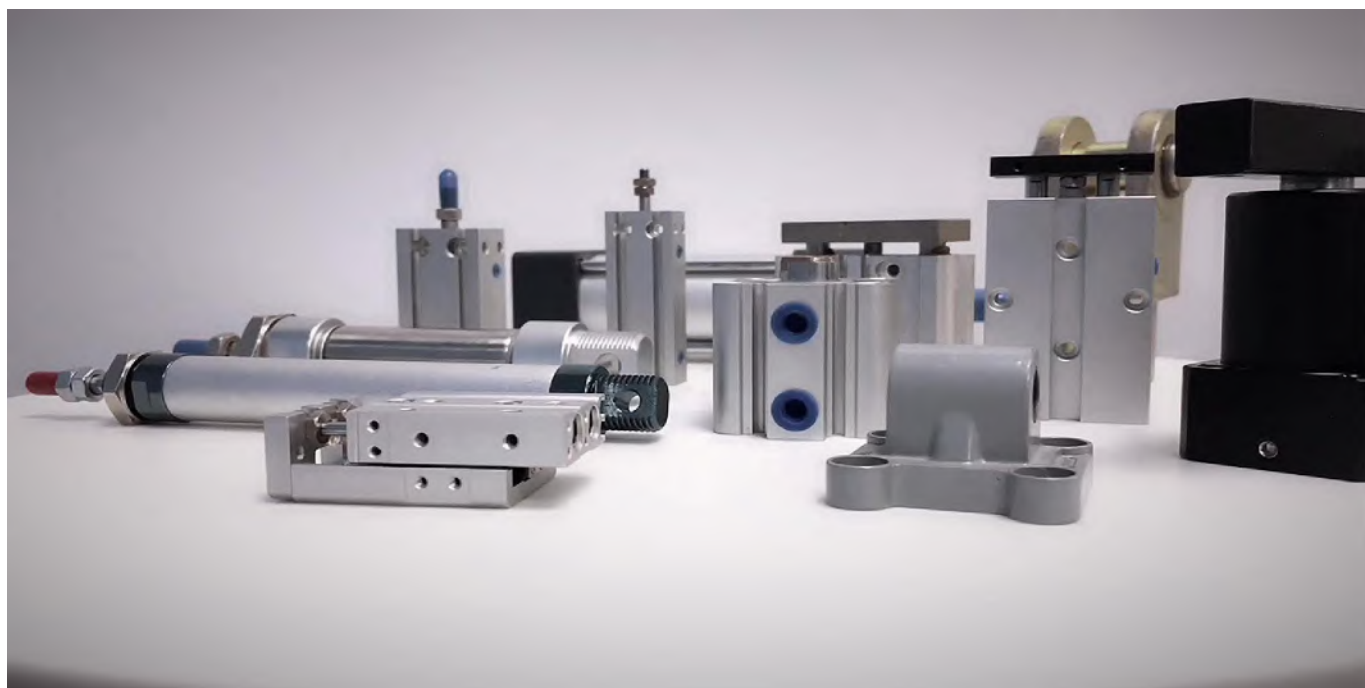


Catalog



Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
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Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

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Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
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Оренбург (3532)37-68-04
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Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

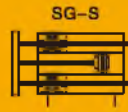
Киргизия (996)312-96-26-47 Казахстан (772)734-952-31 Россия (495)268-04-70

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SG Series Compact Guide Cylinder

SG

Compact Guide Cylinder



Specifications

Bore(mm)	6	10	12	16	20	25	32	40	50	63
Acting type	Double acting									
Working medium	Clean Air(after 40 μm filtration)									
Working pressure (MPa)	0.1~1.0									
Guaranteed pressure (MPa)	1.5									
Working temperature (°C)	-20~60(No freezing)									
Piston speed (mm/s)	30~500									
Cushion	Rubber cushion									
Stroke tolerance(mm)	$\begin{matrix} +1.0 \\ 0 \end{matrix}$									
No-rotating precision ★	SGL	—	± 0.08°	± 0.07°	± 0.06°	± 0.06°	± 0.06°	± 0.06°	± 0.06°	± 0.05°
	SGM	± 0.10°		± 0.08°	± 0.08°	± 0.08°	± 0.08°	± 0.08°	± 0.08°	± 0.06°
Port Size	M3 x 0.5		M5 x 0.8		G1/8 ①			G1/4 ①		

★ Retract position. ① PT, NPT port size is optional.

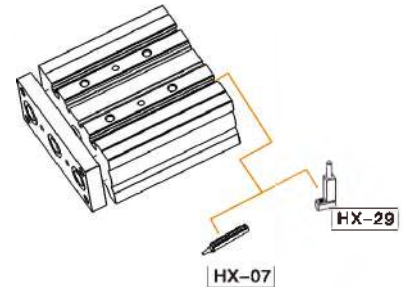
How to Order?

Series No	Type No	Type	Bore	X	Stroke	Magnet No	Thread Type
SG	L: Linear bearing M: Slide bearing		6 10 12 ...		25 50 75 ...	S : With magnet	Blank: G P : PT T : NPT
	Blank: Standard type J: Adjuster type			

Order Example:

SG series, linear bearing, bore 16mm, stroke 30mm, EPR code is: SGL16X30-S

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

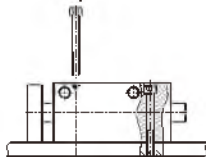
Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
6	5 10 15 20	20
10	5 10 15 20 25 30	30
12	10 20 25 30 40 50 60 70 75 80 90 100 125 150	150
16	10 20 25 30 40 50 60 70 75 80 90 100 125 150 175 200	200
20/25	20 25 30 40 50 60 70 75 80 90 100 125 150 175 200 225 250	250
32-63	25 30 40 50 60 70 75 80 90 100 125 150 175 200 225 250	250

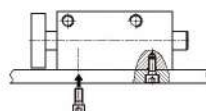
Note: Above chart shows standard stroke, for unstandard stroke, please contact with us.

How to Mount ?

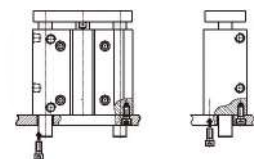
Fixation of screw on top surface



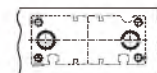
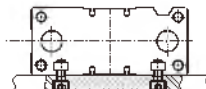
Fixation of screw at bottom surface



Fixation of screw at back surface

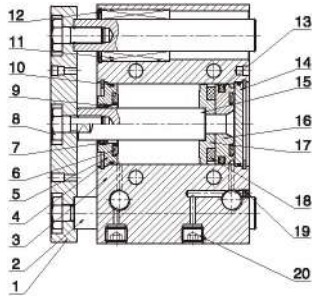


Fixation of T slot at bottom



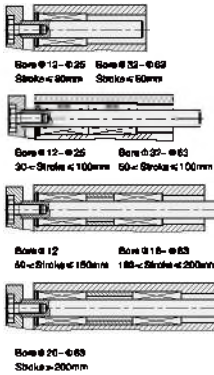
SG Series Compact Guide Cylinder

Internal Structure

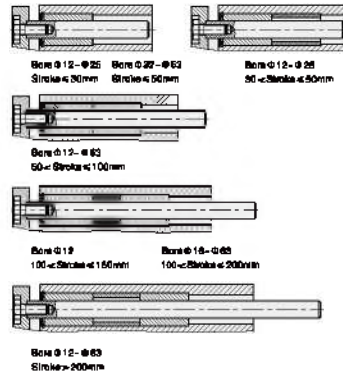


No.	Part Name	Material
1	Fixing plate	Aluminum alloy
2	Leader	Steel
3	Barrel	Aluminum alloy
4	C type retainer ring	Spring steel
5	Head cover	Aluminum alloy
6	Anti-bump cushion	NBR/TPU
7	Piston rod seal	TPU
8	Screw	Stainless steel
9	Self lubricating bearing	Bronze powder
10	O-ring	NBR
11	Bearing	Brass
12	C type retainer ring	Spring steel
13	Piston seal	NBR
14	Rear cover	Aluminum alloy
15	Piston rod	S45C hard chrome carbon steel
16	Piston	Aluminum alloy
17	Magnet base	Aluminum alloy
18	Magnet	Plastic
19	Nut	Carbon steel
20	Hex fix screw	Carbon steel
21	Spacer	Aluminum alloy

SGL Series

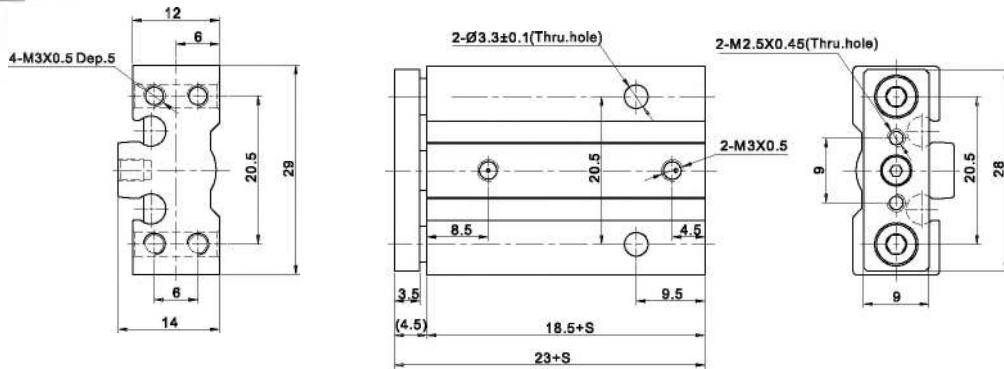


SGM Series

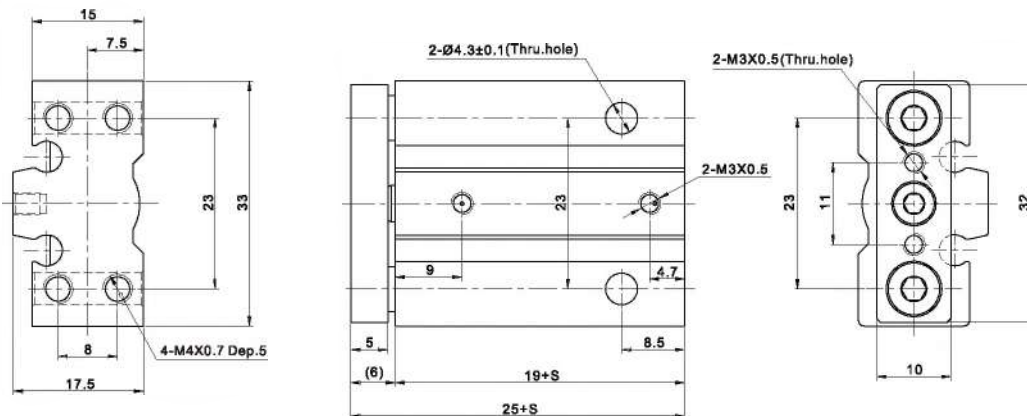


Main Dimension

SGM6S



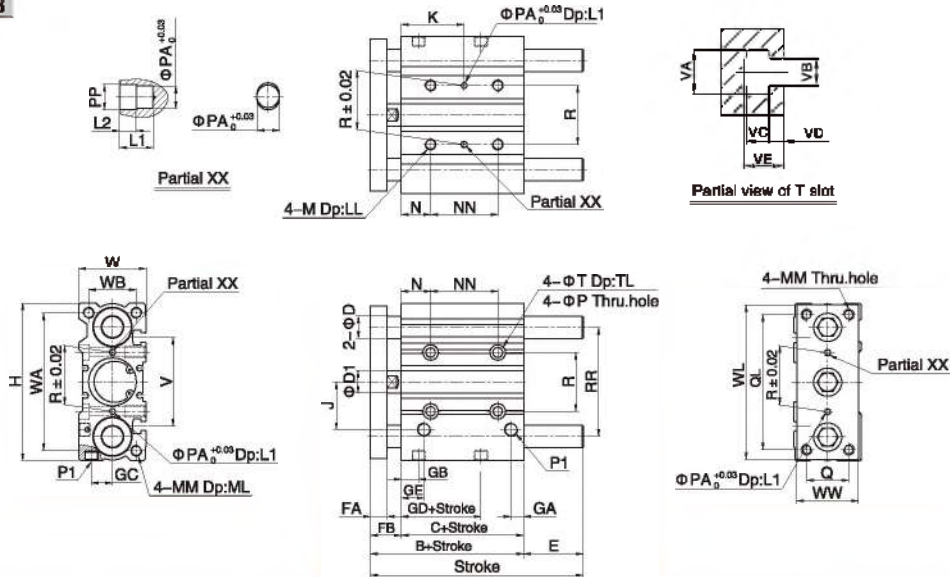
SGM10S



SG Series Compact Guide Cylinder

Main Dimension

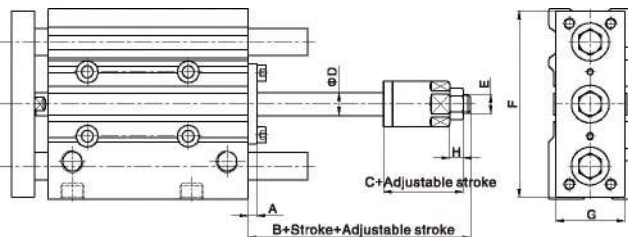
SG12~63



(mm)

Bore\Sign	E(SGL)				E(SGM)				NN				K								
	≤30	31~100	101~200	>200	≤50	51~100	101~200	>200	≤30	31~100	101~200	>200	≤30	31~100	101~200	>200					
12	0	13	43	-	0	13	43	-	20	40	110	-	15	25	60	-					
16	0	19	49	-	0	19	49	-	24	44	110	-	17	27	60	-					
20	0	27	51	69	0	27	51	69	24	44	120	200	29	39	77	117					
25	0	28.5	51	68.5	0	28.5	51	68.5	24	44	120	200	29	39	77	117					
Bore\Sign	≤50	51~100	101~200	>200	≤50	51~100	101~200	>200	≤40	41~100	101~200	>200	≤40	41~100	101~200	>200					
32	5.5	42.5	58.5	60.5	5.5	42.5	58.5	60.5	24	48	124	200	33	45	83	121					
40	0	36	52	74	0	36	52	74	24	48	124	200	34	46	84	122					
50	4	46	62	89	4	46	62	89	24	48	124	200	36	48	86	124					
63	0	41	57	84	0	41	57	84	28	52	128	200	38	50	88	124					
Bore\Sign	B	C	FA	FB	P1	GA	GB	GC	GD	GE	R	RR	N	P	PA	PP	T	TL	M	LL	D1
12	42	29	8	13	M5X0.8	7.5	11	8	13	11	23	41	5	4.2	3	3.5	8	4.5	M5X0.8	10	6
16	46	33	8	13	M5X0.8	8	11	10	15	11	24	46	5	4.2	3	3.5	8	4.5	M5X0.8	10	8
20	53	37	10	16	1/8"	9	10.5	10.5	12.5	10.5	28	54	17	5.2	3	3.5	9.5	5.5	M6X1.0	12	10
25	53.5	37.5	10	16	1/8"	9	11.5	13.5	12.5	11.5	34	64	17	5.2	4	4.5	9.5	5.5	M6X1.0	12	12
32	69.5	37.5	12	22	1/8"	9	12.5	16	7	12.5	42	78	21	6.8	4	4.5	11	7.5	M8X1.25	16	16
40	66	44	12	22	1/8"	10	14	18	13	14	50	86	22	6.9	4	4.5	11	7.5	M8X1.25	16	18
50	72	44	16	28	1/4"	11	12	21.5	9	14	66	110	24	8.7	5	6	14	9	M10X1.5	20	20
63	77	48	16	28	1/4"	13.5	16.5	28	14	16.5	80	124	24	8.7	5	6	14	9	M10X1.5	20	20
Bore\Sign	D(SGL)	D(SGM)	J	W	WA	WB	WL	WW	H	Q	QL	MM	ML	L1	L2	V	VA	VB	VC	VD	VE
12	6	8	18	26	50	18	56	22	58	14	48	M4X0.7	10	6	3	37	7.4	4.4	3.7	2	6.2
16	8	10	19	30	56	22	62	25	64	16	54	M5X0.8	12	6	3	38	7.4	4.4	3.7	2.5	6.7
20	10	12	25	36	72	24	81	30	83	18	70	M5X0.8	13	6	3	44	8.4	5.4	4.5	2.8	7.8
25	12	16	28.5	42	82	30	91	38	93	26	78	M6X1.0	16	6	3	50	8.4	5.4	4.5	3	8.2
32	16	20	34	48	98	34	110	44	112	30	96	M8X1.25	20	6	3	63	10.5	6.5	5.5	3.5	9.5
40	16	20	38	54	106	40	118	44	120	30	104	M8X1.25	20	6	3	72	10.5	6.5	5.5	4	11
50	20	25	47	64	130	48	146	60	148	40	130	M10X1.5	22	8	4	92	13.5	8.5	7.5	4.5	13.5
63	20	25	55	78	142	58	158	70	162	50	130	M10X1.5	22	8	4	110	17.8	11	10	7	18.5

SGJ



Bore\Sign	A	B	C	D	E	F	G	H
12	3	20	17	6	M6X0.5	56	22	4
16	3	24	21	8	M8X1.0	62	25	5
20	4	29	25	10	M8X1.25	81	30	6
25	5	32	29	12	M10X1.25	91	38	6
32	6	35	29	16	M14X1.5	110	44	8
40	6	35	29	16	M14X1.5	118	44	8
50	6	40	32	20	M18X1.5	146	60	11
63	8	40	32	20	M18X1.5	158	70	11

EN Series Double Shaft Cylinder

EN

Double Shaft Cylinder

EN-S



Specifications

Bore(mm)	10	16	20	25	32
Acting type	Double acting				
Working medium	Clean Air(after 40 μm filtration)				
Working pressure (MPa)	0.1~1.0				
Guaranteed pressure (MPa)	1.5				
Working temperature (°C)	-20~80(No freezing)				
Speed range (mm/s)	30~500				
Cushion type	Rubber cushion				
Stroke tolerance(mm)	+1.0 0				
Adjusting stroke (mm)	-8~0		-5~0		
No-return precision	±0.4°		±0.3°		
Port Size	M5 × 0.8				G1/8 ①

① PT, NPT port size is optional.

How to Order?

Series No	Bore X Stroke	Magnet No	Thread Type
EN	10 25 16 50 20 75 ... 32 ...	S : With magnet	Blank: G P : PT T : NPT

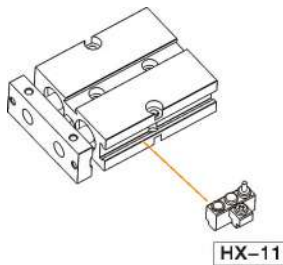
Order Example:

EN series double shaft cylinder, Bore 32mm, stroke 30mm, with magnet, PT thread. ERP code is: EN32X30-S-P

Product Features

- * Double shaft provide good anti-bend performance and guarantee long life cycle and correct direction
- * Suitable slot is designed for manetic sensor and fixing
- * Embedding mounting and no need other brackets, room saving
- * Easy to assemble and easy to maintain

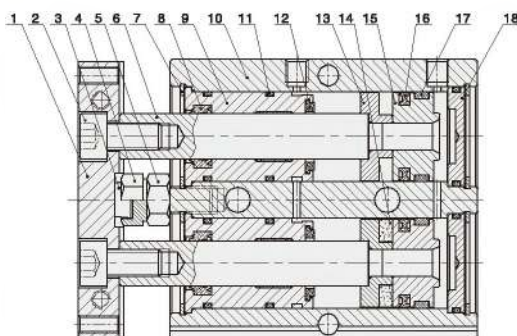
Optional Accessories



Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
10	10 20 30 40 50 60 70 80 90 100	100
16~32	10 20 30 40 50 60 70 80 90 100 125 150 175 200	200

Internal Structure



NO.	Part Name	Material
1	Fixing plate	Aluminum alloy
2	Nut	Carbon steel
3	Bumper	PCM
4	Adjustable nut	Carbon steel
5	Screw	Carbon steel
6	Piston rod	S45C hard chrome carbon steel
7	C clip	Spring steel
8	Wiper seal	NBR
9	Head cover	Aluminum alloy
10	Body	Aluminum alloy
11	O-ring	NBR
12	Anti-bump cushion	TPU
13	Magnet holder	Aluminum alloy
14	Magnet	Plastic
15	Piston	Aluminum alloy
16	Piston seal	NBR
17	Wear ring	PTFE
18	Rear cover	Aluminum alloy

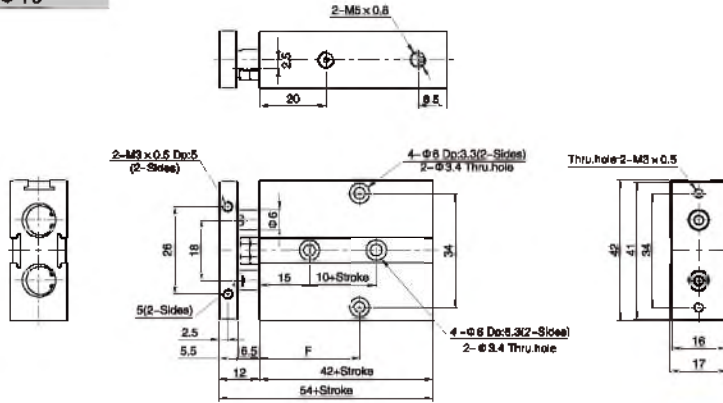
3

EN

EN Series Double Shaft Cylinder

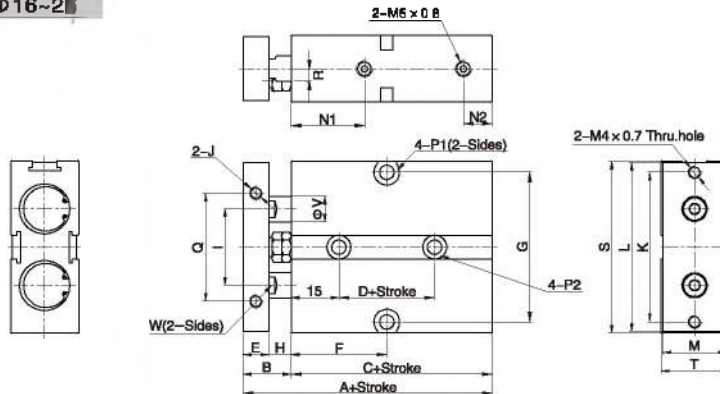
Main Dimension

EN $\Phi 10$



Bore\Sign	10	20	30	40	50	60	70	80	90	100
F	30	30	35	40	45	50	55	60	65	70

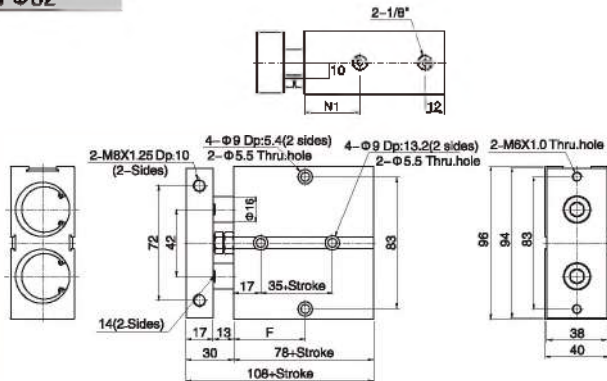
EN $\Phi 16\sim 25$



Bore\Sign	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	8	30	35	40	45	50	55	60	65	70	75	87.5	100	112.5	125	47	7	24	47
20	78	20	58	20	10	35	35	40	45	50	55	60	65	70	75	87.5	100	112.5	125	55	10	28	55
25	81	19	62	30	10	40	40	45	50	55	60	65	70	75	80	92.5	105	117.5	130	66	9	34	66

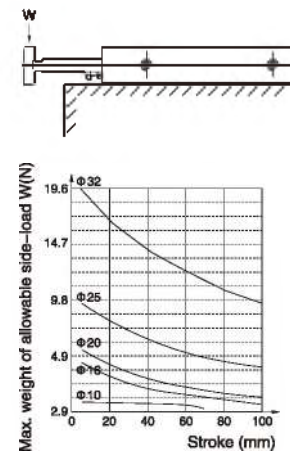
Bore\Sign	J	L	M	N1	N2	P1	P2	Q	R	S	T	V	W
16	M4 x 0.7 Dp:5	53	20	23	9	$\Phi 8$ Dp:4.5 ; Thru.hole: $\Phi 4.5$	$\Phi 7.5$ Dp:7.3 ; Thru.hole: $\Phi 4.5$	34	3	54	21	8	6
20	M4 x 0.7 Dp:5	61	24	28	9	$\Phi 8$ Dp:4.5 ; Thru.hole: $\Phi 4.5$	$\Phi 7.5$ Dp:7.5 ; Thru.hole: $\Phi 4.5$	44	3.5	62	25	10	8
25	M4 x 0.7 Dp:6	72	29	33	9	$\Phi 8$ Dp:4.5 ; Thru.hole: $\Phi 4.5$	$\Phi 7.5$ Dp:7.5 ; Thru.hole: $\Phi 4.5$	56	6	73	30	12	10

EN $\Phi 32$



Bore\Sign	10	20	30	40	50	60	70	80	90	100	125	150	175	200
N1	35							40						
F	45	50	55	60	65	70	75	80	85	90	102.5	115	127.5	140

Max. weight of allowable side-load



EXS Series Double Shaft Cylinder

EXS

Double Shaft Cylinder



Specifications

Bore(mm)	6	10	16	20	25	32
Acting type	Double acting					
Working Medium	Clean Air(after 40 μm filtration)					
Working Pressure (MPa)	0.1~1.0					
Guaranteed Pressure (MPa)	1.5					
Working Temperature (°C)	-20~80(No freezing)					
Speed range (mm/s)	30~500					
Cushion type	Rubber cushion					
Stroke tolerance(mm)	+1.0 0					
Adjustable stroke(mm)	-5~0					
No-rotating precision	±0.2°	±0.15°			±0.1°	
Port Size	M5×0.8				G1/8	

① PT, NPT port size is optional.

How to Order?

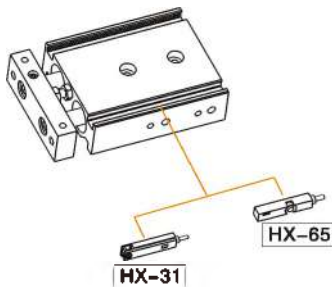
Series No	Type No	Bore X Stroke	Magnet No	Thread Type
EXS	M: Slide bearing	6 25 10 50 12 75 16 ... 20 ...	S : With magnet	Blank: G P : PT T : NPT

Order Example:

EXS series, Slide Bearing type, Bore 6mm, stroke 30mm ERP code is: EXSM6X30-S

Note: The cylinder's bore and stroke, mounting accessories details according to drawings

Optional Accessories

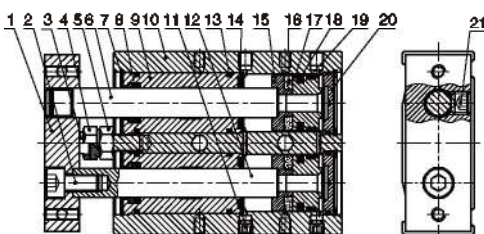


Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
6	10 20 30 40 50	50
10	10 20 25 30 40 50 60 70 75 80 90 100	100
16~32	10 20 25 30 40 50 60 70 75 80 90 100 125 150 175 200	200

Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.
e.g. 27mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.

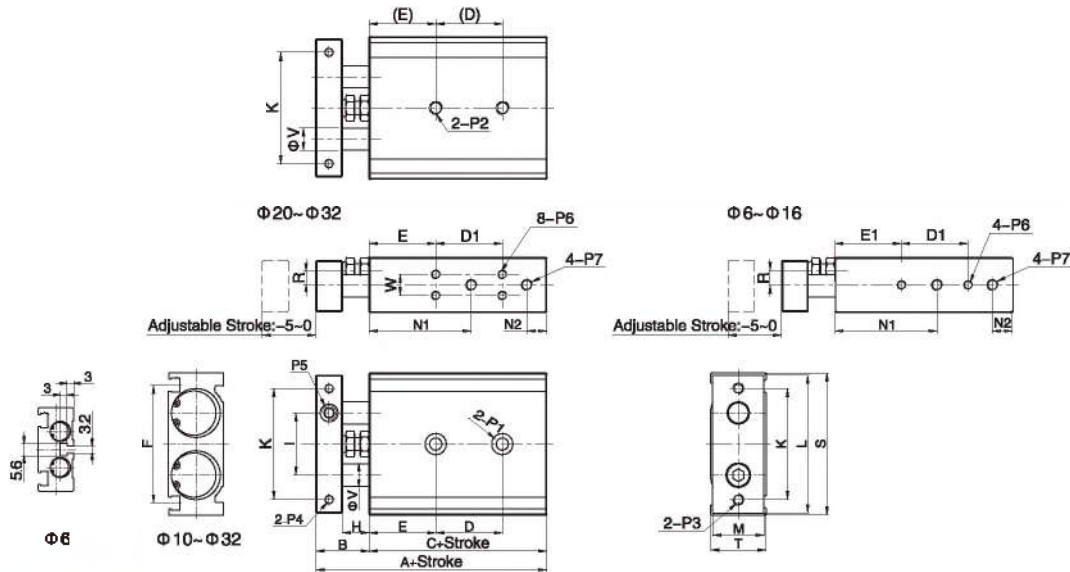
Internal Structure



No.	Part Name	Material
1	Fixing plate	Aluminum alloy
2	Nut	Carbon steel
3	Bumper	POM
4	Adjustable nut	Carbon steel
5	Screw	Carbon steel
6	Piston rod	S45C hard chrome carbon steel
7	C clip	Spring steel
8	Wiper seal	NBR
9	Head cover	Aluminum alloy
10	Body	Aluminum alloy
11	Hex fix screw	Cu
12	Piston rod	S45C hard chrome carbon steel
13	O-ring	NBR
14	Anti-bump cushion	TPU
15	Magnet holder	Aluminum alloy
16	Magnet	Plastic
17	Piston	Aluminum alloy
18	Piston seal	NBR
19	Wear ring	PTFE
20	Rear cover	Aluminum alloy
21	Hex fix screw	Cu

EXS Series Double Shaft Cylinder

Main Dimension



(mm)

Bore/Sign	A	B	C	D D1								E	E1	F	H	I	K	L	M	N1	N2	R
				10-25	30-50	60-80	90-100	125	150	175	200											
6	58.5	13.5	45	10-25	30-50	60-80	90-100	125	150	175	200	13	10	25.8	8	18	28	35	14	24.5	8.5	4.5
10	72	17	55	30	40	50	60	-	-	-	-	20	20	36.5	9	20	35	44	15	30	8	3.5
16	79	19	60	25	35	45	55	65	75	145	145	30	30	47.5	9	25	45	56	18	38	8	5
20	94	24	70	30	40	60	60	80	80	100	100	30	-	53	12	28	60	62	23	46	9	6.5
25	96	24	72	30	40	60	60	80	80	100	100	30	-	64	12	35	60	78	28	43	9	9
32	112	30	82	40	50	70	70	90	90	110	110	30	-	76	14	44	75	96	36	53	10	11.5

Bore/Sign	S	T	V	W	P1	P2	P3	P4	P5	P6	P7
6	37	16	4	-	Φ6.5 Dp:3.3; Thru.hole: Φ3.4	-	M3X0.5	M3X0.5	M3X0.5	M3X0.5 Dp:4.5	M6X0.8
10	46	17	6	-	Φ6.5 Dp:3.3; Thru.hole: Φ3.4	M4X0.7 Dp:7	M4X0.7	M3X0.5	M5X0.8	M3X0.5 Dp:5	M5X0.8
16	56	20	8	-	Φ8 Dp:4.4; Thru.hole: Φ4.3	M5X0.8 Dp:8	M5X0.8	M4X0.7	M6X1.0	M4X0.7 Dp:5	M5X0.8
20	64	25	10	9.5	Φ9.5 Dp:5.3; Thru.hole: Φ5.2	M6X1.0 Dp:10	M5X0.8	M4X0.7 Dp:6	M8X1.25	M4X0.7 Dp:5.5	M5X0.8
25	60	30	12	13	Φ11 Dp:6.3; Thru.hole: Φ6.8	M8X1.25 Dp:12	M6X1.0	M5X0.8 Dp:7.5	M8X1.25	M5X0.8 Dp:7	1/8"
32	98	38	16	20	Φ11 Dp:6.3; Thru.hole: Φ6.8	M8X1.25 Dp:12	M6X1.0	M5X0.8 Dp:8	M10X1.5	M5X0.8 Dp:7	1/8"

EMQ Series Rotary Cylinder

EMQ

Rotary Cylinder



Specifications

Bore Size(mm)		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		0.1~1.0MPa		
	With shock absorber	None		0.1~0.8MPa		
Proof pressure(MPa)		1.5MPa				
Working temperature (°C)		-20~80 (Adjustment bolt); -10~80 (Shock absorber)				
Angle adjustable range		0~180°				
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			G1/8	
	Side port	M5x0.8			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°

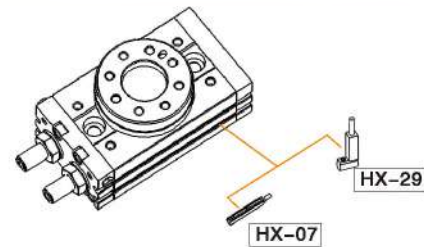
How to Order?

Series No	Bore	Magnet No	Cushion Type	Thread Type
EMQ	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:

EMQ Series Rotary Cylinder, Bore 30, with adjustment bolt, G Thread, ERP code is: EMQ30-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.

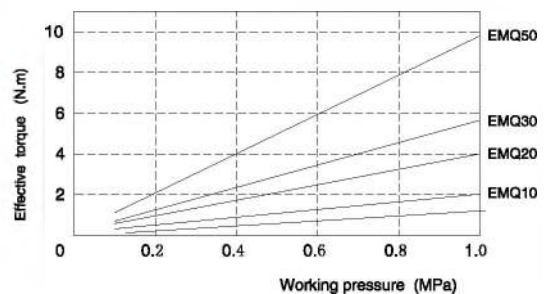
Allowable Kinetic Energy and Rotation Time Adjustment Range

Model	Allowable kinetic energy (J)		Rotation time adjustment range for stable operation (s/90°)	
	With adjustment bolt	With shock absorber	With adjustment bolt	With shock absorber
EMQ7	0.006	None	0.2~1.0	None
EMQ10	0.01	0.04	0.2~1.0	0.2~0.7
EMQ20	0.025	0.12	0.2~1.0	0.2~0.7
EMQ30	0.05	0.12	0.2~1.0	0.2~0.7
EMQ50	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

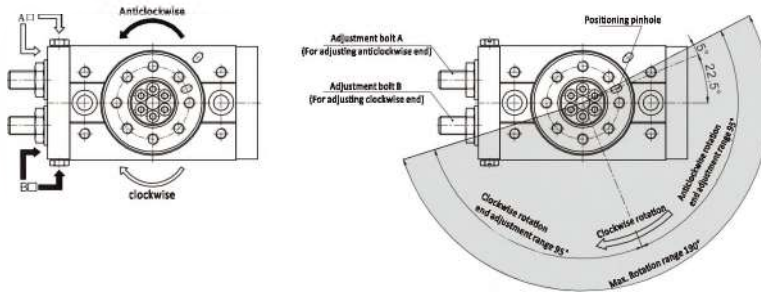


EMQ Series Rotary Cylinder

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.

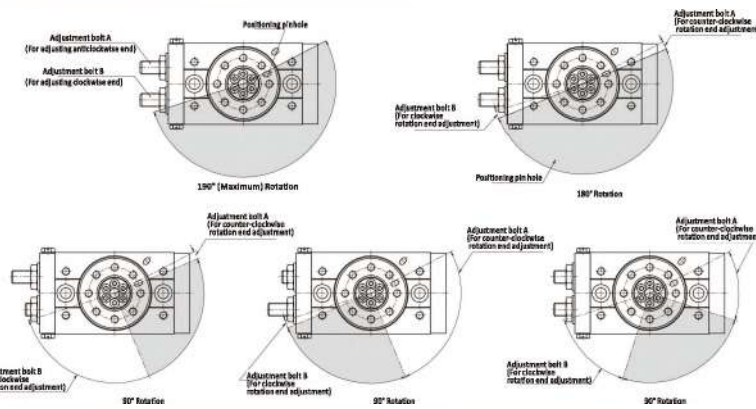


Note:

- * 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)

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 0.1 Mpa.

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.

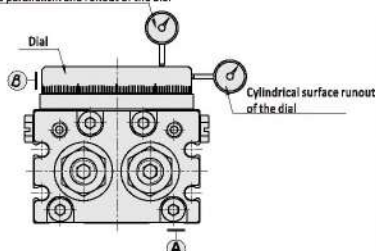
That may cause oil leakage.

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
EMQ10	AC0806-SN	M8X1.0
EMQ20	AC1007-SN	M10X1.0
EMQ30	AC1007-SN	M10X1.0
EMQ50	AC1412-SN	M14X1.5

11. Control the runout and parallelism of the dial according to the requirements of the following table:

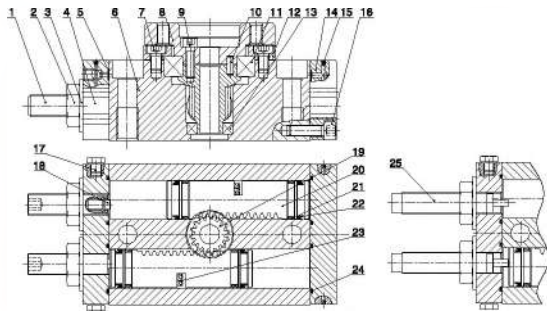
Plane parallelism and runout of the dial



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

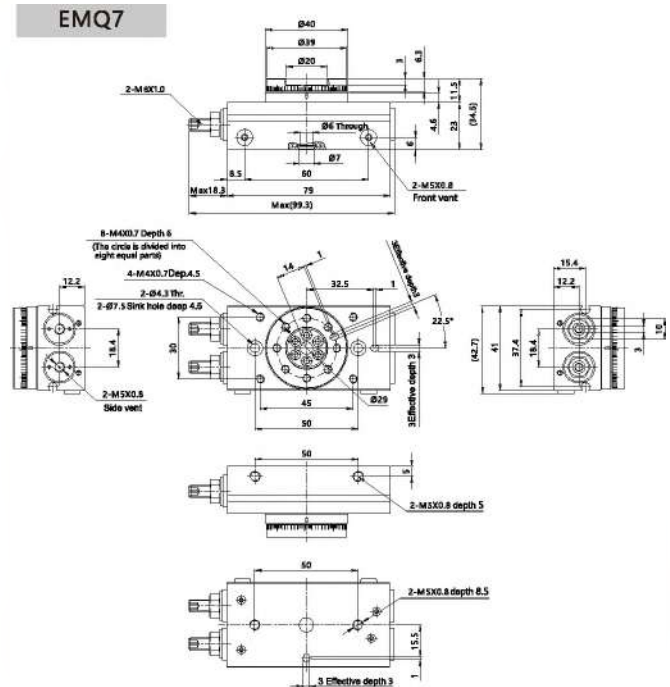
EMQ Series Rotary Cylinder

Internal Structure

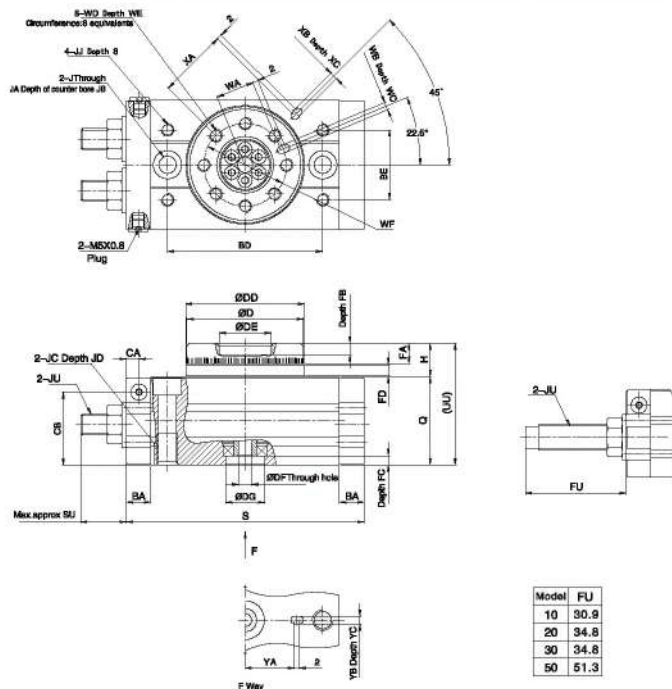


No.	Part Name	Material	No.	Part Name	Material
1	Adjustment screw	Carbon steel	14	Rear cover	Aluminum alloy
2	Hexagon nut	Carbon steel	15	Steel ball	Stainless steel
3	Seal washer	Carbon steel rubber coating	16	Hexagon socket head set screw	Carbon steel
4	Head cover	Aluminum alloy	17	Plug	Carbon steel
5	O-ring	NBR	18	Cushion pad	NBR
6	Barrel	Aluminum alloy	19	Pinion	Alloy steel
7	Hexagonal 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



EMQ10~50



Model	FU
10	30.9
20	34.8
30	34.8
50	51.3

Model	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
10	52.8	50	20	15.5	4	9.5	34.5	28	60	27	5	28	48 ^{+0.025} ₀	46 ^{+0.025} ₀	20 ^{+0.025} ₀	5	16 ^{+0.04} ₀	7.8	4.5	3.5	4.5	13	6.8	11	6.5	M6X1.25
20	67.8	65	27.5	18	5	12	47	30	76	34	6.5	30	60 ^{+0.025} ₀	51 ^{+0.025} ₀	26 ^{+0.025} ₀	9	17 ^{+0.04} ₀	9.8	6.5	3	6.5	17	8.8	14	8.5	M10X1.5
30	72.4	70	29	18.5	5	12	60	32.5	84	37	7	33.5	66 ^{+0.025} ₀	67 ^{+0.025} ₀	30 ^{+0.025} ₀	10	20 ^{+0.04} ₀	9.8	5	3.5	6.5	17	8.8	14	8.5	M10X1.5
50	82.4	80	38	22	6	15.5	63	37.5	100	50	10	37.5	78 ^{+0.025} ₀	77 ^{+0.025} ₀	36 ^{+0.025} ₀	11	28 ^{+0.04} ₀	11.8	5.5	3.5	7.5	20	10.3	18	10.5	M12X1.75
Model	JD	JJ	JU	P	Q	S	SD	SE	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC			
10	12	M5X0.8	M6X1	M5X0.8	34	92	9	13	45	17.3	47	15	3 ^{+0.025} ₀	3.5	M5X0.8	8	32	27	3 ^{+0.025} ₀	3.5	19	3 ^{+0.025} ₀	3.5			
20	15	M6X1	M10X1	M5X0.8	37	117	10	12	59.7	24.8	54	20.5	4 ^{+0.025} ₀	4.5	M6X1	10	43	36	4 ^{+0.025} ₀	4.5	24	4 ^{+0.025} ₀	4.5			
30	15	M6X1	M10X1	1/8"	40	127	11.5	14	64.7	24.8	57	23	4 ^{+0.025} ₀	4.5	M6X1	10	48	39	4 ^{+0.025} ₀	4.5	28	4 ^{+0.025} ₀	4.5			
50	18	M6X1.25	M14X1.5	1/8"	46	152	14.5	15	74.7	31.3	66	26.5	5 ^{+0.025} ₀	5.5	M6X1.25	12	56	45	5 ^{+0.025} ₀	5.5	33	5 ^{+0.025} ₀	5.5			

SHY Series Air Gripper

SHY Air Gripper

SHY:
Standard double acting



SHYSA:
Single acting (N.O.)



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		-20-80°C(No freezing)			
Oil		Not required			
Maximum frequency		180(C.P.M)			
Port size		M3X0.5	M5X0.8		
Weight(g)		42	94	174	303

How to Order?

Series	Type No.	Bore	Magnet No.
SHY:Y type gripper	Blank: Basic type SA: Single acting (N.O.)	10 16 20 25	S : With magnet (Magnet is standard)

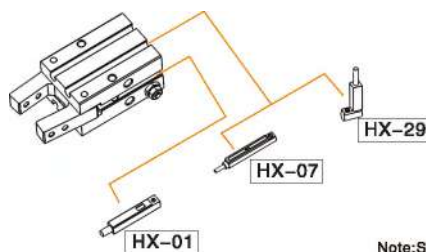
Order Example:

SHY Series Air Gripper, Bore25, with magnet, ERP code is: SHY25-S

Product Features

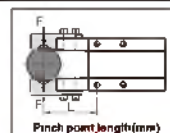
1. Single piston structure, large gripping torque.
2. Integrated with variable throttle valve, easy to adjust the gripping jaw opening & closing speed.
3. Reasonable gripping angle, wide range of application.
4. Accurate positioning accuracy, it is more accurate and reliable when gripping workpiece.
5. Multi mounting type, convenient for use in different application.
6. All series with magnet, easy to control.

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

Theoretical Clamping Torque

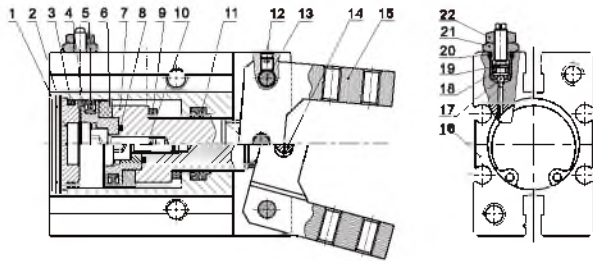


Acting type	Type	Theoretical clamping moment(N · cm)		Max pinch point length (L)(mm)	Open angle	Closure angle
		Closure clamping torque	Open clamping torque			
Double acting	SHY10	17.6XP	25.4XP	30	30°	-10.5°
	SHY16	90XP	129XP	40		
	SHY20	152XP	252XP	60		
	SHY25	304XP	473XP	70		
Single acting (N.O.)	SHYSA10	11.8XP	-	30		
	SHYSA16	71.2XP	-	40		
	SHYSA20	122.4XP	-	60		
	SHYSA25	252XP	-	70		

Note: In the above table, "P" represents the actual use of pneumatic pressure, "P" unit: Mpa

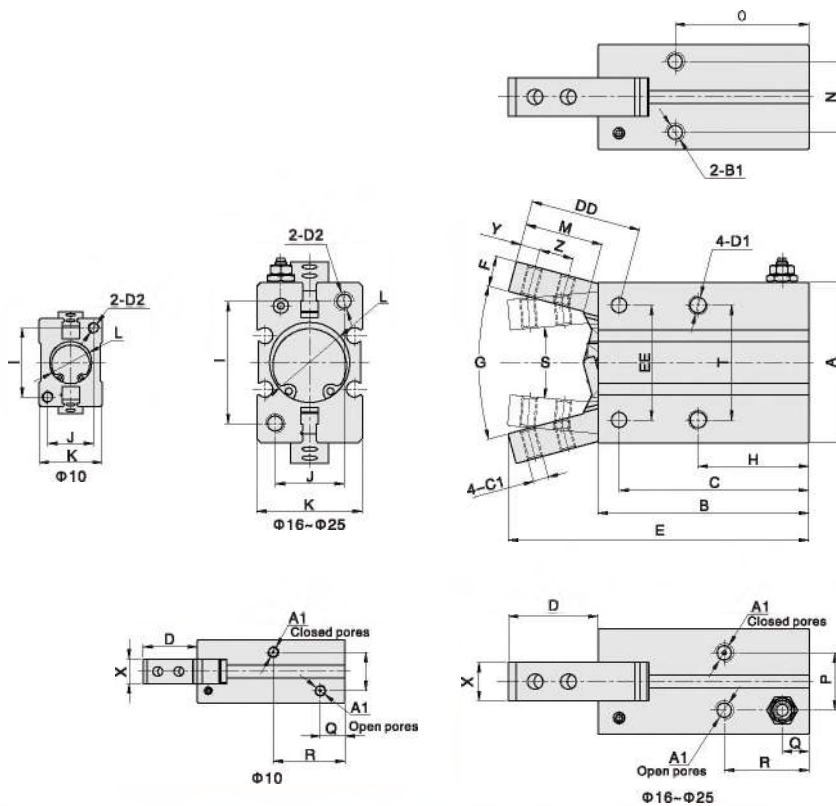
SHY Series Air Gripper

Internal Structure



No.	Part Name	Material	No.	Part Name	Material
1	Rear cover	Aluminum alloy	12	Hexagon socket set screw	Carbon steel
2	C type retainer ring	Spring steel	13	Pin	Stainless steel
3	O-ring	NBR	14	Pin	Stainless steel
4	Piston	Aluminum/Stainless steel(Φ10)	15	Clew	Cast steel
5	Piston seal	NBR	16	Barrel	Aluminum alloy
6	Magnet	Plastic	17	Steel ball	Stainless steel
7	Piston rod	Aluminum/Stainless steel(Φ4, Φ4)	18	O-ring	NBR
8	O-ring	NBR	19	Buffer screw	Brass
9	Anti-bump cushion	PTEE	20	O-ring	NBR
10	Hexagon socket cap screw	Carbon steel	21	Buffer fixing screw	Brass
11	Piston rod seal	TPU/NBR(Φ25)	22	Hexagon nut	Carbon steel

Main Dimension



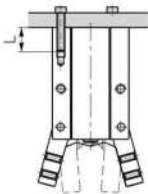
Bore/Sign	A	A1	B	B1	C	C1	D	DD	D1	D2	E	EE						
SHY10	23	M3X0.5	38.8	M3X0.5Depth6	35.8	M2.5X0.45	14.2	17.2	M3X0.5Depth6	M3X0.5Depth6	52.8	14						
SHY16	30.6	M5X0.8	44.8	M4X0.7Depth5.5	39.7	M3X0.5	18.9	23.6	M4X0.7Depth5.5	M4X0.7Depth8	63.5	24						
SHY20	42	M5X0.8	55.2	M5X0.8Depth8	49.7	M4X0.7	23.5	29	M5X0.8Depth11.5	M5X0.8Depth10	78.7	30						
SHY25	52	M5X0.8	60.4	M6X1.0Depth10	54.8	M5X0.8	32.8	38.5	M6X1.0Depth14.5	M6X1.0Depth12	93.2	36						
Bore/Sign	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	X	Y	Z
SHY10	4	30°	23	18	12	16.4	Φ11Depth1.5	12.5	11.4	27	10	6.5	18.8	10°	16	7.4	3	5.7
SHY16	7	30°	24.5	22	15	23.6	Φ17Depth1.5	16.5	16	30	13	6.5	18.3	10°	24	10	4	7
SHY20	8	30°	29	32	18	27.6	Φ21Depth1.5	20.5	18.6	35	15	7	22.2	10°	30	12	5.2	9
SHY25	10	30°	30	40	22	33.6	Φ26Depth1.5	27.5	22	36.5	19.5	7.4	23.5	10°	36	12	8	12

SHY 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. Air grippers are not intended for use under strong external or heavy impact forces.
3. When installing or repairing your air gripper take precautions to safely use your component.
4. Don't reverse the clamping gripper when installing clamping parts.
5. 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.

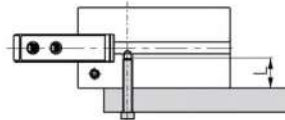
Tail Mounting Type



The hole on the tail is for mounting and positioning

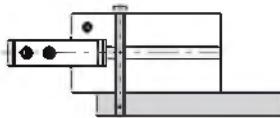
Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)	Tail Positioning Bore Dia (mm)	Tail positioning Depth (mm)
10	M3X0.5	0.88	6	φ 11H9	1.5
16	M4X0.7	2.1	8	φ 17H9	1.5
20	M5X0.8	4.3	10	φ 21H9	1.5
25	M6X1.0	7.3	12	φ 26H9	1.5

Front Tapped Hole Mounting



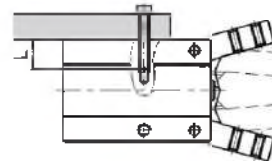
Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M3X0.5	0.88	5
16	M4X0.7	2.1	8
20	M5X0.8	4.3	10
25	M6X1.0	7.3	12

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

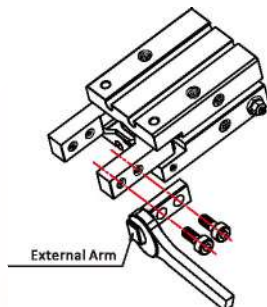
Side Tapped Hole Mounting



Bore	Bolt Size	Max. Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M3X0.5	0.88	6
16	M4X0.7	1.6	6.5
20	M5X0.8	3.3	8
25	M6X1.0	6.9	10

6. 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

7. When gripping an object, the item must be placed in the

centre of the two gripping jaws, and the two gripping jaws should touch the object at the same time.

8. Avoid applying external forces to the gripping jaw.

Always leave enough space to adequately grip and place your object. The gripper should be free moving.

9. When gripping 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.

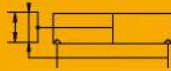
12. Before removing your air gripper, please make sure all power is disconnected and you've discharged residual compressed air.

SHZ Series Air Gripper

SHZ

Air Gripper

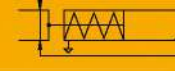
SHZ:
Standard double acting



SHZSA:
Single acting (N.O.)



SHZSB:
Single acting (N.C.)



Specifications

Bore size(mm)		10	16	20	25
Acting type		Double Acting/Single Acting			
Working medium		Clean Air(40 μ m 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		-20~80°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.
SHZ: 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)

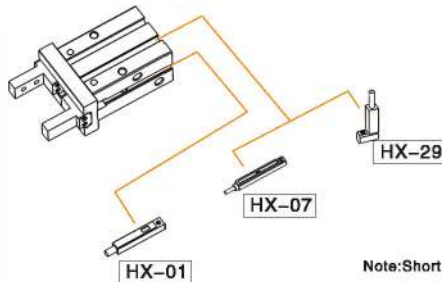
Order Example:

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, efficiently 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

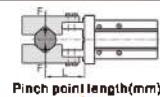


Note: Short stroke please use HX-29 series due to limited space.

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	SHZ10	11	17	4	
	SHZ16	34	45	6	
	SHZ20	45	68	10	
	SHZ25	69	102	14	
Single acting (N.O.)	(N.O.)	SHZSA10	7	-	4
	SHZSA16	27	-	6	
	SHZSA20	35	-	10	
	SHZSA25	55	-	14	
	(N.C.)	SHZSB10	-	13	4
	SHZSB16	-	38	6	
	SHZSB20	-	59	10	
	SHZSB25	-	87	14	

Note: The value of the clamping forces in above table is when the working pressure is 0.5Mpa and the L value of the clamping point is 20mm.

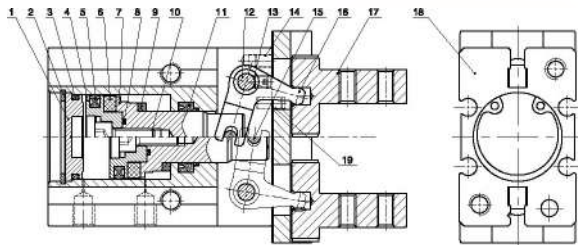


Pinch point length(mm)

Stroke(two sides)
(L) (mm)

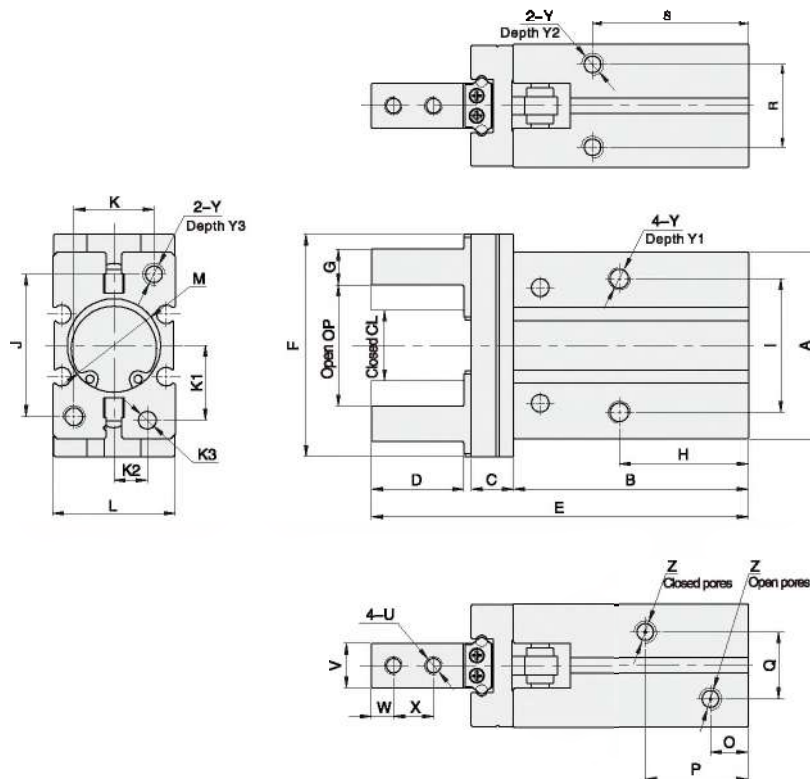
SHZ Series Air Gripper

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 Carbon 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 Carbon steel (φ10, φ16)	17	Clamping jaw assembly	Assembly
8	O-ring	NBR	18	Barrel	Aluminum alloy
9	Anti-bump cushion	PTEE	18	Pin	Stainless steel
10	Hexagon socket cap screw	Carbon steel			

Main Dimension

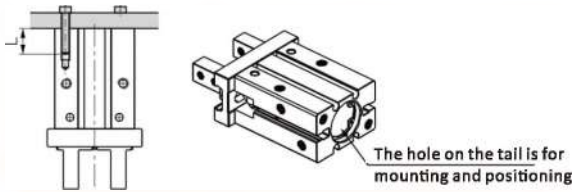


Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q	K1	K2	K3
SHZ10	23	37.6	6	12.3	57	29	4 _{-0.05}	23	16	18	12	16.4	11 _{0.05} ^{0.08} Depth2	7	18.8	10	7.6	5.2	2 _{0.05} ^{0.08} Depth3
SHZ16	30.6	42.5	7.5	15.5	67.3	36	5 _{-0.05}	24.5	24	22	15	23.6	17 _{0.05} ^{0.08} Depth2	7.1	18.5	13	11	6.5	3 _{0.05} ^{0.08} Depth3
SHZ20	42	52.8	9.5	20.7	84.7	50	6 _{-0.05}	29	30	32	18	27.6	21 _{0.05} ^{0.08} Depth2	8.4	23	15	16.8	7.5	4 _{0.05} ^{0.08} Depth4
SHZ25	52	63.6	11	25.5	102.7	63	10 _{-0.05}	30	36	40	22	33.6	26 _{0.05} ^{0.08} Depth2.5	9.5	23.5	19.5	21.8	10	4 _{0.05} ^{0.08} Depth4
Bore/Sign	R	S	U	W	V	X	Y	Y1	Y2	Y3	Z	OP	CL						
SHZ10	11.4	27	M2.5X0.45	3	5 _{-0.05}	5.7	M3X0.5	6	6	6	M3X0.5	14.8 _{0.1}	11.4 _{0.1}						
SHZ16	16	30	M3X0.5	4	8 _{-0.05}	7	M4X0.7	9.5	5.5	8	M5X0.8	20.8 _{0.1}	14.8 _{0.1}						
SHZ20	18.8	35	M4X0.7	5	10 _{-0.05}	9	M5X0.8	11.5	8	10	M5X0.8	26 _{0.1}	16.2 _{0.1}						
SHZ25	22	36.5	M5X0.8	6	12 _{-0.05}	12	M6X1.0	14.5	10	12	M5X0.8	33.5 _{0.1}	19.2 _{0.1}						

Installation and Use

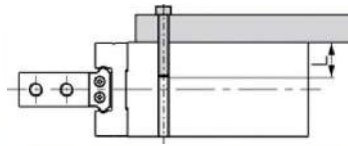
1. Installing a fall prevention device is recommended when applying a lowering clamping force. In the case of a sudden pressure decrease due to emergency stop, these prevention devices can help to avoid personal or equipment injuries.
2. Don't use air gripper upon strong external force and Impact force. 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



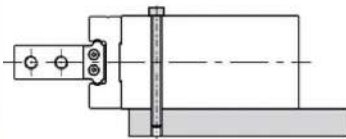
Bore	Bolt Size	Max Locking Torque (Nm)	Max. Screwed Depth (mm)	Tail Positioning Bore Dia(mm)	Tail positioning Depth(mm)
10	M3X0.5	0.68	6	$\phi 11^{+0.06}_0$	2
16	M4X0.7	2.1	8	$\phi 17^{+0.06}_0$	2
20	M5X0.8	4.3	10	$\phi 21^{+0.06}_0$	3
25	M6X1.0	7.3	12	$\phi 26^{+0.06}_0$	3.5

Front Tapped Hole Mounting



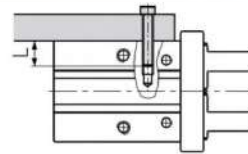
Bore	Bolt Size	Max Locking Torque (Nm)	Max Screwed Depth (mm)
10	M3X0.5	0.68	5
16	M4X0.7	2.1	8
20	M5X0.8	4.3	10
25	M6X1.0	7.3	12

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

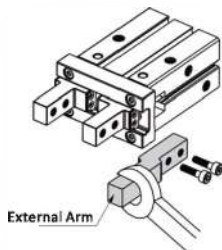
Side Tapped Hole Mounting



Bore	Bolt Size	Max Locking Torque (Nm)	Max. Screwed Depth (mm)
10	M3X0.5	0.9	8
16	M4X0.7	1.6	4.5
20	M5X0.8	3.3	8
25	M6X1.0	5.9	10

7. Clamping Jaw Installation:

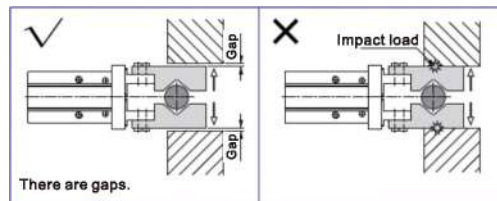
Never clamp the body directly and then lock the screws. The gripping jaw should be held by the spanner and the screw should be locked using a hex wrench.



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

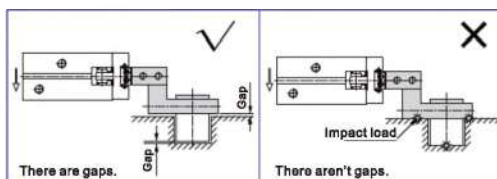
8. Avoid applying external forces to the gripping jaw.

8.1 The air gripper end of stroke in open status.



There are gaps.

8.2 The air gripper end of stroke in moving status.



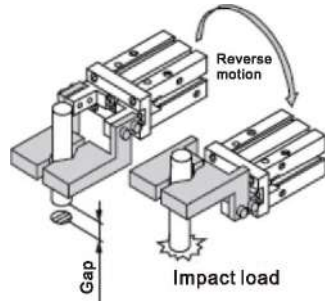
There are gaps.

There aren't gaps.

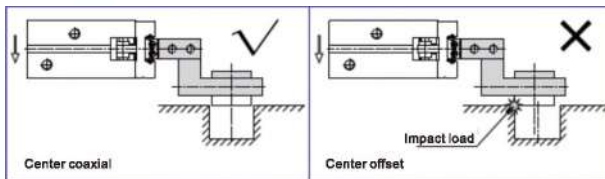
SHZ Series Air Gripper

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.

EXH Series Compact Slide Cylinder

EXH

Compact Slide Cylinder



Specifications

Bore(mm)	6	10	16	20
Acting type	Double Acting			
Working medium	Clean Air(40 μm filtration)			
Working pressure (MPa)	0.15~0.7			
Guaranteed pressure (MPa)	1.05			
Working temperature (°C)	-20~80(No freezing)			
Speed range (mm/s)	50~500			
Cushion type	Rubber cushion			
Stroke tolerance(mm)	+1.0 0			
Allowable kinetic energy(J)	0.008	0.025	0.05	0.1
Port size	M5 x 0.8			

How to Order?

Series No	Bore	X	Stroke	-	Magnet No
EXH	6 10 16 20		5 10 15 ...		S : With magnet

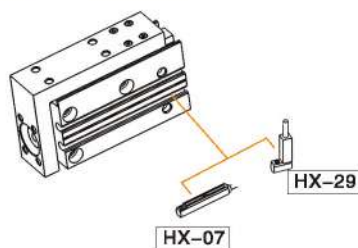
Order Example:

EXH series, linear bearing, bore 6mm, stroke 10mm,
EPR code is: EXH6X10-S

Stroke

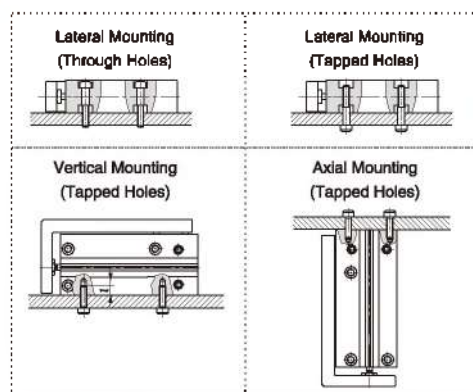
Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
6	5 10 15 20 25 30 40	40
10	5 10 15 20 25 30 40 50	50
16	5 10 15 20 25 30 40 50 60	60
20	5 10 15 20 25 30 40 50 60	60

Optional Accessories

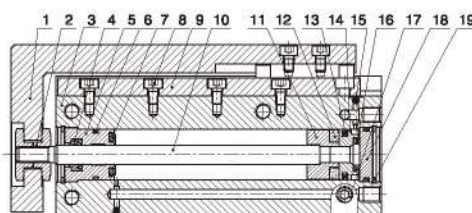


Note: Short stroke pieces use HX-29 series due to limited space.

How to Mount ?



Internal Structure

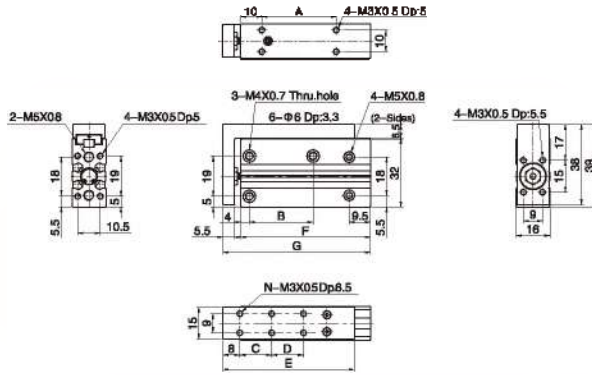


No.	Part Name	Material
1	Stages	Aluminum alloy
2	Locknut	Carbon steel
3	Body	Aluminum alloy
4	Wiper seal	NBR
5	Head cover	Aluminum alloy
6	O-ring	NBR
7	Bumper	TPU
8	Screws	Carbon steel
9	Linear ball slide rail	Stainless steel
10	Piston rod	Stainless steel
11	Magnet seal	Aluminum alloy
12	Magnet	Neodymium iron boron
13	Piston seal	NBR
14	Piston	Aluminum alloy
15	Steel ball	Stainless steel
16	Bumper	TPU
17	Plug	Cu
18	Rear cover	Aluminum alloy
19	C clip	Spring steel

EXH Series Compact Slide Cylinder

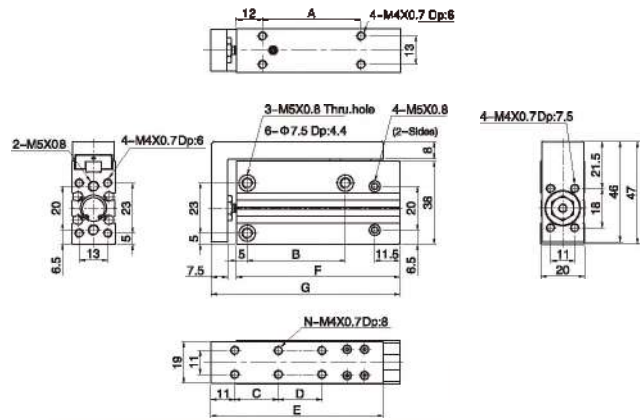
○ Main Dimension

EXH Φ6



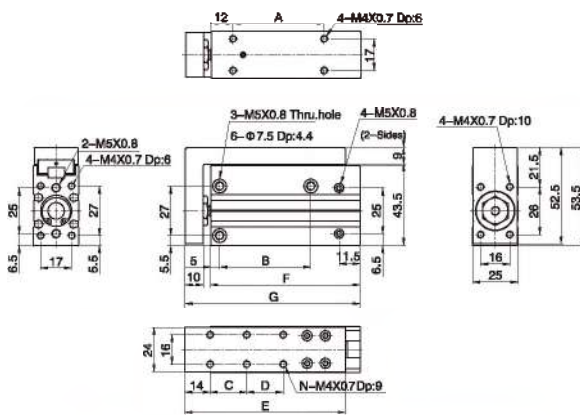
(mm)								
Bore\Sign	N	A	B	C	D	E	F	G
5	4	10	14	10	-	42	36	44.5
10	4	15	14	10	-	42	41	49.5
15	4	20	24	20	-	52	46	54.5
20	4	25	24	20	-	52	51	59.5
25	4	30	30	30	-	62	56	64.5
30	4	35	30	30	-	62	61	69.5
40	6	45	45	20	20	72	71	79.5

EXH Φ10



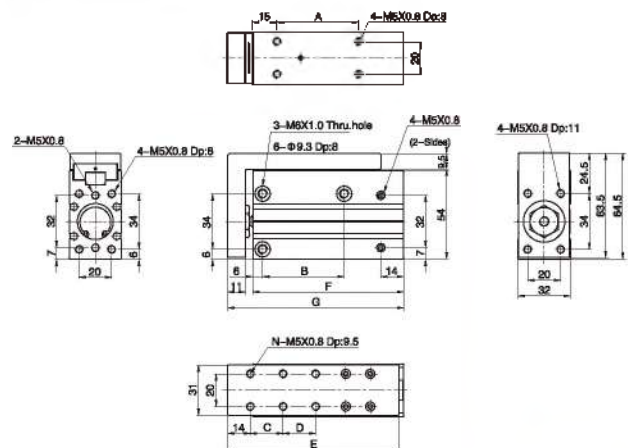
(mm)								
Bore\Sign	N	A	B	C	D	E	F	G
5	4	10	14	10	-	49	40	51.5
10	4	15	14	10	-	49	45	56.5
15	4	20	24	20	-	59	50	61.5
20	4	25	24	20	-	59	55	66.5
25	4	30	30	30	-	69	60	71.5
30	4	35	30	30	-	69	65	76.5
40	6	45	45	20	20	79	75	86.5
50	6	55	55	25	25	89	85	96.5

EXH Φ16



(mm)								
Bore\Sign	N	A	B	C	D	E	F	G
5	4	15	20	10	-	58	47	61
10	4	20	20	10	-	58	52	66
15	4	25	30	20	-	68	57	71
20	4	30	30	20	-	68	62	76
25	4	35	40	30	-	78	67	81
30	4	40	40	30	-	78	72	86
40	6	50	50	20	20	88	82	96
50	6	60	60	25	25	98	92	106
60	6	70	60	30	30	108	102	116

EXH Φ20



(mm)								
Bore\Sign	N	A	B	C	D	E	F	G
5	4	15	20	10	-	64	57.5	73
10	4	20	20	10	-	64	62.5	78
15	4	25	25	20	-	74	67.5	83
20	4	30	25	20	-	74	72.5	88
25	4	35	40	30	-	84	77.5	93
30	4	40	40	30	-	84	82.5	98
40	6	50	50	20	20	94	92.5	108
50	6	60	70	25	25	104	102.5	118
60	6	70	70	30	30	114	112.5	128

ELS Series Slide Cylinder

ELS

Slide Cylinder



Specifications

Bore(mm)	6	8	12	16	20	25
Acting Type	Double Acting					
Working Medium	Clean Air(after 40 μm filtration)					
Working Pressure(MPa)	0.15-0.7					
Guaranteed Pressure(MPa)	1.05					
Working Temperature(°C)	-20-80(No freezing)					
Piston Speed(mm/s)	50-500					
Stroke tolerance	Stroke ≤ 100 ^{+1.0} , Stroke > 100 ^{+1.5}					
Cushion	Rubber cushion on both ends, Shock absorber cushion					
Port Size	M5x0.8			G1/8		

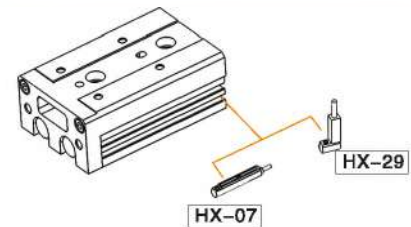
How to order?

Series No.	Bore X	Stroke	Magnet No.	Adjuster	Thread Type
ELS	6 8 12 16 20 25	Details in stroke chart	S: With magnet	Blank: None adjuster A: Adjusters on both ends AS: Forward adjuster AF: Backward adjuster B: Shock absorber on both ends BS: Forward shock absorber BF: Backward shock absorber	Blank: G

Order Example:

ELS Series Basic type cylinder, bore size 20, stroke 50, with Magnet, without adjuster, thread type G. The ERP code is: ELS20X50-S

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

Stroke

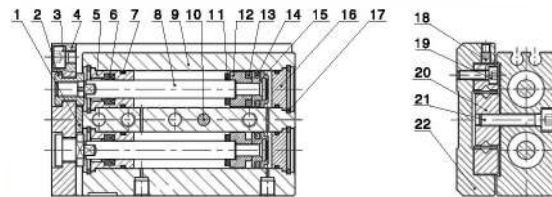
Bore(mm)	Standard Stroke(mm)								Max. Stroke(mm)	
Double Acting	6	10	20	30	40	50			50	
	8	10	20	30	40	50			50	
	12	10	20	30	40	50	75		75	
	16	10	20	30	40	50	75	100	125	125
	20	10	20	30	40	50	75	100	125	125
25	10	20	30	40	50	75	100	125	125	

Weight(g)

Bore(mm)	Stroke(mm)							
	10	20	30	40	50	75	100	125
6	73	90	103	146	163	—	—	—
8	143	156	178	225	269	—	—	—
12	345	350	355	403	470	651	—	—
16	542	551	560	623	708	973	1245	1523
20	986	995	1002	1111	1226	1617	2081	2482
25	1462	1480	1498	1638	1785	2314	2845	3437

Note: The weight in the above table is the standard product weight without adjuster.

Internal Structure



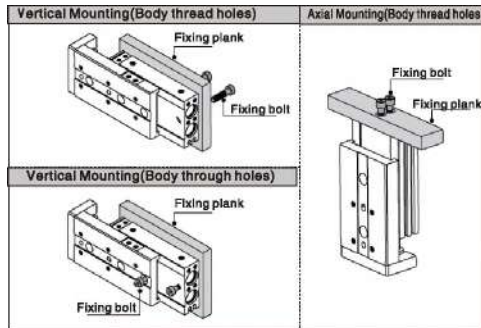
No.	Part Name	Material
1	Cushion Pad	TPU
2	Fixing Screw	Stainless Steel
3	Hexagon Socket Cap Head Screw	Carbon Steel
4	Fixing Plate	Aluminum Alloy
5	Front Cover	Aluminum Alloy
6	Front Scraper Seal	NBR
7	O-ring	NBR
8	Piston Rod	Stainless Steel
9	Barrel	Aluminum Alloy
10	Positioning pin	Stainless Steel
11	Anti-Crash Gasket	TPU
12	Magnet Seat	Aluminum Alloy
13	Integrated Magnet	RbFeB
14	Piston Seal	NBR
15	Piston	Aluminum Alloy
16	Rear Cover	Aluminum Alloy
17	C-Type Retainer Ring	Spring Steel
18	Hexagon Socket Set Screw	Carbon Steel
19	Hexagon Socket Cap Head Screw	Carbon Steel
20	Linear Roller Sliding Guide Rail	Assembly
21	Hexagon Socket Cap Head Screw	Carbon Steel
22	Slide Table	Aluminum Alloy

ELS Series Slide Cylinder

Installation and Operation

1. How to mount cylinder:

1.1 Cylinder can be mounted from 3 directions.

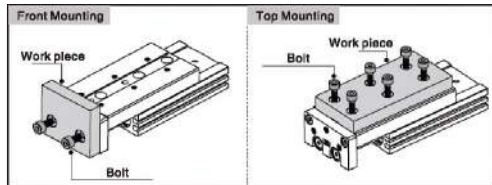


1.2 When mounting an compact slide cylinder, screws of appropriate length should be used and tightened properly within the maximum tightening torque. If screws are tightened beyond designed limits, malfunction may occur. If they are tightened insufficiently, it may result in sliding or falling off from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

Vertical Mounting (Body thread holes)	Model	Bolt used	Max tightening torque (Nm)	Max. screw-in depth (mm)
	ELS6	M4X0.7	2.1	8
	ELS8	M4X0.7	2.1	9
	ELS12	M5X0.8	4.4	10
	ELS16	M6X1.0	7.4	12
	ELS20	M6X1.0	7.4	12
ELS25	M8X1.25	18	16	
Vertical Mounting (Body through holes)	Model	Bolt used	Max tightening torque (Nm)	Max. screw-in depth (mm)
	ELS6	M3X0.5	1.2	10.8
	ELS8	M3X0.5	1.2	12.5
	ELS12	M4X0.7	2.6	18
	ELS16	M5X0.8	5.7	23.5
	ELS20	M5X0.8	5.7	28.5
ELS25	M6X1.0	10	34.5	
Axial Mounting (Body through holes)	Model	Bolt used	Max. tightening torque (Nm)	Max. screw-in depth (mm)
	ELS6	M2.5X0.45	0.5	3.5
	ELS8	M3X0.5	0.8	4.0
	ELS12	M4X0.7	2.1	6.0
	ELS16	M5X0.8	4.4	7.0
	ELS20	M5X0.8	4.4	8.0
ELS25	M6X1.0	7.4	10.0	

2. Work Piece Mounting:

2.1 Work pieces can be mounted on 2 surfaces of the compact slide.

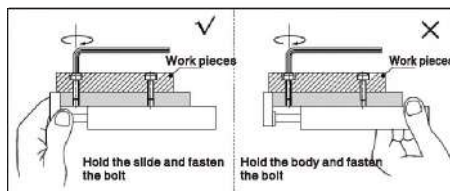


2.2 When mounting a work piece, tighten the bolts properly at a torque value within the limiting range. Use bolts at least 0.5mm shorter than maximum thread depth to prevent bolts from contacting the guide block. If the bolts are too long, they hit the guide block and cause damage.

Front Mounting	Model	Bolt used	Max tightening torque (Nm)	Max. screw-in depth (mm)
	ELS6	M3X0.5	0.9	5
	ELS8	M4X0.7	2.1	6
	ELS12	M5X0.8	4.4	8
	ELS16	M6X1.0	7.4	10
	ELS20	M6X1.0	7.4	13
ELS25	M8X1.25	18	15	
Top Mounting	Model	Bolt used	Max tightening torque (Nm)	Max. screw-in depth (mm)
	ELS6	M3X0.5	0.9	4
	ELS8	M3X0.5	0.9	4.5
	ELS12	M4X0.7	2.1	5.5
	ELS16	M5X0.8	4.4	7.5
	ELS20	M5X0.8	4.4	9.5
ELS25	M6X1.0	7.4	13	

2.3 Since the table is supported by the linear guide, take care not to apply strong impact or large moment to the guide section.

2.4 Hold the slide when fastening work pieces to it with bolts, if the body is held while tightening bolts, excessive moment may damage guide section.

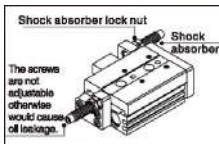


3. About shock absorber:

3.1 Shock absorbers are expendable parts. Promptly replace them when energy absorbing capacity decreases.

3.2 Never turn or adjust the screws on bottom of the shock absorber body. The screws are not for adjusting. Otherwise would cause oil leakage.

3.3 Follow the table for tightening torque of shock absorber to lock nuts.

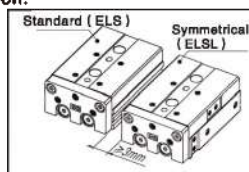


Model	Shock absorber	Tightening torque (Nm)
ELS8	AC0806-WY	1.67
ELS12	AC0806-WY	1.67
ELS16	AC1007-WY	3.14
ELS20	AC1412-WY	10.8
ELS25	AC1412-WY	10.8

4. How to mount sensor switch:

4.1 ELS Series are all with magnet.

4.2 Maintain a minimum spacing of at least 3mm if two compact cylinders are used side by side in order to avoid malfunction.

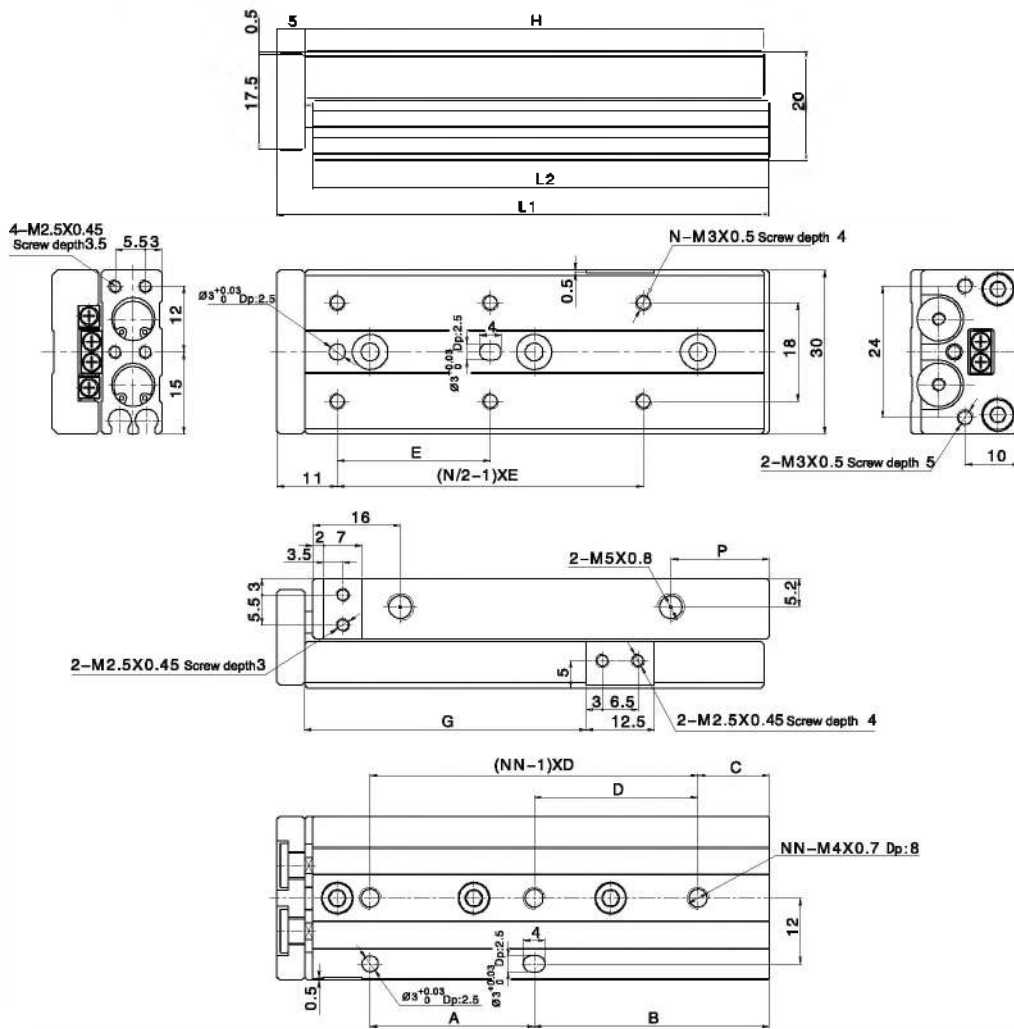


5. Make sure to connect the compact cylinder to speed controller at the meter-out side, and the speed of compact cylinder must below 500mm/s.

ELS Series Slide Cylinder

Main Dimension

ELS 6

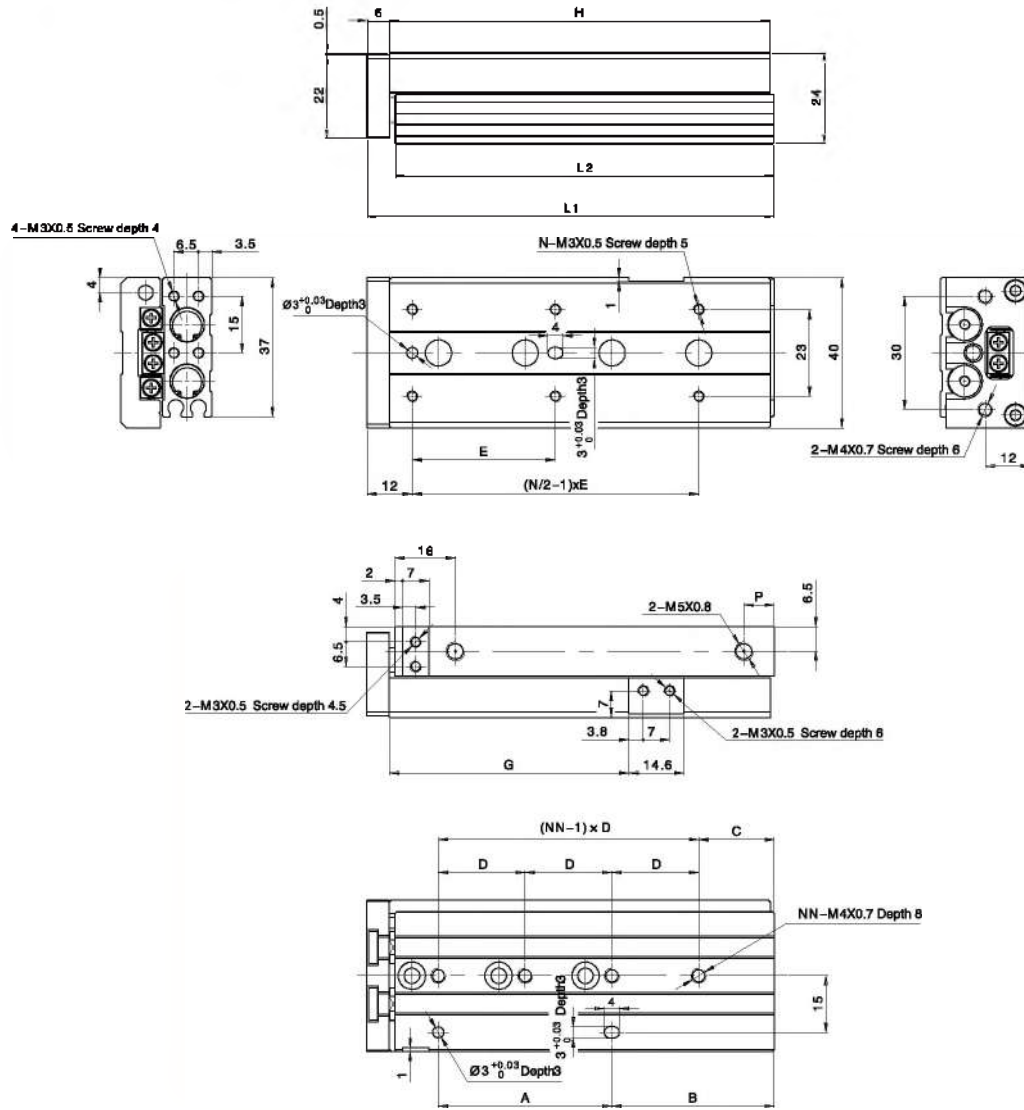


Storke/Sign	A	B	C	D	E	G	H	P	L1	L2	N	NN
10	20	11	6	25	20	21.5	42	9.5	48	41.5	4	2
20	20	21	6	35	30	31.5	52	9.5	58	61.6	4	2
30	20	31	11	20	20	41.5	62	8	68	61.5	6	3
40	30	43	13	30	28	51.5	84	18	90	83.5	6	3
50	46	41	17	24	38	61.5	100	24	106	99.5	6	4

ELS Series Slide Cylinder

Main Dimension

ELS 8

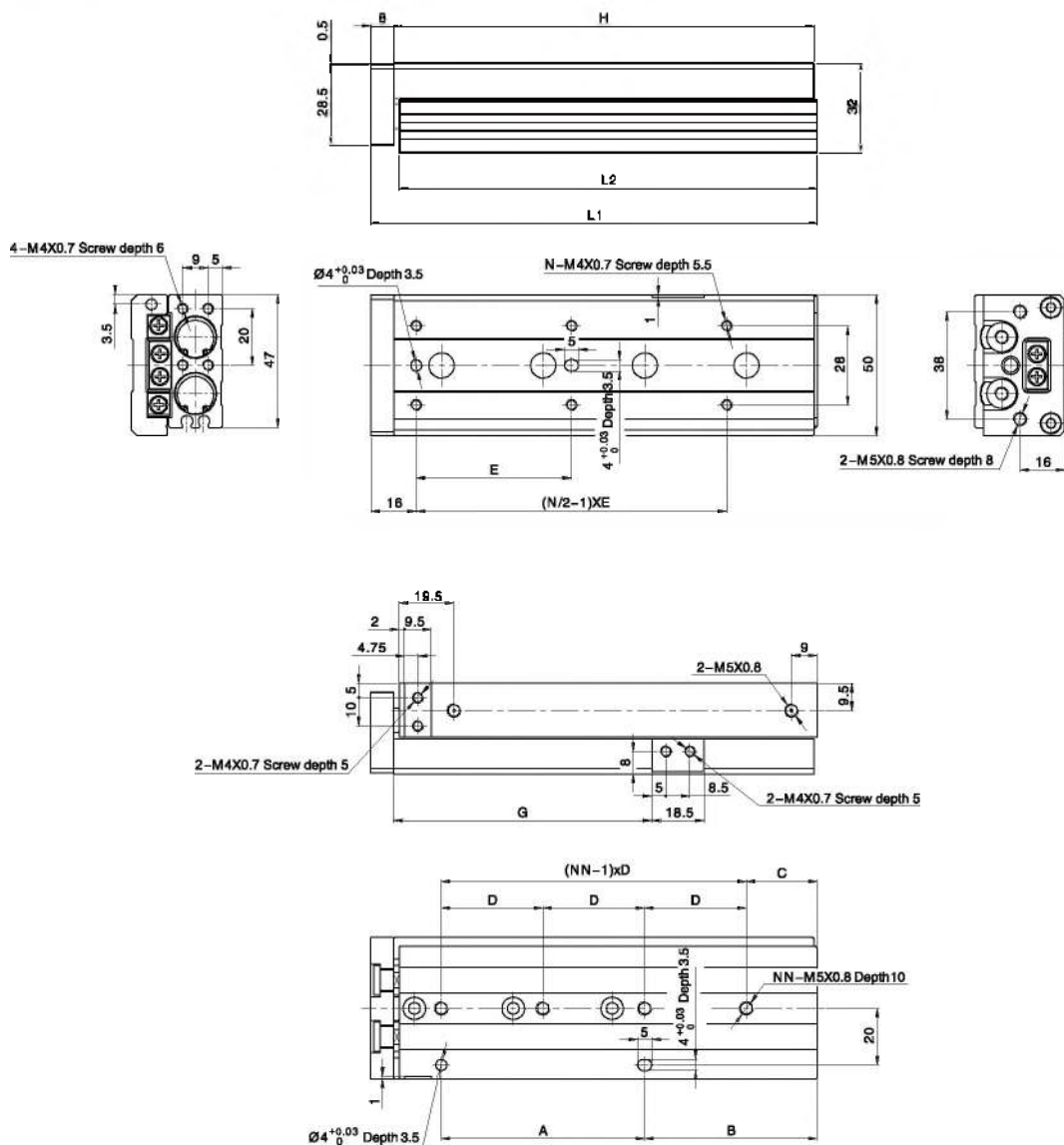


Stroke/Sign	A	B	C	D	E	G	H	P	L1	L2	N	NN
10	20	17	9	29	25	23.6	49	13	69	48.5	4	2
20	30	12	12	30	25	33.6	54	8	61	53.5	4	2
30	20	39	13	20	40	43.5	65	8	72	64.5	4	3
40	28	43	18	28	50	53.5	83	8	90	82.5	4	3
50	40	43	20	23	38	63.5	101	8	108	100.5	6	4
75	66	83	27	28	50	88.5	151	8	158	150.5	6	5

ELS Series Slide Cylinder

Main Dimension

ELS 12

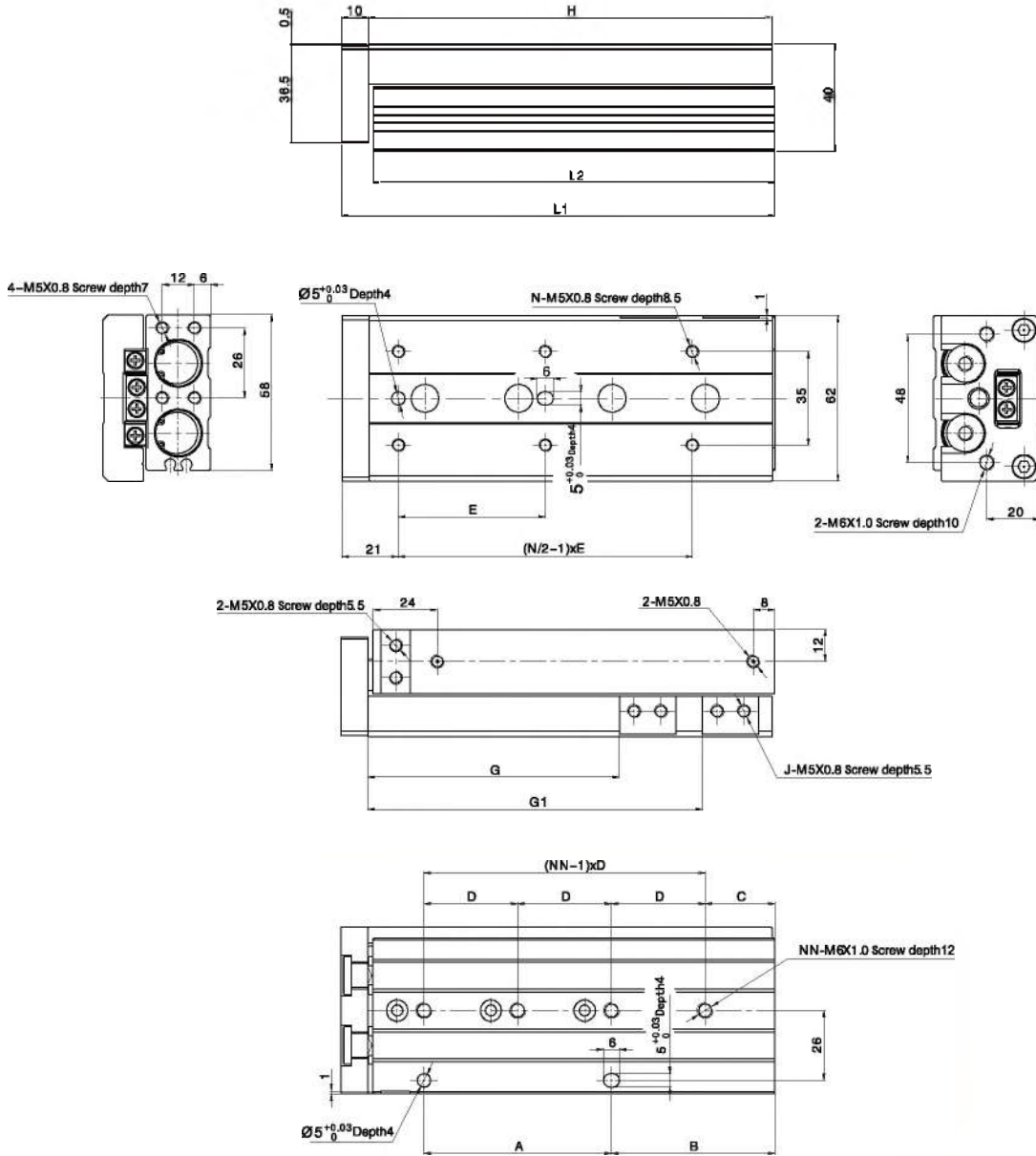


Stroke/Sign	A	B	C	D	E	G	H	L1	L2	N	NN
10	40	15	15	40	35	28.5	71	80	70	4	2
20	40	15	15	40	35	36.5	71	80	70	4	2
30	40	15	15	40	35	46.5	71	80	70	4	2
40	25	42	17	25	50	56.5	89	92	82	4	3
50	36	51	15	36	35	66.5	103	112	102	6	3
75	72	81	25	36	55	91.5	149	158	148	6	4
100	76	111	35	38	65	116.5	203	212	202	6	5

ELS Series Slide Cylinder

Main Dimension

ELS 16

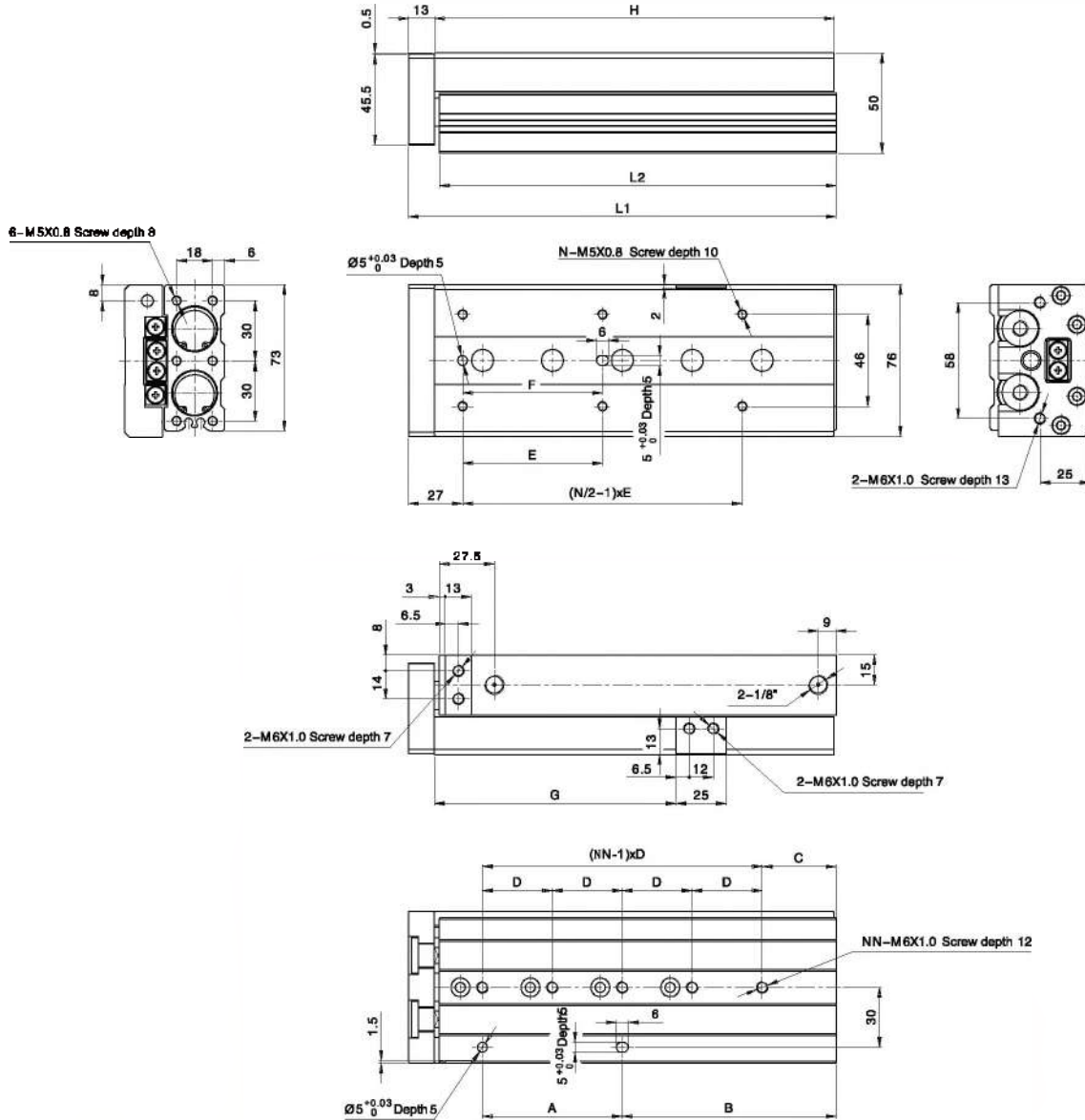


Stroke/Sign	A	B	C	D	E	G	H	L1	L2	N	NN
10	40	16	16	40	35	29	76	87	75	4	2
20	40	16	16	40	35	39	76	87	75	4	2
30	40	16	16	40	35	49	76	87	75	4	2
40	50	16	16	50	40	59	86	97	85	4	2
50	30	51	21	30	30	69	101	112	100	6	3
75	70	61	26	36	56	84	151	162	150	6	4
100	70	109	39	35	65	119	199	210	196	6	5
125	70	158	19	35	70	144	249	260	248	6	7

ELS Series Slide Cylinder

Main Dimension

ELS 20

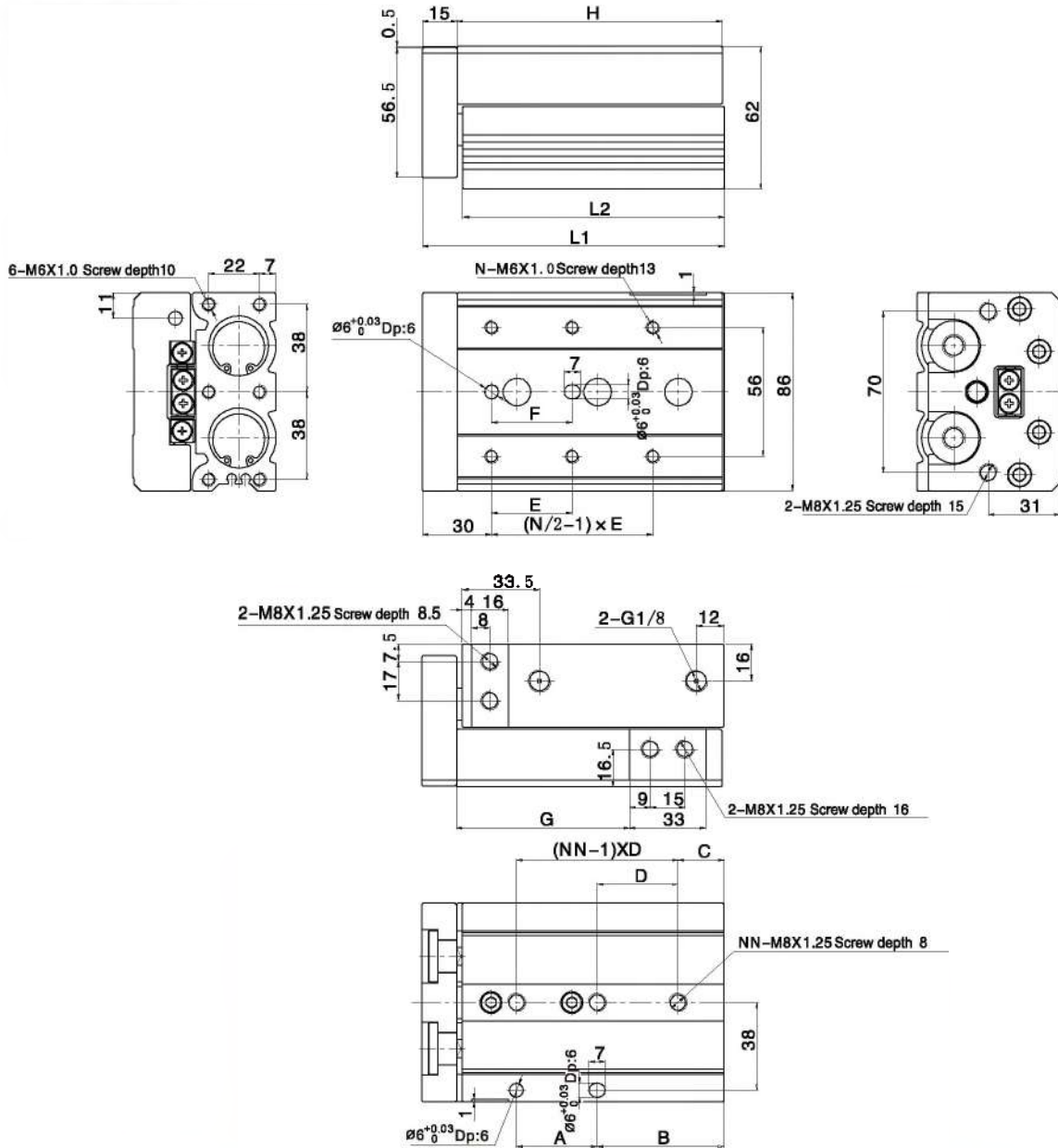


Stroke/Sign	A	B	C	D	E	F	G	H	L1	L2	N	NN
10	35	25	15	45	50	40	31	83	97	81.5	4	2
20	35	25	15	45	50	40	41	83	97	81.5	4	2
30	85	25	15	45	50	40	51	83	87	81.5	4	2
40	85	35	15	55	60	50	61	83	107	81.5	4	2
50	35	50	15	35	35	35	71	106	122	106.5	6	3
75	70	54	19	35	60	60	98	147	161	145.5	6	4
100	70	107	37	35	70	70	121	200	214	188.5	6	5
125	78	155	41	38	70	70	146	254	268	252.5	6	6
150	88	195	19	44	80	80	171	306	320	304.5	6	7

ELS Series Slide Cylinder

Main Dimension

ELS 25



Stroke/Sign	A	B	C	D	E	F	G	H	L1	L2	N	NN
10	45	22	22	45	50	40	35	82	108	80.5	4	2
20	45	22	22	45	50	40	45	82	108	80.5	4	2
30	45	22	22	45	50	40	55	82	108	80.5	4	2
40	55	22	22	55	60	50	65	102	118	100.5	4	2
50	35	55	20	35	35	35	75	115	131	113.5	6	3
75	70	81	26	35	60	60	100	156	172	164.5	6	4
100	70	102	32	35	70	70	125	187	213	185.5	6	5
125	78	154	40	38	75	75	150	255	271	253.5	8	6
150	80	190	30	40	80	80	175	295	311	293.5	8	7

ELS Series Slide Cylinder

How to Order(for accessories)

FJ	-	ELS	20	AP
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Series No.

Type

Bore

Accessory Type

- A: With stroke adjusting screws at both ends
- AS: With stroke adjusting screws at extension end
- AF: With stroke adjusting screws at retraction end
- B: With shock absorbers both end
- BS: With shock absorber at extension end
- BF: With shock absorber at retraction end

Optional Accessories

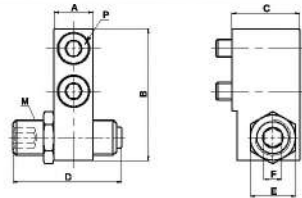
Accessory type/Bore		6	8	12	16	20	25
Both end	A (stroke adjusting screw)	FJ-ELS6	FJ-ELS8A	FJ-ELS12A	FJ-ELS16A	FJ-ELS20A	FJ-ELS25A
	B (shock absorber)		FJ-ELS8B	FJ-ELS12B	FJ-ELS16B	FJ-ELS20B	FJ-ELS25B
Extension end	AS (stroke adjusting screw)	FJ-ELS6AS	FJ-ELS8AS	FJ-ELS12AS	FJ-ELS16AS	FJ-ELS20AS	FJ-ELS25AS
	BS (shock absorber)		FJ-ELS8BS	FJ-ELS12BS	FJ-ELS16BS	FJ-ELS20BS	FJ-ELS25BS
Retraction end	AF (stroke adjusting screw)	FJ-ELS6AF	FJ-ELS8AF	FJ-ELS12AF	FJ-ELS16AF	FJ-ELS20AF	FJ-ELS25AF
	BF (shock absorber)		FJ-ELS8BF	FJ-ELS12BF	FJ-ELS16BF	FJ-ELS20BF	FJ-ELS25BF

Note: A=AS+AF; B=BS+BF

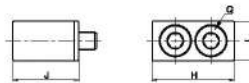
Dimension for Accessories

AS (With stroke adjusting screws at extension end)

Accessory on the body



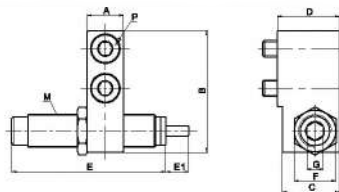
Accessory on the slide



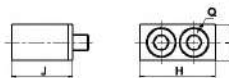
Bore/Sign	Adjustable stroke surge	A	B	C	D	E	F	M	P	H	I	J	Q
6	10	7	19	10.5	22.5	8	3	M6X1.0	M2.5 Length 10	12.5	6.5	10.5	M2.5 Length 10
8	10	7	23	15.5	27.5	11	4	M8X1.0	M3 Length 16	16.6	7	15.5	M3 Length 16
12	10	9.5	31	16	27.5	11	4	M8X1.0	M4 Length 14	20.5	9	15	M4 Length 14
16	10	11	37	19	30.5	12.7	5	M10X1.0	M5 Length 18	23	11	18.5	M5 Length 18
20	10	13	47	26	34	19	6	M14X1.5	M6 Length 25	27	12	25.5	M6 Length 25
25	10	16	54	24	34	19	6	M14X1.5	M8 Length 20	33	17	23	M8 Length 20

BS (With shock absorber at extension end)

Accessory on the body



Accessory on the slide

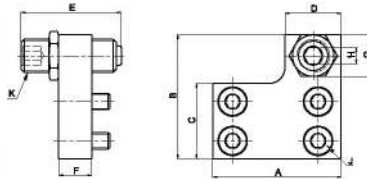


Bore/Sign	A	B	C	D	E	E1	F	M	P	H	I	J	Q
8	7	23	14	15.5	38	6	11	M8X1.0	M3 Length 16	16.6	7	15.5	M3 Length 16
12	9.5	31	14.5	16	38	6	11	M8X1.0	M4 Length 14	20.5	9	15	M4 Length 14
16	11	37	17.5	19	43	7	12.7	M10X1.0	M5 Length 18	23	11	18.5	M5 Length 18
20	13	47	23.5	26	76	12	19	M14X1.5	M6 Length 25	27	12	25.5	M6 Length 25
25	16	54	22	24	76	12	19	M14X1.5	M8 Length 20	33	17	23	M8 Length 20

ELS Series Slide Cylinder

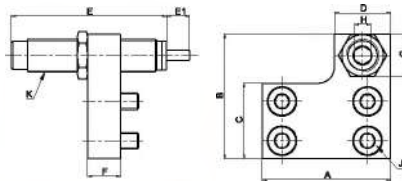
Main Dimension

AF (With stroke adjusting screws at retraction end)



Bore/Sign	Adjustable stroke range	A	B	C	D	E	F	G	H	J	K
8	10	18	19	11.2	8	22.5	8	8	3	M2.5 Length 8	M8X1.0
8	10	25	23.2	13.2	15	27.5	8	11	4	M3 Length 8	M8X1.0
12	10	32	31	18.5	19	27.5	8	11	4	M4 Length 8	M8X1.0
16	10	39	38	23	17	30.5	10	12.7	5	M5 Length 10	M10X1.0
20	10	48	48	28	20.5	34	12	19	8	M5 Length 12	M14X1.5
25	10	51	53.5	34	25	34	15	19	6	M6 Length 16	M14X1.5

BF (With shock absorber at retraction end)

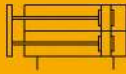


Bore/Sign	A	B	C	D	E	E1	F	G	J	K
8	25	23.2	13.2	15	38	8	8	11	M3 Length 8	M8X1.0
12	32	31	18.5	19	38	8	8	11	M4 Length 8	M8X1.0
16	39	38	23	17	43	7	10	12.7	M5 Length 10	M10X1.0
20	48	48	29	20.5	78	12	12	19	M5 Length 12	M14X1.5
25	51	53.5	34	25	76	12	15	19	M6 Length 16	M14X1.5

ELQ Series Slide Cylinder

ELQ

Slide Cylinder



Specifications

Bore(mm)	6	8	12	16	20	25
Acting Type	Double Acting					
Working Medium	Clean Air(after 40 μm filtration)					
Working Pressure(MPa)	0.15-0.7					
Guaranteed Pressure(MPa)	1.05					
Working Temperature(°C)	-20-80(No freezing)					
Piston Speed(mm/s)	50-500					
Stroke tolerance	Stroke ≤ 100 ^{+1.0} , Stroke > 100 ^{+1.5}					
Cushion	Rubber cushion on both ends, Shock absorber cushion					
Port Size	M5x0.8			G1/8		

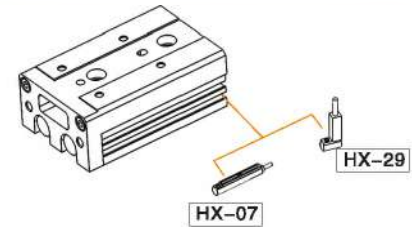
How to order?

Series No.	Bore X Stroke	Magnet No.	Adjuster	Thread Type
ELQ	6 8 12 16 20 25	S: With magnet Details in stroke chart	Blank: None adjuster A: Adjusters on both ends AS: Forward adjuster AF: Backward adjuster B: Shock absorber on both ends BS: Forward shock absorber BF: Backward shock absorber	Blank: G

Order Example:

ELQ Series Basic type cylinder, bore size 20, stroke 50, with Magnet, without adjuster, thread type G. The ERP code is: ELQ20X50-S

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

Stroke

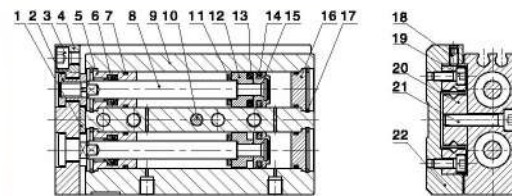
Bore(mm)	Standard Stroke(mm)								Max.Stroke(mm)	
Double Acting	6	10	20	30	40	50			50	
	8	10	20	30	40	50			50	
	12	10	20	30	40	50	75		75	
	16	10	20	30	40	50	75	100	125	125
	20	10	20	30	40	50	75	100	125	125
25	10	20	30	40	50	75	100	125	125	

Weight(g)

Bore(mm)	Stroke(mm)							
Double Acting	10	20	30	40	50	75	100	125
	73	90	103	131	149	—	—	—
	129	151	175	211	261	—	—	—
	303	307	354	412	461	614	—	—
	505	514	558	622	713	889	1104	1266
20	912	923	934	1042	1155	1475	1808	2088
25	1402	1420	1438	1562	1782	2123	2571	3053

Note: The weight in the above table is the standard product weight without adjuster.

Internal Structure



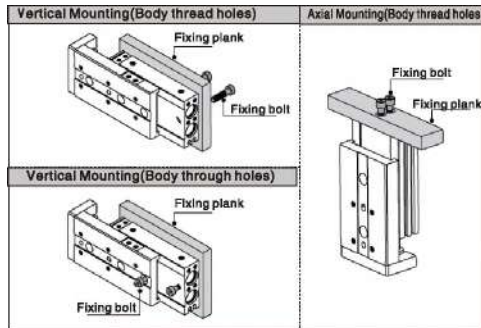
No.	Part Name	Material
1	Cushion Pad	TPU
2	Fixing Screw	Stainless Steel
3	Hexagon Socket Cap Head Screw	Carbon Steel
4	Fixing Plate	Aluminum Alloy
5	Front Cover	Aluminum Alloy
6	Front Scraper Seal	NBR
7	O-ring	NBR
8	Piston Rod	Stainless Steel
9	Barrel	Aluminum Alloy
10	Positioning pin	Stainless Steel
11	Anti-Crash Gasket	TPU
12	Magnet Seat	Aluminum Alloy
13	Integrated Magnet	RbFeB
14	Piston Seal	NBR
15	Piston	Aluminum Alloy
16	Rear Cover	Aluminum Alloy
17	C-Type Retainer Ring	Spring Steel
18	Hexagon Socket Set Screw	Carbon Steel
19	Hexagon Socket Cap Head Screw	Carbon Steel
20	Linear Roller Sliding Guide Rail	Assembly
21	Hexagon Socket Cap Head Screw	Carbon Steel
22	Slide Table	Aluminum Alloy

ELQ Series Slide Cylinder

Installation and Operation

1. How to mount cylinder:

1.1 Cylinder can be mounted from 3 directions.



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

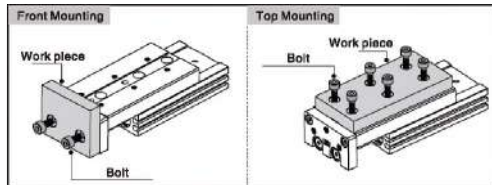
Vertical Mounting (Body thread holes)	Model	Bolt used	Max tightening torque (Nm)	Max screw-in depth (mm)
	ELQ6	M4X0.7	2.1	8
	ELQ8	M4X0.7	2.1	9
	ELQ12	M5X0.8	4.4	10
	ELQ16	M6X1.0	7.4	12
	ELQ20	M6X1.0	7.4	12
ELQ25	M8X1.25	18	16	

Vertical Mounting (Body through holes)	Model	Bolt used	Max tightening torque (Nm)	Max screw-in depth (mm)
	ELQ6	M3X0.5	1.2	10.8
	ELQ8	M3X0.5	1.2	12
	ELQ12	M4X0.7	2.6	13.5
	ELQ16	M5X0.8	5.7	16.5
	ELQ20	M5X0.8	5.7	22
ELQ25	M6X1.0	10	28	

Axial Mounting (Body through holes)	Model	Bolt used	Max tightening torque (Nm)	Max screw-in depth (mm)
	ELQ6	M2.5X0.45	0.5	3.5
	ELQ8	M3X0.5	0.8	4.0
	ELQ12	M4X0.7	2.1	6.0
	ELQ16	M5X0.8	4.4	7.0
	ELQ20	M5X0.8	4.4	8.0
ELQ25	M6X1.0	7.4	10.0	

2. Work Piece Mounting:

2.1 Work pieces can be mounted on 2 surfaces of the compact slide.



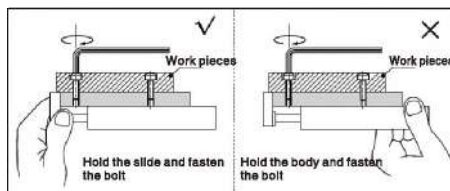
2.2 When mounting a work piece, tighten the bolts properly at a torque value within the limiting range. Use bolts at least 0.5mm shorter than maximum thread depth to prevent bolts from contacting the guide block. If the bolts are too long, they hit the guide block and cause damage.

Front Mounting	Model	Bolt used	Max tightening torque (Nm)	Max screw-in depth (mm)
	ELQ6	M3X0.5	0.9	5
	ELQ8	M4X0.7	2.1	6
	ELQ12	M5X0.8	4.4	8
	ELQ16	M6X1.0	7.4	10
	ELQ20	M6X1.0	7.4	13
ELQ25	M8X1.25	18	15	

Top Mounting	Model	Bolt used	Max tightening torque (Nm)	Max screw-in depth (mm)
	ELQ6	M3X0.5	0.9	4
	ELQ8	M3X0.5	0.9	4.5
	ELQ12	M4X0.7	2.1	5.5
	ELQ16	M5X0.8	4.4	7.5
	ELQ20	M5X0.8	4.4	9.5
ELQ25	M6X1.0	7.4	13	

2.3 Since the table is supported by the linear guide, take care not to apply strong impact or large moment to the guide section.

2.4 Hold the slide when fastening work pieces to it with bolts, If the body is held while tightening bolts, excessive moment may damage guide section.

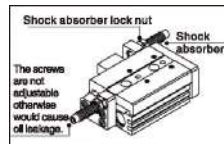


3. About shock absorber:

3.1 Shock absorbers are expendable parts. Promptly replace them when energy absorbing capacity decreases.

3.2 Never turn or adjust the screws on bottom of the shock absorber body. The screws are not for adjusting. Otherwise would cause oil leakage.

3.3 Follow the table for tightening torque of shock absorber to lock nuts.

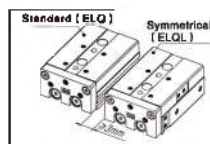


Model	Shock absorber	Tightening torque (Nm)
ELQ8	AC0806-WY	1.67
ELQ12	AC0806-WY	1.67
ELQ16	AC1007-WY	3.14
ELQ20	AC1412-WY	10.8
ELQ25	AC1412-WY	10.8

4. How to mount sensor switch:

4.1 ELQ Series are all with magnet.

4.2 Maintain a minimum spacing of at least 3mm if two compact cylinders are used side by side in order to avoid malfunction.

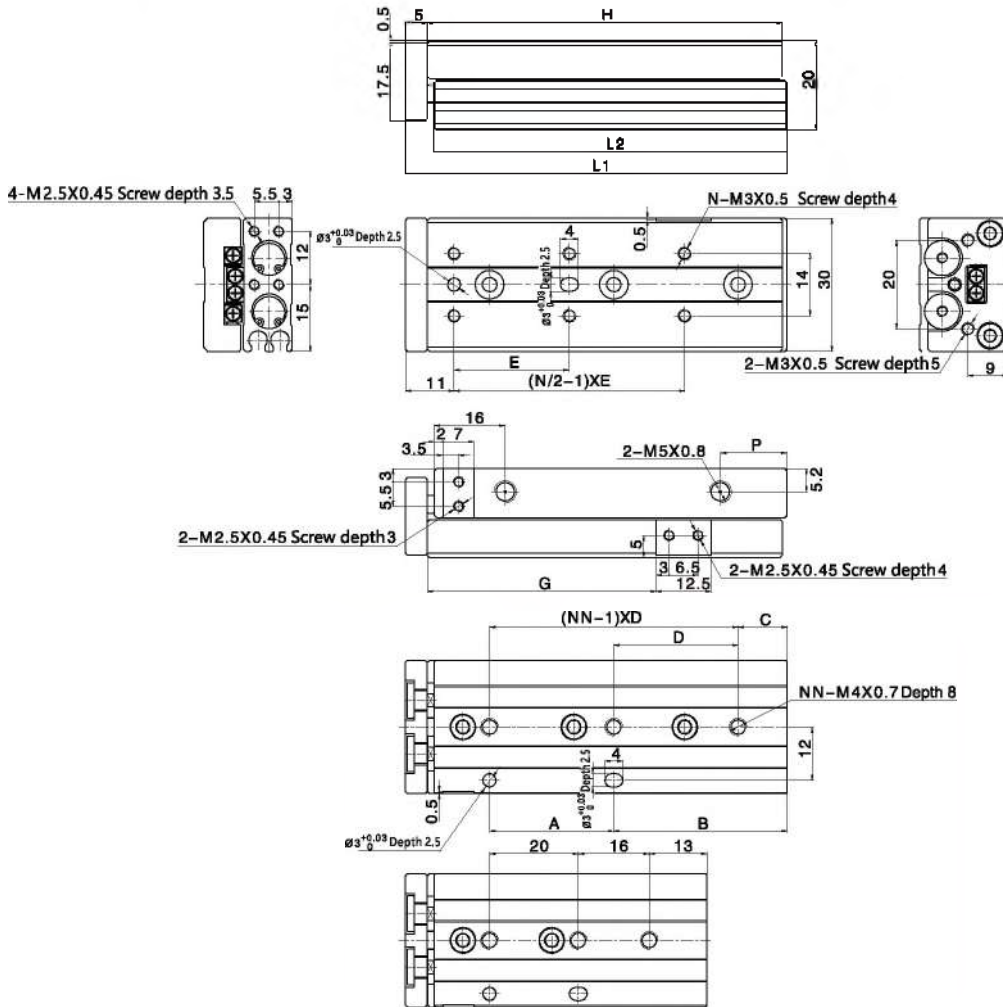


5. Make sure to connect the compact cylinder to speed controller at the meter-out side, and the speed of compact cylinder must below 500mm/s.

ELQ Series Slide Cylinder

Main Dimensions

ELQ 6



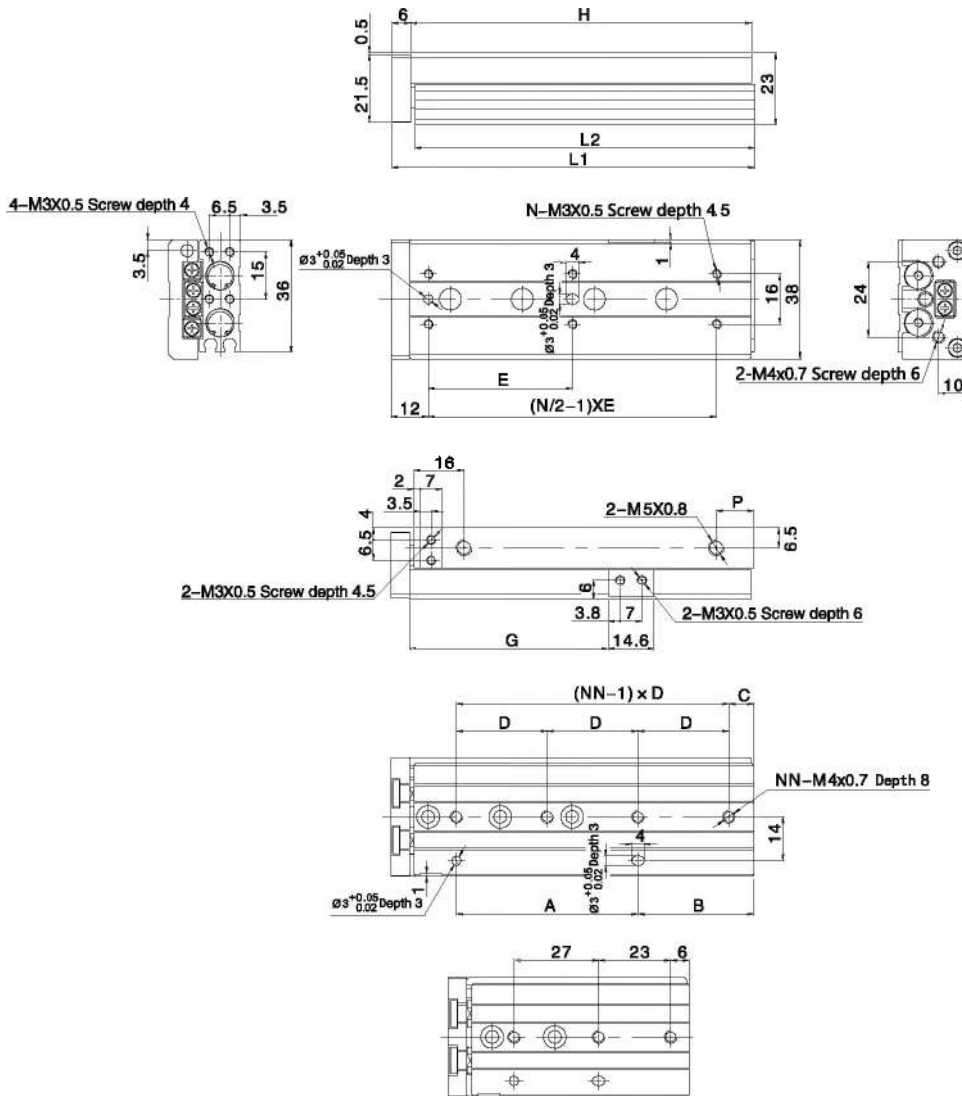
ELQ 6x30

Stroke/Sign	A	B	C	D	E	G	H	P	L1	L2	N	NN
10	16	13	6	23	22	21.5	42	9.5	48	41.5	4	2
20	26	13	13	26	25	31.5	52	9	58	51.5	4	2
30	20	29	See drawing	See drawing	21	41.5	62	9	68	61.5	6	3
40	28	38	11	28	26	51.5	80	15	88	79.5	6	3
50	28	49	21	28	27	61.5	90	15	96	89.5	6	3

ELQ Series Slide Cylinder

Main Dimensions

ELQ 8



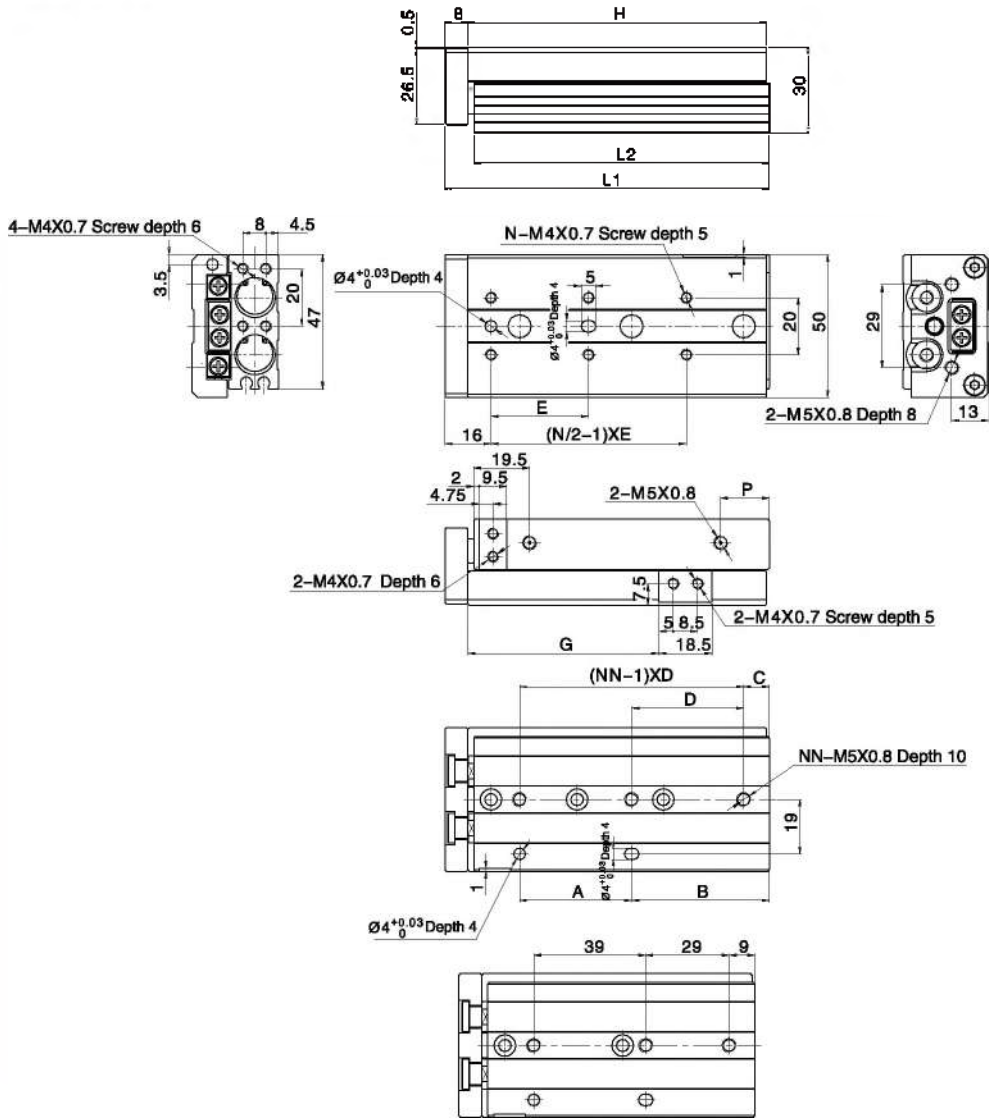
ELQ 8x30

Stroke/Sign	A	B	C	D	E	G	H	P	L1	L2	N	NN
10	19	13	7	26	25	23.5	46	10.5	53	45.5	4	2
20	28	14	14	28	25	33.5	56	10	63	55.5	4	2
30	27	29	See drawing	See drawing	26	43.5	70	10	77	69.5	6	3
40	31	39	8	31	32	53.5	84	12	91	83.5	6	3
50	58	37	8	29	46	63.5	109	12	116	108.5	6	4
75	60	63	39	30	50	68.5	137	10	144	136.5	6	4

ELQ Series Slide Cylinder

Main Dimensions

ELQ 12



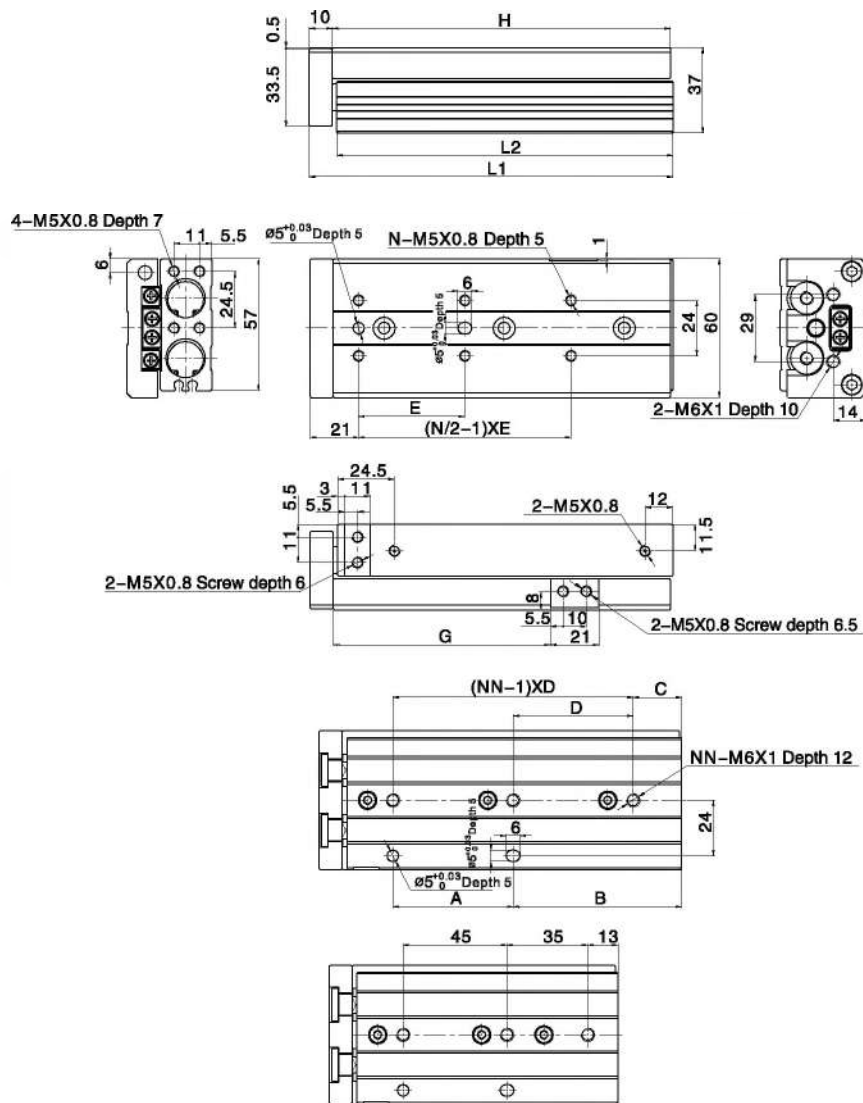
ELQ12x40

Stroke/Sign	A	B	C	D	E	G	H	L1	L2	N	NN
10	32	16	18	32	26	26.5	67	78	66	4	2
20	32	16	18	32	26	36.5	67	78	66	4	2
30	40	20	20	40	38	46.5	77	86	76	4	2
40	39	38	See drawing	See drawing	34	56.5	84	103	93	6	3
60	39	48	9	39	34	66.5	104	119	103	8	3
75	72	59	23	36	36	91.5	148	157	147	8	4
100	72	84	12	36	36	116.5	173	182	172	10	5

ELQ Series Slide Cylinder

Main Dimensions

ELQ 16



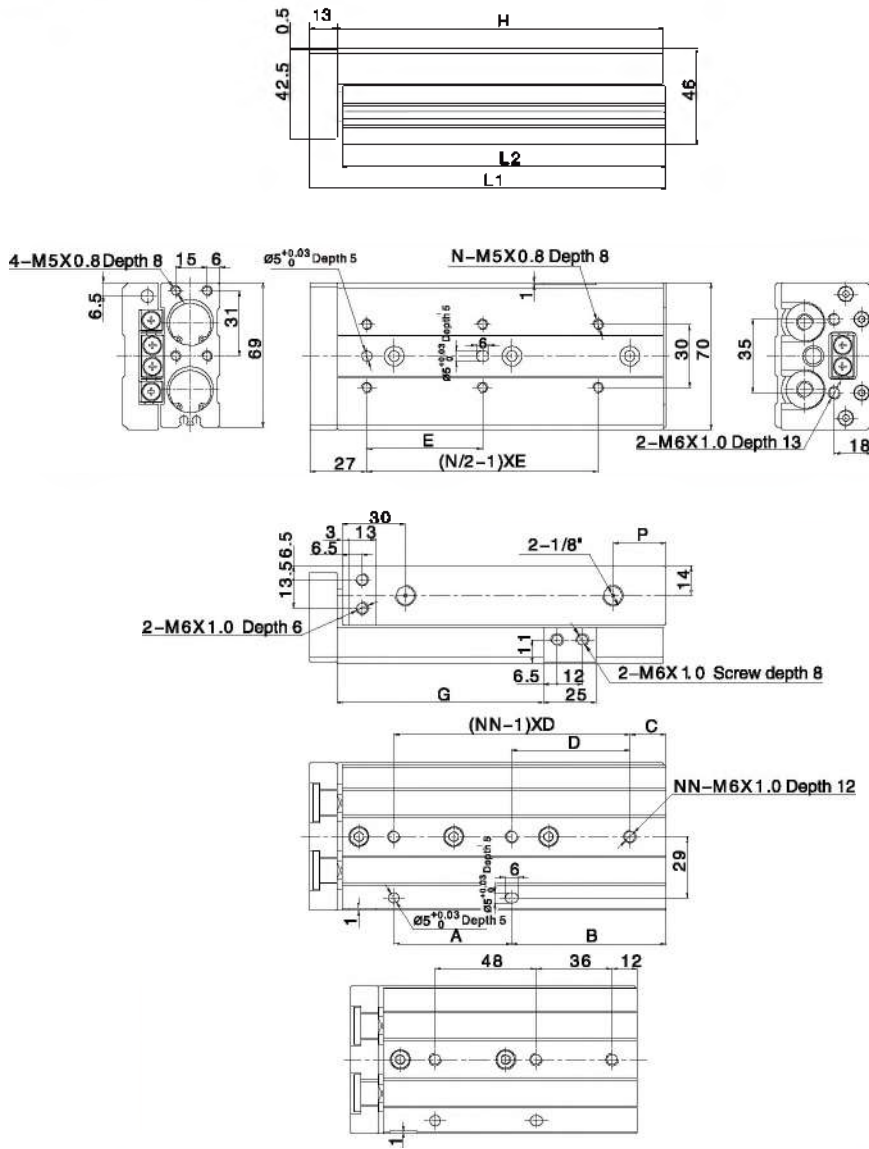
ELQ16x50

Stroke/Sign	A	B	C	D	E	G	H	L1	L2	N	NN
10	30	18	18	30	38	29	78	88	77	4	2
20	36	18	18	36	38	36	78	88	77	4	2
30	46	19	18	46	46	45	88	99	87	4	2
40	58	19	18	58	58	59	98	109	97	4	2
60	45	46	See drawing	See drawing	40	66	114	125	119	6	3
75	82	73	21	82	46	94	146	157	145	6	3
100	88	80	36	44	44	119	189	200	188	8	4
125	88	105	17	44	44	144	214	225	218	10	5

ELQ Series Slide Cylinder

Main Dimensions

ELQ 20



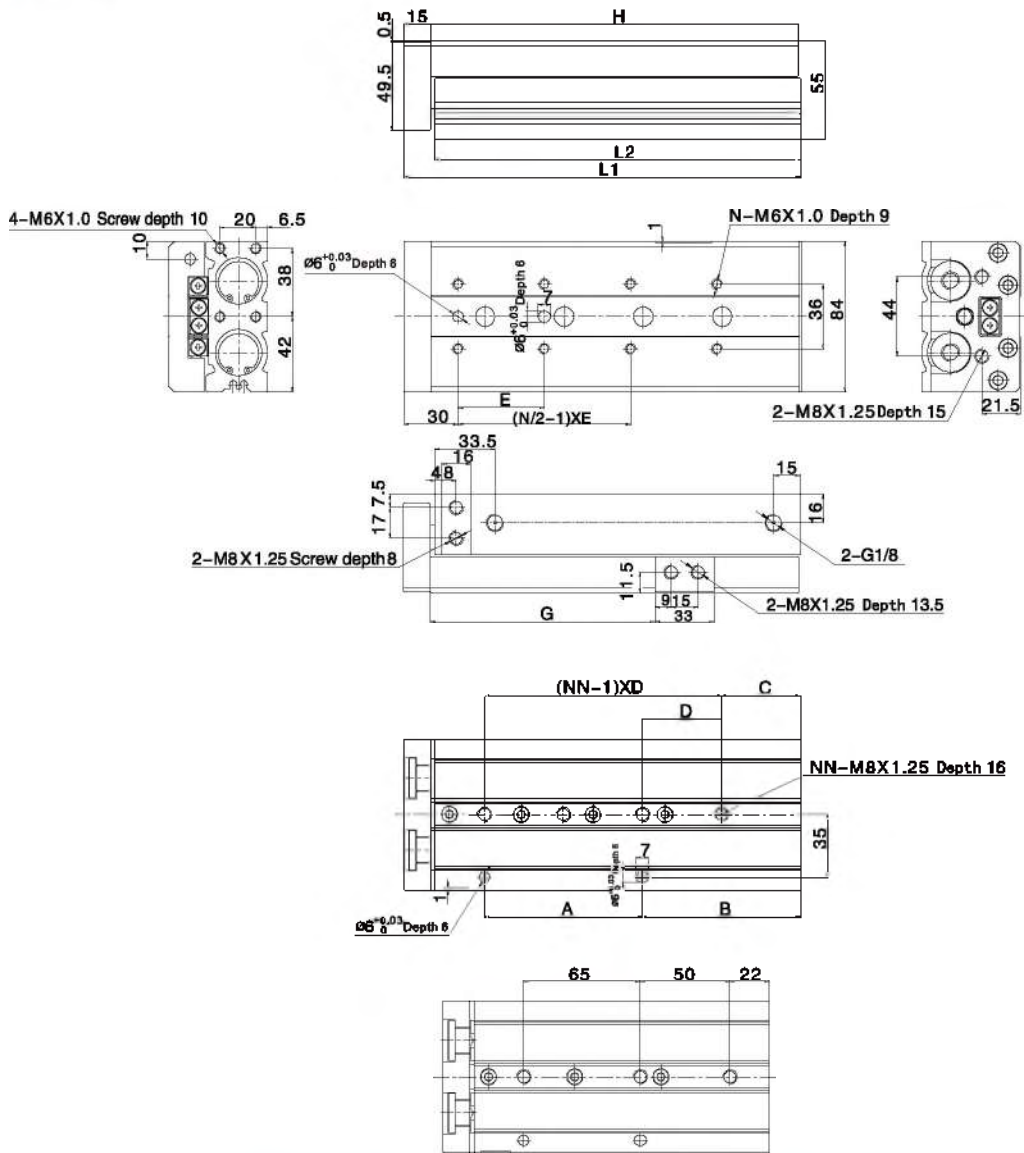
ELQ20x50

Stroke/Sign	A	B	C	D	E	P	G	H	L1	L2	N	NN
10	50	18	22	46	45	16	31	94	108	92.5	4	2
20	50	18	22	46	40	16	41	94	108	92.5	4	2
30	50	18	22	46	48	16	51	94	108	92.5	4	2
40	56	22	22	56	58	16	61	104	118	102.5	4	2
50	48	48	See drawing	See drawing	42	18	71	122	136	120.5	6	3
75	56	73	17	56	55	25	96	155	169	153.5	6	3
100	112	74	18	56	50	25	121	212	226	210.5	8	4
125	118	96	37	59	55	25	148	240	254	238.5	8	4
150	124	118	56	62	62	25	171	268	282	266.5	8	4

ELQ Series Slide Cylinder

Main Dimensions

ELQ 25



ELQ25x75

Stroke/Sign	A	B	C	D	E	G	H	L1	L2	N	NN
10	55	23	23	55	55	35	107	123	105.5	4	2
20	55	23	23	55	46	45	107	123	105.5	4	2
30	55	23	23	55	55	55	107	123	105.5	4	2
40	65	23	23	65	65	65	117	133	115.5	4	2
50	80	32	32	80	75	75	141	157	139.5	4	2
75	65	72	See drawing	See drawing	80	100	166	182	164.5	6	3
100	86	86	44	44	48	125	205	221	203.5	8	4
125	132	97	31	68	60	160	258	274	256.5	8	4
160	132	122	56	66	65	175	283	299	281.5	8	4

ELQ Series Slide Cylinder

How to Order (for accessories)

FJ	-	ELQ	20	AF
----	---	-----	----	----

Series No.

Type

Bore

Accessory Type

- A: With stroke adjusting screws at both ends
- AS: With stroke adjusting screws at extension end
- AF: With stroke adjusting screws at retraction end
- B: With shock absorbers both end
- BS: With shock absorber at extension end
- BF: With shock absorber at retraction end

Optional Accessories

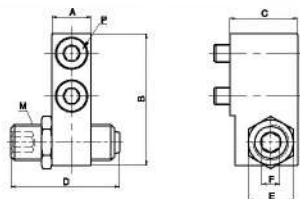
Accessory type/Bore		6	8	12	16	20	25
Both end	A (stroke adjusting screw)	FJ-ELS6A	FJ-ELQ 8A	FJ-ELQ 12A	FJ-ELQ 16A	FJ-ELQ 20A	FJ-ELS 25A
	B (shock absorber)		FJ-ELQ 8B	FJ-ELQ 12B	FJ-ELQ 16B	FJ-ELQ 20B	FJ-ELS 25B
Extension end	AS (stroke adjusting screw)	FJ-ELS6AS	FJ-ELQ 8AS	FJ-ELQ 12AS	FJ-ELQ 16AS	FJ-ELQ 20AS	FJ-ELS 25AS
	BS (shock absorber)		FJ-ELQ 8BS	FJ-ELQ 12BS	FJ-ELQ 16BS	FJ-ELQ 20BS	FJ-ELS 25BS
Retraction end	AF (stroke adjusting screw)	FJ-ELS6AF	FJ-ELQ 8AF	FJ-ELQ 12AF	FJ-ELQ 16AF	FJ-ELQ 20AF	FJ-ELS 25AF
	BF (shock absorber)		FJ-ELQ 8BF	FJ-ELQ 12BF	FJ-ELQ 16BF	FJ-ELQ 20BF	FJ-ELS 25BF

Note: A=AS+AF; B=BS+BF

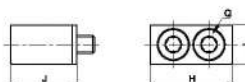
Dimension for Accessories

AS (With stroke adjusting screws at extension end)

Accessory on the body



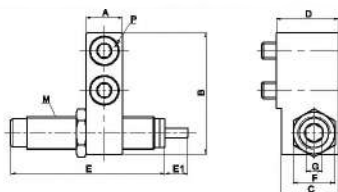
Accessory on the slide



Bore/Sign	Adjustable stroke range	A	B	C	D	E	F	M	P	H	I	J	Q
6	10	7	19	10.5	22.5	8	3	M6X1.0	M2.5 Length 10	12.5	6.5	10.5	M2.5 Length 10
8	10	7	22	15.5	27.5	11	4	M8X1.0	M3 Length 16	16.6	7	15.5	M3 Length 16
12	10	9.5	29	16	27.5	11	4	M8X1.0	M4 Length 14	20.5	9	15	M4 Length 14
16	10	11	36	19	30.5	12.7	5	M10X1.0	M5 Length 18	23	11	18.5	M5 Length 18
20	10	13	45	26	34	19	6	M14X1.5	M6 Length 25	27	12	25.5	M6 Length 25
25	10	16	54	24	34	19	6	M14X1.5	M8 Length 20	33	17	23	M8 Length 20

BS (With shock absorber at extension end)

Accessory on the body



Accessory on the slide

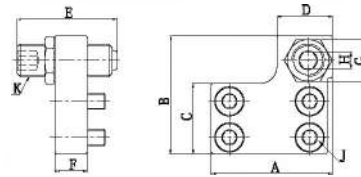


Bore/Sign	A	B	C	D	E	E1	F	M	P	H	I	J	Q
8	7	22	14	15.5	38	6	11	M8X1.0	M3 Length 16	16.6	7	15.5	M3 Length 16
12	9.5	29	14.5	16	38	6	11	M8X1.0	M4 Length 14	20.5	9	15	M4 Length 14
16	11	36	17.5	19	43	7	12.7	M10X1.0	M5 Length 18	23	11	18.5	M5 Length 18
20	13	45	23.5	26	76	12	19	M14X1.5	M6 Length 25	27	12	25.5	M6 Length 25
25	16	54	22	24	76	12	19	M14X1.5	M8 Length 20	33	17	23	M8 Length 20

ELQ Series Slide Cylinder

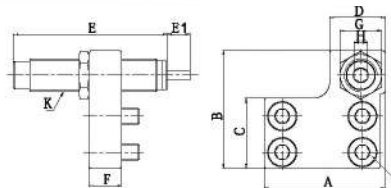
Main Dimensions

AF (With stroke adjusting screws at retraction end)



Bore/Sign	Adjustable stroke range	A	B	C	D	E	F	G	H	J	K
8	10	18	19	11.2	8	22.5	8	8	3	M2.5 Length 6	M8X1.0
8	10	24.5	22.2	13.2	13	27.5	8	11	4	M3 Length 8	M8X1.0
12	10	31.5	29	18	15	27.5	8	11	4	M4 Length 8	M8X1.0
16	10	37	36	21.5	17	30.5	10	12.7	5	M5 Length 10	M10X1.0
20	10	45	44	26	23	34	12	19	8	M5 Length 12	M14X1.5
25	10	51	53.5	34	25	34	15	19	8	M6 Length 16	M14X1.6

BF (With shock absorber at retraction end)



Bore/Sign	A	B	C	D	E	E1	F	G	J	K
8	24.5	22.2	13.2	13	38	6	8	11	M3 Length 8	M8X1.0
12	31.5	29	18	15	38	6	8	11	M4 Length 8	M8X1.0
16	37	36	21.5	17	43	7	10	12.7	M5 Length 10	M10X1.0
20	45	44	26	23	76	12	12	19	M5 Length 12	M14X1.5
25	51	53.5	34	25	76	12	15	19	M6 Length 16	M14X1.5

EXSW Series Slide Cylinder

EXSW Slide Cylinder



Specifications

Bore(mm)	16	20	25	32
Acting type	Double acting			
Working Medium	Clean Air(after 40 μm filtration)			
Working Pressure (MPa)	0.1~1.0			
Guaranteed Pressure (MPa)	1.5			
Working Temperature (°C)	-20~80(No freezing)			
Speed range (mm/s)	30~500			
Cushion type	Rubber cushion			
Stroke tolerance(mm)	+1.0 0			
Adjustable stroke(mm)	-5~0			
No-rotating precision	± 0.05°		± 0.03°	
Port Size	M5 x 0.8		G1/8	

① PT、NPT port size is optional.

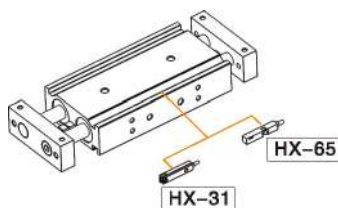
How to Order?

Series No	Type No	Bore X	Stroke	Magnet No	Thread Type
EXSW	M: Slide bearing	16 20 25 32	25 50 75 ...	S : With magnet	Blank: G P : PT T : NPT

Order Example:

EXSW series, Slide Bearing type, Bore 16mm, stroke 30mm ERP code is: EXSWM16X30-S

Optional Accessories

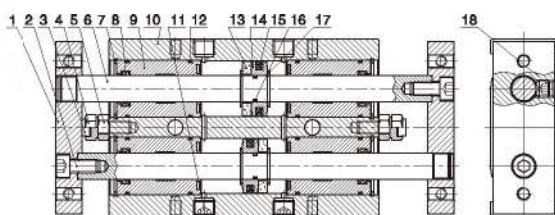


Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
16-32	10 20 30 40 50 75 100 125 150	150

Note: Above chart shows standard stroke, for unstandard stroke, please contact with us.

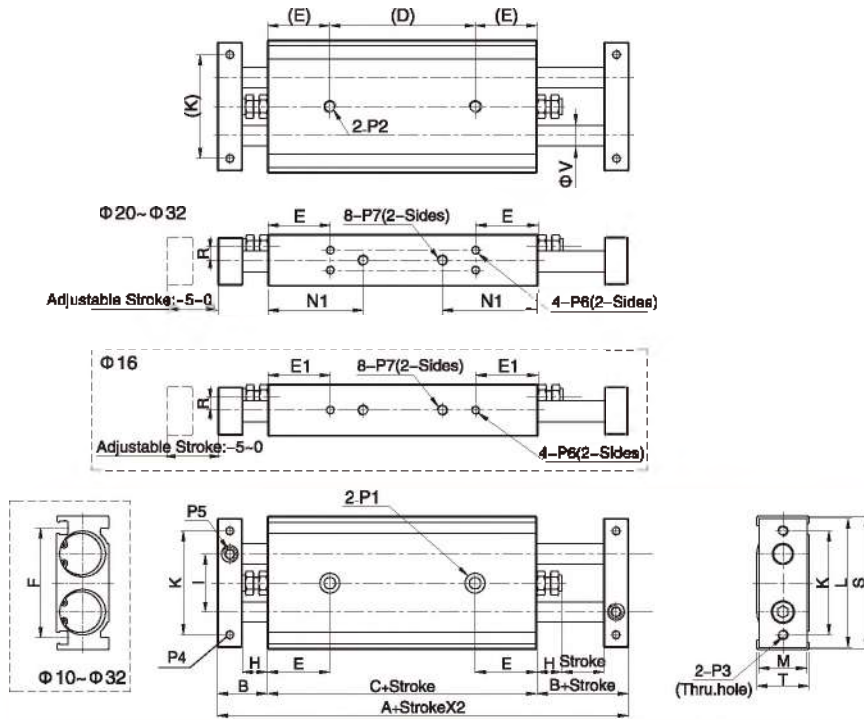
Internal Structure



No.	Part Name	Material
1	Fixing plate	Aluminum alloy
2	Nut	Carbon steel
3	Bumper	POM
4	Adjustable nut	Carbon steel
5	Screw	Carbon steel
6	Piston rod	S45C hard chrome carbon steel
7	C clip	Spring steel
8	Wiper seal	NBR
9	Head cover	Aluminum alloy
10	Body	Aluminum alloy
11	Hex fix screw	Cu
12	O-ring	NBR
13	Magnet	Plastic
14	Piston	Aluminum alloy
15	Piston seal	NBR
16	O-ring	NBR
17	C clip	Spring steel
18	Nut	Carbon steel

EXSW Series Slide Cylinder

Main Dimension



																	(mm)	
Bore\Sign	A	B	C	E	E1	F	H	I	K	L	M	N1	R	S	T	V	W	
16	133	19	95	25	25	47.5	9	25	45	56	18	38	5	58	20	8	-	
20	158	24	110	30	30	53	12	28	50	62	23	46	6.5	64	25	10	9.5	
25	160	24	112	30	30	64	12	35	60	78	28	43	9	80	30	12	13	
32	193	30	133	30	30	76	14	44	75	98	36	53	11.5	98	38	16	20	
Bore\Sign	P1			P2			P3		P4		P5		P6		P7			
16	$\Phi 8$ Dp:4.4; Thru. hole: $\Phi 4.3$			M5X0.8 Dp:8			M5X0.8		M4X0.7		M6X1.0		M4X0.7 Dp:5		M5X0.8			
20	$\Phi 9.5$ Dp:5.3; Thru. hole: $\Phi 5.2$			M6X1.0 Dp:10			M5X0.8		M4X0.7 Dp:6		M8X1.25		M4X0.7 Dp:5.5		M5X0.8			
25	$\Phi 11$ Dp:6.3; Thru. hole: $\Phi 6.6$			M6X1.25 Dp:12			M6X1.0		M5X0.8 Dp:7.5		M8X1.25		M5X0.8 Dp:7		1/8"			
32	$\Phi 11$ Dp:6.3; Thru. hole: $\Phi 6.6$			M8X1.25 Dp:12			M6X1.0		M5X0.8 Dp:8		M10X1.5		M5X0.8 Dp:7		1/8"			

ESW Series Rodless Cylinder

ESW

Rodless Cylinder



Specifications

Bore(mm)	16	20	25	32
Acting Type	Double Acting			
Working Medium	Clean Air(40 μ m filtration)			
Pressure Range	0.15~0.7			
Guaranteed Pressure (Mpa)	1.0			
Working Temperature(℃)	-20~80 (No freezing)			
Piston Speed(mm/s)	50~400			
Stroke tolerance	0~250 ^{+1.0} ₀	251~1000 ^{+1.4} ₀	1001~ ^{+1.8} ₀	
Cushion Type	Rubber cushion on both ends			
Port Size	M5x0.8		G1/8	

① PT, NPT port size is optional.

Note: Max working pressure of cylinder should not exceed 0.7Mpa, otherwise the magnetic coupling is in risk of disengagement

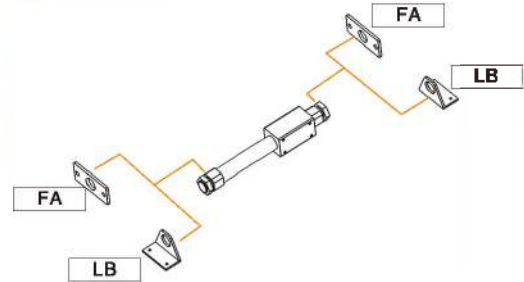
How to Order?

Series	Type	Bore	X Stroke	Mounting Type	Thread Type
ESW	Blank:Basic type	16 20 25 32	100 150 200 250 ... 800	Blank:No LB FA	Blank:G P:PT T:NPT

Order Example

ESW series, basic type, bore 32mm, stroke 50mm, G thread, ERP code is ESW32 x 50

Optional Accessories



Stroke

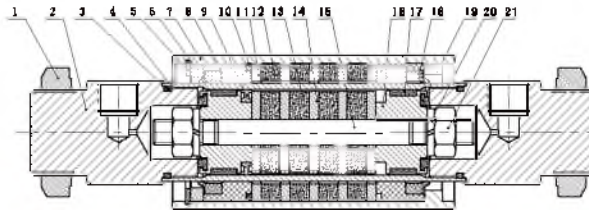
Bore (mm)	Standard Stroke (mm)															Max. Stroke (mm)			
16	50	100	150	200	250	300	350	400	450	500						1000			
20	50	100	150	200	250	300	350	400	450	500	600	700	800						2000
25	50	100	150	200	250	300	350	400	450	500	600	700	800						2000
32	50	100	150	200	250	300	350	400	450	500	600	700	800						2000

Notes: With the increase of stroke, cylinder barrel increase bending degree, pls note the gap size between connecting part and cylinder.

Magnetic Retention

Bore(mm)	Magnetic Retention(N)
16	140
20	200
25	360
32	550

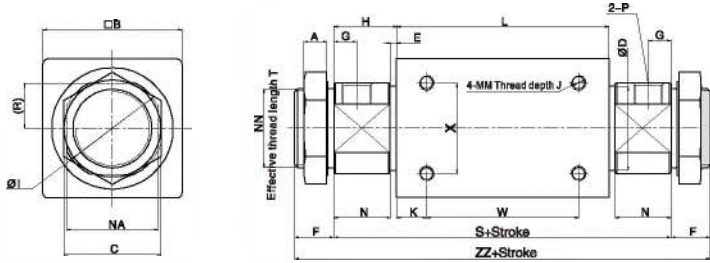
Internal Structure



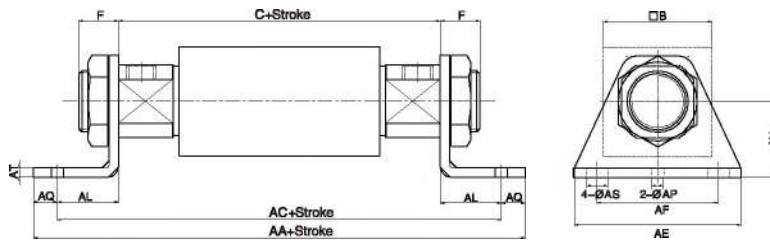
No.	Part Name	Material	No.	Part Name	Material
1	Hex Nut	Carbon Steel	12	Magnet	Sintered NdFeB
2	Cover	Aluminum Alloy	13	Magnet	Sintered NdFeB
3	O Ring	NBR	14	Blocking Plate for Barrel	Carbon Steel
4	Barrel	Stainless Steel	15	Connecting Rod	Stainless Steel
5	Retaining ring	Spring Steel	16	Piston	Aluminum Alloy
6	Slider baffle	Aluminum Alloy	17	Wear Ring	PTFE
7	Slider	Aluminum Alloy	18	Soft Dust Removing Seal	Special Material
8	Wear Ring	PTFE	19	Bumper	TPU
9	Piston Seal	NBR	20	Spring Bumper	Carbon Steel
10	O Ring	NBR	21	Hex Nut	Carbon Steel
11	Blocking Plate for Slider	Carbon Steel			

ESW Series Rodless Cylinder

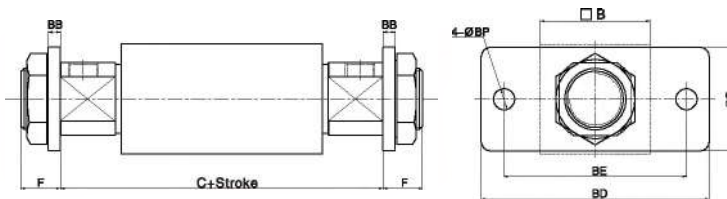
Main Dimension



Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	MM	N	NA	NN	R	S	T	W	X	ZZ	P
ESW16	4	35	14	18	2	10	5.5	13	22	8	11	57	M4X0.7	11	20	M10X1.0	10	83	8	35	19	103	M5X0.8
ESW20	7	36	26	22.8	2	13	7.5	20	28	6	8	66	M4X0.7	18	24	M20X1.5	12	106	10.5	60	26	132	1.8"
ESW25	8	46	32	27.8	2	19	7.5	20.5	33.5	7.5	10	70	M6X0.8	18.5	30	M26X1.5	15	111	10.5	60	30	137	1.8"
ESW32	6	60	32	35	2	16	6	22	40	6	15	80	M6X1.0	20	36	M26X1.5	19	124	13.5	50	40	156	1.8"



Model/Sign	AA	AC	C	F	AE	AF	AH	AL	AP	AS	AQ	AT	B	LB Ordering Code
16	111	101	83	10	42	33	20	9	-	5.4	5	2.5	35	FJ-ESW16LB
20	162	146	106	13	55	40	25	20	4	7	8	3	36	FJ-SM20LB
25	167	151	111	13	55	40	28	20	4	7	8	3	46	FJ-SM25LB
32	180	164	124	16	55	40	28	20	4	7	8	3	60	FJ-SM25LB

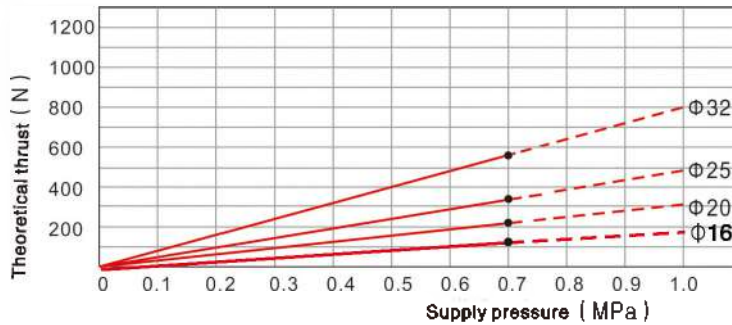


Model/Sign	B	BB	BC	BD	BE	BP	C	F	FA Ordering Code
20	36	4	34	75	60	7	106	13	FJ-SM20FA
25	46	4	40	75	60	7	111	13	FJ-SM25FA
32	60	4	40	75	60	7	124	16	FJ-SM25FA

ESW Series Rodless Cylinder

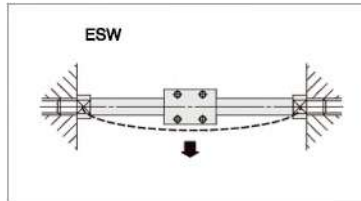
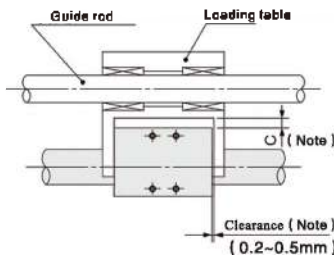
Installation and Operation

1. Load capacity of the ESW rodless cylinder series is determined by the theoretical holding force (theoretical thrust). The weight of the load cannot exceed the theoretical holding force, as stated at below chart.

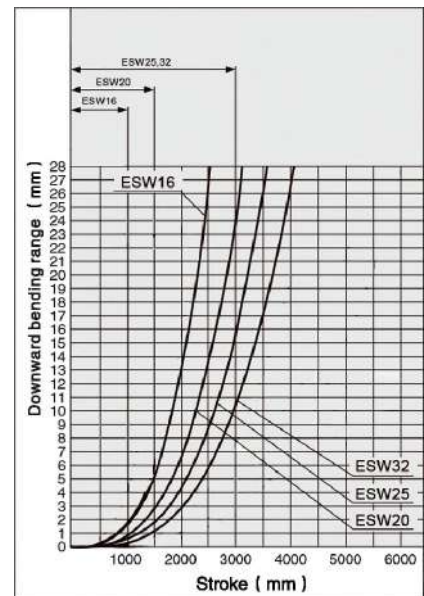


2. The downward bending deflection of the cylinder self-weight

Horizontal installation: the downward bending deflection of self-weight is shown in the figure below. As the stroke becomes longer, variations in the center axis become larger. Consider using a connection method that is able to absorb these bending deflection.



Note: Please reserve clearance according to the self-weight downward bending range shown in the right figure to prevent the cylinder from touching the installation surface or the load, so that the cylinder can slide smoothly within the minimum pressure range.



Note: The data of downward bending range is measured when the external slider moves to the middle of the stroke.

3. Maximum load including the adapting piece

Load cannot be installed on the ESW series cylinders directly, please use other axis (linear guide rail, etc.) as oriented device. Maximum load including the adapting piece must be lower than the figures in the chart below.

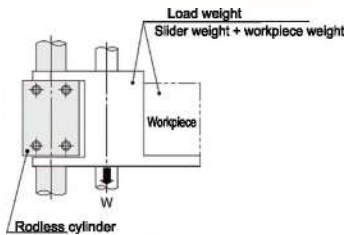
Model	Maximum Load(KG)
ESW16	1.0
ESW20	1.1
ESW25	1.2
ESW32	1.6

ESW Series Rodless Cylinder

Installation and Operation

4. Vertical movements

- 4.1 Please use rolling bearing (linear guide rail, etc.) as oriented device.
If the sliding bearing was used, the sliding resistance will increase due to the load and the torque generated by the load, resulting in poor movement.



Model	Allowable load weight(KG)	Maximum working pressure(MPa)
ESW16	7.0	0.65
ESW20	11.0	0.65
ESW25	18.5	0.65
ESW32	30.0	0.65

Note: If the actual pressure exceeds the maximum working pressure, the magnetic coupling is at risk of demagnetizing, attention please.

5. In case of stopping the slider halfway, please refer to the specific parameters in below chart

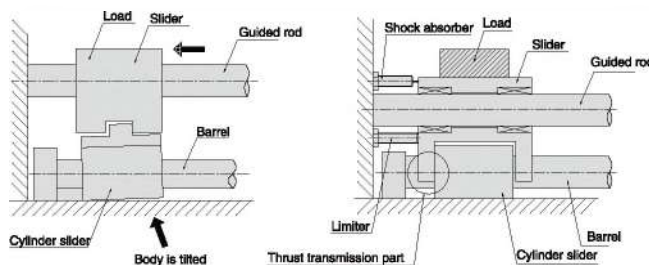
- 5.(1) If using an external stopper is used to stop the cylinder, working pressure cannot exceed the specified values listed in the chart below. Once the applied pressure exceeds the threshold limited, the magnetic coupling is at risk of demagnetizing, attention please.

Model	Maximum threshold value while stop halfway (MPa)
ESW16	0.65
ESW20	0.65
ESW25	0.65
ESW32	0.65

- 5.(2) If using a pneumatic circuit to stop the cylinder, the kinetic energy cannot exceed the specified values listed in the chart below. Once the applied pressure exceeds the threshold limited, the magnetic coupling is at risk of demagnetizing, attention please.

Model	Allowable kinetic energy while stop halfway(Es)(J)
ESW16	0.13
ESW20	0.24
ESW25	0.45
ESW32	0.88

- 5.(3) If the load is stopped at the end of stroke, cylinder may be tilted due to the big inertia and both the bearing and cylinder barrel will be damaged (as shown in the left picture below).
By using a stopper and a shock absorber together, the thrust will be passed through the cylinder body to avoid cylinder tilting (as shown in the right picture below).



- 5.(4) In a vertical installation situation, a pneumatic circuit cannot be used to stop the cylinder. Piston stopped because of pressure increase, but the magnetic coupling is at risk of demagnetizing due to the weight and inertia of the load.

ESWT Series Guide Rod Type Rodless Cylinder

ESWT

Guide Rod Type Rodless Cylinder



Specifications

Bore(mm)	16	20	25	32
Acting Type	Double Acting			
Working Medium	Clean Air(40 μm filtration)			
Pressure Range	0.18~0.7			
Guaranteed Pressure (Mpa)	1.05			
Working Temperature(℃)	-20~80 (No freezing)			
Piston Speed(mm/s)	50~400			
Stroke Tolerance	0~250 ^{+1.0} ₀	251~1000 ^{+1.4} ₀	1001~ ^{+1.8} ₀	
Cushion Type	Rubber cushion/Shock absorber			
Magnetic Retention	140	200	360	550
Port Size	M5x0.8		G1/8	

④ PT, NPT port size is optional.

How to Order?

Series	Type	Bore X Stroke	Magnet.No	Cushion Type	Thread Type
ESWT(Slide bearing)	Blank: Both sides tubing	16	50	Blank: No magnet	Blank: G P:PT T:NPT
	G: Central tubing	20	100	S: With magnet	
		25	150	B: Both sides oil buffer with adjustable nut	
		32	200	BS: Plate A oil buffer and adjusted nut	
			250	Plate B or C adjusted screw	
				

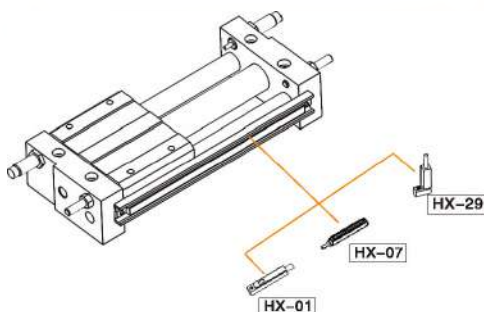
Blank	Both sides adjustable screw cushion		Adjusted screw (Across the same)
B	Both sides oil buffer with adjustable nut		Adjusted bolt (Across the same) Shock absorber
BS	Plate A oil buffer and adjusted nut Plate B or C adjusted screw		Adjusted bolt Plate A Adjusted screw Shock absorber (Across the same)

Note: When in central tubing occasion, the port is in plate A side.

Order Example

ESWT Series Guide Rod Type Rodless Cylinder, Bore 32,Stroke 50,No magnet,: Both sides adjustable screw cushion,G thread, the ERP code is:ESWTG32X50-B

Optional Accessories

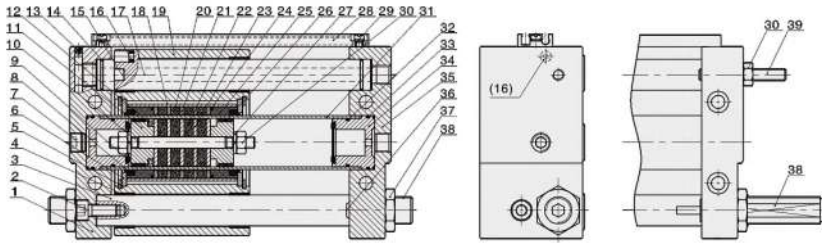


Stroke

Bore (mm)	Standard Stroke (mm)											Max. Stroke (mm)		
16	50	100	150	200	250	300	350	400	450	500		750		
20	50	100	150	200	250	300	350	400	450	500	600	700	800	1000
25	50	100	150	200	250	300	350	400	450	500	600	700	800	1500
32	50	100	150	200	250	300	350	400	450	500	600	700	800	1500

ESWT Series Guide Rod Type Rodless Cylinder

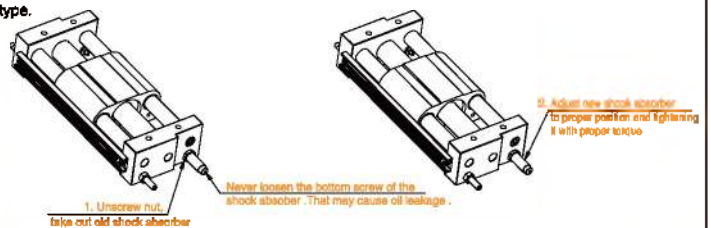
Internal Structure



No.	Part Name	Material	No.	Part Name	Material
1	Plate B	Aluminum alloy	21	Sliding block partition	Fast cutting steel
2	Hex fix screw	Carbon steel	22	Magnet	Sintered NdFeB
3	Guide rod A	Carbon steel	23	Barrel plate	Fast cutting steel
4	Bearing	Copper	24	O-ring	NBR
5	C type retainer ring	Spring steel	25	Wear ring	PTFE
6	Ontology baffle	Aluminum alloy	26	Wear ring	PTFE
7	Hex fix plug	Carbon steel	27	Spring washer	Carbon steel
8	Blowing dust ring	TPU	28	Switch base	Aluminum alloy
9	Anti-bump cushion	TPU	29	Screw	Carbon steel
10	Connecting rod	Stainless steel	30	Hexagonal nut	Carbon steel
11	Piston	Aluminum alloy	31	Barrel	Stainless steel
12	Piston rod seal	NBR	32	O-ring	NBR
13	Steel ball	Stainless steel	33	O-ring	NBR
14	O-ring	NBR	34	Anti-bump base	Aluminum alloy
15	Soft dust scraping ring	Stainless steel	35	Plate A	Aluminum alloy
16	Magnet	Sintered NdFeB	36	Anti-bump cushion	TPU
17	Guide rod C	Carbon steel	37	Hexagonal nut	Carbon steel
18	Sleeve	Aluminum alloy	38	Adjustable screw	Carbon steel
19	Body	Aluminum alloy	38	Oil shock absorber	Components
20	Magnet	Sintered NdFeB	39	Adjustable nut	Carbon steel

About Shock Absorber

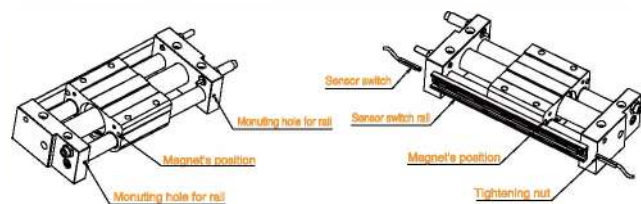
- Shock absorbers are consumable parts. When a decrease in energy absorption capacity is noticed, it must be replaced. Refer to the table below for the absorber type. Please order corresponding shock absorber according to the table and replace the old ones according to the procedure.
- Never loosen the bottom screw of the shock absorber. (It is not an adjustment screw.) That may cause oil leakage.
- Refer to the table below for tightening torques of the shock absorber setting nut.



Model	ESWT16	ESWT20	ESWT25	ESWT32
Shock absorber type	AC0806-WY	AC1007-WY	AC1412-WY	AC2015-WY
Tightening torque(Nm)	1.67	3.14	10.8	10.8

About Sensor Switch

- Sensor switch only can be used for the cylinder with magnet. The magnet located the four corner of body's (refer below). The cylinder with magnet have both group mounting hole for mounting rail. Please refer to below to order sensor switch, mounting it into the rail's groove, adjusting it to proper position, tightening it with proper torque.



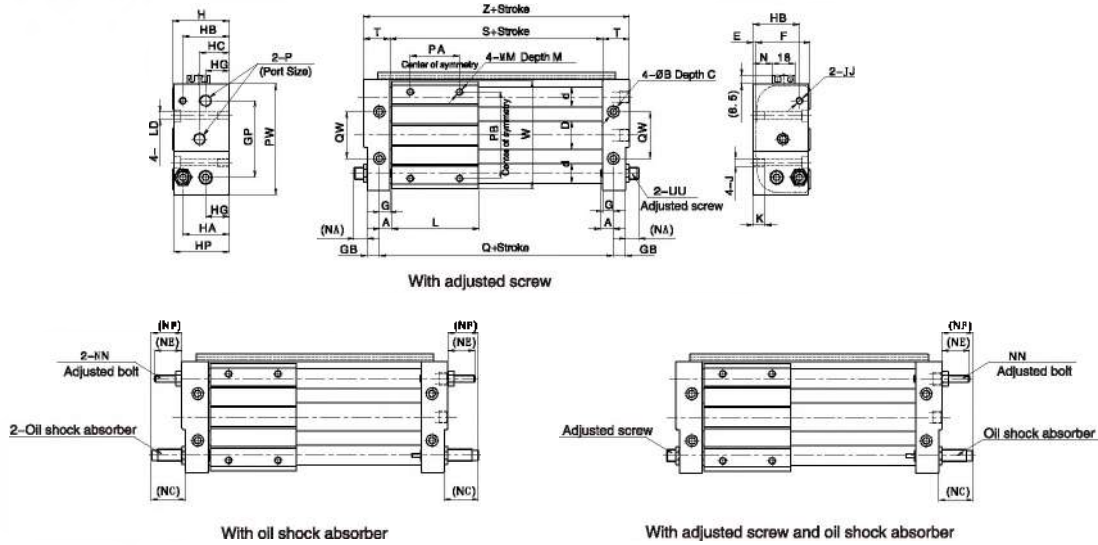
Model	ESWT16-S	ESWT20-S	ESWT25-S	ESWT32-S
Sensor switch type	HX-01, HX-07			

Please refer to the detailed information of sensor switch on page 3.119~3.120

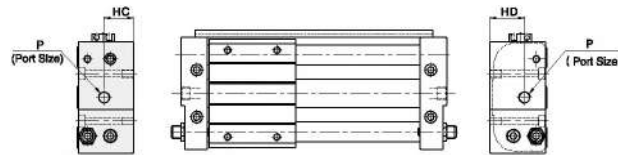
ESWT Series Guide Rod Type Rodless Cylinder

Main Dimension

ESWTG(Central tubing)

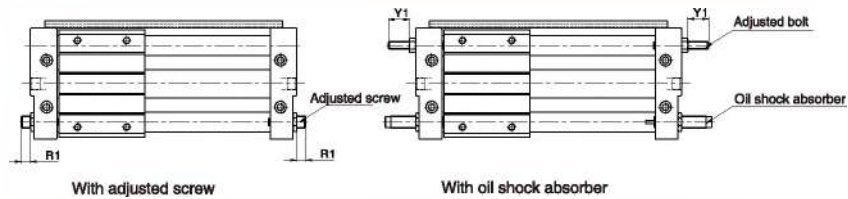


ESWT(Both sides tubing)



Note: Other dimensions of both sides tubing and central tubing are same.

Stroke adjustment



Note: Both sides tubing and central tubing have the same stroke adjustment.

Bore/Sign	A	B	C	D	d	E	F	G	GB	GP	H	HA	HB	HC	HD	HG	HP
16	7.5	9.5	5.5	18	12	2	38	6.5	8.5	52	40	29.5	29.5	20.5	20	15	39
20	10	9.5	5.5	22.8	16	2	44	8.5	10	62	46	37.5	37.5	24	28	19	45
25	10	11	6.5	27.8	16	2	52	8.5	10	70	54	40.5	40.5	27.5	31.5	21.5	53
32	12.5	14	8.5	35	20	2	64	9.5	11	86	66	50	50	33	37	26	64
Bore/Sign	J	K	JJ	L	LD	M	MM	N	NA	NC	NE	NF	NN	P	PA	PB	
16	M6X1.0	9.5	M6X1.0	60	5.5	8	M5X0.8	10.5	11.5	23	26.5	22.8	M6X1.0	M5X0.8	30	50	
20	M6X1.0	9.5	M6X1.0	70	5.5	10	M6X1.0	15.6	10.5	23.7	22	24.7	M6X1.0	1/8"	40	70	
25	M8X1.25	10	M6X1.0	70	7	10	M6X1.0	19.6	14	56.7	22	44.7	M6X1.0	1/8"	40	70	
32	M10X1.5	15	M6X1.0	85	8.5	12	M8X1.25	25.8	14	90.5	17.5	48.5	M6X1.0	1/8"	40	75	
Bore/Sign	PW	Q	QW	R1	Adjust the bolt adjustment (Two sides R1X2)			S	T	UU	W	Y1	Adjust the bolt adjustment (Two sides Y1 X2)			Z	
16	76	75	30	8.5				62	17.5	M8X1.0	73	21.5				43	97
20	90	90	38	7.5				73	21.5	M10X1.0	87	17				34	116
25	99	90	42	9				73	21.5	M14X1.5	96	17				34	116
32	119	110	50	7				91	24.5	M20X1.5	116	12.5				25	140

FVBC Series ISO15552 Standard Cylinder

FVBC

Standard Cylinder



Specifications

Bore Size (mm)	32	40	50	63	80	100
Acting type	Double Acting					
Working medium	Clean Air(40 μm filtration)					
Working pressure (MPa)	0.1-1.0					
Guaranteed pressure (MPa)	1.5					
Working temperature (°C)	-20-80(No freezing)					
Speed range (mm/s)	50-800					
Cushion type	Air Cushion					
Cushion stroke (mm)	27	30		36		
Mounting type	LB FA FB CA CB CR					
Port size ①	G1/8	G1/4		G3/8		G1/2

① PT, NPT port size is optional.

How to Order?

Series No.	Cushion Type	Type No.	Bore X Stroke	Adjustable Stroke	Magnet No.	Seal Material	Mounting Type	Thread Type
FVB: Square type barrel	C: Air cushion	32 40 50 63 80 100	25 50 75 ...	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: TPU seal	Blank: No CA CB IJ CR YJ LB YC-J FA BJ FB FD	Blank: G P: PT T: NPT
	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type							

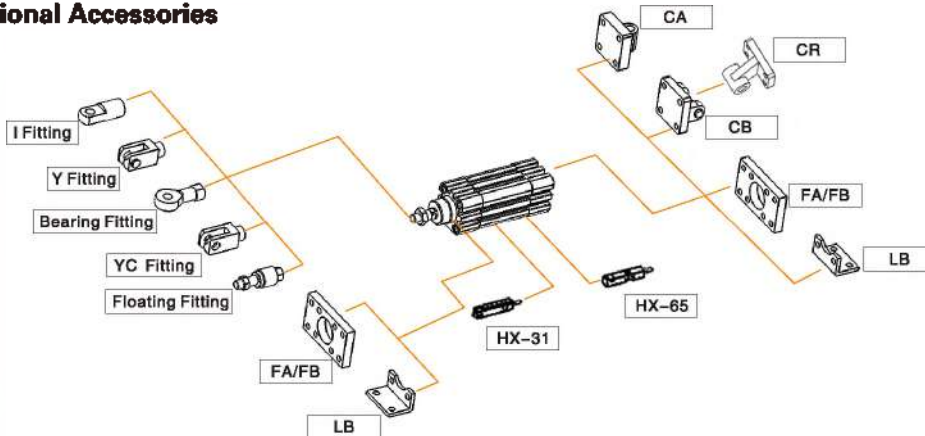
Order Example:

FVBC series, double shaft air cylinder, Bore 40mm, stroke 50mm, with magnet, TPU seal material, CA mounting accessory, NPT thread.

ERP code is: FVBDC 40X50-S-CA-T

Note: If cylinder with several different mounting accessories, please use this sequential coding: CA/CB/CR/LB/FA/FB/IJ/YJ/BJ/FD

Optional Accessories

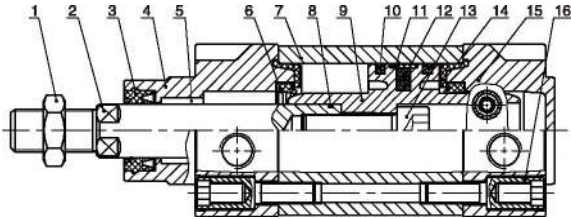


Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1900
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1900
50-100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1900

FVBC Series ISO15552 Standard Cylinder

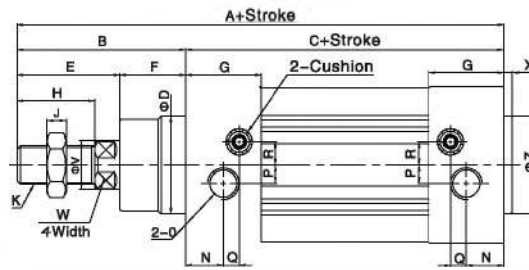
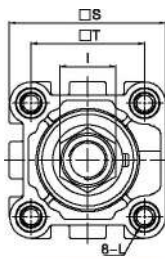
Internal Structure



NO.	Part Name	Material
1	Nut	Carbon steel
2	Piston rod	S45C hard chrome carbon steel
3	Piston rod seal	TPU
4	Head cover	Aluminum alloy
5	Self lubricating bearing	Bronze powder
6	Cushion seal	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	TPU
11	Wear ring	PTFE
12	Magnet	Plastic
13	Hexagon screw	Carbon steel
14	Cushion pad	TPU
15	Rear cover	Aluminum alloy
16	Bolt	Carbon steel

Main Dimension

FVBC

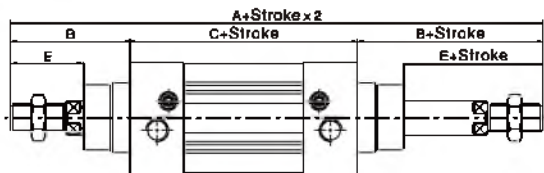


(mm)

Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W	X	Z
32	142	48	94	30	29	19	27.5	22	17	6	M10x1.25	M6 Dp.16	13	1/8"	5.5	6	6	46.5	32.5	12	10	3	30
40	159	54	105	35	33	21	32	24	17	7	M12x1.25	M6 Dp.16	17	1/4"	6	7.5	8.5	54	38	16	13	3.5	35
50	175	68	106	40	42	27	31	32	23	8	M16x1.5	M8 Dp.16	15.5	1/4"	7.5	6.5	8.5	64	46.5	20	17	3.5	40
63	190	69	121	46	42	27	33	32	23	8	M16x1.5	M8 Dp.16	16.6	3/8"	7.5	7.5	11.6	75	56.5	20	17	4	45
80	214	88	128	46	53	33	33	40	26	10	M20x1.5	M10 Dp.17	16.5	3/8"	8	8.5	12.5	93	72	25	22	4	45
100	229	91	138	55	55	36	37	40	26	10	M20x1.5	M10 Dp.17	19.5	1/2"	10	7	12	110	89	25	22	4	55

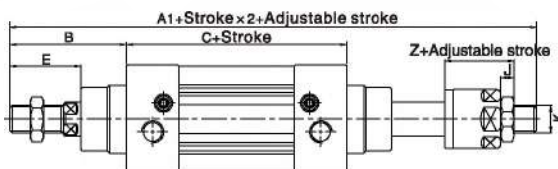
Note: With magnet and without magnet, the dimensions are same.

FVBCD



Bore/Sign	A	A1	B	C	E	Z	J	K
32	190	188	48	94	29	27	6	M10x1.25
40	213	208	54	105	33	28	7	M12x1.25
50	244	233	69	106	42	31	8	M16x1.5
63	259	248	69	121	42	31	8	M16x1.5
80	300	286	86	128	53	39	10	M20x1.5
100	320	304	91	138	55	39	10	M20x1.5

FVBCJ



Note: 1. With magnet and no magnet, the dimensions are same.
 2. Not marked dimension is same as FVBC standard type.
 3. FVBC series dimensions is same as FVBC.

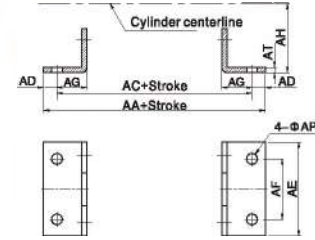
FVBC Series ISO15552 Standard Cylinder

Dimension of Mounting Accessories

OLB



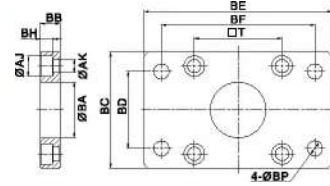
Bore/Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-VBC32LB	158	142	8	47	32	24	32	7	4
FJ-VBC40LB	179	161	9	53	36	28	36	9	4
FJ-VBC50LB	180	170	10	65	45	32	45	9	5
FJ-VBC63LB	209	185	12	75	50	32	50	9	5
FJ-VBC80LB	248	210	19	95	63	41	63	12.5	6
FJ-VBC100LB	258	220	19	115	75	41	71	14.5	6



OFA/FB



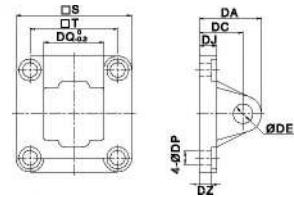
Bore/Sign	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ-VBC32FA	11	7	30.5	10	47	32	80	84	6	7	32.5
FJ-VBC40FA	11	7	35.5	10	53	36	90	72	6	9	38
FJ-VBC50FA	14	9	40.5	12	65	45	110	90	8	9	46.5
FJ-VBC63FA	14	9	45.5	12	75	50	125	100	8	9	56.5
FJ-VBC80FA	17	11	45.5	16	95	63	154	126	10	12.5	72
FJ-VBC100FA	17	11	55.5	16	115	75	186	150	10	14.5	89



OCA



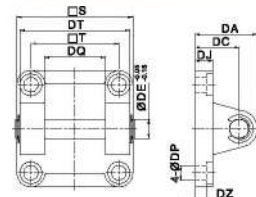
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DZ	S	T
FJ-VBC32CA	31	22	10	9.5	7	25.8	5.5	47	32.5
FJ-VBC40CA	37	25	12	9.5	7	27.8	5.5	53	38
FJ-VBC50CA	39	27	12	10.5	9	31.8	6.5	65	46.5
FJ-VBC63CA	47	32	16	10.5	9	39.7	6.5	75	56.5
FJ-VBC80CA	51	36	16	14.5	11	49.7	10	95	72
FJ-VBC100CA	61	41	20	14.5	11	59.7	10	115	89



OCB



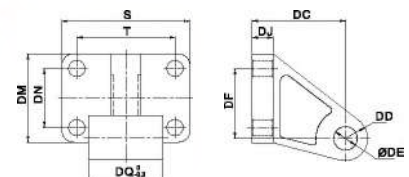
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DT	DZ	S	T
FJ-VBC32CB	31	22	10	9.5	7	26 ^{+0.02} ₀	45	5.5	47	32.5
FJ-VBC40CB	37	25	12	9.5	7	28 ^{+0.02} ₀	52	5.5	53	38
FJ-VBC50CB	39	27	12	10.5	9	32 ^{+0.02} ₀	60	6.5	65	46.5
FJ-VBC63CB	47	32	16	10.5	9	40 ^{+0.02} ₀	70	6.5	75	56.5
FJ-VBC80CB	51	36	16	14.5	11	50 ^{+0.02} ₀	90	10	95	72
FJ-VBC100CB	61	41	20	14.5	11	60 ^{+0.02} ₀	110	10	115	89



OCR



Bore/Sign	DC	DD	DE	DF	DJ	DQ	DM	DN	S	T
FJ-VBC32CR	32	10	10	21	8	25.8	31	18	51	38
FJ-VBC40CR	38	11	12	24	10	27.8	35	22	54	41
FJ-VBC50CR	45	13	12	33	12	31.8	45	30	65	50
FJ-VBC63CR	50	15	16	37	12	39.7	50	35	67	52
FJ-VBC80CR	63	15	16	47	14	49.7	60	40	88	66
FJ-VBC100CR	71	19	20	55	15	59.7	70	50	96	76



VBC/LBC Series ISO15552 Standard Cylinder

VBC/LBC Standard Cylinder



Specifications

Bore Size (mm)	32	40	50	63	80	100	125	160	200	250
Acting type	Double Acting									
Working medium	Clean Air(40 μm filtration)									
Working pressure (MPa)	0.1-1.0									
Guaranteed pressure (MPa)	1.5									
Working temperature (°C)	-20-80(No freezing)									
Speed range (mm/s)	50-800									
Cushion type	Air Cushion									
Cushion stroke (mm)	27	30	36	34	35	42	50			
Mounting type	LB FA FB CA CB CR									
Port size ①	G1/8	G1/4	G3/8	G1/2	G3/4	G1				

① PT, NPT port size is optional.

How to Order?

Series No	Cushion Type	Type No.	Bore X	Stroke	Adjustable Stroke	Magnet No.	Seal Material	Mounting Type	Thread Type
VB: Profile barrel LB: Round barrel	C: Air cushion		32 40 50 63 80 ... 250	25 50 75 ... 50 75 100	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Black: TPU seal	Blank: No CA CB LJ CR YJ LB YCJ FA BJ FB FD	Blank: G P: PT T: NPT

Order Example:

VBC series, double shaft air cylinder, Bore 40mm, stroke 50mm, with magnet, TPU seal material, CA mounting accessory, NPT thread.

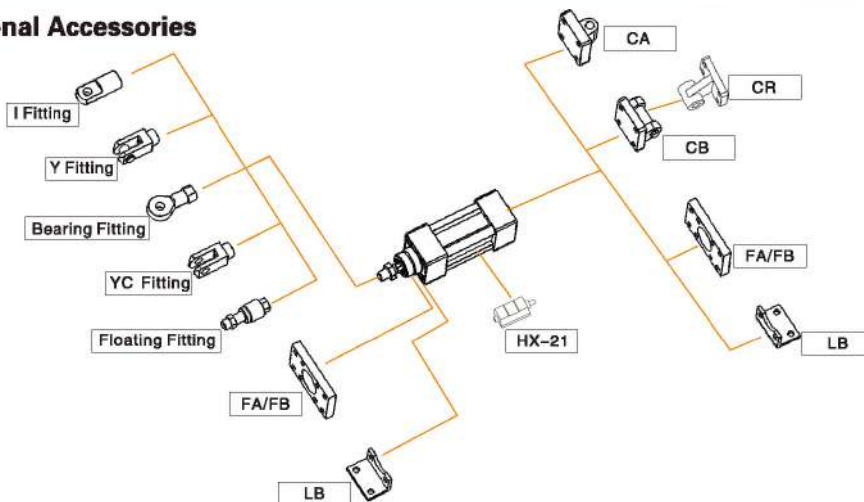
ERP code is: VBCD 40X50-S-CA-T

Note: 1. If cylinder with several different mounting accessories, please use this sequential coding: CA/CB/CR/LB/FA/FB/J/Y/JB/JD

2. VBC series, bore range: Φ32-Φ200; LBC series, bore range: Φ32-Φ250

3. No CR/LB option for Φ200

Optional Accessories

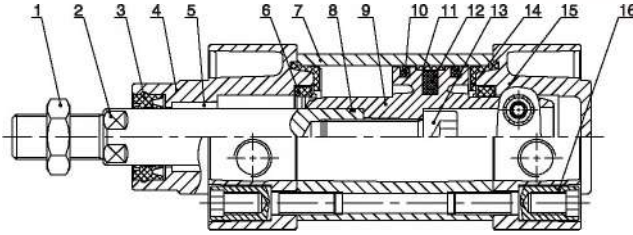


Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1900
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1900
50-250	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1900

VBC/LBC Series ISO15552 Standard Cylinder

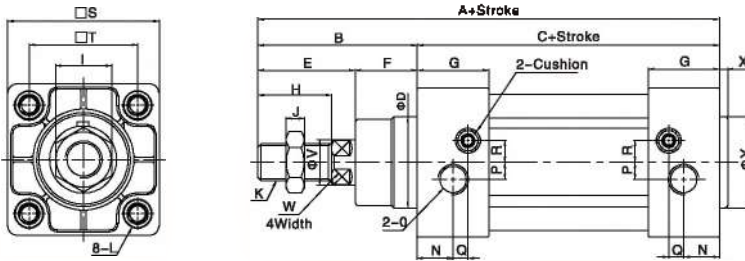
Internal Structure



NO.	Part Name	Material
1	Nut	Carbon steel
2	Piston rod	S45C hard chrome carbon steel
3	Piston rod seal	TFU
4	Head cover	Aluminum alloy
5	Self lubricating bearing	Bronze powder
6	Cushion seal	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	TFU
11	Wear ring	PTFE
12	Magnet	Plastic
13	Hexagon screw	Carbon steel
14	Cushion pad	TPU
15	Rear cover	Aluminum alloy
16	Bolt	Carbon steel

Main Dimension

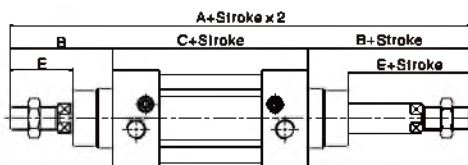
VBC



Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W	X	Y
32	142	48	84	30	29	19	27.5	22	17	6	M10x1.25	M6 depth16	13	1/8"	5.5	6	6	47	32.5	12	10	3	30
40	159	54	105	35	33	21	32	24	17	7	M12x1.25	M6 depth16	17	1/4"	6	7.5	8.5	53	38	16	13	3.5	35
50	175	69	106	40	42	27	31	32	23	8	M16x1.5	M8 depth16	15.5	1/4"	7.5	6.5	9.5	65	46.5	20	17	3.5	40
63	190	69	121	45	42	27	33	32	23	8	M16x1.5	M8 depth16	16.5	3/8"	7.5	7.5	11.5	75	56.5	20	17	4	45
80	214	86	126	45	53	33	33	40	26	10	M20x1.5	M10 depth17	18.5	3/8"	9	7.5	13.5	95	72	25	22	4	45
100	229	91	138	55	55	36	37	40	26	10	M20x1.5	M10 depth17	18.5	1/2"	9.5	8.5	13.5	115	89	25	22	4	55
125	279	119	160	60	74	45	46	54	41	13.5	M27x2.0	M12 depth20	23	1/2"	14	12	14	140	110	32	27	-	-
160	332	152	180	65	94	58	50	72	55	18	M36x2.0	M16 depth24	25	3/4"	15	12	20	180	140	40	36	-	-
200	347	167	180	75	110	57	50	72	55	18	M36x2.0	M16 depth24	25	3/4"	-	-	-	220	175	40	38	-	-
250	388	188	200	90	121	67	52	84	65	21	M42x2.0	M20 depth25	26.5	1"	20.5	7.5	21	270	220	50	45	10	90

Note: With magnet and without magnet, the dimensions are same.

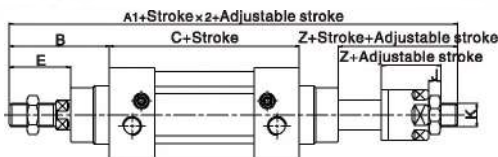
VBCD



Bore/Sign	A	A1	B	C	E	Z	J	K
32	180	188	48	94	29	27	6	M10x1.25
40	213	208	54	105	33	28	7	M12x1.25
50	244	233	69	106	42	31	8	M16x1.5
63	259	248	69	121	42	31	8	M16x1.5
80	300	286	86	128	53	39	10	M20x1.5
100	320	304	91	138	55	39	10	M20x1.5
125	398	372.5	119	160	74	48.5	13.5	M27x2.0
160	484	448	152	180	94	58	18	M36x2.0
200	514	462	167	180	110	58	18	M36x2.0
250	576	531	188	200	121	76	21	M42x2.0

Note: 1. With magnet and no magnet, the dimensions are same.
2. Not marked dimension is same as VBC standard type.
3. LBC series dimensions are same as VBC.

VBCJ



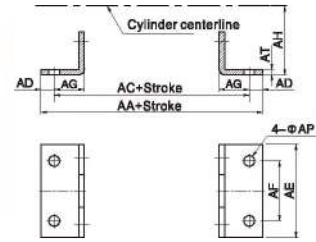
VBC/LBC Series ISO15552 Standard Cylinder

Dimension of Mounting Accessories

OLB



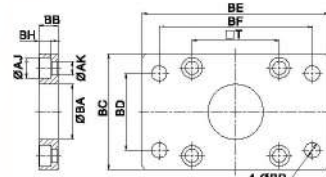
Bore/Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-VBC32LB	158	142	8	47	32	24	32	7	4
FJ-VBC40LB	179	161	9	53	38	28	36	9	4
FJ-VBC50LB	190	170	10	65	45	32	45	9	5
FJ-VBC63LB	209	185	12	75	50	32	50	9	5
FJ-VBC80LB	248	210	18	95	63	41	63	12.5	6
FJ-VBC100LB	258	220	18	115	75	41	71	14.5	6
FJ-VBC125LB	290	250	20	140	90	45	90	16.5	8
FJ-VBC160LB	340	300	20	180	115	60	115	18.5	10
FJ-VBC200LB	380	320	30	220	135	70	135	24	12



OFA/FB



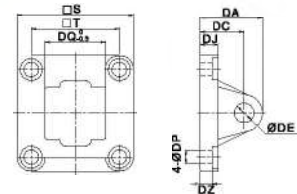
Bore/Sign	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ-VBC32FA	11	7	30.5	10	47	32	80	64	6	7	32.5
FJ-VBC40FA	11	7	35.5	10	53	36	90	72	6	9	38
FJ-VBC50FA	14	9	40.5	12	65	45	110	90	8	9	46.5
FJ-VBC63FA	14	9	45.5	12	75	50	125	100	8	9	56.5
FJ-VBC80FA	17	11	45.5	16	95	63	154	126	10	12.5	72
FJ-VBC100FA	17	11	55.5	16	115	75	186	150	10	14.5	89
FJ-VBC125FA	19	13	62	20	140	90	218	180	12.5	16.5	110
FJ-VBC160FA	26	18	72	20	180	115	278	230	14.5	18.5	140
FJ-VBC200FA	26	18	82	25	220	135	318	270	17	22	175



OCA



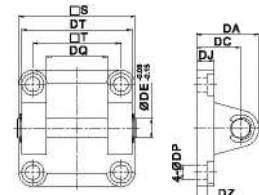
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DZ	S	T
FJ-VBC32CA	31	22	10	9.5	7	25.8	5.5	47	32.6
FJ-VBC40CA	37	25	12	9.5	7	27.9	5.5	53	38
FJ-VBC50CA	39	27	12	10.5	9	31.9	6.5	65	46.5
FJ-VBC63CA	47	32	16	10.5	9	39.7	6.5	75	56.5
FJ-VBC80CA	61	36	16	14.5	11	49.7	10	95	72
FJ-VBC100CA	61	41	20	14.5	11	59.7	10	115	89
FJ-VBC125CA	75	50	25	17.5	13	69.7	10	140	110
FJ-VBC160CA	82.5	55	30	20	18	89.7	19	176	140
FJ-VBC200CA	86.5	60	30	25	18	89.7	24	218	175



OCB



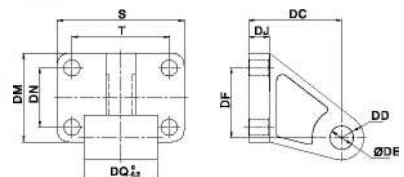
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DT	DZ	S	T
FJ-VBC32CB	31	22	10	9.5	7	26 ^{+0.52} ₀	45	5.5	47	32.5
FJ-VBC40CB	37	25	12	9.5	7	28 ^{+0.62} ₀	52	5.5	53	38
FJ-VBC50CB	39	27	12	10.5	9	32 ^{+0.62} ₀	60	6.5	65	46.5
FJ-VBC63CB	47	32	16	10.5	9	40 ^{+0.62} ₀	70	6.5	75	56.5
FJ-VBC80CB	61	36	16	14.5	11	50 ^{+0.62} ₀	90	10	95	72
FJ-VBC100CB	61	41	20	14.5	11	60 ^{+0.74} ₀	110	10	115	89
FJ-VBC125CB	75	50	25	17.5	13	70 ^{+0.74} ₀	130	10	140	110
FJ-VBC160CB	82	55	30	20	18	90 ⁰ ₀	163	19	176.5	140
FJ-VBC200CB	86.5	60	30	25	18	90 ⁻¹ ₀	175	24	218	175



OCR



Bore/Sign	DC	DD	DE	DF	DJ	DQ	DM	DN	S	T
FJ-VBC32CR	32	10	10	21	8	25.8	31	18	51	38
FJ-VBC40CR	36	11	12	24	10	27.8	35	22	54	41
FJ-VBC50CR	45	13	12	33	12	31.8	45	30	65	50
FJ-VBC63CR	50	15	16	37	12	39.7	50	35	67	52
FJ-VBC80CR	63	15	16	47	14	49.7	60	40	86	66
FJ-VBC100CR	71	19	20	55	15	59.7	70	50	96	76
FJ-VBC125CR	80	22.5	25	70	20	69.7	90	60	124	94
FJ-VBC160CR	115	30	30	97	26	90	126	88	157	118
FJ-VBC200CR	135	30	30	105	31	90	130	90	162	122



VBC/LBC Series ISO15552 Standard Cylinder

TBC/XBC

Standard Cylinder



Specifications

Bore Size (mm)	32	40	50	63	80	100	125	160
Acting type	Double Acting							
Working medium	Clean Air(40 μm filtration)							
Working pressure (MPa)	0.1-1.0							
Guaranteed pressure (MPa)	1.5							
Working temperature (°C)	-20-80(No freezing)							
Speed range (mm/s)	50-800						30-500	
Cushion type	Air Cushion							
Cushion stroke (mm)	25		24		30		28	
Mounting type	LB FA FB CA CB TC							
Port size ①	G1/8		G1/4		G3/8		G1/2	G3/4

① PT, NPT port size is optional.

How to Order?

Series No.	Cushion Type	Type No.	Bore X	Stroke-	Adjustable Stroke	Magnet No.-	Seal Material	Mounting Type	Thread Type
	C: Air cushion		32	25	10	Blank: No magnet S: With magnet		Blank: No CA TCM	Blank: G P: PT T: NPT
TB: Round type barrel			40	50	20			CB IJ	
XB: Profile barrel			50	75	30			LB YJ	
			63	...	40		Blank: Standard material (NBR seal) V: VITON seal	FA YCJ	
	Blank: Basic type		80		50			FB BJ	
	D: Double shaft type		100		75			TC FD	
	J: Double shaft and adjustable type		125 (Only TB is optional)		100				
			160 (Only TB is optional)						

Series No.	Cushion Type	Type No.	Bore X	Stroke-	Adjustable Stroke	Magnet No.-	Seal Material	Mounting Type	Thread Type
	C: Air cushion		32	25	25	Blank: No magnet S: With magnet			Blank: G P: PT T: NPT
TB: Round type barrel			40	50	50				
			50	75	75				
			63				
	T: Multi-position type		80						
			100						

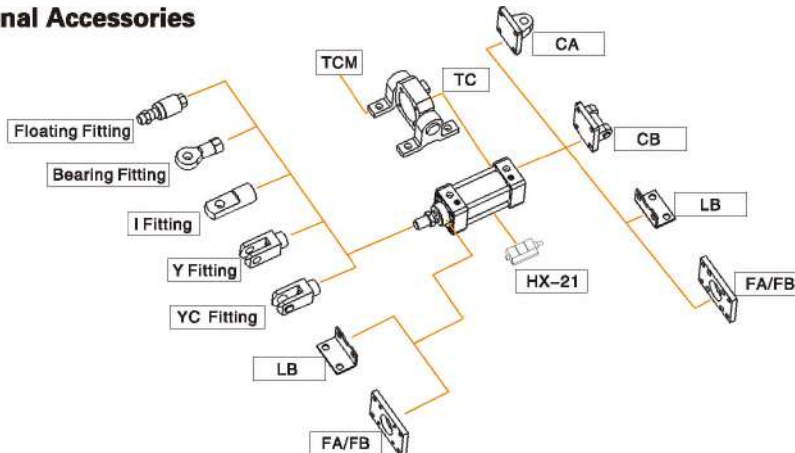
Order Example:

TBC series, bore 40mm, stroke 50mm, with magnet, NBR seal, CA mounting accessory, G thread.

EPR code is: TBC40X50-S-CA

Note: If cylinder with several different mounting accessories, please use this sequential coding: CA/CB/CR/LB/FA/FB/TC/IJ/YJ/BJ/FD(TC only available for TBC)

Optional Accessories

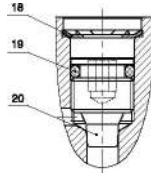
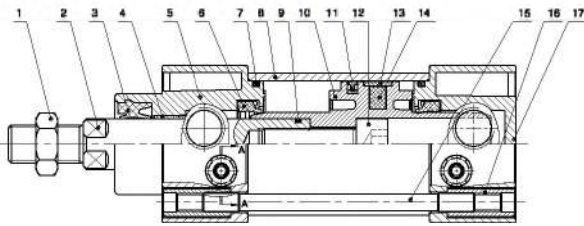


TBC/XBC Series Standard Cylinder

Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1900
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1900
50-160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1900

Internal Structure

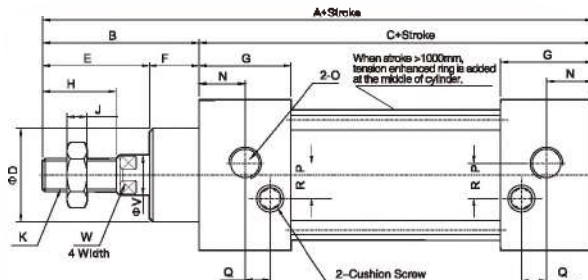
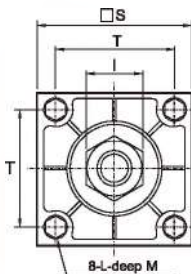


A-A section view

NO.	Part Name	Material
1	Nut	Carbon steel
2	Piston rod	S45C hard chrome carbon steel
3	Piston rod seal	TPU
4	Self lubricating bearing	Bronze powder
5	Head cover	Aluminum alloy
6	Cushion seal	NBR
7	O-ring	NBR
8	Barrel	Aluminum alloy
9	O-ring	NBR
10	Piston	Aluminum alloy
11	Piston seal	NBR
12	Screw	Carbon steel
13	Wear ring	PTFE
14	Magnet	Plastic
15	Tie rod	Carbon steel
16	Tie rod nut	Carbon steel
17	Rear cover	Aluminum alloy
18	Retainer ring	Spring steel
19	O-ring	NBR
20	Nut	Brass

Main Dimension

TBC $\Phi 32-\Phi 160$



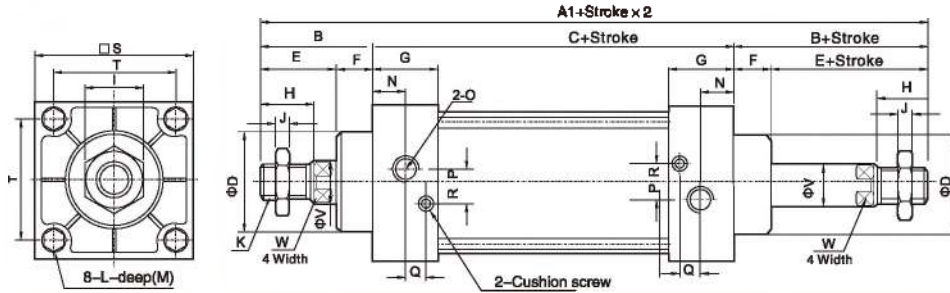
Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	26	32	15	27.5	22	17	6	M10X1.25	M6X1
40	142	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	150	57	93	38	42	15	27.5	32	23	8	M16X1.5	M8X1
63	153	57	96	38	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	182	75	107	46	54	21	33	40	26	10	M20X1.5	M10X1.5
100	188	75	113	46	54	21	33	40	26	10	M20X1.5	M10X1.5
125	218	88	130	52	68	20	38	54	41	13.5	M27X2.0	M12X1.75
160	254	113	141	62	88	25	38	72	55	18	M36X2.0	M16X2.0

Bore/Sign	M	N	O	P	Q	R	S	T	V	W
32	13	14	1/8"	3.5	7	6.5	45	33	12	10
40	13	13.5	1/4"	5	5.5	8.5	50	37	16	14
50	13	14.5	1/4"	8.5	3	11	62	47	20	17
63	13	15	3/8"	7	5	9.5	75	56	20	17
80	15.5	16.5	3/8"	7	8	10	94	70	25	22
100	15.5	16.5	1/2"	7.5	8	13	112	84	25	22
125	19	19	1/2"	15	5	15	137.5	104	32	27
160	19.5	19	3/4"	15	6	15	173.5	134	40	36

TBC/XBC Series Standard Cylinder

Main Dimension

TBCD $\Phi 32-\Phi 160$

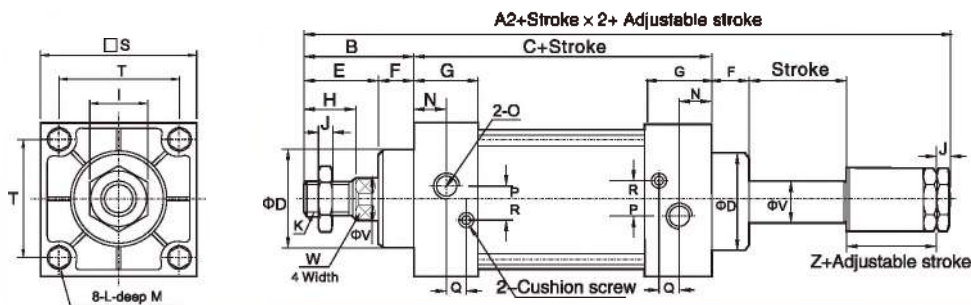


Bore/Sign	A1	B	C	D	E	F	G	H	I	J	K	L
32	187	47	93	26	32	15	27.5	22	17	6	M10X1.25	M6X1
40	191	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	207	57	93	38	42	15	27.5	32	23	8	M16X1.5	M6X1
63	210	57	96	38	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	257	75	107	46	54	21	33	40	26	10	M20X1.5	M10X1.5
100	263	75	113	46	54	21	33	40	26	10	M20X1.5	M10X1.5
125	306	88	130	52	66	20	38	54	41	13.5	M27X2.0	M12X1.75
160	367	113	141	62	88	25	38	72	55	18	M36X2.0	M16X2.0

Bore/Sign	M	N	O	P	Q	R	S	T	V	W
32	13	14	1/8"	3.5	7	6.5	45	33	12	10
40	13	13.5	1/4"	5	5.5	8.5	50	37	16	14
50	13	14.5	1/4"	8.5	3	11	62	47	20	17
63	13	15	3/8"	7	5	9.5	75	56	20	17
80	15.5	16.5	3/8"	7	8	10	94	70	25	22
100	15.5	16.5	1/2"	7.5	8	13	112	84	25	22
125	19	19	1/2"	15	5	15	137.5	104	32	27
160	19.5	19	3/4"	15	6	15	173.5	134	40	36

Note: 1. With magnet and no magnet, the dimensions are same.
2. XBC series dimensions are same as TBC.

TBCJ $\Phi 32-\Phi 160$



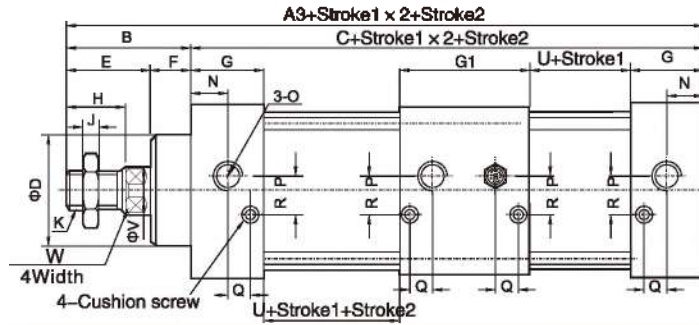
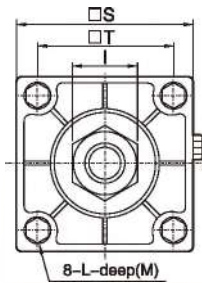
Bore/Sign	A2	B	C	D	E	F	G	H	I	J	K	L
32	182	47	93	26	32	15	27.5	22	17	6	M10X1.25	M6X1
40	185	49	93	32	34	15	27.5	24	17	7	M12X1.25	M6X1
50	196	57	93	38	42	15	27.5	32	23	8	M16X1.5	M6X1
63	199	57	96	38	42	15	27.5	32	23	8	M16X1.5	M8X1.25
80	242	75	107	46	54	21	33	40	26	10	M20X1.5	M10X1.5
100	248	75	113	46	54	21	33	40	26	10	M20X1.5	M10X1.5
125	286.5	88	130	52	66	20	38	54	41	13.5	M27X2.0	M12X1.75
160	337	113	141	62	88	25	38	72	55	18	M36X2.0	M16X2.0

Bore/Sign	M	N	O	P	Q	R	S	T	V	W	Z
32	13	14	1/8"	3.5	7	6.5	45	33	12	10	21
40	13	13.5	1/4"	5	5.5	8.5	50	37	16	14	21
50	13	14.5	1/4"	8.5	3	11	62	47	20	17	23
63	13	15	3/8"	7	5	9.5	75	56	20	17	23
80	15.5	16.5	3/8"	7	8	10	94	70	25	22	29
100	15.5	16.5	1/2"	7.5	8	13	112	84	25	22	29
125	19	19	1/2"	15	5	15	137.5	104	32	27	35
160	19.5	19	3/4"	15	6	15	173.5	134	40	36	40

TBC/XBC Series Standard Cylinder

Main Dimension

TBCT $\Phi 32-\Phi 100$



Bore/Sign	A3	B	C	D	E	F	G	G1	H	I	J	K	L
32	233	47	186	26	32	15	27.5	55	22	17	6	M10X1.25	M6X1
40	235	49	186	32	34	15	27.5	55	24	17	7	M12X1.25	M6X1
50	243	57	186	38	42	15	27.5	55	32	23	8	M16X1.5	M6X1
63	249	57	192	38	42	15	27.5	55	32	23	8	M16X1.5	M8X1.25
80	296	75	221	46	54	21	33	73	40	26	10	M20X1.5	M10X1.5
100	308	75	233	46	54	21	33	73	40	26	10	M20X1.5	M10X1.5
Bore/Sign	M	N	O	P	Q	R	S	T	V	U	W		
32	13	14	1/8"	3.5	7	6.5	45	33	12	38	10		
40	13	13.5	1/4"	5	5.5	8.5	50	37	16	38	14		
50	13	14.5	1/4"	8.5	3	11	62	47	20	38	17		
63	13	15	3/8"	7	5	9.5	75	56	20	41	17		
80	15.5	16.5	3/8"	7	8	10	94	70	25	41	22		
100	15.5	16.5	1/2"	7.5	8	13	112	84	25	47	22		

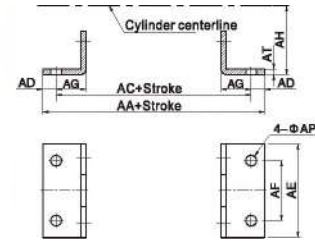
TBC/XBC Series Standard Cylinder

Dimension of Mounting Accessories

OLB



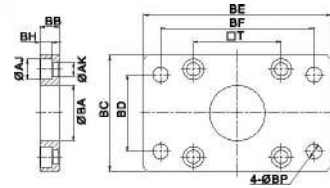
Bore/Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-TBC32LB	153	132	10.5	50	33	19.5	28	9	3
FJ-TBC40LB	169	140	14.5	57	36	23.5	30	12	3
FJ-TBC50LB	173	149	11.5	68	47	28.5	36.5	12	3
FJ-TBC63LB	184	158	13	80	56	32	41	12	3
FJ-TBC80LB	199	167	16	97	70	29	48	14	4
FJ-TBC100LB	209	173	18	112.5	84	30	57	14	4



OFA/FB



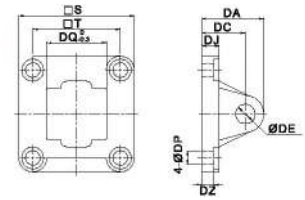
Bore/Sign	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ-TBC32FA	11	7	28.5	10	47	33	72	58	6.5	7	33
FJ-TBC40FA	11	7	32.5	10	52	36	84	70	6.5	7	37
FJ-TBC50FA	11	7	38.5	10	65	47	104	86	6.5	9	47
FJ-TBC63FA	14	8	38.5	12	78	56	115	98	8.5	9	56
FJ-TBC80FA	17	11	47.5	16	92	70	141	118	10.5	11	70
FJ-TBC100FA	17	11	47.5	16	119	84	160	138	10.5	11	84



OCA



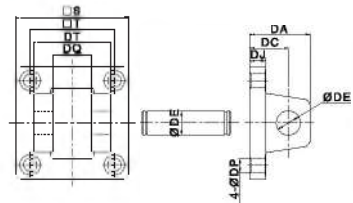
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DZ	S	T
FJ-TBC32CA	48	34	12	10	7	16	5.5	44	33
FJ-TBC40CA	48.5	34	14	10.5	7	20	5.5	49.5	37
FJ-TBC50CA	48.5	33	14	10.5	7	20	6.5	52	47
FJ-TBC63CA	50	34	14	10.5	9	20	6.5	72	56
FJ-TBC80CA	66.5	48	20	13	11	32	10	92	70
FJ-TBC100CA	65.5	48.5	20	13	11	32	10	110	84



OCB



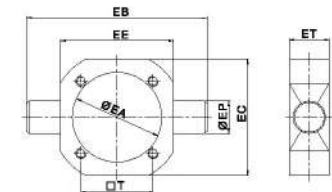
Bore/Sign	DA	DC	DE	DJ	DP	DQ	DT	S	T
FJ-TBC32CB	32.5	19.5	12	10	7	16.5	32.5	47	33
FJ-TBC40CB	32.5	19.5	14	10.5	7	20.5	44	50	37
FJ-TBC50CB	34	19	14	10.5	7	20.5	52	62	47
FJ-TBC63CB	34	22	14	10	9	20.5	52	72	56
FJ-TBC80CB	50	32	20	13	11	32.5	64	93	70
FJ-TBC100CB	51	32	20	13.5	11	32.5	64	110	84



OTC



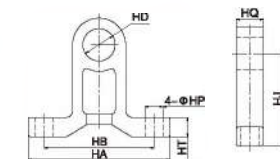
Bore/Sign	EA	EB	EC	EE	EP	ET	T
FJ-TBC32TC	98	69	54	55	16	31	33
FJ-TBC40TC	46	116	65	63	25	30.5	37
FJ-TBC50TC	56	127	76	75	25	29	47
FJ-TBC63TC	69.5	140.5	90	88	26	31	56
FJ-TBC80TC	87.5	166	107	114	25	36	70
FJ-TBC100TC	107.5	181	131	132	25	41	84



OTCM



Bore/Sign	HA	HB	HD	HP	HT	HQ	HJ
FJ-TBC32TCM	110.5	80	16	12	13	21.5	51
FJ-TBC40/50/63TCM	111.5	80	25.5	12	10.5	21	50.5
FJ-TBC80/100TCM	110	85	25.5	14	15	20.5	71



IA/IAC Series ISO6432 Mini Type Cylinder

IA/IAC Mini Type Cylinder



Specifications

Bore size(mm)	8	10	12	16	20	25
Acting type	Double Acting/Single Acting					
Working medium	Clean Air(40 μ m filtration)					
Working pressure (MPa)	0.1~0.7(Double Acting) / 0.2~0.7(Single Acting)			0.1~1.0(Double Acting) / 0.2~1.0(Single Acting)		
Guaranteed pressure (MPa)	1.5					
Working temperature (°C)	-20~80(No freezing)					
Speed range (mm/s)	Double Acting: 30~800			Single Acting: 50~800		
Cushion type	Rubber cushion			Rubber cushion(Standard) / Air cushion(Optional)		
Barrel material	Stainless steel					
Mounting type	LB FA SDB					
Port size	M5 x 0.8				G1/8	

① PT, NPT port size is optional.

How to Order?

Series No	Cushion Type	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Tail Type	Mounting Type	Thread Type
IA: Stainless steel barrel	C: Air Cushion		8							
	Blank: Rubber Cushion		10		25	10	Blank: No Magnet		Blank: No	Blank: G
			12		50	20	S: With Magnet		LB	P: PT
			16		75	30		Blank: Swiveling tail	FA	T: NPT
			20		...	40		U: Flat tail	SDB	
		25			50		CM: Round tail	TC		
					75			IJ		
					100			YJ		
								BJ		
									
	Blank: Basic type									
	D: Double shaft type									
	J: Double shaft and adjustable stroke type									
	SA: Single action extend type									
	SB: Single action return type									

Order Example:

IA series, Double shaft and adjustable stroke type, air cushion, bore 20mm, stroke 25mm, adjustable stroke 20, with magnet, no mounting type, round tail, PT thread.

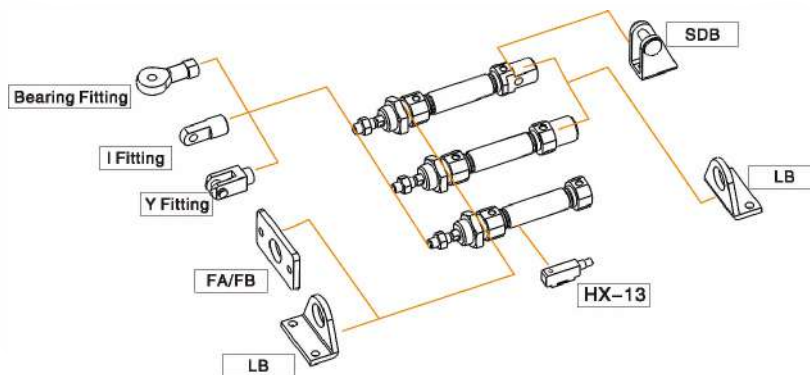
ERP code is: IACJ20*25-20-S-CM-P

Note: 1.If cylinder with several different mounting accessories, please use this sequential coding: LB/FA/SDB IJ/Y/BJ

2.IA Series, Bore 8mm and Bore 10mm, No round tail type is optional.

3.IAC Series, Ø16, Ø20, Ø25 is optional.

Optional Accessories

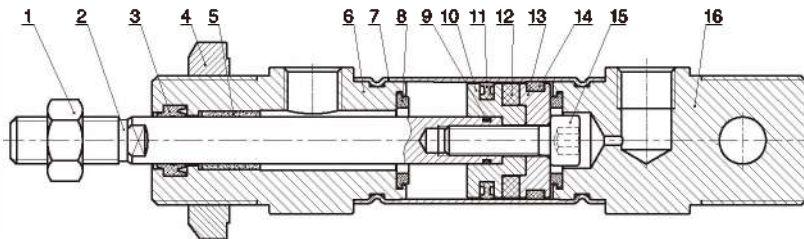


IA/IAC Series ISO6432 Mini Type Cylinder

Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	8	25 50 75 100 125 150
	10	25 50 75 100 125 150 175 200
	12	25 50 75 100 125 150 175 200 225 250
	16	25 50 75 100 125 150 175 200 225 250 300 350 400 500
	20-25	25 50 75 100 125 150 175 200 225 250 300 350 400 500
Single Acting	8	10 15 20 25 30 40 50
	10	10 15 20 25 30 40 50
	12	10 15 20 25 30 40 50
	16	10 15 20 25 30 40 50 60 75 80 100
	20-25	10 15 20 25 30 40 50 60 75 80 100 125 150

Internal Structure



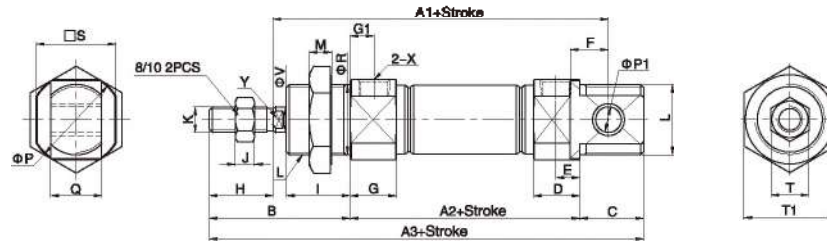
NO.	Part name	Material
1	Nut	Carbon steel
2	Piston rod	IA8, 10: SUS304 hard chrome carbon steel / IA12-IA25: S45C hard chrome carbon steel
3	Piston rod seal	NBR
4	Nut	Carbon steel
5	Self lubricating bearing	Bronze powder
6	Head cover	Aluminum alloy
7	Barrel	Stainless Steel
8	Anti-bump cushion	TPI
9	O-ring	NBR
10	Piston	IA8, 10: Stainless steel / IA12-IA25: Aluminum alloy
11	Piston seal	NBR
12	Magnet	Plastic
13	Magnet base	IA8, 10: Stainless steel / IA12-IA25: Aluminum alloy
14	Wear ring	PTFE
15	Hexagon screw	Carbon steel
16	Rear cover	Aluminum alloy

IA/IAC Series ISO6432 Mini Type Cylinder

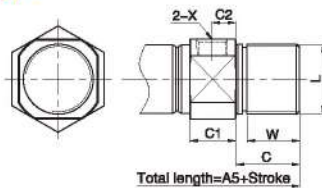
Main Dimension

IA $\Phi 8-\Phi 25$

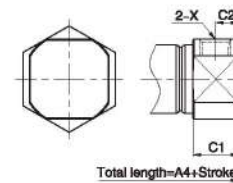
CA Type



CM Type



U Type

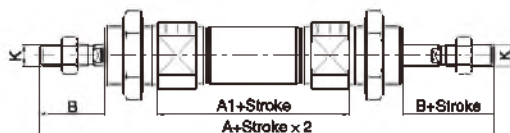


Bore/Sign	(mm)																								
	A1	A2	A3	A4	A5	B	C	C1	C2	D	E	F	G	G1	H	I	J	K	L	M	P	P1	Q	R	S
8	64	46	66	74	-	28	12	9.5	5	9.5	5.2	6	11.5	7	12	12	3	M4X0.7	M12X1.25	7	17	4	8	12	15
10	64	46	66	74	-	28	12	9.5	5	9.5	5.2	6	11.5	7	12	12	3	M4X0.7	M12X1.25	7	17	4	8	12	15
12	75	50	105	88	105	38	17	10	6	10	5	9	12	7	16	17	5	M6X1.0	M16X1.5	6	19.7	6	12	16	18.3
16	82	56	111	94	111	38	17	10.5	5.5	10.5	5.5	8	12.5	7	16	17	5	M6X1.0	M16X1.5	6	22	6	12	16	20
20	95	62	126	106	126	44	20	14.5	7.5	14.5	7.5	12	14.5	7.5	20	20	6	M8X1.25	M22X1.5	7	29	8	16	22	25
25	104	65	137	115	137	50	22	16	8	16	8	12	16	8	22	22	6	M10X1.25	M22X1.5	7	33.5	8	16	22	30

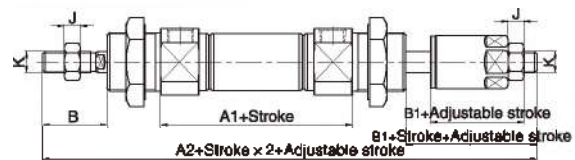
Bore/Sign	T	T1	X	V	W	Y
8	7	17	M5X0.8	4	-	-
10	7	17	M5X0.8	4	-	-
12	10	22	M5X0.8	6	15	5
16	10	22	M5X0.8	6	15	5
20	12	29	1/8"	8	18	6
25	17	29	1/8"	10	20	6

Note: With magnet and no magnet, the dimensions are same.

IAD $\Phi 8-\Phi 25$



IAJ $\Phi 8-\Phi 25$



Bore/Sign	A	A1	A2	B	B1	J	K
8	104	46	103.5	16	15.5	3	M4X0.7
10	104	46	103.5	16	15.5	3	M4X0.7
12	128	52	128	21	21	5	M6X1.0
16	134	58	134	21	21	5	M6X1.0
20	150	62	151	24	25	6	M8X1.25
25	165	65	164	28	27	6	M10X1.25

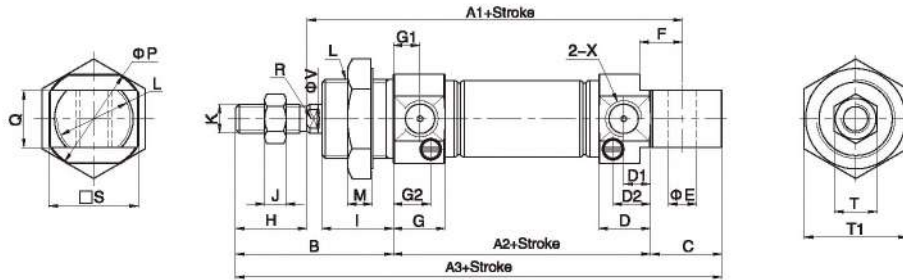
Note: Unlabeled the same size as standard type.

IA/IAC Series ISO6432 Mini Type Cylinder

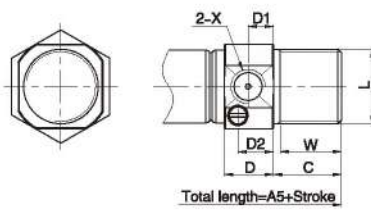
Main Dimension

IAC $\Phi 16-\Phi 25$

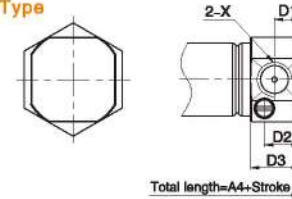
CA Type



CM Type



U Type

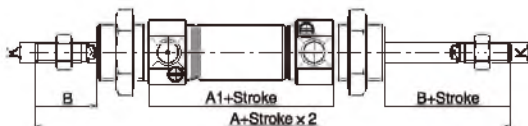


		(mm)																							
Bore/Sign	A1	A2	A3	A4	A5	B	C	D	D1	D2	D3	E	F	G	G1	G2	H	I	J	K	L	M	P	Q	R
16	82	56	111	94	111	36	17	12	6	8	12	6	9	12.5	7	9.5	16	17	5	M6X1.0	M16X1.5	6	22	12	5
20	95	62	126	106	126	44	20	14.5	7.5	11	14.5	8	12	14.5	7.5	11	20	20	6	M8X1.25	M22X1.5	7	29	16	6
25	104	65	137	115	137	50	22	16	8	12.5	16	8	12	16	8	12.5	22	22	6	M10X1.25	M22X1.5	7	33.5	16	8

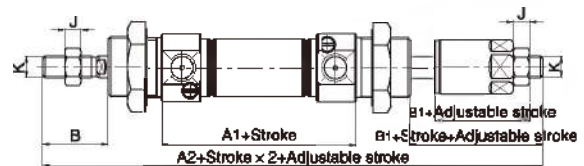
Bore/Sign	S	T	T1	X	V	W
16	20	10	22	M5X0.8	8	15
20	25	12	29	1/8"	8	18
25	30	17	26	1/8"	10	20

Note: With magnet and no magnet, the dimensions are same.

IACD $\Phi 16-\Phi 25$



IACJ $\Phi 16-\Phi 25$



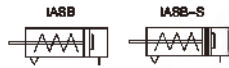
Bore/Sign	A	A1	A2	B	B1	J	K
16	132.5	56.5	132.5	21	21	5	M6X1.0
20	150	62	151	24	25	6	M8X1.25
25	165	65	164	28	27	6	M10X1.25

Note: Unlabeled the same size as standard type.

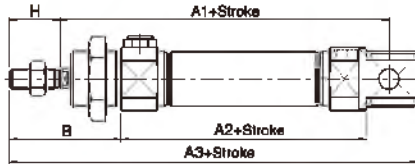
IA/IAC Series ISO6432 Mini Type Cylinder

Main Dimension

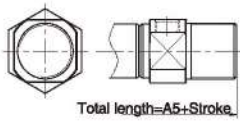
IASB $\Phi 12-\Phi 25$



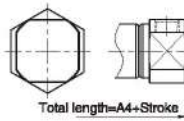
CA Type



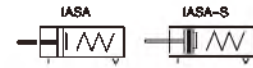
CM Type



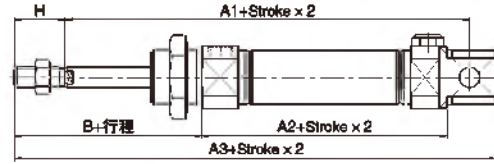
U Type



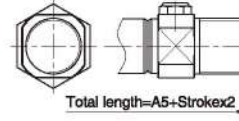
IASA $\Phi 12-\Phi 25$



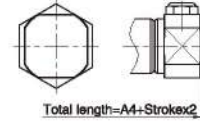
CA Type



CM Type



U Type

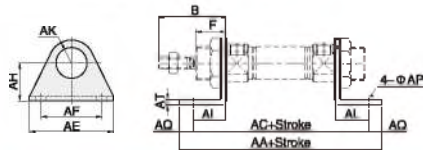


Bore\Sign	A1			A2			A3			A4			A5			B	H
	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150		
12	100	-	-	75	-	-	130	-	-	113	-	-	130	-	-	38	16
16	107	132	-	81	106	-	136	161	-	119	144	-	136	161	-	38	16
20	120	145	170	87	112	137	151	176	201	131	156	181	151	176	201	44	20
25	129	154	179	90	115	140	162	187	212	140	165	190	162	187	212	50	22

Note: Unlabeled the same size as standard type.

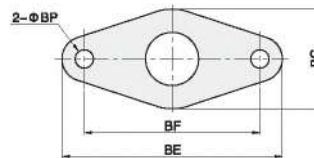
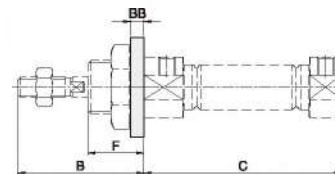
Accessory Dimensions

LB Accessory



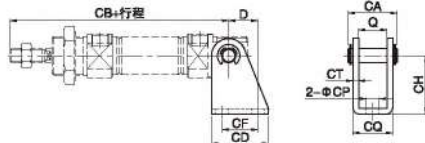
Model\Sign	AA	AC	AE	AF	AH	AK	AL	AP	AQ	AT	B	F
FJ-IA12LB	88	76	42	32	20.5	12.5	13	6	6	4	38	17
FJ-IA16LB	94	82	42	32	20.5	12.5	13	6	6	4	38	17
FJ-IA20LB	114	98	54	40	22.5	20	18	7	6	4	44	20
FJ-IA25LB	117	101	54	40	22.5	20	18	7	8	4	50	22

FA Accessory



Model\Sign	B	C	BB	BC	BE	BF	F
FJ-IA12FA	38	50	4	30	53	40	17
FJ-IA16FA	38	56	4	30	53	40	17
FJ-IA20FA	44	62	5	40	66	50	20
FJ-IA25FA	50	65	5	40	66	50	22

SDB Accessory



Model\Sign	D	Q	CA	CB	CD	CF	CH	CP	CQ	CT
FJ-IA12SDB	13	12.1	21.5	91	25	15	27	5.5	17.1	2.5
FJ-IA16SDB	13	12.1	21.5	98	25	15	27	5.5	17.1	2.5
FJ-IA20SDB	16	16.1	28	115	32	20	30	6.6	24.1	4
FJ-IA25SDB	16	16.1	28	126	32	20	30	6.6	24.1	4

RAL Series Mini Type Cylinder

RAL

Mini Type Cylinder



Specifications

Bore size(mm)	16	20	25	32	40	50	63
Acting type	Double Acting/Single Acting						
Working medium	Clean Air(40 μ m filtration)						
Working pressure (MPa)	0.1~0.7(Double Acting) 0.2~0.7(Single Acting)		0.1~1.0(Double Acting) / 0.2~1.0(Single Acting)				
Guaranteed pressure (MPa)	1.5						
Working temperature (°C)	-20~80(No freezing)						
Speed range (mm/s)	Double Acting: 30~800			Single Acting: 50~800			
Cushion type	Rubber cushion / Air cushion						
Barrel material	Aluminum alloy						
Mounting type	LB FA SDB						
Port size	M5 x 0.8		G1/8			G1/4	

① PT, NPT port size is optional.

How to Order?

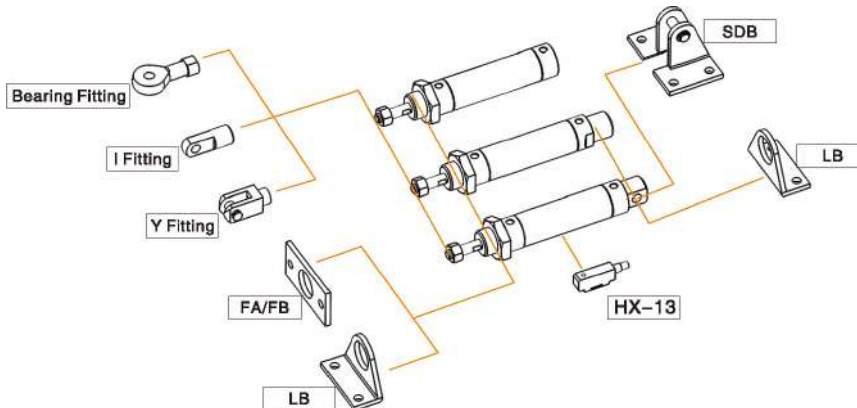
Series No	Cushion Type	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Tail Type	Mounting Type	Thread Type
RAL	C: Air cushion Blank: Rubber cushion		16 20 25 32 40 50 63		25 50 75 ...	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: Swiveling tail U: Flat tail CM: Round tail (CM is not available for Φ50, Φ63 series)	Blank: No LB FA SDB	Blank: G P: PT T: NPT
		Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single action extend type SB: Single action return type								

Order Example:

RAL series, Double shaft and adjustable stroke type, air cushion, Bore 32mm, stroke 25mm, Adjustable stroke 20, with magnet, No Mounting type, Round tail, PT thread.
ERP code is: RALCJ32*25-20-S-CM-P

Note: If cylinder with several different mounting accessories, pls with this sequential coding: LB/FA/SDB /J/JY/BJ

Optional Accessories

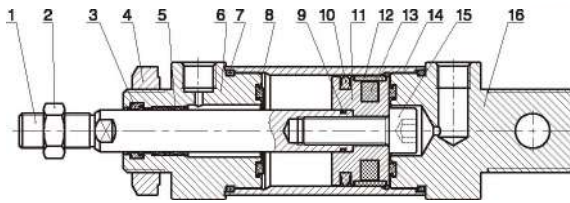


RAL Series Mini Type Cylinder

Stroke

	Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	16-20	25 50 75 80 100 125 150 160 175 200 250 300	800
	25-63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	800
Single Acting	16	25 50 75 100	100
	20-40	25 50 75 100 125 150	150

Internal Structure

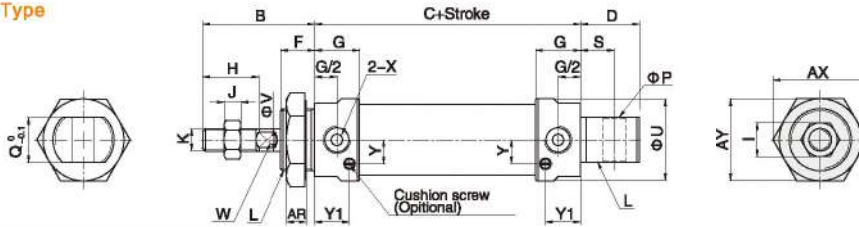


No.	Part Name	Material
1	Piston rod	S45C hard chrome carbon steel
2	Nut	Carbon steel
3	Piston rod seal	NBR
4	Nut	Carbon steel
5	Self lubricating bearing	Bronze powder
6	Head cover	Aluminum alloy
7	O-ring	NBR
8	Anti-bump cushion	TPU
9	O-ring	NBR
10	Piston seal	NBR
11	Piston	Aluminum alloy
12	Wear ring	PTFE
13	Magnet	Plastic
14	Barrel	Aluminum alloy
15	Hexagon screw	Carbon steel
16	Rear cover	Aluminum alloy

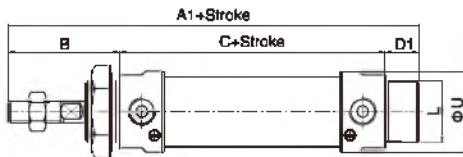
Main Dimension

RAL $\phi 16-\phi 63$

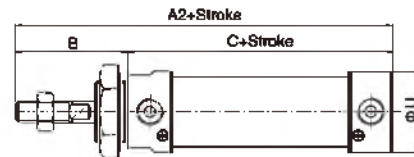
CA Type



CM Type (CM is not available for $\phi 50, \phi 63$ series)



U Type



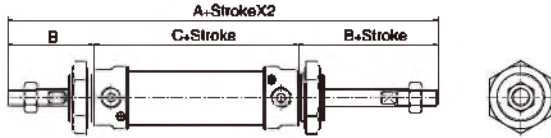
Bore\Sign	(mm)																								
	A1	A2	B	C	D	D1	F	G	H	I	J	K	L	P	Q	S	U	V	W	X	AR	AX	AY	Y	Y1
16	102	92	36	56	14	10	14	11	16	10	5	M6X1.0	M16X1.5	6	12	7	20	8	5	M5X0.8	6	25	22	6.3	8
20	122	110	40	70	21	12	12	16	20	12	6	M8X1.25	M22X1.5	8	16	12	29	8	8	1/8"	7	33	28	8.5	12.5
25	128	114	44	70	21	14	14	16	22	17	6	M10X1.25	M22X1.5	8	16	12	34	10	8	1/8"	7	33	28	10	12.5
32	128	114	44	70	27	14	14	16	22	17	6	M10X1.25	M24X2.0	10	16	15	39.5	12	10	1/8"	8	37	32	12	12
40	152	138	46	92	27	14	14	22	24	17	7	M12X1.25	M30X2.0	12	20	15	49.5	16	14	1/4"	9	47	41	16	18
50	146	54	92	27	22	22	24	19	8	M14X1.5	M36X2.0	12	20	16	55	20	18	1/4"	11	53	48	13.6	14		
63	146	54	92	27	22	22	24	19	8	M14X1.5	M36X2.0	12	20	16	69	20	18	1/4"	11	53	48	13.6	14		

Note: With magnet and no magnet, the dimensions are same.

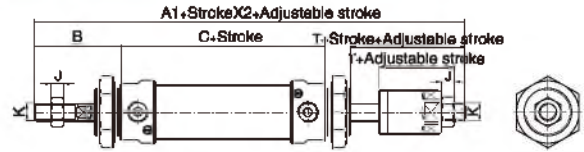
RAL Series Mini Type Cylinder

Main Dimension

RALD $\Phi 16-\Phi 40$



RALJ $\Phi 16-\Phi 40$



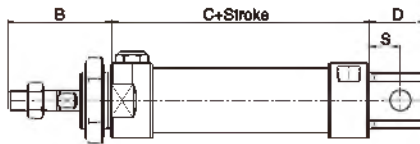
Bore\Sign	A	A1	B	C	J	K	T
16	128	127	36	56	5	M6X1.0	21
20	150	147	40	70	6	M8X1.25	25
25	158	155	44	70	6	M10X1.25	27
32	168	165	44	70	6	M10X1.25	27
40	184	180	46	92	7	M12X1.25	28

Note: Unlabeled the same size as standard type.

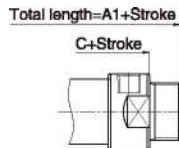
RALSB $\Phi 16-\Phi 40$



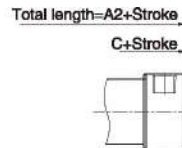
CA Type



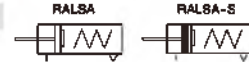
CM Type



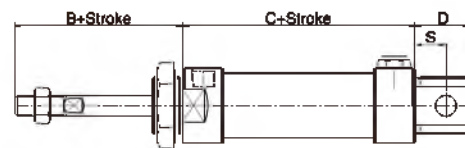
U Type



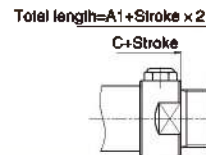
RALSA $\Phi 16-\Phi 40$



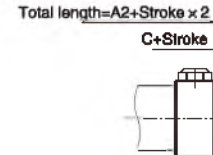
CA Type



CM Type



U Type



Bore\Sign	A1			A2			C			B	D	S
	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150			
16	127	162	-	117	142	-	81	106	-	36	14	7
20	147	172	197	135	160	185	95	120	145	40	21	12
25	153	178	203	139	164	189	95	120	145	44	21	12
32	153	178	203	139	164	189	95	120	145	44	21	15
40	177	202	227	163	188	213	117	142	167	46	27	15

Note: Unlabeled the same size as standard type.

RA Series Mini Type Cylinder

RA

Mini Type Cylinder



Specifications



Bore size(mm)	16	20	25	32	40	50	63
Acting type	Double Acting/Single Acting						
Working medium	Clean Air(40 μ m filtration)						
Working pressure (MPa)	0.1~0.7(Double Acting) 0.2~0.7(Single Acting)		0.1~1.0(Double Acting) / 0.2~1.0(Single Acting)				
Guaranteed pressure (MPa)	1.5						
Working temperature (°C)	-20~80(No freezing)						
Speed range (mm/s)	Double Acting: 30~800			Single Acting: 50~800			
Cushion type	Rubber cushion / Air cushion						
Barrel material	Aluminum alloy						
Mounting type	LB FA SDB						
Port size	M5 x 0.8		G1/8			G1/4	

① PT, NPT port size is optional.

How to Order?

Series No	Cushion Type	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Tail Type	Mounting Type	Thread Type
RA	C: Air cushion Blank: Rubber cushion (Rubber cushion is not available for Ø 50, Ø 63)		16 20 25 32 40 50 63		25 50 75 ...	10 20 30 40 50 75 100	S: With magnet	Blank: Swivelling tail U: Flat tail CM: Round tail	Blank: No LB FA SDB IJ YJ BJ	Blank: G P: PT T: NPT
		Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single action extend type SB: Single action return type								

Order Example:

RA series, Double shaft and adjustable stroke type, air cushion, bore 32mm, stroke 25mm, adjustable stroke 20, with magnet, no mounting type, round tail, PT thread.

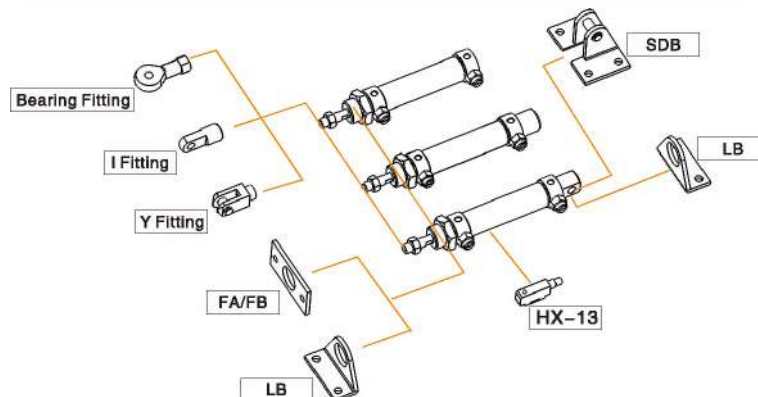
ERP code is: RACJ32*25-20-S-CM-P

Note: 1. If cylinder with several different mounting accessories, please with this sequential

coding: LB/FA/SDB /J/Y/BJ

2. RA series always with magnet.

Optional Accessories

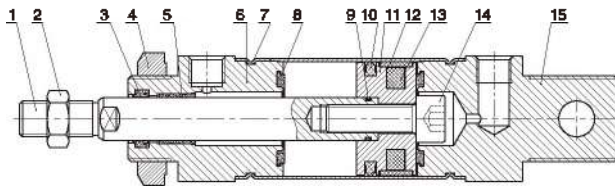


RA Series Mini Type Cylinder

Stroke

Bore (mm)		Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	16	25 50 75 80 100 125 150 160 175 200	500
	20	25 50 75 80 100 125 150 160 175 200 250 300	600
	25-63	25 50 75 80 100 125 150 160 175 200 250 300 360 400 460 500	800
Single Acting	16	25 50 75 100	100
	20-40	25 50 75 100 125 150	150

Internal Structure

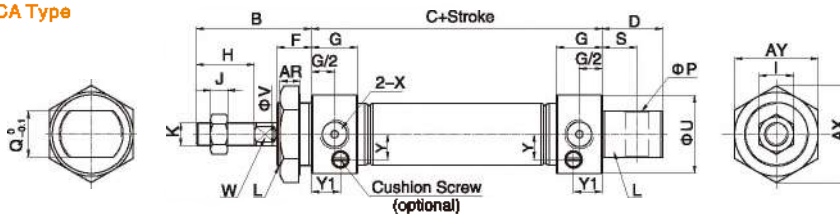


No.	Part Name	Material
1	Piston rod	S45C hard chrome carbon steel
2	Nut	Carbon steel
3	Piston rod seal	NBR
4	Nut	Carbon steel
5	Self lubricating bearing	Bronze powder
6	Head cover	Aluminum alloy
7	Barrel	Stainless Steel
8	Anti-bump cushion	TPU
9	O-ring	NBR
10	Piston seal	NBR
11	Piston	Aluminum alloy
12	Wear ring	PTFE
13	Magnet	Plastic
14	Hexagon screw	Carbon steel
15	Rear cover	Aluminum alloy

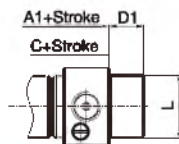
Main Dimension

RA $\phi 16$ – $\phi 63$

CA Type



CM Type



U Type



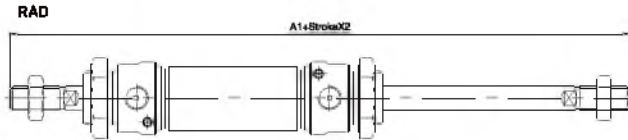
Bore\Sign	A1	B	C	D	D1	F	G	H	I	J	K	Y1	L	P	Q	S	U	V	W	X	AX	AY	Y
16	98	38	60	16	16	16	10	16	10	5	M6X1.0	7	M16X1.5	6	12	9	21	6	5	M5X0.8	25	22	6.5
20	116	40	76	21	12	12	16	20	12	6	M8X1.25	12.5	M22X1.5	8	16	12	27	8	6	1/8"	33	29	8
25	120	44	76	27	14	14	16	22	17	6	M10X1.25	12.5	M22X1.5	8	16	12	30	10	8	1/8"	33	29	10
32	120	44	76	27	14	14	16	22	17	6	M10X1.25	12	M24X2.0	10	16	15	35	12	10	1/8"	37	32	12
40	122	46	76	27	14	14	17	24	17	7	M12X1.25	13	M30X2.0	12	20	15	42	16	14	1/8"	47	41	16
50	147	52	95	27	20	20	23	24	19	8	M14X1.25	11.5	M36X2.0	12	20	16	53	20	18	1/4"	53	48	26.5
63	147	52	95	27	20	20	23	24	19	8	M14X1.25	11.5	M36X2.0	12	20	16	66	20	18	1/4"	53	48	33

Note: 1. With magnet and no magnet, the dimensions are same.
2. Rubber cushion is not available for $\phi 50$, $\phi 63$.

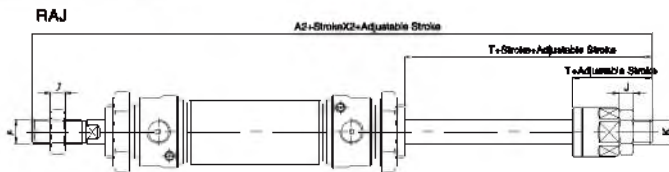
RA Series Mini Type Cylinder

Main Dimension

RAD $\Phi 16-\Phi 40$



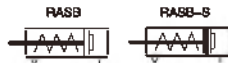
RAJ $\Phi 16-\Phi 40$



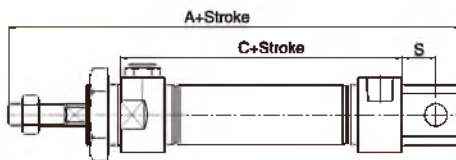
Bore\Sign	A1	A2	J	K	T
16	136	135	5	M8X1.0	21
20	156	163	6	M8X1.25	26
25	164	161	6	M10X1.25	27
32	164	161	6	M10X1.25	27
40	168	164	7	M12X1.25	28

Note: Unlabeled the same size as standard type.

RASB $\Phi 16-\Phi 40$



CA Type



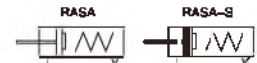
CM Type



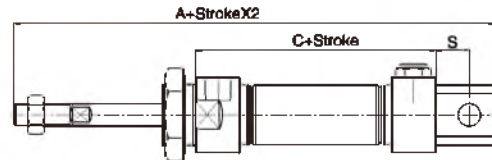
U Type



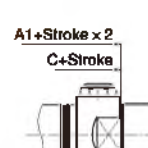
RASA $\Phi 16-\Phi 40$



CA Type



CM Type



U Type



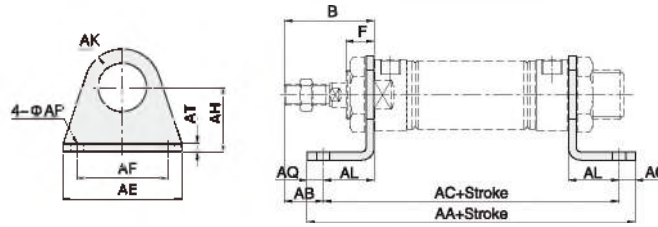
Bore\Sign	A			A1			C			S
	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150	
16	138	164	-	123	148	-	85	110	-	9
20	162	187	212	141	166	191	101	128	151	12
25	166	191	216	145	170	195	101	126	151	12
32	172	197	222	145	170	195	101	126	151	15
40	174	199	224	147	172	197	101	126	151	15

Note: Unlabeled the same size as standard type.

RA Series Mini Type Cylinder

Main Dimension

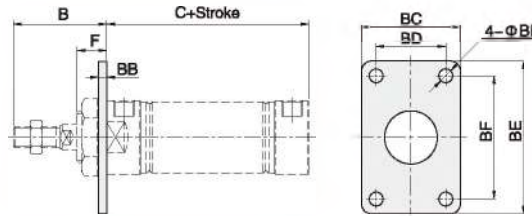
LB



Bore\Sign	B		F		AA		AA(RALSB)			AA(RASB)			AB	
	RAL	RA	RAL	RA	RAL	RA	0-50	51-100	101-150	0-50	51-100	101-150	RAL	RA
FJ-RA16LB	38	38	14	16	96	100	121	146	-	125	150	-	22	24
FJ-RA20LB	40	40	12	12	118	124	143	168	193	149	174	199	24	24
FJ-RA25LB	44	44	14	14	118	124	143	168	193	149	174	199	28	28
FJ-RA32LB	44	44	14	14	138	144	163	188	213	169	194	219	18	18
FJ-RA40LB	48	46	14	14	162	148	187	212	237	171	196	221	19	19

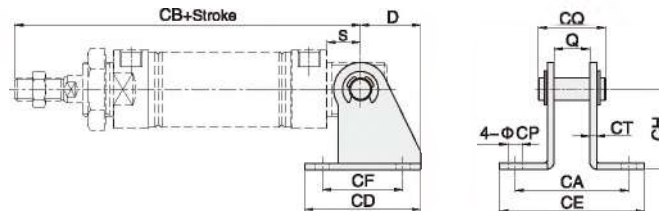
Bore\Sign	AC		AC(RALSB)			AC(RASB)			AE	AF	AH	AK	AL	AP	AQ	AT
	RAL	RA	0-50	51-100	101-150	0-50	51-100	101-150								
FJ-RA16LB	84	88	109	134	-	113	138	-	44	32	20	14	14	5.5	6	3
FJ-RA20LB	102	108	127	152	177	133	158	183	54	40	25	17	16	6.5	8	3
FJ-RA25LB	102	108	127	152	177	133	158	183	54	40	25	17	16	6.5	8	3
FJ-RA32LB	122	128	147	172	197	153	178	203	59	45	32	19	26	6.5	8	3
FJ-RA40LB	148	130	171	196	221	155	180	205	64	50	38	23	27	6.5	8	3

FA



Bore\Sign	B		C		C(RALSB)			C(RASB)			BB	BC	BD	BE	BF	BP	F	
	RAL	RA	RAL	RA	0-50	51-100	101-150	0-50	51-100	101-150							RAL	RA
FJ-RA16FA	36	38	56	60	81	106	-	85	110	-	3	28	-	52	40	5.5	14	16
FJ-RA20FA	40	40	70	76	95	120	145	101	126	151	4	33	-	64	50	6.5	12	12
FJ-RA25FA	44	44	70	76	95	120	145	101	126	151	4	33	-	64	50	6.5	14	14
FJ-RA32FA	44	44	70	76	95	120	145	101	126	151	4	47	33	72	58	6.5	14	14
FJ-RA40FA	46	46	92	76	117	142	167	101	126	151	4	50	36	84	70	6.5	14	14

SDB



Bore\Sign	D	S		Q	CA	CB		CB(RALSB)			CB(RASB)			CD	CE	CF	CH	CP	CQ	CT
		RAL	RA			RAL	RA	0-50	51-100	101-150	0-50	51-100	101-150							
FJ-RA16SDB	18	7	8	12.1	42.1	98	107	124	149	-	132	157	-	36	55.1	24	25.5	5.5	22.5	3
FJ-RA20SDB	24.5	12	12	16.1	51.1	122	128	147	172	197	153	178	203	48	66.1	32	32	6.5	27	3
FJ-RA25SDB	24.5	12	12	16.1	51.1	126	132	151	176	201	157	182	207	48	66.1	32	32	6.5	27	3
FJ-RA32SDB	27	15	15	16.1	50.1	129	135	154	179	204	160	185	210	52	65.1	36	35.5	6.5	27.5	3
FJ-RA40SDB	27	15	15	20.1	52.1	153	137	178	203	228	162	187	212	56	68.1	40	40	6.5	32.5	3

SJ Series Stainless Steel Mini Cylinder

SJ

Mini Type Cylinder



Specifications

Bore size(mm)	6	10	12	16
Acting type	Double Acting			
Working medium	Clean Air(40 μ m filtration)			
Working pressure (MPa)	0.1-0.7			
Guaranteed pressure (MPa)	1.0			
Working temperature (°C)	-20~80(No freezing)			
Speed range (mm/s)	50-750			
Cushion type	Rubber cushion on both ends			
Port size	M5x0.8			

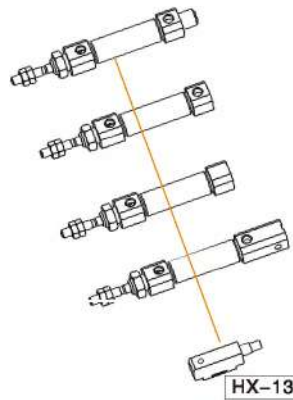
How to Order?

Series No.	Type No.	Bore X Stroke	Magnet No.	Tail Type
SJ	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type	6 10 10 15 12 20 16 ...	Blank: No magnet S: With magnet	U: Flat tail (Radial intake type) CB: Double U-type (Radial intake type) CM: Round tail (Radial intake type) R: Axial intake type (Note: Only U or R optional for Ø6)

Order Example:

SJ series cylinder, basic type, 10mm bore, 50mm stroke, with magnet, flat tail, the ERP code is: SJ10x50-S-U

Optional Accessories



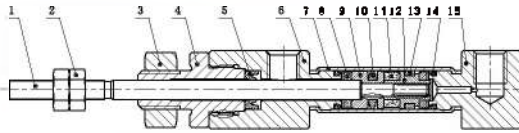
Stroke

	Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
	Double Acting	6	10 15 20 25 30 40 50 60
10		10 15 20 25 30 40 50 60 75 80 100 125 150	150
12		10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200	200
16		10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200	200

SJ Series Stainless Steel Mini Cylinder

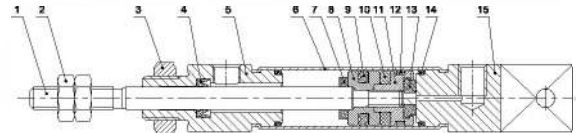
Internal Structure

SJØ6



No.	Part name	Material
1	Piston rod	S45C hard chrome carbon steel
2	Nut	Carbon steel
3	Nut	Carbon steel
4	Piston seal	NBR
5	Head cover	Aluminum alloy
6	Barrel	Stainless steel
7	Anti-bump cushion	TPU
8	Piston	Ø10:SUS304 Ø16: Aluminum alloy
9	Piston seal	NBR
10	Magnet	RbFeB
11	Magnet Base	Ø10:SUS304 Ø16: Aluminum alloy
12	Wear ring	PTFE
13	Anti-bump cushion	TPU
14	O-ring	NBR
15	Rear cover	Aluminum alloy

SJØ10, Ø12, Ø16

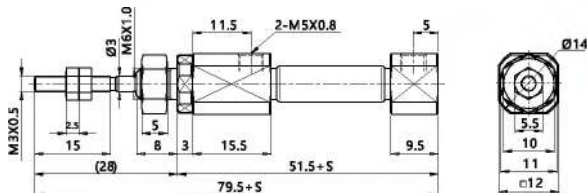


No.	Part name	Material
1	Piston rod	S45C hard chrome carbon steel
2	Nut	Carbon steel
3	Nut	Carbon steel
4	Head cover dust ring	NBR
5	Head cover	Aluminum alloy
6	Barrel	Stainless steel
7	Anti-bump cushion	TPU
8	Piston	Ø10:SUS304 Ø16: Aluminum alloy
9	Piston seal	NBR
10	Magnet	RbFeB
11	Magnet Base	Ø10:SUS304 Ø16: Aluminum alloy
12	Wear ring	PTFE
13	Anti-bump cushion	TPU
14	O-ring	NBR
15	Rear cover	Aluminum alloy

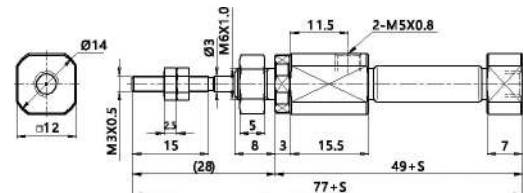
Main Dimension

SJØ6

U Type

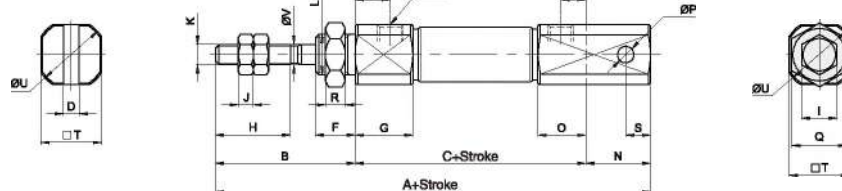


R Type



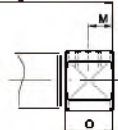
SJØ10, Ø12, Ø16

CB Type



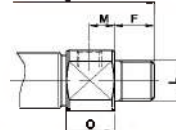
U Type

Total length=A1+Stroke



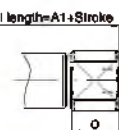
CM Type

Total length=A2+Stroke



R Type

Total length=A1+Stroke



Bore/Sign	A	A1	A2	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	X
10	87	74	82	28	46	3.2	7	8	11.5	16	7	3	M4X0.7	M8X1.0	5	13	9.5	3.3	11	4	5	12	14	4	M6X0.8
12	92	74	82	28	48	6.5	7.5	8	12	15	8	4	M5X0.6	M10X1.0	5	18	9.5	5	14	4	8	15	17	5	M5X0.8
16	93	75	83	28	47	6.5	7.5	8	12.3	16	8	4	M5X0.8	M10X1.0	5	18	9.5	5	14	4	8	18.3	19.7	5	M6X0.8

SM Series Stainless Steel Mini Cylinder

SM

Mini Type Cylinder



Specifications



Bore size(mm)	20	25	32	40
Acting type	Double Acting/Single Acting			
Working medium	Clean Air(40 μ m filtration)			
Working pressure (MPa)	0.1~1.0(Double Acting) / 0.2~1.0(Single Acting)			
Guaranteed pressure (MPa)	1.5			
Working temperature (°C)	-20~80(No freezing)			
Speed range (mm/s)	Double Acting: 30~800		Single Acting:50~800	
Cushion type	Rubber cushion / Air cushion			
Barrel material	Aluminum alloy			
Mounting type	LB FA SDB			
Port size	G1/8 ①			G1/4 ①

① PT, NPT port size is optional.

How to Order?

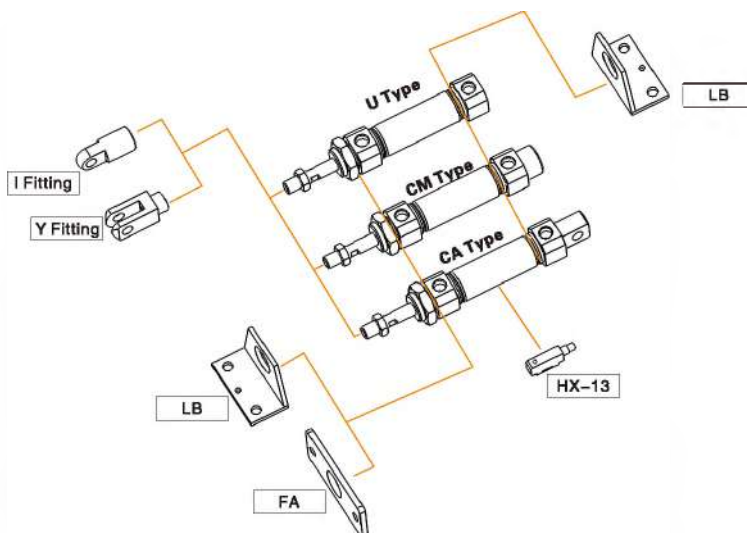
Series	Cushion Type	Type Code	Bore X Stroke	Adjustable Stroke	Magnet Code	Tail Type	Mounting Type	Thread Type
SM	C: Air cushion Blank: Rubber cushion		20 25 32 40	25 50 75 ...	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: No bracket LB FA SDB I J Y	Blank: G P: PT T: NPT
		Blank: Basic type D: Double-shaft type J: Double-shaft, adjustable stroke type SA: Single acting spring extend SB: Single acting spring return				Blank: Swiveling tail U: Flat tail CM: Round tail		

Order Example:

SM series double shaft adjustable stroke cylinder, air cushion, bore 32mm, stroke 25mm, adjustable stroke 20mm, with magnet, no bracket, round tail, PT thread. The ERP code is: SMCJ32x25-20-S-CM-P

Note: There are many mounting types, you can chose LB/FA/SDB/I/J/Y
LB and Rear FA are not available for Swiveling tail.

Optional A

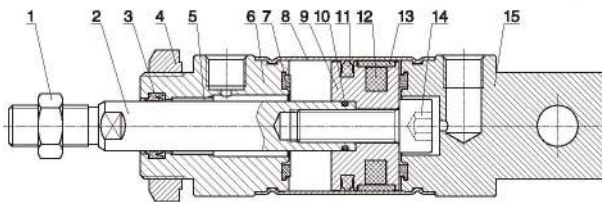


SM Series Stainless Steel Mini Cylinder

Stroke

Bore (mm)		Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	20	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 400 500	600
	25~40	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 400 500 600	800
Single Acting	20	10 15 20 25 30 40 50 60 75 80 100 125 150	150
	25~40	10 15 20 25 30 40 50 60 75 80 100 125 150	150

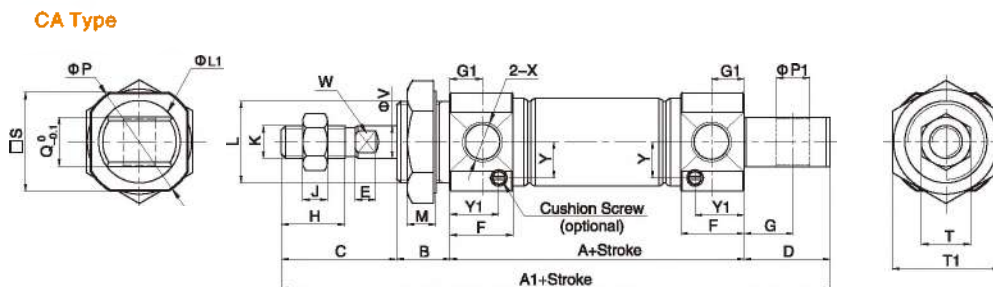
Internal Structure



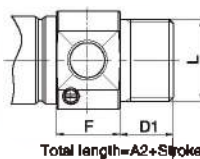
No.	Part Name	Material
1	Nut	Carbon Steel
2	Piston rod	S45C hard chrome carbon steel
3	Piston rod seal	NBR
4	Nut	Carbon Steel
5	Self-lubricating Bearing	Bronze Powder
6	Head cover	Aluminum Alloy
7	Anti-bump cushion	TPU
8	Barrel	Stainless steel
9	Piston	Aluminum Alloy
10	O-ring	NBR
11	Piston seal	NBR
12	Magnet	Plastic
13	Wear ring	PTFE
14	Hexagon screw	Carbon steel
15	Rear cover	Aluminum Alloy

Main Dimension

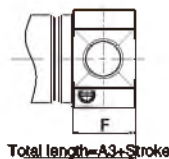
SM $\Phi 20$ - $\Phi 40$



CM Type



U Type



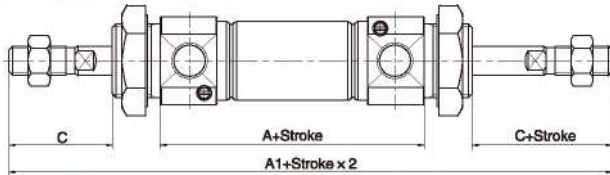
Bore/Sign	A	A1	A2	A3	B	C	D	D1	E	F	G	G1	H	J	K	L	L1	M	P	P1	Q	S	T	T1	X	V	W	Y	Y1
20	62	124	116	103	13	28	21	13	5	15.5	12	8	15.5	6	M8X1.25	M20X1.5	20	7	28	8	12	24	12	26	1/8"	8	6	8.8	12
25	62	128	120	107	13	32	21	13	5.5	16	12	8	19.5	6	M10X1.25	M26X1.5	22	8	33.5	8	12	30	17	32	1/8"	10	8	10	11.5
32	64	136	122	109	13	32	27	13	5.5	15	15	8	19.5	6	M10X1.25	M26X1.5	26	8	37.5	10	20	34.5	17	32	1/8"	12	10	12	11
40	88	165	154	138	16	34	27	16	7	22	15	11	21	8	M14X1.5	M32X2.0	32	9	46.5	10	20	42.5	19	41	1/4"	16	14	16	18

Note: With magnet and without magnet, the dimensions are same.

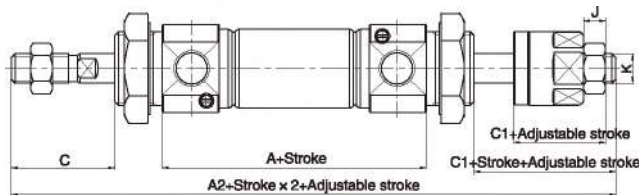
SM Series Stainless Steel Mini Cylinder

◎ Main Dimension

SMD $\Phi 20-\Phi 40$



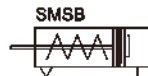
SMJ $\Phi 20-\Phi 40$



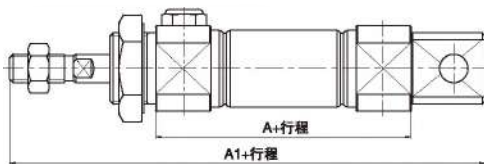
Bore/Sign	A	A1	A2	C	C1	J	K
20	62	144	141	28	25	6	M8X1.25
25	62	162	147	32	27	6	M10X1.25
32	64	154	149	32	27	6	M10X1.25
40	88	188	182	34	28	7	M12X1.25

Note: Unlabeled the same size as standard type

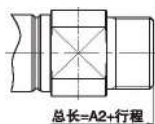
SMSB $\Phi 20-\Phi 40$



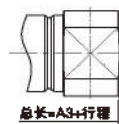
CA Type



CM Type



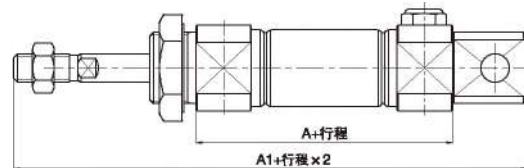
U Type



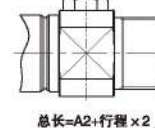
SMSA $\Phi 20-\Phi 40$



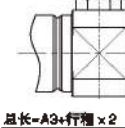
CA Type



CM Type



U Type



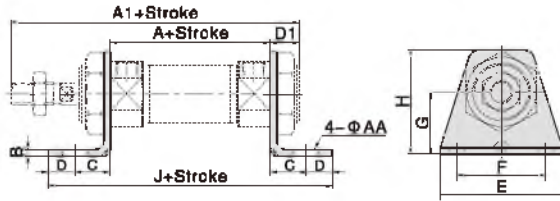
Bore/Sign	A			A1			A2			A3		
	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150	0-50	51-100	101-150
20	87	112	137	149	174	199	141	166	191	128	153	178
25	87	112	137	153	178	203	145	170	195	132	157	182
32	89	114	139	161	186	211	147	172	197	134	159	184
40	113	138	163	190	215	240	179	204	229	163	188	213

Note: Unlabeled the same size as standard type.

SM Series Stainless Steel Mini Cylinder

Accessory Dimensions

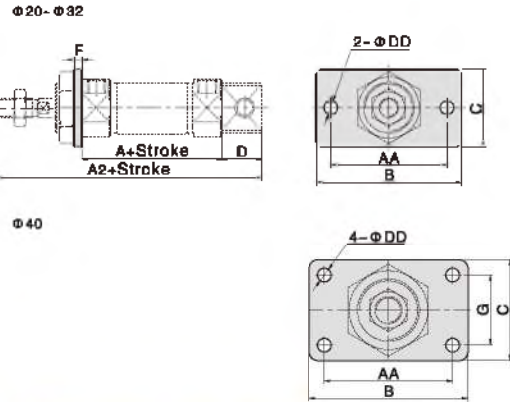
LB



Bore/Sign	A	A1	AA	B	C	D	D1	E	F	G	H	J
FJ-SM20LB	62	116	7	3	20	8	13	55	40	25	40	118
FJ-SM25LB	62	120	7	3	20	8	13	55	40	28	47	118
FJ-SM40LB	88	154	7	3	23	10	16	75	55	30	54	154

Note: $\Phi 32$ series borrowed $\Phi 25$ series

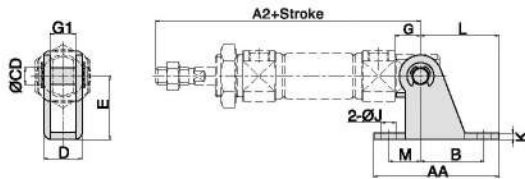
FA



Bore/Sign	A	A2	AA	B	C	D	DD	F	G
FJ-SM20FA	62	124	60	75	34	21	7	4	-
FJ-SM25FA	62	128	60	75	40	21	7	4	-
FJ-SM40FA	88	165	66	82	52	27	7	5	36

Note: $\Phi 32$ series borrowed $\Phi 25$ series

SDB



Bore/Sign	A2	AA	B	D	E	G	G1	CD	K	J	L	M
FJ-SM20SDB	115	59	30	18.1	30	12	12.1	8	3	6.8	37	15
FJ-SM32SDB	124	75	40	28.1	40	15	20.1	10	4	9	50	15

Note: $\Phi 25$ series borrowed $\Phi 20$ series
 $\Phi 40$ series borrowed $\Phi 32$ series

EG Series Repairable Cylinder

EG

Mini Type Cylinder



Specifications

Bore Size(mm)	20	25	32	40	50	63	
Acting type	Double Acting						
Working medium	Clean air(40 μ m filtration)						
Pressure range(MPa)	0.1~1.0MPa(15~145psi)(1.0~10.0bar)						
Garanteed pressure(MPa)	1.5MPa(215psi)(15bar)						
Working temperature(°C)	-20~80(No freezing)						
Speed range(mm/s)	50~1000						
Stroke range	+1.4 0						
Cushion type	Rubber cushion(Standard)/Air cushion						
Port size	M5	G1/8"			G1/4"		
Kinetic energy J	Male thread on piston rod	0.28	0.41	0.66	1.20	2.00	3.40
	Female thread on piston rod	0.11	0.18	0.29	0.52	0.91	1.54

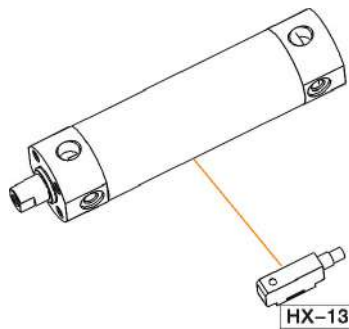
How to Order?

Series No	Type No	Bore	X Stroke	Magnet No	Piston Rod Thread Type	Thread Type
EG	Blank: Basic type D: Double shaft type C: Air cushion type	20 25 32 40 50 63	25 50 75 100 ...	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread N: No thread	Blank: G P: PT T: NPT

Order Example:

EG Series basic type cylinder, 25mm bore, 50mm stroke, with magnet, male thread on piston rod, G thread.
ERP code is: EG25X50-S-M

Optional Accessories

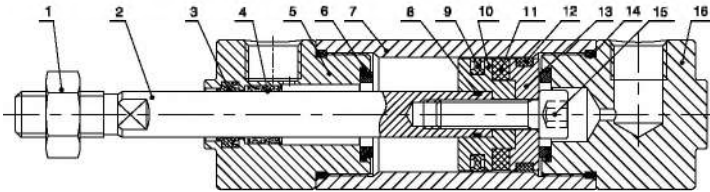


Stroke

	Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
	Double Acting	20	25 50 75 100 125 150 175 200
25		25 50 75 100 125 150 175 200 250 300	301~1200
32		25 50 75 100 125 150 175 200 250 300	301~1500
40		25 50 75 100 125 150 175 200 250 300	301~1500
50		25 50 75 100 125 150 175 200 250 300	301~1500
63		25 50 75 100 125 150 175 200 250 300	301~1500

EG Series Repairable Cylinder

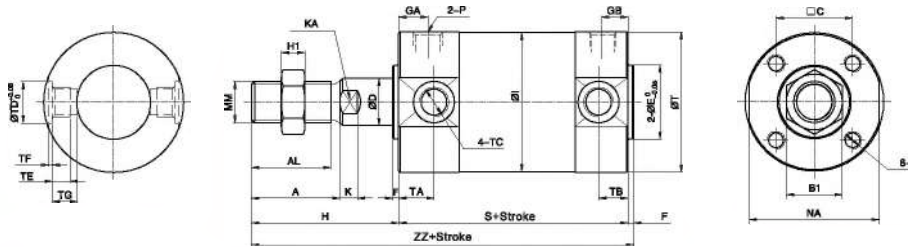
Internal Structure



No.	Part Name	Material
1	Nut	Carbon steel(Nickel plating)
2	Piston rod	Stainless steel(EG20, 25)
		Carbon steel(EG32, 40, 50, 63)
3	Piston rod seal	TPU
4	Self-lubricating bearing	Compound material
5	Head cover	Aluminum alloy
6	Anti-bump cushion	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston seal	NBR(Japanese brand)
10	Piston	Aluminum alloy
		RbFeB(EG20, 25)
11	Magnet	Plastic(EG32, 40, 50, 63)
		Aluminum alloy
12	Wear ring	PTFE
13	Magnet base	Aluminum alloy
14	O-ring	NBR
15	Hex cylinder head screw	Carbon steel(Black)
16	Rear cover	Aluminum alloy

Main Dimension

EG

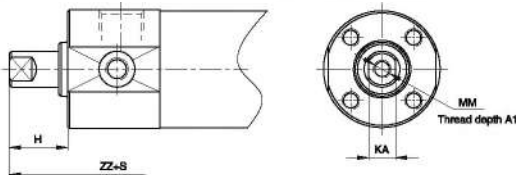


Bore	Standard Stroke Range	Long Stroke Range	A	AL	B1	C	D	E	F	H	I	J	K	KA	MM	NA
20	≤200	201~1200	18	15.5	12	14	8	12	2	35	26	M4X0.7depth7	5.5	6	M8X1.25	24
25	≤300	301~1200	22	19.5	17	16.5	10	14	2	40	31	M5X0.8depth7.5	6	8	M10X1.25	29
32	≤300	301~1500	22	19.5	17	20	12	18	2	40	38	M5X0.8depth8	6	10	M10X1.25	35.5
40	≤300	301~1500	30	27	19	26	16	25	2	50	47	M6X1.0depth12	6.5	14	M14X1.5	44
50	≤300	301~1500	35	32	27	32	20	30	2	68	58	M6X1.0depth16	7.5	18	M18X1.5	55
63	≤300	301~1500	35	32	27	38	20	32	2	58	72	M10X1.5depth16	7.5	18	M18X1.5	69

Bore	Standard Stroke Range	Long Stroke Range	P	S	GA	GB	T	H1	TA	TB	ZZ	TD	TF	TE	TG	TC
20	≤200	201~1200	M5X0.8	66(77)	13.5	13.5	26.5	6	11	11	106(114)	8	0.5	4	5.5	M5X0.8
25	≤300	301~1200	1/8"	66(77)	10	10	31.5	6	11	11	111(119)	10	1	5	6.5	M6X0.75
32	≤300	301~1500	1/8"	71(78)	10.5	9.5	38.5	6	11	10	113(121)	12	1	5.5	7.5	M8X1.0
40	≤300	301~1500	1/8"	76(87)	11.5	10	47.5	8	12	10	130(139)	14	1.25	6	8.5	M10X1.25
50	≤300	301~1500	1/4"	90(102)	13	13	58.5	11	13	12	150(162)	16	2	7.5	10	M12X1.25
63	≤300	301~1500	1/4"	90(102)	14	12	72.5	11	13	12	150(162)	18	3	11.5	14.5	M14X1.5

- Note:1、With magnet and without magnet, the dimensions are same.
 2、Within the "()" size is the size of long stroke;
 3、G、PT、NPT port size is optional.

Dimension of Female Thread

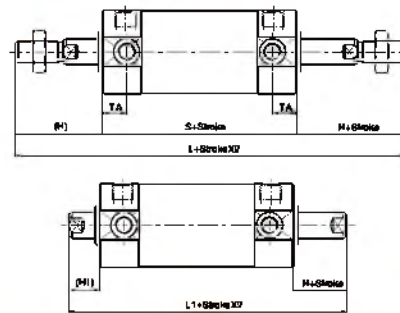


Bore/Sign	A1	H	MM	ZZ	KA
20	8	13	M4X0.7	84(92)	6
25	8	14	M5X0.8	85(93)	8
32	12	14	M6X1.0	87(95)	10
40	13	15	M8X1.25	95(104)	14
50	18	16	M10X1.5	108(120)	18
63	18	16	M10X1.5	108(120)	18

- Note:1、This figure is dimension of female thread;
 2、Other dimensions are same as male thread.

Dimension of Double Shaft

EGD



Bore/Sign	S	H	H1	L	L1	TA
20	77	35	13	147	103	11
25	77	40	14	157	105	11
32	79	40	14	159	107	11
40	87	50	15	167	117	12
50	102	58	16	218	134	13
63	102	58	16	218	134	13

SF Series ISO21287 Compact Cylinder

SF

Compact Cylinder



Specifications



Bore Size(mm)	20	25	32	40	50	63	80	100
Acting type	Double Acting/Single Acting							
Working medium	Clean Air(40 μm filtration)							
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)(MPa)							
Guaranteed pressure(MPa)	1.5(MPa)							
Working temperature(°C)	-20~80(No freezing)							
Speed range(mm/s)	30~500							
Cushion type	Rubber cushion							
Port size	M5X0.8			G1/8				

⊕NPT、PT port size is optional.

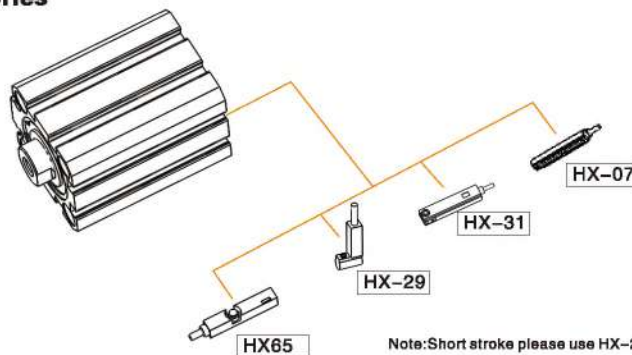
How to Order?

Series No	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Piston Rod Thread Type	Thread Type
SF	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return	20 25 32 ... 100		5 10 15 20 ...	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT

Order Example:

SF Series basic cylinder, 25mm bore, 50mm stroke, with magnet, male thread on piston rod, G thread
ERP code is: SF25X50-S-M

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

Stroke

	Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	20/25	5 10 15 20 25 30 35 40 45 50 60 80 100 125 150	150
	32-63	5 10 15 20 25 30 35 40 45 50 60 80 100 125 150 175 200	200
	80/100	10 15 20 25 30 35 40 45 50 60 80 100 125 150 175 200	200
Single Acting	20-63	5 10 15 20 25	25

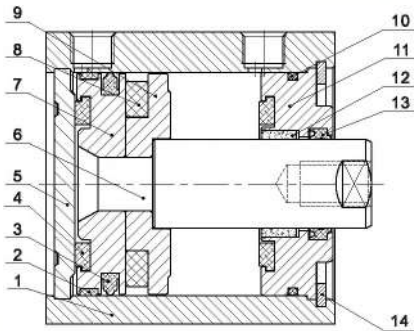
Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.
e.g. 27mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.
When ordering stroke is larger than the maximum stroke, please contact us.

3

SF

SF Series ISO21287 Compact Cylinder

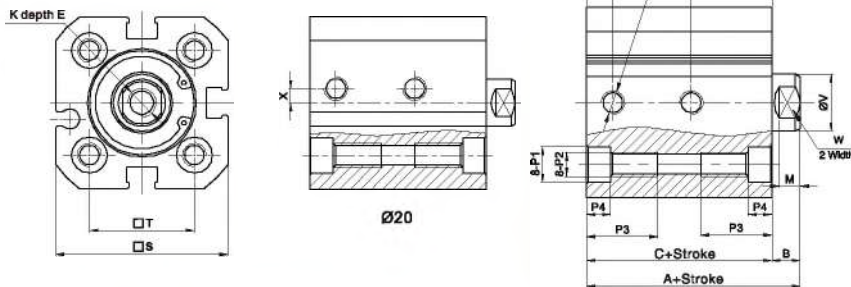
Internal Structure



No.	Part Name	20	25	32	40	50	63	80	100	
1	Barrel	Aluminum alloy								
2	Wear ring	No				PTEE				
3	Piston seal	NBR								
4	Anti-bump cushion	TPU				NBR				
5	Rear cover	Aluminum alloy								
6	Piston rod	Stainless steel				Carbon steel				
7	Piston	Aluminum alloy								
8	Magnet	RbFeB				Plastic				
9	Magnet base	Aluminum alloy								
10	O-ring	NBR								
11	Head cover	Aluminum alloy								
12	Bearing	No				Bronze powder				
13	Piston rod seal	TPU								
14	C type retainer ring	Spring steel								

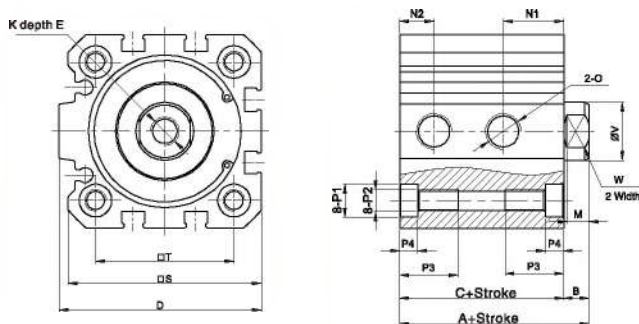
Main Dimension

Φ20、Φ25



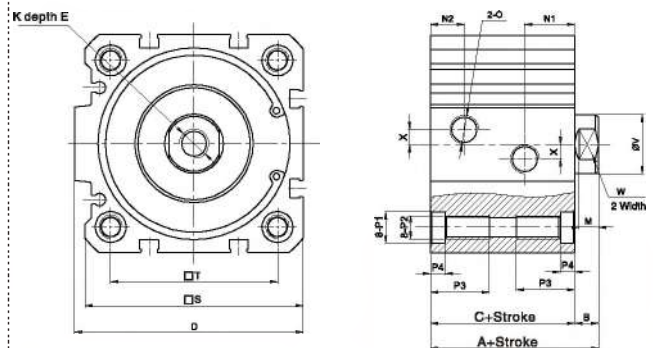
Bore/Sign	A	C	N1	N2	B	E	M	K	O	F1	P2	P3	P4	S	T	X	V	W
20	43	37	15	5.5	6	10	4	M6X1.0	M5X0.8	Φ7.3	M5X0.8	15	5	36	22	3	10	8
25	45	39	17	5.5	6	10	4.5	M6X1.0	M5X0.8	Φ7.3	M5X0.8	16	5	40	26	-	12	10

Φ32、Φ40



Bore/Sign	A	C	N1	N2	B	D	E	M	K
32	51	44	15	8	7	48	12	6	M8X1.25
40	52	45	18.5	9.5	7	55.5	12	6	M8X1.25
Bore/Sign	O	P1	P2	P3	P4	S	T	V	W
32	1/8"	Φ9	M6X1.0	16	5	45.5	32.5	16	14
40	1/8"	Φ9	M6X1.0	16	5	53	38	16	14

Φ50~Φ100



Bore/Sign	A	C	N1	N2	B	D	E	M	K	
50	53	45	16	10.5	8	65.5	16	6.5	M10X1.5	
63	57	49	17	11.5	8	77.5	16	6.5	M10X1.5	
80	64	54	17	15	10	95.5	21	8.5	M12X1.75	
100	77	67	24.5	19	10	113.5	21	8	M12X1.75	
Bore/Sign	O	P1	P2	P3	P4	S	T	X	V	W
50	1/8"	Φ10.5	M8X1.25	20	5	63	46.5	4	20	17
63	1/8"	Φ10.5	M8X1.25	20	5	74	56.5	5	20	17
80	1/8"	Φ13.7	M10X1.5	25	5	92	72	10	25	22
100	1/8"	Φ13.7	M10X1.5	25	5	109	89	14	32	27

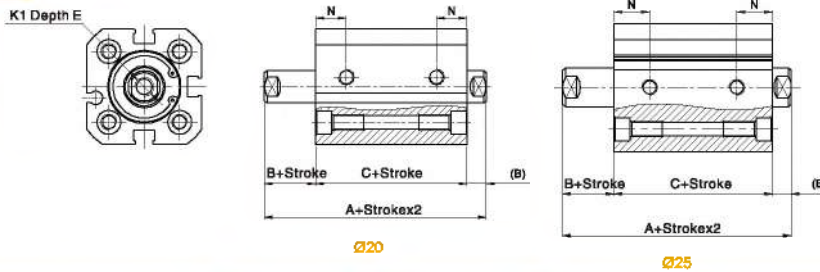
Note: With magnet and no magnet, the dimensions are same.

SF Series ISO21287 Compact Cylinder

Main Dimension

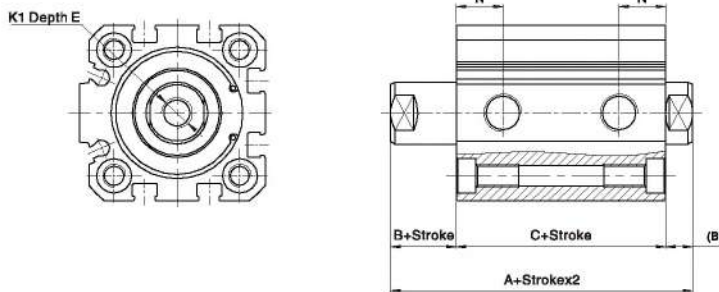
SFD

Φ20、Φ25



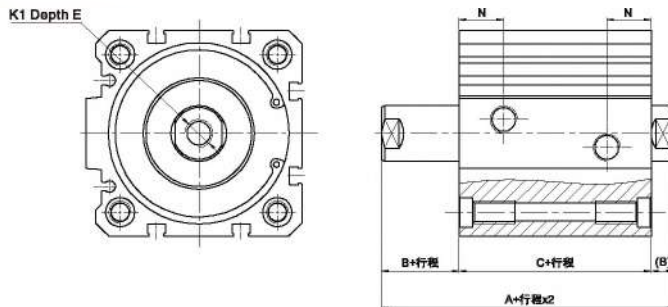
Bore/Sign	A	B	C	N	K1	E
20	49	6	37	9.5	M6X1.0	10
25	51	6	39	11	M6X1.0	10

Φ32、Φ40



Bore/Sign	A	B	C	N	K1	E
32	58	7	44	12	M8X1.25	12
40	59	7	45	13	M8X1.25	12

Φ50~Φ100



Bore/Sign	A	B	C	N	K1	E
50	61	8	45	13.5	M10X1.5	12(5 ≤ S < 15)/16(S ≥ 15)
63	65	8	49	16	M10X1.5	12(5 ≤ S < 15)/16(S ≥ 15)
80	74	10	54	16	M12X1.75	14(10 ≤ S < 25)/21(S ≥ 25)
100	87	10	67	20.5	M12X1.75	21

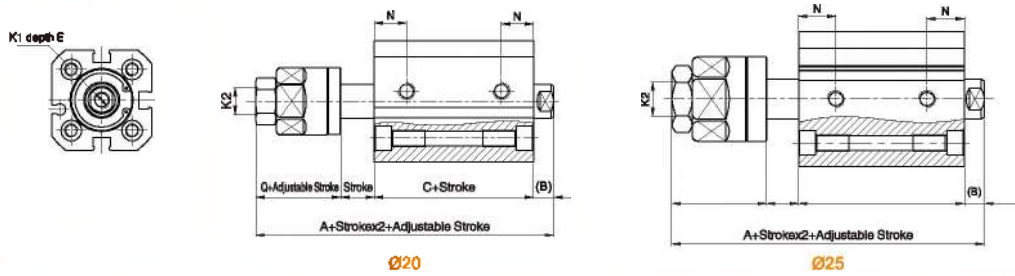
Note: Not marked dimension, the same as standard type. Parts of double shaft male thread type, please refer to standard dimension.

SF Series ISO21287 Compact Cylinder

Main Dimension

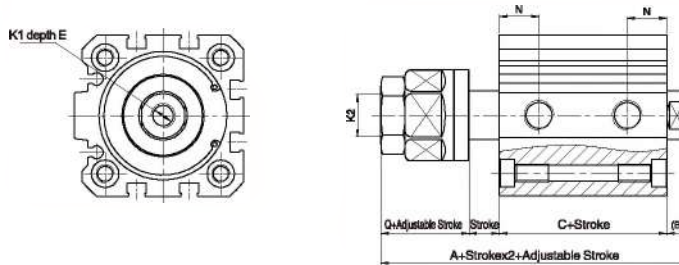
SFJ

Φ20、Φ25



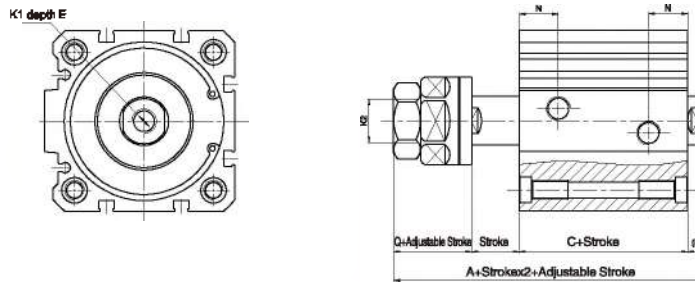
Bore/Sign	A	B	C	Q	N	K1	E	K2
20	68	6	37	25	9.5	M6X1.0	10	M8X1.25
25	72.5	6	39	28	11	M6X1.0	10	M10X1.25

Φ32、Φ40



Bore/Sign	A	B	C	Q	N	K1	E	K2
32	79	7	44	30	12	M8X1.25	12	M14X1.5
40	81	7	45	29	13	M8X1.25	12	M14X1.5

Φ50~Φ100



Bore/Sign	A	B	C	Q	N	K1	E	K2
50	85	8	46	32	13.5	M10X1.5	12 (5≤S<15) 16 (S≥15)	M18X1.5
63	88.5	8	49	32	16	M10X1.5	12 (5≤S<15) 16 (S≥15)	M18X1.5
80	101	10	54	37	16	M12X1.75	14 (10≤S<25) 21 (S≥25)	M22X1.5
100	113.5	10	67	37	20.5	M12X1.75	21	M26X1.5

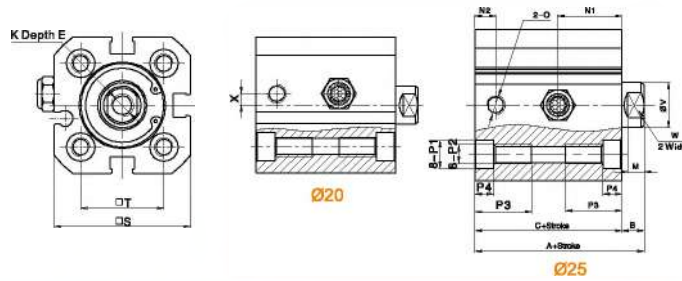
Note: Not marked dimension, the same as standard type. Parts of double shaft male thread type, please refer to standard dimension.

SF Series ISO21287 Compact Cylinder

Main Dimension

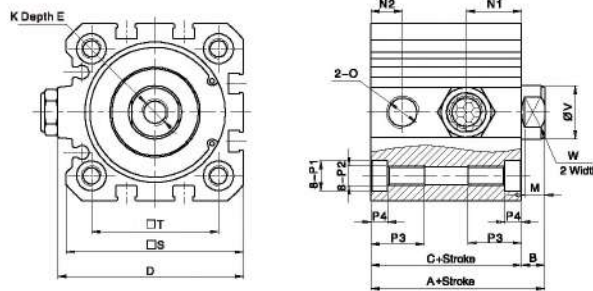
SFSB

Φ20, Φ25



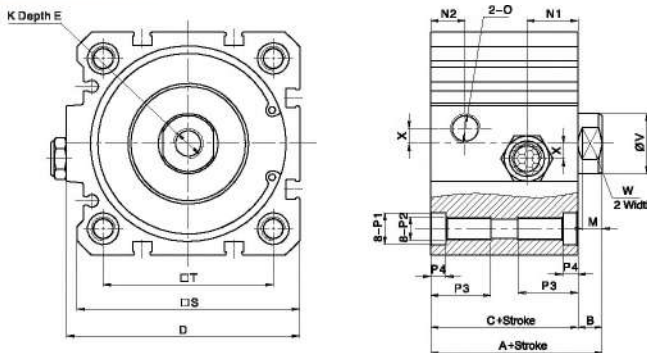
Bore/Sign	A	C	N1	N2	B	E	M	K	O	P1	P2	P3	P4	S	T	X	V	W
20	43	37	15	5.5	8	10	4	M6X1.0	M5X0.8	Φ7.3	M5X0.8	15	5	36	22	3	10	8
25	45	39	17	5.5	8	10	4.5	M6X1.0	M5X0.8	Φ7.3	M5X0.8	15	5	40	26	-	12	10

Φ32, Φ40



Bore/Sign	A	C	N1	N2	B	D	E	M	K	O	P1	P2	P3	P4	S	T	V	W
32	51	44	15	8	7	48	12	6	M8X1.25	1/8"	Φ9	M6X1.0	16	5	45.5	32.5	16	14
40	52	45	16.5	9.5	7	55.5	12	6	M8X1.25	1/8"	Φ9	M6X1.0	16	5	53	38	16	14

Φ50~Φ100



Bore/Sign	A	C	N1	N2	B	D	E	M	K	O	P1	P2	P3	P4	S	T	X	V	W
50	53	45	18	10.5	8	65.5	16	6.5	M10X1.5	1/8"	Φ10.5	M8X1.25	20	5	63	46.5	4	20	17
63	57	49	17	11.5	8	77.5	16	6.5	M10X1.5	1/8"	Φ10.5	M8X1.25	20	5	74	56.5	5	20	17

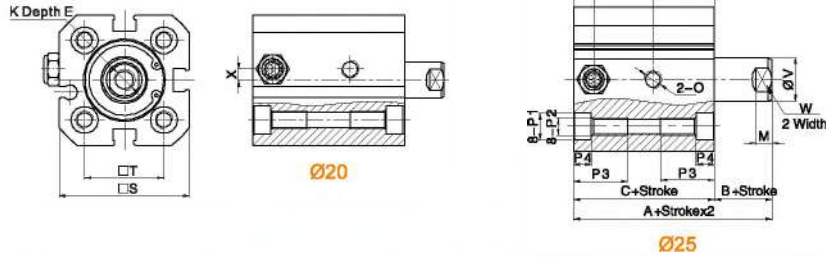
Note: With magnet and without magnet, the dimensions are same.

SF Series ISO21287 Compact Cylinder

Main Dimension

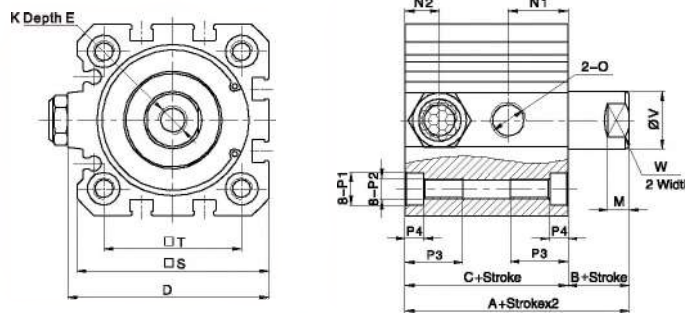
SFSA

Ø20、Ø25



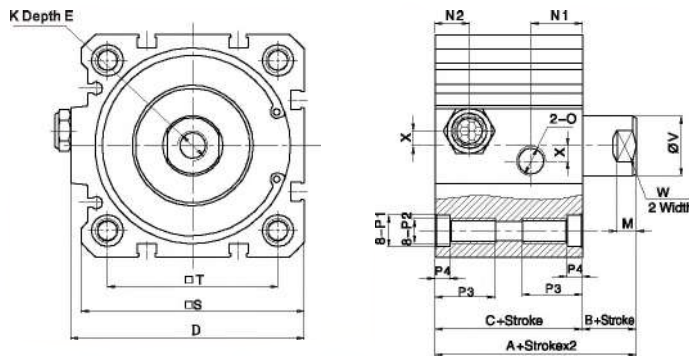
Bore/Sign	A	C	N1	N2	B	E	M	K	O	P1	P2	P3	P4	S	T	X	V	W
20	43	37	15	6.6	6	10	4	M6X1.0	M5X0.8	Ø7.3	M5X0.8	15	5	36	22	3	10	6
25	46	39	12	5.5	6	10	4.5	M6X1.0	M5X0.8	Ø7.3	M5X0.8	15	5	40	26	-	12	10

Ø32、Ø40



Bore/Sign	A	C	N1	N2	B	D	E	M	K	O	P1	P2	P3	P4	S	T	V	W
32	51	44	15	8	7	48	12	6	M8X1.25	1/8"	Ø9	M6X1.0	16	5	45.5	32.5	16	14
40	52	45	16.5	9.5	7	55.5	12	6	M8X1.25	1/8"	Ø9	M6X1.0	16	5	53	38	16	14

Ø50~Ø100



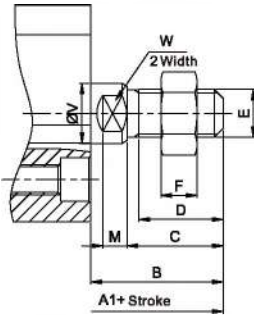
Bore/Sign	A	C	N1	N2	B	D	E	M	K	O	P1	P2	P3	P4	S	T	X	V	W
50	53	45	16	10.6	8	66.5	16	6.5	M10X1.5	1/8"	Ø10.5	M8X1.25	20	5	63	46.5	4	20	17
63	57	49	17	11.5	8	77.5	16	6.5	M10X1.5	1/8"	Ø10.5	M8X1.25	20	5	74	56.5	5	20	17

Note: With magnet and without magnet, the dimensions are same.

SF Series ISO21287 Compact Cylinder

Male Thread Dimension

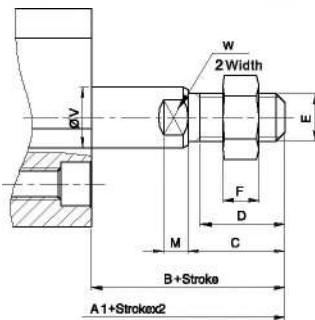
SF, SFD, SFJ, SFSB



Bore/Sign	A1	B	C	D	E	F	M	V	W
20	59	22	16	14	M8X1.25	6	4	10	8
25	61	22	16	14	M8X1.25	6	4.5	12	10
32	70	26	19	16.5	M10X1.25	6	6	16	14
40	71	26	19	16.5	M10X1.25	6	6	16	14
50	75	30	22	19.5	M12X1.25	7	6.5	20	17
63	79	30	22	19.5	M12X1.25	7	6.5	20	17
80	92	38	28	25	M16X1.5	8	8.5	25	22
100	105	38	28	25	M16X1.5	8	8	32	27

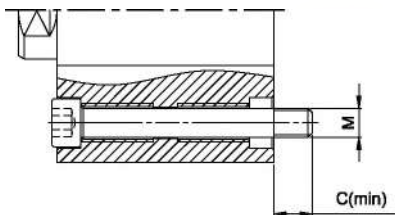
Note: For SFSB cylinder, $\phi 80$ and $\phi 100$ are not optional.

SFSA型



Bore/Sign	A1	B	C	D	E	F	M	V	W
20	59	22	16	14	M8X1.25	6	4	10	8
25	61	22	16	14	M8X1.25	6	4.5	12	10
32	70	26	19	16.5	M10X1.25	6	6	16	14
40	71	26	19	16.5	M10X1.25	6	6	16	14
50	75	30	22	19.5	M12X1.25	7	6.5	20	17
63	79	30	22	19.5	M12X1.25	7	6.5	20	17

Installation Note



Bore/Sign	M	C
20	M4X0.7	6
25	M4X0.7	6
32	M5X0.8	7
40	M5X0.8	7
50	M6X1.0	9
63	M6X1.0	9
80	M8X1.25	12
100	M8X1.25	12

SFM Series Compact Cylinder/Guide Rod Type

SFM

Guide Rod Type Cylinder



Specifications

Bore(mm)	20	25	32	40
Acting type	Double Acting			
Working medium	Clean Air(40 μm filtration)			
Working pressure(MPa)	0.1~1.0			
Garanteed pressure(MPa)	1.5			
Working temperature(°C)	-20~80(No freezing)			
Speed range(mm/s)	30~500			
Stroke tolerance(mm)	+1.0 0			
Cushion type	Rubber cushion			
Port size	M5X0.8		G1/8 ♂	

♂ NPT, PT port size is optional.

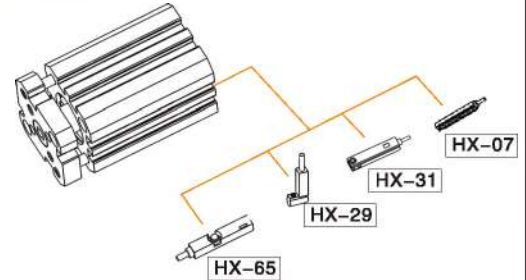
How to Order?

Series	Bore	X	Stroke	Magnet	Thread Type
SFM	20 25 32 40		5 10 15 ...	Blank: No magnet S : With magnet	Blank: G P: PT T: NPT

Order Example:

SFM series basic cylinder, bore 25mm, stroke 20mm, with magnet, G thread, ERP code is: SFM25X20-S

Optional Accessories

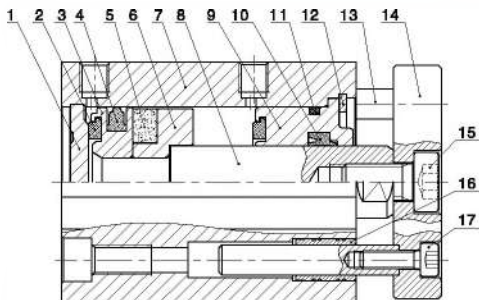


Note: Short stroke please use HX-29 series due to limited space.

Stroke

Bore (mm)	Standard Stroke (mm)														Max. Stroke (mm)				
Double Acting	20~40	5	10	15	20	25	30	35	40	45	50	55	60	70	75	80	90	100	100

Internal Structure

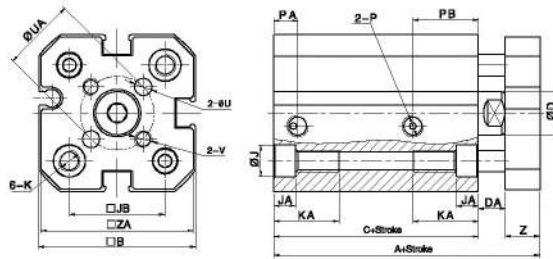


No.	Part Name	Material
1	Rear cover	Aluminum alloy
2	Anti-bump cushion	TPU
3	Piston	Aluminum alloy
4	Piston seal	NBR
5	Integrated magnet	RbFeB
6	Magnet seat	Aluminum alloy
7	Barrel	Aluminum alloy
8	Piston rod	Stainless steel/Carbon steel
9	Head cover	Aluminum alloy
10	Piston rod seal	TPU
11	O-ring	NBR
12	C type retainer ring	Spring steel
13	Guide	Stainless steel
14	Fixing plate	Aluminum alloy
15	Hexagon Socket Cap Head Screw	Carbon steel
16	Slide bearing	Brass
17	Hexagon Socket Cap Head Screw	Carbon steel

SFM Series Compact Cylinder/Guide Rod Type

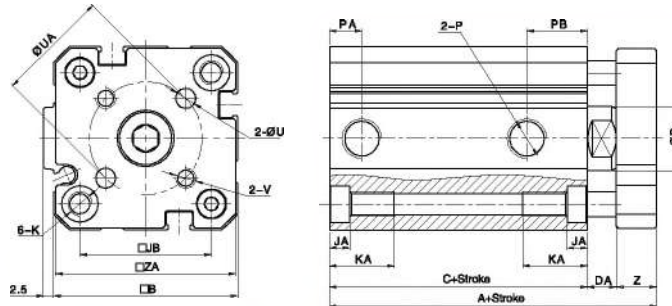
Main Dimension

SFM $\Phi 20$ 、 $\Phi 25$



Bore/Sign	A	B	C	D	DA	J	JA	JB	K	KA	P	PA	PB	U	UA	V	Z	ZA
20	51	36	37	10	6	7.3	5	22	M5X0.8 Through hole $\Phi 4.2$	15	M5X0.8	5.5	15	4	17	M4X0.7	8	35
25	53	40	39	12	6	7.3	5	26	M5X0.8 Through hole $\Phi 4.2$	16	M5X0.8	6.5	17	5	22	M5X0.8	8	39

SFM $\Phi 32$ 、 $\Phi 40$



Bore/Sign	A	B	C	D	DA	J	JA	JB	K	KA	P	PA	PB	U	UA	V	Z	ZA
32	61	45.5	44	16	7	9	5	32.5	M6X1.0 Through hole $\Phi 5.2$	18	G1/8	8	15	5	28	M5X0.8	10	44.5
40	62.5	53	45	18	7.5	9	5	38	M6X1.0 Through hole $\Phi 5.2$	18	G1/8	9.5	16.5	5	33	M5X0.8	10	52

SD Series Compact Cylinder

SD

Compact Cylinder



Specifications



Bore(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double Acting									
Working medium	Clean Air(40 μm filtration)									
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)									
Garanteed pressure(MPa)	1.5									
Working temperature(°C)	-20~80(No freezing)									
Speed range(mm/s)	30~500									
Cushion type	Rubber cushion									
Port size	M5 x 0.8			G1/8			G1/4		G3/8	

① PT, NPT port size is optional.

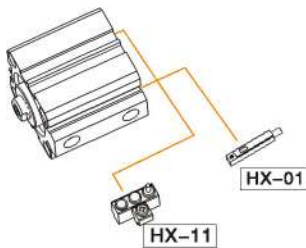
How to Order?

Series No	Type No	Bore X	Stroke	Adjustable Stroke	Magnet No	Piston rod Thread Type	Thread Type
SD	Blank: Basic type	12	25	10	Blank: No magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT
	D: Double shaft type	16	50	20	S: With magnet		
	J: Double shaft and adjustable stroke type	20	75	30			
	SA: Single acting spring extend	25	...	40			
	SB: Single acting spring return	...		50			
	T: Multi position type	100		75			
	W: Double shaft and Multi position type			100			

Order Example:

SD Series single acting spring extend cylinder, 40mm bore, 90mm stroke, with magnet, femal thread on piston rod, G thread
ERP code is: SDSA40X30-S

Optional Accessories



Stroke

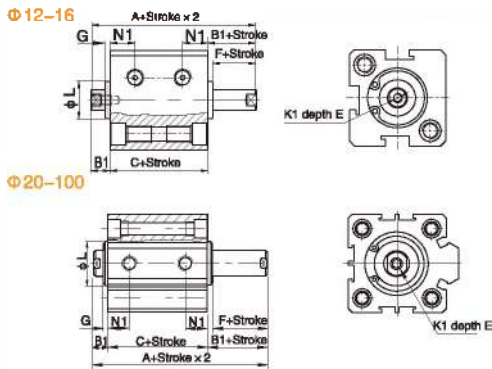
Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)	
Double Acting	12/16	5 10 15 20 25 30 35 40 45 50	60
	20	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90	150
	25	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120	150
	32~100	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120	200
Single Acting	12~63	5 10 15 20 25 30	30

Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.
e.g. 27mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.

SD Series Compact Cylinder

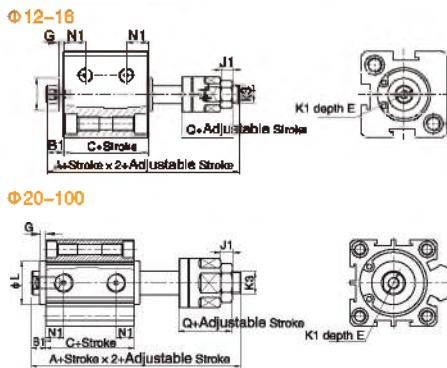
Main Dimension

SDD $\Phi 12-\Phi 100$



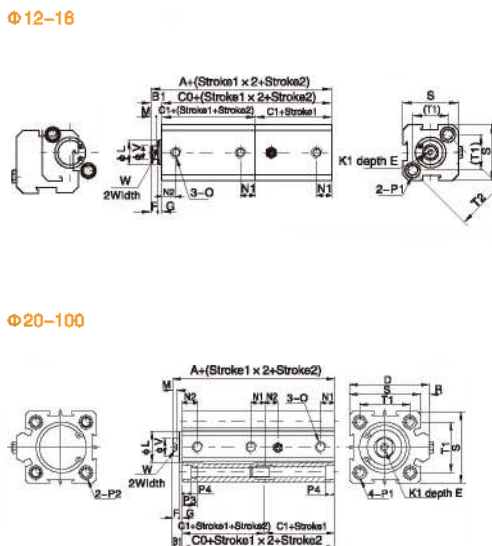
Bore	Basic Type		With Magnet		E		B1	F	G	K1	L	N1	
	A	C	A	C	S ≤ 10	S > 10						S=5	S>5
12	27	17	37	27	6		5	4	1	M3x0.5	10.2	5.5	6.3
16	29.5	18.5	39.5	28.5	6		5.5	4	1.5	M3x0.5	11	6	7.3
20	30.5	19.5	40.5	29.5	8		5.5	4	1.5	M4x0.7	15	6.5	7.5
25	33	21	43	31	10		6	4	2	M5x0.8	17	7	8
32	38.5	24.5	48.5	34.5	12	12	7	4	3	M6x1	22	6	9
40	40	26	50	36	12	12	7	4	3	M8x1.25	28	8	10
50	46	28	56	38	15(S $\leq 10, 11$)		9	5	4	M10x1.5	38	8	10.5
63	50	32	60	42	15(S $\leq 10, 11$)		9	5	4	M10x1.5	40	9.5	11.8
80	63	41	73	51	19	20	11	6	5	M14x1.5	45	14.5	14.5
100	76	51	86	61	16	20	12	7	5	M18x1.5	56	20.5	20.5

SDJ $\Phi 12-\Phi 100$



Bore	Basic Type		With Magnet		E		B1	Q	G	J1	K1	K3	L	N1	
	A	C	A	C	S ≤ 10	S > 10								S=5	S>5
12	40	17	50	27	6		5	17	1	4	M3x0.5	M5x0.8	10.2	5.5	6.3
16	42.5	18.5	52.5	28.5	6		5.5	17	1.5	4	M3x0.5	M5x0.8	11	6	7.3
20	47.5	19.5	57.5	29.5	8		5.5	21	1.5	5	M4x0.7	M6x1.0	15	6.5	7.5
25	54	21	64	31	10		6	25	2	6	M5x0.8	M8x1.25	17	7	8
32	61.5	24.5	71.5	34.5	12	12	7	27	3	6	M6x1.0	M10x1.25	22	6	9
40	65	26	75	36	12	12	7	29	3	6	M8x1.25	M14x1.5	28	8	10
50	73	28	83	38	15(S $\leq 10, 11$)		9	32	4	11	M10x1.5	M18x1.5	38	8	10.5
63	77	32	87	42	15(S $\leq 10, 11$)		9	32	4	11	M10x1.5	M18x1.5	40	9.5	11.8
80	94	41	104	51	19	20	11	37	5	13	M14x1.5	M22x1.5	45	14.5	14.5
100	105	51	115	61	18	20	12	37	5	13	M18x1.5	M28x1.5	55	20.5	20.5

SDT $\Phi 12-\Phi 100$



Bore	Basic Type			With Magnet			B1	D	E	F	G	K1	L	M	N1				N2			
	A	C0	C1	A	C0	C1									S=5	S>5	S=5	S>5	S=5	S>5	T1	T2
12	38	34	17	58	54	27	5	-	6	4	1	M3x0.5	10.2	3	5	5	7.5	7.5	6	6	6	6
16	42.5	37	18.5	62.5	57	28.5	5.5	-	6	4	1.5	M3x0.5	10	3	5	5.5	8	8	8	8	8	8
20	44.5	39	19.5	64.5	59	29.5	5.5	36	8	4	1.5	M4x0.7	13	3	5	5.5	8	2	9	9	9	9
25	48	42	21	68	62	31	8	42	10	4	2	M5x0.8	17	3	5.5	5.5	9	9	9	9	9	9
32	56	49	24.5	76	69	34.5	7	50	12	4	2.4	M6x1	22	3	6.5	9	9	9	9	9	9	9
40	59	52	26	79	72	36	7	58	12	4	3	M8x1.25	28	3	7.5	7.5	9.5	9.5	9.5	9.5	9.5	9.5
50	65	56	28	85	76	38	9	71.5	15	5	4	M10x1.5	38	3	8	10.5	8	10.5	8	10.5	8	10.5
63	73	64	32	93	84	42	9	84.5	15	5	4	M10x1.5	40	3	9.5	11	9.5	12	12	12	12	12
80	93	82	41	113	102	51	11	104	20	6	5	M14x1.5	46	4	14.6	14.6	14.5	14.5	14.5	14.5	14.5	14.5
100	114	102	51	134	122	61	12	124	20	7	5	M18x1.5	56	4	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5

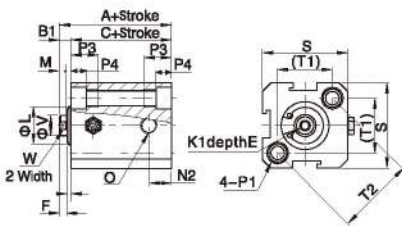
Bore	C	W	P1	P2	F3	P4	R	S	T1	T2	V	
12	M5x0.8	5	$\Phi 6.5$ Thread: M5x0.8 Through Hole: $\Phi 4.2$	-	-	12	4.5	-	25	16.2	23	6
16	M5x0.8	5	$\Phi 6.5$ Thread: M5x0.8 Through Hole: $\Phi 4.2$	-	-	12	4.5	-	29	18.8	26	6
20	M5x0.8	6	Counter bore: $\Phi 6.5$ Thread: M5x0.8 Through Hole: $\Phi 4.2$	Counter bore: $\Phi 6.8$ Through Hole: $\Phi 4.2$	14	4.5	2	34	24	-	8	
25	M5x0.8	8	Counter bore: $\Phi 6.2$ Thread: M5x1.0 Through Hole: $\Phi 4.6$	Counter bore: $\Phi 6.2$ Through Hole: $\Phi 4.6$	15	5.5	2	40	28	-	10	
32	1/8"	10	Counter bore: $\Phi 6.2$ Thread: M6x1.0 Through Hole: $\Phi 4.6$	Counter bore: $\Phi 6.2$ Through Hole: $\Phi 4.6$	16	5.5	6	44	34	-	12	
40	1/8"	14	Counter bore: $\Phi 6.2$ Thread: M6x1.25 Through Hole: $\Phi 6.6$	Counter bore: $\Phi 6.2$ Through Hole: $\Phi 6.6$	20	7.5	6.5	52	40	-	16	
50	1/4"	17	Counter bore: $\Phi 11$ Thread: M8x1.25 Through Hole: $\Phi 6.6$	Counter bore: $\Phi 11$ Through Hole: $\Phi 6.6$	25	8.5	9.5	62	48	-	20	
63	1/4"	17	Counter bore: $\Phi 11$ Thread: M8x1.25 Through Hole: $\Phi 6.6$	Counter bore: $\Phi 11$ Through Hole: $\Phi 6.6$	25	8.5	9.5	75	60	-	20	
80	3/8"	22	Counter bore: $\Phi 14$ Thread: M12x1.75 Through Hole: $\Phi 8.2$	Counter bore: $\Phi 14$ Through Hole: $\Phi 8.2$	25	10.5	10	94	74	-	25	
100	3/8"	27	Counter bore: $\Phi 17.5$ Thread: M12x1.75 Through Hole: $\Phi 11.3$	Counter bore: $\Phi 17.5$ Through Hole: $\Phi 11.3$	30	13	10	114	90	-	32	

SD Series Compact Cylinder

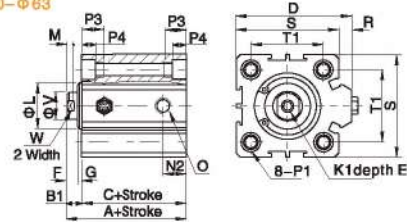
Main Dimension

SDSB/SDSA $\Phi 12$ - $\Phi 63$

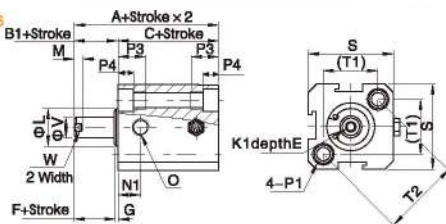
SDSB
 $\Phi 12, \Phi 16$



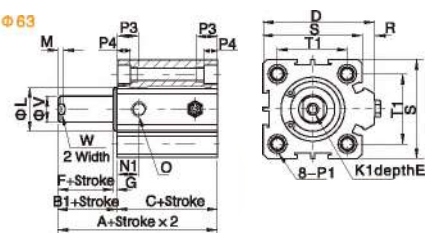
SDSB
 $\Phi 20$ - $\Phi 63$



SDSA
 $\Phi 12, \Phi 16$



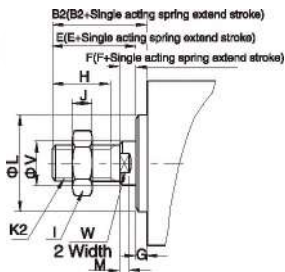
SDSA
 $\Phi 20$ - $\Phi 63$



Sign	A (standard)		A (With magnet)		C (standard)		C (With magnet)		B1	D	E	F	G	K1	L	M	N1	N2
	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 x 0.5	10.2	3	7.5	5
16	34	44	44	54	28.5	38.5	38.5	48.5	5.5	-	6	4	1.5	M3 x 0.5	11	3	8	5.5
20	35	45	45	55	29.5	39.5	39.5	49.5	5.5	36	8	4	1.5	M4 x 0.7	13	3	9	5.5
25	37	47	47	57	31	41	41	51	6	42	10	4	2	M5 x 0.8	17	3	9	5.5
32	41.5	51.5	51.5	61.5	34.5	44.5	44.5	54.5	7	50	12	4.5	2.5	M6 x 1.0	22	3	9	9
40	43	53	53	63	36	46	46	56	7	58.5	12	4	3	M8 x 1.25	28	3	9.5	7.5
50	47	57	57	67	38	48	48	58	9	71.5	15	5	4	M10 x 1.5	36	3	10.5	10.5
63	51	61	61	71	42	52	52	62	9	84.5	15	5	4	M10 x 1.5	40	3	12	11

Bore / Sign	O	R	S	T1	T2	P1	P3	P4	V	W
12	M5 x 0.8	-	25	16.2	23	Counter bore: $\Phi 6.5$ Thread: M5 x 0.8 Through Hole: $\Phi 4.2$	12	4.5	6	5
16	M5 x 0.8	-	29	19.8	26	Counter bore: $\Phi 6.5$ Thread: M5 x 0.8 Through Hole: $\Phi 4.2$	12	4.5	6	5
20	M5 x 0.8	2	34	24	-	Counter bore: $\Phi 6.5$ Thread: M5 x 0.8 Through Hole: $\Phi 4.2$	14	4.5	8	6
25	M5 x 0.8	2	40	28	-	Counter bore: $\Phi 8.2$ Thread: M6 x 1.0 Through Hole: $\Phi 5.2$	15	5.5	10	8
32	1/8"	6	44	34	-	Counter bore: $\Phi 8.2$ Thread: M6 x 1.0 Through Hole: $\Phi 5.2$	16	5.5	12	10
40	1/8"	6.5	52	40	-	Counter bore: $\Phi 10.2$ Thread: M8 x 1.25 Through Hole: $\Phi 6.8$	20	7.5	16	14
50	1/8"	9.5	62	48	-	Counter bore: $\Phi 11$ Thread: M8 x 1.25 Through Hole: $\Phi 6.8$	25	8.5	20	17
63	1/4"	9.5	75	60	-	Counter bore: $\Phi 11$ Thread: M8 x 1.25 Through Hole: $\Phi 6.8$	25	8.5	20	17

Male Thread Dimension



Bore / Sign	B2	E	F	G	H	I
12	17	16	4	1	10	8
16	17.5	16	4	1.5	10	8
20	20.5	19	4	1.5	13	10
25	23	21	4	2	15	12
32	25	22.5	4.5	2.5	15	17
40	35	32	4	3	25	19
50	37	33	5	4	25	27
63	37	33	5	4	25	27
80	44	39	6	5	30	32
100	50	45	7	5	35	36
Bore / Sign	J	K2	L	M	V	W
12	4	M5 x 0.8	10.2	3	6	5
16	4	M5 x 0.8	11	3	6	5
20	5	M6 x 1.0	13	3	8	6
25	6	M8 x 1.25	17	3	10	8
32	6	M10 x 1.25	22	3	12	10
40	8	M14 x 1.5	28	3	16	14
50	11	M18 x 1.5	38	3	20	17
63	11	M18 x 1.5	40	3	20	17
80	13	M22 x 1.5	45	4	25	22
100	13	M26 x 1.5	55	4	32	27

SQ Series Compact Cylinder

SQ

Compact Cylinder



Specifications

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double Acting/Single Acting									
Working medium	Clean Air(40 μm filtration)									
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)									
Garanteed pressure(MPa)	1.5									
Working temperature(°C)	-20~80(No freezing)									
Speed range(mm/s)	30~500									
Cushion type	Rubber cushion									
Port size	M5 x 0.8			G1/8			G1/4		G3/8	

① PT, NPT port size is optional.

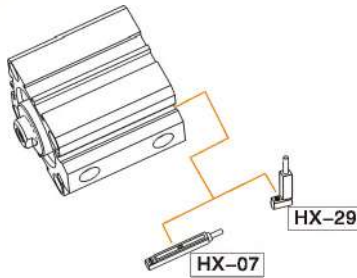
How to Order?

Series No	Mounting type	Type No	Bore X	Stroke	Adjustable Stroke	Magnet No	Piston Rod Thread Type	Thread Type
SQ	Blank: Through hole A: Femal thread at both ends	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return	12 16 20 25 ...	25 50 75 ...	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT

Order Example:

SQ Series single acting spring extend cylinder, through hole mounting type, 40mm bore, 30mm stroke, with magnet, femal thread on piston rod, G thread.
ERP code is: SQSA40X30-S

Optional Accessories

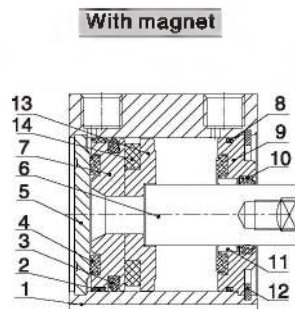
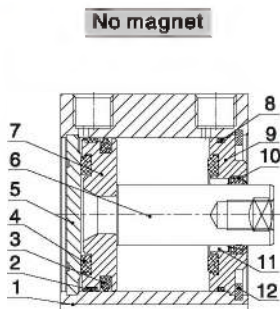


Note: Short stroke please use HX-29 series due to limited space.

Stroke

	Bore (mm)	Standard Stroke (mm)										Max. Stroke (mm)						
		12/16	5	10	15	20	25	30	35	40	45		50					
Double Acting	20/25	5	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	150
	32~100	5	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	100
	Single Acting	12/16	5	10	15	20												20
		20~63	5	10	15	20	25	30										30

Internal Structure

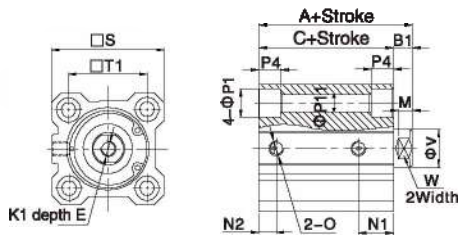


No	Part Name
1	Barrel
2	Wear ring
3	Piston seal
4	Anti-bump cushion
5	Rear cover
6	Piston rod
7	Piston
8	O-ring
9	Head cover
10	Piston rod seal
11	Self lubricating bearing
12	C type retainer ring
13	Magnet
14	Magnet base

SQ Series Compact Cylinder

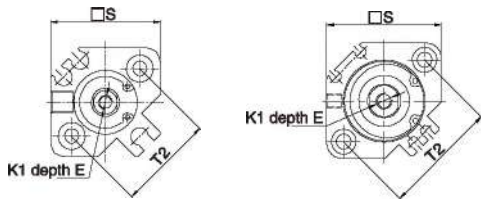
Main Dimension

SQ $\phi 12-\phi 25$ (No magnet)



Through hole type

Thread type



$\phi 12$ (With magnet)

$\phi 16-\phi 25$ (With magnet)

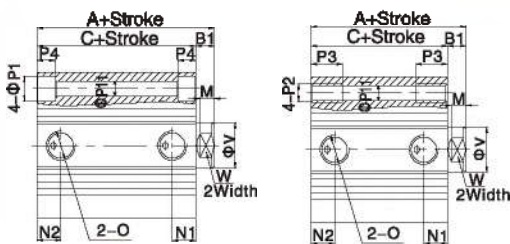


Through hole type

Thread type

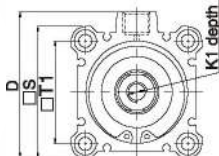
Model	Basic Type						With Magnet							
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M
	St \leq 50	St $>$ 60	St \leq 50	St $>$ 60										
12	20.5	-	17	-	7.5	5	31.5	26	9	5	3.5	-	6	3.5
16	22	-	18.5	-	8	5.5	34	30.5	9.5	5.5	3.5	-	8	3
20	24	34	19.5	29.5	9	5.5	36	31.5	9.5	5.5	4.5	-	7	4
25	27.5	37.5	22.5	32.5	11	5.5	37.5	32.5	11	5.5	5	-	12	4.5
Bore/Sign	K1	O	P1	P11	P2	P3	P4	S	T1	T2	V	W		
12	M3x0.5	M5x0.8	6.3	3.4	M4x0.7	7	3.5	25	15.5	22	6	5		
16	M4x0.7	M5x0.8	6.5	3.4	M4x0.7	7	3.5	29	20	28	8	8		
20	M5x0.8	M5x0.8	9	5.4	M6x1.0	10	7	36	26.5	36	10	8		
25	M6x1.0	M5x0.8	9	5.4	M6x1.0	10	7	40	28	40	12	10		

SQ $\phi 32-\phi 100$



Through hole type

Thread type

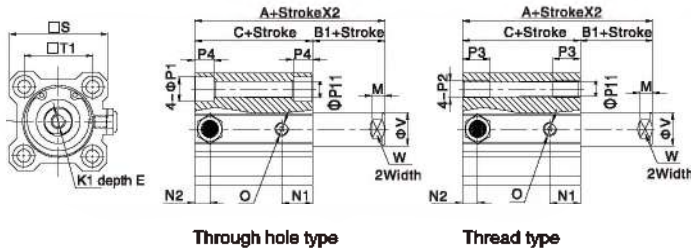


Model	Basic Type						With Magnet							
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M
	St \leq 50	St $>$ 60	St \leq 50	St $>$ 60										
32	30	40	23	33	7.5	6.6	40	33	10.5	7.5	7	49.5	13	6
	St \leq 5				10.5	7.5								
40	38.5	46.5	29.5	39.5	11	8	46.5	39.5	11	8	7	57	13	6
	St \leq 5				9	9								
50	38.5	48.5	30.5	40.5	10.5	10.5	48.5	40.5	10.5	10.5	8	71	15	6.5
	St \leq 5				14	9.5								
63	44	54	36	46	15	10.5	54	46	15	10.5	8	84	15	6.5
	St \leq 5				15	10.5								
80	52.5	63.5	43.5	53.5	16	14	63.5	53.5	16	14	10	104	20	8.5
100	65	75	53	63	20	17.5	75	63	20	17.5	12	123.5	26	9.5
Bore/Sign	K1	O	P1	P11	P2	P3	P4	S	T1	T2	V	W		
32	M8x1.25	1/8"	9	5.4	M6x1.0	10	7	45	34	-	16	14		
40	M8x1.25	1/8"	9	5.4	M6x1.0	10	7	52	40	-	16	14		
50	M10x1.5	1/4"	11	6.5	M8x1.25	14	8	64	50	-	20	17		
63	M10x1.5	1/4"	14	8.9	M10x1.5	18	10.5	77	60	-	20	17		
80	M16x2.0	3/8"	17.5	10.9	M12x1.75	22	13.5	98	77	-	25	22		
100	M20x2.5	3/8"	17.5	10.9	M12x1.75	22	13.5	117	94	-	32	27		

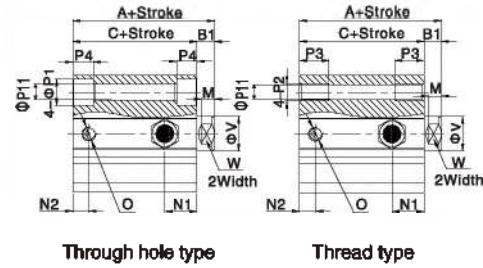
SQ Series Compact Cylinder

Main Dimension

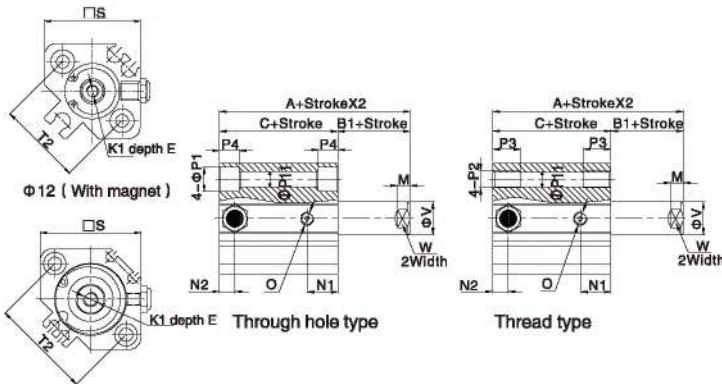
SQSA $\Phi 12-\Phi 25$ (No magnet)



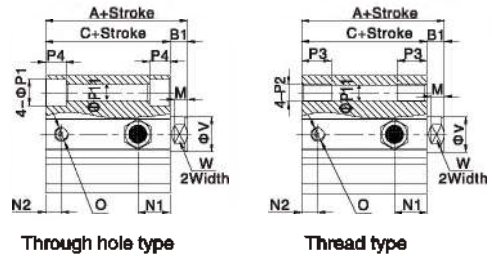
SQSB $\Phi 12-\Phi 25$ (No magnet)



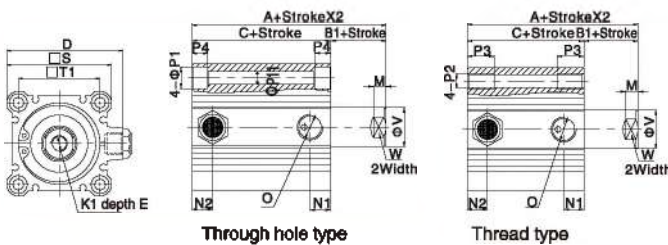
SQSA $\Phi 12-\Phi 25$ (With magnet)



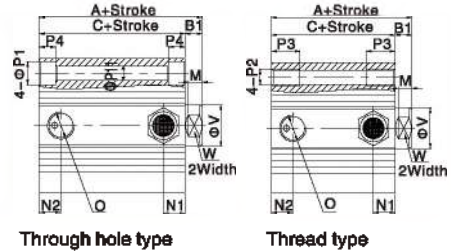
SQSB $\Phi 12-\Phi 25$ (With magnet)



SQSA $\Phi 32-\Phi 63$



SQSB $\Phi 32-\Phi 63$



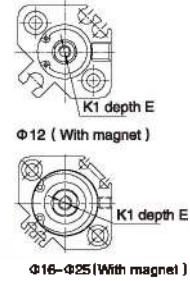
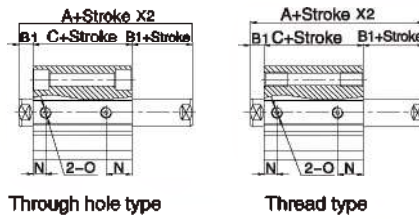
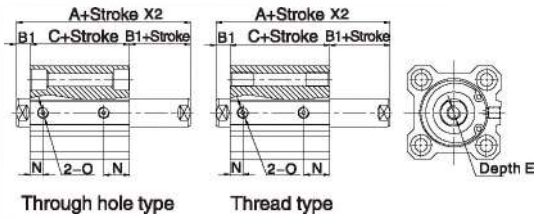
Model	Basic Type										
	A			C			N1	N2	B1	D	E
Bore /Sign	5/10	15/20	25/30	5/10	15/20	25/30					
Stroke	5/10	15/20	25/30	5/10	15/20	25/30	N1	N2	B1	D	E
12	25.5	30.5	-	22	27	-	7.5	5	3.5	-	6
16	27	32	-	23.5	28.5	-	8	5.5	3.5	-	8
20	29	34	39	24.5	29.5	34.5	9	6.5	4.5	-	7
25	32.5	37.5	42.5	27.5	32.5	37.5	11	5.5	5	-	12
32	35	40	45	28	33	39	10.5	7.5	7	49.5	13
40	41.5	46.5	51.5	34.5	39.5	44.5	11	8	7	57	13
50	48.5	53.5	58.5	40.5	45.5	50.5	10.5	10.5	8	71	15
63	54	59	64	46	51	56	15	10.5	8	84	15
Bore /Sign	C	P1	P11	P2	P3	P4					
12	M5x0.8	6.3	3.4	M4x0.7	7	3.5					
16	M5x0.8	6.5	3.4	M4x0.7	7	3.5					
20	M5x0.8	9	5.4	M6x1.0	10	7					
25	M5x0.8	9	5.4	M6x1.0	10	7					
32	1/8"	9	6.5	M6x1.0	10	7					
40	1/8"	9	8.9	M6x1.0	10	7					
50	1/4"	11	10.9	M8x1.25	14	8					
63	1/4"	14	10.9	M10x1.5	18	10.5					

Model	Basic Type									
	A			C			N1	N2	K1	
Bore /Sign	5/10	15/20	25/30	5/10	15/20	25/30				
Stroke	5/10	15/20	25/30	5/10	15/20	25/30	N1	N2	K1	
12	36.5	41.5	-	33	38	-	9	5	M3x0.5	
16	39	44	-	35.5	40.5	-	9.5	5.5	M4x0.7	
20	41	46	51	36.5	41.5	46.5	9.5	5.5	M5x0.8	
25	42.5	47.5	52.5	37.5	42.5	47.5	11	5.5	M6x1.0	
32	45	50	55	39	43	48	10.5	7.5	M8x1.25	
40	51.5	56.5	61.5	44.5	49.5	54.5	11	8	M6x1.25	
50	58.5	63.5	68.5	50.5	55.5	60.5	10.5	10.5	M10x1.5	
63	64	69	74	56	61	66	15	10.5	M10x1.5	
Bore /Sign	M	S	T1	T2	V	W				
12	3.5	25	15.5	22	6	5				
16	3	29	20	28	8	6				
20	4	36	25.5	36	10	8				
25	4.5	40	28	40	12	10				
32	6	45	34	-	16	14				
40	6	52	40	-	16	14				
50	6.5	64	50	-	20	17				
63	6.5	77	60	-	20	17				

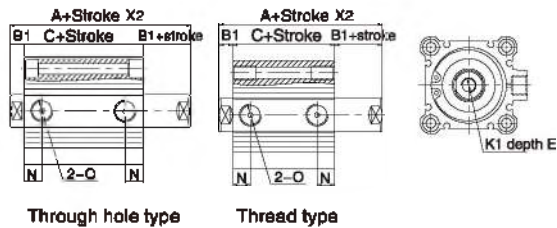
SQ Series Compact Cylinder

Main Dimension

SQD $\Phi 12-\Phi 25$ (No magnet)



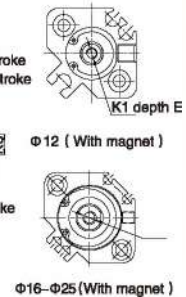
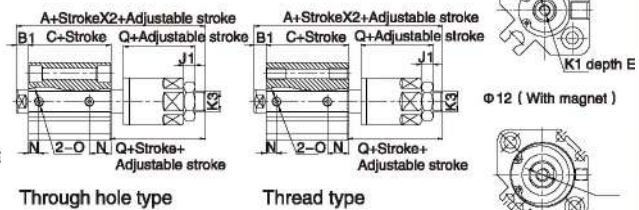
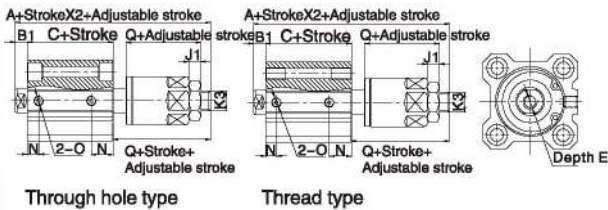
SQD $\Phi 32-\Phi 63$



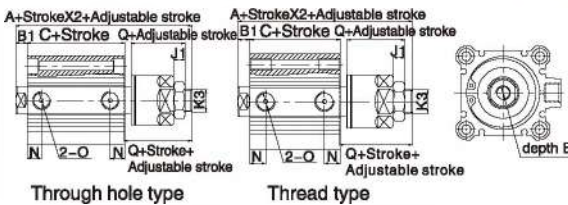
Bore /Sign	A		C		B1	E	N
	Standard	With magnet	Standard	With magnet			
12	32.2	39.4	25.2	32.4	3.5	6	9
16	33	43	26	36	3.5	8	9.5
20	35	47	26	38	4.5	7	9.5
25	39	49	29	39	5	9.5(S1≤5)/12(S1>5)	11
32	44.5	54.5	30.5	40.5	7	9(S1≤10)/13(S1>10)	10
40	54	64	40	50	7	11(S1≤10)/13(S1>10)	13
50	56.5	66.5	40.5	50.5	8	12(S1≤10)/15(S1>10)	13.5
63	58	68	42	52	8	12(S1≤10)/15(S1>10)	16
80	71	81	51	61	10	14(S1≤15)/20(S1>15)	16
100	84.5	94.5	60.5	70.5	12	20(S1≤25)/26(S1>25)	21

Note: Not marked dimensions is same as standard type. Male thread type pls check this page.

SQJ $\Phi 12-\Phi 25$ (No magnet)

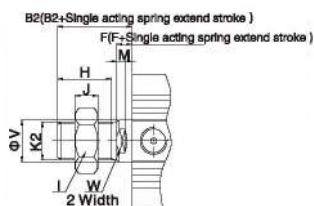


SQJ $\Phi 32-\Phi 100$



Bore /Sign	A		C		B1	E	N	Q	J1	K3
	Standard	With magnet	Standard	With magnet						
12	45.2	52.4	25.2	32.4	3.5	6	9	17	4	M5x0.8
16	50	60	26	36	3.5	8	9.5	21	5	M6x1.0
20	55	67	26	38	4.5	7	9.5	25	6	M8x1.25
25	61.5	71.5	29	39	5	9.5(S1≤5)/12(S1>5)	11	28	6	M10x1.25
32	67	77	30.5	40.5	7	9(S1≤10)/13(S1>10)	10	30	8	M14x1.5
40	75.5	85.5	40	50	7	11(S1≤10)/13(S1>10)	13	29	8	M14x1.5
50	80.5	90.5	40.5	50.5	8	12(S1≤10)/15(S1>10)	13.5	32	11	M18x1.5
63	82	92	42	52	8	12(S1≤10)/15(S1>10)	16	32	11	M18x1.5
80	97.3	107.3	51	61	10	14(S1≤15)/20(S1>15)	16	37	13	M22x1.5
100	106.5	116.5	60.5	70.5	12	20(S1≤25)/26(S1>25)	20	37	13	M26x1.5

Main type dimension

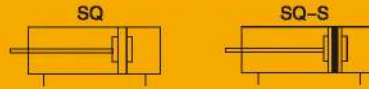


Bore /Sign	B2	F	H	I	J	K2	M	V	W
12	14	3.5	9	8	4	M5x0.8	3.5	8	5
16	15.5	3.5	10	10	5	M6x1.0	3	8	6
20	18.5	4.5	12	12	6	M8x1.25	4	10	8
25	22.5	5	15	17	6	M10x1.25	4.5	12	10
32	28.5	5	20.5	19	8	M14x1.5	4	16	14
40	28.5	5	20.5	19	8	M14x1.5	4	16	14
50	33.5	5	26	27	11	M18x1.5	4	20	17
63	33.5	5	26	27	11	M18x1.5	4	20	17
80	43.5	8	32.5	32	13	M22x1.5	6	25	22
100	43.5	8	32.5	36	13	M26x1.5	5.5	32	27

SQ Series Compact Cylinder(Long Stroke Type)

SQ

Compact Cylinder(Long Stroke Type)



Specifications

Bore(mm)	32	40	50	63	80	100
Acting type	Double Acting/Single Acting					
Working medium	Clean Air(40 μm filtration)					
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)					
Garanteed pressure(MPa)	1.5					
Working temperature(°C)	-20~80(No freezing)					
Speed range(mm/s)	30~500					
Cushion type	Rubber cushion					
Port size ①	G1/8		G1/4		G3/8	

① PT, NPT port size is optional.

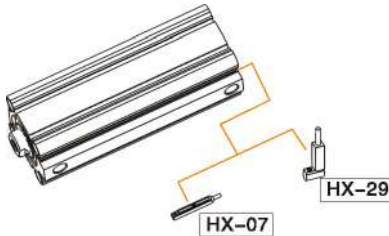
How to Order?

Series No	Type No.	Bore	X Stroke	Adjustable Stroke	Magnet No-	Piston Rod Thread Type	Thread Type
SQA (Thread type)		32 40 50 ...	10 20 30 40 50 75 100	Details in stroke chart	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT
	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return						

Order Example:

SQA Series basic type cylinder, 40mm bore, 125mm stroke, with magnet, male thread on piston rod, G thread, ERP code is: SQA40X125-S-M

Optional Accessories



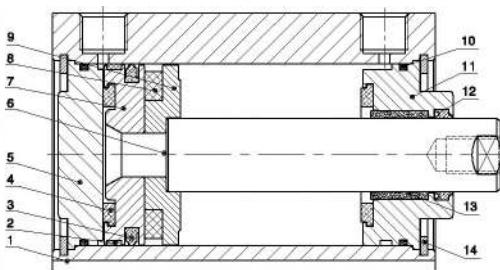
Note: Short stroke please use HX-29 series due to limited space.

Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
32 40 60 63	125 150 175 200 250 300	300
80 100	125 150 175 200 250 300 350	350

Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.
e.g. 115mm stroke cylinder has the same dimensions of 125 std. stroke cylinder.

Internal Structure

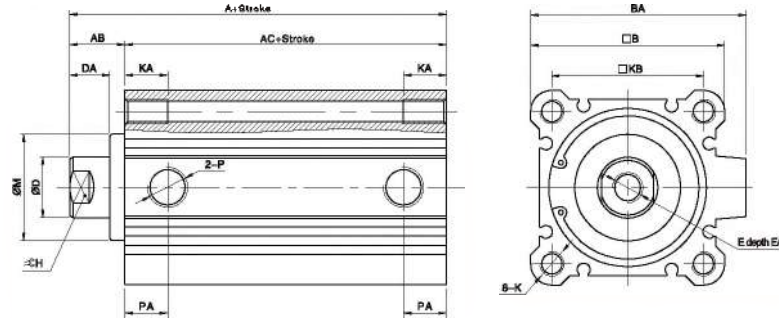


No.	Part Name	Material
1	Barrel	Aluminum alloy
2	Wear ring	PTEE
3	Piston seal	NBR
4	Anti-bump cushion	NBR/TPU
5	Rear cover	Aluminum alloy
6	Piston rod	S45C hard chrome carbon steel
7	Piston	Aluminum alloy
8	Magnet	Plastic
9	Magnet base	Aluminum alloy
10	O-ring	NBR
11	Head cover	Aluminum alloy
12	Piston rod seal	TPU
13	Self lubricating bearing	Bronze powder
14	C-type retainer ring	Spring steel

SQ Series Compact Cylinder(Long Stroke Type)

Main Dimension

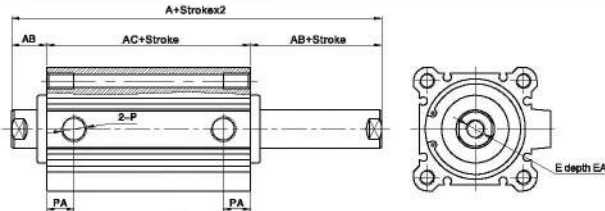
SQA32~SQA100(S>100)



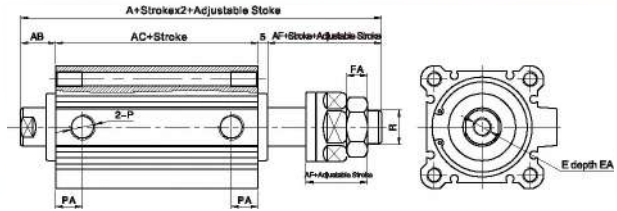
Bore/Sign	A	AB	AC	B	BA	D	DA	E	EA	H	K	KA	KB	M	P	PA
32	62.5	17	45.5	45	49.5	16	12	M8X1.25	13	14	M6X1.0	10	34	22	1/8"	12.5
40	72	17	55	52	57	16	12	M8X1.25	13	14	M6X1.0	10	40	28	1/8"	14
50	73.5	18	55.5	64	71	20	13	M10X1.5	15	17	M8X1.25	14	50	35	1/4"	14
63	75	18	57	77	84	20	13	M10X1.5	15	17	M10X1.5	19	60	35	1/4"	16.5
80	86	20	66	98	104	25	15	M16X2.0	21	22	M12X1.75	22	77	43	3/8"	19
100	97.5	22	75.5	117	123.5	32	17	M20X2.5	27	27	M12X1.75	22	94	59	3/8"	23

Note: With magnet and without magnet, the dimensions are same.

SQAD32~SQAD100(S>100)



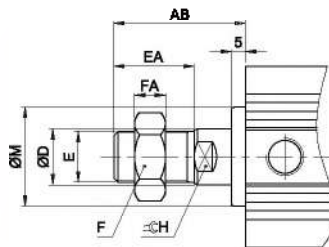
SQAJ32~SQAJ100(S>100)



Bore/Sign	A(SQAD)		A(SQAJ)		AB	AC		AF	E	EA	FA	PA	R
	No magnet	With magnet	No magnet	With magnet		Standard	With magnet						
32	78.5	89.5	97.5	107.5	17	45.5	55.5	30	M8X1.25	13	8	12.5	M14X1.5
40	89	99	106	116	17	66	65	29	M8X1.25	13	8	14	M14X1.5
50	91.5	101.5	110.5	120.5	18	55.5	65.5	32	M10X1.5	15	11	14	M18X1.5
63	99	109	112	122	18	57	67	32	M10X1.5	15	11	16.5	M18X1.5
80	108	116	128	138	20	66	76	37	M16X2.0	21	13	19	M22X1.5
100	119.6	129.5	139.5	149.5	22	75.5	85.5	37	M20X2.5	27	13	23	M26X1.5

Dimension of Male Thread

Φ32~Φ100(S>100)



Bore/Sign	AB	D	E	EA	FA	F	H	M
32	38.5	16	M14X1.5	23.5	8	18	14	22
40	38.5	16	M14X1.5	23.5	8	18	14	28
50	43.5	20	M18X1.5	28.5	11	27	17	35
63	43.5	20	M18X1.5	28.5	11	27	17	35
80	53.5	25	M22X1.5	35.5	13	32	22	43
100	53.5	32	M26X1.5	35.5	13	36	27	69

SQ (Long stroke)

SQM Series Compact Cylinder/Guide Rod Type

SQM

Guide Rod Type Cylinder



Specifications

Bore Size(mm)	12	16	20	25	32	40
Acting type	Double Acting					
Working medium	Clean Air (40 μ filtration)					
Working pressure (psi)	0.1~1.0					
Guaranteed pressure (psi)	1.5					
Working temperature	-20~80(No freezing)					
Speed range	30~500					
Stroke tolerance	+1.0 0					
Cushion type	Rubber cushion					
Port Size	M5X0.8				G1/8①	
Non-rotating tolerance	±0.2'			±0.1°		

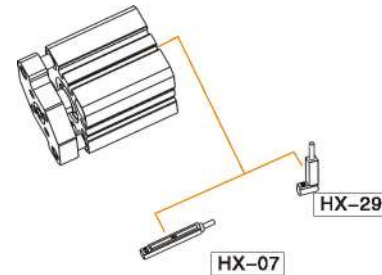
① PT、NPT port size is optional.

How to Order?

Series No	Bore X Stroke	Magnet No	Thread Type
SQM	12 10 16 20 20 30 25 ... 32 40	Blank: No magnet S: With magnet	Blank: G P: PT T: NPT

Order Example:
SQM series basic type cylinder, 25mm bore, 20mm stroke, with magnet, G thread, no mounting.
ERP code is: SQM 25X20-S

Optional Accessories

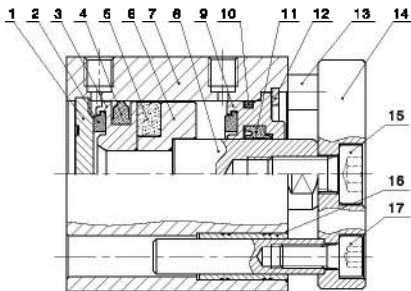


Note: Short stroke please use HX-29 series due to limited space.

Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
Double Acting	12, 16 5 10 15 20 25 30	30
	20, 25 5 10 15 20 25 30 35 40 45 50	50
	32, 40 5 10 15 20 25 30 35 40 45 50 75 100	100

Internal Structure

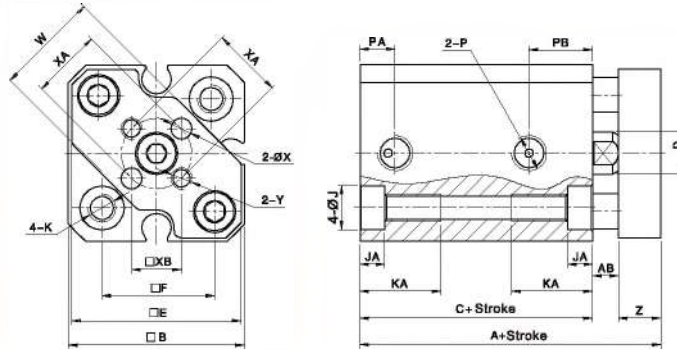


NO.	Part Name	Material
1	Back cover	Aluminum alloy
2	Anti-bump cushion	TPU
3	Piston	Aluminum alloy
4	Piston seal	NBR
5	Integral magnet	RbFeB
6	Magnet base	Aluminum alloy
7	Barrel	Aluminum alloy
8	Piston rod	Carbon steel
9	Rear cover	Aluminum alloy
10	O-ring	NBR
11	Piston rod seal	TPU
12	C type retainer ring	Spring steel
13	Rod	Stainless steel
14	Fixed plate	Aluminum alloy
15	Hex socket cap screw	Carbon steel
16	Sliding bearing	Brass
17	Hex socket cap screw	Carbon steel

SQM Series Compact Cylinder/Guide Rod Type

Main Dimension

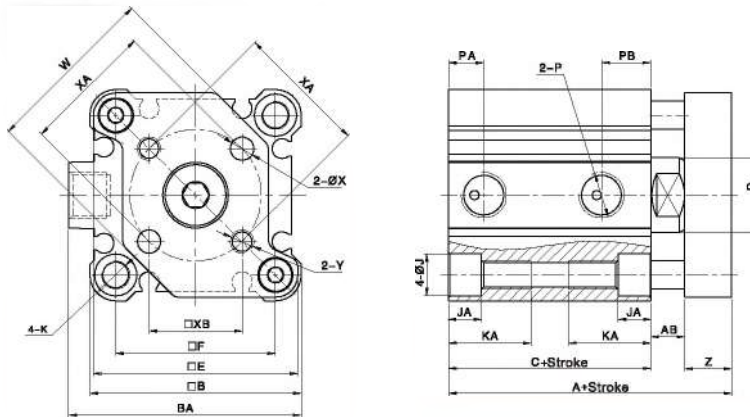
SQM Φ 12~25



Bore/Sign	A		C		AB	B	D	E	F	J	JA	K
	Standard	With magnet	Standard	With magnet								
12	26.5	37.5	17	28	3.5	25	6	24	16	6.3	3.5	M4X0.7 Through hole: ϕ 3.4
16	29	40	18.5	30.5	3.5	29	8	28	20	6.5	3.5	M4X0.7 Through hole: ϕ 3.4
20	32	44	19.5	31.5	4.5	36	10	35	25.5	9	7	M6X1.0 Through hole: ϕ 5.2
25	35.5	45.5	22.5	32.5	5	40	12	39	28	9	7	M6X1.0 Through hole: ϕ 5.2

Bore/Sign	KA	P	PA	PB		W	X	XA	XB	Y	Z
12	11.5	M5X0.8	5	7.5	9	15	3	10	7.1	M3X0.5	6
16	11.5	M5X0.8	5.5	8	9.5	21	3	14	9.9	M3X0.5	6
20	18	M5X0.8	5.5	9	9	26	4	17	12	M4X0.7	8
25	17.5	M5X0.8	5.5	11	11	29	5	22	15.6	M5X0.8	8

SQM Φ 32、 Φ 40



Bore/Sign	A		C		AB	B	BA	D	E	F	J	JA
	Standard	With magnet	Standard	With magnet								
32	40	50	23	33	7	45	49.5	16	43.5	34	9	3
40	46.5	56.5	29.5	39.5	7	52	57	16	50.5	40	9	3

Bore/Sign	K	KA	P	PA	PB	W	X	XA	XB	Y	Z
40	M6X1.0 Through hole: ϕ 5.2	17.5	1/8"	8	11	46	5	33	23.3	M5X0.8	10

SQK Series Rotary Clamp Cylinder

SQK

Rotary Clamp Cylinder



Specifications

Bore(mm)	16	20	25	32	40
Acting Type	Double Acting				
Working medium	Clean Air(40 μm filtration)				
Working pressure (MPa)	0.15~1.0(MPa)				
Guaranteed pressure (MPa)	1.5(MPa)				
Working temperature (°C)	-20~80(No freezing)				
Piston Speed (mm/s)	50~200				
Rotation angle	90° ± 10°				
Rotation Direction	Left rotation or right rotation				
Rotation Stroke (MM)	7.5	9.5		15	
Clamping stroke (MM)	10 20 30		10 20 30 50		
Stroke Tolerance	+1.0 0				
Cushion Type	Rubber cushion				
Port Size	M5x0.8			G1/8	

① PT, NPT port size is optional.

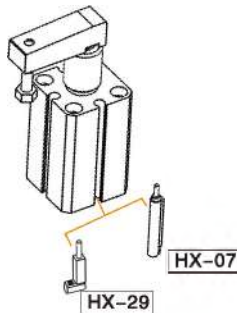
How to Order?

Series No	Rotation Direction	Bore X Stroke	Magnet.No	Type No	Mounting Type	Thread Type
SQK	R:Right Rotation L:Left Rotation	16 10 20 20 25 30 32 50 40	S: With magnet Blank: Basic Type(with arm) J: No arm		Blank: No mounting	Blank: G P : PT T : NPT

Order Example:

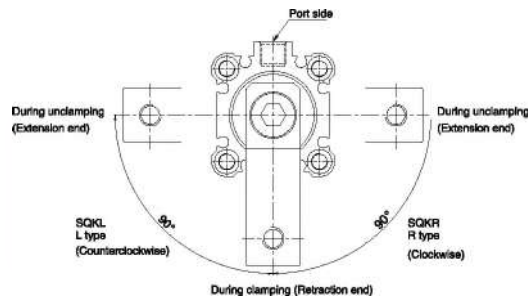
SQK series basic type cylinder, bore 25mm, stroke20mm, right rotation, G thread, with arm, no mounting, ERP code is: SQKR25 x 20-S

Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

Definition of Rotation Direction and Rotation Angle

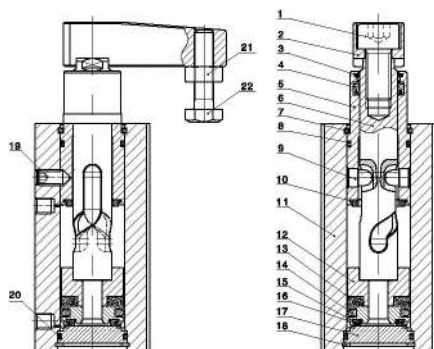


Stroke

	Bore(mm)	Clamping Stroke(mm)	Max.Clamping Stroke(mm)
Double acting	16, 20, 25	10 20 30	30
	32, 40	10 20 30 50	50

SQK Series Rotary Clamp Cylinder

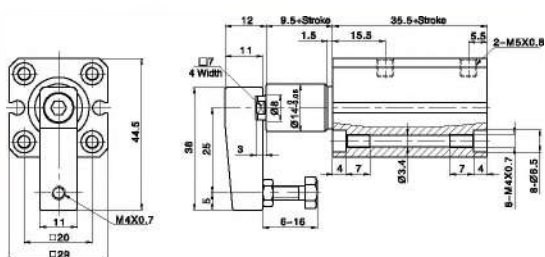
Internal Structure



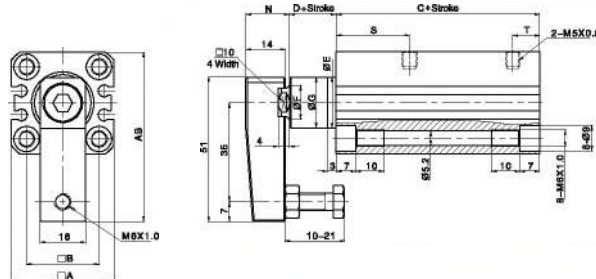
No.	Part Name	Material	No.	Part Name	Material
1	Hex Socket Cap Screw	Carbon steel	12	Magnet Base	Aluminium alloy
2	Clamping Arm	Steel	13	Integral Magnet	NdFeB/Plastic
3	Dust Scraping Ring	Free Machining Steel	14	Piston Seal	NBR
4	Piston Rod Seal	NBR	15	Piston	Aluminium alloy
5	Head Cover	Aluminium alloy	16	Anti-collision Gasket	PTEE
6	Piston Rod	Special material	17	Rear Cover	Aluminium alloy
7	Check Ring	Spring Steel/Stainless Steel	18	Check Ring for C Type Hole	Spring Steel
8	O-ring	NBR	19	Hex Socket Tighten Screw	Carbon steel
9	Rolling Stopper Pin	Special material	20	O-ring	NBR
10	Anti-collision Gasket	TPU	21	Hex Nut	Carbon steel
11	Barrel	Aluminium alloy	22	Hex bolt	Stainless Steel

Main Dimension

SQK $\Phi 16$

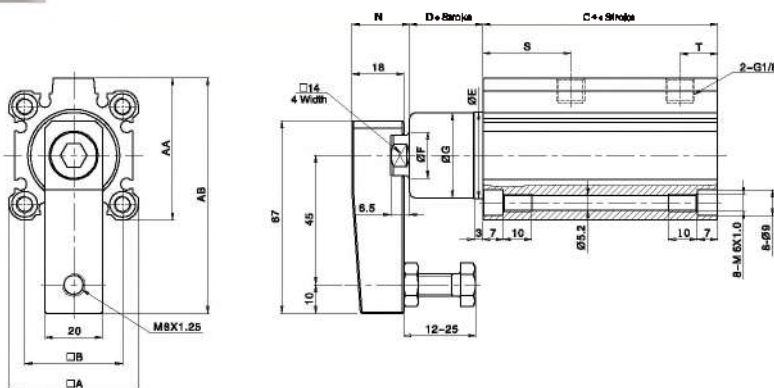


SQK $\Phi 20, \Phi 25$



Bore/Sign	A	AB	B	C	D	E	F	G	N	S	T
20	38	80	25.5	62	6.5	14.5 _{±0.08}	12	17.9	15.5	26	5.5
25	40	62	20	63	6.5	22.5 _{±0.08}	12	22.5	18.5	27.5	10

SQK $\Phi 32, \Phi 40$

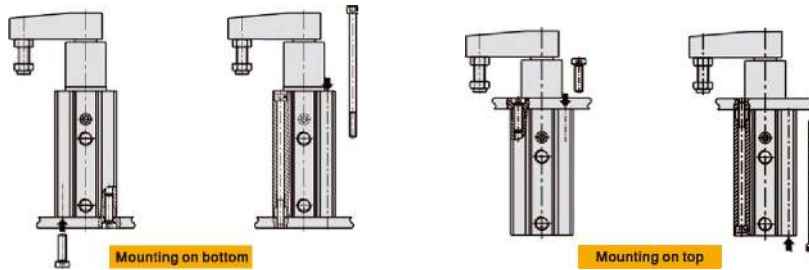


Bore/Sign	A	AA	AB	B	C	D	E	F	G	N	S	T
32	45	49.5	82	34	71.5	15.5	30.5 _{±0.08}	16	29.5	20	30.5	13
40	52	51	86	40	65	23	30.5 _{±0.08}	16	29.5	20	27.5	8

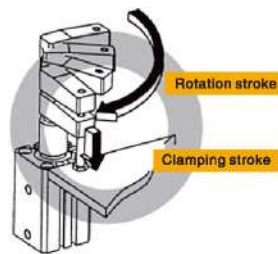
SQK Series Rotary Clamp Cylinder

Installation and Use

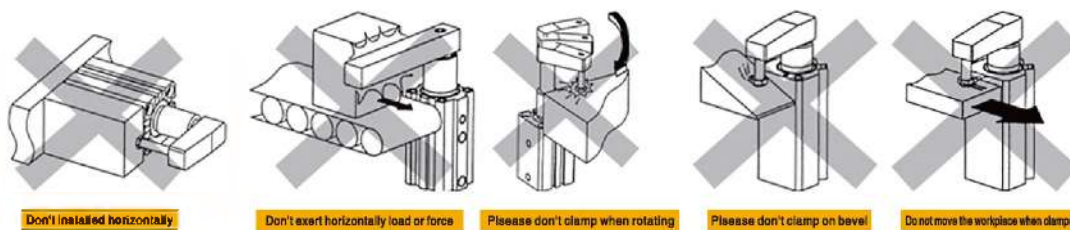
1. Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of impurities into the cylinder.
2. The medium used by cylinder shall be filtered to $40\ \mu\text{m}$ or below.
3. Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
4. If the cylinder is dismantled and stored for a long time, please conduct anti-rust treatment to the surface.
Anti-dust jam cap shall be added in air inlet and outlet ports.
5. To insure the life-span of cylinder and jig, please use flow control valve to control the speed of cylinder.
6. The method of installation are mounted by flange on top or bottom.



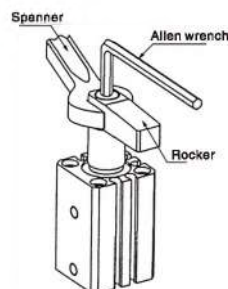
7. Please clean the piston rod and dust scraping ring to protect the cylinder.
8. Magnetic switch of SQK is same as SQ series cylinder.
9. Please install the cylinder as below diagram.



10. The installation method as the diagram below is wrong, and will injure the cylinder and shorten the cylinder life.



11. Please follow the diagram below on right side to assemble/disassemble the rocker by spanner and allen wrench, don't hold the body to assemble/disassemble rocker, or will damage the cylinder.



EU Series Free Mount Cylinder

EU

Free Mount Cylinder



Specifications

Bore(mm)	6	10	16	20	25	32
Acting type	Double acting/Single acting					
Working medium	Clean air(40 μm filtration)					
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)					
Guaranteed pressure(Mpa)	1.5					
Working temperature(°C)	-20~80(No freezing)					
Speed range(mm/s)	30~500					
Cushion type	Rubber cushion					
Port size	M5 x 0.8					G1/8

① PT、NPT port size is optional.

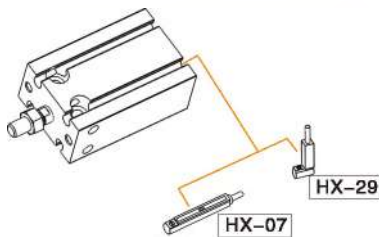
How to Order?

Series No	Type No	Bore	X Stroke	- Adjustable Stroke	- Magnet No	- Thread Type
EU	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return	6 10 16 32	5 10 15 80	10 20 30	Blank: No magnet S: With magnet	Blank: G P: PT T: NPT

Order Example:

EU Series single acting spring return cylinder, 32mm bore, 30mm stroke, with magnet, NPT thread. ERP code is: EUSB 32X30-S-T

Optional Accessories



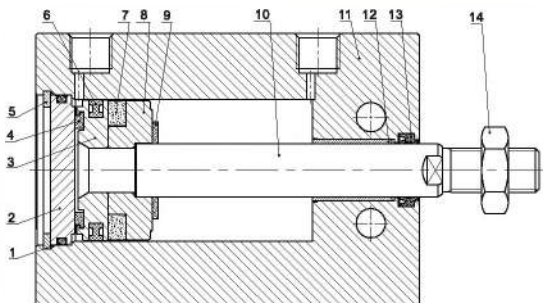
Note: Short stroke please use HX-29 series due to limited space.

Stroke

Bore (mm)	Standard Stroke (mm)										Max. Stroke (mm)
6	5	10	15	20	25	30	35				35
10	5	10	15	20	25	30	35	40			40
16	5	10	15	20	25	30	40	50	60		60
20	5	10	15	20	25	30	40	50	60	70	80
25	5	10	15	20	25	30	40	50	60	70	80
32	5	10	15	20	25	30	40	50	60	70	80

Note: 1. The maximum range of non-standard stroke is adjusted from the next longer stroke (add gasket inside), which has the same dimensions as the next longer stroke std. stroke cylinder. e.g. 23mm non-standard stroke cylinder is adjusted from 25 standard stroke cylinder, they have the same dimensions.
2. When ordering the stroke is greater than the Max. stroke, please contact the company.

Internal Structure



No.	Part Name	Material
1	O-ring	NBR
2	Rear cover	Aluminum alloy
3	Piston	Aluminum alloy
4	Anti-bump cushion	TPU
5	C type retainer ring	Spring steel
6	Piston seal	NBR
7	Magnet	NdFeB
8	Magnet base	Aluminum alloy
9	Anti-bump cushion	TPU/NBR
10	Piston rod	Stainless steel
11	Barrel	Aluminum alloy
12	Bearing	Compound material
13	Piston rod seal	TPU/NBR
14	Nut	Carbon steel

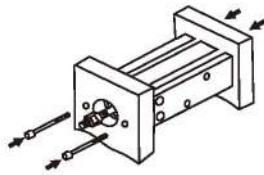
3

EU

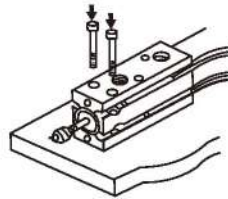
EU Series Free Mount Cylinder

Installation

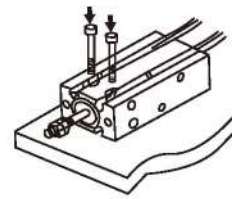
Parallel-shaft model (body connected)



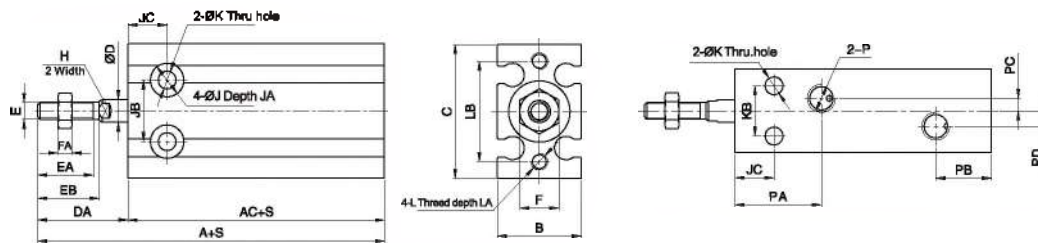
Vertical-shaft model (with through bore in the body)



Side-connected (with through bore in the body)



Main Dimension



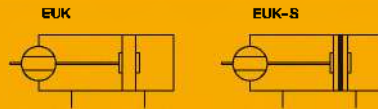
Bore/Sign	A(No magnet)	A(With magnet)	AC(No magnet)	AC(With magnet)	B	C	D	DA	E	EA	EB						
8	46	46	33	33	13	22	3	13	M3X0.5	7	8						
10	52	52	36	36	15	24	4	16	M4X0.7	10	11						
16	46	56	30	40	20	32	6	18	M5X0.8	11	12.5						
20	55	65	36	46	26	40	8	19	M6X1.0	12	14						
25	63	73	40	50	32	50	10	23	M8X1.25	15.5	18						
32	69	79	42	52	40	62	12	27	M10X1.25	18.5	22						
Bore/Sign	F	FA	H	J	JA	JB	JC	K	KB	L	LA	LB	P	PA	PB	PC	PD
8	5.5	2.5	-	6.8	4.5	10	7	3.2	7	M3X0.5	5	17	M5X0.8	15	10	-	-
10	7	3	-	6.8	4.8	11	7	3.2	9	M3X0.5	5	18	M5X0.8	15.5	10	-	-
16	8	4	5	7.5	6.5	14	7	4.3	12	M4X0.7	6	25	M5X0.8	15.5	11.5	2	2
20	10	5	6	9.5	8	16	9	5.5	16	M5X0.8	8	30	M5X0.8	21	10	4.5	5.5
25	12	6	8	9.5	9	20	10	5.5	20	M5X0.8	8	38	M5X0.8	23	10	4.5	6
32	17	8	10	11	11.5	24	11	6.8	24	M6X1.0	9	48	1/8"	23	12.5	4.5	9

Note: When bore is $\phi 6$, 10mm, EU cylinder with double nuts.

EUK Series Free Mount Cylinder

EUK

Free Mount Cylinder



Specifications

Bore(mm)	10	16	20	25	32
Acting type	Double acting/Single acting				
Working medium	Clean air(40 μm filtration)				
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)				
Guaranteed pressure(Mpa)	1.5				
Working temperature(°C)	-20~80(No freezing)				
Speed range(mm/s)	Double acting: 30~500		Single acting: 50~500		
Stroke tolerance	+1.0 0				
Cushion type	Rubber cushion				
Port size	M5 x 0.8			G1/8 ①	

① PT, NPT port size is optional.

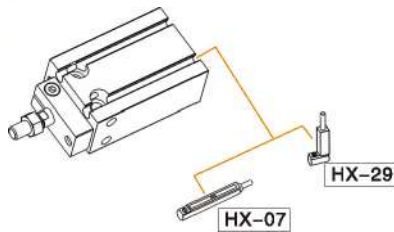
How to Order?

Series No	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Thread Type
EUK	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return	10 16 ... 32	5 10 15 ...	10 20 30 ...	10 20 30	Blank: No magnet S: With magnet	Blank: G

Order Example:

EUK Series basic type cylinder, 32mm bore, 30mm stroke, with magnet, G thread, ERP code is: EUK 32X30-S

Optional Accessories



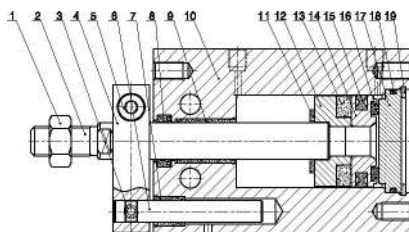
Note: Short stroke please use HX-29 series due to limited space

Stroke

Bore (mm)	Standard Stroke (mm)										Max. Stroke (mm)
10	5	10	15	20	25	30	35	40			40
16	5	10	15	20	25	30	40	50	60		80
20	5	10	15	20	25	30	40	50	60	70	80
25	5	10	15	20	25	30	40	50	60	70	80
32	5	10	15	20	25	30	40	50	60	70	80

Note: 1. The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.
e.g. 23mm stroke cylinder has the same dimensions of 25 std. stroke cylinder
2. When ordering the stroke is greater than the Max. stroke, please contact the company.

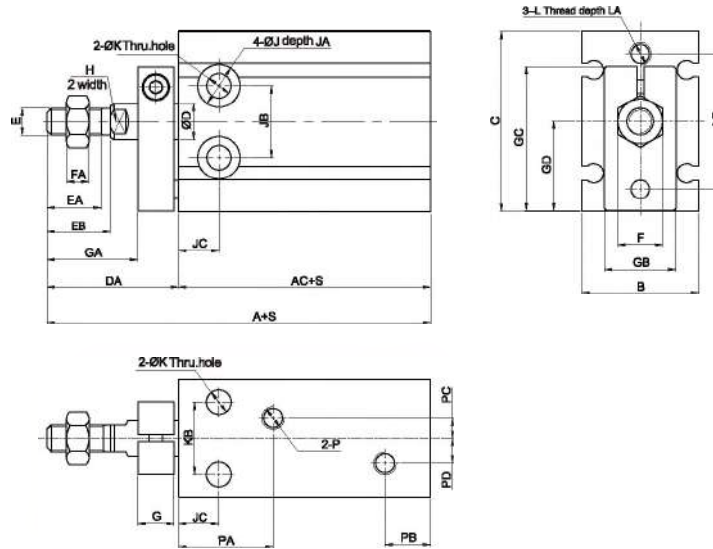
Internal Structure



No.	Part Name	Material	No.	Part Name	Material
1	Nut	Carbon steel	11	Bumper	TPU/NBR
2	Piston rod	Stainless steel	12	Magnet holder	Aluminum alloy
3	Socket head screw	Carbon steel	13	Magnet	NdFeB
4	No-rotating plate	Aluminum alloy	14	Piston	Aluminum alloy
5	Hexagon socket cap screw	Carbon steel	15	Piston seal	NBR
6	Fixed rod	Stainless steel	16	Bumper	TPU
7	Self lubricating bearing	Compound material	17	Rear cover	Aluminum alloy
8	Piston rod seal	TPU/NBR	18	O-ring	NBR
9	Bearing	Compound material	19	C-clip	Spring steel
10	Barrel	Aluminum alloy			

EUK Series Free Mount Cylinder

Main Dimension



Bore/Sign	A(No magnet)	A(With magnet)	AC(No magnet)	AC(With magnet)	B	C	D	DA	E	EA	EB	F									
10	57	57	36	38	15	24	4	21	M4X0.7	10	11	7									
16	56	66	30	40	20	32	6	26	M5X0.8	11	12.5	8									
20	65	75	36	46	26	40	8	29	M6X1.0	12	14	10									
25	73	83	40	50	32	50	10	33	M8X1.25	15.5	18	12									
32	84	94	42	52	40	62	12	42	M10X1.25	19.5	22	17									
Bore/Sign	FA	G	GA	GB	GC	GD	H	J	JA	JB	JC	K	KB	L	LA	LB	P	PA	PB	PC	PD
10	3	8	12	13	20.4	11.8	-	5.8	4.8	11	7	3.2	9	M3X0.5	5	18	M5X0.8	15.5	10	-	-
16	4	8	17	13	26.3	15.7	5	7.5	6.5	14	7	4.3	12	M4X0.7	6	25	M5X0.8	15.5	11.5	2	2
20	5	8	20	16	32	19.8	8	9.5	8	16	9	5.5	16	M5X0.8	8	30	M5X0.8	21	10	4.5	5.5
25	6	10	22	19	40	24.8	8	9.5	9	20	10	5.5	20	M5X0.8	8	38	M5X0.8	23	10	4.5	6
32	6	12	29	24	49	30.8	10	11	11.5	24	11	6.6	24	M6X1.0	9	48	1/8"	23	12.5	4.5	9

EUP Series Panel Cylinder

EUP

Panel Cylinder



Specifications



Bore(mm)	6	10	16
Acting Type	Double Acting		
Working Medium	Clean Air(after 40 μm filtration)		
Working Pressure(MPa)	0.1-0.7		
Guaranteed Pressure(MPa)	1.05		
Working Temperature(°C)	-20-60(No freezing)		
Piston Speed(mm/s)	30-500		
Stroke tolerance	$^{+0.05}$ 0		
Cushion	Rubber cushion		
Port Size	M3 x 0.5		M6 x 0.8

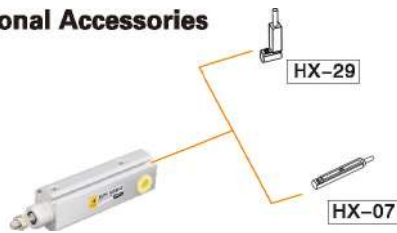
How to order?

Series No.	Type No.	Bore X Stroke	Magnet No.	Piston Rod Thread Type	Mounting Type	
EUP	Blank: Basic type H: Rear hinge seat type	6 10 16	5 10 15 ...	Blank: No magnet S: With magnet	Blank: Male thread N: No thread	Blank: No CF CR

Order Example:

EUP series basic type cylinder, bore 10, stroke 50, with magnet, no mounting type.
The ERP code is: EUP10X50-S

Optional Accessories

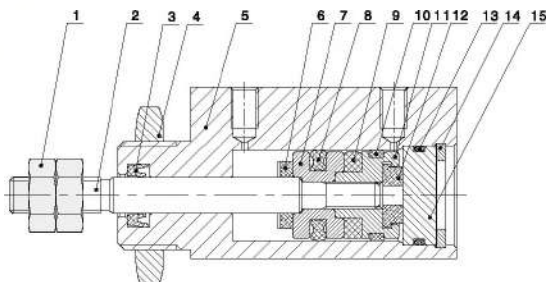


Note: Short stroke please use HX-29 series due to limited space.

Stroke

	Bore(mm)	Standard Stroke(mm)	Max.Stroke(mm)
	Double Acting	6	5 10 15 20 25
10		5 10 15 20 25 30 35 40	40
16		5 10 15 20 25 30 35 40	40

Internal Structure

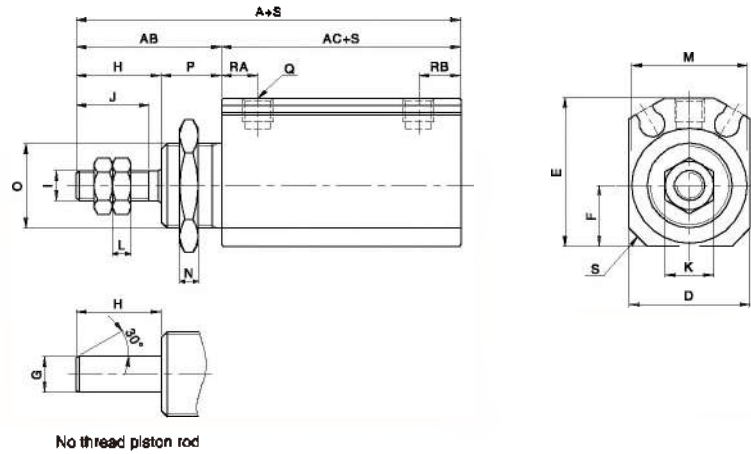


No.	Part Name	Material
1	Nut	Carbon steel
2	Piston Rod	SUS 304 hard chrome carbon steel
3	Front Cover o-ring	NBR
4	Nut	Carbon steel
5	Barrel	Aluminum Alloy
6	Anti-bump cushion	TPU 16:NBR
7	Piston	6:SUS304 10:Cu 16:Aluminum Alloy
8	Piston seal	NBR
9	Magnet	NdFeB
10	Wearing ring	PTFE
11	Magnet Seat	SUS304 16: Aluminum Alloy
12	Anti-bump cushion	TPU 16:NBR
13	O-ring	NBR
14	Snap ring	Spring steels
15	Rear Cover	Aluminum Alloy

EUP Series Panel Cylinder

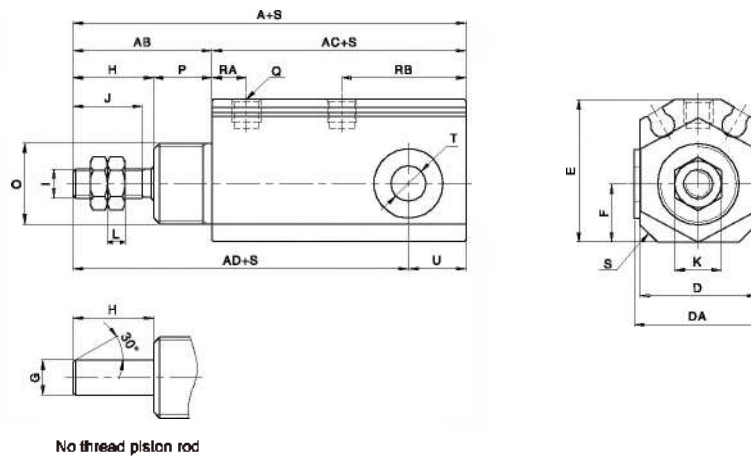
Main Dimensions

EUP



Bore/Sign	A		AB	AC		D	E	F	G	H	I	J	K	L	M	N	O	P	Q	RA	RB	S
	No magnet	With magnet		No magnet	With magnet																	
6	33	38	17	16	21	14	16.5	6	3	9	M3X0.5	7	5.5	2.5	12.7	3	M10X1.0	8	M3X0.5	4.6	6.5	2
10	39.5	44.5	20	19.5	24.5	15	19	7	4	12	M4X0.7	10	7	3	17	3	M12X1.0	8	M3X0.5	6	7	2.5
16	43.5	48.5	24	19.5	24.5	20	24.5	10	6	14	M5X0.8	12	8	3	19	3	M14X1.0	10	M5X0.8	6	7	3

EUPH

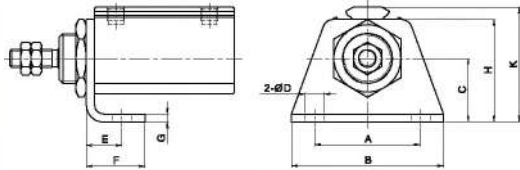


Bore/Sign	A		AB	AC		AD		D	DA	E	F	G	H	I	J	K	L
	No magnet	With magnet		No magnet	With magnet	No magnet	With magnet										
6	38	43	17	21	26	34	39	14	-	16.5	6	3	9	M3X0.5	7	5.5	2.5
10	50.5	55.5	20	30.5	35.5	44	49	15	17	19	7	4	12	M4X0.7	10	7	3
16	58	63	24	34	39	48	53	20	22	24.5	10	6	14	M5X0.8	12	8	3
Bore/Sign	Q		P	Q		RA	RB	S	T	U							
6	M10X1.0		8	M3X0.5		4.6	11.5	2	$\varnothing_{-0.06}^{+0.06}$	4							
10	M12X1.0		8	M3X0.5		6	18	2.5	$\varnothing_{-0.06}^{+0.06}$	6.5							
16	M14X1.0		10	M5X0.8		6	21.5	3	$\varnothing_{-0.06}^{+0.06}$	10							

EUP Series Panel Cylinder

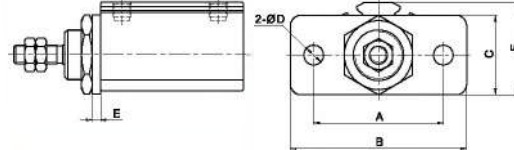
Mounting Type

LB



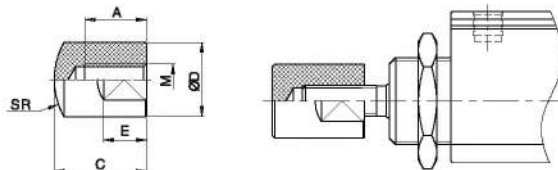
Bore/Sign	A	B	C	D	E	F	G	H	K
FJ-EUP6LB	20	28	11	3.4	6.5	10.5	1.6	19	21.5
FJ-EUP10LB	24	32	13	4.5	7	12	1.6	22	25
FJ-EUP16LB	30	43	18	5.5	10	16.5	2.3	28	32.5

FA

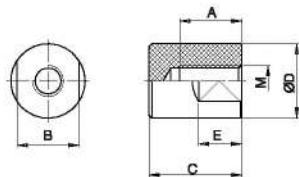


Bore/Sign	A	B	C	D	E	F
FJ-EUP6FA	24	32	16	3.4	1.6	18.5
FJ-EUP10FA	28	37	18	4.5	1.6	21
FJ-EUP16FA	36	48	22	5.5	2.3	25.5

CR(Round head)

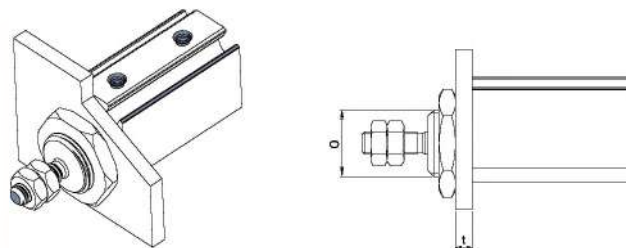


CF(Flat head)



Bore/Sign	A	B	C	D	E	M	SR
FJ-EUP6CF/CR	6	6	11	8	5	M3X0.5	8
FJ-EUP10CF/CR	8	8	13	10	6	M4X0.7	10
FJ-EUP16CF/CR	10	10	15	12	7	M6X0.8	12

Installation and Use



Bore	Thread specification(t)	Max. Thickness(t)	Panel hole size
6	M10X1.0	4	Ø10.5
10	M12X1.0	4	Ø12.5
16	M14X1.0	6	Ø14.5

EUM Series Minitype Free Mount Cylinder

EUM

Minitype Free Mount Cylinder



Specifications

Bore(mm)	6	8	10	12	16	20
Acting Type	Double Acting					
Working Medium	Clean Air(after 40 μm filtration)					
Working Pressure(MPa)	0.15~0.7					
Guaranteed Pressure(MPa)	1.05					
Working Temperature(°C)	-20~80(No freezing)					
Piston Speed(mm/s)	30~500					
Cushion	None			Rubber cushion		
Stroke tolerance	+1.0 n					
Port Size	M3 × 0.5				M5 × 0.8	

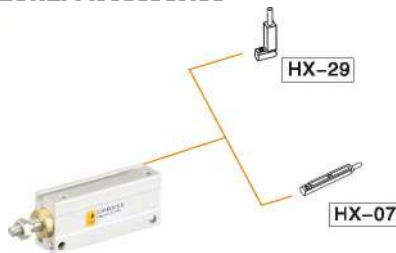
How to order?

Series No.	Type No.	Bore × Stroke	Magnet No.	Piston Rod Thread Type	Mounting Type
EUM	Blank: Basic type	6 8 10 12 16 20	Blank: No magnet S: With magnet	Blank: Female thread N: Male thread	Blank: Lateral mounting R: Axial mounting (Note: ø6, ø8, ø10 is not available)

Order Example:

EUM series basic type cylinder, bore 10, stroke 20, with magnet, male thread
The ERP code is: EUM10X20-S-M

Optional Accessories

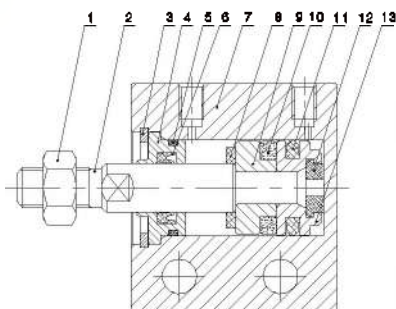


Note: Short stroke please use HX-29 series due to limited space.

Stroke

Bore(mm)	Standard Stroke(mm)	Max.Stroke(mm)
6	4 6 8 10 15 20 25 30	30
8	4 6 8 10 15 20 25 30	30
10	4 6 8 10 15 20 25 30	30
12	5 10 15 20 25 30	30
16	5 10 15 20 25 30	30
20	5 10 15 20 25 30 35 40 45 50	50

Internal Structure

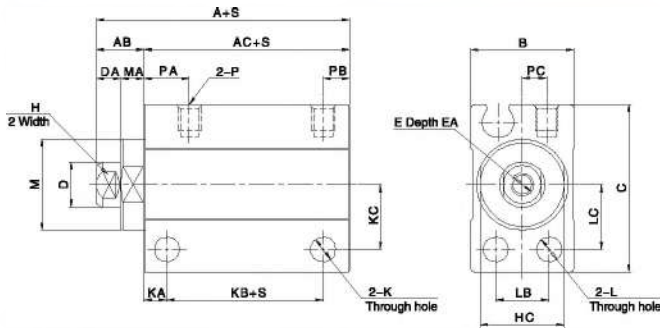


No.	Part Name	Material
1	Nut	Carbon steel
2	Piston Rod	SUS 304 hard chrome carbon steel
3	Snap ring	Spring steels
4	Head cover	Cu/Aluminum alloy
5	O-ring	NBR
6	Head cover o-ring	NBR
7	Barrel	Aluminum Alloy
8	Anti-bump cushion	NBR
9	Magnet Seat	SUS304/Aluminum alloy
10	Magnet	NdFeB
11	Piston seal	NBR
12	Anti-bump cushion	TPU
13	Piston	SUS304/Cu/Aluminum alloy

EUM Series Minitype Free Mount Cylinder

Main Dimensions

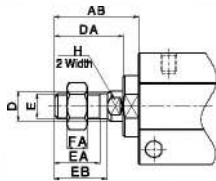
Ø6-Ø10



	A		AB	AC		B	C	D	DA	E	EA	H	HC
	No magnet	With magnet		No magnet	With magnet								
6	19	24	6	13	18	13	19	4	3	M2.5X0.45	5	3.5	8
8	19	24	6	13	18	13	21	5	3	M3X0.5	6	4.5	10
10	19	24	6	13	18	13.5	22	6	3	M3X0.5	6	5	11

Bore/Sign	K	KA	KB		KC	L	LB	LC	M	MA	P	PA	PB	PC
			No magnet	With magnet										
6	3.3	3	6.5	11.5	7	3.3	7	7	9	3	M3X0.5	6	3.5	3
8	3.3	3	6.5	11.5	8	3.3	7	8	11	3	M3X0.5	6	3.5	3
10	3.3	3	6.5	11.5	8.5	3.3	7	8.5	12	3	M3X0.5	6	3.5	3.2

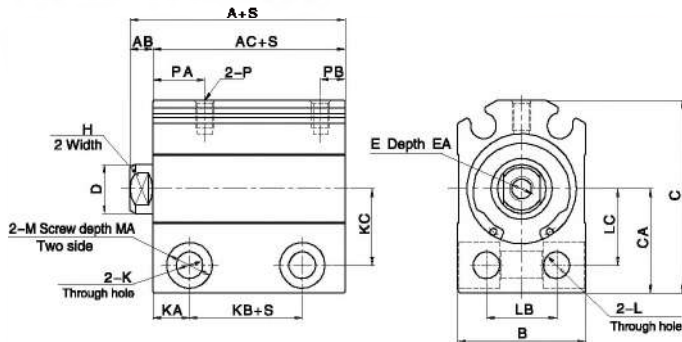
Ø6-Ø10 (Male Dimensions)



Bore/Sign	AB	D	DA	E	EA	EB	FA	H
6	12.5	4	9.5	M3X0.6	5.5	6.5	2.5	3.5
8	14.5	5	11.5	M4X0.7	7	8.5	3	4.5
10	16.5	6	13.5	M5X0.8	9	10.5	4	5

Note: Not marked dimensions are same sizes as the female type.

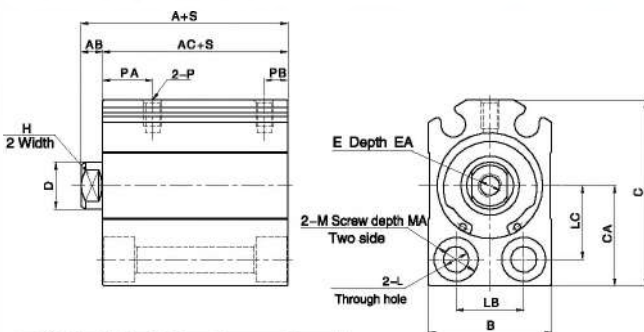
Ø12-Ø20 (Lateral Type)



Bore/Sign	A		AB	AC		B	C	CA	D	E	EA	H	K	KA
	No magnet	With magnet		No magnet	With magnet									
12	19	24	9.5	15.5	20.5	17	28.5	15.5	6	M3X0.5	6	5	4.4	6
16	20	25	9.5	16.5	21.5	21	31.5	17	6	M4X0.7	6	6	4.4	6
20	24	29	4.5	19.5	24.5	25	38.5	21	10	M5X0.8	7	8	5.5	7

Bore/Sign	KB		KC	L	LB	LC	M	MA	P	PA	PB
	No magnet	With magnet									
12	3.5	7.5	11	4.4	8	11	7.5	7	M3X0.5	7.5	4
16	4	8.5	12.5	4.4	11.5	12.5	7.5	7	M3X0.5	8.5	4
20	5.5	9.6	15.5	5.5	13.6	15.5	8.6	9	M5X0.8	8.5	5.5

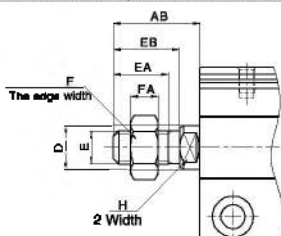
Ø12-Ø20 (Axial Type)



Bore/Sign	A		AB	AC		B	C	CA	D	E	EA	H
	No magnet	With magnet		No magnet	With magnet							
12	19	24	9.5	15.5	20.5	17	28.5	15.5	6	M3X0.5	6	5
16	20	25	9.5	16.5	21.5	21	31.5	17	6	M4X0.7	6	6
20	24	29	4.5	19.5	24.5	25	38.5	21	10	M5X0.8	7	8

Bore/Sign	LB	LC	M	MA	P	PA	PB
16	11.5	12.5	7.5	5.5	M3X0.5	8.5	4
20	13.5	15.5	9.5	6.5	M5X0.8	8.5	6.5

Ø12-Ø20 (Male Dimensions)



Bore/Sign	AB	D	E	EA	EB	F	FA	H
12	14	8	M5X0.8	9	10.5	8	4	5
16	15.5	8	M6X1.0	10	12	10	5	6
20	18.5	10	M6X1.25	12	14	12	6	8


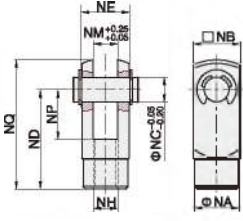

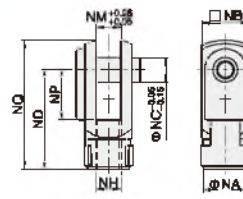

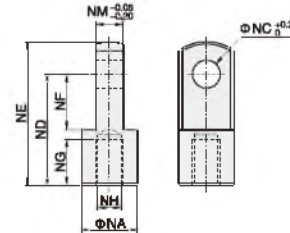

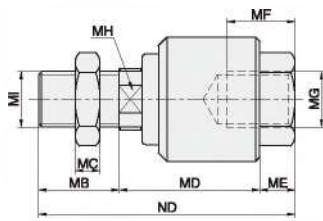

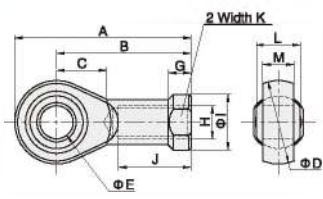
Note: Not marked dimensions are same sizes as the female type.

Cylinder Accessory









How to Order?

Series No.	Thread Size	Thread Length	Accessory Code
FJ: Accessory	M6: M6 M8: M8 M10: M10 M12: M12 M16: M16	M20: M20 M27: M27 M36: M36 M42: M42 M48: M48	1: 1 1.25: 1.25 1.5: 1.5 2.0: 2.0
			IJ: I fitting YJ: Y fitting YCJ: Y fitting FD: Floating fitting BJ: Bearing fitting

Dimensions of Cylinder Accessory

		Model/Sign	NA	NB	NC	ND	NE	NH	NM	NP	NQ	Material		
OY Fitting		FJ-M6X1YJ	10	12	6	24	-	M6X1	6	12	31	Carbon steel		
		FJ-M8X1.25YJ	14	16	8	32	-	M8X1.25	8	16	42	Carbon steel		
		FJ-M10X1.25YJ	18	20	10	40	-	M10X1.25	10	20	52	Carbon steel		
		FJ-M12X1.25YJ	20	24	12	48	-	M12X1.25	12	24	62	Carbon steel		
		FJ-M16X1.5YJ	26	32	16	64	-	M16X1.5	16	32	83	Carbon steel		
		FJ-M20X1.5YJ	34	40	20	80	-	M20X1.5	20	40	105	Carbon steel		
		FJ-M27X2YJ	42	55	30	110	-	M27X2	30	55	148	Carbon steel		
		FJ-M36X2YJ	60	70	35	144	-	M36X2	35	72	188	Carbon steel		
		FJ-M42X2YJ	70	85	40	168	-	M42X2	40	84	232	Carbon steel		
		FJ-M48X2YJ	80	90	50	192	-	M48X2	50	96	265	Carbon steel		
		FJ-M12X1.25YJ-T8C	21	25	12	48	23	M12X1.25	12	22	60	Carbon steel		
		FJ-M16X1.5YJ-T8C	28	32	16	62	30	M16X1.5	16	30	78	Carbon steel		
	FJ-M20X1.5YJ-T8C	36	40	20	79	38	M20X1.5	20	39	90	Carbon steel			
														
OYC Fitting		FJ-M6X1YCJ	10	12	6	24		M6X1	6	12	31	Carbon steel		
		FJ-M8X1.25YCJ	14	16	8	32		M8X1.25	8	16	42	Carbon steel		
		FJ-M10X1.25YCJ	18	20	10	40		M10X1.25	10	20	52	Carbon steel		
		FJ-M12X1.25YCJ	20	24	12	48		M12X1.25	12	24	62	Carbon steel		
		FJ-M16X1.5YCJ	26	32	16	64		M16X1.5	16	32	83	Carbon steel		
		FJ-M20X1.5YCJ	34	40	20	80		M20X1.5	20	40	105	Carbon steel		
		FJ-M27X2YCJ	42	55	30	110		M27X2	30	55	148	Carbon steel		
														
OI Fitting		FJ-M6X1IJ	12	6	24	31	12	10	M6X1	6		Carbon steel		
		FJ-M8X1.25IJ	16	8	30	40	11	15	M8X1.25	8		Carbon steel		
		FJ-M10X1.25IJ	20	10	40	52	15	20	M10X1.25	10		Carbon steel		
		FJ-M12X1.25IJ	24	12	48	67	24	20	M12X1.25	12		Carbon steel		
		FJ-M16X1.5IJ	32	16	64	89	32	23	M16X1.5	16		Carbon steel		
		FJ-M20X1.5IJ	40	20	80	112	40	30	M20X1.5	20		Carbon steel		
		FJ-M27X2IJ	55	30	110	155	50	55	M27X2	30		Carbon steel		
		FJ-M12X1.25J-T8C	23.5	12	48	60	24	20	M12X1.25	12		Carbon steel		
		FJ-M16X1.5J-T8C	28.5	16	62.5	78.5	31.5	25	M16X1.5	16		Carbon steel		
		FJ-M20X1.5J-T8C	38	20	81	100	37.5	30	M20X1.5	20		Carbon steel		
														
Floating Fitting		FJ-M6X1.0FD	35	13	5	17	5	8	M6X1.0	7	M6X1.0			
		FJ-M8X1.25FD	54	21	6	27	6	12	M8X1.25	8	M8X1.25			
		FJ-M10X1.25FD	59.5	21	6	30.5	8	13	M10X1.25	10	M10X1.25			
		FJ-M12X1.25FD	64.5	21	7	35.5	8	15	M12X1.25	12	M12X1.25			
		FJ-M16X1.5FD	90.5	30	8	47.5	13	23	M16X1.5	15	M16X1.5			
		FJ-M20X1.5FD	102	32	10	57	13	28	M20X1.5	22	M20X1.5			
		FJ-M27X2.0FD	120	36	12	67	17	35	M27X2.0	30	M27X2.0			
														
Bearing Fitting		FJ-M6X1BJ	40.5	31	11	20	6	7	M6X1	13	18	11	9	7
		FJ-M8X1.25BJ	48	36	12	24	8	7.5	M8X1.25	16	20	14	12	9
		FJ-M10X1.25BJ	57.5	44	15.5	28	10	8	M10X1.25	19	25	17	14	10.5
		FJ-M12X1.25BJ	66.5	51.5	17	32	12	9.5	M12X1.25	22	28	19	16	12
		FJ-M16X1.5BJ	85	65	25	40	16	11	M16X1.5	27	35	24	21	15
		FJ-M20X1.5BJ	102	77	30	50	20	12.5	M20X1.5	34	40	30	25	18
		FJ-M27X2BJ	145	108	40.5	70	30	18.5	M27X2	50	60	43	37	25
		FJ-M36X2BJ	168	127.5	50.5	80	35	19	M36X2	57	70	49.5	43	28.5
														

Magnet Switch Table

For Cylinder Model	Bore size	Two wire electronic type	Three wire electronic NPN type	Three wire electronic PNP type	Two wire reed switch type	Reed Switch Photo
SD	Φ20-100 (Front face installation)	HX-01D	HX-01N	HX-01P	HX-01R	
SE/SHY/SHZ/ESWT	Full series					
SQ/SQM/EU/EUK/ EUM/EUP/SF/SFM/ SQK/SG//EMQ/ELS/ ELQ/EXH/ESWT *SHY/SHZ(except Φ10)	Full series	HX-07D HX-29D	HX-07N HX-29N	HX-07P HX-29P	HX-07R	 
Note: Short stroke please use HX-29 series due to limited space.						
SD/EN	Full series (Side installation)	HX-11D	HX-11N	HX-11P	HX-11R	
RAL/RA/IA/SJ/ SM/EG/NEG/NCM	Full series	HX-13D	HX-13N	HX-13P	HX-13R	
TBC/XBC/ VBC/LBC	Full series	HX-21D	HX-21N	HX-21P	HX-21R	
FVBC/EXSM/ EXSWM/SF/SFM	Full series	HX-31D	HX-31N	HX-31P	HX-31R	
FVBC/EXSM/ EXSWM/SF/SFM	Full series	-	-	-	HX-65R	

Item/ Model	Electronic type			Reed switch
	D	N	P	R
Wiring method	2-Wire type	3-Wire type		2-Wire type
Wire color	Black			Gray
Sensor type	Without contact			With contact
Operating voltage	10-28V DC	5-30V DC		5-240V AC/DC
Switching current	50mA max	200mA max		100mA max
Contact rating	1.4W max	6W max		10W max
Response speed	High frequency			Low frequency
Service life	Ultra long			Long
Shock	Almost no impact			Easy to damage
Sensing range	Almost using in all cylinders			Narrow range of sensing
Action range	4-5mm from switch on to off			7-10mm from switch on to off
Accuracy	Excellent			Ordinary

Note: According to above chart, please give priority to electronic type.

Magnet Switch

HX-01 Magnet Switch

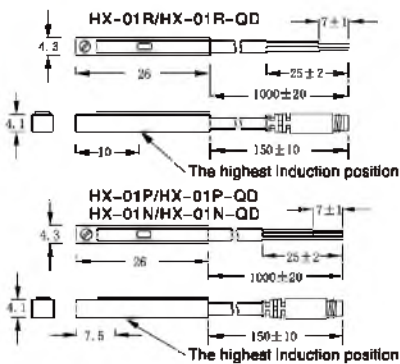


How to Order?

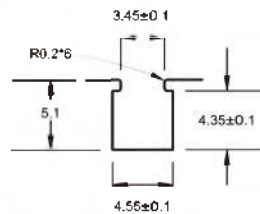
HX	-	01	D	-	2M
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire read switch		Wire length 1M:1M 2M:2M 5M:5M 10M:10M QD8: QD8 Male connector QD12: QD12 Male connector

Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered.

Dimension

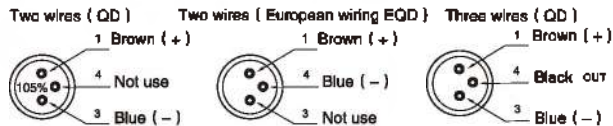


Groove Dimension



Suitable for cylinder:
SD/SE/SHY/SHZ/ESWT

M8/M12 male wiring diagram



Specifications

Type	HX-01D	HX-01N	HX-01P	HX-01R
Connect Diagram				
Parameter				
Wiring method	2-Wire Type	3-Wire Type		2-Wire Type
Switching logic		Electronic 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 μA max @ 24V	8mA max @ 24V (Switch Active)		None
Voltage drop	2.8 V max	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μA max @ 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	2.8φ, 2C, Black color, oil resistance PVC	2.6φ, 3C, Black color, oil resistance PVC		2.8φ, 2C, Gray color, oil resistance PVC
Switch sensitive		40-750G		70G

HX-07 Magnet Switch

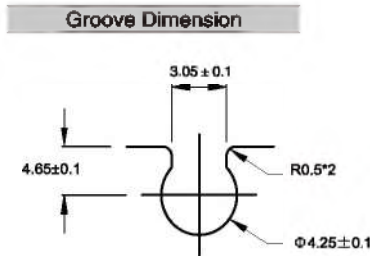
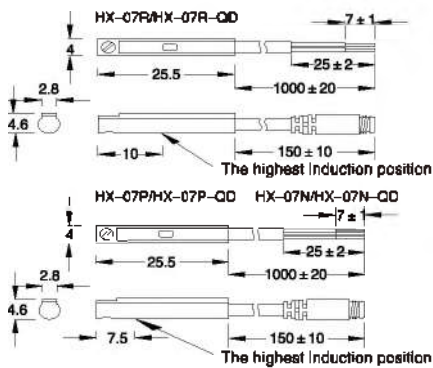


How to Order?

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 read switch		Wirelength 1M:1M 2M:2M 5M:5M 10M:10M QD8: QD8 Male connector QD12: QD12 Male connector

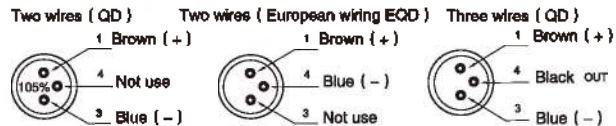
Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered

Dimension



Suitable for cylinder:
SQ/SQM/EU/EUK/
EUM/EUP/SF/SFM/
SQK/SG//EMQ/ELS/
ELQ/EXH/ESWT
*SHY/SHZ(except φ10)

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)	Read 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 μA max @ 24V	8mA max @ 24V (Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μA max @ 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

Magnet Switch

HX-11 Magnet Switch

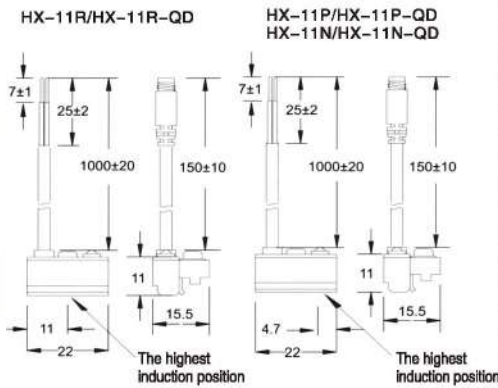


How to Order?

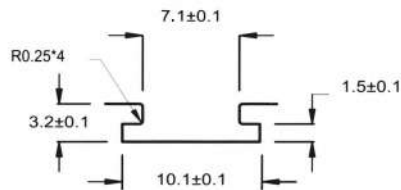
HX	-	11	D	-	2M
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire read switch		Wire length 1M:1M 2M:2M 5M:5M 10M:10M QD8: QD8 Male connector QD12: QD12 Male connector

Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered.

Dimension

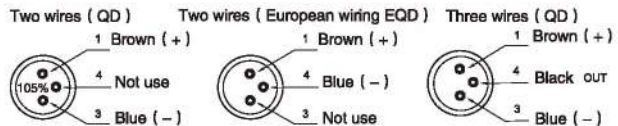


Groove Dimension



Suitable for cylinder:
SD/EN

M8/M12 male wiring diagram



Specifications

Type	HX-11D	HX-11N	HX-11P	HX-11R
Connect Diagram				
Parameter				
Wiring method	2-Wire Type	3-Wire Type		2-Wire Type
Switching logic		Electronic 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 μA max @ 24V	20mA max @ 24V (Switch Active)		None
Voltage drop	2.8 V max	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μA max @ 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	3.3Φ, 2C, Black color, oil resistance PVC	3.3Φ, 3C, Black color, oil resistance PVC		3.3Φ, 2C, Gray color, oil resistance PVC
Switch sensitive		40-750G		40-50G

HX-13 Magnet Switch

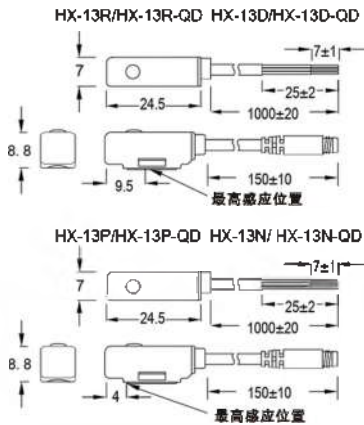


How to Order?

HX	-	13	D	-	2M	-	A	-	20																					
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire read switch		Wirelength 1M:1M 2M:2M 5M:5M 10M:10M QDB: QDB Male connector QD12: QD12 Male connector		Bore material Blank: No binding belt A: Aluminum alloy barrel (with binding belt) S: Stainless steel barrel (with binding belt)		Bore code																					
								<table border="1"> <thead> <tr> <th>Bore material</th> <th>Bore code</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Aluminum alloy barrel</td> <td>14: Bore16mm</td> </tr> <tr> <td>20: Bore20mm</td> </tr> <tr> <td>25: Bore25mm</td> </tr> <tr> <td>32: Bore32mm</td> </tr> <tr> <td rowspan="4">Stainless steel barrel</td> <td>40: Bore40mm</td> </tr> <tr> <td>06: Bore06mm</td> </tr> <tr> <td>08: Bore08mm</td> </tr> <tr> <td>10: Bore10mm</td> </tr> <tr> <td rowspan="4"></td> <td>12: Bore12mm</td> </tr> <tr> <td>14: Bore14mm</td> </tr> <tr> <td>20: Bore20mm</td> </tr> <tr> <td>25: Bore25mm</td> </tr> <tr> <td></td> <td>32: Bore32mm</td> </tr> <tr> <td></td> <td>40: Bore40mm</td> </tr> </tbody> </table>		Bore material	Bore code	Aluminum alloy barrel	14: Bore16mm	20: Bore20mm	25: Bore25mm	32: Bore32mm	Stainless steel barrel	40: Bore40mm	06: Bore06mm	08: Bore08mm	10: Bore10mm		12: Bore12mm	14: Bore14mm	20: Bore20mm	25: Bore25mm		32: Bore32mm		40: Bore40mm
Bore material	Bore code																													
Aluminum alloy barrel	14: Bore16mm																													
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	08: Bore08mm																													
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	14: Bore14mm																													
	20: Bore20mm																													
	25: Bore25mm																													
	32: Bore32mm																													
	40: Bore40mm																													

Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered

Dimension

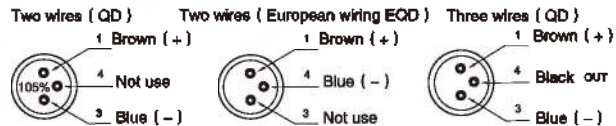


Installation

Detailed mounting method refer to page 1.127-1.129

Suitable for cylinder:
RAL/RA/IA/SJ/
SM/EG/NEG/NCM

M8/M12 male wiring diagram



Specifications

Type	HX-13D	HX-13N	HX-13P	HX-13R
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)	Read 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 μA max @ 24V	8mA max @ 24V (Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μA max @ 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	3.2Φ, 2C, Black color, oil resistance PVC	3.2Φ, 3C, Black color, oil resistance PVC		3.2Φ, 2C, Black color, oil resistance PVC
Switch sensitive		45-750G		50G

Magnet Switch

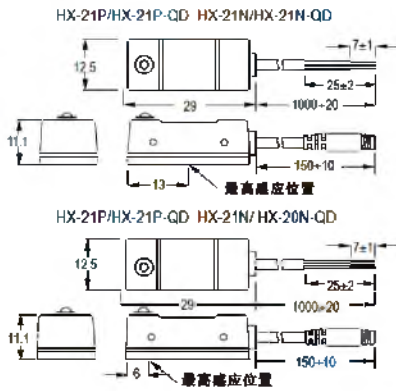
HX-21 Magnet Switch



How to Order?

HX	-	21	D	-	2M
Product code		Series NO.	Switch Type		Wire length
			D: Two wire without contact switch		1M:1M
			N: NPN type		2M:2M
			P: PNP type		5M:5M
			R: Two wire read switch		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

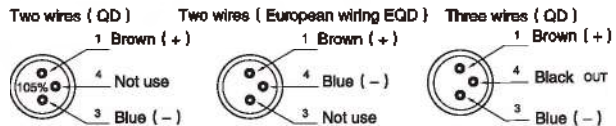


Installation

Detailed mounting method refer to page 1.127-1.129

Suitable for cylinder: TBC/XBC/VBC/LBC

MB/M12 male wiring diagram



Specifications

Type	HX-21D	HX-21N	HX-21P	HX-21R
Connect Diagram				
Parameter				
Wiring method	2-Wire Type	3-Wire Type		2-Wire Type
Switching logic		Electronic type N.O.		SPST Normally Open
Sensor type	None contact type	NPN type (Input)	PNP type (Output)	Reed switch
Operating voltage	5-30V 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 A max @ 24V	20mA max @ 24V (Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μ A max @ 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	3.8 ϕ , 2C, Black color, oil resistance PVC	3.8 ϕ , 3C, Black color, oil resistance PVC		3.8 ϕ , 2C, Grey color, oil resistance PVC
Switch sensitive		40-750G		55-65G

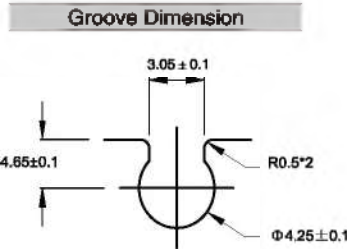
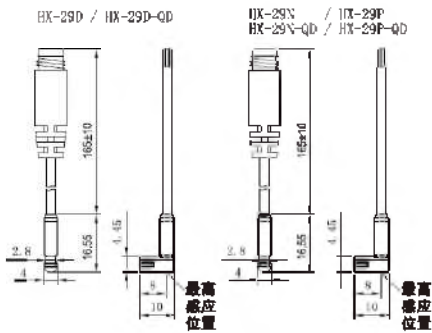
HX-29 Magnet Switch



How to Order?

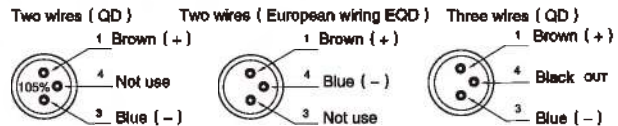
HX	-	29	D	-	2M
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire reed switch		Wirelength 1M:1M 2M:2M 5M:5M 10M:10M QD8: QD8 Male connector QD12: QD12 Male connector Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered

Dimension



Suitable for cylinder:
SQ/SQM/EU/EUK/
EUM/EUP/SF/SFM/
SQK/SG/EMQ/ELS/
ELQ/EXH/ESWT
*SHY/SHZ(except Ø10)

M8/M12 male wiring diagram



Specifications

Type	HX-29D	HX-29N	HX-29P
Connect Diagram			
Parameter	2-Wire Type	3-Wire Type	
Wiring method	Electronic no contact type N.O.		
Switching logic	Electronic no contact type N.O.		
Sensor type	None contact type	NPN type (Input)	PNP type (Output)
Operating voltage	10-28V DC	5-30V DC	
Max. switching current	50mA max	200mA max.	
Contact rating	1.4 W max	8W max.	
Current consumption	40 μA max @ 24V	8mA max @ 24V (Switch Active)	
Voltage drop	2.8 V max.	1 V max. @ 200mA DC	
Leakage current	90 μA max @ 28V	0.01mA max.	
Indicator	Red LED		
Max. exchange frequency	1000Hz		
Temperature range	-10 - 70°C		
Shock	50G		
Vibration	9G		
Enclosure classification	IEC 529 IP67 (NEMA 6)		
Protection circuit	4	3, 4	
Cable	2.6Φ, 2C, Black color, oil resistance PVC		2.6Φ, 3C, Black color, oil resistance PVC
Switch sensitive	40-750G		

Magnet Switch

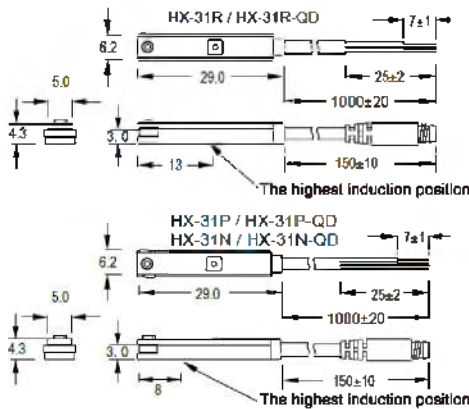
HX-31 Magnet Switch



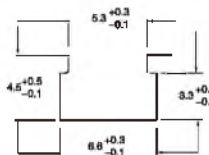
How to Order?

HX	-	31	D	-	2M
Product code		Series NO.	Switch Type		Wire length
			D: Two wire without contact switch		1M:1M
			N: NPN type		2M:2M
			P: PNP type		5M:5M
			R: Two wire read switch		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

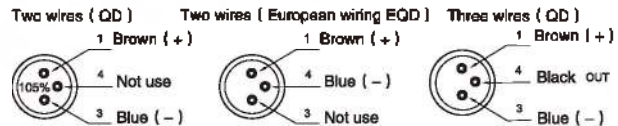


Groove Dimension



Suitable for cylinder:
FVBC/EXSM/
EXSWM/SF/SFM

M8/M12 male wiring diagram



Type	HX-31D	HX-31N	HX-31P	HX-31R
Connect Diagram				
Parameter				
Wiring method	2-Wire Type	3-Wire Type		2-Wire Type
Switching logic		Electronic 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 μA max @24V	14(N)/17(P)mA max.(Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @200mA DC		2.5 V max.
Leakage current	90 μA max @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	2.8φ, 2C, Black color, oil resistance PVC	2.8φ, 3C, Black color, oil resistance PVC		2.8φ, 2C, Grey color, oil resistance PVC
Switch sensitive		40-750G		40G

HX-65 Magnet Switch

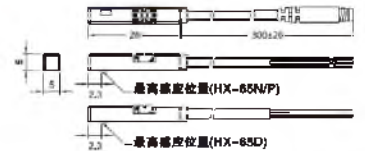


How to Order?

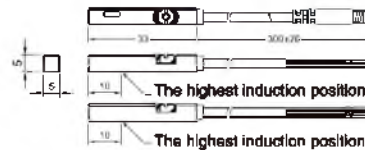
HX	-	65	D	-	2M
Product code		Series NO.	Switch Type D: Two wire without contact switch N: NPN type P: PNP type R: Two wire reed switch		Wirelength 1M:1M 2M:2M 5M:5M 10M:10M QD8: QD8 Male connector QD12: QD12 Male connector Note: The standard wire length of the quick connector is 0.15m. Other wire lengths cannot be ordered

Dimension

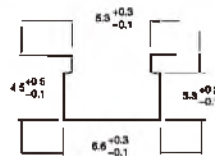
HX-65N, HX-65P, HX-65D / HX-65N-QD, HX-65P-QD, HX-65D-QD



HX-65R, HX-65RP, HX-65R-QD, HX-65RP-QD

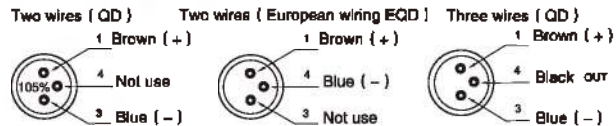


Groove Dimension



Suitable for cylinder:
FVBC/EXSM/
EXSWM/SF/SFM

M8/M12 male wiring diagram



Type	HX-65D	HX-65N	HX-65P	HX-65R
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 μA max @ 24V	8mA max @ 24V DC (Switch Active)		None
Voltage drop	2.8 V max.	1 V max. @ 200mA DC		2.5 V max.
Leakage current	90 μA max @ 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, Black color, oil resistance PVC
Switch sensitive		40-750G		70G

IH/UH Series Bracket

IH/UH Bracket

Dimension

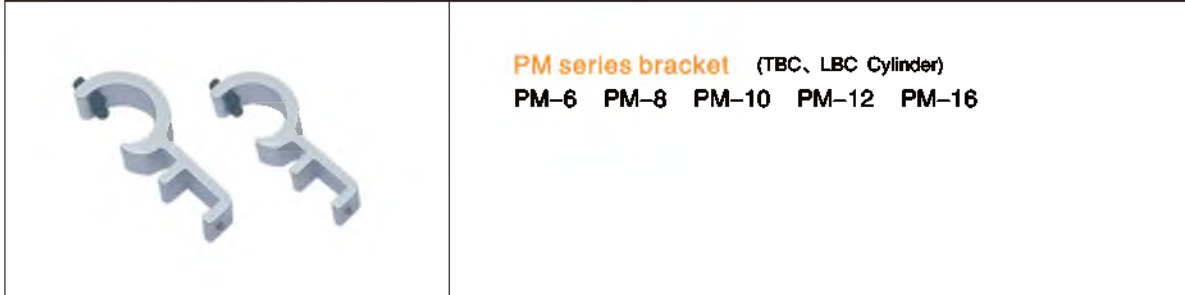
	<p>IH series bracket (VBC profile barrel)</p> <p>IH-32 IH-40 IH-50 IH-63 IH-80 IH-100 IH-125 IH-160 IH-200</p>
	<p>UH series bracket (XBC profile barrel)</p> <p>UH-32 UH-40 UH-50 UH-63 UH-80 UH-100</p>

<p>IH-32</p> <p>Suitable for VBC cylinder bore Φ 32</p>	<p>IH-40</p> <p>Suitable for VBC cylinder bore Φ 40</p>	<p>IH-50</p> <p>Suitable for VBC cylinder bore Φ 50</p>
<p>IH-63</p> <p>Suitable for VBC cylinder bore Φ 63</p>	<p>IH-80</p> <p>Suitable for VBC cylinder bore Φ 80</p>	<p>IH-100</p> <p>Suitable for VBC cylinder bore Φ 100</p>
<p>IH-125</p> <p>Suitable for VBC cylinder bore Φ 125</p>	<p>IH-160</p> <p>Suitable for VBC cylinder bore Φ 160</p>	<p>IH-200</p> <p>Suitable for VBC cylinder bore Φ 200</p>

<p>UH-32</p> <p>Suitable for XBC cylinder bore Φ 32</p>	<p>UH-40</p> <p>Suitable for XBC cylinder bore Φ 40</p>	<p>UH-50</p> <p>Suitable for XBC cylinder bore Φ 50</p>
<p>UH-63</p> <p>Suitable for XBC cylinder bore Φ 63</p>	<p>UH-80</p> <p>Suitable for XBC cylinder bore Φ 80</p>	<p>UH-100</p> <p>Suitable for XBC cylinder bore Φ 100</p>

PM Bracket

Dimension




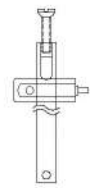

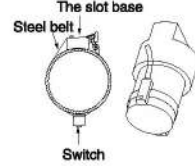

PM-6	PM-8	PM-10	PM-12	PM-16
Suitable for TBC32/40/50 LBC32/40 Diameter of tie-rod $\Phi 5-\Phi 6$	Suitable for TBC63 LBC50/63 Diameter of tie-rod $\Phi 7-\Phi 8$	Suitable for TBC80/100 LBC80/100 Diameter of tie-rod $\Phi 8.5-\Phi 10$	Suitable for TBC125 LBC125 Diameter of tie-rod $\Phi 10.5-\Phi 12$	Suitable for TBC160 LBC160/200 Diameter of tie-rod $\Phi 14-\Phi 16$

PAB Series Mounting Band

PAB


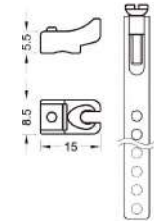


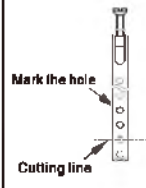
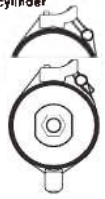
Mounting Band

○ PAB series fixed steel belt (Fixed size for round body cylinder, HX-13 auto switch)

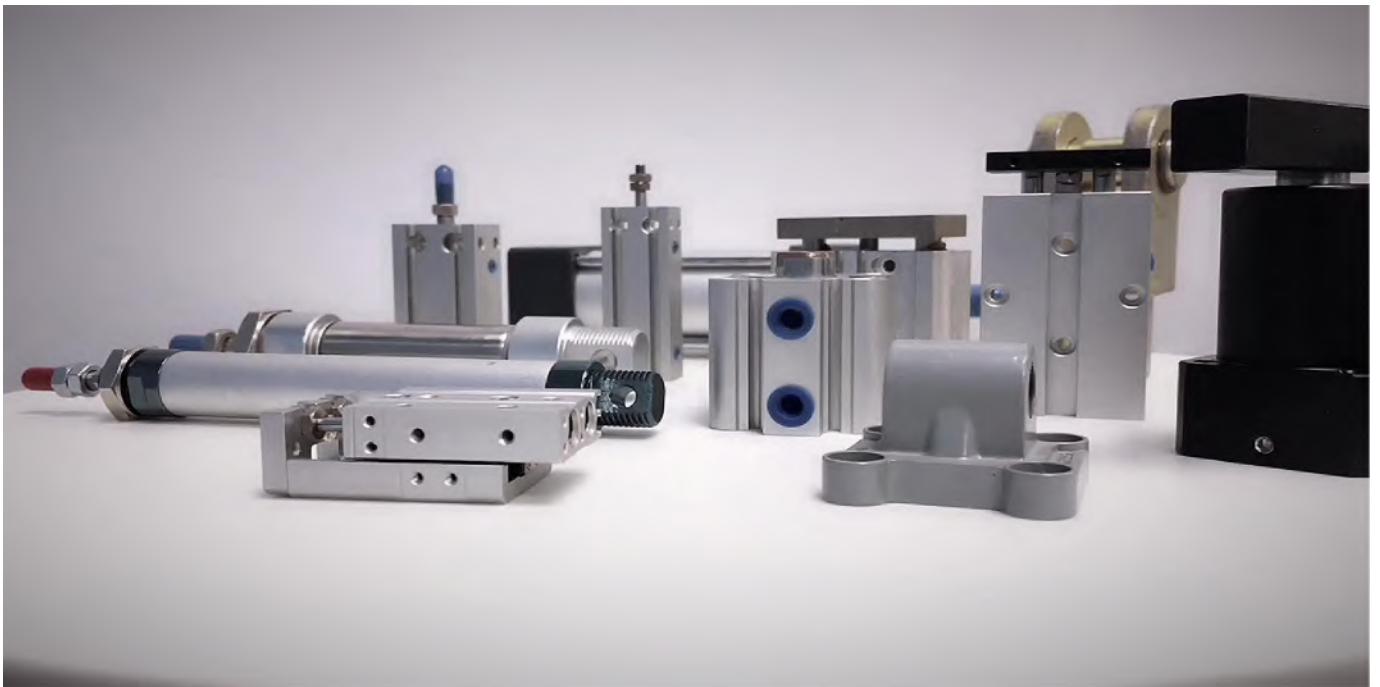
	<p>Step 1</p> <p>Put the magnetic switch in the steel belt.</p> 	<p>Step 2</p> <p>Get around the steel belt and magnetic switch.</p> 	<p>Step 3</p> <p>Insert the steel belt into the slot, adjust the release of the switch, tighten the screw on the steel belt.</p> 	<p>Step 4</p> <p>After adjusting the position of magnetic switch, fixed steel belt</p> 
	<p>PAB - S 2 0 Bore</p> <p>S: The Round Barrel Cylinder (stainless steel material) Applicable to bore: 06, 08, 10, 12, 16, 20, 25, 32, 40, 50, 63</p> <p>A: The Round Barrel Cylinder (aluminum alloy material) Applicable to bore: 16, 20, 25, 32, 40</p>			

Note: This steel belt cannot be used in EG series round cylinder

○ PAB-13 series mounting band (Universal for HX-13 auto switch)

	<p>PAB-13: Suitable for Φ6 ~ Φ63</p>	<p>Step 1</p> <ol style="list-style-type: none"> Loosen the screw on the steel belt first Make sure that three to four circles of thread at the bottom of the screw is still in the nut 	<p>Step 2</p> <ol style="list-style-type: none"> Get the steel belt through the hole at the bottom of HX-13 Put the screw head into the slot of the clip as below picture, then tighten the steel belt Mark on the round hole of the nearest PIN of the belt 	<p>Step 3</p> <ol style="list-style-type: none"> Loosen the steel belt Mark the hole as below picture, and cut the belt on the second hole away from the mark hole 	<p>Step 4</p> <ol style="list-style-type: none"> Put the belt that's just been cut down into the slot hole of the steel belt Put the chuck PIN onto the mark hole Use the thumb to press down the steel belt along the chuck, bending the belt Assemble the switch and the cylinder as below picture, then adjust the position of magnet switch, lock the screw, then you could fix it.
					<p>⚠ Attention!</p> <p>Please don't lock the screw with too much force, otherwise might cause damage on magnet switch or cylinder</p> 

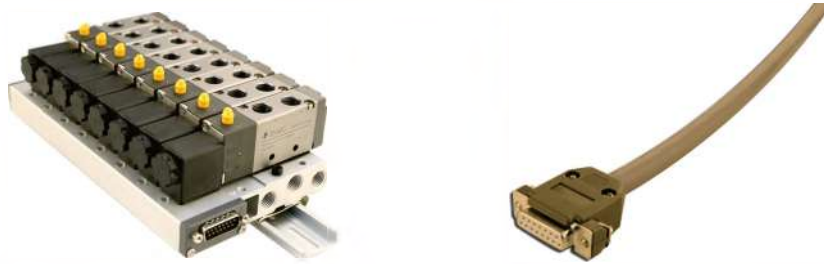
Directional Valve



SR Integrated Manifold

SR

Integrated Manifold (Plug-in Type)



How to Order?

SR Valve Group:

Series No.	Valve Body Size	ID code	Port Size	Voltage	Mounting Type	Thread Type
S: Common type SN: Low power type	1: 1 series 2: 2 series	R: RV series valve	M5: M5 06: 1/8" 08: 1/4"	E4: DC24V E5: DC12V (Only DC24V for low power type)	Blank: No accessory D: DIN guide rail clip with 1 meter DIN guide rail D0: DIN guide rail clip without DIN guide rail (DIN guide rail packed separately)	Blank: G P: PT T: NPT

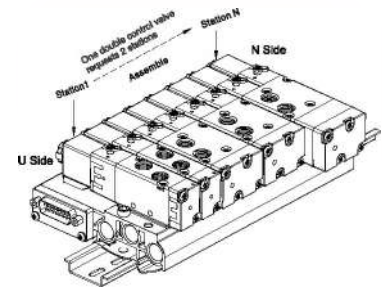
Qty (suitable for same valve, single control 2~24 pieces double control 2~7 pieces) (for mixed valves, maximum manifold is 14 stations Note: double control valve request 2 stations)

Code	Function	Remark
S	5/2 single	assembly sequence,
D	5/2 double	1st link start from U side
C	5/3 center closed	
P	5/3 center pressure	
E	5/3 center exhaust	
B	blind plate	

Order Example:

SR series integrated manifold with same valves, 1 series valve body, RV series valve, 6 pieces valves, single control, 1/8 port size, voltage DC24V, without accessories, G thread, ERP code is: S1R-6S-06E4

SR series integrated manifold with different valves, 1 series valve body, RV series valve, station 1 and 2 are 5/2 single control valves, station 3,4,5,6 are 2 pieces 5/2 double control valves, station 7 and 8 are 1 piece 5/3 double control, center close valve, 1/8 port size, voltage DC24V, with clips and 1 meter DIN rail, G thread, ERP code is: S1R-2S2DC-06E4-D



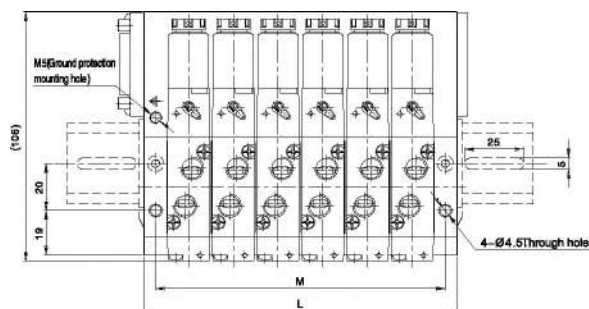
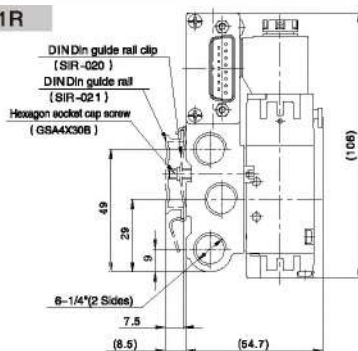
Connecting Cable

Connector	Number of cable core	Length of cable
D15: 15 pins D-sub Connector	15: 15 cores { 14 coils maximum } 08: 8 cores { 7 coils maximum }	1M: 1 meters 2M: 2 meters 3M: 3 meters Note: Length can be customized

Order Example: SR series integrated manifold, Valve Group, Length of cable: 3 meters, ERP code is: D15-15-3M

Main Dimension

S1R



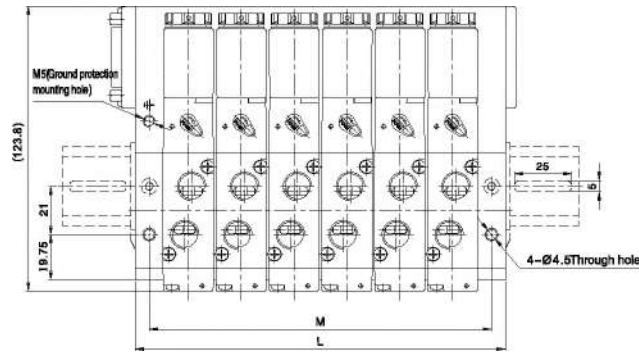
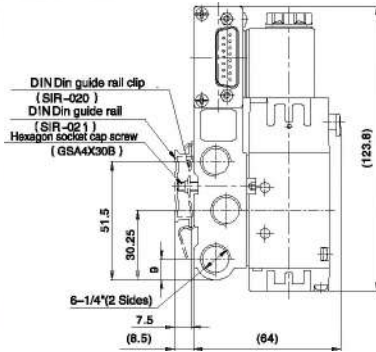
* The hole positions of Din guide rail can't be specified, its may change randomly.

(mm)

Sign/Model	S1R3S	S1R4S	S1R5S	S1R6S	S1R7S	S1R8S	S1R9S	S1R10S	S1R11S	S1R12S	S1R13S	S1R14S
L	76	95	114	133	152	171	190	209	228	247	266	285
M	68	85	104	123	142	161	180	199	218	237	256	275

Main Dimension

S2R



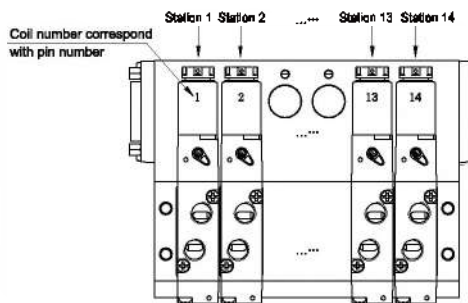
*The hole positions of Din guide rail can't be specified, its may change randomly.

(mm)

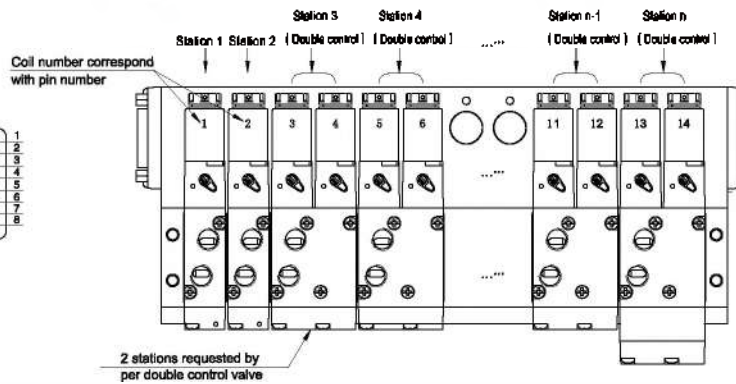
Sign/Model	S2R3S	S2R4S	S2R5S	S2R6S	S2R7S	S2R8S	S2R9S	S2R10S	S2R11S	S2R12S	S2R13S	S2R14S
L	92	115	138	161	184	207	230	253	276	299	322	345
M	80	103	126	149	172	195	218	241	264	287	310	333

Installation

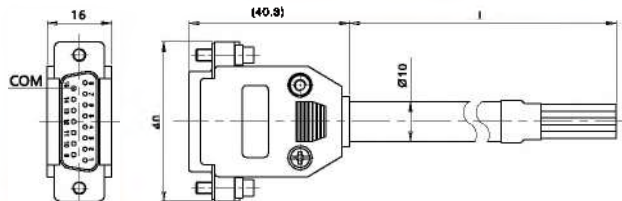
Wiring diagram of single control valves
(14 stations maximum)



Wiring diagram of mixed single control and double control



Wiring diagram and specification for cable of SR series



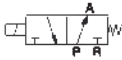
PIN number & Wire Color

Pin number	Wire color	Pin number	Wire color	Pin number	Wire color	Pin number	Wire color
1	Purple	5	White	9	Purple with point	13	White with point
2	Orange	6	Red	10	Orange with point	14	Red with point
3	Pink	7	Green	11	Pink with point	15	Black
4	Grey	8	Black with point	12	Grey with point		

V series standard/ N series low power solenoid valve (3/2 way)

2.03

V321



VP321-06

How to Order?

Low power solenoid valve

Series No.	Valve body ID code	ID Code	Positions	Ways	Controls	Port size	Voltage	Connection mode	Cover color	Thread type
N		M Standard armature + Low power coil	2: 2 positions	3: 3 ways	1: Single control	M5: M5 O6: 1/8"	E1: AC110V E2: AC220V E4: DC24V	Blank: DIN connector F: Flying leads	Blank: Brown translucent J: Colorless and translucent	Blank: G P: PT T: NPT

Blank: standard valve body
P: European valve body (Only for 3/2 way)

Standard solenoid valve

Series No.	Ways	Positions	Controls	Port size	ID Code	Voltage	Connection mode	Cover color	Thread type
V VP	3: 3 ways	2: 2 positions	1: Single control	V321 M5:M5 O6: 1/8" VP321 O6: 1/8"	Blank: standard type A: Amisco coil	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V	Blank: DIN connector F: Flying leads	Blank: Brown translucent J: Colorless and translucent	Blank: G P: PT T: NPT

Order Example:

N series solenoid valve, standard pilot+Low power coil, 3/2 way, single control, 1/8" port size, standard coil, DC24V, DIN connector, G thread, ERP code is: NM231-06E4

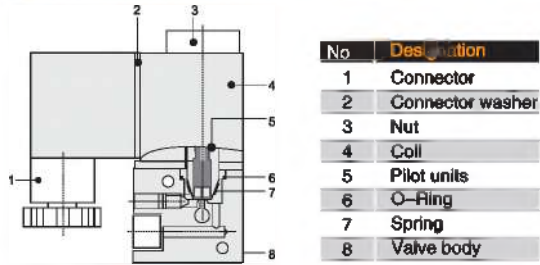
Specifications

Model No.	NM231-M5	NM231-O6	NM231-O6	NM231-O6	NM231-O6
Working medium	Clean air (After 40 μm filtration)				
Acting type	Direct acting				
Orifice (mm)	1.2				
Port size	M5	1/8	M5	1/8	
Lubrication	Not required				
Working pressure (MPa)	0~0.8				
Guaranteed pressure (MPa)	1.2				
Working temperature (°C)	-5~60				
Voltage range	-15% ~ +10%				
Power consumption	AC 1VA DC:0.9W		AC:5VA DC:4.8V	AC:7VA DC:8.5V	
Insulation class	Class F				
Protective class	IP65 (DIN40050)				
Max. acting frequency	10 cycles/s				
Seal material	NBR				
Activate time	Below 0.05 Sec.				
Weight (g)	141	138	141	138	

Product Features

- Various voltages and working styles are available.
- Different surface treatment, thread types (G,PT,NPT) are available.

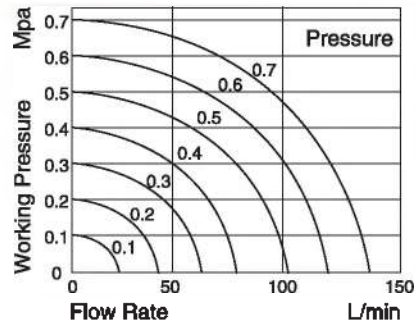
Internal structure



Main Parts Material

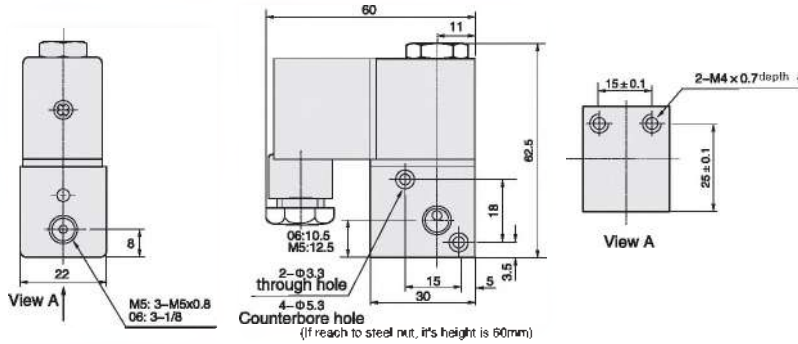
Part name	Material
Valve body	Aluminum alloy
Connector	Engineering plastic
Connector washer	NBR
Pilot units	Pure steel+Cu+Stainless steel
Diaphragm	NBR
Nut	POM+Carbon steel
Coil	Brass Wire covered with heat resistance colophony

Flow Chart

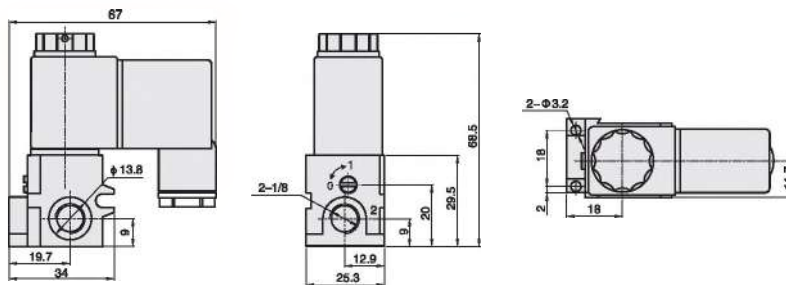


Main Dimension

V321-M5/06
NM231-M5/06



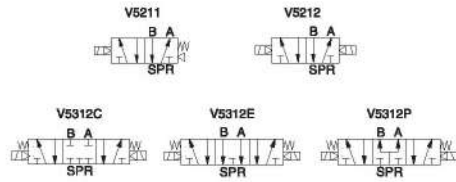
VP321-06
NPM231-06



V series standard/ N series low power solenoid valve (5/2,5/3 way)



V series 2.22



How to Order?

Standard solenoid valve

Series No.	Ways	Positions	Valve body size	Controls	Original status	Port size	ID Code	Voltage	Connection mode	Cover color	Valve color	Thread type
V	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: standard type A: Amisoo coil E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V	E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	Blank: DIN connector F: Flying leads	Blank: Brown translucent J: Colorless and translucent	Blank: Black W: White	Blank: G P: PT T: NPT

Order Example

V 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 V5221-08E4

Specifications

Model NO.	V5211-M5 V5212-M5 V5312-M5	V5211-06 V5212-06 V5312-06	V5221-06 V5222-06 V5322-06	V5221-08 V5222-08 V5322-08	V5231-08 V5232-08 V5332-08	V5231-10 V5232-10 V5332-10	V5241-10 V5242-10 V5342-10	V5241-15 V5242-15 V5342-15
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 ²)	5/2:55(CV=0.31) 5/3:55(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)	5/2:18(CV=0.68) 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 μm filtration)							
Acting type	Pilot type							
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-5~60							
Voltage range	-15%~+10%							
Power consumption	DC 2.8W ; AC 3.0VA				DC 4.8W ; AC 5VA			
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)	V5211: 110 V5212: 171 V5312: 181	V5221: 209 V5222: 314 V5322: 357	V5231: 289 V5232: 400 V5332: 450	V5241: 528 V5242: 638 V5342: 727				

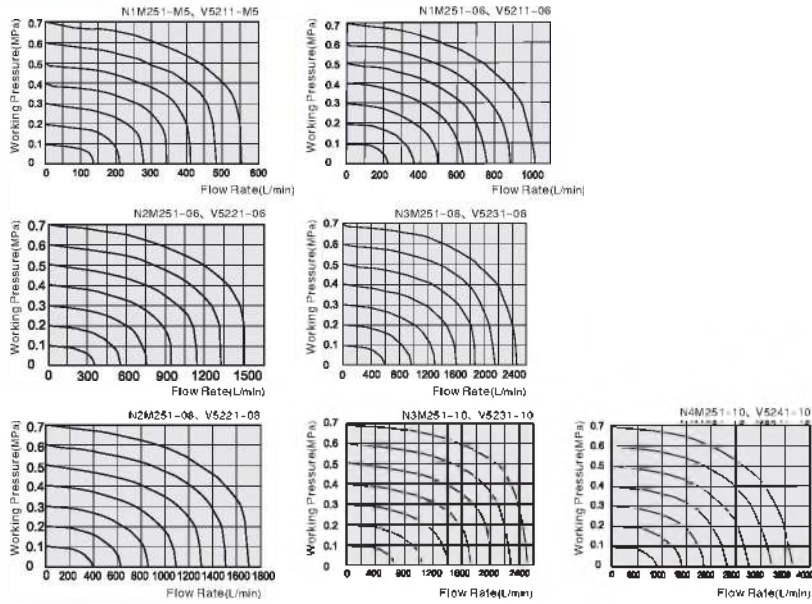
V series standard/ N series low power solenoid valve (5/2,5/3 way)

2.23

V series

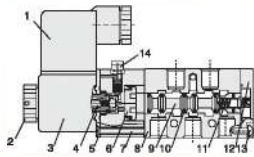
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Flow Chart

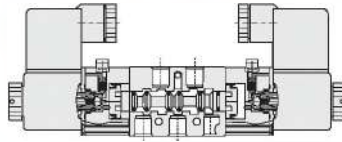


Internal structure

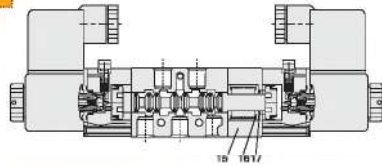
Single solenoid valve



Double solenoid valve



5/3 solenoid valve



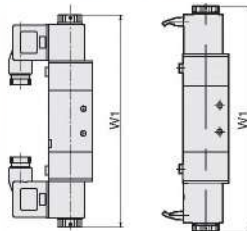
No.	Part name	Material
1	Connector	Engineering plastic
2	Nut	POM+Carbon steel
3	Coil	Cu
4	Pilot units	
5	Plate	Carbon steel
6	Piston	POM
7	Screw	Carbon steel
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	HNBR
11	Spring	Stainless steel
12	Rear cover	Zinc alloy
13	Screw	Alloy steel
14	Manual override	Engineering plastic
15	Back seat	Aluminum alloy
16	Spring seat	Aluminum alloy
17	C-type buckle	65Mn

Main Dimension

Double solenoid valve

DIN Type

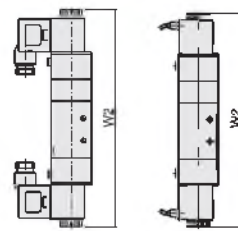
Flying Leads Type



5/3 solenoid valve

DIN Type

Flying Leads Type



Model/Sign	W1	W2
V5212	140.6	-
V5222	172	-
V5232	191	-
V5242	222	-
V5312	-	155.6
V5322	-	191
V5332	-	210
V5342	-	244

Note: The dimensions of N series and V series are same.

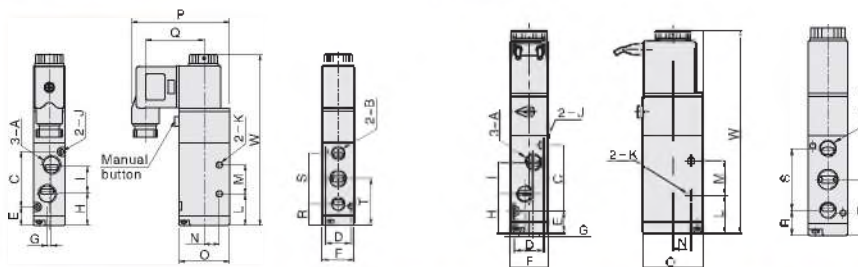
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Main Dimension

Single solenoid valve

DIN Type

Flying Leads Type

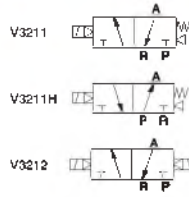


Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	W
V5211-M5	M5	M5	30	13	13.2	1.8	0	21	14.5	3.3	3.3	21.2	14	9.5	27	54.8	32.8	14.5	27.5	28.2	98.5
V5211-05	G1/8	G1/8	30	13	13.2	1.8	3	20.2	16	3.3	3.3	21.2	14	9.5	27	54.8	32.8	14.5	27.5	28.2	98.5
V5221-05	G1/8	G1/8	38	17	12.7	2.2	0	22.7	18	3.3	4.3	21.7	20	10.5	35	67.5	40.5	14.2	36	31.7	117.7
V5221-08	G1/4	G1/8	38	17	12.7	2.2	3	21.7	20	3.3	4.3	21.7	20	10.5	35	67.5	40.5	14.2	36	31.7	117.7
V5231-08	G1/4	G1/4	50	20	15	2.7	0	28	24	4.3	4.3	28	24	13.5	40	70	40.5	17.5	45	40	135.5
V5231-10	G3/8	G1/4	50	20	15	2.7	4	28	24	4.3	4.3	28	24	13.5	40	70	40.5	17.5	45	40	135.5
V5241-10	G3/8	G3/8	72	27	21	3.4	0	39	36	4.3	5.5	43	28	17.5	50	75	40.5	25.5	63	57	168
V5241-15	G1/2	G1/2	72	27	21	3.4	4	39	36	4.3	5.5	43	28	17.5	50	75	40.5	25.5	63	57	168

Note: The dimensions of N series and V series are same.

V series standard/ N series low power solenoid valve (3/2 way)

2.09 V Series



How to Order?

2

Standard solenoid valve

Series No.	Ways	Positions	Valve body size	Controls	Original status	Port size	ID Code	Voltage	Connection mode	Cover color	Valve color	Thread type
V	3 3 ways	2; 2 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control	Blank: NC H: NO	M5; M5 06: 1/8"	Blank: standard type A: Amisco coil E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V	E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	Blank: DIN connector F: Flying leads	Blank: Brown translucent J: Colorless and translucent	Blank: Black W: White	Blank: G P: PT T: NPT

Order Example:

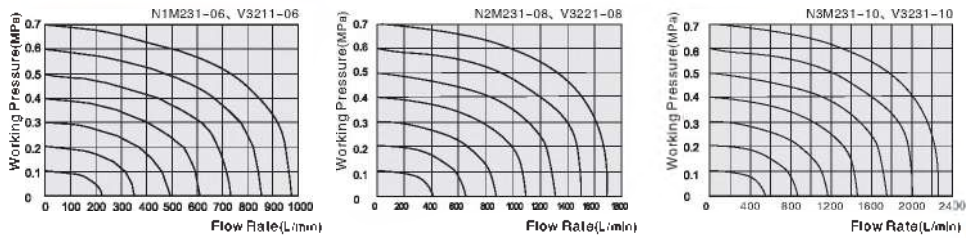
V series solenoid valve, 1 series valve body size, standard pilot+Low power coil, 3/2 way, single control, NC, 1/8" port size, standard coil, DC24V, DIN connector, G thread. ERP code is: V3211-06E4

Specifications

Model NO.	V3211-M5 V3212-M5	V3211-06 V3212-06	V3221-06 V3222-06	V3221-08 V3222-08	V3231-08 V3232-08	V3231-10 V3232-10	V3241-10 V3242-10	V3241-15 V3242-15
Port size	M5	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Sectional area(mm ²)	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	Pilot type							
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-5~60							
Voltage range	-15%~10%							
Power consumption	DC:2.8W ; AC:3.0VA			DC:4.8W ; AC:5VA				
Insulation class	Class F							
Protective class	IP65(DIN40050)							
Max. acting frequency	5 Cycles/s							
Activate time(S)	<0.05							
Weight(g)	V3211: 102 V3212: 169	V3221: 107 V3222: 303	V3231: 260 V3232: 370	V3241: 443 V3242: 569				

Note: The technical data of NO type and NC type are same.

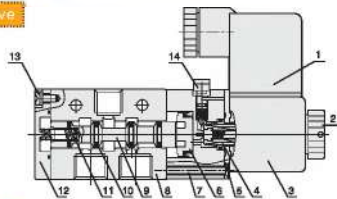
Flow Chart



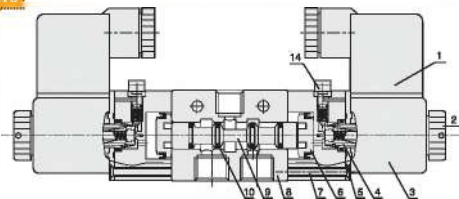
2

Internal structure

Single solenoid valve



Double solenoid valve



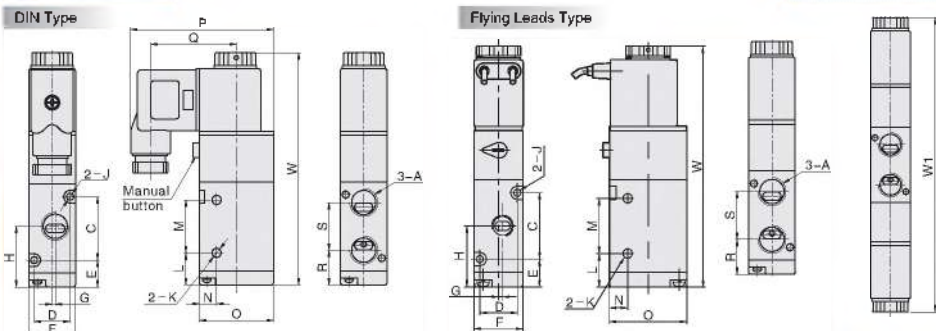
ID	Part name	Material
1	Connector	Engineering plastic
2	Nut	POM+Carbon steel
3	Coil	Cu
4	Pilot units	
5	Plate	Carbon steel
6	Piston	POM
7	Screw	Carbon steel
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	HNBR
11	Spring	Stainless steel
12	Rear cover	Zinc alloy
13	Screw	Carbon steel
14	Manual override	Engineering plastic



Main Dimension

Single solenoid valve

Double solenoid valve



2

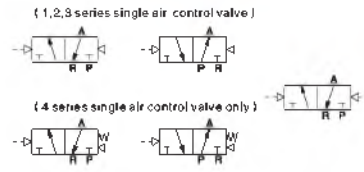
Model/Sign	A	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	W	W1*
V3211-M5	M5	19	13	13.2	18	0	22.7	3.3	3.3	12.2	21	7.5	27	54.8	32.8	15.7	14	87.5	129.6
V3211-06	G1/8	19	13	13.2	18	1.5	23.7	3.3	3.3	12.2	21	7.5	27	54.8	32.8	14.7	16	87.5	129.6
V3221-06	G1/8	30	17	12.7	22	0	27.7	3.3	4.3	15.2	25	8.2	35	67.5	40.5	18.5	18.5	109.7	164
V3221-08	G1/4	30	17	12.7	22	1.5	28.7	3.3	4.3	15.2	25	8.2	35	67.5	40.5	16.5	22.5	109.7	164
V3231-06	G1/4	35	20	15	27	0	32.5	4.3	4.3	17.5	30	10.5	40	70	40.5	21.5	22	120.5	176
V3231-10	G3/8	35	20	15	27	2	32.5	4.3	4.3	17.5	30	10.5	40	70	40.5	20.5	24	120.5	176
V3241-10	G3/8	40.5	27	24.8	34	0	45	4.3	5.3	21	48	13.5	50	75	40.5	29.5	31.5	144	198
V3241-15	G1/2	40.5	27	24.8	34	2	45	4.3	5.3	21	48	13.5	50	75	40.5	29.5	31.5	144	198

Note: The dimensions of NO type and NC type are same, the dimensions of N series and V series are same.

RV series air control valve (3/2way)



RVA Series 2.12



How to Order?

Series No.	Ways	Positions	Valve body ID code	Controls	Initial Status	Port size	Reset Type	Thread type
RVA	3; 3 ways	2,2 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1 Single control 2 Double control	Blank: normal close(N.C) H normal open(N.O)	M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: spring return (Apply to 4 series single control valve) Q: air return (Apply to 1,2,3 series single control valve)	Blank: G P: PT T: NPT

Order Example:

RVA series air control valve, 3/2 way, 2 series valve body size, single control, NC type, 1/4" port size, air reset, PT thread
ERP code is: RVA3221-06Q-P

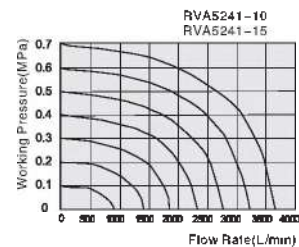
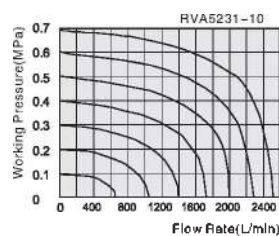
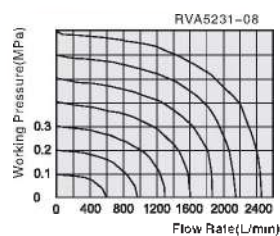
Specifications

Model No.	RVA3211-M5 RVA3212-M5	RVA3211-06 RVA3212-06	RVA3221-06 RVA3222-06	RVA3221-08 RVA3222-08	RVA3231-08 RVA3232-08	RVA3231-10 RVA3232-10	RVA3241-10 RVA3242-10	RVA3241-15 RVA3242-15
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	External type							
Reset type	Spring reset / Gas reset							
Lubrication	Not required							
Working pressure(MPa)	0.15-0.8							
Guaranteed Pressure(MPa)	1.2							
Working temperature(°C)	-20~70 (Dry air)							
Max. acting frequency	5 Cycles/s							
Weight(g)	RVA3211:60 RVA3212:75		RVA3221:116 RVA3222:143		RVA3231:187 RVA3232:220		RVA3241:378 RVA3242:430	

RV series air control valve (5/2, 5/3 way)

2.27 RVA Series

Flow Chart

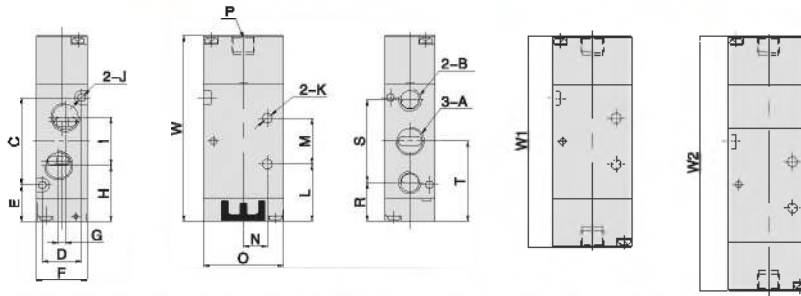


Main Dimension

Single air control

Double air control

5/3 ways solenoid valve

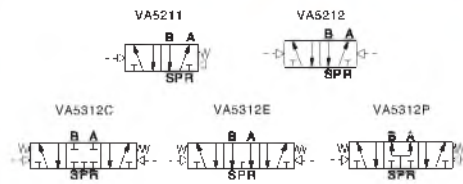


Model/Sign	A	B	C	D	E	F									R	S	T	W	W1	W2		
RVA5211-M5	M5	M5	30	13	16.5	18	0	24.5	14.1	3.3	3.3	24.5	14	9.5	27	G1/8	17.9	27.2	31.5	72	81	96
RVA5211-06	G1/8	G1/8	30	13	16.5	18	3	23.5	15	3.3	3.3	24.5	14	9.5	27	G1/8	17.5	28	31.5	72	81	96
RVA5221-06	G1/8	G1/8	38	17	16	22	0	26	18	3.3	4.3	25	20	10.5	35	G1/8	17	36	35	81	92	111
RVA5221-08	G1/4	G1/4	38	17	16	22	3	24.5	21	3.3	4.3	25	20	10.5	35	G1/8	17	36	35	81	92	111
RVA5231-08	G1/4	G1/4	50	20	19.1	27	0	33.1	22	4.3	4.3	32.1	24	13.5	40	G1/8	21.6	45	44.1	99.6	111	130
RVA5231-10	G3/8	G3/8	50	20	19.1	27	4	32.1	24	4.3	4.3	32.1	24	13.5	40	G1/8	21.6	45	44.1	99.6	111	130
RVA5241-10	G3/8	G3/8	72	27	21	34	0	39	36	4.3	5.5	43	28	17.5	50	G1/8	25.5	63	57	127	140	161
RVA5241-15	G1/2	G1/2	72	27	21	34	4	39	36	4.3	5.5	43	28	17.5	50	G1/8	25.5	63	57	127	140	161

V series air control valve (5/2,5/3 way)



VA series 2.28



How to Order?

Series No.	Ways	Positions	Valve body size	Controls	Original status	Port size	Valve type	Valve color	Thread type
VA	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: Standard type M: NAMUR type	Blank: Black W: White	Blank: G P: PT T: NPT

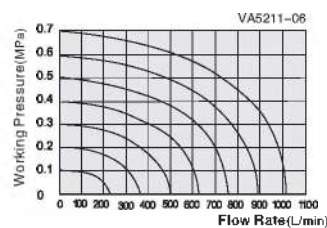
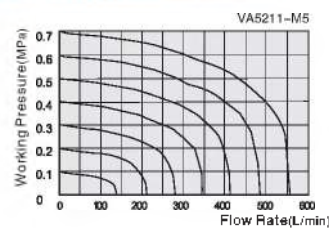
Order Example:

V series air control valve, 1 series valve body size, 5/2 way, single control, 1/8" port size, standard valve body, white color, PT thread, ERP code is: VA5211-06W-P

Specifications

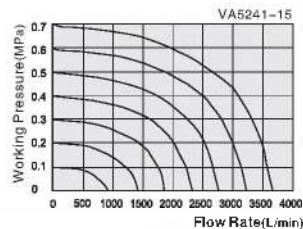
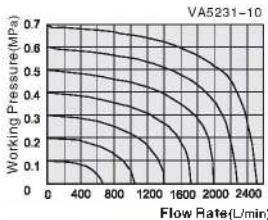
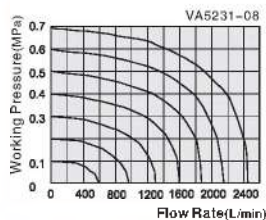
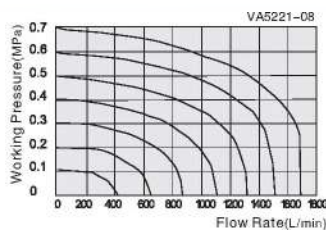
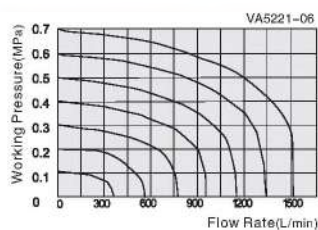
Model NO.	VA5211-M5 VA5212-M5 VA5312-M5	VA5211-06 VA5212-06 VA5312-06	VA5221-08 VA5222-06 VA5322-08	VA5221-08 VA5222-08 VA5322-08	VA5231-08 VA5232-08 VA5332-08	VA5231-10 VA5232-10 VA5332-10	VA5241-10 VA5242-10 VA5342-10	VA5241-15 VA5242-15 VA5342-15
Port size	M5	G1/8	G1/8	G1/4(Ex.G1/8)	G1/4	G3/8(Ex.G1/4)	G3/8	G1/2
Sectional area(mm ²)	5/2.5(CV=0.31) 5/3.5(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 μm filtration)							
Acting type	External type							
Lubrication	Not required							
Working pressure(MPa)	0.15-0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-5-60							
Max acting frequency	5/2-5 Cycles/s; 5/3-3 Cycles/s							
Weight(g)	V5211: 72 V5212: 87 V5312: 181		V5221: 128 V5222: 153 V5322: 219		V5231: 218 V5232: 280 V5332: 358		V5241: 437 V5242: 490 V5342: 598	

Flow Chart



Flow Chart

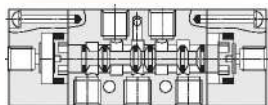
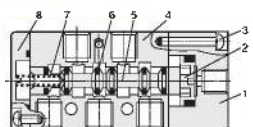
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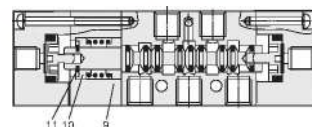
Internal structure

Single air control

Double air control



5/3 air control



Part name	Material
1 Air control cover	Aluminum alloy
2 Piston	POM
3 Screw	Carbon steel
4 Valve body	Aluminum alloy
5 Spool	Aluminum alloy
6 O-ring	NBR
7 Spring	Stainless steel
8 Rear cover	Zinc alloy
9 Back seat	Aluminum alloy
10 Spring seat	Aluminum alloy
11 C-type buckle	65Mn

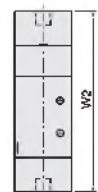
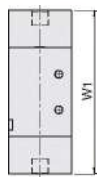
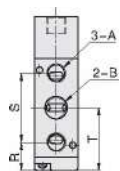
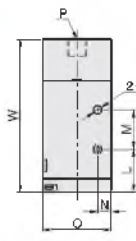
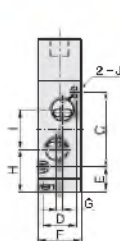
V series air control valve (5/2,5/3 way)

Main Dimension

Single air control

Double air control

5/3 air control

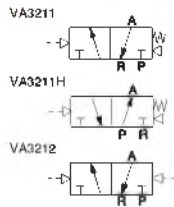


2

Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	W	W1	W2
VA5211-MS	M6	M5	30	13	13.2	18	0	21	14.5	3.3	3.3	21.2	14	9.5	27	G1/8	14.5	27.5	28.2	68.7	81	96
VA5221-06	G1/8	G1/8	30	13	13.2	18	3	20.2	16	3.3	3.3	21.2	14	9.5	27	G1/8	14.5	27.5	28.2	68.7	81	96
VA5221-06	G1/8	G1/8	38	17	12.7	22	0	22.7	18	3.3	4.3	21.7	20	10.5	35	G1/8	14.2	35	31.7	77.7	92	111
VA5221-08	G1/4	G1/8	38	17	12.7	22	3	21.7	20	3.3	4.3	21.7	20	10.5	35	G1/8	14.2	35	31.7	77.7	92	111
VA5231-08	G1/4	G1/4	50	20	15	27	0	28	24	4.3	4.3	28	24	13.5	40	G1/8	17.5	45	40	95.5	111	130
VA5231-10	G3/8	G1/4	50	20	15	27	4	28	24	4.3	4.3	28	24	13.5	40	G1/8	17.5	45	40	95.5	111	130
VA5241-10	G3/8	G3/8	72	27	21	34	0	39	36	4.3	5.5	43	28	17.5	50	G1/8	25.5	63	57	127	140	162
VA5241-15	G1/2	G1/2	72	27	21	34	4	39	36	4.3	5.5	43	28	17.5	50	G1/8	25.5	63	57	127	140	162

V series air control valve (3/2 way)

2.15 VA Series



How to Order?

Series No.	Ways	Positions	Valve body size	Controls	Original status	Port size	Valve type	Valve color	Thread type
VA	3:3 ways	2:2 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control	Blank: NC H:NO	M5:M5 05:1/8" 08:1/4" 10:3/8" 15:1/2"	Blank: Standard type M: NAMUR type	Blank Black W: White	Blank: G P: PT T: NPT

Order Example:

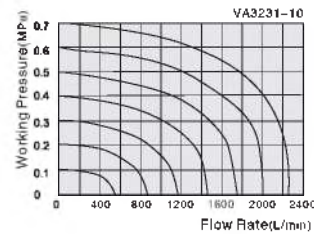
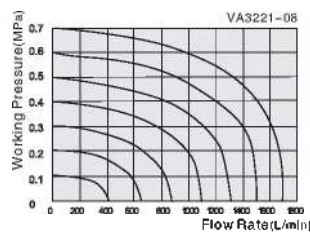
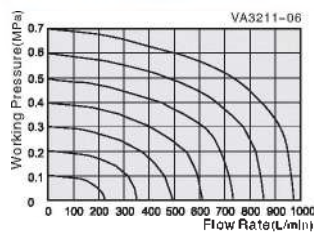
V series air control valve, 1 series valve body size, NC type, 3/2 way, 1/8" port size, standard valve body, white color, PT thread.
ERP code is: VA3211-06W-P

Specifications

Model NO.	VA3211-M5 VA3212-M5	VA3211-06 VA3212-06	VA3221-06 VA3222-06	VA3221-08 VA3222-08	VA3231-08 VA3232-08	VA3231-10 VA3232-10	VA3241-10 VA3242-10	VA3241-15 VA3242-15
Port size	M5	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Sectional area(mm ²)	5.5(CV=0.31)	12(CV=0.67)	14(CV=0.78)	16(CV=0.89)	25(CV=1.40)	30(CV=1.66)	50(CV=2.79)	50(CV=2.79)
Working medium	Clean air(After 40 μm filtration)							
Acting type	External type							
Lubrication	Not required							
Working pressure(MPa)	0.15~0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-5~60							
Max acting frequency	5 Cycles/s							
Weight(g)	VA3211: 60 VA3212: 75		VA3221: 116 VA3222: 143		VA3231: 187 VA3232: 220		VA3241: 378 VA3242: 430	

Note: The technical data of NO type and NC type are same.

Flow Chart

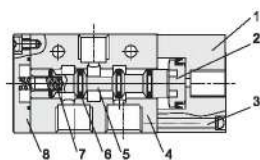


V series air control valve (3/2way)

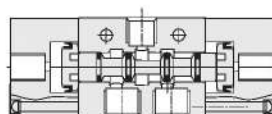
RVA Series 2.16

Internal structure

Single air control



Double air control

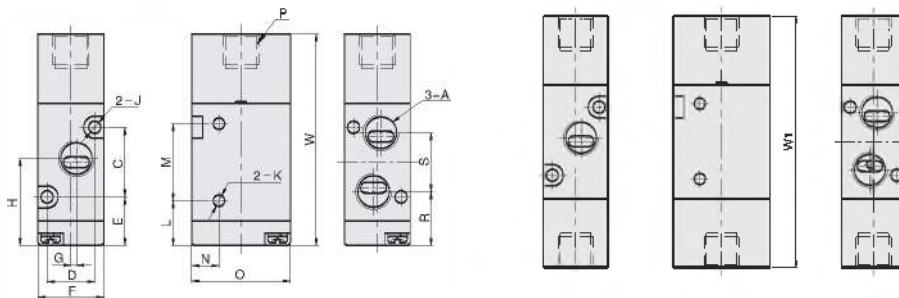


Part name	Material
1 Air control cover	Aluminum alloy
2 Piston	POM
3 Screw	Carbon steel
4 Valve body	Aluminum alloy
5 Spool	Aluminum alloy
6 O-ring	HNBR
7 Spring	Stainless steel
8 Rear cover	Zinc alloy

Main Dimension

Single air control

Double air control



Model/Sign	A	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	W	WI*
VA3211-M5	M5	19	13	13.2	18	0	22.7	3.3	3.3	12.2	21	7.5	27	G1/8	15.7	14	57.7	70
VA3211-06	G1/8	19	13	13.2	18	1.5	23.7	3.3	3.3	12.2	21	7.5	27	G1/8	14.7	16	57.7	70
VA3221-06	G1/8	30	17	12.7	22	0	27.7	3.3	4.3	15.2	25	8.2	35	G1/8	18.5	18.5	89.7	84
VA3221-08	G1/4	30	17	12.7	22	1.5	28.7	3.3	4.3	15.2	25	8.2	35	G1/8	18.5	22.5	89.7	84
VA3231-08	G1/4	35	20	15	27	0	32.5	4.3	4.3	17.5	30	10.5	40	G1/8	21.5	22	80.5	96
VA3231-10	G3/8	35	20	15	27	2	32.5	4.3	4.3	17.5	30	10.5	40	G1/8	20.5	24	80.5	96
VA3241-10	G3/8	40.5	27	24.8	34	0	45	4.3	5.3	21	48	13.5	50	G1/8	29.5	31.5	103	116
VA3241-15	G1/2	40.5	27	24.8	34	2	45	4.3	5.3	21	48	13.5	50	G1/8	29.5	31.5	103	116

Note: The dimensions of NO type and NC type are same.

V series Confluence Plate(3/2 way)

2.17 V series manifold



How to Order?

2

V -- 32 -- 1 -- N -- F
 V series 3/2 way 1:1 series valve body
 2:2 series valve body
 3:3 series valve body
 4:4 series valve body
 1:1 linker
 2:2 linker
 3:3 linker

 16:16 linker

VBP -- 32 -- 2
 V series blind plate (for V series manifold)
 3: 3 Port, 2 Position valve
 1: 1 series valve body
 2: 2 series valve body
 3: 3 series valve body
 4: 4 series valve body

* V series manifold for 3/2, 2 series valve body, 5 linkers, model: V322-5F

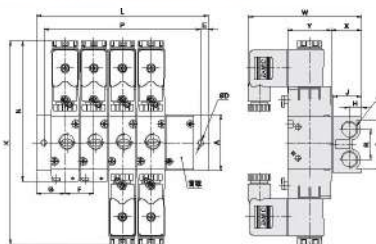
* Blind plate for 3/2 valve, 2 series valve body, Model: VBP-322

Note: Blind plate assembly comprising: Blind gaskets and mounting screws

Corresponding Application

N	Confluence Plate Model	Valve Model
1	V321-NF (N≤16)	V3211 (H) /V3212
2	V322-NF (N≤16)	V3221 (H) /V3222
3	V323-NF (N≤12)	V3231 (H) /V3232
4	V324-NF (N≤7)	V3241 (H) /V3242

Main Dimension

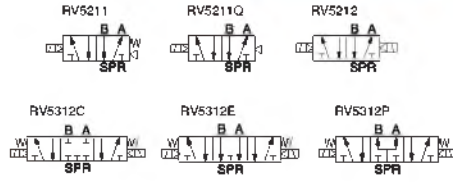


单位(mm)

Model/Sign	L										A	D	E	F	G	H	J	K
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F								
V321-□F	38	57	78	95	114	133	152	171	190	209	31	4.5	5.25	19	18	7.75	19	132.2
V322-□F	48	69	92	115	138	161	184	207	230	253	45	4.5	6	23	23	10	23.5	183.4
V323-□F	54	82	110	138	168	194	222	250	278	306	50	4.5	6	28	26	12	28	175.4
V324-□F	63	98	133	168	203	238	273	308	343	378	62.5	5.5	7	35	31.5	16	35	199.4

Model/Sign	G										N	O	R	S	W	X	Y
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F							
V321-□F	28	47	68	85	104	123	142	161	180	199	92.1	G1/8	17.5	25	75.2	20	27
V322-□F	34	57	80	103	126	149	172	195	218	241	112.7	G1/4	24	39	91.2	24.5	35
V323-□F	42	70	98	126	154	182	210	238	266	294	124.3	G3/8	29	42	98.2	29	40
V324-□F	49	84	119	154	189	224	259	294	329	364	144.7	G1/2	35.5	51.5	110.2	35	50

RV series standard/ low power solenoid valve (5/2,5/3 way)



How to Order?

Low power solenoid valve

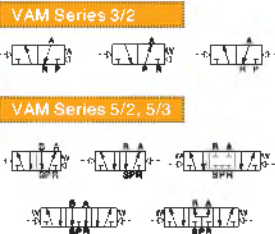
Series No	Valve body size	ID Code	Positions	Ways	Controls	Original status	Port size	Reset form	Voltage	Connection mode	Cover color	Acting type	Thread type
N	1: 1 Series 2: 2 Series 3: 3 Series 4: 4 Series	R	2: 2 positions 3: 3 positions	5 ways	1: Single control 2: Double control	C: Center close P: Center 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 f1 Series only DC24V)	Blank: DIN connector H: Waterproof DIN connector (Only 2, 3, 4 series is optional)	Blank: Brown translucent J: Colorless and translucent	Blank: Internal pilot WB: External pilot	Blank: G P: PT T: NPT

Order Example: RV series solenoid valve, 2 series valve body size, standard pilot+Low power coil, 5/2 way, single control, 1/4" port size, standard coil, DC24V, DIN connector, G thread. ERP code is: N2R251-08E4

Specifications

Model NO.	N1R251-M5 N1R252-M5 N1R352-M5	N1R251-06 N1R252-06 N1R352-06	N2R251-06 N2R252-06 N2R352-06	N2R251-08 N2R252-08 N2R352-08	N3R251-08 N3R252-08 N3R352-08	N3R251-10 N3R252-10 N3R352-10	N4R251-10 N4R252-10 N4R352-10	N4R251-15 N4R252-15 N4R352-15
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 ²)	5/2:5.9(CV=0.31) 5/3:5.9(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=0.88) 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 μm filtration)							
Acting type	Internal pilot type / External pilot type							
Reset Type	Spring reset / Gas reset							
Lubrication	Not required							
Working pressure(MPa)	0.15-0.8							
Guaranteed pressure(MPa)	1.2							
Working temperature(°C)	-20~70(Dry air)							
Voltage range	-15%~10%							
Power consumption	DC:0.7W		DC:1.0W ; AC:1.0VA					
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)	N1R251: 110 N1R252: 171 N1R352: 181	N2R251: 209 N2R252: 314 N2R352: 357	N3R251: 289 N3R252: 400 N3R352: 450	N4R251: 528 N4R252: 638 N4R352: 727				

V series NAMUR air control valve (3/2,5/2,5/3 way)



How to Order?

Series No	Ways	Positions	Valve body size	Controls	Original status	Port size	Valve type	Valve color	Thread type
VA	3: 3 ways 5: 5 ways	2: 2 positions 3: 3 positions	1: 1 Series 2: 2 Series 3: 3 Series 4: 4 Series	1: Single control 2: Double control	Blank NC H: NO C: Center close P: Center pressure E: Center exhaust (Only for 5/3 way)	1 Series M5- M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	M NAMUR type	Blank: Black W: White	Blank: G P: PT T: NPT

Order Example:

V series air control valve, 3/2 way, 2 series valve body, NC type, single control, 1/4" port size, NAMUR valve type, white valve body, PT thread, ERP code is: VA3221-08MW-P

Specifications

Model No.	VA3211/VA3212-M5	VA3211/VA3212-08	VA3221/VA3222-06	VA3221/VA3222-08	VA3231/VA3232-08
Working medium	Air (40 µm filter)				
Acting type	The external air control				
Port size	M5	1/8	In=Out=1/8	In=Out=1/4	In=Out=1/4
Sectional area	5.6mm ² (Cv=0.31)	12.0mm ² (Cv=0.67)	14.0mm ² (Cv=0.78)	16.0mm ² (Cv=0.89)	25.0mm ² (Cv=1.39)
Lubrication	Not required				
Pressure range	0.15-0.8Mpa (21-114psi)				
Guarantee pressure	1.5Mpa (215psi)				
Working temperature(°C)	-20-70				
Body material	Aluminum alloy				
Max. acting frequency	cycles/s				

Model No.	VA3241/VA3242-10	VA3241/VA3242-M5	VA3242/VA3242-M5	VA3251/VA3252-08	VA3262/VA3262-08
Working medium	Air (40 µm filter)				
Acting type	The external air control				
Port size	In=Out=3/8	In=Out=M5	In=Out=M5	In=Out=1/8	In=Out=1/8
Sectional area	30.0mm ² (Cv=1.67)	5.5mm ² (Cv=0.31)	5.0mm ² (Cv=0.28)	12.0mm ² (Cv=0.67)	9.0mm ² (Cv=0.50)
Lubrication	Not required				
Pressure range	0.15-0.8Mpa (21-114psi)				
Guarantee pressure	1.5Mpa (215psi)				
Working temperature(°C)	-20-70				
Body material	Aluminum alloy				
Max. acting frequency	5 cycles/s	3 cycles/s	3 cycles/s	5 cycles/s	3 cycles/s

Note: The technical data of NO type and NC type are same

SV Series Solenoid Valve&Valve Terminal

SV

Solenoid Valve&Valve Terminal



Product Features

- Integrated valve terminal , integrated wiring ;Adopt 26 pins D-sub connector .
- Centralized air inlet and exhaust, available for top ported , side ported and bottom ported , compact structure.
- Patent design: the pilots of double control valve are on same side; Wiring and piping are on same side.
- 5/2 ways,5/3 ways,5/4 ways(2pcs 3/2 ways) can be integrated on same valve terminal.
- 0.8W per coil.

How to Order?

S1V valve terminal

Series No.	Body Size	Piping Type	Valve Quantity	Voltage	Pilot Type	Wiring Type	Inlet & Exhaust port	Mounting	Thread Type
S: Standard	V: Top ported VM: Side ported VB: Bottom ported 1: 1 series 2: 2 series	Qty (Max.24 links for single control Max.12 links for double control)	(Applicable to different ports mixed; Blank if same ports)	E4: DC24V	Blank: Internal pilot WB: External pilot (Max.14 links for external pilot)	Blank: Double control wiring (max.12 links) S: Single control wiring (max.24 links) (Note:Mix wiring is available to customize)	Blank: Without accessories D: With DIN rail clip and 1M guide rail D0: With DIN rail clip, no guide rail Din guide rail packed separately)	Blank: G P: PT T: NPT	

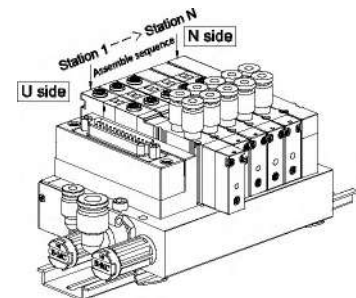
Code	Function	Remark
S	5/2 single	
D	5/2 double	
C	5/3 center closed	assembly sequence, 1st link start from U side
P	5/3 center pressure	
E	5/3 center exhaust	
Y	2pcs 3/2 (N.O.)	
H	2pcs 3/2 (N.O./N.C.)	
U	2pcs 3/2 (N.O./N.C.)	
B	blind plate	

No.	Code	Port size	Remark
1Series	M5	M5: M5 fitting	
	C4	φ 4 one-touch fitting(ZPOC04-M5C)	assembly sequence, 1st link start from U side
	C8	φ 8 one-touch fitting(ZPOC08-M7C)	
	C4A	φ 4 one-touch fitting(ZPOC04-M7C)	
2Series	O8	1/8 fitting	
	C4	φ 4 one-touch fitting(ZPC04-01)	
	C6	φ 6 one-touch fitting(ZPC06-01)	
	C8	φ 8 one-touch fitting(ZPC08-01)	

Code	Port entry	1 Series	2Series	Remark
Blank	Both side without silencer, fitting, plug	-	-	
U	U side with silencer			1) plugs are mounted on the opposite side of the selected ports; 2) only U, UL, UL side is available (at bottom ported)
N	Station N with silencer			
UN	Both side with silencer			
UL	U side with silencer			
NL	Station N with silencer			
UNL	Both side with silencer			
U1	U side with silencer			
N1	Station N with silencer			
UN1	Both side with silencer			

Order Example:

1. Same valve: S series standard valve, 1 series body, top ported, 6 links 5/2 double controlled, port size M5, DC24V, G thread, Internal pilot, double control wiring, both side without silencer, fitting, pug, the ERP code is S1V-6D-M5E4
2. Mix different valve: S series standard valve, 1 series body, top ported, see right picture : station 1 is 5/3 center closed, station 2 is 5/2 double control, station 3 is 2pcs 3/2 (N.O.) , station 4 & station 5 are 5/2 single, station 6 is blind plate, station 1 & 2 with φ 6 one-touch fitting ZPOC06-M7C, station 3~5 with with φ 4 one-touch fitting ZPOC04-M7C, DC24V, G thread, external pilot, double control wiring. U-sub side with silencer, φ 8 PL fitting, with DIN rail clip and 1M guide rail, the ERP code is S1V-CDH2SB-2C63C4AE4-WB-UL-D



SV Series Solenoid Valve & Valve Terminal

Solenoid valve

Series No.	Piping Type	Ports	Positions	Body Size	Controls	Original Status	Part Size	Voltage	Pilot Type	Wiring	Thread Type
S: Standard	V: Piping on valve VM: Piping on manifold (VM series should work with manifold)	5: 5 ports	2: 2 position 3: 3 position 4: 4 position dual 3-port valve	1: 1 series 2: 2 series	1: Single control 2: Double control	(Note: Only Wiring is available for V type)	M5: M5 M7: M7 06: 1/8"	E4: DC24V	Blank: Internal pilot WB: External pilot	Blank: None 0.3M: 0.3m wiring 0.6M: 0.6m wiring 1M: 1m wiring (Note: Wiring is available for V type only)	Blank: G P: PT T: NPT

Order Example:

S series standard type, piping on valve, 2 station 5 port, 1 series valve body, single control, M5 port, DC24V, internal pilot, 0.3 meter wiring, the ERP code is :SV5211-M5E4-0.3M.

SV valve terminal

Series No.	5/2 way	Body Size	Valve Quantity	Voltage	Inlet & Exhaust port	Wiring	Thread Type
SV: SV series	52	1: 1 series 2: 2 series	(Applicable to different ports mixed; Blank if same ports)	E4: DC24V		Blank: Without wiring 0.3M: 0.3M wiring 0.6M: 0.6M wiring 1M: 1M wiring	Blank: G P: PT T: NPT

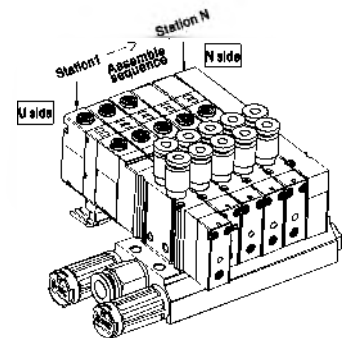
Code	Function	Remark
S	5/2 single	assembly sequence, 1st link start from U side
D	5/2 double	
C	5/3 center closed	
P	5/3 center pressure	
E	5/3 center exhaust	
Y	2pcs 3/2 (N.C.)	
H	2pcs 3/2 (N.O.)	
U	2pcs 3/2 (N.O./N.C.)	
B	blind plate	

No.	Code	Port size	Remark
1Series	M5	M5: M5 fitting	assembly sequence, 1st link start from U side
	C4	φ4 one-touch fitting(ZPOC04-M5C)	
	M7	M7: M7 fitting	
	C6	φ6 one-touch fitting(ZPOC06-M7C)	
2Series	C4A	φ4 one-touch fitting(ZPOC04-M7C)	
	06	1/8 fitting	
	C4	φ4 one-touch fitting(ZPC04-01)	
	C6	φ6 one-touch fitting(ZPC06-01)	

Code	Port entry	1Series	2Series	Remark
Blank	Both side without silencer, fitting, plug	-	-	1) plugs are mounted on the opposite side of the selected ports. 2) only U,UL,UL side is available for station ports
U	U side with silencer, φ8 PC fitting	φ 8	φ 10	
N	Station N with silencer, φ 8 PC fitting			
UN	Both side with silencer, φ 8 PC fitting			
UL	U side with silencer, φ 8 PL fitting			
NL	Station N with silencer, φ 8 PL fitting			
UNL	Both side with silencer, φ 8 PL fitting			
U1	U side with silencer, φ 10 POC fitting	φ 10	φ 12	
N1	Station N with silencer, φ 10 POC fitting			
UN1	Both side with silencer, φ 10 POC fitting			

Order Example:

- Same valve: SV series valve block, 1 series body, 6 links 5/2 double controlled SV5212, port size M5, DC24V, G thread, both side without silencer, fitting, plug, the ERP code is SV521-8D-M5E4
- Mix different valve: SV series valve block, 1 series body, see right picture : station 1 is 5/3 center closed, station 2 is 5/2 double control, station 3 is 2pcs 3/2 (N.O.), station 4 & station 5 are 5/2 single SV5211, station 6 is blind plate. station 1 & 2 with φ 6 one-touch fitting ZPOC06-M7C, station 3-5 with φ 4 one-touch fitting ZPOC04-M7C, DC24V, G thread, U-sub side with silencer, φ 8 PC fitting, the ERP code is SV521-CDH2SB-2C63C4AE4-U



SV Series Solenoid Valve&Valve Terminal

1

SV

How to Order?

Manifold				Connector		
SV	52	1	—	N	F	Thread Type
SV series	1: 1 series valve body 2: 2 series valve body			F: Manifold		Blank: G P: PT T: NPT
	2 position 5 port			1: 1 station 2: 2 stations 3: 3 stations 24: 24 stations		
Wiring				Blind plate		
Wiring Series	Accessory	Wiring Length		SVBP	52	1
SV5211: Single control SV5212: Double control	P01: With accessory	0.3M: 0.3m wiring 0.6M: 0.6m wiring 1M: 1m wiring (Note: Please contact EMC to customize wiring)		Blind plate for SV valve	2 position 5 port	1: 1 series valve body 2: 2 series valve body
Connector				Cable Core		
Connector Type	Cable Core		Cable Length			
D25: D-sub connector 25 pins	25: 25 cores (24 coils or less) 16S: 16 cores (15 stations for single control or less) 16D: 16 cores (7 stations for double control or less) 08S: 8 cores (7 stations for single control or less)		1M: 1m cable 2M: 2m cable 3M: 3m cable (Note: please contact EMC for customized length)			

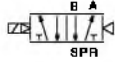
Specifications

Model	SV5211 SVM5211	SV5212 SVM5212	SV5312C/P/E SVM5312C/P/E	SV5412Y/H/U SV5412Y/H/U	SV5221 SVM5221	SV5222 SVM5222	SV5322C/P/E SVM5322C/P/E	SV5422Y/H/U SV5422Y/H/U
Sectional area (mm ²)	M5/C4: 5 (CV=0.28) M7/C6: 7 (CV=0.39)		M5/C4: 4.6 (CV=0.28) M7/C6: 6.5 (CV=0.36)		16.2 (CV=0.9)		14.5 (CV=0.8)	
Positions	2-position 5 port	2-position 5 port	3-position 5 port	4-position dual 3-port valve	2-position 5 port	2-position 5 port	3-position 5 port	4-position dual 3-port valve
Working pressure (MPa)	0.15-0.8	0.15-0.8	0.2-0.8	0.15-0.8	0.15-0.8	0.15-0.8	0.2-0.8	0.15-0.8
Port size	M5/M7 (Not available for VM series)				G1/8 (Not available for VM series)			
Working medium	Clean air(After 40 μm filtration)							
Pilot exhaust type	Internal pilot type / External pilot type							
Reset type	Air reset							
Lubrication	No required							
Proof pressure (Mpa)	1.2							
Working temperature (℃)	-20-70 (No freezing)							
Working Voltage	DC24V							
Voltage range	±10%							
Power consumption	0.8W							
Insulation class	F Class							
Protective class	IP40 Dust Proof							
Max.acting frequency	5/2: 5 cycles/s; 5/3: 3 cycles/s							
Activate time(0.5MPa)	15ms or less				20ms or less			
Weight (g)	55.5	64.5	68	65	66	67	104	98.5

SV Series Solenoid Valve & Valve Terminal

Symbol

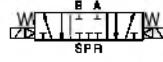
SV 5211
(5/2 single control)



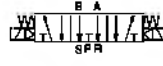
SV 5212
(5/2 double control)



SV 5312C
(5/3 center close)



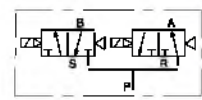
SV 5312E
(5/3 center exhaust)



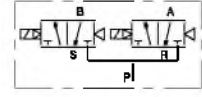
SV 5312P
(5/3 center pressure)



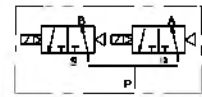
SV 5412U
(1pc 3/2 N.C + 1pc 3/2 N.O)



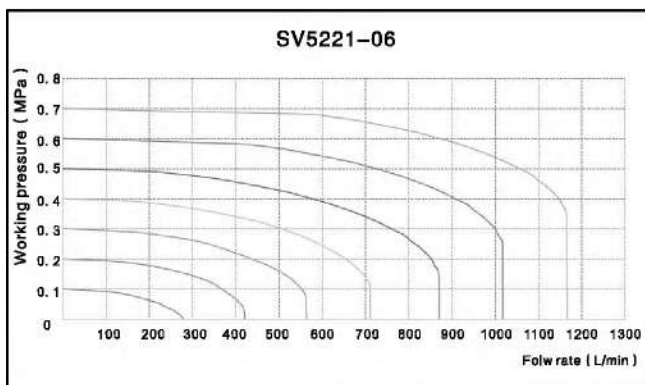
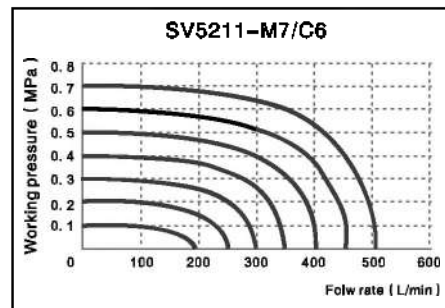
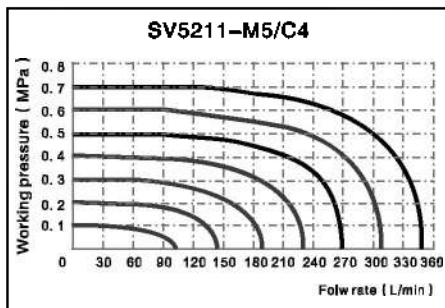
SV 5412Y
(2pcs 3/2 N.C)



SV 5412H
(2pcs 3/2 N.O)



Flow Chart

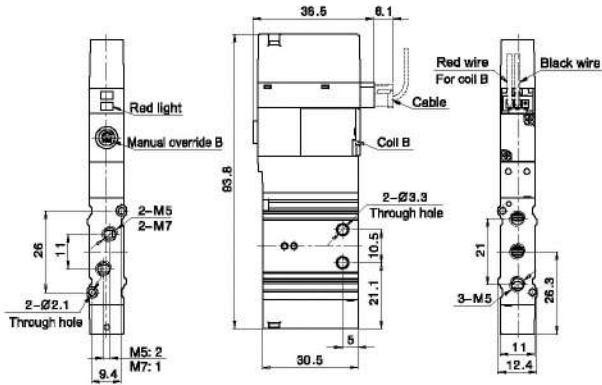


SV Series Solenoid Valve & Valve Terminal

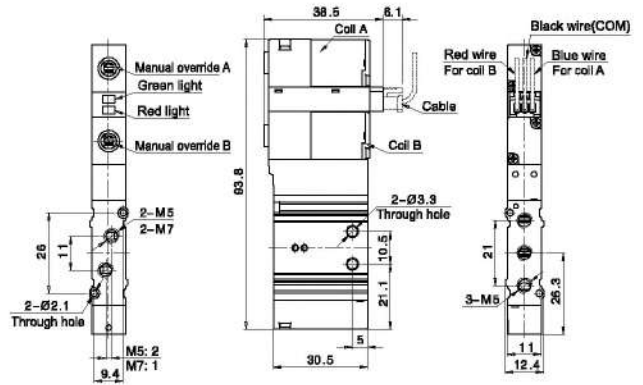
Main Dimension

Solenoid valve

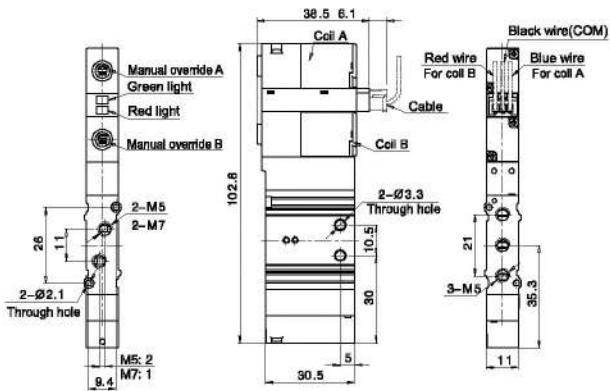
SV5211



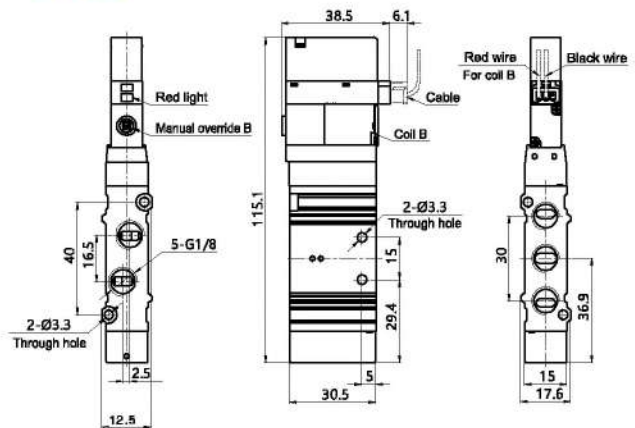
SV5212/SV5412



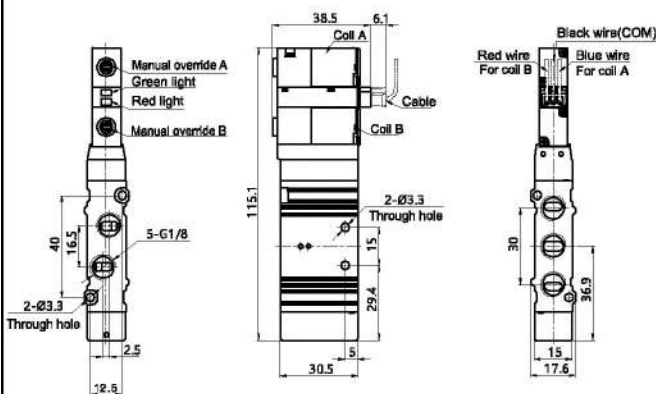
SV5312



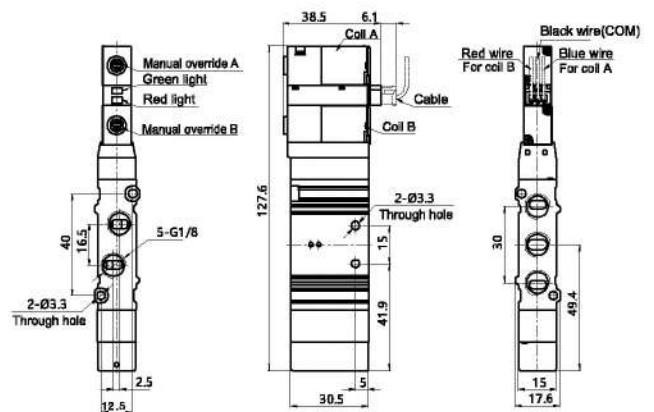
SV5221



SV5222/SV5422



SV5322

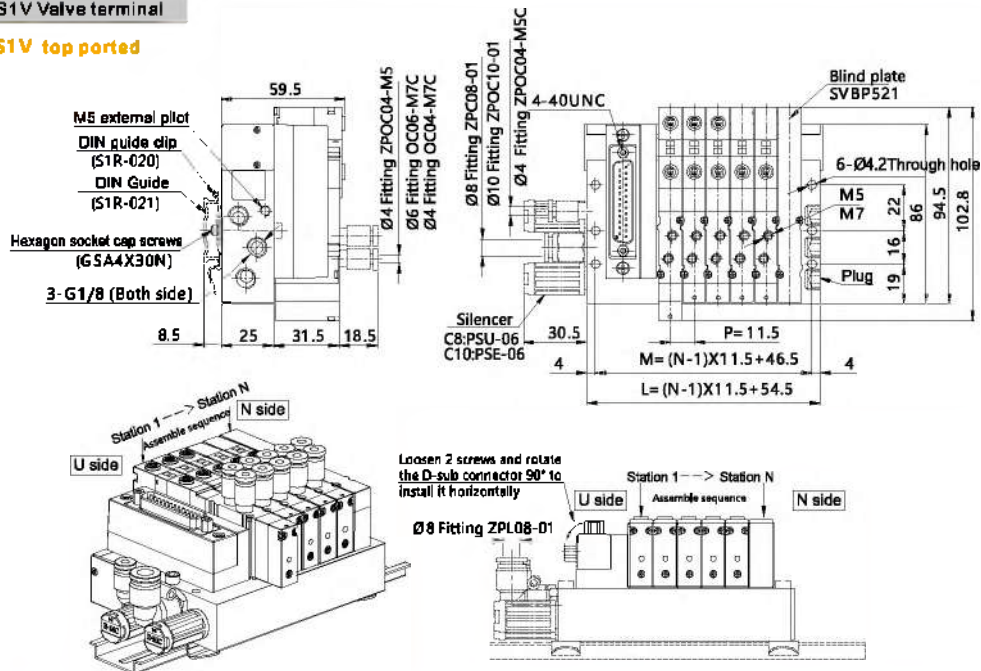


SV Series Solenoid Valve & Valve Terminal

○ Main Dimension

S1V Valve terminal

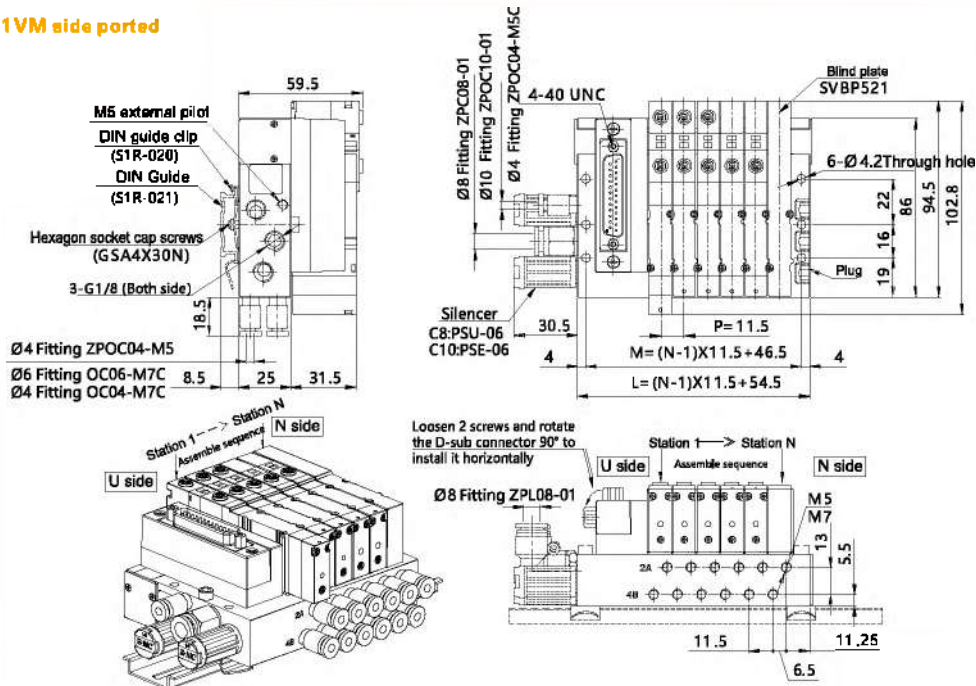
S1V top ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5	204	215.5	227	238.5	250	261.5	273	284.5	296	307.5	319
M		68	69.5	81	82.5	104	116.6	127	138.6	150	161.5	173	184.5	196	207.6	219	230.5	242	253.5	265	276.5	288	299.5	311

S1VM side ported



Note: N means valve link

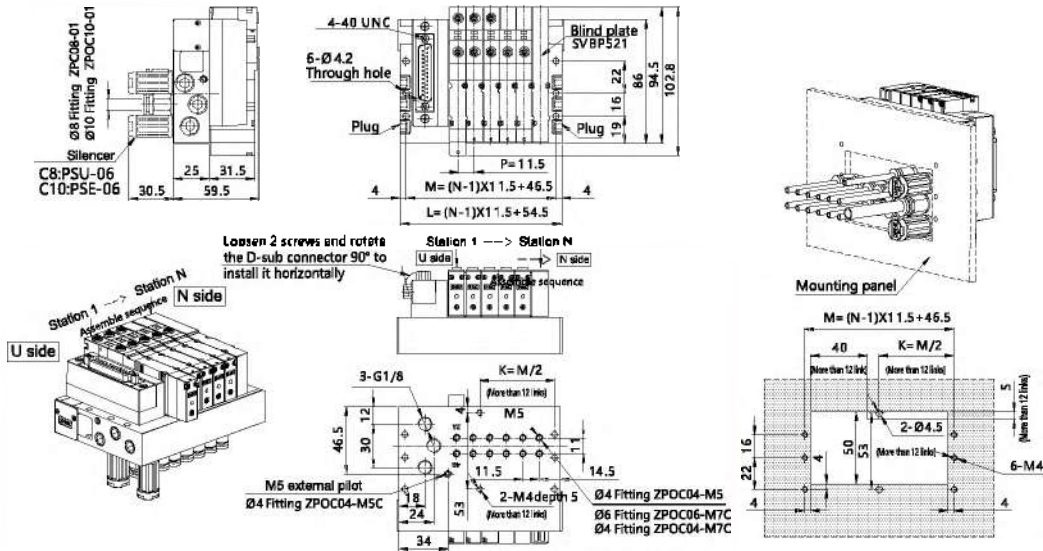
Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5	204	215.5	227	238.5	250	261.5	273	284.5	296	307.5	319
M		58	69.5	81	82.5	104	116.6	127	138.6	150	161.5	173	184.5	196	207.6	219	230.5	242	253.5	265	276.5	288	299.5	311

SV Series Solenoid Valve & Valve Terminal

Main Dimension

SV Valve terminal

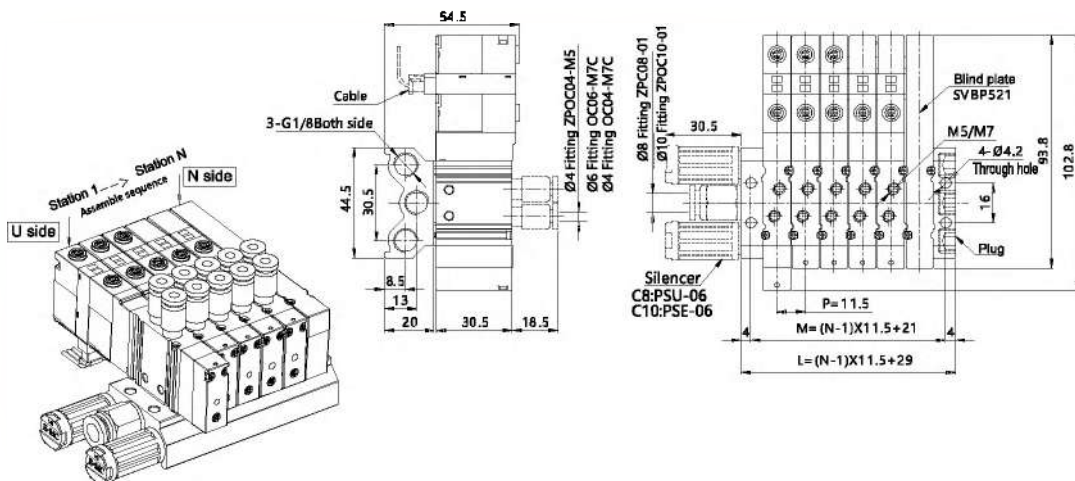
S1VB bottom ported



Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5
M		58	69.5	81	92.5	104	115.5	127	138.5	150	161.5	173	184.5
Sign	Model	14	15	16	17	18	19	20	21	22	23	24	
L		204	215.6	227	238.6	250	261.6	273	284.5	296	307.5	319	
M		196	207.6	219	230.6	242	253.6	265	276.5	288	299.5	311	
K		86	109.75	109.6	116.25	121	128.75	132.5	138.25	144	149.75	155.5	

Note: N means valve link

SV521 Valve terminal



Note: N means valve link

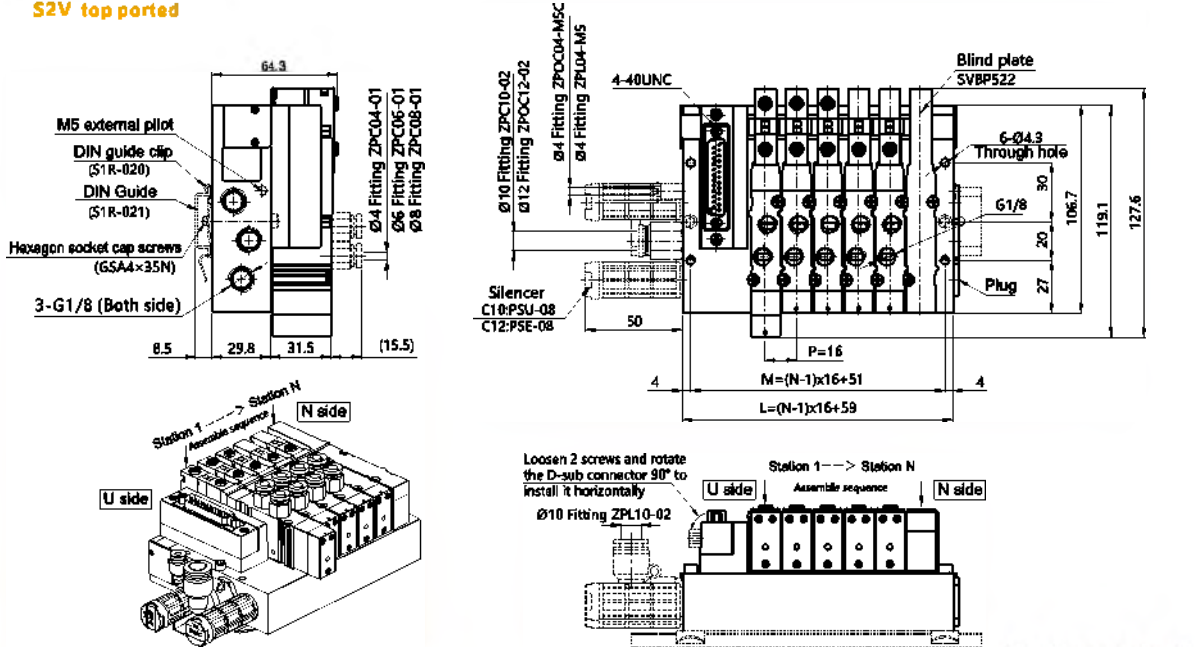
Sign	Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		29	40.5	52	63.5	75	86.5	98	109.5	121	132.5	144	155.5	167	178.5	190	201.5	213	224.5	236	247.5	259	270.5	282	293.5
M		21	32.5	44	55.5	67	78.5	80	101.5	113	124.5	136	147.5	159	170.5	182	193.5	205	216.5	228	239.5	251	262.5	274	285.5

SV Series Solenoid Valve&Valve Terminal

Main Dimension

S2V Valve terminal

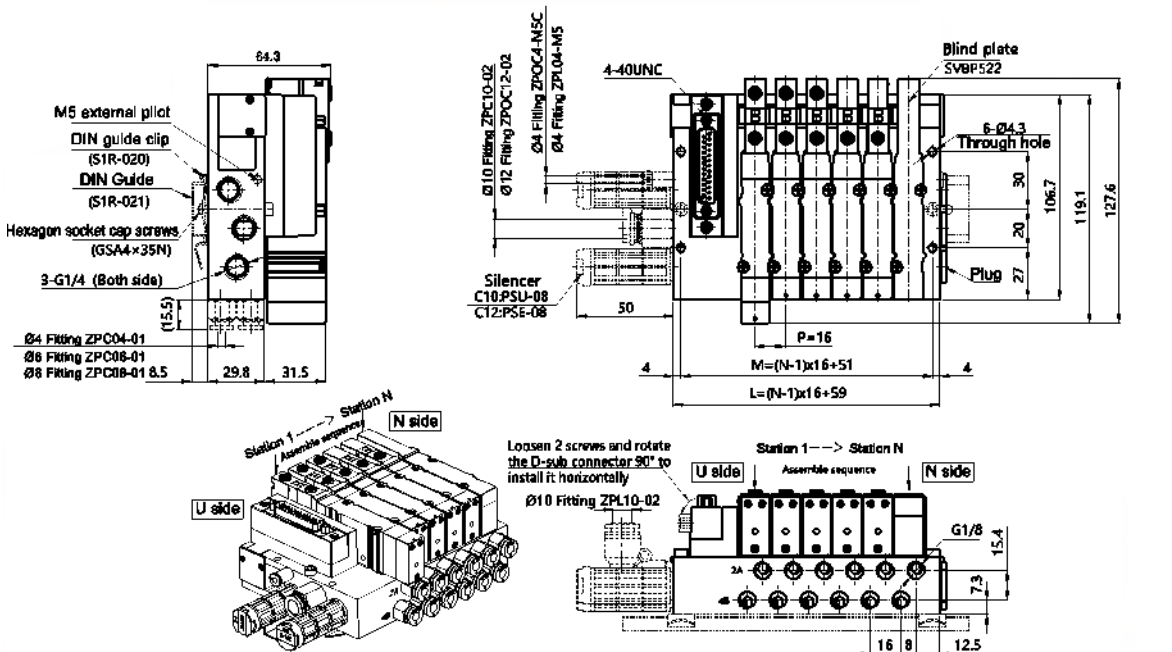
S2V top ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427
M		67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323	339	355	371	387	403	419

S2VM side ported



Note: N means valve link

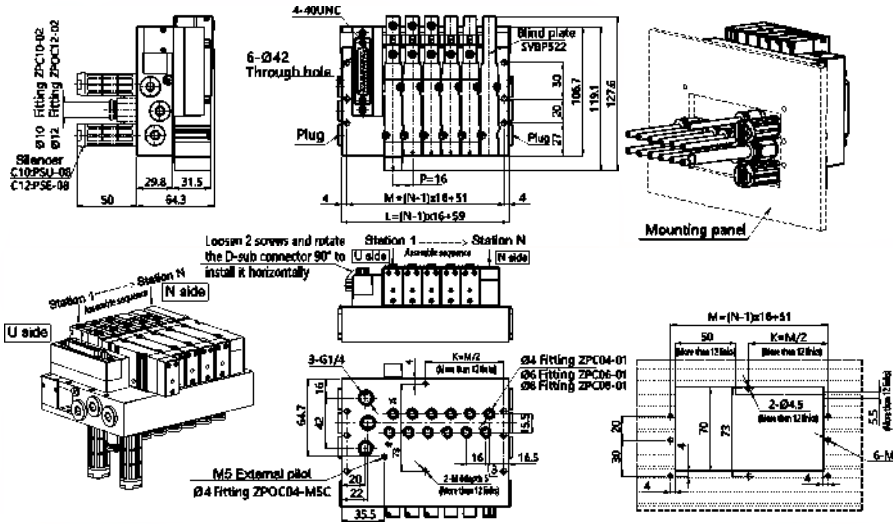
Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427
M		67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323	339	355	371	387	403	419

SV Series Solenoid Valve & Valve Terminal

Main Dimension

S2V Valve terminal

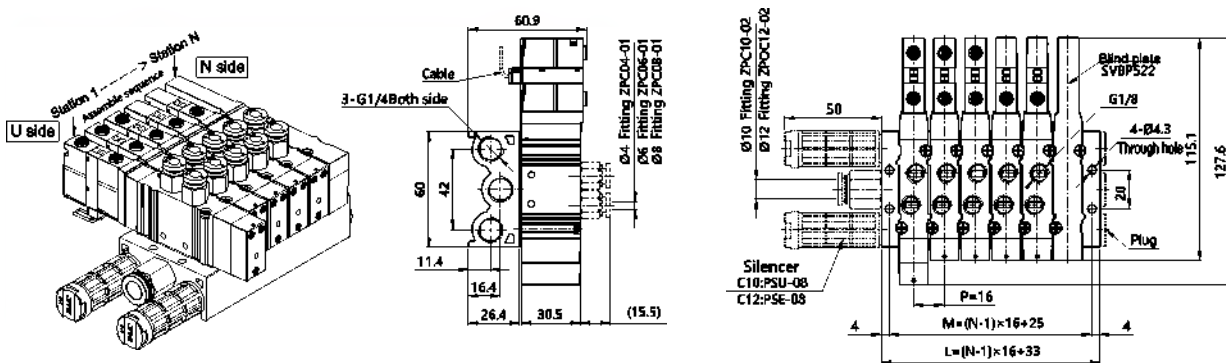
S1VB bottom ported



Sign	Model	2	3	4	5	6	7	8	9	10	11	12	
L	L	75	81	107	123	138	155	171	187	203	219	235	
	M	87	83	98	115	131	147	163	178	195	211	227	
Sign	Model	13	14	15	16	17	18	19	20	21	22	23	24
L	L	251	267	283	299	315	331	347	363	379	395	411	427
	M	243	259	275	291	307	323	339	355	371	387	403	419
	K	121.5	129.5	137.5	145.5	153.5	161.5	169.5	177.5	185.5	193.5	201.5	209.5

Note: N means valve link

SV521 Valve terminal

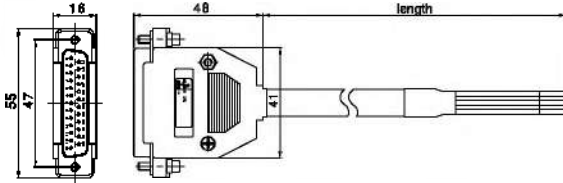


Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L	L	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337	353	369	385	401
	M	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329	345	361	377	393

SV Series Solenoid Valve&Valve Terminal

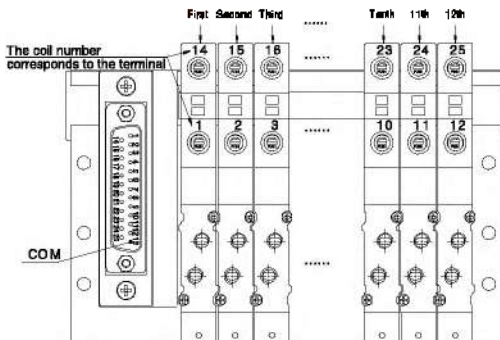
Connector & Cable



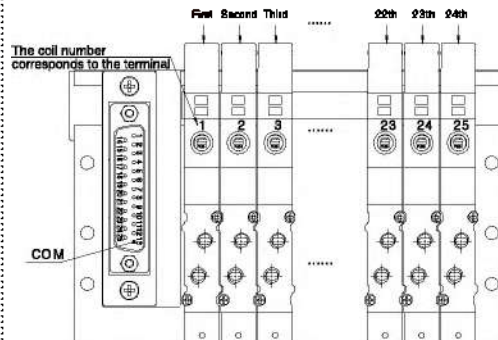
Connector Cable	PIN number & Wire Color				
	PIN Number	D2 5-25 Wire Color	D2 5-18D Wire Color	D2 5-18S Wire Color	D2 6-05S Wire Color
1	Purple	Purple	Purple	Purple	
2	Orange	Orange	Orange	Orange	
3	Pink	Pink	Pink	Pink	
4	Grey	Grey	Grey	Grey	
5	White	White	White	White	
6	Red	Red	Red	Red	
7	Green	Green	Green	Green	
8	Black	---	Black with point	---	
9	Purple with 1 point	---	Purple with 1 point	---	
10	Orange with 1 point	---	Orange with 1 point	---	
11	Pink with 1 point	---	Pink with 1 point	---	
12	Grey with 1 point	---	Grey with 1 point	---	
19(COM)	Yellow	Black	Black	Black	
14	White with 1 point	White with point	White with point	---	
15	Red with 1 point	Red with point	Red with point	---	
16	Green with 1 point	Green with point	Green with point	---	
17	Black with 1 point	Black with point	---	---	
18	Purple with 2 point	Purple with point	---	---	
19	Orange with 2 point	Orange with 1 point	---	---	
20	Pink with 2 point	Pink with point	---	---	
21	Grey with 2 point	---	---	---	
22	White with 2 point	---	---	---	
23	Red with 2 point	---	---	---	
24	Green with 2 point	---	---	---	
25	Black with 2 point	---	---	---	

Valve Terminal Inner Wiring Diagram

Double control wiring
max.12 links

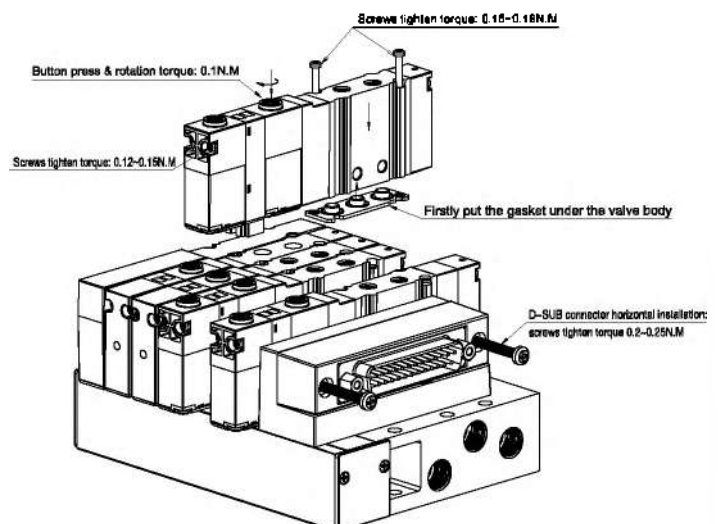


Single control wiring
max.24 links



Installation & Usage Attention

1. Do not drop the solenoid valve when it takes out from the box to avoid the damage;
2. Do not hit by external force during installation and adjustment;
3. Do not disassemble when using, once disassembled and reassembled, it may not meet the default setting and leads poor performance;
4. The torque required for relevant parts be showed on right picture.



ESV Fieldbus Valve Terminal

ESV

Solenoid Valve & Valve Terminal

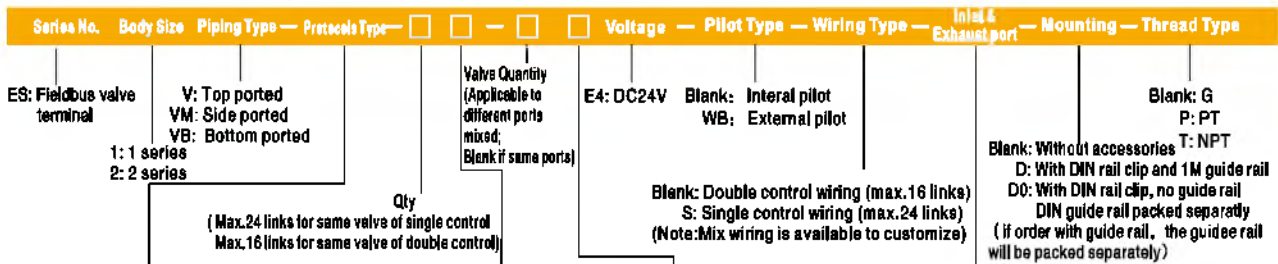


Product Features

- Compatible Protocols: PROFINET and EtherCAT
- 16 Outputs and 32 outputs for option, 16 outputs max. 16pcs coil/16pcs valve; 32 outputs max. 32pcs coil/16pcs double control valve/24pcs valve (8pcs double control + 16pcs single control)
- Equipped with two M12 BUS Interface, realize daisy-chain wiring communication, branch connector is not necessary, reduced wiring space
- Diagnostic functions: system diagnosis, communication error, undervoltage.
- Safe output can be set at any point in module parameter interface. For example, when the bus connection is interrupted, the valve could keep the last condition, or be forced to close or open.
- Plug and play: replace the entire valve terminal without shutdown, the new replaced valve terminal could be identified automatically and operated immediately.
- Simple installation and configuration, easy operation.

How to Order?

ES Fieldbus Valve Terminal



Code	Protocol's type	Output	Interface
PN16	PROFINET	16	M12
PN32		32	
EC16	EtherCAT	16	M12
EC32		32	

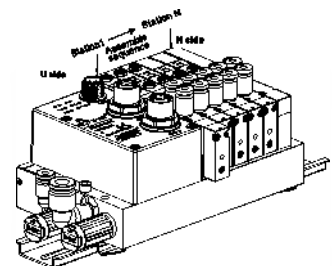
Code	Function	Remark
S	5/2 single	assembly sequence, 1st link start from U side
D	5/2 double	
C	5/3 center closed	
P	5/3 center pressure	
E	5/3 center exhaust	
Y	2pcs 3/2 (N.O.)	
H	2pcs 3/2 (N.O.)	
U	2pcs 3/2 (N.O./N.C.)	
B	blind plate	

No.	Code	Port size	Remark
1 Series	M5	M5: M5 fitting	assembly sequence, 1st link start from U side
	C4	φ4 one-touch fitting(ZPOC04-M7C)	
	M7	M7: M7 fitting	
	C6	φ6 one-touch fitting(ZPOC06-M7C)	
2 Series	C4A	φ4 one-touch fitting(ZPOC04-M7C)	assembly sequence, 1st link start from U side
	O6	1/8 fitting	
	C4	φ4 one-touch fitting(ZPC04-01)	
	C6	φ6 one-touch fitting(ZPC06-01)	
	C8	φ8 one-touch fitting(ZPC08-01)	

Code	Port entry	1 Series	2 Series	Remark
Blank	Both side without silencer, fitting, plug	-	-	1) plugs are mounted on the opposite side of the selected parts; 2) only U, U1, UL side is available for double control
U	U side with silencer	φ 8	φ 10	
N	Station N with silencer			
UN	Both side with silencer			
UL	U side with silencer			
NL	Station N with silencer			
UNL	Both side with silencer			
U1	U side with silencer	φ 10	φ 12	
N1	Station N with silencer			
UN1	Both side with silencer			

Order Example:

- Same valve: ES Fieldbus Valve Terminal, 1 series body, top ported, PROFINET, 32 outputs, 6 links 5/2 double controlled, port size M5, DC24V, G thread, internal pilot, double control wiring, both side without silencer, fitting, plug, the ERP code is ES1V-PN32-6D-M5E4
- Mix different valves: ES series fieldbus system, 1 series body, top ported, PROFINET, 32 outputs, see right picture: station 1 is 5/3 center closed SV5312C, station 2 is 5/2 double control SV5212, station 3 is 2pcs 3/2 (N.O.) SV5412H, station 4 & station 5 are 5/2 single SV5211, station 6 is blind plate. station 1 & 2 with φ 6 one-touch fitting ZPOC06-M7C, station 3-5 with φ 4 one-touch fitting ZPOC04-M7C, DC24V, G thread, external pilot, double control wiring, U-sub side with silencer, φ 8 one-touch fitting EPL, with DIN rail clip and 1M guide rail, the ERP code is ES1V-PN32-CHD2SB-2C63C4AE4-WB-UL-D

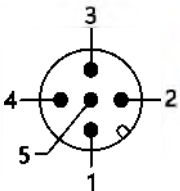


ESV Fieldbus Valve Terminal

Specifications

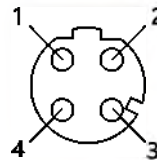
Code	ES1V(VM/VB)-PN16 ES2V(VM/VB)-PN16	ES1V(VM/VB)-PN32 ES2V(VM/VB)-PN32	ES1V(VM/VB)-EC16 ES2V(VM/VB)-EC16	ES1V(VM/VB)-EC32 ES2V(VM/VB)-EC32
Output	16	32	16	32
Protocols	PROFINET		EtherCAT	
Baud rate	100Mbps		100Mbps	
Configuration files	GSDML file		XML file	
Control power supply	Voltage	DC24V(DC21.6 ~ 26.4V)		
	Current consumption	120mA below		
Output voltage(valve)	DC24V(DC22.8 ~ 26.4V)			
Output type	NPP/Sink (+cam)			
Power interface	M12, 5pin, A encode			
Bus Interface	2xM12 socket, 4 hole, D encode			
Diagnostic	System diagnosis, communication error, undervoltage			
Protection	IP40 Dust proof			
Storage temperature(°C)	-20 ~ 70			
Working temperature(°C)	-10 ~ 50			

Power interface



Pin	Type	Description
1	PS24	+24V control voltage +24V
2	PL24	+24V Operating voltage of load valve
3	PS0	0V control voltage 0V
4	PL0	0V Operating voltage of load valve
5	FE	Functional earthing

BUS interface



Pin	Type	Description
1	TD+	Send data+
2	RD+	Receive data+
3	TD-	Send data-
4	RD-	Receive data-

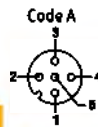
Wiring

M125R - PVC - □

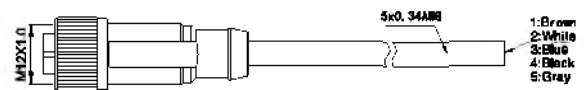
M12 Female
5 cores
2M: 2 meters
5M: 5 meters
(Other length could be customized)

ESV-EN

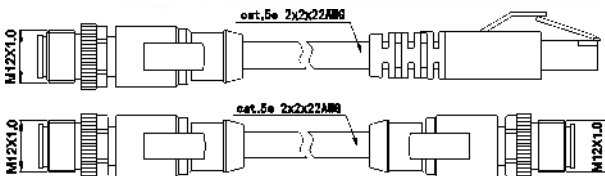
Ethernet fieldbus wiring
2M: 2 meters long
5M: 5 meters long
(Other length could be customized)
M12RJ: M12male connectors ↔ RJ45
M12M12: M12male connectors ↔ M12male connectors



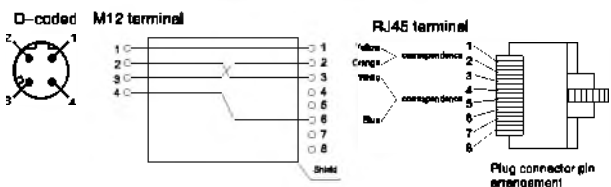
Power cable



Communication Cable



Connections



ESV Fieldbus Valve Terminal

LED Indicators

PROFINET

BF ○ ○ SF
L/A1 ○ ○ L/A2
PWR ○ ○ PWR(V)

Indicators	Status	Meaning
BF	ON	Communication not connected
	Flash	Module is connecting with PN master station, IP address or device name duplicated.
	OFF	System is normal
SF	OFF	System is normal
L/A1 L/A2	ON	Diagnosed fault, or the master station configuration does not match the valve station
	Yellow light on Yellow light off Green light flash Green light off	PROFINET BUS IN BUS OUT BUS IN BUS OUT
PWR	ON	Module with 24V power supply
	OFF	Module without power supply
PWR(V)	OFF	24V load voltage is normal
	ON	The load voltage is not connected or the load voltage is too low (During the under voltage monitor is on)

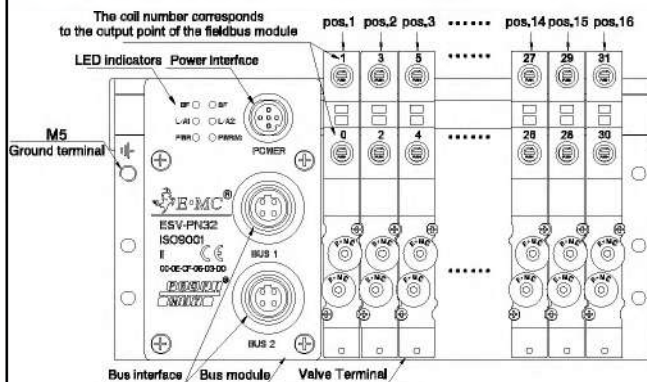
EtherCAT

RUN ○ ○ ERR
L/A IN ○ ○ L/A OUT
PWR ○ ○ PWR(V)

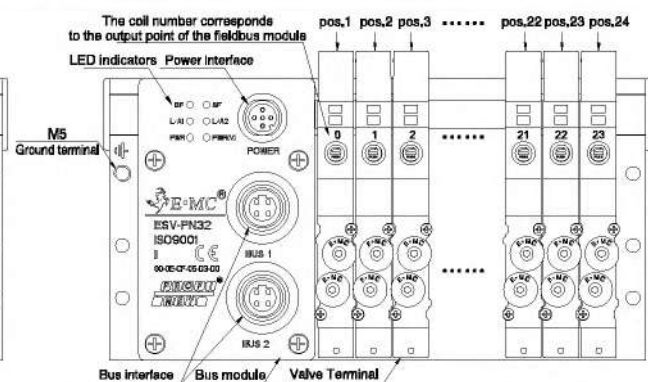
Indicators	Status	Meaning
RUN	OFF	Initial Status
	Rapid Flash	Pre-operational status
	Slow Flash	Safe Status
	ON	Operational Status(Enter into normal data exchange status)
ERR	OFF	Normal Initiation
	ON	Initiation Failure
L/A IN L/A OUT	ON	EtherCAT BUS IN
	OFF	BUS OUT
PWR	Flash	BUS IN WITH DATA TRANSMISSION ON NETWORK
	ON	Module with 24V power supply
PWR(V)	OFF	Module without power supply
	ON	24V load voltage is normal
PWR(V)	OFF	24V load voltage is normal
	ON	The load voltage is not connected or the load voltage is too low (During the under voltage monitor is on)

Wiring Diagram

Wiring for double control (maximum 16 positions)



Wiring for single control (maximum 24 positions)



Precautions for Use

- Do not disassemble, modify (including replacing printed circuit boards) or repair without authorization, which may result in injury or failure.
- Do not operate the product exceeding the parameters (limited values), and do not use it for flammable or harmful liquids, which may cause fire, malfunction or damage to the product. Please verify the manual before using.
- Do not operate in an environment containing flammable and explosive gases, which may cause fire or explosion. This product is not designed for explosion-proof.
- If use this product in the interlock circuit:
 - Provide double interlocking systems, such as mechanical system;
 - Check regularly whether the product is operating normally; otherwise, malfunctions may occur leading to accidents.
- The following instructions must be followed during maintenance: (1) turn off the power; (2) stop providing gas, remove the remaining pressure and make sure that there is no air supply before maintenance; otherwise, it may cause injury.
- After the maintenance is completed, perform proper functional checks. If the equipment does not work properly, please stop the operation. In case of unexpected failure, safety cannot be guaranteed.
- The product designed used for industries. Except under industrial environments, when used under environments such as: mixed commercial and residential areas, measures must be taken to prevent radio interference.
- The bus manifold and power cord must be functionally grounded to ensure the safety and anti-noise performance of the fieldbus system.

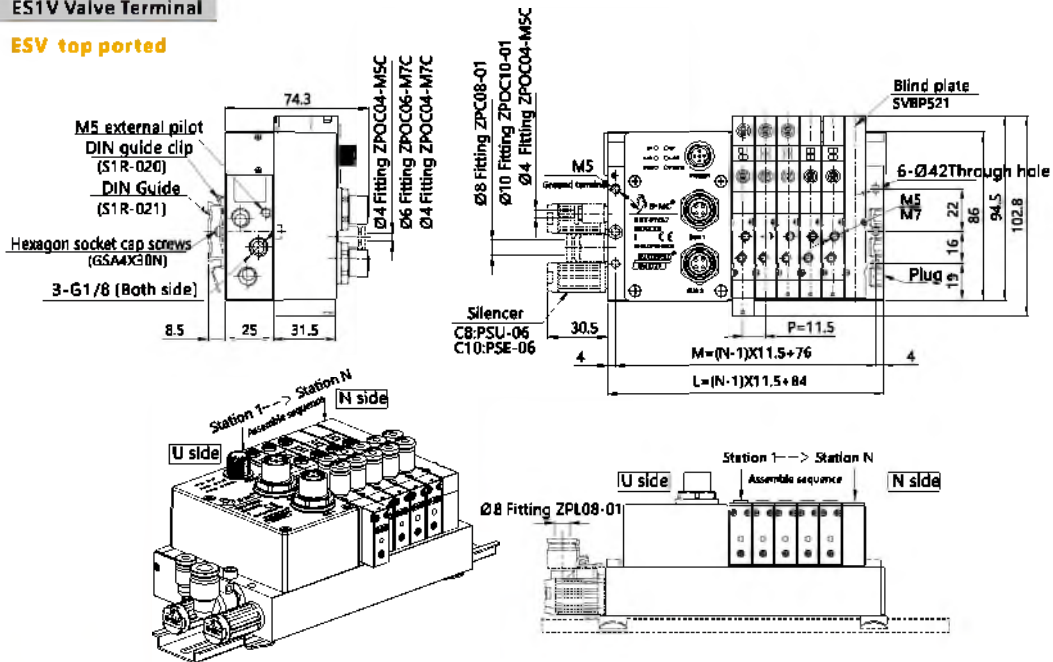
ESV Fieldbus Valve Terminal

ESV

Main Dimension

ES1V Valve Terminal

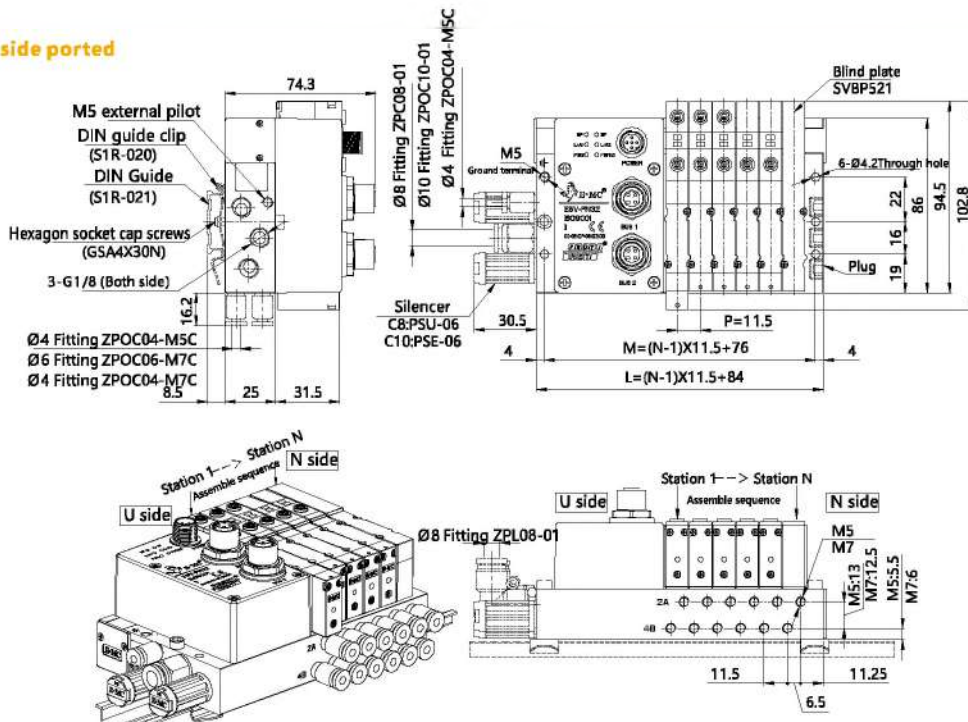
ESV top ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		95.5	107	118.5	130	141.5	153	164.5	176	187.5	199	210.5	222	233.5	245	256.5	268	279.5	291	302.5	314	325.5	337	348.5
M		87.5	99	110.5	122	133.5	145	156.5	168	179.5	191	202.5	214	225.5	237	248.5	260	271.5	283	294.5	306	317.5	329	340.5

ES1VM side ported



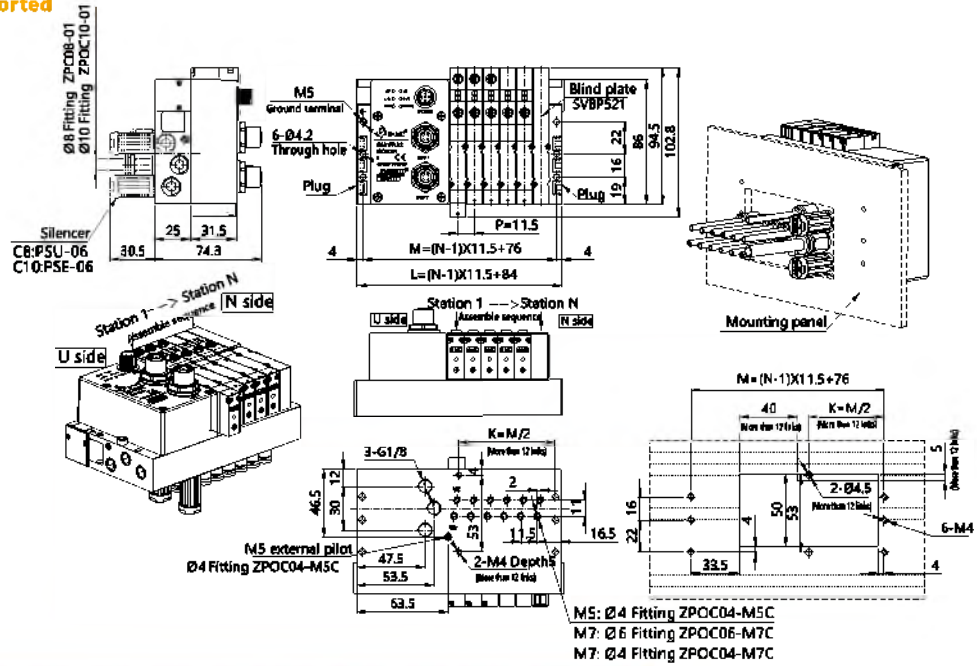
Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		95.5	107	118.5	130	141.5	153	164.5	176	187.5	199	210.5	222	233.5	245	256.5	268	279.5	291	302.5	314	325.5	337	348.5
M		87.5	99	110.5	122	133.5	145	156.5	168	179.5	191	202.5	214	225.5	237	248.5	260	271.5	283	294.5	306	317.5	329	340.5

ESV Fieldbus Valve Terminal

Main Dimension

ES1VB bottom ported

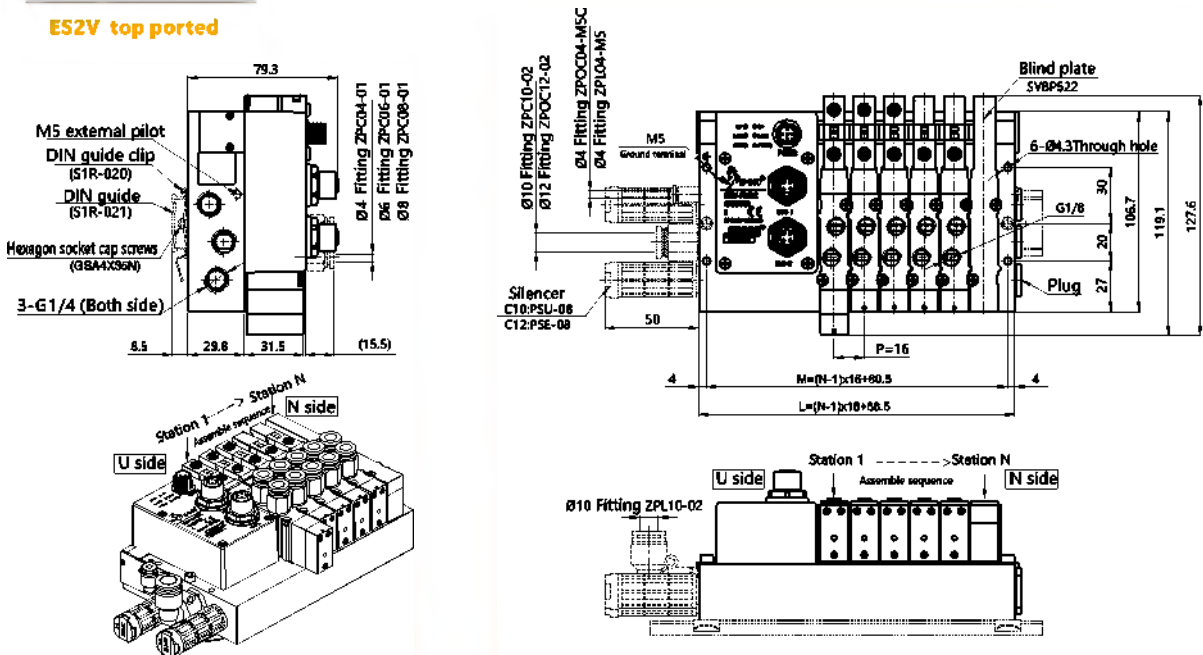


Sign	Model	2	3	4	5	6	7	8	9	10	11	12	
L		95.5	107	118.5	130	141.5	153	164.5	176	187.5	199	210.5	
M		87.5	99	110.5	122	133.5	145	156.5	168	179.5	191	202.5	
Sign	Model	13	14	15	16	17	18	19	20	21	22	23	24
L		222	233.5	245	256.5	268	279.5	291	302.5	314	325.5	337	348.5
M		214	225.5	237	248.5	260	271.5	283	294.5	306	317.5	329	340.5
K		107	112.75	118.5	124.25	130	135.75	141.5	147.25	153	158.75	164.5	170.25

Note: N means valve link

ES2V Valve Terminal

ES2V top ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		104.5	120.5	136.5	152.5	168.5	184.5	200.5	216.5	232.5	248.5	264.5	280.5	296.5	312.5	328.5	344.5	360.5	376.5	392.5	408.5	424.5	440.5	456.5
M		96.5	112.5	128.5	144.5	160.5	176.5	192.5	208.5	224.5	240.5	256.5	272.5	288.5	304.5	320.5	336.5	352.5	368.5	384.5	400.5	416.5	432.5	448.5

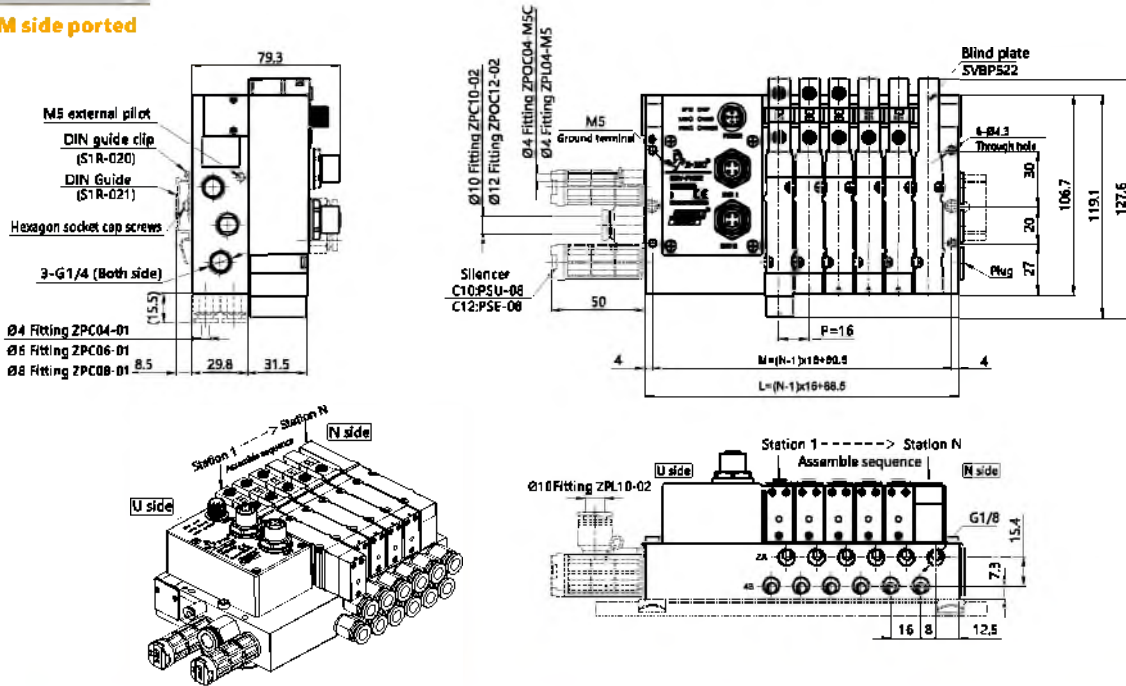
ESV Fieldbus Valve Terminal

ESV

Main Dimension

ES2V Valve Terminal

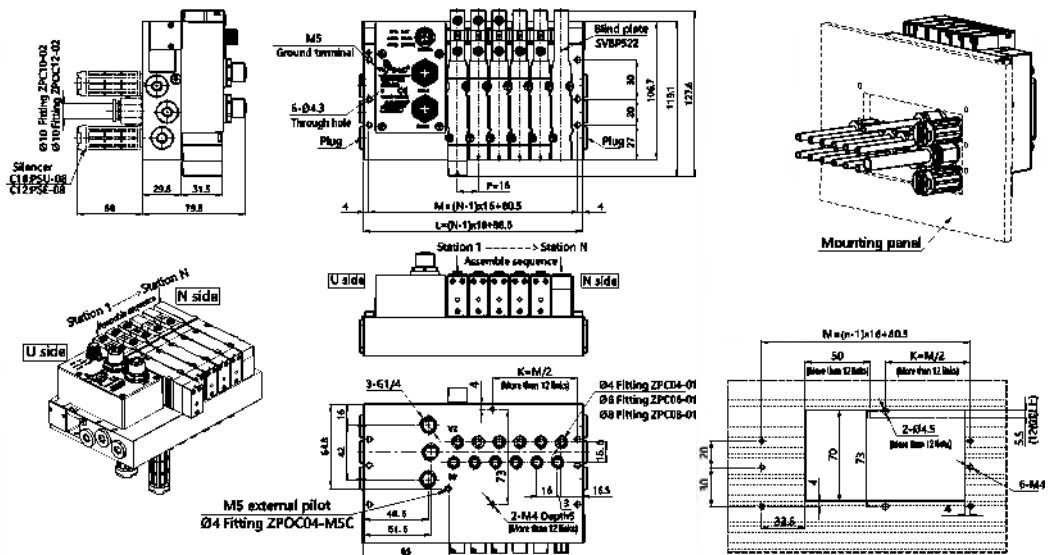
ES2VM side ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		104.5	120.5	136.5	152.5	168.5	184.5	200.5	216.5	232.5	248.5	264.5	280.5	296.5	312.5	328.5	344.5	360.5	376.5	392.5	408.5	424.5	440.5	456.5
M		96.5	112.5	128.5	144.5	160.5	176.5	192.5	208.5	224.5	240.5	256.5	272.5	288.5	304.5	320.5	336.5	352.5	368.5	384.5	400.5	416.5	432.5	448.5

ES2VB bottom ported



Mounting panel

Model	2	3	4	5	6	7	8	9	10	11	12	
Sign L	104.5	120.5	136.5	152.5	168.5	184.5	200.5	216.5	232.5	248.5	264.5	
M	96.5	112.5	128.5	144.5	160.5	176.5	192.5	208.5	224.5	240.5	256.5	
Model	13	14	15	16	17	18	19	20	21	22	23	24
Sign L	280.5	296.5	312.5	328.5	344.5	360.5	376.5	392.5	408.5	424.5	440.5	456.5
M	272.5	288.5	304.5	320.5	336.5	352.5	368.5	384.5	400.5	416.5	432.5	448.5
K	136.25	144.25	152.25	160.25	168.25	176.25	184.25	192.25	200.25	208.25	216.25	224.25

Note: N means valve link

ET307/ETA307 Direct Acting Solenoid Valve(3/2way)

ET307/ETA307

Direct Acting Solenoid Valve(3/2way)



1
ET307/ETA307



Product Features

- Direct acting, sensitive action.
- Zero pressure starting, suitable for vacuum application.
- Universal for N.C. & N.O. type, suitable for 8 kinds applications.
- Coaxial shut-off design, balanced spool without back pressure, no influence from working medium pressure, high anti-dirty and excellent sealing.
- Multiple mounting types, manual button equipped for convenient debugging.
- Valve body is made by high strength aluminum alloy, and manufactured at one time, with hard oxidized surface treatment.

How to Order?

Series No.	ID code	Port Size	Voltage	Connection Mode	Connector Color	Wiring	Thread Type	Mounting
ET: ET Series	307	06: 1/8" 08: 1/4"	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: DIN type F: Flying leads K: Water proof type L: Plug-in Type	Blank: Brown translucent J: Colorless and translucent B: Black(Black is available for water proof connector only)	Blank:0.3 meter cable 0.6M:0.6 meter cable 1M:1 meter cable (Options for "L:Plug-in type" and "F:Flying leads type" Only)	Blank: G P: PT T: NPT	Blank: No FA: With bracket

Series No.	ID code	Port Size	Voltage	Connection Mode	Connector color	Patchcord	Thread Type	Mounting	Stations
ETA: ETA Series	307	06: 1/8"	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: DIN type F: Flying leads K: Water proof type L: Plug-in Type	Blank: Brown translucent J: Colorless and translucent B: Black(Black is available for water proof connector only)	Blank:0.3 meter cable 0.6M:0.6 meter cable 1M:1 meter cable (Options for "L:Plug-in type" and "F:Flying leads type" Only)	Blank: G P: PT T: NPT	Blank: No FA: With bracket (Not available for valve group)	2F: 2 Stations 3F: 3 Stations 10F: 10 Stations (Available for valve group only)

Order Example:

ET Series, 1/8 port size, AC220V, flying leads, brown translucent, G thread, no mounting, ERP code is: ET307-06E2F

Manifold

Series No.	N	F	Thread Type
ETA307 Series	2F: 2 Stations 3F: 3 Stations 10F: 10 Stations	F: Manifold	Blank: G P: PT T: NPT

Blind Plate

ETABP307

ETA307 Series Blind Plate

Specifications

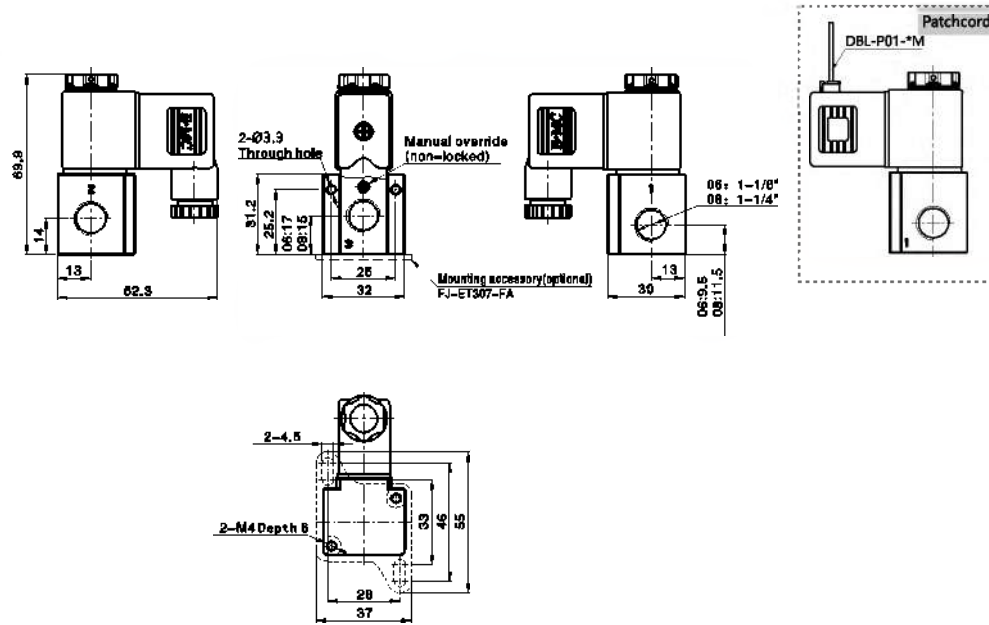
Model No.	ET307-06	ET307-08	ETA307-06
Working Medium	Clean air(After 40 μm filtration)		
Acting type	Direct acting		
Sectional area(mm)	3,2(CV=0,18)	3,4(CV=0,19)	3,2(CV=0,18)
Port size	G1/8	G1/4	G1/8
Lubrication	Not required		
Working Pressure(MPa)	-0.1~0.7		
Max.Pressure(MPa)	1.5		
Working Temperature(°C)	-20~70 (No freezing)		
Voltage Range	-15%~10%		
Power consumption	AC:7VA DC:6.5W		
Insulation Class	F Class		
Protective class	IP65(DIN40050)		
Max. acting frequency	10 cycles/s		
Seals Material	NBR		
Response Time	15ms Below		
Weight (g)	163	159	150

Remark: Max.acting frequency on unload status.

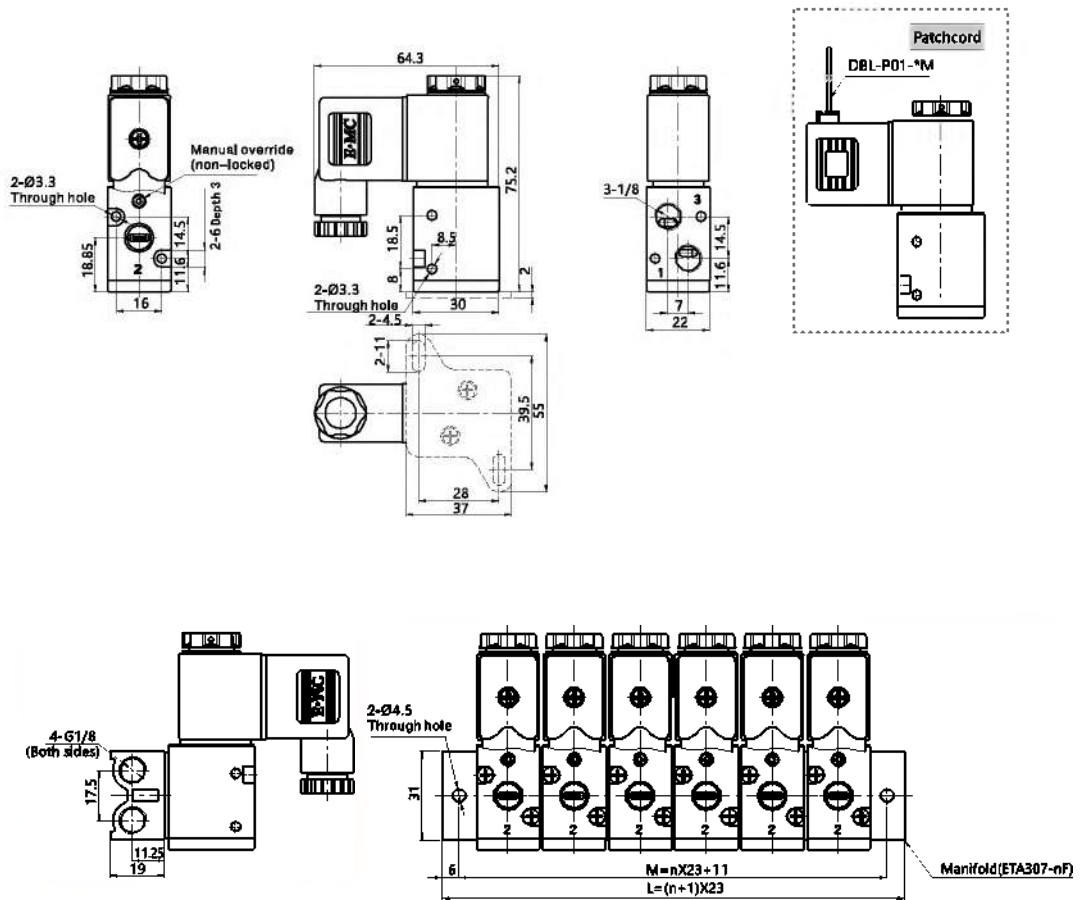
ET307/ETA307 Direct Acting Solenoid Valve(3/2way)

Main Dimension

ET307



ETA307

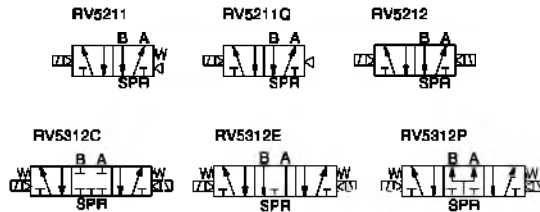


Model Sign	1F	2F	3F	4F	5F	6F	7F	8F	8F	10F
M	34	57	80	103	126	149	172	195	218	241
L	46	69	92	115	138	161	184	207	230	253

RV Series Standard/ Low Power Solenoid Valve (5/2,5/3 way)

RV

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		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 Series 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: G P: PT T: NPT

Order Example:

RV 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: N2R251-08E4

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" Only)

Specifications

Model No.	N1R251-M6 N1R252-M5 N1R352-M5	N1R261-06 N1R252-06 N1R352-06	N2R251-06 N2R252-06 N2R352-06	N2R261-06 N2R252-06 N2R352-06	N3R251-06 N3R252-06 N3R352-06	N3R251-10 N3R252-10 N3R352-10	N4R251-10 N4R252-10 N4R352-10	N4R251-15 N4R252-15 N4R352-15
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 ²)	52:5.5(CV=0.31) 53:5.5(CV=0.28)	52:12(CV=0.67) 53:9(CV=0.50)	52:14(CV=0.78) 53:12(CV=0.67)	52:16(CV=0.89) 53:12(CV=0.67)	52:25(CV=1.40) 53:18(CV=1.00)	52:30(CV=1.66) 53:18(CV=1.00)	52:50(CV=2.79) 53:30(CV=1.67)	52:50(CV=2.79) 53:30(CV=1.67)
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:0.8VA 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)	N1R251: 110 N1R252: 171 N1R352: 181	N2R251: 208 N2R252: 314 N2R352: 357	N3R251: 289 N3R252: 400 N3R352: 450	N4R251: 528 N4R252: 638 N4R352: 727				

RV Series Standard/ Low Power Solenoid Valve (5/2,5/3 way)

1
RV(5/2,5/3)

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
RV	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 08: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring Q: Air (Only single control)	E1: AC110V E8: AC80V E2: AC220V E7: AC24V E3: AC380V E6: 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)	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:

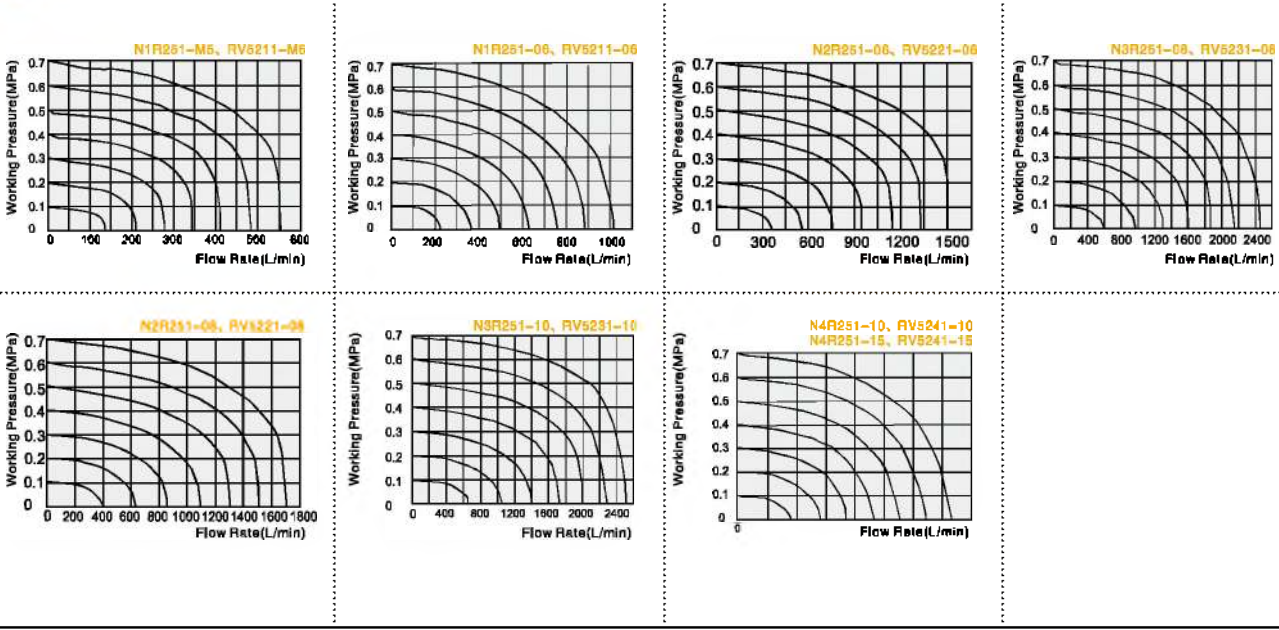
RV series solenoid valve, 2 series valve body size, 5/2 way, single control, 1/4" port size, standard coil, DC24V, DIN connector, G thread, ERP code is: RV5221-08E4

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.	RV5211-M5 RV6212-M5 RV6312-M5	RV5211-08 RV5212-08 RV5312-08	RV5221-08 RV5222-08 RV5322-08	RV5221-08 RV5222-08 RV5322-08	RV5231-08 RV5232-08 RV5332-08	RV5231-10 RV5232-10 RV5332-10	RV5241-10 RV5242-10 RV5342-10	RV5241-15 RV5242-15 RV5342-15
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 ²)	52.55(CV=0.31) 53.55(CV=0.28)	52.12(CV=0.67) 53.9(CV=0.50)	52.14(CV=0.78) 53.12(CV=0.67)	52.16(CV=0.89) 53.12(CV=0.67)	52.25(CV=1.40) 53.18(CV=1.00)	52.30(CV=1.68) 53.18(CV=1.00)	52.50(CV=2.79) 53.30(CV=1.67)	52.50(CV=2.79) 53.30(CV=1.67)
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	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)	RV5211: 110 RV5212: 171 RV5312: 181	RV5221: 208 RV5222: 314 RV5322: 357	RV5231: 289 RV5232: 400 RV5332: 450	RV5241: 628 RV5242: 638 RV5342: 727				

Flow Chart



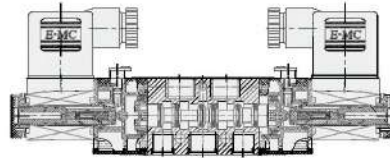
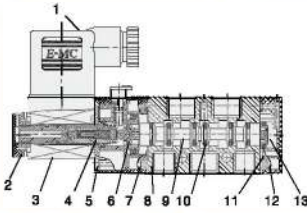
RV Series Standard/ Low Power Solenoid Valve (5/2,5/3 way)

RV(5/2,5/3)

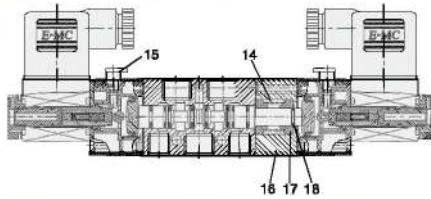
Internal Structure

Single Solenoid Valve

Double Solenoid Valve



5/3 Solenoid Valve

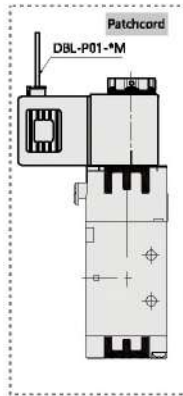
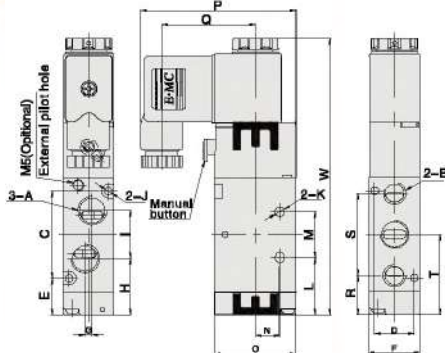


No.	Part Name	Material
1	Connector	Engineered plastics
2	Nut	POM+Carbon steel
3	Coll	Cu
4	Pilot units	Engineered plastics
5	Plate	Carbon steel
6	Piston	POM
7	Pilot seat	Engineered plastics
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	HNBR
11	Rear cover	Engineered plastics
12	Filter	Synthetic 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

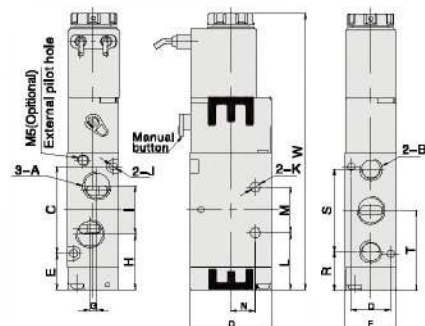
Main Dimension

Single Solenoid Valve

DIN Type



Flying Leads Type



Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	W
RV5211-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
RV6211-08	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
RV5221-06	G1/8	G1/8	38	17	16	22	0	26	18	3.3	4.3	25	20	10.6	35	66.7	40.2	17	35	35	120.7
RV5221-08	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	35	35	120.7
RV6231-08	G1/4	G1/4	30	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
RV5231-10	G3/8	G1/4	50	20	18.1	27	4	32.1	24	4.3	4.3	32.1	24	13.6	40	69.2	40.2	21.6	45	44.1	139.3
RV5241-10	G3/8	G3/8	72	27	21	34	0	35	36	4.3	5.5	43	28	17.5	50	74.2	40.2	25.5	63	57	168.7
RV6241-16	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

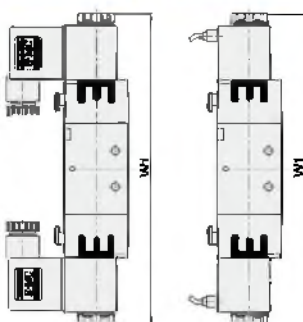
Note: The dimensions of NR series and RV series are same.

Double Solenoid Valve

5/3 Solenoid Valve

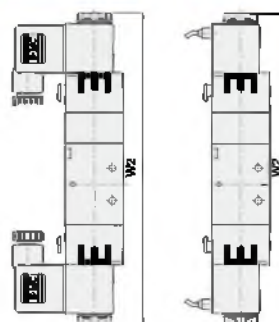
DIN Type

Flying Leads Type



DIN Type

Flying Leads Type



Model/Sign	W1
RV5212-M5	143.2
RV6212-06	143.2
RV5222-06	171.4
RV5222-08	171.4
RV6232-08	190.4
RV5232-10	190.4
RV5242-10	223.4
RV5242-15	223.4

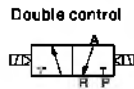
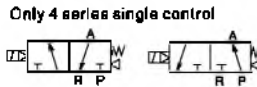
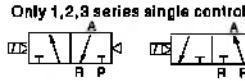
Model/Sign	W2
RV5312-M5	168.2
RV5312-06	158.2
RV6322-06	190.4
RV5322-08	190.4
RV5332-08	209.4
RV6332-10	209.4
RV5342-10	244.4
RV5342-15	244.4

Note: The dimensions of NR series and RV series are same.

RV Series Standard/ Low Power Solenoid Valve (3/2 way)

RV

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 1 series, 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	

Order Example:

RV 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 :N2R232-06E2

Specifications

Model No.	N1R231-M5 N1R232-M5	N1R231-06 N1R232-06	N2R231-06 N2R232-06	N2R231-08 N2R232-08	N3R231-08 N3R232-08	N3R231-10 N3R232-10	N4R231-10 N4R232-10	N4R231-15 N4R232-16
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)	-5-60(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)	N1R231: 102 N1R232: 169	N2R231: 107 N2R232: 303		N3R231: 260 N3R232: 370		N4R231: 443 N4R232: 569		

Note: Normal open is same as normal close.

RV Series Standard/ Low Power Solenoid Valve (3/2 way)

How to Order?

Standard Solenoid Valve

Series No.	Ways	Positions	Valve Body ID Code	Controls	Original Status	Part Size	Reset Type	Voltage	Connection Mode	Cover Color	Valve Color	Patchcord	Thread Type
RV	2; 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: AC84V 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 KM)	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	

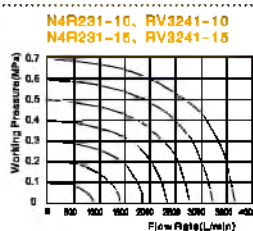
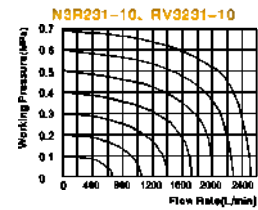
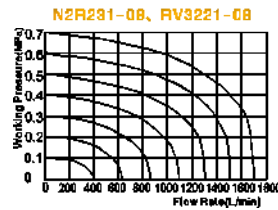
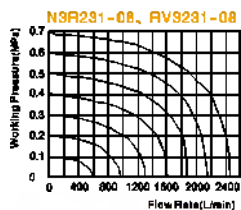
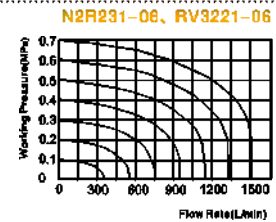
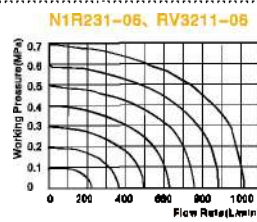
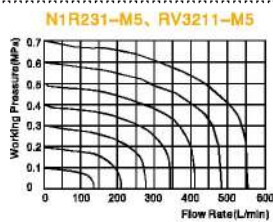
Order Example:

RV 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 :RV3221-08QE2

Specifications

Model No.	RV3211-M5 RV3212-M5	RV3211-06 RV3212-06	RV3221-06 RV3222-06	RV3221-08 RV3222-08	RV3231-06 RV3232-06	RV3231-10 RV3232-10	RV3241-10 RV3242-10	RV3241-15 RV3242-15
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=1.66)	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 pressure(MPa)	1.2							
Working temperature(°C)	-5~70(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)	RV3211: 102 RV3212: 169		RV3221: 107 RV3222: 303		RV3231: 260 RV3232: 370		RV3241: 449 RV3242: 569	

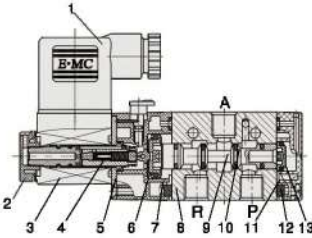
Flow Chart



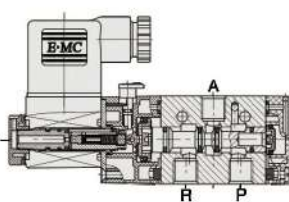
RV Series Standard/ Low Power Solenoid Valve (3/2 way)

Internal Structure

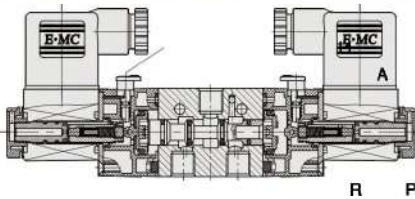
Single Solenoid Valve(Normal close)



Single Solenoid Valve(Normal open)



Double solenoid valve(Normal close)



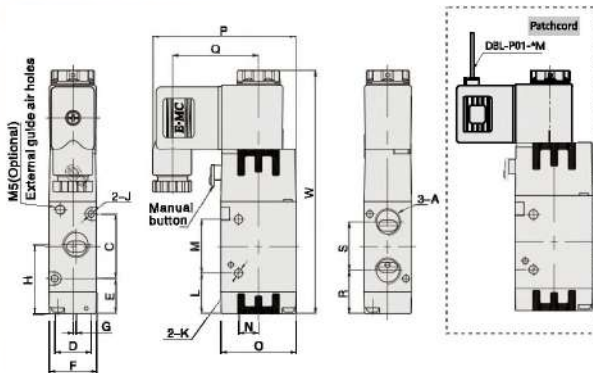
No.	Part Name	Material
1	Connector	Engineered plastics
2	Nut	POM
3	Coil	Cu+ Thermosetting resin
4	Pilot units	Pure iron + copper + stainless steel
5	Plate	Carbon steel
6	Piston	POM
7	Pilot seat	Engineered plastics
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	NBR
11	Rear cover	Engineered plastics
12	Filter	Synthetic material
13	Piston	Engineered plastics
14	Manual button	Engineered plastics

Main Dimension

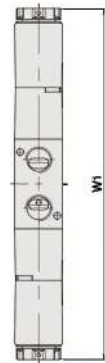
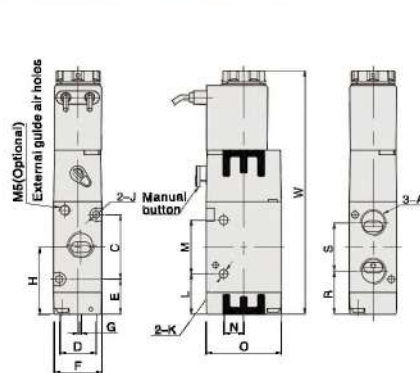
Single Solenoid Valve

Double Solenoid Valve

DIN Type



Flying Leads Type



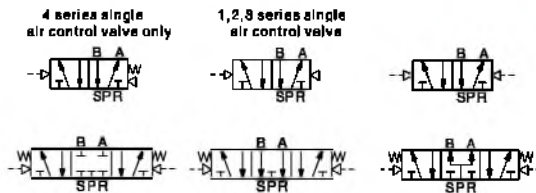
Model/Sign	A	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	W	W1*
RV3211-M5	M5	19	13	16.5	18	0	28	3.3	3.1	15.5	21	6	27	55.2	33.9	18.9	14.2	92.1	132.2
RV3211-06	G1/8	19	13	16.5	18	1.5	27	3.3	3.1	15.5	21	6	27	55.2	33.9	18	16	92.1	132.2
RV3221-06	G1/8	30	17	16	22	0	31	3.3	4.2	18.5	25	9.3	35	68.7	40.2	20	22	112.7	163.4
RV3221-08	G1/4	30	17	16	22	1.5	32	3.3	4.2	18.5	25	9.3	35	68.7	40.2	19.8	22.5	112.7	163.4
RV3231-08	G1/4	35	20	19.1	27	0	36.6	4.3	4.3	21.6	30	8.5	40	69.2	40.2	24.6	24	124.3	175.4
RV3231-10	G3/8	35	20	19.1	27	2	36.6	4.3	4.3	21.6	30	8.5	40	69.2	40.2	24.6	24	124.3	175.4
RV3241-10	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
RV3241-16	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 RV series are same, The dimension of normal open type and normal close type are same, W1* is the dimension of double control solenoid valve.

RV Series Air Control Valve (5/2,5/3way)

RV

Air Control Valve (5/2,5/3)



How to Order?

Series No./ways	Positions	Valve Body ID Code	Controls	Initial Status	Port Size	Reset Type	Thread Type
RVA	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 6/3 ways)	M5: M5 08: 1/8" 10: 3/8" 15: 1/2"	Blank: Spring return (Apply to 4 series single control valve) Q: Air return (Apply to 1,2,3 series single control valve)	Blank: G P: PT T: NPT

Order Example:

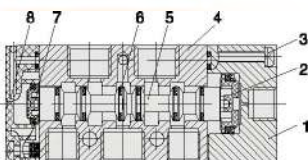
RV series air control valve, 5/2 way, 2 series valve body size, single control, 1/8" port size, air return, G thread, ERP code is: RVA5221-06Q

Specifications

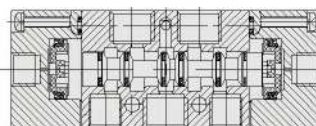
Model No.	RVA5211-M5 RVA5212-M5 RVA5312-M5	RVA5211-08 RVA5212-08 RVA5312-08	RVA6221-06 RVA6222-06 RVA5322-06	RVA5221-08 RVA5222-08 RVA5322-08	RVA5231-08 RVA5232-08 RVA5332-08	RVA6231-10 RVA6232-10 RVA5332-10	RVA6241-10 RVA6242-10 RVA5342-10	RVA5241-15 RVA5242-15 RVA5342-15
Port size	M5	G1/8	G1/8	G1/4(Ex.G1/8)	G1/4	G3/8(Ex.G1/4)	G3/8	G1/2
Sectional area(mm)	5/2: 5.5(CV=0.31) 5/3: 5.5(CV=0.29)	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: 18(CV=0.88) 5/3: 12(CV=0.67)	5/2: 25(CV=1.40) 5/3: 18(CV=1.00)	5/2: 30(CV=1.88) 5/3: 18(CV=1.00)	5/2: 50(CV=2.78) 5/3: 30(CV=1.67)	5/2: 50(CV=2.78) 5/3: 30(CV=1.67)
Working medium	Clean air(After 40 μm filtration)							
Acting type	External 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)							
Max. acting frequency	5/2: 5 Cycles/s; 5/3: 3 Cycles/s							
Weight(g)	RVA5211:72 RVA5212:67 RVA5312:181	RVA5221:128 RVA5222:153 RVA5322:219	RVA5231:218 RVA5232:260 RVA5332:358	RVA5241:437 RVA5242:490 RVA5342:598				

Internal Structure

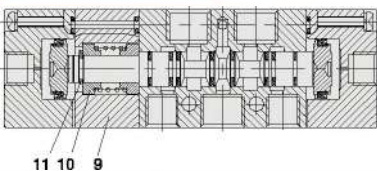
Single Air Control



Double Air Control



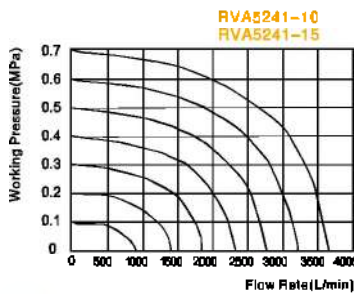
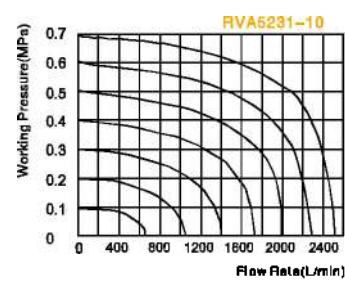
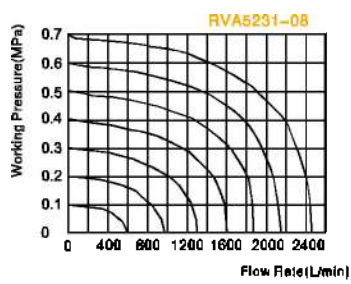
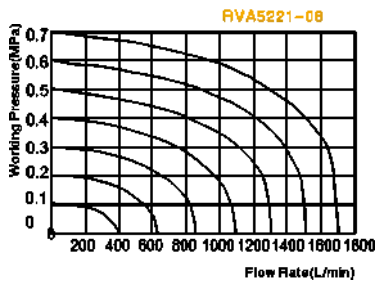
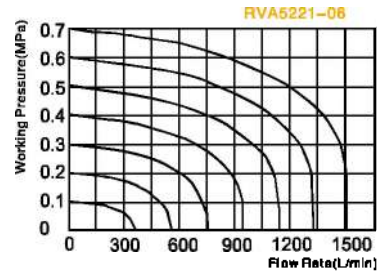
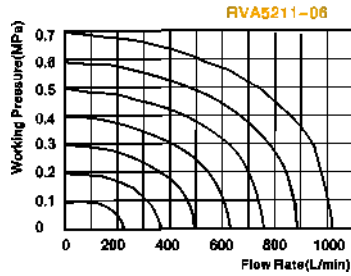
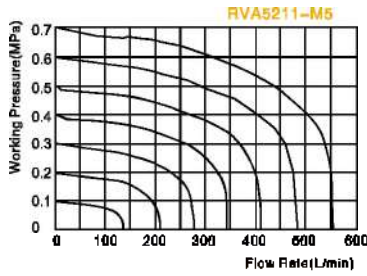
5/3 Ways Solenoid Valve



No.	Part Name	Material
1	Air Control Cover	Aluminum Alloy
2	Piston	POM
3	Screw	Carbon Steel
4	Valve Body	Aluminum Alloy
5	Spool	Aluminum Alloy
6	O-ring	NBR
7	Piston	POM
8	Rear Cover	Zinc Alloy
9	Back Seat	Aluminum Alloy
10	Spring Seat	Aluminum Alloy
11	C-type Buckle	65Mn

RV Series Air Control Valve (5/2,5/3way)

Flow Chart

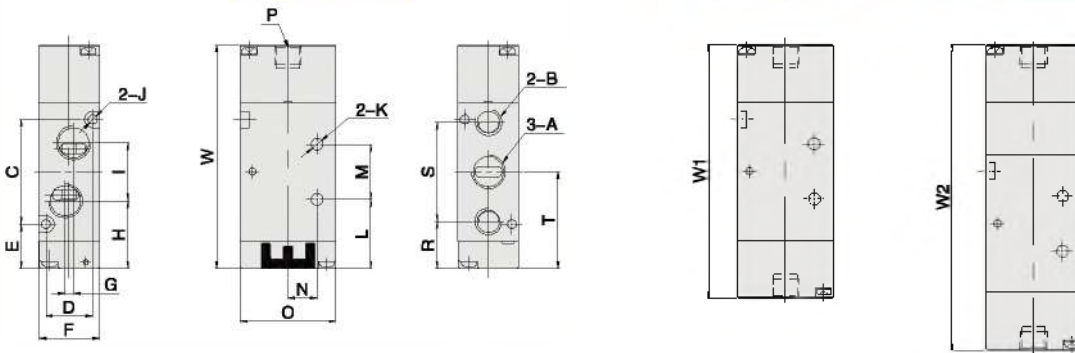


Main Dimension

Single Air Control

Double Air Control

5/3 Ways Solenoid Valve

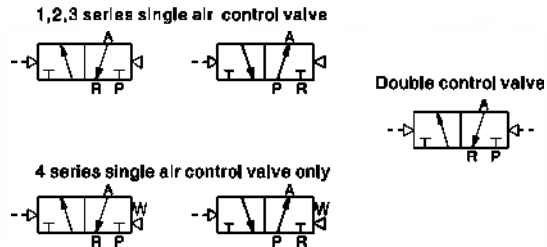


Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	W	W1	W2
RVA5211-M5	M5	M5	30	13	16.5	18	0	24.5	14.1	3.3	3.3	24.6	14	9.5	27	G1/8	17.9	27.2	31.6	72	81	96
RVA5211-06	G1/8	G1/8	30	13	16.5	18	3	23.5	16	3.3	3.3	24.6	14	8.5	27	G1/8	17.5	28	31.6	72	81	96
RVA5221-06	G1/8	G1/8	38	17	18	22	0	26	18	3.3	4.3	25	20	10.5	35	G1/8	17	36	35	81	92	111
RVA5221-08	G1/4	G1/8	38	17	18	22	3	24.5	21	3.3	4.3	25	20	10.5	35	G1/8	17	36	35	81	92	111
RVA5231-08	G1/4	G1/4	50	20	19.1	27	0	33.1	22	4.3	4.3	32.1	24	13.5	40	G1/8	21.6	45	44.1	99.8	111	130
RVA5231-10	G3/8	G1/4	50	20	19.1	27	4	32.1	24	4.3	4.3	32.1	24	13.5	40	G1/8	21.6	45	44.1	99.8	111	130
RVA5241-10	G3/8	G3/8	72	27	21	34	0	39	36	4.3	5.2	43	28	17.6	50	G1/8	26.5	63	57	127	140	161
RVA5241-15	G1/2	G1/2	72	27	21	34	4	39	36	4.3	5.5	43	28	17.6	50	G1/8	26.5	63	57	127	140	161

RV Series Air Control Valve (3/2 way)

RV

Air Control Valve (3/2)



How to Order?

Series No.	Ways	Positions	Valve Body ID Code	Controls	Initial Status	Part Size	Reset Type	Thread Type
RVA	3: 3 ways	2: 2 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control Blank: Normal close(N.C) H: Normal open(N.O)		M5: M5 06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring return (Apply to 4 series single control valve) Q: Air return (Apply to 1,2,3 series single control valve)	Blank: G P: PT T: NPT

Order Example:

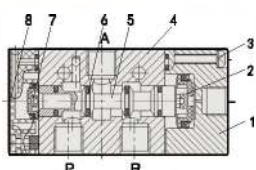
RVA series air control valve, 3/2 way, 2 series valve body size, single control, NC type, 1/4" port size, air return, PT thread
ERP code is: RVA3221-08Q-P

Specifications

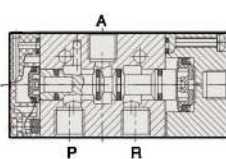
Model No.	RVA3211-M5 RVA3212-M5	RVA3211-06 RVA3212-06	RVA3221-06 RVA3222-06	RVA3221-08 RVA3222-08	RVA3231-08 RVA3232-08	RVA3231-10 RVA3232-10	RVA3241-10 RVA3242-10	RVA3241-15 RVA3242-15
Port size	M5	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
Sectional area(mm)	5.5(CV=0.31)	12(CV=0.67)	14(CV=0.78)	16(CV=0.88)	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	External 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)							
Max. acting frequency	5 Cycles/s							
Weight(g)	RVA3211:60 RVA3212:75		RVA3221:116 RVA3222:143		RVA3231:187 RVA3232:220		RVA3241:378 RVA3242:430	

Internal Structure

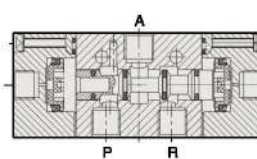
Single Air Control(N.C)



Double Air Control(N.O)



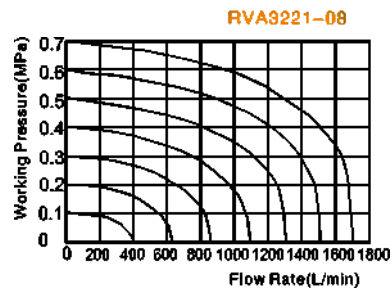
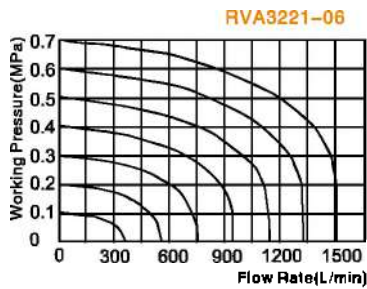
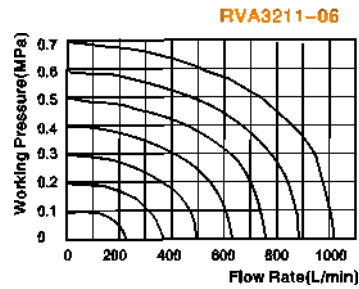
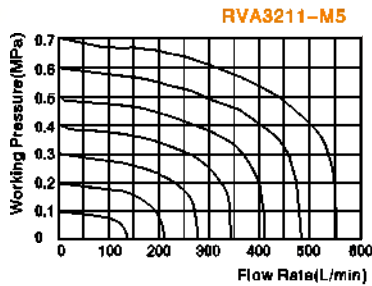
5/3 Ways Solenoid Valve



No.	Part Name	Material
1	Air Control Cover	Aluminum Alloy
2	Piston	POM
3	Screw	Carbon Steel
4	Valve Body	Aluminum Alloy
5	Spool	Aluminum Alloy
6	O-ring	NBR
7	Piston	POM
8	Rear Cover	Zinc Alloy

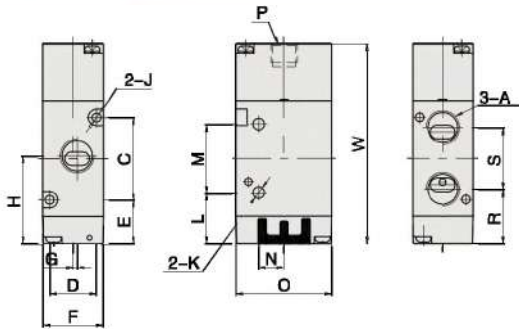
RV Series Air Control Valve (3/2 way)

Flow Chart

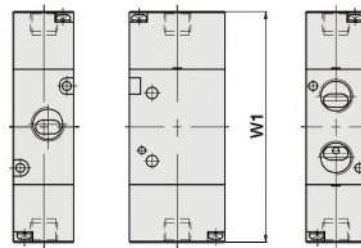


Main Dimension

Single Air Control



Double Air Control



Model/Sign	A	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	W	W1*
RVA3211-M5	M5	19	19	16.5	18	0	26	3.3	3.1	15.5	21	8	27	G1/8	18.9	14.2	61	70
RVA3211-06	G1/8	19	19	16.5	18	1.5	27	3.3	3.1	15.5	21	6	27	G1/8	18	16	61	70
RVA3221-06	G1/8	30	17	18	22	0	31	3.3	4.2	18.5	25	8.3	35	G1/8	20	22	73	84
RVA3221-08	G1/4	30	17	18	22	1.5	32	3.3	4.2	18.5	25	8.3	35	G1/8	19.8	22.5	73	84
RVA3231-08	G1/4	35	20	19.1	27	0	36.8	4.3	4.3	21.6	30	9.5	40	G1/8	24.6	24	84.6	98
RVA3231-10	G3/8	35	20	19.1	27	2	36.8	4.3	4.3	21.6	30	9.5	40	G1/8	24.6	24	84.6	98
RVA3241-10	G3/8	40.5	27	24.8	34	0	45	4.3	5.2	21	48	11.5	50	G1/8	29.3	31.5	103	116
RVA3241-15	G1/2	40.5	27	24.8	34	2	45	4.3	5.2	21	48	11.5	50	G1/8	29.3	31.6	103	116

Note: The dimension of N.O type and N.C type are same, W1* is the dimension of double control type.

V/RV Series Manifold (5/2 way)

1

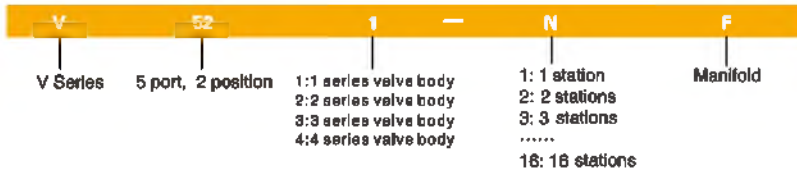
Manifold (5/2)

V/RV

Manifold (5/2,5/3)

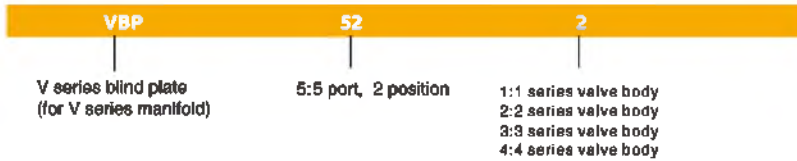


How to Order?



Order Example:

* V series manifold for 5/2, 2 series valve body, 5 stations, Model: V522-5F



Order Example:

* Blind plate for 5/2 valve, 2 series valve body, Model: VBP-522

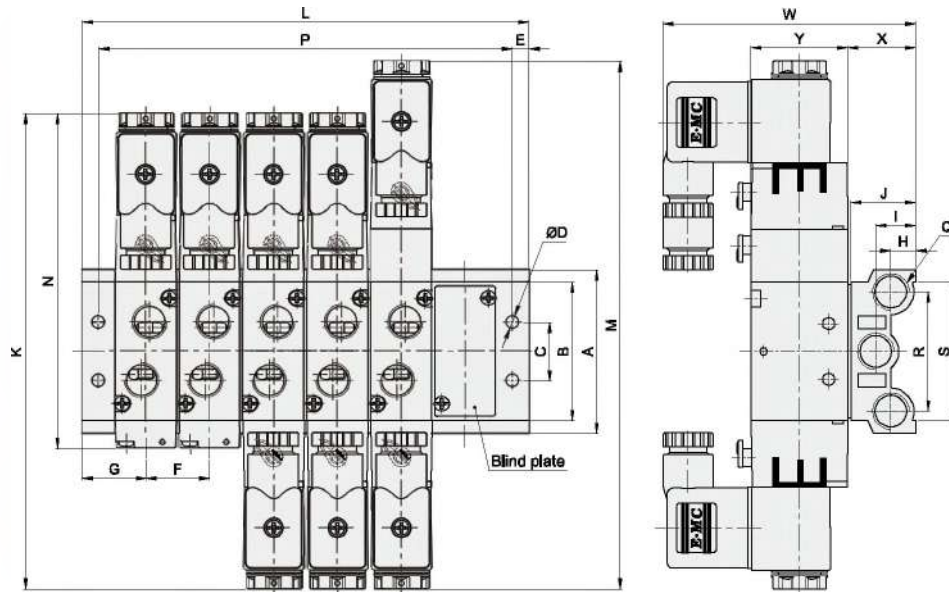
Note: 1. The dimensions of 5/3 way is same as 5/2 way series.
2. Blind plate assembly include: plate, gasket and screws.

Corresponding Application

Valve Model	RV5211/RV5212/RV5312	RV5221/RV5222/RV5322	RV5231/RV5232/RV5332	RV5241/RV5242/RV5342
Manifold Model	V521-NF(N≤16)	V522-NF(N≤16)	V523-NF(N≤12)	V524-NF(N≤7)

V/RV Series Manifold (5/2 way)

© Main Dimension



Model/Sign	L															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
V521-□F	98	57	76	85	114	133	162	171	180	209	228	247	266	285	304	323
V522-□F	46	68	92	115	138	161	184	207	230	253	276	299	322	345	368	391
V523-□F	54	82	110	138	166	194	222	250	278	306	334	362	-	-	-	-
V524-□F	63	96	139	166	209	238	273	-	-	-	-	-	-	-	-	-

Model/Sign	A	B	C	D	E	F	G	H	I	J
V521-□F	58	43	20	4.5	5	19	19	9.5	14	23
V522-□F	59	50	21	4.5	6	23	23	9.5	15	23.5
V523-□F	75	64	26	4.5	6	28	27	12	17.5	28
V524-□F	98	94	32	5.5	7	35	31.5	16	21.5	35

Model/Sign	P															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
V521-□F	28	47	66	85	104	123	142	161	180	199	218	237	256	276	294	313
V522-□F	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379
V523-□F	42	70	98	126	154	182	210	238	266	294	322	350	-	-	-	-
V524-□F	49	84	119	154	189	224	259	-	-	-	-	-	-	-	-	-

Model/Sign	K	M	N	Q	R	S	W	X	Y
V521-□F	143.2	158.2	103.1	G1/4	40	49	79.2	24	27
V522-□F	171.4	190.4	120.7	G1/4	43	50	91.2	24.5	35
V523-□F	190.4	209.4	139.3	G3/8	53	67	98.2	29	40
V524-□F	223.4	244.4	168.7	G1/2	70.5	86.8	110.2	36	50

V/RV Series Manifold (3/2 way)

V/RV

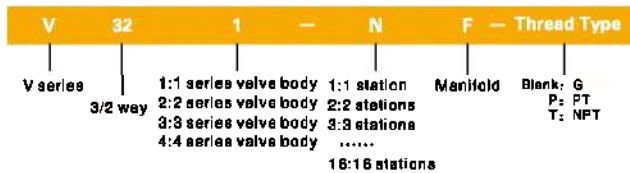
Manifold (3/2)



Manifold Model

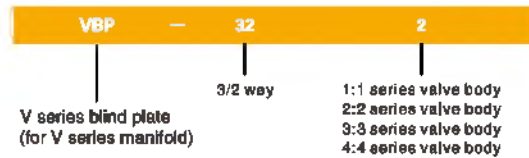
No.	Manifold Model	Valve Model
1	V321-NF (N≤16)	RV3211 (H) /RV3212
2	V322-NF (N≤16)	RV3221 (H) /RV3222
3	V323-NF (N≤12)	RV3231 (H) /RV3232
4	V324-NF (N≤7)	RV3241 (H) /RV3242

How to Order?



Order Example:

* V series manifold for 3/2, 2 series valve body, 5 stations,
Model: V322-5F

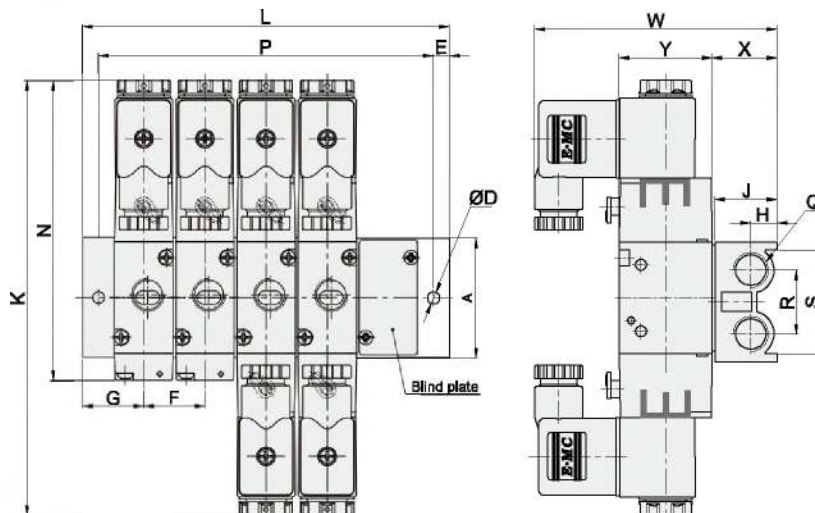


Order Example:

* Blind plate for 3/2 valve, 2 series valve body,
Model: VBP-322

Note: Blind plate assembly includes: Blinds, gaskets and mounting screws

Main Dimension



Model\Sign	L										(mm)							
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	A	D	E	F	G	H	J	K
V321-□F	36	57	78	85	114	133	152	171	190	208	31	4.5	5.25	19	18	7.75	19	132.2
V322-□F	46	89	82	115	138	161	184	207	230	253	45	4.5	6	23	23	10	23.5	163.4
V323-□F	54	82	110	138	166	194	222	250	278	306	50	4.5	6	28	28	12	28	175.4
V324-□F	63	98	133	168	203	238	273	308	343	378	62.5	5.5	7	35	31.5	16	35	199.4

Model\Sign	P										(mm)						
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	N	Q	R	S	W	X	Y
V321-□F	28	47	66	85	104	123	142	161	180	199	92.1	G1/8	17.5	25	75.2	20	27
V322-□F	34	57	80	103	126	149	172	195	218	241	112.7	G1/4	24	39	91.2	24.5	35
V323-□F	42	70	98	126	154	182	210	238	266	294	124.3	G3/8	29	42	98.2	29	40
V324-□F	49	84	119	154	189	224	269	294	329	364	144.7	G1/2	36.5	61.5	110.2	36	50

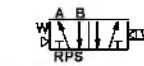
RV Series NAMUR Solenoid Valve(5/2,5/3 way)

RV

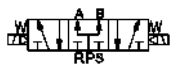
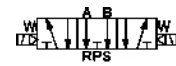
NAMUR Solenoid Valve (5/2,5/3)



(4 series single control valve only)



(1,2,3 series single control valve)



How to Order?

Low Power Solenoid Valve

Series No.	Valve Body ID Code	ID Code	Positions	Ways	Controls	Initial Status	Port Size	Reset Type	Valve Body Type	Voltage	Connection Mode	Cover Color - Patchcord	Thread Type
N	1: 1Series 2: 2Series 3: 3Series 4: 4Series	R: 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 ways)	M5: M5 06-1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring return (4 series single solenoid control only) C: Air return (1,2,3 series single solenoid control)	M: NAMUR	E1: AC110V E2: AC220V E4: DC24V (for 1 series, 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 KM)	Blank: G P: PT T: NPT

Order Example:

RV series Energy saving solenoid valve, 5/2 ways, 1 series valve body size, double control, 1/8" port size, NUMAR type, DC24V, DIN connector, G thread, ERP code is N1R252-06ME4

Specifications

Model	N1R251-M5QM N1R252-M5M N1R352-M5M	N1R251-06QM N1R252-06M N1R352-06M	N2R251-06QM N2R252-06M N2R352-06M	N2R251-08QM N2R252-08M N2R352-08M	N3R251-06QM N3R252-06M N3R352-06M	N3R251-10QM N3R252-10M N3R352-10M	N4R251-10M N4R252-10M N4R352-10M	N4R251-15M N4R252-15M N4R352-15M
Port Size	M5	G1/8	G1/8	G1/4(Ex.G1/8)	G1/4	G3/8(Ex.G1/8)	G3/8	G1/2
Sectional area(mm)	5/2: 5.6(CV=0.91) 5/3: 5.6(CV=0.28)	5/2: 12(CV=0.87) 5/3: 9(CV=0.60)	5/2: 14(CV=0.78) 5/3: 12(CV=0.67)	5/2: 16(CV=0.88) 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 μm filtration)							
Acting type	Internal pilot							
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)	N1R251-M:119 N1R252-M:176 N1R352-M:166	N2R251-M:208 N2R252-M:306 N2R352-M:348	N3R251-M:300 N3R252-M:409 N3R352-M:458	N4R251-M:533 N4R252-M:666 N4R352-M:755				

RV Series NAMUR Solenoid Valve(5/2,5/3 way)

How to Order?

Standard Solenoid Valve

Series No.	Ways	Positions	Valve Body ID Code	Controls	Initial Status	Port Size	Reset Type	Valve Body Type	ID Code	Voltage	Connection Mode	Cover Color	Patchcord	Thread Type
RV(Solenoid valve)	5:5 ways	1: 1Series 2: 2Series 3: 3Series 4: 4Series	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 ways)	M5: M5 08: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	Blank: Spring return (Only apply to 4 series single control valve) C: Air return (Only apply to 1,2,3 series single control valve)	M: NAMUR type Blank: Standard type A: Annisco coil	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC38V E7: AC24V E8: DC110V E9: DC48V E10: DC8V	Blank: DIN connector L: Plug-in Type F: Flying leads K: Waterproof DIN connector (Only 2, 3, 4 series is optional for KM)	Blank: Brown translucent J: Colorless and translucent B: Black(only black color available for KM)	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 F: PT T: NPT	

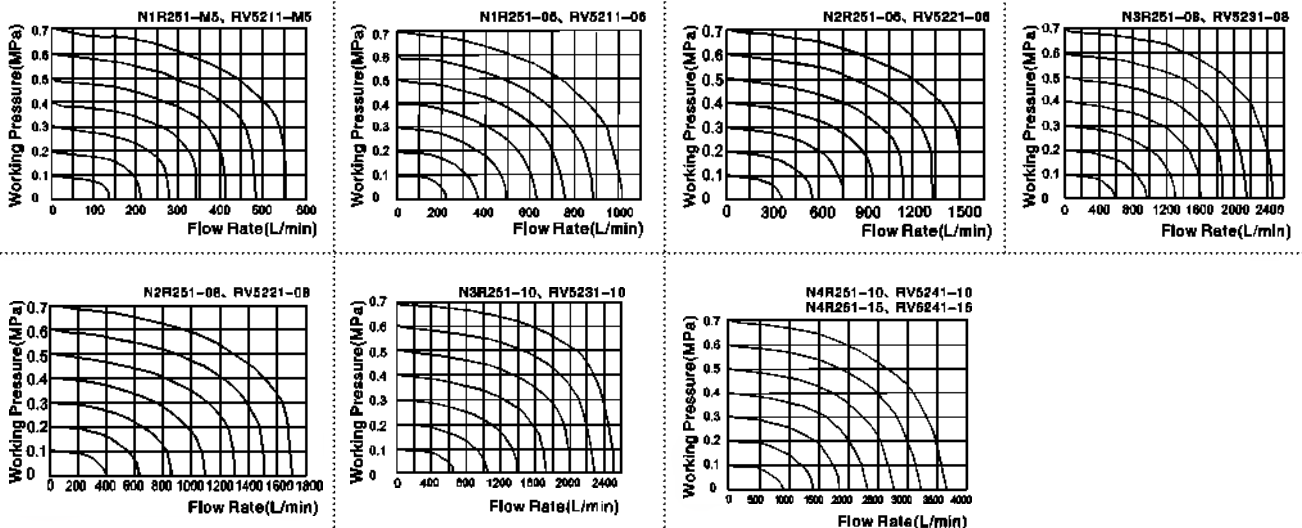
Order Example:

RV series solenoid valve, 5/2 ways, 1 series valve body size, double control, 1/8" port size, NAMUR type, standard coil, DC24V. Flying leads connector, G thread, ERP code is RV5212-06ME2F

Specifications

Model	RV5211-M5QM RV5212-M5M RV5312-M5M	RV5211-06QM RV5212-06M RV5312-06M	RV5221-06QM RV5222-06M RV5322-06M	RV5221-08QM RV5222-08M RV5322-08M	RV5231-08QM RV5232-06M RV5332-06M	RV5231-10QM RV5232-10M RV5332-10M	RV5241-10M RV5242-10M RV5342-10M	RV5241-15M RV5242-15M RV5342-15M
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 ²)	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: 18(CV=0.80) 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=2.78) 5/3: 30(CV=1.67)	5/2: 60(CV=2.78) 5/3: 30(CV=1.67)
Working medium	Clean air(After 40 μm filtration)							
Acting type	Internal pilot							
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)	RV5211: M:113 RV5212: M:178 RV5312: M:188	RV5221: M:208 RV5222: M:308 RV5322: M:349	RV5231: M:300 RV5232: M:408 RV5332: M:459	RV5241: M:533 RV5242: M:666 RV5342: M:755				

Flow Chart



1
RV(5/2,3/5)
NAMUR Type

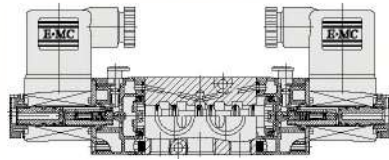
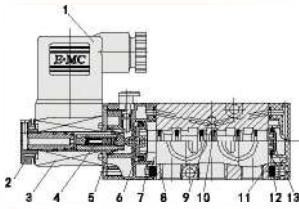
RV Series NAMUR Solenoid Valve(5/2,5/3 way)

1
RV (3/2,3/5)
NAMUR Type

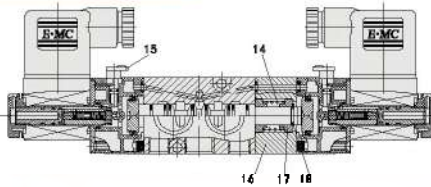
Internal Structure

Single Solenoid Valve

Double Solenoid Valve



5/3 Ways Solenoid Valve

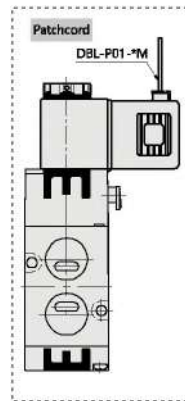
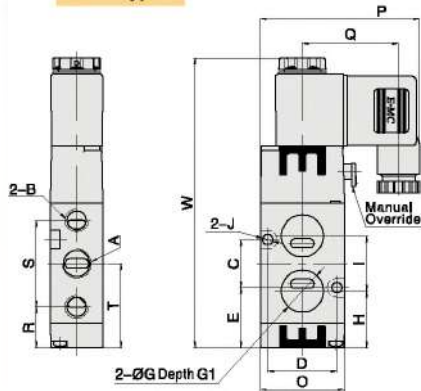


No.	Part Name	Material
1	Connector	Engineered plastics
2	Fixing Nut	PCM
3	Coll	Brass+Thermoset Resin
4	Pilot Units	Pure Brass +Stainless Steel
5	Plate	Carbon Steel
6	Piston	PCM
7	Pilot Seat	Engineered plastics
8	Valve Body	Aluminum Alloy
9	Spool	Aluminum Alloy
10	O ring	NBR
11	Rear Cover	Engineered plastics
12	Filter	High Molecular Material
13	Piston	Engineered plastics
14	Spring	Stainless Steel
15	Manual Override	Engineered plastics
16	Back Seat	Aluminum Alloy
17	Spring Seat	Aluminum Alloy
18	C type buckle	65Mn

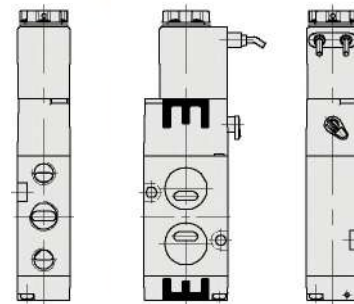
Main Dimension

Single Solenoid Valve

DIN Type



Flying Lead Type



(mm)

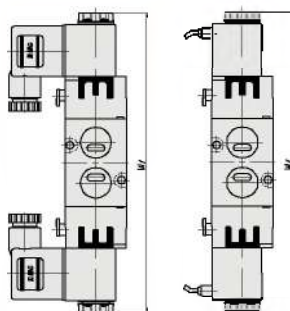
Model/Sign	A	B	C	D	E	F	G	G1	H	I	J	O	P	Q	R	S	T	W
RV5221-08QM	G1/4	G1/8	20	29	25	22	17.6	1.5	23.5	23	4.3	35	66.7	40.2	17	36	35	120.7
RV5231-08QM	G1/4	G1/4	24	32	32.1	27	19.6	1.6	32.1	24	5.2	40	68.2	40.2	21.6	45	44.1	139.3
RV5231-10QM	G3/8	G1/4	24	32	32.1	27	19.6	1.5	32.1	24	5.2	40	68.2	40.2	21.6	45	44.1	139.3

Note: N series energy saving solenoid valve have same sizes as above table.

Double Solenoid Valve

DIN Type

Flying Lead Type

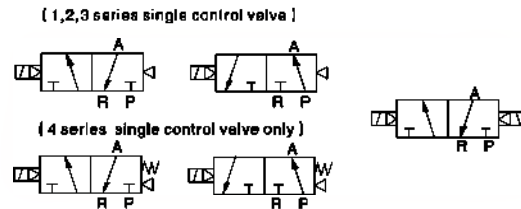


Model/Sign	W1
RV5222-08QM	171.4
RV5232-08QM	190.4
RV5232-10QM	190.4

RV Series NAMUR Solenoid Valve(3/2 way)

RV

NAMUR Solenoid Valve (3/2)



How to Order?

Low Power Solenoid Valve

Series No.	Valve body ID code	ID Code	Positions	Ways	Controls	Initial Status	Part Size	Reset Type	Valve Body Type	Voltage	Connection Mode	Cover Color - Patchcord - Thread Type
N	1: 1Series 2: 2Series 3: 3Series 4: 4Series	R: Standard armature -Energy saving coil	2: 2 positions	3: 3 ways -Energy saving coil	1: Single control 2: Double control	Blank: Normal close H: Normal open	M5-M6 08-1/8" 08-1/4" 10-3/8" 16-1/2"	Blank Spring return (4 series single solenoid control only) Q: Air return (1,2,3 series single solenoid control)	M: NAMUR	E1: AC110V E2: AC220V E4: DC24V (for 1 series, 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 KM)

Order Example:

RV series low power solenoid valve, 3/2 ways, 1 series valve body size, double control, 1/8" port size, NUMAR type, DC24V, DIN connector, G thread, ERP code is N1R232-06ME4

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)

Specifications

Model	N1R231-M5QM N1R232-M5M	N1R231-06QM N1R232-06M	N2R231-06QM N2R232-06M	N2R231-08QM N2R232-08M	N3R231-08QM N3R232-08M	N3R231-10QM N3R232-10M	N4R231-10M N4R232-10M	N4R231-15M N4R232-15M
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							
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 (Dry air)							
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)	N1R231-M:114 N1R232-M:171		N2R231-M:203 N2R232-M:310		N3R231-M:295 N3R232-M:403		N4R231-M:448 N4R232-M:578	

RV Series NAMUR Solenoid Valve(3/2 way)

How to Order?

Standard Solenoid Valve

Series No.	Ways	Positions	Valve body ID code	Controls	Initial Status	Port Size	Reset Type	Valve body Type	ID Code	Voltage	Connection Mode	Cover Color	Patchcord	Thread Type	
RV (Solenoid valve) RVA (Air control valve)	3: 3 ways	2: 2 positions	1: 1 Series 2: 2 Series 3: 3 Series 4: 4 Series	Blank: Normal close H: Normal open	Blank: Normal close H: Normal open		Blank: Spring return (Only apply to 4 series single control valve) Q: Air return (Only apply to 1,2,3 series single control valve)	M: NAMUR type Blank: Standard type A: Amisco coil	E1: AC110V E6: AC38V 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 KM)	Blank: Brown translucent J: Colorless and translucent B: Black (only black color available for KM)	Blank: G P: PT T: NPT			
				Solenoid valve: M5-M5 08: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"			Air control valve: 1 series: M5-M5 08: 1/8" 08: 1/4" 10: 3/8" 15: 1/2" 3 series: M5-M5 08: 1/4" 10: 3/8" 15: 1/2"								

Order Example:

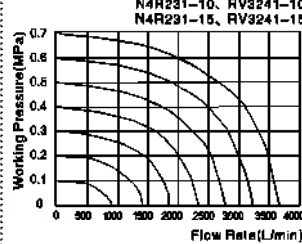
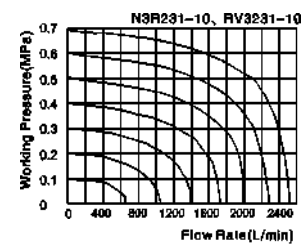
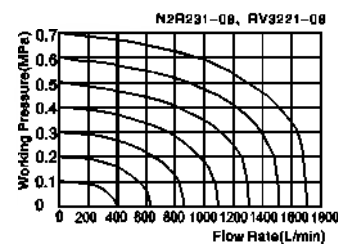
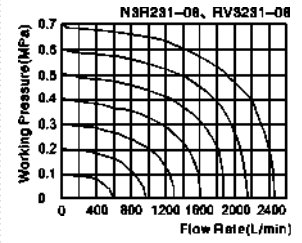
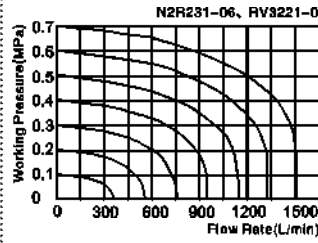
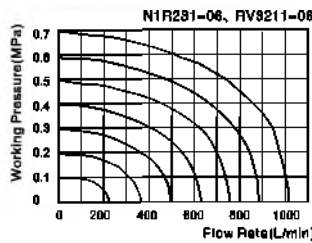
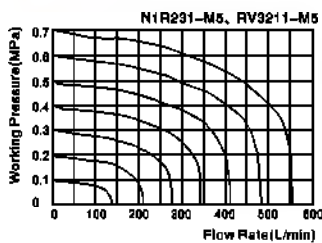
RV series solenoid valve, 3/2 ways, 1 series valve body size, double control, 1/8" port size, NAMUR type, standard coil, DC24V, Fly leads connector, G thread, ERP code is RV3212-08ME2F

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	RV3211-M5QM RV3212-M6M	RV3211-08QM RV3212-08M	RV3221-08QM RV3222-08M	RV3221-08QM RV3222-08M	RV3231-08QM RV3232-08M	RV3231-10QM RV3232-10M	RV3241-10M RV3242-10M	RV3241-15M RV3242-15M
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=0.76)	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							
Reset type	Air reset				Spring reset / Air reset			
Lubrication	Not required							
Working pressure(MPa)	0.15~0.6							
Guaranteed Pressure(MPa)	1.2							
Working temperature(°C)	-20~70 (Dry air)							
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)	RV3211-M:114 RV3212-M:171		RV3221-M:203 RV3222-M:310		RV3231-M:295 RV3232-M:409		RV3241-M:448 RV3242-M:578	

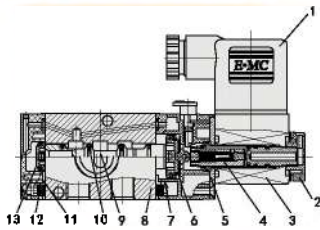
Flow Chart



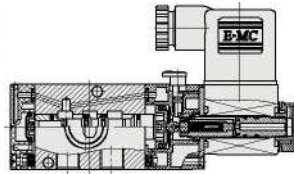
RV Series NAMUR Solenoid Valve(3/2 way)

Internal Structure

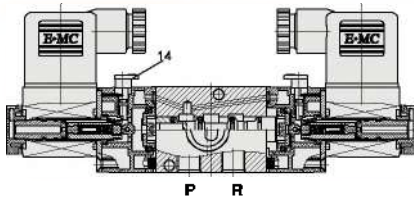
Single Air Control(N.C)



Single Air Control(N.O)



Double Air Control

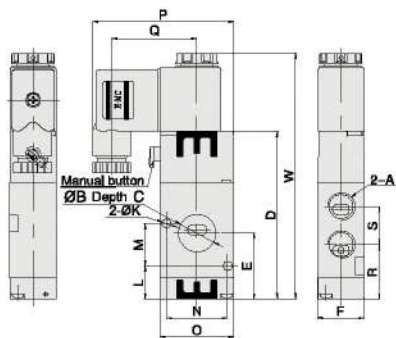


No.	Part Name	Material
1	Connector	Engineered plastics
2	Fixing Nut	POM
3	Coil	Brass+Thermoset Resin
4	Pilot Units	Pure Iron+Brass +Stainless Steel
6	Plate	Carbon Steel
8	Piston	POM
7	Pilot Seat	Engineered plastics
8	Valve Body	Aluminum Alloy
9	Spool	Aluminum Alloy
10	O ring	NBR
11	Rear Cover	Engineered plastics
12	Filter	High Molecular Material
13	Piston	Engineered plastics
14	Manual Override	Engineered plastics

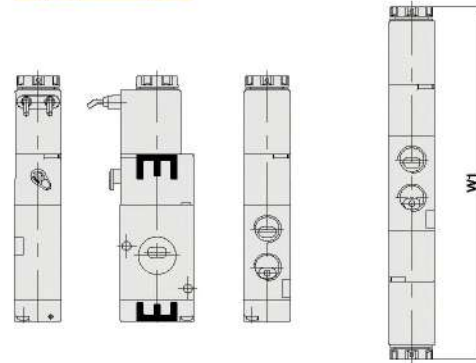
Main Dimension

Single Solenoid Valve

DIN Type



Flying Lead Type



Model/Sign	A	B	C	D	E	F	K	L	M	N	O	P	Q	R	S	W	W1*
RV3211-M5QM	M5	13.8	1.5	68.5	29	18	3.3	16	14	22	27	55.2	33.9	21.9	14.2	98.1	138.2
RV3211-Ø6QM	G1/8	13.8	1.5	68.5	29	18	3.3	16	14	22	27	55.2	33.9	23	14	98.1	138.2
RV3221-Ø8QM	G1/8	17.6	1.5	79	31	22	4.3	15.6	20	29	35	66.7	40.2	23.6	18	115.7	166.4
RV3221-Ø8QM	G1/4	17.6	1.5	79	31	22	4.3	15.6	20	29	35	66.7	40.2	25.6	18	115.7	166.4
RV3231-Ø8QM	G1/4	19.6	1.5	97.6	42.1	27	5.2	18.1	24	32	40	89.2	40.2	31.1	21	134.3	185.4
RV3231-10QM	G3/8	19.6	1.5	97.6	42.1	27	5.2	18.1	24	32	40	89.2	40.2	30.1	23	134.3	185.4
RV3241-10M	G3/8	21.8	1.8	108	45.5	34	6	17.5	33	41	50	74.2	40.2	30	31.5	144.7	199.4
RV3241-15M	G1/2	21.8	1.8	108	45.5	34	6	17.5	33	41	50	74.2	40.2	32	31.5	144.7	199.4

Note: The dimensions of N series and RV series are same.

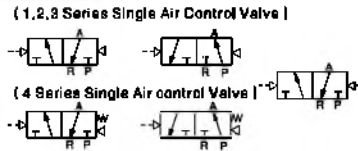
RV Series NAMUR Air Control Valve(3/2, 5/2, 5/3 Way)

RV

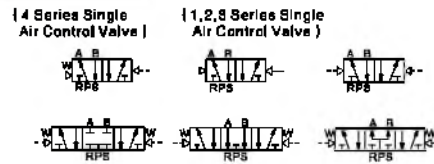
NAMUR Air Control Valve(3/2, 5/2, 5/3)



RVA Series 3/2 way



RVA Series 5/2, 5/3 way



How to Order?

Low Power Solenoid Valve

Series No.	Way	Positions	Valve body ID code	Controls	Initial Status	Port size	Reset Type	Thread Type
RVA	3: 3 ways 5: 5 ways	2: 2 positions 3: 3 positions	1: 1Series 2: 2Series 3: 3Series 4: 4Series	1: Single control 2: Double control	3/2 Way Blank: Normal close H: Normal open 5/3 Way C: Center close P: Center pressure E: Center exhaust (Only for 5/3 ways)	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: Spring return (Apply to 4 series single control valve) Q: Air return (Apply to 1,2,3 series single control valve)	Blank: G P: PT T: NPT

Order Example:

RV series air control valve, 3/2 ways, 2 series valve body size, normal close, single control, 1/4" port size, gas reset, NAMUR type, PT thread, ERP code is RVA3221-08QM-P

Specifications

Model	RVA5211-M5M RVA5212-M5M RVA6312-M5M	RVA5211-06M RVA5212-06M RVA6312-06M	RVA5221-06M RVA5222-06M RVA6322-06M	RVA5221-08M RVA5222-08M RVA6322-08M	RVA5231-08M RVA5232-08M RVA6332-08M	RVA5231-10M RVA5232-10M RVA6332-10M	RVA5241-10M RVA5242-10M RVA5342-10M	RVA5241-15M RVA5242-15M RVA5342-15M
Port Size	M5	G1/8	G1/8	G1/4(Exhaust G1/8)	G1/4	G3/8(Exhaust G1/4)	G3/8	G1/2
Sectional area(mm ²)	2P: 5.5(CV=0.31) 3P: 5.5(CV=0.28)	2P: 12(CV=0.67) 3P: 9(CV=0.50)	2P: 14(CV=0.78) 3P: 12(CV=0.67)	2P: 18(CV=0.88) 3P: 12(CV=0.67)	2P: 25(CV=1.40) 3P: 16(CV=1.00)	2P: 30(CV=1.68) 3P: 18(CV=1.00)	2P: 50(CV=2.78) 3P: 30(CV=1.67)	2P: 50(CV=2.78) 3P: 30(CV=1.67)
Working Medium	Clean air(After 40 μm filtration)							
Acting type	Outer air control							
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)							
Insulation Class	F Class							
Max.acting frequency	2 Position: 5 Cycles/s; 3 Position: 3 Cycles/s							

Note: 2P: 2 Position 3P: 3 Position

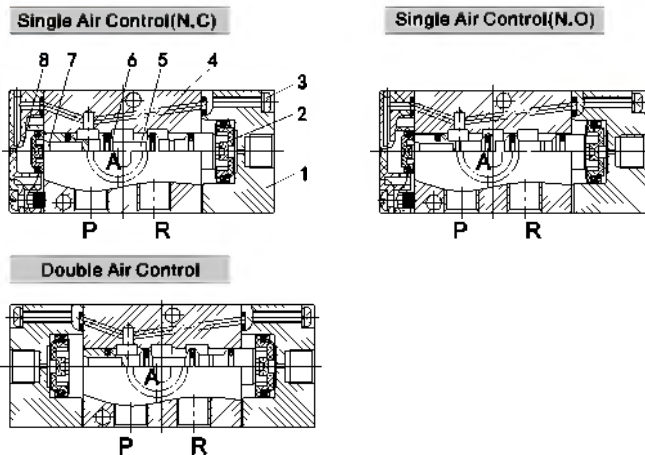
RV Series NAMUR Air Control Valve(3/2, 5/2, 5/3 Way)

Specifications

Model	RVA3211-M5M RVA3212-M5M	RVA3211-06M RVA3212-06M	RVA3221-06M RVA3222-06M	RVA3221-08M RVA3222-08M	RVA3231-08M RVA3232-08M	RVA3231-10M RVA3232-10M	RVA3241-10M RVA3242-10M	RVA3241-15M RVA3242-15M
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 μ m filtration)							
Acting type	Outer air control							
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)							
Max.acting frequency	5 Cycles/s							

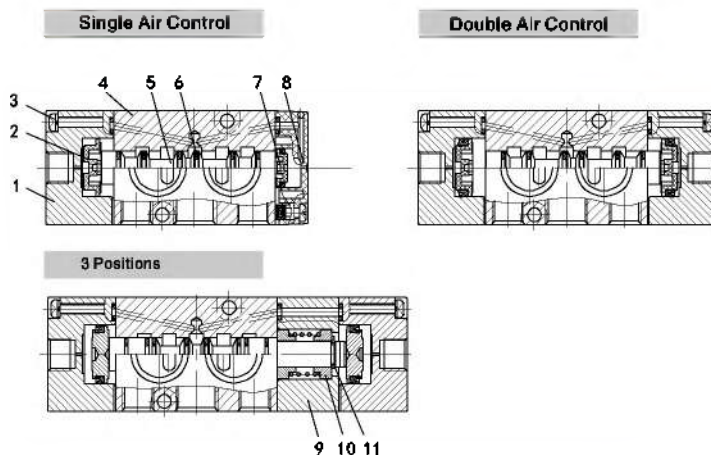
Internal Structure

3/2 Way



No.	Part Name	Material
1	Air Control Cover	Aluminum alloy
2	Piston	POM
3	Nut	Carbon steel
4	Valve body	Aluminum alloy
5	Spool	Aluminum alloy
6	O-ring	NBR
7	Piston	POM
8	Rear cover	Zinc Alloy

5/2,5/3 Way

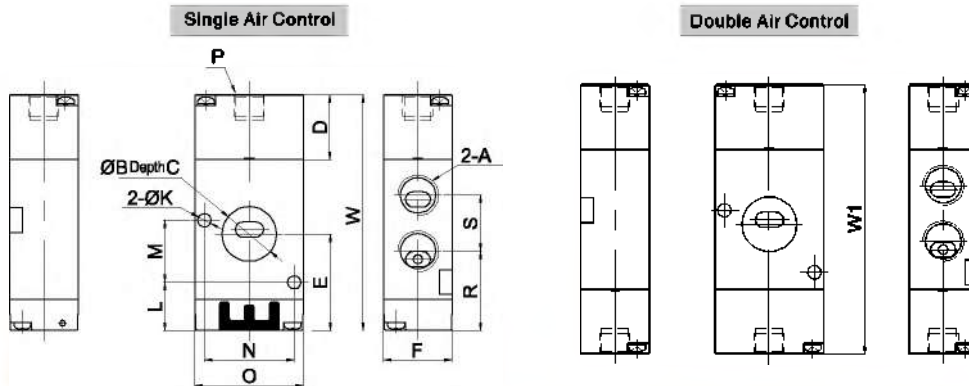


No.	Part Name	Material
1	Air Control Cover	Aluminum alloy
2	Piston	POM
3	Nut	Carbon steel
4	Valve body	Aluminum alloy
5	Spool	Aluminum alloy
6	O-ring	NBR
7	Piston	POM
8	Rear cover	Zinc Alloy
9	Back seat	Aluminum alloy
10	Spring seat	Aluminum alloy
11	C type buckle	65Mn

RV Series NAMUR Air Control Valve(3/2, 5/2, 5/3 Way)

Main Dimension

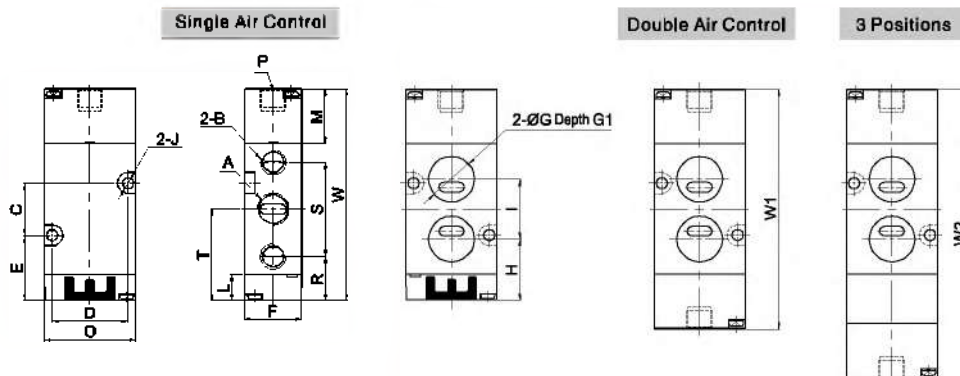
3/2 Way



Model/Sign	A	B	C	D	E	F	K	L	M	N	O	P	R	S	W	W1*
RVA3211-M5QM	M5	13.6	1.5	19	29	18	3.3	16	14	22	27	G1/8	21.8	14.2	67	76
RVA3211-08QM	G1/8	13.6	1.5	19	29	18	3.3	16	14	22	27	G1/8	23	14	67	76
RVA3221-08QM	G1/8	17.6	1.5	21	31	22	4.3	15.5	20	29	35	G1/8	23.5	18	76	87
RVA3221-08QM	G1/4	17.6	1.5	21	31	22	4.3	15.5	20	29	35	G1/8	25.5	18	76	87
RVA3231-08QM	G1/4	19.5	1.5	23	42.1	27	5.2	18.1	24	32	40	G1/8	31.1	21	94.8	106
RVA3231-10QM	G3/8	19.5	1.5	23	42.1	27	5.2	18.1	24	32	40	G1/8	30.1	23	94.8	106
RVA3241-10M	G3/8	21.8	1.8	23	45.5	34	6	17.5	33	41	50	G1/8	30	31.5	103	116
RVA3241-16M	G1/2	21.8	1.8	23	45.5	34	6	17.5	33	41	50	G1/8	32	31.5	103	116

Note: The dimensions of N.O type and N.C type are same, w1 is double control direction valve's dimensions.

5/2, 5/2 Way



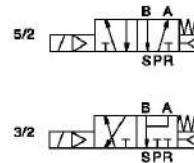
Model/Sign	A	B	C	D	E	F	G	G1	H	I	J	M	O	P	R	S	T	W	W1*	W2*
RVA5211-M5QM	M5	M5	14	22	24.5	18	13.8	1.5	22.3	18.5	3.3	19	27	G1/8	17.9	27.2	31.5	72	81	96
RVA5211-08QM	G1/8	G1/8	14	22	24.5	18	13.8	1.5	22.3	18.5	3.3	19	27	G1/8	17.5	28	31.5	72	81	96
RVA5221-08QM	G1/8	G1/8	20	28	25	22	17.8	1.6	23.5	23	4.3	21	35	G1/8	17	36	36	81	92	111
RVA5221-08QM	G1/4	G1/8	20	28	25	22	17.8	1.5	23.5	23	4.3	21	35	G1/8	17	36	35	81	92	111
RVA5231-08QM	G1/4	G1/4	24	32	32.1	27	19.6	1.5	32.1	24	5.2	23	40	G1/8	21.8	45	44.1	99.6	111	130
RVA5231-10QM	G3/8	G1/4	24	32	32.1	27	19.6	1.5	32.1	24	5.2	23	40	G1/8	21.8	45	44.1	99.6	111	130
RVA5241-10M	G3/8	G3/8	33	41	40.5	34	21.8	1.8	38.8	36.5	6	23	50	G1/8	25.5	63	57	127	140	161
RVA5241-15M	G1/2	G1/2	33	41	40.5	34	21.8	1.8	38.8	36.6	6	23	60	G1/8	25.5	63	67	127	140	161

Note: W1 is double control direction valve's dimensions, W2 is three position air control valve's dimensions.

Universal Convertible 3/2 and 5/2 NAMUR Solenoid Valve

Universal Convertible

NAMUR Solenoid Valve (3/2,5/2)



How to Order?

Series No.	Ways	Valve Body Size	Controls	Port Size	Valve Type	Exhaust Type	ID Code	Voltage	Connection Mode	Cover Color	Valve Color	Thread Type
V	Universal convertible 3/2 and 5/2	3:3 series	1: Single control	08: 1/4"	M: NAMUR type	R: Outer exhaust G: Inner exhaust	Blank: Standard type A: Amisco coil	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V	Blank: DIN connector F: Flying leads	Blank: Black Blank: Brown translucent J: Colorless and translucent	Blank: G P: PT T: NPT	

Order Example:

Universal convertible 3/2 and 5/2 NAMUR solenoid valve, 3 series valve body, single control, port size 1/4", inner exhaust type, standard coil, AC220V, flying leads coil, black color valve, G thread, ERP code is: V523231-08MGE2F

Specifications

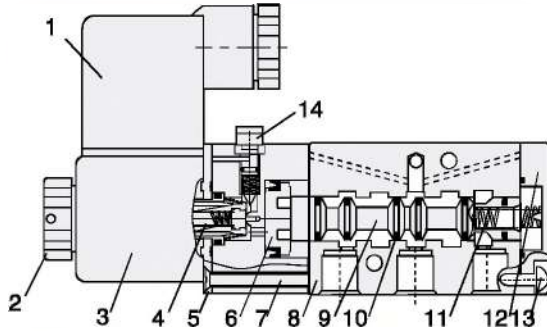
Model No.	V523231-08MR	V523231-08MG
Port size	1/4" Ø	
Sectional area(mm ²)	25(CV=1.40)	
Working medium	Clean air(After 40 µm filtration)	
Acting type	Pilot type	
Flow rate	At 5/2 way: 1830L/min; At 3/2 way: 1090L/min	
Lubrication	Not required	
Working pressure(psi)	21,8~116	
Guaranteed pressure(psi)	174	
Working temperature	-5~60°C (23~140°F)(No freezing)	
Voltage range	-15%~10%	
Power consumption	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	
Accessories	1pc D20X16 O - Ring, 1pc position seal plate, 2pcs M5X30 mounting bolts	
Weight(g)	340	460

Ø G, PT, NPT thread type is optional.

Universal Convertible 3/2 and 5/2 NAMUR Solenoid Valve

Internal Structure

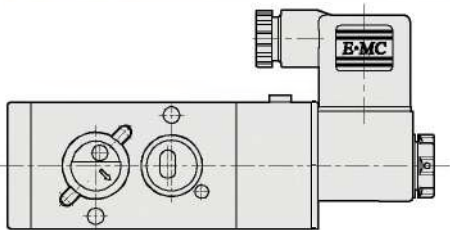
Single Solenoid Valve



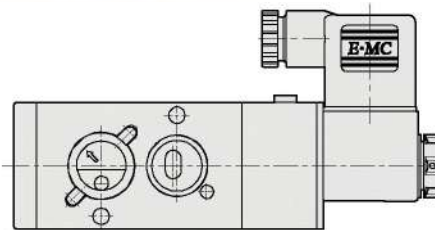
NO.	Part Name	Material
1	Connector	Engineered plastics
2	Nut	POM+Carbon steel
3	Coil	Cu
4	Pilot units	
5	Plate	Carbon steel
6	Piston	POM
7	Screw	Carbon steel
8	Valve body	Aluminum alloy
9	Spool	Aluminum alloy
10	O-ring	HNBR
11	Spring	Stainless steel
12	Rear cover	Zinc alloy
13	Screw	Carbon steel
14	Manual override	Engineered plastics

How to Mount?

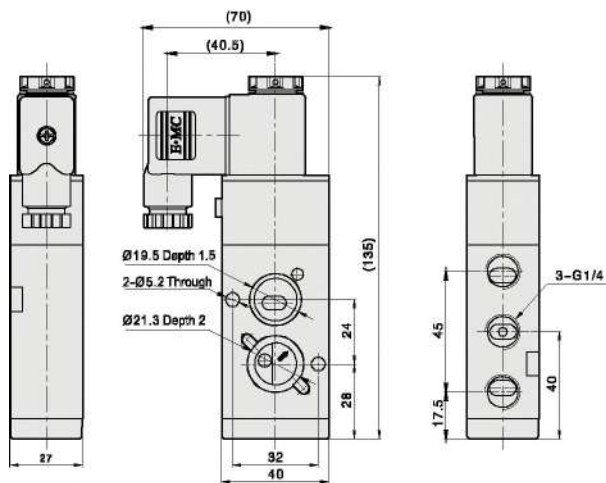
2/5 way



2/3 way



Main Dimension



Note: The boundary dimensions of MG series and MR series are same.

V Series Standard/Low Power Solenoid Valve (2/2 way)

V

Standard/Low Power Solenoid Valve (2/2)



Product Features

- Various voltages and working styles are available.
- Different surface treatment, thread types (G,PT,NPT) are available.

How to Order?

Low Power Solenoid Valve

Series No.	ID Code	Positions	Ways	Controls	Port Size	Voltage	Connection Mode	Cover Color	Patchcord	Thread Type
N	M: Standard armature +Energy saving coil	2 positions	2:2 ways	1: Single control	06: 1/8" 08: 1/4"	E1: AC110V E2: AC220V E4: DC24V	Blank: DIN connector type L: Plug-In Type	Blank: Brown translucent J: Colorless and translucent	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

Standard Solenoid Valve

Series No.	Positions	Ways	Controls	Port Size	Voltage	Connection Mode	Cover Color	Patchcord	Thread Type
V	2 positions	2:2 ways	1: Single control	06: 1/8" 08: 1/4"		Blank: DIN connector F: Flying leads L: Plug-In Type	Blank: Brown translucent J: Colorless and translucent	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

E1: AC110V	E8: AC38V
E2: AC220V	E7: AC24V
E3: AC380V	E6: DC110V
E4: DC24V	E9: DC48V
E5: DC12V	E10: DC36V

Order Example:

V series directional valve, 2/2 way, single control, 1/8 port size, AC110V, DIN connector, G thread, the ERP code is: V221-08E1

Specifications

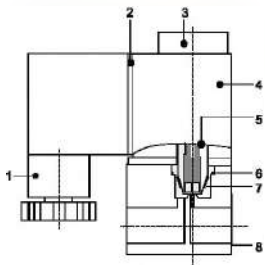
Model No.	NM221-06	NM221-08	V221-06	V221-08
Working medium	Air, water, oil			
Acting type	Direct acting			
Orifice (mm)	2			
Port size	1/8	1/4	1/8	1/4
Lubrication	Not required			
Working pressure (MPa)	0-0.8			
Guaranteed pressure (MPa)	1.2			
Working temperature (°C)	-5-60(No freezing)			
Voltage range	-15% - +10%			
Power consumption	AC: 1VA	DC: 0.9W	AC: 5VA	DC: 4.8W
Insulation class	Class F			
Protective class	IP65 (DIN40050)			
Activate time (s)	<0.05			
Seal material	NBR			
Weight (g)	141	138	141	138

V Series Standard/Low Power Solenoid Valve (2/2 way)

1

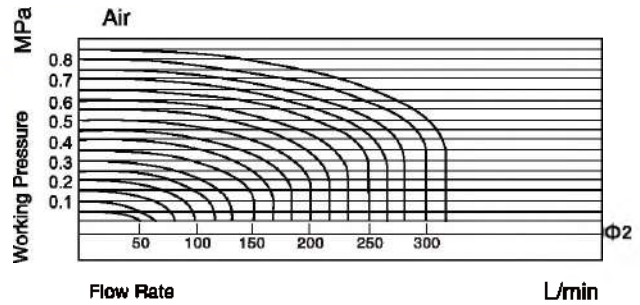
V221

Internal Structure



No	Designation
1	Connector
2	Connector washer
3	Nut
4	Coil
5	Pilot units
6	O-ring
7	Spring
8	Valve body

Flow Chart

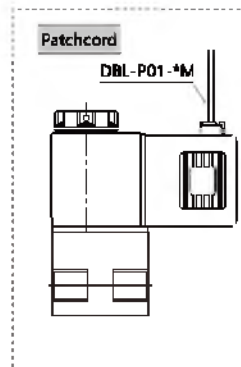
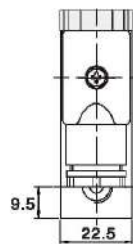
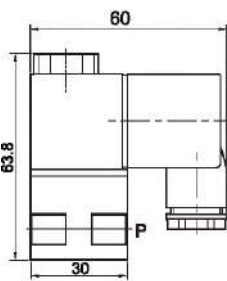
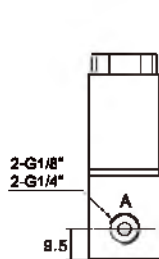


Main Parts Material

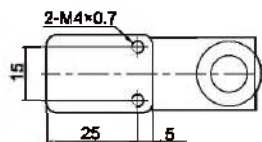
Part name	Material
Valve body	Aluminum alloy
Connector	Engineered plastics
Connector washer	NBR (FPM)
Pilot units	Pure steel+Cu+Stainless steel
Diaphragm	NBR
Nut	POM+Carbon steel
Coil	Brass Wire covered with heat resistance colophony

Main Dimension

V221-06/08



(If with the steel nut, the height is 60.7mm)



RVT Series Standard/Low Power Solenoid Valve (3/2 way)

RVT

Standard/Low Power Solenoid Valve (3/2)



Product Features

- *Direct Acting, Normal Close, Sensitive Response;
- *Same pilot units as RV valve, High temperature resistance by HNBR seals, longer working life;
- *Integrated body with grey surface oxidation, Easy installation;
- *Multiple voltage and Energy-Saving are optional;
- *Multiple connection mode are optional.

How to Order?

Low Power Solenoid Valve

Series No.	Valve Body ID code	ID Code	Positions	Ways	Controls	Port Size	Voltage	Connection Mode	Cover Color	Thread Type	Patchcord	Valves
N	T: Integrated body R: Standard armature +Energy saving coil		2: 2 positions	3: 3 ways	1: Single control	06: 1/8"	E1: AC110V E2: AC220V E4: 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 (Only black color available for water proof connector)	Blank: G P: PT T: NPT	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)	2F: 2 Valves 3F: 3 Valves 13F: 13 Valves

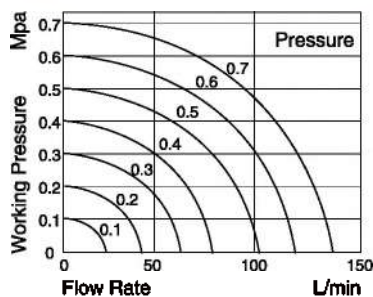
Standard Solenoid Valve

Series No.	Ways	Positions	Controls	Port Size	ID Code	Voltage	Connection Mode	Cover Color	Thread Type	Patchcord	Valves
RVT	3: 3 ways	2: 2 positions	1: Single control	06: 1/8"	Blank: Standard type A: Amisco coil	E1: AC110V E6: AC96V E2: AC220V E7: AC24V E3: AC360V E8: DC110V E4: DC24V E9: DC48V E5: DC12V E10: DC96V	Blank: DIN connector L: Plug-in Type F: Flying leads K: Water proof DIN connector (Only 2, 3, 4 series is optional for KM)	Blank: Brown translucent J: Colorless and translucent B: Black (Only black color available for water proof connector)	Blank: G P: PT T: NPT	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)	2F: 2 Valves 3F: 3 Valves 13F: 13 Valves

Order Example:

RVT series solenoid valve, 3/2 way, Amisco coil, single control, 1/8" port size, AC110V, DIN connector, G thread, ERP code is: RVT321-06AE1-5F

Flow Chart

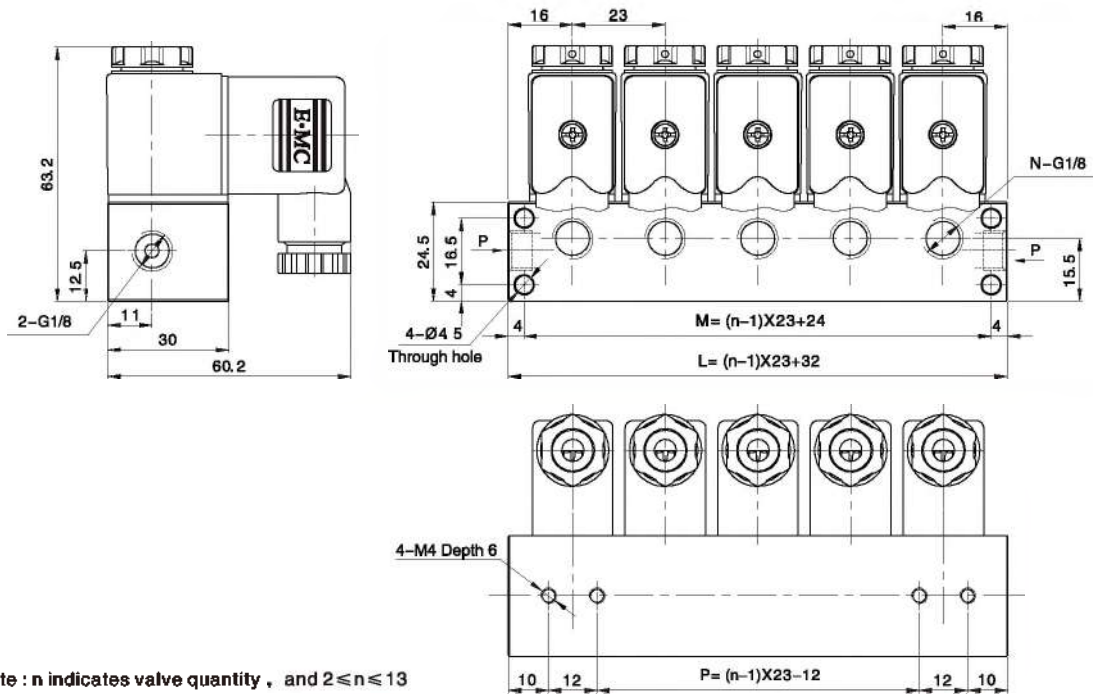


Specifications

Model No.	NTR231-06	RVT321-06
Working medium	Clean air (After 40 μm filtration)	
Acting type	Direct acting	
Orifice (mm)	1.2	
Port size	G 1/8	
Lubrication	Not required	
Working pressure (MPa)	0~0.8	
Guaranteed pressure (MPa)	1.2	
Working temperature (°C)	-20~70	
Voltage range	-15% ~ +10%	
Power consumption	DC24V:0.7W AC220V:0.9VA AC110V:1.4VA	AC:4VA DC:3W
Insulation class	Class F	
Protective class	IP65 (DIN40050)	
Max. acting frequency	10 cycles/s	
Seal material	HNBR	
Activate time	0.05s below	
Weight (g)	Each valve increases 141 weight	Each valve increases 138 weight

RVT Series Standard/Low Power Solenoid Valve (3/2 way)

Main Dimension

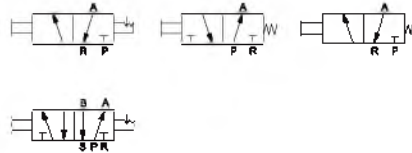


Sign/Valves	2Valves	3Valves	4Valves	5Valves	6Valves	7Valves	8Valves	9Valves	10Valves	11Valves	12Valves	13Valves
L	55	78	101	124	147	170	193	216	239	262	285	308
M	47	70	93	116	139	162	185	208	231	254	277	300
P	11	34	57	80	103	126	149	172	195	218	241	264

L Series Hand Pull Valve (3/2,5/2 Way)

L

Hand Pull Valve (3/2, 5/2)



How to Order?

Series No.	Ways	Positions	Valve Body size	Port Size	Reset	Valve Color	Thread Type
L	3:3 ways 5:5 ways	2:2 positions	1: 1 Series 2: 2 Series 3: 3 Series 4: 4 Series	1 Series 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:

L series hand pull valve, 3/2 way, 2 series valve body, NC type, 1/4" port size, manual reset, black valve body, G thread, ERP code is: L322-08

Specifications

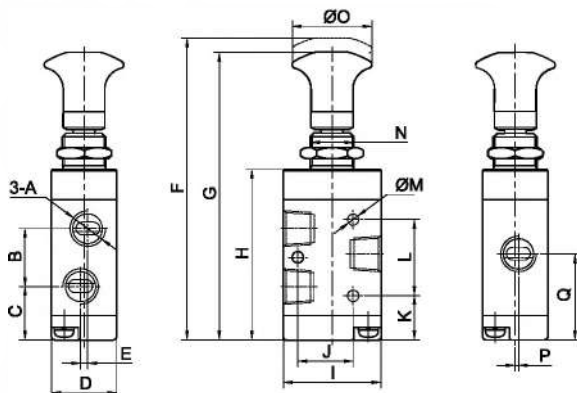
Model	L Series Hand pull valve
Working medium	Clean air(After 40 μm filtration)
Acting type	External control
Lubrication	Not required
Working pressure (MPa)	0-0.8
Guaranteed pressure (MPa)	1.2
Working temperature(°C)	-5-60

Product Features

- * Manual operated
- * Various working styles are available
- * Black color is standard color, different color are optional

Main Dimension

L321/L322/L323/L324

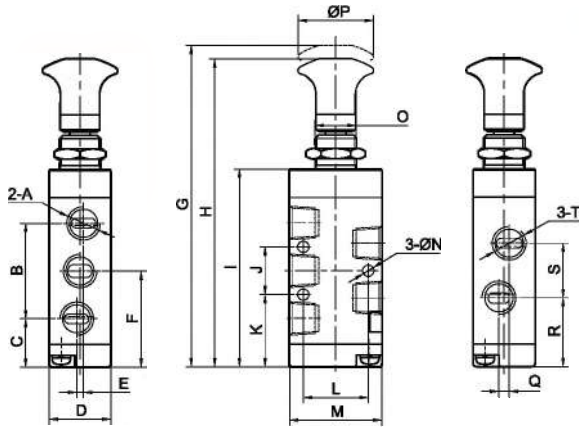


Model/Sign	L321	L322-06	L322-08	L323-08	L323-10	L324-10	L324-15
A	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2
B	18	18.5	22.5	22	24	31.5	31.5
C	14.7	18.45	16.45	21.5	20.5	29.25	29.3
D	18	22	22	27	27	34	34
E	2	0	0	0	2	0	0
F	84.5	94	94	111.3	111.3	141	141
G	80.5	89.7	89.7	105.7	105.7	136	136
H	44.7	54.7	54.7	63.5	63.5	87.5	87.5
I	27	35	35	40	40	50	50
J	18	24	24	28	28	36	36
K	15.7	17.7	17.7	20.5	20.5	31	31
L	18.7	20	20	24	24	28	28
M	3.1	4.3	4.3	4.3	4.3	5.5	5.5
N	M14x1	M14x1	M14x1	M14x1	M14x1	M22x2.5	M22x2.5
O	22.4	22.5	22.4	32	32	32	32
P	1	0	1.5	0	2	2	2
Q	23.7	27.7	28.7	32.5	32.5	45	45

L Series Hand Pull Valve (3/2,5/2 Way)

Main Dimension

L521/L522/L523/L524

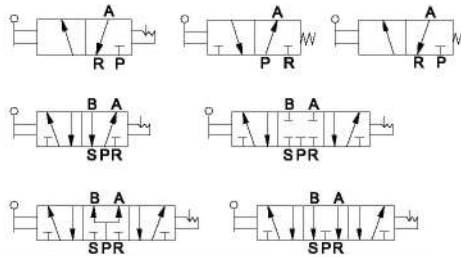


Model/ Sign	L521	L522 -06	L522 -08	L523 -08	L523 -10	L524 -10	L524 -15
A	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G1/2
B	28	35	35	45	45	63	63
C	14.2	14.2	14.2	17.5	17.5	25.5	25.5
D	18	22	22	27	27	34	34
E	1	0	0	0	4	0	0
F	28.2	31.7	31.7	40	40	57	57
G	95.5	102	102	126.3	126.3	165	165
H	91.5	98	98	120.7	120.7	160	160
I	55.7	62.7	62.7	78.5	78.5	111.5	111.5
J	14	20	20	24	24	28	28
K	21.2	21.7	21.7	28	28	43	43
L	19	24	24	28	28	36	36
M	27	35	35	40	40	50	50
N	3.3	4.3	4.3	4.3	4.3	5.5	5.5
O	M14x1	M14x1	M14x1	M14x1	M14x1	M22x1.5	M22x1.5
P	22.5	22.5	22.5	32	32	32	32
Q	3	0	3	0	4	0	4
R	20.2	22.7	21.7	28	28	39	39
S	16	18	20	24	24	36	35.5
T	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2

H Series Hand Push Valve (3/2,5/2,5/3 Way)

H

Hand Push Valve (3/2,5/2,5/3)



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, 3/2 way, 2 series valve body, NC type, 1/4" port size, manual reset, black valve body, G thread, ERP code is: H322-08

Specifications

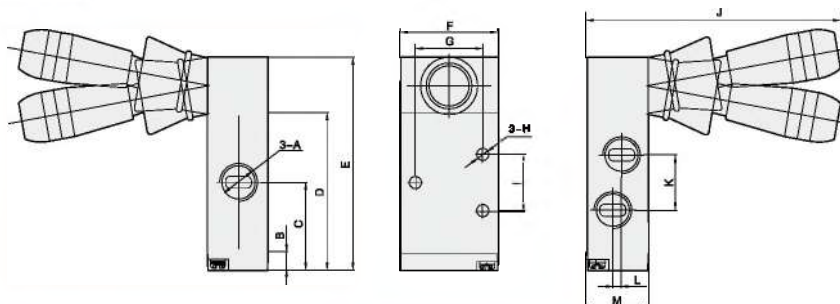
Model	H Series Hand push valve
Working medium	Clean air(After 40 μm filtration)
Acting type	External control
Lubrication	Not required
Working pressure(MPa)	0~0.8
Guaranteed pressure (MPa)	1.2
Working temperature (°C)	-5~60
Seal material	NBR

Product Features

- * Manual operated
- * Various working style are available
- * Black color is standard color, different color are optional

Main Dimension

H321/H322/H323/H324

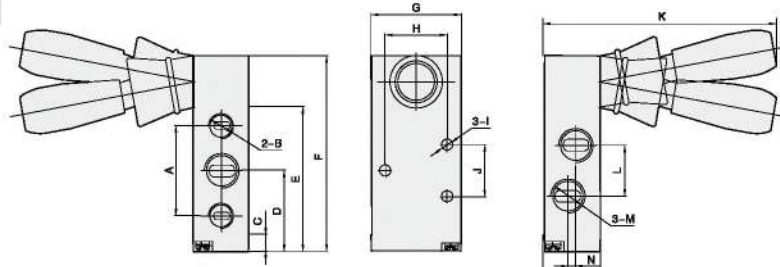


Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M
H321-06	G1/8	6.7	23.7	38.7	58.7	27	19	Φ3.1	14	83.8	18	2	18
H322-08	G1/4	6.7	28.7	48.7	68.7	35	24	Φ4.3	20	89	22.5	0	22
H323-10	G3/8	7.5	32.5	57.5	77.7	40	28	Φ4.3	24	95.3	24	2	27
H324-15	G1/2	10	45	80	108	50	36	Φ5.5	28	105.8	31.5	0	34

H Series Hand Push Valve (3/2,5/2,5/3 Way)

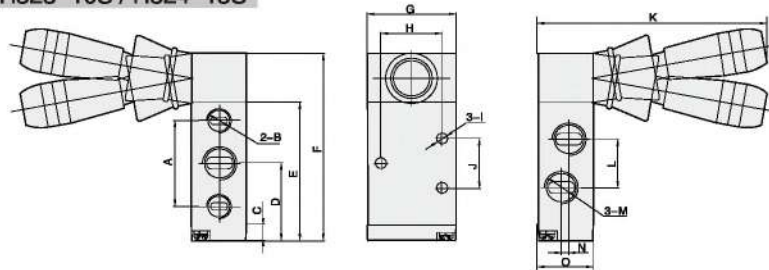
Main Dimension

H521/H522/H523/H524



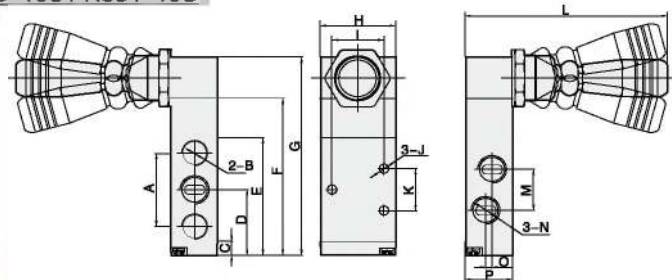
Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H521-06	28	G1/8	6.7	28.2	49.7	69.7	27	19	Φ3.3	14	83.8	16	G1/8	3	18
H522-08	35	G1/8	6.7	31.7	56.7	76.7	35	24	Φ4.3	20	91.3	20	G1/4	3	22
H523-10	45	G1/4	7.5	40	72.5	92.5	40	28	Φ4.3	24	96.5	24	G3/8	4	27
H524-15	63	G1/2	10	57	104	132	50	36	Φ5.5	28	105	36	G1/2	4	34

H521-06S / H522-08S / H523-10S / H524-15S



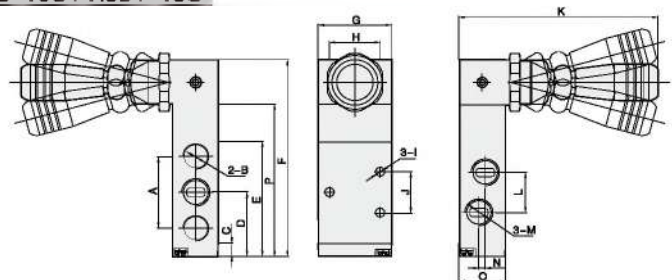
Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H521-06S	28	G1/8	6.7	28.2	49.7	69.7	27	19	Φ3.3	14	87.5	16	G1/8	3	18
H522-08S	35	G1/8	6.7	31.7	56.7	76.7	35	24	Φ4.3	20	90	20	G1/4	3	22
H523-10S	45	G1/4	7.5	40	72.5	92.5	40	28	Φ4.3	24	96.5	24	G3/8	4	27
H524-15S	63	G1/2	10	57	104	132	50	36	Φ5.5	28	105	36	G1/2	4	34

H531-06S / H532-08S / H533-10S / H534-15S



Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H531-06S	28	G1/8	6.5	28.2	49.7	64.5	64.7	27	19	Φ3.3	14	92.5	16	G1/8	3	18
H532-08S	35	G1/8	6.5	31.7	56.7	75.5	97.7	35	24	Φ4.3	20	94.2	20	G1/4	3	22
H533-10S	45	G1/4	7.5	40	72.5	81.5	113.5	40	28	Φ4.3	24	100	24	G3/8	4	27
H534-15S	63	G1/2	10	57	104	124	154	50	36	Φ5.5	28	109.6	36	G1/2	4	34

H531-06C / H532-08C / H533-10C / H534-15C



Model/Sign	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H531-06C	28	G1/8	6.5	28.2	49.7	84.5	27	19	Φ3.3	14	94.5	16	G1/8	3	18	64.5
H532-08C	35	G1/8	6.5	31.7	56.7	97	35	24	Φ4.3	20	95.5	20	G1/4	3	22	75.5
H533-10C	45	G1/4	7.5	40	72.5	113.5	40	28	Φ4.3	24	100	24	G3/8	4	27	91.5
H534-15C	63	G1/2	10	57	104	152	50	36	Φ5.5	28	108	36	G1/2	4	34	124

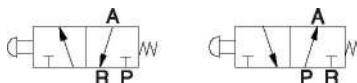
M Series Mechanical Valve(3/2,5/2 Way)

M

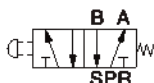
Mechanical Valve (3/2,5/2)



Three way two position



Five way two position



How to Order?

Series No.	Ways	Positions	Port Size	Button Type	Thread Type
MV MJ M	3: 3 ways 5: 5 ways	2: 2 position	06: 1/8" 08: 1/4"	Blank: No button S1B: The button with arrow mark(Black) S2: Roller type S3R: Button with "Reset" mark(Red) S4G: Concave button(Green) S5R: Flat button(Red) S6R: Mushroom head button(Red) S6B: Mushroom head button(Black) Note: S1 and S3 with manual return, Others with spring return.	Blank: G P: PT T: NPT

Order Example:

M series mechanical valve, 3/2 way, 1/8" port size, with black button with arrow mark, G thread, ERP code is: M32-06S1B

Note: Button mechanical valve assembly comprising: a Button component, the mounting bracket, under mounting brackets and mounting screws.

Specifications

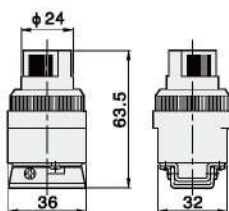
Model	MV32-06	MJ32-08	M32-08	M52-08
Working medium	Clean air(After μ m filtration)			
Acting type	External control			
Lubrication	Not required			
Working pressure (MPa)	0-0.8			
Guaranteed pressure (MPa)	1.2			
Working temperature (°C)	-5-60			
Max. acting frequency	5 cycles/s			
Port size	1/8, 1/4			

Product Features

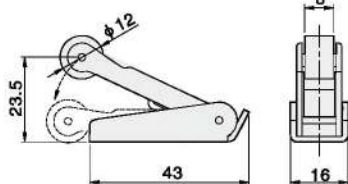
- * Black color is standard color, different colors are optional
- * Controlled by mechanical force
- * Various buttons are available

Main Dimension for Button

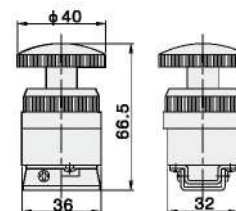
S1



S2



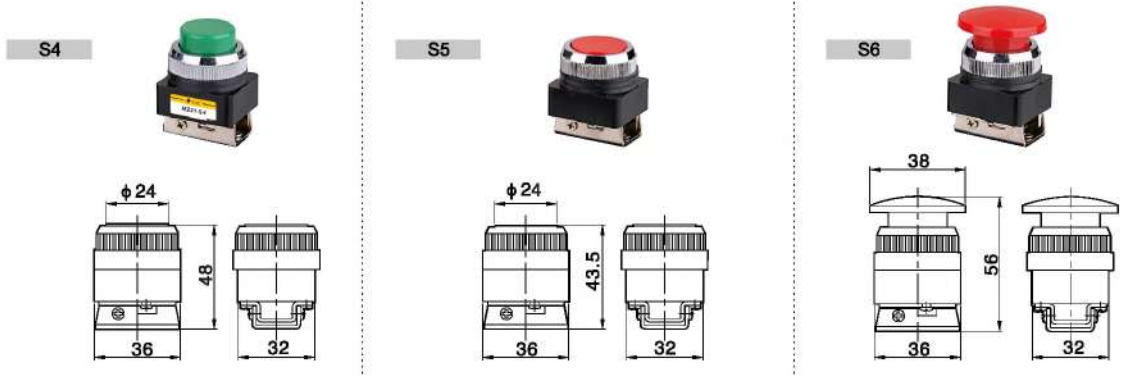
S3



1
M
Mechanical Valve

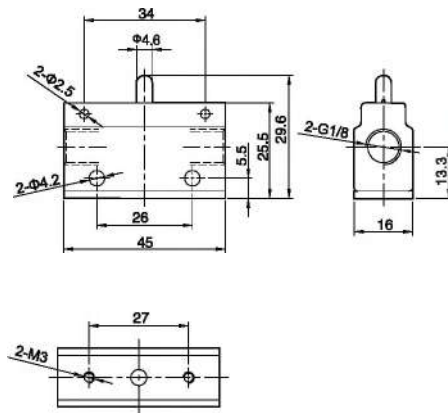
M Series Mechanical Valve(3/2,5/2 Way)

○ Main Dimension for Button

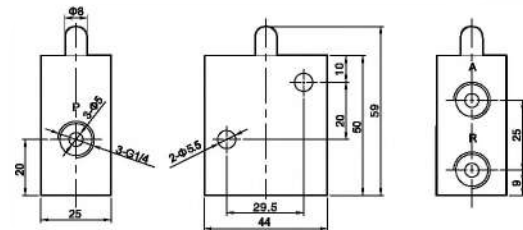


○ Main Dimension

MV32 Series



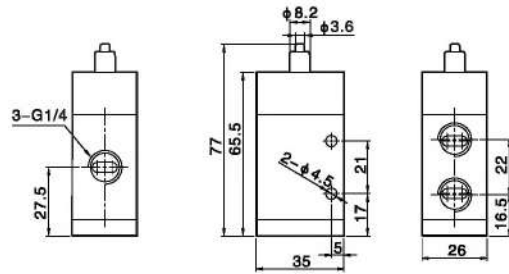
MJ32 Series



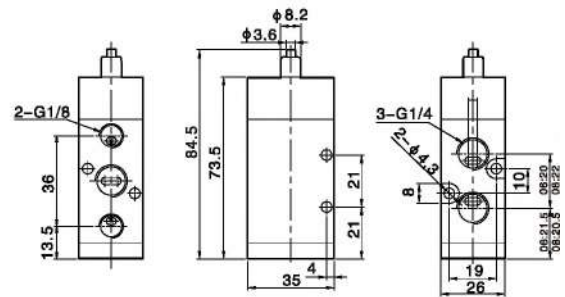
M Series Mechanical Valve(3/2,5/2 Way)

Main Dimension

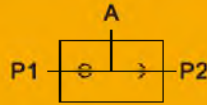
M32 Series



M52 Series



QS Shuttle Valve



Specifications

Model (mm)	QS-06	QS-08
Working medium	Clean air(After 40 μm filtration)	
Working Pressure (psi)	0.15~0.8	
Guaranteed pressure (psi)	1.2	
Working temperature(F)	-20~70	
Port size	1/8"	1/4"
Standard rated flow	P1: 700	2300
The amount (L/min)	P2: 500	1700
Weight(g)	45	85

⊕ G、PT、NPT thread type is optional.

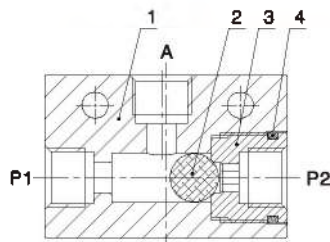
How to Order?

Series No.	Port Size	Thread Type
QS:Shuttle valve	06:1/8" 08:1/4"	Blank: G P : PT T : NPT

Order Example:

QS series shuttle valve, port size: 1/4", G thread, the ERP code is: QS-08

Internal Structure

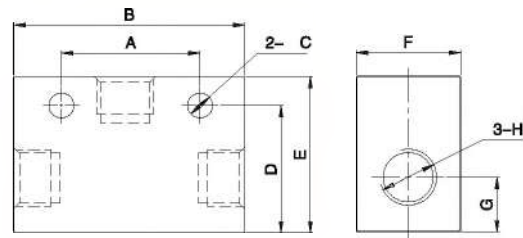


No.	Name
1	Valve body
2	Rubber ball
3	End cover
4	O-ring

Product Features

* Valve provides better assistance for completed control pneumatic system.

Main Dimension



Model	A	B	C	D	E	F	G	H
QS-06	24	40	4.3	22	27	18	10	1/8"
QS-08	35	50	6.5	27.5	35	22	13	1/4"

QSC Series Flow Control Valve (Precise Type)

QSC

Flow Control Valve (Precise Type)



Specifications

Model (mm)	QSC-06	QSC-08	QSC-10	QSC-15
Working medium	Clean air(After 40 μm filtration)			
Working Pressure (Mpa)	0.05~1.0			
Guaranteed pressure (Mpa)	1.5			
Working temperature(°C)	-20~70			
Port size ⌀	1/8"	1/4"	3/8"	1/2"
Standard rated flow	P→A: 0~350	0~860	0~1650	0~1900
The amount (L/min)	A→P: 300~450	760~890	1320~1650	1610~1990
Weight(g)	33	50	128	119

⌀ G、PT、NPT thread type is optional.

How to Order?

Series No.	Port Size	Thread Type
QSC:Flow control valve (precise type)	06:1/8" 08:1/4" 10:3/8" 15:1/2"	Blank: G P : PT T : NPT

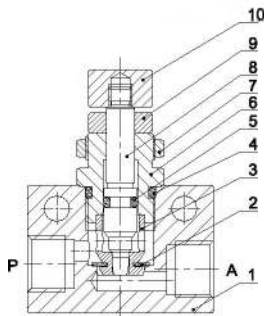
Order Example:

QSC series flow control valve, 1/4" port size, G thread, the ERP code is QSC-08

Product Features

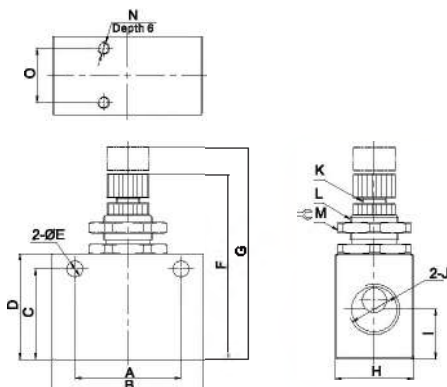
- * Compact structure and high precision
- * Install in several positions to facilitate installation and application
- * Apply to exhaust throttle, widely used for cylinder speed adjustment

Internal Structure



No.	Name
1	Valve body
2	Diaphragm
3	Throttle body
4	O-ring
5	O-ring
6	Throttle sheath
7	Fixed nut
8	Throttle column
9	Lock nut
10	Adjustment cap

Main Dimension

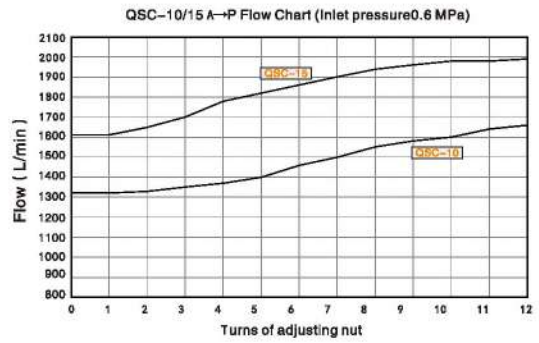
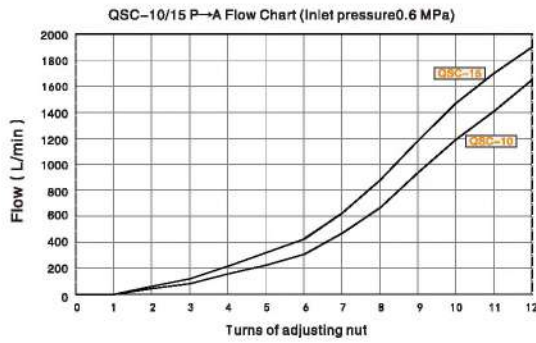
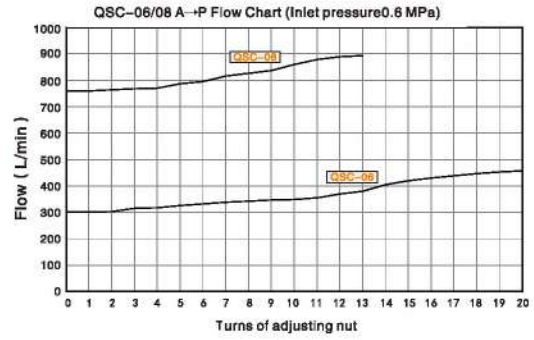
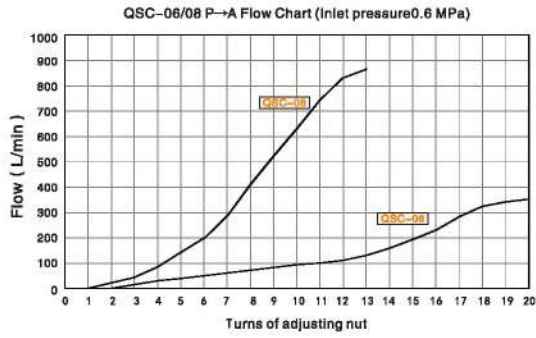


Model	A	B	C	D	E	F	G	H
QSC-06	22	32	20	26	4.3	46	51	15
QSC-08	26	36	23	27	4.3	51	57.5	18
QSC-10	35	50	30	35	5.3	62.5	71.5	26
QSC-15	35	50	30	35	5.3	62.5	71.5	26

Model	I	J	K	L	M	N	O
QSC-06	8.5	1/8	M5X0.25	M12X0.75	14	—	—
QSC-08	13.3	1/4	M6X0.5	M14X1	17	—	—
QSC-10	16.5	3/8	M8X0.75	M16X1	24	M4X0.7	18
QSC-15	16.5	1/2	M6X0.75	M16X1	24	M4X0.7	18

QSC Series Flow Control Valve (Precise Type)

Flow Chart



R Series Hand Switch Valve (4/3 Way)

R

Hand Switch Valve (4/3)



Specifications

Model	M432	U432	R432	MR432
Working medium	Clean air(After 40 μm filtration)			
Acting type	External control			
Lubrication	Not required			
Working pressure (MPa)	0~1.0			
Guaranteed pressure (MPa)	1.5			
Working temperature (°C)	-5~60			
Port size	1/4" , 3/8" , 1/2"			

* Note:R432 series also have "bottom thread" type

How to Order?

Series No.	Ways	Positions	Valve Body Size	Port Size	Thread Type
M: M series	4: 4 ways	3: Three position	2:2 series	M432/U432: 08: 1/4"	Blank: G
U: U series				R432/MR432: 08: 1/4"	P: PT
R: R series				10: 3/8"	T: NPT
MR: MR series				15: 1/2"	

Order Example:

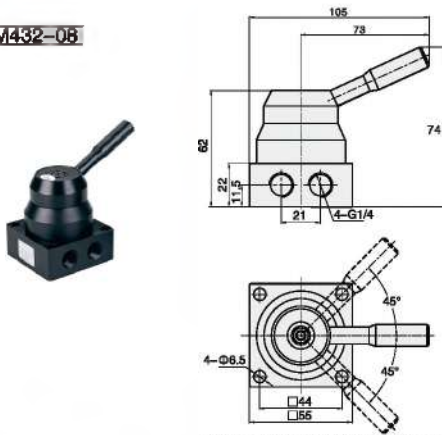
R series hand switch valve, 4/3 way, 2 series valve body, G thread, ERP code is: R432-08

Product Features

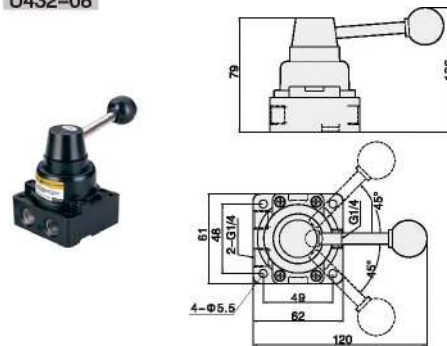
- * Different types are available
- * MR series valve is the valve with longer lifetime and the better performance
- * Sizes are from 1/4" to 1/2"

Main Dimension

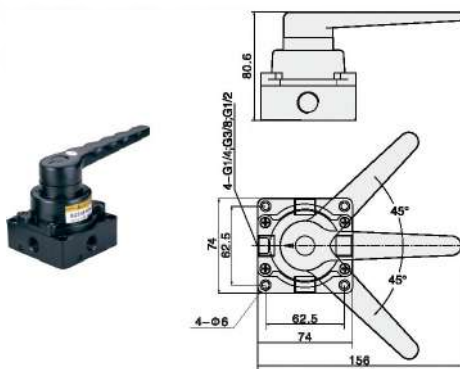
M432-08



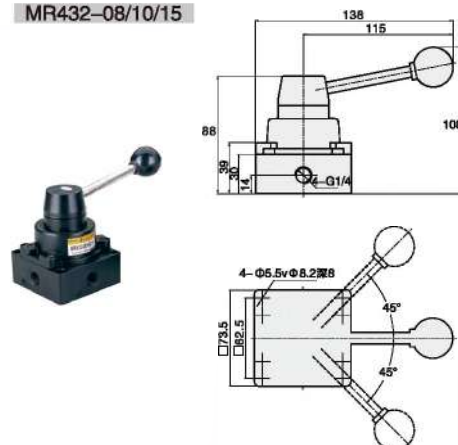
U432-08



R432-08/10/15



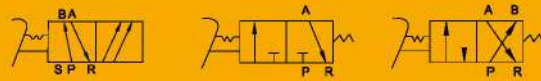
MR432-08/10/15



F Series Foot Valve (3/2, 4/2, 5/2 Way)

F

Foot Valve (3/2, 4/2, 5/2)



1
F
Foot Valve



T

Product Features

- * Strong design and work in harsh environment
- * Various types are available

How to Order?

Series No.	Ways	Positions	Valve Body Size	Type	Port Size	Valve Type	Thread Type
F: F series foot valve	3: 3 ways 4: 4 ways 5: 5 ways	2: 2 position	2: 2 series	Blank: No cover C: With cover	06: 1/8" 08: 1/4"	Blank: Basic type L: With lock LB: With lock, big valve body	Blank: G P: PT T: NPT

Order Example:

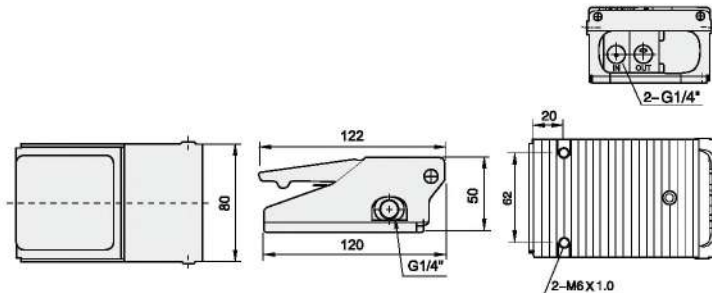
F series foot valve, 5/2 way, 2 series valve body, without cover, 1/4" port size, with lock, G thread, ERP code is: F522-08L

Specifications

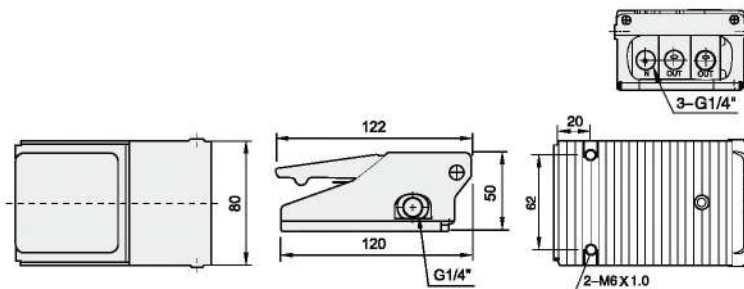
Model	F322	F422	F522
Working medium	Clean air(After 40 μm filtration)		
Acting type	External control		
Lubrication	Not required		
Working pressure (MPa)	0-0.8		
Max pressure (MPa)	1.2		
Working temperature (°C)	-5-80		
Port size	1/8", 1/4"		

Main Dimension

F322-08



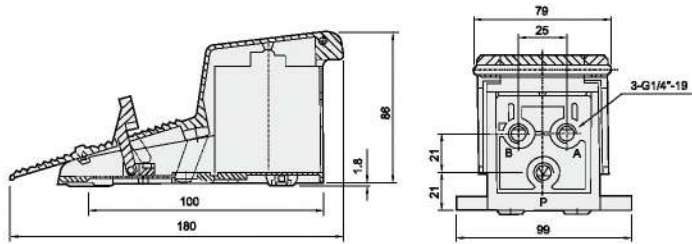
F422-08



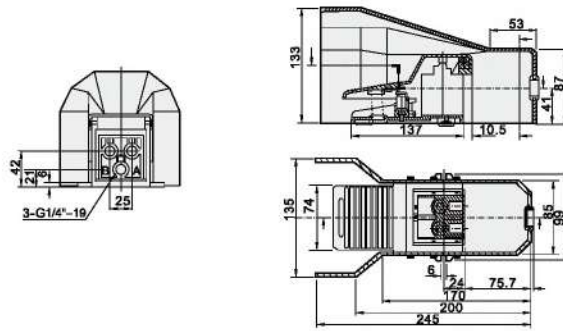
F Series Foot Valve (3/2, 4/2, 5/2 Way)

Main Dimension

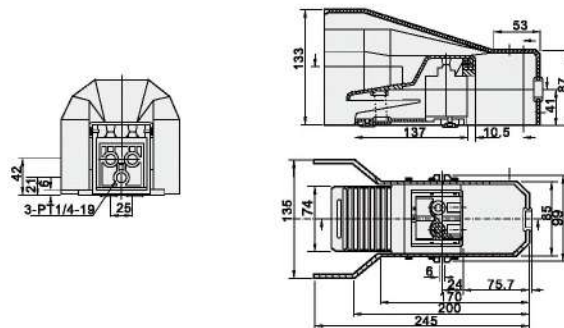
F522-08L



F522C-08L



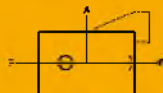
F522C-08



KKP Series Quick Exhaust Valve

KKP

Quick Exhaust Valve



Specifications

Model	KKP-06	KKP-08	KKP-10	KKP-15
Working medium	Clean air(After 40 μ m filtration)			
Working pressure(MPa)	0.15-0.8			
Guaranteed pressure resistance (MPa)	1.2			
Working temperature (°C)	-5-60			
Port size	1/8" - 1/2"			

How to Order?

Series No.	Port Size	Thread Type
KKP: Quick exhaust valve	06: 1/8" 10: 3/8" 08: 1/4" 15: 1/2"	Blank: G P: PT T: NPT

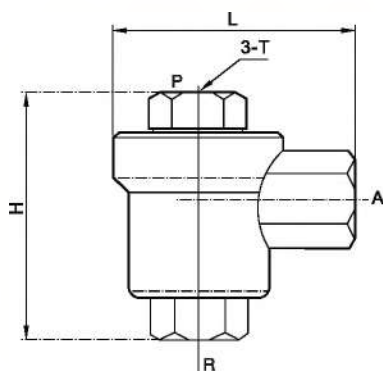
Product Features

- * Normally working with main valve together, not be used separately
- * Provide assistance to control the system better

Order Example:

KKP quick exhaust valve . 1/4" port size, G thread, ERP code is: KKP-08

Main Dimension



Model	T	H	L
KKP-6	1/8"	37	41.5
KKP-8	1/4"	45.5	38
KKP-10	3/8"	56	46.5
KKP-15	1/2"	67	54

EA

One Way Valve



Specifications

Model	EA-06	EA-08	EA-10	EA-15	EA-20	EA-25
Working medium	Clean air(After 40 μ m filtration)					
Lubrication	Not required					
Working pressure (MPa)	0.05-0.8					
Guaranteed pressure (MPa)	1.2					
Working temperature (°C)	-5-60					
Port size	1/8"	1/4"	3/8"	1/2"	3/4"	1"

How to Order?

Series No.	Port Size	Thread Type
EA: One-way valve	06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2"	20: 3/4" 25: 1" 32: 1 1/4" 40: 1-1/2" 50: 2"
		Blank: G P: PT T: NPT

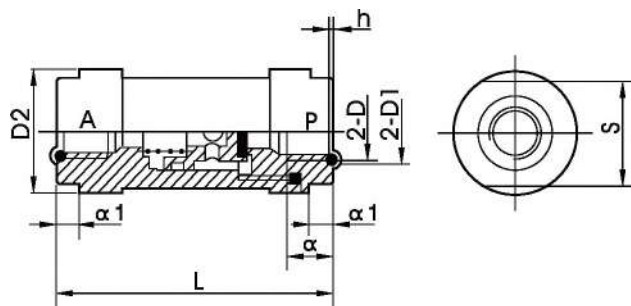
Order Example:

EA series one way valve. 1/4" port size, G thread, ERP code is : EA-08

Product Features

- * Normally working with main valve together, not be used separately
- * Provide assistance to control the system better

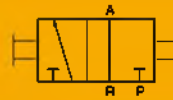
Main Dimension



Model	Port size	D	D1	D2	S	L	α	α1	H
EA-6	6	G1/8	φ13	φ25	24	63	10	6	1.4 ^{+0.1} _{-0.1}
EA-8	8	G1/4	φ16	φ25	24	63	12	6	1.4 ^{+0.1} _{-0.1}
EA-10	10	G3/8	φ20	φ38	36	81	14	8	1.8 ^{+0.1} _{-0.1}
EA-15	15	G1/2	φ26	φ38	36	81	14	8	1.8 ^{+0.1} _{-0.1}
EA-20	20	G3/4	φ32	φ49	46	109	21	10	1.8 ^{+0.1} _{-0.1}
EA-25	25	G1	φ40	φ49	46	109	23	10	2.7 ^{+0.12} _{-0.12}
EA-32	32	G1-1/4	φ48	φ86	75	160	25	18	2.7 ^{+0.12} _{-0.12}
EA-40	40	G1-1/2	φ54	φ86	75	160	26	18	2.7 ^{+0.12} _{-0.12}
EA-50	50	G2	φ70	φ86	90	160	26	26	4.5 ^{+0.18} _{-0.18}

YHS Series Slide Valve

YHS Slide Valve



Product Features

- * Normally working with main valve together, not be used separately
- * Provide assistance to control the system better

How to Order?

Series No.	Port Size	Type	Thread Type
YHS: Slide valve	06: 1/8" * 08: 1/4" * 10: 3/8" * 15: 1/2" * 20: 3/4" * 25: 1" *	Blank: Standard type MM: Double male thread type FF: Double female thread type MF: One male and the other female type	Blank: G P: PT T: NPT

Order Example:

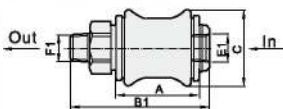
YHS slide valve, 1/4" port size, double male thread type, G thread, ERP code is: YHS-08MM

Specifications

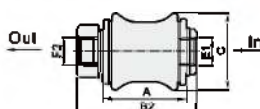
Model	YHS-06	YHS-08	YHS-10	YHS-15	YHS-20	YHS-25
Working medium	Clean air(After 40 μm filtration)					
Acting type	External control					
Lubrication	Not required					
Working pressure (MPa)	0~1.0					
Guaranteed pressure (MPa)	1.5					
Working temperature (°C)	-5~60					
Port size	1/8"	1/4"	3/8"	1/2"	3/4"	1"

Main Dimension

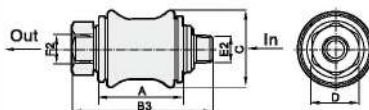
Standard type



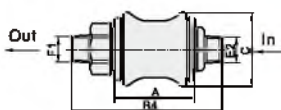
Double female thread type (FF)



One male and the other female thread type (MF)



Double male thread type (MM)



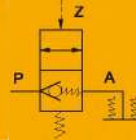
Model	A	B1	B2	B3	B4	C
YHS06	20	36	36	38	46	20
YHS08	32	58	58	58	66	26
YHS10	32	58	58	58	69	32
YHS15	40	80	80	80	94	38
YHS20	45	85	85	85	101	46
YHS25	45	85	85	85	101	52

Model	D	E1	E2	F1	F2
YHS06	14	G1/8"	G1/8"	G1/8"	G1/8"
YHS08	19	G1/4"	G1/4"	G1/4"	G1/4"
YHS10	22	G3/8"	G3/8"	G3/8"	G3/8"
YHS15	27	G1/2"	G1/2"	G1/2"	G1/2"
YHS20	34	G3/4"	G3/4"	G3/4"	G3/4"
YHS25	38	G1"	G1"	G1"	G1"

QPC Series Pilot No-return Valve

QPC

Pilot No-return Valve



Product Features

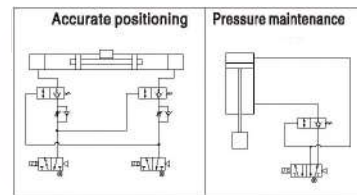
1. Can make cylinder momentary stop, accurate orientation;
2. Prevent cylinder moving after stopped;
3. Can be used for safety loop of pressure holding;
4. Can be used for special loop.

How to Order?

Series	Port Size
QPC	08: 1/4" 10: 3/8" 15: 1/2" (Note:PT thread only)

Order Example:

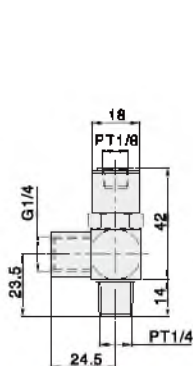
QPC series valve, 1/4" port size, ERP code is: QPC-08



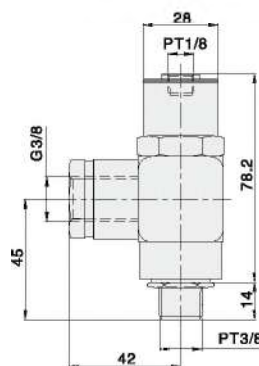
Specifications

Model	QPC-08	QPC-10	QPC-15
Working medium	Clean air(After 40 μm filtration)		
Sectional (mm)	24	78	78
Working pressure(MPa)	0.1~1.0		
Guaranteed pressure(MPa)	1.5		
Working temperature(°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"		

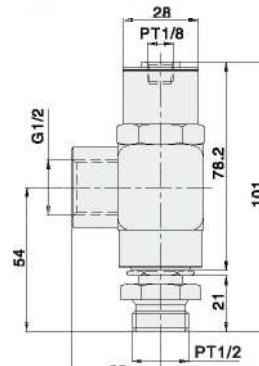
Main Dimension



QPC-08

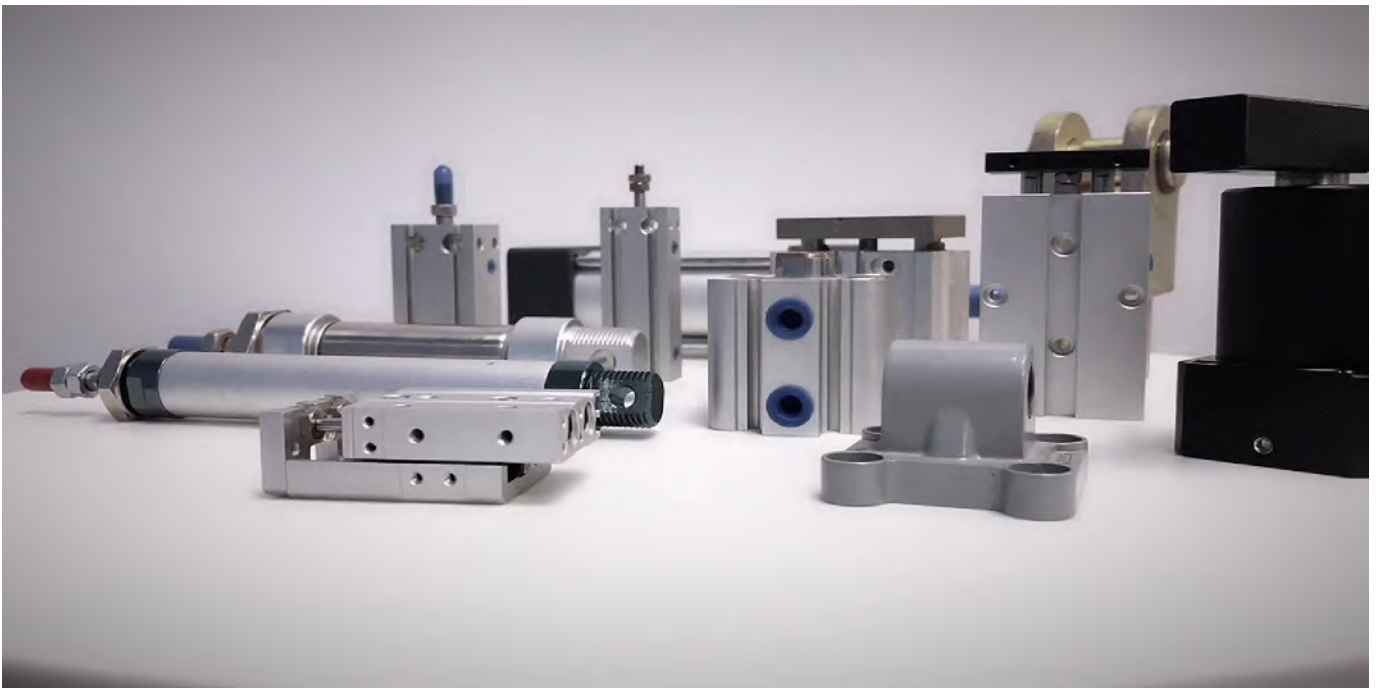


QPC-10



QPC-15

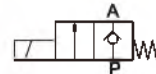
Fluid Solenoid Valve



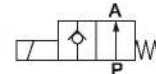
ELP Series Solenoid Valve

ELP

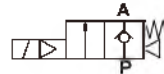
Solenoid Valve



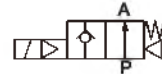
Direct Acting N.C



Direct Acting N.O



Pilot Type N.C



Pilot Type N.O

How to Order ?

Series	Port Size	Orifice	Orifice	ID Code	Voltage	Cover Color	Valve Body Material	Seal Material	Thread Type
ELP		Blank; N.C. H: N.O.	015: 1.5mm 020: 2.0mm 030: 3.0mm 040: 4.0mm 150: 15mm 200: 20mm 250: 25mm	Blank: Standard Type N: Energy Saving Type	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: Black (only for DBK waterproof type) J: Colorless and translucent (only for DB type)	Blank: Brass	Blank: NBR E: EPDM V: VITON (Only VITON is available for 1/8", 1/4" port)	Blank: G P: PT T: NPT

(Note: If orifice size same with port size, omit the orifice size.)

Order Example:

ELP series solenoid valve, 1/2 port size, N.C., 15mm orifice, AC220V, black cover color, brass valve body, NBR seal, G thread, ERP code is: ELP15E2

Product Features

- * 2/2 solenoid valve, brass valve body, compact design, saving space.
- * Three types seals are optional, including NBR, EPDM and VITON, catering to different medium requirements.
- * Direct acting solenoid valve with VITON seal, 4 pressure types are optional: standard, high pressure, ultra high pressure and large flow type.
- * Well sealed water proof connector, protection grade of IP65.
- * Reduce power consumption up to 80%.

Specifications

Model	Direct Acting N.C.								Direct Acting N.O.							
	ELP06-015-V	ELP08-015-V	ELP06-020-V	ELP08-020-V	ELP06-030-V	ELP08-030-V	ELP06-040-V	ELP08-040-V	ELP06H-015-V	ELP08H-015-V	ELP06H-020-V	ELP08H-020-V	ELP06H-030-V	ELP08H-030-V	ELP06H-040-V	ELP08H-040-V
Port Size	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"
Orifice (mm) (ø)	1.5		2		3		4		1.5		2		3		4	
Cv	0.1		0.18		0.33		0.55		0.1		0.18		0.33		0.55	
Pressure Difference (Bar)	0-30		0-20		0-13		0-8		0-30		0-16		0-8		0-5	
Acting Type	Direct Acting NC								Direct Acting NO							
Power consumption	Standard type: AC15VA DC16W Low power type: AC4VA DC3W AC110V:7.0VA								Standard type: AC12VA DC16W Low power type: AC4VA DC3W AC110V:7.0VA							
Guaranteed Pressure (Bar)	45															
Medium	Air, Water, Hot water, Oil (≤20CST)															
Working Temperature (°C)	-20-80 (No freezing)															
Voltage Range	-15-10%															
Insulations	F Class															
Protection grade	IP65(DIN4050)															
Valve Body Material	Brass															
Seal Material	VITON only															

⊕ G, PT, NPT thread type is optional.

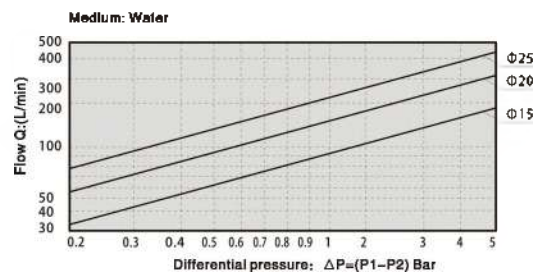
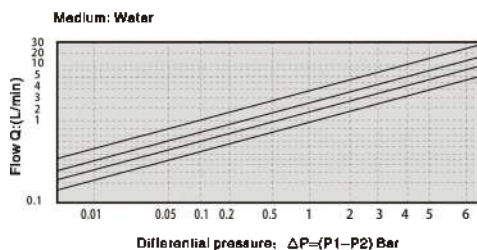
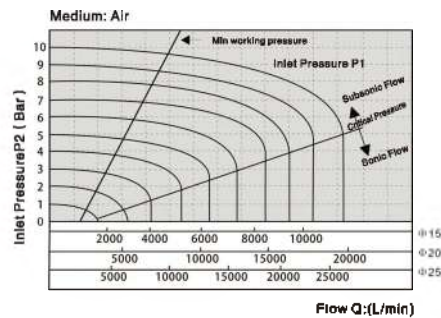
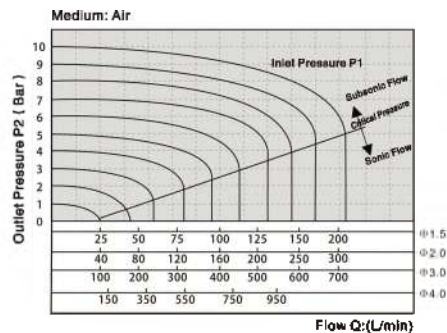
ELP Series Solenoid Valve

Specifications

Model	Pilot Type N.C.				Pilot Type N.O.			
	ELP10-150	ELP15	ELP20	ELP25	ELP10H-150	ELP15H	ELP20H	ELP25H
Port Size (ø)	3/8"	1/2"	3/4"	1"	3/8"	1/2"	3/4"	1"
Orifice (mm)	15		20	25	15		20	25
Cv	5.0	5.5	8.5	12.5	5.0	5.5	8.5	12.5
Pressure Difference (Bar)	0.5-16				0.5-13			
Acting Type	Diaphragm pilot type N.C.				Diaphragm pilot type N.O.			
Power consumption	Standard type: AC:15VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA				Standard type: AC:12VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA			
Guaranteed Pressure (Bar)	25				20			
Medium	Air, Water, Hot water, Oil (≤20°CST)							
Working Temperature (°C)	-20 - 60 (No freezing)							
Voltage Flange	-15 - 10%							
Insulations	F Class							
Protection grade	IP65(DIN40050)							
Valve Body Material	Brass							
Seal Material	NBR, EPDM, VITON							

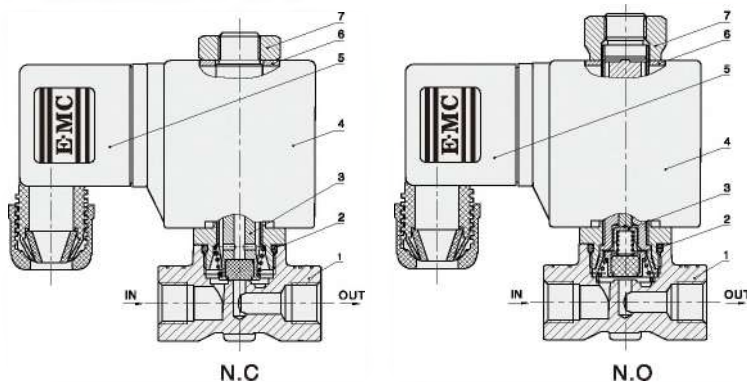
⌀ G, PT, NPT thread type is optional.

Flow Chart



Internal Structure

ELP06/08 Direct Acting Type:

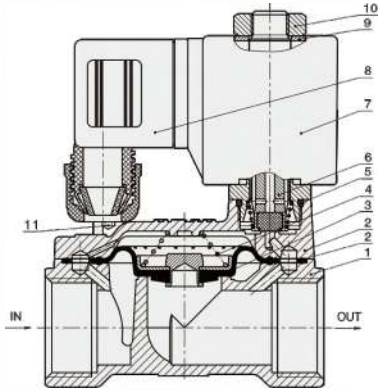


No.	Part Name
1	Valve Body
2	O-ring
3	Iron Core Components
4	Coil
5	Water Proof Connector
6	Internal Teeth Washer
7	Hexagon nut

ELP Series Solenoid Valve

Internal Structure

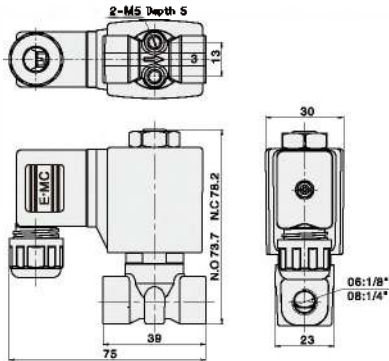
Pilot Type



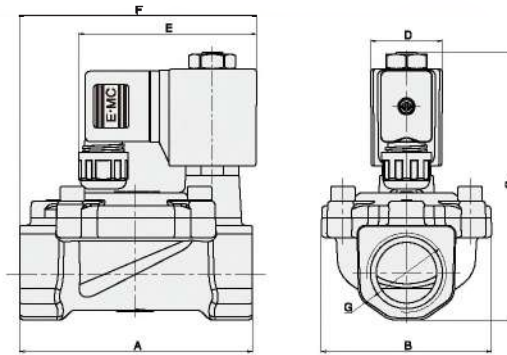
No.	Part Name
1	Valve Body
2	Spacer
3	Diaphragm Components
4	Spring
5	O-ring
6	Iron Core Components
7	Coil
8	Water Proof Connector
9	Gasket
10	Internal Teeth Washer
11	Screw

Mounting Dimension

ELP06/08 Direct Acting Type



Pilot Type



Model	A	B	C		D	E	F	G(Port)
			N.C	N.O				
ELP10	66	47	95	99.2	30	74	74	3/8"
ELP15	66	47	95	99.2	30	74	74	1/2"
ELP20	75	56	102	106.2	30	74	79	3/4"
ELP25	96	71	111	115.2	30	74	98	1"

ZS Series 2/2 Solenoid Valve(Normal Close)

ZS

2/2 Solenoid Valve (N.C.)



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
ZS: Thread connection ZSF: 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 $\Phi 25\text{mm}$ 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 100: 10mm	160: 16mm	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)

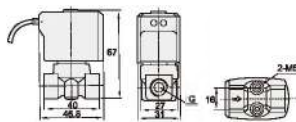
Order Example:

ZS series solenoid valve, 1/2" port size, NC, 16mm orifice, standard type, AC110V, Brass valve body, NBR seal, G thread, ERP code is: ZS15-160E1

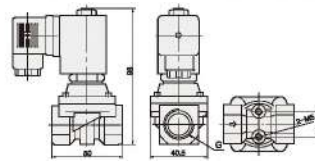
Note: 2.5mm small orifice valve only with flying leads coil, other orifice with DIN connector coil.

Main Dimension

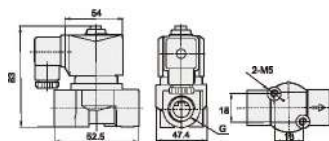
$\Phi 2.5\text{mm}$ 1/8" 1/4"



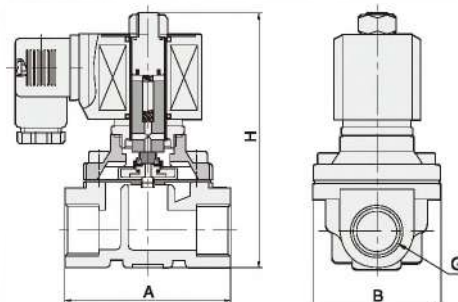
10mm, 1/4", 3/8", 1/2"



$\Phi 4\text{mm}$ 3/8"



Large diameter



ZS-H Series 2/2 Solenoid Valve(Normal Open)

ZS-H

2/2 Solenoid Valve (N.O.)



ZS-10H

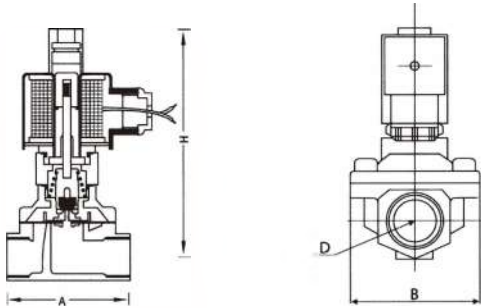


ZS-15HS2

Product Features

- * 2/2 ways Solenoid valve, Normally open. Copper and stainless steel 304 valve selection
- * Multiple seals are available for different medium
- * Wide size range from 3/8" to 2", with both thread and flange connection
- * Diaphragm pilot solenoid valve, with lower working pressure
- * To reduce the power consumption of 80% energy-saving

Main Dimension



Specifications

Port size	Orifice (mm)	CV value	Pressure difference (Bar)								The maximum temperature of fluid (°C)	ZSH			Order code		Main dimension Length x Width x Height A x B x H (mm)
			Min. pressure		Air, Gas		Water, Hot water, Liquid		Light oil #20CST			VA AC220	W DC24V	W DC24V	Brass	Stainless steel 304	
			AC	DC	AC	DC	AC	DC	AC	DC							
3/8"	4.0	0.6	0	5	3	5	3	3	3	80	33	20	4	ZS10H-040E2	ZS10H-040E2E	52.5 x 32.5 x 115	
	4.0	0.6	0	5	3	5	3	3	3	120	33	20	4	ZS10H-040E2E	ZS10H-040E2SE	52.5 x 32.5 x 115	
	4.0	0.6	0	5	3	5	3	3	3	120	33	20	4	ZS10H-040E2V	ZS10H-040E2SEV	52.5 x 32.5 x 115	
	16	4.8	0	6	3	3	5	3	3	80	33	20	4	ZS10H-160E2	ZS10H-160E2E	69 x 67 x 135	
	16	4.8	0	6	3	3	5	3	3	120	33	20	4	ZS10H-160E2E	ZS10H-160E2SE	69 x 67 x 135	
	16	4.8	0	6	3	3	5	3	3	120	33	20	4	ZS10H-160E2V	ZS10H-160E2SEV	69 x 67 x 135	
1/2"	16	4.8	0	5	3	5	3	3	3	80	33	20	4	ZS15H-160E2	ZS15H-160E2E	69 x 67 x 135	
	16	4.8	0	5	3	5	3	3	3	120	33	20	4	ZS15H-160E2E	ZS15H-160E2SE	69 x 67 x 135	
	16	4.8	0	5	3	5	3	3	3	120	33	20	4	ZS15H-160E2V	ZS15H-160E2SEV	69 x 67 x 135	
	20	7.6	0	5	3	5	3	3	3	80	33	20	4	ZS20HE2	ZS20HE2E	73 x 57 x 142	
	20	7.6	0	5	3	5	3	3	3	120	33	20	4	ZS20HE2E	ZS20HE2SE	73 x 57 x 142	
	20	7.6	0	5	3	5	3	3	3	120	33	20	4	ZS20HE2V	ZS20HE2SEV	73 x 57 x 142	
3/4"	25	12	0	5	3	5	3	3	3	80	33	20	4	ZS25HE2	ZS25HE2E	96 x 77.5 x 150	
	25	12	0	5	3	5	3	3	3	120	33	20	4	ZS25HE2E	ZS25HE2SE	96 x 77.5 x 150	
	25	12	0	5	3	5	3	3	3	120	33	20	4	ZS25HE2V	ZS25HE2SEV	96 x 77.5 x 150	
	32	24	0	5	3	5	3	3	3	80	70	55	-	ZS32HE2	ZS32HE2E	112 x 86.5 x 160	
	32	24	0	5	3	5	3	3	3	120	70	55	-	ZS32HE2E	ZS32HE2SE	112 x 86.5 x 160	
	32	24	0	5	3	5	3	3	3	120	70	55	-	ZS32HE2V	ZS32HE2SEV	112 x 86.5 x 160	
1-1/2"	40	26	0	5	3	5	3	3	3	80	70	55	-	ZS40HE2	ZS40HE2E	123 x 94 x 190	
	40	26	0	5	3	5	3	3	3	120	70	55	-	ZS40HE2E	ZS40HE2SE	123 x 94 x 190	
	40	26	0	5	3	5	3	3	3	120	70	55	-	ZS40HE2V	ZS40HE2SEV	123 x 94 x 190	
	50	46	0	5	3	5	3	3	3	80	70	55	-	ZS50HE2	ZS50HE2E	168 x 123 x 216	
	50	46	0	5	3	5	3	3	3	120	70	55	-	ZS50HE2E	ZS50HE2SE	168 x 123 x 216	
	50	46	0	5	3	5	3	3	3	120	70	55	-	ZS50HE2V	ZS50HE2SEV	168 x 123 x 216	
2"	25	12	0	5	3	5	3	3	3	80	57	32	6	-	ZSF25HE2S2	140 x 115 x 180	
	25	12	0	5	3	5	3	3	3	120	57	32	6	-	ZSF25HE2S2E	140 x 115 x 180	
	25	12	0	5	3	5	3	3	3	120	57	32	6	-	ZSF25HE2S2V	140 x 115 x 180	
	32	24	0	5	3	5	3	3	3	80	70	55	-	ZSF32HE2S2	152 x 135 x 235		
	32	24	0	5	3	5	3	3	3	120	70	55	-	ZSF32HE2S2E	152 x 135 x 235		
	32	24	0	5	3	5	3	3	3	120	70	55	-	ZSF32HE2S2V	152 x 135 x 235		
	40	26	0	5	3	5	3	3	3	80	70	55	-	ZSF40HE2S2	152 x 145 x 240		
	40	26	0	5	3	5	3	3	3	120	70	55	-	ZSF40HE2S2E	152 x 145 x 240		
	40	26	0	5	3	5	3	3	3	120	70	55	-	ZSF40HE2S2V	152 x 145 x 240		
	50	46	0	5	3	5	3	3	3	80	70	55	-	ZSF50HE2S2	195 x 160 x 265		
	50	46	0	5	3	5	3	3	3	120	70	55	-	ZSF50HE2S2E	195 x 160 x 265		
	50	46	0	5	3	5	3	3	3	120	70	55	-	ZSF50HE2S2V	195 x 160 x 265		

SLP Series 2/2 Solenoid Valve(Normal Close)

SLP

2/2 Solenoid Valve (N.C.)



SLP



SLP-S1



SLPF-S1

Product Features

- * Normal close, available body: brass, SS316
- * Multiple seals are available for different medium
- * Wide size range from 1/8" to 2" , with both thread and flange connection
- * Diaphragm pilot solenoid valve, with lower working pressure
- * To reduce the power consumption of 80% energy-saving

How to Order?

Series No.	Port Size	Original Status— Orifice	ID Code	Voltage	Valve Body Material	Seal Material	Thread Type
SLP: Thread connection SLPF: Flange connection		Blank: NC H: NO	Blank: Standard type N: Low power type		Blank: Brass S1: SS316	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT
08: 1/8"		010: 1mm	050: 3mm	E1: AC110V	E6: AC36V		
08: 1/4"		015: 1.5mm	105: 10.5mm	E2: AC220V	E7: AC24V		
		025: 2.5mm	130: 13mm	E3: AC380V	E8: DC110V		
10: 3/8"		015: 1.5mm	040: 4mm	E4: DC24V	E9: DC48V		
15: 1/2"		030: 3mm	130: 13mm	E5: DC12V	E10: DC36V		
20: 3/4"		105: 10.5mm	130: 13mm				
25: 1"		200: 20mm					
32: 1-1/4"		250: 25mm					
40: 1-1/2"		350: 35mm					
50: 2"		400: 40mm					
		500: 50mm					
Flange connection		250: 25mm	650: 65mm				
		350: 35mm	800: 80mm				
		400: 40mm	1000: 100mm				
		500: 50mm					

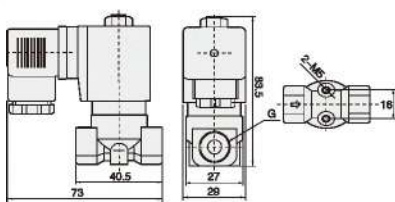
(Note: cancel if same with port size)

Order Example:

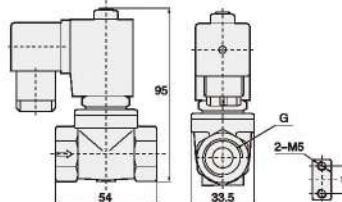
SLP series solenoid valve, 1/2 port size, NC, 13mm orifice, standard type, AC110V.
Brass valve body, NBR seal, G thread, ERP code is: SLP15-130E1

Main Dimension

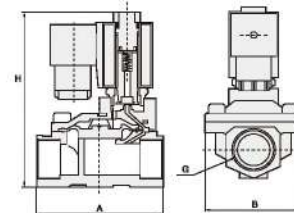
Φ3mm, Φ4mm, 1/8", 1/4", 3/8"



Φ10.5mm, 1/4", 3/8", 1/2"



Large diameter



SLP Series 2/2 Solenoid Valve (Normal Close)

Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference (Bar)				Max. temperature (°C)	Power		Order code 220VAC 50/60Hz		Main dimension Length x Width x Height AxBxH (mm)
			Min. pressure	Max. working pressure				VA 220	DC 24V	Brass	Stainless steel	
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST						
1/8"	3	0.23	0	13	13	10	80	22	13	SLP08-030E2	SLP08-030E2S1	
	3	0.23	0	13	13	-	130	22	13	SLP08-030E2E	SLP08-030E2S1E	
	3	0.23	0	13	13	10	120	22	13	SLP08-030E2V	SLP08-030E2S1V	
1/4"	3	0.23	0	13	13	10	80	22	13	SLP08-030E2	SLP08-030E2S1	
	3	0.23	0	13	13	-	130	22	13	SLP08-030E2E	SLP08-030E2S1E	
	3	0.23	0	13	13	10	120	22	13	SLP08-030E2V	SLP08-030E2S1V	
	10.5	1.47	0	10	10	10	80	22	13	SLP08-105E2	---	
	10.5	1.47	0	10	10	-	130	22	13	SLP08-105E2E	---	
	10.5	1.47	0	10	10	10	120	22	13	SLP08-105E2V	---	
3/8"	3	0.3	0	13	13	10	80	22	13	SLP10-030E2	SLP10-030E2S1	
	3	0.3	0	13	13	10	130	22	13	SLP10-030E2E	SLP10-030E2S1E	
	3	0.3	0	13	13	10	120	22	13	SLP10-030E2V	SLP10-030E2S1V	
	4	0.6	0	8	8	8	80	22	13	SLP10-040E2	SLP10-040E2S1	
	4	0.6	0	8	8	8	130	22	13	SLP10-040E2E	SLP10-040E2S1E	
	4	0.6	0	8	8	8	120	22	13	SLP10-040E2V	SLP10-040E2S1V	
	10.5	1.68	0	10	10	10	80	22	13	SLP10-105E2	---	
	10.5	1.68	0	10	10	-	130	22	13	SLP10-105E2E	---	
	10.5	1.68	0	10	10	10	120	22	13	SLP10-105E2V	---	
	13	4.5	0.5	16	16	13	80	22	13	SLP10-130E2	SLP10-130E2S1	66 x 48 x 112
	13	4.5	0.5	16	16	13	130	22	13	SLP10-130E2E	SLP10-130E2S1E	66 x 48 x 112
	13	4.5	0.5	16	16	13	120	22	13	SLP10-130E2V	SLP10-130E2S1V	66 x 48 x 112
	1/2"	10.5	1.75	0	10	10	10	80	22	13	SLP15-105E2	---
10.5		1.75	0	10	10	-	130	22	13	SLP15-105E2E	---	
10.5		1.75	0	10	10	10	120	22	13	SLP15-105E2V	---	
13		4.5	0.5	16	16	13	80	22	13	SLP15-130E2	SLP15-130E2S1	66 x 48 x 112
13		4.5	0.5	16	16	13	130	22	13	SLP15-130E2E	SLP15-130E2S1E	66 x 48 x 112
13		4.5	0.5	16	16	13	120	22	13	SLP15-130E2V	SLP15-130E2S1V	66 x 48 x 112
3/4"	20	7.6	0.5	16	16	13	80	22	13	SLP20E2	SLP20E2S1	75 x 58 x 116
	20	7.6	0.5	16	16	13	130	22	13	SLP20E2E	SLP20E2S1E	75 x 58 x 116
	20	7.6	0.5	16	16	13	120	22	13	SLP20E2V	SLP20E2S1V	75 x 58 x 116
1"	25	12	0.5	16	16	13	80	22	13	SLP25E2	SLP25E2S1	96 x 70 x 131
	25	12	0.5	16	16	13	130	22	13	SLP25E2E	SLP25E2S1E	96 x 70 x 131
	25	12	0.5	16	16	13	120	22	13	SLP25E2V	SLP25E2S1V	96 x 70 x 131
1-1/4"	35	22	0.5	16	16	13	80	22	13	SLP32-350E2	---	131 x 96 x 146
	35	22	0.5	16	16	13	130	22	13	SLP32-350E2E	---	131 x 96 x 146
	35	22	0.5	16	16	13	120	22	13	SLP32-350E2V	---	131 x 96 x 146
1-1/2"	40	30	0.5	16	16	13	80	22	13	SLP40E2	SLP40E2S1	131 x 96 x 146
	40	30	0.5	16	16	13	130	22	13	SLP40E2E	SLP40E2S1E	131 x 96 x 146
	40	30	0.5	16	16	13	120	22	13	SLP40E2V	SLP40E2S1V	131 x 96 x 146
2"	50	48	0.5	16	16	13	80	22	13	SLP50E2	SLP50E2S1	165 x 120 x 167
	50	48	0.5	16	16	13	130	22	13	SLP50E2E	SLP50E2S1E	165 x 120 x 167
	50	48	0.5	16	16	13	120	22	13	SLP50E2V	SLP50E2S1V	165 x 120 x 167
Flange connection	25	12	0.5	16	16	13	80	22	13	---	---	134 x 110 x 160
	25	12	0.5	16	16	13	130	22	13	---	---	134 x 110 x 160
	25	12	0.5	16	16	13	120	22	13	---	---	134 x 110 x 160
Flange connection	35	22	0.5	16	16	13	80	22	13	---	---	160 x 136 x 175
	35	22	0.5	16	16	13	130	22	13	---	---	160 x 136 x 175
	35	22	0.5	16	16	13	120	22	13	---	---	160 x 136 x 175
Flange connection	40	30	0.5	16	16	13	80	22	13	---	---	160 x 145 x 180
	40	30	0.5	16	16	13	130	22	13	---	---	160 x 145 x 180
	40	30	0.5	16	16	13	120	22	13	---	---	160 x 145 x 180
Flange connection	50	48	0.5	16	16	13	80	22	13	---	---	200 x 160 x 207
	50	48	0.5	16	16	13	130	22	13	---	---	200 x 160 x 207
	50	48	0.5	16	16	13	120	22	13	---	---	200 x 160 x 207
Flange connection	65	52	0.5	12	12	8	80	33	20	---	---	250 x 185 x 250
	65	52	0.5	12	12	8	120	33	20	---	---	250 x 185 x 250
	65	52	0.5	12	12	8	120	33	20	---	---	250 x 185 x 250
Flange connection	80	80	0.5	12	12	8	80	33	20	---	---	270 x 202 x 262
	80	80	0.5	12	12	8	120	33	20	---	---	270 x 202 x 262
	80	80	0.5	12	12	8	120	33	20	---	---	270 x 202 x 262
Flange connection	100	128	0.5	12	12	8	80	33	20	---	---	342 x 222 x 287
	100	128	0.5	12	12	8	120	33	20	---	---	342 x 222 x 287
	100	128	0.5	12	12	8	120	33	20	---	---	342 x 222 x 287

SLP-H Series 2/2 Solenoid Valve(Normal Open)

SLP-H

2/2 Solenoid Valve (N.O.)

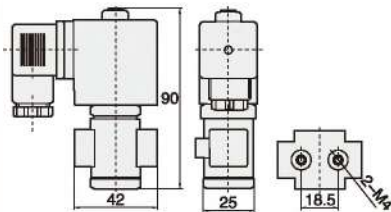


Product Features

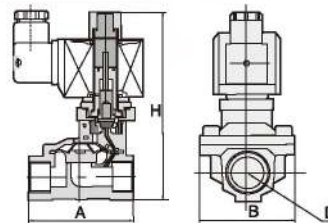
- * Normal open, available body: brass, SS316
- * Multiple seals are available for different medium
- * Wide size range from 1/8" to 2" , with both thread and flange connection
- * Diaphragm pilot solenoid valve, with lower working pressure
- * To reduce the power consumption of 80% energy-saving

Main Dimension

Φ1-Φ3mm 1/8" 1/4"



Large diameter



Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference (Bar)				Max. temperature (°C)	Power		Model		Main dimension Length x Width x Height AxBxH(mm)
			Min. pressure	Max. working pressure				VA	W	220VAC 50/60Hz		
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST				Brass	Stainless steel	
1/8"	1	0.04	0	30	30	25	80	22	13	SLP06H-010E2	SLP06H-010E2S1	
	1	0.04	0	30	30	-	130	22	13	SLP06H-010E2E	SLP06H-010E2S1E	
	1	0.04	0	30	30	25	120	22	13	SLP06H-010E2V	SLP06H-010E2S1V	
	1.5	0.09	0	20	20	15	80	22	13	SLP06H-015E2	SLP06H-015E2S1	
	1.5	0.09	0	20	20	-	130	22	13	SLP06H-015E2E	SLP06H-015E2S1E	
	1.5	0.09	0	20	20	15	120	22	13	SLP06H-015E2V	SLP06H-015E2S1V	
	2.5	0.2	0	15	15	12	80	22	13	SLP06H-025E2	SLP06H-025E2S1	
	2.5	0.2	0	15	15	-	130	22	13	SLP06H-025E2E	SLP06H-025E2S1E	
	2.5	0.2	0	15	15	12	120	22	13	SLP06H-025E2V	SLP06H-025E2S1V	
1/4"	3	0.25	0	12	12	10	80	22	13	SLP06H-030E2	SLP06H-030E2S1	
	3	0.25	0	12	12	-	130	22	13	SLP06H-030E2E	SLP06H-030E2S1E	
	3	0.25	0	12	12	10	120	22	13	SLP06H-030E2V	SLP06H-030E2S1V	
	1	0.04	0	30	30	25	80	22	13	SLP06H-010E2	SLP06H-010E2S1	
	1	0.04	0	30	30	-	130	22	13	SLP06H-010E2E	SLP06H-010E2S1E	
	1	0.04	0	30	30	25	120	22	13	SLP06H-010E2V	SLP06H-010E2S1V	
	1.5	0.09	0	20	20	15	80	22	13	SLP06H-015E2	SLP06H-015E2S1	
	1.5	0.09	0	20	20	-	130	22	13	SLP06H-015E2E	SLP06H-015E2S1E	
	1.5	0.09	0	20	20	15	120	22	13	SLP06H-015E2V	SLP06H-015E2S1V	
1/4"	2.5	0.2	0	15	15	12	80	22	13	SLP06H-025E2	SLP06H-025E2S1	
	2.5	0.2	0	15	15	-	130	22	13	SLP06H-025E2E	SLP06H-025E2S1E	
	2.5	0.2	0	15	15	12	120	22	13	SLP06H-025E2V	SLP06H-025E2S1V	
	3	0.25	0	12	12	10	80	22	13	SLP06H-030E2	SLP06H-030E2S1	
	3	0.25	0	12	12	-	130	22	13	SLP06H-030E2E	SLP06H-030E2S1E	
	3	0.25	0	12	12	10	120	22	13	SLP06H-030E2V	SLP06H-030E2S1V	

SLP-H Series 2/2 Solenoid Valve(Normal Open)

Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference (Bar)				Max. temperature (°C)	Power		Order code		Main dimension Length x Width x Height Ax B x H (mm)
			Max. working pressure			AC 220		DC 24V	220VAC	50/60Hz		
			Mn. pressure	Air, Gas	Water, Hot water, Liquid						Light oil ≤ 20CST	
3/8"	13	4.5	0.5	13	13	8	80	22	13	SLP10H-130E2	SLP10H-130E2S1	66 x 48 x 124
	13	4.5	0.5	13	13		120	22	13	SLP10H-130E2E	SLP10H-130E2S1E	66 x 48 x 124
	13	4.5	0.5	13	13	8	120	22	13	SLP10H-130E2V	SLP10H-130E2S1V	66 x 48 x 124
1/2"	13	4.5	0.5	13	13	8	80	22	13	SLP15H-130E2	SLP15H-130E2S1	66 x 48 x 124
	13	4.5	0.5	13	13		120	22	13	SLP15H-130E2E	SLP15H-130E2S1E	66 x 48 x 124
	13	4.5	0.5	13	13	8	120	22	13	SLP15H-130E2V	SLP15H-130E2S1V	66 x 48 x 124
3/4"	20	7.6	0.5	13	13	8	80	22	13	SLP20HE2	SLP20HE2S1	75 x 58 x 130
	20	7.6	0.5	13	13		120	22	13	SLP20HE2E	SLP20HE2S1E	75 x 58 x 130
	20	7.6	0.5	13	13	8	120	22	13	SLP20HE2V	SLP20HE2S1V	75 x 58 x 130
1"	25	12	0.5	13	13	8	80	22	13	SLP25HE2	SLP25HE2S1	96 x 70 x 143
	25	12	0.5	13	13		120	22	13	SLP25HE2E	SLP25HE2S1E	96 x 70 x 143
	25	12	0.5	13	13	8	120	22	13	SLP25HE2V	SLP25HE2S1V	96 x 70 x 143
1-1/4"	35	22	0.5	8	8	8	80	22	13	SLP32H-350E2	SLP32H-350E2S1	131 x 96 x 158
	35	22	0.5	8	8		120	22	13	SLP32H-350E2E	SLP32H-350E2S1E	131 x 96 x 158
	35	22	0.5	8	8	8	120	22	13	SLP32H-350E2V	SLP32H-350E2S1V	131 x 96 x 158
1-1/2"	40	30	0.5	8	8	8	80	22	13	SLP40HE2	SLP40HE2S1	131 x 96 x 158
	40	30	0.5	8	8		120	22	13	SLP40HE2E	SLP40HE2S1E	131 x 96 x 158
	40	30	0.5	8	8	8	120	22	13	SLP40HE2V	SLP40HE2S1V	131 x 96 x 158
2"	50	48	0.5	8	8	8	80	22	13	SLP50HE2	SLP50HE2S1	165 x 120 x 179
	50	48	0.5	8	8		120	22	13	SLP50HE2E	SLP50HE2S1E	165 x 120 x 179
	50	48	0.5	8	8	8	120	22	13	SLP50HE2V	SLP50HE2S1V	165 x 120 x 179
Flange connection	25	12	0.5	8	8	8	80	22	13	---	SLPF25HE2S1	134 x 110 x 172
	25	12	0.5	8	8		120	22	13	---	SLPF25HE2S1E	134 x 110 x 172
	25	12	0.5	8	8	8	120	22	13	---	SLPF25HE2S1V	134 x 110 x 172
Flange connection	35	22	0.5	8	8	8	80	22	13	---	SLPF32-350HE2S1	160 x 135 x 187
	35	22	0.5	8	8		120	22	13	---	SLPF32-350HE2S1E	160 x 135 x 187
	35	22	0.5	8	8	8	120	22	13	---	SLPF32-350HE2S1V	160 x 135 x 187
Flange connection	40	30	0.5	8	8	8	80	22	13	---	SLPF40HE2S1	160 x 145 x 192
	40	30	0.5	8	8		120	22	13	---	SLPF40HE2S1E	160 x 145 x 192
	40	30	0.5	8	8	8	120	22	13	---	SLPF40HE2S1V	160 x 145 x 192
Flange connection	50	48	0.5	8	8	8	80	22	13	---	SLPF50HE2S1	200 x 160 x 219
	50	48	0.5	8	8		120	22	13	---	SLPF50HE2S1E	200 x 160 x 219
	50	48	0.5	8	8	8	120	22	13	---	SLPF50HE2S1V	200 x 160 x 219

2V Series 2/2 Solenoid Valve(Normal Close)

2V

2/2 Solenoid Valve (N.C.)



Product Features

- Normal close, brass body
- Multiple seals are available for different medium
- Sizes range from 1/8" to 1"
- Direct acting/diaphragm pilot solenoid valve, with lower working pressure
- To reduce the power consumption of 80% energy-saving

How to Order?

Series No.	Orifice	Port Size	ID Code	Voltage	Seal Material	Thread Type
2V	025: 2.5mm 130: 13mm 250: 25mm	06: 1/8" 06: 1/4" 10: 3/8" 15: 1/2" 20: 3/4" 25: 1"	Blank: Standard type N: Low power type	E1: AC110V E5: DC12V E2: AC220V E6: AC36V E3: AC380V E7: AC24V E4: DC24V	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT

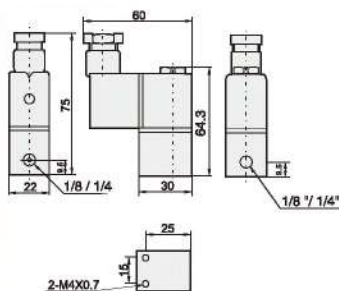
Order Example:

2V series solenoid valve, 13mm orifice, 1/2 port size, standard type, DC24V, EPDM seal, G thread, ERP code is: 2V130-15E4E

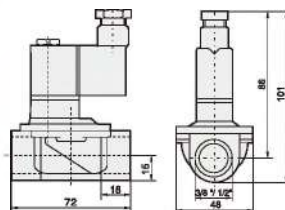
Note: Connection type is DIN connector.

Main Dimension

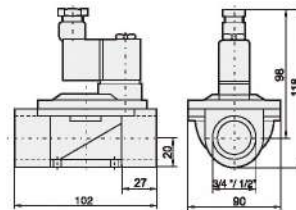
2V025



2V130



2V250



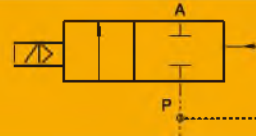
Specifications

Model	2V025-06	2V025-08	2V130-10	2V130-15	2V250-20	2V250-25
Working medium	Air, Water, Steam					
Acting type	Direct acting type, N.C.		Pilot type, N.C.			
Orifice(mm)	2.5		13		25	
Cv value	0.23		6		23	
Port size	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Fluid viscosity	20 CST以下					
Working pressure(Bar)	Air, Water, Oil : 0.8		Air, Water, Oil : 0.5~7			
Guaranteed pressure (Bar)	12		11			
Working temperature (°C)	-5 - 80					
Voltage range	-15 - 10%					
Protect class	IP65					
Power consumption	AC:7VA DC:6.5W					
Insulation	Class F					
Valve body material	Brass					
Seal material	NBR or VITON		NBR			
Shortest activate time	0.05s / second					

SLG Series 2/2 Solenoid Valve(Normal Open)

SLG

2/2 Solenoid Valve (N.O.)



SLG5404-15F



SLG5404-15

High Pressure
高压

Product Features

- * Normal close, brass body
- * High pressure, PTFE seal
- * Piston pilot solenoid valve with high working pressure and temperature
- * To reduce the power consumption of 80% energy-saving

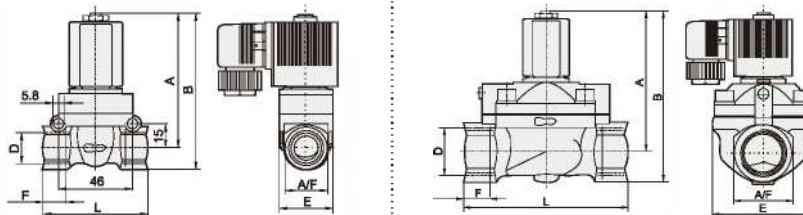
How to Order?

Series No.	Port Size	ID Code	Connection Mode	Coil Form	Thread Type	
SLG5404	15: 1/2" 20: 3/4" 25: 1"	Blank: Standard type N: Low power type	E1: AC110V E2: AC220V E3: AC380V E4: DC24V	E5: DC12V E6: AC36V E7: AC24V	Blank: DIN connector F: Flying leads	Blank: G P: PT T: NPT

Order Example:

SLG5404 Series solenoid valve, 1/2" port size, AC220V, DIN connector, G thread, ERP code is: SLG5404-15E2

Main Dimension



Model	Port size (G)	Orifice (mm)	A	B	F	E	L	A/F
SLG5404-15	12	1/2"	83	95.5	14	32	65	27
SLG5404-20	20	3/4"	99.5	119	16	60	92	40
SLG5404-25	25	1"	99.5	119	16	60	92	40

Specifications

Model	SLG5404-15E2	SLG5404-20E2	SLG5404-25E2
Working medium	Air, Water, Oil		
Acting type	Pilot type		
Orifice (mm)	12	20	25
Cv value	2	5	10
Port size	1/2"	3/4"	1"
Working pressure (Bar)	Air :1-50, Liquid:1-50	Air :1-40, Liquid:1-25	Air :1-40, Liquid:1-25
Guaranteed pressure(Bar)	75	60	
Voltage range	-15 - 10%		
Working temperature (°C)	-5 - 150		
Power consumption	AC:5.5VA, DC:9W		
Body material	Brass		
Seal material	PTFE		

Voltage: AC220V

HUS Series 2/2 Solenoid Valve(Normal Close)

HUS

2/2 Solenoid Valve (N.C.)



How to Order?

Series No.	Port Size	Voltage	Orifice	Body Material
HUS	10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 35: 1-1/4" 40: 1-1/2" 50: 2" F: Flange connections	E1: AC110V E2: AC220V E4: DC24V	15L=15.0mm 20L=20.0mm 25L=25.0mm 35L=35.0mm 40L=40.0mm 50L=50.0mm	S2: SS304 Stainless steel body

Order Example:

HUS series solenoid valve, 2/2, AC110V, 3/8 port size, orifice 15mm, Stainless steel body, ERP code is HUS10E1-15LS2

Specifications

Model	Port size	Orifice (mm)	CV	The pressure difference			Max. fluid temperature (°C)
				Min. pressure	Max. working pressure		
					Heat conduction oil	Steam	
HUS10E2-15LS2	3/8"	15	4.5	0.5	16	16	250
HUS16E2-16LS2	1/2"	15	4.5	0.5	16	16	250
HUS20E2-20LS2	3/4"	20	8	0.5	16	16	250
HUS25E2-25LS2	1"	25	12	0.5	16	16	250
HUS35E2-35LS2	1-1/4"	35	22	0.5	16	16	250
HUS40E2-35LS2	1-1/2"	35	22	0.5	16	16	250
HUS50E2-50LS2	2"	50	45	0.5	16	16	250
HUSFE2-25LS2	Flange	25	12	0.5	16	16	250
HUSFE2-32LS2	Flange	32	22	0.5	16	16	250
HUSFE2-40LS2	Flange	40	22	0.5	16	16	250
HUSFE2-50LS2	Flange	50	45	0.5	16	16	250

UW Series 2/2 Solenoid Valve(Normal Close)

UW

2/2 Solenoid Valve (N.C.)



How to Order?

Series No.	Port Size	Voltage	Connection Type	Cover Color	Seal Material	Thread Type
UW	10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 35: 1-1/4" 40: 1-1/2" 50: 2"	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: DIN connector	Blank: Black	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT

Order Example:

UW series solenoid valve, Brass valve body, 1/2 port size, Normal close, AC220V, DIN connection, Black cover, G thread, ERP code is: UW15E2

Specifications

Model	UW10	UW15	UW20	UW25	UW35	UW40	UW50
Orifice (mm)	16	16	20	25	35	40	50
CV	4.8	4.8	7.6	12	24	29	48
Pressure range (MPa)	0~0.8			0~0.7			
Acting type	Step pilot						
Working medium	Air, water, light oil						
Working temperature (°C)	-5~80°C (No freezing)						
Power	AC:33VA DC: 20W			AC:70VA DC: 40W			

2

UW

US Series 2/2 Solenoid Valve(Normal Close)

US

2/2 Solenoid Valve (N.C.)



How to Order?

Series No.	Port size	Voltage	Connection Mode	Seal material	Thread type
US Series	10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 35: 1-1/4" 40: 1-1/2" 50: 2"	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V	Blank: DIN Connector F: Flying leads	Blank: PTFE	Blank: G P: PT T: NPT

Order Example:

US series, 2 position, 2 port, PTFE, 3/8" port size, AC220V, ERP code is: US10E2

Specifications

Model	US10E2	US15E2	US20E2	US25E2	US35E2	US40E2	US50E2
Working Medium	Air, Water, Steam						
Acting Type	Pilot Type						
Type	Normal Close Type						
Orifice(mm)	17		22		30		50
Cv Value	5		12		20		48
Port Size	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Fluid Viscosity	Below 20 CST						
Working Pressure(Bar)	1-15						
Max. Pressure Resistance(Bar)	23						
Working Temperature(°C)	-5-180						
Voltage Range	+10%						
Valve Body Material	Brass						
Seal Material	PTFE						

EMCJ Series Full Stainless Steel Series Angle Valve

EMCJ

Full Stainless Steel Series Angle Valve



Product Features

- * Normal close/Normal open full stainless steel angle valve, available body: SS304, SS316
- * Multiple seals are available for different medium
- * Wide size range from 3/8" to 2"

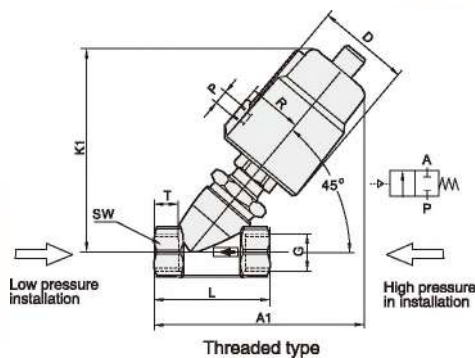
How to Order?

Series No.	Port Size	Actuator Size	Acting Type	Valve Body Material	ThreadType
EMCJ: Stainless Steel Series Angle Valve	10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 32: 1-1/4" 40: 1-1/2" 50: 2"	40: Φ 40mm 50: Φ 50mm 63: Φ 63mm 80: Φ 80mm 100: Φ 100mm	Blank: NC Single Acting H: NO Single Acting D: Double acting	S1: SS316 S2: SS304	Blank: G P: PT T: NPT

Order Example:

EMCJ series full stainless steel angle seat valve, 3/8 port size, 40mm actuator size, NC single acting, SS316 valve body, G thread, ERP code is: EMCJ-10-40S1

Main Dimension



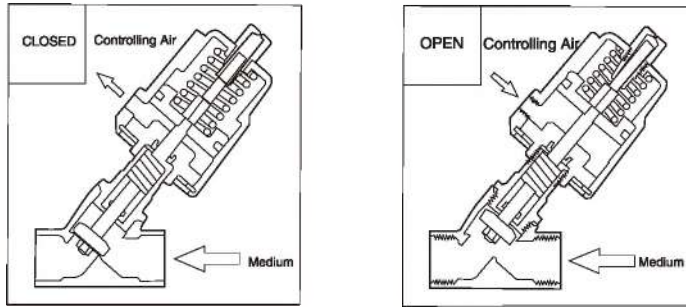
Size	Actuator (mm)	D (mm)	R (mm)	P	Thread					
					G	K1 (mm)	A1 (mm)	L (mm)	T (mm)	SW (mm)
DN10	40	50.5	27	1/8"	3/8"	115	120	68	12	22
	50	62	34	1/8"	3/8"	126	133	68	12	22
DN15	40	50.5	27	1/8"	1/2"	115	120	68	15	25
	50	62	34	1/8"	1/2"	126	133	68	15	25
DN20	50	62	34	1/8"	3/4"	131	137	75	16	31
	50	62	34	1/8"	1"	140	149	100	17	39
DN25	63	77	41.5	1/8"	1"	165	174	100	17	39
	63	77	41.5	1/8"	1-1/4"	175	188	116	21	50
DN32	80	98	52	1/4"	1-1/4"	185	203	116	21	50
	100	121	63	1/4"	1-1/4"	205	215	116	21	50
	63	77	41.5	1/8"	1-1/2"	178	190	116	21	56
DN40	80	98	52	1/4"	1-1/2"	187	204	116	21	56
	100	121	63	1/4"	1-1/2"	208	216	116	21	56
DN50	63	77	41.5	1/8"	2"	184	203	136	22	68
	80	98	52	1/4"	2"	195	218	136	22	68
	100	121	63	1/4"	2"	215	230	136	22	68

Specifications

Model	EMCJ10-50	Model	EMCJ10-50
Port size	DN10-DN50	Temperature of medium(°C)	PTFE: -10 ~ +180
Thread	G3/8"-G2"	Ambient temperature(°C)	-10 ~ +60
Body material	CF8M	Viscosity(mm²/s)	Max600
Actuator material	CF8	Installation	any position
Seal seal	PTFE	Controlling medium	air/neutral gas
Stem seal	PTFE/FKM	Controlling pressure (Bar)	3-10
Applicable medium	water,neutral gas or liquid,ethanol,oil,organic solvent,steam,alkalescent and weak acid solution		

EMCJ Series Full Stainless Steel Series Angle Valve

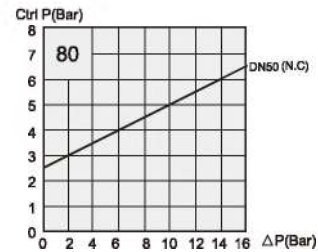
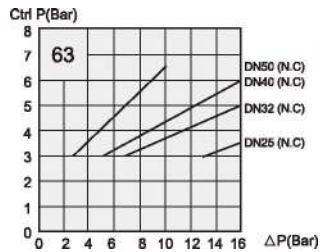
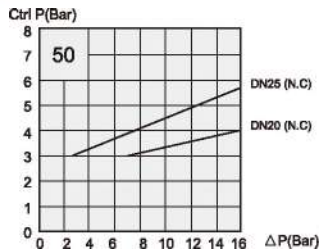
Flow direction: UP the seat, single acting normal close /open



Specifications

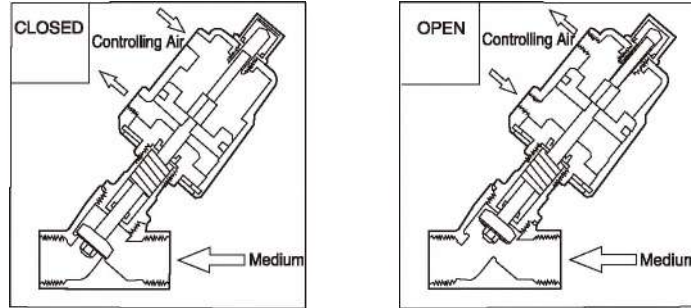
Type	Port size	Orifice (mm)	Actuator (mm)	Kv valve	Working pressure (Bar)	Normal Close		Normal Open		Order code	
						Admitted differential pressure range (Bar)	Control pressure range (Bar)	Admitted differential pressure range (Bar)	Control pressure range (Bar)	N.C. Normal close single acting	N.O. Normal open single acting
DN10	G3/8"	13	40	4.7	16	0-16	≥ 4	-	-	EMCJ10-40	-
	G3/8"	13	50	4.7		0-16	≥ 3	0-16	3	EMCJ10-50	EMCJ10-50H
DN15	G1/2"	13	40	4.7		0-16	≥ 4	-	-	EMCJ15-40	-
	G1/2"	13	50	4.7		0-16	≥ 3	0-16	3	EMCJ15-50	EMCJ15-50H
DN20	G3/4"	18	50	9.5		0-16	3-4	0-16	3	EMCJ20-50	EMCJ20-50H
DN25	G1"	24	50	18.1		0-16	3-5.5	-	-	EMCJ25-50	-
	G1"	24	63	18.1		0-16	3-3.5	0-16	3.5	EMCJ25-63	EMCJ25-63H
DN32	G1-1/4"	31	63	23.1		0-16	3-5	0-14	3.9	EMCJ32-63	EMCJ32-63H
DN40	G1-1/2"	35	63	32.9		0-16	3-6	0-11	3.9	EMCJ40-63	EMCJ40-63H
DN50	G2"	45	63	52.8		0-10	3-6.5	0-6	3.9	EMCJ50-63	EMCJ50-63H
	G2"	45	80	52.8		0-16	3-6.6	0-12	4.5	EMCJ50-80	EMCJ50-80H

Flow Chart



EMCJ Series Full Stainless Steel Series Angle Valve

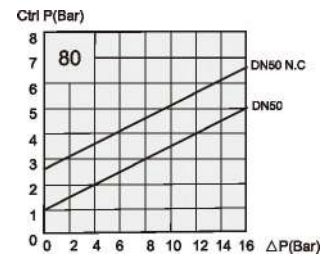
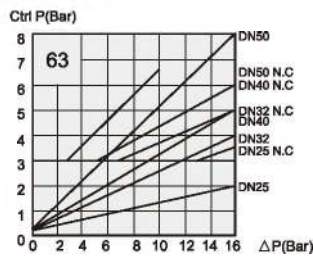
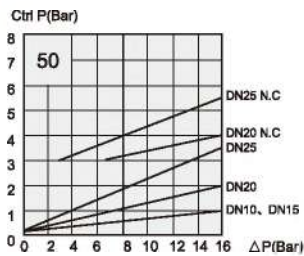
Flow direction: UP the seat, double acting normal close /open



Specifications

Type	Port size	Orifical (mm)	Actuator (mm)	Kv valve	Working pressure 180°C max (Bar)	Admitted pressure difference (Bar)	Control pressure		Model	
							Double acting (N.C) (Bar)	Double acting free installation (Bar)	Double acting (N.C)	Double acting free installation
DN10	G3/8"	13	40	4.7	16	0-16	≅ 4	0-2	EMCJ10-40DC	EMCJ10-40D
DN10	G3/8"	13	50	4.7		0-16	≅ 3	0-1	EMCJ10-50DC	EMCJ10-50D
DN15	G1/2"	13	40	4.7		0-16	≅ 4	0-2	EMCJ15-40DC	EMCJ15-40D
DN15	G1/2"	13	50	4.7		0-16	≅ 3	0-1	EMCJ15-50DC	EMCJ15-50D
DN20	G3/4"	18	50	9.5		0-16	3-4	0-2	EMCJ20-50DC	EMCJ20-50D
DN25	G1"	24	50	18.1		0-16	3-5.5	0-3.5	EMCJ25-50DC	EMCJ25-50D
DN25	G1"	24	63	18.1		0-16	3-3.5	0-2	EMCJ25-63DC	EMCJ25-63D
DN32	G1-1/4"	31	63	23.1		0-16	3-5	0-4	EMCJ32-63DC	EMCJ32-63D
DN40	G1-1/2"	35	63	32.9		0-16	3-6	0-5	EMCJ40-63DC	EMCJ40-63D
DN50	G2"	45	63	52.8		0-10	3-8.5	0-5	EMCJ50-63DC	EMCJ50-63D
DN50	G2"	45	80	52.8		0-16	3-6.6	0-5	EMCJ50-80DC	EMCJ50-80D

Flow Chart



EMCP Plastic Actuator Series Angle Valve

EMCP

Plastic Actuator Series Angle Valve



Product Features

- * Normal close/Normal open plastic actuator angle valve, available body: SS304, SS316
- * Multiple seals are available for different medium
- * Wide size range from 3/8" to 2"
- * Better cost performance

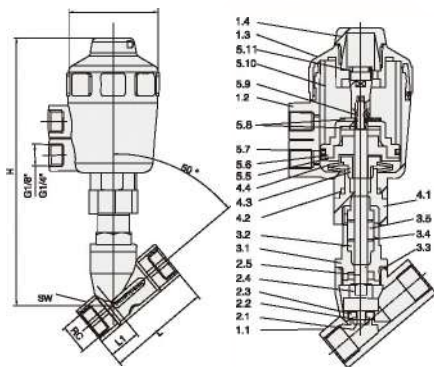
How to Order?

Series No.	Port Size	Actuator Size	Acting Type	Valve Body Material	Thread Type
EMCP: Plastic Actuator Angle Valve	15: 1/2" 20: 3/4" 25: 1" 32: 1-1/4" 40: 1-1/2" 50: 2"	50: ϕ 50mm 63: ϕ 63mm 80: ϕ 80mm	Blank: N.C. Single Acting H: N.O. Single Acting D: Double acting	S1: SS316 S2: SS304	Blank: G P: PT T: NPT

Order Example:

EMCP series Plastic Actuator Angle Valve, 3/8" port size, 40mm actuator size, NC single acting, SS316 valve body, G thread, ERP code is: EMCP-10-40S1

Main Dimension



Main Dimension(mm)							
DN	Port size	L	L1	SW	H	D	Actuator size
10	3/8"	55	17	21	170	54	50
15	1/2"	70	21	26.5	185	63	50
20	3/4"	76	23	32	190	63	50
25	1"	90	25	40	200	63	50
32	1-1/4"	116	32	50	240	81	63
40	1-1/2"	116	32	55.5	280	96	80
50	2"	138	40	68.5	295	96	80

List of parts		
1.1 Body	3.1 Screw connector	5.5 Piston
1.2 Cylinder	3.2 V sealing	5.6 Flange
1.3 Cylinder head	3.3 Seal ring	5.7 Seal ring
1.4 Ornament cover	3.4 Gasket	5.8 Gasket
2.1 Bolt	3.5 Spring	5.9 Hexagon nut
2.2 Orifice plate seal	4.1 Connecting nut	5.10 Spring
2.3 Seal disc	4.2 Seal ring	5.11 Position indicator
2.4 Disc	4.3 Lock nut	
2.5 Stem	4.4 Leaf spring	

Specifications

Model	EMCP10-50	Model	EMCP10-50
Port size	DN10-DN50	Temperature of medium	PTFE: -10° - 180° FPM: -10° - 100°
Thread	3/8" - 1/2"	Viscosity	max 600mm ² /s
Body material	Stainless steel SS316/SS304	Installation	any position
Actuator material	Engineering plastic	Controlling medium	air/neutral gas
Seat seal	PTFE/FPM	Controlling pressure (Bar)	3-8
Stem seal	PTFE/FPM	Working Pressure(Bar)	0-16
Piston seal	FPM/NBR		
Applicable medium	water, neutral gas or liquid, ethanol, oil, organic solvent, steam,		

Connector



How to Order?

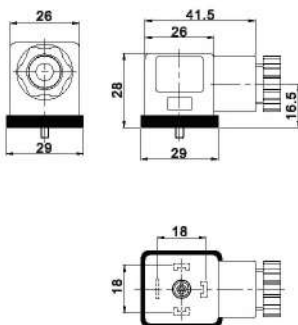
Series No.	Power type	Voltage	Cover Color	Logo	LED Lamp	Protective Device
DA: DIN43650 A type(ISO4400) DB: B type(Industrial) DC: C type(Industrial) DBK: B Type(water-proof industrial) DBM: B Type(M8 connector)	A: AC D: DC Not available for DBK/DBM	1: 12V-48V 2: 110V-220V 3: 380V	Blank: Brown translucent J: Colorless transparent B: Black non-transparent Note: DBK/DBM is Black non-transparent only	Blank: Without "EMC" logo E: With "EMC" logo Note: *Available for customer's logo. *DBM is not available for EMC logo.	Blank: Without LED lamp L: With LED lamp Note: DC current is with colorless and transparent lamp, with red light when power on. If wrong wiring with green light AC current is with red lamp and with red light if be power on.	Blank: None R: Varistor D: Diode
Note: All include rubber seal.		Note: *Only applicable to LED lamp *Only applicable to DA type *DBM is applicable to 12V-48V only				

Order Example:

Industrial B type, AC220V, Brown translucent cover, with "EMC" logo and LED lamp, with Piezoresistor, the model No. is: DB-A2ELR

Main Dimension

DA



43650A Connector

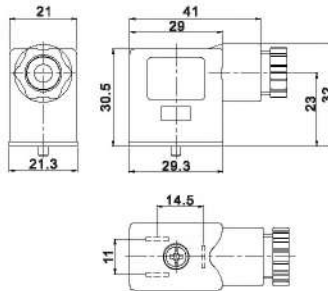
DB



DBK

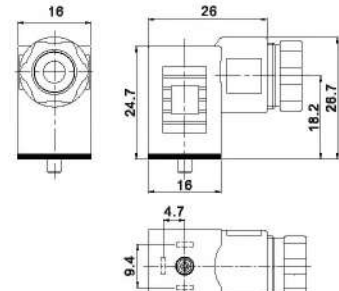


DBM



43650B Connector

DC



43650C Connector

Coil



How to Order?

Series No.	Coil Type	Connection Mode	Suitable Series	Voltage	Cover color
X: Coil	Blank: standard coil A: Amisco coil H: Thermosetting Coil	D: DIN coil+ connector C: DIN coil F: Flying leads coil	V1: 1 series directional valve V2: 2/3/4 series directional valve SLP: SLP series process valve ZS: ZS series process valve	E1: AC110V E6: AC36V E2: AC220V E7: AC24V E3: AC380V E8: DC110V E4: DC24V E9: DC48V E5: DC12V E10: DC36V	Blank: Brown translucent J: Colorless and translucent B: Black translucent

RV valve: DIN coil is thermosetting coil
Flying leads coil is standard coil

Note: Pls check following attachment for connectors and coils. Other types will be non-standard.

<p>Original code VC1-DJ</p> <p>Orifice: $\phi 8\text{mm}$ L x W x H: 22x17x33.5mm</p> 	<p>Original code VC2-DJ</p> <p>Orifice: $\phi 9.2\text{mm}$ L x W x H: 28.2 x 22 x 29.5mm</p> 	<p>Original code SLG5404C-D</p> <p>Orifice: $\phi 16.3\text{mm}$ L x W x H: 41.4 x 38.4 x 79.5mm</p> 			
<p>Coil code (with connector)</p> <p>X (A) D-V1-E1J X (A) D-V1-E2J X (A) D-V1-E3J X (A) D-V1-E4J X (A) D-V1-E5J X (A) D-V1-E6J X (A) D-V1-E7J X (A) D-V1-E8J X (A) D-V1-E9J X (A) D-V1-E10J</p>	<p>Connector code</p> <p>DC-A2JEL DC-A2JELR DC-A3JEL DC-D1JEL DC-D1JELR DC-A1JEL DC-A1JELR DC-D2JEL DC-D1JELR DC-D1JEL</p>	<p>Coil code (with connector)</p> <p>X (A) D-V2-E1J X (A) D-V2-E2J X (A) D-V2-E3J X (A) D-V2-E4J X (A) D-V2-E5J X (A) D-V2-E6J X (A) D-V2-E7J X (A) D-V2-E8J X (A) D-V2-E9J X (A) D-V2-E10J</p>	<p>Connector code</p> <p>OB-A2JELR OB-A2JELR OB-A3JELR OB-D1JELR OB-D1JELR OB-A1JELR OB-A1JELR OB-D2JELR OB-D1JELR OB-D1JELR</p>	<p>Coil code (with connector)</p> <p>XD-SLG5404D-E1 XD-SLG5404D-E2 XD-SLG5404D-E3 XD-SLG5404D-E4 XD-SLG5404D-E5 XD-SLG5404D-E6 XD-SLG5404D-E7 XD-SLG5404D-E8 XD-SLG5404D-E9 XD-SLG5404D-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>
<p>Original code SLPC</p> <p>Orifice: $\phi 14.7\text{mm}$ L x W x H: 38.5 x 29 x 42mm</p> 	<p>Original code 2PC</p> <p>Orifice: $\phi 9.2\text{mm}$ H: 29mm</p> 	<p>Original code ZSC-1D</p> <p>Orifice: $\phi 16.3\text{mm}$ L x W x H: 54 x 38.5 x 40mm</p> 			
<p>Coil code (with connector)</p> <p>XD-SLP-E1 XD-SLP-E2 XD-SLP-E3 XD-SLP-E4 XD-SLP-E5 XD-SLP-E6 XD-SLP-E7 XD-SLP-E8 XD-SLP-E9 XD-SLP-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>	<p>Coil code (Flying leads)</p> <p>XF-2P-E1 XF-2P-E2 XF-2P-E3 XF-2P-E4 XF-2P-E5 XF-2P-E6 XF-2P-E7 XF-2P-E8 XF-2P-E9 XF-2P-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>	<p>Coil code (with connector)</p> <p>XD-ZS1-E1 XD-ZS1-E2 XD-ZS1-E3 XD-ZS1-E4 XD-ZS1-E5 XD-ZS1-E6 XD-ZS1-E7 XD-ZS1-E8 XD-ZS1-E9 XD-ZS1-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>
<p>Original code ZSC-2D</p> <p>Orifice: $\phi 20.3\text{mm}$ H: 50mm</p> 	<p>Coil code (with connector)</p> <p>XD-ZS2-E1 XD-ZS2-E2 XD-ZS2-E3 XD-ZS2-E4 XD-ZS2-E5 XD-ZS2-E6 XD-ZS2-E7 XD-ZS2-E8 XD-ZS2-E9 XD-ZS2-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>	<p>Coil code (with connector)</p> <p>XD-ZS1-E1 XD-ZS1-E2 XD-ZS1-E3 XD-ZS1-E4 XD-ZS1-E5 XD-ZS1-E6 XD-ZS1-E7 XD-ZS1-E8 XD-ZS1-E9 XD-ZS1-E10</p>	<p>Connector code</p> <p>DA-A2B DA-A2B DA-A3B DA-D1B DA-D1B DA-A1B DA-A1B DA-D2B DA-D1B DA-D1B</p>	

Air Treatment Unit



EA

Air Preparation Unit



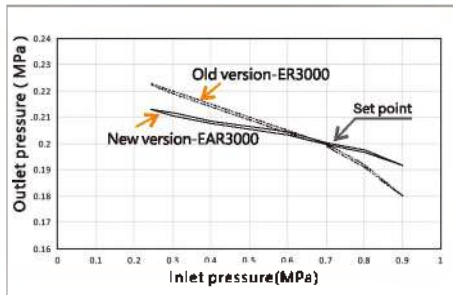
Co-moulded plastic cov



Square & Round meters options



Pressure chart



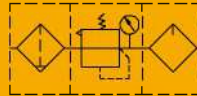
Product Features

1. High efficiency of solid grain and moisture elimination
2. The transparent plastic cover brings convenient observation, rustless and non-corrodible performance.
3. Special diaphragm design leads the pressure adjustment to a reliable and high precise performance.
4. Special drip nozzle design offers stable oil dripping and requests low flow at mist creating.
5. Round Meter and Square Meter are optional.
6. Manual Drain, Semi-auto drain, and Auto-drain are optional.

EA Series Air Preparation Unit

EAC3000

F.R.L Unit



Specifications

Model	EAC3000-02	EAC3000-03	EAC3000-04	
Working Medium	Clean Air(after 40 μm filtration)			
Guaranteed Pressure(MPa)	1.5			
Max. Working Pressure(MPa)	1.0			
Pressure Adjustment Range(MPa)	0.15-0.9, Low pressure type 0.15-0.4			
Working Temperature(°C)	-5-80 [No freezing]			
Filter Precision	40 μm/5 μm optional			
Recommended Oil	Turbine No.1 Oil ISO VG32			
Bowl Material	PC(Polycarbonate)			
Water Bowl Capacity(CC)	40			
Oil Bowl Capacity(CC)	76			
Weight(g)	1245		1229	
Component	Filter	EAF3000-02	EAF3000-03	EAF3000-04
	Regulator	EAR3000-02	EAR3000-03	EAR3000-04
	Lubricator	EAL3000-02	EAL3000-03	EAL3000-04

How to Order?

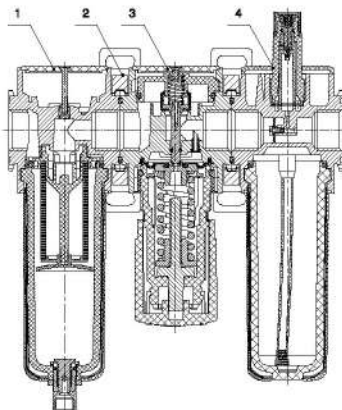
Series No.	Part Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Scale Unit	Filter Precision	Thread Type
EAC3000/EA3000 series F.R.L Unit (Filter+Regulator+Lubricator)	3000 02: 1/4" 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: Standard type L: Low pressure type①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge②	③ Square pressure gauge optional Round pressure gauge optional	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT
						1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi		

Order Example:

EA series F.R.L unit, port size of 1/2", differential pressure drain type, with square pressure gauge, Mpa, 5 μm, G thread, it's ERP code: EAC3000-04CLF15M

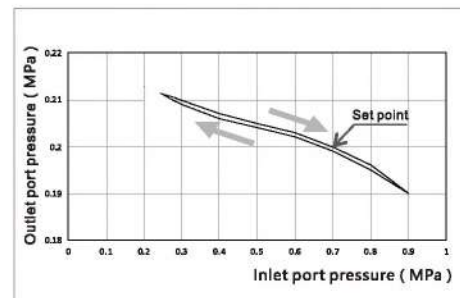
Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;
③ Square pressure gauge is single scale, round pressure gauge is double scale

Internal Structure



No.	Part Name
1	EA series filter
2	T type bracket
3	EA series regulator
4	EA series lubricator

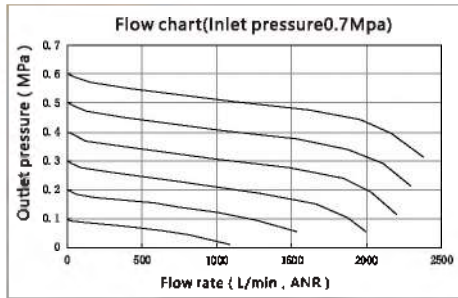
Pressure Feature



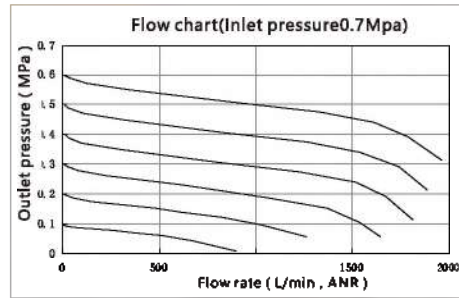
EA Series Air Preparation Unit

Flow Chart

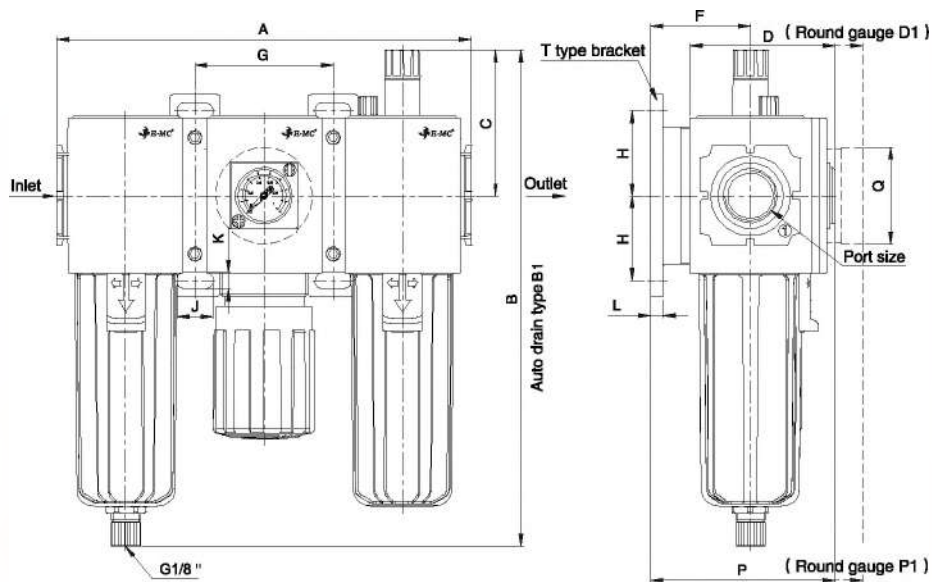
EAC3000-03/04



EAC3000-02



Main Dimensions



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	P	P1	Q
EAC3000	1/4"-1/2"	171	203.5	200.5	60	59.8	71.5	41	57	35	15	7	5	75.8	87.5	40

EA Series Air Preparation Unit

EAC3010

FR.L Unit



Specifications

Model	EAC3010-02	EAC3010-03	EAC3010-04	
Working Medium	Clean Air(after 40 μm filtration)			
Guaranteed Pressure(MPa)	1.5			
Max. Working Pressure(MPa)	1.0			
Pressure Adjustment Range(MPa)	0.15-0.9, Low pressure type 0.15-0.4			
Working Temperature(°C)	-5-60 (No freezing)			
Filter Precision	40 μm/5 μm optional			
Recommended Oil	Turbine No.1 Oil ISO VG32			
Bowl Material	PC(Polycarbonate)			
Water Bowl Capacity(CC)	40			
Oil Bowl Capacity(CC)	76			
Weight(g)	815	589	585	
Component	Filter regulator	EAW3000-02	EAW3000-03	EAW3000-04
	Lubricator	EAL3000-02	EAL3000-03	EAL3000-04

How to Order?

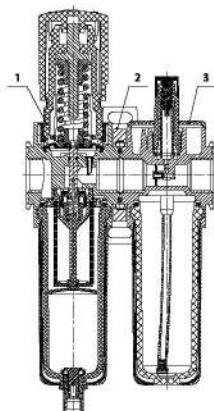
Series No.	Part Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Scale Unit	Filter Precision	Thread Type
EAC3010/EA3000 series FR.L Unit (Filter+Lubricator)	3000 02: 1/4" 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: Standard type L: Low pressure type①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge②	③ Square pressure gauge optional Round pressure gauge optional	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT
						1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi		

Order Example:

EA series FR.L unit, port size of 1/2", differential pressure drain type, with square pressure gauge, Mpa, 5 μm, G thread, the ERP code is: EAC3010-04CLF15M

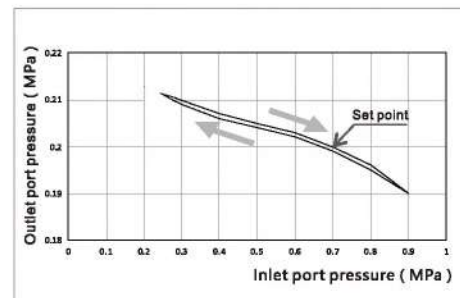
Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;
③ Square pressure gauge is single scale, round pressure gauge is double scale

Internal Structure



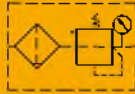
No.	Part Name
1	EA series filter regulator
2	T type bracket
3	EA series lubricator

Pressure Feature



EAW Series Air Preparation Unit

EAW3000 Filter Regulator



Specifications

Model	EAW3000-02	EAW3000-03	EAW3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Pressure Adjustment Range(MPa)	0.15~0.9, Low pressure type 0.15~0.4		
Working Temperature(°C)	-5~60 No freezing)		
Filter Precision	40 μm/5 μm optional		
Recommended Oil	PC(Polycarbonate)		
Water Bowl Capacity(CC)	40		
Weight(g)	490	484	477

How to Order?

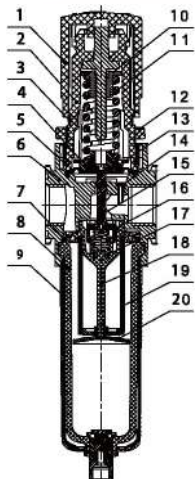
Series No.	Port Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Filter Precision	Thread Type
EAW3000:EA3000 series Filter regulator	Blank: 1/4" 3000 02: 1/4" 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: Standard type L: Low pressure type ①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge ②	Blank: With bracket J: No bracket	③	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT
							Square pressure gauge optional Round pressure gauge optional	1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi	

Order Example:

EA series FR unit, port size of 1/2", differential pressure drain type, low pressure type, with square pressure gauge, with bracket, Mpa, 5 μm, G thread, the ERP code is: EAW3000-04CLF15M

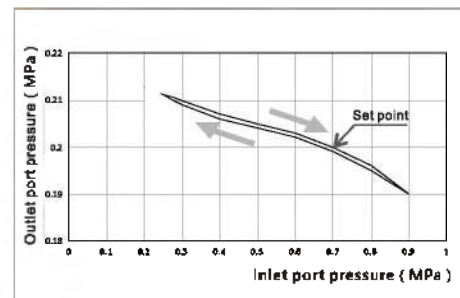
Remark: ① Max pressure adjustable for low pressure type is 0.4Mpa; ② Port of round pressure gauge is M6;
③ Square pressure gauge is single scale, round pressure gauge is double scale

Internal Structure



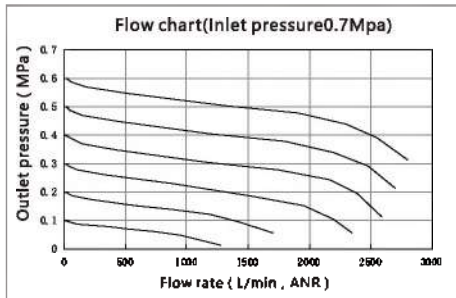
No.	Part Name	Material
1	Pressure regulating handle	PA6 with glass fiber
2	Pressure regulating valve cover	PA6 with glass fiber
3	Marking ring	POM
4	Pressure regulating spring seal	POM
5	Cover plate	ABD
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Water bowl	PC
9	Protection guard	PC+ABS
10	Pressure regulating screw/seal	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	POM with glass fiber/zinc alloy
13	Diaphragm	NBR
14	Interline	POM
15	Valve stem	Brass
16	Valve core	6061+NBR
17	Spring	SUS304
18	Water separator propeller	POM
19	Filter element	PE
20	Water baffle	POM with glass fiber

Pressure Feature

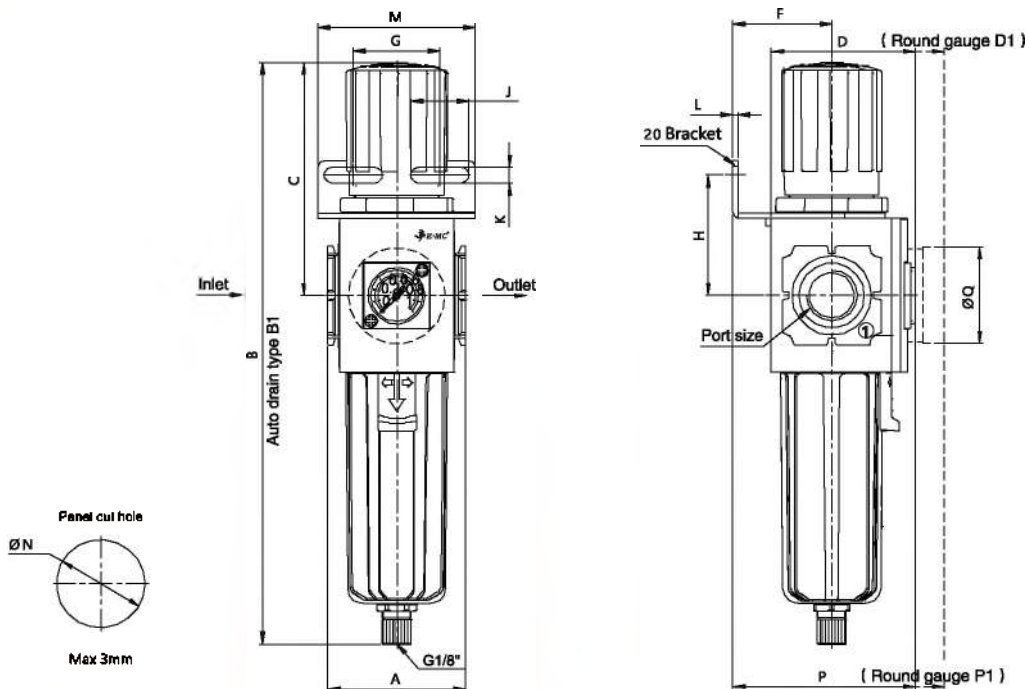


EAW Series Air Preparation Unit

Flow Chart



Main Dimensions



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	M	N	P	P1	Q
EAW3000	1/4"-1/2"	57	239.6	236.6	96.6	59.8	71.5	41	36	50	24	6.5	2	65	36.5	75.8	87.5	40

EAF Series Air Preparation Unit

EAF3000

Filter



Specifications

Model	EAF3000-02	EAF3000-03	EAF3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	0.15-1.0		
Working Temperature(°C)	-5-60 (No freezing)		
Filter Precision	40 μm/5 μm optional		
Bowl Material	PC(Polycarbonate)		
Water Bowl Capacity(CC)	40		
Weight(g)	328	322	315

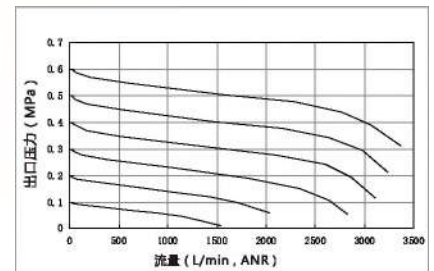
How to Order?

Series No.	Port Size	Drain Type	Bracket Code	Filter Precision	Thread Type
EAF3000:EA3000 series filter	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT		
3000	02: 1/4" 03: 3/8" 04: 1/2"	Blank: With bracket J: No bracket			

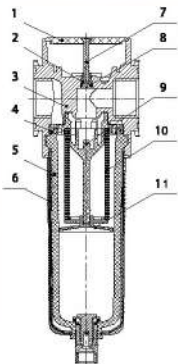
Order Example:

EA series Filter, port size of 1/2", differential pressure drain type, with bracket, filter precision 5 μm, G thread, the ERP code is: EAF3000-04C5M

Flow Chart

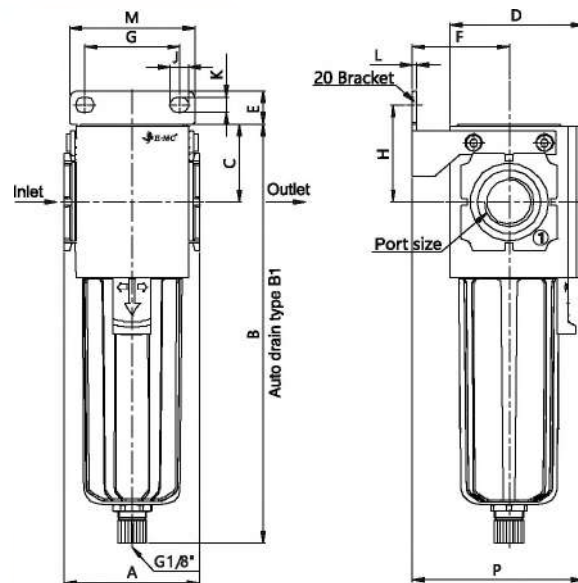


Internal Structure



No.	Part Name	Material
1	Valve seat cover	ABS
2	Seal Pillar	6061
3	Valve body	Aluminum alloy
4	Seal	NBR
5	Water bowl	PC
6	Protection Guard	PC+ABS
7	Screw	Mild steel
8	O-ring	NBR
9	Water separator preplate	POM
10	Filter element	PE
11	Water baffle	POM with glass fiber

Main Dimensions



Model	Port Size	A	B	B1	C	D	E	F	G	H	J	K	L	M	P
EAF3000	1/4"-1/2"	57	178.5	173.5	33	56.4	14	41	40	41	8	6.5	2	53	72.4

EAR Series Air Preparation Unit

EAR3000 Regulator



Specifications

Model	EAR3000-02	EAR3000-03	EAR3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Pressure Adjustment Range(Mpa)	0.15~0.9, Low pressure type 0.15~0.4		
Working Temperature(°C)	-5~60 (No freezing)		
Weight(g)	393	387	380

How to Order?

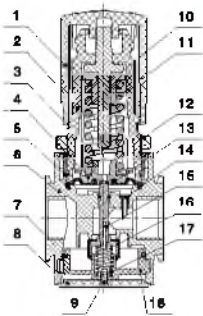
Series No.	Port Size	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Thread Type
EAR3000:EA3000 series Regulator			Blank: With pressure gauge N: No pressure gauge		Blank: With bracket J: No bracket		Blank: G P: PT T: NPT
3000	02: 1/4" 03: 3/8" 04: 1/2"	Blank: Standard type L: Low pressure type①		F: Square pressure gauge Y: Round pressure gauge②		③ Square pressure gauge optional: 1: MPa, 2: Bar, 3: Psi Round pressure gauge optional: 4: Mpa/Psi, 5: Bar/Psi	

Order Example:

EA series Regulator, port size of 1/2", low pressure type, with square pressure gauge, with bracket, Mpa, G thread, the ERP code is: EAF3000-04LF1

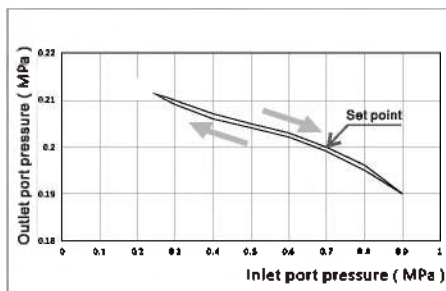
Remark:① Max pressure adjustable for low pressure type is 0.4Mpa;② Port of round pressure gauge is M6;
③ Square pressure gauge is single scale, round pressure gauge is double scale

Internal Structure

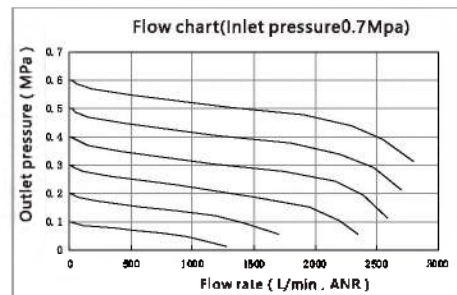


No.	Part Name	Material
1	Pressure regulating handle	PA6 with glass fiber
2	Pressure regulating valve cover	PA6 with glass fiber
3	Marking ring	POM
4	Pressure regulating spring seat	POM
5	Cover plate	ABS
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Valve seat cover	ABS
9	Screw	Mild steel
10	Pressure regulating screw/ Spring seat	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	POM with glass fiber/Zinc alloy
13	Diaphragm	NBR
14	Interline	POM
15	Valve stem	Brass
16	Valve core	6061-NBR
17	Spring	SUS304
18	Pressure regulating valve seat	POM with glass fiber

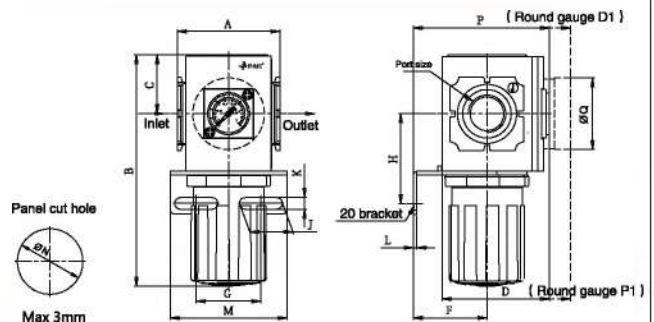
Pressure Feature



Flow Chart



Main Dimensions



Model	Port Size	A	B	C	D	D1	F	G	H	J	K	L	M	N	P	P1
EAR3000	1/4"-1/2"	57	128.1	33	59.8	71.5	41	36	50	24	6.5	2	65	36.5	75.8	87.5

EAL Series Air Preparation Unit

EAL3000

Lubricator



Specifications

Model	EAL3000-02	EAL3000-03	EAL3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	0.05-1.0		
Working Temperature(°C)	-5-60 (No freezing)		
Recommended Oil	Turbine No.1 Oil ISO VG32		
Bowl Material	PC(Polycarbonate)		
Oil Bowl Capacity(CC)	76		
Weight(g)	296	287	279

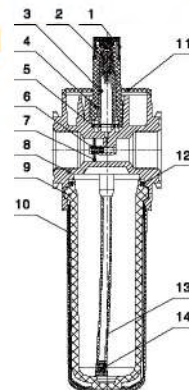
How to Order?

Series No.	Port Size	Bracket Code	Thread Type
EAL3000:EA3000 series lubricator	02: 1/4" 3000 03: 3/8" 04: 1/2"	Blank: With bracket J: No bracket	Blank: G P: PT T: NPT

Order Example:

EA series lubricator, port size of 1/2", with bracket, G thread, the ERP code is: EAL3000-04

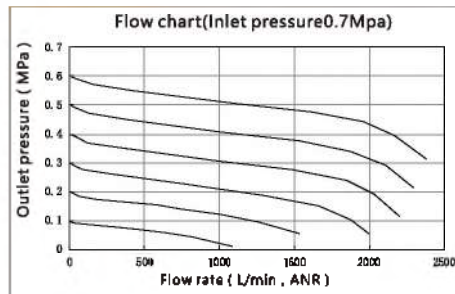
Internal Structure



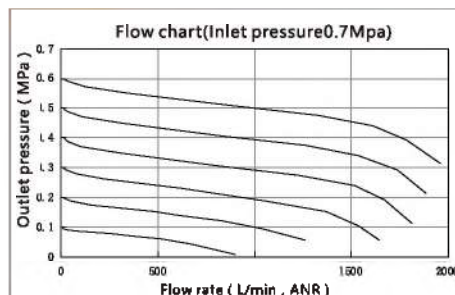
No.	Part Name	Material
1	Adjusting screw cap	POM
2	Oil flow adjusting unit	Brass
3	Oil dripping tube	PC
4	Oil window	PC
5	Seal	NBR
6	Bolt brass	Brass
7	Baffle	NBR
8	Valve body	Aluminum alloy
9	Water bowl	PC
10	Protection guard	PC+ABS
11	Lubricator cover plate	ABS
12	Sealing	NBR
13	Pipe	PU
14	Filter element	Brass

Flow Chart

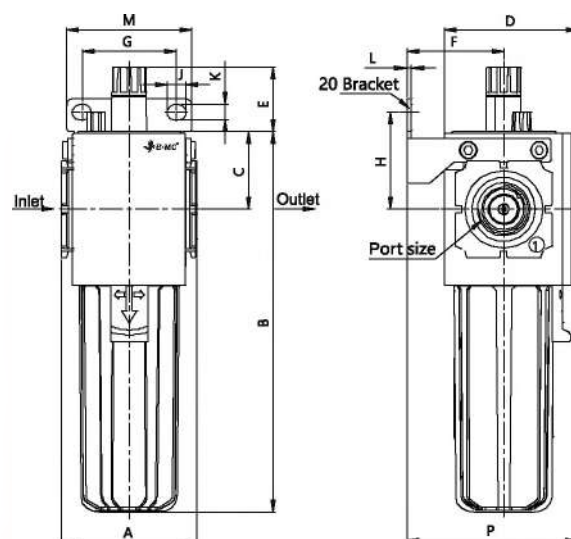
EAL3000-03/04



EAL3000-02



Main Dimensions



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	P
EAL 3000	1/4"-1/2"	57	188	33	564	27	41	40	41	8	6.5	2	53	724

EA Series Air Preparation Unit– Accessories

How to Order?

Square pressure gauge

Series No.	Pressure Range	Scale Unit
EAC-FB; EA series special square pressure gauges	010: 0~1.0 Mpa 0~10 Bar 0~150 Psi	1: MPa 2: Bar 3: Psi

Order Example:

EA series special square pressure gauge, pressure range: 0~1.0Mpa, scale:Mpa, the ERP code is EAC-FB0101

Round pressure gauge

Series No.	Dial Diameter	Pressure Range	Scale Unit	Case Material	Case Color	Fitting Material	Port Size
EAC-EYZ; EA series special round pressure gauges	25 : 25mm (Used in the EA2000 series) 40 : 40mm (Used in the EA3000 /4000series)	010:0~1.0MPa/0~150Psi 0~10Bar/0~150Psi	4:MPa/Psi 5:Bar/Psi	1:The iron shell	B:Black	Blank:Brass	M6:M6

Order Example:

EA series special round pressure gauge, diameter is 40mm, pressure range:0-1.0mpa/0-150psi, scale is Mpa/Psi, black metal shell, brass fitting, port size is M6, the ERP code is EAC-EYZ4001041B-M6

Spacer

Series No.	Type No.	Port Size	Thread Type
EA300;EA3000 series spacer	1: 1000 series ① 2: 2000 series 3: 3000 series 4: 4000 series	02:1/4" 3000 03:3/8" 04:1/2"	Blank: G P: PT T: NPT

Order Example:

EA series spacer, 2 way, port size of 1/4", G thread, the ERP code is: EA3002-02

Note:① It means bypass port qty, not including inlet/outlet port;
If use spacer together with EAC series F.R.L or FR.L,
should mount together with T type bracket.

Product Features

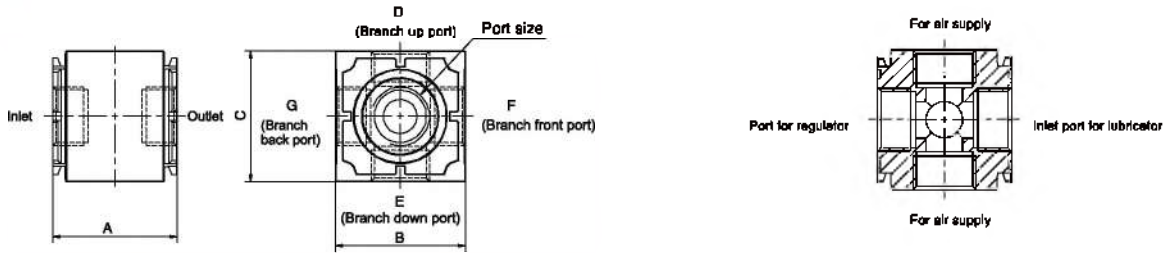
- Mount between filter regulator/regulator and lubricator of EA series, to branch air supply line;
- Could be used with T type bracket or used seperately

Specifications

Model	EA300□-02	EA300□-03	EA300□-04
Working Medium	Clean Air(after 40 μ m filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Weight(g)	200	190	180

EA Series Air Preparation Unit- Accessories

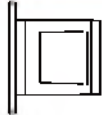
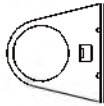
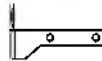
Internal Structure



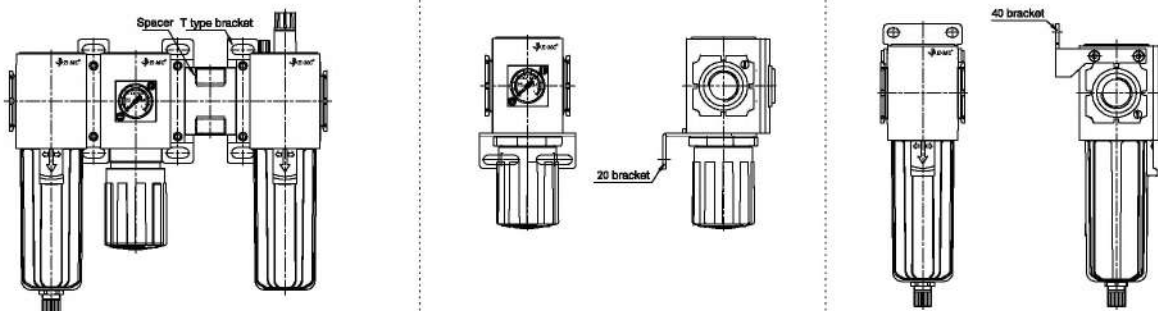
Dimensions and Ports

Model	Port size	A	B	C	D	E	F	G
EA3001	1/4"-1/2"	44	46	46	Through hole	Blind hole	Blind hole	Blind hole
EA3002					Through hole	Through hole	Blind hole	Blind hole
EA3003					Through hole	Through hole	Through hole	Blind hole
EA3004					Through hole	Through hole	Through hole	Through hole

Mounting Accessories

Model	Code	Dimensions	Applicable product specifications	
T-type bracket	EAC30T-P01		EAC3000	EAC3010
20-type bracket	EAC320-P01		EAW3000	EAR3000
40-type bracket	EAC340-P01		EAF3000	EAL3000

Accessories Application Example



EPR3000 Precision Pressure Regulator

EPR3000

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
EPR3000	02: 1/4"	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	Blank: MPa/Psi	Blank: G P: PT T:NPT

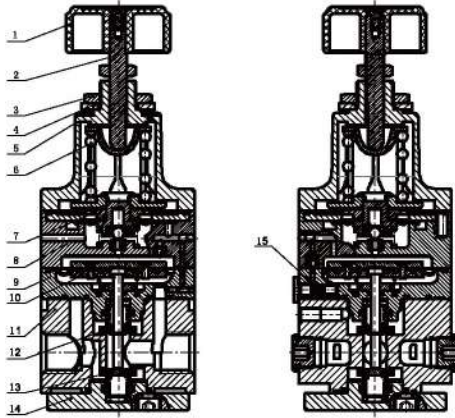
Order Example: EPR3000 high precision regulator , 1/4" port, pressure range 0.01-0.8MPa ,with gauge,with bracket,scale unit MPa/Psi ,G thread , ERP code is EPR3000-02-HJN

Specifications

Model No.	EPR3000
Working Medium	Clean air(After 40 μm filtration)
Max. supply pressure	1.0
Min. supply pressure	Setting pressure+0.05
Proof pressure	1.5
Setting pressure range	L:0.005 ~ 0.2MPa
	M:0.01 ~ 0.4MPa
	H:0.01 ~ 0.8MPa
Sensitivity	Within 0.2% of full scale value
Repeated accuracy	Within±0.5% of full scale value
Port size	1/4"
Pressure gauge port size	G1/8(2 place)
Working Temperature	-20~70 (No freezing)

EPR3000 Precision Pressure Regulator

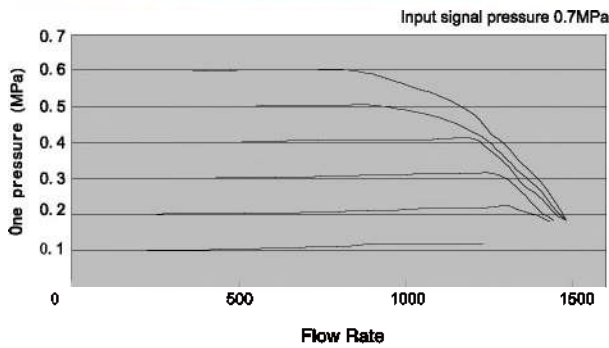
Internal Structure



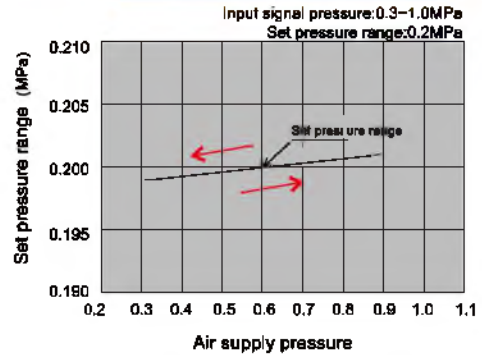
No.	Part Name	Material
1	Pilot regulate button	Plastic
2	Pilot regulate axle	Carbon steel
3	Hex nut	Free Machining Steel
4	Flat washer	SPCC
6	Pilot regulate seat	Aluminum
8	Spring	Spring steel
7	Pilot diaphragm assy	Assy
8	Nozzle	Aluminum
9	Middle valve body	Aluminum
10	Main regulate diaphragm	Assy
11	Main valve body	Aluminum
12	Exhaust valve core	Assy
13	Inlet valve core	Assy
14	Bottom cover	Aluminum
15	Filter element	High polymer material

Flow Chart

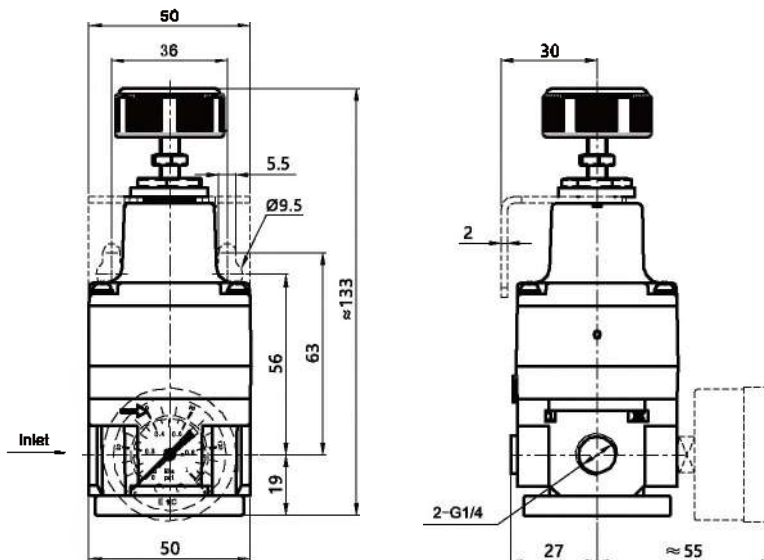
EPR3000 Flow rate characteristics



EPR3000 Pressure characteristics



Main Dimension



ETV Electro-Pneumatic Proportional Regulator

ETV

Electro-Pneumatic Proportional Regulator



Product Features

- Adopt 32-bit, 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;
- Individual notes when output pressure is lower;
- Independent internal pressure output signal;
- 4-pins M12A standard (male) fieldbus connector, 3 meters cable;
- 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;
- Pressure range: 0-0.1 MPa / 0-0.5 MPa / 0-0.9MPa;
- Common characteristic parameter curve.

How to order?

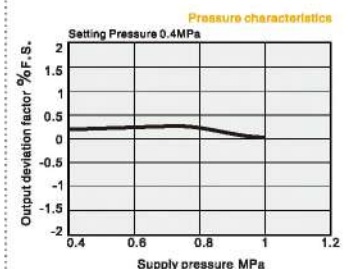
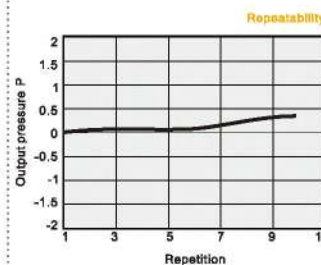
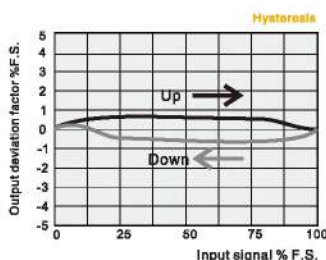
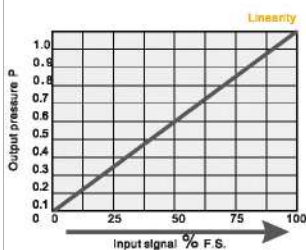
Series No.	Valve body size	Port size	Pressure range	Input signal	Monitor output	Port size	Bracket	Cable connector type
ETV	20: 20	08: 1/4" 10: 3/8"	10: 0-0.1MPa/0-1bar/0-15psi/0-100KPa 30: 0-0.5MPa/0-5bar/0-70psi/0-500KPa 50: 0-0.9MPa/0-9bar/0-130psi/0-900KPa	0: 4-20mA 1: 0-20mA 2: 0-5V 3: 0-5V 4: 4 points preset input	0: None 1: 1-5V 2: 24V PNP 3: 24V PNP 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 3m S: Straight type 3m

Order Example: ETV series Electro-Pneumatic Proportional Regulator, valve body 20, port size 1/4", output pressure 0-0.1MPa, input signal 4-20mA, Monitor output 1-5V, port size G, Flat bracket, straight type 3m, ERP code is: ETV20-081001-BS.

Cable connector Name	Order code	Bracket Name	Order code
4-pins M12A standard Straight type 3m	M124R-PUR-3M	Flat bracket	FJ-ETV-FA
4-pins M12A standard Right angle type 3m	M124RL-PUR-3M	L-bracket	FJ-ETV-LB

Note: Normal cable connector length is 3m, any other model need to be customized production, max length 10m.

Flow Chart

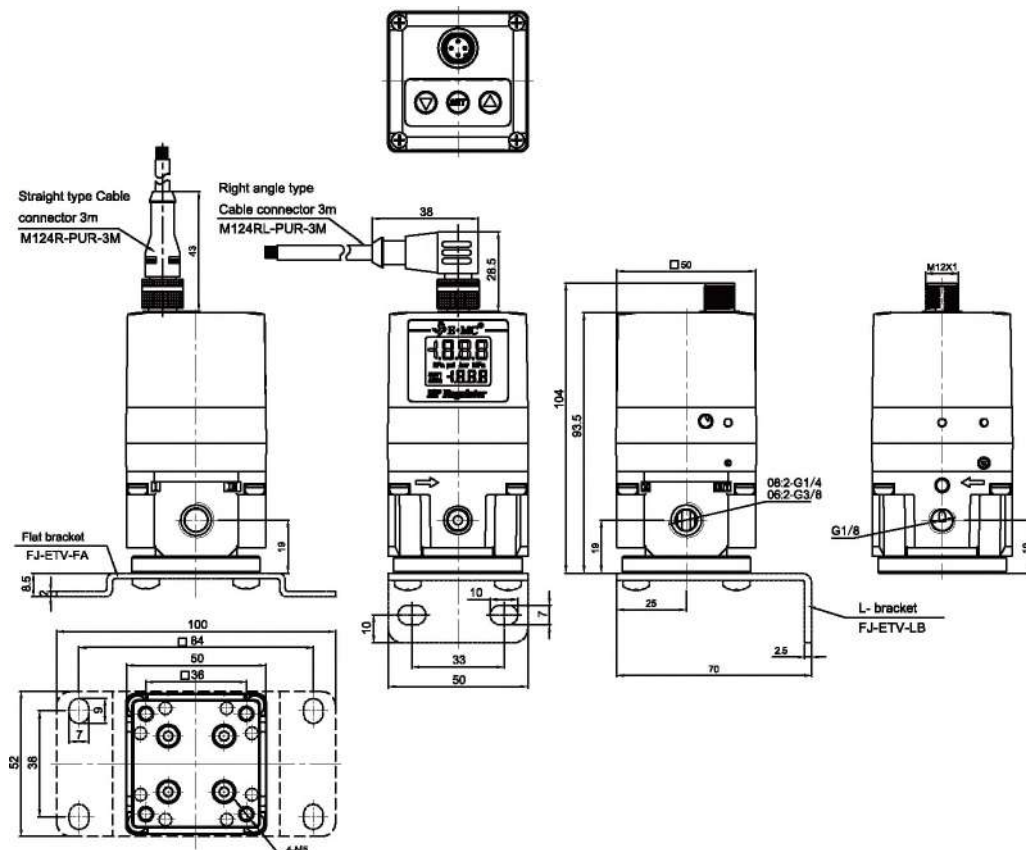


ETV Electro-Pneumatic Proportional Regulator

Specifications

Model	ETV20-08	ETV20-10
Port size	G1/4	G3/8
Flow rate characteristics	1.5	2.0
Pressure range	0-0.1/0.5/0.9MPa	
Input signal	0-5/10V or 0/4-20mA or 4points preset input	
Monitor output	4-20mA / 1-5V / 1 point switch output	
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)	
LED display	Set pressure and actual pressure display at the same time	
Valve body	Aluminum alloy	
Installation position	Random direction	
Max input pressure	1.0MPa (range0-0.1MPa, Max input pressure 0.2MPa)	
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.	

Main Dimension



EI Series Air Preparation Unit

How to Order?

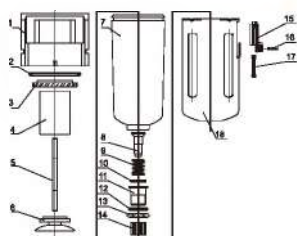
Series No.	Type Code	Body Size	Combination QTY	Port Size	Drain Type	Pressure Gauge Code	Bracket Code	Scale Unit	Filter Precision	Thread Type
EI: Square gauge series	C: Filter+regulator+lubricator W: Filter+regulator F: Filter R: Regulator L: Lubricator	20: 2000 body 30: 3000 body 40: 4000 body 50: 5000 body	10: Two units (Regulator+Lubricator) 00: Others	4000 01: 1/8" 02: 1/4" 3000 02: 1/4" 03: 3/8"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	1: Mpa 2: Bar 3: Psi (*Need special made)	Blank: 25 μm 5M: 5 μm	Blank: G P: PT T: NPT

Order Example:

EI series regulator, 2000 body size, 1/8 port size, with pressure gauge, Mpa pressure unit, G thread, ERP code is: EIR2000-01 1

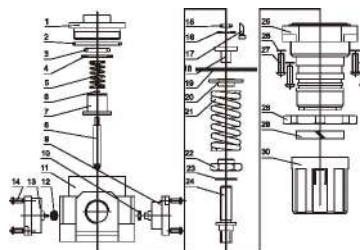
Air Preparation Unit Kits

EIF3000



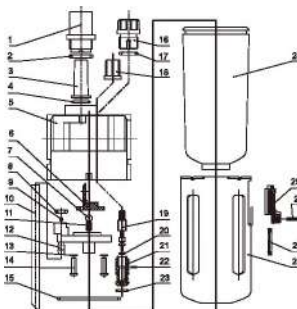
NO.	NAME	QTY	MATERIAL
16	Lock	1	ABS
17	Pin	1	ABS
14	Spring	1	Stainless steel
13	Metal bowl	1	Steel plate
14	Nut	1	HP304-1
13	Hexagon nut	1	HP304-1
10	O-ring	1	NBR
11	Drain valve seat	1	HP304-1
12	O-ring	1	NBR
8	Spring	1	Stainless steel
6	Drain valve cover	1	HP304-1
7	Water cap	1	HP304-1
8	Drain board	1	ABS
5	Cross bar	1	Carbon steel
4	Filter element	1	OU
3	Filter	1	ABS
2	O-ring	1	NBR
1	Filter body	1	ADC-12

EIR3000



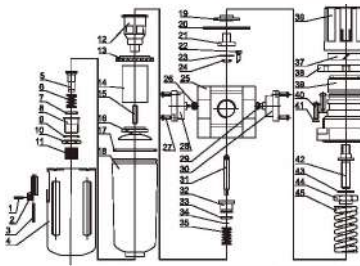
NO.	NAME	QTY	MATERIAL
30	Regulator body	1	Polycarbonate
30	Seal	1	Polycarbonate
30	Blank combination	1	PCOM
27	Cap screw	4	Carbon steel
28	Spring washer	4	Carbon steel
26	Regulator body	1	Aluminum
26	Regulator body	1	Carbon steel
23	Washer	1	304
21	Spring	1	Carbon steel
20	Spring plate	1	Carbon steel
19	Ball bearing	1	NBR
18	Cap screw	1	Stainless
17	Pipe	1	PCOM
16	Retainer ring	1	Steel plate
15	O-ring	1	NBR
14	Cap screw	4	Carbon steel
13	Ball bearing	1	PCOM
12	Seal	1	NBR
11	Regulator body	1	Aluminum
10	Seal	1	NBR
8	Combination	1	ABS-12
6	Spring	1	Stainless NBR
7	Valve cover	1	Stainless
6	Retainer ring	1	Steel plate
4	Spring	1	Carbon steel
4	Retainer ring	1	Steel plate
3	O-ring	1	NBR
2	O-ring	1	NBR
1	Regulator body	1	ZZ-444-1

EIL3000



NO.	NAME	QTY	MATERIAL
26	Cap	1	Polycarbonate
27	Lock	1	ABS
26	Pin	1	ABS
25	Spring	1	Stainless steel
24	Metal bowl	1	Steel plate
23	O-ring	1	NBR
22	Nut	1	Q235
21	O-ring	1	HP304-1
20	O-ring	1	NBR
19	O-ring	1	HP304-1
18	O-ring	1	ABS
17	Pin	1	ABS
16	O-ring	1	NBR
14	Cross bar	2	Q235
13	Spring washer	2	ABS
12	One way valve plate	1	PCOM
11	Spring	1	Stainless steel
10	Pin	1	EU tube
9	Steel ball	1	Q235
8	O-ring	1	NBR
7	Steel ball	1	Q235
6	Seal	1	Polycarbonate
5	Lubricator body	1	ADC-12
4	O-ring	1	NBR
3	O-ring	1	Polycarbonate
2	O-ring	1	NBR
1	O-ring	1	Polycarbonate

EIW3000



NO.	NAME	QTY	MATERIAL
48	Seal	1	Carbon steel
44	Retainer nut	1	Carbon steel
43	Washer	1	PCOM
42	Regulator body	1	Carbon steel
41	Spring washer	4	Carbon steel
40	Cap screw	4	Carbon steel
38	Valve cover	1	Polycarbonate
38	Nut	1	Polycarbonate
37	Spring	1	Polycarbonate
36	Regulator body	1	Polycarbonate
35	Seal	1	Polycarbonate
34	Retainer ring	1	Steel plate
33	O-ring	1	NBR
30	Valve cover	1	Stainless
31	Spring	1	HP304-1+NBR
30	Cap screw	1	ADC-12
29	Seal	1	NBR
27	Cap screw	4	Carbon steel
26	Seal	1	NBR
25	Regulator body	1	Aluminum
24	O-ring	1	NBR
23	Retainer ring	1	Carbon steel
22	Pin	1	PCOM
21	Spring washer	1	Stainless
20	Spring	1	NBR
19	Ball bearing	1	Carbon steel
18	Filter element	1	Q235
13	Water filter	1	ABS
12	One way valve	1	ZZ-444-1
11	Seal	1	Carbon steel
10	Seal	1	Carbon steel
9	Pin	1	ABS
8	Pin	1	ABS
7	Nut	1	ABS
6	Hex nut	1	ABS
5	O-ring	1	NBR
4	Cap screw	1	Stainless
3	O-ring	1	NBR
2	Spring	1	Stainless steel
1	Valve cover	1	Stainless

EI Series Air Preparation Unit

EIC
F.R.L



Specifications

Model	EIC2000	EIC3000	EIC4000	EIC5000
Proof pressure(MPa)	1.5			
Max. working pressure(MPa)	1.0			
Working temperature(°C)	5-60			
Filter precision	25µm(5 µm is optional)			
Recommended oil	Turbine No.1 Oil ISOVG32			
Bowl material	Polycarbonate			
Bowl guard	None	Available		
Pressure adjusting range(MPa)	0.15-0.85			
Valve type	With overflow			

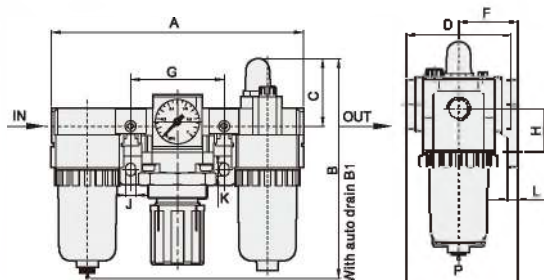
Model	Specifications				* Rated flow (L/min)	* Port size (G)
	Filter	Assembly Regulator	Lubricator			
EIC2000-01	EIF2000	EIR2000	EIL2000		1000	1/8
EIC2000-02					1100	1/4
EIC3000-02	EIF3000	EIR3000	EIL3000		1950	1/4
EIC3000-03					2105	3/8
EIC4000-03	EIF4000	EIR4000	EIL4000		4950	3/8
EIC4000-04					5200	1/2
EIC5000-06	EIF5000	EIR5000	EIL5000		6200	3/4
EIC5000-10					6500	1

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

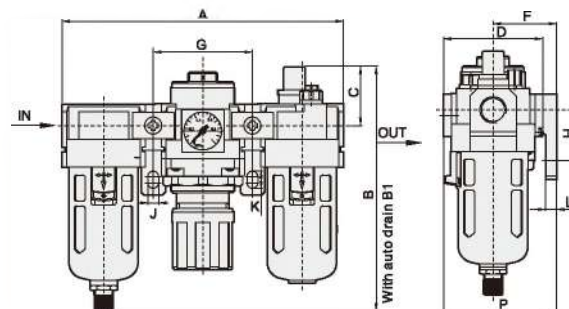
* NPT,PT port size is optional

Main Dimension

EIC2000



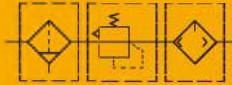
EIC3000-EIC5000



Model	Port Size (G)	A	B	B1	C	D	F	G	H	J	K	L	P
EIC2000	1/8"-1/4"	140	123	161	37.5	54	30	50	24	5.5	8.5	5	57
EIC3000	1/4"-3/8"	184	167.5	170	39	64	41	65	35	7.5	11	7.2	71
EIC4000	3/8"-1/2"	238	190	194	40	80	50	84	40	9	13	7.2	88
EIC5000	3/4"-1"	300	271.5	274.5	45.5	90	69.8	105	50	12	18	10.5	115

EI Series Air Preparation Unit

EIC
FR.L



Specifications

Model	EIC2010	EIC3010	EIC4010	EIC5010
Proof pressure(MPa)	1.5			
Max. working pressure (MPa)	1.0			
Working temperature(°C)	5-60			
Filter precision	26µm(5 µm is optional)			
Recommended oil	Turbine No.1 Oil ISOVG32			
Bowl material	Polycarbonate			
Bowl guard	None	Available		
Pressure adjusting range(MPa)	0.15-0.85			
Valve type	With overflow			

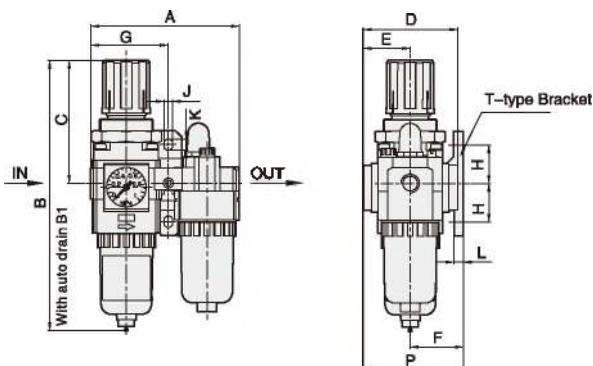
Model	Specifications		
	Assembly		
	Filter with pressure reducer	Lubricator	
EIC2010-01	EIW2000	EIL2000	* Rated flow (L/min)
EIC2010-02			945
EIC3010-02	EIW3000	EIL3000	* Port size (G)
EIC3010-03			1874
EIC4010-03	EIW4000	EIL4000	1956
EIC4010-04			4923
EIC5010-06	EIW5000	EIL5000	5120
EIC5010-10			6000
			6200

* The above information is based on 6.0 Bar supply pressure and 6.3 Bar set pressure

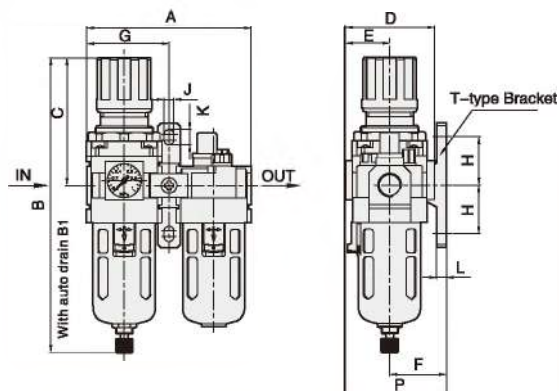
* NPT,PT port size is optional

Main Dimension

EIC2010



EIC3010-EIC5010



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	P
EIC2010	1/8"-1/4"	90	168.5	205.5	82	54	27	29.5	45	24	5.5	8.5	5	56.5
EIC3010	1/4"-3/8"	117	210.5	224.5	92	63	31.5	40	59.5	35	7.5	11	7.2	71.5
EIC4010	3/8"-1/2"	154	264	267	113.5	80	40	49.5	77	39	9	13	7.2	89.5
EIC5010	3/4"-1"	195	343	348	121.5	94	47	68.5	97.5	50	12	16	10.5	115.5

EIW Series Air Preparation Unit

EIW
F&R



Specifications

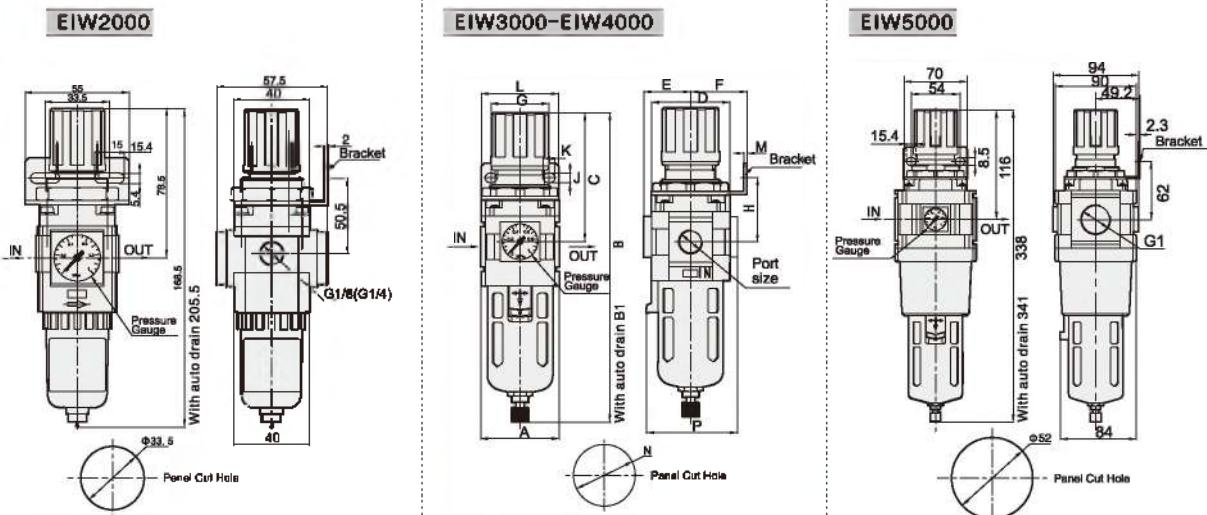
Model	EIW2000	EIW3000	EIW4000	EIW5000
Front pressure(MPa)			1.5	
Max. working pressure			1.0	
Working temperature(°C)			5-80	
Filter precision			25µm(5 µm is optional)	
Bowl material			Polycarbonate	
Bowl guard(MPa)	None		Available	
Pressure adjusting range			0.15-0.85	
Valve type			With overflow	

Model	Specifications		Drain function	Auto drain model
	*Rated flow (L/min)	*Port size(G)		
EIW2000-01	1078	1/8	Manual drain	EIW2000-01D
EIW2000-02	1165	1/4		EIW2000-02D
EIW3000-02	1998	1/4	Zero pressure drain/Manual drain	EIW3000-02D
EIW3000-03	2177	3/8		EIW3000-03D
EIW4000-03	5108	3/8		EIW4000-03D
EIW4000-04	5211	1/2		EIW4000-04D
EIW5000-06	6200	3/4		EIW5000-06D
EIW5000-10	8400	1		EIW5000-10D

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

* NPT,PT port size is optional

Main Dimension



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	P
EIW2000	1/8"-1/4"	40	168.5	205.5	78.5	40	27	30.5	33.5	49.5	5.4	16	55	2	33	40
EIW3000	1/4"-3/8"	53	210.5	224.5	92	53	31.5	39	40	45.5	6.5	8	53	2	42	63
EIW4000	3/8"-1/2"	70	264	267	113.5	70	40	48	53.5	54.5	8.5	10.5	70	2	52	73
EIW5000	3/4"-1"	90	343	348	116.5	90	47	48	53.5	62	8.5	10.5	70	2	52	84

EIF Series Air Preparation Unit

EIF Filter



Specifications

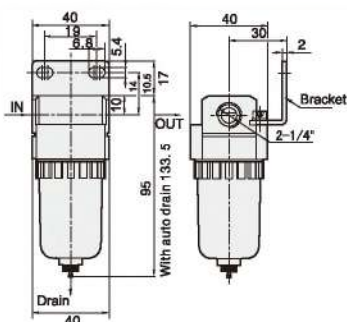
Model	EIF2000	EIF3000	EIF4000	EIF5000
Proof pressure(MPa)			1.5	
Max. working pressure(MPa)			1.0	
Working temperature(°C)			5-60	
Filter precision			25µm(5 µm is optional)	
Bowl material			Polycarbonate	
Bowl guard	None		Available	
Entrance pressure(MPa)			0.15-1.0	

Model	Specifications			Drain function	Auto drain model
	*Rated flow (L/min)	*Port size (G)	Bowl capacity (cm ³)		
EIF2000-01	1222	1/8	15	Manual drain	EIF2000-01D
EIF2000-02	1276	1/4			EIF2000-02D
EIF3000-02	2006	1/4	20	Zero pressure drain/Manual drain	EIF3000-02D
EIF3000-03	2148	3/8			EIF3000-03D
EIF4000-03	5120	3/8	46	Zero pressure drain/Manual drain	EIF4000-03D
EIF4000-04	5430	1/2			EIF4000-04D
EIF5000-06	8200	3/4	130		EIF5000-06D
EIF5000-10	8500	1			EIF5000-10D

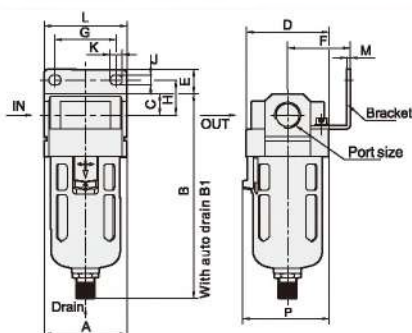
* The above information is based on 6.3 Bar supply pressure and 1.0 Bar set pressure * NPT,PT port size is optional

Main Dimension

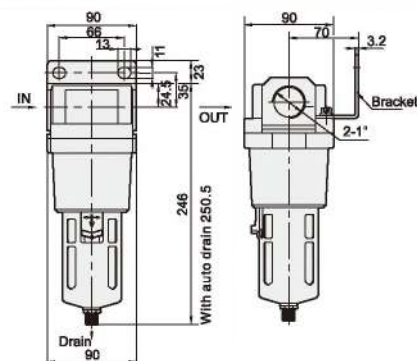
EIF2000



EIF3000-EIF4000



EIF5000



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	P
EIF2000	1/8"-1/4"	40	95	133.5	10.5	40	25	31	19	14	17	6.8	40	2	-
EIF3000	1/4"-3/8"	53	132.5	145	14	53	15	41.5	40	22	6.5	8	53	2	56
EIF4000	3/8"-1/2"	70	188	171.5	18	70	18	53	54	27	8.5	10.5	70	2	73
EIF5000	3/4"-1"	90	246	250	24	90	23	67	66	35	11	13	90	3	-

EIL Series Air Preparation Unit

EIL Lubricator



Specifications

Model	EIL2000	EIL3000	EIL4000	EIL5000
Proof pressure(MPa)			1.5	
Max. working pressure(MPa)			1.0	
Working temperature(°C)			5-60	
Recommended oil		Turbine No.1 Oil ISOVG32		
Bowl material		Polycarbonate		
Bowl guard	None		Available	
Entrance pressure(MPa)		0.15-1.0		

Model	Specifications			
	* Minimal flow of oil drop (L/min)	* Rated flow (L/min)	* Port size(G)	Bowl capacity (cm ³)
EIL2000-01	15	1300	1/8	25
EIL2000-02		1345	1/4	
EIL3000-02		2310	1/4	
EIL3000-03	40	2375	3/8	50
EIL4000-03	40	5321	3/8	
EIL4000-04	50	5532	1/2	
EIL5000-06	190	7700	3/4	130
EIL5000-10		8000	1	

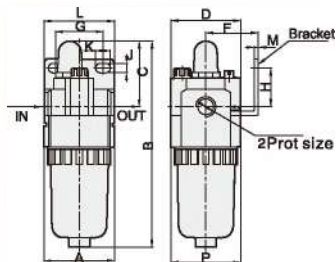
* The above information is based on 5.1Bar supply pressure, the flow of oil drop is 2-3 drops/ min, the temperature of Turbine No.1 oil is 20°C

* The above information is based on 5.1Bar supply pressure and 0.3Bar step down

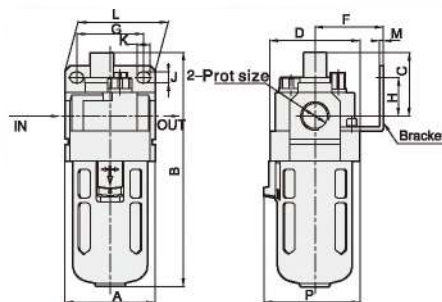
* NPT,PT port size is optional

Main Dimension

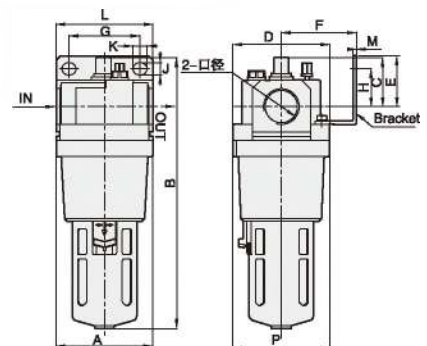
EIL2000



EIL3000-EIL4000



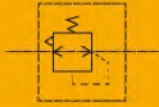
EIL5000



Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
EIL2000	1/8"-1/4"	40	115	37.5	40	31	19	14	17	6.8	40	2	40
EIL3000	1/4"-3/8"	53	141	39	53	41	40	23	6.5	8	53	2	58
EIL4000	3/8"-1/2"	70	175	40	70	53	54	26	8.5	10.5	70	2	73
EIL5000	3/4"-1"	90	254	45.5	90	67	66	35	11	13	90	3	90

EIR Series Air Preparation Unit

EIR Regulator



Specifications

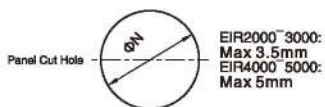
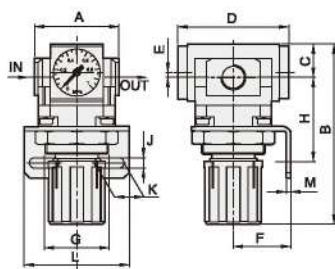
Model	EIR2000	EIR3000	EIR4000	EIR5000
Proof pressure(MPa)			1.5	
Max. working pressure(MPa)			1.0	
Working temperature(°C)			5-60	
Pressure adjusting range(MPa)			0.05-0.85	
Valve type			With overflow	

Model	Specifications	
	- Rated flow (L/min)	- Port Size (G)
EIR2000-01	1178	1/8
EIR2000-02	1200	1/4
EIR3000-02	2112	1/4
EIR3000-03	2212	3/8
EIR4000-03	5020	3/8
EIR4000-04	5312	1/2
EIR5000-06	6400	3/4
EIR5000-10	6600	1

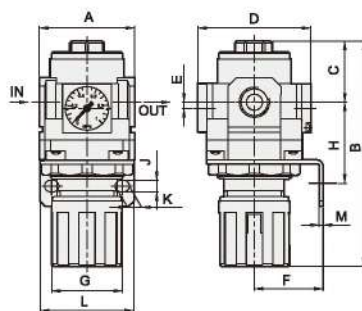
* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure * NPT,PT port size is optional

Main Dimension

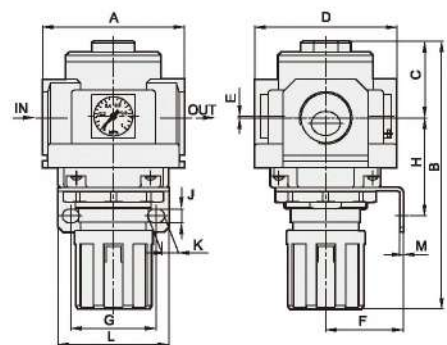
EIR2000



EIR3000-EIR4000



EIR5000



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N
EIR2000	1/8"-1/4"	40	95	17	55	1.3	30.5	33.5	44	5.4	15	55	2	33
EIR3000	1/4"-3/8"	53	127.5	34.5	64	3	39	40	46	6.5	8	53	2	42
EIR4000	3/8"-1/2"	70	149.5	37.5	81	4	48	53.5	54.5	8.5	10.5	70	2	52
EIR5000	3/4"-1"	90	168	49	90	0.5	48	53.5	62	8.5	10.5	70	2	52

EI Series Regulator with Backflow Function

EIR

Regulator with backflow function



How to order?

Series No.	Valve body	Type code	Port size	Pressure Gauge code	Bracket code	Scale unit	Thread type
EIR: Regulator with square gauge	Blank: Standard Type K: Backflow type	Blank: Standard Type K: Backflow type		Blank: With Pressure Gauge N: Without Pressure Gauge	Blank: With bracket J: Without bracket	1: Mpa 2: Bar 3: Psi	Blank: G P: PT T: NPT
2000: 2000 Series 3000: 3000 Series 4000: 4000 Series 5000: 5000 Series		2000 01: 1/8" 02: 1/4" 3000 02: 1/4" 03: 3/8"	4000 04: 1/2" 5000 06: 3/4" 10: 1"				

Order Example: Regulator with square gauge, 2000 series body, backflow type, 1/4" port size, with gauge, with bracket, MPa, G thread, ERP code is: EIR2000K-021

- Note:**
1. Backflow type regulator must work separately; the regulator knob must be upward, the air should be left port in and right port out.
 2. 2000 series must work in case of knob upward and left port in & right port out. Right port in & left port out is not available currently.
 3. Standard 3000, 4000, 5000 series with backflow function must conform to above 1st point. If right port in & left port out was requested, EMC can customize it.

Note: ① 3/8" and 3/4" port are not available for 4000 series.

Specification

Model	EIR2000K	EIR3000K	EIR4000K	EIR5000K
Working Medium	Clean air (After 40 μm filtration)			
Proof pressure (MPa)	1.5			
Max. Working pressure (MPa)	1.0			
Pressure adjusting range (MPa)	0.05-0.85			
Working temperature (°C)	-5-60 (No freezing)			
Overpressure Exhaust Mechanism	Relieving type			

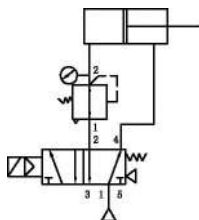
Model	Rated flow (L/min) *	Port size *
EIR2000K-01	1178	1/8"
EIR2000K-02	1200	1/4"
EIR3000K-02	2112	1/4"
EIR3000K-03	2212	3/8"
EIR4000K-04	5312	1/2"
EIR5000K-08	6400	3/4"
EIR5000K-10	8600	1"

* Supply pressure 8.0 Bar, Set pressure 6.3 Bar, and pressure difference 1 Bar, testing result shows that standard type and backflow type have same flow rate.

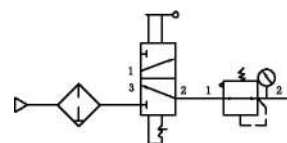
* G, PT, NPT is optional.

Suitable Applications

1. The pressure is different between piston rod side and the opposite side.



2. Exhaust through the inlet port when air supply stopped. It is a safety precaution.

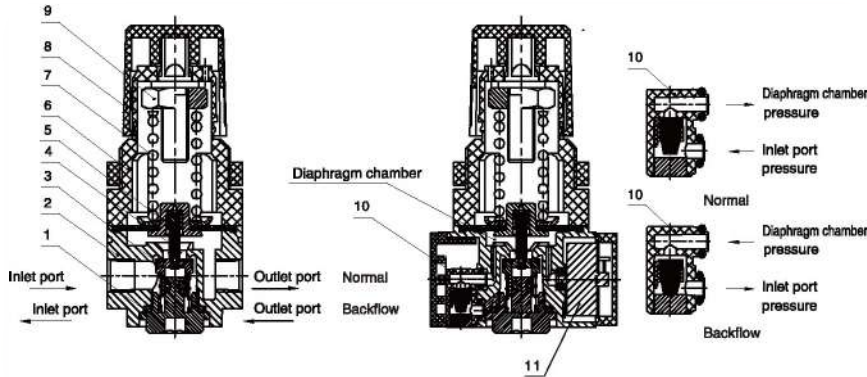


EI Series Regulator with Backflow Function

Construction and working principle

Working principle:

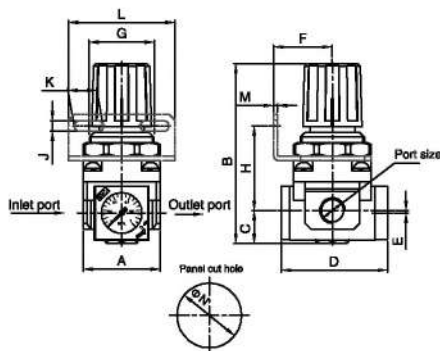
1. When inlet pressure is higher than set pressure, one-way valve 10 closes, it works as a normal regulator.
2. When the inlet pressure blocked, then-way valve 10 opens, pressure in diaphragm chamber exhausts from the inlet side. When diaphragm chamber pressure goes down, diaphragm is pushed down by the spring force, The valve core will be open by valve rod, pressure at the outlet side exhaust through the inlet side, it works as a regulator with backflow function.



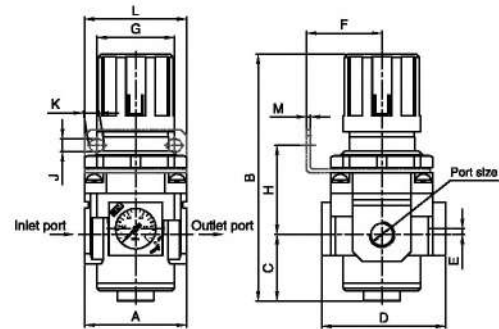
No.	Name	Material
1	Regulator seal	Aluminium
2	Regulator body	Aluminium
3	Valve core	NBR/Metal
4	Spool	Brass
5	Diaphragm components	NBR/Metal
6	Valve cover	Reinforce nylon (2000/3000) Aluminium(4000/5000)
7	Spring	SWC
8	Knob	Reinforce nylon
9	Adjustment ball components	Free-cutting steel
10	One-way valve components	NBR/Plastic
11	Pressure gauge	Brass/Plastic

Main Dimension

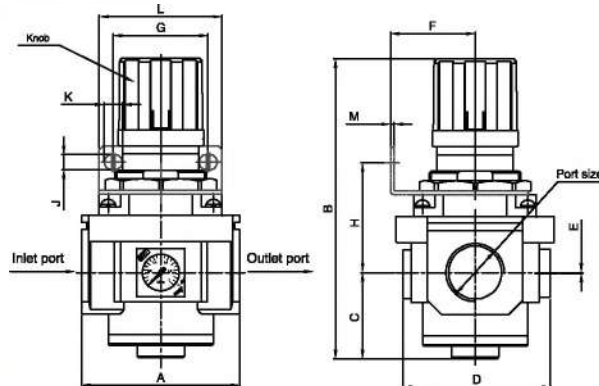
EIR2000K



EIR3000K-EIR4000K



EIR5000K



Note:

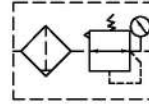
1. Backflow type regulator knob should be upward, left port inlet and right port outlet.
2. Standard regulator knob should be downward, left port inlet and right port outlet. (Refer to EI series of standard type)
3. The installation size and dimensions of standard and backflow type are same.

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N
EIR2000K	1/8" - 1/4"	40	95	17	66	1.3	30.5	33.5	44	5.4	15	66	2	33
EIR3000K	1/4" - 3/8"	53	127.5	34.5	64	3	39	40	46	6.5	8	53	2	42
EIR4000K	1/2"	70	149.5	37.5	81	4	48	53.5	54.5	6.5	10.5	70	2	52
EIR5000K	3/4" - 1"	90	188	48	90	0.5	48	53.5	62	6.5	10.5	70	2	52

EI Series Filter Regulator with Backflow Function

EIW

Filter regulator with backflow function



How to order?

Series No.	Valve body	Type code	Port size	Drain Type	Pressure Gauge Code	Bracket code	Scale unit	Filter Precision	Thread type
EIW:Regulator filter with square gauge	2000-2000 Series 3000-3000 Series 4000-4000 Series 5000-5000 Series	Blank: Standard Type K: Backflow type	01: 1/8" 02: 1/4"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type		Blank: With bracket J: Without bracket	1: Mpa 2: Bar 3: Psi	Blank: 25 μm 5M: 5 μm	Blank: G P: PT T: NPT
		2000	03: 3/8" 04: 1/2" 06: 3/4"	5000		Blank: With pressure gauge N: Without pressure gauge			
		3000	02: 1/4"	10: 1"					

Order Example: Regulator filter with square gauge, 2000 series body, backflow type, 1/4" port, auto drain type, with gauge, with bracket, MPa, filter precision 5 μm, G thread, ERP code is:EIW2000K-02D15M.

- Note:**
1. Backflow type regulator filter must work separately; the knob must be upward, the air should be left port in and right port out.
 2. 2000 series must work in case of knob upward and left port in & right port out Right port in & left port out is not available currently.
 3. Standard 3000,4000,5000 series with backflow function must conform to above 1st point.If right port in & left port out was requested, EMC can customize it.

Specification

Model	EIW2000K	EIW3000K	EIW4000K	EIW5000K
Working Medium	Clean air(After 40 μm filtration)			
Proof pressure(MPa)	1.5			
Max. Working pressure(MPa)	1.0			
Pressure adjusting range(MPa)	0.15-0.85			
Working temperature(°C)	-5-60 (No freezing)			
Filter precision	25 μm/5 μm optional			
Bowl material	PC(Polycarbonate)			
Bowl guard	None	Available		
Overpressure Exhaust Mechanism	Relieving type			

Model	Rated flow(L/min) *	Port size *
EIW2000K-01	1078	1/8"
EIW2000K-02	1165	1/4"
EIW3000K-02	1998	1/4"
EIW3000K-03	2177	3/8"
EIW4000K-03	5108	3/8"
EIW4000K-04	5211	1/2"
EIW4000K-06	5900	3/4"
EIW5000K-06	6200	3/4"
EIW5000K-10	6400	1"

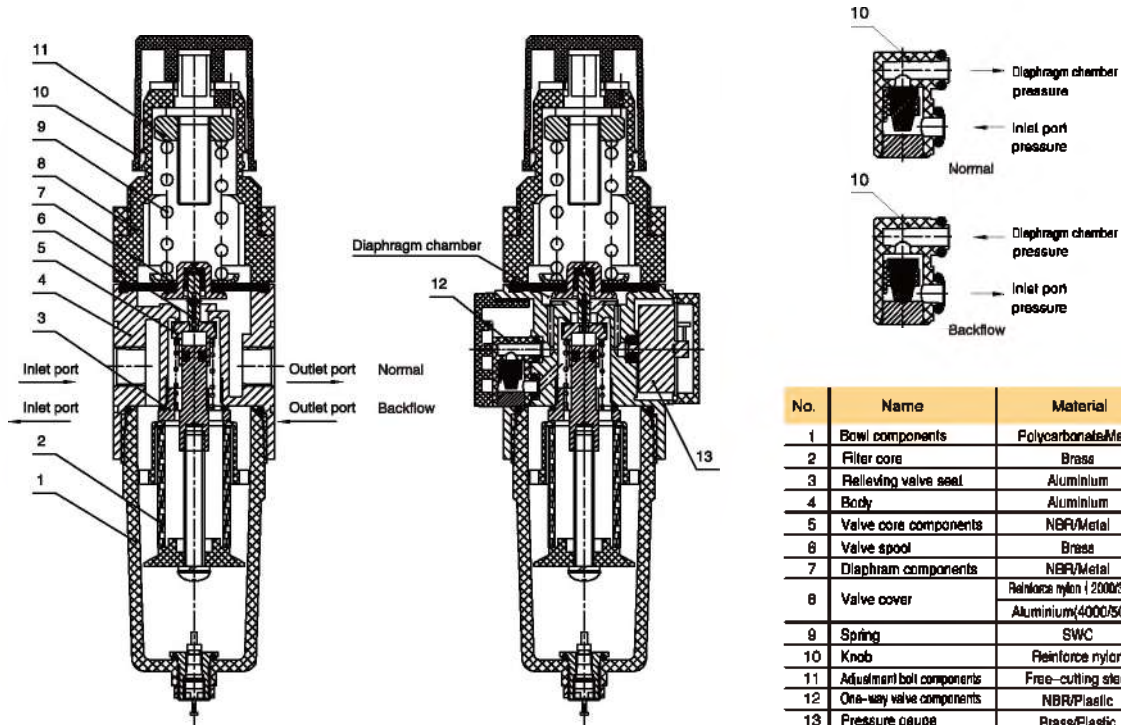
- * Supply pressure 8.0Bar, Set pressure 6.3Bar, and pressure difference 1 Bar, testing result shows that standard type and backflow type have same flow rate.
* G, PT, NPT is optional.

EI Series Filter Regulator with Backflow Function

Construction and working principle

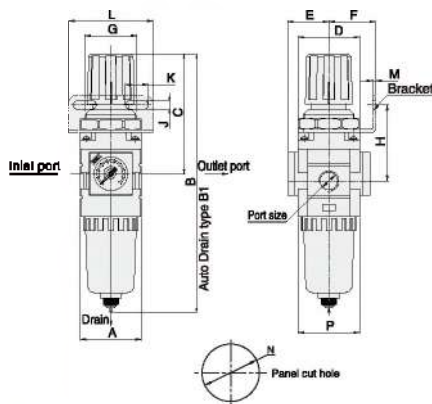
Working principle:

1. When inlet pressure is higher than set pressure, one-way valve 10 closes, it works as a normal regulator.
2. When the inlet pressure blocked, then-way valve 12 opens, pressure in diaphragm chamber exhausts from the inlet side. When diaphragm chamber pressure goes down, diaphragm is pushed down by the spring force. The valve core will be open by valve rod, pressure at the outlet side exhaust through the inlet side, it works as a regulator with backflow function.

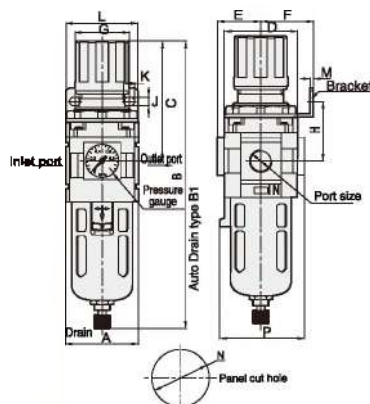


Main Dimension

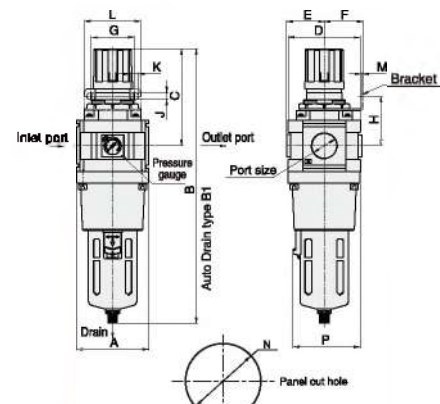
EIW2000K



EIW3000K-EIW4000K



EIW5000K



Model	Port size	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	P
EIW2000K	1/8"-1/4"	40	168.5	205.5	78.5	40	27	30.5	33.5	49.5	5.4	15	55	2	33	40
EIW3000K	1/4"-3/8"	53	210.5	224.5	92	53	31.5	39	40	45.5	6.5	8	53	2	42	63
EIW4000K	3/8"-1/2"	70	264	267	113.5	70	40	48	53.5	54.5	8.5	10.5	70	2	52	73
EIW4000K-06	3/4"	90	343	348	116.5	90	47	48	53.5	62	8.5	10.5	70	2	52	84
EIW5000K	3/4"-1"	90	343	348	116.5	90	47	48	53.5	62	8.5	10.5	70	2	52	84

E Series Air Preparation Unit

How to Order?

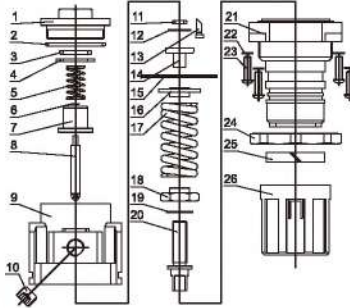
Series No.	Type Code	Body Size	Combination	QTY	Port Size	Drain Type	Pressure Gauge Code	Bracket Code	Scale Unit	Filter Precision	Thread Type
E: Round gauge series	C: Filler-regulator+lubricator W: Filter+regulator F: Filter R: Regulator L: Lubricator	10: 1000 body 20: 2000 body 30: 3000 body 40: 4000 body 50: 5000 body	10: Two units (Regulator+Lubricator) 00: Others	1000 M5: M5 2000 01: 1/8" 3000 02: 1/4" 4000 03: 3/8" 5000 06: 3/4" 10: 1"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	4: Mpa/Psi (Default) 5: Bar/Psi	Blank: 25 µm 5M: 5 µm	Blank: G P: PT T: NPT

Order Example:

E series regulator, 2000 body size, 1/8 port size, with pressure gauge, with bracket, scale unit is Mpa/Psi, G thread, ERP code is: ER2000-01 4

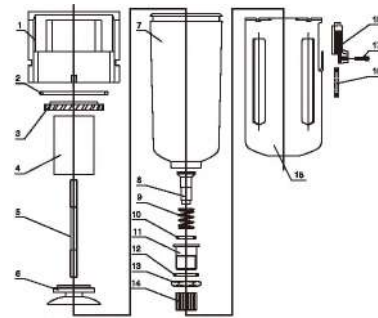
Air Preparation Unit Kits

ER



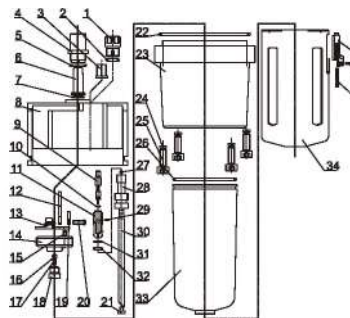
NO.	NAME	QTY	MATERIAL
26	Regulate handle	1	Reinforce nylon
25	Symbol ring	1	Reinforce nylon
24	Nut	1	Reinforce nylon
23	Cross screw	4	Carbon steel
22	Spring washer	4	Carbon steel
21	Valve cover	1	Reinforce nylon
20	Regulate ball	1	Carbon steel
19	Washer	1	PCOM
18	Regulate Nut	1	Carbon steel
17	Spring	1	Carbon steel
16	Spring seat	1	Carbon steel
15	Diaphragm	1	NBR
14	Diaphragm seat	1	Brass
13	Pipe	1	PCOM
12	Retainer ring	1	Carbon steel
11	O-ring	1	NBR
10	Plug	1	Carbon steel
9	Valve body	1	Aluminum
8	Spool	1	Brass+NBR
7	Valve core	1	Brass
6	Retainer ring	1	Carbon steel
5	Spring	1	Stainless steel
4	Washer	1	Carbon steel
3	O-ring	1	NBR
2	O-ring	1	NBR
1	Regulator seat	1	ZZn44-1

EF



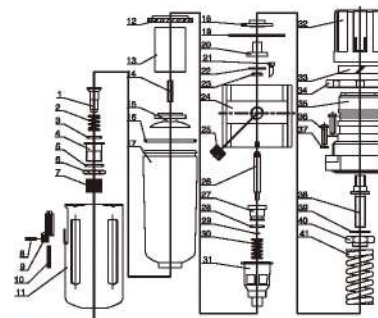
NO.	NAME	QTY	MATERIAL
18	Lock	1	ABS
17	Pin	1	ABS
16	Spring	1	Stainless steel
15	Matrix base	1	Carbon steel
14	Nut	1	Cu
13	Hex Nut	1	Cu
12	O-ring	1	NBR
11	Diaphragm	1	Cu
10	O-ring	1	NBR
9	Spring	1	Stainless steel
8	Valve core	1	Cu
7	Water cup	1	Polypropylene
6	Diaphragm seat	1	ABS
5	Belt	1	Carbon steel
4	Filter element	1	Cu
3	Block	1	ABS
2	O-ring	1	NBR
1	Regulator body	1	Aluminum

EL



NO.	NAME	QTY	MATERIAL
37	Lock	1	ABS
36	Pin	1	ABS
35	Spring	1	Stainless steel
34	Matrix base	1	Carbon steel
33	O-ring	1	Polypropylene
32	O-ring	1	NBR
31	O-ring	1	NBR
30	O-ring	1	PU
29	Pin	1	Carbon steel
28	Filling	1	PCOM
27	Steel ball	1	Carbon steel
26	O-ring	1	NBR
25	Hex screw	4	Carbon steel
24	Spring washer	4	Carbon steel
23	Matrix part	1	Aluminum
22	O-ring	1	NBR
21	Filter element	1	Brass
20	Diaphragm	1	Carbon steel
19	Head seal board	1	ZZn44-1
18	Die cast valve plate	1	Cu
17	Spring	1	Stainless steel
16	Steel ball	1	Carbon steel
15	Diaphragm seat	1	ZZn44-1
14	Head seat	1	ZZn44-1
13	Head	1	Polypropylene
12	O-ring	1	Brass
11	O-ring	1	NBR
10	O-ring	1	NBR
9	Regulate handle	1	Brass
8	Lubricator body	1	Aluminum
7	O-ring	1	NBR
6	O-ring	1	Polypropylene
5	O-ring	1	NBR
4	O-ring	1	Polypropylene
3	O-ring	1	ABS
2	O-ring	1	NBR
1	Plug	1	ABS

EW



NO.	NAME	QTY	MATERIAL
41	Spring	1	Carbon steel
40	Regulate Nut	1	Carbon steel
39	Washer	1	PU
38	Regulate Ball	1	Carbon steel
37	Spring washer	4	Carbon steel
36	Cross screw	4	Carbon steel
35	Valve cover	1	Reinforce nylon
34	Nut	1	Reinforce nylon
33	Symbol ring	1	Reinforce nylon
32	Regulate handle	1	Reinforce nylon
31	Overhaul seat	1	ZZn44-1
30	Spring	1	Stainless steel
29	Retainer ring	1	Carbon steel
28	O-ring	1	NBR
27	Water core	1	Brass
26	Spool	1	Brass+NBR
25	Plug	1	Carbon steel
24	Regulate body	1	Aluminum
23	O-ring	1	NBR
22	Retainer ring	1	Carbon steel
21	Pipe	1	PCOM
20	Diaphragm seat	1	Brass
19	Diaphragm	1	NBR
18	Diaphragm Part	1	Carbon steel
17	Water cup	1	Polypropylene
16	O-ring	1	NBR
15	Filter element	1	Carbon steel
14	Filter element	1	Brass
13	Whisking board	1	ABS
12	Steel guard	1	Carbon steel
11	Block	1	Aluminum alloy
10	Lock	1	ABS
9	Pin	1	ABS
8	Nut	1	Brass
7	Hex Nut	1	Brass
6	O-ring	1	NBR
5	Diaphragm	1	Brass
4	O-ring	1	NBR
3	O-ring	1	NBR
2	Diaphragm	1	Stainless steel
1	Valve core	1	Brass

EC Series Air Preparation Unit

EC
F.R.L



Specifications

Model	EC1000	EC2000	EC2500	EC3000	EC4000	EC5000
Proof pressure(MPa)	1.5					
Max. working pressure(MPa)	1.0					
Working temperature(°C)	5-60					
Filter precision	25 μm(5 μm is optional)					
Recommended oil	Turbine No.1 Oil ISOVG32					
Bowl material	Polycarbonate					
Bowl guard	None			Available		
Pressure adjusting range(MPa)	0.15-0.85					
Valve type	With overflow					

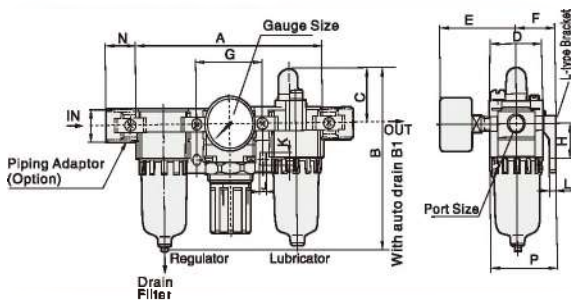
Model	Specifications							Accessories Bracket(Two)
	Filter	Regulator	Lubricator	* Rated flow (L/min)	** Port size (G)	Pressure gauge thread size (G)	Weight (kg)	
EC1000-M5	EF1000	ER1000	EL1000	90	M5	1/16	0.26	Y10L
EC2000-01	EF2000	ER2000	EL2000	1000	1/8	1/8	0.74	Y20L
EC2000-02				1100	1/4			
EC3000-02	EF3000	ER3000	EL3000	1950	1/4	1/8	1.18	Y30L
EC3000-03				2105	3/8			
EC4000-03	EF4000	ER4000	EL4000	4950	3/8	1/4	2.14	Y40L
EC4000-04				5200	1/2			
EC4000-06	EF4000-06	ER4000-06	EL4000-06	5600	3/4	1/4	2.47	Y50L
EC5000-06	EF5000	ER5000	EL5000	6200	3/4	1/4	3.82	Y60L
EC5000-10				6500	1			

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

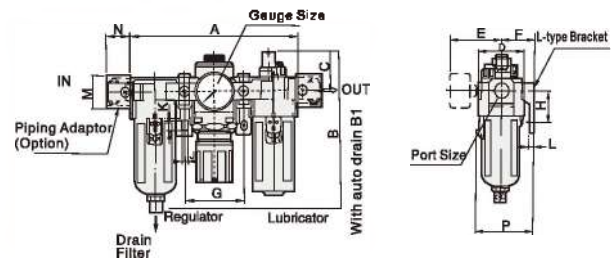
* NPT,PT port size is optional

Main Dimension

EC1000-EC2000



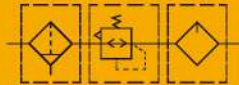
EC3000-EC5000



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	P
EC1000	M5	81	84.5	-	25.5	25	26	25	33	20	4.5	7.5	5	17.5	16	38.5
EC2000	1/8"-1/4"	140	123.5	161	37.5	40	53	30	60	24	6.5	8.5	5	22	23	60
EC3000	1/4"-3/8"	181	157.5	170	39	53	57	41	64	35	7.5	11	7.2	34.2	26	70.5
EC4000	3/8"-1/2"	238	190	194	40	70	62	50	84	40	9	13	7.2	42.2	33	88
EC4000-06	3/4"	253	191.5	194.5	39	70	66	50	89	40	9	13	7.2	46.2	36	88
EC5000	3/4"-1"	300	271.5	274.5	45.5	90	72	68.8	105	50	12	16	10.5	55.2	40	115

EC Series Air Preparation Unit

EC
FR.L



Specifications

Model	EC1010	EC2010	EC3010	EC4010	EC5010
Proof pressure(MPa)	1.5				
Max. working pressure(MPa)	1.0				
Working temperature(°C)	5-60				
Filter precision	25 μm (5 μm is optional)				
Recommended oil	Turbine No.1 Oil ISOVG32				
Bowl material	Polycarbonate				
Bowl guard	None				Available
Pressure adjusting range(MPa)	0.15-0.85				
Valve type	With overflow				

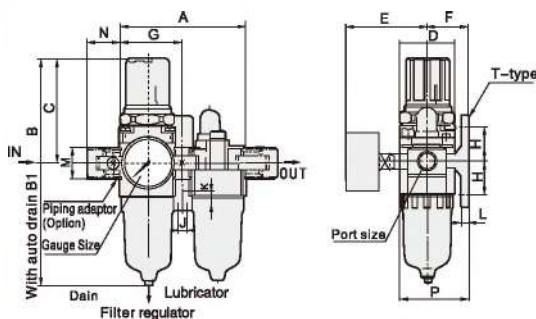
Model	Specifications						Accessories
	Assembly		* Rated flow (L/min)	** Port size (G)	Pressure gauge thread size (G)	Weight (kg)	Bracket
	Filter with pressure	Lubricator					
EC1010-M5	EW1000	EL1000	90	M5	1/16	0.22	Y10T
EC2010-01	EW2000	EL2000	945	1/8	1/8	0.66	Y20T
EC2010-02			960	1/4			
EC3010-02	EW3000	EL3000	1874	1/4	1/8	0.98	Y30T
EC3010-03			1956	3/8			
EC4010-03	EW4000	EL4000	4923	3/8	1/4	1.93	Y40T
EC4010-04			5120	1/2			
EC4010-06	EW4000-06	EL4000-06	5000	3/4	1/4	1.99	Y50T
EC5010-06			6000	3/4			
EC5010-10	EW5000	EL5000	6200	1	1/4	3.20	Y60T

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

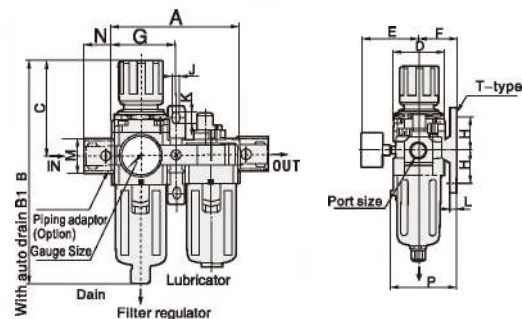
* NPT,PT port size is optional

Main Dimension

EC1010-EC2010



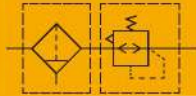
EC3010-EC5010



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	P
EC1010	M5	58	109.5	-	50.5	25	26	25	28	20	4.5	7.5	5	17.5	16	38.5
EC2010	1/8"-1/4"	90	182	200	78	40	53	29.5	45	24	5.5	8.5	5	22	23	50
EC3010	1/4"-3/8"	116	210.5	224.5	82	53	51	40	58.5	35	7.5	11	7.2	34.2	26	69.5
EC4010	1/4"-3/8"	154	264	287	113.5	70	67	48.5	77	40	9	13	7.2	42.2	33	88
EC4010-06	3/4"	164	268	271	115	70	67	49.5	82	40	9	13	7.2	46.2	28	88
EC5010	3/4"-1"	195	343	348	116.5	90	72	68.5	97.5	50	12	16	10.5	65.2	40	115

EW Series Air Preparation Unit

EW
F&R



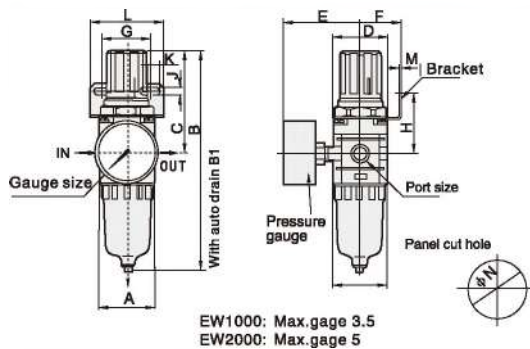
Specifications

Model	EW1000	EW2000	EW3000	EW4000	EW5000
Proof pressure(MPa)	1.5				
Max. working pressure(MPa)	1.0				
Working temperature(°C)	5~60				
Filter precision	25 μm (5 μm is optional)				
Bowl material	Polycarbonate				
Bowl guard	None		Available		
Pressure adjusting range(MPa)	0.15~0.85				
Valve type	With overflow				

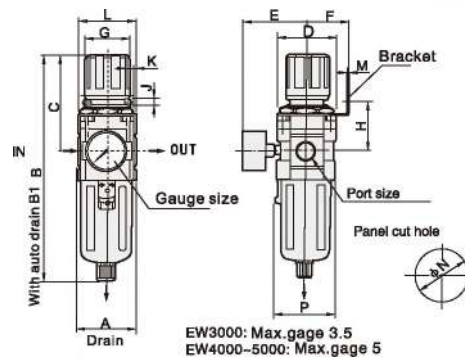
Model	Specifications				Accessories		Drain function	Auto drain model
	*Rated flow(L/min)	** Port size (G)	Pressure gauge/thread size	Weight (kg)	Bracket			
EW1000-M5	100	M5	1/16	0.09	B120			
EW2000-01	1078	1/8	1/8	0.36	B220		EW2000-01D	
EW2000-02	1165	1/4					EW2000-02D	
EW3000-02	1998	1/4	1/8	0.58	B320		EW3000-02D	
EW3000-03	2177	3/8					EW3000-03D	
EW4000-03	5108	3/8	1/4	1.15	B420		EW4000-03D	
EW4000-04	5211	1/2					EW4000-04D	
EW4000-06	5750	3/4	1/4	1.21	B420		EW4000-06D	
EW5000-06	6200	3/4					EW5000-06D	
EW5000-10	6400	1	1/4	1.70			EW5000-10D	

Main Dimension

EW1000-EW2000



EW3000-EW5000



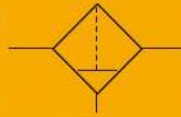
Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	N	P
EW1000	M5	25	109.5	-	50.5	25	28	25	28	30	4.5	6.5	40	2	20.5	28
EW2000	1/8"-1/4"	40	182	200	76	40	53	30.5	38.5	43	5.4	15	55	2	33	40
EW3000	1/4"-3/8"	53	210.5	224.5	82	53	57	39	40	45	6.5	8	53	2	42	56
EW4000	3/8"-1/2"	70	264	267	113.5	70	67	48	53.5	53.5	8.5	10.5	70	2	52	73
EW4000-06	3/4"	75	268	271	116	70	67	48	53.5	53.5	8.5	10.5	70	2	52	73
EW5000	3/4"-1"	90	343	348	116.5	90	72	48	53.5	82	8.5	10.5	70	2	52	90

4

EW

EF Series Air Preparation Unit

EF Filter



Specifications

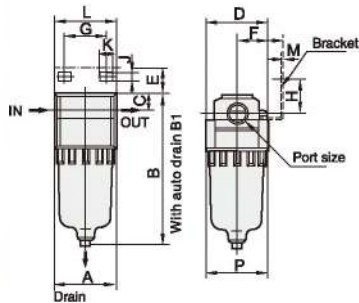
Model	EF1000	EF2000	EF3000	EF4000	EF5000
Proof pressure(MPa)			1.5		
Max. working pressure(MPa)			1.0		
Working temperature(°C)			5-60		
Filter precision	25 μm (5 μm is optional)				
Bowl material	Polycarbonate				
Bowl guard	None		Available		
Pressure adjusting range(MPa)	0.15-1.0				

Model	Specifications				Accessories	Drain function	Auto drain model
	*Rated flow (L/min)	** Port size (G)	Bowl capacity (CM ³)	Weight (kg)	Bracket		
EF1000-M5	110	M5	4	0.07	-	Manual drain	EF2000-01D EF2000-02D
EF2000-01	1222	1/8	15	0.19	B240		
EF2000-02	1278	1/4					
EF3000-02	2006	1/4	20	0.29	B340	a. Zero pressure drain b. Manual drain	EF3000-02D
EF3000-03	2148	3/8					EF3000-03D
EF4000-03	5120	3/8	46	0.56	B440	EF4000-03D	
EF4000-04	5430	1/2				EF4000-04D	
EF4000-06	7880	3/4	46	0.58	B540	EF4000-06D	
EF5000-06	8200	3/4				EF5000-06D	
EF5000-10	8500	1	130	1.08	B640	EF5000-10D	

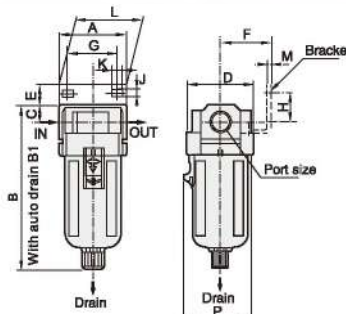
* The above information is based on 6.3 Bar supply pressure and 1.0 Bar set pressure * NPT,PT port size is optional

Main Dimension

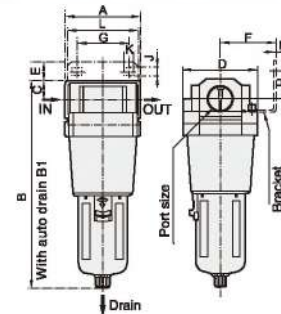
EF1000-EF2000



EF3000-EF4000



EF5000



Model	Port Size (G)	A	B	B1	C	D	E	F	G	H	J	K	L	M	P
EF1000	M5	25	66	-	7	25	-	-	-	-	-	-	-	-	28.5
EF2000	1/8"-1/4"	40	98.5	134.5	11	40	25	31	19	14	17	6.8	40	2	40
EF3000	1/4"-3/8"	53	132.5	145	14	53	15	41.5	40	22	6.5	8	53	2	56
EF4000	3/8"-1/2"	70	168	171.5	18	70	18	53	54	27	8.5	10.5	70	2	73
EF4000-06	3/4"	75	172.5	175.5	20	70	14	50	54	25	8.5	10.5	70	2	73
EF5000	3/4"-1"	90	246	250	24	90	23	67	66	35	11	13	90	3	90

EL Series Air Preparation Unit

EL

Lubricator



Specifications

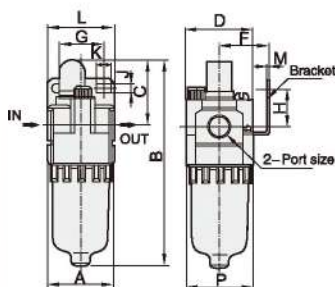
Model	EL1000	EL2000	EL3000	EL4000	EL5000
Proof pressure(MPa)	1.5				
Max. working pressure(MPa)	1.0				
Working temperature(°C)	5-60				
Filter precision	25µm (5 µm is optional)				
Bowl material	Polycarbonate				
Bowl guard	None		Available		
Pressure adjusting range (MPa)	0.15-1.0				

Model	Specifications					Accessories
	Minimal flow of oil drop (L/min)	*Rated flow(L/min)	** Port size (G)	Bowl capacity (CM ³)	Weight (kg)	Bracket
EL1000-M5	4	95	M5	7	0.07	-
EL2000-01	15	1300	1/8	25	0.22	B240
EL2000-02		1345	1/4			
EL3000-02	30	2310	1/4	50	0.50	B340
EL3000-03	40	2375	3/8			
EL4000-03	40	5321	3/8	130	0.56	B440
EL4000-04	50	5532	1/2			
EL4000-06	50	6700	3/4	130	0.58	B540
EL5000-06	190	7700	3/4			
EL5000-10			8000	1	130	1.08

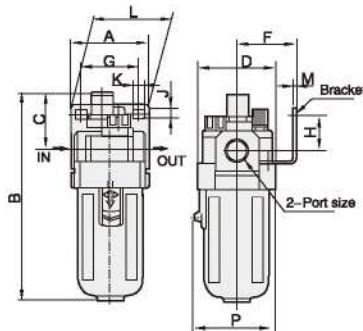
- * The above information is based on 6.3 Bar supply pressure, the flow of oil drop is 2-3 drops/min, the temperature of Turbine No.1 oil is 20°C
- ** The above information is based on 6.3 Bar supply pressure and 1.0 Bar step down
- * NPT,PT port size is optional

Main Dimension

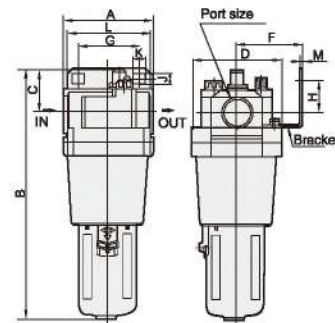
EL1000-EL2000



EL3000-EL4000



EL5000



Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
EL1000	M5	25	81.5	25.5	25	-	-	-	-	-	-	-	27
EL2000	1/8"-1/4"	40	115	37.5	40	31	19	14	17	6.8	40	2	40
EL3000	1/4"-3/8"	53	141	39	53	41	40	23	6.5	8	53	2	56
EL4000	3/8"-1/2"	70	175	40	70	53	54	26	8.5	10.5	70	2	73
EL4000-06	3/4"	75	177	39	70	50	54	26	8.5	10.5	70	2	73
EL5000	3/4"-1"	90	254	45.5	90	67	86	35	11	13	90	3	90

ER Series Air Preparation Unit

ER Regulator



Specifications

Model	ER1000	ER2000	ER3000	ER4000	ER5000
Proof pressure(MPa)	1.5				
Max. working pressure(MPa)	1.0				
Working temperature(°C)	5-60				
Pressure adjusting range(MPa)	0.05-0.85				
Valve type	With overflow				

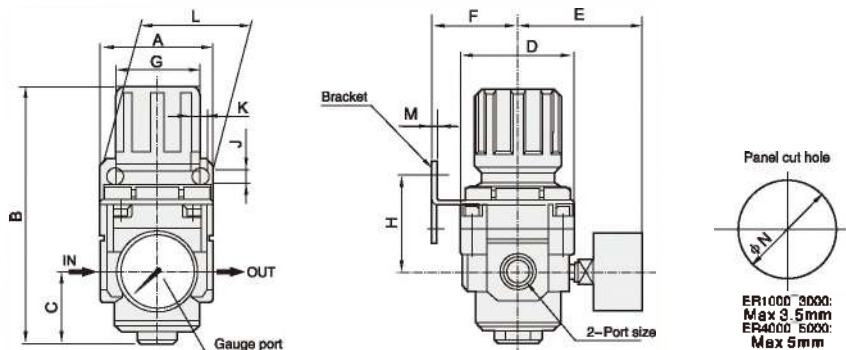
Model	Specifications				Accessories
	*Rated flow(L/min)	** Port size (G)	size (G)	Weight (kg)	Bracket
ER1000-M5	100	M5	1/16	0.08	B120
ER2000-01	1178	1/8	1/8	0.27	B220
ER2000-02	1200	1/4			
ER3000-02	2112	1/4	1/8	0.41	B320
ER3000-03	2212	3/8			
ER4000-03	5020	3/8	1/4	0.84	B420
ER4000-04	5312	1/2			
ER4000-06	6000	3/4	1/4	0.94	
ER5000-06	6400	3/4	1/4	1.19	
ER5000-10	6600	1			

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

* NPT,PT port size is optional

Main Dimension

ER1000-ER5000



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N
ER1000	M5	25	81.5	11	25	26	25	28	30	4.5	6.5	40	2	20.5
ER2000	1/8"-1/4"	40	93	17	40	52	30.5	33.5	44	5.4	15	55	2	33
ER3000	1/4"-3/8"	53	127.5	34.5	53	57	38	40	46	6.5	8	53	2	42
ER4000	3/8"-1/2"	70	149.5	40.5	70	82	48	53.5	54.5	8.5	10.5	70	2	52
ER4000-06	3/4"	75	154	40.5	70	86	48	53.5	55.5	8.5	10.5	70	2	52
ER5000	3/4"-1"	90	168	49	90	72	48	53.5	62	8.5	10.5	70	2	52

HNE Series Air Preparation Unit

How to Order?

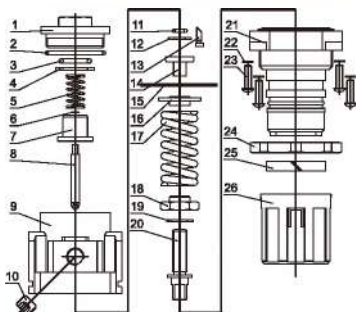
Series No.	Type Code	Body Size	Combination QTY	Part Size	Drain Type	Pressure Gauge Code	Bracket Code	Scale Unit	Filter Precision	Thread Type
HNE: Full metal bowl series	C: Filter+regulator+lubricator W: Filter+regulator F: Filter R: Regulator L: Lubricator	20: 2000 body 30: 3000 body 40: 4000 body 50: 5000 body	10: Two units (Regulator+Lubricator) 00: Others	2000 01: 1/8" 02: 1/4" 3000 02: 1/4" 03: 3/8"	4000 03: 3/8" 04: 1/2" 06: 3/4" 5000 06: 3/4" 10: 1"	Blank: Manual drain type D: Auto Drain type (Available only for 3000 or bigger body size)	Blank: With bracket J: No bracket	Blank: 25 μm 5M: 5 μm	Blank: 25 μm 5M: 5 μm	Blank: G P: PT T: NPT
						Blank: With pressure gauge N: No pressure gauge		4: Mpa/Psi (Default) 5: Bar/Pai		

Order Example:

HNE series three units, 2000 body size, 1/8" thread size, manual drain type, with bracket, Mpa/Pai pressure gauge, 25 μm filter precision, G thread, ERP code is: HNEC2000-01-4

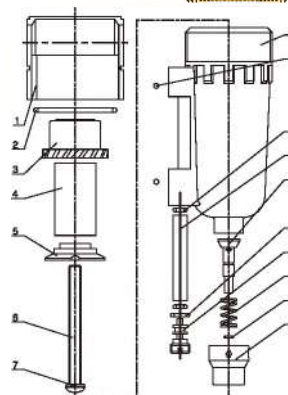
Air Preparation Unit Kits

HNER



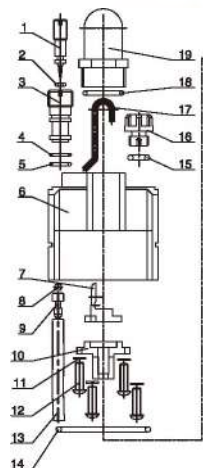
NO.	NAME	QTY	MATERIAL
26	Regulate handle	1	Reinforce nylon
25	Symbol ring	1	Reinforce nylon
24	Nut	1	Reinforce nylon
23	Cross screw	4	Carbon steel
22	Spring washer	4	Carbon steel
21	Valve cover	1	Reinforce nylon
20	Regulate bolt	1	Carbon steel
19	Washer	1	PCM
18	Regulate Nut	1	Carbon steel
17	Spring	1	Carbon steel
16	Spring seat	1	Carbon steel
15	Diaphragm	1	NBR
14	Diaphragm seal	1	Brass
13	Pipe	1	PCM
12	Retainer ring	1	Carbon steel
11	O-ring	1	NBR
10	Plug	1	Carbon steel
9	Regulate Body	1	Aluminum
8	Spool	1	Brass/NBR
7	Valve core	1	Brass
6	Retainer ring	1	Carbon steel
5	Spring	1	Stainless steel
4	Washer	1	Carbon steel
3	O-ring	1	NBR
2	O-ring	1	NBR
1	Regulator seat	1	ZnAl-1

HNEF



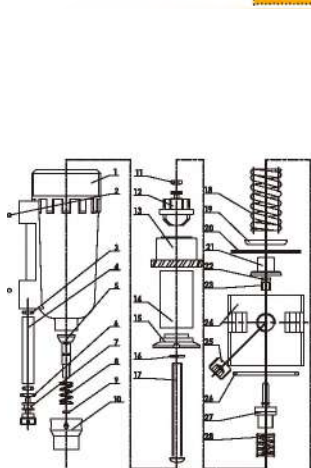
NO.	NAME	QTY	MATERIAL
17	Knob	1	PCM
16	O-ring	1	NBR
15	Spring	1	Stainless steel
14	Plug	1	Brass
13	O-ring	1	NBR
12	Drain valve	1	Brass
11	Glass pipe	1	Glass
10	O-ring	2	NBR
9	Steel Ball	2	Carbon steel
8	Metal bowl	1	Aluminum
7	Spring washer	1	Carbon steel
6	Cross screw	1	Carbon steel
5	Drain board	1	ABS
4	Filter Element	1	Brass
3	Whirling blade	1	ABS
2	O-ring	1	NBR
1	Regulate Body	1	Aluminum

HNEL



NO.	NAME	QTY	MATERIAL
25	Plug	1	Brass
24	O-ring	1	NBR
23	Glass pipe	1	Glass
22	O-ring	2	NBR
21	Metal bowl	1	Aluminum
20	Steel Ball	2	Carbon steel
19	Oil drop tube	1	Polycarbonate
18	O-ring	1	NBR
17	Oil drop tube	1	Brass
16	Plug	1	ABS
15	O-ring	1	NBR
14	O-ring	1	NBR
13	Oil tube	1	PU
12	Cross screw	4	Carbon steel
11	Spring Washer	4	Carbon steel
10	One way valve seat	1	PCM
9	Filling	1	Brass
8	Steel Ball	1	Carbon steel
7	Ball	1	Polycarbonate
6	Lubricator body	1	Aluminum
5	O-ring	1	NBR
4	O-ring	1	NBR
3	Oil regulate valve seat	1	Brass
2	O-ring	1	NBR
1	Oil regulate valve	1	Brass

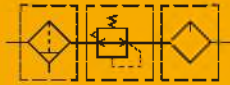
HNEW



NO.	NAME	QTY	MATERIAL
25	Regulate handle	1	Reinforce nylon
24	Nut	1	Reinforce nylon
23	Cross screw	4	Carbon steel
22	Spring washer	4	Carbon steel
21	Valve cover	1	Reinforce nylon
20	Bolt	1	Carbon steel
19	Nut	1	Carbon steel
18	Spring	1	Stainless steel
17	Valve core	1	Brass+NBR
16	O-ring	1	NBR
15	Plug	1	Carbon steel
14	Valve body	1	ADC12
13	Bushing	1	PCM
12	Rubber pad	1	NBR
11	Diaphragm seal	1	ZnAl-1
10	Diaphragm	1	NBR
9	Diaphragm Pad	1	Carbon steel
8	Spring	1	Carbon steel
7	Spring washer	1	Carbon steel
6	Drain board	1	ABS
5	Filter Element	1	Brass
4	Whirling blade	1	ABS
3	Oil regulate valve seat	1	ZnAl-1
2	O-ring	1	NBR
1	Knob	1	PCM
0	O-ring	1	NBR
0	Spring	1	Stainless steel
0	Plug	1	Brass
0	O-ring	1	NBR
0	Drain valve	1	Brass
0	Glass pipe	1	Glass
0	O-ring	2	NBR
0	Steel Ball	2	Carbon steel
0	Metal bowl	1	Aluminum

HNE Series Air Preparation Unit

HNE
F.R.L



Specifications

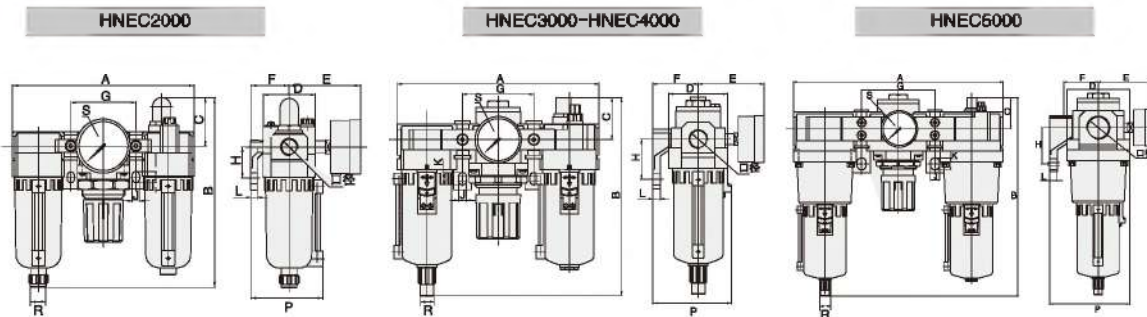
Model	HNEC2000	HNEC3000	HNEC4000	HNEC5000
Proof pressure(MPa)			1.5	
Max. working pressure(MPa)			1.0	
Working temperature(°C)			5-60	
Filter precision			25µm (5µm is optional)	
Recommended oil			Turbine No.1 Oil ISOVG32	
Bowl material			Aluminum die-casting	
Bowl guard			Available	
Entrance pressure(MPa)			0.15-1.0	
Pressure adjusting range (MPa)			0.15-0.85	
Valve type			With overflow	

Model	Specifications							Accessories
	Assembly			* Rated flow(L/min)	* Port size (G)	Pressure gauge thread size (G)	Weight(kg)	Bracket
	Filter	Regulator	Lubricator					
HNEC2000-01				1000	1/8			
HNEC2000-02	HNEF2000	ER2000	HNEL2000	1100	1/4	1/8	0.74	Y20L
HNEC2500-02	HNEF3000	ER2500	HNEL3000	1500	1/4	1/8	1.04	Y30L
HNEC2500-03				1500	3/8			
HNEC3000-02	HNEF3000	ER3000	HNEL3000	1950	1/4	1/8	1.18	Y30L
HNEC3000-03				2105	3/8			
HNEC4000-03	HNEF4000	ER4000	HNEL4000	4850	3/8	1/4	2.14	Y40L
HNEC4000-04				5200	1/2			
HNEC4000-06	HNEF4000-06	ER4000-06	HNEL4000-06	5800	3/4	1/4	2.47	Y50L
HNEC5000-06	HNEF5000	ER5000	HNEL5000	8200	3/4	1/4	3.82	Y60L
HNEC5000-10				8500	1			

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

* NPT, PT port size is optional

Main Dimension



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	P	R	S
HNEC2000	1/8"-1/4"	140	147	38	40	56.8	30	50	24	5.5	8.5	5	56	φ6	G1/8
HNEC3000	1/4"-3/8"	181	178	38	53	60.8	41	64	35	7	11	7	70.5	φ8	G1/8
HNEC4000-04	1/2"	238	207	41	70	65.5	50	84	40	9	13	7	87.5	φ8	G1/4
HNEC4000-06	3/4"	253	208.5	40.5	70	69.5	50	89	40	9	13	7	87.5	φ8	G1/4
HNEC5000	3/4"-1"	300	287	48	90	75.5	69.8	105	50	12	16	10.5	115	φ8	G1/4

HNE Series Air Preparation Unit

HNE
FR.L



Specifications

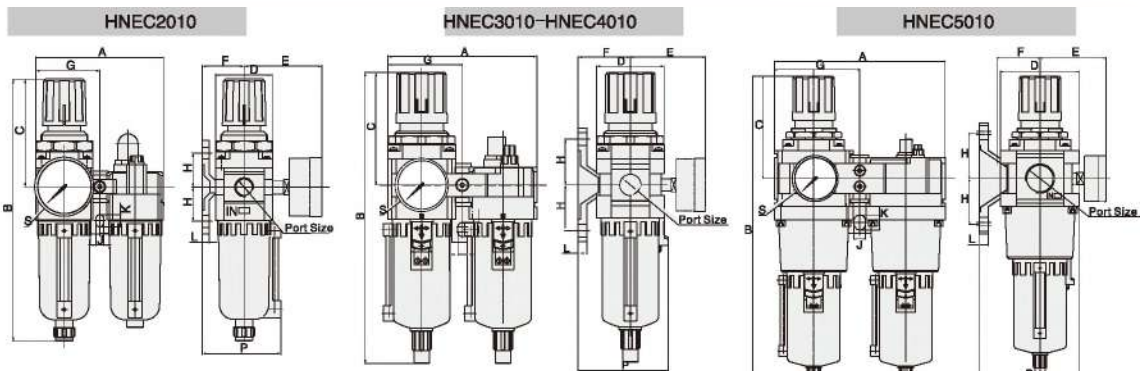
Model	HNEC2010	HNEC3010	HNEC4010	HNEC5010
Procl pressure(MPa)			1.5	
Max. working pressure (MPa)			1.0	
Working temperature(°C)			5-60	
Filter precision			25µm (5µm is optional)	
Recommended oil			Turbine No.1 Oil ISOVG32	
Bowl material			Aluminum die-casting	
Bowl guard			Available	
Entrance pressure(MPa)			0.15-1.0	
Pressure adjusting range(MPa)			0.15-0.85	
Valve type			With overflow	

Model	Specifications					Accessories	
	Assembly		* Rated flow(L/min)	* Port size (G)	Pressure gauge thread size (G)	Weight(kg)	Bracket
Filter with pressure reducer	Lubricator						
HNEC2010-01	HNEW2000	HNEL2000	945	1/8	1/8	0.66	Y20T
HNEC2010-02			960	1/4			
HNEC3010-02	HNEW3000	HNEL3000	1874	1/4	1/8	0.98	Y30T
HNEC3010-03			1956	3/8			
HNEC4010-03	HNEW4000	HNEL4000	4923	3/8	1/4	1.93	Y40T
HNEC4010-04			5120	1/2			
HNEC4010-06	HNEW4000-06	HNEL4000-06	5000	3/4	1/4	1.99	Y50T
HNEC5010-06	HNEW5000	HNEL5000	6000	3/4	1/4	3.20	Y60T
HNEC5010-10			6200	1			

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

* NPT, PT port size are available

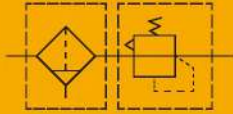
Main Dimension



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	P	S
HNE2010	1/8"-1/4"	90	186.5	78	40	56.8	30	45	24	5.5	8.5	5	56.0	G1/8
HNE3010	1/4"-3/8"	117	232.5	92.5	53	60.8	41	58.5	35	7	11	7	69.5	G1/8
HNE4010-04	1/2"	154	277	112	70	65.5	50	77	40	9	13	7	87.5	G1/4
HNE4010-06	3/4"	164	282.5	114	70	69.5	50	82	40	9	13	7	87.5	G1/4
HNE5010	3/4"-1"	195	353.5	116	90	75.5	69.8	97.5	50	12	16	10.5	115	G1/4

HNEW Series Air Preparation Unit

HNEW
F&R



Specifications

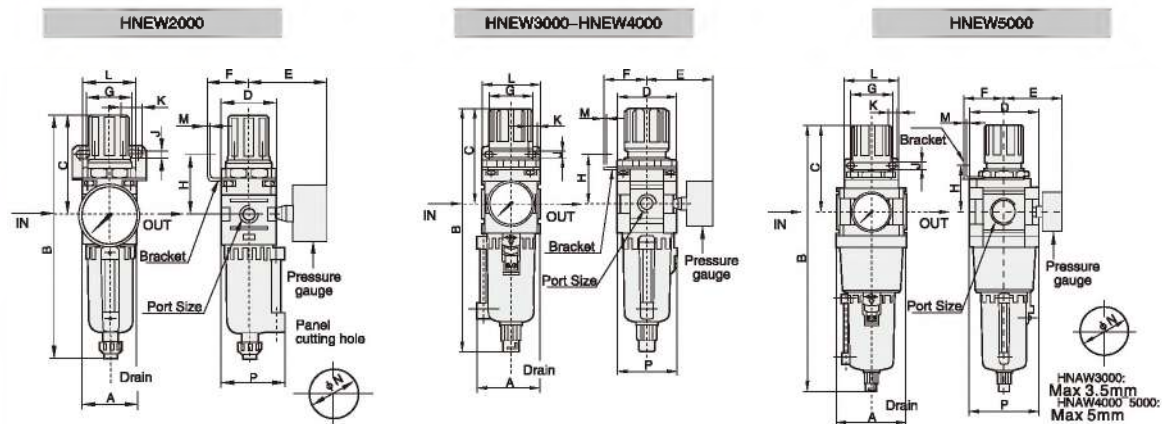
Model	HNEW2000	HNEW3000	HNEW4000	HNEW5000
Proof pressure(MPa)			1.5	
Max. working pressure (MPa)			1.0	
Working temperature(°C)			5-60	
Filter precision		25 μm (5μm is optional)		
Bowl material		Aluminum die-casting		
Bowl guard		Available		
Entrance pressure(MPa)		0.15-1.0		
Pressure adjusting range(MPa)		0.15-0.85		
Valve type		With overflow		

Model	Specifications				Accessories	Drain function	Auto drain model
	Rated flow (L/min)	Port size (G)	Pressure gauge thread size (G)	Weight (kg)			
HNEW2000-01	1078	1/8	1/8	0.28	B220	Manual drain	HNEW2000-01D
HNEW2000-02	1165	1/4					HNEW2000-02D
HNEW3000-02	1988	1/4	1/8	0.55	B320	Zero pressure drain /Manual drain	HNEW3000-02D
HNEW3000-03	2177	3/8					HNEW3000-03D
HNEW4000-03	5108	3/8					HNEW4000-03D
HNEW4000-04	5211	1/2	1/4	1.16	B420		HNEW4000-04D
HNEW4000-06	5750	3/4	1/4				1.2
HNEW5000-06	6200	3/4	1/4	1.79			HNEW5000-06D
HNEW5000-10	6400	1	1/4				HNEW5000-10D

* The above information is based on 8.0 Bar supply pressure and 6.3 Bar set pressure

* NPT, PT port size is optional

Main Dimension



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	P
HNEW2000	1/8"~1/4"	40	186.5	78	40	56.8	30	34	43.5	5.4	15.4	55	2.3	46
HNEW3000	1/4"~3/8"	57.5	232.5	92.5	53	60.8	39	40	46	6.5	8	53	2.3	55
HNEW4000	3/8"~1/2"	74	278	112	70	70.5	49.2	54	53.5	8.5	10.5	70	2.3	72.5
HNEW4000-06	3/4"	76.5	282	114	70	70.5	49.2	54	55.5	8.5	10.5	70	2.3	72.5
HNEW5000	3/4"~1"	90	355	116	90	75.5	49.2	54	62	8.5	10.5	70	2.3	90

HNEF Series Air Preparation Unit

HNEF Filter



Specifications

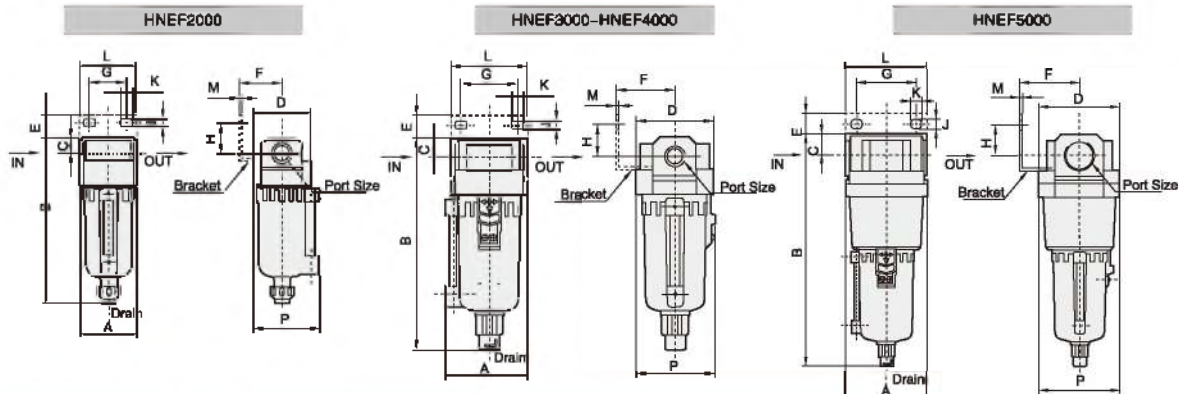
Model	HNEF2000	HNEF3000	HNEF4000	HNEF5000
Proof pressure(MPa)			1.5	
Max. working pressure(MPa)			1.0	
Working temperature(°C)			5-60	
Filter precision		25 μm (5μm is optional)		
Bowl material		Aluminum die-casting		
Bowl guard		Available		
Entrance pressure(MPa)		0.15-1.0		

Model	Specifications				Accessories	Drain function	Auto drain model
	Rated flow (L/min) *	Port size (G)	Bowl capacity (CM ³)	Weight (kg)	Bracket		
HNEF2000-01	1222	1/8	15	0.17	B240	Manual drain	HNEF2000-01D
HNEF2000-02	1278	1/4					HNEF2000-02D
HNEF3000-02	2006	1/4	20	0.29	B340	Zero pressure drain /Manual drain	HNEF3000-02D
HNEF3000-03	2148	3/8					HNEF3000-03D
HNEF4000-03	5120	3/8					HNEF4000-03D
HNEF4000-04	5430	1/2	45	0.53	B440		HNEF4000-04D
HNEF4000-06	7680	3/4					HNEF4000-06D
HNEF5000-06	8200	3/4	130	1.05	B640		HNEF5000-06D
HNEF5000-10	8500	1					HNEF5000-10D

* The above information is based on 6.3 Bar supply pressure and 1.0 Bar set pressure

* NPT, PT port size is optional

Main Dimension



Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	P
HNEF2000	1/8" 1/4"	40	119.5	11	40	17	30	27	22	5.4	8.4	40	2.3	46
HNEF3000	1/4" 3/8"	57.5	154	14	53	16	41	40	23	6.5	8	53	2.3	55
HNEF4000	3/8" 1/2"	74	184	18	70	17	50	54	26	8.5	10.5	70	2.3	72.5
HNEF4000-06	3/4"	76.5	188	20	70	14	50	54	25	8.5	10.5	70	2.3	72.5
HNEF5000	3/4" 1"	90	263	24	90	23	66.5	66	35	11	13	90	3.2	90

HNEL Series Air Preparation Unit

HNEL
Lubricator



Specifications

Model	HNEL2000	HNEL3000	HNEL4000	HNEL5000
Proof pressure(MPa)	1.5			
Max. working pressure(MPa)	1.0			
Working temperature(°C)	5-60			
Recommended oil	Turbine No.1 Oil ISOVG32			
Bowl material	Aluminum die-casting			
Bowl guard	Available			
Entrance pressure(MPa)	0.15-1.0			
Valve type	With overflow			

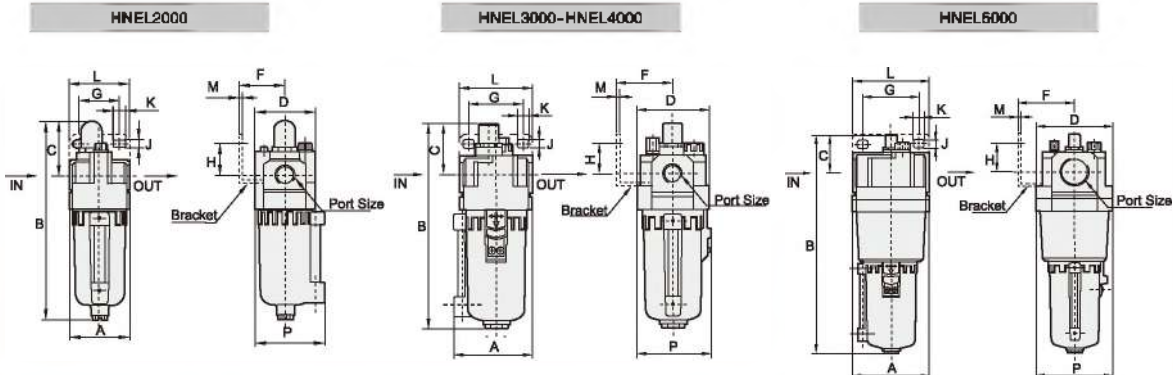
Model	Specifications					Accessories
	Minimal flow of oil drop (L/min)	*Rated flow (L/min)	* Port size (G)	Bowl capacity (cm ³)	Weight (kg)	Bracket
HNEL2000-01	15	1300	1/8	25	0.17	B240
HNEL2000-02		1450	1/4			
HNEL3000-02	30	2310	1/4	50	0.30	B340
HNEL3000-03	40	2375	3/8			
HNEL4000-03	40	5321	3/8	130	0.53	B440
HNEL4000-04	50	6532	1/2			
HNEL4000-06	50	6700	3/4	130	0.59	B540
HNEL5000-06	190	7700	3/4			
HNEL5000-10		8000	1	130	1.13	B640

*The above information is based on 6.3Bar supply pressure, the flow of oil drop is 2-3 drops/min, the temperature of Turbine No.1 oil is 20°C

*The above information is based on 6.3Bar supply pressure and 1.0Bar step down

*NPT, PT port size is optional

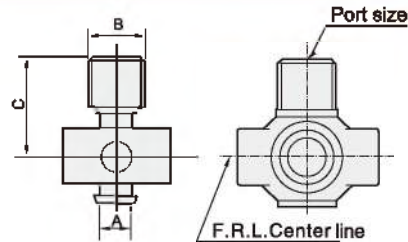
Main Dimension



Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
HNEL2000	1/8" 1/4"	40	137	38	50	30	27	22	5.4	8.4	40	2.3	40
HNEL3000	1/4" 3/8"	57.4	154.5	38	53	41	40	23	6.5	8	53	2.3	55
HNEL4000	3/8" 1/2"	74	185.5	41	70	50	54	26	8.5	10.5	70	2.3	72.5
HNEL4000-06	3/4"	76.5	185.5	39	70	50	54	25	8.5	10.5	70	2.3	72.5
HNEL5000	3/4" 1"	90	262.5	45	90	66.5	66	35	11	13	90	3.2	90

Accessory

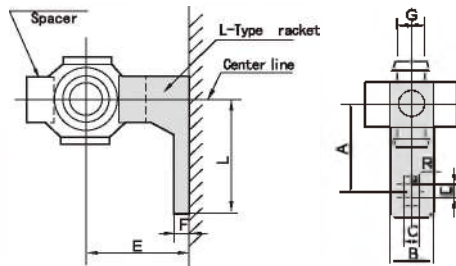
Accessory



T-Type Spacer

Model	*Port Size (G)	A	B	C	Applicable Model
Y21-01	G1/8	10	19	29	EC2000
Y21-02	G1/4				
Y31-01	G1/8	11	19	33	EC3000
Y31-02	G1/4				
Y41-02	G1/4	14	24	39	EC4000
Y41-03	G3/8				
Y81-03	G3/8	15	30	50.5	EC5000
Y81-04	G1/2				

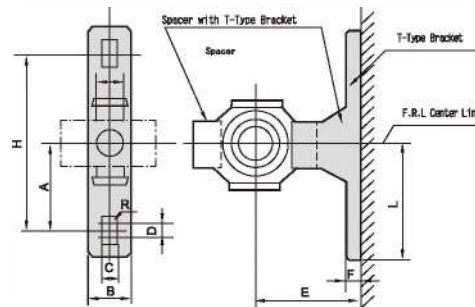
*NPT, PT port size is optional



L-Type Bracket Spacer with L-Type Bracket

L-Type Bracket	Spacer with L-Type Bracket	A	B	C	D	E	F	G	R	L	Applicable Model
B110L	Y10L	20	12	4.5	3	25	5	8	2.25	27	EC1000
B210L	Y20L	24	15	5.5	3	30	5	10	2.75	33	EC2000
B310L	Y30L	35	16	7	4	41	7	11	3.5	45	EC2500-EC3000
B410L	Y40L	40	22	9	4	50	7	14	4.5	60	EC4000
B510L	Y50L	40	22	9	4	50	7	14	4.5	50	EC4000-06
B610L	Y60L	50	23	12	4	69.8	10.5	15	6	63	EC5000
IB210L	IY20L	24	15	5.5	3	30	5	10	2.75	33	EIC2000
ILB310L	ILY30L	35	16	7	4	41	7	11	3.5	45	Connect EIC3000 filter and regulator
IRB310L	IRY30L	35	16	7	4	41	7	11	3.5	45	Connect EIC3000 regulator and lubricator

*EIC4000/5000 adopts EC series corresponding model.



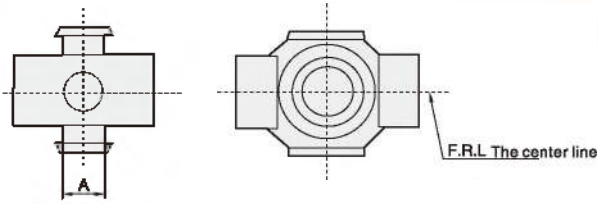
T-Type Bracket Spacer with T-Type Bracket

T-Type Bracket	Spacer with T-Type Bracket	A	B	C	D	E	F	G	H	R	L	Applicable Model
B110T	Y10T	20	12	4.5	3	25	5	8	40	2.25	27	EC1010
B210T	Y20T	24	15	5.5	3	30	5	10	48	2.75	33	EC2010
B310T	Y30T	35	16	7	4	41	7	11	70	3.5	45	EC3010
B410T	Y40T	40	22	9	4	50	7	14	80	4.5	50	EC4010
B510T	Y50T	40	22	9	4	50	7	14	80	4.5	50	EC4010-08
B610T	Y60T	50	23	12	4	69.8	10.5	15	100	6	63	EC5010
IB210T	IY20T	24	15	5.5	3	30	5	10	48	2.75	33	EIC2010
IB310T	IY30T	35	16	7	4	41	7	11	70	3.5	45	EIC3010

*EIC4000/5000 adopts EC series corresponding model.

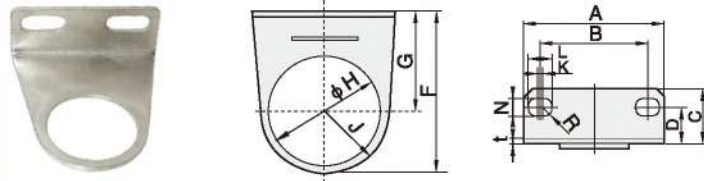
Accessory

Y-Type Spacer



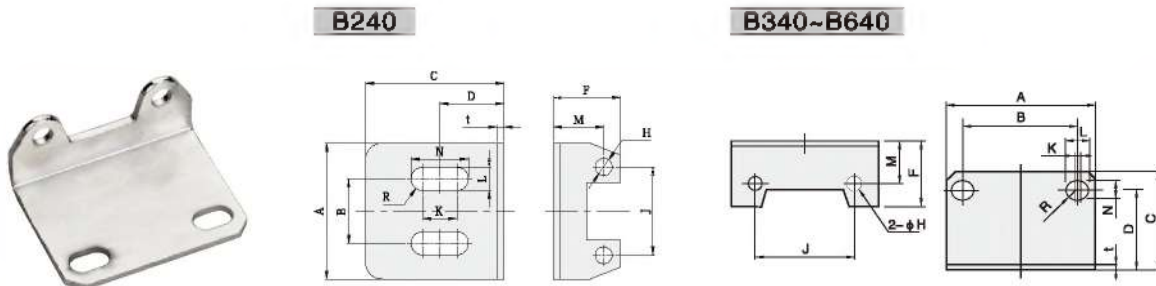
Model	A	Applicable model
Y10	8	EC1000
Y20	10	EC2000
Y30	11	EC2500-3000
Y40	14	EC4000
Y50	14	EC4000-06
Y60	15	EC5000

20-Type Bracket



Model	A	B	C	D	F	G	φH	J	K	L	N	R	t	Applicable model
B120	40	28	17	11	37.8	25	20	12.3	2	6.5	4.5	2.25	2	ER/EW 1000
B220	55	33.5	24	18	50.5	30.5	33	20	10	15	5.4	2.7	2	ER/EW 2000, ER2500
B320	53	40	22	14	64	39	42	25	1.5	8	6.5	3.25	2	ER/EW 3000
B420	70	53.5	27	18	78.5	48.2	52	30	2	10.5	8.5	4.25	2	ER4000 5000 EW4000 5000

20-Type Bracket



Model	A	B	C	D	F	φH	J	K	L	M	N	R	t	Fixing screw	Applicable model
B240	40	19	41	19	20	5	26	10.2	6.8	15	17	3.4	2	M4x8	EF/EL2000
B340	53	40	38	31.2	23	4.6	35	1.5	8	19	6.5	3.25	2	M4x8	EF/EL3000
B440	70	54	49	40	30	5.5	47	2	10.5	18.4	8.5	4.25	2	M5x10	EF/EL4000
B540	70	54	49	40	30	5.5	47	2	10.5	21.6	8.5	4.25	2	M5x10	EF/EL4000-06
B640	90	66	64	52	43	6.5	60	2	13	29	11	5.5	2	M6x10	EF/EL5000

HED402

Auto Drain



HED402 Auto Drain

◎ Purpose

This product often applies to the low places of auto-remove piping, frozen type air drying machine, oil separator, air storage tank and the bottom of various air filters. It can be installed in the places which are not convenient for manual discharge of sewage, such as high, low, narrow places. Especially, it can be installed in the places with large consumption of air or frequent drain times, to prevent the compressed air to be re-polluted by condensed water resulting from the neglect of manual drain.

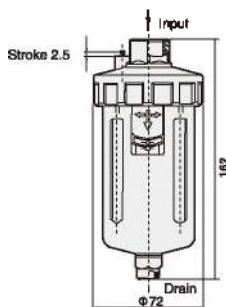
◎ Features

Auto drain/ Zero pressure drain/ The water cup with

◎ Attention

The drainer should be installed vertically and the port should face down, when using.

◎ Main Dimension



Model	HED402-02	HED402-03	HED402-04
Working medium	Compressed air		
Working pressure (MPa)	0.15~1.0		
Guaranteed pressure resistance (MPa)	1.5		
Working temperature (°C)	5~60		
Port size	G1/4	G3/8	G1/2
Drain port size	G1/8		
Drain status	Normal open		

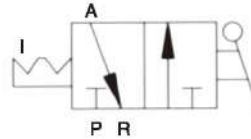
EVSH Series 3/2 way Pressure Relief Valve

EVSH

Pressure Relief Valve (3/2)



EVSH



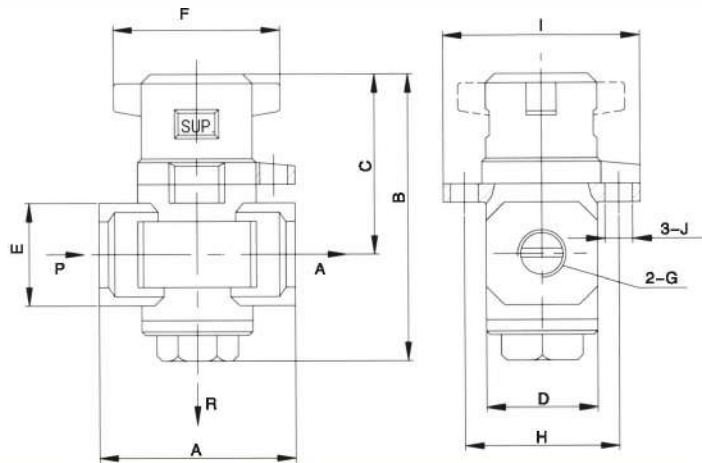
How to Order?

Series No.	Body Size	Port Size	Thread Type
EVSH Series	2000: 2000 Body 3000: 3000 Body 4000: 4000 Body	01: 1/8" 02: 1/4" 03: 3/8" 04: 1/2"	Blank: G P: PT

Order Example:

EVSH series 3/2 way check valve, 2000 body size, 1/4" body size, PT thread, ERP code is: EVSH2000-02-P

Main Dimension



Model	G	Exhaust port	A	B	C	D	E	F	H	I	J
EVSH2000-01	1/8	1/8	40	59	39	28	22	40	32	41	Φ6
EVSH2000-02	1/4	1/8	40	59	39	28	22	40	32	41	Φ6
EVSH3000-02	1/4	1/4	53	78	49	30	28	45	41.5	53	Φ7.5
EVSH3000-03	3/8	1/4	53	78	49	30	28	45	41.5	53	Φ7.5
EVSH4000-03	3/8	3/8	70	84	52	36	36	45	41.5	53	Φ7.5
EVSH4000-04	1/2	3/8	70	84	52	36	36	45	41.5	53	Φ7.5

FEO Series Mini Air Preparation Unit

FEO



How to Order?

Series No.	Type Code	Port Size	Regulate Range	Filter Precision	Pressure Gauge Code	Regulator Type	Body Dimension	Drain Type
FE	C: Filter+regulator+lubricator CS: Filter+regulator+lubricator (With lock) W: Filter+regulator WS: Filter+regulator (With lock) F: Filter R: Regulator RS: Regulator(With lock) L: Lubricator	M5: M5 M7: M7 Qs4: Push-in fitting QS4 Qs6: Push-in fitting QS6 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: 0.5~12 bar 7: 0.5~7 bar	Blank: 40 μm 5M: 5 μm	Blank: With pressure gauge N: No pressure gauge	D1: Directly actuate pressure regulator with integrated return flow function (FEC and MAXI size only)	MICRO: Body dimension 25mm MINI: Body dimension 40mm MIDI: Body dimension 55mm MAXI: Body dimension 66mm (All without Connecting Plates)	Blank: Manual Drain H: Semi-Autodrain A: Full-Autodrain

Order Example:

FE series filter+regulator, 1/8 port size, pressure regulate range 0.5~12 bar, 40 μm filter precision, body dimension 40mm, manual drain, ERP code is: FEC-01 MINI

Specifications

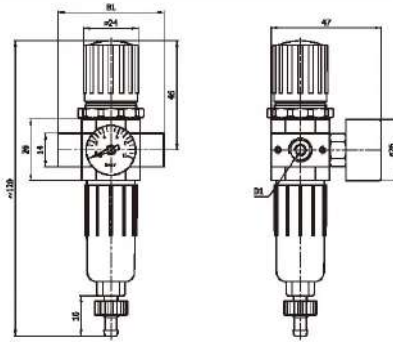
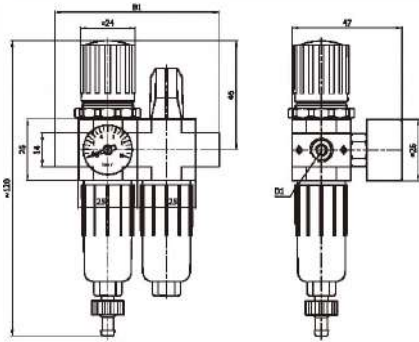
Working medium	Compressed air				
Structural characteristics	Direct acting diaphragm regulator, no inner air loss; With sintered filter and adjustable lubricator				
Installation	Pipe or bracket installation				
Installation position	Vertical ±5°				
Connecting dimensions	Female thread connection		The connecting plate		
	M5	M7	M7	1/8	
Standard rated flow	FEOC	90	130	170	140
	FEOW	120	280	300	410
	FEOR	120	300	320	450
	FEOF	170	280	280	280
	FEOL	200	430	380	410
The input pressure(MPa)	0~1.0				
Working pressure(MPa)	0.05~0.7				
Minimum mist flow	31/min				
Filter accuracy (μ m)	5				
The maximum gelation capacity	6.5cm ³				
Temperature range (°C)	0~60				
Material Science	Body: Aluminum ; Filter bowl and lubricator bowl: PC, Seal: NBR, Regulator pul: POM				

FEO Series Mini Air Preparation Unit

Main Dimension

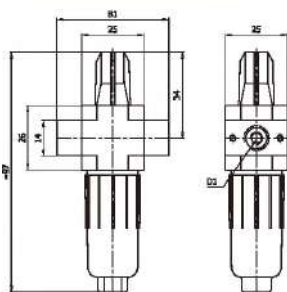
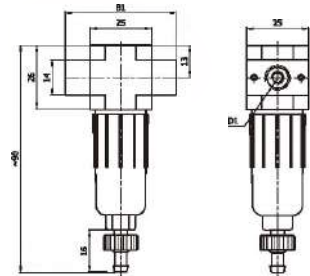
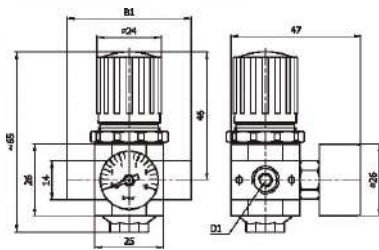
Model	B1	D1
FEOC-M5	50	M5
FEOC-M7		M7
FEOC-M7		M7
FEOC-01	70	1/8

Model	B1	D1
FEOW-M5	25	M5
FEOW-M7		M7
FEOW-M7		M7
FEOW-01	45	1/8



Model	B1	D1
FEOR-M5	25	M5
FEOR-M7		M7
FEOR-M7	45	M7
FEOR-01		1/8

Model	B1	D1
FEOF-M5	25	M5
FEOF-M7		M7
FEOF-M7	45	M7
FEOF-01		1/8



Model	B1	D1
FEOL-M5	25	M5
FEOL-M7		M7
FEOL-M7	45	M7
FEOL-01		1/8

AE/BE Series Air Preparation Unit

AEC/BEC

F.R.L



How to Order?

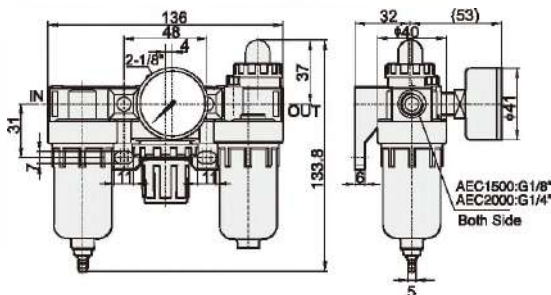
Series No.	Type Code	Body Size	Pressure Gauge Code	Bracket Code	Scale Unit	Thread Type
AE: Small body size without bowl guard BE: Larger body size with bowl guard	C: Filter+regulator+lubricator	1500: 1/8" 2000: 1/4" 3000: 3/8" 4000: 1/2"	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	4: Mpa/Psi(Default) 5: Bar/Psi	Blank: G P: PT T: NPT

Order Example:

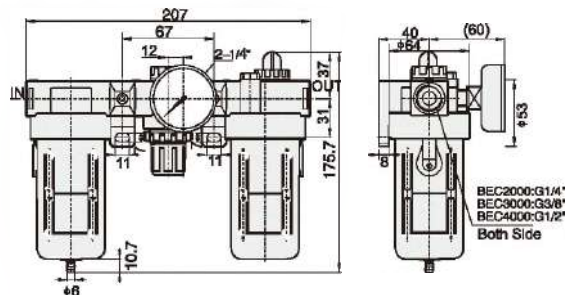
AE series three units, 1/4" body size, Mpa/Psi pressure scale unit, PT thread, ERP code is: AEC2000-4-P

Main Dimension

AEC 1500 / 2000



BEC 2000 - 4000



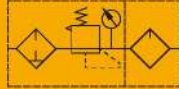
Specifications

Model	AEC1500	AEC2000	BEC2000	BEC3000	BEC4000	
Working medium	air					
Port size	G1/8	G1/4	G1/4	G3/8	G1/2	
Filter precision	40µm (5, 40µm is optional)					
Adjusting pressure range (MPa)	0.15-0.85					
Max. adjusting pressure (MPa)	1.0					
Guaranteed pressure (MPa)	1.5					
Working temperature(°C)	5-60					
Filter bowl capacity (CC)	15			60		
Lubricator bowl capacity (CC)	25			90		
Recommend oil	ISO VG32 or equivalent oil					
Weight (g)	700		900			
Components	Filter	AEF1500	AEF2000	BEF2000	BEF3000	BEF4000
	Regulator	AER1500	AER2000	BER2000	BER3000	BER4000
	Lubricator	AEL1500	AEL2000	BEL2000	BEL3000	BEL4000

AEFC/BEFC Series Air Preparation Unit

AEFC/BEFC

FR.L



How to Order?

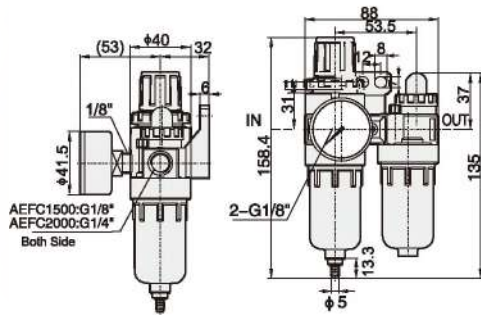
Series No.	Type Code	Body Size	Pressure Gauge Code	Bracket Code	Scale Unit	Thread Type
AE: Small body size without bowl guard BE: Larger body size with bowl guard	FC: Filter & Regulator +lubricator	1500: 1/8" 2000: 1/4" 3000: 3/8" 4000: 1/2"	Blank: With pressure gauge N: Without pressure gauge	Blank: With bracket J: Without bracket	4: Mpa/Psi (Default) 5: Bar/Psi	Blank: G P: PT T: NPT

Order Example:

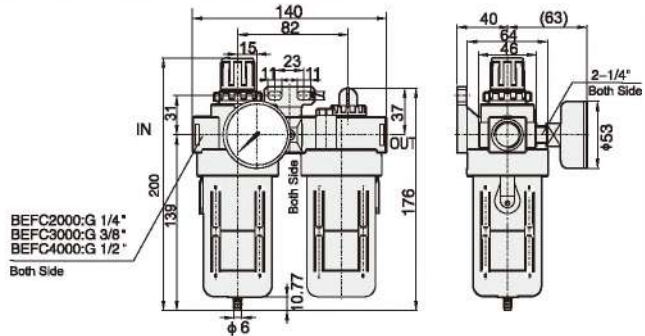
AE series two units, 1/4" body size, Mpa/Psi pressure scale unit, PT thread, ERF code is: AEFC2000-4-P

Main Dimension

AEFC1500/2000



BEFC2000-4000



Specifications

Model	AEFC1500	AEFC2000	BEFC2000	BEFC3000	BEFC4000	
Working medium	air					
Port size	G1/8	G1/4	G1/4	G3/8	G1/2	
Filter precision	40 μm (5, 40 μm is optional)					
Adjusting pressure range (MPa)	0.15-0.85					
Max. adjusting pressure (MPa)	1.0					
Guaranteed pressure (MPa)	1.5					
Working temperature (°C)	5-60					
Filter bowl capacity (CC)	15			60		
Lubricator bowl capacity (CC)	25			90		
Recommend oil	ISO VG32 or equivalent oil					
Weight (g)	500			700		
Components	Filter, Regulator	AEFR1500	AEFR2000	BEFR2000	BEFR3000	BEFR4000
	Lubricator	AEL1500	AEL2000	BEL2000	BEL3000	BEL4000

AEFR/BEFR Series Air Preparation Unit

AEFR/BEFR



How to Order?

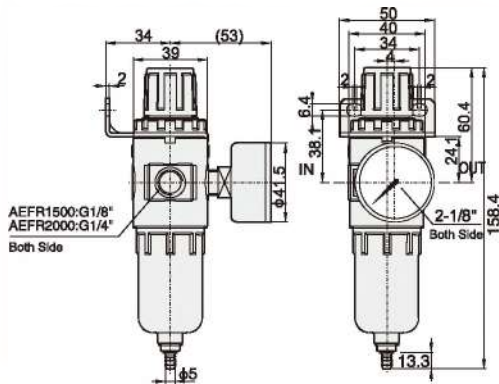
Series No.	Type Code	Body Size	Pressure Gauge Code	Bracket Code	Scale Unit	Thread Type
AE: Small body size without bowl guard BE: Larger body size with bowl guard	FR: Regulator+Filter	1500: 1/8" 2000: 1/4" 3000: 3/8" 4000: 1/2"	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	4: Mpa/Psi(Default) 5: Bar/Psi	Blank: G P: PT T: NPT

Order Example:

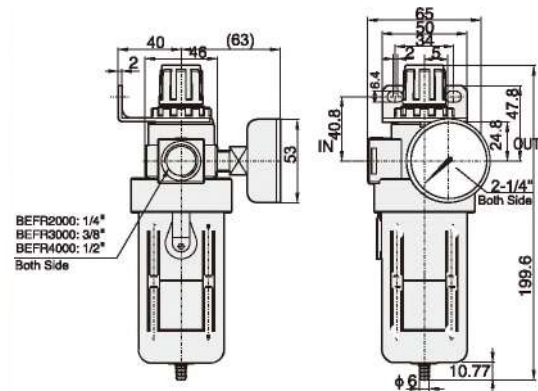
AE series Filter+regulator, 1/4" body size, Mpa/Psi pressure scale unit, PT thread, ERP code is: AEFR2000-4-P

Main Dimension

AEFR1500/2000



BEFR2000-4000



Specifications

Model	AEFR1500	AEFR2000	BEFR2000	BEFR3000	BEFR4000
Working medium	air				
Port size	G1/8	G1/4	G1/4	G3/8	G1/2
Filter precision	40 μm (5, 60 μm is optional)				
Adjusting pressure range (MPa)	0.15-0.85				
Max. adjusting pressure (MPa)	1.0				
Guaranteed pressure (MPa)	1.5				
Working temperature(°C)	5-80				
Filter bowl capacity (CC)	15		80		400
Weight (g)	280		400		

AEF/BEF Series Air Preparation Unit

AEF/BEF Filter



How to Order?

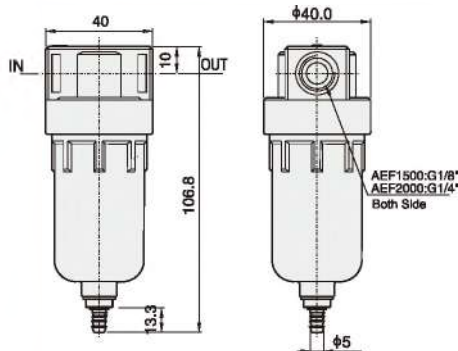
Series No.	Type Code	Body Size	Bracket Code	Thread Type
AE: Small body size without bowl guard	F: Filter	1500: 1/8"	Blank: With bracket	Blank: G
BE: Larger body size with bowl guard		2000: 1/4"	J: No bracket	P: PT
		3000: 3/8"		T: NPT
		4000: 1/2"		

Order Example:

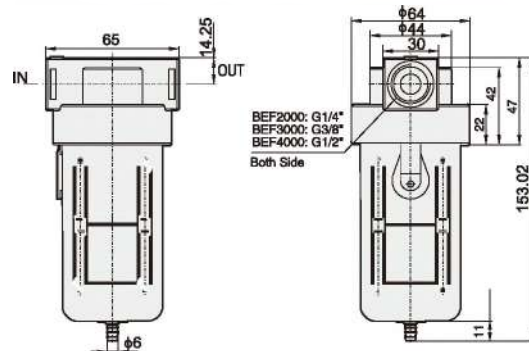
AE series filter, 1/4" body size, with bracket, PT thread, ERP code is: AEF2000-P

Main Dimension

AEF1500/2000



BEF2000-4000



Specifications

Model	AEF1500	AEF2000	BEF2000	BEF3000	BEF4000
Working medium	air				
Port size	G1/8	G1/4	G1/4	G3/8	G1/2
Filter precision	40 μ m (5, 50 μ m is optional)				
Working pressure (MPa)	0.16-1.0				
Guaranteed pressure (MPa)	1.5				
Working temperature (°C)	6-80				
Filter bowl capacity (CC)	15		60		
Weight (g)	140		330		

AEL/BEL Series Air Preparation Unit

AEL/BEL Lubricator



How to Order?

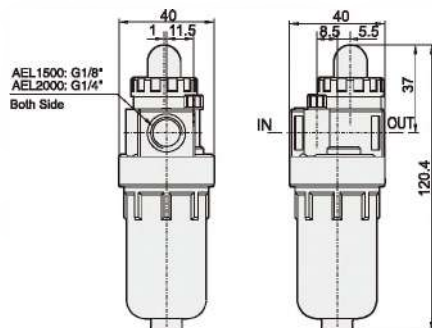
Series No.	Type Code	Body Size	Bracket Code	Thread Type
AE: Small body size without bowl guard BE: Larger body size with bowl guard	L: Lubricator	1500: 1/8" 2000: 1/4" 3000: 3/8" 4000: 1/2"	Blank: With bracket J: No bracket	Blank: G P: PT T: NPT

Order Example:

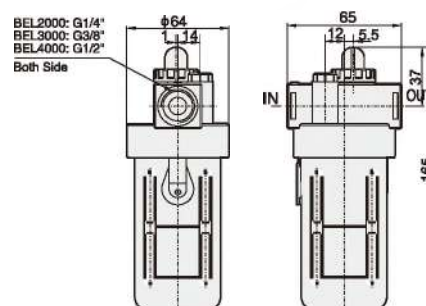
AE series Lubricator, 1/4" body size, with bracket, PT thread, ERP code is: AEL 2000-P

Main Dimension

AEL1500/2000



BEL2000-4000



Specifications

Model	AEL1500	AEL2000	BEL2000	BEL3000	BEL4000
Working medium	air				
Port size	G1/8	G1/4	G1/4	G3/8	G1/2
Guaranteed pressure resistance (MPa)	1.5				
Working temperature (°C)	5-80				
Lubricator bowl capacity	25CC		90CC		
Recommend oil	ISO VG32 or equivalent oil				
Weight (g)	170g		250g		

AER/BER Series Air Preparation Unit

AER/BER Regulator



How to Order?

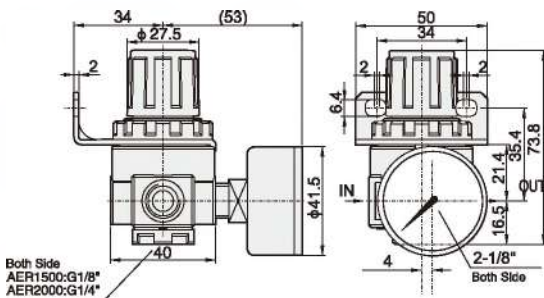
Series No.	Type Code	Body Size	Pressure Gauge Code	Bracket Code	Scale Unit	Thread Type
AE: Small body size without bowl guard BE: Larger body size with bowl guard	R: Regulator	1500: 1/8 2000: 1/4" 3000: 3/8" 4000: 1/2"	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	4: Mpa/Psi(Default) 5: Bar/Psi	Blank: G P: PT T: NPT

Order Example:

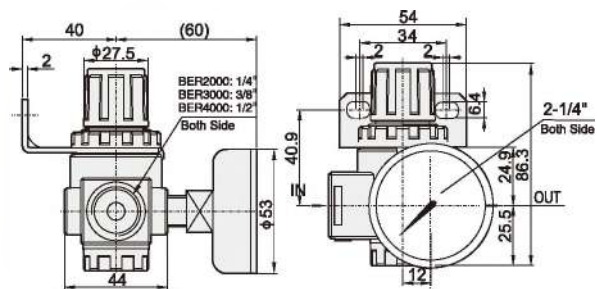
AE series Regulator, 1/4" body size, Mpa/Psi pressure scale unit, PT thread, ERP code is: AEC2000-4-P

Main Dimension

AER1500/2000



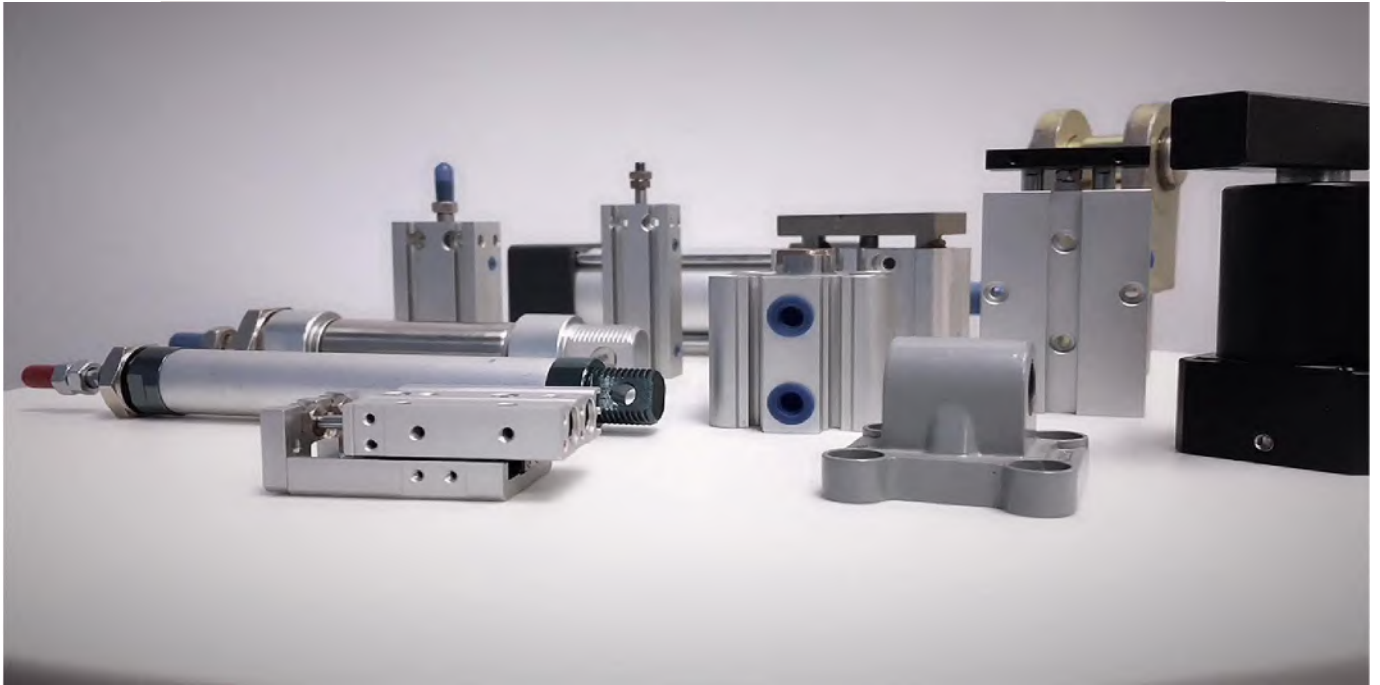
BER2000-4000



Specifications

Model	AER1500	AER2000	BER2000	BER3000	BER4000
Working medium	Air				
Port size	G1/8	G1/4	G1/4	G3/8	G1/2
Adjusting pressure range(MPa)	0.05-0.85				
Max. adjusting pressure (MPa)	1.0				
Guaranteed pressure (MPa)	1.5				
Working temperature(°C)	5-60				
Weight (g)	200		230		

Pneumatic Accessories



Muffler

How to Order?

Series No.	Thread Size	Thread Type
A	M5: M5	P: PT
AS	10-32UNF	G: G
AAS	06: 1/8" 20: 3/4"	T: NPT
AB	08: 1/4" 25: 1"	
...	10: 3/8" 32: 1-1/4"	
	15: 1/2" 50: 2"	

Order Example:

AS Series Muffler, G 1/8" Port size, ERP code: AS-06G

Muffler

A Type Muffler



Model	Thread size	Hex.
A-M5	M5	9
A-06	1/8"	13
A-08	1/4"	17
A-10	3/8"	22
A-15	1/2"	24
A-20	3/4"	30
A-25	1"	36
A-32	1 1/4"	46
A-40	1 1/2"	52
A-50	2"	64

SET Type Muffler



Model	Thread size	Hex.
SET-06	1/8"	8
SET-08	1/4"	10
SET-10	3/8"	13
SET-15	1/2"	15
SET-20	3/4"	19
SET-25	1"	24

V Type Muffler



Model	Thread size	Hex.
V-M5	M5	8
V-06	1/8"	12
V-08	1/4"	15
V-10	3/8"	19
V-15	1/2"	22
V-20	3/4"	30
V-25	1"	36

VF Type Muffler



Model	Thread size	Hex.
VF-M5	M5	8
VF-06	1/8"	13
VF-08	1/4"	16
VF-10	3/8"	19
VF-15	1/2"	24

VD Type Muffler



Model	Thread size	Hex.
VD-06	1/8"	13
VD-08	1/4"	16
VD-10	3/8"	19
VD-15	1/2"	24
VD-20	3/4"	30
VD-25	1"	36

AB Type Muffler



Model	Thread size	Hex.
AB-06	1/8"	11
AB-08	1/4"	14
AB-10	3/8"	17
AB-15	1/2"	22
AB-20	3/4"	27
AB-25	1"	33
AB-32	1-1/4"	43
AB-40	1-1/2"	51
AB-50	2"	60

AS Type Muffler
Nickel Plated Steel



Model	Thread size	Hex.
AS-10-32UNF	10-32UNF	8
AS-06	1/8"	11
AS-08	1/4"	14
AS-10	3/8"	17
AS-15	1/2"	22
AS-20	3/4"	27
AS-25	1"	34
AS-32	1-1/4"	43
AS-40	1-1/2"	51

VS Type Muffler
Nickel Plated Steel



Model	Thread size	Hex.
VS-06	1/8"	11
VS-08	1/4"	14
VS-10	3/8"	17
VS-15	1/2"	22
VS-20	3/4"	27
VS-25	1"	33
VS-32	1-1/4"	43
VS-40	1-1/2"	51

VSS Type S.S Muffler



Model	Thread size	Hex.
VSS-M5	M5	8
VSS-06	1/8"	12
VSS-08	1/4"	15
VSS-10	3/8"	19
VSS-15	1/2"	23
VSS-20	3/4"	30
VSS-25	1"	36

AAS Type S.S Muffler



Model	Thread size	Hex.
AAS-M5	M5	8
AAS-06	1/8"	12
AAS-08	1/4"	15
AAS-10	3/8"	19
AAS-15	1/2"	23
AAS-20	3/4"	30
AAS-25	1"	36

VDS Type S.S Muffler



Model	Thread size	Hex.
VDS-M5	M5	8
VDS-06	1/8"	13
VDS-08	1/4"	16
VDS-10	3/8"	19
VDS-15	1/2"	24
VDS-20	3/4"	30
VDS-25	1"	36

Plastic Muffler (G thread only)



Model	Thread size	S
SU-06	G 1/8	16
SU-08	G 1/4	20
SU-10	G 3/8	24
SU-15	G 1/2	24
SU-20	G 3/4	48
SU-25	G 1	48



Model	Thread size	S
PSU-M5	M5	7
PSU-06	G 1/8	13
PSU-08	G 1/4	17
PSU-10	G 3/8	25
PSU-15	G 1/2	25
PSU-20	G 3/4	37
PSU-25	G 1	48



Model	Thread size	S
PSE-M5	M5	7
PSE-06	G 1/8	13
PSE-08	G 1/4	17
PSE-10	G 3/8	25
PSE-15	G 1/2	25
PSE-20	G 3/4	37
PSE-25	G 1	48

Mufflers with Throttle Valve



Model	Thread size	Hex.
SD-06	1/8"	12
SD-08	1/4"	15
SD-10	3/8"	18
SD-15	1/2"	22
SD-20	3/4"	27
SD-25	1"	34



Model	Thread size	Hex.
SB-06	1/8"	12
SB-08	1/4"	14
SB-10	3/8"	17
SB-15	1/2"	24
SB-20	3/4"	27
SB-25	1"	34



Model	Thread size	Hex.
SK-06	1/8"	13
SK-08	1/4"	14
SK-10	3/8"	17
SK-15	1/2"	22
SK-20	3/4"	27
SK-25	1"	34



Model	Thread size	Hex.
SPK-06	1/8"	10
SPK-08	1/4"	14
SPK-10	3/8"	17
SPK-15	1/2"	24
SPK-20	3/4"	30
SPK-25	1"	36

One Touch-in Fitting

One Touch-in Fitting

How to Order?

Series No.	O.D. of Tube		Port Size	Thread Type
ZPC	04: 4mm	5/32: 5/32"	M5: M5	P: PT
ZPCF	06: 6mm	3/16: 3/16"	M6: M6	G: G
ZPOC	08: 8mm	1/4: 1/4"	01: 1/8"	T: NPT
...	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			

Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

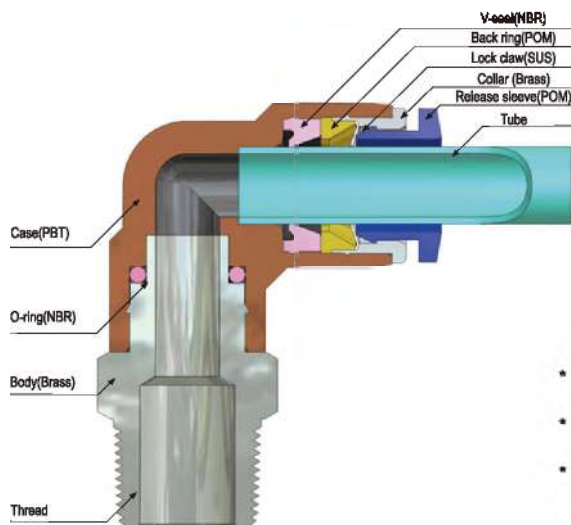
Order Example:

EPC Series One Touch-in Fitting, for 4 mm OD tube, 1/8" port size, ERP code: ZPC4-01G

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

Internal Structure



- * One-Touch push-to-connect configuration allows an instant tubing connection.
- * Smooth-Edge release sleeve design facilitates a quick tubing disconnection.
- * Aesthetically pleasing nickel-plated metallic optional feature ensures anti-contamination properties for an extended product life.
- * Pre-applied sealant on all external threads or with o-ring for G thread.
- * Metric and Imperial sizing available.

Metric tubing-PT thread

ZPC	Model	D	R	A	B	S1	S2	Main Dimension
	ZPC04-M5	4	M5	4	22	10	2	
	ZPC04-M6	4	M6	4.5	22.5	10	2	
	ZPC04-01	4	PT1/8	7.5	20.2	10	3	
	ZPC04-02	4	PT1/4	9.5	18.5	14	3	
	ZPC06-M5	6	M5	4	22.6	12	2	
	ZPC06-M6	6	M6	4.5	23.1	12	2	
	ZPC06-01	6	PT1/8	7.5	21.1	12	4	
	ZPC06-02	6	PT1/4	9.5	22.1	14	4	
	ZPC06-03	6	PT3/8	10.5	21.1	17	4	
	ZPC06-04	6	PT1/2	13.5	24.1	21	4	
	ZPC08-01	8	PT1/8	7.5	26.4	14	5	
	ZPC08-02	8	PT1/4	9.5	23.9	14	6	
	ZPC08-03	8	PT3/8	10.5	21.9	17	6	
	ZPC08-04	8	PT1/2	13.5	24.4	21	6	
	ZPC10-01	10	PT1/8	7.5	29.5	17	5	
	ZPC10-02	10	PT1/4	9.5	30.8	17	6	
	ZPC10-03	10	PT3/8	10.5	27.7	17	8	
	ZPC10-04	10	PT1/2	13.5	25.5	21	8	
	ZPC12-01	12	PT1/8	7.5	32	20	5	
	ZPC12-02	12	PT1/4	9.5	34	20	6	
	ZPC12-03	12	PT3/8	10.5	30	20	10	
	ZPC12-04	12	PT1/2	13.5	29	21	-	
	ZPC14-02	14	PT1/4	9.5	34.3	22	-	
	ZPC14-03	14	PT3/8	10.5	36.3	22	-	
	ZPC14-04	14	PT1/2	13.5	33.3	22	-	
	ZPC16-02	16	PT1/4	9.5	36.5	24	-	
	ZPC16-03	16	PT3/8	10.5	36.6	24	-	
	ZPC16-04	16	PT1/2	13.5	34.5	24	-	



ZPOC	Model	D	R	A	B	P	S	Main Dimension
	ZPOC04-M5	4	M5	4	22	10	2	
	ZPOC04-M6	4	M6	4.5	22.5	10	2	
	ZPOC04-01	4	PT1/8	7.5	20.2	10	3	
	ZPOC04-02	4	PT1/4	9.5	18.5	14	3	
	ZPOC06-M5	6	M5	4	22.6	12	2	
	ZPOC06-M6	6	M6	4.5	23.1	12	2	
	ZPOC06-01	6	PT1/8	7.5	21.1	12	4	
	ZPOC06-02	6	PT1/4	9.5	22.1	14	4	
	ZPOC06-03	6	PT3/8	10.5	21.1	17	4	
	ZPOC06-04	6	PT1/2	13.5	24.1	21	4	
	ZPOC08-01	8	PT1/8	7.5	26.4	14	5	
	ZPOC08-02	8	PT1/4	9.5	23.9	14	6	
	ZPOC08-03	8	PT3/8	10.5	21.9	17	6	
	ZPOC08-04	8	PT1/2	13.5	24.4	21	6	
	ZPOC10-01	10	PT1/8	7.5	29.5	17	5	
	ZPOC10-02	10	PT1/4	9.5	30.8	17	6	
	ZPOC10-03	10	PT3/8	10.5	27.7	17	8	
	ZPOC10-04	10	PT1/2	13.5	25.5	21	8	
	ZPOC12-01	12	PT1/8	7.5	32	20	5	
	ZPOC12-02	12	PT1/4	9.5	34	20	6	
	ZPOC12-03	12	PT3/8	10.5	30	20	10	
	ZPOC12-04	12	PT1/2	13.5	29	21	10	



ZPCF	Model	D	R	A	B	S	Main Dimension
	ZPCF04-01	4	PT1/8	8	24.7	12	
	ZPCF04-02	4	PT1/4	11	27.7	17	
	ZPCF06-01	6	PT1/8	8	25.2	12	
	ZPCF06-02	6	PT1/4	11	28.2	17	
	ZPCF06-03	6	PT3/8	12	29.2	20	
	ZPCF06-04	6	PT1/2	14	31.2	24	
	ZPCF08-01	8	PT1/8	8	26.8	14	
	ZPCF08-02	8	PT1/4	11	29.9	17	
	ZPCF08-03	8	PT3/8	12	30.9	20	
	ZPCF08-04	8	PT1/2	14	32.9	24	
	ZPCF10-01	10	PT1/8	8	29.8	17	
	ZPCF10-02	10	PT1/4	11	32.0	17	
	ZPCF10-03	10	PT3/8	12	33.9	20	
	ZPCF10-04	10	PT1/2	14	35.9	24	
	ZPCF12-01	12	PT1/8	8	31.5	20	
	ZPCF12-02	12	PT1/4	11	34.5	20	
	ZPCF12-03	12	PT3/8	12	35.5	20	
	ZPCF12-04	12	PT1/2	14	37.5	24	
	ZPCF14-02	14	PT1/4	11	36	22	
	ZPCF14-03	14	PT3/8	12	37	24	
	ZPCF14-04	14	PT1/2	14	39	24	
	ZPCF16-02	16	PT1/4	11	36	24	
	ZPCF16-03	16	PT3/8	12	37	24	
	ZPCF16-04	16	PT1/2	14	39	24	



Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting

Metric tubing-PT thread

ZPL	Model	D	R	A	B	C	S	Main Dimension
	ZPL04-M5	4	M5	4	22.5	17.7	10	
	ZPL04-M6	4	M6	4.5	23	17.7	10	
	ZPL04-01	4	PT1/8	7.5	25	17.7	10	
	ZPL04-02	4	PT1/4	9.5	27	17.7	14	
	ZPL06-M5	6	M5	4	23.7	19.2	12	
	ZPL06-M6	6	M6	4.5	24.2	19.2	12	
	ZPL06-01	6	PT1/8	7.5	26.2	19.2	12	
	ZPL06-02	6	PT1/4	9.5	28.2	19.2	14	
	ZPL06-03	6	PT3/8	10.5	29.2	19.2	17	
	ZPL06-04	6	PT1/2	13.5	32.2	19.2	21	
	ZPL08-01	8	PT1/8	7.5	29.5	22.6	14	
	ZPL08-02	8	PT1/4	9.5	31.5	22.6	14	
	ZPL08-03	8	PT3/8	10.5	32.5	22.6	17	
	ZPL08-04	8	PT1/2	13.5	35.5	22.6	21	
	ZPL10-01	10	PT1/8	7.5	33.9	27.6	17	
	ZPL10-02	10	PT1/4	9.5	35.9	27.6	17	
	ZPL10-03	10	PT3/8	10.5	36.9	27.6	17	
	ZPL10-04	10	PT1/2	13.5	39.9	27.6	21	
	ZPL12-01	12	PT1/8	7.5	35.5	29.3	19	
	ZPL12-02	12	PT1/4	9.5	37.5	29.3	19	
	ZPL12-03	12	PT3/8	10.5	38.5	29.3	19	
	ZPL12-04	12	PT1/2	13.5	41.5	29.3	21	
	ZPL14-02	14	PT1/4	9.5	39.5	30.6	24	
	ZPL14-03	14	PT3/8	10.5	40.5	30.6	24	
	ZPL14-04	14	PT1/2	13.5	43.5	30.6	24	
	ZPL16-02	16	PT1/4	9.5	42	33.3	24	
	ZPL16-03	16	PT3/8	10.5	43	33.3	24	
	ZPL16-04	16	PT1/2	13.5	46	33.3	24	



ZPLL	Model	D	R	A	B	C	S	Main Dimension
	ZPLL04-M5	4	M5	4	32.5	17.7	10	
	ZPLL04-M6	4	M6	4.5	33	17.7	10	
	ZPLL04-01	4	PT1/8	7.5	36	17.7	10	
	ZPLL04-02	4	PT1/4	9.5	39	17.7	14	
	ZPLL06-M5	6	M5	4	37	19.2	12	
	ZPLL06-M6	6	M6	4.5	38	19.2	12	
	ZPLL06-01	6	PT1/8	7.5	39.7	19.2	12	
	ZPLL06-02	6	PT1/4	9.5	42.2	19.2	14	
	ZPLL06-03	6	PT3/8	10.5	43.7	19.2	17	
	ZPLL06-04	6	PT1/2	13.5	47.2	19.2	21	
	ZPLL08-01	8	PT1/8	7.5	43	22.6	14	
	ZPLL08-02	8	PT1/4	9.5	45.5	22.6	14	
	ZPLL08-03	8	PT3/8	10.5	47	22.6	17	
	ZPLL08-04	8	PT1/2	13.5	50.5	22.6	21	
	ZPLL10-01	10	PT1/8	7.5	54.9	27.6	17	
	ZPLL10-02	10	PT1/4	9.5	56.3	27.6	17	
	ZPLL10-03	10	PT3/8	10.5	57.3	27.6	17	
	ZPLL10-04	10	PT1/2	13.5	60.8	27.6	21	
	ZPLL12-02	12	PT1/4	9.5	61.5	29.3	19	
	ZPLL12-03	12	PT3/8	10.5	62.5	29.3	19	
	ZPLL12-04	12	PT1/2	13.5	65.5	29.3	19	



ZPLF	Model	D	R	A	B	C	S	Main Dimension
	ZPLF04-01	4	PT1/8	8	23.5	17.7	12	
	ZPLF04-02	4	PT1/4	11	26.5	17.7	17	
	ZPLF06-01	6	PT1/8	8	24.7	19.2	12	
	ZPLF06-02	6	PT1/4	11	27.7	19.2	17	
	ZPLF06-03	6	PT3/8	12	28.7	19.2	20	
	ZPLF06-04	6	PT1/2	14	30.7	19.2	24	
	ZPLF08-01	8	PT1/8	8	28	22.6	14	
	ZPLF08-02	8	PT1/4	11	31	22.6	17	
	ZPLF08-03	8	PT3/8	12	32	22.6	20	
	ZPLF08-04	8	PT1/2	14	34	22.6	24	
	ZPLF10-01	10	PT1/8	8	32.3	27.6	17	
	ZPLF10-02	10	PT1/4	11	35.3	27.6	17	
	ZPLF10-03	10	PT3/8	12	36.3	27.6	20	
	ZPLF10-04	10	PT1/2	14	38.3	27.6	24	
	ZPLF12-02	12	PT1/4	11	37.5	29.3	20	
	ZPLF12-03	12	PT3/8	12	38.5	29.3	20	
	ZPLF12-04	12	PT1/2	14	41	29.3	24	
	ZPLF14-02	14	PT1/4	11	38	30.6	22	
	ZPLF14-03	14	PT3/8	12	39	30.6	22	
	ZPLF14-04	14	PT1/2	14	41	30.6	24	
	ZPLF16-02	16	PT1/4	11	41.5	33.3	24	
	ZPLF16-03	16	PT3/8	12	42.5	33.3	24	
	ZPLF16-04	16	PT1/2	14	44.5	33.3	24	



Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

Metric tubing-PT thread

ZPD	Model	D	R	A	B	C	S	Main Dimension
	ZPD04-M5	4	M5	4	23.5	18.7	10	
	ZPD04-M6	4	M6	4.5	24	18.7	10	
	ZPD04-01	4	PT1/8	7.5	26	18.7	10	
	ZPD04-02	4	PT1/4	9.5	28	18.7	14	
	ZPD06-M5	6	M5	4	24	19.5	12	
	ZPD06-M6	6	M6	4.5	24.5	19.5	12	
	ZPD06-01	6	PT1/8	7.5	26.5	19.5	12	
	ZPD06-02	6	PT1/4	9.5	28.5	19.5	14	
	ZPD06-03	6	PT3/8	10.5	29.5	19.5	17	
	ZPD06-04	6	PT1/2	13.5	34.5	19.5	21	
	ZPD08-01	8	PT1/8	7.5	29.5	22.6	14	
	ZPD08-02	8	PT1/4	9.5	31.5	22.6	14	
	ZPD08-03	8	PT3/8	10.5	32.5	22.6	17	
	ZPD08-04	8	PT1/2	13.5	35.5	22.6	21	
	ZPD10-01	10	PT1/8	7.5	34.5	28.5	17	
	ZPD10-02	10	PT1/4	9.5	36.5	28.5	17	
	ZPD10-03	10	PT3/8	10.5	37.5	28.5	17	
	ZPD10-04	10	PT1/2	13.5	40.5	28.5	21	
	ZPD12-01	12	PT1/8	7.5	35.5	29.3	19	
	ZPD12-02	12	PT1/4	9.5	37.5	29.3	19	
	ZPD12-03	12	PT3/8	10.5	38.5	29.3	19	
	ZPD12-04	12	PT1/2	13.5	41.5	29.3	21	
	ZPD14-02	14	PT1/4	9.5	38.7	29.8	24	
	ZPD14-03	14	PT3/8	10.5	39.7	29.8	24	
	ZPD14-04	14	PT1/2	13.5	42.7	29.8	24	
	ZPD16-02	16	PT1/4	9.5	40.1	31.9	24	
	ZPD16-03	16	PT3/8	10.5	41.1	31.9	24	
	ZPD16-04	16	PT1/2	13.5	44.1	31.9	24	



ZPB	Model	D	R	A	B	C	S	Main Dimension
	ZPB04-M5	4	M5	4	23.5	18.7	10	
	ZPB04-M6	4	M6	4.5	24	18.7	10	
	ZPB04-01	4	PT1/8	7.5	26	18.7	10	
	ZPB04-02	4	PT1/4	9.5	28	18.7	14	
	ZPB06-M5	6	M5	4	24	19.7	12	
	ZPB06-M6	6	M6	4.5	24.5	19.5	12	
	ZPB06-01	6	PT1/8	7.5	26.5	19.5	12	
	ZPB06-02	6	PT1/4	9.5	28.5	19.5	14	
	ZPB06-03	6	PT3/8	10.5	29.5	19.5	17	
	ZPB06-04	6	PT1/2	13.5	34.5	19.5	21	
	ZPB08-01	8	PT1/8	7.5	29.5	22.6	14	
	ZPB08-02	8	PT1/4	9.5	31.5	22.6	14	
	ZPB08-03	8	PT3/8	10.5	32.5	22.6	17	
	ZPB08-04	8	PT1/2	13.5	35.5	22.6	21	
	ZPB10-01	10	PT1/8	7.5	34.5	28.5	17	
	ZPB10-02	10	PT1/4	9.5	36.5	28.5	17	
	ZPB10-03	10	PT3/8	10.5	37.5	28.5	17	
	ZPB10-04	10	PT1/2	13.5	40.5	28.5	21	
	ZPB12-01	12	PT1/8	7.5	35.5	29.3	19	
	ZPB12-02	12	PT1/4	9.5	37.5	29.3	19	
	ZPB12-03	12	PT3/8	10.5	38.5	29.3	19	
	ZPB12-04	12	PT1/2	13.5	41.5	29.3	21	
	ZPB14-02	14	PT1/4	9.5	38.7	29.8	24	
	ZPB14-03	14	PT3/8	10.5	39.7	29.8	24	
	ZPB14-04	14	PT1/2	13.5	42.7	29.8	24	
	ZPB16-02	16	PT1/4	9.5	40.1	31.9	24	
	ZPB16-03	16	PT3/8	10.5	41.1	31.9	24	
	ZPB16-04	16	PT1/2	13.5	44.1	31.9	24	



ZSC	Model	D	R	A	B	S	L		Main Dimension
							Min	Max	
	ZSC04-M5	4	M5	4	20.2	8	37.5	44.3	
	ZSC04-01	4	PT1/8	8	22	10	37.5	44.3	
	ZSC04-02	4	PT1/4	10	25	14	43.7	51.3	
	ZSC06-M5	6	M5	4	21.8	8	28.5	30.3	
	ZSC06-01	6	PT1/8	8	23.8	12	37.5	44.3	
	ZSC06-02	6	PT1/4	10	25.8	14	43.7	51.3	
	ZSC06-03	6	PT3/8	11	27.5	17	48.4	55.3	
	ZSC06-04	6	PT1/2	14	31	21	52.7	59.5	
	ZSC08-01	8	PT1/8	8	26.1	14	37.5	44.3	
	ZSC08-02	8	PT1/4	10	28.2	14	43.7	51.3	
	ZSC08-03	8	PT3/8	11	30.1	17	48.4	55.3	
	ZSC08-04	8	PT1/2	14	33.6	21	52.7	59.5	
	ZSC10-02	10	PT1/4	10	32.7	17	43.7	51.3	
	ZSC10-03	10	PT3/8	11	33.2	17	48.4	55.3	
	ZSC10-04	10	PT1/2	14	36.7	21	52.7	59.5	
	ZSC12-02	12	PT1/4	10	34.7	18	43.7	51.3	
	ZSC12-03	12	PT3/8	11	36.6	18	48.4	55.3	
	ZSC12-04	12	PT1/2	14	39	21	52.7	59.5	

Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting

Metric tubing-PT thread

ZPWT	Model	D	R	A	B	S	Main Dimension
	ZPWT04-M5	4	M5	4	42.9	10	
	ZPWT04-M6	4	M6	4.5	43.4	10	
	ZPWT04-01	4	PT 1/8	7.5	42.5	10	
	ZPWT04-02	4	PT 1/4	9.5	45.5	14	
	ZPWT06-M5	6	M5	4	41.7	12	
	ZPWT06-M6	6	M6	4.5	42.2	12	
	ZPWT06-01	6	PT 1/8	7.5	44.2	12	
	ZPWT06-02	6	PT 1/4	9.5	46.2	14	
	ZPWT06-03	6	PT 3/8	10.5	47.2	17	
	ZPWT06-04	6	PT 1/2	13.5	50.2	21	
	ZPWT08-01	8	PT 1/8	7.5	46.9	14	
	ZPWT08-02	8	PT 1/4	9.5	48.9	14	
	ZPWT08-03	8	PT 3/8	10.5	49.9	17	
	ZPWT08-04	8	PT 1/2	13.5	52.9	21	
	ZPWT10-01	10	PT 1/8	7.5	56.1	17	
	ZPWT10-02	10	PT 1/4	9.5	56.1	17	
	ZPWT10-03	10	PT 3/8	10.5	56.1	17	
	ZPWT10-04	10	PT 1/2	13.5	62.1	21	
	ZPWT12-01	12	PT 1/8	7.5	58.8	18	
	ZPWT12-02	12	PT 1/4	9.5	60.8	18	
	ZPWT12-03	12	PT 3/8	10.5	61.8	18	
	ZPWT12-04	12	PT 1/2	13.5	64.8	21	
	ZPWT14-02	14	PT 1/4	9.5	64.4	24	
	ZPWT14-03	14	PT 3/8	10.5	65.4	24	
	ZPWT14-04	14	PT 1/2	13.5	68.4	24	
	ZPWT16-02	16	PT 1/4	9.5	67.5	24	
	ZPWT16-03	16	PT 3/8	10.5	68.5	24	
	ZPWT16-04	16	PT 1/2	13.5	71.5	24	

ZPY	Model	D	A	d	Main Dimension
	ZFY04	4	36.6	3.2	
	ZFY06	6	37.2	3.2	
	ZFY08	8	40	3.2	
	ZPY10	10	50.1	4.2	
	ZPY12	12	52.6	4.2	
	ZPY14	14	55.5	4.2	
	ZPY16	16	58.8	5.1	


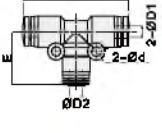
ZPE	Model	D	E	d	Main Dimension
	ZPE04	4	18.7	3.2	
	ZPE06	6	19.5	3.2	
	ZPE08	8	22.6	3.2	
	ZPE10	10	28.5	4.2	
	ZPE12	12	29.3	4.2	
	ZPE14	14	29.8	4.2	
	ZPE16	16	31.9	5.1	


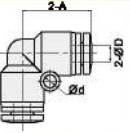
ZPEW	Model	D1	D2	E	L	d	Main Dimension
	ZPEW06-04	6	4	19.1	38	3.2	
	ZPEW08-04	8	4	22.5	43.8	3.2	
	ZPEW08-06	8	6	22.5	44	3.2	
	ZPEW10-06	10	6	27.9	54.1	4.2	
	ZPEW10-08	10	8	27.9	55	4.2	
	ZPEW12-08	12	8	29.3	57	4.2	
	ZPEW12-10	12	10	29.3	57.8	4.2	
	ZPEW16-12	16	12	32.5	63.6	4.2	



ZPM	Model	D	R	S	L	Main Dimension
	ZPM04	4	M12X1	17	33	
	ZPM06	6	M14X1	17	38	
	ZPM08	8	M16X1	19	40	
	ZPM10	10	M20X1	24	46	
	ZPM12	12	M22X1	27	46	


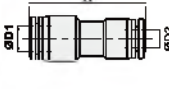
Note : ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet


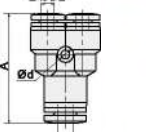
Metric tubing

ZPEG	Model	D1	D2	E	L	d	Main Dimension
 <p>ΦD1 ΦD2 D1>D2</p>	ZPEG06-04	6	4	19	38.1	3.2	
	ZPEG08-04	8	4	22	44.9	3.2	
	ZPEG08-08	8	6	22.1	44.9	3.2	
	ZPEG10-08	10	6	27.1	55.8	4.2	
	ZPEG10-08	10	8	27.5	55.8	4.2	
	ZPEG12-10	12	10	28.9	58.6	4.2	

ZPV	Model	D	A	d	Main Dimension
 <p>ΦD</p>	ZPV04	4	17.7	3.2	
	ZPV06	6	19.2	3.2	
	ZPV08	8	22.6	3.2	
	ZPV10	10	27.8	4.2	
	ZPV12	12	29.3	4.2	
	ZPV14	14	30.6	4.2	
	ZPV16	16	33.3	5.1	

ZPU	Model	D	A	Main Dimension
 <p>ΦD</p>	ZPU04	4	33.4	
	ZPU06	6	35.8	
	ZPU08	8	38.7	
	ZPU10	10	48.2	
	ZPU12	12	48.6	
	ZPU14	14	48.2	
	ZPU16	16	49.6	

ZPG	Model	D1	D2	A	Main Dimension
 <p>ΦD1 D1>D2 ΦD2</p>	ZPG08-04	8	4	36.4	
	ZPG08-04	8	4	37.8	
	ZPG08-06	8	6	37.8	
	ZPG10-08	10	6	42.8	
	ZPG10-08	10	8	42.8	
	ZPG12-08	12	8	48.5	
	ZPG12-10	12	10	48.5	

ZPW	Model	D1	D2	A	d	Main Dimension
 <p>ΦD1 D1>D2 ΦD2</p>	ZPW06-04	6	4	36	3.2	
	ZPW08-04	8	4	39	3.2	
	ZPW08-06	8	6	39	3.2	
	ZPW10-08	10	6	49	4.2	
	ZPW10-08	10	8	48	4.2	
	ZPW12-10	12	10	53	4.2	

Note: ZP Series: Gray body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting

Metric tubing-G thread

ZPC	Model	D	R	A	B	S1	S2	Main Dimension
	ZPC04-01G	4	G1/8	5	19.2	12	3	
	ZPC04-02G	4	G1/4	6.5	18.2	17	3	
	ZPC06-01G	6	G1/8	5	20.1	12	4	
	ZPC06-02G	6	G1/4	6.5	21.1	17	4	
	ZPC06-03G	6	G3/8	7	20.6	20	4	
	ZPC06-04G	6	G1/2	10	23.1	24	4	
	ZPC08-01G	8	G1/8	5	25.4	14	5	
	ZPC08-02G	8	G1/4	6.5	22.9	17	5	
	ZPC08-03G	8	G3/8	7	22.4	20	6	
	ZPC08-04G	8	G1/2	10	23.4	24	6	
	ZPC10-01G	10	G1/8	5	27.8	17	5	
	ZPC10-02G	10	G1/4	6.5	29.3	17	6	
	ZPC10-03G	10	G3/8	7	26	20	6	
	ZPC10-04G	10	G1/2	10	26	24	6	
	ZPC12-01G	12	G1/8	5	30.5	20	5	
	ZPC12-02G	12	G1/4	6.5	32	20	6	
	ZPC12-03G	12	G3/8	7	30	20	6	
	ZPC12-04G	12	G1/2	10	31	24	6	
	ZPC14-02G	14	G1/4	6.5	32.1	22	-	
	ZPC14-03G	14	G3/8	7	32.6	22	-	
	ZPC14-04G	14	G1/2	10	35.6	24	-	
	ZPC16-02G	16	G1/4	6.5	34	24	-	
	ZPC16-03G	16	G3/8	7	34	24	-	
	ZPC16-04G	16	G1/2	10	37	24	-	

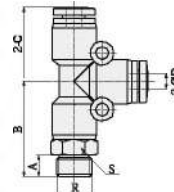
ZPOC	Model	D	R	A	B	P	S	Main Dimension
	ZPOC04-01G	4	G1/8	5	19.2	12	3	
	ZPOC04-02G	4	G1/4	6.5	18.2	17	3	
	ZPOC06-01G	6	G1/8	5	20.1	12	4	
	ZPOC06-02G	6	G1/4	6.5	21.1	17	4	
	ZPOC06-03G	6	G3/8	7	20.6	20	4	
	ZPOC06-04G	6	G1/2	10	23.1	24	4	
	ZPOC08-01G	8	G1/8	5	25.4	14	5	
	ZPOC08-02G	8	G1/4	6.5	22.9	17	5	
	ZPOC08-03G	8	G3/8	7	22.4	20	6	
	ZPOC08-04G	8	G1/2	10	23.4	24	6	
	ZPOC10-01G	10	G1/8	5	27.8	17	5	
	ZPOC10-02G	10	G1/4	6.5	29.3	17	6	
	ZPOC10-03G	10	G3/8	7	26	20	6	
	ZPOC10-04G	10	G1/2	10	26	24	6	
	ZPOC12-01G	12	G1/8	5	30.5	20	5	
	ZPOC12-02G	12	G1/4	6.5	32	20	6	
	ZPOC12-03G	12	G3/8	7	30	20	6	
	ZPOC12-04G	12	G1/2	10	31	24	6	

ZSC	Model	D	R	A	B	S	Min	Max	Main Dimension
	ZSC04-01G	4	G1/8	5	22.3	12	37.5	44.3	
	ZSC04-02G	4	G1/4	6.5	24	17	43.7	51.3	
	ZSC06-01G	6	G1/8	5	22.9	12	37.5	44.3	
	ZSC06-02G	6	G1/4	6.5	24.6	17	43.7	51.3	
	ZSC06-03G	6	G3/8	7	26.5	20	46.4	55.3	
	ZSC06-04G	6	G1/2	10	29.6	24	52.7	59.5	
	ZSC08-01G	8	G1/8	5	26.1	14	37.5	44.3	
	ZSC08-02G	8	G1/4	6.5	28.2	17	43.7	51.3	
	ZSC08-03G	8	G3/8	7	29.1	20	46.4	55.3	
	ZSC08-04G	8	G1/2	10	32.1	24	52.7	59.5	
	ZSC10-02G	10	G1/4	6.5	31.7	17	43.7	51.3	
	ZSC10-03G	10	G3/8	7	32.2	20	46.4	55.3	
	ZSC10-04G	10	G1/2	10	35.2	24	52.7	59.5	
	ZSC12-02G	12	G1/4	6.5	33.7	18	43.7	51.3	
	ZSC12-03G	12	G3/8	7	35.5	20	46.4	55.3	
	ZSC12-04G	12	G1/2	10	37.5	24	52.7	59.5	

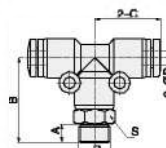
Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

◎ Metric tubing-G thread

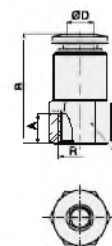
ZPD	Model	D	R	A	B	C	S	Main Dimension
	ZPD04-01G	4	G1/8	5	23.5	18.7	12	
	ZPD04-02G	4	G1/4	6.5	25	18.7	17	
	ZPD06-01G	6	G1/8	5	24	19.5	12	
	ZPD06-02G	6	G1/4	6.5	25.5	19.5	17	
	ZPD06-03G	6	G3/8	7	26	19.5	20	
	ZPD06-04G	6	G1/2	10	30	19.5	24	
	ZPD08-01G	8	G1/8	5	27	22.6	14	
	ZPD08-02G	8	G1/4	6.5	28.5	22.6	17	
	ZPD08-03G	8	G3/8	7	29	22.6	20	
	ZPD08-04G	8	G1/2	10	33	22.6	24	
	ZPD10-01G	10	G1/8	5	32	28.5	17	
	ZPD10-02G	10	G1/4	6.5	33.5	28.5	17	
	ZPD10-03G	10	G3/8	7	34	28.5	20	
	ZPD10-04G	10	G1/2	10	38	28.5	24	
	ZPD12-01G	12	G1/8	5	33	29.3	19	
	ZPD12-02G	12	G1/4	6.5	34.5	29.3	19	
	ZPD12-03G	12	G3/8	7	35	29.3	20	
	ZPD12-04G	12	G1/2	10	39	29.3	24	
	ZPD14-02G	14	G1/4	6.5	35.7	29.8	22	
	ZPD14-03G	14	G3/8	7	36.2	29.8	22	
	ZPD14-04G	14	G1/2	10	39.2	29.8	24	
	ZPD16-02G	16	G1/4	6.5	37.6	31.9	24	
	ZPD16-03G	16	G3/8	7	38.1	31.9	24	
	ZPD16-04G	16	G1/2	10	41.1	31.9	24	



ZPB	Model	D	R	A	B	C	S	Main Dimension
	ZPB04-01G	4	G1/8	5	23.5	18.7	12	
	ZPB04-02G	4	G1/4	6.5	25	18.7	17	
	ZPB06-01G	6	G1/8	5	24	19.5	12	
	ZPB06-02G	6	G1/4	6.5	25.5	19.5	17	
	ZPB06-03G	6	G3/8	7	26	19.5	20	
	ZPB06-04G	6	G1/2	10	30	19.5	24	
	ZPB08-01G	8	G1/8	5	27	22.6	14	
	ZPB08-02G	8	G1/4	6.5	28.5	22.6	17	
	ZPB08-03G	8	G3/8	7	29	22.6	20	
	ZPB08-04G	8	G1/2	10	33	22.6	24	
	ZPB10-01G	10	G1/8	5	32	28.5	17	
	ZPB10-02G	10	G1/4	6.5	33.5	28.5	17	
	ZPB10-03G	10	G3/8	7	34	28.5	20	
	ZPB10-04G	10	G1/2	10	38	28.5	24	
	ZPB12-01G	12	G1/8	5	33	29.3	19	
	ZPB12-02G	12	G1/4	6.5	34.5	29.3	19	
	ZPB12-03G	12	G3/8	7	35	29.3	20	
	ZPB12-04G	12	G1/2	10	39	29.3	24	
	ZPB14-02G	14	G1/4	6.5	35.7	29.8	22	
	ZPB14-03G	14	G3/8	7	36.2	29.8	22	
	ZPB14-04G	14	G1/2	10	39.2	29.8	24	
	ZPB16-02G	16	G1/4	6.5	37.6	31.9	24	
	ZPB16-03G	16	G3/8	7	38.1	31.9	24	
	ZPB16-04G	16	G1/2	10	41.1	31.9	24	



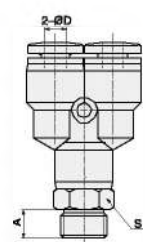
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	ZPCF04-01G	4	G1/8	8	24.7	12	
	ZPCF04-02G	4	G1/4	11	27.7	17	
	ZPCF06-01G	6	G1/8	8	25.2	12	
	ZPCF06-02G	6	G1/4	11	28.2	17	
	ZPCF06-03G	6	G3/8	12	29.2	20	
	ZPCF06-04G	6	G1/2	14	31.2	24	
	ZPCF08-01G	8	G1/8	8	26.9	14	
	ZPCF08-02G	8	G1/4	11	28.9	17	
	ZPCF08-03G	8	G3/8	12	30.9	20	
	ZPCF08-04G	8	G1/2	14	32.9	24	
	ZPCF10-01G	10	G1/8	8	29.9	17	
	ZPCF10-02G	10	G1/4	11	32.9	17	
	ZPCF10-03G	10	G3/8	12	33.9	20	
	ZPCF10-04G	10	G1/2	14	35.9	24	
	ZPCF12-01G	12	G1/8	8	31.5	20	
	ZPCF12-02G	12	G1/4	11	34.5	20	
	ZPCF12-03G	12	G3/8	12	35.5	20	
	ZPCF12-04G	12	G1/2	14	37.5	24	
	ZPCF14-02G	14	G1/4	11	36	22	
	ZPCF14-03G	14	G3/8	12	37	22	
	ZPCF14-04G	14	G1/2	14	39	24	
	ZPCF16-02G	16	G1/4	11	36	24	
	ZPCF16-03G	16	G3/8	12	37	24	
	ZPCF16-04G	16	G1/2	14	39	24	



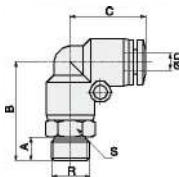
Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting

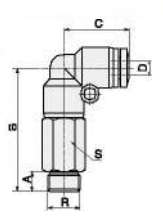
Metric tubing-G thread

ZPWT	Model	D	R	A	B	S	Main Dimension
	ZPWT04-01G	4	G1/8	5	40.4	12	
	ZPWT04-02G	4	G1/4	6.5	41.9	17	
	ZPWT06-01G	6	G1/8	5	41.7	12	
	ZPWT06-02G	6	G1/4	6.5	43.2	17	
	ZPWT06-03G	6	G3/8	7	43.7	20	
	ZPWT06-04G	6	G1/2	10	46.7	24	
	ZPWT08-01G	8	G1/8	5	44.3	14	
	ZPWT08-02G	8	G1/4	6.5	45.8	17	
	ZPWT08-03G	8	G3/8	7	46.8	20	
	ZPWT08-04G	8	G1/2	10	49.8	24	
	ZPWT10-01G	10	G1/8	5	53.6	17	
	ZPWT10-02G	10	G1/4	6.5	55.1	17	
	ZPWT10-03G	10	G3/8	7	55.6	20	
	ZPWT10-04G	10	G1/2	10	58.6	24	
	ZPWT12-01G	12	G1/8	5	66.3	16	
	ZPWT12-02G	12	G1/4	6.5	67.8	19	
	ZPWT12-03G	12	G3/8	7	68.3	20	
	ZPWT12-04G	12	G1/2	10	71.3	24	
	ZPWT14-02G	14	G1/4	6.5	81.4	22	
	ZPWT14-03G	14	G3/8	7	81.9	22	
	ZPWT14-04G	14	G1/2	10	84.9	24	
	ZPWT16-02G	16	G1/4	6.5	94.5	24	
	ZPWT16-03G	16	G3/8	7	95	24	
	ZPWT16-04G	16	G1/2	10	98	24	



ZPL	Model	D	R	A	B	C	S	Main Dimension
	ZPL04-01G	4	G1/8	5	21.5	17.7	12	
	ZPL04-02G	4	G1/4	6.5	24	17.7	17	
	ZPL06-01G	6	G1/8	5	24	19.2	12	
	ZPL06-02G	6	G1/4	6.5	26	19.2	17	
	ZPL06-03G	6	G3/8	7	27	19.2	20	
	ZPL06-04G	6	G1/2	10	30.5	19.2	24	
	ZPL08-01G	8	G1/8	5	27	22.8	14	
	ZPL08-02G	8	G1/4	6.5	28.5	22.8	17	
	ZPL08-03G	8	G3/8	7	29.5	22.8	20	
	ZPL08-04G	8	G1/2	10	33	22.8	24	
	ZPL10-01G	10	G1/8	5	31.8	27.8	17	
	ZPL10-02G	10	G1/4	6.5	33.3	27.8	17	
	ZPL10-03G	10	G3/8	7	33.8	27.8	20	
	ZPL10-04G	10	G1/2	10	37.3	27.8	24	
	ZPL12-01G	12	G1/8	5	34.5	29.3	19	
	ZPL12-02G	12	G1/4	6.5	36	29.3	19	
	ZPL12-03G	12	G3/8	7	36.5	29.3	20	
	ZPL12-04G	12	G1/2	10	39.5	29.3	24	
	ZPL14-02G	14	G1/4	6.5	36.5	30.8	22	
	ZPL14-03G	14	G3/8	7	37	30.8	22	
	ZPL14-04G	14	G1/2	10	40	30.8	24	
	ZPL16-02G	16	G1/4	6.5	39	33.3	24	
	ZPL16-03G	16	G3/8	7	39.5	33.3	24	
	ZPL16-04G	16	G1/2	10	42.5	33.3	24	



ZPLL	Model	D	R	A	B	C	S	Main Dimension
	ZPLL04-01G	4	G1/8	5	33.5	17.7	12	
	ZPLL04-02G	4	G1/4	6.5	36.5	17.7	17	
	ZPLL06-01G	6	G1/8	5	37.2	19.2	12	
	ZPLL06-02G	6	G1/4	6.5	39.2	19.2	17	
	ZPLL06-03G	6	G3/8	7	40.2	19.2	20	
	ZPLL06-04G	6	G1/2	10	43.7	19.2	24	
	ZPLL08-01G	8	G1/8	5	40.5	22.8	14	
	ZPLL08-02G	8	G1/4	6.5	42.5	22.8	17	
	ZPLL08-03G	8	G3/8	7	43.5	22.8	20	
	ZPLL08-04G	8	G1/2	10	47	22.8	24	
	ZPLL10-01G	10	G1/8	5	51.8	27.8	17	
	ZPLL10-02G	10	G1/4	6.5	53.3	27.8	17	
	ZPLL10-03G	10	G3/8	7	53.8	27.8	20	
	ZPLL10-04G	10	G1/2	10	57.3	27.8	24	
	ZPLL12-02G	12	G1/4	6.5	58.5	29.3	19	
	ZPLL12-03G	12	G3/8	7	59	29.3	20	
	ZPLL12-04G	12	G1/2	10	62	29.3	24	



Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

☉ Metric tubing-G thread

ZPLF	Model	D	R	A	B	C	S	Main Dimension
	ZPLF04-01G	4	G1/8	8	23.5	17.7	12	
	ZPLF04-02G	4	G1/4	11	26.5	17.7	17	
	ZPLF08-01G	6	G1/8	8	24.7	19.2	12	
	ZPLF08-02G	6	G1/4	11	27.7	19.2	17	
	ZPLF08-03G	6	G3/8	12	28.7	19.2	20	
	ZPLF08-04G	6	G1/2	14	30.7	19.2	24	
	ZPLF08-01G	8	G1/8	8	28	22.8	14	
	ZPLF08-02G	8	G1/4	11	31	22.8	17	
	ZPLF08-03G	8	G3/8	12	32	22.8	20	
	ZPLF08-04G	8	G1/2	14	34	22.8	24	
	ZPLF10-01G	10	G1/8	8	32.3	27.8	17	
	ZPLF10-02G	10	G1/4	11	35.3	27.8	17	
	ZPLF10-03G	10	G3/8	12	36.3	27.8	20	
	ZPLF10-04G	10	G1/2	14	38.3	27.8	24	
	ZPLF12-02G	12	G1/4	11	37.5	29.3	20	
	ZPLF12-03G	12	G3/8	12	38.5	29.3	20	
	ZPLF12-04G	12	G1/2	14	41	29.3	24	
	ZPLF14-02G	14	G1/4	11	38	30.6	22	
	ZPLF14-03G	14	G3/8	12	39	30.6	22	
	ZPLF14-04G	14	G1/2	14	41	30.6	24	
	ZPLF16-02G	16	G1/4	11	41.5	33.3	24	
	ZPLF16-03G	16	G3/8	12	42.5	33.3	24	
	ZPLF16-04G	16	G1/2	14	44.5	33.3	24	



ZPMF	Model	D	R	M	A	B1	B2	S1	S2	Main Dimension
	ZPMF04-01G	4	G1/8	M12	8	24.7	9.5	14	14	
	ZPMF04-02G	4	G1/4	M12	11	27.7	12.5	17	14	
	ZPMF08-01G	6	G1/8	M14	8	27.4	10	17	17	
	ZPMF08-02G	6	G1/4	M14	11	30.4	13	17	17	
	ZPMF08-03G	6	G3/8	M14	12	31.4	14	20	17	
	ZPMF08-01G	8	G1/8	M16	8	31.9	10	19	19	
	ZPMF08-02G	8	G1/4	M16	11	34.9	13	19	19	
	ZPMF08-03G	8	G3/8	M16	12	35.9	14	21	19	
	ZPMF08-04G	8	G1/2	M16	14	37.9	16	24	19	
	ZPMF10-01G	10	G1/8	M20	8	33	11	24	24	
	ZPMF10-02G	10	G1/4	M20	11	36	13	24	24	
	ZPMF10-03G	10	G3/8	M20	12	37	14	24	24	
	ZPMF10-04G	10	G1/2	M20	14	39	16	24	24	
	ZPMF12-01G	12	G1/8	M22	8	34	9	24	27	
	ZPMF12-02G	12	G1/4	M22	11	37	12	24	27	
	ZPMF12-03G	12	G3/8	M22	12	38	13	24	27	
	ZPMF12-04G	12	G1/2	M22	14	40	15	24	27	



Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting

Inch tubing-NPT thread

ZPC	Model	D(Inch)	R	A	B	S1(Inch)	S2(Inch)	Main Dimension
	ZPC5/32-01T	5/32	NPT1/8	7.5	20.2	7/16	3/32	
	ZPC5/32-02T	5/32	NPT1/4	9.5	18.5	9/16	3/32	
	ZPC1/4-01T	1/4	NPT1/8	7.5	21.1	1/2	5/32	
	ZPC1/4-02T	1/4	NPT1/4	9.5	22.1	9/16	5/32	
	ZPC1/4-03T	1/4	NPT3/8	10.5	21.1	11/16	5/32	
	ZPC1/4-04T	1/4	NPT1/2	13.5	24.1	7/8	5/32	
	ZPC5/16-01T	5/16	NPT1/8	7.5	26.4	9/16	3/16	
	ZPC5/16-02T	5/16	NPT1/4	9.5	23.9	9/16	7/32	
	ZPC5/16-03T	5/16	NPT3/8	10.5	21.9	11/16	7/32	
	ZPC5/16-04T	5/16	NPT1/2	13.5	24.4	7/8	7/32	
	ZPC3/8-01T	3/8	NPT1/8	7.5	29.5	11/16	3/16	
	ZPC3/8-02T	3/8	NPT1/4	9.5	30.6	11/16	7/32	
	ZPC3/8-03T	3/8	NPT3/8	10.5	27.7	11/16	5/16	
	ZPC3/8-04T	3/8	NPT1/2	13.5	25.5	7/8	5/16	
	ZPC1/2-01T	1/2	NPT1/8	7.5	32	7/8	3/16	
	ZPC1/2-02T	1/2	NPT1/4	9.5	34	7/8	1/4	
	ZPC1/2-03T	1/2	NPT3/8	10.5	30	7/8	5/16	
	ZPC1/2-04T	1/2	NPT1/2	13.5	29	7/8	5/16	

ZPCF	Model	D(Inch)	R	A	B	S(Inch)	Main Dimension
	ZPCF5/32-01T	5/32	NPT1/8	8	24.7	9/16	
	ZPCF5/32-02T	5/32	NPT1/4	11	27.7	11/16	
	ZPCF1/4-01T	1/4	NPT1/8	8	25.2	9/16	
	ZPCF1/4-02T	1/4	NPT1/4	11	28.2	11/16	
	ZPCF1/4-03T	1/4	NPT3/8	12	29.2	7/8	
	ZPCF1/4-04T	1/4	NPT1/2	14	31.2	1	
	ZPCF5/16-01T	5/16	NPT1/8	8	28.9	9/16	
	ZPCF5/16-02T	5/16	NPT1/4	11	28.9	11/16	
	ZPCF5/16-03T	5/16	NPT3/8	12	30.9	7/8	
	ZPCF5/16-04T	5/16	NPT1/2	14	32.9	1	
	ZPCF3/8-01T	3/8	NPT1/8	8	29.9	11/16	
	ZPCF3/8-02T	3/8	NPT1/4	11	32.9	11/16	
	ZPCF3/8-03T	3/8	NPT3/8	12	33.9	7/8	
	ZPCF3/8-04T	3/8	NPT1/2	14	35.9	1	
	ZPCF1/2-01T	1/2	NPT1/8	8	31.5	7/8	
	ZPCF1/2-02T	1/2	NPT1/4	11	34.5	7/8	
	ZPCF1/2-03T	1/2	NPT3/8	12	35.5	7/8	
	ZPCF1/2-04T	1/2	NPT1/2	14	37.5	1	

ZPOC	Model	D(Inch)	R	A	B	P	S(Inch)	Main Dimension
	ZPOC5/32-01T	5/32	NPT1/8	7.5	20.2	11	3/32	
	ZPOC5/32-02T	5/32	NPT1/4	9.5	18.5	14	3/32	
	ZPOC1/4-01T	1/4	NPT1/8	7.5	21.1	12.7	5/32	
	ZPOC1/4-02T	1/4	NPT1/4	9.5	22.1	14	5/32	
	ZPOC1/4-03T	1/4	NPT3/8	10.5	21.1	17.5	5/32	
	ZPOC1/4-04T	1/4	NPT1/2	13.5	24.1	22	5/32	
	ZPOC5/16-01T	5/16	NPT1/8	7.5	26.4	14	3/16	
	ZPOC5/16-02T	5/16	NPT1/4	9.5	23.9	14	7/32	
	ZPOC5/16-03T	5/16	NPT3/8	10.5	21.9	17.5	7/32	
	ZPOC5/16-04T	5/16	NPT1/2	13.5	24.4	22	7/32	
	ZPOC3/8-01T	3/8	NPT1/8	7.5	29.5	17	3/16	
	ZPOC3/8-02T	3/8	NPT1/4	9.5	30.6	17	7/32	
	ZPOC3/8-03T	3/8	NPT3/8	10.5	27.7	17.5	5/16	
	ZPOC3/8-04T	3/8	NPT1/2	13.5	25.5	22	5/16	
	ZPOC1/2-01T	1/2	NPT1/8	7.5	32	22	3/16	
	ZPOC1/2-02T	1/2	NPT1/4	9.5	34	22	1/4	
	ZPOC1/2-03T	1/2	NPT3/8	10.5	30	22	5/16	
	ZPOC1/2-04T	1/2	NPT1/2	13.5	29	22	5/16	

ZPL	Model	D(Inch)	R	A	B	C	S(Inch)	Main Dimension
	ZPL5/32-01T	5/32	NPT1/8	7.5	25	17.7	7/16	
	ZPL5/32-02T	5/32	NPT1/4	9.5	27	17.7	9/16	
	ZPL1/4-01T	1/4	NPT1/8	7.5	26.2	19.2	1/2	
	ZPL1/4-02T	1/4	NPT1/4	9.5	28.2	19.2	9/16	
	ZPL1/4-03T	1/4	NPT3/8	10.5	29.2	19.2	11/16	
	ZPL1/4-04T	1/4	NPT1/2	13.5	32.2	19.2	7/8	
	ZPL5/16-01T	5/16	NPT1/8	7.5	29.5	22.6	9/16	
	ZPL5/16-02T	5/16	NPT1/4	9.5	31.5	22.6	9/16	
	ZPL5/16-03T	5/16	NPT3/8	10.5	32.5	22.6	11/16	
	ZPL5/16-04T	5/16	NPT1/2	13.5	35.5	22.6	7/8	
	ZPL3/8-01T	3/8	NPT1/8	7.5	33.8	27.8	11/16	
	ZPL3/8-02T	3/8	NPT1/4	9.5	35.8	27.8	11/16	
	ZPL3/8-03T	3/8	NPT3/8	10.5	36.8	27.8	11/16	
	ZPL3/8-04T	3/8	NPT1/2	13.5	39.8	27.8	7/8	
	ZPL1/2-01T	1/2	NPT1/8	7.5	35.5	28.3	7/8	
	ZPL1/2-02T	1/2	NPT1/4	9.5	37.5	29.3	7/8	
	ZPL1/2-03T	1/2	NPT3/8	10.5	38.5	29.3	7/8	
	ZPL1/2-04T	1/2	NPT1/2	13.5	41.5	29.3	7/8	

Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

○ Inch tubing-NPT thread

ZPLF	Model	D(Inch)	R	A	B	C	S(Inch)	Main Dimension
	ZPLF5/32-01T	5/32	NPT1/8	8	23.5	17.7	7/16	
	ZPLF5/32-02T	5/32	NPT1/4	11	26.5	17.7	9/16	
	ZPLF1/4-01T	1/4	NPT1/8	8	24.7	19.2	1/2	
	ZPLF1/4-02T	1/4	NPT1/4	11	27.7	19.2	9/16	
	ZPLF1/4-03T	1/4	NPT3/8	12	26.7	19.2	11/16	
	ZPLF1/4-04T	1/4	NPT1/2	14	30.7	19.2	7/8	
	ZPLF5/16-01T	5/16	NPT1/8	8	28	22.6	9/16	
	ZPLF5/16-02T	5/16	NPT1/4	11	31	22.6	9/16	
	ZPLF5/16-03T	5/16	NPT3/8	12	32	22.6	11/16	
	ZPLF5/16-04T	5/16	NPT1/2	14	34	22.6	7/8	
	ZPLF3/8-01T	3/8	NPT1/8	8	32.3	27.8	11/16	
	ZPLF3/8-02T	3/8	NPT1/4	11	35.3	27.8	11/16	
	ZPLF3/8-03T	3/8	NPT3/8	12	36.3	27.8	11/16	
	ZPLF3/8-04T	3/8	NPT1/2	14	38.3	27.8	7/8	
	ZPLF1/2-02T	1/2	NPT1/4	11	37.5	29.3	7/8	
	ZPLF1/2-03T	1/2	NPT3/8	12	38.5	29.3	7/8	
	ZPLF1/2-04T	1/2	NPT1/2	14	41	29.3	7/8	

ZPLL	Model	D(Inch)	R	A	B	C	S(Inch)	Main Dimension
	ZPLL5/32-01T	5/32	NPT1/8	7.5	36	17.7	7/16	
	ZPLL5/32-02T	5/32	NPT1/4	9.5	39	17.7	9/16	
	ZPLL1/4-01T	1/4	NPT1/8	7.5	36.7	19.2	1/2	
	ZPLL1/4-02T	1/4	NPT1/4	9.5	42.2	19.2	9/16	
	ZPLL1/4-03T	1/4	NPT3/8	10.5	43.7	19.2	11/16	
	ZPLL1/4-04T	1/4	NPT1/2	13.5	47.2	19.2	7/8	
	ZPLL5/16-01T	5/16	NPT1/8	7.5	43	22.6	9/16	
	ZPLL5/16-02T	5/16	NPT1/4	9.5	45.5	22.6	9/16	
	ZPLL5/16-03T	5/16	NPT3/8	10.5	47	22.6	11/16	
	ZPLL5/16-04T	5/16	NPT1/2	13.5	50.5	22.6	7/8	
	ZPLL3/8-01T	3/8	NPT1/8	7.5	54.3	27.8	11/16	
	ZPLL3/8-02T	3/8	NPT1/4	9.5	56.3	27.8	11/16	
	ZPLL3/8-03T	3/8	NPT3/8	10.5	57.3	27.8	11/16	
	ZPLL3/8-04T	3/8	NPT1/2	13.5	60.8	27.8	7/8	
	ZPLL1/2-02T	1/2	NPT1/4	9.5	61.5	29.3	7/8	
	ZPLL1/2-03T	1/2	NPT3/8	10.5	62.5	29.3	7/8	
	ZPLL1/2-04T	1/2	NPT1/2	13.5	65.5	29.3	7/8	


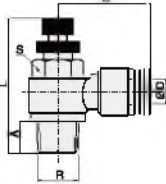
ZPB	Model	D(Inch)	R	A	B	C	S(Inch)	Main Dimension
	ZPB5/32-01T	5/32	NPT1/8	7.5	26	18.7	7/16	
	ZPB5/32-02T	5/32	NPT1/4	9.5	28	18.7	9/16	
	ZPB1/4-01T	1/4	NPT1/8	7.5	26.5	19.5	1/2	
	ZPB1/4-02T	1/4	NPT1/4	9.5	28.5	19.5	9/16	
	ZPB1/4-03T	1/4	NPT3/8	10.5	29.5	19.5	11/16	
	ZPB1/4-04T	1/4	NPT1/2	13.5	34.6	19.5	7/8	
	ZPB5/16-01T	5/16	NPT1/8	7.5	29.5	22.6	9/16	
	ZPB5/16-02T	5/16	NPT1/4	9.5	31.5	22.6	9/16	
	ZPB5/16-03T	5/16	NPT3/8	10.5	32.5	22.6	11/16	
	ZPB5/16-04T	5/16	NPT1/2	13.5	35.5	22.6	7/8	
	ZPB3/8-01T	3/8	NPT1/8	7.5	34.5	26.5	11/16	
	ZPB3/8-02T	3/8	NPT1/4	9.5	36.5	26.5	11/16	
	ZPB3/8-03T	3/8	NPT3/8	10.5	37.5	26.5	11/16	
	ZPB3/8-04T	3/8	NPT1/2	13.5	40.5	26.5	7/8	
	ZPB1/2-01T	1/2	NPT1/8	7.5	35.5	29.3	7/8	
	ZPB1/2-02T	1/2	NPT1/4	9.5	37.5	29.3	7/8	
	ZPB1/2-03T	1/2	NPT3/8	10.5	38.5	29.3	7/8	
	ZPB1/2-04T	1/2	NPT1/2	13.5	41.5	29.3	7/8	


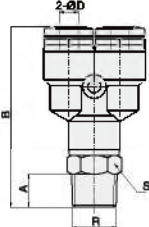
ZPD	Model	D(Inch)	R	A	B	C	S(Inch)	Main Dimension
	ZPD5/32-01T	5/32	NPT1/8	7.5	26	18.7	7/16	
	ZPD5/32-02T	5/32	NPT1/4	9.5	28	18.7	9/16	
	ZPD1/4-01T	1/4	NPT1/8	7.5	26.5	19.5	1/2	
	ZPD1/4-02T	1/4	NPT1/4	9.5	28.5	19.5	9/16	
	ZPD1/4-03T	1/4	NPT3/8	10.5	29.5	19.5	11/16	
	ZPD1/4-04T	1/4	NPT1/2	13.5	34.6	19.5	7/8	
	ZPD5/16-01T	5/16	NPT1/8	7.5	29.5	22.6	9/16	
	ZPD5/16-02T	5/16	NPT1/4	9.5	31.5	22.6	9/16	
	ZPD5/16-03T	5/16	NPT3/8	10.5	32.5	22.6	11/16	
	ZPD5/16-04T	5/16	NPT1/2	13.5	35.5	22.6	7/8	
	ZPD3/8-01T	3/8	NPT1/8	7.5	34.5	26.5	11/16	
	ZPD3/8-02T	3/8	NPT1/4	9.5	36.5	26.5	11/16	
	ZPD3/8-03T	3/8	NPT3/8	10.5	37.5	26.5	11/16	
	ZPD3/8-04T	3/8	NPT1/2	13.5	40.5	26.5	7/8	
	ZPD1/2-01T	1/2	NPT1/8	7.5	35.5	29.3	7/8	
	ZPD1/2-02T	1/2	NPT1/4	9.5	37.5	29.3	7/8	
	ZPD1/2-03T	1/2	NPT3/8	10.5	38.5	29.3	7/8	
	ZPD1/2-04T	1/2	NPT1/2	13.5	41.5	29.3	7/8	

Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet

One Touch-in Fitting


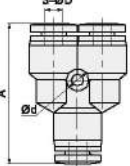
☉ Inch tubing-NPT thread


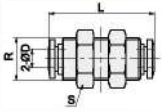
ZSC	Model	D(Inch)	R	A	B	S(Inch)	L		Main Dimension
							Min	Max	
	ZSC5/32-01T	5/32	NPT1/8	8	22	7/16	37.5	44.3	
	ZSC5/32-02T	5/32	NPT1/4	10	25	9/16	43.7	51.3	
	ZSC1/4-01T	1/4	NPT1/8	8	29.8	1/2	37.5	44.3	
	ZSC1/4-02T	1/4	NPT1/4	10	25.8	9/16	43.7	51.3	
	ZSC1/4-03T	1/4	NPT3/8	11	27.5	11/16	48.4	55.3	
	ZSC1/4-04T	1/4	NPT1/2	14	31	7/8	52.7	59.5	
	ZSC5/16-01T	5/16	NPT1/8	8	26.1	9/16	37.5	44.3	
	ZSC5/16-02T	5/16	NPT1/4	10	29.2	9/16	43.7	51.3	
	ZSC5/16-03T	5/16	NPT3/8	11	30.1	11/16	48.4	55.3	
	ZSC5/16-04T	5/16	NPT1/2	14	33.8	7/8	52.7	59.5	
	ZSC3/8-02T	3/8	NPT1/4	10	32.7	11/16	43.7	51.3	
	ZSC3/8-03T	3/8	NPT3/8	11	33.2	11/16	48.4	55.3	
	ZSC3/8-04T	3/8	NPT1/2	14	36.7	7/8	52.7	59.5	
	ZSC1/2-02T	1/2	NPT1/4	10	34.7	7/8	43.7	51.3	
	ZSC1/2-03T	1/2	NPT3/8	11	36.6	7/8	48.4	55.3	
	ZSC1/2-04T	1/2	NPT1/2	14	36	7/8	52.7	59.5	


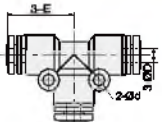
ZPWT	Model	D(Inch)	R	A	B	S(Inch)	Main Dimension	
							Min	Max
	ZPWT5/32-01T	5/32	NPT1/8	7.5	42.5	7/16		
	ZPWT5/32-02T	5/32	NPT1/4	9.5	45.5	9/16		
	ZPWT1/4-01T	1/4	NPT1/8	7.5	44.2	1/2		
	ZPWT1/4-02T	1/4	NPT1/4	9.5	48.2	9/16		
	ZPWT1/4-03T	1/4	NPT3/8	10.5	47.2	11/16		
	ZPWT1/4-04T	1/4	NPT1/2	13.5	50.2	7/8		
	ZPWT5/16-01T	5/16	NPT1/8	7.5	46.9	9/16		
	ZPWT5/16-02T	5/16	NPT1/4	9.5	48.9	9/16		
	ZPWT5/16-03T	5/16	NPT3/8	10.5	49.9	11/16		
	ZPWT5/16-04T	5/16	NPT1/2	13.5	52.9	7/8		
	ZPWT3/8-01T	3/8	NPT1/8	7.5	56.1	11/16		
	ZPWT3/8-02T	3/8	NPT1/4	9.5	58.1	11/16		
	ZPWT3/8-03T	3/8	NPT3/8	10.5	59.1	11/16		
	ZPWT3/8-04T	3/8	NPT1/2	13.5	62.1	7/8		
	ZPWT1/2-01T	1/2	NPT1/8	7.5	68.8	7/8		
	ZPWT1/2-02T	1/2	NPT1/4	9.5	69.8	7/8		
ZPWT1/2-03T	1/2	NPT3/8	10.5	61.8	7/8			
ZPWT1/2-04T	1/2	NPT1/2	13.5	64.8	7/8			


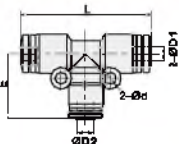
Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet


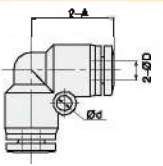
Inch tubing


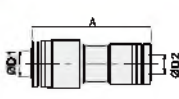
ZPY	Model	D(Inch)	A	d	Main Dimension
 ΦD	ZPY5/32	5/32	35.6	3.2	 3- ΦD A ΦD
	ZPY1/4	1/4	37.2	3.2	
	ZPY5/16	5/16	40	3.2	
	ZPY3/8	3/8	50.1	4.2	
	ZPY1/2	1/2	52.6	4.2	

ZPM	Model	D(Inch)	R	S	L	Main Dimension
 ΦD	ZPM5/32	5/32	M12X1	17	38	 L R 2- ΦD S
	ZPM1/4	1/4	M14X1	17	36	
	ZPM5/16	5/16	M16X1	19	40	
	ZPM3/8	3/8	M20X1	24	46	
	ZPM1/2	1/2	M22X1	27	46	

ZPE	Model	D(Inch)	E	d	Main Dimension
 ΦD	ZPE5/32	5/32	18.7	3.2	 3-E 2- ΦD ΦD
	ZPE1/4	1/4	19.5	3.2	
	ZPE5/16	5/16	22.6	3.2	
	ZPE3/8	3/8	28.5	4.2	
	ZPE1/2	1/2	29.3	4.2	

ZPEG	Model	D1	D2	E	L	d	Main Dimension
 $\Phi D1$ $\Phi D2$ $D1 > D2$	ZPEG1/4-5/32	1/4	5/32	18	38.1	3.2	 1- $\Phi D1$ 2- Φd $\Phi D2$
	ZPEG5/16-5/32	5/16	5/32	22	44.6	3.2	
	ZPEG5/16-1/4	5/16	1/4	22.1	44.9	3.2	
	ZPEG3/8-1/4	3/8	1/4	27.1	56.8	4.2	
	ZPEG3/8-5/16	3/8	5/16	27.5	55.8	4.2	
	ZPEG1/2-3/8	1/2	3/8	28.9	58.6	4.2	


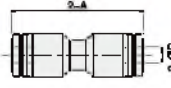
ZPV	Model	D(Inch)	A	d	Main Dimension
 ΦD	ZPV5/32	5/32	17.7	3.2	 2-A 2- ΦD Φd
	ZPV1/4	1/4	19.2	3.2	
	ZPV5/16	5/16	22.6	3.2	
	ZPV3/8	3/8	27.8	4.2	
	ZPV1/2	1/2	29.3	4.2	


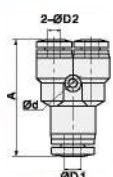
ZPG	Model	D1	D2	A	Main Dimension
 $\Phi D1$ $\Phi D2$ $D1 > D2$	ZPG1/4-5/32	1/4	5/32	36.4	 A $\Phi D1$ $\Phi D2$
	ZPG5/16-5/32	5/16	5/32	37.6	
	ZPG5/16-1/4	5/16	1/4	37.6	
	ZPG3/8-1/4	3/8	1/4	42.8	
	ZPG3/8-5/16	3/8	5/16	42.8	
	ZPG1/2-5/16	1/2	5/16	48.5	
ZPG1/2-3/8	1/2	3/8	48.5		


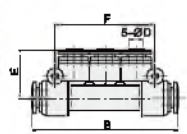
Note: ZP Series: Grey body and Orange collet
EP Series: Black body and Blue collet


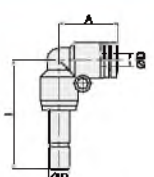
One Touch-in Fitting

Metric tubing

ZPU	Model	D	A	Main Dimension
 ΦD	ZPU5/32	5/32	33.4	
	ZPU1/4	1/4	35.6	
	ZPU5/16	5/16	38.7	
	ZPU3/8	3/8	48.2	
	ZPU1/2	1/2	48.6	

ZPW	Model	D1	D2	A	d	Main Dimension
 $\Phi D1$ $\Phi D2$ $D1 > D2$	ZPW1/4-5/32	1/4	5/32	38	3.2	
	ZPW5/16-5/32	5/16	5/32	38	3.2	
	ZPW5/16-1/4	5/16	1/4	38	3.2	
	ZPW3/8-1/4	3/8	1/4	49	4.2	
	ZPW3/8-5/16	3/8	5/16	49	4.2	
	ZPW1/2-3/8	1/2	3/8	53	4.2	

ZPK	Model	D(Inch)	B	d	F	E	Main Dimension
 ΦD	ZPK5/32	5/32	57	3.2	38	19	
	ZPK1/4	1/4	61	3.2	42	20.3	
	ZPK5/16	5/16	81.8	3.2	48	24.3	
	ZPK3/8	3/8	92.7	4.2	60.2	28.2	
	ZPK1/2	1/2	100.5	4.2	68.5	30	

ZPLJ	Model	D(Inch)	A	L	Main Dimension
 ΦD	ZPLJ5/32	5/32	17.7	33	
	ZPLJ1/4	1/4	19.2	36.2	
	ZPLJ5/16	5/16	22.6	42.5	
	ZPLJ3/8	3/8	27.8	50.8	
	ZPLJ1/2	1/2	29.3	54.5	

Note: ZP Series: Gray body and Orange collet
EP Series: Black body and Blue collet

How to Order?

Series No.	O.D. of Tube		Port Size	Ways	Thread Type
EHVFS	04: 4mm	5/32: 5/32"	M5: M5	Blank: 3 ways	P: PT
EHVSS	06: 6mm	3/16: 3/16"	M6: M6	B: 2 ways	
EHVFF	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				

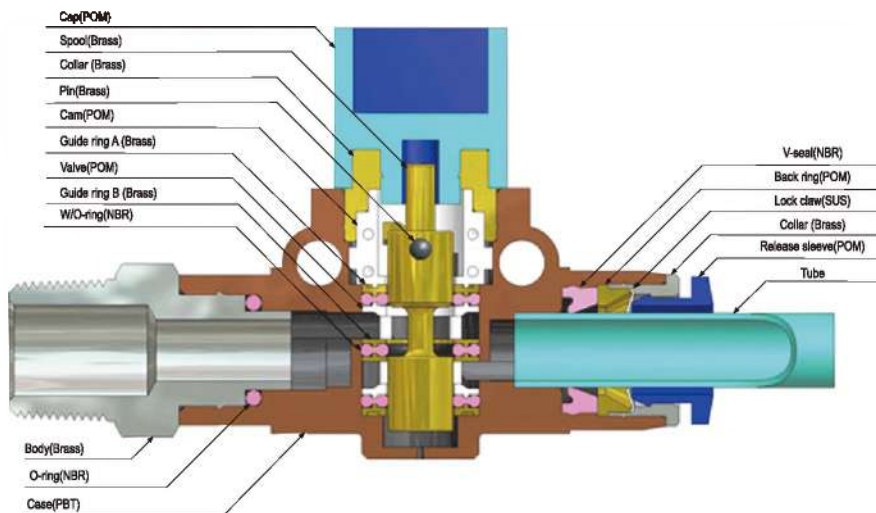
Order example:

EHVFS series plastic lifting, for 6mm OD tube, G1/8" port size, ERP code is EHVFS06-01G
 Note: If both sides with tube, then will show its size accordingly. For example, EHVFF hand valve for both 6mm OD tube, ERP code is: EHVFF 06-06

Specifications

Working medium	Air, Vacuum
Working pressure (MPa)	0~0.6
Guaranteed pressure (MPa)	1.2
Working temperature (°C)	0~60
Tube material	Nylon PU tube

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/Speed Controller

Hand Valve



MODEL[ϕ D-T]		
Tube(Metric)	Thread(PT)	
EHVFS 06-01	EHVFS 10-02	EHVFS 12-02
EHVFS 06-02	EHVFS 10-03	EHVFS 12-03
EHVFS 06-03	EHVFS 10-04	EHVFS 12-04
EHVFS 08-01		
EHVFS 08-02		
EHVFS 08-03		



MODEL[T1-T2]		
Thread(PT)		
EHVSS 01-01	EHVSS 04-03	
EHVSS 02-01	EHVSS 04-04	
EHVSS 02-02		
EHVSS 03-02		
EHVSS 03-03		



MODEL[ϕ D1- ϕ D2]		
Tube(Metric)		
EHVFF 06-06	EHVFF 12-10	
EHVFF 08-06	EHVFF 12-12	
EHVFF 08-08		
EHVFF 10-08		
EHVFF 10-10		



MODEL[T- ϕ D]		
Tube(Metric)	Thread(G)	
EHVFS06-01G	EHVFS08-03G	EHVFS12-02G
EHVFS06-02G	EHVFS10-02G	EHVFS12-03G
EHVFS06-03G	EHVFS10-03G	EHVFS12-04G
EHVFS08-01G	EHVFS10-04G	
EHVFS08-02G		



MODEL[ϕ T1- ϕ T2]		
Thread(G)		
EHVSS 01-02G	EHVSS 04-03G	
EHVSS 02-01G	EHVSS 04-04G	
EHVSS 02-02G		
EHVSS 03-02G		
EHVSS 03-03G		

Speed Controller



MODEL[ϕ D1- ϕ D2]	
Tube(Metric)	Tube(Inch)
ZSA 04	ZSA 5/82
ZSA 06	ZSA 3/16
ZSA 08	ZSA 1/4
ZSA 10	ZSA 5/16
ZSA 12	ZSA 3/8
	ZSA 1/2



Meter-out type							
Tube(Metric)-Thread(R)		Tube(Inch)-Thread(R)		Tube(Metric)-Thread(G)		Tube(Inch)-Thread(NPT)	
ZSC 04-M5	ZSC 08-03	ZSC 1/4-M5	ZSC 04-01G	ZSC 08-04G	ZSC 5/32-M5	ZSC 5/16-01T	
ZSC 04-01	ZSC 08-04	ZSC 1/4-01	ZSC 04-02G	ZSC 10-01G	ZSC 5/32-01T	ZSC 5/16-02T	
ZSC 04-02	ZSC 10-01	ZSC 1/4-02	ZSC 06-01G	ZSC 10-02G	ZSC 3/16-M5	ZSC 5/16-03T	
ZSC 06-M5	ZSC 10-02	ZSC 5/16-01	ZSC 06-02G	ZSC 10-03G	ZSC 3/16-01T	ZSC 5/16-04T	
ZSC 06-01	ZSC 10-03	ZSC 5/16-02	ZSC 06-03G	ZSC 10-04G	ZSC 3/16-02T	ZSC 3/8-02T	
ZSC 06-02	ZSC 10-04	ZSC 5/16-03	ZSC 06-04G	ZSC 12-02G	ZSC 3/16-03T	ZSC 3/8-03T	
ZSC 06-03	ZSC 12-02	ZSC 3/8-02	ZSC 06-01G	ZSC 12-03G	ZSC 1/4-M5	ZSC 3/8-04T	
ZSC 06-04	ZSC 12-03	ZSC 3/8-03	ZSC 08-01G	ZSC 12-04G	ZSC 1/4-01T	ZSC 1/2-03T	
ZSC 08-01	ZSC 12-04		ZSC 08-01G		ZSC 1/4-02T	ZSC 1/2-04T	
ZSC 08-02					ZSC 1/4-03T		



Meter-in type							
Tube(Metric)-Thread(R)		Tube(Inch)-Thread(R)		Tube(Metric)-Thread(G)		Tube(Inch)-Thread(NPT)	
ZSC 04-M5-B	ZSC 08-03P-B	ZSC 1/4-M5-B	ZSC 04-01G-B	ZSC 08-04G-B	ZSC 5/32-M5-B	ZSC 5/16-01T-B	
ZSC 04-01P-B	ZSC 08-04P-B	ZSC 1/4-01P-B	ZSC 04-02G-B	ZSC 10-01G-B	ZSC 5/32-01T-B	ZSC 5/16-02T-B	
ZSC 04-02P-B	ZSC 10-01P-B	ZSC 1/4-02P-B	ZSC 06-01G-B	ZSC 10-02G-B	ZSC 3/16-M5-B	ZSC 5/16-03T-B	
ZSC 06-M5-B	ZSC 10-02P-B	ZSC 5/16-01P-B	ZSC 06-02G-B	ZSC 10-03G-B	ZSC 3/16-01T-B	ZSC 5/16-04T-B	
ZSC 06-01P-B	ZSC 10-03P-B	ZSC 5/16-02P-B	ZSC 06-03G-B	ZSC 10-04G-B	ZSC 3/16-02T-B	ZSC 3/8-02T-B	
ZSC 06-02P-B	ZSC 10-04P-B	ZSC 5/16-03P-B	ZSC 06-04G-B	ZSC 12-02G-B	ZSC 3/16-03T-B	ZSC 3/8-03T-B	
ZSC 06-03P-B	ZSC 12-02P-B	ZSC 3/8-02P-B	ZSC 06-01G-B	ZSC 12-03G-B	ZSC 1/4-M5-B	ZSC 3/8-04T-B	
ZSC 06-04P-B	ZSC 12-03P-B	ZSC 3/8-03P-B	ZSC 08-01G-B	ZSC 12-04G-B	ZSC 1/4-01T-B	ZSC 1/2-03T-B	
ZSC 08-01P-B	ZSC 12-04P-B		ZSC 08-01G-B		ZSC 1/4-02T-B	ZSC 1/2-04T-B	
ZSC 08-02P-B					ZSC 1/4-03T-B		

Stop Fitting/Check Valve

How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type
ESPC ESPL ESPU ...	06: 6mm 08: 8mm	M5: M5 01: 1/8" 02: 1/4" 03: 3/8"	P: PT G: G T: NPT

Order example:

ESPC series plastic fitting, for 6mm OD tube, PT1/8" port size, ERP code is: ESPC06-01

Note: If both sides with tube and same size, then only show one size. For example, ESPL series plastic fitting for both 6mm OD tube, ERP code is: ESPL06

Stop Fitting



MODEL(ΦD-T)
Tube(Metric)
ESPC 06-01
ESPC 06-02
ESPC 08-02
ESPC 08-03



MODEL(ΦD-T)
Tube(Metric)
ESPL 06-01G
ESPL 06-02G
ESPL 08-01G
ESPL 08-02G
ESPL 08-03G



MODEL(ΦD-T)
Tube(Metric)
ESPL 06-M5
ESPL 06-01
ESPL 06-02
ESPL 08-01
ESPL 08-02
ESPL 08-03



MODEL(ΦD-T)
Tube(Metric)
ESPC 06-01G
ESPC 08-02G
ESPC 08-02G
ESPC 08-03G



MODEL(ΦD-T)
Tube(Metric)
ESPU 06
ESPU 08

Check Valve



MODEL(ΦD-T)
Tube(Metric)
ECVPF 02-02
ECVPF 03-03



MODEL(T1-T2)
Tube(Metric)
ECVPF 02-02G
ECVPF 03-03G


















Italian Style Metal One Touch-in Fitting

How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type
EMC	04: 4mm	M8: M8	P: PT
EML	06: 6mm	01: 1/8"	G: G
EMB	08: 8mm	02: 1/4"	T: NPT
...	10: 10mm	03: 3/8"	
	12: 12mm	04: 1/2"	

Order example:

EMC series Italian style metal one touch-in fitting, for 4mm OD tube, PT 1/8" port size, ERP code is : EMC04-01











 <p>EMC</p>	<p>Model</p> <p>EMC06-M8 EMC10-01 EMC06-01 EMC10-02 EMC06-02 EMC10-03 EMC06-03 EMC10-04 EMC06-04 EMC12-01 EMC08-01 EMC12-02 EMC08-02 EMC12-03 EMC08-03 EMC12-04 EMC08-04</p>	 <p>EML</p>	<p>Model</p> <p>EML04-M8 EML08-03 EML04-01 EML08-04 EML04-02 EML10-01 EML06-M8 EML10-02 EML06-01 EML10-03 EML06-02 EML10-04 EML06-03 EML12-01 EML06-04 EML12-02 EML08-01 EML12-03 EML08-02 EML12-04</p>	 <p>EMB</p>	<p>Model</p> <p>EMB04-M8 EMB08-03 EMB04-01 EMB08-04 EMB04-02 EMB10-01 EMB06-M8 EMB10-02 EMB06-01 EMB10-03 EMB06-02 EMB10-04 EMB06-03 EMB12-01 EMB06-04 EMB12-02 EMB08-01 EMB12-03 EMB08-02 EMB12-04</p>		
 <p>EMW</p>	<p>Model</p> <p>EMW06-M8 EMW10-01 EMW06-01 EMW10-02 EMW06-02 EMW10-03 EMW06-03 EMW10-04 EMW06-04 EMW12-01 EMW08-01 EMW12-02 EMW08-02 EMW12-03 EMW08-03 EMW12-04 EMW08-04</p>	 <p>EMSC</p>	<p>Model</p> <p>EMSC06-M8 EMSC10-01 EMSC06-01 EMSC10-02 EMSC06-02 EMSC10-03 EMSC06-03 EMSC10-04 EMSC06-04 EMSC12-01 EMSC08-01 EMSC12-02 EMSC08-02 EMSC12-03 EMSC08-03 EMSC12-04 EMSC08-04</p>	 <p>EMH</p>	<p>Model</p> <p>EMH04-M8 EMH04-01 EMH06-M8 EMH06-01 EMH08-01 EMH08-02 EMH10-02 EMH10-03 EMH12-03 EMH12-04</p>		
 <p>EMZT</p>	<p>Model</p> <p>EMZT04-M8 EMZT08-03 EMZT04-01 EMZT08-04 EMZT04-02 EMZT10-01 EMZT06-M8 EMZT10-02 EMZT06-01 EMZT10-03 EMZT06-02 EMZT10-04 EMZT06-03 EMZT12-01 EMZT06-04 EMZT12-02 EMZT08-01 EMZT12-03 EMZT08-02 EMZT12-04</p>	 <p>EMP</p>	<p>Model</p> <p>EMP04-M8 EMP08-03 EMP04-01 EMP08-04 EMP04-02 EMP10-01 EMP06-M8 EMP10-02 EMP06-01 EMP10-03 EMP06-02 EMP10-04 EMP06-03 EMP12-01 EMP06-04 EMP12-02 EMP08-01 EMP12-03 EMP08-02 EMP12-04</p>	 <p>EMF</p>	<p>Model</p> <p>EMF04-M8 EMF08-03 EMF04-01 EMF08-04 EMF04-02 EMF10-01 EMF06-M8 EMF10-02 EMF06-01 EMF10-03 EMF06-02 EMF10-04 EMF06-03 EMF12-01 EMF06-04 EMF12-02 EMF08-01 EMF12-03 EMF08-02 EMF12-04</p>		
 <p>EMU</p>	<p>Model</p> <p>EMU04 EMU06 EMU08 EMU10 EMU12</p>	 <p>EMV</p>	<p>Model</p> <p>EMV04 EMV06 EMV08 EMV10 EMV12</p>	 <p>EME</p>	<p>Model</p> <p>EME04 EME06 EME08 EME10 EME12</p>	 <p>EMY</p>	<p>Model</p> <p>EMY06 EMY08 EMY10 EMY12</p>
 <p>EMZA</p>	<p>Model</p> <p>EMZA04 EMZA06 EMZA08 EMZA10 EMZA12</p>	 <p>EMM</p>	<p>Model</p> <p>EMM04 EMM06 EMM08 EMM10 EMM12</p>	 <p>EMPGJ</p>	<p>Model</p> <p>EMPGJ 06-04 EMPGJ 08-06 EMPGJ 10-08 EMPGJ 10-08 EMPGJ 12-08 EMPGJ 12-10</p>	 <p>EMCF</p>	<p>Model</p> <p>EMCF04-M8 EMCF08-03 EMCF04-01 EMCF08-04 EMCF04-02 EMCF10-01 EMCF06-M8 EMCF10-02 EMCF06-01 EMCF10-03 EMCF06-02 EMCF10-04 EMCF06-03 EMCF12-01 EMCF06-04 EMCF12-02 EMCF08-01 EMCF12-03 EMCF08-02 EMCF12-04</p>

How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type
EC	03: 3mm	1/8: 1/8"	10-32UNF
EL	04: 4mm	5/32: 5/32"	01: 1/8"
EB	05: 5mm	3/16: 3/16"	02: 1/4"
...	06: 6mm	1/4: 1/4"	03: 3/8"
	08: 8mm	5/16: 5/16"	04: 1/2"
	10: 10mm	3/8: 3/8"	
	12: 12mm	1/2: 1/2"	

Order example:

EC series U.S.A style fitting, for 1/8" OD tube, 1/8" NPT port size, ERP code is :EC1/8-01T

 <p>EC</p> <table> <tr><td>Model</td><td>EC1/8-10-32UNF</td><td>EC1/4-01T</td><td>EC1/2-03T</td><td>EC08-02</td></tr> <tr><td></td><td>EC1/8-01T</td><td>EC1/4-02T</td><td>EC1/2-04T</td><td>EC08-03</td></tr> <tr><td></td><td>EC5/32-10-32UNF</td><td>EC1/4-03T</td><td>EC03-01</td><td>EC08-04</td></tr> <tr><td></td><td>EC5/32-01T</td><td>EC1/4-04T</td><td>EC04-01</td><td>EC10-01</td></tr> <tr><td></td><td>EC5/32-02T</td><td>EC5/16-03T</td><td>EC04-02</td><td>EC10-02</td></tr> <tr><td></td><td>EC5/32-04T</td><td>EC5/16-04T</td><td>EC05-01</td><td>EC10-03</td></tr> <tr><td></td><td>EC3/16-10-32UNF</td><td>EC3/8-01T</td><td>EC06-01</td><td>EC10-04</td></tr> <tr><td></td><td>EC3/16-01T</td><td>EC3/8-02T</td><td>EC06-02</td><td>EC12-02</td></tr> <tr><td></td><td>EC3/16-03T</td><td>EC3/8-03T</td><td>EC06-03</td><td>EC12-03</td></tr> <tr><td></td><td>EC3/16-04T</td><td>EC3/8-04T</td><td>EC06-04</td><td>EC12-04</td></tr> <tr><td></td><td>EC1/4-10-32UNF</td><td>EC1/2-02T</td><td>EC08-01</td><td></td></tr> </table>	Model	EC1/8-10-32UNF	EC1/4-01T	EC1/2-03T	EC08-02		EC1/8-01T	EC1/4-02T	EC1/2-04T	EC08-03		EC5/32-10-32UNF	EC1/4-03T	EC03-01	EC08-04		EC5/32-01T	EC1/4-04T	EC04-01	EC10-01		EC5/32-02T	EC5/16-03T	EC04-02	EC10-02		EC5/32-04T	EC5/16-04T	EC05-01	EC10-03		EC3/16-10-32UNF	EC3/8-01T	EC06-01	EC10-04		EC3/16-01T	EC3/8-02T	EC06-02	EC12-02		EC3/16-03T	EC3/8-03T	EC06-03	EC12-03		EC3/16-04T	EC3/8-04T	EC06-04	EC12-04		EC1/4-10-32UNF	EC1/2-02T	EC08-01		 <p>EL</p> <table> <tr><td>Model</td><td>EL1/8-01T</td><td>EL1/4-02T</td><td>EL1/2-03T</td><td>EL08-04</td></tr> <tr><td></td><td>EL1/8-02T</td><td>EL1/4-03T</td><td>EL1/2-04T</td><td>EL10-01</td></tr> <tr><td></td><td>EL5/32-01T</td><td>EL1/4-04T</td><td>EL04-01</td><td>EL10-02</td></tr> <tr><td></td><td>EL5/32-02T</td><td>EL5/16-01T</td><td>EL05-01</td><td>EL10-03</td></tr> <tr><td></td><td>EL5/32-03T</td><td>EL5/16-02T</td><td>EL06-01</td><td>EL10-04</td></tr> <tr><td></td><td>EL5/32-04T</td><td>EL5/16-03T</td><td>EL06-02</td><td>EL12-02</td></tr> <tr><td></td><td>EL3/16-01T</td><td>EL3/8-01T</td><td>EL06-03</td><td>EL12-03</td></tr> <tr><td></td><td>EL3/16-02T</td><td>EL3/8-02T</td><td>EL06-04</td><td>EL12-04</td></tr> <tr><td></td><td>EL3/16-03T</td><td>EL3/8-03T</td><td>EL08-01</td><td></td></tr> <tr><td></td><td>EL3/16-04T</td><td>EL3/8-04T</td><td>EL08-02</td><td></td></tr> <tr><td></td><td>EL1/4-01T</td><td>EL1/2-02T</td><td>EL08-03</td><td></td></tr> </table>	Model	EL1/8-01T	EL1/4-02T	EL1/2-03T	EL08-04		EL1/8-02T	EL1/4-03T	EL1/2-04T	EL10-01		EL5/32-01T	EL1/4-04T	EL04-01	EL10-02		EL5/32-02T	EL5/16-01T	EL05-01	EL10-03		EL5/32-03T	EL5/16-02T	EL06-01	EL10-04		EL5/32-04T	EL5/16-03T	EL06-02	EL12-02		EL3/16-01T	EL3/8-01T	EL06-03	EL12-03		EL3/16-02T	EL3/8-02T	EL06-04	EL12-04		EL3/16-03T	EL3/8-03T	EL08-01			EL3/16-04T	EL3/8-04T	EL08-02			EL1/4-01T	EL1/2-02T	EL08-03	
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Metal Fitting

How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type
EC	04: 4mm	01: 1/8" 06: 3/4"	P: PT
EH	06: 6mm	02: 1/4" 08: 1"	G: G
ELF	08: 8mm	03: 3/8" 10: 1-1/4"	T: NPT
...	10: 10mm	04: 1/2"	
	12: 12mm		

Order example:

EC series metal fitting, for 4mm OD tube, PT1/8" port size, ERP code is: EC04-01

Note: If both sides with tube, then show the size accordingly, if the same be same, then only show one. For example, EH fitting, both for 6mm OD tube, ERP code is: EH-06

<p>EC</p>  <p>Model EC 04-01 EC 06-01 EC 08-01 EC 10-01 EC 12-01 EC 04-02 EC 06-02 EC 08-02 EC 10-02 EC 12-02 EC 14-02 EC 16-02 EC 04-03 EC 06-03 EC 08-03 EC 10-03 EC 12-03 EC 14-03 EC 16-03 EC 04-04 EC 06-04 EC 08-04 EC 10-04 EC 12-04 EC 14-04 EC 16-04</p>	<p>EH</p>  <p>Model EH-06 EH-08 EH-10 EH-12 EH 1/4 EH 5/16 EH 3/8 EH 1/2 EH 3/4</p>	<p>ELF</p>  <p>Model ELF 01 ELF 02 ELF 03 ELF 04</p>	<p>EL</p>  <p>Model EL01 EL02 EL03 EL04</p>
<p>EFM</p>  <p>Model EFM1 01 EFM1 01-02 EFM1 02-01 EFM1 02 EFM1 02-03 EFM1 03-02 EFM1 03 EFM1 04</p>	<p>ELFM</p>  <p>Model ELFM 01 ELFM 01-02 ELFM 02-01 ELFM 02 ELFM 02-03 ELFM 03-01 ELFM 03-02 ELFM 03 ELFM 03-04 ELFM 04-03 ELFM 04</p>	<p>ECF</p>  <p>Model ECF 01 ECF 02-01 ECF 02 ECF 03-01 ECF 03-02 ECF 03 ECF 04-01 ECF 04-02 ECF 04-03 ECF-04 ECF 06-04 ECF 06</p>	<p>ECN</p>  <p>Model ECN 01 ECN 02-01 ECN 02 ECN 03-01 ECN 03-02 ECN 03 ECN 04-01 ECN 04-02 ECN 04-03 ECN 04 ECN 06-02 ECN 06-03 ECN 06-04 ECN 06 ECN 08-04 ECN 08-06 ECN 08 ECN 10</p>
<p>ECH</p>  <p>Model ECH 6-01 ECH 8-01 ECH 10-01 ECH 12-01 ECH 8-02 ECH 8-02 ECH 10-02 ECH 12-02 ECH 14-02 ECH 16-02 ECH 6-03 ECH 8-03 ECH 10-03 ECH 12-03 ECH 14-03 ECH 16-03 ECH 6-04 ECH 8-04 ECH 10-04 ECH 12-04 ECH 14-04 ECH 16-04 ECH 18-04 ECH 8-06 ECH 10-06 ECH 12-06 ECH 14-06 ECH 16-06 ECH 18-06 ECH 25-06 ECH 10-08 ECH 12-08 ECH 14-08 ECH 16-08 ECH 19-08 ECH 1/8-01 ECH 3/16-01 ECH 1/4-01 ECH 5/16-01 ECH 3/8-01 ECH 1/2-01 ECH 1/8-02 ECH 3/16-02 ECH 1/4-02 ECH 5/16-02 ECH 3/8-02 ECH 1/2-02 ECH 5/8-02 ECH 3/4-02 ECH 1/4-03 ECH 5/16-03 ECH 3/8-03 ECH 1/2-03 ECH 5/8-03 ECH 3/4-03 ECH 1/4-04 ECH 5/16-04 ECH 3/8-04 ECH 1/2-04 ECH 5/8-04 ECH 3/4-04 ECH 1-04 ECH 3/8-06 ECH 1/2-06 ECH 5/8-06 ECH 3/4-06 ECH 1-06 ECH 1/2-08 ECH 3/4-08 ECH 1-08 ECH 1-1/4-08 ECH 1-1/2-08</p>	<p>ECHF</p>  <p>Model ECHF 6-01 ECHF 8-01 ECHF 10-01 ECHF 12-01 ECHF 6-02 ECHF 8-02 ECHF 10-02 ECHF 12-02 ECHF 14-02 ECHF 16-02 ECHF 6-03 ECHF 8-03 ECHF 10-03 ECHF 12-03 ECHF 14-03 ECHF 16-03 ECHF 6-04 ECHF 8-04 ECHF 10-04 ECHF 12-04 ECHF 14-04 ECHF 16-04 ECHF 18-04 ECHF 8-06 ECHF 10-06 ECHF 12-06 ECHF 14-06 ECHF 16-06 ECHF 18-06 ECHF 25-06 ECHF 10-08 ECHF 12-08 ECHF 14-08 ECHF 16-08 ECHF 19-08 ECHF 25-08 ECHF 33-08 ECHF 1/6-01 ECHF 3/16-01 ECHF 1/4-01 ECHF 5/16-01 ECHF 3/8-01 ECHF 1/2-01 ECHF 1/8-02 ECHF 3/16-02 ECHF 1/4-02 ECHF 5/16-02 ECHF 3/8-02 ECHF 1/2-02 ECHF 5/8-02 ECHF 3/4-02 ECHF 1/4-03 ECHF 5/16-03 ECHF 3/8-03 ECHF 1/2-03 ECHF 5/8-03 ECHF 3/4-03 ECHF 1/4-04 ECHF 5/16-04 ECHF 3/8-04 ECHF 1/2-04 ECHF 5/8-04 ECHF 3/4-04 ECHF 1-04 ECHF 3/8-06 ECHF 1/2-06 ECHF 5/8-06 ECHF 3/4-06 ECHF 1-06 ECHF 1-08 ECHF 3/4-08 ECHF 1-08 ECHF 1-1/4-08 ECHF 1-1/2-08</p>	<p>EHH</p>  <p>Model EHH 06 EHH 08 EHH 10 EHH 12 EHH 14 EHH 16 EHH 3/16 EHH 1/4 EHH 5/16 EHH 3/8 EHH 1/2 EHH 5/8 EHH 3/4</p>	













How to Order?

Series No.	O.D. of Tube	Thread Size	Fitting Material	Thread Type
SPU	04: 4mm	M5: M5	S1: SS316	P: PT
SPE	06: 6mm	M6: M6	S2: SS304	G: G
SPV	08: 8mm	01: 1/8"		T: NPT
...	10: 10mm	02: 1/4"		
	12: 12mm	03: 3/8"		
		04: 1/2"		

Order example:

SFC series stainless steel fitting, for 4mm OD tube, PT1/8" part size, SS316 material, ERP code is : SPC4-01S1

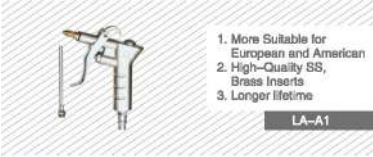
Note: If both sides with tube, then show the size accordingly, if the same be same, then only show one. For example, SPU fitting, both for 6mm OD tube, SS316 material, ERP code is : SPU 06 S1

<p>SPU</p>  <p>Model SPU 04 SPU 06 SPU 08 SPU 10 SPU 12</p>	<p>SPV</p>  <p>Model SPV 04 SPV 06 SPV 08 SPV 10 SPV 12</p>	<p>SPE</p>  <p>Model SPE 04 SPE 06 SPE 08 SPE 10 SPE 12</p>
<p>SPC</p>  <p>Model SPC 04-01 SPC 10-02 SPC 04-02 SPC 10-03 SPC 06-01 SPC 10-04 SPC 06-02 SPC 12-02 SPC 06-03 SPC 12-03 SPC 08-01 SPC 12-04 SPC 08-02 SPC 08-03 SPC 08-04</p>	<p>SPCF</p>  <p>Model SPCF 04-01 SPCF 10-03 SPCF 04-02 SPCF 12-02 SPCF 06-01 SPCF 12-03 SPCF 06-02 SPCF 12-04 SPCF 06-03 SPCF 08-01 SPCF 08-02 SPCF 08-03 SPCF 10-02</p>	<p>SPB</p>  <p>Model SPB 04-01 SPB 10-04 SPB 04-02 SPB 12-02 SPB 06-01 SPB 12-03 SPB 06-02 SPB 12-04 SPB 06-03 SPB 08-01 SPB 08-02 SPB 08-03 SPB 10-02 SPB 10-03</p>
<p>SPD</p>  <p>Model SPD 04-01 SPD 10-04 SPD 04-02 SPD 12-02 SPD 06-01 SPD 12-03 SPD 06-02 SPD 12-04 SPD 06-03 SPD 08-01 SPD 08-02 SPD 08-03 SPD 10-02 SPD 10-03</p>	<p>SPL</p>  <p>Model SPL 04-M5 SPL 08-02 SPL 04-M6 SPL 08-03 SPL 04-01 SPL 10-02 SPL 04-02 SPL 10-03 SPL 06-M5 SPL 10-04 SPL 06-M6 SPL 12-02 SPL 06-01 SPL 12-03 SPL 06-02 SPL 12-04 SPL 08-01</p>	<p>SPGJ</p>  <p>Model SPGJ 04-08 SPGJ 04-08 SPGJ 06-08 SPGJ 06-10 SPGJ 08-10 SPGJ 08-12 SPGJ 10-12</p>
<p>SM</p>  <p>Model SM 04-01 SM 04-02 SM 06-01 SM 06-02 SM 08-02 SM 08-03</p>	<p>SMC</p>  <p>Model SMC 04-01 SMC 12-03 SMC 04-02 SMC 12-04 SMC 06-01 SMC 06-02 SMC 08-01 SMC 08-02 SMC 10-02 SMC 10-03 SMC 12-02</p>	<p>SPM</p>  <p>Model SPM 04 SPM 06 SPM 08 SPM 10 SPM 12</p>

Air Gun

○ Air Gun

Series No.	Type No.	Color
LA EB	A1: Long Nozzle A3: Short & Medium Nozzle 094: Plastic Type	Y: Yellow O: Orange



Air Gun (Long Nozzle)



Air Gun (Short & Medium Nozzle)



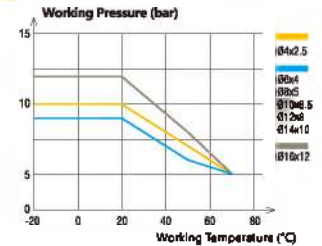
Air Duster (Medium Nozzle)

How to Order? (Metric size)

Series code	O.D. X I.D.	Length	Color code
PU: PU tube PE: PE tube	030: 3.0mm 040: 4.0mm	020: 2.0mm 025: 2.5mm	100M: 100 M/Roll 200M: 200 M/Roll
	050: 5.0mm 060: 6.0mm 080: 8.0mm	030: 3.0mm 040: 4.0mm 050: 5.0mm 055: 5.5mm 060: 6.0mm 065: 6.5mm 075: 7.5mm	100M: 100 M/Roll
	100: 10.0mm 120: 12.0mm 140: 14.0mm 160: 16.0mm	080: 8.0mm 100: 10.0mm 120: 12.0mm	



PU Tube Performance



Order example:

Ø4XØ2.5 PU tube, 200M/Roll, Blue color, ERP code is: PUC40X025-200M-BU

How to Order? (Inch size)

Series code	O.D.(inch) X I.D.	Length	Color code
PU: PU tube PE: PE tube	1/8"	Default	100M: 100 M/Roll 200M: 200 M/Roll
	1/4"		
	5/16"		100M: 100 M/Roll
	3/8"		
	1/2"		
	5/32"		



Order example:

1/8" PU tube, 200M/Roll, Blue color, ERP code is: PU1/8-200M-BU

Part No.	O.D (mm)	I.D (mm)	Length (m/roll)	Operating Pressure (kgf/cm ²) (air)	Max. Pressure (kgf/cm ²)	Working Temperature	Bending Radius (mm)	Available Colour	Fluid Pressure
PU030X020	3.0	2.0	200	10	32	-20°C~70°C	10	BLUE/ BLACK/ CLARITY/ ORANGE/ RED	0.1-0.8 MPa
PU040X020	4.0	2.0	200	10	32	-20°C~70°C	10		0.1-0.8 MPa
PU040X025	4.0	2.5	200	10	32	-20°C~70°C	10		0.1-0.8 MPa
PU050X030	5.0	3.0	200	10	32	-20°C~70°C	8		0.1-0.8 MPa
PU060X040	6.0	4.0	200	8	24	-20°C~70°C	15		0.1-0.8 MPa
PU080X050	6.0	5.0	100	10	32	-20°C~70°C	20		0.1-0.8 MPa
PU080X055	8.0	5.5	100	8	24	-20°C~70°C	20		0.1-0.8 MPa
PU080X060	8.0	6.0	100	8	24	-20°C~70°C	20		0.1-0.8 MPa
PU100X060	10.0	6.0	100	8	24	-20°C~70°C	25		0.1-0.8 MPa
PU100X065	10.0	6.5	100	8	24	-20°C~70°C	25		0.1-0.8 MPa
PU100X075	10.0	7.5	100	8	24	-20°C~70°C	25		0.1-0.8 MPa
PU120X080	12.0	8.0	100	8	24	-20°C~70°C	35		0.1-0.8 MPa
PU140X100	14.0	10.0	100	8	24	-20°C~70°C	45		0.1-0.8 MPa
PU160X120	16.0	12.0	100	8	24	-20°C~70°C	70		0.1-0.8 MPa

Note: Please check with E.MC for color availability and MOQ.

How to Order?

Series code	O.D.	X	I.D.	Length	Color code	End length	Fitting type
PUS: PU spring tube PES: PE spring tube	040: 4.0mm 050: 5.0mm 060: 6.0mm 080: 8.0mm	025: 2.5mm 030: 3.0mm 040: 4.0mm 050: 5.0mm	060M: 6m 075M: 7.5m 090M: 9m 120M: 12m 150M: 15m	BU: Blue B: Black C: Transparent O: Orange R: Red	A: One end is 30cm, the other end is 10cm B: Both end be 10cm C: Both end be 0cm	1: Without fitting 2: With female-male fitting 3: With male-male fitting	
	100: 10.0mm 120: 12.0mm 140: 14.0mm 160: 16.0mm	065: 6.5mm 080: 8.0mm 100: 10.0mm 120: 12.0mm					

Order example:

Ø4XØ2.5 PU Spring tube, 6M, Black color, both end with 10cm, no end fitting, ERP code is: PUS040X025-060M-B-B-1

Note: Please check with E.MC for color availability and MOQ.



PA Tube/PU Cutter

PA Tube/PU Cutter

How to Order? (Metric size)

Series code	O.D. X I.D	Length	Color code
PA: PA tube	040: 4.0mm	100M: 100 M/Roll	BU: Blue B: Black C: Transparent O: Orange R: Red
	050: 5.0mm	200M: 200 M/Roll	
	060: 6.0mm	100M: 100 M/Roll	
	080: 8.0mm		
	100: 10.0mm		
		070: 7.0mm	
		075: 7.5mm	
		080: 8.0mm	
	120: 12.0mm	080: 8.0mm	
		090: 9.0mm	
		100: 10.0mm	
	140: 14.0mm	100: 10.0mm	
		110: 11.0mm	
	150: 15.0mm	120: 12.0mm	
	160: 16.0mm	120: 12.0mm	
		130: 13.0mm	



Order example:

Ø4XØ2.0 PA tube, 200M/Roll, Blue color, ERP code is: PA040X020-200M-BU

How to Order? (Inch size)

Series code	O.D.(Inch) X I.D	Length	Color code
PA: PA tube	1/8"	100M: 100 M/Roll	BU: Blue B: Black C: Transparent O: Orange R: Red
	1/4"	200M: 200 M/Roll	
	5/16"	100M: 100 M/Roll	
	3/8"		
	1/2"		
	5/32"		
	3/16"		
	5/8"		

Order example:

1/8" PA tube, 200M/Roll, Blue color, ERP code is: PA1/8-200M-BU

**NOTE: 1. PA tube has PA11-6 and PA2 two kinds to choose.
2. Please check with E.MC for color availability and MOQ.**

PartNo.	O.D. (mm)	I.D. (mm)	Length (m/roll)	Operating Pressure (kgf/cm)(air)	Max. Pressure (kgf/cm)	Working Temperature	Bending Radius(mm)	Available Colour	Fluid Pressure	
PA tube	PA11-8 Tube	PA040X020	4.0	2.0	200	45	135	-30℃-100℃	30	4.5MPa
		PA050X030	5.0	3.0	200	45	135	-30℃-100℃	30	4.5MPa
		PA080X040	8.0	4.0	200	27	81	-30℃-100℃	40	3.2MPa
		PA080X060	8.0	6.0	100	19	57	-30℃-100℃	50	2.6MPa
		PA100X070	10.0	7.0	100	15	45	-30℃-100℃	60	2.8MPa
		PA100X075	10.0	7.5	100	15	45	-30℃-100℃	60	2.8MPa
		PA100X080	10.0	8.0	100	15	45	-30℃-100℃	65	2.7MPa
		PA120X080	12.0	8.0	100	19	57	-30℃-100℃	70	3.2MPa
		PA120X090	12.0	9.0	100	19	57	-30℃-100℃	70	3.2MPa
		PA120X100	12.0	10.0	100	19	57	-30℃-100℃	70	2.4MPa
		PA140X100	14.0	10.0	100	19	57	-30℃-100℃	100	2.4MPa
		PA140X110	14.0	11.0	100	19	57	-30℃-100℃	100	2.6MPa
		PA150X120	15.0	12.0	100	19	57	-30℃-100℃	100	2.6MPa
		PA160X120	16.0	12.0	100	19	57	-30℃-100℃	130	2.8MPa
		PA160X130	16.0	13.0	100	19	57	-30℃-100℃	130	2.8MPa
	PA2 Tube	PA040X020	4.0	2.0	200	45	135	-40℃-120℃	30	3.4MPa
		PA050X030	5.0	3.0	200	45	135	-40℃-120℃	30	3.4MPa
		PA080X040	8.0	4.0	200	27	81	-40℃-120℃	40	2.8MPa
		PA080X060	8.0	6.0	100	19	57	-40℃-120℃	50	2.6MPa
		PA100X070	10.0	7.0	100	15	45	-40℃-120℃	60	2.6MPa
		PA100X075	10.0	7.5	100	15	45	-40℃-120℃	60	2.6MPa
		PA100X080	10.0	8.0	100	15	45	-40℃-120℃	65	2.0MPa
		PA120X080	12.0	8.0	100	19	57	-40℃-120℃	70	2.6MPa
		PA120X090	12.0	9.0	100	19	57	-40℃-120℃	70	2.6MPa
		PA120X100	12.0	10.0	100	19	57	-40℃-120℃	70	2.6MPa
		PA140X100	14.0	10.0	100	19	57	-40℃-120℃	100	2.2MPa
		PA140X110	14.0	11.0	100	19	57	-40℃-120℃	100	2.0MPa
		PA150X120	15.0	12.0	100	19	57	-40℃-120℃	100	2.0MPa
		PA160X120	16.0	12.0	100	19	57	-40℃-120℃	130	2.0MPa
		PA160X130	16.0	13.0	100	19	57	-40℃-120℃	130	2.0MPa

PU cutter



Model: ECP-01

TSB

Flame Resistant Tubing



How to Order ?

Series	O.D.	X	I.D.	Length	Color
TSB: Flame resistant tubing	080: 6.0mm 080: 8.0mm 100: 10.0mm 120: 12.0mm 140: 14.0mm		040: 4.0mm 050: 5.0mm 065: 6.5mm 080: 8.0mm 100: 10.0mm	100M: 100m/Roll	BU: Blue B: Black R: Red

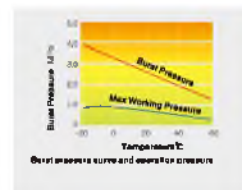
Flame Resistant Tube

Item No.	Tube O.D.(mm)	Tube I.D.(mm)	Outer layer thickness(mm)	Min bending radius(mm)
TSB080X040	6	4	1	15
TSB080X050	8	6	1	28
TSB100X065	10	6.5	1	35
TSB120X080	12	8	1	45
TSB140X100	14	10	2	55



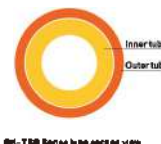
Performance

Fluid	Air; Water	
Max operating pressure (20°C)	1.0MPa	
Operation temperature	20 to +60° C, Water : 0 to +40° C (Not freezing)	
Material	Inner layer	Polyurethane
	Outer layer	Flame resistant polyolefin resin(Same as UL94 standard V0)



Product Feature

- PU anti-spatter tube, inner tube is made of polyurethane and outer coated by flame resistant resin (equal to UL 94 V0), which is flame resistant, anti-spark and anti-spatter.
- While you need use this tube to fit the quick connector, please confirm the length you need, pill of the outer coating, stick the inner tube to the connector.
- Application: Auto welding fixture, welding robot, and other welding machine.



Pressure Switch



PS42 series

How to Order?

Series No.	Pressure Type	Output Type	-	Port Size
PS42 : Display digital pressure switch	P:-0.1MPa~1MPa V:-100kPa~0kPa C:-100kPa~100kPa	010:2NPN+1 Analog output(1~5V) 020:2PNP+1 Analog output(1~5V) 021:2PNP+1 Analog output(4~20mA)	-	01:PT1/8+M5 02:G1/8+M5 03:NPT1/8+M5

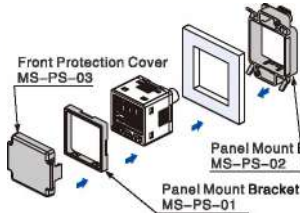
Specifications

Model	PS42P (Positive pressure)	PS42V (Vacuum pressure)	PS42C (Compound pressure)
Working pressure range		Standard pressure	
Regulating pressure range	-0.1~1.0 MPa	-100~0 kPa	-100~100 kPa
Rated pressure range	-0.1~1.0 MPa	-100~0 kPa	-100~100 kPa
Extended analog output range	1.5 MPa	500 kPa	500 kPa
Applicable fluid	Non-corrosive air		
Power supply voltage	12~24V DC \pm 5%		
Current consumption	24V 27mA MAX or 12V 51mA MAX		
Comparative Output	NPN O.C output: 80mA/24V DC MAX or PNP O.C output: 80mA/24V DC MAX		
Digital output repeatability	\pm 0.2% FS	\pm 0.2% FS	\pm 0.5% FS
Actuation response time	Different options by button operating 2.5ms, 5ms, 10ms, 25ms, 50ms, 100ms, 250ms, 500ms, 1000ms, 5000ms,		
Analog output	Voltage output	0.6~5V(or less)	1~5V(or less)
	Current output	2.4~20mA(or less)	4~20mA(or less)
	Linearity: \pm 1% FS; Output impedance: 1 K Ω Linearity: \pm 1% FSD Max. load impedance: 300 Ω (DC12V), 600 Ω (DC24V) Mini. load impedance: 50 Ω		
Outside Input	NO		
Operating Temperature range	Operating: 0~50 $^{\circ}$ C; Stored: -10~60 $^{\circ}$ C(No freezing or condensation)		
Operating Humidity range	35~85%RH		
Temperature characteristics	\pm 1% FS(25 $^{\circ}$ C)		
Protection Class	IP40		
Material	Case: Nylon + glass fiber Pressure hole: Hex brass nickle plated	LCD:LCD Propylene Seal: H-NBR	Switch:Silicone rubber
Dimensions	30 x 30 x 25mm(Rubber part) / 30 x 30 x 43mm(Including connector)		
Weight	About 80g(pressure gauge body + connector bracket)		
Standards	2M cable with Terminals		
Optional	mounting bracket 1pc		

Mounting Bracket(Optional)

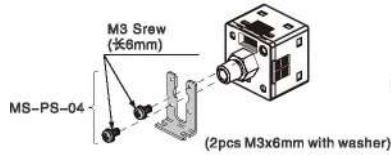
Name	Model	Description
Sensor Mount Bracket	MS-PS-04	The sensor mounting bracket is designed to be installed on the top or bottom of your device.
	MS-PS-05	Multiple sensors can be mounted side by side.
Panel Mount Bracket	MS-PS-01	Panel mount brackets are designed for installing the sensor on panels from 1mm-6mm thickness.
	MS-PS-02	
Front Protection Cover	MS-PS-03	Install the front protection cover on your device once you've completed installation of the panel mounting bracket and sensor mounting bracket.

Panel Mounting Bracket



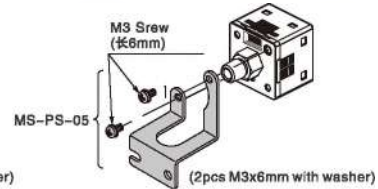
Sensor Mount Bracket

• MS-PS-04



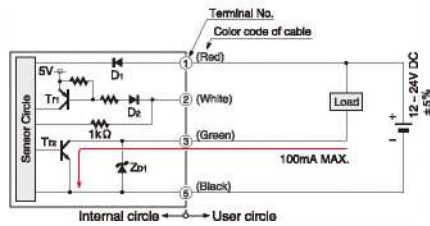
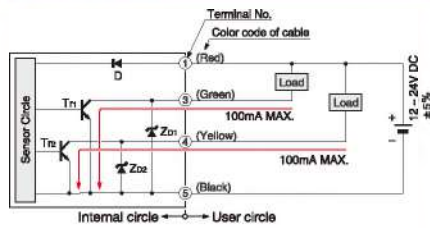
Sensor Mount Bracket

• MS-PS-05

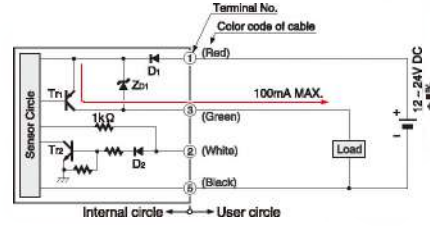
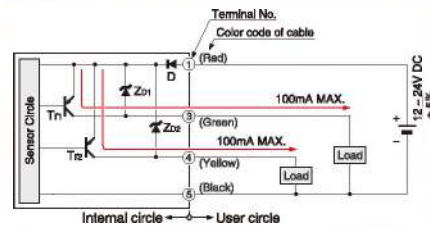


I/O Circuit and Wiring Diagrams

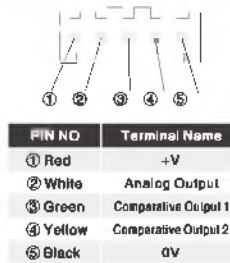
NPN Output Type



PNP Output Type



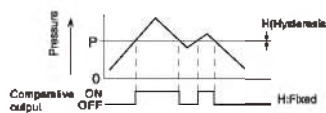
Terminals



With 2 independent outputs and 3 output modes

① Easy Mode

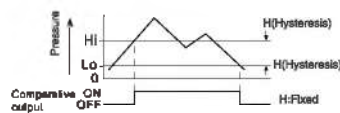
Comparative Output ON/OFF Control Mode



Note 1: Hysteresis can be set as 8 class
Note 2: Sub display in comparative output is 1: display "P-1" comparative output is 2: display "P-2"

② Hysteresis mode

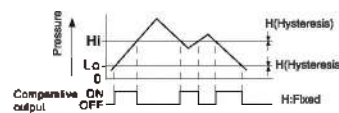
This mode is used for setting comparative output hysteresis to the desired level and for carrying out ON / OFF control



Note 1: "HI-1" or "Lo-1" appears in the sub display for comparative output 1, and "HI-2" or "Lo-2" appears for comparative output 2

③ Window comparator mode

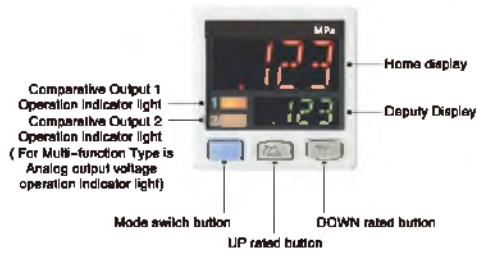
This mode is used for setting comparative output ON and OFF at pressure within the setting range



Note 1: Hysteresis can be set as 8 class
Note 2: "HI-1" or "Lo-1" appears in the sub display for comparative output 1, and "HI-2" or "Lo-2" appears for comparative output 2

Pressure Switch

External Specification



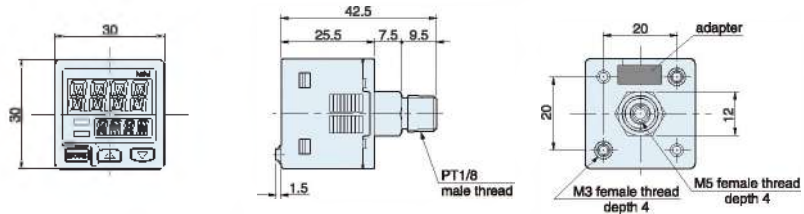
Menu Settings

Under RUN mode, press the mode switch button continuously 2 seconds, can automatically switch into mode for Menu setting.
If press the mode switch button long time, return to RUN mode. New setting works immediately

Setting Items	Description
Comparative output 1 output mode setting	Setting Comparative output 1 output mode
Comparative output 2 output mode setting (standard type only)	Setting Comparative output 2 output mode
Analog voltage output / external input switching (high-function type only)	Automatically switching from analog voltage or reference input between remote zero input (only high-function type)
NO / NC switch	Setting normally open or normally closed
Reaction time setting	Setting reaction time
The home display section displays the color-switching	The home display unit can be switched colors
Unit switch (high pressure models only)	Switchable pressure units (Mpa and kPa)

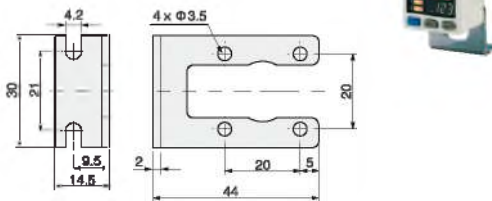
PS42PN/C

Sensor



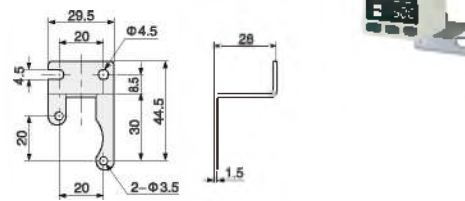
MS-PS-04

Sensor Mount adapter (optional separately price)



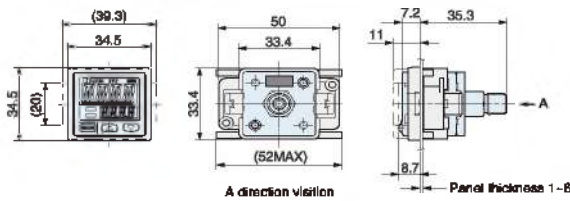
MS-PS-05

Sensor Mount adapter (optional separately price)



MS-PS-01 MS-PS-02 MS-PS-03

Panel Mount adaptor, Front Protection Cover (optional separately price)

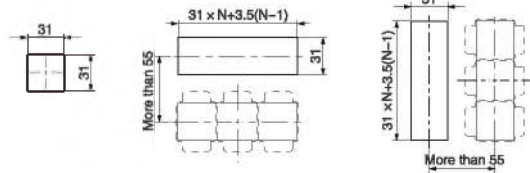


Panel dimensions

Mount one panel

Slave-side sensor continuous installation N pcs

Master side sensor continuous installation N pcs



Digital Pressure Switch

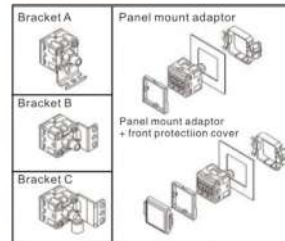


How to Order?

Series code	Pressure type	Port Size	Output Type	Optional
NISE30A (For positive pressure) NZSE30A (For compound/ vacuum pressure)	NISE30A : -0.1~1MPa NZSE30A : 0~101KPa NZSE30AF : -100~100KPa	01 R1/8 (MS female threaded)	N: NPN open collector 1 output A: NPN open collector 2 output C: NPN analog voltage output D: NPN analog current output	L Lead wire with connector (2M) G Lead wire with connector (2M) Lead wire with connector (2M) with connector cap Lead wire with connector (2M) with connector cover

Mounting Bracket

Part No	Options
NZS-38-A1	Bracket A with 2 screws
NZS-38-A2	Bracket B with 2 screws
NZS-38-A3	Bracket C with 2 screws
NZS-27-C	Panel mount adaptor with 2 screws
NZS-27-D	Panel mount adaptor + front protection cover with 2 screws
NZS-38-3L	2m. Lead wire with connector, 3 wire, 1 output
NZS-38-4L	2m. Lead wire with connector, 4 wire, 2 output



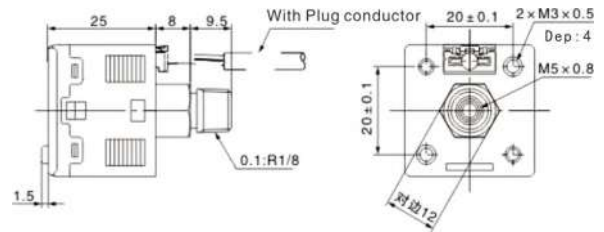
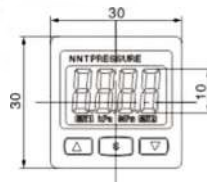
Model	NZSE30A(Vacuum)	NZSE30AF (Compound)	NISE30AF(Positive pressure)	
Rated pressure range	0.0~101.0KPa	-100.0~100.0KPa	-0.100~1.000MPa	
Display/set pressure range	10.0~105.0KPa	-105.0~105.0KPa	-0.105~1.050MPa	
Withstand pressure	500KPa	500KPa	1.5MPa	
Display/smallest settable	0.1KPa	0.1KPa	0.001MPa	
Medium	Air, Amal combustion gas, Noncorrosive gas			
Power supply voltage	Pulse (p-p) below 10% (Power electrode protection)			
Current consumption	<= 40mA			
Output type	NPN polar Electrode open one output NPN polar Electrode open two outputs			
Max load current	80mA			
Max applied voltage	28V (When NPN output)			
Interal voltage drop	>= 1V (When 80mA load current)			
Delay time	<= 2.5 ms (Shock prevention function 20, 100, 500, 1000, 2000ms)			
Short circuit protection	Has 'Short circuit protection' function			
Repeatability	0.2% unit below the full scale			
Delay	Hysteresis type	Adjustable (able to set starting at zero)		
Analog output	Voltage output	Output voltage	1~5V±2.5% unit below the full scale 0.6~5V±2.5% unit below the full scale	
		Linear	±1% unit below the full scale	
	Current output	Output impedance	Around 1KΩ	
		Output current	4~20mA±2.5% unit below the full scale 2.4~20mA±2.5% unit below the full scale	
		Linear	±1% unit below the full scale	
Load impedance	Maximum load charge power supply 12V, 300Ω / power supply :24V:600Ω, minimum			
Display	4 positions 7 segments display, R&G color display			
Display accuracy	+2% at full scale, +1 unit when (at 25±3°C)			
Indicator light	1 output displays GREEN, 2 outputs display RED			
Working condition	Enclosure	IP40		
	Operating temperature range	usage: 0° C~50° C, reserve: -10° C~60° C (unfrozen)		
	Operating humidity range	(operation & reserve: 35~85%RH (unfrozen)		
	Withstand voltage	AC1000V in 1 minute between the lead and the shell		
	Insulation resistance	>=50MΩ(DC 500V iramegger) between the lead and the shell		
	Vibration resistance	10~150Hz, 1.5mm or 20m/ S, amplitude at X, Y, Z about 2 hours		
Temperature features	100m/s ² 3 times each in direction of X, Y, and Z 2% F.S. of detected pressure (25°) at temperature			
Lead wire	Retold the oil-proof wire finished O.D.φ3.6 2 meter, 0.15mm (AWG26), O.D. 1.0mm			
Standards	CE, UL/CSA, RoHS			

Pressure Switch

Main Dimension

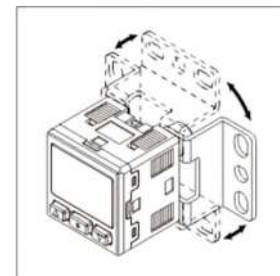
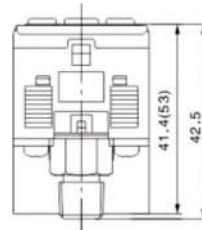
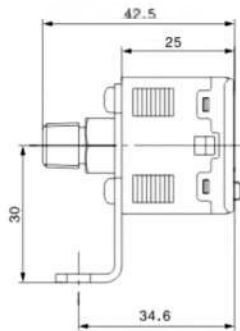
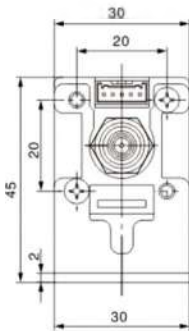
NZ/ISE30A(F)- 01 - □ - 01

Port size

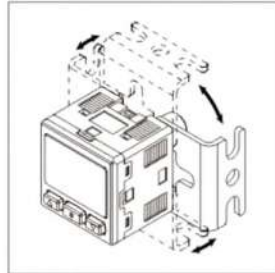
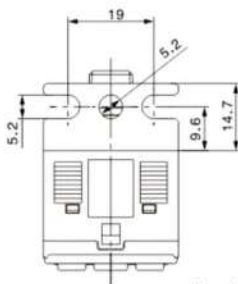


Bracket type A:
(optional bracket A code: NZS-38-A1)

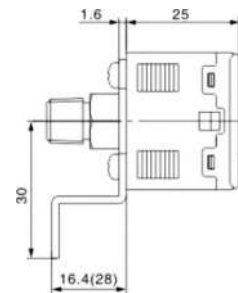
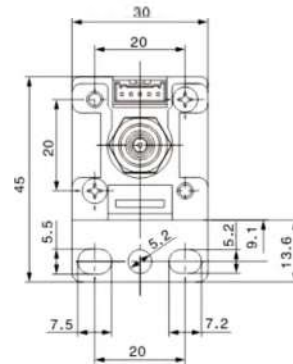
Bracket type B&C:
(optional bracket B&C code: NZS-38-A2 or NZS-38-A3)



Bracket can install in four dimensions



Bracket can install in four dimensions

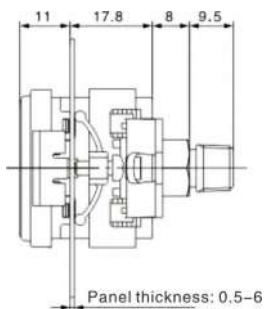
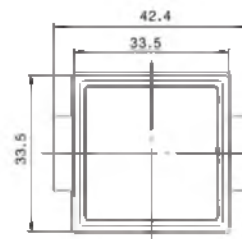
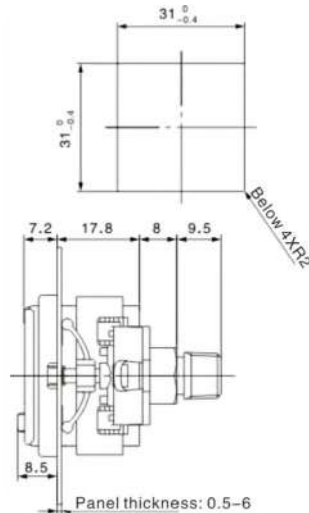
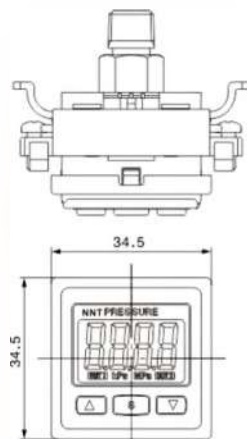


Bracket C's size is in the parentheses

Panel mounting:
optional mounting code: NZS-27-C

Panel opening size

Panel mounting + front cover
optional panel sets code: NZS-27-D

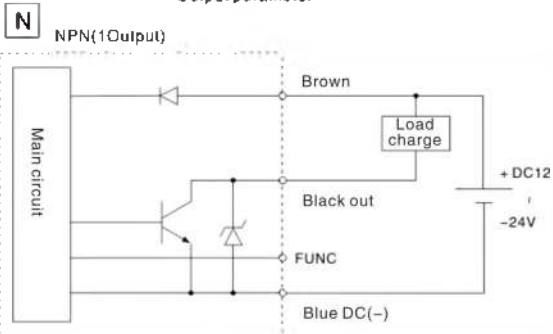


Panel thickness: 0.5-6

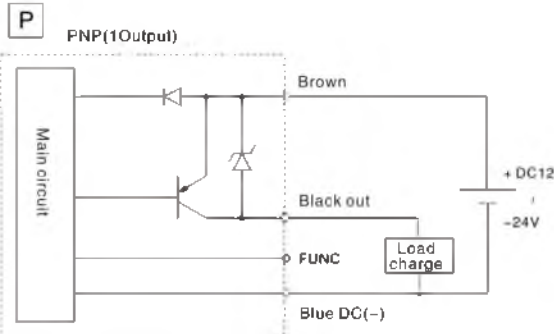
Main Dimension

NZ/ISE30A(F)-□-□

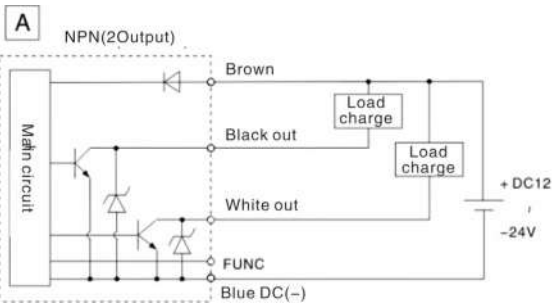
Output parameter



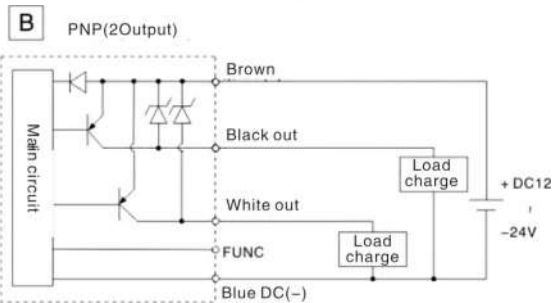
Residual voltage below 1V



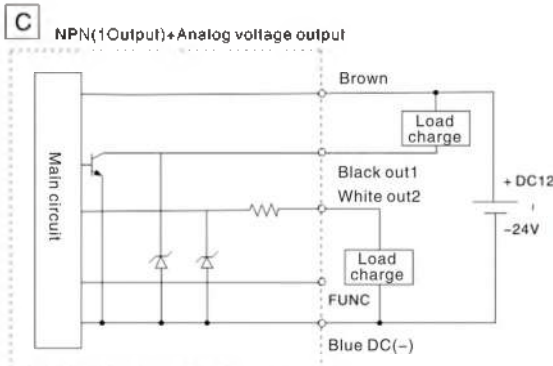
Residual voltage below 1V



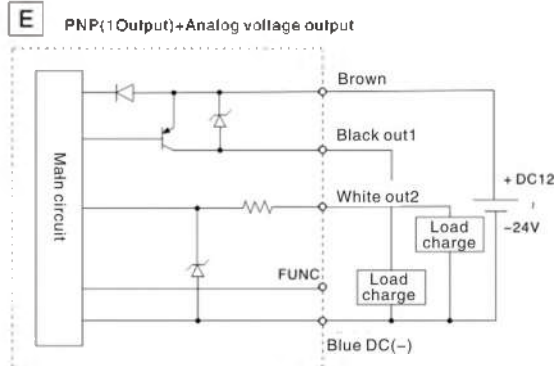
Residual voltage below 1V



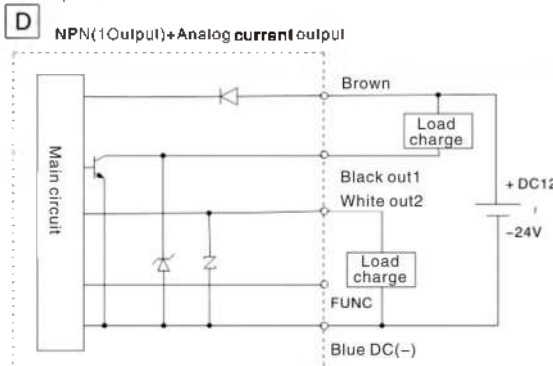
Residual voltage below 1V



Analog voltage output residual voltage below 1V.
The output resistance around 1K Ω

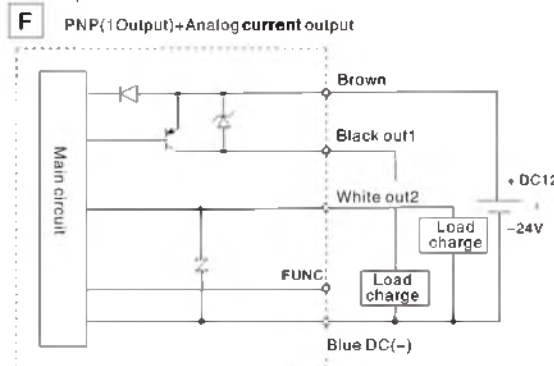


Analog voltage output residual voltage below 1V.
The output resistance around 1K Ω



Max 28V, 80mA,
Internal voltage drop below 1V
Analog current output
Maximum load impedance

Power supply voltage 12V: 300 Ω
Power supply voltage 24V: 600 Ω
Pinimum load Impedance : 50 Ω



Max 28V, 80mA,
Internal voltage drop below 1V
Analog current output
Maximum load impedance

Power supply voltage 12V: 300 Ω
Power supply voltage 24V: 600 Ω
Pinimum load impedance : 50 Ω

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вопегда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
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