



# ABOUT US

In 2008, Polymatic Pneumatic India Private Ltd started its journey with just five passionate individuals, dreaming of bringing top notch pneumatic products to India without breaking the bank. We started small, focusing on essentials like one touch fittings, FRLs, and valves, all crafted with the latest designs.

As the years rolled by, our commitment to quality led us to introduce pneumatic cylinders in 2010, all proudly made to meet ISO standards. Thanks to our innovative seal designs, our pneumatic cylinders quickly won hearts and carved out a significant slice of the Indian market.

Besides our product line, we believe in being right where the action is. That's why we've always been active participants in industrial fairs, constantly learning and evolving to meet the dynamic needs of the pneumatic market.

But it's not just about what we offer it's how we offer it. Our strong network of domestic dealers and a dependable service team ensure that every customer gets nothing short of exceptional service.

We're all about staying connected and staying ahead. Our marketing and sales teams, along with our distributors, are constantly in sync, exchanging valuable information that helps us tailor our offerings to exactly what our customers need.

Looking ahead, we see a future where pneumatics will blend seamlessly with electronic and digital controls for automated systems. Think terminal valves, vacuum ejectors, electro pneumatic pressure regulators, and electrical actuators all coming soon with cost-effective sensing and information processing devices, making your systems smarter and more efficient than ever.

At Polymatic Pneumatic, we're not just about products; we're about warmth, innovation, and making pneumatic solutions accessible and delightful for everyone



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# Polymatic™

PNEUMATIC SOLUTIONS



**TF Series Filter-Basic**



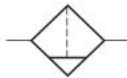
• TF1000-M5      • TF2000-02      • TF4000-04

It is mainly used for cleaning and effectively eliminates various impurities in the compressed air from compressors with automatic discharge structure, long service life, higher safety. There are multiple specifications for your choice.

• Ordering Code

<b>TF</b>	<b>2000</b>	<b>02</b>	<b>U</b>
Series	Type	Pipe size	Iron Shell
	1000	M5	No Mark :
	2000	01 : G1/8	2000 No Iron Shell
	3000	02 : G1/4	3000 ~ 5000 With Iron Shell
	4000	03 : G3/8	U:2000 With Iron Shell
	5000	04 : G1/2	
		06 : G3/4	
		10 : G1	

■ Graphics Sign

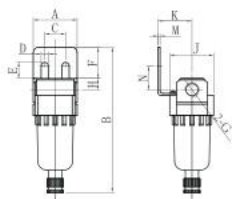


■ Technical Parameter

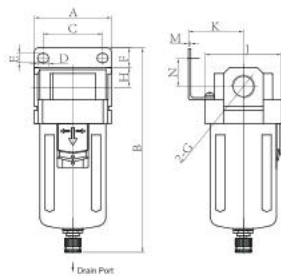
MODEL	TF2000-01	TF2000-02	TF3000-02	TF3000-03	TF4000-03	TF4000-04	TF4000-06	TF5000-06	TF5000-10
Rated Flow (L/min)	750	750	1500	1500	4000	4000	6000	7000	7000
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision	25μ								
Highest Working Pressure	1.0MPa								
Ensured pressure Resistance	1.5MPa								
Operating Temperature Range	5~60 C								
Container Material	Polycarbonate								
Protective Cover	Not Available				Available				
Drain Function	Differential Drain				Differential Drain/Automatic Drain				

■ Figure Dimension

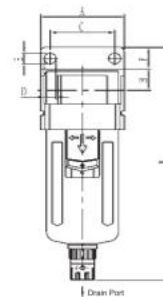
• TF1000-M5/01  
TF2000-02/01



• TF3000-03/02 TF4000-04/03  
TF4000-06 TF4000-10/06



• TF5000-10/06



Type	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N
TF2000	G1/8"~G1/4"	40	97.5	11	40	17	30	27	22	5.4	8.4	40	2.3	40
TF3000	G1/4"~G3/8"	53	132.5	14	53	16	41	40	23	6.5	8	53	2.3	56
TF4000	G3/8"~G1/2"	70	168.5	18	70	17	50	54	26	8.5	10.5	70	2.3	73
TF4000-06	G3/4"	75	172.5	20	70	14	50	54	25	8.5	10.5	70	2.3	73
TF5000	G3/4"~1"	90	247.5	24	90	23	66.5	66	35	11	13	90	3.2	90

TR Series Regulator

I

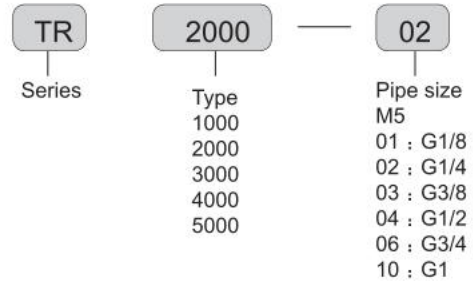


• TR1000-M5    • TR3000-03    • TR5000-10

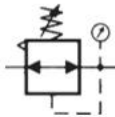
• Air Regulator

It adopts balanced inlet with relief device. It has the advantages of stable pressure, high precision, quick reaction and firm lockup. It can be freely combined with other air-source treatment products.

• Ordering Code



■ Graphics Sign

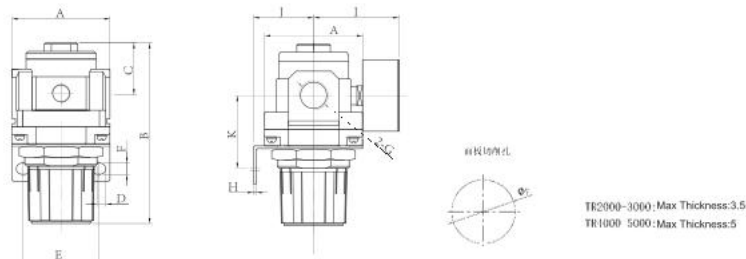


■ Technical Parameter

MODEL	TR2000-01	TR2000-02	TR3000-02	TR3000-03	TR4000-03	TR4000-04	TR4000-06	TR5000-06	TR5000-10
Rated Flow	550	550	2500	2500	6000	6000	6000	8000	8000
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Highest Working Pressure	0.7MPa				1.0MPa				
Ensured pressure Resistance	1.5MPa								
Operating Temperature Range	5~60 C								
Range of Adjustable Pressure	0.05~0.7MPa				0.05~0.85MPa				
Valve Type	With Over Flow								

■ Figure Dimension

• TR1000-M501    TR2000-02/01    TR3000-03/02    TR4000-04/03    TR4000-06    TR5000-10/06



Type	Port Size (G)	A	B	c	D	E	F	G	H	J	K	L	M	N
TR2000	G1/8"~G1/4"	40	95	17	40	56.8	30	34	44	5.4	15.4	55	2.3	33.5
TR3000	G1/4"~G3/8"	53	127.5	35	63	60.8	41	40	46	6.5	8	53	2.3	42.5
TR4000	G3/8"~G1/2"	70	149.5	37.5	70	65.5	50	54	54	8.5	10.5	70	2.3	52.5
TR4000-06	G3/4"	75	164	40.5	70	69.5	50	54	56	8.5	10.5	70	2.3	52.5
TR5000	G3/4"~1"	90	168	48	90	75.5	70	66	65.8	11	13	90	3.2	52.5

**TW Series Filter Regulator-Basic**



• TW2000-02      • TW3000-03

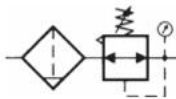
• Character

It is designed with integration of filter and regulator, with small dimension and reasonable structure. It can not only provide clean and dry air for pneumatic system, but also ensure the steady pressure of the air source.

• Ordering Code

<b>TW</b>	<b>2000</b>	<b>02</b>	<b>U</b>
Series	Type	Pipe size	Iron Shell
	1000	M5	No Mark :
	2000	01 : G1/8	2000 No Iron Shell
	3000	02 : G1/4	3000 ~ 5000 With Iron Shell
	4000	03 : G3/8	U:2000 With Iron Shell
	5000	04 : G1/2	
		06 : G3/4	
		10 : G1	

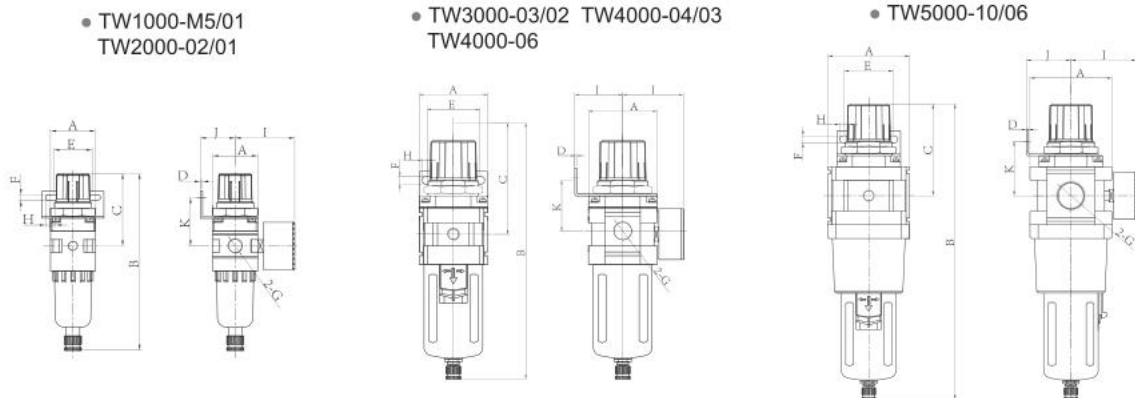
• Ordering Code



■ Technical Parameter

MODEL	TW2000-01	TW2000-02	TW3000-02	TW3000-03	TW4000-03	TW4000-04	TW4000-06	TW5000-06	TW5000-10
Rated Flow (L/min)	550	550	2000	2000	4000	4000	4500	5500	5500
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision	25μ								
Highest Working Pressure	1.0MPa								
Ensured pressure Resistance	1.5MPa								
Operating Temperature Range	5~60 C								
Range of Adjustable Pressure	0.05~0.85MPa								
Container Material	Polycarbonate								
Protective Cover	Not Available				Available				
Drain Function	Differential Drain				Differential Drain/Automatic Drain				
Valve Type	With Over Flow								

■ Figure Dimension

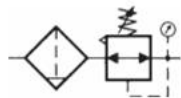


Type	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
TW2000	G1/8"~G1/4"	40	164.5	78	40	56.8	30	34	43.5	5.4	15.4	55	2.3	33.5	40
TW3000	G1/4"~G3/8"	53	211	92.5	53	60.8	41	40	46	6.5	8	53	2.3	42.5	56
TW4000	G3/8"~G1/2"	70	262	112	70	70.5	50	54	53.5	8.5	10.5	70	2.3	52.2	73
TW4000-06	G3/4"	75	267	114	70	70.5	50	54	55.5	8.5	10.5	70	2.3	52.5	73
TW5000	G3/4"~1"	90	338	116	90	75.5	69.8	54	62	8.5	10.5	70	3.2	52.5	90

**TW Series Filter Regulator-Automatic drain type**



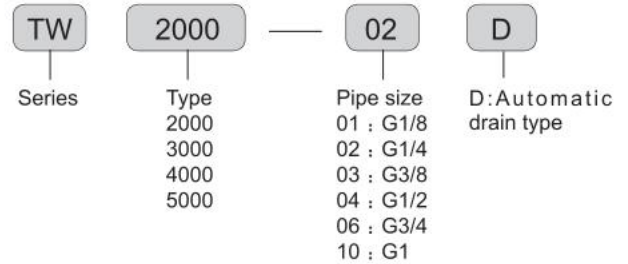
■ Graphics Sign



● Character

Standard auto drain design, compact structure, convenient assembling. It can clear the water in cup without manually

● Ordering Code

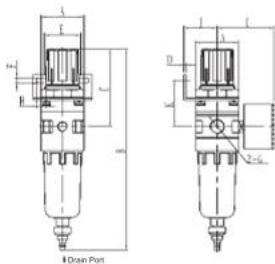


■ Technical Parameter

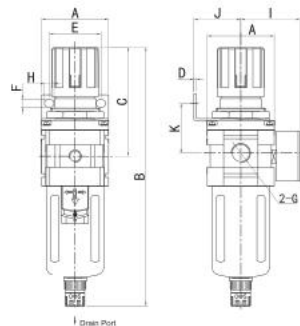
Specification	TW2000-02D/01D	TW3000-03D/02D	TW4000-04D/03D	TW4000-06D	TW5000-10D/06D
Applicable Medium	Air				
Rating Flow(L/min)	550	2000	4000	4000	5000
Filtration	5μm~ 40μm				
Applicable Pressure Range	0.2~1.0MPa				
Medium Temperature	0 ~ 60°C				
Type of Valve	Relief Type				
Gauge Port Size	G1/8		G1/4		

■ Figure Dimension

● TW2000-02D/01D



● TW3000-03D/02D TW4000-04D/03D TW4000-06D



TW2000-3000 Max Thickness:3.5  
TW4000-5000 Max Thickness:5

Type	A	B	C	D	E	F	G	H	I	J	K	N
TW2000-02D/01D	40	190	72.5	2.0	34	5.5	G1/4	15	50	31	43	41.5
TW3000-03D/02D	53	230	89	2.0	40	6.5	G3/8	8	56	48	50	42.5
TW4000-04D/03D	70	285	114	2.0	54	8.5	G1/2	10.5	60	48	54	52.5
TW4000-06D	75	289	114	2.0	54	8.5	G3/4	10.5	60	48	54	52.5
TW5000-10D/06D	90	363	118	3.0	54	8.5	G1	11	71.5	48	60	52.5

**TL Series Air Lubricator**



• TL2000-02

• TL4000-04

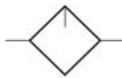
• Air Lubricator

It adopts balanced inlet with relief device. With the advantages of stable pressure, high precision, quick reaction and firm lockup. can be freely combined with other air-source treatment products.

• Ordering Code

<b>TL</b>	<b>2000</b>	<b>02</b>	<b>U</b>
Series	Type	Pipe size	Iron Shell
	1000	M5	No Mark :
	2000	01 : G1/8	2000 No Iron Shell
	3000	02 : G1/4	3000 ~ 5000 With Iron Shell
	4000	03 : G3/8	U:2000 With Iron Shell
	5000	04 : G1/2	
		06 : G3/4	
		10 : G1	

■ Graphics Sign

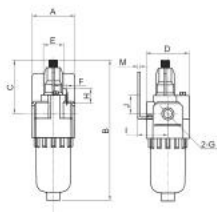


■ Technical Parameter

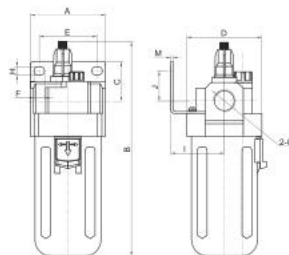
MODEL	TL2000-01	TL2000-02	TL3000-02	TL3000-03	TL4000-03	TL4000-04	TL4000-06	TL5000-06	TL5000-10
Rated Flow (L/min)	800	800	1700	1700	5000	5000	6300	7000	7000
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Highest Working Pressure	1.0MPa								
Ensured pressure Resistance	1.5MPa								
Operating Temperature Range	5~60 C								
Recommended Oil Use	ISO VG 32								
Container Material	Polycarbonate								
Protective Cover	Not Available				Available				

■ Figure Dimension

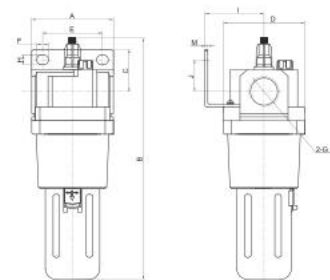
• TL1000-M5/01  
TL2000-02/01



• TL3000-03/02 TL4000-04/03  
TL4000-06



• TL5000-10/06



Type	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	P
TL2000	G1/8"~G1/4"	40	125.5	38	40	30	27	22	5.4	9.4	40	2.3	22	40
TL3000	G1/4"~G3/8"	53	150	38	53	41	40	23	6.5	8	53	2.3	34.2	56
TL4000	G3/8"~G1/2"	70	185	41	70	50	54	26	8.5	10.5	70	2.3	42.2	73
TL4000-06	G3/4"	75	185	39	70	50	54	26	8.5	10.5	70	2.3	46.2	73
TL5000	G3/4"~1"	90	260	45	90	66.5	66	35	11	13	90	3.2	55.5	90

**TC Series treatment Dyad-Basic**



• TC2010-02

• TC4010-04

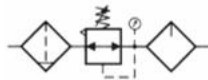
• Character

It is in standard modular design and can be separated and combined freely. With reasonable design, easy use, it can meet different requirements in pneumatic systems.

• Ordering Code

<b>TC</b>	<b>2010</b>	<b>02</b>	<b>U</b>
Series	Type	Pipe Size	Iron Shell
	1010	M5	No Mark :
	2010	01 : G1/8	2010 No Iron Shell
	3010	02 : G1/4	3010 ~ 5010 With Iron Shell
	4010	03 : G3/8	U:2010 With Iron Shell
	5010	04 : G1/2	
		06 : G3/4	
		10 : G1	

■ Graphics Sign



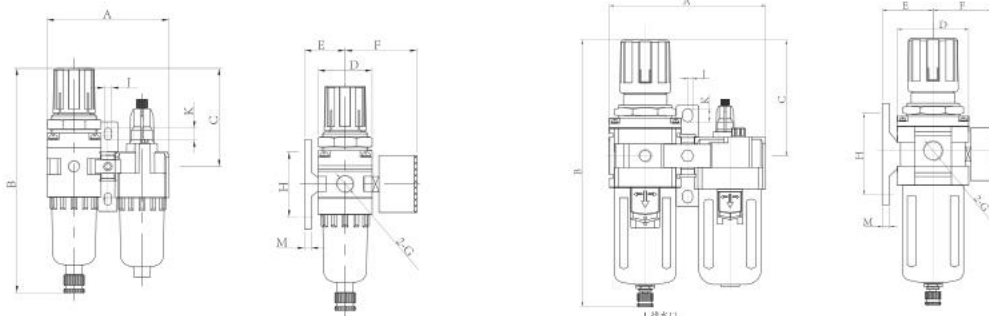
■ Technical Parameter

MODEL	TC2010-01	TC2010-02	TC3010-02	TC3010-03	TC4010-03	TC4010-04	TC4010-06	TC5010-06	TC5010-10	
Rated Flow (L/min)	500	500	1700	1700	3000	3000	3000	4000	4000	
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"	
Filter Precision	25μ									
Highest Working Pressure					1.0MPa					
Ensured pressure Resistance					1.5MPa					
Operating Temperature Range					5~60 C					
Range of Adjustable Pressure	0.05~0.7MPa				0.05~0.85MPa					
Recommended Oil Use					ISO VG 32					
Container Material					Polycarbonate					
Protective Cover	Not Available				Available					
Drain Function	Differential Drain				Differential Drain/Automatic Drain					
Valve Type	With Over Flow									
composing elements	Filter&Regulator	TW2000-01	TW2000-02	TW3000-02	TW3000-03	TW4000-03	TW4000-04	TW4000-06	TW5000-06	TW5000-10
	Lubricator	TL2000-01	TL2000-02	TL3000-02	TL3000-03	TL4000-03	TL4000-04	TL4000-06	TL5000-06	TL5000-10

■ Figure Dimension

• TC1010-M5/01  
TC2010-02/01

• TC3010-03/02 TC4010-04/03  
TC4010-06 TC5010-10/06



Type	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
TC2010	G1/8"~G1/4"	90	164.5	78	40	56.8	30	45	24	5.5	8.5	5	22	23	50
TC3010	G1/4"~G3/8"	117	211	92.5	53	60.8	41	58.5	35	7	11	7	34.2	26	70.5
TC4010	G3/8"~G1/2"	154	262	112	70	70.5	50	77	40	9	13	7	42.2	33	88
TC4010-06	G3/4"	184	267	114	70	70.5	50	82	40	9	13	7	46.2	36	88
TC5010	G3/4"~1"	195	333	116	90	75.5	69.8	97.5	50	12	16	10.5	55.5	40	115

TC Series treatment Dyad-Automatic drain type



• TC2010-02D

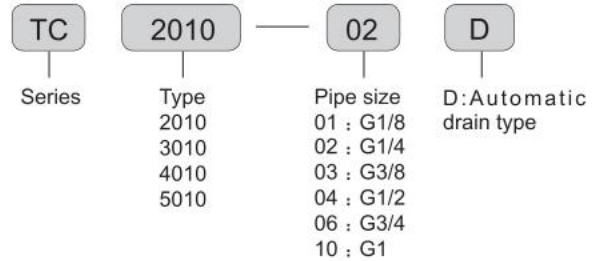


• TC4010-04D

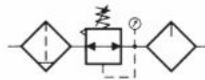
• Character

Standard auto drain design, compact structure, convenient assembling. It can clear the water in cup without manually.

• Ordering Code



■ Graphics Sign

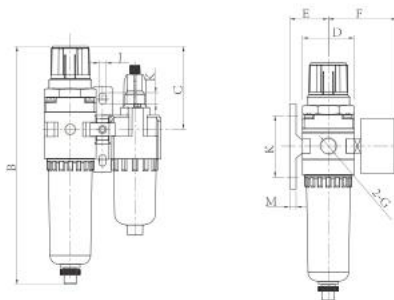


■ Technical Parameter

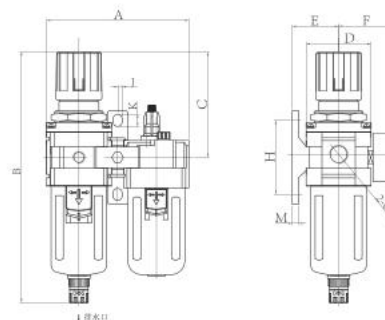
Specification	TC2010-02D/01D	TC3010-03D/02D	TC4010-04D/03D/06D	TC5010-10D/06D	
Applicable Medium	Air				
Rating Flow(L/min)	500	1700	3000	4000	
Filtration	5μm~ 40μm				
Applicable Pressure Range	0.2 ~ 1.0MPa				
Medium Temperature	0 ~ 60°C				
Recommended Lubricating Oil	ISOVG32 or Equivalent				
Type of Valve	Relief Type				
Gauge Port Size	G1/8		G1/4		
Components	Filter Regulator	TW2000-02D/01D	TW3000-03D/02D	TW4000-04D/03D/06D	TW5000-10D/06D
	Air Lubricator	TL2000-02D/01D	TL3000-03D/02D	TL4000-04D/03D/06D	TL5000-10D/06D

■ Figure Dimension

•TC2010-02D/01D



• TC3010-03D/02D TC4010-04D/03D  
TC4010-06D TC5010-10D/06D



Type	A	B	C	D	E	F	G	H	J	K	M
TC2010-02D/01D	83.5	190	64	40	28.5	53	G1/4	48	12	5.5	3.5
TC3010-03D/02D	110.5	230	83	53	40.5	56	G3/8	70	14	7	4
TC4010-04D/03D	145	281	96	70	50	62	G1/2	80	18	9	5
TC4010-06D	164	281	96	75	54	62	G3/4	80	10	13	7
TC5010-10D/06D	195	343	103	90	73.5	72	G1	103	13	17	10

**TC Series Treatment Triplet**

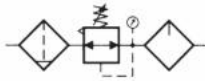


- Air Source Treatment  
It is in standard modular design and can be freely separated and combined. The product is in reasonable design, simple to operate, easy to assemble and unassemble. It can meet all requirements of pneumatic system.

• Ordering Code

TC	2000	02	U
Series	Type	Pipe Size	Iron Shell
	1000	M5	No Mark :
	2000	01 : G1/8	2000 No Iron Shell
	3000	02 : G1/4	3000 ~ 5000 With Iron Shell
	4000	03 : G3/8	U:2000 With Iron Shell
	5000	04 : G1/2	M: Metal cup
		06 : G3/4	
		10 : G1	

■ Graphics Sign

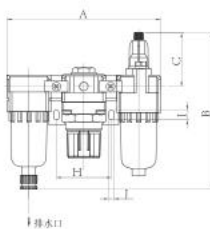


■ Technical Parameter

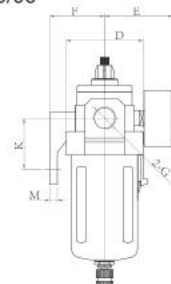
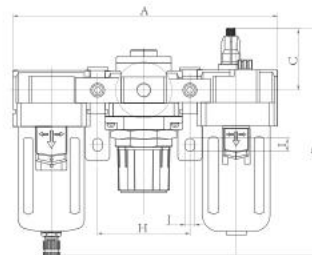
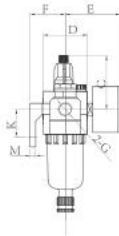
MODEL	TC2000-01	TC2000-02	TC3000-02	TC3000-03	TC4000-03	TC4000-04	TC4000-06	TC5000-06	TC5000-10	
Rated Flow (L/min)	500	500	2000	2000	4000	4000	4500	5000	5000	
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"	
Filter Precision	25μ									
Highest Working Pressure	1.0MPa									
Ensured pressure Resistance	1.5MPa									
Operating Temperature Range	5~60 C									
Range of Adjustable Pressure	0.05~0.7MPa				0.05~0.85MPa					
Recommended Oil Use	ISO VG 32									
Container Material	Polycarbonate									
Protective Cover	Not Available				Available					
Drain Function	Differential Drain				Differential Drain/Automatic Drain					
Valve Type	With Over Flow									
composing elements	Filter	TF2000-01	TF2000-02	TF3000-02	TF3000-03	TF4000-03	TF4000-04	TF4000-06	TF5000-06	TF5000-10
	Regulator	TR2000-01	TR2000-02	TR3000-02	TR3000-03	TR4000-03	TR4000-04	TR4000-06	TR5000-06	TR5000-10
	Lubricator	TH2000-01	TH2000-02	TH3000-02	TH3000-03	TH4000-03	TH4000-04	TH4000-06	TH5000-06	TH5000-10

■ Figure Dimension

• TC1000-M5/01  
TC2000-02/01



• TC3000-03/02 TC4000-04/03  
TC4000-06 TC5000-10/06

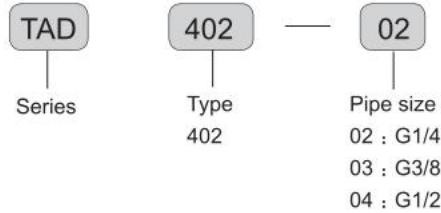


Type	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
TC2000	G1/8"~G1/4"	140	128.5	38	40	56.8	30	50	24	5.5	8.5	5	22	23	50
TC3000	G1/4"~G3/8"	181	165	38	53	60.8	41	64	35	7	11	7	34.2	26	70.5
TC4000	G3/8"~G1/2"	238	201	41	70	65.5	50	84	40	9	13	7	42.2	33	88
TC4000-06	G3/4"	253	201	40.5	70	69.5	50	89	40	9	13	7	46.2	36	88
TC5000	G3/4"~1"	300	276	48	90	76.6	70	105	50	12	16	10.5	55.5	40	115

**Auto Drain Valve**



● **Ordering Code**



- TAD402-02
- TAD402-03
- TAD402-04

● **Applications**

The special design of the TAD Series can eliminate the liquid water and oil collect in the lower chamber of air compressor, separator, air dryer, air filter, drop leg, etc. It can be installed in any position which is not convenient for manual drain, or needs more compressed air and more time of drain.

■ **Technical Parameter**

Specification	TAD402-02	TAD402-03	TAD402-04
Proof Pressure	1.5MPa		
Applicable Pressure	0.15 ~ 1.0MPa		
Medium Temperature	0 ~ 60°C		
Outfall Size	G1/4	G3/8	G1/2
Applicable Medium	Air		

■ **Graphics Sign**



■ **Operation Principle**

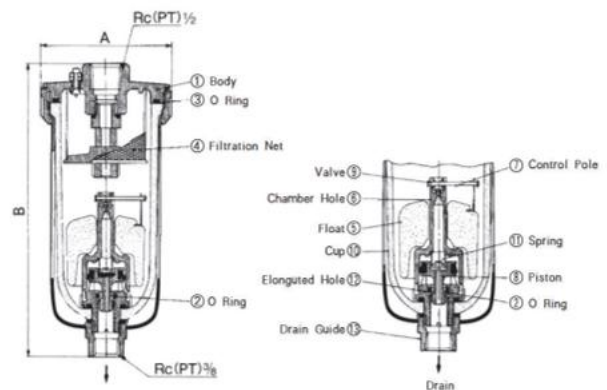
When no pressure is applied internally to case, float ⑤ descends of its own weight and valve ⑨ closes chamber hole ⑥. Piston ⑧ is pushed down by spring ⑩, and the drainage passes through the chamber's elongated hole ⑫ to be discharged.

When pressure is applied internally to the case:

When pressure is greater than 0.1MPa, it overcomes the force of spring ⑩, allowing piston ⑧ to ascend, and the chamber's elongated hole is closed. Thus, the inside of case, is isolated from the outside. When drainage has accumulated:

Float ⑤ ascends due to flotation and opens the chamber hole ⑥, allowing the pressure to enter the chamber hole ⑥. Piston ⑧ descends due to the force of the internal pressure and spring ⑩, and the accumulated drainage is discharged through drain guide ⑬.

■ **Figure Dimension**



Type	TAD402-02	TAD402-03	TAD402-04
A	φ 82	φ 82	φ 82
B	182	182	182

■ **ZDFS Auto Drain Valve**

It is installed in the bottom of auto drain, air filter and filter regulator. It can automatically eliminate condensate collect in lower chamber.

Notice: Installed vertically and outfall downward.



● TAD-ZDFS



● TF2000-ZDFS



● TF3000-ZDFS  
● TF4000-ZDFS

TIR precise regulator



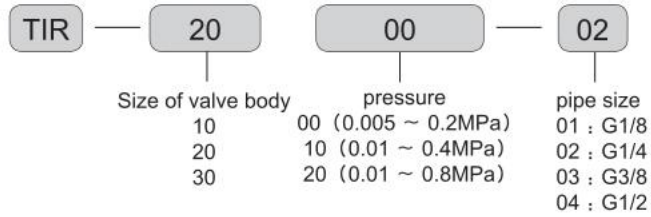
• TIR1000-01

• TIR2000-01

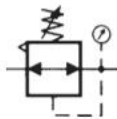
• Character

Small size and light weight. large output flow and precise pressure; easy to install, can be mounted independently with bracket or mounted directly with TF, the modular filtering combination.

• Ordering Code



■ Graphics Sign

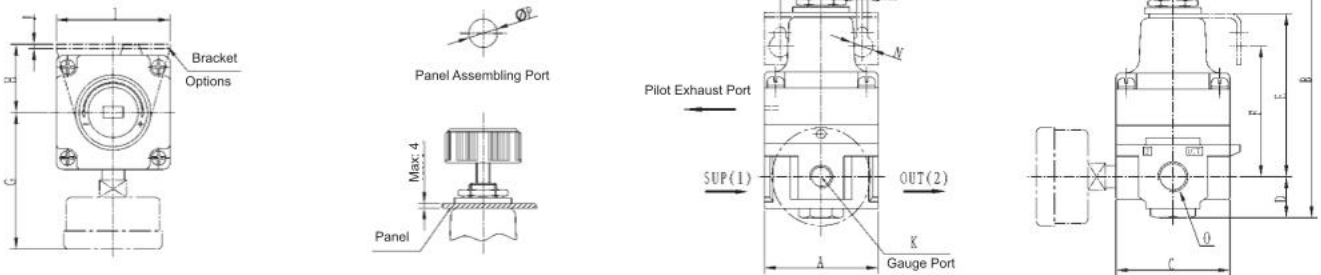


■ Technical Parameter

Specification	TIR1000-01	TIR1010-01	TIR1020-01	TIR2000-02	TIR2010-02	TIR2020-02	TIR3000-03/04	TIR3010-03/04	TIR3020-03/04
Applicable pressure range	0.005 ~ 0.2	0.01 ~ 0.4	0.01 ~ 0.8	0.005 ~ 0.2	0.01 ~ 0.4	0.01 ~ 0.8	0.01 ~ 0.2	0.01 ~ 0.4	0.01 ~ 0.8
Outfall Size	G1/8			G1/4			G3/8, G1/2		
Air consumption (below 1.0MPa)	Max 3.5L/min			Max 3.1L/min			Max 9.5L/min outlet : Max2L/min		
Minimum applicable pressure MPa	Setting pressure +0.05			Setting pressure +0.05			Setting pressure +0.05		
Proof Pressure	1.0MPa								
Sensitivity	Sensitivity: ≤0.2%								
Repeat accuracy	Repeat accuracy : ±0.5%								
Medium Temperature	-5 ~ +60								
Gauge Port Size	G1/8								

■ Figure Dimension

● TIR1000-01



Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
TIR1000-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Φ8.5	G1/8	Φ10.5
TIR1010-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Φ8.5	G1/8	Φ10.5
TIR1020-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Φ8.5	G1/8	Φ10.5
TIR2000-02	50	123	50	18	71	63	60	30	50	2	G1/8	36	5.5	Φ9.5	G1/4	Φ12.5
TIR2010-02	50	123	50	18	71	63	60	30	50	2	G1/8	36	5.5	Φ9.5	G1/4	Φ12.5
TIR2020-02	50	123	50	18	71	63	60	30	50	2	G1/8	36	5.5	Φ9.5	G1/4	Φ12.5
TIR3000-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Φ15.5	G3/8 G1/2	Φ12.5
TIR3010-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Φ15.5		
TIR3020-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Φ15.5		

THS series pressure relief valve



● THS4000-04

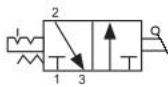
● Character

Use this product on both sides of the residual pressure can be ruled out.

● Ordering Code

THS	2000	01
Series	Type 2000 3000 4000 5000	Pipe Size 02 : G1/4 03 : G3/8 04 : G1/2 10 : G1

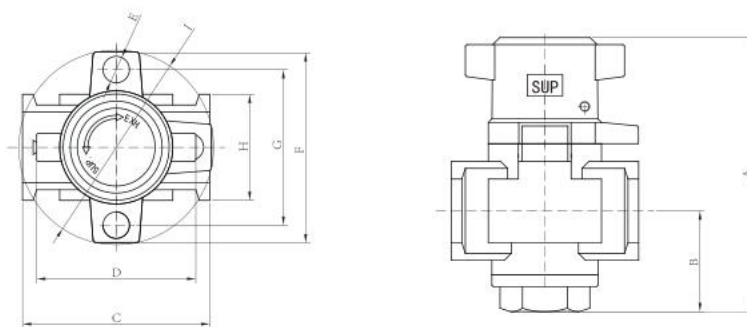
■ Graphics Sign



■ Technical Parameter

Specification	THS2000	THS3000	THS4000	THS5000
Applicable Medium	Air			
Applicable Pressure Range	0.1 ~ 1MPa			
Medium Temperature	-5 ~ 60°C			
The angle of handwheel	90°			
Appearance of the color	Handwheel: red, body: silver gray			

■ Figure Dimension



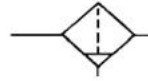
Type	A	B	C	D	E	F	G	H	I
THS2000	62	20	40	40	6	40	32	28	42
THS3000	78	29	53	45	7	54	44	30	54
THS4000	84	31	70	45	7	54	44	36	54
THS5000	137	65	90	68	8.5	90	77	54	90

**AFF Series Main Line Filter**

I



■ Graphics Sign



Pipe size G1/8, G1/4, G3/8, G1/2, G1

● Character

Remove compressed air's oil, water, solids and other pollutants, to improve the function of the downstream dryer, extending the service life of precision filter, to prevent components failure.

● Ordering Code



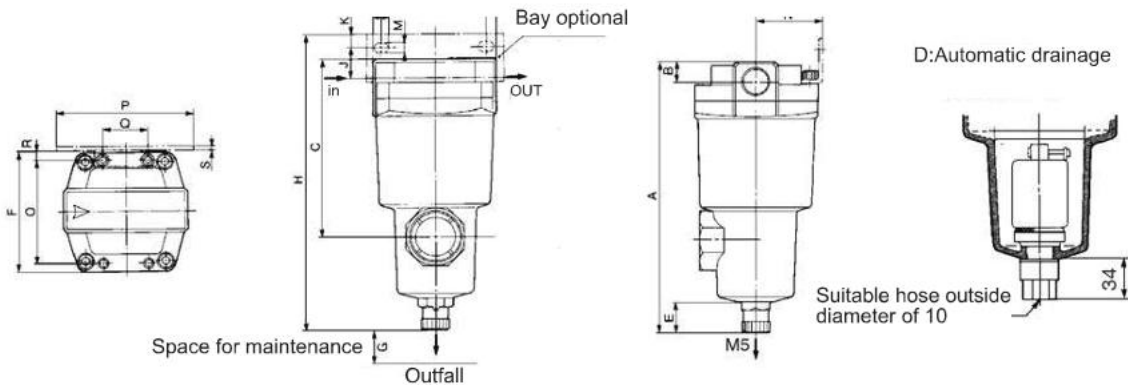
Subject size	Thread types	Pipe size	Accessories
2B 1/8 Benchmark	No mark ; Rc	01 1/8 <sup>B</sup>	No mark ; No
4B 1/4 Benchmark	F ; G	02 1/4 <sup>B</sup>	B : Bracket
8B 3/8 Benchmark	N ; NPT	03 3/8 <sup>B</sup>	C ; N.C. Automatic drainage
11B 1/2 Benchmark		04 1/2 <sup>B</sup>	D ; N.O. Automatic drainage
22B 3/4 Benchmark		06 3/4 <sup>B</sup>	
37B 1 Benchmark		10 1 <sup>B</sup>	
75B 1 1/2 Benchmark		14 1 1/2 <sup>B</sup>	Standard specifications
		20 2 <sup>B</sup>	No mark ; No

Standard specifications  
No mark ; No  
J ; Drainage catheter 1/4B internal thread  
R : IN, OUT The opposite direction  
T ; Filter obstruction detector

Filter element life	Compressed air
Filtration	0.15~1.0MPa
Temperature range	* 5~60°C
Working pressure range	3 ∞ m(wipe off 95%)
Working medium	2 years or the pressure drop of 0.1MPa

■ Technical Parameter

type	AFF2B	AFF4B	AFF8B	AFF11B	AFF22B	AFF37B	AFF75B
Rated flow /min(ANR)	300	750	1500	2200	3500	6000	12000
Pipe size	1/8 · 1/4 · 3/8	1/4 · 3/8 · 1/2	3/8 · 1/2 · 3/4	1/2 · 3/4 · 1	3/4 · 1	1 · 1 1/2	1 1/2 · 2
Bracket assembly	BM51	BM52	BM53	BM54	BM55	BM56	BM57
Filter components	AFF-EL2B	AFF-EL4B	AFF-EL8B	AFF-EL11B	AFF-EL22B	AFF-EL37B	AFF-EL75B



type	Pipe size	A	B	C	D	E	F	G	Installation size											
									H	I	J	K	L	M	N	O	P	Q	R	S
AFF2B	1/8 · 1/4 · 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6
AFF4B	1/4 · 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2.0
AFF8B	3/8 · 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3
AFF11B	1/2 · 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2
AFF22B	3/4 · 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5
AFF37B	1 · 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5
AFF75B	1 1/2 · 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0

**AMD series micro mist separator**



Pipe size G1/8, G1/4, G3/8, G1/2, G1

● Character

Remove compressed air's oil, water, solids and other pollutants, to improve the function of the downstream dryer, extending the service life of precision filter, to prevent components failure.

● Ordering Code



**Subject size**  
150 : 1/8Benchmark  
250 : 1/4Benchmark  
350 : 3/8Benchmark  
450 : 1/2Benchmark  
550 : 3/4Benchmark  
650 : 1 Benchmark  
850 : 1 1/2Benchmark

**Thread types**  
No mark : Rc  
F : G  
N : NPT

**Pipe size**  
01 1/8<sup>B</sup>  
02 1/4<sup>B</sup>  
03 3/8<sup>B</sup>  
04 1/2<sup>B</sup>  
06 3/4<sup>B</sup>  
10 1<sup>B</sup>  
14 1 1/2<sup>B</sup>  
20 2<sup>B</sup>

**Accessories**  
No mark : No  
B : Bracket  
C : N.C. Automatic drainage  
D : N.O. Automatic drainage

**Standard specifications**  
No mark : No

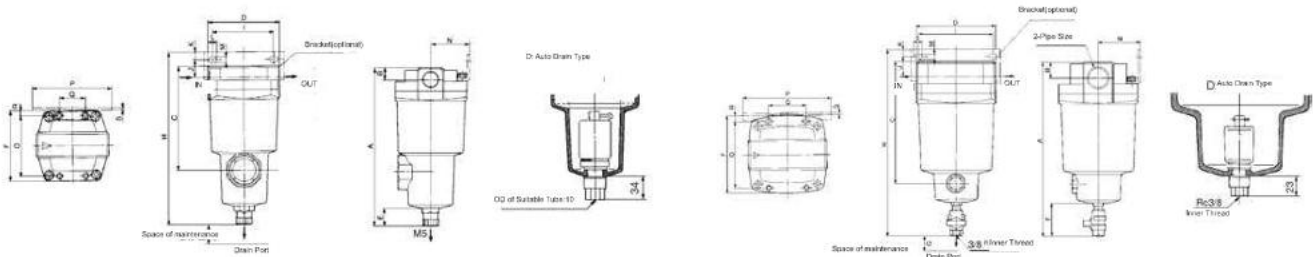
J : Drainage catheter 1/4B internal thread  
R : IN, OUT The opposite direction  
T : Filter obstruction detector

Working medium	Compressed air
The highest use of pressure	1.0MPa
Note1) The lowest use of pressure	0.05MPa
Temperature range	5~60°C
Transition precision	3 μm (wipe off 95%)
Secondary side of the oil mist concentration	Note2) The most 1.0mg/m <sup>3</sup> (ANR) (=0.8ppm)
Filter element life	2 years or the pressure drop of 0.1MPa

Note 1) using the automatic drainage, working pressure should be above 0.15MPa.

Note 2) The compressor's discharging oil density is 30mg/m<sup>3</sup> (ANR).

■ Figure Dimension



Type	Note1) Rated flow /min(ANR)	Port size	Bracket assembly	Filter components
AMD150	200	1/8 · 1/4 · 3/8	BMD51	AMD-EL150
AMD250	500	1/4 · 3/8 · 1/2	BMD52	AMD-EL250
AMD350	1000	3/8 · 1/2 · 3/4	BMD53	AMD-EL350
AMD450	2000	1/2 · 3/4 · 1	BMD54	AMD-EL450
AMD550	3500	3/4 · 1	BMD55	AMD-EL550
AMD650	6000	1 · 1 1/2	BMD56	AMD-EL650
AMD850	12000	1 1/2 · 2	BMD57	AMD-EL850

Note1) When the pressure is 0.7MPa. \* hex head screw, spring washer.

■ The combinati on of accessories and standard specifications

⊙ Can be combined ■ Can not combinations ○ Has nothing to do with them

Accessories · Standard specifications			Accessories		Standard specifications			suitable components						
			C	D	J	R	T	AMD150	AMD250	AMD350	AMD450	AMD550	AMD650	AMD850
Accessories	N,C automatic drain	C	■	■	■	○	○	○	○	○	○	○	■	■
	N,O automatic drain	D	■	■	■	○	○	○	○	○	○	○	○	○
Standard specifications	N,O automatic drain1/4B	J	■	■	■	○	○	○	○	○	○	○	○	■
	IN, OUT opposite direction	R	○	○	○	■	○	○	○	○	○	○	○	○
	Filter element clogging indicator	T	○	○	○	○	■	○	○	○	○	○	○	○

**AMF series deodorizing filter**

Pipe size G1/ 8,G1/4,G3/8,G1/2,G1



● Character

Remove compressed air's oil, water, solids and other pollutants, to improve the function of the downstream dryer, extending the service life of precision filter, to prevent components failure.

● Ordering Code

<b>AMF</b>	<b>250</b>		<b>03</b>	<b>B</b>	<b>J</b>
<b>Subject size</b>	<b>Thread types</b>	<b>Pipe Size</b>	<b>Accessories</b>	<b>Standard Specifications</b>	
150 : 1 / 8 Benchmark 250 : 1 / 4 Benchmark 350 : 3 / 8 Benchmark 450 : 1 / 2 Benchmark 550 : 3 / 4 Benchmark 650 : 1 Benchmark	No mark : Rc F : G N : NPT	01 1/8 <sup>s</sup> 02 1/4 <sup>s</sup> 03 1/8 <sup>s</sup> 04 1/2 <sup>s</sup> 06 3/4 <sup>s</sup> 10 1 <sup>s</sup> 14 1 1/2 <sup>s</sup> 20 2 <sup>s</sup>	No mark : No B : Bracket C : N.C. Automatic Drainage D : N.O. Automatic Drainage	No mark : No J : Drainage catheter 1/4B internal thread R : IN, OUT The Oppsite Direction T : Filter obstruction detector	

Working Medium	Compressed air
The Highest Use of Pressure	1.0MPa
The Lowest Use of Pressure	0.05MPa
Temperature Range	5-60°C
Transition Precision	0.01 m(wipe off 95%)
Filtration	less than 3.5 pcs of dust particle per litre air (0.3 m)

■ Figure Dimension

Type	Specification		Accessories	Spare parts ( optional )
	(Note1) Rated flow / min (ANR)	Prot size	Bracket Assmbly	Filter components
AMF 150	200	1/8 · 1/4 · 3/8	BM51	AMF 150
AMF 250	500	1/4 · 3/8 · 1/2	BM52	AMF 250
AMF 350	1000	3/8 · 1/2 · 3/4	BM53	AMF 350
AMF 450	2000	1/2 · 3/4 · 1	BM54	AMF 450
AMF 550	3500	3/4 · 1	BM55	AMF 550
AMF 650	6000	1 · 1 1/2	BM56	AMF 650
AMF 850	12000	1 1 / 2 · 2	BM57	AMF 850

Note1) When the pressure is 0.7MPa. \* hex head screw, spring washer.



# Polymatic<sup>TM</sup>

PNEUMATIC SOLUTIONS



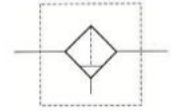
**LF Series Filter**



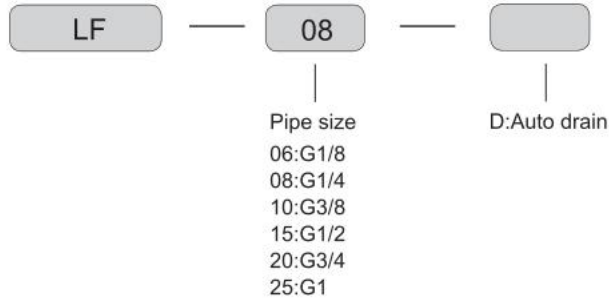
■ Character

The filter can filter out the dirt, pipe scale, rust and condensation. It's used for special occasions, 5µm filter element can be easily replaced of 40µm standard filter element.

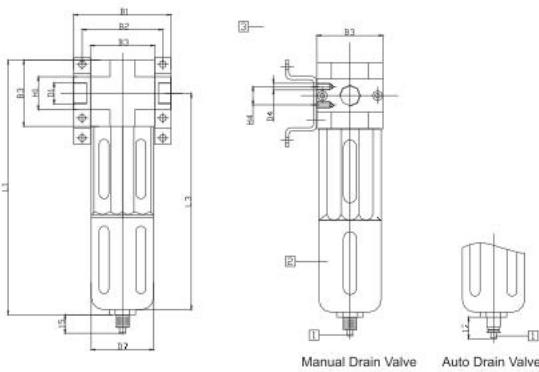
■ Graphics Sign



● Ordering Code



■ Figure Dimension



Type	B1	B2	B3	D1	D4	D7	H1	H4	L1	L3
LF-06	64	52	40	G1/8	M4	38	20	11	145	120
LF-08	64	52	40	G1/4	M4	38	20	11	145	120
LF-10	70	70	55	G3/8	M5	52	32	22	172	147
LF-15	85	70	55	G1/2	M5	52	32	22	172	147
LF-20	96	80	66	G3/4	M5	65	32	22	203	165
LF-25	136	91	66	G1	M5	65	40	22	203	165

■ Technical Parameter

Order	Type						
Filter element	Manual Drain Valve	LF-06	LF-08	LF-10	LF-15	LF-20	LF-25
	Auto Drain Valve	LF-06-D	LF-08-D	LF-10-D	LF-15-D	LF-20-D	LF-25-D
Applicable Medium		Air					
Applicable Medium		Sintered with water separator filter:					
Structural features		G1/8	G1/4	G3/8	G1/2	G3/4	G1
Connection size Standard nominal flow rate	LF-...-D-...(-A)	1000	1200	2700	3000	3800	4000
	LF-...-D-5M...(-A)	600	950	1800	1900	3600	3800
Working pressure	Manual Drain Valve	Max 1.6MPa					
	Auto Drain Valve	0.15 ~ 0.85MPa					
Filtration		40µm/5 µm					
Max limeset capacity		22ml		43ml		80ml	
Medium Temperature		0 ~ +60°C					

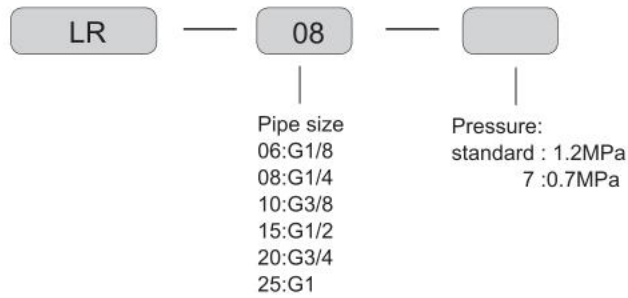
LR Series Regulator



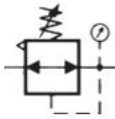
■ Character

Even if the input pressure and compressed air consumption make system fluctuation, regulator can ensure its working pressure very stable. If there is no air consumption, automatic exhaust of the regulator can also make system working pressure stable.

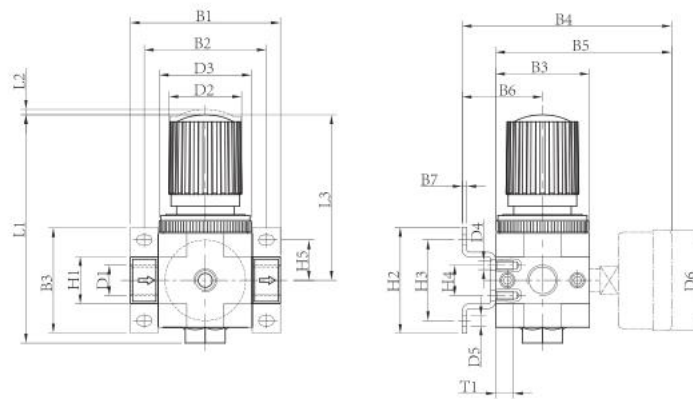
● Ordering Code



■ Graphics Sign



■ Figure Dimension



Type	B1	B2	B3	B4	B5	D1	D2	D3	D4	D6	H1	H4	L1	L3	L4
LR-06	64	52	40	96	77	G1/8	31	M36×1.5	M4	39	20	11	197	69	3
LR-08	64	52	40	96	77	G1/4	31	M36×1.5	M4	39	20	11	97	69	3
LR-10	70	70	55	113	94	G3/8	50	M52×1.5	M5	50	32	22	132.5	98	5
LR-15	85	70	55	113	94	G1/2	50	M52×1.5	M5	50	32	22	132.5	98	5
LR-20	96	80	66	126	105	G3/4	49	M52×1.5	M5	50	32	22	145	105	5
LR-25	136	91	66	126	105	G1	49	M52×1.5	M5	50	40	22	145	105	5

LR Series Regulator

I

■ Technical Parameter

Order	Type						
Regulator	Working pressure 1.2MPa	LR-06	LR-08	LR-10	LR-15	LR-20	LR-25
	Working pressure 0.7MPa	LR-06-7	LR-08-7	LR-10-7	LR-15-7	LR-20-7	LR-25-7
Pressure gauge	use for 0 ~ 1.2MPa FR.L	Y40-16-1/8		Y50-16-1/4			
	use for 0 ~ 0.7MPa FR.L	Y40-10-1/8		Y50-10-1/4			
Applicable Medium	Air						
Structural features	Diaphragm valve						
Connection size	G1/8		G1/4	G3/8	G1/2	G3/4	G1
Standard rated flow	LR-...-...	800	1500	3200	3500	3800	4000
	LR-...-7...	1000	1200	3300	4000	5000	5200
Input pressure	0.1 ~ 1.6MPa						
Working pressure	0.05 ~ 1.2MPa/0.05 ~ 0.7MPa						
Medium Temperature	-10 ~ +60°C						

Mounting bracket  
only used for FRL and  
LFR type



Mounting bracket  
type: LR or LFR



LFR series Filter regulator

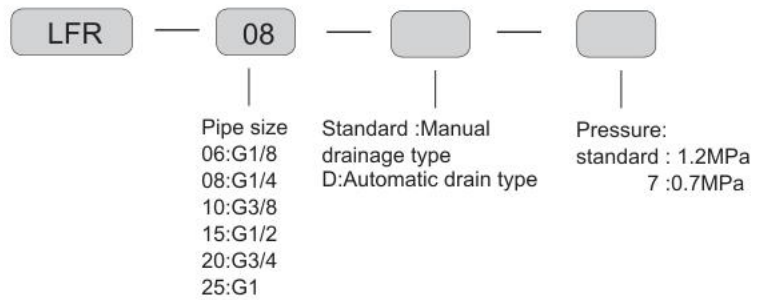
I

■ Character

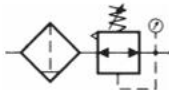
Filter and regulator combine into a single device. The filter can filter out the dirt, pipe scale, rust and condensation. It's used for special occasions, 5µm filter element can be easily replaced of 40µm standard filter element.



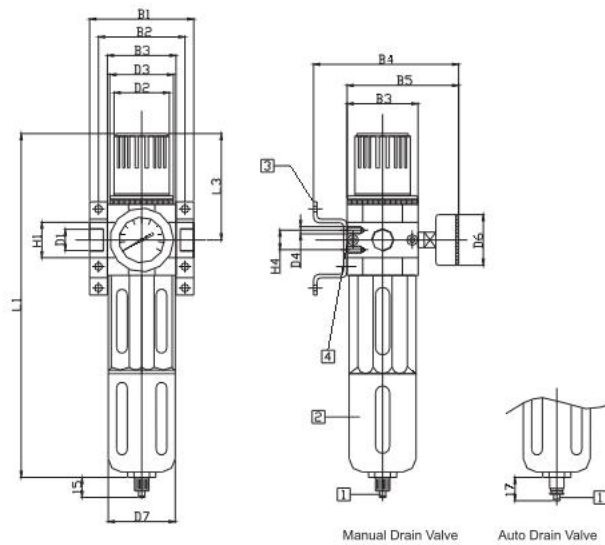
● Ordering Code



■ Graphics Sign



■ Figure Dimension



Type	B1	B2	B3	B4	B5	D1	D2	D3	D4	D6	D7	H1	H4	L1	L3
LFR-06	64	52	40	96	77	G1/8	31	M36×1.5	M4	39	38	20	11	194	69
LFR-08	64	52	40	96	77	G1/4	31	M36×1.5	M4	39	38	20	11	194	69
LFR-10	70	70	55	113	94	G3/8	50	M52×1.5	M5	50	52	32	22	250	98
LFR-15	85	70	55	113	94	G1/2	50	M52×1.5	M5	50	52	32	22	250	98
LFR-20	96	80	66	126	105	G3/4	49	M52×1.5	M5	50	65	32	22	275	105
LFR-25	136	91	66	126	105	G1	49	M52×1.5	M5	50	65	40	22	275	105

LFR series Filter regulator

■ Technical Parameter

Order	Type						
Working pressure 12 bar	Manual Drain Valve	LFR-06	LFR-08	LFR-10	LFR-15	LFR-20	LFR-25
	Auto Drain Valve	LFR-06-D	LFR-08-D	LFR-10-D	LFR-15-D	LFR-20-D	LFR-25-D
Working pressure 7 bar	Manual Drain Valve	LFR-06-7	LFR-08-7	LFR-10-7	LFR-15-7	LFR-20-7	LFR-25-7
	Auto Drain Valve	LFR-06-D-7	LFR-08-D-7	LFR-10-D-7	LFR-15-D-7	LFR-20-D-7	LFR-25-D-7
Pressure gauge	Use for 0 ~ 12 bar FRL	Y40-16-1/8		Y50-16-1/4			
	Use for 0 ~ 7 bar FRL	Y40-10-1/8		Y50-10-1/4			
Applicable Medium		Air					
Structural features		Sintered with water separator filter: MINI/MIDI/MAXI:Diaphragm valve					
Connection size		G1/8	G1/4	G3/8	G1/2	G3/4	G1
Standard nominal	LFR-...-D-...	750	1400	3100	3400	3600	4000
flow rate	LFR-...-D-7...	900	1500	3400	3900	5000	5200
Input pressure	Manual Drain Valve	0.1 ~ 1.6MPa					
	Auto Drain Valve	0.15 ~ 1.2MPa					
Working pressure		0.05 ~ 1.2 MPa / 0.05 ~ 0.7 MPa					
Filtration		40um/5 um					
Max limeset capacity		22ml		43ml		80ml	
Medium Temperature		0 ~ +60°C					

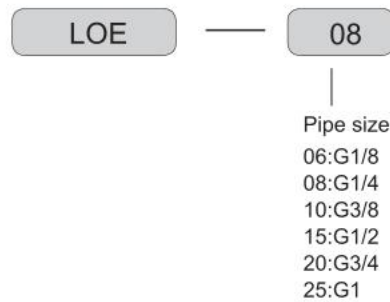
**LOE Lubricator**



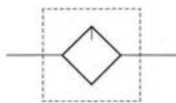
■ Character

Automatic variable throttle lubricator can be evenly sprayer to compressed air. A regulator ensures oil mist is proportional to compressed air flow. Compressed air gets through the venturi nozzle can make pressure drop, forcing the oil from the oil cup into oil window, with the compressed air come into the output port, while being atomized simultaneously. During working it can be constantly air refueling. Oil drop is adjusted by adjustable screws, usually every 1000L of air containing 1 to 12 drops is sufficient.

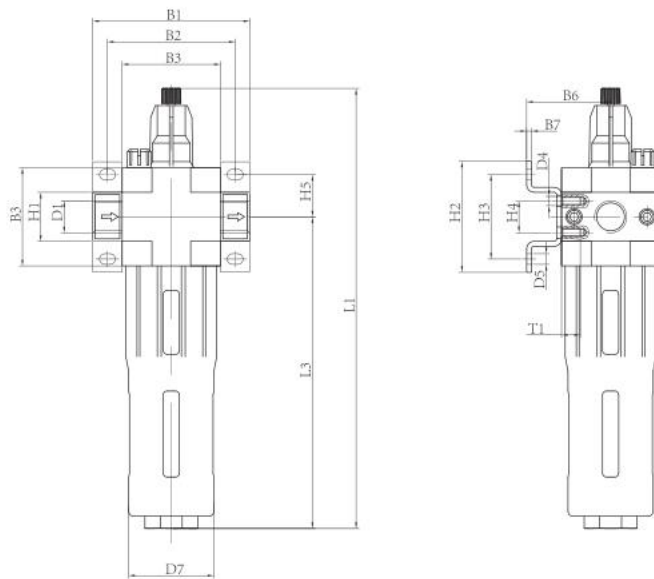
● Ordering Code



■ Graphics Sign



■ Figure Dimension



Type	B1	B2	B3	D1	D4	D7	H1	H4	L1	L3
LOE-06	64	52	40	G1/8	M4	38	20	11	170	125
LOE-08	64	52	40	G1/4	M4	38	20	11	170	125
LOE-10	70	70	55	G3/8	M5	52	32	22	205	160
LOE-15	85	70	55	G1/2	M5	52	32	22	205	160
LOE-20	96	80	66	G3/4	M5	65	32	22	228	170
LOE-25	136	91	66	G1	M5	65	40	22	228	170

LOE Lubricator

I

■ Technical Parameter

Lubricator	LOE-06	LOE-08	LOE-10	LOE-15	LOE-20	LOE-25
Working medium	filter compressed air, (lubricated or unlubricated)					
Connection Size	G1/8	G1/4	G3/8	G1/2	G3/4	G1
Standard rated flow	1000	1200	3300	4000	5000	5200
Max Working pressure	1.6MPa					
Max oil storage	45ml		110ml		110ml	
Temperature range	0 ~ +60°C					
Drain Holding Capacity	3L/min		6L/min		6L/min	
Recommended Lubricating Oil	ISOVG32					

LFC Series treatment Triplet



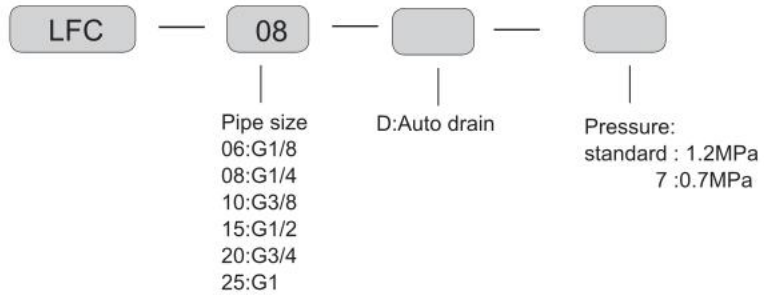
■ Character

LFC triplet type is composed of filter regulator LFR and lubricator LOE.

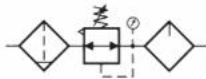
These parts can be ordered separately.

Water division filter can filtrate filth, pipe scale, rust and condensate water of the above air. As for special application, 5um filter element can be easily changed into 40um standard filter element.

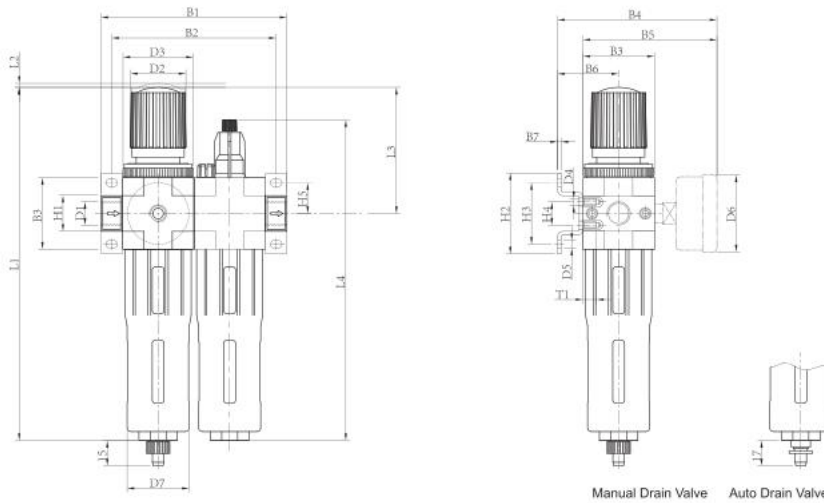
● Ordering Code



■ Graphics Sign



■ Figure Dimension



Type	B1	B2	B3	B4	B5	D1	D2	D3	D4	D6	D7	H1	H4	L1	L3	L4
LFC-06	104	92	40	96	77	G1/8	31	M36x1.5	M4	39	38	20	11	194	69	169
LFC-08	104	92	40	96	77	G1/4	31	M36x1.5	M4	39	38	20	11	194	69	169
LFC-10	110	125	55	113	94	G3/8	50	M52x1.5	M5	50	52	32	22	250	98	204
LFC-15	140	125	55	113	94	G1/2	50	M52x1.5	M5	50	52	32	22	250	98	204
LFC-20	162	146	66	126	105	G3/4	49	M52x1.5	M5	50	65	32	22	275	105	228
LFC-25	182	157	66	126	105	G1	49	M52x1.5	M5	50	65	40	22	275	105	228

LFC Series treatment Triplet

I

■ Technical Parameter

Order	Type						
Working pressure 12 bar	Manual Drain Valve	LFC-06	LFC-08	LFC-10	LFC-15	LFC-20	LFC-25
Filter element	Auto Drain Valve	LFC-06-D	LFC-08-D	LFC-10-D	LFC-15-D	LFC-20-D	LFC-25-D
Working pressure 7 bar	Manual Drain Valve	LFC-06-7	LFC-08-7	LFC-10-7	LFC-15-7	LFC-20-7	LFC-25-7
Filter element	Auto Drain Valve	LFC-06-D-7	LFC-08-D-7	LFC-10-D-7	LFC-15-D-7	LFC-20-D-7	LFC-25-D-7
Pressure gauge	Use for 0 ~ 12 bar FRL	Y40-16-1/8		Y50-16-1/4			
	Use for 0 ~ 7 bar FRL	Y40-10-1/8		Y50-10-1/4			
Applicable Medium	Air						
Structural features	Sintered with water separator filter:MINI/MIDI:Diaphragm valve ; MAXI:Piston valve						
Connection size	G1/8		G1/4	G3/8	G1/2	G3/4	G1
Standard nominal flow rate	LFC-...-D-...	750	1400	3100	3400	3600	3800
	LFC-...-D-7...	900	1500	3400	3900	5000	5200
Input pressure	Manual Drain Valve	0.1 ~ 1.6MPa					
	Auto Drain Valve	0.15 ~ 1.2MPa					
Working pressure	0.05 ~ 1.2 MPa / 0.05 ~ 0.7 MPa						
Filtration	40um/5 um						
Max limeset capacity	22ml			43ml		80ml	
Medium Temperature	0 ~ +60°C						

# Polymatic<sup>TM</sup>

PNEUMATIC SOLUTIONS



High Pressure Air Source Treatment

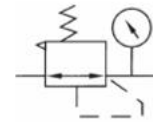


● TYH-8  
● TYH-15

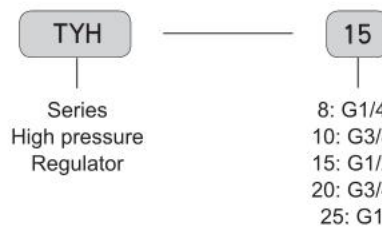


● TYH-20  
● TYH-25

■ Graphics Sign



● Ordering Code



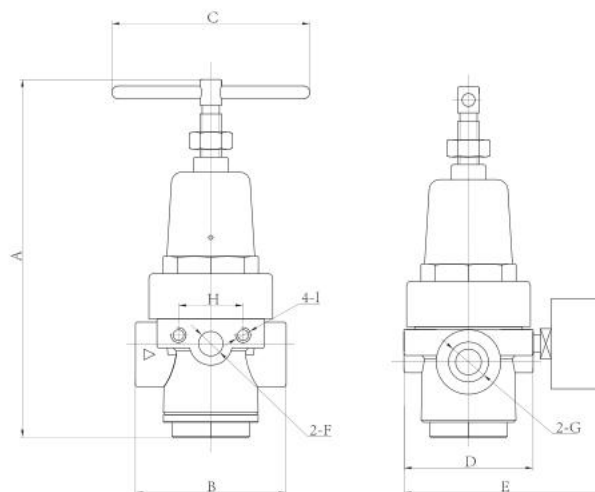
■ Specific Property

These high pressure air source treatment are self-developed products, specially designed to be used on high pressure condition, been adopted widely in high pressure pneumatic equipment such as Blow Bottle Machine.

■ Technical Parameter

Specification	TYH-8	TYH-15	TYH-20	TYH-25
Applicable Pressure	0.5 ~ 3.6Mpa			
Medium Temperature	-10 ~ 60°C			
Filtration	-			

■ Figure Dimension



Type	A	B	C	D	E	F	G	H	I
TYH-8, 10, 15	160	70	88	60	95	G1/4	G1/4 G3/8 G1/2	30	M6
TYH-20, 25	240	95	108	75	110	G1/4	G3/4 G1	36	M6

**TWH high pressure filter regulator**

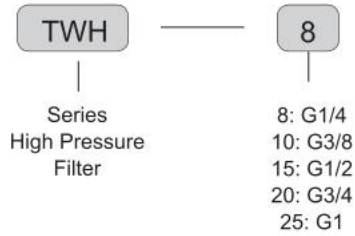


● TWH-15

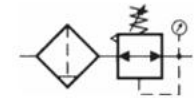


● TWH-08

● Ordering Code



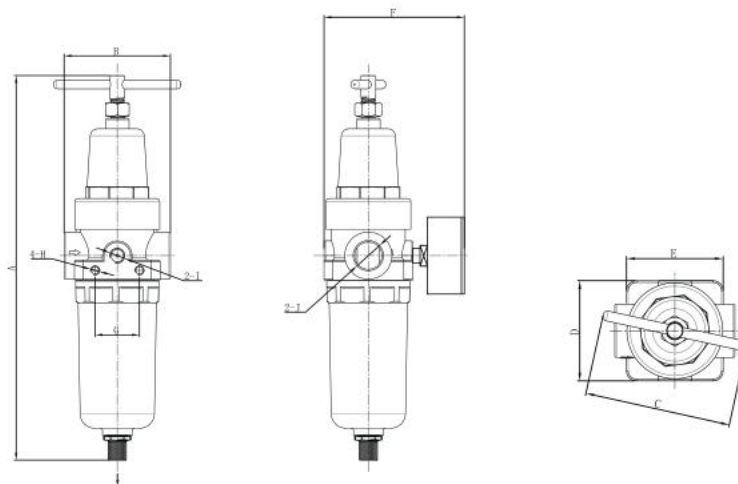
■ Graphics Sign



■ Technical Parameter

Specification	TWH-8	TWH-10	TWH-15	TWH-20	TWH-25
Applicable Medium	Air				
Filtration	5μm~ 40μm				
Applicable Pressure Range	0.5 ~ 3.6MPa				
Medium Temperature	0 ~ 60°C				
Type of Valve	Relief Type				
Gauge Port Size	G1/4				

■ Figure Dimension



Type	A	B	C	D	E	F	G	H	I	J
TWH-8	280	72	88	60	58	95	30	M6	G1/4	G1/4
TWH-10	280	72	88	60	58	95	30	M6	G1/4	G3/8
TWH-15	280	72	88	60	58	95	30	M6	G1/4	G1/2
TWH-20	360	110	108	82	82	117	36	M6	G1/4	G3/4
TWH-25	360	110	108	82	82	117	36	M6	G1/4	G1

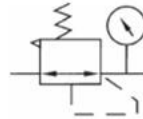
TRY Series Regulator

● Ordering Code



- 8  
8: G1/4  
10: G3/8  
15: G1/2  
20: G3/4  
25: G1  
40: G1 1/2  
50: G2

■ Graphics Sign



● TRY-10

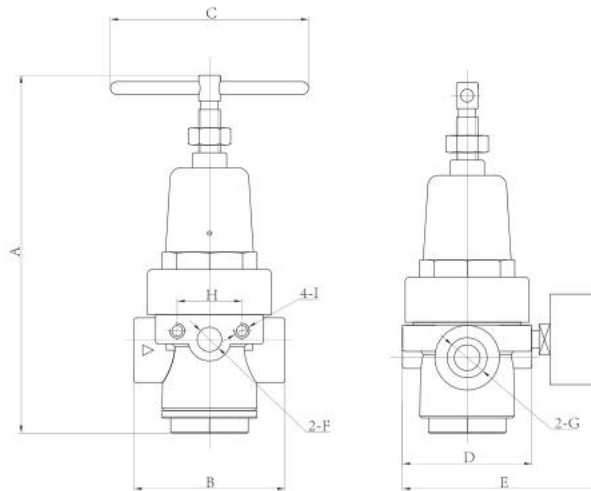


● TRY-25

■ Technical Parameter

Specification	TRY-8	TRY-10	TRY-15	TRY-20	TRY-25	TRY-40	TRY-50
Applicable Medium	Air						
Applicable Pressure Range	0.1~1.6MPa						
Medium Temperature	-10~60℃						
Type of Valve	Relief Type						
Gauge Port Size	G1/4						

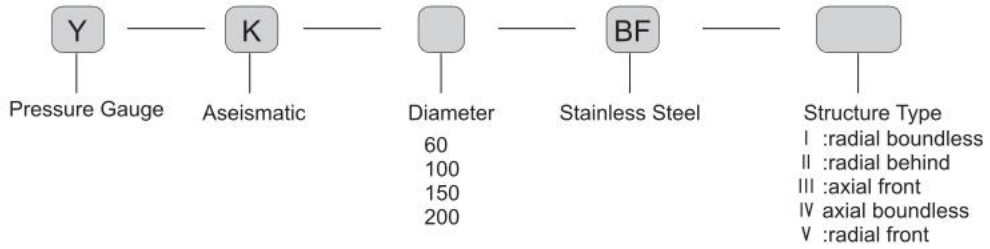
■ Figure Dimension



Type	A	B	C	D	E	F	G	H	I
TRY-8	160	70	88	60	95	G1/4	G1/4	30	M6
TRY-10	160	70	88	60	95	G1/4	G3/8	30	M6
TRY-15	160	70	88	60	95	G1/4	G1/2	30	M6
TRY-20	240	95	108	75	110	G1/4	G3/4	36	M6
TRY-25	240	95	108	75	110	G1/4	G1	36	M6
TRY-40	260	118	108	75	110	G1/4	G1 1/2	36	M6
TRY-50	260	118	108	75	110	G1/4	G2	36	M6

Pressure Gauge

● Ordering Code



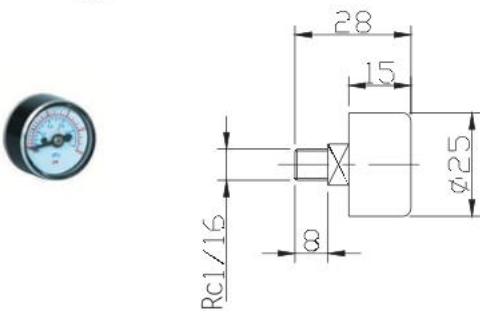
■ Technical Parameter

Type	Y25	Y30	Y40	Y50	Y60	YK60	Y100	YK100
Diameter	φ25	φ30	φ40	φ50	φ60		φ100	
Pipe Thread	Rc1/16	Rc1/8		Rc1/4	M14x1.5		M20x1.5	
Precision	2.5						1.5	
Measure MPa	0 ~ 0.25, 0 ~ 0.4, 0 ~ 1.0, 0 ~ 1.6, 0 ~ 2.5, 0 ~ 4				0 ~ 1, 0 ~ 1.6, 0 ~ 2.5, 0 ~ 4, 0 ~ 6, 0 ~ 10, 0 ~ 16, 0 ~ 25			
Aseismatic Grade	V.H.4							
Environment Temperature	-40 ~ 70°C							

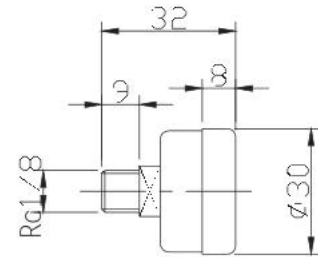
Note: The thread type could be made to order

- Feature: smart action, a variety of installation, various pressure ranges, easy to use. Production of high precision.

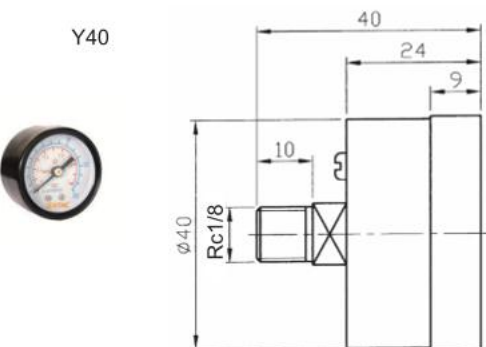
Y25



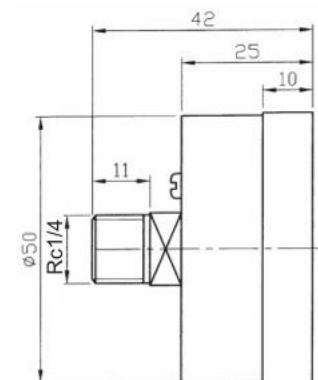
Y30



Y40



Y50



Water cup & Oil cup

	TSL water cup
	Used for: TSL-15 TSL-20 TSL-25 TSL-40 TSL-50

	TIU Oil cup
	Used for: TIU-15 TIU-20 TIU-25 TIU-40 TIU-50

Junction block



L Series

Used for:  
TC2000-02  
TC3000-03  
TC4000-04  
TC4000-06  
TC5000-10



T Series

Used for:  
TC2010-02  
TC3010-03  
TC4010-04  
TC4010-06  
TC5010-10



single eye Series

Used for:  
GC2000  
GC3000  
GC4000



Double eyes Series

Used for:  
GFC2000  
GFC3000  
GFC4000

Water cup & Oil cup

				
TF2000 water cup	TL2000 Oil cup	TF3000 water cup	TL3000 Oil cup	
Used for: TC2000-02 TC2010-02 TW2000-02 TF2000-02	Used for: TC2000-02 TC2010-02 TL2000-02	Used for: TC3000-03 TC3010-03 TW3000-03 TF3000-03	Used for: TC3000-03 TC3010-03 TL3000-03	
				
TF4000 water cup	TL4000 Oil cup	GF2000 water cup	GF3000 water cup	
Used for: TC4000-04 TC5000-10 TC4010-04 TC5010-10 TW4000-04 TW5000-10 TF4000-04 TF5000-10	Used for: TC4000-04 TC5010-10 TC4010-04 TL5000-10 TL4000-04 TC5000-10	Used for: GF2000 GC2000 GFR2000 GFC2000	Used for: GF3000 GC3000 GF4000 GC4000 GFR3000 GFC3000 GFR4000 GFC4000	
				
GL3000 Oil cup	TF1000 water cup	TL1000 Oil cup	LF08 water cup	
Used for: GC3000 GL3000 GC4000 GL4000 GFC3000 GFC4000	Used for: TC1000-M5 TC1010-M5 TF1000-M5 TW1000-M5	Used for: TC1000-M5 TC1010-M5 TL1000-M5	Used for: LF-06 LF-06-D LF-08 LF-06-D LF-10 LF-06-D	
				
LOE08 Oil cup	LF010 water cup	LOE10 Oil cup	Oil level glass	Oil level glass
Used for: LOE-06 LOE-08 LOE-10	Used for: LF-06 LF-06-D LF-08 LF-08-D LF-10 LF-10-D	Used for: LOE-10 LOE-15	Used for: T Series	Used for: G Series

Filter element

I



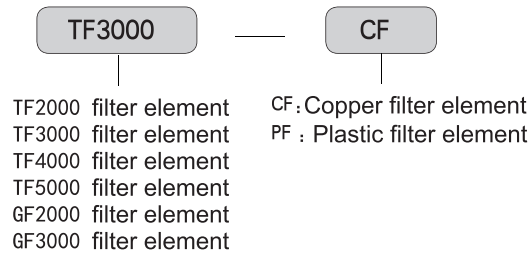
Copper filter elements



Plastic filter elements

Used for: TF2000 TW2000 TF3000 TW3000 TF4000 TW4000 TF5000 TW5000  
GF2000 GFR2000 GF3000 GFR3000 GF4000 GFR4000

• Ordering Code



# Polymatic™

PNEUMATIC SOLUTIONS

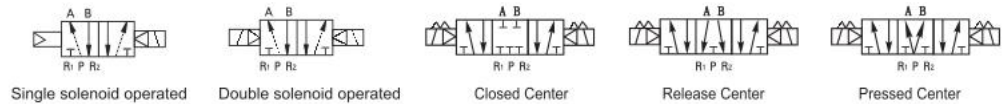


**SY Series Solenoid Valve**

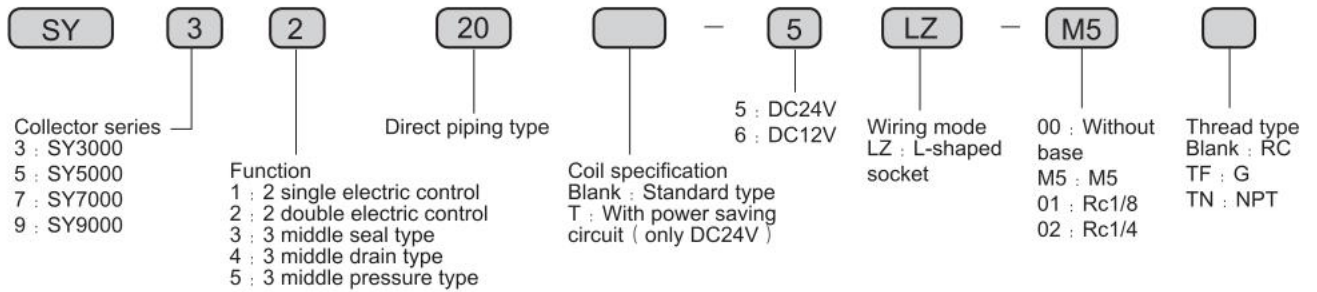


● **Product characteristic**

It has the characteristics of low-consumption power and central exhaust of guiding valve and main valve, with small dimension, large flow, handsome shape, and quick action. It can be installed in integration, with good resistance to abrasion and long service life.



● **Ordering Code**



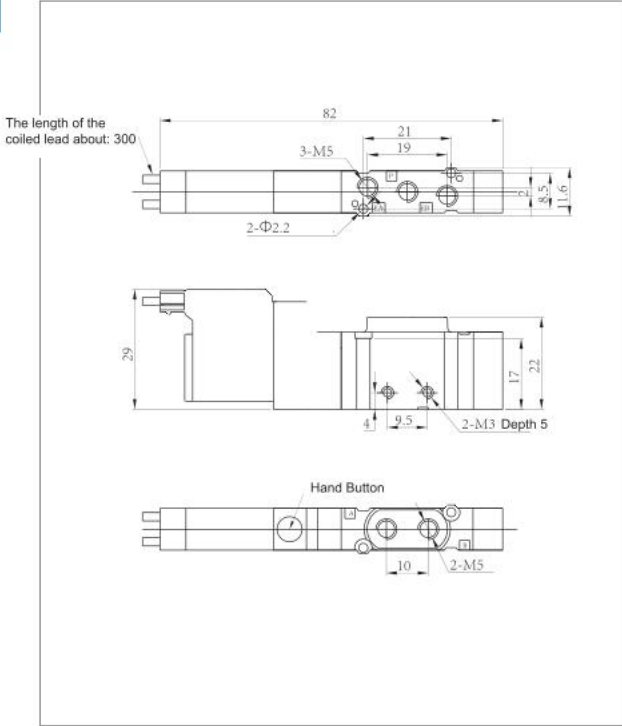
■ **Technical Parameter**

Specification	Function	Through diameter (mm)	Cv	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature
SY3120-M5	2 Positions/ 5 Ports	2.5	0.27	M5	Air	0.15~0.7MPa	Internally Piloted	10 Cycles/Sec	Needless	-5~55°C
SY3220-M5		2.5	0.27	M5				7 Cycles/Sec		
SY5120-01		3.5	0.52	Rc1/8				5 Cycles/Sec		
SY5220-01		3.5	0.52	Rc1/8						
SY7120-02		4.5	0.86	Rc1/4				Intake and exhaust port Rc1/4, air outlet Rc3/8		
SY7220-02		4.5	0.86	Rc1/4						
SY9120-02		6.5	1.7							
SY9220-02		6.5	1.7							
SY3320-M5	3 Positions/ 5 Ports	2.2	0.21	M5		0.2~0.7MPa		5 Cycles/Sec		
SY3420-M5		2.2	0.21	M5				5 Cycles/Sec		
SY3520-M5		2.2	0.21	M5						
SY5320-01		3	0.38	Rc1/8				5 Cycles/Sec		
SY5420-01		3	0.38	Rc1/8						
SY5520-01		3	0.38	Rc1/8				5 Cycles/Sec		
SY7320-02		4	0.68	Rc1/4						
SY7420-02		4	0.68	Rc1/4						
SY7520-02		4	0.68	Rc1/4						
SY9320-03		6.5	1.7	Intake and exhaust port Rc1/4, air outlet Rc3/8						
SY9420-03	6.5	1.7								
SY9520-03	6.5	1.7								

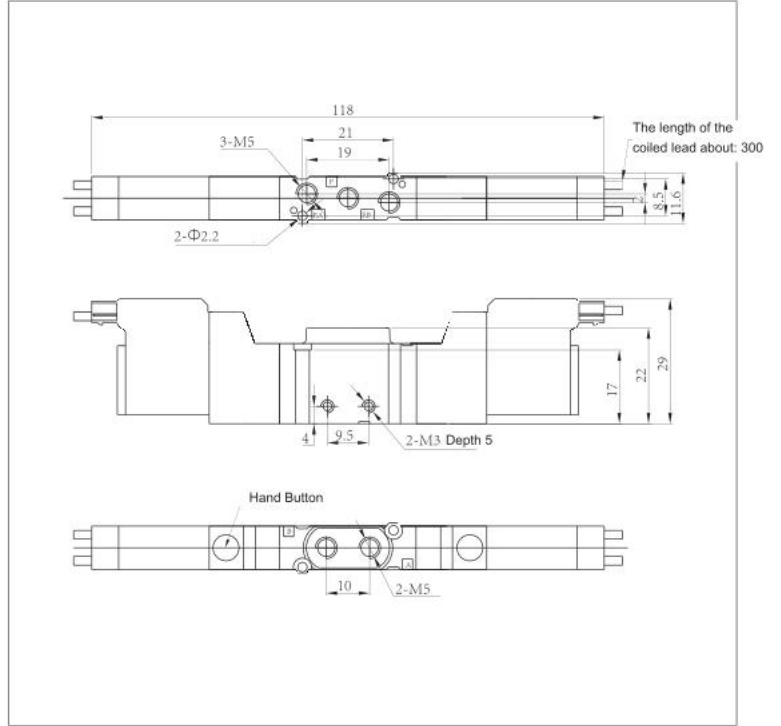
**SY Series Solenoid Valve**

■ Figure Dimension

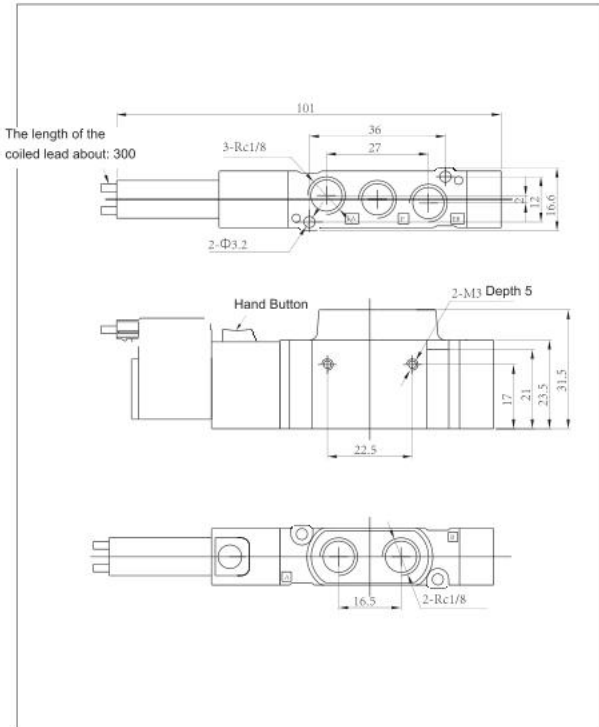
● SY3120-M5



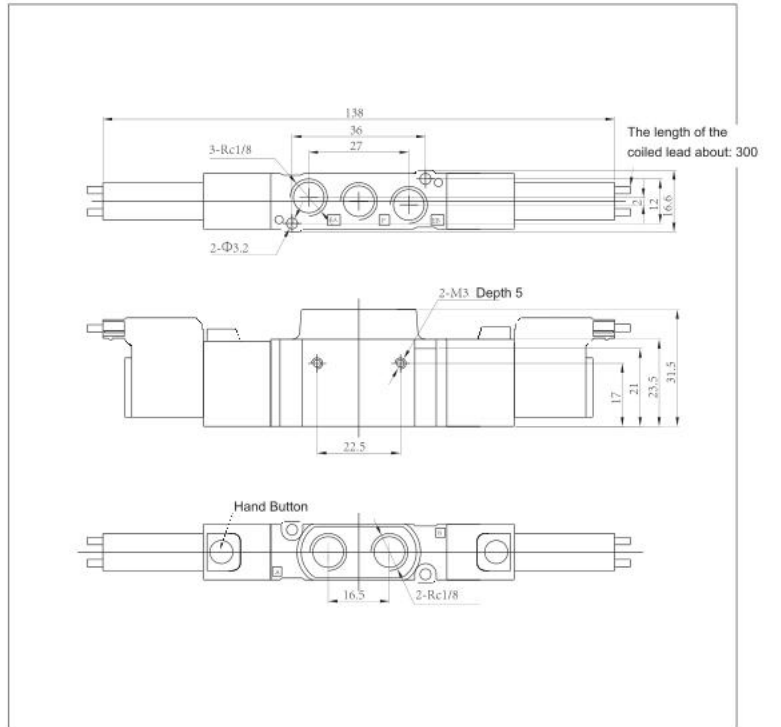
● SY3220-M5



● SY5120-01



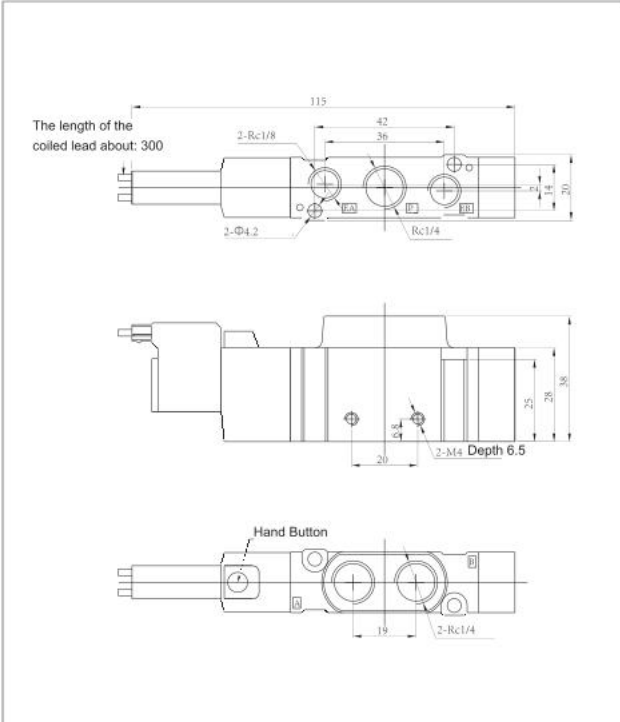
● SY5220-01



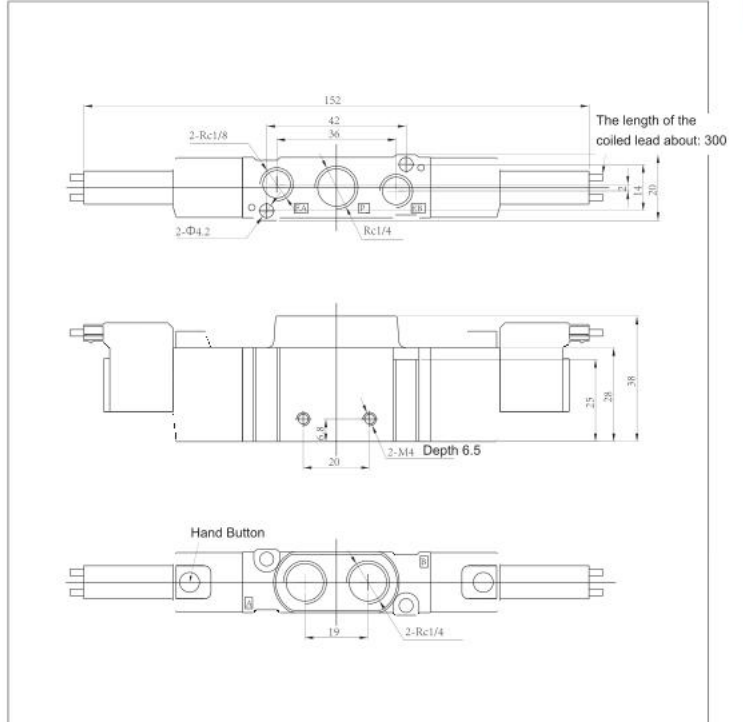
**SY Series Solenoid Valve**

■ Figure Dimension

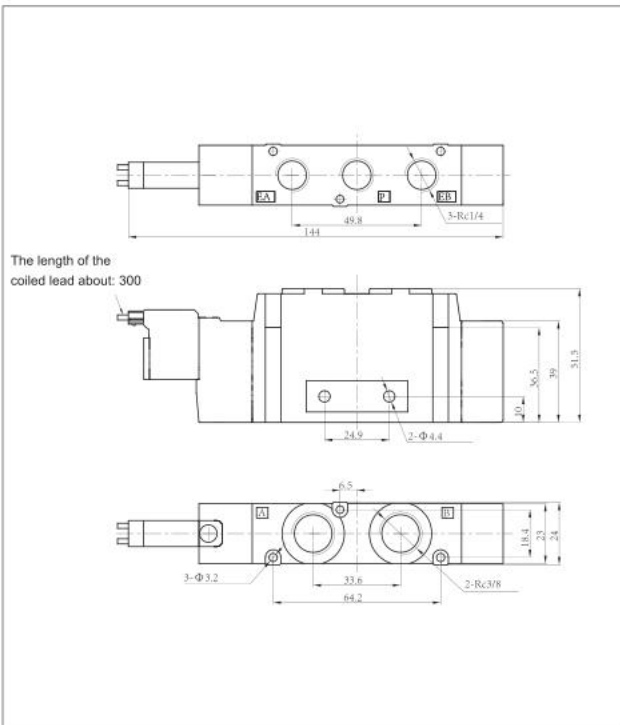
● SY7120-02



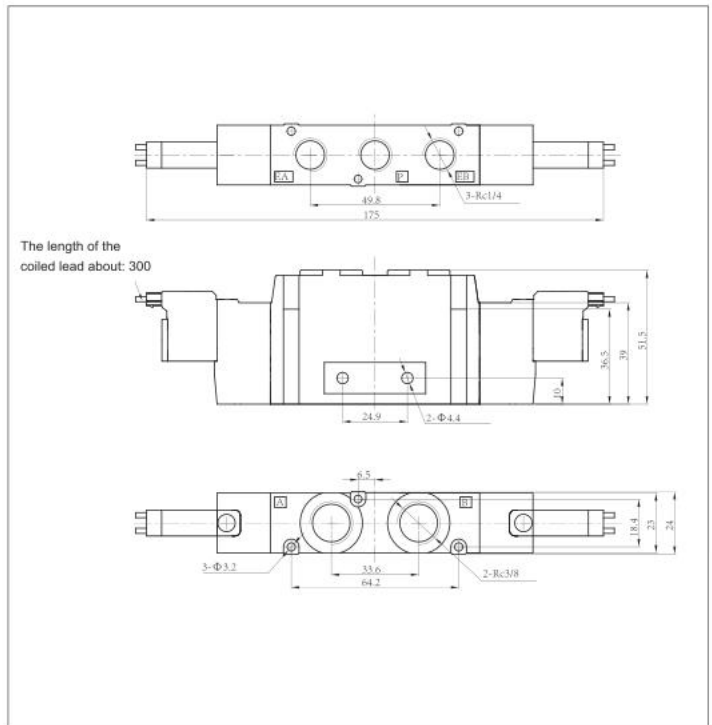
● SY7220-02



● SY9120-03



● SY9220-03

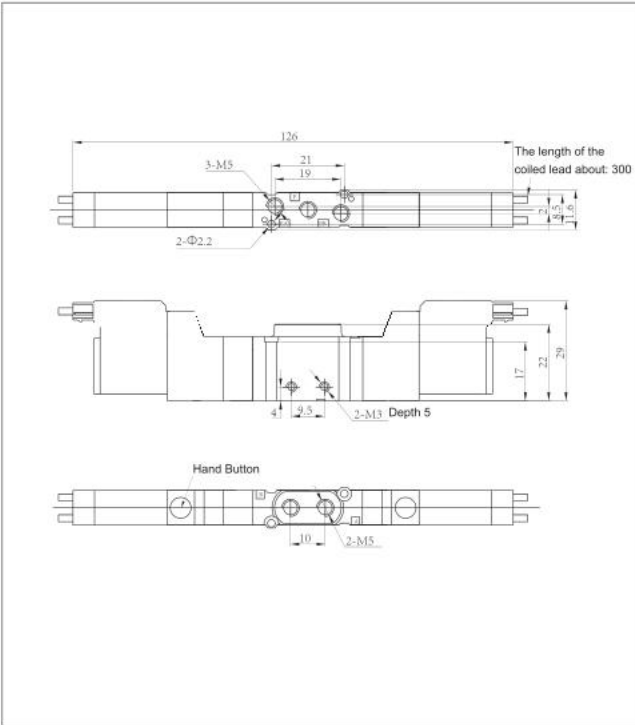


标准色为: M25 Y100

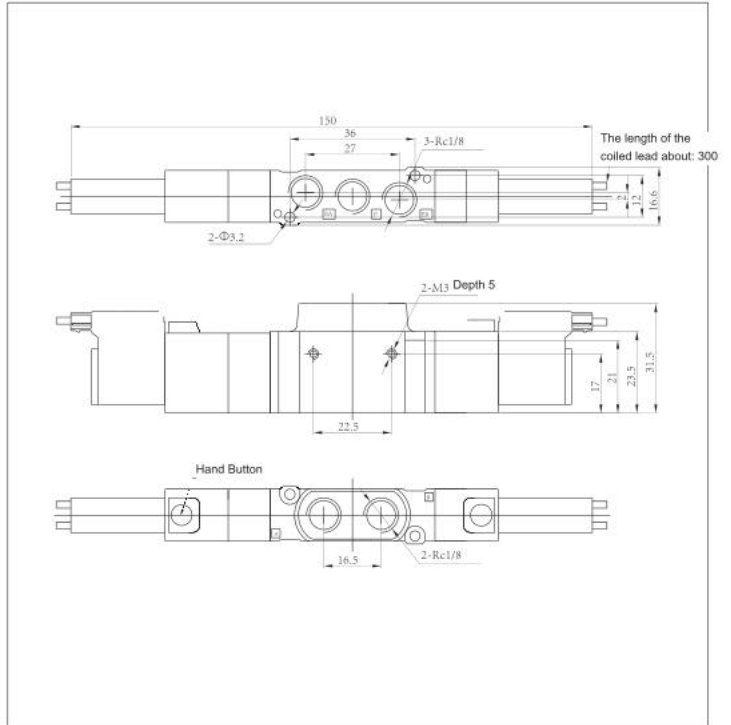
**SY Series Solenoid Valve**

■ Figure Dimension

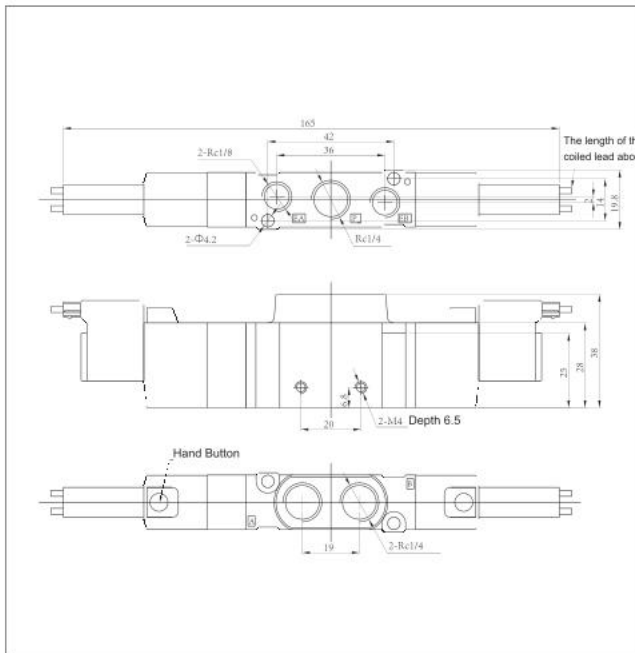
● SY3320-M5



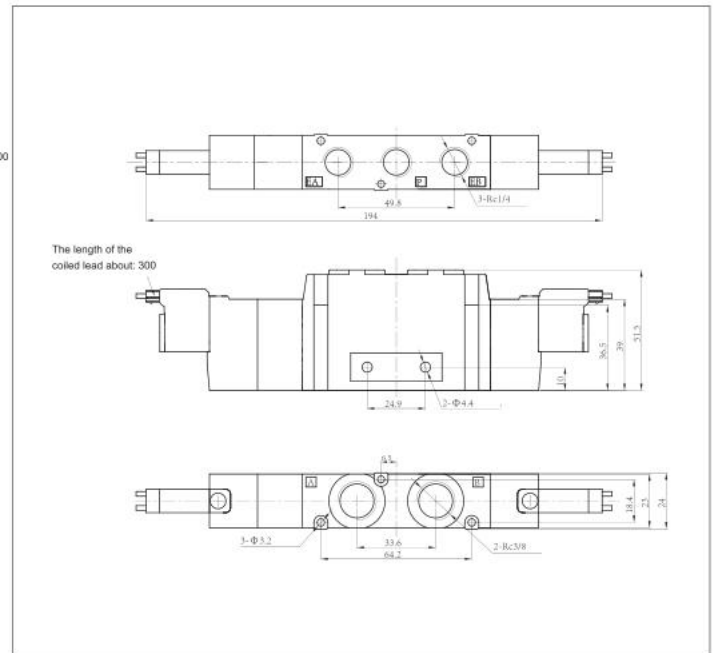
● SY5320-01



● SY7320-02



● SY9320-02



SY Series Air Valve

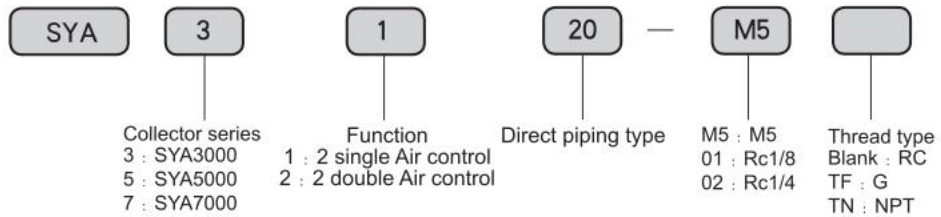


● Product characteristic

It has the characteristics of low-consumption power and central exhaust of guiding valve and main valve, with small dimension, large flow, handsome shape, and quick action. It can be installed in integration, with good resistance to abrasion and long service life.

II

● Ordering Code

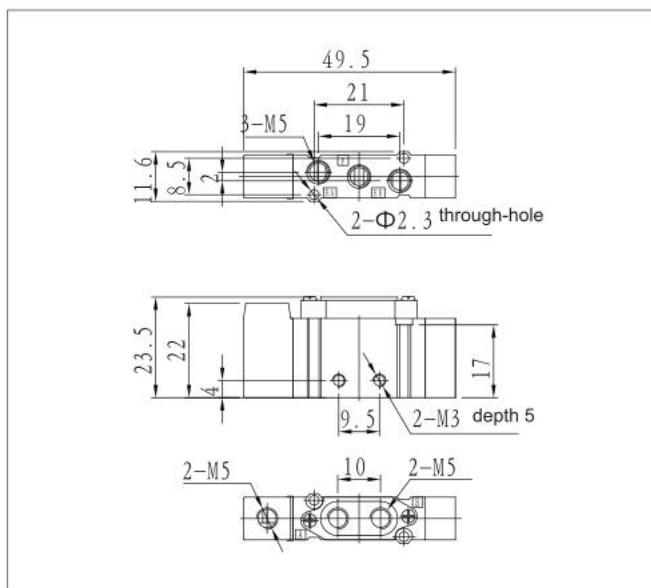


■ Technical Parameter

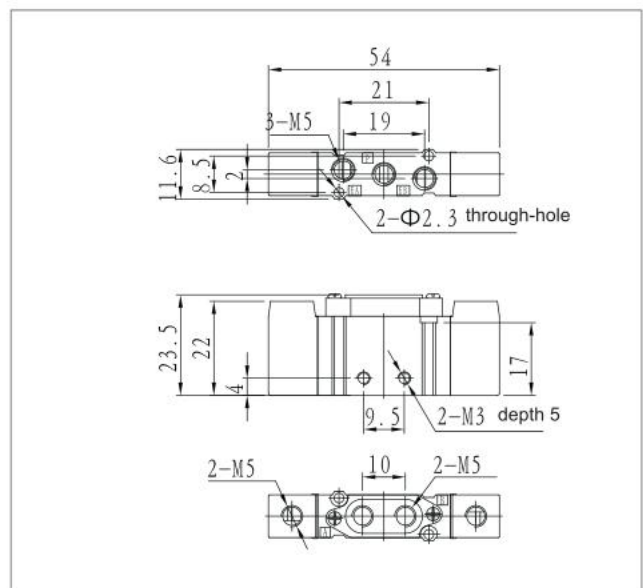
Specification	Function	Applicable Medium	Applicable Pressure Range	Lubrication	Medium Temperature
SYA3120-M5	2 Positions/ 5 Ports	Air	0.15 ~ 0.7 MPa	Needless	-5 ~ 60°C
SYA3220-M5					
SYA5120-01					
SYA5220-01					
SYA7120-02					
SYA7220-02					

■ Figure Dimension

● SYA3120-M5



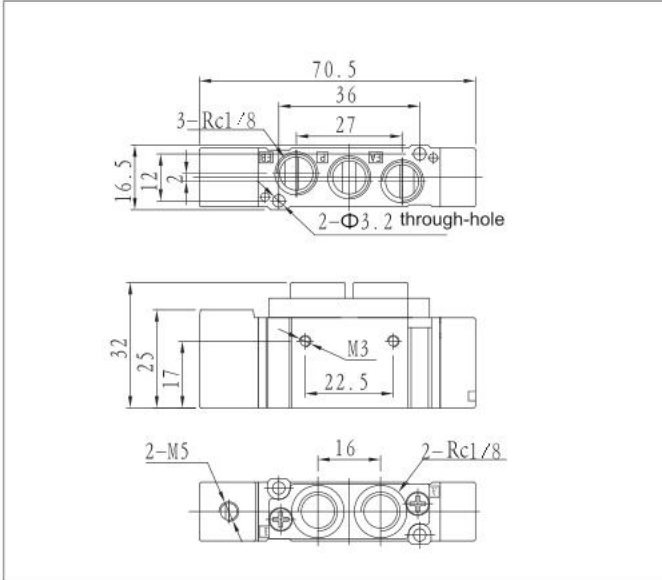
● SYA3220-M5



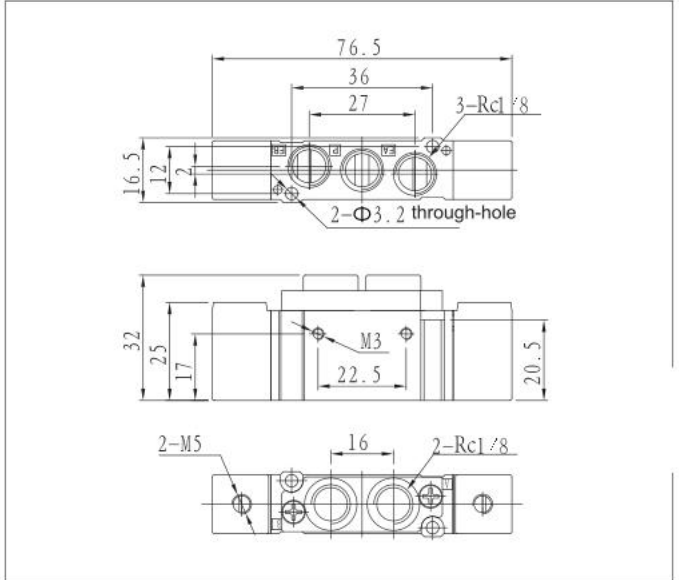
**SY Series Air Valve**

■ Figure Dimension

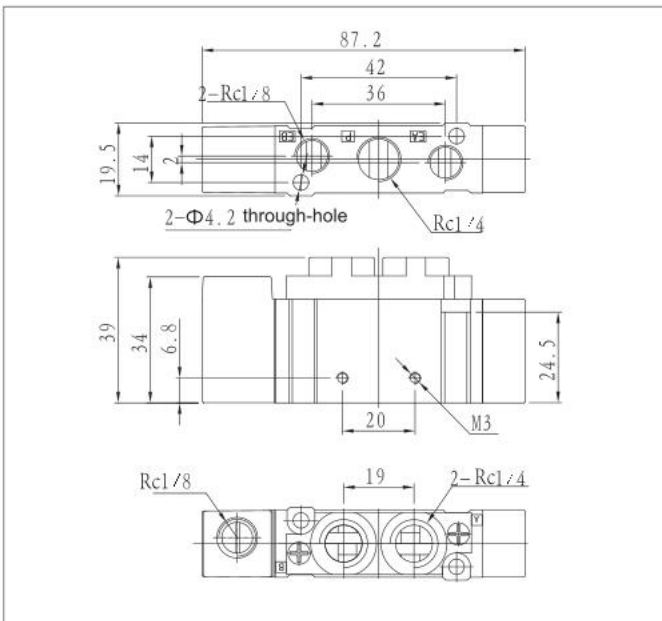
• SYA5120-01



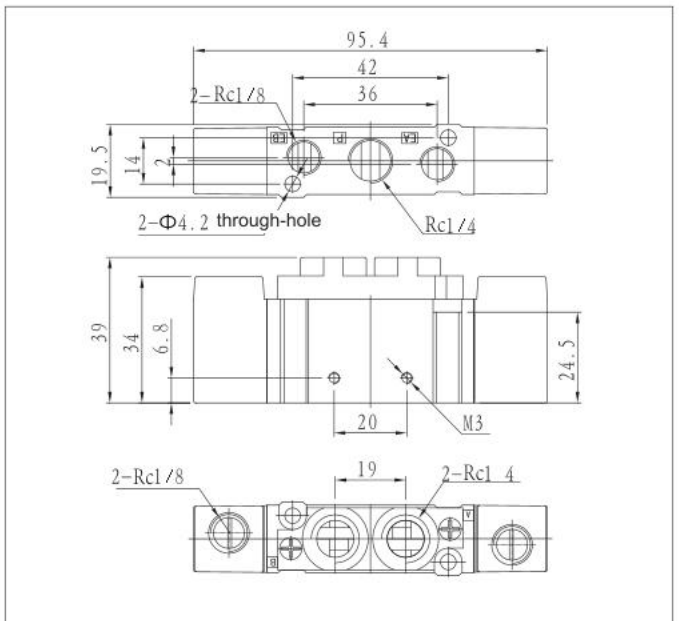
• SYA5220-01



• SYA7120-02



• SYA7220-02



**Blank Plate For SY Series Manifold**



• SY200-B

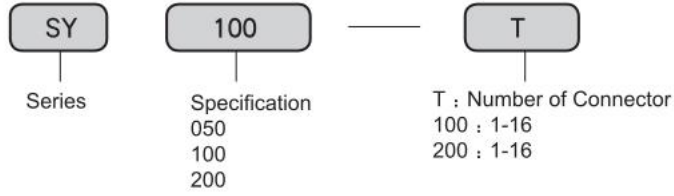
**SY**  
Series

**100**  
Type  
50  
100  
200

**B**  
B:Blank Plate

**SY Series Manifold**

• Ordering Code

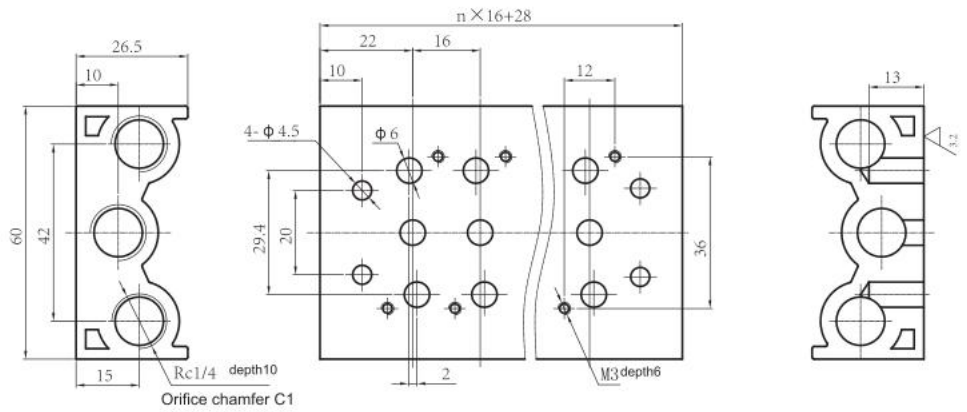


II

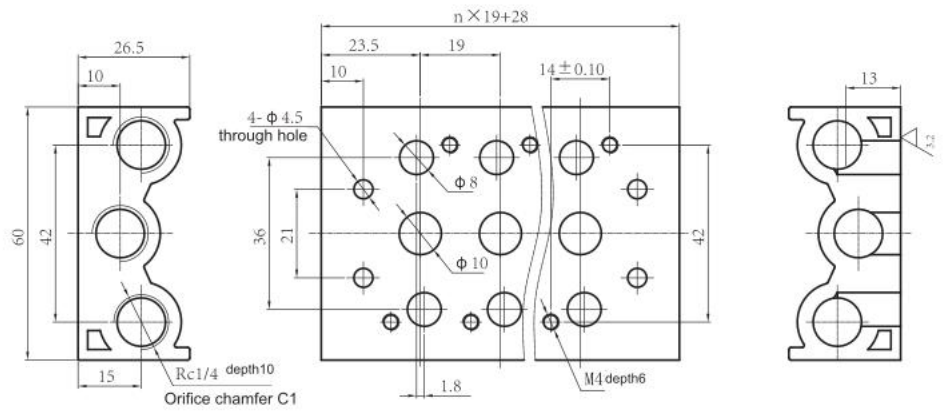
■ Figure Dimension



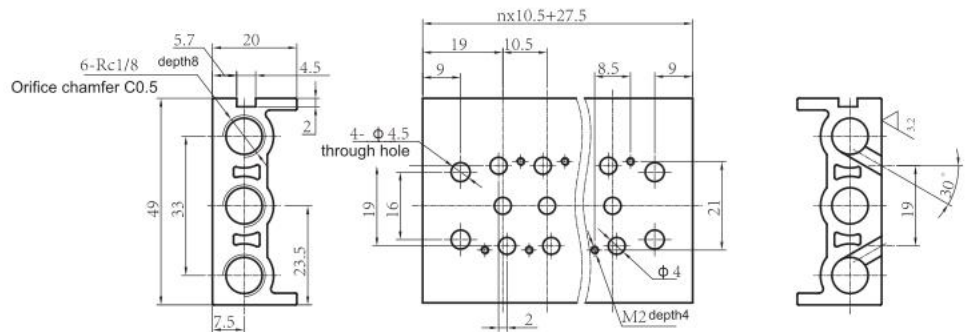
• SY100



• SY200



• SY50

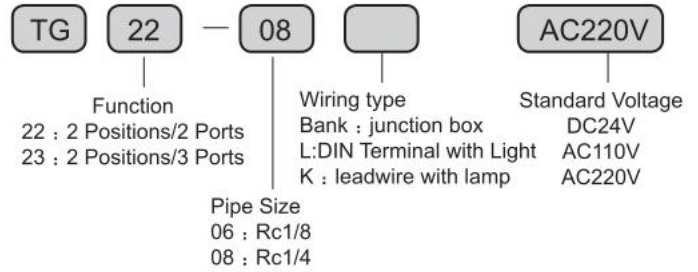


2 Positions/2 Ports, 2 Positions/3 Ports Solenoid Valve

II



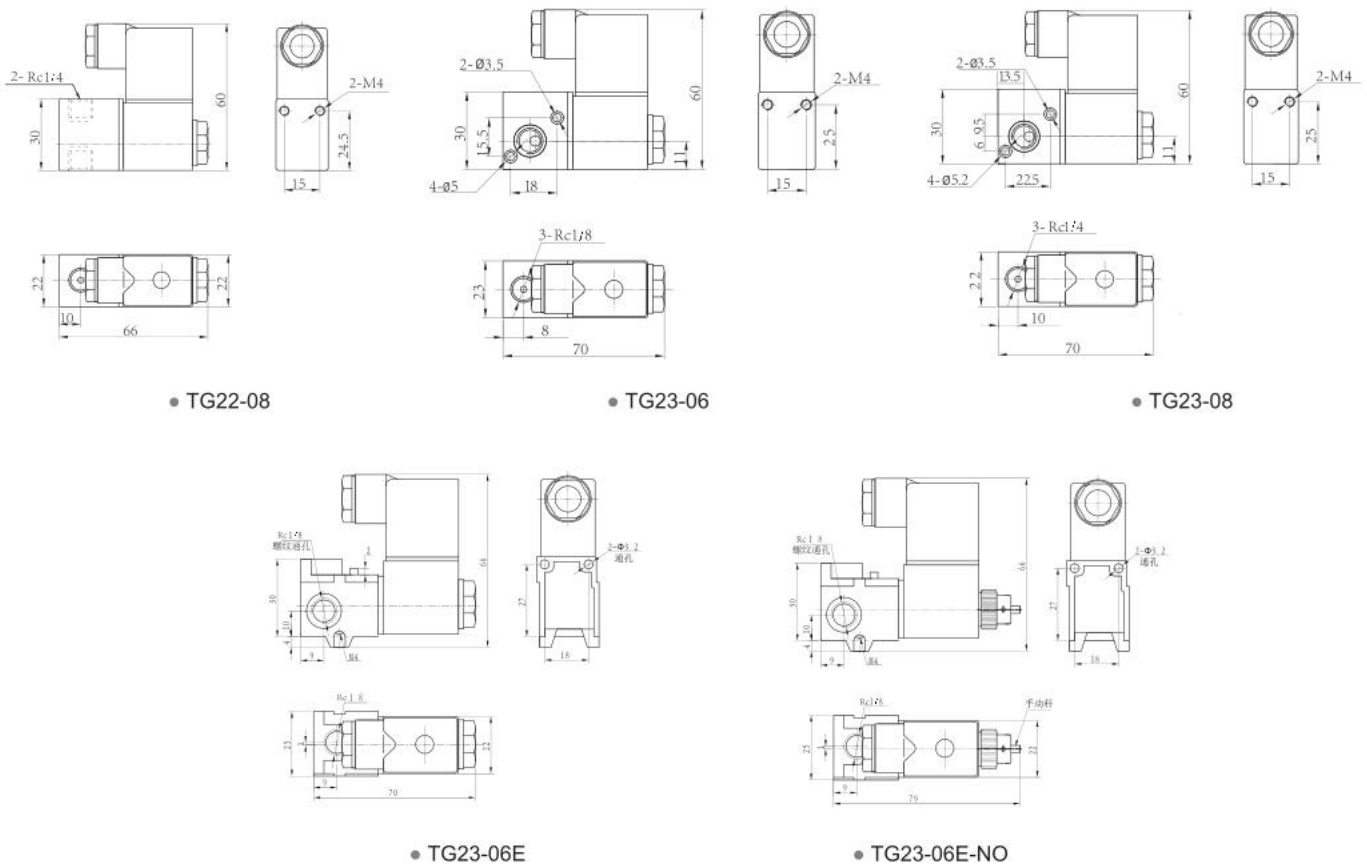
• Ordering Code



Technical Parameter

Item	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature	Power
TG22-08	2 Positions/2Ports	Rc1/4	2.5	Air	0 ~ 0.8MPa	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C	AC220V: 5VA DC24V: 4W
TG23-06	2 Positions/3Ports	Rc1/8	1.2							
TG23-08		Rc1/4	1.2							
TG23-06E		Rc1/8	1.2							
TG23-06E-NO		Rc1/8	1.2							

Figure Dimension

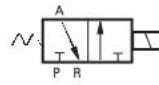


**TG23-06E Combine Valve**

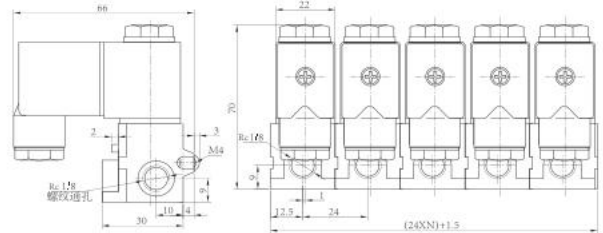
● Ordering Code



■ Graphics Sign



■ Figure Dimension

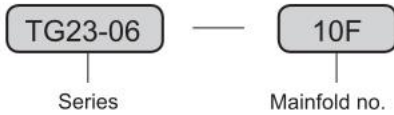


■ Technical Parameter

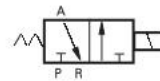
Item	Model	Structure	Prot Size	Port Size (mm)	Medium	Working Pressure	Action	Frequency	Lubrication	Medium Temperature	Power
	TG23-06E-□F	2 way 3 Position	Rc1/8	1.2	Air	0 ~ 0.8MPa	Directact	5 Cycles/sec	No Oil	-5 ~ 60℃	AC220V:5VA DC24V:4W

● Ordering Code

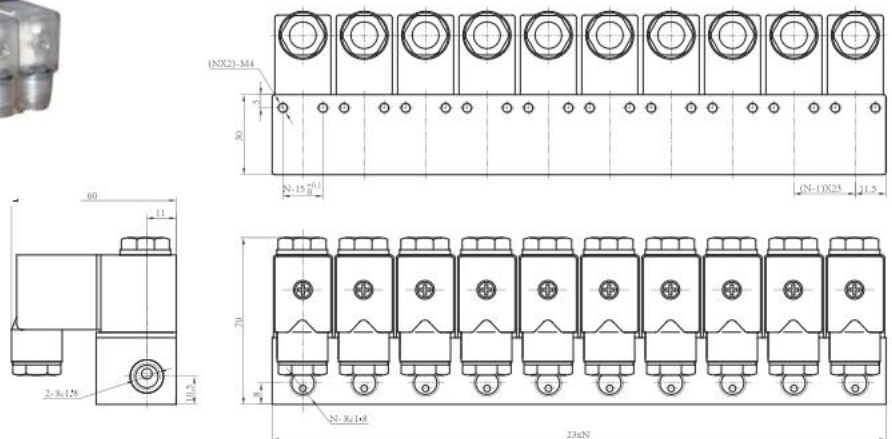
**TG23-06 Combine Valve**



■ Graphics Sign



■ Figure Dimension



■ Technical Parameter

Item	Model	Structure	Prot Size	Port Size (mm)	Medium	Working Pressure	Action	Frequency	Lubrication	Lubrication Temperature	Power
	TG23-06-□F	2 way 3 Position	Rc1/8	1.2	Air	0 ~ 0.8MPa	Directact	5 Cycles/sec	No Oil	-5 ~ 60℃	AC220V:5VA DC24V:4W

TG series solenoid valve



TG2521-08K  
(leadwire with lamp)

• Character

It is a pneumatic valve controlled by micro electric signal, with small dimension, large flow, handsome shape, reliable performance and long service life. It can be installed in the integration. It is an ideal directional control element, applicable to the electromechanical integration. There are multiple Specifications cations for your choice.

• Ordering Code

<b>TG</b>	<b>25</b>	<b>1</b>	<b>1</b>	—	<b>06</b>	<b>C</b>		<b>AC220V</b>
Function	Connection	Control Form	Pipe size	Working mode	Standard voltage	Wiring type	Bank : junction box	
23 : 2 positions/3 Ports 25 : 2 positions/5 Ports 35 : 3 positions/5 Ports	Code 1 : 1/8 2 : 1/4 3 : 3/8 4 : 1/2	1 : Single solenoid operated 2 : Double solenoid operated	06 : Rc1/8 08 : Rc1/4 10 : Rc3/8 15 : Rc1/2	No mark : 2 positions C : Close center E : Release center P : Pressed Center	DC24V AC110V AC220V	L: DIN Terminal with Light K : leadwire with lamp		

■ Solenoid specifications

Allowable Voltage Range	±10%	
Insulated Grade	Class B or Equivalent	
Response Time	0.05 Sec	
Power Consumption	AC	Start : 5.6VA, Keep on : 5.4VA
	DC	4W
Surge Voltage Suppressor	AC:Varistor, DC:Diode	
Indicator Light	Neon Light, LED	

• Maintenance Notice:

1. Be sure to check up the valve before installation.
2. Before installation, please confirm the voltage connection and airflow direction are right.
3. Notice to do dustproof. It's best to install a silencer or speed control silencer in the port of solenoid valve.
4. Metallic particle, dust and oil stain in pipes and fittings must be Eliminated before connected.

■ Technical Parameter

Specification	Item	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature	Power
TG2311-06	2 Positions/3Ports	Rc1/8	4	0.15 ~ 0.8 MPa	Air	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C	AC220V (4VA) DC24V (2.5W)	
TG2511-06 TG2512-06											2 Positions/5Ports
TG3512-06C.E.P	3 Positions/5Ports		3.5	0.2 ~ 0.8MPa			3 Cycles/Sec				
TG2321-08	2 Positions/3Ports	Rc1/4	4.5	0.15 ~ 0.8 MPa	Air	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C	AC220V (5VA) DC24V (4W)	
TG2331-10		Rc3/8	6.5								
TG2341-15		Rc1/2	8								
TG2521-08 TG2522-08	2 Positions/5Ports	Rc1/4	4.5	0.15 ~ 0.8 MPa	Air	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C	AC220V (5VA) DC24V (4W)	
TG2531-10 TG2532-10		Rc3/8	6.5								
TG2541-15 TG2542-15		Rc1/2	8								
TG3522-08C.E.P	3 Positions/5Ports	Rc1/4	4	0.2 ~ 0.8 MPa	Air	Internally Piloted	3 Cycles/Sec	Needless	-5 ~ 60°C	AC220V (5VA) DC24V (4W)	
TG3532-10C.E.P		Rc3/8	5								
TG3542-15C.E.P		Rc1/2	6.5								

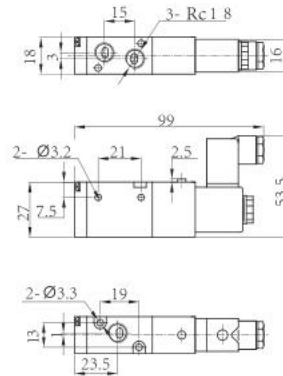
**TG Series Solenoid Valve**

**2 Positions/3 Ports Solenoid Valve**

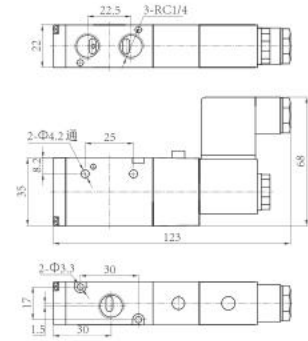


● TG2311-06      ● TG2321-08

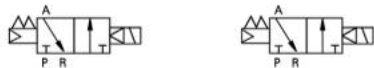
● TG2311-06



● TG2321-08

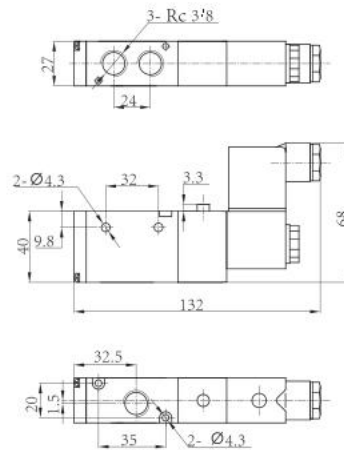


**2 Positions/3 Ports Solenoid Valve**

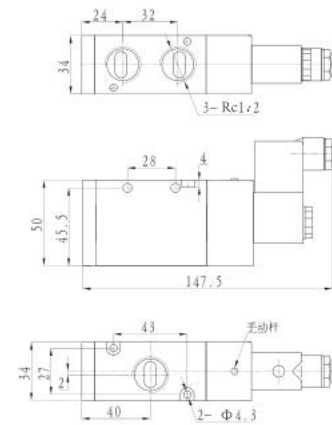


● TG2331-10      ● TG2341-15

● TG2331-10



● TG2341-15

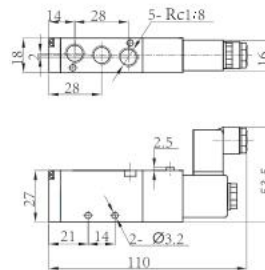


**2 Positions/5 Ports Solenoid Valve**

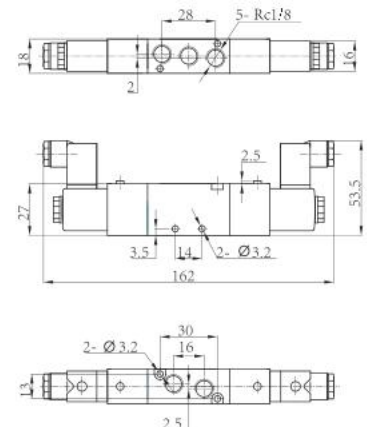


● TG2511-06      ● TG2512-06

● TG2511-06



● TG2512-06

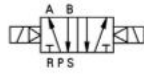
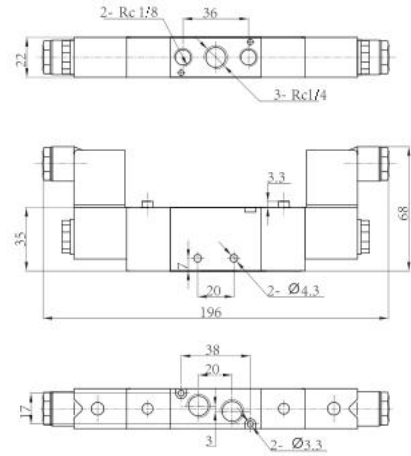
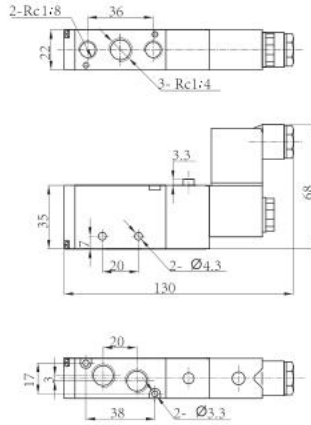


**TG Series Solenoid Valve**

**2 Positions/5 Ports Solenoid Valve**

● TG2521-08

● TG2522-08



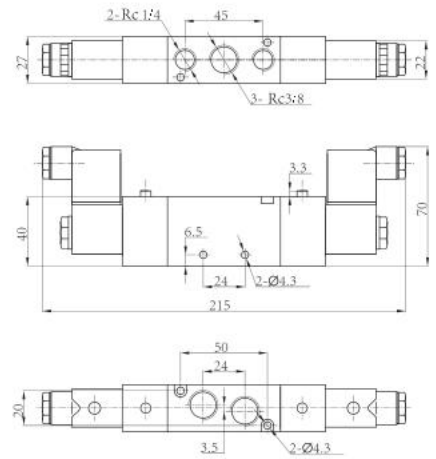
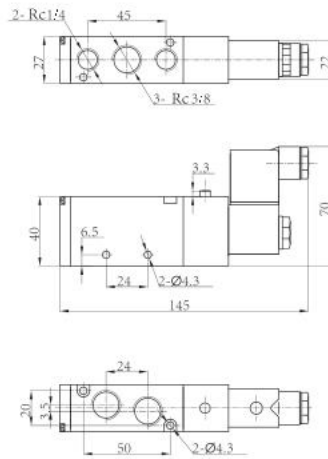
● TG2521-08  
TG2521-06

● TG2522-08  
TG2522-06

**2 Positions/5 Ports Solenoid Valve**

● TG2531-10

● TG2532-10



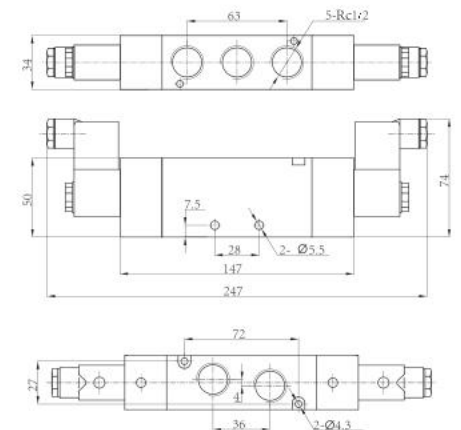
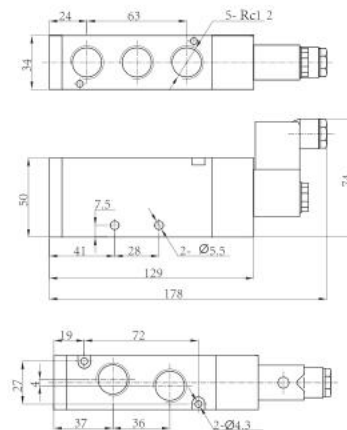
● TG2531-10  
TG2531-08

● TG2532-10  
TG2532-08

**2 Positions/5 Ports Solenoid Valve**

● TG2541-15

● TG2542-15



● TG2541-15

● TG2542-15

TG Series Solenoid Valve

3 Positions/5 Ports Solenoid Valve

II

Technical drawings for TG3512-06C, TG3512-06E, and TG3512-06P solenoid valves. The drawings show three views: a perspective view, a side view, and a front view. Dimensions include 28, 5-Rc1/8, 1.8, 2, 2.7, 17.5, 3.5, 1.4, 2-φ3.2, 30, 1.6, 2-φ3.2, 1.3, and 2.5. Below the drawings are three schematic diagrams labeled A, B, and RPS, each showing a different valve configuration.

● TG3512-06C      ● TG3512-06E      ● TG3512-06P

Technical drawings for TG3522-08C, TG3522-08E, and TG3522-08P solenoid valves. The drawings show three views: a perspective view, a side view, and a front view. Dimensions include 2-Rc1/8, 36, 3-Rc1/4, 2.2, 3.5, 68, 21.5, 3.3, 20, 2-φ4.3, 38, 20, 2-φ3.3, 17, and 3. Below the drawings are three schematic diagrams labeled A, B, and RPS, each showing a different valve configuration.

● TG3522-08C      ● TG3522-08E      ● TG3522-08P

Technical drawings for TG3532-10C, TG3532-10E, and TG3532-10P solenoid valves. The drawings show three views: a perspective view, a side view, and a front view. Dimensions include 2-Rc1/4, 45, 2.7, 3-Rc3/8, 2.2, 40, 70, 6.5, 24, 2-φ4.3, 234, 50, 24, 2-φ4.3, 3.5, and 2.0. Below the drawings are three schematic diagrams labeled A, B, and RPS, each showing a different valve configuration.

● TG3532-10C      ● TG3532-10E      ● TG3532-10P

Technical drawings for TG3542-15C, TG3542-15E, and TG3542-15P solenoid valves. The drawings show three views: a perspective view, a side view, and a front view. Dimensions include 5-Rc1/2, 63, 34, 50, 74, 7.3, 28, 2-φ5.5, 147, 266, 72, 56, 2-φ4.3, 2.7, and 4. Below the drawings are three schematic diagrams labeled A, B, and RPS, each showing a different valve configuration.

● TG3542-15C      ● TG3542-15E      ● TG3542-15P

**TG Series Air Valve**

● Character

It is controlled by pneumatic signal, applicable to the places where the existence of power source is forbidden. The product is in simple structure, with reliable performance and easy operation. It is widely applied to the inflammable and explosive places such as coal hill, mine, natural gas, etc. There are multiple specifications for your choice.

● Ordering Code

TG	25	1	1A	—	06	C
Series	Function	Connection Code	Control Form		Pipe Size	Working Mode
	25 : 2 Positions/5Ports 35 : 3 Positions/5Ports	1 : 1/8 2 : 1/4 3 : 3/8 4 : 1/2	1A : Single Air Operated 2A : Double Air Operated		06 : Rc1/8 08 : Rc1/4 10 : Rc3/8 15 : Rc1/2	No Mark : 2 Positions C : 3 Positions Closed Center E : 3 Positions Release Center P : 3 Positions Pressed Center

■ Technical Parameter

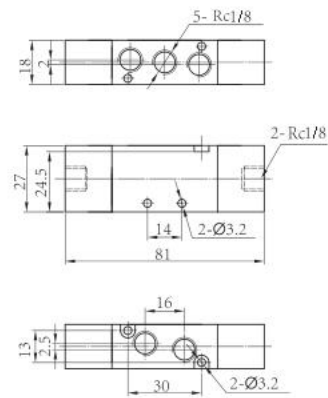
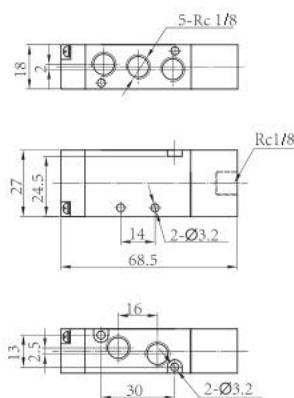
Item Specification	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature
TG2511A-06	2 Positions/5Ports	Rc1/8	6	Air	0.15 ~ 0.8 MPa	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C
TG2512A-06		Rc1/8	6						
TG2521A-08		Rc1/4	8						
TG2522A-08		Rc1/4	8						
TG2531A-10		Rc3/8	10						
TG2532A-10		Rc3/8	10						
TG2541A-15		Rc1/2	15						
TG2542A-15		Rc1/2	15						
TG3512A-06C.E.P	3 Positions/5Ports	Rc1/8	6	Air	0.2 ~ 0.8 MPa	Internally Piloted	3 Cycles/Sec	Needless	-5 ~ 60°C
TG3522A-08C.E.P		Rc1/4	8						
TG3532A-10C.E.P		Rc3/8	10						
TG3542A-15C.E.P		Rc1/2	15						

■ Figure Dimension

2 Positions/5 Ports Air Valve

● TG2511A-06

● TG2512A-06

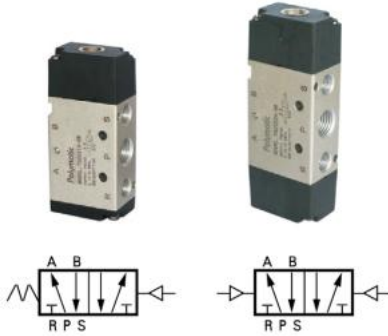


**TG Series Air Valve**

**2 Positions/5 Ports Air Valve**

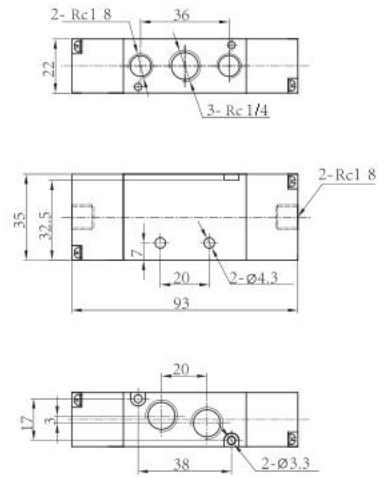
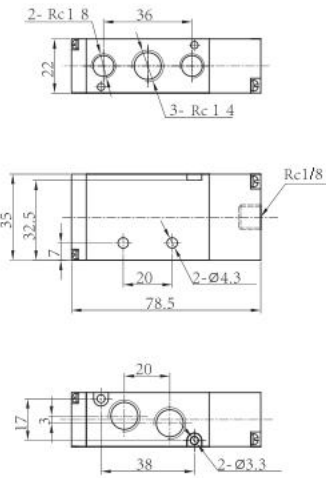
• TG2521A-08

• TG2522A-08



• TG2521A-08

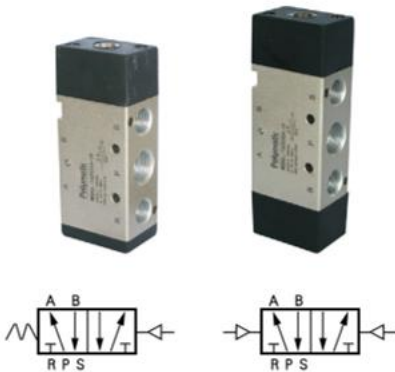
• TG2522A-08



**2 Positions/5 Ports Air Valve**

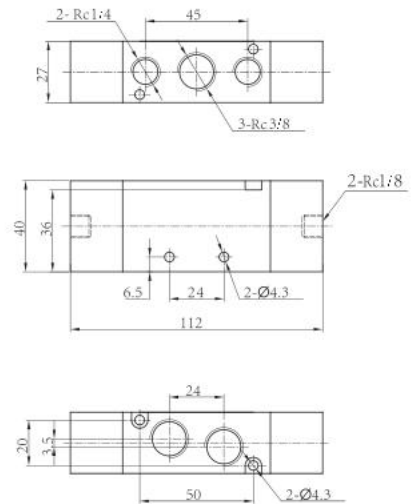
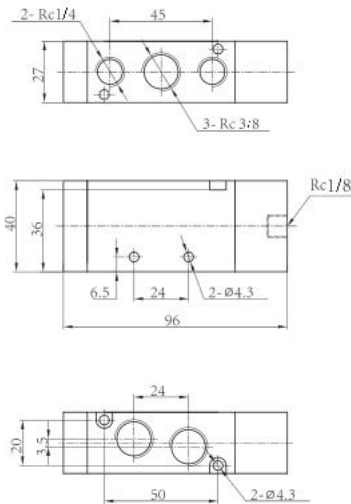
• TG2531A-10

• TG2532A-10



• TG2531A-10

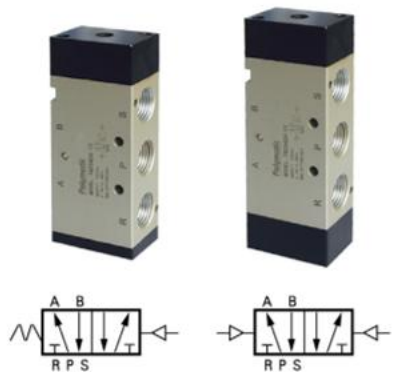
• TG2532A-10



**2 Positions/5 Ports Air Valve**

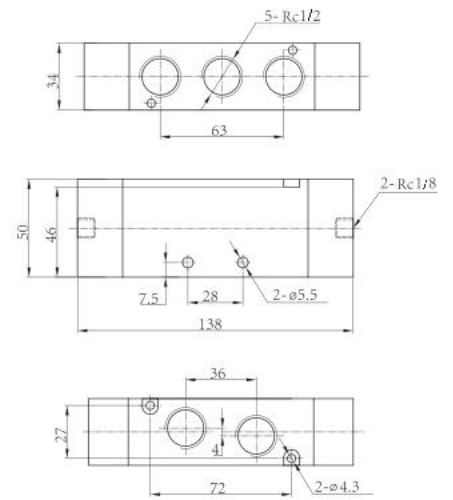
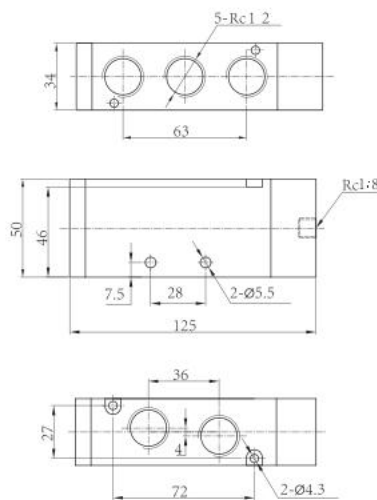
• TG2541A-15

• TG2542A-15



• TG2541A-15

• TG2542A-15







FG2521-08K  
(leadwire with lamp)

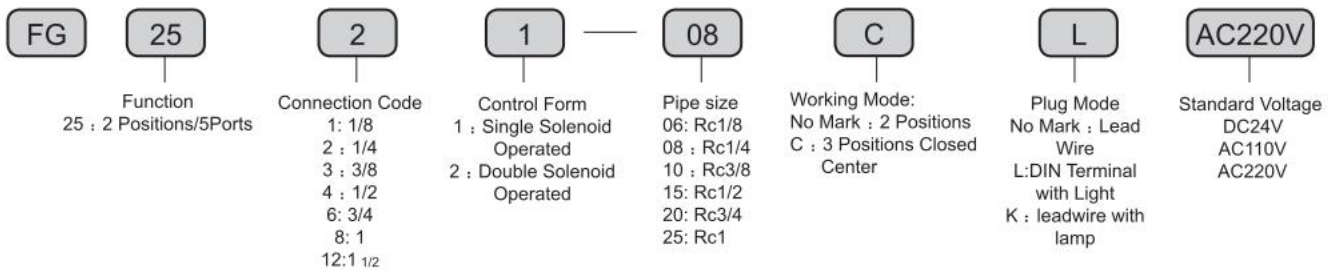
**FG Series Solenoid Valve**

● Character

It has the characteristics of low-consumption power and central exhaust of guiding valve and main valve, with small dimension, large flow, handsome shape, and quick action. It can be installed in integration, with good resistance to abrasion and long service life.

II

● Ordering Code



■ Technical Parameter

Specification	Item	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature
FG2511-06L	2 Positions/5Ports		Rc1/8	6	Air	0.15 ~ 0.9 MPa	Internally Piloted	5 Cycles/Sec	Needless	-5 ~ 60°C
FG2512-06L										
FG2521-08L										
FG2522-08L										
FG2531-10L										
FG2532-10L										
FG2541-15L										
FG2542-15L										
FG2561-20L										
FG2562-20L										
FG2581-25L										
FG2582-25L										
FG25121-40L										
FG25122-40L										
FG3512-06CL	3 Positions/5Ports		Rc1/8	6		0.2 ~ 0.9 MPa		3 Cycles/Sec		
FG3522-08CL										
FG3532-10CL										
FG3542-15CL										
FG3562-20CL										
FG3582-25CL										

**FG Series Solenoid Valve**

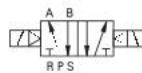
■ Solenoid specifications

Allowable Voltage Range		±10%
Insulated Grade		Class B or Equivalent
Response Time		0.05 Sec
Power Consumption	AC	Start : 5.6VA, Keep on : 5.4VA
	DC	4W
Surge Voltage Suppressor		AC:Varistor, DC:Diode
Indicator Light		Neon Light, LED

● Maintenance Notice

1. Be sure to check up the valve before installation.
2. Before installation, please confirm the voltage connection and direction of the air flow are right.
3. Notice to be dustproof. It's best to install a silencer or speed control silencer in front of solenoid valve.
4. Metal grain, dust and oil stain in pipes and fittings must be washed neatly before connected.

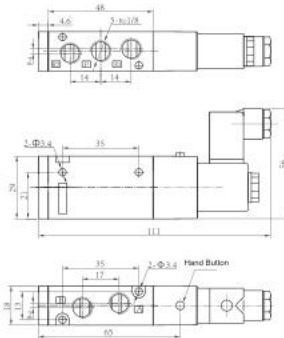
2 Positions/5 Ports Solenoid Valve



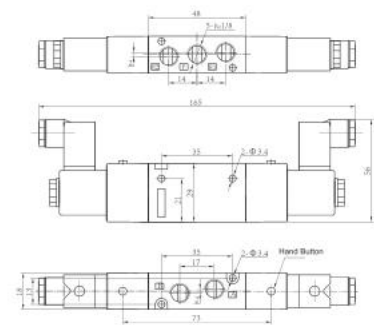
● FG2511-06L

● FG2512-06L

● FG2511-06L



● FG2512-06L



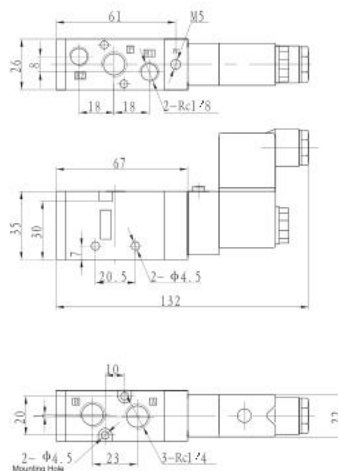
2 Positions/5 Ports Solenoid Valve



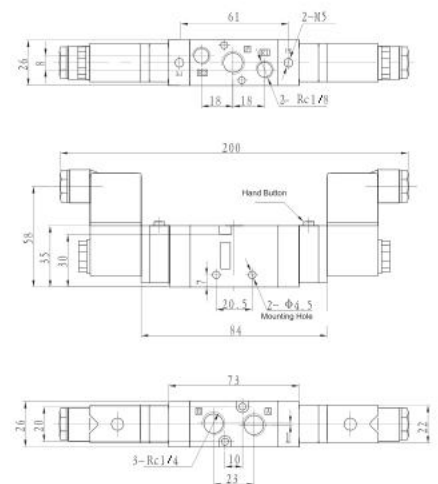
● FG2521-08L

● FG2522-08L

● FG2521-08L



● FG2522-08L



**FG Series Solenoid Valve**

**2 Positions/5 Ports Solenoid Valve**

● FG2531-10L

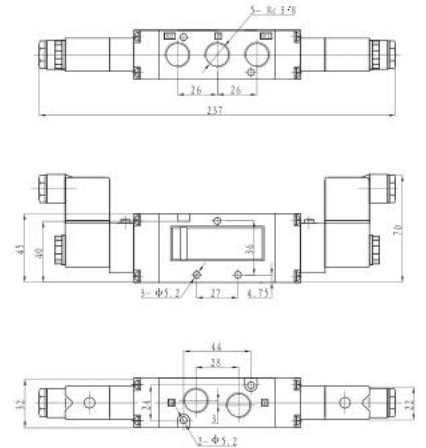
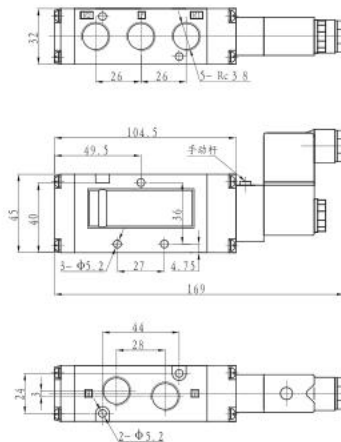
● FG2532-10L



● FG2531-10L



● FG2532-10L



**2 Positions/5 Ports Solenoid Valve**

● FG2541-15L

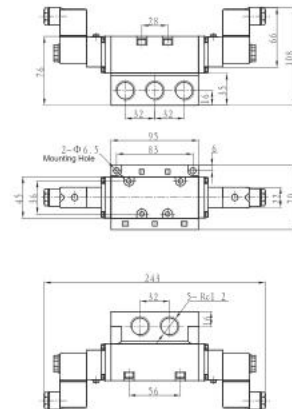
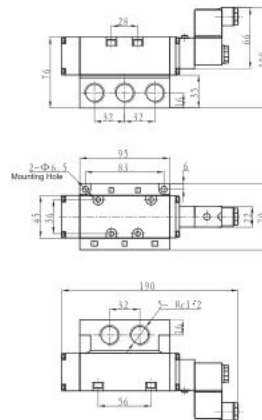
● FG2542-15L



● FG2541-15L



● FG2542-15L



**2 Positions/5 Ports Solenoid Valve**

● FG2561-20L

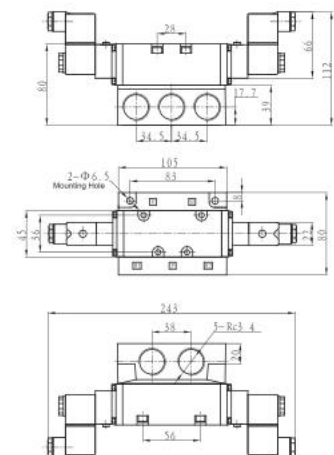
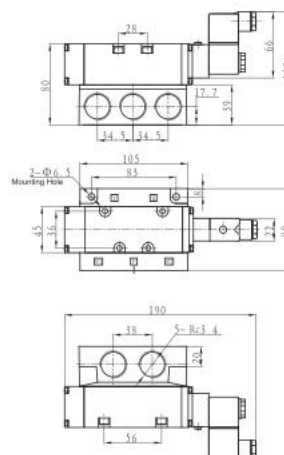
● FG2562-20L



● FG2561-20L



● FG2562-20L

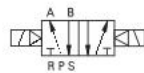


**FG Series Solenoid Valve**

**2 Positions/5 Ports Solenoid Valve**

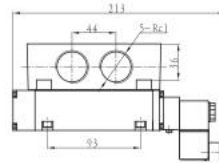
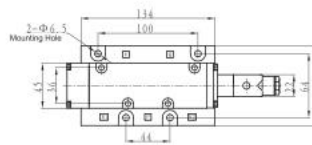
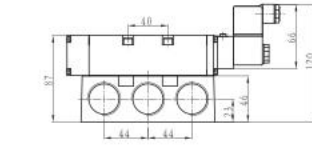


• FG2581-25L

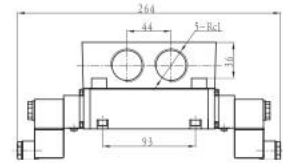
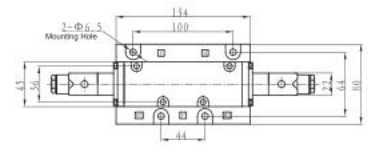
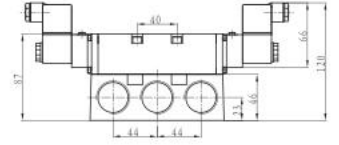


• FG2582-25L

• FG2581-25L



• FG2582-25L

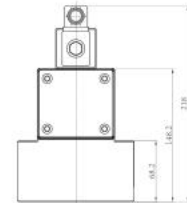
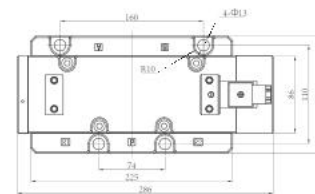
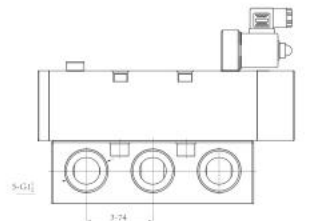


**2 Positions/5 Ports Solenoid Valve**



• FG25121-40L

• FG25121-40L

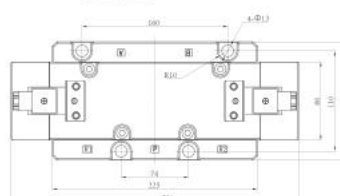
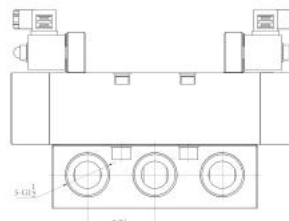


**2 Positions/5 Ports Solenoid Valve**



• FG25122-40L

• FG25122-40L





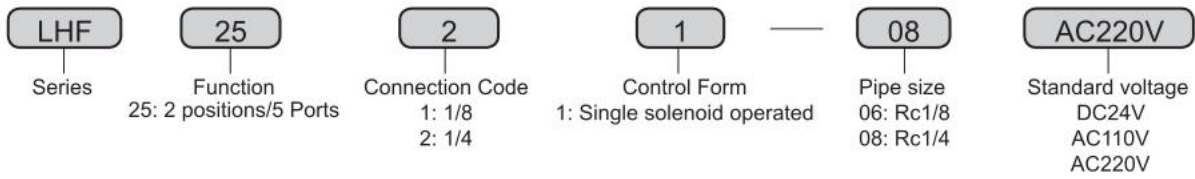
LHF Series Solenoid Valve



● Character

It is a pneumatic valve controlled by micro electric signal, with small dimension, large flow, handsome shape, reliable performance and long service life. It can be installed in the integration.

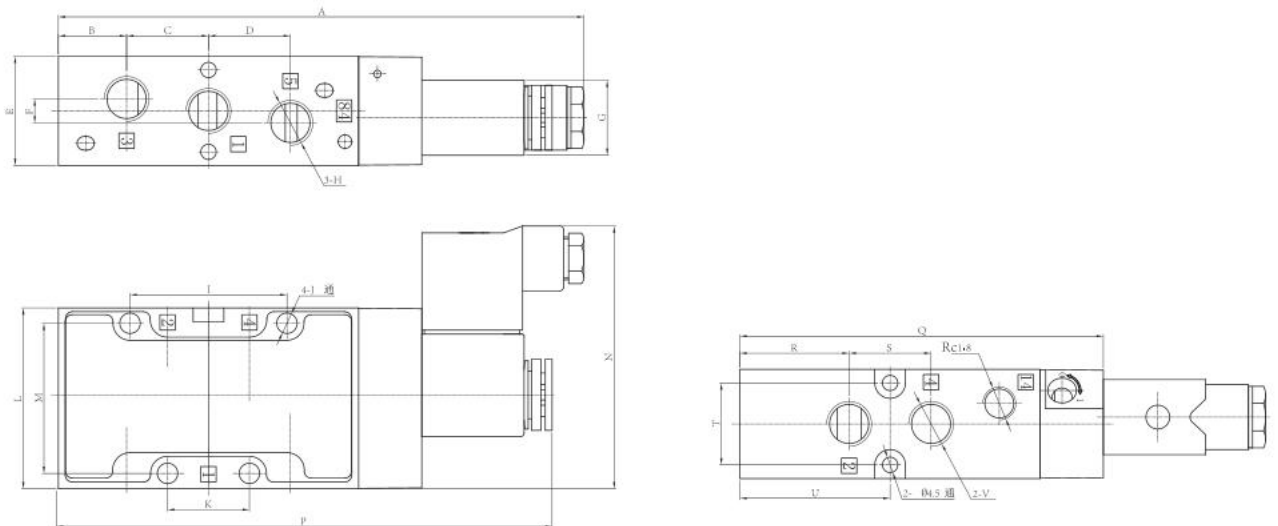
● Ordering Code



■ Technical Parameter

Item	Function	Pipe Size	Applicable Medium	Applicable Pressure Range	Max Action Frequency	Lubrication	Medium Temperature	Power
LHF2511-06	2 Positions/5Ports	Rc1/8	Air	0.25 ~ 0.8MPa	5 Cycles/Sec	Needless	-5 ~ 60°C	AC220V: 5VA DC24V: 4W
LHF2521-08	2 Positions/5Ports	Rc1/4	Air	0.25 ~ 0.8MPa	5 Cycles/Sec	Needless	-5 ~ 60°C	

■ Figure Dimension



Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	V
LHF2511-06	143	17.5	21	21	26	7	22	Rc1/8	41	∅5	21	47	40	73	136	95.5	27.5	22	19.5	38.5	1/8
LHF2521-08	155	20	24	24	32	7	22	Rc1/4	46	∅6	24	53	44	80	146	106.5	32	24	24	44	1/4

LHF Series Solenoid Valve



• LHF100



• LHF200

II

Ordering Code

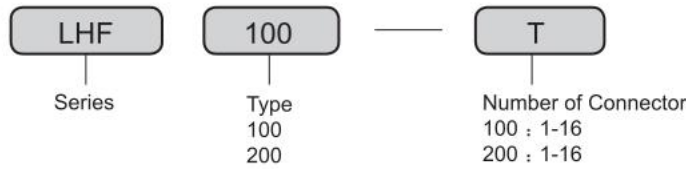
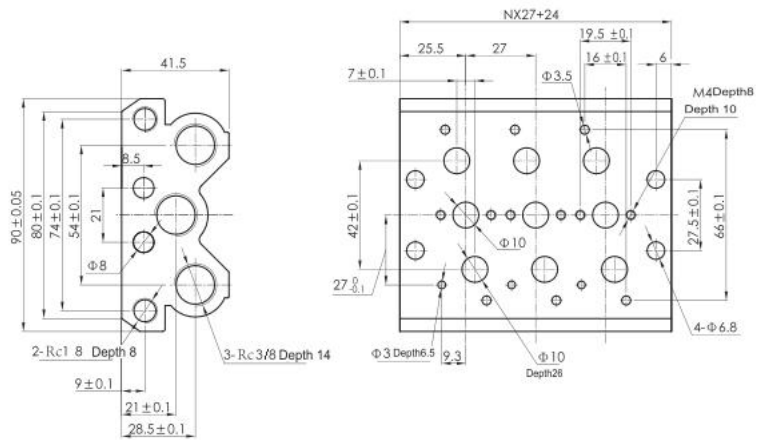
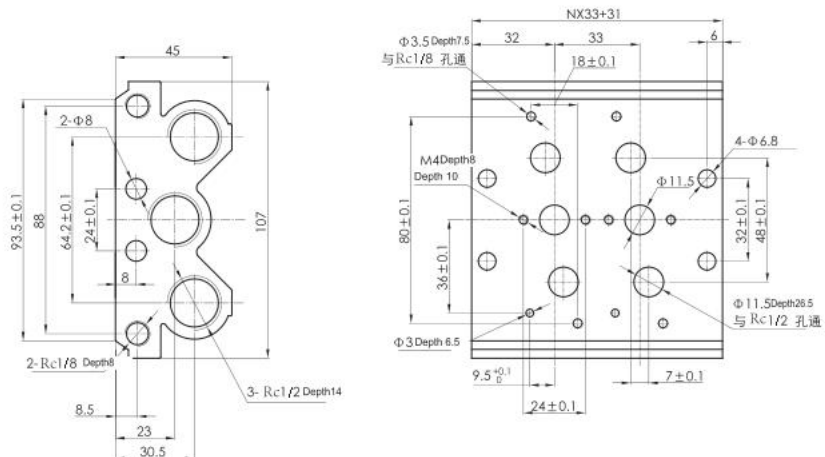


Figure Dimension

• LHF100



• LHF200



**TM Series High Frequency Valve**



• TM-08

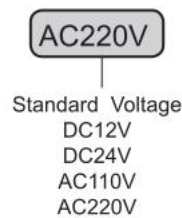
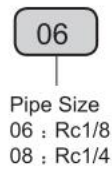
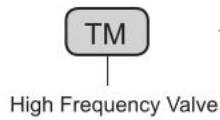


• TM-06

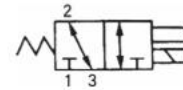
• Character

The high frequency valve of TM series have no influence of working pressure and the performance of large flow with low power for adopting the globe valve with structure of balanced pressure type. Any port of No.1,2,3 can be added pressure, act quickly and be used widely such as air blowing, single function cylinder driving, air current branching, pressure choice and vacuum equipments etc. It can be general used in both normal opened and normal closed.

• Ordering Code



■ Graphics Sign

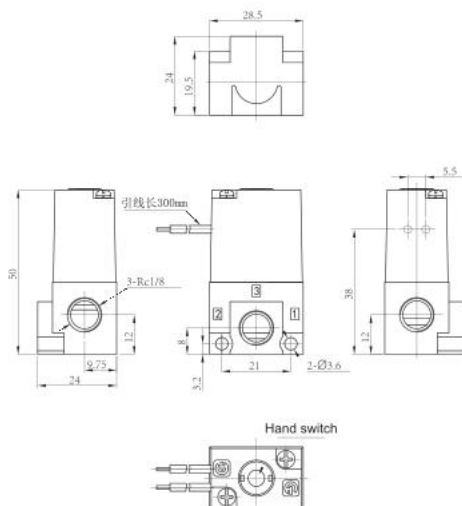


■ Technical Parameter

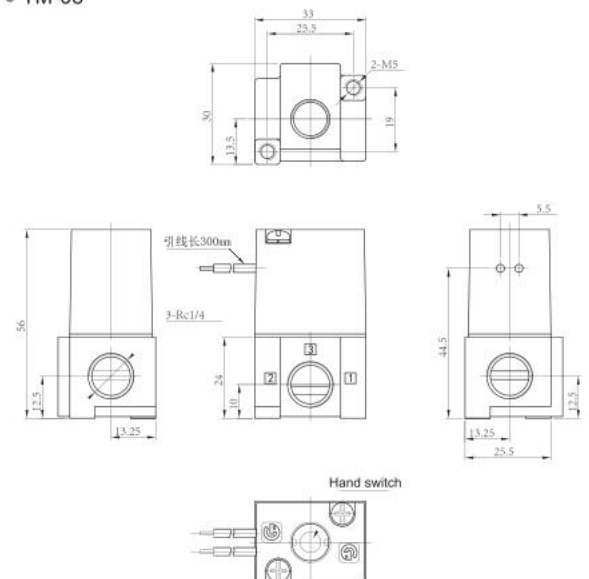
Item / Specification	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Max Action Frequency	Lubrication	Medium Temperature	Power
TM-06	2 Positions/ 3Ports	Rc1/8	3	Air	0 ~ 0.8MPa	Internally Piloted	100 Cycles/Sec	Needless	-5 ~ 60°C	DC12V : 5.7W DC24V: 5.5W
TM-08	2 Positions/ 3Ports	Rc1/4	5							AC220V : 3.7VA DC24V: 7W

■ Figure Dimension

• TM-06



• TM-08



**VT Series High Frequency Valve**

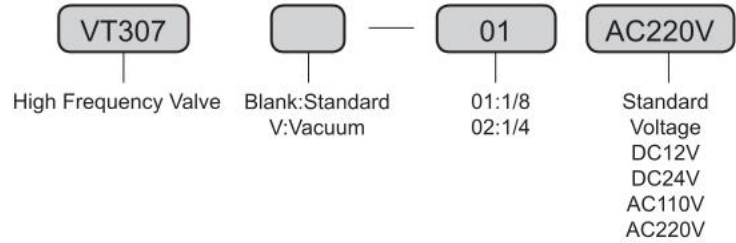


• VT307



• VT307V

• Ordering Code



■ Graphics Sign



■ Solenoid Coil Specification

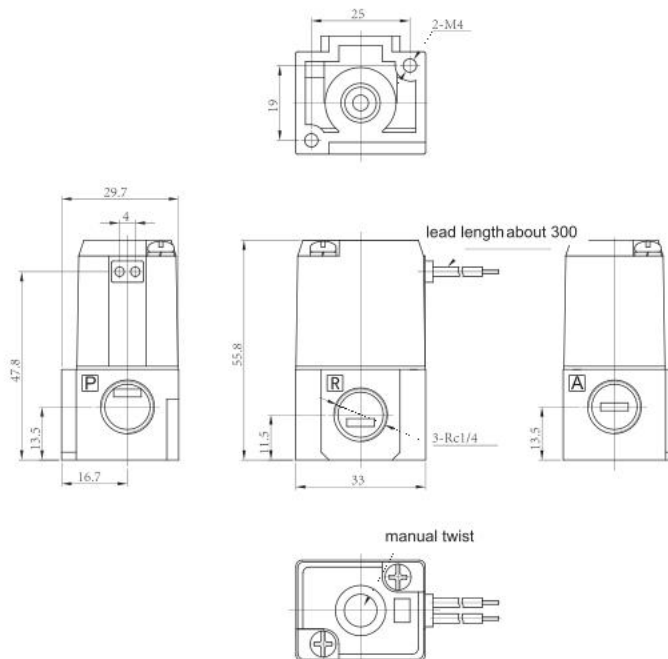
Plug Mode		Lead wire
Standard Voltage		AC : 110V,220V(50Hz) DC : 12V,24V
Allowable voltage range		-15 ~ +10%
Insulated Grade		Class B or Equivalent(130°C)
Temperature		Max 50°C
Power Consumption	AC	Start : 12.7VA, Keep on : 7.6VA
	DC	4.8W

■ Technical Parameter

Applicable Fluid	Air, inert gas
Enginery	Normally open or normally lose
Medium Temperature	-5 ~ 60°C
Respond time	Max 20 millisec
Max action frequency	10 Cycles/Sec
Lubrication	Needless
Hand operating	Without lock
Impulsion force resistane/brisanse	15G/5G(40 ~ 1000Hz)
Protect structure	Dust proof
Pressure Range	0 ~ 0.8MPa
Pipe Size	G1/4

■ Figure Dimension

• VT307



## 3V/4V Series Solenoid Valve

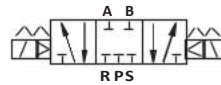


It is a pneumatic valve controlled by micro electric signal with small dimension, large flow, handsome shape, reliable performance and long service life. It can be installed in integration. It is an ideal directional control element, applicable to the electromechanical integration. There are multiple specifications for your choice.



Single Solenoid Operated    Double Solenoid Operated

### Graphics Sign



3 position 5 ports  
closed center



3 position 5 ports  
released center



3 position 5 ports  
pressed center

### Ordering Code

<b>4V</b>	<b>1</b>	<b>10</b>	<b>06</b>	<b>AC220V</b>
Specification Code : 3V : 2 Position/3 Ports 4V : 2 Position/5 Ports 3 Position/5 Ports	Series Code : 1 : 100 series 2 : 200 series 3 : 300 series 4 : 400 series	Control Form : 10 : Single Solenoid Operated 20 : Double Solenoid Operated 30C : 3 position5 ports closed center 30E : 3 position5 ports released center 30P : 3 position5 ports pressed center	Pipe Size : 06 : G1/8 08 : G1/4 10 : G3/8 15 : G1/2	Standard Voltage : DC24V AC110V AC220V

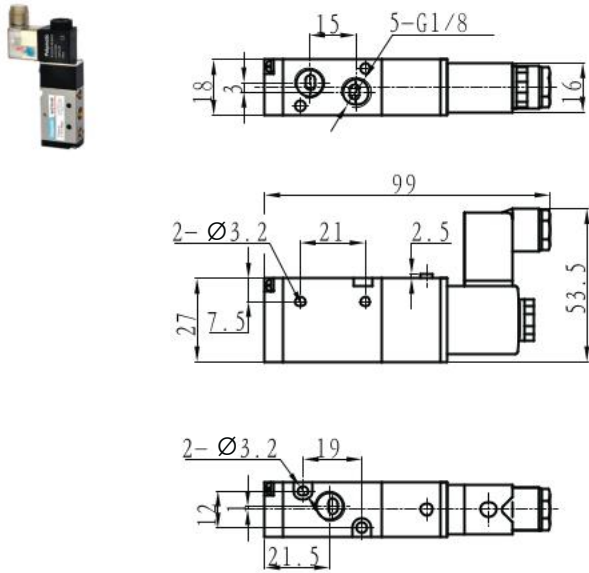
### Technical Parameter

Specification	Structure Type	Pipe Thread	(mm) Nominal Diameter	Applicable Fluid	Pressure Range	Operating Method	Max Action Frequency	Lubrication	Applicable Temperature						
3V110-06	2 Position/ 3 Ports	G1/8	6	Compressed Air	0.15 ~ 0.8 MPa	Internally Piloted	5Cycle/Sec	Not Required	-5 ~ 60 °c						
3V210-08		G1/4	8												
3V310-10		G3/8	10												
3V410-15		G1/2	15												
4V110-06	2 Position/ 5 Ports	G1/8	6												
4V120-06		G1/8	6												
4V210-08		G1/4	8												
4V220-08		G1/4	8												
4V310-10		G3/8	10												
4V320-10		G3/8	10												
4V410-15		G1/2	15												
4V420-15		G1/2	15												
4V130C.E.P-06	3 Position/ 5 Ports	G1/8	6							Compressed Air)	0.2 ~ 0.8 MPa	Internally Piloted	5Cycle/Sec	Not Required	-5 ~ 60 °c
4V230C.E.P-08		G1/4	8												
4V330C.E.P-10		G3/8	10												
4V430C.E.P-15		G1/2	15												

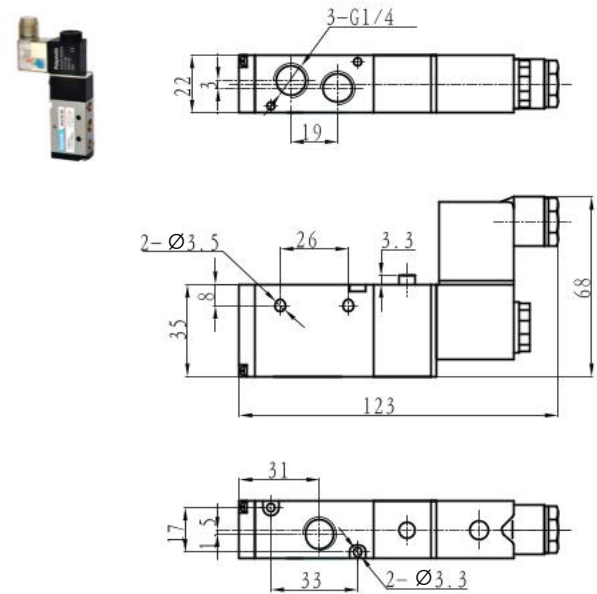
**3V/4V Series Solenoid Valve**

2 Position/3 Ports Solenoid Valve Figure Dimension

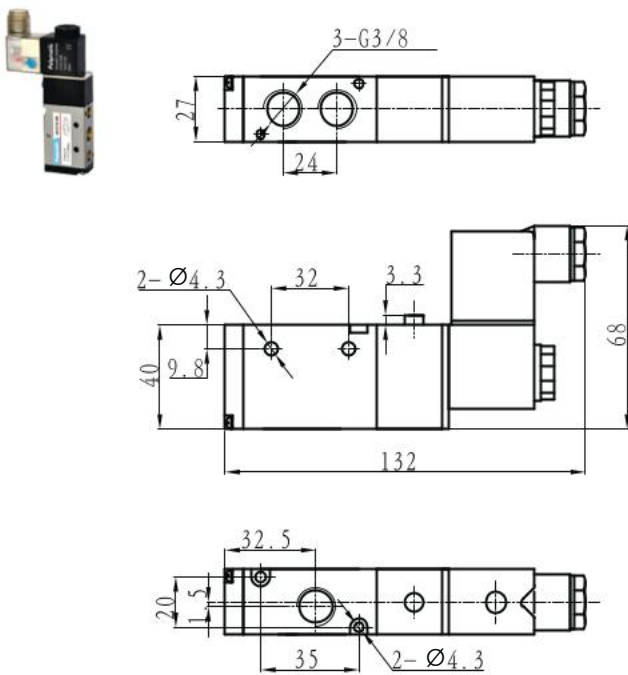
**3V110-06**



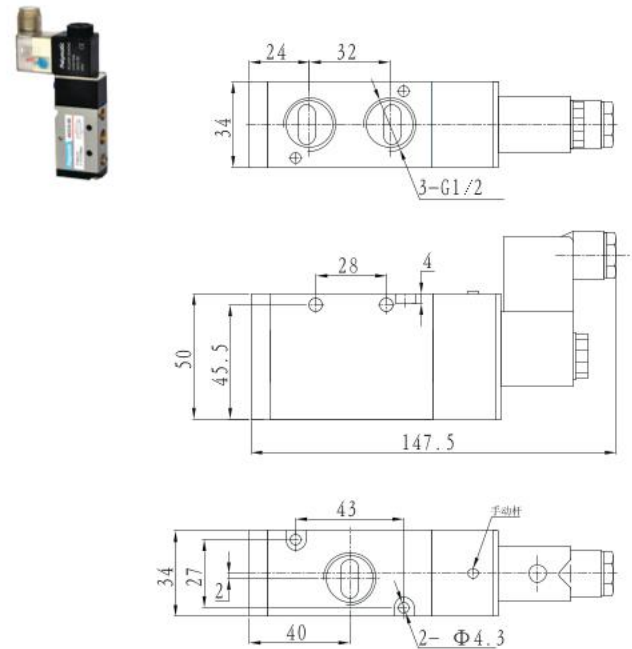
**3V210-08**



**3V310-10**



**3V410-15**



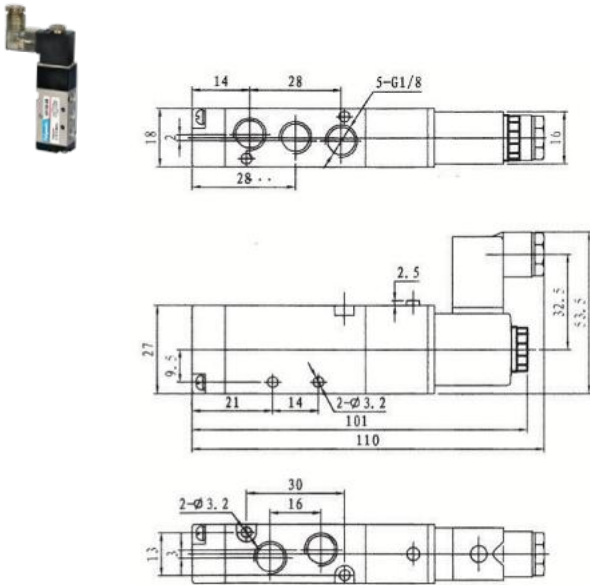
II

**3V/4V Series Solenoid Valve**

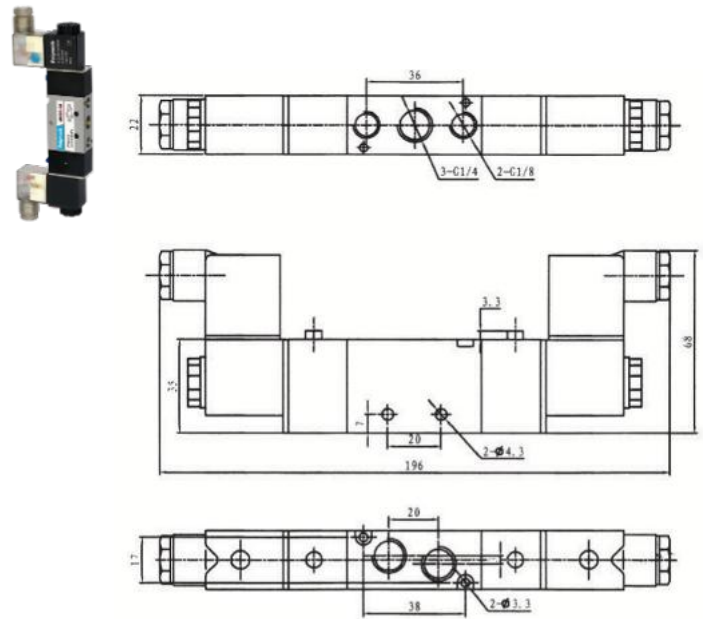
2 Position/5 Ports Solenoid Valve Figure Dimension

II

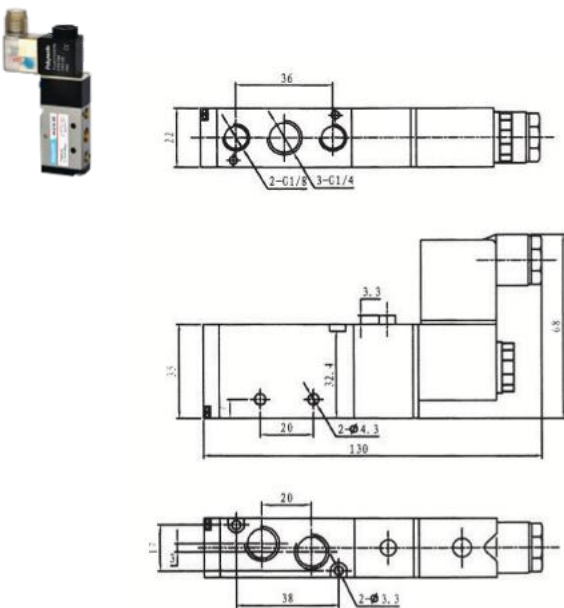
**4V110-06**



**4V220-08**



**4V210-08**

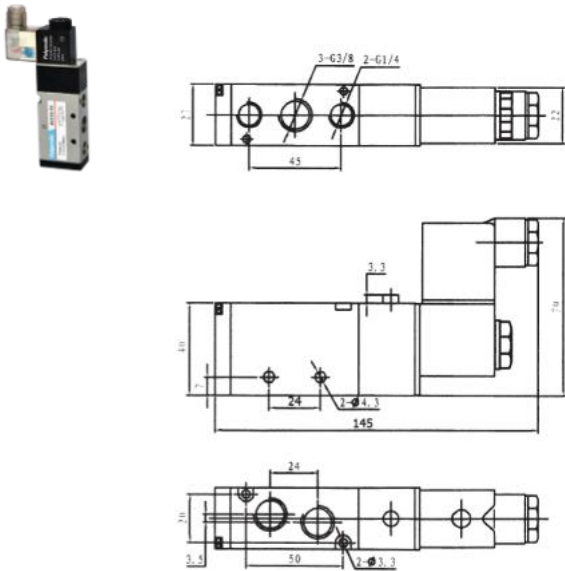


**3V/4V Series Solenoid Valve**

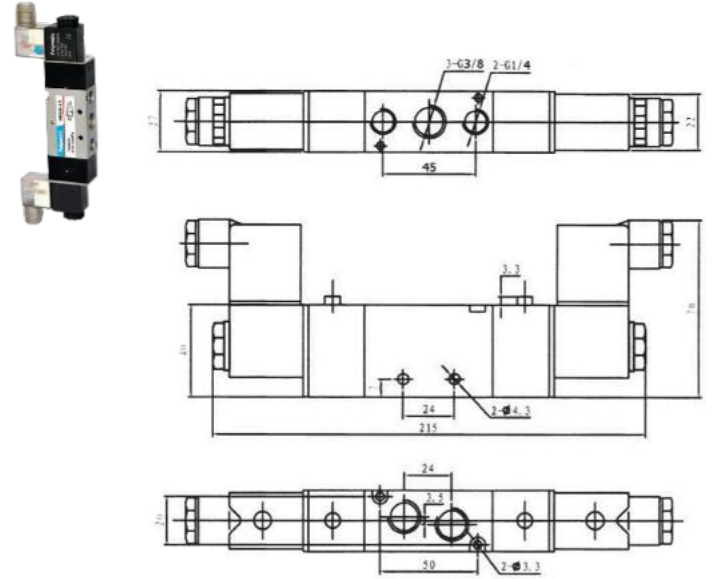
2 Position/5 Ports Solenoid Valve Figure Dimension

II

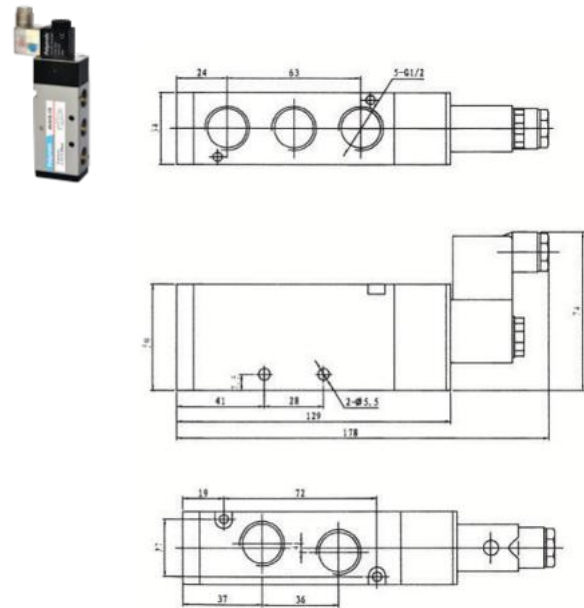
**4V310-10**



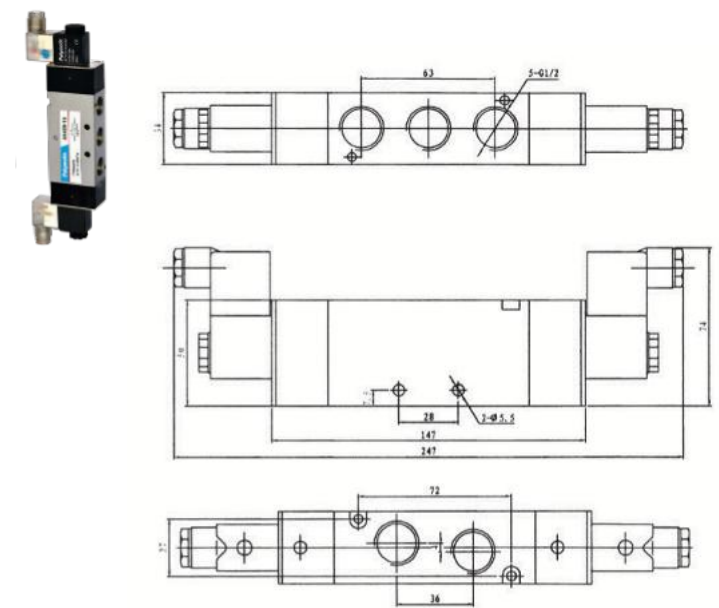
**4V320-10**



**4V410-15**



**4V420-15**

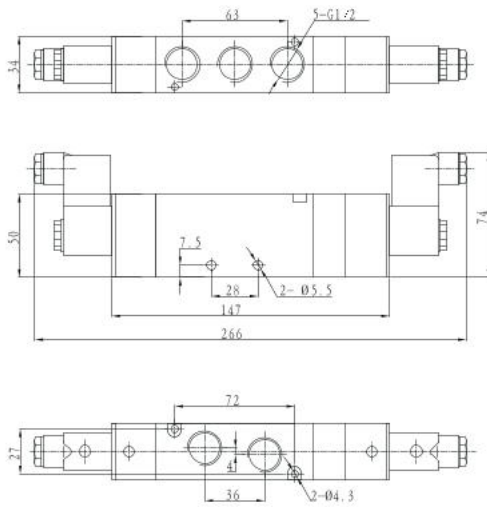


**3V/4V Series Solenoid Valve**

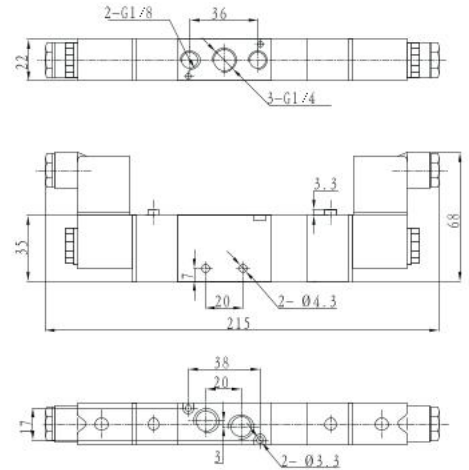
3 Position/5 Ports Solenoid Valve Figure Dimension

II

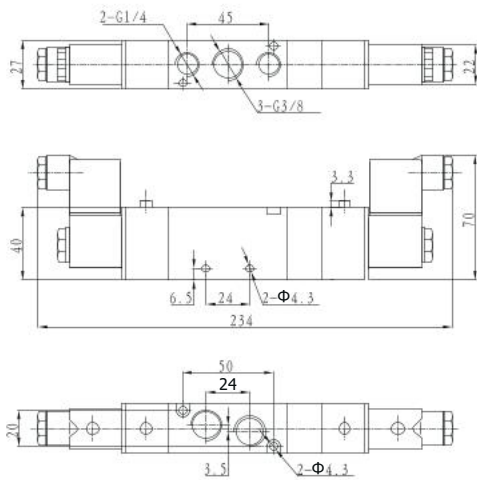
**4V130C-06 4V130E-06 4V130P-06**  
**4V430C-15 4V430E-15 4V430P-15**



**4V230C-08 4V230E-08 4V230P-08**

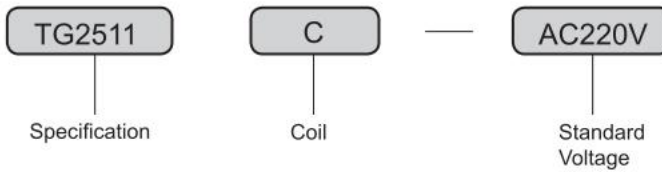


**4V330C-10 4V330E-10 4V330P-10**




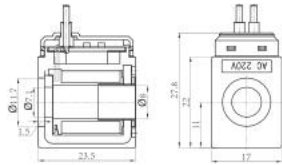

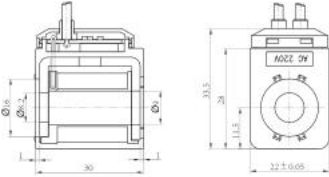

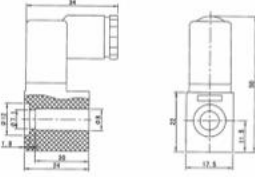

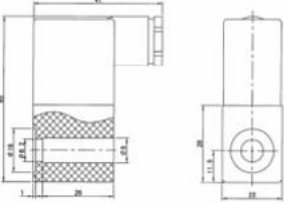
**4V430C-15 4V430E-15 4V430P-15**

• Ordering Code



• Character


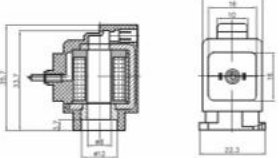

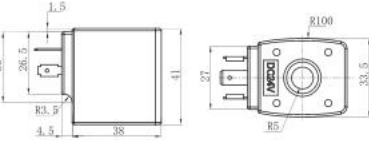

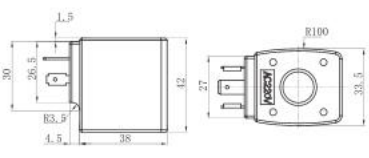

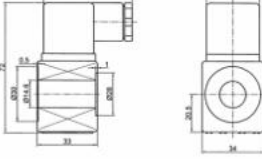

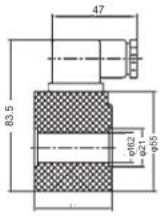

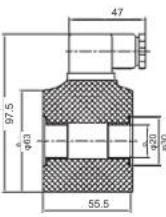
The coils produced by our company are in various types and specifications with handsome shape, reliable performance, long service life, low consumption of power, high and low temperature resistance, good fire resistance and high mechanical strength, it can meet the requirements of different pneumatic elements. They are multiple designed pressures for your choice. Special specifications can be made to order (AC12V~AC380V, DC6V~DC220V).

Type	Power	Picture	Figure Dimension	Suitable Type
TG2511CK-□	AC220V : 3.8VA DC24V : 2.5W			TG2511-06 TG2512-06 TG3512-06
TG2521CK-□	AC220V:5VA DC24V:4.8W			TG2321-08 TG2331-10, TG2521-08 TG2522-08T, G2531-10 TG2532-10T, G2541-15 TG2542-15T, G2521-06 TG2521-08M, TG3522-08C TG3532-10C, FG2521-08 FG2522-08, FG2531-10 FG2532-10
TG2511CT-□	AC220V:4VA DC24V:2.6W			TG2511-06 TG2512-06 TG3512-06
TG2521CL-□S S : Die Cast Coil	AC220V:5VA DC24V:4.8W			TG2321-08 TG2331-10, TG2521-08 TG2522-08T, G2531-10 TG2532-10T, G2541-15 TG2542-15T, G2521-06 TG2521-08M, TG3522-08C TG3532-10C, FG2521-08 FG2522-08, FG2531-10 FG2532-10


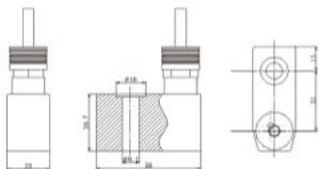

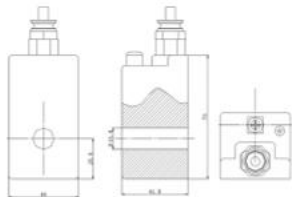

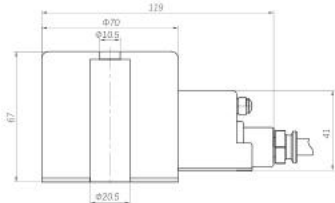

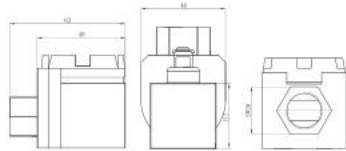


Coil

II

Type	Power	Picture	Figure Dimension	Suitable Type
ZDZ/ZDXC-□	DC24V:2W			ZDZ23-08/04 ZDX23-08/06
GDC□	AC220V:19VA DC24V:15W			GD-06 TD-10 GD-08 TD-15 GY-06 GY-08
UDC□	AC220V:19VA DC24V:15W			UD-06 UD-08
PKC□	AC220V:13VA DC24V:9W			TD-08 TD-10 TD-15 PK-06 PK-08
TUWC	AC220V:12.5W DC24V:22.5W			TUW-10, TUW-15 TUW-25, TWS-10 TWS-15, TWS-20 TWS-25, UWK-15 UWK-20, UWK-25
TUSC	AC220V:20W DC24V:30W			TUS-10, TUS-15, TUS-20 TUS-25, TUS-35, TUS-40 TUS-50  TUW-35, TUW-40 TUW-50, TWS-35, TWS-40 TWS-50

II

Type	Power	Picture	Figure Dimension	Suitable Type
EX0921 Explosion proof coil	AC220V:6VA DC24V:4W			TG2521-08EX TG2522-08EX TG2531-10EX TG2532-10EX TG2541-15EX TG2542-15EX TG3522C.E.P-08EX TG3532C.E.P-10EX TG3542C.E.P-15EX
EX1620 Explosion proof coil	AC220V:26VA DC24V:20W			TUW-10EX TWS-10EX TUW-15EX TWS-15EX TUW-20EX TWS-20EX TUW-25EX TWS-25EX
EX2020 Explosion proof coil	AC220V:70VA DC24V:60W			TUW-35EX TWS-35EX TUW-40EX TWS-40EX TUW-50EX TWS-50EX TUS-35EX TUSS-35EX TUS-40EX TUSS-40EX TUS-50EX TUSS-50EX
TSVC□	DC24V : 3.6W AC220V : 5.0VA AC110V : 3.5VA			TSV2521 TSV2522



3 Positions/4 Ports Manually-turn Valves



• TG34-S-08

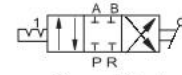


• TG34-S-10

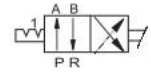


• TG34-S-15

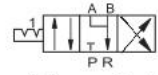
■ Graphics Sign



Closed Center



2 Positions/4 Ports



Release Center

● Ordering Code

TG

TG Series

Function

No Mark : Conjoined handle  
Q : Separate handle

34

Function

24 : 2 Positions/4 Ports  
34 : 3 Positions/4 Ports

S

Control Form  
S : Turning

06

Pipe size  
06 : Rc1/8  
08 : Rc1/4  
10 : Rc3/8  
15 : Rc1/2

E

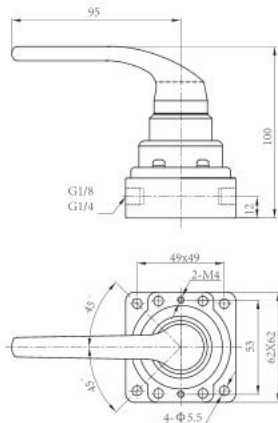
No Mark  
Closed Center  
E : Release Center

■ Technical Parameter

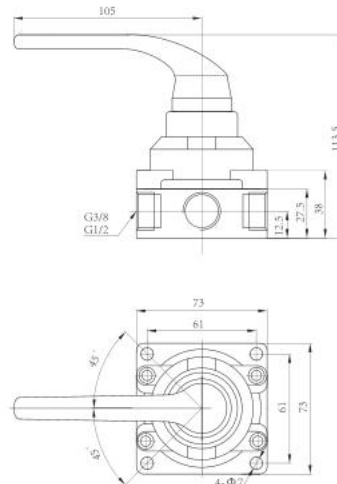
Item	Function	Pipe size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Control Method	Lubrication	Medium Temperature
Specification								
TG24-S-06	2 Positions/4 Ports	G1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TG24-S-08		G1/4	8					
TG24-S-10		G3/8	10					
TG24-S-15		G1/2	15					
TG34-S-06 TG34-S-06E	3 Positions/4 Ports	G1/8	6					
TG34-S-08 TG34-S-08E		G1/4	8					
TG34-S-10 TG34-S-10E		G3/8	10					
TG34-S-15 TG34-S-15E		G1/2	15					

■ Figure Dimension

- TG24-S-06、TG24-S-08
- TG34-S-06、TG34-S-08



- TG24-S-10、TG24-S-15
- TG34-S-10、TG34-S-15



TG Series 3 positions 4 ports manually-turn valve(ceramic seal)



• TGB34-S-08

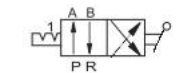


• TGC34-S-15

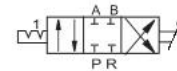


• TGB34-S-15L

■ Graphics Sign

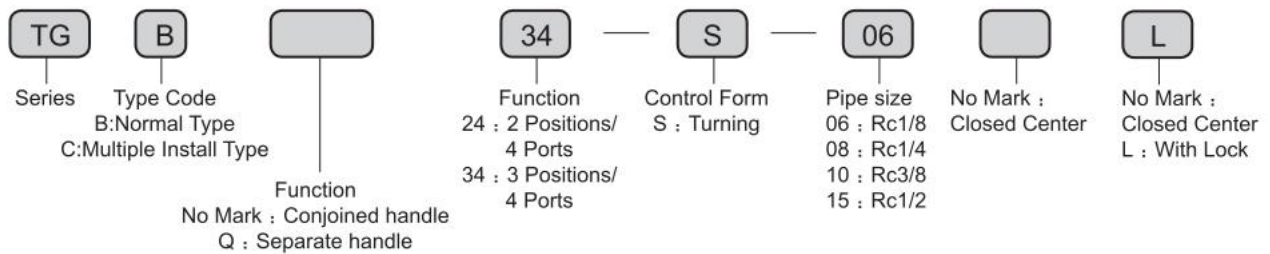


2 Positions/4 Ports



Closed Center

● Ordering Code



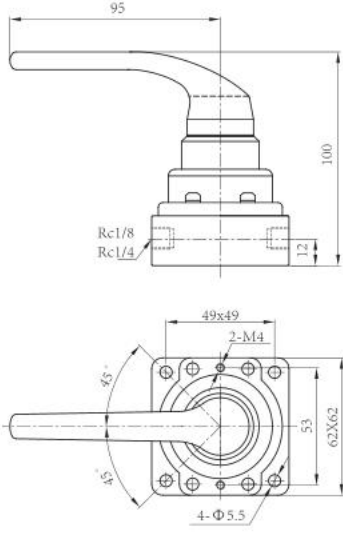
■ Technical Parameter

Item / Specification	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Control Method	Lubrication	Medium Temperature
TGB24-S-06	2 Positions/ 4 Ports	Rc1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TGB24-S-08		Rc1/4	8					
TGB24-S-10		Rc3/8	10					
TGB24-S-15		Rc1/2	15					
TGC24-S-06		Rc1/8	6					
TGC24-S-08		Rc1/4	8					
TGC24-S-10		Rc3/8	10					
TGC24-S-15		Rc1/2	15					
TGB34-S-06 TGB34-S-06L	3 Positions/ 4 Ports	Rc1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TGB34-S-08 TGB34-S-08L		Rc1/4	8					
TGB34-S-10 TGB34-S-10L		Rc3/8	10					
TGB34-S-15 TGB34-S-15L		Rc1/2	15					
TGB34-S-20 TGC34-S-20		Rc3/4	20					
TGB34-S-25 TGC34-S-25		Rc1	25					
TGC34-S-06 TGC34-S-06L		Rc1/8	6					
TGC34-S-08 TGC34-S-08L		Rc1/4	8					
TGC34-S-10 TGC34-S-10L		Rc3/8	10					
TGC34-S-15 TGC34-S-15L		Rc1/2	15					

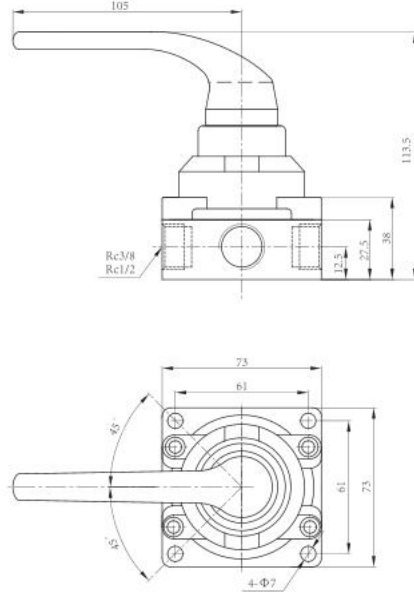
TG Series 3 positions 4 ports manually-turn valve(ceramic seal)

■ Figure Dimension

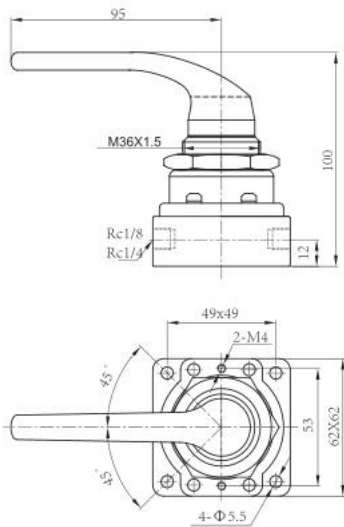
- TGB24-S-06    ● TGB34-S-06
- TGB24-S-08    ● TGB34-S-08



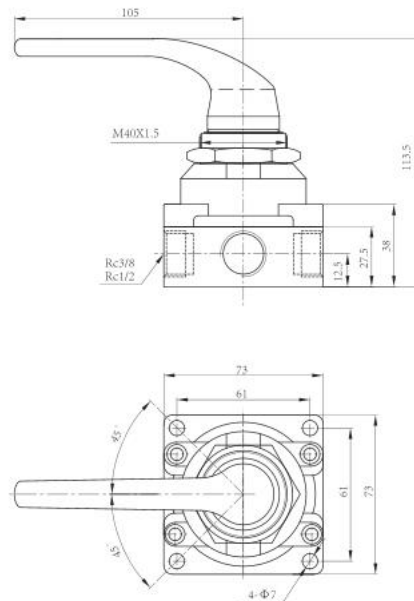
- TGB24-S-10    ● TGB34-S-10
- TGB24-S-15    ● TGB34-S-15



- TGC24-S-06    ● TGC34-S-06
- TGC24-S-08    ● TGC34-S-08



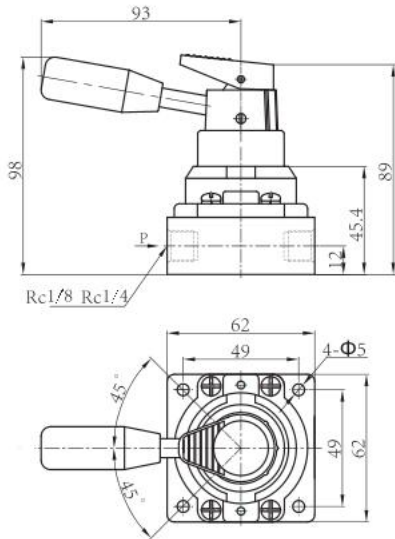
- TGC24-S-10    ● TGC34-S-10
- TGC24-S-15    ● TGC34-S-15



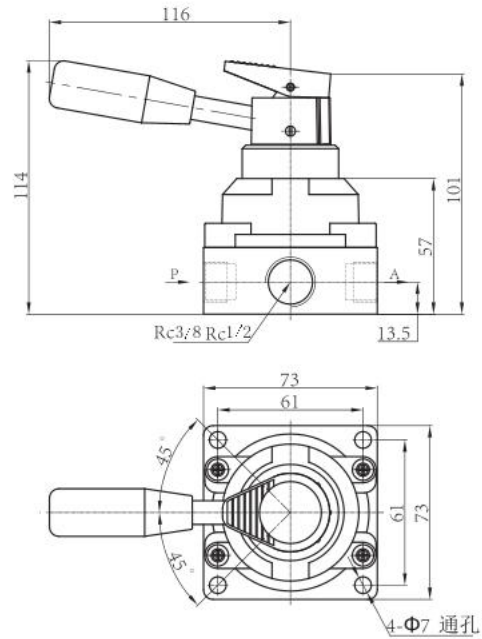
TG Series 3 positions 4 ports manually-turn valve(ceramic seal)

■ Figure Dimension

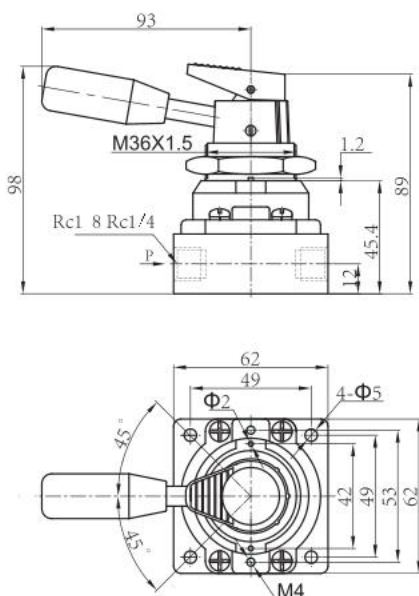
- TGBQ34-S-06L
- TGBQ34-S-08L



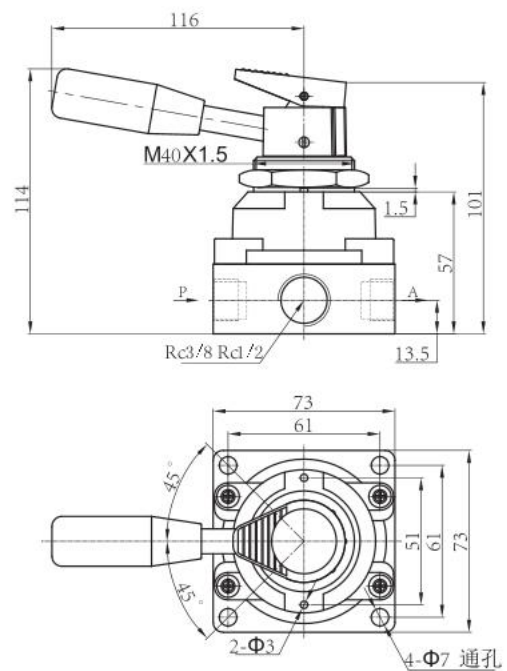
- TGBQ34-S-10L
- TGBQ34-S-15L



- TGCQ34-S-06L
- TGCQ34-S-08L



- TGCQ34-S-10L
- TGCQ34-S-15L

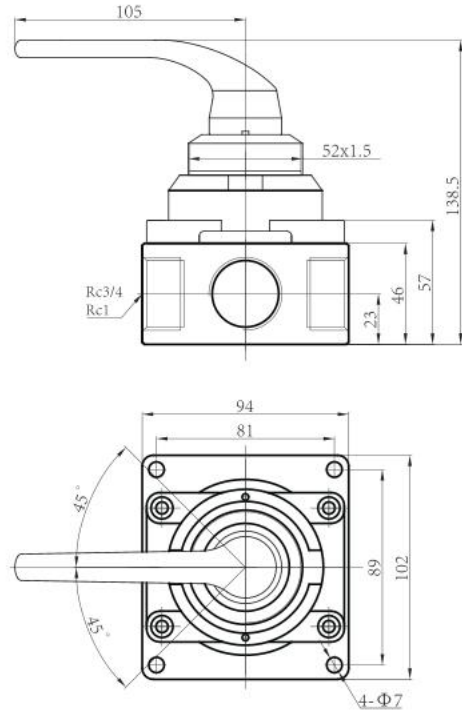
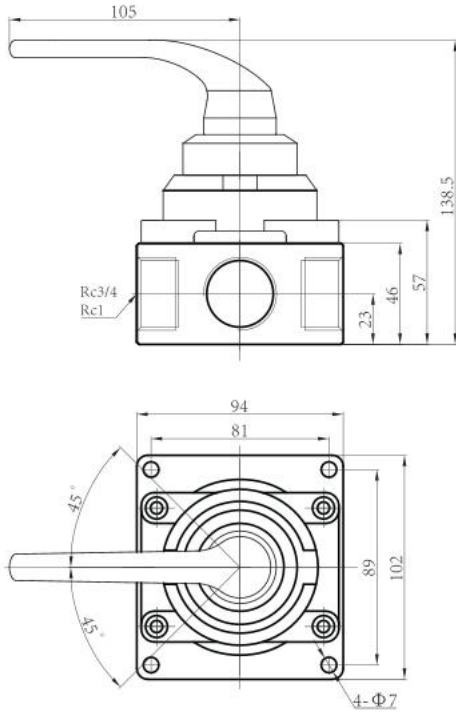


TG Series 3 positions 4 ports manually-turn valve(ceramic seal)

■ Figure Dimension

- TGBQ34-S-20
- TGBQ34-S-25

- TGCQ34-S-20
- TGCQ34-S-25



III

3 Positions/4 Ports Valves(Ports On The Bottom)



• TGA34-S-06

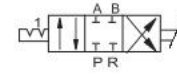


• TGA34-S-08



• TGA34-S-10

■ Graphics Sign



Closed Center



Release Center

● Ordering Code

TG

Series

A

Type

A:Bottom connect way

Function

No Mark : Conjoined handle  
Q : Separate handle

34

Function

24 : 3 Positions/  
4 Ports  
34 : 3 Positions/  
4 Ports

S

Control Form

S : Turning

06

Pipe size

06 : Rc1/8  
08 : Rc1/4  
10 : Rc3/8  
15 : Rc1/2

E

No Mark

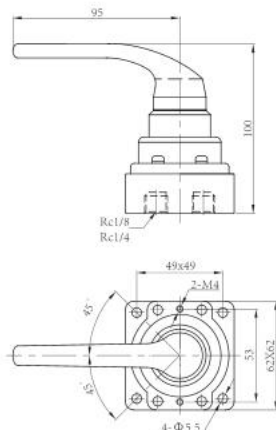
Closed Center  
E : Release Center

■ Technical Parameter

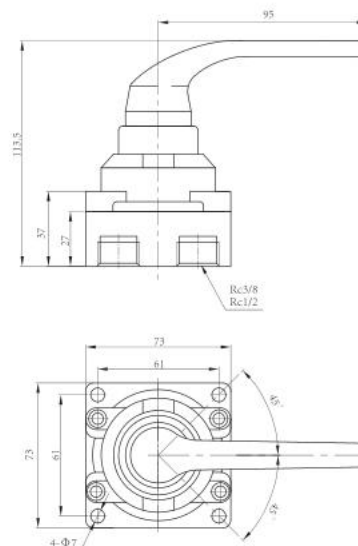
Item	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Control Method	Lubrication	Medium Temperature
TGA34-S-06	3 Positions/ 4 Ports	Rc1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TGA34-S-08		Rc1/4	8					
TGA34-S-10		Rc3/8	10					
TGA34-S-15		Rc1/2	15					
TGA34-S-06E		Rc1/8	6					
TGA34-S-08E		Rc1/4	8					
TGA34-S-10E		Rc3/8	10					
TGA34-S-15E		Rc1/2	15					

■ Figure Dimension

● TGA34-S-06, TGA34-S-08



● TGA34-S-10, TGA34-S-15



**TG series Hand Valve**

● **Charatcer** Product design, compact, good looks, with the operating force, easy to use and so on. Pneumatic devices were widely used in control devices.

● **Ordering Code**

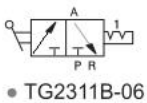
<b>TG</b>	<b>25</b>	<b>2</b>	<b>1B</b>	<b>06</b>	<b>C</b>	<b>M</b>
Series	Function	Connection Code	Control Form Hand Lever	Pipe Size	Working Mode	Working Mode
	23 : 2 Positions/3Ports 25 : 2 Positions/5Ports 35 : 3 Positions/5Ports	1 : 1/8 2 : 1/4 3 : 3/8 4 : 1/2		06 : Rc1/8 08 : Rc1/4 10 : Rc3/8 15 : Rc1/2	No Mark : 2 Positions C : 3 Positions Closed Center E : 3 Positions Release Center	No Mark : Normal Type M : Multiple location instllation

■ **Technical Parameter**

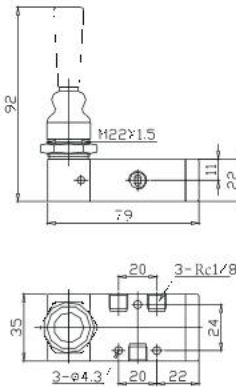
Item	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Lubrication	Medium Temperature
TG2311B-06	2 Positions/ 3 Ports	Rc1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TG2321B-08		Rc1/4	8					
TG2511B-06	2 Positions/ 5 Ports	Rc1/8	8					
TG2521B-08		Rc1/4	8					
TG2521B-08M		Rc1/4	8					
TG2531B-10		Rc3/8	10					
TG2541B-15		Rc1/2	15					
TG3521B-08C	3 Positions/ 5 Ports	Rc1/4	8					
TG3531B-10C		Rc3/8	10					
TG3541B-15C		Rc1/2	15					

■ **Figure Dimension**

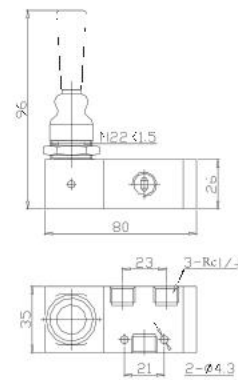
**2 Positions/3 Ports Hand Valve**



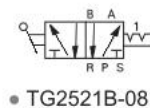
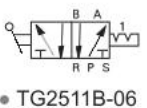
● TG2311B-06



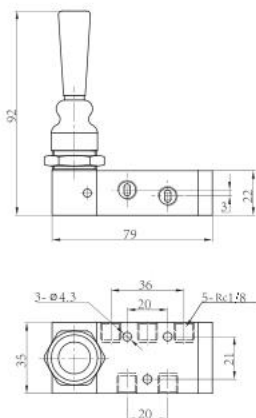
● TG2321B-08



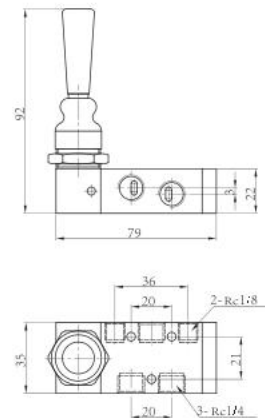
**2 Positions/5 Ports Hand Valve**



● TG2511B-06



● TG2521B-08



**TG series Hand Valve**

**2 Positions/5 Ports Hand Valve**

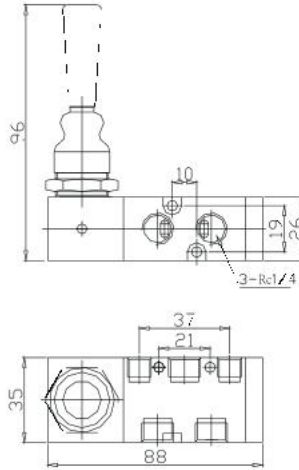


• TG2521B-08M

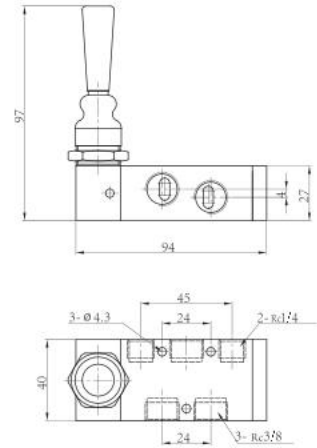


• TG2531B-10

• TG2521B-08M



• TG2531B-10

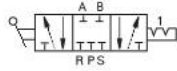


**2 Positions/5 Ports Hand Valve**



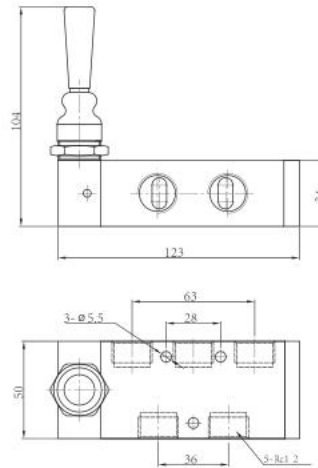
• TG2541B-15

**3 Positions/5 Ports Hand Valve**

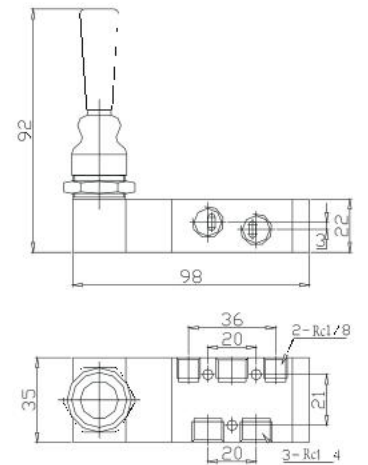


• TG3521B-08C

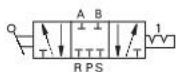
• TG2541B-15



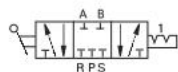
• TG3521B-08C



**3 Positions/5 Ports Hand Valve**

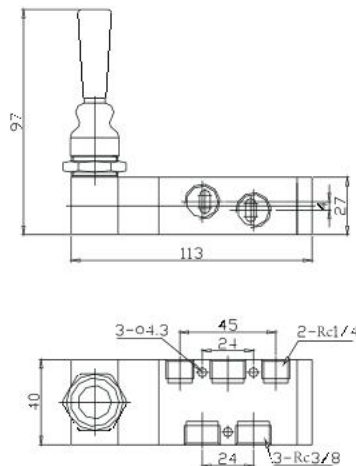


• TG3531B-10C

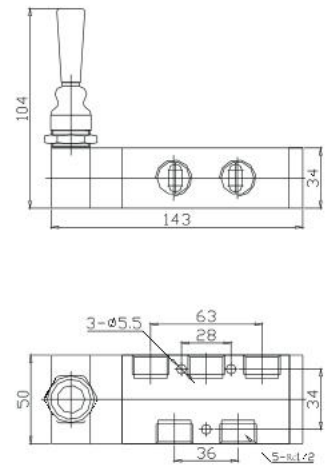


• TG3541B-15C

• TG3531B-10C



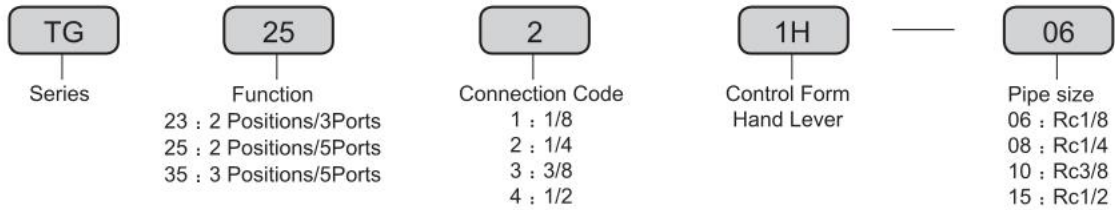
• TG3541B-15C



TG series hand valve

- **Character** Product design, compact, good looks, with the operating force, easy to use and so on. Pneumatic devices were widely used in control devices.

- **Ordering Code**



■ **Technical Parameter**

Item Specification	Function	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Operating Method	Lubrication	Medium Temperature
TG2311H-06	2 Positions/ 3 Ports	Rc1/8	6	Air	0 ~ 1.0MPa	Manually Control	Needless	-5 ~ 60°C
TG2321H-08		Rc1/4	8					
TG2331H-10		Rc3/8	10					
TG2341H-15		Rc1/2	15					
TG2511H-06	2 Positions/ 5 Ports	Rc1/8	6					
TG2521H-08		Rc1/4	8					
TG2531H-10		Rc3/8	10					
TG2541H-15		Rc1/2	15					
TG2511H-06C	3 Positions/ 5 Ports	Rc1/8	6					
TG2521H-08C		Rc1/4	8					
TG2531H-10C		Rc3/8	10					
TG2541H-15C		Rc1/2	15					

**TG series hand valve**

■ Figure Dimension

2 Positions/3 Ports



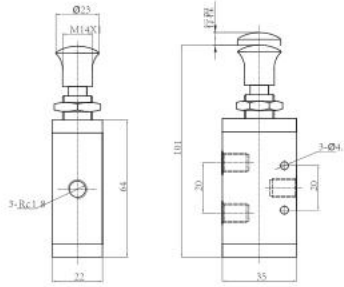
• TG2311H-06

2 Positions/5 Ports

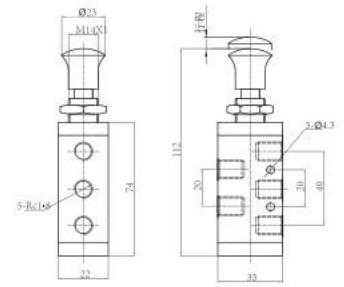


• TG2511H-06

• TG2311H-06



• TG2511H-06



2 Positions/3 Ports



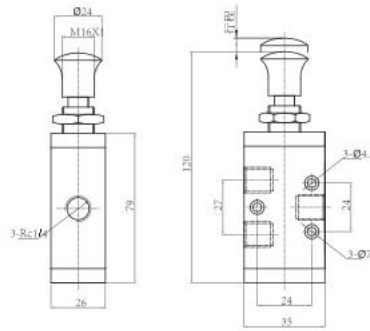
• TG2321H-08

2 Positions/5 Ports

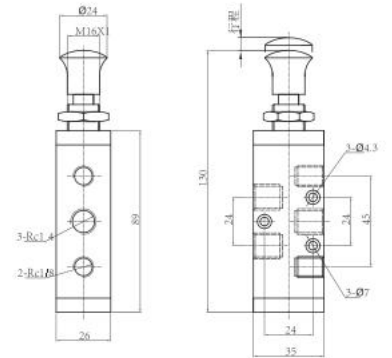


• TG2521H-08

• TG2321H-08



• TG2521H-08

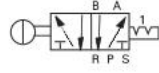


2 Positions/3 Ports



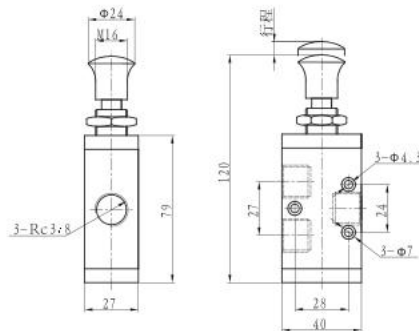
• TG2331H-10

2 Positions/5 Ports

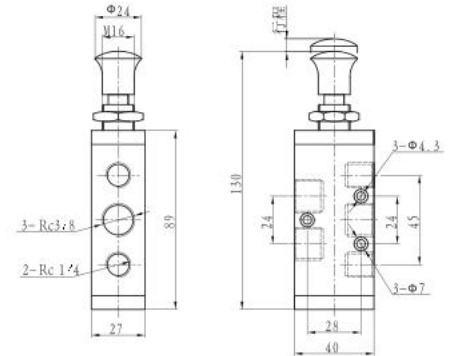


• TG2531H-10

• TG2331H-10



• TG2531H-10



**G Series Manifold**



• G100-5T

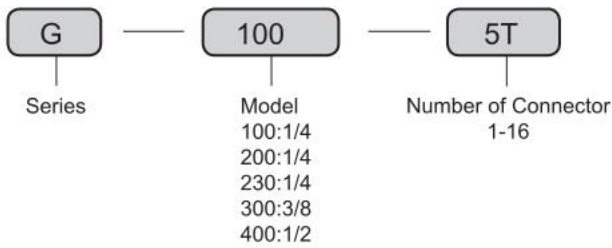
• G200-5T

• G300-5T

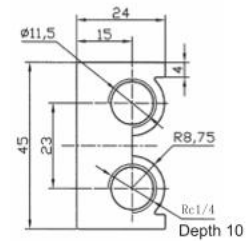
• G400-5T

• G230-5T

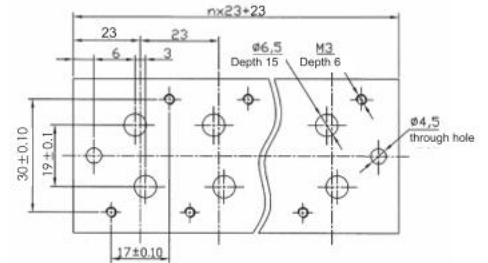
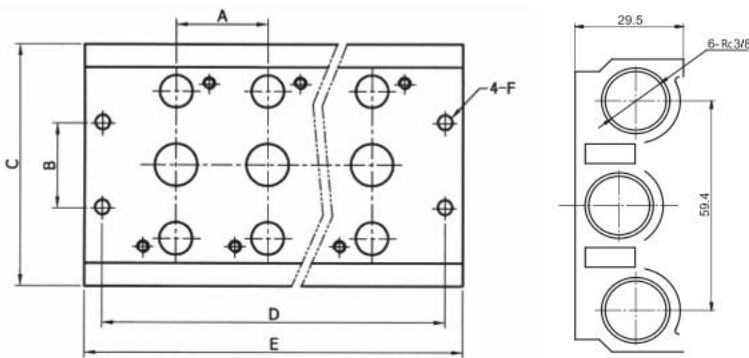
• Ordering Code



■ Figure Dimension (G230)



■ Figure Dimension



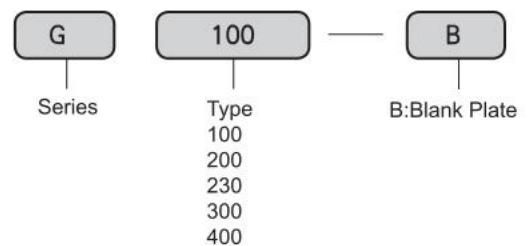
Manifold Type	A	B	C	D	E	F	G	H	I
G100□T	19	20	58	19(n-1)+28	19(n-1)+38	φ4.5	Rc1/4	40	25
G200□T	23	20	60	23(n-1)+35	23(n-1)+46	φ4.5	Rc1/4	42	25
G300□T	28	26	74	28(n-1)+45	28(n-1)+56	φ4.5	Rc3/8	50	30
G400□T	35	32	100	35(n-1)+56	35(n-1)+70	φ4.5	Rc1/2	65	41

**Blank Plate For G Series Manifold**



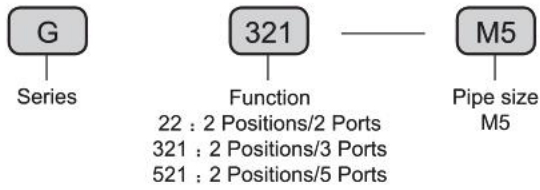
• G200-B

• Ordering Code



**Mechanical Valve**

• Ordering Code



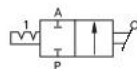
• Character

Product design, compact, good looks, with the operating force, easy to use and so on. Pneumatic devices were widely used in control devices.

■ Technical Parameter

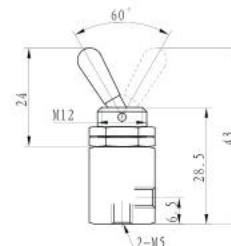
Item \ Specification	G22-M5	G321-M5	G521-M5
Medium Temperature		-5 ~ 60°C	
Pressure Range		0 ~ 1.0 MPa	
Lubrication		Needless	
Pipe Size		M5	
Control Form		Hand	
Applicable Medium		Air	
Function		Brass	
Material of body	2 Positions/2 Ports	2 Positions/3 Ports	2 Positions/5 Ports

2 Positions/2 Ports



• G22-M5

• G22-M5

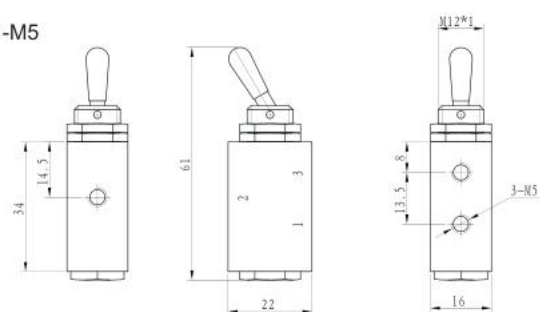


2 Positions/3 Ports



• G321-M5

• G321-M5

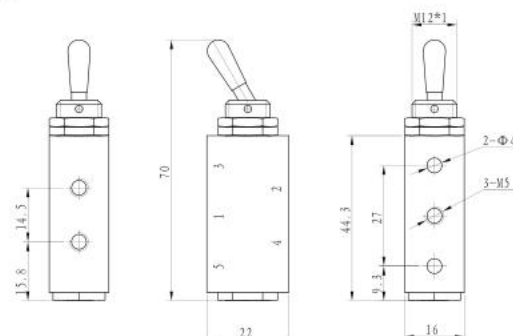


2 Positions/5 Ports



• G521-M5

• G521-M5



**G series Manually Valve/Mechanical Valve**

● Ordering Code

**G**

Series

**322A**

Function  
322A : 2 Positions/3Ports  
522A : 2 Positions/5Ports

**06**

Pipe size  
06 : Rc1/8

**R**

Push Button Type  
No Mark : Hand  
R : Roller lever

● Character

Product design, compact, good looks, with the operating force, easy to use and so on. Pneumatic devices were widely used in control devices.

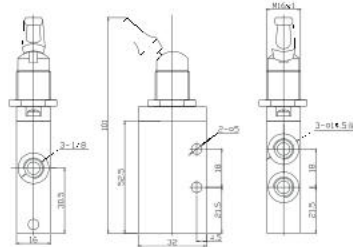
■ Technical Parameter

Item Specification	Function	Pipe size	Nominal Diameter (mm)	Applicable Medium	Pressure Range	Operating Method	Lubrication	Medium Temperature
G322A	2 Positions/ 3Ports	Rc1/8	6	Compress Air Inert gas	0 ~ 1.0MPa	Basic type	Needless	-5 ~ 60°C
G322A-06		Rc1/8	6			Hand		
G322A-06R		Rc1/8	6			Roller lever		
G522A	2 Positions/ 5Ports	Rc1/8	6			Basic type		
G522A-06		Rc1/8	6			Hand		
G522A-06R		Rc1/8	6			Roller lever		

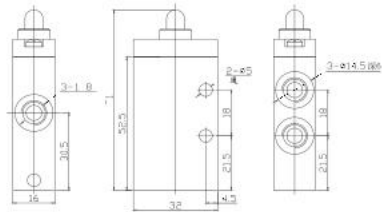
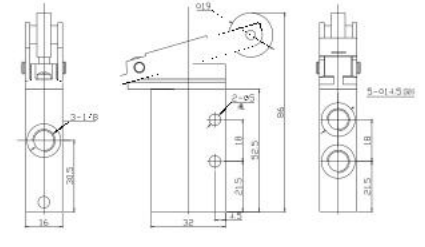
2 Positions/3 Ports Manually Valve/Mechanical Valve



● G322A-06



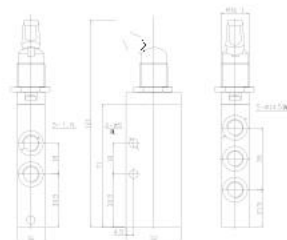
● G322A-06R



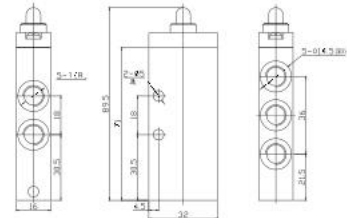
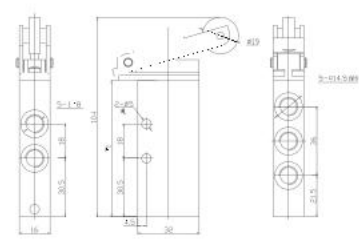
2 Positions/5 Ports Manually Valve/Mechanical Valve



● G522A-06



● G522A-06R



2 Positions/3 Ports Mechanical Valve

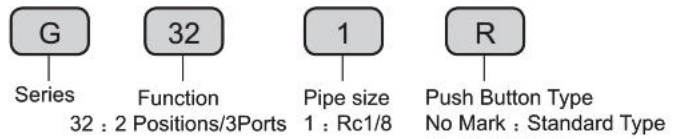


III

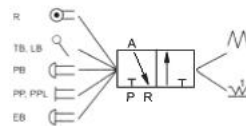
■ Technical Parameter

Specification	G321R, PP, PPL, PB, EB, TB, LB
Applicable Medium	Air
Pressure Range	0 ~ 1.0MPa
Control Method	Mechanical Control, Manually Control
Lubrication	Needless
Medium Temperature	-5 ~ 60°C
The Button's Standard Color	Black : LB Red : PP,PPL,PB,EB,TB
The Button's Color Available	green, black : PP,PPL,PB,TB

● Ordering Code

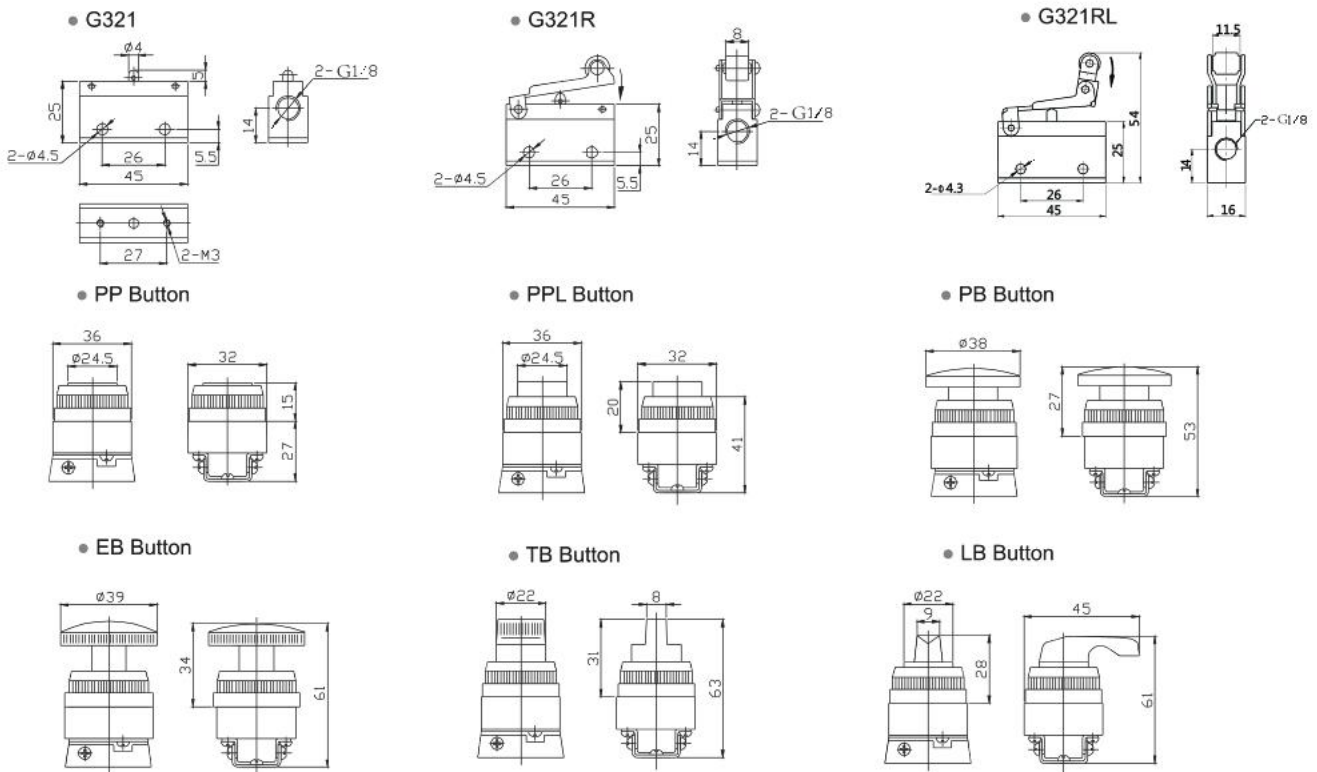


■ Graphics Sign



- No Mark : Standard Type
- R : Roller lever
- PP : Palm button
- PPL : Protruding Type
- PB : Palm actuator
- EB : Palm latching actuator
- TB : Turning actuator
- LB : Lever actuator
- RL : Pilot operated one-way roller
- XR : Pilot roller type

■ Figure Dimension



Panel setting port(PB, EB)

Panel setting port (PP, PPL, TB, LB)



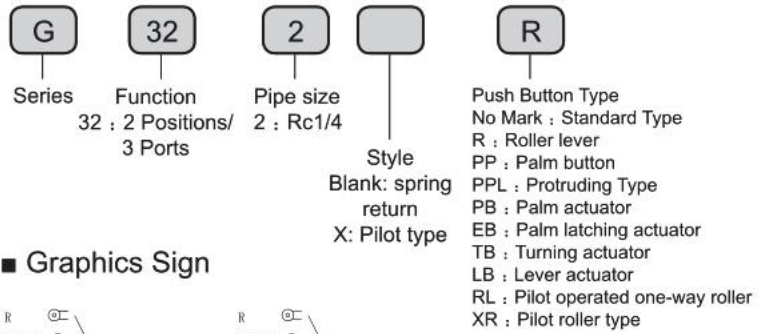
2 Positions/3 Ports Mechanical Valve



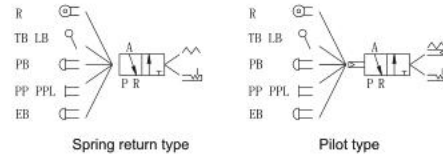
■ Technical Parameter

Specification	G322R、PP、PPL、PB、EB、TB、LB
Applicable Medium	Air
Pressure Range	0 ~ 1.0MPa
Control Method	Mechanical Control, Manually Control
Lubrication	Needless
Medium Temperature	-5 ~ 60℃
The Button's Standard Color	black : LB red : PP,PPL,PB,EB,TB
The Button's Color Available	green, black : PP,PPL,PB,TB

● Ordering Code

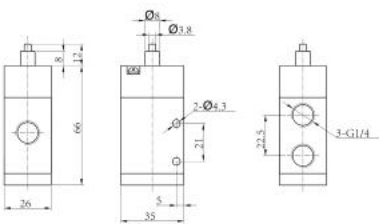


■ Graphics Sign

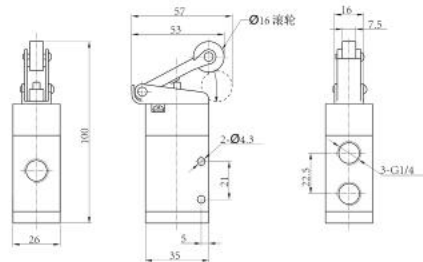


■ Figure Dimension

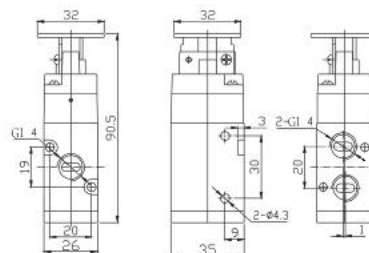
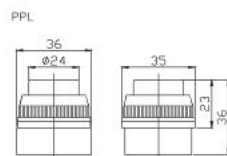
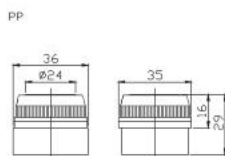
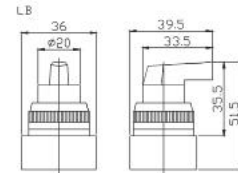
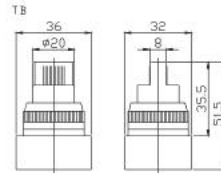
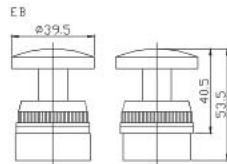
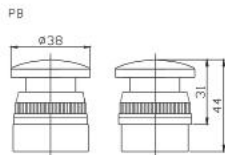
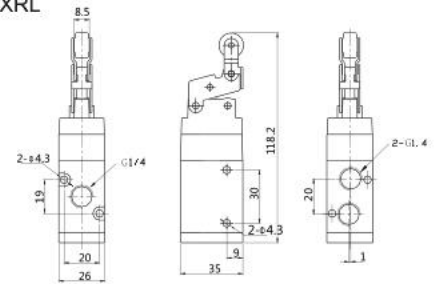
● G322



● G322R



● G322XRL



2 Positions/5 Ports Mechanical Valve

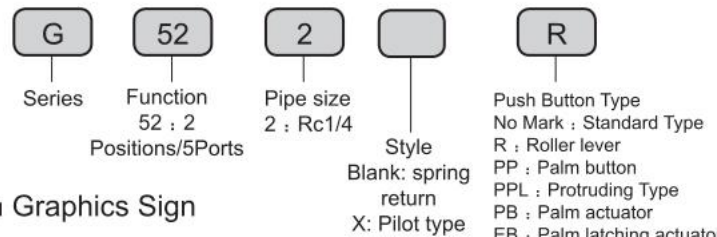


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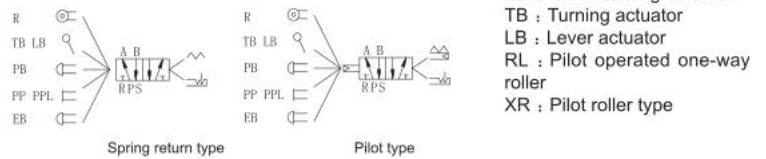
■ Technical Parameter

Specification	G522R、PP、PPL、PB、EB、TB、LB
Applicable Medium	Air
Pressure Range	0 ~ 1.0MPa
Control Method	Mechanical Control、Manually Control
Lubrication	Needless
Medium Temperature	-5 ~ 60℃
The Button's Standard Color	black : LB red : PP,PPL,PB,EB,TB
The Button's Color Available	green, black : PP,PPL,PB,TB

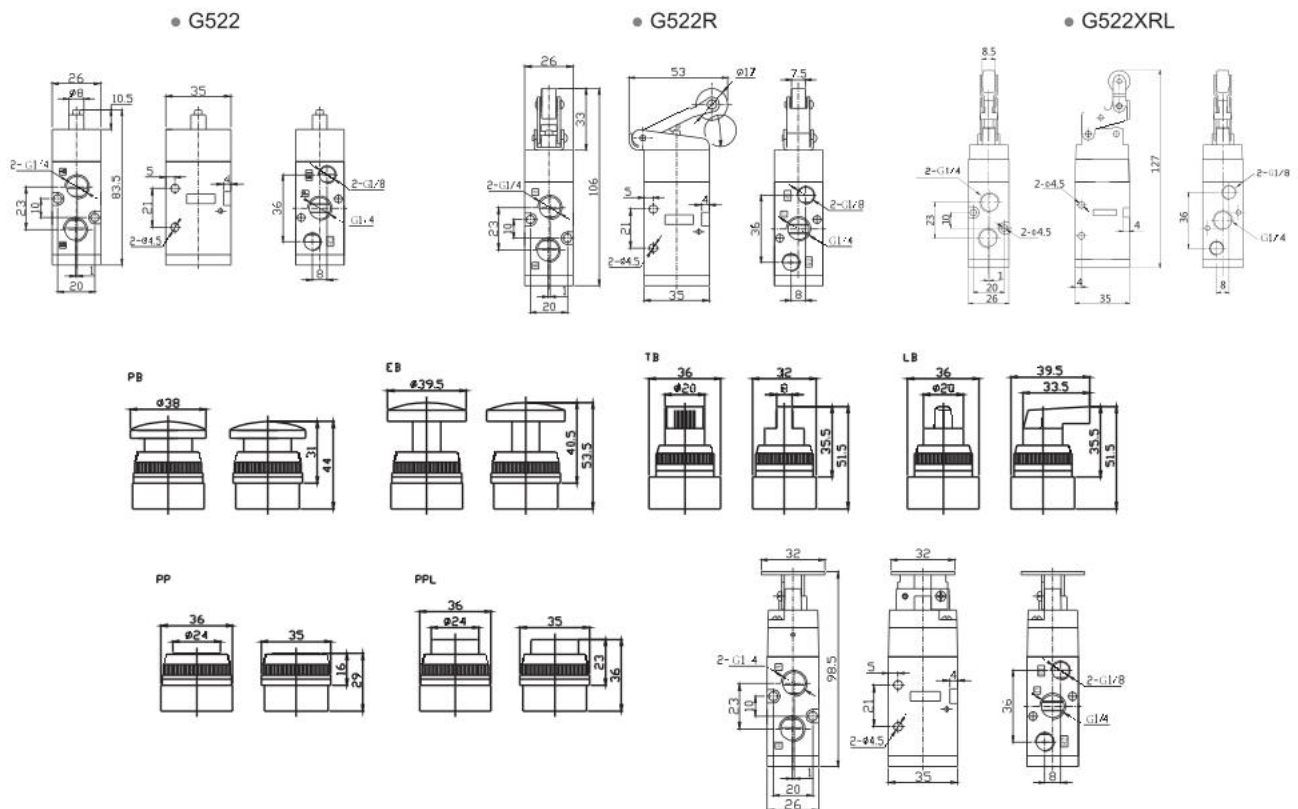
■ Ordering Code



■ Graphics Sign

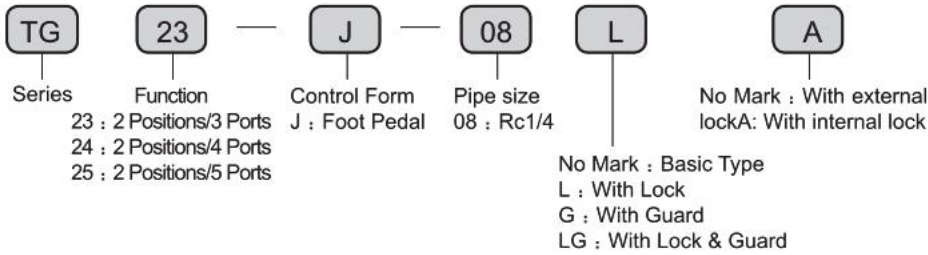


■ Figure Dimension



**TG Series Foot Valve**

● Ordering Code



● Character

It is a foot control valve, widely applied to all kinds of pneumatic system. With small operation force, and emancipation of hands. The R and P ports of two-position & three-port valve can be interchangeable to change the normally close to normally open.

■ Technical Parameter

Specification	Item	Function	Pipe size	Nominal Diameter (mm)	Applicable Medium	Pressure Range	Operating Method	Lubrication	Medium Temperature
TG23-J-08		2 Positions/3 Ports	Rc1/4	8	Air	0 ~ 0.8MPa	Foot	Needless	-5 ~ 60°C
TG24-J-08		2 Positions/4 Ports	Rc1/4	8					
TG25-J-08		2 Positions/5 Ports	Rc1/4	8					
TG25-J-08L		2 Positions/5 Ports	Rc1/4	8					
TG25-J-08G		2 Positions/5 Ports	Rc1/4	8					
TG25-J-08LG		2 Positions/5 Ports	Rc1/4	8					

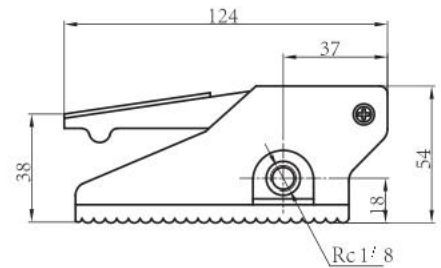
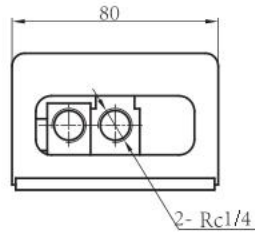
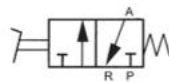
■ Figure Dimension

2 Positions/3 Ports Foot Valve

● TG23-J-08



● TG23-J-08

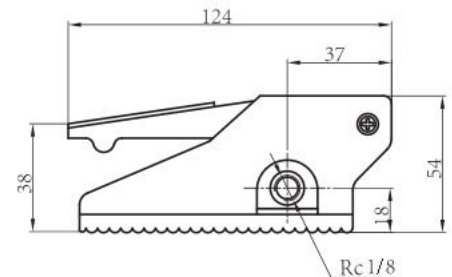
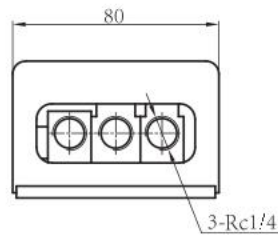


2 Positions/4 Ports Foot Valve

● TG24-J-08



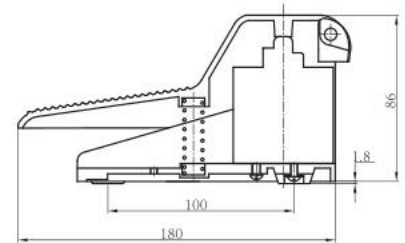
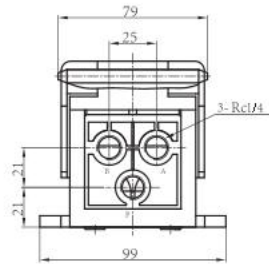
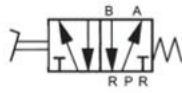
● TG24-J-08



**TG Series Foot Valve**

**2 Positions/5 Ports Foot Valve**

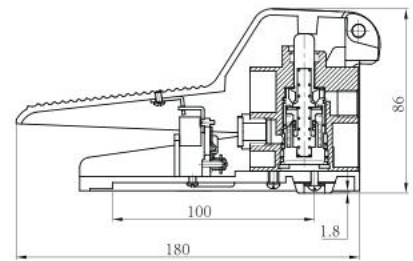
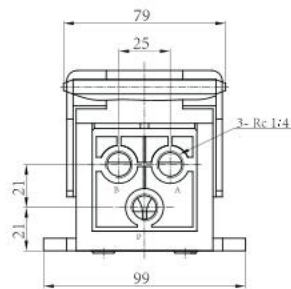
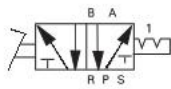
• TG25-J-08



• TG25-J-08

**2 Positions/5 Ports Foot Valve With Lock**

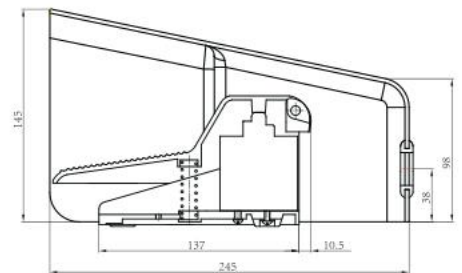
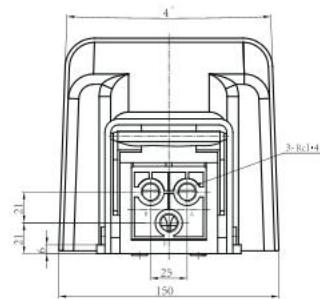
• TG25-J-08L



- TG25-J-08L (external lock)
- TG25-J-08LA (internal lock)

**2 Positions/5 Ports Foot Valve with Guard**

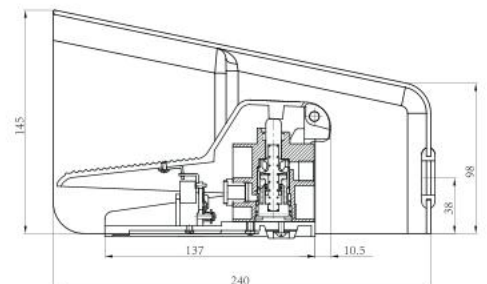
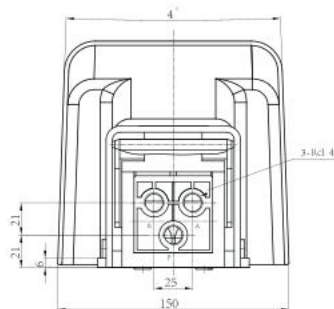
• TG25-J-08G



• TG25-J-08G

**2 Positions/5 Ports Foot Valve With Lock & Guard**

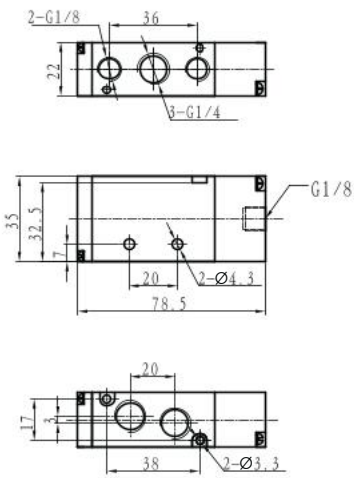
• TG25-J-08LG



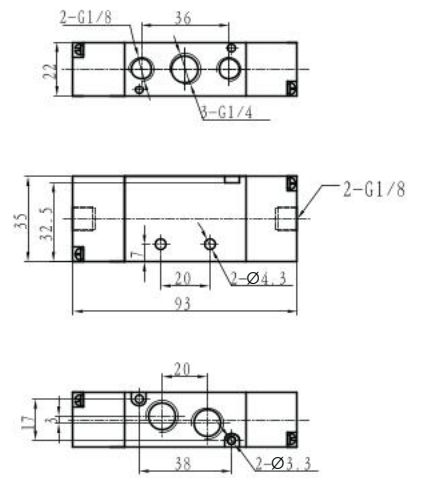
- TG25-J-08LG (external lock)
- TG25-J-08LGA (internal lock)

**2 Position/5 Ports Air Valve Figure Dimension**

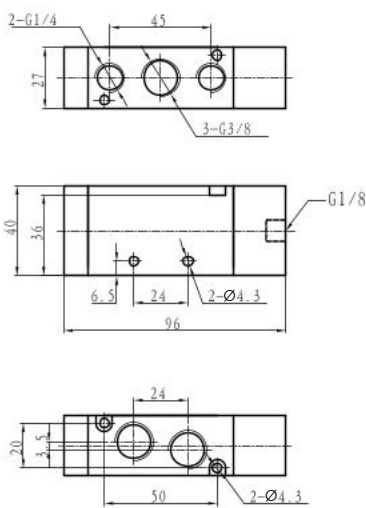
**4A210-08**



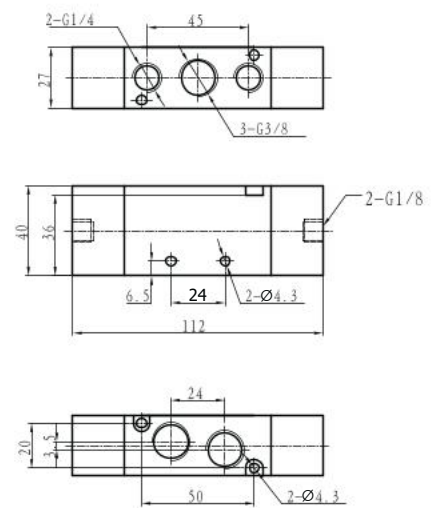
**4A220-08**



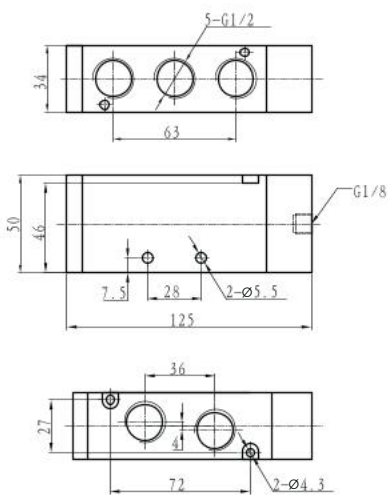
**4A310-10**



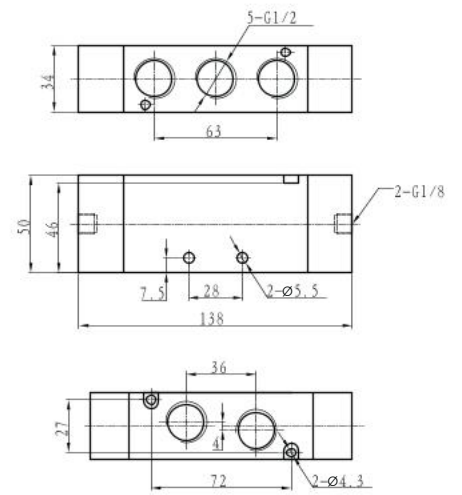
**4A320-10**



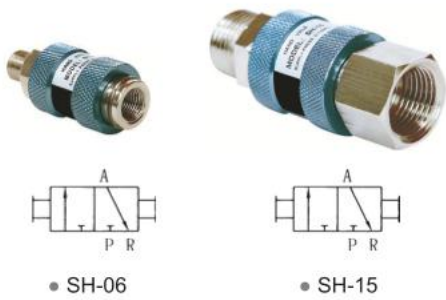
**4A410-15**



**4A420-15**



**Hand Slipping Valve**

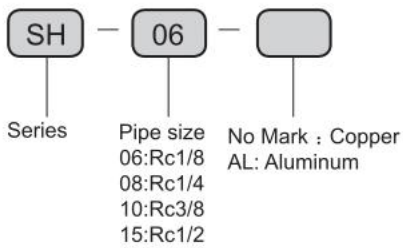


■ Technical Parameter

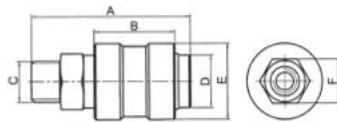
Item Specification	Pipe Size	Nominal Diameter (mm)	Durable (Million)	Pressure range	Medium Temperat
SH-M5	M5	2.5	Air	0 ~ 1.0MPa	-5 ~ 60°C
SH-06	Rc1/8	6			
SH-08	Rc1/4	8			
SH-10	Rc3/8	10			
SH-15	Rc1/2	15			

III

● Ordering Code

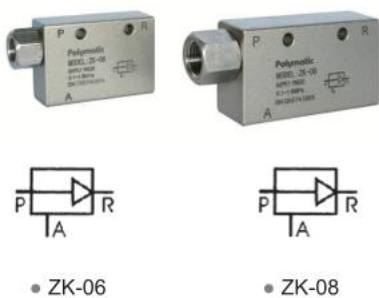


■ Figure Dimension



Specification	SH-M5	SH-06	SH-08	SH-10	SH-15
A	38	47	55	57	72
B	20	26	30	30	30
C	M5	Rc1/8	Rc1/4	Rc3/8	Rc1/2
D	φ10	φ14	φ18	φ21	φ21
E	φ16	φ21	φ26	φ30	φ30
F	12	15	19	22	24

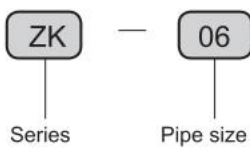
**Vacuum operating Valve**



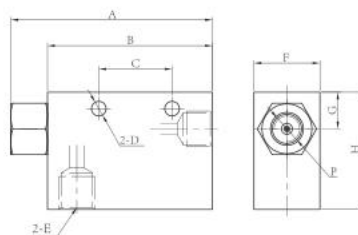
■ Technical Parameter

Item Specification	Pipe Size	Nozzle Dia.(mm)	Applicable Medium	Air displacement L/Min	Up-to Vacuum degree -Kpa(-mmHg)	Air Consumption L/min	Applicable pressure -Mpa(Kgf/cm <sup>2</sup> )	Medium Temperature
ZK-06	Rc1/8	1	Air	27	-91.8(690)	44	0.5(5)	0 ~ 60°C
ZK-08	Rc1/4	1.5		63	-91.8(690)	100	0.5(5)	
ZK-10	Rc3/8	2		110	-91.8(690)	180	0.5(5)	

● Ordering Code



■ Figure Dimension



Specification	ZK-06	ZK-08	ZK-10
A	55	78	103
B	45	63	85
C	20	25	31.5
D	φ4	φ4.6	φ6
E	Rc1/8	Rc1/4	Rc3/8
F	16	20	25
G	10	11	15
H	32	35	40
P	Rc1/8	Rc1/4	Rc1/4



• CV-08



• CV-15



• CV-25

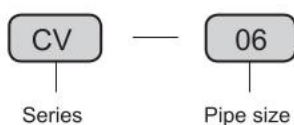
■ Graphics Sign



● Character

This series of product is a kind of one-way control valve. The medium through this valve can only flow in one-way. It is in reasonable design and simple structure, with handsome shape and wide application.

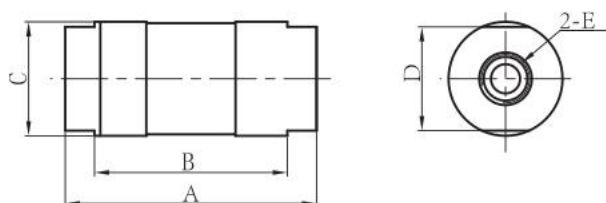
● Ordering Code



■ Technical Parameter

Item Specification	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Min. Operating Pressure	Medium Temperature
CV-06	Rc1/8	6	Air	0.05 ~ 1.2 MPa	0.05MPa	-5 ~ 60°C
CV-08	Rc1/4	8				
CV-10	Rc3/8	10				
CV-15	Rc1/2	15				
CV-20	Rc3/4	20				
CV-25	Rc1	25				

■ Figure Dimension



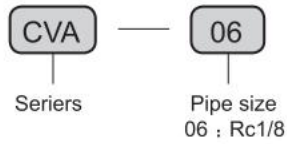
Specification	A	B	C	D	E
CV-06	64	53	φ28	24	Rc1/8
CV-08	64	53	φ28	24	Rc1/4
CV-10	86	66	φ39.5	36	Rc3/8
CV-15	86	66	φ39.5	36	Rc1/2
CV-20	112	90	φ53.5	46	Rc3/4
CV-25	112	90	φ53.5	46	Rc1

**Air Check Valve**



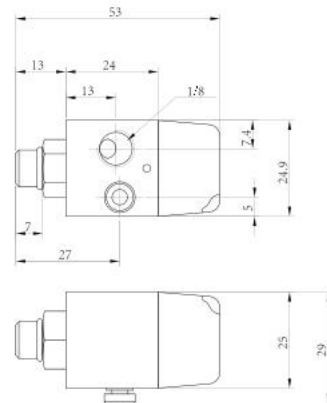
● CVA-06

● Ordering Code

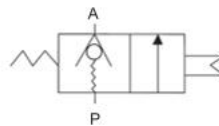


■ Figure Dimension

● CVA-06



■ Graphics Sign

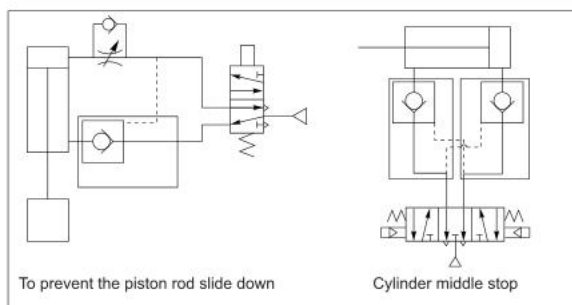


■ Technical Parameter

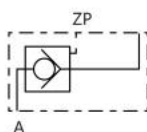
Specification	Item	Function	Pipe size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Lubrication	Medium Temperature
CAV-06		2 Positions/2 Ports	Rc1/8	4	Compressed Air	0.05 ~ 1MPa	Needless	-5 ~ 60°C

**QDS series air Check Valve**

■ The sample application



■ Graphics Sign



■ Types and connection diameter

Type	P	A	Z
QDS01	Rc1/8	R1/8	Rc1/8
QDS02	Rc1/4	R1/4	Rc1/8
QDS03	Rc3/8	R3/8	Rc1/8
QDS04	Rc1/2	R1/2	Rc1/8

Shuttle Valve

● Character

It is similar to the combination of two one-way valves with two input and one output. In the pneumatic system, it acts as "OR" of logic in both executive loop and control loop.

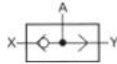


● KV-06

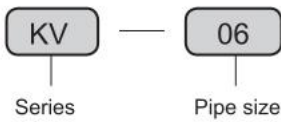
● KV-08

● KV-10

■ Graphics Sign



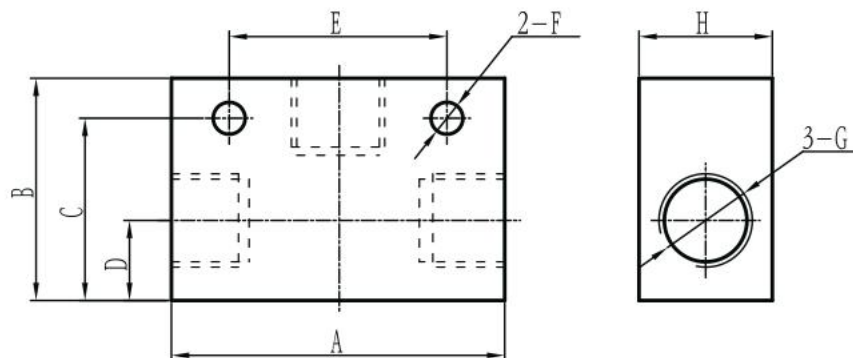
● Ordering Code



■ Technical Parameter

Item Specification	Pipe Size	Nominal Diameter (mm)	Applicable Medium	Applicable Pressure Range	Min. Operating Pressure	Medium Temperature
KV-06	Rc1/8	3	Air	0.05 ~ 1.2 MPa	≥0.05MPa	-5 ~ 60°C
KV-08	Rc1/4	6				
KV-10	Rc3/8	8				
KV-15	Rc1/2	10				
KV-20	Rc3/4	15				
KV-25	Rc1	20				

■ Figure Dimension



Specification	A	B	C	D	E	F	G	H
KV-06	40	26	21	8	25	φ 4.3	G1/8	16
KV-08	52	35	25	11	35	φ 5.5	G1/4	22
KV-10	70	50	41	18	48	φ 7	G3/8	30
KV-15	75	50	41	18	48	φ 7	G1/2	30
KV-20	110	70	58	22	72	φ 7	G3/4	40
KV-25	110	70	58	22	72	φ 7	G1	40

**Quick Exhaust Valve**

● Character

It is a one-way directional control element and can discharge the compressed air in the system rapidly. It is normally installed between the air cylinder and change valve and makes the air in the cylinder escape directly through this valve, not through change valve. It is applied to the locations where the quick discharge of pneumatic units or equipments are required.

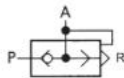


● QV-06

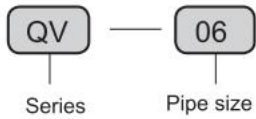
● QV-08

● QV-10

■ Graphics Sign



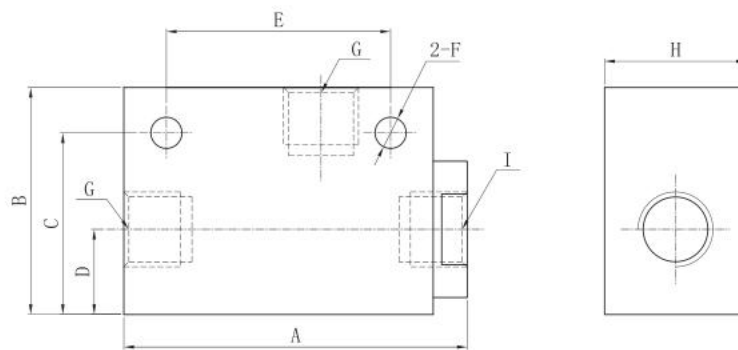
● Ordering Code



■ Technical Parameter

Item / Specification	Pipe Size	Nominal Diameter (mm)	Min. Operating Pressure	Applicable Medium	Pressure Range	Medium Temperature
QV-06	Rc1/8	6	≥0.03 MPa	Air	0.05 ~ 1.2 MPa	-5 ~ 60°C
QV-08	Rc1/4	8				
QV-10	Rc3/8	10	≥0.04 MPa			
QV-15	Rc1/2	15	≥0.05 MPa			
QV-20	Rc3/4	20				
QV-25	Rc1	25				

■ Figure Dimension



Specification	A	B	C	D	E	F	G	H	I
QV-06	45	32	27	11	30	φ4.3	Rc1/8	22	G1/4
QV-08	61	40	32	15	39	φ5.5	Rc1/4	26	G3/8
QV-10	61	40	32	15	39	φ5.5	Rc3/8	26	G3/8
QV-15	98	60	50.7	20	60	φ8.5	Rc1/2	40	G3/4
QV-20	98	60	50.7	20	60	φ8.5	Rc3/4	40	G3/4
QV-25	112	75	63	27	80	φ8.5	Rc1	50	G1

Quick Exhaust Valve



• XQ-M5

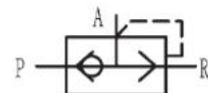
• XQ170600

• XQ171500

• Character

This series is one-way type of auxiliary components, simple structure, beautiful appearance, easy to use, pneumatic components or device used to quickly exhaust the occasions.

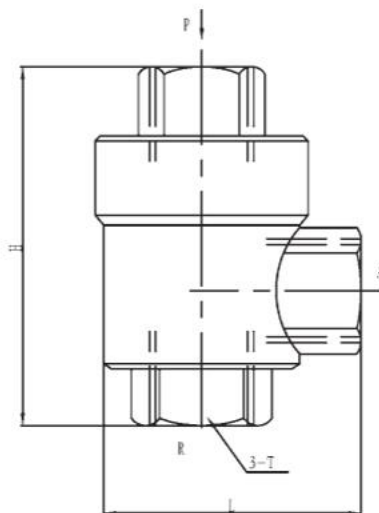
■ Graphics Sign



■ Technical Parameter

Specification	Item	Pipe Size	Nominal Diameter (mm)	Durable (Million)	Pressure Range
	XQ-M5	M5	4	≥200	0.12 ~ 1.0
	XQ170600	Rc1/8	6		
	XQ170800	Rc1/4	6		
	XQ171000	Rc3/8	8		
	XQ171500	Rc1/2	15		
	XQ172000	Rc3/4	20		
	XQ172500	Rc1	25		

■ Figure Dimension

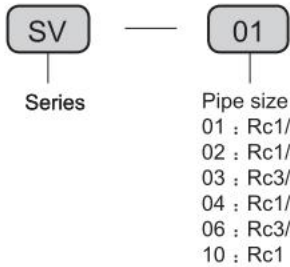


Specification	XQ-M5	XQ170600	XQ170800	XQ171000	XQ171500
T	M5	Rc1/8	Rc1/4	Rc3/8	Rc1/2
H	37	37	42	60	67
L	30	30	36	45	52

Speed Control Valve(Precision type)



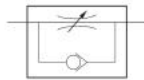
● Ordering Code



● Character

It is a one-way flow control valve which can regulate the flow of compressed air in air passage. It will control forward flow and not control reversed flow, so as to change the oneway movement speed of executive components such as air cylinder.

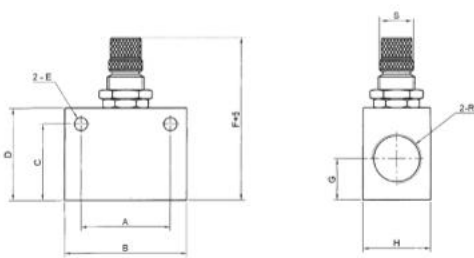
■ Graphics Sign



■ Technical Parameter

Specification/Item		Pipe size	Applicable Medium	Min.Operating Pressure	Pressure Range	Medium Temperature
Precision type	SV-01	Rc1/8	Air	0.03MPa	0.05 ~ 1.2 MPa	-5 ~ 60°C
	SV-02	Rc1/4				
	SV-03	Rc3/8				
	SV-04	Rc1/2				

■ Figure Dimension



● Precision Type

Specification	SV-01	SV-02	SV-03	SV-04
A	24.5	24.5	38	38
B	35	35	50	50
C	21	21	33	33
D	26	26	40	40
E	φ 4.5	φ 4.5	φ 5.5	φ 5.5
F	50	50	68	68
G	10	10	16	16
H	16	19	25	25
R	Rc1/8	Rc1/4	Rc3/8	Rc1/2
S	M12	M12	M16	M16

Speed Control Valve(Basic type)



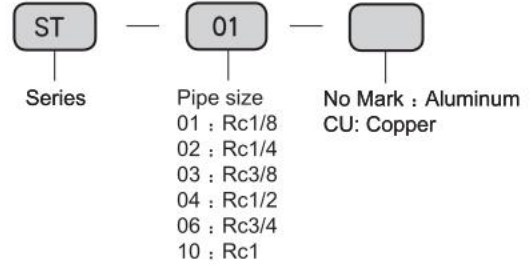
● ST-03

● ST-04

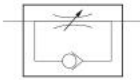
● Character

It is a one-way flow control valve which can regulate the flow of compressed air in air passage. It will control forward flow and not control reversed flow, so as to change the oneway movement speed of executive components such as air cylinder.

● Ordering Code



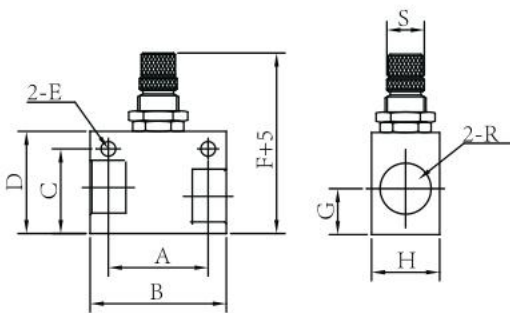
■ Graphics Sign



■ Technical Parameter

Specification/Item		Pipe size	Applicable Medium	Min.Operating Pressure	Pressure Range	Medium Temperature
Basic type	ST-01	Rc1/8	Air	0.03MPa	0.05 ~ 0.8 MPa	-5 ~ 60°C
	ST-02	Rc1/4				
	ST-03	Rc3/8				
	ST-04	Rc1/2				
	ST-06	Rc3/4				
	ST-10	Rc1				

■ Figure Dimension



● Basic Type

Specification	ST-01	ST-02	ST-03	ST-04	ST-06	ST-10
A	22	26	30	30	47	60
B	32	36	40	40	65	80
C	18	22	25	30	53	52.5
D	23	27	30	35	59.5	60
E	φ 4.3	φ 4.3	φ 4.3	φ 4.3	φ 8.5	φ 8.5
F	46/54	50/58	53/61	58/66	109/119	112/122
G	9.6	12	13	15	29.8	30
H	17	18	22	26	35	44
R	Rc1/8	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1
S	M14	M14	M14	M14	-	-



• VK-16

• VK-20

■ Character

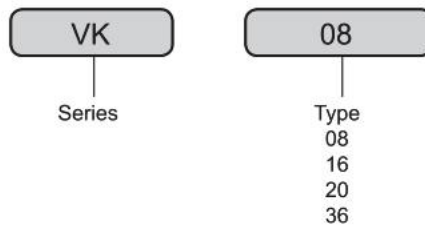
Using compressed air as the power to driven stainless ball. The round of the ball could producing frequency vibrations. So that brings the parts to vibrations. And have the function of mixing.

Within a certain range, the frequency could be regulated by the pressure of the air.

It could be used in the light manufacturing such as food, drink, medicine etc and also in the machinery industry.

III

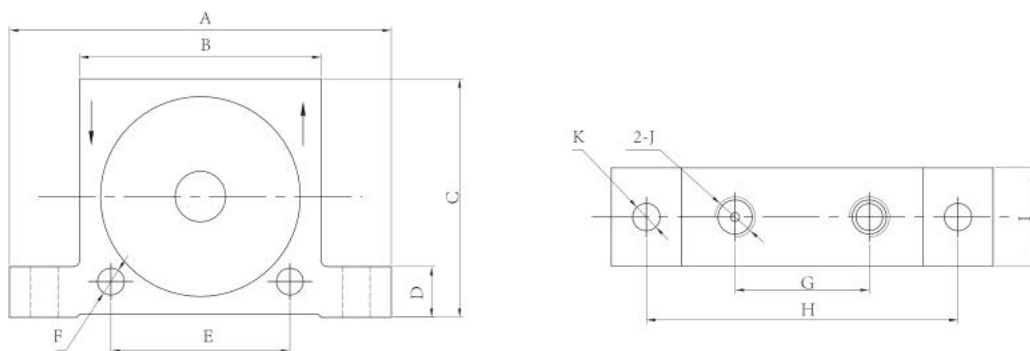
• Ordering Code



■ Technical Parameter

Type	VK08	VK16	VK20	VK36
Applicable Medium	Filtrate compress Air (Lubrication or No-Lubrication)			
Design	Steel ball ratary acting			
Install Method	Dos shell 2- Φ9 hole			
Note	Pay attention the showout with entrance and exit of pipeline, not reverse installment			

■ Figure Dimension



Type	A	B	C	D	E	F	G	H	I	J	K
VK08	85	50	49.5	12	38.5	φ6.5	27	68	21	Rc1/4	φ6.5
VK16	112	65	65	16	50	φ8.5	40	90	27	Rc1/4	φ8.5
VK20	127	80	80	16	60	φ8.5	56	105	38	Rc1/4	φ8.5
VK36	160	105	100	20	80	φ11	72	135.5	50	Rc3/8	φ8.5



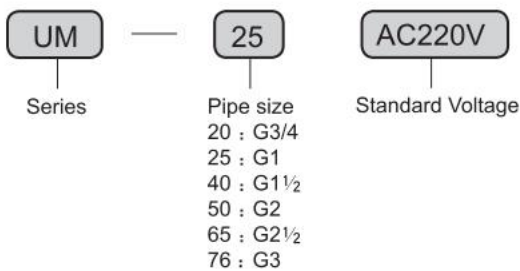
**UM Series Pulse Valve**



■ Product Introduction

This valve (disk valve) is a kind of ompression air switch for blast cleaning system of pulse pocket type dust catcher and is controlled by the output signal from pulse blast controller. It blast cleans the fi lter bag line by line (pocket by pocket) and ensure the cleaning capacity and dust absorption effi ciency of dust catcher.

● Ordering Code



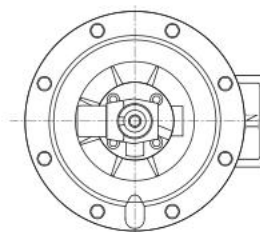
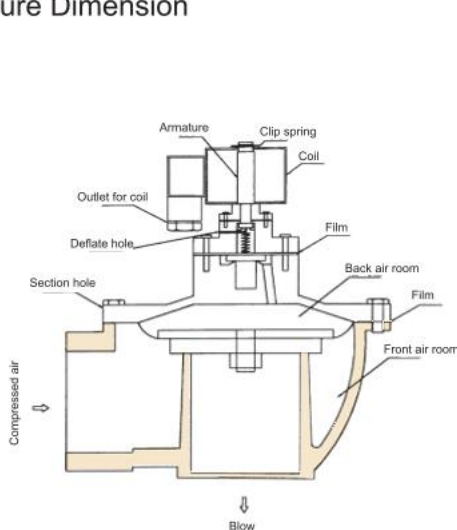
■ Installation method

Solenoid pulse valve input (in) is connected to the metal pipe of air storage cylinder, and its output is connected to the blast pipe of the dust pocket. Between the connect screw thread is fi lled with tetrafl uoroethylene tape for seal.

■ Technical Parameter

Item \ Specification	UM-20	UM-25	UM-40	UM-50	UM-65	UM-76
Material of Body	Aluminum Alloy					
Operating Method	Film Pilot					
Pressure Range	0.4 ~ 0.6MPa					
Medium Temperature	-5 ~ 60°C					
Specified Voltage	AC12V、AC24V、AC36V、AC110V、AC220V、AC380V、DC12V、DC24V、DC110V					
Operating Voltage Range	±10%					
Min. Activating Time	0.05S					

■ Figure Dimension



Type	Pipe Size	Length mm	Width mm	Height mm
UM-20	G3/4	101	93	125
UM-25	G1	110	85	125
UM-40	G1½	140	125	170
UM-50	G2	210	190	200
UM-65	G2½	210	190	225
UM-76	G3	230	200	238

ZF Angel-Seat Valve

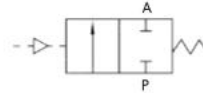


● ZF-B

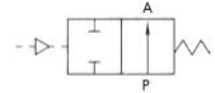


● ZF-T

■ Graphics Sign



● ZF-□ B



● ZF-□ T

● Ordering Code

ZF  
Series

15  
Pipe size  
15 : G1/2  
20 : G3/4  
25 : G1  
32 : G1 1/4  
40 : G1 1/2  
50 : G2  
65 : G2 1/2

B  
Channels  
B : Normal Closed  
T : Normal Opened

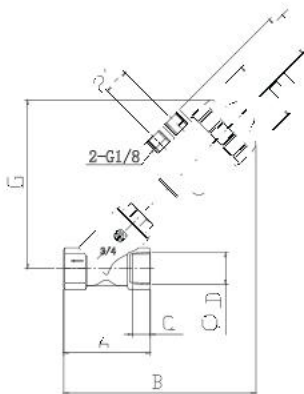
■ Specific Property

Has indicator for location of open or close of valve, external pilot witch can prolong the service life, no leak for 500 million times, free maintenance, has adjustable airproof cover between relief orifice and slide block. Material of body: stainless steel. Control air source: neutral gas, air.

■ Technical Parameter

Item \ Specification	Normal Closed	ZF-15B	ZF-20B	ZF-25B	ZF-32B	ZF-40B	ZF-50B	ZF-65B
	Normal Opened	ZF-15T	ZF-20T	ZF-25T	ZF-32T	ZF-40T	ZF-50T	ZF-65T
Material of Body	Stainless Steel							
Operating Method	Plunger Pilot							
Applicable Medium	Air, Water, Oil, Steam(50CST Below)							
Pipe Size	G1/2	G3/4	G1	G1 1/4	G1 1/2	G2	G2 1/2	
Nominal Diameter mm	13	20	25	32	40	50	65	
Kv (m3/h)	4.2	8	19	27.5	42	55	90	
Pressure Range MPa	0 ~ 1.6	0 ~ 1.1	0 ~ 1.1	0 ~ 1.5	0 ~ 1.25	0 ~ 1.1	0 ~ 0.52	
Min. Control Pressure MPa	0.39	0.39	0.42	0.5	0.44	0.32	0.32	
Actuator Dimension φmm	50	50	63	80	100	125	125	

■ Figure Dimension



Pipe Size φD	Nominal Diameter (mm)	Actuator Dimension φmm	A	B	C	φE	F	G
G1/2	14	50	85	173	12	64	44	137
G3/4	17	50	95	178	12	64	44	145
G1	22	63	105	212	14	80	52	173
G1 1/4	30	63	142	236	16	80	52	189
G1 1/2	35	63	130	230	18	80	52	189
G2	41	63	150	238	20	80	52	205
G2 1/2	58	80	250	250	22	100	62	240

Note : The Above Flowing Direction is Inverse for the Valve Roller [G1 1/4, G1 1/2, G2] with Execuator Dimension of φ63.

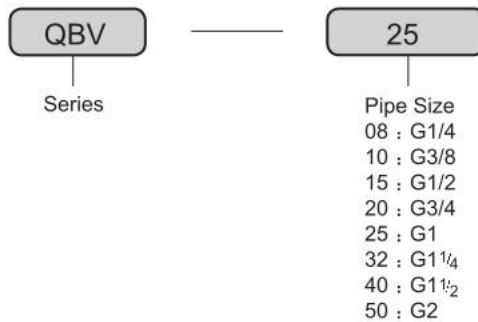
QBY series pneumatic valve



■ Character

Driven by a pneumatic valve actuators to achieve valve opening and closing. Pneumatic actuator interface according to NAMUR

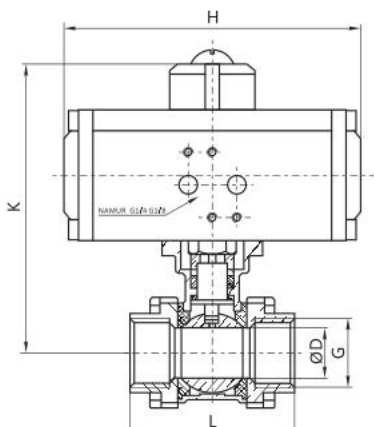
● Ordering Code



■ Technical Parameter

Item\Specification	QBV Series
Using fluid pressure	Max 6.9MPa
Body Bonnet material	CF8M (316) /CF8 (304)
Stem material	CF8M (316) /CF8 (304)
Packing and seals	304 or 316
Medium temperature	-20°C ~ 180°C
Connection Type	Threaded
Sphere material	PTFE

■ Figure Dimension



Specification	Nominal diameter	Connection thread G	D	L	H	K
QBV-08	DN8	G1/4	12.5	50	118	85
QBV-10	DN10	G3/8	12.5	50	118	85
QBV-15	DN15	G1/2	15	62	118	90
QBV-20	DN20	G3/4	20	70	122	95
QBV-25	DN25	G1	25	80	122	100
QBV-32	DN32	G1 1/4	32	93	147	120
QBV-40	DN40	G1 1/2	38	103	168	145
QBV-50	DN50	G2	50	125	184	170

# Polymatic<sup>TM</sup>

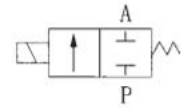
PNEUMATIC SOLUTIONS



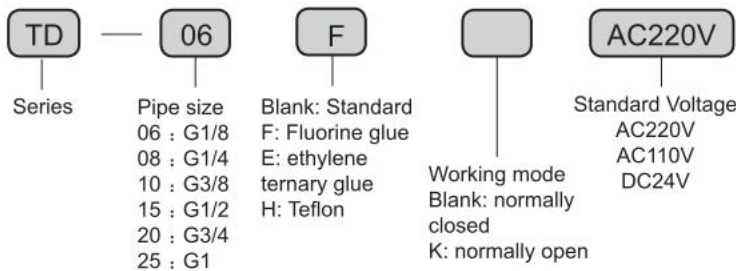
**TD Series Solenoid Valve**



■ Graphics Sign



● Ordering Code



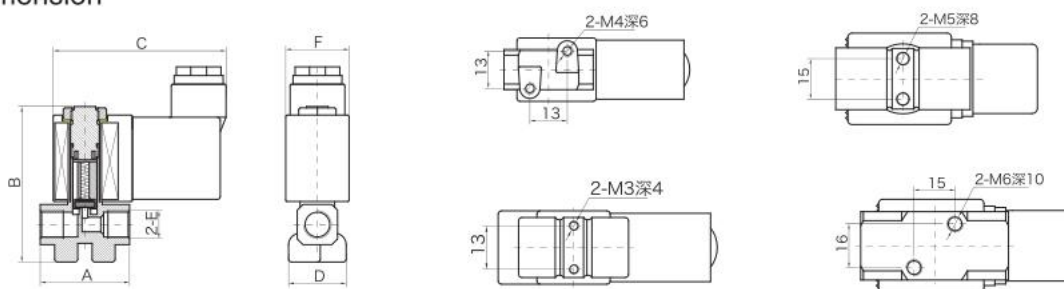
■ Specific Property

This valve has direct action type piston and quick action, with multiple purposes, high efficiency, long service life, good waterproof performance, multiple wiring directions and handsome shape.

■ Technical Parameter

Item\ Specification	TD-06	TD-08	TD-10	TD-15	TD-10	TD-15
Material of Body	Brass					
Control Method	Direct Action Type					
Pressure Range	0 ~ 1.0MPa					
Applicable Medium	Air		Water		Oil	
Medium Temperature	-10 ~ 60°C		1 ~ 60°C		-5 ~ 60°C	
Specified Voltage	AC24V、AC36V、AC110V、AC220V、DC24V、DC110V					
Operating Voltage Range	±10%					
Min. Activating Time	0.05S					
Power	AC220V : 4.8VA、DC24V:5W		AC220V : 13VA、DC24V:9W		AC220V : 15VA、DC24V:13W	

■ Figure Dimension



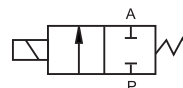
Specification	Pipe size	Nominal Diameter(mm)	A	B	C	D	E	F
TD-06	G1/8	1.5	31	54	57	20	G1/8	22
TD-08	G1/4	2	33	62	57	18	G1/4	22
TD-10	G3/8	3	49	81	69	23	G3/8	33
TD-15	G1/2	3	54	81	69	25	G1/2	33
TD-20	G3/4	10	62	100	83	42	G3/4	48
TD-25	G1	10	62	100	83	42	G1	48

**UD Series Solenoid Valve**



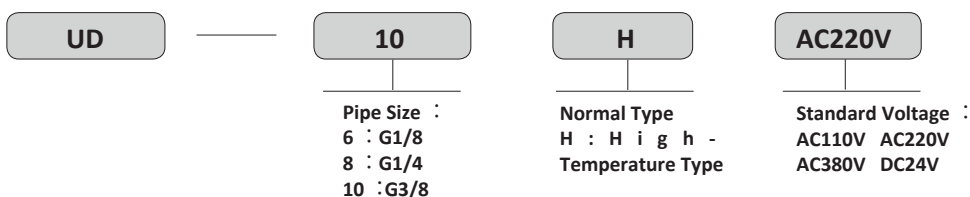
This valve has direct action type piston and quick action, with multiple purposes, high efficiency, long service life, good waterproof performance, multiple wiring directions and handsome shape.

**Graphics Sign**



IV

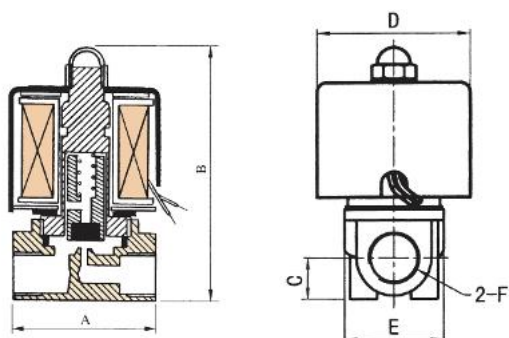
**Ordering Code**



**Technical Parameter**

Item \ Specification	UD-6			UD-8			UD-10		
Material of Body	Brass								
Operating Method	Direct Action Type								
Pipe Size)	G 1 / 8			G 1 / 4			G 3 / 8		
Nominal Diameter(mm)	2.5			2.5			4		
Applicable Fluid	Air、Water、Oil(50CST bellow)、Steam								
Pressure Range	0 ~ 1.0MPa								
Applicable Temperature	Normal Type :-5 ~ 99°c ; (High-Temperature Type) :-5 ~ 185°c								
Specified Voltage	AC12V	AC24V	AC36V	AC110V	AC220V	AC380V	DC12V	DC24V	DC110V
Power	8 W	8 W	8 W	11 W	9 W	9 W	11 W	11 W	11 W
Operating Voltage Range	±15%								
Min. Activating Time	0.05S								

**Figure Dimension**



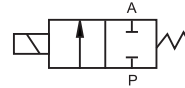
Model	A	B	C	D	E	F
UD-6	40	76	10	φ42	29.5	G1/8
UD-8	40	76	10	φ42	29.5	G1/4
UD-10	53	93	12	φ50	31.5	G3/8

**UZ Series Solenoid Valve**

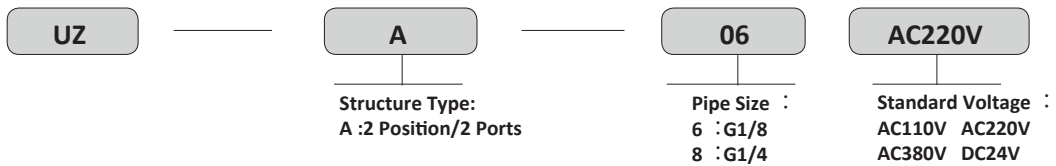


This valve has direct action type piston and quick action, with multiple purposes, high efficiency, long service life, good waterproof performance, multiple wiring directions and handsome shape.

**Graphics Sign**



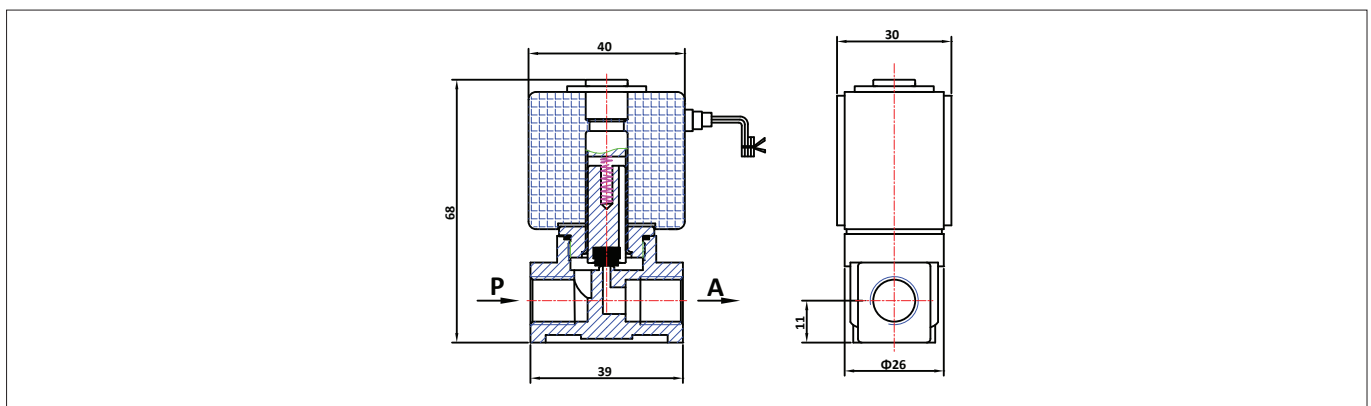
**Ordering Code**



**Technical Parameter**

Item \ Specification	UZ-A-06			UZ-A-08					
Material of Body	Brass								
Operating Method	Direct Action Type								
Pipe Size	G 1 / 8			G 1 / 4					
Nominal Diameter(mm)	2.5			2.5					
Applicable Fluid)	Air、Water、Oil(50CST bellow)								
Pressure Range	0 ~ 1.0MPa								
Applicable Temperature	(Normal Type) :-5 ~ 99°C								
Specified Voltage	AC12V	AC24V	AC36V	AC110V	AC220V	AC380V	DC12V	DC24V	DC110V
Power	7.5 W	7.5 W	8 W	7.5 W	7.5 W	8 W	10 W	10 W	10 W
Operating Voltage Range	±15%								
Min. Activating Time	0.05S								

**Figure Dimension**

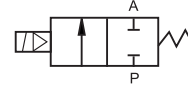


## UW Series Solenoid Valve



This guiding type valve adopts the diaphragm seal structure, with zero differential pressure starting function, large flow, simple structure, easy maintenance, good waterproof performance and multiple wiring directions.

### Graphics Sign



Ordering Code

**UW**

**10**

**AC220V**

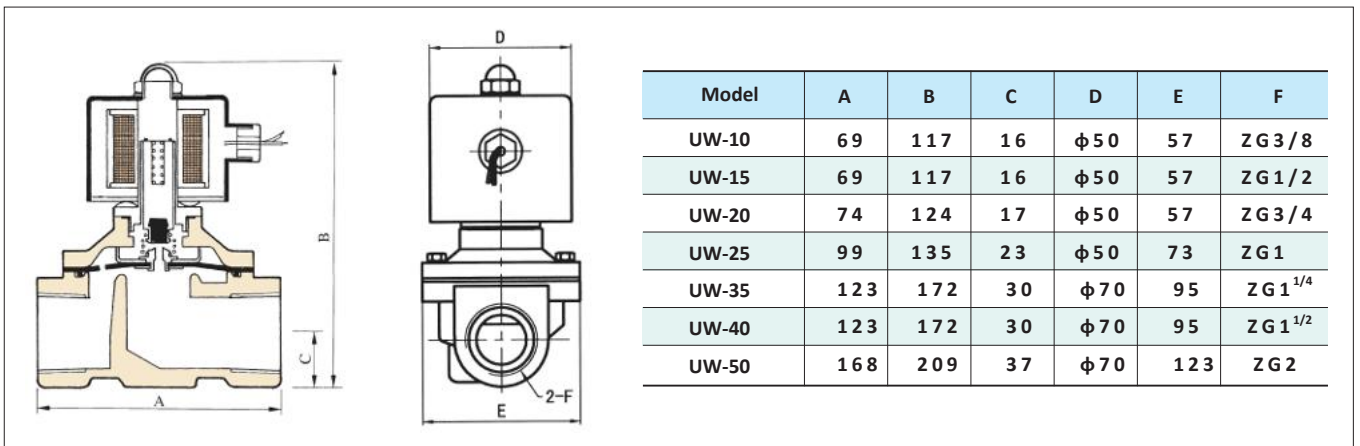
Pipe Size :  
10 : ZG3/8  
15 : ZG1/2  
20 : ZG3/4  
25 : ZG1  
35 : ZG1  
40 : ZG1<sup>1/4</sup>  
50 : ZG2<sup>1/2</sup>

Standard Voltage :  
AC110V  
AC220V  
AC380V  
DC24V

## Technical Parameter

Item \ Specification	UW-10	UW-15	UW-20	UW-25	UW-35	UW-40	UW-50		
Material of Body	Foundry								
Operating Method	Film Pilot								
Pipe Size	ZG 3/8	ZG 1/2	ZG 3/4	ZG 1	ZG 1 <sup>1/4</sup>	ZG 1 <sup>1/2</sup>	ZG 2		
Nominal Diameter(mm)	16	20	20	25	37	37	50		
Applicable Fluid	Air, Water, Oil(50CST bellow)								
Pressure Range	0 ~ 0.8MPa								
Applicable Temperature	-5 ~ 99°C								
Specified Voltage	AC12V	AC24V	AC36V	AC110V	AC220V	AC380V	DC12V	DC24V	DC110V
UW10-25 Power	11W	11W	10W	12W	12W	11W	20W	20W	20W
UW35-50 Power	22W	22W	22W	20W	20W	20W	48W	44W	45W
Operating Voltage Range	±10%								
Min. Activating Time	0.05S								
Install Method	Horizontal Fixing								

## Figure Dimension

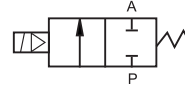


## UW Series Solenoid Valve



This guiding type valve adopts the diaphragm seal structure, with zero differential pressure starting function. The body adopts stainless steel, with anticorrosion, large flow, simple structure, easy maintenance, good waterproof performance and multiple wiring directions.

### Graphics Sign



Ordering Code

**UWS**

**10**

**AC220V**

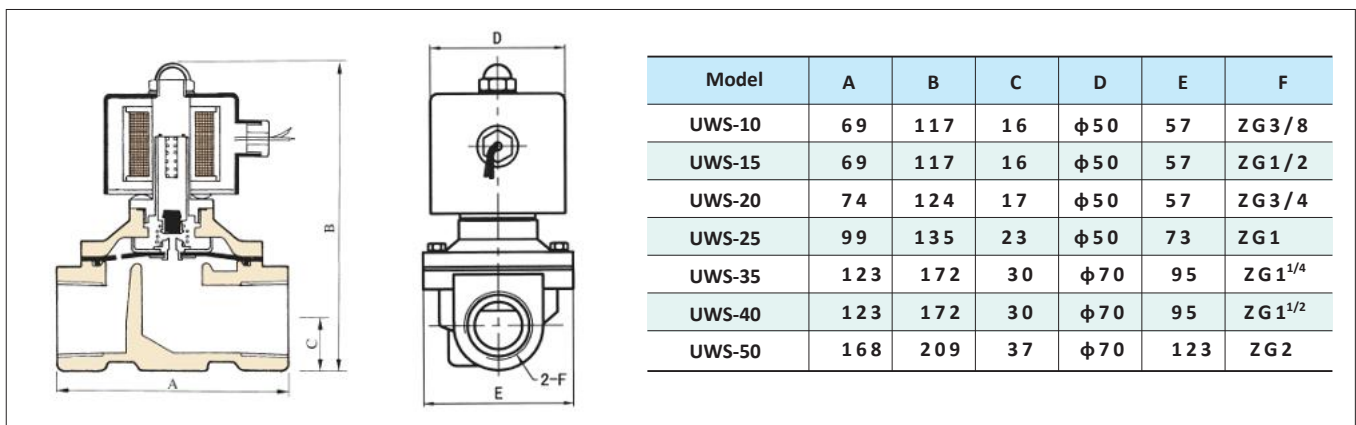
Pipe Size :  
10 : ZG3/8  
15 : ZG1/2  
20 : ZG3/4  
25 : ZG1  
35 : ZG1<sup>1/4</sup>  
40 : ZG1<sup>1/2</sup>  
50 : ZG2

Standard Voltage :  
AC110V  
AC220V  
AC380V  
DC24V

## Technical Parameter

Item \ Specification	UWS-10	UWS-15	UWS-20	UWS-25	UWS-35	UWS-40	UWS-50		
Material of Body	Stainless Steel								
Operating Method	Film Pilot								
Pipe Size	ZG 3/8	ZG 1/2	ZG 3/4	ZG 1	ZG 1 <sup>1/4</sup>	ZG 1 <sup>1/2</sup>	ZG 2		
Nominal Diameter(mm)	16	20	20	25	37	37	50		
Applicable Fluid	Air、 Water、 Oil(50CST bellow)、 Steam、 Chemicals								
Pressure Range	0 ~ 0.8MPa								
Applicable Temperature	-5 ~ 99°c								
Specified Voltage	AC12V	AC24V	AC36V	AC110V	AC220V	AC380V	DC12V	DC24V	DC110V
UW10-25(Power)	11W	11W	10W	12W	12W	11W	20W	20W	20W
UW35-50(Power)	22W	22W	22W	20W	20W	20W	48W	44W	45W
Operating Voltage Range	±10%								
Min. Activating Time	0.05S								
Install Method	Horizontal Fixing								

## Figure Dimension



UH Series High-Pressure Solenoid Valve



●UH-25

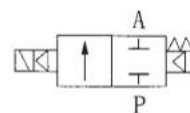


●UH-15

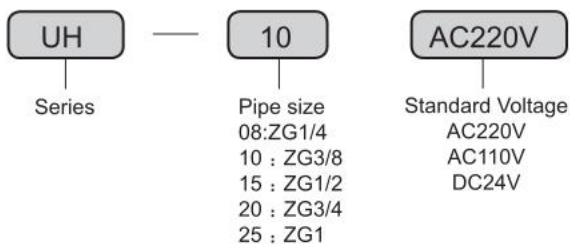


●UH-08

■ Graphics Sign



● Ordering Code



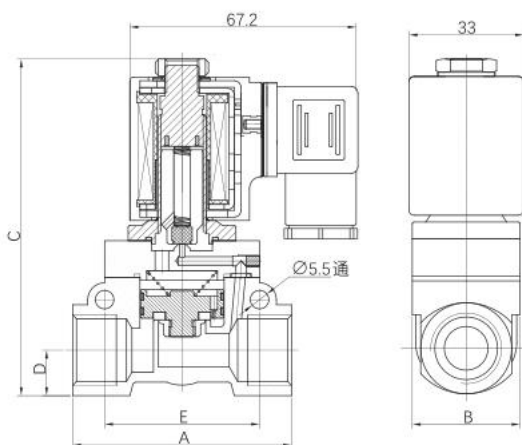
■ Character

This guiding type valve adopts the diaphragm seal structure, with zero differential pressure starting function, large flow, simple structure, easy maintenance, good waterproof performance directions and multiple wiring directions.

■ Technical Parameter

Item \ Specification	UH-08	UH-10	UH-15	UH-20	UH-25
Material of Body	Cast copper				
Operating Method	Plunger Pilot				
Applicable Medium	Air, Water, Oil(20CST Below)				
Pressure Range	AC 0.5-35bar ; DC 0.5-25bar				
Medium Temperature	0 ~ 90°C (No Freeze)				
Specified Voltage	AC24V, AC36V, AC110V, AC220V, DC24V, DC110V				
Install Method	Horizontal Installation				
Power	AC220V : 20VA , DC24V:15W				

■ Figure Dimension



Specification	Pipe Size	Nominal Diameter(mm)	A	B	C	D	E	Working pressure AC	Working pressure DC
UH-08	ZG1/4	12	65	33	98.5	13	46	0.5 ~ 35 bar	0.5 ~ 30 bar
UH-10	ZG3/8	12	65	33	98.5	13	46	0.5 ~ 35 bar	0.5 ~ 30 bar
UH-15	ZG1/2	12	65	33	98.5	13	46	0.5 ~ 35 bar	0.5 ~ 30 bar
UH-20	ZG3/4	20	92	59	129	20	—	0.5 ~ 35 bar	0.5 ~ 30 bar
UH-25	ZG1	20	92	59	129	20	—	0.5 ~ 35 bar	0.5 ~ 30 bar

Timer



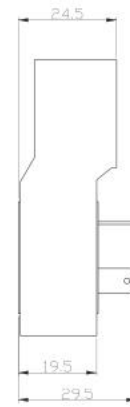
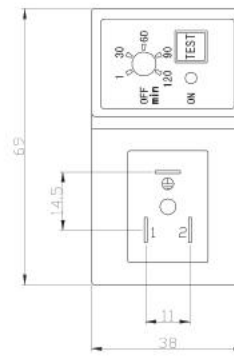
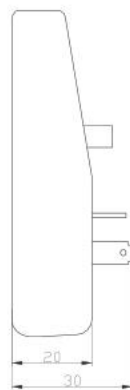
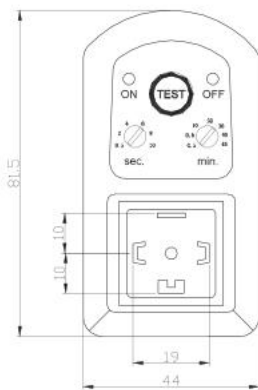
type : XY-720



type : XY-711



■ Figure Dimension



■ Technical Parameter

Item\specification	XY-720	XY-711
Voltage	24..240V AC/DC-50Hz/60Hz	
Quiescent current	4mA Max	
Working temperature	-10° + 50°	
Protection grade	IP65-EN60529	
Switch sustaining voltage	400V Max	
Contact capacity	1A	
Instantaneous current	10A for 10ms	
Switch life	3 X 10 <sup>8</sup>	
Indicator	Yellow LED	
Connection type	DIN43650A	

# Polymatic<sup>TM</sup>

PNEUMATIC SOLUTIONS



**TGD Series Standard Cylinder**

According ISO6431、ISO15552 Standard、VDMA24562

Designed with new seal material and buffer structure, with a simple structure, light weight, low starting pressure, running balance, good sealing performance, long life, easy maintenance, etc., are widely used in light industry, chemical industry, gold, mechanical, electronics and other industries automation equipment, there are a varieties of components options to attend different installation requirements.

● **Cylinder installation instructions**

- 1、 Before installation, be sure if the cylinder was not damaged during transportation. Check if connecting parts were loose, etc.
- 2、 When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
- 3、 When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
- 4、 Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
- 5、 Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator, when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
- 6、 After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
- 7、 At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
- 8、 In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
- 9、 In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system.
- 10、 If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

● **Theoretical calculation of the cylinder output**

$$F = P \times A$$

F : cylinder theoretical output

P : Working pressure

A : Piston force area

■ **Theoretical force sheet**

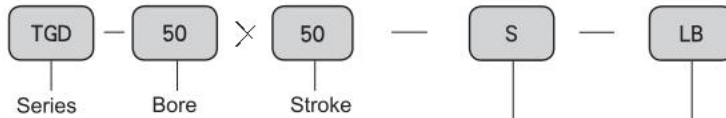
Cylinder inside diameter	32	40	50	63	80	100	125	160	200	250	320												
External diameter of piston rod	12	16	20	20	25	25	32	40	40	50	60												
Action Type	Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		
	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	
Compression area cm <sup>2</sup>	8.04	6.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122.7	114.6	201.0	188.4	314	301	490.6	471	803	775	
Air pressure kgf/cm <sup>2</sup>	1	08.04	06.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122	114	210	188	314	301	490.6	471	803	775
	2	16.08	13.80	25.12	21.10	39.26	32.98	62.34	56.06	100.52	90.72	157.06	147.24	245	229	402	377	628	603	982	942	1608	1551
	3	24.12	20.70	37.68	31.65	58.89	49.47	93.51	84.09	150.78	136.08	235.59	220.86	368	344	603	565	942	904	1473	1413	2411	2327
	4	32.16	27.60	50.24	42.20	78.52	65.96	124.68	112.12	201.04	181.44	314.12	294.48	491	458	804	754	1257	1206	1963	1884	3215	3102
	5	40.20	34.50	62.80	52.75	98.15	82.45	155.85	140.15	251.30	226.80	392.65	368.10	615	573	1005	942	1570	1507	2454	2355	4019	3878
	6	48.24	41.40	75.36	63.30	117.78	98.94	187.02	168.18	301.56	272.16	471.18	441.72	736	688	1206	1130	1885	1808	2945	2826	4823	4654
	7	56.28	48.30	87.92	73.85	137.41	115.43	218.19	196.21	351.82	317.52	549.71	515.34	859	802	1407	1319	2199	2110	3436	3297	5627	5429
	8	64.32	55.20	100.48	84.40	157.04	131.92	249.36	224.24	402.08	362.88	628.24	588.96	982	917	1608	1507	2513	2411	3927	3768	6430	6205
	9	72.36	62.10	113.04	94.95	176.67	148.41	280.53	252.27	452.34	408.24	706.77	662.58	1104	1031	1809	1696	2826	2713	4418	4239	7233	6980

**TGD Series Standard Cylinder**

According ISO6431、ISO15552 Standard、VDMA24562



• Ordering Code



The Code name of magnet  
S: With magnet  
Blank: Without magnet

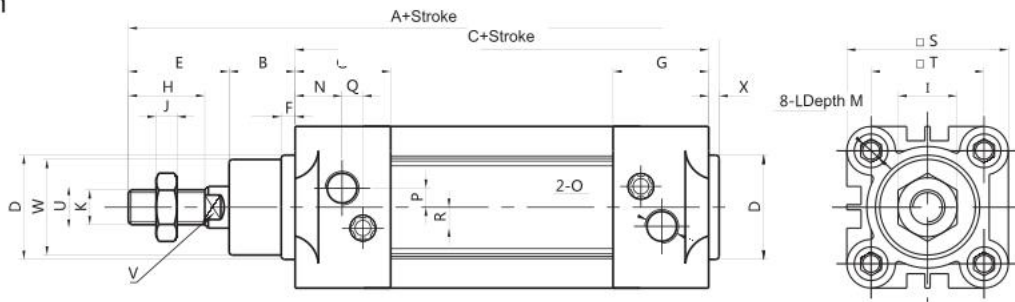
Fix type:  
Blank: Basic type  
LB: Front and back be fixed  
FA: Front port be fixed(front flange)  
FB: Back port be fixed(Back flange)  
CA: Back port be fixed(pivot type)  
CB: Back port be fixed(clevis type)  
CR : Double clevis mount (for use with CB)  
FTC : Rod side lug type

■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1~0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	-10 ~60 °C						
Speed range	50~800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	23mm	27mm	30mm		36mm		42mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2	

■ Figure Dimension

φ32 - φ125



Theoretical Force Sheet

Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	142	16	94	30	32	10	26	22	17	6	M10X1.25	M6
40	159	20	105	35	34	10.5	29.5	24	17	7	M12X1.25	M6
50	175	27	106	40	42	11.5	30	32	23	8	M16X1.5	M8
63	190	27	121	45	42	15	36	32	23	8	M16X1.5	M8
80	215	35	128	45	52	15.7	36	40	26	10	M20X1.5	M10
100	228	38	138	55	52	19.2	39	40	26	10	M20X1.5	M10
125	277	46	160	60	73	12.5	45	54	40	13.5	M27X2	M12

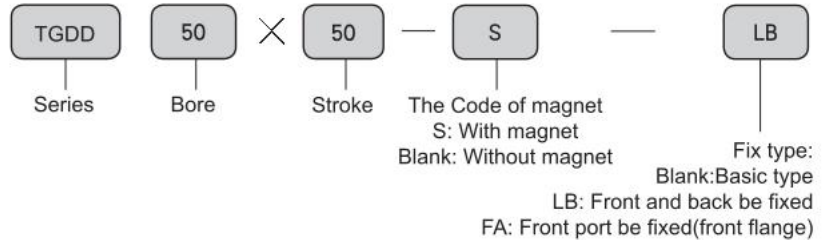
Bore	M	N	O	P	Q	R	S	T	U	V	W	X
32	9.5	15	G1/8	5	3	6.5	45	32.5	12	10	28	4
40	9.5	17.5	G1/4	7	3	7	54	38	16	14	33	4
50	9.5	21	G1/4	7	3	9	64	46.5	20	17	38	4
63	9.5	23	G3/8	8	5	9	75	56.5	20	17	38	4
80	11.5	24	G3/8	10	5	12	93	72	25	22	43	4
100	11.5	26	G1/2	10	5	14	110	89	25	22	43.5	4
125	12	22.3	G1/2	13	8	16	134	110	32	27		6

**TGDD Series Standard Cylinder**

According to ISO6431, ISO15552 Standard, VDMA24562



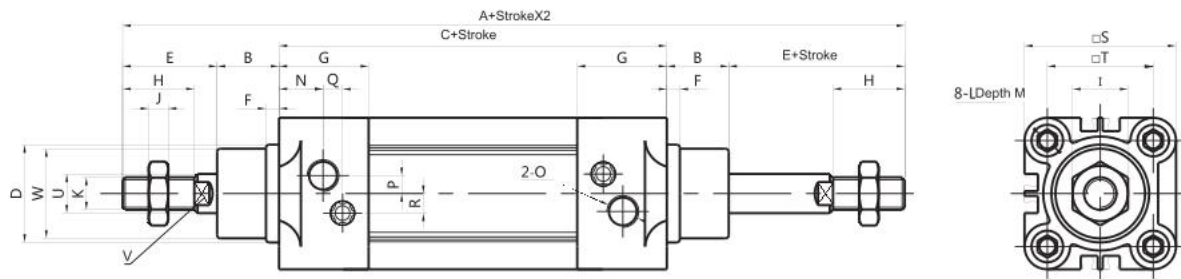
● Ordering Code



■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1~0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	-10 ~60 °C						
Speed range	50~800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	23mm	27mm	30mm		36mm		42mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2	

■ Figure Dimension



Theoretical Force Sheet

Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	190	16	94	30	32	10	26	22	17	6	M10X1.25	M6
40	213	20	115	35	34	10.5	29.5	24	17	7	M12X1.25	M6
50	241	27	116	40	42	11.5	30	32	23	8	M16X1.5	M8
63	259	27	121	45	42	15	36	32	23	8	M16X1.5	M8
80	300	35	128	45	52	15.7	36	40	26	10	M20X1.5	M10
100	320	38	138	55	52	19.2	39	40	26	10	M20X1.5	M10

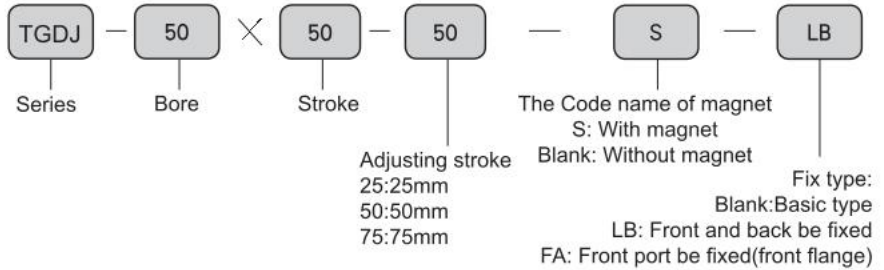
Bore	M	N	O	P	Q	R	S	T	U	V	W
32	9.5	15	G1/8	5	3	6.5	45	32.5	12	10	28
40	9.5	17.5	G1/4	7	3	7	54	38	16	14	33
50	9.5	21	G1/4	7	3	9	64	46.5	20	17	38
63	9.5	23	G3/8	8	5	9	75	56.5	20	17	38
80	11.5	24	G3/8	10	5	12	93	72	25	22	43
100	11.5	26	G1/2	10	5	14	110	89	25	22	43.5

**TGDJ Series Standard Cylinder**

According to ISO6431, ISO15552 Standard, VDMA24562



• Ordering Code

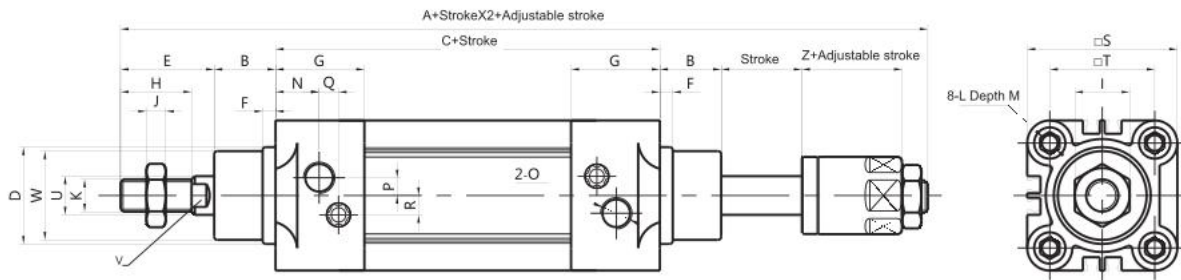


■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1~0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	-10 ~ 60°C						
Speed range	50~800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	23mm	27mm	30mm		36mm		42mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2	

■ Figure Dimension

Φ32 - Φ125



Theoretical Force Sheet

Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	190	16	94	30	32	10	26	22	17	6	M10X1.25	M6
40	213	20	115	35	34	10.5	29.5	24	17	7	M12X1.25	M6
50	241	27	116	40	42	11.5	30	32	23	8	M16X1.5	M8
63	259	27	121	45	42	15	36	32	23	8	M16X1.5	M8
80	300	35	128	45	52	15.7	36	40	26	10	M20X1.5	M10
100	320	38	138	55	52	19.2	39	40	26	10	M20X1.5	M10

Bore	M	N	O	P	Q	R	S	T	U	V	W	Z
32	9.5	15	G1/8	5	3	6.5	45	32.5	12	10	28	28
40	9.5	17.5	G1/4	7	3	7	54	38	16	14	33	28
50	9.5	21	G1/4	7	3	9	64	46.5	20	17	38	31
63	9.5	23	G3/8	8	5	9	75	56.5	20	17	38	31
80	11.5	24	G3/8	10	5	12	93	72	25	22	43	39
100	11.5	26	G1/2	10	5	14	110	89	25	22	43.5	39

# Polymatic™

PNEUMATIC SOLUTIONS





- Theoretical calculation of the cylinder output

$$F = P \times A$$

F : cylinder theoretical output

P : Working pressure

A : Piston force area

Designed with new seal material and buffer structure, with a simple structure, light weight, low starting pressure, running balance, good sealing performance, long life, easy maintenance, etc., are widely used in light industry, chemical industry, gold, mechanical, electronics and other industries automation equipment, there are a varieties of components options to attend different installation requirements.

• Cylinder installation instructions

1. Before installation, be sure if the cylinder was not damaged during transportation. Check if connecting parts were loose, etc.
2. When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3. When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
4. Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5. Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator, when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6. After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
7. At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8. In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9. In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system.
10. If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

■ Theoretical force sheet

Cylinder inside diameter	32		40		50		63		80		100		125		160		200		250		
External diameter of piston rod	12		16		20		20		25		25		32		40		40		50		
Action Type	Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		
	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	
Compression area cm <sup>2</sup>	8.04	6.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122.7	114.6	201.0	188.4	314	301	490	410	
Air pressure Kgf/cm <sup>2</sup>	1	08.04	06.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122	114	210	188	314	301	490	410
	2	16.08	13.80	25.12	21.10	39.26	32.98	62.34	56.06	100.52	90.72	157.06	147.24	245	229	402	377	628	603	980	820
	3	24.12	20.70	37.68	31.65	58.89	49.47	93.51	84.09	150.78	136.08	235.59	220.86	368	344	603	565	942	904	1470	1230
	4	32.16	27.60	50.24	42.20	78.52	65.96	124.68	112.12	201.04	181.44	314.12	294.48	491	458	804	754	1257	1206	1960	1640
	5	40.20	34.50	62.80	52.75	98.15	82.45	155.85	140.15	251.30	226.80	392.65	368.10	615	573	1005	942	1570	1507	2450	2050
	6	48.24	41.40	75.36	63.30	117.78	98.94	187.02	168.18	301.56	272.16	471.18	441.72	736	688	1206	1130	1885	1808	2940	2460
	7	56.28	48.30	87.92	73.85	137.41	115.43	218.19	196.21	351.82	317.52	549.71	515.34	859	802	1407	1319	2199	2110	3430	2870
	8	64.32	55.20	100.48	84.40	157.04	131.92	249.36	224.24	402.08	362.88	628.24	588.96	982	917	1608	1507	2513	2411	3920	3280
	9	72.36	62.10	113.04	94.95	176.67	148.41	280.53	252.27	452.34	408.24	706.77	662.58	1104	1031	1809	1696	2826	2713	4410	3690

TGC series Standard Cylinder



● Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

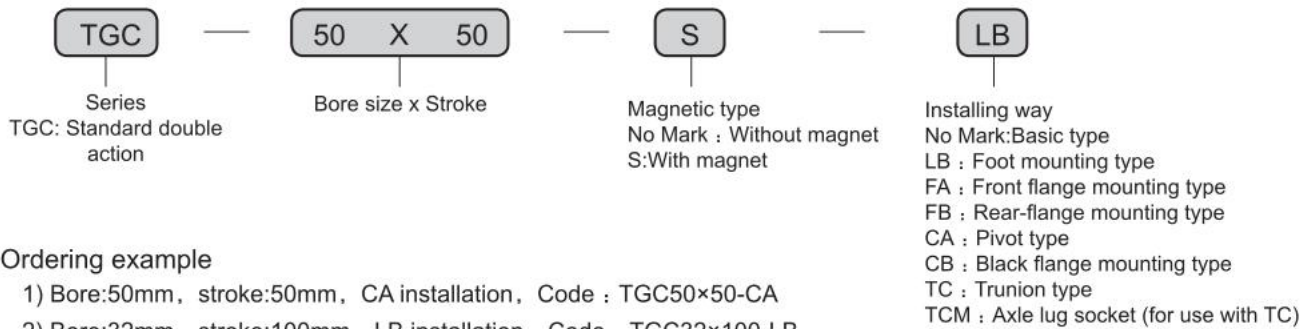
Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

■ Graphics Sign



● Ordering Code



■ Ordering example

- 1) Bore:50mm, stroke:50mm, CA installation, Code : TGC50×50-CA
- 2) Bore:32mm, stroke:100mm, LB installation, Code : TGC32×100-LB

■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125	160	200	250
Action	Double Action Type									
Applicable	Air									
Pressure Range	0.1 ~ 0.9 MPa									
Proof Pressure	1.35MPa									
Temperature Range	-10 ~ 60°C									
Speed Range	50 ~ 800mm/s									
Cushion Type	Adjustable Cushion									
Cushion Stroke	23mm	21mm		28mm	29mm	28mm	29mm	33mm	40mm	
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2		Rc3/4		Rc1
Magnetic switch	CS1-U CS1-F									

TGC series Standard Cylinder

■ Stroke

Bore (mm)	Standard Stroke	Max.Stroke	Premissible.
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
250	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000

■ Figure Dimension

• ø32 ~ ø250

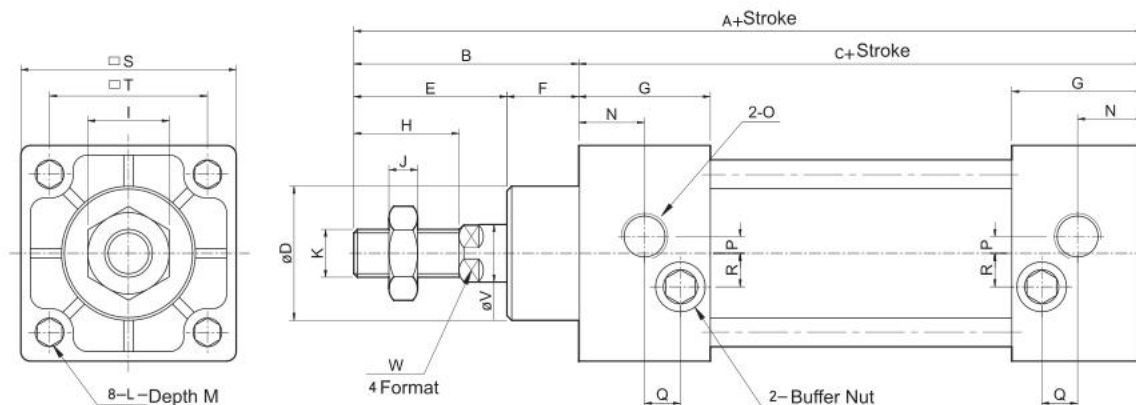


Figure Dimension(mm)

Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	142	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	150	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	153	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	182	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	183	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5
125	228	102	135	52	70	32	40	45	41	12	M27X2	M12X1.75
160	247	122	166	62	92	30	50	50	55	14	M36X2	M16X2
200	317	149	180	62	92	57	50	60	55	14	M36X2	M16X2
250	375	189	200	90	122	67	52	70	/	18	M42X2	M20X2.5

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22
125	16	20	G1/2"	14	6.5	14	140	110	32	27
160	15	20	G3/4"	15	5	15	180	140	40	36
200	15	20	G3/4"	15	3	15	220	175	40	36
250	/	31	G1"	/	/	/	270	220	50	46

**TGCD series Standard Cylinder**



● Product characteristics

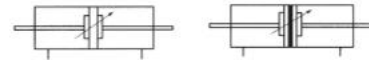
Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

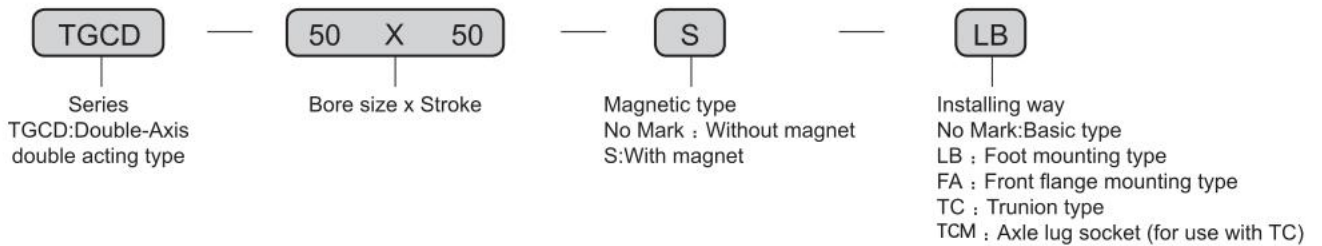
Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

■ Graphics Sign



● Ordering Code



■ Example

- 1) Bore:63mm, stroke:50mm, LB installation, Code : TGCD63×50-LB
- 2) Bore:32mm, stroke:100mm, FA installation, Code : TGCD32×100-FA

■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125	160	200	250
Action	Double Action Type									
Applicable	Air									
Pressure Range	0.1 ~ 0.9 MPa									
Proof Pressure	1.35MPa									
Temperature Range	-10 ~ 60°C									
Speed Range	50 ~ 800mm/s									
Cushion Type	Adjustable Cushion									
Cushion Stroke	23mm	21mm			28mm	29mm	28mm	29mm	33mm	40mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2		Rc3/4		Rc1
Magnetic switch	CS1-U CS1-F									

TGCD series Standard Cylinder

■ Stroke

Bore (mm)	Standard Stroke	Max.Stroke	Permissible.Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300	200	300
40	25 50 75 80 100 125 150 160 175 200 250 300	200	300
50	25 50 75 80 100 125 150 160 175 200 250 300	200	300
63	25 50 75 80 100 125 150 160 175 200 250 300	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
250	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000

■ Figure Dimension

• ø32 ~ ø250

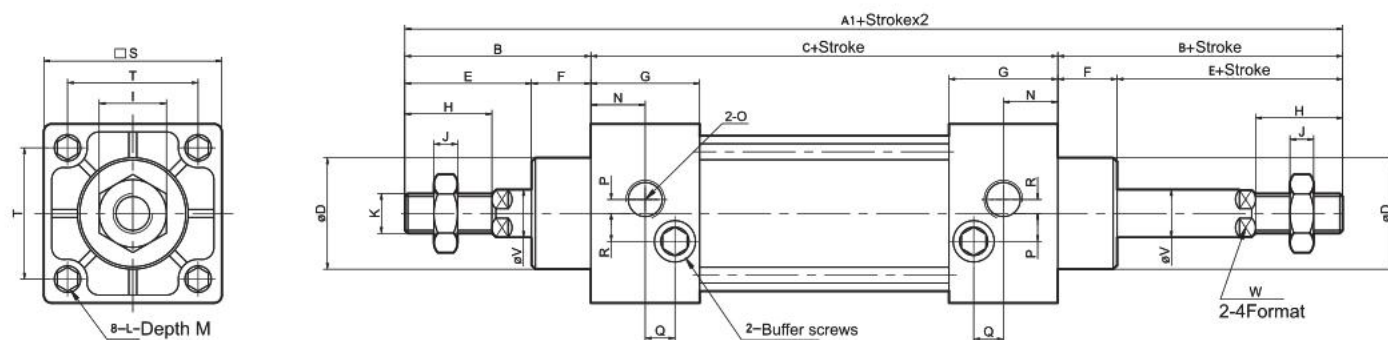


Figure Dimension(mm)

Bore	A1	B	C	D	E	F	G	H	I	J	K	L
32	187	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	191	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	207	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	210	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	257	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	258	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5
125	321	102	135	52	70	32	40	45	41	12	M27X2	M12X1.75
160	366	122	166	62	92	30	50	50	55	14	M36X2	M16X2
200	454	149	180	62	92	57	50	60	55	14	M36X2	M16X2
250	550	189	200	90	122	67	52	70	/	18	M42X2	M20X2.5

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22
125	16	20	G1/2"	14	6.5	14	140	110	32	27
160	15	20	G3/4"	15	5	15	180	140	40	36
200	15	20	G3/4"	15	3	15	220	175	40	36
250	/	31	G1"	/	/	/	270	220	50	46

TGCJ series Standard Cylinder



● Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

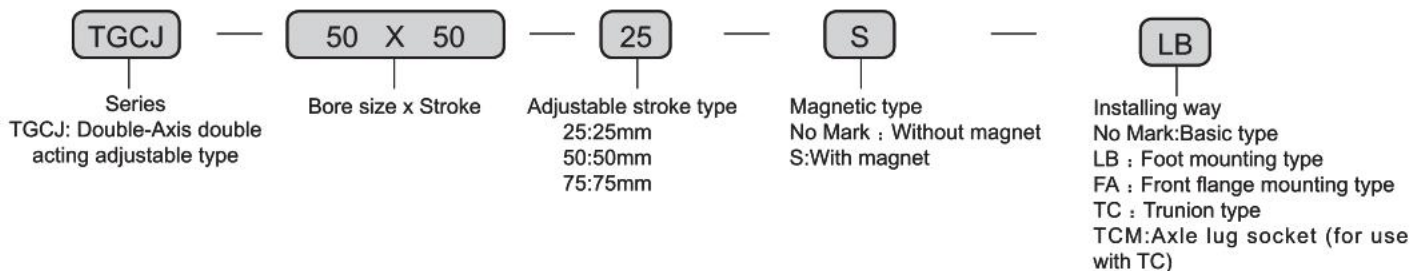
With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ Graphics Sign



● Ordering Code



■ Example

- 1) Bore:50mm, stroke:50mm, adjustable stroke:25, LB installation, Code : TGCJ50×50-25-LB
- 2) Bore:32mm, stroke:100mm, adjustable stroke:25, FA installation, Code : TGCJ32×100-25-FA

■ Standard Specification

Bore(mm)	32	40	50	63	80	100	125	160	200	250
Action	Double Action Type									
Applicable	Air									
Pressure Range	0.1 ~ 0.9 MPa									
Proof Pressure	1.35MPa									
Temperature Range	-10 ~ 60°C									
Speed Range	50 ~ 800mm/s									
Cushion Type	Adjustable Cushion									
Cushion Stroke	23mm	21mm			28mm	29mm	28mm	29mm	33mm	40mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2		Rc3/4		Rc1
Magnetic switch	CS1-U CS1-F									

**TGCJ series Standard Cylinder**

■ Stroke

Bore (mm)	Standard Stroke	Max.Stroke	Premissible.Stroke
32	25 50 75 80 100 125 150 160 175 200	200	300
40	25 50 75 80 100 125 150 160 175 200	200	300
50	25 50 75 80 100 125 150 160 175 200	200	300
63	25 50 75 80 100 125 150 160 175 200	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
250	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000

■ Figure Dimension

● ø32 ~ ø250

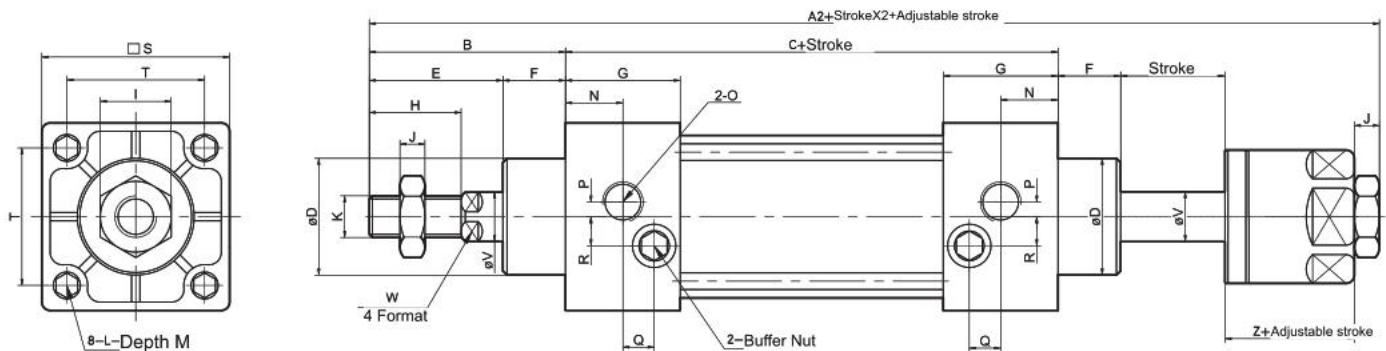
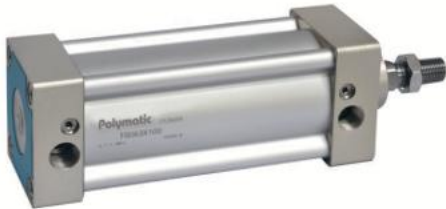


Figure Dimension(mm)

Bore	A1	B	C	D	E	F	G	H	I	J	K	L
32	187	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	191	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	207	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	210	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	257	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	263	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5
125	325	102	135	52	70	32	40	54	41	12	M27X2	M12X1.75
160	401	122	166	62	92	30	50	72	55	14	M36X2	M16X2
200	329	149	180	62	92	57	50	72	55	14	M36X2	M16X2
250	578	189	200	90	122	67	52	84	/	18	M42X2	M20X2.5

Bore	M	N	O	P	Q	R	S	T	V	W	Z
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10	21
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14	21
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17	23
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17	23
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22	29
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22	29
125	16	20	G1/2"	14	6.5	14	136	110	32	27	35
160	15	20	G3/4"	15	5	15	174	140	40	36	40
200	15	20	G3/4"	15	3	15	214	175	40	36	40
250	/	31	G1"	/	/	/	270	226	50	46	44

**TGU Series Standard Cylinder**



● **Product characteristics**

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

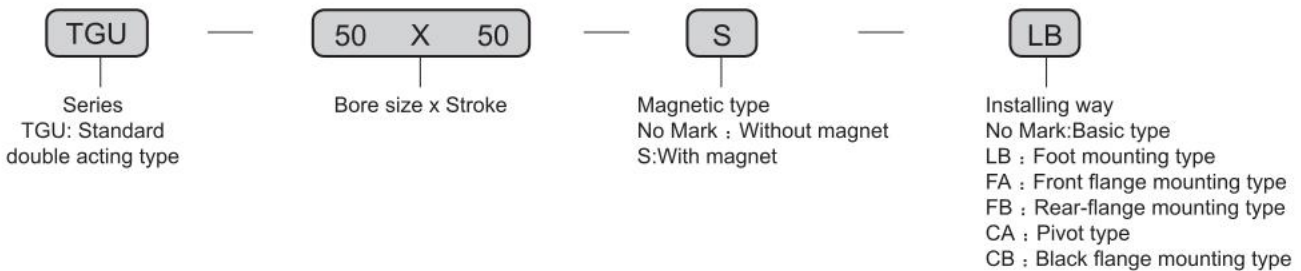
Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

■ **Graphics Sign**



● **Ordering Code**



■ **Example**

- 1) Bore:50mm, stroke:50mm, LB installation, Code : TGU50×50-LB
- 2) Bore:32mm, stroke:100mm, LA installation, Code : TGU32×100-FA

■ **Standard Specification**

Bore(mm)	32	40	50	63	80	100
Action	Double Action Type					
Applicable	Air					
Pressure Range	0.1 ~ 1.0 MPa					
Proof Pressure	1.5MPa					
Temperature Range	-10 ~ 60°C					
Speed Range	50 ~ 800mm/s					
Cushion Type	Adjustable Cushion					
Cushion Stroke	23mm	21mm			28mm	29mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2
Magnet switch			CS1-U	CS1-F		

TGU Series Standard Cylinder

Stroke

Bore (mm)	Standard Stroke	Max.Stroke	Permissible.Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000

\* Special stroke please contact with us

Figure Dimension

•  $\phi 32 \sim \phi 100$

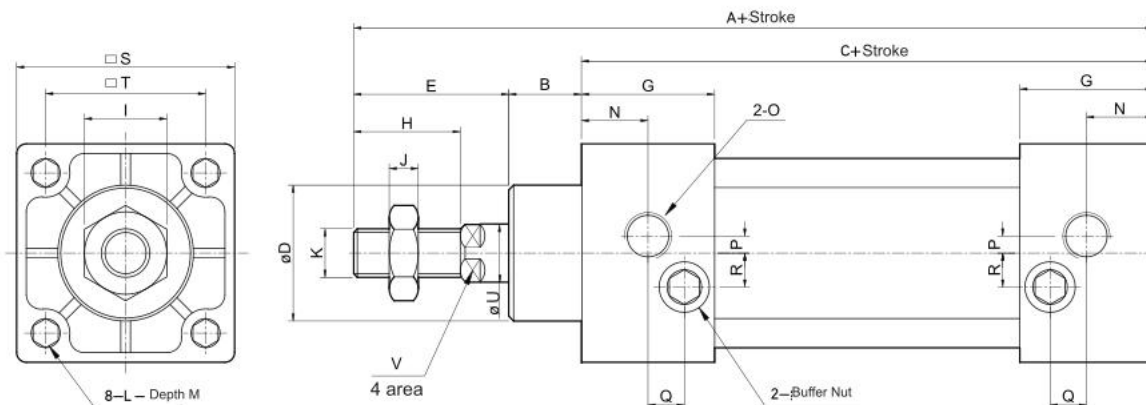


Figure Dimension(mm)

Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	142	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	150	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	153	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	182	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	188	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22

**TGUD Series Standard Cylinder**



● **Product characteristics**

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: many kinds of accessories to choose.

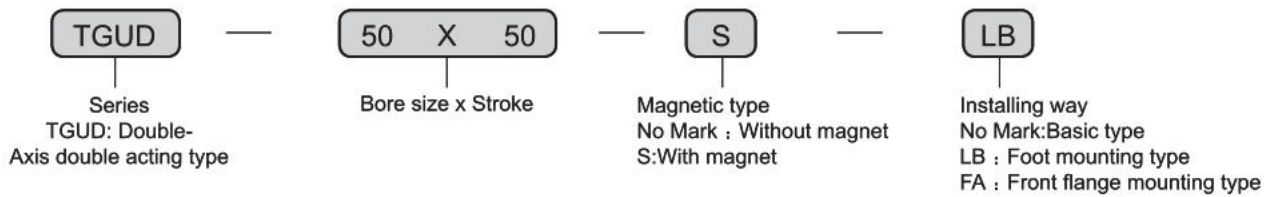
With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

■ **Graphics Sign**



V

● **Ordering Code**



■ **Example**

- 1) Bore:50mm, stroke:50mm, LB installation, Code : TGUD50×50-LB
- 2) Bore:32mm, stroke:100mm, FA installation, Code : TGUD32×100-FA

■ **Standard Specification**

Bore(mm)	32	40	50	63	80	100
Action	Double Action Type					
Applicable	Air					
Pressure Range	0.1 ~ 1.0 MPa					
Proof Pressure	1.5MPa					
Temperature Range	-10 ~ 60°C					
Speed Range	50 ~ 800mm/s					
Cushion Type	Adjustable Cushion					
Cushion Stroke	23mm	21mm			28mm	29mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2
Magnet switch	CS1-U		CS1-F			

**TGUD Series Standard Cylinder**

■ Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300	200	300
40	25 50 75 80 100 125 150 160 175 200 250 300	200	300
50	25 50 75 80 100 125 150 160 175 200 250 300	200	300
63	25 50 75 80 100 125 150 160 175 200 250 300	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	200	300
100	25 50 75 80 100 125 150 160 175 200 250 300	200	300

\* Special stroke please contact with us

■ Figure Dimension

•  $\varnothing 32 \sim \varnothing 100$

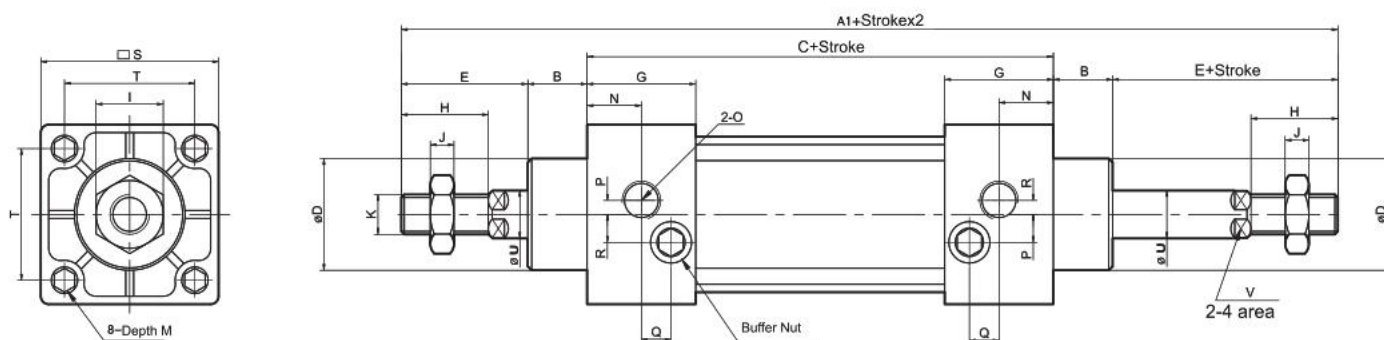


Figure Dimension(mm)

Bore	A1	B	C	D	E	F	G	H	I	J	K	L
32	147	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	191	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	207	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	210	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	257	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	263	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22

**TGUJ Series Standard Cylinder**



● **Product characteristics**

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: many kinds of accessories to choose.

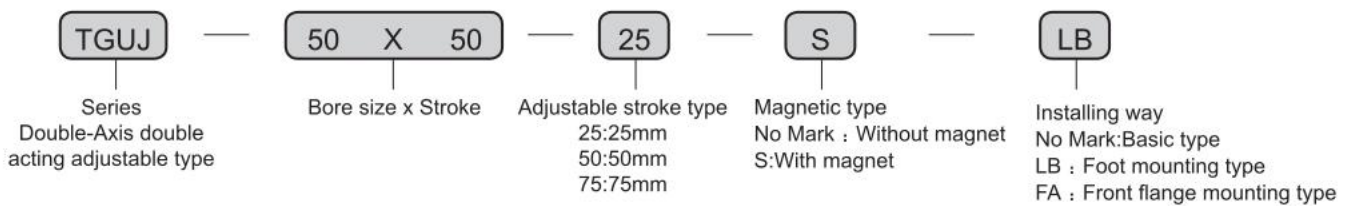
With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ **Graphics Sign**



● **Ordering Code**



■ **Example**

- 1) Bore:50mm, stroke:50mm, adjustable stroke:25, LB installation, Code : TGUJ50×50-25-LB
- 2) Bore:32mm, stroke:100mm, adjustable stroke:25, FA installation, Code : TGUJ32×100-25-FA

■ **Standard Specification**

Bore(mm)	32	40	50	63	80	100
Action	Double Action Type					
Applicable	Air					
Pressure Range	0.1 ~ 1.0 MPa					
Proof Pressure	1.5MPa					
Temperature Range	-10 ~ 60°C					
Speed Range	50 ~ 800mm/s					
Cushion Type	Adjustable Cushion					
Cushion Stroke	23mm	21mm			28mm	29mm
Prot Size	Rc1/8	Rc1/4		Rc3/8		Rc1/2
Magnet switch	CS1-U		CS1-F			

**TGUJ Series Standard Cylinder**

■ Stroke

Bore (mm)	Standard Stroke	Max.Stroke	Permissible.Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300	200	300
40	25 50 75 80 100 125 150 160 175 200 250 300	200	300
50	25 50 75 80 100 125 150 160 175 200 250 300	200	300
63	25 50 75 80 100 125 150 160 175 200 250 300	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	200	300
100	25 50 75 80 100 125 150 160 175 200 250 300	200	300

\* Special stroke please contact with us

■ Figure Dimension

•  $\varnothing 32 \sim \varnothing 100$

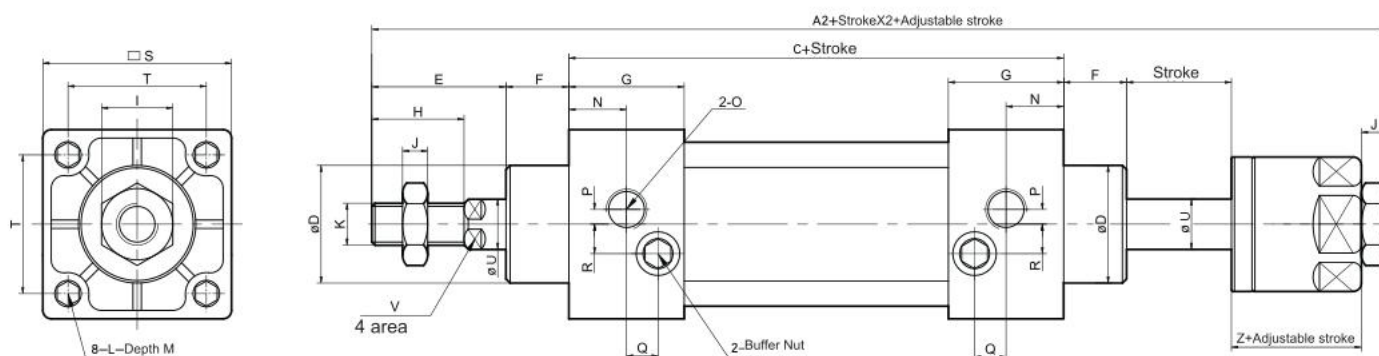


Figure Dimension(mm)

Bore	A1	B	C	D	E	F	G	H	I	J	K	L
32	147	47	93	28	32	15	27.5	22	17	6	M10X1.25	M6X1
40	191	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	207	57	93	36	42	15	27.5	32	23	8	M16X1.5	M6X1
63	210	57	96	36	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	257	75	107	47	54	21	33	40	26	10	M20X1.5	M10X1.5
100	263	75	108	47	54	21	33	40	26	10	M20X1.5	M10X1.5

Bore	M	N	O	P	Q	R	S	T	V	W	Z
32	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10	21
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14	21
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17	23
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17	23
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22	29
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22	29

**TGL Series stainless steel cylinder**

According to : ISO6432



● **Product characteristics**

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

● **Cylinder installation instructions**

- 1、 Before installation, be sure if the cylinder was not damaged during transportation. Check if connecting parts were loose, etc.
- 2、 When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
- 3、 When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
- 4、 Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
- 5、 Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator, when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
- 6、 After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
- 7、 At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
- 8、 In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
- 9、 In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system.
- 10、 If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.



● **Theoretical calculation of the cylinder output**

$$F = P \times A$$

F : cylinder theoretical output

P : Working pressure

A : Piston force area

■ **Theoretical force sheet**

Cylinder inside diameter	8		10		12		16		20		25		32		40		
External diameter of piston rod	4		4		6		6		8		10						
Action Type	Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		
	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	
Compression area cm <sup>2</sup>	0.5	0.37	0.78	0.65	1.13	0.85	2.01	1.73	3.14	2.64	4.90	4.12	8.04	6.90	12.56	10.55	
Air pressure Kgf/cm <sup>2</sup>	1	-	-	-	-	-	2.01	1.73	3.14	2.64	4.90	0.12	08.04	06.90	12.56	10.55	
	2	-	-	0.16	0.13	2.26	1.7	4.02	3.46	6.28	5.28	9.80	8.24	16.08	13.80	25.12	21.10
	3	0.15	0.11	0.23	0.2	3.4	2.55	6.03	5.19	9.42	7.92	14.70	12.36	24.12	20.70	37.68	31.65
	4	0.2	0.15	0.31	0.26	4.52	3.4	8.04	6.92	12.56	10.56	19.60	16.48	32.16	27.60	50.24	42.20
	5	0.25	0.18	0.39	0.33	5.65	4.25	10.05	8.65	15.70	13.20	24.50	20.60	40.20	34.50	62.80	52.75
	6	0.3	0.22	0.47	0.39	6.78	5.1	12.06	10.39	18.84	15.84	29.40	24.72	48.24	41.40	75.36	63.30
	7	0.35	0.26	0.55	0.46	7.91	5.95	14.07	12.11	21.98	18.48	34.30	28.84	56.28	48.30	87.92	73.85
	8	0.4	0.3	0.62	0.52	9.04	6.8	16.08	13.84	25.12	21.12	39.20	32.96	64.32	55.20	100.48	84.40
	9	0.45	0.33	0.70	0.59	10.17	7.65	18.09	15.57	28.26	23.76	44.10	37.08	72.36	62.10	113.04	94.95

**TGL Series stainless steel cylinder**

According to : ISO6432



● Product characteristics

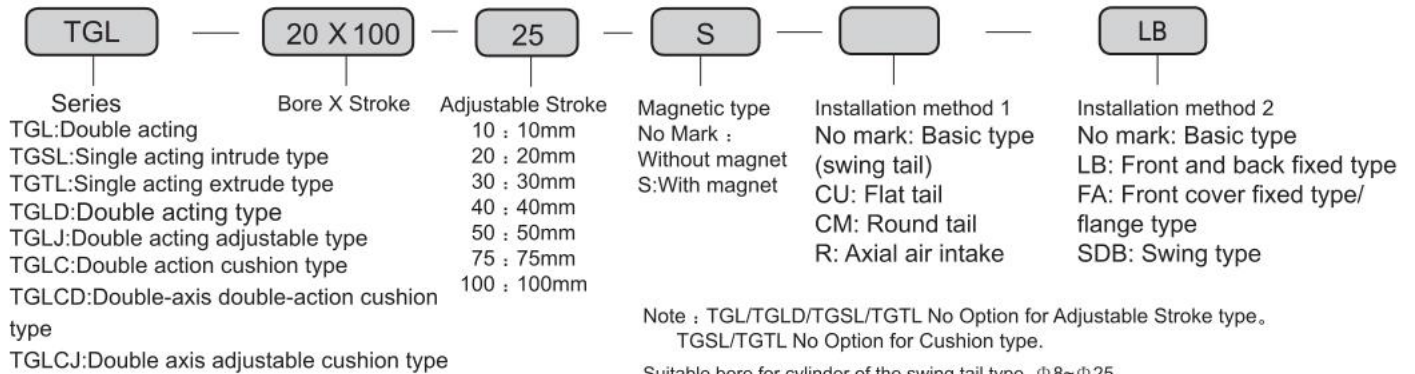
Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

● Ordering Code



Note : TGL/TGLD/TGSL/TGTL No Option for Adjustable Stroke type.  
TGSL/TGTL No Option for Cushion type.

Suitable bore for cylinder of the swing tail type Φ8~Φ25  
Suitable bore for cylinder of the flat tail Φ8~Φ40  
Suitable bore for cylinder of the round tail type, axial intake type  
cylinder Φ16~Φ40  
Φ8~Φ25 basic type is swing tail type  
Φ32~Φ40 basic type is round tail type

■ Ordering example 1) Bore:20mm, Stroke:100mm, single clevis air cushion, Code: TGL20×100-S

■ Specification

Bore (mm)	8	10	12	16	20	25	32	40
Medium	Air							
Action way	Double Acting Type							
Ensure operatin pressure MPa{kgf/cm2}	1.5{1.53}							
Max pressure MPa{kgf/cm2}	1.0{10.2}							
Min pressure MPa{kgf/cm2}	0.1{1}				0.05{0.5}			
Environment and fluid emperature	-10 ~ 60°C(No Freeze)							
Piston speed	Rubber Cushion (Standard)				Air Cushion (By Yourself)			
Relax	50 ~ 750mm/s							
* Lubricate	No							
Power allonled(J)	0.02	0.03	0.04	0.09	0.27	0.4		
Pipe Size	M5×0.8				G1/8			
Magnet switch	CS1-C73							

\* If Lubrication, please use ISOVG32 No1

■ Stroke

Bore (mm)	Standard stroke (mm)		Max.Stroke (mm)
	Single acting	Double acting	
8	10,15,20,25,40,50	10,15,20,25,40,50,75,80,100,125,150	150
10	10,15,20,25,40,50	10,15,20,25,40,50,75,80,100,125,150,160,175,200	200
12	10,15,20,25,40,50	10,15,20,25,40,50,75,80,100,125,150,160,175,200,250	250
16	10,15,20,25,40,50,75,80,100	10,15,20,25,40,50,75,80,100,125,150,160,175,200,250,300	300
20			500
25	10,15,20,25,40,50,75,80,100	10,15,20,25,40,50,75,80,100,125,150,160,175,200,250,300 350,400,450,500,600	600
32			600
40			600

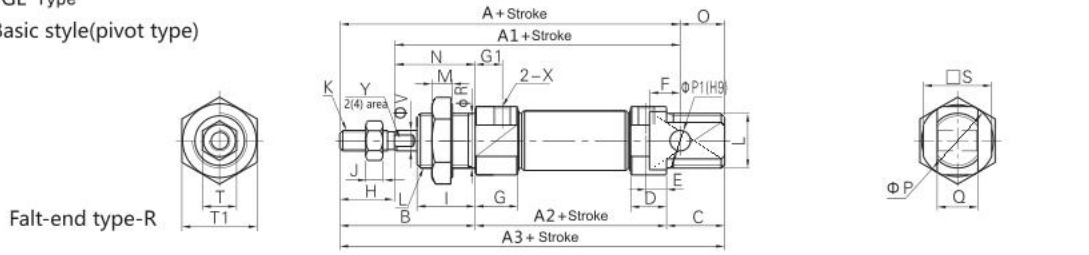
**TGL Series stainless steel cylinder**

According to ISO6432

■ Figure Dimension

TGL Type

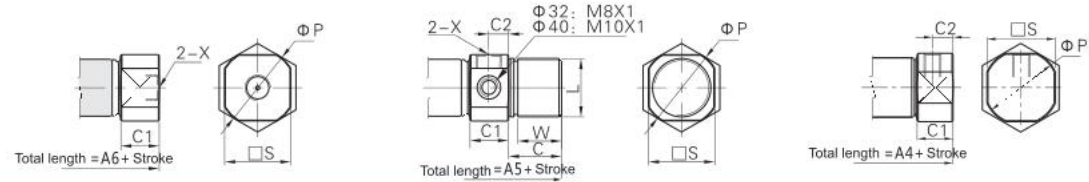
Basic style(pivot type)



Falt-end type-R

Round-end type-CM

Falt-end type-CU



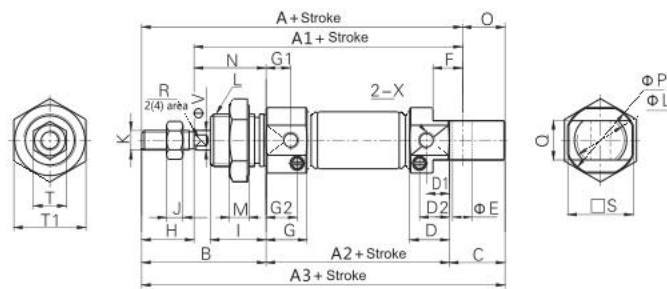
BORE	A	A1	A2	A3	B	C	D	E	F	G	G1	H	I	J	K
8	78	64	48	90	28	12	10	4	6	10	6	12	12	3	M4X0.7
10	78	64	48	90	28	12	10	4	6	10	6	12	12	3	M4X0.7
12	89	75	53	105	38	17	10	6	9	10	6	16	17	5	M6X1
16	95	82	60	115	38	17	10	6	9	10	6	16	17	5	M6X1
20	112	95	71	132	44	20	14	7.5	12	14	7.5	20	20	5	M8X1.25
25	120	104	78	142	48	22	15	8	12	15	8	22	22	6	M10X1.25
32	148	125	75	160	10	27	16	-	14	16	7	22	27	6	M10X1.25

BORE	L	M	N	O	P	P1	Q	R	S	T	T1	X	V	Y
8	M12X1.25	6	16	10	14	4	8	12	19	7	17	M5X0.8	4	/
10	M12X1.25	6	16	10	14	4	8	12	19	7	17	M5X0.8	4	/
12	M16X1.5	6	22	14	18	6	12	16	24	10	23	M5X0.8	6	5
16	M16X1.5	6	22	13	21	6	12	16	24	10	23	M5X0.8	6	5
20	M22X1.5	7	24	11	27	8	16	22	32	13	32	1/8	8	6
25	M22X1.5	7	26	11	30	8	16	22	32	17	32	1/8	10	8
32	M24X2	7	38	-	38.5	-	-	30	34.5	17	45	1/8	12	10

TGL-C Type

Bore: Ø16~Ø25

Basic style(pivot type)



Round-end type-CM

Falt-end type-CU



Bore (mm)	A	A1	A2	A3	A4	A5	B	C	D	D1	D2	D3	E	F	G	G1	G2	H	I	J
16	98	82	56	111	94	111	38	17	10	6	6	10	6	9	10	7.5	6.8	16	17	5
20	115	95	62	126	106	126	44	20	14	7.6	10.5	14	8	12	14	7.5	10.3	20	20	6
25	126	104	65	137	113.5	137	50	22	15	8	8	15	8	12	15	8	11.1	22	22	6

Bore (mm)	K	L	M	N	O	P	Q	R	S	T	T1	X	V	W
16	M6×1.0	M16×1.5	6	23	13	21	12	5	20	10	23	M5×0.8	6	13.5
20	M8×1.25	M22×1.5	7	24	11	27	16	6	25	13	32	Rc1/8	8	16.5

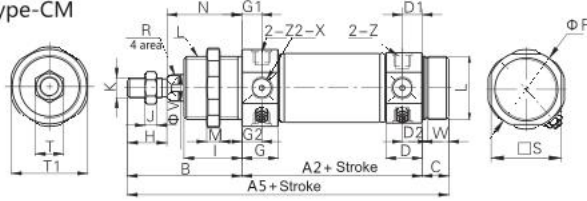
**TGL Series stainless steel cylinder**

■ Figure Dimension

According : ISO6432

TGL-C Type Bore:  $\varnothing 32 \sim \varnothing 40$

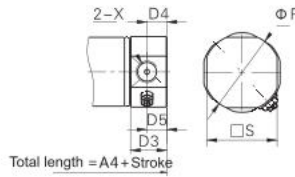
Round-end type-CM



Bore (mm)	A2	A4	A5	B	C	D	D1	D2	D3	D4	D5
32	68	124	140	58	14	16	9	11.5	11.1	7.5	11
40	89	157.5	174	69	16	22	12	12	21.5	11.5	14

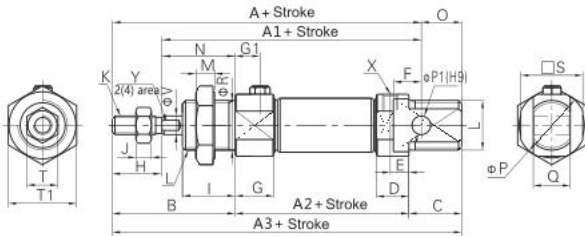
Bore (mm)	G	G1	G2	H	I	J	K	L	M
32	16	9	11.1	20	30	6	M10×1.25	M30×1.5	7
40	22	11	12	24	35	7	M12×1.25	M38×1.5	8

Falt-end type-CU

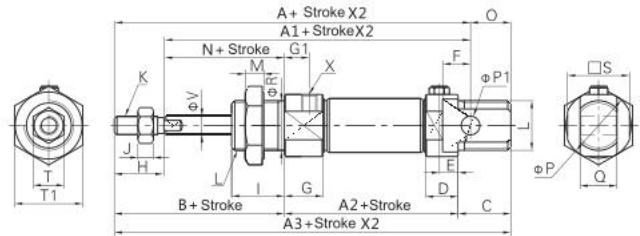


Bore (mm)	N	P	S	T	T1	V	W	X
32	38	38.5	34.5	17	45	12	10.5	Rc1/8
40	45	47	42.5	17	46	16	12.5	Rc1/4

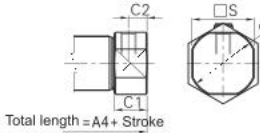
TGSL Type Basic style(pivot type)



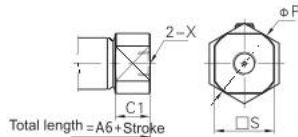
TGTL Type Basic style(pivot type)



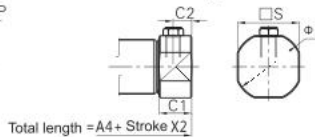
Falt-end type-CU



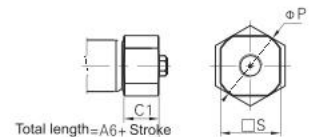
Axial Air-in-R



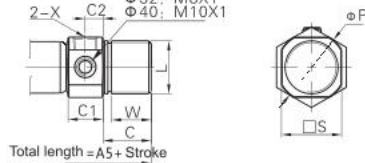
Falt-end type-CU



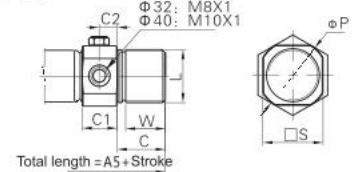
Axial Air-in-R



Round-end type-CM



Round-end type-CM



Symbol	A		A1		A2		A3		A4		A5		A6	
	0-50	51~100	0-50	51~100	0-50	51~100	0-50	51~100	0-50	51~100	0-50	51~100	0-50	51~100
8	101	—	89	—	71	—	111	—	99	—	—	—	—	—
10	101	—	89	—	71	—	111	—	99	—	—	—	—	—
12	116	—	100	—	75	—	130	—	113	—	—	—	—	—
16	123	148	107	132	81	106	136	161	119	144	136	161	119	144
20	140	165	120	145	87	112	151	176	131	156	151	176	131	156
25	151	176	129	154	90	115	162	187	139.5	164.5	162	187	140	165
32	—	—	—	—	—	—	—	—	150	175	165	190	151	176
40	—	—	—	—	—	—	—	—	183	208	199	224	183	208

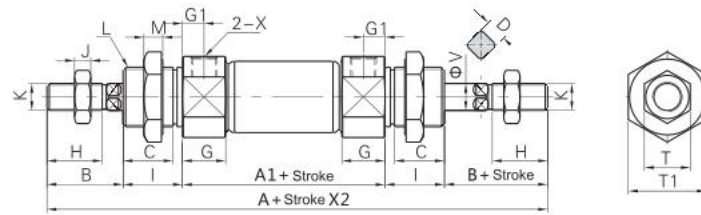
Bore	B	C	C1	C2	D	E	F	G	G1	H	I	J	K	L	M	N	O	P	P1	Q	R	T	T1	X	V	W	Y
8	28	12	10	6	10	4	6	10	6	12	12	3	M4×0.7	M12×1.25	6	16	10	14	4	10	12	7	17	M5×0.8	4	—	—
10	28	12	10	6	10	4	6	10	6	12	12	3	M4×0.7	M12×1.25	6	16	10	14	4	10	12	7	17	M5×0.8	4	—	—
12	38	17	10	6	10	6	9	10	6	16	17	5	M6×1.0	M16×1.5	6	23	14	18	6	12	16	10	23	M5×0.8	6	—	5
16	38	17	10	6	10	6	9	10	6	16	17	5	M6×1.0	M16×1.5	6	23	13	21	6	12	16	10	23	M5×0.8	6	13.5	5
20	44	20	14	7.5	14	7.5	12	14	7.5	20	20	5	M8×1.25	M22×1.5	7	24	11	27	8	16	22	13	32	Rc1/8	8	16.5	6
25	50	22	15	8	15	8	12	15	8	22	22	6	M10×1.25	M22×1.5	7	28	11	30	8	16	22	17	32	Rc1/8	10	18.5	8
32	58	14	16	9	—	—	—	16	9	20	30	6	M10×1.25	M30×1.5	7	38	—	38.5	—	—	30	17	45	Rc1/8	12	10.5	1
40	69	16	22	11	—	—	—	22	11	24	35	7	M12×1.25	M38×1.5	8	45	—	47	—	—	38	17	46	Rc1/4	16	12.5	1

**TGL Series stainless steel cylinder**

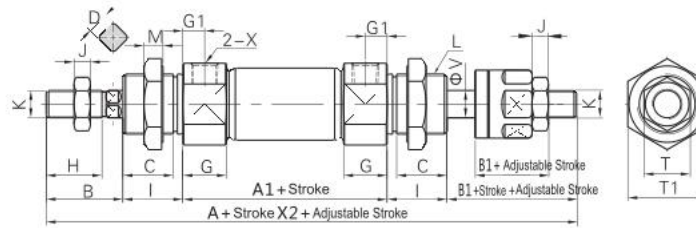
According to : ISO6432

■ Figure Dimension

TGLD Type

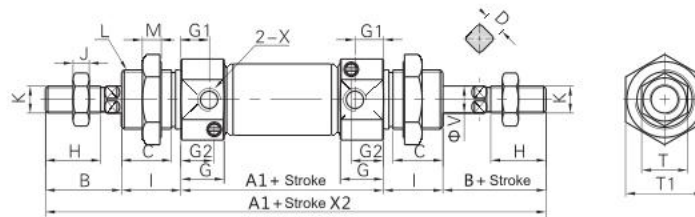


TGLJ Type

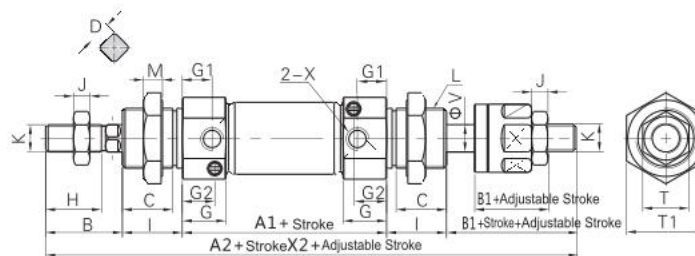


BORE	A	A1	A2	B	B1	C	D	G	G1	H	I	J	K	L	M	T	T1	X	V
8	112	46	112	16	15	10	/	10	6	10.5	12	3	M4X0.7	M12X1.25	6	7	17	M5	4
10	112	46	112	16	15	10	/	10	6	10.5	12	3	M4X0.7	M12X1.25	6	7	17	M5	4
12	129	50	129	21	21	15	5	10	6	14	17	5	M6X1	M16X1.5	6	10	23	M5	6
16	132	56	132	21	21	15	5	10	6	14	17	5	M6X1	M16X1.5	6	10	23	M5	6
20	157	62	157	28	28	18	8	14	7	18	20	5	M8X1.25	M22X1.5	7	13	32	1/8	8
25	174	65	174	28	28	20	10	15	8	20	22	6	M10X1.25	M22X1.5	7	17	32	1/8	10

TGLD-C Type



TGLJ-C Type



Bore	A	A1	A2	B	B1	C	D	G	G1	G2	H	I	J	K	L	M	T	T1	X	V
16	132	56	132	21	21	13.5	5 (2 area)	10	6	6.8	14.5	17	5	M6x1.0	M16x1.5	6	10	23	M5x0.8	6
20	150	62	151	24	24	16.5	6 (2 area)	14	7.5	10.3	18	20	5	M8x1.25	M22x1.5	7	13	32	Rc1/8	8
25	165	65	164	28	27	18.5	8 (4 area)	15	8	11.1	20.5	22	6	M10x1.25	M22x1.5	7	17	32	Rc1/8	10
32	184	68	183	28	27	26.5	10 (4 area)	16	9	11.1	17.5	30	6	M10x1.25	M30x1.5	7	17	45	Rc1/8	12
40	227	89	221	34	28	31.5	14 (4 area)	22	11	12	21	35	7	M12x1.25	M38x1.5	8	17	46	Rc1/4	16

**TGM Series Mini Cylinder (Aluminum Barrel)**



● Aluminum barrel slim cylinder

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

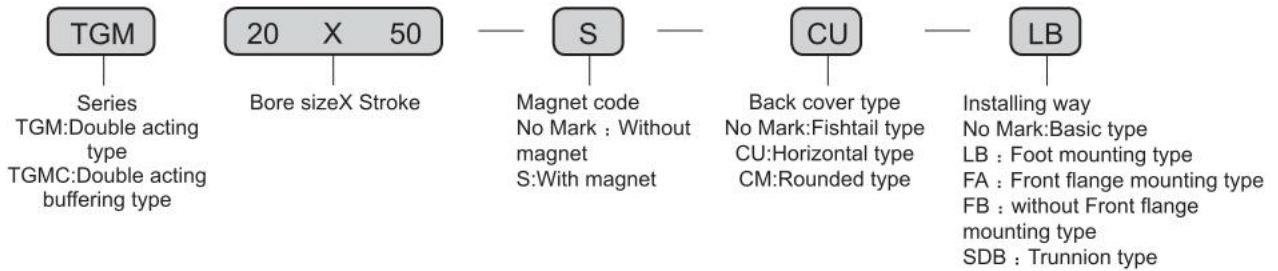
Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

■ Graphics Sign



● Ordering Code



■ Example

- 1) Bore:20mm, Stroke:50mm, Fishtail type back cover installation, SDB pattern, Code : TGM20×50-SDB
- 2) Bore:32mm, Stroke:100mm, Horizontal back cover and is aluminium slim cylinder, Code : TGM32×100-CU

■ Standard Specification

Bore(mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1 ~ 0.9MPa			
Proof pressure	1.35 MPa			
Temperature range	- 10 ~ 60°C			
Speed range	30 ~ 800 mm/s			
Prot Size	Rc1/8			Rc1/4

**TGM Series Mini Cylinder (Aluminum Barrel)**

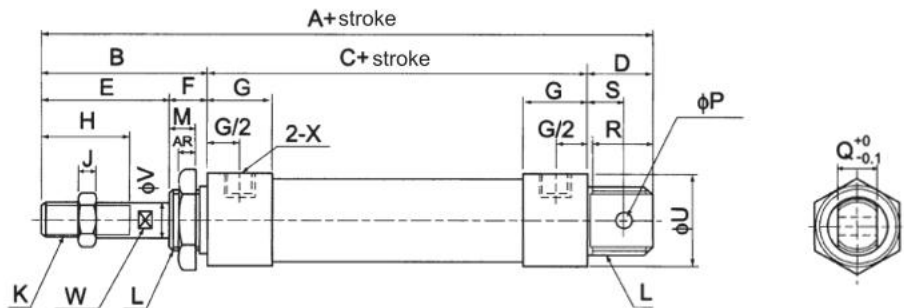
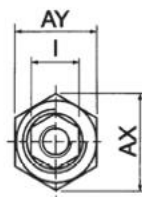
■ Stroke

Bore(mm)	Standard Stroke													Max. Stroke	Permissible. Stroke			
20	25	50	75	80	100	125	150	160	175	200	250	300	500	800				
25	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	800	1200
32	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	800	1200
40	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	1200	1500

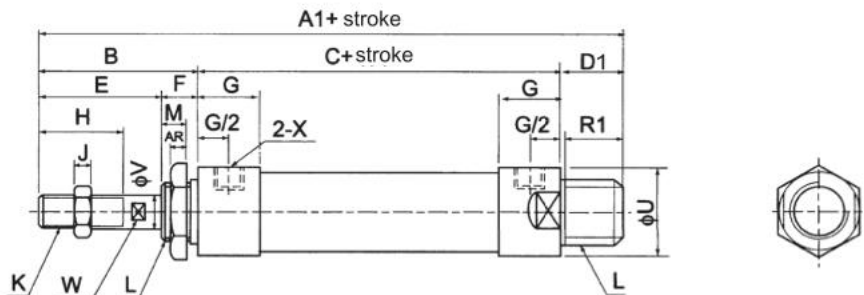
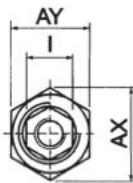
\* Special stroke please contact with us

■ Figure Dimension •  $\phi 20 \sim \phi 40$

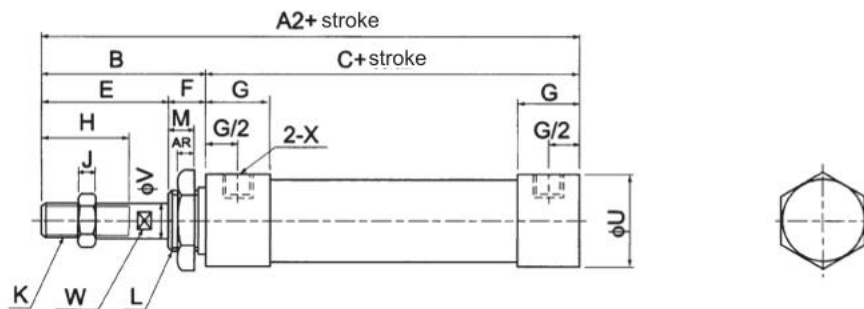
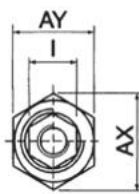
• Fishtail type



• Rounded type



• Horizontal type



BORE	A	B	C	D	E	F	G	H	I	J	K	L
16	114	38	57	16	22	16	10	16	10	5	M6X1	M16X1.5
20	131	40	70	21	28	12	16	20	12	6	M8X1.25	M22X1.5
25	135	44	70	21	30	14	16	22	17	6	M10X1.25	M22X1.5
32	141	44	70	27	30	14	16	22	17	6	M10X1.25	M24X2
40	165	46	92	27	32	14	22	24	17	7	M12X1.25	M30X2

BORE	M	P	Q	R	S	U	V	W	X	AR	AX	AY
16	10	6	12	14	9	21	6	5	M5	6	25	22
20	10	8	16	19	12	29	8	6	1/8	7	33	29
25	12	8	16	19	12	34	10	8	1/8	7	33	29
32	12	10	26	25	15	39.5	12	10	1/8	8	37	32
40	12	12	20	25	15	49.5	16	14	1/4	9	47	41

**TGM Series Mini Cylinder (Double Axis)**



● Product characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

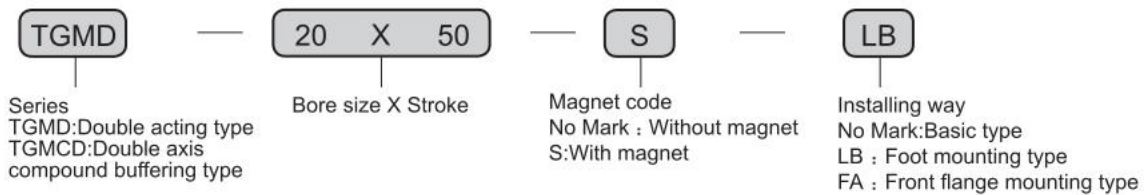
Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

■ Graphics Sign



● Ordering Code



■ Example

1) Bore:20mm, stroke:50mm, LB installation, Code : TGMD20×50-LB

■ Standard Specification

Bore(mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1 ~ 0.9MPa			
Proof pressure	1.35 MPa			
Temperature range	- 10 ~ 60°C (No Freeze)			
Speed range	30 ~ 800 mm/s			
Prot Size	Rc1/8			Rc1/4

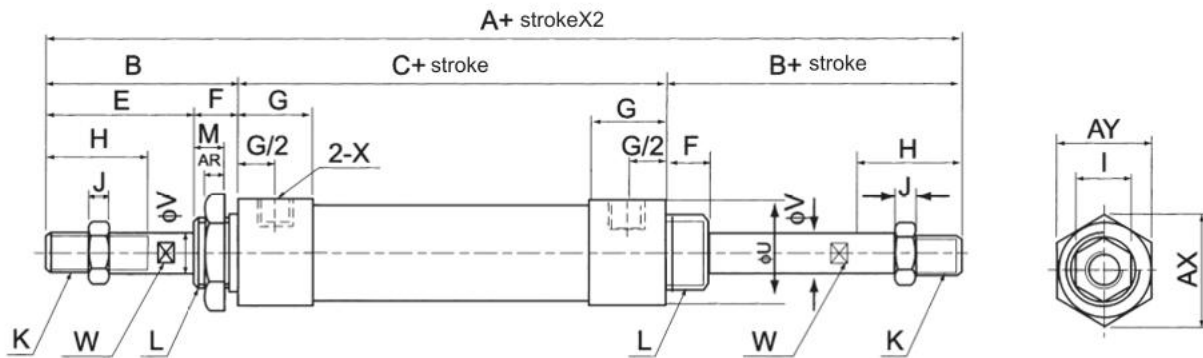
TGM Series Mini Cylinder (Double Axis)

■ Stroke

Bore(mm)	Standard Stroke											Max. Stroke	Permissible. Stroke
20	25	50	75	80	100	125	150	160	175	200		200	300
25	25	50	75	80	100	125	150	160	175	200	250	250	300
32	25	50	75	80	100	125	150	160	175	200	250	250	300
40	25	50	75	80	100	125	150	160	175	200	250	250	300

\* Special stroke please contact with us

■ Figure Dimension ●  $\phi 20 \sim \phi 40$



BORE	A	B	C	E	F	G	H	I	J	K	L
16	136	38	57	22	16	10	16	10	5	M6X1	M16X1.5
20	150	40	70	28	12	16	20	12	6	M8X1.25	M22X1.5
25	158	44	70	30	14	16	22	17	6	M10X1.25	M22X1.5
32	158	44	70	30	14	16	22	17	6	M10X1.25	M24X2
40	184	46	92	32	14	22	24	17	7	M12X1.25	M30X2

BORE	M	U	V	W	X	AR	AX	AY
16	10	21	6	5	M5	6	25	22
20	10	29	8	6	1/8	7	33	29
25	12	34	10	8	1/8	7	33	29
32	12	39.5	12	10	1/8	8	37	32
40	12	49.5	16	14	1/4	9	47	41

**TGM Series Mini Cylinder (Double Axis Adjustable)**



● Product characteristic

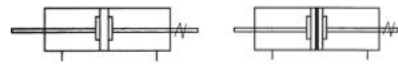
Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

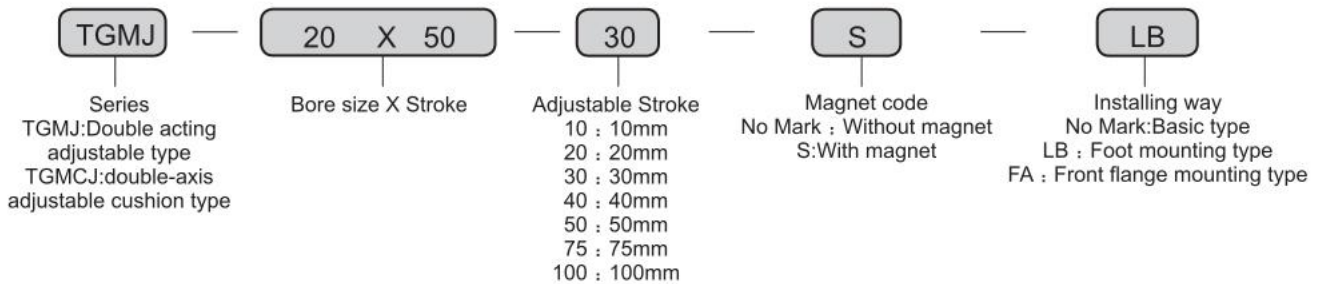
Kinds of mounting: Have kinds of accessories to choose.

Adjustable stroke: Attached with adjustable nut, the operator can adjust the stroke within its stroke range.

■ Graphics Sign



● Ordering Code



■ Example

1) Bore: 20mm, stroke: 50mm, adjustable stroke: 25, LB installation, Code : TGMJ20×50-25-LB

■ Standard Specification

Bore(mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1 ~ 0.9 MPa			
Proof pressure	1.35 MPa			
Temperature range	-10 ~ 60 °C (No Freeze)			
Speed range	30 ~ 800 mm/s			
Prot Size	Rc1/8			Rc1/4

**TGM Series Mini Cylinder (Double Axis Adjustable)**

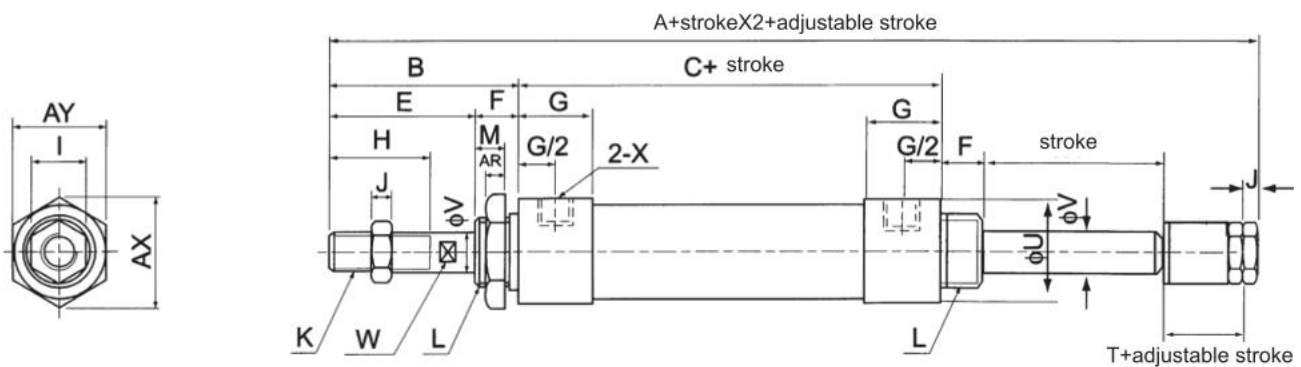
■ Stroke

Bore(mm)	Standard Stroke											Max. Stroke	Permissible. Stroke
20	25	50	75	80	100	125	150	160	175	200		200	300
25	25	50	75	80	100	125	150	160	175	200	250	250	300
32	25	50	75	80	100	125	150	160	175	200	250	250	300
40	25	50	75	80	100	125	150	160	175	200	250	250	300

\* Special stroke please contact with us

■ Figure Dimension

•  $\varnothing 20 \sim \varnothing 40$



BORE	A	B	C	E	F	G	H	I	J	K	L
16	136	38	57	22	16	10	16	10	5	M6X1	M16X1.5
20	150	40	70	28	12	16	20	12	6	M8X1.25	M22X1.5
25	158	44	70	30	14	16	22	17	6	M10X1.25	M22X1.5
32	158	44	70	30	14	16	22	17	6	M10X1.25	M24X2
40	184	46	92	32	14	22	24	17	7	M12X1.25	M30X2

BORE	M	T	U	V	W	X	AR	AX	AY
16	10	15	21	6	5	M5	6	25	22
20	10	19	29	8	6	1/8	7	33	29
25	12	21	34	10	8	1/8	7	33	29
32	12	21	39.5	12	10	1/8	8	37	32
40	12	21	49.5	16	14	1/4	9	47	41

**TGSM Series Aluminium Mini Cylinder**



● Product characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

■ Graphics Sign



● Ordering Code

**TGSM**

Series  
TGSM:Single acting type  
TGTM:single acting extrude type

**20 X 50**

Bore size X Stroke

**S**

Magnet code  
No Mark : Without magnet  
S:With magnet

**CU**

The type of back cover  
No Mark:Fishtail type  
CU : Flat type  
CM : Round type

**LB**

Installing way  
No Mark:Basic type  
LB : Foot mounting type  
FA : Front flange mounting type  
FB : without Front flange mounting type  
SDB : Trunnion type

■ Example

- 1) Bore:20mm, stroke:50mm, Back cover type Fishtail type, with runnion SDB, Code : TGTM20×50-SDB
- 2) Bore:32mm, stroke:100mm, Back cover type is Horizontal type, Code : TGTM32×100

■ Standard Specification

Bore(mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1 ~ 0.9 MPa			
Proof pressure	1.35 MPa			
Temperature range	-10 ~ 60 °C (No Freeze)			
Speed range	50 ~ 800 mm/s			
Prot Size	Rc1/8			Rc1/4

■ Stroke

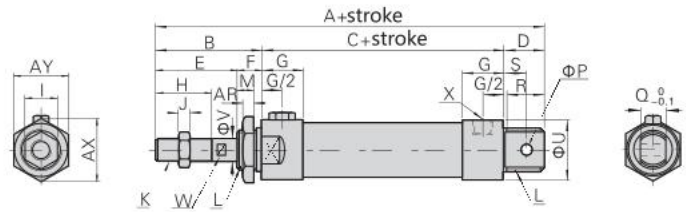
Bore(mm)	Standard Stroke				Max. Stroke
20	25	50	75	100	100
25	25	50	75	100	100
32	25	50	75	100	100
40	25	50	75	100	100

**TGSM Series Aluminium Mini Cylinder**

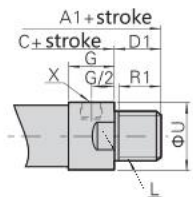
■ Figure Dimension

TGSM- Spring pressed back

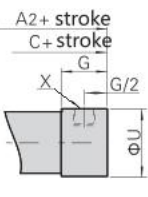
Flat type



Round type - CM



Flat type - CU



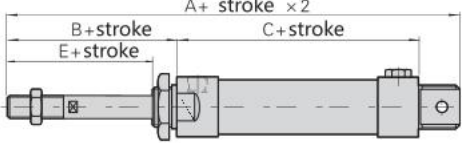
Bore	sign	A		A1		A2		B	C		D	D1	E	F
		≤50	51~100	≤50	51~100	≤50	51~100		≤50	51~100				
20		156	181	147	172	135	160	40	95	120	21	12	28	12
25		160	185	153	178	139	164	44	95	120	21	14	30	14
32		166	191	153	178	139	164	44	95	120	27	14	30	14
40		190	215	177	202	163	188	46	117	142	27	14	32	14

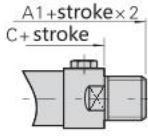
Bore	G	H	I	J	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	16	20	12	6	M8×1.25	M22×1.5	10	8	16	19	10	12	27	8	6	Rc1/8	7	33	29
25	16	22	17	6	M10×1.25	M22×1.5	12	8	16	19	12	12	31.5	10	8	Rc1/8	7	33	29
32	16	22	17	6	M10×1.25	M24×2.0	12	10	16	25	12	15	38.5	12	10	Rc1/8	8	37	32
40	22	24	17	7	M12×1.25	M30×2.0	12	12	20	25	12	15	47	16	14	Rc1/4	9	47	41

TGTM - Spring pressed out

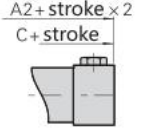
Flat type



Round type - CM



Flat type - CU

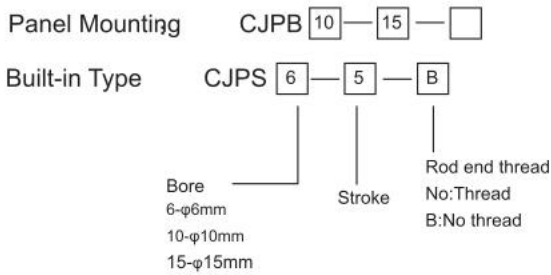


Bore	sign	A		A1		A2		C	
		≤50	51~100	≤50	51~100	≤50	51~100	≤50	51~100
20		156	181	147	172	135	160	95	120
25		160	185	153	178	139	164	95	120
32		166	191	153	178	139	164	95	120
40		190	215	177	202	163	188	117	142

**CJP (φ6-φ15)**

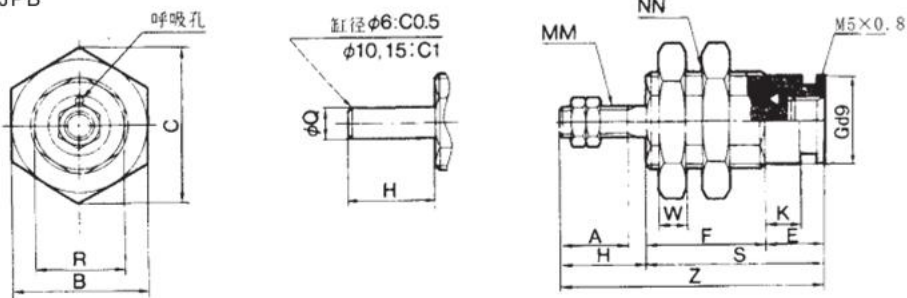


**Ordering Code**



**Figure Dimension(mm)**

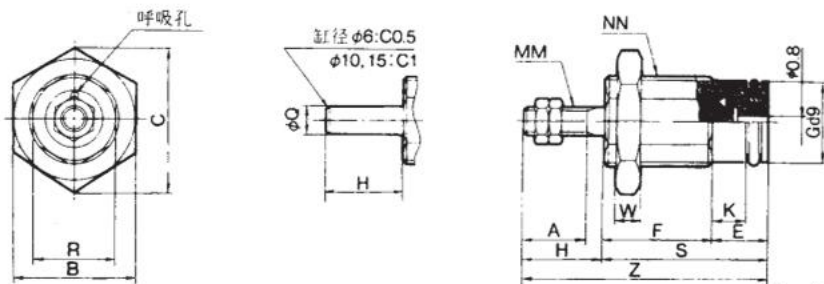
Panel mounting CJPB



st:Bore Stroke(mm)

Bore(mm)	A	B	C	E	S			φG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	125	195	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	145	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	3	32.5	39	46	5
15	12	27	31	7	165	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	4	37.5	43.5	50	6

Panel mounting CJPS



st:Bore Stroke(mm)

Bore(mm)	A	B	C	E	S			φG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	125	195	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	145	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	3	32.5	39	46	5
15	12	27	31	7	165	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	4	37.5	43.5	50	6

**Needle cylinder (Single Act)**

**Standard Specification**

Bore (mm)	6	10	15
Fluid	Air		
Acting	Single act-Spring Draw		
Proof pressure	10.5MPa{1.05kgf/cm <sup>2</sup> }		
Max.pressure	7MPa{0.7kgf/cm <sup>2</sup> }		
Min.pressure	2MPa{0.2kgf/cm <sup>2</sup> }	1.5MPa{0.15kgf/cm <sup>2</sup> }	
Environment and fluid temperature	5-60°C		
Cushion	No		
Stroke tolerance	+1.0, 0		
* Lubrication	No need		
Prot Size	M5×0.8{Panel mounting}		

\* Lubricate please use ISOVG32

**Order example**

- 1) Panel mounting; No thread, Bore; 6, Stroke; 10,  
Code; CJPB6-10-B
- 2) Built-in type; thread, Bore; 10, Stroke; 15,  
Code; CJPS10-15

**Stroke/Spring Force**

Bore (mm)	Stroke(mm)	Retractable position	Extended position
6	5,10,15	150	400
10	5,10,15	250	610
16	5,10,15	450	1100

# Polymatic<sup>TM</sup>

PNEUMATIC SOLUTIONS



Compact Cylinder

● Characteristic

It is a kind of compact cylinder type, with small axial size. less space, light structure and handsome shape. All kinds of fixture and special machinery can be compactly designed with it. It can bear large transverse load and can be installed directly without accessories.

■ Theoretical Force Sheet

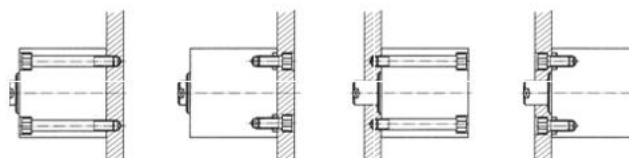
Cylinder inside diameter	External diameter of piston rod	Action Type	Compression area cm <sup>2</sup>	Air pressure Kg/cm <sup>2</sup>							
				1.0	2.0	3.0	4.0	5.0	6.0	7.0	
12	6	Extrusion Single action	1.13	—	0.70	1.83	2.96	4.09	5.22	6.35	
		Single action drawing-in	0.85	—	0.14	0.99	1.84	2.69	3.54	4.39	
		Double action	Push	1.13	—	2.26	3.39	4.52	5.65	6.78	7.91
			Pluk	0.85	—	1.70	2.55	3.40	4.25	5.10	5.95
16	6	Extrusion Single action	2.01	—	1.36	3.37	5.38	7.39	9.40	11.41	
		Single action drawing-in	1.73	—	0.80	2.53	4.26	5.99	7.72	9.45	
		Double action	Push	2.01	—	4.02	6.03	8.04	10.05	12.06	14.07
			Pluk	1.73	—	3.46	5.19	6.92	8.65	10.38	12.11
20	8	Extrusion Single action	3.14	—	2.87	6.01	9.15	12.29	15.43	18.57	
		Single action drawing-in	2.64	—	1.87	4.51	7.15	9.79	12.43	15.07	
		Double action	Push	3.14	—	6.28	9.42	12.56	15.70	18.84	21.98
			Pluk	2.64	—	5.28	7.92	10.56	13.20	15.84	18.48
25	10	Extrusion Single action	4.90	—	5.80	10.70	15.60	20.50	25.40	30.30	
		Single action drawing-in	4.12	—	4.24	8.36	12.48	16.60	20.72	24.84	
		Double action	Push	4.90	—	9.80	14.70	19.60	24.50	29.40	34.30
			Pluk	4.12	—	8.24	12.36	16.48	20.60	24.72	28.84
32	12	Extrusion Single action	8.04	—	11.21	19.25	27.29	35.33	43.37	51.41	
		Single action drawing-in	6.90	—	8.93	15.83	22.73	29.63	36.53	43.43	
		Double action	Push	8.04	—	16.08	24.12	32.16	40.20	48.24	56.28
			Pluk	6.90	—	13.80	20.70	27.60	34.50	41.40	48.30
40	16	Extrusion Single action	12.56	—	20.08	32.64	45.20	57.76	70.32	82.88	
		Single action drawing-in	10.55	—	16.06	26.61	37.16	47.71	58.26	68.81	
		Double action	Push	12.56	12.56	25.12	37.68	50.24	62.80	75.36	87.92
			Pluk	10.55	10.55	21.10	31.65	42.20	52.75	63.30	73.85
50	20	Double action	Push	19.63	19.63	39.26	58.89	78.52	98.15	117.78	137.41
			Pluk	16.49	16.49	32.98	49.47	65.96	82.45	98.94	115.43
63	20	Double action	Push	31.17	31.17	62.34	93.51	124.68	155.85	187.02	218.19
			Pluk	28.03	28.03	56.06	84.09	112.12	140.15	168.18	196.21
80	25	Double action	Push	50.26	50.26	100.52	150.78	201.04	251.30	301.56	351.82
			Pluk	45.36	45.36	90.72	136.08	181.44	226.80	272.16	317.52
100	32	Double action	Push	78.53	78.53	157.06	235.59	314.12	392.65	471.18	549.71
			Pluk	70.49	70.49	140.98	211.47	281.96	352.45	422.94	493.43

● Calculation of cylinder's theoretic force

$$F = P \times A - F_0$$

F:Theoretical force  
P:Pressure  
A:Piston area  
F<sub>0</sub>:Regain power of spring

● Mounting Type



**TGN/TGSN/TGTN Series Compact Cylinder**



● **Characteristic**

**Thin and light:** In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

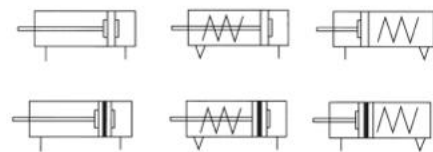
**Easy to install:** With the embedding type of mounting, need nothing and save room.

**Easy to maintain:** With simple design to assemble, install and repair easily.

**Magnet switch:** Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

**Adjustable stroke:** Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ **Graphics Sign**



● **Ordering Code**



■ **Example**

- 1) Bore:20mm, stroke:30mm, With magnet, Code : TGN-S-20×30-B
- 2) Bore:32mm, stroke:10mm, no thread, Code : TGN-32×10-N

■ **Specification**

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
	Extrusion Single acting type		Single acting drawing-in type				-			
Applicable medium	Air									
Pressure range	Double acting type	0.1 ~ 0.9 MPa								
	Single acting type	0.2 ~ 0.9 MPa				-				
Proof pressure	1.35 MPa									
Temperature range	- 10 ~ 60°C (No Freeze)									
Speed range	Double acting type	30 ~ 500 mm/s				30 ~ 350 mm/s		30 ~ 250 mm/s		
	Single acting type	100 ~ 500 mm/s				-				
Cushion type	Mounted Cushion									
Port size	M5x0.8				Rc1/8		Rc1/8		Rc1/8	

**TGN/TGSN/TGTN Series Compact Cylinder**

■ Stroke

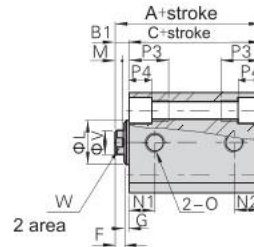
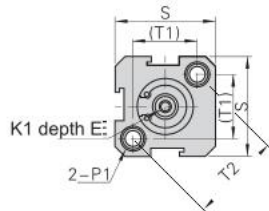
Bore(mm)		12	16	20	25		32	40	50	63	80	100
Double acting type	Without magnet	5~60mm 5mm /grade	5~85mm 5mm /grade	5~90mm 5mm /grade	100~110mm 10mm /grade	5~90mm 5mm /grade	100~130mm 10mm /grade					
	With magnet	5~50mm 5mm /grade	5~75mm 5mm /grade	5~90mm 5mm /grade	100mm	5~90mm 5mm /grade	100~120mm 10mm /grade					
Single acting type	Without magnet	5~30mm 5mm /grade	5~30mm 5mm /grade	5~30mm 5mm /grade		5~30mm 5mm /grade	-					
	With magnet	5~30mm 5mm /grade	5~30mm 5mm /grade	5~30mm 5mm /grade		5~30mm 5mm /grade	-					
Max.stroke		60mm		100mm		120mm		130mm				

\* Special stroke please contact with as

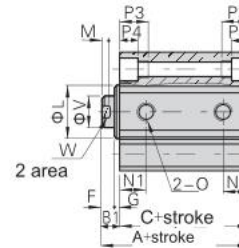
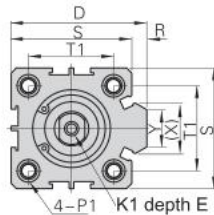
■ Figure Dimension

● TGN, TGNS

●  $\phi 12 \sim \phi 16$



●  $\phi 20 \sim \phi 100$



BORE	WITH OUT MAGNET		WITH MAGNET		B1	D	E	F	G	K1	L	M	N1	N2	O
	A	C	A	C											
12	22	17	32	27	5	/	6	4	1	M3X0.5	10	3	6.3	6.3	M5X0.8
16	24	18.5	34	28.5	5.5	/	6	4	1.5	M3X0.5	11	3	7.3	7.3	M5X0.8
20	25	19.5	35	29.5	5.5	36	8	4	1.5	M4X0.7	15	3	7.5	7.5	M5X0.8
25	27	21	37	31	6	42	10	4	2	M5X0.8	17	3	8	8	M5X0.8
32	31.5	24.5	41.5	34.5	7	50	12	4	3	M6X1	22	3	9	9	Rc1/8
40	33	26	43	36	7	58.5	12	4	3	M8X1.25	28	3	10	10	Rc1/8
50	37	28	47	38	9	71.5	15	5	4	M10X1.5	38	3	10	10	Rc1/4
63	41	32	51	42	9	84.5	15	5	4	M10X1.5	40	3	11.8	11.8	Rc1/4
80	52	41	62	51	11	104	20	6	5	M14X1.5	45	4	14	14	Rc3/8
100	63	51	73	61	12	124	20	7	5	M18X1.5	55	4	17.5	17.5	Rc3/8

BORE	P1	P3	P4	R	S	T1	T2	V	W	X	Y
12	Double Side: 6.3 Thread: M5x0.8 Through hole: 4.2	12	4.5	/	25	16.2	23	6	5	/	/
16	Double Side: 6.3 Thread: M5x0.8 Through hole: 4.2	12	4.5	/	29	19.8	28	6	5	/	/
20	Double Side: 6.3 Thread: M5x0.8 Through hole: 4.2	14	4.5	2	34	24	/	8	6	11.3	10
25	Double Side: 8.2 Thread: M6x1 Through hole: 4.6	15	5.5	2	40	28	/	10	8	12	10
32	Double Side: 8.2 Thread: M6x1 Through hole: 4.6	16	5.5	6	44	34	/	12	10	18.3	15
40	Double Side: 10 Thread: M8X1.25 Through hole: 6.5	20	7.5	6.5	52	40	/	16	14	21.3	16
50	Double Side: 11 Thread: M8X1.25 Through hole: 6.5	25	8.5	9.5	62	48	/	20	17	30	20
63	Double Side: 11 Thread: M8X1.25 Through hole: 6.5	25	8.5	9.5	75	60	/	20	17	28.7	20
80	Double Side: 14 Thread: M12X1.75 Through hole: 9.2	25	10.5	10	94	74	/	25	22	36	26
100	Double Side: 17.5 thread: M14X2 Through hole: 11.3	30	13	10	114	90	/	32	27	35	26

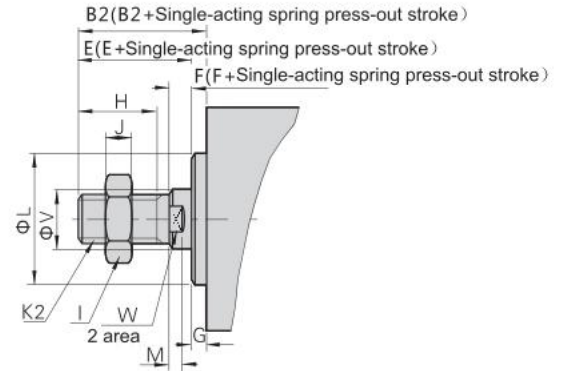
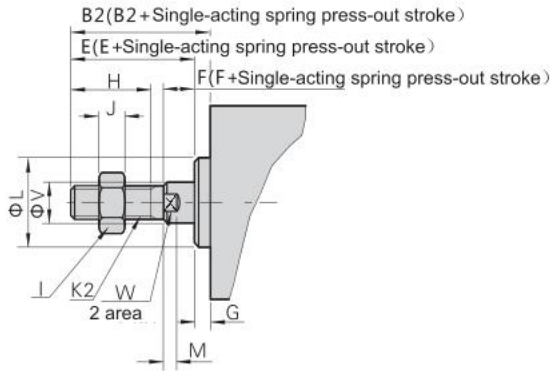
\* Note : for stroke more than 30, parameter A above adds 10 additionally

TGN/TGSN/TGTN Series Compact Cylinder

● TGN, TGNS

●  $\phi 12 \sim \phi 16$

●  $\phi 20 \sim \phi 100$



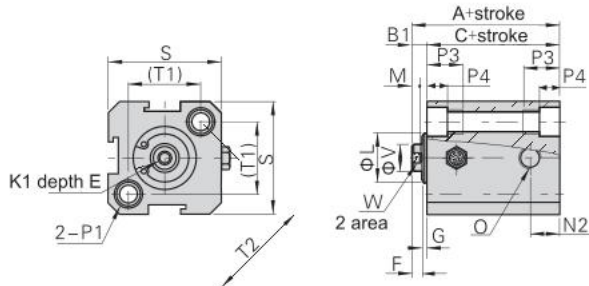
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BORE	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	12	8	4	M6X1	10.2	3	6	5
16	17.5	16	4	1.5	12	8	4	M6X1	11	3	6	5
20	20.5	19	4	1.5	15	10	5	M8X1.25	16	3	8	6
25	23	21	4	2	17	12	6	M10X1.25	17	3	10	8
32	25	22	4	3	17	17	6	M10X1.25	22	3	12	10
40	35	32	4	3	27	19	8	M12X1.25	28	3	16	14
50	37	33	5	4	27	27	11	M16X1.5	38	3	20	17
63	37	33	5	4	27	27	11	M16X1.5	40	3	20	17
80	44	39	6	5	32	32	13	M20X1.5	45	4	25	22
100	50	45	7	5	35	36	13	M27X2	55	4	32	27

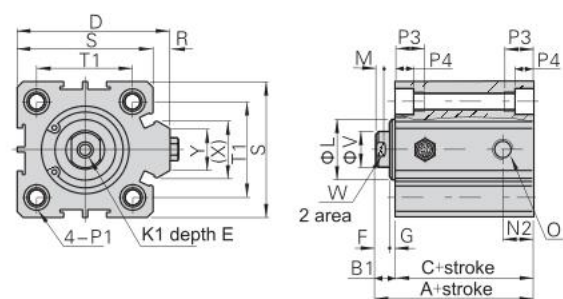
TGN/TGSN/TGTN Series Compact Cylinder

● TGSN

●  $\varnothing 12 \sim \varnothing 16$

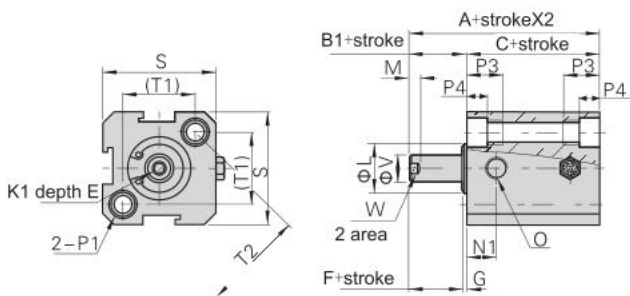


●  $\varnothing 20 \sim \varnothing 63$

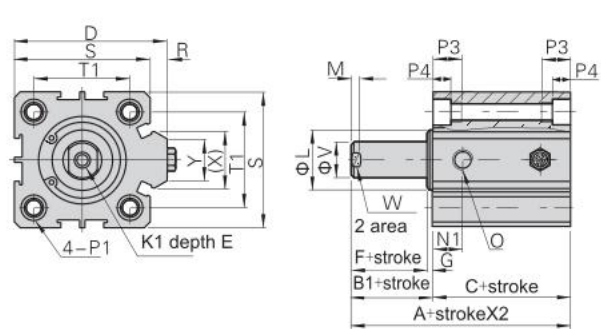


● TGTN

●  $\varnothing 12 \sim \varnothing 16$



●  $\varnothing 20 \sim \varnothing 63$



Type Bore	A Without magnet		A With magnet		C Without magnet		C With magnet		B1	D	E	F	G	K1	L	M	N1
	St $\leq$ 10	St > 10	St $\leq$ 10	St > 10	St $\leq$ 10	St > 10	St $\leq$ 10	St > 10									
12	32	42	42	52	27	37	37	47	5	—	6	4	1	M3×0.5	10	3	7.1
16	34	44	44	54	28.5	38.5	38.5	48.5	5.5	—	6	4	1.5	M3×0.5	11	3	7.5
20	35	45	45	55	29.5	39.5	39.5	49.5	5.5	36	8	4	1.5	M4×0.7	13	3	7.5
25	37	47	47	57	31	41	41	51	6	42	10	4	2	M5×0.8	17	3	8.5
32	41.5	51.5	51.5	61.5	34.5	44.5	44.5	54.5	7	50	12	4	3	M6×1.0	22	3	9.5
40	43	53	53	63	36	46	46	56	7	58.5	12	4	3	M8×1.25	28	3	10
50	47	57	57	67	38	48	48	58	9	71.5	15	5	4	M10×1.5	38	3	11.5
63	51	61	61	71	42	52	52	62	9	84.5	15	5	4	M10×1.5	40	3	11

Type Bore	N2	O	R	S	T1	T2	P1			P3	P4	V	W	X	Y
							Double side:	Cog	Through hole:						
12	5.5	M5×0.8	—	25	16.3	23	Double side:	Φ7	Φ4.2	12	4.5	6	5	—	—
16	5.5	M5×0.8	—	29	19.8	28	Double side:	Φ7	Φ4.2	12	4.5	6	5	—	—
20	5.5	M5×0.8	2	34	24	—	Double side:	Φ7	Φ4.2	14	4.5	8	6	11.3	10
25	5.5	M5×0.8	2	40	28	—	Double side:	Φ8.7	Φ5.3	15	5.5	10	8	12	10
32	9	Rc1/8	6	44	34	—	Double side:	Φ8.7	Φ5.3	16	5.5	12	10	18.3	15
40	7	Rc1/8	6.5	52	40	—	Double side:	Φ10.3	Φ6.7	20	7.5	16	14	21.7	16
50	11.7	Rc1/4	9.5	62	48	—	Double side:	Φ11	Φ6.7	25	8.5	20	17	30	20
63	12.7	Rc1/4	9.5	75	60	—	Double side:	Φ11	Φ6.7	25	8.5	20	17	28.7	20

**TGND Series Compact Cylinder**



● **Characteristic**

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

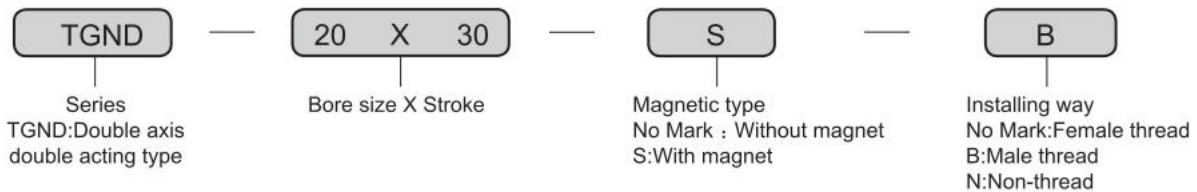
Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ **Graphics Sign**



● **Ordering Code**



■ **Standard Specification**

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double Action Type									
Applicable	Air									
Pressure Range	0.15~1.0Mpa									
Proof Pressure	1.35Mpa									
Temperature Range	-10~60°C (No Freeze)									
Speed Range	30~500mm/s					30~350mm/s			30~250mm/s	
Cushion Type	Mounted Cushion									
Prot Size	M5x0.8				Rc1/8		Rc1/4		Rc3/8	
Magnet switch	CS1-J					CS1-G				

■ **Stroke**

Bore mm	12	16	20	25		32	40	50	63	80	100
Without magnet	5~60 mm 5 mm/grade	5~85 mm 5 mm/grade	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	100~110 mm 5 mm/grade	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	100~130 mm 10 mm/grade	100~130 mm 10 mm/grade	100~130 mm 10 mm/grade
With magnet	5~50 mm 5 mm/grade	5~75 mm 5 mm/grade	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	100 mm	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	5~90 mm 5 mm/grade	100~120 mm 10 mm/grade	100~120 mm 10 mm/grade	100~120 mm 10 mm/grade
Max.stroke	60 mm	100 mm	100 mm	120 mm		130 mm		130 mm			

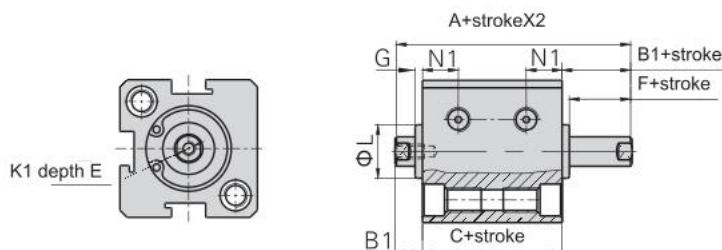
\* special stroke, please contact with us

TGND Series Compact Cylinder

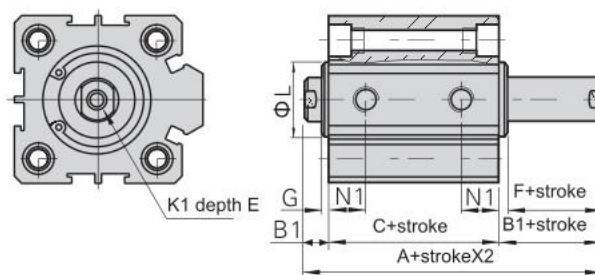
■ Figure Dimension

● TGND, TGNDS

●  $\phi 12 \sim \phi 16$



●  $\phi 20 \sim \phi 100$



BORE	A		C		E	N1	B1	F	G	K1	L
	STANDARD TYPE	WITH MAGNETIC	STANDARD TYPE	WITH MAGNETIC							
12	27	37	17	27	6	6.3	5	4	1	M3X0.5	10
16	29.5	39.5	18.5	28.5	6	7.3	5.5	4	1.5	M3X0.5	11
20	30.5	40.5	19.5	29.5	8	7.5	5.5	4	1.5	M4X0.7	15
25	33	43	21	31	10	8	6	4	2	M5X0.8	17
32	38.5	48.5	24.5	34.5	12	9	7	4	3	M6X1	22
40	40	50	26	36	12	10	7	4	3	M8X1.25	28
50	46	56	28	38	15	10	9	5	4	M10X1.5	38
63	50	60	32	42	15	11.8	9	5	4	M10X1.5	40
80	63	73	41	51	20	14	11	6	5	M14X1.5	45
100	75	85	51	61	20	17.5	12	7	5	M18X1.5	55

**TGNJ Series Compact Cylinder**



● **Characteristic**

**Thin and light:** In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

**Easy to install:** With the embedding type of mounting, need nothing and save room.

**Easy to maintain:** With simple design to assemble, install and repair easily.

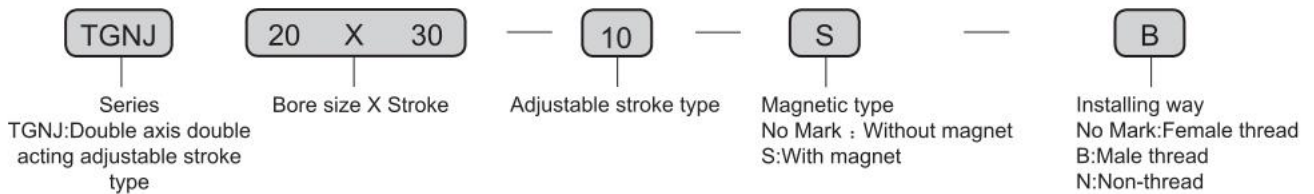
**Magnet switch:** Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

**Adjustable stroke:** Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ **Graphics Sign**



● **Ordering Code**



■ **Example**

1) Bore:20mm, stroke:30mm, adjustable stroke:10, With magnet, Code : TGNJ20×30-10-S-B

2) Bore:32mm, stroke:100mm, adjustable stroke:10, no thread, Code : TGNJ32×100-10-N

■ **Specification**

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
Applicable medium	Air									
Pressure range	0.1 ~ 0.9 MPa									
Proof pressure	1.35 MPa									
Temperature range	-10 ~ 60°C (No Freeze)									
Speed range	30 ~ 500 mm/s					30 ~ 350 mm/s			30 ~ 250 mm/s	
Cushion type	Mounted Cushion									
Port size	M5x0.8				Rc1/8		Rc1/4		Rc3/8	

■ **Stroke**

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Without magnet	5 ~ 60mm 5mm /grade	5 ~ 85mm 5mm /grade	5 ~ 90mm 5mm /grade	100 ~ 110mm 10mm /grade	5 ~ 90mm 5mm /grade	100 ~ 130mm 10mm /grade				
With magnet	5 ~ 50mm 5mm /grade	5 ~ 75mm 5mm /grade	5 ~ 90mm 5mm /grade	100mm	5 ~ 90mm 5mm /grade		100 ~ 120mm 10mm /grade			
Max.stroke	60mm	100mm	120mm			130mm				

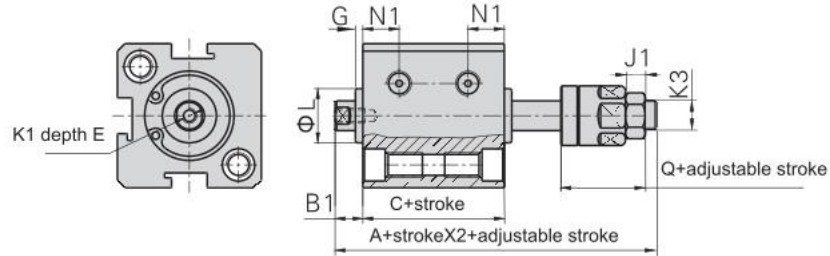
\* Special stroke please contact with us

TGNJ Series Compact Cylinder

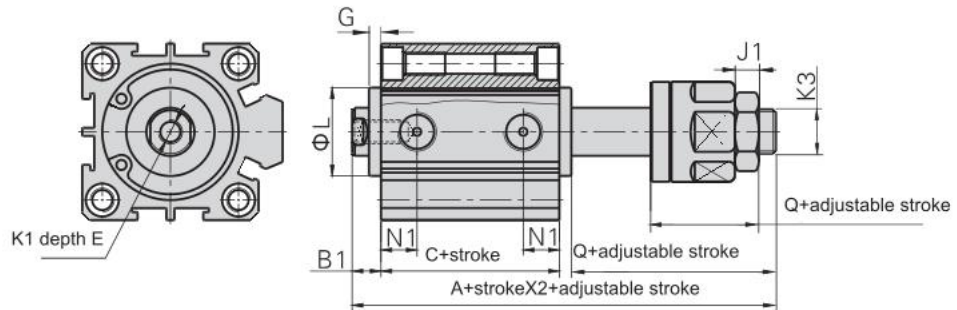
■ Figure Dimension

● TGNJ、TGNJS

●  $\phi 12 \sim \phi 16$



●  $\phi 20 \sim \phi 100$



VI

BORE	A		C		E	N1	B1	Q	G	J	K1	K3	L
	STANDARD TYPE	WITH MAGNETIC	STANDARD TYPE	WITH MAGNETIC									
12	40	50	17	27	6	6.3	5	17	1	4	M3X0.5	M6X1	10
16	42.5	52.5	18.5	28.5	6	7.3	5.5	17	1.5	4	M3X0.5	M6X1	11
20	47.5	57.5	19.5	29.5	8	7.5	5.5	21	1.5	5	M4X0.7	M8X1.25	15
25	53	63	21	31	10	8	6	24	2	6	M5X0.8	M10X1.25	17
32	61.5	71.5	24.5	34.5	12	9	7	27	3	6	M6X1	M10X1.25	22
40	64	74	26	36	12	10	7	28	3	8	M8X1.25	M12X1.25	28
50	70	80	28	38	15	10	9	29	4	11	M10X1.5	M16X1.5	38
63	74	84	32	42	15	11.8	9	29	4	11	M10X1.5	M16X1.5	40
80	92.5	102.5	41	51	20	14	11	35.5	5	13	M14X1.5	M20X1.5	45
100	110.5	120.5	51	61	20	17.5	12	42.5	5	13	M18X1.5	M27X2	55

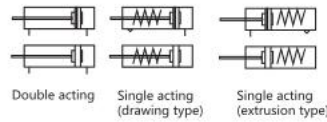
\* Note : for stroke more than 30, parameter A above adds 10 additionally

**CQ2 Series Compact Cylinder**

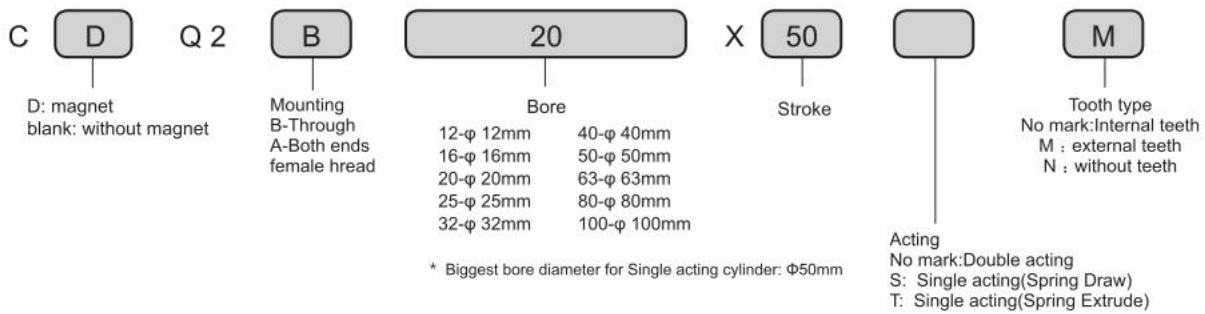
φ12-φ100

● Characteristic

Axial small size, compact structure, beautiful appearance, can be installed directly



● Ordering Code



VI

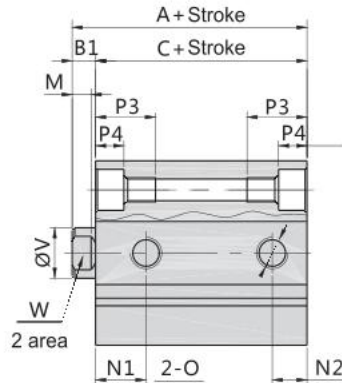
■ Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting, Single acting : Spring Draw								Spring Extrude	
Applicable medium	Air									
Highest pressure	Double acting : 0.15~1.0MPa, Single acting : 0.2~1.0MPa									
Proof pressure	1.5 Mpa									
Environment and fluid temperature	-10~60°C (No Freeze)									
Speed Range	50~500mm/s									
Cushion Type	Mounted Cushion									
Mounting	Through hole(Standard), Both ends female hread(Choose by nomself)									
Pipe Size	M5x0.8				Rc1/8		Rc1/4		Rc3/8	
Switches	CS1-H									

■ Stroke

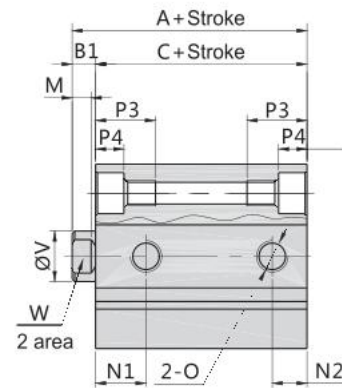
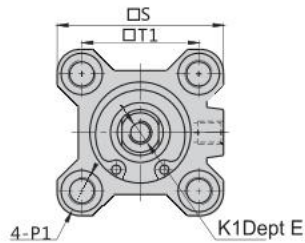
Bore (mm)	Standard Stroke	Max.Stroke	Allowable stroke	
			With magnet	Without magnet
12	Double Action	5,10,15,20,25,30,35,40,45,50	60	60
	Single Action	5,10,15,20,25,30	-	-
16	Double Action	5,10,15,20,25,30,35,40,45,50,60	70	70
	Single Action	5,10,15,20,25,30	-	-
20/25	Double Action	5,10,15,20,25,30,35,40,45,50, 60,70,75,80,90,100	100	100
	Single Action	5,10,15,20,25,30	-	-
32/40 50/63	Double Action	5,10,15,20,25,30,35,40,45,50, 60,70,75,80,90,100	100	100
	Single Action	5,10,15,20,25,30	-	-
80/100	Double Action	5,10,15,20,25,30,35,40,45,50, 60,70,75,80,90,100	100	100

CQ2 Series Compact Cylinder



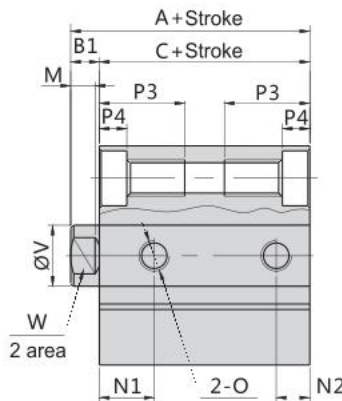
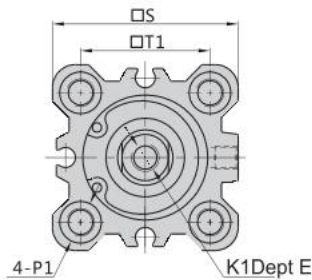
•  $\phi 12 \sim \phi 20$

Without magnet



•  $\phi 25$

Without magnet : With magnet



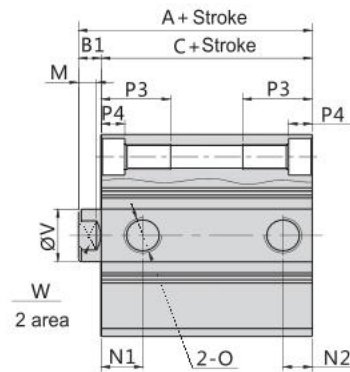
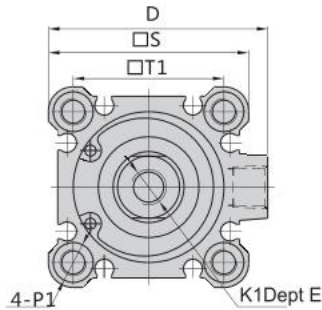
Double Act Cylinder Demension

	WITH OUT MAGNET		WITH MAGNET		B1	E	N1	N2	M	K1	O
	A	C	A	C							
12	20	17	30	27	3.5	6	7	7	3	M3X0.5	M5
16	22	18.5	32	28.5	3.5	8	7	7	3	M4X0.7	M5
20	23	19.5	33	29.5	4.5	8	7	7	3.5	M5X0.8	M5
25	27.5	22.5	37.5	32.5	5	12	9.25	7.75	4	M6X1	M5

BORE	P1	P3	P4	S	T1	V	W
12	Double Side: 6.7 Thread: M4X0.7 Through hole: 3.5	11	3.5	25	15.5	6	5
16	Double Side: 6.7 Thread: M4X0.7 Through hole: 3.5	11	3.5	29	20	8	6
20	Double Side: 9 Thread: M6X1 Through hole: 5.2	17	7	36	25.5	10	8
25	Double Side: 9 Thread: M6X1 Through hole: 5.2	17	7	40	28	12	10

**CQ2 Series Compact Cylinder**

•  $\varnothing 32 \sim \varnothing 100$ (Stroke $\leq 100$ )

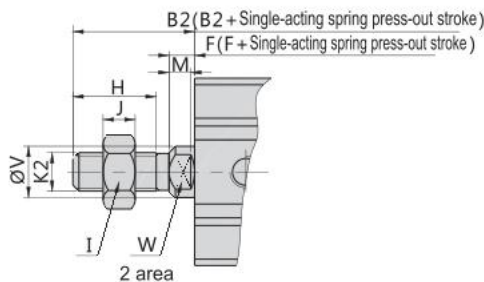


BORE	WITH OUT MAGNET		WITH MAGNET		B1	D	E	N1	N2	M	K1
	A	C	A	C							
32	30	23	40	33	7	49.5	13	10	8	5.5	M8X1.25
40	36.5	29.5	46.5	39.5	7	57	13	13	10	6	M8X1.25
50	38.5	31	48.5	41	8	71	15	14	10	6	M10X1.5
63	44	36	54	46	8	84	15	15	11	6	M10X1.5
80	53.5	43.5	63.5	53.5	10	104	20	17	15	8	M16X2
100	65	53	75	63	12	123.5	26	21	19	9	M20X2.5

BORE	O	P1	P3	P4	S	T1	V	W
32	Rc1/8	Double Side: 9 Thread: M6X1 Through hole: 5.2	17	7	45.2	34	16	14
40	Rc1/8	Double Side: 9 Thread: M6X1 Through hole: 5.2	17	7	52.5	40	16	14
50	Rc1/4	Double Side: 11 Thread: M8x1.25 Through hole: 6.7	22	8	64	50	20	17
63	Rc1/4	Double Side: 14 Thread: M10x1.5 Through hole: 8.7	28.5	10.5	77	60	20	17
80	Rc3/8	Double Side: 17 Thread: M12x1.75 Through hole: 10.3	35.5	13.5	98	77	25	22
100	Rc3/8	Double Side: 17 Thread: M12x1.75 Through hole: 10.7	35.5	13.5	117	94	32	27

Note: The non-standard stroke within the maximum stroke range is modified from the standard stroke of the first level above, and its external dimensions are the external dimensions of the standard stroke cylinder of the previous level. For example, a non-standard stroke cylinder with a stroke of 47 is reborn from a standard cylinder with a standard stroke of 50 and has the same dimensions.

Bore :  $\varnothing 12 \sim 100$ , Stroke  $\leq 100$

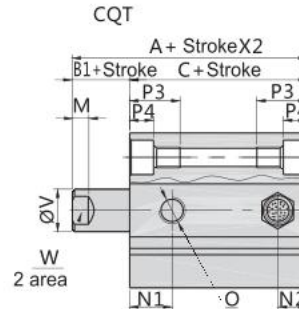
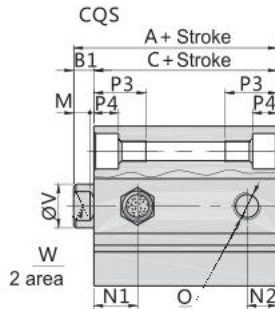
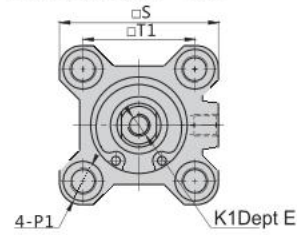


BORE	B2	F	H	I	J	K2	M	V	W
12	14	3.5	12	8	4	M5X0.8	3	6	5
16	15.5	3.5	12	10	5	M6X1	3	8	6
20	18.5	4.5	15	13	5	M8X1.25	3.5	10	8
25	22.5	5	17	17	6	M10X1.25	4	12	10
32	28.5	5	24	19	8	M14X1.5	3.5	16	14
40	28.5	5	24	19	8	M14X1.5	4	16	14
50	33.5	5	28	27	11	M18X1.5	4	20	17
63	33.5	5	28	27	11	M18X1.5	4	20	17
80	43.5	8	35	32	13	M22X1.5	6	25	22
100	43.5	8	35	36	15	M26X1.5	6	32	27

CQ2-Sspring pressed back CQ2-Tspring pressed out

**CQ2 Series Compact Cylinder**

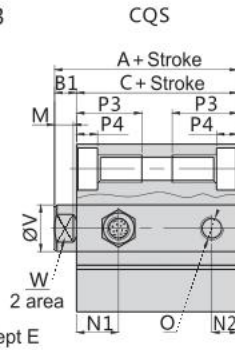
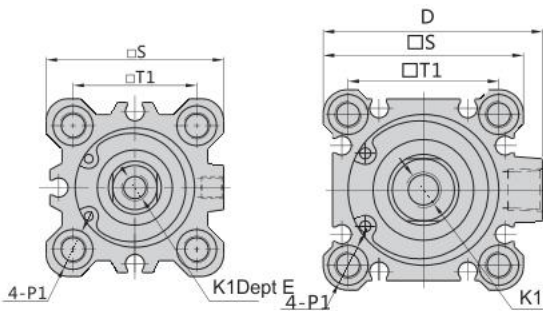
Without magnet Ø12~Ø20



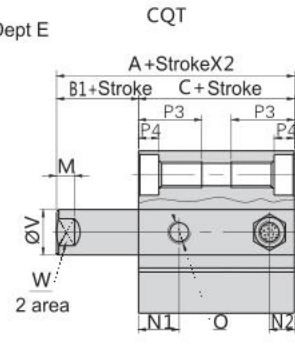
• Ø25 ~ Ø63

Without magnet / With magnet Ø25

Without magnet / With magnet Ø32~Ø63



K1Dept E



Type	Without magnet								With magnet							
	A			C			N1	N2	A			C			N1	N2
	5/10	15/20	25/30	5/10	15/20	25/30			5/10	15/20	25/30	5/10	15/20	25/30		
12	30.5	40.5	27	37	7.1	5	41.5	51.5	38	48	8.5	5.9				
16	32	42	28.5	38.5	8	5.5	44	54	40.5	50.5	9.5	6				
20	34	44	29.5	39.5	9.5	5.7	46	56	41.5	51.5	9.5	5.5				
25	37.5	47.5	32.5	42.5	11.5	5.9	47.5	57.5	42.5	52.5	11.5	5.9				
32	40	50	33	43	10	9	50	60	43	53	10	9				
40	46.5	56.5	39.5	49.5	13	7	56.5	66.5	49.5	59.5	13	7				
50	48.5	58.5	40.5	50.5	9	9	58.5	68.5	50.5	60.5	13.5	11.7				
63	54	64	46	56	14	9.5	64	74	56	66	17	12.7				

Bore	B1	D	E	K1	O	P1	P3	P4	M	S	T1	T2	V	W
12	3.5	—	6	M3×0.5	M5×0.8	Double side:Φ5.7 Cog M4x0.7 Through hole:Φ3.5	11	3.5	3	25	15.5	22	6	5
16	3.5	—	8	M4×0.7	M5×0.8	Double side:Φ6.5 Cog M4x0.7 Through hole:Φ3.4	11	3.5	3	29	20	28	8	6
20	4.5	—	7	M5×0.8	M5×0.8	Double side:Φ9.0 Cog M6x1.0 Through hole:Φ5.2	17	7	3.5	36	25.5	36	10	8
25	5	—	12	M6×1.0	M5×0.8	Double side:Φ9.0 Cog M6x1.0 Through hole:Φ5.3	17	7	4	40	28	—	12	10
32	7	49.5	13	M8×1.25	Rc1/8	Double side:Φ9.0 Cog M6x1.0 Through hole:Φ5.2	17	7	5.5	45.2	34	—	16	14
40	7	57	13	M8×1.25	Rc1/8	Double side:Φ9.0 Cog M6x1.0 Through hole:Φ5.2	17	7	6	52.2	40	—	16	14
50	8	71	15	M10×1.5	Rc1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.8	22	8	6	64	50	—	20	17
63	8	84	15	M10×1.5	Rc1/4	Double side:Φ14 Cog M10x1.5 Through hole:Φ8.5	28.5	10.5	6	77	60	—	20	17

CDQ2D Serise Compact Cylinder



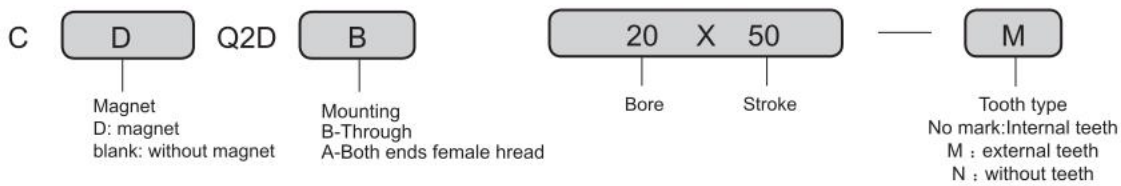
● Characteristic

Axial small size, compact structure, beautiful appearance, can be installed directly

■ Graphics Sign



● Ordering Code



■ Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting									
Applicable medium	Air									
Highest pressure	0.15~1.0MPa									
Proof pressure	1.5 Mpa									
Environment and fluid temperature	-10~60°C (No Freeze)									
Speed Range	50~500mm/s									
Cushion Type	Mounted Cushion									
Mounting	Through hole(Standard), Both ends female hread(Choose by nomself)									
Pipe Size	M5x0.8			Rc1/8			Rc1/4		Rc3/8	
Magnet switch	CS1-H									

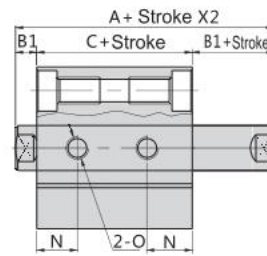
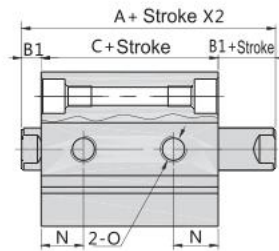
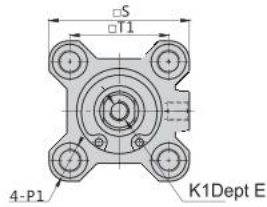
■ Stroke

Bore (mm)	Standard Stroke
12 16	5,10,15,20,25,30
20 25	5,10,15,20,25,30,35,40,45,50
32    40 50    63 80    100	5,10,15,20,25,30,35,40,45,50, 60,70,75,80,90,100

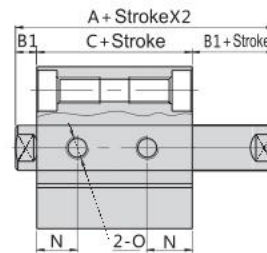
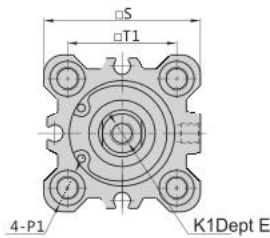
CDQ2D Serie Compact Cylinder

●  $\varnothing 12 \sim \varnothing 20$

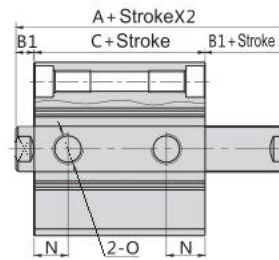
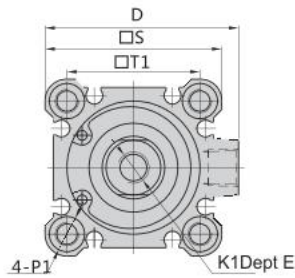
Standard type  $\varnothing 12 \sim \varnothing 20$



●  $\varnothing 25$



●  $\varnothing 32 \sim \varnothing 100$



BORE	WITH OUT MAGNET		WITH MAGNET		B1	E	N1	N2	O
	A	C	A	C					
12	32.5	17	39.5	27	3.5	6	7	7	M5
16	33	18.5	43	28.5	3.5	8	7	7	M5
20	35	19.5	47	29.5	4.5	8	7	7	M5
25	39	22.5	49	32.5	5	12	9.25	7.75	M5
32	44.5	23	54.5	33	7	13	10	8	Rc1/8
40	54	29.5	64	39.5	7	13	13	10	Rc1/8
50	56.5	31	66.5	41	8	15	14	10	Rc1/4
63	58	36	68	46	8	15	15	11	Rc1/4
80	78	43.5	81	53.5	10	20	17	15	Rc3/8
100	84.5	53	94.5	63	12	26	21	19	Rc3/8

CDQ2J Serise Compact Cylinder



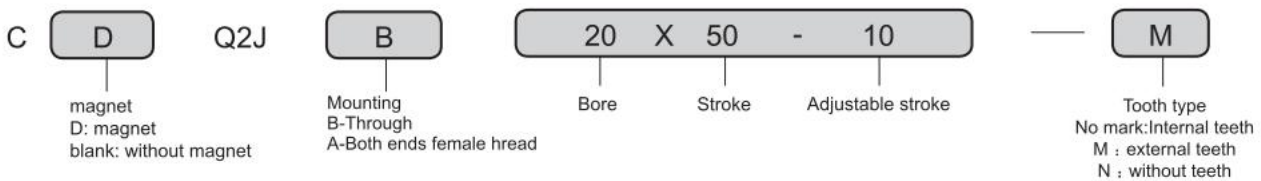
● Characteristic

Axial small size, compact structure, beautiful appearance, can be installed directly

■ Graphics Sign



● Ordering Code



VI

■ Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting									
Applicable medium	Air									
Highest pressure	0.15~1.0MPa									
Proof pressure	1.5 Mpa									
Environment and fluid temperature	-10~60°C (No Freeze)									
Speed Range	50~500mm/s									
Cushion Type	Mounted Cushion									
Mounting	Through hole(Standard), Both ends female hread(Choose by nomself)									
Pipe Size	M5x0.8				Rc1/8		Rc1/4		Rc3/8	
magnet switch	CS1-H									

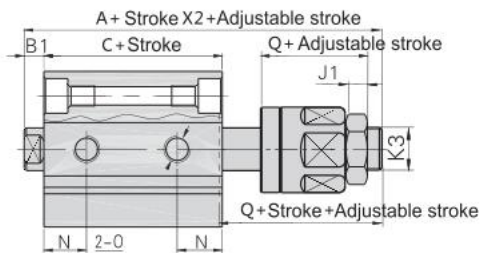
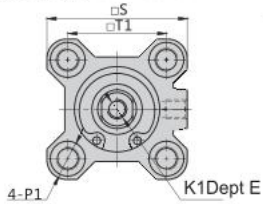
■ Stroke

Bore (mm)	Standard Stroke	Adjustable stroke type
12 16	5,10,15,20,25,30	10 ~ 100mm
20 25	5,10,15,20,25,30,35,40,45,50	
32 40 50 63 80 100	5,10,15,20,25,30,35,40,45,50, 60,70,75,80,90,100	

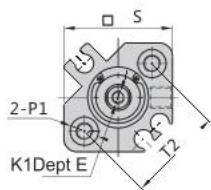
**CDQ2J Serise Compact Cylinder**

●  $\varnothing 12 \sim \varnothing 20$

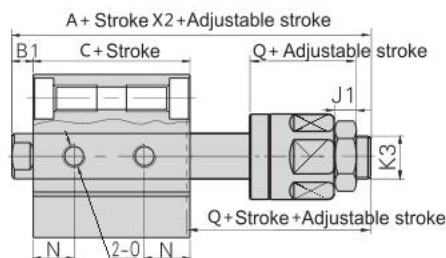
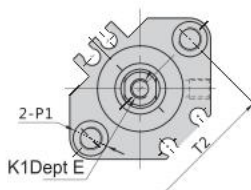
Standard type  $\varnothing 12 \sim \varnothing 20$



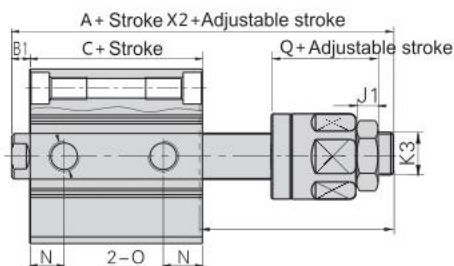
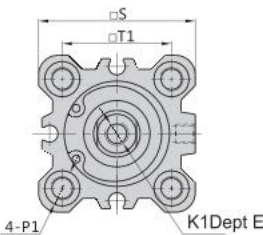
With magnet  $\varnothing 12$



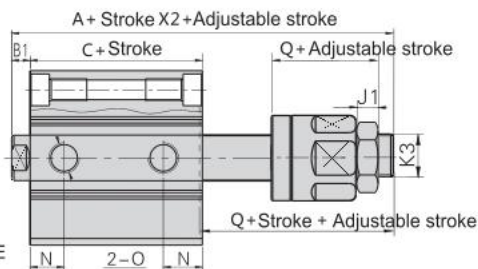
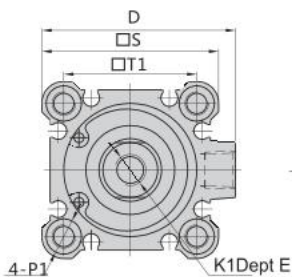
With magnet  $\varnothing 16 \sim \varnothing 20$



●  $\varnothing 25$



●  $\varnothing 32 \sim \varnothing 100$



BORE	WITH OUT MAGNET		WITH MAGNET		B1	E	N1	N2	O	J	Q	K3
	A	C	A	C								
12	45.5	17	52.7	27	3.5	6	7	7	M5	4	17	M5X0.8
16	50	18.5	60	28.5	3.5	8	7	7	M5	5	21	M6X1
20	54.2	19.5	66.5	29.5	4.5	8	7	7	M5	5	24	M8X1.25
25	60	22.5	70.5	32.5	5	12	9.25	7.75	M5	6	27	M10X1.25
32	65	23	75.5	33	7	13	10	8	Rc1/8	8	28	M12X1.25
40	74.5	29.5	84.5	39.5	7	13	13	10	Rc1/8	8	28	M12X1.25
50	77	31	87	41	8	15	14	10	Rc1/4	11	29	M16X1.5
63	78.5	36	88.5	46	8	15	15	11	Rc1/4	11	29	M16X1.5
80	96	43.5	106	53.5	10	20	17	15	Rc3/8	13	36	M20X1.5
100	114.5	53	124.5	63	12	26	21	19	Rc3/8	15	43	M27X2

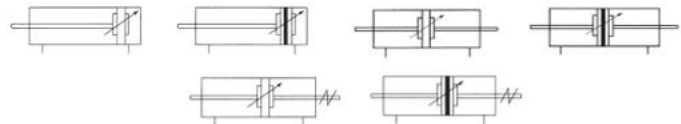
ADVU series compact cylinder



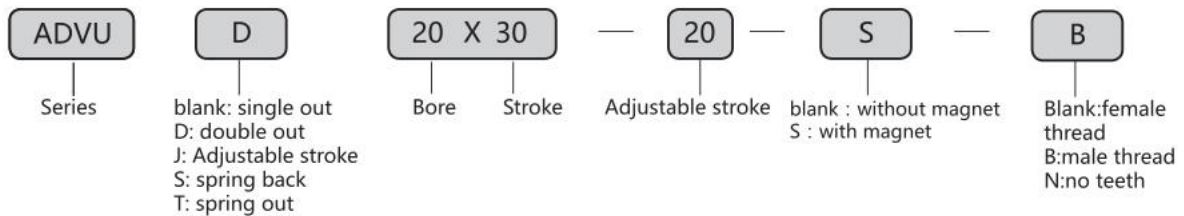
● Product characteristics

Cylinder bore and front cover are threaded connection, with good strength, easy maintenance; hard oxidation process has been done after roll extrusion of inner diameter of cylinder bore assure the good resistance and durability; the piston seal adopts with shaped two-way seal design, has the features of compacted size and oil storing.

■ Graphics Sign



● Ordering Code



■ Ordering example

1) Bore:20mm, Stroke:50mm, male thread, Code : ADVU20×50-B

■ Standard Specification

Bore(mm)	12	16	20	25	32	40	50	63	80
Fluid	Air								
Action type	Double action, single action, spring draw/spring extrude								
Max.pressure	1.5MPa								
Pressure (Double acting)	0.15-1.0MPa								
Pressure (Single acting)	0.2-1.0MPa								
Temperature range	-10 ~ 60°C (No Freeze)								
Cushion type	fender								
Piston speed	Double action 30 ~ 500mm/s single action 50 ~ 500mm/s								
Port size	M5X0.8				G1/8				
Magnet switch	CS1-M								

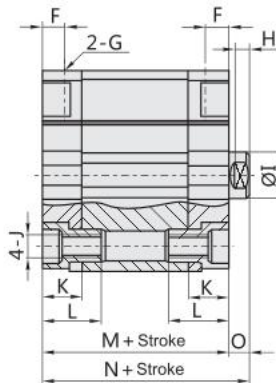
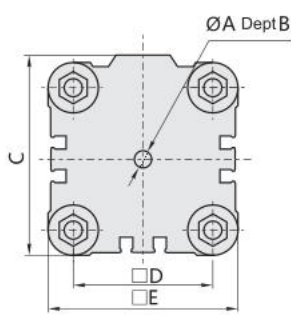
■ Stroke

Bore(mm)		standard stroke (mm)	Max stroke	Allow stroke
12	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	200	200
	Single acting	5 10		
16	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	200	200
	Single acting	5 10 15 20 25		
20	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	300	300
	Single acting	5 10 15 20 25		
32 40	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	400	400
	Single acting	5 10 15 20 25		
50 63	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	400	400
	Single acting	5 10 15 20 25		
80	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	400	400
	Single acting	5 10 15 20 25		

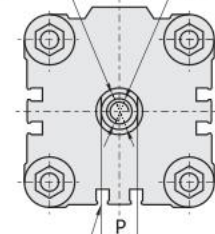
ADVU series compact cylinder

■ Figure Dimension (CQ2)

ADVU

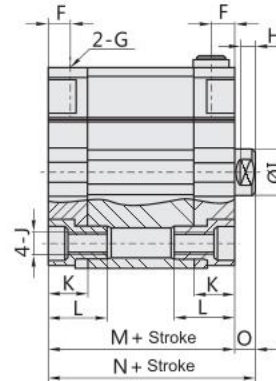
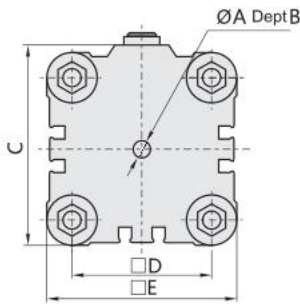


ØQ1 DeptR1 (Counter bore) Q Dept R (through hole)

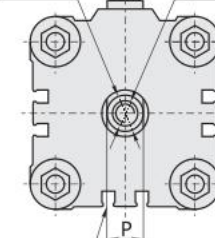


Auto switch mounting groove  
16~25 one on each side  
Two on each side of the remaining  
cylinder bores

ADVU-S



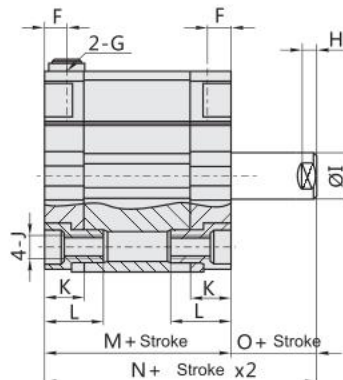
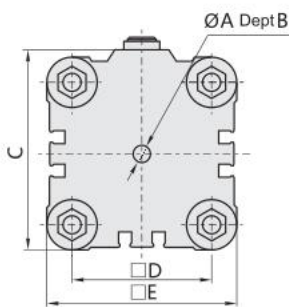
ØQ1 DeptR1 (Counter bore) Q Dept R (through hole)



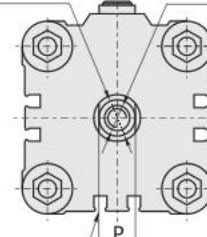
Auto switch mounting groove  
16~25 one on each side  
Two on each side of the remaining  
cylinder bores

Stroke ≤ 10 total length + 10  
Stroke > 10 total length + 20

ADVU-T



ØQ1 DeptR1 (Counter bore) Q Dept R (through hole)



Auto switch mounting groove  
16~25 one on each side  
Two on each side of the remaining  
cylinder bores

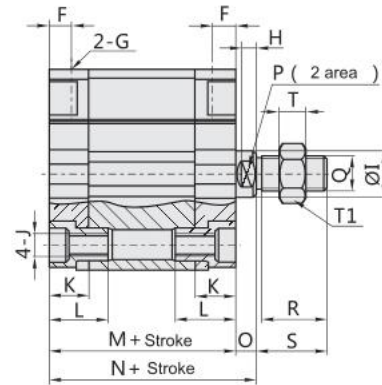
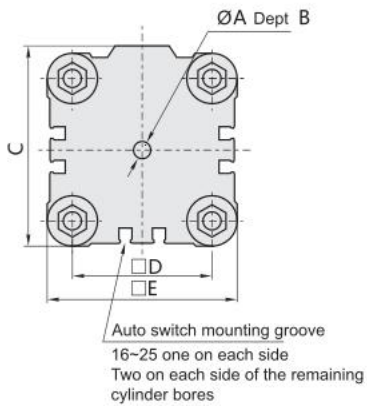
Stroke ≤ 10 total length + 10  
Stroke > 10 total length + 20

Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Q1	R	R1
16	6	4	30	18	29	7	M5	3	8	M4X0.7	11.5	18	38	42.5	4.5	6	M4X0.7	5	10	1.5
20	6	4	37.5	22	36	7	M5	3	10	M5X0.8	11.5	18	38	42.5	4.5	8	M5X0.8	6	12	2
25	6.1	4	41.5	26	40	7	M5	4	10	M5X0.8	11.5	18	39.5	45	55.5	8	M5X0.8	7	12	2
32	6.1	4	52	32	50	8	1/8	4.5	12	M6X1	14	21	44.5	50	6	10	M6X1	7	14	2.6
40	6.1	4	62.5	42	60	8	1/8	4.5	12	M6X1	14	21	45.5	52	6.5	10	M6X1	7	14	2.6
50	6.1	4	71	50	68	8	1/8	5	16	M8X1.25	14	21.5	46.5	53	7.5	13	M8X1.25	9	16	3.3
63	8.1	4	91	62	87	8	1/8	5	16	M10X1.5	15	24	50	57.5	7.5	13	M8X1.25	9	16	3.3
80	8.1	4	111	82	107	8.5	1/8	5.5	20	M10X1.5	16	27	56	64	8	17	M10X1.5	11	20	4.7

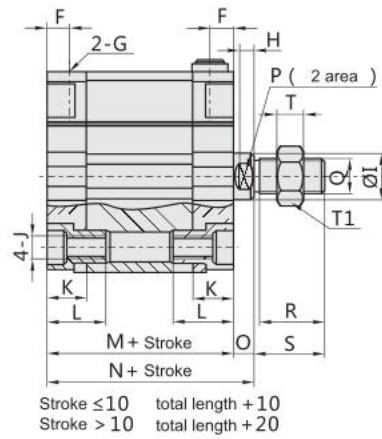
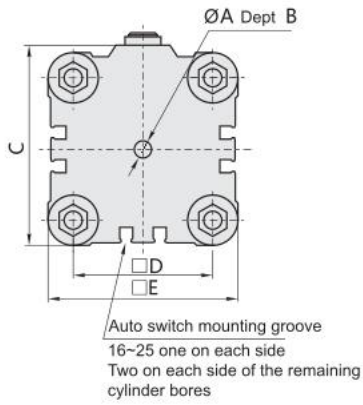
ADVU series compact cylinder

■ Figure Dimension (mm)

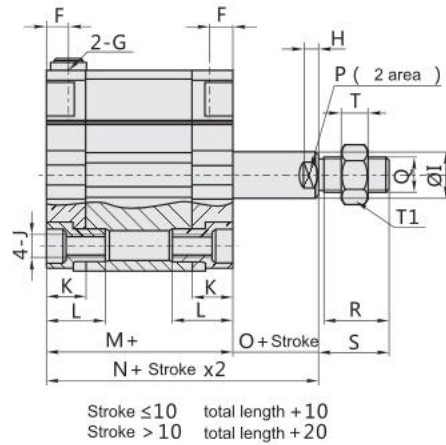
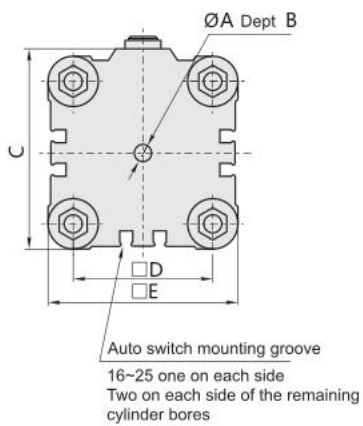
ADVU-B



ADVU-S-B



ADVU-T-B

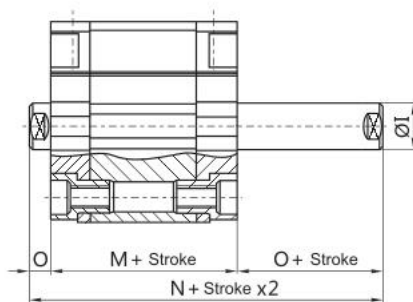


Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	T1
16	6	4	30	18	29	7	M5	3	8	M4X0.7	11.5	18	38	42.5	4.5	6	M8X1.25	19	20	6	12
20	6	4	37.5	22	36	7	M5	3	10	M5X0.8	11.5	18	38	42.5	4.5	8	M10X1.25	20	22	6	17
25	6.1	4	41.5	26	40	7	M5	4	10	M5X0.8	11.5	18	39.5	45	55.5	8	M10X1.25	20	22	6	17
32	6.1	4	52	32	50	8	1/8	4.5	12	M6X1	14	21	44.5	50	6	10	M10X1.25	20	22	6	17
40	6.1	4	62.5	42	60	8	1/8	4.5	12	M6X1	14	21	45.5	52	6.5	10	M10X1.25	20	22	6	17
50	6.1	4	71	50	68	8	1/8	5	16	M8X1.25	14	21.5	46.5	53	7.5	13	M12X1.25	22	24	7	17
63	8.1	4	91	62	87	8	1/8	5	16	M10X1.5	15	24	50	57.5	7.5	13	M12X1.25	22	24	7	17
80	8.1	4	111	82	107	8.5	1/8	5.5	20	M10X1.5	16	27	56	64	8	17	M16X1.5	30	32	8	23

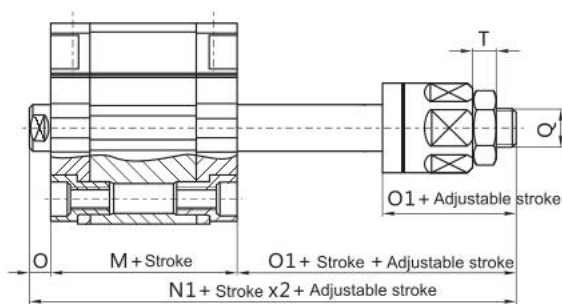
ADVU series compact cylinder

■ Figure Dimension (mm)

ADVU-D Series



ADVU-J Series



Bore	M	N	N1	O	O1	T	Q
16	38	47	67.5	4.5	21	5	M6X1
20	38	47	69.5	4.5	24	5	M8X1.25
25	39.5	50.5	72	5.5	24	5	M8X1.25
32	44.5	56.5	77.5	6	27	6	M10X1.25
40	45.5	58.5	79	6.5	27	6	M10X1.25
50	45.5	60.5	81	7.5	28	7	M12X1.25
63	50	65	85.5	7.5	28	7	M12X1.25
80	56	72	93	8	29	8	M16X1.5

**ACL Series compact cylinder**

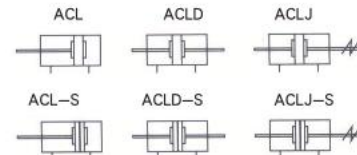
ISO21287



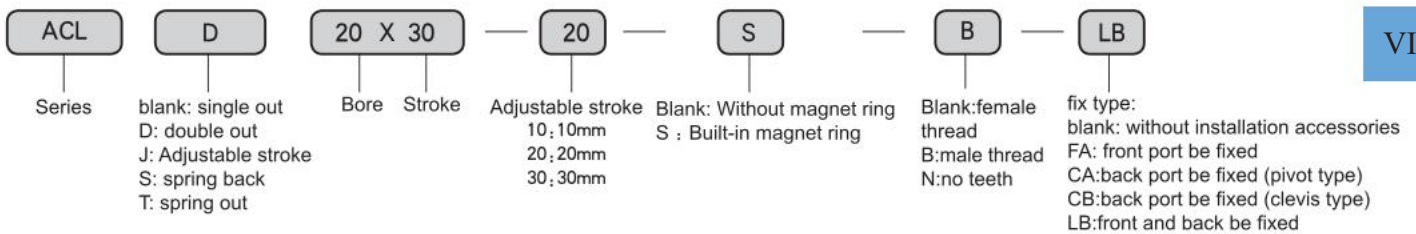
● Product characteristics

Cylinder bore and front cover are threaded connection, with good strength, easy maintenance; hard oxidation process has been done after roll extrusion of inner diameter of cylinder bore assure the good resistance and durability; the piston seal adopts with shaped two-way seal design, has the features of compacted size and oil storing.

■ Graphics Sign



● Ordering Code



VI

■ Ordering example

1) Required bore 20mm, stroke 50mm, LB, how to order : ACP-20×50-LB

■ Technical parameters

Bore(mm)	32	40	50	63	80	100
Fluid	Air					
Action type	Double action、 single action、 spring draw/spring extrude					
Max.pressure	1.5MPa					
Pressure (Double acting)	0.15-1.0MPa					
Pressure (Single acting)	0.2-1.0MPa					
Temperature range	-10 ~ 60℃ (No Freeze)					
Cushion type	fender					
Piston speed	Double action 30 ~ 500mm/s single action 50 ~ 500mm/s					
Port size	G1/8					G1/4
Magnet switch	CS1-M					

\* If lubricating please use ISOVG32

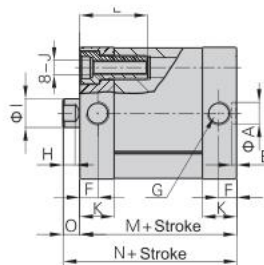
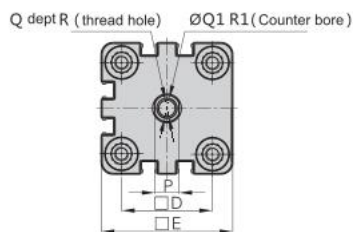
■ Stroke

Bore(mm)	Standard Stroke (mm)															Max Stroke																
Double acting	32 40	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	110	120	125	150	160	175	200	200			
	50 63	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	110	120	125	150	160	175	200	225	250	250	
	80 100	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	110	120	125	150	160	175	200	225	250	275	300
Single acting	32 40	5	10	15	20	25																					25					
	50 63	5	10	15	20	25																					25					

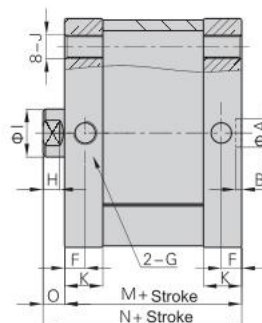
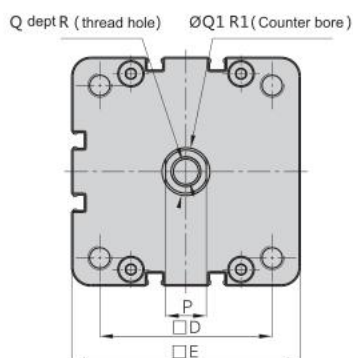
■ Figure Dimension (mm)

ACL double action single rod type

Ø32~Ø63



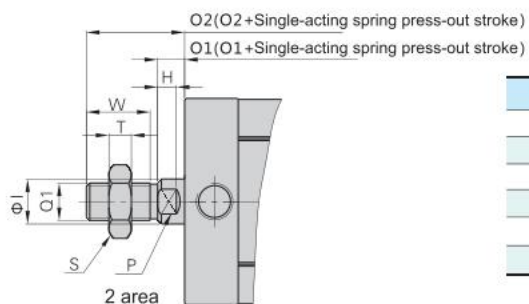
Ø80~Ø100



Bore	A	B	D	E	F	G	H	I	J	K	L	M	N
32	6	4	32.5	46.5	6.7	G1/8	4.5	12	M6×1.0	13.5	25	44.5	51
40	8	5	38	54	6.7	G1/8	4.5	12	M6×1.0	13.5	25	45.5	52
50	10	5	46.5	65	6.7	G1/8	5	16	M8×1.25	13.5	25	45.5	53
63	10	5	56.5	77	8	G1/8	5	16	M8×1.25	15	25	49	57.5
80	10	5	72	95	8	G1/8	6.5	20	M10×1.5	16	—	55	65
100	10	5	89	115	9.5	G1/8	7.5	20	M10×1.5	19	—	67	76

Bore	O	P	Q	Q1	R	R1
32	6.5	10	M8×1.25	6.5	16	2.5
40	6.5	10	M8×1.25	6.5	16	2.5
50	7.5	13	M10×1.5	8.5	20	3.5
63	7.5	13	M10×1.5	8.5	20	3.5
80	10	17	M12×1.75	10.5	20	4.5
100	9	17	M12×1.75	12.5	20	6

End rod external thread



Bore	O1	O2	W	S	T	Q1	H	I	P
32	6.5	25.5	17	17	6	M10×1.25	4.5	12	10
40	6.5	25.5	17	17	6	M10×1.25	4.5	12	10
50	7.5	29.5	20	17	7	M12×1.25	5	16	13
63	7.5	29.5	20	17	7	M12×1.25	5	16	13
80	10	38	26	23	8	M16×1.5	6.5	20	17
100	9	37	26	23	8	M16×1.5	6.5	20	17

ACL Series compact cylinder

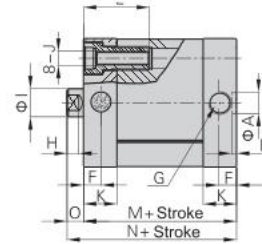
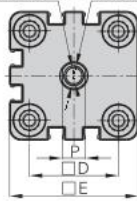
ISO21287

■ Figure Dimension (mm)

ACL-S spring back

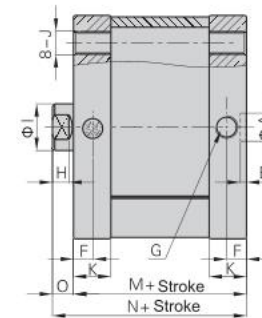
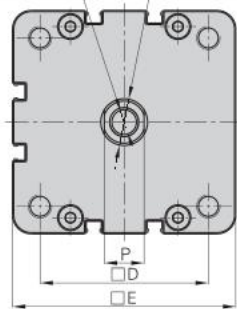
Φ 32~ Φ 63

Q dept R (thread hole) ØQ1 dept R1(Counter bore)



Φ 80/Φ 100

Q dept R (thread hole) ØQ1 dept R1(Counter bore)

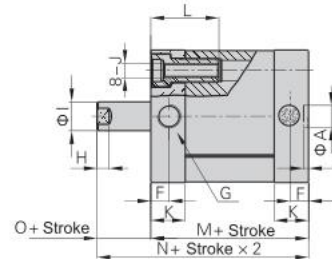
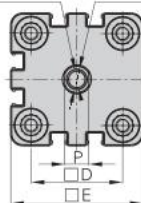


Bore	A	B	D	E	F	G	H	I	J	K	L	M(S≤10)	M(S>10)	N(S≤10)	N(S>10)	O	P	Q	Q1	R	R1
32	6	4	32.5	46.5	6.7	G1/8	4.5	12	M6×1.0	13.5	25	54.5	64.5	61	71	6.5	10	M8×1.25	8.5	14	2.5
40	8	5	38	54	6.7	G1/8	4.5	12	M6×1.0	13.5	25	55.5	65.5	62	72	6.5	10	M8×1.25	8.5	14	2.5
50	10	5	46.5	65	6.7	G1/8	5	16	M8×1.25	13.5	25	55.5	65.5	63	73	7.5	13	M10×1.5	10.7	16	3.5
63	10	5	56.5	77	8	G1/8	5	16	M8×1.25	15	25	59	69	66.5	76.5	7.5	13	M10×1.5	10.7	16	3.5

ACL-T spring out

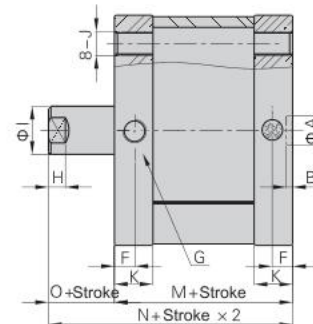
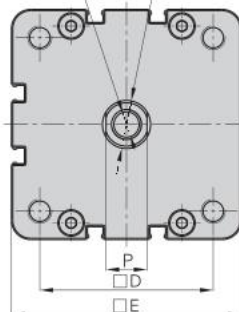
Φ 32~ Φ 63

Q dept R (thread hole) ØQ1 dept R1(Counter bore)



Φ 80/Φ 100

Q dept R (thread hole) ØQ1 dept R1(Counter bore)



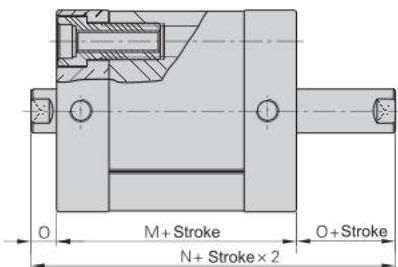
Bore	A	B	D	E	F	G	H	I	J	K	L	M(S≤10)	M(S>10)	N(S≤10)	N(S>10)	O	P	Q	Q1	R	R1
32	6	4	32.5	46.5	6.7	G1/8	4.5	12	M6×1.0	13.5	25	54.5	64.5	61	71	6.5	10	M8×1.25	8.5	16	2.5
40	8	5	38	54	6.7	G1/8	4.5	12	M6×1.0	13.5	25	55.5	65.5	62	72	6.5	10	M8×1.25	8.5	16	2.5
50	10	5	46.5	65	6.7	G1/8	5	16	M8×1.25	13.5	25	55.5	65.5	63	73	7.5	13	M10×1.5	10.7	20	3.5
63	10	5	56.5	77	8	G1/8	5	16	M8×1.25	15	25	59	69	66.5	76.5	7.5	13	M10×1.5	10.7	20	3.5

**ACL Series compact cylinder**

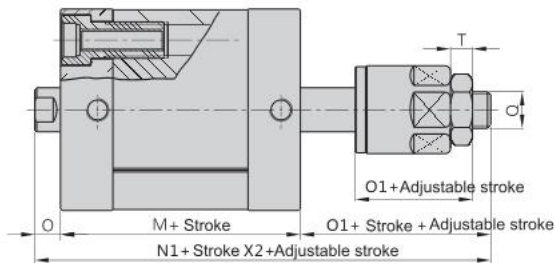
ISO21287

■ Figure Dimension (mm)

ACLD Double rod type

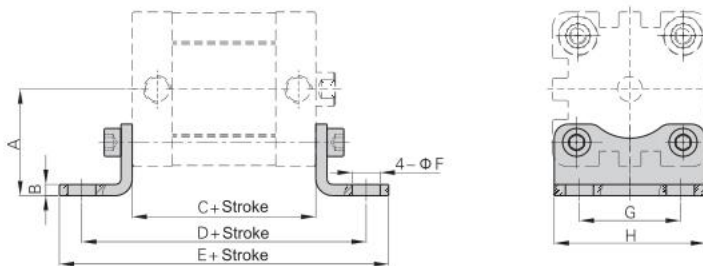


ACLJ Adjustable stroke type



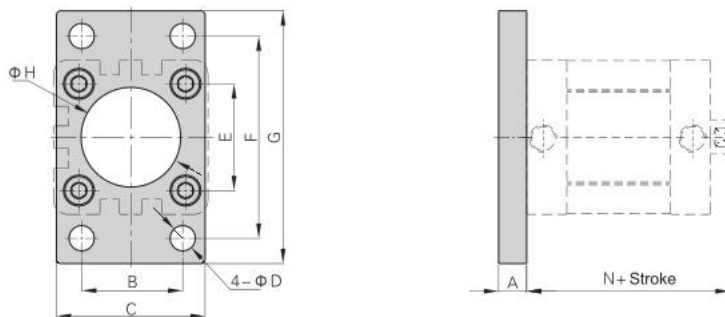
Bore	M	N	N1	O	O1	T	Q
32	44.5	57.5	78	6.5	27	6	M10×1.25
40	45.5	58.5	79	6.5	27	6	M10×1.25
50	45.5	60.5	81	7.5	28	7	M12×1.25
63	49	64	84.5	7.5	28	7	M12×1.25
80	55	75	94	10	29	8	M16×1.5
100	67	87	106	10	29	8	M16×1.5

Fixed foot type



Type	Bore	A	B	C	D	E	F	G	H
CG-L032	32	32	3	44.5	92.5	108.5	7	32	47
CG-L040	40	36	3	45.5	101.5	119.5	9	36	53
CG-L050	50	45	3	45.5	109.5	129.5	9	45	65
CG-L063	63	50	3	50	114	138	9	50	75
CG-L080	80	63	4	55	137	175	12.5	63	95
CG-L100	100	71	4	67	157	195	14.5	75	115

Flange fixed type



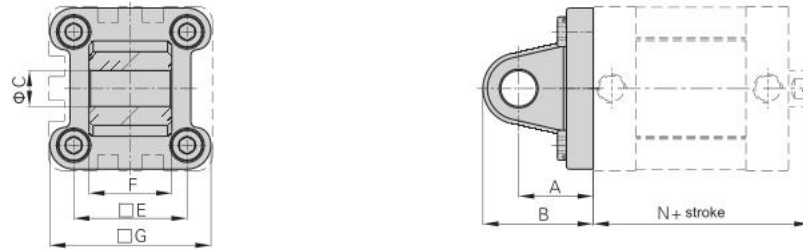
Type	Bore	A	B	C	D	E	F	G	H	N
CG-F032	32	10	32	47	7	32.5	64	80	30.5	51
CG-F040	40	10	36	53	9	38	72	90	35.5	52
CG-F050	50	12	45	65	9	46.5	90	108	40.5	53
CG-F063	63	12	50	75	9	56.5	100	118	45.5	57.5
CG-F080	80	16	63	95	12.5	72	126	150	45.5	65
CG-F100	100	16	75	115	14.5	89	150	176	55.5	77

ACL Series compact cylinder

ISO21287

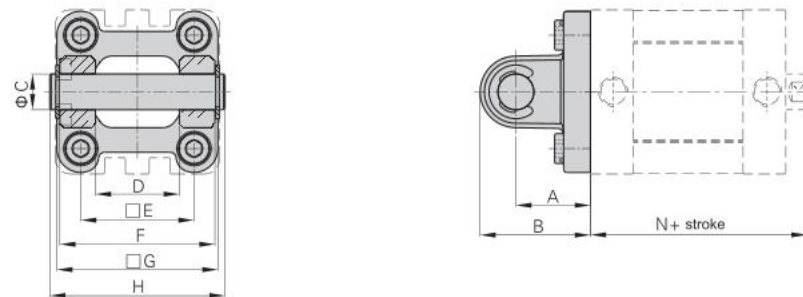
■ Figure Dimension (mm)

Single ear fixed type



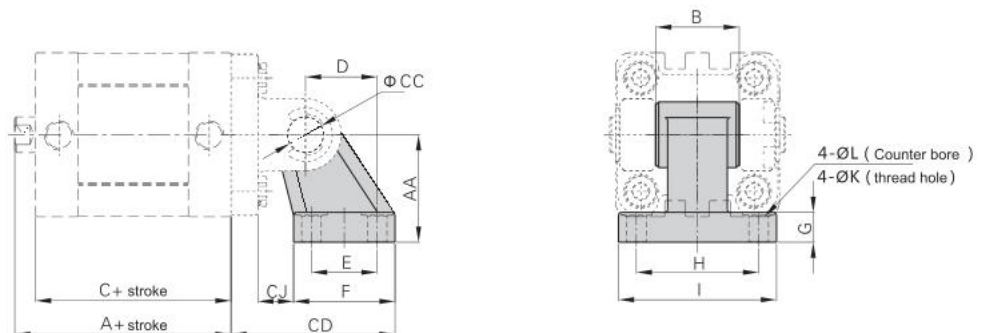
Type	Bore	A	B	C	E	F	G	N
CG-C032	32	22	32	10	32.5	26	47	51
CG-C040	40	25	37	12	38	28	52	52
CG-C050	50	27	39	12	46.5	32	64	53
CG-C063	63	32	47	16	56.5	40	74	57.5
CG-C080	80	36	52	16	72	50	94	65
CG-C100	100	41	61	20	89	60	113	77

Double ear fixed type



Type	Bore	A	B	C	D	E	F	G	H	N
CG-D032	32	22	32	10	26	32.5	45	45	51	51
CG-D040	40	25	37	12	28	38	52	52	59	52
CG-D050	50	27	39	12	32	46.5	60	65	67	53
CG-D063	63	32	47	16	40	56.5	70	76	78	57.5
CG-D080	80	36	52	16	50	72	90	94	98	65
CG-D100	100	41	61	20	60	89	110	112	120	77

Double earring socket



Type	Bore	A	AA	B	C	CC	CD	CJ	D	E	F	G	H	I	K	L
CG-E032	32	51	32	26	44.5	10	49.5	10.5	21	18	31	8	38	51	6.6	11
CG-E040	40	52	36	28	45.5	12	55.5	12.5	24	22	35	10	41	54	6.6	11
CG-E050	50	53	45	32	45.5	12	67.5	12.5	33	30	45	12	50	65	9	14
CG-E063	63	57.5	50	40	50	16	76.5	16.5	37	35	50	12	52	67	9	14
CG-E080	80	65	63	50	55	16	93	21	47	40	60	14	66	86	11	17
CG-E100	100	77	71	60	67	20	106	20	55	50	70	15	76	96	11	17

VBA Series pneumatic booster valve



• Product characteristic

Simple configuration. Improved reliability and extended lifespan. No power supply or electrical wiring required. Fever is low. The air duct and cylinder barrel are integrated to prevent condensation.

• Ordering Code

VBA	40A	—	02	GN
Series	Body size		Pipe size	blank : Standard type GN: Pressure gauge, Silencer
	10A : 1/4 Knob-operated type		02: 1/4	
	20A : 3/8 Knob-operated type		03: 3/8	
	40A : 1/2 Knob-operated type		04: 1/2	
	22A : 3/8 Air-operated type			
	42A : 1/2 Air-operated type			
	43A : 1/2 1.6MPaMax. operating pressure 1.6 MPa			
	11A : 1/4 Knob-operated type			

• Technical parameters

Specification/Item	VBA10A-02	VBA20A-03	VBA40A-04	VBA22A-03	VBA42A-04	VBA43A-04	VBA11A-02
Applicable Medium	Air						
Supercharge ratio	2 t i m e s						2 ~4 times
Pressure regulating mechanism	Manual operation with overflow function Note 1)			Air-controlled		Manual operation with overflow function Note 1)	
Maximum flow note 2) L/min(ANR)	230	1000	1900	1000	1900	1600	70
Set pressure range MPa	0.2~2.0	0.2~1.0		0.2~1.0		0.2~1.6	0.2~2.0
Supply pressure range MPa	0.1~1.0						
Guarantee pressure resistance MPa	3	1.5			2.4		3
Connecting Diameter Rc (IN, OUT, EXH 3)	1/4	3/8	1/2	3/8	1/2		1/4
Gauge connection caliber(IN, OUT 2 places) kg	1/8						
Medium Temperature	2~50(non-freezing)						
Installation methods	horizontal						
Lubrication	lubricating grease(Nooiling)						
Quality	0.84	3.9	8.6	3.9	8.6	8.6	0.89

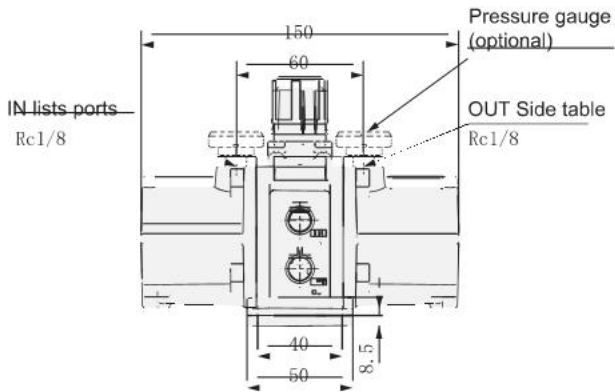
Note 1) When the pressure of the outlet is higher than the set pressure of the handle, the residual pressure is discharged from the back of the handle.

Note 2) Flow rate when IN = OUT = 0.5MPa. Conditions of use can affect pressure changes.

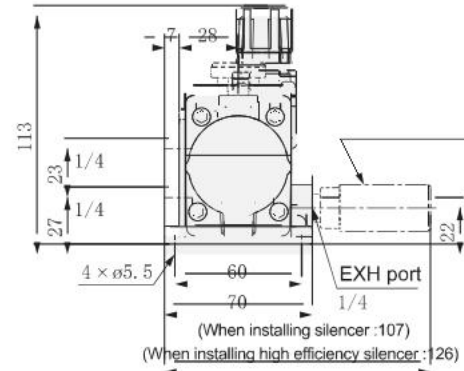
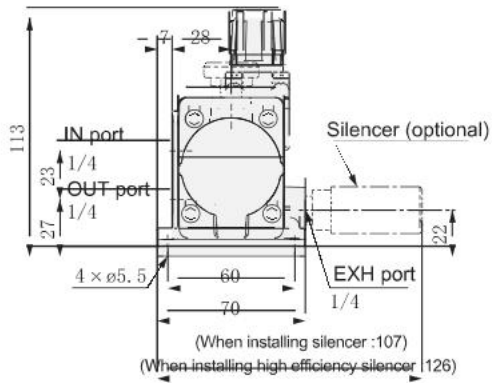
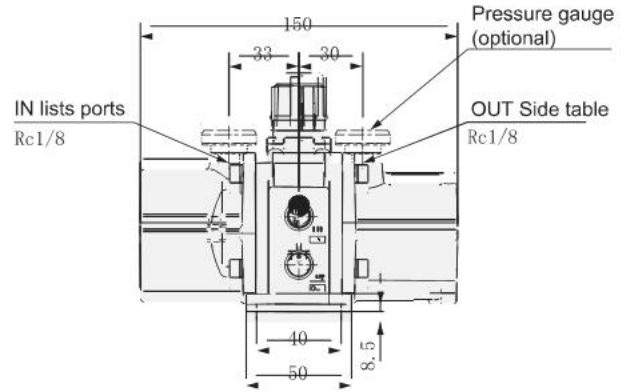
VBA Series pneumatic booster valve

• Figure Dimension

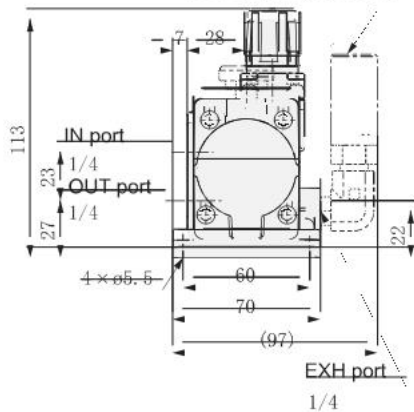
•VBA10A-02



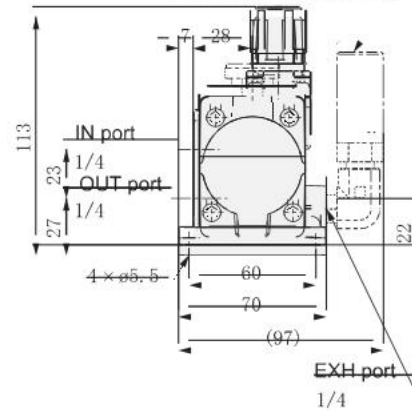
•VBA11A-02



With elbow/silencer (optional)  
Elbow/silencer (optional)



With elbow/silencer (optional)  
Elbow/silencer (optional)



◆ **BOOSTER USAGE AND APPLICATION VBA20A, VBA40A**

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- To Boost Your Pneumatic Pressure 1:2 Ratio
- Maximum Pressure Upto 10 Bar
- No Power Supply Required To Boost
- Maximum Volume Of 1900lpm, Suggest To Use With Small Tank
- Easy Installation
- Outlet Pressure Can Be Controlled 1-10 Bar
- Industry Like Injection Moulding, Leak Testing Machine, Pet Blowing Machines



CU series free mounting cylinder

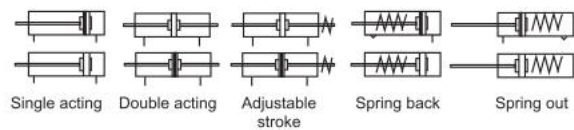
(Φ6-Φ32)



● Product characteristic

The cylinder has a variety of fixing methods, which are easy to install and use, and can be used together with multiple cylinders, effectively saving space.

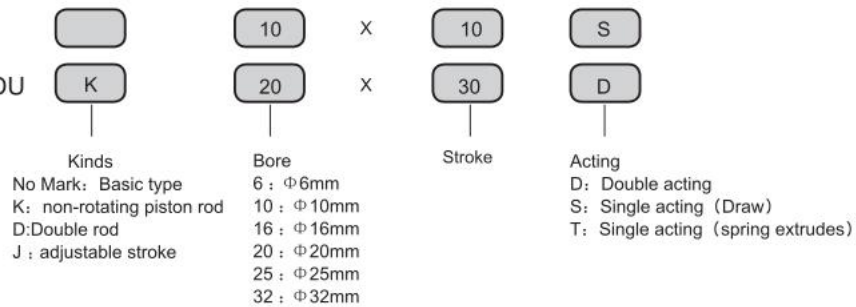
■ Graphics Sign



● Ordering Code

Basic type : CU

built-in magnet ring type : CDU



■ Example

- 1) Bore: 6, Stroke: 10, Double acting, Un-rotate piston rod type, Code: CUK6-10D
- 2) Bore: 25, Stroke: 25, Double acting (Draw), Within magnet, Code: CDU25x25S

■ Specification

Bore (mm)	6	10	16	20	25	32
Applicable Medium	Air					
Action	Double Acting Type Single acting ,Drawing/Extrusion					
Max. pressure	0.7Mpa					
Min. pressure	Double action					
	Single action					
Temperature range	-10 ~ 60°C(No freeze)					
Speed range	50 ~ 500mm/s					
Cushion type	Rubber buffer at both ends					
Lubricate	Needless					
Pipe size	M5×0.8					1/8

\* If lubricate please use ISOVG32.

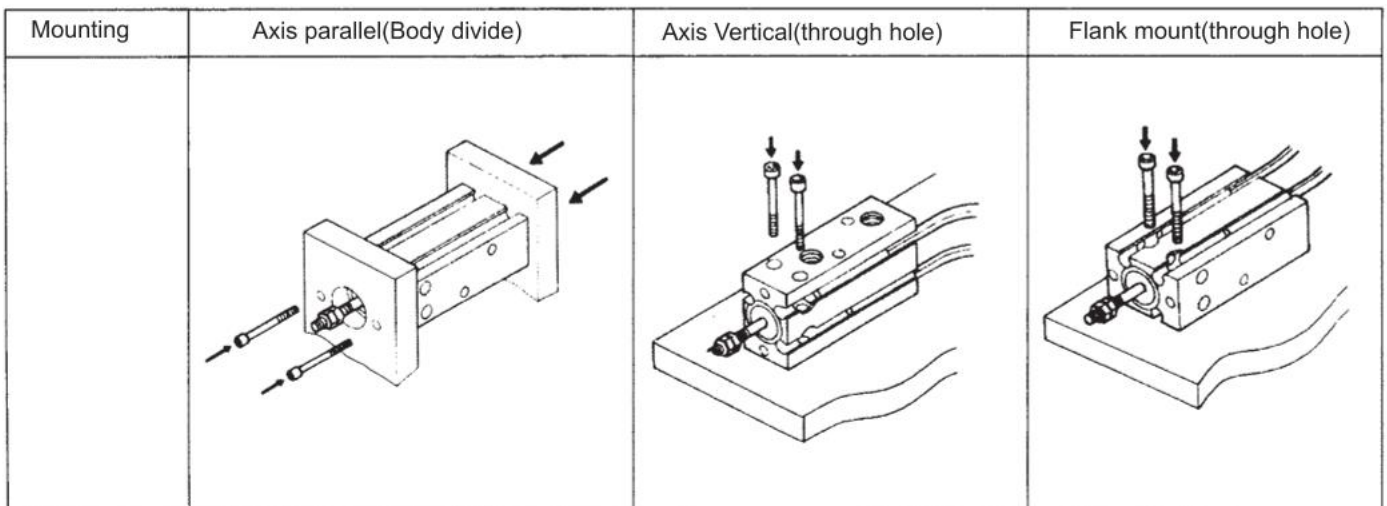
CU series free mounting cylinder

■ Stroke/Magnetic Switch

Bore (mm)	Standard Stroke		Long Stroke	Orbit Mounting type
	double acting	Singel acting		* Magnetic switch
6	5, 10, 15, 20, 25, 30, 35	5, 10, 15, 20	35	CS1-H
10			35	
16	5, 10, 15, 20, 25, 30, 40, 50		50	
20	5, 10, 15, 20, 25, 30, 40, 50, 60		60	
25			60	
32			60	

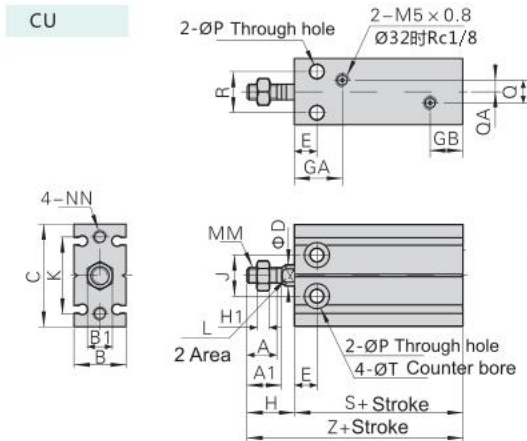
\* Magnet switch specification refer to magnet switch series

Installation with strong adaptability/Rectangle cylinder



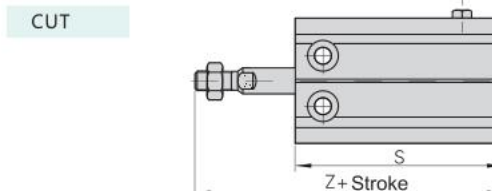
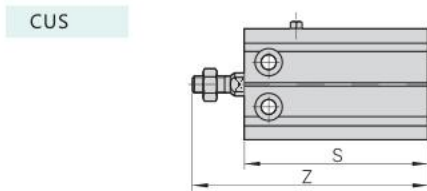
CU series free mounting cylinder

■ Figure Dimension

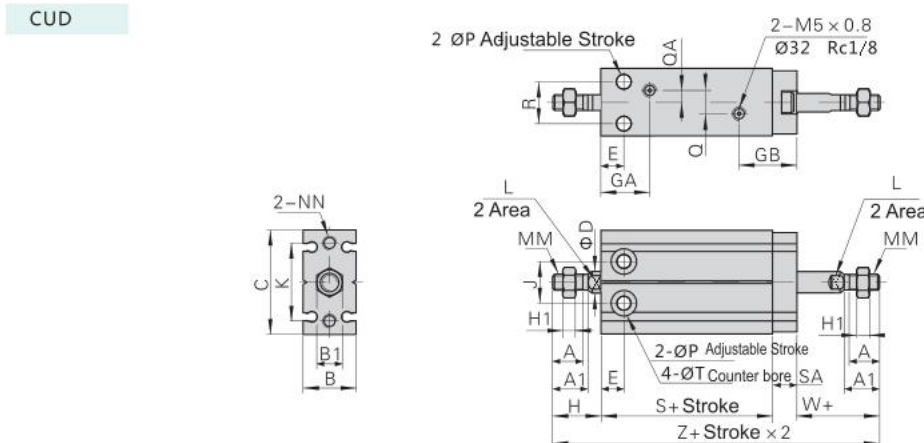


Bore	A	A1	B	B1	C	D	E	GA	GB	H	H1	J	K	L
6	7	8	13	5.5	22	3	7	14	10	13	1.8	10	17	—
10	10	11	15	7	24	4	7	15.5	10	16	3	11	18	—
16	11	12.5	20	8	32	6	7	13	10	16	4	14	25	5
20	13	14	26	10	40	8	9	18.5	11	19	5	16	30	6
25	15.5	18	32	13	50	10	10	20.5	9	23	5	20	38	8
32	19.5	22	40	17	62	12	11	22	12.5	27	6	24	48	10

Bore	MM	NN	P	Q	QA	R	T	S		Z	
								Without magnet	With magnet	Without magnet	With magnet
6	M3×0.5	M3×0.5 Dept: 5	3.2	—	—	7	6 Dept: 4.5	33	33	46	46
10	M4×0.7	M3×0.5 Dept: 5	3.2	—	—	9	6 Dept: 5.6	36	36	52	52
16	M5×0.8	M4×0.7 Dept: 5	4.5	3	1.5	12	7.6 Dept: 6.5	30	40	46	56
20	M6×1.0	M5×0.8 Dept: 7.5	5.5	9	4.5	16	9.3 Dept: 8	36	46	55	65
25	M8×1.25	M5×0.8 Dept: 8	5.5	12	6	20	9.3 Dept: 9	40	50	63	73
32	M10×1.25	M6×1.0 Dept: 9	6.6	13	4.5	24	11 Dept: 11.5	42	52	69	79



Bore	S Without magnet				S' With magnet				Z Without magnet				Z' With magnet			
	5St	10St	15St	20St	5St	10St	15St	20St	5St	10St	15St	20St	5St	10St	15St	20St
6	43	48	58	63	43	48	58	63	56	61	71	76	56	61	71	76
10	46	51	61	66	46	51	61	66	62	67	77	82	62	67	77	82
16	45	50	65	70	55	60	75	80	61	66	81	86	71	76	91	96
20	51	56	71	76	61	66	81	86	70	75	90	95	80	85	100	105
25	55	60	75	80	65	70	85	90	78	83	98	103	88	93	108	113
32	57	62	77	82	67	72	87	92	84	89	104	109	94	99	114	119



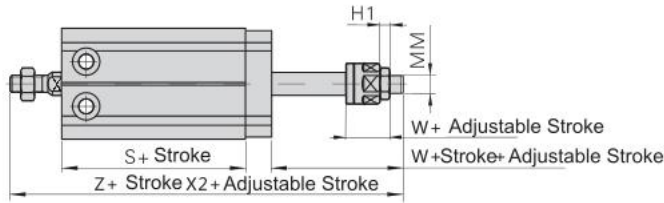
Bore	A	A1	B	B1	C	D	E	GA	GB	H	H1	J	K	L	P	Q
6	7	8	13	5.5	22	3	7	14	16	13	1.8	10	17	—	3.2	—
10	10	11	15	7	24	4	7	15.5	16	16	3	11	18	—	3.2	—
16	11	12.5	20	8	32	6	7	13	17.5	16	4	14	25	5	4.5	3
20	13	14	26	10	40	8	9	18.5	20	19	5	16	30	6	5.5	9
25	15.5	18	32	13	50	10	10	20.5	18	23	5	20	38	8	5.5	12
32	19.5	22	40	17	62	12	11	22	22.5	27	6	24	48	10	6.6	13

Bore	MM	NN	QA	R	SA	T	W	S		Z	
								Without magnet	With magnet	Without magnet	With magnet
6	M3×0.5	M3×0.5 Dept: 5	—	7	6	6 Dept: 4.5	13	38	38	70	70
10	M4×0.7	M3×0.5 Dept: 5	—	9	6	6 Dept: 5.6	16	36	36	74	74
16	M5×0.8	M4×0.7 Dept: 5	1.5	12	7.5	7.6 Dept: 6.5	16	30	40	69.5	79.5
20	M6×1.0	M5×0.8 Dept: 7.5	4.5	16	9	9.3 Dept: 8	19	36	46	83	93
25	M8×1.25	M5×0.8 Dept: 8	6	20	9	9.3 Dept: 9	23	40	50	95	105
32	M10×1.25	M6×1.0 Dept: 9	4.5	24	10	11 Dept: 11.5	27	42	52	106	116

CU series free mounting cylinder

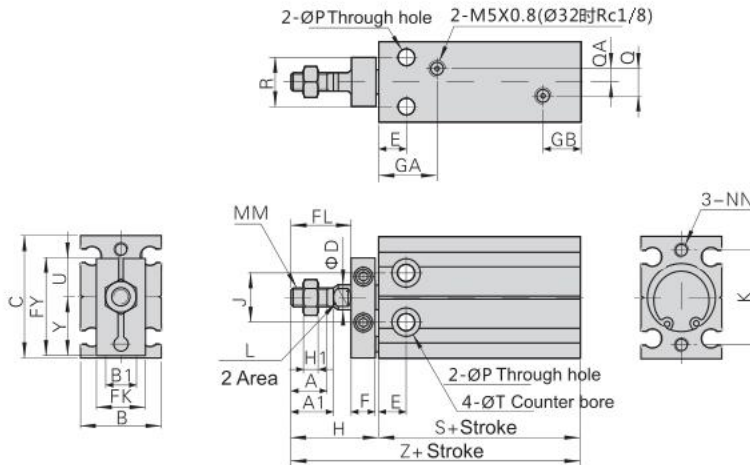
■ Figure Dimension

CUJ



Bore	MM	H1	W	S		Z	
				Without magnet	With magnet	Without magnet	With magnet
6	M3×0.5	1.8	13	38	38	70	70
10	M4×0.7	3	15	36	36	73	73
16	M5×0.8	4	17	30	40	70.5	80.5
20	M6×1.0	5	21	36	46	85	95
25	M8×1.25	5	25	40	50	97	107
32	M10×1.25	6	27	42	52	106	116

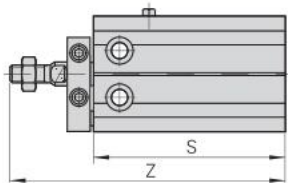
CUK



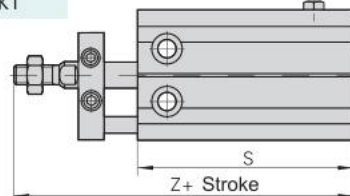
Bore	A	A1	B	B1	C	D	E	F	FL	FK	FY	GA	GB	H	H1	J	K	L	Y
6	7	8	13	5.5	22	3	7	8	9	11	19	14	10	18	1.8	10	17	—	10.9
10	10	11	15	7	24	4	7	8	12	13	20.5	15.5	10	21	3	11	18	—	11.9
16	11	12.5	20	8	32	6	7	8	17	13	26.5	13	10	26	4	14	25	5	15.9
20	13	14	26	10	40	8	9	8	20	16	32	18.5	11	29	5	16	30	6	19.8
25	15.5	18	32	13	50	10	10	10	22	19	40	20.5	9	33	5	20	38	8	24.8
32	19.5	22	40	17	62	12	11	12	29	22	49	22	12.5	42	6	24	48	10	30.8

Bore	MM	NN	P	Q	QA	R	T	U	S		Z	
									Without magnet	With magnet	Without magnet	With magnet
6	M3×0.5	M3×0.5 Dept : 5	3.2	—	—	7	6 Dept : 4.5	8.1	33	33	51	51
10	M4×0.7	M3×0.5 Dept : 5	3.2	—	—	9	6 Dept : 5.6	8.6	36	36	57	57
16	M5×0.8	M4×0.7 Dept : 5	4.5	3	1.5	12	7.6 Dept : 6.5	10.6	30	40	56	66
20	M6×1.0	M5×0.8 Dept : 7.5	5.5	9	4.5	16	9.3 Dept : 8	12.2	36	46	65	75
25	M8×1.25	M5×0.8 Dept : 8	5.5	12	6	20	9.3 Dept : 9	15.2	40	50	73	83
32	M10×1.25	M6×1.0 Dept : 9	6.6	13	4.5	24	11 Dept : 11.5	18.2	42	52	84	94

CUKS



CUKT

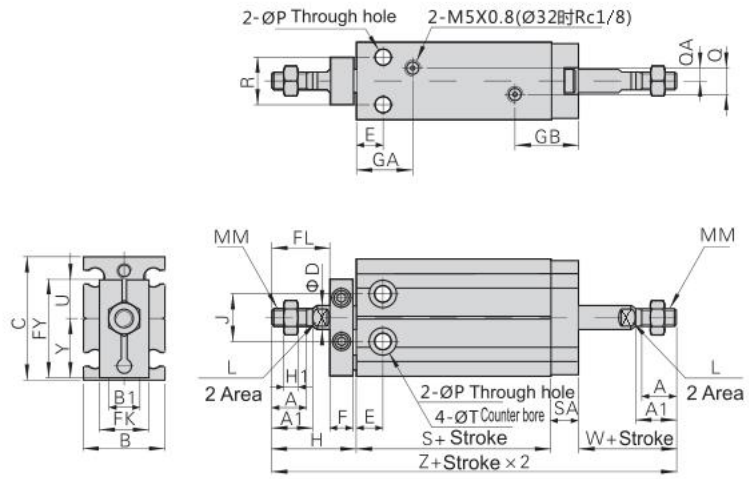


Bore	S Without magnet				S' With magnet				Z Without magnet				Z' With magnet			
	5St	10St	15St	20St	5St	10St	15St	20St	5St	10St	15St	20St	5St	10St	15St	20St
6	43	48	58	63	43	48	58	63	61	66	76	81	61	66	76	81
10	46	51	61	66	46	51	61	66	67	72	82	87	67	72	82	87
16	45	50	65	70	55	60	75	80	71	76	91	96	81	86	101	106
20	51	56	71	76	61	66	81	86	80	85	100	105	90	95	110	115
25	55	60	75	80	65	70	85	90	88	93	108	113	98	103	118	123
32	57	62	77	82	67	72	87	92	99	104	119	124	109	114	129	134

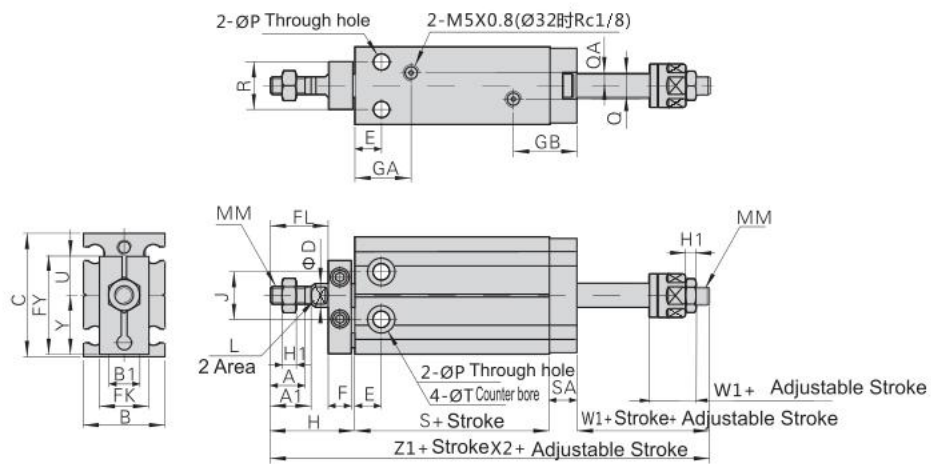
■ Figure Dimension

CU series free mounting cylinder

CUKD



CUKJ



VII

Bore	A	A1	B	B1	C	D	E	F	FL	FK	FY	GA	GB	H	H1	J	L	P	Y
6	7	8	13	5.5	22	3	7	8	9	11	19	14	16	18	1.8	10	—	3.2	10.9
10	10	11	15	7	24	4	7	8	12	13	20.5	15.5	16	21	3	11	—	3.2	11.9
16	11	12.5	20	8	32	6	7	8	17	13	26.5	13	17.5	26	4	14	5	4.5	15.9
20	13	14	26	10	40	8	9	8	20	16	32	18.5	20	29	5	16	6	5.5	19.8
25	15.5	18	32	13	50	10	10	10	22	19	40	20.5	18	33	5	20	8	5.5	24.8
32	19.5	22	40	17	62	12	11	12	29	22	49	22	22.5	42	6	24	10	6.6	30.8

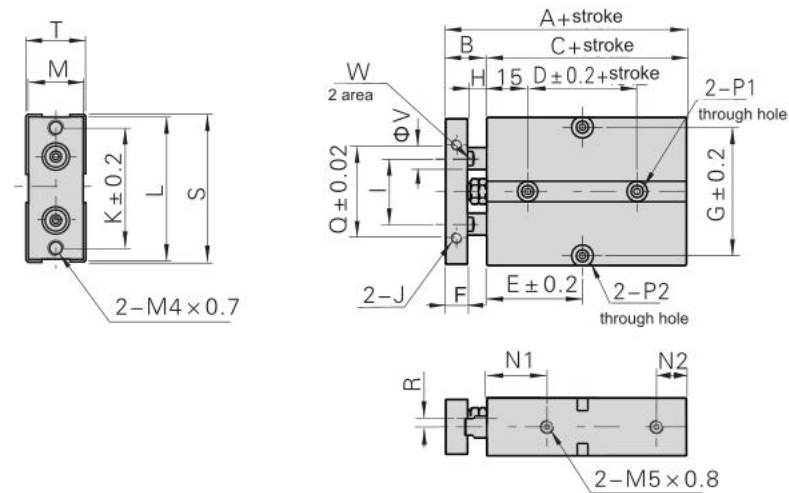
Bore	MM	Q	QA	R	SA	T	U	W	W1	S		Z		Z1	
										Without magnet	With magnet	Without magnet	With magnet	Without magnet	With magnet
6	M3×0.5	—	—	7	6	6 Dept : 4.5	8.1	13	13	38	38	75	75	75	75
10	M4×0.7	—	—	9	6	6 Dept : 5.6	8.6	16	14.7	36	36	79	79	77.7	77.7
16	M5×0.8	3	1.5	12	7.5	7 6 Dept : 6.5	10.6	16	17	30	40	79.5	89.5	80.5	90.5
20	M6×1.0	9	4.5	16	9	9.3 Dept : 8	12.2	19	21	36	46	93	103	95	105
25	M8×1.25	12	6	20	9	9.3 Dept : 9	15.2	23	25	40	50	105	115	107	117
32	M10×1.25	13	4.5	24	10	11 Dept : 11.5	18.2	27	27	42	52	121	131	121	131



**TN series double shaft cylinder**

■ Figure Dimension

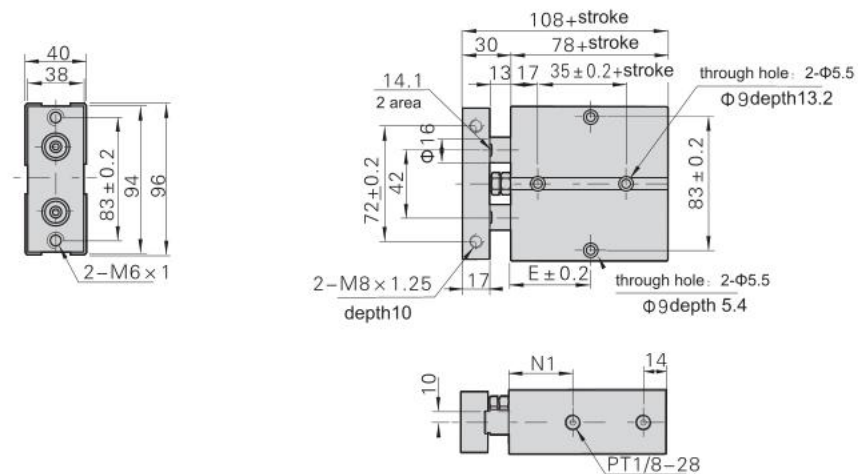
Φ16 ~ Φ25



Stroke Bore ≤	A	B	C	D	E																F	G	H	I	K
					10	20	30	40	50	60	70	80	90	100	125	150	175	200							
16	68	15	53	20	30	35	40	45	50	55	60	65	70	75	87.5	100	112.5	125	8	47	7	24	47		
20	78	20	58	20	35	35	40	45	50	55	60	65	70	75	87.5	100	112.5	125	10	55	10	28	55		
25	81	19	62	30	40	40	45	50	55	60	65	70	75	80	92.5	105	117.5	130	10	66	9	34	66		

Stroke	J	L	M	N1	N2	P1	P2	Q	R	S	T	V	W
16	M4X0.7 depth5	53	20	22	9	Φ7.5 depth 7.2 through hole Φ4.5	Φ8 depth 4.5 through hole Φ4.5	34	3	54	21	8	6
20	M4X0.7 depth5	61	24	25	9.5	Φ7.5 depth 7.2 through hole Φ4.5	Φ8 depth 4.5 through hole Φ4.5	44	3.5	62	25	10	8
25	M4X0.7 depth6	72	29	27	11	Φ7.5 depth 7.2 through hole Φ4.5	Φ8 depth 4.5 through hole Φ4.5	56	6	73	30	12	10

Φ32



Stroke	10	20	30	40	50	60	70	80	90	100	125	150	175	200
E	45	50	55	60	65	70	75	80	85	90	102.5	15	127.5	140
N1	35	40												

VII

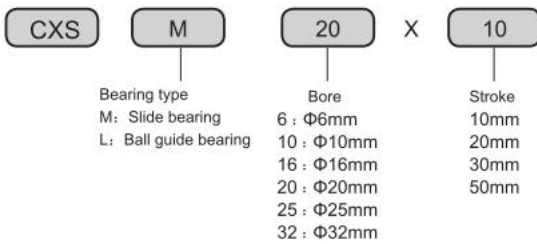
**CXS series double shaft cylinder**

(Φ6-Φ32)



Double-shaft construction and standardization of high lateral load resistance and high accuracy

● **Ordering Code**



■ **Order Example**

- 1) Bore: 16, Stroke: 30, Ball guide bearing, Code: CXSL16x30
- 2) Bore: 32, Stroke: 100, Slide bearing, Code: CXSM32x100

■ **Specification**

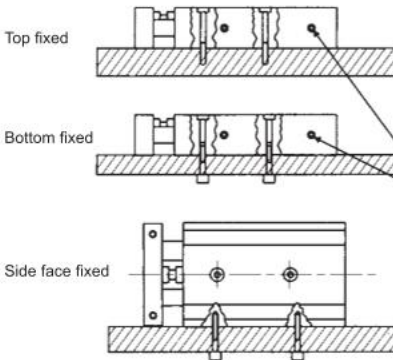
Bore (mm)	6	10	16	20	25	32
Applicable medium	Air					
Action	Double acting					
Proof pressure MPa(kgf/cm <sup>2</sup> )	1.5					
Max pressure MPa(kgf/cm <sup>2</sup> )	1.0					
Min pressure MPa(kgf/cm <sup>2</sup> )	0.15					
Environment and fluid temperature	-10 ~ 60°C(No Freeze)					
Cushion	Rubber cushion on both end					
Construction	Double cylinder (2 times of force)					
*Lubrication	Not required					
Stroke adjustable range	Retraction distance 0 ~ 5mm					
Bearing	Slide bearing/Ball guide bearing					
Non-rotating Accuracy	±0.1	±0.15	±0.13	±0.11	±0.1	±0.08
	±0.1	±0.1	±0.07	±0.06	±0.05	±0.04
Pipe Size RC(PT)	M5×0.8				1/8	

\*ISOVG32, if required lubrication

■ **Stroke/Magnetic Switch**

Bore (mm)	Standard Stroke	orbit Mounting
		Sensor switch
6	10,20,30,40,50	CS1-M
10	10,15,20,25,30,35,40,45,50,60,70,75,80,90,100	CS1-H
16	10,15,20,25,30,35,40,45,50,60,70,75,80,90,100,125,150,175,200	
20		
25		
32		

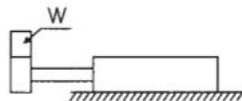
The cylinder body can be fixed by bolt in 4 directions, and the air supply position is optional.



Air supply port (front and back air supply port is same)

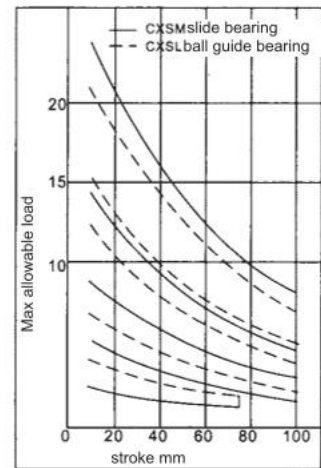
**Max allowable load**

The cylinder that is fixed according to the following installation type, its allowable load should lower than the follows



**Stroke/Magnetic Switch**

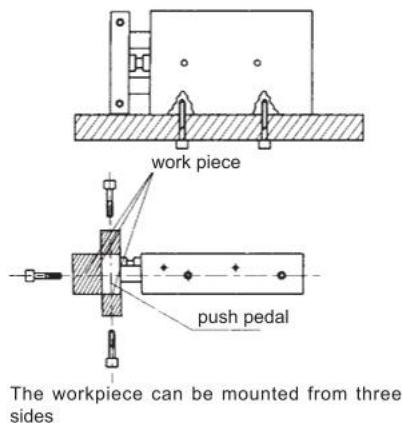
Type	Stand Stroke(mm)				
	10	20	30	40	50
CXSM6	0.80	0.66	0.54	0.46	0.40
CXSL6	1.08	0.88	0.69	0.59	0.49



**Theoretical output force**

Type	Rod dia (mm)	Direction	Effective area (mm <sup>2</sup> )	Service Pressure Air (MPa)						
				0.1	0.2	0.3	0.4	0.5	0.6	0.7
CXS <sub>6</sub>	4	Push	56	*0.8	11.2	16.8	22.1	28.0	33.6	39.2
		Pull	31	*4.6	6.2	9.3	12.4	15.5	18.6	21.7
CXS <sub>10</sub>	6	Push	157	15.7	31.4	47.1	62.8	75.5	94.2	110
		Pull	100	10.0	20.0	30.0	40.0	50.0	60.0	70.0
CXS <sub>16</sub>	8	Push	353	35.3	70.6	106	141	177	212	247
		Pull	252	25.2	50.4	75.6	101	126	151	176
CXS <sub>20</sub>	10	Push	628	62.8	126	188	251	314	377	440
		Pull	471	47.1	94.2	141	188	236	283	330
CXS <sub>25</sub>	12	Push	982	98.2	196	295	393	491	589	687
		Pull	756	75.6	151	227	302	378	454	529
CXS <sub>32</sub>	16	Push	1608	161	322	482	643	804	965	1126
		Pull	1206	121	241	362	482	603	724	844

\*Under the pressure of 0.15 MPa



The work piece can be mounted from three sides

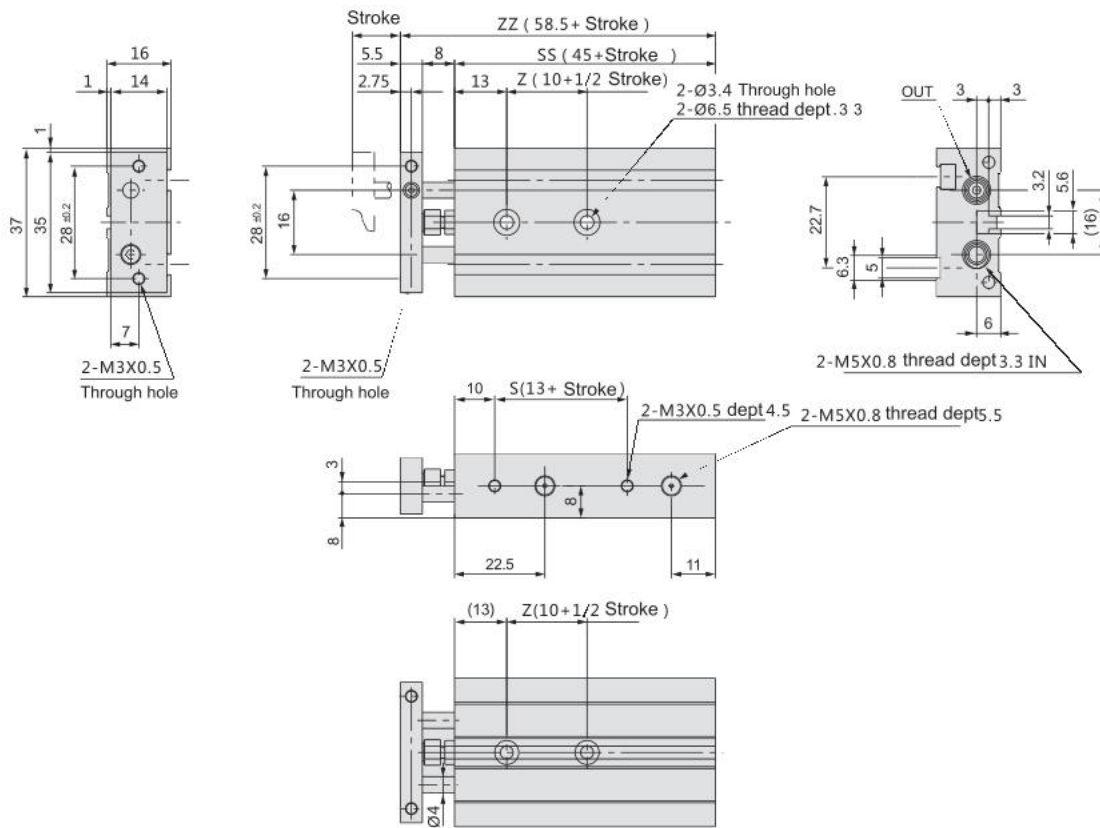
CXS series double shaft cylinder

■ Figure Dimension

Type	Stroke(mm)															(kg)
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	
CXS□6	0.081	-	0.095	-	0.108	-	0.122	-	0.135	-	-	-	-	-	-	
CXSM10	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	-	-	-	
CXSL10	0.16	0.165	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	-	-	-	
CXSM16	0.25	0.265	0.28	0.29	0.30	0.315	0.33	0.345	0.36	0.39	0.42	0.435	0.45	0.48	0.51	
CXSL16	0.27	0.285	0.30	0.31	0.32	0.335	0.35	0.365	0.38	0.41	0.44	0.455	0.47	0.50	0.53	
CXSM20	0.40	0.42	0.44	0.46	0.48	0.495	0.51	0.53	0.53	0.585	0.62	0.64	0.66	0.70	0.74	
CXSL20	0.43	0.445	0.46	0.48	0.50	0.515	0.53	0.55	0.55	0.605	0.64	0.66	0.68	0.715	0.75	
CXSM25	0.61	0.635	0.66	0.69	0.72	0.745	0.77	0.80	0.80	0.89	0.95	0.97	0.995	1.06	1.10	
CXSL25	0.62	0.645	0.67	0.70	0.73	0.755	0.78	0.81	0.81	0.895	0.955	0.98	1.005	1.065	1.11	
CXSM32	1.15	1.19	1.23	1.275	1.32	1.36	1.40	1.45	1.45	1.58	1.665	1.71	1.755	1.84	1.93	
CXSL32	1.16	1.205	1.25	1.295	1.34	1.38	1.42	1.465	1.465	1.595	1.68	1.72	1.765	1.855	1.94	

Figure Dimension (mm)

CXS□6



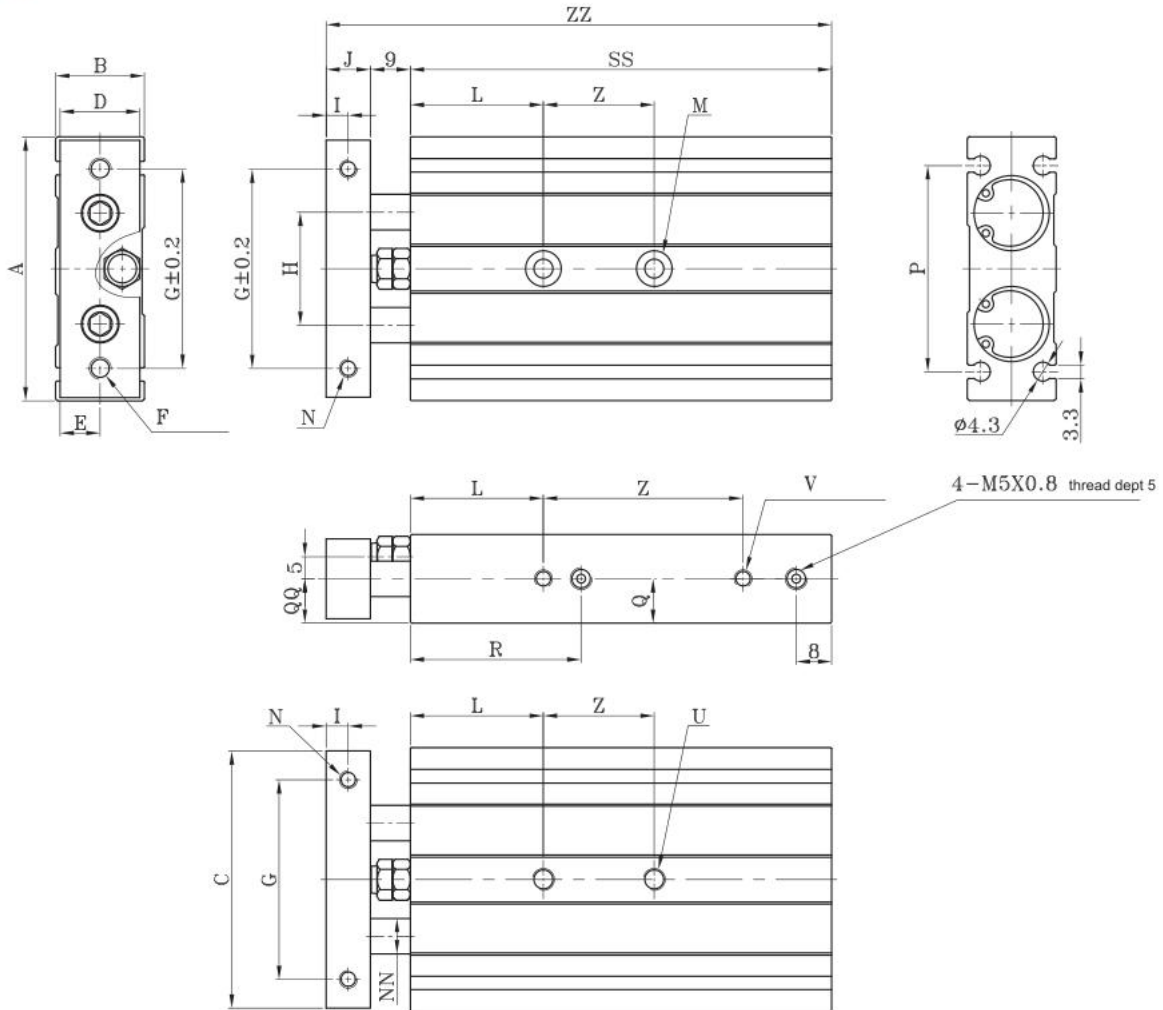
(kg)

Type	Stroke	10+1/2 Stroke	13+ Stroke	45+ Stroke	10+1/2Stroke
CXS□6-10	10	15	23	55	68.5
CXS□6-20	20	20	33	65	78.5
CXS□6-30	30	25	43	75	88.5
CXS□6-40	40	30	53	85	98.5
CXS□6-50	50	35	63	95	108.5

**CXS series double shaft cylinder**

■ Figure Dimension (mm)

CXS□10~16



Type	A	B	C	D	E	F	G	H	I	J	L	M	N	NN	P	Q	QQ	R	U	V
CXS□10	46	17	44	15	7.5	2xM4x0.7	35	20	4	8	20	2xφ3.4 through hole 2xφ6 counter bore 3.3	2xM3x0.5 screw depth 5	φ6	35	8.5	8.5	30	2xM4x0.7 screw depth 7	4xM3x0.5 screw depth 5
CXS□16	59.5	20	58	18	9	2xM5x0.8	45	25	5	10	30	2xφ4.3 through hole 2xφ8 counter bore 4.4	2xM4x0.7 through hole	φ8	46	10	10	24	2xM5x0.8 screw depth 8	4xM4x0.7 screw depth 5

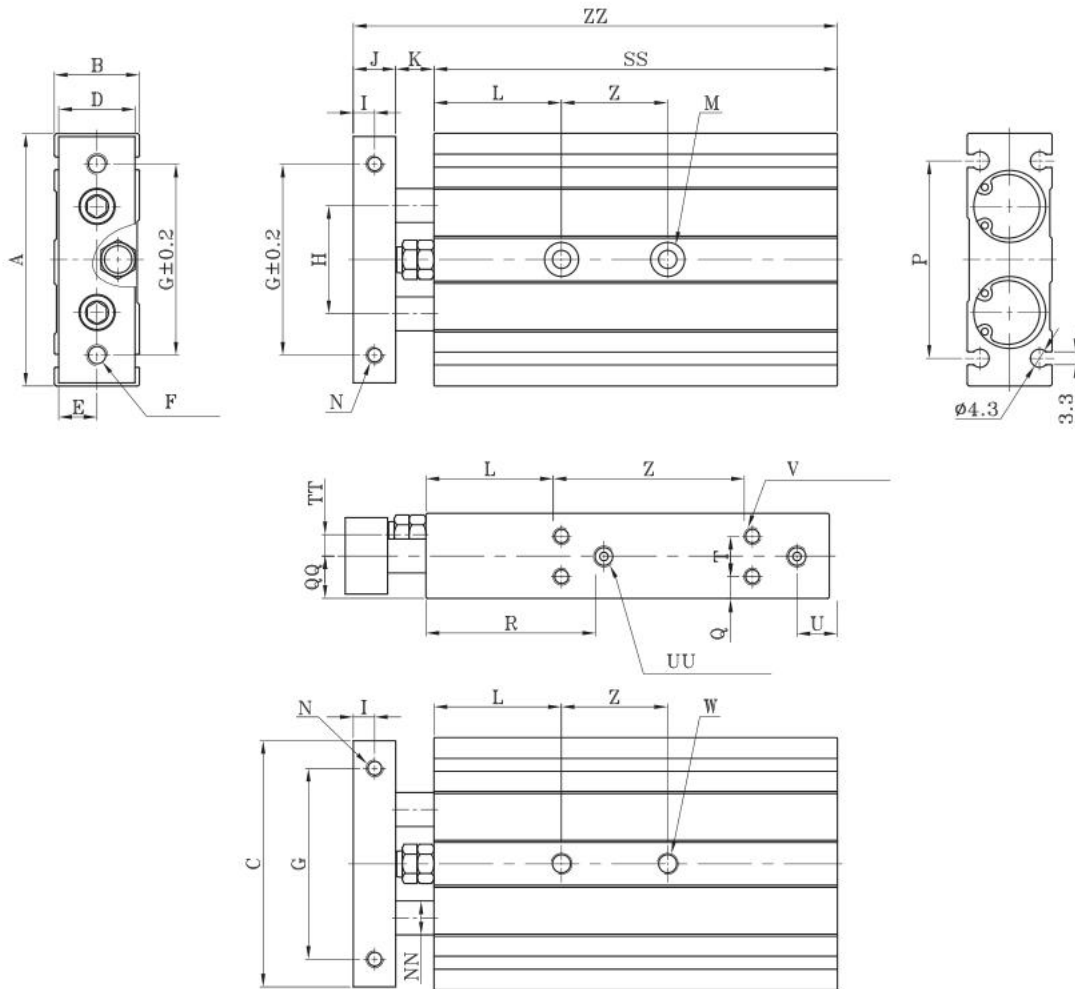
Stroke dimension table

Mark	SS																			ZZ										
	Stroke		10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150	175	200	10	15	20	25	30	35	40	45	50
CXS□10	Bore	65	70	75	80	85	90	95	100	105	115	125	130	135	145	155	-	-	-	-	82	87	92	97	102	107	112	117	122	132
CXS□16	Bore	70	75	80	85	90	95	100	105	110	120	130	135	140	150	160	185	210	235	260	89	94	99	104	109	114	119	124	129	139

Mark	ZZ										Z																			
	Stroke		70	75	80	90	100	125	150	175	200	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150	175	200
CXS□10	Bore	142	147	152	162	172	-	-	-	-	30	40	50	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CXS□16	Bore	149	154	159	169	179	204	229	254	279	25	35	45	55	65	75	145	-	-	-	-	-	-	-	-	-	-	-	-	-

**CXS series double shaft cylinder**

CXS□20-32



Type	A	B	C	D	E	F	G	H	I	J	L	M	N	NN	P	Q	QQ	R	T	TT	U	UU	V	W
CXS□20	65.5	25.5	62	23	11.5	2xM5x0.8	50	28	6	12	30	2xφ5.2 2xφ9.5 depth 5.3	2xM4x0.7 screw depth 6	Φ10	51	8	12.75	40	9.5	6.5	9.5	4xM5x0.8 screw depth 6.5	8xM4x0.7 screw depth 5.5	2xM6x1.0 screw depth 10
CXS□25	81.5	31	78	28	14	2xM6x1.0	60	35	6	12	30	2xφ6.9 2xφ11 depth 6.3	2xM5x0.8 screw depth 7.5	Φ12	60	9	15.5	41	13	9	10	4xRC1/8	8xM5x0.8 screw depth 7.5	2xM8x1.25 screw depth 12
CXS□32	95.5	39	94	36	18	2xM6x1.0	75	44	8	16	30	2xφ6.9 2xφ11 depth 6.3	2xM5x0.8 screw depth 7.5	Φ16	72	9.5	19.5	50	20	11.5	11	4xRC1/8	8xM5x0.8 screw depth 7.5	2xM8x1.25 screw depth 12

Stroke dimension table

Mark Stroke	SS																				ZZ									
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150	175	200	10	15	20	25	30	35	40	45	50	60	
CXS□20	80	85	90	95	100	105	110	115	120	130	140	145	150	160	170	195	220	245	270	104	109	114	119	124	129	134	139	144	154	
CXS□25	82	87	92	97	102	107	112	117	122	132	142	147	152	162	172	197	222	247	272	106	111	116	121	126	131	136	141	146	156	
CXS□32	92	97	102	107	112	117	122	127	132	142	152	157	162	172	182	207	232	257	282	122	127	132	137	142	147	152	157	162	172	

Mark Stroke	ZZ										Z																	
	70	75	80	90	100	125	150	175	200	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150	175	200
CXS□20	164	169	174	184	194	219	244	269	294	30										60					80			100
CXS□25	166	171	176	186	196	221	246	271	296	30										60					80			100
CXS□32	182	187	192	202	212	237	262	287	312	40										70					90			110

**MGP series New type cylinder with guide rod**

(Φ12-Φ63)

■ **Product feature**

- Small volume, compact
- High side load resistance
- Strong resistance to torque force
- High non-rock-over precision
- Choose the sliding bearing or ball guide bearing for the bearing of guide rod
- Easy for installation and use
- The position of two-surface connecting pipe is optional



● **Ordering Code**

Within magnet: MGP **M** **25** x **40**

Bearing type  
M: Sliding bearing  
L: Ball guide bearing

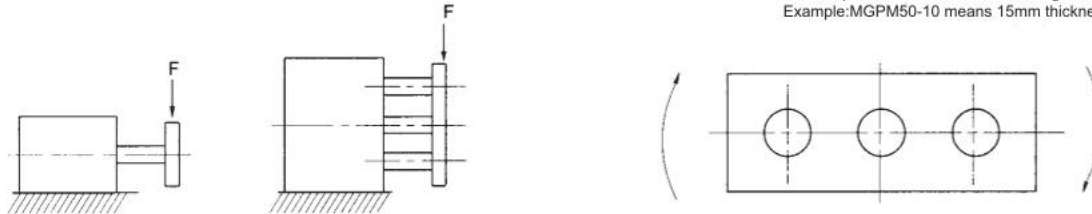
Bore  
12:Φ12mm  
16:Φ16mm  
20:Φ20mm  
25:Φ25mm  
32:Φ32mm  
40:Φ40mm  
50:Φ50mm  
63:Φ63mm

Stroke

■ **Order**

- 1)Bore:12,Stroke:50,Sliding bearing.  
Code:MGPM12x50
- 2)Bore:40,Stroke:100,Ball guide bearing.  
Code:MGPL40x100

**Load and twist power**



Bore (mm)	Type	Max load on the flank F(N)												Max anti-twist power(N.m)											
		Stroke(mm)												Stroke(mm)											
		10	20	25	30	40	50	75	100	125	150	175	200	10	20	25	30	40	50	75	100	125	150	175	200
12	MPGM	24	19	-	17	14	13	26	22	-	-	-	-	0.39	0.32	-	0.27	0.24	0.21	0.43	0.36	-	-	-	-
	MPGL	37	27	-	22	35	30	23	18	-	-	-	-	0.78	0.66	-	0.57	0.93	0.85	0.69	0.58	-	-	-	-
16	MPGM	38	31	-	27	23	21	37	32	-	-	-	-	0.69	0.58	-	0.49	0.43	0.38	0.69	0.58	-	-	-	-
	MPGL	54	40	-	32	54	47	35	28	-	-	-	-	1.23	1.06	-	0.92	1.53	1.40	1.16	0.99	-	-	-	-
20	MPGM	-	49	-	43	38	35	87	75	66	59	54	49	-	1.05	-	0.93	0.83	0.75	1.88	1.63	1.44	1.28	1.16	1.06
	MPGL	-	58	-	48	101	90	70	58	62	54	48	43	-	1.70	-	1.52	3.06	2.87	2.47	2.17	2.38	2.16	1.98	1.82
25	MPGM	-	69	-	60	54	49	116	100	88	79	71	65	-	1.76	-	1.55	1.38	1.25	2.96	2.57	2.26	2.02	1.83	1.67
	MPGL	-	82	-	68	132	118	93	77	80	70	62	55	-	2.80	-	2.53	4.67	4.39	3.81	3.36	3.65	3.31	3.02	2.78
32	MPGM	-	-	203	-	-	164	182	159	142	127	116	106	-	-	6.35	-	-	5.13	5.69	4.97	4.42	3.98	3.61	3.31
	MPGL	-	-	113	-	-	78	130	107	130	114	101	90	-	-	4.76	-	-	3.86	6.53	5.75	7.10	6.46	5.92	5.47
40	MPGM	-	-	203	-	-	164	182	159	142	127	116	106	-	-	7.00	-	-	5.66	2.27	5.48	4.87	4.38	3.98	3.65
	MPGL	-	-	113	-	-	78	129	106	130	114	101	90	-	-	5.24	-	-	4.25	7.19	6.33	7.81	7.11	6.52	6.02
50	MPGM	-	-	296	-	-	245	273	241	216	195	179	164	-	-	13.00	-	-	10.8	12.0	10.6	9.50	8.60	7.86	7.24
	MPGL	-	-	120	-	-	83	178	148	148	129	114	102	-	-	7.02	-	-	5.76	12.3	10.9	11.2	10.2	9.40	8.69
63	MPGM	-	-	296	-	-	245	273	241	216	195	179	164	-	-	14.70	-	-	12.1	13.5	12.0	10.7	9.69	8.86	8.16
	MPGL	-	-	117	-	-	81	176	145	145	126	111	99	-	-	7.77	-	-	6.35	13.7	12.2	12.5	11.4	10.5	9.65

■ **Standard specification**

Bore (mm)	12 16	20 25 32 40	50 63		
Applicable Fluid	Air				
Acting type	Double Acting				
Proof pressure	1.5MPa				
Max Pressure	1.0MPa				
Minimum pressure	0.12MPa	0.12MPa			
Environment fluid temperature	-10°C 60°C (No Freeze)				
Piston speed	50 550mm/s	50 400mm/s			
Cushion	Rubber cushion				
Stroke tolerance	+1.5, 0mm				
* Lubrication	No				
Bearing	Sliding/Ball guide bearing				
Non-rotating rate for piston rod	Sliding	±0.08°	±0.07°	±0.06°	±0.05°
	Ball guide bearing	±0.10°	±0.09°	±0.08°	±0.08°
	M5×0.8	1/8		1/4	

\* If lubricate please use ISOVG32

■ **Stroke/Magnetic switch**

Bore (mm)	note 1) Standard Stroke (mm)	Channel mounting
12,16	10,20,30,40,50,75,100	1) Magnetic switch
20,25	20,30,40,50,75,100,125,150,175,200	CS1-H
32,40,50,63,80,100	25,50,75,100,125,150,175,200	

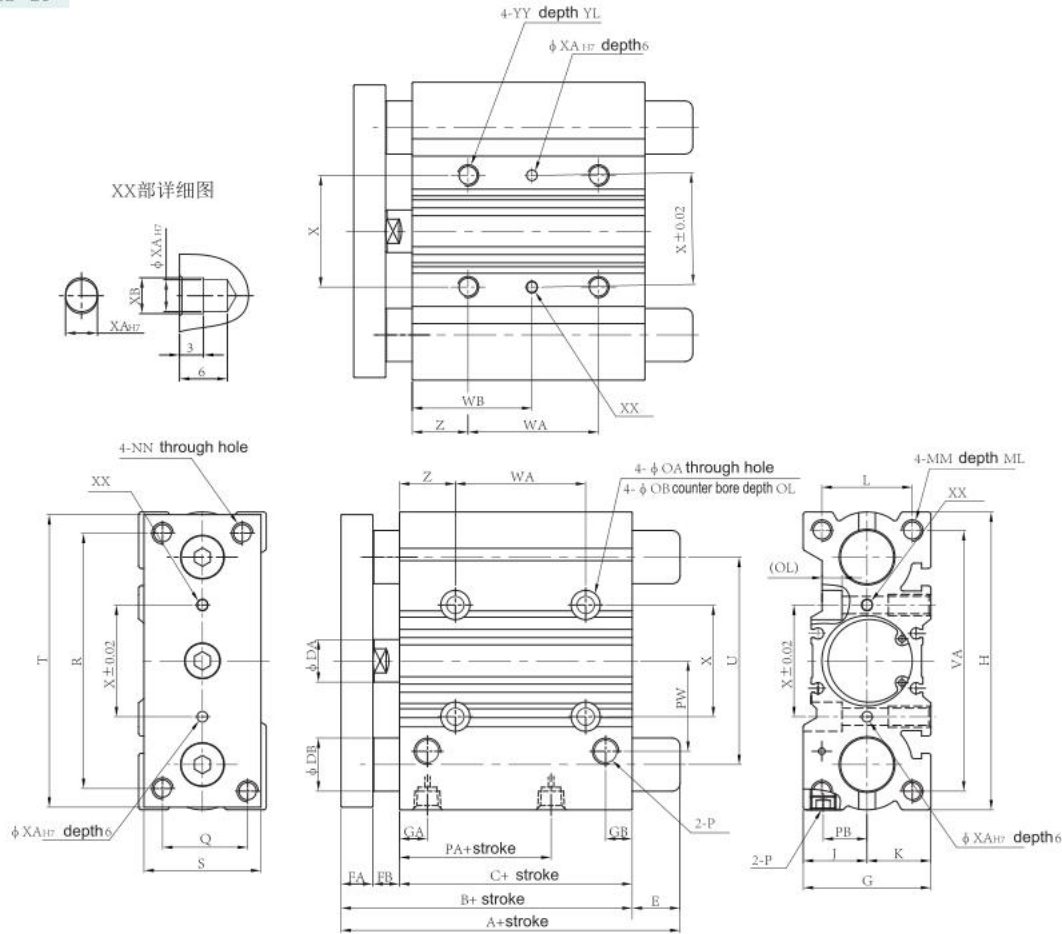
\*1:The stroke:5,10,15,20,30,35#, is made from mounting 5,10,20mm thickness pad.  
\*2:The specification and feature of magnetic switch should refer their series.  
Example:MGPM50-10 means 15mm thickness pad within MGPM50-25.

MGP series New type cylinder with guide rod

(Φ12-Φ63)

■ Figure Dimension

MGP12~25



MGPM, MGPL Dimension (Φ12 Φ16)

st= stroke

Bore (mm)	standard stroke	B	C	DA	FA	FB	G	GA	GB	H	J	K	L	MM	ML	NN	OA	OB	OL	P	PA	PB	PW	Q
12	10,20,30,40,50	42	29	6	8	5	26	8.5	8.5	58	13	13	18	M4×0.7	10	M4×0.7	4.3	8	4.5	M5×0.8	13	8	18	14
	75,100,125,150,175,200	46	33	8	8	5	30	9.5	9	64	15	15	22	M5×0.8	12	M5×0.8	4.3	8	4.5	M5×0.8	15	10	19	16
20	20,30,40,50,75,100	53	37	10	10	6	36	10	9.5	83	18	18	24	M5×0.8	13	M5×0.8	5.3	9.5	5.5	1:8	12.5	11.5	25	18
	125,150,175,200	53.5	37.5	12	10	6	42	11.5	10	93	21	21	30	M6×1.0	15	M6×1.0	5.3	9.5	5.5	1:8	12.5	13.5	28.5	26

Bore (mm)	standard stroke	R	S	T	U	VA	WA			WB			X	XA	XB	YY	YL	Z
							30st以下	31st-100st	101st-200st	30st以下	31st-100st	101st-200st						
12	10,20,30,40,50	48	22	56	41	50	20	40	110	15	25	60	23	3	3.5	M5×0.8	10	5
	75,100,125,150,175,200	54	25	62	46	56	24	44	110	17	27	60	24	3	3.5	M5×0.8	10	5
20	20,30,40,50,75,100	70	30	81	54	72	24	44	120	29	39	77	28	3	3.5	M6×1.0	12	17
	125,150,175,200	78	38	91	64	82	24	44	120	29	39	77	34	4	4.5	M6×1.0	12	17

MGPM (slide bearing) /A,DB,E

Bore (mm)	A			DB	E		
	< 50st	> 50st < 100st	> 100st < 200st		> 50st	> 50st < 100st	> 100st < 200st
12	42	60.5	82.5	8	0	18.5	40.5
16	46	64.5	92.5	10	0	18.5	46.5
20	53	77.5	77.5	12	0	24.5	24.5
25	53.5	77.5	77.5	16	0	24	24

MGPL (guide bearing) /A,DB,E

Bore (mm)	A			DB	E		
	> 30st	> 30st < 100st	> 100st < 200st		> 30st	> 30st < 100st	> 100st < 200st
12	43	55	84.5	6	1	13	42.5
16	49	65	94.5	8	3	19	48.5
20	59	76	100	10	6	23	47
25	65.5	81.5	100.5	13	12	28	47

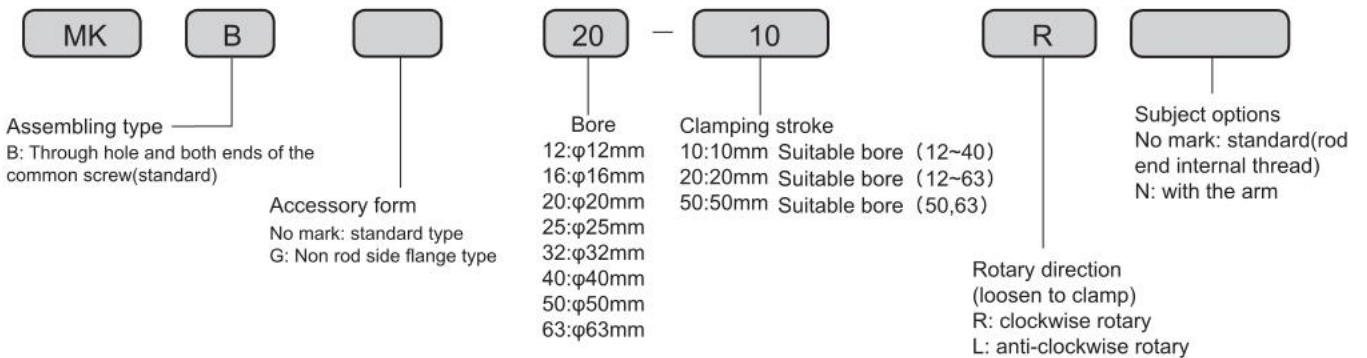
MK series rotary clamping cylinder

■ Specification

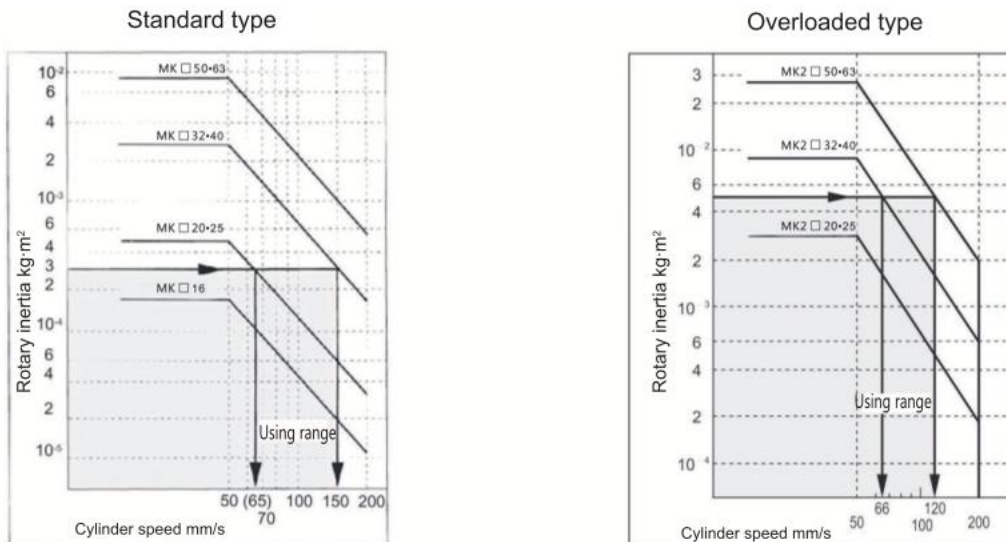


Bore (mm)	16	20	25	32	40	50	63
Working medium	Double action						
Action type	Air						
Max using pressure	1.0MPa						
Min using pressure	0.1MPa						
Environment and fluid temperature	Switch with magnet: -10~+60°C, Switch with no magnet: -10~+70°C						
Using speed range	50~200mm/s						
Cushion	Rubber cushion						
Stroke tolerance	+0.6 -0.4						
Oil supply	No need						
Rotary angle	90°±10°						
Rotary direction	Left Right						
Rotary stroke	7.5	9.5		15		19	
Clamping stroke	10 / 20					20 / 30 / 50	
Allowable torque	3.8	7	13	27	47	107	182
Clamping force	75	100	185	300	525	825	1400
Piston rod no rotary precision	±1.2°			±0.9°		±0.7°	
Piping size	M5×0.8			Rc1/8		Rc1/4	

● Ordering Code



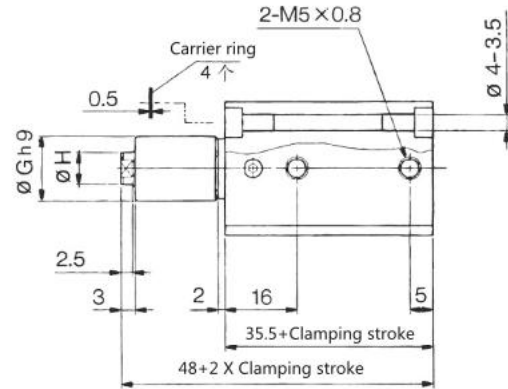
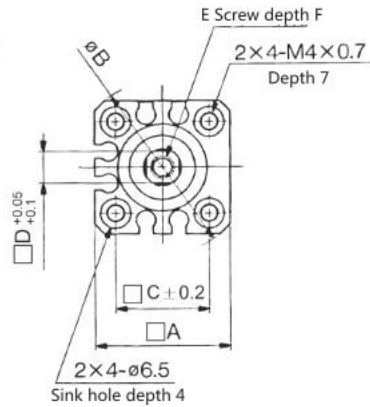
● Characteristic curve



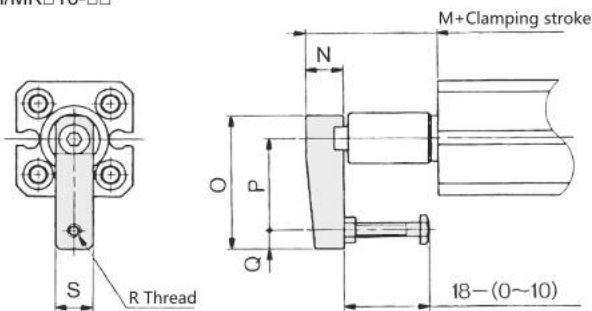
**MK series rotary clamping cylinder**

■ Figure Dimension

Through hole (basic type)/MKB  
Φ 16mm



With arm/MK□16-□□



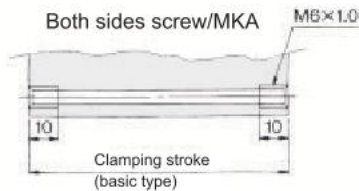
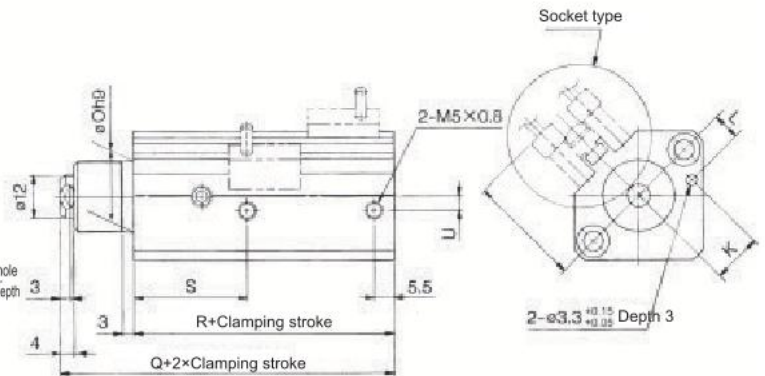
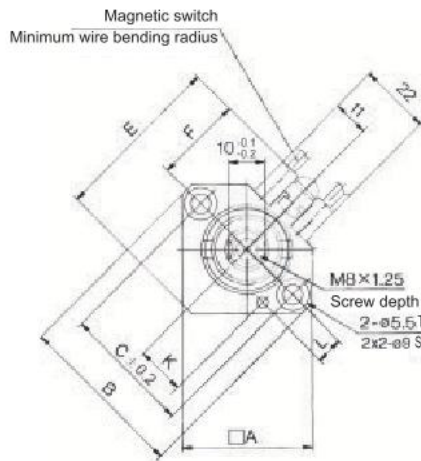
Through hole (basic type)

Model	A	B	C	D	E	F	Gh9	H
MKB16	29	38	20	7	M5X0.8	6.5	14	8

With arm

Model	M	N	O	P	Q	R	S
MK□16-□□	21.5	11	36	25	5	M4x0.7	11

Through hole (basic type)/MKB Φ 20mm Φ 25mm



With arm

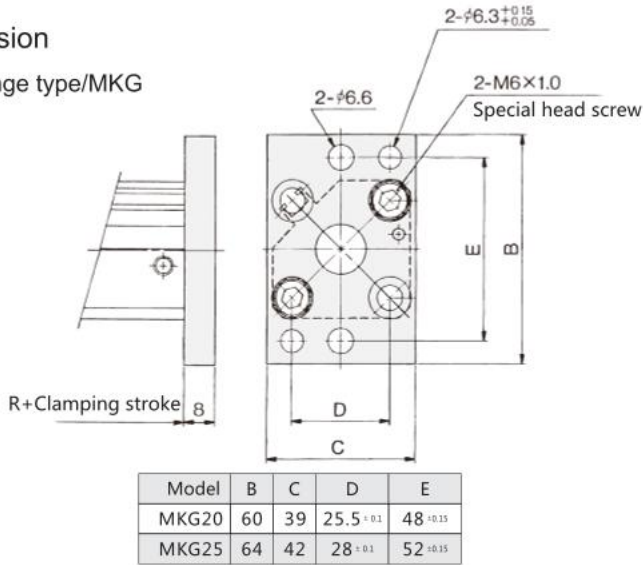
Model	A	B	C	E	F	K	L	OH9	Q	R	S	U
MKB20	36	46.8	36	48	24.5	13.5 ±0.15	7.5 ±0.15	20 <sup>0</sup> / <sub>-0.052</sub>	72.5	62	31	4
MKB25	40	52	40	53.8	27.5	16 ±0.15	8 ±0.15	23 <sup>0</sup> / <sub>-0.052</sub>	73.5	63	32	5

Remark: When the piston rod is fully extended, the clamping stroke and rotary stroke are added to the appropriate size.

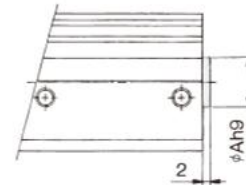
**MK series rotary clamping cylinder**

■ **Figure Dimension**

Non rod side flange type/MKG

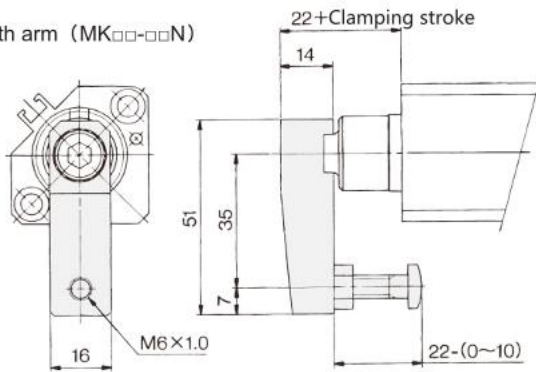


Non rod side with convex table

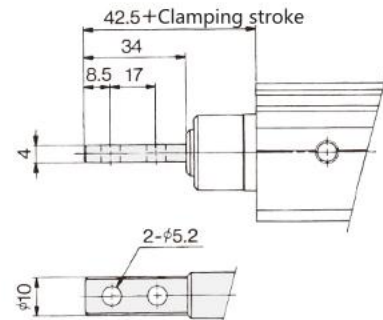


Model	Ah9
MK□20-□□F	13 <sup>0</sup> <sub>0.043</sub>
MK□25-□□F	15 <sup>0</sup> <sub>0.043</sub>

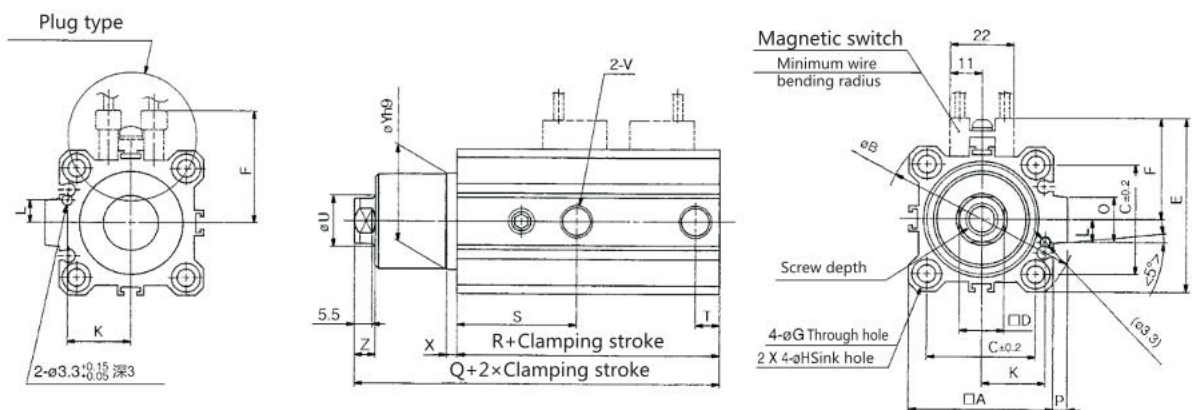
With arm (MK□□-□□N)



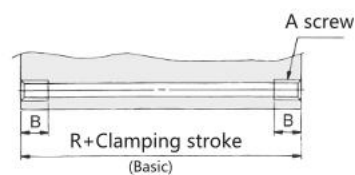
Rod end mill (MK□□-□□M)



Through hole (basic type)/MKB  
Ø32, Ø40, Ø50, Ø63



Model	A	B
MKA32	M6X1.0	10
MKA40	M6X1.0	10
MKA50	M8X1.25	14
MKA63	M10X1.5	18



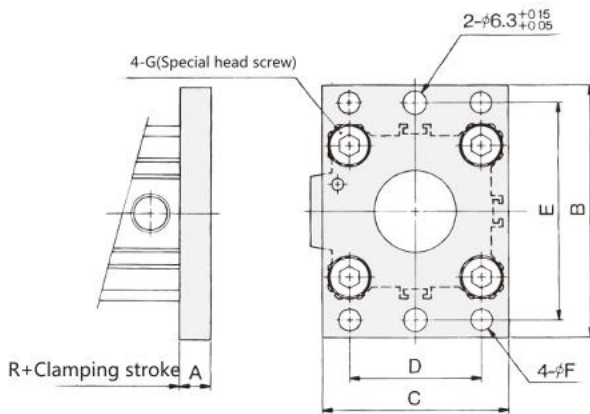
VIII

**MK series rotary clamping cylinder**

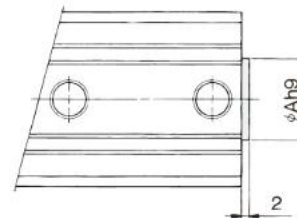
■ Figure Dimension

Model	A	B	C	D	E	F	G	H	I	J	K	L	O	P	Q	R	S	T	U	V	X	Yh9	Z
MKB32	45	60	34	14 <sup>-0.1</sup> <sub>-0.2</sub>	54	13.5	5.5	9 Depth 7	M10X1.5	12	20 <sup>-0.15</sup>	7 <sup>+0.15</sup>	18	4.5	93.5	71.5	37	7.5	16	Rc1/8	3	30 <sup>0</sup> <sub>-0.062</sub>	6.5
MKB40	52	69	40	14 <sup>-0.1</sup> <sub>-0.2</sub>	61	35	5.5	9 Depth 7	M10X1.5	12	24 <sup>+0.15</sup>	7 <sup>+0.15</sup>	18	5	94.5	65	29.5	8	16	Rc1/8	3	30 <sup>0</sup> <sub>-0.062</sub>	6.5
MKB50	64	86	50	17 <sup>-0.2</sup> <sub>-0.3</sub>	73	41	6.6	11 Depth 8	M12X1.75	15	30 <sup>-0.15</sup>	8 <sup>+0.15</sup>	22	7	112	76.5	34	10.5	20	Rc1/4	3.5	37 <sup>0</sup> <sub>-0.062</sub>	7.5
MKB63	77	103	60	17 <sup>-0.2</sup> <sub>-0.3</sub>	86	47.5	9	14 Depth 10.5	M12X1.75	15	35 <sup>-0.15</sup>	9 <sup>+0.15</sup>	22	7	115	80	35	10.5	20	Rc1/4	3.5	48 <sup>0</sup> <sub>-0.062</sub>	7.5

Non rod side flange type/MKG



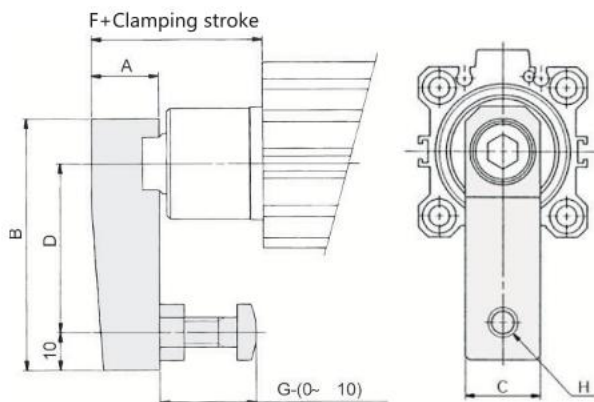
Non rod side with convex table



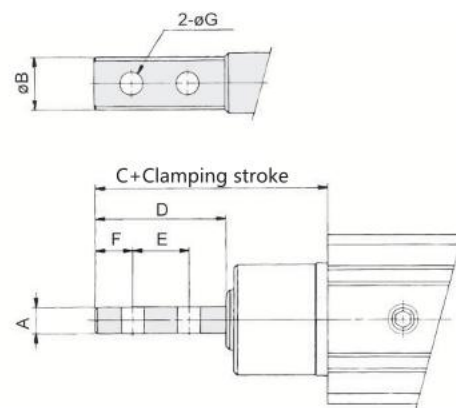
Model	A	B	C	D	E	F	C
MKG32	8	65	48	34 <sup>+0.1</sup>	56 <sup>+0.15</sup>	5.5	M6X1.0
MKG40	8	72	54	40 <sup>+0.1</sup>	62 <sup>+0.15</sup>	5.5	M6X1.0
MKG50	9	89	67	50 <sup>+0.1</sup>	76 <sup>+0.15</sup>	6.6	M8X1.25
MKG63	9	08	80	60 <sup>+0.1</sup>	92 <sup>+0.15</sup>	9	M10X1.5

Model	Ah9
MK□32-□□F	21 <sup>0</sup> <sub>-0.052</sub>
MK□40-□□F	28 <sup>0</sup> <sub>-0.052</sub>
MK□50-□□F	35 <sup>0</sup> <sub>-0.062</sub>
MK□63-□□F	35 <sup>0</sup> <sub>-0.062</sub>

With arm



Rod end mill



Model	A	B	C	D	F	G	H
MK□32-□□N	18	67	20	45	5.5	25	M8X1.25
MK□40-□□N	18	67	20	45	43	25	M8X1.25
MK□50-□□N	22	88	22	65	53	40	M10X1.5
MK□63-□□N	22	88	22	65	2.5	40	M10X1.5

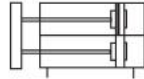
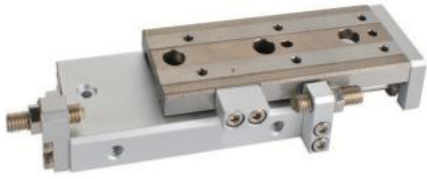
Model	A	B	C	D	E	F	G
MK□32-□□M	6	14	53.5	36	18	9	6.2
MK□40-□□M	6	14	61	36	18	9	6.2
MK□50-□□M	8	18	77	46	23	11.5	8.2
MK□63-□□M	8	18	76.5	46	23	11.5	8.2

# Polymatic<sup>TM</sup>

PNEUMATIC SOLUTIONS



**GXQ series pneumatic sliding table**



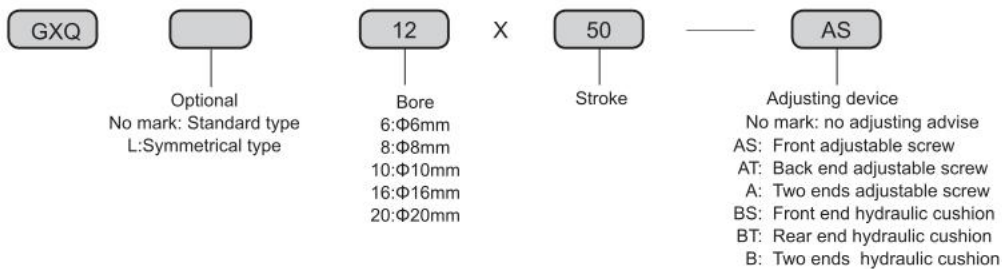
■ Figure Dimension

- Small size, strong, high accuracy
- Small cylinder and circular linear guide rail combination
- Parallelism: 30µm Verticality: 50µm
- Double cylinder design, 2 times output force
- Big load torque
- Adjustable stroke (with adjusting stroke device)
- can assemble magnetic switch

■ Specification

Model	GXQ6	GXQ8	GXQ12	GXQ16	GXQ20
Bore ( mm )	Φ6x2(equivalent toΦ8)	Φ8x2(equivalent toΦ11)	Φ12x2(equivalent toΦ17)	Φ16x2(equivalent toΦ22)	Φ20x2(equivalent toΦ28)
Using fluid	Air				
Action mode	Double Action				
Min use pressure	0.7MPa				
Max use pressure	0.15MPa				
Environment and fluid temperature	-10~+60°C ( not frozen )				
Piston speed	50~500mm/s				
For oil	Rubber cushion ( standard )				
Cushion	No need				
Pipe size	M5x0.8				Rc1/8

● Ordering Code

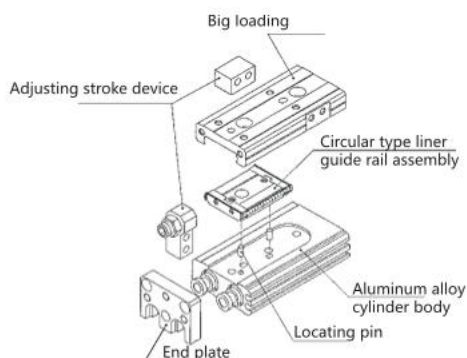


Remark: 6, 8 can't choose hydraulic Cushion adjusting advice

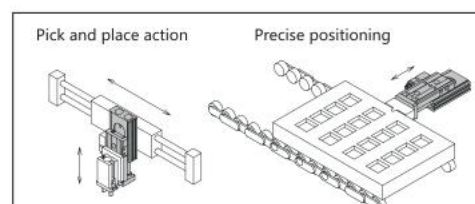
■ Stroke/Magnetic switch model sheet

Bore ( mm )	Stroke ( mm )									Function options			Magnetic switch model
	10	20	30	40	50	75	100	125	150	With rubber limiting device	With hydraulic cushion	With metal limiting device	Direct installation
Φ6x2	■	■	■	■	■					■		■	CS1-H CS1-HN CS1-HP
Φ8x2	■	■	■	■	■	■				■		■	
Φ12x2	■	■	■	■	■	■	■			■	■	■	
Φ16x2	■	■	■	■	■	■	■	■		■	■	■	
Φ20x2	■	■	■	■	■	■	■	■	■	■	■	■	

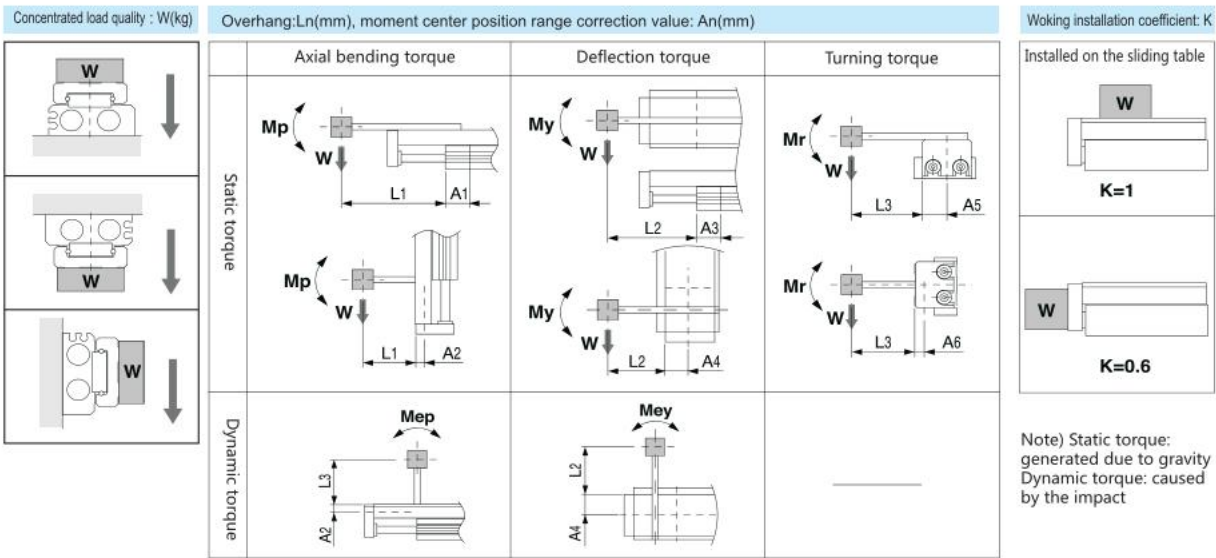
■ Cylinder and working table combination



■ Application example



**GXQ series pneumatic sliding table**

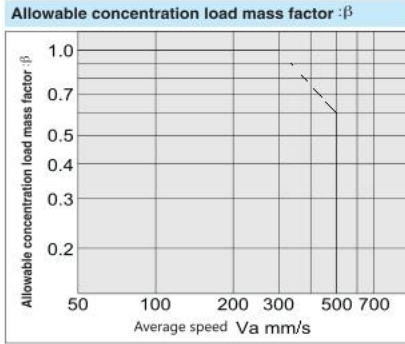


**Max allowable kinetic energy : Emax(J)**

Model	Allowable kinetic energy			
	Adjusting stroke device	With adjusting stroke device		
		Rubber limiting device	Hydraulic cushion	Metal limiting device
GXQ 6	0.018	0.018	—	0.009
GXQ 8	0.027	0.027	0.054	0.013
GXQ12	0.055	0.055	0.11	0.027
GXQ16	0.11	0.11	0.22	0.055
GXQ20	0.16	0.16	0.32	0.080

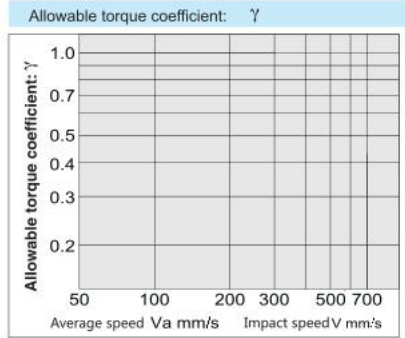
**Max allowable load : Wmax(N)**

Model	Max allowable load
GXQ 6	6
GXQ 8	10
GXQ12	20
GXQ16	40
GXQ20	60



**Moment center position range correction value: An(mm)**

Model	Torque center distance correction value(See Figure 2)												
	A1, A3									A2	A4	A5	A6
	Stroke ( mm )												
10	20	30	40	50	75	100	125	150					
GXQ 6	14.5	14.5	14.5	18.5	18.5	—	—	—	—	6	13.5	13.5	6
GXQ 8	16.5	16.5	18.5	20.5	28	28.5	—	—	—	7	16	16	7
GXQ12	21	21	21	25	25	34	34	—	—	9	19.5	19.5	9
GXQ16	27	27	27	27	30	33	42.5	42.5	—	10.5	24.5	24.5	10.5
GXQ20	29.5	29.5	29.5	29.5	33.5	37.5	53.5	53.5	—	14	30	30	14



Note: the value trip does not affect the A2, A4, A5, A6 revised

**Max allowable torque: Mmax(N m)**

Model	Torque 1/torque 2: $p_{max}/M_{y_{max}}$									Torque 3: $M_{r_{max}}$								
	Stroke (mm)									Stroke ( mm )								
	10	20	30	40	50	75	100	125	150	10	20	30	40	50	75	100	125	150
GXQ 6	1.4	1.4	1.4	2.8	2.8	—	—	—	—	3.5	3.5	3.5	5.1	5.1	—	—	—	—
GXQ 8	2.0	2.0	2.8	3.7	7.9	7.9	—	—	—	5.1	5.1	6.0	6.9	7.4	7.4	—	—	—
GXQ12	4.7	4.7	4.7	7.2	7.2	15	15	—	—	11	11	11	13	13	14	14	—	—
GXQ16	13	13	13	13	18	23	42	42	—	31	31	31	31	36	41	41	41	—
GXQ20	19	19	19	19	27	36	84	84	84	47	47	47	47	57	66	75	75	75

Note) The static torque calculated, using the average speed.  
The dynamic torque calculated, using impact speed

IX

**Mark sheet**

Mark	Definition	Unit
An(n=1 ~ 6)	Torque center distance correction value	mm
E	Kinetic energy	J
Emax	Ax allowable kinetic energy	J
Ln(n=1 ~ 3)	Extended volume	mm
M(Mp, My, Mr)	Static torque(Bending torque, Deflection torque, Turning torque)	N · m
Ma(Map, May, Mar)	Allowable static torque(Bending torque, Deflection torque, Turning torque)	N · m
Me(Mep, Mey)	Dynamic torque(Bending torque, Deflection torque)	N · m
Mea(Meap, Meay)	Allowable dynamic torque(Bending torque, Deflection torque)	N · m
Mmax(Mpmax, Mymax, Mrmax)	Max allowable torque(Bending torque, Deflection torque, Turning torque)	N · m
V	Impact speed	mm/s

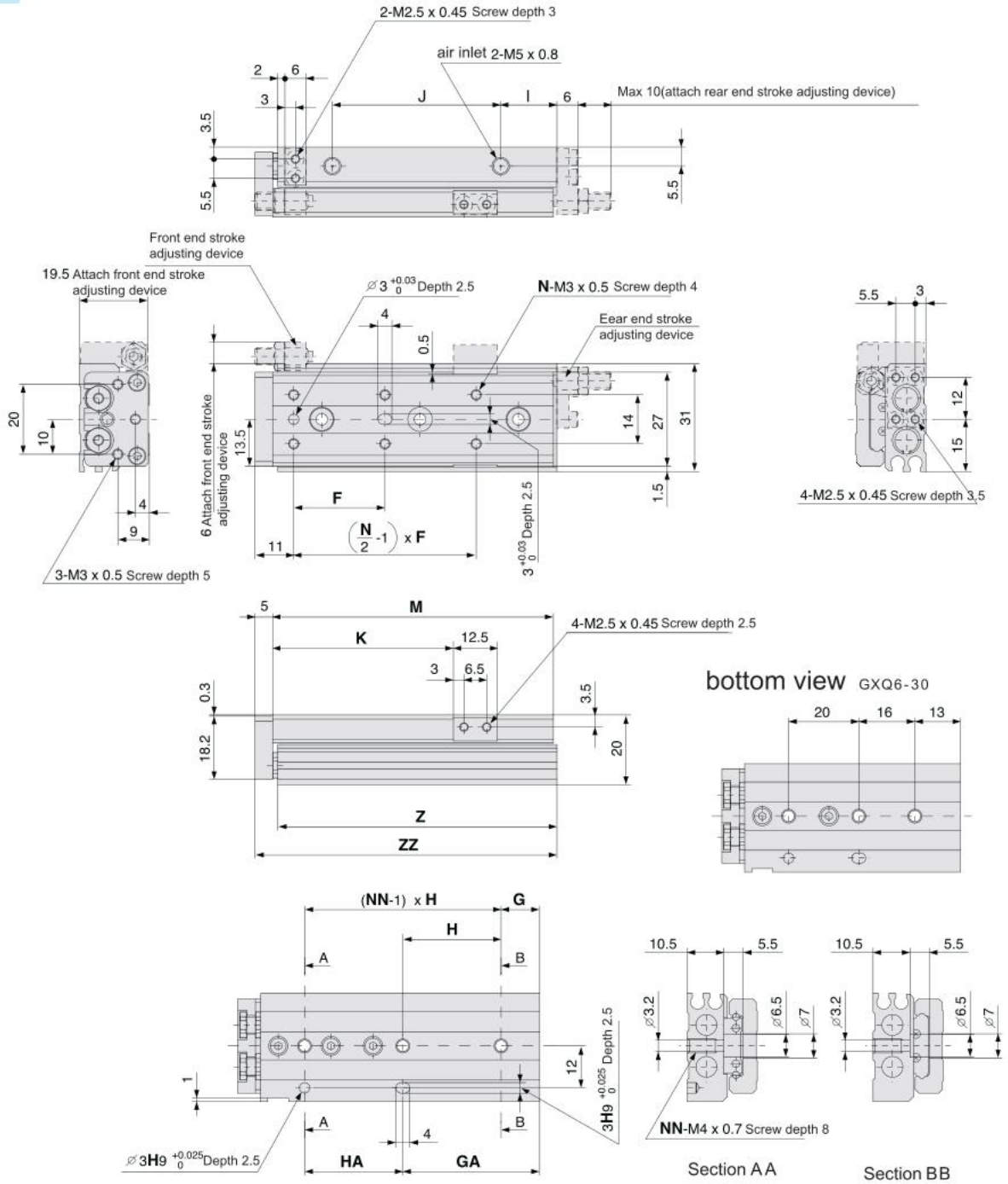
**Mark sheet**

记号	Definition	Unit
Va	Average speed	mm/s
W	Load	N
Wa	Allowable load	N
We	Equivalent load	N
Wmax	Max allowable load	N
$\alpha$	Load ratio	—
$\beta$	Allowable load coefficient	—
$\gamma$	Allowable torque coefficient	—
K	Load installation coefficient	—
$\gamma$		

**GXQ series pneumatic sliding table**

■ Figure Dimension

GXQ6

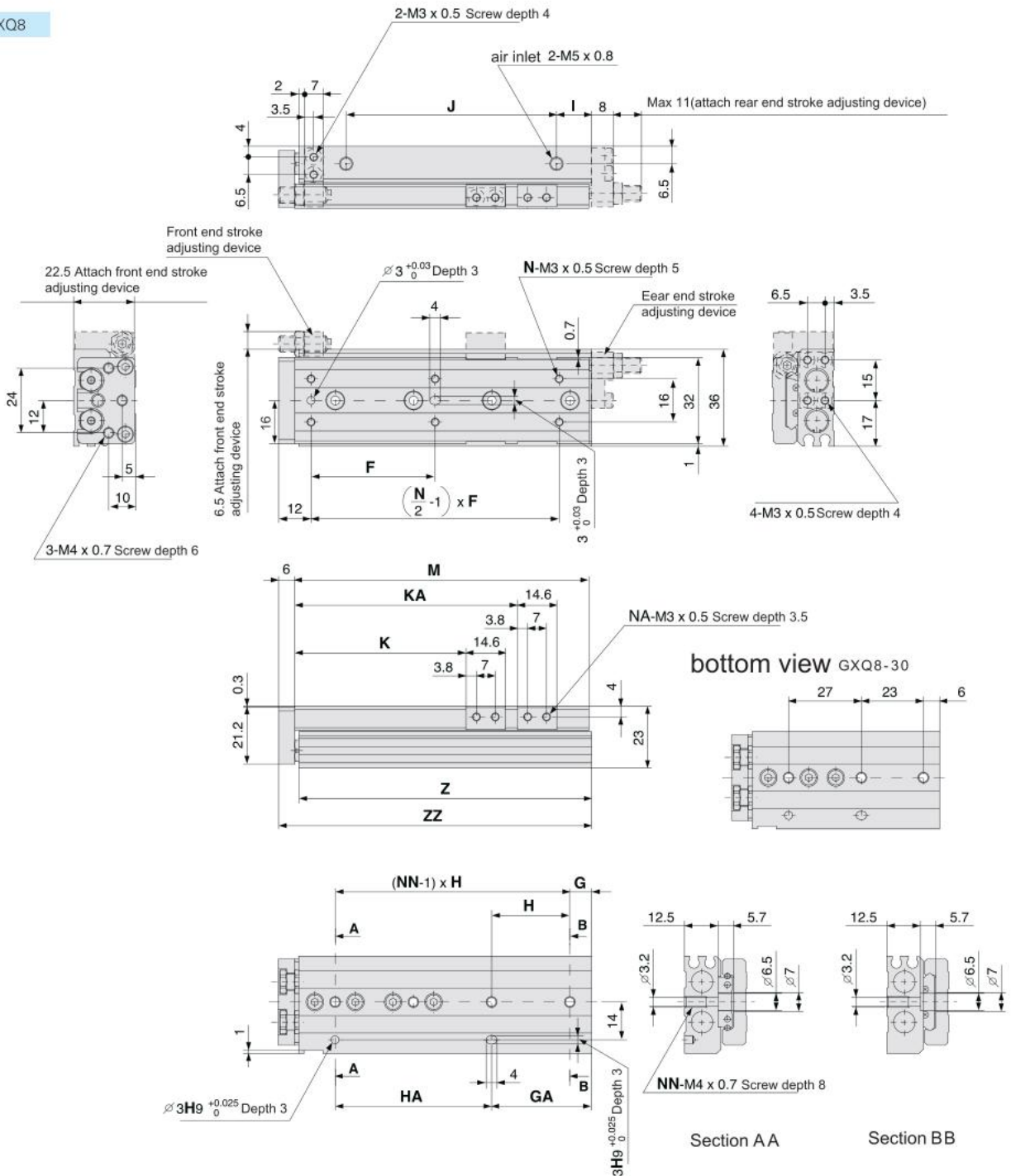


Model	F	N	G	H	NN	GA	HA	I	J	K	M
GXQ6-10	22	4	6	23	2	13	16	9	17	21.5	42
GXQ6-20	25	4	13	26	2	13	26	9	27	31.5	52
GXQ6-30	21	6	—	—	3	29	20	9	37	41.5	62
GXQ6-40	26	6	11	28	3	39	28	16	48	51.5	80
GXQ6-50	27	6	21	28	3	49	28	9	65	61.5	90

**GXQ series pneumatic sliding table**

■ Figure Dimension

GXQ8

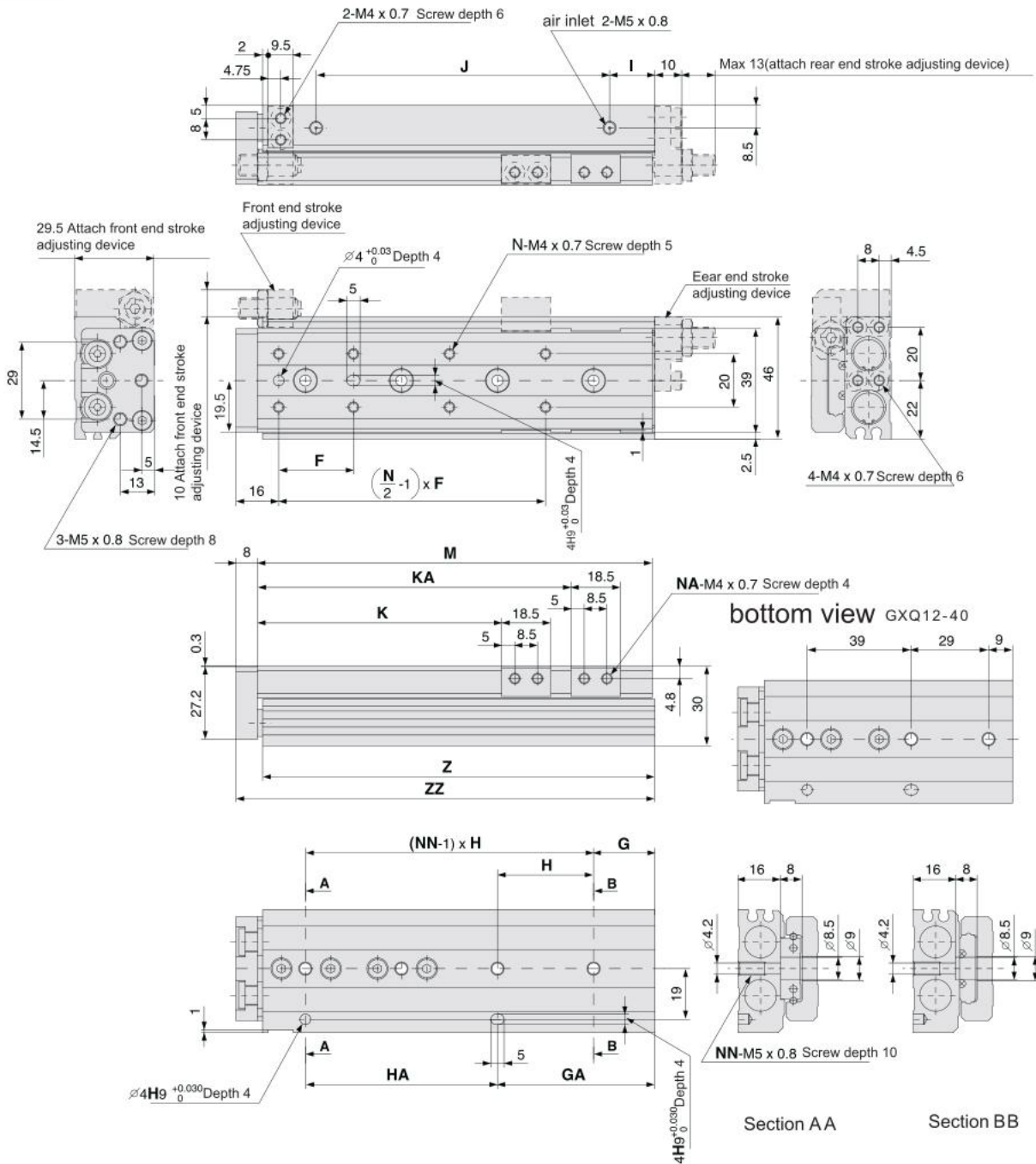


Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
GXQ8-10	25	4	7	25	2	13	19	11	17	23.5	—	4	46	45.5	53
GXQ8-20	25	4	14	28	2	14	28	10	28	33.5	—	4	56	55.5	63
GXQ8-30	26	6	—	—	3	29	27	12	40	43.5	—	4	70	69.5	77
GXQ8-40	32	6	8	31	3	39	31	14	52	53.5	—	4	84	83.5	91
GXQ8-50	46	6	8	29	4	37	58	13	78	63.5	82.5	8	109	108.5	116
GXQ8-75	50	6	31	30	4	61	60	12	105	88.5	112.5	8	135	134.5	142

**GXQ series pneumatic sliding table**

■ Figure Dimension

GXQ12



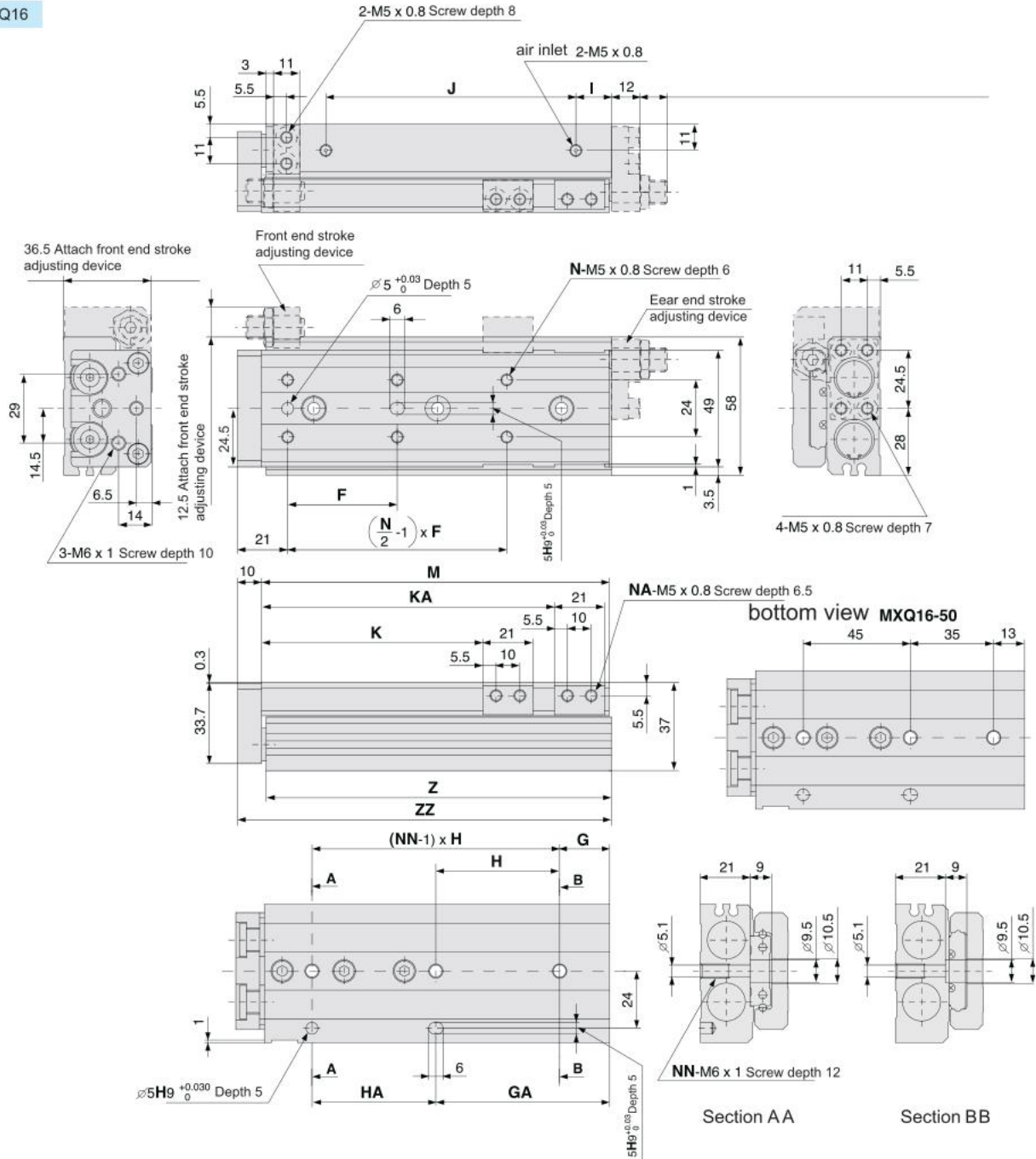
IX

Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
GXQ12-10	28	4	18	32	2	18	32	12	34	26.5	—	4	67	66	76
GXQ12-20	28	4	18	32	2	18	32	12	34	36.5	—	4	67	66	76
GXQ12-30	38	4	20	40	2	20	40	14	42	46.5	—	4	77	76	86
GXQ12-40	34	6	—	—	3	38	39	15	58	56.5	—	4	94	93	103
GXQ12-50	34	6	9	39	3	48	39	13	70	66.5	—	4	104	103	113
GXQ12-75	36	8	23	36	4	59	72	17	110	91.5	117.5	8	148	147	157
GXQ12-100	36	10	12	36	5	84	72	17	135	116.5	142.5	8	173	172	182

**GXQ series pneumatic sliding table**

■ Figure Dimension

GXQ16

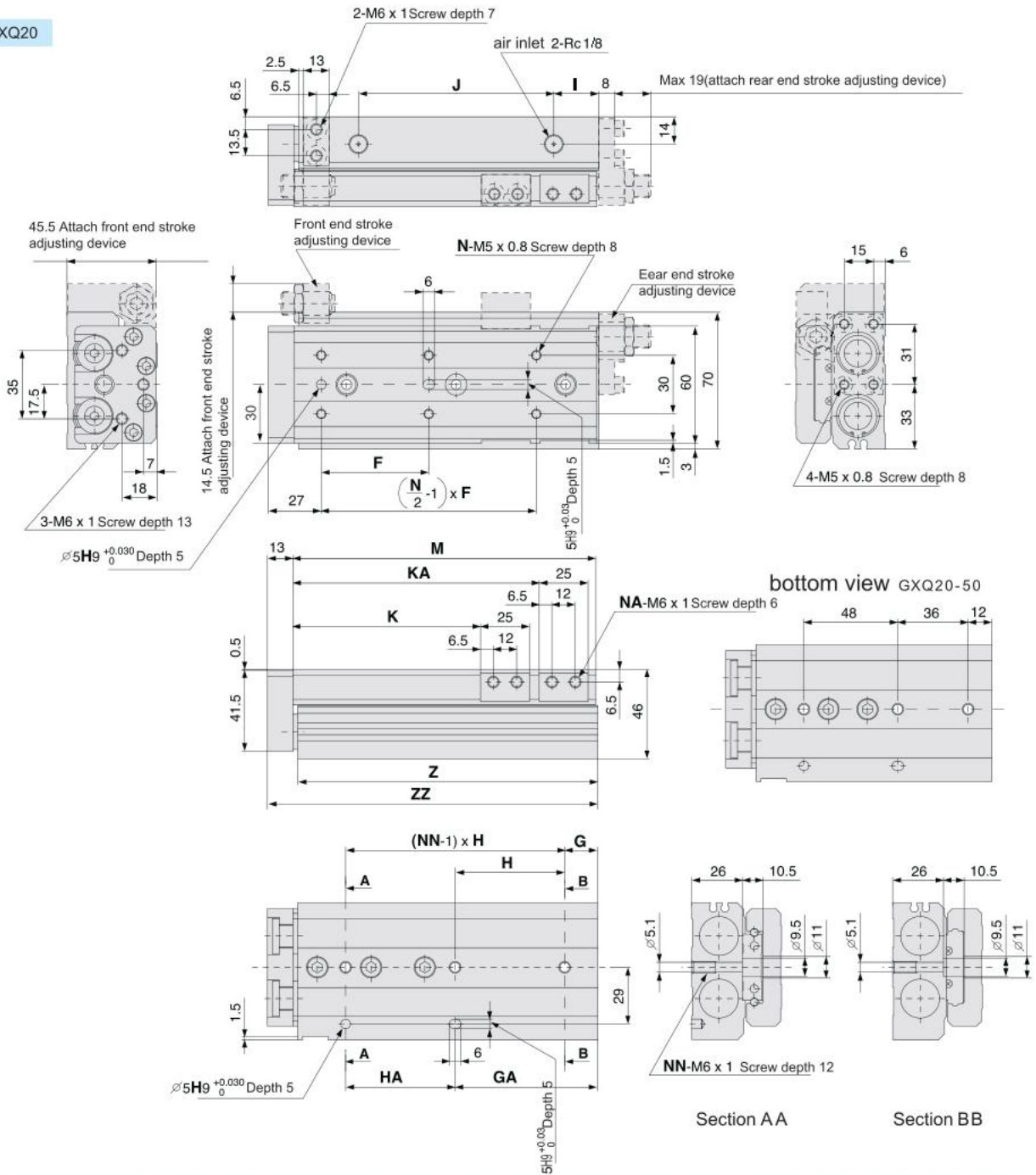


	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
GXQ16-10	38	4	18	39	2	18	39	12	40	28	—	4	78	77	89
GXQ16-20	38	4	18	39	2	18	39	12	40	38	—	4	78	77	89
GXQ16-30	48	4	19	48	2	19	48	12	50	48	—	4	88	87	99
GXQ16-40	58	4	19	58	2	19	58	12	60	58	—	4	98	97	109
GXQ16-50	40	6	—	—	3	48	45	20	68	68	91	8	114	113	125
GXQ16-75	46	6	21	52	3	73	52	15	105	93	123	8	146	145	157
GXQ16-100	44	8	36	44	4	80	88	18	145	118	166	8	189	188	200
GXQ16-125	44	10	17	44	5	105	88	23	165	143	191	8	214	213	225

**GXQ series pneumatic sliding table**

■ Figure Dimension

GXQ20



IX

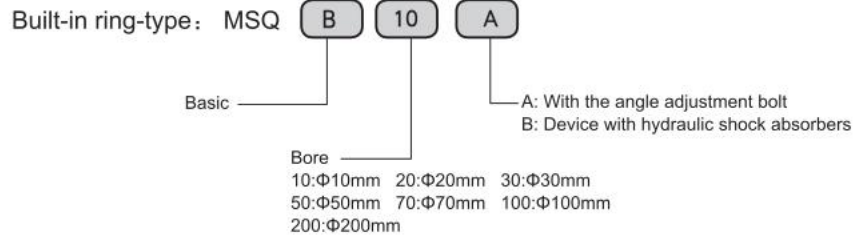
Model	F	N	G	H	NN	GA	HA	I	J	K	KA	NA	M	Z	ZZ
GXQ20-10	45	4	22	46	2	18	50	16	46	31	—	4	94	92.5	108
GXQ20-20	40	4	22	46	2	18	50	16	46	41	—	4	94	92.5	108
GXQ20-30	48	4	22	46	2	18	50	16	46	51	—	4	94	92.5	108
GXQ20-40	58	4	22	56	2	22	56	16	56	61	—	4	104	102.5	118
GXQ20-50	42	6	—	—	3	48	48	18	72	71	—	4	122	120.5	136
GXQ20-75	55	6	17	56	3	73	56	23	100	96	126	8	155	153.5	169
GXQ20-100	50	8	18	56	4	74	112	25	155	121	183	8	212	210.5	226
GXQ20-125	55	8	37	59	4	96	118	18	190	146	211	8	240	238.5	254
GXQ20-150	62	8	56	62	4	118	124	21	215	171	239	8	268	266.5	282

**MSQ swing rack rotary cylinder**

Φ10-Φ200



● Ordering Code



■ Character

Rotating platform type, workpiece easy installation .

Roller bearing design, the load as large as CRQ Series 3 to 4 times.

Swing smoothly; accurately.

Hollow shaft can be used for the introduction of wire or climate.

Standard device with a transfer point, adjust the angle range.

Built-in magnetic ring, magnetic switch can be installed.

Specification

Bore (mm)		10	20	30	50	70	100	200
Medium		Air						
Action way		Double acting						
Working Pressure	Adjustment Bolts	1.0MPa						
	Shock Absorber	0.6MPa						
Minimum Operating Pressure		0.1MPa						
Environment and fluid temperature		0 ~ 60 °C						
Buffer		Rubber Buffer (standard) / hydraulic shock-absorbing device (optional)						
Allow the force	Adjustment Bolts	0.007J	0.025J	0.048J	0.081J	0.24J	0.32J	0.56J
	Shock Absorber	0.039J	0.116J	0.116J	0.294J	1.1J	1.6J	2.9J
Angle adjustment range		0 ~ 190 °						
Maximum swing angle		190 °						
Swing range and stable time	Adjustment Bolts	0.2 ~ 1.0 s/90 °			0.2 ~ 1.5 s/90 °	0.2 ~ 2.0 s/90 °	0.2 ~ 2.5 s/90 °	
	Shock Absorber	0.2 ~ 0.7 s/90 °			0.2 ~ 1.0 s/90 °			
Piston diameter		φ15	φ18	φ21	φ25	φ28	φ32	φ40
Pipe size		M5 x 0.8		Rc(PT)1/8				

■ Ordering Code

- 1) Need moment: 0.8Nm( under 0.5mpa ). Code: MSQB10A
- 2) Need load: 180N(b), within shock absorber. Code: MSQB30R

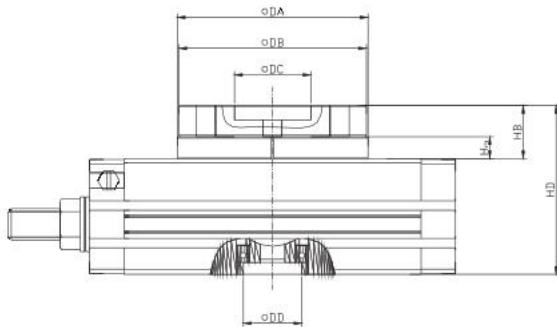
Allow the load

Type	Allow radial load(N)		Axial load permitted (N)				Allow the Bay from(N·m)		Effective output torque (N·m) (0.5MPa)
	Basic	Precision type	(a)		(b)		Basic	Precision type	
			Basic	Precision type	Basic	Precision type			
MSQ□10□	78	86	74	74	78	107	2.4	2.9	0.89
MSQ□20□	147	166	137	137	137	197	4.0	4.8	1.84
MSQ□30□	196	233	197	197	363	398	5.3	6.4	2.73
MSQ□50□	314	378	296	286	451	517	9.7	12	4.64
MSQ□70□	333	-	296	-	476	-	12.0	-	6.79
MSQ□100□	390	-	493	-	708	-	18.0	-	10.1
MSQ□200□	543	-	740	-	1009	-	25.0	-	19.8

**MSQ swing rack rotary cylinder**

φ10-φ200

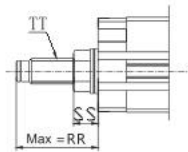
■ Figure Dimension



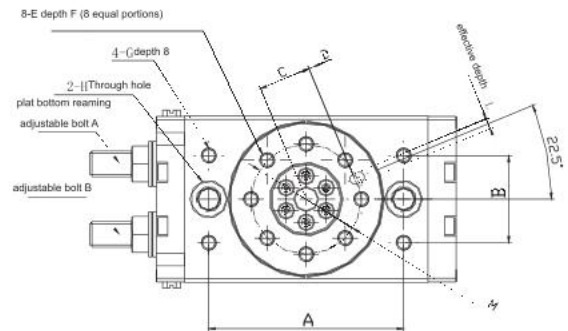
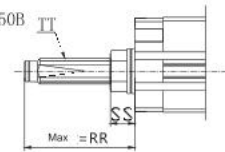
Type	DA	DB	DC	DD	HA	HB	HD
MSQA10□	46h8	45h8	45h8	15H8	10	18.5	52.5
MSQA20□	61h8	60h8	60h8	17H8	15.5	26	63
MSQA30□	67h8	65h8	65h8	22H8	16.5	27	67
MSQA50□	77h8	75h8	75h8	26H8	17.5	30	76

MSQB10,20,30,50

with oil absorber  
CMA10/20/30B



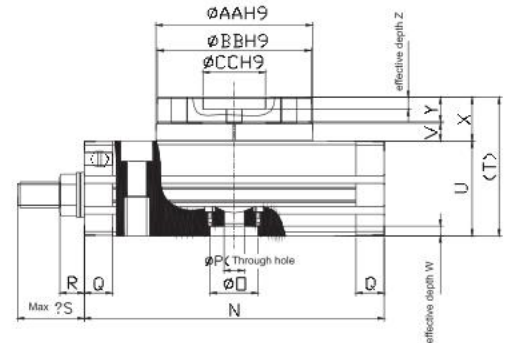
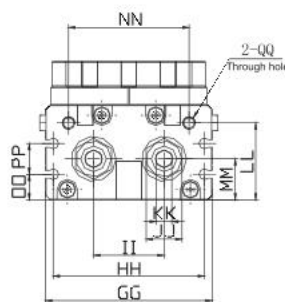
with oil absorber  
CMA50B



Every turning circle's adjusting angle

Type	Every turning circle's adjusting angle
MSQB10□	About 10.2°
MSQB20□	About 7.2°
MSQB30□	About 6.5°
MSQB50□	About 8.2°

Angle adjusting screw or hydraulic cushion per turning 1 circle



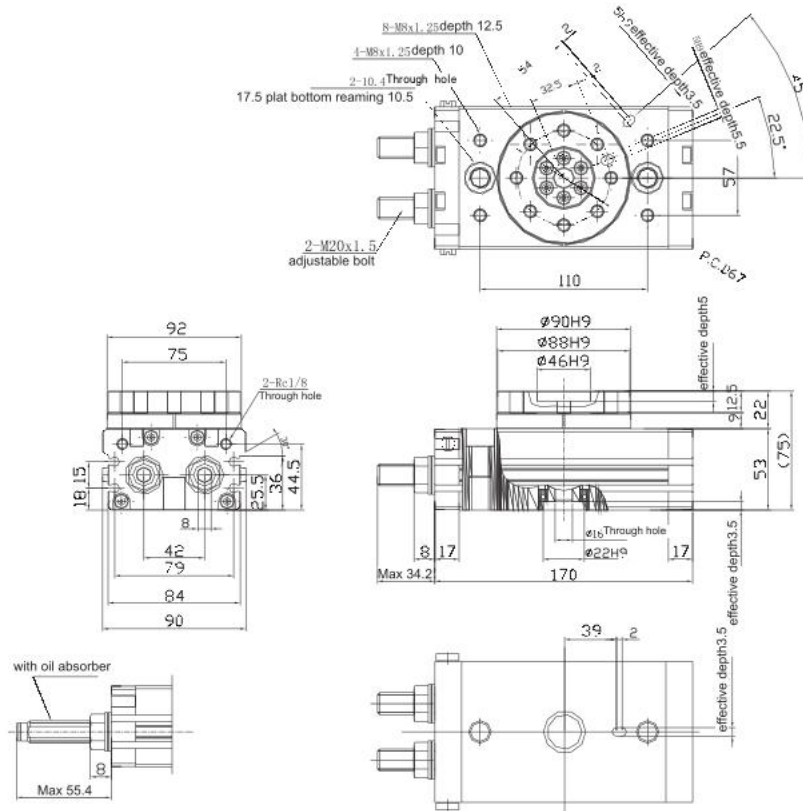
Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
MSQB10□	60	27	15	2	M5x0.8	8	M5x0.8	6.8	11	6.5	3H9	3.5	32	92	15H9	5	9.5	8.6	17.7	47	34	4.5	3	13	8	4
MSQB20□	76	34	20.5	2	M6x1	10	M6x1	8.6	14	8.5	4H9	4.5	43	117	17H9	9	12	10.6	25	54	37	6.5	2.5	17	10	6
MSQB30□	84	37	23	2	M6x1	10	M6x1	8.6	14	8.5	4H9	4.5	48	127	22H9	9	12	10.6	25	57	40	6.5	3	17	10	4.5
MSQB50□	100	50	26.5	2	M8x1.25	12	M8x1.25	10.5	18	10.5	5H9	5.5	55	152	26H9	10	15.5	14	31.4	66	46	7.5	3	20	12	5

Type	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT
MSQB10□	46	45	20	M8x1.25	12	M8x1	50	45	20	12	4	27.8	15.5	34.5	9	13	M5x0.8	31.5	8.6	M8x1
MSQB20□	61	60	28	M10x1.5	15	M10x1	65	60	27.5	14	5	28.5	16	51	10	12	M5x0.8	34.7	10.6	M10x1
MSQB30□	67	65	32	M10x1.5	15	M10x1	70	65	29	14	5	32	18.5	50	11.5	14	1/8	34.7	10.6	M10x1
MSQB50□	77	75	35	M12x1.75	18	M14x1.5	80	75	38	19	6	37.5	22	63	14.5	15	1/8	51.7	14	M14x1.5

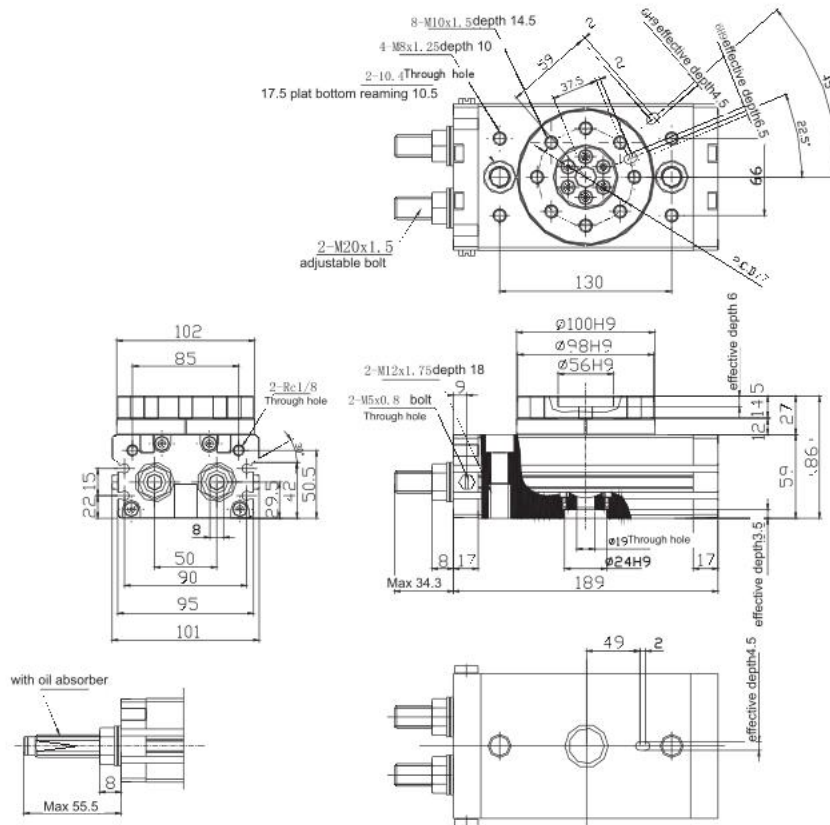
MSQ swing rack rotary cylinder

■ Figure Dimension

MSQB70



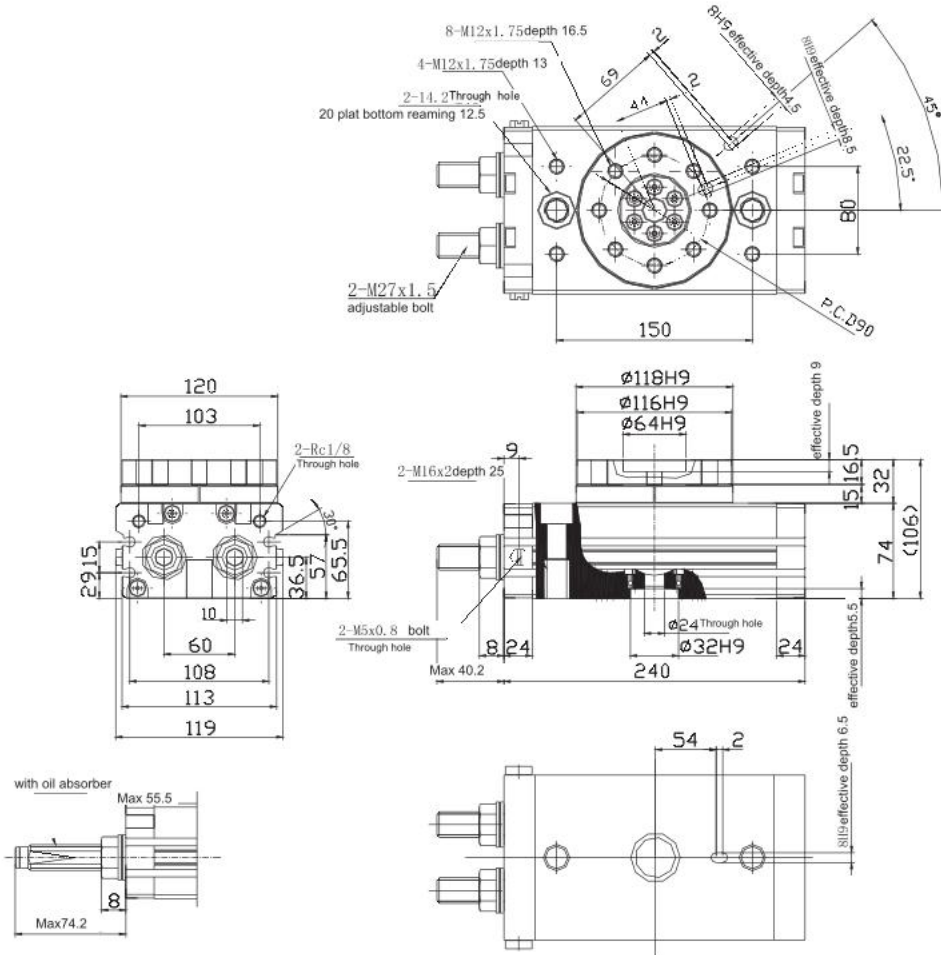
MSQB100



MSQ swing rack rotary cylinder

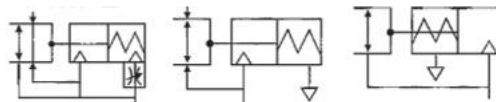
■ Figure Dimension

MSQB200



IX

**MHZ Parallel switch type air gripper**



● **Ordering Code**

<b>MHZ2</b>	<b>10</b>	<b>D</b>	<b>1</b>	
Type No Mark : Standard Mini type : MHZ2-6 Dustproof : MHZJ2	Bore 6: Φ6mm 10: Φ10mm 16: Φ16mm 20: Φ20mm 25: Φ25mm 32: Φ32mm 40: Φ40mm	Acting D: Double acting S: Single acting (Normally Open) C: Single acting (Normally Close)	Finger type No Mark: Standard Thread Mounting 1 : Side thread installation 2 : Through hole installation 3 : Short flat installation	Dustproof rubber cover material No Mark: Neoprene F: Neoprene(FKM) S: silicagel(si)

- 1) Bore: 16, Parallel switch type(Standard), Single operating way(Normally Open), Code: MHZ2-16S
- 2) Bore: 25, Pivot switch type, Double acting, Code: MHC2-25D

■ **Specification**

Bore (mm)		6	10	16	20	25	32	40
Medium		Air						
Action way		Double Acting, Single Acting: Normally Open/Normally Close						
Max Operating pressure Mpa	Double Acting	0.15-0.7	0.2-0.7	0.1-0.7		0.1-0.7		
Min Operating pressure Mpa	Single Acting	0.3-0.7	0.35-0.7	0.25-0.7		0.25-0.7		
Environment temperature		-10 ~ 60°C (No Freeze)						
Highest operating frequency								
Magnet inside cylinder		With(Standard)						
Lubrication		Needless						
Pipe Size		M3×0.5		M3×0.8				

\*If lubricating, please use NO.ISOVG32

■ **Stroke/Magnet switch**

Bore (mm)	Standard Stroke		Magnet switch
	Double acting	Single acting	Channel mounting
6	4	-	30 ~ 10°  CS1-H CS1-M
10	4		
16	6		
20	10		
25	14		
32	22		
40	30	-	

\*Magnet switch specification refer to magnet switch series

Type	Bore (mm)	Action way	Retentivity(N)		Weight(g)
			Open	Close	
MHZ2-6D	6	Double Acting	6.1	3.3	27
MHZ2-10D	10		17	9.9	55
MHZ2-16D	16		40	30	115
MHZ2-20D	20		66	42	235
MHZ2-25D	25		104	65	430
MHZ2-32D	32		193	158	715
MHZ2-40D	40		318	254	1275
MHZ2-6S	6		Single Acting (Normally Open)	-	1.9
MHZ2-10S	10	-		6.3	55
MHZ2-16S	16	-		24	115
MHZ2-20S	20	-		28	240
MHZ2-25S	25	-		45	435
MHZ2-32S	32	-		131	760
MHZ2-40S	40	-		137	1370

Type	Bore(mm)	Action way	Retentivity (N) Switch	Retentivity (N -cm)	Weight(g)
MHZ2-6C	6	Single acting (Normally Close)	3.7	-	27
MHZ2-10C	10		12	-	55
MHZ2-16C	16		31	-	115
MHZ2-20C	20		56	-	240
MHZ2-25C	25		83	-	430
MHZ2-32C	32		161	-	760
MHZ2-40C	40	267	-	1370	
MHC2-10D	10	Double acting	-	9.8	39
MHC2-16D	16		-	39.2	91
MHC2-20D	20		-	69.7	180
MHC2-25D	25	-	136	311	
MHC2-10S	10	Single acting (Normally Open)	-	6.9	39
MHC2-16S	16		-	31.4	92
MHC2-20S	20		-	54	183
MHC2-25S	25		-	108	316

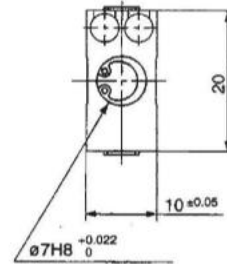
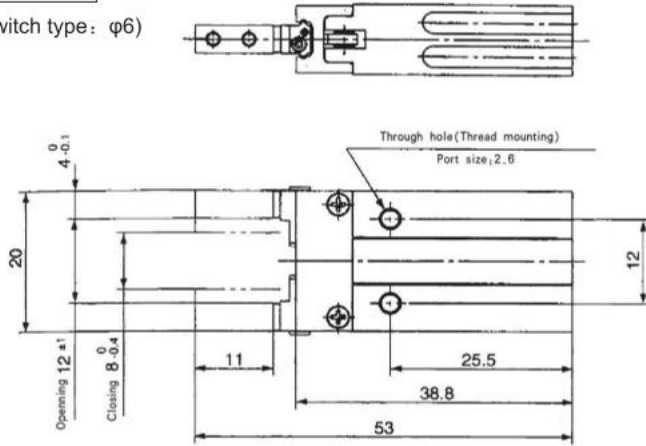
\* Under 0.5MPA pressure, 200mm finger length, and different finger annex, retentivity or square retentivity different.

MHZ Parallel switch type air gripper

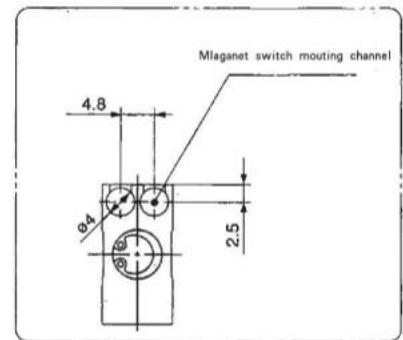
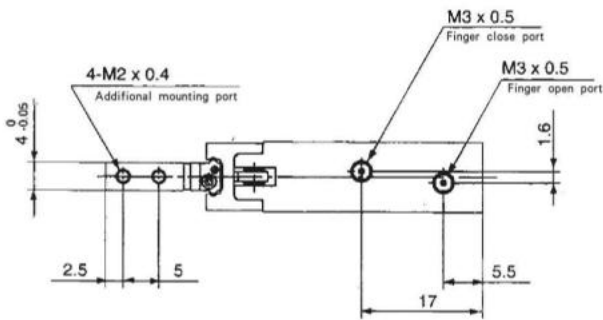
■ Figure Dimension

Small way: MHZ2

(Parallel switch type:  $\phi 6$ )

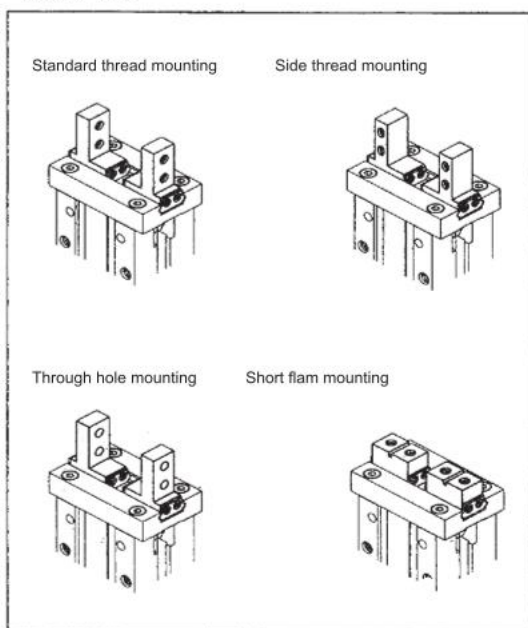


Magnet switch mounting channel size



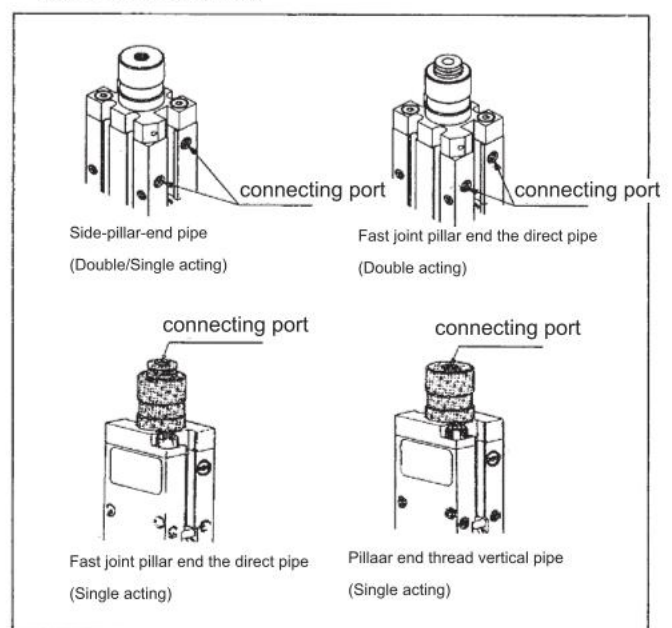
Other gripper and tube connecting pattern

\* Finger type



Note: it only use the standard thread in stallation for fulcrum switch type.

\*\* Tube connecting way



X

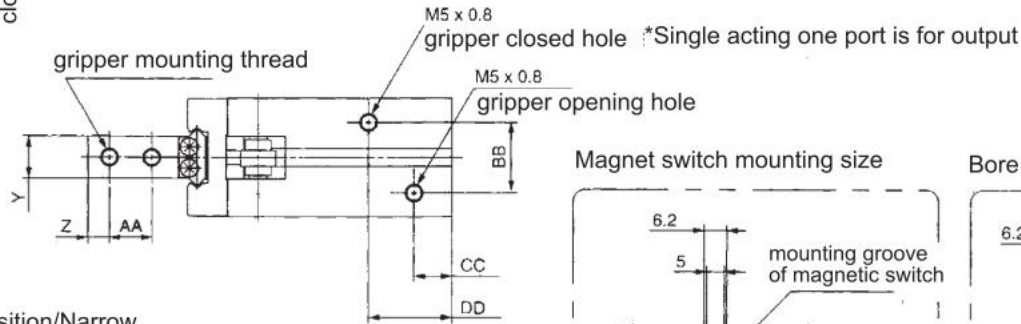
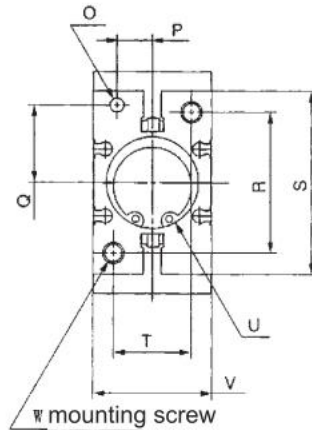
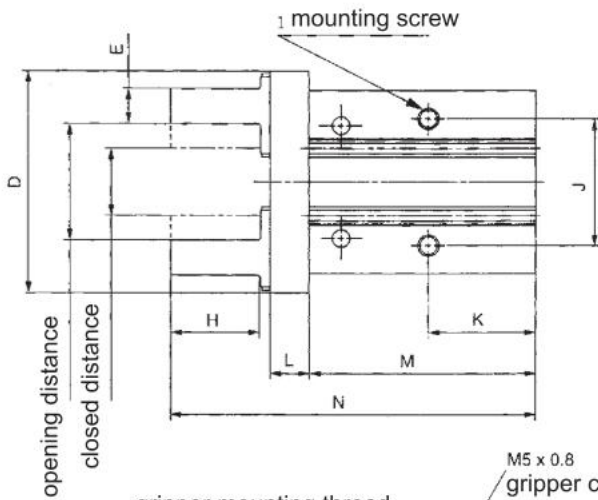
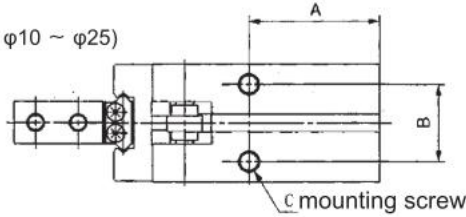
■ Figure Dimension

Standard: MHZ2

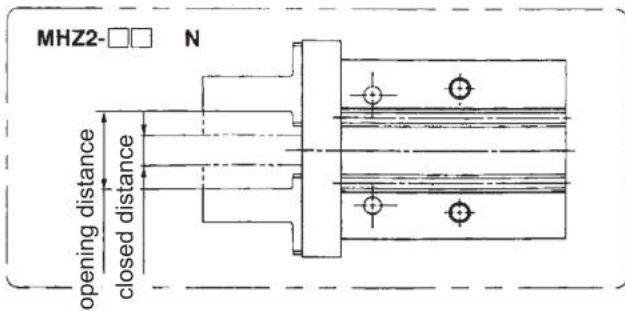
Figure Dimension (mm)

(Parallel switch type: φ10 ~ φ25)

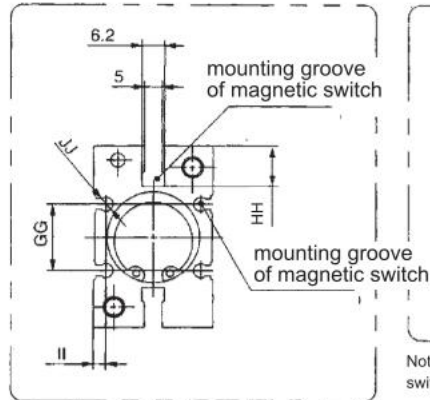
MHZ Parallel switch type air gripper



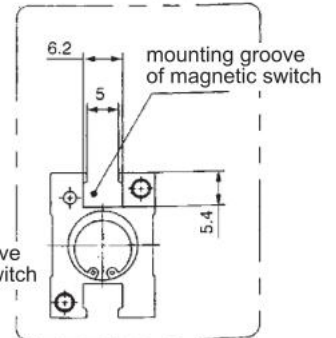
Finger position/Narrow



Magnet switch mounting size



Bore size diagram



Note) About D-Y59 or D-Y69 Magnet switch, through hole can't be allowed

Note) About D-Y59 or D-Y69 Magnet switch, through hole can't be allowed

type(mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	N
10	27	11.4	M3×0.5 depth 6	29	4 <sup>0</sup> <sub>-0.1</sub>	15.2 <sup>+2.2</sup> <sub>0</sub>	11.2 <sup>0</sup> <sub>-0.7</sub>	12	M3×0.5 depth 5.5	16	23	6	37.8	57	φ2H9 <sup>+0.025</sup> <sub>0</sub> depth 3	5.2±0.02	7.6±0.02	18	23	12	φ11H9 <sup>+0.043</sup> <sub>0</sub> depth 2
16	30	16	M4×0.7 depth 4.5	38	5 <sup>0</sup> <sub>-0.1</sub>	20.9 <sup>+2.2</sup> <sub>0.2</sub>	14.9 <sup>0</sup> <sub>-0.7</sub>	15	M4×0.7 depth 8	24	24.5	7.5	42.5	67.3	φ3H9 <sup>+0.025</sup> <sub>0</sub> depth 3	6.5±0.02	11±0.02	22	30.6	15	φ17H9 <sup>+0.043</sup> <sub>0</sub> depth 2
20	35	18.6	M5×0.8 depth 8	50	8 <sup>0</sup> <sub>-0.1</sub>	26.3 <sup>+2.2</sup> <sub>-0.2</sub>	16.3 <sup>0</sup> <sub>-0.7</sub>	20	M5×0.8 depth 10	30	29	9.5	52.8	84.8	φ4H9 <sup>+0.030</sup> <sub>0</sub> depth 4	7.5±0.02	16.8±0.02	32	42	18	φ21H9 <sup>+0.052</sup> <sub>0</sub> depth 3
25	36.5	22	M6×1 depth 10	63	10 <sup>0</sup> <sub>-0.1</sub>	33.3 <sup>+2.5</sup> <sub>0.2</sub>	19.3 <sup>0</sup> <sub>-0.8</sub>	25	M6×1 depth 12	36	30	11	63.6	102.7	φ4H9 <sup>+0.030</sup> <sub>0</sub> depth 4	10±0.02	21.8±0.02	40	52	22	φ26H9 <sup>+0.052</sup> <sub>0</sub> depth 3.5
32	48/57	26	M6×1 depth 10	97	12 <sup>0</sup> <sub>-0.1</sub>	48 <sup>+2.5</sup> <sub>-0.1</sub>	26 <sup>0</sup> <sub>-0.5</sub>	29	M6×1 depth 13	46	40/49	12	67/76	12	φ5H9 <sup>+0.030</sup> <sub>0</sub> depth 5	12±0.02	23±0.02	46	60	26	φ34H9 <sup>+0.030</sup> <sub>0</sub> depth 5
40	58/71	32	M8×1.25 depth 13	110	14 <sup>0</sup> <sub>-0.1</sub>	60 <sup>+2.7</sup> <sub>-0.1</sub>	30 <sup>0</sup> <sub>-0.5</sub>	36	M8×1.25 depth 16	56	49/62	15	83/96	15	φ5H9 <sup>+0.030</sup> <sub>0</sub> depth 5	14±0.02	29±0.02	56	72	32	φ42H9 <sup>+0.030</sup> <sub>0</sub> depth 5

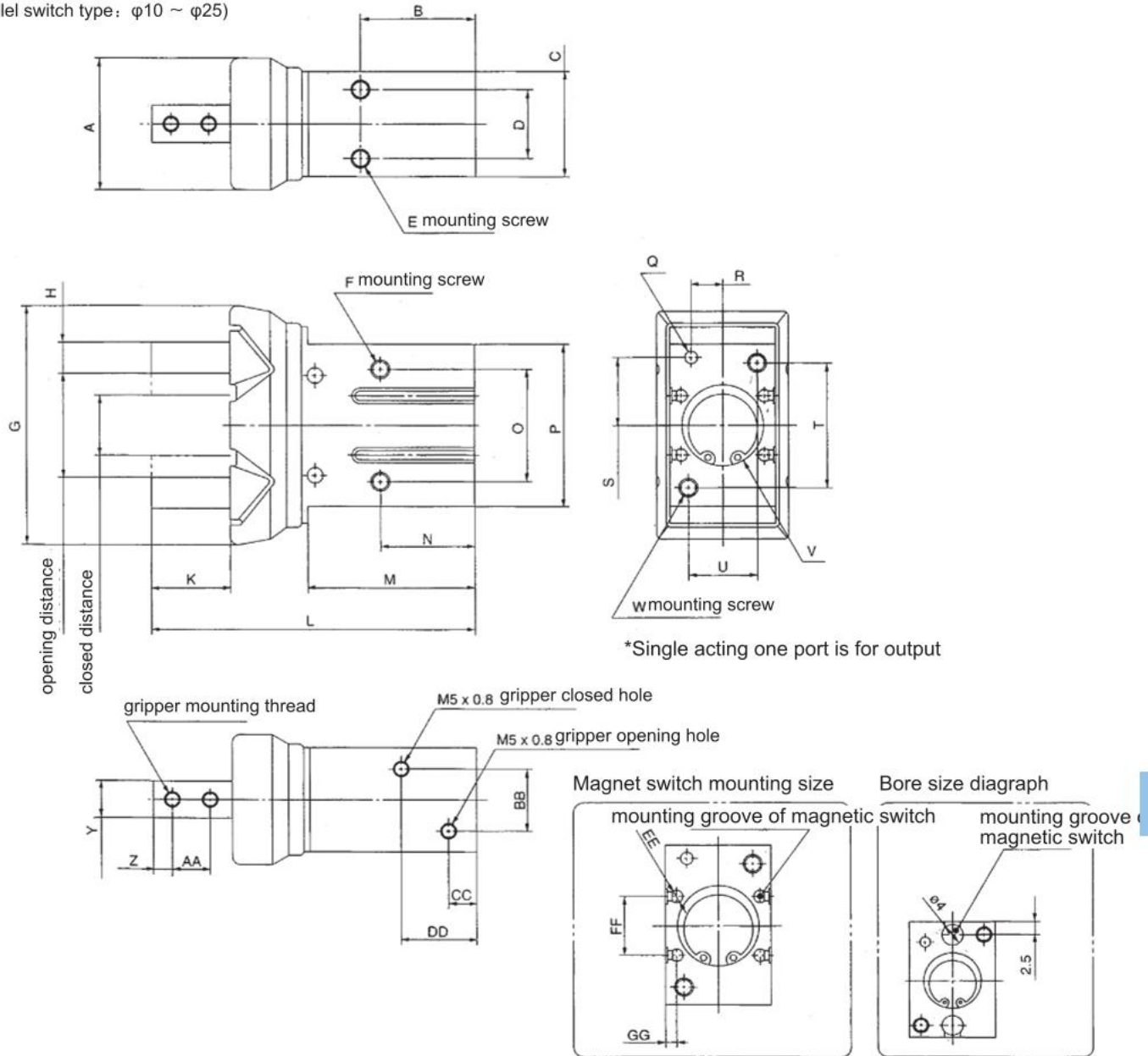
type(mm)	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ
10	16.4±0.05	M3×0.5 depth 6	M2×0.45	5 <sup>0</sup> <sub>-0.05</sub>	3	5.7	11	9	19	9.7 <sup>+2.2</sup> <sub>0</sub>	5.7 <sup>0</sup> <sub>-0.7</sub>	-	5.4	-	-
16	23.6±0.05	M4×0.7 depth 8	M3×0.5	8 <sup>0</sup> <sub>-0.05</sub>	4	7	13	7.5	19	12.6 <sup>+2.2</sup> <sub>0</sub>	6.6 <sup>0</sup> <sub>-0.7</sub>	11.6	5.8	2.1	φ4
20	27.6±0.05	M5×0.8 depth 10	M4×0.7	10 <sup>0</sup> <sub>-0.05</sub>	5	9	15	10	23	17.2 <sup>+2.2</sup> <sub>0</sub>	7.2 <sup>0</sup> <sub>-0.7</sub>	14	9	2.1	φ4
25	33.6±0.05	M6×1 depth 12	M5×0.8	12 <sup>0</sup> <sub>-0.05</sub>	6	12	20	10.7	23.5	22.8 <sup>+2.5</sup> <sub>0</sub>	8.8 <sup>0</sup> <sub>-0.8</sub>	19	11.5	3.5	φ4
32	40±0.1	M6×1 depth 13	M6×1	15 <sup>0</sup> <sub>-0.05</sub>	7	14	24	11	31/37	48 <sup>+2.5</sup> <sub>0</sub>	26 <sup>0</sup> <sub>-0.5</sub>	24	11.5	3.3	φ4
40	48±0.1	M8×1.25 depth 17	M8×1.25	18 <sup>0</sup> <sub>-0.05</sub>	9	17	28	12	38/45	60 <sup>+2.7</sup> <sub>0</sub>	30 <sup>0</sup> <sub>-0.5</sub>	29.4	13	3.7	φ4

MHZ Parallel switch type air gripper

■ Figure Dimension

Dust proof type: MHZJ2

Figure Dimension (mm)  
(Parallel switch type:  $\phi 10 \sim \phi 25$ )



\*Single acting one port is for output

Note) About D-Y59 or D-Y69 if install the magnet, the through hole installation can't be allowed.

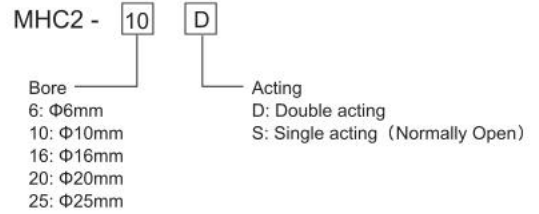
type(mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
10	21	27	16.4±0.05	11.4	M3×0.5 depth 6	M3×0.5 depth 5.5	34	4 <sup>0</sup> <sub>-0.1</sub>	15.2 <sup>+2.2</sup> <sub>0</sub>	11.2 <sup>0</sup> <sub>-0.7</sub>	12	57	31	23	16	23	φ2H9 <sup>+0.025</sup> <sub>0</sub> depth 3	5.2±0.02	7.6±0.02	18	12
16	29.6	30	23.6±0.05	16	M4×0.7 depth 4.5	M4×0.7 depth 8	45	5 <sup>0</sup> <sub>-0.1</sub>	20.9 <sup>+2.2</sup> <sub>-0.2</sub>	14.9 <sup>0</sup> <sub>-0.7</sub>	15	67.3	34.8	24.5	24	30.6	φ3H9 <sup>+0.025</sup> <sub>0</sub> depth 3	6.5±0.02	11±0.02	22	15
20	34.6	35	27.6±0.05	18.6	M5×0.8 depth 8	M5×0.8 depth 10	58	8 <sup>0</sup> <sub>-0.1</sub>	26.3 <sup>+2.2</sup> <sub>-0.2</sub>	16.3 <sup>0</sup> <sub>-0.7</sub>	20	84.8	43.5	29	30	42	φ4H9 <sup>+0.030</sup> <sub>0</sub> depth 4	7.5±0.02	16.8±0.02	32	18
25	42	36.5	33.6±0.05	22	M6×1 depth 10	M6×1 depth 12	73	10 <sup>0</sup> <sub>-0.1</sub>	33.3 <sup>+2.5</sup> <sub>0.2</sub>	19.3 <sup>0</sup> <sub>-0.8</sub>	25	102.7	53	30	36	52	φ4H9 <sup>+0.030</sup> <sub>0</sub> depth 4	10±0.02	21.8±0.02	40	22

type (mm)	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ
10	16.4±0.05	M3×0.5 depth 6	M2×0.45	5 <sup>0</sup> <sub>-0.05</sub>	3	5.7	11	9	19	9.7 <sup>+2.2</sup> <sub>0</sub>	5.7 <sup>0</sup> <sub>-0.4</sub>	-	5.4	-	-
16	23.6±0.05	M4×0.7 depth 8	M3×0.5	8 <sup>0</sup> <sub>-0.05</sub>	4	7	13	7.5	19	12.6 <sup>+2.2</sup> <sub>0</sub>	6.6 <sup>0</sup> <sub>-0.4</sub>	11.6	5.8	2.1	φ4
20	27.6±0.05	M5×0.8 depth 10	M4×0.7	10 <sup>0</sup> <sub>-0.05</sub>	5	9	15	10	23	17.2 <sup>+2.2</sup> <sub>0</sub>	7.2 <sup>0</sup> <sub>-0.4</sub>	14	9	2.1	φ4
25	33.6±0.05	M6×1 depth 12	M5×0.8	12 <sup>0</sup> <sub>-0.05</sub>	6	12	20	10.7	23.5	22.8 <sup>+2.5</sup> <sub>0</sub>	8.8 <sup>0</sup> <sub>-0.4</sub>	19	11.5	3.5	φ4

**MHC Series air gripper**



● Ordering Code



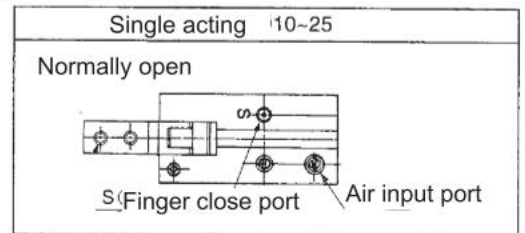
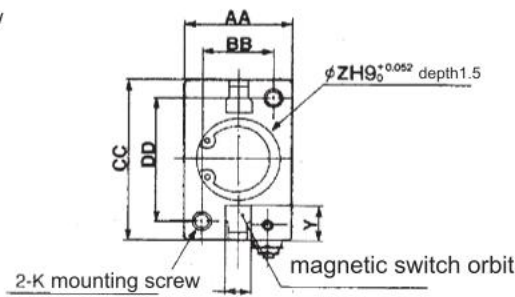
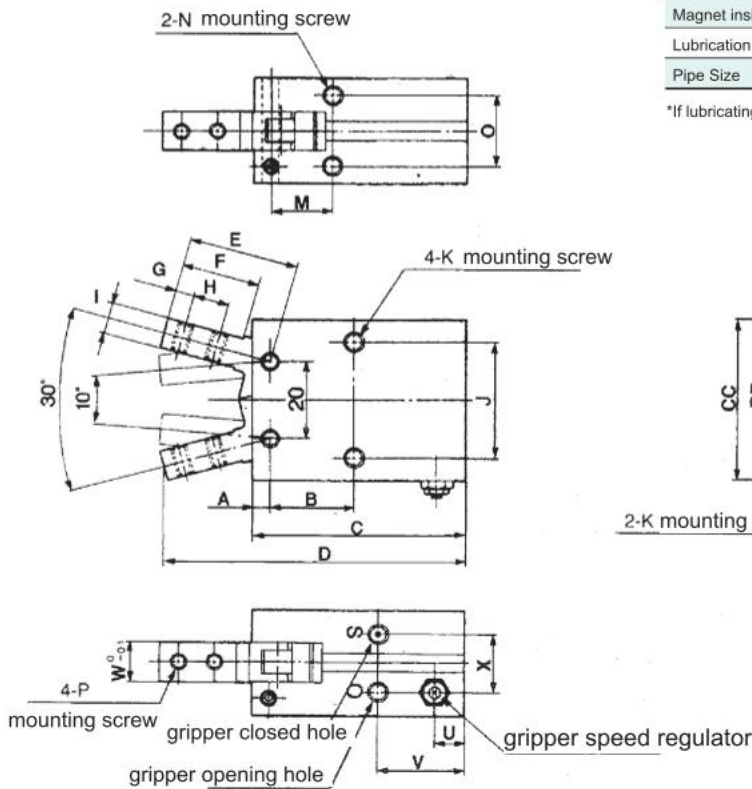
■ Specification

Bore (mm)	6	10	16	20	25
Medium	Air				
Action way	Double Acting, Single Acting, Normally Open/Normally Close				
Min Operating pressure Mpa	Double Acting	0.15-0.7	0.2-0.7	0.1-0.7	
	Single Acting	0.3-0.7	0.35-0.7	0.25-0.7	
Environment temperature	-10 ~ 60°C (No Freeze)				
Highest operating frequency					
Repeat precision(mm)					
Magnet inside cylinder	With(Standard)				
Lubrication	Needless				
Pipe Size	M3×0.5		M5×0.8		

\*If lubricating, please use NO.ISOVG32

Pivot switch type: MHC2 (φ10 ~ φ25)

Figure Dimension (mm)

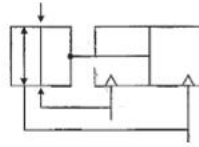


if use magnetic switch, the mounting hole is useless

Type (mm)	A	B	C	D	E	F	G	H	I	J	K	φL	M	N	O	P	Q	R	Pipe size S : T	U	V	W	X	Y	φZ	AA	BB	CC	DD
6	4	6	29	41	16	11	2.5	5	2	12	M3x0.5	2.6	-	M2x0.4 depth 4	5	M2x0.4	-	-	M3x0.5	-	-	4	2.1	-	7	10	4	20	13.6
10	2.8	12.8	38.6	52.4	17.2	12	3	5.7	4	16	M3×0.5 depth 5	2.6	8.8	M3×0.5 depth 6	11.4	M2.5×0.45	3	5.7	M3×0.5	7.2	18.8	6.4	10.4	5.4	11	16.4	12	23	18
16	3.9	16.2	44.6	62.5	22.6	16	4	7	7	24	M4×0.7 depth 8	3.4	10.7	M4×0.7 depth 8	16	M3×0.5	4	7	M5×0.8	7	18.3	8	13	5.8	17	23.6	15	30.6	22
20	4.5	21.7	55.2	78.7	28	20	5.2	9	8	30	M5×0.8 depth 10	4.3	15.7	M5×0.8 depth 8	18.6	M4×0.7	5	9	M5×0.8	7.5	22.2	10	15	9	21	27.6	18	42	32
25	4.6	25.8	60.2	92	37.5	27	8	12	10	36	M6×1 depth 12	5.1	19.3	M6 depth 10	22	M5×0.8	6	12	M5×0.8	7	23.5	12	20	11.5	26	33.6	22	52	40

**MHY Series air gripper**

Φ10 ~ Φ25



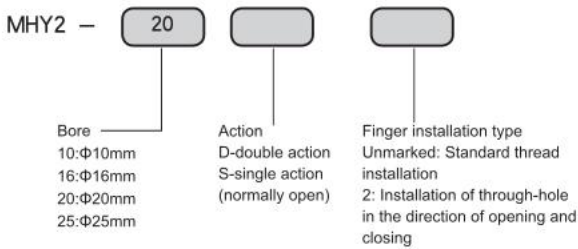
■ Specification

Type	MHY2-10D	MHY2-16D	MHY2-20D	MHY2-25D
Medium	Air			
Action way	Double acting			
Max Operating pressure MPa	0.6			
Min Operating pressure MPa	0.1			
Environment temperature	-10 ~ 60°C (No Freeze)			
Highest operating frequency	60c.p.m			
Repeat precision	±0.2mm			
1)RetentivityN.m	0.16	0.54	1.10	2.28
Weight (kg)	70	150	320	560
2)Lubrication	No need			
Pipe Size	M5×0.8			

- 1) User 0.5MPa(5.1kgf/cm<sup>2</sup>)
- 2) If Lubrication, please use ISOVG32

- \* Magnet inside, can be fixed with magnetic switch
- \* The fingers suit 108° simple action.
- \* It can be used in the special environment special design, stop small things in
- \* Convenient to be fixed

● Ordering Code



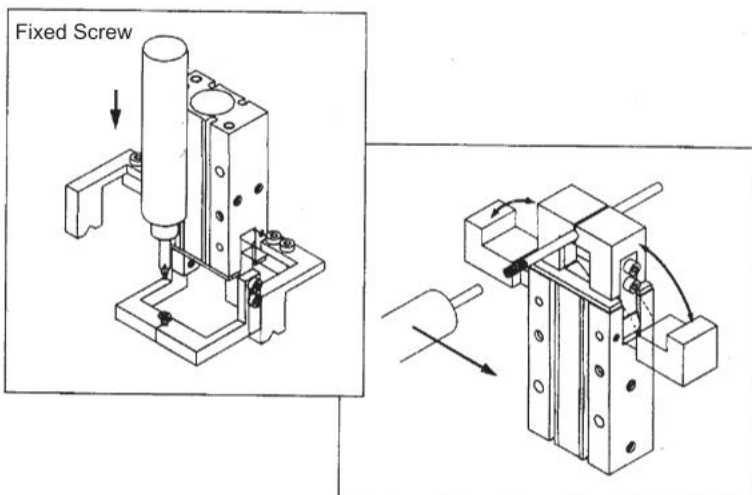
■ Stroke/Magnet switch(For choose)

Bore (mm)	Channel Installation		Magnet Switch (Channel Installation)
	Open	Close	
10	180°	-3°	CS1-H
16			
20			
25			

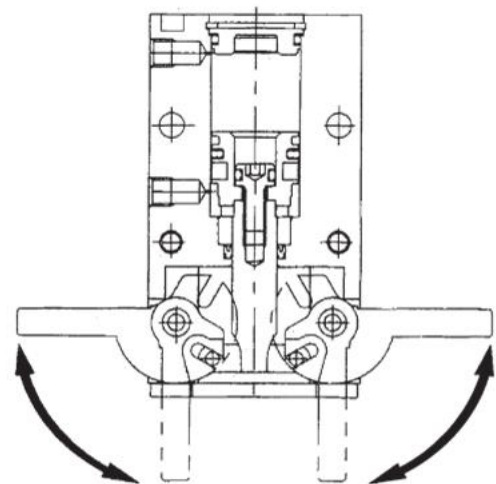
- 1) Bore: φ16mm, Code: MHY2-16D
- 2) Bore: φ25mm, Code: MHY2-25D

X

Exsample



Structure

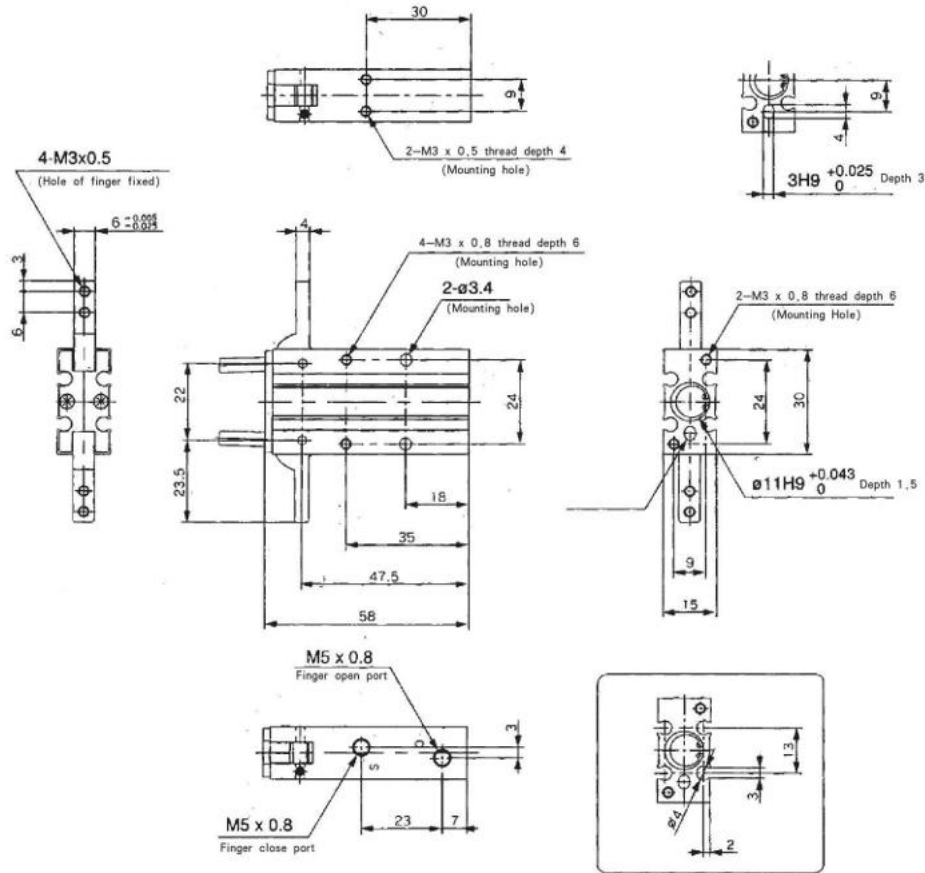


MHY Series air gripper

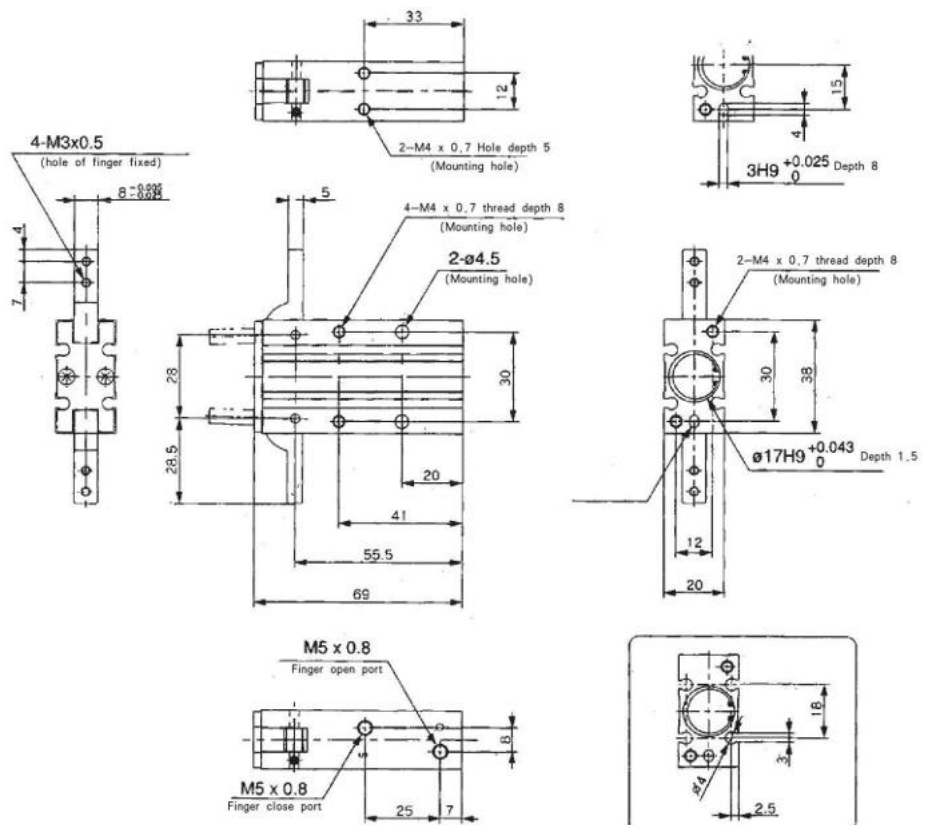
φ10 ~ φ25

■ Figure Dimension

MHY2-10D □



MHY2-16D □

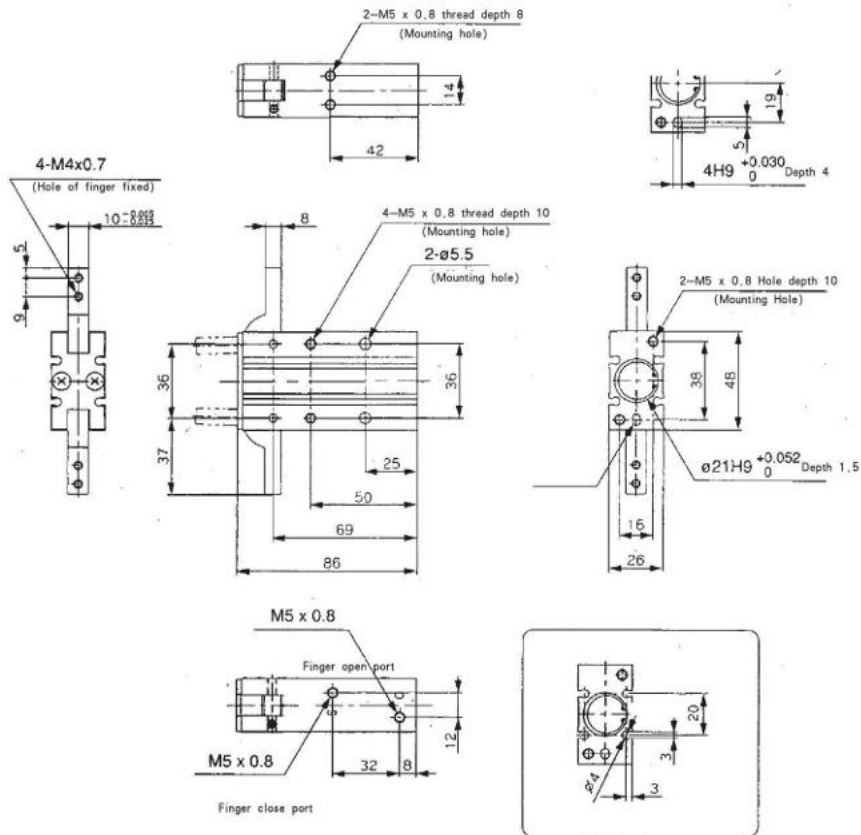


MHY Series air gripper

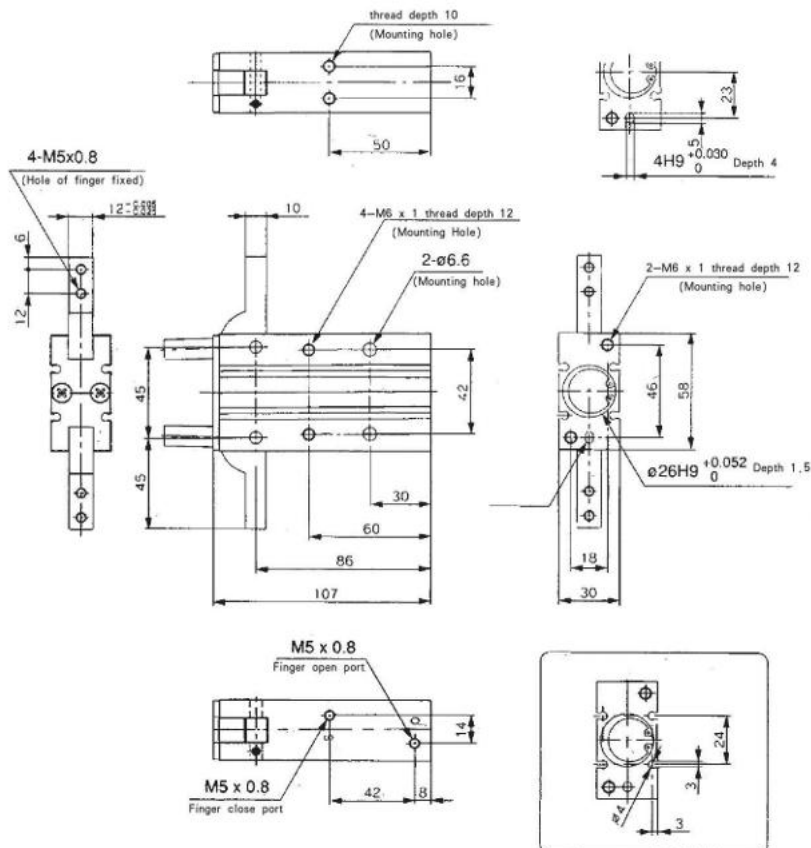
φ10 ~ φ25

■ Figure Dimension

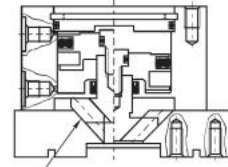
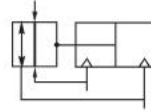
MHY2-20D □



MHY2-25D □



**MHS3 Series gripper (parallel open and close type) Cylindrical gripper**



Wedge cam structure can increase the clamping force

■ Specification

Model	MHS3-16D	MHS320D	MHS3-25D	MHS3-32D	MHS3-40D	MHS3-50D	MHS3-63D	MHS3-80D	MHS3-100D	MHS3-125D	
Bore	Ø16	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	
Using fluid	Air										
Use pressure range	0.2~0.6MPa					0.1~0.6M					
Use temperature range	-10~+60°C										
Repeat precision	±0.01mm										
Max action frequency	120c.p.m					60c.p.m			30c.p.m		
Oil supply	No need										
Action type	Double Action										
note)Gripping force	Outside diameter clip	14	25	42	74	118	187	335	500	750	1270
N pressure0.5Mpa	Inside diameter clip	16	28	47	82	130	204	359	525	780	1320
Finger stroke(mm)	4										
Magnet switch	M3x0.5										
Pipe Size	M3x0.5					M5x0.8			1/8	1/4	3/8
	Built-in magnetic ring type										

Note: clamping diameter of clamping force, Ø16~Ø25 clamping distance L=20mm, Ø32~Ø63 clamping distance L=30mm, Ø80~Ø125 clamping distance L=50mm

● Ordering Code

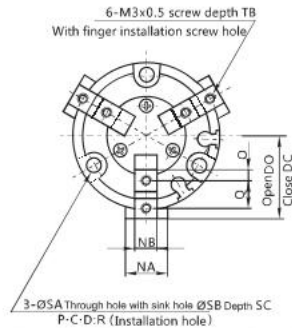
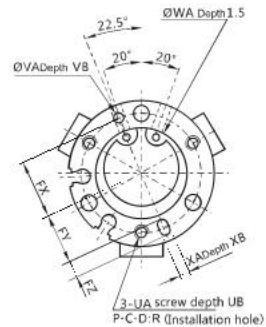
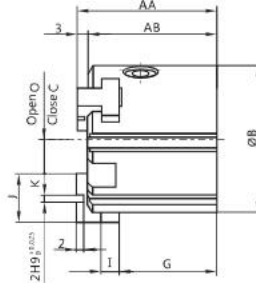
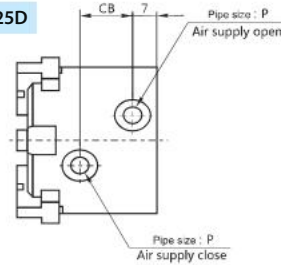
MHS3 — **20** **D**

Bore  
16:Ø16mm  
20:Ø20mm  
25:Ø25mm  
32:Ø32mm  
40:Ø40mm  
50:Ø50mm  
63:Ø63mm  
80:Ø80mm  
100:Ø100mm  
125:Ø125mm

Double Action

■ Figure Dimension

MHS3-16D ~ 25D



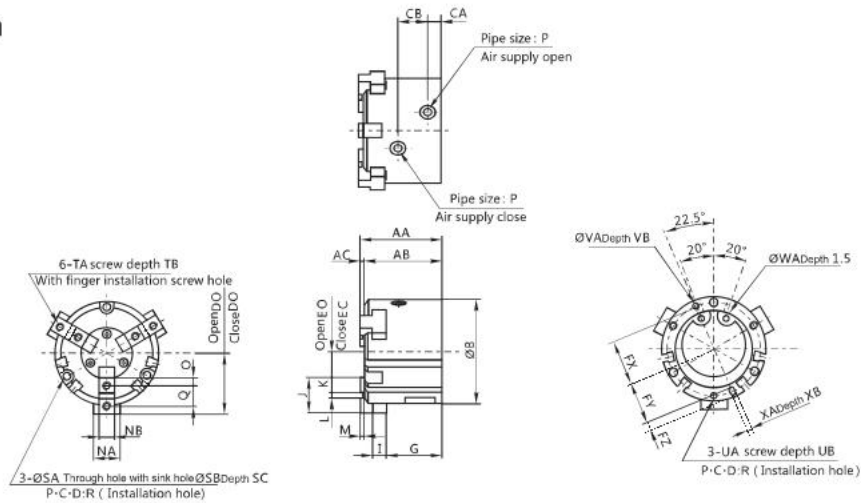
Model	A	AB	B	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	NA	NB	O	P	Q	R
MHS3-16D	35	32	30	11	15	17	5	7	12.5	11	3	25	4	10	4	8	5h9 <sup>0</sup> <sub>-0.030</sub>	2	M3x0.5	6	25
MHS3-20D	38	35	36	13	18	20	6	8	14.5	13	3	27	5	12	5	10	6h9 <sup>0</sup> <sub>-0.030</sub>	2.5	M5x0.8	7	29
MHS3-25D	40	37	42	15	21	24	7	10	17	14.5	5	28	5	14	6	12	6h9 <sup>0</sup> <sub>-0.030</sub>	3	M5x0.8	8	34

Model	SA	SB	SC	TB	UA	UB	VA	VB	WA	XA	XB
MHS3-16D	3.4	6.5	8	5	M3x0.5	4.5	2H9 <sup>+0.025</sup> <sub>0</sub>	2	17H9 <sup>+0.043</sup> <sub>0</sub>	2H9 <sup>+0.025</sup> <sub>0</sub>	2
MHS3-20D	3.4	6.5	9.5	6	M3x0.5	6	2H9 <sup>+0.025</sup> <sub>0</sub>	2	21H9 <sup>+0.052</sup> <sub>0</sub>	2H9 <sup>+0.025</sup> <sub>0</sub>	2
MHS3-25D	4.5	8	10	6	M4x0.7	6	3H9 <sup>+0.025</sup> <sub>0</sub>	3	26H9 <sup>+0.052</sup> <sub>0</sub>	3H9 <sup>+0.025</sup> <sub>0</sub>	3

**MHS3 Series gripper**

■ Figure Dimension

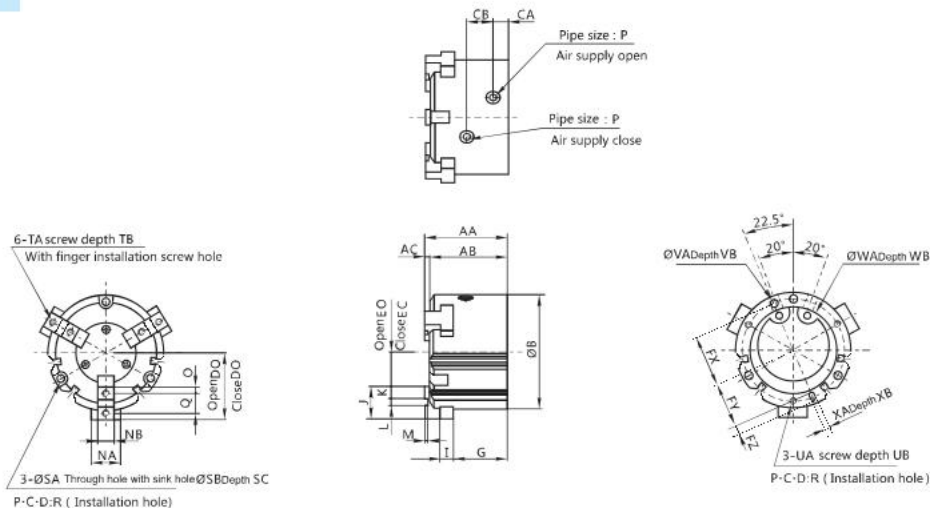
**MHS3-32D ~ 80D**



Model	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	L	M	NA	NB
MHS3-32D	44	41	3	52	8	16	28	32	8	12	22	19.5	5	30.5	6	20	9	2H9 <sup>+0.025</sup> <sub>0</sub>	2	14	8h9 <sup>0</sup> <sub>-0.036</sub>
MHS3-40D	47	44	3	62	9	17	31	35	10	14	26.5	23.5	6	32	7	21	9	3H9 <sup>+0.025</sup> <sub>0</sub>	2	16	8h9 <sup>0</sup> <sub>-0.036</sub>
MHS3-50D	55	52	3	70	9	20	35	41	11	17	31	28	6	37.5	9	24	10	4H9 <sup>+0.030</sup> <sub>0</sub>	2	18	10h9 <sup>0</sup> <sub>-0.036</sub>
MHS3-63D	66	62	4	86	12	22	43	51	15	23	38	34.5	7	44	11	28	11	6H9 <sup>+0.030</sup> <sub>0</sub>	3	24	12h9 <sup>0</sup> <sub>-0.043</sub>
MHS3-80D	82	77	5	106	13.5	27	53.5	63.5	21.5	31.5	47.5	43.5	8	56	12	32	12	8H9 <sup>+0.036</sup> <sub>0</sub>	4	28	14h9 <sup>0</sup> <sub>-0.043</sub>

Model	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	XA	XB	YC
MHS3-32D	4.5	M5x0.8	11	44	4.5	8	9	M4x0.7	8	M4x0.7	6	3H9 <sup>+0.025</sup> <sub>0</sub>	3	34H9 <sup>+0.062</sup> <sub>0</sub>	2	3H9 <sup>+0.025</sup> <sub>0</sub>	3	6
MHS3-40D	4.5	M5x0.8	12	53	5.5	9.5	9	M4x0.7	8	M5x0.8	7.5	4H9 <sup>+0.030</sup> <sub>0</sub>	4	42H9 <sup>+0.062</sup> <sub>0</sub>	2	4H9 <sup>+0.030</sup> <sub>0</sub>	4	8
MHS3-50D	5	M5x0.8	14	62	5.5	9.5	12	M5x0.8	10	M5x0.8	10	4H9 <sup>+0.030</sup> <sub>0</sub>	4	52H9 <sup>+0.074</sup> <sub>0</sub>	2	4H9 <sup>+0.030</sup> <sub>0</sub>	4	7
MHS3-63D	5.5	M5x0.8	17	76	6.6	11	14	M5x0.8	10	M6x1	9	5H9 <sup>+0.030</sup> <sub>0</sub>	5	65H9 <sup>+0.074</sup> <sub>0</sub>	2.5	5H9 <sup>+0.030</sup> <sub>0</sub>	5	7.5
MHS3-80D	6	Rc1/8	20	95	6.6	11	19	M6x1	12	M6x1	12	6H9 <sup>+0.030</sup> <sub>0</sub>	6	82H9 <sup>+0.087</sup> <sub>0</sub>	3	6H9 <sup>+0.030</sup> <sub>0</sub>	6	8

**MHS3-100D ~ 125D**



Model	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	L	M	NA	NB
MHS3-100D	96	90	6	134	18	30.6	66	78	28	40	59	54	10	63	15	38	15	8H9 <sup>+0.036</sup> <sub>0</sub>	4	34	18h9 <sup>0</sup> <sub>-0.043</sub>
MHS3-125D	122	114	8	166	23.5	38	82	98	30	46	74	68	12	84	18	52	21	10H9 <sup>+0.036</sup> <sub>0</sub>	6	40	22h9 <sup>0</sup> <sub>-0.052</sub>

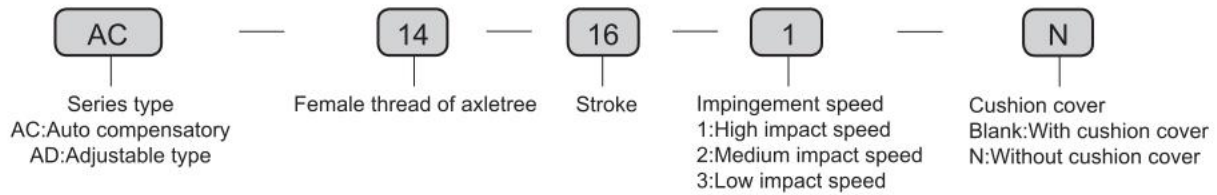
Model	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	XA	XB
MHS3-100D	7.5	Rc1/4	23	118	9	14	21	M8x1.25	16	M8x1.25	16	8H9 <sup>+0.036</sup> <sub>0</sub>	6	102H9 <sup>+0.087</sup> <sub>0</sub>	4	8H9 <sup>+0.036</sup> <sub>0</sub>	6
MHS3-125D	10.5	Rc3/8	31	148	11	17.5	34	M10x1.5	20	M10x1.5	20	10H9 <sup>+0.036</sup> <sub>0</sub>	8	130H9 <sup>+0.100</sup> <sub>0</sub>	6	10H9 <sup>+0.036</sup> <sub>0</sub>	8



AC Series Shock absorber



• Ordering Code



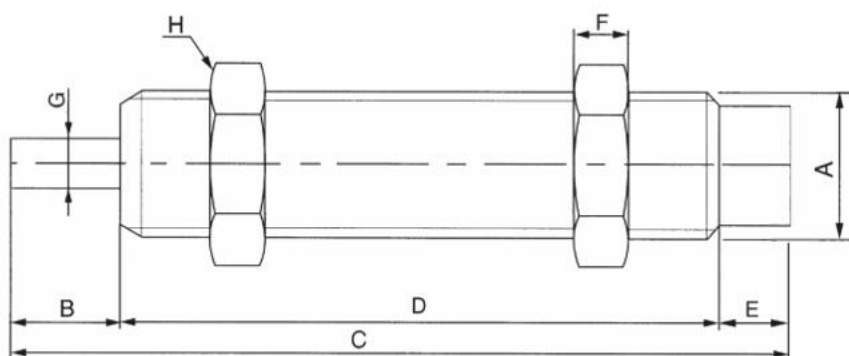
■ Specification

Item	Stroke mm	Max. energy absorbed Nm	Max. energy absorbed/hour Nm	Max. effective weight Kg			Max. shock speed m/s			Working Temperature °C
				1	2	3	1	2	3	
AC-0806	6	2	1200	0.5	2	6	2	1	0.5	-10~80
AC-1005	5	3	3600	1	3	7	3	1.5	0.8	-10~80
AC-1008	8	4	5000	2	4	9	3	1.5	0.8	-10~80
AC-1210	10	5	10,000	5	10	30	2	1.5	0.8	-10~80
AC-1412	12	15	30,000	8	50	100	3	1.5	0.8	-10~80
AC-1416	16	20	35,000	10	70	150	3	1.5	0.8	-10~80
AC-2020	20	40	40,000	30	200	700	3.5	2	1	-10~80
AC-2050	50	60	60,000	60	400	1200	3.5	2	1	-10~80
AC-2525	25	80	70,000	200	800	1500	4	2.5	1	-10~80
AC-2540	40	120	75,000	300	1200	2000	4	2.5	1	-10~80
AC-3660	60	250	120,000	400	1500	2400	4	2.5	1	-10~80

■ Specification

Item	Stroke mm	Max. energy absorbed Nm	Max. energy absorbed/hour Nm	Max. effective weight Kg			Max. shock speed m/s			Working Temperature °C
				1	2	3	1	2	3	
AD-1410	10	20	25,000	80			3			-10~80
AD-2016	16	25	30,000	200			3.5			-10~80
AD-2525	25	85	70,000	400			3.5			-10~80
AD-2540	40	100	80,000	700			3.5			-10~80
AD-3650	50	300	100,000	1400			3			-10~80
AD-4225	25	260	125,000	3000			3.5			-10~80
AD-4250	50	500	150,000	4000			4.5			-10~80
AD-4275	75	750	180,000	6000			4.5			-10~80
AD-6450	50	12,000	1500,000	12727			1.5			-10~80
AD-64100	100	24,000	2000,000	18181			1.5			-10~80
AD-64150	150	36,000	2500,000	23636			1.5			-10~80

● Without cushion cover

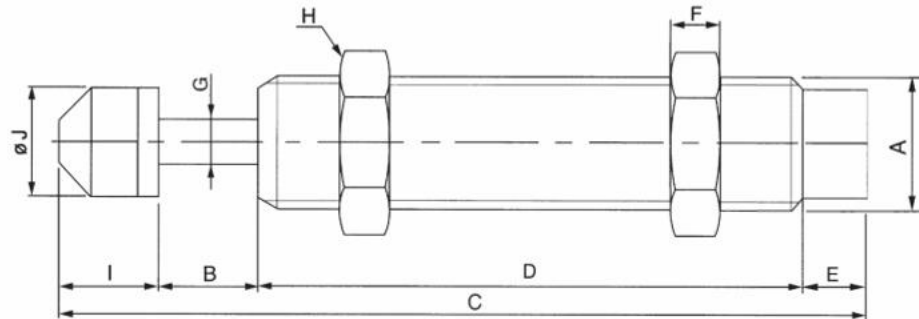


■ Figure Dimension

Specification/Type	A	B	C	D	E	F	G	H
AC-0806	M8x1.0	6	44	33	5	3	2.8	11
AC-1005	M10x1.0	5	32.7	22.9	4.8	3	3	12.7
AC-1008	M10x1.0	8	51	38	5	3	3	12.7
AC-1210	M12x1.0	10	60	45.5	4.5	4	3	14
AC-1412	M14x1.5	12	88	67	9	6	4	19
AC-1416	M14x1.5	16	111	86	9	6	4	19

AC Series Shock absorber

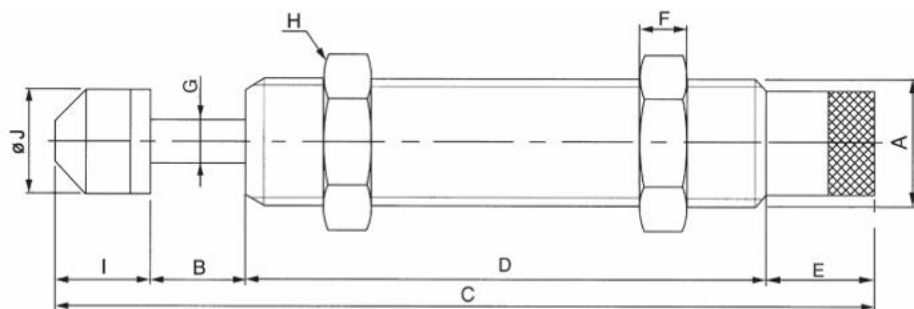
● With cushion cover



■ Figure Dimension

Specification/Type	A	B	C	D	E	F	G	H	J
AC-0806	M8x1.0	6	52.4	33	5	3	2.8	11	6.6
AC-1005	M10x1.0	5	41.2	22.9	4.8	3	3	12.7	8.6
AC-1008	M10x1.0	8	59.5	38	5	3	3	12.7	8.6
AC-1210	M12x1.0	10	69.5	45.5	4.5	4	3	14	10.3
AC-1412	M14x1.5	12	102.5	67	9	6	4	19	12
AC-1416	M14x1.5	16	125.5	86	9	6	4	19	12
AC-2020	M20x1.5	20	146.5	101	9	8	6	26	18
AC-2050	M20x1.5	50	233.5	158	9	8	6	26	18
AC-2525	M25x1.5	25	154.3	101	10	10	8	32	22
AC-2540	M25x1.5	40	208.3	127	10	10	8	32	22
AC-3660	M36x1.5	60	243	134	11	15	10	46	35

● Adjustable Type

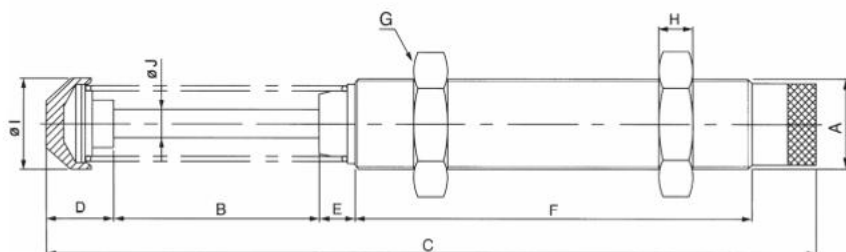


■ Figure Dimension

Specification/Type	A	B	C	D	E	F	G	H	I	J
AD-1410	M14x1.5	10	113.5	73	16	6	4	19	14.5	12
AD-2016	M20x1.5	16	149.5	101	16	8	6	26	16.5	18
AD-2525	M25x1.5	25	161.8	101	17.5	10	8	32	18.3	22
AD-2540	M25x1.5	40	215.8	127	17.5	10	8	32	31.3	22

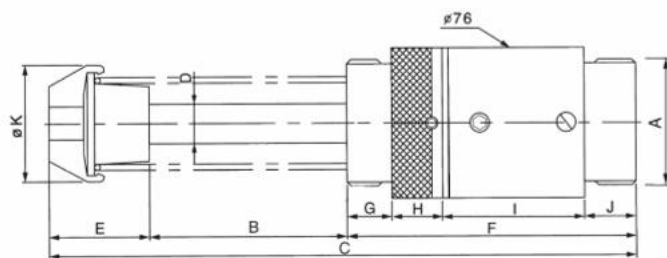
AC Series Shock absorber

• Adjustable Type



■ Figure Dimension

Specification/Type	A	B	C	D	E	F	G	H	I	J
AD-3650	M36x1.5	50	242	21	17	146	46	15	35	10
AD-4225	M42x1.5	25	186.5	34	26	104.5	50	15	44.5	12
AD-4250	M42x1.5	50	241	34	26	134	50	15	44.5	12
AD-4275	M42x1.5	75	301.5	39	26	164.5	50	15	44.5	12



■ Figure Dimension

Specification/Type	A	B	C	D	E	F	G	H	I	J	K
AD-6450	2 <sup>1</sup> / <sub>2</sub> -UNF(63.5)	50	247.8	20	51.8	146	23	20	77	26	59
AD-64100	2 <sup>1</sup> / <sub>2</sub> -UNF(63.5)	100	347.8	20	51.8	196	23	20	127	26	59
AD-64150	2 <sup>1</sup> / <sub>2</sub> -UNF(63.5)	150	467.8	20	61.8	256	23	20	187	26	59

Accessories for cylinder

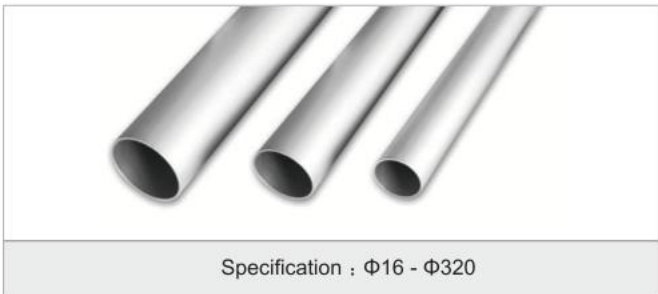
45 Piston rod



304 Stainless steel Piston rod



TGC/TGG Bore



TGU/TGI Bore



TGD Bore



TGN Bore



TGL/TGA Bore



TGC/TGG Tie rod



XI

Accessories for cylinder

TGD Cylinder kits (ISO6431&VDMA24562)



TGG Cylinder kits (ISO6431&VDMA24562)



TGI Cylinder kits (ISO6431&VDMA24562)



TGC Cylinder kits



TGU Cylinder kits



ADVU Cylinder kits



ACL Cylinder kits



TGN/CQ2B Cylinder kits



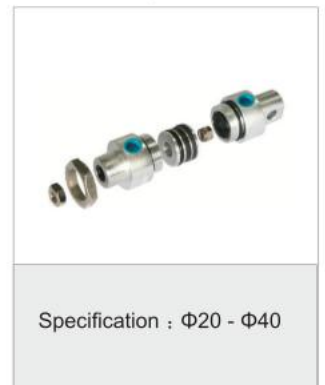
TGL Cylinder kits (ISO6432)



TGA Cylinder kits

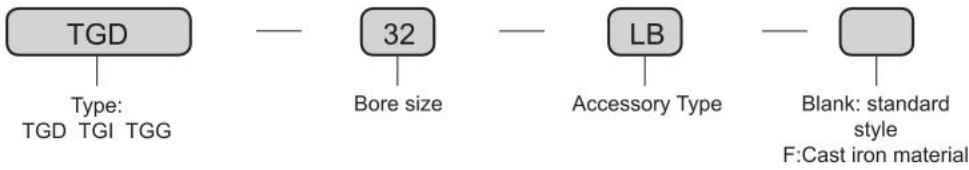


TGM Cylinder kits



XI

● Ordering Code

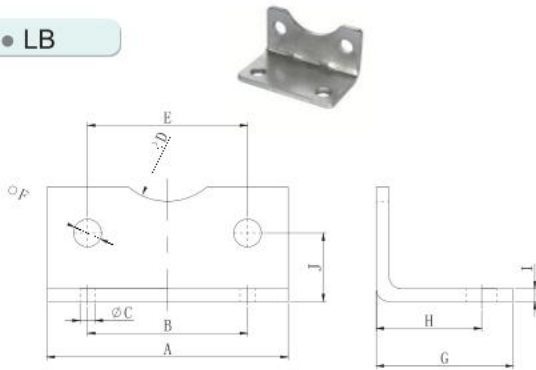


**TGD/TGI/TGG Installing Accessories**

Accord : ISO15552(ISO6431)  
VDMA24562

TGD:  $\Phi 32-\Phi 125$   
TGI:  $\Phi 32-\Phi 200$   
TGG:  $\Phi 32-\Phi 320$

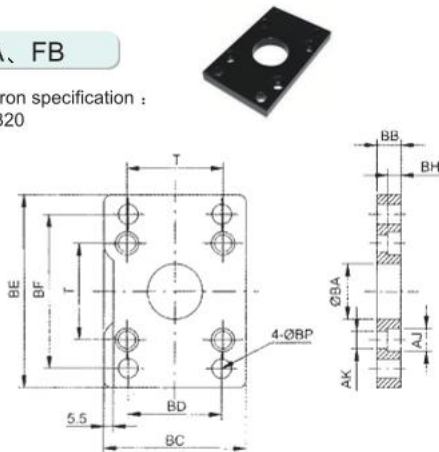
● LB



Bore	A	B	C	D	E	G	H	I	F	J
32	46.5	32	7	16	32.5	30.5	23	4	7	15.75
40	52.5	36	9	19	38	37	26.5	4	7	17
50	65	45	9	21	46.5	41.5	30.5	4	9	21.75
63	75	50	9	24	56.5	44.5	32.5	4	9	21.75
80	94.5	63	12	24	72	56	41	5	11	27
100	114.5	75	14	29	89	58.5	40	5	11	26.5

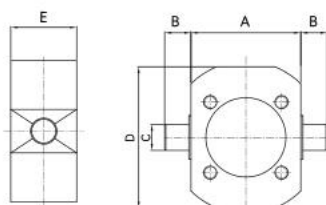
● FA、FB

Cast iron specification :  
 $\Phi 32-320$



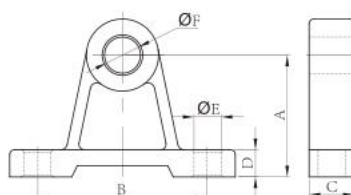
Bore	BP	BB	BC	BD	BE	BF
32	7	10	45	32	80	64
40	9	10	52	36	90	72
50	9	12	65	45	110	90
63	9	12	76	50	120	100
80	12	16	94	63	150	126
100	14	16	112	75	175	150
125	16.5	20	139	90	218	180
160	18.5	20	180	115	280	230
200	24	25	220	135	320	270
250	26	25	280	165	395	330
320	33	30	353	200	475	400

● TC 型



Bore	32	40	50	63	80	100	125	160	200	250	320
A	50	63	75	90	110	132	160	200	250	320	400
B	12	16	16	20	20	25	25	32	32	40	50
C	12	16	16	20	20	25	25	32	32	40	50
D	50	60	75	90	110	132	160	203	250	320	400
E	30	32	34	41	44	48	48	38	50	60	70

● TCM



Bore	32	40	50	63	80	100	125	160	200
A	40	54	54	70	70	90	90	110	110
B	60	75	75	85	85	115	115	140	140
C	12	16	16	20	20	25	25	32	32
D	11	11	11	11	11	19	19	24	24
E	9	12	12	12	12	18	18	22	22
F	12	16	16	20	20	25	25	32	32

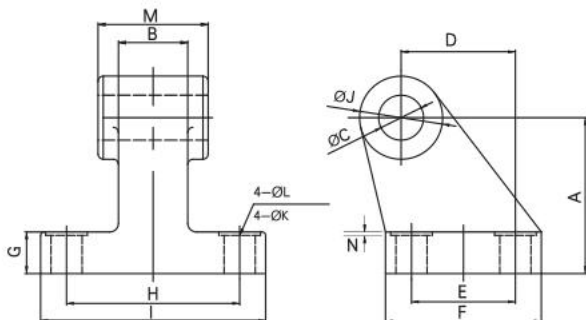
**TGD/TGI/TGG Installing Accessories**

Accord : ISO15552(ISO6431)  
VDMA24562

• CR

(Used with CB)

Cast iron specification :  $\Phi 32-320$   
Aluminium specification :  $\Phi 32-100$

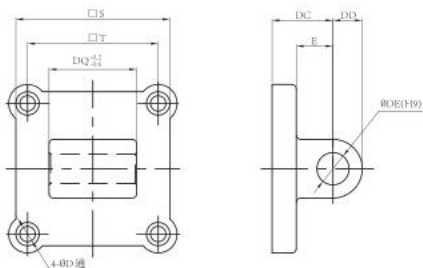


Bore	32	40	50	63	80	100	125
A	32	36	45	50	63	71	90
C	10	12	12	16	16	20	25
D	21	24	33	37	47	55	70
E	18	22	30	35	40	50	60
F	31	35	45	50	60	70	90
G	8	10	12	12	14	15	20
H	38	41	50	52	66	76	94
I	51	54	65	67	86	96	124
J	20	22	24	30	30	38	44
K	6.6	6.6	9	9	11	11	14
L	11	11	15	15	18	18	20
M	25.8	27.8	31.8	39.8	49.8	59.8	70
N	1.6	1.6	1.6	1.6	2.5	2.5	3.2

• CA

(Used with CB)

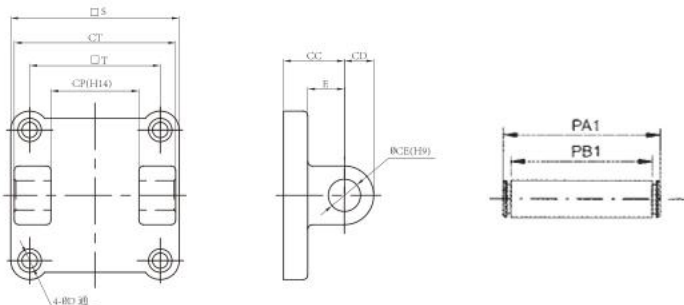
Cast iron specification :  $\Phi 32-320$   
Aluminium specification :  $\Phi 32-100$



Bore	S	DC	DD	E	DE
32	45	22	10	12	10
40	52	25	12	15	12
50	65	27	12	17	12
63	76	32	15	22	16
80	94	36	16	24	16
100	112	41	20	25	20
125	139	50	25	35	25
160	180	55	30	35	30
200	220	60	30	36	30
250	280	70	41	46	40
320	353	80	46	52	45

• CB

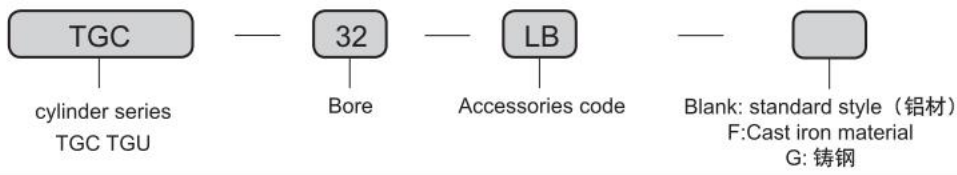
Cast iron specification :  $\Phi 32-320$   
Aluminium specification :  $\Phi 32-100$



Bore	S	PB1	CC	CD	E	CE	PA1
32	45	45	22	10	12	10	51
40	52	52	25	12	15	12	59
50	65	60	27	12	17	12	67
63	76	70	32	15	22	16	78
80	94	90	36	16	24	16	98
100	112	110	41	20	25	20	120
125	139	130	50	24	33	25	140
160	180	170	55	30	35	30	181
200	220	170	60	30	36	30	181
250	280	200	70	40	46	40	220
320	353	220	80	40	52	45	240

TGC/TGU series accessories

• ordering code

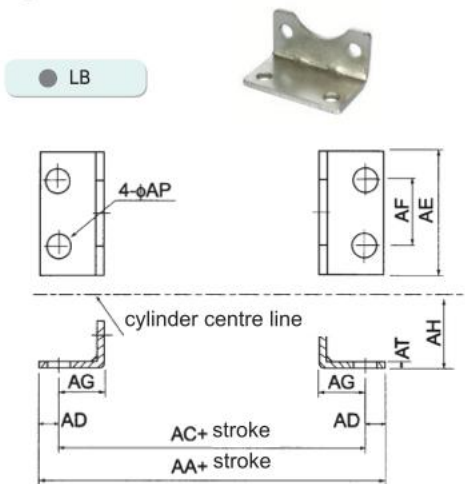


TGC:  $\Phi 32-\Phi 250$   
TGU:  $\Phi 32-\Phi 100$

■ accessories table

Model /accessories	LB	FA	FB	CA	CB	TC
TGU	●	●	●	●	●	×
TGUD/TGUJ	●	●	●	×	×	×
TGC	●	●	●	●	●	●
TGCD/TGCJ	●	●	●	×	×	●
TGCT	●	●	●	×	×	×

■ figure dimension

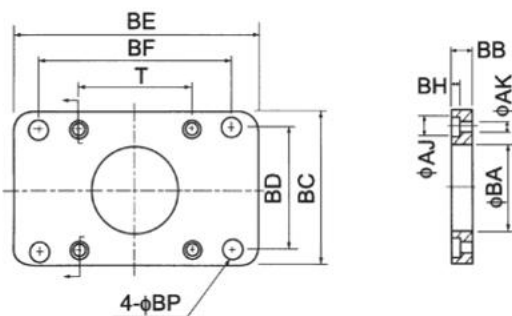


Bore	32	40	50	63	80	100	125	160	200	250
AA	153	169	173	184	199	209	221	246	276	323
AC	134	140	149	158	167	173	185	206	226	273
AD	9.5	14.5	12	13	16	18	18	20	25	25
AE	50	57	68	80	97	112	136	174	214	267
AF	33	36	47	56	70	84	104	134	163	201
AG	20.5	23.5	28	31	30	30	35	40	50	60
AH	28	30	36.5	41	49	57	70	91	113.5	141
AP	9	12	12	12	14	14	17	17	22	26
AT	3	3	3	3	4	4	6	8	9	15

XI

- FA
- FB

Cast iron specification :  
 $\Phi 32-250$

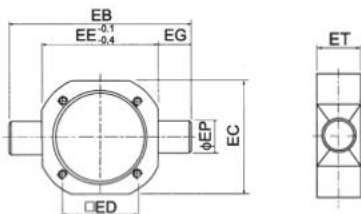


Bore	32	40	50	63	80	100	125	160	200	250
BA	28.3	32.3	38.3	38.3	47.3	47.3	—	—	—	—
BB	10	10	10	12	16	16	20	20	25	25
BC	47	52	65	76	95	115	135	173	213	255
BD	33	36	47	56	70	84	104	134	163	201
BE	72	84	104	116	143	162	196	248	286	356
BF	58	70	86	98	119	138	168	212	250	312
BH	6.5	6.5	6.5	8.5	10.5	10.5	—	—	—	—
AJ	10.5	10.5	10.5	13.5	16.5	16.5	—	—	—	—
AK	6.5	6.5	6.5	8.5	10.5	10.5	—	—	—	—
BP	7	7	9	9	11	11	14	18	18	22
T	33	37	47	56	70	84	110	140	175	220

TGC/TGU series accessories

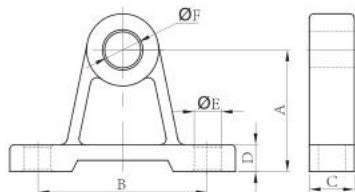
• TC

Cast iron specification :  $\Phi 32-250$



Bore	EB	EC	ED	EE	EG	EP	ET	S
32	87	53	33	55	16	16	30	37.5
40	113	63	37	63	25	25	30	45.5
50	126	76	47	76	25	25	30	55.5
63	138	88	56	88	25	25	30	69
80	164	114	70	114	25	25	35	87.5
100	182	132	84	132	25	25	40	107.5
125	208	-	110	158	25	25	40	136
160	272	-	140	200	36	36	46	174
200	318	-	175	246	36	36	46	214
250	394	-	220	304	40	45	56	267

• TCM

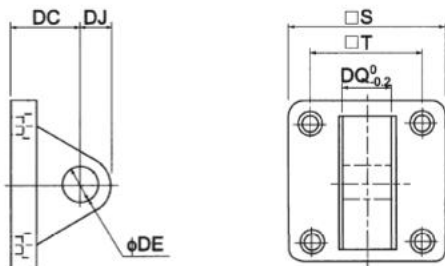


Bore	32	40	50	63	80	100	125	160	200	250
A	54	50	50	50	70	70	85	130	130	160
B	75	80	80	80	85	85	105	140	140	165
C	16	23	23	23	23	23	25	36	36	45
D	11	12	12	12	12	12	20	25	25	28
E	12	11	11	11	13	13	18	22	22	26
F	16	25	25	25	25	25	25	36	36	45

• CA

(Used with CB)

Cast iron specification :  $\Phi 32-250$   
Aluminium specification :  $\Phi 32-100$

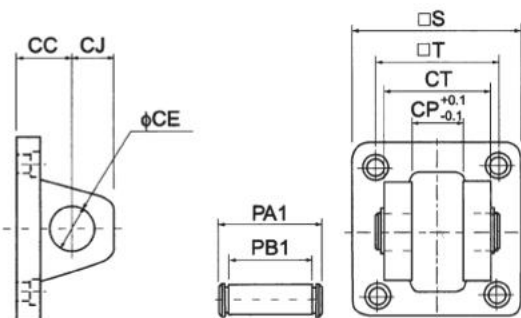


Bore	32	40	50	63	80	100	125	160	200	250
S	48	50	62	75	94	112	135	173	213	255
T	33	37	47	56	70	84	110	140	175	220
DC	34	34	34	34	48	48	32	40	60	70
DD	14	14	15	15	20	20	52	68	90	106
DE	12	14	14	14	20	20	20	28	28	36
DJ	14	14	15	15	20	20	17	19.5	23	24
DQ	16	20	20	20	32	32	31.7	39.7	39.7	49.7

• CB

(Used with CA)

Cast iron specification :  $\Phi 32-250$   
Aluminium specification :  $\Phi 32-100$



Bore	32	40	50	63	80	100	125	160	200	250
CC	19	19	19	19	32	32	32	40	60	70
CD	5	5	3	3	8	8	14	15	23	24
CE	12	14	14	14	20	20	20	28	28	36
CJ	13	13	15	15	21	21	52	68	90	106
CP	16.3	20.3	20.3	20.3	32.3	32.3	32.1	40.1	40.1	50.1
CT	32	44	52	52	64	64	64	80	80	100
PA1	41	51.8	60.3	60.3	73.8	73.8	73	90.2	90.2	130
PB1	33.5	45.5	54	54	65.5	65.5	64.8	80.8	80.8	108
S	48	50	62	75	94	112	135	173	213	255
T	33	37	47	56	70	84	110	140	175	220

**TGL Installing Accessories**

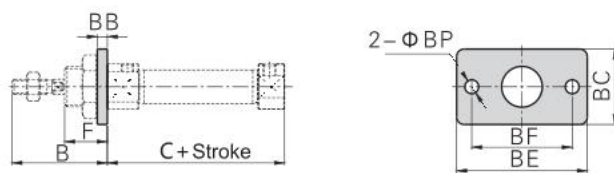
Accord : ISO6432

● Ordering Code



■ Figure Dimension

● FA ●  $\varnothing 8 \sim \varnothing 25$



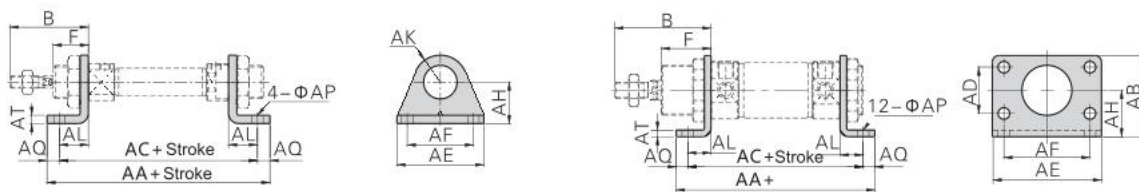
Symbol/Bore	B	C	BB	BC	BE	BF	BP	F
8	28	46	3	22	40	30	4.5	12
10	28	46	3	22	40	30	4.5	12
12	38	50	4	30	52	40	5.5	17
16	38	56	4	30	52	40	5.5	17
20	44	62	5	40	66	50	6.6	20
25	50	65	5	40	66	50	6.6	22

● LB



●  $\varnothing 8 \sim \varnothing 25$

●  $\varnothing 32 \sim \varnothing 40$



Symbol/Bore	AA	AB	AC	AD	AE	AH	AK	AL	AP	AQ	AT	B	F
8	78	-	68	-	35	16	10	11	4.5	5	3	28	12
10	78	-	68	-	35	16	10	11	4.5	5	3	28	12
12	90	-	78	-	42	20	13	14	5.5	6	4	38	17
16	96	-	84	-	42	20	13	14	5.5	6	4	38	17
20	112	-	96	-	54	25	20	17	6.6	8	5	44	20
25	115	-	99	-	54	25	20	17	6.6	8	5	50	22
32	110	49	96	28	66	28	-	14	7	7	4	58	30
40	149	58	129	30	80	33	-	20	9	10	5	69	35

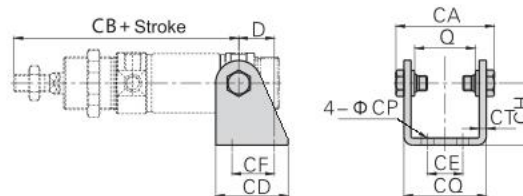
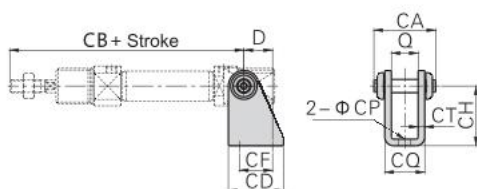
■ Figure Dimension

• SDB



•  $\varnothing 8 \sim \varnothing 25$

•  $\varnothing 32 \sim \varnothing 40$



Symbol/Bore	D	Q	CA	CB	CD	CE	CF	CH	CP	CQ	CT	B	CR
8	11	8.1	18.4	76	20	-	12.5	24	4.5	13.1	2.5	28	-
10	11	8.1	18.4	76	20	-	12.5	24	4.5	13.1	2.5	28	-
12	13	12.1	28	91	25	-	15	27	5.5	18.1	3	38	-
16	13	12.1	28	98	25	-	15	27	5.5	18.1	3	38	-
20	16	16.1	38	115	32	-	20	30	6.6	24.1	4	44	-
25	16	16.1	38	126	32	-	20	30	6.6	24.1	4	50	-
32	20	34.6	55.5	117	41	20	24	35	7	46.6	4	58	67
40	27	42.6	69.6	146	52	28	30	40	9	58.6	5	69	81

TGA/TGM Installing Accessories

Accord : ISO6432

● Ordering Code



■ accessories table

Accessories / model	TGA	TGAC	TGSA	TGAD	TGCD	TGAJ	TGACJ	TGAR	TGARC
FA	●	●	●	●	●	●	●	×	×
LB	●	●	●	●	●	●	●	×	×
SDB	●	●	●	×	×	×	×	×	×

■ accessories table

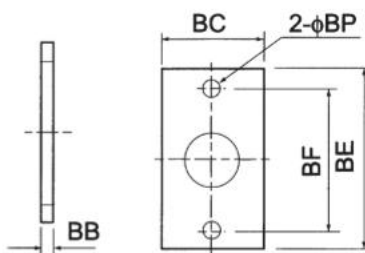
Accessories / model	TGM	TGSM	TGMD	TGMJ
FB	●	●	●	●
LB	●	●	●	●
SDB	●	●	×	×

■ Figure Dimension

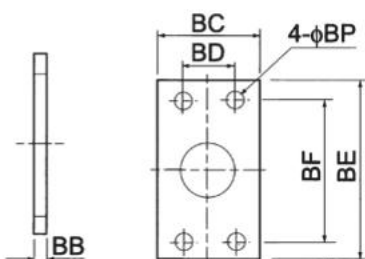
● FA



●  $\phi 16 \sim \phi 25$



●  $\phi 32 \sim \phi 40$

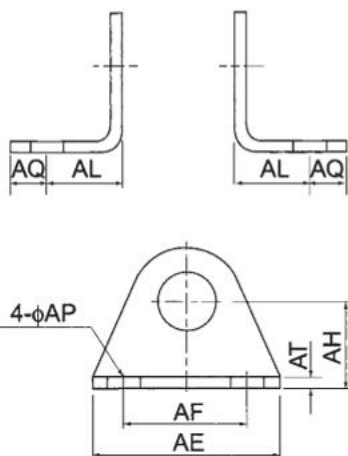


Bore	BB	BC	BD	BE	BF	BP
16	3	26	—	52	40	5,5
20	4	38	—	64	50	6,5
25	4	38	—	64	50	6,5
32	4	47	33	72	58	6,5
40	4	50	36	84	70	6,5

TGA/TGM Installing Accessories

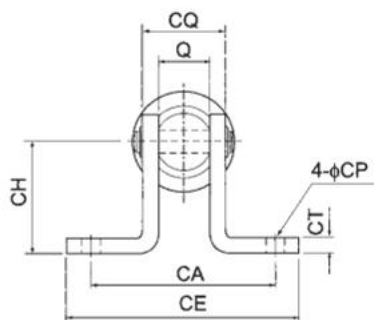
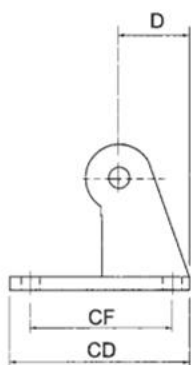
Accord : ISO6432

• LB



Bore	AE	AF	AL	AO	AP	AT	AH
16	44	32	13	6	5.5	3	20
20	54	40	15	8	6.5	3	25
25	54	40	15	8	6.5	3	25
32	59	45	25	8	6.5	4	32
40	64	50	25	8	6.5	4.5	36

• SDB



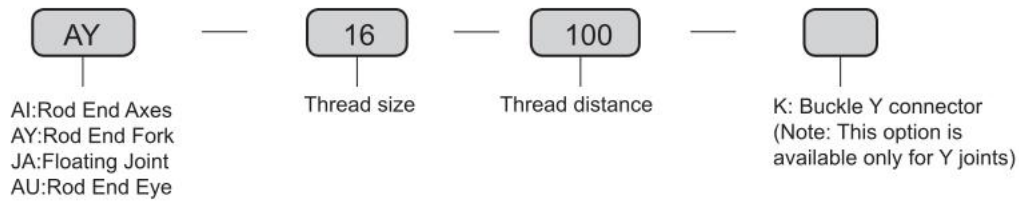
Bore	D	Q	CA	CD	CE	CF	CH	CT	CP	CQ
16	16	12	—	23	—	12	20	2.3	5.5	16.5
20	21	16	51	48	67	32	32	3	6.5	22
25	21	16	51	48	67	32	32	3	6.5	22
32	27	16	51	52	67	36	36	4	6.5	24
40	27	20	55	56	71	40	40	4	6.5	28

XI

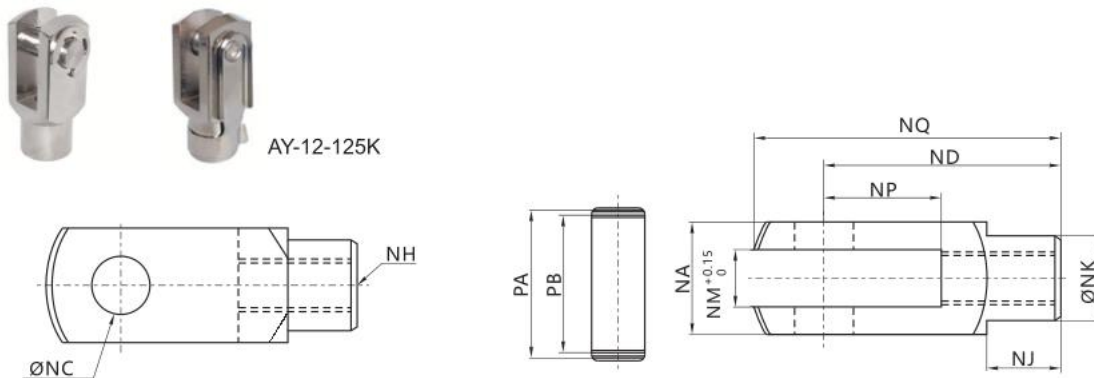
Connecting Accessories

international common standard

• Ordering Code

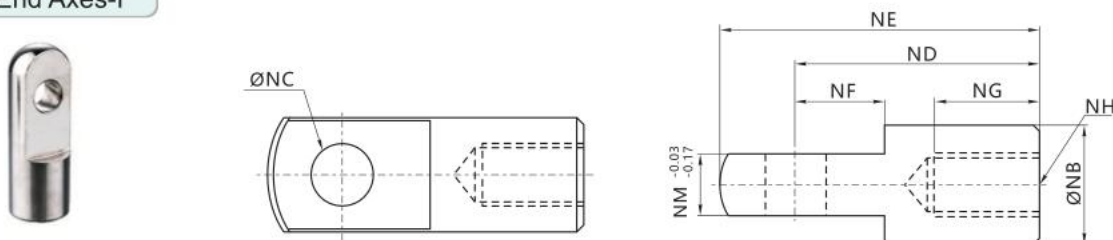


• Rod End Fork-Y



Type	Bore	NB	NC	ND	NH	NJ	NK	NM	NP	NQ	PA	PB
AY-10-125	32	20	10	40	M10X1.25	15	18	10	20	52	25	19.5
AY-12-125	40	24	12	48	M12X1.25	18	20	12	24	62	23.8	26.5
AY-16-150	50/63	32	16	64	M16X1.5	24	26	16	32	83	39.3	33
AY-20-150	80/100	40	20	80	M20X1.5	30	34	20	40	105	53.3	45
AY-27-200	125	55	30	110	M27X2.0	40	48	30	55	148	64	55.6
AY-36-200	160/200	70	35	144	M36X2.0	54	60	35	72	188	80	70.6

• Rod End Axes-I

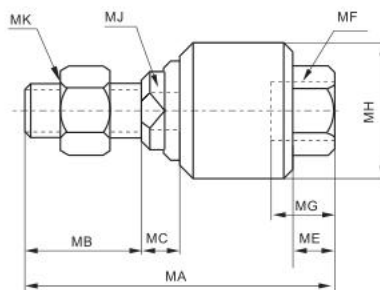


Type	Bore	NB	NC	ND	NE	NF	NG	NH	NM
AI-10-125	32	19	10	40	52	15	20	M10X1.25	10
AI-12-125	40	25.4	12	48	67	24	20	M12X1.25	12
AI-16-150	50/63	32	16	64	89	32	23	M16X1.5	16
AI-20-150	80/100	40	20	80	112	40	30	M20X1.5	20
AI-27-200	125	53	30	110	155	50	56	M27X2.0	30
AI-36-200	160/200	64.4	35	144	201	50	72	M36X2.0	35

**Connecting Accessories**

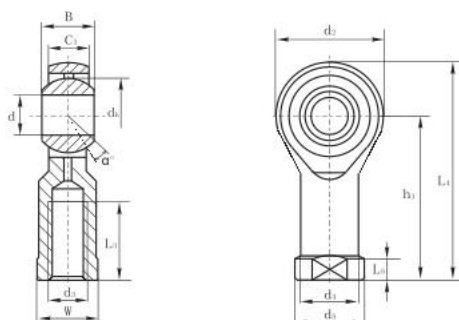
international common standard

• Floating Joint-F



Type	MA	MB	MC	ME	MF	MG	MH	MJ	MK
JA-6-100	34.5	13.5	3.5	6	M6X1.0	8	13.8	6	M6X1.0
JA-8-125	51	20	6	8	M8X1.25	11.5	24	8	M8X1.25
JA-10-125	58	22	7	8	M10X1.25	11.5	26	10	M10X1.25
JA-12-125	58	22	8	7	M12X1.25	11.5	28	12	M12X1.25
JA-14-150	70	22.5	8.5	11	M16X1.5	17	34.5	14	M14X1.5
JA-16-150	90	27	10	12	M16X1.5	20	44.5	17	M16X1.5
JA-18-150	92	27	10	14	M20X1.5	24	44.5	17	M18X1.5
JA-20-150	102	29	13	14	M20X1.5	24	53	22	M20X1.5
JA-27-200	136.5	40	14.5	29.5	M27X2.0	40	59.5	27	M27X2.0
JA-36-200	167	52	27	20	M36X2.0	45	78	36	M36X2.0

• Rod End Eye-U


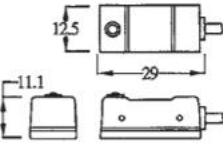
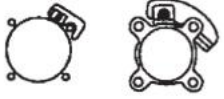


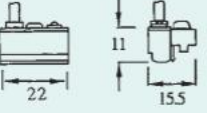
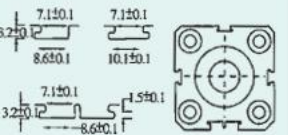

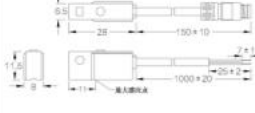
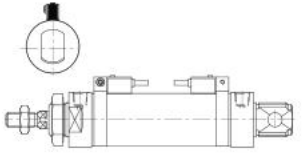

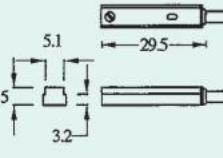
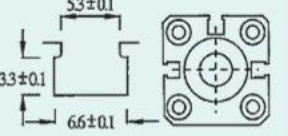


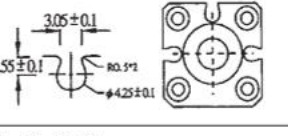


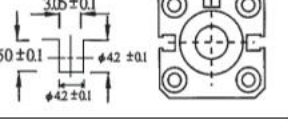


Type	d	d3	B	C1	W	h1	d2	L4	L5	d4	d5	dk	L3	α
AU-4-070	5	M4X0.7	8	6	9	27	18	36	4	8.5	12.5	11.11	10	13
AU-5-080	5	M5X0.8	8	6	9	27	18	36	4	8.5	12.5	11.11	10	13
AU-6-100	6	M6X1.0	9	6.75	11	30	20	40	5	10	13	12.7	12	13
AU-8-125	8	M8X1.25	12	9	14	36	24	48	5	12.5	16	15.875	16	14
AU-10-125	10	M10X1.25	14	11	17	43	26	56	6.5	15	19	19.05	20	13
AU-12-125	12	M12X1.25	16	12	19	50	32	66	6.5	17.5	22	22.225	22	13
AU-14-150	14	M16X1.5	19	14	22	57	36	75	8	20	25	25.4	25	16
AU-16-150	16	M16X1.5	21	15	24	64	40	84	8	22	27	28.575	28	15
AU-18-150	18	M20X1.5	23	16.5	27	71	46	94	11	25	31	31.75	32	15
AU-20-150	20	M20X1.5	25	18	30	77	46	100	10	27.5	34	34.925	33	14
AU-27-200	30	M27X2.0	37	25	41	110	70	145	15	40	50	50.8	51	17
AU-36-200	35	M36X2.0	43	28	50	125	80	165	17	46	57.5	57.7	56	18

Magnetic switch

● Ordering Code **CS1-S** — **N** — **1M** — **QD**

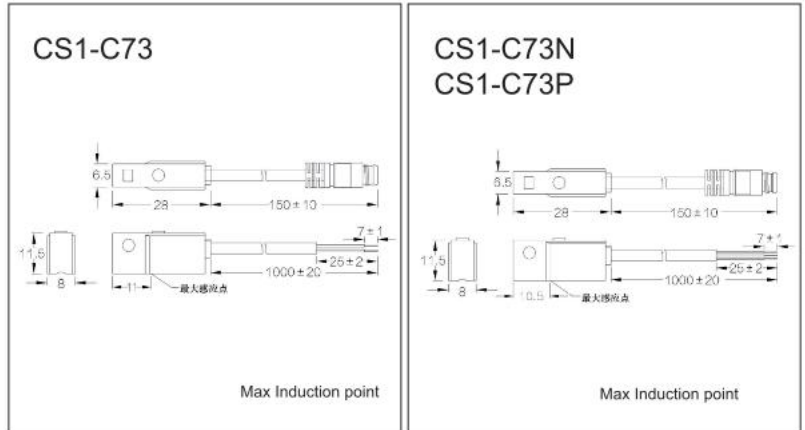
Type                      N:Contactless NPN  
P:Contactless PNP transistor                      1M : normal length:1m can be ordered by customer                      within OD pinout blank: without OD pinout

Specification	Type		Size	Voltage	User
Contact/Magnetic reed	CS1-U Series			5 ~ 240VDC/AC	Used for:TGU TGC TGI TGG  PM固定夹具      LH, IH固定夹具 
Contactless/NPN output		CS1-F Series			
Contactless/PNP output					
Contact/Magnetic reed	CS1-J Series			5 ~ 240VDC/AC	Used for:TGN TN 
Contactless/NPN output				5 ~ 30VDC	
Contactless/PNP output					
Contact/Magnetic reed	CS1-C73 Series			5 ~ 240VDC/AC	Used for:TGL TGA TGM GCM 
Contactless/NPN output				5 ~ 30VDC	
Contactless/PNP output					
Contact/magnetic reed	CS1-M Series			5 ~ 240VDC/AC	Used for:DNC ACL ADVU 
Contactless/NPN output				5 ~ 30VDC	
Contactless/PNP output					
Contact/Magnetic reed	CS1-H Series			5 ~ 240VDC/AC	Used for:CXS TGD CQ2 
Contactless/NPN output	CS1-G Series			5 ~ 30VDC	Used for:TGN 
Contactless/PNP output					

XI

Magnetic switch

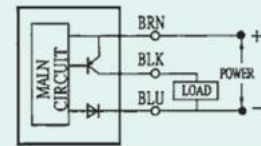
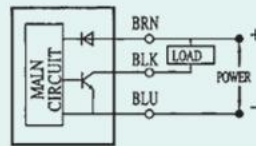
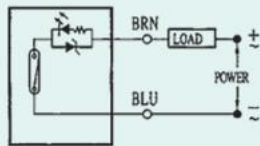
CS1-C73 Series



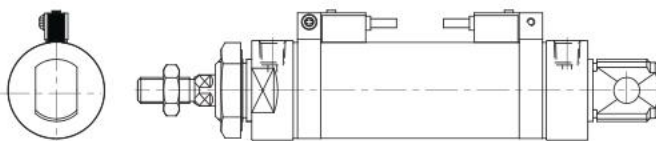
\* CS1-C73 series used for:  
TGA, TGL, TGM, GCM

Specitication	CS1-C73	CS1-C73N	CS1-C73P
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 ~ 2400V DC/AC	5 ~ 30V DC/AC	
Switch current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	22mA @ 24V max.	20mA @ 24V max.
Voltage drop	3.5V max.	0.5V max.	
Current leakage	None	0.01mA max.	
LED indicator	Green LED	Red LED	Green LED
Wire	3.3φ, 2C, Gray PVC	3, 3φ, 3C, Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range	-10 ~ 60°C (No Freeze)		
Shock	30G	50G	
Vibration	9G		
Enclosure class itication	IEC529 IP67 (NEMA6)		
Protection circuit	None	Power source reverse polarity; Surge suppression	

Current Drawing

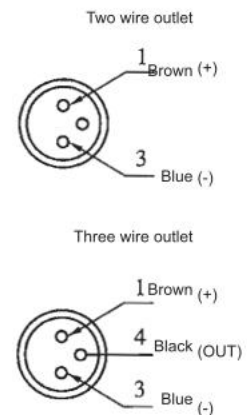


\*CS1-C73 Series BS-S BS-A mounting band



Used for 6-63 Round cylinder

QD Pinout drawing

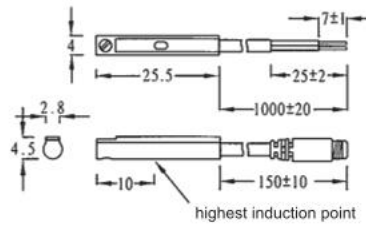


Magnetic switch

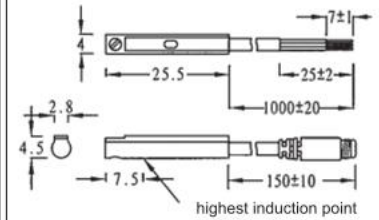
CS1-H Series



CS1-H, CS1-H-QD



CS1-HP, CS1-HP-QD  
CS1-HN, CS1-HN-QD

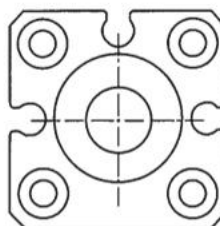
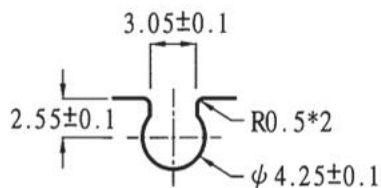


\* CS1-H series used for CXS,TGD,CQ2

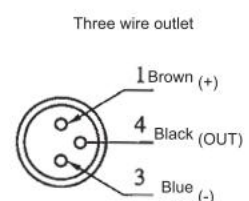
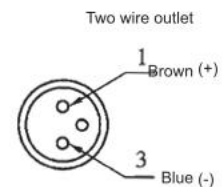
Specitation	CS1-H	CS1-HN	CS1-HP
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 ~ 120V DC/AC	5 ~ 30V DC	
Switch current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	20mA @ 24V max.(Switch Active)	
Voltage drop	2.5V max.	0.5V @ 20mA max.	
Current leakage	None	0.01mA max.	
LED indicator	Red LED	Red LED	Green LED
Wire	2.8φ , 2C , Gray PVC	2.8φ , 3C , Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range	-10 ~ 60°C (No Freeze)		
Shock	30G	50G	
Vibration	9G		
Enclosure class itication	IEC529 IP67 (NEMA6)		
Protection circuit	None	Power source reverse polarity; Surge suppression	
Current Drawing			

XI

\*CS1-H Series groove size

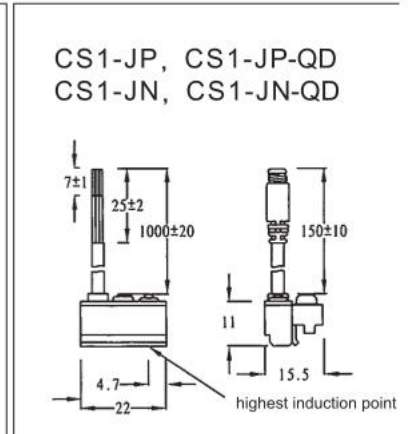
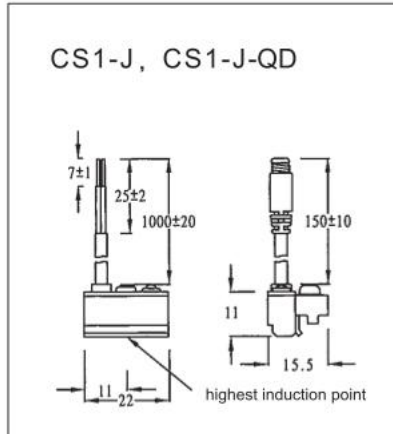


QD Pinout drawing



Magnetic switch

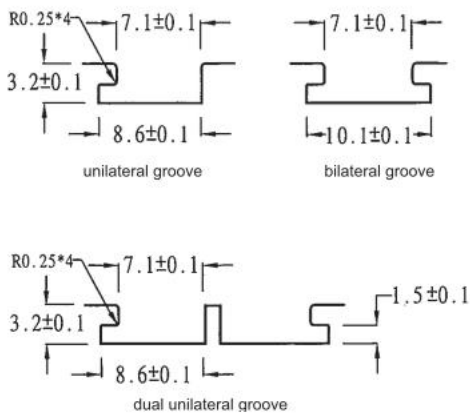
CS1-J Series



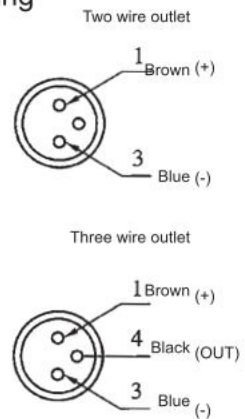
\* CS1-J series used for TGN ,TN

Specitication	CS1-J	CS1-JN	CS1-JP
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 – 240V DC/AC	5 – 30V DC	
Switch current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	22mA @ 24V max.	20mA @ 24V max.
Voltage drop	3.5V max.	0.5V max.	
Current leakage	None	0.01mA max.	
LED indicator	Green LED	Red LED	Green LED
Wire	3.3φ , 2C , Gray PVC	3 , 3φ , 3C , Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range	-10 ~ 60°C (No Freeze)		
Shock	30G	50G	
Vibration	9G		
Enclosure class itication	IEC529 IP67 (NEMA6)		
Protection circuit	None	Power source reverse polarity; Surge suppression	
Current Drawing			

\*CS1-J Series groove size, installation means



QD Pinout drawing

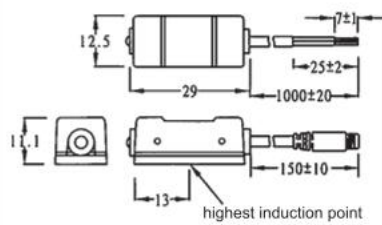


Magnetic switch

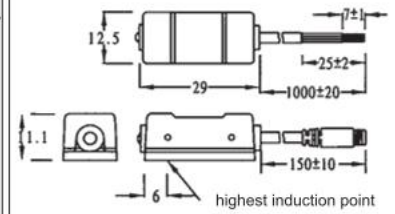
CS1-F Series



CS1-F, CS1-F-QD



CS1-FP, CS1-FP-QD  
CS1-FN, CS1-FN-QD



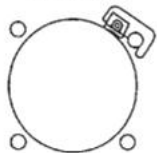
\* CS1-F Series used for: TGU, TGC, TGI, TGG

Specification	CS1-F	CS1-FN	CS1-FP
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 ~ 240V DC/AC	5 ~ 30V DC	
Switch current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	20mA @ 24V max.	20mA @ 24V max.
Voltage drop	3.5V max.	0.5V max.	
Current leakage	None	0.01mA max.	
LED indicator	Green LED	Red LED	Green LED
Wire	4 φ, 2C, Gray PVC	4.0 φ, 3C, Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range		-10 ~ 60°C (No Freeze)	
Shock	30G	50G	
Vibration		9G	
Enclosure classification		IEC529 IP67 (NEMA6)	
Protection circuit	None	Power source reverse polarity; Surge suppression	
Current Drawing			

XI

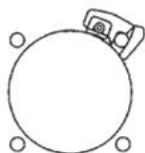
\*CS1-F Series groove size, installation means

PM Clamp



Used for φ 32-φ 150 tie-rod cylinder rod size φ 5-φ 16

PM Clamp



Used for φ 32-φ 125 tie-rod cylinder rod size φ 5-φ 16

PM Clamp



Used for φ 32-φ 100 ISO M cylinder

PN Mounting Band



Used for φ 12-φ 100 Round cylinder φ 12-φ 100 Tie-rod cylinder

PN Mounting Band



Used for φ 10-φ 150 Round cylinder

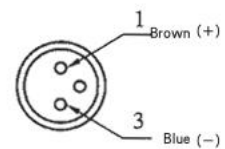
PN Mounting Band



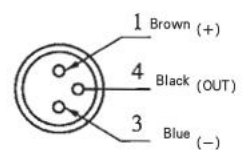
Used for φ 6-φ 125 Round cylinder

QD Pinout drawing

Two wire outlet



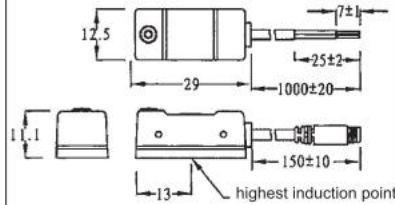
Three wire outlet



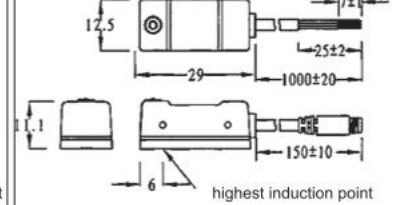
CS1-U Series



CS1-U, CS1-U-QD



CS1-UP, CS1-UP-QD  
CS1-UN, CS1-UN-QD

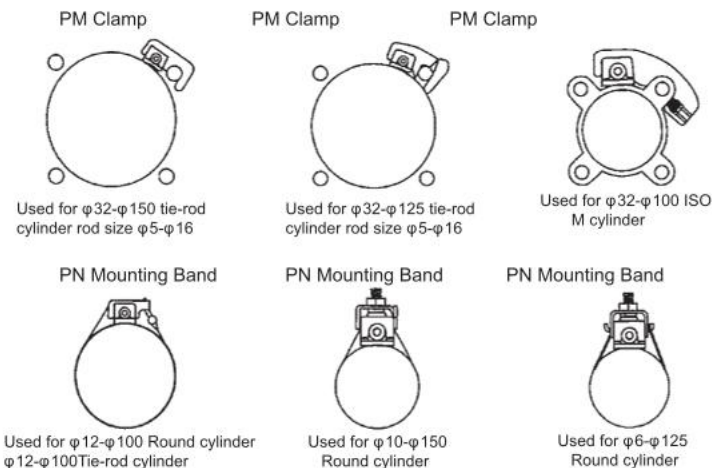


\* CS1-U Series used for:TGU,TGC,TGI,TGG

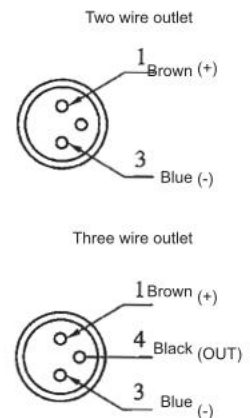
Specication	CS1-U	CS1-UN	CS1-UP
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 ~ 120V DC/AC	10 ~ 30V DC/AC	
Switch current	100mA max.	100mA max.	
Contact rating	10W max.	3W max.	
Current consumption	None	17mA @ 24V max.	14mA @ 24V max.
Voltage drop	3.0V max.	2.0V max.	
Current leakage	None	0.01mA max.	
LED indicator	Green LED	Red LED	Green LED
Wire	2.8φ, 2C, Gray PVC	3.0φ, 3C, Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range		-10 ~ 60°C (No Freeze)	
Shock	30G	50G	
Vibration		9G	
Enclosure class itication		IEC529 IP67 (NEMA6)	
Protection circuit	None	Power source reverse polarity; Surge suppression	
Current Drawing			

XI

\* CS1-U Series groove size, installation means

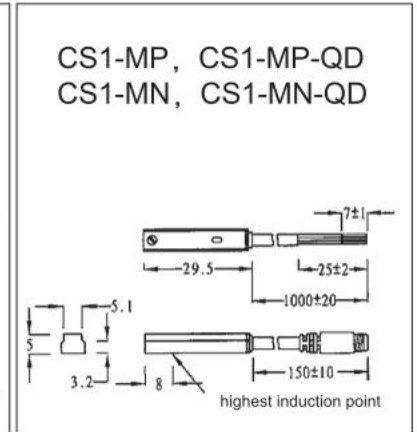
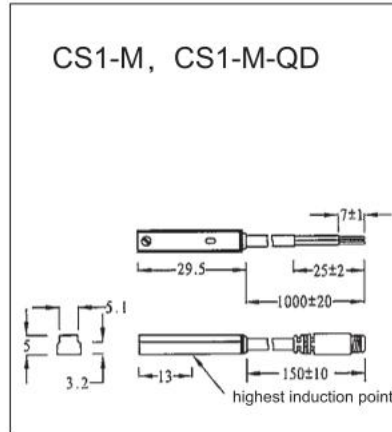


QD Pinout drawing



Magnetic switch

CS1-M Series

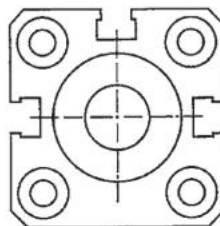
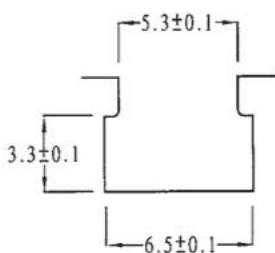


\* CS1-M Series used for:DNC

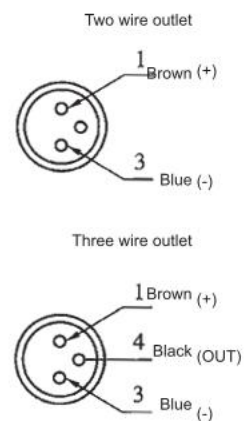
Specitication	CS1-M	CS1-MN	CS1-MP
Wire pattern	2-wire type	3-wire type	
Switching logic	SPST Normally open	Solidstate output Normally open	
Output	Magnetic reed contact	Contactless NPN	Contactless PNP transistor
Operating voltage	5 – 120V DC/AC	10 – 30V DC	
Switch current	100mA max.	100mA max.	
Contact rating	10W max.	3W max.	
Current consumption	None	17mA @ 24V max.	14mA @ 24V max.
Voltage drop	3.0V max.	2.0V max.	
Current leakage	None	0.01mA max.	
LED indicator	Red LED	Red LED	Yellow LED
Wire	2.8φ, 2C, Gray PVC	3.0φ, 3C, Black Oil-resistant PU	
Operating Frequency	200Hz	1000Hz	
Tem range	-10 ~ 60°C (No Freeze)		
Shock	30G	50G	
Vibration	9G		
Enclosure class itication	IEC529 IP67 (NEMA6)		
Protection circuit	None	Power source reverse polarity; Surge suppression	
Current Drawing			

XI

\*CS1-M Series groove size, installation means  
Used for:SMC.FESTO



QD Pinout drawing



Magnetic switch



Fixed steel strip  
BS-S(Stainless steel cylinder barrel)  
BS-A(Aluminum alloy cylinder barrel)

IH/UH Clamp

Used for CS1-F&CS1-U sensor switch  
Use for TGU/TGI:  $\Phi 32 \sim \Phi 200$



IH, UH  
Suitable for Mi series cylinder



PM  
Used for tie rod series cylinders

Bore \ Clamp	32	40	50	63	80	100	125	160	200
TGI Series	IH-32	IH-40	IH-50	IH-63	IH-80	IH-100	IH-125	IH-160	IH-200
TGU Series	UH-32	UH-40	UH-50	UH-63	UH-80	UH-100	—		

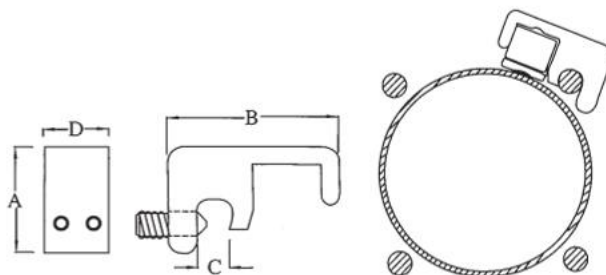
XI

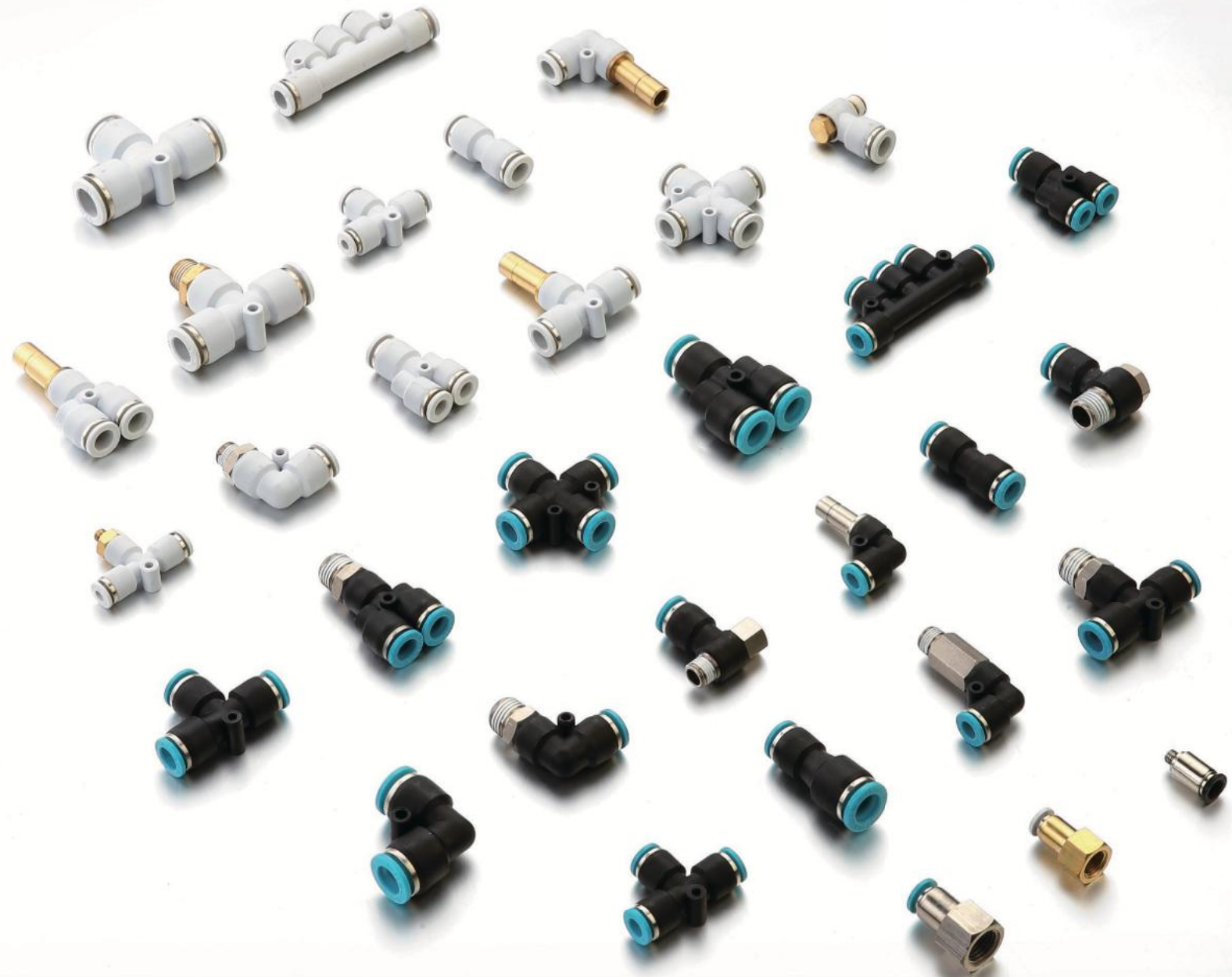
PM Clamp

Used for CS1-F&CS1-U sensor switch  
Use for TGC/TGG:  $\Phi 32 \sim \Phi 200$



Size	Type	A	B	C	D
PM-6	(TGC: $\Phi 32 \sim 50$ / TGG: $\Phi 32 \sim 40$ )	19	31.0	6.5	12
PM-8	(TGC: $\Phi 63$ / TGG: $\Phi 50 \sim 63$ )	20	34.5	8.0	12
PM-10	(TGC/TGG: $\Phi 80 \sim 100$ )	18	33.0	10	12
PM-12	(TGC/TGG: $\Phi 125$ )	20	35.5	12	12
PM-16	(TGC/TGG: $\Phi 160 \sim 200$ )	24	40.0	16	12





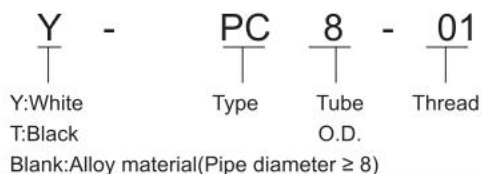
● Character

- 1.Quick installation, simple and flexible, space-saving
- 2.The tube fitting comes in a wide variety of models to meet all your needs in pneumatic piping
- 3.Even after installation, the direction of tubing can be changed freely
- 4.The release ring adopts the ellipse design to make it more convenient and labor-saving for disconnection
- 5.All taper pipe threads are pre-coated with Teflon with fine seal performance
- 6.All fittings are equipped with the internal hexagonal holes. It is easy for them to be mounted in the narrow places.

● Instruction

- 1:Never try to pulled, convoluted, curled by adding another strength, otherwise the fitting maybe be damaged.
- 2:The fitting will be damaged because of hot and the function of water break up, when the medium temperature over than 60°C .
- 3:Never use other medium except water and air

● Ordering Code



■ Style and Dimension of Screw Thread

Metric Screw Thread

Serial Number	M5	M6	M8	M10	M12	M12A	M16
Size	M5x0.8	M6x1	M8x1	M10x1	M12x1.25	M12x1.5	M16x1.5

Cone Tube Thread

Serial Number	01	02	03	04		
Size	R1/8	R1/4	R3/8	R1/2		

Straight Tub Thread

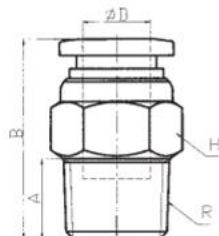
Serial Number	G01	G02	G03	G04		
Size	G1/8	G1/4	G3/8	G1/2		

■ Technical Parameter

Medium	Air
Pressure Range	0 ~ 1.0 MPa
Resistant Pressure	1.5 Mpa
Applicable Temperature Range	-10 ~ 60°C(No Freeze)
Air Tube	PU or PA



●PC/YPC/TPC Threaded Through

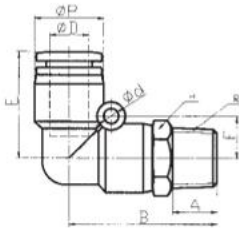


Type	ΦD	R	A	B	H
YPC4-M5	4	M5	4	19	10
YPC4-M6	4	M6	4.2	19	10
YPC4-01	4	R1/8	7	20	10
YPC4-02	4	R1/4	9.5	20	14
YPC6-M5	6	M5	4	20.5	12
YPC6-M6	6	M6	4.2	19	12
YPC6-01	6	R1/8	7	20.5	12
YPC6-02	6	R1/4	9.5	21	14
YPC6-03	6	R3/8	10.5	21.5	17
YPC6-04	6	R1/2	13	24.5	21
YPC8-01	8	R1/8	7	25.5	14
YPC8-02	8	R1/4	9.5	25	14
YPC8-03	8	R3/8	10.5	23	17
YPC8-04	8	R1/2	13	24.5	21
YPC10-01	10	R1/8	7	27	17
YPC10-02	10	R1/4	9.5	29.5	17
YPC10-03	10	R3/8	10.5	28	17
YPC10-04	10	R1/2	13	26	21
YPC12-02	12	R1/4	9.5	31	19
YPC12-03	12	R3/8	10.5	28.5	19
YPC12-04	12	R1/2	13	28.5	21
YPC14-03	14	R3/8	10.5	38.5	21
YPC14-04	14	R1/2	13	39	21
YPC16-03	16	R3/8	10.5	39.5	24
YPC16-04	16	R1/2	15	40	24

Quick Coupler



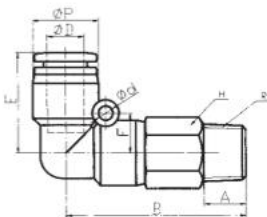
•PL/YPL/TPL L  
Screw Double Union



type	φD	E	B	φP	A	R	H	F	φd
YPL4-M5	4	16.8	21.3	10.5	4	M5	10	-	-
YPL4-01	4	16.8	24.3	10.5	7	R1/8	10	-	-
YPL4-02	4	16.8	26.8	10.5	9.5	R1/4	14	-	-
YPL6-M5	6	19	23	13	4	M5	12	8	3.2
YPL6-01	6	19	26	13	7	R1/8	12	8	3.2
YPL6-02	6	19	28.5	13	9.5	R1/4	14	8	3.2
YPL6-03	6	19	30	13	10.5	R3/8	17	8	3.2
YPL6-04	6	19	34	13	13	R1/2	21	8	3.2
YPL8-01	8	23	29.5	14.4	7	R1/8	14	9	3.2
YPL8-02	8	23	32	14.4	9.5	R1/4	14	9	3.2
YPL8-03	8	23	33	14.4	10.5	R3/8	17	9	3.2
YPL8-04	8	23	37	14.4	13	R1/2	21	9	3.2
YPL10-01	10	27.5	33.5	18.4	7	R1/8	17	12	4.2
YPL10-02	10	27.5	36	18.4	9.5	R1/4	17	12	4.2
YPL10-03	10	27.5	37	18.4	10.5	R3/8	17	12	4.2
YPL10-04	10	27.5	41	18.4	13	R1/2	21	12	4.2
YPL12-02	12	30	38	20	9.5	R1/4	19	13.2	4.2
YPL12-03	12	30	39	20	10.5	R3/8	19	13.2	4.2
YPL12-04	12	30	43	20	13	R1/2	21	13.2	4.2
YPL14-03	14	30.9	43.75	25	10.3	R3/8	21	-	-
YPL14-04	14	30.9	46.25	25	13	R1/2	21	-	-
YPL16-03	16	33.3	44.3	25.6	12	R3/8	24	-	-
YPL16-04	16	33.3	47.3	25.6	15	R1/2	24	-	-



•PLL/YPLL/TPLL  
Extended Male Elbow

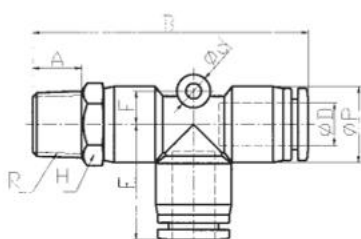


type	φD	E	B	φP	A	R	H	F	φd
YPLL4-M5	4	16.8	32.3	10.5	4	M5	10	-	-
YPLL4-01	4	16.8	35.3	10.5	7	R1/8	10	-	-
YPLL4-02	4	16.8	37.8	10.5	9.5	R1/4	14	-	-
YPLL6-M5	6	19	35	13	4	M5	12	8	3.2
YPLL6-01	6	19	38	13	7	R1/8	12	8	3.2
YPLL6-02	6	19	41	13	9.5	R1/4	14	8	3.2
YPLL6-03	6	19	43	13	10.5	R3/8	17	8	3.2
YPLL6-04	6	19	47	13	13	R1/2	21	8	3.2
YPLL8-01	8	23	43	14.4	7	R1/8	14	9	3.2
YPLL8-02	8	23	46	14.4	9.5	R1/4	14	9	3.2
YPLL8-03	8	23	47	14.4	10.5	R3/8	17	9	3.2
YPLL8-04	8	23	52	14.4	13	R1/2	21	9	3.2
YPLL10-01	10	27.5	49.5	18.4	7	R1/8	17	12	4.2
YPLL10-02	10	27.5	52	18.4	9.5	R1/4	17	12	4.2
YPLL10-03	10	27.5	54	18.4	10.5	R3/8	17	12	4.2
YPLL10-04	10	27.5	58	18.4	13	R1/2	21	12	4.2
YPLL12-02	12	30	58	20	9.5	R1/4	19	13.2	4.2
YPLL12-03	12	30	59	20	10.5	R3/8	19	13.2	4.2
YPLL12-04	12	30	63	20	13	R1/2	21	13.2	4.2

Quick Coupler



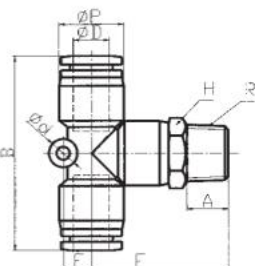
•PD/YPD/TPD  
Male Branch T



type	φD	E	B	φP	A	R	H	F	φd
YPD4-M5	4	17	40	10.5	4	M5	10	5	3.2
YPD4-01	4	17	43	10.5	7	R1/8	10	5	3.2
YPD4-02	4	17	45.5	10.5	9.5	R1/4	14	5	3.2
YPD6-M5	6	19	41.5	13	4	M5	12	5.5	3.2
YPD6-01	6	19	44.5	13	7	R1/8	12	5.5	3.2
YPD6-02	6	19	47	13	9.5	R1/4	14	5.5	3.2
YPD6-03	6	19	48.5	13	10.5	R3/8	17	5.5	3.2
YPD6-04	6	19	52.5	13	13	R1/2	21	5.5	3.2
YPD8-01	8	22.5	51.5	14.4	7	R1/8	14	6.5	3.2
YPD8-02	8	22.5	54	14.4	9.5	R1/4	14	6.5	3.2
YPD8-03	8	22.5	55	14.4	10.5	R3/8	17	6.5	3.2
YPD8-04	8	22.5	59	14.4	13	R1/2	21	6.5	3.2
YPD10-01	10	28	62	18.4	7	R1/8	17	8	4.2
YPD10-02	10	28	64.5	18.4	9.5	R1/4	17	8	4.2
YPD10-03	10	28	65.5	18.4	10.5	R3/8	17	8	4.2
YPD10-04	10	28	69.5	18.4	13	R1/2	21	8	4.2
YPD12-02	12	31	68	20	9.5	R1/4	19	8.5	4.2
YPD12-03	12	31	69	20	10.5	R3/8	19	8.5	4.2
YPD12-04	12	31	72.5	20	13	R1/2	21	8.5	4.2
YPD14-03	14	30.9	76.7	25	10.5	R3/8	21	-	-
YPD14-04	14	30.9	79.2	25	13	R1/2	21	-	-
YPD16-03	16	33.3	76.3	25.6	10.5	R3/8	24	-	-
YPD16-04	16	33.3	78.8	25.6	13	R1/2	24	-	-



•PB/YPB/TPB  
Male Run T

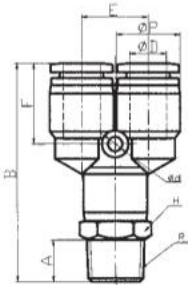


type	φD	E	B	φP	A	R	H	F	φd
YPB4-M5	4	21.5	35.5	10.5	4	M5	10	5	3.2
YPB4-01	4	24.5	35.5	10.5	7	R1/8	10	5	3.2
YPB4-02	4	27	35.5	10.5	9.5	R1/4	14	5	3.2
YPB6-M5	6	23	37.5	13	4	M5	12	5.5	3.2
YPB6-01	6	26	37.5	13	7	R1/8	12	5.5	3.2
YPB6-02	6	28.5	37.5	13	9.5	R1/4	14	5.5	3.2
YPB6-03	6	30	37.5	13	10.5	R3/8	17	5.5	3.2
YPB6-04	6	34	37.5	13	13	R1/2	21	5.5	3.2
YPB8-01	8	29	45	14.4	7	R1/8	14	6.5	3.2
YPB8-02	8	31.5	45	14.4	9.5	R1/4	14	6.5	3.2
YPB8-03	8	32.5	45	14.4	10.5	R3/8	17	6.5	3.2
YPB8-04	8	36.5	45	14.4	13	R1/2	21	6.5	3.2
YPB10-01	10	34	56	18.4	7	R1/8	17	8	4.2
YPB10-02	10	35	56	18.4	9.5	R1/4	17	8	4.2
YPB10-03	10	37.5	56	18.4	10.5	R3/8	17	8	4.2
YPB10-04	10	41.5	56	18.4	13	R1/2	21	8	4.2
YPB12-02	12	39	60	20	9.5	R1/4	19	8.5	4.2
YPB12-03	12	40	60	20	10.5	R3/8	19	8.5	4.2
YPB12-04	12	43.5	60	20	13	R1/2	21	8.5	4.2
YPB14-03	14	44	61.8	25	10.5	R3/8	21	-	-
YPB14-04	14	46.5	61.8	25	13	R1/2	21	-	-
YPB16-03	16	44.3	63	25.6	12	R3/8	24	-	-
YPB16-04	16	47.3	63	25.6	15	R1/2	24	-	-

Quick Coupler



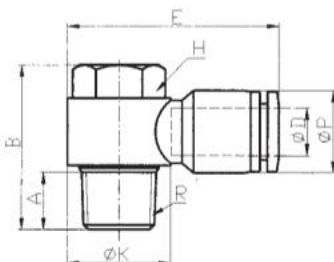
●PX/YPX/TPX Y Male run



Type	φD	E	B	φP	A	R	H	F	φd
YPX4-M5	4	10.5	39	10.5	4	M5	10	13.5	-
YPX4-01	4	10.5	42	10.5	7	R1/8	10	13.5	-
YPX4-02	4	10.5	44.5	10.5	9.5	R1/4	14	13.5	-
YPX6-M5	6	13	40.5	13	4	M5	12	14.5	3.2
YPX6-01	6	13	43.5	13	7	R1/8	12	14.5	3.2
YPX6-02	6	13	46	13	9.5	R1/4	14	14.5	3.2
YPX6-03	6	13	47.5	13	10.5	R3/8	17	14.5	3.2
YPX6-04	6	13	51.5	13	13	R1/2	21	14.5	3.2
YPX8-01	8	14.5	47.5	14.4	7	R1/8	14	18.5	3.2
YPX8-02	8	14.5	50	14.4	9.5	R1/4	14	18.5	3.2
YPX8-03	8	14.5	51	14.4	10.5	R3/8	17	18.5	3.2
YPX8-04	8	14.5	55	14.4	13	R1/2	21	18.5	3.2
YPX10-01	10	18.5	56	18.4	7	R1/8	17	21	4.2
YPX10-02	10	18.5	58.5	18.4	9.5	R1/4	17	21	4.2
YPX10-03	10	18.5	59.5	18.4	10.5	R3/8	17	21	4.2
YPX10-04	10	18.5	63.5	18.4	13	R1/2	21	21	4.2
YPX12-02	12	20	63	20	9.5	R1/4	19	22.5	4.2
YPX12-03	12	20	64	20	10.5	R3/8	19	22.5	4.2
YPX12-04	12	20	67.5	20	13	R1/2	21	22.5	4.2
YPX14-03	14	25.5	69.2	25	10.5	R3/8	21	-	-
YPX14-04	14	25.5	71.7	25	13	R1/2	21	-	-
YPX16-03	16	25.5	68.8	25.6	10.5	R3/8	24	-	-
YPX16-04	16	25.5	71.3	25.6	13	R1/2	24	-	-



●YPH/TPH  
Hexagon Socket Head  
Universal Elbow

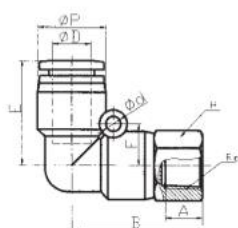


Type	φD	E	B	φP	A	R	H	φK
YPH4-M5	4	24	18	10.5	3.5	M5	10	10
YPH4-01	4	28	25	10.5	7	R1/8	10	14
YPH4-02	4	32	29	10.5	10	R1/4	14	15
YPH6-M5	6	28	18	13	3.5	M5	12	10
YPH6-01	6	32	25	13	7	R1/8	12	14
YPH6-02	6	36	29	13	10	R1/4	14	18
YPH6-03	6	40	34.5	13	11	R3/8	17	22
YPH6-04	6	45.5	39	13	13	R1/2	21	27.5
YPH8-01	8	32.5	25	14.4	7	R1/8	14	14
YPH8-02	8	36.5	29	14.4	10	R1/4	14	18
YPH8-03	8	40.5	34.5	14.4	11	R3/8	17	22
YPH8-04	8	46	39	14.4	13	R1/2	21	27.5
YPH10-01	10	34.5	25	18.4	7	R1/8	17	14
YPH10-02	10	38.5	29	18.4	10	R1/4	17	18
YPH10-03	10	42.5	34.5	18.4	11	R3/8	17	22
YPH10-04	10	48	39	18.4	13	R1/2	21	27.5
YPH12-02	12	41.5	29	20	10	R1/4	19	18
YPH12-03	12	45.5	34.5	20	11	R3/8	19	22
YPH12-04	12	51	39	20	13	R1/2	21	27.5

XII



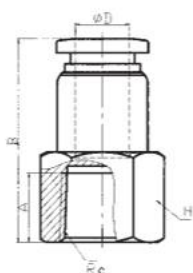
●YPLF/TPLF  
L Female Elbow Union



Type	φD	E	B	φP	A	Rc	H	F	φd
YPLF4-M5	4	16.8	18.3	10.5	4	M5	10	-	-
YPLF4-01	4	16.8	22.8	10.5	7	Rc1/8	14	-	-
YPLF4-02	4	16.8	25.8	10.5	10	Rc1/4	17	-	-
YPLF6-M5	6	19	21.8	13	4	M5	12	8	3.2
YPLF6-01	6	19	24.8	13	7	Rc1/8	12	8	3.2
YPLF6-02	6	19	27.8	13	10	Rc1/4	17	8	3.2
YPLF6-03	6	19	28.8	13	11	Rc3/8	21	8	3.2
YPLF6-04	6	19	30.8	13	13	Rc1/2	24	8	3.2
YPLF8-01	8	23	27	14.4	7	Rc1/8	14	9	3.2
YPLF8-02	8	23	31	14.4	10	Rc1/4	17	9	3.2
YPLF8-03	8	23	32	14.4	11	Rc3/8	21	9	3.2
YPLF8-04	8	23	34	14.4	13	Rc1/2	24	9	3.2
YPLF10-01	10	27.5	31	18.4	7	Rc1/8	17	12	4.2
YPLF10-02	10	27.5	35	18.4	10	Rc1/4	17	12	4.2
YPLF10-03	10	27.5	36	18.4	11	Rc3/8	21	12	4.2
YPLF10-04	10	27.5	38	18.4	13	Rc1/2	24	12	4.2
YPLF12-02	12	30	36.5	20	10	Rc1/4	21	13.2	4.2
YPLF12-03	12	30	37.5	20	11	Rc3/8	21	13.2	4.2
YPLF12-04	12	30	39.5	20	13	Rc1/2	24	13.2	4.2



●YPCF/TPCF  
Female Straight Union

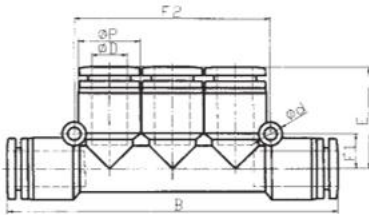


Type	φD	Rc	A	B	H
YPCF4-M5	4	M5	4	21	10
YPCF4-01	4	Rc1/8	7	23.5	14
YPCF4-02	4	Rc1/4	9.5	26.5	17
YPCF6-M5	6	M5	4	21	12
YPCF6-01	6	Rc1/8	7	24	12
YPCF6-02	6	Rc1/4	9.5	27	17
YPCF6-03	6	Rc3/8	10.5	28	21
YPCF6-04	6	Rc1/2	13	30	24
YPCF8-01	8	Rc1/8	7	27	14
YPCF8-02	8	Rc1/4	9.5	30	17
YPCF8-03	8	Rc3/8	10.5	31	21
YPCF8-04	8	Rc1/2	13	33	24
YPCF10-01	10	Rc1/8	7	28.5	17
YPCF10-02	10	Rc1/4	9.5	31.5	17
YPCF10-03	10	Rc3/8	10.5	32.5	21
YPCF10-04	10	Rc1/2	13	34.5	24
YPCF12-02	12	Rc1/4	9.5	32.5	21
YPCF12-03	12	Rc3/8	10.5	33.5	21
YPCF12-04	12	Rc1/2	13	35.5	24

Quick Coupler



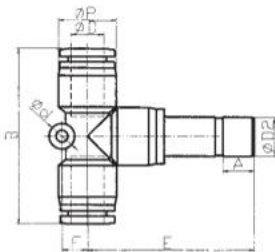
•YPK/TPK Triple Branch



Type	φ D	B	E	F2	φ P	F1	φ d
YPK4	4	60	19	34.2	10.5	6.5	3.2
YPK6	6	67	20.5	40	13	7	3.2
YPK8	8	75	24	45.5	14.5	8.2	3.2
YPK10	10	93	28	56.4	18	9.8	4.2
YPK12	12	99.5	30	63	20	11.5	4.2



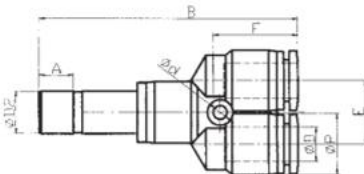
•YPEGJ/TPEGJ T Type Reducer Union



Type	φD1	E	B	φP	A	φD2	F	φd
YPEGJ6-4	4	32.5	35.5	10.5	6	6	5	3.2
YPEGJ8-4	4	35.5	35.5	10.5	6	8	5	3.2
YPEGJ8-6	6	37	37.5	13	6	8	5.5	3.2
YPEGJ10-6	6	40	37.5	13	6	10	5.5	3.2
YPEGJ10-8	8	42.5	45	14.4	8	10	6.5	3.2
YPEGJ12-8	8	42.5	45	14.4	8	12	6.5	3.2
YPEGJ12-10	10	48	56	18.4	8	12	8	4.2



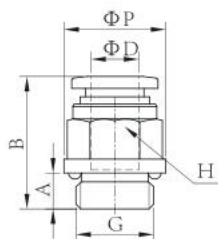
•YPWJ/TPWJ T Type Reducer Union



Type	φ D1	E	B	φ P	A	φ D2	F	φ d
YPWJ6-4	4	10.5	50	10.5	6	6	13.5	3.2
YPWJ8-4	4	10.5	53	10.5	6	8	13.5	3.2
YPWJ8-6	6	13	54.5	13	6	8	14.5	3.2
YPWJ10-6	6	13	57.5	13	6	10	14.5	3.2
YPWJ10-8	8	14.5	61	14.4	8	10	18.5	3.2
YPWJ12-8	8	14.5	61	14.4	8	12	18.5	3.2
YPWJ12-10	10	18.5	69.5	18.4	8	12	21	4.2



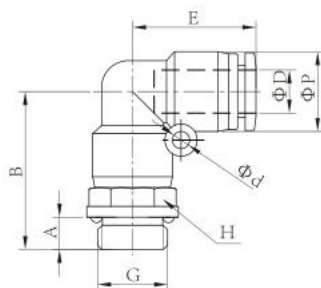
• PC Straight through



Type	φD	G	A	B	φP	H
PC4-G01	4	G1/8	5.5	19.5	14	10
PC4-G02	4	G1/4	6	19.5	17	12
PC6-G01	6	G1/8	5.5	20	14	12
PC6-G02	6	G1/4	6	20	17	14
PC6-G03	6	G3/8	6.5	20	21	14
PC6-G04	6	G1/2	8	21	24	17
PC8-G01	8	G1/8	5.5	24	-	14
PC8-G02	8	G1/4	6	21	17	14
PC8-G03	8	G3/8	6.5	21.5	21	14
PC8-G04	8	G1/2	8	23	24	17
PC10-G01	10	G1/8	5.5	26	-	17
PC10-G02	10	G1/4	6	26	-	17
PC10-G03	10	G3/8	6.5	23.5	21	17
PC10-G04	10	G1/2	8	25	24	17
PC12-G01	12	G1/8	5.5	27	-	19
PC12-G02	12	G1/4	6	27.5	-	19
PC12-G03	12	G3/8	6.5	24.5	21	19
PC12-G04	12	G1/2	8	25.5	24	19
PC16-G03	16	G3/8	6.5	34	-	24
PC16-G04	16	G1/2	8	34.5	-	24



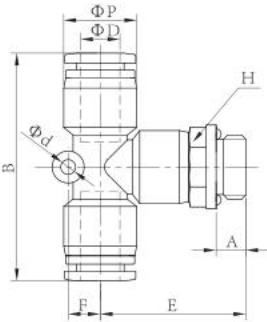
• PL Double Union



Type	φD	G	A	B	φP	H	E	φd
PL4-G01	4	G1/8	5.5	25	10.5	12	17	-
PL4-G02	4	G1/4	6	25.5	10.5	14	17	-
PL6-G01	6	G1/8	5.5	26.5	13	14	19	3.2
PL6-G02	6	G1/4	6	27	13	14	19	3.2
PL6-G03	6	G3/8	6.5	28	13	14	19	3.2
PL6-G04	6	G1/2	8	29.5	13	17	19	3.2
PL8-G01	8	G1/8	5.5	29	14.4	14	23	3.2
PL8-G02	8	G1/4	6	30	14.4	14	23	3.2
PL8-G03	8	G3/8	6.5	31	14.4	14	23	3.2
PL8-G04	8	G1/2	8	32.5	14.4	17	23	3.2
PL10-G01	10	G1/8	5.5	33.5	18.4	17	27.5	4.2
PL10-G02	10	G1/4	6	34	18.4	17	27.5	4.2
PL10-G03	10	G3/8	6.5	34.5	18.4	17	27.5	4.2
PL10-G04	10	G1/2	8	36.5	18.4	19	27.5	4.2
PL12-G01	12	G1/8	5.5	35	20	19	30	4.2
PL12-G02	12	G1/4	6	36	20	19	30	4.2
PL12-G03	12	G3/8	6.5	37	20	21	30	4.2
PL12-G04	12	G1/2	8	38	20	21	30	4.2
PL16-G03	16	G3/8	6.5	41	25.6	24	33.5	4.8
PL16-G04	16	G1/2	8	44	25.6	24	33.5	4.8



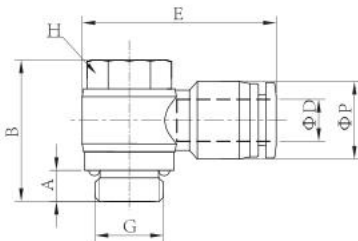
• PT Male run T



Type	φD	G	A	B	φP	H	E	F	φd
PT4-G01	4	G1/8	5.5	35.5	10.5	12	25	5	-
PT4-G02	4	G1/4	6	35.5	10.5	14	25	5	-
PT6-G01	6	G1/8	5.5	37.5	13	14	26.5	5.5	3.2
PT6-G02	6	G1/4	6	37.5	13	14	27	5.5	3.2
PT6-G03	6	G3/8	6.5	37.5	13	14	28	5.5	3.2
PT8-G01	8	G1/8	5.5	45	14.4	14	29	6.5	3.2
PT8-G02	8	G1/4	6	45	14.4	14	30	6.5	3.2
PT8-G03	8	G3/8	6.5	45	14.4	14	31	6.5	3.2
PT8-G04	8	G1/2	8	45	14.4	17	32.5	6.5	3.2
PT10-G01	10	G1/8	5.5	56	18.4	17	33.5	8	4.2
PT10-G02	10	G1/4	6	56	18.4	17	34	8	4.2
PT10-G03	10	G3/8	6.5	56	18.4	17	34.5	8	4.2
PT10-G04	10	G1/2	8	56	18.4	19	36.5	8	4.2
PT12-G02	12	G1/4	6	60	20	19	36	8.5	4.2
PT12-G03	12	G3/8	6.5	60	20	21	37	8.5	4.2
PT12-G04	12	G1/2	8	60	20	21	38	8.5	4.2
PT16-G03	16	G3/8	6.5	63	25.6	24	41	-	4.8
PT16-G04	16	G1/2	8	63	25.6	24	44	-	4.8



• PH  
Universal female elbow

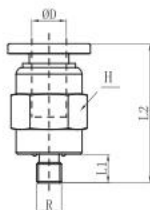


Type	φD	G	A	B	φP	H	E
PH4-G01	4	G1/8	5.5	24	10.5	10	28
PH4-G02	4	G1/4	6	27	10.5	14	32
PH6-G01	6	G1/8	5.5	24	13	10	32
PH6-G02	6	G1/4	6	27	13	14	36
PH6-G03	6	G3/8	6.5	33.5	13	19	40
PH8-G01	8	G1/8	5.5	24	14.4	10	32.5
PH8-G02	8	G1/4	6	27	14.4	14	36.5
PH8-G03	8	G3/8	6.5	33.5	14.4	19	40.5
PH8-G04	8	G1/2	8	37	14.4	24	46
PH10-G01	10	G1/8	5.5	24	18.4	10	34.5
PH10-G02	10	G1/4	6	27	18.4	14	38.5
PH10-G03	10	G3/8	6.5	33.5	18.4	19	42.5
PH10-G04	10	G1/2	8	37	18.4	24	48
PH12-G02	12	G1/4	6	27	20	14	41.5
PH12-G03	12	G3/8	6.5	33.5	20	19	45.5
PH12-G04	12	G1/2	8	37	20	24	51

Mini Tube fitting



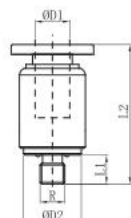
• PC-C



Type	ØD	R	L1	L2	H
PC3-M3C	3	M3X0.5	3.5	15	8
PC3-M5C	3	M5X0.8	4.2	16	8
PC3-M6C	3	M6X1.0	4.5	16	8
PC3-01C	3	R1/8	7	15	10
PC4-M3C	4	M3X0.5	3.5	17.5	8
PC4-M5C	4	M5X0.8	3.5	18.5	8
PC4-M6C	4	M6X1.0	4	19	8
PC4-01C	4	R1/8	7.5	20	10
PC6-M3C	6	M3X0.5	3.5	18	10
PC6-M5C	6	M5X0.8	3.5	18	10
PC6-M6C	6	M6X1.0	4	18.5	10
PC6-01C	6	R1/8	7.5	18.5	10



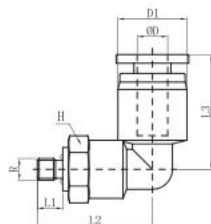
• POC-C



Type	ØD	R	L1	L2	ØD2
POC3-M3C	3	M3X0.5	3.5	15	6.5
POC3-M5C	3	M5X0.8	3.5	16	7
POC3-M6C	3	M6X1.0	4	16	8
POC4-M3C	4	M3X0.5	3.5	17.5	8
POC4-M5C	4	M5X0.8	4.2	18.5	8
POC4-M6C	4	M6X1.0	4.5	19	9
POC4-01C	4	R1/8	7	20	13
POC6-M3C	6	M3X0.5	3.5	18	10
POC6-M5C	6	M5X0.8	3.5	18	10
POC6-M6C	6	M6X1.0	4	18.5	10
POC6-01C	6	R1/8	7.5	18.5	13



• PL-C



Type	ØD	R	L1	L2	L3	ØD1	H
PL3-M3C	3	M3X0.5	3.5	16	12	7.5	8
PL3-M5C	3	M5X0.8	3.5	16	12	7.5	8
PL3-M6C	3	M6X1.0	4	16.5	12	7.5	8
PL3-01C	3	R1/8	7.5	16.5	12	7.5	10
PL4-M3C	4	M3X0.5	3.5	16	16	9.5	8
PL4-M5C	4	M5X0.8	3.5	18	16	9.5	8
PL4-M6C	4	M6X1.0	4	18.5	16	9.5	8
PL4-01C	4	R1/8	7.5	20	16	9.5	10
PL6-M5C	6	M5X0.8	3.5	18	16	11.5	8
PL6-M6C	6	M6X1.0	4	18.5	16	11.5	8
PL6-01C	6	R1/8	7.5	20	16	11.5	10

YSC Speed Controller



■ Graphics Sign



● Ordering Code

Y

Color  
Y:white  
T:Black

SC

Series

6

The pipe diameter  
4 : Ø4mm  
6 : Ø6mm  
8 : Ø8mm  
10 : Ø10mm  
12 : Ø12mm

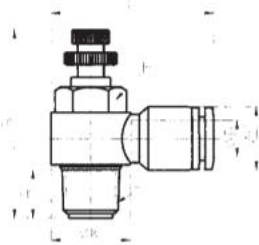
01

Pipe size  
M5: M5  
01 : G1/8  
02 : G1/4  
03 : G3/8  
04 : G1/2

Blank

Blank : Outlet throttle  
B : Air inlet throttle  
( orange button )

■ Figure Dimension



Model	φD	E	B	φP	A	R	H	φK
YSC4-M5	4	24	28	10.5	3.5	M5	8	10
YSC4-01	4	28	37	10.5	7.5	R1/8	12	14
YSC4-02	4	32	44.5	10.5	11	R1/4	14	15
YSC6-M5	6	28	28	13	3.5	M5	8	10
YSC6-01	6	32	37	13	7.5	R1/8	12	14
YSC6-02	6	36	44.5	13	11	R1/4	14	18
YSC6-03	6	40	48	13	12	R3/8	19	22
YSC6-04	6	45.5	52.5	13	12.5	R1/2	24	27.5
YSC8-01	8	32.5	37	14.4	7.5	R1/8	12	14
YSC8-02	8	36.5	44.5	14.4	11	R1/4	14	18
YSC8-03	8	40.5	48	14.4	12	R3/8	19	22
YSC8-04	8	46	52.5	14.4	12.5	R1/2	24	27.5
YSC10-01	10	34.5	37	18.4	7.5	R1/8	12	14
YSC10-02	10	38.5	44.5	18.4	11	R1/4	14	18
YSC10-03	10	42.5	48	18.4	12	R3/8	19	22
YSC10-04	10	48	52.5	18.4	12.5	R1/2	24	27.5
YSC12-02	12	41.5	44.5	20	11	R1/4	14	18
YSC12-03	12	45.5	48	20	12	R3/8	19	22
YSC12-04	12	51	52.5	20	12.5	R1/2	24	27.5

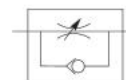
YSC Speed Controller



■ Graphics Sign



outlet throttle



air inlet throttle

● Ordering Code

Y

Color  
Y:white  
T:Black

SC

Series

6

The pipe diameter  
4 : Ø4mm  
6 : Ø6mm  
8 : Ø8mm  
10 : Ø10mm  
12 : Ø12mm

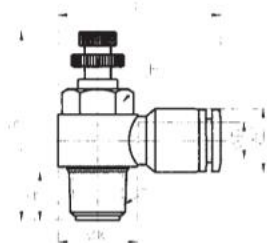
01

Pipe size  
M5: M5  
01 : G1/8  
02 : G1/4  
03 : G3/8  
04 : G1/2

Blank

Blank : Outlet throttle  
B : Air inlet throttle  
( orange button )

■ Figure Dimension

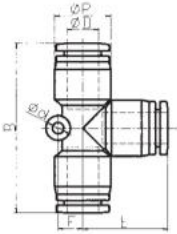


Model	φD	E	B	φP	A	R	H	φK
YSC4-M5	4	24	28	10.5	3.5	M5	8	10
YSC4-01	4	28	37	10.5	7.5	R1/8	12	14
YSC4-02	4	32	44.5	10.5	11	R1/4	14	15
YSC6-M5	6	28	28	13	3.5	M5	8	10
YSC6-01	6	32	37	13	7.5	R1/8	12	14
YSC6-02	6	36	44.5	13	11	R1/4	14	18
YSC6-03	6	40	48	13	12	R3/8	19	22
YSC6-04	6	45.5	52.5	13	12.5	R1/2	24	27.5
YSC8-01	8	32.5	37	14.4	7.5	R1/8	12	14
YSC8-02	8	36.5	44.5	14.4	11	R1/4	14	18
YSC8-03	8	40.5	48	14.4	12	R3/8	19	22
YSC8-04	8	46	52.5	14.4	12.5	R1/2	24	27.5
YSC10-01	10	34.5	37	18.4	7.5	R1/8	12	14
YSC10-02	10	38.5	44.5	18.4	11	R1/4	14	18
YSC10-03	10	42.5	48	18.4	12	R3/8	19	22
YSC10-04	10	48	52.5	18.4	12.5	R1/2	24	27.5
YSC12-02	12	41.5	44.5	20	11	R1/4	14	18
YSC12-03	12	45.5	48	20	12	R3/8	19	22
YSC12-04	12	51	52.5	20	12.5	R1/2	24	27.5

Quick Coupler



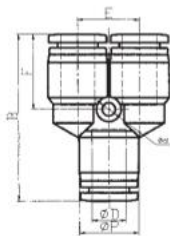
●YPE/TPE Union T



Type	φD	B	φP	E	F	φd
YPE4	4	35.5	10.5	17	5	3.2
YPE6	6	37.5	13	19	5.5	3.2
YPE8	8	45	14.4	22.5	6.5	3.2
YPE10	10	56	18.4	28	8	4.2
YPE12	12	60	20	31	8.5	4.2
YPE14	14	62	25.6	31	-	4.8
YPE16	16	55	25.6	31	-	4.8



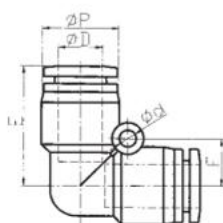
●YPY/TPY Union Y



Type	φD	B	φP	E	F	φd
YPY4	4	34.5	10.5	10.5	13.5	3.2
YPY6	6	36.5	13	13	14.5	3.2
YPY8	8	41	14.4	14.5	18.5	3.2
YPY10	10	50	18.4	18.5	21	4.2
YPY12	12	55	20	20	22.5	4.2
YPY14	14	55	25.6	26	25.5	4.8
YPY16	16	55	25.6	26	25.5	4.8



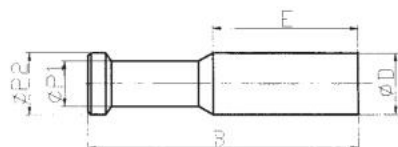
●YPV/TPV Union L



Type	φD	E	φp	F	φd
YPV4	4	16.8	10.5	-	-
YPV6	6	19	13	8	3.2
YPV8	8	23	14.4	9	3.2
YPV10	10	27.5	18.4	12	4.2
YPV12	12	30	20	13.2	4.2
YPV14	14	32	25.6	15.5	4.8
YPV16	16	32	25.6	15.5	4.8



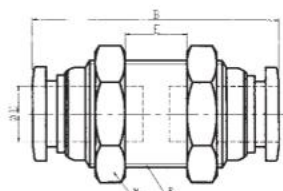
●YPP/TPP PLUG



Type	φ D	E	φ P2	B	φ P
YPP4	4	16	4	28	3
YPP6	6	17	6	32	4
YPP8	8	18.5	8	39	5
YPP10	10	21	10	42	8
YPP12	12	22.5	12	44	8



●YPM/TPM Bulkhead Union

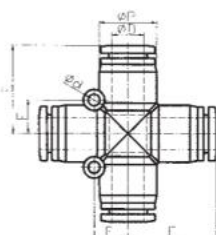


Type	φD	B	E	R	H
YPM4	4	31	8	M12x1	17
YPM6	6	34	10	M14x1	19
YPM8	8	38	12	M16x1	22
YPM10	10	42	15	M20x1	27
YPM12	12	45	16	M22x1	30

XII



●YPZA/TPZA Cross Union

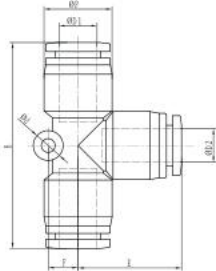


Type	φ D	E	φ p	F	φ d
YPZA4	4	19	10.5	7	3.2
YPZA6	6	19.8	13	7.5	3.2
YPZA8	8	23	14.4	8.8	3.2
YPZA10	10	29	18.4	11.5	4.2
YPZA12	12	30	20	11.5	4.2
YPZA14	14	32	25.6	15.5	4.8
YPZA16	16	32	25.6	15.5	4.8

Quick Coupler



●YPEG/YPEW Reducing T

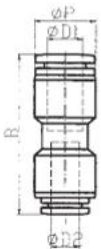


Type	2- ΦD1	ΦD2	B	φ P	E	F	φ d
YPEG6-4	4	6	37.5	13	19	5.5	3.2
YPEG8-6	6	8	45	14.4	22.5	6.5	3.2
YPEG10-8	8	10	56	18.4	28	8	4.2
YPEG12-10	10	12	60	20	31	8.5	4.2

Type	2- ΦD1	ΦD2	B	φ P	E	F	φ d
YPEW6-4	6	4	37.5	13	19	5.5	3.2
YPEW8-6	8	6	45	14.4	22.5	6.5	3.2
YPEW10-8	10	8	56	18.4	28	8	4.2
YPEW12-10	12	10	60	20	31	8.5	4.2



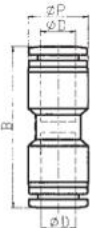
●YPG/TPG Reducer Union



Type	φ D1	φ D2	B	φ P
YPG6-4	6	4	34.5	13
YPG8-6	8	6	37	14.5
YPG10-6	10	6	42	18.4
YPG10-8	10	8	43.5	18.4
YPG12- 8	12	8	46	20
YPG12-10	12	10	48	20
YPG16-12	16	12	52.5	25.6



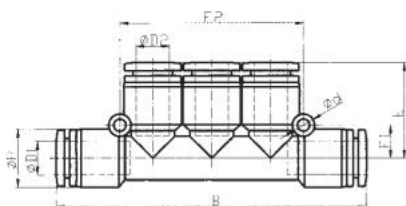
●YPU/TPU Female Straight Union



Type	φ D	B	φ P
YPU4	4	33.8	10.5
YPU6	6	35	13
YPU8	8	39	14.5
YPU10	10	47.5	18.4
YPU12	12	49	20
YPU14	14	54.5	25.6
YPU16	16	54.5	25.6



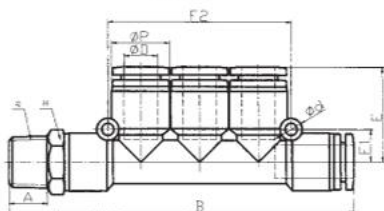
●YPKG/TPKG Reducer  
Triple Brand Union



Type	ϕ D	B	ϕ D2	E	F2	ϕ P	F1	ϕ d
YPKG6-4	6	67	4	20	40	13	7	3,2
YPKG8-6	8	75	6	23	45,5	14,5	8,2	3,2
YPKG10-8	10	93	8	27,5	56,4	18	9,8	4,2
YPKG12-10	12	99,5	10	29	63	20	11,5	4,2



●YPKB/TPKB Triple Brand  
Union



Type	ϕ D1	B	E	A	R	F2	ϕ P	H	F1	ϕ d
YPKB4-01	4	70	19	7	R1/8	34,2	10,5	10	6,5	3,2
YPKB6-01	6	74	20,5	7	R1/8	40	13	12	7	3,2
YPKB6-02	6	76,5	20,5	9,5	R1/4	40	13	14	7	3,2
YPKB6-03	6	78	20,5	10,5	R3/8	40	13	17	7	3,2
YPKB8-01	8	81,5	24	7	R1/8	45,5	14,5	14	8,2	3,2
YPKB8-02	8	84	24	9,5	R1/4	45,5	14,5	14	8,2	3,2
YPKB8-03	8	85	24	10,5	R3/8	45,5	14,5	17	8,2	3,2
YPKB10-02	10	101,5	28	9,5	R1/8	56,4	18	17	9,8	3,2
YPKB10-03	10	102,5	28	10,5	R3/8	56,4	18	17	9,8	3,2
YPKB10-04	10	106,5	28	13	R1/2	56,4	18	21	9,8	3,2
YPKB12-02	12	107,5	30	9,5	R1/8	63	20	19	11,5	4,2
YPKB12-03	12	108,5	30	10,5	R3/8	63	20	19	11,5	4,2
YPKB12-04	12	112	30	13	R1/2	63	20	21	11,5	4,2

XII



●YPGJ/TPGJ Plug-in  
Reducer

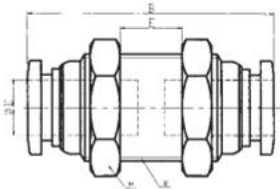


Type	ϕ D	E	ϕ D2	B	A	ϕ P
YPGJ6-4	4	17	6	32,5	6	10
YPGJ8-4	4	20	8	35,5	6	10
YPGJ8-6	6	20	8	36,5	6	12
YPGJ10-6	6	23	10	39,5	8	12
YPGJ10-8	8	23	10	39,5	8	14
YPGJ12-8	8	23	12	42	8	14
YPGJ12-10	10	23	12	44	8	17

Quick Coupler



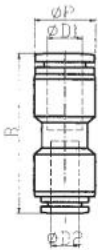
●YPM/TPM Bulkhead Union



Type	φD	B	E	R	H
YPM4	4	31	8	M12x1	17
YPM6	6	34	10	M14x1	19
YPM8	8	38	12	M16x1	22
YPM10	10	42	15	M20x1	27
YPM12	12	45	16	M22x1	30



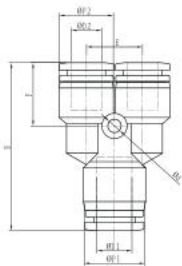
●YPG/TPG Reducer Union



Type	φ D1	φ D2	B	φ P
YPG6-4	6	4	34.5	13
YPG8-6	8	6	37	14.5
YPG10-6	10	6	42	18.4
YPG10-8	10	8	43.5	18.4
YPG12- 8	12	8	46	20
YPG12-10	12	10	48	20
YPG16-12	16	12	52.5	25.6



●YPYW Reducing Y

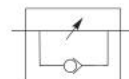


Type	φD1	2-φD2	B	φP1	φP2	E	F	φd
YPYW6-4	6	4	36	13	10.5	10.5	13.5	3.2
YPYW8-6	8	6	38	14.4	13	13	14.5	3.2
YPYW10-8	10	8	43	18.4	14.4	14.5	18.5	3.2
YPYW12-10	12	10	53	20	18.4	18.5	21	4.2

NSF Line type fitting



■ Graphics Sign



Ordering Code

Y

Color  
Y:white  
No mark:Black

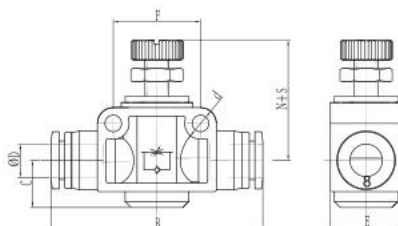
NSF

Series

6

The pipe diameter  
4 : Ø4mm  
6 : Ø6mm  
8 : Ø8mm  
10 : Ø10mm  
12 : Ø12mm

■ Figure Dimension



Model	ΦD	B	E	Φd	N+S	F	C
NSF4	4	38.5	11.5	3.2	20	14	6.5
NSF6	6	44.5	15	4.2	32.5	20	11
NSF8	8	52	18	4.2	35.5	22	12
NSF10	10	61	21	4.2	35.5	26	14.2
NSF12	12	75.5	28	4.2	38.5	32	15.4

**Hand Valve**



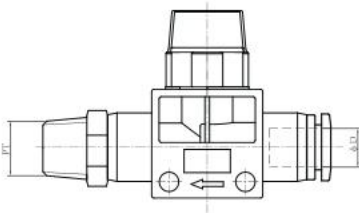
- Ordering Code **Y** **HVFF** **04** **G** **04B**
    - Color  
Blank: black  
Y: white
    - Type
    - Entrance specifications
    - Blank: Standard type  
G: With O ring
    - Export specification
- HVFF: Tube type  
HVSS: Threaded connection type  
HVSF: By the end flow to the thread end type intubation  
HVFS: By the thread end to end type intubation

■ Technical Parameter

Medium	Pressure Range		Resistant Pressure		Temperature	Air Tube
	MPa	Psi	MPa	Psi		
Air	0.2 ~ 1.02	0 ~ 145	1.53	218	-5 ~ 60°C	PA or PU

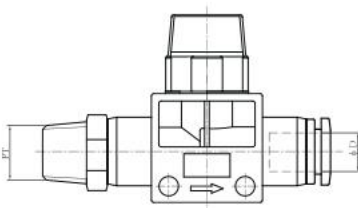
■ Figure Dimension

HVSF



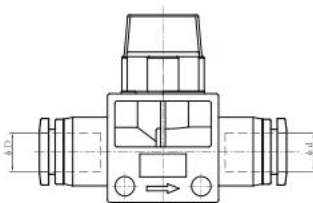
The connection(PT)		1/8	1/4	3/8	1/2	
outer diameter ΦD (mm)	Φ6	two passage	HVSF01-06B	HVSF02-06B	HVSF03-06B	—
		three passage	HVSF01-06	HVSF02-06	HVSF03-06	—
	Φ8	two passage	HVSF01-08B	HVSF02-08B	HVSF03-08B	—
		three passage	HVSF01-08	HVSF02-08	HVSF03-08	—
	Φ10	two passage	—	HVSF02-10B	HVSF03-10B	HVSF04-10B
		three passage	—	HVSF02-10	HVSF03-10	HVSF04-10
	Φ12	two passage	—	HVSF02-12B	HVSF03-12B	HVSF04-12B
		three passage	—	HVSF02-12	HVSF03-12	HVSF04-12

HVFS



The connection(PT)		1/8	1/4	3/8	1/2	
outer diameter ΦD (mm)	Φ6	two passage	HVFS01-06B	HVFS02-06B	HVFS03-06B	—
		three passage	HVFS01-06	HVFS02-06	HVFS03-06	—
	Φ8	two passage	HVFS01-08B	HVFS02-08B	HVFS03-08B	—
		three passage	HVFS01-08	HVFS02-08	HVFS03-08	—
	Φ10	two passage	—	HVFS02-10B	HVFS03-10B	HVFS04-10B
		three passage	—	HVFS02-10	HVFS03-10	HVFS04-10
	Φ12	two passage	—	HVFS02-12B	HVFS03-12B	HVFS04-12B
		three passage	—	HVFS02-12	HVFS03-12	HVFS04-12

HVFF




Model	two passage		Model	three passage	
	ΦD	Φd		ΦD	Φd
HVFF04-04B	4	4	HVFF04-04	4	4
HVFF06-04B	6	4	HVFF06-04	6	4
HVFF06-06B	6	6	HVFF06-06	6	6
HVFF08-06B	8	6	HVFF08-06	8	6
HVFF08-08B	8	8	HVFF08-08	8	8
HVFF10-10B	10	10	HVFF10-10	10	10
HVFF12-10B	12	10	HVFF12-10	12	10
HVFF12-12B	12	12	HVFF12-12	12	12


XII


Brass Quick Coupler

PH 20


1. Metal tube fitting is the pneumatic coupler made by copper
2. Both the body and button are made by copper. All the fittings have great thermostable and flame resistance.

	
<b>MPC</b>	
MPC4-M5/M6	MPC8-03
MPC4-01	MPC8-04
MPC4-02	MPC10-01
MPC6-M5/M6	MPC10-02
MPC6-01	MPC10-03
MPC6-02	MPC10-04
MPC6-03	MPC12-02
MPC6-04	MPC12-03
MPC8-01	MPC12-04
MPC8-02	

	
<b>MPOC</b>	
MPOC4-M5/M6	MPOC8-03
MPOC4-01	MPOC8-04
MPOC4-02	MPOC10-01
MPOC6-M5/M6	MPOC10-02
MPOC6-01	MPOC10-03
MPOC6-02	MPOC10-04
MPOC6-03	MPOC12-02
MPOC6-04	MPOC12-03
MPOC8-01	MPOC12-04
MPOC8-02	

	
<b>MPCF</b>	
MPCF4-M5/M6	MPCF8-03
MPCF4-01	MPCF8-04
MPCF4-02	MPCF10-01
MPCF6-M5/M6	MPCF10-02
MPCF6-01	MPCF10-03
MPCF6-02	MPCF10-04
MPCF6-03	MPCF12-02
MPCF6-04	MPCF12-03
MPCF8-01	MPCF12-04
MPCF8-02	


	
<b>MPL</b>	
MPL4-M5/M6	MPL8-03
MPL4-01	MPL8-04
MPL4-02	MPL10-01
MPL6-M5/M6	MPL10-02
MPL6-01	MPL10-03
MPL6-02	MPL10-04
MPL6-03	MPL12-02
MPL6-04	MPL12-03
MPL8-01	MPL12-04
MPL8-02	


	
<b>MPT</b>	
MPT4-M5/M6	MPT8-03
MPT4-01	MPT8-04
MPT4-02	MPT10-01
MPT6-M5/M6	MPT10-02
MPT6-01	MPT10-03
MPT6-02	MPT10-04
MPT6-03	MPT12-02
MPT6-04	MPT12-03
MPT8-01	MPT12-04
MPT8-02	

	
<b>MPST</b>	
MPST4-M5/M6	MPST8-03
MPST4-01	MPST8-04
MPST4-02	MPST10-01
MPST6-M5/M6	MPST10-02
MPST6-01	MPST10-03
MPST6-02	MPST10-04
MPST6-03	MPST12-02
MPST6-04	MPST12-03
MPST8-01	MPST12-04
MPST8-02	

	
<b>MPUC</b>	
MPUC4	MPUC10
MPUC6	MPUC12
MPUC8	

	
<b>MPUL</b>	
MPUL4	MPUL10
MPUL6	MPUL12
MPUL8	

	
<b>MPUT</b>	
MPUT4	MPUT10
MPUT6	MPUT12
MPUT8	

	
<b>MPY</b>	
MPY4	MPY10
MPY6	MPY12
MPY8	

	
<b>MPM</b>	
MPM4	MPM10
MPM6	MPM12
MPM8	

	
<b>MPGJ</b>	
MPGJ6-4	MPGJ12-8
MPGJ8-6	MPGJ12-10
MPGJ10-8	

XII

Metal Coupler

■ Character

- 1. Mounted with auto-opening valve, auto-lock series can auto-lock when it s pulled out.
- 2. Widely used, special for connecting of air tools and piping, laying branch port of supplying compressed air in factories.

● Ordering Code

YCH      2      -      8x5  
 Type      Size      Port style

Metal Coupler

**PP Quick Coupler**



PP 20 - 8x5
PP 30 - 10x6.5
PP 40 - 12x8

**PH Quick Coupler**




PH 20 - 8x5
PH 30 - 10x6.5
PH 40 - 12x8

**PM Quick Coupler**



PM 20 - 1/4"
PM 30 - 3/8"
PM 40 - 1/2"

**PF Quick Coupler**



PF 20 - 1/4"
PF 30 - 3/8"
PF 40 - 1/2"

**SP Quick Coupler**




SP 20 - 8x5
SP 30 - 10x6.5
SP 40 - 12x8

**SH Quick Coupler**



SH 20 - 8x5
SH 30 - 10x6.5
SH 40 - 12x8

**SM Quick Coupler**



SM 20 - 1/4"
SM 30 - 3/8"
SM 40 - 1/2"

**SF Quick Coupler**





SF 20 - 1/4"
SF 30 - 3/8"
SF 40 - 1/2"


Silencer


■ Character

To reduce the noise effectively in the pneumatic system or air discharge equipment, the silencer can directly be equipped on it. With small shape, easily fixed, and good performance, good effect.

Flat Silencer	
	Type
	BSLM-01 1/8"
	BSLM-02 1/4"
	BSLM-03 3/8"
	BSLM-04 1/2"

Standard Silencer	
	Type
	BSL-M5 M5"
	BSL-01 1/8"
	BSL-02 1/4"
	BSL-03 3/8"
	BSL-04 1/2"
	BSL-06 3/4"
	BSL-08 1"

B Type Exhaust Silencer	
	Type
	BESL-01 1/8"
	BESL-02 1/4"
	BESL-03 3/8"
	BESL-04 1/2"

Plastic Silencer	
	Type
	PSU-01 1/8"
	PSU-02 1/4"
	PSU-03 3/8"
	PSU-04 1/2"

Plastic Silencer	
	Type
	PSL-01 1/8"
	PSL-02 1/4"

Fully Sintered Bronze	
	Type
	BSLD-01 1/8"
	BSLD-02 1/4"
	BSLD-03 3/8"
	BSLD-04 1/2"
	BSLD-06 3/4"
	BSLD-08 1"

Air Gun

■ Character

- 1.Strong blowing with low consumption and energy saving.
- 2.It can remove the dust of any machine and equipment.



AG-B-L



ABG-06



ABG-02B



ABG 3020



AR-30



DG-10



DG-10+1+2+3



K601-1

Tube cutter

■ Character

Be sure to cut off the tubes safely, quickly, accurately and neatly.



CT-01

**Properties :**








- UV-Resistant
- Silicone free
- Good vibration absorption
- Supreme abrasion resistance
- Consistent tensile strength for long life



**Application :** Pneumatics, Robotics, Automation, Cabling , Food processing

**Note :** Also special sizes and colours are available on request

**Technical Details**  
**Metric Size**

Item Code							
	ID	OD	WT	WP	BP	BR/r	W
	mm	mm	mm	bar	bar	mm	g/m
13-0040000200LB	2.00	4.00	1.00	13	39	10	12
13-0040000250LB	2.50	4.00	0.75	13	39	10	10
13-0043000290LB	2.90	4.30	0.70	13	39	13	10
13-0050000300LB	3.00	5.00	1.00	13	39	15	17
13-0060000400LB	4.00	6.00	1.00	11	33	20	21
13-0080000500LB	5.00	8.00	1.50	12	36	30	40
13-0080000550LB	5.50	8.00	1.25	10	30	30	35
13-0080000600LB	6.00	8.00	1.00	8	24	35	29
13-0100000650LB	6.50	10.00	1.75	11	33	35	60
13-0100000700LB	7.00	10.00	1.50	9	27	50	53
13-0100000800LB	8.00	10.00	1.00	9	27	50	37
13-0120000800LB	8.00	12.00	2.00	10	30	40	83
13-0120000900LB	9.00	12.00	1.50	7	21	45	65
13-0120001000LB	10.00	12.00	1.00	7	21	45	46
13-0140000950LB	9.50	14.00	2.25	8	24	45	110
13-0140001000LB	10.00	14.00	2.00	8	24	45	99
13-0160001100LB	11.00	16.00	2.50	10	30	50	140
13-0160001200LB	12.00	16.00	2.00	10	30	50	116

**BLUE TRANSPARENT TUBE**



Part No	Hose O.D (MM)	Hose I.D (MM)	Wall Thickness (MM)	Working Pressure (Bar)	Burst Pressure (Bar)	Main Bend Radius (MM)
13-400250	4.00	2.50	0.75	13	39	10
13-600400	6.00	4.00	1.00	11	33	20
13-800500	8.00	5.00	1.50	12	36	30
13-100650	10.00	6.50	1.75	11	33	35
13-120800	12.00	8.00	2.00	10	30	40

**POLYAMIDE TUBING**









**Applicable Standard :** DIN73378, DIN74324

**Construction**

Automotive gasoline, High pressure lubricants, Refrigeration lines, Gasoline in various industries, Fuel lines for petrol engines, Beverage lines, For conveying hydrocarbon, For Conveying Vegetable oil, For Conveying Ester, etc., Air line on pneumatic controls systems, lines for air compressors & vaccum pumps

**Application**

**Note :** We also supply PA11 and TPE tubes. Kindly refer our part nomenclature before ordering. Also special sizes and colours are available on request. Multilayer upto 5 layers available on request

Item Code	 ID	 OD	 WT	 BP	 BR/r	 W
	mm	mm	mm	(Kg/cm <sup>2</sup> )	mm	g/m
12-0030000150BK	1.50	3.00	0.75	200	20	7
12-0040000200BK	2.00	4.00	1.00	200	20	12
12-0040000250BK	2.50	4.00	0.75	135	20	10
12-0040000300BK	3.00	4.00	0.50	85	20	7
12-0047000270BK	2.70	4.70	1.00	160	25	14
12-0050000300BK	3.00	5.00	1.00	150	25	16
12-0050000400BK	4.00	5.00	0.50	120	30	9
12-0060000300BK	3.00	6.00	1.50	200	30	26
12-0060000400BK	4.00	6.00	1.00	120	30	20
12-0060000500BK	5.00	6.00	0.50	55	30	11
12-0080000600BK	6.00	8.00	1.00	85	40	27
12-0080000500BK	5.00	8.00	1.50	140	40	38
12-0095000750BK	7.50	9.50	1.00	70	50	33
12-0095000600BK	6.00	9.50	1.75	135	50	53
12-0100000800BK	8.00	10.00	1.00	65	50	35
12-0120001000BK	10.00	12.00	1.00	55	80	43
12-0125001000BK	10.00	12.50	1.25	65	85	55
12-0150001200BK	12.00	15.00	1.50	65	90	79
12-0160001400BK	14.00	16.00	1.00	40	110	59
06-0030000150NT	1.50	3.00	0.75	270	20	7
06-0040000200NT	2.00	4.00	1.00	270	20	12
06-0040000250NT	2.50	4.00	0.75	185	20	10
06-0040000300NT	3.00	4.00	0.50	115	20	7
06-0047000270NT	2.70	4.70	1.00	215	25	14
06-0050000300NT	3.00	5.00	1.00	200	35	16
06-0050000400NT	4.00	5.00	0.50	50	40	9
06-0060000300NT	3.00	6.00	1.50	270	40	26
06-0060000400NT	4.00	6.00	1.00	160	40	20
06-0060000500NT	5.00	6.00	0.50	75	40	11

**POLYAMIDE TUBING**

06-0080000600NT	6.00	8.00	1.00	115	50	27
06-0080000500NT	5.00	8.00	1.50	185	60	38
06-0095000750NT	7.50	9.50	1.00	95	60	33
06-0095000600NT	6.00	9.50	1.75	180	70	53
06-0100000800NT	8.00	10.00	1.00	90	60	35
06-0120001000NT	10.00	12.00	1.00	70	80	43
06-0125001000NT	10.00	12.50	1.25	75	85	55
06-0150001200NT	12.00	15.00	1.50	90	100	79
06-0160001400NT	14.00	16.00	1.00	55	110	59



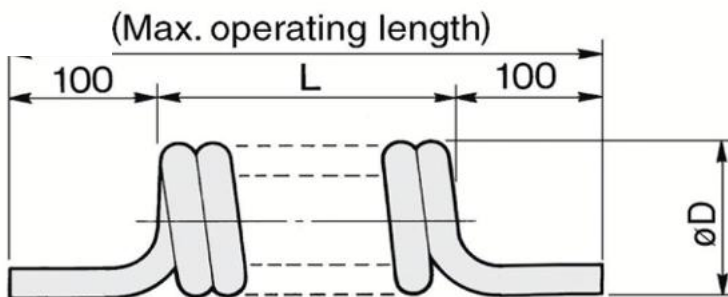
**Temperature Range** : Continuous:-40°C to +100°C

**POLYURETHANE COIL TUBING**

**PU-RC SERIES**

**PU RECOIL SPECIFICATIONS**

**Dimensions**



MODEL	6x4	8x5	10x6.5	12x8	16x12
Tubing (O.D)mm	6	8	10	12	16
Tubing (I.D)mm	4	5	6.5	8	12
Max Operating Temperature	-20 to 60 Deg C				
Operating Pressure	8 bar				
Material	Polyurethane				
Color	Blue, Yellow, Transparent, Red, Orange, Green, Black				
Applicable Fittings	One touch fittings, Minature fittings				

XIV

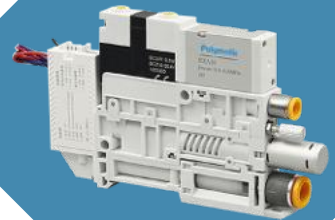
**POLYURETHANE COIL TUBING**

Model/Specification	Tubing Size (mm)		Length	Coil (mm)	
	O.D	I.D	IN Mtrs	L	øD
6x4	6	4	3M	160 MM	42
			5M	280 MM	
			10M	640 MM	
			15M	700 MM	
8X5	8	5	3M	200 MM	49
			5M	300 MM	
			10M	680 MM	63
			15M	740 MM	
10X6.5	10	6.5	3M	165 MM	71
			5M	280 MM	
			10M	630 MM	
			15M	950 MM	
12X8	12	8	3M	155 MM	82
			5M	250 MM	
			10M	520 MM	
			15M	800 MM	
16X12	16	12	3M	165 MM	104
			5M	270 MM	
			10M	560 MM	
			15M	850 MM	

# Polymatic<sup>TM</sup>

PREMIUM PNEUMATIC SOLUTIONS

## PREMIUM PRODUCTS



# One Touch - in Fitting

## How to Order?

Series No.	Type No.	O.D.of Tube		Port Size	Thread Type
F : Grey body and Orange release sleeve E : Black body and Blue release sleeve	PC PCF POC ...	04: 4mm 06: 6mm 08: 8mm 10: 10mm 12: 12mm 14: 14mm 16: 16mm	5/32: 5/32 " 3/16: 3/16 " 1/4: 1/4 " 5/16: 5/16 " 3/8: 3/8 " 1/2: 1/2 "	M5: M5 M6: M6 01: 1/8 " 02: 1/4 " 03: 3/8 " 04: 1/2 "	P: PT G: G T: NPT

### Order Example:

ZPC series One Touch-in Fitting, Grey body and Orange release sleeve, for 4mm OD tube, 1/8" G thread, ERP code ZPC04-01G

## Metric Tubing-PT Thread

FPC	Model	D	R	A	B	S1	S2	Main Dimension
	FPC04-M5	4	M5	3.5	21.5	10	2	
	FPC04-M6	4	M6	4.5	22.5	10	2	
	FPC04-01	4	PT1/8	7.5	20.2	10	3	
	FPC04-02	4	PT1/4	9.5	18.5	14	3	
	FPC06-M5	6	M5	3.5	22.1	12	2	
	FPC06-M6	6	M6	4.5	23.1	12	2	
	FPC06-01	6	PT1/8	7.5	21.1	12	4	
	FPC06-02	6	PT1/4	9.5	22.1	14	4	
	FPC06-03	6	PT3/8	10.5	21.1	17	4	
	FPC06-04	6	PT1/2	13.5	24.1	21	4	
	FPC08-01	8	PT1/8	7.5	26.4	14	5	
	FPC08-02	8	PT1/4	9.5	23.9	14	6	
	FPC08-03	8	PT3/8	10.5	21.9	17	6	
	FPC08-04	8	PT1/2	13.5	24.4	21	6	
	FPC10-01	10	PT1/8	7.5	29.5	17	5	
	FPC10-02	10	PT1/4	9.5	30.8	17	6	
	FPC10-03	10	PT3/8	10.5	27.7	17	8	
	FPC10-04	10	PT1/2	13.5	25.5	21	8	
	FPC12-01	12	PT1/8	7.5	32	20	5	
	FPC12-02	12	PT1/4	9.5	34	20	6	
	FPC12-03	12	PT3/8	10.5	30	20	8	
	FPC12-04	12	PT1/2	13.5	29	21	10	
	FPC14-03	14	PT3/8	10.5	35.3	22	-	
	FPC14-04	14	PT1/2	13.5	33.3	22	-	
	FPC16-03	16	PT3/8	10.5	36.5	24	-	
	FPC16-04	16	PT1/2	13.5	34.5	24	-	

FPWT	Model	D	R	A	B	S	Main Dimension
	FPWT04-M5	4	M5	3.5	40.2	10	
	FPWT04-M6	4	M6	4.5	41.2	10	
	FPWT04-01	4	PT1/8	7.5	41.2	10	
	FPWT04-02	4	PT1/4	9.5	45.5	14	
	FPWT06-M5	6	M5	3.5	41.2	12	
	FPWT06-M6	6	M6	4.5	42.2	12	
	FPWT06-01	6	PT1/8	7.5	44.2	12	
	FPWT06-02	6	PT1/4	9.5	46.2	14	
	FPWT06-03	6	PT3/8	10.5	47.2	17	
	FPWT06-04	6	PT1/2	13.5	50.2	21	
	FPWT08-01	8	PT1/8	7.5	46.9	14	
	FPWT08-02	8	PT1/4	9.5	48.9	14	
	FPWT08-03	8	PT3/8	10.5	49.9	17	
	FPWT08-04	8	PT1/2	13.5	52.9	21	
	FPWT10-01	10	PT1/8	7.5	56.1	17	
	FPWT10-02	10	PT1/4	9.5	58.1	17	
	FPWT10-03	10	PT3/8	10.5	59.1	17	
	FPWT10-04	10	PT1/2	13.5	62.1	21	
	FPWT12-01	12	PT1/8	7.5	58.8	19	
	FPWT12-02	12	PT1/4	9.5	60.8	19	
	FPWT12-03	12	PT3/8	10.5	61.8	19	
	FPWT12-04	12	PT1/2	13.5	64.8	21	
	FPWT14-03	14	PT3/8	10.5	65.4	24	
	FPWT14-04	14	PT1/2	13.5	68.4	24	
	FPWT16-03	16	PT3/8	10.5	68.5	24	
	FPWT16-04	16	PT1/2	13.5	71.5	24	


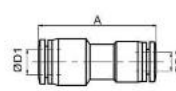
◆ Metric Tubing-PT Thread


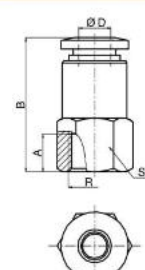
FPB	Model	D	R	A	B	C	S	Main Dimension
	FPB04-M5	4	M5	3.5	23	18.7	10	
	FPB04-M6	4	M6	4.5	24	18.7	10	
	FPB04-01	4	PT 1/8	7.5	26	18.7	10	
	FPB04-02	4	PT 1/4	9.5	28	18.7	14	
	FPB06-M5	6	M5	3.5	23.5	19.7	12	
	FPB06-M6	6	M6	4.5	24.5	19.5	12	
	FPB06-01	6	PT 1/8	7.5	26.5	19.5	12	
	FPB06-02	6	PT 1/4	9.5	28.5	19.5	14	
	FPB06-03	6	PT 3/8	10.5	29.5	19.5	17	
	FPB06-04	6	PT 1/2	13.5	32.5	19.5	21	
	FPB08-01	8	PT 1/8	7.5	29.5	22.6	14	
	FPB08-02	8	PT 1/4	9.5	31.5	22.6	14	
	FPB08-03	8	PT 3/8	10.5	32.5	22.6	17	
	FPB08-04	8	PT 1/2	13.5	35.5	22.6	21	
	FPB10-01	10	PT 1/8	7.5	34.5	28.5	17	
	FPB10-02	10	PT 1/4	9.5	36.5	28.5	17	
	FPB10-03	10	PT 3/8	10.5	37.5	28.5	17	
	FPB10-04	10	PT 1/2	13.5	40.5	28.5	21	
	FPB12-01	12	PT 1/8	7.5	35.5	29.3	19	
	FPB12-02	12	PT 1/4	9.5	37.5	29.3	19	
	FPB12-03	12	PT 3/8	10.5	38.5	29.3	19	
	FPB12-04	12	PT 1/2	13.5	41.5	29.3	21	
	FPB14-01	14	PT 1/8	7.5	37.5	29.8	24	
	FPB14-02	14	PT 1/4	9.5	39.5	29.8	24	
	FPB14-03	14	PT 3/8	10.5	39.7	29.8	24	
	FPB14-04	14	PT 1/2	13.5	42.7	29.8	24	
	FPB16-01	16	PT 1/8	7.5	38.5	33	24	
	FPB16-02	16	PT 1/4	9.5	40.5	33	24	
	FPB16-03	16	PT 3/8	10.5	41.1	33	24	
	FPB16-04	16	PT 1/2	13.5	44.1	33	24	

FPL	Model	D	R	A	B	C	S	Main Dimension
	FPL04-M5	4	M5	3.5	22	17.7	10	
	FPL04-M6	4	M6	4.5	23	17.7	10	
	FPL04-01	4	PT 1/8	7.5	25	17.7	10	
	FPL04-02	4	PT 1/4	9.5	27	17.7	14	
	FPL06-M5	6	M5	3.5	23.7	19.2	12	
	FPL06-M6	6	M6	4.5	24.2	19.2	12	
	FPL06-01	6	PT 1/8	7.5	26.2	19.2	12	
	FPL06-02	6	PT 1/4	9.5	28.2	19.2	14	
	FPL06-03	6	PT 3/8	10.5	29.2	19.2	17	
	FPL06-04	6	PT 1/2	13.5	32.2	19.2	21	
	FPL08-01	8	PT 1/8	7.5	29.5	22.6	14	
	FPL08-02	8	PT 1/4	9.5	31.5	22.6	14	
	FPL08-03	8	PT 3/8	10.5	32.5	22.6	17	
	FPL08-04	8	PT 1/2	13.5	35.5	22.6	21	
	FPL10-01	10	PT 1/8	7.5	33.8	27.8	17	
	FPL10-02	10	PT 1/4	9.5	35.8	27.8	17	
	FPL10-03	10	PT 3/8	10.5	36.8	27.8	17	
	FPL10-04	10	PT 1/2	13.5	39.8	27.8	21	
	FPL12-01	12	PT 1/8	7.5	35.5	29.3	19	
	FPL12-02	12	PT 1/4	9.5	37.5	29.3	19	
	FPL12-03	12	PT 3/8	10.5	38.5	29.3	19	
	FPL12-04	12	PT 1/2	13.5	41.5	29.3	21	
	FPL14-01	14	PT 1/8	7.5	37.5	30.6	24	
	FPL14-02	14	PT 1/4	9.5	39.5	30.6	24	
	FPL14-03	14	PT 3/8	10.5	40.5	30.6	24	
	FPL14-04	14	PT 1/2	13.5	43.5	30.6	24	
	FPL16-01	16	PT 1/8	7.5	38.5	33.3	24	
	FPL16-02	16	PT 1/4	9.5	40.5	33.3	24	
	FPL16-03	16	PT 3/8	10.5	43	33.3	24	
	FPL16-04	16	PT 1/2	13.5	46	33.3	24	

FPD	Model	D	R	A	B	C	S	Main Dimension
	FPD04-M5	4	M5	3.5	23	18.7	10	
	FPD04-M6	4	M6	4.5	24	18.7	10	
	FPD04-01	4	PT 1/8	7.5	26	18.7	10	
	FPD04-02	4	PT 1/4	9.5	28	18.7	14	
	FPD06-M5	6	M5	3.5	23.5	19.5	12	
	FPD06-M6	6	M6	4.5	24.5	19.5	12	
	FPD06-01	6	PT 1/8	7.5	26.5	19.5	12	
	FPD06-02	6	PT 1/4	9.5	28.5	19.5	14	
	FPD06-03	6	PT 3/8	10.5	29.5	19.5	17	
	FPD06-04	6	PT 1/2	13.5	32.5	19.5	21	
	FPD08-01	8	PT 1/8	7.5	29.5	22.6	14	
	FPD08-02	8	PT 1/4	9.5	31.5	22.6	14	
	FPD08-03	8	PT 3/8	10.5	32.5	22.6	17	
	FPD08-04	8	PT 1/2	13.5	35.5	22.6	21	
	FPD10-01	10	PT 1/8	7.5	34.5	28.5	17	
	FPD10-02	10	PT 1/4	9.5	36.5	28.5	17	
	FPD10-03	10	PT 3/8	10.5	37.5	28.5	17	
	FPD10-04	10	PT 1/2	13.5	40.5	28.5	21	
	FPD12-01	12	PT 1/8	7.5	35.5	29.3	19	
	FPD12-02	12	PT 1/4	9.5	37.5	29.3	19	
	FPD12-03	12	PT 3/8	10.5	38.5	29.3	19	
	FPD12-04	12	PT 1/2	13.5	41.5	29.3	21	
	FPD14-03	14	PT 3/8	10.5	39.7	29.8	24	
	FPD14-04	14	PT 1/2	13.5	42.7	29.8	24	
	FPD16-03	16	PT 3/8	10.5	41.1	31.9	24	
	FPD16-04	16	PT 1/2	13.5	44.1	31.9	24	


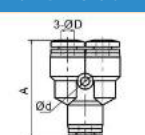
◆ **Metric Tubing-PT Thread**


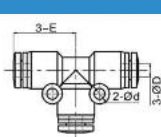
FPG	Model	D1	D2	A	Main Dimension
 <p>ΦD1 D1&gt;D2 ΦD2</p>	FPG06-04	6	4	35.4	
	FPG08-04	8	4	37.8	
	FPG08-06	8	6	37.8	
	FPG10-06	10	6	42.8	
	FPG10-08	10	8	42.8	
	FPG12-08	12	8	48.5	
	FPG12-10	12	10	48.5	

FPCF	Model	D	R	A	B	S	Main Dimension
 <p>R ΦD</p>	FPCF04-01	4	PT1/8	8	24.7	12	
	FPCF04-02	4	PT1/4	11	27.7	17	
	FPCF06-01	6	PT1/8	8	25.2	12	
	FPCF06-02	6	PT1/4	11	28.2	17	
	FPCF06-03	6	PT3/8	12	29.2	20	
	FPCF06-04	6	PT1/2	14	31.2	24	
	FPCF08-01	8	PT1/8	8	26.9	14	
	FPCF08-02	8	PT1/4	11	29.9	17	
	FPCF08-03	8	PT3/8	12	30.9	20	
	FPCF08-04	8	PT1/2	14	32.9	24	
	FPCF10-01	10	PT1/8	8	29.9	17	
	FPCF10-02	10	PT1/4	11	32.9	17	
	FPCF10-03	10	PT3/8	12	33.9	20	
	FPCF10-04	10	PT1/2	14	35.9	24	
	FPCF12-01	12	PT1/8	8	31.5	20	
	FPCF12-02	12	PT1/4	11	34.5	20	
FPCF12-03	12	PT3/8	12	35.5	20		
FPCF12-04	12	PT1/2	14	37.5	24		


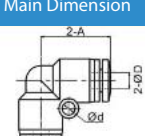
FPU	Model	D	A	Main Dimension
 <p>ΦD</p>	FPU04	4	33.4	
	FPU06	6	35.6	
	FPU08	8	38.7	
	FPU10	10	48.2	
	FPU12	12	48.6	
	FPU14	14	48.2	
	FPU16	16	49.6	

◆ **Metric Tubing**


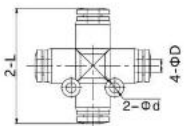
FPY	Model	D	A	d	Main Dimension
 <p>ΦD</p>	FPY04	4	35.6	3	
	FPY06	6	37.2	3.2	
	FPY08	8	40	3.2	
	FPY10	10	50.1	4.2	
	FPY12	12	52.6	4.2	
	FPY14	14	57.3	4.2	
	FPY16	16	60.5	5	

FPE	Model	D	E	d	Main Dimension
 <p>ΦD</p>	FPE04	4	18.7	3.2	
	FPE06	6	19.5	3.2	
	FPE08	8	22.6	3.2	
	FPE10	10	26.5	4.2	
	FPE12	12	29.3	4.2	
	FPE14	14	31.5	5	
	FPE16	16	33	5	


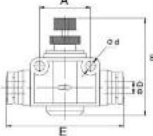
◆ **Metric Tubing-G Thread**

FPV	Model	D	A	d	Main Dimension
 <p>ΦD</p>	FPV04	4	17.7	3.2	
	FPV06	6	19.2	3.2	
	FPV08	8	22.6	3.2	
	FPV10	10	27.8	4.2	
	FPV12	12	29.3	4.2	
	FPV14	14	30.6	5	
	FPV16	16	33.3	5	

◆ **Metric Tubing-G Thread**

FPZA		Model	D	L	d	Main Dimension	
 $\phi D$	FPZA04	4	36.2	3.2			
	FPZA06	6	39	3.2			
	FPZA08	8	45.7	3.1			
	FPZA10	10	56.8	4.2			
	FPZA12	12	56.4	4.4			

FSA		Model	D	d	A	B		E	Main Dimension
 $\phi D$	FSA04	4	3.2	14	min	max	39.5		
	FSA06	6	4.3	20	26.2	28.9	46.8		
	FSA08	8	4.3	22	40	45.5	52		
	FSA10	10	4.3	26	48	52.2	62.3		
	FSA12	12	4.3	32	51.5	58	73		

### How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type	Ways
FHVFS	04: 4mm	5/32: 5/32 "	M5: M5	Blank: 3 ways
FHVSS	06: 6mm	3/16: 3/16 "	M6: M6	B: 2 ways
FHVFF	08: 8mm	1/4: 1/4 "	01: 1/8 "	
...	10: 10mm	5/16: 5/16 "	02: 1/4 "	
	12: 12mm	3/8: 3/8 "	03: 3/8 "	
	14: 14mm	1/2: 1/2 "	04: 1/2 "	
	16: 16mm			

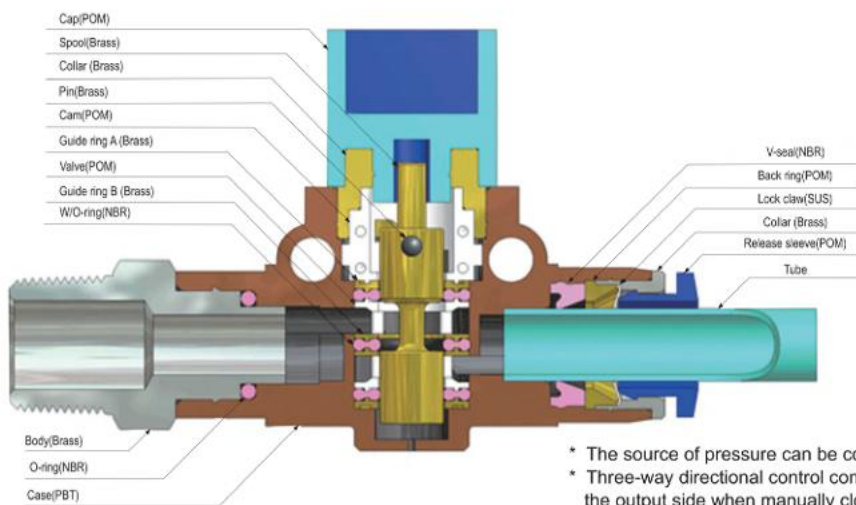
### Specifications

Working Medium	Air, Vacuum
Working Pressure (MPa)	0~0.8
Guaranteed Pressure (MPa)	1.2
Working Temperature (°C)	0~60
Tube Material	Nylon PU tube

#### Order example :

FHVFS series plastic fitting, for 6mm OD tube, G1/8" port size, ERP code is FHVFS06-01G  
 Note: If both sides with tube, then will show its size accordingly. For example, FHVFF hand valve for both 6mm OD tube, ERP code is: FHVFF 06-06

### Internal Structure



- \* The source of pressure can be completely shut off by simply turning the knob.
- \* Three-way directional control configuration releases the residual internal pressure on the output side when manually closed.
- \* Ideal for inspecting or repairing any devices without compromising the safety.
- \* Directionality of airflow may be selected from the tubing or threaded input side to the tubing or threaded output side.


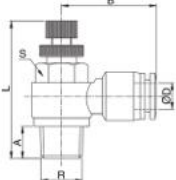
### Hand Valve



MODEL[Φ D1-Φ D2]	
Tube (Metric)	
FHVFF 06-06	FHVFF 12-10
FHVFF 08-06	FHVFF 12-12
FHVFF 08-08	
FHVFF 10-08	
FHVFF 10-10	

FHVFF	Model	C	D	P	d	E	F	L	M	H	Main Dimension
	FHVFF06-06	6	6	15	4.2	16.5	24	51	18	40.5	
	FHVFF08-06	8	6	15	4.2	16.5	24	52	18	40.5	
	FHVFF08-08	8	8	15	4.2	16.5	24	53	18	40.5	
	FHVFF10-08	10	8	21	4.2	21.5	29	63	22	45	
	FHVFF10-10	10	10	21	4.2	21.5	29	63	22	45	
	FHVFF12-10	12	10	21	4.2	21.5	29	64	22	45	
	FHVFS12-12	12	12	21	4.2	21.5	29	64	22	45	

◆ Main Dimension

FSC(Meter-out type)	Model	D	R	A	B	S	L		Main Dimension
							min	max	
	FSC04-M5	4	M5	4	20.2	8	37.5	44.3	
	FSC04-01	4	PT 1/8	8	22	10	37.5	44.3	
	FSC04-02	4	PT 1/4	10	25	14	43.7	51.3	
	FSC06-M5	6	M5	4	21.8	8	28.5	30.3	
	FSC06-01	6	PT 1/8	8	23.8	12	37.5	44.3	
	FSC06-02	6	PT 1/4	10	25.8	14	43.7	51.3	
	FSC06-03	6	PT 3/8	11	27.5	17	48.4	55.3	
	FSC06-04	6	PT 1/2	14	31	21	52.7	59.5	
	FSC08-01	8	PT 1/8	8	26.1	14	37.5	44.3	
	FSC08-02	8	PT 1/4	10	29.2	14	43.7	51.3	
	FSC08-03	8	PT 3/8	11	30.1	17	48.4	55.3	
	FSC08-04	8	PT 1/2	14	33.6	21	52.7	59.5	
	FSC10-02	10	PT 1/4	10	32.7	17	43.7	51.3	
	FSC10-03	10	PT 3/8	11	33.2	17	48.4	55.3	
	FSC10-04	10	PT 1/2	14	36.7	21	52.7	59.5	
	FSC12-02	12	PT 1/4	10	34.7	19	43.7	51.3	
FSC12-03	12	PT 3/8	11	36.6	19	48.4	55.3		
FSC12-04	12	PT 1/2	14	39	21	52.7	59.5		

**AC Series Air Preparation Unit**

# AC2010 AC3010 AC4010

## FR.L Unit



### ◆ Specifications

Model	AC2010-01 F2	AC2010-02 F2	AC3010-02 F2	AC3010-03 F2	AC3010-04 F2	AC4010-03 F2	AC4010-04 F2	AC4010-06 F2	
Working Medium	Clean Air(after 40 μ m filtration)								
Proof Pressure(MPa)	1.5								
Working Pressure Range(MPa)	0.15~1.0								
Pressure Adjustment Range(MPa)	0.05~0.9, Low pressure type 0.05~0.4								
Working Temperature(°C)	-5~60 ( No freezing )								
Filter Precision	40 μ m/5 μ m optional								
Recommended Oil	Turbine No.1 Oil, ISO VG32								
Bowl Material	PC(Polycarbonate)								
Water Bowl Capacity(CC)	11		40			75			
Oil Bowl Capacity(CC)	30		76			183			
Weight(g)	388		585			1628			
Component	Filter regulator	AW2000-01 F2	AW2000-02 F2	AW3000-02 F2	AW3000-03 F2	AW3000-04 F2	AW4000-03 F2	AW4000-04 F2	AW4000-06 F2
	Lubricator	AL2000-01 F2	AL2000-02 F2	AL3000-02 F2	AL3000-03 F2	AL3000-04 F2	AL4000-03 F2	AL4000-04 F2	AL4000-06 F2

### ◆ How to Order?

Series No.	Port size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Scale Unit	Filter Precision	Thread Type
AC2010: A2000 series FR.L Units		Blank: Manual drain type C: Semi-anto drain D: Auto Drain type①		Blank: With pressure gauge N: No pressure gauge		②	Blank: 40 μ m 5M: 5 μ m	Blank: G P : PT T : NPT
AC3010: A3000 series FR.L Units								
AC4010: A4000 series FR.L Units	2000 01: 1/8" 02: 1/4" 02: 1/4" 3000 03: 3/8" 04: 1/2" 03: 3/8" 4000 04: 1/2" 06: 3/4"		Blank: Standard type	F: Square pressure gauge Y: Round pressure gauge				

#### Order Example:

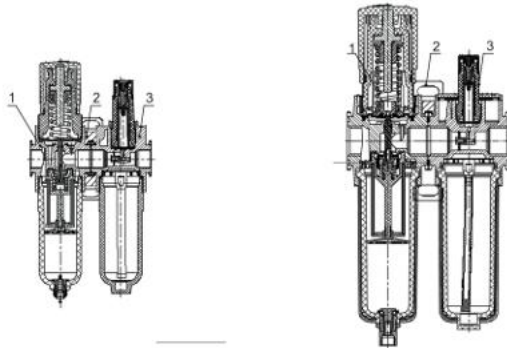
AC series FR.L unit, port size of 1/2", differential pressure drain type, with square pressure gauge, Mpa, 5 μ m, G thread, the ERP code is: AC3010-04CF15M

Remark: ①2000 series without automatic drainage type

②Square pressure gauge is single scale, round pressure gauge is double scale.

**AC Series Air Preparation Unit**

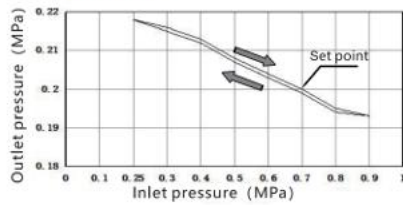
**Internal Structure**



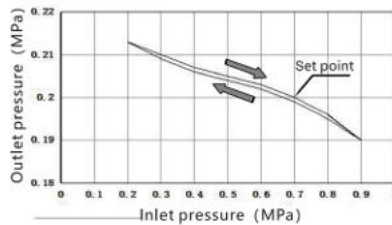
No.	Part Name
1	AC Series filter regulator
2	T type bracket
3	AC Series lubricator

**Pressure Feature**

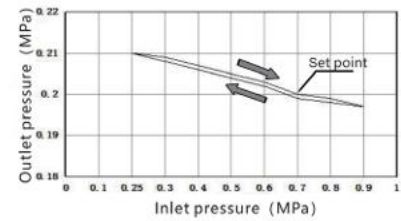
**AC2010**



**AC3010**



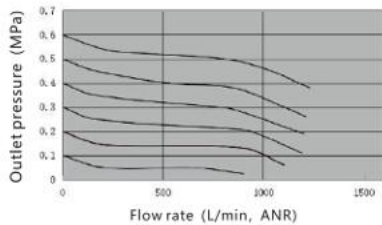
**AC4010**



**Flow Chart**

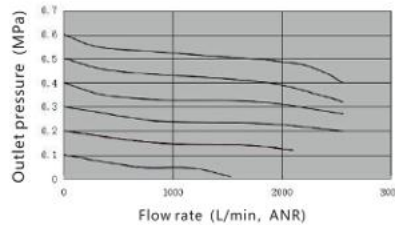
**AC2010**

Flow chart(Inlet pressure 0.7Mpa)



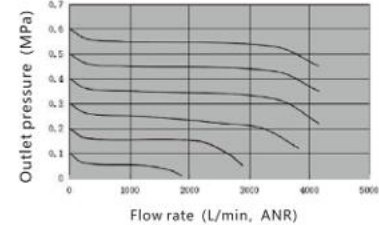
**AC3010**

Flow chart(Inlet pressure 0.7Mpa)

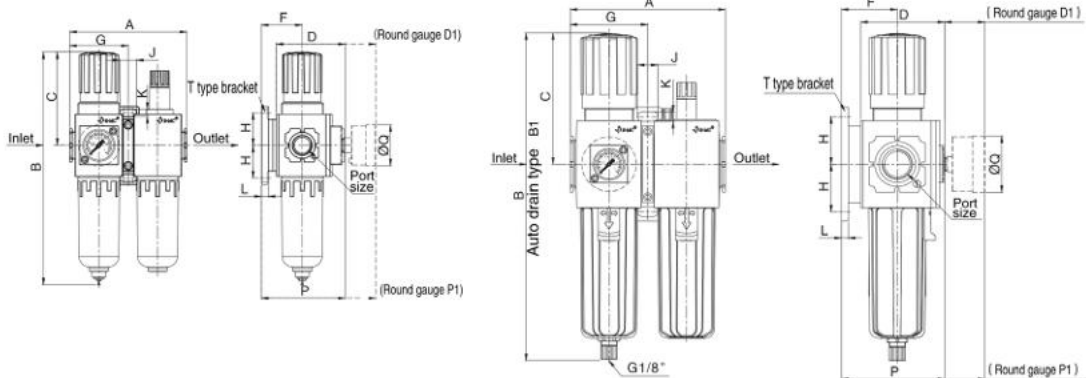


**AC4010**

Flow chart(Inlet pressure 0.7Mpa)



**Main Dimensions**



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	P	P1	Q
AC2010	1/8", 1/4"	86	171.2	-	68.6	50.6	73	30	43	24	12.5	5.5	5	61.6	84	30
AC3010	1/4", 3/8", 1/2"	114	239.6	236.6	96.6	61.6	91.2	41	57	35	15	7	5	75.8	105.4	41.5
AC4010	3/8", 1/2", 3/4"	160	270.2	264.5	105.4	82.1	110.7	50	80	40	17.5	8.5	7	95.3	123.8	41.5

**AR Series Air Preparation Unit**

# AR2000 AR3000 AR4000

## Regulator



### ◆ Specifications

Model	AR2000-01 F2	AR2000-02 F2	AR3000-02 F2	AR3000-03 F2	AR3000-04 F2	AR4000-03 F2	AR4000-04 F2	AR4000-06 F2
Working Medium	Clean Air(after 40 μ m filtration)							
Proof Pressure(MPa)	1.5							
Max. Working Pressure(MPa)	1.0							
Pressure Adjustment Range(Mpa)	0.05~0.9, Low pressure type 0.05~0.4							
Working Temperature(°C)	-5~60 ( No freezing )							
Weight(g)	166		380			684		

### ◆ How to Order?

Series No.	Port size	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Thread Type
AR2000: A2000 series Regulator AR3000: A3000 series Regulator AR4000: A3000 series Regulator	2000 01: 1/8" 02: 1/4" 02: 1/4" 3000 03: 3/8" 04: 1/2" 4000 03: 3/8" 04: 1/2" 06: 3/4"	Blank: Standard type	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge	Blank: With bracket J: No bracket	①	Blank: G P: PT T: NPT
						Square pressure gauge optional { 1: MPa 2: Bar 3: Psi Round pressure gauge optional { 4: Mpa/Psi 5: Bar/Psi	

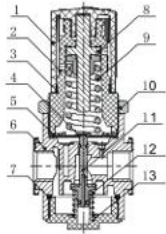
#### Order Example:

AR series Regulator, port size of 1/2", with square pressure gauge, with bracket, Mpa, G thread, the ERP code is: AR3000-04F1

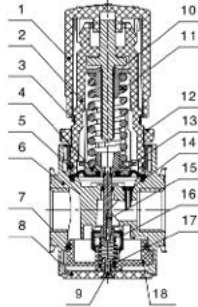
Remark: ① Port of round pressure gauge is M6; It is not allowed to distribute pressure gauges to customers.

**AR Series Air Preparation Unit**

**Internal Structure**



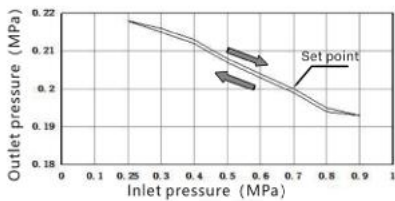
No.	Part Name	Material
1	Pressure regulating handle	Plastics
2	Pressure regulating valve cover	Plastics
3	Marking ring	Plastics
4	Diaphragm	SUS304+NBR
5	Gaskets	6061
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Water bowl	Plastics
9	Pressure regulating screw / Screw set	Free-cutting steel
10	Spring	SWC
11	Octagonal caps	Aluminum alloy
12	Valve stem	Brass
13	Spring	SUS304
14	Water separator propeller	Plastics
15	Valve core	Plastics
16	Water baffle	Plastics



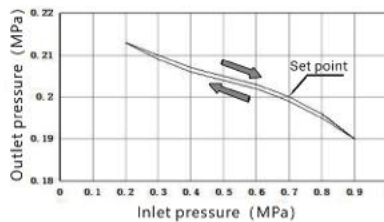
No.	Part Name	Material
1	Pressure regulating handle	Plastics
2	Pressure regulating valve cover	Plastics
3	Marking ring	Plastics
4	Pressure regulating spring seat	Plastics
5	Cover plate	Plastics
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Valve seat cover	Plastics
9	Screw	Mild steel
10	Pressure regulating screw / Screw set	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	Plastics
13	Diaphragm	NBR
14	Interline	Plastics
15	Valve stem	Brass
16	Valve core	6061+NBR
17	Spring	Plastics
18	Pressure regulating valve seat	Plastics

**Pressure Feature**

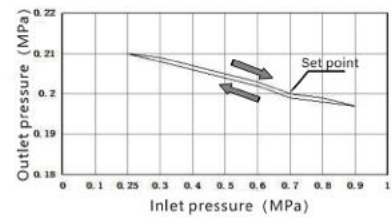
**AR2000**



**AR3000**

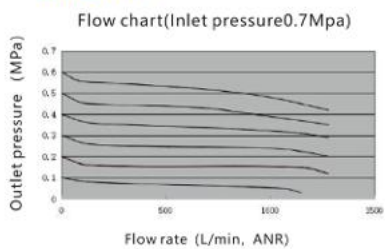


**AR4000**

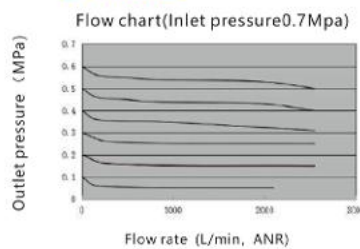


**Flow Chart**

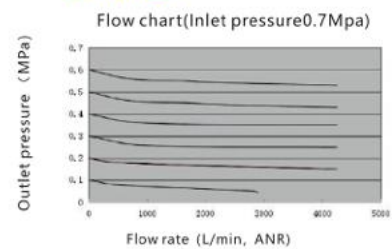
**AR2000**



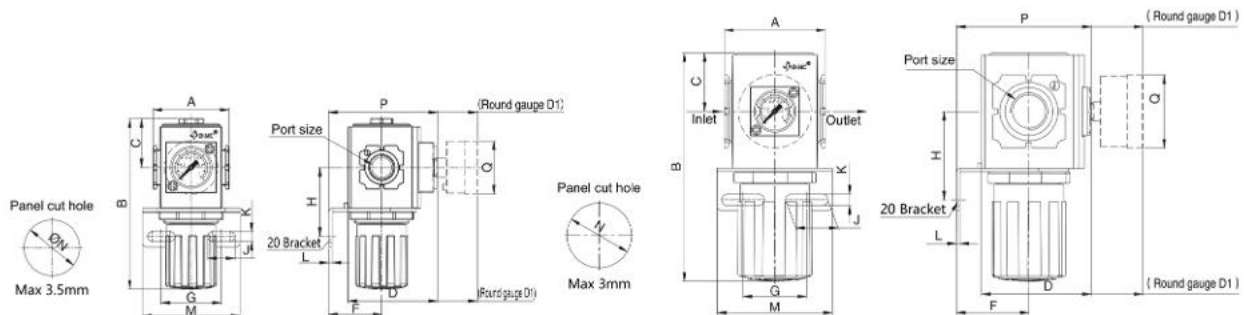
**AR3000**



**AR4000**



**Main Dimensions**



Model	Port Size	A	B	C	D	D1	F	G	H	J	K	L	M	N	P	P1	Q
AR2000	1/8", 1/4"	43	96.3	27.5	50.6	73	30	34	39	15.5	5.5	2	55	31.5	61.6	84	30
AR3000	1/4", 3/8", 1/2"	57	129.1	33	62.1	91.2	41	36	50	24	6.5	2	65	36.5	76.3	105.4	41.5
AR4000	3/8", 1/2", 3/4"	80	141.6	36	82.1	110.7	50	38	53	28	8.5	2.5	72	52.5	95.3	123.9	41.5

**AW Series Air Preparation Unit**

**AW2000 AW3000 AW4000**

**Filter Regulator**



**Specifications**

Model	AW2000-01 F2	AW2000-02 F2	AW3000-02 F2	AW3000-03 F2	AW3000-04 F2	AW4000-03 F2	AW4000-04 F2	AW4000-06 F2
Working Medium	Clean Air(after 40 μ m filtration)							
Proof Pressure(MPa)	1.5							
Working Pressure Range(MPa)	0.15~1.0							
Pressure Adjustment Range(MPa)	0.05~0.9, Low pressure type 0.05~0.4							
Working Temperature(°C)	-5~60 ( No freezing )							
Filter Precision	40 μ m/5 μ m optional							
Recommended Oil	Turbine No.1 Oil, ISO VG32							
Container Material	PC (Polycarbonate)							
Water Bowl Capacity(CC)	11		40			75		
Weight(g)	197		477			853		

**How to Order?**

Series No.	Port size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Filter Precision	Thread Type
AW2000: A2000 series Filter regulator AW3000: A3000 series Filter regulator AW4000: A4000 series Filter regulator	2000 ----- 3000 ----- 4000	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type①	Blank: Standard type	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge	Blank: With bracket J: No bracket	Blank: 40 μ m 5M: 5 μ m	Blank: 40 μ m 5M: 5 μ m	Blank: G P: PT T: NPT
	01: 1/8" 02: 1/4" ----- 02: 1/4" 03: 3/8" 04: 1/2" ----- 03: 3/8" 04: 1/2" 06: 3/4"						Square pressure gauge optional Round pressure gauge optional	1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi	

**Order Example:**

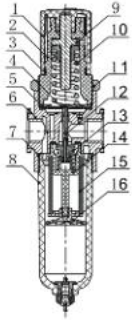
AW series FR unit, port size of 1/2", differential pressure drain type, with square pressure gauge, with bracket, Mpa, 5 μ m, G thread, the ERP code is: AW3000-04CF15M

Remark: ①2000 series without automatic drainage type

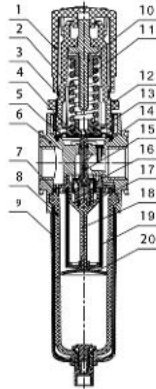
②Square pressure gauge is single scale, round pressure gauge is double scale.

**AW Series Air Preparation Unit**

**Internal Structure**



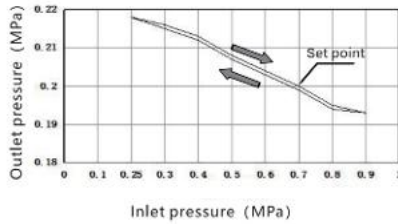
No.	Part Name	Material
1	Pressure regulating handle	Plastics
2	Pressure regulating valve cover	Plastics
3	Marking ring	Plastics
4	Diaphragm	SUS304+NBR
5	Gaskets	6061
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Water bowl	Plastics
9	Protection guard	Plastics
10	Pressure regulating screw/Screw set	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	Aluminum alloy
13	Spring	SUS304
14	Water separator propeller	Plastics
15	Valve core	Plastics
16	Water baffle	Plastics



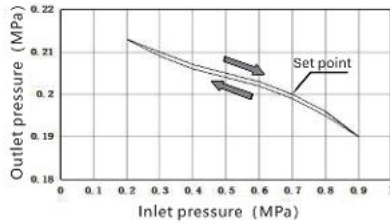
No.	Part Name	Material
1	Pressure regulating handle	Plastics
2	Pressure regulating valve cover	Plastics
3	Marking ring	Plastics
4	Pressure regulating spring seat	Plastics
5	Cover plate	Plastics
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Water bowl	Plastics
9	Protection guard	Plastics
10	Pressure regulating screw/Screw set	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	POM with glass fiber/Zinc alloy
13	Diaphragm	NBR
14	Interline	Plastics
15	Valve stem	Brass
16	Valve core	6061+NBR
17	Spring	SUS304
18	Water separator propeller	Plastics
19	Filter element	Plastics
20	Water baffle	Plastics

**Pressure Feature**

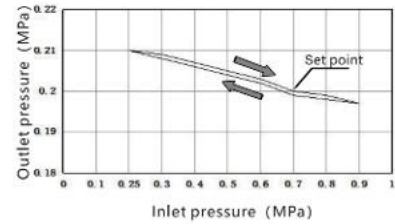
**AW2000**



**AW3000**

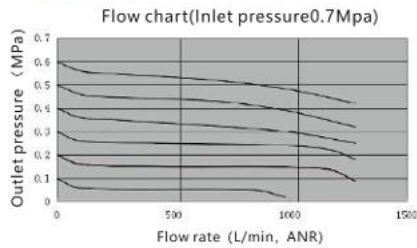


**AW4000**

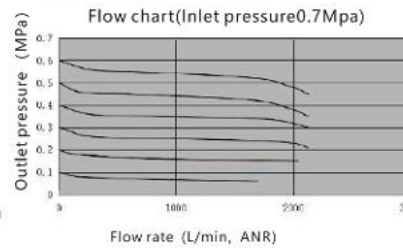


**Flow Chart**

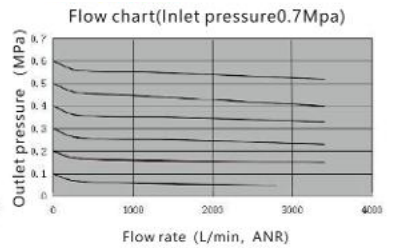
**AW2000**



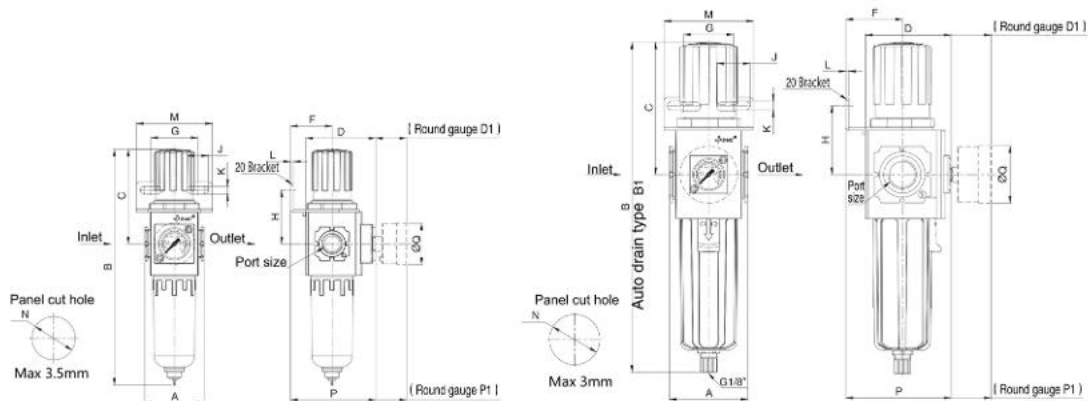
**AW3000**



**AW4000**



**Main Dimensions**



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	M	N	P	P1	Q
AW2000	1/8", 1/4"	43	171.2	-	68.6	50.6	73	30	34	39	15.5	5.5	2	55	31.5	61.6	84	30
AW3000	1/4", 3/8", 1/2"	57	239.6	236.6	96.6	62.1	91.2	41	36	50	24	6.5	2	65	36.5	76.3	105.4	41.5
AW4000	3/8", 1/2", 3/4"	80	270.2	264.5	105.4	82.1	110.7	50	38	53	28	8.5	2.5	72	52.5	95.3	123.9	41.5

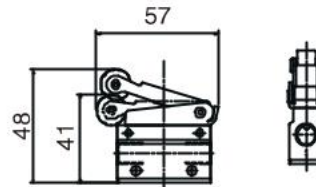
**EMOV Series Mechanical Valve**

# EMOV

## Mechanical Valve

EMOV321-R

◆ Graphic Symbol



### ◆ Product Features

- 1、 The mechanical valve uses manual mode to directly control the opening and closing of the spool, and does not rely on external energy sources (such as electricity, air pressure, etc.) to work;
- 2、 Due to its relatively simple structure, the mechanical valve can still work normally in the case of no power supply or control system failure, with high reliability and self-locking;
- 3、 Mechanical valve internal parts less, less affected by environmental factors, maintenance is relatively simple, long service life;
- 4、 Compared with electronic control or pneumatic smoke, the action response speed of the mechanical valve may be slow, and the adjustment accuracy is relatively low, but it is suitable for occasions without complex adjustment or accurate control of flow and pressure;
- 5、 The cost of the mechanical valve is relatively low, easy to install, the technical requirements of the operator is not high, so it is widely used in many industrial fields and civil facilities;
- 6、 There are a variety of buttons, switches can be selected, suitable for use under different working conditions.

### ◆ How to order

Series code	Valve body size	Nozzle diameter	Button Type	Button color
EMOV: EMOV series	32: 3/2 way	1:G1/8"(EMOV, EMV series optional)	Air self: basic type	R: red
EMJ: EMJ series	52: 5/2 way	2:G1/4"(EMV, EMJ series optional)	R: Roller type	G: Green
EMV: EMV series (Only EMV series optional)		3:PT1/8"(EMOV, EMV series optional)	PP: Parallel button	B: Black
		4:PT1/4"(EMV, EMJ series optional)	EB: Button with lock	Y: Yellow
		5:NPT1/8"(EMOV, EMV series optional)	PPL: Concave button	
		6:NPT1/4"(EMV, EMJ series optional)	PB: Big round button	
		The conventional thread is G-thread	TB: Select button	

#### Ordering example:

EMV series mechanical valve , 2/3 way, nozzle diameter 1/8, G thread,select button, its ERP code is EMV321-TB.

### ◆ Specification

Model number	EMOV321	EJM322	EMV321	EMV521
Working medium	Clean air(After 40 μm filtration)			
Acting type	External control			
Lubrication	unnecessary			
Working pressure(Mpa)	0-0.8			
Maximum pressure resistance(Mpa)	1.2			
Working temperature(°C)	-5~60			
Maximum operating frequency	5 cycles/s			
Nozzle diameter	1/8", 1/4"			

**GHF Series Low Profile Air Gripper**

**GHF**

Low Profile Air Gripper

GHF: Double Acting, with magnet



◆ **Specification**

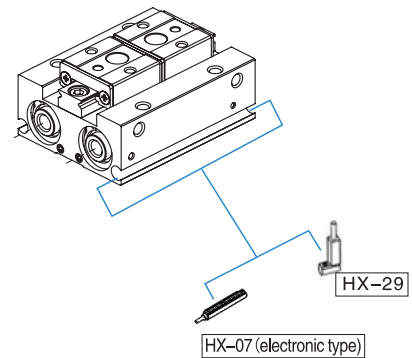
Bore Size	8	12	16	20
Acting Type	Double Acting			
Working Medium	Clean air(40 μm filtration)			
Applicable Pressure Reage	0.15~0.7MPa	0.1~0.7MPa		
Working Temperature	-20~70 ( No freezing )			
Oil	Not required			
Repetition accuracy ①	± 0.05mm			
Maximum Frequency	Short Stroke	120c.p.m		
	Medium Stroke	120c.p.m		
	Long Stroke	60c.p.m		
Port Size	M3X0.5	M5X0.8		

① Is the value of the gripper without the role of bias load state; conversely, affected by the tooth gap between the rack and gear, the maximum value is 15mm

◆ **How to Order?**

Series No.	Bore Size	Double Acting	Stroke	Connecting Type	Magnet No
SHF:Low Profile Air Gripper	8 12 16 20	D	Blank 1 2	Blank:Axial Ported R:Side ported	Blank:With magnet
			Blank Short Stroke 1 Medium Stroke 2 Long Stroke		
				Blank:Axial Ported R:Side Ported	

◆ **Optional Accessories**



Note: Short stroke please use HX-29 series due to limited space.

**Order Example:** SHF Compact air gripper, Bore 12, Medium stroke, Side air intake, with magnet, ERP code is: SHF12D1R

◆ **Products Features**

1. Stainless steel gripper & linear ball guide design, high precision, good rigidity, good corrosion resistance for longer life spans.
2. Double piston structure design can provide bigger clamping force.
3. The bottom of the body is equipped with positioning pin holes to effectively enhance the installation accuracy and improve the consistency of repeated disassembly and positioning.
4. The Gripper can be installed from four directions freely.
5. Compared with the parallel air gripper with the same clamping force, this thin body design reduces the overall height by 50%, which effectively reduces the installation space and shaking torque, reduces the deviation, and improves the accuracy.
6. The body is designed with a buried induction switch slot to reduce the space.
7. All series are with magnetic.

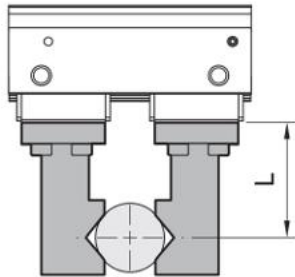
◆ **Standrad Stroke**

Stroke/Bore(mm)	∅8	∅12	∅16	∅20
Short Stroke	8mm	12mm	16mm	20mm
Medium Stroke	16mm	24mm	32mm	40mm
Long Stroke	32mm	48mm	64mm	80mm

Note: The short, medium and long strokes are standardized for each bore, and the most suitable stroke can be selected to be easier matched.

**GHF Series Low Profile Air Gripper**

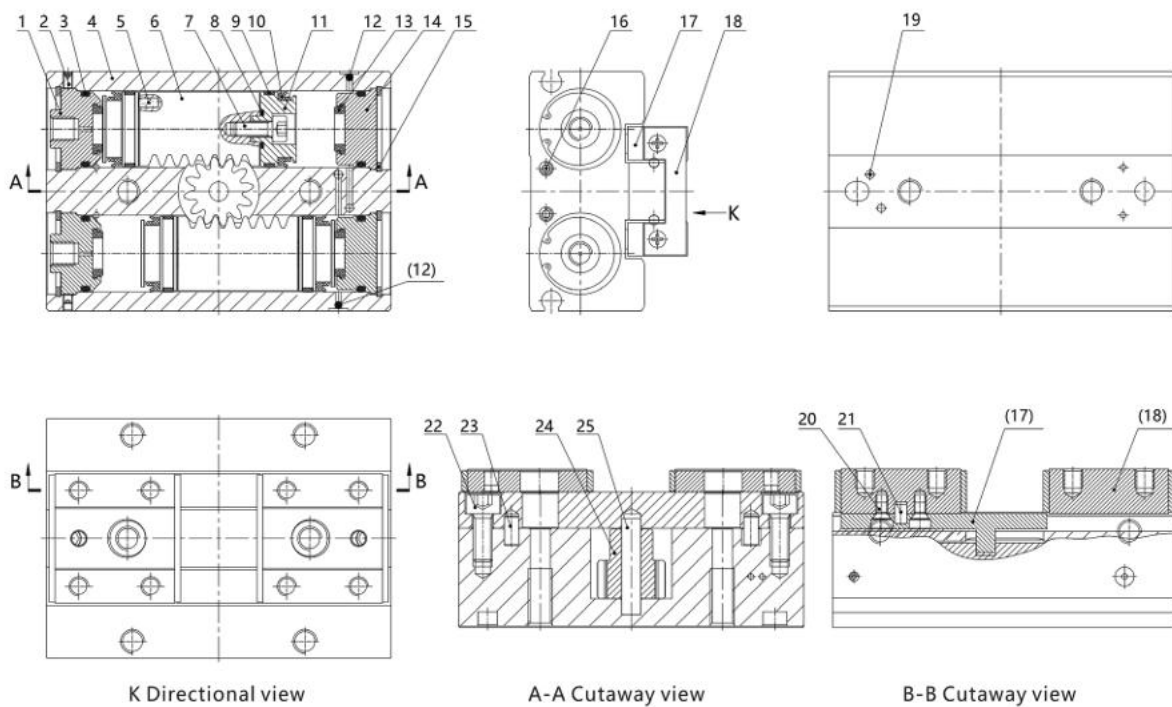
◆ **Clamping Force**



Model Number	Effective clamping force of a single gripper(N)(*)	Weight(g)
GHF 8D	19	59
GHF 8D1		78
GHF 8D2		110
GHF 12D	48	145
GHF 12D1		185
GHF 12D2		270
GHF 16D	90	344
GHF 16D1		441
GHF 16D2		642
GHF 20D	141	659
GHF 20D1		847
GHF 20D2		1221

\*Pressure 0.5MPa, clamping point L=20mm, and the value at the center of the stroke.

◆ **Internal Structure**



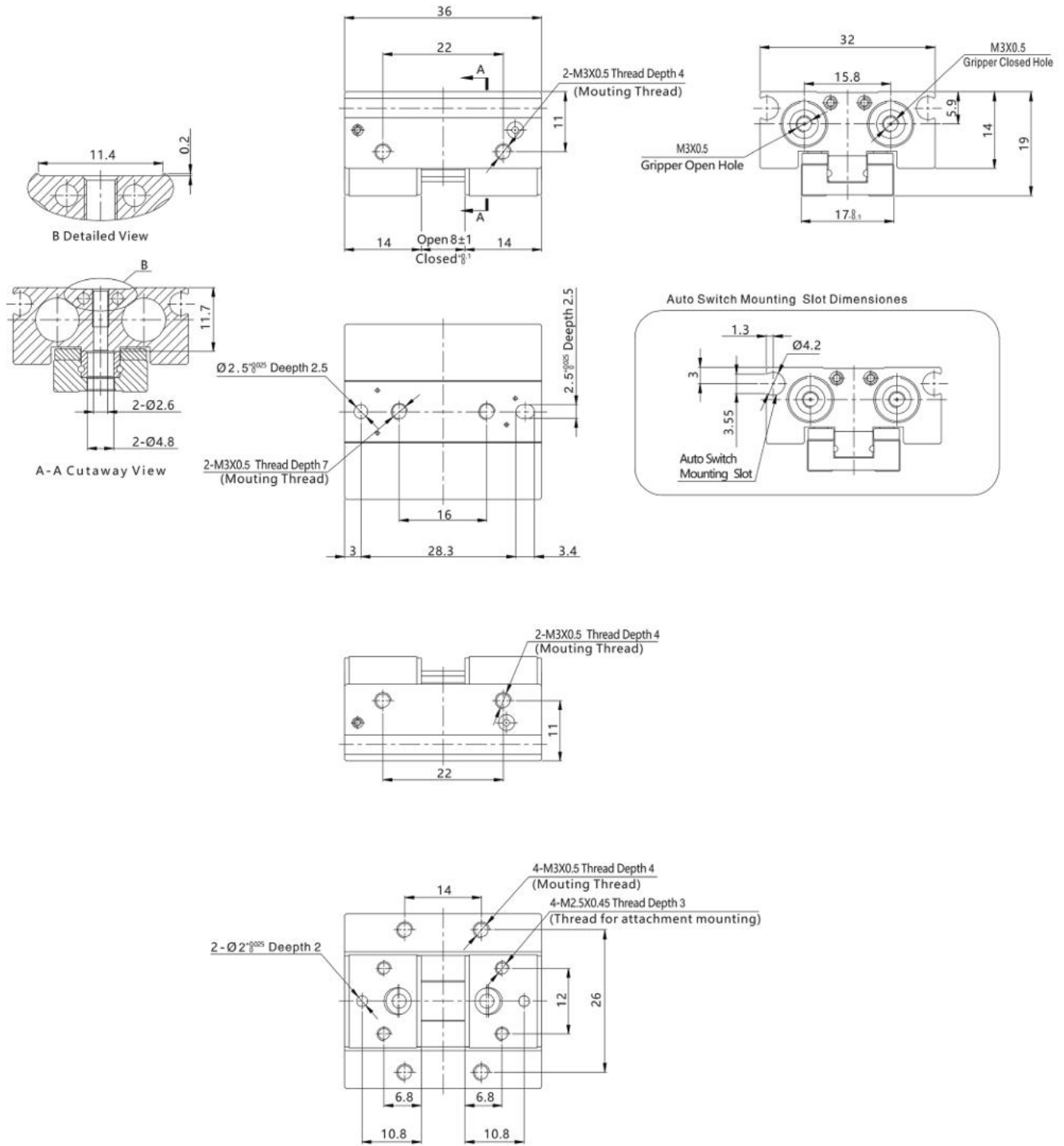
No.	Part Name	Material	No.	Part Name	Material	No.	Part Name	Material
1	Front cover	Aluminum alloy	10	Piston seal	NBR	19	Steel ball	Stainless steel
2	Hexagon socket set screw	Q235	11	Piston	Aluminum alloy	20	Screws	Stainless steel
3	O-ring	NBR	12	Steel ball	Stainless steel	21	Pin	Bearing Steel
4	Barrel	Aluminum alloy	13	Anti-bump cushion	TPU	22	Hexagon socket cap screw	Stainless steel
5	Magnet	Sintered NdFeB	14	Rear cover	Aluminum alloy	23	Positioning pins	Stainless steel
6	Rack	Stainless steel	15	C type ring	Spring steel	24	Gear	Carbon Steel
7	Hexagon socket cap screw	Stainless steel	16	Hexagon socket set screw	Q235	25	Pin	Bearing Steel
8	O-ring	NBR	17	Connector	Stainless steel			
9	Wear ring	PTFE	18	Linear ball sliding guide	Combined parts			

Note: 1. Commercially available socket cap screws are sufficient when E04-SHF12, 16 compact air grippers are used for body through-hole mounting.  
2. In the above table, SE04-HF12D short stroke without wear ring.

**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

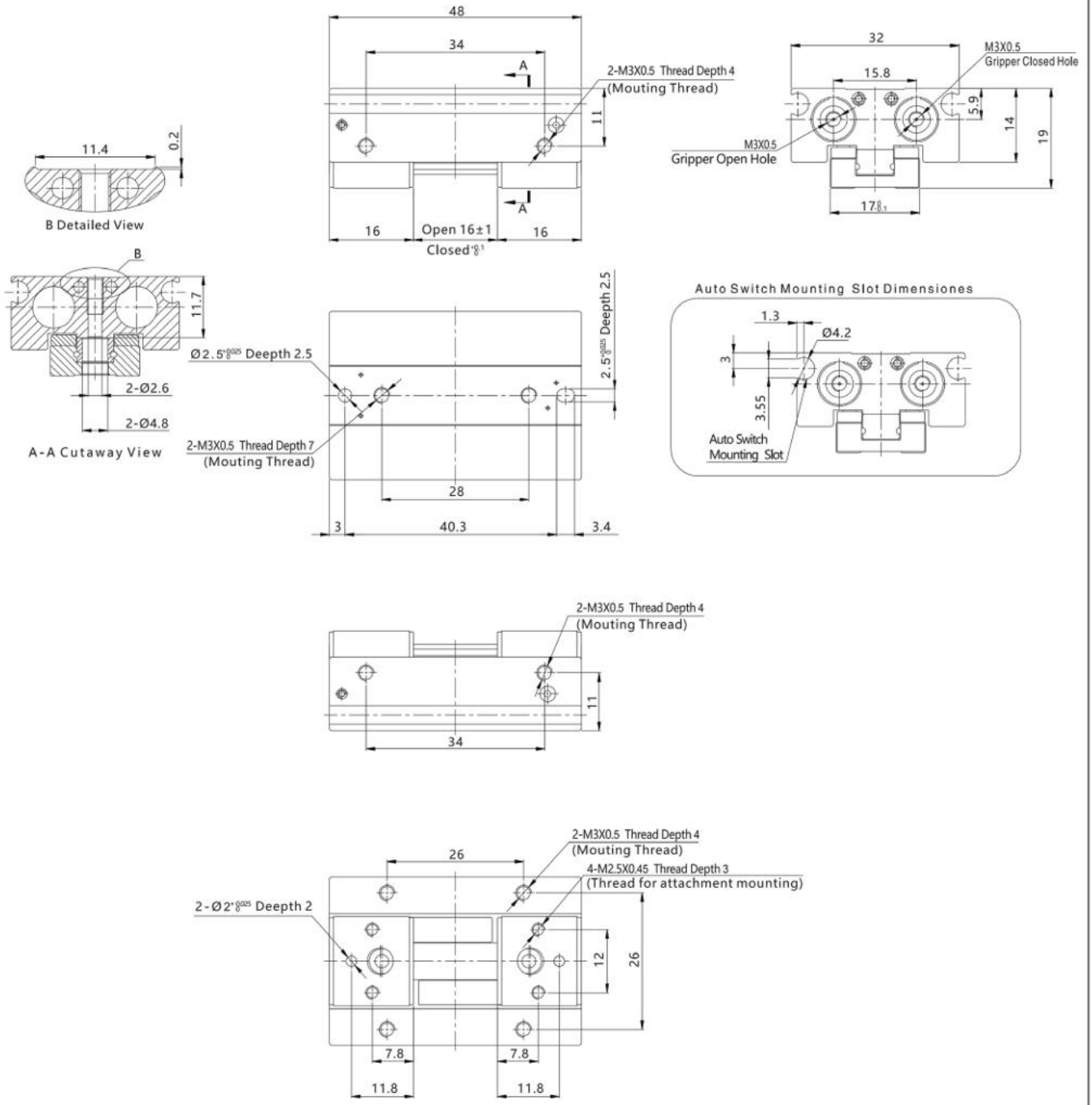
GHF 8D



**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

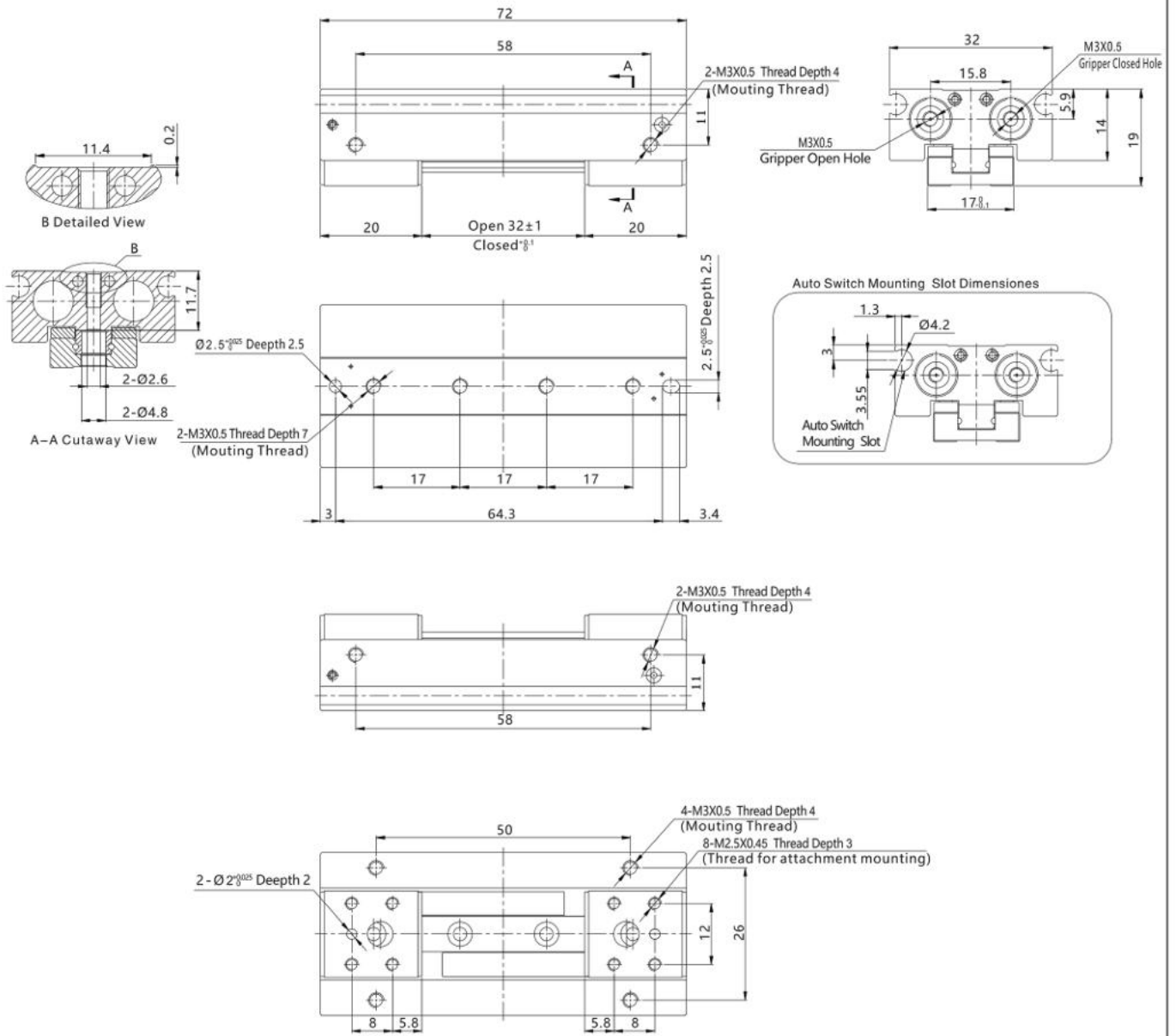
**GHF 8D1**



**GHF Series Low Profile Air Gripper**

**Main Dimension**

GHF 8D2

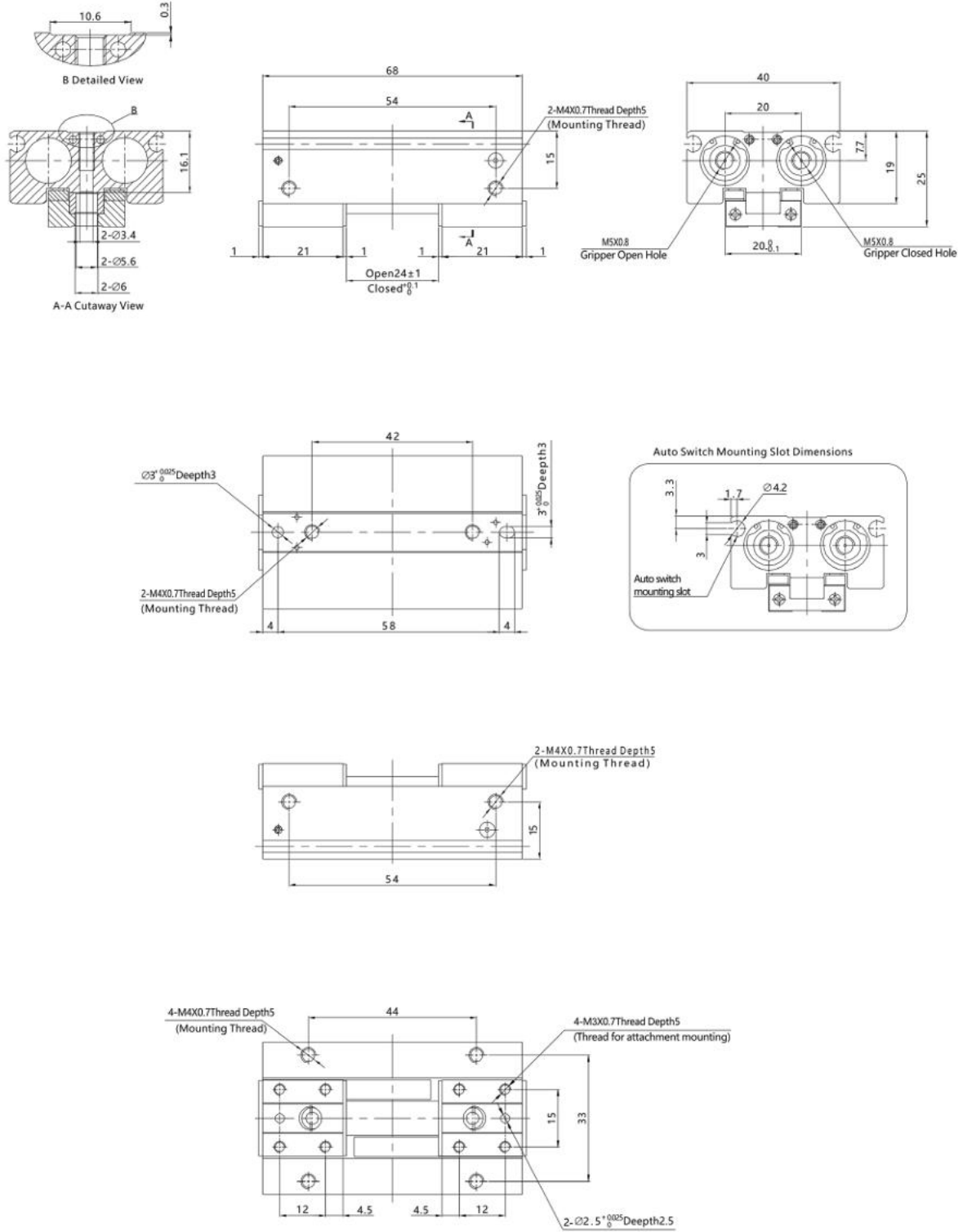




**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

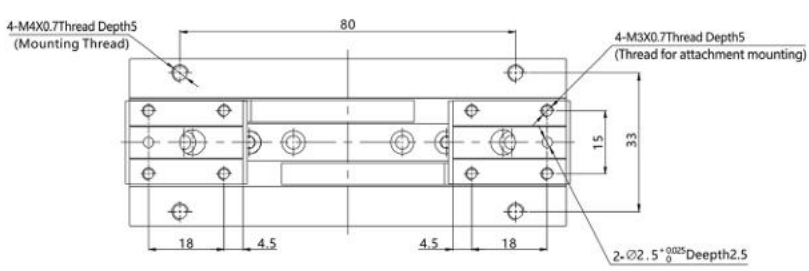
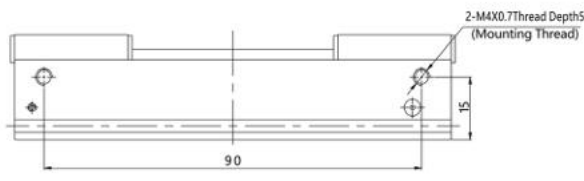
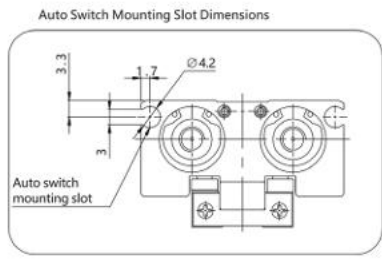
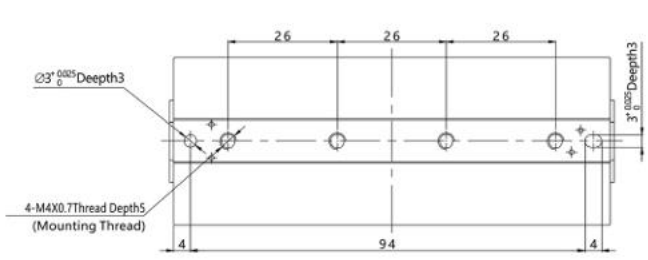
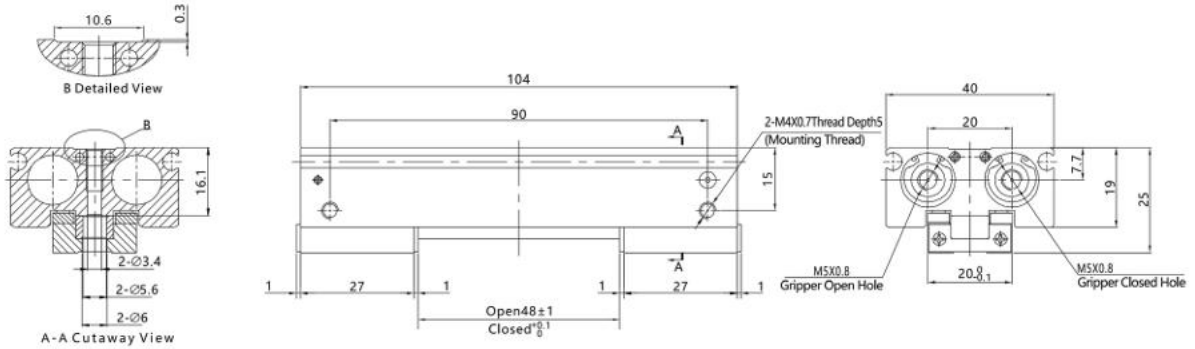
GHF 12D1



**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

**GHF 12D2**

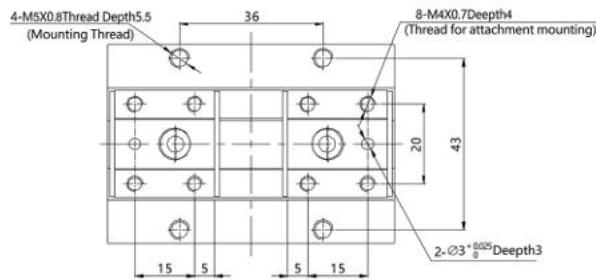
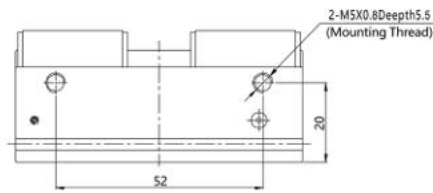
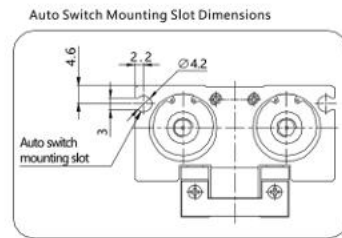
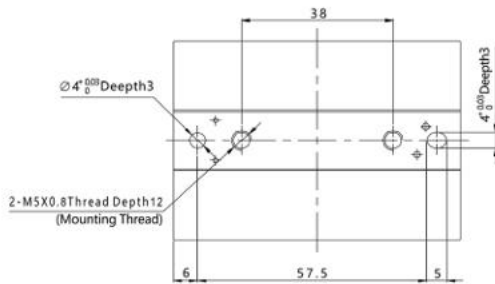
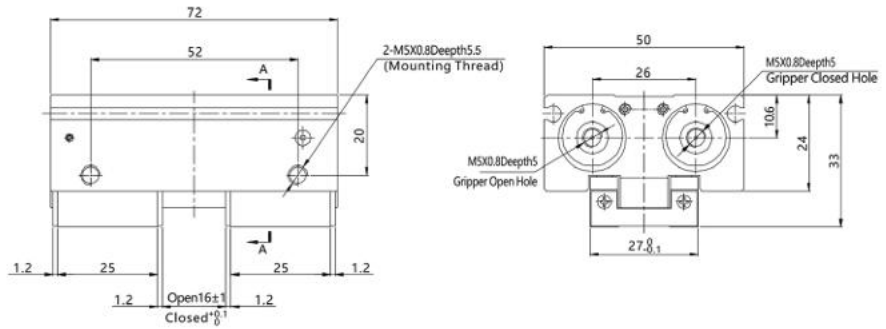
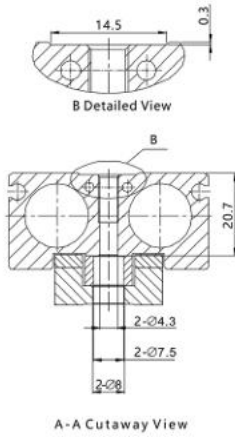


XV

**GHF Series Low Profile Air Gripper**

**Main Dimension**

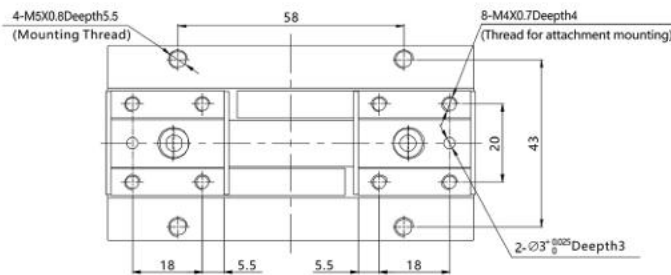
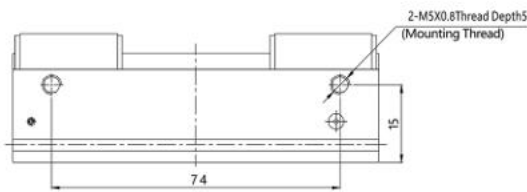
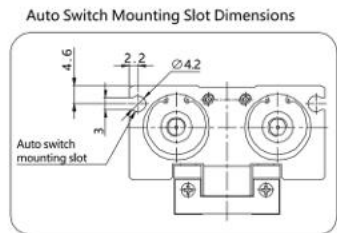
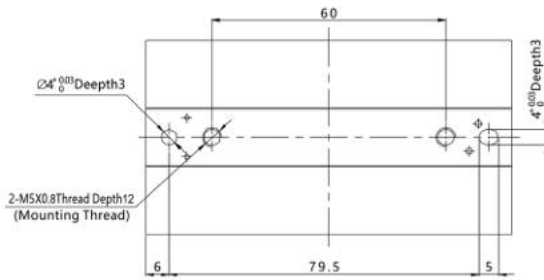
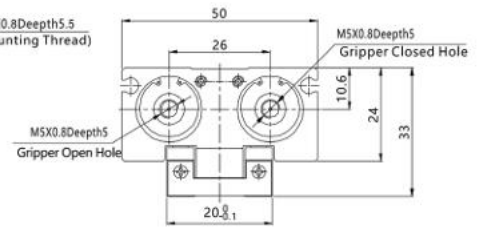
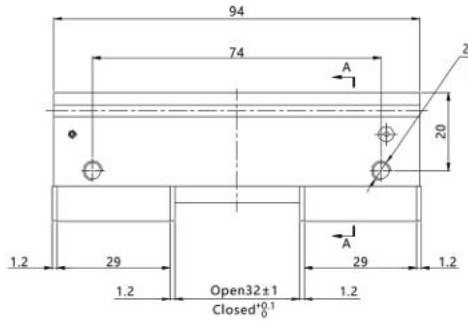
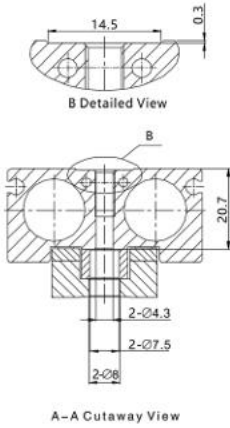
GHF 16D



**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

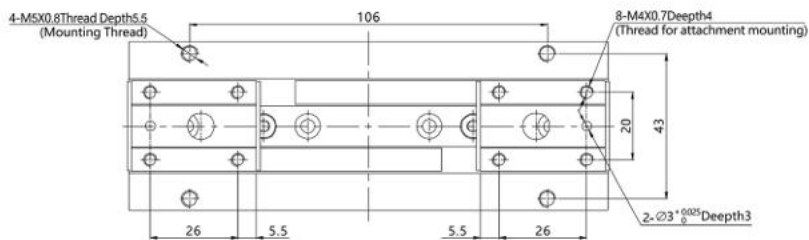
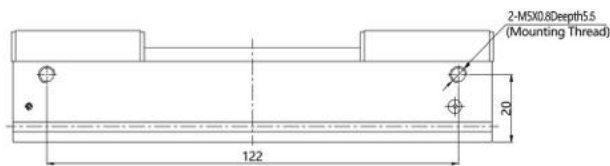
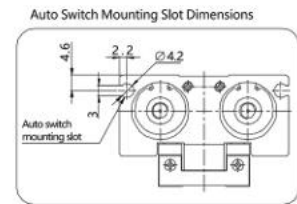
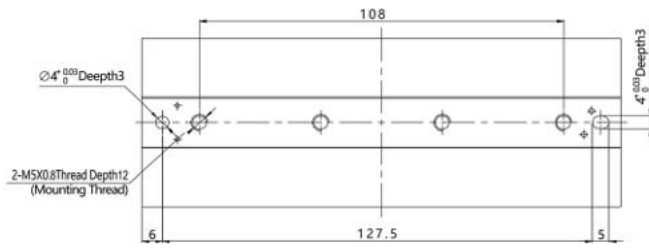
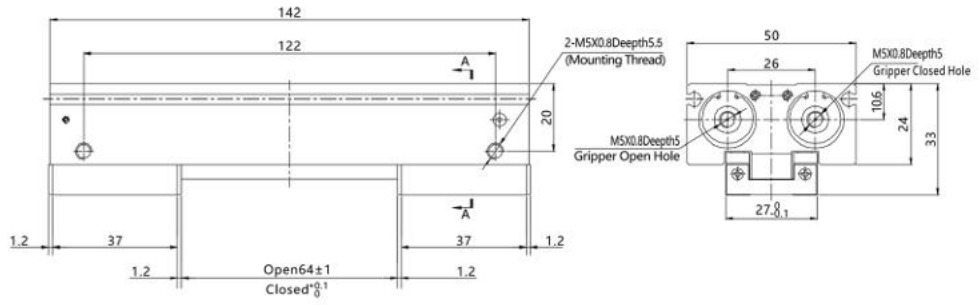
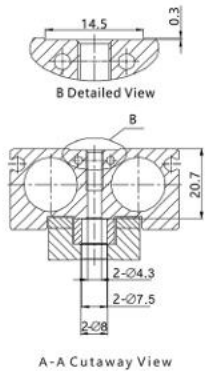
**GHF 16D1**



**GHF Series Low Profile Air Gripper**

**Main Dimension**

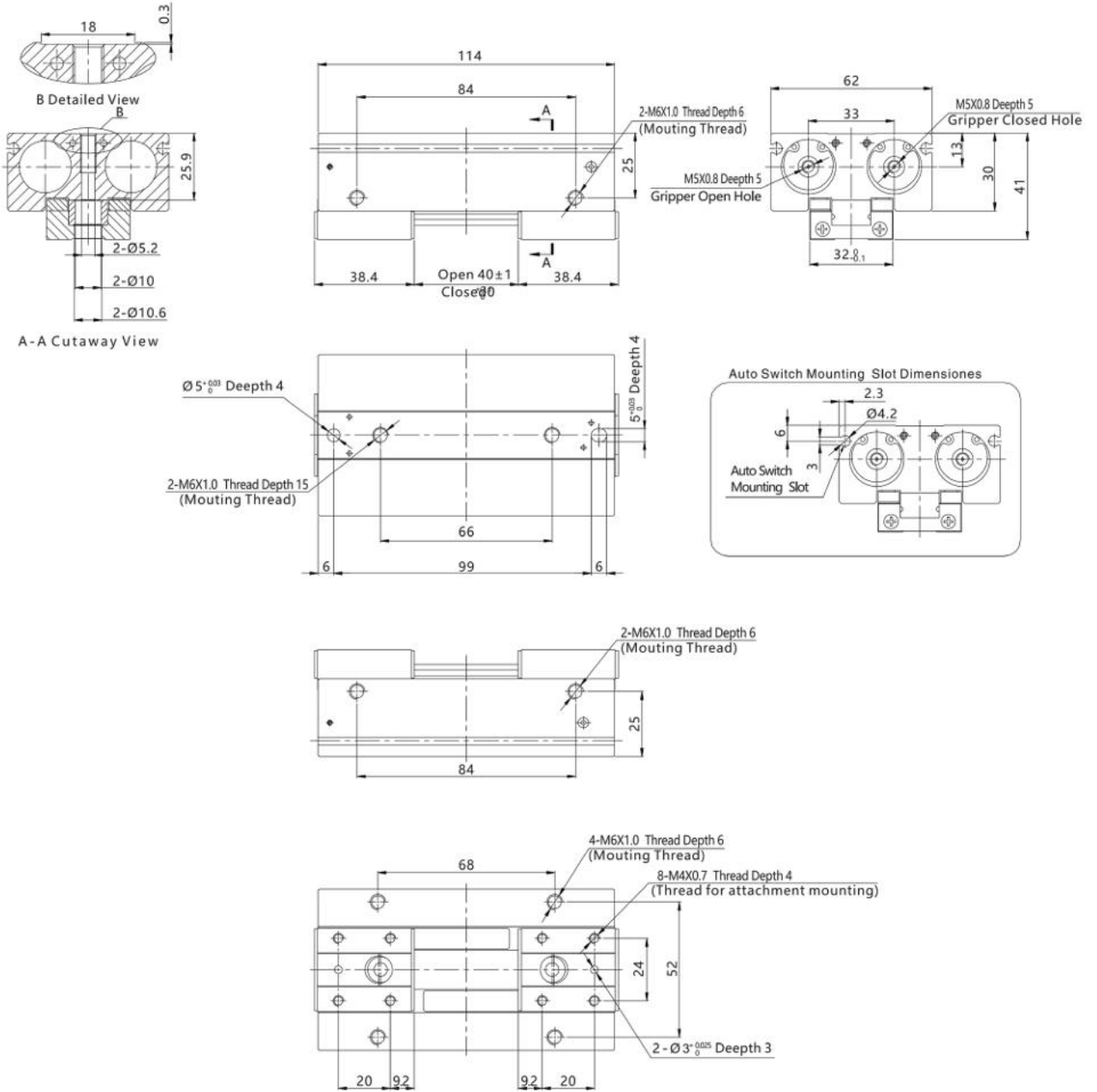
**GHF 16D2**



**GHF Series Low Profile Air Gripper**

◆ **Main Dimension**

**GHF 20D1**

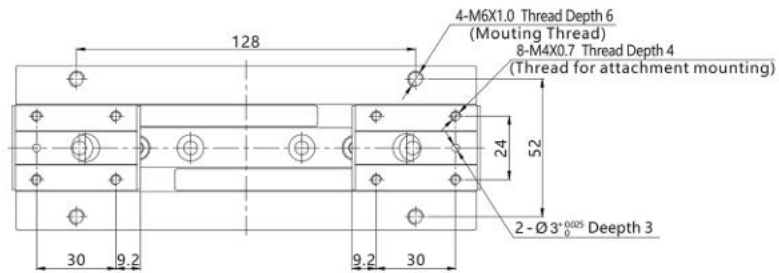
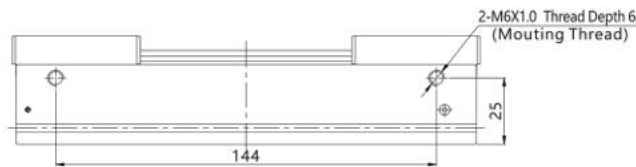
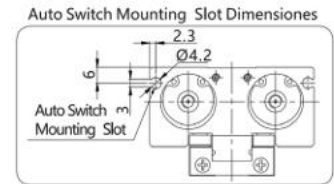
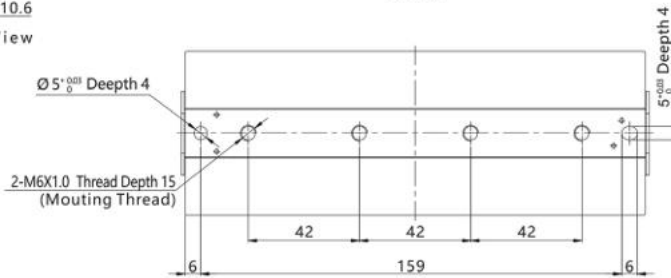
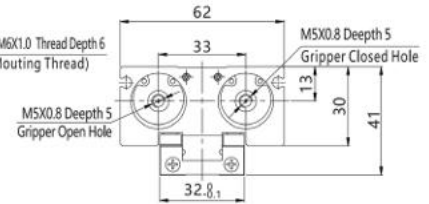
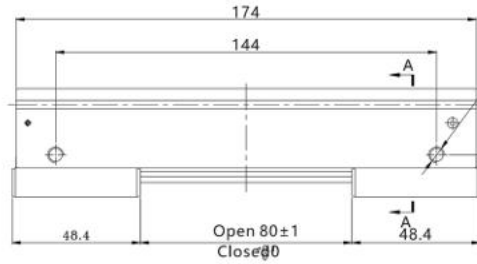
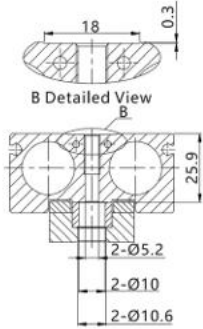




**GHF Series Low Profile Air Gripper**

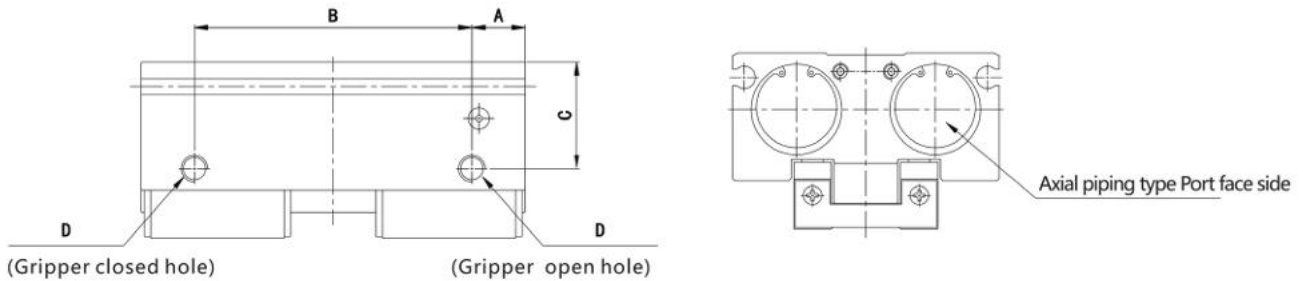
◆ **Main Dimension**

**GHF 20D2**



**GHF Series Low Profile Air Gripper**

◆ **Main Body Options: Side Ported Type**

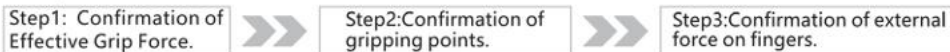


Model	GHF8DR	GHF8D1R	GHF8D2R	GHF12DR	GHF12D1R	GHF12D2R	GHF16DR	GHF16D1R	GHF16D2R	GHF20DR	GHF20D1R	GHF20D2R
A	5.5			7			9			10		
B	25	37	61	38	54	90	54	76	124	66	94	154
C	11			14.8			19			23		
D	M3×0.5			M5×0.8			M5×0.8			M5×0.8		

Note: Dimensions other than the above are the same as the Horizontal ported type

◆ **Model Selection**

**Selected Steps**



**Step 1 Effective gripping force confirmation**



Confirmed example

Workpiece mass: 0.15kg  
Gripping Method: External diameter

**Roughly select the model according to the quality**

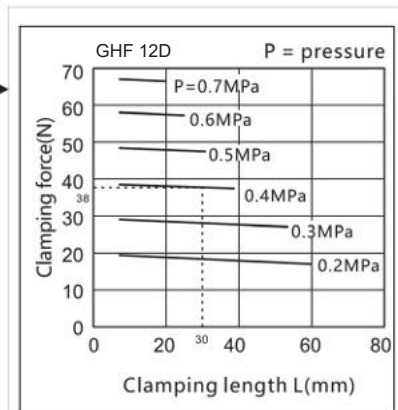
- According to the difference in friction coefficient and shape between the workpiece and the accessories, the type of air gripper with the gripping force of the fingers 10~20 times the weight of the workpiece should be selected.
- \*Check detailed information from the explanatory drawing.
- If bigger accelerated speed or impact force in the application, more extra allowance requested.

**Example of calculation**

When you want to set the clamping force to be 20 times or more the weight of the workpiece.  
Necessary clamping force = 0.15kg × 20 × 9.8m/S<sup>2</sup> = 29.4N or more

Grip point distance: 30mm

Working pressure: 0.4MPa



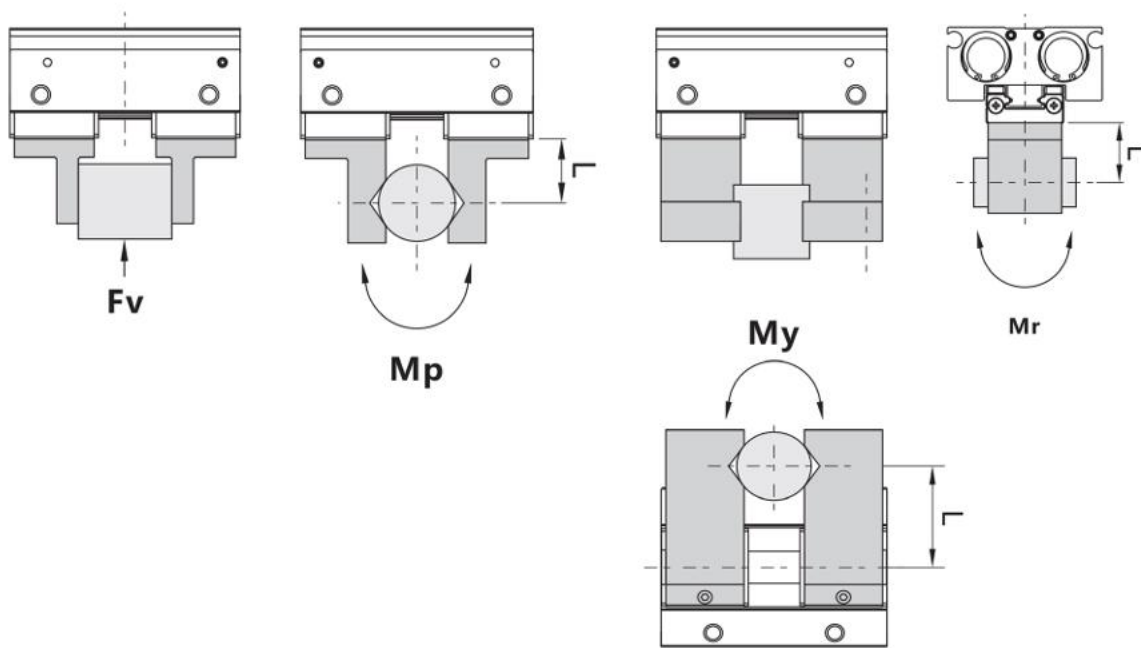
**Occasion To Try SHF12D**

- From the intersection of the clamping point L=30mm and the pressure P=0.4MPa, find the clamping force  
Clamping N=38N
- The clamping force of 38 meets the necessary clamping force of 29.4N, so SHF12D can be selected.

**GHF Series Low Profile Air Gripper**

◆ **Model Selection**

**Step3 Confirmation of external force on fingers**



L: The distance to the load application point

Model	Vertical direction Allowable load Fv(N)	Maximum allowable torque		
		Bending torque Mp(N.m)	Deflection torque My(N.m)	Rotation torque Mr(N.m)
GHF 8D□	58	0.26	0.26	0.53
GHF 12D□	98	0.68	0.68	1.4
GHF 16D□	176	1.4	1.4	2.8
GHF 20D□	294	2	2	4

Note: The load and moment values in the table are static values

Calculation of allowable external force (when moment load is applied)	Example of calculation
$\text{Allowable load } F(\text{N}) = \frac{M(\text{maximum allowable moment}) (\text{N.m})}{L \times 10^{-3} \times \text{※}}$ <p>(※ Is the unit conversion constant)</p>	<p>When the actual static load <math>f=10\text{N}</math>, the bending moment of the point <math>L=30\text{mm}</math> from the end face of the jaw of SHF2-12D</p> $\text{Allowable load } F = \frac{0.68}{30 \times 10^{-3}}$ $= 22.7 (\text{N})$ <p>Load <math>f=10(\text{N}) &lt; 22.7(\text{N})</math></p> <p>so you can use.</p>

## GHF Series Low Profile Air Gripper

### Installation and Use

**1. When installing, do not let the air gripper fall or be hit, so as to avoid damage to the product and dents.**

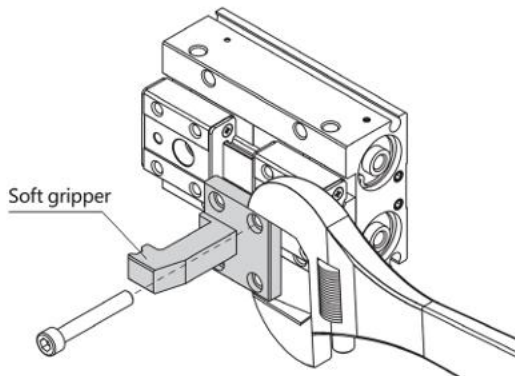
Slight deformation will cause poor accuracy and work not well.

**2. When installing accessories, please properly tighten the screws within the limited torque range.**

Tightening with a torque out of the torque range may cause malfunction, and if the tightening torque is insufficient, positional displacement or drop may occur.

#### How to install the gripper attachment

Attach the attachment to the mounting female thread of the jaws with screws, etc., using the tightening torque in the table below.



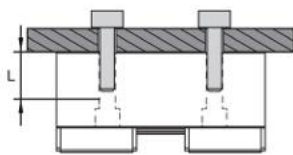
Model	Screws used	Maximum tightening torque N.m
GHF 8D□	M2.5×0.45	0.36
GHF 12D□	M3×0.5	0.63
GHF 16D□	M4×0.7	1.5
GHF 20D□	M4×0.7	1.5

**3. When installing the air gripper, please properly tighten the screws within the limited torque range.**

Bad action if bigger tighten torque;  
Position offset or fall if smaller tighten torque.

#### How to install the gripper attachment

Top mount type (main body screw hole)



Model	Screws used	Maximum tightening torque N.m	Maximum thread entry depth Lmm
GHF 8D□	M3×0.5	0.95	7
GHF 12D□	M4×0.7	2.2	10
GHF 16D□	M5×0.8	4.5	12
GHF 20D□	M6×1.0	7.8	15

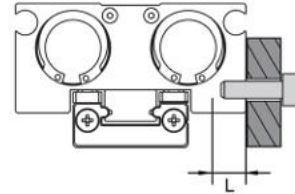
### Use Environment



**Pay attention to the corrosion resistance of linear guides.**

The materials of Fingers & guides are martensitic stainless steel, which is weaker than. Martensitic stainless steel is used on fingers and rails; compared with austenitic stainless steel, the corrosion resistance is weak; especially in the environment where there are water droplets such as freezing dew, there is a problem of rust

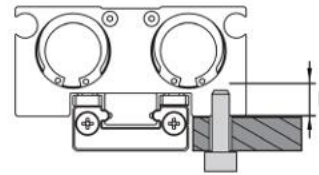
Side Mount Type (Through Hole in Body)



Model	Screws used	Maximum tightening torque N.m	Maximum thread entry depth Lmm
GHF 8D□	M3×0.5	0.63	4
GHF 12D□	M4×0.7	1.5	5
GHF 16D□	M5×0.8	3	5.5
GHF 20D□	M6×1.0	5.2	6

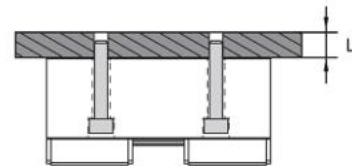
Bottom mount type (main body screw hole, main body through hole)

1. Use the main body screw holes



Model	Screws used	Maximum tightening torque N.m	Maximum thread entry depth Lmm
GHF 8D□	M3×0.5	0.63	4
GHF 12D□	M4×0.7	1.5	5
GHF 16D□	M5×0.8	3	5.5
GHF 20D□	M6×1.0	5.2	6

2. Use the empty holes without thread



Model	Screws used	Maximum tightening torque N.m	Maximum thread entry depth Lmm
GHF 8D□	★M2.5×0.45	0.36	4.3
GHF 12D□	M3×0.5	0.63	—
GHF 16D□	M4×0.7	1.5	—
GHF 20D□	M5×0.8	3	—

Note: When the SHF12, 16 thin air gripper is installed through the main body, the commercially available hexagon socket screws can be used; the screw depth depends on the specific installation situation.

Note: When SHF air grippers are used for body through-hole mounting:

★1: SHF8 use the included special screws

2: SHF12, 16 20 commercially available socket cap screws

3: The screw screwing depth depends on the customer's specific installation situation.

**GHR Series 180° Angular Style Air Gripper**

**GHR**  
Air gripper

GHR: Standard double acting type



**Specifications**

Bore size(mm)	10	16	20	25
Action type	Double Acting			
Working medium	Clean Air(40 μm filtration)			
Operating pressure	0.15~0.7MPa(22~100psi)(1.5~7.0bar)			
Ambient and fluid temperature(°C)	-20~70( No freezing)			
Lubrication	Cylinder: Not required Gripper: Fingers: grease required			
Theoretical gripping force (N.m)①	0.16	0.55	1.10	2.30
Max. operating frequency	60(C.P.M)			
Opening/Closing angle (°)	Open:180±2, Close:-2~5			
Repeatability (mm)	±0.2			
Cushion type	Rubber cushion			
Port size	M5X0.8			
Weight(g)	67	142	312	552

① The indicated gripping forces were measured at room temperature at an operating pressure of 0.5Mpa

**How to Order?**

Series	Bore	Magnet No.
GHR:180° Open Close Style Air gripper	10 16 20 25	S : With magnet (Magnet is standard)

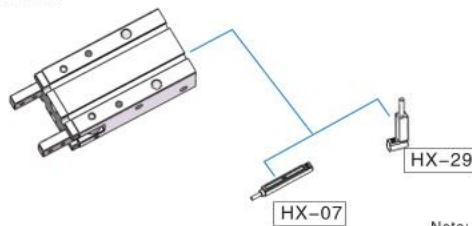
Order Example:

GHR Series 180°Open/Close Style Air gripper, Bore25,with magnet,ERP code is:GHR25-S

**Product Features**

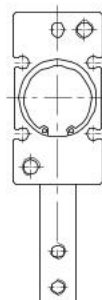
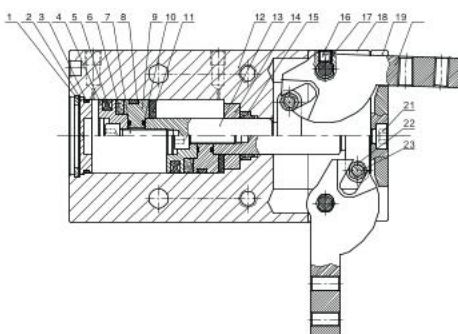
1. Unique design for the opening and closing, effectively preventing foreign objects from entering
2. Special shutter used between fingers and body, reducing wearing and extending lifetime
3. 180° opening and closing type, simplify gripping and releasing, avoid workpiece motion space, wider applications
4. Built-in sensor switch groove, easy for mounting
5. Multi mounting types, convenient for using under different conditions
6. All sizes are built with magnet, easy for controlling

**Optional Accessories**



Note: For shorter stroke, due to limited space, please use HX-29

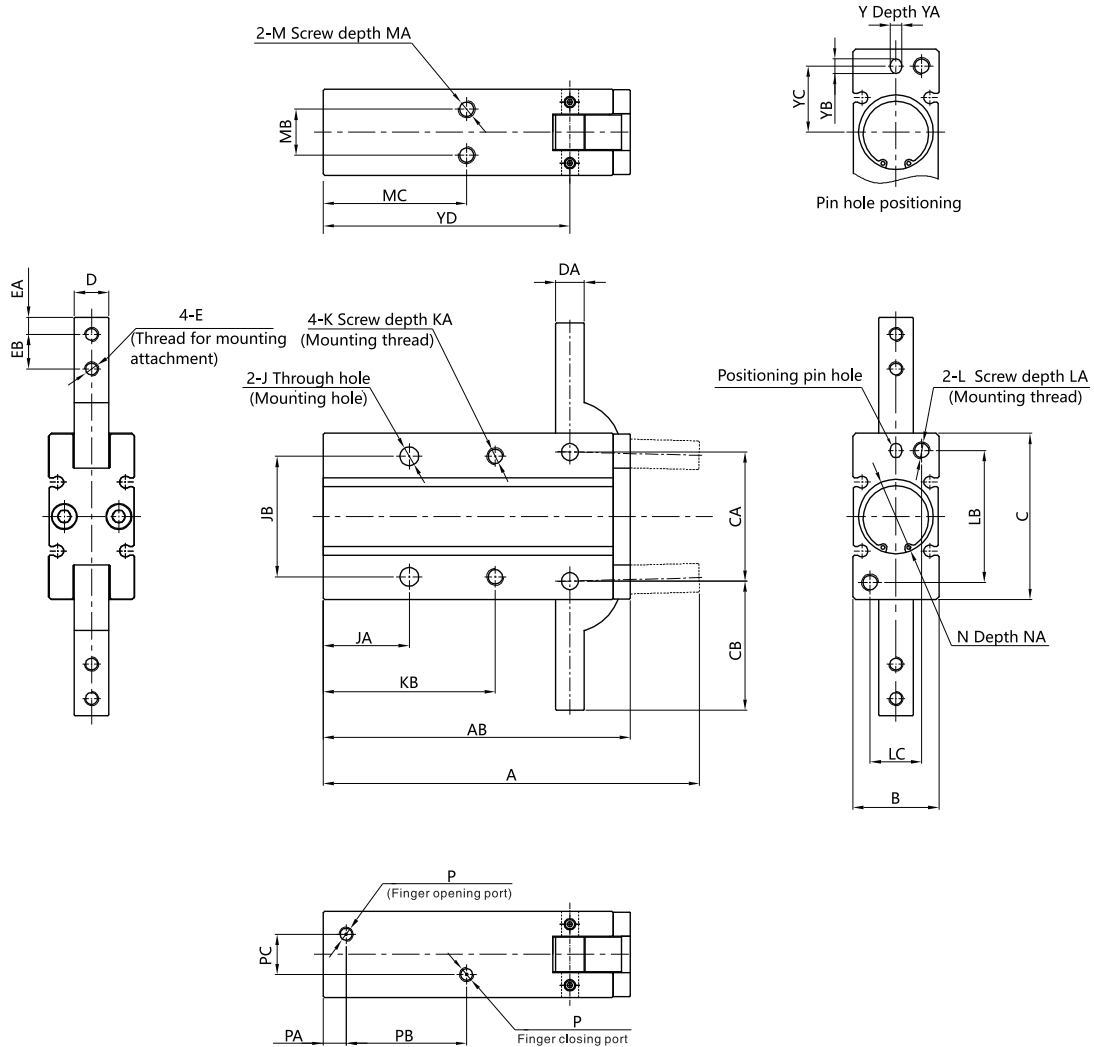
**Internal Structure**



No.	Part Name	Material	No.	Part Name	Material
1	Type C retaining ring	Spring steel	13	Joint	Stainless steel
2	Rear cover	Aluminum alloy	14	Dust baffle	Brass
3	O-ring	NBR	15	Piston rod seal	NBR
4	Piston	Aluminum alloy	16	Hexagon socket set screw	Carbon steel
5	Piston seal	NBR	17	Pin	Stainless steel
6	Rutile Boron	Rutile Boron	18	Blade	Stainless steel (φ16, φ20, φ25) φ10
7	Hexagon socket cap screw	Carbon steel (φ16, φ20, φ25) φ10 (Class increased counterlock head screws)	19	Cover plate	Aluminum alloy
8	Wear ring	PTFE	20	Gripper	Stainless steel
9	Magnet	Aluminum alloy	21	Hexagon socket cap screw	Carbon steel
10	O-ring	NBR (φ16, φ20, φ25) φ10	22	Pin sleeve	Stainless steel (φ20, φ25) φ10, φ15
11	Anti-bump cushion	TPU (φ10, φ15, φ20) NBR (φ25)	23	Pin	Stainless steel
12	Body	Aluminum alloy			

**GHR Series 180° Angular Style Air Gripper**

**Main Dimension**



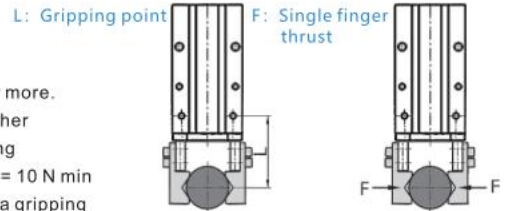
Bore/Sign	A	AB	B	C	CA	CB	D	DA	E	EA	EB	J	JA	JB	K	KA	KB	L	LA	LB	LC
GHR10	71	58	15	30	22	23.5	6	4	M3X0.5	3	6	Ø3.4	18	24	M3X0.5	6	35	M3X0.5	6	24	9
GHR16	84	69	20	38	28	28.5	8	5	M3X0.5	4	7	Ø4.5	20	30	M4X0.7	8	41	M4X0.7	8	30	12
GHR20	106	86	26	48	36	37	10	8	M4X0.7	5	9	Ø5.5	25	36	M5X0.8	10	50	M5X0.8	10	38	16
GHR25	131	107	30	58	45	45	12	10	M5X0.8	6	12	Ø6.6	30	42	M6X1.0	12	60	M6X1.0	12	46	18
Bore/Sign	M	MA	MB	MC	N	NA	P	PA	PB	PC	Y	YA	YB	YC	YD						
GHR10	M3X0.5	4	9	30	Ø11 <sup>+0.05</sup> <sub>0</sub>	1.7	M5X0.8	7	23	3	3 <sup>+0.03</sup> <sub>0</sub>	3	4	9	47.5						
GHR16	M4X0.7	5	12	33	Ø17 <sup>+0.05</sup> <sub>0</sub>	2	M5X0.8	7	25	8	3 <sup>+0.03</sup> <sub>0</sub>	3	4	15	55.5						
GHR20	M5X0.8	8	14	42	Ø21 <sup>+0.05</sup> <sub>0</sub>	2	M5X0.8	8	32	12	4 <sup>+0.03</sup> <sub>0</sub>	4	5	19	69						
GHR25	M6X1.0	10	16	50	Ø26 <sup>+0.05</sup> <sub>0</sub>	2	M5X0.8	8	42	14	4 <sup>+0.03</sup> <sub>0</sub>	4	5	23	86						

**GHR Series 180° Angular Style Air Gripper**

◆ **How to select product**

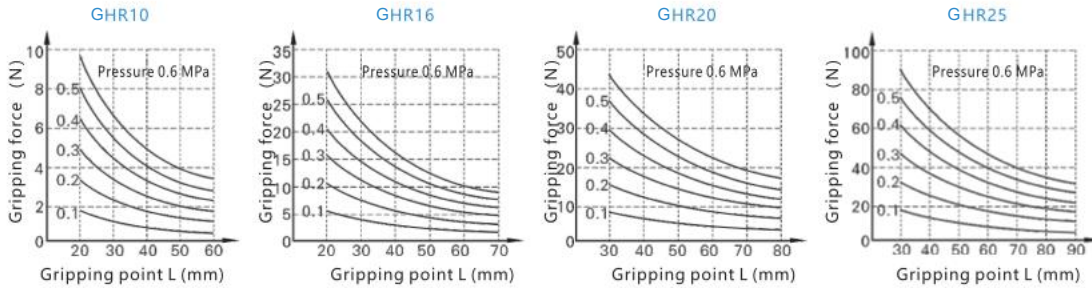
**1. Confirmation of effective gripping force**

- 1.1 Although the coefficient of friction between the attachments and the workpiece differ, select a model that can provide a gripping force of 10 to 20 times the workpiece mass, or more.
- 1.2 If high acceleration, deceleration or impact forces are encountered during motion, a further margin of safety should be considered. Example) given workpiece mass: 0.05kgs, gripping point L: 30mm, the pressure: 5kgf/cm<sup>2</sup> Required gripping force = 0.05 kg x 20 x 9.8 m/s<sup>2</sup> = 10 N min Model selection: HFR16 is recommended. The gripping force is 17N, therefore satisfies a gripping force setting value of 20 times or more



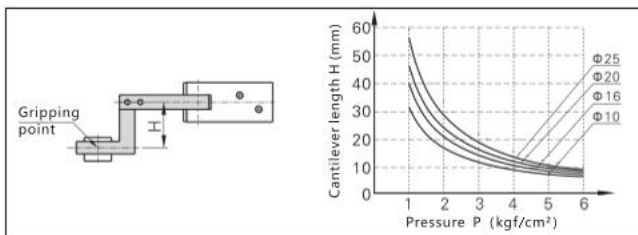
- 1.3 The effective gripping force shown in the graphs to the right is expressed as F, when both fingers and attachments are in full contact with the workpiece.

**2. Connection between gripping force and gripping point distance**



**3. The selection of the gripping point**

- 3.1 Workpiece should be held at a point within the range of overhanging distance (H) for a given pressure indicated in the tables below. When the workpiece is held at a point outside of the recommended range for a given pressure, it may cause adverse effect on the product life.
- 3.2 Within the allowable range of gripping point, the fixture shall be shore and light; when it is long and heavy, the inertia force when finger open and close, it will influence the performance and lifetime of the fingers at the same time.

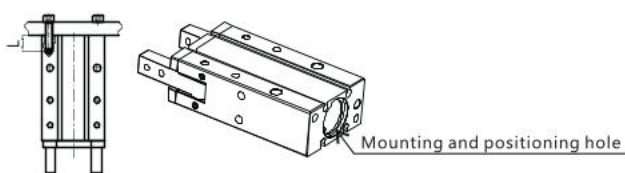


## GHR Series 180° Angular Style Air Gripper

### Installation and application

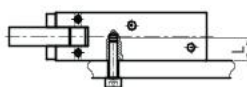
1. Due to the abrupt changes, the pressure is low, which will lead to the decrease of the gripping force and falling of the work-pieces. In order to avoid the harm to the human body and damage to the equipment, anti-dropping device must be equipped.
2. Don't use the air gripper under strong external force and impact force.
3. When install and fix the air gripper, avoid falling down, collision and damage.
4. When fixing the gripping jaw parts, don't twist the gripping jaw.
5. There are several kinds of installation method, and the torque of fastening screw must be within the prescribed moment range shown in the below chart. If the locking moment is too large, it will cause the dysfunctional. If the locking moment is too small, it will cause the position deviation and fall.

#### Tail Mounting Type



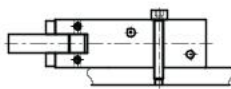
Bore	Bolt Size	Max.Locking Torque (Nm)	Max.Screwed Depth L (mm)	Tail Positioning Bore Dia(mm)	Tail positioning Depth(mm)
10	M3X0.5	1	6	φ11	1.5
16	M4X0.7	2	8	φ17	2
20	M5X0.8	4.5	10	φ21	2
25	M6X1.0	7	12	φ26	2

#### Mounting by front tapped hole



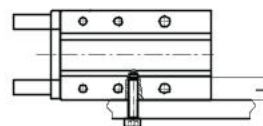
Bore	Bolt Size	Max.Locking Torque (Nm)	Max.Screwed Depth L (mm)
10	M3X0.5	0.9	6
16	M4X0.7	1.6	8
20	M5X0.8	3.3	10
25	M6X1.0	5.9	12

#### Mounting by front through hole



Bore	Bolt Size	Max.Locking Torque (Nm)
10	M3X0.5	1
16	M4X0.7	2
20	M5X0.8	4.5
25	M6X1.0	7

#### Mounting by side tapped hole



Bore	Bolt Size	Max.Locking Torque (Nm)	Max.Screwed Depth L (mm)
10	M3X0.5	0.6	4
16	M4X0.7	1.5	5
20	M5X0.8	3.5	8
25	M6X1.0	6	10

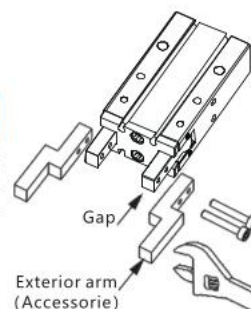
#### 6. The installation method of the gripping jaw fittings.

When install the gripping jaw fittings, you have to pay particular attention that you can only hold the gripping jaw by using spanner, and then lock the screws with allen wrench. Never clamp the body directly and then lock the screws, otherwise the parts will be easily damaged.

Please refer to below chart for the locking torque.

7. When gripping, the workpiece must be located in the center line between fingers, and the two fingers shall touch the workpiece at the same time, otherwise they could easily get broken.
8. Confirm that there is no additional external forces exerted on the fingers. Transverse load acts on the fingers, which will cause impact load, leading to the shaking and damage of gripping jaw. Equip with gaps so that the air gripper will not crash into work-pieces and accessories at the end of its trip.
9. When workpieces inserted, the center line should be coaxial, no offset, in case there are additional external force generated on the jaw. When testing, it is specially required that the manual operation should be reduced and the pressure should be used to run it at a low speed, and guarantee the safety and no impact.
10. Please use the flow control valve to adjust the opening and closing speed of gripping jaw if too fast.
11. People cannot enter the movement path of air gripper and articles cannot be placed on the path too.
12. Before removing the air gripper, please confirm that it is out of working state, and then discharge of compressed air.

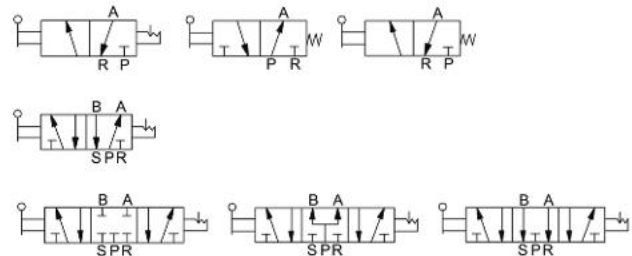
Bore	Bolt Size	Max.Locking Torque (Nm)
10	M3X0.5	0.6
16	M3X0.5	0.6
20	M4X0.7	0.8
25	M5X0.8	1.5



**H Series Hand Valve 5/2 way**

**H**

**Hand Push Valve (5/2)**



**How to Order?**

Series No.	Ways	Positions	Valve body size	Original Status	Port size	Reset	Thread Type
H	3:3 ways 5:5 ways	2:2 positions 3:3 positions	1: 1 Series 2: 2 Series 3: 3 Series 4: 4 Series	C: Center close P: Center pressure E: Center exhaust (Only for 5/3 way)	1 Series M5: M5 06: 1/8" 2 Series 06: 1/8" 08: 1/4" 3 Series 08: 1/4" 10: 3/8" 4 Series 10: 3/8" 15: 1/2"	Blank: Manual reset S: Spring return	Blank: G P: PT T: NPT

**Order Example**

H series hand push valve, 5/2 way, 2 series valve body, NC type, 1/4" port size, manual reset, black valve body, G thread, ERP code is: H522-08

Remarks: Manual reset of two position tee can be divided into non opening and non closing

**Specifications**

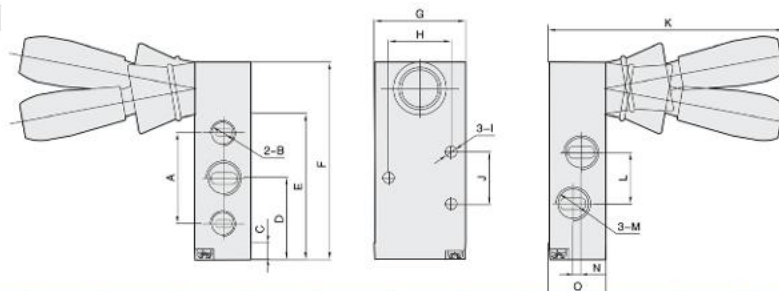
Model	H Series Hand Valve
Working medium	Clean air(After 40 μm filtration)
Acting type	External control
Lubrication	Not required
Working pressure(MPa)	0~0.8
Guaranteed pressure (MPa)	1.2
Working temperature (°C)	-5~60
Seal material	NBR

**Product Features**

- \* Manual operated
- \* Various working style are available

**Main Dimension**

H521/H522/H523/H524



Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H521-06	28	G1/8	6.7	28.2	49.7	69.7	27	19	Φ3.3	14	83.8	16	G1/8	3	18
H522-08	35	G1/8	6.7	31.7	56.7	76.7	35	24	Φ4.3	20	91.3	20	G1/4	3	22
H523-10	45	G1/4	7.5	40	72.5	92.5	40	28	Φ4.3	24	96.5	24	G3/8	4	27
H524-15	63	G1/2	10	57	104	132	50	36	Φ5.5	28	105	36	G1/2	4	34

**QPC Series Pilot Non - Return Valve**

# QPC

## Pilot Non - Return Valve



### Product Features

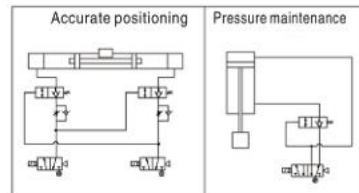
1. Can make cylinder momentary stop, accurate orientation;
2. Prevent cylinder moving after stopped;
3. Can be used for safety loop of pressure holding;
4. Can be used for special loop.

### How to Order?

Series	Port Size
QPC	08: 1/4" 10: 3/8" 15: 1/2"

Order Example:

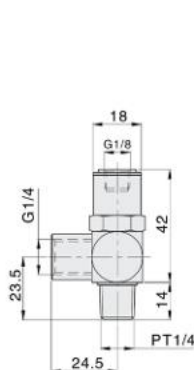
QPC series valve, 1/4" port size, ERP code is: QPC-08



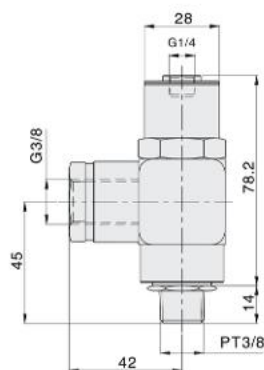
### Specifications

Model	QPC - 08	QPC - 10	QPC - 15
Working medium	Clean air(After 40 μ m filtration )		
Sectional ( mm )	24	79	79
Working pressure(MPa)	0.1~1.0		
Guaranteed pressure(MPa)	1.5		
Working temperture(°C)	-20~70		
Operating Frequency ( Times/min )	60	40	40
Valve material	Nickel plated brass	Aluminum alloy	Aluminum alloy
Port size	1/4"	3/8"	1/2"
Pilot Port Size	1/8"		

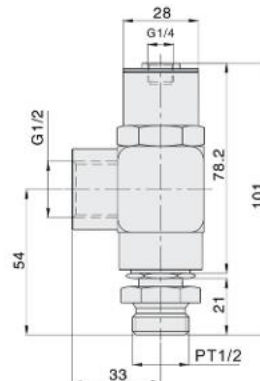
### Main Dimension



QPC - 08



QPC - 10

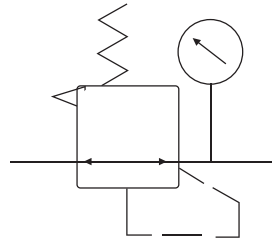


QPC - 15

**PFRH Series High Pressure Filter Regulator**

# PFRH

## High Pressure Filter Regulator



### How to order

PFRH	Valve Body Size	Port Size
PFRH Series	20: 2000 Valve body 30: 3000 Valve body 40: 4000 Valve body 50: 5000 Valve body	02: G1/4 " 03: G3/8 " 04: G1/2 " 06: G3/4 " 10: G1 "

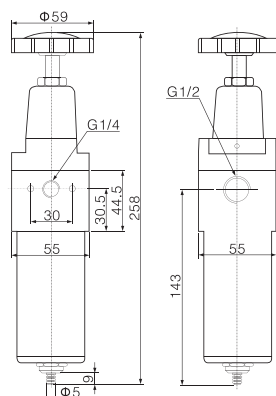
#### Order Example:

PFRH Series, 4000 Valve body, Port Size: G1/2 " , EPR Code: PFRH 40-04

### Specification

Model	PFRH-02	PFRH-03	PFRH-04	PFRH-06	PFRH-10
Working Medium	Air				
Port Size	G1/4	G/8	G1/2	G3/4	G1
Filter Precision	20 u m/40 u m				
Pressure Adjustment Range	0.15 - 3.5MPa				
Max.Input Pressure	4MPa				
Working Temperature	5 - +80°C				

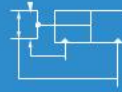
### Main Dimensions



**PHL Wide Type Parallel Style Air Gripper**

**PHL**

Wide Type Parallel Style Air Gripper



◆ **Specification**



Bore Size(mm)	16	20	25	32
Acting Type	Double acting			
Fluid	Air(to be filtered by 40 μm or better)			
Operating pressure	0.15~0.7MPa(22~100psi)(1.5~7bar)			
Temperature°C	-20~70( No freezing)			
Lubrication	Cylinder:No necessary			
Max.frequency	40 cycle/minute			20 cycle/minute
Gripping force(N) ①	45	74	131	228
Proof pressure	1.2MPa(175psi)			
Repeatability(mm)	± 0.1			
Cushion type	Bumper			
Port Size	M5X0.8			G1/8②

- ① Grip point distance is 40mm(φ16~φ25) or 80mm(φ32) at 0.5 MPa
- ② G、PT、NPT thread Optional

◆ **How to order?**

Series	Bore	X	Stroke	—	Magnet No	□ (缸径32)
PHL: Wide air gripper (Double acting)	16 20 25 32		Listed below		S:With magnet (Magnet is standard)	Blank: G P: PT T: NPT

**Order Example:**

PHL Series air gripper, Bore 25mm, Stroke 60mm, With magnet, ERP code is: SHL25X60-S

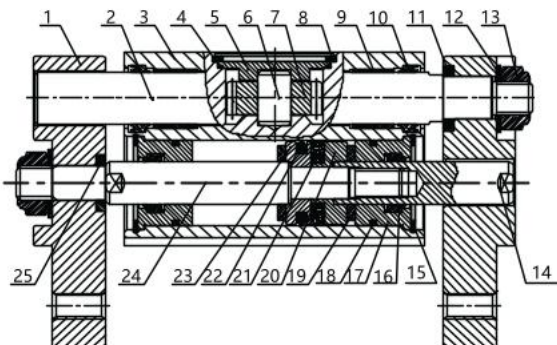
◆ **Stroke**

Bore(mm)	Standard Stroke(mm)	Max.Stroke(mm)
16	30 40 60 80	80
20	40 60 80 100	100
25	40 60 80 100	100
32	60 80 100 150	150

◆ **Product feature**

- 1.The gripper opening or closing can be precisely synchronized with the rack & pinion mechanism.
2. Two round and two square Slots on the barrel, Multiple magnet switch are available.
- 3.Multiple bore size and stroke are available.
- 4.Double pistons design to increase the clamping force.
- 5.Multiple options for installing and fixing .
- 6.Convenience to mount workpiece.
- 7.Design for large workpiece.
- 8.Magnet is included in the standard configuration.

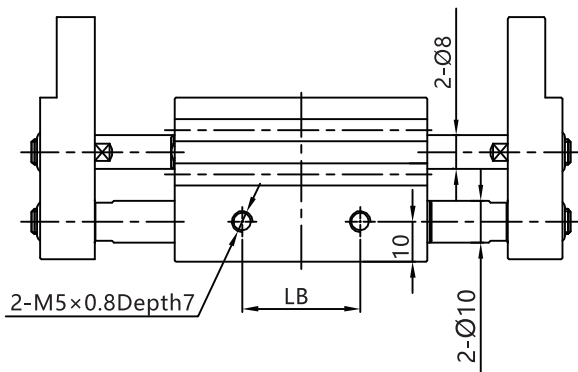
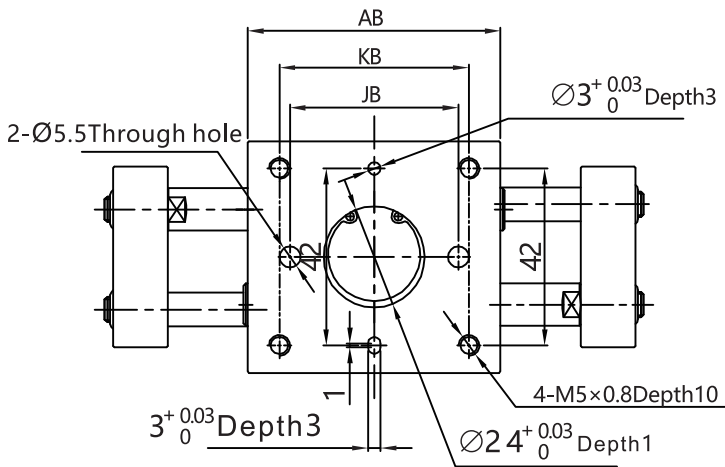
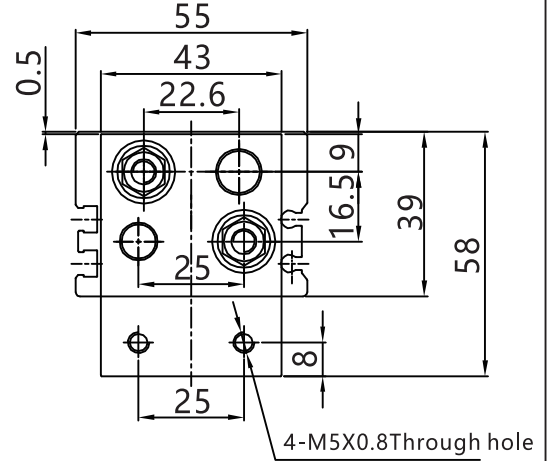
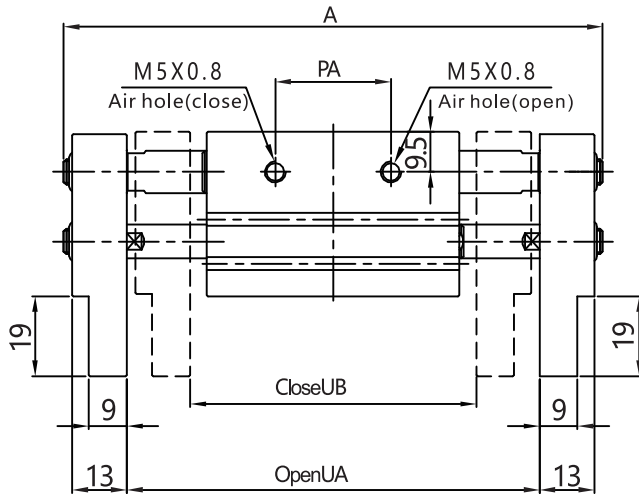
◆ **Internal Structure**



No.	Part Name	Material	No.	Part Name	Material
1	Face plate	Aluminum alloy	14	Piston rod B	Stainless steel
2	Rack	Stainless steel	15	C Type retaining ring	Spring steel
3	Bore	Aluminum alloy	16	Piston rod seal	NBR
4	O-ring	NBR	17	Head cover	Aluminum alloy
5	Gear cover	Aluminum alloy	18	O-ring	NBR
6	Gear axes	Stainless steel	19	Bumper	TPU
7	Gear	Mould steel	20	Magnet seat	Aluminum alloy
8	C Type retaining ring	Spring steel	21	Magnet	Sintered metal (Neodymium-iron-boron)
9	Bearing	Wear resistant material	22	Piston seal	NBR
10	Piston rod seal	NBR	23	Piston	Aluminum alloy
11	Washer	Carbon steel	24	Piston rod A	Stainless steel
12	Washer	Stainless steel	25	Washer	Carbon steel
13	Nut	Stainless steel			

**PHL Wide Type Parallel Style Air Gripper**

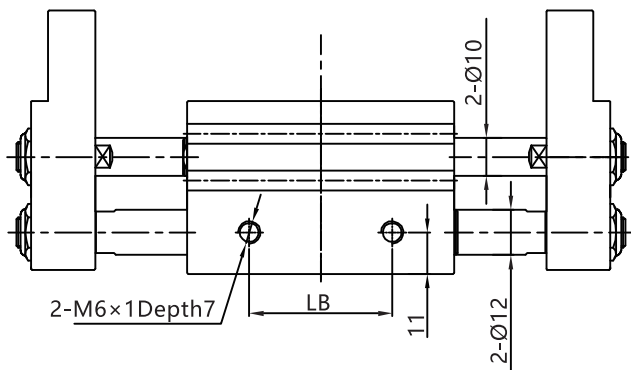
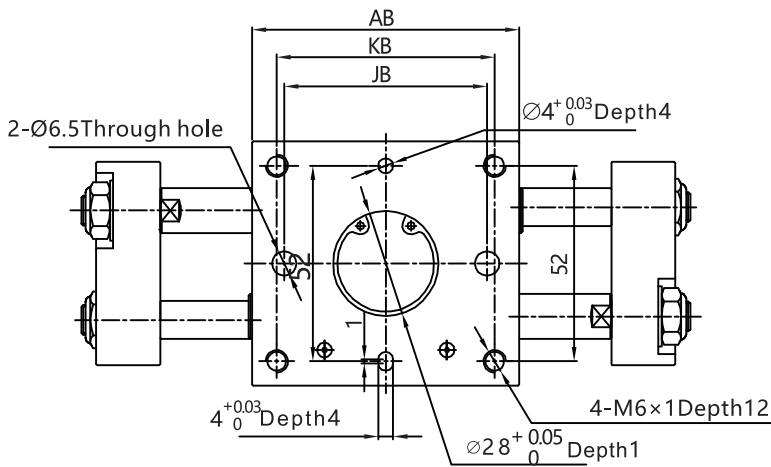
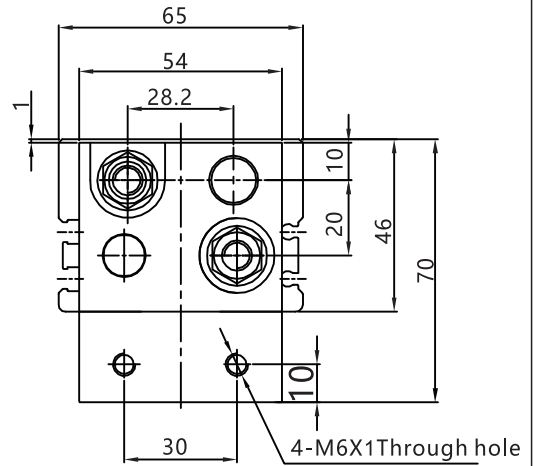
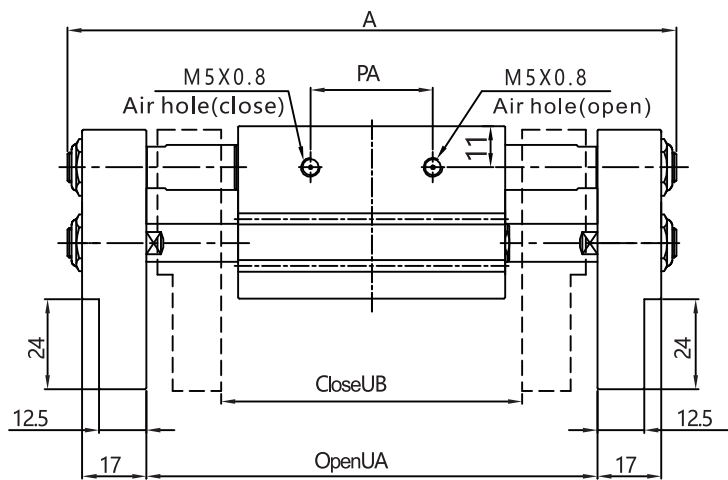
PHL16



Sign/Bore	30	40	60	80
A	128	148	194	234
AB	60	70	90	110
JB	40	50	70	90
KB	45	55	75	95
LB	28	38	58	78
PA	25	30	40	51.6
UA(Open )	98	118	164	204
UB ( Close )	68	78	104	124

**PHL Wide Type Parallel Style Air Gripper**

PHL20

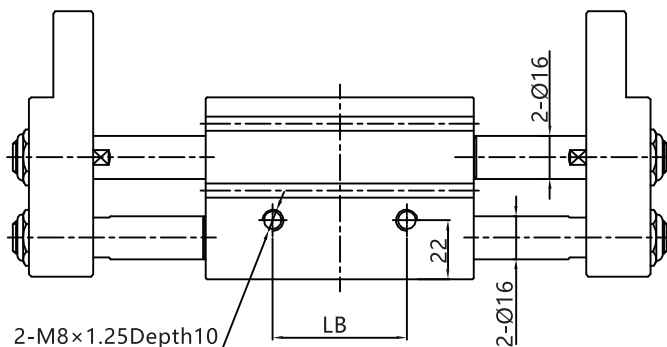
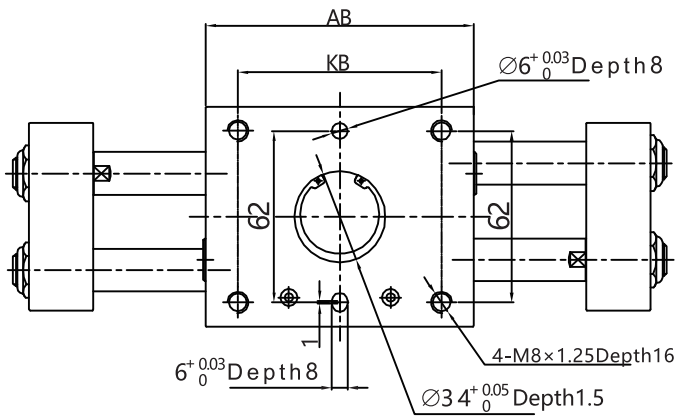
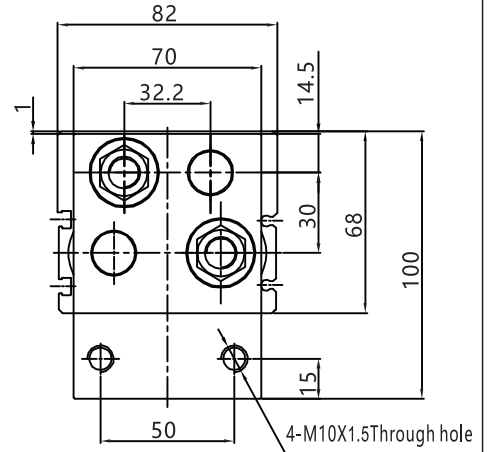
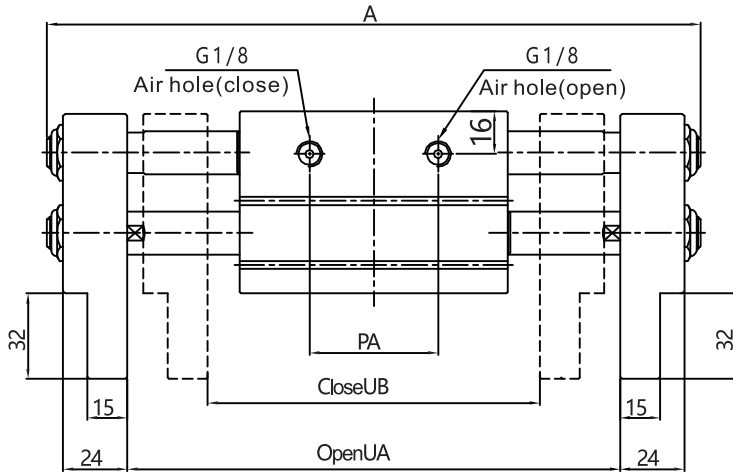


Sign/Bore	40	60	80	100
A	162	202	254	294
AB	71	91	113	133
JB	54	74	96	116
KB	58	78	100	120
LB	38	58	80	100
PA	32.6	42.6	52.6	64
UA(Open)	120	160	212	252
UB (Close)	80	100	132	152



**PHL Wide Type Parallel Style Air Gripper**

PHL32



Sign/Bore	60	80	100	150
A	244	284	342	442
AB	100	120	158	208
KB	76	86	134	184
LB	50	60	108	158
PA	45	55	65	90
UA(Open )	184	224	282	382
UB ( Close )	124	144	182	232

**PHL Wide Type Parallel Style Air Gripper**

**Product type**

1. Please select pneumatic finger according to the following steps

Confirmation of conditions >>> Select possible type according to the work length >>> Calculation of required gripping force >>> Selection of model by gripping force graph

Work form  
Diameter x Length  
200 mm x 200 mm  
plate.

Work length: From the dimensions of models that have an opening width of 200 mm or more  
PHL16 x 80  
PHL20 x 80/PHL20 x 100  
PHL25 x 80/PHL25 x 100

PHL20 x 80/SHL20 x 100

Work mass: 0.3 kg

1. Although conditions differ according to the workpiece shape and the coefficient of friction between the attachments and the workpiece, select a model that can provide a gripping force of 10 to 20 times the workpiece mass, or more.  
2. Further allowance should be provided when great acceleration or impact is expected during workpiece transfer. Example: For setting the gripping force to be at least 20 times the workpiece mass:  
Required gripping force = 0.3kg x 20 x 9.8 m/s<sup>2</sup> = 60 N

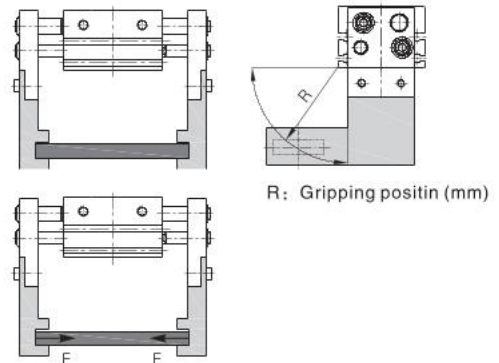
Gripping point R = 70 mm

Operating pressure: 0.5 MPa

1. Selecting the HFT20\*80 A gripping force of 73 N is obtained from the intersection point of gripping point position R= 70 and a pressure 0.5 Mpa.  
2. The gripping force is 24 times greater than the workpiece mass, and therefore satisfies a gripping force setting value of 20 times or more.

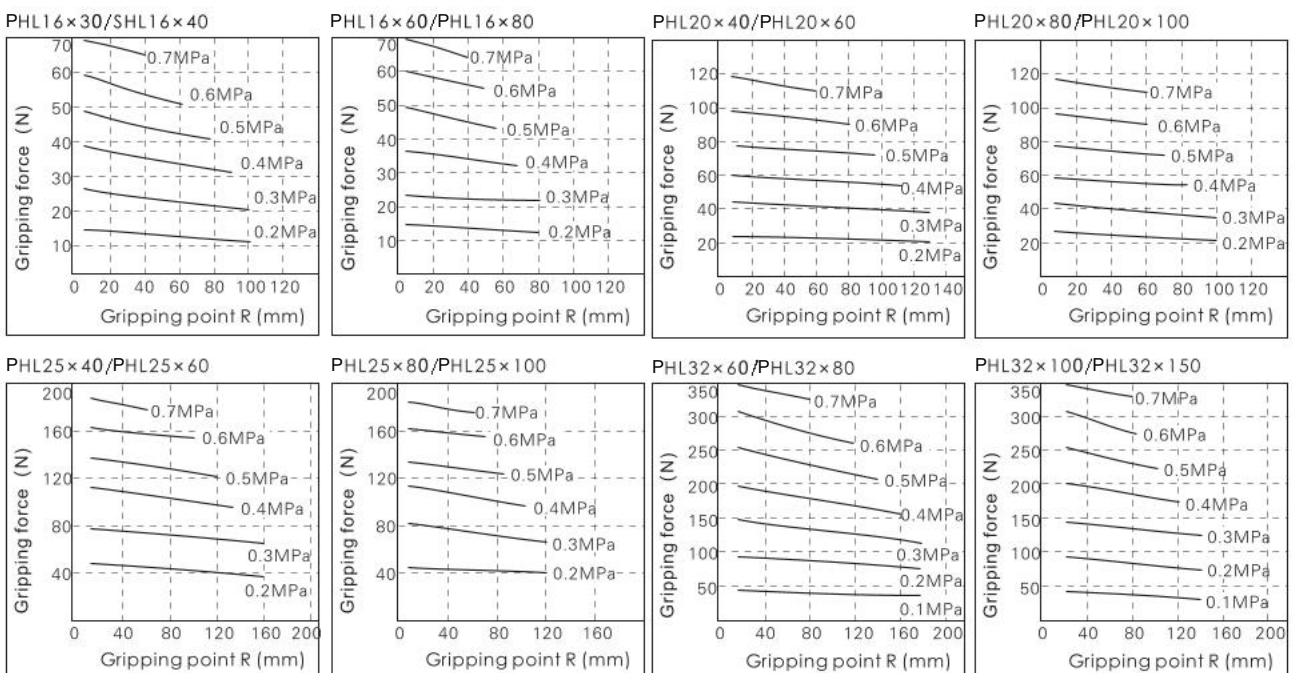
2. Gripping Point

- 2.1. The workpiece gripping point distance should be within the gripping force ranges given for each pressure in the effective gripping force graphs below.
- 2.2. If operated with the workpiece gripping point beyond the indicated ranges, the load that will be applied to the fingers or the guide will become excessively unbalanced. As a result, the fingers could become loosened and adversely affect the service life of the unit.



3. Effective Gripping Force

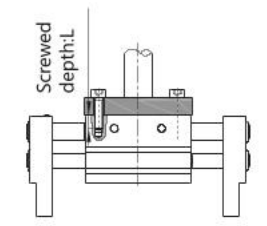
The gripping force shown in the tables represents the gripping force of one finger when all fingers and attachments are in contact with the work.



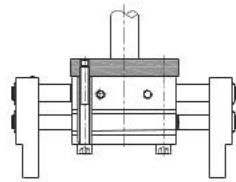
## PHL Wide Type Parallel Style Air Gripper

### ◆ Installation and application

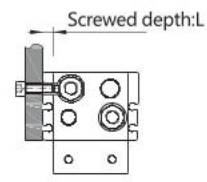
1. Due to the abrupt changes, the circuit pressure is low, which will lead to the decrease of the gripping force and falling of the work-pieces. In order to avoid the harm to the human body and damage to the equipment, anti-dropping device must be equipped.
2. Don't use the air gripper under strong external force and impact force.
3. When install and fix the air gripper, avoid falling down, collision and damage.
4. When fixing the gripping jaw parts, don't twist the gripping jaw.
5. There are several kinds of installation method, and the locking torque of fastening screw must be within the prescribed torque range shown in the below chart. If the locking torque is too large, it will cause the dysfunctional. If the locking torque is too small, it will cause the position deviation and fall.



Axial mounted(thread hole)



Axial mounted(through hole)



Beside mounted

Bore size	The bolts type	Max.locking moment (Nm)	Max.screwed depth (mm)
16	M5 × 0.8	4.3	10
20	M6 × 1.0	7.3	12
25	M8 × 1.25	17.7	16
32	M8 × 1.25	17.7	16

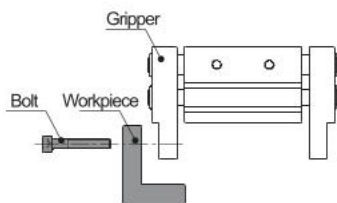
Bore size	The bolts type	Max.locking moment (Nm)
16	M5 × 0.8	4.3
20	M6 × 1.0	7.3
25	M8 × 1.25	17.7

Note: Not available for Ø32

Bore size	The bolts type	Max.locking moment (Nm)	Max.screwed depth (mm)
16	M5 × 0.8	2.8	7
20	M6 × 1.0	4.8	7
25	M8 × 1.25	12	7
32	M8 × 1.25	12	10

6. The installation method of the gripping jaw fittings:

When install the gripping jaw fittings, you have to pay particular attention that you can only hold the gripping jaw by using spanner, and then lock the screws with alien wrench. Never clamp the body directly and then lock the screws, otherwise the parts will be easily damaged.

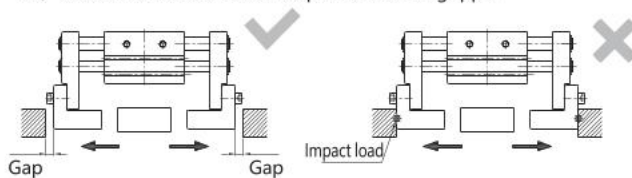


Bore size	The bolts type	Max.locking moment (Nm)
16	M5 × 0.8	2.8
20	M6 × 1.0	4.8
25	M8 × 1.25	12
32	M10 × 1.5	24

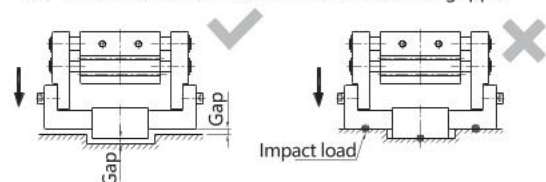
7. Confirm that there is no external forces exerted on the gripping jaw.

Transverse load acts on the gripping jaw, which will cause impact load and leads to the shaking and damage of gripping jaw. Equip with gaps so that the air gripper will not crash into work-pieces and accessories at the end of its trip.

#### 7.1. The end of stroke under the open state of air gripper



#### 7.2. The end of stroke under the move state of air gripper



8. When the work-pieces are inserted, the center line should be coaxial, no offset, in case there are external force generated on gripping jaw. When testing, it is specially required that the manual operation should be reduced, the pressure should be used to run it at a low speed, and guarantee the safety and no impact.



9. Please use the flow control valve to adjust the opening and closing speed of gripping jaw if too fast.
10. People can not enter the movement path of air gripper and articles can not be placed on the path too.
11. Before removing the air gripper, please confirm that it is out of working state, and then discharge of compressed air.

**PHZ Series Air Gripper**

**PHZ**  
Air Gripper

PHZ:  
Standard double acting



PHZSA:  
Single acting (N.O.)



PHZSB:  
Single acting (N.C.)



◆ **Specifications**



Bore size(mm)		10	16	20	25
Acting type		Double Acting/Single Acting			
Working medium		Clean Air(40 μm filtration)			
Applicable pressure range	Double acting	Φ 10	0.15~0.7MPa(22~100psi)(1.5~7.0bar)		
		Φ 16~Φ 25	0.1~0.7MPa(15~100psi)(1.0~7.0bar)		
	Single acting	Φ 10	0.3~0.7MPa(45~100psi)(3.0~7.0bar)		
		Φ 16~Φ 25	0.25~0.7MPa(36~100psi)(2.5~7.0bar)		
Working temperature		-20~70°C(No freezing)			
Oil		Not required			
Maximum frequency		180(C.P.M)			
Port size		M3X0.5	M5X0.8		
Weight(g)		52	120	236	430

◆ **How to Order?**

Series	Type No.	Bore	Magnet No.
PHZ: Parallel air gripper	Blank: Basic type SA: Single acting (N.O.) SB: Single acting (N.C.)	10 16 20 25	S : With magnet (Magnet is standard)

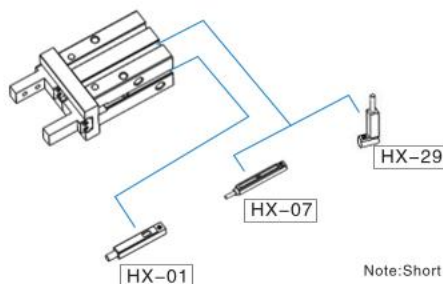
Order Example:

Parallel air gripper, Bore 20, with magnet, ERP code is: SHZ20-S

◆ **Product Features**

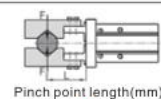
1. Integrated design of linear guide rail, high rigidity, high precision;
2. Positioning pin at the bottom of the linear guide rail, effectively preventing deviation of guide rail from the body;
3. Deeper attached fixing benchmark centering hole, improving fixing accuracy, and improving consistency after repeated dismounting and fixing
4. According to the actual requirements of the customer, the initial position of the claw can be customized to meet the different needs under different working conditions.

◆ **Optional Acces**



Note: Short stroke please use HX-29 series due to limited space.

◆ **Clamping Force and Stroke**

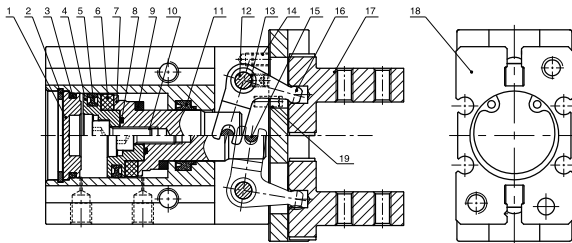


Acting Type	Type	Clamping force effective value of single air finger(N)		Stroke(two sides) (L) (mm)	
		Closure clamping torque	Open clamping torque		
Double acting	PHZ10	11	17	4	
	PHZ16	34	45	6	
	PHZ20	45	68	10	
	PHZ25	69	102	14	
Single acting (N.O.)	(N.O.)	PHZSA10	7	-	4
		PHZSA16	27	-	6
		PHZSA20	35	-	10
		PHZSA25	55	-	14
	(N.C.)	PHZSB10	-	13	4
		PHZSB16	-	38	6
		PHZSB20	-	59	10
		PHZSB25	-	87	14

Note: The value of the clamping force in above table is when the working pressure is 0.5Mpa and the L value of the clamping point is 20mm.

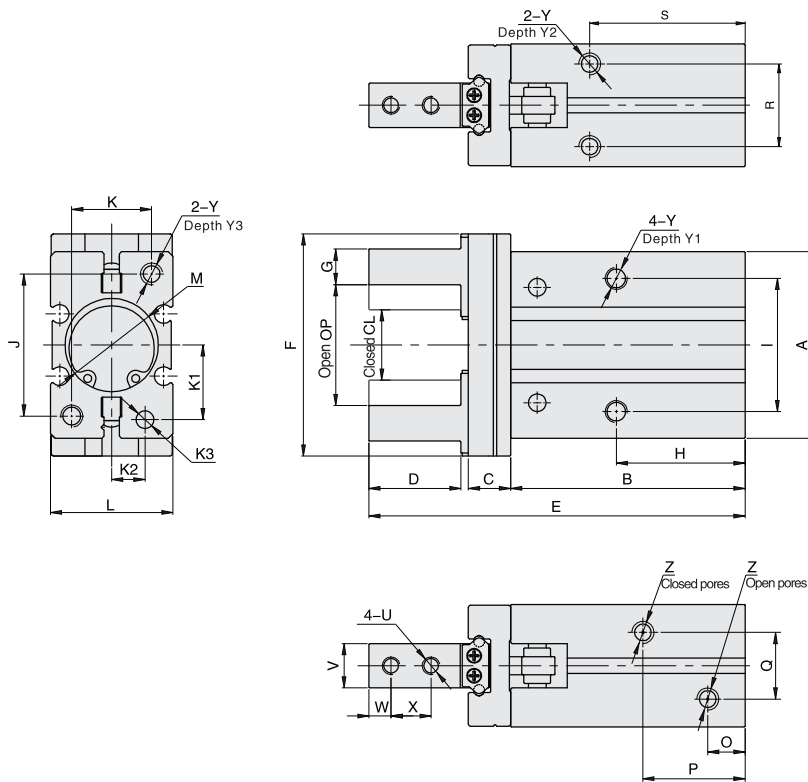
**PHZ Series Air Gripper**

◆ **Internal Structure**



No.	Part Name	Material	No.	Part Name	Material
1	Rear cover	Aluminum alloy	11	Piston rod seal	TPU/NBR(Φ25)
2	C type retainer ring	Spring steel	12	Pin	Stainless steel
3	O-ring	NBR	13	Hexagon set screw	Carbon steel
4	Piston	Aluminum alloy/ Stainless steel(Φ10)	14	Hexagon socket cap screw	Carbon steel
5	Piston seal	NBR	15	Pin	Stainless steel
6	Magnet	Plastic	16	Bent lever	Alloy steel
7	Piston rod	Aluminum alloy/ Stainless steel (Φ10, Φ16)	17	Clamping jaw assembly	Assembly
8	O-ring	NBR	18	Barrel	Aluminum alloy
9	Anti-bump cushion	PTEE	19	Pin	Stainless steel
10	Hexagon socket cap screw	Carbon steel			

◆ **Main Dimension**



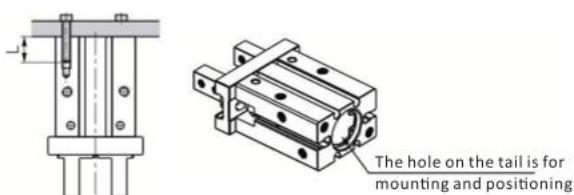
Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q	K1	K2	K3
PHZ10	23	37.6	6	12.3	57	29	4 <sup>0</sup> <sub>-0.05</sub>	23	16	18	12	16.4	11 <sup>+0.05</sup> <sub>0</sub> Depth2	7	18.8	10	7.6	5.2	2 <sup>0</sup> <sub>0</sub> Depth3
PHZ16	30.6	42.5	7.5	15.5	67.3	38	5 <sup>0</sup> <sub>-0.05</sub>	24.5	24	22	15	23.6	17 <sup>+0.05</sup> <sub>0</sub> Depth2	7.1	18.5	13	11	6.5	3 <sup>+0.05</sup> <sub>0</sub> Depth3
PHZ20	42	52.8	9.5	20.7	84.7	50	8 <sup>0</sup> <sub>-0.05</sub>	29	30	32	18	27.6	21 <sup>+0.05</sup> <sub>0</sub> Depth3	8.4	23	15	16.8	7.5	4 <sup>+0.05</sup> <sub>0</sub> Depth4
PHZ25	52	63.6	11	25.5	102.7	63	10 <sup>0</sup> <sub>-0.05</sub>	30	36	40	22	33.6	26 <sup>+0.05</sup> <sub>0</sub> Depth3.5	9.5	23.5	19.5	21.8	10	4 <sup>+0.05</sup> <sub>0</sub> Depth4
Bore/Sign	R	S	U	W	V	X	Y	Y1	Y2	Y3	Z	OP	CL						
PHZ10	11.4	27	M2.5X0.45	3	5 <sup>0</sup> <sub>-0.05</sub>	5.7	M3X0.5	6	6	6	M3X0.5	14.8 <sup>±2</sup> <sub>0</sub>	11.4 <sup>0</sup> <sub>0.7</sub>						
PHZ16	16	30	M3X0.5	4	8 <sup>0</sup> <sub>-0.05</sub>	7	M4X0.7	9.5	5.5	8	M5X0.8	20.8 <sup>±2</sup> <sub>0</sub>	14.8 <sup>0</sup> <sub>0.7</sub>						
PHZ20	18.6	35	M4X0.7	5	10 <sup>0</sup> <sub>-0.05</sub>	9	M5X0.8	11.5	8	10	M5X0.8	26 <sup>±2</sup> <sub>0</sub>	16.2 <sup>0</sup> <sub>0.7</sub>						
PHZ25	22	36.5	M5X0.8	6	12 <sup>0</sup> <sub>-0.05</sub>	12	M6X1.0	14.5	10	12	M5X0.8	33.5 <sup>±2</sup> <sub>0</sub>	19.2 <sup>0</sup> <sub>0.7</sub>						

**PHZ Series Air Gripper**

**Installation and Use**

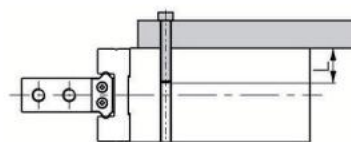
1. Installing a fall prevention device is recommended when applying a lowering clamping force. In the case of a sudden pressure decrease due to emergency stop, these prevention devices can help to avoid personal or equipment injuries.
2. Don't use air gripper upon strong external force and impact force. Air grippers are not intended for use under external or impact forces.
3. When installing or repairing your air gripper take precautions to safely use your component.
4. Please contact with us when using the single acting type gripper for specific spring action force information.
5. Don't reverse the clamping gripper when installing clamping parts.
6. The locking torque of the fastening screw must be within the prescribed torque range shown in the chart below. If the locking torque is not set properly the unit will not perform correctly.

**Tail Mounting Type**



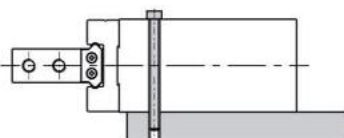
Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)	Tail Positioning Bore Dia (mm)	Tail positioning Depth (mm)
10	M3X0.5	0.88	6	$\phi 11^{+0.05}$	2
16	M4X0.7	2.1	8	$\phi 17^{+0.05}$	2
20	M5X0.8	4.3	10	$\phi 21^{+0.05}$	3
25	M6X1.0	7.3	12	$\phi 26^{+0.05}$	3.5

**Front Tapped Hole Mounting**



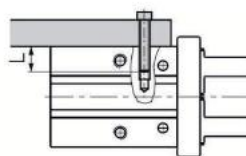
Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M3X0.5	0.69	5
16	M4X0.7	2.1	8
20	M5X0.8	4.3	10
25	M6X1.0	7.3	12

**Through Hole Mounting**



Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M2.5X0.45	0.49	5
16	M3X0.5	0.88	8
20	M4X0.7	2.1	10
25	M5X0.8	4.3	12

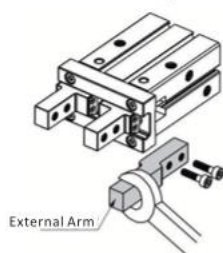
**Side Tapped Hole Mounting**



Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M3X0.5	0.9	6
16	M4X0.7	1.6	4.5
20	M5X0.8	3.3	8
25	M6X1.0	5.9	10

**7. Clamping Jaw Installation:**

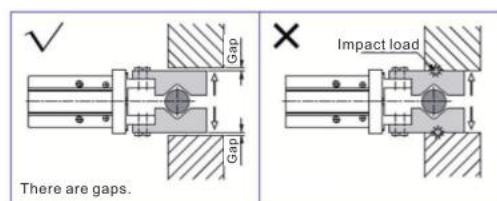
Never clamp the body directly and then lock the screws. The gripping jaw should be held by the spanner and the screw should be locked using a hex wrench.



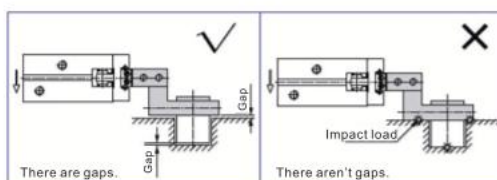
Bore	Bolt Size	Max. Locking Torque (Nm)
10	M2.5X0.45	0.31
16	M3X0.5	0.59
20	M4X0.7	1.4
25	M5X0.8	2.8

**8. Avoid applying external forces to the gripping jaw.**

8.1 The air gripper end of stroke in open status.



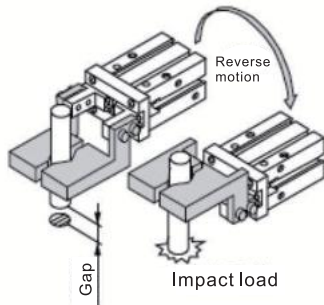
8.2 The air gripper end of stroke in moving status.



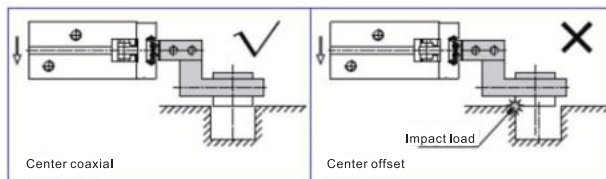
**PHZ Series Air Gripper**

◆ **Installation and Use**

8.3 When reversing your loaded air gripper make sure the object being gripped is centred.



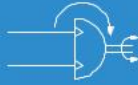
9. When ripping an object the item should always be centred. When testing, you must reduce the pressure for low speed running, to guarantee the safety and no impact.



- 10. Please use the flow control valve to adjust the opening and closing speed of your gripper.
- 11. Always ensure the gripper path is clear of obstruction.
- 12. Before removing your air gripper, please make sure all power is disconnected and you've discharged residual compressed air.

**PMQ Rotary Cylinder**

**PMQ**  
Rotary Cylinder



**Specifications**

Specifications	7	10	20	30	50	
Acting type	Double Cylinder, Rack & Pinion Style, Double Acting					
Working medium	Clean Air(40um filtration or better)					
Working pressure range	With angle adjustable screw	0.1~0.7MPa				
	With shock absorber	None	0.1~0.6MPa			
Proof pressure(MPa)	1.5MPa					
Working temperature ( °C )	-20~70( No freezing)					
Angle adjustable range	0~190°					
Repeat Accuracy	With angle adjustable screw	0.2°				
	With shock absorber	None	0.05°			
Theoretical Torque(NM)(0.5Mpa)	0.63	1.1	2.2	2.8	5.0	
Cushion	With angle adjustable screw	Rubber bumper(Standard)				
	With shock absorber	None	Shock absorber(Optional)			
Port size	Front port	M5x0.8			G1/8①	
	Side port	M5x0.8				
Weight(g)	With angle adjustable screw	270	530	1020	1310	2130
	With shock absorber	None	540	1020	1310	2140

Note: When setting the rotation angle for rotary tables with shock absorbers, following the above table. Failing to follow the guide may result in a decrease in energy absorption capacity.

① PT、NPT port size is optional

Bore Size(mm)	10	20	30	50
Minimum rotation angle that will not allow decrease of energy absorption ability	61°	52°	46°	66°

**How to Order?**

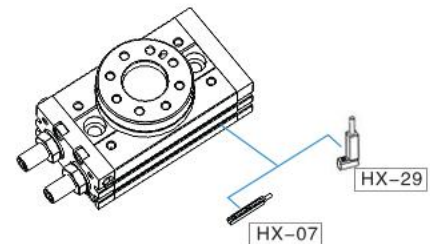
Series No	Specifications	Magnet No	Cushion Type	Thread Type
PMQ	7 10 20 30 50	S: With magnet (Magnet is standard)	A: With adjustment bolt R: With shock absorber (7 series no shock absorber is optional)	Blank: G P: PT T: NPT

**Order Example:**

PMQ Series Rotary Cylinder, Specifications 30, with adjustment bolt, G Thread, ERP code is: PMQ30-S-A

Note: Specific Bore and Stroke of the cylinder subject to the drawing.

**Optional Accessories**



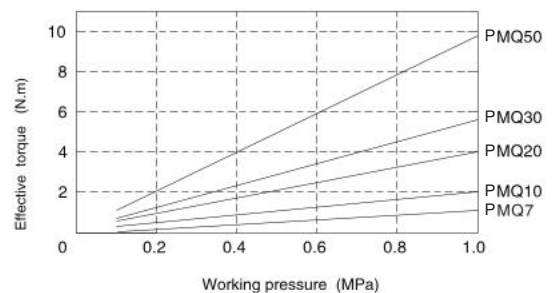
Note: Short stroke please use HX-29 series due to limited space.

**Allowable Kinetic Energy and Rotation Time Adjustment Range**

Model	Allowable kinetic energy (J)		Rotation time adjustment range for stable operation (s;90°)	
	With adjutment bolt	With shock absorber	With adjutment bolt	With shock absorber
PMQ7	0.006	None	0.2~1.0	None
PMQ10	0.01	0.04	0.2~1.0	0.2~0.7
PMQ20	0.025	0.12	0.2~1.0	0.2~0.7
PMQ30	0.05	0.12	0.2~1.0	0.2~0.7
PMQ50	0.08	0.30	0.2~1.0	0.2~0.7

Note 1. If operated where the kinetic energy exceeds the allowable value, this may cause damage to the internal parts and result in product failure. Please pay special attention to the kinetic energy levels when designing and during operation to avoid exceeding the allowable limit.  
2. When the rotation time of the type with an internal absorber is set longer than the time shown in the table above, energy absorption of the shock absorber greatly decreases.

**Effective Output Torque**

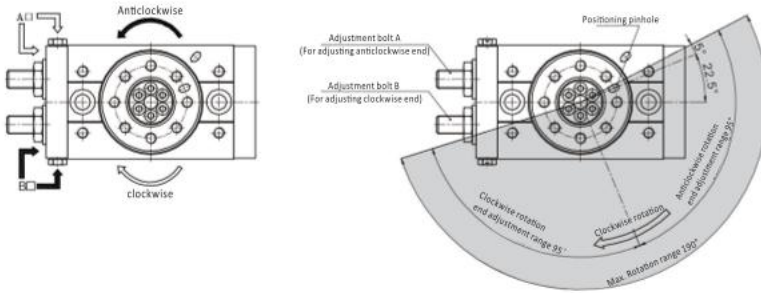


**PMQ Rotary Cylinder**

**Installation and Use**

**1. Rotation direction and rotation angle**

- 1.1 When pressurized from port A, the shaft rotates clockwise and counter-clockwise when pressurized from port B.
- 1.2 To obtain the desired rotation angle, the rotation ends can be set within the range shown in the diagram by regulating the adjustment bolt.
- 1.3 Rotary table with a shock absorber is available to adjust the rotation angle.

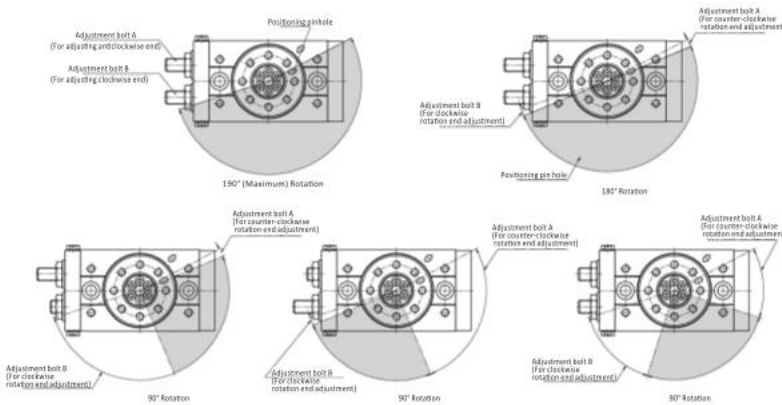


**Note:**

- \* The figure above shows the rotation range of from the positioning pinhole.
- \* Position of the pinhole in the figure above shows a counter-clockwise rotation where the rotation angle is set at 180° by equally tightening the A & B adjustment bolts.
- \* The adjustment bolt of the shock absorber is factory set to the maximum output. Please adjust inward for first use if necessary.

**2. Rotation range example:**

- 2.1 Rotation can be set by adjusting the A & B adjuster bolts.
- 2.2 Rotary tables with shock absorbers can be set to various angles.



**3. Adjustment angle per rotation (Adjustment bolt or shock absorber)**  
The adjustment angle of the turntable for each turn is as follows:

Bore size	Adjustment angle per rotation
7	10.2°
10	10.2°
20	7.4°
30	6.5°
50	8.2°

- 4. The rotation angle has been adjusted to the maximum output at the factory. Please do not extend the rotation angle beyond the maximum factory setting.
- 5. The movement energy should not exceed the maximum allowable energy, or the inner components can be damaged.
- 6. The rotary parts do not require lubrication.
- 7. Minimum operation pressure for a rotary table with a shock absorber is no less than 0.1Mpa.

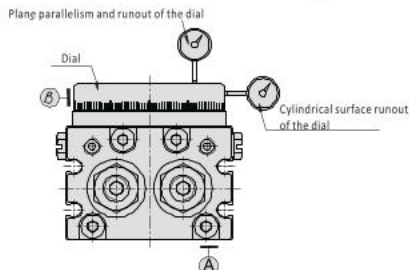
**8. Refer to the table below for tightening torques of the shock absorber setting nut.**

Shock absorber size	Max. tightening torque (Nm)
M8X1.0	2.5
M10X1.0	3.5
M14X1.5	11

- 9. Never loosen the bottom screw of the shock absorber. That may cause oil leakage.
- 10. Shock absorbers are consumable parts. When a decrease in energy absorption capacity is noticed, it must be replaced.

Series	Shock Absorber Type and Ordering code	Thread Type
PMQ10	AC0806-SN	M8X1.0
PMQ20	AC1007-SN	M10X1.0
PMQ30	AC1007-SN	M10X1.0
PMQ50	AC1412-SN	M14X1.5

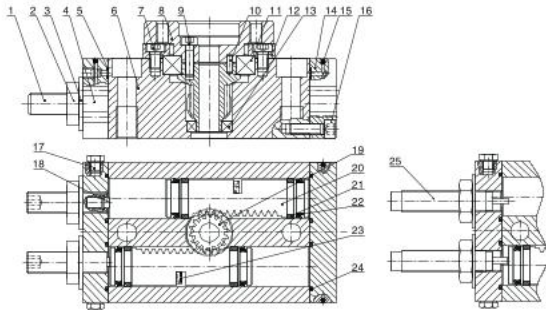
**11. Control the runout and parallelism of the dial according to the requirements of the following table:**



Items	Specific Requirements (mm)	Relative Datum
Plane parallelism of the dial	0.1	A
Plane runout of the dial	0.1	A
Cylindrical surface runout of the dial	0.1	B

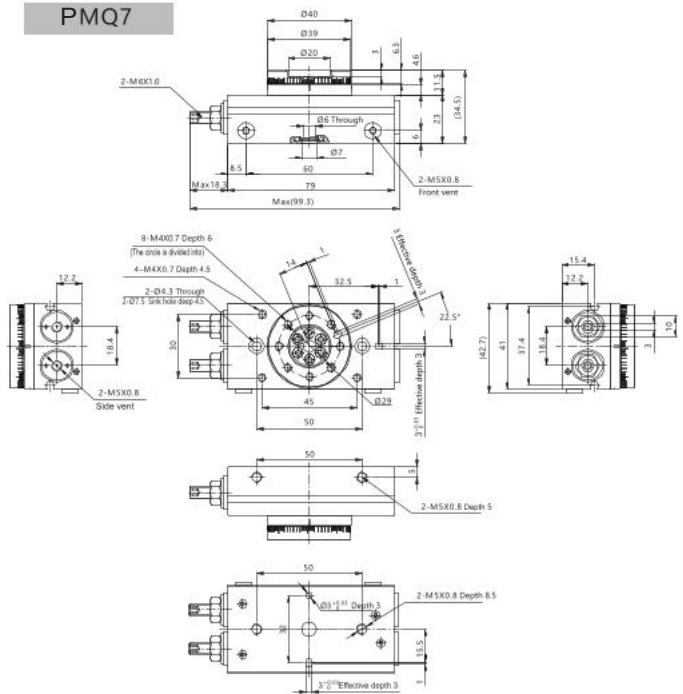
**PMQ Rotary Cylinder**

**Internal Structure**

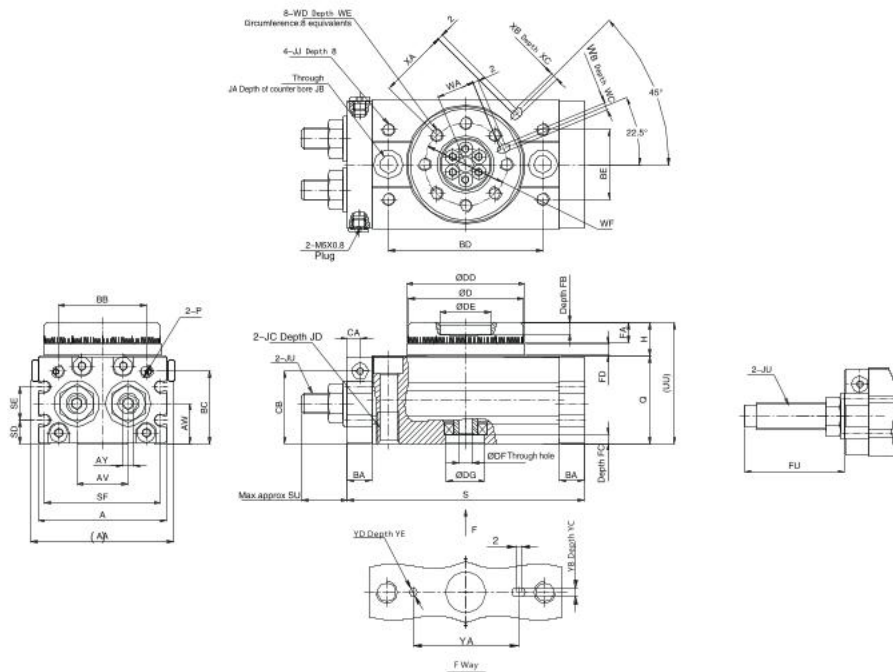


No.	Part Name	Material	No.	Part Name	Material
1	Adjustment screw	Carbon steel	14	Rear cover	Aluminum alloy
2	Hexagon nut	Carbon steel	15	Steel ball	Stainless steel
3	Seal washer	Carbon steel rubber coating	16	Hexagon socket head set screw	Carbon steel
4	Head cover	Aluminum alloy	17	Plug	Carbon steel
5	O-ring	NBR	18	Cushion pad	NBR
6	Barrel	Aluminum alloy	19	Pinion	Alloy steel
7	Hexagon socket head set screw	Carbon steel	20	Rack	Alloy steel
8	Dial	Aluminum alloy	21	Wear ring	PTFE
9	Hexagon socket head set screw	Carbon steel	22	Piston seal	NBR
10	Positioning pin	Stainless steel	23	Magnet	Sintered NdFeB
11	Deep groove ball bearing	Subassembly	24	O-ring	NBR
12	Plate	Aluminum alloy	25	Shock absorber	Subassembly
13	Deep groove ball bearing	Subassembly			

**Main Dimension**



**PMQ10~50**



型号	AA	A	AV	AW	AY	BA	BB	BC	BD	BE	CA	CB	D	DD	DE	DF	DG	FA	FB	FC	FD	H	J	JA	JB	JC	FU
10	52.8	50	20	15.5	4	9.5	34.5	28	60	27	5	28	45 <sup>+0.062</sup> <sub>0</sub>	46 <sup>+0.062</sup> <sub>0</sub>	20 <sup>+0.042</sup> <sub>0</sub>	5	15 <sup>+0.043</sup> <sub>0</sub>	7.8	4.5	3.5	4.5	13	6.8	11	6.5	M8X1.25	30.9
20	67.8	65	27.5	16	5	12	47	30	76	34	6.5	30	60 <sup>0</sup> <sub>-0.074</sub>	61 <sup>-0.074</sup> <sub>0</sub>	28 <sup>+0.062</sup> <sub>0</sub>	9	17 <sup>+0.063</sup> <sub>0</sub>	9.8	6.5	3	6.5	17	8.6	14	8.5	M10X1.5	34.8
30	72.4	70	29	18.5	5	12	50	32.5	84	37	7	33.5	65 <sup>-0.074</sup> <sub>0</sub>	67 <sup>-0.074</sup> <sub>0</sub>	32 <sup>+0.062</sup> <sub>0</sub>	10	22 <sup>+0.062</sup> <sub>0</sub>	9.8	5	3.5	6.5	17	8.6	14	8.5	M10X1.5	34.8
50	82.4	80	38	22	6	15.5	63	37.5	100	50	10	37.5	75 <sup>-0.074</sup> <sub>0</sub>	77 <sup>-0.074</sup> <sub>0</sub>	35 <sup>+0.062</sup> <sub>0</sub>	11	26 <sup>+0.062</sup> <sub>0</sub>	11.8	5.5	3.5	7.5	20	10.3	18	10.5	M12X1.75	54.3
型号	JD	JJ	JU	P	Q	S	SD	SE	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC	YD	YE		
10	12	M5X0.8	M8X1	M5X0.8	34	92	9	13	45	17.3	47	15	3 <sup>+0.025</sup> <sub>0</sub>	3.5	M5X0.8	8	32	27	3 <sup>+0.03</sup> <sub>0</sub>	3.5	40	3 <sup>+0.03</sup> <sub>0</sub>	3.5	3.5			
20	15	M6X1	M10X1	M5X0.8	37	117	10	12	59.7	24.8	54	20.5	4 <sup>+0.03</sup> <sub>0</sub>	4.5	M6X1	10	43	36	4 <sup>+0.03</sup> <sub>0</sub>	4.5	50	4 <sup>+0.03</sup> <sub>0</sub>	4.5	4.5			
30	15	M6X1	M10X1	1/8"	40	127	11.5	14	64.7	24.8	57	23	4 <sup>+0.03</sup> <sub>0</sub>	4.5	M6X1	10	48	39	4 <sup>+0.03</sup> <sub>0</sub>	4.5	58	4 <sup>+0.03</sup> <sub>0</sub>	4.5	4.5			
50	18	M8X1.25	M14X1.5	1/8"	46	152	14.5	15	74.7	31.3	66	26.5	5 <sup>+0.03</sup> <sub>0</sub>	5.5	M8X1.25	12	55	45	5 <sup>+0.03</sup> <sub>0</sub>	5.5	68	5 <sup>+0.03</sup> <sub>0</sub>	5.5	5.5			

XV

**PR Precision Pressure Regulator**

**PR 2000/3000/4000**

**Precision Pressure Regulator**



**◆ Product Features**

- High precision , sensitive response.
- Steady output pressure.
- Large flow rate and steady flow output.
- Easy installation : Independent installation by bracket ; Bottom installation; Direct installation with existing modular air preparation.
- High pressure type, medium pressure type and low pressure type optional.

**◆ How to Order?**

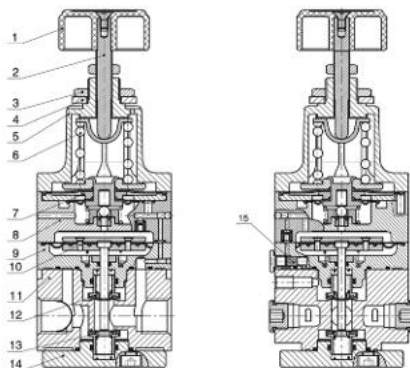
Series No.	Port size	Pressure Range	Pressure Gauge Code	Bracket Code	Scale Unit	Thread Type
PR2000 PR3000 PR4000	2000 01:1/8"	L: 0.005 ~ 0.2MPa M: 0.01 ~ 0.4MPa H: 0.01 ~ 0.8MPa	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	4: MPa/psi	Blank: G P: PT T:NPT
	3000 02:1/4"	L: 0.01 ~ 0.2MPa M: 0.01 ~ 0.4MPa H: 0.01 ~ 0.8MPa				
	4000 02:1/4" 03:3/8" 04:1/2"	L: 0.01 ~ 0.2MPa M: 0.01 ~ 0.4MPa H: 0.01 ~ 0.8MPa				

**Order Example:** PR3000 high precision regulator , 1/4" port, pressure range 0.01~0.8MPa ,with gauge.with bracket.scale unit MPa/psi,G thread.  
RP code is PR3000-02H

**◆ Specifications**

Model No.	PR2000-01	PR3000-02	PR4000-02	PR4000-03	PR4000-04
Working Medium	Clean air(After 5 μm filtration )				
Max. Supply Pressure(Mpa)	1.0				
Min. Supply Pressure(Mpa)	Setting pressure+0.05		Setting pressure+0.1		
Proof Pressure(Mpa)	1.5				
Set Pressure	Low Pressure	L:0.005 ~ 0.2MPa		L:0.01 ~ 0.2MPa	
	Medium Pressure	M:0.01 ~ 0.4MPa			
	High Pressure	H:0.01 ~ 0.8MPa			
Sensitivity	Within 0.2% of full scale				
Repeatability	Within ±0.5% of full scale				
Air Consumption	≤4.4L/min (ANR)			≤11.5L/min (ANR)	
Port Size	1/8"	1/4"	1/4"	3/8"	1/2"
Pressure Gauge Port Size	G1/8(2 locations)				
Working Temperature(°C)	-20~70 ( No freezing )				
Weight(g)	140	420		710	

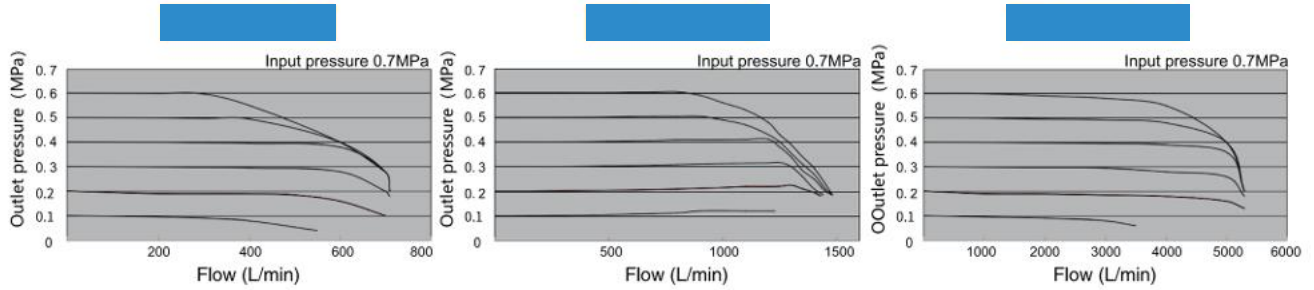
**◆ Internal Structure**



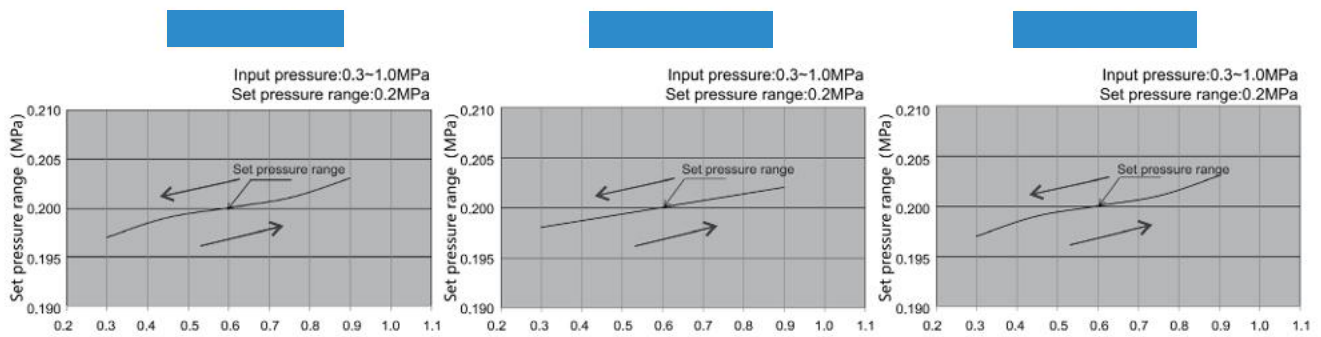
No.	Part Name	Material
1	Pilot regulate button	Plastic
2	Pilot regulate axle	Carbon steel
3	Hex nut	Free Machining Steel
4	Flat washer	SPCC
5	Pilot regulate seat	Aluminum
6	Spring	Spring steel
7	Pilot diaphragm assy	Assy
8	Nozzle	Aluminum
9	Middle valve body	Aluminum
10	Main regulate diaphragm	Assy
11	Main valve body	Aluminum
12	Exhaust valve core	Assy
13	Inlet valve core	Assy
14	Bottom cover	Aluminum
15	Filter element	High polymer material

**PR Precision Pressure Regulator**

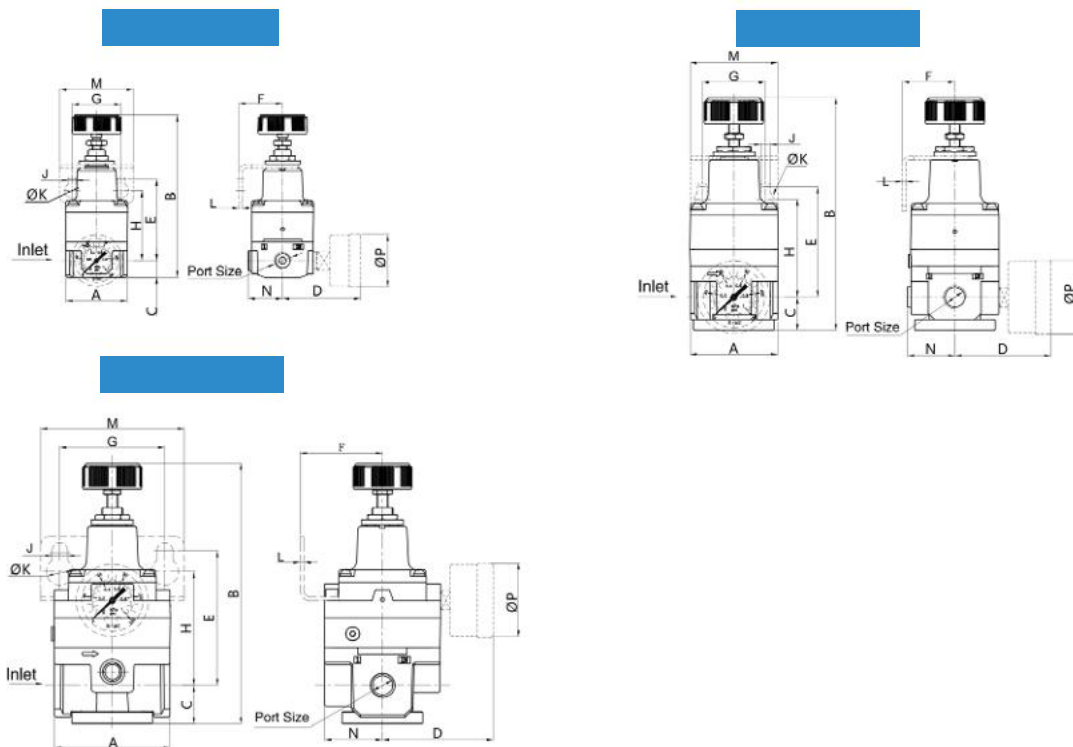
**Flow Chart**



**Pressure Characteristic Diagram**



**Main Dimension**



PR2000	1/8"	35	93	9.5	44.5	46.5	25	28	40	4.5	8.5	2	42	19.5	30
PR3000	1/4"	50	133	19	55	63	30	36	56	5.5	9.5	2	50	27	42
PR4000	1/4", 3/8", 1/2"	66	149	22	63.5	77	47	60	65	9	15.5	2	82	33	42

**Digital Display Pressure Switch**

# SP30

## Digital Display Pressure Switch



### ◆ Product Features

- Compact appearance and easy to assemble.
- The current value and reference value are displayed simultaneously, and the reference value can be directly set.
- Dual screen, three color display of red, green, and orange.
- Digital display, more recognizable.

### ◆ How to Order?

Series No.	Pressure Type	Output Type	Port Size
PS30: Economical type	P: Positive pressure C: Continuous pressure	NP: 1-circuit switching value, adjustable, its factory default NPN) NPV: 1-circuit switching value, adjustable, its factory default NPN)+ 1-analog voltage output(1-5V) NPA: 1-circuit switching value, adjustable, its factory default NPN)+ 1-analog current output(4-20mA)	01: PT1/8(M5)

### ◆ Installation Accessories: Sold Separately

Panel Installation bracket	MS-PS-01	PS30 and PS42 are interchangeable
Front protective cover	MS-PS-02	
Front protective cover	MS-PS-03	
L-shaped bracket	MS-PS-04	
Z-shaped bracket	MS-PS-05	

### ◆ Product Profile

Type	Positive pressure	Continuous pressure
1000kPa		
100kPa		
-100kPa		
Rated pressure range	-0.1MPa~1.0MPa	-100kPa~100kPa
Set pressure range	-0.1MPa~1.0MPa	-100kPa~100kPa

### ◆ Specifications

Models	Positive Pressure	Continuous Pressure
Type of pressure	Standard pressure	
Rated pressure range*	-0.1MPa~1.0MPa	-100kPa~100kPa
Set pressure range*	-0.1MPa~1.0MPa	-100kPa~100kPa
Pressure resistance	1.5MPa	500kPa
Applicable fluid	Non corrosive gas	
Supply voltage	12~24V DC ± 5%	
Consumption current	24V 30mA Max	12V 60mA Max
Switch output	NPN O.C output:80mA/24VDCMax or PNP O.C output :80mA/24VDC	
Repetitive accuracy	± 0.2%F.S.	± 0.5%F.S.
Reaction time	Select through key operation:2.5ms,5ms,10ms,25ms,50ms,100ms,250ms,500ms,1000ms,5000ms	
Analog output	Voltage output	0.6V~5V (or slightly lower)   Linearity: ± 1%F.S. Output impedance: 1K Ω
	Current output	2.4mA~20mA(or slightly lower)   4mA~20mA(or slightly lower)
Range of temperature	Working temperature :0~50°C Storage temperature : -10~60°C (no condensation, no icing)	
Range of humidity	35~85%RH	
Temperature characteristics	± 1%F.S.(25°C)	
Protection level	IP40	
Material	Outer shell: Nylon + glass fiber LCD display: Propylene Pressure port: External thread POM+ inlaid N5 copper Seal ring: H-NBR Keys: Silicone rubber	
Overall dimensions	30 x 30 x 25mm(plastic part)/30 x 30 x 43mm (including connectors)	
Weight	Approx 80g (barometer body + user interface connector)	

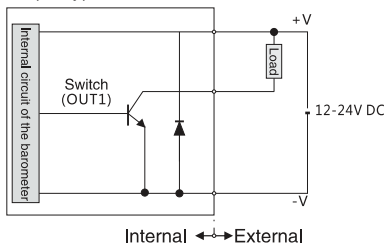
※ Note: Due to the influence of temperature and linear compensation, there may be slight fluctuation near the upper/lower range of the barometer, which is positive Panel description

**Digital Display Pressure Switch**

**I/O Circuit Diagram and Wiring Diagram**

**Output type without analog**

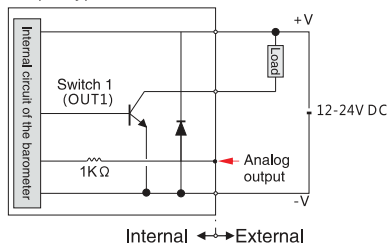
Output type NPN



Internal ↔ External

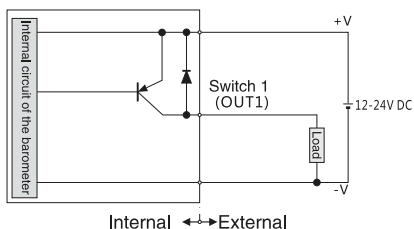
**Output type with analog**

Output type NPN



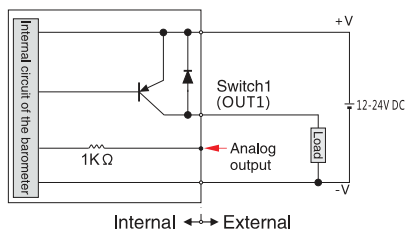
Internal ↔ External

Output type PNP



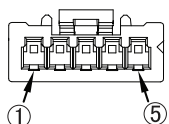
Internal ↔ External

Output type PNP



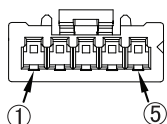
Internal ↔ External

Terminal arrangement diagram



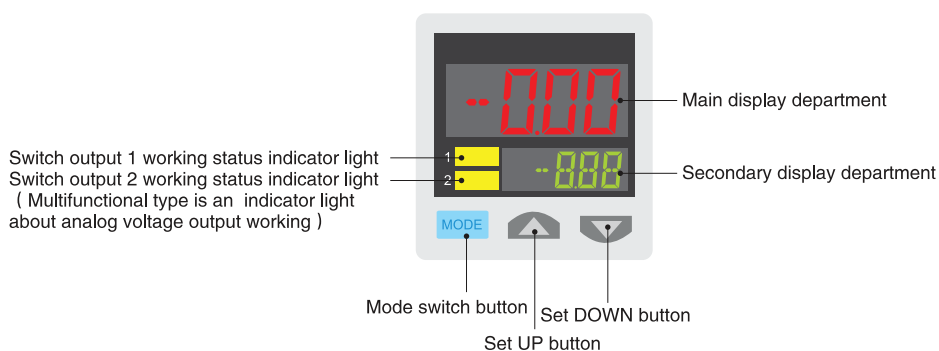
Connector Pin NO	Terminal name
① Brown	+V
② Black	Switch output1
③ White	-
④ Orange	-
⑤ Blue	0V

Terminal arrangement diagram



Connector Pin NO	Terminal name
① Brown	+V
② Black	Switch output1
③ White	-
④ Orange	Analog output
⑤ Blue	0V

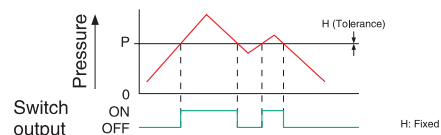
**Panel Description**



**Input Mode and Output Mode**

**① EASYmode**

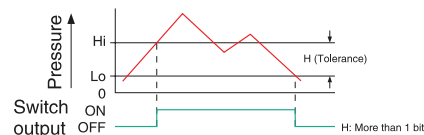
Mode for switch output ON/OFF control



(Note 1): The stress can be fixed at level 8.  
(Note 2): The auxiliary display unit displays "P-1" when the switch outputs 1  
Displayed "P-2" when switching output 2

**② Lag mode**

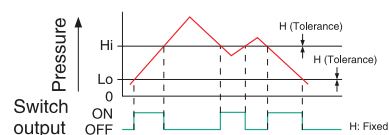
Mode for switch output ON/OFF control



(Note 1): The auxiliary display unit displays "Hi-1", "Lo-1" when the switch outputs 1  
Displayed "Hi-2", "Lo-2" when switching output 2

**③ Window comparison mode**

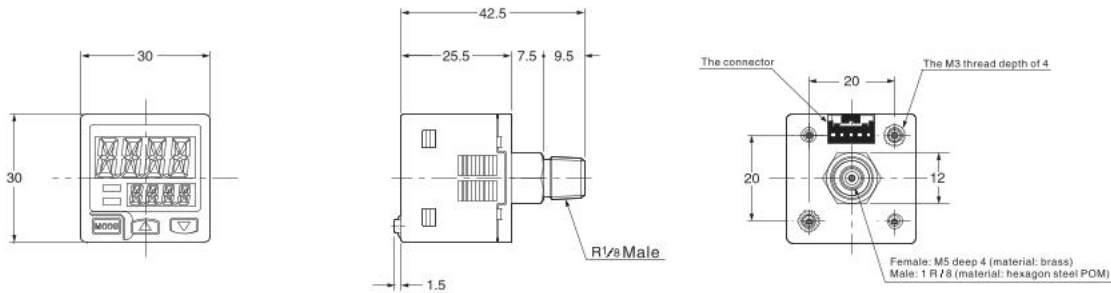
Set the switch to ON or OFF mode according to the pressure within the set range



(Note 1): The stress can be fixed at level 8.  
(Note 2): The auxiliary display unit displays "Hi-1", "Lo-1" when the switch outputs 1  
Displayed "Hi-2", "Lo-2" when switching output 2

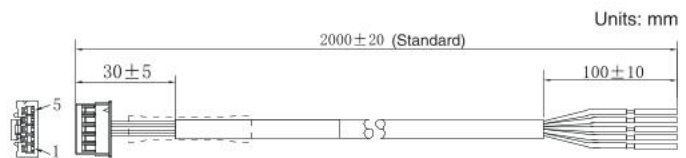
## Digital Display Pressure Switch

### Outline Dimensional Drawing



### Accessories Parts

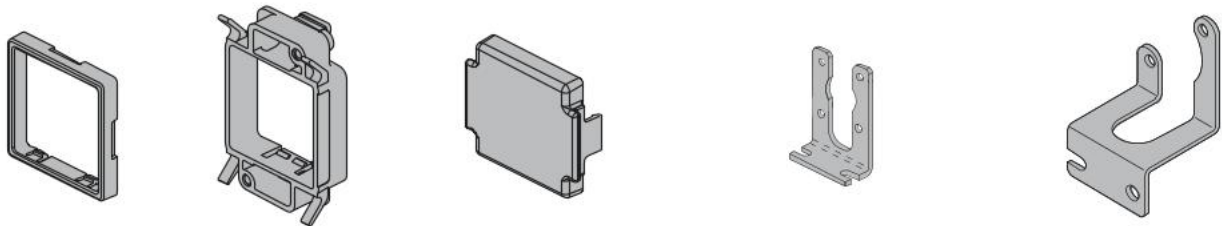
Accessories parts(1): cables



Please use the attached form a complete set of connecting cable with plug.

Note: remove, please hold the connection head part to be removed, otherwise it will cause cable bolt, connecting cable damage.

Accessories parts(2): the mounting bracket (sold separately)



Type 01 panel support  
(MS-PS-01)

Type 02 panel support  
(MS-PS-02)

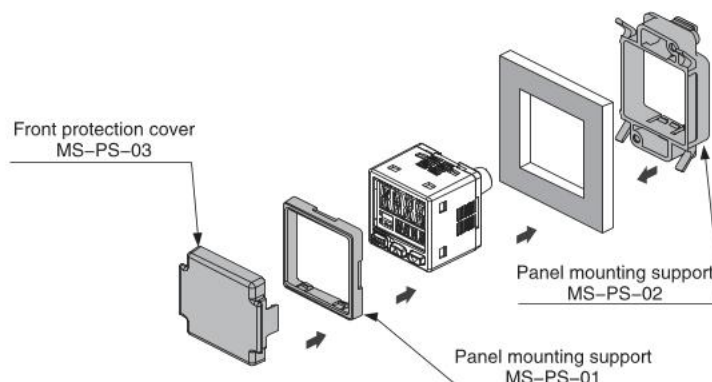
Type 03 front protection cover  
(MS-PS-03)

Type 04 sensor mounting support  
(MS-PS-04)

Type 05 sensor mounting support  
(MS-PS-05)

Product name	Type number	Type number
Sensor mounting bracket	MS-PS-04	Sensors can be mounted on the bottom or top side, or multiple sensors can be installed closely.
	MS-PS-05	The sensor can be mounted in the rear direction, or multiple sensors can be installed closely.
Panel mounting bracket	MS-PS-02	When used together, the sensor can be mounted on a panel with a thickness of 1 to 6mm, or multiple sensors can be installed closely.
	MS-PS-01	
Panel mounting bracket	MS-PS-03	Protect the adjusting surface of the sensor. (This protective cover can be installed when mounting the bracket using the panel.)

### Insallation Instruction



◆ **Pressure Switch Usage and Application SP30**

- To monitor your Pneumatic pressure and get output at the set pressure
- Three colour Digital display
- Set Pressure range 0 to 10 Bar
- For vacuum pressure -100Kpa to 100Kpa
- Digital output PNP or NPN can be interchangeable in the same product
- Analog output 1-5V or 4-20mA available
- Compact in size
- Port connection is 1/8" and M5 female
- Can be used in the FRL gauge port
- All type of industries use this product
- IP40 Protection
- Current and set value can be seen in the screen, same time
- Supply voltage 24v DC
- Panel mounting and Protection cover available on option.
- 2 Mtrs cable with free leads will be supplied along with the product

**PRH Series High Pressure Reducing Regulator**

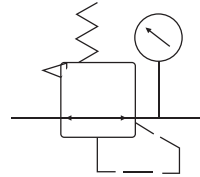
**PRH**

High Pressure Reducing Regulator



◆ **Product Features**

- Use pressure up to 3.5MPa, reliable pressure regulation and stable pressure;
- 20/30/40/50 series are available;
- Connection caliber 1/4" 3/8" 1/2" 3/4" 1"。



◆ **How to order**

PRH	Valve Body Size	Receiver Caliber
PRH Series	20: 2000 Valve body 30: 3000 Valve body 40: 4000 Valve body 50: 5000 Valve body	02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"

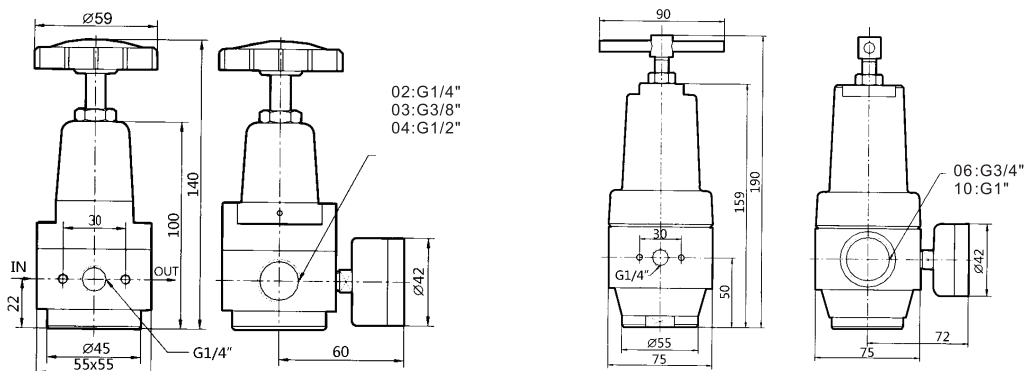
**Order Example:**

PRH Series, 4000 Valve body, Receiver caliber: G1/2", The PRH Code: PRH 40-04

◆ **Standard**

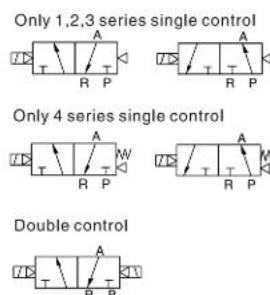
Model	PRH-02	PRH-03	PRH-04	PRH-06	PRH-10
Fluid to be used	Air				
Tube Caliber	G1/4	G/8	G1/2	G3/4	G1
Regulating Pressure Range	0.5 - 3.5MPa				
Max.Input Pressure	4MPa				
Operating Temperature Range	25 - +80°C				

◆ **External Dimensions**



**PV Series Standard/Low Power Solenoid Valve(3/2way)**

**PV**  
Standard / Low Power Solenoid Valve (3/2)



**How to Order?**

Low Power Solenoid Valve

Series	Valve body size	ID code	Positions	Ways	Controls	Original Status	Port Size	Reset Type	Voltage	Connection Mode	Cover Color	Acting Type	Patchcord	Thread Type
N	1: 1Series 2: 2Series 3: 3Series 4: 4Series		2: positions 3: 3 ways		1: Single control 2: Double control	Blank: Normal close H: Normal open	M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring (4 series single control only) Q: Air (1,2,3 series single control)	E1: AC110V E2: AC220V E4: DC24V (for 1series, only DC24V available)	Blank: DIN connector type L: Plug-in Type K: Water proof connector type (only for 2,3,4 series)	Blank: Brown translucent J: Colorless and translucent B: Black (Only black color available for water proof connector)	Blank: Internal pilot WB: External pilot	Blank: Patchcord length is 0.3 meter 0.6M: Patchcord length is 0.6 meter 1M: Patchcord length is 1 meter (Options for "L: Plug-in type" Only)	Blank: G P: PT T: NPT

P: Standard armature + Energy saving coil

Order Example:

PV series energy saving solenoid valve, 2 series valve body size, 3/2 ways, double control, 1/8" port size, AC220V, DIN connector, G thread, ERP code is :N2P232-06E2

**Specifications**

Model No.	N1P231-M5 N1P232-M5	N1P231-06 N1P232-06	N2P231-06 N2P232-06	N2P231-08 N2P232-08	N3P231-08 N3P232-08	N3P231-10 N3P232-10	N4P231-10 N4P232-10	N4P231-15 N4P232-15
Port size	M5	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Sectional area(mm)	5.5(CV=0.31)	12(CV=0.67)	14(CV=0.78)	16(CV=0.89)	25(CV=1.40)	30(CV=1.68)	50(CV=2.79)	50(CV=2.79)
Working medium	Clean air(After 40 μm filtration )							
Acting type	Internal pilot type/External pilot type							
Reset type	Air reset					Spring reset /Air reset		
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-20~70(No freezing)							
Voltage range	-15%~10%							
Power consumption	DC24V:0.6W		DC24V:0.7W AC220V:0.9VA AC110V:1.4VA					
Insulation class	Class F							
Protective class	IP65(DIN40050)							
Max. acting frequency	5 Cycles/s							
Activate time(S)	<0.05							
Weight(g)	N1P231:102 N1P232:169		N2P231:107 N2P232:169		N3P231:260 N3P232:370		N4P231:443 N4P232:569	

Note: Normal open is same as normal close.

**PV Series Standard/Low Power Solenoid Valve(3/2way)**

**How to Order?**

**Standard Solenoid Valve**

Series No.	Ways	Positions	Valve Body ID Code	Controls	Original Status	Port Size	Reset Type	Voltage	Connection Mode	Cover Color	Valve Color	Patchcord	Thread Type
PV	3: 3 ways	2: 2 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control	Blank: Normal close H: Normal open	M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring (Only 4 series single control) Q: Air (1,2,3 series single control)	E1: AC110V E6: AC36V E2: AC220V E7: AC24V E3: AC380V E8: DC110V E4: DC24V E9: DC48V E5: DC12V E10: DC36V	Blank: DIN connector L: Plug-in Type F: Flying leads K: Waterproof DIN connector (Only 2, 3, 4 series is optional for K/M)	Blank: Brown translucent J: Colorless and translucent B: Black (Only Waterproof DIN connector)	Blank: Internal pilot WB: External pilot	Blank: Patchcord length is 0.3 meter 0.6M: Patchcord length is 0.6 meter 1M: Patchcord length is 1 meter (Options for "L: Plug-in type" and "F: Flying leads type" Only)	Blank: G P: PT T: NPT

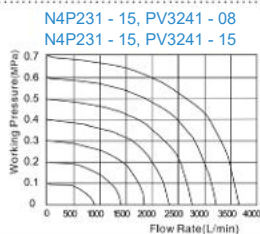
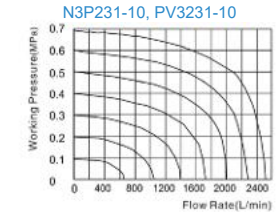
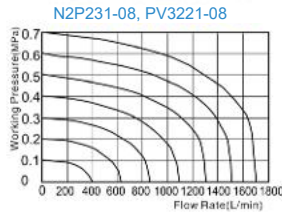
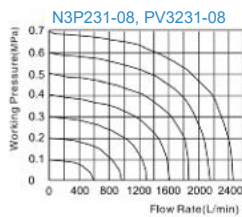
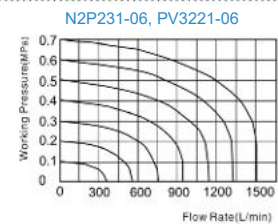
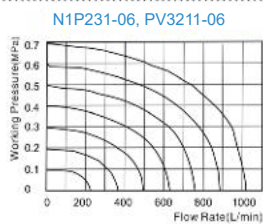
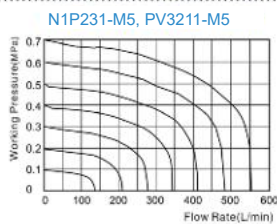
**Order Example:**

PV series solenoid valve, 2 series valve body size, 3/2 ways, single control, 1/8" port size, air return, standard coil, AC220V, DIN connector, G thread, ERP code is :PV3221-06QE2

**Specifications**

Model No.	PV3211-M5 PV3212-M5	PV3211-06 PV3212-06	PV3221-06 PV3222-06	PV3221-08 PV3222-08	PV3231-08 PV3232-08	PV3231-10 PV3232-10	PV3241-10 PV3242-10	PV3241-15 PV3242-15
Port size	M5	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Sectional area(mm)	2 way:5.5(CV=0.31)	2 way:12(CV=0.67)	2 way:14(CV=0.78)	2 way:16(CV=0.89)	2 way:25(CV=1.40)	2 way:30(CV=1.68)	2 way:50(CV=2.79)	2 way:50(CV=2.79)
Working medium	Clean air(After 40 μm filtration )							
Acting type	Internal pilot type/External pilot type							
Reset type	Air reset						Spring reset /Air reset	
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressur(MPa)	1.2							
Working temperature(°C)	-20~70(No freezing)							
Voltage range	-15%~10%							
Power consumption	DC:2.8W ; AC:3.0VA			DC:3.0W ; AC:4.0VA				
Insulation class	Class F							
Protective class	IP65(DIN40050)							
Max. acting frequency	5 Cycles/s							
Activate time(S)	<0.05							
Weight(g)	PV3211: 102 PV3212: 169		PV3221: 102 PV3222: 303		PV3231: 260 PV3232: 370		PV3241: 443 PV3242: 569	

**Flow Chat**

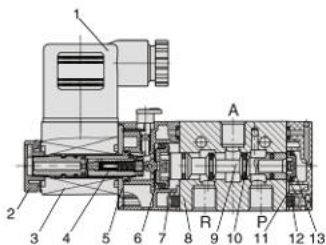


XV

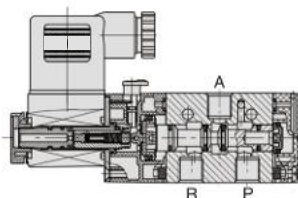
**PV Series Standard/Low Power Solenoid Valve(3/2way)**

**Internal Structure**

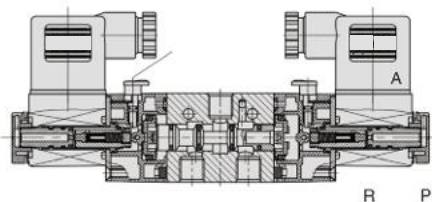
Single Solenoid Valve (Normal Close)



Single Solenoid Valve (Normal Open)



Double Solenoid Valve (Normal Close)



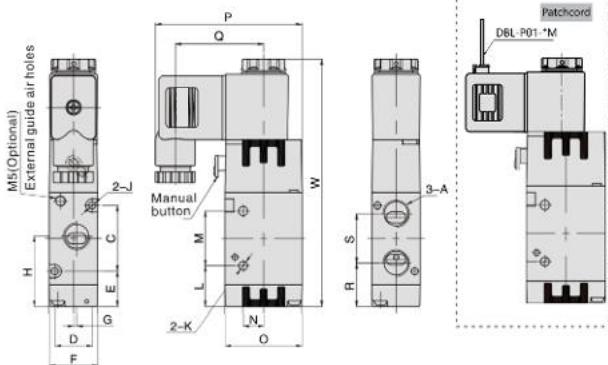
No.	Part Name	Material
1	Connector	Engineered plastics
2	Nut	POM
3	Coil	Cu+ Thermosetting resin
4	Pilot units	Pure iron + copper + stainless steel
5	Plate	Carbon steel
6	Piston	POM
7	Pilot seat	Engineered plastics
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	NBR
11	Rear cover	Engineered plastics
12	Filter	Synthetic material
13	Piston	Engineered plastics
14	Manual button	Engineered plastics

**Main Dimension**

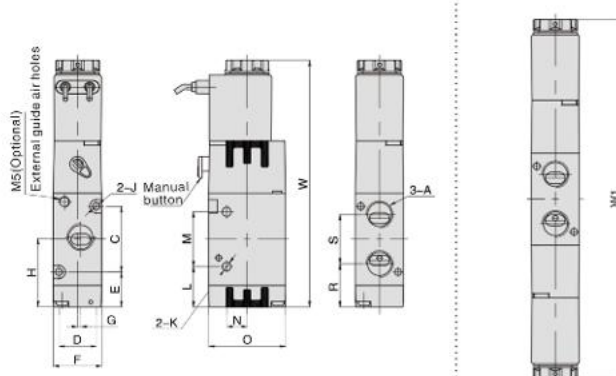
**Single Solenoid Valve**

**Double Solenoid Valve**

DIN Type



Flying Leads Type



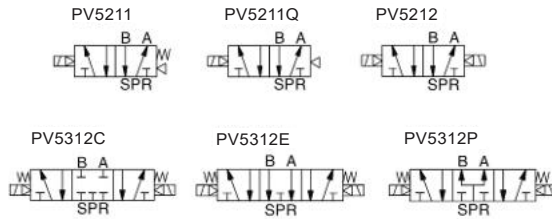
Model/Sign	A	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	W	W1*
PV3211-M5	M5	19	13	16.5	18	0	26	3.3	3.1	15.5	21	6	27	55.2	33.9	18.9	14.2	92.1	132.2
PV3211-06	G1/8	19	13	16.5	18	1.5	27	3.3	3.1	15.5	21	6	27	55.2	33.9	18	16	92.1	132.2
PV3221-06	G1/8	30	17	16	22	0	31	3.3	4.2	18.5	25	9.3	35	66.7	40.2	20	22	112.7	163.4
PV3221-08	G1/4	30	17	16	22	1.5	32	3.3	4.2	18.5	25	9.3	35	66.7	40.2	19.8	22.5	112.7	163.4
PV3231-08	G1/4	35	20	19.1	27	0	36.6	4.3	4.3	21.6	30	9.5	40	69.2	40.2	24.6	24	124.3	175.4
PV3231-10	G3/8	35	20	19.1	27	2	36.6	4.3	4.3	21.6	30	9.5	40	69.2	40.2	24.6	24	124.3	175.4
PV3241-10	G3/8	40.5	27	24.8	34	0	45	4.3	5.2	21	48	11.5	50	74.2	40.2	29.3	31.5	144.7	199.4
PV3241-15	G1/2	40.5	27	24.8	34	2	45	4.3	5.2	21	48	11.5	50	74.2	40.2	29.3	31.5	144.7	199.4

Note: The dimension of NR series and PV series are same. The dimension of normal open type and normal close type are same. W1\* is the dimension of double control solenoid valve.

**PV Series Standard/Low Power Solenoid Valve(5/2,5/3way)**

**PV**

**Standard / Low Power Solenoid Valve (5/2,5/3)**



**How to Order?**

**Low Power Solenoid Valve**

Series No.	Valve body size	ID Code	Positions	Ways	Controls	Original Status	Port Size	Reset Form	Voltage	Connection Mode	Cover Color	Acting Type	Patchcord	Thread Type
N	1: 1Series 2: 2Series 3: 3Series 4: 4Series	P: Standard armature +Energy saving coil	2: 2 positions 3: 3 positions	5:5 ways	1: Single control 2: Double control	C: Center close P: Center pressure E: Center exhaust (Only for 5/3 way)	M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring Q: Air (Only single control)	E1: AC110V E2: AC220V E4: DC24V (1 Serie only DC24V)	Blank: DIN connector type L: Plug-in Type K: Water proof connector type (only for 2,3,4 series)	Blank: Brown translucent J: Colorless and translucent B: Black (K/M connector is only available in black)	Blank: Internal pilot WB: External pilot	Blank: Patchcord length is 0.3 meter 0.6M: Patchcord length is 0.6 meter 1M: Patchcord length is 1 meter (Options for "L: Plug-in type" Only)	Blank: G P: PT T: NPT

**Order Example:**

PV series solenoid valve, 2 series valve body size, standard pilot+Energy saving coil, 5/2 way, single control, 1/4" port size, standard coil, DC24V, DIN connector, G thread, ERP code is: N2P251-08E4

**Specifications**

Model No.	N1P251-M5 N1P252-M5 N1P352-M5	N1P251-06 N1P252-06 N1P352-06	N2P251-06 N2P252-06 N2P352-06	N2P251-08 N2P252-08 N2P352-08	N3P251-08 N3P252-08 N3P352-08	N3P251-10 N3P252-10 N3P352-10	N4P251-10 N4P252-10 N4P352-10	N4P251-15 N4P252-15 N4P352-15
Port size	M5	G1/8	G1/8	G1/4(Ex.G1/8)	G1/4	G3/8(排气G1/4)	G3/8	G1/2
Sectional area(mm <sup>2</sup> )	5/2:5.5(CV=0.31) 5/3:5.5(CV=0.28)	5/2:12(CV=0.67) 5/3:9(CV=0.50)	5/2:14(CV=0.78) 5/3:12(CV=0.67)	5/2:16(CV=0.89) 5/3:12(CV=0.67)	5/2:25(CV=1.40) 5/3:18(CV=1.00)	5/2:30(CV=1.68) 5/3:18(CV=1.00)	5/2:50(CV=2.79) 5/3:30(CV=1.67)	5/2:50(CV=2.79) 5/3:30(CV=1.67)
Working medium	Clean air(After 40 μ m filtration)							
Acting type	Internal pilot type / External pilot type							
Reset Type	Air reset				Spring reset /Air reset			
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-20~70(No freezing)							
Voltage range	-15%~10%							
Power consumption	DC24V:0.6W		DC24V:0.7W AC220V:0.9VA AC110V:1.4VA					
Insulation class	Class F							
Protective class	IP65(DIN40050)							
Max. acting frequency	5/2: 5 Cycles/s; 5/3: 3 Cycles/s							
Activate time(S)	<0.05							
Weight(g)	N1P251: 110 N1P252: 171 N1P352: 181	N2P251: 209 N2P252: 314 N2P352: 357	N3P251: 289 N3P252: 400 N3P352: 450	N4P251: 528 N4P252: 638 N4P352: 727				

**PV Series Standard/Low Power Solenoid Valve(5/2,5/3way)**

◆ **How to Order?**

**Standard Solenoid Valve**

Series No.	Ways	Positions	Valve body size	Controls	Original Status	Port Size	Reset Form	Voltage	Connection Mode	Cover Color	Acting Type	Patchcord	Thread Type
PV	5:5 ways	2: 2 positions 3: 3 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control	C: Center close P: Center pressure E: Center exhaust (Only for 5/3 way)	M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring Q: Air (Only single control)	E1: AC110V E6: AC36V E2: AC220V E7: AC24V E3: AC380V E8: DC110V E4: DC24V E9: DC48V E5: DC12V E10: DC36V	Blank: DIN connector L: Plug-in Type F: Flying leads K: Waterproof DIN connector (Only 2, 3, 4 series is optional for K/M)	Blank: Brown translucent J: Colorless and translucent B: Black (K/M connector is only available in black)	Blank: Internal pilot WB: External pilot		Blank: G P: PT T: NPT

**Order Example:**

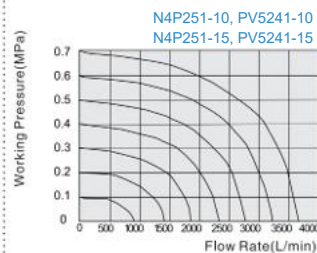
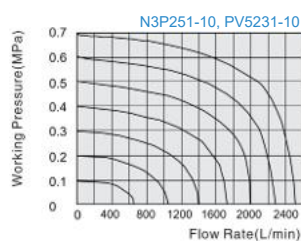
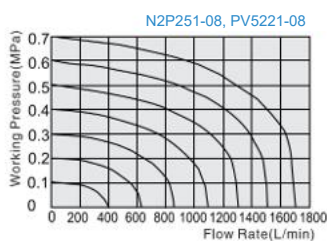
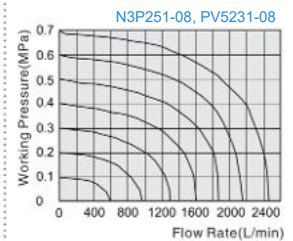
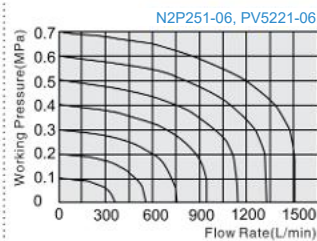
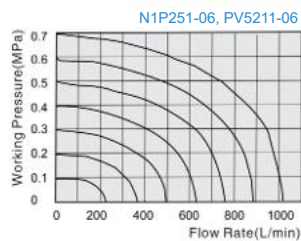
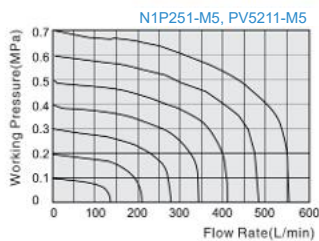
PV series solenoid valve, 2 series valve body size, 5/2 way, single control, 1/4" port size, standard coil, DC24V, DIN connector, G thread, ERP code is: PV5221-08E4

Blank: Patchcord length is 0.3 meter  
0.6M: Patchcord length is 0.6 meter  
1M: Patchcord length is 1 meter  
(Options for "L: Plug-in type" and "F: Flying leads type" Only)

◆ **Specifications**

Model No.	PV5211-M5 PV5212-M5 PV5312-M5	PV5211-06 PV5212-06 PV5312-06	PV5221-06 PV5222-06 PV5322-06	PV5221-08 PV5222-08 PV5322-08	PV5231-08 PV5232-08 PV5332-08	PV5231-10 PV5232-10 PV5332-10	PV5241-10 PV5242-10 PV5342-10	PV5241-15 PV5242-15 PV5342-15
Port size	M5	G1/8	G1/8	G1/4(Ex.G1/8)	G1/4	G3/8(Ex.G1/4)	G3/8	G1/2
Sectional area(mm <sup>2</sup> )	5/2:5.5(CV=0.31) 5/3:5.5(CV=0.28)	5/2:12(CV=0.67) 5/3:9(CV=0.50)	5/2:14(CV=0.78) 5/3:12(CV=0.67)	5/2:16(CV=0.89) 5/3:12(CV=0.67)	5/2:25(CV=1.40) 5/3:18(CV=1.00)	5/2:30(CV=1.68) 5/3:18(CV=1.00)	5/2:50(CV=2.79) 5/3:30(CV=1.67)	5/2:50(CV=2.79) 5/3:30(CV=1.67)
Working medium	Clean air(After 40 μ m filtration)							
Acting type	Internal pilot type / External pilot type							
Reset Type	Air reset						Spring reset /Air reset	
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-20~70(No freezing)							
Voltage range	-15%~10%							
Power consumption	DC:2.8W ; AC:3.0VA			DC:3.0W ; AC:4.0VA				
Insulation class	Class F							
Protective class	IP65(DIN40050)							
Max. acting frequency	5/2: 5 Cycles/s ; 5/3: 3 Cycles/s							
Activate time(S)	<0.05							
Weight(g)	PV5211: 110 PV5212: 171 PV5312: 181		PV5221: 209 PV5222: 314 PV5322: 357		PV5231: 289 PV5232: 400 PV5332: 450		PV5241: 528 PV5242: 638 PV5342: 727	

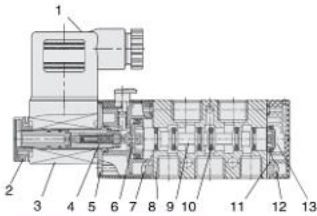
◆ **Flow Chat**



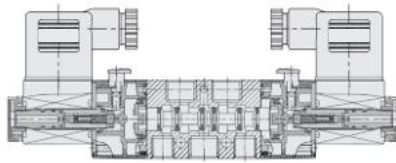
**PV Series Standard/Low Power Solenoid Valve(5/2,5/3way)**

**Internal Structure**

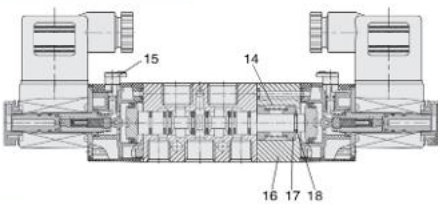
Single Solenoid Valve



Double Solenoid Valve



5/3 Solenoid Valve

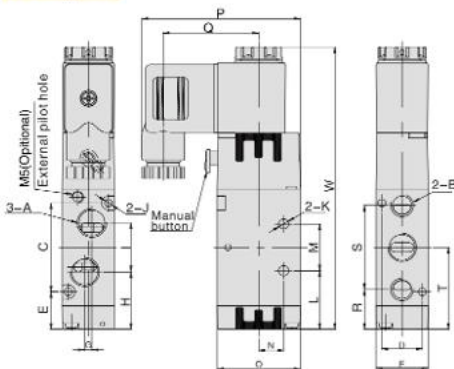


No.	Part Name	Material
1	Connector	Engineered plastics
2	Nut	POM+Carbon steel
3	Coil	Cu
4	Pilot units	Engineered plastics
5	Plate	Carbon steel
6	Piston	POM
7	Pilot seat	Engineered plastics
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	HNBR
11	Rear cover	Engineered plastics
12	Filter	Synthetic material
13	Piston	POM
14	Spring	Stainless steel
15	Manual override	Engineered plastics
16	Back seat	Aluminum alloy
17	Spring seat	Aluminum alloy
18	C-type buckle	65Mn

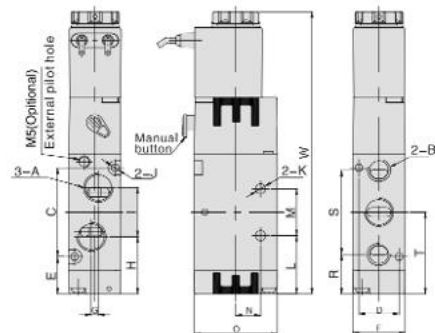
**Main Dimension**

Single Solenoid Valve

DIN Type



Flying Leads Type



(mm)

Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	W
PV5211-M5	M5	M5	30	13	16.5	18	0	24.5	14.1	3.3	3.3	24.5	14	9.5	27	55.2	33.9	17.9	27.2	31.5	103.1
PV5211-06	G1/8	G1/8	30	13	16.5	18	3	23.5	16	3.3	3.3	24.5	14	9.5	27	55.2	33.9	17.5	28	31.5	103.1
PV5221-06	G1/8	G1/8	38	17	16	22	0	26	18	3.3	4.3	25	20	10.5	35	66.7	40.2	17	36	35	120.7
PV5221-08	G1/4	G1/8	38	17	16	22	3	24.5	21	3.3	4.3	25	20	10.5	35	66.7	40.2	17	36	35	120.7
PV5231-08	G1/4	G1/4	50	20	19.1	27	0	33.1	22	4.3	4.3	32.1	24	13.5	40	69.2	40.2	21.6	45	44.1	139.3
PV5231-10	G3/8	G1/4	50	20	19.1	27	4	32.1	24	4.3	4.3	32.1	24	13.5	40	69.2	40.2	21.6	45	44.1	139.3
PV5241-10	G3/8	G3/8	72	27	21	34	0	39	36	4.3	5.5	43	28	17.5	50	74.2	40.2	25.5	63	57	168.7
PV5241-15	G1/2	G1/2	72	27	21	34	4	39	36	4.3	5.5	43	28	17.5	50	74.2	40.2	25.5	63	57	168.7

Note: The dimensions of NP series and PV series are same.

Double Solenoid Valve

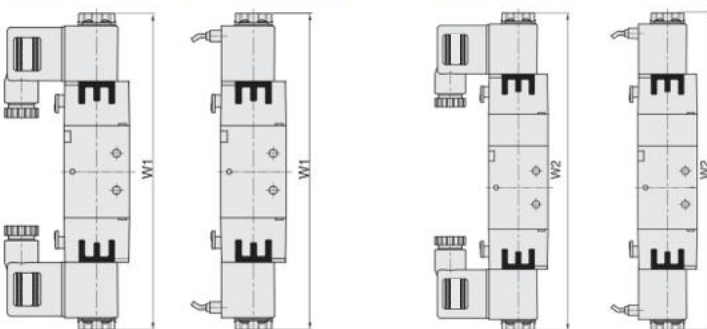
5/3 Solenoid Valve

DIN Type

Flying Leads Type

DIN Type

Flying Leads Type



Model/Sign	W1
PV5212-M5	143.2
PV5212-06	143.2
PV5222-06	171.4
PV5222-08	171.4
PV5232-08	190.4
PV5232-10	190.4
PV5242-10	223.4
PV5242-15	223.4
Model/Sign	W2
PV5312-M5	158.2
PV5312-06	158.2
PV5322-06	190.4
PV5322-08	190.4
PV5332-08	209.4
PV5332-10	209.4
PV5342-10	244.4
PV5342-15	244.4

Note: The dimensions of NP series and PV series are same.

XV

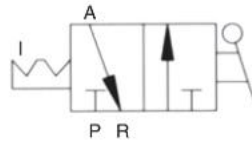
**PVSH Series 3/2 Way Pressure Relief valve**

# PVSH

## Pressure Relief Valve (3/2)



PVSH



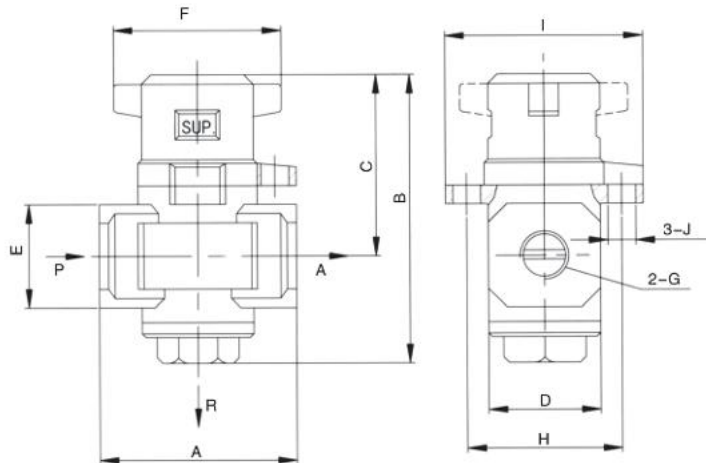
### How to Order?

Series No.	Positions	Port size	Thread Type
PVSH Series	2000: 2000 Body 3000: 3000 Body 4000: 4000 Body 5000: 5000 Body	01: 1/8" 02: 1/4" 03: 3/8" 04: 1/2" 06: 3/4" 10: 1"	Blank: G P: PT T: NPT

Order Example:

PVSH series 3/2 way check valve, 2000 body size, 1/4" port size, PT thread, ERP code is: PVSH2000-02-P

### Main Dimension



Model	G	Exhaust Port	A	B	C	D	E	F	H	I	J
PVSH2000-01	1/8	1/8	40	59	39	28	22	40	32	41	Φ6
PVSH2000-02	1/4	1/8	40	59	39	28	22	40	32	41	Φ6
PVSH2000-02	1/4	1/4	53	78	49	30	28	45	41.5	53	Φ7.5
PVSH2000-03	3/8	1/4	53	78	49	30	28	45	41.5	53	Φ7.5
PVSH2000-03	3/8	3/8	70	84	52	36	36	45	41.5	53	Φ7.5
PVSH2000-04	1/2	3/8	70	84	52	36	36	45	41.5	53	Φ7.5
PVSH2000-10	1	1/2	90	136	72	54	48	68	77	90	Φ8.5

**Magnet Switch**

# HX-07

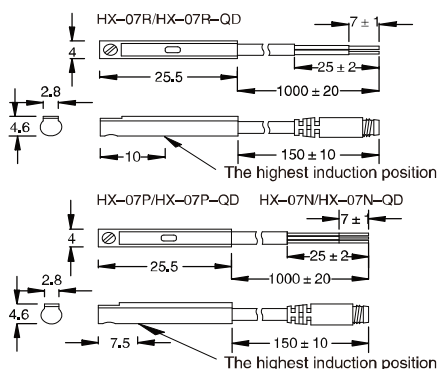
## Magnet Switch



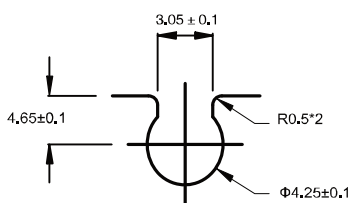
◆ **How to Order?**

HX	-	07	D	-	2M
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire reed switch		Wire length 2M: 2M 5M: 5M 10M: 10M ..... QD8: QD8 Male connector QD12: QD12 Male connector Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered

◆ **Dimension**

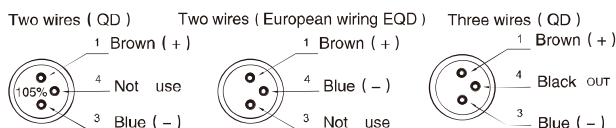


**Groove Dimension**



Suitable for cylinder:  
SQ/SQM/EU/EUK/  
EUM/EUP/SF/SFM/  
SQK/SG//EMQ/ELS/  
ELQ/EXH/ESWT  
\*SHY/SHZ(except Φ 10)

**M8/M12 male wiring diagram**



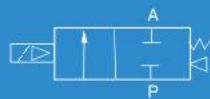
◆ **Specifications**

Type	HX-07D	HX-07N	HX-07P	HX-07R
Connect Diagram				
Parameter				
Wiring method	2-Wire Type	3-Wire Type		2-Wire Type
Switching logic	Electronic no contact type N.O.			SPST Normally Open
Sensor type	None contact type	NPN type ( Input)	PNP type ( Output)	Reed switch
Operating voltage	10-28V DC	5-30V DC		5-240V DC/AC
Max. switching current	50mA max	200mA max.		100mA max.
Contact rating	1.4 W max	6W max.		10W max.
Current consumption	40 μ Amax @ 24V	8mAmax @ 24V (Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μ Amax @ 28V	0.01mA max.		None
Indicator	Red LED			
Max. exchange frequency		1000Hz		200Hz
Temperature range		-10 - 70°C		
Shock		50G		30G
Vibration		9G		
Enclosure classification		IEC 529 IP67 (NEMA 6)		
Protection circuit	2、4	3、4		1
Cable	2.6Φ, 2C, Black color, oil resistance PVC	2.6Φ, 3C, Black color, oil resistance PVC		2.6Φ, 2C, Gray color, oil resistance PVC
Switch sensitive		40-750G		70G

**VS Series 2/2 Solenoid Valve (Nomal Close)**

**VS**

2/2 Solenoid Valve (N.C.)



VS small orifice

**Product Features**

- \* Normal close/Normal open, available body: brass, SS304, SS316
- \* Multiple seals are available for different medium
- \* To reduce the power consumption of 80% energy-saving
- \* Wide size range from 1/8" to 2", with both thread and flange connection
- \* Diaphragm pilot solenoid valve, with lower working pressure (10mm is special)

**How to Order?**

Series No.	Port size	Original status	Orifice	ID Code	Voltage	Valve body material	Seal material	Thread type
VS: Thread connection VSF: Flange connection		Blank: NC H: NO		Blank: Standard type N: Low power type		Blank: Brass S1: SS316 S2: SS304	Blank: NBR E: EPDM V: VITON Si: Silicon (smaller than $\Phi$ 25mm is optional)	Blank: G P: PT T: NPT
	06: 1/8"		025: 2.5mm		E1: AC110V E6: AC36V			
	08: 1/4"		025: 2.5mm 100: 10mm		E2: AC220V E7: AC24V			
	10: 3/8"		040: 4mm 160: 16mm 100: 10mm		E3: AC380V E8: DC110V			
	15: 1/2"		100: 10mm 160: 16mm		E4: DC24V E9: DC48V			
	20: 3/4"		200: 20mm		E5: DC12V E10: DC36V			
	25: 1"		250: 25mm					
	32: 1-1/4"		350: 35mm					
	40: 1-1/2"		400: 40mm					
	50: 2"		500: 50mm					
	Flange connection		250: 25mm 650: 65mm 320: 32mm 800: 80mm 400: 40mm 1000: 100mm 500: 50mm					

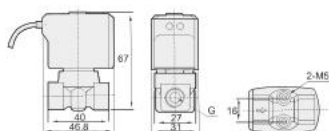
( Note: cancel if same with port size )

**Order Example:**

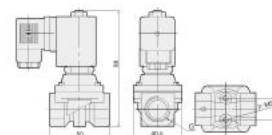
VS series solenoid valve, 1/2" port size, NC, 16mm orifice, standard type, AC110V, Brass valve body, NBR seal, G thread, ERP code is: VS15-160E1  
Note: 2.5mm small orifice valve only with flying leads coil, other orifice with DIN connector coil.

**Main Dimension**

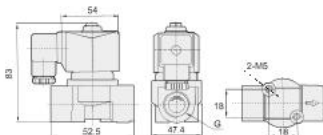
$\Phi$ 2.5mm 1/8" 1/4"



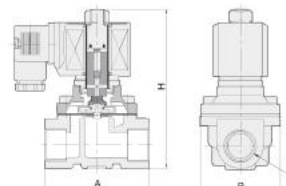
10mm, 1/4", 3/8", 1/2"



$\Phi$ 4mm 3/8"



Large diameter



**Specifications**

Port size (G)	Office (mm)	CV Value	Pressure difference (Bar)							Max. temperature (°C)	Power		Order Code 220VAC		Main Dimension Length x Width x Height A x B x H (mm)
			Max. working pressure								VA AC 220	W DC 24V	Brass	Stainless steel 304	
			Min. Pressure	Air, Gas	Hot water, Liquid	Light Oil $\leq$ 20CST									
1/4"	2.5	0.23	0	7	5	7	5	7	5	80	13	8.5	VS08-025E2	VS08-025E2S2	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	7	5	120	13	8.5	VS08-025E2E	VS08-025E2S2E	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	7	5	120	13	8.5	VS08-025E2V	VS08-025E2S2V	46.8 x 31 x 67
	10	1	0	20	16	20	16	20	16	80	22	13	VS08-100E2	-	50 x 40.5 x 98
	10	1	0	20	16	20	16	20	16	120	22	13	VS08-100E2E	-	50 x 40.5 x 98
1/2"	10	1.9	0	20	16	20	16	20	16	80	22	13	VS15-100E2	-	69 x 75 x 106
	10	1.9	0	20	16	20	16	20	16	130	22	13	VS15-100E2E	-	69 x 75 x 106
	10	1.9	0	20	16	20	16	20	16	120	22	13	VS15-100E2V	-	69 x 75 x 106
	16	4.8	0	10	6	10	6	7	4	80	33	20	VS15-160E2	S15-160E2S2	69 x 75 x 106
	16	4.8	0	10	6	10	6	7	4	130	33	20	VS15-160E2E	S15-160E2S2E	69 x 75 x 106
16	4.8	0	10	6	10	6	7	4	120	33	20	VS15-160E2V	S15-160E2S2V	69 x 75 x 106	

**Electro-Pneumatic Proportional Regulator**

**PETV 3000/4000**  
Electro-Pneumatic Proportional Regulator



**Product Features**

- Adopt 32 - bits CPU, special closed - loop control algorithm to realize the rapid response and precise control effectively;
- Control precision is  $\leq \pm 0.5\%$ ;
- Adopt high - precision built - in pressure sensor to improve control precision effectively;
- Three - color digital display LCD, real - time display actual pressure and setting pressure simultaneously , convenient to confirm and adjust on site;
- Easy to change 4 pressure units(Mpa,Bar,Psi,Kpa)at any time;
- Self - diagnosis;
- Error indication failure alarm;
- 4 - pins M12A standard (male) fieldbus connector;
- Easy assembling and operating;
- The built - in filter can be easily removed for cleaning or replacement;
- The valve body made by microdiecast technology;
- Large flow rate;
- Protection class IP65;

**How to order?**

Series No.	Valve body size	Port size	Pressure range	Input signal	Monitor output	Port size	Bracket	Cable connector type
3000: 3000 Series	02:1/4"	03:3/8"	30: 0-0.5MPa/0-5bar/ 0-72psi/0-500KPa	0: 4-20mA	1: 1-5V 4: 4-20mA	Blank: G P: PT T: NPT	Blank: Without bracket B: Flat bracket C: L- bracket	Blank: Without cable connector L: Right angle type 2m S: Straight type 2m
4000: 4000 Series	03:3/8"	04:1/2"		3: 0-10V	1: 1-5V			
PETV:PETV Series Electro - Pneumatic proportional regulator			50: 0-0.9MPa/0-9bar/ 0-130psi/0-900KPa	0: 4-20mA	1: 1-5V 4: 4-20mA			
				3: 0-10V	1: 1-5V 2: 24V NPN 3: 24V PNP			

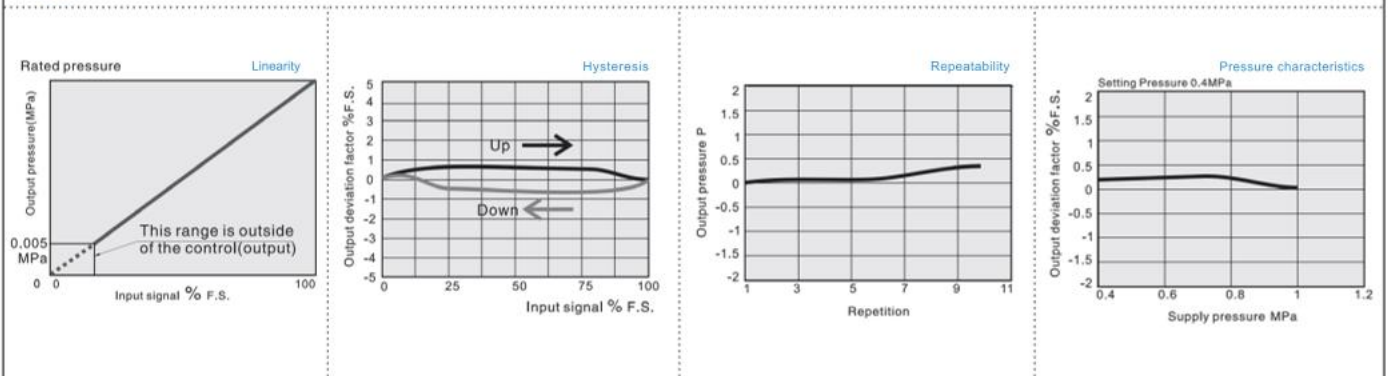
**Order Example:** PETV series Electro - Pneumatic Proportional Regulator, valve body3000, portsize1/4", Output pressure 0-0.9MPa, input signa 0-10V, Monitor output 1-5V, Port Size G, Flat bracket,straight type 2m, ERP code is: PETV3000-025031-BS.

**PETV Series Assessories Order Code**

Cable connector Name	Order code	Bracket Name	Order code
4 - pins M12A standard Straight type 2m	M124R - PVC - 2M	Flat bracket	FJ - PETV - FA
4 - pins M12A standard Right angle type 2m	M124RL - PVC - 2M	L - bracket	FJ - PETV - LB

**Note:** Normal cable connector length is 2m,any other model need to be customized production,max length 10m.

**Characteristic Parameters Curve**



## Electro-Pneumatic Proportional Regulator

### Specifications

Model	PETV3000-02	PETV3000-03	PETV4000-03	PETV4000-04
Port size	G1/4	G3/8	G3/8	G1/2
Flow rate (Cv)	1.5	2.0	2.5	3
Pressure range	0-0.9MPa			
Input signal	0-10V or 0-5V or 4-20mA(sink)			
Monitor output	4-20mA(sink) / 1-5V			
Connector type	4-pins M12A standard(Male)			
Supply Voltage	DC24V ± 10%			
Power	≤ 3W			
Enclosure	IP65 ( DIN40050 )			
Working temperature	0-50°C			
Working medium	Clear air(After 5µm filtration)			
LCD display	Set pressure and actual pressure display at the same time			
Valve body	Aluminium alloy			
Installation position	Random direction			
Max input pressure	1.0MPa			
Min input pressure	bigger than max output pressure by 0.1Mpa			
Accuracy	≤ ± 0.5%			
Linearity	≤ 1.0%F.S.			
Repeatability	≤ ± 0.5%F.S.			
Hysteresis	≤ 0.5%F.S.			

### Wiring

Definition	Electrical connection
PIN number	Cable color
PIN1	Brown
PIN2	White
PIN3	Blue
PIN4	Black
	Analog input type
	+24VDC
	Positive pole of control singa
	Negative pole of power
	Monitor singal

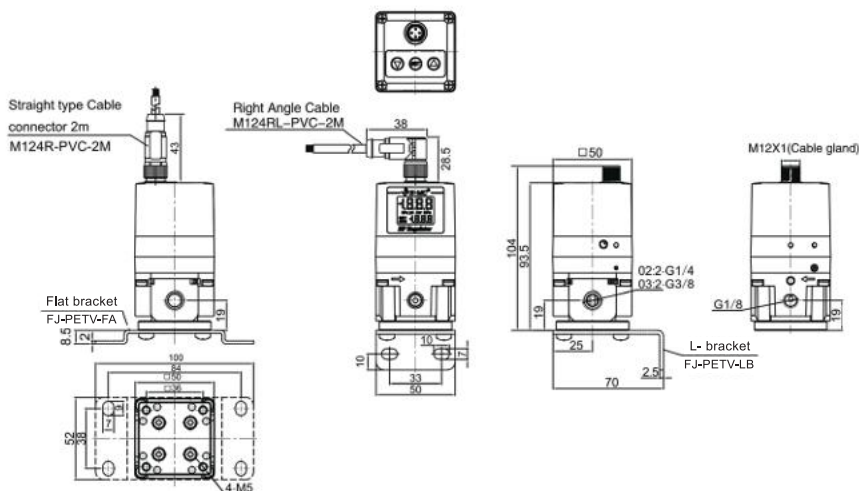


### Button & LCDScreen

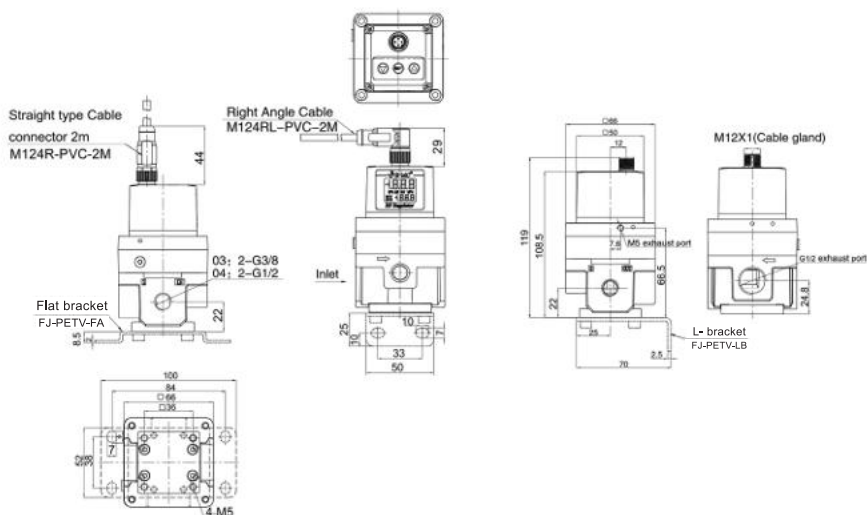


### Main Dimension

PETV3000



PETV3000



**Vacuum Pump**

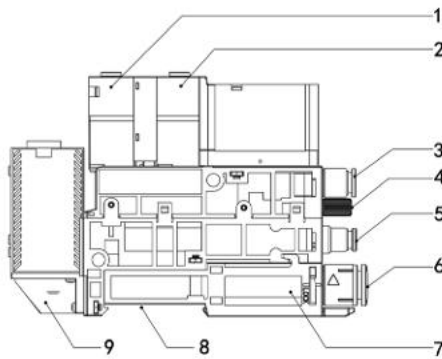
# EFA

## Vacuum Pump



### ◆ Applications / Features

- Built in low power solenoid valve has higher stability and longer service life.
- Built in intergated external vacuum control, vacuum breaking control, vacuum breaking flow regulating, vacuum pressure gauge, vacuum filtration, air supply filtration.
- Two installation modes, including intergated lateral hole installation, 35mm clamp rail stallation.
- Built in quick replaceable vacuum filter makes installation and removal faster.
- External vacuum supply valve, optionally equipped with self-holding type.



1. Vacuum breaking valve ( Positive pressure vacuum blowback control the power-on green light is on)
2. Vacuum supply valve ( External vacuum control the power-on red light is on)
3. External vacuum interface (  $\phi$  6)
4. Positive pressure vacuum blowback flow regulating valve
5. Positive pressure air intake (  $\phi$  4)
6. Vacuum chuck port interface (  $\phi$  6/  $\phi$  8)
7. Vacuum filtration observation window
8. 35mm clamp rail installation
9. Digital Pressure Switch (Optional)

### ◆ How to Order?

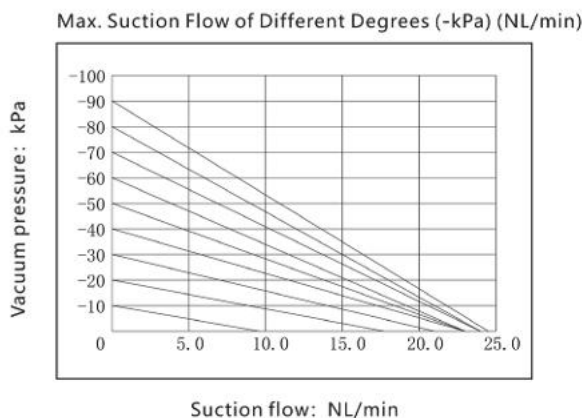
Series No	Vacuum Gauge Specification			Vacuum Chuck Port Interface	Mounting Bracket
EFA : EFA series	Code	Supple Valve	Air Breaking Valve	06: insert $\phi$ 6 tube 08: insert $\phi$ 8 tube	Without: Without (default) B: L-type mounting bracket
	K	NC	NC		
	R	Self-holding type	NC		

Note: When the R-type is energized for more than 20ms, supply valve open and hold, vacuum breaking valve is energized, and supply valve stop.

**Order Example:** EFA series Vacuum Pump, vacuum supply valve NC, vacuum breaking valve NC, NPN Type vacuum gauge, insert  $\phi$  8 tube, with L-type mounting bracket, the ERP code is: EFA-K-N-08-B

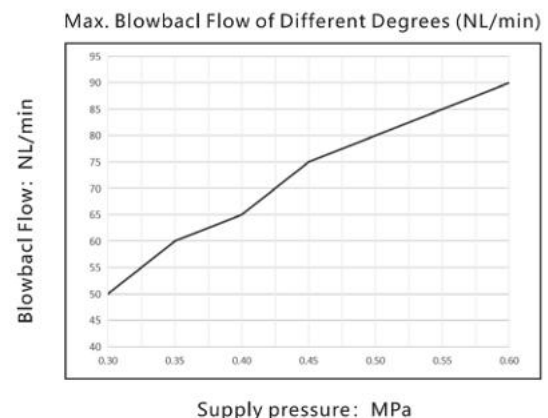
### ◆ Max. Suction Flow of Different Degrees (-kPa) (NL/min)

Specifications and Models	-10	-20	-30	-40	-50	-60	-70	-80	-90
EFA-	9.3	17	21	22	23	23	24	24	24.5



### ◆ Max. Blowback Flow of Different Degrees(NL/min)

Specifications and Models	0.30MPa	0.35MPa	0.45MPa	0.50MPa	0.55MPa	0.60MPa
EFA-	50	60	75	80	85	90

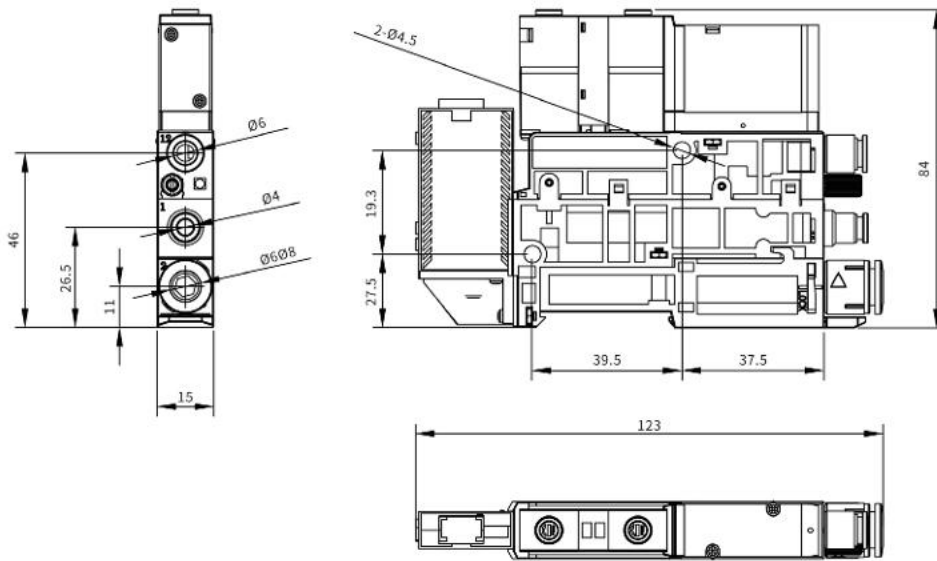


**Vacuum Pump**

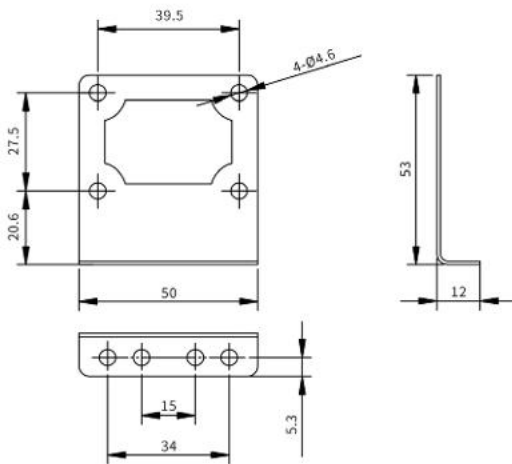
◆ **Performance Parameter**

Specifications and Models	Supply Pressure (Mpa)	Max.Suction Flow (NL/min)	External Vacuum Interface (mm)	Vacuum Chuck Port Interface (mm)	Positive Pressure Air Intake(mm)
EFA-	0.3-0.6	24.5	Ø6	Ø6/Ø8	Ø4

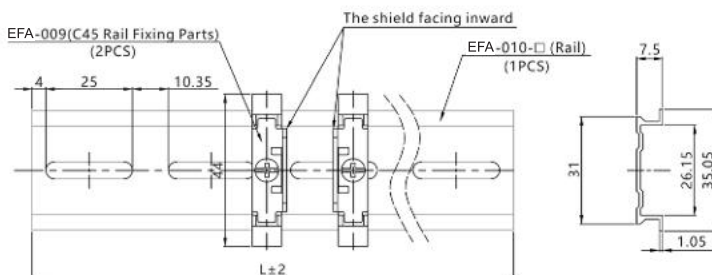
◆ **Main Dimension**



◆ **L-type Mounting Bracket**



◆ **Rail Installation Dimensions and Model**



Model	Rail Length (L)	Applicable Links
FJ-EFA-D3	103.5	2~4 Links
FJ-EFA-D4	139	5~6 Links
FJ-EFA-D5	174.5	7~8 Links
FJ-EFA-D6	210	9~11 Links
FJ-EFA-D7	245	12~13 Links
FJ-EFA-D8	280.5	14~16 Links
FJ-EFA-D9	316	17~18 Links
FJ-EFA-D10	351	19~20 Links

**Operating instructions (non energy-saving) v2.0**

**Notes**

- Do not use corrosive and inflammable gas or any liquid.
- Use it within the specified operating pressure. Otherwise it can cause damage to the pressure switch or inability to measure correctly.
- Do not drop, hit or apply shock to the Pressure switch. Otherwise damage to the internal parts can result, causing malfunction.
- Turn off the power before connecting the wires. Because it can cause damage due to the wrong wiring or short circuit.
- Do not use in an environment with spattering liquid of oil or solvent.
- This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- Separate power lines from high voltage lines, avoiding wiring in the same conduit with these lines.

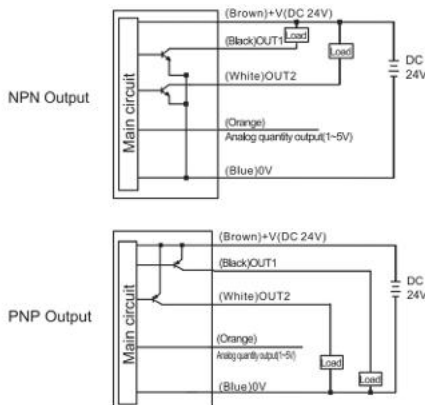
**A. Specifications**

Product No.	Compound Pressure	
Rated pressure range※	-105.0~100.5kPa	
Set pressure range※	-100.0~100.kPa	
Withstand pressure	500kPa	
Applicable fluid	Air, non-corrosive gas and non-flammable gas	
Display/Min. setting unit	kPa: 0.1 kgf/cm <sup>2</sup> : 0.001 bar: 0.001 psi: 0.01 inHg: 0.1 mmHg: 1	
Power supply voltage	24 VDC ±10%, ripple max. 10%	
Current consumption	≤40mA	
Switch output	Output type	2 switching value (NPN/PNP adjustable) + 1 Analog (Voltage) output
	Maximum load current	125mA
	Maximum applied voltage	24V DC
Display accuracy	Internal voltage drop/Residual voltage	≤1.5V
	Display accuracy	±0.2%F.S. ±1 digit
Response time	≤2.5ms (Malfunction prevention function: 2.5ms, 20ms, 100ms, 500ms, 1000ms, 1999ms optional)	
Action display light	OUT1:GREEN OUT2:RED	
Environment	Enclosure	Ip40
	Ambient temperature range	Operation: 0 to 50 °C, Storage: -10 to 60 °C (No condensation)
	Operating humidity range	Operation, Storage: 35 to 85%RH (No condensation)
	Withstand voltage	1000 VAC in 1 minute (between case and lead wire)
	Insulation resistance	50 MΩ or more (at 500 VDC, between case and lead wire)
	Vibration resistance	Total amplitude 1.5mm, 10Hz~150Hz~10Hz scan for 1 minute, 2 hours each directions of X, Y and Z
Impact resistance	Maximum 980m/s(100G) 3 times each in directions of X, Y and Z	
Temperature characteristics	±2%F.S. of detected pressure(25 °C) at temp.(Range of 0~50°C)	
Inlet type	90° inlet Port & No Port	
Wire specification	Oil-resistance cable(PVC)(0.15mm)	
Weigh	Approx. 56g(with 2 meters lead wire)	

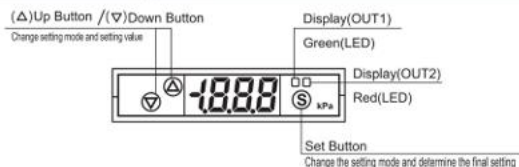
Note1: Due to temperature and linear compensation, the upper/lower ranges of the gauge may fluctuate slightly. This is normal.

Note2: Factory default :-50kPa.

**B. Output Circuit Wiring Diagrams**

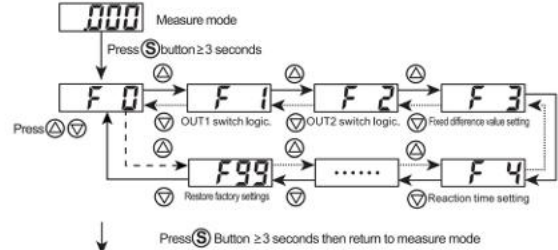


**C. Panel Description**

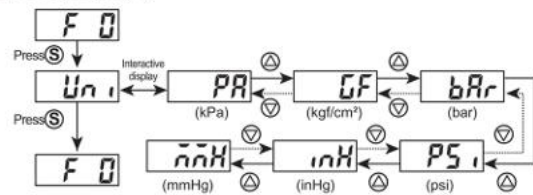


**D. Initial Setting Mode**

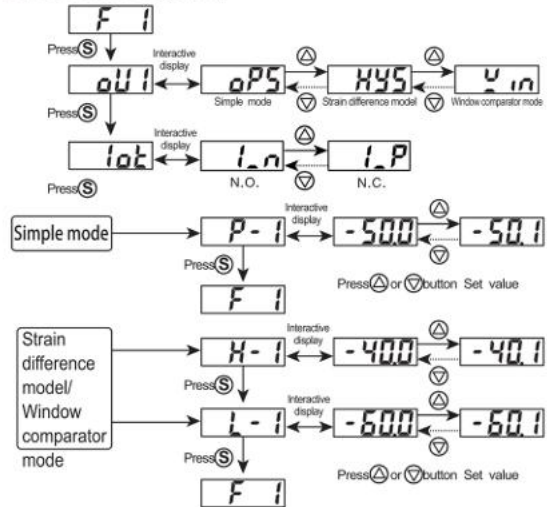
**1 Function selection mode**



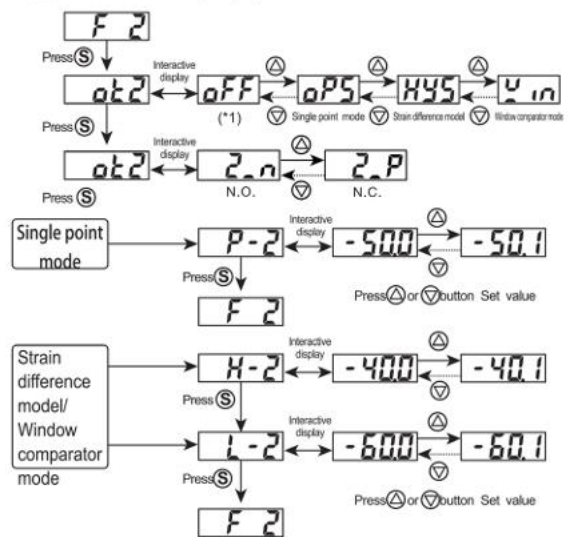
**2 Pressure unit (F0)**



**3 OUT Switch Logic (F1)**



**4 OUT2 Switch Logic (F2)**

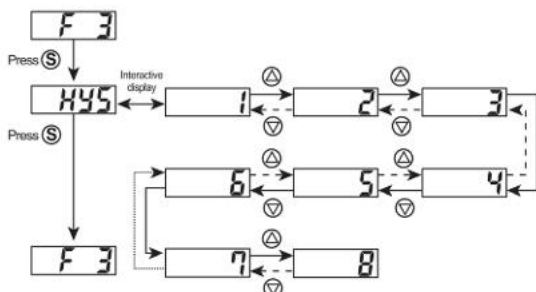


Note(\*1) When OUT2 is set to "OFF", skip to the end of F2

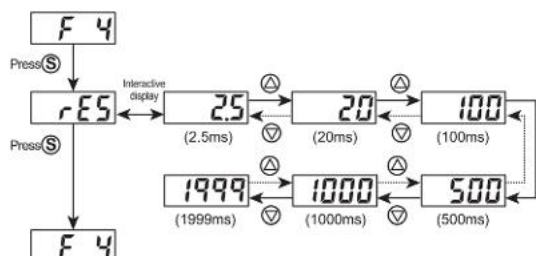
## Vacuum Pump

### Operating instructions (non energy-saving) v2.0

#### 5 Fixed difference value setting(F3)

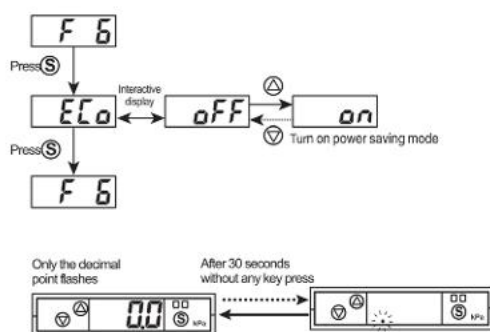


#### 6 Switch reaction time setting(F4)

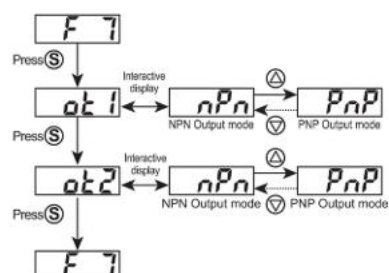


#### 7 Power Save Mode (F6)

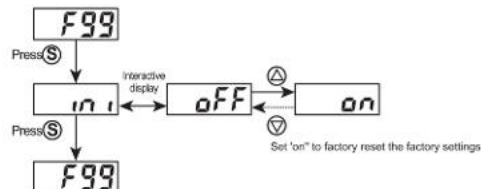
- ⊗ During Power-Save mode, the main display will turned off if no buttons is pressed after 30 seconds.
- ⊗ During Power-Save mode, the output LCD may not be synchronize with the output. It is normal and will not affect output operation.
- ⊗ Press any button to turn-on main display temporarily.



#### 8 Output mode setting(F7)

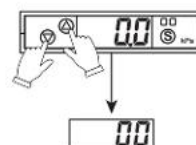


#### 9 Factory reset values(F99)



### E. Zero Point Setting

Press the ▲ + ▼ more than 3s at the same time until the "00" is shown.

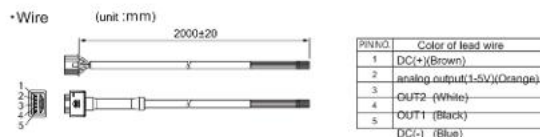


### F. Pressure Unit Translation Table

From	To	kPa	kgf/cm <sup>2</sup>	mmHg	psi	bar	inHg
1 kPa	1	0.010197	7.500616	0.145038	0.010000	0.2953	
1 kgf/cm <sup>2</sup>	98.0665	1	735.559	14.2233	0.980665	28.95979	
1 mmHg	0.13332	0.0013595	1	0.019336	0.0013332	0.039370	
1 psi	6.895	0.07031	51.7157	1	0.06895	2.036074	
1 bar	100.0000	1.01972	750.062	14.5038	1	29.52998	
1 inHg	3.386398	0.034530	25.40000	0.491141	0.033863	1	

### G. Dimension

(Unit:mm)



### H. Error Indication Function

Error	Error displayed	Error Condition	Troubleshooting
Residual pressure error	Err	The zero clear range more than 2%F.S	Change inlet pressure to ambient pressure and perform zero reset again.
Pressurizing error	HHH LLL	Reset applied pressure to a level within the set pressure range. Pressure exceeding the lower limit of the set pressure range is applied.	Reset applied pressure to a level within the set pressure range.
System error	Er4	Displayed if an internal system error has occurred. Displayed if an internal system error has occurred.	Turn the power off and on again.If the failure cannot be solved, contact EMC.

◇ **Vacuum Generator EFA12 usage and Application**

- Generates the vacuum by passing positive pressure
- Works on Venture effect
- All with as one product, Its integrated product of Generator, supply and release valve, Vacuum switch
- Compact and space saving
- Used in pick and place application in various industries like Electronics, plastic parts Automobile industries, Food and Pharma packaging application,
- Energy saving and self holding is optional
- Vacuum flow is 62Lpm
- Max vacuum pressure is -85Kpa.
- Vacuum filter element can be replaced.



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