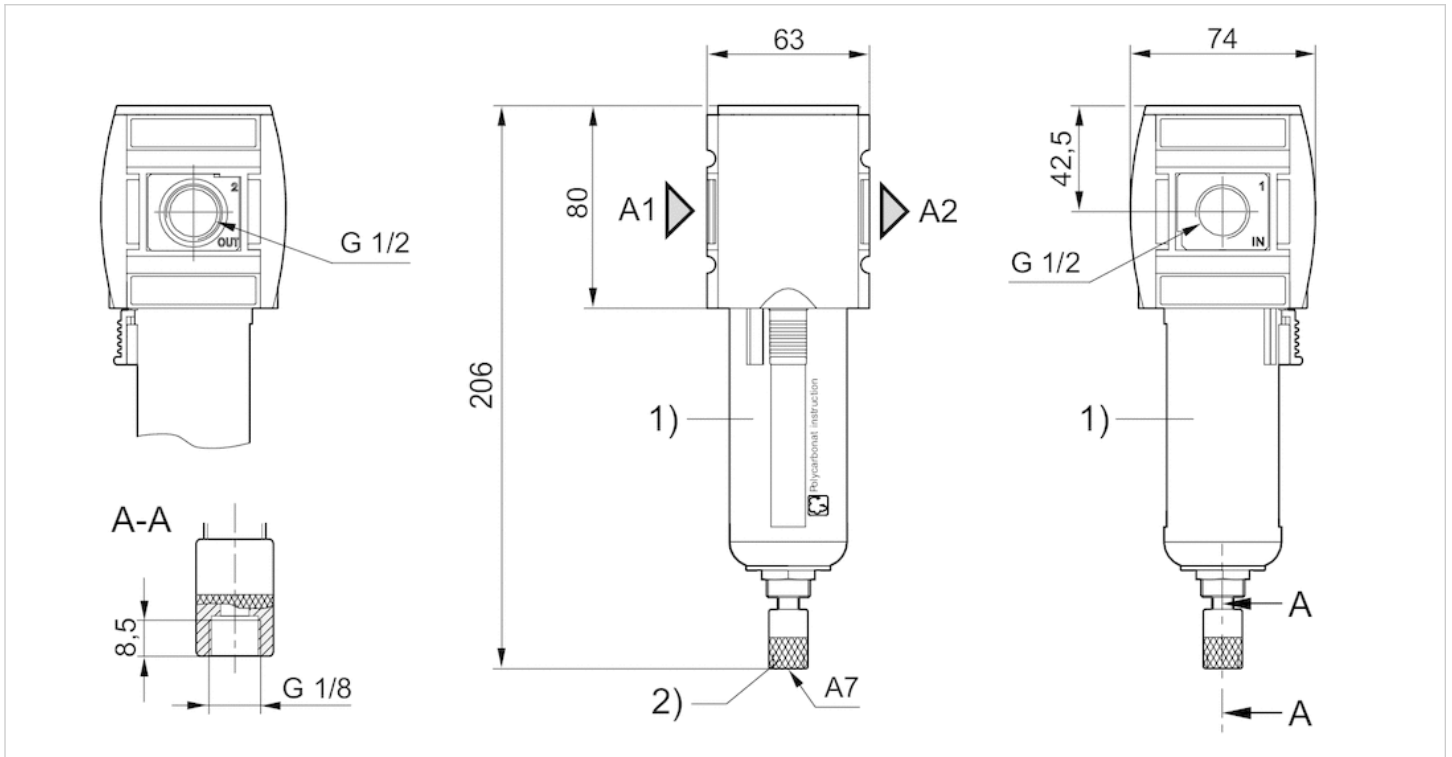
- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Fully automatic condensate drain

Dimensions in mm, Fig. 3



- A1 = input
- A2 = output
- 1) Plastic reservoir and protective guard with window
- 2) Semi-automatic condensate drain

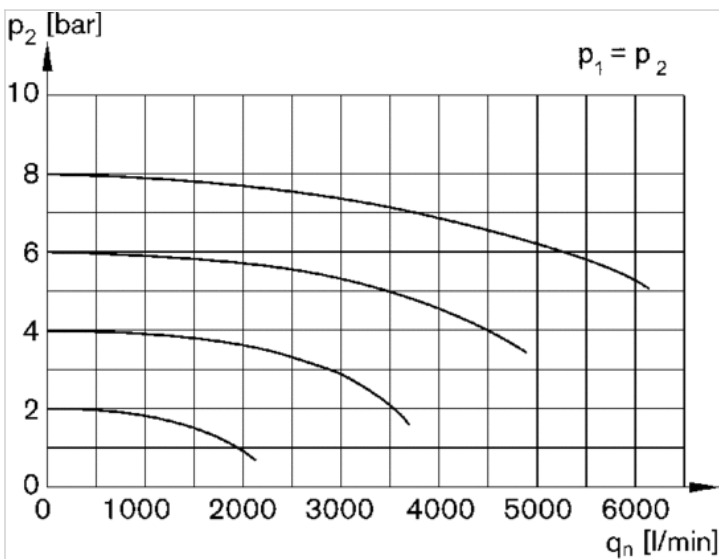
Dimensions in mm, Fig. 4



- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Fully automatic condensate drain

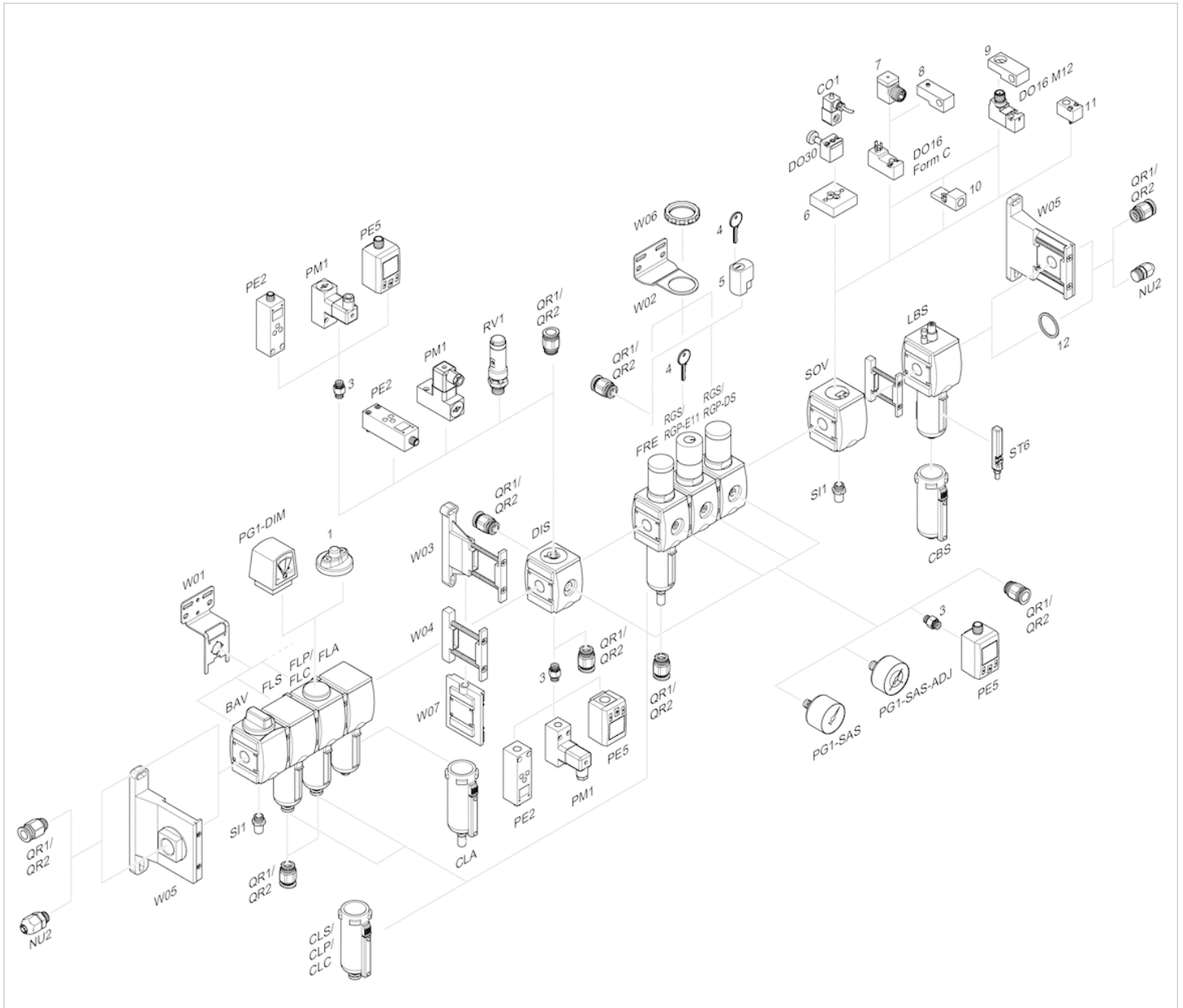
Diagrams

Flow rate characteristic



- $p_1$  = Working pressure
- $p_2$  = Secondary pressure
- $q_n$  = Nominal flow

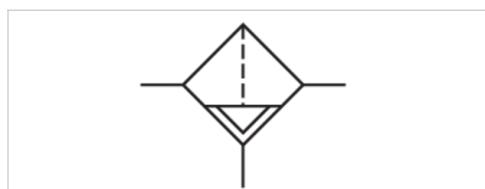
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Pre-filter, Series AS3-FLP

- G 3/8 G 1/2
- filter porosity 0.3  $\mu\text{m}$
- suitable for ATEX



Version	Pre-filter, Can be assembled into blocks
Parts	Pre-filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	0.3 $\mu\text{m}$
Condensate drain	See table below
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Condensate drain
R412007018	G 3/8	900 l/min	semi-automatic, open without pressure
R412007019	G 3/8	900 l/min	fully automatic, open without pressure
R412007020	G 3/8	900 l/min	fully automatic, closed without pressure
R412007024	G 3/8	900 l/min	semi-automatic, open without pressure
R412007025	G 3/8	900 l/min	fully automatic, open without pressure
R412007026	G 3/8	900 l/min	fully automatic, closed without pressure
R412007027	G 1/2	900 l/min	semi-automatic, open without pressure
R412007028	G 1/2	900 l/min	fully automatic, open without pressure
R412007029	G 1/2	900 l/min	fully automatic, closed without pressure
R412007033	G 1/2	900 l/min	semi-automatic, open without pressure
R412007034	G 1/2	900 l/min	fully automatic, open without pressure
R412007035	G 1/2	900 l/min	fully automatic, closed without pressure

Part No.	Version	Weight
R412007018	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412007019	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007020	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007024	-	0.778 kg
R412007025	-	0.831 kg
R412007026	-	0.831 kg
R412007027	reservoir, polycarbonate, with PA protective guard	0.361 kg



Part No.	Version	Weight
R412007028	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007029	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007033	-	0.757 kg
R412007034	-	0.81 kg
R412007035	-	0.81 kg

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 0.1$  bar, Dust separation = 99.99%

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering 5 µm

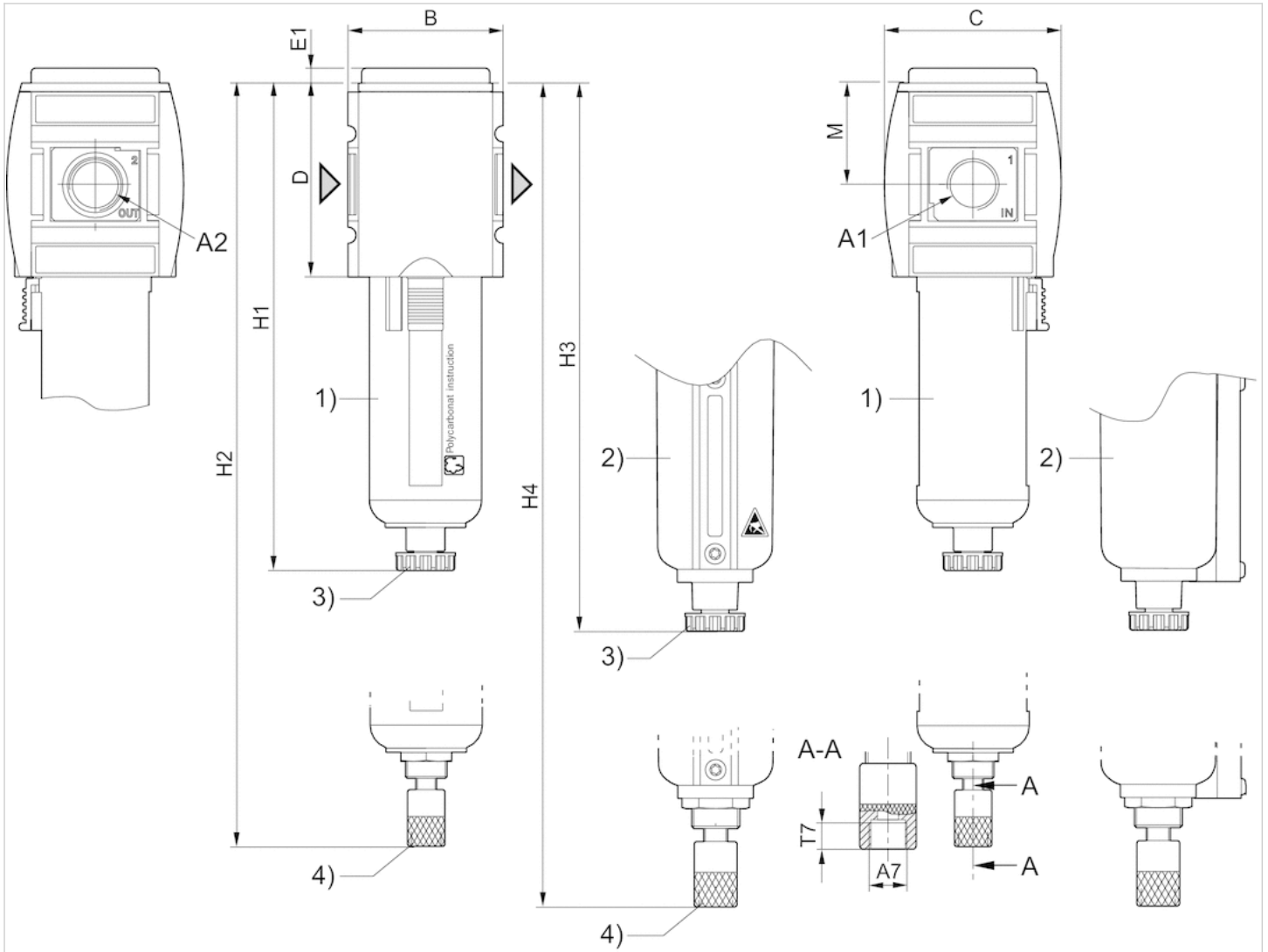
Max. achievable compressed air class acc. to ISO 8573-1:2010 2 : - : 3

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Impregnated paper

## Dimensions

### Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with inspection glass

3) Semi-automatic condensate drain

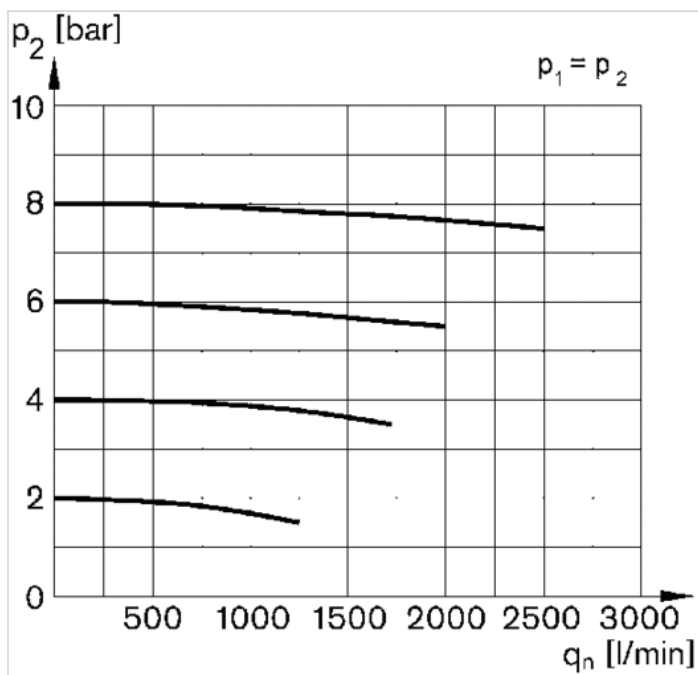
4) Fully automatic condensate drain

### Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	H3	H4	M
G 3/8	G 3/8	G 1/8	63	74	80	5	189.5	206	193.5	210.5	42.5
G 1/2	G 1/2	G 1/8	63	74	80	5	189.5	206	193.5	210.5	42.5

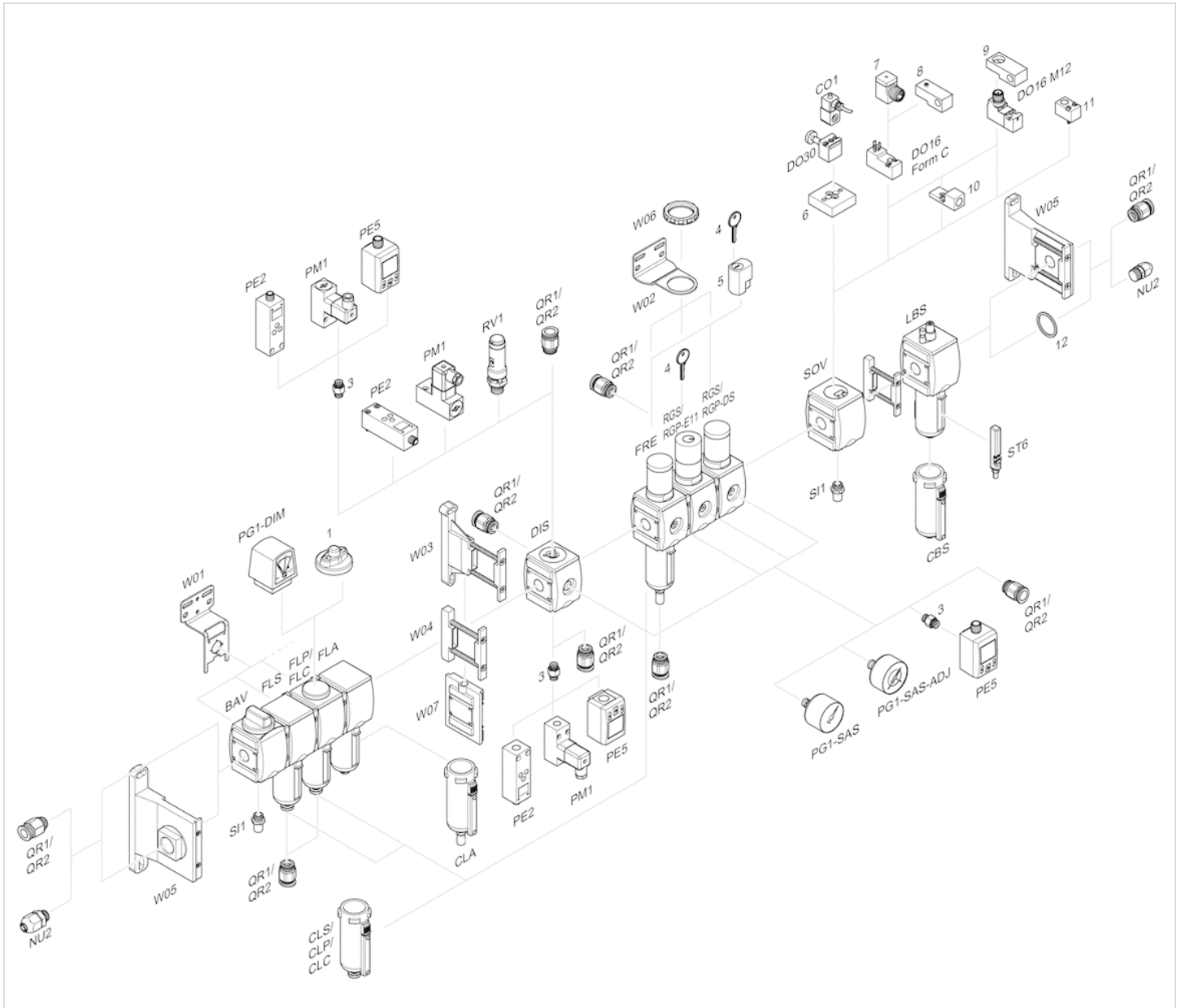
## Diagrams

### Flow rate characteristic



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

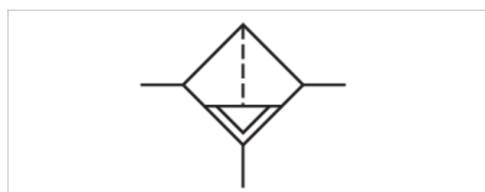
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Microfilter, Series AS3-FLC

- G 3/8 G 1/2
- filter porosity 0.01 µm
- suitable for ATEX



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	0.01 µm
Condensate drain	See table below
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Condensate drain
R412007036	G 3/8	700 l/min	semi-automatic, open without pressure
R412007037	G 3/8	700 l/min	fully automatic, open without pressure
R412007038	G 3/8	700 l/min	fully automatic, closed without pressure
R412007042	G 3/8	700 l/min	semi-automatic, open without pressure
R412007043	G 3/8	700 l/min	fully automatic, open without pressure
R412007044	G 3/8	700 l/min	fully automatic, closed without pressure
R412007045	G 1/2	700 l/min	semi-automatic, open without pressure
R412007046	G 1/2	700 l/min	fully automatic, open without pressure
R412007047	G 1/2	700 l/min	fully automatic, closed without pressure
R412007051	G 1/2	700 l/min	semi-automatic, open without pressure
R412007052	G 1/2	700 l/min	fully automatic, open without pressure
R412007053	G 1/2	700 l/min	fully automatic, closed without pressure

Part No.	Version	Weight
R412007036	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412007037	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007038	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007042	-	0.78 kg
R412007043	-	0.833 kg
R412007044	-	0.833 kg
R412007045	reservoir, polycarbonate, with PA protective guard	0.361 kg

Part No.	Version	Weight
R412007046	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007047	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007051	-	0.759 kg
R412007052	-	0.812 kg
R412007053	-	0.733 kg

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0.1$  bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering 0.3 µm

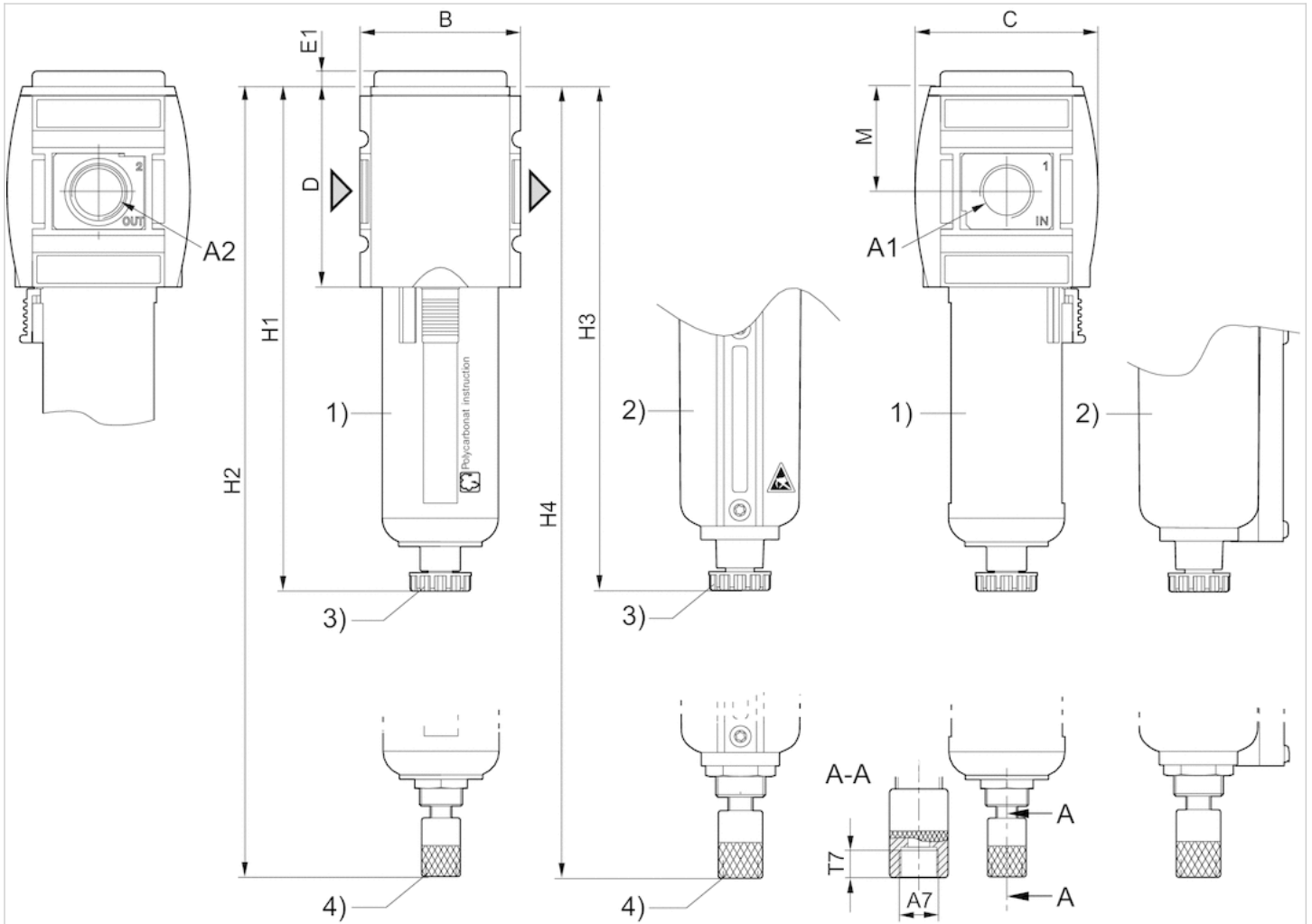
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Borosilicate glass fiber

## Dimensions

### Dimensions



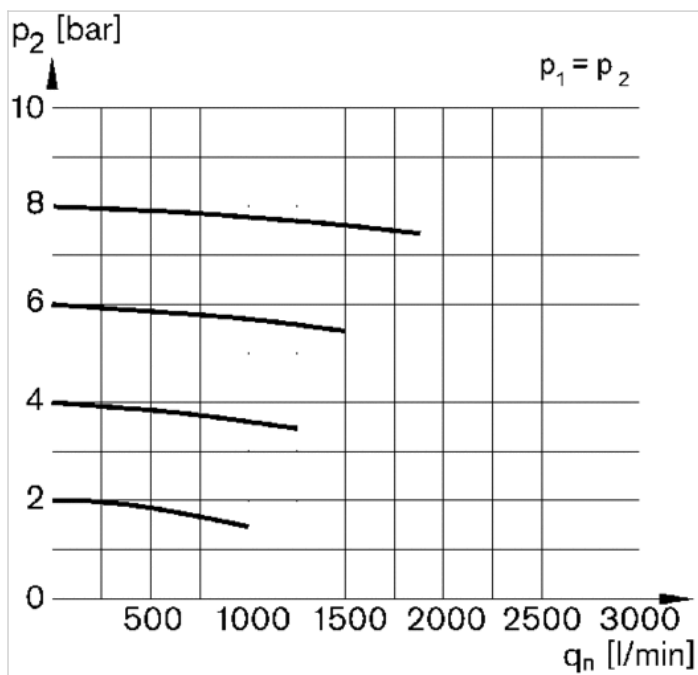
- A1 = input
- A2 = output
- A7 = condensate drain
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) Semi-automatic condensate drain
- 4) Fully automatic condensate drain

### Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	H3	H4	M	T7
G 3/8	G 3/8	G 1/8	63	74	80	5	189.5	206	193.5	210.5	42.5	8.5
G 1/2	G 1/2	G 1/8	63	74	80	5	189.5	206	193.5	210.5	42.5	8.5

## Diagrams

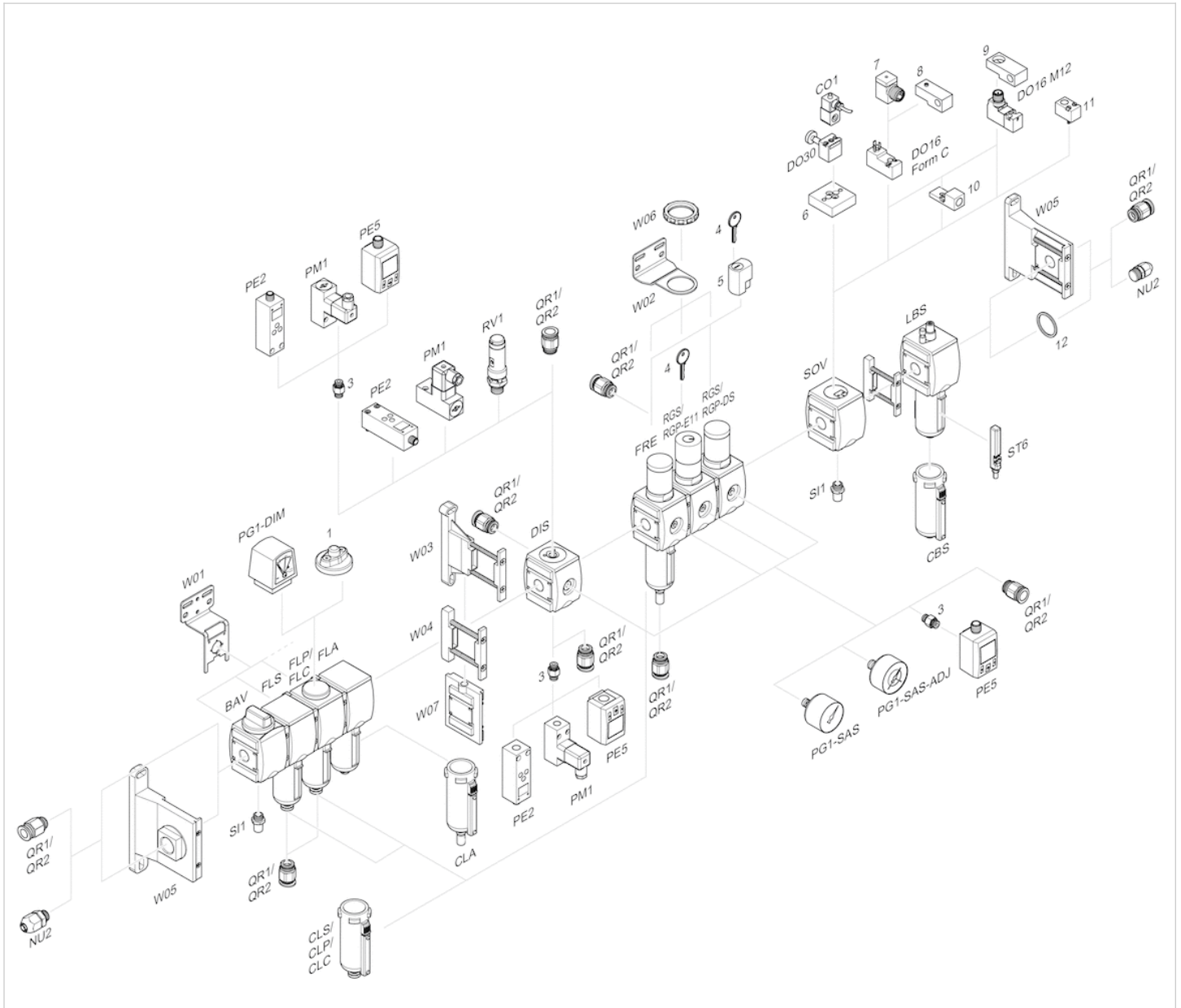
### Flow rate characteristic



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow



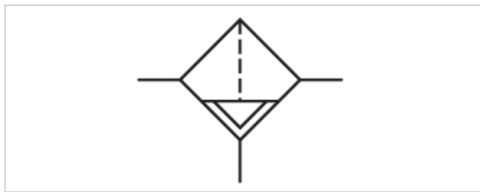
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Microfilter, Series AS3-FLC

- G 3/8 G 1/2
- filter porosity 0.01 µm
- contamination display integrated
- suitable for ATEX



Version	Microfilter, Can be assembled into blocks
Parts	Microfilter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	1.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
filter porosity	0.01 µm
Condensate drain	See table below
contamination display	integrated
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Condensate drain
R412007054	G 3/8	700 l/min	semi-automatic, open without pressure
R412007055	G 3/8	700 l/min	fully automatic, open without pressure
R412007056	G 3/8	700 l/min	fully automatic, closed without pressure
R412007060	G 3/8	700 l/min	semi-automatic, open without pressure
R412007061	G 3/8	700 l/min	fully automatic, open without pressure
R412007062	G 3/8	700 l/min	fully automatic, closed without pressure
R412007063	G 1/2	700 l/min	semi-automatic, open without pressure
R412007064	G 1/2	700 l/min	fully automatic, open without pressure
R412007065	G 1/2	700 l/min	fully automatic, closed without pressure
R412007069	G 1/2	700 l/min	semi-automatic, open without pressure
R412007070	G 1/2	700 l/min	fully automatic, open without pressure
R412007071	G 1/2	700 l/min	fully automatic, closed without pressure

Part No.	Version	Weight
R412007054	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412007055	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007056	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007060	-	0.783 kg
R412007061	-	0.757 kg
R412007062	-	0.757 kg

Part No.	Version	Weight
R412007063	reservoir, polycarbonate, with PA protective guard	0.361 kg
R412007064	reservoir, polycarbonate, with PA protective guard	0.41 kg
R412007065	reservoir, polycarbonate, with PA protective guard	0.762 kg
R412007069	-	0.762 kg
R412007070	-	0.736 kg
R412007071	-	0.736 kg

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0.1$  bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering 0.3 µm

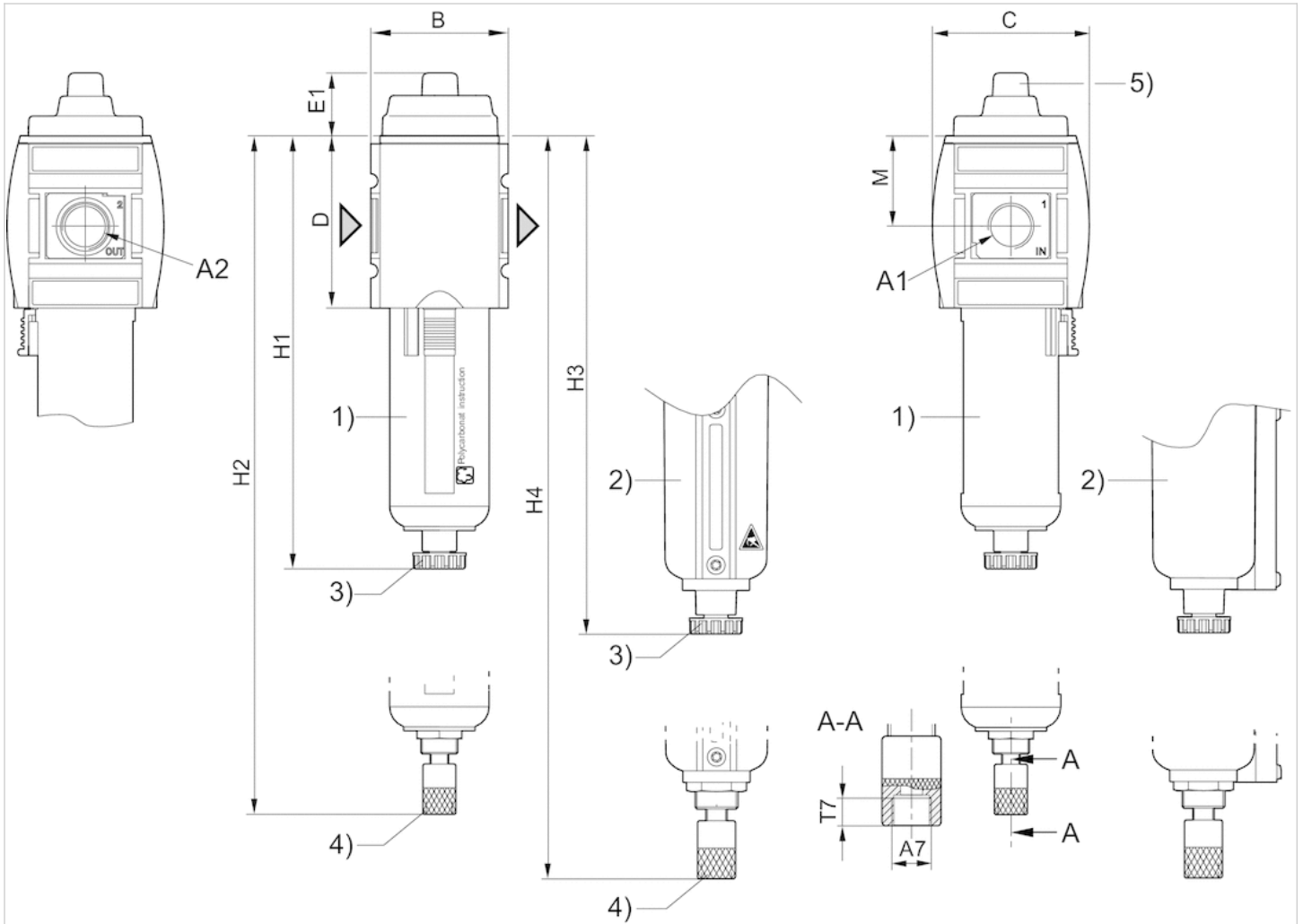
Max. achievable compressed air class acc. to ISO 8573-1:2010 1 : - : 2

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Borosilicate glass fiber

# Dimensions

## Dimensions



A1 = input

A2 = output

A7 = condensate drain

1) Plastic reservoir and protective guard with window

2) Metal reservoir with inspection glass

3) Semi-automatic condensate drain

4) Fully automatic condensate drain

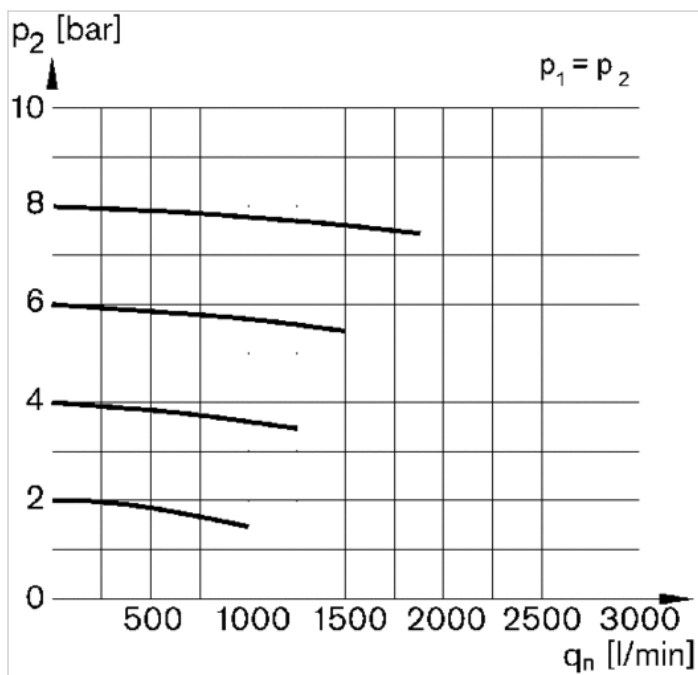
5) contamination display

## Dimensions in mm

A1	A2	A7	B	C	D	E1	H1	H2	H3	H4	M	T7
G 3/8	G 3/8	G 1/8	63	74	80	23.7	189.5	206	193.5	210.5	42.5	8.5
G 1/2	G 1/2	G 1/8	63	74	80	23.7	189.5	206	193.5	210.5	42.5	8.5

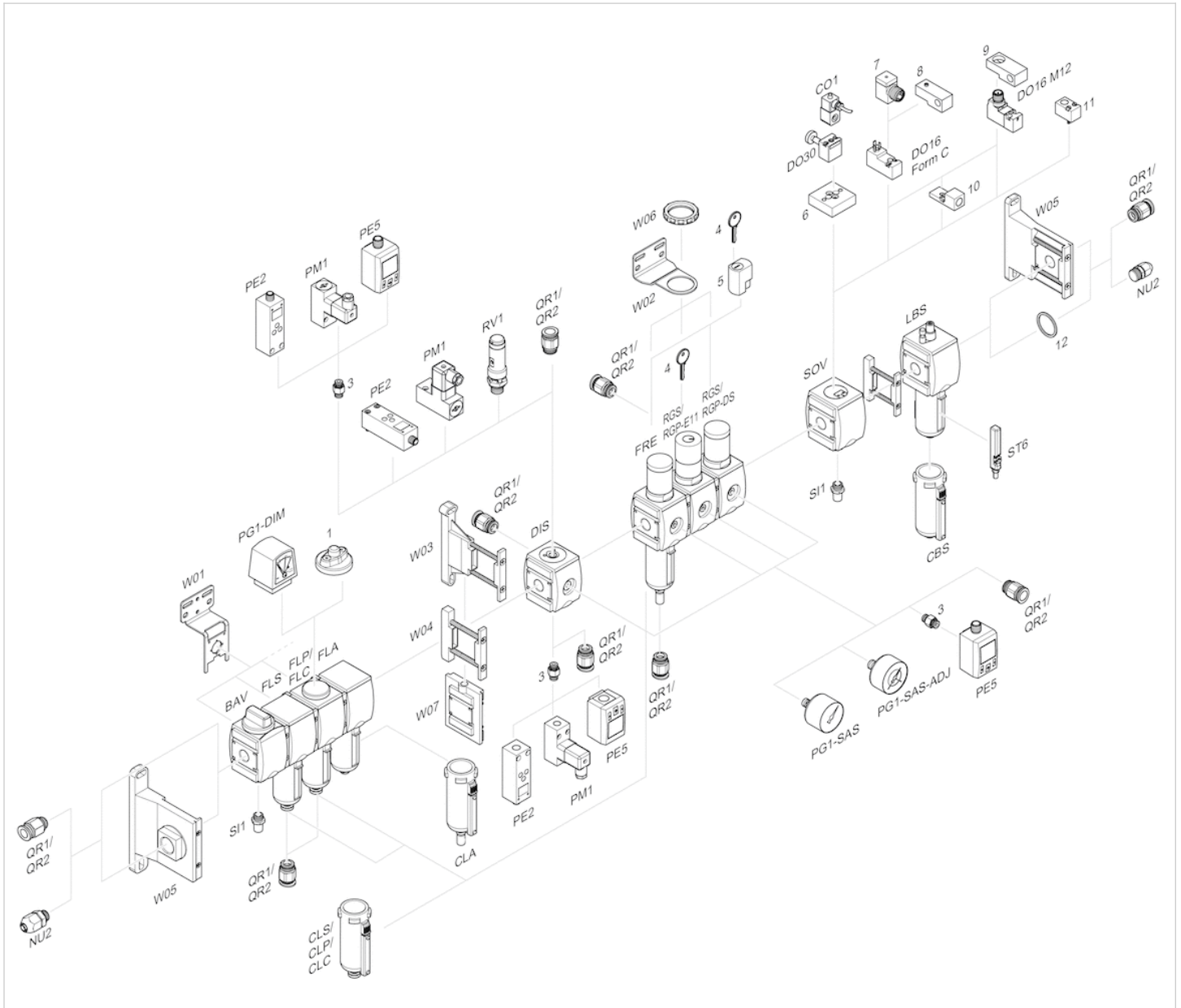
## Diagrams

### Flow rate characteristic



$p_1$  = Working pressure  
 $p_2$  = Secondary pressure  
 $q_n$  = Nominal flow

## Accessories overview

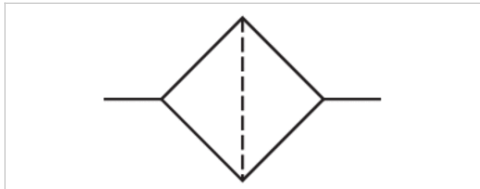


- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Active carbon filter, Series AS3-FLA

- G 3/8 G 1/2

- suitable for ATEX



Version	Active carbon filter, Can be assembled into blocks
Parts	Active carbon filter
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Filter reservoir volume	49 cm <sup>3</sup>
Filter element	exchangeable
Condensate drain	without
Weight	See table below

## Technical data

Part No.	Port	Flow Qn	Version	Weight
R41200702	G 3/8	1000 l/min	reservoir, polycarbonate, with PA protective guard	0.375 kg
R41200704	G 3/8	1000 l/min	-	0.751 kg
R41200705	G 1/2	1000 l/min	reservoir, polycarbonate, with PA protective guard	0.375 kg
R41200707	G 1/2	1000 l/min	-	0.73 kg

Nominal flow Qn with secondary pressure p<sub>2</sub> = 6 bar at Δp = 0.1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering 0.01 μm

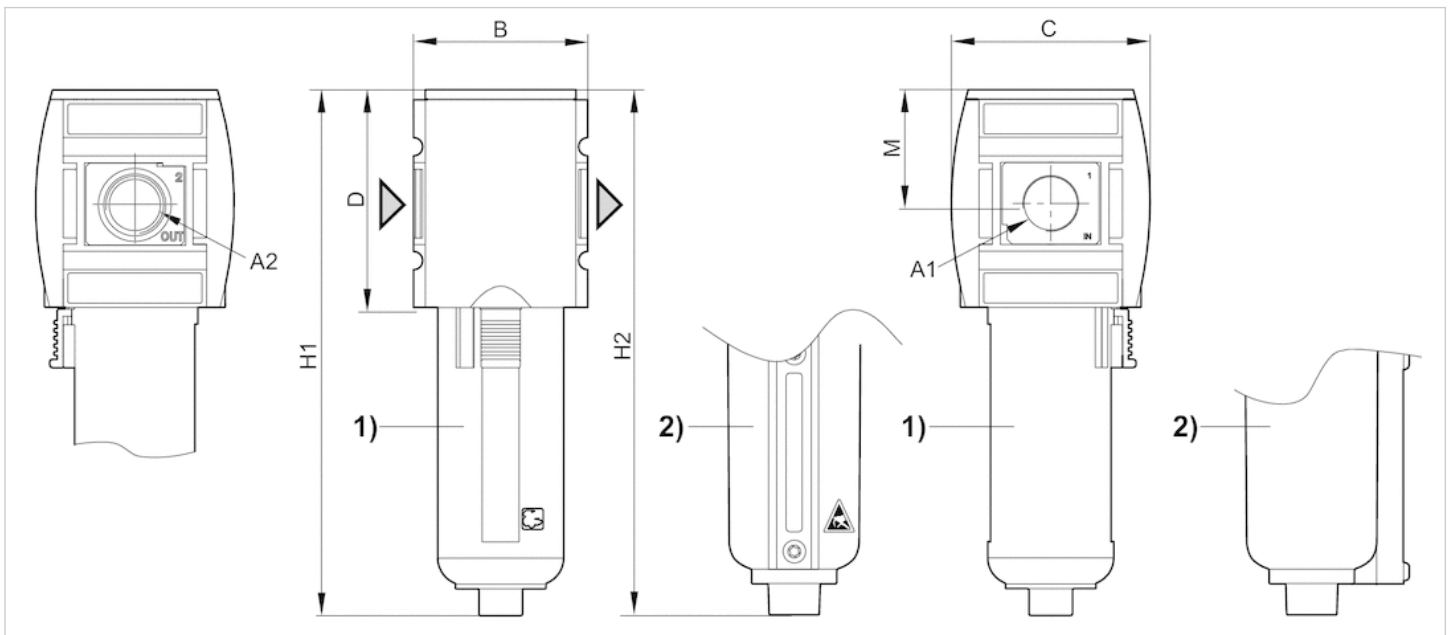
Max. achievable compressed air class acc. to ISO 8573-1:2010 - : - : 1

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Filter insert	Active carbon

## Dimensions

### Dimensions



A1 = input

A2 = output

1) Plastic reservoir and protective guard with window

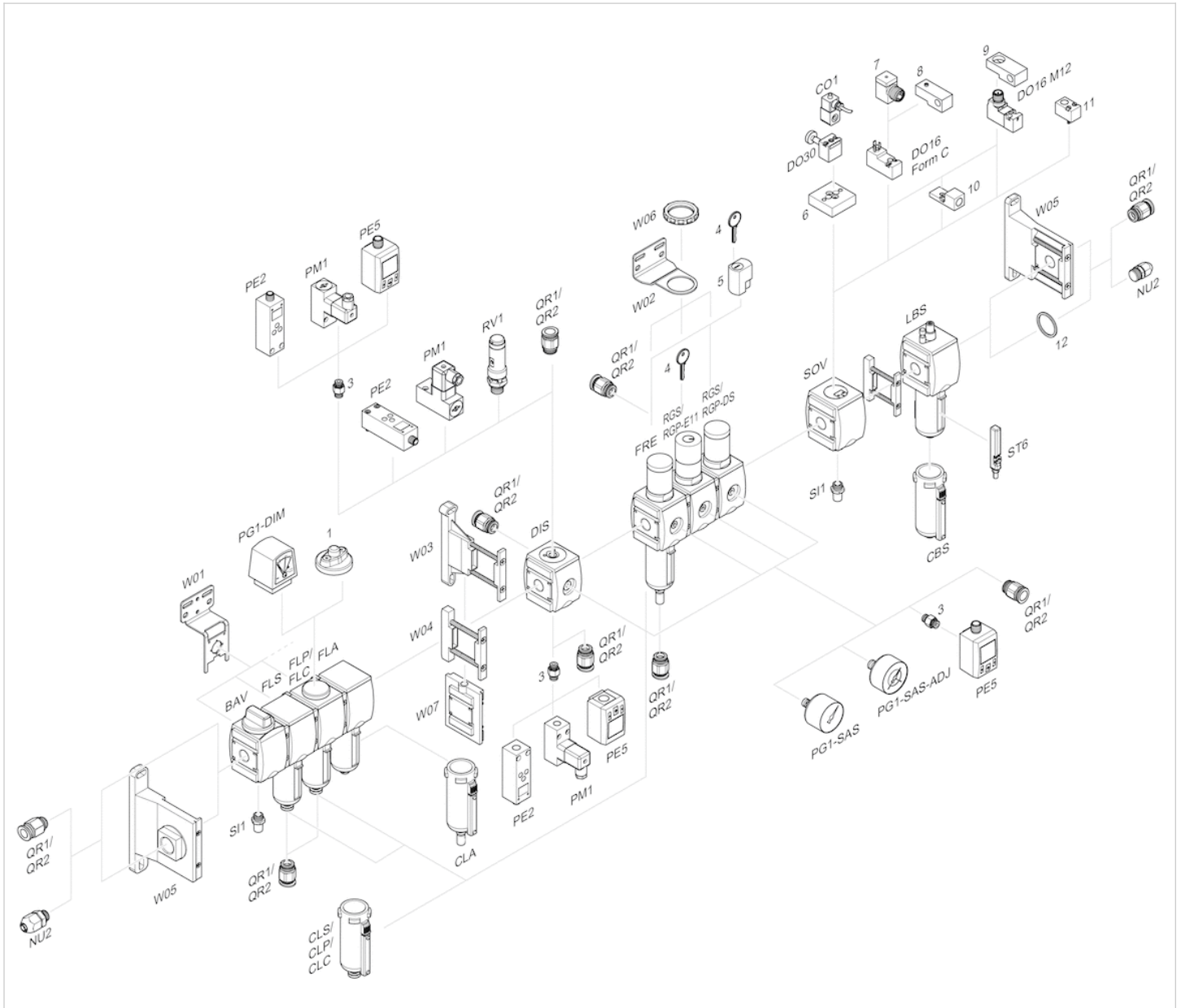
2) Metal reservoir with inspection glass

### Dimensions in mm

A1	A2	B	C	D	H1	H2	M
G 3/8	G 3/8	63	74	80	183	187	42.5
G 1/2	G 1/2	63	74	80	183	187	42.5



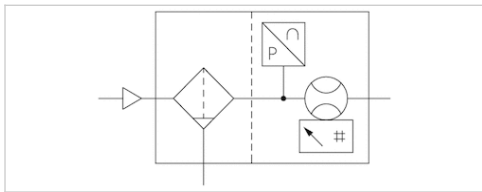
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, With mounting
- Qn min. 8 l/min
- Qn max. 2445 l/min
- Electrical connection Plug, M12x1, 5-pin



**Certificates**

Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-20 ... 60 °C
Medium temperature min./max.	-20 ... 60 °C
Medium	Compressed air Argon Nitrogen Helium Carbon dioxide
filter porosity	5 µm
Display	OLED
Flow display unit	l/sec, l/min, m³/min, m³/h, ft³/s, m³/min
Pressure display unit	bar, psi
Temperature display unit	°C, °F
DC operating voltage min.	17 V DC
DC operating voltage max.	30 V DC
Max. power consumption *)	175 mA
Response time	10 ms
Protection class	IP65, IP67 according to IEC 60529
Short circuit resistance	short circuit resistant
Shock resistance max.	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Weight	1.97 kg
*)	Current consumption without load

## Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412026835	AS3	G 1/2	8 l/min	1630 l/min	1630 l/min

Part No.	Nominal flow Qn
	Max., extended
R412026835	2445 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4890 l/min

## Technical information

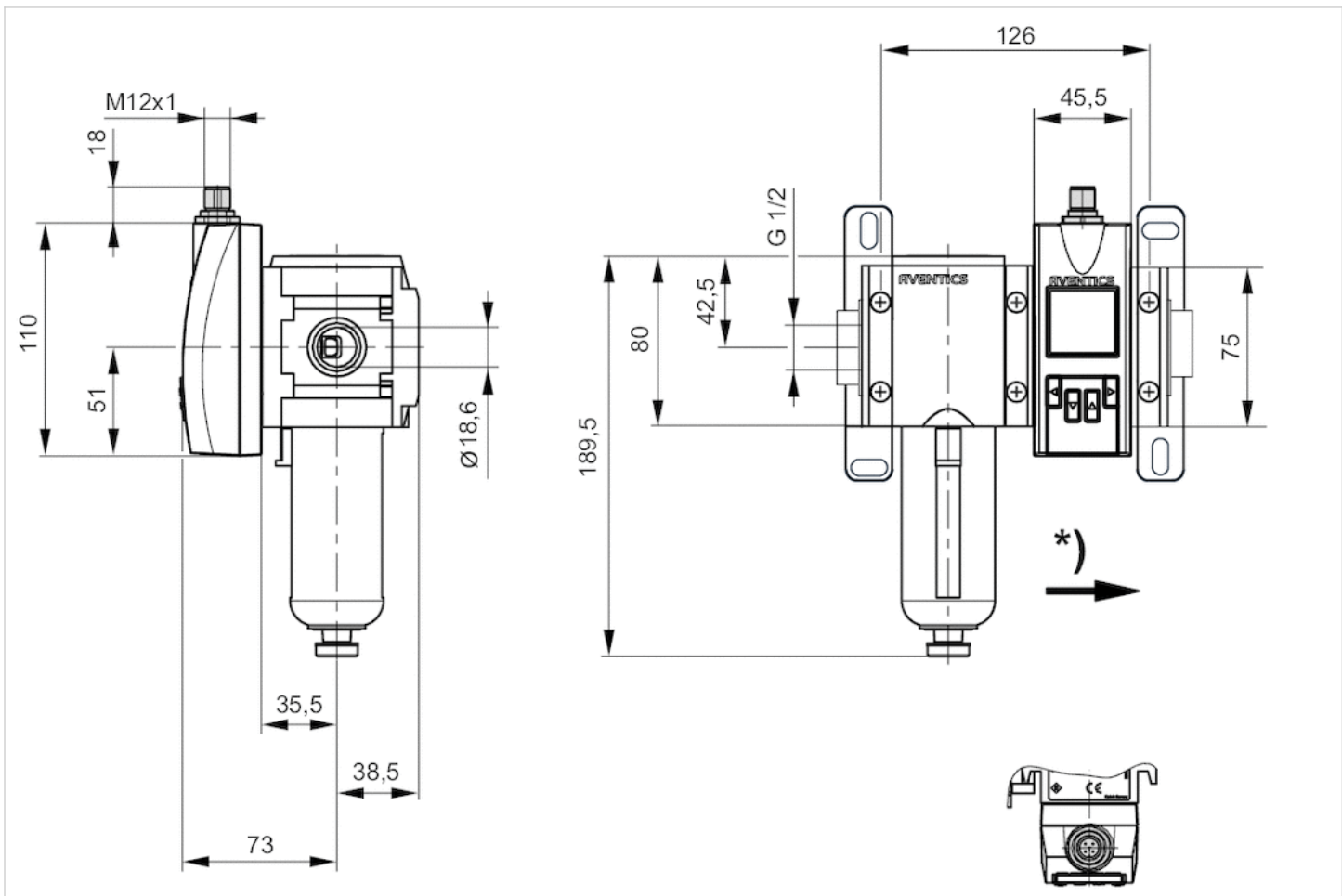
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.  
 The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.  
 Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.  
 Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value  
 The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

## Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

## Dimensions

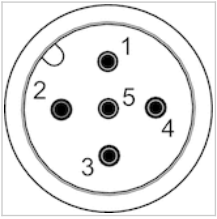
### Dimensions in mm



\* Flow direction

## Pin assignments

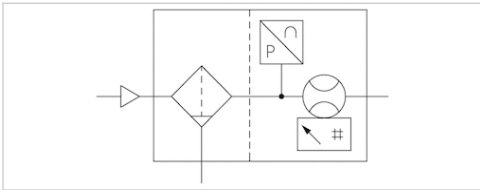
### Pin assignments, M12x1, 5-pin



Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass
	4	5	
	C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA	

# Flow sensor, Ethernet, Series AF2

- Ethernet, With mounting
- Qn min. 8 l/min
- Qn max. 2445 l/min
- Electrical connection Plug, M12x1, 8-pin



## Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage max.

Power consumption max.

Response time

Protection class

Shock resistance max.

Vibration resistance

Reproducibility

Weight

CE declaration of conformity RoHS UL  
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium  
Carbon dioxide

5 µm

OLED

l/sec, l/min, m<sup>3</sup>/min, m<sup>3</sup>/h, ft<sup>3</sup>/s, m<sup>3</sup>/min

bar, psi

°C, °F

45 V DC

12 W

10 ms

IP65, IP67 according to IEC 60529

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

1.97 kg

## Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	
			Min., standard	Max., standard
R412026838	AS3	G 1/2	8 l/min	1630 l/min

Part No.	Nominal flow Qn
	Max., extended
R412026838	2445 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4890 l/min

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.

Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.

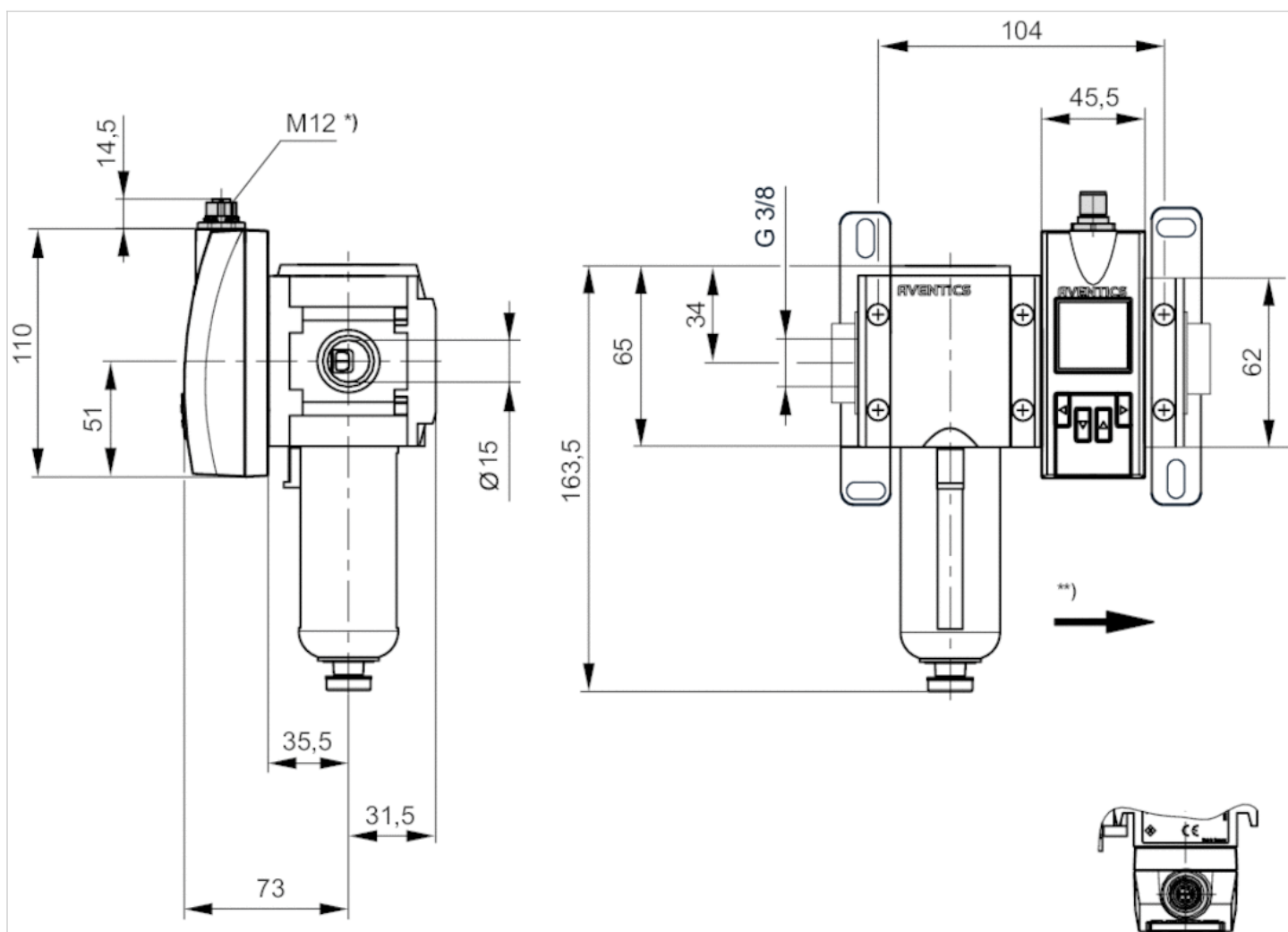
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value

## Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

## Dimensions

### Dimensions in mm

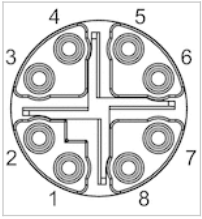


\* Internal thread

\*\* Flow direction

## Pin assignments

### Pin assignments, M12, X-coded



Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

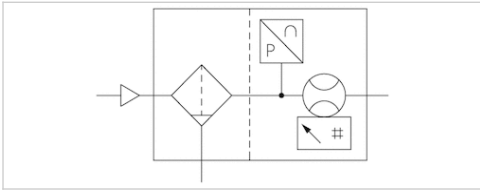
							6
--	--	--	--	--	--	--	---

							BN
--	--	--	--	--	--	--	----

							POE-
--	--	--	--	--	--	--	------

# Flow sensor, IO-Link, Series AF2

- 2 analog outputs, 2 switch outputs, 1 frequency output, 1 pulse output, IO-Link, Without mounting
- Qn min. 8 l/min
- Qn max. 2445 l/min
- Electrical connection Plug, M12x1, 5-pin



## Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage min.

DC operating voltage max.

Max. power consumption \*)

Response time

Protection class

Short circuit resistance

Shock resistance max.

Vibration resistance

Reproducibility

Weight

\*)

CE declaration of conformity RoHS UL  
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium  
Carbon dioxide

5 µm

OLED

l/sec, l/min, m<sup>3</sup>/min, m<sup>3</sup>/h, ft<sup>3</sup>/s, m<sup>3</sup>/min

bar, psi

°C, °F

17 V DC

30 V DC

175 mA

10 ms

IP65, IP67 according to IEC 60529

short circuit resistant

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

1.25 kg

Current consumption without load

## Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	Nominal flow Qn	Nominal flow Qn
			Min., standard	Max., standard	Min., extended
R412027177	AS3	G 1/2	8 l/min	1630 l/min	1630 l/min

Part No.	Nominal flow Qn
	Max., extended
R412027177	2445 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4890 l/min

## Technical information



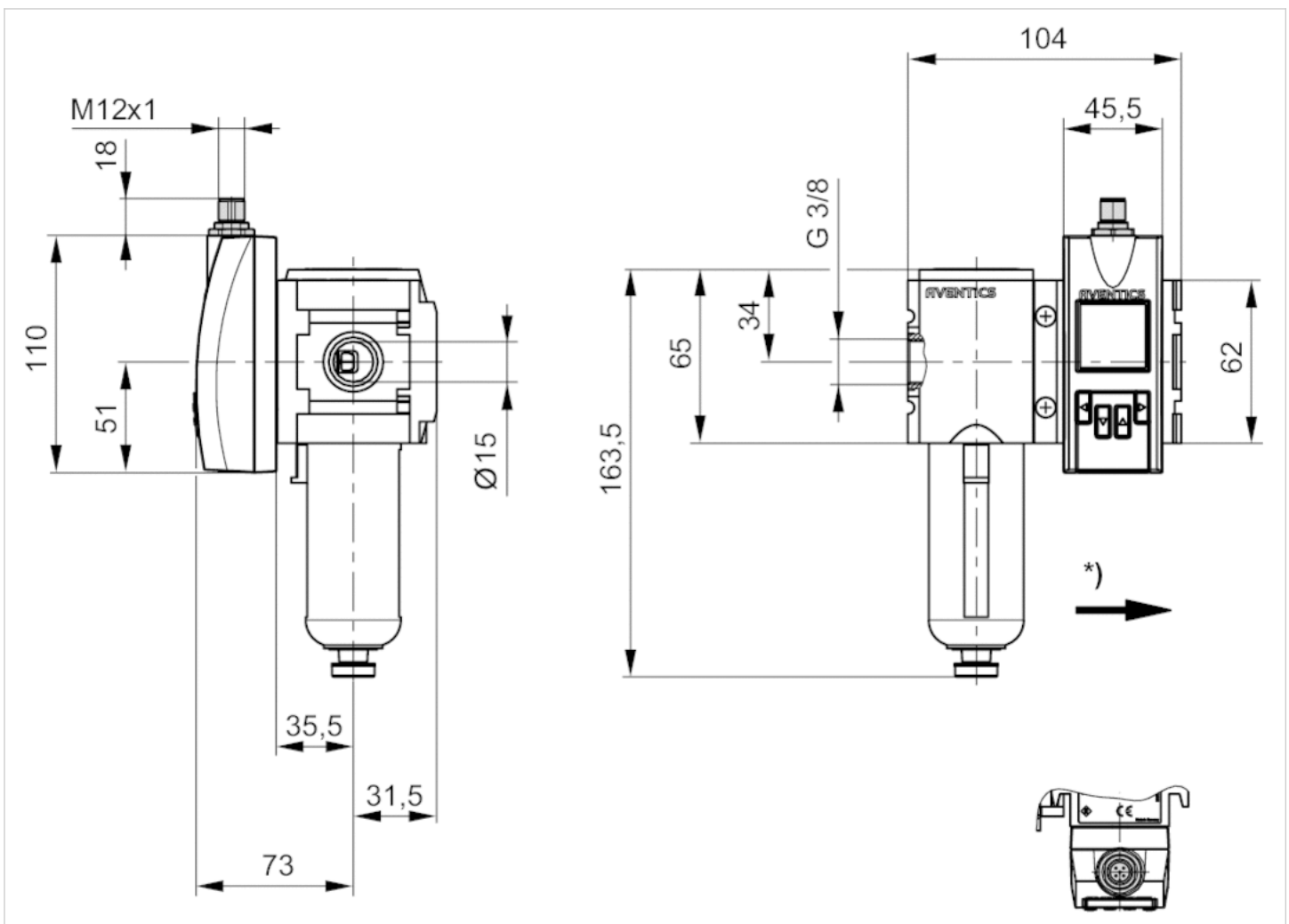
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.  
 The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.  
 Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.  
 Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value  
 The IO-Link device description (IODD) for the AF2 flow rate sensor is available for download in the Media Center.

## Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

## Dimensions

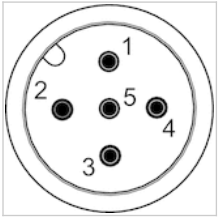
### Dimensions in mm



\* Flow direction

## Pin assignments

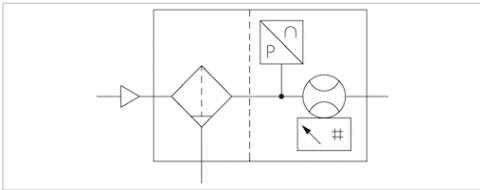
### Pin assignments, M12x1, 5-pin



Pin	1	2	3
Allocation	L+	QA (output 4 ... 20 mA)	m = mass
	4	5	
	C/Q1 (IO-Link/switch output)	Analog output 4 ... 20 mA	

# Flow sensor, Ethernet, Series AF2

- Ethernet, Without mounting
- Qn min. 8 l/min
- Qn max. 2445 l/min
- Electrical connection Plug, M12x1, 8-pin



## Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

filter porosity

Display

Flow display unit

Pressure display unit

Temperature display unit

DC operating voltage max.

Power consumption max.

Response time

Protection class

Shock resistance max.

Vibration resistance

Reproducibility

Weight

CE declaration of conformity RoHS UL  
(Underwriters Laboratories)

0 ... 16 bar

-20 ... 60 °C

-20 ... 60 °C

Compressed air Argon Nitrogen Helium  
Carbon dioxide

5 µm

OLED

l/sec, l/min, m<sup>3</sup>/min, m<sup>3</sup>/h, ft<sup>3</sup>/s, m<sup>3</sup>/min

bar, psi

°C, °F

45 V DC

12 W

10 ms

IP65, IP67 according to IEC 60529

30 g, 11 ms

1 g (10 - 2000 Hz) IEC 60068 - 2-6

± 1.5% of the measured value

1.25 kg

## Technical data

Part No.	for series	Compressed air connection	Nominal flow Qn	
			Min., standard	Max., standard
R412027180	AS3	G 1/2	8 l/min	1630 l/min

Part No.	Nominal flow Qn
	Max., extended
R412027180	2445 l/min

Standard measurement range for flow measurement: compressed air 0.5 ... 100 m/s, extended measurement range: compressed air >100 ... 150 m/s, in accordance with ISO 8778, Flow display range: 0 ... 4890 l/min

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

The device is designed to be installed in AS series air preparation units or to be fitted as a stand-alone device using a W05 block assembly kit.

Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.

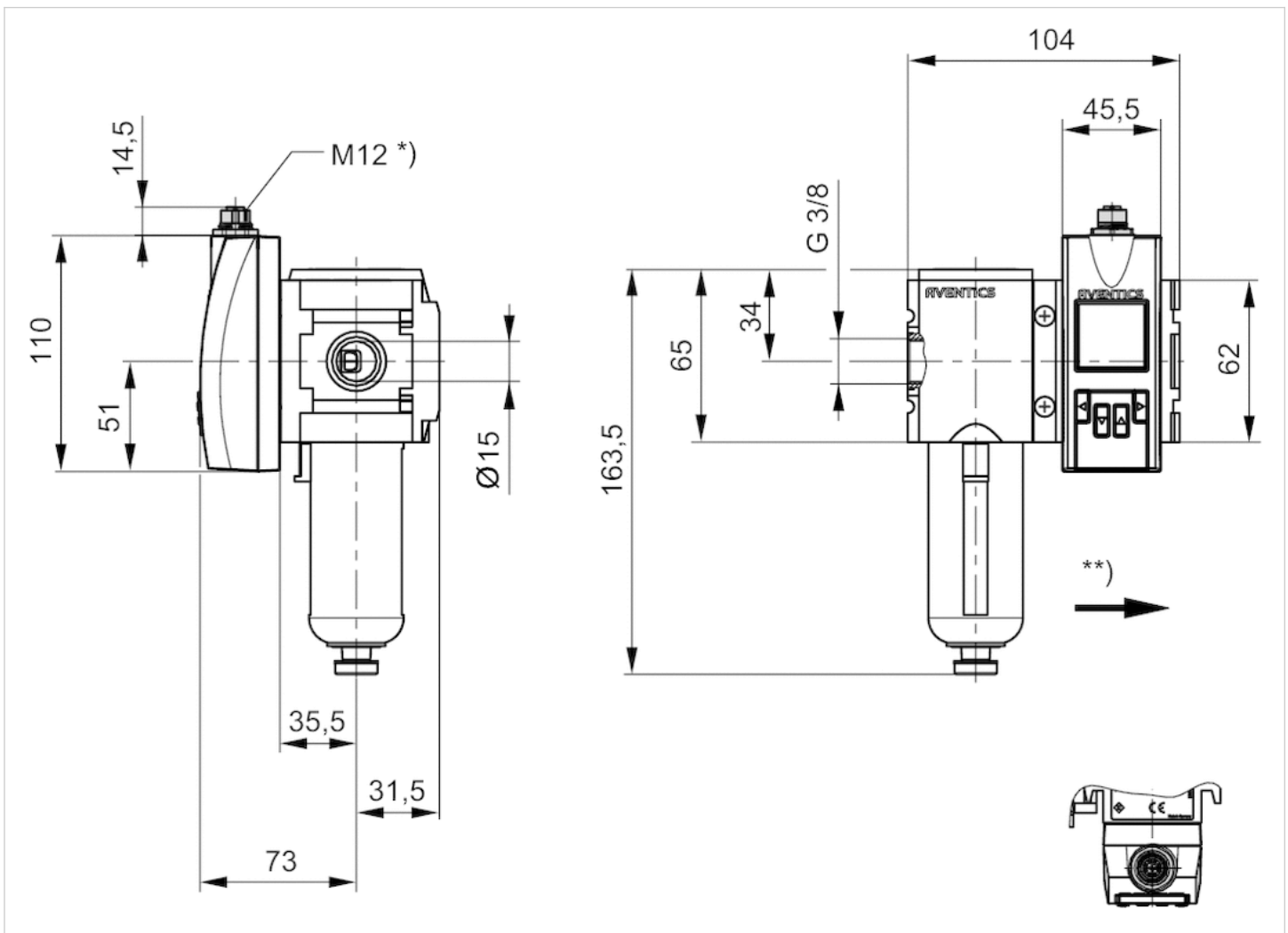
Precision- Standard measurement range: ±3% of measured value, + 0.3% of final value- Extended measurement range: ±8% of measured value, + 1% of final value

## Technical information

Material	
Housing	Polyamide, Polycarbonate
Seals	Fluorocaoutchouc

## Dimensions

### Dimensions in mm

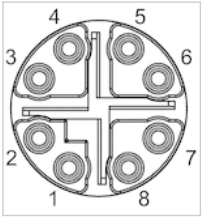


\* Internal thread

\*\* Flow direction

## Pin assignments

### Pin assignments, M12, X-coded



Pin	1	2	3	4	7	8	5
Color	WH / OG	OG	WH / GN	GN	WH / BU	BU	WH / BN
Function	TX(+) + POE	TX(-) + POE	RX(+) - POE	RX(-) - POE	POE+	POE+	POE-

							6
							BN
							POE-

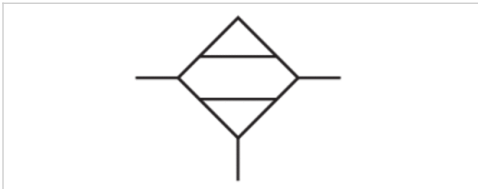
# Diaphragm-type dryer, Series AS3-ADD

- G 1/2

- suitable for ATEX



Version	Diaphragm-type dryer
Parts	Diaphragm-type dryer
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	4 ... 12.5 bar
Ambient temperature min./max.	2 ... 50 °C
Medium temperature min./max.	2 ... 50 °C
Medium	Compressed air Neutral gases
Filter element	not exchangeable
Lowering pressure dew point	20 °C
Weight	See table below



## Technical data

Part No.	Port	Flow	Reservoir	Weight	Fig.	
		Qn				
R412007078	G 1/2	400 l/min	Aluminum	2.03 kg	Fig. 1	1)
R412007079	G 1/2	500 l/min	Aluminum	3.26 kg	Fig. 2	2)
R412007080	G 1/2	660 l/min	Aluminum	3.56 kg	Fig. 2	2)
R412007081	G 1/2	950 l/min	Aluminum	3.9 kg	Fig. 2	2)

1) Suitable for use in Ex zones 1, 2, 21, 22.

2) incl. distributor, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Notice: air may not contain condensate  
purge air approx. 12% of nominal flow Qn

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Recommended pre-filtering  $\mu\text{m}$  5

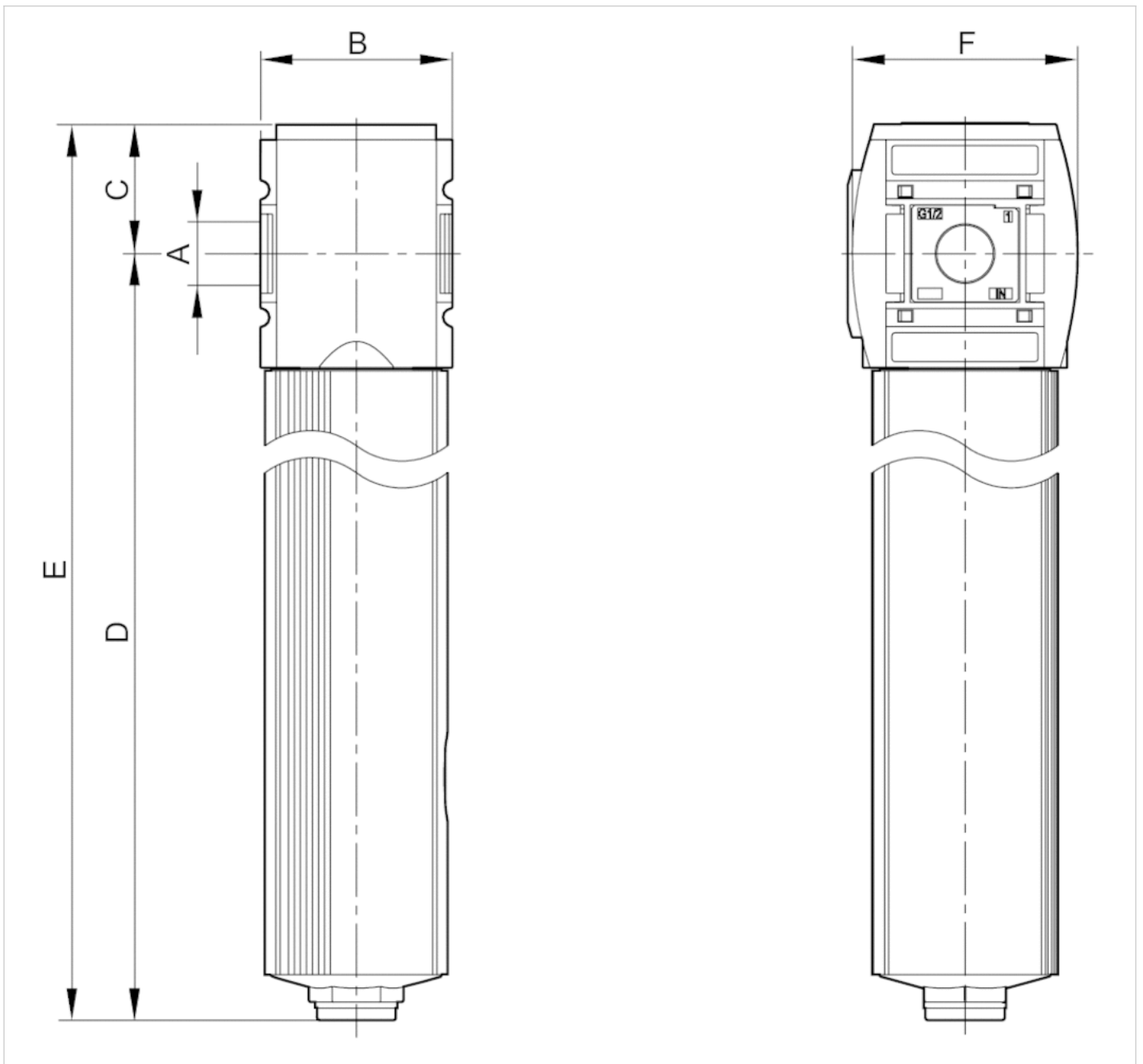
0.01  $\mu\text{m}$

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seal	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Aluminum

## Dimensions

### Dimensions, Fig. 1

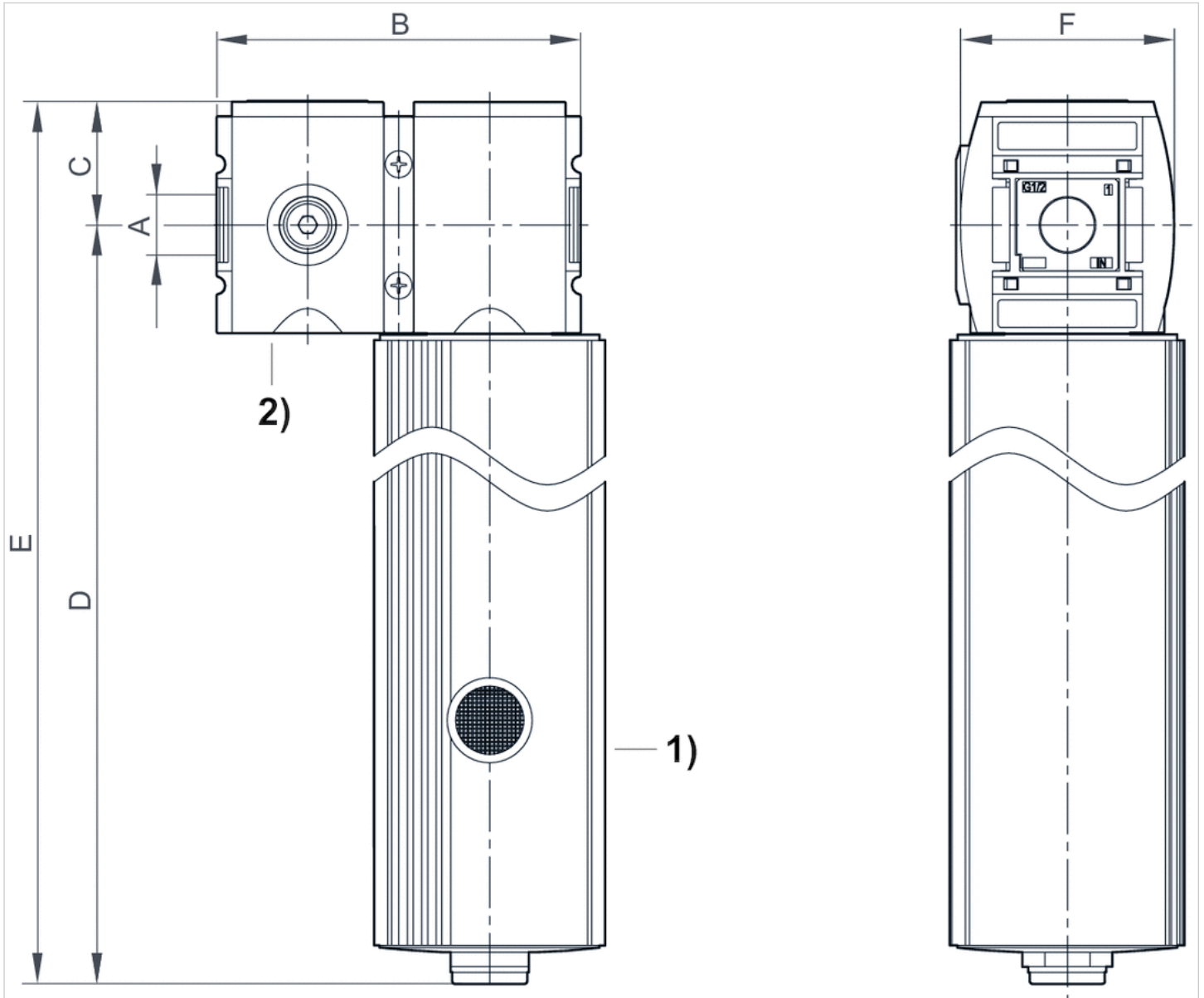


Dimensions in mm

A	B	C	D	E	F
G 1/2	63	43	478	521	74

Dimensions

Dimensions, Fig. 2



- 1) Diaphragm-type dryer
- 2) Incl. second distributor

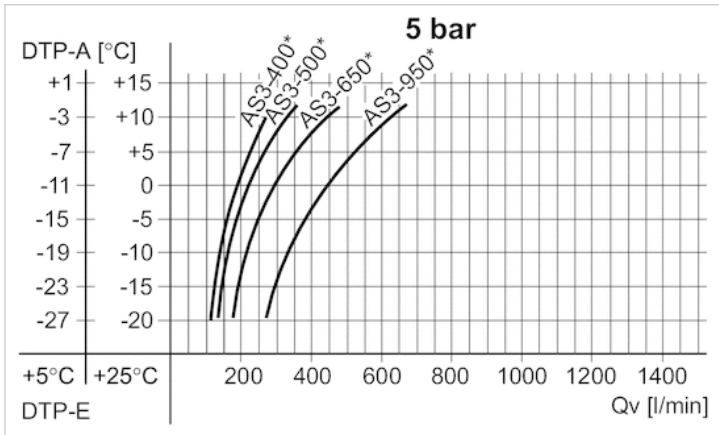
Dimensions in mm

A	B	C	D	E	F
G 1/2	126	43	464	507	74
G 1/2	126	43	515	558	74
G 1/2	126	43	584	627	74



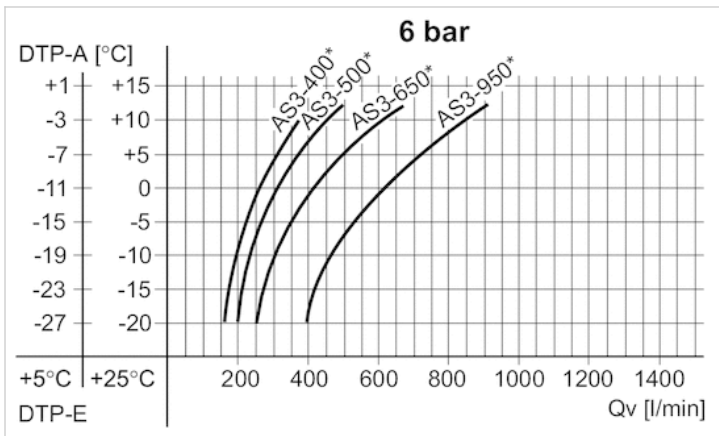
# Diagrams

## performance charts



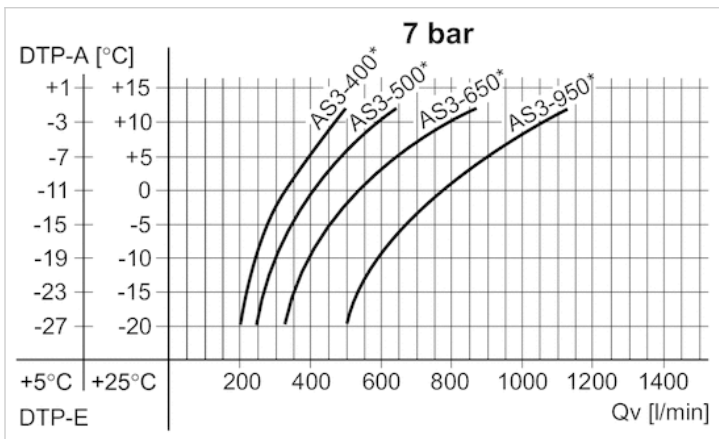
DTP-E: pressure dew point input  
 DTP-A: pressure dew point output  
 Qv: input flow rate (nominal flow rate Qn + purge air)  
 For different conditions, please contact the nearest AVENTICS sales office.  
 \* Nominal flow Qn

## performance charts



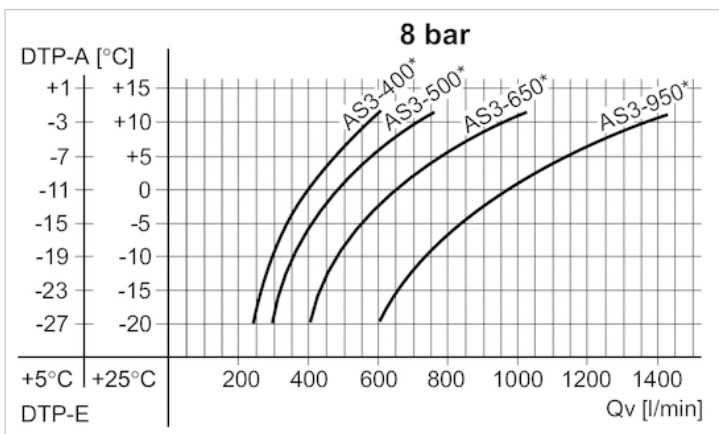
DTP-E: pressure dew point input  
 DTP-A: pressure dew point output  
 Qv: input flow rate (nominal flow rate Qn + purge air)  
 For different conditions, please contact the nearest AVENTICS sales office.  
 \* Nominal flow Qn

performance charts



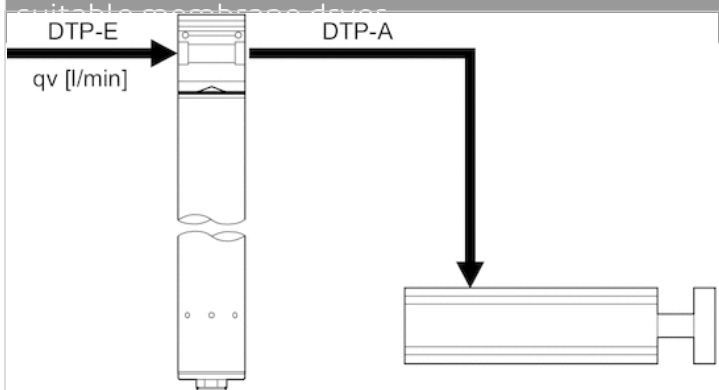
DTP-E: pressure dew point input  
 DTP-A: pressure dew point output  
 Qv: input flow rate (nominal flow rate Qn + purge air)  
 For different conditions, please contact the nearest AVENTICS sales office.  
 \* Nominal flow Qn

performance charts

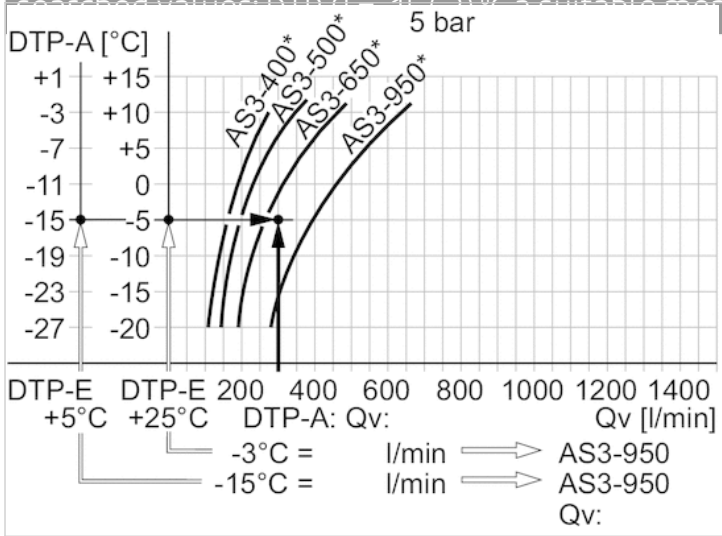


DTP-E: pressure dew point input  
 DTP-A: pressure dew point output  
 Qv: input flow rate (nominal flow rate Qn + purge air)  
 For different conditions, please contact the nearest AVENTICS sales office.  
 \* Nominal flow Qn

Example wanted:

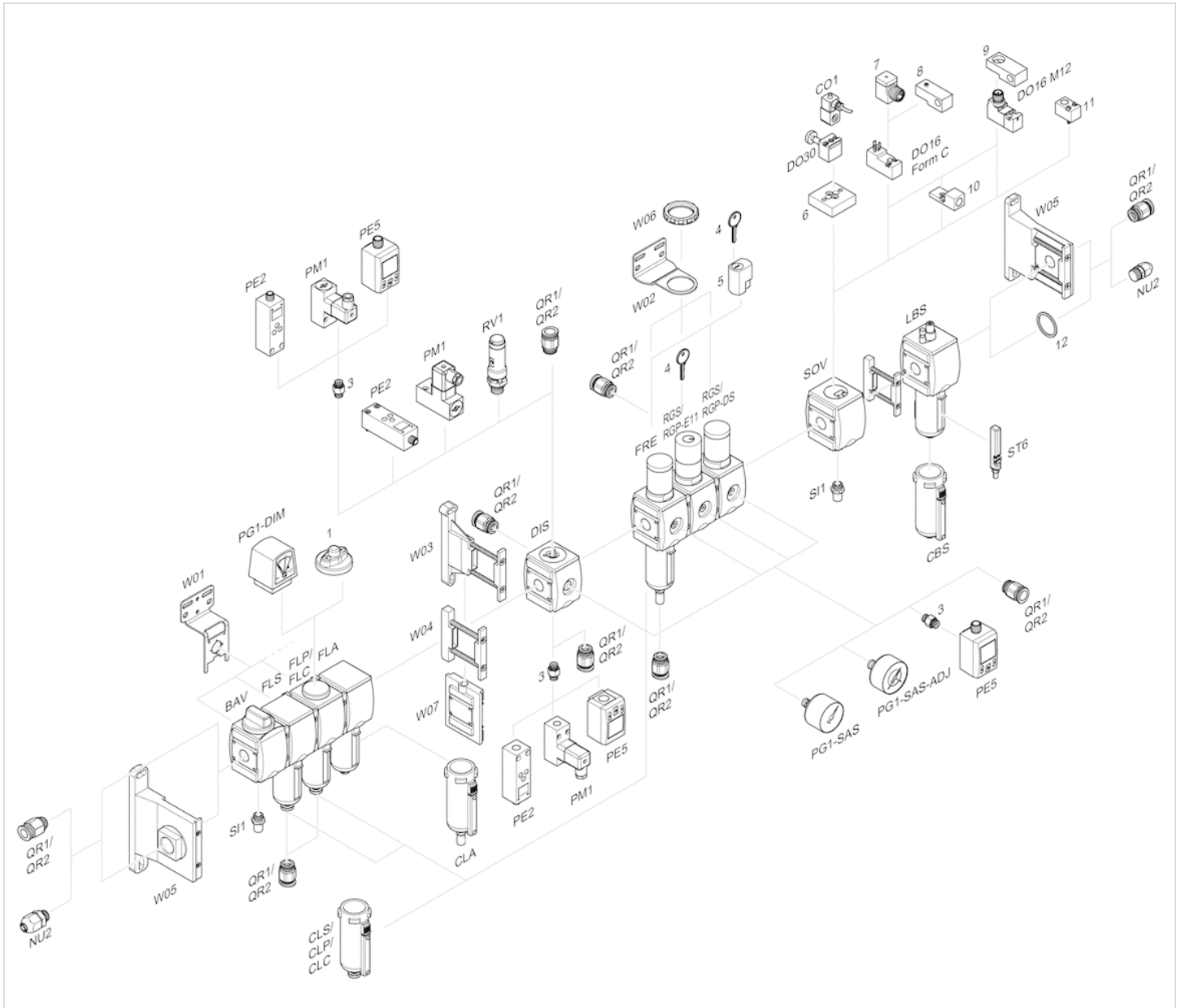


Example  
 given values:  $Q_n = 350 \text{ l/min}$ ,  $DTP-E = +5 (+25) \text{ }^\circ\text{C}$ ,  
 searched values:  $DTP-A = -15 (-2) \text{ }^\circ\text{C}$  a suitable membrane dryer



Result: membrane dryer series AS3-950  
 (with a  $Q_n$  of 950 l/min), part no. R412007081  
 \* Nominal flow  $Q_n$

# Accessories overview

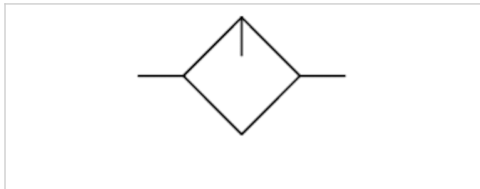


- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Standard oil-mist lubricator, Series AS3-LBS

- G 3/8 G 1/2

- suitable for ATEX



Version	Oil-mist lubricator, Can be assembled into blocks
Parts	Standard oil-mist lubricator
Mounting orientation	vertical
Certificates	suitable for ATEX
Working pressure min./max.	0.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Lubricator reservoir volume	80 cm <sup>3</sup>
Type of filling	Semi-automatic oil filling during operation Manual oil filling
Weight	See table below

## Technical data

Part No.	Port	Nominal flow Qn	Material Reservoir	Protective guard
R412007225	G 3/8	8000 l/min	Polycarbonate	Polyamide
R412007226	G 3/8	8000 l/min	Polycarbonate	Polyamide
R412007229	G 3/8	8000 l/min	Die cast zinc with window	-
R412007231	G 1/2	8000 l/min	Polycarbonate	Polyamide
R412007232	G 1/2	8000 l/min	Polycarbonate	Polyamide
R412007235	G 1/2	8000 l/min	Die cast zinc with window	-

Part No.	Reservoir	Weight	
R412007225	reservoir, PA, with PA protective guard	0.343 kg	1)
R412007226	reservoir, PA, with PA protective guard	0.343 kg	2)
R412007229	reservoir, metal, standard, with inspection glass	0.749 kg	1)
R412007231	reservoir, PA, with PA protective guard	0.343 kg	1)
R412007232	reservoir, PA, with PA protective guard	0.343 kg	2)
R412007235	reservoir, metal, standard, with inspection glass	0.728 kg	1)

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

1) Suitable for use in Ex zones 1, 2, 21, 22.

2) Electrical level detection, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 Electrical level detection only with ST6 sensor with reed contact, sensor holder included in the scope of the delivery.  
 Sensor not included in scope of delivery, sensor installation prepared.

The entire preset drip quantity enters the pressure system.

Manual oil filling possible during operation at a maximum operating pressure of 10 bar.

Suitable for use in Ex zones 1, 2, 21, 22.

Note: Polycarbonate reservoirs are susceptible to solvents, supplementary information can be found at "Customer information".

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Oil dosing at 1000 l/min 1-2 drops

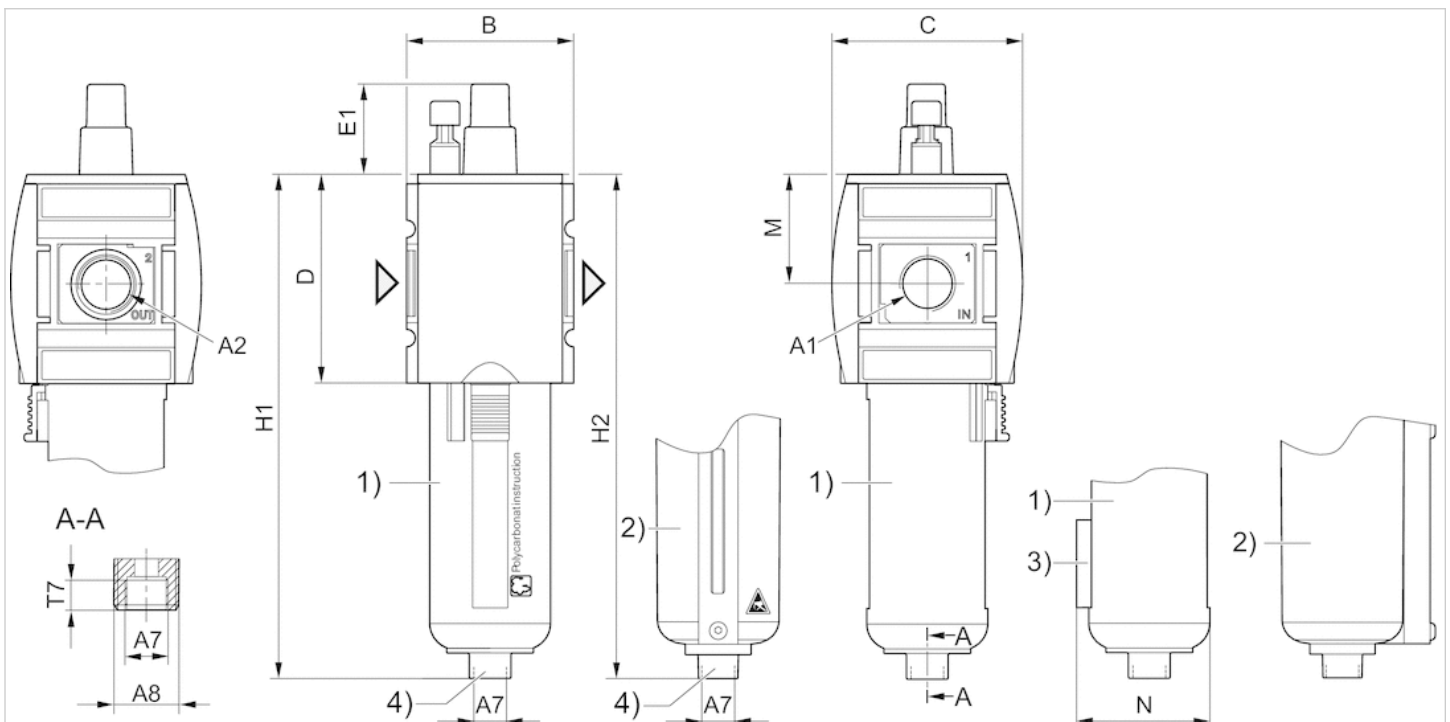
## Technical information

### Material

Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide

## Dimensions

### Dimensions



A1 = input  
 A2 = output

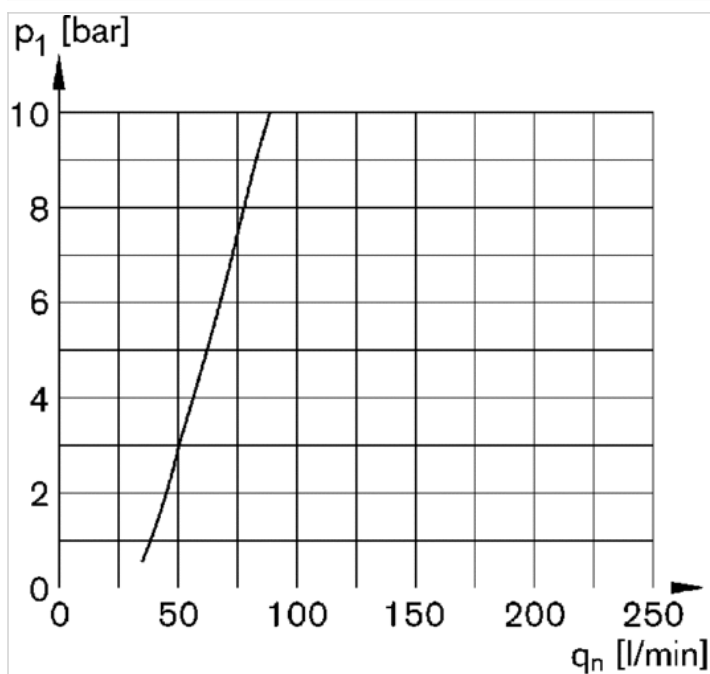
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) Holder for sensor
- 4) Port for semi-automatic oil filling

### Dimensions in mm

A1	A2	A7	A8	B	C	D	E1	H1	H2	M	N	T7
G 3/8	G 3/8	G 1/8	G 1/4	63	74	80	27.5	183	187	42.5	48	7
G 1/2	G 1/2	G 1/8	G 1/4	63	74	80	27.5	183	187	42.5	48	7

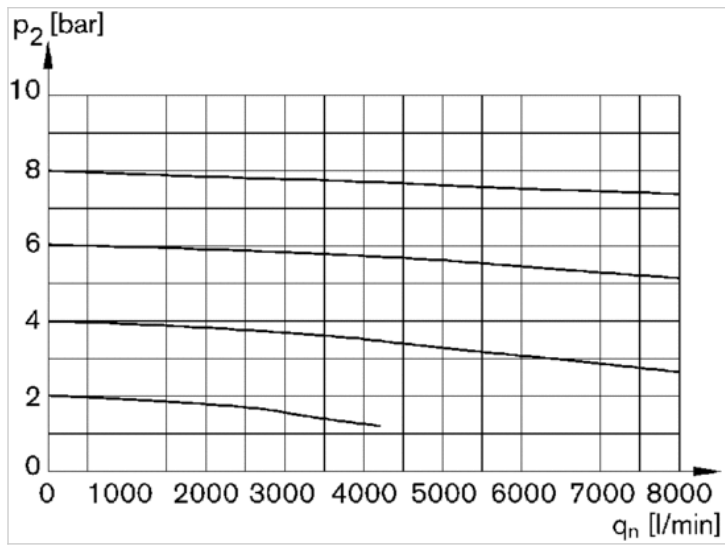
### Diagrams

#### Lubricator activation margin



$p_1$  = working pressure  
 $q_n$  = nominal flow

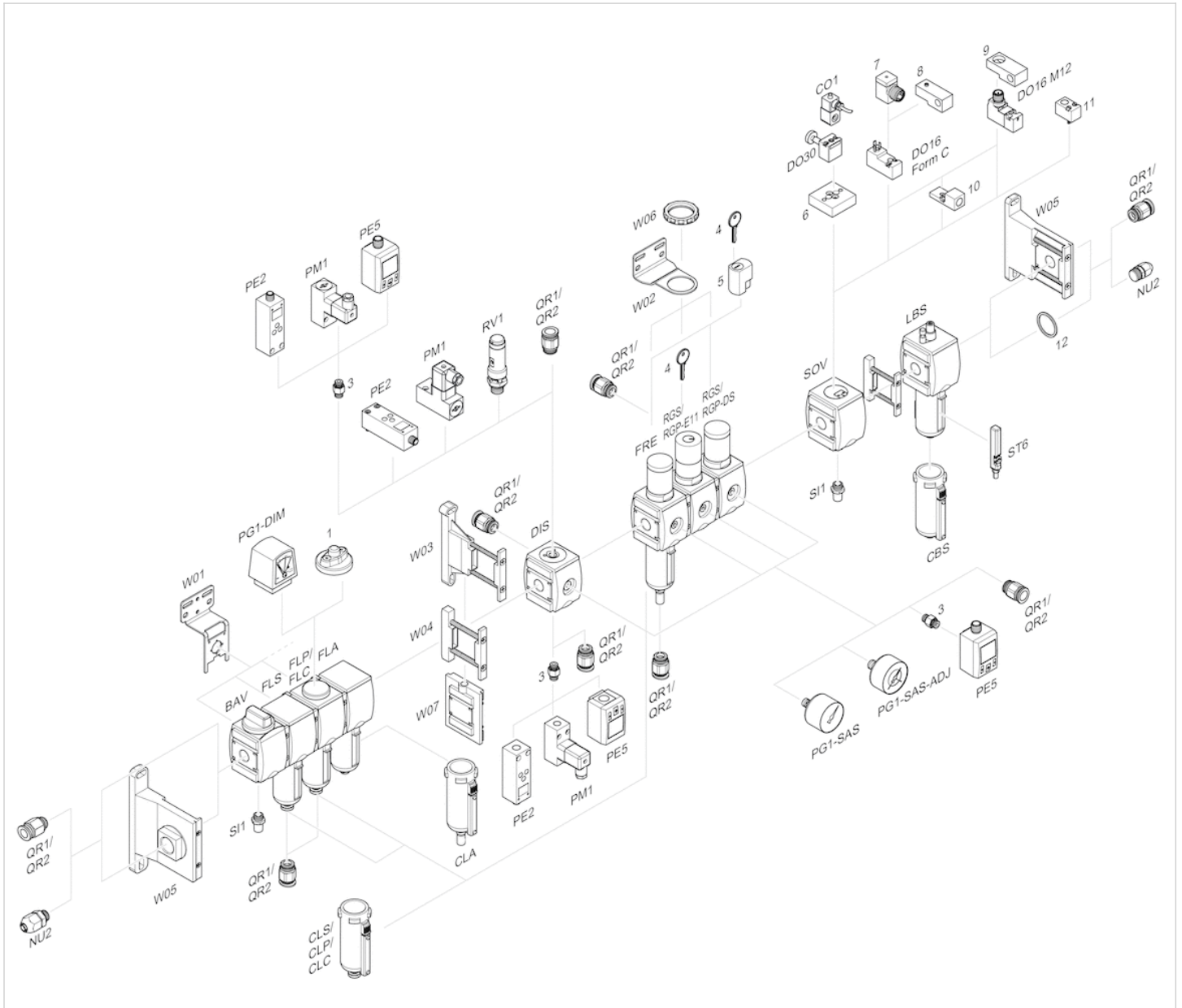
## Flow rate characteristic



$p_2$  = secondary pressure  
 $q_n$  = nominal flow



# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring
















# Filling unit, electrically operated, Series AS3-SSU

- adjustable filling time
- Compressed air connection G 3/8 G 1/2
- Pipe connection
- ATEX optional



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	3500 l/min
Nominal flow 1 ▶ 2	3500 l/min
Nominal flow 2 ▶ 3	3200 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	See table below

## Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412007277		—	G 3/8	G 3/8	G 1/2
R412007282		—	G 1/2	G 1/2	G 1/2
R412007287		—	G 1/2	G 1/2	G 1/2
R412007278			G 3/8	G 3/8	G 1/2
R412007280			G 3/8	G 3/8	G 1/2
R412007394			G 1/2	-	G 1/2
R412007283			G 1/2	G 1/2	G 1/2
R412007284			G 1/2	G 1/2	G 1/2
R412007285			G 1/2	G 1/2	G 1/2

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007277	-	-	-
R412007282	-	-	-
R412007287	-	-	-
R412007278	24 V	-	-
R412007280	-	220 V	230 V
R412007394	24 V	-	-
R412007283	24 V	-	-

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007284	-	110 V	110 V
R412007285	-	220 V	230 V

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412007277	-	-	-	-
R412007282	-	-	-	-
R412007287	-	-	-	-
R412007278	2 W	-	-	-
R412007280	-	1.6 VA	1.4 VA	2.2 VA
R412007394	2 W	-	-	-
R412007283	2 W	-	-	-
R412007284	-	1.6 VA	1.4 VA	2.2 VA
R412007285	-	1.6 VA	1.4 VA	2.2 VA

Part No.	Switch-on power	Electrical connection	Connector standard
	AC 60 Hz	Pilot valve	
R412007277	-	-	-
R412007282	-	-	-
R412007287	-	-	-
R412007278	-	Plug, ISO 15217, form C	ISO 15217
R412007280	1.6 VA	Plug, ISO 15217, form C	ISO 15217
R412007394	-	Plug, M12x1	-
R412007283	-	Plug, ISO 15217, form C	ISO 15217
R412007284	1.6 VA	Plug, ISO 15217, form C	ISO 15217
R412007285	1.6 VA	Plug, ISO 15217, form C	ISO 15217

Part No.	basic valve with electrical connector
R412007277	Basic valve without pilot valve
R412007282	Basic valve without pilot valve
R412007287	Basic valve without pilot valve, with CNOMO subbase
R412007278	Basic valve with pilot valve
R412007280	Basic valve with pilot valve
R412007394	Basic valve with pilot valve
R412007283	Basic valve with pilot valve
R412007284	Basic valve with pilot valve
R412007285	Basic valve with pilot valve

Part No.	Reverse polarity protection	Weight	Fig.	
R412007277	-	0.889 kg	Fig. 1	1)
R412007282	-	0.889 kg	Fig. 1	1)
R412007287	-	0.895 kg	Fig. 2	1)
R412007278	Protected against polarity reversal	0.924 kg	Fig. 3	-
R412007280	Protected against polarity reversal	0.924 kg	Fig. 3	-
R412007394	Protected against polarity reversal	0.9 kg	Fig. 4	2)
R412007283	Protected against polarity reversal	0.924 kg	Fig. 3	-
R412007284	Protected against polarity reversal	0.924 kg	Fig. 3	-

Part No.	Reverse polarity protection	Weight	Fig.	
R412007285	Protected against polarity reversal	0.924 kg	Fig. 3	-

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 0.1$  bar

- 1) Suitable for use in Ex zones 1, 2, 21, 22.
- 2) With adjustment screw lock

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

ATEX optional: The ATEX ID depends on the selected pilot valve.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

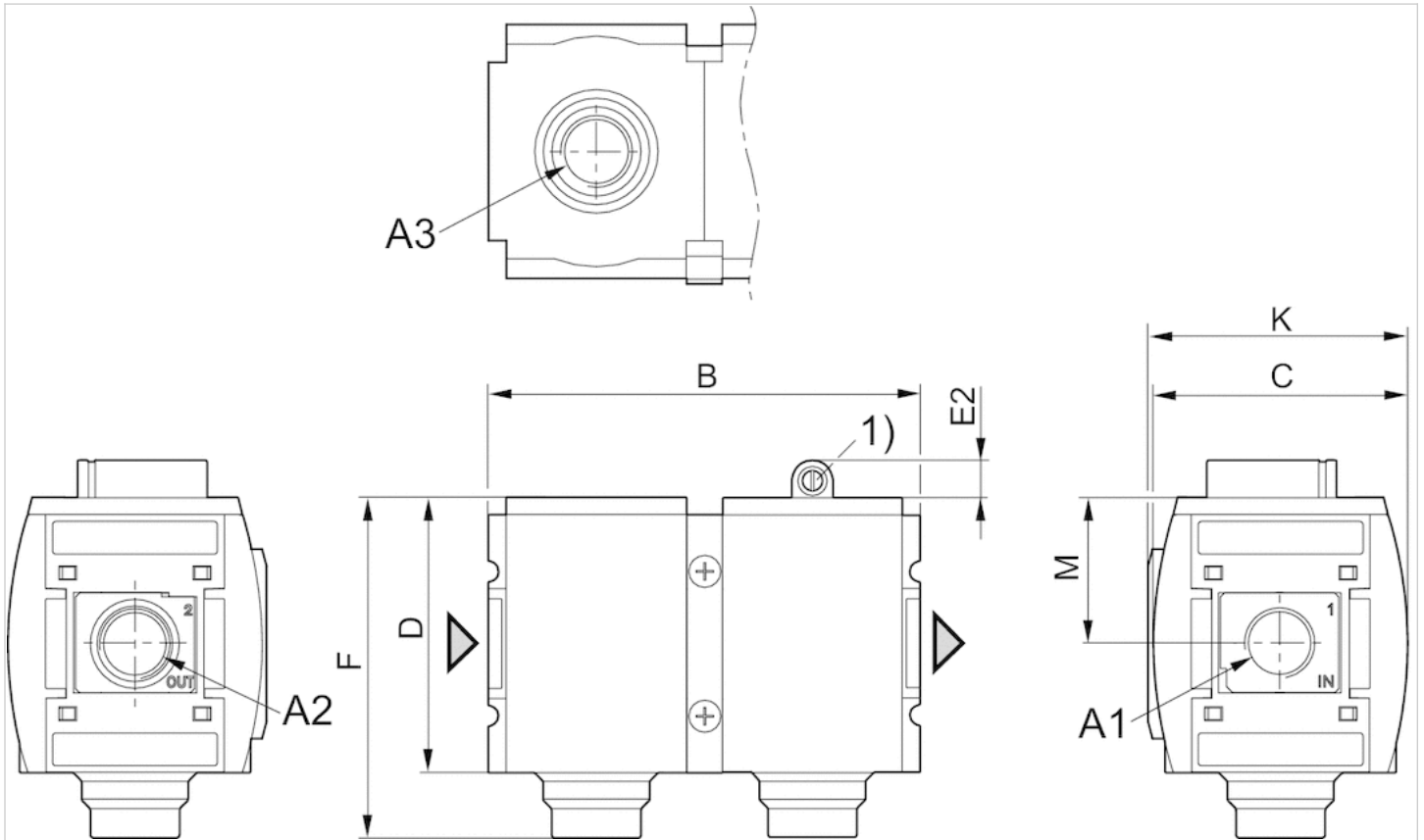
The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

Fig. 1: Filling unit without pilot valve with porting configuration for series D016



A1 = input

A2 = output

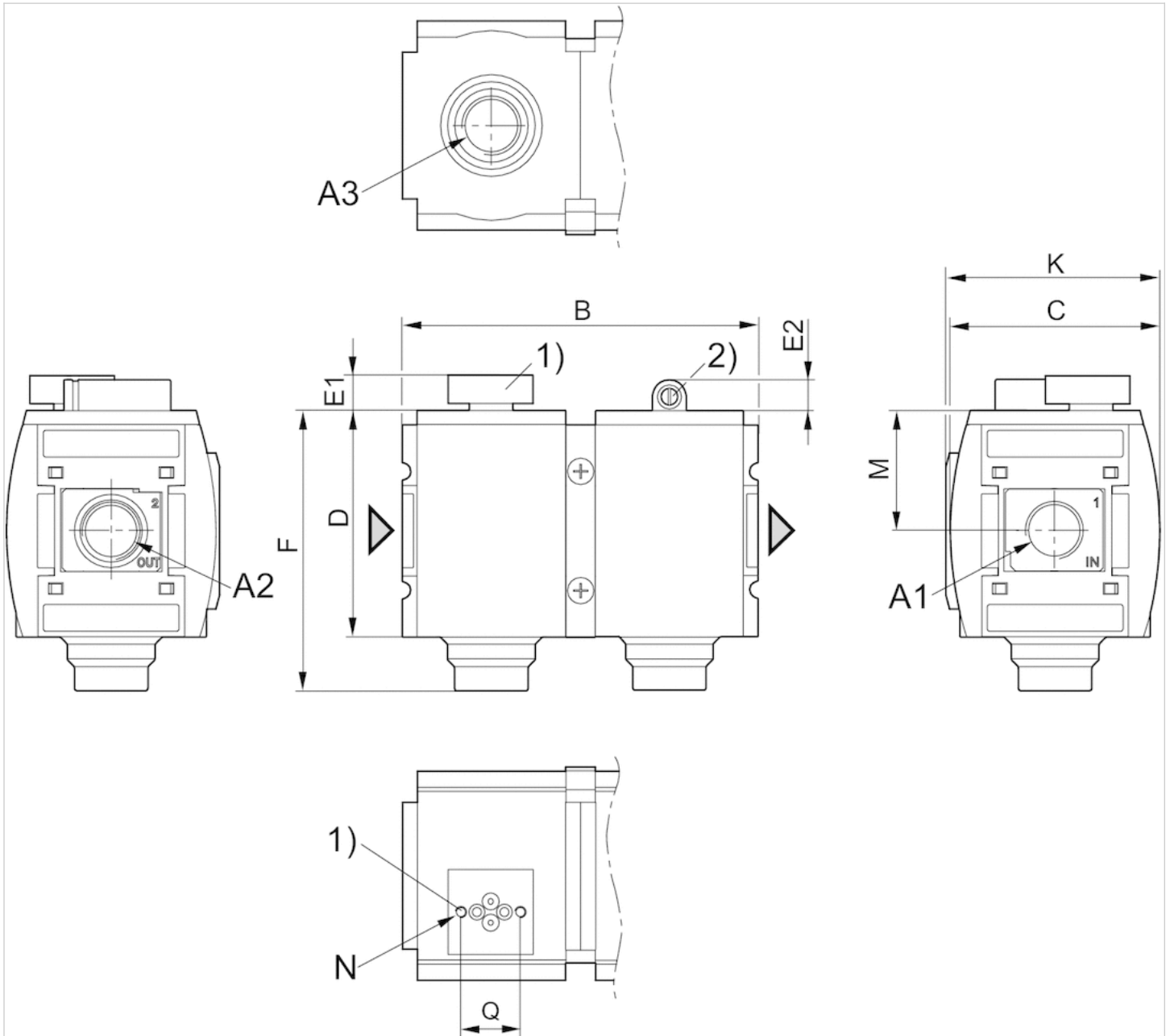
1) Adjustment screw for filling time

## Dimensions in mm

A1	A2	A3	B	C	D	E2	F	K	M
G 3/8	G 3/8	G 1/2	125.75	74	80	11	99	75.5	42.5
G 1/2	G 1/2	G 1/2	125.75	74	80	11	99	75.5	42.5

## Dimensions

Fig. 2: Filling unit with transition plate for pilot valve series DO30



A1 = input

A2 = output

A3 = ventilation port

1) Transition plate with CNOMO porting configuration for pilot valve DO30

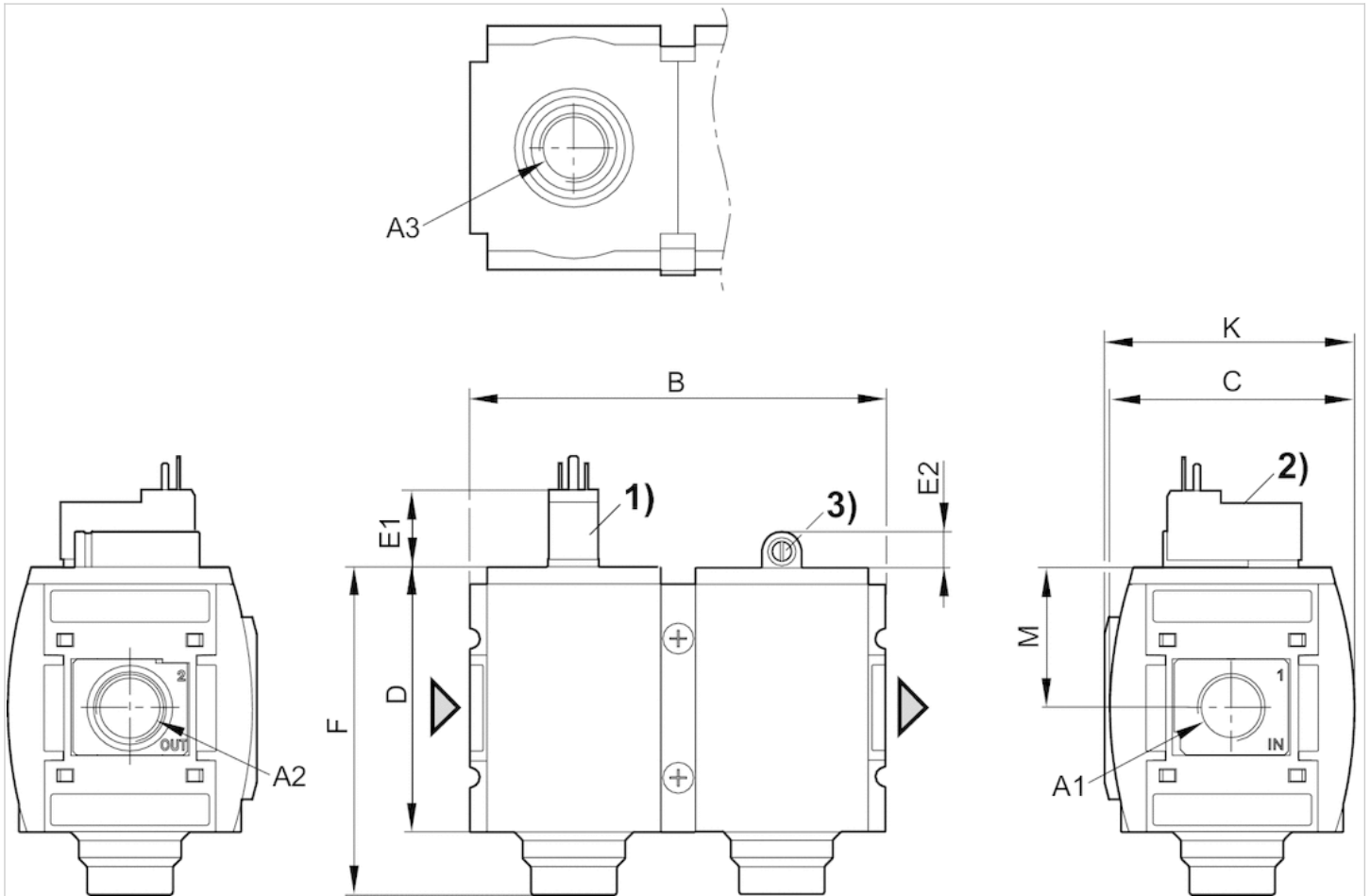
2) Adjustment screw for filling time

## Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M	N	Q
G 1/2	G 1/2	G 1/2	125.75	74	80	12.3	11	99	75.5	42.5	M4	21

## Dimensions

Fig. 3: Filling unit with pilot valve and port for valve plug connector



A1 = input

A2 = output

A3 = ventilation port

1) Connection for valve plug connector according to ISO 15217 (form C)

2) Manual override

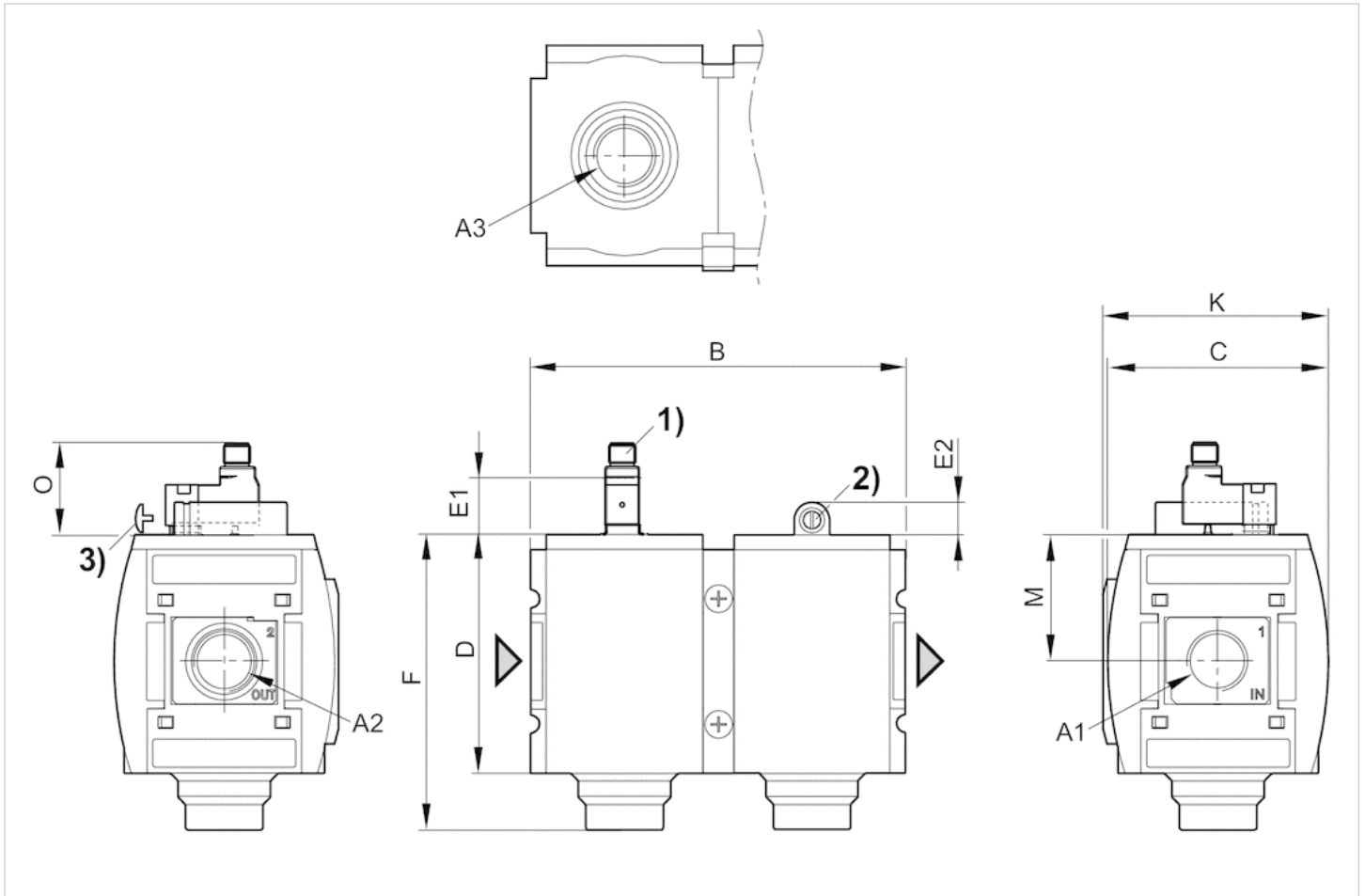
3) Adjustment screw for filling time

### Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M
G 3/8	G 3/8	G 1/2	125.75	74	80	23.2	11	99	75.5	42.5
G 1/2	G 1/2	G 1/2	125.75	74	80	23.2	11	99	75.5	42.5

## Dimensions

Fig. 4: Filling unit with pilot valve and valve plug connector for plug



- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Port for plug M12x1
- 2) Adjustment screw for filling time
- 3) Adjustment screw lock

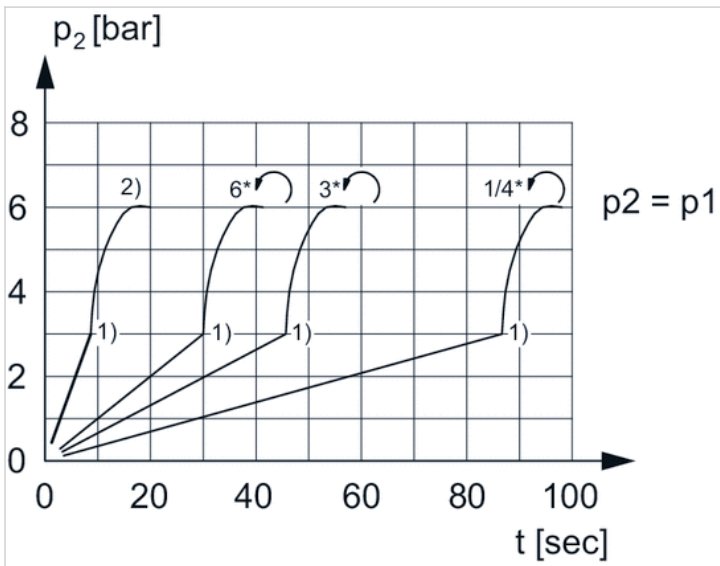
### Dimensions in mm

A1	A2	A3	B	C	D	E1	E2	F	K	M
G 1/2	G 1/2	G 1/2	125.75	74	80	39	11	99	75.5	42.5



## Diagrams

### secondary pressure while filling



$p_1$  = working pressure

$p_2$  = secondary pressure

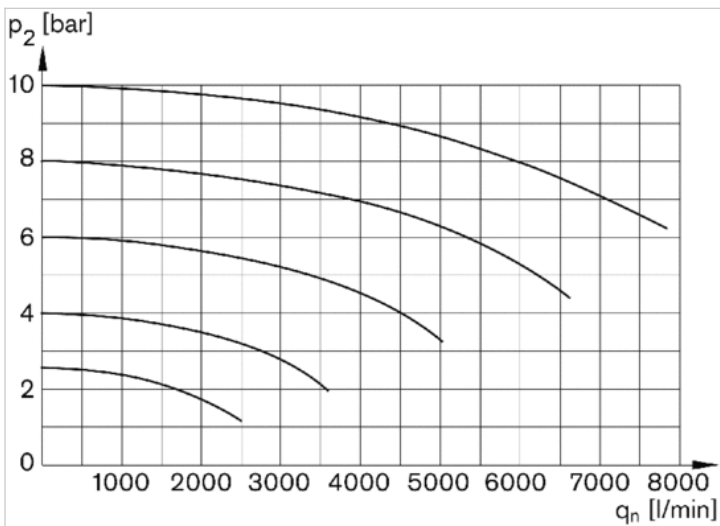
$t$  = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure  $\approx 0.5 \times p_1$  (50%)

2) Throttle fully opened

\* Adjustment screw rotations

### Flow rate characteristic

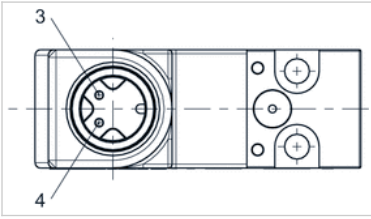


$p_2$  = secondary pressure

$q_n$  = nominal flow

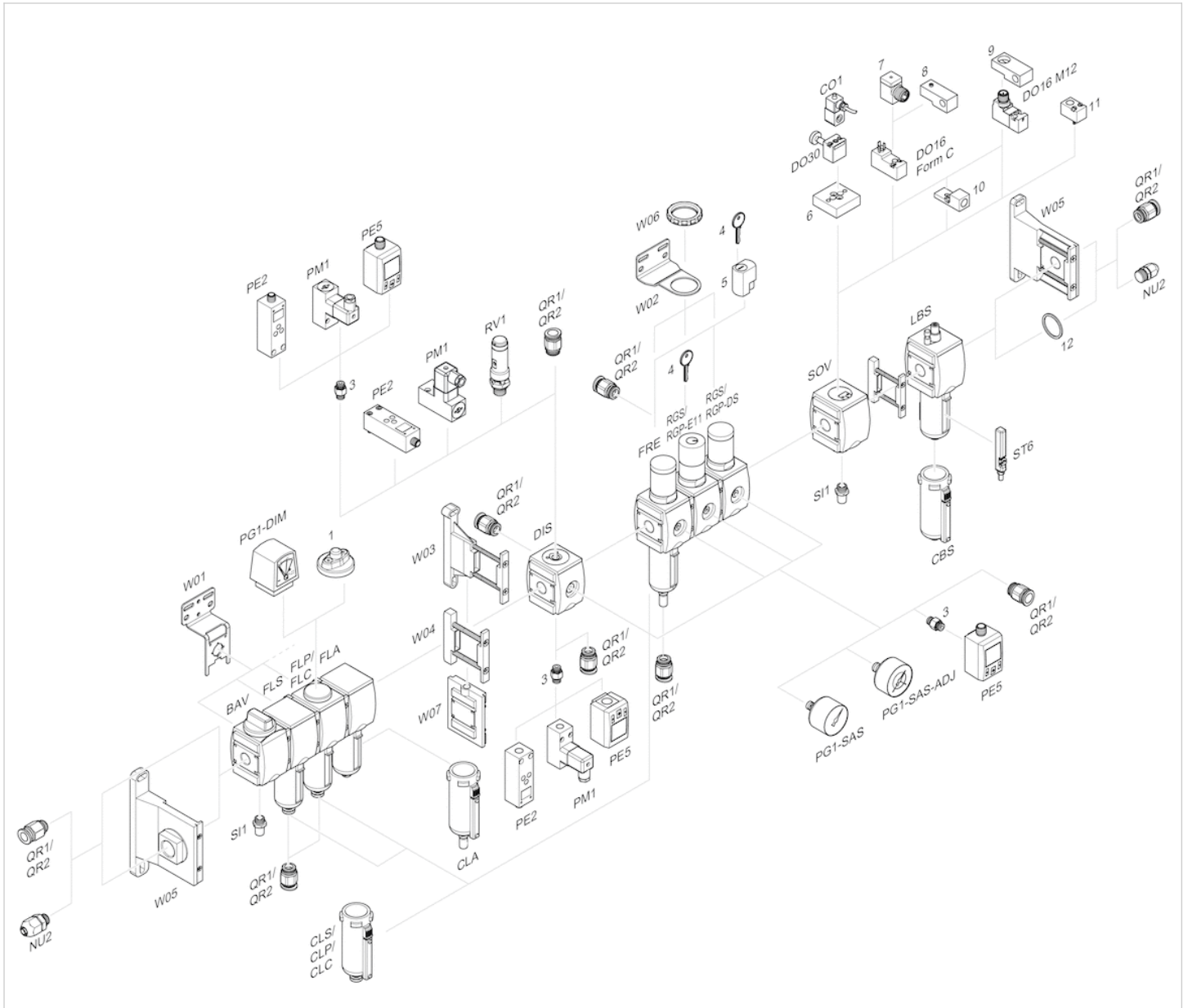
# Pin assignments

## Pin assignment M12x1



- 3: +/-
- 4: +/-

# Accessories overview

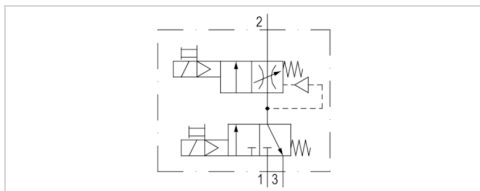


1 = contamination display

- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring



# Filling unit, electrically operated, Series AS3-SSU

- With electrical priority circuit, adjustable filling time.
- Compressed air connection G 1/2
- Pipe connection
- Electrical connection: Plug, M12x1



Version	Poppet valve, Can be assembled into blocks
Parts	Filling valve, 3/2-directional valve, electrically operated
Nominal flow	3500 l/min
Nominal flow 1 ▶ 2	3500 l/min
Nominal flow 2 ▶ 3	3200 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Pilot	Internal
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	0.924 kg

## Technical data

Part No.		Compressed air connection input	Compressed air connection output	Operational voltage
				DC
R412007395		G 1/2	G 1/2	24 V

Part No.	Power consumption	Electrical connection	basic valve with electrical connector
	DC	Pilot valve	
R412007395	2 W	Plug, M12x1	Basic valve with pilot valve

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

For unthrottled operation, the filling valve must be permanently electrically actuated.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure  $p_1$  is immediately applied.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

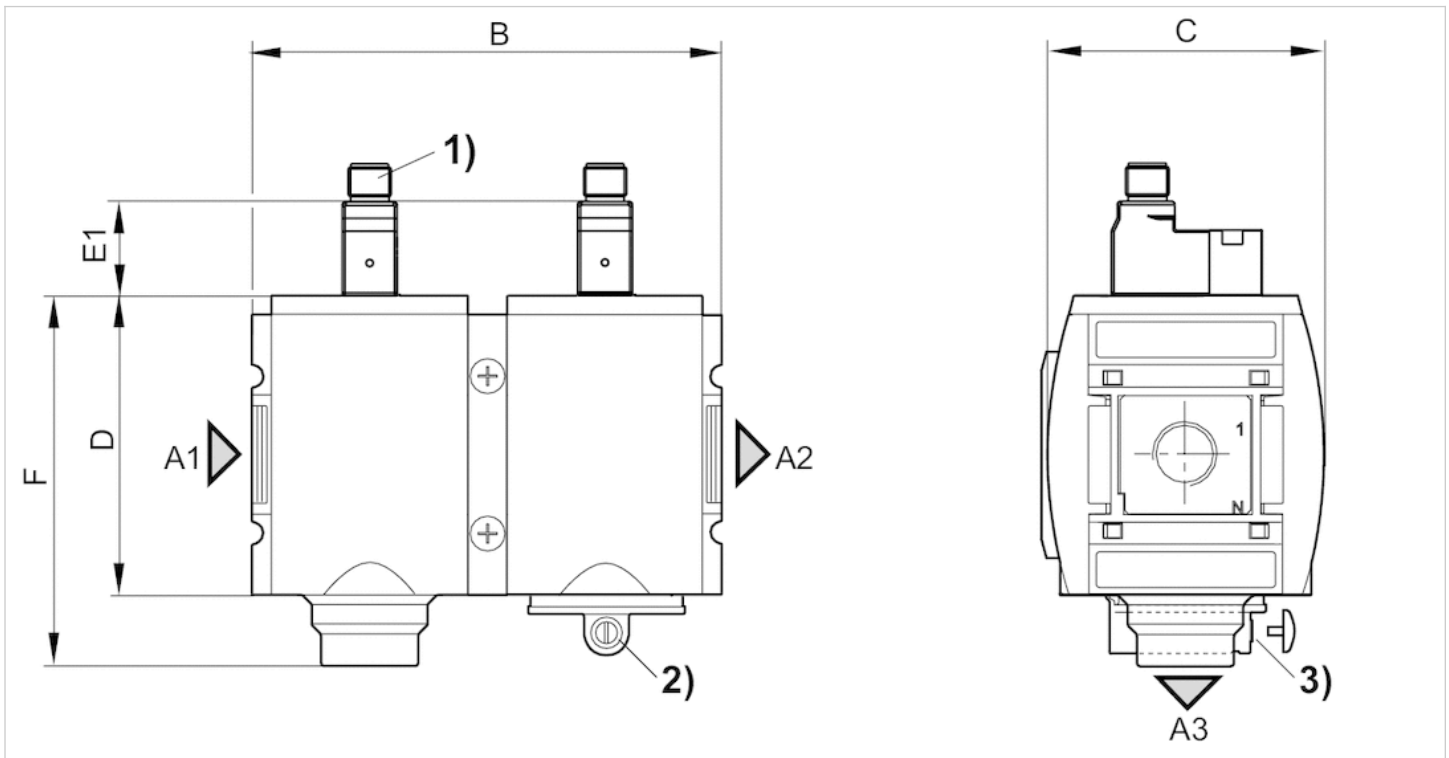
## Technical information

### Material

Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions, with pilot valve, series DO16



A1 = input

A2 = output

A3 = ventilation port

1) Electr. connection: valve plug connector M12x1

2) Adjustment screw for filling time

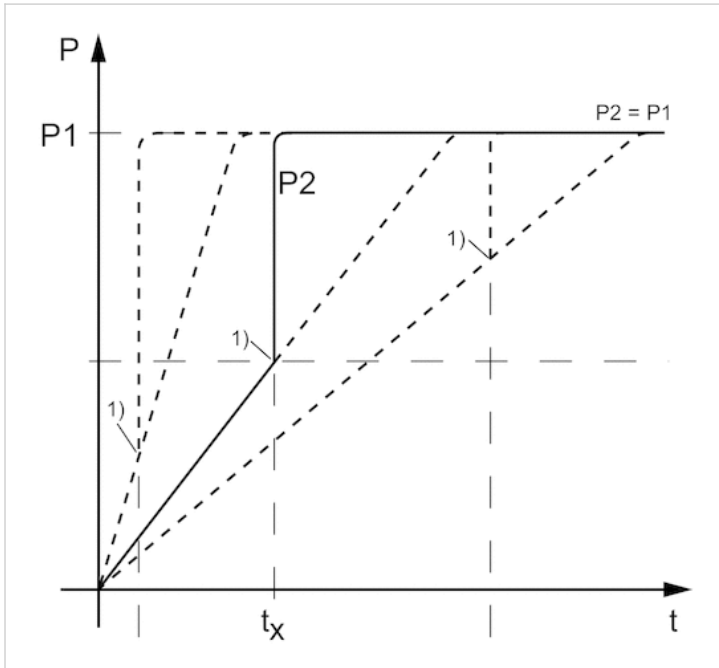
3) Adjust screw lock

### Dimensions in mm

A1	A2	A3	B	C	D	E1	F
G 1/2	G 1/2	G 1/2	125.75	74	80	39	99

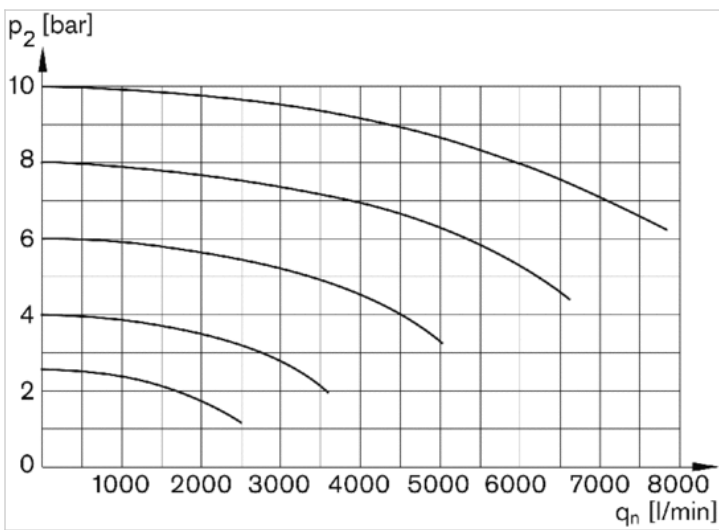
## Diagrams

### secondary pressure while filling



p1 = working pressure  
 p2 = secondary pressure  
 t = filling time  
 tx = switchover time  
 1) Electrically triggered switching point  
 Filling time adjustable via adjustment screw (throttle)

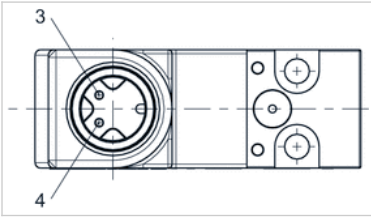
### Flow rate characteristic



p2 = secondary pressure  
 qn = nominal flow

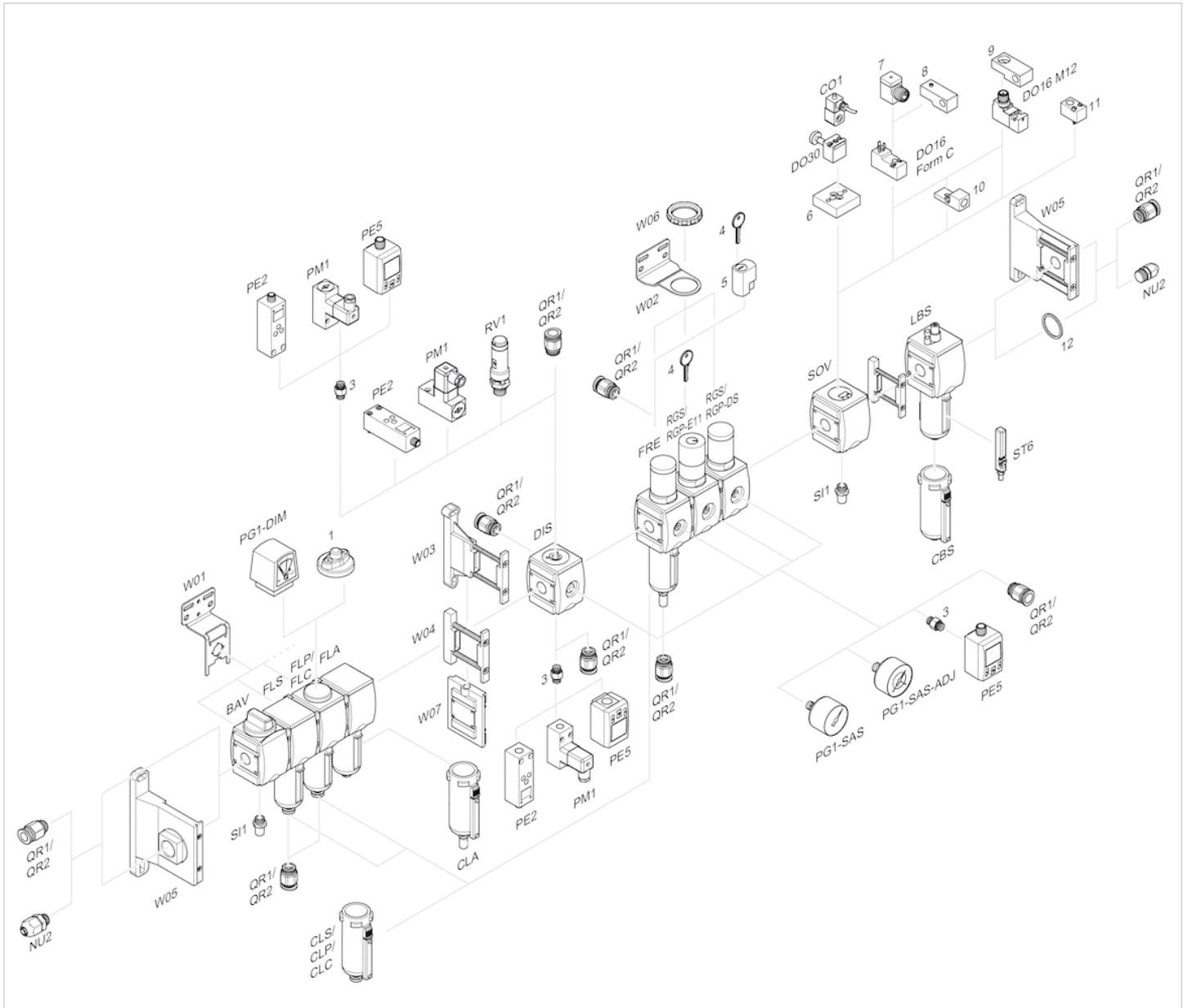
# Pin assignments

## Pin assignment M12x1



- 3: +/-
- 4: +/-

# Accessories overview



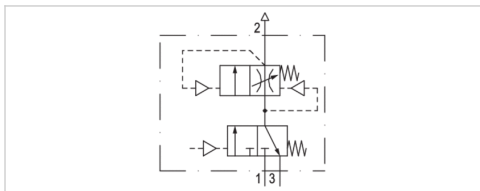
1 = contamination display

- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring



# Filling unit, pneumatically operated, Series AS3-SSU

- adjustable filling time
- Compressed air connection G 3/8 G 1/2
- Pipe connection
- suitable for ATEX



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	40 µm
Weight	0.924 kg

The delivered product varies from that in the illustration. See the drawing for an exact description.

## Technical data

Part No.	Port	Pilot connection	Exhaust	Flow	Flow	Flow	
				Qn	Qn 1►2	Qn 2►3	
R412007276	G 3/8	G 1/8	G 1/2	3500 l/min	3500 l/min	3200 l/min	-
R412007281	G 1/2	G 1/8	G 1/2	3500 l/min	3500 l/min	3200 l/min	-
R412007289	G 1/2	G 1/8	G 1/2	3500 l/min	3500 l/min	3200 l/min	1)

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

1) With adjustment screw lock

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

Suitable for use in Ex zones 1, 2, 21, 22.

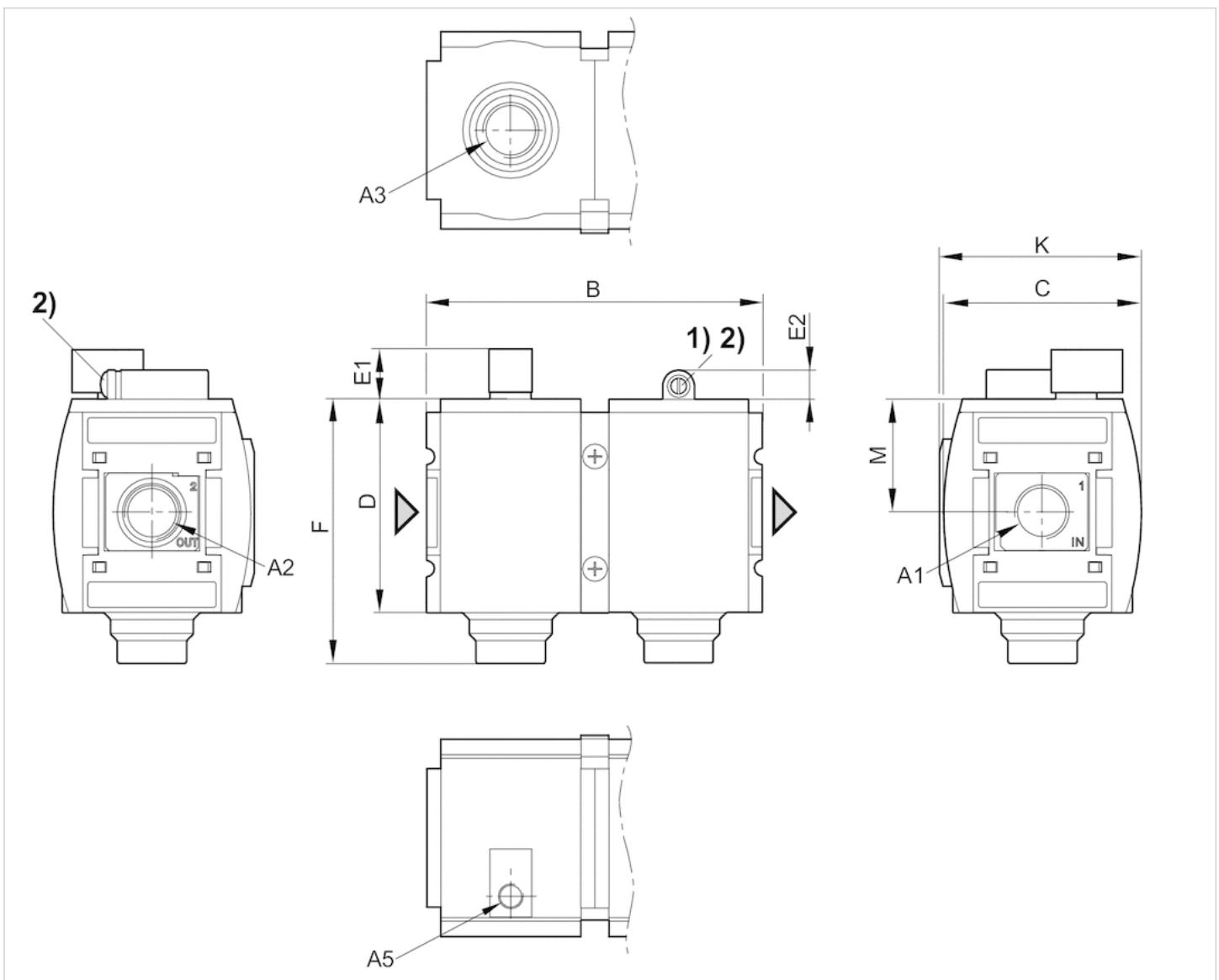
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



A1 = input

A2 = output

A3 = ventilation port

A5 = control pressure connection

1) Adjustment screw for filling time

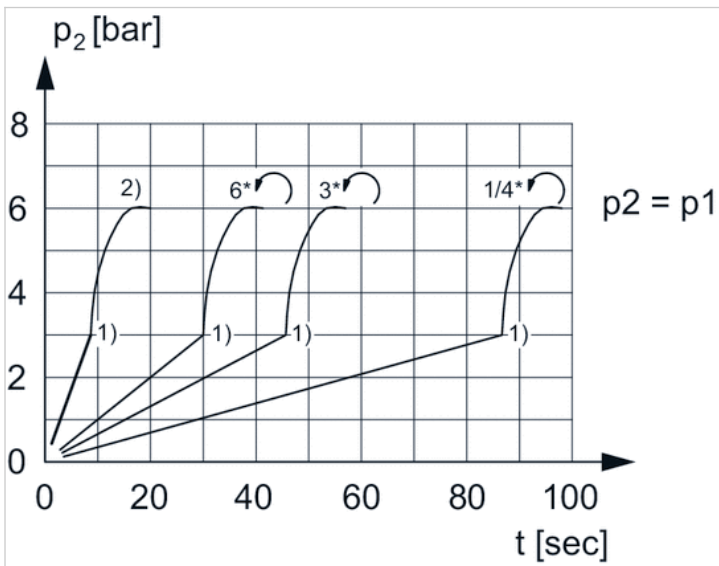
2) Adjustment screw lock

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	E2	F	K	M
G 3/8	G 3/8	G 1/2	G 1/8	125.75	74	80	18.5	11	99	75.5	42.5
G 1/2	G 1/2	G 1/2	G 1/8	125.75	74	80	18.5	11	99	75.5	42.5

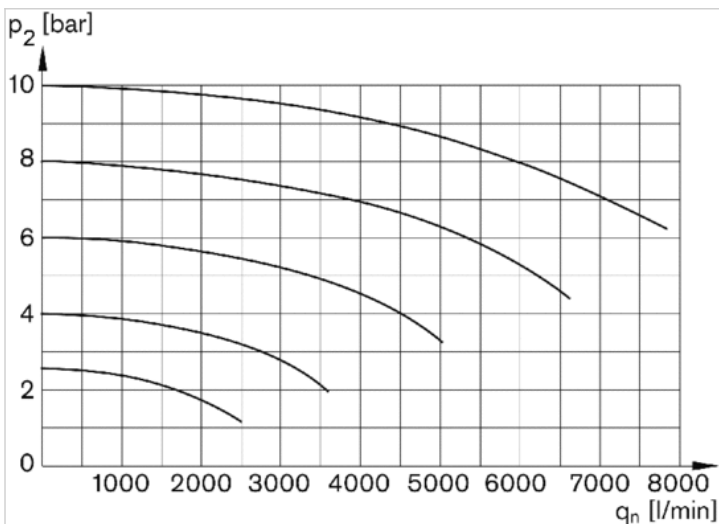
Diagrams

Secondary pressure while filling



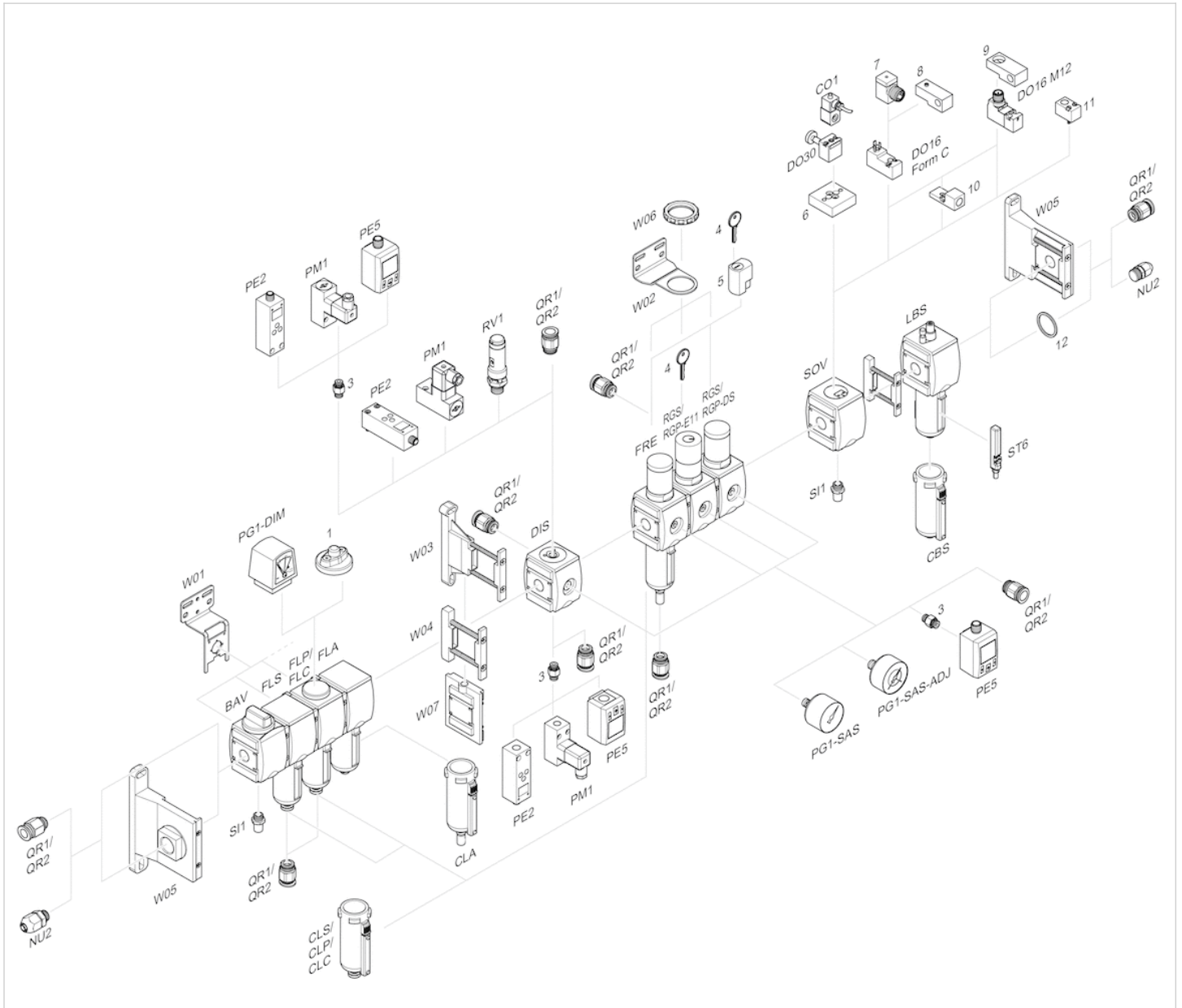
- p1 = working pressure
- p2 = secondary pressure
- t = filling time, adjustable via adjustment screw (throttle)
- 1) Switching point: adjustable filling time, fixed change-over pressure  $\approx 0.5 \times p1$  (50%)
- 2) Throttle fully opened
- \* Adjustment screw rotations

Flow rate characteristic



- p2 = secondary pressure
- qn = nominal flow

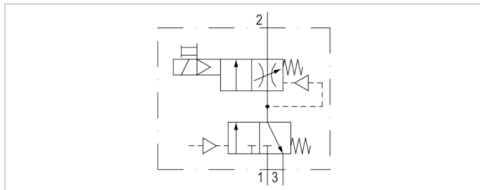
# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filling unit, pneumatically operated, Series AS3-SSU

- With electrical priority circuit, adjustable filling time.
- Compressed air connection G 1/2
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 16 bar
Control pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	25 µm
Duty cycle	100 %
Protection class according to EN 60529:2000, without electrical connector	IP65
Weight	0.924 kg

The delivered product varies from that in the illustration. See the drawing for an exact description.

## Technical data

Part No.	Port	Exhaust	Flow	Flow	Flow
			Qn	Qn 1→2	Qn 2→3
R412007393	G 1/2	G 1/2	3500 l/min	3500 l/min	3200 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p1 is immediately applied.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

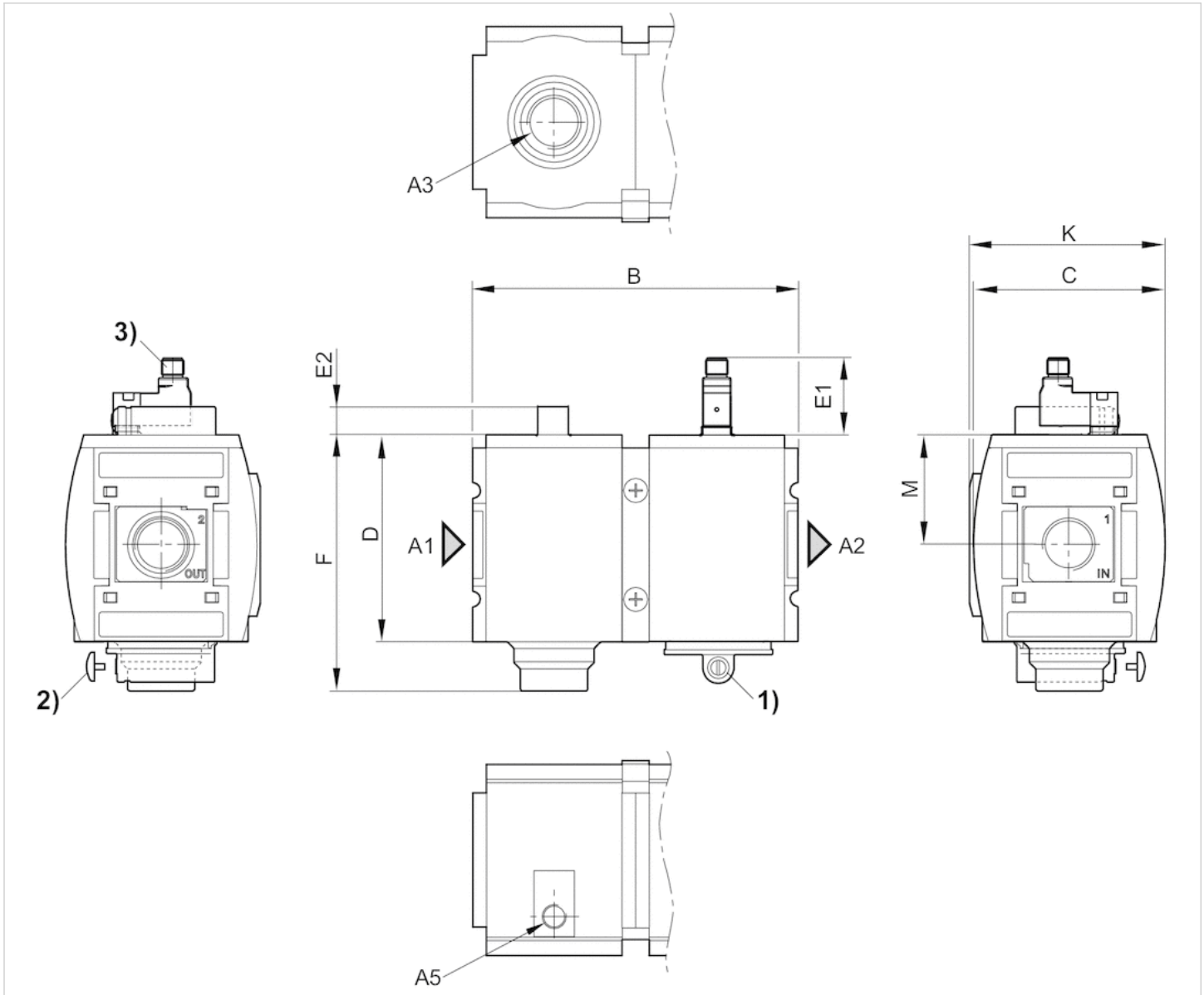
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



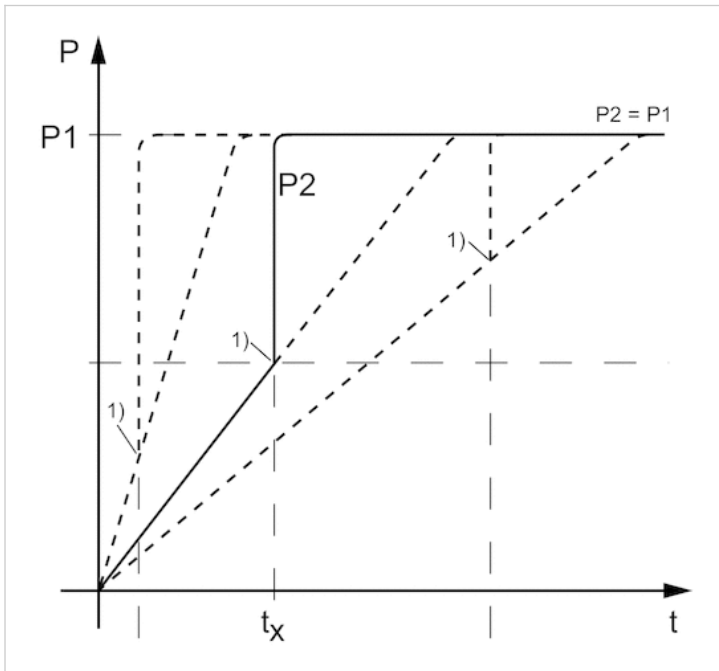
- A1 = input
- A2 = output
- A3 = ventilation port
- A5 = control pressure connection
- 1) Adjustment screw for filling time
- 2) Adjustment screw lock
- 3) For valve plug connectors M12x1

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	F	K	M
G 1/2	G 1/2	G 1/2	G 1/8	126	74	80	39	99	75.5	42.5

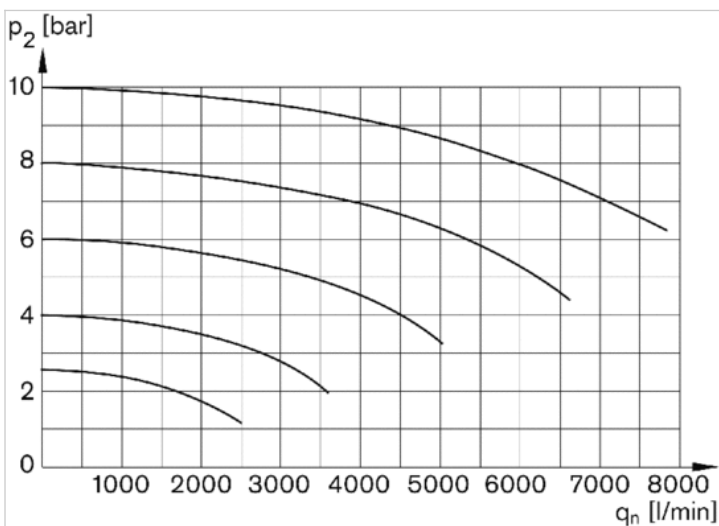
Diagrams

Secondary pressure while filling



- p1 = working pressure
  - p2 = secondary pressure
  - t = filling time
  - tx = switchover time
  - 1) Electrically triggered switching point
- Filling time adjustable via adjustment screw (throttle)

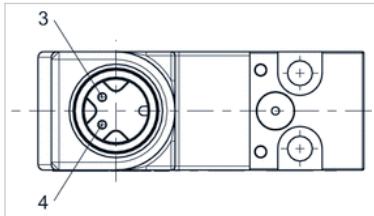
Flow rate characteristic



- p2 = secondary pressure
- qn = nominal flow

## Pin assignments

### Pin assignment M12x1

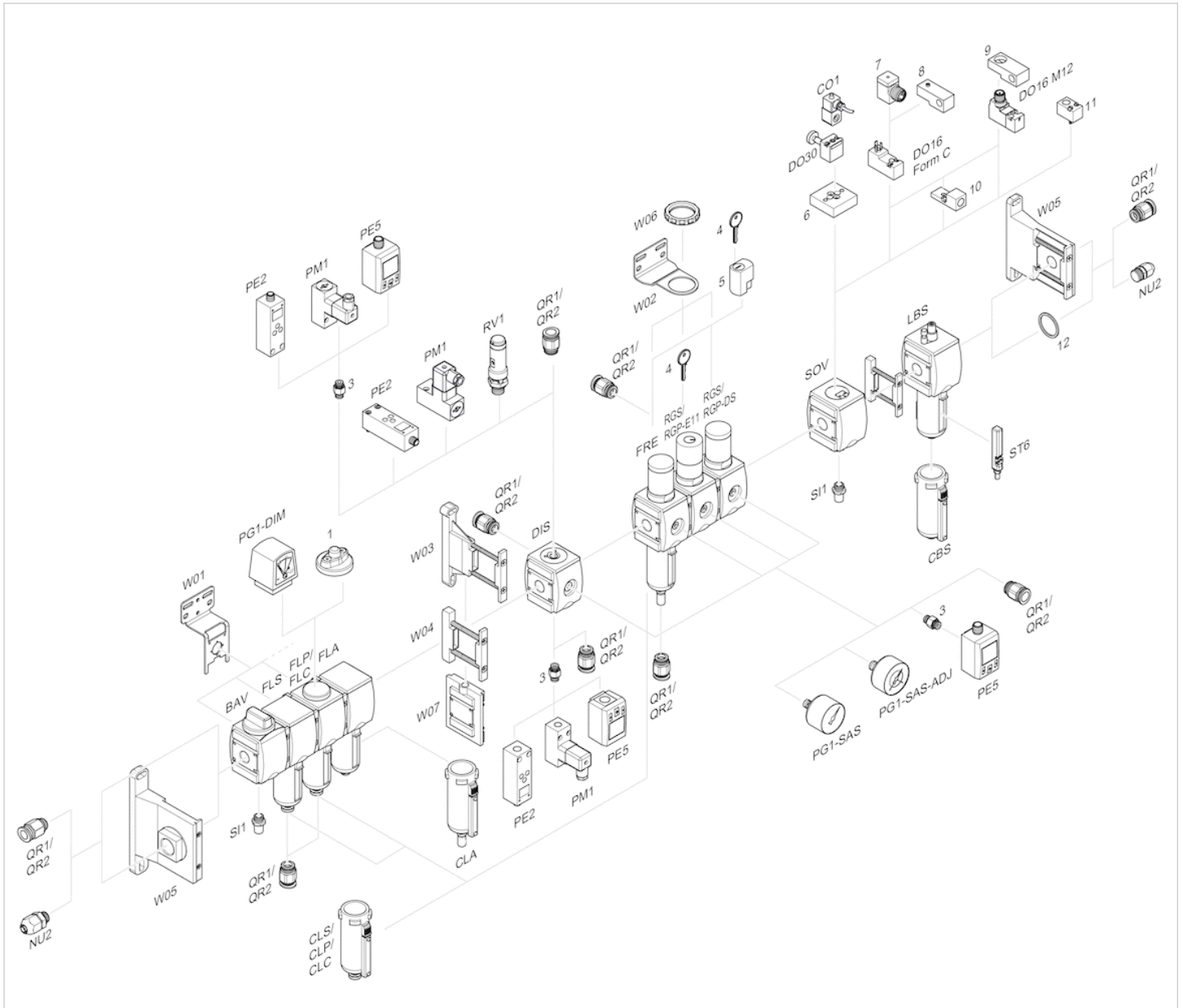


3: +/-

4: +/-



## Accessories overview



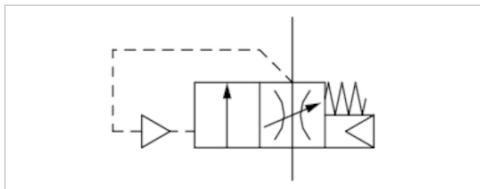
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filling valve, Series AS3-SSV

- adjustable filling time
- Compressed air connection G 3/8 G 1/2
- suitable for ATEX



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Certificates	suitable for ATEX
Working pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	40 µm
Weight	0.43 kg



## Technical data

Part No.	Port	Flow	
		Qn	
R412007272	G 3/8	4500 l/min	1)
R412007273	G 1/2	4500 l/min	1)
R412007275	G 1/2	4500 l/min	2)

Nominal flow Qn with secondary pressure p2 = 6 bar at  $\Delta p = 1$  bar

1) Suitable for use in Ex zones 1, 2, 21, 22.,

2) With adjustment screw lock, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

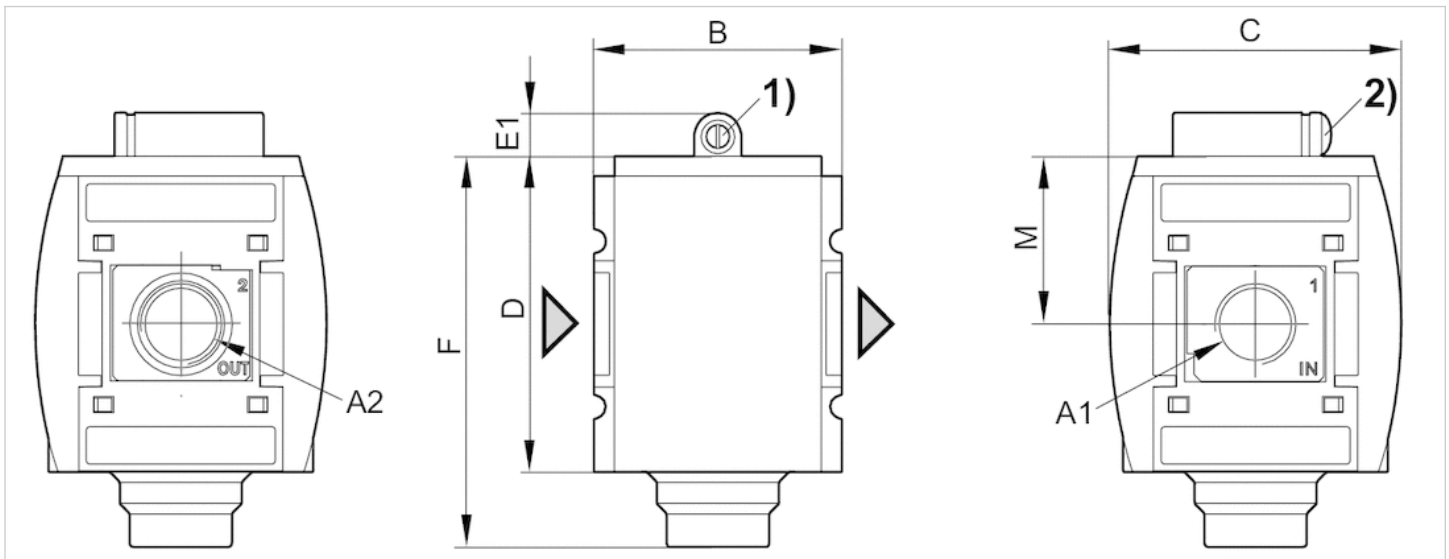
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



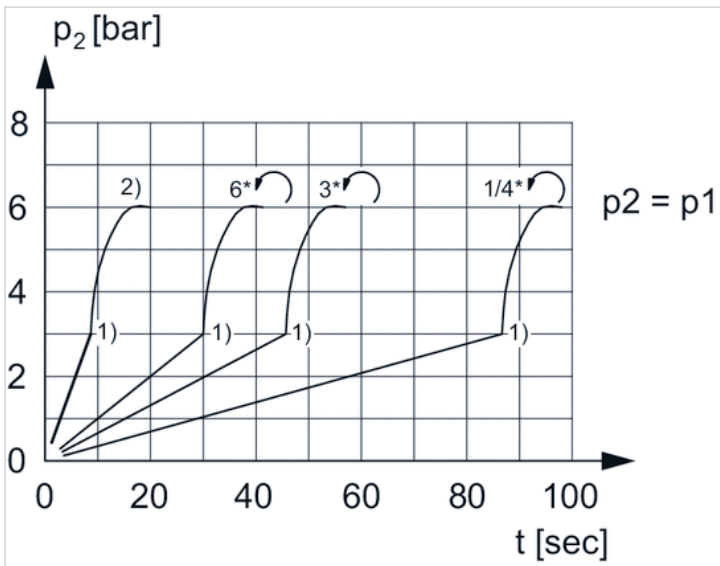
- A1 = input
- A2 = output
- 1) Adjustment screw for filling time
- 2) Adjustment screw lock

### Dimensions in mm

A1	A2	B	C	D	E1	F	M
G 3/8	G 3/8	63	74	80	11	99	42.5
G 1/2	G 1/2	63	74	80	11	99	42.5

## Diagrams

### secondary pressure while filling



$p_1$  = working pressure

$p_2$  = secondary pressure

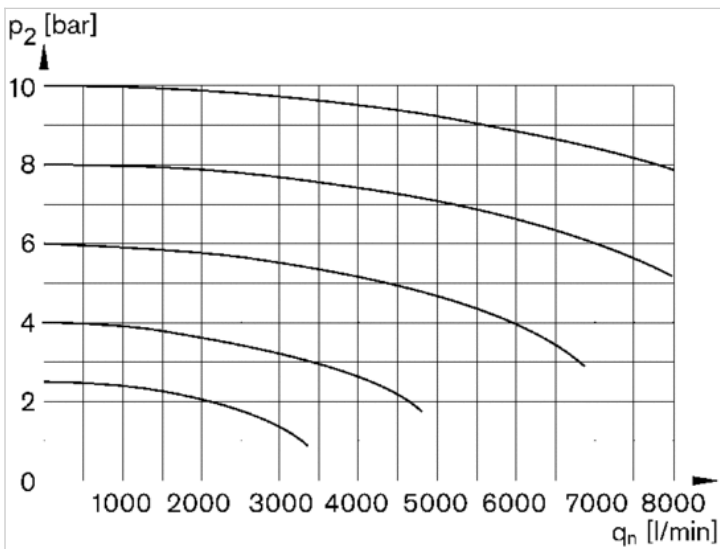
$t$  = filling time, adjustable via adjustment screw (throttle)

1) Switching point: adjustable filling time, fixed change-over pressure  $\approx 0.5 \times p_1$  (50%)

2) Throttle fully opened

\* Adjustment screw rotations

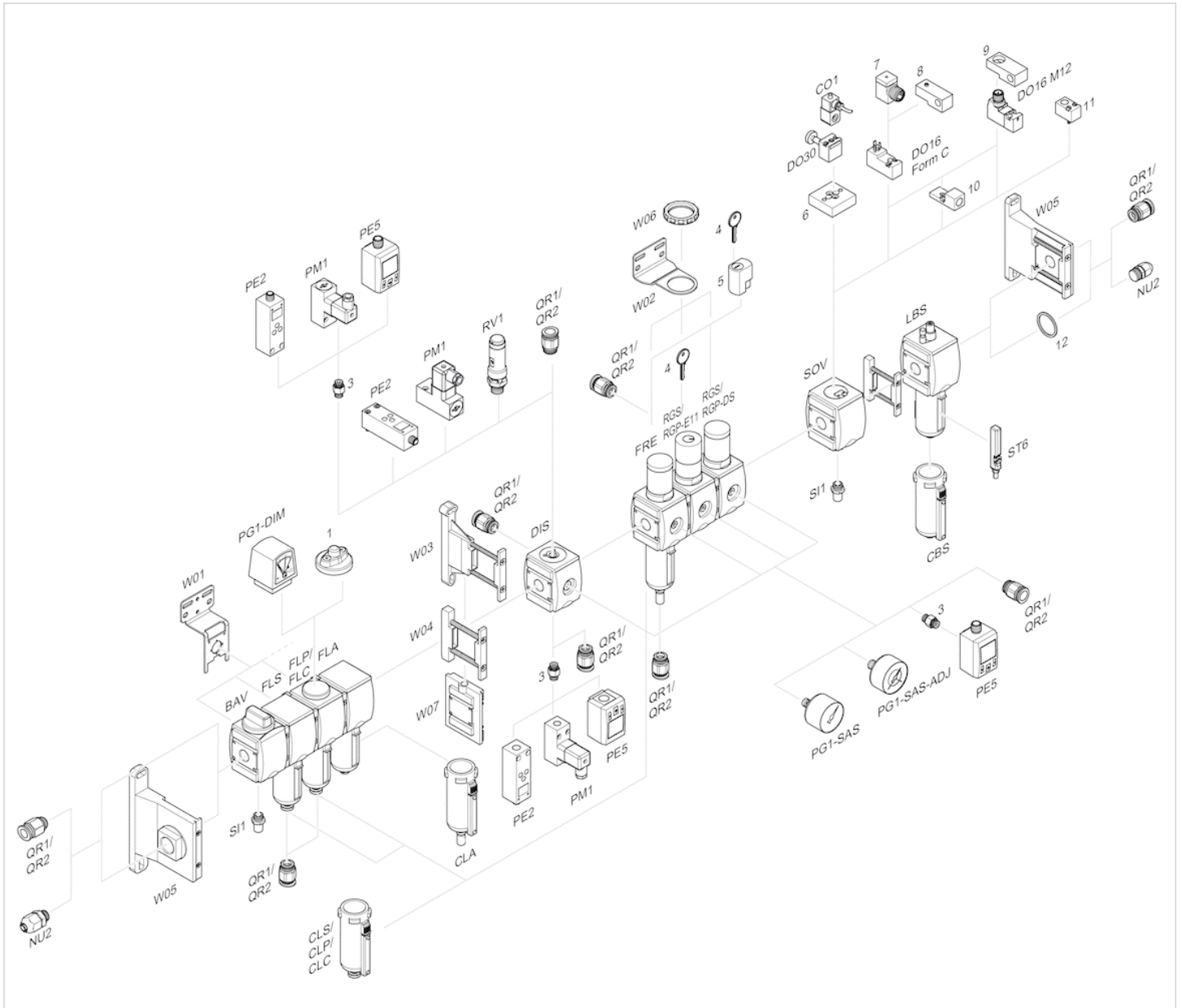
### Flow rate characteristic



$p_2$  = secondary pressure

$q_n$  = nominal flow

# Accessories overview



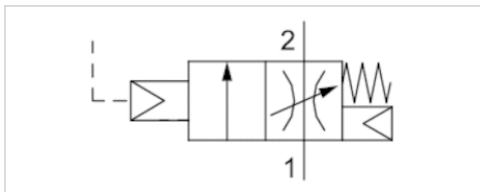
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filling valve, pneumatically operated, Series AS3-SSV

- With pneumatic priority circuit, adjustable filling time.
- Compressed air connection G 3/8 G 1/2
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	40 µm
Weight	0.49 kg



## Technical data

Part No.	Port	Pilot connection	Flow	Flow
			Qn	Qn 1>2
R412007311	G 3/8	G 1/8	4400 l/min	4400 l/min
R412007312	G 1/2	G 1/8	4400 l/min	4400 l/min

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure p1 is immediately applied.

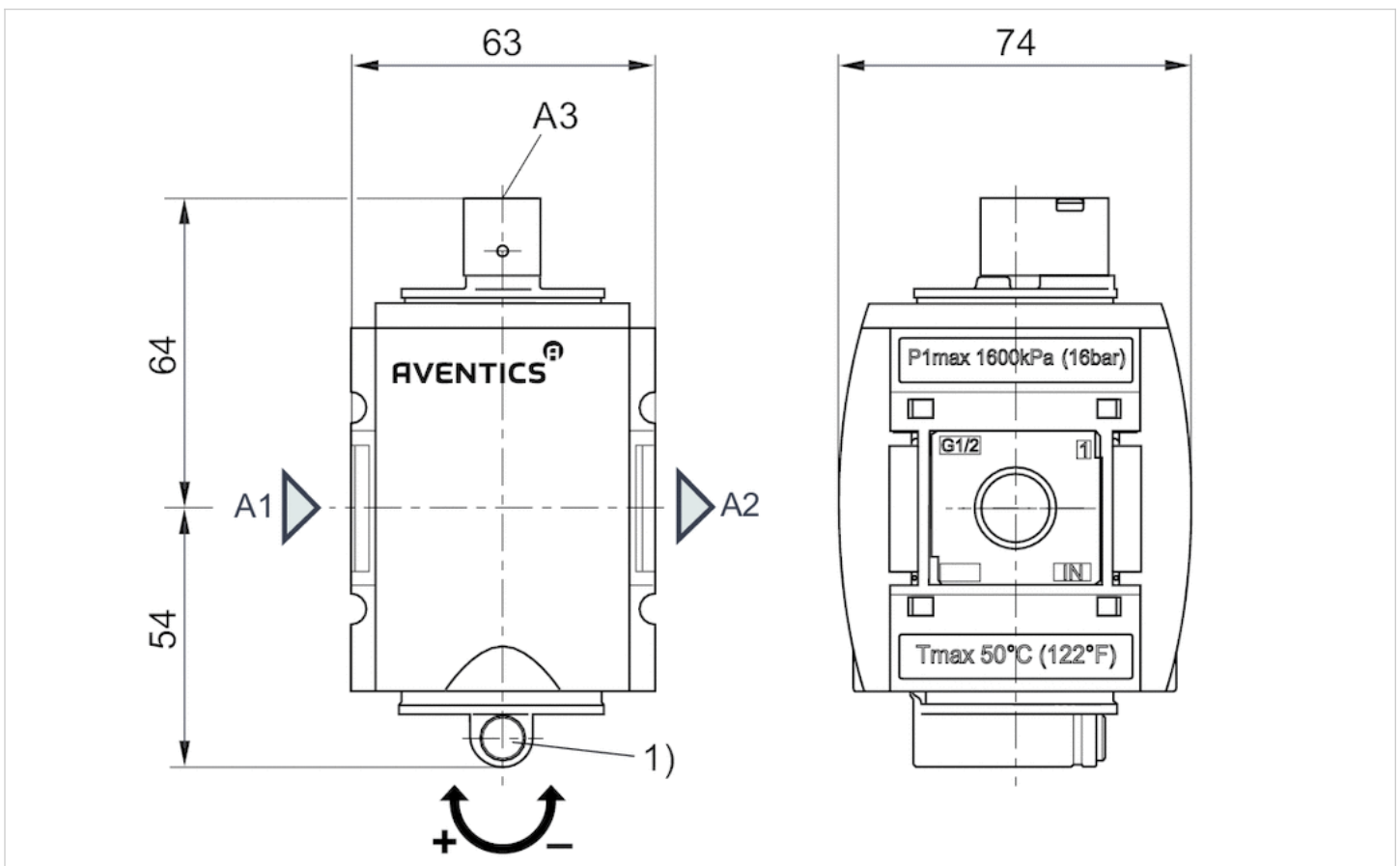
For unthrottled operation, the filling valve must be permanently electrically actuated.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



A1 = input

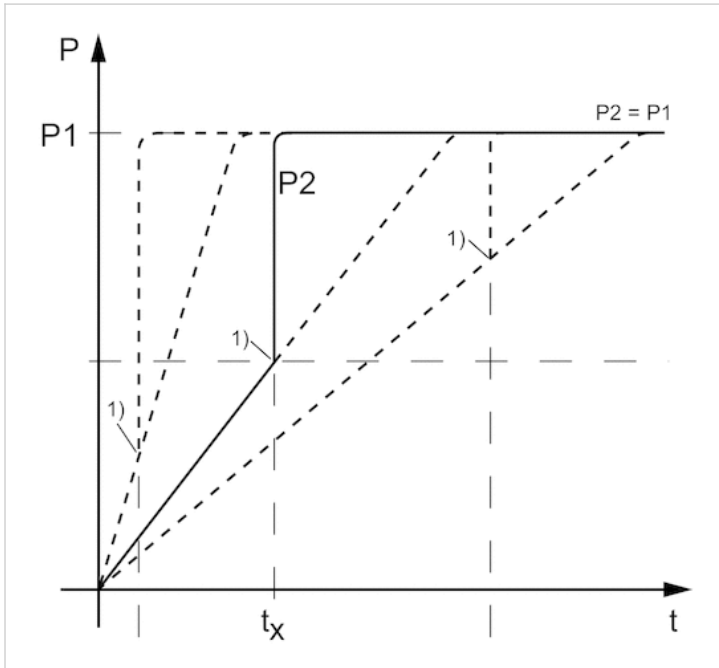
A2 = output

A3 = control pressure connection

1) Adjustment screw for filling time

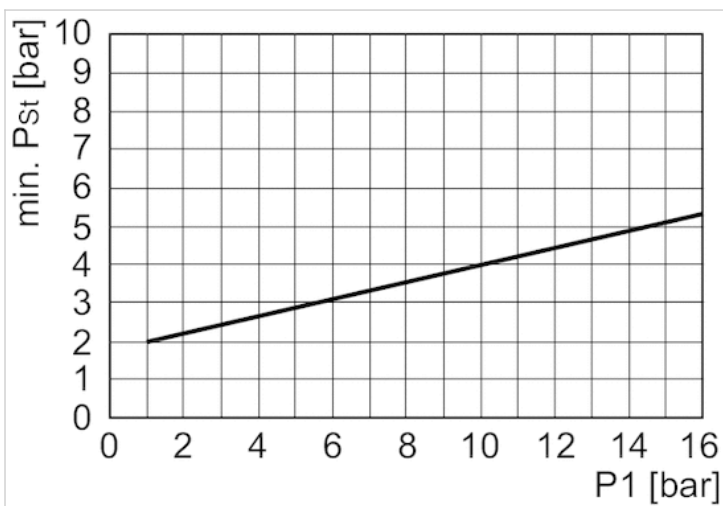
## Diagrams

### secondary pressure while filling



p1 = working pressure  
 p2 = output pressure  
 t = filling time  
 tx = switchover time  
 1) Pneumatically triggered switching point  
 Filling time adjustable via adjustment screw (throttle)

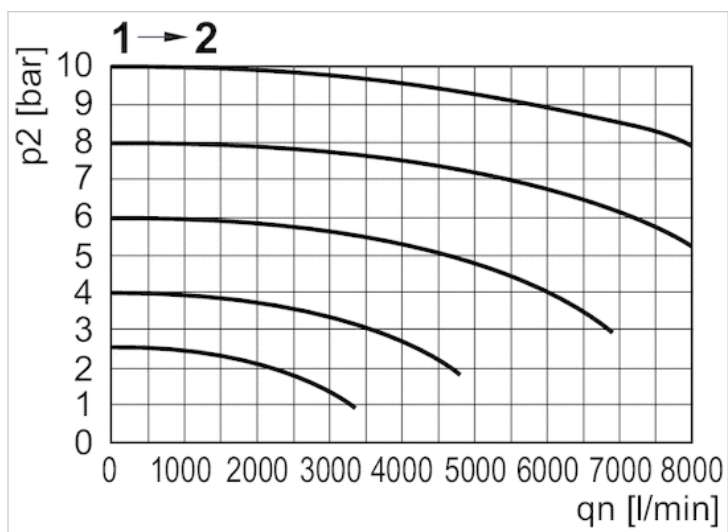
### control pressure characteristic



p1 = working pressure  
 PS = control pressure

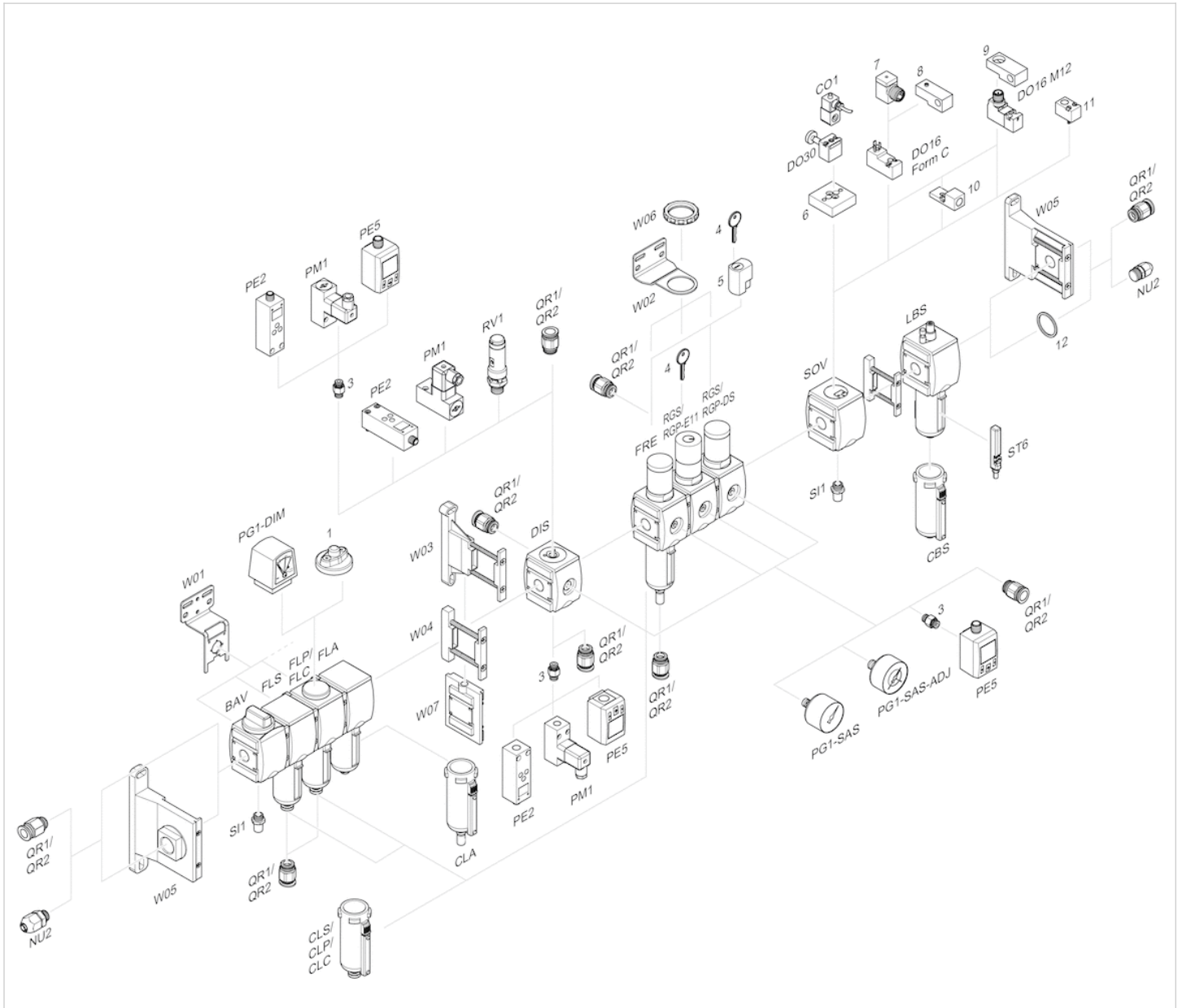


Flow rate characteristic



p2 = secondary pressure  
 qn = nominal flow

# Accessories overview



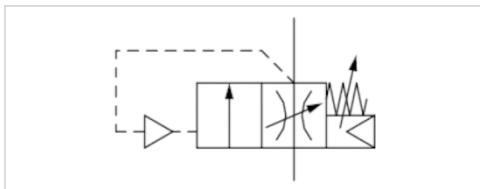
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filling valve, mechanically adjustable, series AS3-SSV

- Adjustable filling time and change-over pressure.
- Compressed air connection G 3/8 G 1/2



Version	Poppet valve, Can be assembled into blocks
Sealing principle	Soft sealing
Working pressure min./max.	2.5 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	40 µm
Weight	0.43 kg



## Technical data

Part No.	Port	Pilot connection	Flow
			Qn
R412007245	G 3/8	G 3/8	4500 l/min
R412007246	G 1/2	G 3/8	4500 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Adjustable filling time and change-over pressure.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

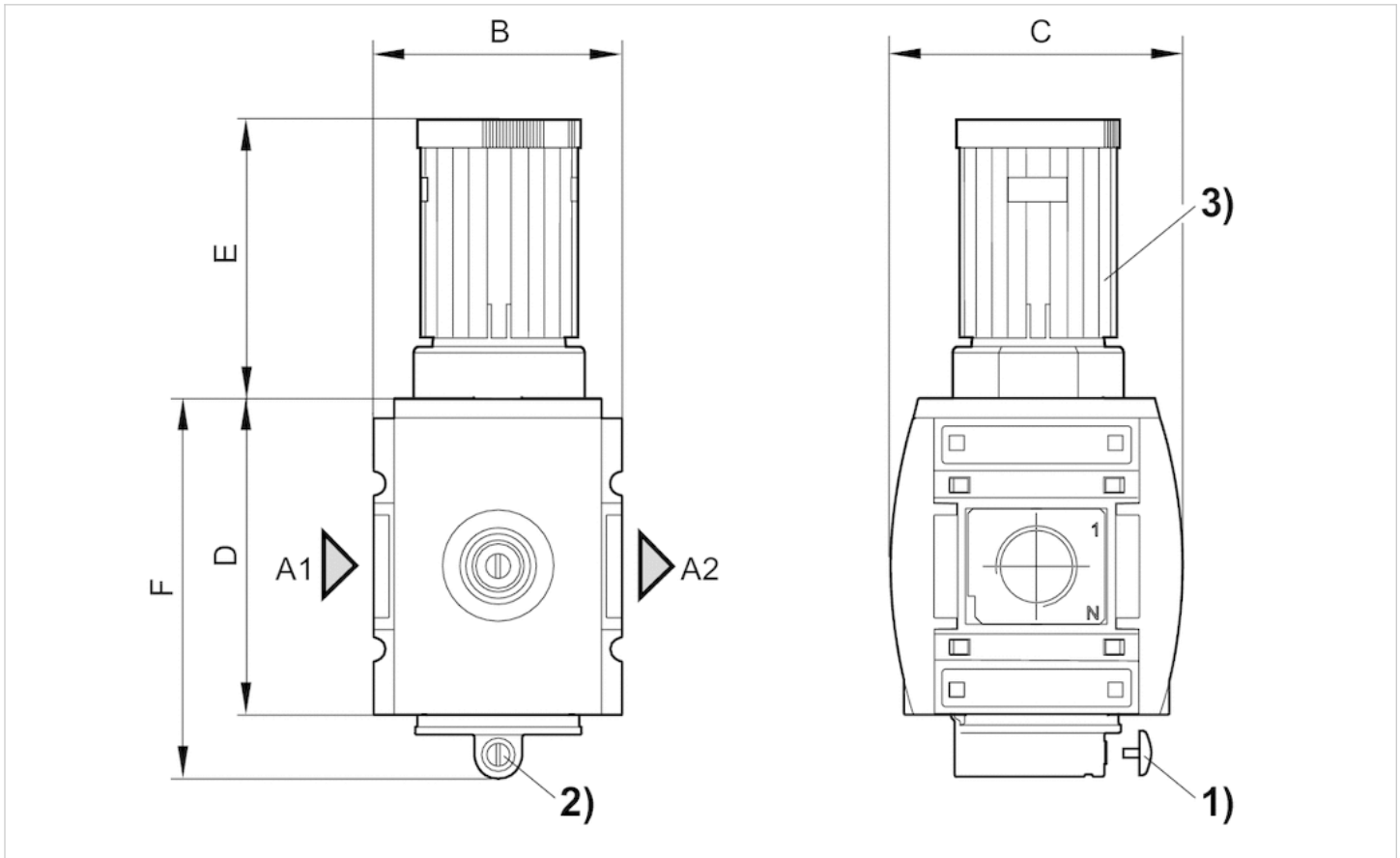
### Material

Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



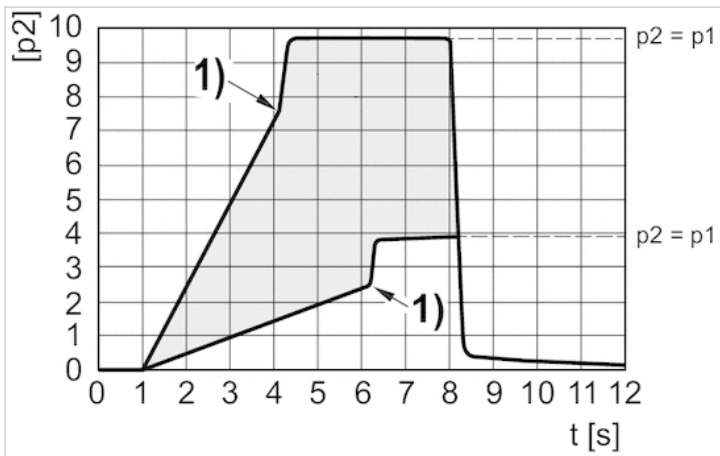
- A1 = input
- A2 = output
- 1) Adjustment screw lock
- 2) Adjustment screw for filling time
- 3) hand wheel for change-over pressure, lockable

### Dimensions in mm

A1	A2	B	C	D	E	F
G 3/8	G 3/8	63	74	80	63.5	96
G 1/2	G 1/2	63	74	80	63.5	96

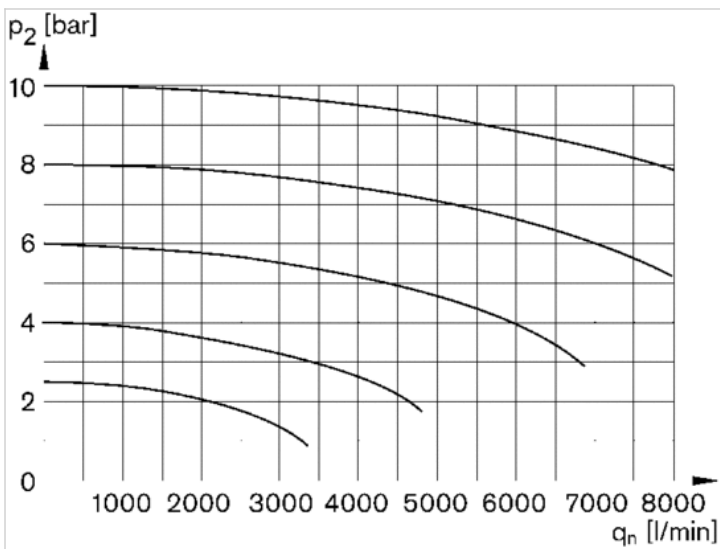
## Diagrams

### secondary pressure while filling



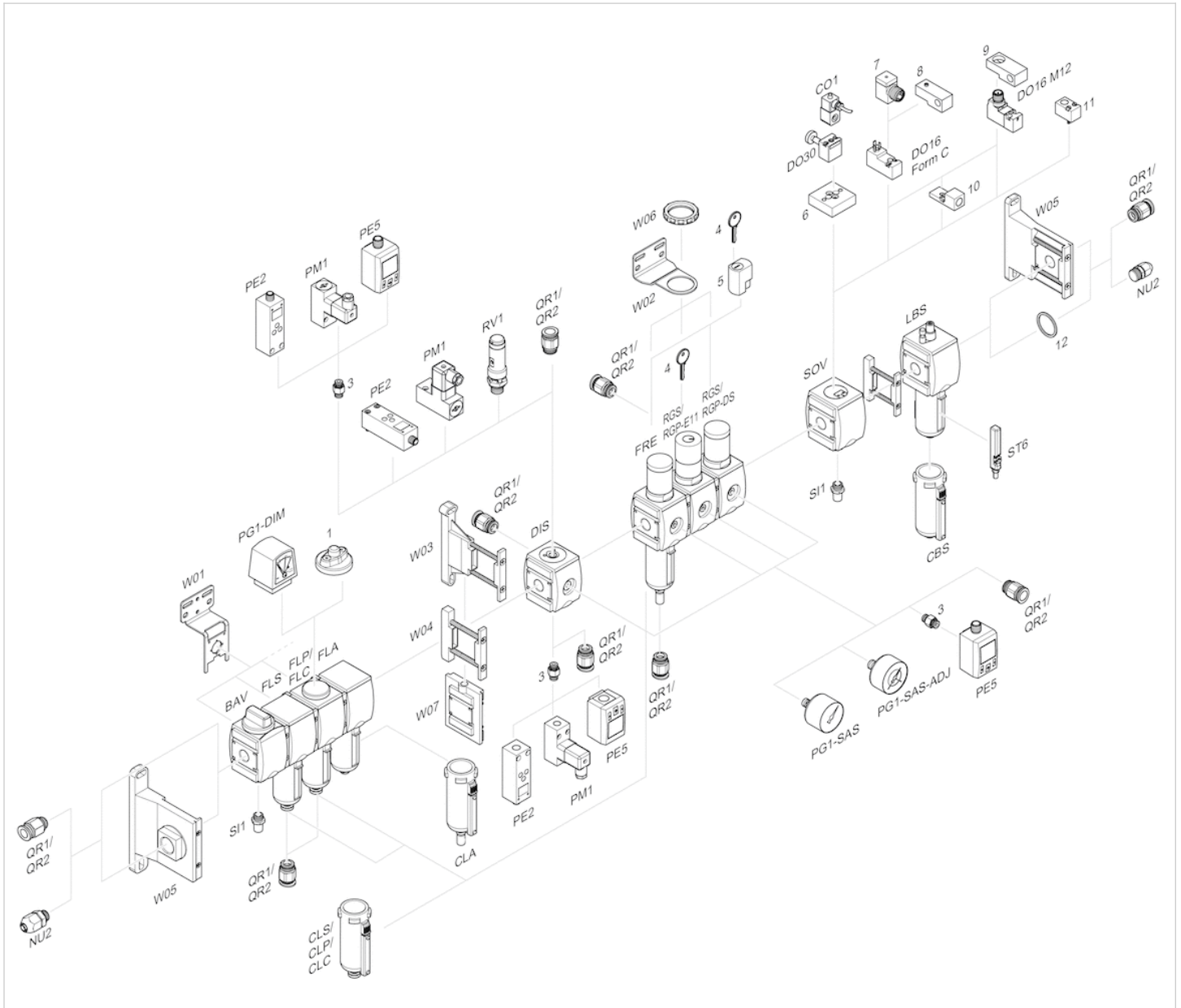
- p1 = working pressure
- p2 = secondary pressure
- t = filling time, adjustable via adjustment screw (throttle)
- Change-over pressure individually adjustable via handwheel
- 1) Switching point: adjustable filling time and change-over pressure

### Flow rate characteristic



- p2 = secondary pressure
- qn = nominal flow

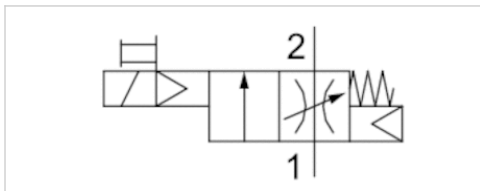
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Filling valve, electrically operated, series AS3-SSV

- With electrical priority circuit, adjustable filling time.
- Compressed air connection G 1/2 G 3/8
- Pipe connection
- Electrical connection: Plug, M12x1



Version	Poppet valve with elect. priority circuit, Can be assembled into blocks
Parts	Filling valve
Nominal flow	4500 l/min
Working pressure min./max.	2.5 ... 10 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	0.43 kg

## Technical data

Part No.	Compressed air connection input	Compressed air connection output	Operational voltage
			DC
R412007389	G 1/2	G 1/2	24 V
R412007390	G 3/8	G 3/8	24 V

Part No.	Electrical connection
	Pilot valve
R412007389	Plug, M12x1
R412007390	Plug, M12x1

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Actuating the electric priority circuit disrupts the slow pressure build-up and pressure  $p_1$  is immediately applied.

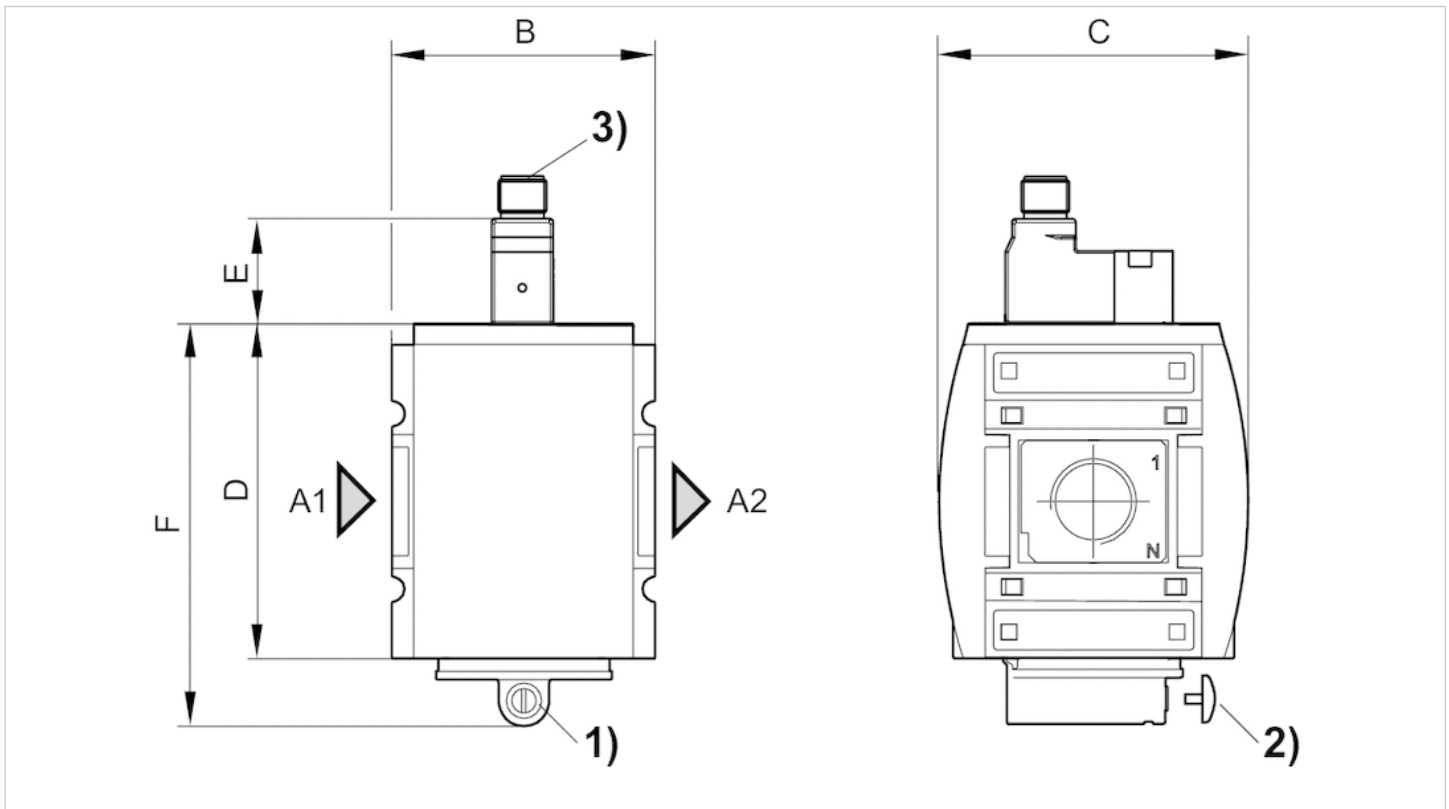
For unthrottled operation, the filling valve must be permanently electrically actuated.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



- A1 = input
- A2 = output
- 1) Adjustment screw for filling time
- 2) Adjustment screw lock
- 3) For valve plug connectors M12x1

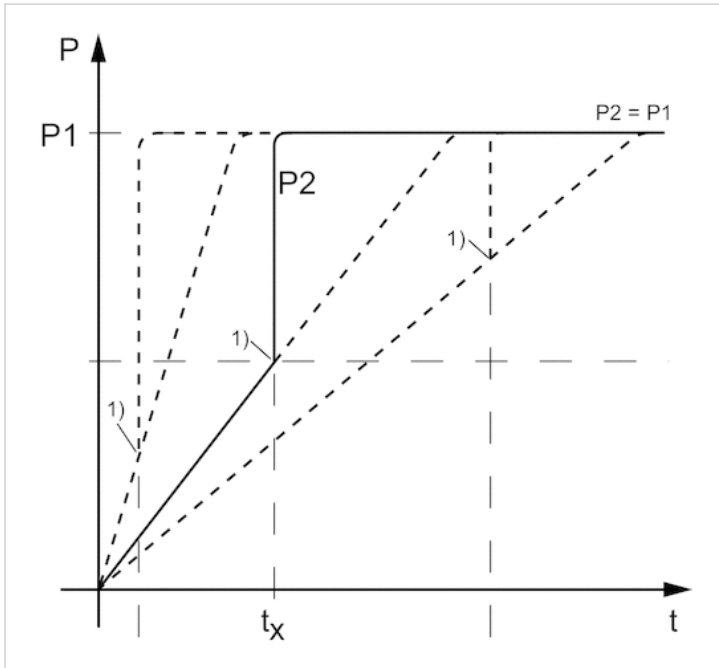
### Dimensions in mm

A1	A2	B	C	D	E	F
G 1/2	G 1/2	63	74	80	39	96
G 3/8	G 3/8	63	74	80	39	96



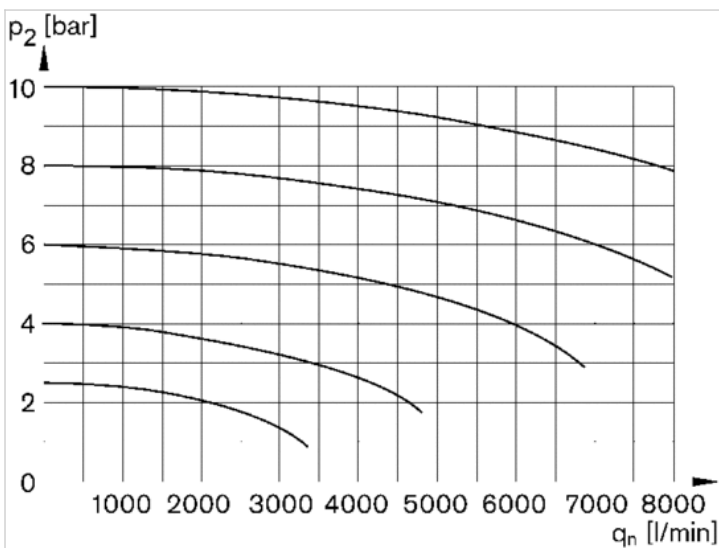
## Diagrams

### secondary pressure while filling



p1 = working pressure  
 p2 = secondary pressure  
 t = filling time  
 tx = switchover time  
 1) Electrically triggered switching point  
 Filling time adjustable via adjustment screw (throttle)

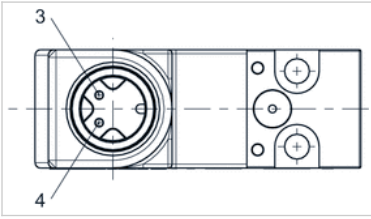
### Flow rate characteristic



p2 = secondary pressure  
 qn = nominal flow

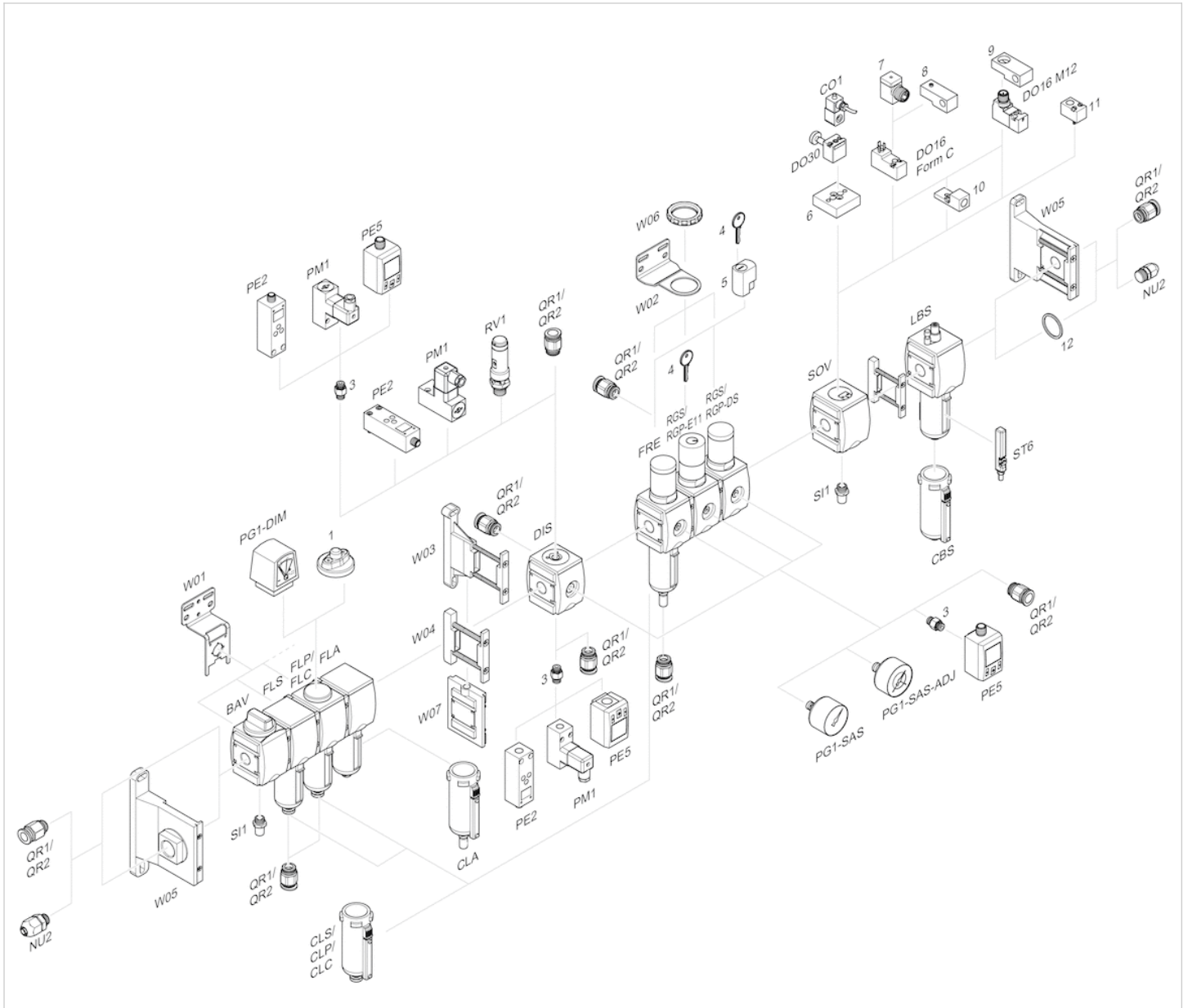
# Pin assignments

## Pin assignment M12x1



- 3: +/-
- 4: +/-

# Accessories overview



1 = contamination display

- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring











# 2/2-directional valve, electrically operated, Series AS3-SOV

- Compressed air connection G 1/2 G 3/8
- Pipe connection
- NC NO



Version	Poppet valve, Can be assembled into blocks
Parts	2/2-directional valve, electrically operated
Nominal flow	4500 l/min
Working pressure min./max.	See table below
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Duty cycle	100 %
Weight	See table below

## Technical data

Part No.				Compressed air connection input	Compressed air connection output
R415011113			NC	G 1/2	G 1/2
R412007341			NC	G 3/8	G 3/8
R412007342			NC	G 3/8	G 3/8
R412007343			NC	G 1/2	G 1/2
R414012347			NO	G 1/2	G 1/2

Part No.	Operational voltage	Power consumption	Working pressure min./max.
	DC	DC	
R415011113	24 V	2 W	2.5 ... 10 bar
R412007341	24 V	2 W	2.5 ... 10 bar
R412007342	24 V	2 W	2.5 ... 10 bar
R412007343	24 V	2 W	2.5 ... 10 bar
R414012347	24 V	2 W	2.5 ... 8 bar

Part No.	Electrical connection	basic valve with electrical connector
	Pilot valve	
R415011113	Plug, ISO 15217, form C	Basic valve with pilot valve
R412007341	Plug, ISO 15217, form C	Basic valve with pilot valve
R412007342	Plug, M12	Basic valve with pilot valve
R412007343	Plug, M12	Basic valve with pilot valve
R414012347	Plug, ISO 15217, form C	Basic valve with pilot valve

Part No.	Reverse polarity protection	Weight	Fig.
R415011113	Protected against polarity reversal	0.459 kg	Fig. 1

Part No.	Reverse polarity protection	Weight	Fig.
R412007341	Protected against polarity reversal	0.609 kg	Fig. 1
R412007342	Protected against polarity reversal	0.61 kg	Fig. 2
R412007343	Protected against polarity reversal	0.6 kg	Fig. 2
R414012347	Protected against polarity reversal	0.53 kg	Fig. 3

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar, MO = Manual override

## Technical information

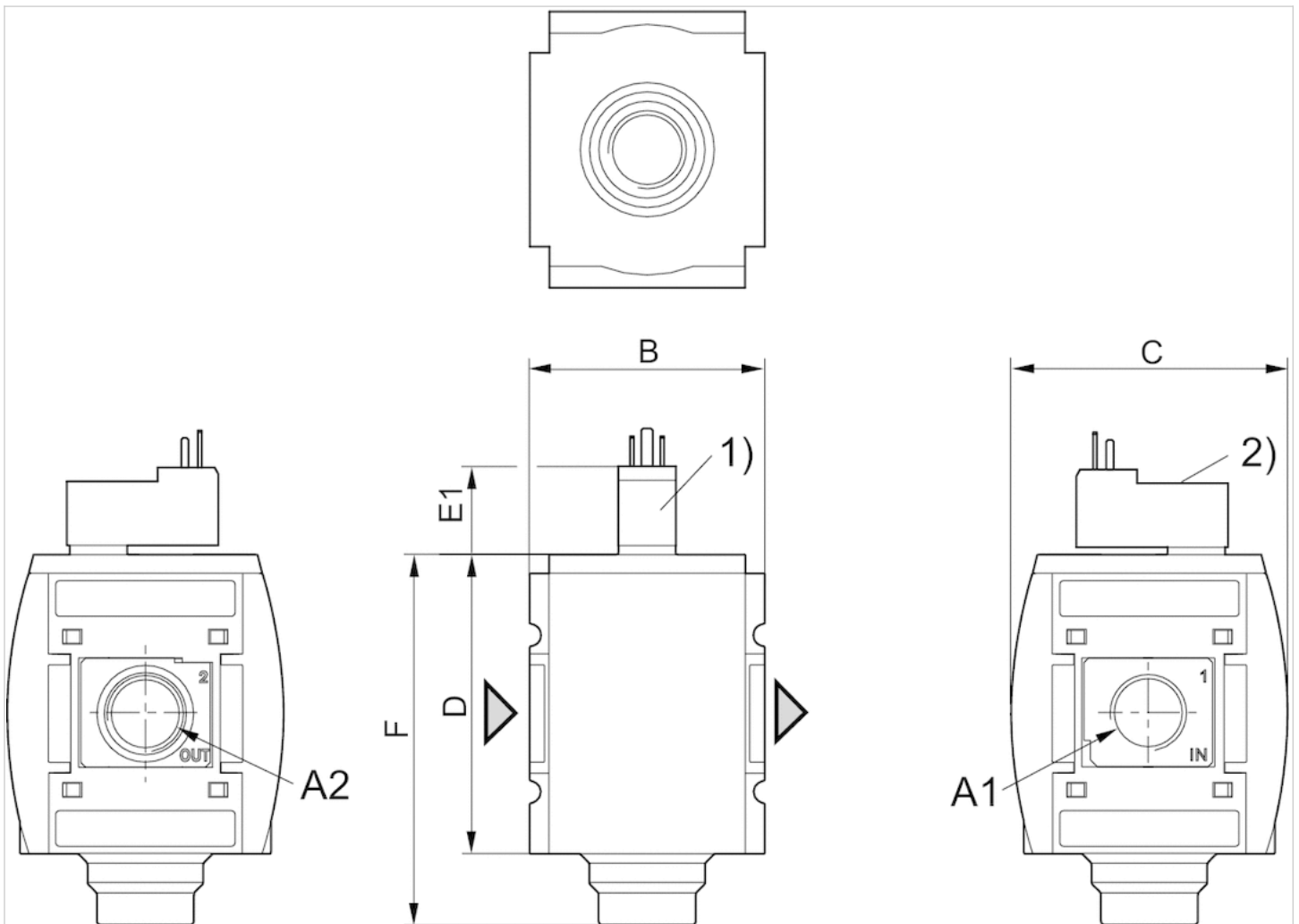
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

Fig. 1: 2/2-directional valve with pilot valve and port for electrical connector form C



A1 = input

A2 = output

1) Connection for valve plug connector according to ISO 15217 (form C)

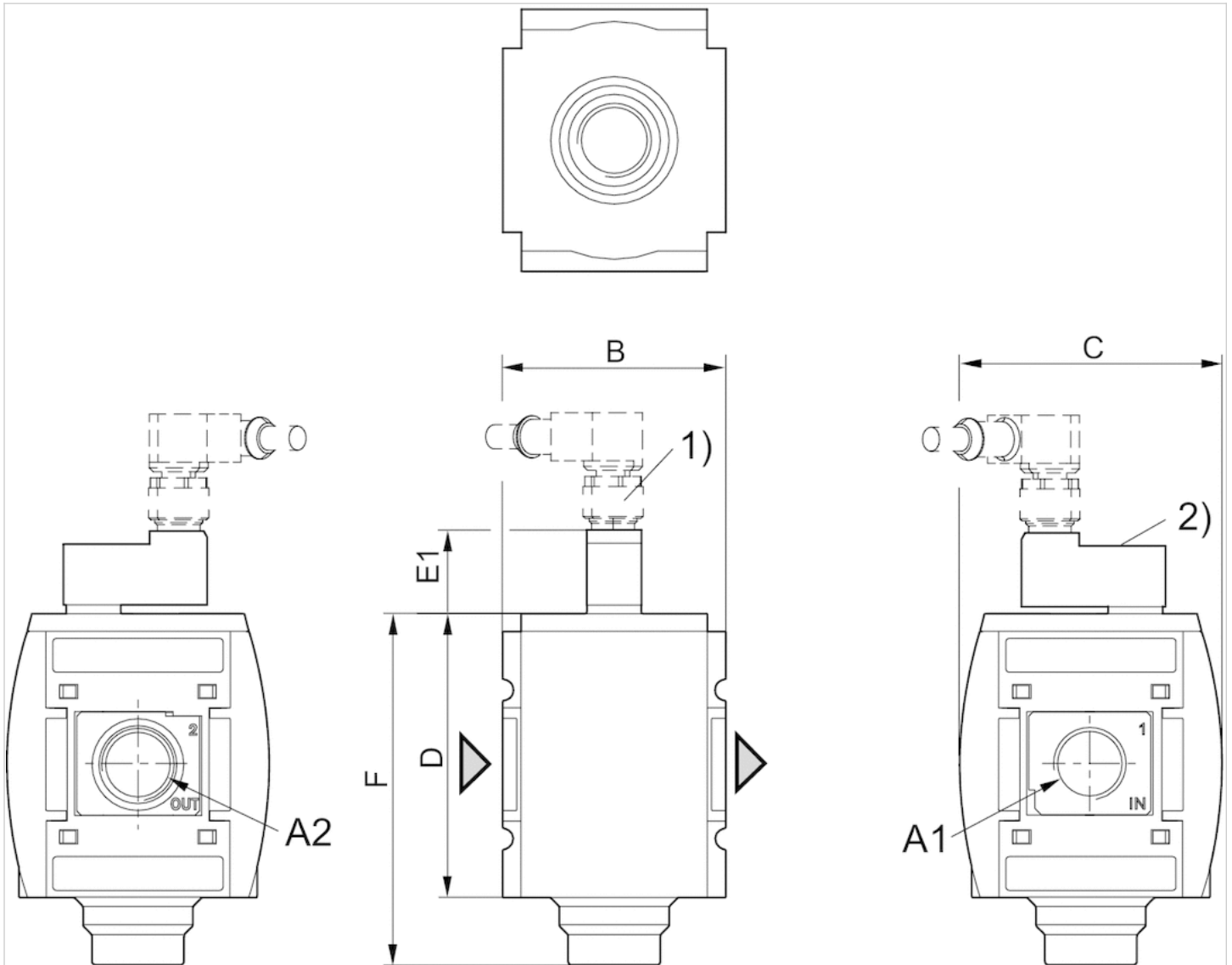
2) Manual override

### Dimensions in mm

A1	A2	B	C	D	E1	F
G 1/2	G 1/2	63	74	80	23.2	99
G 3/8	G 3/8	63	74	80	23.2	99

## Dimensions

Fig. 2: 2/2-directional valve with pilot valve, push-in fitting M12x1



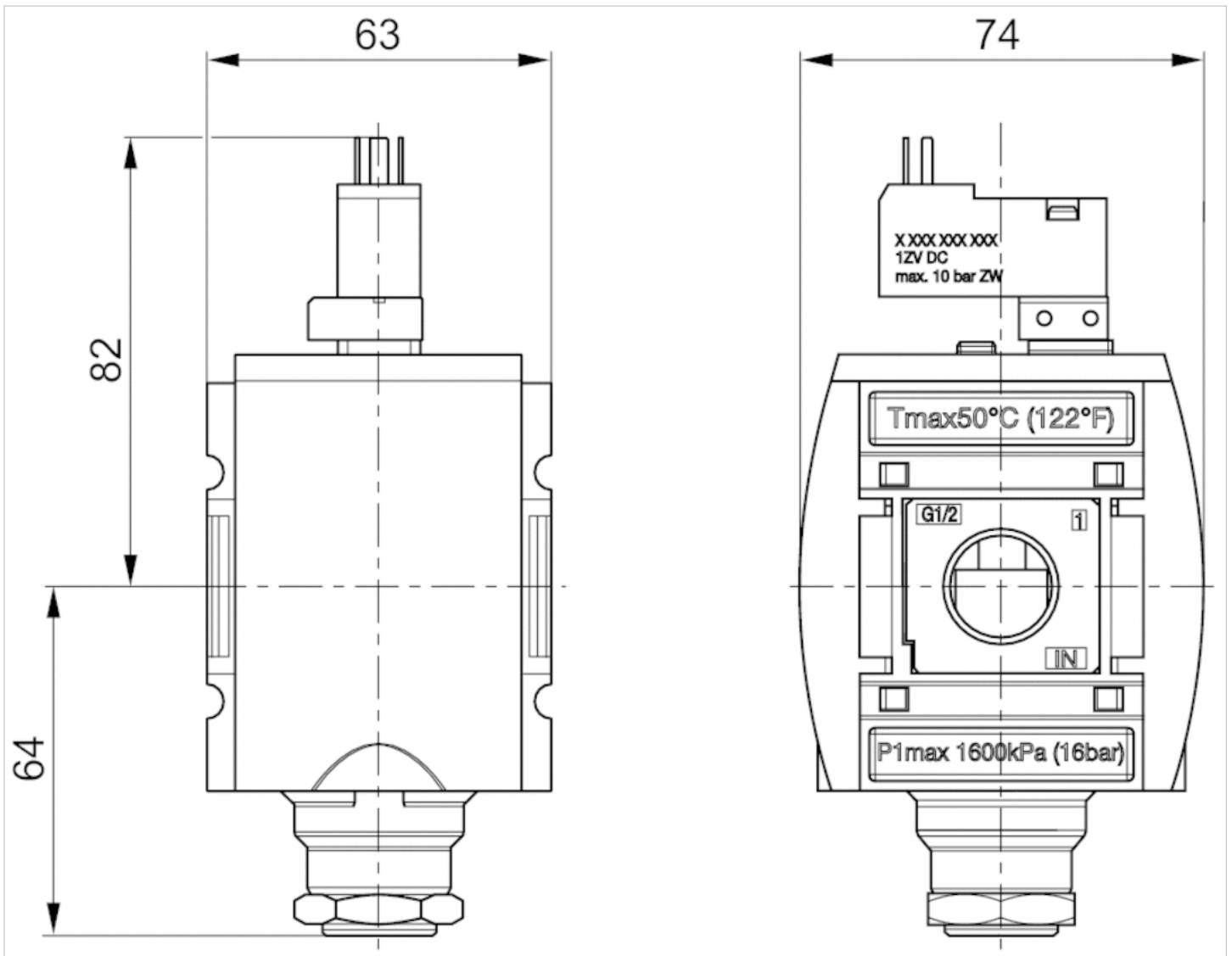
- A1 = input
- A2 = output
- 1) plug M12
- 2) Manual override

### Dimensions in mm

A1	A2	B	C	D	E1	F
G 3/8	G 3/8	63	74	80	23.2	99
G 1/2	G 1/2	63	74	80	23.2	99

## Dimensions

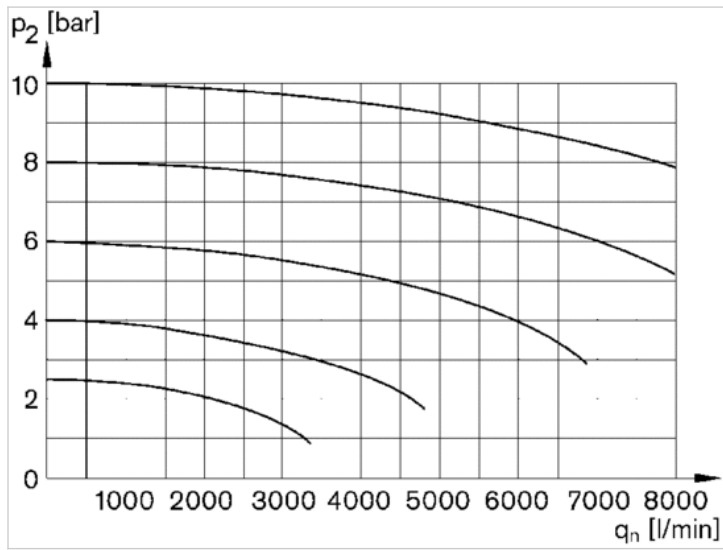
Dimensions, Fig. 3





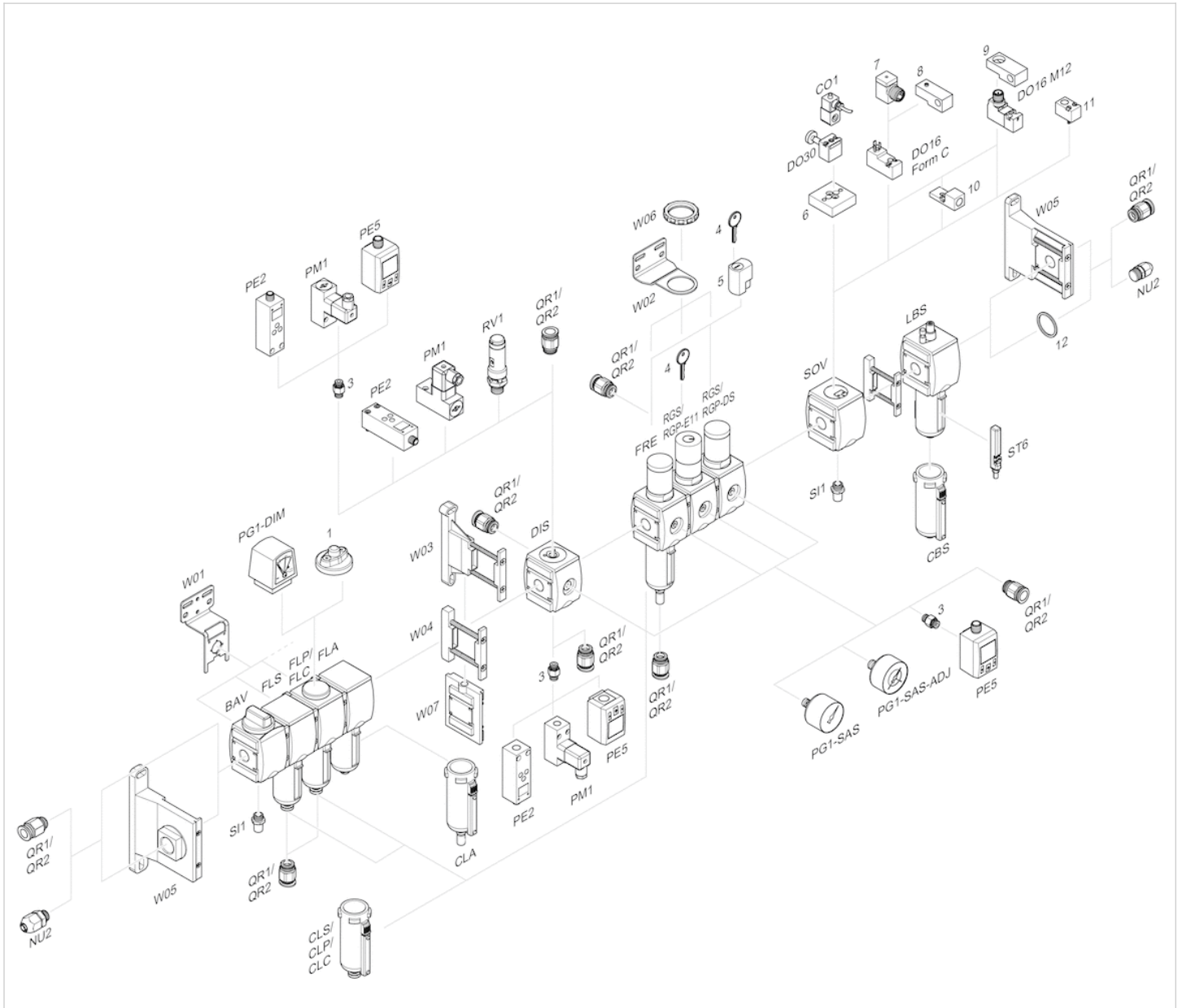
## Diagrams

### Flow rate characteristic



$p_2$  = secondary pressure  
 $q_n$  = nominal flow

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring





















# 3/2-directional valve, electrically operated, Series AS3-SOV

- Compressed air connection G 3/8 G 1/2
- Pipe connection
- ATEX optional



Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow	4500 l/min
Nominal flow 1 ▶ 2	4500 l/min
Nominal flow 2 ▶ 3	3200 l/min
Working pressure min./max.	See table below
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Protection class acc. to DIN EN 61140 with plug	IP65
Weight	0.459 kg

## Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412007265			G 3/8	G 3/8	G 1/2
R412007266			G 3/8	G 3/8	G 1/2
R412007267			G 3/8	G 3/8	G 1/2
R412007269			G 1/2	G 1/2	G 1/2
R412007270			G 1/2	G 1/2	G 1/2
R412007397			G 3/8	G 3/8	G 1/2
R412007271			G 1/2	G 1/2	G 1/2
R412007258		—	G 3/8	G 3/8	G 1/2
R412007264		—	G 3/8	G 3/8	G 1/2
R412007259		—	G 1/2	G 1/2	G 1/2
R412007268		—	G 1/2	G 1/2	G 1/2
R412007391			G 1/2	G 1/2	G 1/2

Part No.	Operational voltage		Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007265	24 V	-	-
R412007266	-	110 V	110 V
R412007267	-	220 V	230 V
R412007269	24 V	-	-
R412007270	-	110 V	110 V
R412007397	24 V	-	-
R412007271	-	220 V	230 V
R412007258	-	-	-

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
R412007264	-	-	-
R412007259	-	-	-
R412007268	-	-	-
R412007391	24 V	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412007265	2 W	-	-	-
R412007266	-	1.6 VA	1.4 VA	2.2 VA
R412007267	-	1.6 VA	1.4 VA	2.2 VA
R412007269	2 W	-	-	-
R412007270	-	1.6 VA	1.4 VA	2.2 VA
R412007397	2 W	-	-	-
R412007271	-	1.6 VA	1.4 VA	2.2 VA
R412007258	-	-	-	-
R412007264	-	-	-	-
R412007259	-	-	-	-
R412007268	-	-	-	-
R412007391	2 W	-	-	-

Part No.	Switch-on power	Working pressure min./max.	Electrical connection
	AC 60 Hz		Pilot valve
R412007265	-	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007266	1.6 VA	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007267	1.6 VA	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007269	-	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007270	1.6 VA	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007397	-	2.5 ... 10 bar	Plug, M12x1
R412007271	1.6 VA	2.5 ... 10 bar	Plug, ISO 15217, form C
R412007258	-	2.5 ... 16 bar	-
R412007264	-	2.5 ... 16 bar	-
R412007259	-	2.5 ... 16 bar	-
R412007268	-	2.5 ... 16 bar	-
R412007391	-	2.5 ... 10 bar	Plug, M12x1

Part No.	Connector standard	basic valve with electrical connector
R412007265	ISO 15217	Basic valve with pilot valve
R412007266	ISO 15217	Basic valve with pilot valve
R412007267	ISO 15217	Basic valve with pilot valve
R412007269	ISO 15217	Basic valve with pilot valve
R412007270	ISO 15217	Basic valve with pilot valve
R412007397	ISO 15217	Basic valve with pilot valve
R412007271	ISO 15217	Basic valve with pilot valve
R412007258	-	Basic valve without pilot valve, with CNOMO subbase
R412007264	-	Basic valve without pilot valve
R412007259	-	Basic valve without pilot valve, with CNOMO subbase
R412007268	-	Basic valve without pilot valve

Part No.	Connector standard	basic valve with electrical connector
R412007391	EN 175301-803, form B	Basic valve with pilot valve

Part No.	Reverse polarity protection	Fig.	
R412007265	Protected against polarity reversal	Fig. 3	-
R412007266	Protected against polarity reversal	Fig. 3	-
R412007267	Protected against polarity reversal	Fig. 3	-
R412007269	Protected against polarity reversal	Fig. 3	-
R412007270	Protected against polarity reversal	Fig. 3	-
R412007397	Protected against polarity reversal	Fig. 4	-
R412007271	Protected against polarity reversal	Fig. 3	-
R412007258	-	Fig. 2	1)
R412007264	-	Fig. 1	1)
R412007259	-	Fig. 2	1)
R412007268	-	Fig. 1	1)
R412007391	-	Fig. 4	2)

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar

1) Suitable for use in Ex zones 1, 2, 21, 22.

2) With valve plug connector, EN 175301-803, form B

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

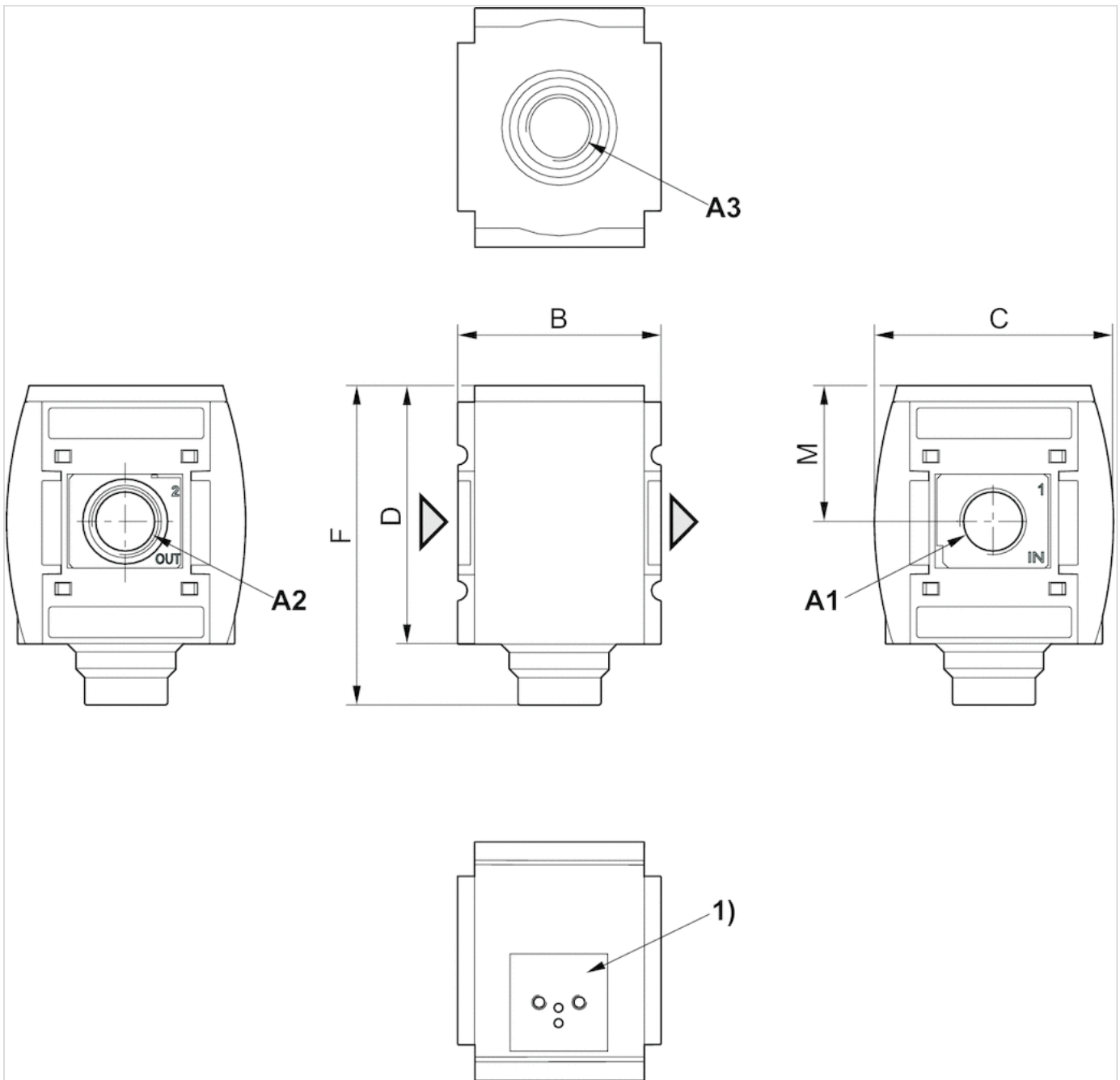
ATEX optional: The ATEX ID depends on the selected pilot valve.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### 3/2-directional valve without pilot valve with porting configuration for series DO16



A1 = input

A2 = output

A3 = ventilation port

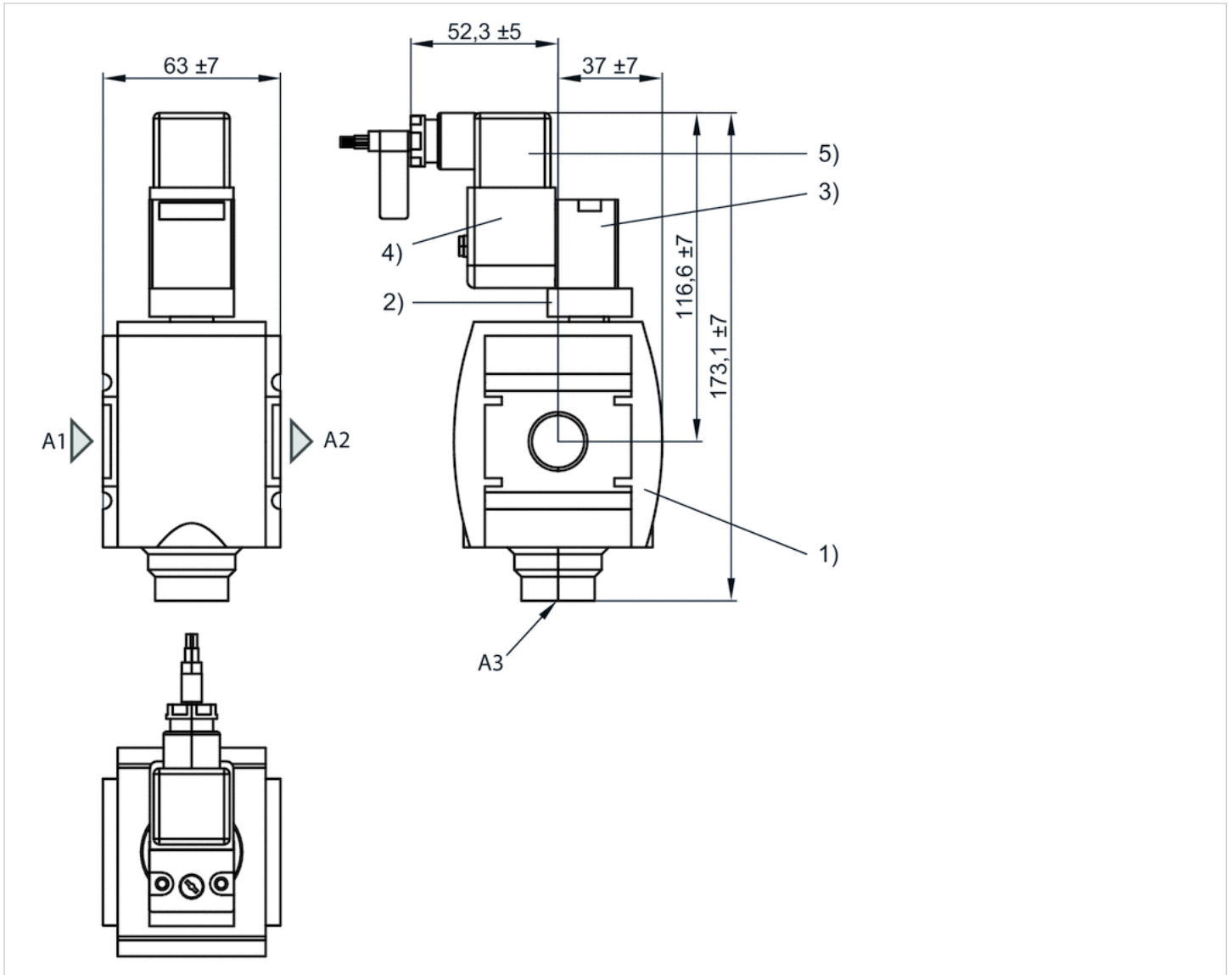
1) For pilot valve series DO16

## Dimensions in mm

A1	A2	A3	B	C	D	F	M
G 3/8	G 3/8	G 1/2	63	74	80	99	42.5
G 1/2	G 1/2	G 1/2	63	74	80	99	42.5

## Dimensions

Fig. 2: 3/2 directional valve with transition plate (suitable for ATEX)



A1 = input

A2 = output

A3 = ventilation port

1) Shut-off valve

2) Transition plate

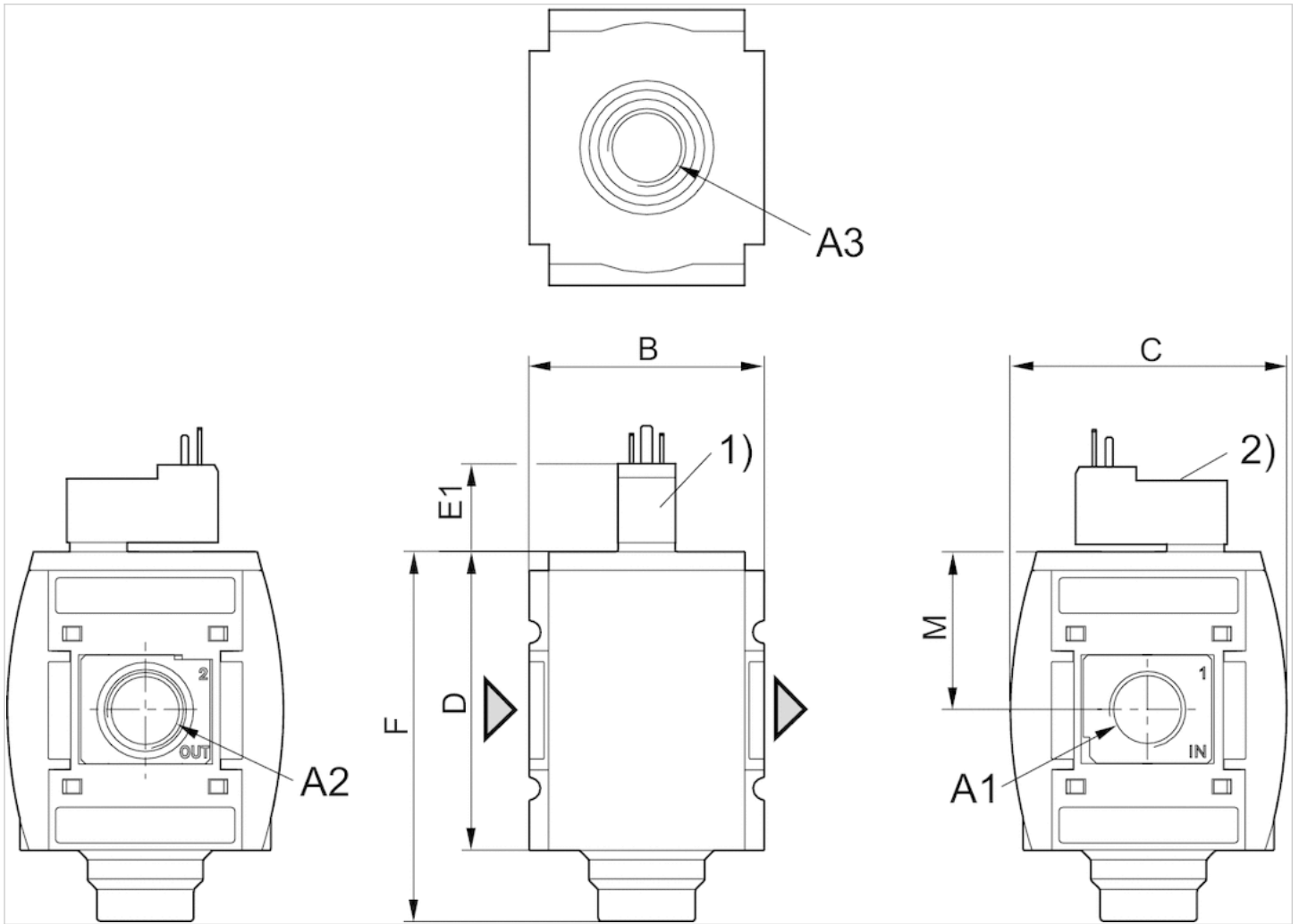
3) Pilot valve

4) Coil

5) Electrical connector

See accessories for pilot valve and coil

Fig. 3: 3/2 directional valve with pilot valve and connection for valve plug connector



- A1 = input
- A2 = output
- A3 = ventilation port
- 1) Connection for valve plug connector according to ISO 15217 (form C)
- 2) Manual override

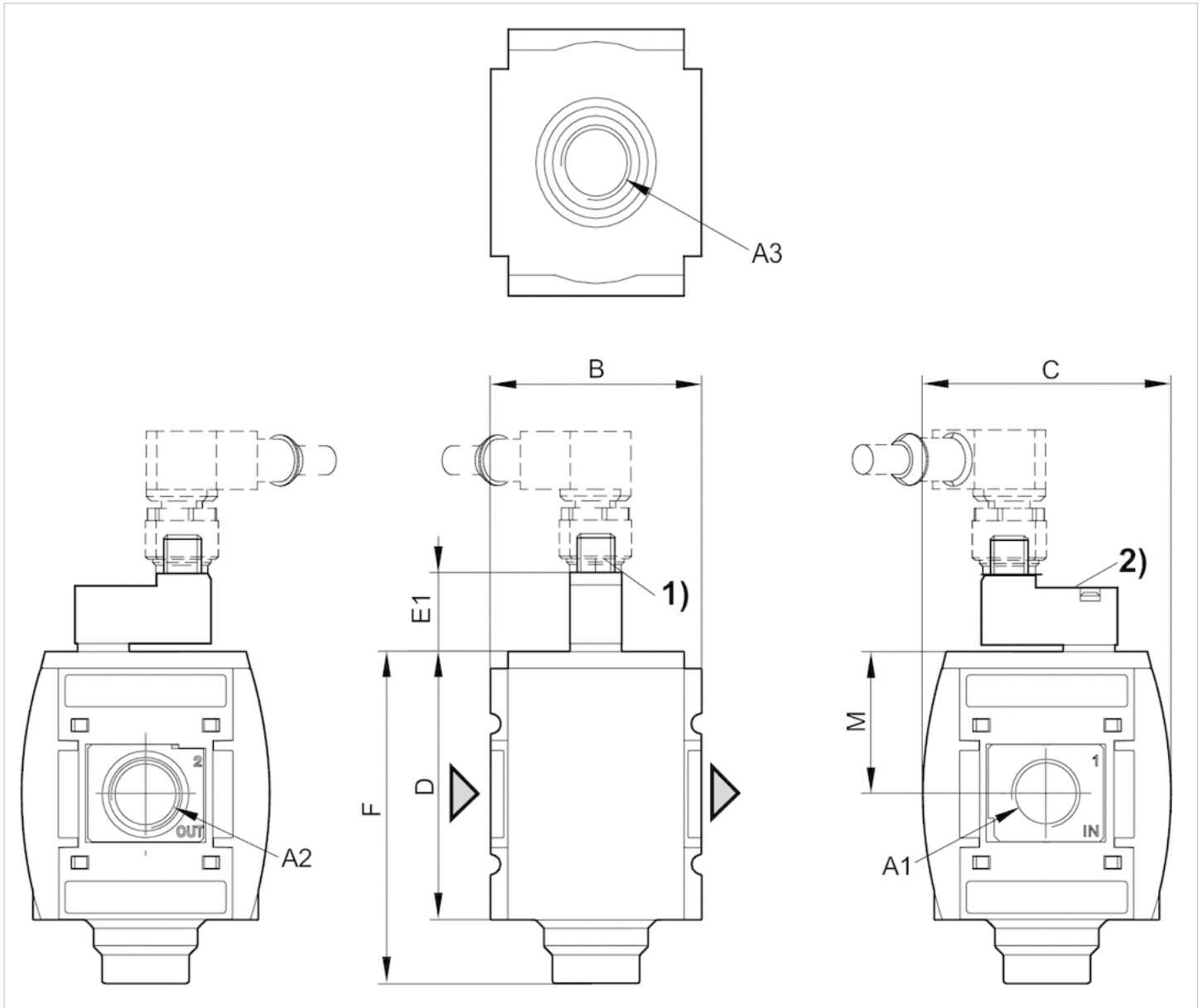
Dimensions in mm

A1	A2	A3	B	C	D	E1	F	M
G 3/8	G 3/8	G 1/2	63	74	80	23.2	99	42.5
G 1/2	G 1/2	G 1/2	63	74	80	23.2	99	42.5



## Dimensions

Fig. 4: 3/2 directional valve with pilot valve and valve plug connector for plug



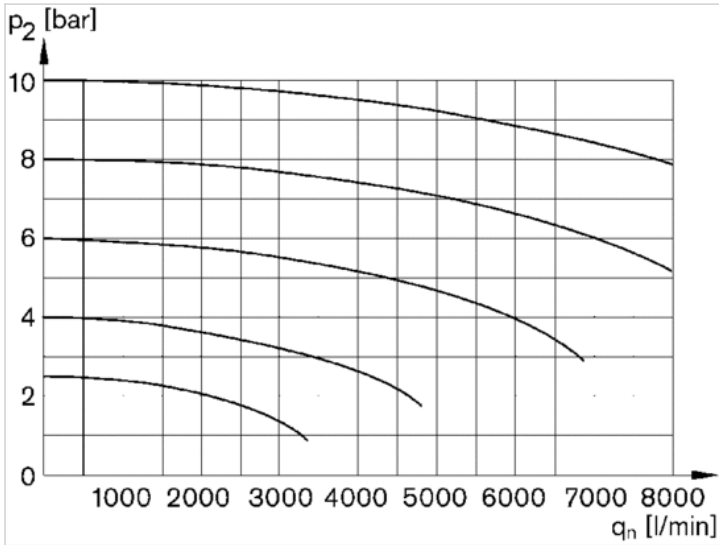
- A1 = input
- A2 = output
- A3 = ventilation port
- 1) plug M12
- 2) Manual override

### Dimensions in mm

A2	A3	B	C	D	E1	F	M
G 3/8	G 1/2	63	74	80	23.2	99	42.5
G 1/2	G 1/2	63	74	80	23.2	99	42.5

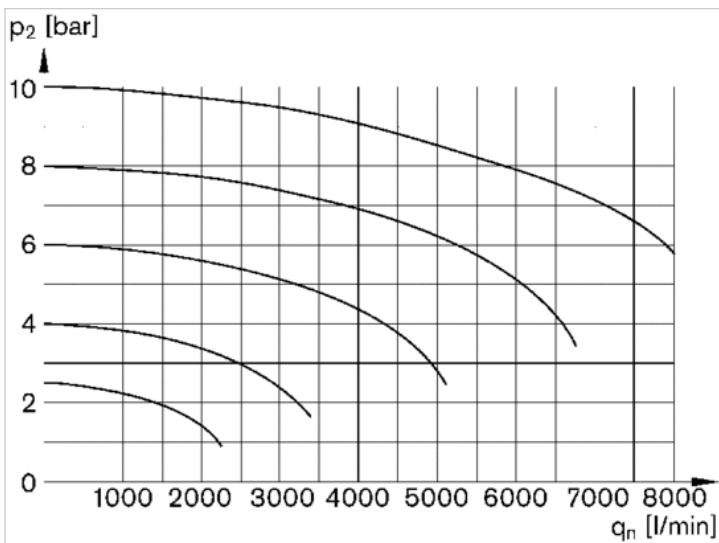
## Diagrams

### Flow rate characteristic



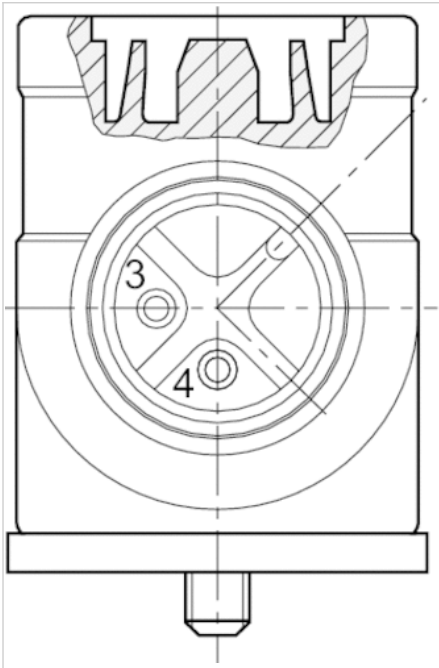
p<sub>2</sub> = secondary pressure  
q<sub>n</sub> = nominal flow

### Rear exhaust



p<sub>2</sub> = secondary pressure  
q<sub>n</sub> = nominal flow

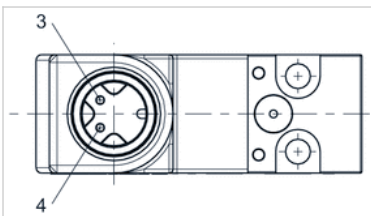
### Pin assignment M12x1



- (3) ▶ (1)
- (4) ▶ (2)

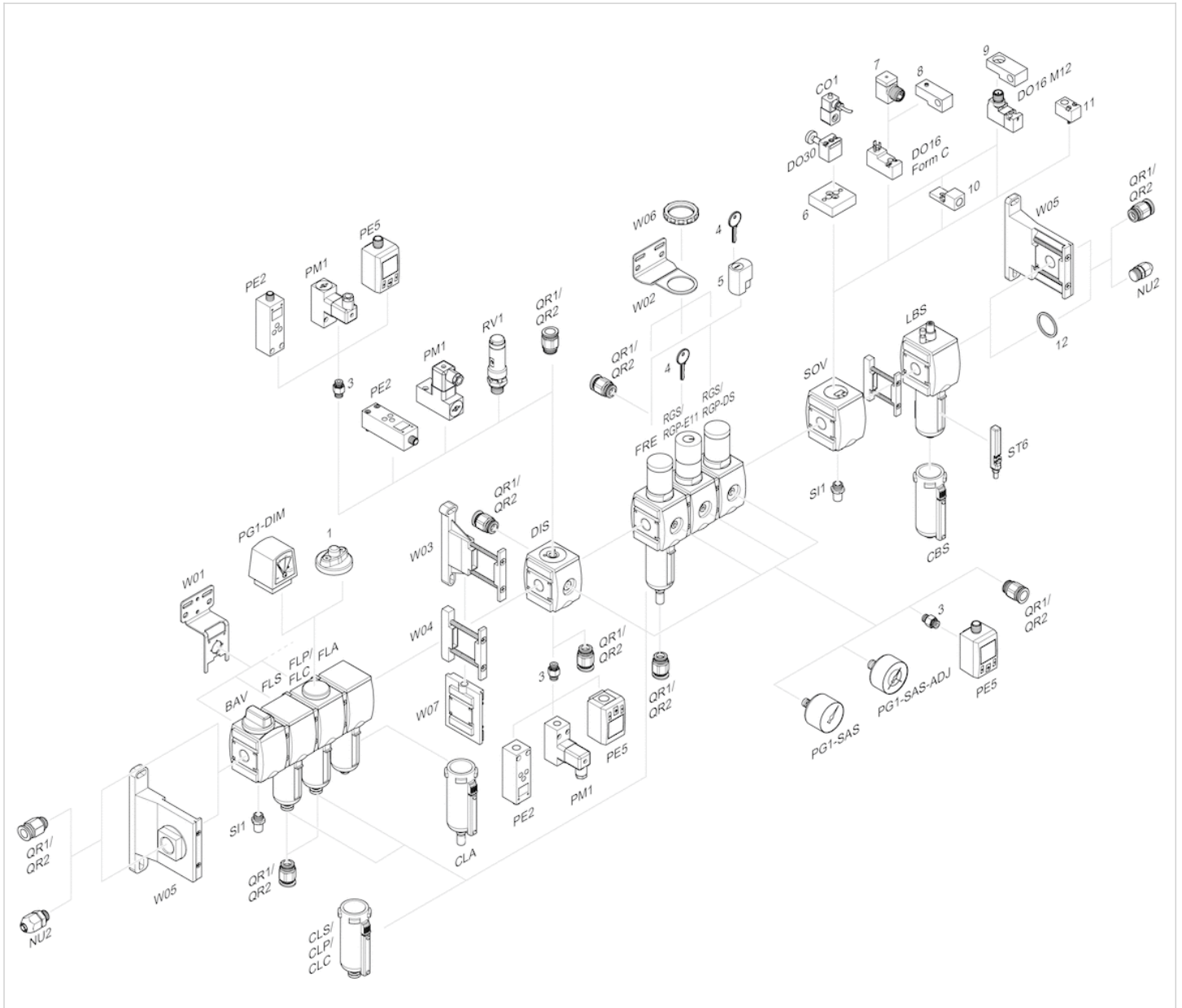
### Pin assignments

#### Pin assignment M12x1



- 3: +/-
- 4: +/-

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring



























# 3/2-directional valve, electrically operated, Series AS3-SOV-...-POS

- With position inquiry, with integrated sensor
- Compressed air connection G 1/2 G 3/8
- Pipe connection



Version	Poppet valve, Can be assembled into blocks
Parts	3/2-directional valve, electrically operated
Nominal flow	4500 l/min
Nominal flow 1 ▶ 2	4500 l/min
Nominal flow 2 ▶ 3	3200 l/min
Working pressure min./max.	See table below
Medium	Compressed air Neutral gases
Medium temperature min./max.	-10 ... 50 °C
Ambient temperature min./max.	-10 ... 50 °C
Sealing principle	Soft sealing
Max. particle size	25 µm
Weight	0.459 kg

## Technical data

Part No.			Compressed air connection input	Compressed air connection output	Exhaust
R412007383			G 1/2	G 1/2	G 1/2
R412007381		-	G 3/8	G 3/8	G 1/2
R412007387		-	G 1/2	G 1/2	G 1/2
R412007359			G 3/8	G 3/8	G 1/2
R412007336			G 3/8	G 3/8	G 1/2
R412007396			G 3/8	G 3/8	G 1/2
R412007377			G 3/8	G 3/8	G 1/2
R412007398			G 1/2	G 1/2	G 1/2
R412007353			G 3/8	G 3/8	G 1/2
R412007355			G 3/8	G 3/8	G 1/2
R412007360			G 1/2	G 1/2	G 1/2
R412007337			G 1/2	G 1/2	G 1/2
R412007354			G 1/2	G 1/2	G 1/2
R412007356			G 1/2	G 1/2	G 1/2

Part No.	Operational voltage	Power consumption	Working pressure min./max.
	DC	DC	
R412007383	24 V	2 W	2.5 ... 16 bar
R412007381	-	-	2.5 ... 16 bar
R412007387	-	-	2.5 ... 16 bar
R412007359	24 V	2 W	2.5 ... 10 bar
R412007336	24 V	2 W	2.5 ... 10 bar
R412007396	24 V	2 W	2.5 ... 10 bar
R412007377	24 V	2 W	2.5 ... 10 bar
R412007398	24 V	2 W	2.5 ... 10 bar

Part No.	Operational voltage	Power consumption		Working pressure min./max.
		DC	DC	
R412007353	24 V		2 W	2.5 ... 10 bar
R412007355	24 V		2 W	2.5 ... 10 bar
R412007360	24 V		2 W	2.5 ... 10 bar
R412007337	24 V		2 W	2.5 ... 10 bar
R412007354	24 V		2 W	2.5 ... 10 bar
R412007356	24 V		2 W	2.5 ... 10 bar

Part No.	Electrical connection		Cable length
	Pilot valve	Sensor	
R412007383	Plug, ISO 15217, form C	without wire end ferrule, tin-plated	3 m
R412007381	-	without wire end ferrule, tin-plated	3 m
R412007387	-	without wire end ferrule, tin-plated	3 m
R412007359	Plug, ISO 15217, form C	Plug, M8, 3-pin, with knurled screw	0.3 m
R412007336	Plug, ISO 15217, form C	Plug, M8, 3-pin, with knurled screw	0.3 m
R412007396	Socket, M12x1	without wire end ferrule, tin-plated	3 m
R412007377	Plug, ISO 15217, form C	without wire end ferrule, tin-plated	3 m
R412007398	Socket, M12x1	without wire end ferrule, tin-plated	3 m
R412007353	Socket, M12x1	Plug, M8, 3-pin, with knurled screw	0.3 m
R412007355	Socket, M12x1	Plug, M12, 3-pin, with knurled screw	0.3 m
R412007360	Plug, ISO 15217, form C	Plug, M8, 3-pin, with knurled screw	0.3 m
R412007337	Plug, ISO 15217, form C	Plug, M12, 3-pin, with knurled screw	0.3 m
R412007354	Socket, M12x1	Plug, M8, 3-pin, with knurled screw	0.3 m
R412007356	Socket, M12x1	Plug, M12, 3-pin, with knurled screw	0.3 m

Part No.	Fig.	
R412007383	Fig. 2	1)
R412007381	Fig. 1	2)
R412007387	Fig. 1	2)
R412007359	Fig. 2	1)
R412007336	Fig. 2	1)
R412007396	Fig. 3	1)
R412007377	Fig. 2	1)
R412007398	Fig. 3	1)
R412007353	Fig. 3	1)
R412007355	Fig. 3	1)
R412007360	Fig. 2	1)
R412007337	Fig. 2	1)
R412007354	Fig. 3	1)
R412007356	Fig. 3	1)

Nominal flow  $Q_n$  with secondary pressure  $p_2 = 6$  bar at  $\Delta p = 1$  bar, MO = Manual override, Electronic sensor included in scope of delivery (assembled). For sensor connection, see the selection table.

- 1) Basic valve with pilot valve
- 2) Basic valve without pilot valve

## Technical information

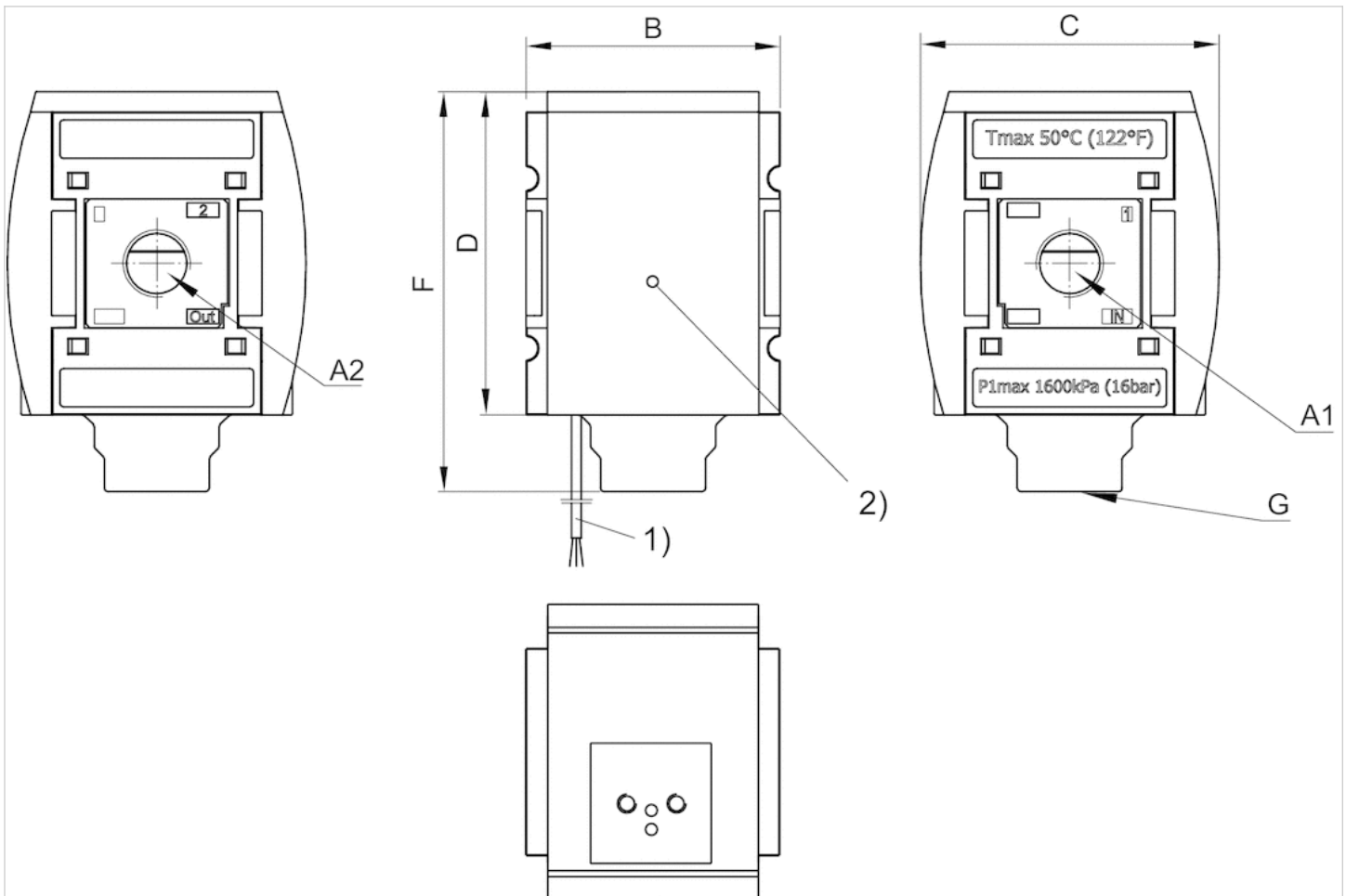
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.  
 Can be used in circuits with increased efficiency.  
 An ST6 sensor (contactless) is used to detect the switching position in the non-actuated state (position: exhaust).  
 The sensor signal is visible on the front of the cover.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

3/2-directional valve without pilot valve with porting configuration for series D016



A1 = input  
 A2 = output

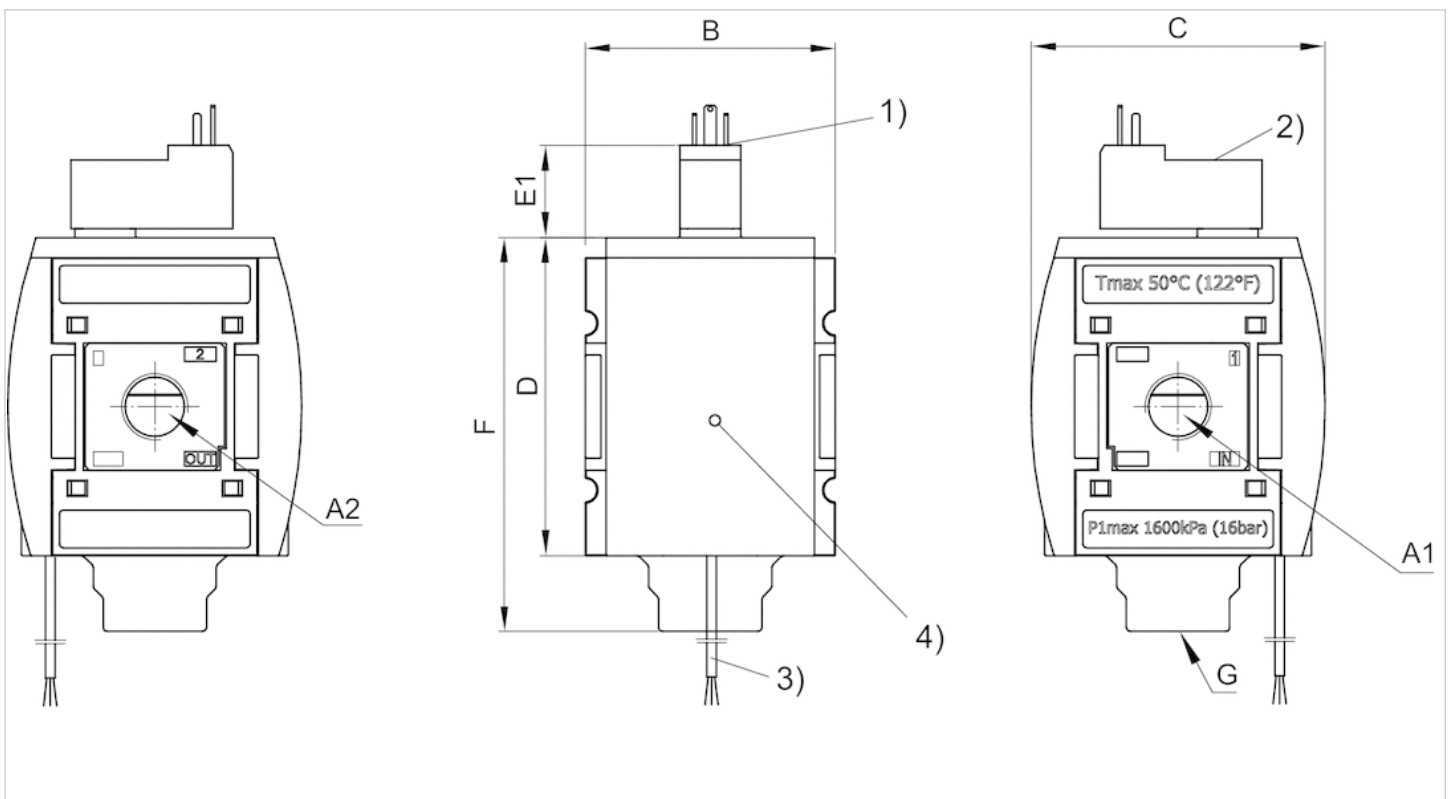
- 1) Connection cable
- 2) Optical switch status indicator

Dimensions in mm

A1	A2	B	C	D	F	G
G 3/8	G3/8	63	74	80	99	G1/2
G 1/2	G1/2	63	74	80	99	G1/2

Dimensions

Fig. 2: 3/2 directional valve with pilot valve and connection for valve plug connector form C



- A1 = input
- A2 = output
- 1) Electr. connection: valve plug connector form C, ISO 15217
- 2) Manual override
- 3) Connection cable
- 4) Optical switch status indicator

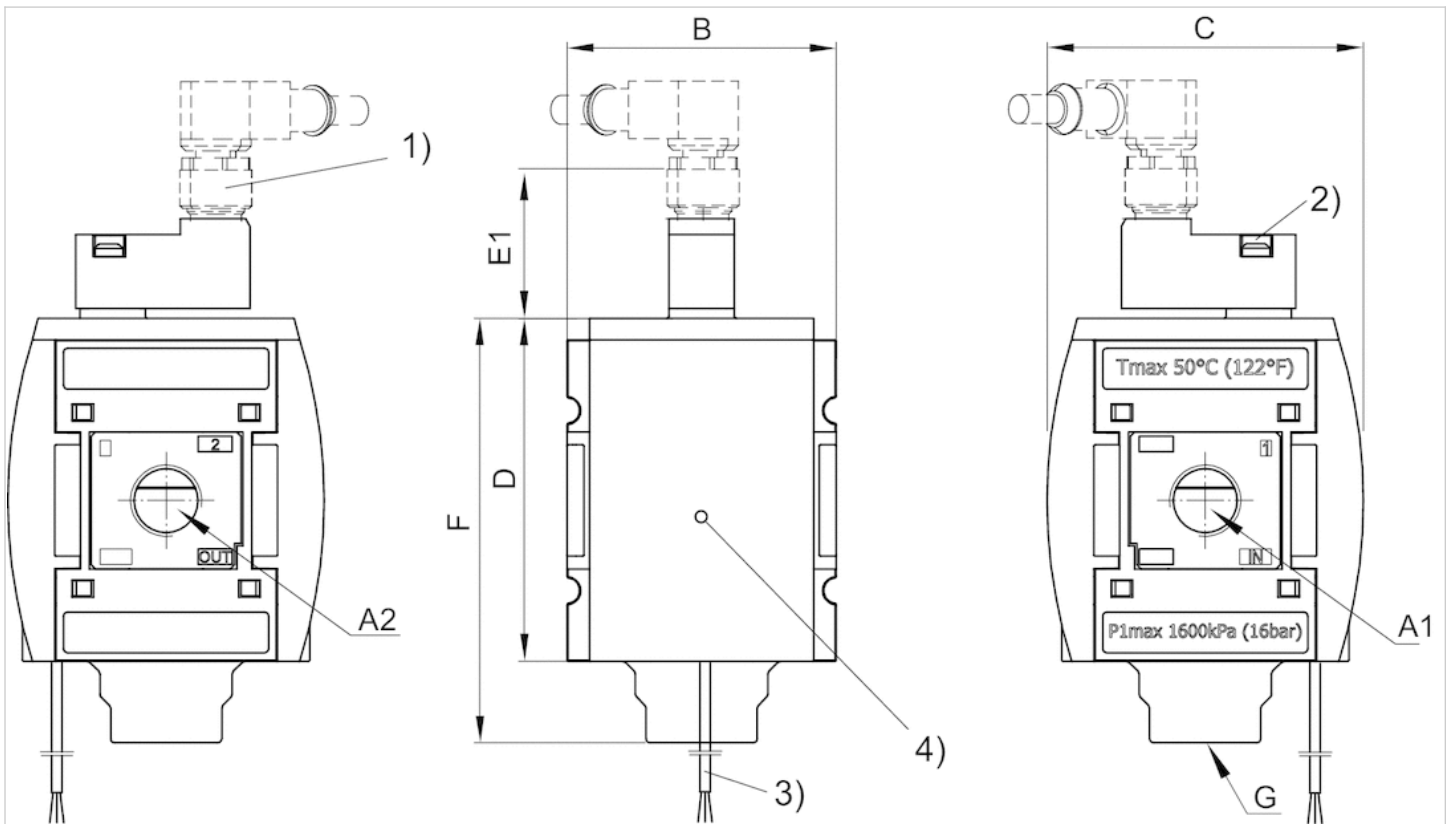
Dimensions in mm

A1	A2	B	C	D	E1	F	G
G 1/2	G1/2	63	74	80	23.2	99	G1/2
G 3/8	G3/8	63	74	80	23.2	99	G1/2
G 1/2	G1/2	63	74	80	23.2	99	G1/2



## Dimensions

Fig. 3: 3/2-directional valve with pilot valve, push-in fitting M12x1



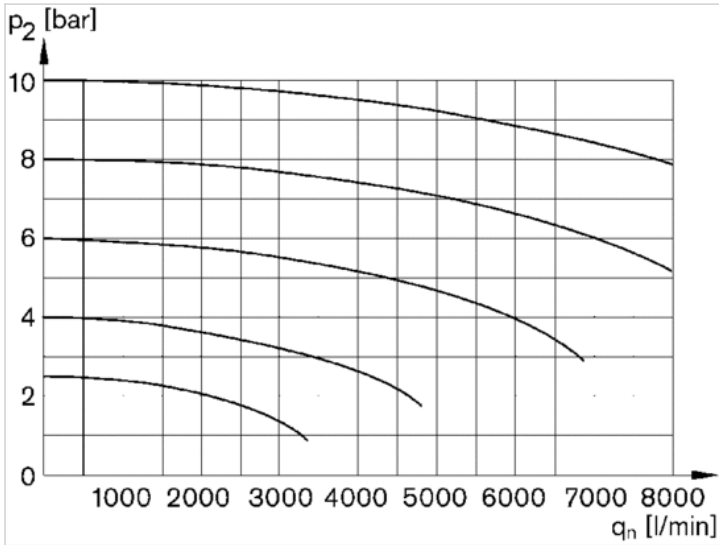
- A1 = input
- A2 = output
- 1) plug M12
- 2) Manual override
- 3) Connection cable
- 4) Optical switch status indicator

## Dimensions in mm

A1	A2	B	C	D	E1	F	G
G 3/8	G3/8	63	74	80	39	99	G1/2
G 1/2	G1/2	63	74	80	39	99	G1/2
G 3/8	G3/8	63	74	80	39	99	G1/2
G 1/2	G1/2	63	74	80	39	99	G1/2

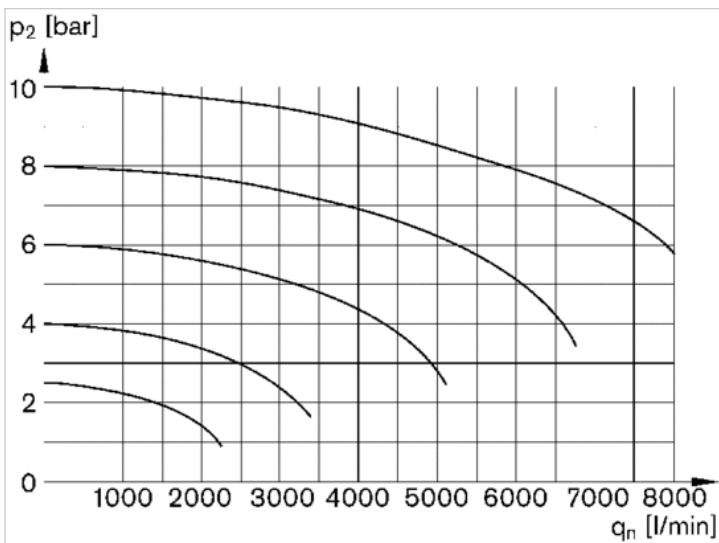
## Diagrams

### Flow rate characteristic



p<sub>2</sub> = secondary pressure  
 q<sub>n</sub> = nominal flow

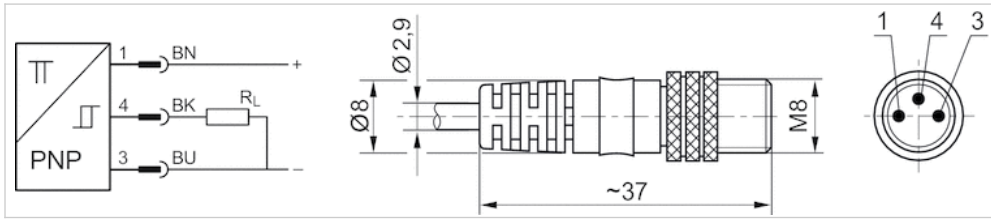
### Rear exhaust



p<sub>2</sub> = secondary pressure  
 q<sub>n</sub> = nominal flow

## Pin assignments

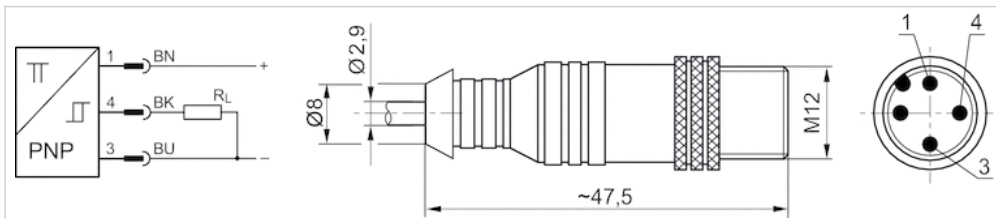
### PIN assignment sensor, plug M8



Pin assignment:

- 1 = (+)
- 3 = (-)
- 4 = (OUT)

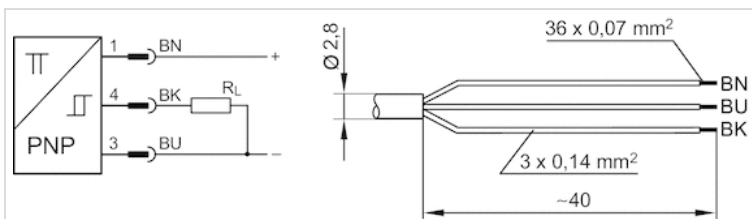
### PIN assignment sensor, plug, M12



Pin assignment:

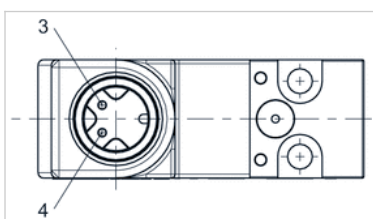
- 1 = (+)
- 3 = (-)
- 4 = (OUT)

### Sensor pin assignment, tin-plated wire ends



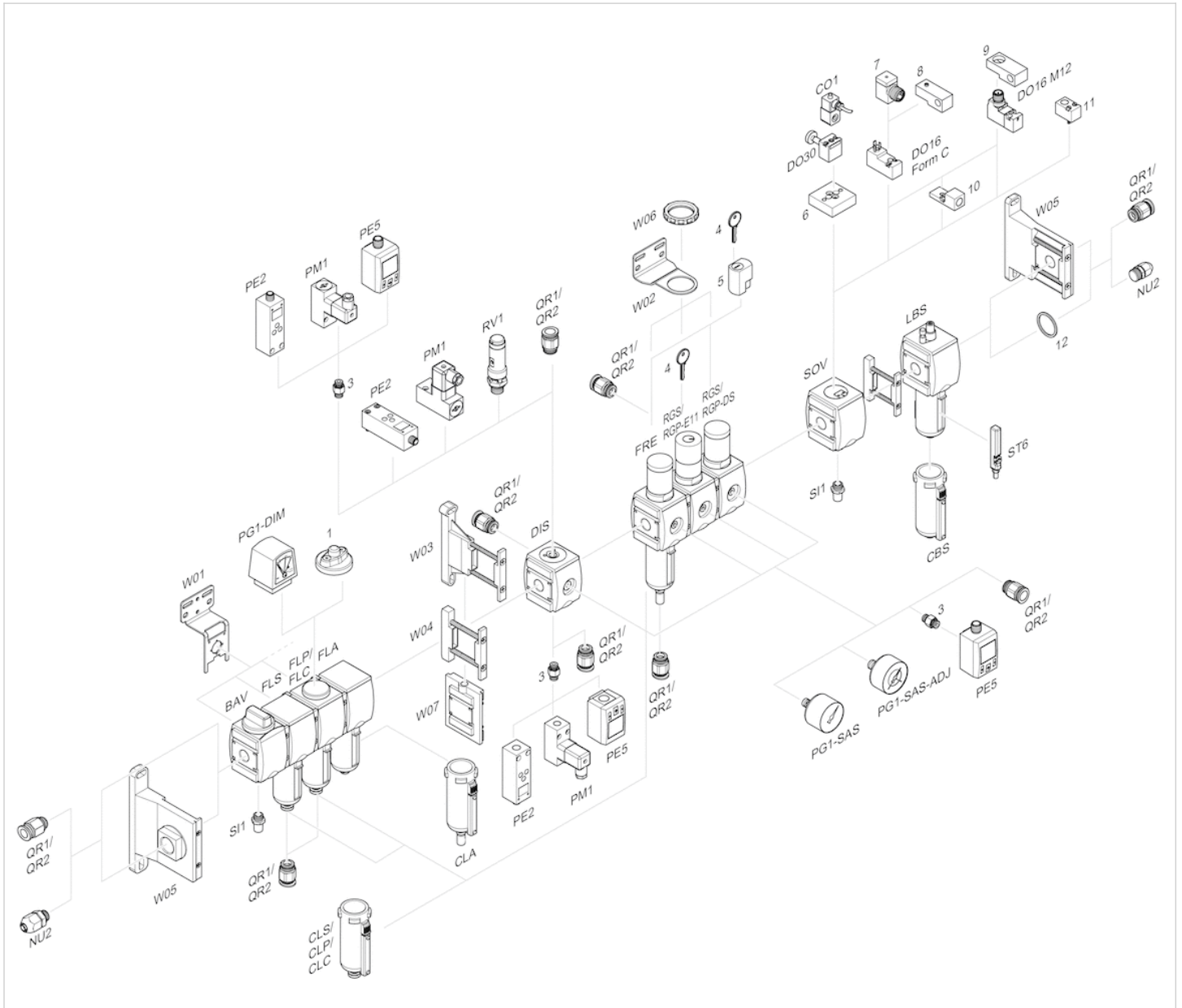
- BN = brown
- BK = black
- BU = blue

### Pin assignment M12x1



- 3: +/-
- 4: +/-

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# 3/2-directional valve, pneumatically operated, Series AS3-SOV

- Compressed air connection G 3/8 G 1/2
- Pipe connection
- suitable for ATEX



Version

Sealing principle

Certificates

Working pressure min./max.

Control pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Weight

Poppet valve, Can be assembled into blocks

Soft sealing

suitable for ATEX

0 ... 16 bar

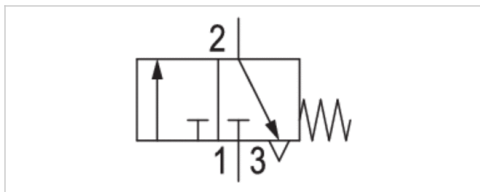
2.5 ... 16 bar

-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

0.459 kg



## Technical data

Part No.	Port	Pilot connection	Exhaust	Flow	Flow	Flow
				Qn	Qn 1→2	Qn 2→3
R412007262	G 3/8	G 1/8	G 1/2	4500 l/min	4500 l/min	3200 l/min
R412007263	G 1/2	G 1/8	G 1/2	4500 l/min	4500 l/min	3200 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

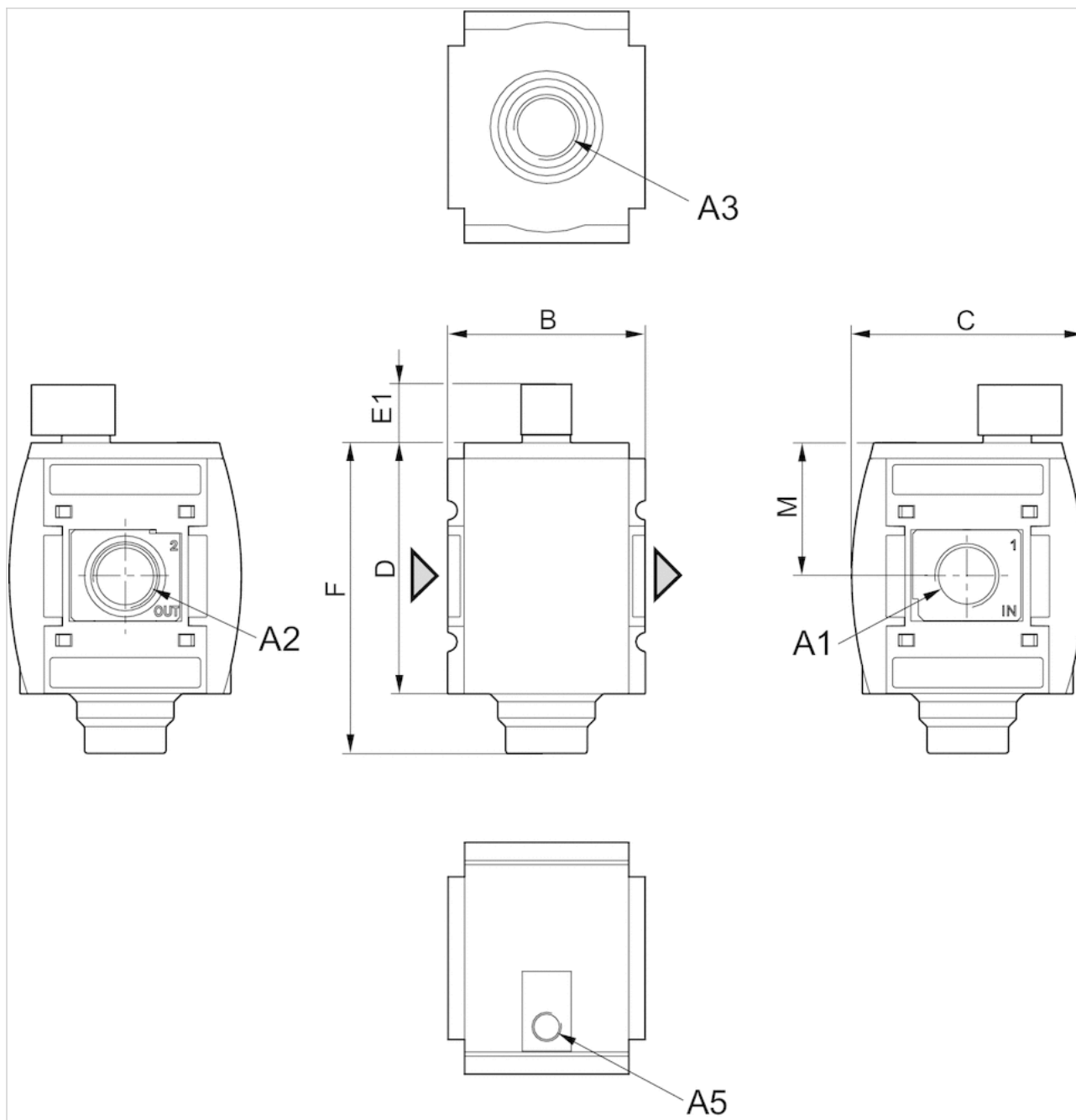
Material

Threaded bushing

Die cast zinc

## Dimensions

## Dimensions



A1 = input

A2 = output

A3 = ventilation port

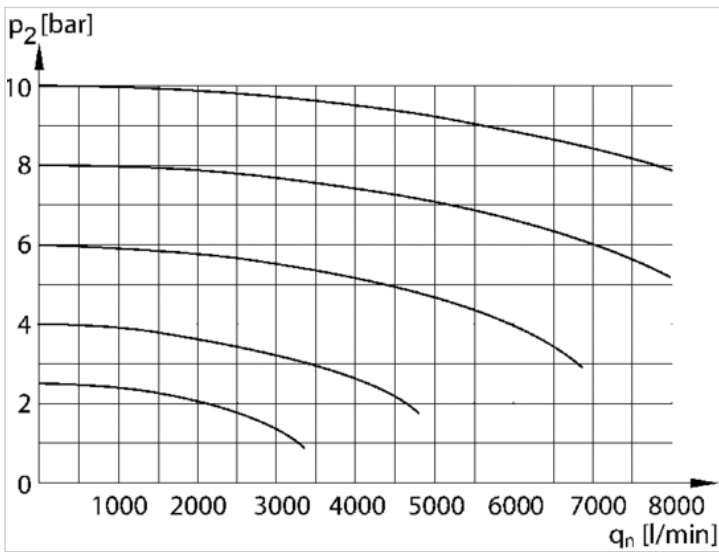
A5 = control pressure connection

Dimensions in mm

A1	A2	A3	A5	B	C	D	E1	F	M
G 3/8	G 3/8	G 1/2	G 1/8	63	74	80	18.5	99	42.5
G 1/2	G 1/2	G 1/2	G 1/8	63	74	80	18.5	99	42.5

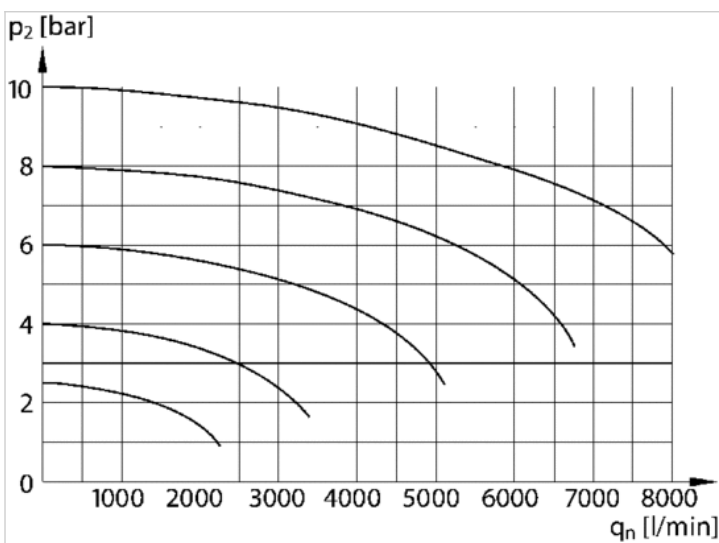
Diagrams

Flow rate characteristic



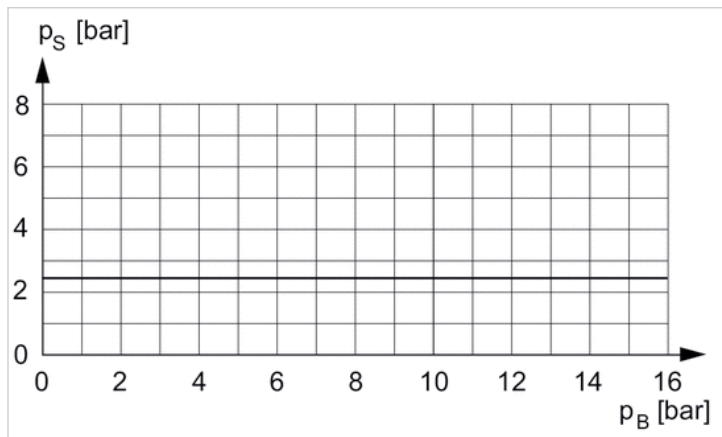
p2 = secondary pressure  
qn = nominal flow

Rear exhaust



p2 = secondary pressure  
qn = nominal flow

## control pressure characteristic



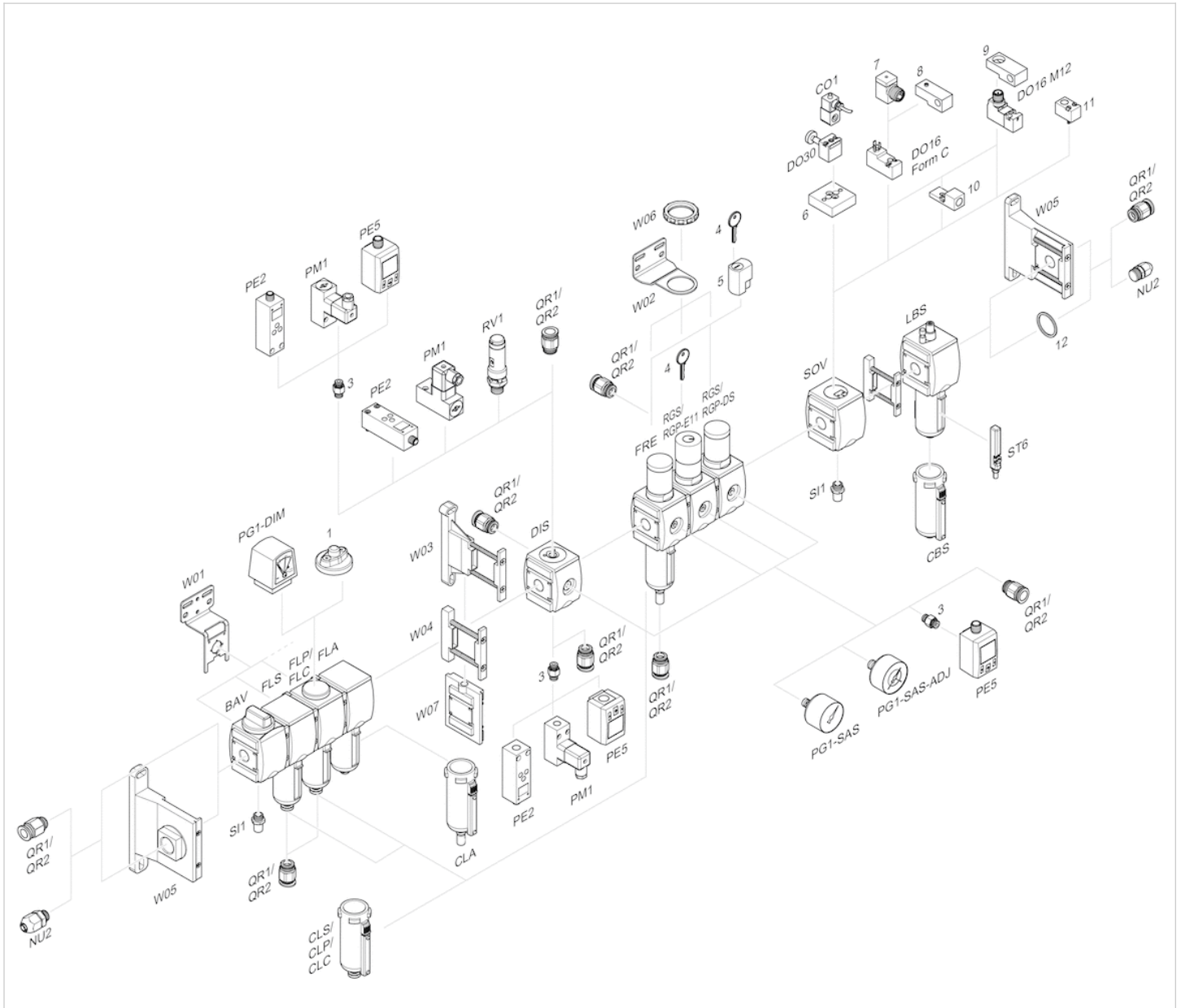
minimum pilot pressure depending on working pressure

PS = control pressure

PB= Working pressure



# Accessories overview



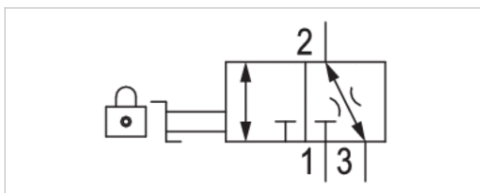
- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# 3/2-shut-off valve, mechanically operated, Series AS3-BAV

- Qn 1►2 = 11000 l/min
- Qn 2►3 = 130 l/min
- Compressed air connection output G 3/8 G 1/2
- suitable for ATEX



Version	Ball valve
Activation	Mechanical
Lock type	lockable
Actuating element	rotary switch
Sealing principle	metal/metal sealing
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	25 µm
Weight	0.446 kg



## Technical data

Part No.	Compressed air connection type	Compressed air connection Input	Compressed air connection Output
R412007260	Internal thread	G 3/8	G 3/8
R412007261	Internal thread	G 1/2	G 1/2

Part No.	Compressed air connection Exhaust	Flow		Lock type	Locking base
		Qn 1 ► 2	Qn 2 ► 3		
R412007260	G 1/2	11000 l/min	130 l/min	for padlocks	Die cast zinc
R412007261	G 1/2	11000 l/min	130 l/min	for padlocks	Die cast zinc

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Suitable for use in Ex zones 1, 2, 21, 22.

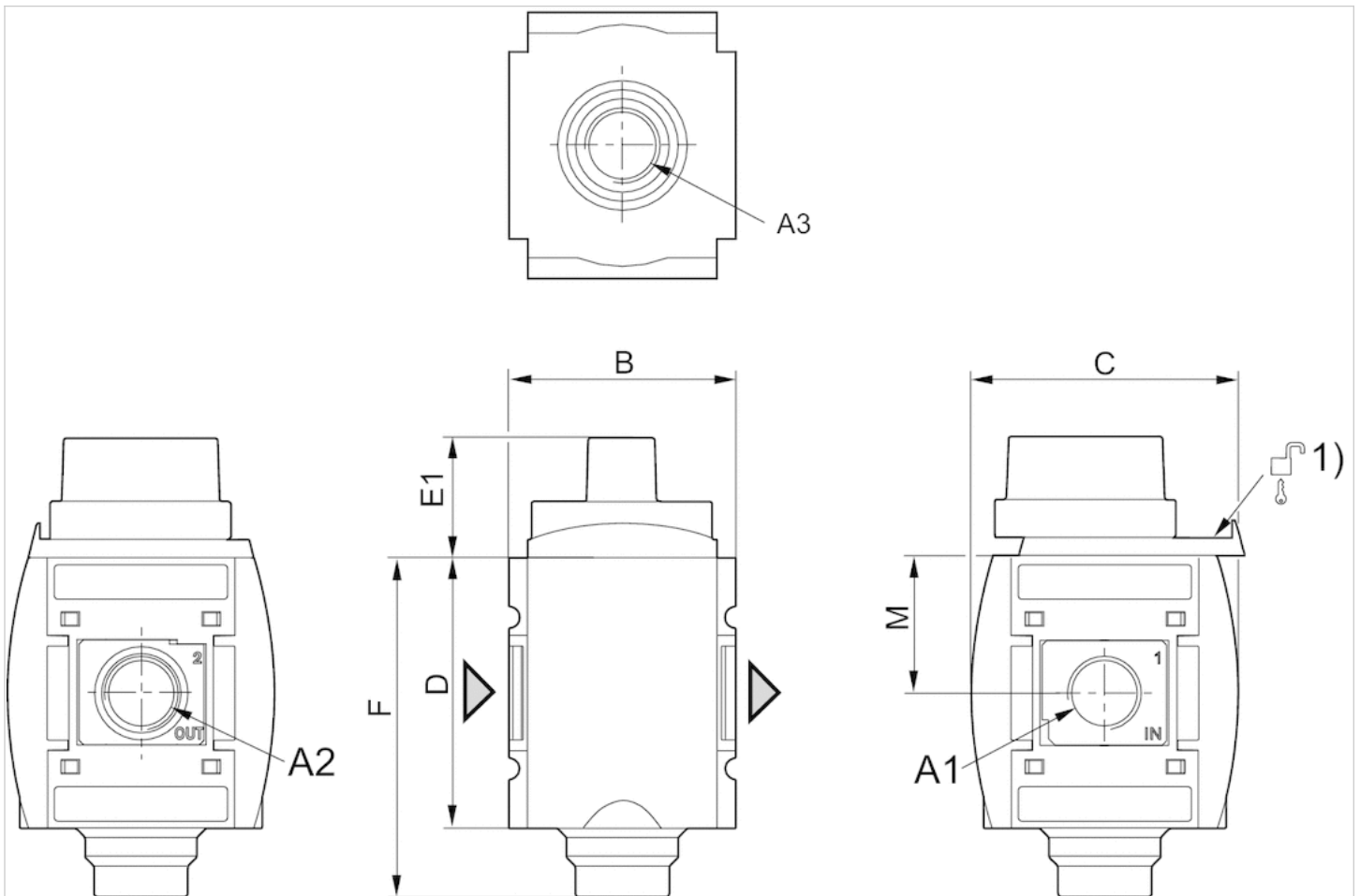
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Polytetrafluorethylene
Threaded bushing	Die cast zinc
Actuating element	Polyoxymethylene
Locking base	Die cast zinc

## Dimensions

### Dimensions



A1 = input

A2 = output

A3 = ventilation port

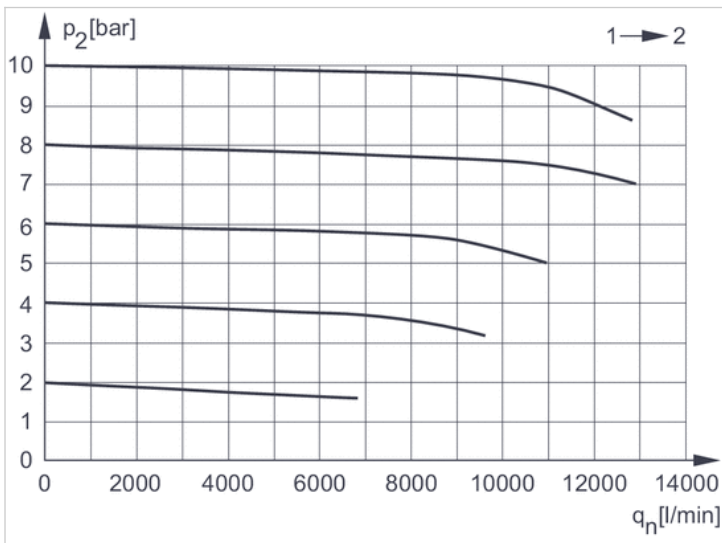
1) Mounting option for padlocks, max. shackle Ø 8

Dimensions in mm

A2	A3	B	C	D	E1	F	M
G 3/8	G 1/2	63	74	80	28	99	42.5
G 1/2	G 1/2	63	74	80	28	99	42.5

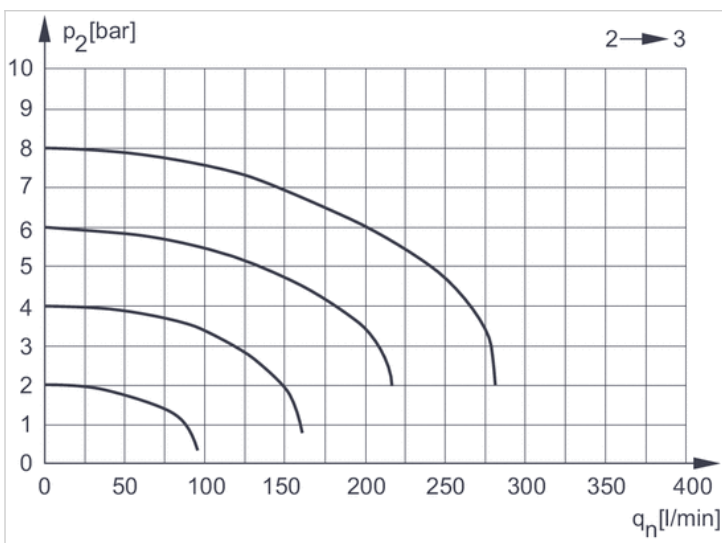
Diagrams

Flow rate characteristic



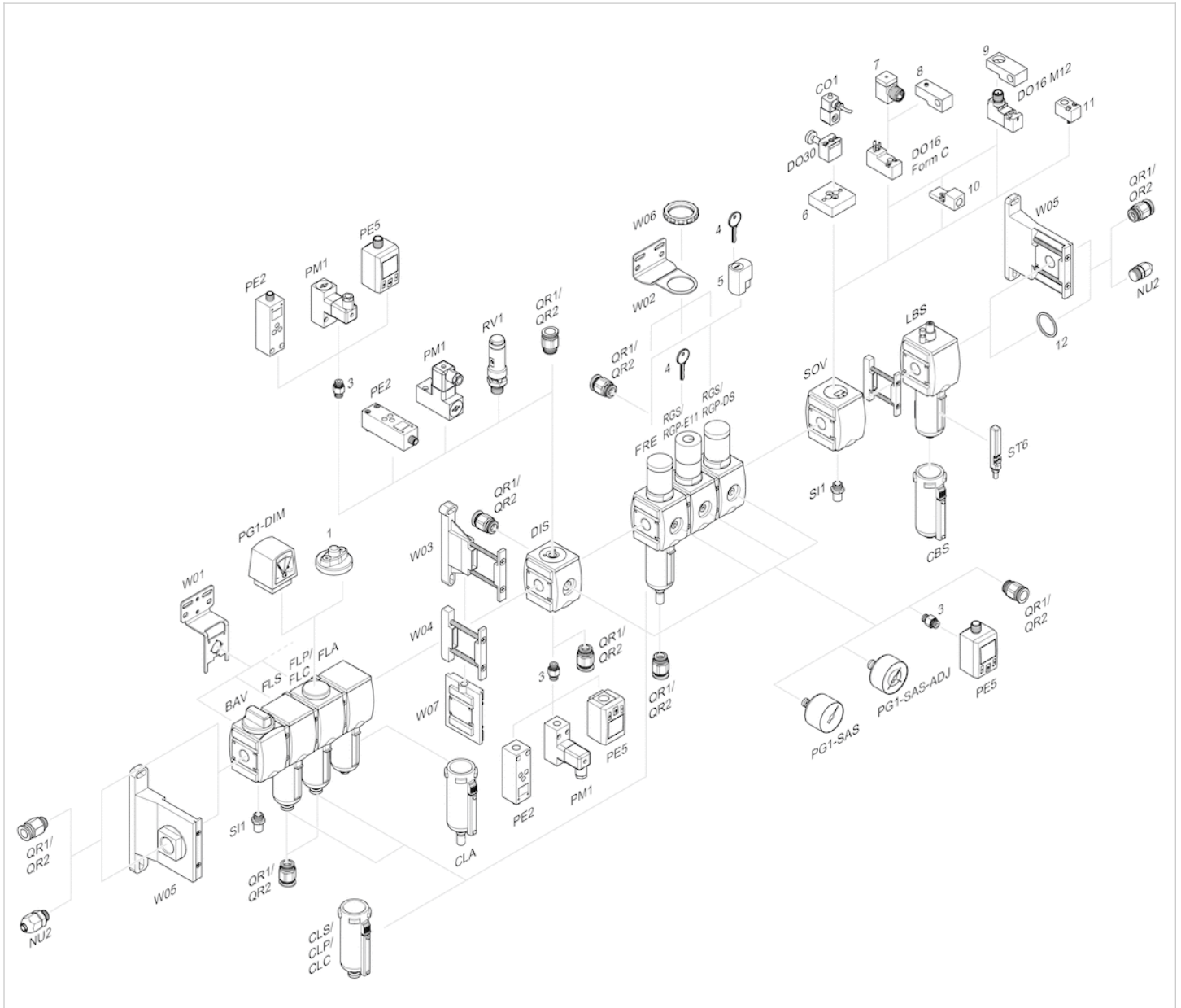
p2 = secondary pressure  
qn = nominal flow

Rear exhaust



p2 = secondary pressure  
qn = nominal flow

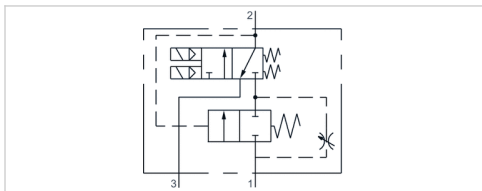
## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# 3/2 directional safety valve, Series AS3-SV

- Safe exhaust and protection against unexpected start-up, category 4, PL e, Soft-start function
- 3/2
- Compressed air connection output : G 1/2
- Electrical connection : M12, 5-pin, A-coded



Activation	Electrically
Sealing principle	Soft sealing
Standards	ISO 13849-1
Working pressure min./max.	2 ... 10 bar
Ambient temperature min./max.	-5 ... 50 °C
Medium temperature min./max.	-5 ... 50 °C
Medium	Compressed air Neutral gases
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m <sup>3</sup>
Nominal flow 1 ▶ 2	3700 l/min
Nominal flow 2 ▶ 3	7200 l/min
Protection class with connection	IP65
Duty cycle	100 %
Max. power consumption	280 mA
Version sensor	PNP
Weight	4.3 kg

## Technical data

Part No.	Compressed air connection	
	Input	Output
R412026223	G 1/2	G 1/2

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust		
R412026223	1"	DC 24 V	DC -10% / +10%

Part No.	Power consumption		Nominal resistance
	DC		
R412026223	6 W		40 Ω

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!  
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

The AS3-SV safety valve is a redundant system according to the requirements of ISO 13849-1 and -2, in which the pneumatic safety functions “safe exhaust” and “prevention of unexpected start-ups” are ensured, including in case of a safety valve fault (e.g. due to wear).

The safety function of the 3/2 valve from the AS3-SV series is that the machine/system is only supplied with pneumatic energy (compressed air) when the redundant electrical control and therefore both valve elements are actuated simultaneously. The supply with compressed air is switched off and the system is exhausted if the redundant electrical control is not available.

In contrast to the functions “safe exhaust” and “prevention of unexpected start-ups” of the valve AS3-SV, the “soft start” function does not fulfil the safety function according to ISO 13849.

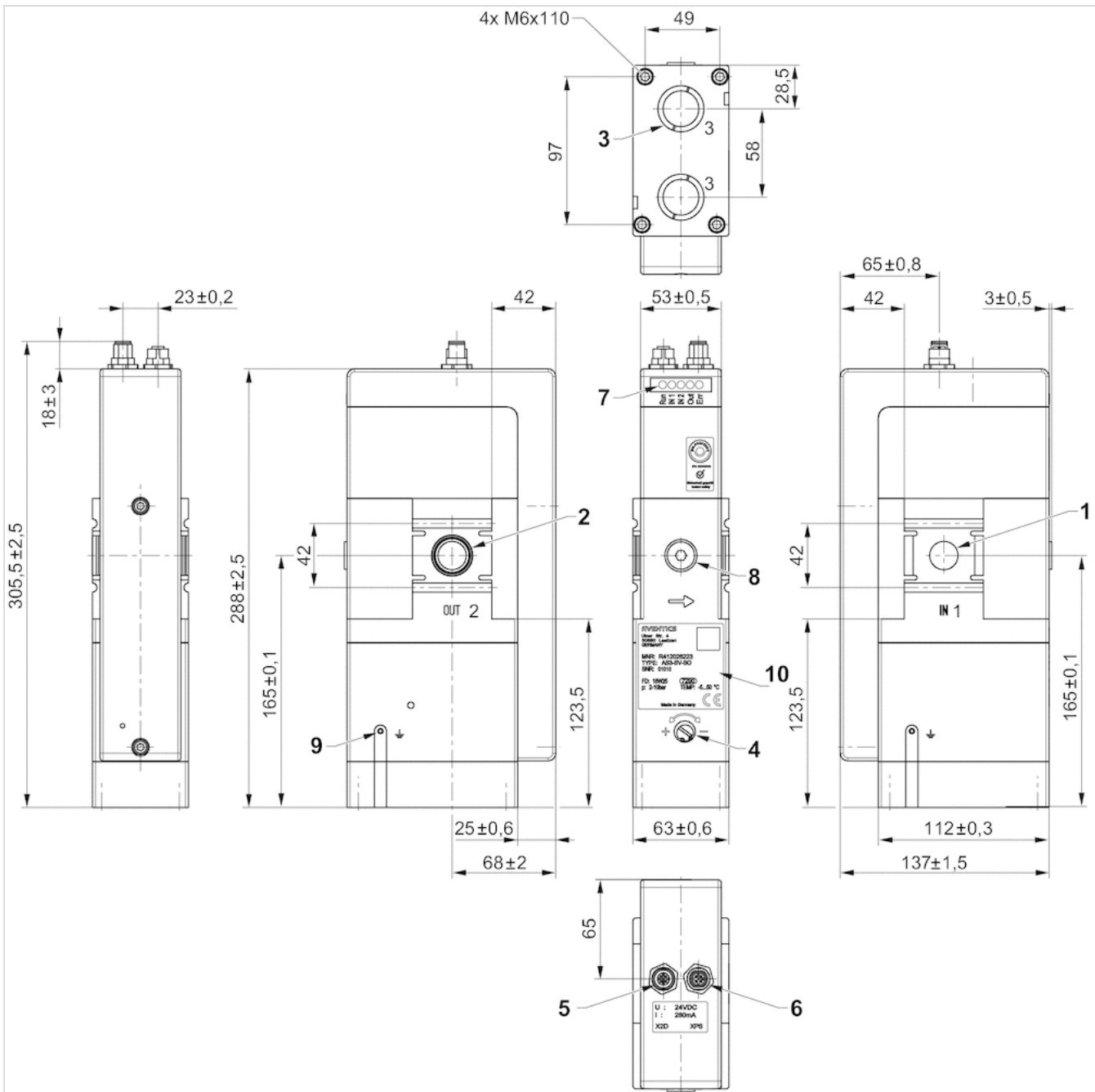
If using as a single valve, it is recommended to mount the AS3-SV with the block assembly kit W05. If the AS3-SV is installed in an air preparation unit, use one mounting clip R412026828 when adding to the end of the maintenance unit and two mounting clips R412026828 when installing in the middle. Please observe the operating instructions for this.

## Technical information

Material	
Housing	Aluminum, painted
Seals	Nitrile butadiene rubber

# Dimensions

## Dimensions

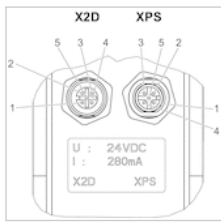


1) Compressed air supply port 12) Operating line port 23) Exhaust port 34) Adjustment screw for soft-start5) Plug X2D, M12 female safety inputs6) Plug XPS, M12 male voltage supply7) LED display8) Pressure gauge connection G1/4 (optional)9) Port for functional ground M310) Name plate (identification of the AS3-SV safety valve)



## Pin assignments

### Pin assignments



Socket (female), X2D, M12, A-coded, 5-pin

- 1) S21 Clock signal S22
- 2) S22 Safety input 2
- 3) S11 Clock signal for S12
- 4) S12 Safety input 1
- 5) Not connected (NC)

Plug (male), XPS, M12, A-coded, 5-pin

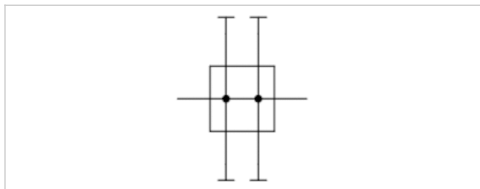
- 1) 24 V DC
- 2) Signal contact 42. (Potential-free contact)
- 3) 0 V
- 4) Input signal X2
- 5) Signal contact 41. (Potential-free contact)

# Distributor, Series AS3-DIS

- G 3/8 G 1/2
- Distributor 4x
- suitable for ATEX



Version	Can be assembled into blocks
Parts	Distributor
Mounting orientation	Any
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Neutral gases
Weight	0.32 kg



## Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
R412007250	G 3/8	7250 l/min	5500 l/min	2300 l/min	2250 l/min	2300 l/min
R412007251	G 1/2	7250 l/min	5500 l/min	2300 l/min	2250 l/min	2300 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version).

Suitable for use in Ex zones 1, 2, 21, 22.

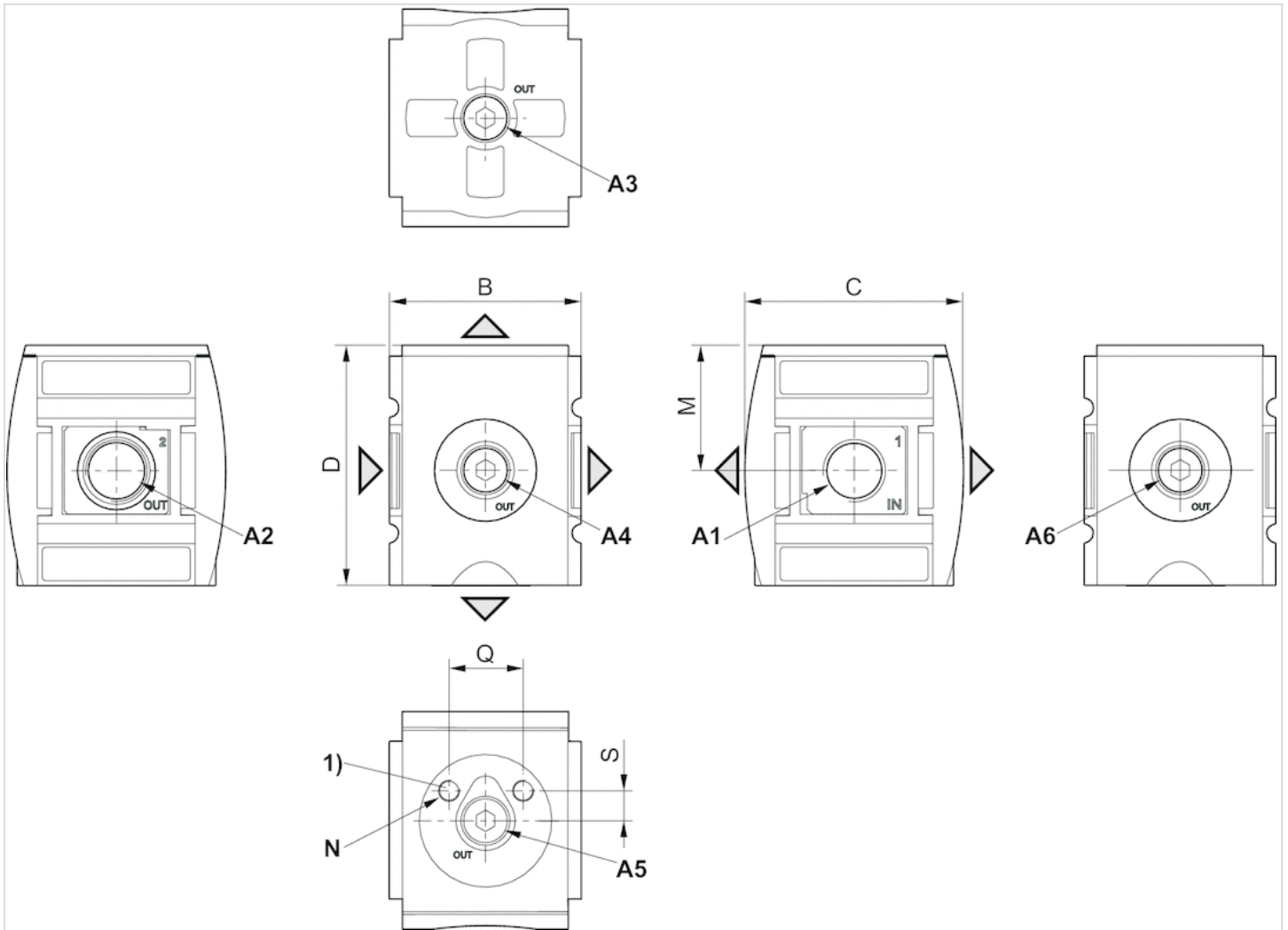
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

# Dimensions

## Dimensions

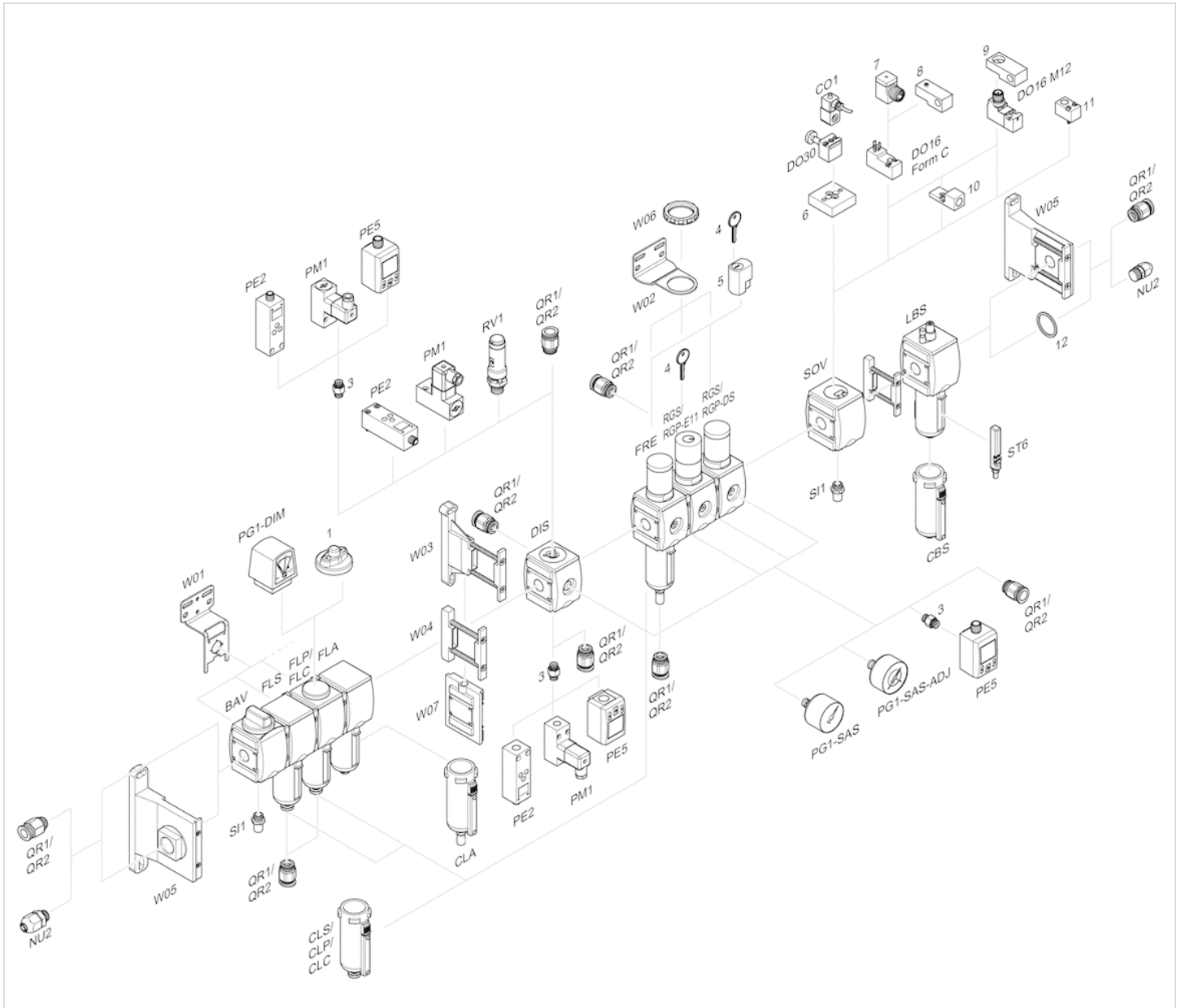


- A1 = input
- A2 = output
- A3 = output
- A4 = output
- A5 = output
- A6 = output
- 1) Mounting thread for pressure sensor

## Dimensions in mm

A1	A2	A3	A4	A5	A6	B	C	D	M	N	Q	S
G 3/8	G 3/8	G 1/2	G 3/8	G 1/4	G 3/8	63	74	80.5	42.5	M5	20	8
G 1/2	G 1/2	G 1/2	G 3/8	G 1/4	G 3/8	63	74	80.5	42.5	M5	20	8

# Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Distributor, Series AS3-DIN

- G 3/8 G 1/2
- Distributor 4x
- Non-return valve
- suitable for ATEX



Version

Parts

Mounting orientation

Certificates

Working pressure min./max.

Ambient temperature min./max.

Medium temperature min./max.

Medium

Weight

Non-return valve, Can be assembled into blocks

Distributor

Any

suitable for ATEX

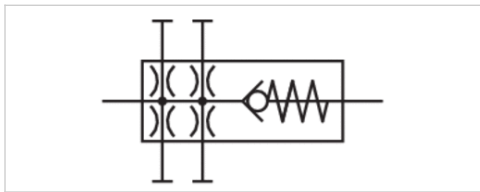
0.4 ... 16 bar

-10 ... 50 °C

-10 ... 50 °C

Compressed air Neutral gases

0.32 kg



## Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
R412007254	G 3/8	5100 l/min	3300 l/min	2250 l/min	2250 l/min	2250 l/min
R412007255	G 1/2	5100 l/min	3300 l/min	2250 l/min	2250 l/min	2250 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version).

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

4 auxiliary air exits upstream of non-return valve.

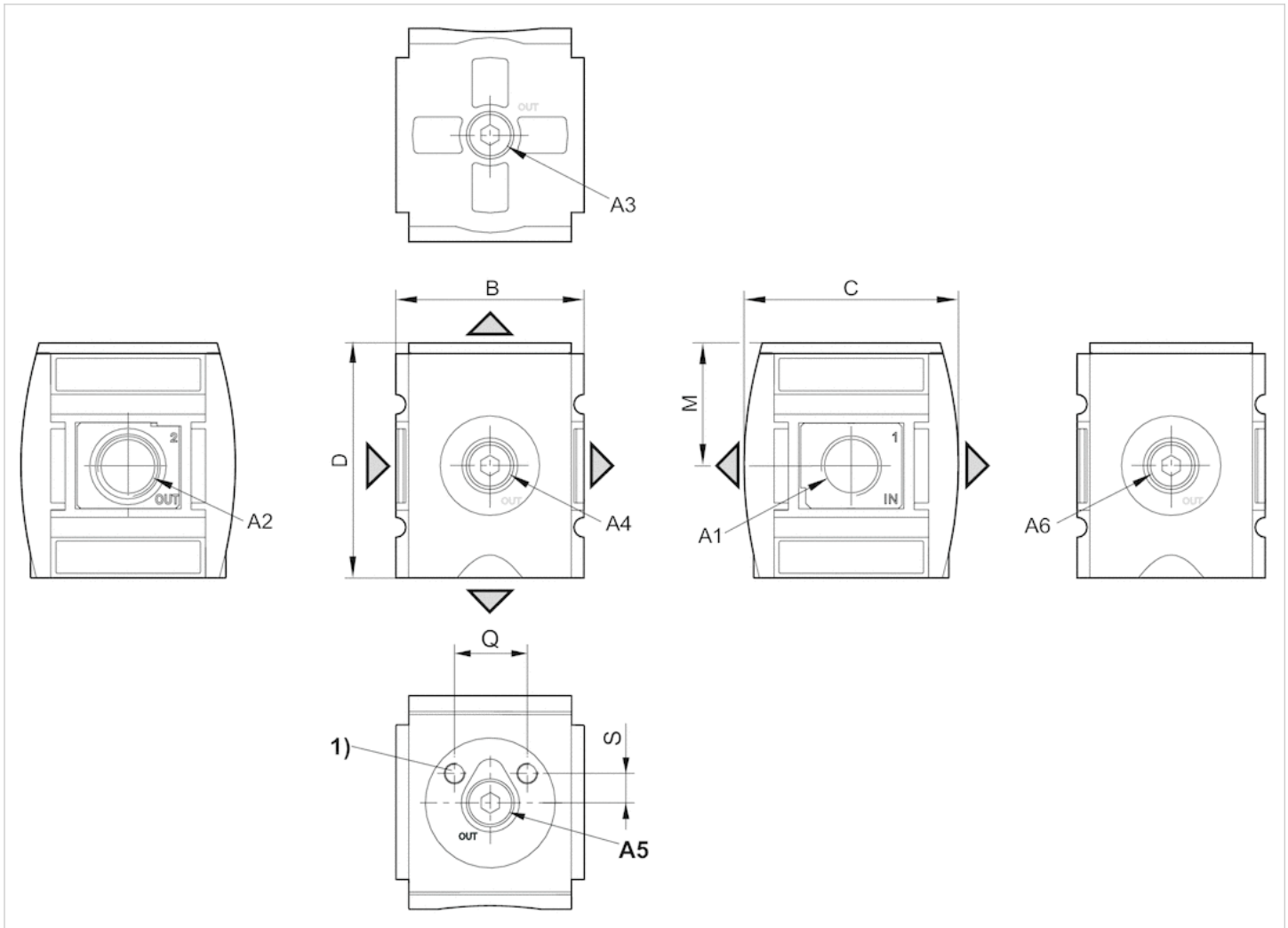
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene

Material	
Seals	Acrylonitrile butadiene rubber
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions



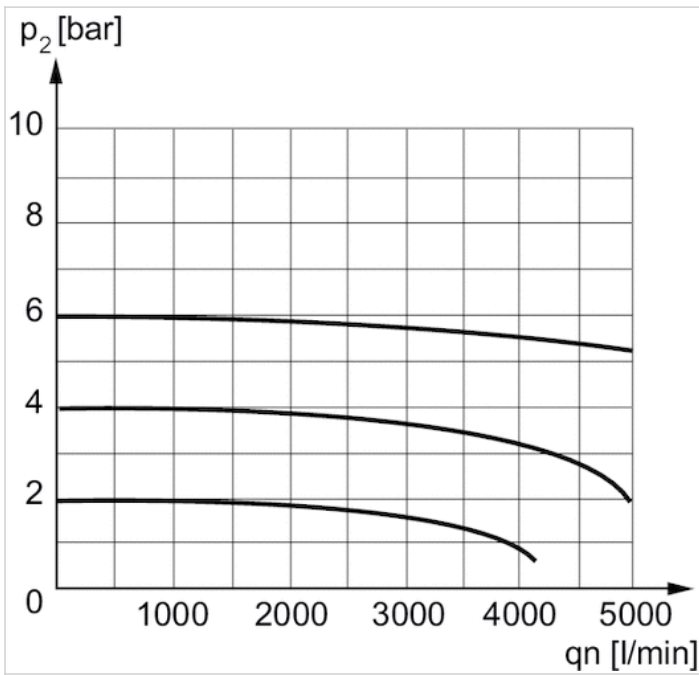
- A1 = input
- A2 = output
- A3 = output
- A4 = output
- A5 = output
- A6 = output

### Dimensions in mm

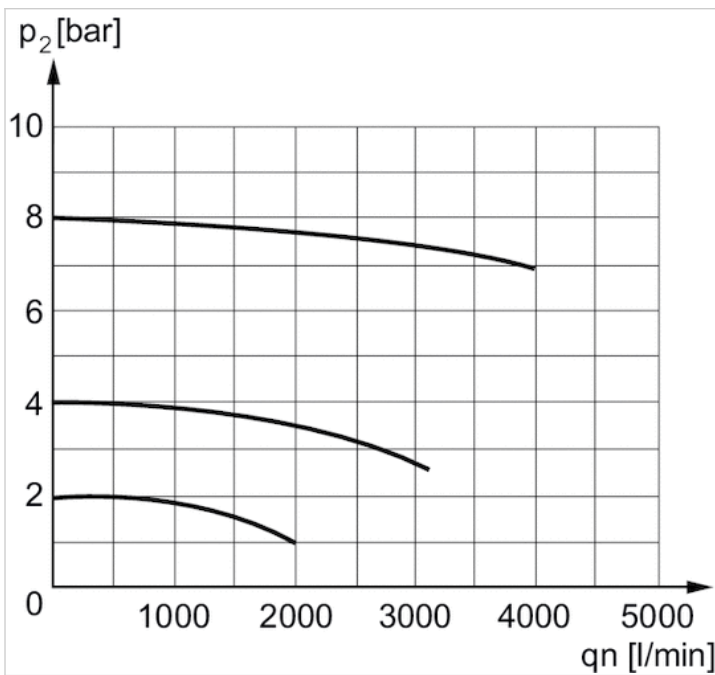
A1	A2	A3	A4	A5	A6	B	C	D	M	Q
G 3/8	G 3/8	G 1/2	G 3/8	G 1/4	G 3/8	63	74	80	42.5	20
G 1/2	G 1/2	G 1/2	G 3/8	G 1/4	G 3/8	63	74	80	42.5	20

# Diagrams

## Flow rate characteristic

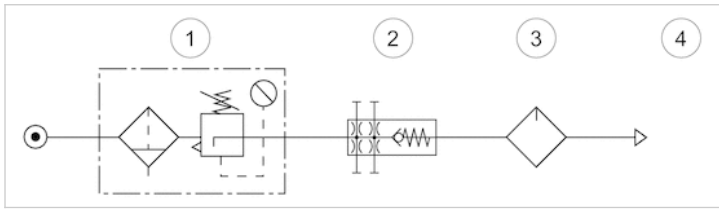


Nominal flow 1 ► 2  
 p2 = secondary pressure  
 qn = nominal flow



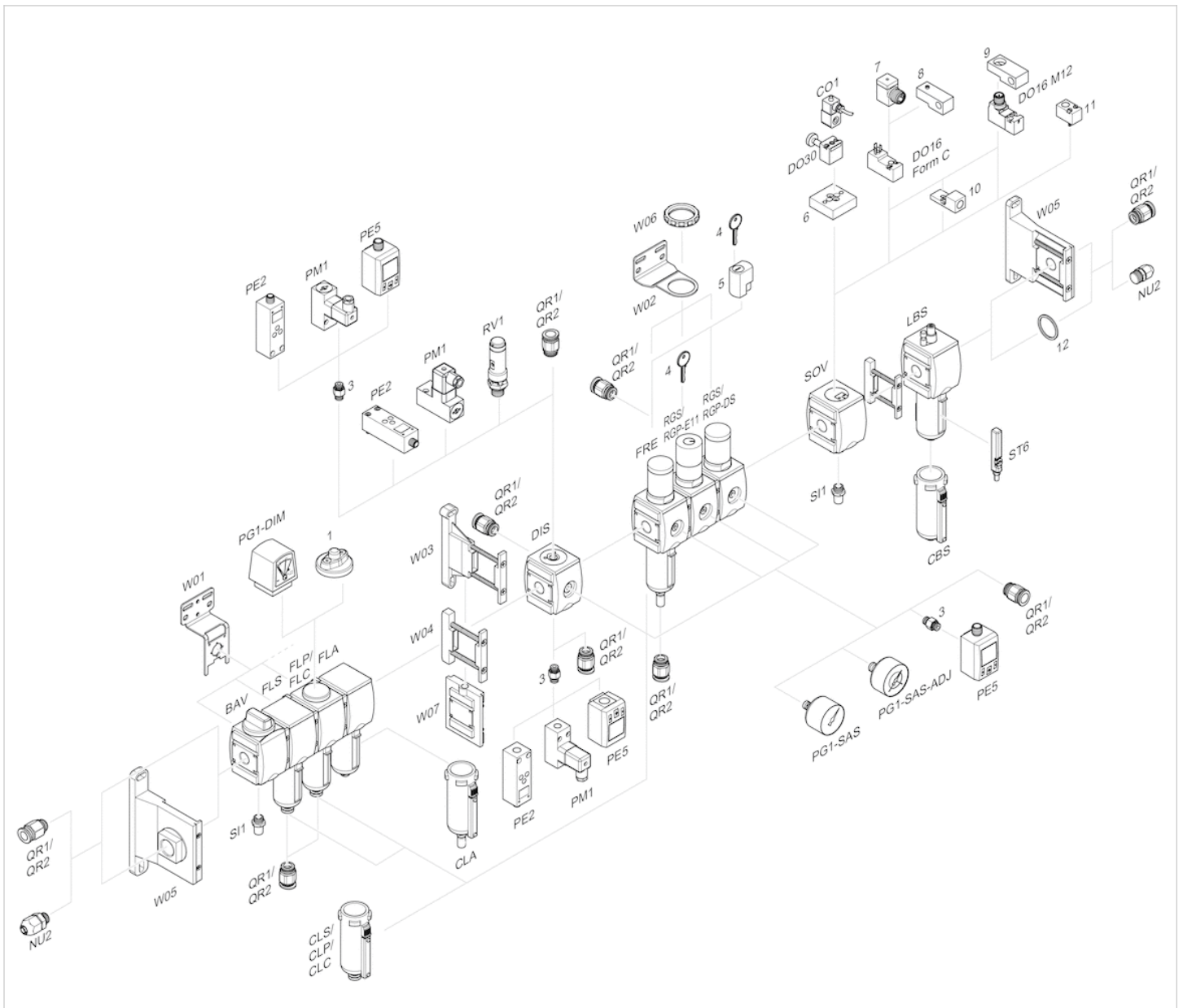
Nominal flow 1 ► 3  
 p2 = secondary pressure  
 qn = nominal flow

usage



- 1) Filter pressure regulator
- 2) Non-return valve
- 3) Lubricator
- 4) Compressed air

Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking



- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Distributor, Series AS3-DIC

- G 1/2
- Distributor 4x
- Center infeed
- suitable for ATEX



Version

Center infeed, Can be assembled into blocks

Parts

Distributor

Mounting orientation

Any

Certificates

suitable for ATEX

Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-10 ... 50 °C

Medium temperature min./max.

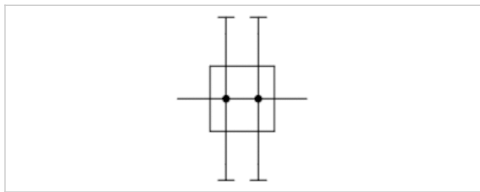
-10 ... 50 °C

Medium

Compressed air Neutral gases

Weight

0.32 kg



## Technical data

Part No.	Port	Nominal flow	Nominal flow	Nominal flow	Nominal flow	Nominal flow
		Qn 1►2	Qn 1►3	Qn 1►4	Qn 1►5	Qn 1►6
R412007249	G 1/2	10300 l/min	10300 l/min	2300 l/min	2250 l/min	2300 l/min

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Suitable for direct mounting of a PE2 and PM1 series pressure sensor (flange version).

Suitable for use in Ex zones 1, 2, 21, 22.

A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

Additional air supply possible at connections A4 and A5.

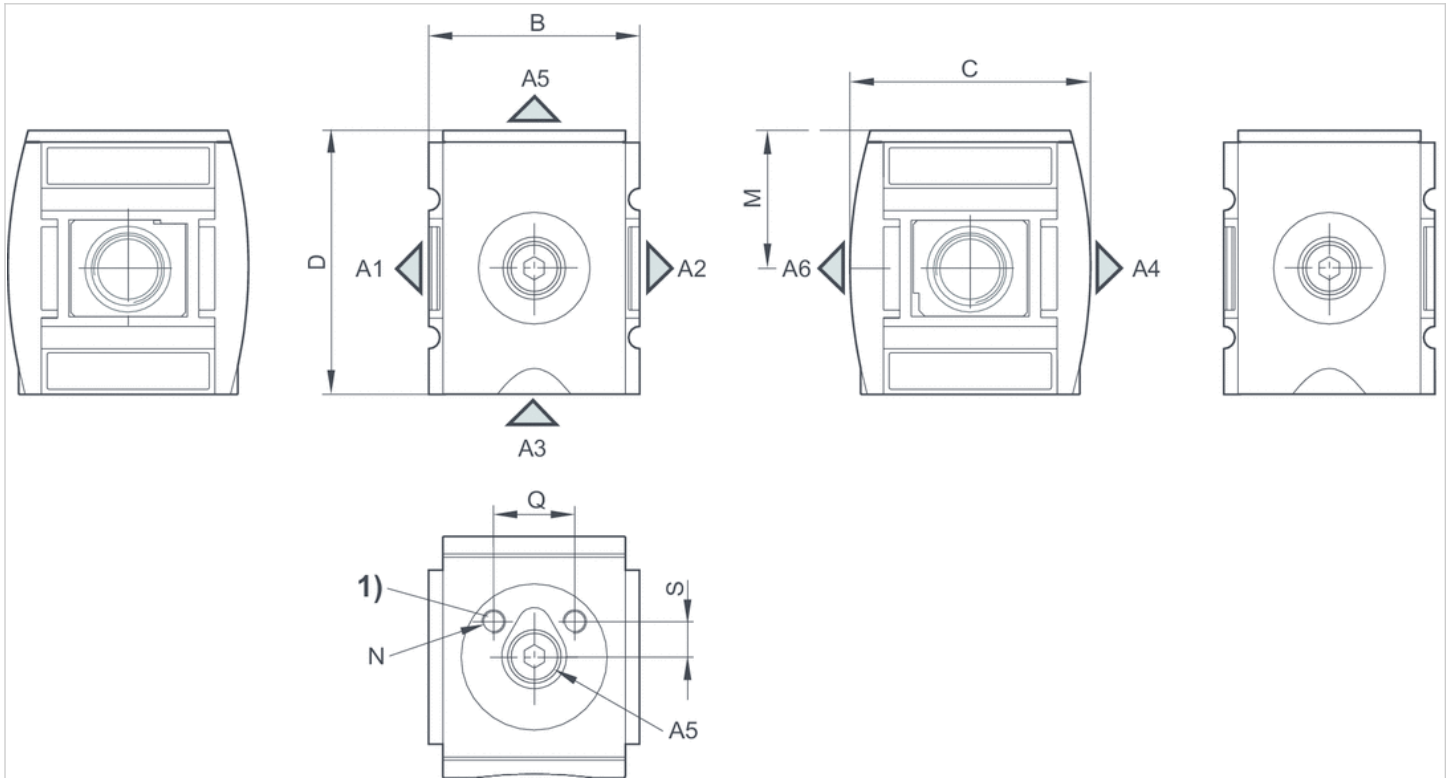
## Technical information

Material	
Housing	Polyamide
Front plate	Acrylonitrile butadiene styrene
Seals	Acrylonitrile butadiene rubber

Material	
Threaded bushing	Die cast zinc

## Dimensions

### Dimensions

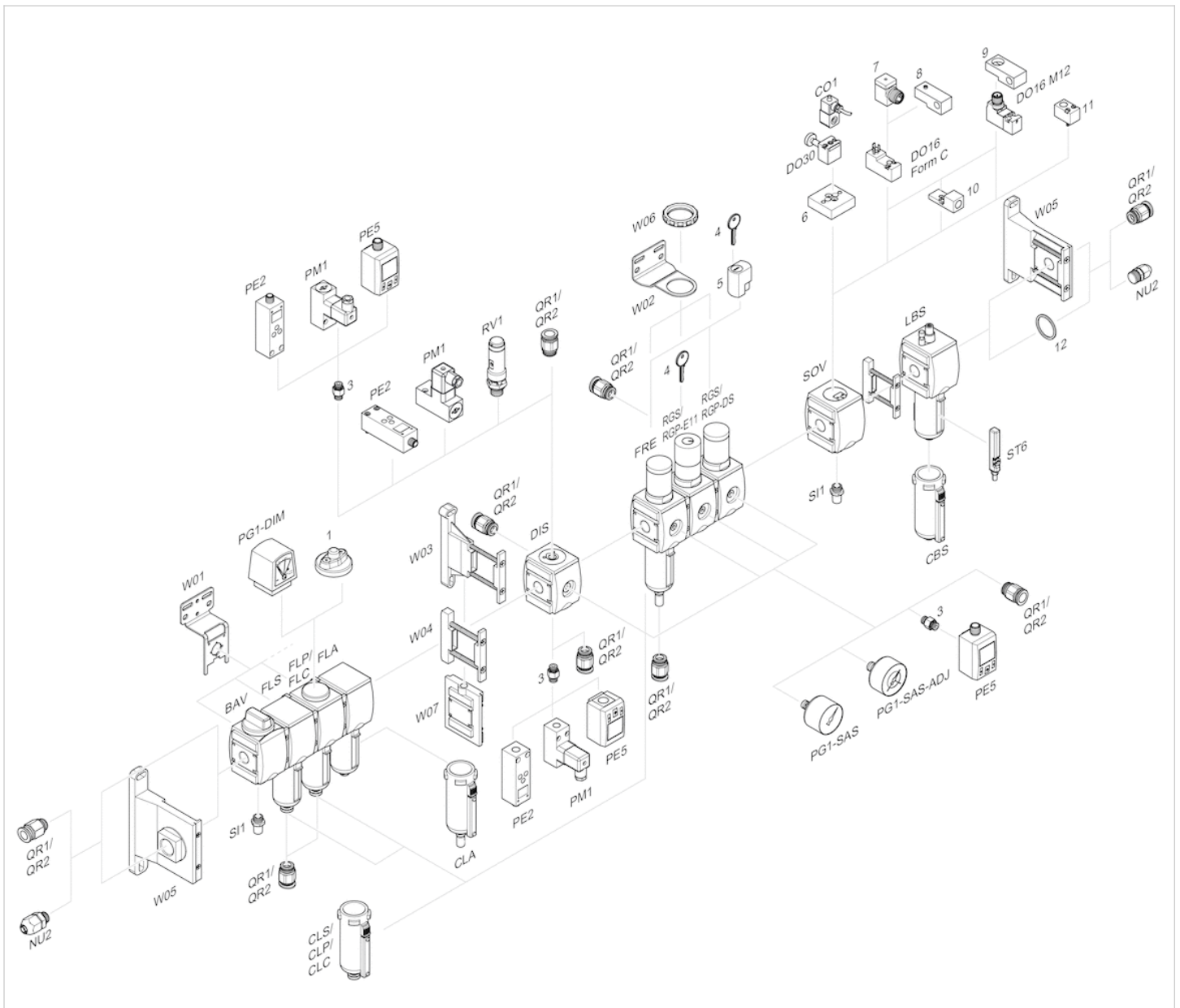


- A1 = output
- A2 = output
- A3 = input/output
- A4 = output
- A5 = input/output
- A6 = output
- 1) Mounting thread for pressure sensor

### Dimensions in mm

A1	A2	A3	A4	A5	A6	B	C	D	M	N	Q	S
G 1/2	G 1/2	G 1/2	G 3/8	G 1/4	G 3/8	63	74	80.5	42.5	M5	20	8

## Accessories overview



- 1 = contamination display
- 3 = Double nipple
- 4 = Key for E11 locking
- 5 = mortise lock
- 6 = Transition plate DO30
- 7 = Adapter, Series CON-VP
- 8 = Mounting aid DO16, form C
- 9 = Mounting aid DO16, M12
- 10 = Adapter for external pilot air
- 11 = Adapter pneumatic operation
- 12 = Sealing ring

# Reservoir, Series AS3-CLS/ -CLP/ -CLC

- for filters, pre-filters and microfilters
- Material Polycarbonate Die cast zinc
- suitable for ATEX



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	49 cm <sup>3</sup>
Weight	See table below

## Technical data

Part No.	Condensate drain	Reservoir
R412007338	semi-automatic, open without pressure	Polycarbonate
R412007339	fully automatic, open without pressure	Polycarbonate
R412007340	fully automatic, closed without pressure	Polycarbonate
R412007344	semi-automatic, open without pressure	Die cast zinc, with window
R412007345	fully automatic, open without pressure	Die cast zinc, with window
R412007346	fully automatic, closed without pressure	Die cast zinc, with window

Part No.	Protective guard	Weight	Fig.
R412007338	Polyamide	0.086 kg	Fig. 1
R412007339	Polyamide	0.116 kg	Fig. 2
R412007340	Polyamide	0.116 kg	Fig. 2
R412007344	-	0.338 kg	Fig. 1
R412007345	-	0.39 kg	Fig. 2
R412007346	-	0.39 kg	Fig. 2

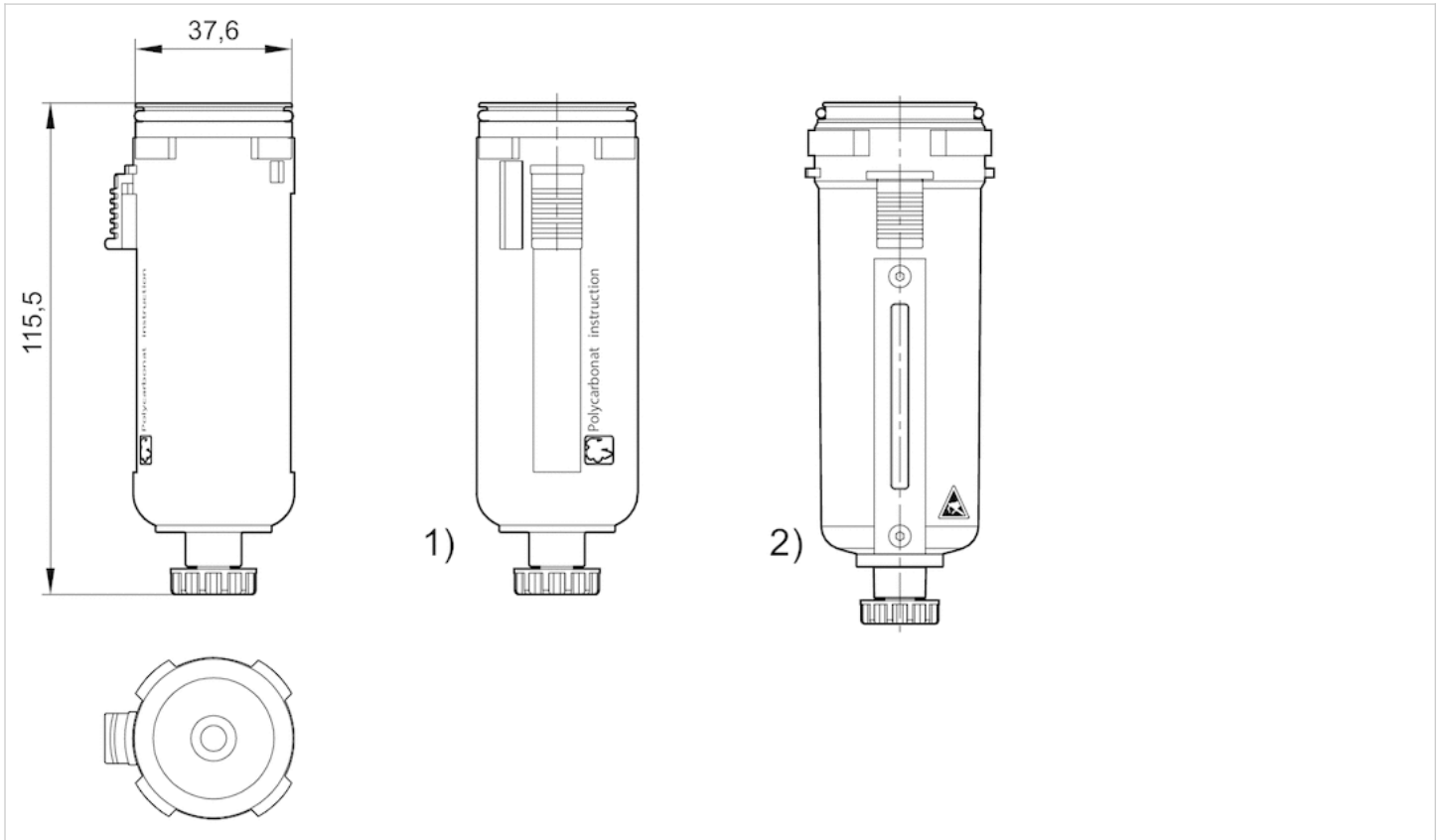
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions

Dimensions in mm, Fig. 1



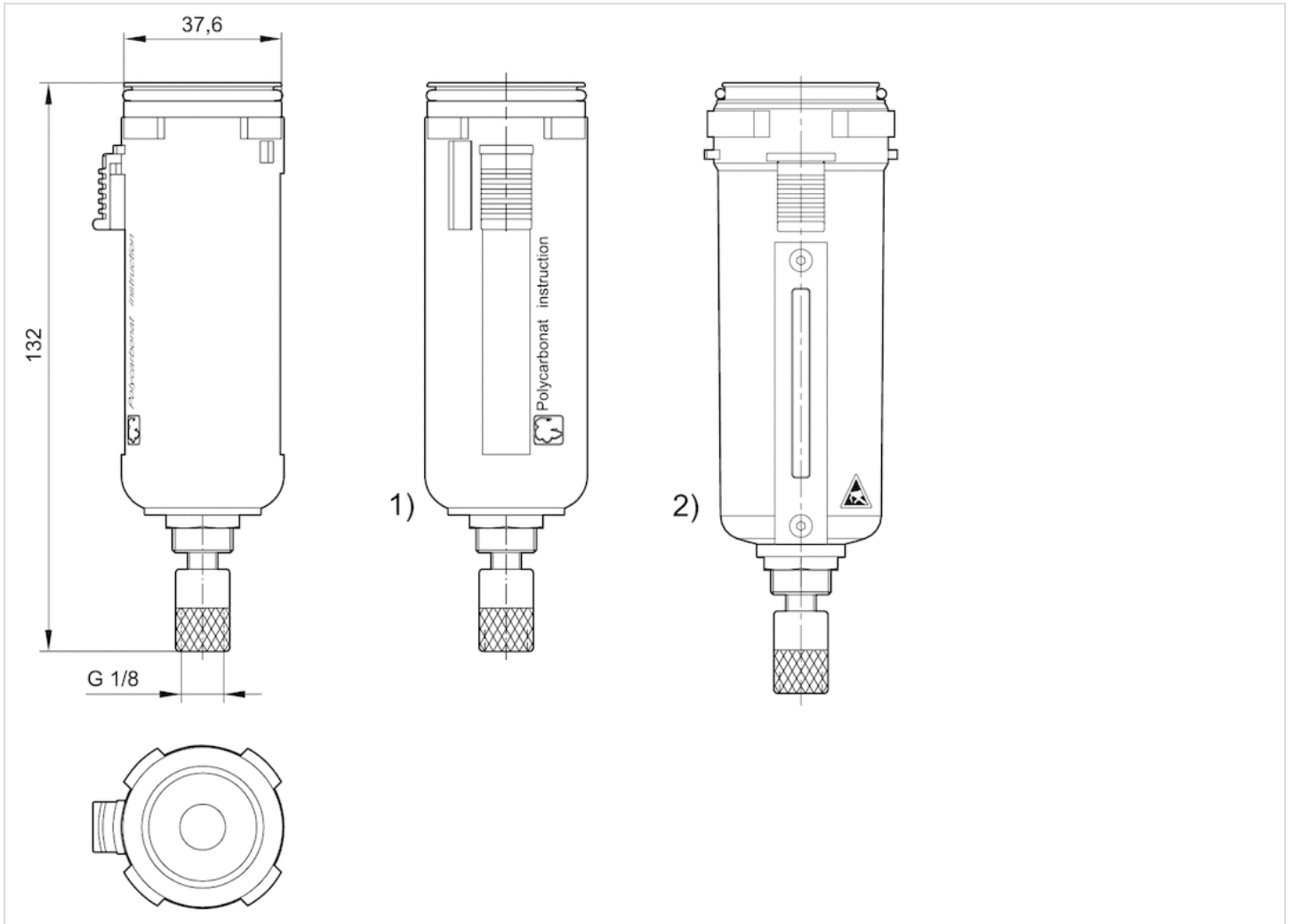
- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass

## Dimensions in mm

Part No.		A	B
R412007338	G3/8 – G1/2	43.8	128.5
R412007344	G3/8 – G1/2	43.8	132.5

## Dimensions

Dimensions in mm, Fig. 2



- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass

## Dimensions in mm

Part No.	A4	A	B
R412007339	G 1/8	43.8	145
R412007340	G 1/8	43.8	145
R412007345	G 1/8	43.8	145
R412007346	G 1/8	43.8	145

# Reservoir, Series AS3-CLA

- for active carbon filter
- Material Polycarbonate Die cast zinc
- suitable for ATEX



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Filter reservoir volume	49 cm <sup>3</sup>
Weight	See table below

## Technical data

Part No.	Reservoir	Protective guard	Weight
R412007347	Polycarbonate	Polyamide	0.086 kg
R412007349	Die cast zinc, with window	-	0.338 kg

Suitable for use in Ex zones 1, 2, 21, 22.

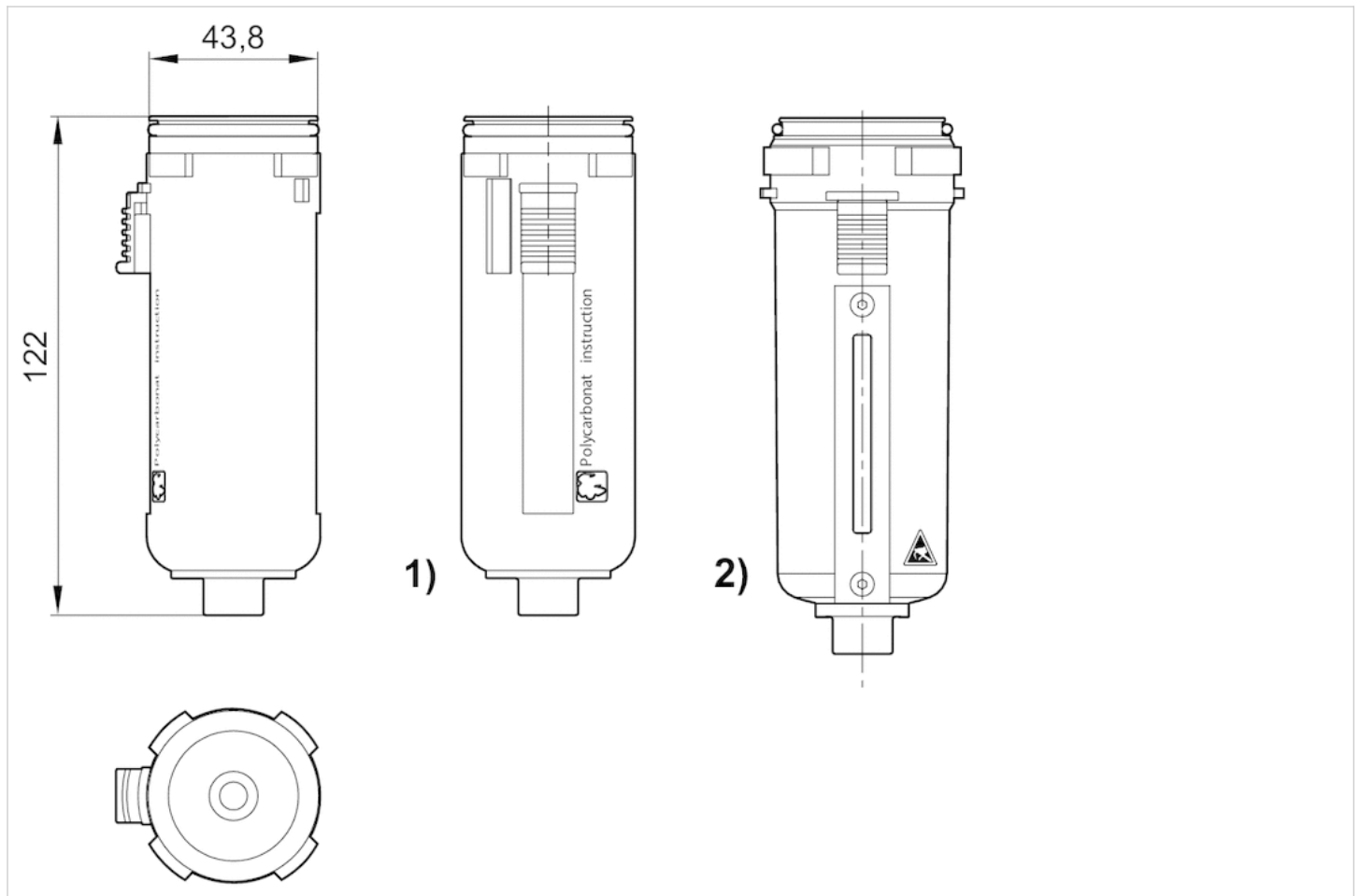
## Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber



## Dimensions

### Dimensions in mm



- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass

# Reservoir, Series AS3-CBS

- for lubricator
- Material Polycarbonate Die cast zinc
- suitable for ATEX



Version	Reservoir
Certificates	suitable for ATEX
Working pressure min./max.	0 ... 16 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air Oil
Lubricator reservoir volume	80 cm <sup>3</sup>
Weight	See table below

## Technical data

Part No.	Electrical level indicator	Reservoir	Protective guard	Weight
R412007352	-	Polycarbonate	Polyamide	0.086 kg
R412007358	-	Die cast zinc, with window	-	0.335 kg
R412007351	with external query	Polycarbonate	Polyamide	0.086 kg

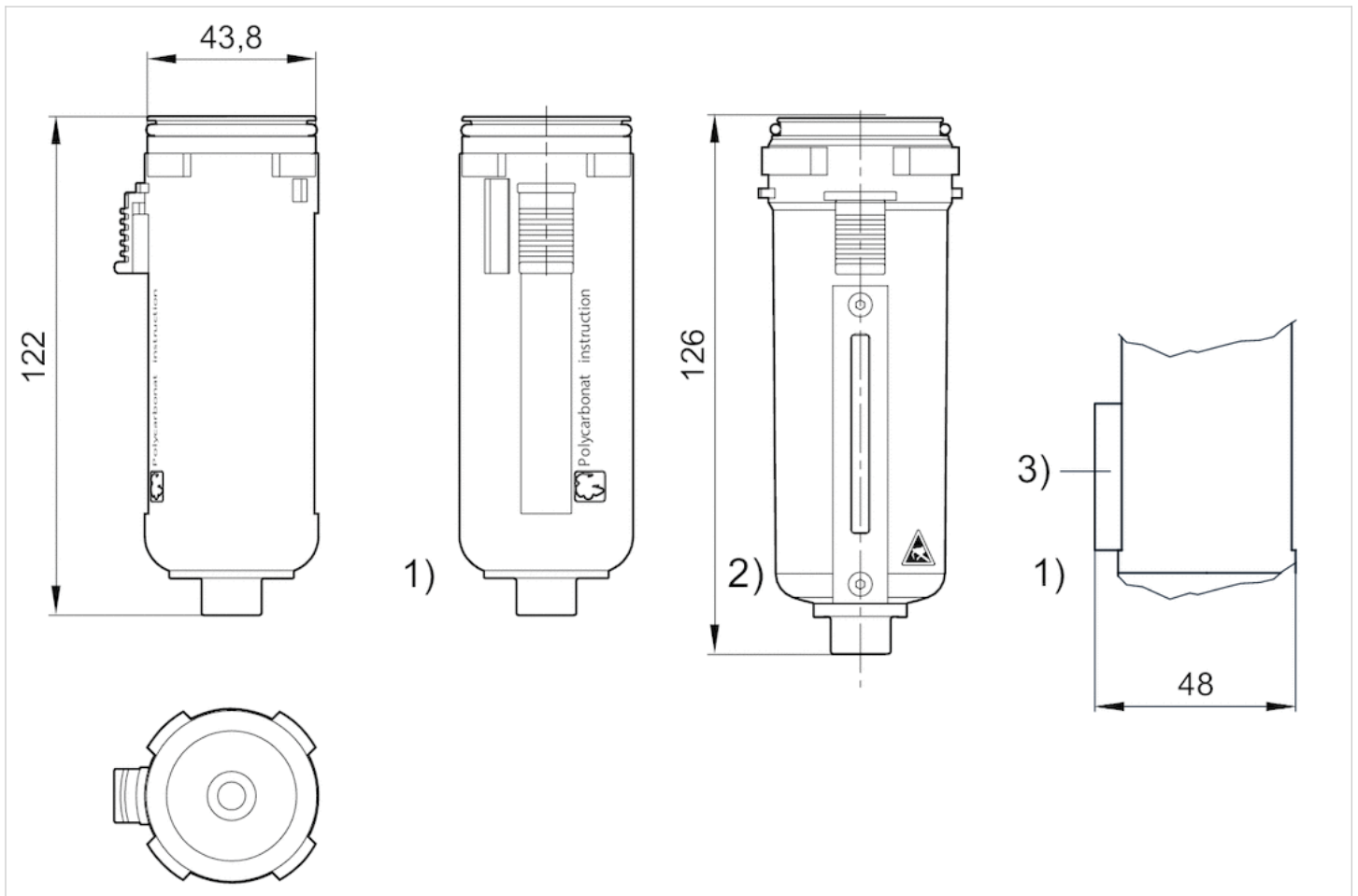
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Reservoir	Polycarbonate Die cast zinc
Protective guard	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions in mm



- 1) Plastic reservoir and protective guard with window
- 2) Metal reservoir with inspection glass
- 3) with external query

# Mounting plate, Series AS3-MBR-...-



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.13 kg

## Technical data

Part No.

R412007368

Scope of delivery incl. 2 mounting screws 3x10 (Torx 10 IP) DIN EN ISO 10664

## Technical information

For assembly of the W01 mounting plate, the rear cover of the air preparation unit must be removed.

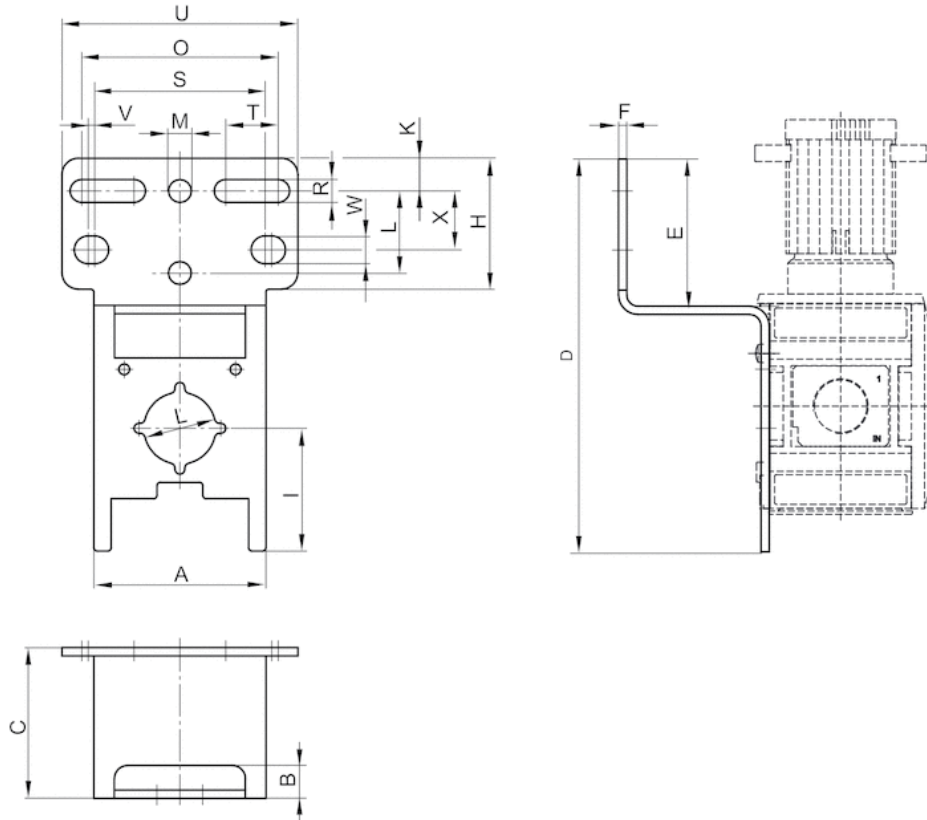
## Technical information

### Material

Housing	Steel, galvanized
Seal	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



### Dimensions in mm

Part No.	A	B	C	D	E	F	H	I	K	L	M	O	R	S	T	U	V	W	X
R412007368	52.5	10	46	120	45	2.5	40	37.5	10	25	6.5	60	7	52	16	72	2	8.5	18

# Mounting bracket, Series AS3-MBR-...-W02



Ambient temperature min./max. -10 ... 50 °C  
 Weight 0.13 kg

## Technical data

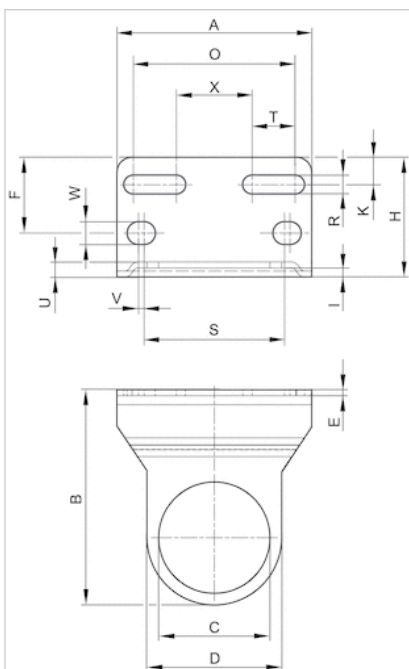
Part No.
R412007964

## Technical information

Material	
Housing	Steel, galvanized

## Dimensions

### Dimensions



## Dimensions in mm

Part No.	A	B	C	D	E	F	H	I	K	O	R	S	T	U	V	W	X
R412007964	72	98	43.2	52	2.5	28	44	4	10	60	7	52	16	6.5	2	8.5	28

# Mounting clip, Series AS3-MBR-...-W03



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.055 kg

## Technical data

Part No.

R412007370

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring, Suitable for use in Ex zones 1, 2, 21, 22.

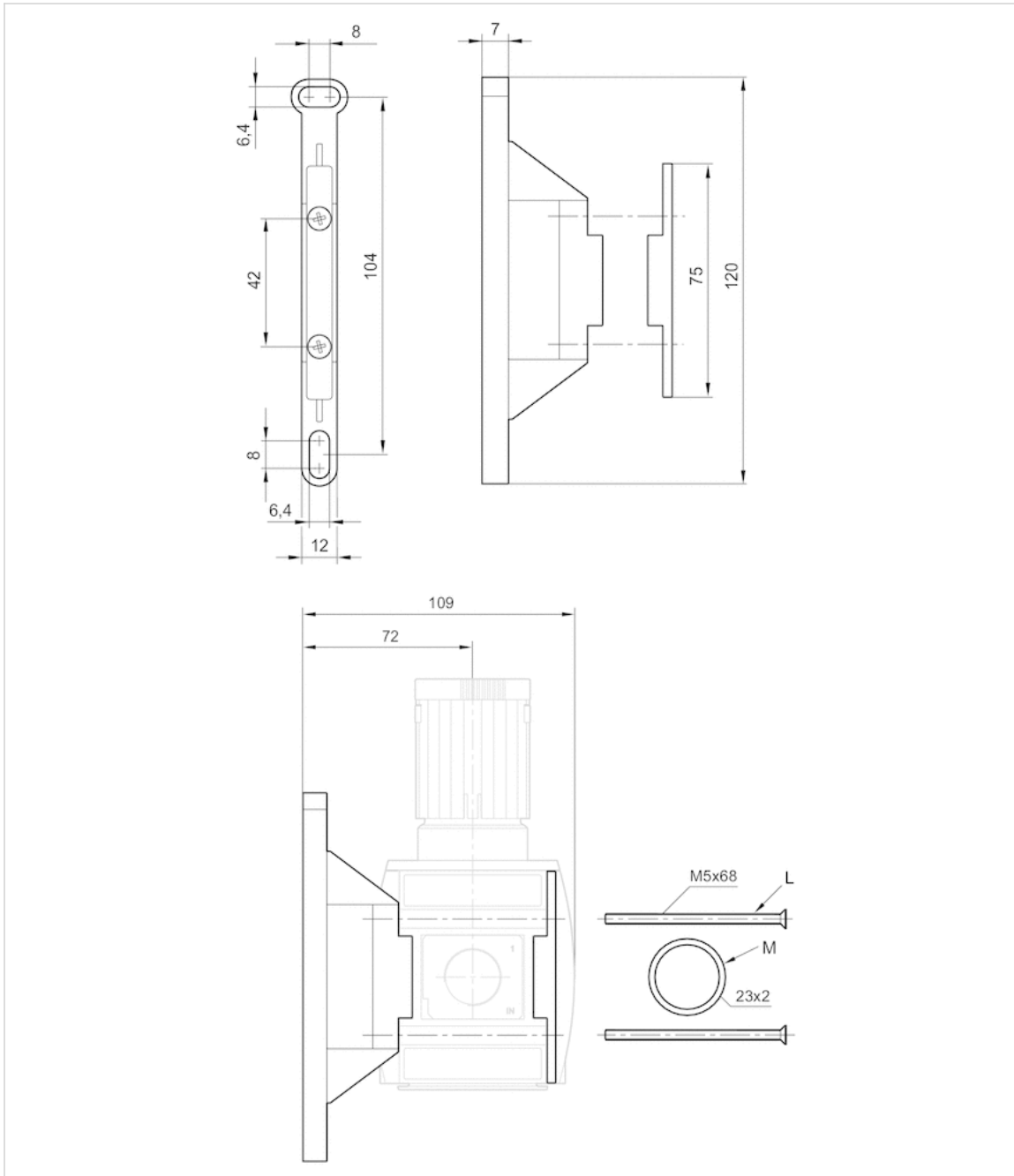
## Technical information

### Material

Housing	Polyamide
Seal	Acrylonitrile butadiene rubber



# Dimensions



# Mounting clip, Series AS3-MBR-...-W03-C



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.055 kg

## Technical data

Part No.

R412007373

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

Suitable for use in Ex zones 1, 2, 21, 22.

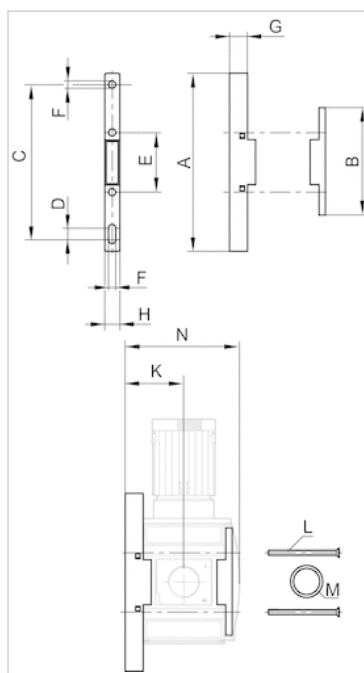
## Technical information

### Material

Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



### Dimensions in mm

Part No.	A	B	C	D	E	F	G	H	K	L	M	N
R412007373	124	75	108	8	42	5.5	12.5	10	38.5	M5x68	23x2	75.5

# Mounting clip, Series AS3-MBR-...-W03, Aluminum



Ambient temperature min./max. -10 ... 50 °C  
 Weight 0.133 kg

## Technical data

Part No.
R412026828

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

## Technical information

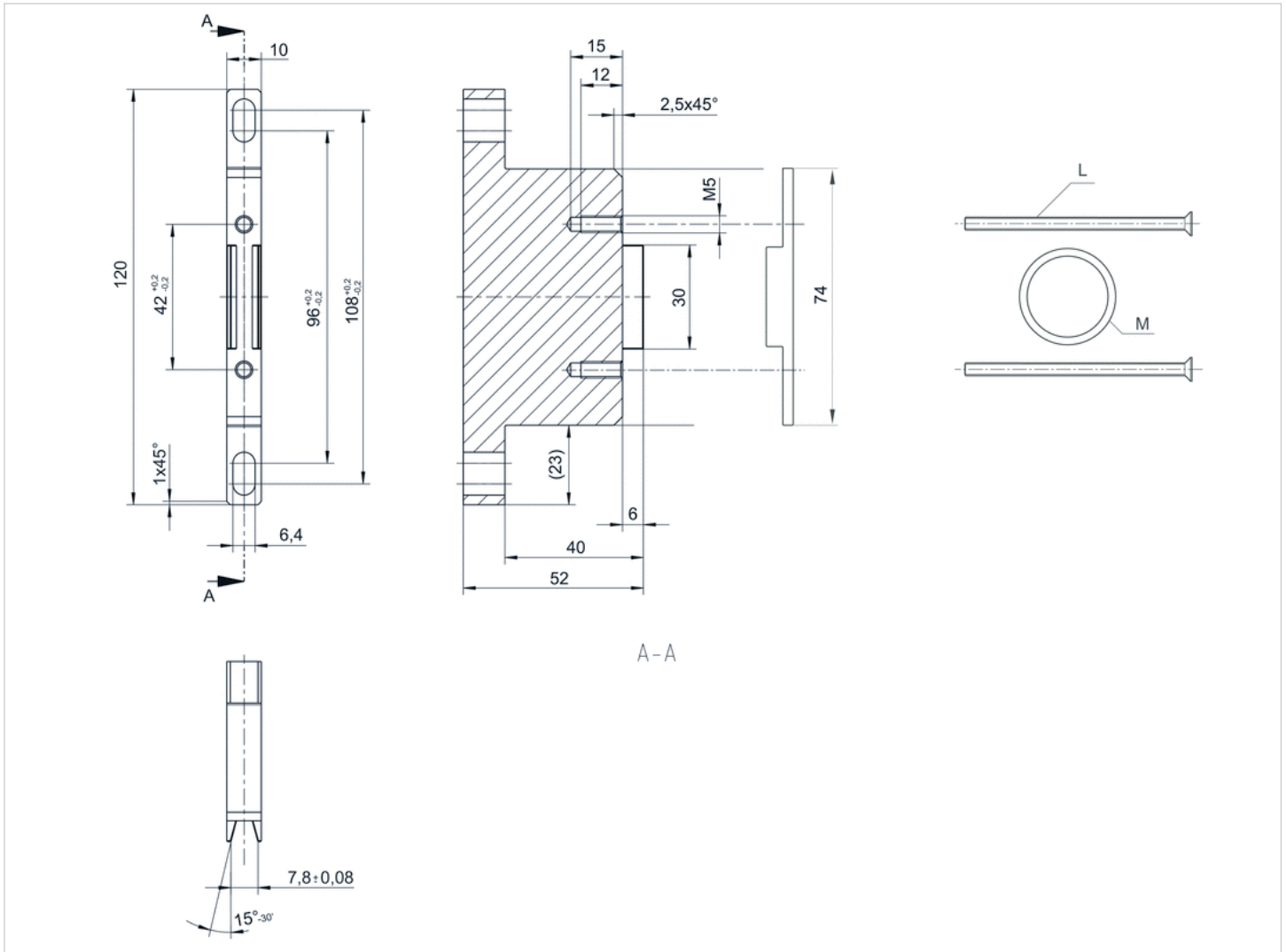
This mounting clip is recommended for installing an AS3-SV safety valve in an air preparation unit.

## Technical information

Material	
Housing	Aluminum
Seal	Acrylonitrile butadiene rubber

# Dimensions

## Dimensions



L = Mounting screw  
 M = O-ring

# Block assembly kit, Series AS3-MBR-...-W04



Ambient temperature min./max.

-10 ... 50 °C

Weight

0.032 kg

## Technical data

Part No.

R412007371

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

Suitable for use in Ex zones 1, 2, 21, 22.

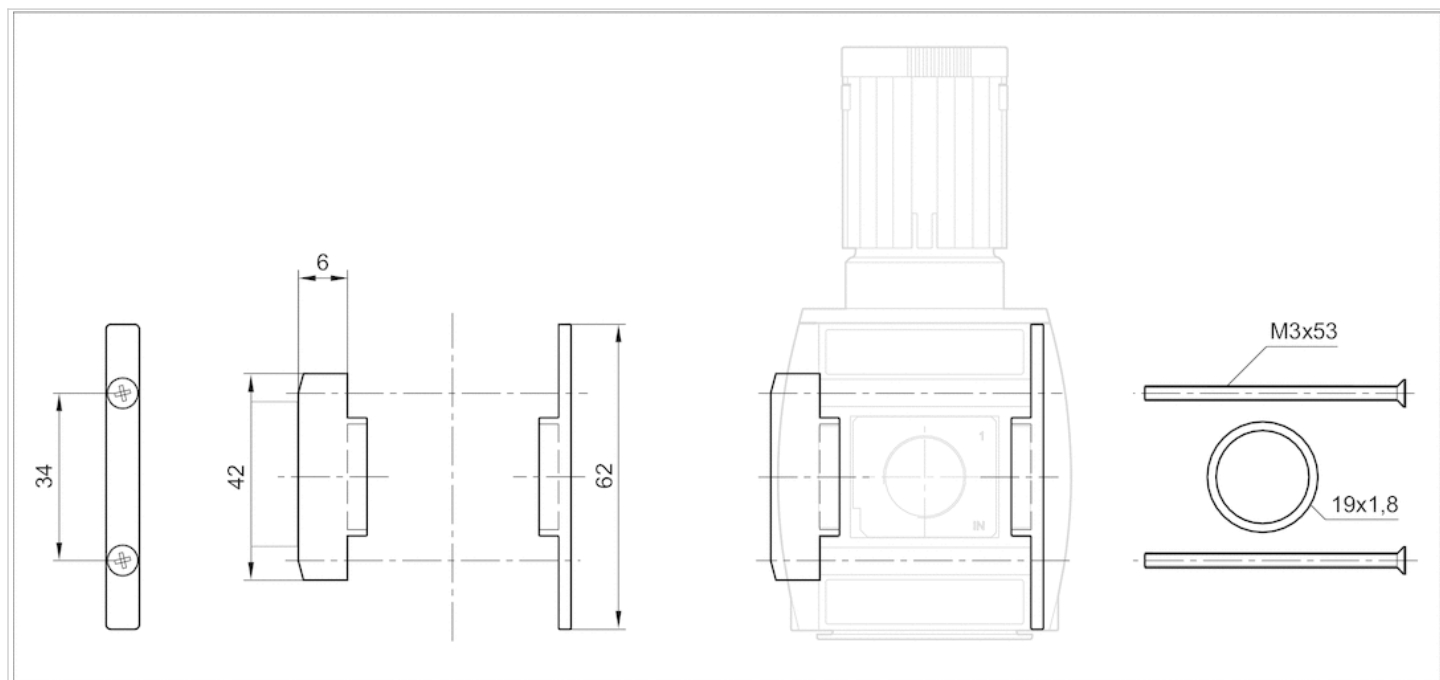
## Technical information

### Material

Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions in mm



### Dimensions in mm

Part No.	A	B	C	D	L	M
R412007371	75	75	42	12.5	M5x68	23x2

# Block assembly kit, Series AS3-MBR-...-W05

- G 3/8 - G 1/2



Ambient temperature min./max. -10 ... 50 °C  
Weight 0.825 kg

## Technical data

Part No.	Port
R412007366	G 3/8
R412007367	G 1/2

Scope of delivery incl. 4 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 2x O-ring

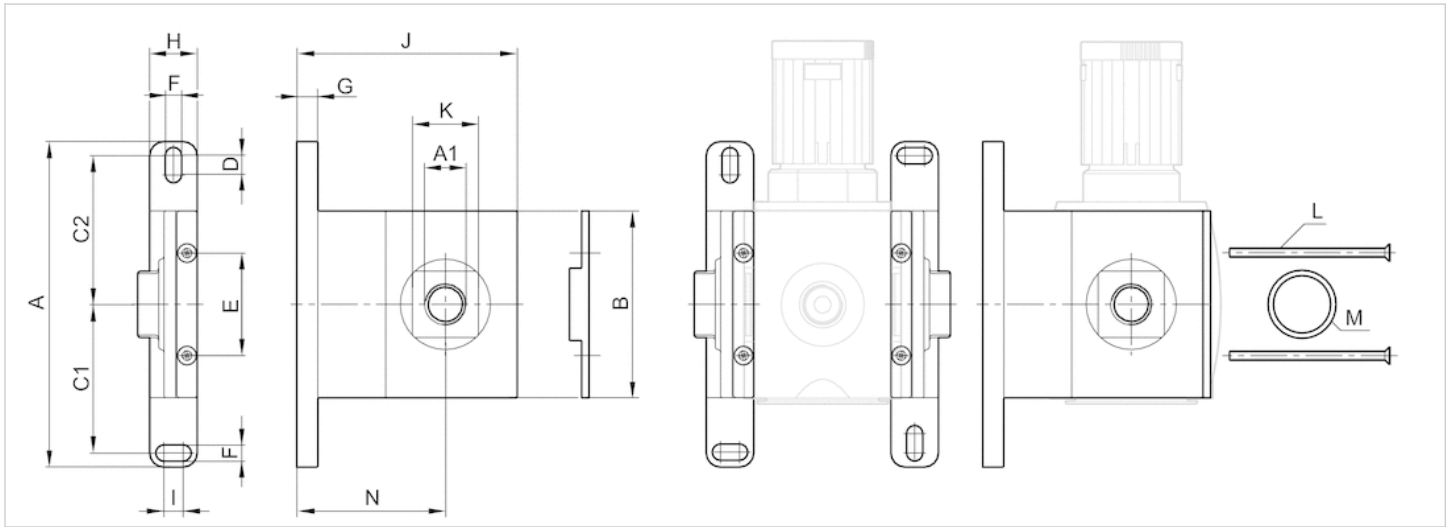
## Technical information

Material	
Housing	Die cast zinc, painted
Seal	Acrylonitrile butadiene rubber



## Dimensions

### Dimensions



## Dimensions

Part No.	A1	A	B	C1	C2	D	E	F	G	H	I	J	K	L	M	N
R412007366	G 3/8	120	75	54	54	8	42	6.4	7	20	8	102.5	30	M5x68	23x2	72
R412007367	G 1/2	120	75	54	54	8	42	6.4	7	20	8	102.5	30	M5x68	23x2	72

# Block assembly kit, Series AS3/AS5- MBR-...-W07



Ambient temperature min./max.

-10 ... 50 °C

## Technical data

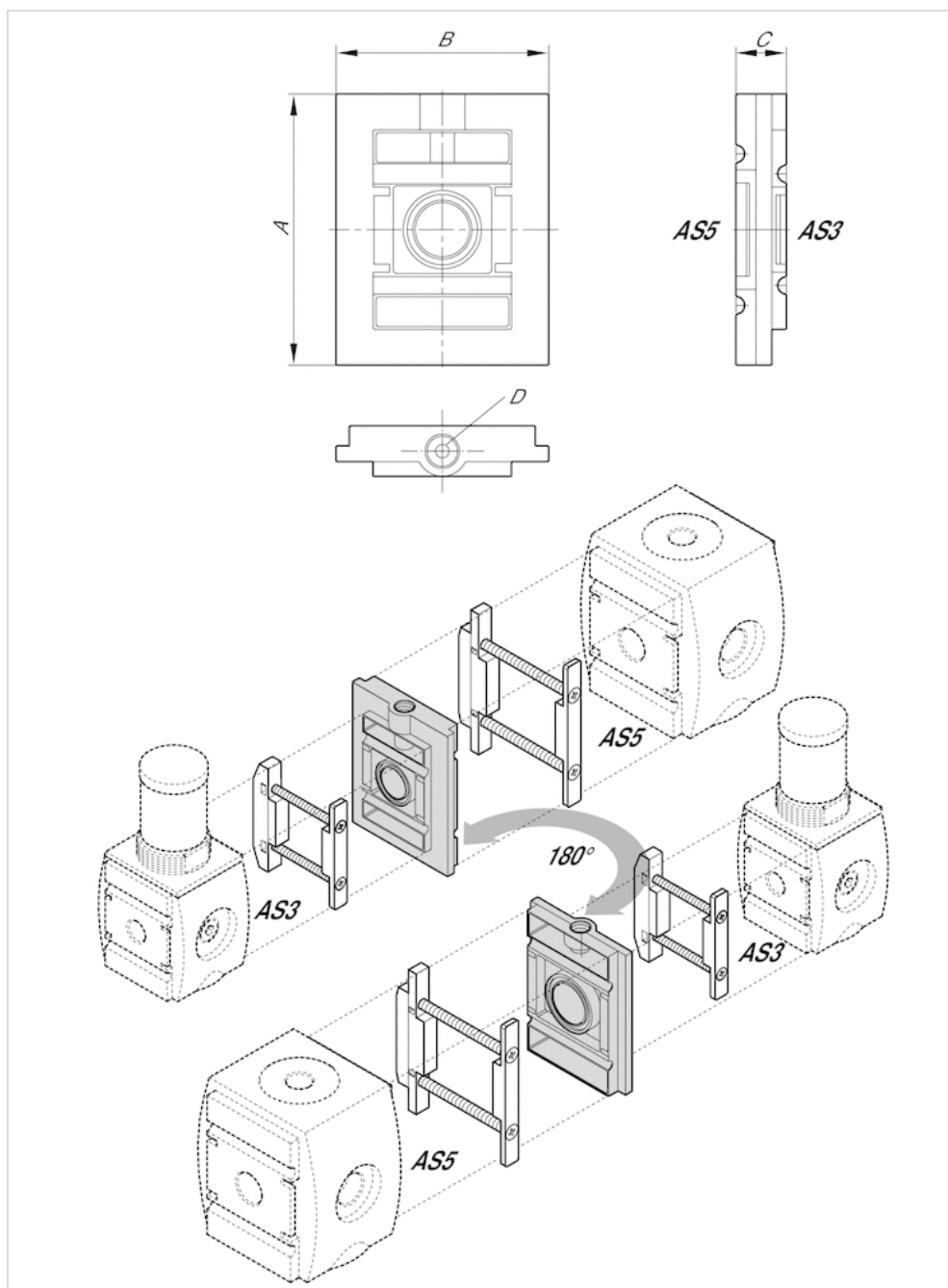
Part No.	Port
R412010122	G 1/4

scope of delivery incl. seal

## Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

# Dimensions



## Dimensions in mm

Part No.	A	B	C	D
R412010122	102	80	18	G 1/4

# Block assembly kit, Series AS2/AS3- MBR-...-W07



Ambient temperature min./max.

-10 ... 50 °C

## Technical data

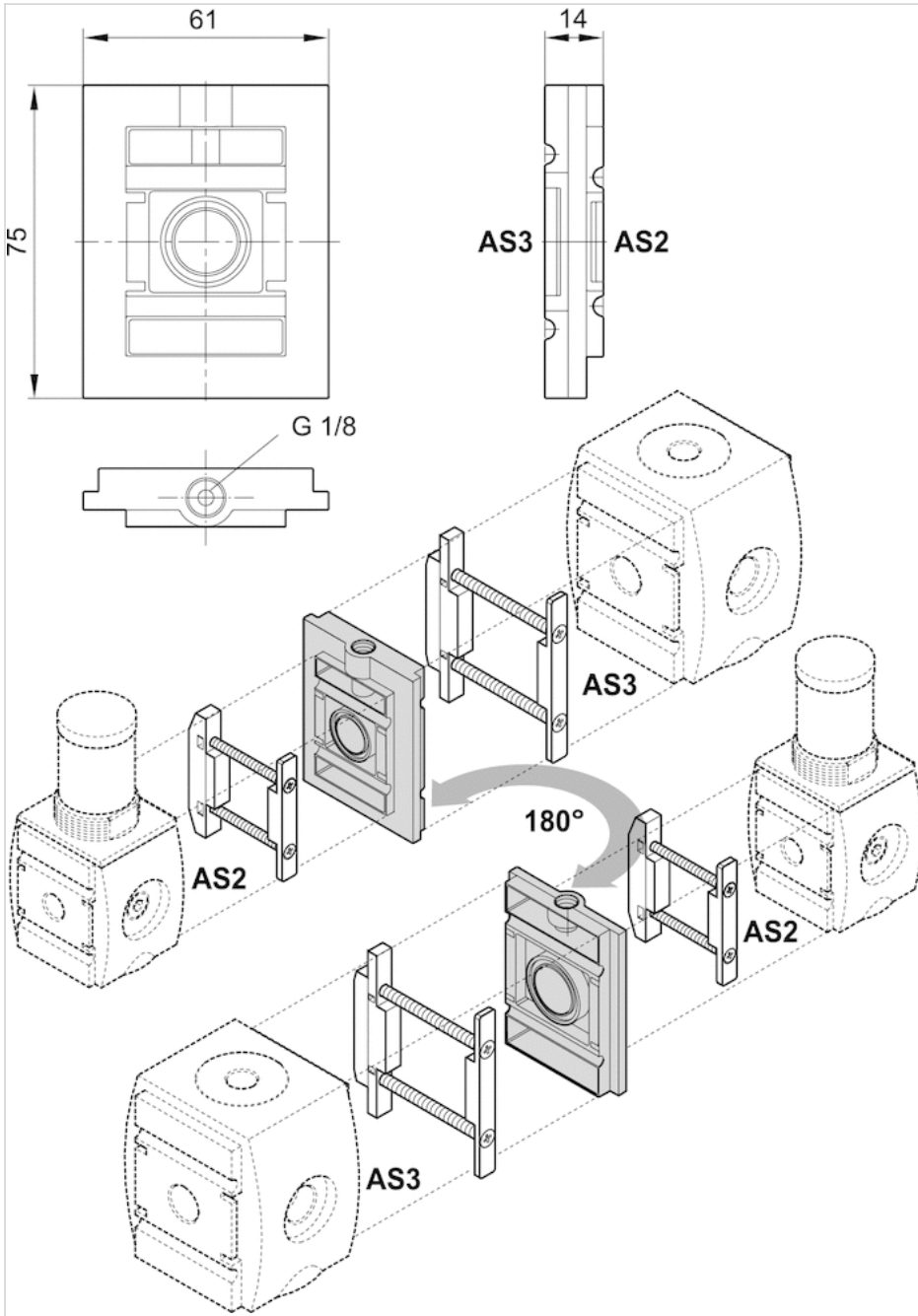
Part No.	Port
R412010121	G 1/8

scope of delivery incl. seal

## Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions



scope of delivery incl. seal

## Dimensions

Part No.	A	B	C	D
R412010121	75	61	14	G 1/8

# Panel nut, Series AS-MBR-...-W06

- M42x1.5

- for AS3



Weight

0.02 kg

The delivered product may vary from that in the illustration.

## Technical data

Part No.	Port	for	Scope of delivery
1829234072	M42x1.5	AS3	5 piece

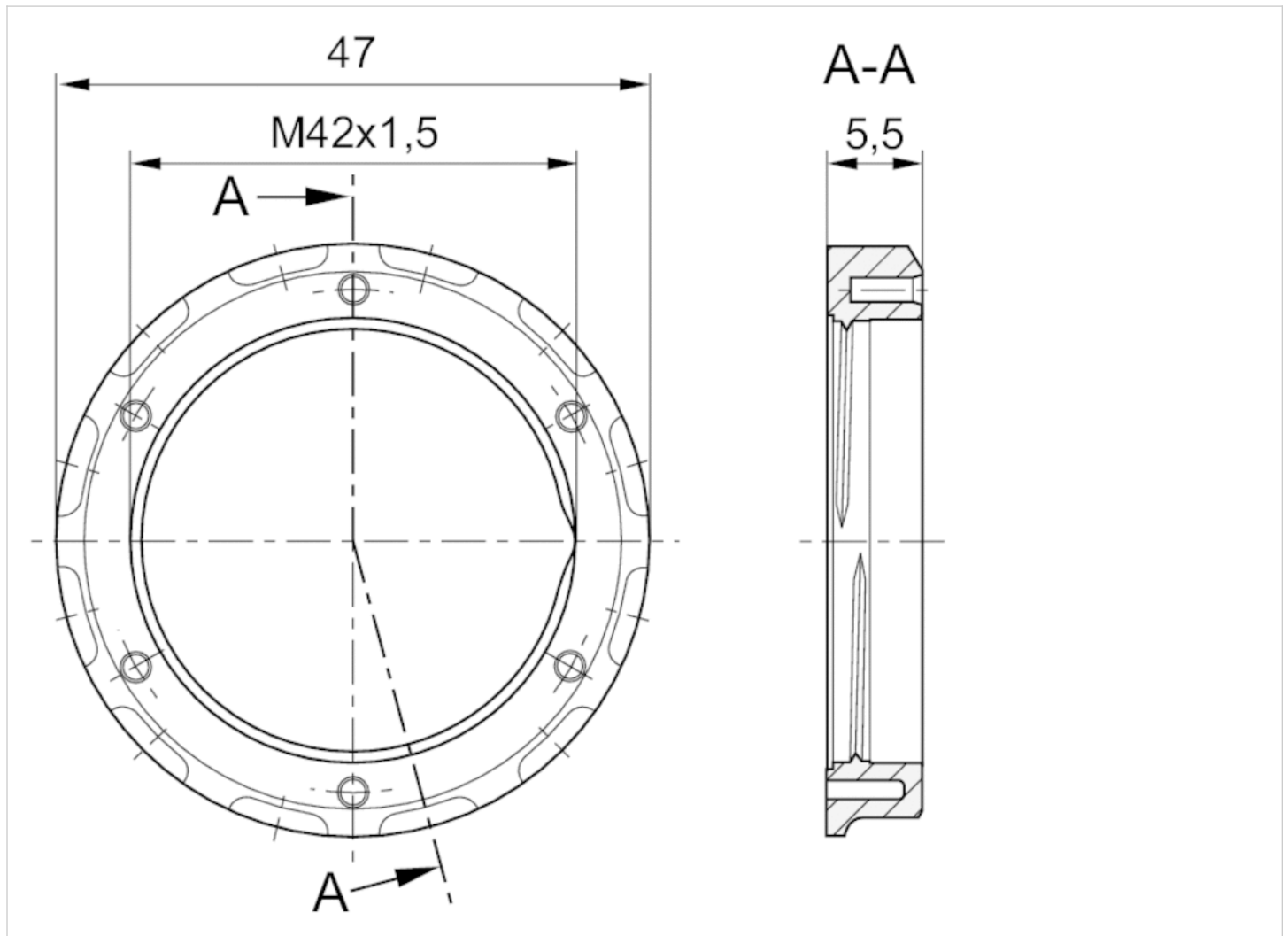
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Brass

## Dimensions

Dimensions in mm



# Panel nut, Series AS-MBR-...-W06

- M42x1.5

- for AS3



Ambient temperature min./max.

-10 ... 50 °C

The delivered product may vary from that in the illustration.

## Technical data

Part No.	Port	for
R412007372	M42x1.5	AS3

Suitable for use in Ex zones 1, 2, 21, 22.

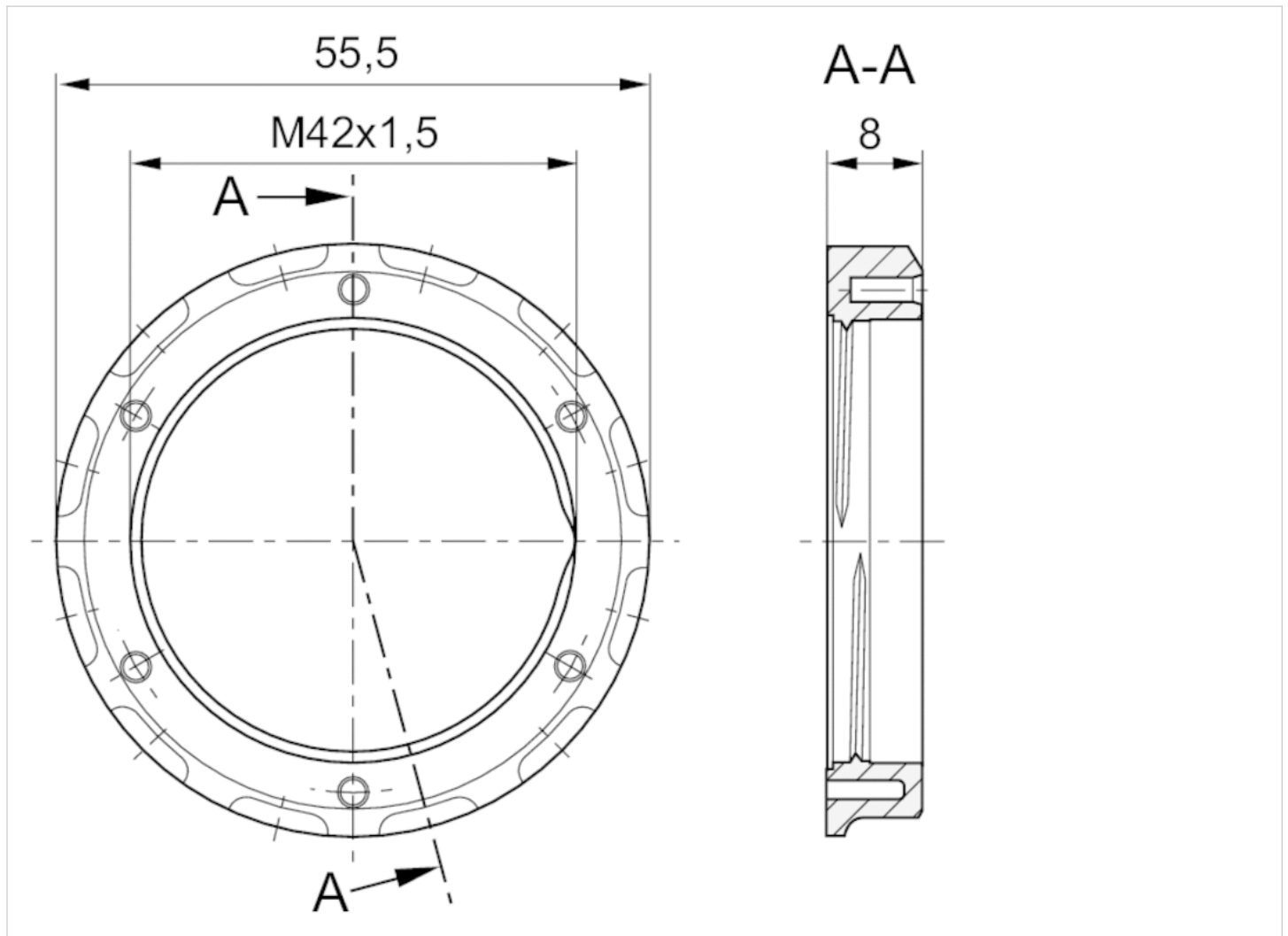
## Technical information

Material	
Housing	Polyamide



## Dimensions

Dimensions in mm



# Panel nut, Series AS-MBR-...-W06

- M42x1.5

- for AS3



Ambient temperature min./max.

-10 ... 50 °C

## Technical data

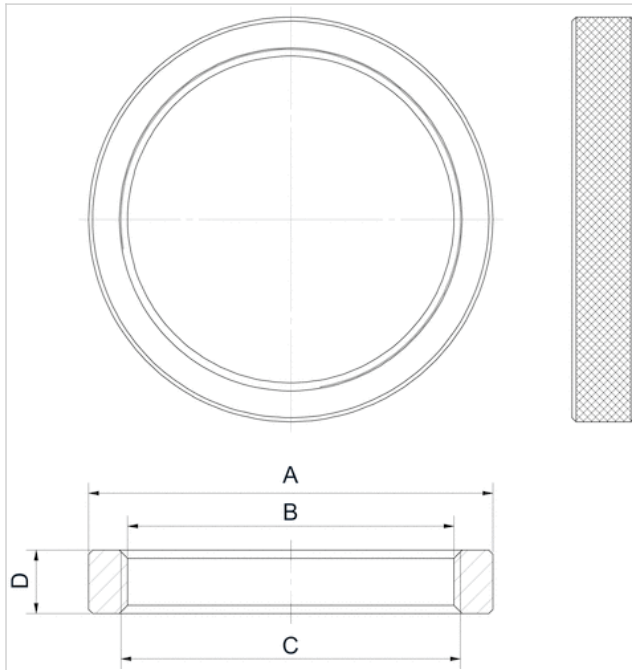
Part No.	Port	for
R412007363	M42x1.5	AS3

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Brass

## Dimensions



## Dimensions

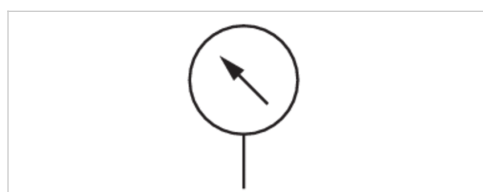
Part No.	für Serie	A	B	C	D	Material
R412007363	AS3	50	41,1	M42x1,5	7,8	Brass

# Pressure gauge, Series PG1-SAS

- Back port
- Background color Black
- Scale color White, Grey
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Grey
Background color	Black
Pointer color	White
Weight	See table below



## Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412004407	G 1/4	40 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004408	G 1/4	40 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004409	G 1/4	40 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004410	G 1/4	40 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004411	G 1/4	40 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412004412	G 1/4	40 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5
R412004413	G 1/4	50 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004414	G 1/4	50 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004415	G 1/4	50 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004416	G 1/4	50 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004417	G 1/4	50 mm	0 bar ... 8 bar	0 bar ... 10 bar	0 ... 10 bar	0.2
R412004418	G 1/4	50 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5
R412007898	G 1/4	50 mm	0 bar ... 20	0 bar ... 25	0 ... 25 bar	1
R412004419	G 1/4	63 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412004420	G 1/4	63 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412004421	G 1/4	63 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412004422	G 1/4	63 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412004423	G 1/4	63 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412004424	G 1/4	63 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5

Part No.	Weight	Fig.	
R412004407	0.08 kg	Fig. 1	-
R412004408	0.08 kg	Fig. 1	-
R412004409	0.08 kg	Fig. 1	-
R412004410	0.08 kg	Fig. 1	-
R412004411	0.08 kg	Fig. 1	-
R412004412	0.08 kg	Fig. 1	-
R412004413	0.09 kg	Fig. 2	-
R412004414	0.09 kg	Fig. 2	-
R412004415	0.09 kg	Fig. 2	-
R412004416	0.09 kg	Fig. 2	-
R412004417	0.09 kg	Fig. 2	1)
R412004418	0.09 kg	Fig. 2	1)
R412007898	0.09 kg	Fig. 2	-
R412004419	0.1 kg	Fig. 3	-
R412004420	0.1 kg	Fig. 3	-
R412004421	0.1 kg	Fig. 3	-
R412004422	0.1 kg	Fig. 3	-
R412004423	0.1 kg	Fig. 3	-
R412004424	0.1 kg	Fig. 3	-

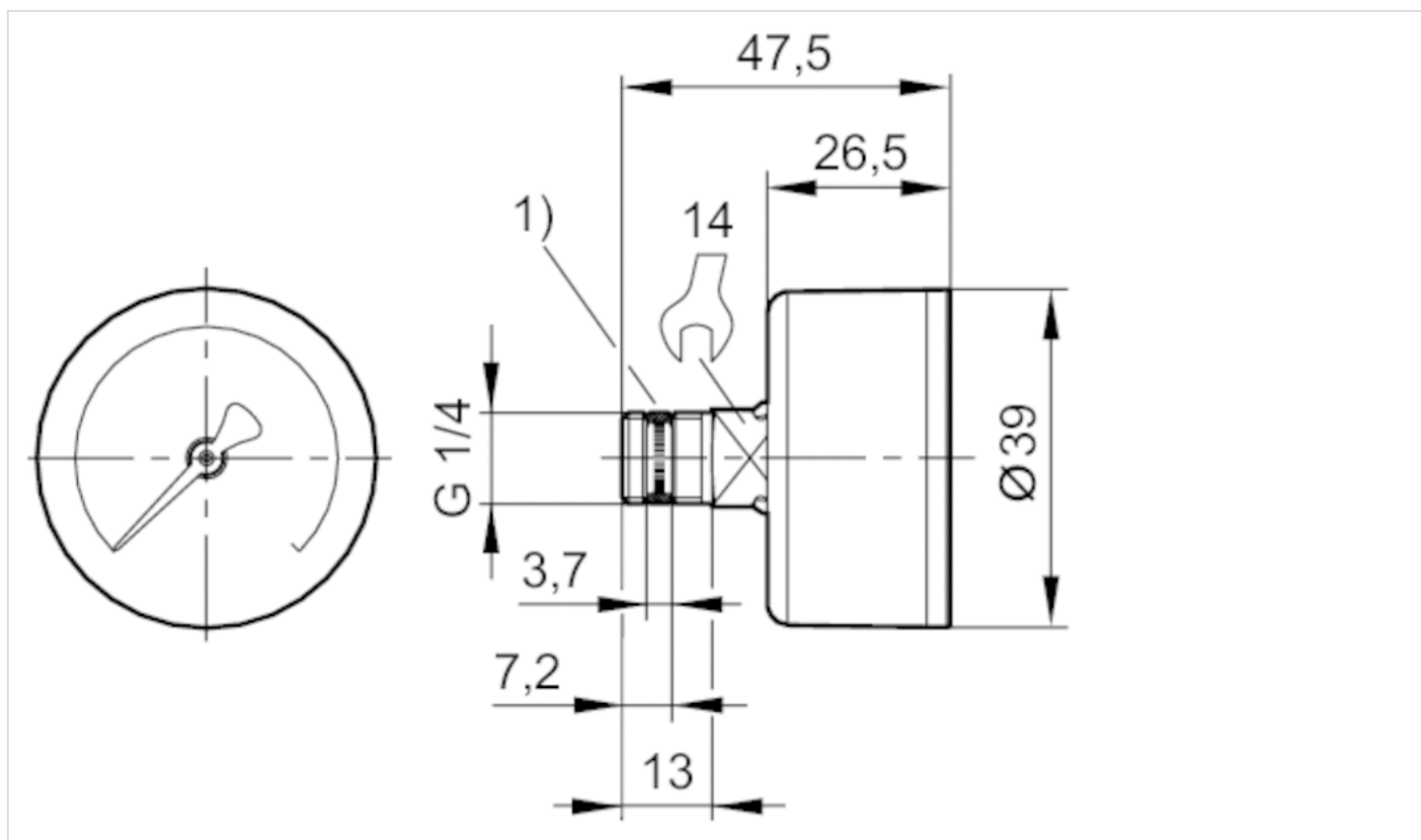
1) Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

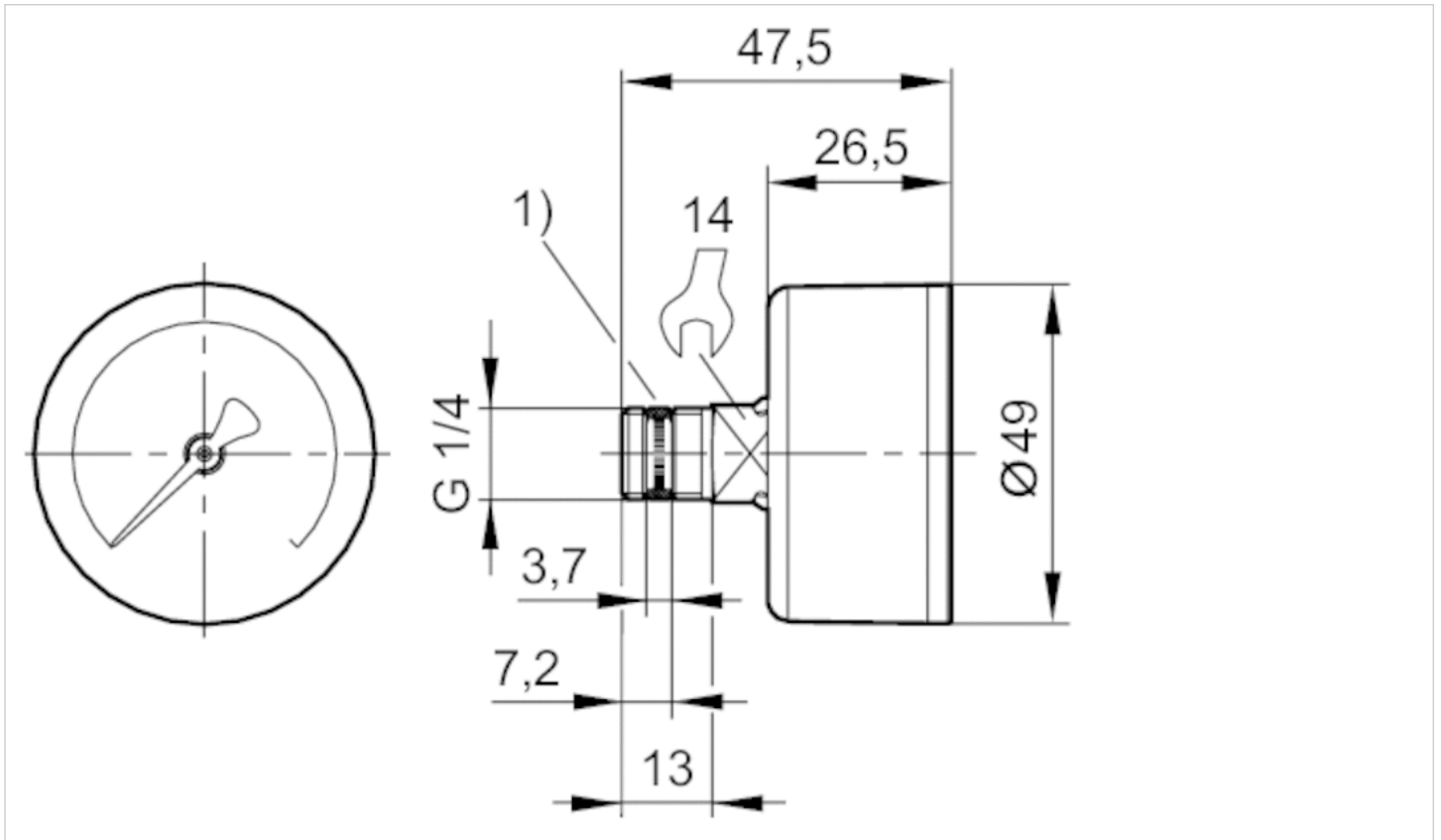
## Dimensions

Dimensions in mm, Fig. 1



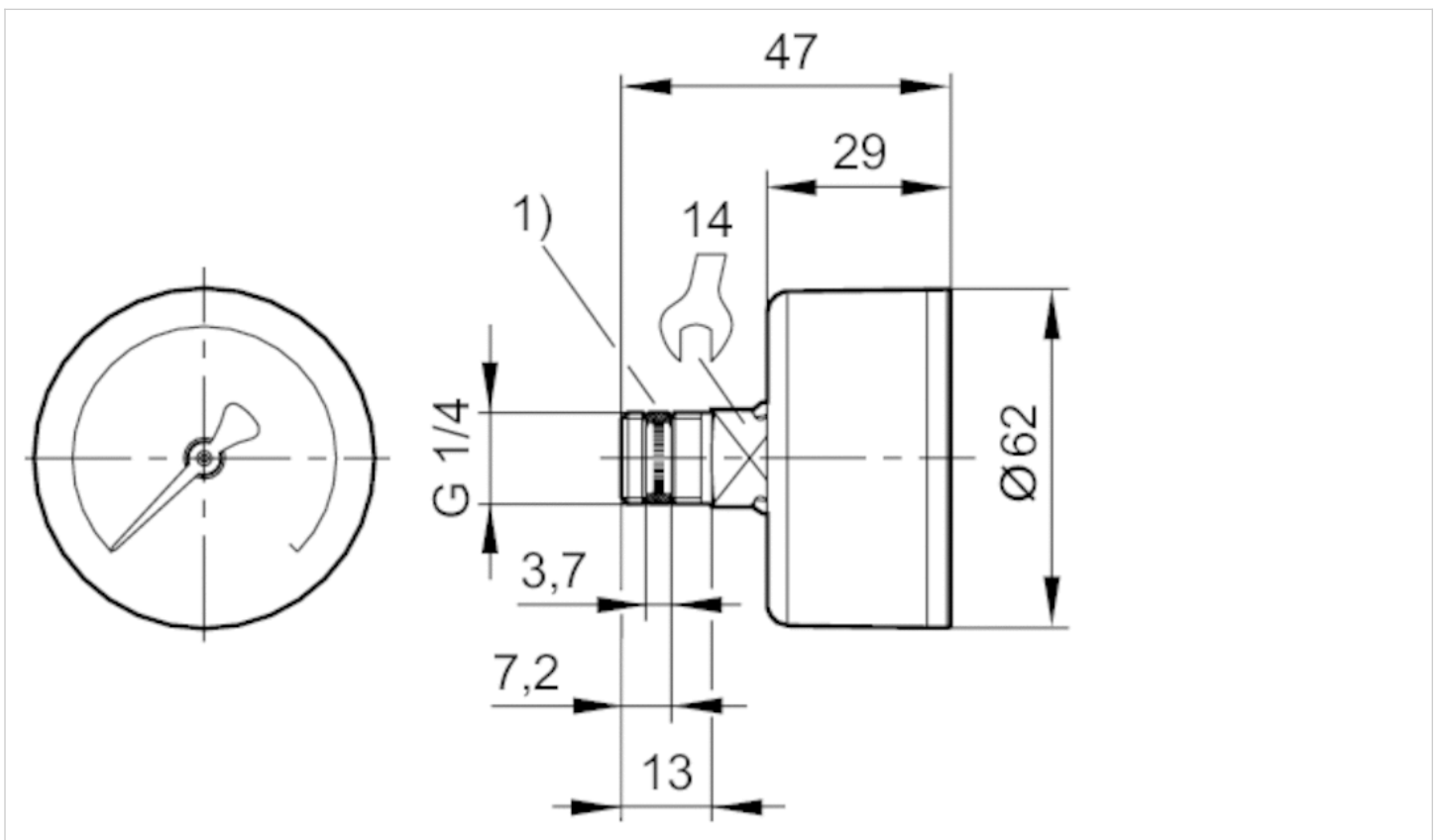
1) Gasket thread

Dimensions in mm, Fig. 2



1) Gasket thread

Dimensions in mm, Fig. 3



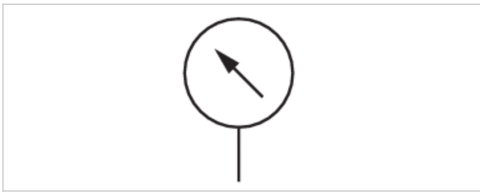
1) Gasket thread





# Pressure gauge, Series PG1-SAS-ADJ

- Back port
- with adjustable work area display
- Background color Black
- Scale color White, Grey
- Viewing window Polystyrene
- Units bar
- Units psi



Version	Bourdon tube pressure gauge
Version	with adjustable work area display
Standardization	EN 837-1
Class	2,5
Ambient temperature min./max.	-40 ... 60 °C
Medium	Compressed air
Work area	adjustable work area display
Work Area Display, Color	Red Green
Main scale unit (outside)	bar
Main scale color (outside)	White
Secondary scale unit (inside)	psi
Secondary scale color (inside)	Grey
Background color	Black
Pointer color	White
Weight	0.1 kg

## Technical data

Part No.	Compressed air connection	Nominal diameter	Range of application	Display range	Operating pressure	Scale value
R412007867	G 1/4	50 mm	0 bar ... 1.2	0 bar ... 1.6	0 ... 1.6 bar	0.05
R412007868	G 1/4	50 mm	0 bar ... 2	0 bar ... 2.5	0 ... 2.5 bar	0.1
R412007869	G 1/4	50 mm	0 bar ... 3.2	0 bar ... 4	0 ... 4 bar	0.1
R412007870	G 1/4	50 mm	0 bar ... 4	0 bar ... 6	0 ... 6 bar	0.2
R412007871	G 1/4	50 mm	0 bar ... 8	0 bar ... 10	0 ... 10 bar	0.2
R412007872	G 1/4	50 mm	0 bar ... 12	0 bar ... 16	0 ... 16 bar	0.5

## Technical information

To set the operating range, the cover (inspection glass) must be removed. To do this, carefully lift the inspection glass by inserting a pointed or flat object in the slot provided for this purpose on the housing circumference.

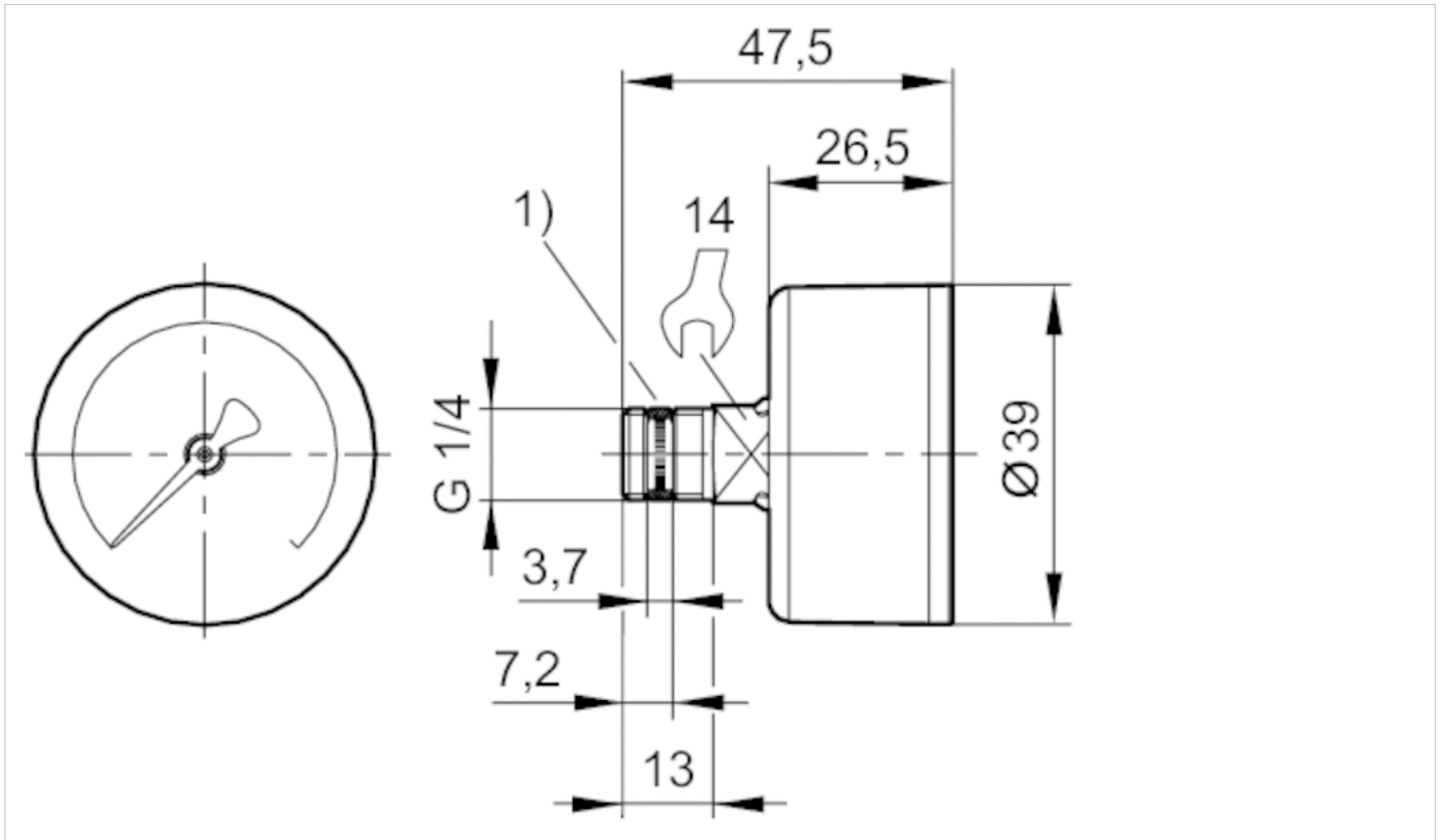
## Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Thread	Brass

Material	
Viewing window	Polystyrene
Seal	Polytetrafluorethylene

## Dimensions

Dimensions in mm, Fig. 1



1) Gasket thread

Dimensions in mm

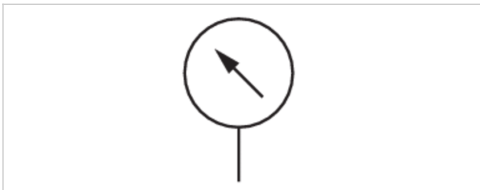
Compressed air connection	Nominal diameter	Ø A	B	C	D	E	F	SW
G 1/4	50 mm	49	47.5	26.5	13	7.2	3.7	14

# Pressure gauge, Series PG1-DIM

- for differential pressure measurement for prefilters and microfilters
- flange version
- Background color White
- Scale color Black
- Viewing window Polystyrene
- Units bar
- suitable for ATEX



Version	Diaphragm pressure gauge
Mounting orientation	vertical
Ambient temperature min./max.	0 ... 60 °C
Medium	Compressed air
Color for differential pressure range	Green Red
Main scale unit (outside)	bar
Main scale color (outside)	Black
Background color	White
Pointer color	Black
Weight	0.127 kg



## Technical data

Part No.	Range of application	Display range	Operating pressure	Scale value
1827231072	0 ... 0.5 bar	0 ... 0.5 bar	0 ... 16 bar	0.1

Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

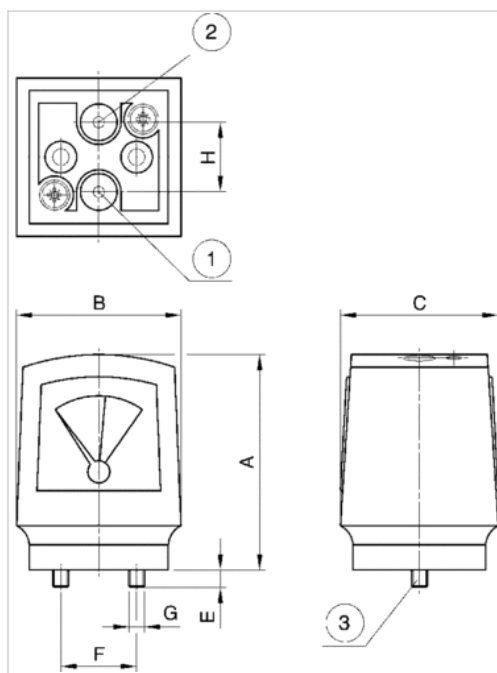
Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Viewing window	Polystyrene
Seal	Acrylonitrile butadiene styrene

## Dimensions

### Dimensions



- 1) Input pressure p1
- 2) Output pressure p2
- 3) Mounting screw and 2 O-rings included in scope of delivery

### Dimensions in mm

A	B	C	E	F	G	H
68	52	50	6	24	M5	22

# contamination display

- for prefilters and microfilters



Weight

0.025 kg

## Technical data

Part No.

R412006363

2 mounting screws and 2 O-rings supplied loose, Suitable for use in Ex zones 1, 2, 21, 22.

## Technical information

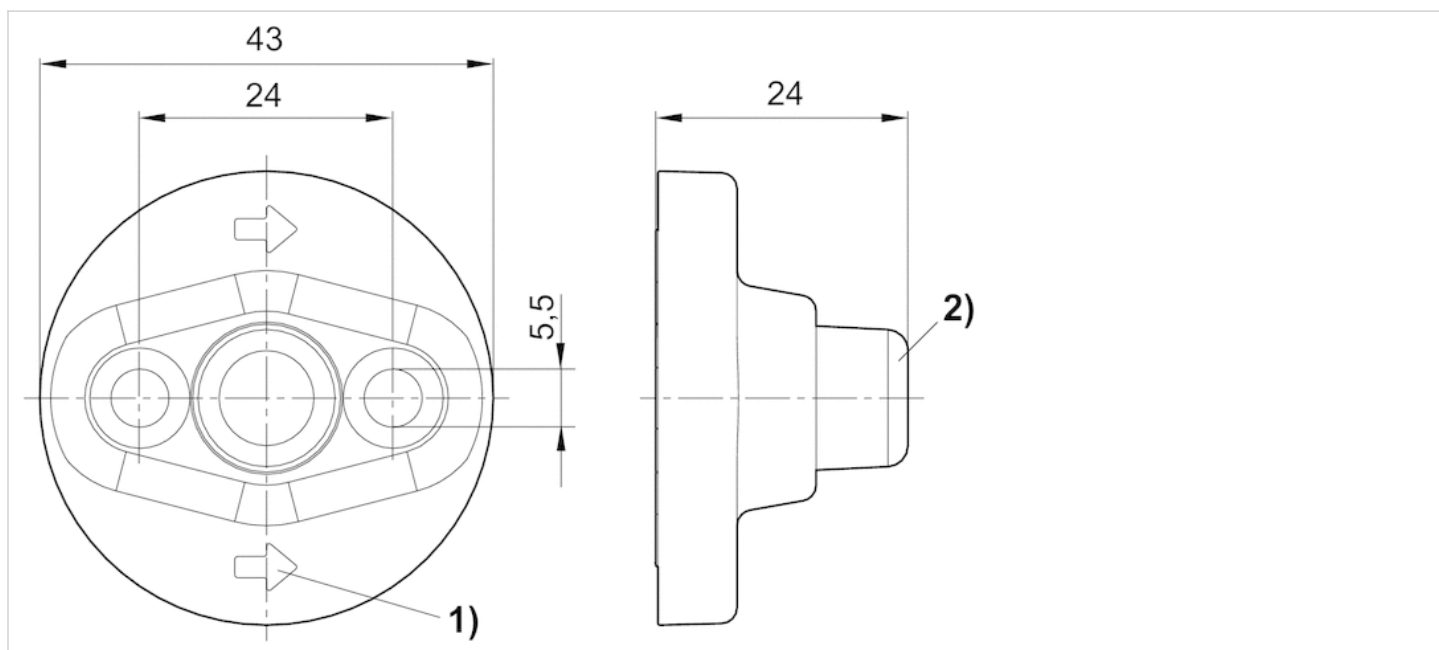
Material

Material

Polyamide

## Dimensions

### Dimensions in mm



1) Flow direction

2) Display in initial state: green (=  $\Delta p$  0.35 bar )

Display turns red on contamination of the filter element (=  $\Delta p \geq 0.35$  bar ).























# 3/2-directional valve, Series DO16

- 3/2
- Plate connection
- Electrical connection : Plug, ISO 15217, form C
- Manual override : without detent with detent
- With spring return



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow 1 ▶ 2	See table below
Nominal flow 2 ▶ 3	See table below
Protection class acc. to DIN EN 61140	Class I
Electrically	
Protection class with connection	IP65
Duty cycle	100 %
Mounting on manifold strip	PRS strip
mounting screws	M3
Weight	0.035 kg

## Technical data

Part No.		MO	Operational voltage	
			DC	AC 50 Hz
0820048002			24 V	-
0820048004			-	24 V
0820048005			-	-
0820048001			-	230 V
0820048026			24 V	-
0820048028			-	24 V
0820048101			-	230 V
0820048029			-	-
0820048025			-	230 V
0820048102			24 V	-
0820048126			24 V	-

Part No.	Operational voltage	Voltage tolerance		
		DC	AC 50 Hz	AC 60 Hz
0820048002	-	-10% / +15%	-	-
0820048004	-	-	-10% / +15%	-
0820048005	110 V	-	-	-10% / +15%
0820048001	-	-	-10% / +15%	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
		DC	AC 50 Hz	AC 60 Hz
0820048026	-	-10% / +15%	-	-
0820048028	-	-	-10% / +15%	-
0820048101	-	-	-10% / +15%	-
0820048029	110 V	-	-	-10% / +15%
0820048025	-	-	-10% / +15%	-
0820048102	-	-10% / +15%	-	-
0820048126	-	-10% / +15%	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
0820048002	2 W	-	-	-
0820048004	-	1.6 VA	-	2.2 VA
0820048005	-	-	1.4 VA	-
0820048001	-	1.6 VA	-	2.2 VA
0820048026	2 W	-	-	-
0820048028	-	1.6 VA	-	2.2 VA
0820048101	-	1.6 VA	-	2.2 VA
0820048029	-	-	1.4 VA	-
0820048025	-	1.6 VA	-	2.2 VA
0820048102	2 W	-	-	-
0820048126	2 W	-	-	-

Part No.	Switch-on power	Nominal flow 1 ▶ 2	Nominal flow 2 ▶ 3	Working pressure min./max.
	AC 60 Hz			
0820048002	-	25 l/min	36 l/min	0 ... 10 bar
0820048004	-	25 l/min	36 l/min	0 ... 10 bar
0820048005	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048001	-	25 l/min	36 l/min	0 ... 10 bar
0820048026	-	25 l/min	36 l/min	0 ... 10 bar
0820048028	-	25 l/min	36 l/min	0 ... 10 bar
0820048101	-	16 l/min	19 l/min	0 ... 6 bar
0820048029	2 VA	25 l/min	36 l/min	0 ... 10 bar
0820048025	-	25 l/min	36 l/min	0 ... 10 bar
0820048102	-	20 l/min	26 l/min	0 ... 8 bar
0820048126	-	20 l/min	26 l/min	0 ... 8 bar

Nominal flow Q<sub>n</sub> at 6 bar and Δp = 1 bar, MO = Manual override

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

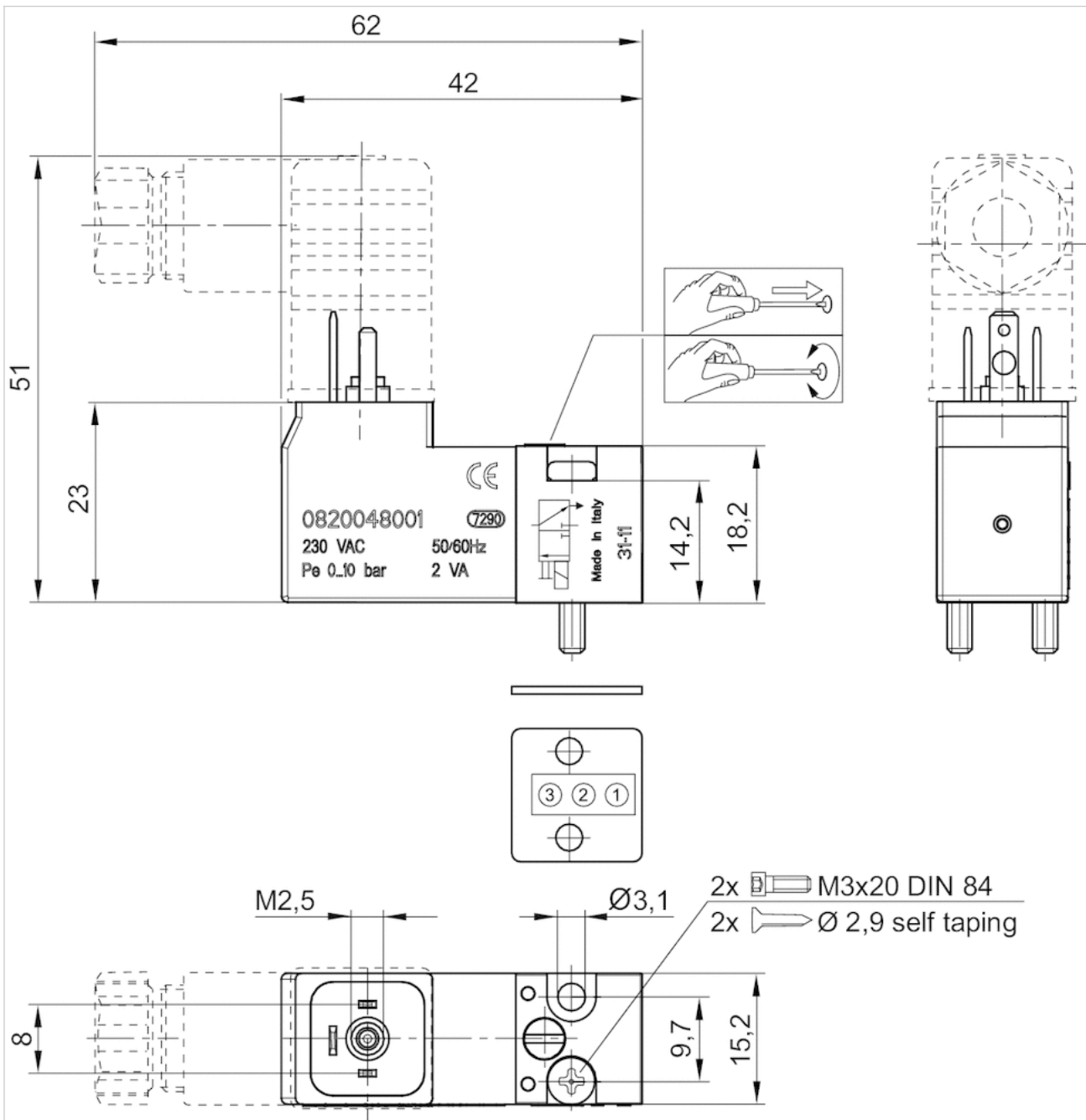


## Technical information

Material	
Housing	polyphenylene sulfide Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

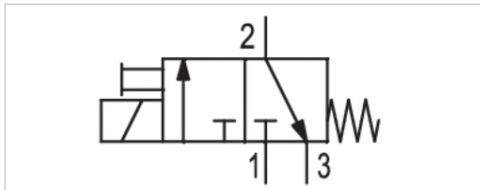
## Dimensions

### Dimensions





# 3/2-directional valve, Series DO16

- 3/2
- NC
- Plate connection
- Electrical connection : M12, 3-pin
- Manual override : without detent
- With spring return



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow 1 ▶ 2	18 l/min
Nominal flow 2 ▶ 3	24 l/min
Protection class acc. to DIN EN 61140	Class I
Electrically	
Duty cycle	100 %
Mounting on manifold strip	PRS strip
Weight	0.035 kg

## Technical data

Part No.	MO		Operational voltage	Power consumption		
				DC	DC	
R412013391		NC	24 V		1.5 W	1)
R412019226		NC	24 V		1.5 W	2)

1) Pilot valve only

2) Incl. pilot valve, seal, screws, and manual

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

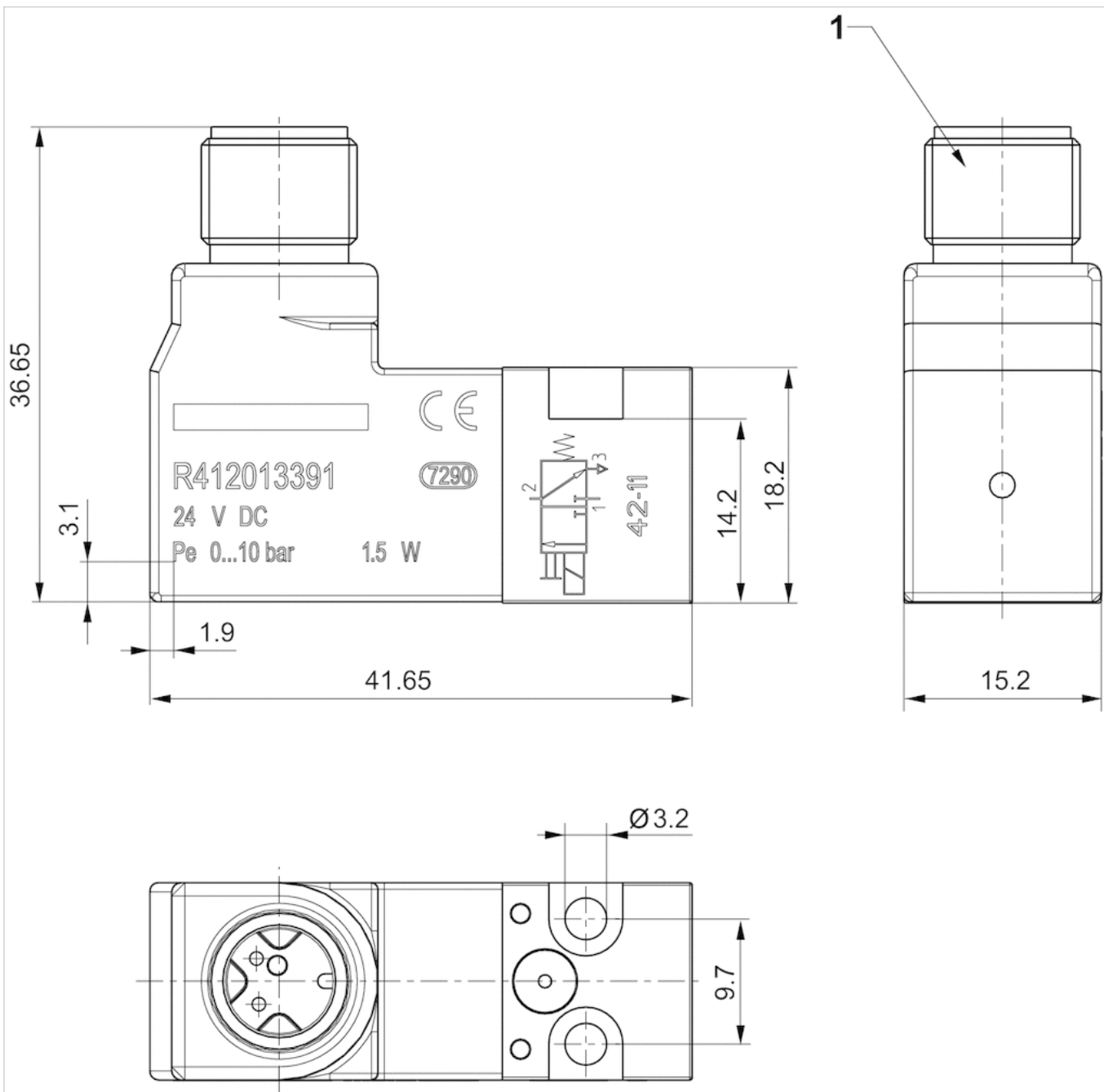
## Technical information

### Material

Housing	polyphenylene sulfide Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

## Dimensions

### Dimensions



1) Port for plug M12x1



# 3/2-directional valve, Series DO30

- 3/2
- Pilot valve width : 30 mm
- Plate valve with pipe connection
- Compressed air connection output : CNOMO
- Electrical connection : Plug, EN 175301-803, form A
- Manual override : without detent with detent
- With spring return
- suitable for ATEX



Version	Poppet valve
Activation	Electrically
Sealing principle	Soft sealing
Standards	CNOMO / NFE 49-003-1
Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m <sup>3</sup>
Nominal flow 1 ▶ 2	See table below
Nominal flow 2 ▶ 3	See table below
Protection class with connection	IP65
Compatibility index	15
Duty cycle	100 %
Mounting on manifold strip	P-strip
mounting screws	M4
Weight	0.06 kg

## Technical data

Part No.	MO	Compressed air connection	
		Input	Output
0820019985		CNOMO	CNOMO
0820019980		CNOMO	CNOMO

Part No.	Compressed air connection		Nominal flow 1 ▶ 2	Nominal flow 2 ▶ 3
	Exhaust			
0820019985	M5		68 l/min	90 l/min
0820019980	M5		65 l/min	80 l/min

Part No.	basic valve with electrical connector	Power consumption	ATEX
0820019985	Basic valve without coil	Higher voltage tolerance	suitable for ATEX
0820019980	Basic valve without coil	Higher voltage tolerance	suitable for ATEX

Nominal flow Q<sub>n</sub> at 6 bar and Δp = 1 bar, MO = Manual override pilot valve without coil

## Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

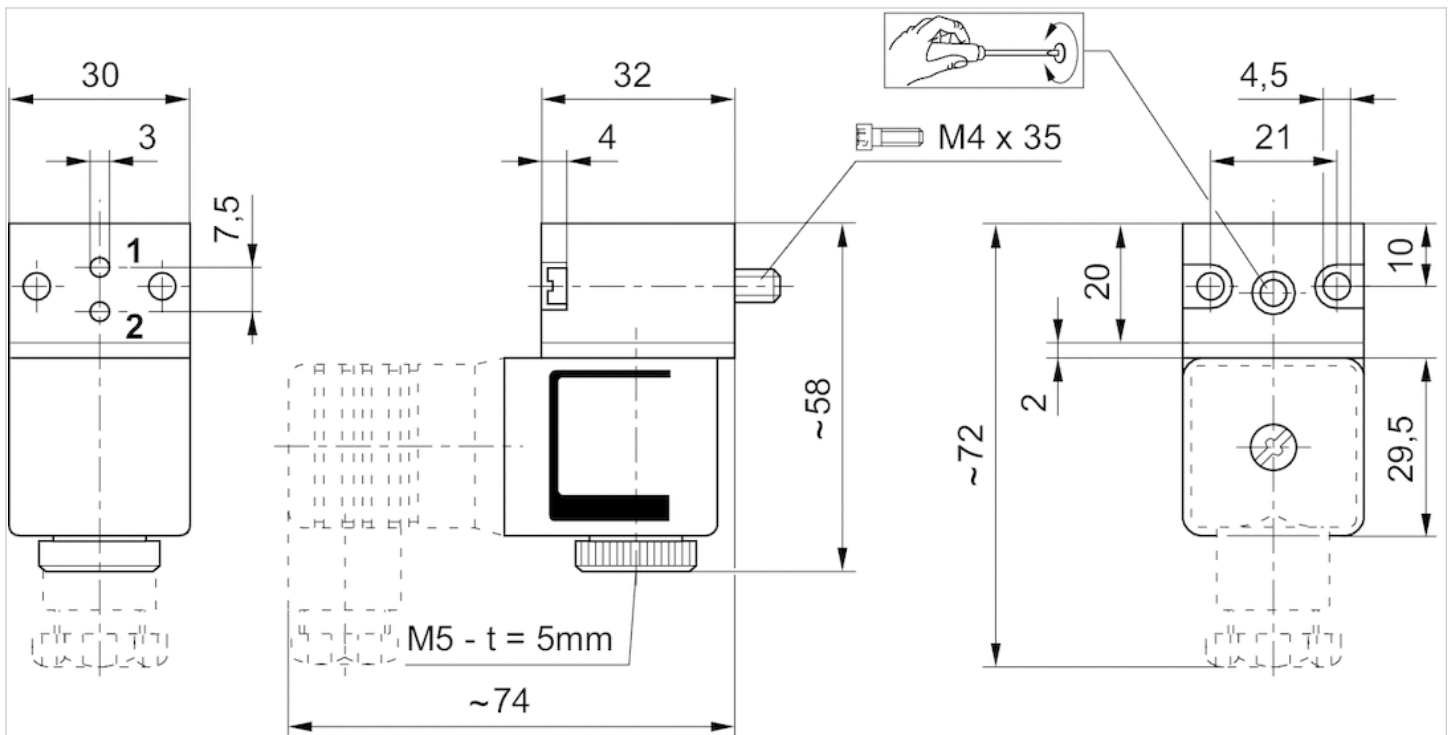
## Technical information

### Material

Housing	Plastic
Seals	Fluorocaoutchouc

## Dimensions

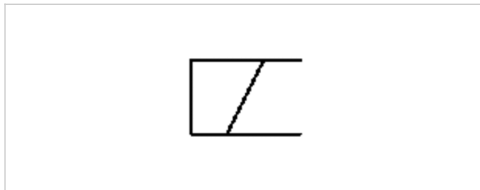
### Dimensions



t = depth

# Coil, Series CO1

- Cable with valve plug connector
- Coil width 30 mm
- Power consumption DC 3.25 W
- Holding power AC 2.9-3 VA
- Switch-on power AC 3-3.1 VA
- ATEX



Certificates	ATEX
ATEX class G	II 2G Ex mb IIC T4 Gb
ATEX class D	II 2D Ex mb tb IIIC T130°C Db IP65
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP65
Duty cycle ED	100 %
Compatibility index	14
Weight	See table below

## Technical data

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
1827414297	-	230 V	230 V
1827414298	-	230 V	230 V
1827414299	-	110 V	110 V
1827414303	24 V	-	-
1827414304	24 V	-	-

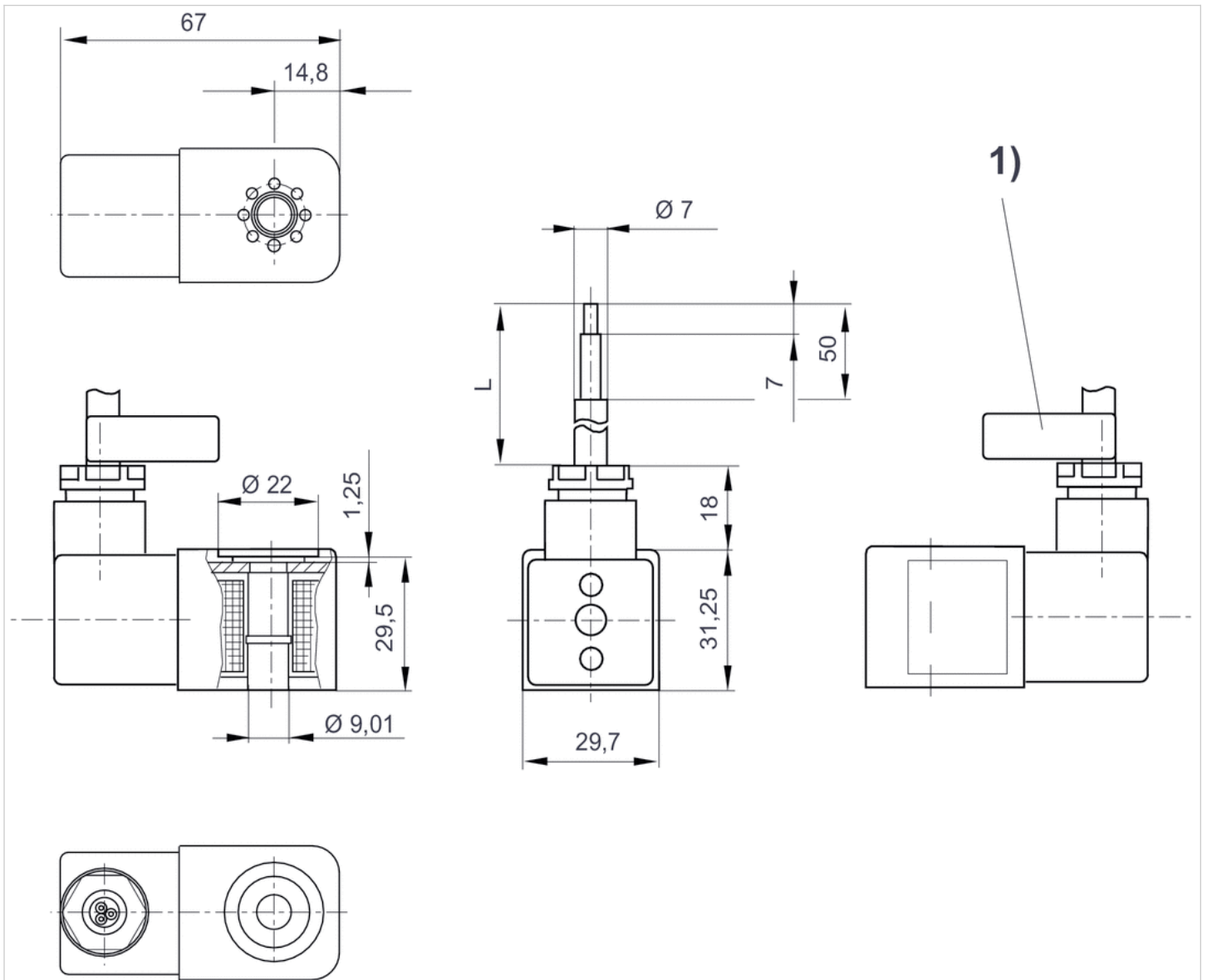
Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
1827414297	-	-10% / +10%	-	3 VA
1827414298	-	-10% / +10%	-	3 VA
1827414299	-	-10% / +10%	-	2.9 VA
1827414303	-10% / +10%	-	3.25 W	-
1827414304	-10% / +10%	-	3.25 W	-

Part No.	Switch-on power	Cable length	Weight
	AC 50 Hz		
1827414297	3.1 VA	3 m	0.38 kg
1827414298	3.1 VA	10 m	0.91 kg
1827414299	3 VA	3 m	0.38 kg

Part No.	Switch-on power	Cable length	Weight
	AC 50 Hz		
1827414303	-	3 m	0.38 kg
1827414304	-	10 m	0.91 kg

## Dimensions

### Dimensions

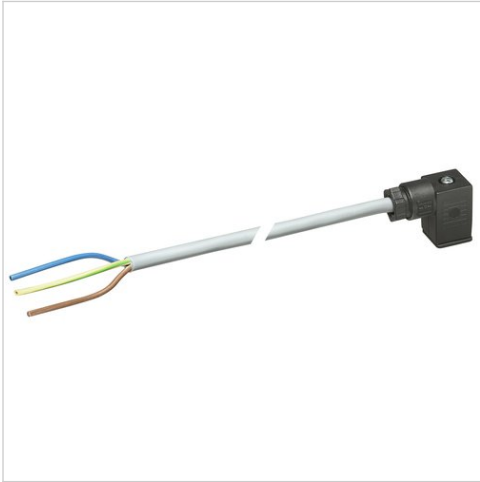


L = cable length

1) Cable ID band with serial number



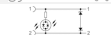
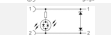
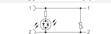

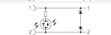
# Valve plug connector, series CON-VP

- Socket form C 2+E angled 90°
- open cable ends 3-pin
- with cable
- unshielded



Ambient temperature min./max.	-20 ... 80 °C
Operational voltage	See table below
Protection class	IP67
Wire cross-section	0.75 mm <sup>2</sup>
Mounting screw tightening torque	0.4 Nm
Weight	See table below

## Technical data

Part No.		Operational voltage	Max. current	Protective circuit	Contact assignment
1834484213		230 V AC/DC	6 A	-	2+E
1834484215		230 V AC/DC	6 A	-	2+E
1834484205		24 V AC/DC	6 A	Z-diode	2+E
1834484207		24 V AC/DC	6 A	Z-diode	2+E
1834484209		230 V AC/DC	6 A	Varistor	2+E
1834484211		230 V AC/DC	6 A	Varistor	2+E
1834484236		24 V AC/DC	6 A	Z-diode	2+E

Part No.	LED status display	Number of wires	Cable-Ø	Cable length	Weight	Fig.	
1834484213	-	3	5.9 mm	3 m	0.183 kg	Fig. 2	-
1834484215	-	3	5.9 mm	5 m	0.308 kg	Fig. 2	-
1834484205	Yellow	3	5.9 mm	3 m	0.185 kg	Fig. 2	1)
1834484207	Yellow	3	5.9 mm	5 m	0.298 kg	Fig. 2	1)
1834484209	Yellow	3	5.9 mm	3 m	0.194 kg	Fig. 2	1)
1834484211	Yellow	3	5.9 mm	5 m	0.285 kg	Fig. 2	1)
1834484236	Yellow	3	5.9 mm	10 m	0.571 kg	Fig. 2	1)

1) Scope of delivery incl. flat gasket

## Technical information

The specified protection class is only valid in assembled and tested state.



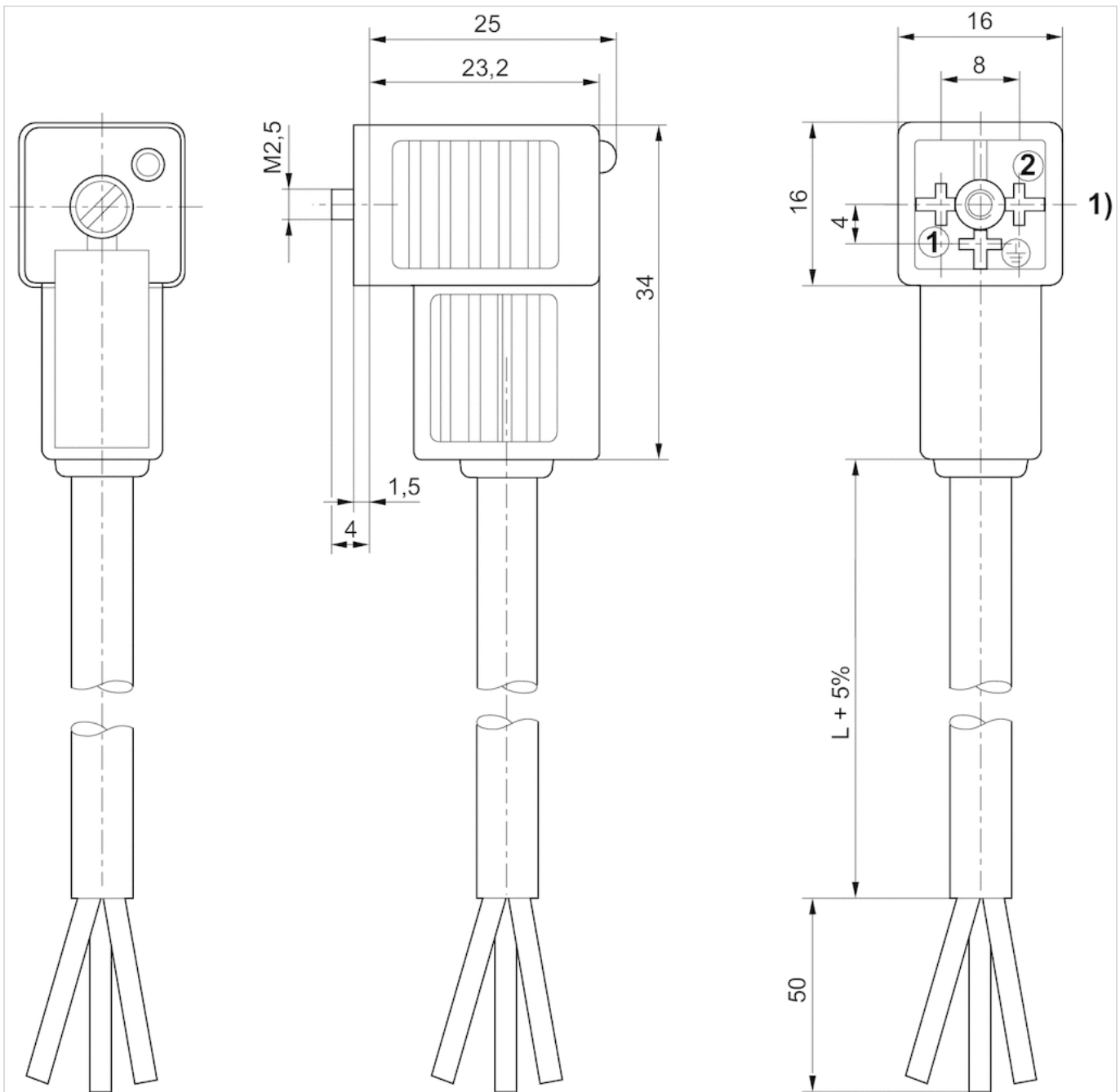
## Technical information

### Material

Seals	caoutchouc/butadiene caoutchouc
Cable sheath	Polyvinyl chloride

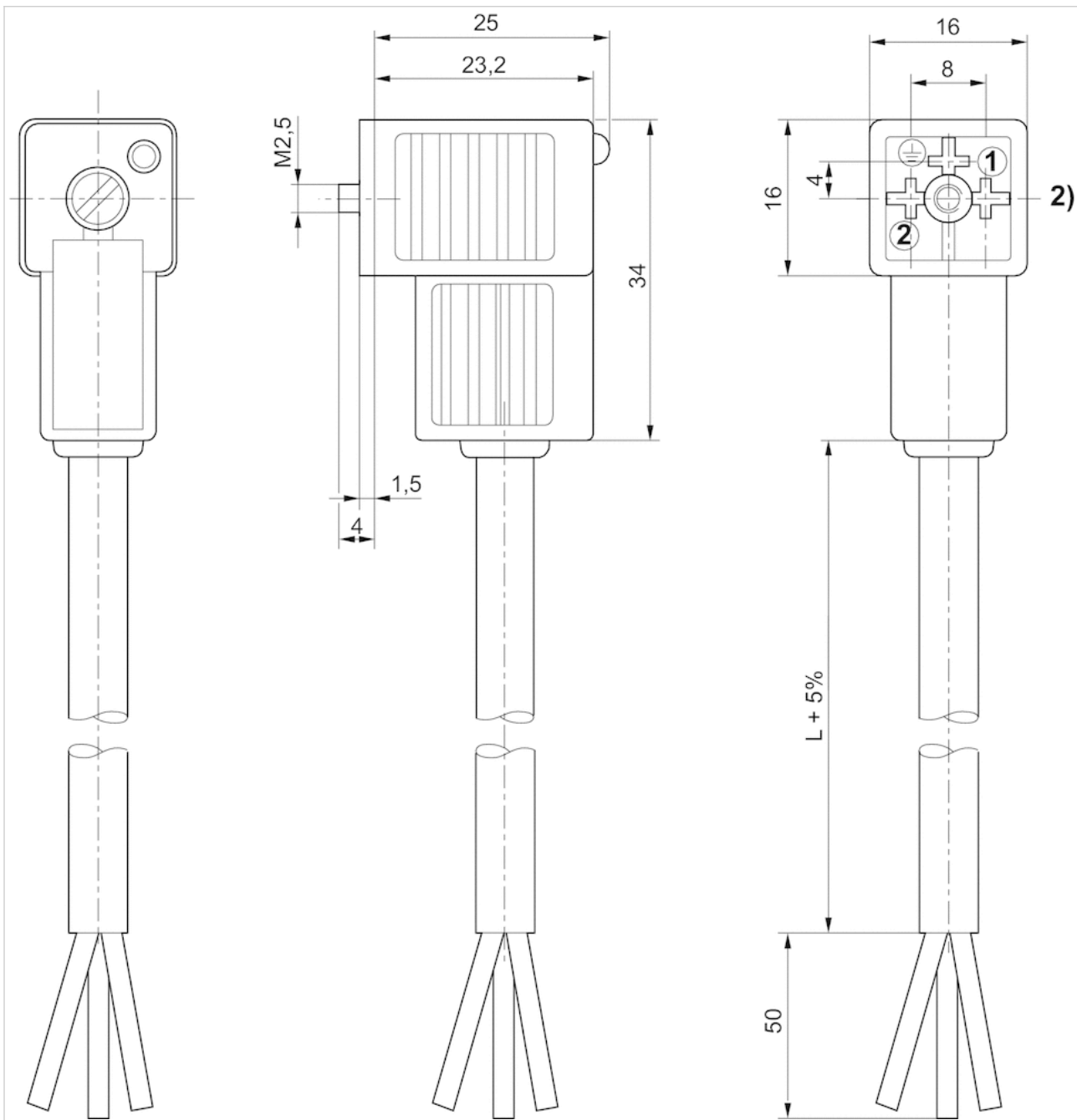
## Dimensions

Fig. 1



1) 0° female insert

Fig. 2



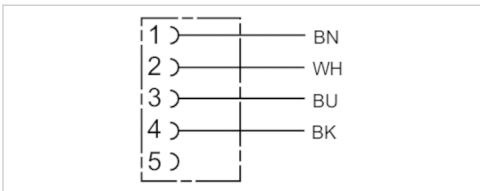
2) 180° female insert

# Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- for DeviceNet
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP65
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484259	4 A	4	5.2 mm	3 m	0.126 kg
1834484260	4 A	4	5.2 mm	5 m	0.195 kg
1834484261	4 A	4	5.2 mm	10 m	0.38 kg

## Technical information

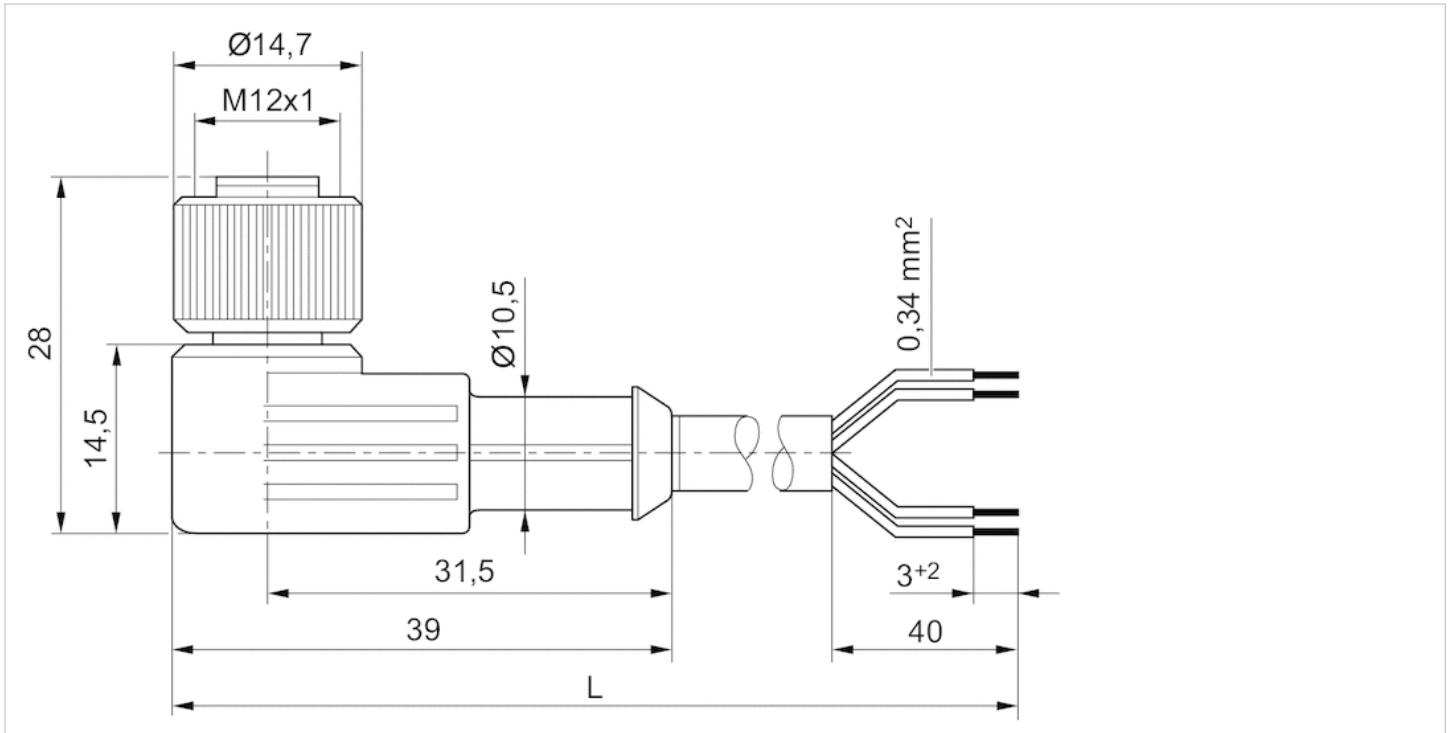
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Cable sheath	Polyurethane

## Dimensions

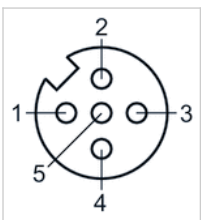
### Dimensions



L = length

## Pin assignments

### Pin assignment, socket



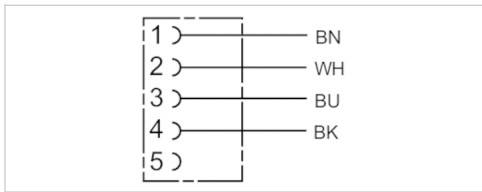
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

# Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded straight 180°
- open cable ends
- with cable
- unshielded



Ambient temperature min./max.	-25 ... 70 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484256	4 A	4	5.2 mm	3 m	0.122 kg
1834484257	4 A	4	5.2 mm	5 m	0.194 kg
1834484258	4 A	4	5.2 mm	10 m	0.373 kg

## Technical information

The specified protection class is only valid in assembled and tested state.

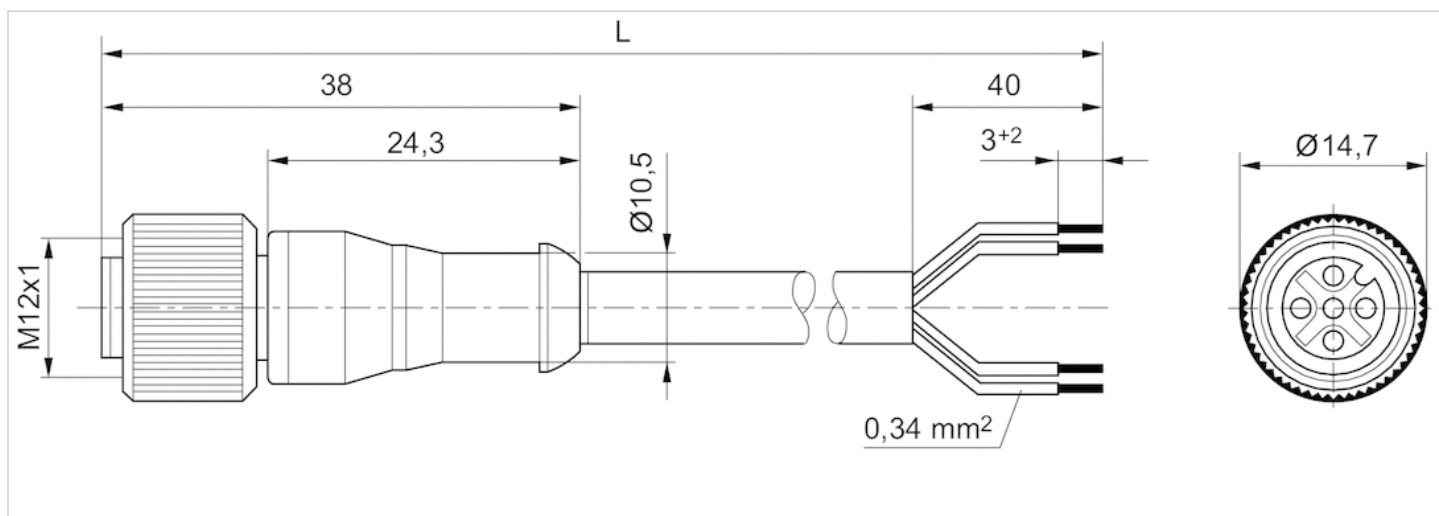
## Technical information

### Material

Cable sheath	Polyurethane
--------------	--------------

## Dimensions

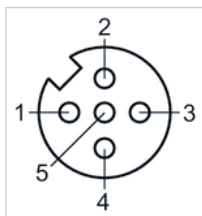
### Dimensions



L = length

## Pin assignments

### Pin assignment, socket



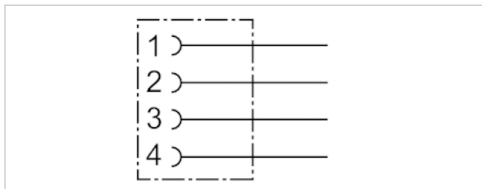
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) not assigned

# Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.015 kg



## Technical data

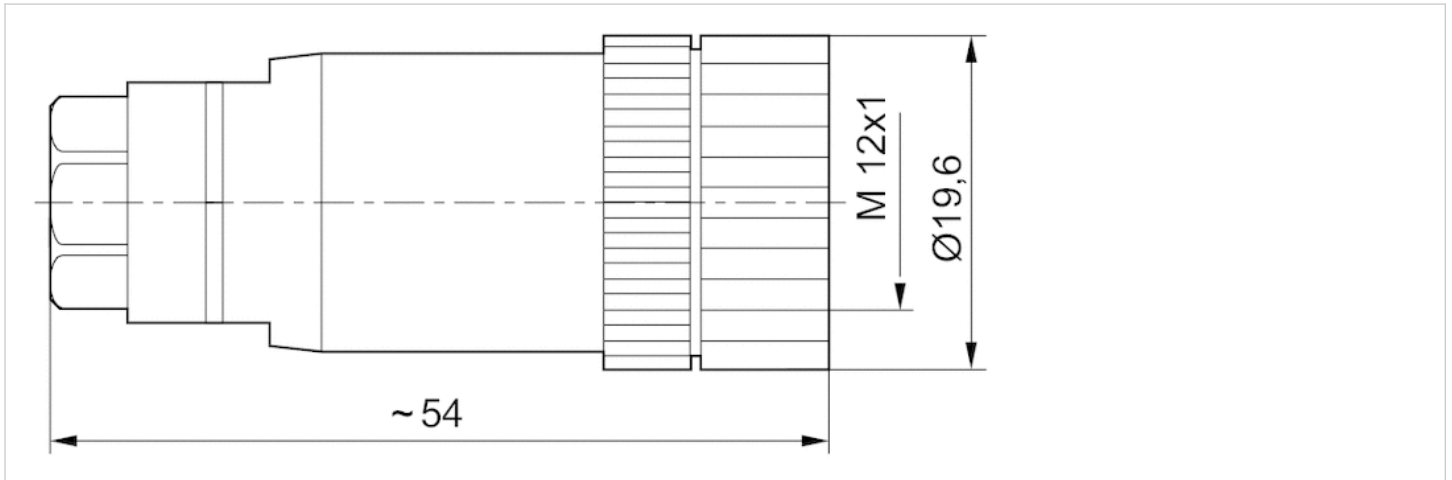
Part No.	Max. current	suitable cable-Ø min./max
1834484177	4 A	4 / 6 mm

## Technical information

Material	
Housing	Polyamide

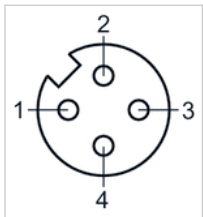
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket



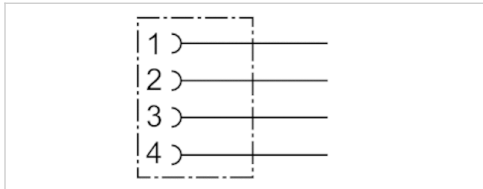


# Round plug connector, Series CON-RD

- Socket, M12x1, 4-pin, A-coded, angled, 90°
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.016 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484178	4 A	4 mm

## Technical information

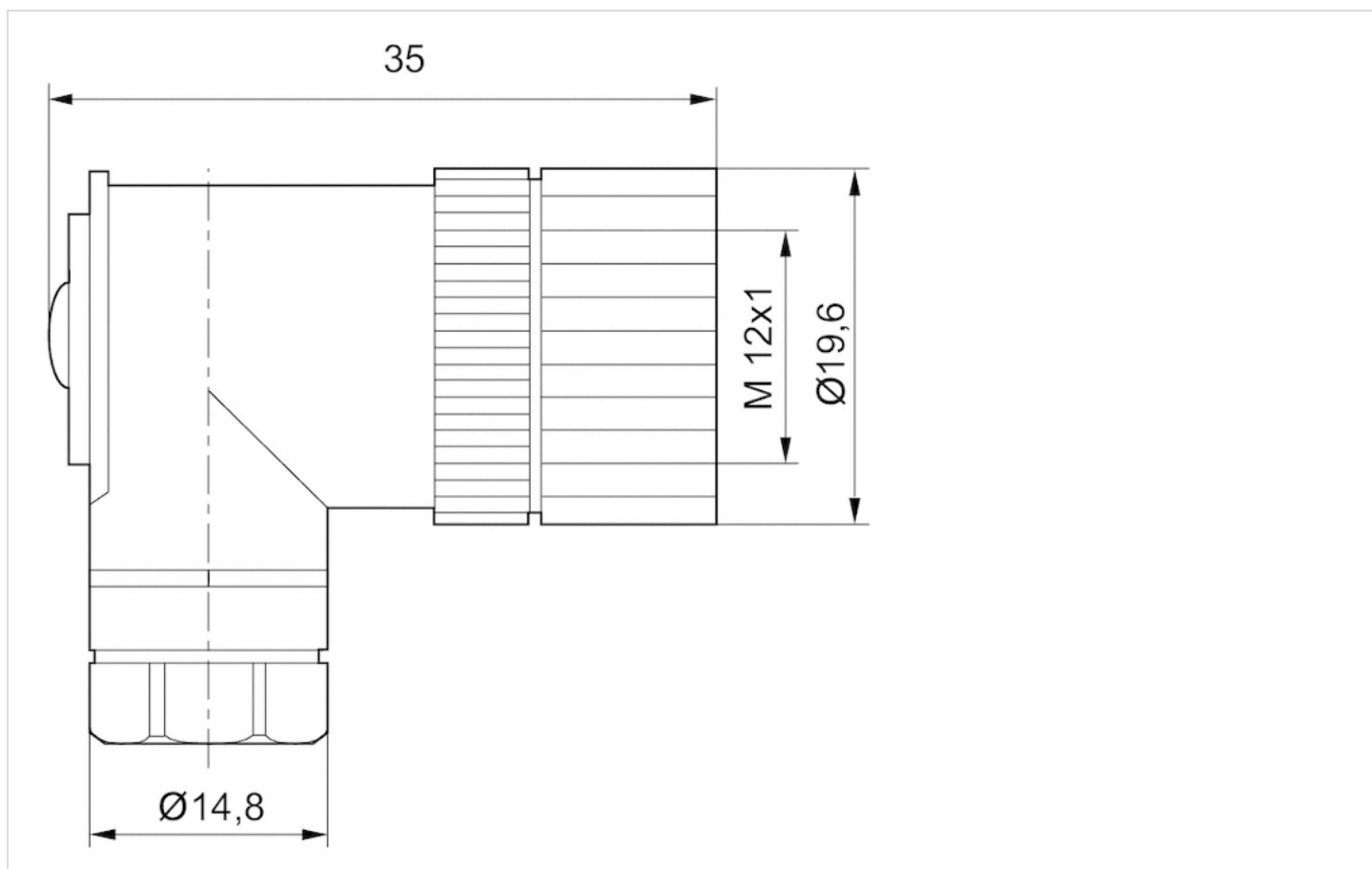
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Polyamide

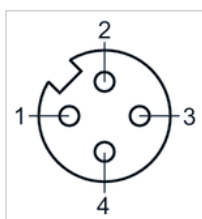
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket

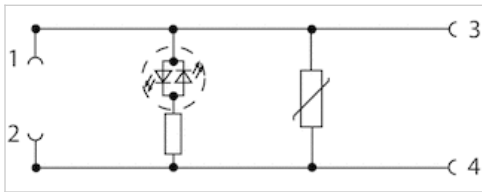


# Adapter, Series CON-VP

- Socket, form C, 2+E, angled, 90°
- Plug, M12x1, 3-pin, A-coded, straight, 180°
- unshielded
- with LED Yellow



Ambient temperature min./max.	-10 ... 0 °C
Operational voltage	24 V DC
Protection class	IP65
Protective circuit	Varistor
Mounting screw tightening torque	0.6 Nm
Weight	0.013 kg



## Technical data

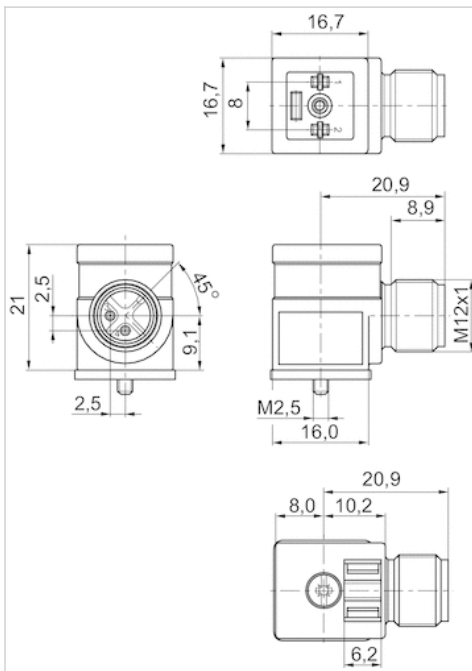
Part No.	Max. current	Protective circuit	Contact assignment	LED status display
R412009553	1 A	Varistor	2+E	Yellow

## Technical information

Material	
Housing	Polyurethane

## Dimensions

### Dimensions



# Transition plate, Series AS1, AS2, AS3, AS5

- Adapter plate for assembling a series DO30 pilot valve with CNOMO porting configuration on a 3/2-way shut-off valve without pilot



Weight

0.025 kg

## Technical data

Part No.

R412006360

Scope of delivery incl. 4 mounting screws, 2 O-rings

## Technical information

Adapter plate for assembling a series DO30 pilot valve with CNOMO porting configuration on a 3/2-way shut-off valve without pilot

## Technical information

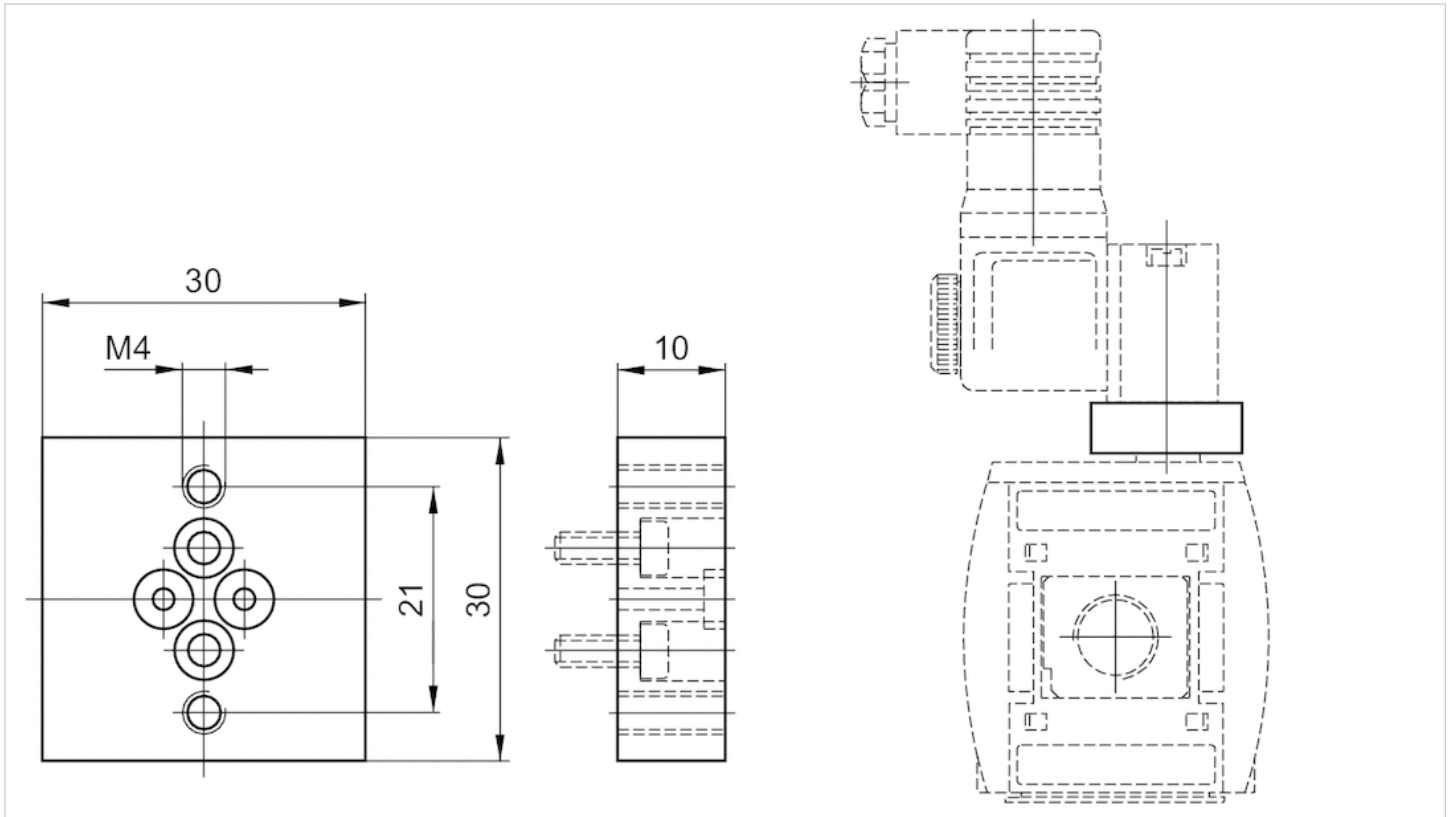
Material

Material

Aluminum

## Dimensions

Dimensions in mm



# Adapter

- Adapter for connecting the control pressure to a AS series 3/2 directional shut-off valve without pilot control to realize pneumatic actuation, G 1/8
- G 1/8
- AS1 AS2 AS3 AS5



Weight

0.019 kg

## Technical data

Part No.	Port G
R412006359	G 1/8

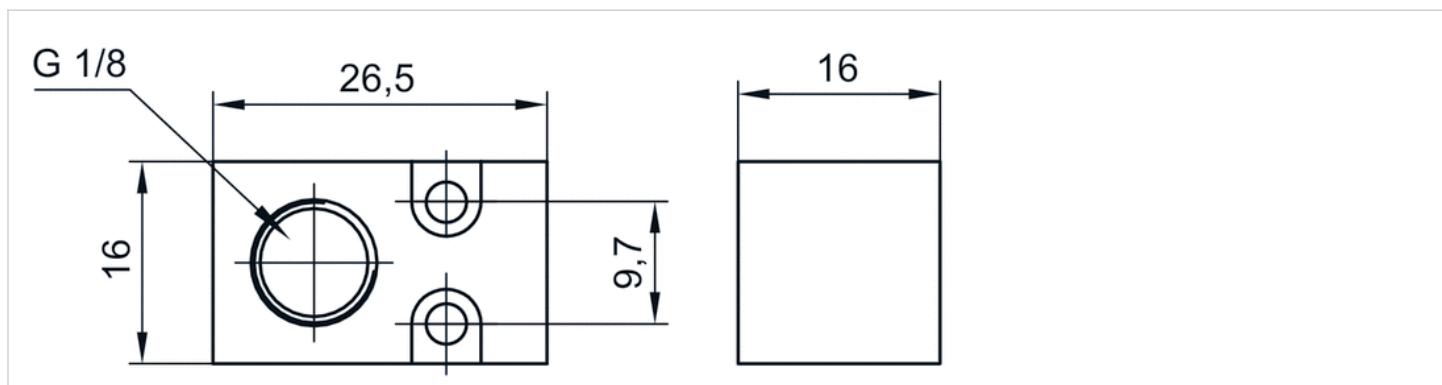
Delivery incl. 2 mounting screws M3x20, Flat gasket

## Technical information

Material	
Material	Aluminum

## Dimensions

### Dimensions in mm



# Adapter for external pilot air



Ambient temperature min./max.

50 °C

Weight

0.015 kg

## Technical data

Part No.

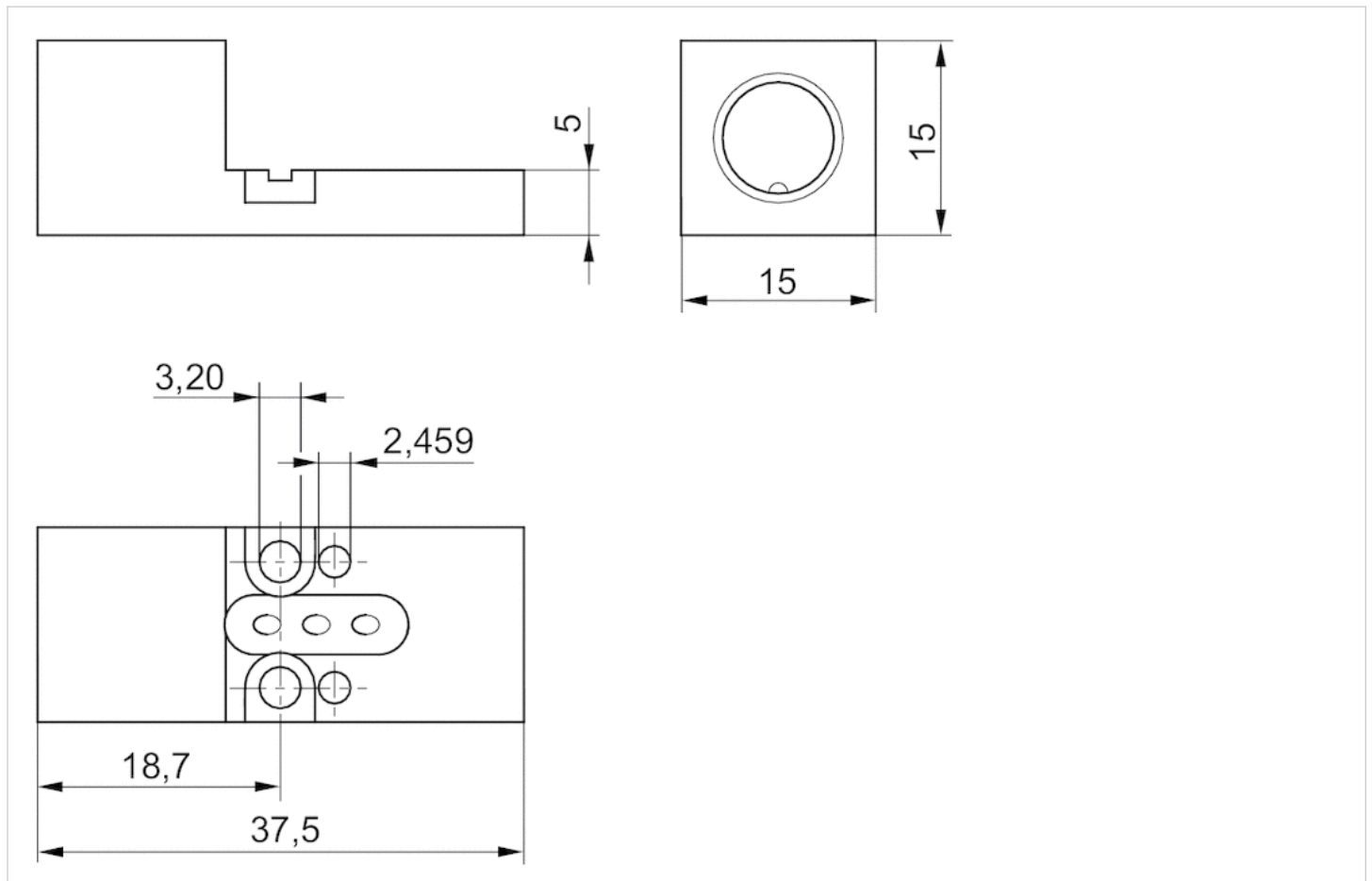
R412025904

Delivery incl. 1 seal plate, 1 screw 3x10, 1 screw DIN 84-M3x18



## Dimensions

Dimensions in mm



# Mounting aid

- Assembly aid for permanent actuation of manual override ("press") on pilot valve DO16 with electrical push-in fitting, form C.



## Technical data

Part No.
R412019278

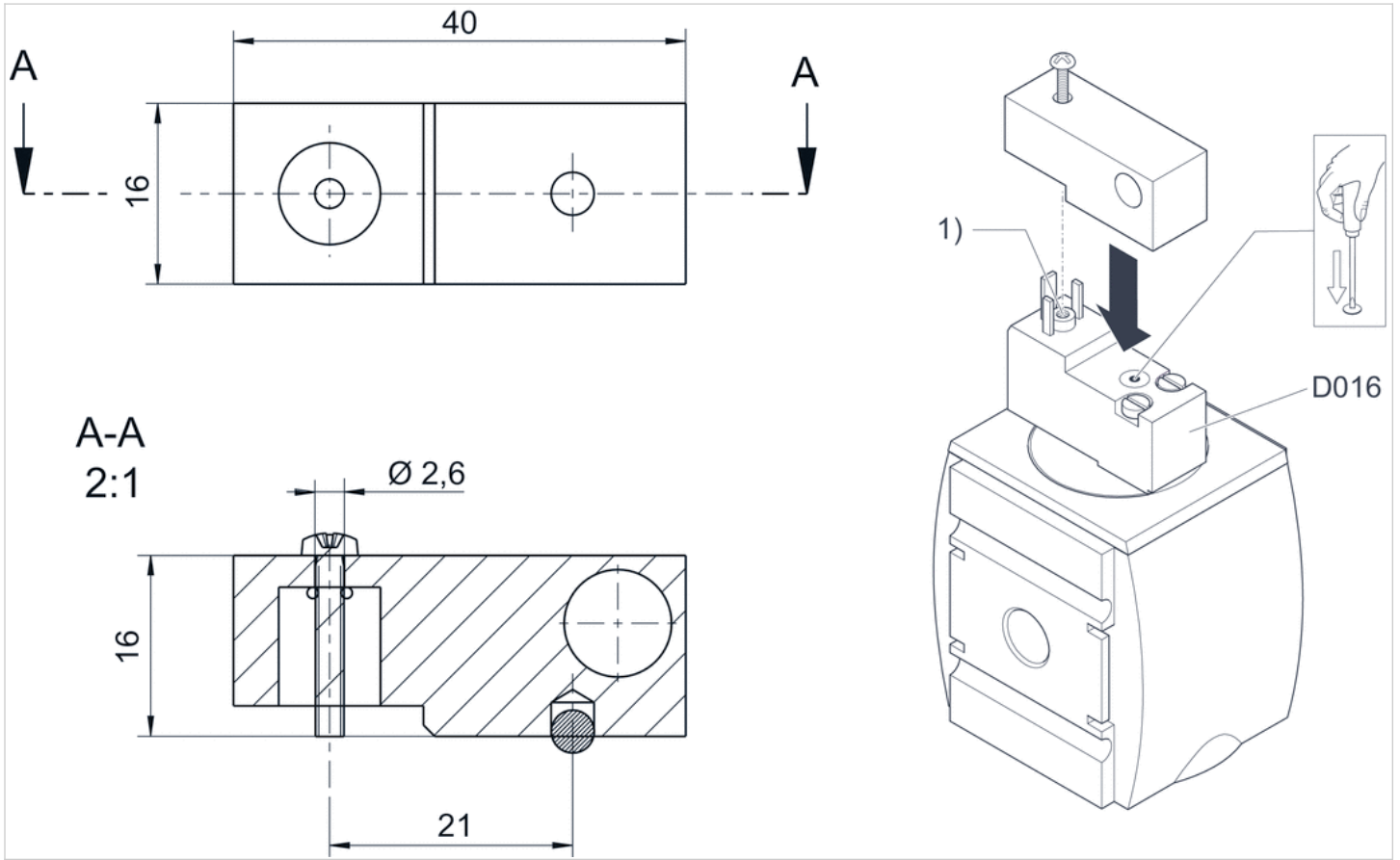
Scope of delivery incl. 1 mounting screw, 1 O-ring

## Technical information

Material	
Housing	Aluminum

## Dimensions

Dimensions in mm



1) ISO 15217, form C

# Mounting aid

- Assembly aid for permanent actuation of manual override ("press") on pilot valve DO16 with electrical connection M12x1.



Weight

0.023 kg

## Technical data

Part No.

R412015193

## Technical information

Mounting the assembly aid to the pilot valve using valve plug connector M12x1

## Technical information

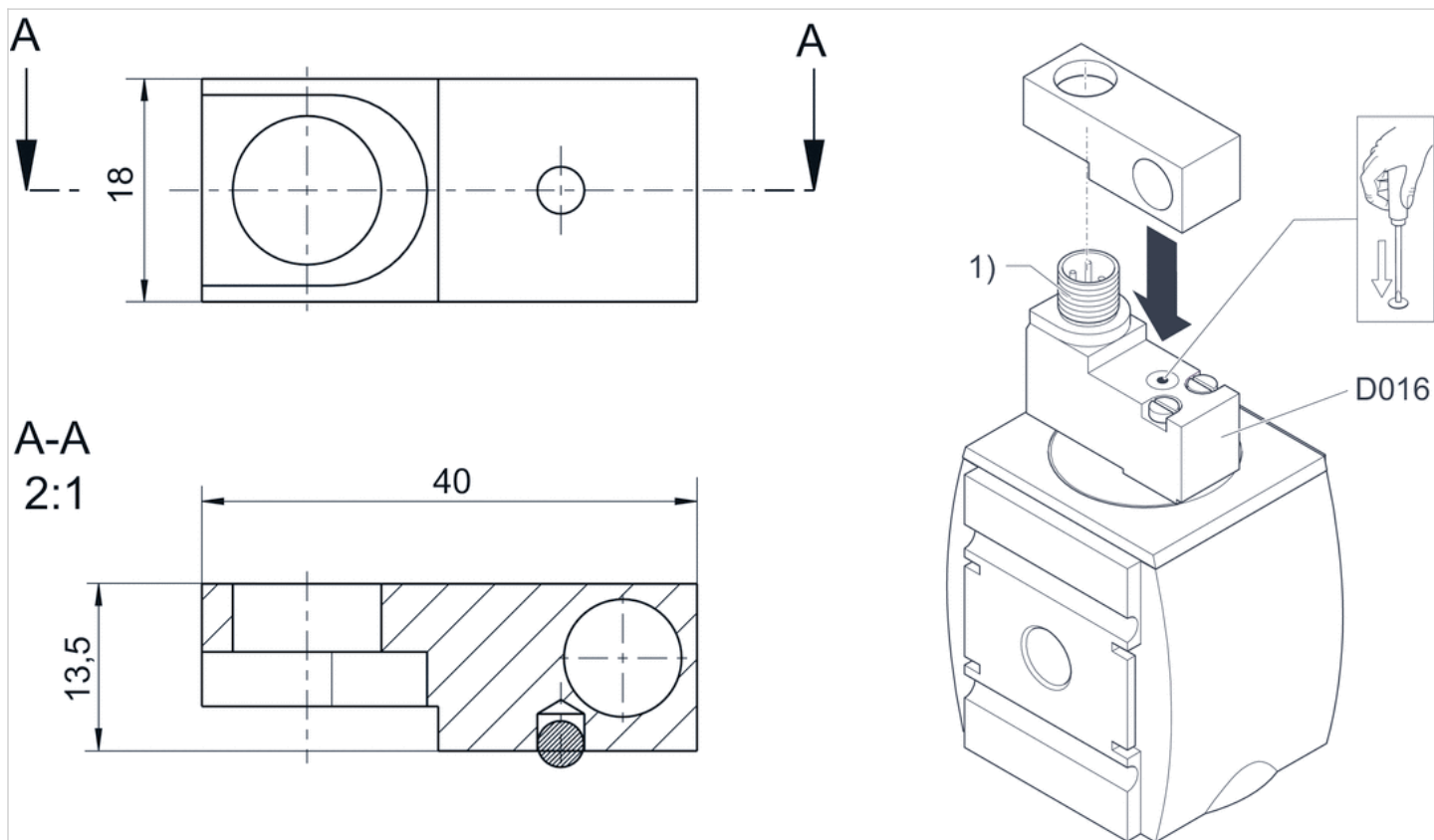
Material

Housing

Aluminum

## Dimensions

Dimensions in mm



1) M12x1

# mortise lock

- for AS2 AS3 AS5



## Technical data

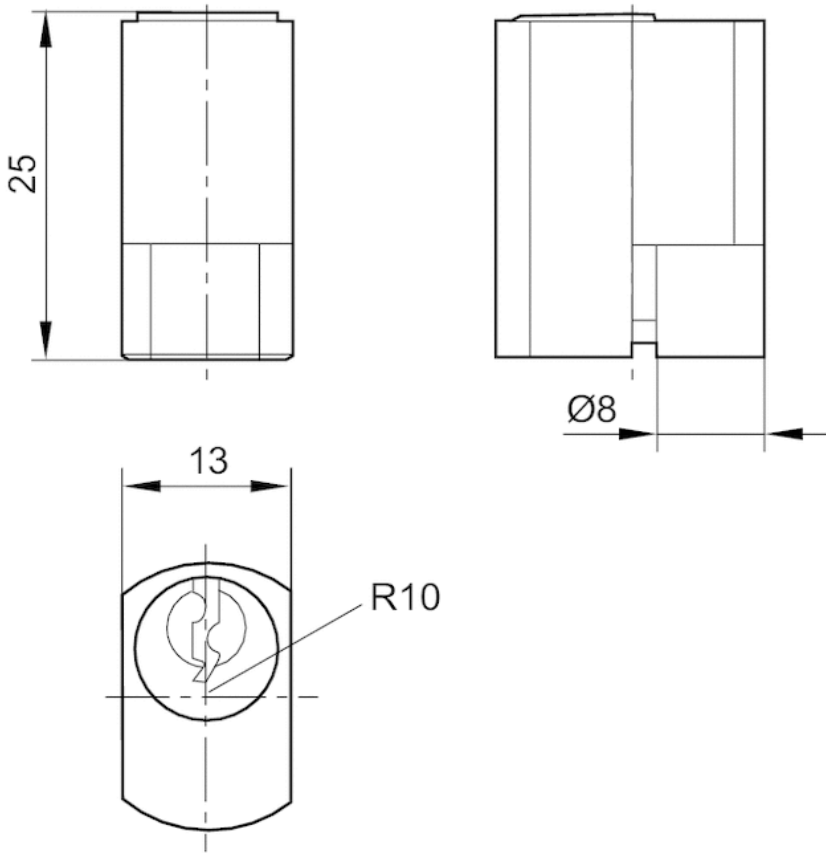
Part No.	Type
R412007959	Standard locking, with key
R412006374	E11 locking, without key

## Technical information

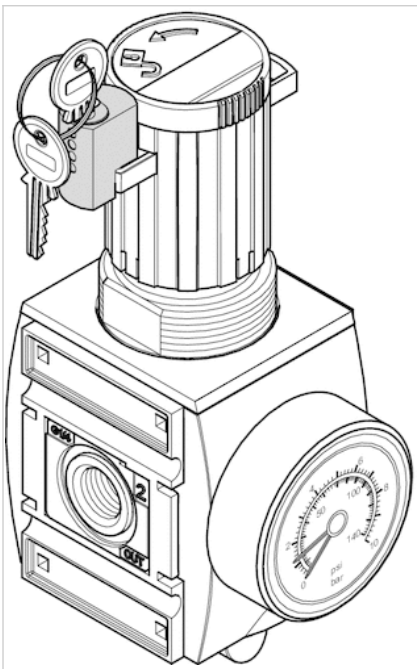
Material	
Housing	Steel

## Dimensions

### Dimensions in mm



### Application example



## Key for E11 locking

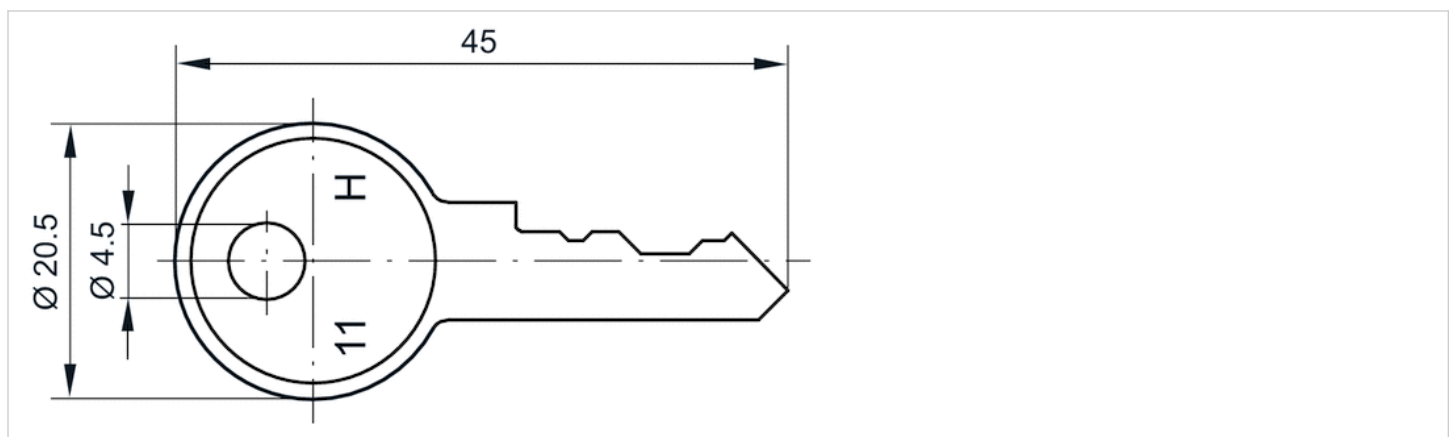


### Technical data

Part No.	Delivery unit
R961403407	1 piece

### Dimensions

#### Dimensions in mm

















# Pressure sensor, Series PE5

- Operating pressure -1 ... 0 -1 ... 1 0 ... 6 0 ... 10 0 ... 12 bar
- electronic
- Output signal analog 0 - 10 V DC, 4 - 20 mA
- Output signal digital 2 x PNP, NPN, Push-pull PNP, NPN, Push-pull PNP, NPN, push-pull, 1x IO-Link
- Electr. connection Plug M12x1 4-pin
- Compressed air connection Internal thread G 1/4



Type	electronic
Certificates	CE declaration of conformity cULus RoHS Conforms with REACH Free of substances that impair surface wetting in the coating process
Compressed air connection	Internal thread G 1/4
Ambient temperature min./max.	0 ... 60 °C
Medium temperature min./max.	0 ... 60 °C
Medium	Compressed air (max. 40 µm)
Max. oil content of compressed air	40 mg/m <sup>3</sup>
Measurement	Relative pressure
Display	LCD display, 4 digits Color setting: green or red
Units displayed	bar, psi, kPa, MPa, inHg
Switching logic	NO/NC (adjustable)
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	±1.5% in temperature range of 10 - 30°C ± 2 % including temperature drift
Repeatability (% of full scale value)	± 0,2 %
Switching time	5 ms
Switching point	adjustable 0 ... 100%
Resetting point	adjustable 0 ... 100%
Hysteresis	adjustable
Delayed hysteresis	adjustable
Window function	adjustable
DC operating voltage min./max.	17 ... 30 V DC
Analog output	0 - 10 V DC, 4 - 20 mA
Quiescent current consumption	40 mA
Analog output linearity	± 0.5% of the final value
Maximum load (analog current output)	600 Ω
Short circuit resistance	Max. 600 ohms (current output) Min. 3K ohms (voltage output)
Mounting types	Directly on hat rail and wall mounting For panel installation using mounting kit via double nipple
Protection class	IP65, IP67 with connections assembled
Electr. connection	Plug M12x1 4-pin
Weight	0.04 kg

## Technical data

Part No.		Operating pressure range	Protection against overpressure
		min./max.	
R412010761		-1 ... 0 bar	5 bar
R412010769		-1 ... 0 bar	5 bar
R412010775		-1 ... 0 bar	5 bar
R412010763		-1 ... 1 bar	5 bar
R412010771		0 ... 6 bar	15 bar
R412010765		0 ... 6 bar	15 bar
R412010777		0 ... 6 bar	15 bar
R412010773		0 ... 10 bar	15 bar
R412010767		0 ... 10 bar	15 bar
R412010779		0 ... 10 bar	15 bar
R412010782		0 ... 12 bar	16 bar
R412010806		0 ... 12 bar	16 bar

Part No.	Output signal	Output signal	Fig.	
	Analog	digital		
R412010761	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010769	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010775	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010763	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010771	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010765	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010777	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010773	0 - 10 V DC-4 ... 20 mA	PNP, NPN, Push-pull	Fig. 1	-
R412010767	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010779	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)
R412010782	-	2 x PNP, NPN, Push-pull	Fig. 1	-
R412010806	-	PNP, NPN, push-pull, 1x IO-Link	Fig. 1	1)

1) The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

## Technical information

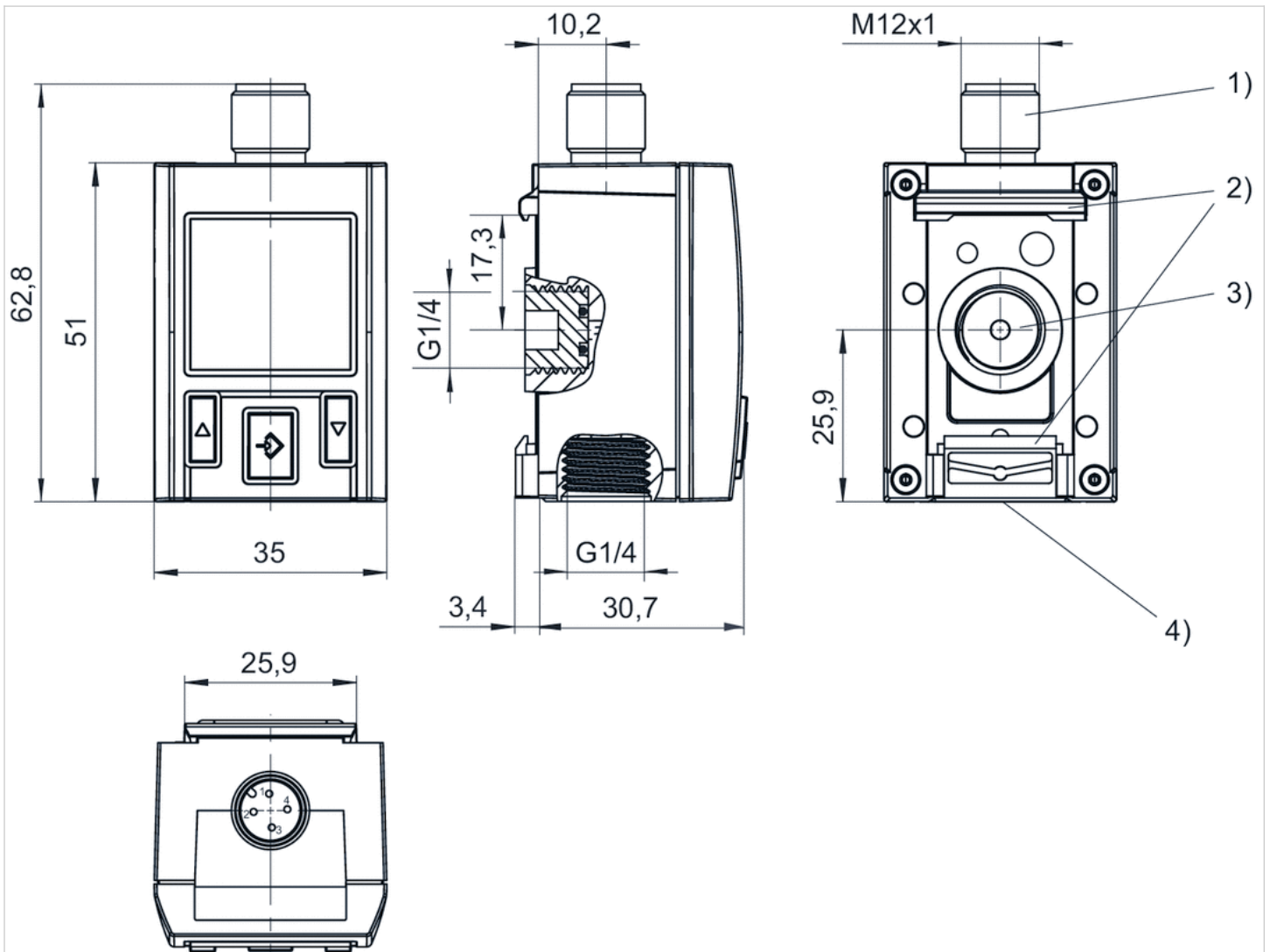
Alternative pressure connection (G1/4) on the rear side (closed with plug)  
Display color selectable, red or green

## Technical information

Material	
Housing	Polycarbonate
Seals	Acrylonitrile butadiene rubber
Blanking plug	Polyoxymethylene
Electr. connection	Aluminum, black anodized

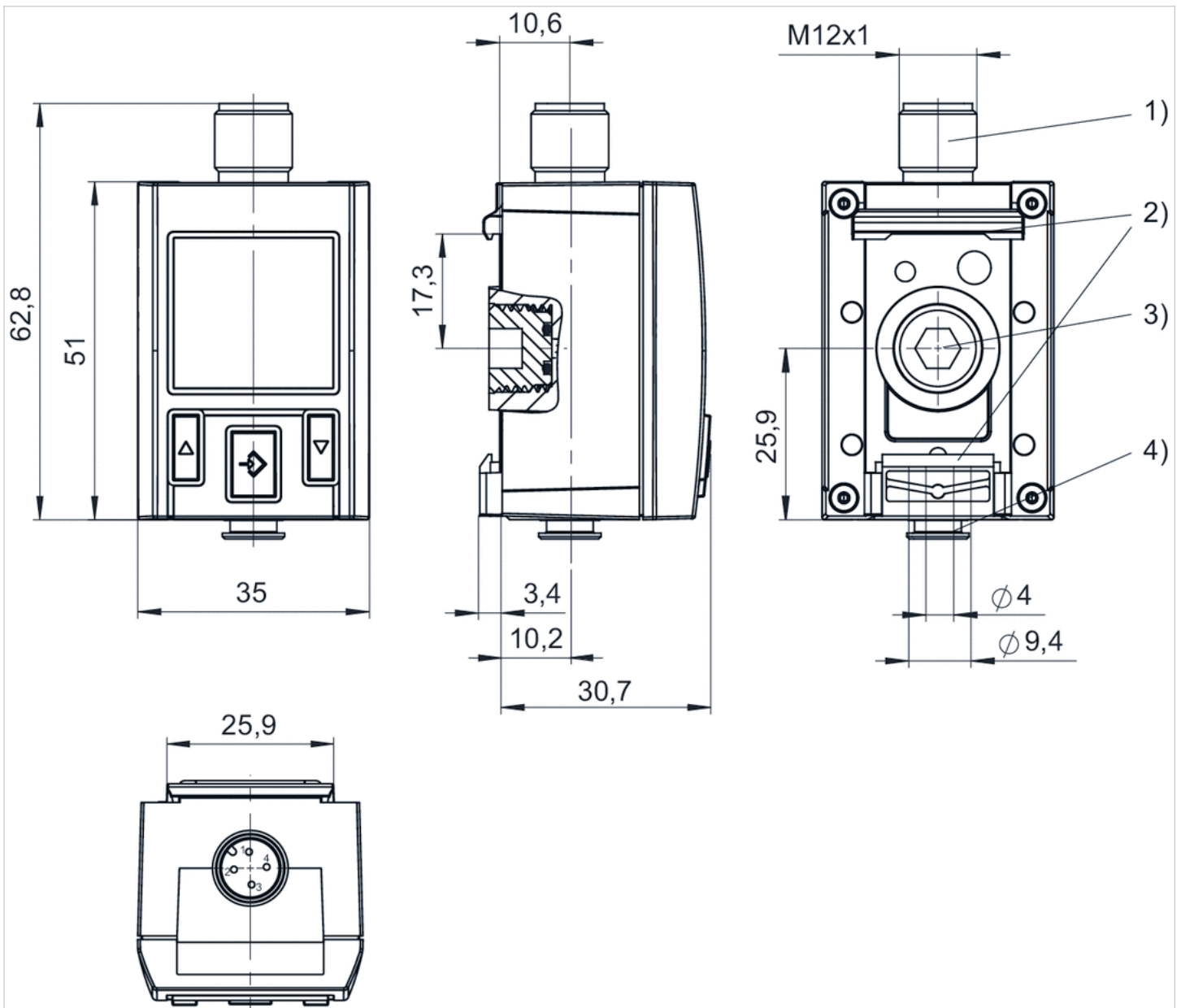
## Dimensions

Fig. 1



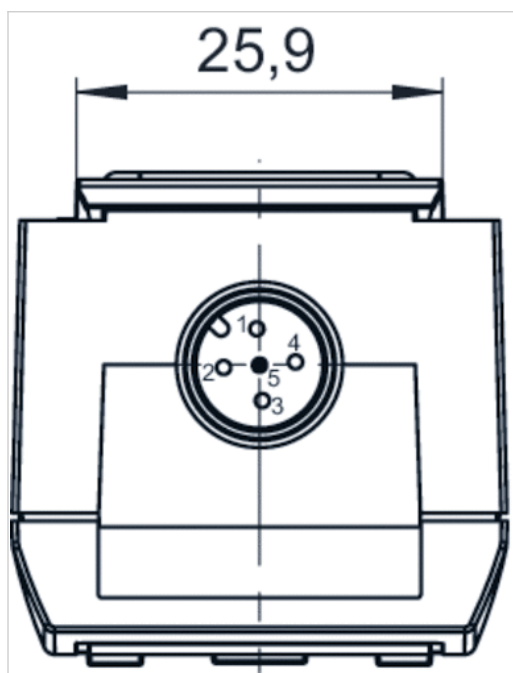
- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection G1/4

Fig. 2

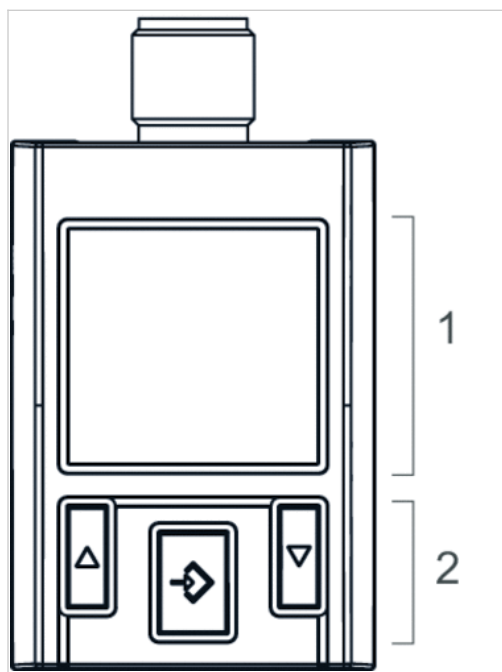


- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection, tubing  $\phi$  4 mm

Fig. 3, Electr. connection for leak test



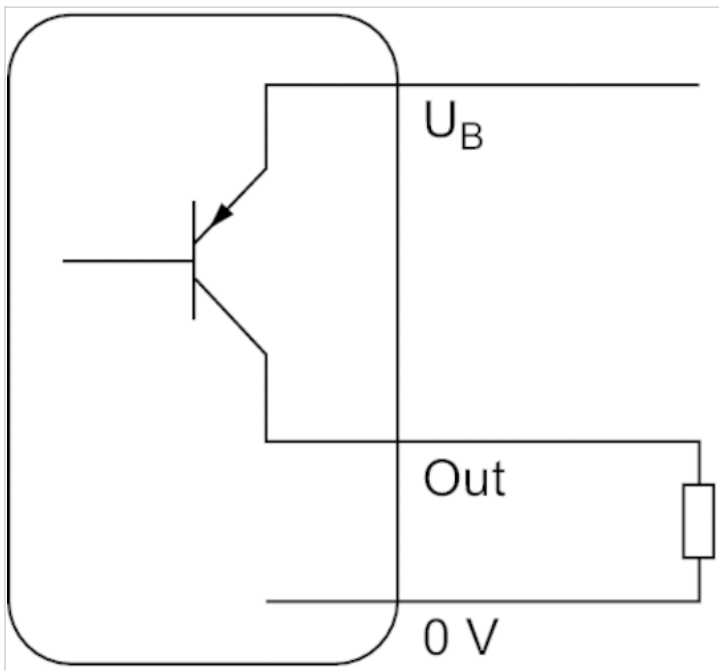
Display and operation area



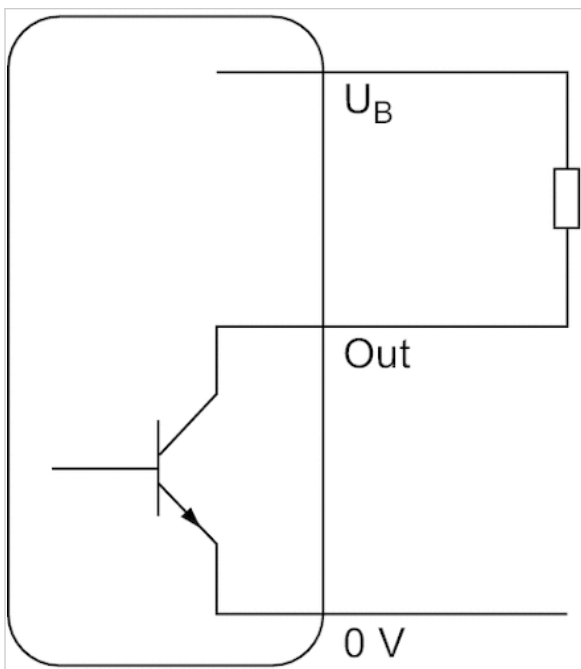
- 1) LCD display
- 2) Control panel with 3 buttons

## Diagrams

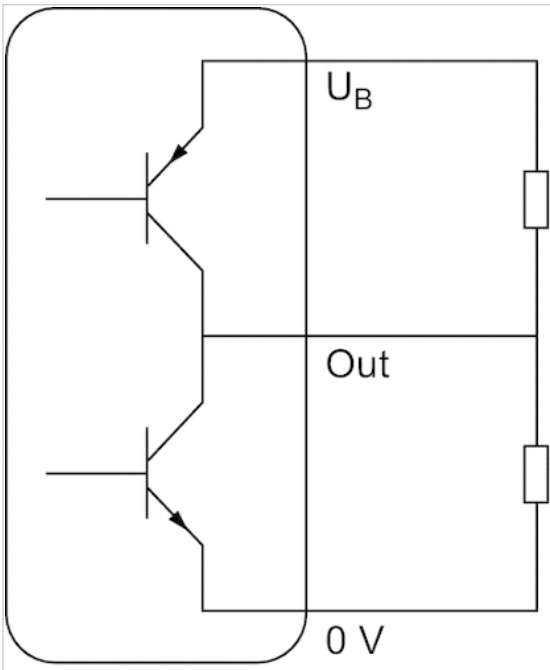
### Operating mode, PNP



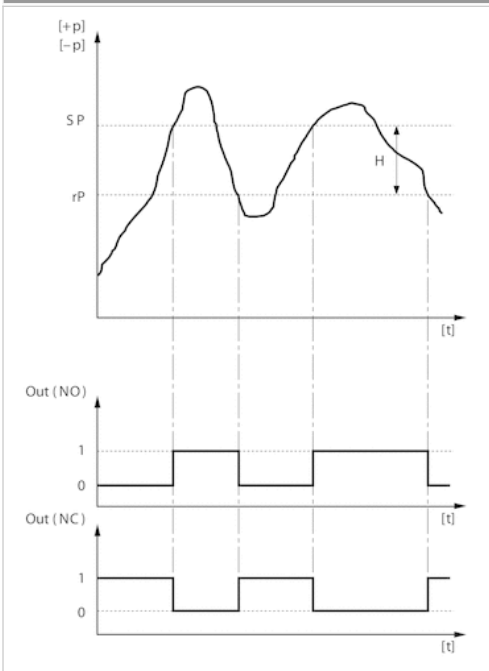
### Operating mode, NPN



Operating mode, Push-pull

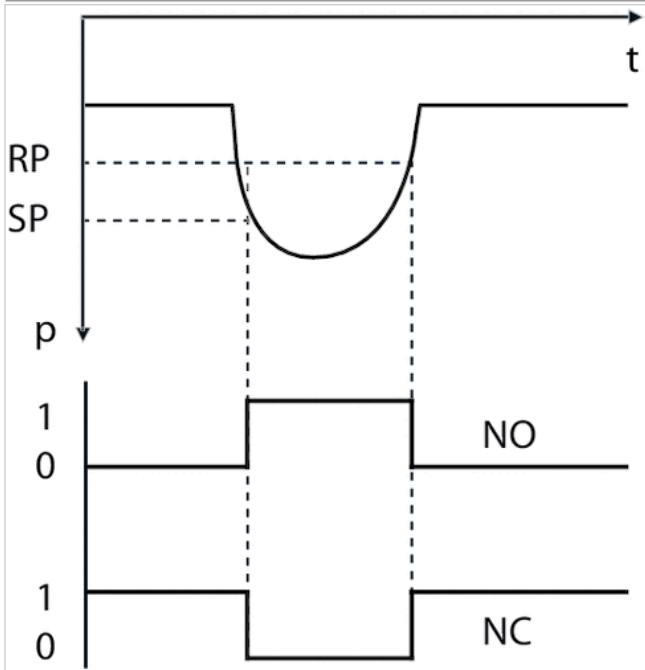


Hysteresis function: switching and resetting behavior dependent on pressure p and time t, in case of overpressure

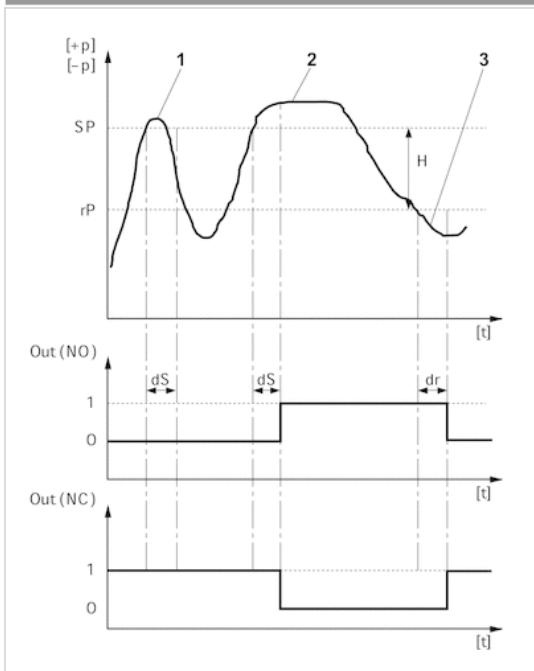


- H: Hysteresis
- SP = switching point
- RP = resetting point
- Out (NC): switch output, break contact
- Out (NO): switch output, make contact

Hysteresis function: switching and resetting behavior dependent on pressure  $p$  and time  $t$ , in case of underpressure



Delayed hysteresis function: switching and resetting behavior depending on pressure  $p$  and time  $t$



H: Hysteresis

SP = switching point

RP = resetting point

Out (NC): switch output, break contact

Out (NO): switch output, make contact

dS: switching delay

dR = reset delay

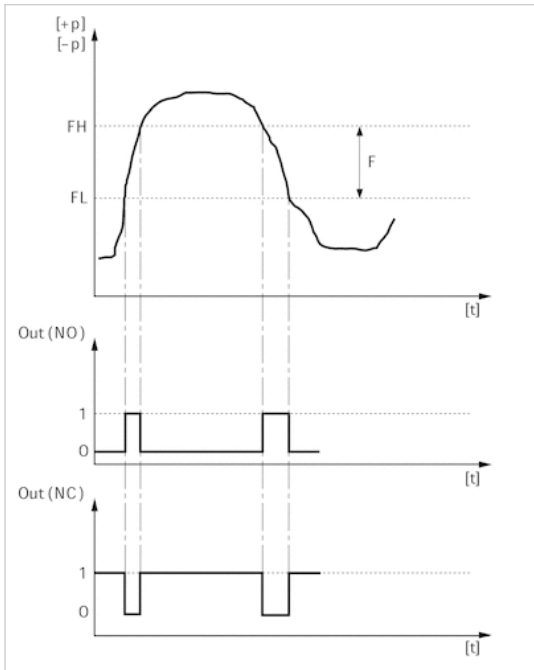
1) period of pressure over the switching point  $dS$ : pressure sensor does not switch

2) Period of pressure over the switching point  $> dS$ : pressure sensor switches

3) Period of pressure under the resetting point  $> dR$ : pressure sensor switches

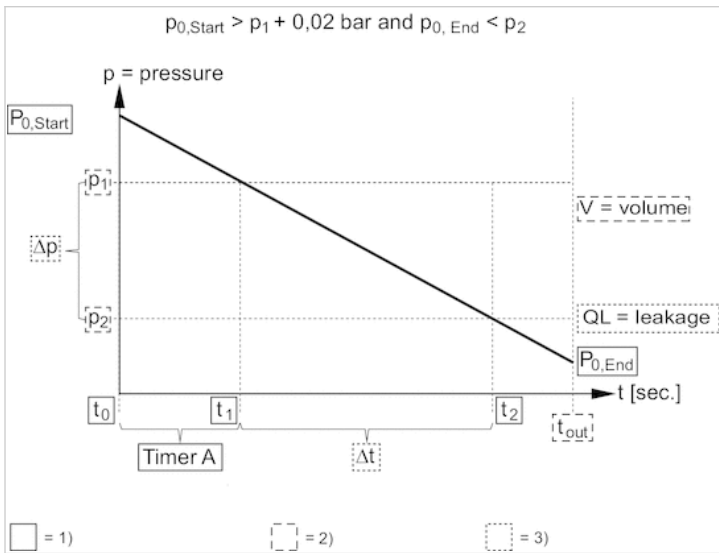


Window function: switching and resetting behavior depending on pressure p and time t



FH: pressure band, upper value  
 FL: pressure band, lower value  
 Out (NC): switch output, break contact  
 Out (NO): switch output, make contact

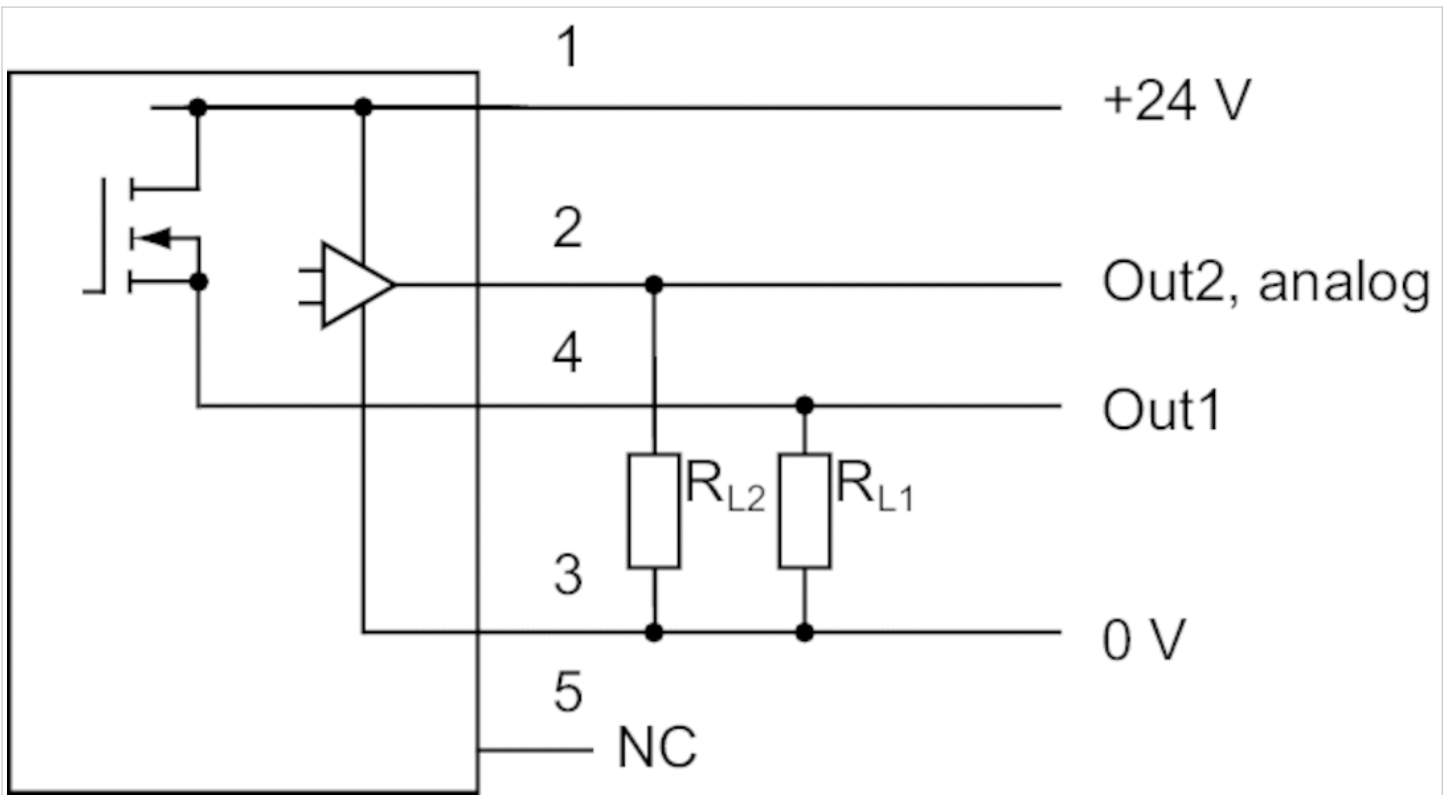
Leakage characteristic



- 1) Internally stored parameter
- 2) Adjustable parameter
- 3) Output value

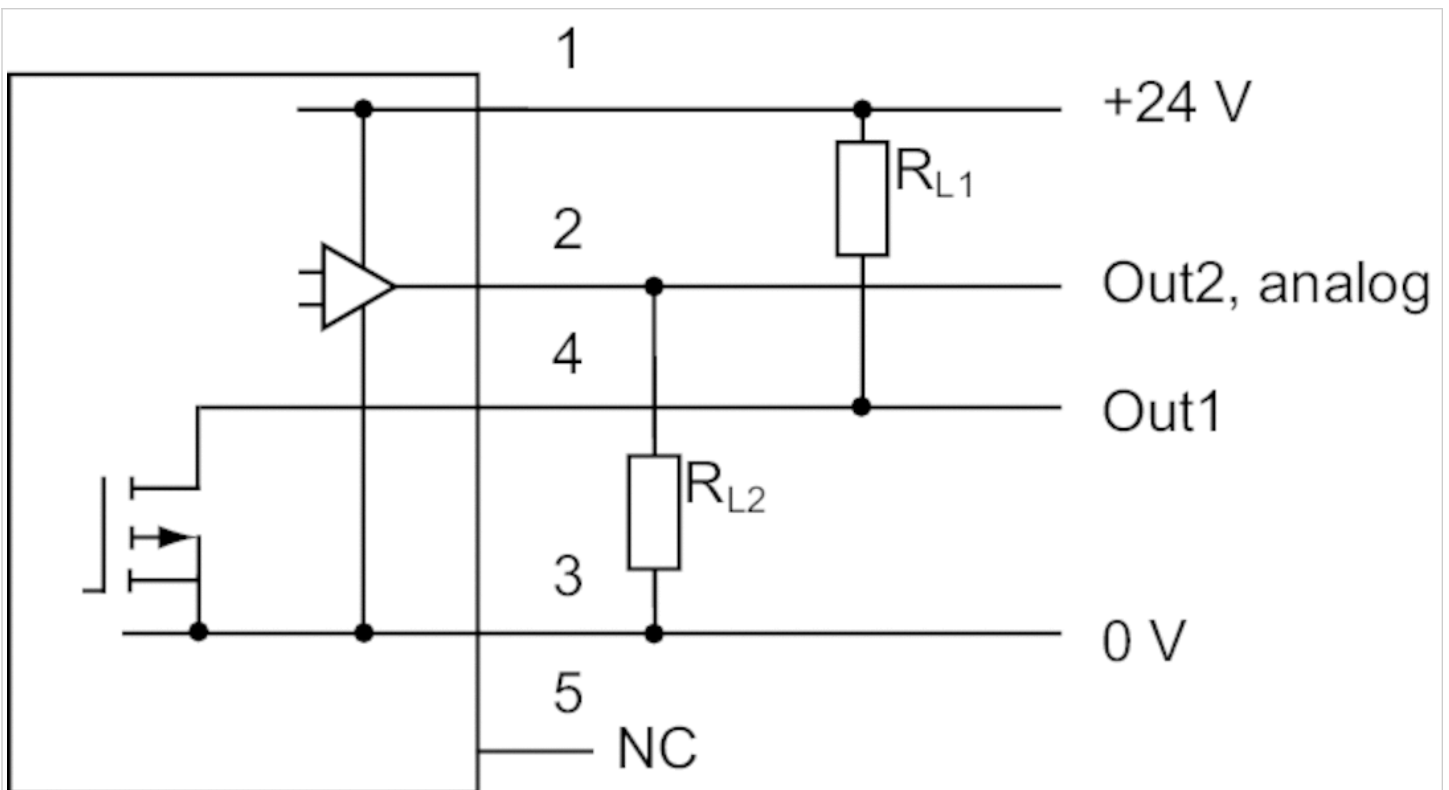
Circuit diagram

Block diagram, 1x PNP and 1x analog



RL = storable position

Block diagram, 1x NPN and 1x analog



RL = storable position













# Pressure sensor, Series PE2

- Operating pressure -1 ... 1 0 ... 16 bar
- electronic
- Output signal analog 1 x PNP, 1 x analog 4-20 mA
- Electr. connection Plug M12x1 5-pin
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	electronic
Function	1 x PNP, 2 x PNP 1x PNP and 1x analog
Mounting orientation	Any
Certificates	CE declaration of conformity EMV
Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 75 °C
Medium temperature min./max.	-10 ... 75 °C
Medium	Compressed air Neutral gases
Measurement	Relative pressure
Display	OLED
Units displayed	bar, mbar, psi, kPa, MPa, %
Switching logic	Hysteresis function NO/NC (programmable) Window function NO/NC (programmable)
Operating pressure display	2 LED
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	± 1 % including temperature drift
Switching time	10 ms at loads 100 kΩ > 10 ms at loads > 100 kΩ
Switching point	Adjustable ≥ 0.5% ... 100% FS
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP 0)
Hysteresis	adjustable
Switching/reset delay	adjustable
DC operating voltage min./max.	15 ... 32 V DC
Analog output	1 x PNP, 1 x analog 4-20 mA
Quiescent current consumption	50 mA
Maximum load (analog current output)	600 Ω
Short circuit resistance	short circuit resistant
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug M12x1 5-pin
Weight	0.3 kg

## Technical data

Part No.		Type	Operating pressure range
			min./max.
R412010848		PE2-P1-G014-V10-010-M012	-1 ... 1 bar
R412010849		PE2-P1-F001-V10-010-M012	-1 ... 1 bar
R412010853		PE2-P2-G014-V10-010-M012	-1 ... 1 bar
R412010856		PE2-PA-G014-V10-010-M012	-1 ... 1 bar
R412010850		PE2-P1-G014-000-160-M012	0 ... 16 bar
R412010851		PE2-P1-F001-000-160-M012	0 ... 16 bar
R412010854		PE2-P2-G014-000-160-M012	0 ... 16 bar
R412010855		PE2-P2-F001-000-160-M012	0 ... 16 bar
R412010857		PE2-PA-G014-000-160-M012	0 ... 16 bar
R412010858		PE2-PA-F001-000-160-M012	0 ... 16 bar

Part No.	Protection against overpressure	Output signal	Output signal	Compressed air connection
		Analog	digital	
R412010848	10 bar	-	1 x PNP	Internal thread, G 1/4
R412010849	10 bar	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010853	10 bar	-	2 x PNP	Internal thread, G 1/4
R412010856	10 bar	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010850	40 bar	-	1 x PNP	Internal thread, G 1/4
R412010851	40 bar	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010854	40 bar	-	2 x PNP	Internal thread, G 1/4
R412010855	40 bar	-	2 x PNP	Flange with O-ring, Ø 5x1,5
R412010857	40 bar	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010858	40 bar	4 ... 20 mA	1 x PNP	Flange with O-ring, Ø 5x1,5

Part No.	Fig.
R412010848	Fig. 1
R412010849	Fig. 2
R412010853	Fig. 1
R412010856	Fig. 1
R412010850	Fig. 1
R412010851	Fig. 2
R412010854	Fig. 1
R412010855	Fig. 2
R412010857	Fig. 1
R412010858	Fig. 2

## Technical information

Menu navigation is based on the VDMA specification with an additional plain text menu.

## Technical information

Material	
Housing	Aluminum, Vibration-ground
Seals	Fluorocaoutchouc
Electr. connection	Aluminum with polymer insert
flange connection	Nitrile butadiene rubber, Fluorocaoutchouc

## Dimensions

Fig. 1

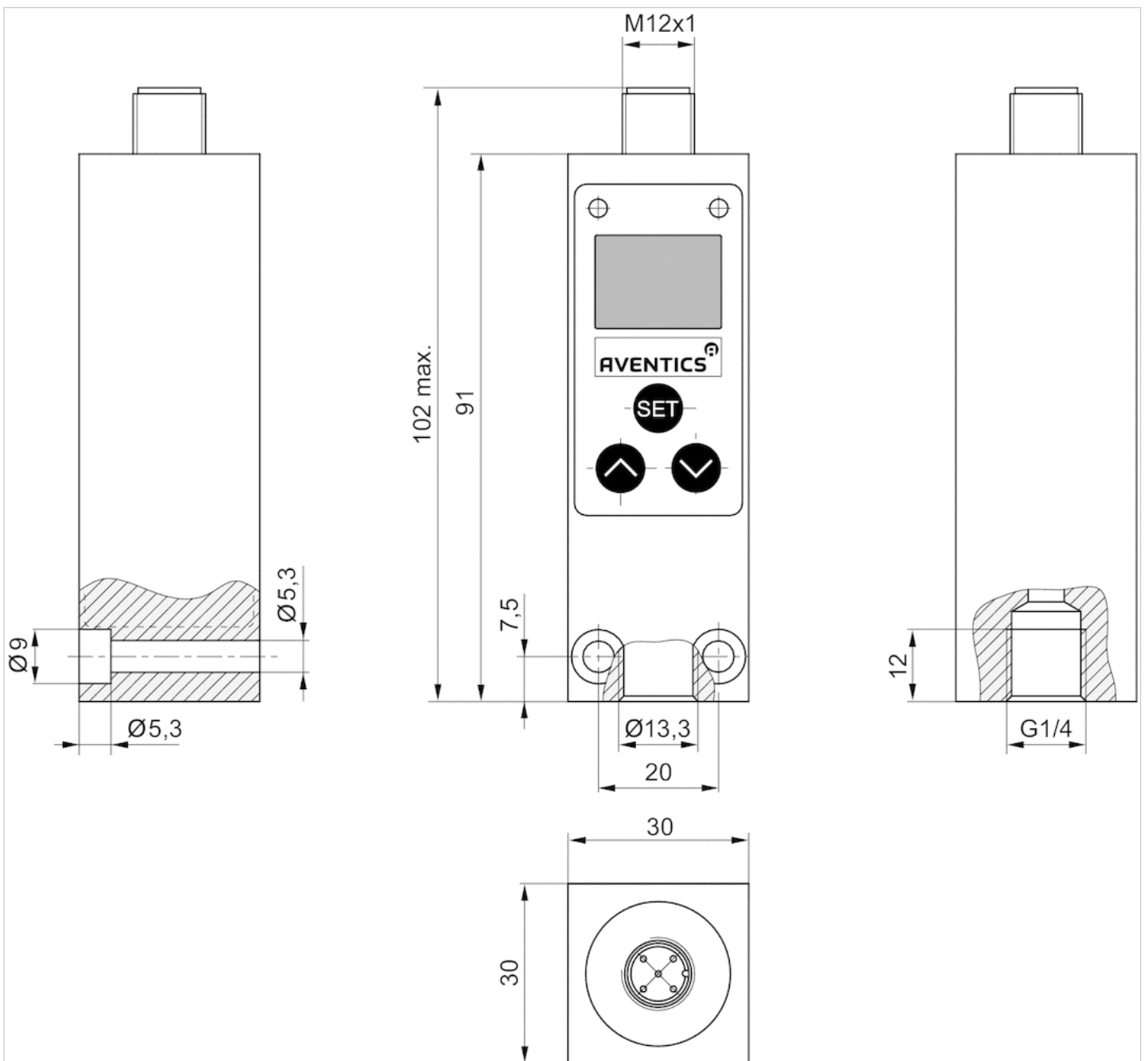
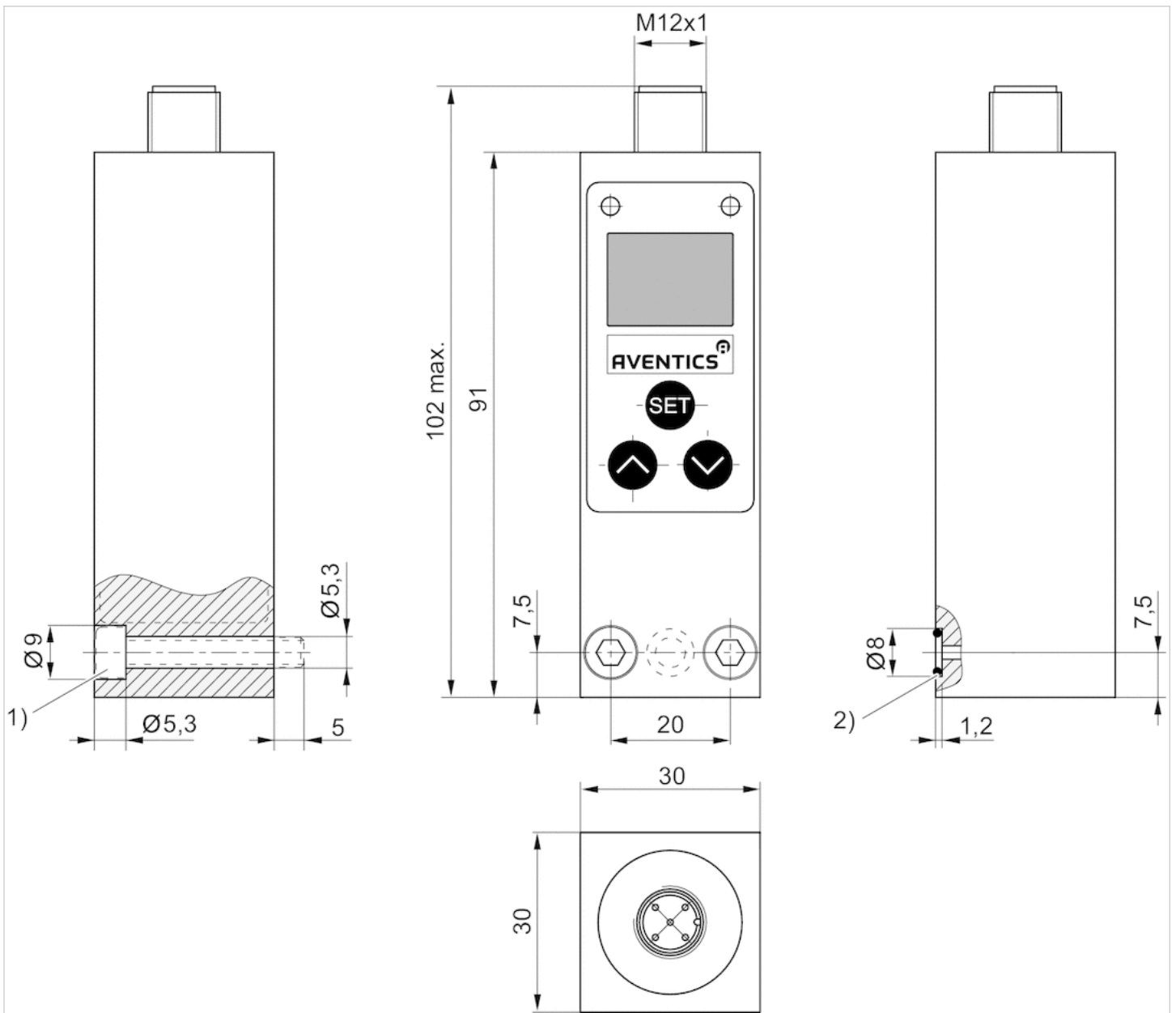
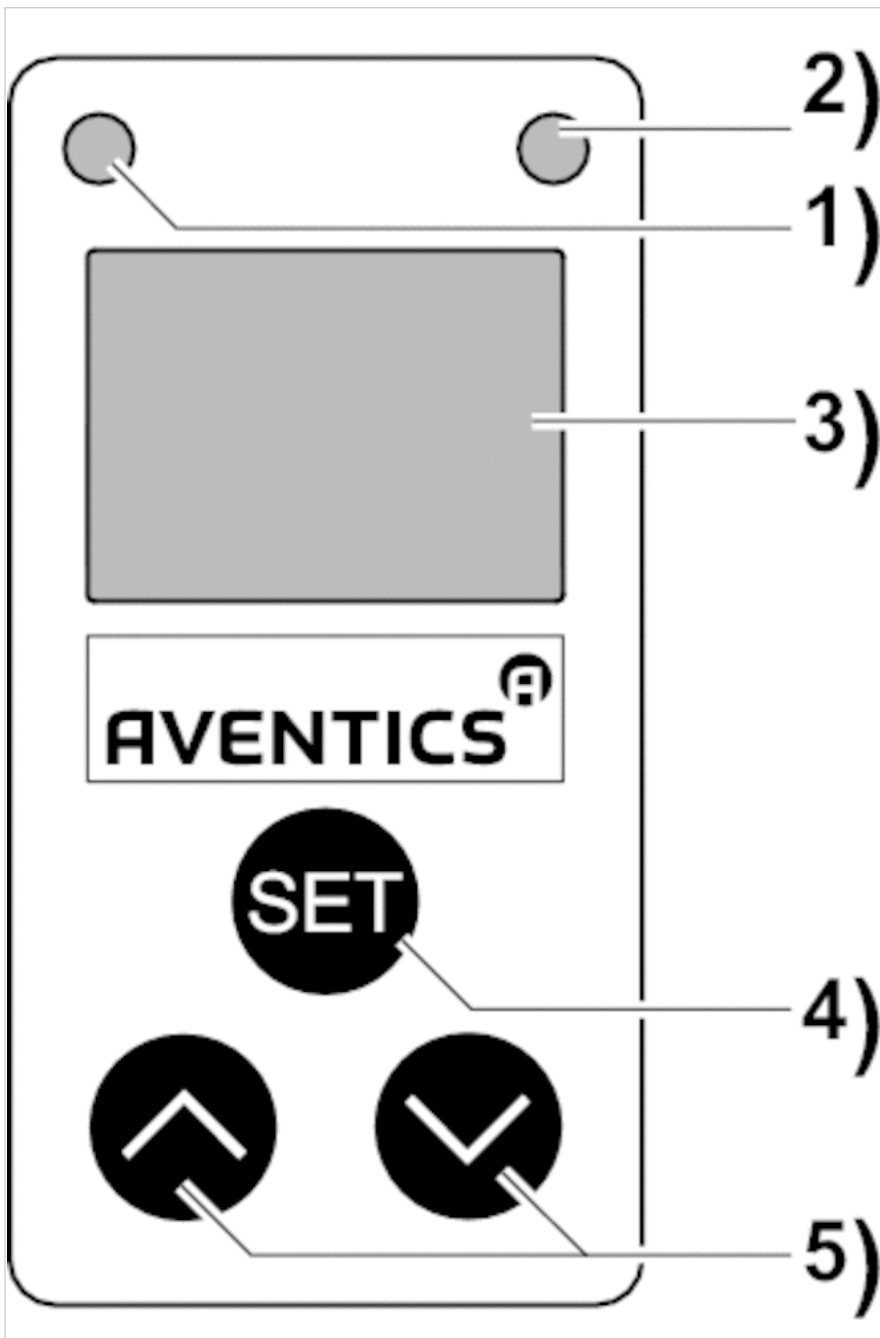


Fig. 2



- 1) cylinder screw M5x35 (included in scope of delivery)
- 2) O-ring  $\varnothing 5 \times 1,5$  (included)

Display and operation area

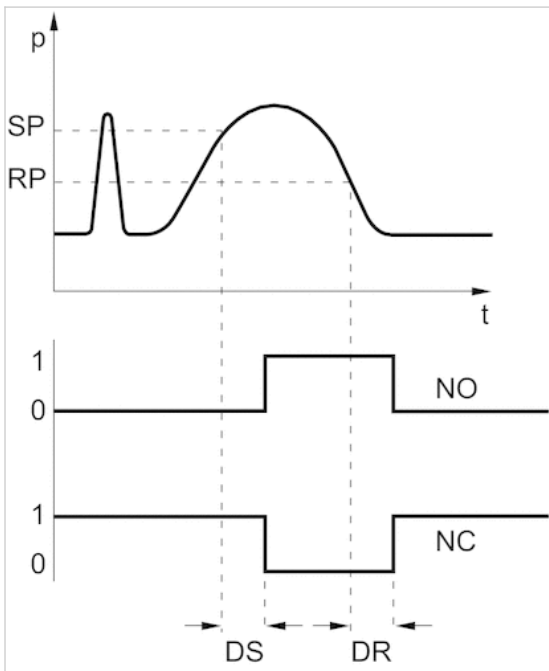


- 1) LED for switch output 1
- 2) LED for switch output 2
- 3) Display (pressure, operating modes, navigation)
- 4) Confirm menu/menu item selection
- 5) Button for menu item/parameter change selection



## Diagrams

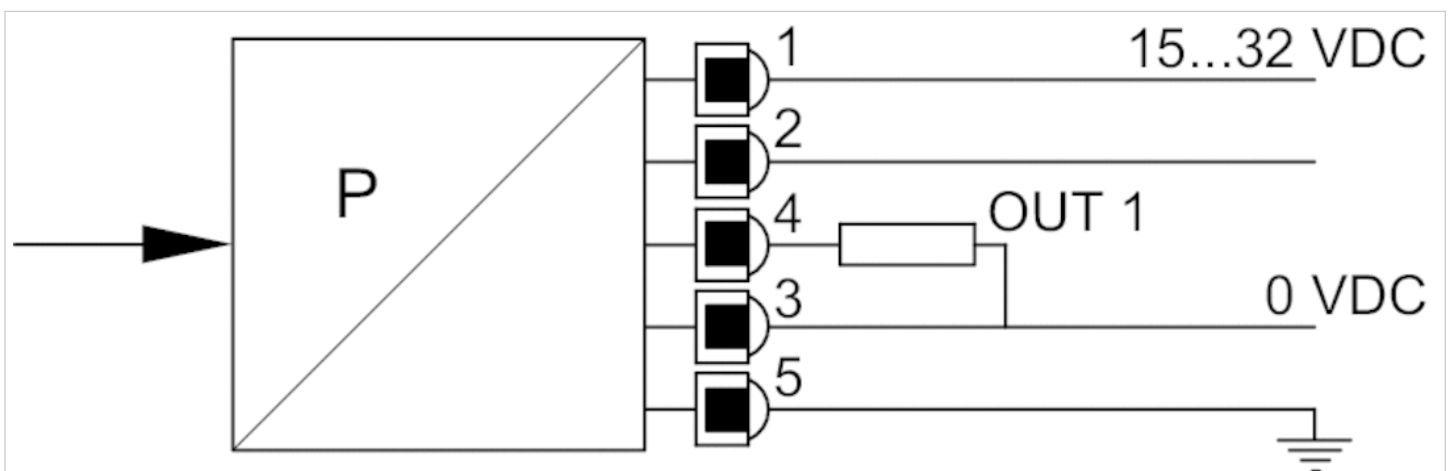
### Pressure-voltage characteristics curve



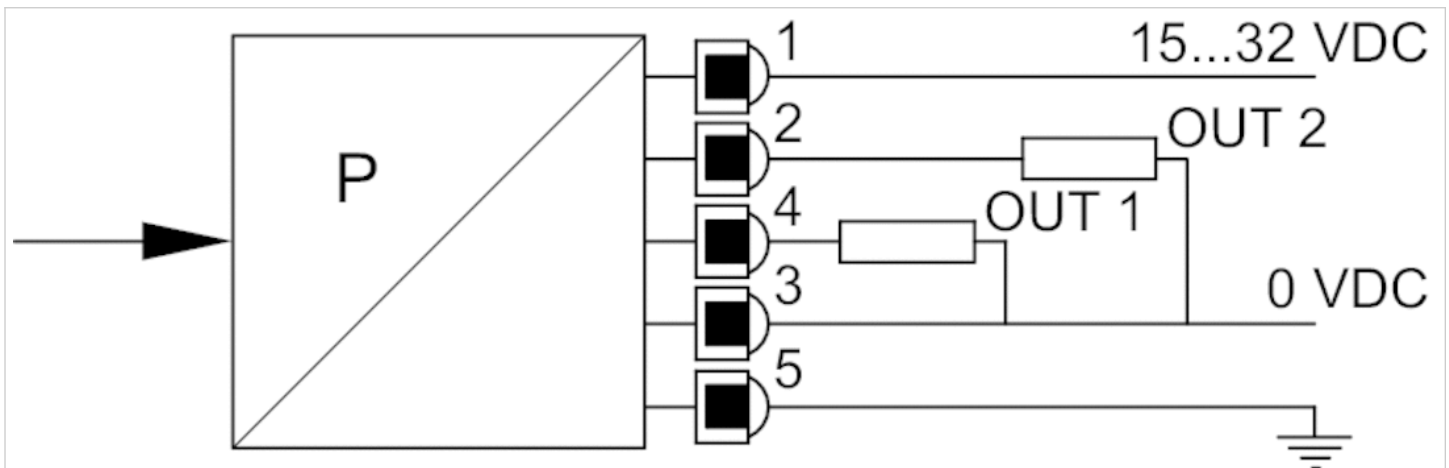
- SP = switching point
- RP = resetting point
- NO = Switching function open
- NC = Switching function closed without current
- DS = Delay for the switching point
- DR = Delay for the resetting point

## Circuit diagram

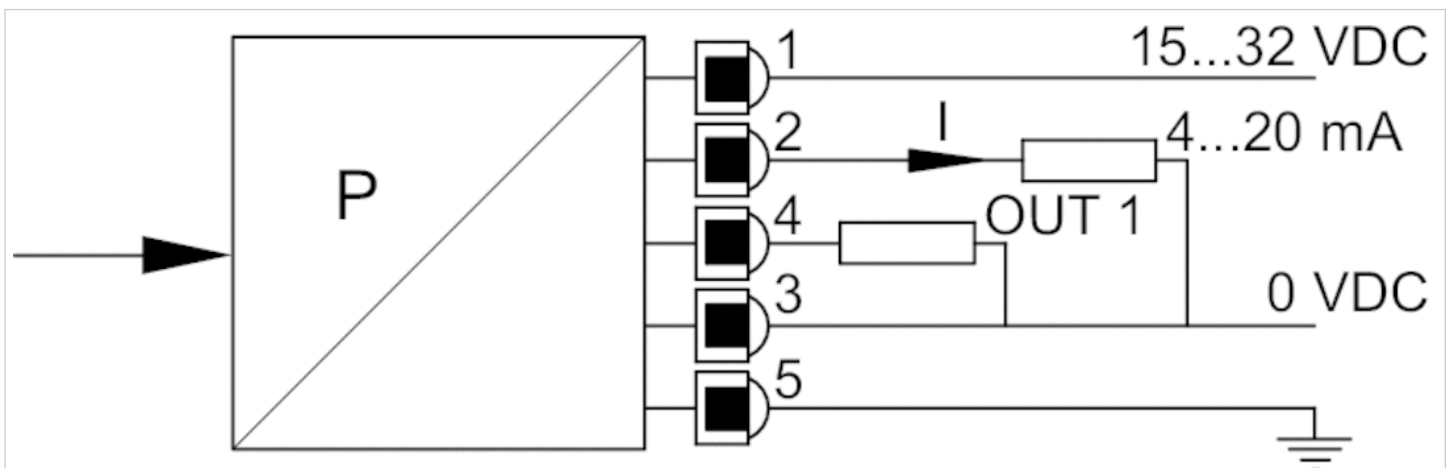
### Block diagram, 1 x PNP



Block diagram, 2 x PNP

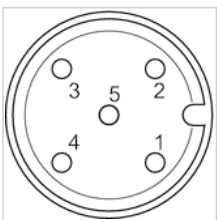


Block diagram, 1x PNP and 1x analog



Pin assignments

Pin assignments



pin 1: signal + UB, color: brown pin 2: signal: out 2 (PNP)/analog 4 - 20 mA, color: white pin 3: signal: 0 volt, color: blue pin 4: signal: out 1 (PNP), color: black pin 5: signal: FE, color: gray








# Pressure Switches, Series PM1

- Operating pressure -0.9 ... 0 -0.9 ... 3 0.2 ... 16 bar
- Mechanical
- Spring-loaded bellows, adjustable
- Electr. connection Plug EN 175301-803, form A
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	Mechanical
Function	change-over contact (mechanical)
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-10 ... 80 °C
Medium	Compressed air Hydraulic oil
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	80 bar
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 ... 30 V DC
Operational voltage AC min./max.	12 ... 250 V AC
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug EN 175301-803, form A
Weight	0.16 kg

## Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010711		PM1-M3-G014	-0.9 ... 0 bar	Internal thread, G 1/4
R412022752		PM1-M3-G014	-0.9 ... 3 bar	Internal thread, G 1/4
R412010712		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010713		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010714		PM1-M3-F001	-0.9 ... 0 bar	Flange with O-ring, Ø 5x1,5
R412010715		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5
R412010718		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5

Part No.	Scope of delivery	Fig.	
R412010711	With valve plug connector	Fig. 1	-
R412022752	Without valve plug connector	Fig. 1	-
R412010712	Without valve plug connector	Fig. 1	1)
R412010713	With valve plug connector	Fig. 1	1)
R412010714	With valve plug connector	Fig. 2	-
R412010715	Without valve plug connector	Fig. 2	1)

Part No.	Scope of delivery	Fig.	
R412010718	With valve plug connector	Fig. 2	1)

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising

## Technical information

Switching function increasing pressure: contact switches from 1-2 to 1-3.

Switching function decreasing pressure: contact switches from 1-3 to 1-2.

Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!

The microswitch has silver-plated contacts.

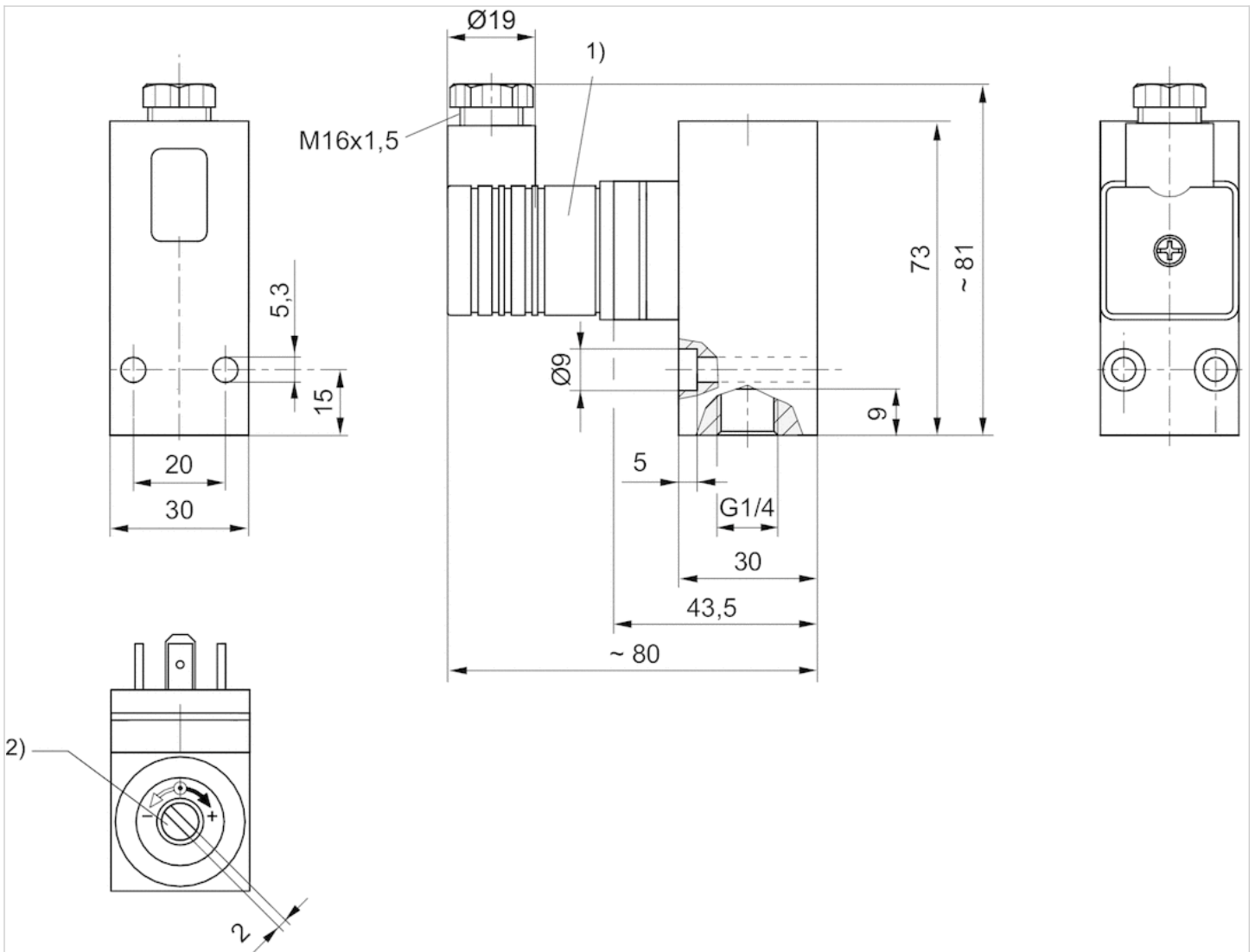
Please observe the pin assignment when selecting plug connectors.

## Technical information

Material	
Housing	Aluminum
Seals	Acrylonitrile butadiene rubber
Electr. connection	Brass, nickel-plated

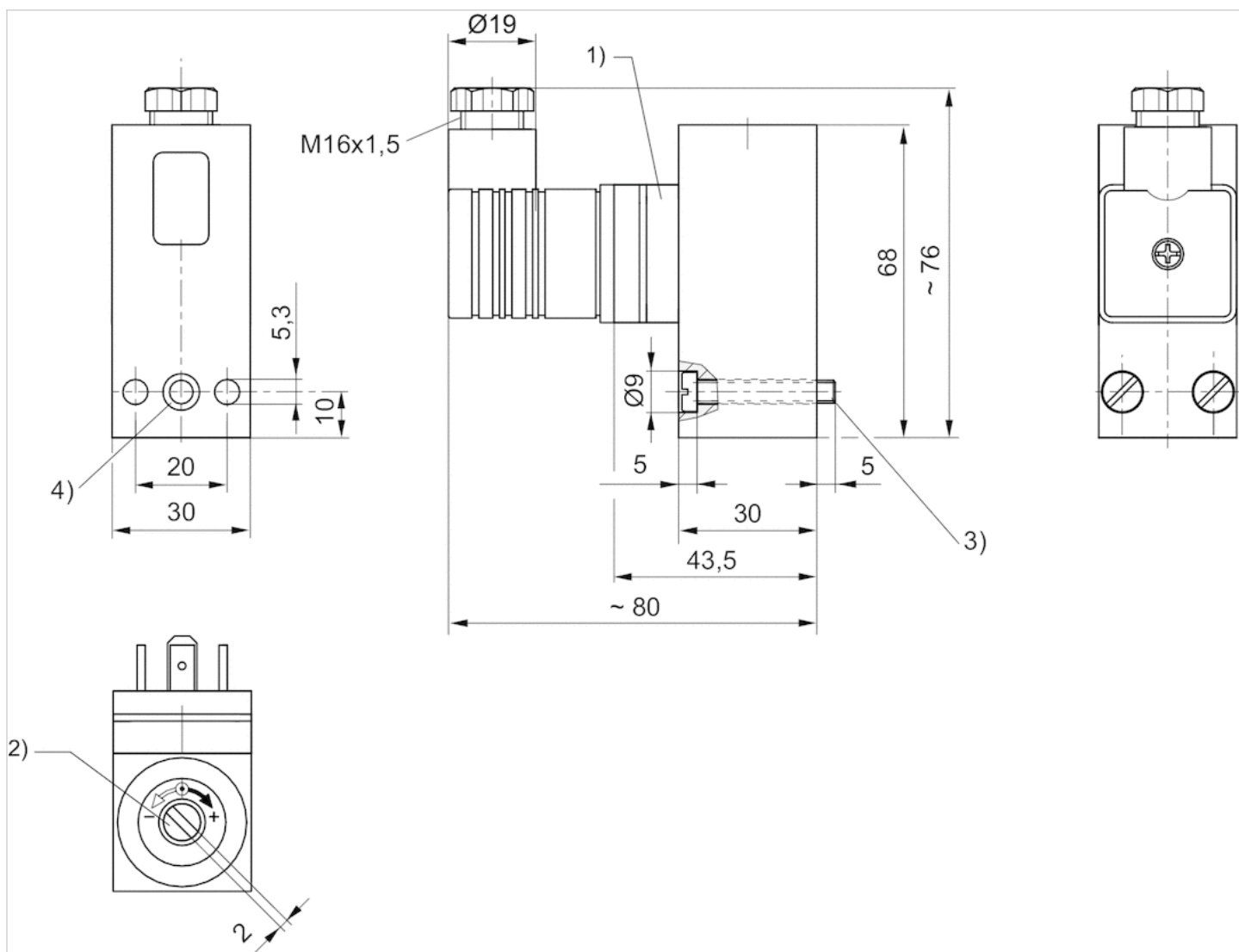
## Dimensions

Fig. 1



- 1) Valve plug connector
- 2) Adjustment screw, self-holding

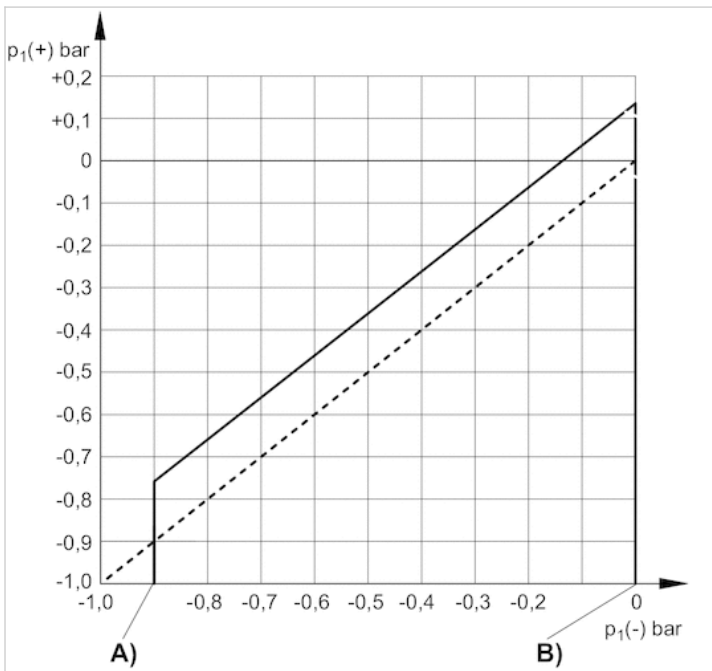
Fig. 2



- 1) Valve plug connector
- 2) Adjustment screw, self-holding
- 3) cylinder screw M5x30 (included in scope of delivery)
- 4) O-ring  $\varnothing 5 \times 1,5$  (included)

## Diagrams

### differential switching pressure characteristic curve (-0,9 - 0 bar)



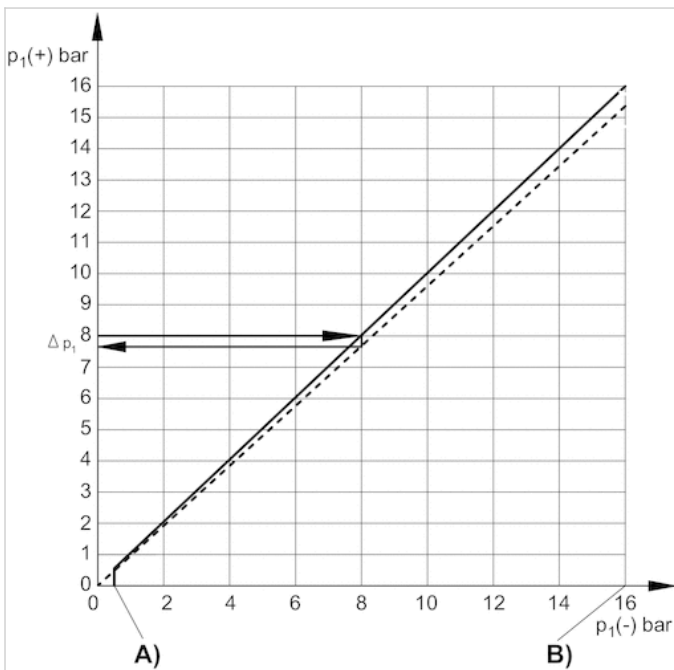
A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

$p_1(+)$  = upper switching pressure with increasing pressure

$p_1(-)$  = lower switching pressure with decreasing pressure

### differential switching pressure characteristic curve (0,2 - 16 bar)



A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

$p_1(+)$  = upper switching pressure with increasing pressure

$p_1(-)$  = lower switching pressure with decreasing pressure

$\Delta p_1$  = max. operating pressure difference or hysteresis

Example:

$p_1 (+) = 8 \text{ bar} > p_1 (-) = 7.6 \text{ bar}$   
 $\Delta p_1 = 0.4 \text{ bar}$

max. permissible continuous current  $I_{\text{max.}}$  [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	–

reference cycle: 30/min., reference temperature: + 30 °C

- 1) AC
- 2) DC

max. permissible continuous current  $I_{\text{max.}}$  [A] with inductive load

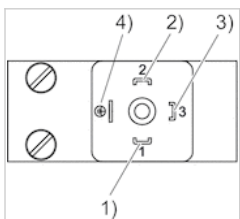
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	–

reference cycle: 30/min., reference temperature: + 30 °C

- 1) AC
- 2) DC
- 3)  $\cos \approx 0,7^\circ$
- 4) L/R  $\approx 10 \text{ ms}$

## Pin assignments

PIN assignment for valve plug connectors



Pin	1	2	3	4
Allocation	+UB	break contact	NO (make contact)	GND







# Pressure Switches, Series PM1

- Operating pressure -0.9 ... 0 0.2 ... 16 bar
- Mechanical
- Spring-loaded bellows, adjustable
- Electr. connection Plug M12x1
- Compressed air connection Internal thread G 1/4 Flange with O-ring Ø 5x1,5



Type	Mechanical
Function	change-over contact (mechanical)
Mounting orientation	Any
Working pressure min./max.	See table below
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-10 ... 80 °C
Medium	Compressed air Hydraulic oil
Measurement	Relative pressure
Switching element	microswitch (input/output)
Protection against overpressure	80 bar
Max. switching frequency	1,5 Hz
Shock resistance max.	15 g
Vibration resistance	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 ... 30 V DC
Operational voltage AC min./max.	12 ... 30 V AC
Mounting types	via through holes
Protection class	IP67
Electr. connection	Plug M12x1
Weight	0.15 kg

## Technical data

Part No.		Type	Operating pressure range	Compressed air connection
			min./max.	
R412010716		PM1-M3-G014	-0.9 ... 0 bar	Internal thread, G 1/4
R412010717		PM1-M3-G014	0.2 ... 16 bar	Internal thread, G 1/4
R412010719		PM1-M3-F001	-0.9 ... 0 bar	Flange with O-ring, Ø 5x1,5
R412010720		PM1-M3-F001	0.2 ... 16 bar	Flange with O-ring, Ø 5x1,5

Part No.	Fig.	
R412010716	Fig. 1	-
R412010717	Fig. 1	1)
R412010719	Fig. 2	-
R412010720	Fig. 2	1)

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising

## Technical information

Switching function increasing pressure: contact switches from 1-2 to 1-3.

Switching function decreasing pressure: contact switches from 1-3 to 1-2.

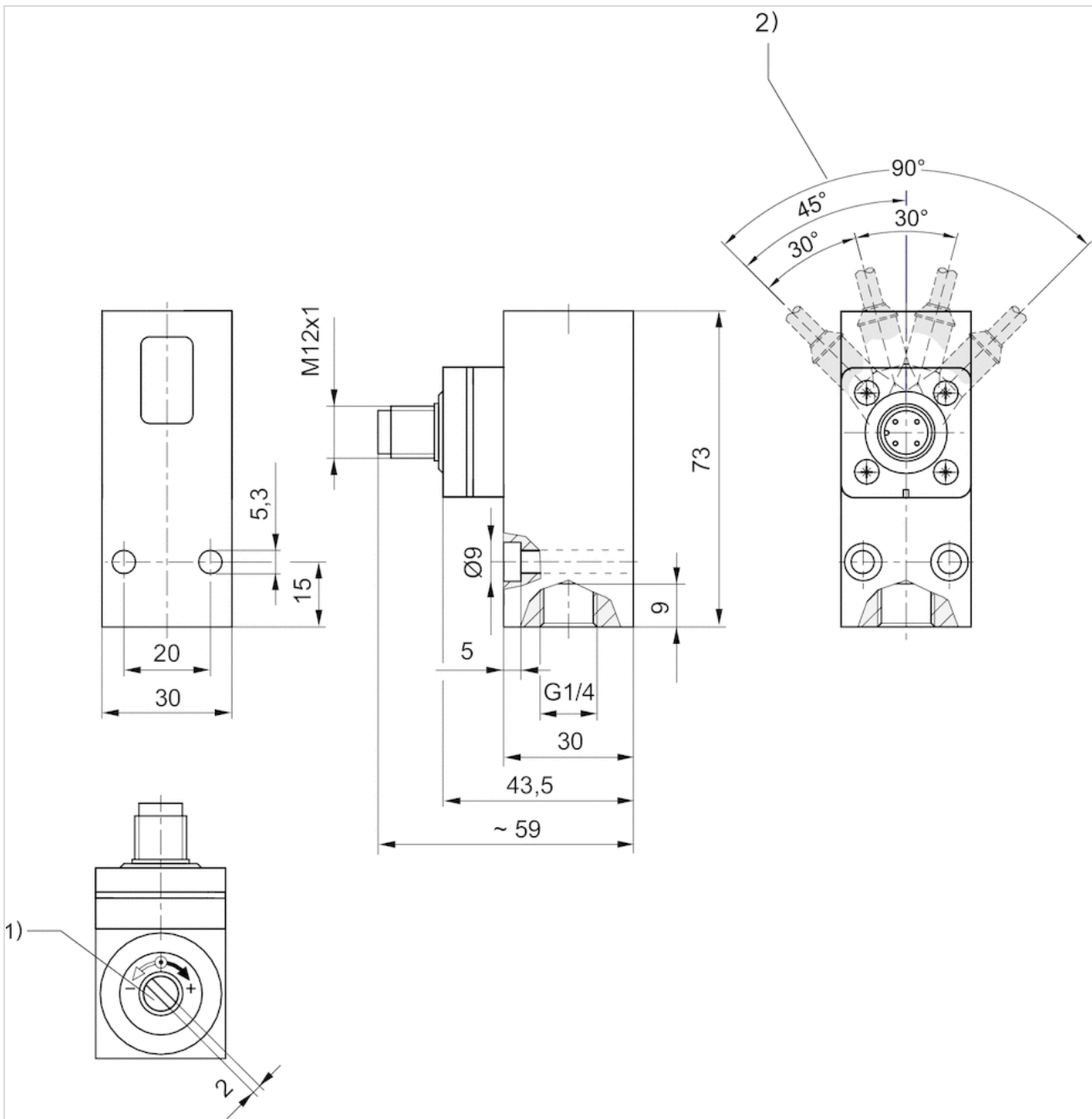
Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!  
The microswitch has silver-plated contacts.

## Technical information

Material	
Housing	Aluminum
Seals	Acrylonitrile butadiene rubber
Electr. connection	Brass, nickel-plated

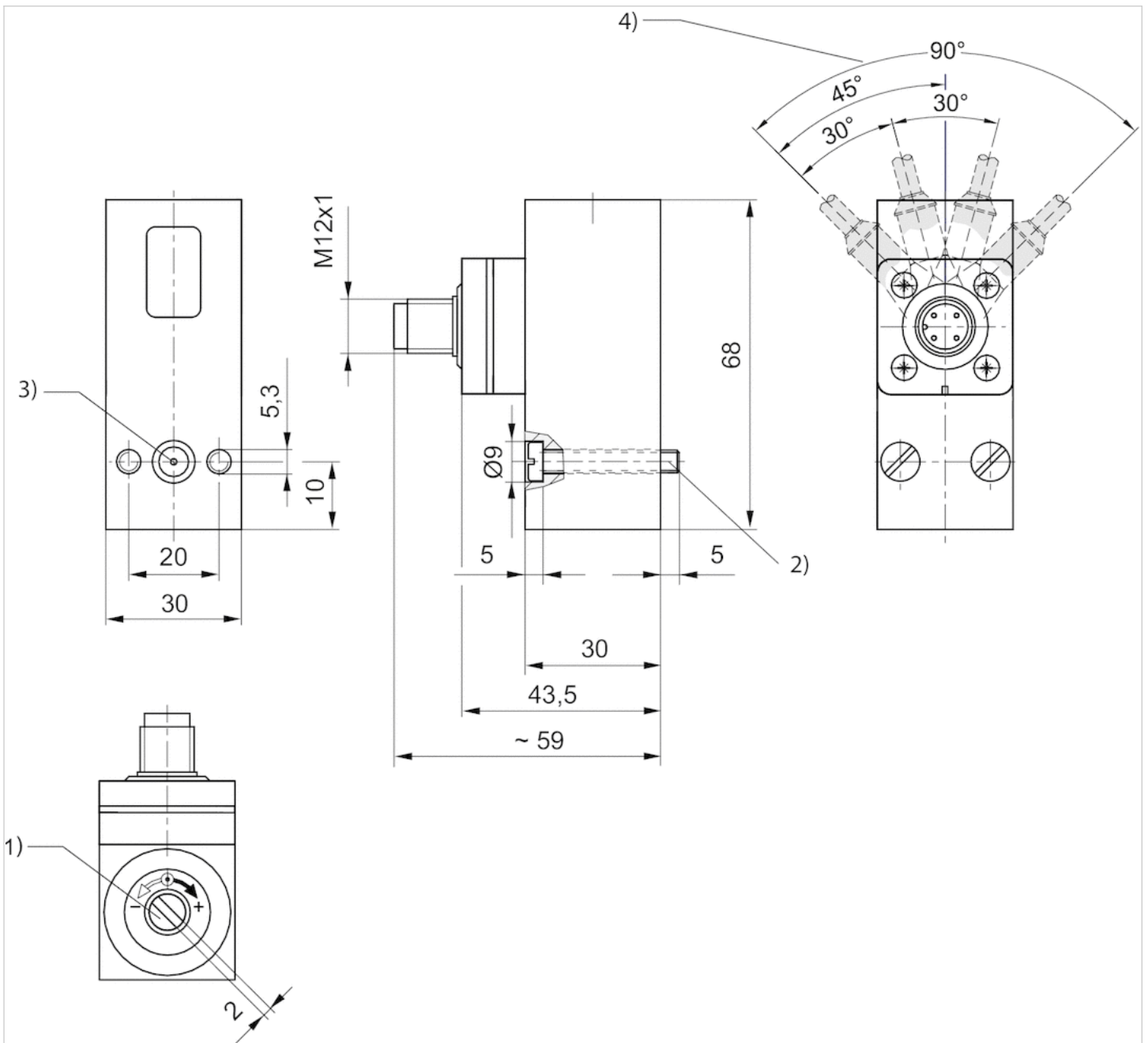
# Dimensions

Fig. 1



- 1) Adjustment screw, self-holding
- 2) Detent position

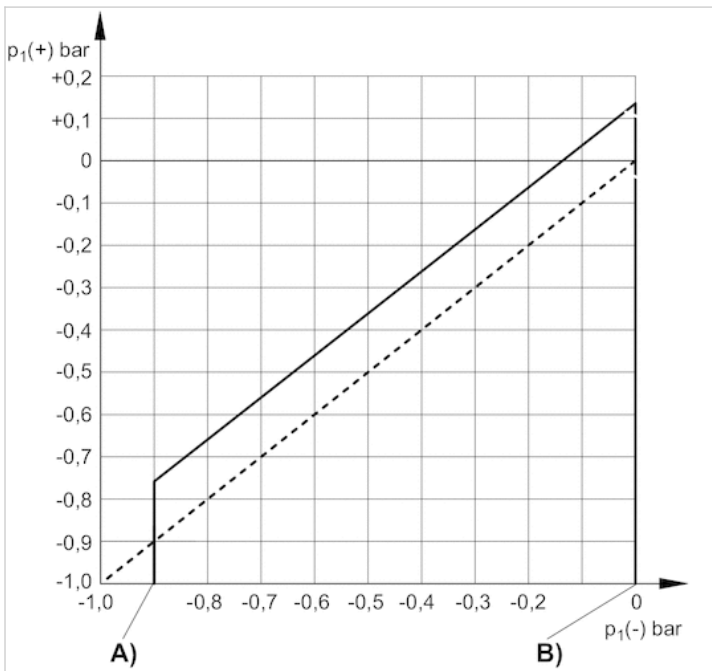
Fig. 2



- 1) Adjustment screw, self-holding
- 2) cylinder screw M5x30 (included in scope of delivery)
- 3) O-ring Ø5x1,5 (included)
- 4) Detent position

## Diagrams

### differential switching pressure characteristic curve (-0,9 - 0 bar)



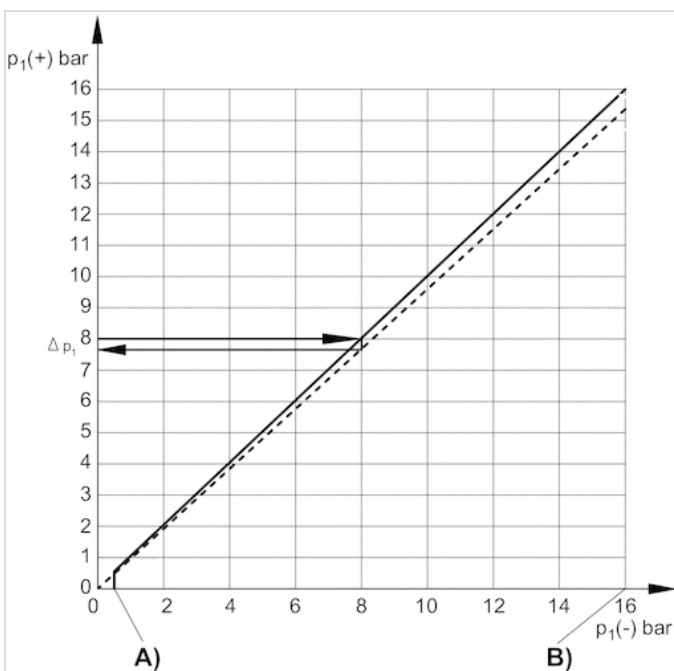
A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

$p_1(+)$  = upper switching pressure with increasing pressure

$p_1(-)$  = lower switching pressure with decreasing pressure

### differential switching pressure characteristic curve (0,2 - 16 bar)



A)  $p_1(-)$ , min.

B)  $p_1(-)$ , max.

$p_1(+)$  = upper switching pressure with increasing pressure

$p_1(-)$  = lower switching pressure with decreasing pressure

$\Delta p_1$  = max. operating pressure difference or hysteresis

Example:

$p_1 (+) = 8 \text{ bar} > p_1 (-) = 7.6 \text{ bar}$   
 $\Delta p_1 = 0.4 \text{ bar}$

max. permissible continuous current  $I_{max.}$  [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	
30 / 48 / 60 / 125		3 / 1,2 / 0,8 / 0,4

reference cycle: 30/min., reference temperature: + 30 °C

- 1) AC
- 2) DC

max. permissible continuous current  $I_{max.}$  [A] with inductive load

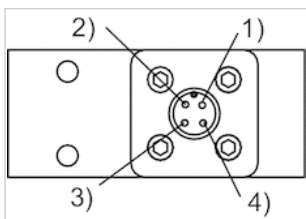
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	
30 / 48 / 60 / 125		2 / 0,55 / 0,4 / 0,2

reference cycle: 30/min., reference temperature: + 30 °C

- 1) AC
- 2) DC
- 3)  $\cos \approx 0,7^\circ$
- 4)  $L/R \approx 10 \text{ ms}$

Pin assignments

Pin assignments



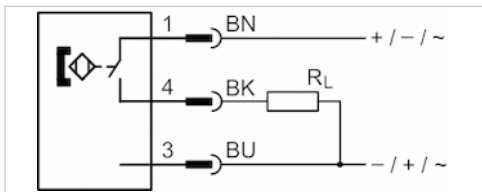
Pin	1	2	3	4
Allocation	+UB	break contact	No function	NO (make contact)

# Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M12, 4-pin, with knurled screw
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	0.3 m



## Technical data

Part No.	for	Type of contact	Cable length L
R412022876	PRA PRE CCI KPZ SSI GPC CVI	Reed	0.3 m

Part No.	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412022876	≤ 0,1 V	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022876	0.5 A	400 Hz

Part No.	Version
R412022876	Protected against polarity reversal

The product of operating voltage and continuous current must not exceed the maximum switching capacity.

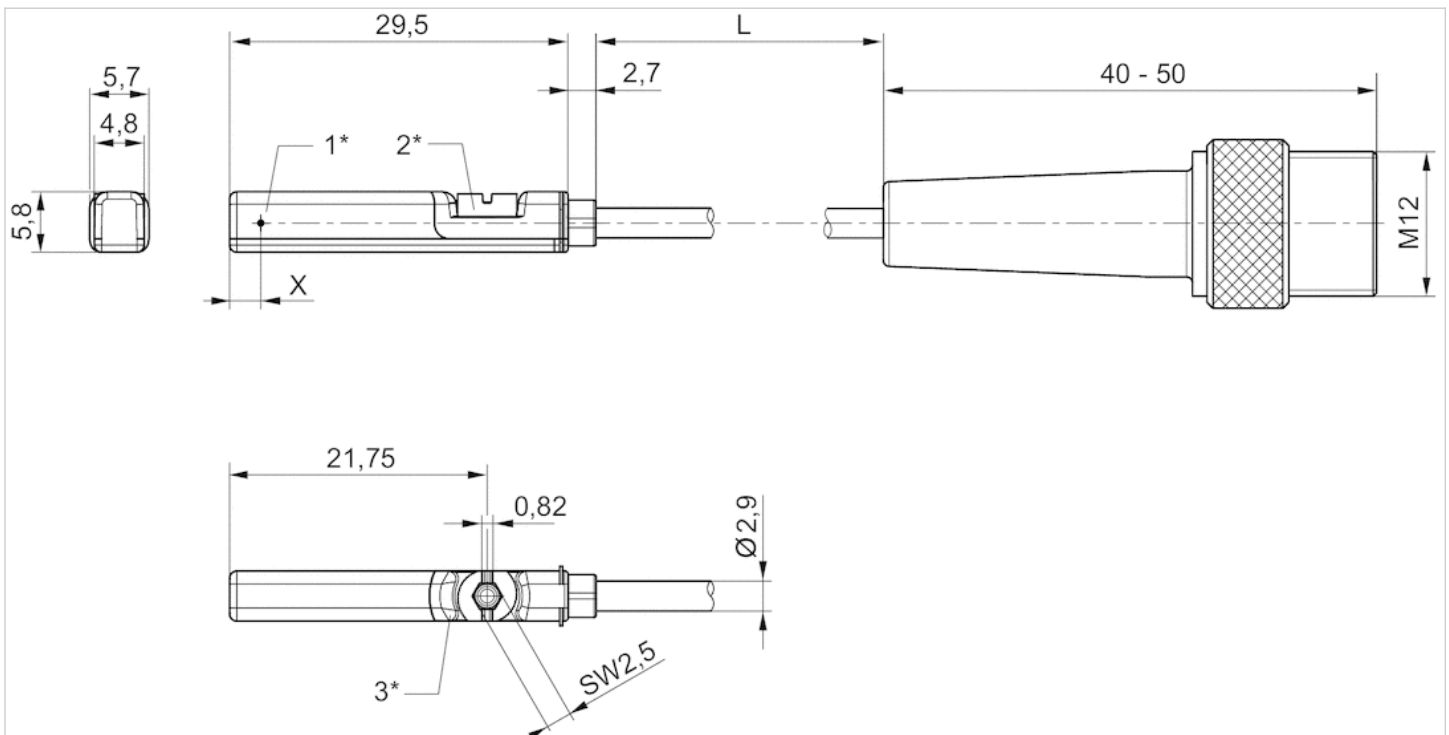
## Technical information

### Material

Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent

L = cable length

X = PNP: 11,6 mm, reed: 8,3 mm

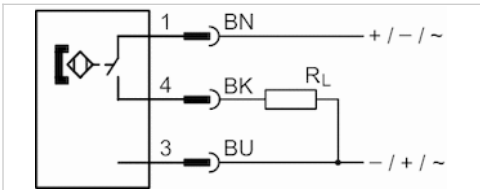


# Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	0.3 0.5 m



## Technical data

Part No.	for	Type of contact	Cable sheath
R412022873	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyurethane
R412022875	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyvinyl chloride
R412022874	PRA PRE CCI KPZ SSI GPC CVI	Reed	Polyurethane

Part No.	Cable length L	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412022873	0.3 m	I*Rs	0.3 A
R412022875	0.3 m	I*Rs	0.3 A
R412022874	0.5 m	I*Rs	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022873	0.5 A	400 Hz
R412022875	0.5 A	400 Hz
R412022874	0.5 A	400 Hz

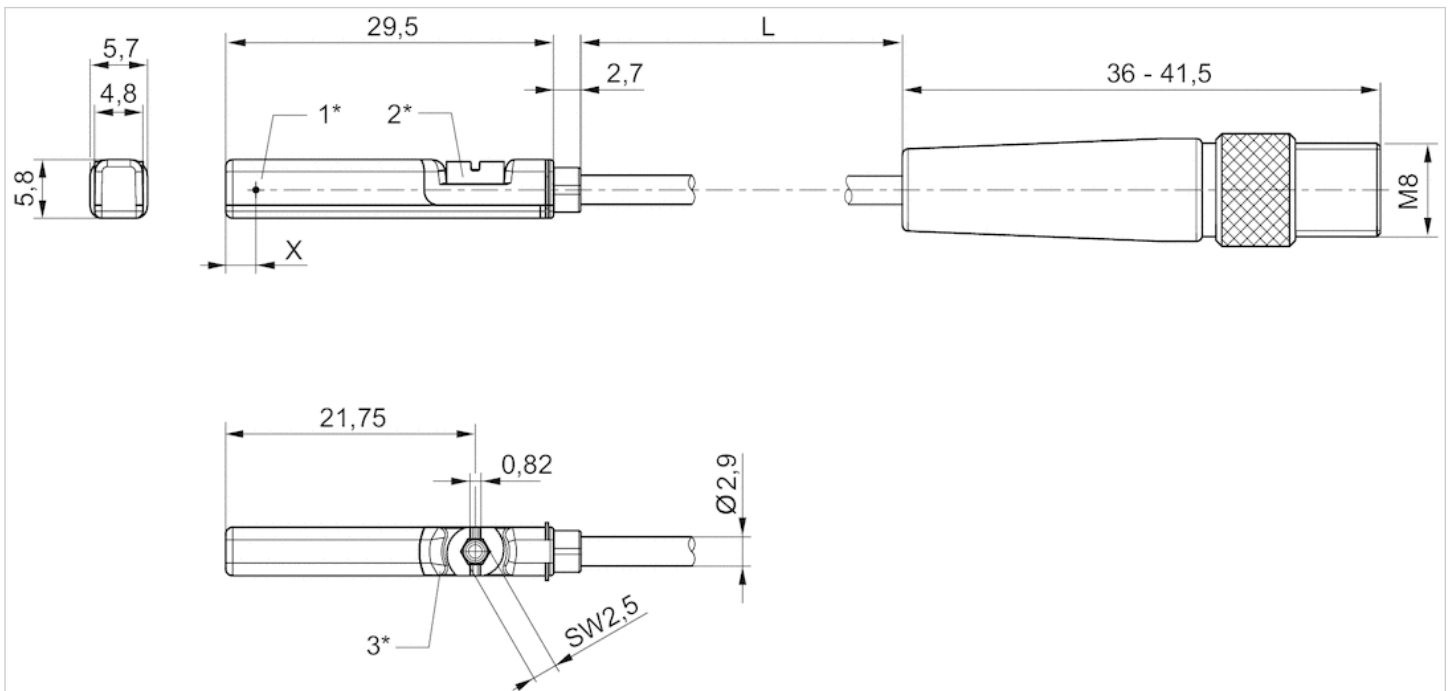
Part No.	Version
R412022873	Protected against polarity reversal
R412022875	Protected against polarity reversal
R412022874	Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane Polyvinyl chloride
Locking screw	Stainless steel

## Dimensions

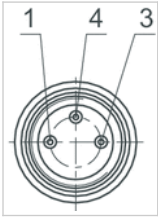
### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent  
 L = cable length  
 X = electronic: 11,6 mm, Reed: 8,3 mm

## Pin assignments

### Pin assignments



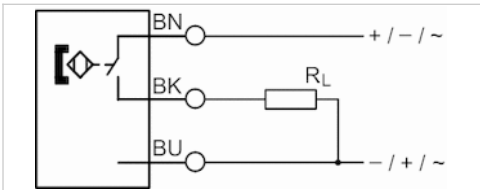
Pin	1	3	4
Allocation	(+)	(-)	(OUT)

# Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 3-pin
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, RPC, ICS-D2, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67, IP69K
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	10 ... 30 V AC
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Cable length L	3 5 10 m



## Technical data

Part No.	for	Type of contact	Cable length L
R412022869	PRA PRE CCI KPZ SSI GPC CVI	Reed	3 m
R412022870	PRA PRE CCI KPZ SSI GPC CVI	Reed	5 m
R412022871	PRA PRE CCI KPZ SSI GPC CVI	Reed	10 m

Part No.	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412022869	I*Rs	0.3 A
R412022870	≤ 0,1 V	0.3 A
R412022871	I*Rs	0.3 A

Part No.	AC switching current, max.	Max. switching frequency
R412022869	0.5 A	400 Hz
R412022870	0.5 A	400 Hz
R412022871	0.5 A	400 Hz

Part No.	Version	Fig.
R412022869	Protected against polarity reversal	Fig. 2
R412022870	Protected against polarity reversal	Fig. 2
R412022871	Protected against polarity reversal	Fig. 2

open cable ends, 3-pin, The product of operating voltage and continuous current must not exceed the maximum switching capacity.

## Technical information

No cULus certification for 230 V variant.

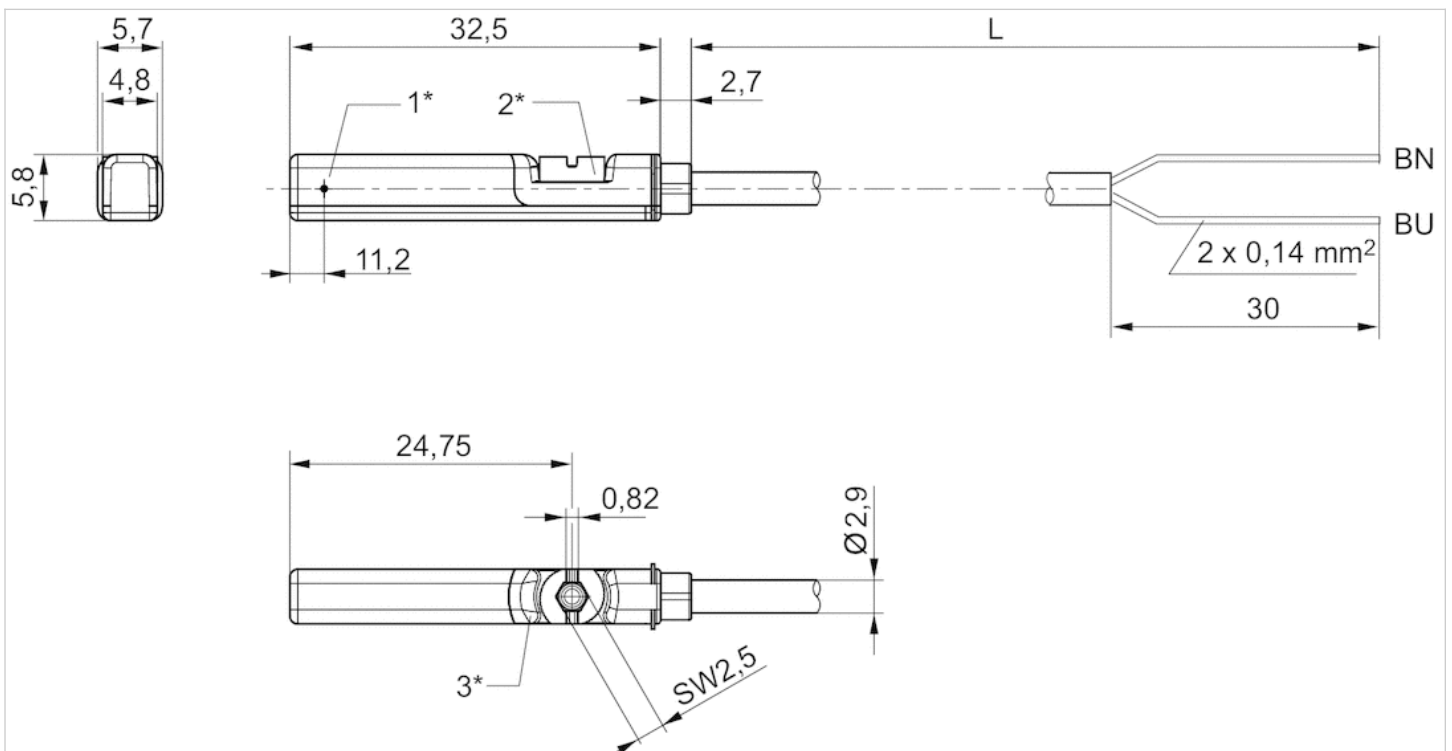
## Technical information

### Material

Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

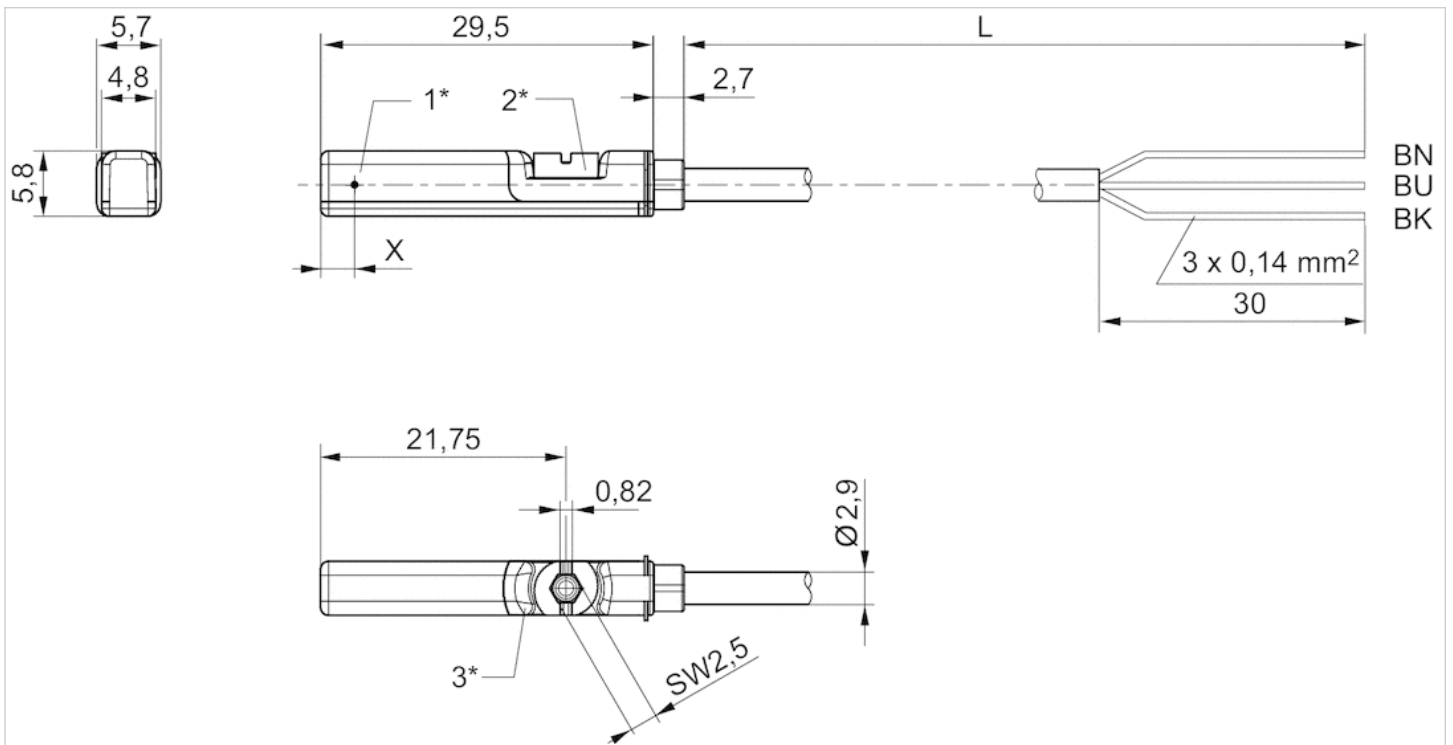
## Dimensions

Fig. 1



1\* = switching point 2\* = locking screw 3\* = LED window, transparent  
 L = cable length  
 BN=brown, BU=blue

Fig. 2



1\* = switching point 2\* = locking screw 3\* = LED window, transparent  
 L = cable length  
 BN = brown, BK = black, BU = blue  
 X = electronic: 11.6 mm

## QR1-S-RPN standard series

- Straight fitting
- External thread
- G 1/4 G 3/8 G 1/2
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RPN



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	0 ... 60 °C
Weight per piece	See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
2121004140	G 1/4	Ø 4	10 piece	0.02 kg
2121006140	G 1/4	Ø 6	10 piece	0.021 kg
2121008140	G 1/4	Ø 8	10 piece	0.024 kg
2121010140	G 1/4	Ø 10	10 piece	0.026 kg
2121012140	G 1/4	Ø 12	10 piece	0.039 kg
R412005000	G 3/8	Ø 6	10 piece	0.032 kg
2121008380	G 3/8	Ø 8	10 piece	0.035 kg
2121010380	G 3/8	Ø 10	10 piece	0.042 kg
2121012380	G 3/8	Ø 12	10 piece	0.045 kg
2121014380	G 3/8	Ø 14	10 piece	0.046 kg
R412005005	G 3/8	Ø 16	10 piece	0.058 kg
R412005001	G 1/2	Ø 8	10 piece	0.052 kg
2121010120	G 1/2	Ø 10	10 piece	0.058 kg
2121012120	G 1/2	Ø 12	10 piece	0.057 kg
2121014120	G 1/2	Ø 14	10 piece	0.064 kg
R412005006	G 1/2	Ø 16	10 piece	0.067 kg

### Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined  
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

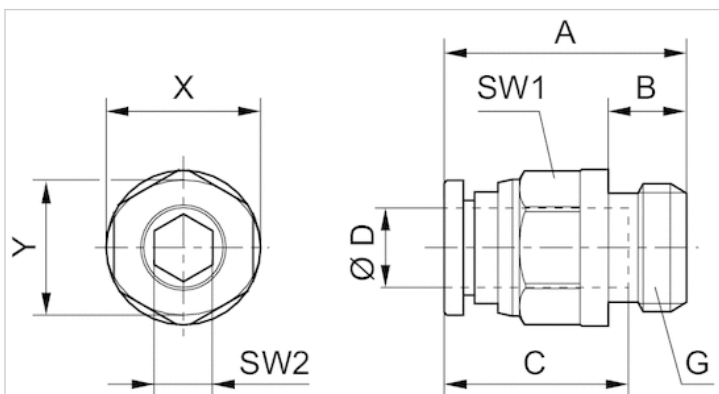
## Technical information

### Material

Material	nickel-plated
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene
Release ring holder	Die cast zinc Brass, nickel-plated
Thread	Brass, nickel-plated

## Dimensions

### Dimensions



## Dimensions

Part No.	Port D	Port G	A	B	C	SW1	SW2	X	Y
2121004140	Ø 4	G 1/4	19.1	6	16	10	3	12	10
2121006140	Ø 6	G 1/4	21.6	6	17	12	4	14	12
2121008140	Ø 8	G 1/4	22.4	6	18.5	14	6	16	14
2121010140	Ø 10	G 1/4	29.9	6	21	17	7	19	17
2121012140	Ø 12	G 1/4	33.4	6	22.5	21	7	23	21
R412005000	Ø 6	G 3/8	21.6	7	17	12	4	14	12
2121008380	Ø 8	G 3/8	23.2	7	18.5	14	6	16	14
2121010380	Ø 10	G 3/8	25.9	7	21	17	8	19	17
2121012380	Ø 12	G 3/8	33.5	7	23	21	9	23	21
2121014380	Ø 14	G 3/8	30.1	7	24.6	22	9	25	23
R412005005	Ø16	G 3/8	35.3	7	25.5	24	8	27	24
R412005001	Ø 8	G 1/2	25.7	8.5	18.5	14	6	16	14
2121010120	Ø 10	G 1/2	27.4	8.5	21	17	8	19	17
2121012120	Ø 12	G 1/2	29.5	8.5	23	21	10	23	21
2121014120	Ø 14	G 1/2	25.6	8.5	24.6	24	11	25	23
R412005006	Ø16	G 1/2	36.3	8.5	25.5	24	10	27	24



## QR1-S-RVT standard series

- Elbow fitting
- External thread
- G 1/4 G 3/8 G 1/2
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR1-S-RVT



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	0 ... 60 °C
Weight per piece	See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
2122004140	G 1/4	Ø 4	10 piece	0.017 kg
2122006140	G 1/4	Ø 6	10 piece	0.019 kg
2122008140	G 1/4	Ø 8	10 piece	0.023 kg
2122010140	G 1/4	Ø 10	10 piece	0.029 kg
2122012140	G 1/4	Ø 12	10 piece	0.042 kg
R412005092	G 3/8	Ø 6	10 piece	0.031 kg
2122008380	G 3/8	Ø 8	10 piece	0.033 kg
2122010380	G 3/8	Ø 10	10 piece	0.04 kg
2122012380	G 3/8	Ø 12	10 piece	0.044 kg
2122014380	G 3/8	Ø 14	5 piece	0.048 kg
R412005097	G 3/8	Ø 16	5 piece	0.061 kg
R412005093	G 1/2	Ø 8	10 piece	0.049 kg
2122010120	G 1/2	Ø 10	10 piece	0.05 kg
2122012120	G 1/2	Ø 12	10 piece	0.056 kg
2122014120	G 1/2	Ø 14	5 piece	0.066 kg
R412005098	G 1/2	Ø 16	5 piece	0.076 kg

### Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined  
Thread seal with captive O-ring

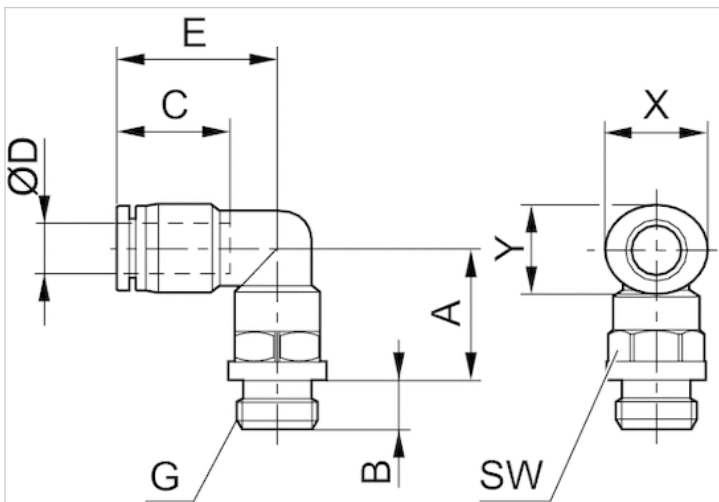
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Material	
Material	nickel-plated
Housing	Polybutyleneterephthalate
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Polyoxymethylene
Release ring holder	Die cast zinc Brass, nickel-plated
Thread	Brass, nickel-plated

## Dimensions

### Dimensions



### Dimensions

Part No.	Port D	Port G	A	B	C	E	SW	X	Y
2122004140	Ø 4	G 1/4	9.5	6	16	18.5	16	12	10
2122006140	Ø 6	G 1/4	10.7	6	17	20.3	16	14	12
2122008140	Ø 8	G 1/4	11.5	6	18.5	22.6	16	16	14
2122010140	Ø 10	G 1/4	16.5	6	21	27	16	19	17
2122012140	Ø 12	G 1/4	18.3	6	22.5	29.2	16	23	21
R412005092	Ø 6	G 3/8	11.2	7	17	20.3	20	14	12
2122008380	Ø 8	G 3/8	11.5	7	18.5	22.6	20	16	14
2122010380	Ø 10	G 3/8	13.6	7	21	27	20	19	16
2122012380	Ø 12	G 3/8	15.3	7	22.5	29.2	20	23	21
2122014380	Ø 14	G 3/8	23.1	7	24.6	32.1	20	25	23
R412005097	Ø16	G 3/8	24.2	7	24.8	33.3	20	27	24
R412005093	Ø 8	G 1/2	12.5	8.5	18.5	22.6	24	16	14
2122010120	Ø 10	G 1/2	14.1	8.5	21	27	24	19	14
2122012120	Ø 12	G 1/2	15.8	8.5	22.5	29.2	24	23	21
2122014120	Ø 14	G 1/2	17.1	8.5	24.6	32.1	24	25	23

Part No.	Port D	Port G	A	B	C	E	SW	X	Y
R412005098	Ø16	G 1/2	18.2	8.5	24.8	33.3	24	27	24

## Series QR2-S-RPN standard

- Straight fitting
- External thread
- G 1/4 G 3/8 G 1/2
- push-in fitting
- Ø 4 Ø 5 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR2-S-RPN



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Weight per piece

See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece	Fig.
1823373045	G 1/4	Ø 4	25 piece	0.012 kg	Fig. 1
1823373046	G 1/4	Ø 5	10 piece	0.013 kg	Fig. 1
1823373047	G 1/4	Ø 6	25 piece	0.015 kg	Fig. 1
1823373048	G 1/4	Ø 8	10 piece	0.016 kg	Fig. 1
1823373049	G 1/4	Ø 10	10 piece	0.026 kg	Fig. 1
1823391809	G 1/4	Ø 12	10 piece	0.031 kg	Fig. 1
R412004708	G 1/4	Ø 12	10 piece	0.022 kg	Fig. 2
1823373050	G 3/8	Ø 8	10 piece	0.021 kg	Fig. 1
1823373051	G 3/8	Ø 10	10 piece	0.028 kg	Fig. 1
1823373052	G 3/8	Ø 12	5 piece	0.038 kg	Fig. 1
1823373053	G 3/8	Ø 14	5 piece	0.059 kg	Fig. 1
1823373054	G 1/2	Ø 12	5 piece	0.048 kg	Fig. 1
1823373055	G 1/2	Ø 14	5 piece	0.064 kg	Fig. 1
R412007955	G 1/2	Ø 16	1 piece	0.072 kg	Fig. 1

### Technical information

The series QR1 (plastic) and QR2 (metal) can not be combined  
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Material	
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Brass, nickel-plated
Thread	Brass, nickel-plated

## Dimensions

Fig. 1

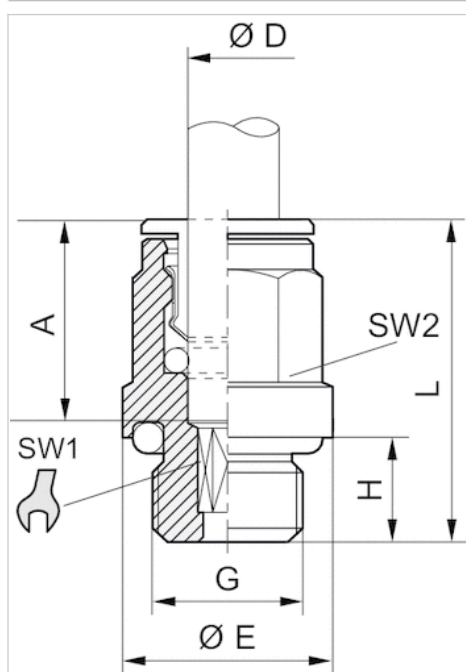
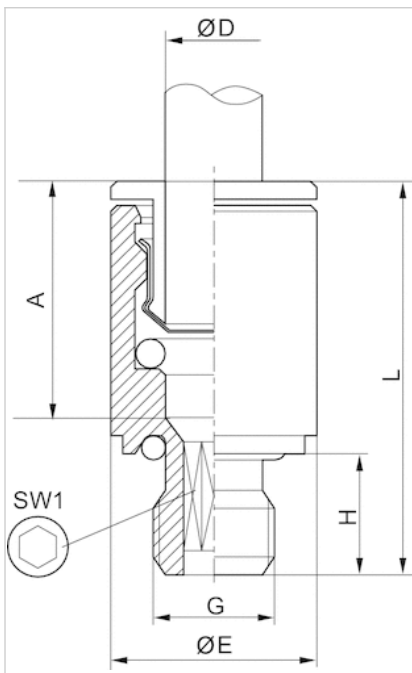


Fig. 2



## Dimensions

Part No.	Port D	Port G	Ø E	H	L	A Insertion depth	SW 1	SW 2	Fig.
1823373045	Ø 4	G 1/4	17	8	21	15	2.5	9	Fig. 1
1823373046	Ø 5	G 1/4	17	8	22	16	4	10	Fig. 1
1823373047	Ø 6	G 1/4	17	6.5	22.5	16	4	11	Fig. 1
1823373048	Ø 8	G 1/4	17	8	25	18	6	13	Fig. 1
1823373049	Ø 10	G 1/4	16	8	29.5	19	7	16	Fig. 1
1823391809	Ø 12	G 1/4	16	6.5	30	20	7	18	Fig. 1
R412004708	Ø 12	G 1/4	17	8.3	31	7	-	-	Fig. 2
1823373050	Ø 8	G 3/8	20	9	25	18	6	13	Fig. 1
1823373051	Ø 10	G 3/8	21	9	29.5	19	8	16	Fig. 1
1823373052	Ø 12	G 3/8	21	9	31	20	10	18	Fig. 1
1823373053	Ø 14	G 3/8	21	9	34	22	10	21	Fig. 1
1823373054	Ø 12	G 1/2	24	11	31	20	10	18	Fig. 1
1823373055	Ø 14	G 1/2	24	11	34	22	12	21	Fig. 1
R412007955	Ø16	G 1/2	24	11	37	12	24	-	Fig. 1

## Series QR2-S-RVT standard

- Elbow fitting, rotatable
- External thread
- G 1/4 G 3/8 G 1/2
- push-in fitting
- Ø 4 Ø 6 Ø 8 Ø 10 Ø 12 Ø 14 Ø 16
- QR2-S-RVT



Working pressure min./max.	-0.95 ... 16 bar
Ambient temperature min./max.	-20 ... 80 °C
Weight per piece	See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
1823391713	G 1/4	Ø 4	10 piece	0.024 kg
1823391714	G 1/4	Ø 6	10 piece	0.025 kg
1823391715	G 1/4	Ø 8	10 piece	0.027 kg
1823391718	G 1/4	Ø 10	5 piece	0.031 kg
1823391843	G 1/4	Ø 12	5 piece	0.042 kg
1823391716	G 3/8	Ø 8	5 piece	0.042 kg
1823391717	G 3/8	Ø 10	5 piece	0.042 kg
1823391838	G 3/8	Ø 12	5 piece	0.045 kg
1823391839	G 3/8	Ø 14	5 piece	0.062 kg
R412010182	G 3/8	Ø 16	1 piece	0.072 kg
R412007589	G 1/2	Ø 10	5 piece	0.046 kg
1823391840	G 1/2	Ø 12	5 piece	0.065 kg
1823391841	G 1/2	Ø 14	5 piece	0.07 kg
R412007956	G 1/2	Ø 16	1 piece	0.084 kg

### Technical information

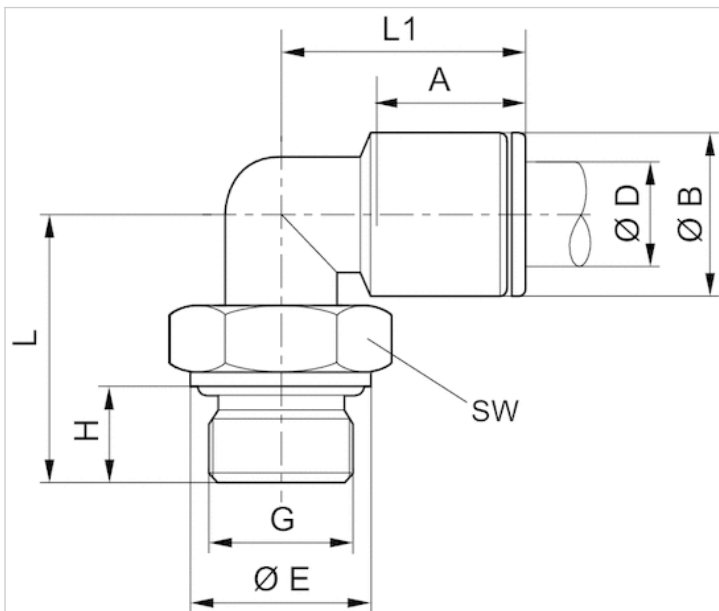
The series QR1 (plastic) and QR2 (metal) can not be combined  
Thread seal with captive O-ring

For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

## Technical information

Material	
Housing	Brass, nickel-plated
Seal	Acrylonitrile butadiene rubber
Tooth lock washer	Stainless steel
Release ring	Brass, nickel-plated
Thread	Brass, nickel-plated

## Dimensions



## Dimensions

Part No.	Port D	Port G	ØB	ØE	H	L	L1	A Insertion depth	SW
1823391713	Ø 4	G 1/4	9	16	8	24	19	15	13
1823391714	Ø 6	G 1/4	11	16	8	24	21	16	13
1823391715	Ø 8	G 1/4	13	16	8	24	24	18	13
1823391718	Ø 10	G 1/4	15	16	8	24	27	19	16
1823391843	Ø 12	G 1/4	17	16	8	30.5	29	20	16
1823391716	Ø 8	G 3/8	13	20	9	25.5	24	18	13
1823391717	Ø 10	G 3/8	15	20	9	28	27	19	16
1823391838	Ø 12	G 3/8	17	20	9	28.5	28	20	20
1823391839	Ø 14	G 3/8	20	20	9	28.5	31	22	20
R412010182	Ø16	G 3/8	23	20	9	33.5	33	23.5	20
R412007589	Ø 10	G 1/2	15	25	11	30	27	19	16
1823391840	Ø 12	G 1/2	17	25	11	33.5	28	20	20
1823391841	Ø 14	G 1/2	20	25	11	33.5	31	22	20
R412007956	Ø16	G 1/2	23	25	11	38	33	23.5	20



## Series NU2

- Swivel banjo connection 1-fold
- External thread
- G 3/8 G 1/2
- plug-in with tube nut
- Ø 8 Ø 13
- NU2-S-RW1



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 60 °C
Weight per piece	See table below

### Technical data

Part No.	Port G	Port D	Delivery unit	Weight per piece
1823391296	G 3/8	Ø 8	2 piece	0.056 kg
R412007839	G 3/8	Ø 13	2 piece	0.079 kg
R412007838	G 1/2	Ø 13	2 piece	0.098 kg

### Technical information

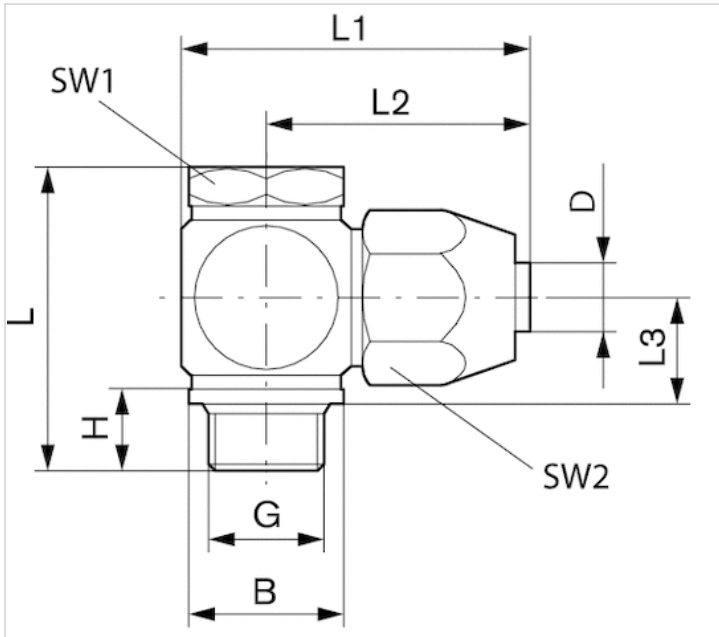
For further information about assembling and tolerances of adaptable tubing can be found in the "Technical information" document (available in the MediaCentre).

### Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyvinyl chloride

## Dimensions

### Dimensions



for fabric-reinforced plastic tubing

## Dimensions

Part No.	Port D	Port G	B	H	L	L1	L2	L3	SW1	SW2
1823391296	Ø 8	G 3/8	21	12.5	43	47	35	15.5	22	22
R412007839	Ø 13	G 3/8	22.9	12.5	47	49	37	18.5	22	30
R412007838	Ø 13	G 1/2	22.9	14	49.5	55	40	18.5	27	30

Connection D = inside diameter of the tubing to be used

# Double nipple, Series PE5

- External thread



Weight per piece

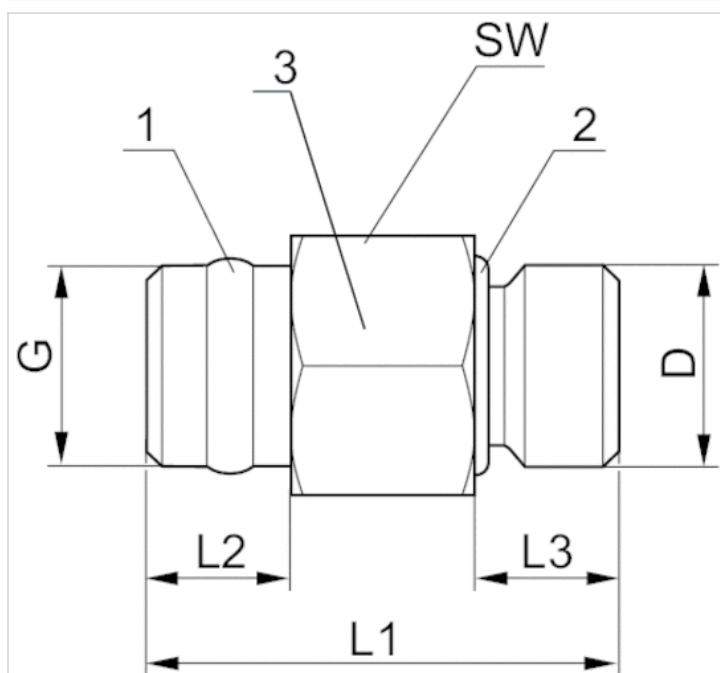
0.04 kg

## Technical data

Part No.	Port G	Port D	Delivery unit
R412010015	G 1/4	G 1/8	2 piece
R412010016	G 1/4	G 1/4	2 piece

## Dimensions

### Dimensions



- 1) sealing ring Polytetrafluorethylen
- 2) O-ring - acrylonitrile butadiene rubber
- 3) Housing - brass, nickel-plated

## Dimensions

Part No.	Port G	Port D	L1	L2	L3	SW
R412010015	G 1/4	G 1/8	30	10	8.5	17
R412010016	G 1/4	G 1/4	30	10	8.5	17

# Blanking screw

- External thread
- G 1/8 G 1/4
- FPT-S-RIO



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

## Technical data

Part No.	Port G	Delivery unit
1823462004	G 1/8	10 piece
1823462003	G 1/4	10 piece

## Technical information

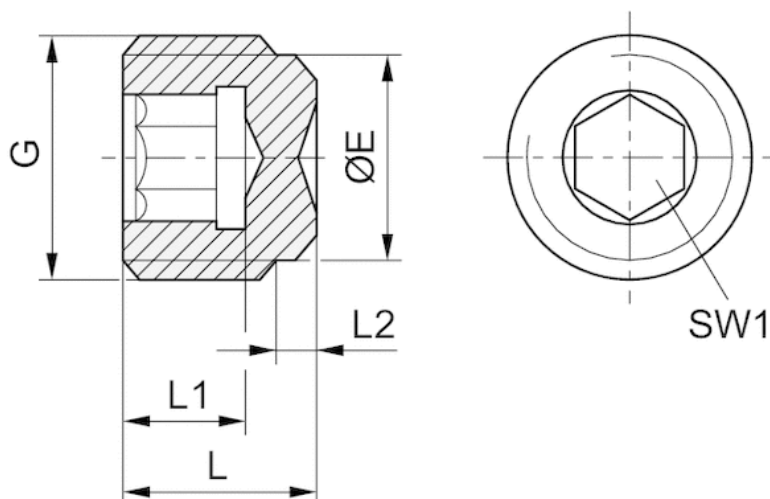
Material

Material

Brass

## Dimensions

Dimensions



## Dimensions in mm

Port G	ØE	L	L1	L2	SW1
G 1/8	8	8	5	2	5
G 1/4	11	11	7	3.5	6

# plugs



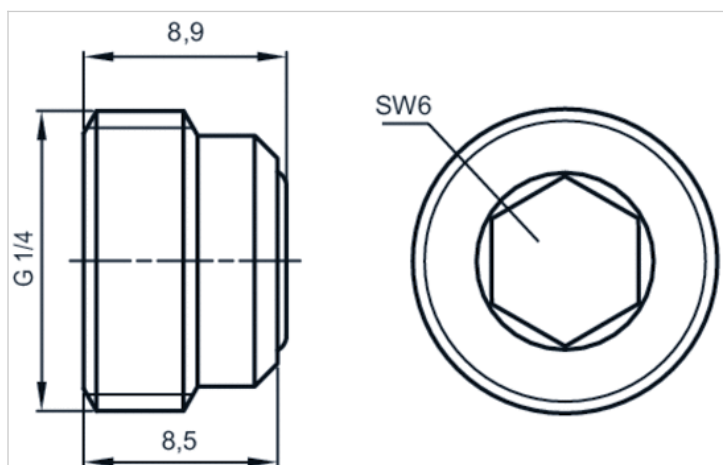
## Technical data

Part No.	Type	Suitable for	Delivery unit
R412010124	plugs	Pressure gauge connection: G 1/4	10 piece

## Technical information

Material	
Housing	Polyamide
Seal	Acrylonitrile butadiene rubber

## Dimensions



# Reducing nipple

- External thread
- G 3/8 G 1/2
- Internal thread
- G 1/4 G 3/8
- FPT-S-RDZ



Working pressure min./max.

0 ... 60 bar

Ambient temperature min./max.

-20 ... 70 °C

## Technical data

Part No.	Port G	Port D	Delivery unit
1823391013	G 3/8	G 1/4	10 piece
1823391300	G 1/2	G 1/4	5 piece
1823391014	G 1/2	G 3/8	5 piece

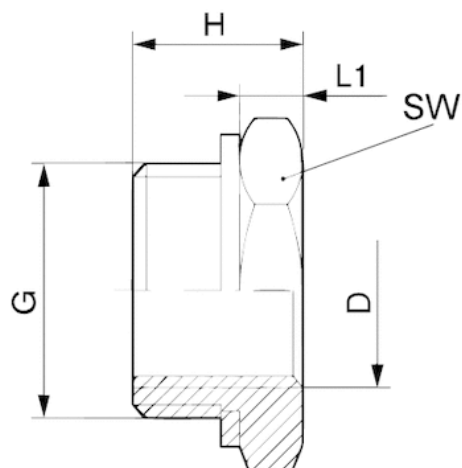
## Technical information

Material	
Material	Brass, nickel-plated
Seal	Polyvinyl chloride, hard



## Dimensions

### Dimensions



## Dimensions

Part No.	Port D	Port G	H	L1	SW
1823391013	G 1/4	G 3/8	15	5	19
1823391300	G 1/4	G 1/2	15.5	5.5	24
1823391014	G 3/8	G 1/2	15.5	5.5	24

# Sealing ring

- Acrylonitrile butadiene styrene



Working pressure min./max.

-0.95 ... 16 bar

Ambient temperature min./max.

-10 ... 60 °C

## Technical data

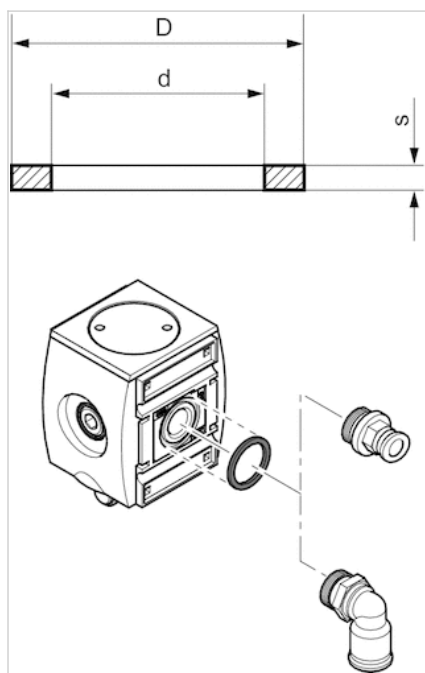
Part No.	Port G	Delivery unit
R412010148	G 3/8	10 piece
R412010149	G 1/2	10 piece
R412010150	G 1	10 piece

For inserting into the O-ring groove when using series QR1 and QR2 fittings.

## Technical information

Material	
Material	Acrylonitrile butadiene styrene

## Dimensions



## Dimensions

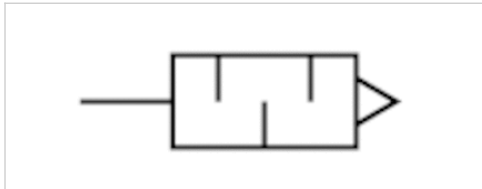
Part No.	usage	Type	d	D	s
R412010148	AS2	For compressed air connection G 3/8	18.5	22.8	2.0
R412010149	AS3	For compressed air connection G 1/2	22.4	26.4	2.0
R412010150	AS5	For compressed air connection G 1	36.9	41.9	2.0

# Silencers, series SI1

- G 1/2
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	90 dB
Weight	0.08 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000003	G 1/2	7223 l/min	2 piece

Weight per piece

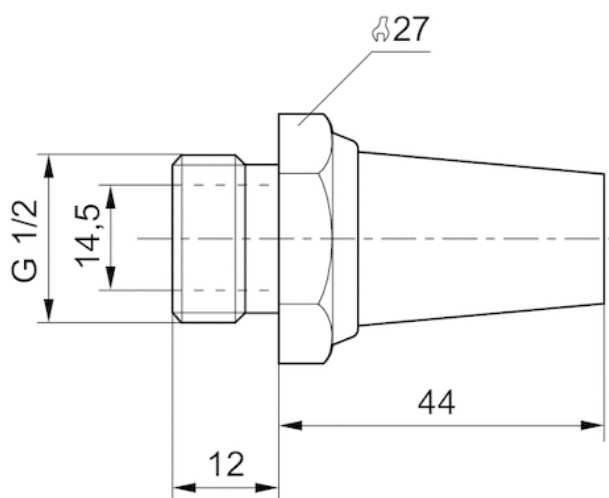
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

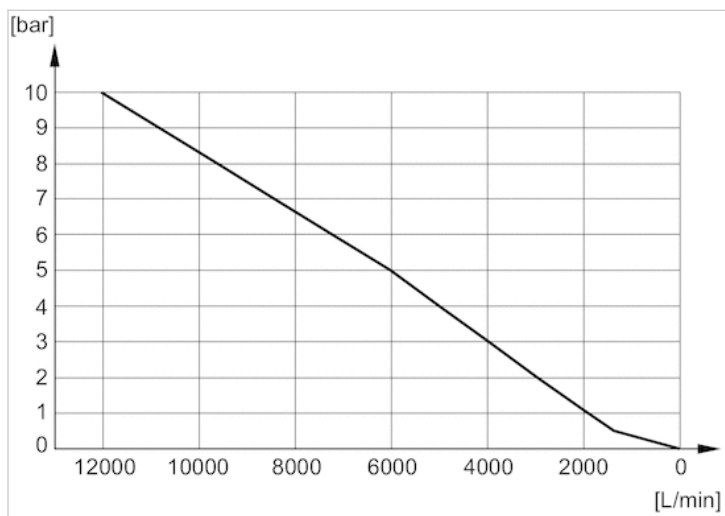
## Dimensions

### Dimensions in mm



## Diagrams

### Flow diagram, 1827000003

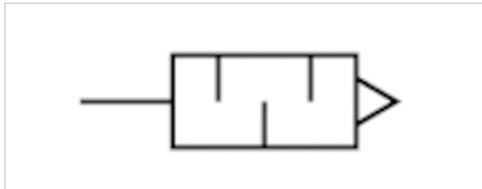


# Silencers, series SI1

- G 1/2
- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	85 dB
Weight	0.035 kg
Comment	Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000035	G 1/2	2568 l/min	2 piece

Weight per piece

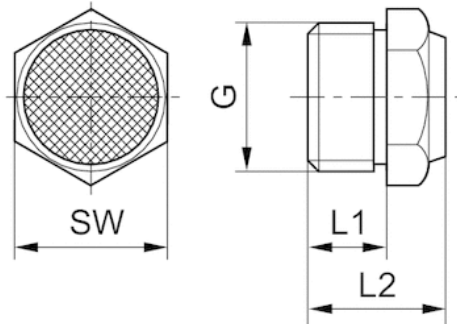
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Sintered bronze
Thread	Brass

## Dimensions

### Dimensions



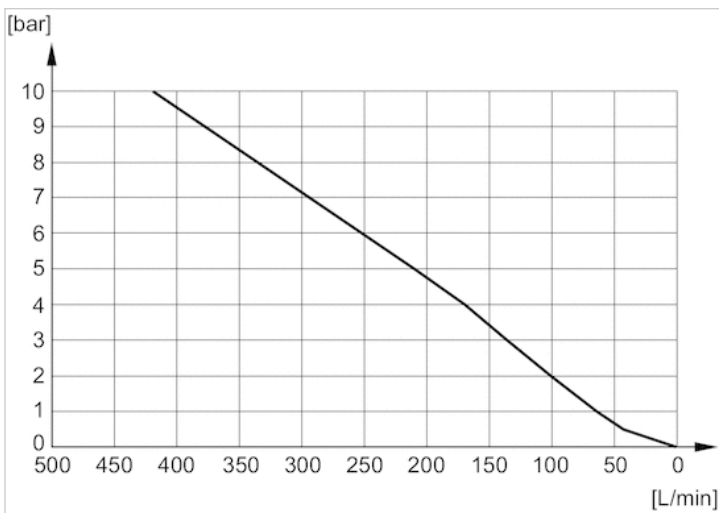
## Dimensions

Part No.	Port G	L1	L2	SW
1827000035	G 1/2	12	19.5	27

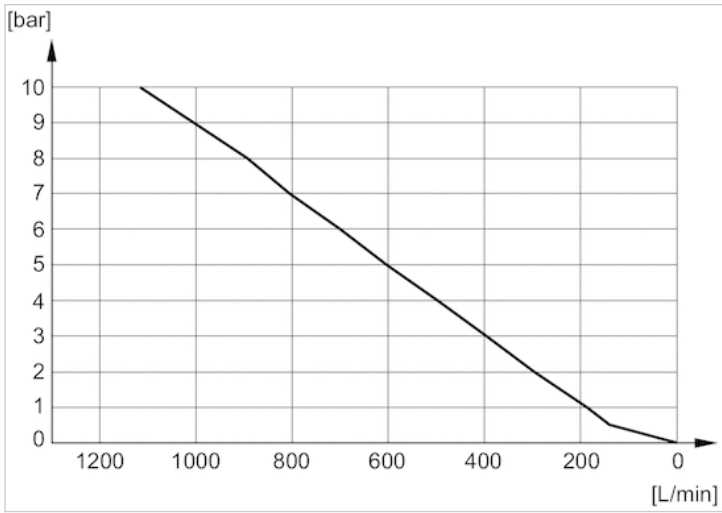
Sound pressure level measured at 6 bar at 1 m distance

## Diagrams

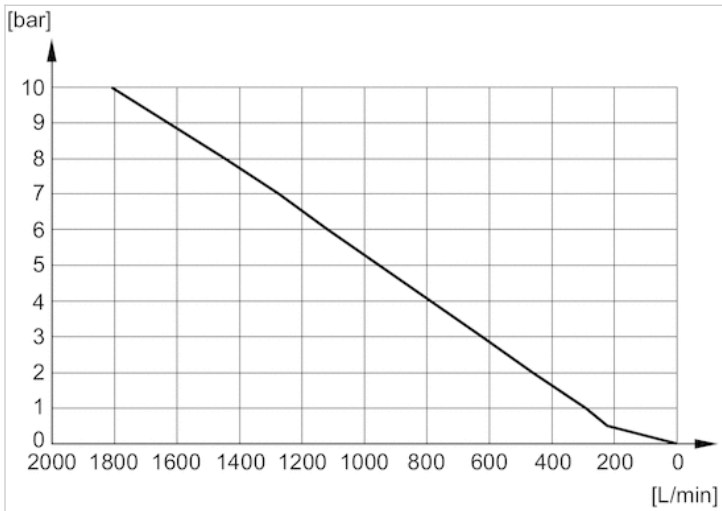
### Flow diagram, 1827000032



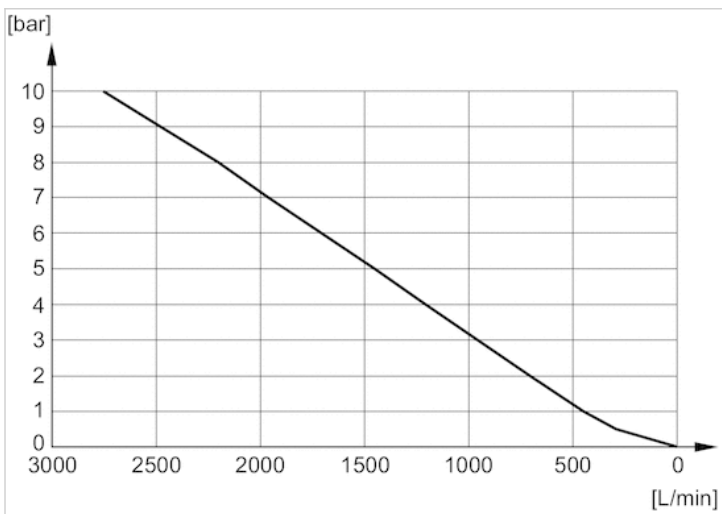
Flow diagram, 1827000031



Flow diagram, 1827000033

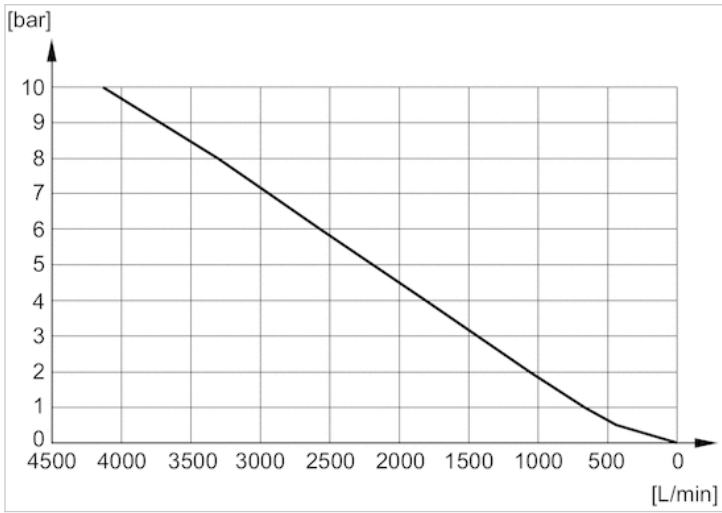


Flow diagram, 1827000034

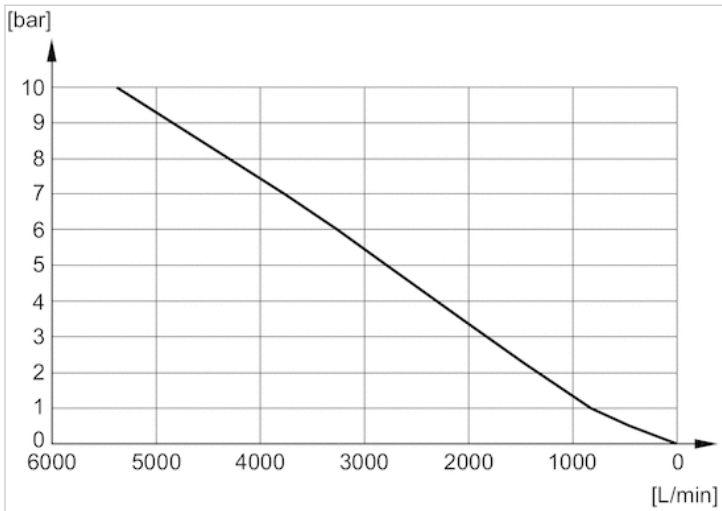




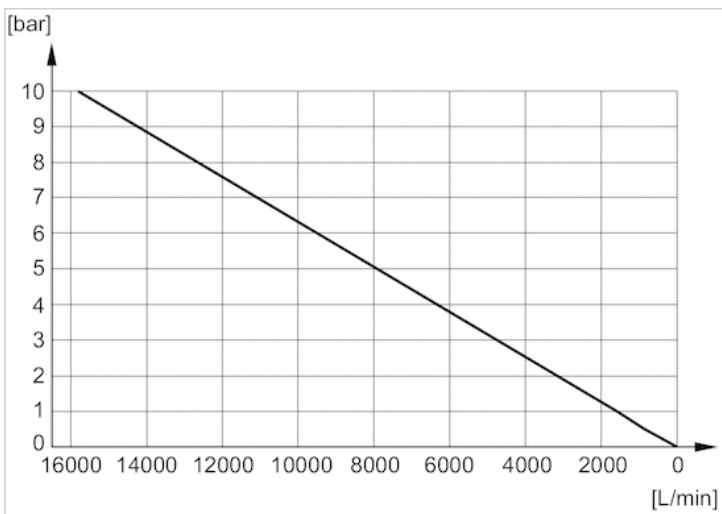
Flow diagram, 1827000035



Flow diagram, 8145003400



Flow diagram, 8145001000

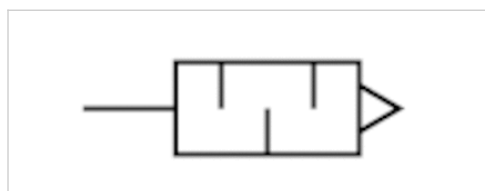


# Silencers, series SI1

- G 1/2
- Polyethylene



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	88 dB
Weight	0.013 kg



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
1827000022	G 1/2	7142 l/min	1 piece

Weight per piece

Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

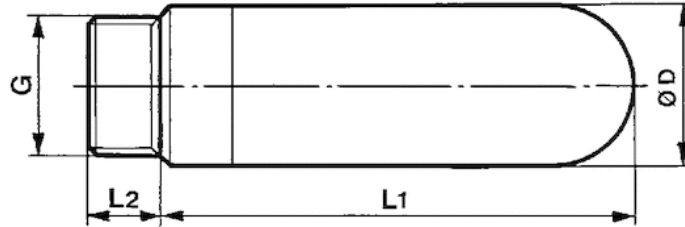
Flow characteristic curves can be found under "Diagrams".

## Technical information

Material	
Silencer	Polyethylene
Thread	Polyethylene

## Dimensions

### Dimensions

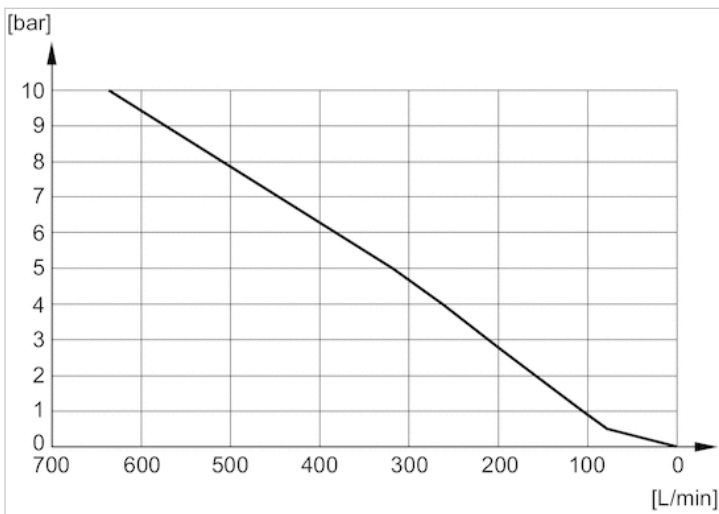


## Dimensions

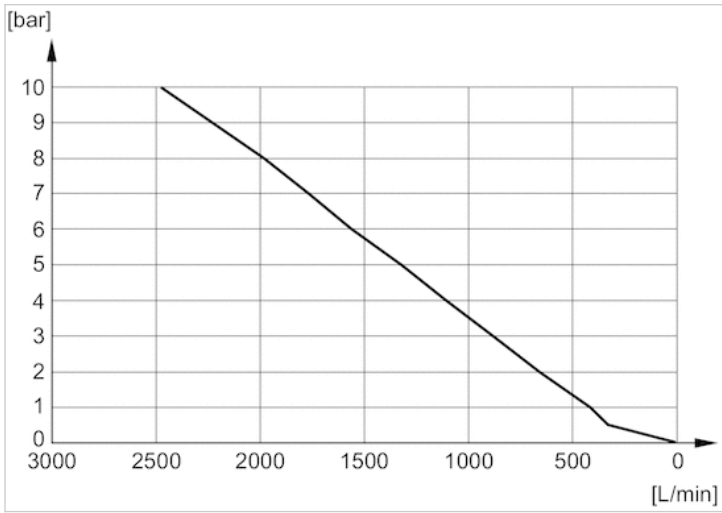
Part No.	Port G	Ø D	L1	L2
1827000022	G 1/2	23.3	66.5	11

## Diagrams

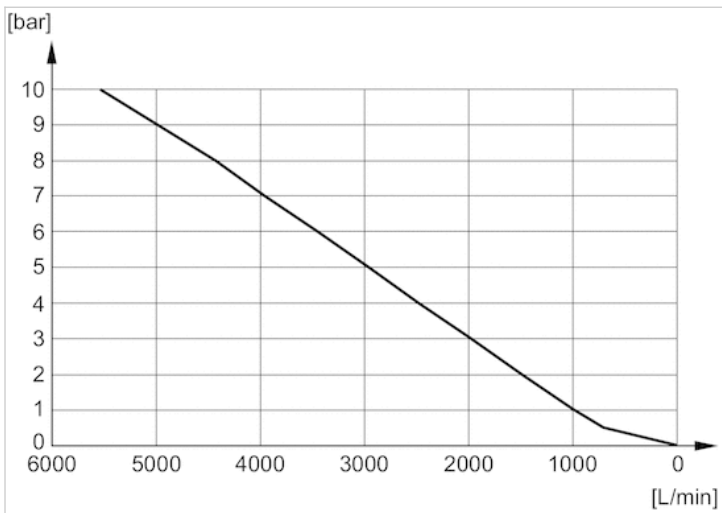
### Flow diagram, 1827000018



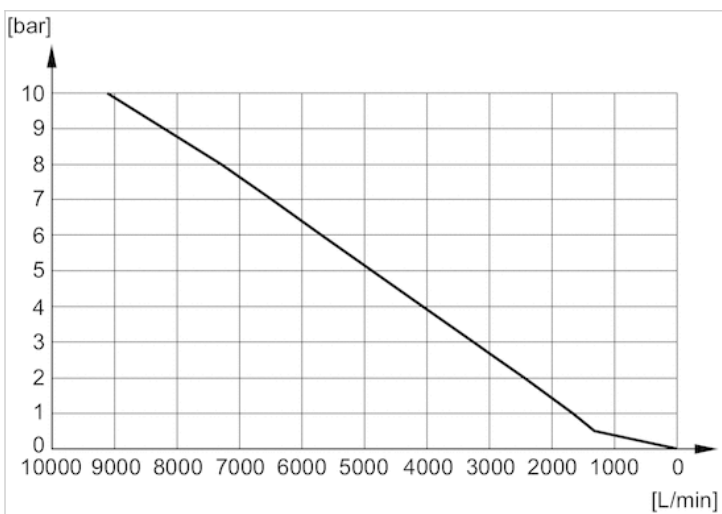
Flow diagram, 1827000019



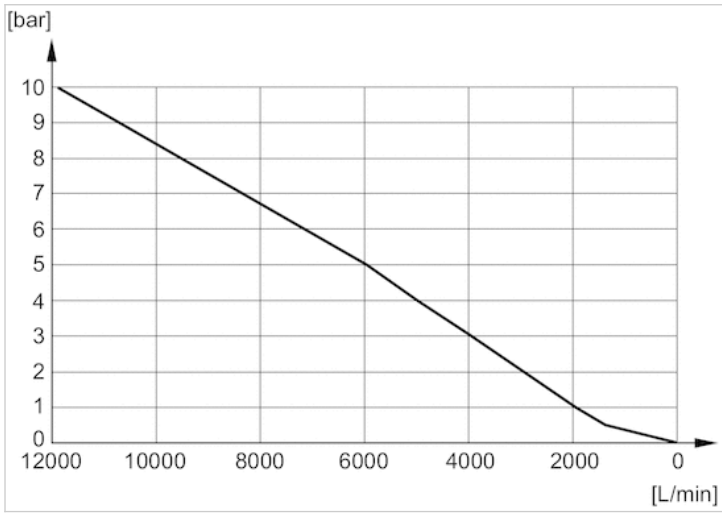
Flow diagram, 1827000020



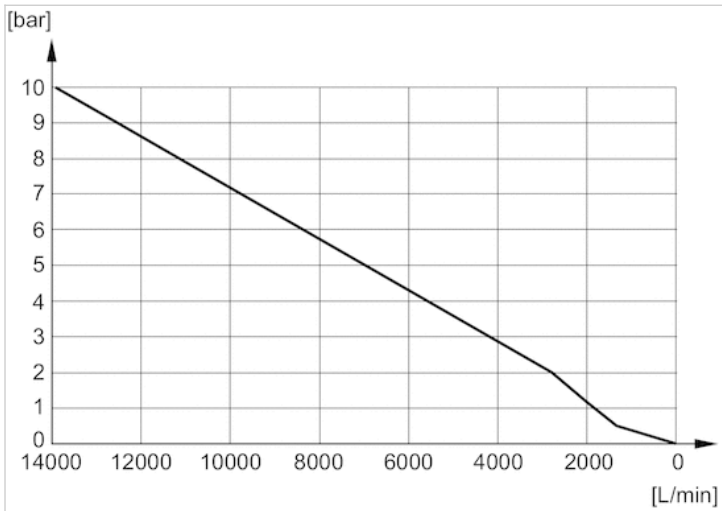
Flow diagram, 1827000021



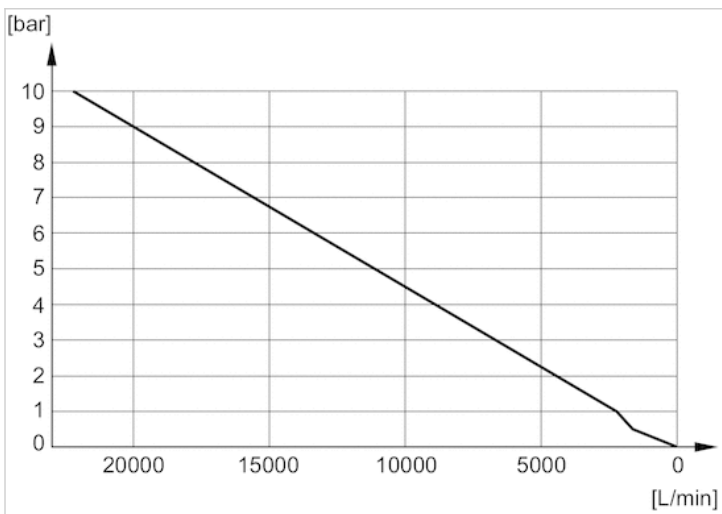
Flow diagram, 1827000022



Flow diagram, 1827000023



Flow diagram, 1827000024



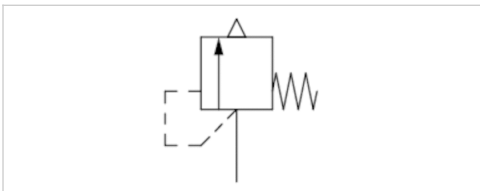
# Series RV1

- Qn 1►2 = 676-16037 l/min
- thread-in
- External thread
- G 1/4 G 3/8 G 1/2
- Uncollected



Version  
 Certificates  
 Working pressure min./max.  
 Opening pressure of valve  
 Ambient temperature min./max.  
 Medium

Poppet valve  
 CE declaration of conformity  
 0 ... 20 bar  
 See table below  
 -20 ... 100 °C  
 Compressed air



## Technical data

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007521	G 1/4	0.8 bar	676 l/min
R412007522	G 1/4	1.5 bar	996 l/min
R412007523	G 1/4	2 bar	1219 l/min
R412007524	G 1/4	3.5 bar	1872 l/min
R412007525	G 1/4	4 bar	2084 l/min
R412007526	G 1/4	4.8 bar	2424 l/min
R412007527	G 1/4	6 bar	2933 l/min
R412007528	G 1/4	8 bar	3783 l/min
R412007529	G 1/4	10 bar	4632 l/min
R412007530	G 1/4	11 bar	5056 l/min
R412007531	G 1/4	15 bar	6755 l/min
R412007532	G 1/4	16 bar	7179 l/min
R412007533	G 3/8	2 bar	2194 l/min
R412007534	G 3/8	3.7 bar	3567 l/min
R412007535	G 3/8	4 bar	3799 l/min
R412007721	G 3/8	5 bar	4573 l/min
R412007536	G 3/8	6 bar	5347 l/min
R412007537	G 3/8	6.8 bar	5966 l/min
R412007538	G 3/8	8 bar	6895 l/min
R412007539	G 3/8	10 bar	8443 l/min

Part No.	Port 1	Opening pressure of valve	Flow
			Qn 1►2
R412007540	G 3/8	11 bar	9217 l/min
R412007541	G 3/8	16 bar	13087 l/min
R412007542	G 1/2	0.4 bar	1115 l/min
R412007720	G 1/2	2.9 bar	3613 l/min
R412007690	G 1/2	3.5 bar	4182 l/min
R412007691	G 1/2	4 bar	4656 l/min
R412007692	G 1/2	5 bar	5604 l/min
R412007699	G 1/2	5.5 bar	6142 l/min
R412007696	G 1/2	6 bar	6553 l/min
R412007702	G 1/2	6.5 bar	7101 l/min
R412007698	G 1/2	7 bar	7501 l/min
R412007697	G 1/2	8 bar	8449 l/min
R412007693	G 1/2	8.5 bar	9018 l/min
R412007694	G 1/2	9 bar	9398 l/min
R412007700	G 1/2	10 bar	10346 l/min
R412007701	G 1/2	10.5 bar	10934 l/min
R412007695	G 1/2	11 bar	11295 l/min
R412007703	G 1/2	12 bar	12243 l/min
R412007543	G 1/2	16 bar	16037 l/min

## Technical information

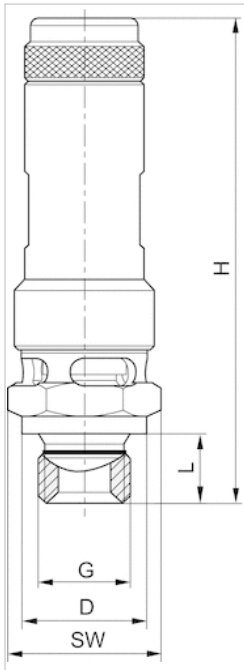
The specified performance values are achieved at a 10% (PE 1 bar , 0.1 bar ) pressure increase, measured with compressed air at 20 °C .

## Technical information

Material	
Housing	Brass
Seals	Fluorocaoutchouc

## Dimensions

### Dimensions



G = connection 1

## Dimensions

Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007521	G 1/4	18	69	10	19	30	8
R412007522	G 1/4	18	69	10	19	30	8
R412007523	G 1/4	18	69	10	19	30	8
R412007524	G 1/4	18	69	10	19	30	8
R412007525	G 1/4	18	69	10	19	30	8
R412007526	G 1/4	18	69	10	19	30	8
R412007527	G 1/4	18	69	10	19	30	8
R412007528	G 1/4	18	69	10	19	30	8
R412007529	G 1/4	18	69	10	19	30	8
R412007530	G 1/4	18	69	10	19	30	8
R412007531	G 1/4	18	69	10	19	30	8
R412007532	G 1/4	18	69	10	19	30	8
R412007533	G 3/8	22	75	10	24	40	10
R412007534	G 3/8	22	75	10	24	40	10
R412007535	G 3/8	22	75	10	24	40	10
R412007721	G 3/8	22	75	10	24	40	10
R412007536	G 3/8	22	75	10	24	40	10
R412007537	G 3/8	22	75	10	24	40	10
R412007538	G 3/8	22	75	10	24	40	10
R412007539	G 3/8	22	88	10	24	40	10
R412007540	G 3/8	22	88	10	24	40	10
R412007541	G 3/8	22	88	10	24	40	10
R412007542	G 1/2	26	78	12	27	50	15



Part No.	Port G	Ø D	H	L	SW	T [Nm]	NW
R412007720	G 1/2	26	78	12	27	50	15
R412007690	G 1/2	26	78	12	27	50	15
R412007691	G 1/2	26	78	12	27	50	15
R412007692	G 1/2	26	78	12	27	50	15
R412007699	G 1/2	26	78	12	27	50	15
R412007696	G 1/2	26	78	12	27	50	15
R412007702	G 1/2	26	78	12	27	50	15
R412007698	G 1/2	26	78	12	27	50	15
R412007697	G 1/2	26	77.5	12	27	50	15
R412007693	G 1/2	26	91	12	27	50	15
R412007694	G 1/2	26	91	12	27	50	15
R412007700	G 1/2	26	91	12	27	50	15
R412007701	G 1/2	26	91	12	27	50	15
R412007695	G 1/2	26	91	12	27	50	15
R412007703	G 1/2	26	91	12	27	50	15
R412007543	G 1/2	26	91	12	27	50	15

T = maximum torque

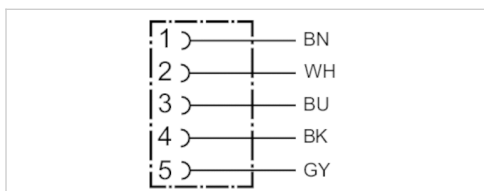
NW = nominal width

# Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

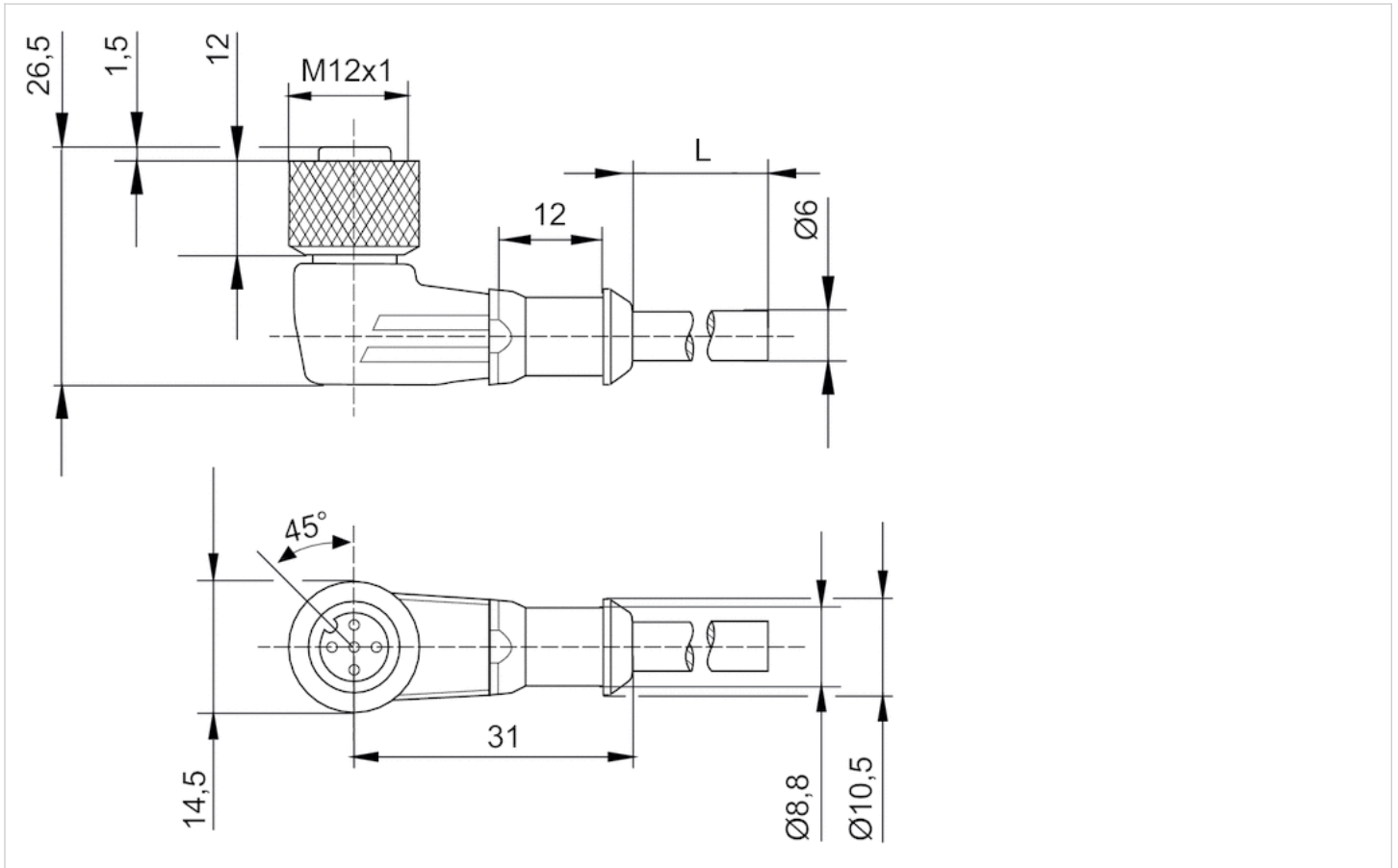
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

## Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

## Dimensions

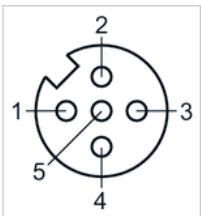
### Dimensions



L = length

## Pin assignments

### Pin assignment, socket



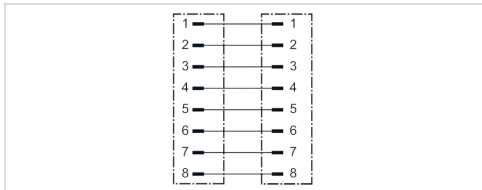
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

# Round plug connectors with cable, Series CON-RD

- Plug M12x1 8-pin X-coded angled 90°
- Plug RJ45 8-pin X-coded straight
- shielded



Ambient temperature min./max.	-25 ... 85 °C
Protection class	IP66K
Wire cross-section	0.14 mm <sup>2</sup>



## Technical data

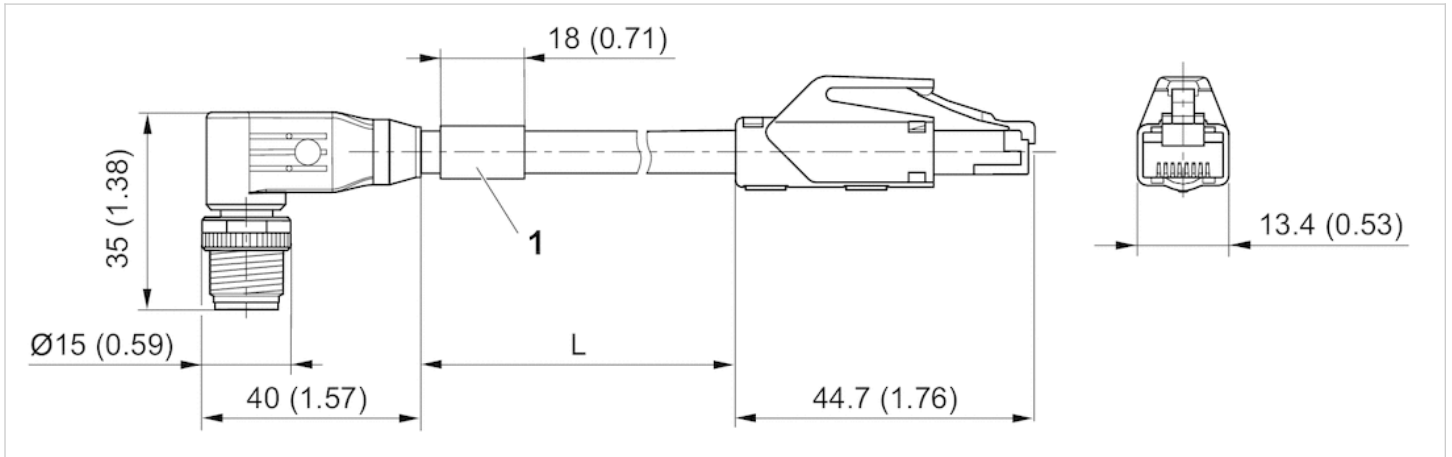
Part No.	Max. current	Cable length
R412027647	0.5 A	5 m

## Technical information

Material	
Cable sheath	Polyurethane

## Dimensions

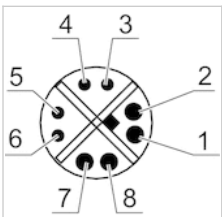
### Dimensions



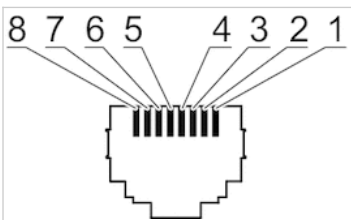
1) Name plate

## Pin assignments

### Plug pin assignment



### Plug pin assignment

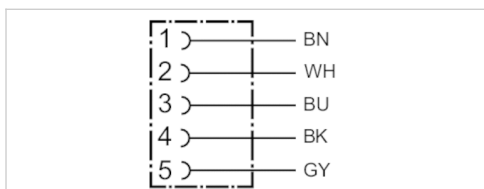


# Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

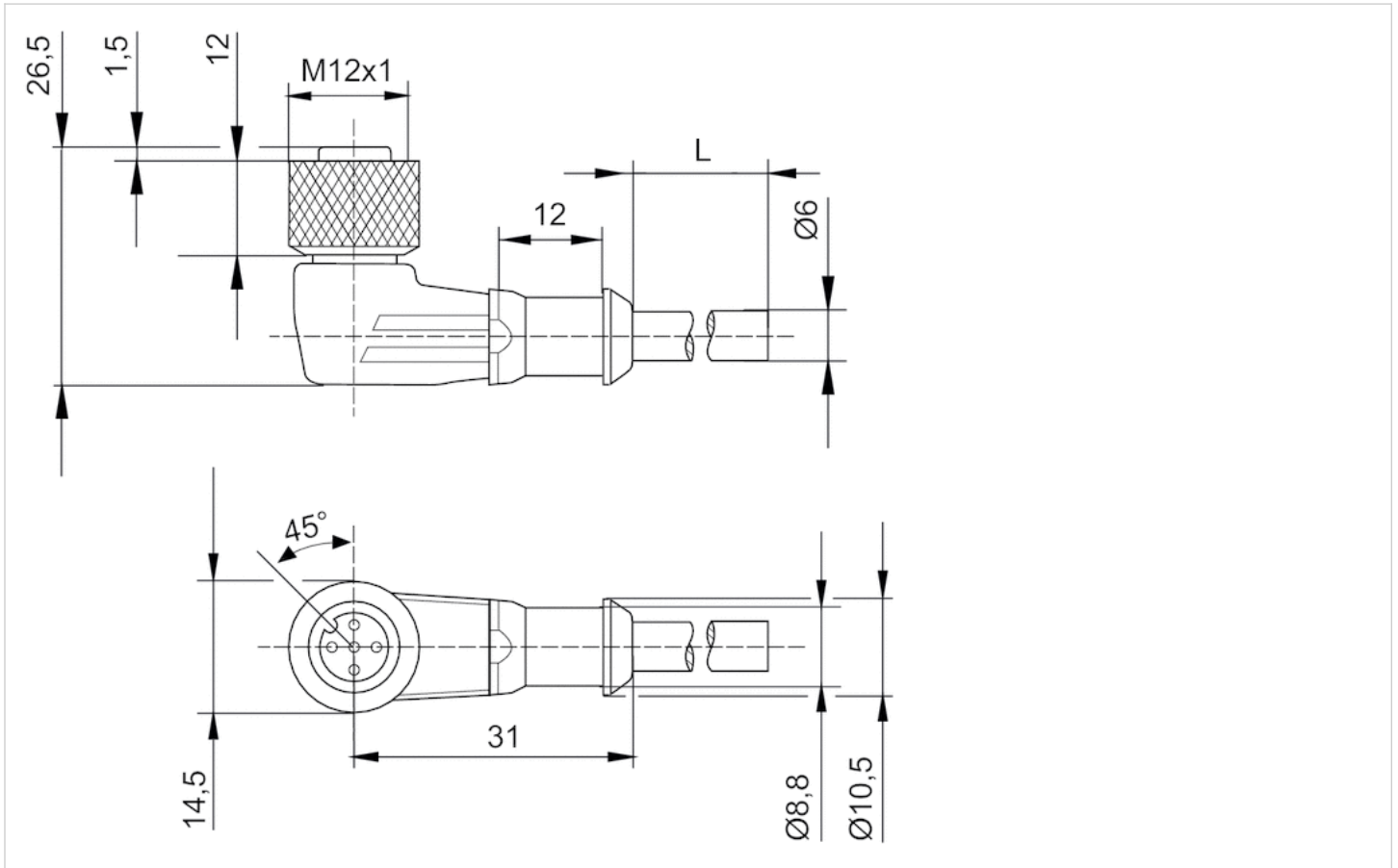
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

## Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

## Dimensions

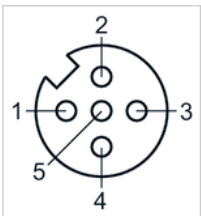
### Dimensions



L = length

## Pin assignments

### Pin assignment, socket



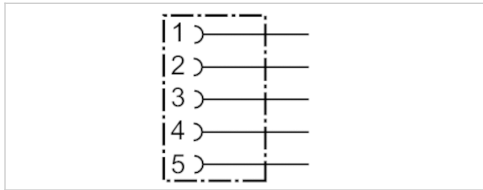
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

# Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.072 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484029	4 A	6 / 8 mm

## Technical information

The specified protection class is only valid in assembled and tested state.

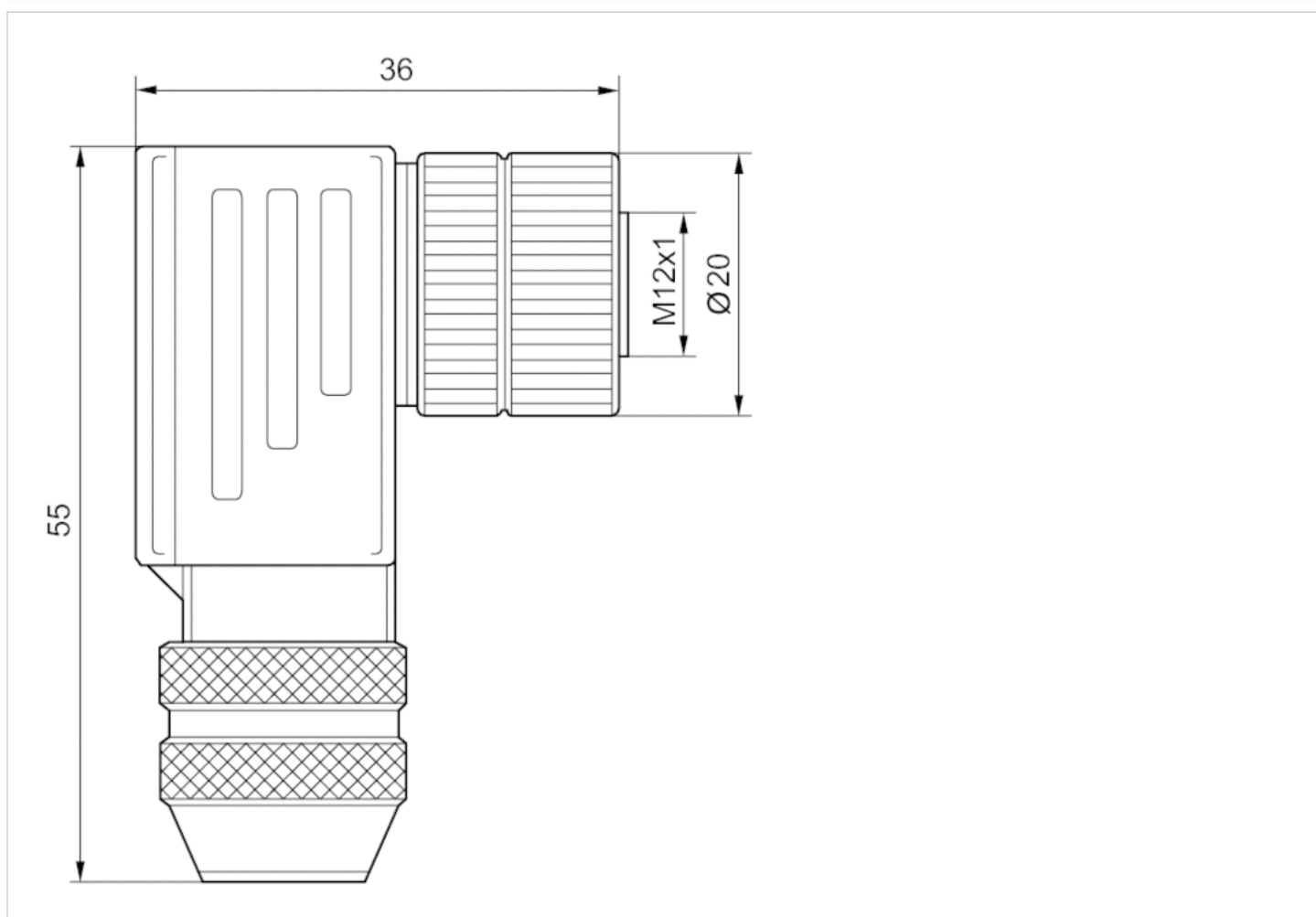
## Technical information

Material	
Housing	Die cast zinc



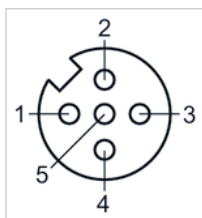
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket

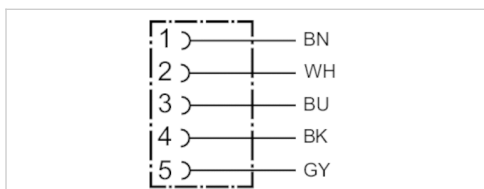


# Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0.34 mm <sup>2</sup>
Weight	See table below



## Technical data

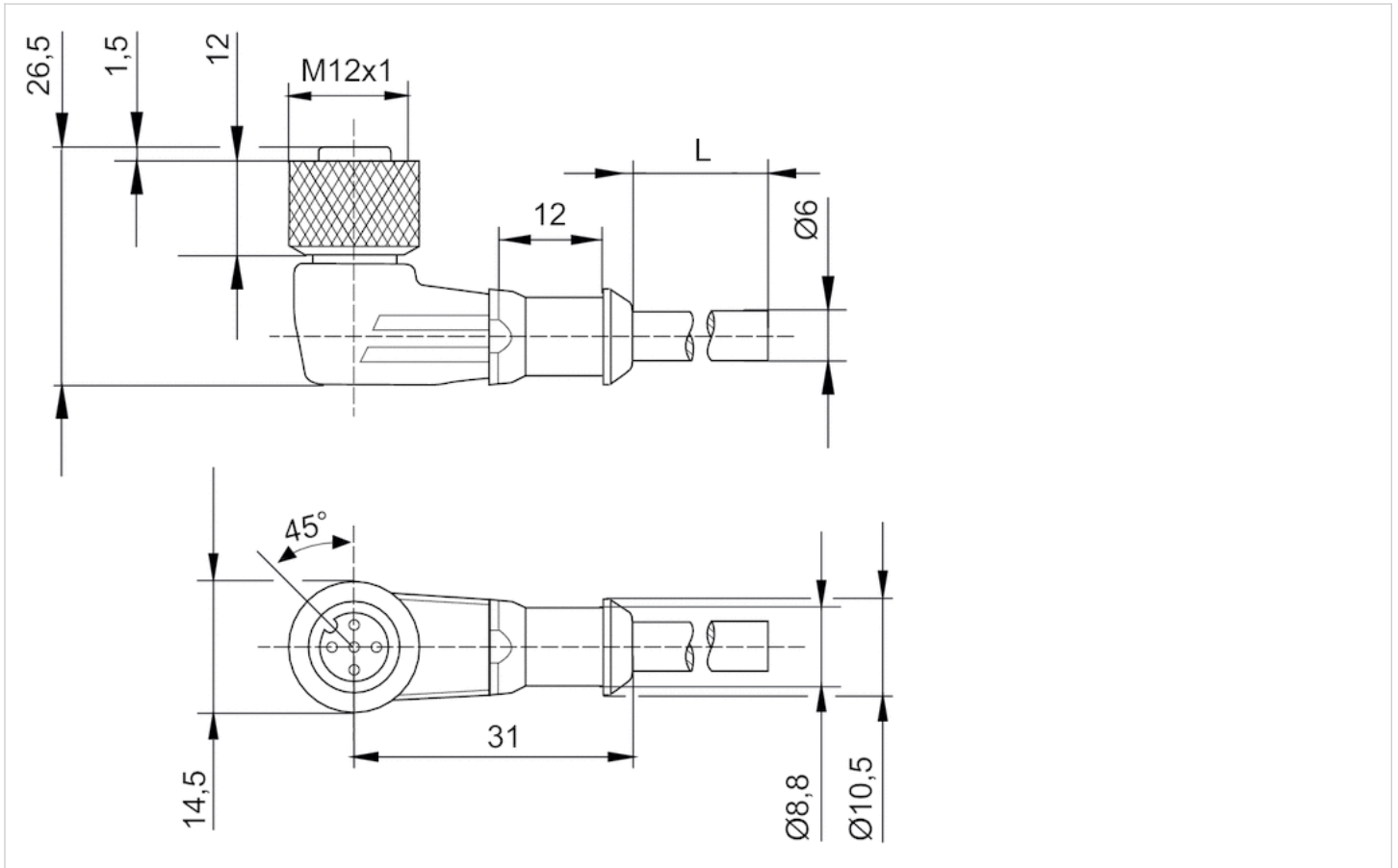
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2.5 m	0.145 kg
R419800110	4 A	5	6 mm	5 m	0.27 kg
R419800546	4 A	5	6 mm	10 m	0.514 kg

## Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

## Dimensions

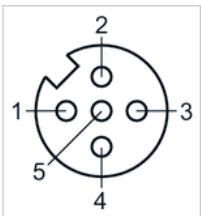
### Dimensions



L = length

## Pin assignments

### Pin assignment, socket



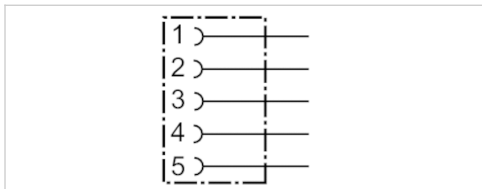
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

# Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, straight, 180°
- for DeviceNet
- unshielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.016 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
4407230020	4 A	4 mm

## Technical information

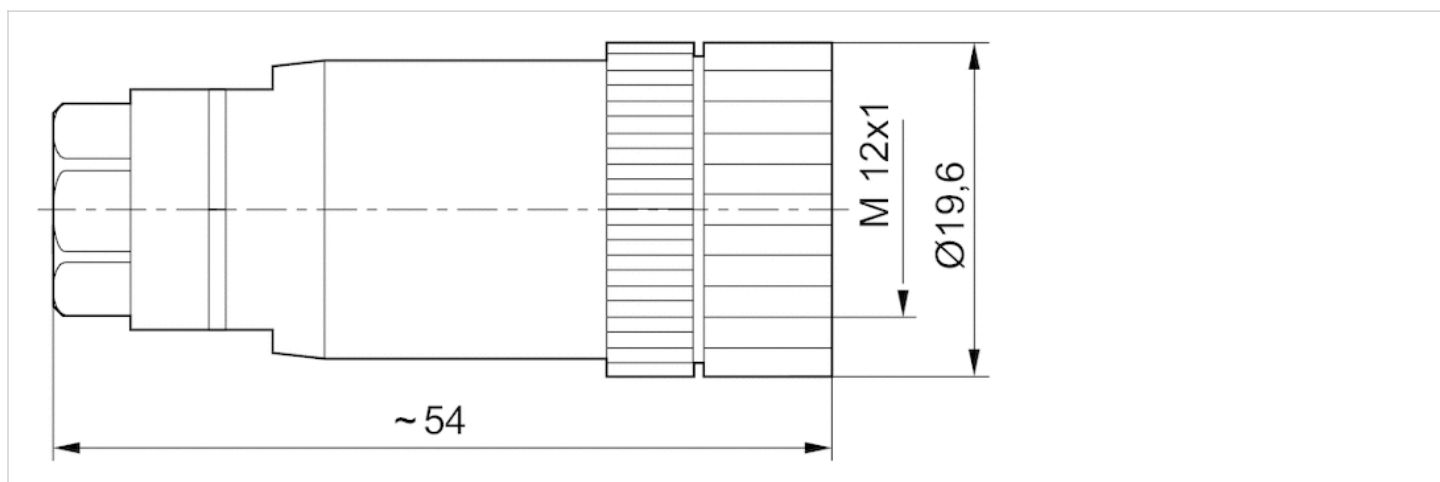
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Polyamide

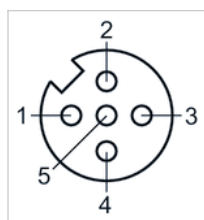
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket

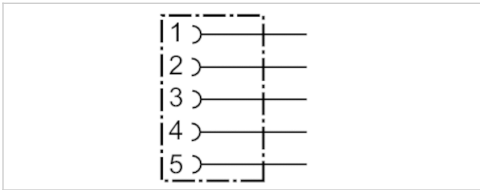


# Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.072 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484029	4 A	6 / 8 mm

## Technical information

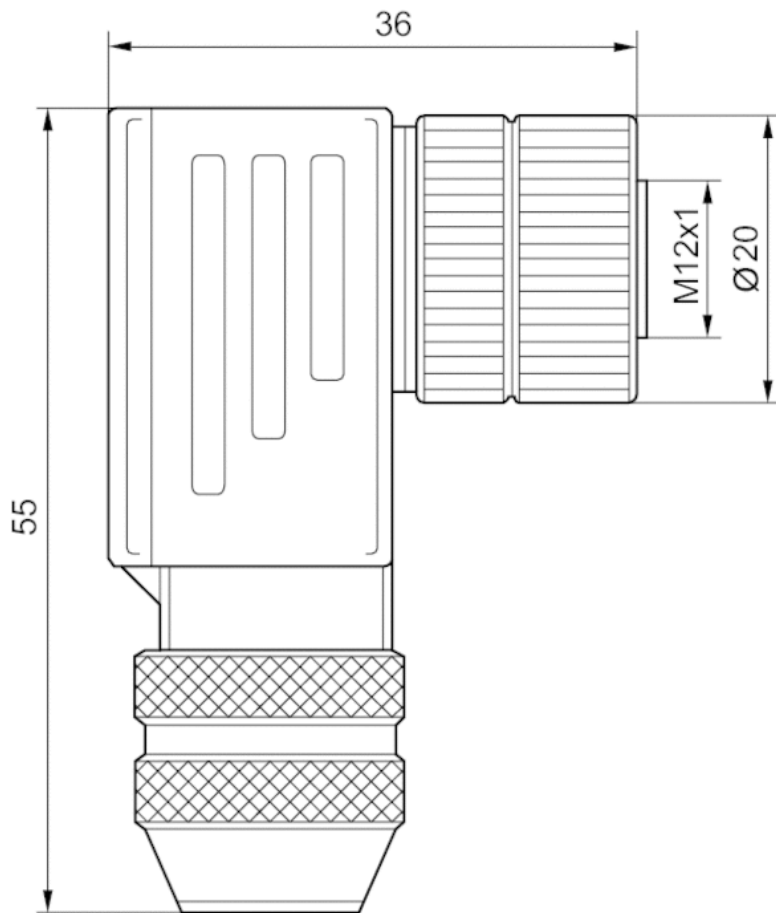
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Die cast zinc

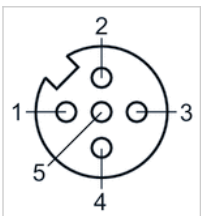
## Dimensions

### Dimensions



## Pin assignments

### Pin assignment, socket



# Round plug connector, Series CON-RD

- Plug M12x1 5-pin A-coded straight 180°
- open cable ends 5-pin
- with cable
- unshielded

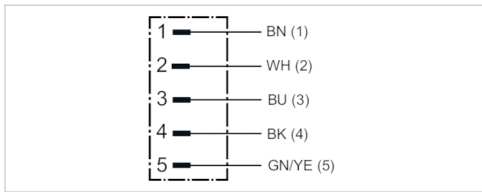


Protection class  
Weight

IP68

See table below

The delivered product may vary from that in the illustration.



## Technical data

Part No.	Number of wires	Cable length	Weight
8946203432	5	2 m	0.102 kg
8946203442	5	5 m	0.238 kg

with self-clinching screw

## Technical information

The specified protection class is only valid in assembled and tested state.

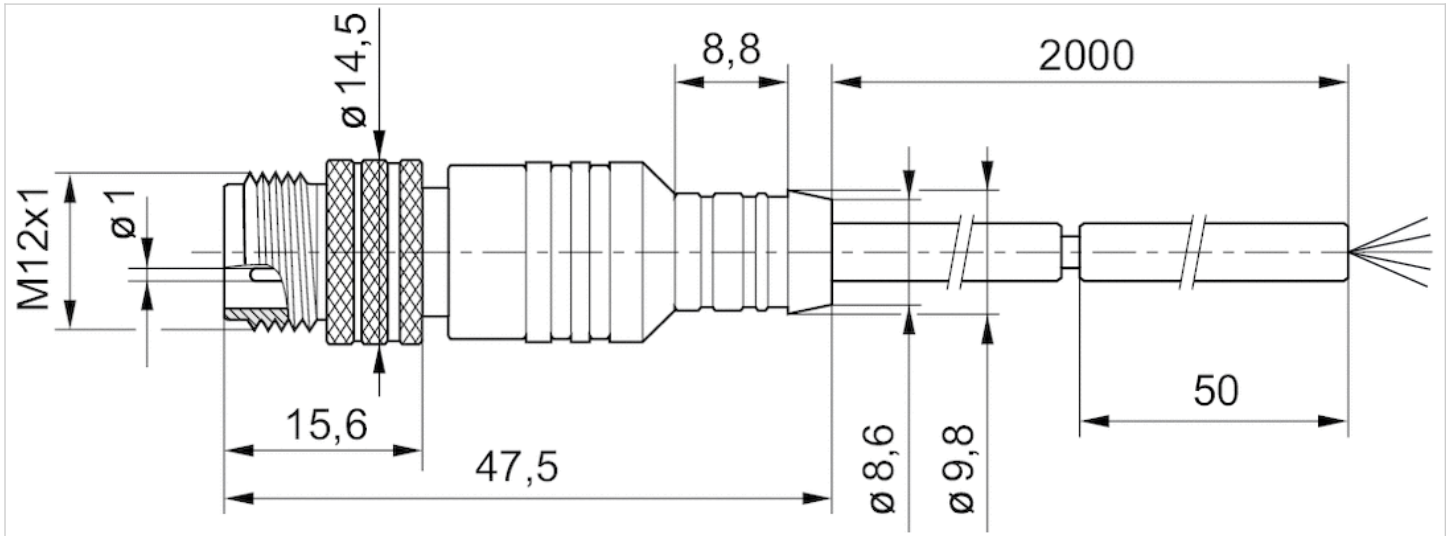
## Technical information

Material	
Cable sheath	Polyvinyl chloride



## Dimensions

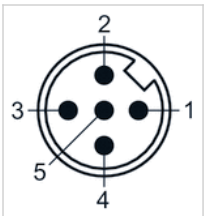
### Dimensions



L = length

## Pin assignments

### Plug pin assignment



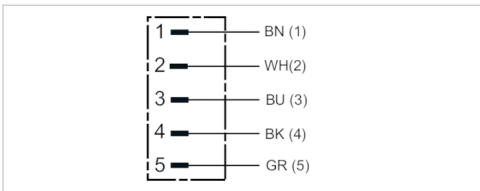
- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GRN-Y=green-yellow

# Round plug connector, Series CON-RD

- Plug M12x1 5-pin A-coded angled 90°
- open cable ends 5-pin
- with cable
- suitable for dynamic laying
- unshielded



Ambient temperature min./max.	See table below
Operational voltage	48 V AC/DC
Protection class	IP68
Wire cross-section	0.34 mm <sup>2</sup>
Mounting screw tightening torque	0.8 Nm
Weight	See table below



## Technical data

Part No.	Ambient temperature min./max.	Max. current	Number of wires	Bending radius min.	Cable-Ø	Cable length
R412021691	-40 ... 85 °C	4 A	5	50 mm	5 mm	2 m
R412021692	-40 ... 85 °C	4 A	5	50 mm	5 mm	5 m
R412021693	-25 ... 85 °C	4 A	5	50 mm	5 mm	10 m

Part No.	Weight
R412021691	0.093 kg
R412021692	0.2 kg
R412021693	0.381 kg

suitable for dynamic laying

## Technical information

The specified protection class is only valid in assembled and tested state.

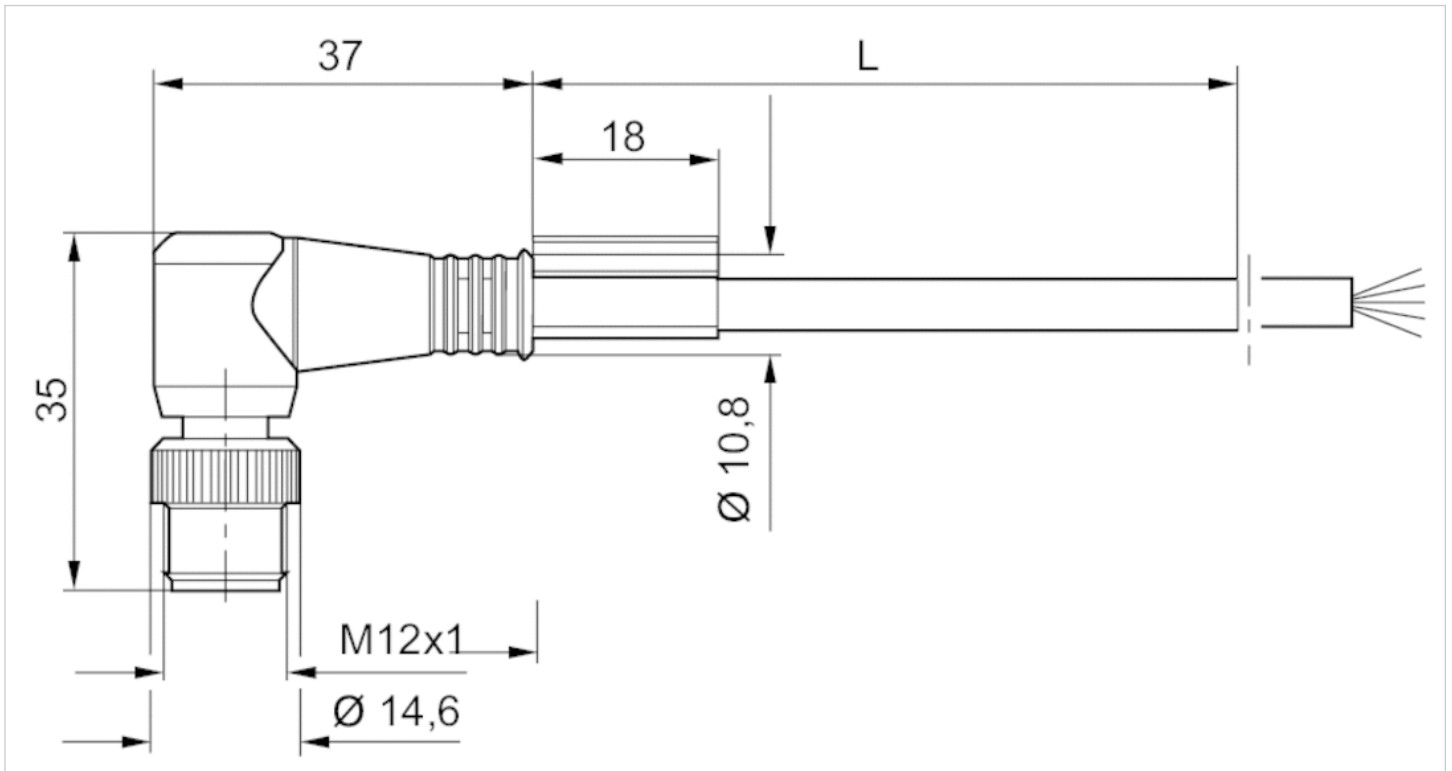
## Technical information

### Material

Housing	Polyurethane
Cable sheath	Polyurethane

## Dimensions

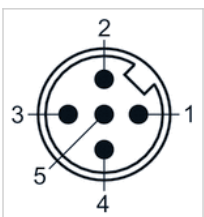
### Dimensions



L = length

## Pin assignments

### Plug pin assignment



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GY=grey

# Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- for CANopen, DeviceNet
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.48 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
8942051612	4 A	6 / 8 mm

## Technical information

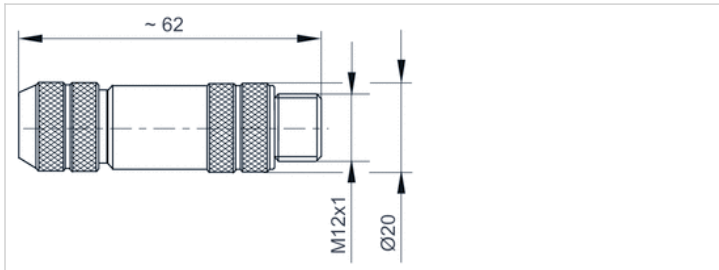
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Brass, nickel-plated

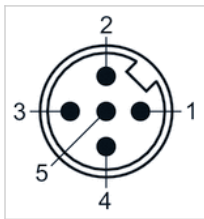
## Dimensions

### Dimensions



## Pin assignments

### Plug pin assignment

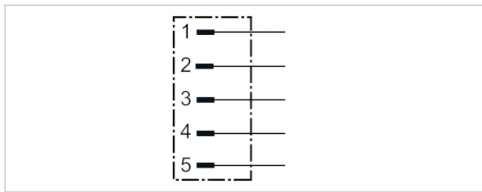


# Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, angled, 90°
- for CANopen
- UL (Underwriters Laboratories)
- shielded



Connection type	Screws
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0.068 kg



## Technical data

Part No.	Max. current	suitable cable-Ø min./max
1824484028	4 A	6 / 8 mm

## Technical information

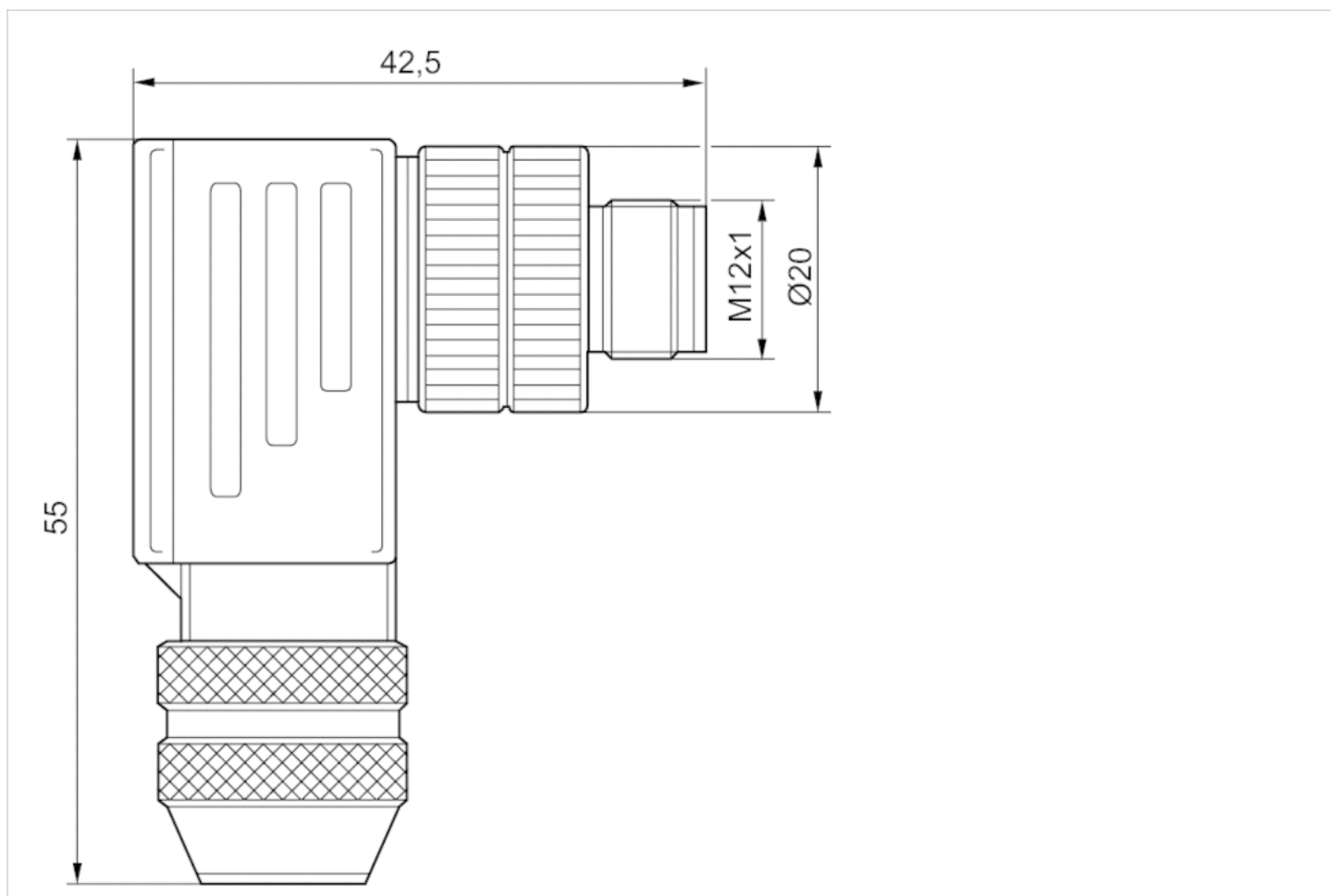
The specified protection class is only valid in assembled and tested state.

## Technical information

Material	
Housing	Brass, nickel-plated

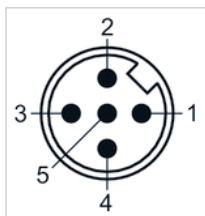
## Dimensions

### Dimensions



## Pin assignments

### Plug pin assignment



# Mounting clip, Series AS3-MBR-...-W03, Aluminum



Ambient temperature min./max. -10 ... 50 °C  
 Weight 0.133 kg

## Technical data

Part No.
R412026828

Scope of delivery incl. 2 mounting screws M5x68-4.8-A2R according to EN ISO 7046-1 (countersunk screw with type H X-slot), 1x O-ring

## Technical information

This mounting clip is recommended for installing an AS3-SV safety valve in an air preparation unit.

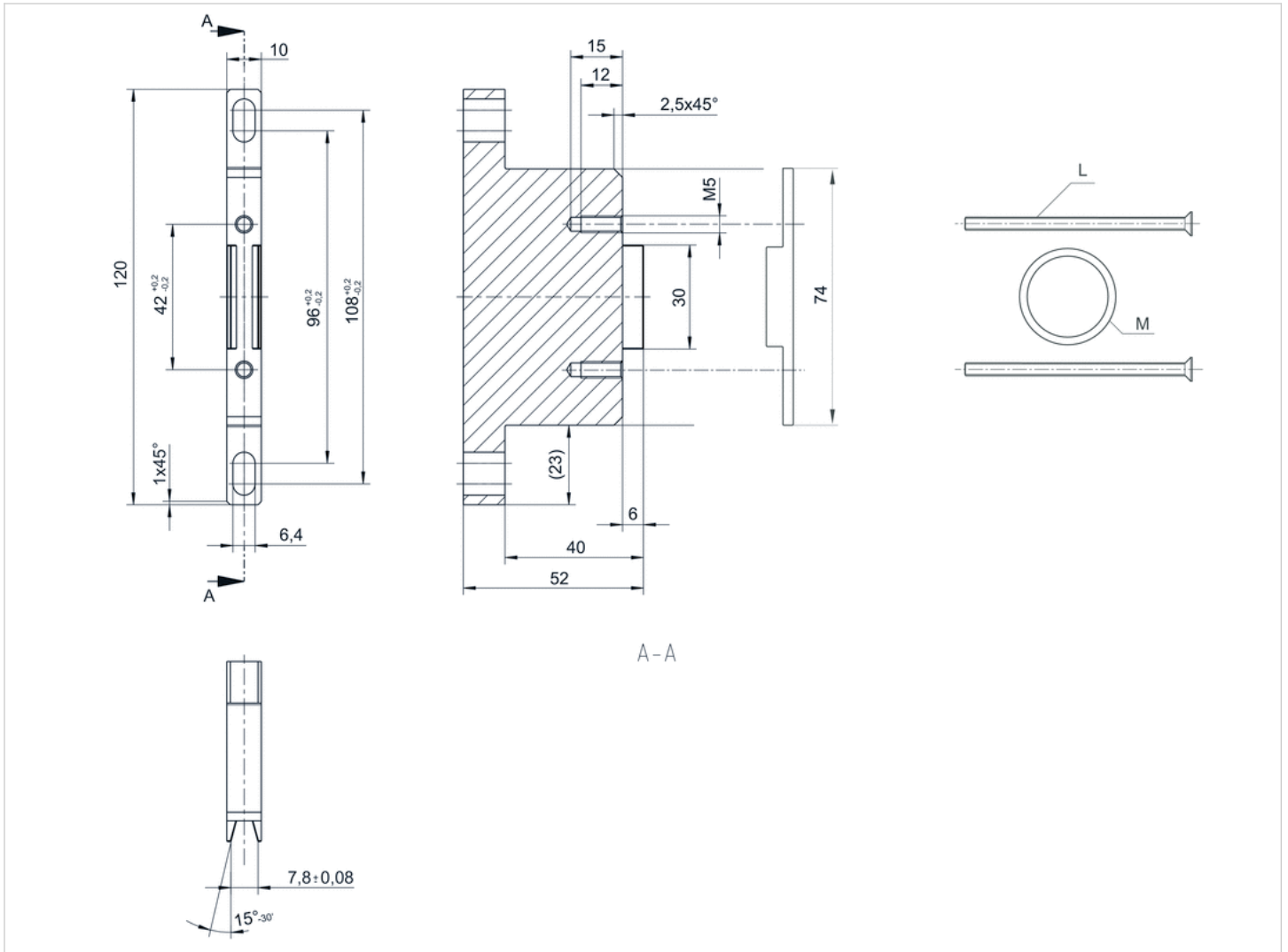
## Technical information

Material	
Housing	Aluminum
Seal	Acrylonitrile butadiene rubber



# Dimensions

## Dimensions



L = Mounting screw  
M = O-ring

# Silencers, series SI1

- G 1

- Metal braiding



Working pressure min./max.

0 ... 15 bar

Ambient temperature min./max.

-10 ... 150 °C

Medium

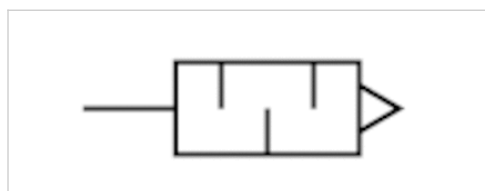
Compressed air

Sound pressure level

104 dB

Comment

Flow characteristic curves can be found under "Diagrams".



## Technical data

Part No.	Compressed air connection	Flow	Delivery unit
		Qn	
R412010249	G 1	10642 l/min	2 piece

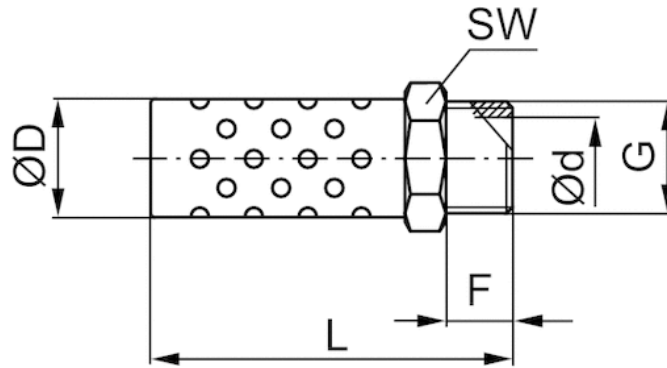
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

## Technical information

Material	
Silencer	Metal braiding
Thread	Aluminum

## Dimensions

### Dimensions



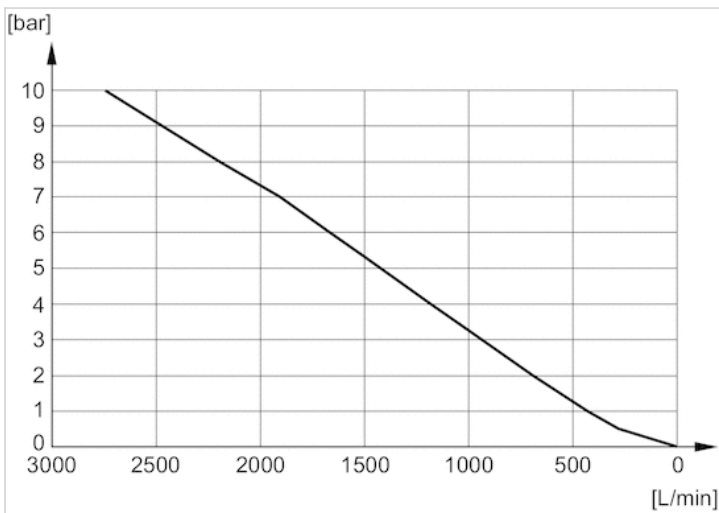
## Dimensions

Part No.	Port G	L	F	D	d	SW
R412010249	G 1	91	15.5	32.3	26	34

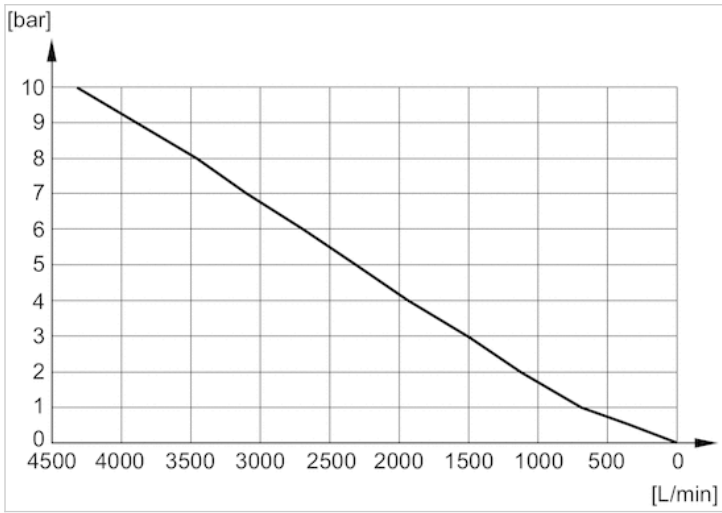
Sound pressure level measured at 6 bar at 1 m distance

## Diagrams

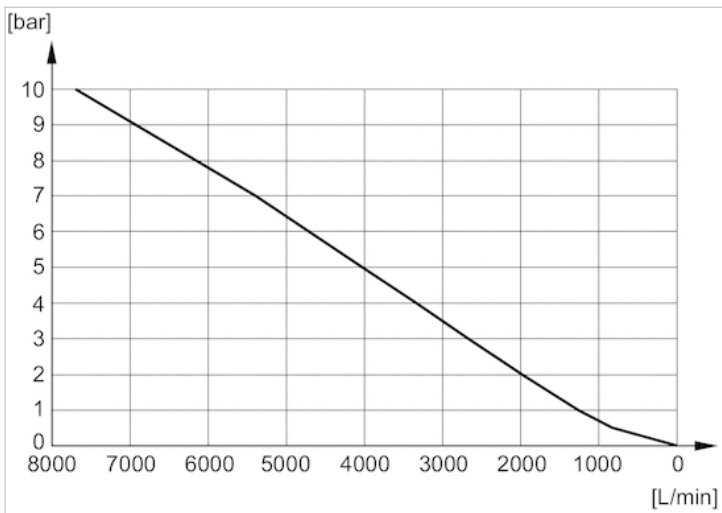
### Flow diagram, R412010283



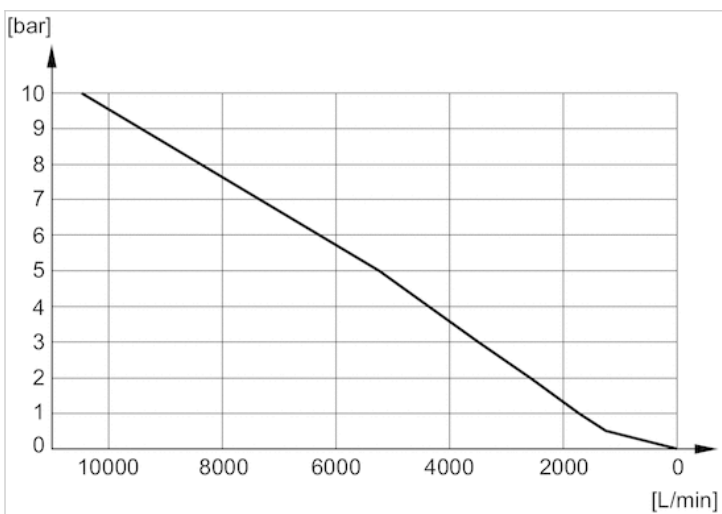
Flow diagram, R412010245



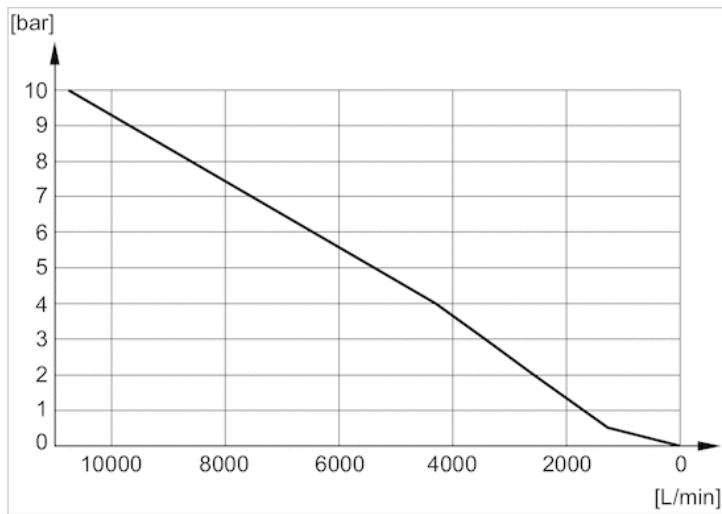
Flow diagram, R412010246



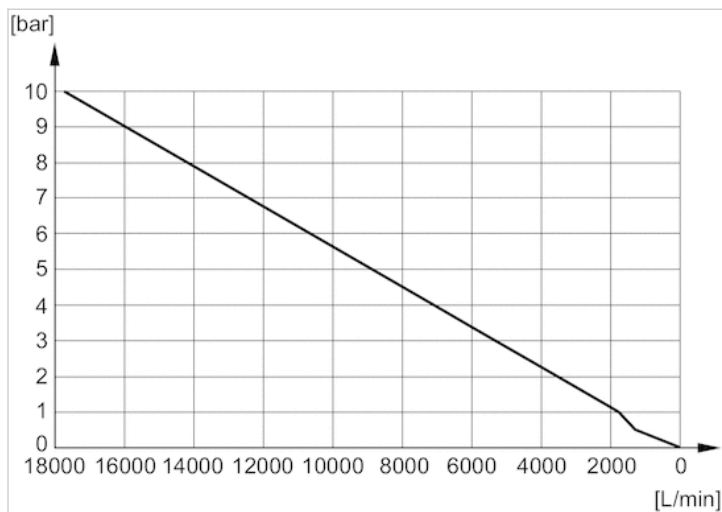
Flow diagram, R412010247



Flow diagram, R412010248



Flow diagram, R412010249



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