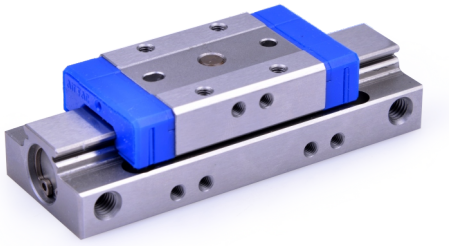
Slide table cylinder

HGS Series

Bore size: Φ6, Φ8, Φ10, Φ12



Ordering code

HGS 10×15 S J

1 2 3 4 5

① Model

HGS: Slide table cylinder

② Bore size

6 8 10 12

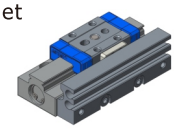
③ Stroke

Bore size (mm)	Standard stroke (mm)
6	5 10
8	5 10 15 20
10	5 10 15 20
12	5 10 15 20 25

④ Magnet

Blank: Without magnet

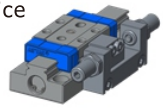
S: With magnet



⑤ Stroke adjustment device

Blank: Without stroke adjustment device

J: With stroke adjustment device [Note]



[Note] Stroke adjustment device of Φ10\Φ12 can be replaced by shock absorber.

Ordering code of accessories

F-HGS 10×15 H

1 2 3 4

① Model

HGS: Slide table cylinder

② Bore size

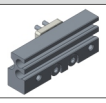
6 8 10 12

③ Stroke

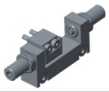
Bore size (mm)	Standard stroke (mm)
6	5 10
8	5 10 15 20
10	5 10 15 20
12	5 10 15 20 25

④ Accessories type

H: Sensor fixed seat package



J: Stroke adjusting screw package



Matching table

Sensor

Ordering code		Stroke (mm)				
		5	10	15	20	25
Bore size	6	F-HGS6X5H	F-HGS6X10H			
	8	F-HGS8X5H	F-HGS8X10H	F-HGS8X15H	F-HGS8X20H	
	10	F-HGS10X5H	F-HGS10X10H	F-HGS10X15H	F-HGS10X20H	
	12	F-HGS12X5H		F-HGS12X15H	F-HGS12X20H	F-HGS12X25H

Stroke adjusting screw

Ordering code		Stroke (mm)				
		5	10	15	20	25
Bore size	6	F-HGS6X5J	F-HGS6X10J			
	8	F-HGS8X5J	F-HGS8X10J	F-HGS8X15J		
	10	F-HGS10X5J	F-HGS10X10J	F-HGS10X15J		
	12	F-HGS10X10J				F-HGS10X15J

HGS Series

Bore size: Φ6, Φ8, Φ10, Φ12

Specification

Bore size(mm)	6	8	10	12
Acting type	Double acting			
Fluid	Air(to be filtered by 40μm filter element)			
Operating pressure	22~100psi(0.15~0.7MPa)			
Proof pressure	175psi(1.2MPa)			
Cushion type	Bumper		Bumper or shock absorber	
Temperature	-20~70℃			
Lubrication	Not required			
Speed range mm/s	50~500			
Stroke tolerance	$^{+0.5}_{0}$			
Sensor switches [Note1]	DMSH(S)			
Port size	M3×0.5	M5×0.8		

Production weight table

Unit: g

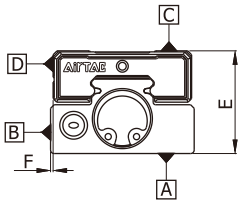
Model	Body weight	Sensor fixed seat package weight	Stroke adjusting screw package weight		
			Single adjusting screw	Single shock absorber	Other accessories
HGS6X5	116.1	14.25	2.4	–	11.61
HGS10X5	152.3	19.05	2.4	-	11.61
HGS8X5	133.01	14.05	2.4	-	10.34
HGS8X10	167.46	18.54	2.4	-	10.34
HGS8X15	207.07	23.35	2.4	-	10.34
HGS8X20	239.37	28.16	2.4	-	10.34
HGS10X5	194.26	15.91	6.8	16	27.36
HGS10X10	248.98	19.12	6.8	16	26.2
HGS10X15	303.39	24	6.8	16	21.8
HGS10X20	352.05	28.93	6.8	16	21.8
HGS12X5	291.01	21.64	6.8	16	27.36
HGS12X10	318.12	21.64	6.8	16	26.2
HGS12X15	356.79	27.63	6.8	16	21.8
HGS12X20	445.92	33.25	6.8	16	21.8
HGS12X25	491.34	38.87	6.8	16	21.8

Example:

HGS10X15SJ=Body weight+Sensor fixed seat package weight+Single adjusting screw weithgX2+Other accessories weight

=303.39+24+6.8X2+21.8=362.79(g)

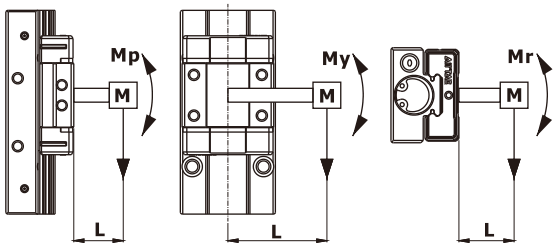
Table precision



[Unit: mm]

Model		HGS6	HGS8	HGS10	HGS12
Parallelism	C surface to A surface	0.02			
	D surface to B surface	0.02			
Parallelism of walking	C surface to A surface	0.004			
	D surface to B surface	0.004			
Dimensional tolerance of E		±0.05			
Dimensional tolerance of F		±0.05			

Max. allowable torque



Model	Max. Allowable torque (N.m)		
	Pitch moment Mp	Yaw moment My	Roll moment Mr
HGS6X5	0.42	0.42	0.87
HGS10X5			
HGS8X5	0.42	0.42	0.87
HGS8X10			
HGS8X15	1.7	1.7	1.8
HGS8X20			
HGS10X5	1.2	1.4	2.3
HGS10X10			
HGS10X15	2.8	3.1	3.3
HGS10X20			
HGS12X5	2.4	2.9	4.7
HGS12X10			
HGS12X15			
HGS12X20	6.5	7.7	7.3
HGS12X25			

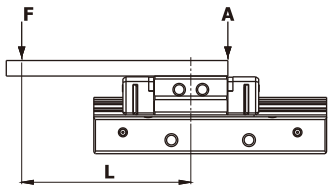
Max. allowable load

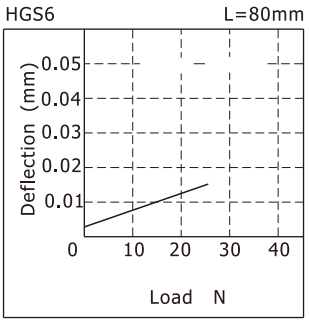
[Unit: kg]

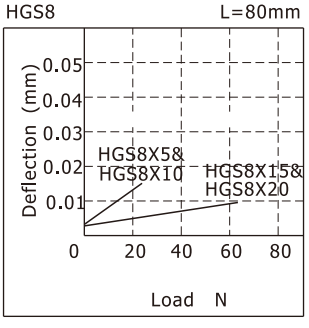
Model	HGS6	HGS8	HGS10	HGS12
No stroke adjustment device	0.3	0.3	0.8	1.2
With stroke adjustment device	0.2	0.5	0.8	1.2
With shock absorber	-	-	1.6	2.0

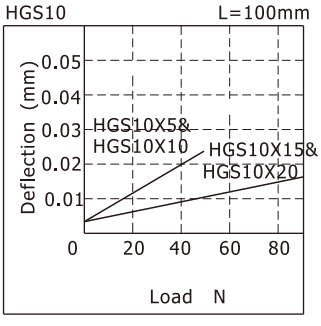
Table deflection

Table deflection due to pitch moment









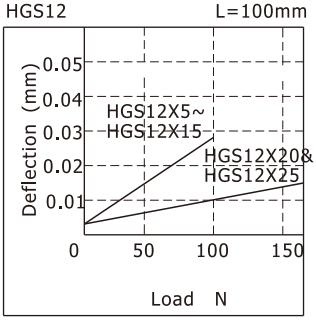
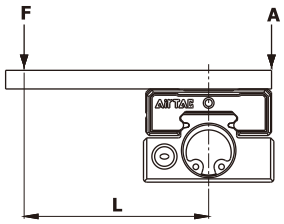
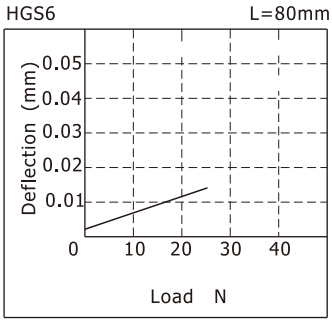
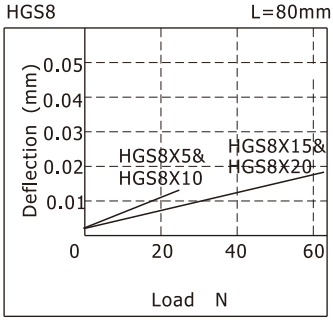
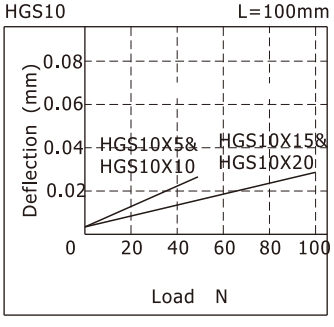


Table deflection due to yaw moment









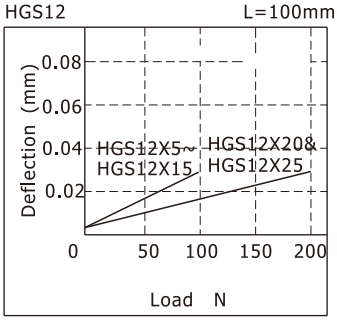
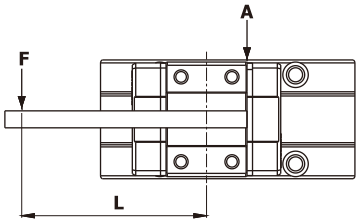
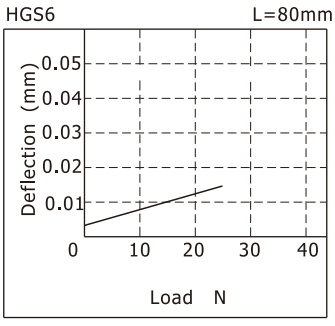
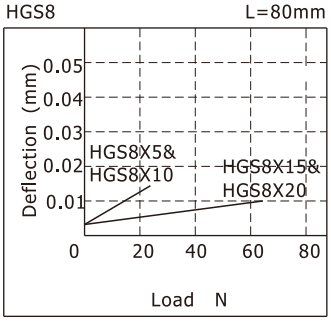
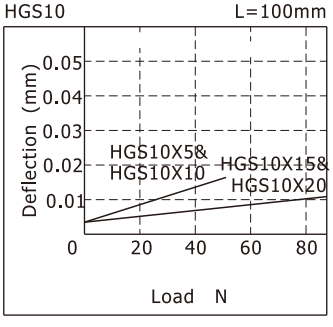


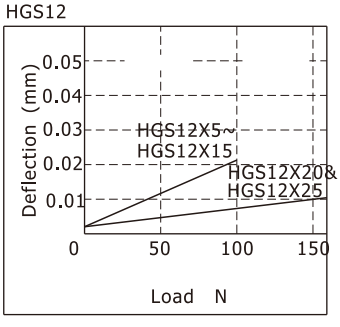
Table deflection due to roll moment





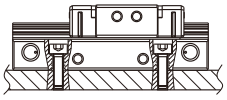




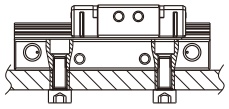


Installation and application

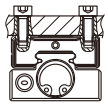
1. Cylinder can to be mounted from 4 directions
2. When mounting an compact slide cylinder, screws of appropriate length should be used and tightened properly within the maximum tightening torque. If screws are tightened beyond designed limits, malfunction may occur. If they are tightened insufficiently, it may result in sliding of falling off from its position.



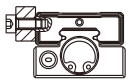
Model	Bolt used	Max. tightening torque (Nm)	Max. screw-in depth(mm)
HGS6	M3×0.5	1.1	4.5
HGS8	M3×0.5	1.1	5
HGS10	M3×0.5	1.1	5
HGS12	M4×0.7	2.5	4.5



Model	Bolt used	Max. tightening torque (Nm)	Max. screw-in depth(mm)
HGS6	M4×0.7	2.5	4.5
HGS8	M4×0.7	2.5	5
HGS10	M4×0.7	2.5	5
HGS12	M5×0.8	5.1	4.5



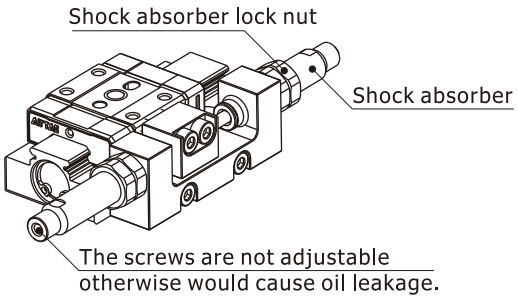
Model	Bolt used	Max. tightening torque (Nm)	Max. screw-in depth(mm)
HGS6	M3×0.5	1.1	3
HGS8	M3×0.5	1.1	3
HGS10	M3×0.5	1.1	3
HGS12	M3×0.5	1.1	4



Model	Bolt used	Max. tightening torque (Nm)	Max. screw-in depth(mm)
HGS6	M2×0.4	0.26	4
HGS8	M2×0.4	0.26	4
HGS10	M3×0.5	1.1	3
HGS12	M3×0.5	1.1	4

About shock absorber

1. Shock absorbers are expendable. Promptly replace them when energy absorbing capacity decreases.
2. Never turn or adjust the screws on bottom of the shock absorber body. The screws are not for adjusting. Otherwise would cause oil leakage.
3. Follow the table for tightening torque of shock absorber to lock nuts.

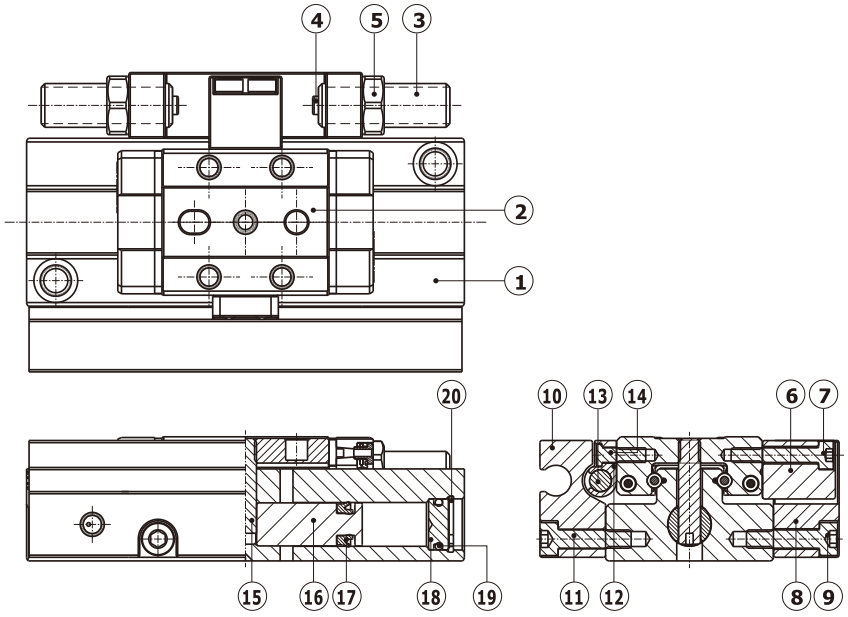


Model	Shock absorber	Tightening torque
HGS6	Without shock absorber	
HGS8		
HGS10	ACA0806-1N	1.67(N.m)
HGS12	ACA0806-1N	1.67(N.m)

HGS Series

Bore size: Φ6, Φ8, Φ10, Φ12

Inner structure

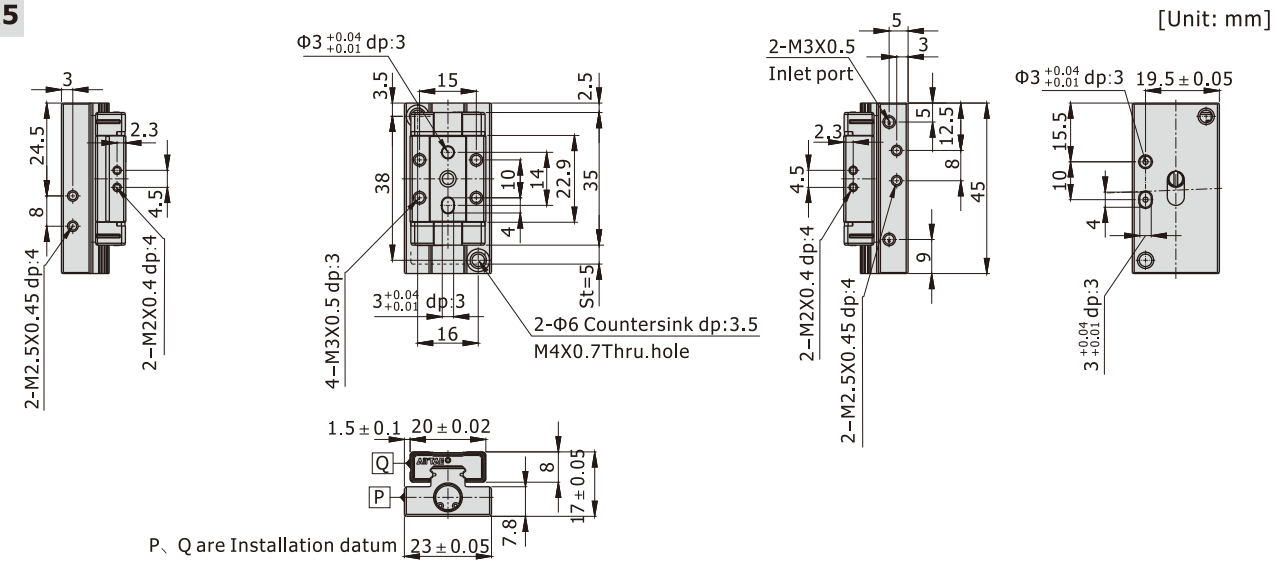


NO.	Item
1	Body
2	Slide table
3	Adjustable screw
4	Bumper
5	Hex nut
6	Middle stopping block
7	Hexagon socket head screws
8	End stopping block
9	Hexagon socket head screws
10	Sensor fixed rail
11	Hexagon socket head screws
12	Magnet holder
13	Magnet
14	Screw
15	Pin
16	Piston
17	Piston packing
18	End cover
19	O ring
20	C clip

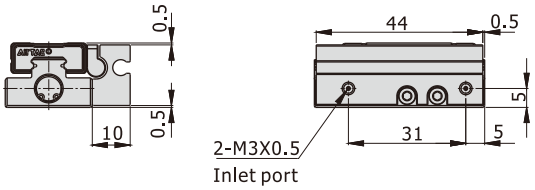
Dimensions(HGS6)

HGS6X5

[Unit: mm]

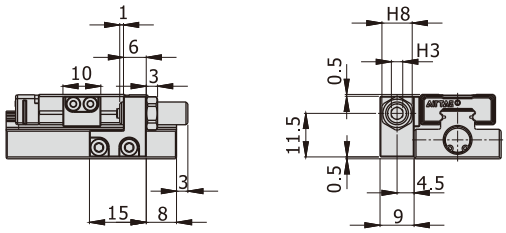


HGS6X5S

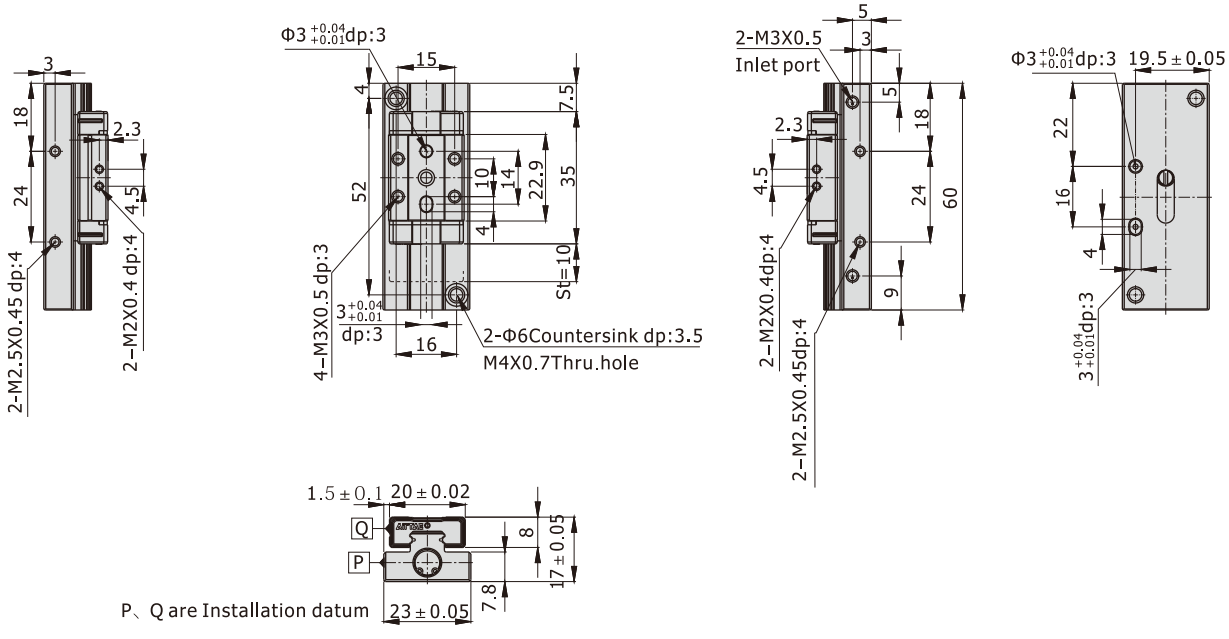


HGS6X5J

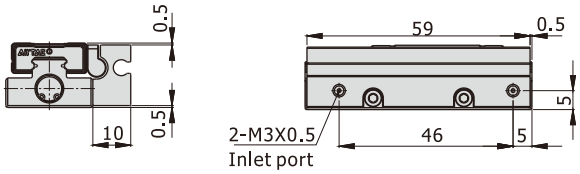
Adjustable range :5mm



HGS6X10

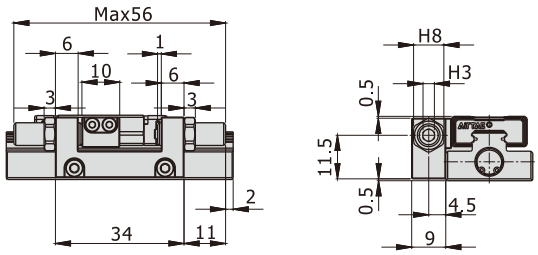


HGS6X10S



HGS6X10J

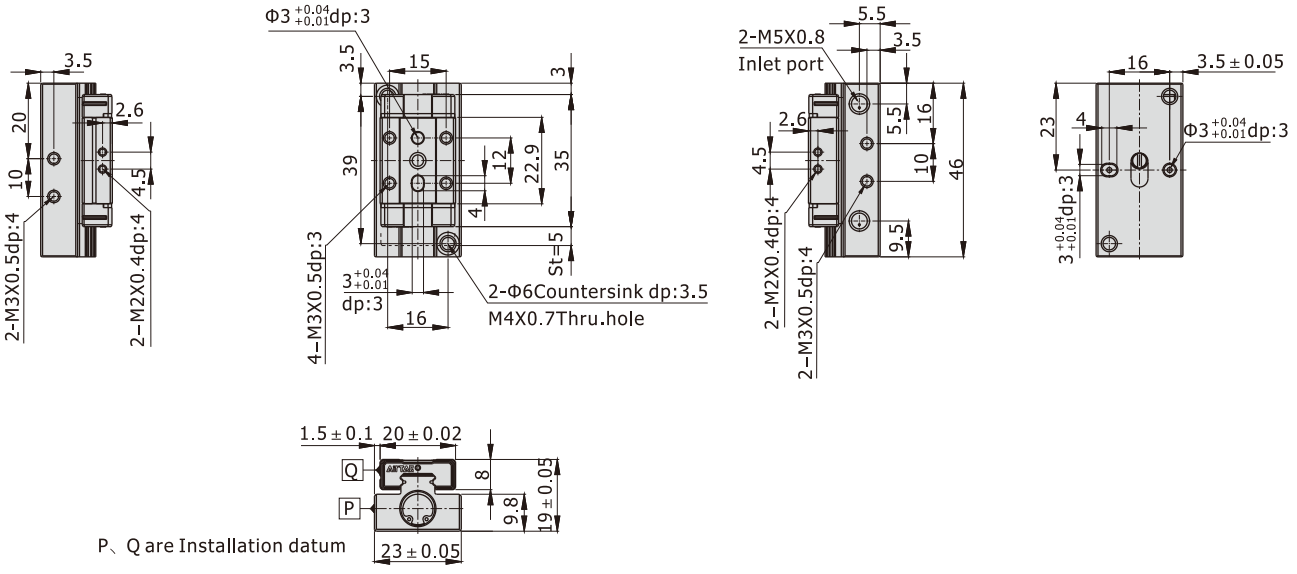
Adjustable range :5mm of each sides.



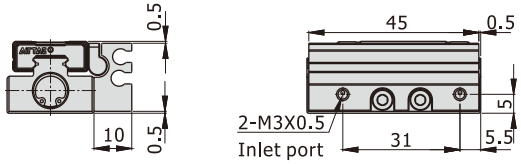
Dimensions(HGS8)

HGS8X5

[Unit: mm]

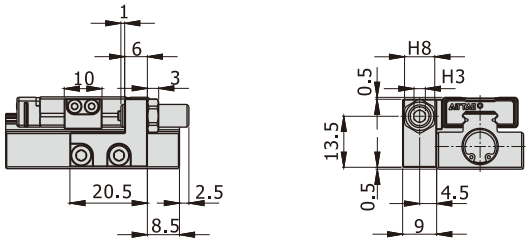


HGS8X5S

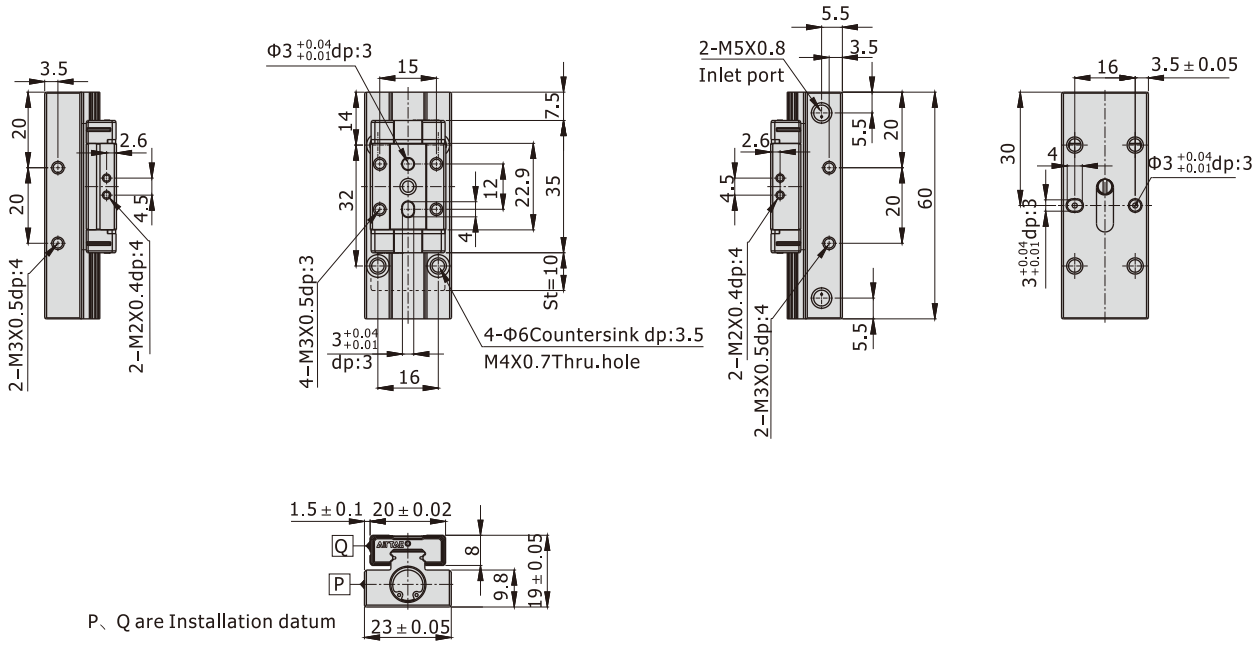


HGS8X5J

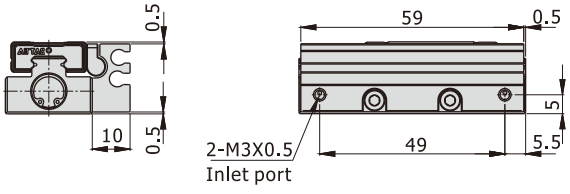
Adjustable range :5mm



HGS8X10

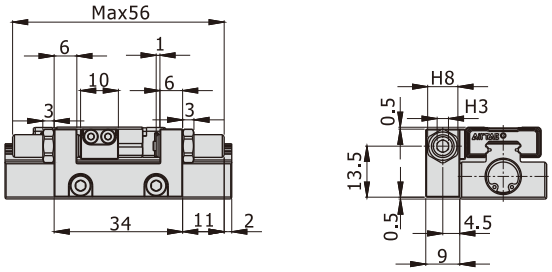


HGS8X10S

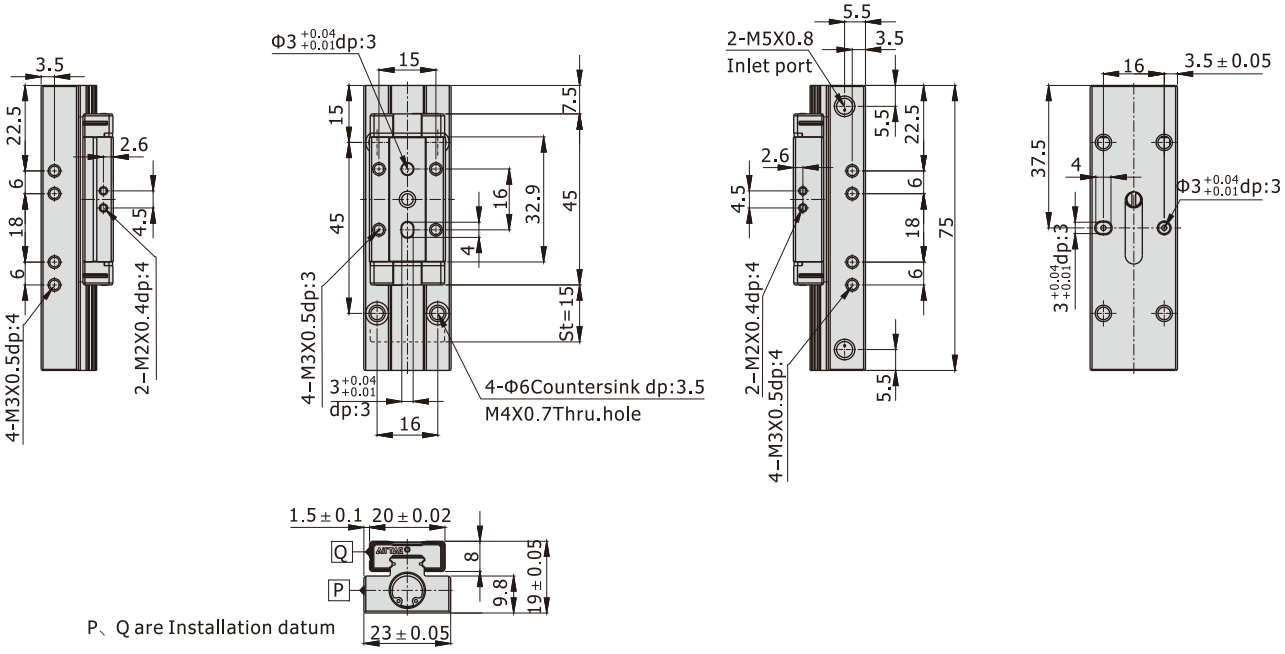


HGS8X10J

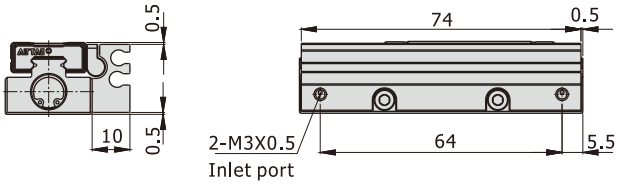
Adjustable range :5mm of each sides.



HGS8X15

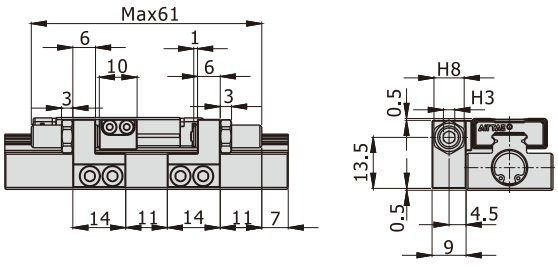


HGS8X15S

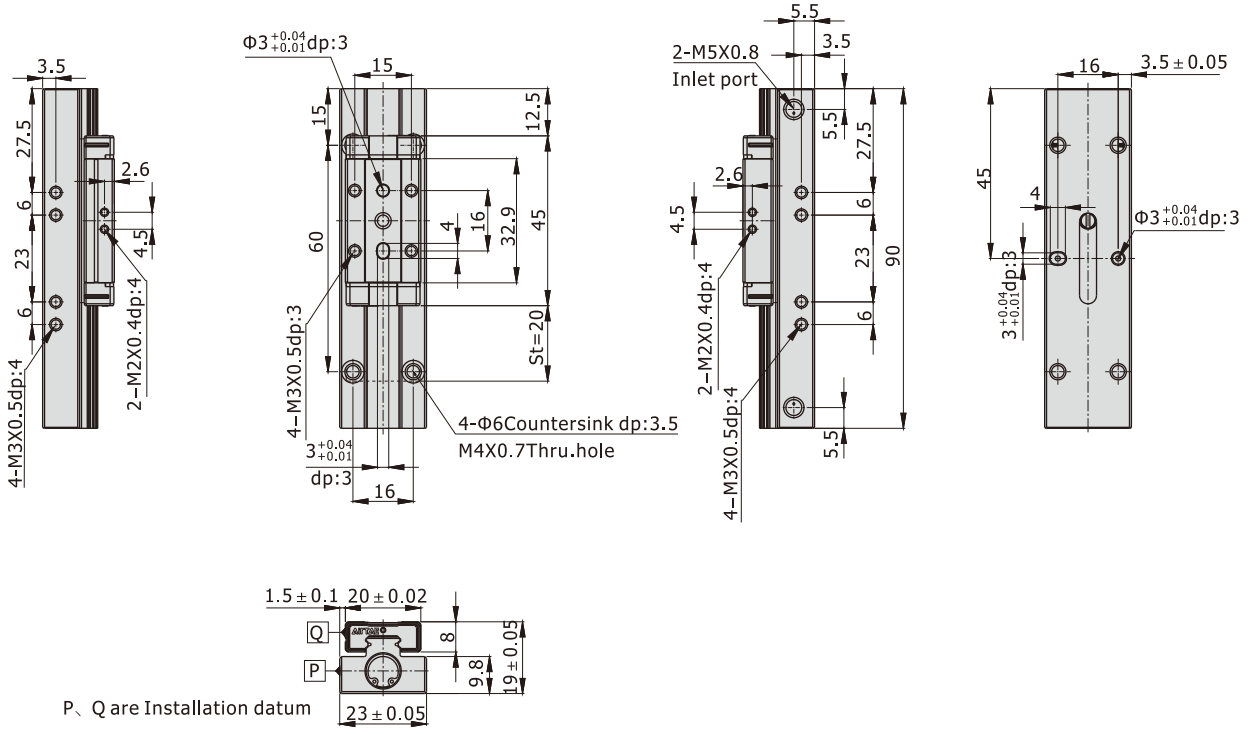


HGS8X15J

Adjustable range :5mm of each sides.



HGS8X20



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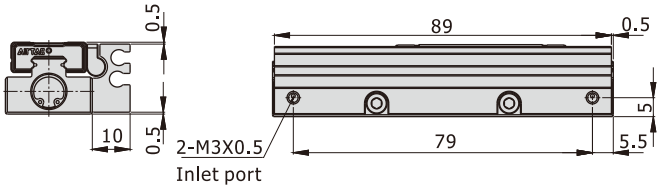
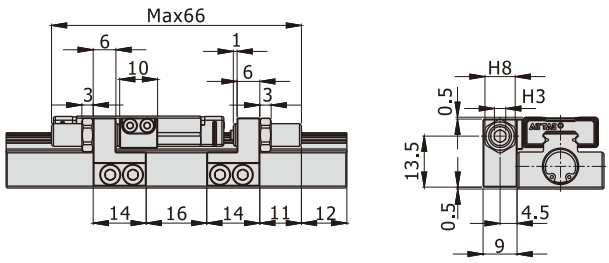


HGS8X20J

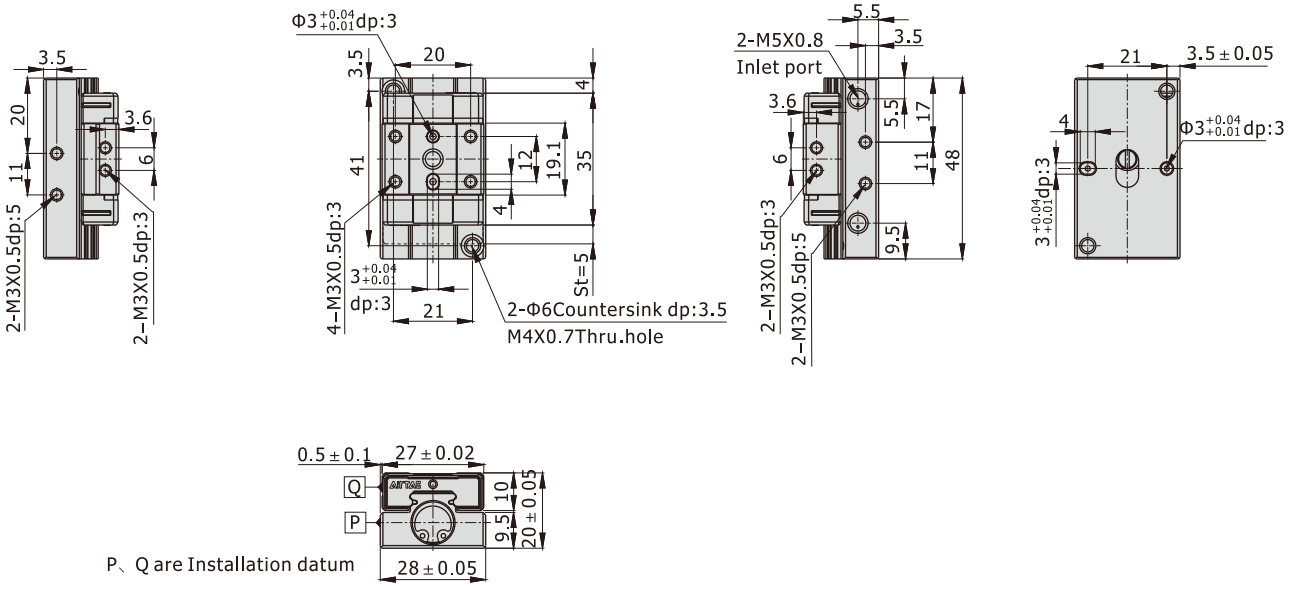
Adjustable range :5mm of each sides.



Dimensions(HGS10)

HGS10X5

[Unit: mm]



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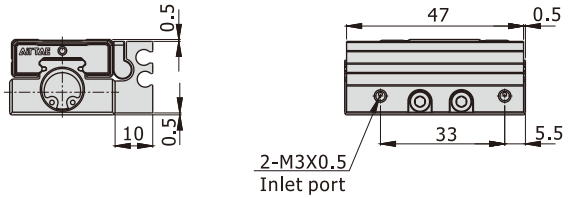
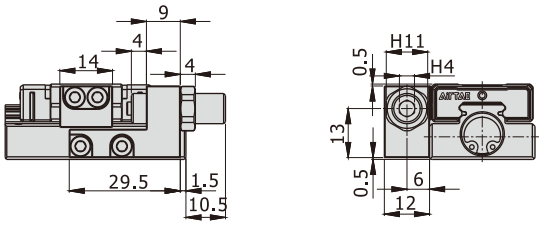
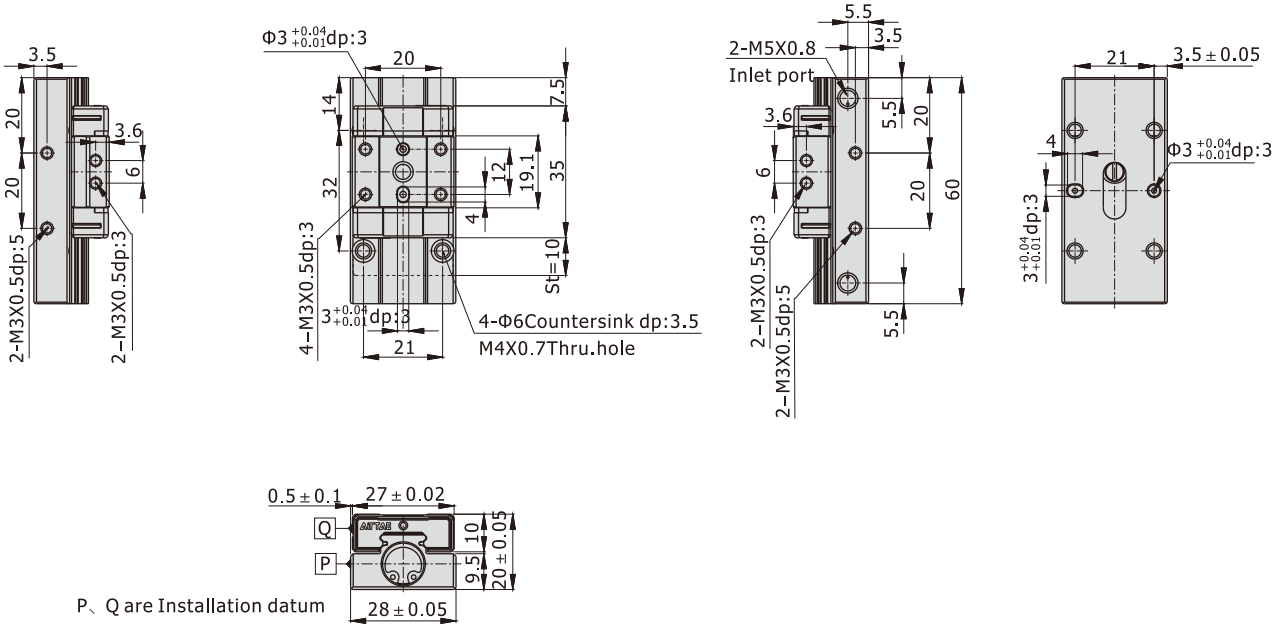


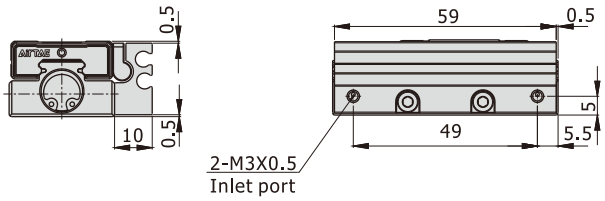
HGS10X5J Adjustable range :5mm



HGS10X10

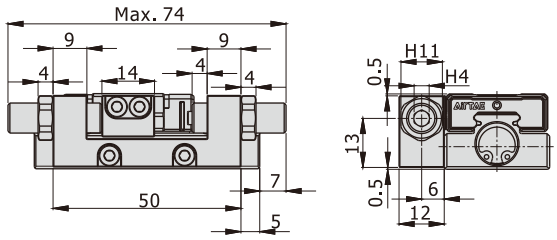


HGS10X10S

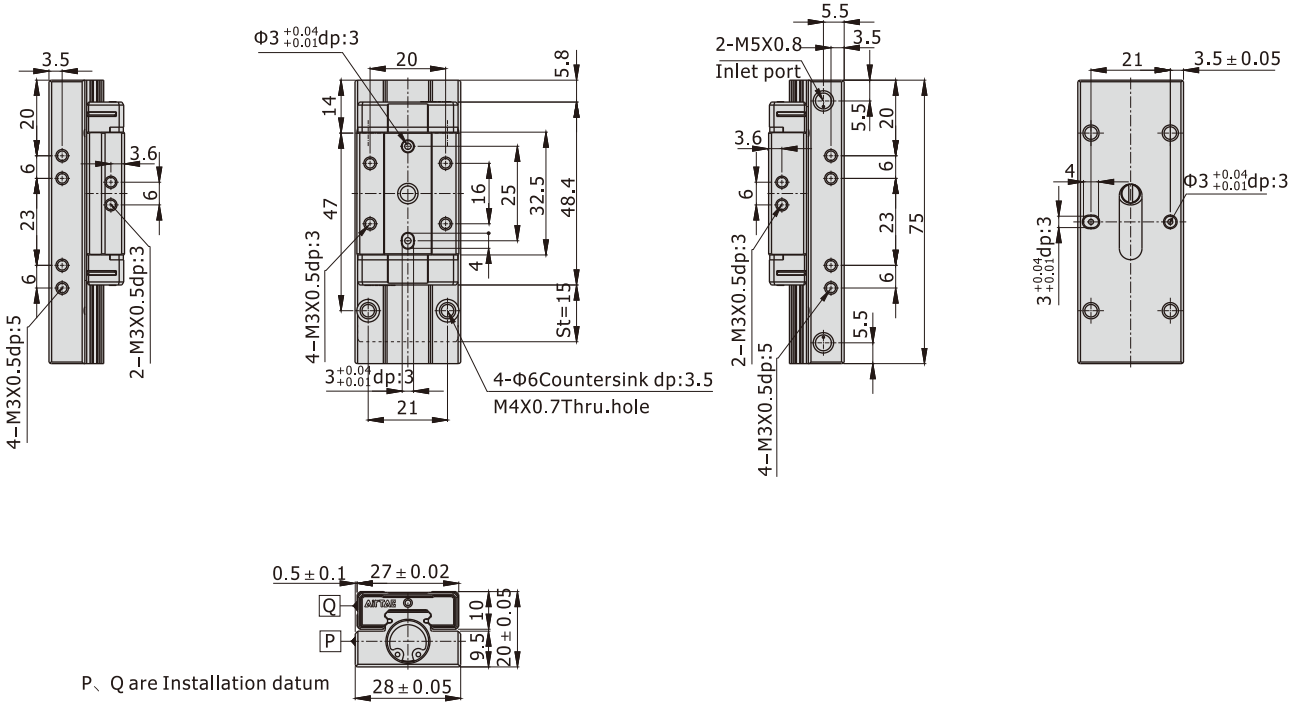


HGS10X10J

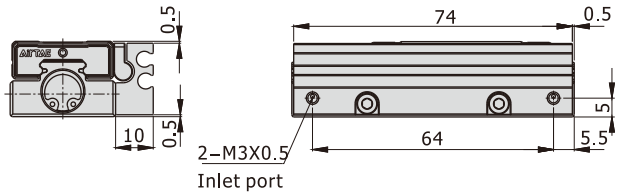
Adjustable range :5mm of each sides.



HGS10X15

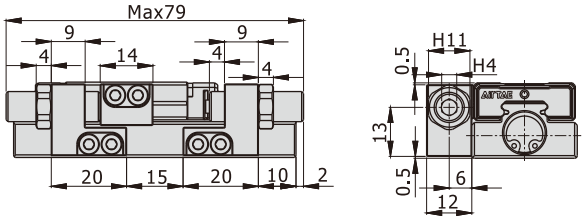


HGS10X15S

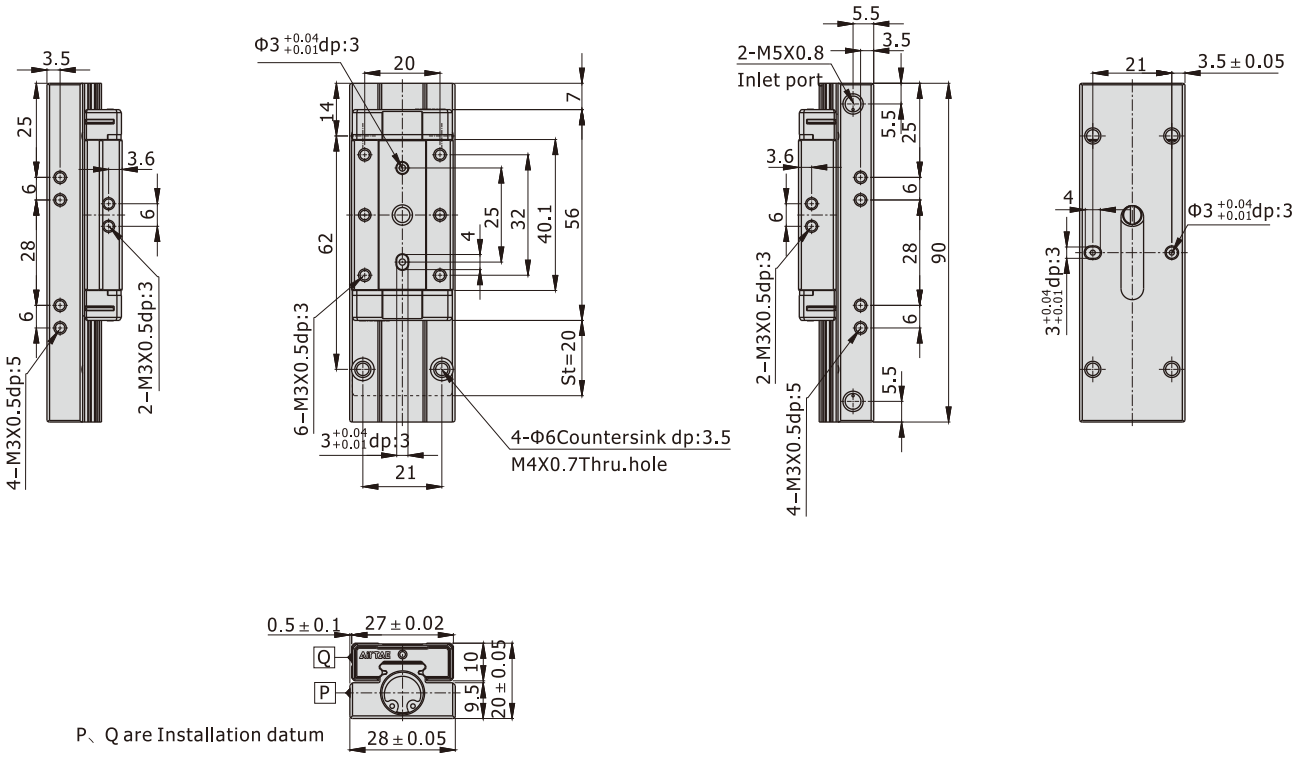


HGS10X15J

Adjustable range :5mm of each sides.



HGS10X20



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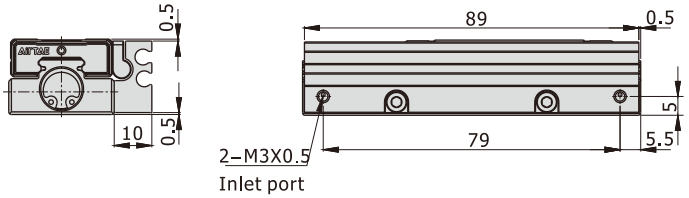
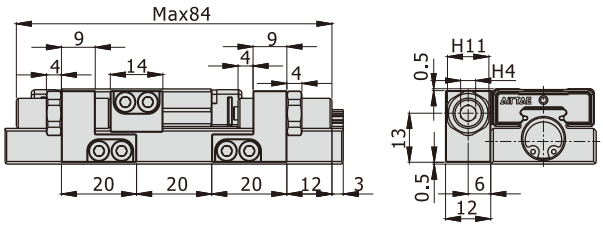


HGS10X20J

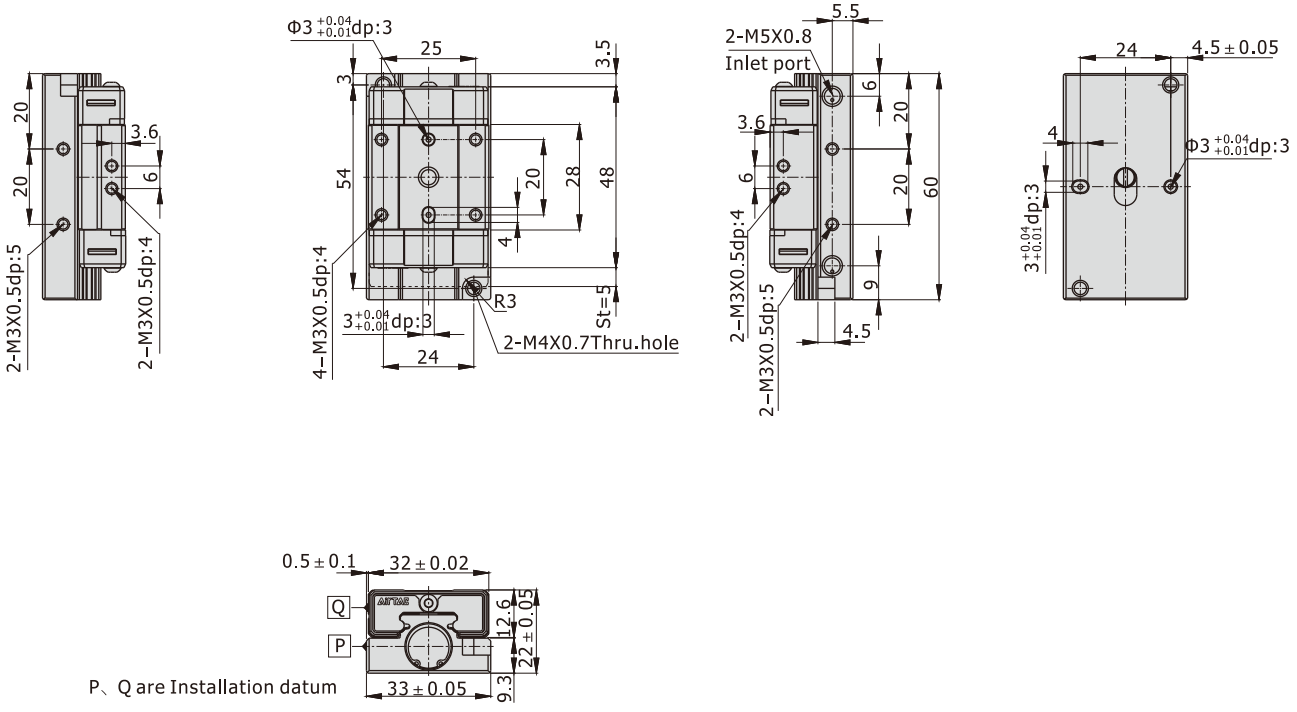
Adjustable range :5mm of each sides.



Dimensions(HGS12)

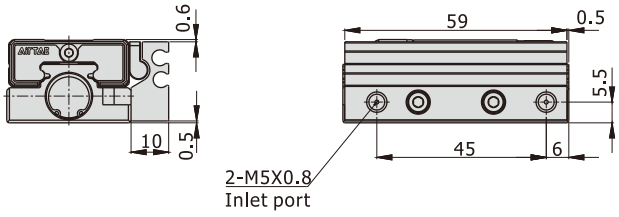
HGS12X5

[Unit: mm]



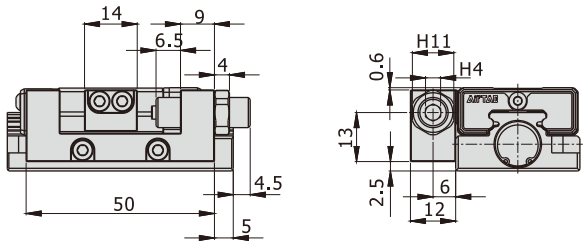
P、Q are Installation datum

HGS12X5S

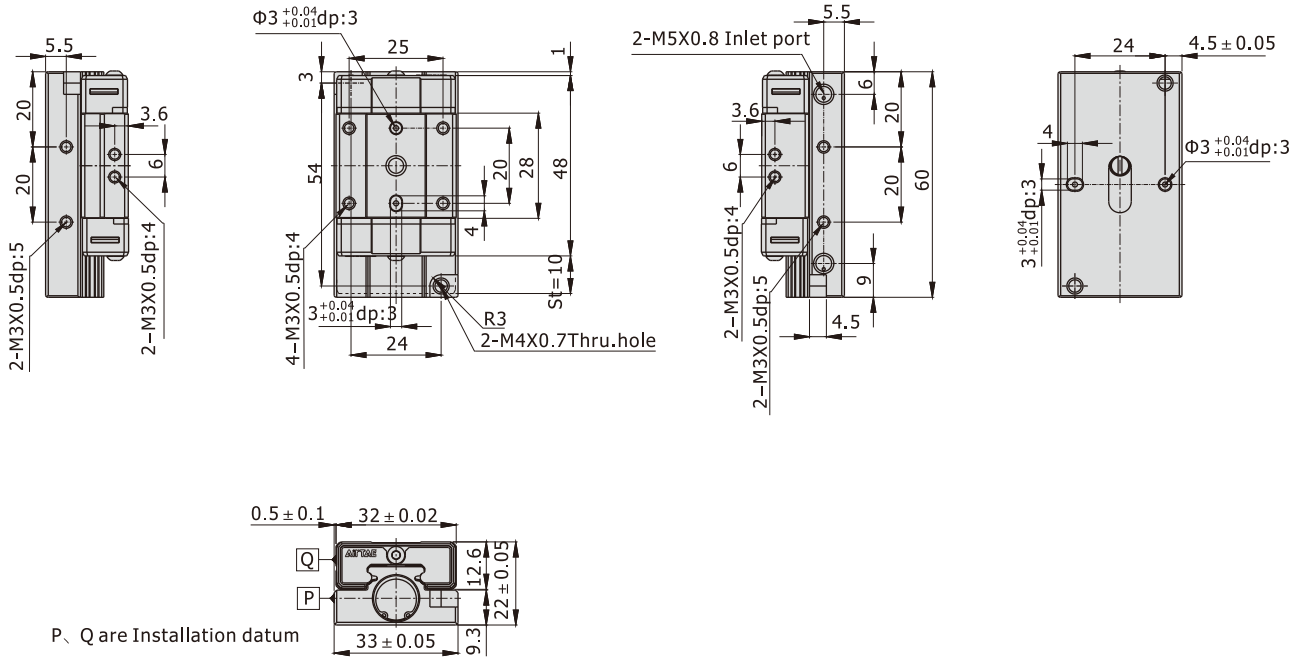


HGS12X5J

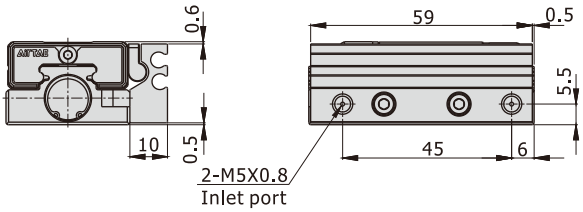
Adjustable range : 5mm



HGS12X10

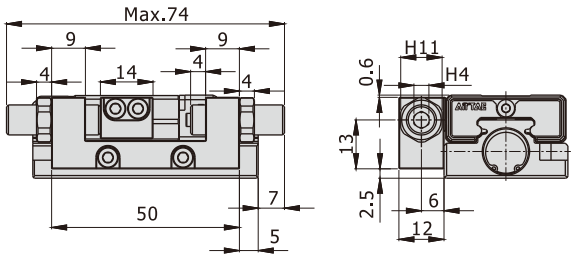


HGS12X10S

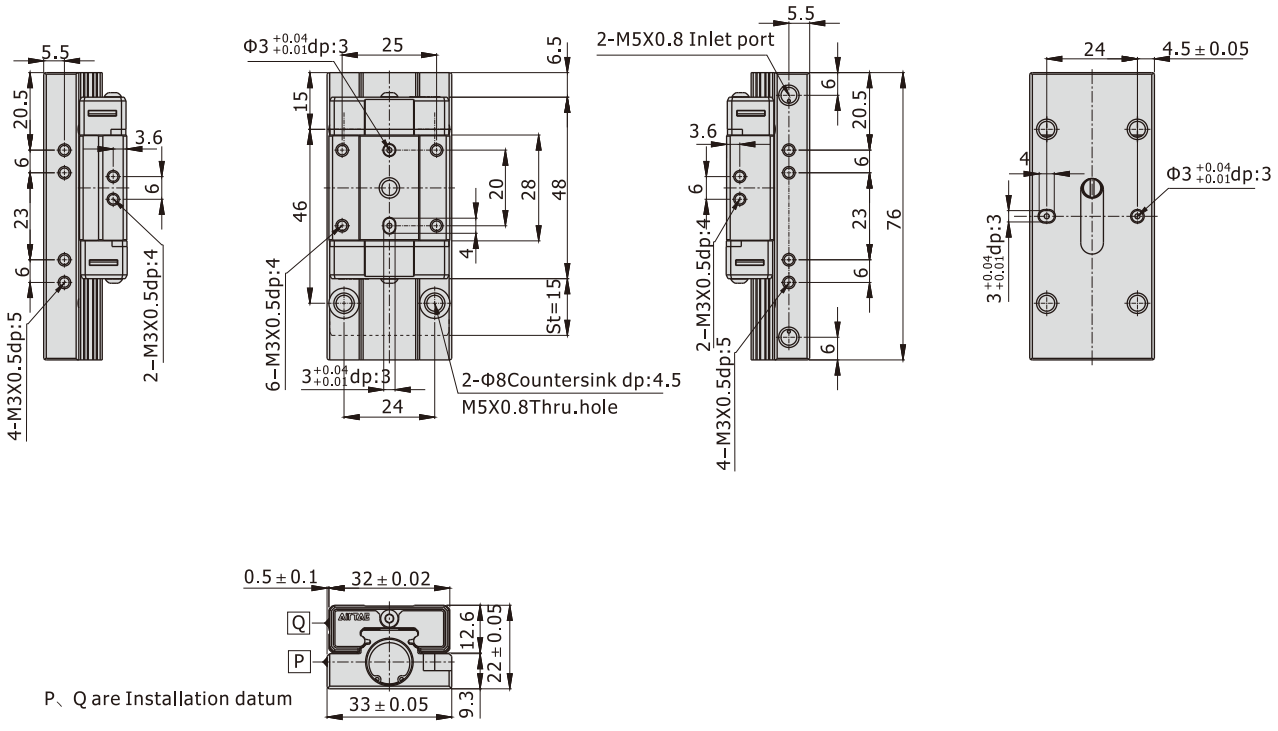


HGS12X10J

Adjustable range :5mm of each side



HGS12X15



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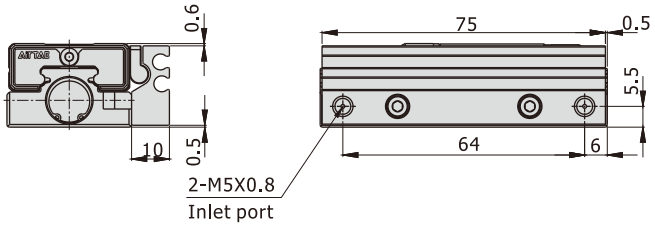
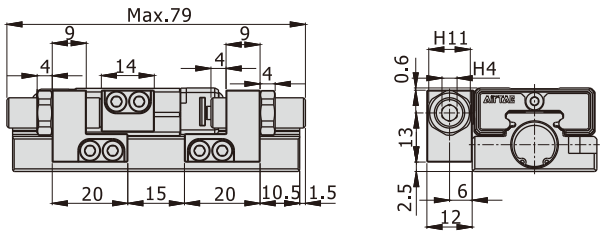


HGS12X15J

Adjustable range :5mm of each side



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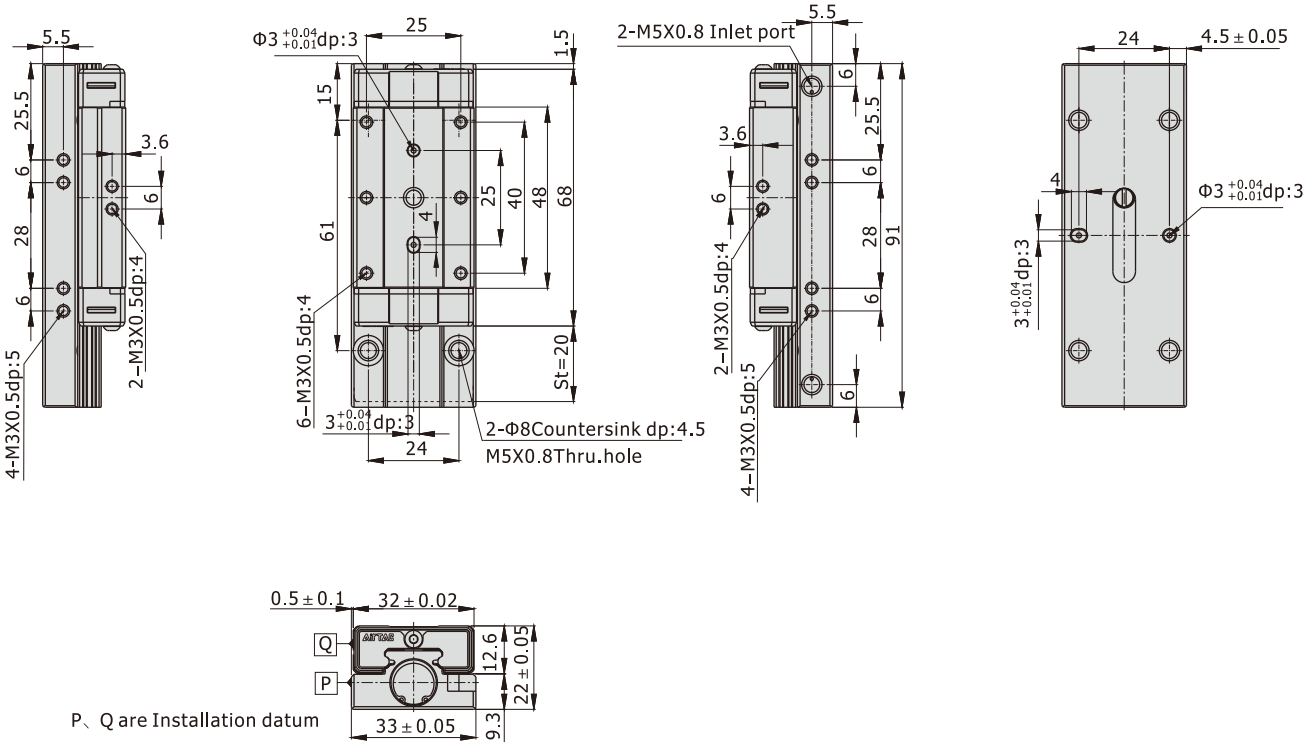

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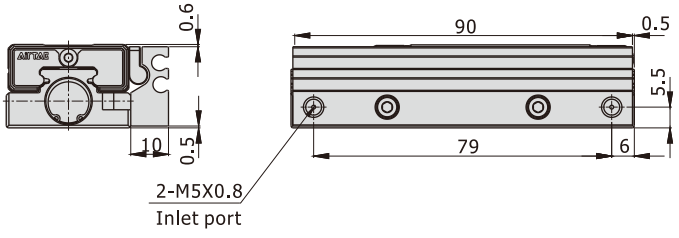
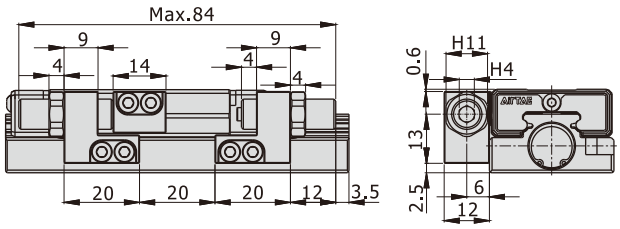
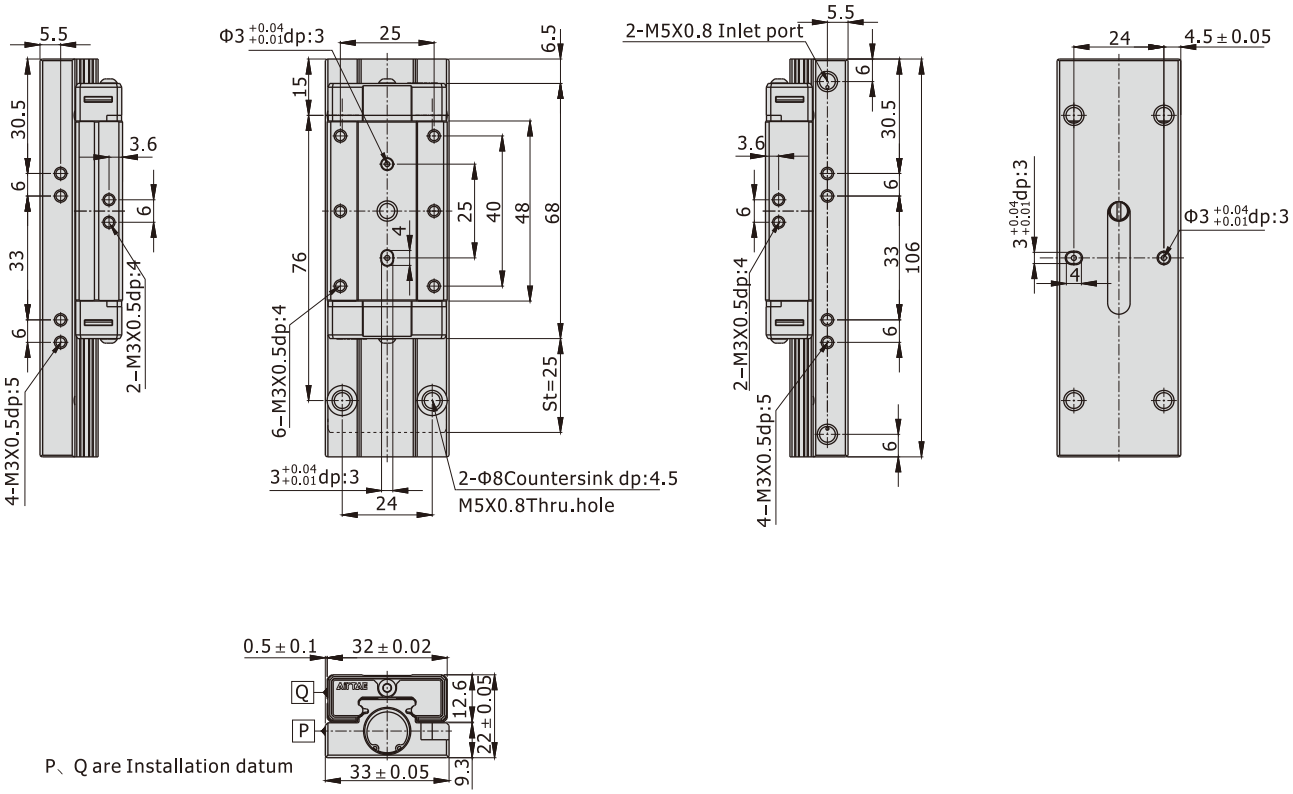


HGS12X20J

Adjustable range :5mm of each side



HGS12X25



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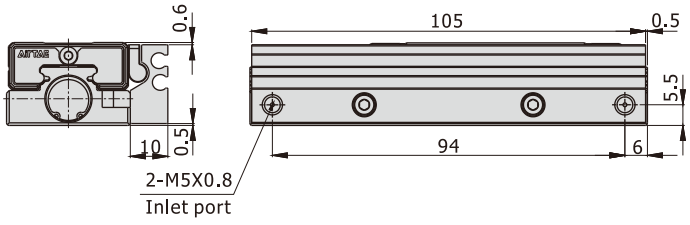

HGS12X25J

Adjustable range :5mm of each side