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Hydraulics, Pneumatics
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SACHIO®
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Pneumatics

Product Catalog

SACHIO C1 250930

AIR SOURCE TREATMENT UNITS

SACHIO produce different standards of air source treatment unit (short as FRL), which include air filter, regulator, lubricator. They are offered as separation or combination, auto drain is available for some models. SACHIO is one of the leading factory in this area for 17 years, with high reputation in domestic and international market.



SOC Series Air Source Treatment Unit



The SOC consisted of SOF, SOR, and SOL, each unit can be ordered separately. The SOF with water separator cleans the compressed air of fluid oil, condensation and dirt particles. For special application, the standard 40µm filter element may easily be replaced by a 5µm filter element. The SOR maintain constant operating pressure despite fluctuation in line pressure and the amount of air consumed. The proportional lubricator adds a regulated quantity of oil to the filtered air. The oil-mist content proportional to the flow and oil can be added during operation. The oil drop rate is controlled by the adjustable bolt. Normally, 1 to 12 drops/1000L of the air is sufficient

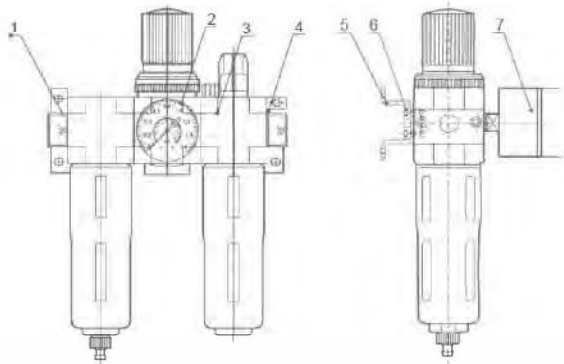
Ordering Code

SO	C	MINI	1/4				
Series	Function code	Body	Port Size	Grade of Filtration	Manometer	Drain Type	Color
SO Series	F.R.L Combination	MINI MIDI MAXI	G1/8" G1/2" G1/4" G3/4" G3/8" G1"	Blank: 40µm 5M: 5µm	Blank: 12bar 7: 7bar	Blank: Turn Manually S: Half-Auto Drain Type A: Auto Drain Type	Blank: Orange BU: Blue

Specification

	Model	MINI			MIDI			MAXI		
Manual Drain	Working pressure: 12bar, 40µm	SOC-1/8-MINI	SOC-1/4-MINI	SOC-3/8-MINI	SOC-3/8-MIDI	SOC-1/2-MIDI	SOC-3/4-MIDI	SOC-3/4-MAXI	SOC-1-MAXI	
	Working pressure: 7bar, 40µm	SOC-1/8-7-MINI	SOC-1/4-D-7-MINI	SOC-3/8-7-MINI	SOC-3/8-7-MIDI	SOC-1/2-7-MIDI	SOC-3/4-7-MIDI	SOC-3/4-7-MAXI	SOC-1-7-MAXI	
	Working pressure: 12bar, 5µm	SOC-1/8-5M-MINI	SOC-1/4-5M-MINI	SOC-3/8-5M-MINI	SOC-3/8-5M-MIDI	SOC-1/2-5M-MIDI	SOC-3/4-5M-MIDI	SOC-3/4-5M-MAXI	SOC-1-5M-MAXI	
Manometer	0~12 bar	OMA-40-16-1/8			OMA-50-16-1/4					
	0~7 bar	OMA-40-10-1/8			OMA-50-10-1/4					
Medium		Compressed air								
Features of structure		Sintered filter with water separator; MINI/MIDI/MAXI: Piston regulator; Diaphragm type regulator; Direct constant-density lubricator								
Mounting type		Pipe mounting or foot mounting								
Assembly position		Vertical ±5°								
Standard nominal flow rate	Connection	G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"	
	SOC-...(A)	700	1000	1200	2000	2600	2600	7000	8000	
	SOC-...-7-(A)	800	1300	1500	2500	2800	2900	8500	8700	
	SOC-...-5M-(A)	600	850	1050	1700	1800	2100	6500	7200	
Primary Pressure	Manual condensate drain	1~16bar								
	Automatic condensate drain	1.5~12bar								
Working Pressure		0.5~12bar/0.5~7bar								
Min. Standard nominal flow rate			3 L/min		6 L/min			10 L/min		
Grade of filtration					40µm / 5µm					
Capacity of condensate fluid			22 mL		43 mL			80 mL		
Temperature range			0 ~ 60℃							
Materials information			Housing: Zinc die-casting; Filter bowl & oil bowl: PC; Metal bowl guard: Aluminum alloy; Sealing: NBR; Adjusting knob: POM							

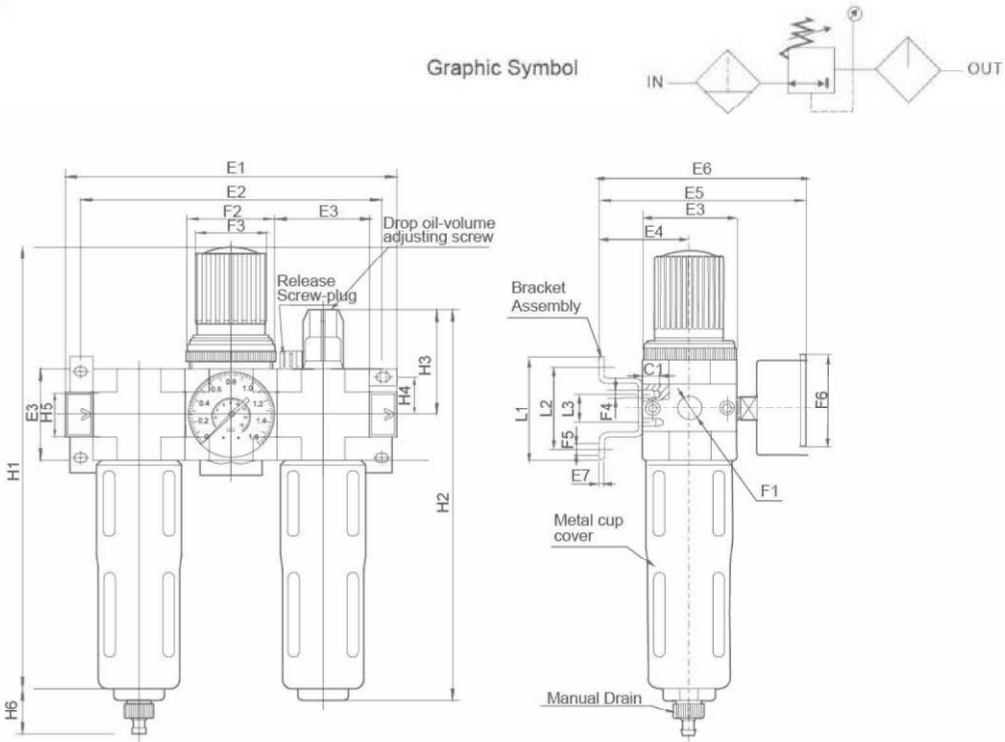
Internal Structure



No	Name	Material
1	Flange-IN	Zinc alloy
2	Filter + Regulator	
3	Lubricator	
4	Flange - OUT	Zinc alloy
5	Bracket	SPCC
6	Allen screw	S35C
7	Pressure gauge	

SOC Series Air Source Treatment Unit

Overall Dimensions



Dimension Sheet

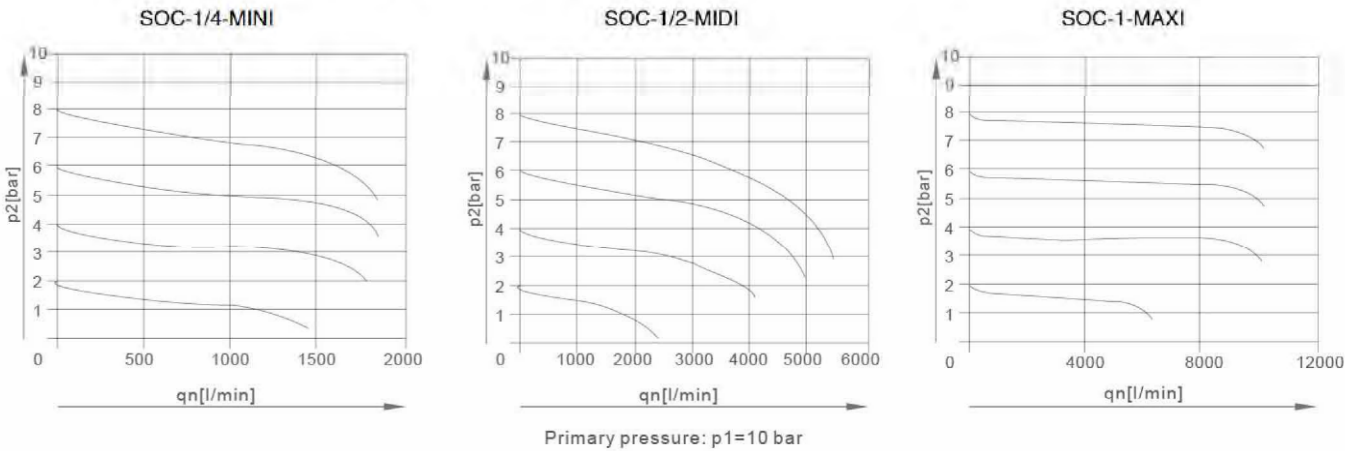
Model	E1	E2	E3	E4	E5	E6	E7	F1	F2
SOC-MINI	143	132	40	39	76	95	2	G1/8", G1/4", G3/8"	M36x1.5
SOC-MIDI	193	180	55	47	93	112	3	G3/8", G1/2", G3/4"	M52x1.5
SOC-MAXI	247	220	66	53	104	124	3	G3/4", G1"	M52x1.5

Model	F3Φ	F4	F5Φ	F6Φ	L1	L2	L3	H1	H2	H3	H4	H5	H6
SOC-MINI	31	M4	4.5	41	44	35	11	194	169	69	17.5	20	15
SOC-MIDI	50	M5	5.5	352	71	60	22	250	206	97	24.5	32	15
SOC-MAXI	50	M5	5.5	53	71	60	22	272	226	80	24.5	32.4	15

Note: The Color Can Be Customized According to Your Requirement.

Flow diagram

Standard flow rate qn as a function of the output pressure p2



SOU Series Air Source Treatment Unit



SOU-MINI

The SOU consisted of SOFR and SOL, each unit can be ordered separately.
The SOF with water separator cleans the compressed air of fluid oil, condensation and dirt particles. For special application, the standard 40μm filter element may easily be replaced by a 5μm filter element.
The SOR maintain constant operating pressure despite fluctuation in line pressure and the amount of air consumed. The proportional lubricator adds a regulated quantity of oil to the filtered air. The oil-mist content proportional to the flow and oil can be added during operation. The oil drop rate is controlled by the adjustable bolt. Normally, 1 to 12 drops/1000L of the air is sufficient

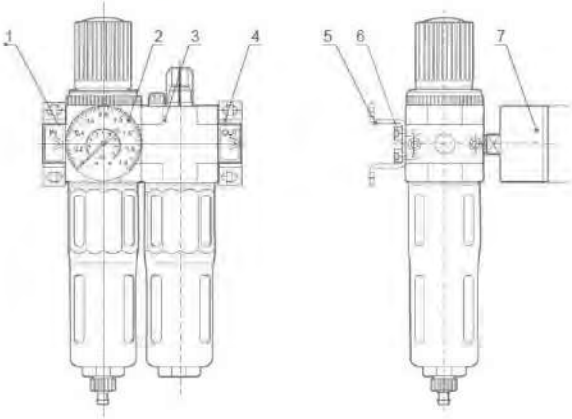
Ordering Code

SO	U	MINI	1/4				
Series	Function code	Body	Port Size	Grade of Filtration	Manometer	Drain Type	Color
SO Series	F.R.L Combination	MINI MIDI MAXI	G1/8" G1/2" G1/4" G3/4" G3/8" G1"	Blank: 40μm 5M: 5μm	Blank: 12bar 7: 7bar	Blank: Turn Manually S: Half-Auto Drain Type A: Auto Drain Type	Blank: Orange BU: Blue

Specification

Model		MINI			MIDI			MAXI	
Manual Drain	Working pressure: 12bar, 40μm	SOU-1/8-MINI	SOU-1/4-MINI	SOU-3/8-MINI	SOU-3/8-MIDI	SOU-1/2-MIDI	SOU-3/4-MIDI	SOU-3/4-MAXI	SOU-1-MAXI
	Working pressure: 7bar, 40μm	SOU-1/8-7-MINI	SOU-1/4-D-7-MINI	SOU-3/8-7-MINI	SOU-3/8-7-MIDI	SOU-1/2-7-MIDI	SOU-3/4-7-MIDI	SOU-3/4-7-MAXI	SOU-1-7-MAXI
	Working pressure: 12bar, 5μm	SOU 1/8 5M MINI	SOU 1/4 5M MINI	SOU 3/8 5M MINI	SOU 3/8 5M MIDI	SOU 1/2 5M MIDI	SOU 3/4 5M MIDI	SOU 3/4 5M MAXI	SOU-1-5M-MAXI
Manometer	0~12 bar		OMA-40-16-1/8				OMA-50-16-1/4		
	0~7 bar		OMA-40-10-1/8				OMA-50-10-1/4		
Medium		Compressed air							
Features of structure		Sintered filter with water separator; MINI/MIDI/MAXI: Piston regulator; Diaphragm type regulator; Direct constant-density lubricator							
Mounting type		Pipe mounting or foot mounting							
Assembly position		Vertical ±5°							
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	SOU-...(-A)	700	1000	1200	2000	2000	2000	7000	8000
	SOU-...-7-(-A)	800	1300	1500	2500	2800	2800	8500	8700
	SOU-...-5M(-A)	600	850	1050	1700	1800	2100	6500	7200
Primary Pressure	Manual condensate drain	1~16bar							
	Automatic condensate drain	1.5~12bar							
Working Pressure		0.5~12bar/0.5~7bar							
Min. Standard nominal flow rate		3 L/min			6 L/min			10 L/min	
Grade of filtration		40μm / 5μm							
Capacity of condensate fluid		22 mL			43 mL			80 mL	
Temperature range		0 - 60°C							
Materials information		Housing: Zinc die-casting; Filter bowl & oil bowl: PC; Metal bowl guard: Aluminum alloy; Sealing: NBR; Adjusting knob: POM							

Internal Structure

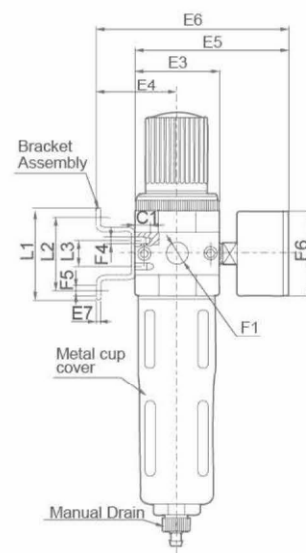
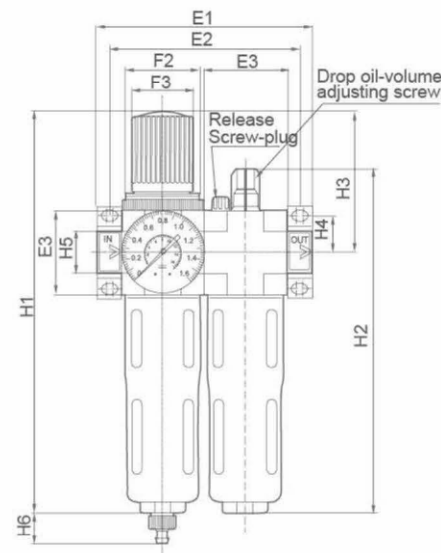
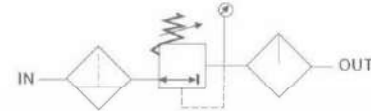


No	Name	Material
1	Flange-IN	Zinc alloy
2	Filter + Regulator	
3	Lubricator	
4	Flange - OUT	Zinc alloy
5	Bracket	SPCC
6	Allen screw	S35C
7	Pressure gauge	

SOU Series Air Source Treatment Unit

Overall Dimensions

Graphic Symbol



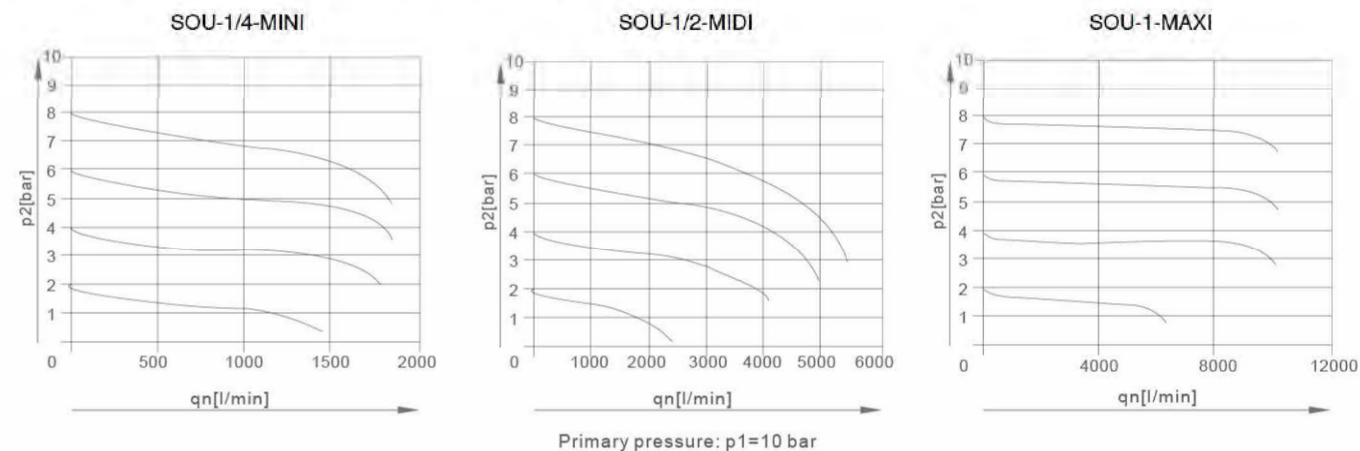
Model	E1	E2	F3	E4	E5	F4	E7	F1	F2
SOU-...-MINI	104	92	40	39	76	95	2	G1/8", G1/4", G3/8"	M36x1.5
SOU-...-MIDI	140	125	55	47	93	112	3	G3/8", G1/2", G3/4"	M52x1.5
SOU-...-MAXI	162, 182	146, 157	66	53	104	124	3	G3/4", G1"	M52x1.5

Model	F3Φ	F4	F5Φ	F6Φ	L1	L2	L3	H1	H2	H3	H4	H5	H6
SOU-...-MINI	31	M4	4.5	41	44	35	11	194	169	69	17.5	20	15
SOU-...-MIDI	50	M5	5.5	352	71	60	22	250	206	97	24.5	32	15
SOU-...-MAXI	50	M5	5.5	53	71	60	22	272	226	80	24.5	32.4	15

Note: The Color Can Be Customized According to Your Requirement.

Flow diagram

Standard flow rate q_n as a function of the output pressure p_2



SOFR Series Filter & Regulator



SOFR-MINI

Filter and pressure regulator combine a single unit, and cleans the compressed air of fluid oil, condensation and dirt particles. For special application, the standard 40μm filter element may easily be replaced by a 5μm filter element. The SOR maintain constant operating pressure despite fluctuation in line pressure and the amount of air consumed.

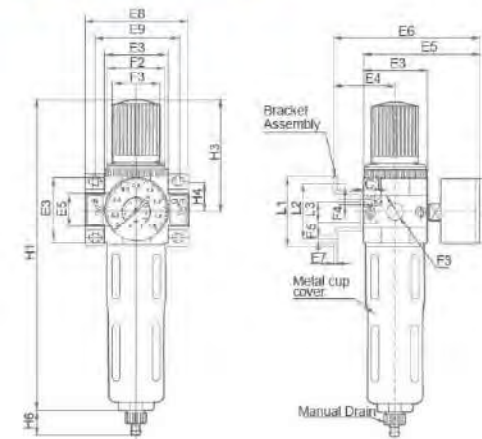
Ordering Code

SO	FR	MINI	1/4				
Series	Function code	Body	Port Size	Grade of Filtration	Manometer	Drain Type	Color
SO Series	Filter & Regulator	MINI MIDI MAXI	G1/8" G1/2" G1/4" G3/4" G3/8" G1"	Blank: 40μm 5M: 5μm	Blank: 12bar 7: 7bar	Blank: Turn Manually S: Half Auto Drain Type A: Auto Drain Type	Blank: Orange BU: Blue

Specification

Model	MINI	MIDI	MAXI
Working pressure: 12bar, 40μm	SOFR-1/8-MINI	SOFR-1/4-MINI	SOFR-3/8-MINI
Working pressure: 7bar, 40μm	SOFR-1/8-7-MINI	SOFR-1/4-D-7-MINI	SOFR-3/8-7-MINI
Working pressure: 12bar, 5μm	SOFR-1/8-5M-MINI	SOFR-1/4-5M-MINI	SOFR-3/8-5M-MINI
Manometer	0~12 bar	OMA-40-16-1/8	OMA-50-16-1/4
	0~7 bar	OMA-40-10-1/8	OMA-50-10-1/4
Medium	Compressed air		
Features of structure	Sintered filter with water separator; MINI/MIDI/MAXI: Piston regulator		
Mounting type	Pipe mounting or foot mounting		
Assembly position	Vertical ±5°		
Connection	G1/8"	G1/4"	G3/8"
Standard nominal flow rate	SOFR-...(-A)	750	1400
	SOFR-...-7(-A)	900	1500
	SOFR-...-5M(-A)	650	1200
Primary Pressure	Manual condensate drain	1~16bar	
	Automatic condensate drain	1.5~12bar	
Working Pressure	0.5~12bar/0.5~7bar		
Grade of filtration	40μm / 5μm		
Max. Condensate Capacity	22 mL	43 mL	80 mL
Temperature range	0 ~ 60°C		
Materials information	Housing: Zinc die-casting; Filter bowl & oil bowl: PC; Metal bowl guard: Aluminum alloy; Sealing: NBR; Adjusting knob: POM		

Overall Dimensions



Graphic Symbol



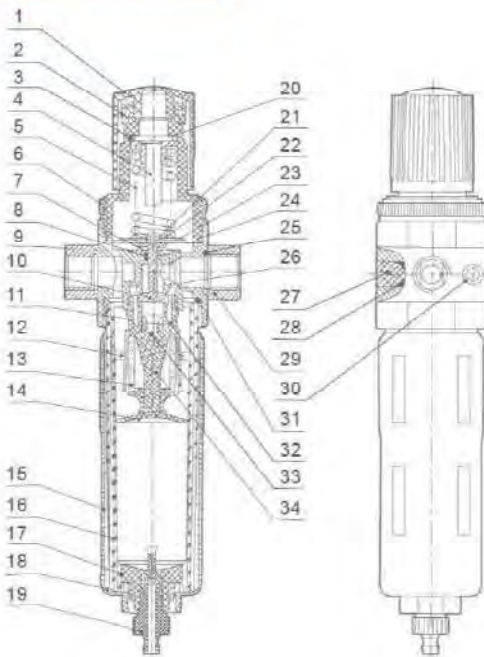
Dimension Sheet

Model	E3	E4	E5	E6	E8	E9	F1	F2
SOFR-...-MINI	40	39	76	95	64	52	G1/8", G1/4", G3/8"	M36x1.5
SOFR-...-MIDI	55	47	93	112	85	70	G3/8", G1/2", G3/4"	M52x1.5
SOFR-...-MAXI	66	53	104	124	116	91	G3/4", G1"	M52x1.5

Model	F3Φ	F4	F5Φ	F6Φ	L1	L2	L3	H1	H2	H3	H4	H5	H6
SOFR-...-MINI	31	M4	4.5	41	44	35	11	194	169	69	17.5	20	15
SOFR-...-MIDI	50	M5	5.5	352	71	60	22	250	206	97	24.5	32	15
SOFR-...-MAXI	50	M5	5.5	53	71	60	22	272	226	80	24.5	32.4	15

SOFR Series Filter & Regulator

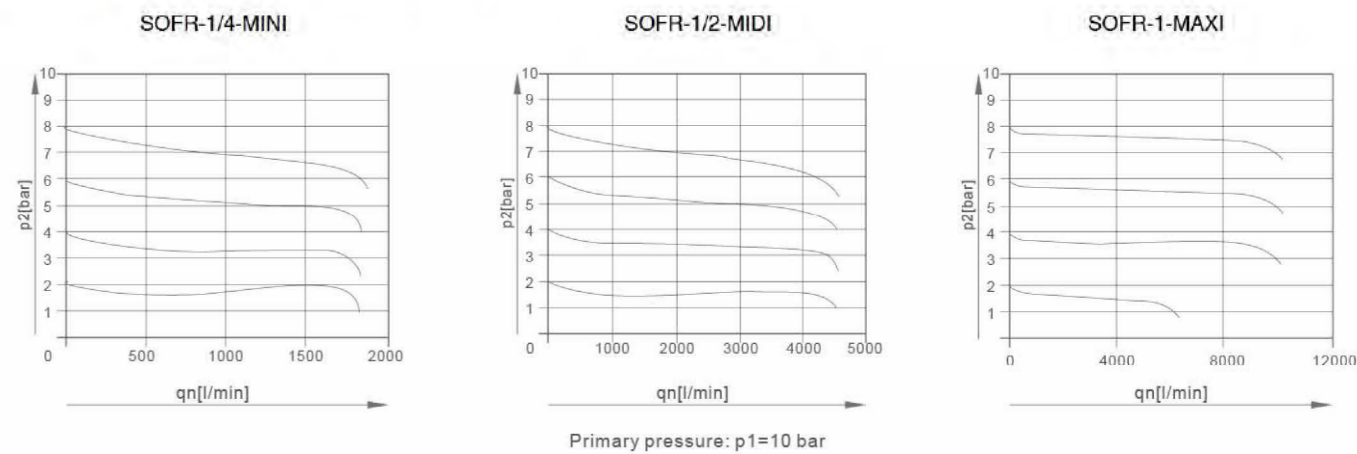
Internal Structure



No	Name	Material	No	Name	Material
1	Pressure knob	POM	18	Inner joint	POM
2	Regulator cap	POM	19	Condensate drain	POM
3	Regulator nut	S35C	20	Wearing sheet	Insulation sheet
4	Adjusting spindle	S35C	21	OR Sheet	NBR
5	Pressure spring	SWC	22	Overflow base	6061-T6
6	Fixed ring	6061-T6	23	One part of diaphragm	SPCC
7	One part of membrane	PA6+G15	24	Diaphragm	NBR + Nylon Mesh
8	O-ring	NBR	25	O-ring	NBR
9	Flange-IN	Zinc alloy	26	OR Body	Zinc alloy
10	Spool	Brass	27	Plug	POM
11	O-ring	NBR	28	O-ring	NBR
12	Whirl wind impeller	POM	29	Flange-OUT	Zinc alloy
13	Filter element	PE	30	Allen screw	S35C
14	Manger	POM	31	O-ring	NBR
15	Metal bowl guard	Aluminum alloy	32	Spring	SWPB
16	Filter bowl	PC	33	Fasteners	Brass
17	O-ring	NBR	34	Filter element base	POM

Flow diagram

Standard flow rate q_n as a function of the output pressure p_2



SOR Series Regulator



The SOR maintain constant operating pressure despite fluctuation in line pressure and the amount of air consumed.

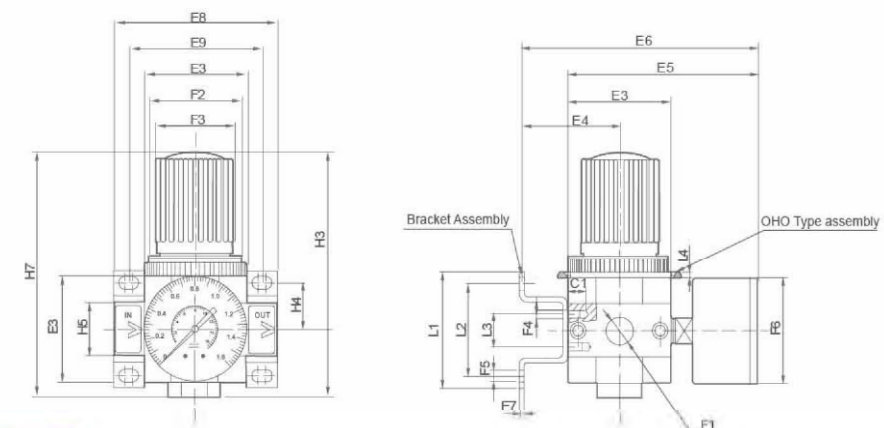
Ordering Code

SO	R	MINI	1/4		
Series	Function code	Body	Port Size	Manometer	Color
SO Series	Regulator	MINI MIDI MAXI	G1/8" G1/4" G3/8" G1/2" G3/4" G1"	Blank: 12bar 7: 7bar	Blank: Orange BU: Blue

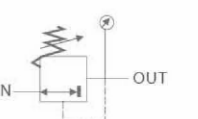
Specification

Model		MINI			MIDI			MAXI	
Working pressure 12bar		SOR-1/8-MINI	SOR-1/4-MINI	SOR-3/8-MINI	SOR-3/8-MIDI	SOR-1/2-MIDI	SOR-3/4-MIDI	SOR-3/4-MAXI	SOR-1-MAXI
Working pressure 7bar		SOR-1/8-7-MINI	SOR-1/4-D-7-MINI	SOR-3/8-7-MINI	SOR-3/8-7-MIDI	SOR-1/2-7-MIDI	SOR-3/4-7-MIDI	SOR-3/4-7-MAXI	SOR-1-7-MAXI
Manometer	0~12 bar	OMA-40-16-1/8			OMA-50-16-1/4				
	0~7 bar	OMA-40-10-1/8			OMA-50-10-1/4				
Medium		Filtered, compressed air (lubricated or unlubricated)							
Features of structure		MINI/MIDI: Diaphragm type regulator, MAXI: Piston regulator							
Mounting type		Pipe/foot/Plate mounting							
Assembly position		Any							
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	SOR-...	800	1500	1700	3200	3500	3500	11000	11500
	SOR-...-7-	1000	1600	1800	3300	4000	4500	12000	12500
Primary Pressure		1~16bar							
Working Pressure		0.5~12bar/0.5~7bar							
Temperature range		0 ~ 60°C							
Materials information		Housing: Zinc die-casting; Sealing: NBR; Adjusting knob: POM							

Overall Dimensions



Graphic Symbol

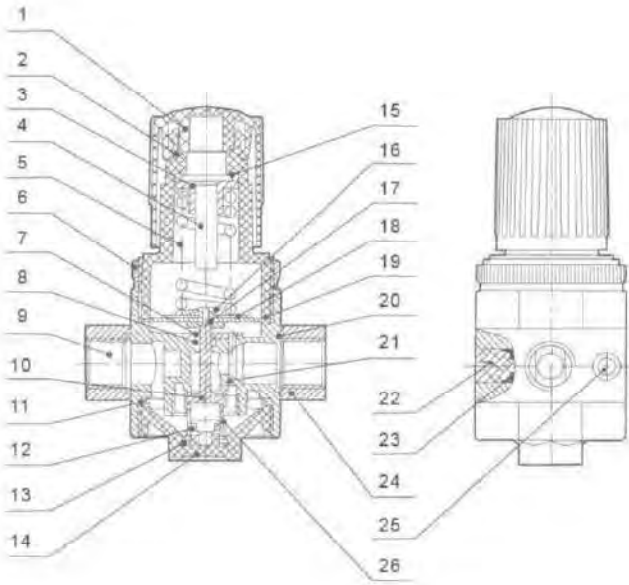


Dimension Sheet

Model	E3	E4	E5	E6	E8	E9	F1	F2	F3Φ	F4	F5Φ	F6Φ	L1	L2	L3	L4	H3	H4	H7
SOR-MINI	40	39	76	95	64	52	G1/8", G1/4", G3/8"	M36x1.5	31	M4	4.5	41	44	35	11	Max.3	69	17.5	96
SOR-MIDI	55	47	93	112	85	70	G3/8", G1/2", G3/4"	M52x1.5	50	M5	5.5	52	73	60	22	Max.5	98	24.5	96
SOR-MAXI	66	53	104	124	96, 116	80, 91	G3/4", G1"	M52x1.5	31	M5	5.5	53	73	60	22	Max.4	80	24.5	96

SOR Series Regulator

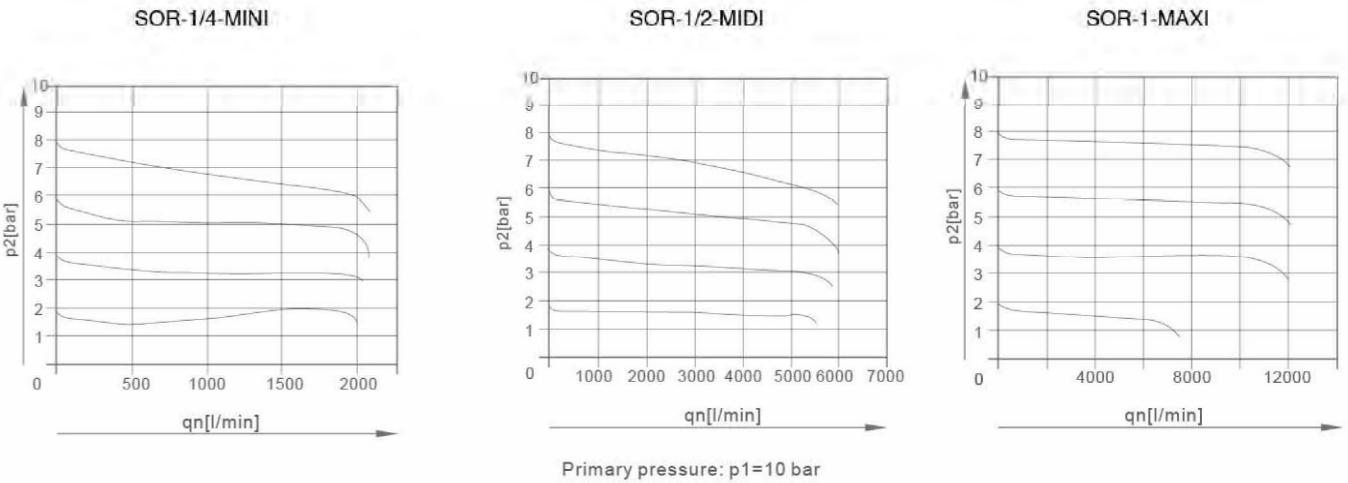
Internal Structure



No	Name	Material
1	Pressure knob	POM
2	Regulator cap	POM
3	Regulator nut	S35C
4	Adjusting spindle	S35C
5	Pressure spring	SWC
6	Fixed ring	6061-T6
7	One part of membrane	NBR
8	O-ring	NBR
9	Flange-IN	Zinc alloy
10	Spool	Brass
11	O-ring	NBR
12	O-ring	NBR
13	Fasteners	Brass
14	Locker cover	Zinc alloy
15	Wearing sheet	Insulation sheet
16	OR Sheet	NBR
17	Overflow base	6061-T6
18	One part of diaphragm	SPCC
19	Diaphragm	NBR + Nylon Mesh
20	O-ring	NBR
21	OR Body	Zinc alloy
22	Plug	POM
23	O-ring	NBR
24	Flange-OUT	Zinc alloy
25	Allen screw	S35C
26	Spring	SWPB

Flow diagram

Standard flow rate q_n as a function of the output pressure p_2



SOF Series Air Filter



The OF with water separator cleans the compressed air of fluid, oil, condensation and dirt particles. For special application, the standard 40 μ m filter element may easily be replaced by a 5 μ m filter.

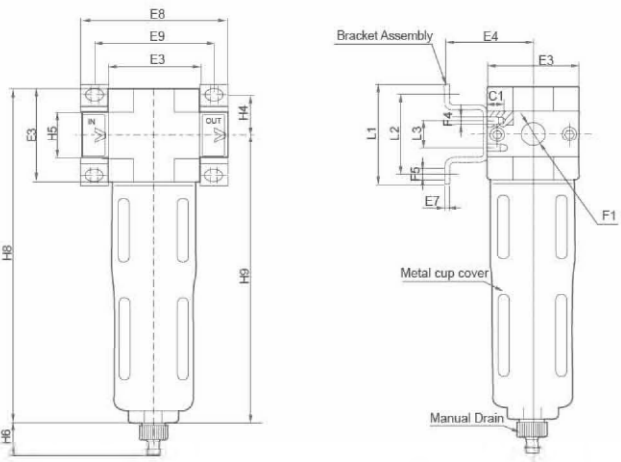
Ordering Code

SO	F	MINI	1/4			
Series	Function code	Body	Port Size	Grade of Filtration	Drain Type	Color
SO Series	Filter	MINI MIDI MAXI	G1/8" G1/2" G1/4" G3/4" G3/8"	Blank: 40 μ m 5M: 5 μ m	Blank: Turn Manually S: Half-Auto Drain Type A: Auto Drain Type	Blank: Orange BU: Blue

Specification

Model	MINI			MIDI			MAXI	
40 μ m	SOF-1/8-MINI	SOF-1/4-MINI	SOF-3/8-MINI	SOF-3/8-MIDI	SOF-1/2-MIDI	SOF-3/4-MIDI	SOF-3/4-MAXI	SOF-1-MAXI
5 μ m	SOF-1/8-5M-MINI	SOF-1/4-D-5M-MINI	SOF-3/8-5M-MINI	SOF-3/8-5M-MIDI	SOF-1/2-5M-MIDI	SOF-3/4-5M-MIDI	SOF-3/4-5M-MAXI	SOF-1-5-MAXI
Medium			Compressed air					
Features of structure			Sintered filter with water separator					
Mounting type			Pipe mounting or foot mounting					
Assembly position			Vertical 15°					
Connection		G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"
Standard nominal flow rate		1000	1200	1400	2700	3000	3000	5000
Primary Pressure		600	950	1100	1800	1900	1900	3200
Manual drain								
Grade of filtration								
Max.condensate capacity								
Max.condensate capacity								
Materials information								

Overall Dimensions

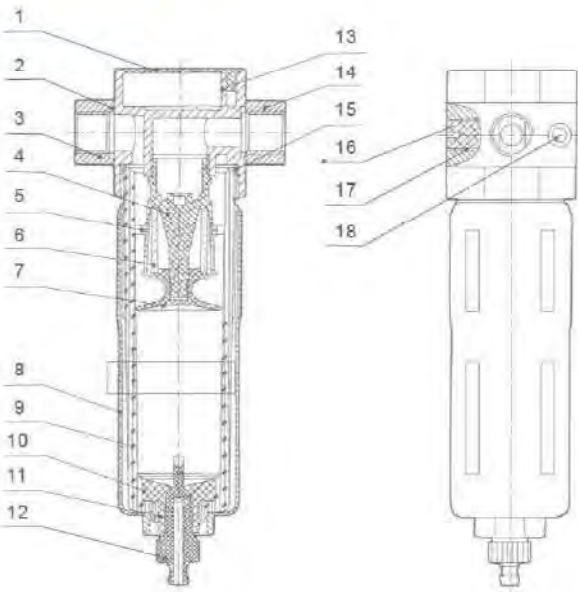


Dimension Sheet

Model	E3	E4	E7	E8	E9	F1	F4	F5 Φ	L1	L2	L3	H4	H5	H6	H8	H9
SOF-...-MINI	40	39	2	64	52	G1/8", G1/4", G3/8"	M4	4.5	44	35	11	17.5	20	15	144	124
SOF-...-MIDI	55	47	3	85	70	G3/8", G1/2", G3/4"	M5	5.5	71	60	22	30	32	15	180	153
SOF-...-MAXI	66	53	3	96, 116	80, 91	G3/4", G1"	M5	5.5	71	60	22	30	32, 40	15	203	170

SOF Series Air Filter

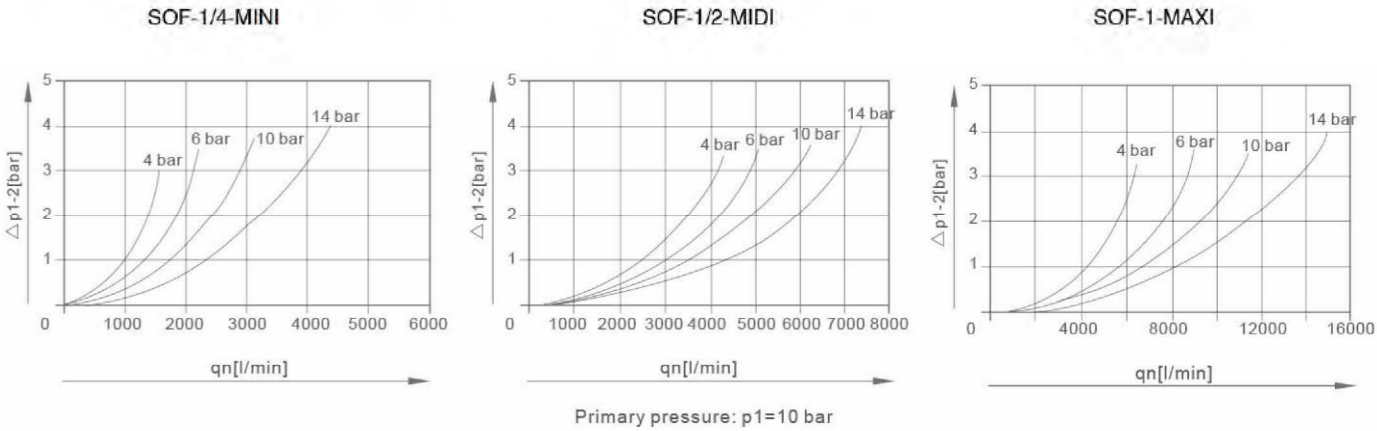
Internal Structure



No	Name	Material
1	Ornament cover (round)	POM
2	O-ring	NBR
3	Flange-IN	Zinc alloy
4	Filter element base	POM
5	Whirl wind impeller	POM
6	Filter element	PE
7	Manger	POM
8	Metal bowl guard	Aluminum alloy
9	Filter bowl	PC
10	O-ring	NBR
11	Inner joint	POM
12	Condensate drain	POM
13	OF Body	Zinc alloy
14	Flange-OUT	Zinc alloy
15	O-ring	NBR
16	Plug	POM
17	O-ring	NBR
18	Allen screw	S35C

Flow diagram

Standard flow rate qn as a function of the output pressure p2



SOL Series Lubricator



SOL-MINI

The direct constant-density lubricator add regulated quantity oil to the compressed air. A valve maintains oil mist content proportional to the compressed oil flow. The pressure drop that occurs when the air flow through a sight feed oil cup delivers oil from the bowl to the sight oil indicator. The drop of the oil flows into the air channel when it is atomized. The oil drop rate is controlled by means of the regulating screw. Normally, 1 to 12 drops/1000L of the air is sufficient.

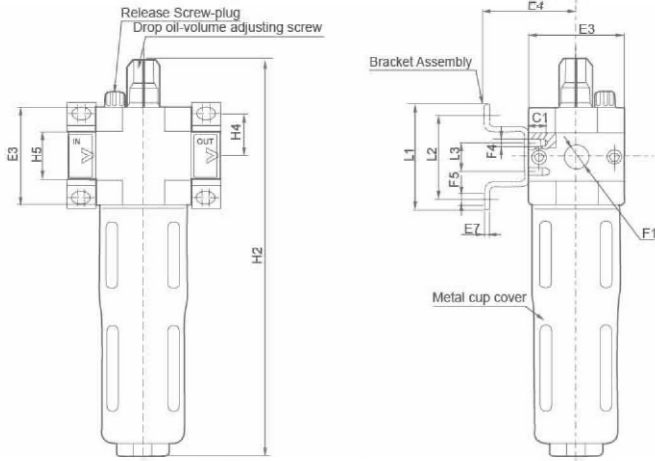
Ordering Code

SO	L	MINI	1/4	
Series	Function code	Body	Port Size	Color
SO Series	Lubricator	MINI MIDI MAXI	G1/8" G1/2" G1/4" G3/4" G3/8" G1"	Blank: Orange BU: Blue

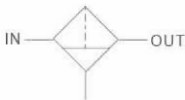
Specification

Model	MINI			MIDI			MAXI	
	SOL-1/8-MINI	SOL-1/4-MINI	SOL-3/8-MINI	SOL-3/8-MIDI	SOL-1/2-MIDI	SOL-3/4-MIDI	SOL-3/4-MAXI	SOL-1-MAXI
Medium	Compressed air							
Features of structure	Sintered filter with water spartor The direct Constant-density Lubricator							
Mounting type	Pipe mounting or foot mounting							
Assembly position	Vertical ±5°							
Connection	G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Standard nominal flow rate	1300	2300	2700	5500	6100	6300	8400	9000
Max. Working pressure	16 bar							
Min. Standard nominal flow rate	3 L/min		6 L/min				10 L/min	
Max. condensate capacity	22 ml		43 ml				80 ml	
Temperature range	0~60°C							
Materials information	Housing: Zinc die-casting; Oil bowl and Drop cap: PC; Metal bowl guard: Aluminum alloy; Sealing: NBR							
Recommended oil	ISO VG 32 or the same grade							

Overall Dimensions



Graphic Symbol

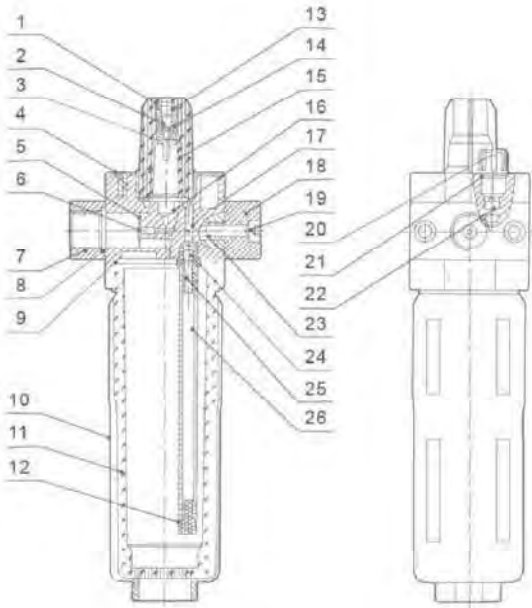


Dimension Sheet

Model	E3	E4	E7	F1	F4	F5Φ	L1	L2	L3	H2	H4	H5
SOL-...-MINI	40	39	2	G1/8", G1/4", G3/8"	M4	4.5	44	35	11	169	17.5	20
SOL-...-MIDI	55	47	3	G3/8", G1/2", G3/4"	M5	5.5	73	60	22	206	30	32
SOL-...-MAXI	66	53	3	G3/4", G1"	M5	5.5	73	60	22	226	30	32,40

SOL Series Lubricator

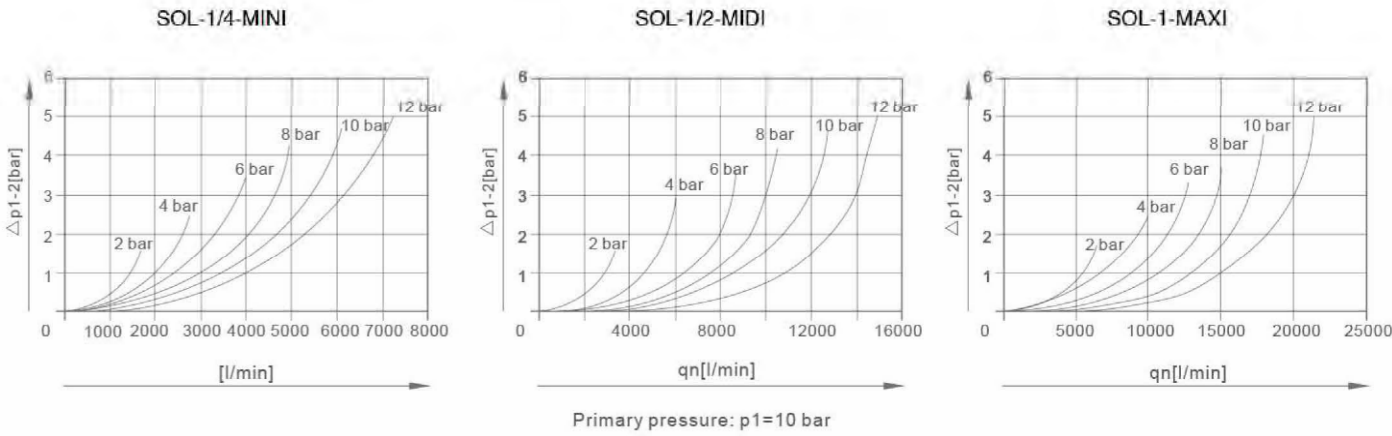
Internal Structure



No	Name	Material
1	Upper glass	PC
2	Adjust screw	Brass
3	O-ring	NBR
4	Ornament cover(circular)	PO
5	Windshield chip	NBR
6	Windshield base	Brass
7	Flange-IN	Zinc alloy
8	O-ring	NBR
9	O-ring	NBR
10	Metal bowl guard	Aluminum alloy
11	Lubricator bowl	PC
12	Oil-filter plug	Brass powder sintered
13	O-ring	NBR
14	Screw base	Brass
15	Oil dropping	PC
16	Seal piece	NBR
17	OL Body	Zinc alloy
18	Flange-OUT	Zinc alloy
19	Allen screw	S35C
20	Bleeder screw	POM
21	O-ring	NBR
22	Valve pin	Brass
23	Double-end bolt	SUS
24	Steel ball	SUS304
25	Oil tube connection	POM
26	Oil tube	PU

Flow diagram

Standard flow rate qn as a function of the output pressure p2



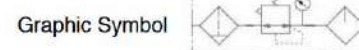
SA Series Air Source Treatment Unit

F.R.L Part list

SAF3000	No	Name	Qty	Material	SAF3000	No	Name	Qty	Material
	1	Regulator seat	1	ZZnA14-1		1	Regulator Body	1	Aluminum
	2	O-ring	1	NBR		2	O-ring	1	NBR
	3	O-ring	1	NBR		3	Whirlwing blade	1	ADS
	4	Washer	1	Carbon steel		4	Filter Element	1	Brass
	5	Spring	1	Stainless steel		5	Bolt blade	1	Carbon Steel
	6	Retainer ring	1	Carbon steel		6	Drain blade	1	ABS
	7	Valve core	1	Brass		7	Water cup	1	Poly Carbonate
	8	Spool	1	Brass+NBR		8	Valve Core	1	Brass
	9	Regulator Body	1	Aluminum		9	Spring	1	Stainless steel
	10	Plug	1	Carbon steel		10	O-ring	1	NBR
	11	O-ring	1	NBR		11	Drain valve	1	Brass
	12	Retainer ring	1	Carbon steel		12	O-ring	1	NBR
	13	Pipe	1	POM		13	Hex Nut	1	Brass
	14	Diaphragm seat	1	Brass		14	Nut	1	Brass
	15	Diaphragm	1	NBR		15	Bowl guard	1	Carbon steel
	16	Spring seat	1	Carbon steel		16	Spring	1	Carbon steel
	17	Spring	1	Carbon steel		17	Pin	1	ABS
	18	Regulate Nut	1	Carbon steel		18	Lock	1	ABS
	19	Washer	1	POM					
	20	Regulate bolt	1	Carbon steel					
	21	Valve cover	1	Reinforce nylon					
	22	Spring washer	4	Carbon steel					
	23	Cross screw	4	Carbon steel					
	24	Nut	1	Reinforce nylon					
	25	Symbol ring	1	Reinforce nylon					
	26	Regulate handle	1	Reinforce nylon					

SAL3000	No	Name	Qty	Material	SAW3000	No	Name	Qty	Material
	1	Plug	1	ABS		1	Valve core	1	Brass
	2	O-ring	1	NBR		2	Spring	1	Stainless steel
	3	Oil regulate Screw	1	ABS		3	O-ring	1	NBR
	4	Oil drop tube	1	Polycarbonate		4	Drain valve	1	Brass
	5	O-ring	1	NBR		5	O-ring	1	NBR
	6	Oil drop tube	1	Polycarbonate		6	Hex Nut	1	Brass
	7	O-ring	1	NBR		7	Nut	1	Brass
	8	Lubricator Body	1	Aluminum		8	Pin	1	ABS
	9	Regulate needle	1	Brass		9	Lock	1	ABS
	10	O-ring	1	NBR		10	Spring	1	Stain Steel
	11	Oil regulate valve seat	1	Brass		11	Bowl guard	1	Carbon steel
	12	Reed	1	Polyurethane		12	Whirlwing blade	1	ABS
	13	Reed seat	1	ZZnA14-1		13	Filter element	1	Brass
	14	Bracket	1	ZZnA14-1		14	Bolt	1	Carbon Steel
	15	Small hole seat	1	Brass		15	Drain board	1	ABS
	16	Steel Ball	1	Carbon steel		16	O-ring	1	Brass
	17	Spring	1	Stainless steel		17	Water cup	1	Polycarbonate
	18	One way valve seat	1	Brass		18	Diaphragm Polliot	1	Carbon steel
	19	Reed seat board	1	ZZnA14-1		19	Diaphragm	1	NBR
	20	Screw	2	Carbon steel		20	Diaphragm seat	1	Brass
	21	Filter Element	1	NBR		21	Pipe	1	POM
	22	O-ring	1	NBR		22	Retainer ring	1	Carbon steel
	23	Middle Part	4	Aluminum		23	O-ring	1	NBR
	24	Spring washer	4	Carbon steel		24	Regulator Body	1	Aluminum
	25	Hex Screw	4	Carbon steel		25	Plug	1	Carbon steel
	26	O-ring	1	NBR		26	Spool	1	Brass+NBR
	27	Steel Ball	1	Carbon steel		27	Valve core	1	Brass
	28	Fitting	1	POM		28	O-ring	1	NBR
	29	Pin	1	Carbon steel		29	Retainer ring	1	Carbon steel
	30	Oil tube	1	PU		30	Spring	1	Stain steel
	31	O-ring	1	NBR		31	Overflow valve seat	1	ZZnA14-1
	32	O-ring	1	NBR		32	Regulate handle	1	Reinforce nylon
	33	Oil cup	1	Polycarbonate		33	Symbol ring	1	Reinforce nylon
	34	Bowl guard	1	Carbon steel		34	Nut	1	Nut
	35	Spring	1	Stainless steel		35	Valve cover	1	Reinforce nylon
	36	Pin	1	ABS		36	Cross screw	4	Carbon steel
	37	Lock	1	ABS		37	Spring washer	4	Carbon steel
						38	Regulate Bolt	1	Carbon steel
						39	Washer	1	POM
						40	Regulate Nut	1	Carbon steel
						41	Spring	1	Carbon steel

SAC 1000~5000 Series Air Source Treatment Unit (F.R.L Combination)



Ordering Code

SA	C	4000	04			
Series	Function code	Body Size	Port Size	Drain Type	Metal Cup	Color
SA Series	F.R.L Combination	1000 2000 3000 4000 5000	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Manual Drain Type D: Auto Drain Type (Available for 2000 or above)	U: With Iron Cup L: With Aluminum Cup (Available for 2000)	Blank: Standard W: White

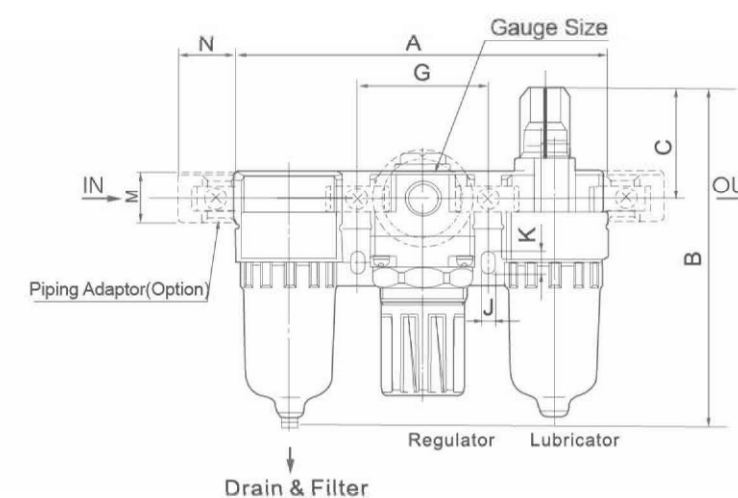
Specification

Model		SAC1000 - M5	SAC2000 -01	SAC2000 -02	SAC3000 -02	SAC3000 -03	SAC4000 -03	SAC4000 -04	SAC4000 -06	SAC5000 -06	SAC5000 -10
Rated Flow(L/min)		90	500	500	2000	2000	4000	4000	4500	5000	5000
Port Size		M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision		25μ									
Highest Working Pressure		1.0MPa									
Ensured pressure Resistance		1.5MPa									
Operating Temperature Range		5~60℃									
Range of Adjustable Pressure		0.05~0.7MPa					0.05~0.85MPa				
Recommended Oil Use		ISO VG 32									
Container Material		Polycarbonate									
Protective Cover		Not Available					Available				
Drain Function		Differential Drain					Differential Drain/Automatic Drain				
Valve Type		With Over flow									
Composing Elements	Filter	SAF1000-M5	SAF2000-01	SAF2000-02	SAF3000-02	SAF3000-03	SAF4000-03	SAF4000-04	SAF4000-06	SAF5000-06	SAF5000-10
	Regulator	SAR1000-M5	SAR2000-01	SAR2000-02	SAR3000-02	SAR3000-03	SAR4000-03	SAR4000-04	SAR4000-06	SAR5000-06	SAR5000-10
	Lubricator	SAL1000-M5	SAL2000-01	SAL2000-02	SAL3000-02	SAL3000-03	SAL4000-03	SAL4000-04	SAL4000-06	SAL5000-06	SAL5000-10

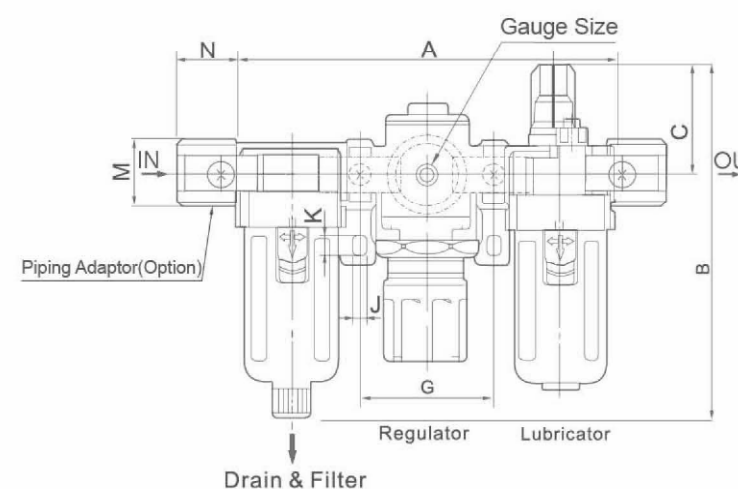
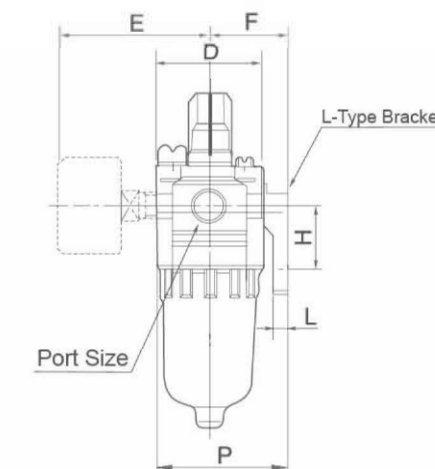
Note: We have upgraded Oil Drop Accessories on Lubricator of SA series 2000-5000 same to the SO series.

SAC 1000~5000 Series Air Source Treatment Unit (F.R.L Combination)

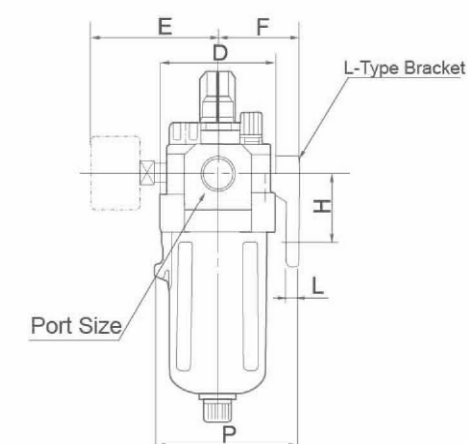
Overall Dimensions



SAC1010~2010



SAC3000~5000



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SAC1000	M5	91	84.5	25.5	25	26	25	33	20	4.5	7.5	5	17.5	16	38.5
SAC2000	G1/8"~G1/4"	140	128.5	38	40	56.8	30	50	24	5.5	8.5	5	22	23	50
SAC3000	G1/4"~G3/8"	181	166	38	53	60.8	41	64	35	7	11	7	34.2	26	70.5
SAC4000	G3/8"~1/2"	238	201	41	70	65.5	50	84	40	9	13	7	42.2	33	88
SAC4000-06	G3/4"	253	201	40.5	70	69.5	50	89	40	9	13	7	46.2	36	88
SAC5000	G3/4"~G1"	300	276	48	90	75.5	70	105	50	12	16	10.5	55.5	40	115

SAC 1010~5010 Series Air Source Treatment Unit (FR.L Combination)



SAC5010-10



SAC4010-04



SAC2010-02



SAC2000-02L

Graphic Symbol



Ordering Code

SA	C	4000	04			
Series	Function code	Body Size	Port Size	Drain Type	Metal Cup	Color
SA Series	F.R.L Combination	1010 2010 3010 4010 5010	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Manual Drain Type D: Auto Drain Type (Available for 2000 or above)	U: With Iron Cup L: With Aluminum Cup (Available for 2000)	Blank: Standard W: White

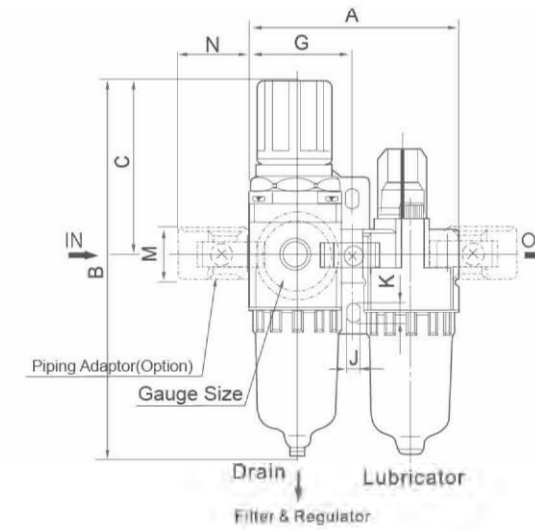
Specification

Model	SAC1010 -M5	SAC2010 -01	SAC2010 -02	SAC3010 -02	SAC3010 -03	SAC4010 -03	SAC4010 -04	SAC4000 -05	SAC5010 -06	SAC5010 -10	
Rated Flow(L/min)	90	500	500	1700	1700	3000	3000	3000	4000	4000	
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"	
Filter Precision	25μ										
Highest Working Pressure	1.0MPa										
Ensured pressure Resistance	1.5MPa										
Operating Temperature Range	5~60°C										
Range of Adjustable Pressure	0.05~0.7MPa					0.05~0.85MPa					
Recommended Oil Use	ISO VG 32										
Container Material	Polycarbonate										
Protective Cover	Not Available						Available				
Drain Function	Differential Drain				Differential Drain/Automatic Drain						
Valve Type	With Over flow										
Composing Elements	Filter & Regulator	SAW1000-M5	SAW2000-01	SAW2000-02	SAW3000-02	SAW3000-03	SAW4000-03	SAW4000-04	SAW4000-06	SAW5000-06	SAW5000-10
	Lubricator	SAL1000-M5	SAL2000-01	SAL2000-02	SAL3000-02	SAL3000-03	SAL4000-03	SAL4000-04	SAL4000-06	SAL5000-06	SAL5000-10

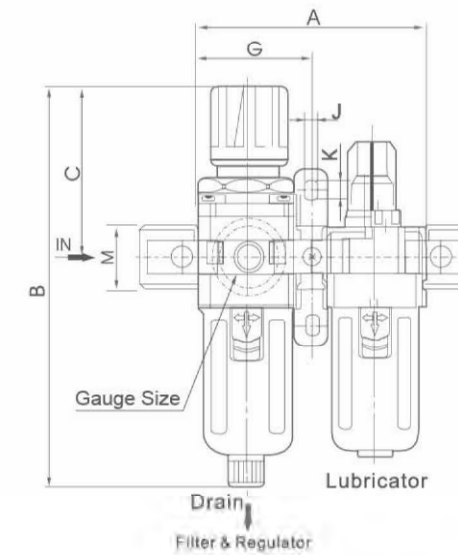
Note: We have upgraded Oil Drop Accessories on Lubricator of SA series 2000-5000 same to the SO series.

SAC 1010~5010 Series Air Source Treatment Unit (FR.L Combination)

Overall Dimensions



SAC1010~2010



SAC3010~5010

Dimension Sheet

Model	Port Size(G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SAC1010	M5	58	109.5	50.5	25	26	25	29	20	4.5	7.5	5	17.5	16	38.5
SAC2010	G1/8" ~G1/4"	90	164.5	78	40	56.8	30	45	24	5.5	8.5	5	22	23	50
SAC3010	G1/4" ~G3/8"	117	211	92.5	53	60.8	41	58.5	35	7	11	7	34.2	26	70.5
SAC4010	G3/8" ~1/2"	154	262	112	70	70.5	50	77	40	9	13	7	42.2	33	88
SAC4010-06	G3/4"	164	267	114	70	70.5	50	82	40	9	13	7	46.2	36	88
SAC5010	G3/4" ~G1"	195	338	116	90	75.5	69.8	97.5	50	12	16	10.5	55.5	40	115

SAF 1000~5000 Series Air Filter



Ordering Code

Series	Function code	Body Size	Port Size	Drain Type	Metal Cup	Color
SA Series	Filter	1000 2000 3000 4000 5000	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Manual D: Auto Drain Type (Available for 2000 or above)	U: With Iron Cup L: With Aluminum Cup (Available for 2000)	Blank: Standard W: White

SAF5000-10

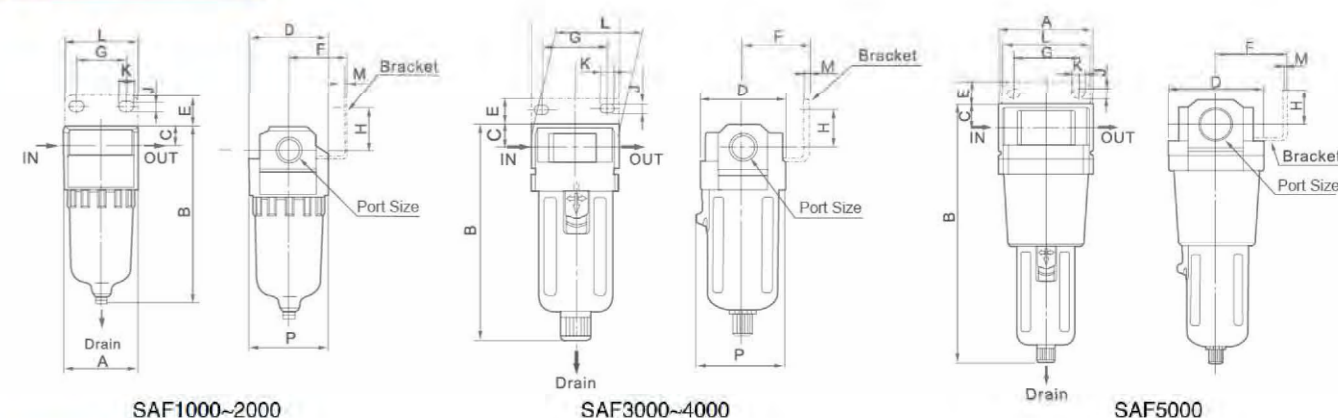
SAF4000-04

SAF2000-02

Specification

Model	SAF1000 - M5	SAF2000 -01	SAF2000 -02	SAF3000 -02	SAF3000 -03	SAF4000 -03	SAF4000 -04	SAF4000 -06	SAF5000 -06	SAF5000 -10
Rated Flow (L/min)	110	750	750	1500	1500	4000	4000	6000	7000	7000
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision	25μ									
Highest Working Pressure	1.0MPa									
Ensured pressure Resistance	1.5MPa									
Operating Temperature Range	5~60°C									
Container Material	Polycarbonate									
Protective Cover	Not Available					Available				
Drain Function	Differential Drain					Differential Drain, Automatic Drain				

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	P
SAF1000	M5	25	66	7	25	-	-	-	-	-	-	-	-	26.5
SAF2000	G1/8" ~G1/4"	40	97.5	11	40	17	30	27	22	5.4	8.4	40	2.3	40
SAF3000	G1/4" ~G3/8"	53	132.5	14	53	16	41	40	23	6.5	8	53	2.3	56
SAF4000	G3/8" ~1/2"	70	168.5	18	70	17	50	54	26	8.5	10.5	70	2.3	73
SAF4000-06	G3/4"	75	172.5	20	70	14	50	54	25	8.5	10.5	70	2.3	73
SAF5000	G3/4" ~G1"	90	247.5	24	90	23	66.5	66	35	11	13	90	3.2	90

SAR 1000~5000 Series Regulator



Ordering Code

Series	Function code	Body Size	Port Size	Color
SA Series	Regulator	1000 2000 3000 4000 5000	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Standard W: White

SAR5000-10

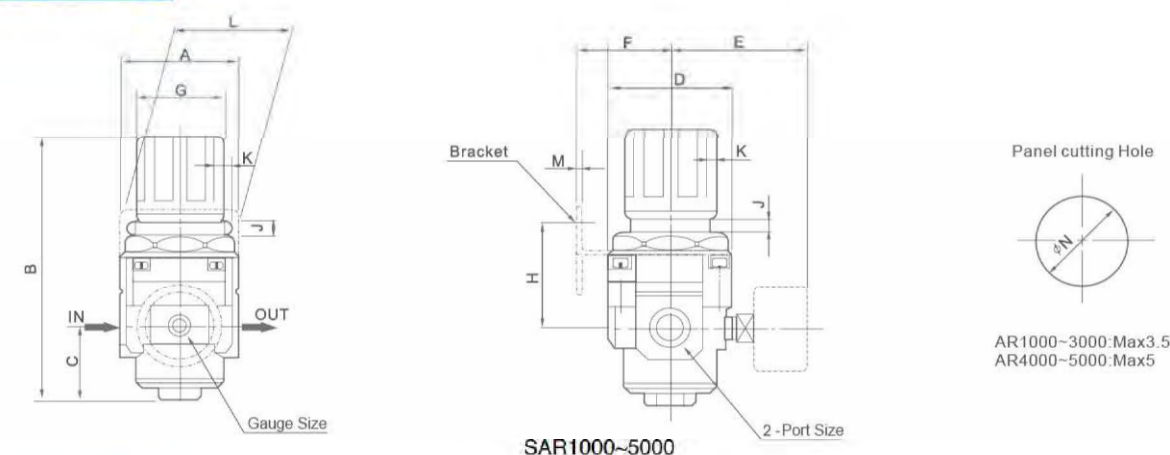
SAR4000-04

SAR2000-02

Specification

Model	SAR1000 - M5	SAR2000 -01	SAR2000 -02	SAR3000 -02	SAR3000 -03	SAR4000 -03	SAR4000 -04	SAR4000 -06	SAR5000 -06	SAR5000 -10
Rated Flow	100	550	550	2500	2500	6000	6000	6000	8000	8000
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Highest Working Pressure	0.7MPa					1.0MPa				
Ensured pressure Resistance						1.5MPa				
Operating Temperature Range						5~60℃				
Range of Adjustable Pressure	0.05~0.7MPa	0.05~0.85MPa								
Valve Type						With Overflow				

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N
SAR1000	M5	25	61.5	11	25	26	25	28	30	4.5	6.5	40	2	20.5
SAR2000	G1/8" ~G1/4"	40	95	17	40	56.8	30	34	44	5.4	15.4	55	2.3	33.5
SAR3000	G1/4" ~G3/8"	53	127.5	35	53	60.8	41	40	46	6.5	8	53	2.3	42.5
SAR4000	G3/8" ~1/2"	70	149.5	37.5	70	65.5	50	54	54	8.5	10.5	70	2.3	52.5
SAR4000-06	G3/4"	75	154	40.5	70	69.5	50	54	56	8.5	10.5	70	2.3	52.5
SAR5000	G3/4" ~G1"	90	168	48	90	75.5	70	66	65.8	11	13	90	3.2	52.5

SAW 1000~5000 Series Filter & Regulator



Ordering Code

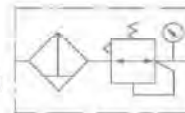
SA	W	4000	04			
Series	Function code	Body Size	Port Size	Drain Type	Metal Cup	Color
SA Series	Filter & Regulator	1000 2000 3000 4000 5000	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Manual Drain Type D: Auto Drain Type (Available for 2000 or above)	U: With Iron Cup L: With Aluminum Cup (Available for 2000)	Blank: Standard W: White

SAW5000-10

SAW4000-04

SAW2000-02

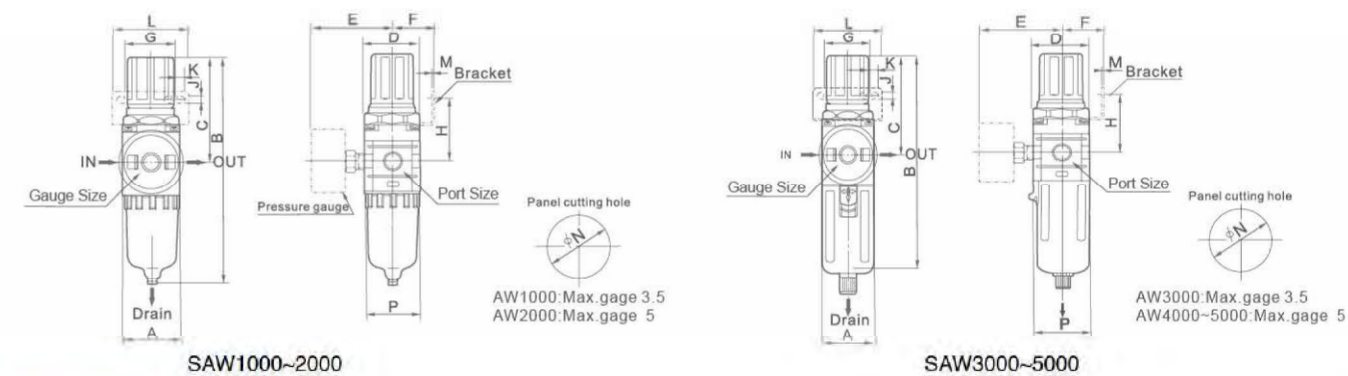
Graphic Symbol



Specification

Model	SAW1000 -M5	SAW2000 -01	SAW2000 -02	SAW3000 -02	SAW3000 -03	SAW4000 -03	SAW4000 -04	SAW4000 -06	SAW5000 -06	SAW5000 -10
Rated Flow(L/min)	100	550	550	2000	2000	4000	4000	4500	5500	5500
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision	25μ									
Highest Working Pressure	1.0MPa									
Ensured pressure Resistance	1.5MPa									
Operating Temperature Range	5~60°C									
Range of Adjustable Pressure	0.05~0.7MPa				0.05~0.85MPa					
Container Material	Polycarbonate									
Protective Cover	Not Available				Available					
Drain Function	Differential Drain				Differential Drain, Automatic Drain					
Valve Type	With Overflow									

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SAW1000	M5	25	109.5	50.5	25	26	25	28	30	4.5	6.5	40	2	20.5	28
SAW2000	G1/8" ~G1/4"	40	164.5	78	40	56.8	30	34	43.5	5.4	15.4	55	2.3	33.5	40
SAW3000	G1/4" ~G3/8"	53	211	92.5	53	60.8	41	40	46	6.5	8	53	2.3	42.5	56
SAW4000	G3/8" ~1/2"	70	262	112	70	70.5	50	54	53.5	8.5	10.5	70	2.3	52.2	73
SAW4000-06	G3/4"	75	267	114	70	70.5	50	54	55.5	8.5	10.5	70	2.3	52.5	73
SAW5000	G3/4" ~G1"	90	338	116	90	75.5	69.8	54	62	8.5	10.5	70	3.2	52.5	90

SAL 1000~5000 Series Lubricator



Ordering Code

SA	L	4000	04			
Series	Function code	Body Size	Port Size	Metal Cup	Color	
SA Series	Lubricator	1000 2000 3000 4000 5000	M5: M5x0.8 01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	U: With Iron Cup L: With Aluminum Cup (Available for 2000)	Blank: Standard W: White	

SAL5000-10

SAL4000-04

SAL2000-02

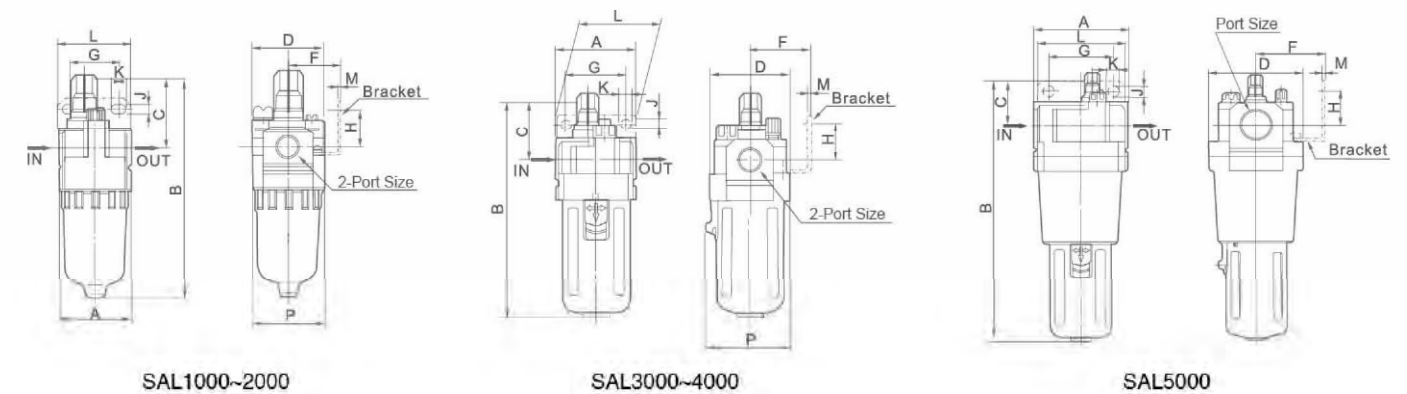
Graphic Symbol



Specification

Model	SAL1000 -M5	SAL2000 -01	SAL2000 -02	SAL3000 -02	SAP3000 -03	SAL4000 -03	SAL4000 -04	SAL4000 -06	SAL4000 -06	SAL5000 0-10
Rated Flow	95	800	800	1700	1700	5000	5000	6300	7000	9000
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Highest Working Pressure	1.0MPa									
Ensured pressure Resistance	1.5MPa									
Operating Temperature Range	5~60°C									
Recommended Oil Use	ISO VG 32									
Container Material	Polycarbonate									
Protective Cover	Not Available					Available				

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
SAL1000	M5	25	81.5	25.5	25	-	-	-	-	-	-	-	27
SAL2000	G1/8" ~G1/4"	40	125.5	38	40	30	27	22	5.4	8.4	40	2.3	40
SAL3000	G1/4" ~G3/8"	53	150	38	53	41	40	23	6.5	8	53	2.3	56
SAL4000	G3/8" ~1/2"	70	185	41	70	50	54	26	8.5	10.5	70	2.3	73
SAL4000-06	G3/4"	75	185	39	70	60	54	25	8.5	10.5	70	2.3	73
SAL5000	G3/4" ~G1"	90	260	45	90	66.5	66	35	11	13	90	3.2	90

Note: We have upgraded Oil Drop Accessories on Lubricator of SA series 2000-5000 same to the SO series.

SAF 8000~9000 Series Air Filter



SAF9000-20

Ordering Code

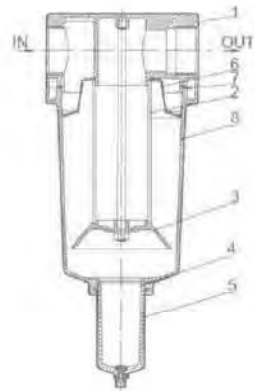
SA	F	8000	—	14	
Series	Function code	Body Size		Port Size	Drain Type
SA Series	Filter	8000 9000		12: G1¼" 14: G1½" 20: G2"	Blank: Manual Drain Type D: Auto Drain Type

Specification

Model	SAF8000-12	SAF8000-14	SAF9000-20
Rated Flow(L/min)	11500	11500	18500
Port Size	G1¼"	G1½"	G2"
Bowl Capacity(cm³)		180	
Filter Precision		25μ	
Highest Working Pressure		1.0MPa	
Ensured pressure Resistance		1.5MPa	
Operating Temperature Range		5~60°C	
Container Material		Polycarbonate	
Protective Cover		Available	
Drain Function		Differential Drain	

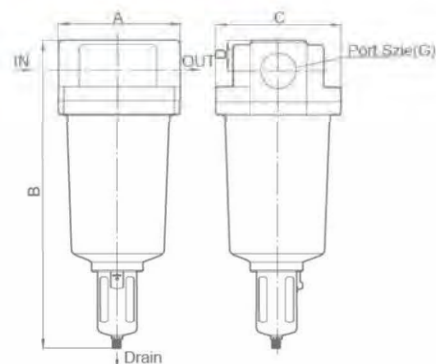
■ Under the circumstance that the supply pressure is 0.7MPa(7.1kgf/cm²) and step down is 0.5MPa(0.5kgf/cm²)

Internal Structure



No.	Name	Material
1	Valve Body	Aluminum Die Casting
2	Filter	Brass
3	Drain Board	ADC12
4	O-ring	Rubber
5	Water Storage Cup(Shield)	Polycarbonate(Cold Rolled Sheet)
6	Whirlwind Blade	LY11
7	O-ring	Rubber
8	Middle Part	Aluminum Die Casting

Overall Dimensions



Dimension Sheet

Model	Port Size(G)	A	B	C	D
SAF8000	¼"~½"	150	390	140	33
SAF9000	2	190	470	190	46

SAR 8000~9000 Series Regulator



SAR9000-20

Ordering Code

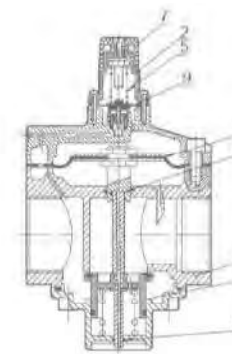
SA	R	8000	—	14
Series	Function code	Body Size		Port Size
SA Series	Regulator	8000 9000		14: G1½" 20: G2"

Specification

Model	SAR8000-14	SAR9000-20
Rated Flow(L/min)	18000	22000
Port Size	G1½"	G2"
Highest Working Pressure		1.0MPa
Ensured pressure Resistance		1.5MPa
Operating Temperature Range		5~60°C
Range of Adjustable Pressure		0.05~0.85MPa
Valve Type		With Overflow
Pressure Gauge size		1/4

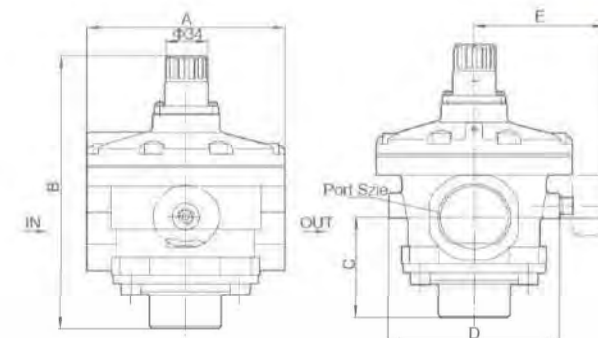
■ Under the circumstance that the supply pressure is 0.7MPa(7.1kgf/cm²) and step down is 0.5MPa(0.5kgf/cm²)

Internal Structure



No.	Name	Material
1	Valve Body	Aluminum Die Casting
2	Bonnet	Aluminum Die Casting
3	Film	Rubber
4	Valve Core	Brass, Rubber
5	Spring	Stainless steel
6	O-ring	Rubber
7	Hand Wheel	Enhance nylon
8	O-ring	Rubber
9	Film	Rubber

Overall Dimensions



Dimension Sheet

Model	Port Size(G)	A	B
SAR8000	1½	Φ126	216
SAR9000	2	Φ160	242

Model	C	D	E	F
SAR8000	75	110	90.5	5
SAR9000	90	140	105.5	10

SGC Serie Air Source Treatment Unit (F.R.L Combination)



SGC3-03

Ordering Code

SGC2

Series Code
Filter+Regulator+
Lubricator

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

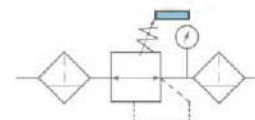
□

Metal Cup
Blank: Differential Drain
D: Automatic Drain

L

Pressure Range
Blank: Standard
L: Low-Pressure Type

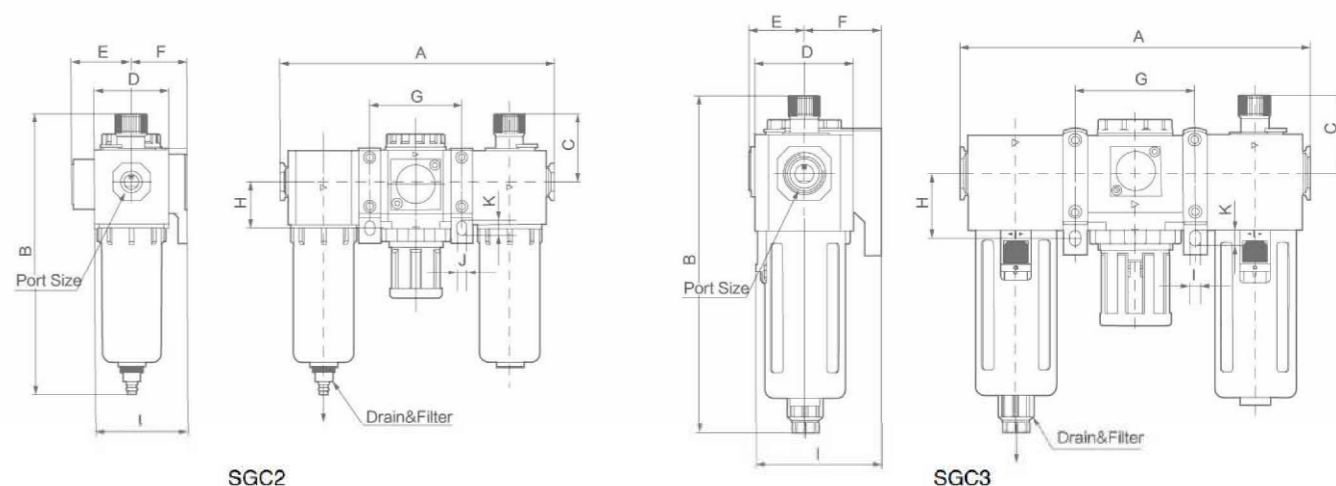
Graphic Symbol



Specification

Model		SGC2-01	SGC2-02	SGC3-02	SGC3-03	SGC3-04
Working Medium		Compressed Air				
Port Size		G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Filter Precision		40µm or 5µm				
Pressure Range		Manual And Differential Pressure Drainage Type : 0.15~0.19MPa Manual Drain: 0.05~0.9MPa				
Ensured pressure Resistance		1.5MPa				
Operating Temperature Range		5~60°C				
Water Cup Capacity		15CC		40CC		
Oil Cup Capacity		25CC		75CC		
Constitute	Filter	SGF2-01	SGF2-02	SGF3-02	SGF3-03	SGF3-04
	Regulator	SGR2-01	SGR2-02	SGR3-02	SGR3-03	SGR3-04
	Lubricator	SGL2-01	SGL2-02	SGL3-02	SGL3-03	SGL3-04

Overall Dimensions



Dimension Sheet

Model	Port Size	A	B	C	D	E	F	G	H	I	J	K
SGC2	G1/8~1/4"	146.5	152	37	40	31.5	30	50	25	50	5	8
SGC3	G1/4~1/2"	188.5	182.5	42.5	53	29	41.5	64	35	68	6	8.5

SGWL Serie Air Source Treatment Unit (FR.L Combination)



SGWL3-03



SGWL2-02

Ordering Code

SGWL2

Series Code
Filter&Regulator+
Lubricator

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

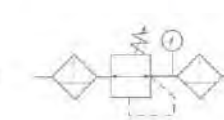
□

Drain Type
Blank: Differential Drain
D: Automatic Drain

L

Pressure Range
Blank: Standard
L: Low-Pressure Type

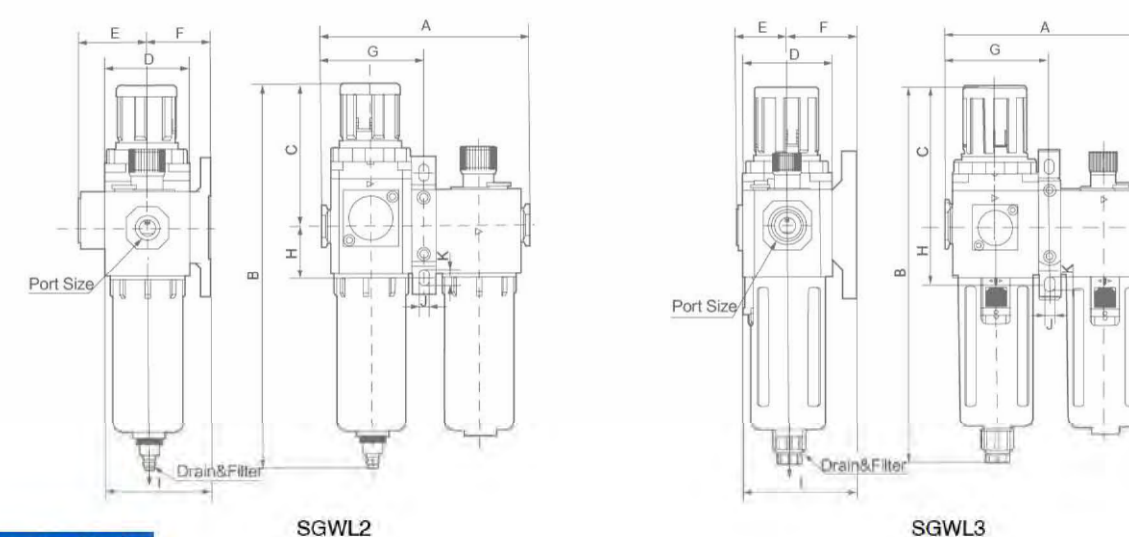
Graphic Symbol



Specification

Model		SGWL2-01	SGWL2-02	SGWL2-02	SGWL3-03	SGWL3-04
Working Medium			Compressed Air			
Port Size		G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Filter Precision		40µm or 5µm				
Pressure Range		Manual And Differential Pressure Drainage Type : 0.15~0.19MPa Manual Drain:0.05~0.9MPa				
Ensured pressure Resistance		1.5MPa				
Operating Temperature Range		5~60℃				
Water Cup Capacity		15CC		40CC		
Oil Cup Capacity		25CC		75CC		
Constitute	Filter & Regulator	SGFR2-01	SGFR2-02	SGFR3-02	SGFR3-03	SGFR3-04
	Lubricator	SGL2-01	SGL2-02	SGL3-02	SGL3-03	SGL3-04

Overall Dimensions



Dimension Sheet

Model	Port Size	A	B	C	D	E	F	G	H	I	J	K
SGWL2	G1/8~1/4"	97	183	68	40	31.5	30	48.5	25	50	5	8
SGWL3	G1/4~1/2"	124	224	82.5	53	29	41.5	62	35	68	6	8.5

SGF Series Air Filter



Ordering Code

SGF2

Series Code
Filter

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

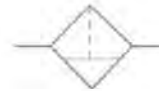
D

Drain Type
Blank: Differential Drain
D: Automatic Drain

W

Filter Precision
Blank: 40µm
W: 5µm

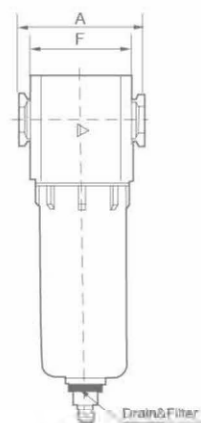
Graphic Symbol



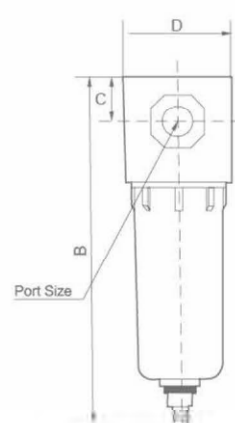
Specification

Model	SGF2-01	SGF2-02	SGF3-02	SGF3-03	SGF3-04
Working Medium	Compressed Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Filter Precision	40µm or 5µm				
Pressure Range	Manual And Differential Pressure Drainage Type : 0.15~0.19MPa Manual Drain: 0.05~0.9MPa				
Ensured pressure Resistance	1.5MPa				
Operating Temperature Range	5~60°C				
Water Cup Capacity	20CC		40CC		

Overall Dimensions



SGF2



SGF3

Dimension Sheet

Model	Port Size	A	B	C	D	F	L
SGF2	G1/8~1/4"	47	132	17	40	38	--
SGF3	G1/4~1/2"	60	161	21	53	51	53

SGFR Series Filter & Regulator



Ordering Code

SGFR2

Series Code
Filter+Regulator

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

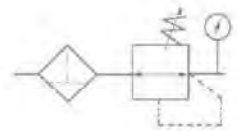
L

Pressure Range
Blank: Standard
L: Low-Pressure Type

J

Drain Type
Blank: Without Bracket
J: With Bracket

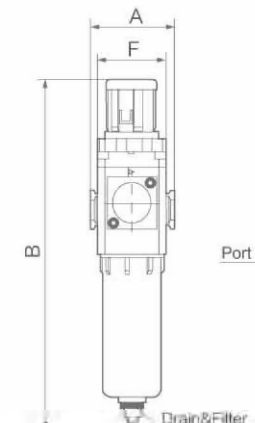
Graphic Symbol



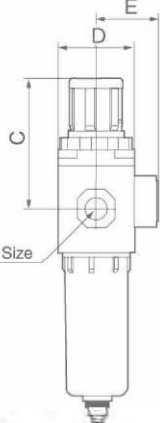
Specification

Model	SGFR2-01	SGFR2-02	SGFR3-02	SGFR3-03	SGFR3-04
Working Medium	Compressed Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Filter Precision	40µm or 5µm				
Pressure Range	Manual And Differential Pressure Drainage Type : 0.15~0.19MPa Manual Drain : 0.05~0.9MPa				
Ensured pressure Resistance	1.5MPa				
Operating Temperature Range	5~60°C				
Water Cup Capacity	15CC		40CC		

Overall Dimensions



SGFR2



SGFR3

Dimension Sheet

Model	Port Size	A	B	C	D	F	L
SGFR2	G1/8~1/4"	47	183	68	40	32.5	--
SGFR3	G1/4~1/2"	60	224	82.5	53	51	53

SGL Series Lubricator



SGL3-03

SGL2-02

Ordering Code

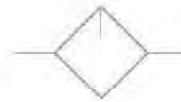
SGL2

Series Code
Lubricator

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

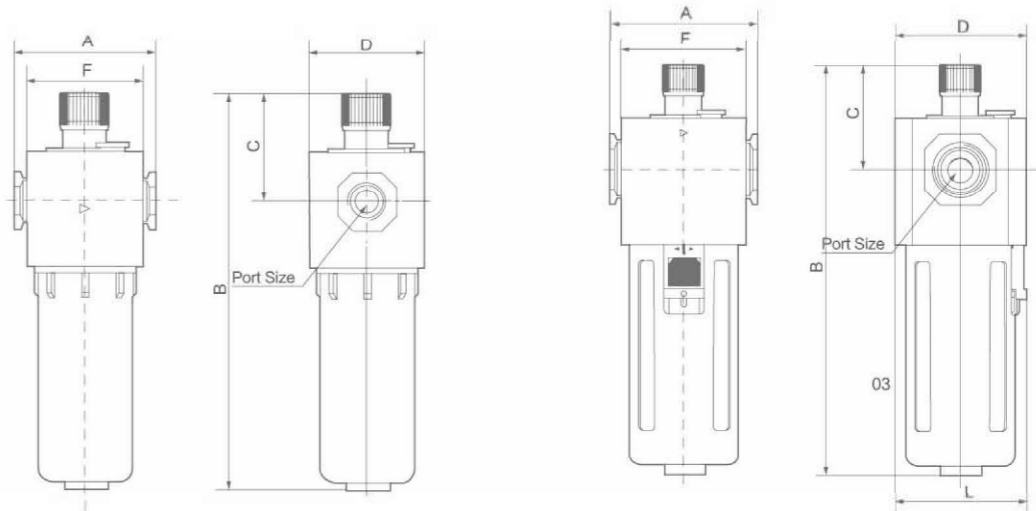
Graphic Symbol



Specification

Model	SGL2-01	SGL2-02	SGL3-02	SGL3-03	SGL3-04
Working Medium	Compressed Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Pressure Range	0.05~0.9MPa				
Ensured pressure Resistance	1.5MPa				
Recommended Oil Use	ISO VG32				
Oil Cup Capacity	25CC		75CC		

Overall Dimensions



SGL2

SGL3

Dimension Sheet

Model	Port Size	A	B	C	D	F	L
SGL2	G1/8~1/4"	47	137	37	40	38	—
SGL3	G1/4~1/2"	60	168	42.5	53	51	53

SGR Series Regulator



SGR3-03

SGR2-02

Ordering Code

SGR2

Series Code
Regulator

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

L

Pressure Range
Blank: Standard
L: Low-Pressure Type

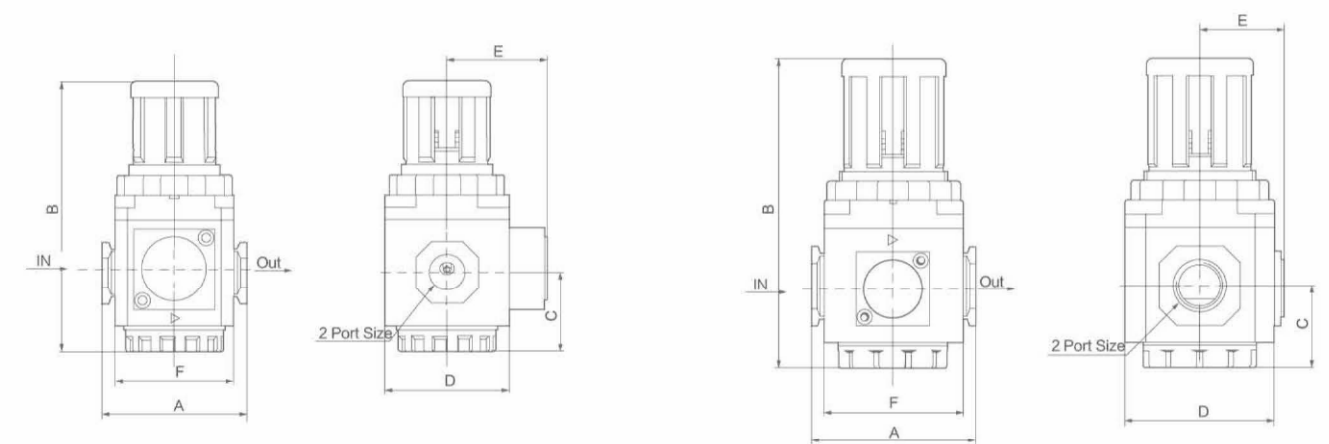
J

Bracket
Blank: Without Bracket
J: With Bracket

Specification

Model	SGR2-01	SGR2-02	SGR3-02	SGR3-03	SGR3-04
Working Medium	Compressed Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Pressure Range	0.05~0.9MPa				
Ensured pressure Resistance	1.5MPa				
Operating Temperature Range	5~60°C				

Overall Dimensions



SGR2

SGR3

Dimension Sheet

Model	Port Size	A	B	C	D	F	I
SGR2	G1/8~1/4"	47	89	26	40	32.5	38
SGR3	G1/4~1/2"	60	112	29.5	53	30	51

SMAC 2000~5000 Series Air Source Treatment Unit (F.R.L Combination)



Ordering Code

SMA	C	3000	04	
Series	Function Code	Specification Code	Port Size	Drain Type
SMA Series	Filter+Regulator+Lubricator	2000 3000 4000 5000	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Manual Drain Type D: Auto Drain Type (Available for 3000 or above)

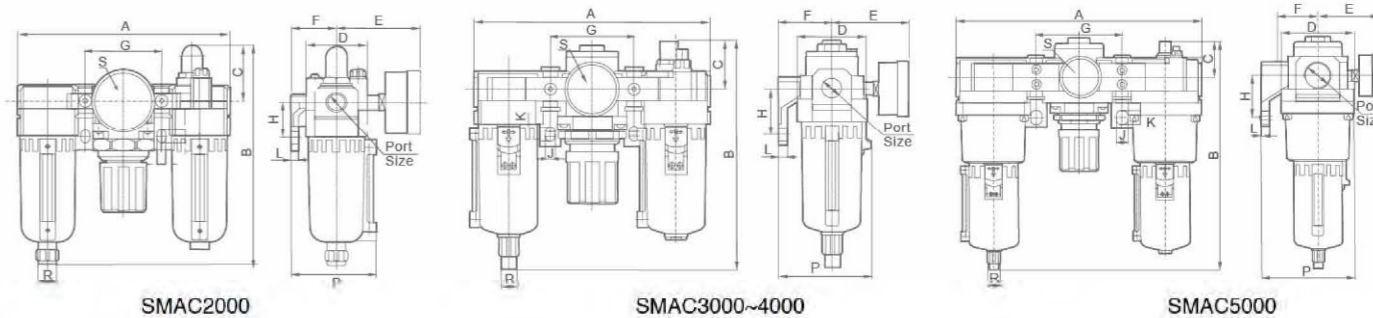
Graphic Symbol



Specification

Model	SMAC2000-01	SMAC2000-02	SMAC3000-02	SMAC3000-03	SMAC4000-03	SMAC4000-04	SMAC4000-06	SMAC5000-06	SMAC5000-10
Ensured Pressure Resistance	1.5MPa(15kgf/cm 2)								
Highest Working Pressure	1.0MPa(10kgf/cm 2)								
Operating Temperature Range	5~60℃								
Filter Precision	25μ & 5μ & 50μ								
Recommended Oil Use	Turbine NO.1 Oil ISOVG32								
Container Material	Aluminum Die Casting								
Pressure Regulating Range	0.05~0.85MPa (0.05~0.85kgf/cm 2)								
Valve Type	With Overflow								
Assembly	Filter	SMAF2000	SMAF3000	SMAF4000	SMAF4000-06	SMAF5000			
	Regulator	SMAR2000	SMAR3000	SMAR4000	SMAR4000-06	SMAR5000			
	Lubricator	SMAL2000	SMAL3000	SMAL4000	SMAL4000-06	SMAL5000			
Rated Flow(L/min)	500	2000	4000	4500	5000				
Port Size(G)	1/8"	1/4"	1/4"	3/8"	3/8"	1/20"	3/4"	3/4"	1"

Overall Dimensions



Dimension Sheet

Model	Port Size(G)	A	B	C	D	E	F	G	H	J	K	L	P	R	S
SMAC2000	G1/8"-G1/4"	140	147	38	40	56.8	30	50	24	5.5	8.5	5	56	Φ6	G1/8
SMAC3000	G1/4"-G3/8"	181	178	38	53	60.8	41	64	35	7	11	7	70.5	Φ8	G1/8
SMAC4000	G1/2"	236	207	41	70	65.5	50	84	40	9	13	7	87.5	Φ8	G1/4
SMAC4000-06	G3/4"	253	208.5	40.5	70	69.5	50	89	40	9	13	7	87.5	Φ8	G1/4
SMAC5000	G3/4"-G1"	300	287	48	90	75.5	69.8	105	50	12	16	10.5	115	Φ8	G1/4

SMAC 2010~5010 Series Air Source Treatment Unit (FR.L Combination)



Ordering Code

SMA	C	3010	04	
Series Code	Function Code	Specification Code	Port Size	Drain Type
Regulator	FR.L Combination	2010 3010 4010 5010	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Without Drain Type D: Auto Drain Type (Available for 3000 or above)

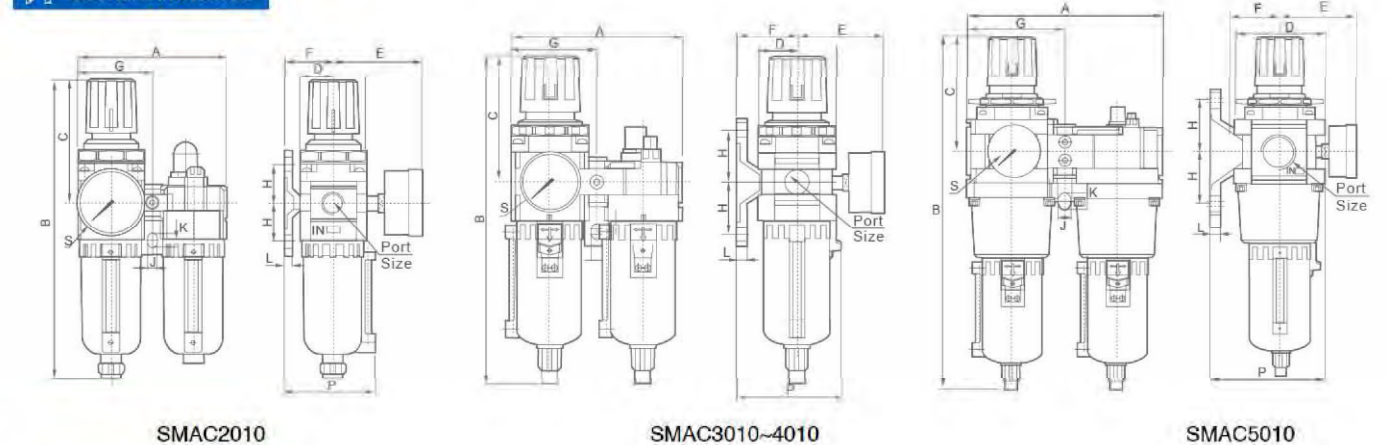
Graphic Symbol



Specification

Model	SMAC2010-01	SMAC2010-02	SMAC3010-02	SMAC3010-03	SMAC4010-03	SMAC4010-04	SMAC4010-04	SMAC4010-06	SMAC5010-06	SMAC5010-06	
Ensured Pressure Resistance	1.5 MPa (15 kgf/cm ²)										
Highest Working Pressure	1.0 MPa (10 kgf/cm ²)										
Operating Temperature Range	5-60°C										
Filter Precision	25μ & 5μ & 50μ										
Recommended Oil Use	Turbine No.1 Oil ISOVG32										
Container Material	Aluminum Die Casting										
Pressure Regulating Range	0.05-0.85 MPa (0.05-0.85 kgf/cm ²)										
Valve Type	With Overflow										
Assembly	Filter	SMAW2000	SMAW3000		SMAW4000		SMAW4000-06		SMAW5000		
	Lubricator	SMAR2000	SMAR3000	SMAR4000	SMAR4000		SMAR4000-06		SMAR5000		
Rated Flow (L/min)		500	1700		3000		3000		4000		
Port Size (G)		1/8"	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	3/4"	3/4"	1"

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	P	S
SMAC2010	G1/8"-G1/4"	90	186.5	78	40	56.8	30	45	24	5.5	8.5	5	56	G1/8
SMAC3010	G1/4"-G3/8"	117	232.5	92.5	53	60.8	41	58.5	35	7	11	7	69.9	G1/8
SMAC4010	G1/2"	154	277	112	70	66.5	50	77	40	9	13	7	87.5	G1/4
SMAC4010-06	G3/4"	164	282.5	114	70	69.5	50	82	40	9	13	7	87.5	G1/4
SMAC5010	G3/4"-G1"	195	353.5	116	90	75.5	69.8	97.5	50	12	16	10.5	115	G1/4

SMAW 2000~5000 Series Filter & Regulator



SMAW4000-04

SMAW2000-02

Ordering Code

SMA	W	3000	04	
Series	Function Code	Specification Code	Port Size	Drain Type
SMA Series	Filter & Regulator	2000 3000 4000 5000	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Without Drain Type D: Auto Drain Type (Available for 3000 or above)

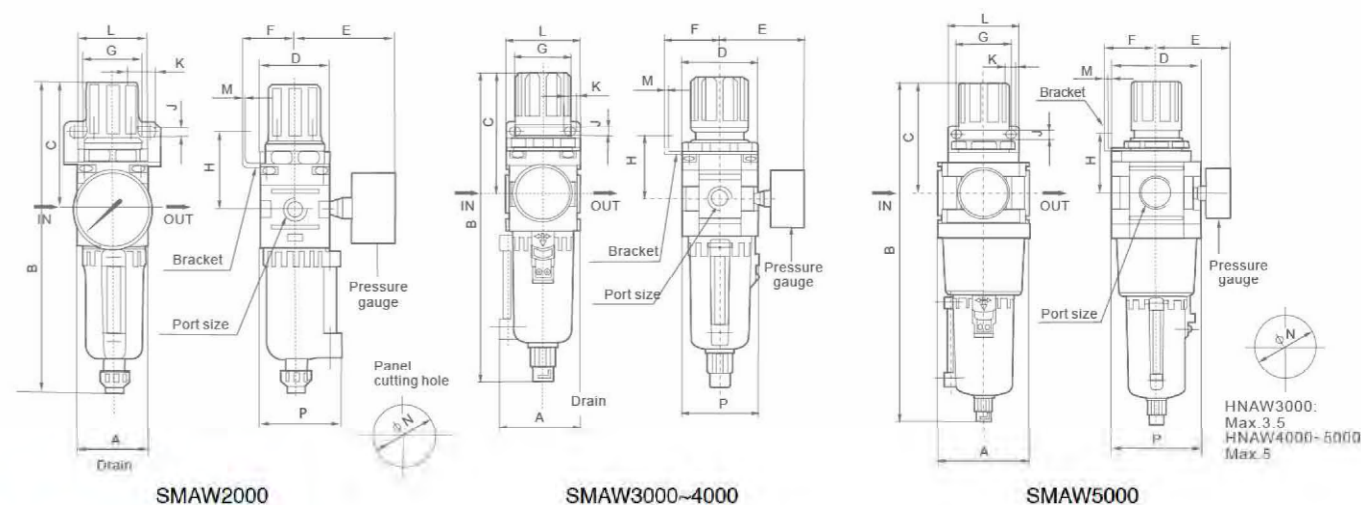
Graphic Symbol



Specification

Model	SMAW2000-01	SMAW2000-02	SMAW3000-02	SMAW3000-03	SMAW4000-03	SMAW4000-04	SMAW4000-06	SMAW5000-06	SMAW5000-10
Ensured Pressure Resistance	1.5 MPa (15 kgf/cm ²)								
Highest Working Pressure	1.0 MPa (10 kgf/cm ²)								
Operating Temperature Range	5~60°C								
Filter Precision	25μ & 5μ & 50μ								
Container Material	Aluminum Die Casting								
Pressure Regulating Range	0.05~0.85 MPa (0.05~0.85 kgf/cm ²)								
Valve Type	With Overflow								
Rated Flow (L/min)	550		2000		4000		4500		5500
Port Size (G)	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"	3/4"	3/4"	1"
Pressure Gauge Size	1/8"		1/8"		1/4"		1/4"		1/4"

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	E	F	G	H	J	K	L	M	P
SMAW2000	G1/8"-G1/4"	40	186.5	78	40	56.8	30	34	43.5	5.4	15.4	5	2.3	46
SMAW3000	G1/4"-G3/8"	57.5	232.5	92.5	53	60.8	39	40	46	8.5	8	5.3	2.3	55
SMAW4000	G1/2"	74	278	112	70	70.5	49.2	54	53.5	8.5	10.5	7	2.3	72.5
SMAW4000-06	G3/4"	76.5	282	114	70	70.5	49.2	54	55.5	8.5	10.5	7	2.3	72.5
SMAW5000	G3/4"-G1"	90	355	116	90	75.5	49.2	54	62	8.5	10.5	10	2.3	90

SMAF 2000~5000 Series Air Filter



SMAF4000-04

SMAF2000-02

Ordering Code

SMA	F	3000	04	
Series	Function Code	Specification Code	Port Size	Drain Type
SMA Series	Filter	2000 3000 4000 5000	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"	Blank: Without Drain Type D: Auto Drain Type (Available for 3000 or above)

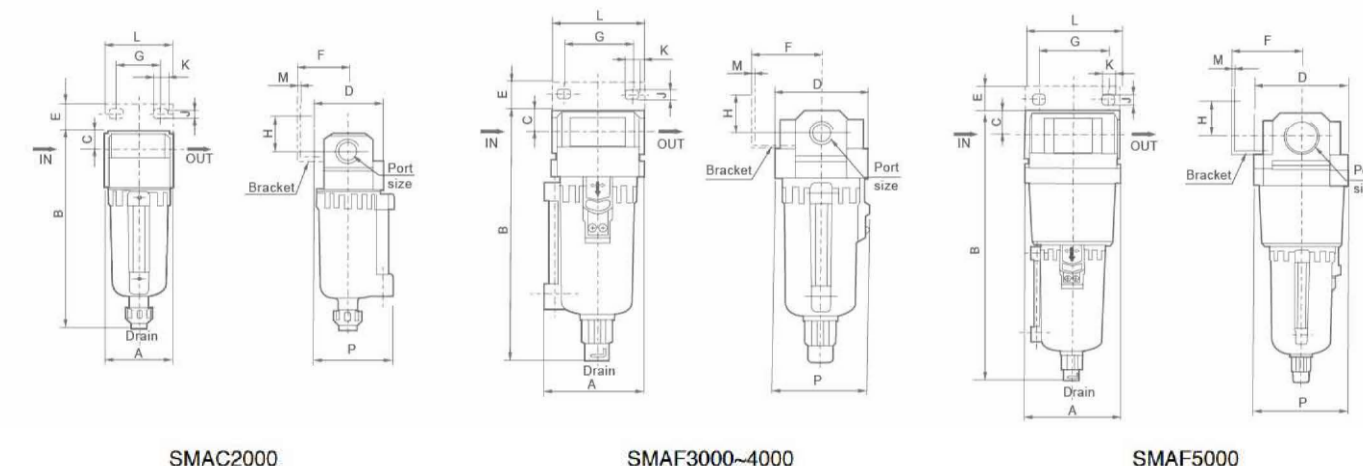
Graphic Symbol



Specification

Model	SMAF2000-01	SMAF2000-02	SMAF3000-02	SMAF3000-03	SMAF4000-03	SMAF4000-04	SMAF4000-06	SMAF5000-06	SMAF5000-10
Ensured Pressure Resistance	1.5 MPa (15 kgf/cm ²)								
Highest Working Pressure	1.0 MPa (10 kgf/cm ²)								
Operating Temperature Range	5~60°C								
Filter Precision	25μ & 5μ & 50μ								
Container Material	Aluminum Die Casting								
Rated Flow (L/min)	750		1500		4000		6000		7000
Port Size (G)	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"	3/4"	3/4"	1"
Bowl Capacity (cc)	15		20		45		45		130

Overall Dimensions



SMAF2000

SMAF3000~4000

SMAF5000

Dimension Sheet

Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
SMAF2000	G1/8"-G1/4"	40	119.5	11	40	17	27	22	5.4	8.4	40	2.3	46
SMAF3000	G1/4"-G3/8"	57.4	154	14	53	16	40	23	6.5	8	53	2.3	55
SMAF4000	G1/2"	74	184	18	70	17	54	26	8.5	10.5	70	2.3	72.5
SMAF4000-06	G3/4"	76.5	188	20	70	14	54	25	8.5	10.5	70	2.3	72.5
SMAF5000	G3/4"-G1"	90	263	24	90	23	66	35	11	13	90	3.2	90

SMAL 2000~5000 Series Lubricator



SMAL4000-04

SMAL2000-02

Ordering Code

SMA	L	3000	04
Series	Function Code	Specification Code	Port Size
SMA Series	Lubricator	2000 3000 4000 5000	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"

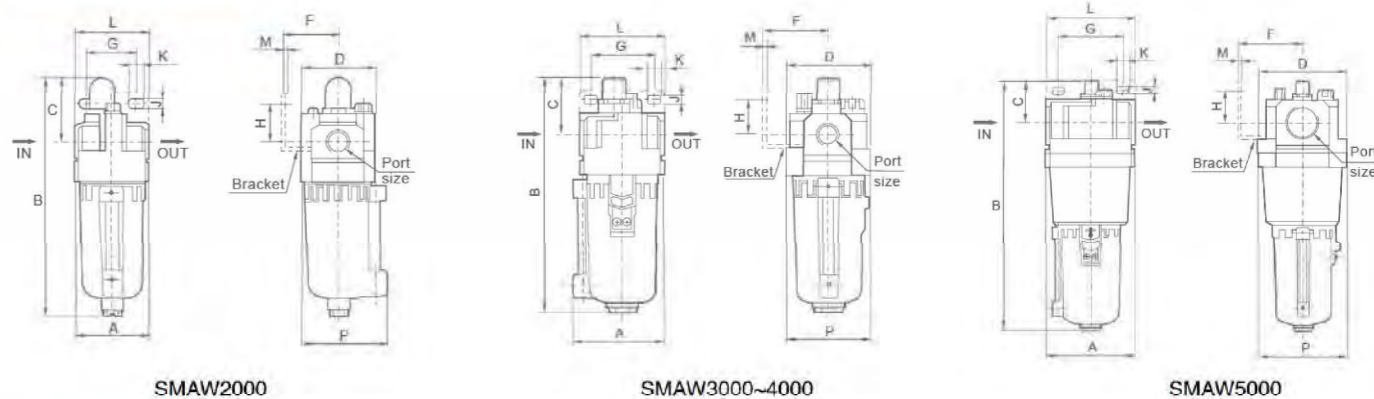
Graphic Symbol



Specification

Model	SMAL2000-01	SMAL2000-02	SMAL3000-02	SMAL3000-03	SMAL4000-03	SMAL4000-04	SMAL4000-06	SMAL5000-06	SMAL5000-10
Ensured Pressure Resistance	1.5 MPa (15 kgf/cm ²)								
Highest Working Pressure	1.0 MPa (10 kgf/cm ²)								
Operating Temperature Range	5~60°C								
Recommended Oil Use	Turbine No.1 Oil ISOVG32								
Container Material	Aluminum Die Casting								
Minimal Flow of Oil Drop (L/min)	15	30	40	40	50	50	50	190	190
Rated Flow (L/min)	800	1700			5000		6300		7000
Port Size (G)	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"	3/4"	3/4"	1"
Bowl Capacity (cc)		25		50		130	130		130

Overall Dimensions



Dimension Sheet

Model	Port Size (G)	A	B	C	D	F	G	H	J	K	L	M	P
SMAL2000	G1/8"-G1/4"	40	137	39	50	30	27	22	5.4	8.4	2.3	2.3	40
SMAL3000	G1/4"-G3/8"	57.5	154.5	39	53	41	40	23	6.5	8	2.3	2.3	55
SMAL4000	G1/2"	74	185.5	41	70	50	54	26	8.5	10.5	2.3	2.3	72.5
SMAL4000-06	G3/4"	76.5	185.5	39	70	50	54	25	8.5	10.5	2.3	2.3	72.5
SMAL5000	G3/4"-G1"	90	262.5	45	90	66.5	66	35	11	13	3.2	3.2	90

AC, BC Air Filter Source Treatment Unit (F.R.L Combination)



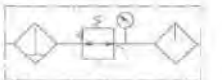
BC4000

AC2000

Ordering Code

BC	3000		
Series	Port Size	Drain Type	Color
AC: Small Size BC: Middle Size	1500: G1/8" 2000: G1/4" 3000: G3/8" 4000: G1/2"	Blank: Manual D: Auto Drain Type	Blank: Standard W: White

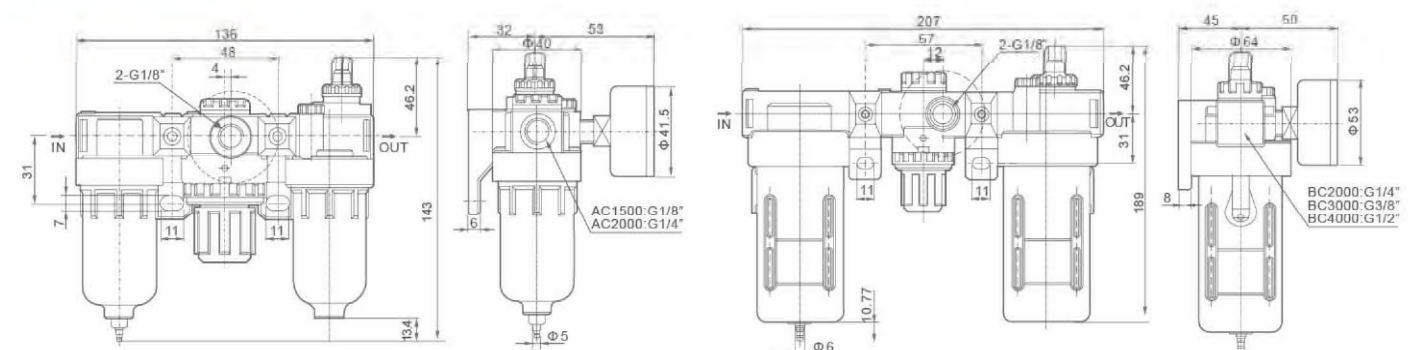
Graphic Symbol



Specification

Model	AC1500	AC2000	BC2000	BC3000	BC4000	
Operating Fluid	Air					
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"	
Filtering Element Roughness	40μ					
Range of Adjustable Pressure	0.05–0.85 MPa					
Max Adjustable Pressure	0.95 MPa					
Ensured Pressure Resistance	1.5 MPa					
Operating Temperature Range	5–60°C					
Capacity of Filter Cup	15 cc		60 cc			
Capacity of Oil Feed Cup	25 cc		90 cc			
Suggested Lube	ISO VG32 or Same Grade Oil					
Material	Body	Aluminum Die-casting Forming				
	Container Cup	PE				
	Protective Cup Cover	-				
Composing Elements	Filter	AF1500	AF2000	BF2000	BF3000	BF4000
	Regulator	AR1500	AR2000	BR2000	BR3000	BR4000
	Lubricator	AL1500	AL2000	BL2000	BL3000	BL4000

Overall Dimensions



AC Series

BC Series

AFC, BFC Series Air Source Treatment Unit (FR.L Combination)



BFC4000

AFC2000

Ordering Code

BFC	3000		
Series	Port Size	Drain Type	Color
AFC: Small Size BFC: Middle Size	1500: G1/8" 2000: G1/4" 3000: G3/8" 4000: G1/2"	Blank: Manual D: Auto Drain Type	Blank: Standard W: White

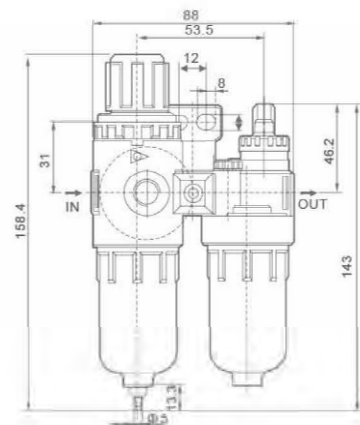
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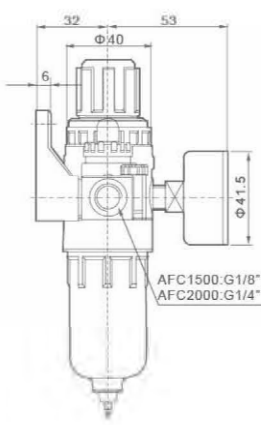
Specification

Model	AFC1500	AFC2000	BFC2000	BFC3000	BFC4000	
Operating Fluid			Air			
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"	
Filtering Element Roughness			40μ			
Range of Adjustable Pressure			0.05–0.85 MPa			
Max Adjustable Pressure			0.95 MPa			
Ensured Pressure Resistance			1.5 MPa			
Operating Temperature Range			5–60°C			
Capacity of Filter Cup	15 cc			60 cc		
Capacity of Oil Feed Cup	25 cc			90 cc		
Suggested Lube	ISO VG32 or Same Grade Oil					
Material	Body	Aluminum Die-casting Forming				
	Container Cup	PE				
	Protective Cup Cover	Iron				
Composing Elements	Filter & Regulator	AFR1500	AFR2000	BFR2000	BFR3000	BFF4000
	Lubricator	AL1500	AL2000	BL2000	BL3000	BL4000

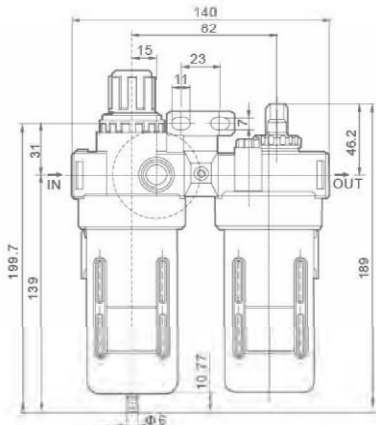
Overall Dimensions



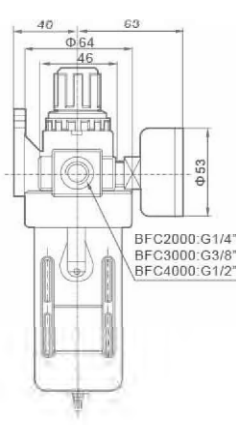
AFC Series



AFC1500: G1/8"
AFC2000: G1/4"



BFC Series



BFC2000: G1/4"
BFC3000: G3/8"
BFC4000: G1/2"

AFR, BFR Series Filter & Regulator



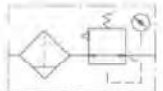
BFR4000

AFR2000

Ordering Code

BFR	3000		
Series	Port Size	Drain Type	Color
AC: Small Size BC: Middle Size	1500: G1/8" 2000: G1/4" 3000: G3/8" 4000: G1/2"	Blank: Manual D: Auto Drain Type	Blank: Standard W: White

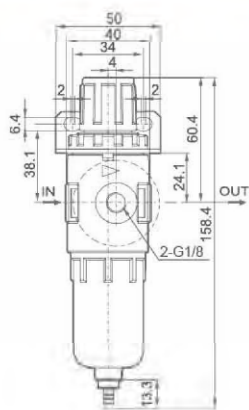
Graphic Symbol



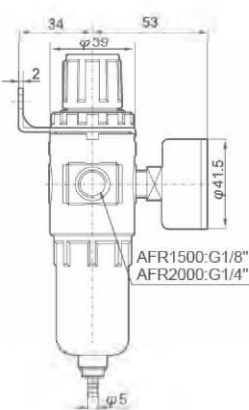
Specification

Model	AFR1500	AFR2000	BFR2000	BFR3000	BFR4000
Operating Fluid	Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Range of Adjustable Pressure	0.05–0.85 MPa				
Max Adjustable Pressure	0.95 MPa				
Ensured Pressure Resistance	1.5 MPa				
Operating Temperature Range	5–60°C				
Capacity of Filter Cup	15 cc			60 cc	
Body	Aluminum Die-casting Forming				
Material	Container Cup	PE			
	Protective Cup Cover	Iron			

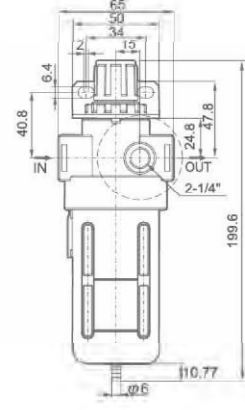
Overall Dimensions



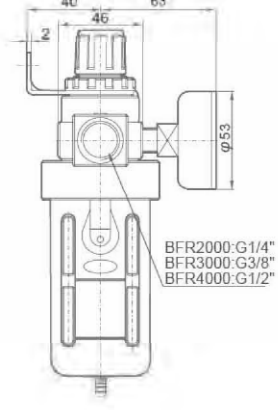
AFR Series



AFR1500: G1/8"
AFR2000: G1/4"



BFR Series



BFR2000: G1/4"
BFR3000: G3/8"
BFR4000: G1/2"

AF, BF Series Air Filter

Ordering Code



BF4000



AF2000

BF

Series

AF: Small Size
BF: Middle Size

3000

Port Size

1500: G1/8"
2000: G1/4"
3000: G3/8"
4000: G1/2"

□

Drain Type

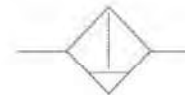
Blank: Manual
D: Auto Drain Type

□

Color

Blank: Standard
W: White

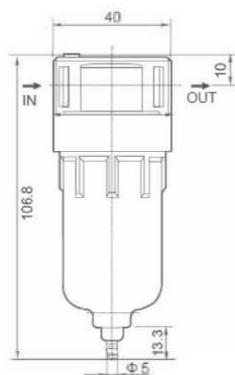
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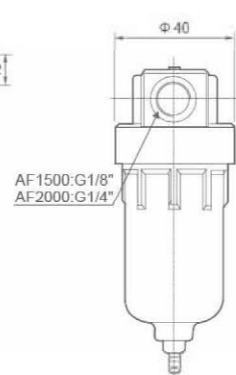
Specification

Model	AF1500	AF2000	BF2000	BF3000	BF4000
Operating Fluid	Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Filtering Element Roughness	40μ				
Ensured Pressure Resistance	1.5 MPa				
Operating Temperature Range	5–60℃				
Capacity of Filter Cup	15 cc		60 cc		
Material	Body	Aluminum Die-casting Forming			
	Container Cup	PE			
	Protective Cup Cover	Iron			

Overall Dimensions



AF Series



BF Series

AR, BR Series Regulator

Ordering Code



AR4000



AR2000

BR

Series

AR: Small Size
BR: Middle Size

2000

Port Size

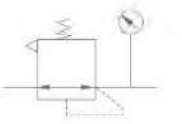
1500: G1/8"
2000: G1/4"
3000: G3/8"
4000: G1/2"

□

Color

Blank: Standard
W: White

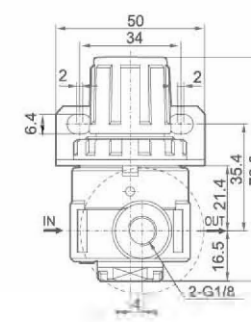
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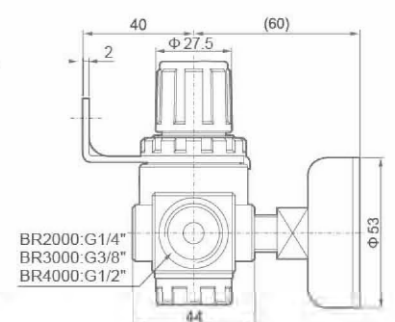
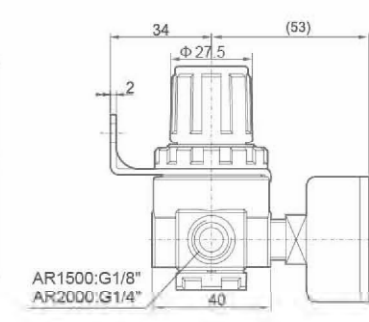
Specification

Model	AR1500	AR2000	BR2000	BR3000	BR4000
Operating Fluid	Air				
Port Size	G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Range of Adjustable Pressure	0.05-0.85 MPa				
Max Adjustable Pressure	0.95 MPa				
Ensured Pressure Resistance	1.5 MPa				
Operating Temperature Range	5-60°C				
Material of Body	Aluminum Die-casting Forming				

Overall Dimensions



AR Series



BR Series

AL, BL Series Lubricator



BL4000



AL2000

Ordering Code

BL

Series

AL: Small Size
BL: Middle Size

2000

Port Size

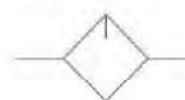
1500: G1/8"
2000: G1/4"
3000: G3/8"
4000: G1/2"

□

Color

Blank: Standard
W: White

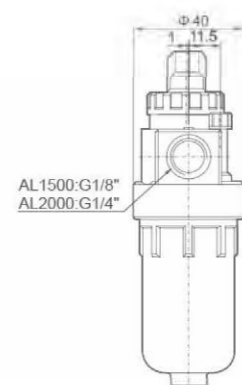
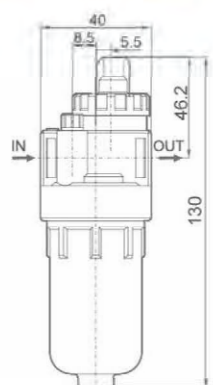
Graphic Symbol



Specification

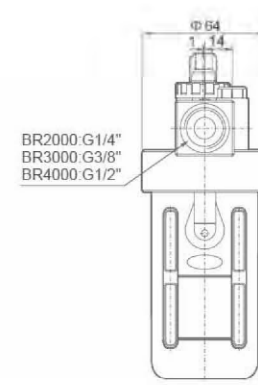
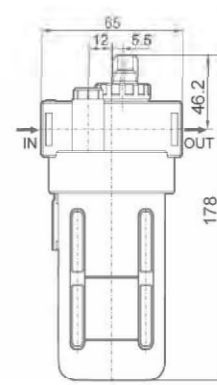
Model		AL1500	AL2000	BL2000	BL3000	BL4000
Operating Fluid		Air	Air	Air	Air	Air
Port Size		G1/8"	G1/4"	G1/4"	G3/8"	G1/2"
Ensured Pressure Resistance				1.5 MPa		
Operating Temperature Range				5-60°C		
Suggested Lube				ISO VG 32 or Same Grade Oil		
Capacity of Oil Feed Cup		25 cc		90 cc		
Material	Body	Aluminum Die-casting Forming				
	Container Cup	PE				
	Protective Cup Cover	-		Iron		

Overall Dimensions



AL1500: G1/8"
AL2000: G1/4"

AL Series



BR2000: G1/4"
BR3000: G3/8"
BR4000: G1/2"

BL Series

Air Source Treatment Units

H Series High Pressure Filter & Regulator



QFRH-25

Ordering Code

QFRH

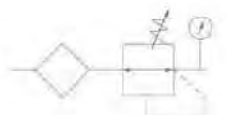
High pressure Filter & Regulator

15

Connection

8: G1/4" 10: G3/8"
15: G1/2" 20: G3/4"
25: G1"

Graphic Symbol



Specification

Model	QFRH-8,10,15,20,25
Operating Fluid	Air
Filtering Element Roughness	20µm atau 40µm
Range of Adjustable Pressure	0.15-3.5 MPa
Max. Input Pressure	4 MPa
Operating Temperature Range	5-80°C

H Series High Pressure Regulator



QTYH-25

Ordering Code

QTYH

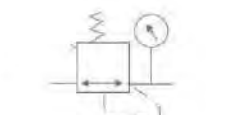
High Pressure Regulator

15

Connection

8: G1/4" 10: G3/8"
15: G1/2" 20: G3/4"
25: G1"

Graphic Symbol



Specification

Model	QTYH-8,10,15,20,25
Operating Fluid	Air
Range of Adjustable Pressure	0.05-3.5 MPa
Max. Input Pressure	4 MPa
Operating Temperature Range	-25 - 80°C

H Series High Pressure Filter



QSLH-25

Ordering Code

QSLH

High Pressure Filter

15

Connection

8: G1/4" 10: G3/8"
15: G1/2" 20: G3/4"
25: G1"

Graphic Symbol



Specification

Model	QSLH-8,10,15,20,25
Operating Fluid	Air
Filtering Element Roughness	20µm atau 40µm
Working of Adjustable Pressure	0.15-3.5 MPa
Max. Input Pressure	4 MPa
Operating Temperature Range	-25 - 80°C

Air Source Treatment Units

PIR Series Precision Regulator



Port Size G1/8", G1/4", G3/8"
Standard Type, Auto Drain Type and Metal Cup as Optional.

Designed to be compact and light weight with high output flow and precise setting pressure. Can be mounted easily with bracket or assemble with SA series F.R.L.

Graphic Symbol



Ordering Code

PIR	20	00	02
Series	Body Size	Pressure Range	Port Size
PIR Series	10 20 30	00 (0.005-0.2Mpa) 10 (0.05-0.4Mpa) 20 (0.01-0.8Mpa)	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2"

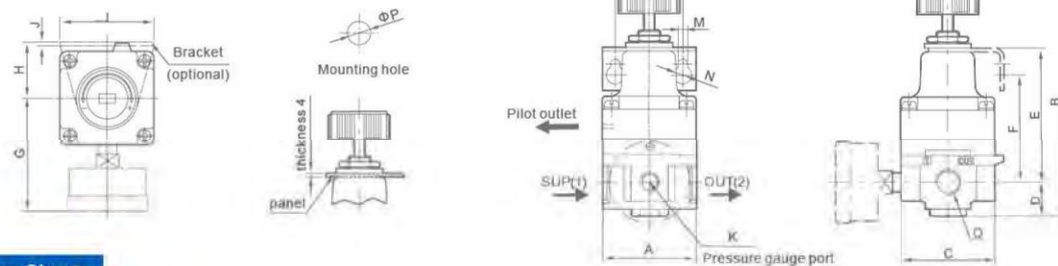
Order ESAmple

- 1): PIR Series, Valve Body: 20, Port Size: G1/4,
Pressure Range: 10, Model: PIR-2010-02
1): PIR Series, Valve Body: 30, Port Size: G1/2,
Pressure Range: 20, Model: PIR-3010-04.

Specification

Keterangan	PIR1000-01	PIR1010-01	PIR1020-01	PIR2000-02	PIR2010-02	PIR2020-02	PIR3000-03/04	PIR3010-03/04	PIR3020-03/04
Pressure Range	0.005-0.2	0.01-0.4	0.01-0.8	0.005-0.2	0.01-0.2	0.01-0.8	0.01-0.2	0.01-0.4	0.01-0.8
Port Size	G1/8"			G1/4"			G3/8", G1/2"		
Air Consumption	Max 3.5 L/min			Max 3.1 L/min			Max 9.5 L/min Outlet: Max 2L/min		
Minimum Pressure	Setting pressure ± 0.05			Setting pressure ± 0.05			Setting pressure ± 0.05		
Maximum Pressure	1.0 MPa								
Sensitivity	Within ±0.2% of full span								
Repeatability	Within ±0.5% of full span								
Ambient & Fluid Temperature	-5 – 60°C (no freezing)								
Pressure Gauge Port	G1/8"								

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
PIR1000-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Ø8.5	G1/8	Ø10.5
PIR1010-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Ø8.5	G1/8	Ø10.5
PIR1020-01	35	90	35	10	51	44	43	25	42	2	G1/8	28	4.5	Ø8.5	G1/8	Ø10.5
PIR2000-02	60	123	50	18	71	63	60	30	60	2	G1/8	36	5.5	Ø9.5	G1/8	Ø12.5
PIR2020-02	60	123	50	18	71	63	60	30	60	2	G1/8	36	5.5	Ø9.5	G1/8	Ø12.5
PIR2020-02	60	123	50	18	71	63	60	30	60	2	G1/8	36	5.5	Ø9.5	G1/8	Ø12.5
PIR3000-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Ø15.5	G3/8	Ø12.5
PIR3010-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Ø15.5	G3/8	Ø12.5
PIR3020-03	66	148	66	22	76	76	68	48	82	2.3	G1/8	60	9	Ø15.5	G3/8	Ø12.5

SITV Series Electro Pneumatic Regulator

Product Features



Electrical proportional valves have the features of high control accuracy, rapid response, sensitive response, and simple structure etc.
It can be achieved the accurate control of fluid flow rate, temperature, pressure and other parameters, improving production efficiency and quality.
At the same time, electrical proportional valves can also be connected to control systems such as computers or PLCs through digital interfaces, achieving intelligent control and remote operation, providing strong support for the automation process of modern industry.
Application areas include industrial automation control, fluid transportation, airport pavement oil emulsion removal, vehicle braking, concrete pump transportation, etc

- 1: Electrical proportional way, realize infinite control of outlet pressure.
- 2: Can realize remote control and program control.
- 3: Compared with intermittent control, the system is simplified and the components are decreased more lightweight, and lower cost
- 4: Compared with hydraulic proportional valves, it has small dimensions, light weight, compact structure, lightweight, and lower cost
- 5: Low power consumption: below 4W(communication way)
- 6: No occurring fire, no pollution to the environment, and less affected by temperature changes

Ordering Code

SITV	3	0	1	0	0	1	2	S
Series	Model	Nominal Voltage	Pressure Range	Thread Type	Bracket ¹⁾	Port Size	Cable Connector Type	Pressure Display Unit
Electrical Proportional Valve	1: 1000 Type 2: 2000 Type 3: 3000 Type	0: DC24V 1: DC12-15V	1: 0.1MPa 3: 0.5MPa 5: 0.9MPa	Blank: Rc N: NPT T: NPTF F: G	Blank: Without Bracket B: Flat Bracket C: L-bracket	1: 1/8 (1000Type) 2: 1/4 (1000 2000 3000Type) 3: 3/8 (2000, 3000Type) 4: 1/2 (3000Type)	S: Straight Type 3 m L: Right Angle Type 3 m N: Without Cable Connector	Blank: MPa 2 ²⁾ : kg/cm ² 3: bar 4 ²⁾ : psi 5: kPa

Input Signal/ Communication Model	Monitor Output
0: Current type 4 to 20 mADC (Sink type)	1: Analog output 1 to 5 VDC
1: Current type 0 to 20 mADC (Sink type)	2: Switch out/NPN output
2: Voltage type 0 to 5 VDC	3: Switch out/PNP output
3: Voltage type 0 to 10 VDC	4: Analog output 4 to 20 mADC (Sink type)
40: 4 points preset input	
52: 16 points preset input (Switch output/NPN output)	
53: 16 points preset input (Switch output/NPN output)	
60: 10-bit digital input	
CC: CC-Link	
DE: DeviceNet	
PR: PROFIBUS DP	
RC: RS-232C communication	
IL: IO-Link	

- 1: The Bracket is Included.
2: This Product is for Overseas use only according to the new measurement Act. For the Communication Models CC, DE, PR, and RC, Only "Blank" is available as it does not have a pressure display.

SITV Series Electro Pneumatic Regulator

Specification

Model		ITV101□	ITV103□	ITV105□
		ITV201□	ITV203□	ITV205□
		ITV301□	ITV303□	ITV305□
Min. Supply Pressure		Set pressure + 0.1 MPa		
Max. Supply Pressure		0.2 MPa	1.0 MPa	
Set Pressure Range		0.005 to 0.1 MPa	0.005 to 0.5 MPa	0.005 to 0.9 MPa
Power Supply	Voltage	24 VDC ±10%, 12 to 15 VDC		
	Current Consumption	Power Supply Voltage 24 VDC type: 0.12 A or less Power Supply Voltage 12 to 15 VDC type: 0.18 A or less		
Input Signal	Current Type	4 to 20 mA DC, 0 to 20 mA DC (Sink Type)		
	Voltage Type	0 to 5 VDC, 0 to 10 VDC		
	Preset Input	4 Points (Negative Common), 16 Points (No Common Polarity)		
	Digital Input	10 bits (Parallel)		
Input Impedance	Current Type	250 Ω or less		
	Voltage Type	Approx. 6.5 kΩ		
	Preset Input	Power Supply Voltage 24 VDC type: 0.12 A or less Power Supply Voltage 12 to 15 VDC type: 0.18 A or less		
	Digital Input	Approx. 4.7 kΩ		
Output Signal (Monitor Output)	Analog Output	1 to 5 VDC (Output impedance: Approx. 1 kΩ), 4 to 20 mA DC (Sink type) (Output impedance: 250 Ω or less), Output Accuracy ±6% F.S. or less		
	Switch Output	NPN open collector output: Max. 30 V, 80 mA, PNP open collector output: Max. 80 mA		
Linearity		±1% F.S. or less		
Hysteresis		0.5% F.S. or less		
Repeatability		±0.5% F.S. or less		
Sensitivity		0.2% F.S. or less		
Temperature Characteristics		±0.12% F.S./°C or less		
Output Pressure Display	Accuracy	±2% F.S. ±1 digit or less		
	Min. Unit	MPa: 0.001, kgf/cm²: 0.01, bar: 0.01, psi: 0.1, kPa: 1		
Ambient and Fluid Temperatures		0 to 50°C (No condensation)		
Enclosure		IP65		

Air Source Treatment Units

HMR35 Series Micro Precision Regulator



HMR35

- 1. The valve body is made of engineering plastic, the product is light weight and compact, making it idea for use on portable systems, such as ventilators, dental equipment, etc.
- 2. Special overflow structure consisting of spring, seal and valve core, sensitive movement, high regulating accuracy and good flow characteristics. Flange installation, simple and convenient.

Specification

Model	HMR35
Rated Flow	260 L/min
Highest Working Pressure	1.0 MPa
Working Medium	Compressed air
Ambient and Fluid Temperature	0-60°C
Pressure Regulating Range	0.05-0.35 MPa
Installation	Bottom flange installation
Installation Position	Anywhere

SS Series Air Source Treatment Unit

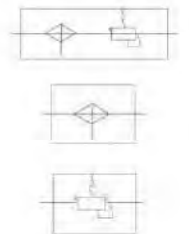


SSFC-200

Ordering Code

SS	FC	200
Series	Function Code	Port Size
SS Series	FC: Filter & Regulator+ Lubricator FR: Regulator & Filter L: Lubricator	200: G1/4" 300: G3/8" 400: G1/2"

Graphic Symbol



Specification

Model	SSFC/FRL-200	SSFC/FRL-300	SSFC/FRL-400
Port Size	G1/4"	G3/8"	G1/2"
Pressure Gauge Bore	G1/8"	G1/8"	G1/8"
Ensured Pressure Resistance	1.5 MPa		
Highest Working Pressure	1.0 MPa		
Environment and Fluid Temperature	5-60°C		
Protective Cover	Available		

The product have the function of filter, regulator and lubricator. It's stucture tightly, flow rate largely. output steadily and installation simply. The element has pressure gauge, installation bracket and lubricator. The lubricator can non-stop gas. All have the cup shape protect cover. aaUse safe and appearance elegant.

Air Source Treatment Units

SN Series Air Source Treatment Unit



SNFC07-200



SNFR07-200



SNF07-200



SNL07-200



SNR07-200

Specification

Model	SNFC07-200	SNFR07-200	SNF07-200	SNL07-200	SNR07-200
Operating Fluid	Compressed Air				
Range of Adjustable Pressure	0-0.8 MPa				
Operating Temperature Range	-20 – 50°C				
Joint Pipe Bore	G1/4"				

SU Series Air Source Treatment Unit

Ordering Code



SUC-04

SUWL-04

SUW-04

SU
Series
SU Series

C
Function
Code
C: Filter & Regulator+
Lubricator
WL: Filter & Regulator+
Lubricator
W: Filter & Regulator
R: Regulator & Filter
F: Filter
L: Lubricator

02
Port Size
02: G1/4"
03: G3/8"
04: G1/2"
06: G3/4"
08: G1"

□
Drain Type
Blank: Without
Drain Type
D: Auto Drain Type

Specification

Model	SUC/WL/W-02	SUC/WL/W-03	SUC/WL/W-04	SUC/WL/W-06	SUC/WL/W-08
	SUF/R/L-02	SUF/R/L-03	SUF/R/L-04	SUF/R/L-06	SUF/R/L-08
Port Size	G1/4"	G3/8"	G1/2"	G3/4"	G1"
Gauge	1/4"				
Operating Fluid	Air				
Pressure Range	0.05-0.85 MPa				
Max. Flow Rate (NL/min)	2500	2500	7900	8100	
Ambient Temperature	-10 – 60°C				
Filter Precision	Standard: 20 µm				
Oil Recommended	Turbine oil (ISO VG32)				
Cup Material	Polycarbonate				
Structure	Diston type				

SVHS Series Venting Safety Lock-out Valve



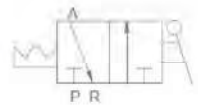
SVHS2000-02



SVHS3000-03



Graphic Symbol



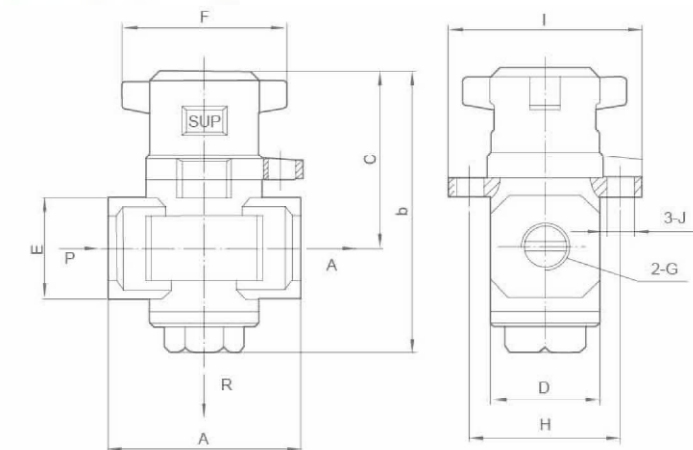
Ordering Code

S	VHS	3000	03
SACHIO Product	Venting Softing Lock-out Valve Code	Body Size	Port Size
		2000 3000 4000 5000	01: G1/8" 02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: G1"

Features

It is easy to be maintained because it can release the pressure of the hypo-pressure side when it is working. It can ensure the safty of the maintenance man because of the lockup function.

Overall Dimensions



Dimension Sheet

Model	G	Vent Size	A	E	C	D	E	F	H	I	J
SVHS2000-01	G1/8	G1/8	40	59	39	28	22	40	32	41	Φ6
SVHS2000-02	G1/4	G1/8	40	59	39	28	22	40	32	41	Φ6
SVHS3000-02	G1/4	G1/4	53	78	49	30	28	45	41.5	53	Φ7.5
SVHS3000-03	G3/8	G1/4	53	78	49	30	28	45	41.5	53	Φ7.5
SVHS4000-03	G3/8	G3/8	70	84	52	36	36	52	41.5	53	Φ7.5
SVHS4000-04	G1/2	G3/8	70	84	52	36	36	52	41.5	53	Φ7.5
SVHS5000-06	G3/4	G1/2	90	136	72	54	48	68	77	90	Φ8.5
SVHS5000-10	G1	G1/2	90	136	72	54	48	68	77	90	Φ8.5

SAV 2000~5000 Series Slow Start Valve



Ordering Code

S	AV	2000	02	G	AC220V	G
SACHIO Product	Slow Start Valve Code	Body Size	Port Size	Optional	Standard Voltage	Plug Mode
		2000 3000 4000 5000	02: G1/4" 03: G3/8" 04: G1/2" 06: G3/4" 10: 51	Blank: Without Gauge G: With Gauge	AC110V AC220V DC12V DC24V Other	G: Grommet type D: DIN Type
		Type of Control	Thread Type			
		Blank: Solenoid A: Pneumatic	Blank: G R: RC N: NPT			

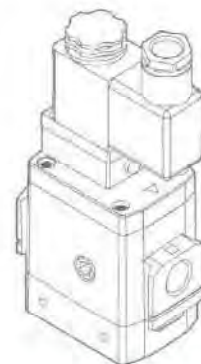
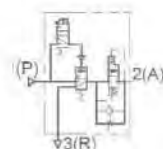
Features

This is a differential balanced valve automatically opens the air port fully when the downstream pressure is about 50% of the upstream pressure. Without a pilot, the upstream air flows downstream through the regulation needle. When an external or pneumatic solenoid signal is generated, the valve opens the main port create full flow. It doesn't relieve the downstream circuit.

Specification

Model	SAV2000-02	SAV3000-03	SAV4000-04	SAV5000-06	SAV5000-10
Port Size	G1/4"	G3/8"	G1/2"	G3/4"	G1"
Effective Sectional Area (mm²)	- 1(P)→2(A) 20 - 2(A)→3(R) 24	37 49	61 76	113 132	122 141
Applicable Pressure Range	0.3~1.0 MPa				
Ambient and Fluid Temperature	0~60°C				
Coil Voltage Rating	DC24V, 12V, AC220V, 110V				
Allow Voltage Fluctuation	Rated voltage -15% ~ +10%				
Coil Insulation Class	B level or the same level				
DC / Consumed Power DC	3W				
AC / Apparent Power AC	Start: 5.6 VA, Keep: 3.4 VA				
Port Size of Cap (Pneumatic Ver.)	G1/8				
Lowest Pressure (Pneumatic Ver.)	0.2 MPa				

Graphic Symbol



SAMC Series Exhaust Cleaner

Specification

Model	SAMC220-02	HAMC320-02	HAMC320-03	HAMC520-04	HAMC520-06
Port Size	G1/4"	G1/4"	G3/8"	G1/2"	G3/4"
Effective Sectional Area (mm²)	12	16	16	55	55
Maximum Flow Processing (L/min)	200	300	300	1000	1000
Ambient and Fluid Temperature	5~60°C				
Muffling Effect	More than 35 decibel				
Oil Mist Recovery Effect	More than 99.9%				
Recycling of Oil Mist Walk Way	Female thread hole				
Element One Time Test Pressure	< 0.1 MPa				

Instructions

1. Must be installed in a vertical position.
2. The filter element should be changed, When the Inlet pressure is 0.1 MPa or used more than 1 year.
3. No exposure to organic solvents.

Features

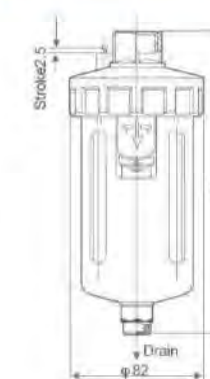
1. SAMC exhaust cleaning machine is the new generation of energy conservation and environmental protection products.
2. Used to absorb exhaust noise, recover the waste oil and water, to keep clean.
3. Mainly used to collect the noise and oil mist from the whole system.

HAD402 Series Auto Drain

Specification

Model	HAD402-02	HAD402-03	HAD402-04
Ensured Pressure Resistance	1.5 MPa		
Operating Pressure	0.15 MPa ~ 1.00 MPa		
Ambient and Fluid Temperature	5~60°C		
Port Size	G1/4"	G3/8"	G1/2"
Drain Bore	G1/8"		
Drain Status	Normal Open Type		
Working Medium	Compressed Air		

Overall Dimensions



HAD402-04

Graphic Symbol



Range of Application:

This product often applies to auto remove the see per at the lower places of piping, frozen type air drying machine. Oil separator, air storage tanks and the bottom of various air filters. It can be installed in the places inconvenient for manual discharge of sewage, such as higher lower and narrow places, especially there large consumption of air or frequent water drains. It can prevent the compressed air being re-polluted by con-dense water resulting from neglect of manual drain.

Features:

Auto Drain/Air Shutoff Drain/Manual Drain
The water cup is provided with metal protective cover

Points for Attention:

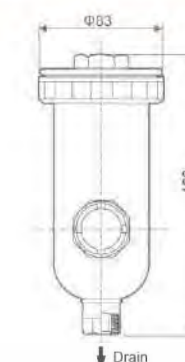
When using, the drainer should be installed vertically the drain port facing down

SAH402 Series High Pressure Auto Drain

Specification

Model	SAH402-02	SAH402-03	SAH402-04
Ensured Pressure Resistance	2.5 MPa		
Operating Pressure	0.15 MPa ~ 2.00 MPa		
Ambient and Fluid Temperature	5~60°C		
Port Size	G1/4"	G3/8"	G1/2"
Drain Bore	G1/8"	G1/4"	G3/8"
Drain Status	Normal Open Type		
Working Medium	Compressed Air		

Overall Dimensions



SAH402-04

Graphic Symbol



Range of Application:

This product serves as a drainer for high-pressure air source system and functions to divert water for the whole pipeline system. It is generally used for the equipment inconvenient for manual discharge of water or comparatively high frequency of water discharge such as the low spots of pipeline, freezing type air drier and the water deposit place of air chamber etc.

Features:

Auto Drain
Metal protective cover with view window

Points for Attention:

When using, the drainer should be installed vertically the drain port facing down.

SADV Series Auto Drain

Air Source Treatment Units



Ordering Code

SADV	200	FN/W
Series	Machine Type	Drain Principle
SADV Series	200 Series 300 Series 400 Series BC Series	F: Floating Ball Type N: Female Thread W: Male Thread

Ordering Code

SADV	200	G10
Series	Machine Type	Drain Principle
SADV Series	200 Series 300 Series 400 Series BC Series MA Series AC Series	G: Level Type (10,12,14,16 Number Stands for inner diameter of equipped water cup)

Range of Application:

This product is installed at the bottom of water cups for auto dischargers, air filters and air filter regulators and can auto discharge the condense water gathered in the water cup.

Technical Requirements:

Working medium: Compressed air
Ambient and media temperature: 5-60°C
Operating pressure range: 0.15~1.00Mpa

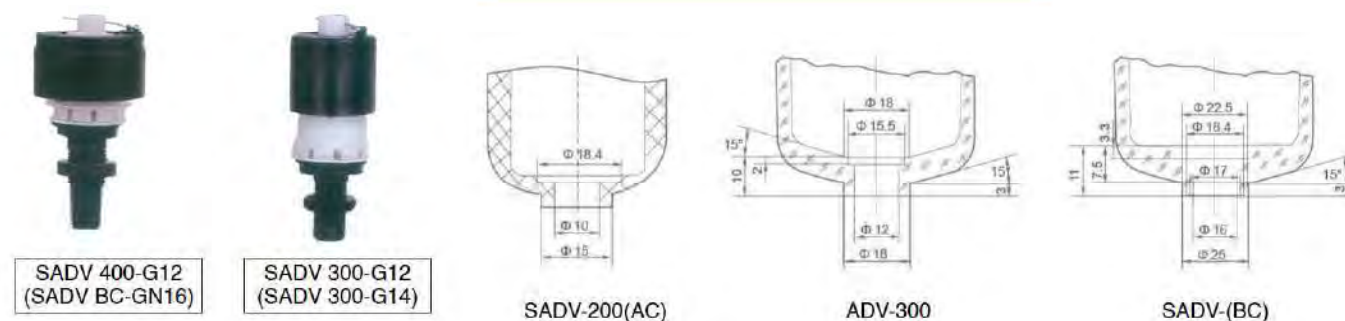
Features:

Auto drainer/Air Shut off Drain/Manual Drain

Points for Attention:

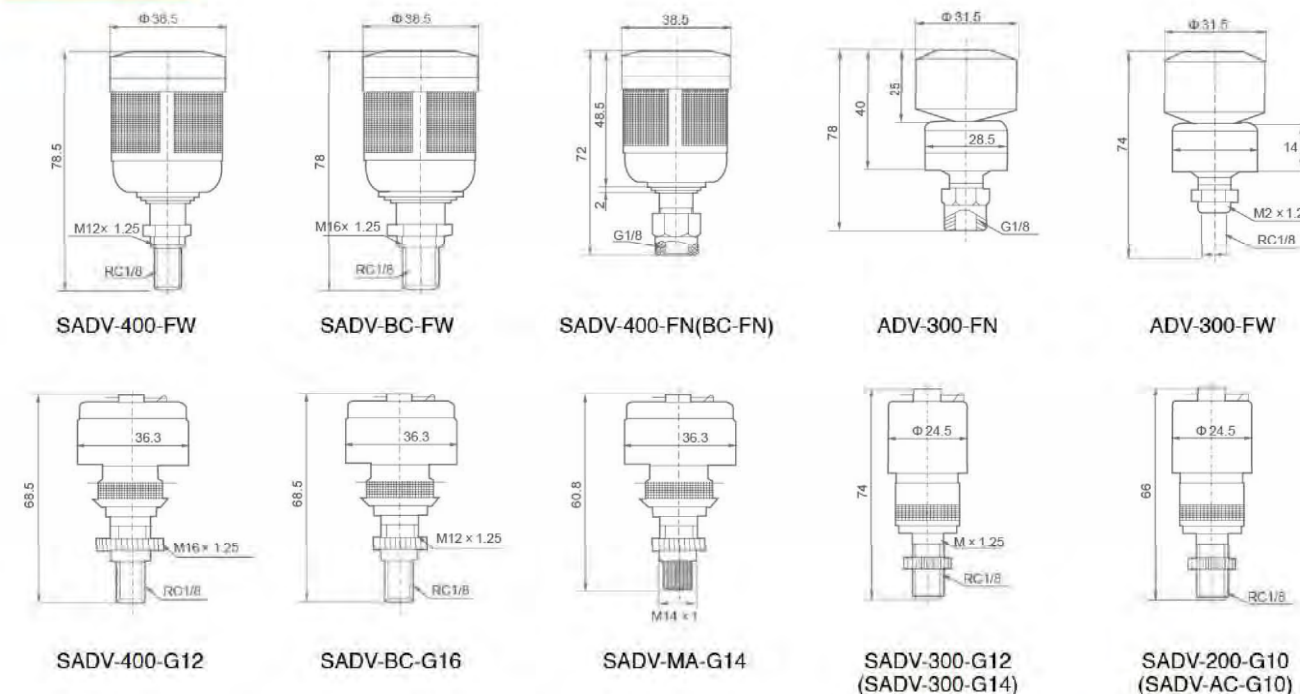
When using, the drainer should be installed vertically the drain port facing down

Dimensional Drawing of Water Cup Connecting Part



SADV Series Auto Drain

Ordering Code



SO Series Air Unit Accessories



Dimension Sheet

Model	B1	B2	B3	D1	D2
OHC-MINI	2	19	7.3	4.3	43
OHC-MIDI/MAXI	3	19	8.3	5.3	70

Model	H2	H3	H4	L1
OHC-MINI	35	5.5	11	12
OHC-MIDI/MAXI	60	16.5	22	14

Dimension Sheet

Model	A	B	C	D	E	F	G
OHO-MINI/MAXI	22.5	36.5	35	56	40	12	6.5
OHO-MIDI/MAXI	30	62.5	48	70	53	12	8.5

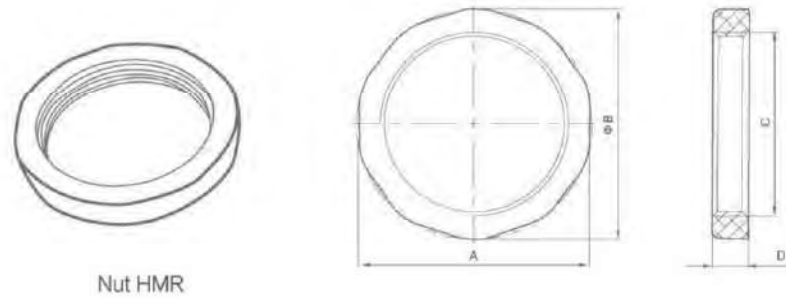
Model	H	I	J	K	L	M	N
OHO-MINI/MAXI	10	12	20	40.4	15	4	2
OHO-MIDI/MAXI	10.5	17.5	27	55.5	20	4	2

SO Series Air Unit Accessories

Dimension Sheet

Model	A	B
HMR-MINI/MAXI	44	45
HMR-MIDI	60	62

Model	C	D
HMR-MINI/MAXI	M36×1.5	7
HMR-MIDI	M52×1.5	8



Nut HMR



Pressure Gauge OMA

Specification

Model	Nominal Size	Pneumatic Connection	Indicating Range
OMA-10-1/8	40	G1/8	0-10 bar
OMA-16-1/8			0-16 bar
OMA-10-1/4	50	G1/4	0-10 bar
OMA-16-1/4			0-16 bar

The Pressure gauge is used to measure and display the pressure of the control system.

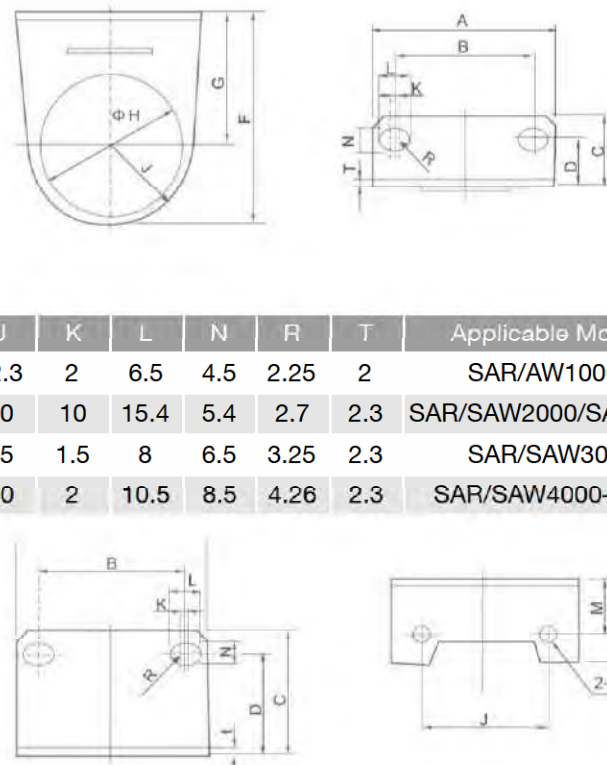
SA Series Air Unit Accessories

Dimension Sheet

Model	A	B	C	D	F	G	ΦH	J	K	L	N	R	T	Applicable Model
B120	40	28	17	11	37.8	25	20.5	12.3	2	6.5	4.5	2.25	2	SAR/AW1000
B220	55	34	25	19	50	30	33.5	20	10	15.4	5.4	2.7	2.3	SAR/SAW2000/SAR2500
B320	53	40	21.5	14	64	39	42.5	25	1.5	8	6.5	3.25	2.3	SAR/SAW3000
B420	70	54	27	18	79.2	49.2	52.5	30	2	10.5	8.5	4.26	2.3	SAR/SAW4000-5000



Bracket for AL/AF



Bracket for AR/AW

Dimension Sheet

Model	A	B	C	D	F	G	ΦH	J	K	L	N	R	T	Assembly Screw	Applicable Model
B240	40	27	33	27	18	4.5	26	3	8.4	14	5.4	2.7	2.3	M4×8	SAF/SAL2000
B340	53	40	39	32	22.5	4.5	35	1.5	8	19	6.5	3.25	2.3	M4×8	SAF/SAL3000
B440	70	54	47	38	31.5	5.5	47	2	10.5	20	8.5	4.25	2.3	M5×10	SAF/SAL4000
B540	70	54	47	38	27.5	5.5	47	2	10.5	20	8.5	4.25	2.3	M5×10	SAF/SAL4000-06
B640	90	66	64	52	43	6.5	60	2	13	29	11	5.5	3.2	M6×10	SAF/SAL5000

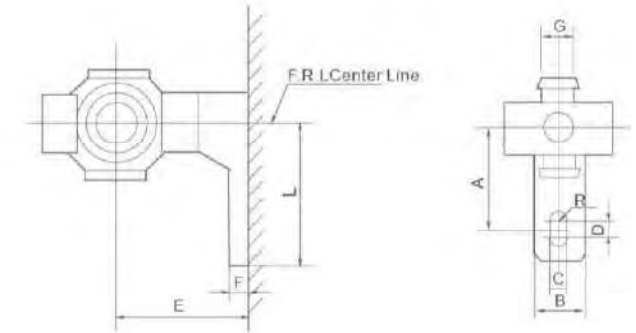
SA Series Air Unit Accessories

Dimension Sheet

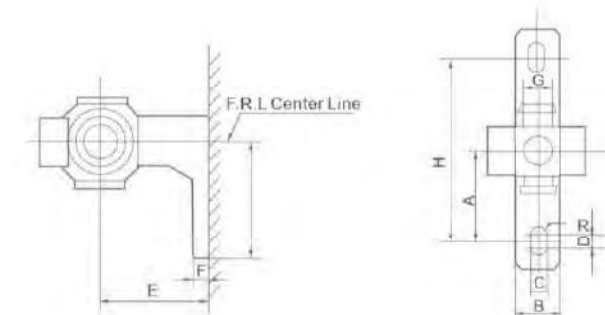
Model	A	B	C	D	E	F	G	R	L	Applicable Model
B110L	20	12	4.5	3	25	5	8	2.25	27	SAC1000
B210L	24	15	5.5	3	30	5	10	2.75	33	SAC2000
B310L	35	16	7	4	41	7	11	3.5	45	SAC2500-3000
B410L	40	22	9	4	50	7	14	4.5	50	SAC4000
B510L	40	22	9	4	50	7	14	4.5	50	SAC4000-06
B610L	50	23	12	4	69.8	10.5	15	6	63	SAC5000



Spacer With L-Type Bracket



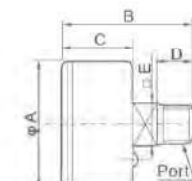
Spacer With T-Type Bracket



Dimension Sheet

Model	A	B	C	D	E	F	G	H	R	L	Applicable Model
B110T	20	12	4.5	3	25	5	8	40	2.25	27	SAC1010
B210T	24	15	5.5	3	30	5	10	48	2.75	33	SAC2010
B310T	35	16	7	4	40	7	11	70	3.5	45	SAC3010
B410T	40	22	9	4	50	7	14	80	4.5	50	SAC4000
B510T	40	22	9	4	50	7	14	80	4.5	50	SAC4010-06
B610T	50	23	12	4	69	10.5	15	100	6	63	SAC5010

Pressure Gauge



Model	Pressure Range	Port	A	B	C	D	E	Applicable Model
G27-10-R1	0-1MPa (Red)	G1/16"	26	17.5	11	6.5	11	SAR1000 SAW1000
G36-10-01		G1/8"	42	38.5	24	10	11	SAR2000-3000 SAW2000-3000
G46-10-02	0-150PSI (Blue)	G1/4"	52.5	43.5	25	10	14	SAR4000-5000 SAW4000-5000

STANDARD CYLINDERS

Standard cylinder is composed of which is most regular pneumatic cylinder. SACHIO manufactured standard cylinder for over 20 years. The bore range is from 32mm to 320mm. Our standard cylinder include: DNC(ISO6431, VDMA24562), DNG(SO15552), SI(506431), SC/SU, MB, CA2(Japanese Standard). We can also produce specialized cylinder according to customer's requirement.

Pneumatic Cylinders



DNC Series ISO15552 Standard Cylinder

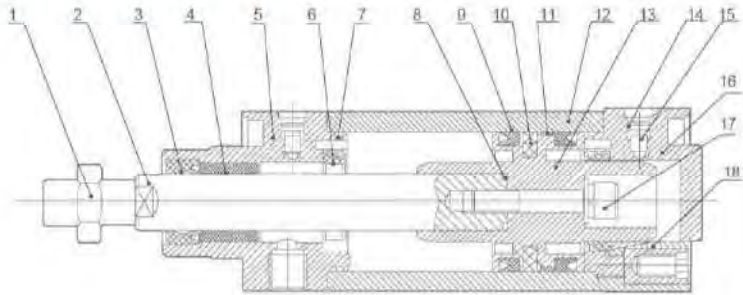


Pneumatic Cylinders

Ordering Code

DNC	50 × 100	25	S	☐
Series Code DNC: ISO15552 Standard Double Action Type DNT: ISO15552 Standard Double Action Type DNCD: ISO15552 Standard Two Axis Double Action Type DNQ: ISO15552 Two Axis Stroke Adjust Type	Cylinder Bore 32mm ~ 125mm	Stroke 25: 25mm 50: 50mm 75: 75mm	Magnet Code Blank: Without Magnet S: With Magnet	Fixed Type Blank: Normal Type LB: Front and back fixed type FA: Front cover fixed type (Front flange type) FB: Back cover fixed type (Back flange type) CA: Back cover fixed type (Single earring) CB: Back cover fixed type (Double earring) SDB: Back cover fixed type

Internal Structure



No.	Designation	No.	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Bearing
5	Front Cover	6	Buffering O-ring
7	O-ring	8	Piston rod O-ring
9	Piston O-ring	10	Magnet (Optional)
11	Wear Ring	12	Barrel
13	Piston	14	Cushion Seal
15	Cushion Needle	16	Back Cover
17	Hex Socket Screw	18	Profile Bolt

Specification

Bore (mm)	32	40	50	63	80	100	125
Motion Pattern	Double Action						
Working Medium	Filtered Air						
Compression Pressure	1.5 MPa						
Max. Operating Pressure	1.0 MPa						
Min. Operating Pressure	0.1 MPa						
Buffer	Air Buffer (Standard)						
Condition Temperature	-5 ~ 70°C						
Operating Speed	50 ~ 800 mm/s						
Port Size	G1/8"	G1/4"	G3/8"		G3/8"	G1/2"	

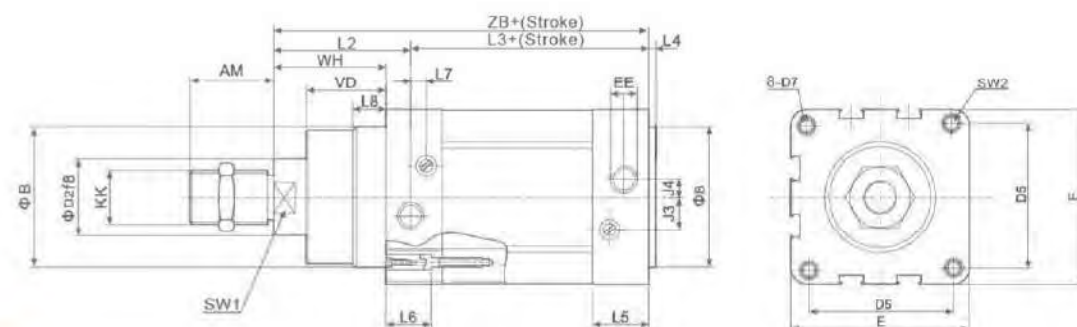
Stroke

Bore	Standard Stroke	Buffer Stroke	Stroke Range
32	25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	20	10~2000
40		22	
50			
63			
80			
100		32	
125	35		

DNC Series ISO15552 Standard Cylinder

Overall Dimensions

Normal Type
DNC-S

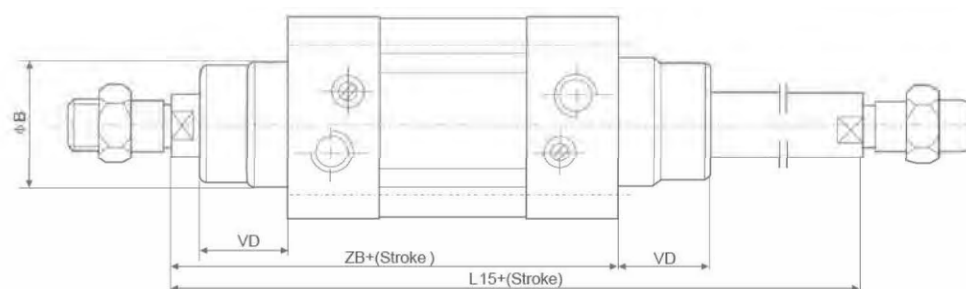


Dimension Sheet

Bore	AM	E	D2	D5	D7	E	EE(G)	J3	J4	KK	L2	L3	L4	L5	L6	L7	L8	SW1	SW2	VD	WH	ZB
32	22	30	12	32.5	M6	45	1/8	6	5.2	M10×1.25	40	80	4	26	22	3.3	8	10	6	16	26	120
40	24	35	16	38	M6	54	1/4	8	6	M12×1.25	46	88	4	29.6	22	3.6	10	13	6	20	30	135
50	32	40	20	46.5	M8	64	1/4	10	8.5	M16×1.5	54	90	4	30	22	5.1	10	17	8	27	37	144
63	32	45	20	56.5	M8	75	3/8	12.4	10	M16×1.5	57	101	4	35.5	22	6.6	10	17	8	27	37	158
80	40	45	25	72	M10	93	3/8	12.5	8	M20×1.5	68	109	4	36	22	10.5	10	22	10	34.5	46	174
100	40	55	25	89	M10	110	1/2	11.8	10	M20×1.5	71	118	4	39	25	8	12.5	22	10	38	51	189
125	54	60	32	110	M12	134	1/2	13	8	M27×2	95	128	6	44.7	30	14	12.5	28	12	46	65	223

Overall Dimensions

Double Piston Rod Type
DNC-D-S



Dimension Sheet

Bore (mm)	32	40	50	63	80	100	125
B	30	35	40	45	45	55	60
L15	146	165	182	194	220	240	298
VD	16	20	27	27	34.7	38.2	46
ZB	120	135	144	158	174	189	223

DNCB Series Booster Cylinder



DNCB 50 x 25 x 50

Specification

Working Medium	Filtered Air
Compression Pressure	1.5 MPa
Max. Operating Pressure	1.0 MPa
Min. Operating Pressure	0.1 MPa
Condition Temperature	-5 ~ 70 °C

Product Instruction

Booster cylinder combine 2 or more ISO15552 standard cylinder with the same bore and stroke. Create twice or multiple force as standard cylinder. The connection of 2 or more cylinders are linked with the same material. Compact structure and easy for installation.

DNG Series ISO15552 Standard Cylinder



DNG 200 x 100-S



DNG 250 x 200-S

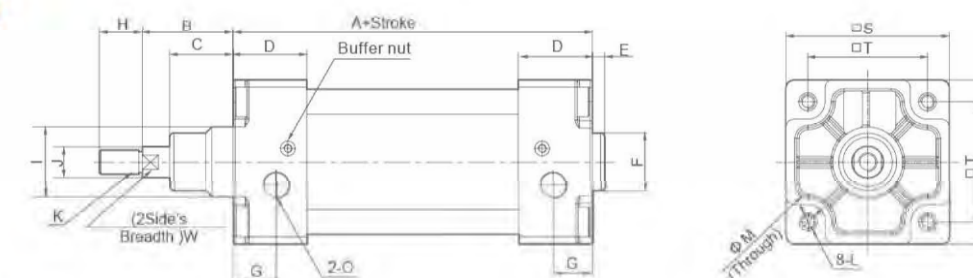
Ordering Code

DNG	160	×	100	—	25	—	S	—	
Series Code	Cylinder Bore		Stroke		Adjust Stroke		Magnet Code		Fixed Type
DNG: ISO15552 Standard Double Action Type	160mm-320mm				25: 25mm 50: 50mm 75: 75mm		Blank: Without Magnet S: With Magnet		Blank: Normal type LB: Front and back fixed type FA: Front cover fixed type (Front flange type) FB: Back cover fixed type (Back flange type) CA: Back cover fixed type (Single earring) CB: Back cover fixed type (Double earring)
DNGD: ISO15552 Standard Two Axis Double Action Type									
DNGJ: ISO15552 Two Axis Stroke Adjust Type									

Specification

Bore (mm)	160	200	250	320
Motion Pattern	Double Action			
Working Medium	Air			
Fixed Type	Normal type	FA type	FB type	CA type CB type LB type TC type
Working Pressure Range	0.1 ~ 1.0 MPa			
Ensured Pressure Resistance	1.5 MPa			
Operating Temperature Range	-5 ~ 60°C			
Operating Speed Range	50 ~ 500 mm/s			
Buffer Type	Adjustable Buffer			
Port Size	G3/4"		G1"	
Lubrication	Not required (Use Turbine oil ISO VG 32 when necessary)			

Overall Dimensions



Dimension Sheet

Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
160	160	80	60	50	6	Φ65	25	72	Φ65	40	M36×2	M16	Φ25 Φ30	150	140	G3/4"
200	180	95	70	50	6	Φ75	25	72	Φ75	40	M36×2	M16	Φ25 Φ30	220	175	G3/4"
250	200	105	87	52	10	Φ90	31	84	Φ90	50	M42×2	M20	Φ30	270	220	G1"
320	218	120	92	52	10	Φ110	31	96	Φ110	63	M48×2	M24	Φ34	340	270	G1"

SI Series ISO6431 Standard Cylinder



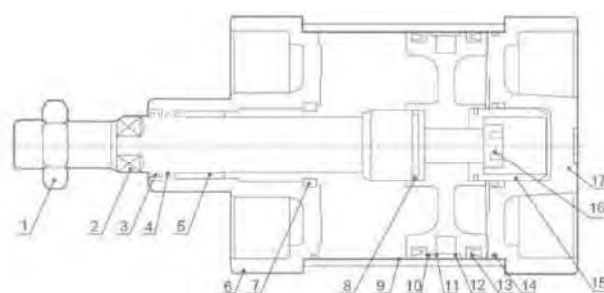
SI 50 × 100

SIJ 50 × 100-25

Ordering Code

SI	50	×	50	—	25	—	S	—	□
Series Code	Cylinder Bore		Stroke		Adjust Stroke		Magnet Code		Fixed Type
SI: ISO6431 Standard Double Action Type SID: ISO6431 Standard Two Axis Double Action Type SIJ: ISO6431 Two Axis Stroke Adjust Type	32mm~200mm				25: 25mm 50: 50mm 75: 75mm		Blank: Without Magnet S: With Magnet		Blank: Normal type LB: Front and back fixed type FA: Front cover fixed type (Front Flange Type) FB: Back cover fixed type (Back Flange Type) CA: Back cover fixed type (Single Earring) CB: Back cover fixed type (Double Earring) TC: Central trunnion type TC-M: Central trunnion type attaching foot seat

Internal Structure



No.	Designation	No.	Designation
1	Piston Rod Nut	10	Piston
2	Piston Rod	11	Wearing
3	Front Cover Seal Ring	12	Magnet (Optional)
4	O-ring	13	Piston O-ring
5	Bearing	14	Pipe Wall O-ring
6	Front Cover	15	Damping
7	Buffering O-Ring	16	Hex Socket Screw
8	Piston Rod O-Ring	17	Back Cover
9	Barrel		

Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Motion Pattern	Double Action								
Working Medium	Air								
Fixed Type	Normal type FA type FB type CA type CB type LB type TC type								
Working Pressure Range	0.1~0.9 MPa								
Ensured Pressure Resistance	1.35 MPa								
Operating Temperature Range	-5~70°C								
Operating Speed Range	50~800 mm/s								
Buffer Type	Adjustable Buffer								
Buffer Stroke (mm)	24								
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"				

SI Series ISO6431 Standard Cylinder

Cylinder theory output

Cylinder inside Diameter	External Diameter of Piston Rod	Motion Pattern	Compression Area(cm²)	Air Pressure(kgf/cm²)								
				1	2	3	4	5	6	7	8	9
32	12	Double Action	Press Side	8.04	16.08	24.12	32.16	40.20	48.24	56.28	64.32	72.36
			Pull Side	6.90	13.80	20.07	27.60	34.50	41.40	48.30	55.20	62.10
40	16	Double Action	Press Side	12.56	25.12	37.68	50.24	62.80	75.36	87.92	100.24	113.04
			Pull Side	10.55	21.10	31.65	42.20	52.75	63.30	73.85	84.40	94.95
50	20	Double Action	Press Side	19.63	39.26	58.89	78.52	98.15	117.78	137.41	157.04	176.67
			Pull Side	16.49	32.98	49.47	65.96	82.45	98.94	115.43	139.92	148.41
63	20	Double Action	Press Side	31.17	62.34	93.51	124.68	155.85	187.02	218.19	249.36	290.53
			Pull Side	28.03	56.06	81.12	112.12	140.15	168.18	196.21	224.24	252.27
80	25	Double Action	Press Side	50.26	100.52	150.72	201.04	251.30	301.56	351.82	402.08	452.34
			Pull Side	45.36	90.72	136.08	181.44	226.80	272.16	317.52	362.88	408.24
100	25	Double Action	Press Side	78.53	157.06	235.6	314.12	392.65	471.18	549.71	628.24	706.77
			Pull Side	71.47	142.94	214.41	285.88	357.35	428.82	500.29	571.76	643.23
125	32	Double Action	Press Side	122.72	245.44	368.16	490.88	613.60	736.32	859.04	981.76	1104.48
			Pull Side	114.68	229.36	344.04	458.72	573.40	688.08	802.76	917.44	1032.12
160	40	Double Action	Press Side	201.06	402.12	603.18	804.24	1005.3	1206.36	1407.42	1608.48	1809.54
			Pull Side	188.49	376.98	565.47	753.96	942.45	1130.94	1319.43	1507.92	1696.41
200	40	Double Action	Press Side	314.16	628.32	942.48	1256.64	1570.8	1884.96	2199.12	2513.28	2827.44
			Pull Side	301.57	603.14	904.71	1206.28	1507.8	1809.42	2100.99	2412.56	2714.13

Stroke

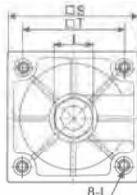
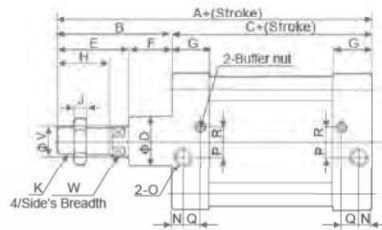
Bore (mm)	Standard Stroke																Max. Stroke	Permissible Stroke
32	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500		1000	2000
40	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
50	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
63	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
80	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
100	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
125	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
160	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800
200	25	50	75	80	100	125	160	175	200	250	300	350	400	450	500	600	700	800

■ If you need special stroke, please Tell us, we can make according your require.

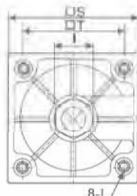
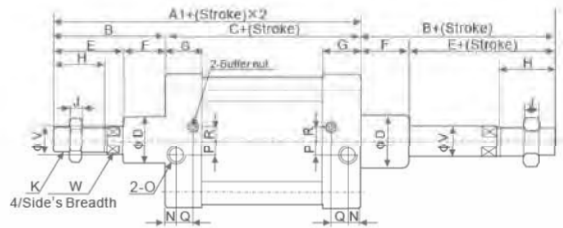
SI Series ISO6431 Standard Cylinder

Overall Dimensions

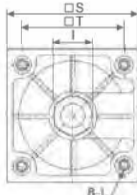
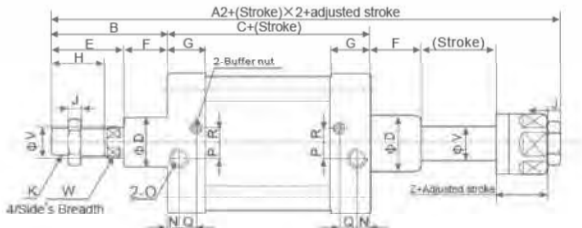
SI



SID



SUJ



Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K	L
32	142	190	185	48	94	30	32	16	27.5	22	17	6	M10x1.25	M6
40	159	213	205	54	105	35	36	18	29	24	19	7	M12x1.25	M8
50	175	244	231	70	105	40	45	25	30	32	24	8	M16x1.5	M8
63	190	259	245	70	120	45	46	24	31	32	24	8	M16x1.5	M10
80	214	300	283	86	128	45	56	30	35	40	30	10	M20x1.5	M10
100	227	316	298	89	138	55	57	32	36	40	30	10	M20x1.5	M10
125	278	396	368	118	160	60	73	45	46	54	41	10	M27x2	M12
160	322	484	448	152	180	65	94	58	50	72	55	18	M36x2	M16
200	337	494	452	157	180	75	100	51	51	72	55	18	M36x2	M16

Bore/Symbol	N	O	P	Q	R	S	T	V	W	Z
32	13.5	G1/8"	4	7.5	7	47	32.5	12	10	21
40	16	G1/4"	6	8.5	9	53	38	16	13	21
50	15.5	G1/4"	8.5	7.5	7.5	65	46.5	20	17	23
63	16.5	G3/8"	7.5	8.5	9	75	56.5	20	17	23
80	16.5	G3/8"	11	8.5	13.5	95	72	25	22	29
100	18.5	G1/2"	13.5	9.5	14.5	115	89	25	22	29
125	23	G1/2"	14	12	14	140	110	32	28	35
160	25	G3/4"	15	12	20	180	140	40	36	40
200	25	G3/4"	15	12	20	220	175	40	36	40

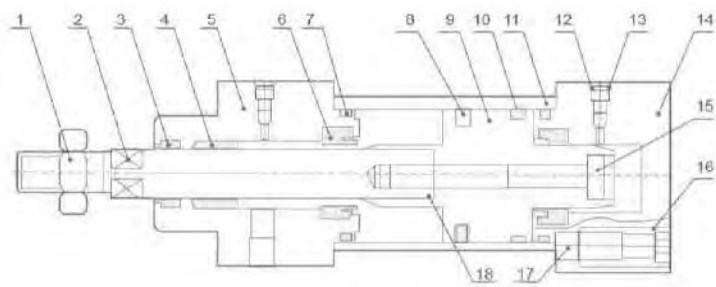
SC/SU Series Standard Cylinder



Ordering Code

Series Code	Cylinder Bore	Stroke	Adjust Stroke	Magnet Code	Fixed Type
SC	50	50	25	S	
SC: Standard double Action (Tie-rod Type)	32mm-200mm		25: 25mm 50: 50mm 75: 75mm	Blank: Without Magnet S: With Magnet	Blank: Normal type LB: Front and back fixed type FA: Front cover Fixed type (Front flange type) FB: Back cover Fixed type (Back flange type) CA: Back cover Fixed type (Single earring) CB: Back cover Fixed type (Double earring) TC: Central trunnion type TC-M: Central trunnion type attaching foot seat

Internal Structure



No.	Designation	No.	Designation
1	Piston Rod Nut	10	Wear Ring
2	Piston rod	11	Barrel
3	Front cover seal ring	12	Buffering Barrel O-ring
4	Bearing	13	Damping adjustable screw
5	Front cover	14	Back cover
6	Buffering O-ring	15	Hex socket screw
7	Pipe wall O-ring	16	Tie Rod Nut
8	Piston O-ring	17	Tie rod
9	Piston	18	Piston rod O-ring

Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Motion Pattern	Double Action								
Working Medium	Air								
Fixed Type	Basic type, FA type, FB type, CA type, CB type, LB type, TC type, TC-M type								
Operating Pressure Range	0.1-0.9 kgf/cm ²								
Ensured Pressure Resistance	1.35 MPa								
Operating Temperature Range	-5-70°C								
Operating Speed Range	300-800 mm/s								
Buffer Type	Adjustable Buffer								
Buffer Stroke	24								
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"				

SCD, SCJ Fixed Type: FA, FB, LB, TC & TC-M Type.

SC / SU Series Standard Cylinder

Cylinder theory output

Cylinder inside Diameter	External Diameter of Piston Rod	Motion Pattern	Compression Area (cm²)	Air Pressure (kgf/cm²)								
				1	2	3	4	5	6	7	8	9
32	12	Double Action	Press Side	8.04	8.04	16.08	24.12	32.16	40.2	48.24	56.28	64.32
			Pull Side	6.62	6.62	13.24	19.86	26.48	33.1	39.72	46.34	52.96
40	16	Double Action	Press Side	12.56	12.56	25.12	37.68	50.24	62.8	75.36	87.92	100.48
			Pull Side	10.55	10.55	21.1	31.65	42.2	52.75	63.3	73.85	84.4
50	20	Double Action	Press Side	19.63	19.63	39.26	58.89	78.52	98.15	117.78	137.41	157.04
			Pull Side	16.49	16.49	32.98	49.47	65.96	82.45	98.94	115.43	131.92
63	20	Double Action	Press Side	31.17	31.17	62.34	93.51	124.68	155.85	187.02	218.19	249.36
			Pull Side	27.03	27.03	54.06	81.09	108.12	135.15	162.18	189.21	216.24
80	25	Double Action	Press Side	50.26	50.26	100.52	150.78	201.04	251.3	301.56	351.82	402.08
			Pull Side	45.29	45.29	90.58	135.87	181.16	226.45	271.74	317.03	362.32
100	25	Double Action	Press Side	78.55	78.55	157.08	235.63	314.16	392.7	471.24	549.78	628.32
			Pull Side	72.72	72.72	145.44	218.16	290.88	363.6	436.32	509.04	581.76
125	32	Double Action	Press Side	122.72	122.72	245.44	368.16	490.88	613.6	736.32	859.04	981.76
			Pull Side	114.58	114.58	229.16	343.74	458.32	572.9	687.48	802.06	916.64
160	40	Double Action	Press Side	201.06	201.06	402.12	603.18	804.24	1005.3	1206.36	1407.42	1608.48
			Pull Side	188.48	188.48	376.96	565.44	753.92	942.4	1130.88	1319.36	1507.84
200	40	Double Action	Press Side	314.16	314.16	628.32	942.48	1256.64	1570.8	1884.96	2199.12	2513.28
			Pull Side	301.57	301.57	603.14	904.71	1206.28	1507.85	1809.42	2110.99	2412.56

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible Stroke
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600	1000	2000
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
80	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
100	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

SCT Series Multi-Position/Booster Cylinder



SCT 100 x 60 x 100

Specification

Working Medium	Air
Operating Pressure Range	0.1~0.9 kgf/cm²
Ensured Pressure Resistance	1.35 MPa
Operating Temperature Range	-5~70°C

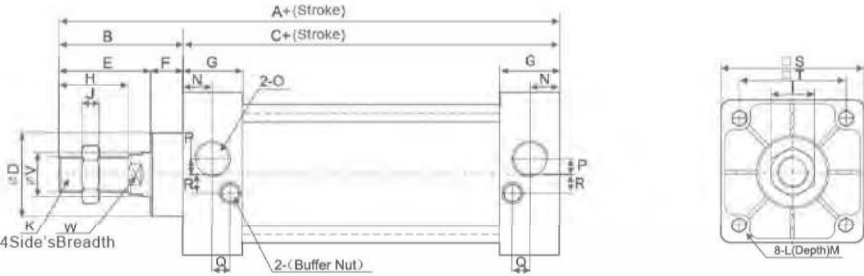
Product Instruction

Booster cylinder combine 2 or more standard cylinder with the same bore and stroke, Create twice or multiple force as standard cylinder. The connection of 2 or more cylinders are linked with the same material Compact structure and easy for installation.

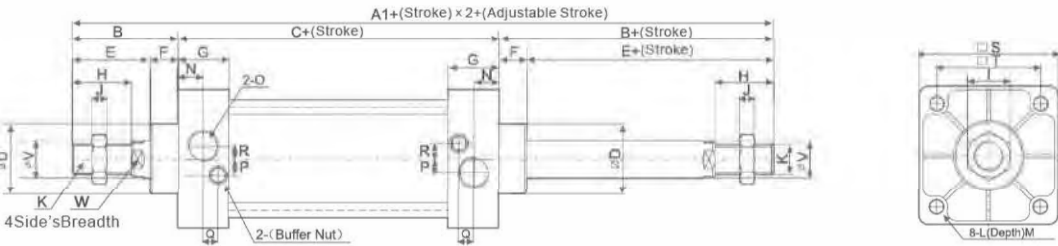
SC / SU Series Standard Cylinder

Overall Dimensions

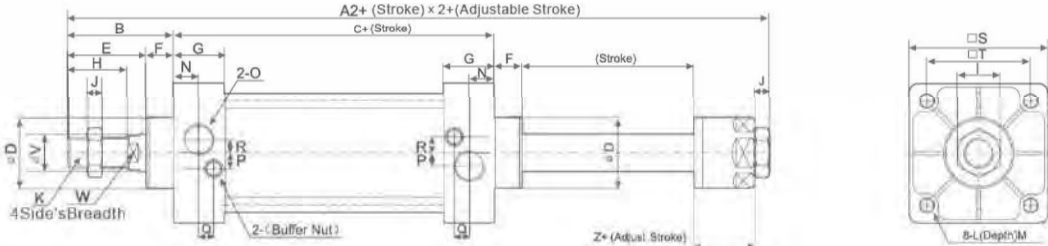
SC



SCD



SCJ



Dimension Sheet

Bore Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K
32	140	187	182	47	93	28	32	15	27.5	22	17	6	M10x1.25
40	142	191	185	48	93	32	34	15	27.5	24	17	7	M12x1.25
50	150	207	196	57	93	36	42	15	27.5	32	23	8	M16x1.5
63	153	210	199	57	93	36	42	15	27.5	32	23	8	M16x1.5
80	183	258	242	75	108	47	54	21	33	40	26	10	M20x1.5
100	183	258	248	75	108	47	54	21	33	40	26	10	M20x1.5
125	239	342	363	104	136	56	71	32	40	54	36	10	M27x2
160	289	412	450	121	166	65	93	30	50	72	50	16	M36x2
200	337	494	451	132	180	75	100	57	50	72	50	16	M36x2

Bore Symbol	L	M	N	O	P	Q	R	S	T	V	W	Z
32	M6x1	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10	21
40	M8x1	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14	21
50	M8x1	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17	23
63	M8x1.25	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17	23
80	M10x1.5	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22	29
100	M10x1.5	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22	29
125	M12x1.75	21	16.5	G1/2"	/	/	/	140	4110	32	28	33
160	M16x2	25	26	G3/4"	/	/	/	180	140	40	38	38
200	M16x2	25	22.5	G3/4"	/	/	/	220	175	40	42	42

MB Series Standard Cylinder (Japanese Standard)



Ordering Code

MB **50** × **50** - **S** -

Series Code
Japanese standard
Double Action Type

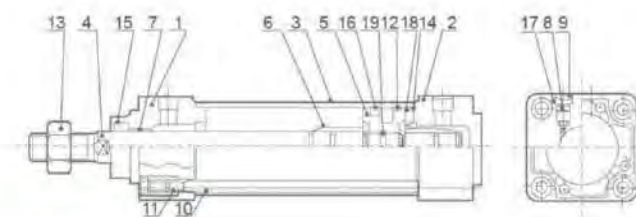
Cylinder Bore
32mm~100mm

Stroke

Magnet Code
Blank: Without Magnet
S: With Magnet

Fixed Type
Blank: Normal type
LB: Front and back fixed type
FA: Front cover fixed type (Front flange type)
FB: Back cover fixed type (Rear flange type)
CA: Back cover fixed type (Single earring)
CB: Back cover fixed type (Double earring)
TC: Central trunnion type
TC-M: Central trunnion type
attaching foot seat

Internal Structure



No.	Designation	No.	Designation	No.	Designation
1	Front cover	6	Buffering	11	Tie rod nut
2	Back cover	7	Bearing	12	Wear ring
3	Barrel	8	Cushion Screw	13	Piston rod nut
4	Piston rod	9	Cushion Seal	14	Buffer seal ring
5	Piston	10	Tie rod	15	Piston O-ring

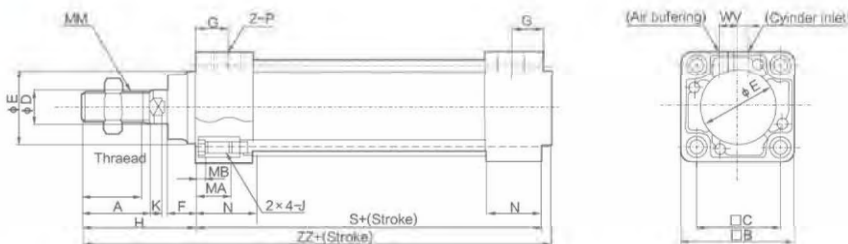
Specification

Cylinder Diameter	32	40	50	63	80	100
Working Medium	Air					
Action Type	Double acting					
Proof Pressure	15.3kgf/cm ² (1.5Mpa)					
Max. Pressure	10.2kgf/cm ² (1.0Mpa)					
Min. Pressure	0.5kgf/cm ² (0.05Mpa)					
Environment and Fluid Temp	-10~+60°C					
Piston Velocity	50~1000mm/s					
Buffering	Air buffering					
Stroke Tolerance	0~250 ^{+1.1} , 251~1000 ^{+1.1} , 1001~1500 ^{+1.4}					
Ref(F) Joint Size	G1/8"	G1/4"		G3/8"	G1/2"	

Stroke

Bore	Standard Stroke
32	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
63	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
80	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 750
100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 750

Overall Dimensions



Dimension Sheet

Bore Symbol	Stroke Range	Thread Length Available	A	BB	BC	ΦD	ΦE	F	G	MA	MB	J	K	MM	N	P	S	V	W	H	ZZ
32	~500	19.5	22	46	32.5	12	30	13	13	16	4	M8×1.0	6	M10×1.25	27	1/8	84	4	6.5	47	135
40	~500	27	30	52	38	16	35	13	14	16	4	M8×1.0	6	M14×1.5	27	1/4	84	4	9	51	139
50	~600	32	35	65	46.5	20	40	14	15.5	16	5	M8×1.25	7	M18×1.5	31.5	1/4	94	5	10.5	58	158
63	~600	32	35	75	56.5	20	45	14	15.5	16	5	M8×1.25	7	M18×1.5	31.5	3/8	94	9	12	58	156
80	~750	37	40	95	72	25	45	20	19	16	5	M10×1.5	10	M22×1.5	38	3/8	114	11.5	14	72	190
100	~750	37	40	114	89	30	55	20	19	16	5	M10×1.5	10	M26×1.5	38	1/2	114	17	15	72	190

CA2 Series Standard Cylinder



Ordering Code

CA2 **40** × **100**

Series Code
CA2B: Normal Type
CDA2B: Attach Magnet Type

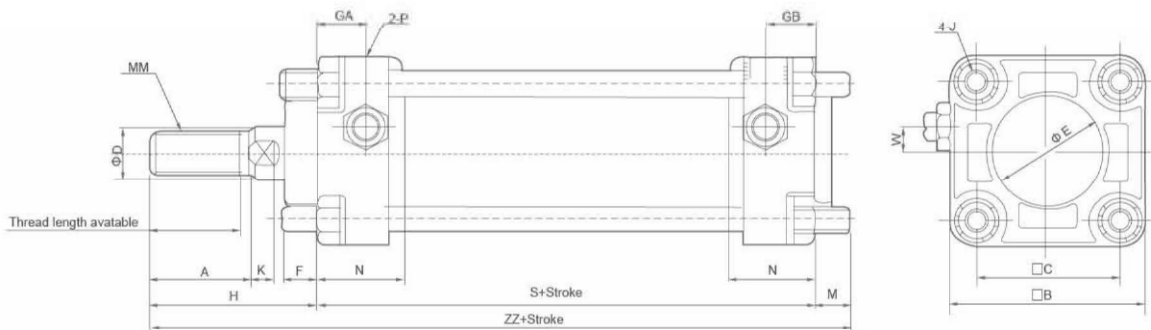
Cylinder Bore
40mm~100mm

Stroke

Specification

Bore (mm)	40	50	63	80	100
Working Medium	Air				
Motion Pattern	Double action type				
Ensured Pressure Resistance	15.3kgf/cm ² (1.5Mpa)				
Max. pressure	10.2kgf/cm ² (1.0Mpa)				
Min. pressure	0.5kgf/cm ² (0.05Mpa)				
Operating Temperature Range °C	5~+60°C				
Operating Speed Range	50~500mm/s				
Buffering	Air buffering				
Margin of Stroke Error (mm)	~0~250 ^{+1.0} , 251~1000 ^{+1.4} , 1001~1500 ^{+1.8}				
Port size	G1/4"	G3/8"	G3/8"	G1/2"	G1/2"

Overall Dimensions



Dimension Sheet

Bore Symbol	Stroke Range	Thread Length Available	A	BB	BC	ΦD	ΦE	F	GA	GB	J	K	M	MM	N	P	S	W	H	ZZ
40	~500	27	30	60	44	16	32	10	15	15	M8×1.25	6	11	M14×1.5	27	1/4	84	8	51	146
50	~600	32	35	70	52	20	40	10	17	17	M8×1.25	7	11	M18×1.5	27	3/8	90	0	58	159
63	~600	32	35	85	64	20	40	10	17	17	M10×1.25	7	14	M18×1.5	31	3/8	98	0	58	170
80	~750	37	40	102	78	25	52	14	19	21	M12×1.75	11	17	M22×1.5	37	1/2	116	0	71	204
100	~750	37	40	116	92	30	52	14	21	21	M12×1.75	11	17	M26×1.5	40	1/2	126	0	72	215

SEN / SENG Series Guide Units



SEN 25-100-GF



SENG 40-100-GF

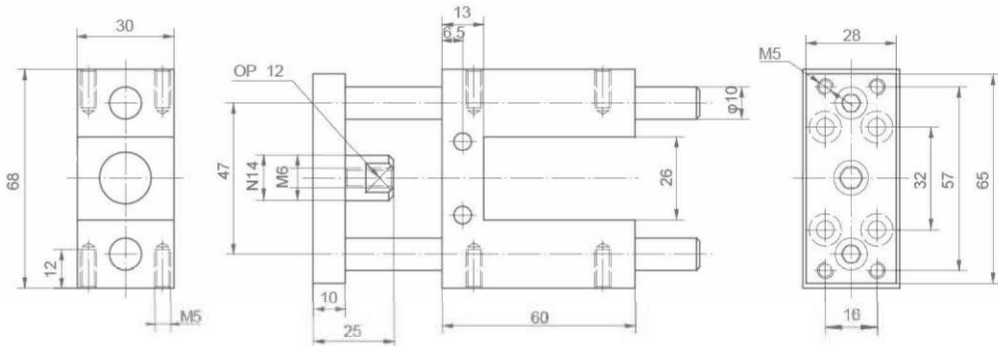
Ordering Code

SENG	50	100	GF
Series Code	Cylinder Bore	Stroke	Guide
SEN: Guided Unit for ISO 6432 SENG: Guided Unit for ISO 15552	SEN: 8mm-25mm SENG: 32mm-100mm		GF: Plain-bearing Guide KF: Recirculating Ball Bearing Guide

Specification

Model	SEN...				SNG...						
Bore	8/10	12/16	20	25	32	40	50	63	80	100	
Stroke (mm)	1...100	1...200	1...250		1...500						
Guide					Plain-bearing Guide						
Installation					Recirculating Ball						
Installation Position					Any						
Operating Range Temperature					-20 ~ +80 °C						

Overall Dimensions



MINI/COMPACT CYLINDERS

Mini/Compact cylinder can save the mounting space maximally, they are widely used on the compact and well-designed machines, the demand is growing fast in the world. Mini cylinder include: MA6432(ISO6432), MA, CM2, CJ2(Stainless Steel), MAL(Aluminum), the bore range is from 8mm to 40mm, Compact cylinder include: ADN, ADVU(ISO standard), CQ2(Japanese Standard) and SDA. The bore range is from 10 mm to 100mm.

Pneumatic Cylinders



MA6432 Series Stainless Steel Mini Cylinder (ISO6432)



MA6432

Series Code

MA: Double Action Type
MSA: Single-Extrusion Type
MTA: Single Drawing-in Type
MAD: Double-shaft Double Action Type
MACD: Double-shaft Double Action Damping Type (Above Φ16)
MAJ: Double-shaft and adjustable stroke type
MAC: With Cushion Type (Above Φ16)

Back Cover Type

Blank: Fishtail Type
CM: Rounded Type
U: Horizontal Type
F: Copper Bush Type

20 × 50

Cylinder Bore

8mm~25mm

25

Stroke

0~100mm

S

Adjustable Stroke Type

Blank: Without Magnet
S: With Magnet

Magnet Code

Blank: Normal type
LB: Front and back fixed type
FA: Front cover fixed type
SDB: Back cover swinging type
U: Back cover fixed type

Internal Structure

No.	Designation	No.	Designation
1	Piston Rod	9	Barrel
2	Piston Rod Nut	10	Piston rod O-ring
3	Front Cover Seal	11	Piston O-ring
4	Bearing	12	Magnet (Optional)
5	Hexagon Screw	13	Wear Ring
6	Front Cover	14	Piston
7	Cushion Ring	15	Hex Socket Screw
8	O-ring	16	Back Cover

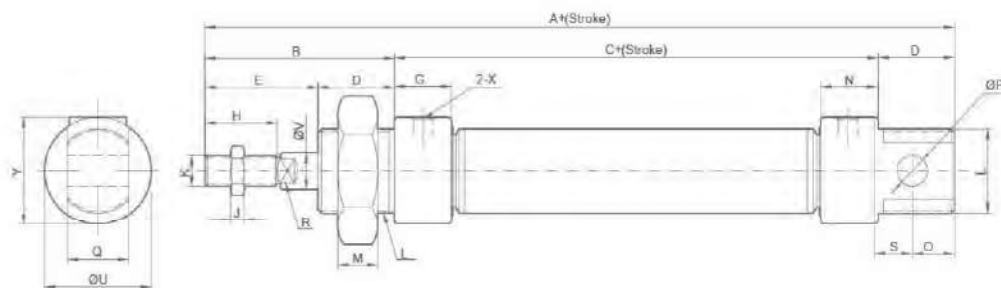
Bore (mm)		8	10	12	16	20	25
Fluid		Air					
Motion pattern		Double Action or Single Action					
Ensured Pressure Resistance		15.3kgf/cm² (1.5Mpa)					
Max. pressure		10.2kgf/cm² (1.0Mpa)					
Min. pressure		0.5kgf/cm² (0.05Mpa) 1kgf/cm²(0.1Mpa)					
Environment and fluid temp		-10~+80°C (Internal Magnetic Install by Tach strap: Type Max:60°C)					
Piston velocity		Rubber Buffer (Standard) / Air Buffer (Option)					
Buffering		50~750mm/s					
Kinetic energy tolerance (kgf/cm)		0.2	0.3	0.4	0.9	2.7	4
Port Size		M5x0.8		-	-		G1/8"

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
8	10, 25, 40, 50, 80, 100, 125, 160, 200	400
10	10, 25, 40, 50, 80, 100, 125, 160, 200	400
12	10, 25, 40, 50, 80, 100, 125, 160, 200	400
16	10, 25, 40, 50, 80, 100, 125, 150, 175, 200	1000
20	25, 40, 50, 80, 100, 125, 150, 175, 200, 250, 300	1000
25	25, 40, 50, 80, 100, 125, 150, 175, 200, 250, 300	1000

Pneumatic Cylinders

MA6432 Series Stainless Steel Mini Cylinder (ISO6432)

Overall Dimensions



Dimension Sheet

Bore/Symbol	A	B	C	D	E	G	H	J	K	L	M	N	P	S	R	U	V	W	X	Y	Z
8	86	28	46	12	16	9	12	7	3	10	M4x0.7	9	4	6	-	15	4	8	15	M12x1.5	M5
10	86	27	47	12	15	9	12	7	3	10	M4x0.7	9	4	6	-	15	4	8	15	M12x1.5	M5
12	105	37	51	17	20	9	16	6	4.5	14	M6x1	9	6	9	5	20	6	12	20	M16x1.5	M5
16	111	38	56	17	21	12.5	16	6	4.5	13	M6x1	10.5	6	9	5	20	6	12	20	M16x1.5	M5
20	128	45	63	20	25	15	20	8	6	11	M8x1.25	15	8	12	6	27	8	16	27	M22x1.5	G1/8"
25	137	50	65	22	28	15	22	8	6	11	M10x1.25	15	8	12	8	27	10	16	27	M22x1.5	G1/8"

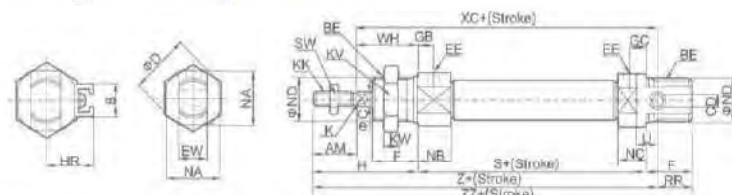
MA6432-N Series Stainless Steel Mini Cylinder (ISO 6432)



MA6432-N25 x 150

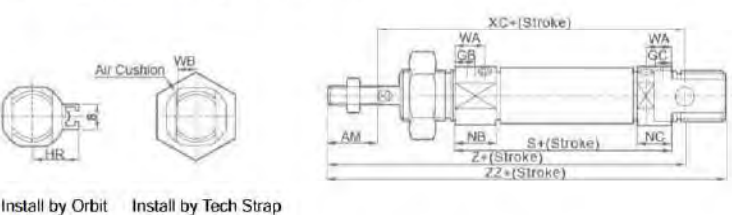
Overall Dimensions

Non Magnet Inside Magnet Rubber Buffer



Install by Orbit Install by Tech Strap

Non Magnet Inside Magnet Rubber Buffer



Install by Orbit Install by Tech Strap

Dimension Sheet

Bore	AM	BE	ΦC	ΦCD	ΦD	EE	EW	F
8	12	M12x1.25	4	4	17	M5x0.8	8	12
10	12	M16x1.5	4	4	17	M5x0.8	8	12
12	16	M16x1.5	6	6	20	M5x0.8	12	17
16	16	M16x1.5	6	6	20	M5x0.8	12	17
20	20	M22x1.5	8	8	28	G1/8"	16	20
25	22	M22x1.5	10	8	33.5	G1/8"	16	22

Bore	GB	GC	WA	WB	H	HR	K	KK	KV	KW	NB	NC	NA	ΦND	RR	S	SW	U	WH	XC	Z	ZZ
8	7	5	-	-	28	10	-	M4x0.7	19	6	11.5	9.5	15	12	10	46	7	6	16	64	76	86
10	7(5.5)	7(5.5)	10.5	4.5	28	10.5	-	M4x0.7	19	6	11.5 (13.5)	9.5 (13.5)	15	12	10	48 (53)	7	6	16	64 (71)	76 (83)	86 (93)
12	8(5.5)	8(5.5)	9.5	5.5	38	14	5	M6x0.8	24	8	12.5 (12.5)	10.5 (12.5)	18	16	14	50 (54)	10	9	22	75 (79)	91 (95)	105 (109)
16	8(5.5)	8(5.5)	9.5	5.5	38	14	5	M6x0.8	24	8	12.5	10.5 (12.5)	18	16	13	56	10	9	22	82	98	111
20	8	8	17	8.5	44	17	6	M8x1.25	32	11	15	15	24	22	11	62	13	12	24	95	95	126
25	8	8	20	10	50	20	8	M10x1.25	32	11	15	15	30	22	11	65	17	12	28	104	126	137

Our company can also provide SMC Type ISO6432 standard stainless steel mini cylinder, if you need this, pls add -N after normal ordering code.

MA6432 Series Stainless Steel Mini Cylinder (ISO6432 Big Bore)



MAC6432 50 x 50-S



MAC6432 63 x 50-S

Ordering Code

MA6432

Series Code

MA: Double Action Type
MSA: Single Extrusion Type
MTA: Single Drawing in Type
MAD: Double shaft
Double Action Type
MACD: Double shaft Double Action Damping Type
MAJ: Double shaft and Adjustable Stroke Type
MAC: With Cushion Type

Back Cover Type

Blank: Fishtail type
CM: Rounded type
U: Horizontal type

20 × 50

Cylinder Bore

32mm-63mm

25

Stroke

0-100mm

S

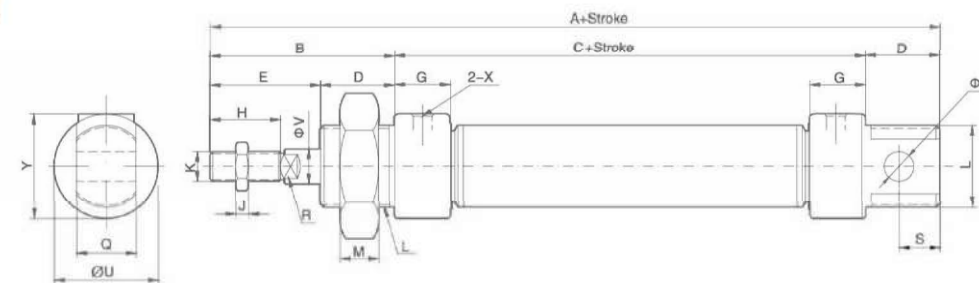
Adjustable Stroke Type

Blank: Without Magnet
S: With Magnet

Fixed Type

Blank: Normal type
LB: Front and back fixed type
FA: Front cover fixed type
SDB: Back cover swinging type

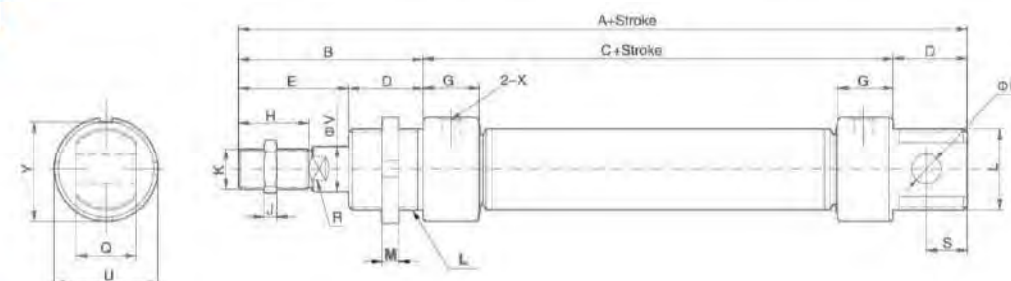
Overall Dimensions



Dimension Sheet

Bore Symbol	A	B	C	D	E	G	H	M	J	K	F	S	R	U	V	Q	Y	L	X
32	160	57	76	27	30	16	22	8	6	M10x1.25	10	12	10	35	12	16	35	M24x2	G1/8
40	162	57	76	27	32	16.7	24	8	7	M12x1.25	12	12	14	41.6	16	16	41.6	M30x2	G1/8

Overall Dimensions



Dimension Sheet

Bore Symbol	A	B	C	D	E	G	H	M	J	K	P	S	R	U	V	Q	Y	L	X
50	200	73	94	33	40	22	32	8	8	M16x1.5	16	15	17	57	20	21	55	M45x1.5	G1/4
63	203	73	97	33	40	22	32	8	8	M16x1.5	16	15	17	70	20	21	68	M45x1.5	G1/4

Our Company can also make FST type (ISO 6432) 32-63 bore cylinder. If you require this, it should be specified.

MA Series Stainless Steel Mini Cylinder



MA 25 x 50

MAJ 25 x 50-25

Ordering Code

MA ☐ **20** × **50** — **25** — **S** — ☐

Series Code **Back Cover Type** **Cylinder Bore** **Stroke** **Adjustable Stroke Type** **Magnet Code** **Fixed Type**

MA: Double Action Type
MSA: Single Extrusion Type
MTA: Single Drawing in Type
MAD: Double shaft Double Action Type
MACD: Double shaft Double Action Damping Type
MAJ: Double shaft and Adjustable Stroke Type
MAC: With Cushion Type

Blank: Fishtail type
CM: Rounded type
U: Horizontal type

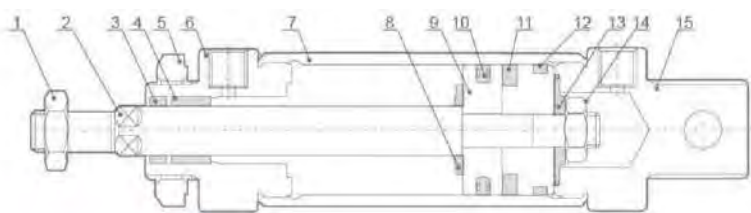
16mm~40mm

0~100mm

Blank: Without Magnet
S: With Magnet

Blank: Normal type
LB: Front and back fixed type
FA: Front cover fixed type
SDB: Back cover swinging type
U: Back cover fixed type

Internal Structure



No.	Designation	No.	Designation
1	Piston Rod Nut	9	Piston
2	Piston Rod	10	Piston O-ring
3	Front Cover Seal Ring	11	Magnet (Optional)
4	Oiled Bearing	12	Wear Ring
5	Front Cover Nut	13	Back Cushion
6	Front Cover	14	Hex Socket Screw
7	Stainless Steel Tube	15	Back Cover
8	Anti-crash Cushion		

Specification

Bore (mm)	16	20	25	32	40
Motion Pattern	Double Action or Single Action				
Working Medium	Air				
Fixed Type	Normal Type	LB Type	FA Type	SDB Type	U Type
Operating Pressure Range	0.1~0.5MPa				
Ensured Pressure Resistance	1.35MPa				
Operating Temperature Range	-5~70°C				
Operating Speed Range	50~800mm/s				
Buffer Type	Standard	Anti crash cushion			
	Damping	Adjustable cushion			
Port Size	M5x0.8	G1/8"	G1/8"	G1/8"	G1/8"

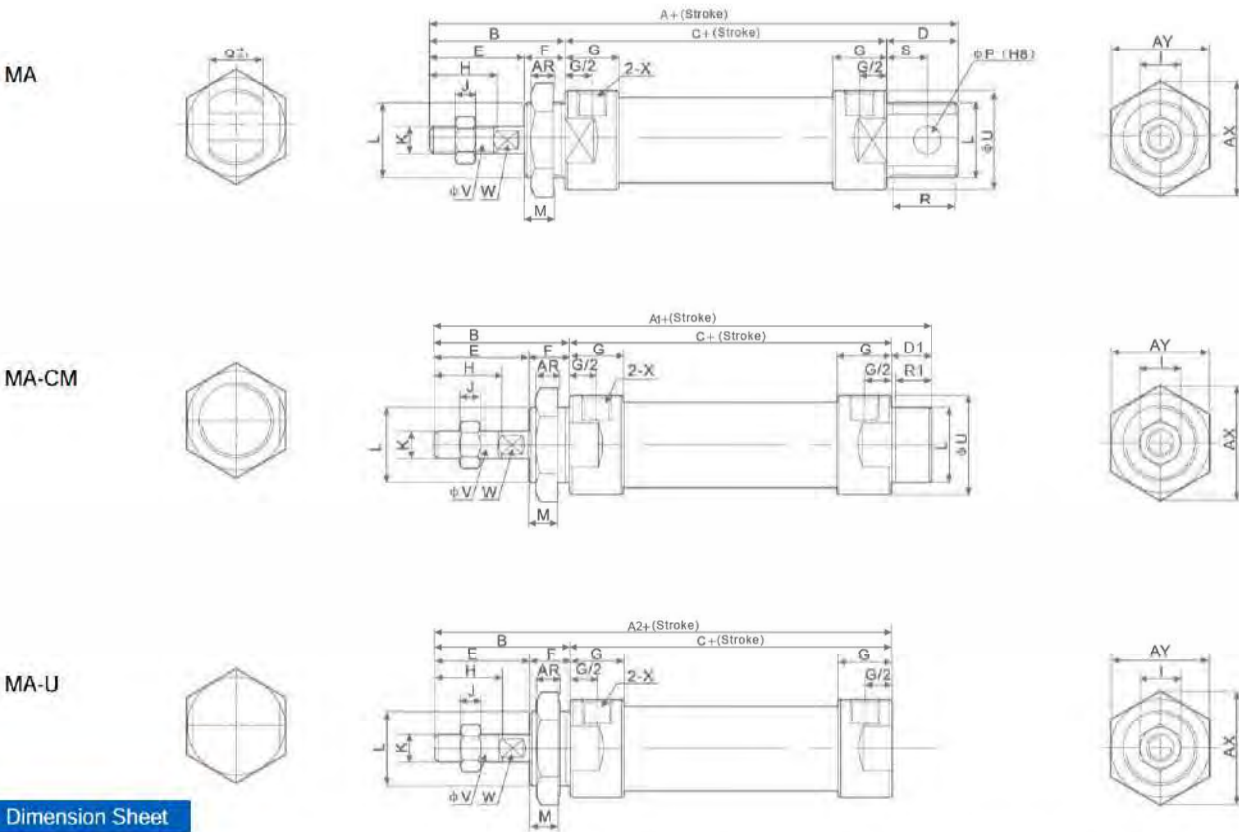
Our Company can also make flat for cylinder covers inlet and outlet position. If you require this, it should be specified.

Stroke

Bore (mm)	Standard Stroke	Max. Stroke (mm)	Permissible Stroke (mm)
16	25, 50, 75, 80, 100, 125, 160, 175, 200	300	500
20	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300	500	650
25	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	500	650
32	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	500	650
40	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	600	650

MA Series Stainless Steel Mini Cylinder

Overall Dimensions



Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	114	114	98	38	60	16	16	22	16	10	16	10	5	M6x1
20	137	128	116	40	76	21	12	28	12	16	20	12	6	M8x1.25
25	141	134	120	44	76	21	14	30	14	16	22	17	6	M10x1.25
32	147	134	120	44	76	27	14	30	14	16	22	17	6	M10x1.25
40	149	136	122	46	76	27	14	32	14	16.7	24	17	7	M12x1.25

Bore/Symbol	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M16x1.5	14	6	12	14	14	9	21	6	5	M5	6	24	27.5
20	M22x1.5	10	8	16	19	10	12	21	8	6	G1/8"	7	33	29
25	M22x1.5	12	8	16	19	12	12	30	10	8	G1/8"	7	33	29
32	M24x1.5	12	10	16	25	12	15	35	12	10	G1/8"	8	37	32
40	M30x2.0	12	12	20	25	12	15	41.6	16	14	G1/8"	9	47	41

MAL6432 Series Aluminum alloy Mini Cylinder (ISO 6432)

Specification

Motion Pattern	Double Action or Single Action
Operating Pressure Range	0.1~0.9MPa
Ensured Pressure Resistance	1.35MPa
Operating Temperature Range	-5~70°C
Operating Speed Range	30~800mm/s

Product Instruction

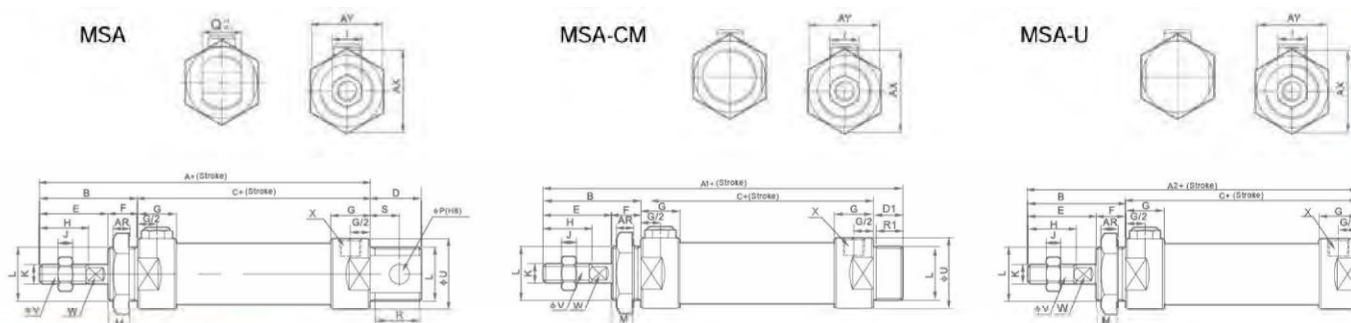
Our company can also provide MAL series ISO6432 standard aluminum alloy mini cylinder, if you need this, pls change ordering code MAL into MAL6432.



MAL 6432 20 x 75

MA Series Stainless Steel Mini Cylinder

Overall Dimensions

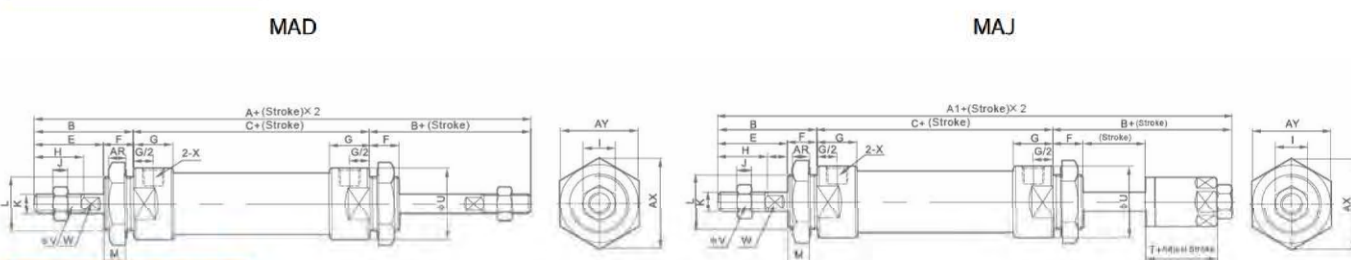


Dimension Sheet

Symbol	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
Bore/Stroke	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
16	114	139	128	153	98	123	38	60	85	16	16	22	16	10	16	10	5
20	137	162	134	159	116	141	40	76	101	21	12	28	12	16	20	12	6
25	141	166	134	159	120	145	44	76	101	21	14	30	14	16	22	17	6
32	147	172	136	161	120	145	44	76	101	27	14	30	14	16	22	17	6
40	149	174	122	144	122	147	46	76	101	27	14	32	14	16.7	24	17	7

Bore/Symbol	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M6x1	M16x1.5	14	6	12	14	14	9	21	6	5	M5	6	24	22
20	M8x1.25	M22x1.5	10	8	16	19	19	12	27	8	6	G1/8"	7	33	29
25	M10x1.25	M22x1.5	12	8	16	19	19	12	30	10	8	G1/8"	7	33	29
32	M10x1.25	M24x2.0	12	10	16	25	12	15	35	12	10	G1/8"	8	37	32
40	M12x1.25	M30x2.0	12	12	20	25	12	15	41.6	16	14	G1/8"	9	41	41

Overall Dimensions



Dimension Sheet

Bore/Symbol	A	A1	B	C	E	F	G	H	I	J	K
16	136	135	38	60	22	16	10	16	10	5	M6x1
20	156	153	40	76	28	12	16	20	12	6	M8x1.25
25	164	161	44	76	30	14	16	22	17	6	M10x1.25
32	164	161	44	76	30	14	16	22	17	6	M10x1.25
40	168	164	46	76	32	14	16.7	24	17	7	M12x1.25

Bore/Symbol	L	M	U	V	W	X	AR	AX	AY	T
16	M16x1.5	14	21	9	5	M5	6	25	22	16
20	M22x1.5	10	29	12	6	G1/8"	7	33	29	19
25	M22x1.5	12	34	10	8	G1/8"	7	33	29	21
32	M24x1.5	12	39.5	12	10	G1/8"	8	37	32	21
40	M30x2.0	12	41.5	16	12	G1/8"	9	47	41	21

MAL Series Aluminum Alloy Mini Cylinder



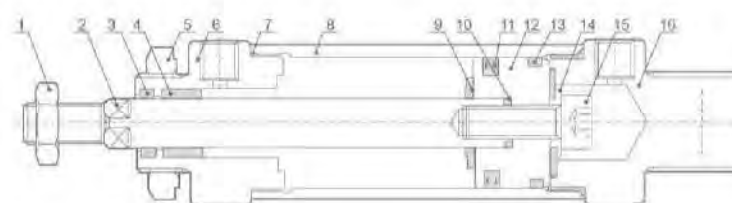
MAL 25 x 50

MALJ 25 x 50-25

Ordering Code

MAL	—		20 × 50	—	25	—	S	—	
Series Code		Back Cover Type	Cylinder Bore	Stroke	Adjustable Stroke Type		Magnet Code		Fixed Type
MAL: Double Action Type MSAL: Single Extrusion Type MTAL: Single Drawing in Type MALD: Double shaft Double Action Type MALCD: Double shaft Action Damping Type MALJ: Double shaft and Adjustable Stroke Type MALC: With Cushion Type		Blank: Fishtail type CM: Rounded type U: Horizontal type	16mm~40mm		0~100mm		Blank: Without Magnet S: With Magnet		Blank: Normal type LB: Front and back fixed type FA: Front cover fixed type SDB: Back cover swinging type

Internal Structure



No.	Designation	No.	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Oiled Bearing
5	Front Cover Nut	6	Front Cover
7	Pipe Wall O-ring	8	Aluminum Tube
9	Anti-crash Cushion	10	Piston Rod O-ring
11	Piston O-ring	12	Piston
13	Wear Ring	14	Back Cushion
15	Hex Socket Screw	16	Back Cover

Specification

Bore (mm)	16	20	25	32	40
Motion Pattern	Double Action or Single Action				
Working Medium	Air				
Fixed Type	Normal Type	LB Type	FA Type	SDB Type	U Type
Operating Pressure Range	0.1-0.8MPa				
Ensured Pressure Resistance	1.35MPa				
Operating Temp. Range	-5~70 °C				
Operating Speed Range	30-800mm/s				
Buffer Type	Standard Type Anti crash cushion Adjustable cushion				
Port Size	M5x0.8	G1/8"	G1/8"	G1/8"	G1/4"

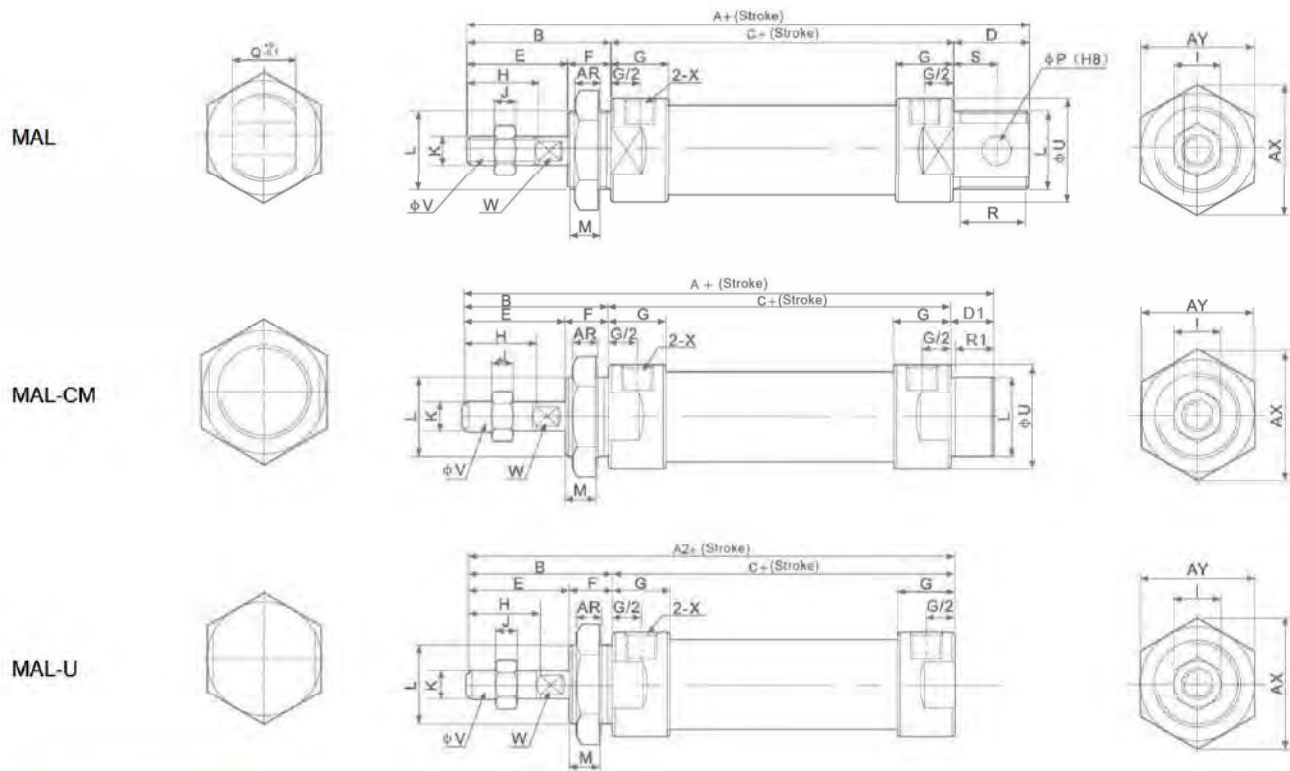
Our Company can also make flat for cylinder covers inlet and outlet position. If you require this, it should be specified.

MAL Series Aluminum Alloy Mini Cylinder

Stroke

Bore (mm)	Standard Stroke	Max Stroke (mm)	Permissible Stroke (mm)
16	25, 50, 75, 80, 100, 125, 160, 175, 200	300	500
20	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300	500	650
25	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	500	650
32	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	500	650
40	25, 50, 75, 80, 100, 125, 160, 175, 200, 250, 300, 350, 400, 450, 500	500	650

Overall Dimensions



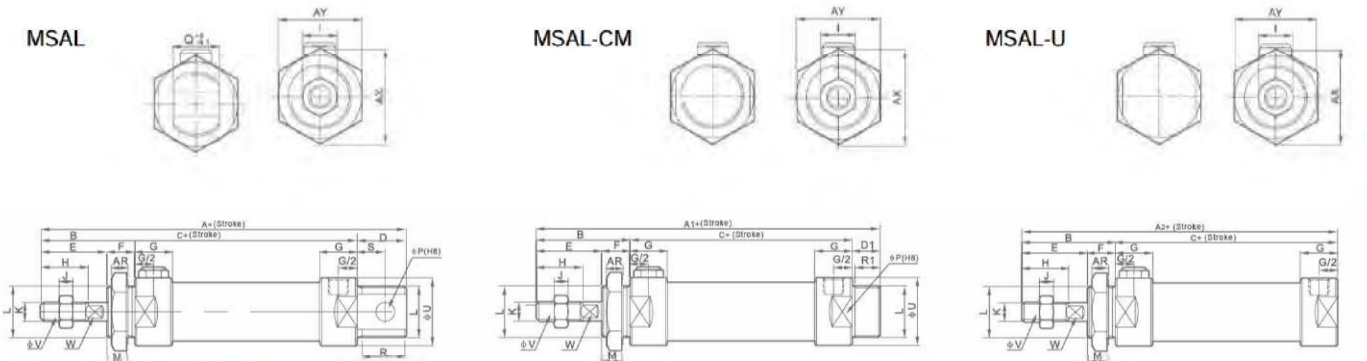
Dimension Sheet

Bore Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	110	114	98	38	56	16	16	22	16	10	16	10	5	M6×1
20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8×1.25
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10×1.25
32	141	128	114	46	70	27	14	30	14	16	22	17	6	M10×1.25
40	165	152	138	46	92	27	14	32	14	22	24	17	7	M12×1.25

Bore Symbol	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M16×1.5	14	6	12	14	14	9	24	6	5	M5	6	25	22
20	M22×1.5	10	8	16	19	10	12	29	8	6	G1/8"	7	33	29
25	M22×1.5	12	8	16	19	12	12	34	10	8	G1/8"	7	33	29
32	M24×1.5	12	10	16	25	12	15	39.5	12	10	G1/8"	8	37	32
40	M30×2.0	12	12	20	25	12	15	49.5	16	14	G1/4"	9	37	41

MAL Series Aluminum Alloy Mini Cylinder

Overall Dimensions

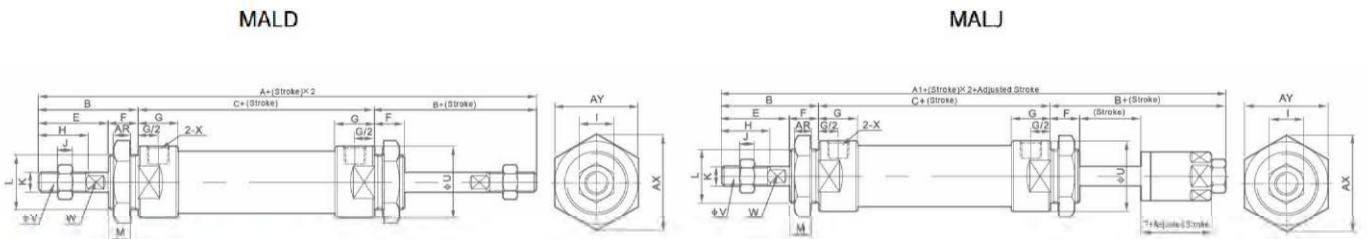


Dimension Sheet

Symbol	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
Bore/Stroke	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
20	131	156	122	147	110	135	40	70	95	21	12	28	12	16	20	12	6
25	135	160	160	153	114	139	44	70	95	21	14	30	14	16	22	17	6
32	141	166	166	153	114	139	44	70	95	27	14	30	14	16	22	17	6
40	165	190	190	177	138	163	46	92	117	27	14	32	14	22	24	17	7

Bore Symbol	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	M8×1.25	M22×1.5	10	8	16	19	10	12	29	8	6	G1/8"	7	33	29
25	M10×1.25	M24×1.5	12	8	16	19	12	12	34	10	8	G1/8"	7	33	29
32	M10×1.25	M30×2.0	12	10	16	25	12	15	39.5	12	10	G1/8"	8	37	32
40	M12×1.25	M30×2.0	12	12	20	25	12	15	49.5	16	14	G1/8"	9	47	41

Overall Dimensions



Dimension Sheet

Bore Symbol	A	A1	B	C	E	F	G	H	I	L	K
20	150	147	40	70	28	12	16	20	12	6	M8×1.25
25	158	155	44	70	30	14	16	22	17	6	M10×1.25
32	158	155	44	70	30	14	16	22	17	6	M10×1.25
40	184	180	46	92	32	14	22	24	17	7	M12×1.25

Bore Symbol	L	M	U	V	W	X	AR	AX	AY	T
20	M22×1.5	10	29	8	6	G1/8"	7	33	29	19
25	M22×1.5	12	34	10	8	G1/8"	7	33	29	21
32	M24×1.5	12	39.5	12	10	G1/8"	8	37	32	21
40	M30×2.0	12	49.5	16	14	G1/4"	9	47	41	21

CM2 Series Stainless Steel Mini Cylinder



Ordering Code

CM2 **32** × **150** — **A**

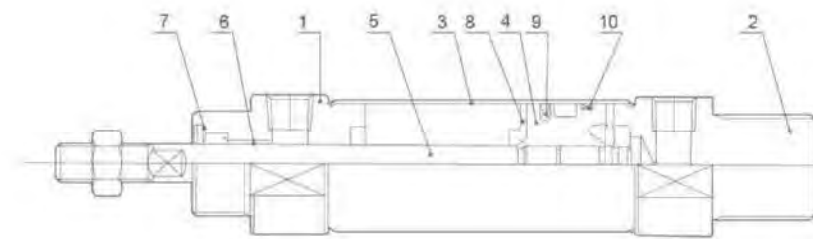
Series Code
CM2B: Normal Type
CDM2B: Attach magnet Type

Cylinder Bore
20mm~40mm

Stroke
0~1000mm

Magnet Code
Blank: Without Magnet
A: Air Buffer

Internal Structure

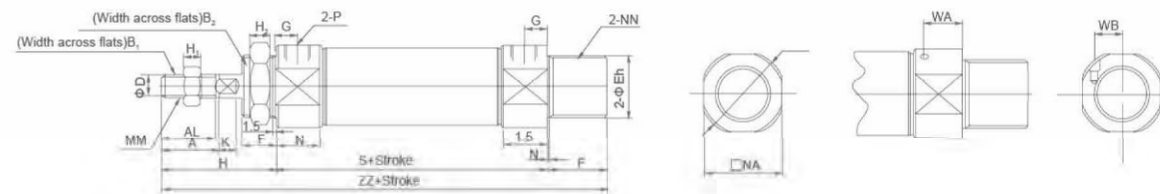


No.	Designation
1	Front Cover
2	Back Cover
3	Barrel
4	Piston
5	Piston Rod
6	Oiled Bearing
7	Front Cover Seal Ring
8	Anti crash Cushion
9	Piston Seal
10	Wear Ring

Specification

Bore (mm)	20	25	32	40
Working Medium	Air			
Motion Pattern	Double action			
Ensured Pressure Resistance	15.3kgf/cm ² (1.5Mpa)			
Max pressure	10.2kgf/cm ² (1.0Mpa)			
Min pressure	0.5kgf/cm ² (0.05Mpa)			
Operating Temperature Range	-10~+70°C			
Operating Speed Range	50~750mm/s			
Buffering	Rubber buffer (Standard), Air buffer (Optional)			
Margin of Stroke Error (mm)	±1.4			
Port size	G1/8"	G1/8"	G1/8"	G1/4"

Overall Dimensions



Bore	Stroke Range	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	S	ZZ	WA	WB
20	~300	18	15.5	13	26	8	20 ⁰ _{-0.033}	13	8	41	5	8	28	5	M8×1.25	15	24	M20×1.5	1/8	62	116	11.5	8.5
25	~300	22	19.5	17	32	10	20 ⁰ _{-0.033}	13	8	45	6	8	22.5	5.5	M10×1.25	15	30	M26×1.5	1/8	62	120	11.5	10
32	~300	22	19.5	17	32	12	26 ⁰ _{-0.033}	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64	122	11.5	11.5
40	~300	24	21	22	41	14	32 ⁰ _{-0.033}	16	11	50	6	10	46.5	7	M14×1.5	21.5	42.5	M32×1.5	1/4	88	154	14	15

CJ2 Series Stainless Steel Type Cylinder



Ordering Code

CJ2 **16** × **50** — **S** —

Series Code
CM2B: Normal Type
CDM2B: Attach magnet Type

Cylinder Bore
6mm~16mm

Stroke
0~200mm

Magnet Code
S: Single action (with spring return)
T: Single action (with spring extent)

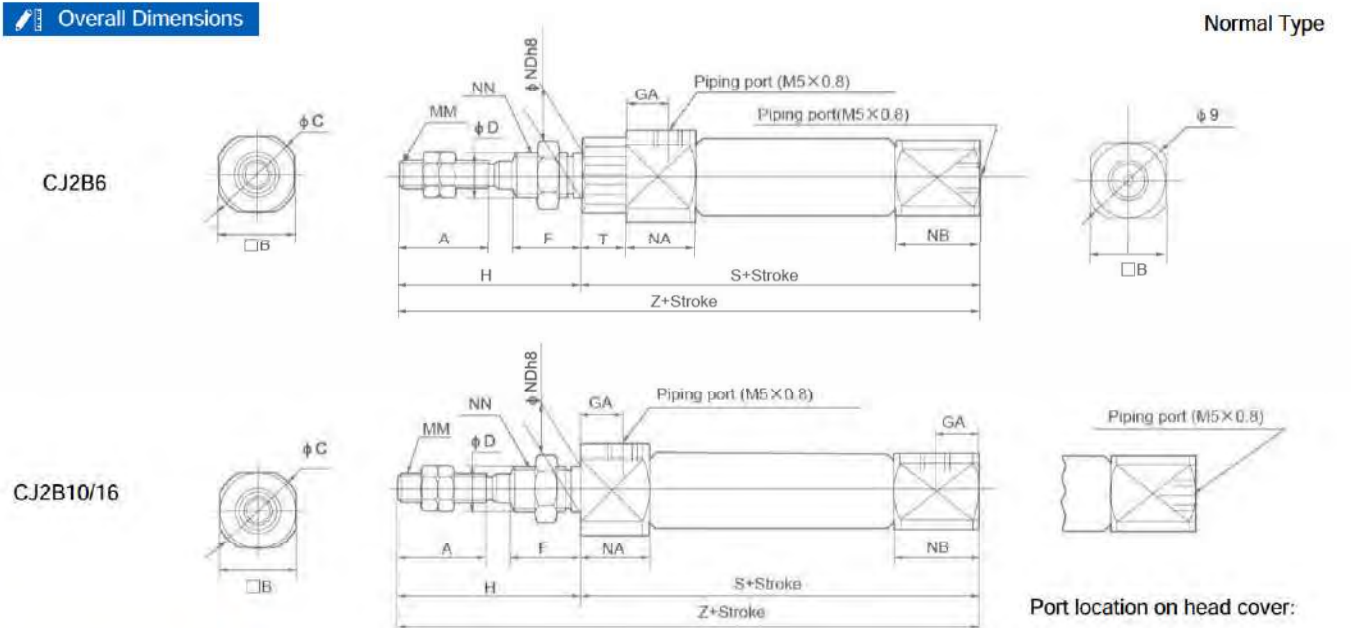
The type of air hole on the head cover end

Mark: Bore, φS, φ10, φ15
BLANK: R, Vertical, Horizontal

Specification

Bore (mm)	6	10	16
Working Medium	Air		
Motion Pattern	Double action / Single Action Extrusion type / Single Action Drawing in Type		
Ensured Pressure Resistance	1.05Mpa(10.5kgf/cm ²)		
Max.pressure	0.7Mpa(7.1kgf/cm ²)		
Min.pressure	0.25Mpa(2.5kgf/cm ²)		
Operating Temperature Range	-10 ~ + 70°C		
Operating Speed Range	50~750mm/s		
Buffering	Both side Rubber buffer (Standard)		
Margin of Stroke Error (mm)	±1.0 0mm		
Port Size	M5×0.8		

Overall Dimensions

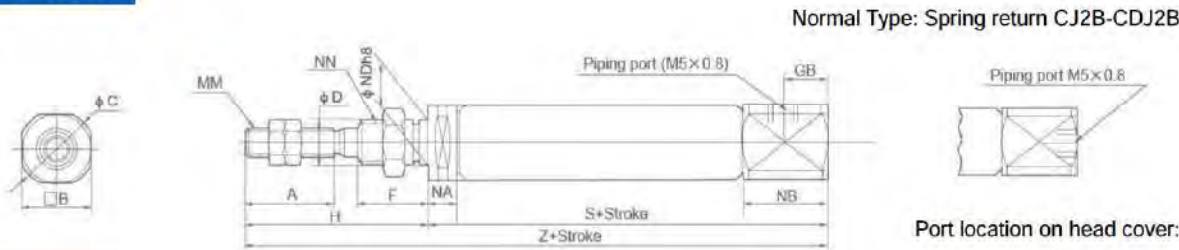


Dimension Sheet

Bore (mm)	A	B	C	D	F	GA	GB	H	MM	NA	NB	NDh8	NN	S	T	Z
6	15	12	14	3	8	14.5	-	28	M3×0.5	16	7	6	M6×1.0	49	3	77
10	15	12	14	4	8	8	5	28	M4×0.7	12.5	9.5	8	M8×1.0	46	-	74
16	15	18	20	5	8	8	5	28	M5×0.8	12.5	9.5	10	M10×1.0	47	-	75

CJ2 Series Stainless Steel Type Cylinder

Overall Dimensions

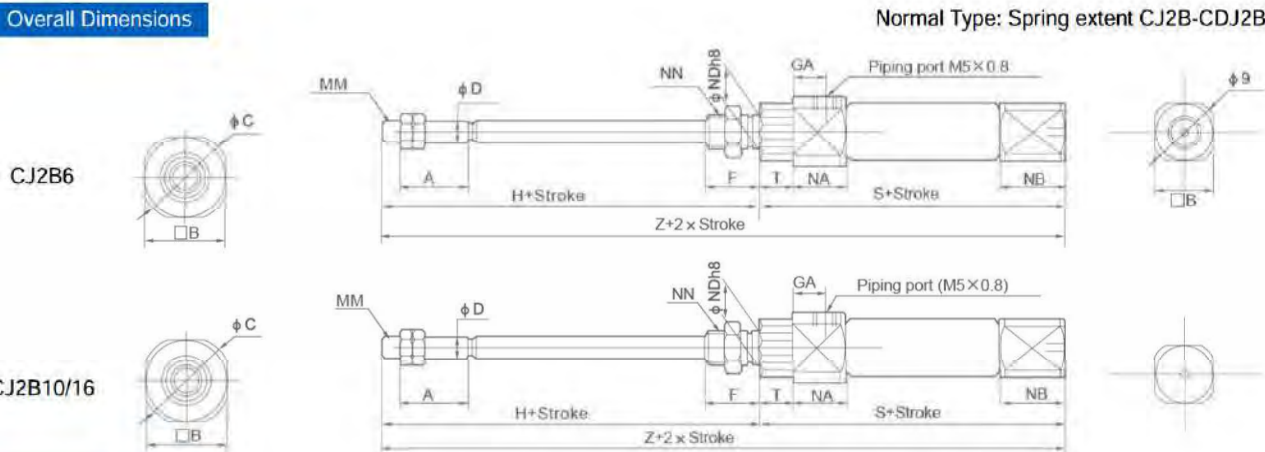


Dimension Sheet

Bore (mm)	A	B	C	D	F	GB	H	MM	NA	NB	NB b6	T	*S								*Z							
													5~	16~	31~	46~	61~	76~	101~	126~	5~	16~	31~	46~	61~	76~	101~	126~
6	15	8	19	3	8	-	28	M3x0.5	3	7	6 ⁰ _{-0.018}	3	36.5 (61.5)	55.5 (60.5)	59.5 (60.5)	73.5 (78.5)	-	-	-	-	74.5 (79.5)	83.5 (88.5)	87.5 (92.5)	101.5 (106.5)	-	-	-	-
10	15	12	14	4	8	5	28	M4x0.7	5.5	9.5	8 ⁰ _{-0.022}	3	48.5	56	68	80	-	-	-	-	76.5	84	96	108	-	-	-	-
16	15	18	20	5	8	5	28	M5x0.8	5.5	9.5	10 ⁰ _{-0.022}	3	48.5	57	69	81	87	111	129	141	76.5	85	97	109	115	139	157	169

Attach Magnet size

Overall Dimensions



Dimension Sheet

Bore (mm)	A	B	C	D	F	GA	H	MM	NN	NA	NB	NB b6	T	*S								*Z							
														5~	16~	31~	46~	61~	76~	101~	126~	5~	16~	31~	46~	61~	76~	101~	126~
6	15	8	14	3	8	14.5	28	M3x0.5	M6x1	16	3	6 ⁰ _{-0.018}	3	48.5 (61.5)	55.5 (60.5)	59.5 (60.5)	73.5 (78.5)	-	-	-	-	74.5 (79.5)	83.5 (88.5)	87.5 (92.5)	101.5 (106.5)	-	-	-	-
10	15	12	14	4	8	8	28	M4x0.7	M8x1	12.5	5.5	8 ⁰ _{-0.022}	3	48.5	56	68	80	-	-	-	-	76.5	84	96	108	-	-	-	-
16	15	18	20	5	8	8	28	M5x0.8	M10x1	12.5	5.5	10 ⁰ _{-0.022}	3	48.5	57	69	81	87	111	129	141	76.5	85	97	109	115	139	157	169

Attach Magnet size

Special Cylinder



Product Instruction

Our company has R&D department, can research, develop and produce all kinds of cylinders with advanced technology and sufficient professional experience. We can research and develop new products according to customer's drawing, and strive all products for excellence. If you have new product to develop, pls don't hesitate to contact us, we will try our best to help you.

ADVU Series Compact Cylinder (ISO6431)



ADVU 40 x 50-S

Ordering Code

ADVU

Series Code

ADVU: Double Action Type
AEVUZ: Single-Action Type
ADVUD: Double-shaft
Double Action Type
ADVUJ: Double-Shaft and
Adjustable Stroke Type

20

Cylinder Bore

16mm~100mm

80

Stroke

Normal Type:
16~25: 1~200mm
32~63: 1~300mm
80~100: 1~400mm
Single Action:
16~100: 1~25mm

S

Magnet Code

Blank: Without
Magnet
S: With Magnet

B

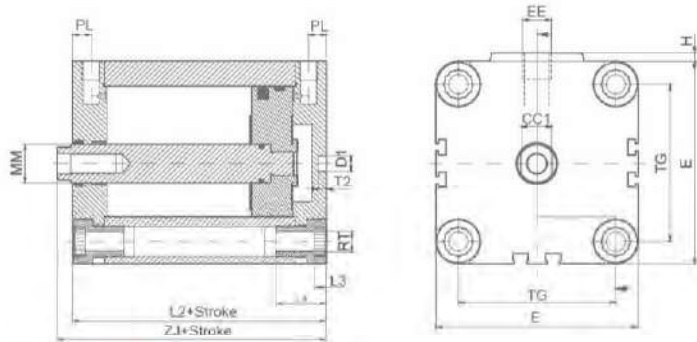
Cog Type

Blank: Inner Thread
B: Outer Thread

Specification

Bore (mm)		16	20	25	32	40	50	63	80	100
Action		Double Acting, single rod/double rod								
Working Medium		Air								
Ensured Pressure Resistance		1.5MPa								
Operating Pressure Range	ADVU-S	0.12~1.0MPa	0.1~1.0MPa		0.08~1.0MPa			0.06~1.0MPa		
	ADVUD-S	0.13~1.0MPa	0.12~1.0MPa		0.1~1.0MPa			0.8~1.0MPa		
Ambient and Fluid Temperature		-20~80 (No freezing)								
Port Size		M5			G1/8"			G1/4"		
Piston Rod Thread	Female Thread	M4	M5	M6			M8	M10	M12	
	Male Thread	M8	M10×1.25			M12×1.25			M16×1.5	M20×1.5
Cushion		Rubber bumper								

Overall Dimensions



ADVU ADVUS / Type

Note:

To attach cylinder. 12 and 16mm from above, use only 2 screws diagonally or non-magnetic screws. += plus stroke length 2 minimum screw- in depth

Dimension Sheet

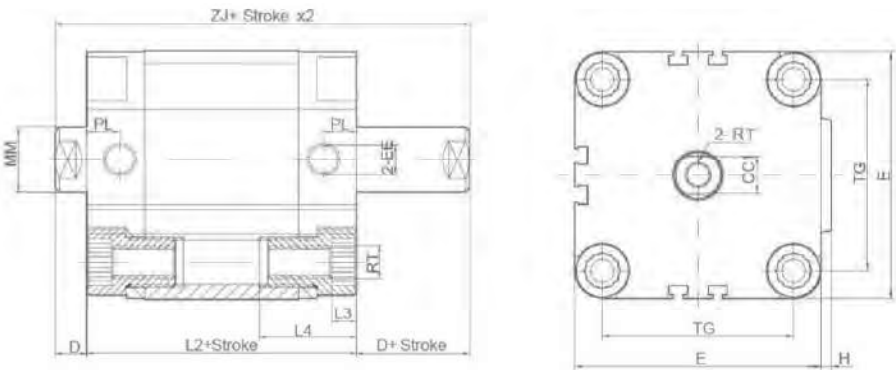
Bore (mm)	D1	E	EE	H	L2	L3	L4	MM	PL	RT	T2	TG	ZJ	CC1
16	6	29	M5	1	38	4	18.5	8	8	M4	4	18	44	6
20	6	38	M5	1.5	38	4	18.5	10	8	M4	4	22	43.5	8
25	6	40	M5	1.5	39.5	4	18.5	10	8	M5	4	26	46	8
32	6	50	G1/8	2	44.5	5	22	12	8	M6	4	32	51.5	10
40	6	60	G1/8	2.5	46.5	5	22	12	8	M6	4	42	52	10
50	6	68	G1/8	2.8	46.5	5	22	16	8	M8	4	50	54.5	14
63	8	88	G1/8	4	50	6	26	16	8	M10	4	62	56	14
80	8	107	G1/8	4	56	6	26	20	8.5	M10	4	82	62	17
100	8	128	G1/4	5	66.5	8	28	20	10.5	M10	4	103	76.5	22

Note: ADVU Series Cylinder with 100mm Bore Is Being Developed, Not Available At The Moment.

ADVU Series Compact Cylinder (ISO6431)

Overall Dimensions

ADVUD

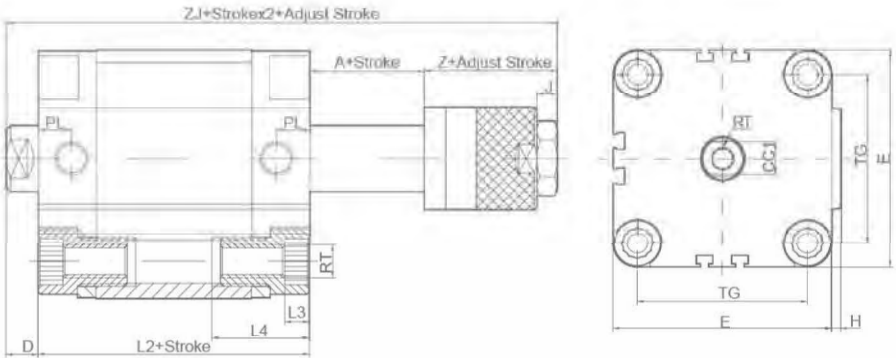


Dimension Sheet

Bore (mm)	E	EE	H	L2	L3	L4	MM	PL	RT	TG	ZJ	CC1	D
16	29	M5	1	38	4	18.5	8	8	M4	18	44	6	6
20	36	M5	1.5	38	4	18.5	10	8	M4	22	43.5	8	5.5
25	40	M5	1.5	39.5	4	18.5	10	8	M5	26	46	8	6.5
32	50	G1/8	2	44.5	5	22	12	8	M6	32	51.5	10	7
40	60	G1/8	2.5	45.5	5	22	12	8	M6	42	52	10	6.5
50	68	G1/8	2.8	46.5	5	22	16	8	M8	50	54.5	14	8
63	88	G1/8	4	50	6	26	16	8	M10	62	58	14	8
80	107	G1/8	4	56	6	26	20	8.5	M10	82	64	17	8

Overall Dimensions

ADVUJ



Dimension Sheet

Bore (mm)	Z	E	EE	H	L2	L3	L4	MM	PL	RT	J	TG	ZJ	CC1	D	A
16	13	29	M5	1	38	4	18.5	8	8	M4	6	18	63	6	6	6
20	15	36	M5	1.5	38	4	18.5	10	8	M5	6	22	64.5	8	5.5	6
25	15	40	M5	1.5	39.5	4	18.5	10	8	M5	6	26	67	8	6.5	6
32	18	50	G1/8	2	44.5	5	22	12	8	M6	6	32	75.5	10	7	6
40	18	60	G1/8	2.5	45.5	5	22	12	8	M6	6	42	76	10	6.5	6
50	20	68	G1/8	2.8	46.5	5	22	16	8	M8	7	50	80.5	14	8	6
63	20	88	G1/8	4	50	6	26	16	8	M10	7	62	84	14	8	6
80	25	107	G1/8	4	56	6	26	20	8.5	M10	8	82	95	17	8	6

ADN Series Compact Cylinder (ISO21287)

Ordering Code



ADN 32 x 30-S

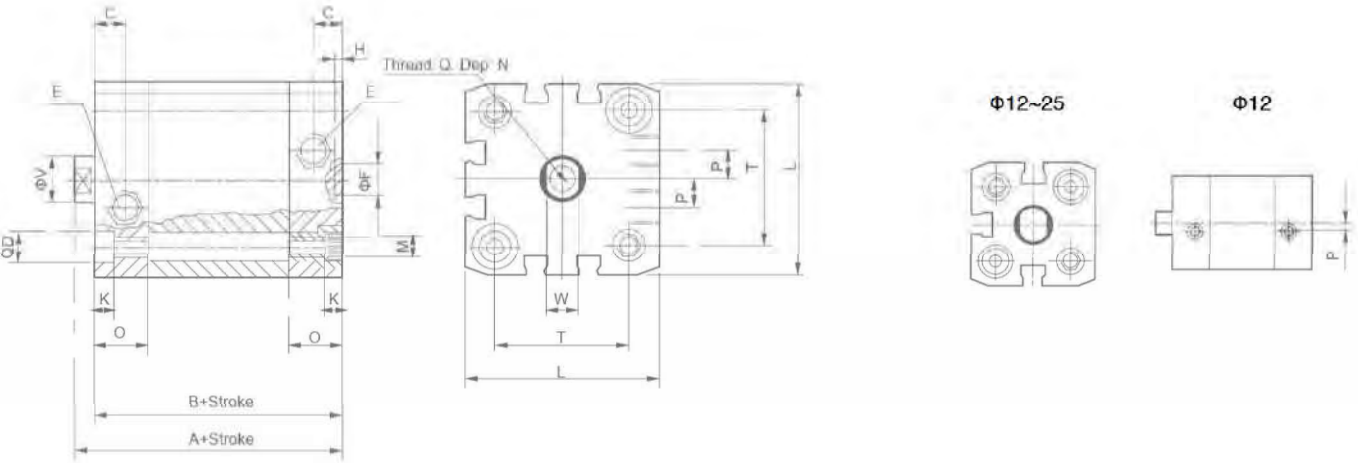
ADN	50	×	50	—	S	—	B
Series Code	Cylinder Bore	Stroke	Magnet Code	Cog Type			
ADN: Double Action Type AEN: Single-Action Type ADND: Double-shaft Double Action Type ADNJ: Double-Shaft and Adjustable Stroke Type	12mm~63mm	Normal Type: 12~25: 1~300mm 32~63: 1~400mm Single Action: 12: 1~10mm 16~63: 1~25mm	Blank: Without Magnet S: With Magnet	Blank: Inner Thread B: Outer Thread			

Specification

Bore (mm)	12	16	20	25	32	40	50	63
Operation	Double Acting							
Workin Medium	Air							
Operating Pressure Range	0.1~1.0MPa							
Proof Pressure	1.5MPa							
Operating Temperature Range	-20~70°C							
Operating Speed Range	30~500mm/s							
Port Size	M5x0.8				G1/8"			

Overall Dimensions

Φ32~63



Dimension Sheet

Bore (mm)	A	B	V	Q	C	E	M	D	K	H	F	N	D1	L	T	W	P
12	39.2	35	6	10.5	6	M5	M4	6	3.5	2.1	9	10	M4	27.5	16	5	2
16	39.7	35	8	11	6	M5	M5	6	3.5	2.1	9	10	M4	29	18	7	2.8
20	42.5	37	10	12	6	M5	M5	9	5	2.1	9	12	M6	35.5	22	9	2.6
25	44.5	39	10	12	6	G1/8	M5	9	5	2.1	9	12	M6	39.5	26	9	2.6
32	50	44	12	15	8.2	G1/8	M6	9	5	2.1	9	15	M8	47	32.5	10	6
40	51.1	45	12	15	8.2	G1/8	M6	19	5	2.6	9	15	M8	54.5	38	10	6
50	52.7	45	16	15	8.2	G1/8	M8	12	5	2.6	12	20	M10	65.5	46.5	13	8
63	56.5	49	16	15	8.2	G1/8	M8	12	5	2.6	12	20	M10	75.5	56.5	13	11.5

SDA Series Thin Type (Compact) Cylinder



SDA 32 × 25



SDAJ 32 × 25-10

Ordering Code

SDA **20** × **30** **5** **S** **B**

Series Code
SDA: Double Action Type
SSA: Single-Action Extrusion Type
STA: Single-Action Drawing-in Type
SDAD: Double-Shaft Double Action Type
SDAJ: Double-Shaft and Adjustable Stroke Type

Cylinder Bore
12mm~100mm

Stroke

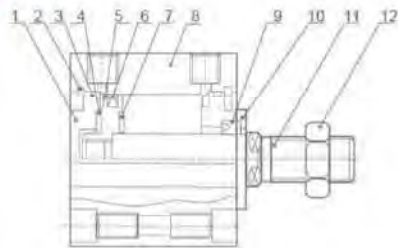
Adjust Stroke
5mm
15mm
25mm

Magnet Code
Blank: Without Magnet
S: With Magnet

Cog Type
Blank: Inner Thread
B: Outer Thread
N: No Thread

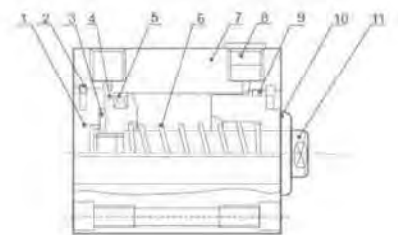
Internal Structure

SDA Type



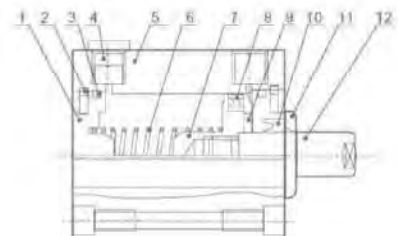
No.	Designation	No.	Designation
1	Back cover	2	Type C buckle ring
3	O-ring	4	Anti-crash cushion
5	Piston	6	Piston O-Ring
7	Anti crash cushion	8	Barrel
9	Front cover seal ring	10	Front cover
11	Piston rod	12	Piston Rod Nut

SSA Type



No.	Designation	No.	Designation
1	Back cover	2	Type C buckle ring
3	Anti-crash cushion	4	Piston
5	Piston O-Ring	6	Compressed spring
7	Barrel	8	Silencer
9	Cover O-Ring	10	Front cover
11	Piston rod		

STA Type



No.	Designation	No.	Designation
1	Back cover	2	Type C buckle ring
3	Cover O-Ring	4	Silencer
5	Barrel	6	Compressed spring
7	Piston	8	Piston O-Ring
9	Anti-crash cushion	10	Front cover sealing
11	Front cover	12	Piston rod

SDA Series Thin Type (Compact) Cylinder

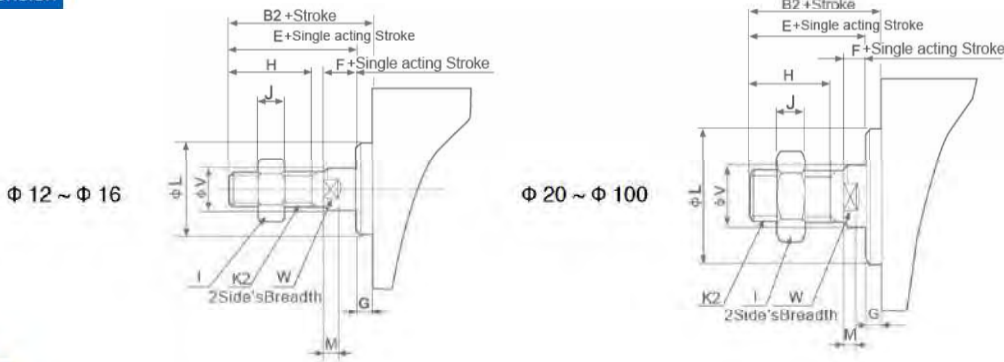
Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Motion Pattern	Double Action Single Acting Extrusion type / Single Acting Drawing-in Type									
Working Medium	Air									
Operating Pressure Range	Double Action: 0.1~0.9 MPa Single Action: 0.2~0.9 MPa									
Ensured Pressure Resistance	1.35 MPa									
Operating Temperature Range	-5 ~ 70°C									
Operating Speed Range	Double Action: 30~500 mm/s Single Action: 100~500 mm/s									
Buffer Type	Fixed Type Buffer									
Port Size	M5x0.8 G1/8" G1/4" G3/8"									

Stroke

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Double Action	Not attach magnet 5~60 mm Every 5mm is grouped as one grade	5~85 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~110 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade			
Single Action	Not attach magnet 5~60 mm Every 5mm is grouped as one grade	5~75 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100 mm	5~90 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade				
Max.Stroke	60mm	100mm	120mm	130mm						

Outer Thread Dimension



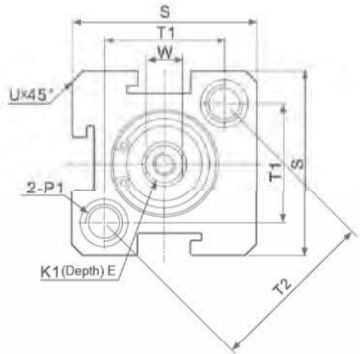
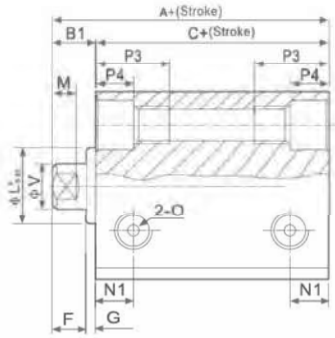
Dimension Sheet

Bore/Symbol	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	10	8	4	M5x0.8	10.2	2.8	6	5
16	17.5	19	4	1.5	10	8	4	M5x0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	10	5	M6x1.0	16	2.8	8	6
25	23	21	4	2	15	12	6	M10x1.25	17	2.8	10	8
32	25	22	4	3	15	17	6	M10x1.25	22	2.8	12	10
40	35	32	4	3	25	19	8	M14x1.5	28	2.8	16	14
50	37	33	5	3	25	27	11	M18x1.5	38	2.8	20	17
63	37	33	5	4	25	27	11	M18x1.5	40	2.8	20	17
80	44	39	6	5	30	32	13	M22x1.5	45	4	25	22
100	50	45	7	5	35	36	13	M26x1.5	55	4	32	27

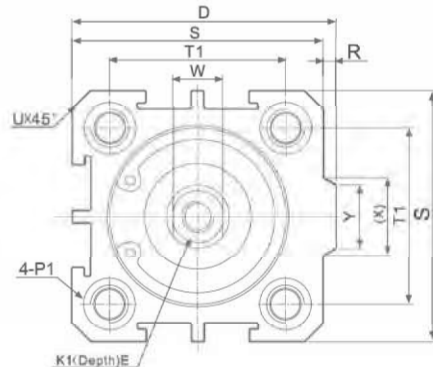
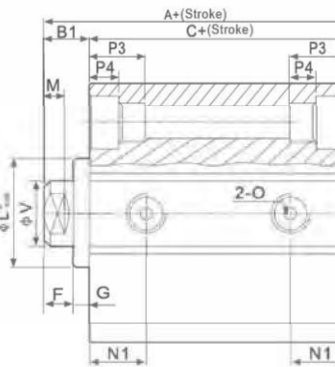
SDA Series Thin Type (Compact) Cylinder

Overall Dimensions

SDA.SDAS Type
Φ 12 ~ Φ 16



SDA.SDAS Type
Φ 20 ~ Φ 100



Dimension Sheet

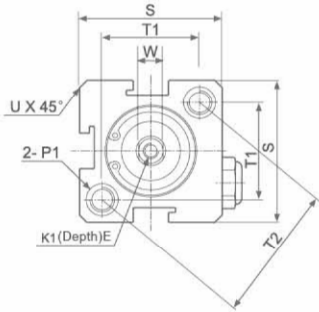
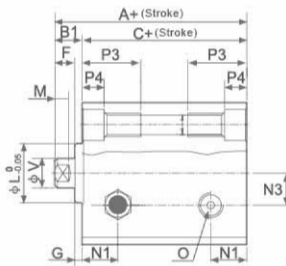
Type	Standard Type			Attach Magnet			D	E		F	G	K1	L	M	N1
	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	22	5	17	32	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3
16	24	5.5	18.5	34.5	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3
20	25	5.5	19.5	35	5.5	29.5	36	8		4	1.5	M4×0.7	15	2.8	7.5
25	27	6	21	37	6	31	42	10		4	2	M5×0.8	17	2.8	8
32	31.5	7	24.5	41.5	7	34.5	50	12		4	3	M6×1	22	2.8	9
40	33	7	28	43	7	36	58.5	12		4	3	M8×1.25	28	2.8	10
50	37	9	28	47	9	38	71.5	15		5	4	M10×1.5	38	2.8	10.5
63	41	9	32	51	9	42	84.5	15		5	4	M10×1.5	40	2.8	11.8
80	52	11	41	62	11	51	104	15	20	6	5	M14×1.5	45	4	14.5
100	63	12	61	73	12	61	124	18	20	7	5	M18×1.5	55	4	20.5

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides: Ø8.2 / Thread: M6×1.0 / Through ports: Ø4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides: Ø8.2 / Thread: M6×1.0 / Through ports: Ø4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides: Ø10 / Thread: M8×1.25 / Through ports: Ø6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides: Ø11 / Thread: M8×1.25 / Through ports: Ø6.5	25	8.5	9.5	62	48	-	4.15	20	17	28.7	20
63	-	G1/4"	Double Sides: Ø11 / Thread: M8×1.25 / Through ports: Ø6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	Double Sides: Ø14 / Thread: M12×1.75 / Through ports: Ø9.2	25t	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	Double Sides: Ø17.5 / Thread: M14×2 / Through ports: Ø11.3	30	13	10	114	90	-	3.65	32	27	35	26

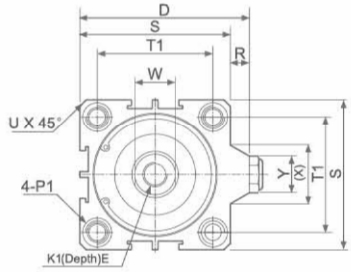
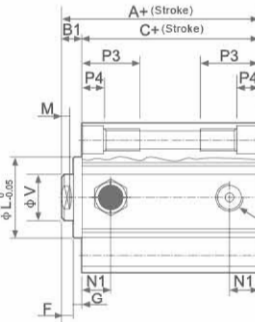
SDA Series Thin Type (Compact) Cylinder

Overall Dimensions

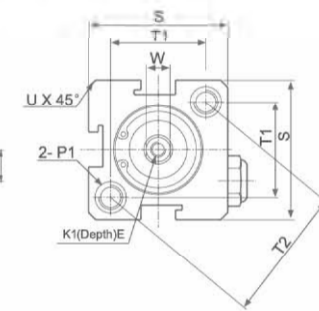
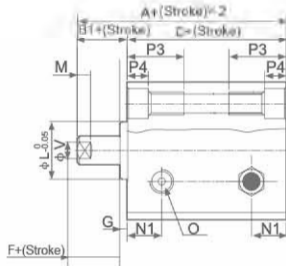
SSA.SSAS Type Φ 12 ~ Φ 16



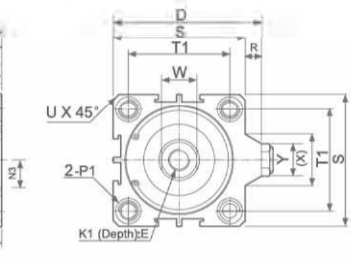
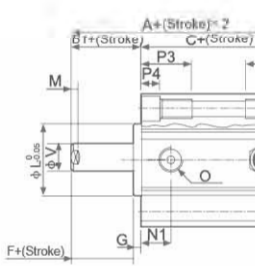
SSA.SSAS Type Φ 20 ~ Φ 40



STA.STAS Type Φ 12 ~ Φ 16



STA.STAS Type Φ 20 ~ Φ 40

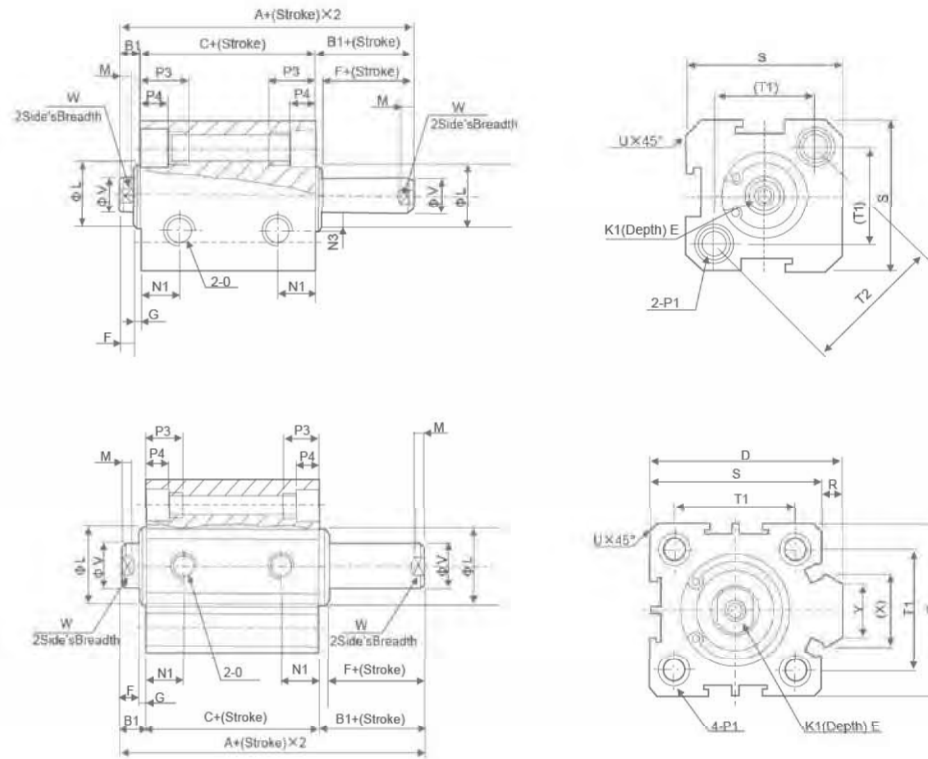


Dimension Sheet

Type	Standard Type					Attach Magnet					D	E	F	G	K1	L	M	N1
Bore Stroke Symbol	A		B1	C		A		B1	C									
	≤10	>10		≤10	>10	≤10	>10		≤10	>10								
12	32	42	5	27	37	42	52	5	37	47	-	6	4	1	M3x0.5	10.2	2.8	6.3
16	34	44	5.5	28.5	38.5	44	54	5.5	38.5	48.5	-	6	4t	4	1.5	11	2.8	7.3
20	35	45	5.5	29.5	39.5	45	55	5.5	39.5	49.5	36	8	4	1.5	M4x0.7	16	2.8	7.5
25	37	47	6	34	41	47	57	6	41	51	42	10	4	2	M5x0.8	17	2.8	8
32	41.5	51.5	7	34.5	44.5	51.5	61.5	7	44.5	54.4	50	12	4	3	M6x1	22	2.8	9
40	43	53	7	36	46	53	63	7	46	56	58.5	12	4	3	M8x1.25	28	2.8	10

Bore Size / Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	Double Sides Ø6.6/Thread: M5×0.8/Through ports: Ø4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides Ø6.8/Thread: M5×0.8/Through ports: Ø4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides Ø6.8/Thread: M5×0.8/Through ports: Ø4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides Ø8.2/Thread: M6×1.0/Through ports: Ø4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides Ø8.2/Thread: M6×1.0/Through ports: Ø4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides Ø10/Thread: M6×1.25/Through ports: Ø6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16

SDA Series Thin Type (Compact) Cylinder

 Overall DimensionsSDAD,SDADS Type
Φ 12 ~ Φ 16

SDAD,SDADS Type
Φ 20 ~ Φ 100

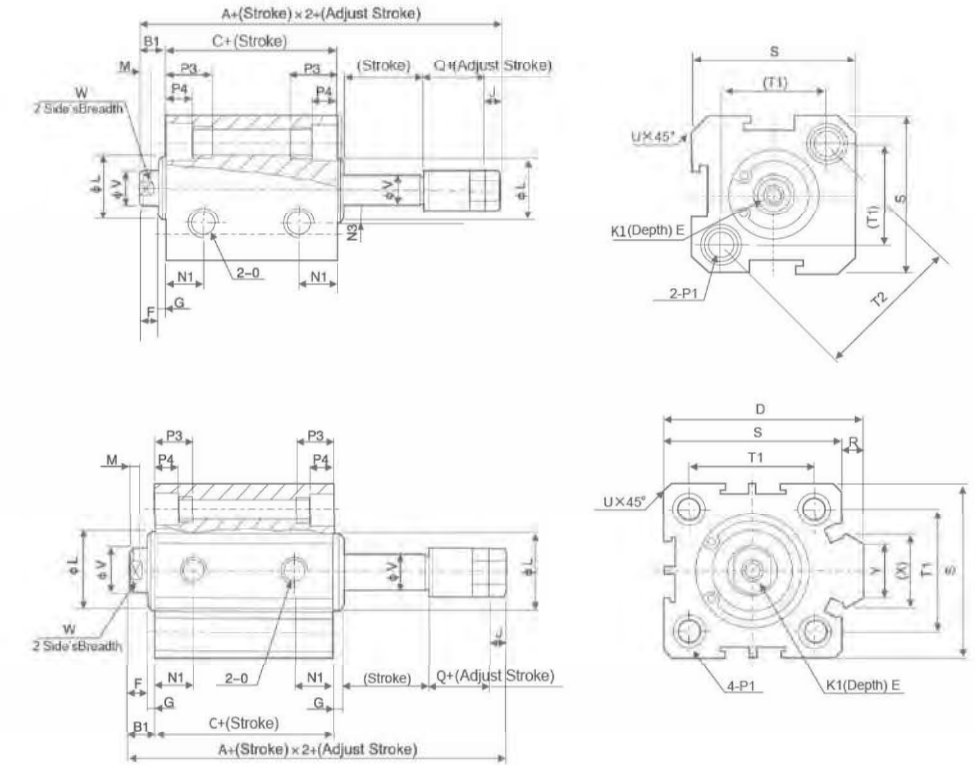
 Dimension Sheet

Type	Standard Type			Attach Magnet			D	E		F	G	K1	L	M	N1
Bore Size / Symbol	A	B1	C	A	B1	C		Stroke ≤10	Stroke >10						
12	27	5	17	37	5	27	—	6		4	1	M3x0.5	10.2	2.8	6.3
16	29.5	5.5	18.5	39.5	5.5	28.5	—	6		4	1.5	M3x0.5	11	2.8	7.3
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8 (Strokes≤5/Itis6.5)		4	2	M4x0.7	16	2.8	7.5
25	33	6	21	43	6	31	42	10 (Strokes≤5/Itis7)		4	2	M5x0.8	17	2.8	8.3
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	3	M6x1	22	2.8	9
40	40	7	28	50	7	36	58.5	11	12	5	3	M8x1.25	28	2.8	10
50	46	9	28	56	9	39	71.5	11	15	5	4	M10x1.5	30	2.8	11.5
63	50	9	32	60	11	44	84.5	14	15	5	4	M10x1.5	36	2.8	14.5
80	63	11	41	73	11	51	104	14	20	6	5	M14x1.5	45	2.8	16
100	75	12	51	85	12	61	124	18	20	7	5	M18x1.5	55	2.8	20.5

Bore Size / Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides: Ø6.5 / Thread: M5×0.8 / Through ports: Ø4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides: Ø8.2 / Thread: M6×1.0 / Through ports: Ø4.5	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides: Ø8.2 / Thread: M6×1.0 / Through ports: Ø4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides: Ø10 / Thread: M8×1.25 / Through ports: Ø6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides: Ø10 / Thread: M8×1.25 / Through ports: Ø6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	Double Sides: Ø10 / Thread: M8×1.25 / Through ports: Ø6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G1/8"	Double Sides: Ø17 / Thread: M14×1.5 / Through ports: Ø9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G1/8"	Double Sides: Ø17 / Thread: M14×1.5 / Through ports: Ø11.3	30	13	10	114	90	-	3.65	32	27	35	26

SDA Series Thin Type (Compact) Cylinder

Overall Dimensions

SDAJ.SDAJS Type
Φ 12 ~ Φ 16SDAJ.SDAJS Type
Φ 20 ~ Φ 100

 Dimension Sheet

Type	Standart Type			Attach Magnet			D	E		F	G	K1	L	M	N1
Bore Size/Symbol	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	22	5	17	32	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3
16	24	5.5	18.5	34	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3
20	25	5.5	19.5	35	5.5	29.5	36	8		4	1.5	M4×0.7	15	2.8	7.5
25	27	6	21	43	6	31	42	10		4	2	M5×0.8	17	2.8	8
32	31.5	7	24.5	41.5	7	34.5	50	12		4	2	M6×1	22	2.8	9
40	33	7	28	43	7	36	58.5	12		4	3	M8×1.25	28	2.8	10
50	37	9	28	47	9	38	71.5	15		5	4	M10×1.5	38	2.8	10.5
63	41	9	32	51	9	42	84.5	15		5	4	M10×1.5	40	2.8	11.8
80	52	11	41	62	11	51	104	15	20	6	5	M14×1.5	45	4	14.5
100	63	12	51	73	12	61	124	18	20	7	5	M18×1.5	55	4	20.5

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5x0.8	Double Sides: Φ6.5 / Thread: M5x0.8 / Through ports: Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5x0.8	Double Sides: Φ6.5 / Thread: M5x0.8 / Through ports: Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5x0.8	Double Sides: Φ6.5 / Thread: M5x0.8 / Through ports: Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5x0.8	Double Sides: Φ6.5 / Thread: M6x1.0 / Through ports: Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides: Φ6.5 / Thread: M6x1.0 / Through ports: Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides: Φ6.5 / Thread: M8x1.25 / Through ports: Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides: Φ6.5 / Thread: M8x1.25 / Through ports: Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	Double Sides: Φ6.5 / Thread: M8x1.25 / Through ports: Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	Double Sides: Φ6.5 / Thread: M12x1.75 / Through ports: Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	Double Sides: Φ6.5 / Thread: M12x1.75 / Through ports: Φ11.3	30	13	10	114	90	-	3.85	32	27	35	26

ACQ Series Thin Type (Compact) Cylinder



ACQ 32 x 25



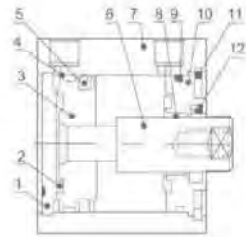
ACQJ 32 x 25-10

Ordering Code

ACQ	20	×	30	—	30	S	—	B
Series Code	Cylinder Bore		Stroke		Adjust Stroke	Magnet Code		Cog Type
ACQ: Double Action Type ASQ: Single Action Extrusion Type ATQ: Single Action Drawing in Type ACQD: Double-shaft Double Action Type ACQJ: Double-shaft and Adjustable Stroke Type	12~100mm				10mm 20mm 30mm 40mm 50mm	Blank: Without Magnet S: With Magnet		Blank: Inner Thread B: Outer Thread N: No Thread

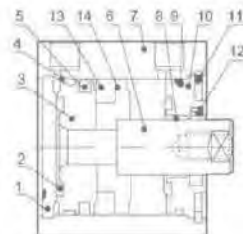
Internal Structure

ACQ Type



No.	Designation	No.	Designation
1	Back Cover	2	Anti-Crash Cushion
3	Piston	4	Wear Proof Cushion
5	O-Ring	6	Piston Rod
7	Barrel	8	Bush
9	O-Ring	10	Front Cover
11	Type C Buckle Ring	12	Front Cover O-Ring

ACQS Type



No.	Designation	No.	Designation
1	Back Cover	2	Anti-Crash Cushion
3	Piston	4	Wear Proof Cushion
5	O-Ring	6	Piston Rod
7	Barrel	8	Bush
9	O-Ring	10	Front Cover
11	Type C Buckle Ring	12	Front Cover O-Ring
13	Magnet	14	Magnet Holder

Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Motion Pattern	Double Action Single Acting Extrusion type Single Acting Drawing-in type									
Working Medium	Air									
Operating Pressure Range	Double Action: 0.1~1.0MPa Single Action: 0.2~1.0MPa									
Ensured Pressure Resistance	1.5MPa									
Operating Temperature Range	-20~80°C									
Operating Speed Range	Double Action: 30~500mm/s Single Action: 50~500mm/s									
Stroke Tolerance Range	Stroke≤150 ₀ ^{+1.0} , Stroke > 150 ₀ ^{+1.4}									
Buffer Type	Anti Crash Cushion									
Port Size	M5×0.8 G1/8" G1/4" G3/8"									

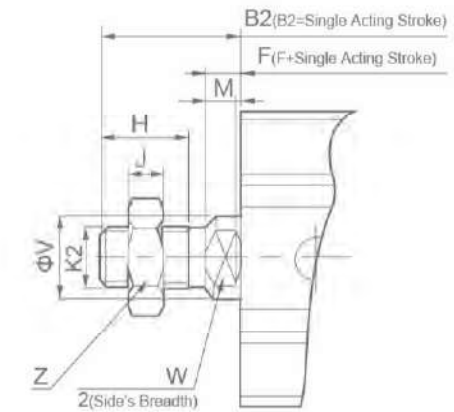
ACQ Series Thin Type (Compact) Cylinder

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Allow Stroke	
			Not Attach Magnet	Attach Magnet
12	Double Action	5 10 15 20 25 30 35 40 45 50	50	80
	Single Action	5 10 15 20	20	-
16	Double Action	5 10 15 20 25 30 35 40 45 50 55 60	60	80
	Single Action	5 10 15 20	20	-
20	Double Action	5 10 15 20 25 30 35 40 45 50 55 60 70 75 80 90 100	100	130
	Single Action	5 10 15 20 25 30	30	-
32	Double Action	5 10 15 20 25 30 35 40 45 50 55 60 70 75 80 90 100	100	150
	Single Action	5 10 15 20 25 30	30	-
40				
50				
63				
80				
100				

Overall Dimensions

Φ20~100
Strokes≤100



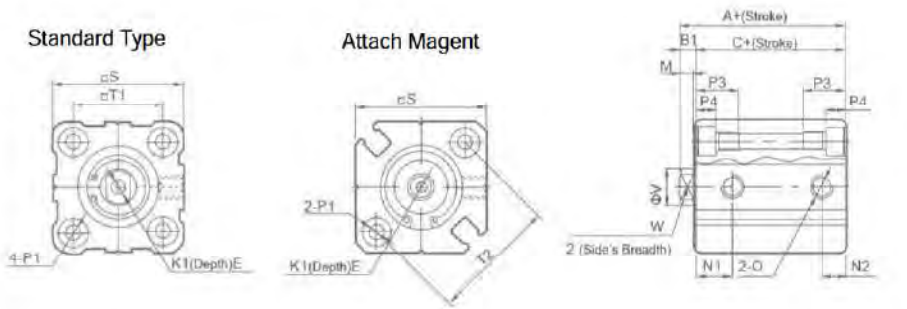
Dimension Sheet

Bore (mm)	B2	F	H	I	J	K2	M	V	W
12	14	3.5	9	8	4	M5×0.8	3.5	6	5
16	15.5	3.5	10	10	5	M6×1.0	3	8	6
20	18.5	4.5	12	12	6	M8×1.25	4	10	8
25	22.5	5	15	17	6	M10×1.25	4.5	12	10
32	28.5	5	20.5	19	8	M14×1.5	4	16	14
40	28.5	5	20.5	19	8	M14×1.5	4	16	14
50	33.5	5	26	27	11	M18×1.5	4	20	17
63	33.5	5	26	27	11	M18×1.5	4	20	17
80	43.5	8	32.5	32	13	M22×1.5	6	25	22
100	43.5	8	32.5	36	13	M26×1.5	5.5	32	27

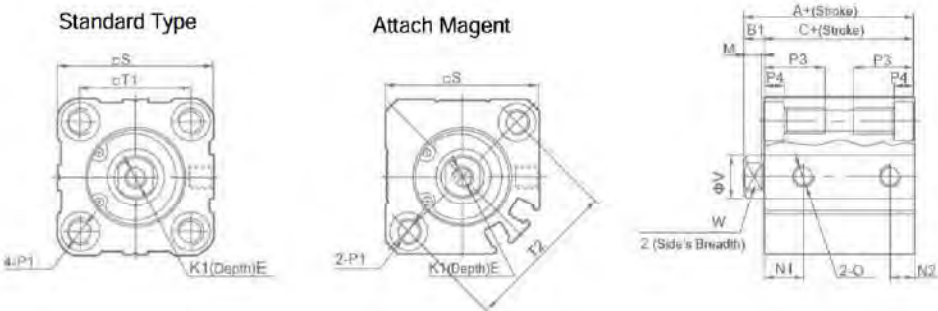
ACQ Series Thin Type (Compact) Cylinder

Overall Dimensions

ACQ, ACQS Type:
Φ12~Φ16



ACQ, ACQS Type:
Φ20~Φ25



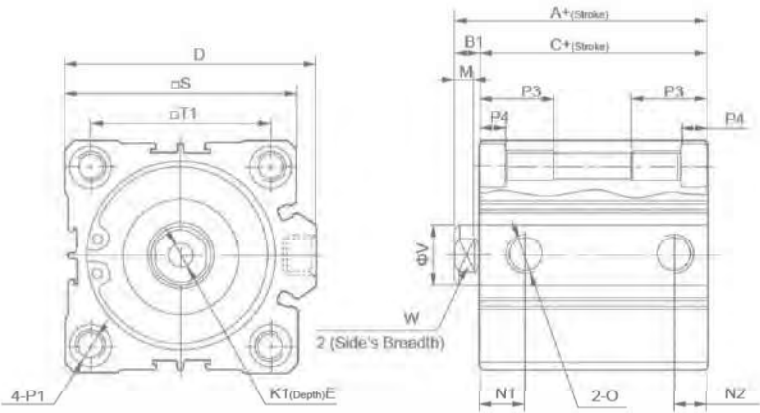
Dimension Sheet

Type	Standard Type				Attach Magnet		B1	D	E	K1	M	N1		N2	
Symbol Bore (mm)	A		C		A	C						Standard Type	Attach Magnet	Standard Type	Attach Magnet
	Stroke ≤50	Stroke ≥60	Stroke ≤50	Stroke ≥60											
12	20.5	-	17	-	31.5	28	3.5	-	6	M3×0.5	3.5	7.5	9	5	7
16	22	-	18.5	-	34	30.5	3.5	-	8	M4×0.7	3	8	9.5		5.5
20	24	34	19.5	29.5	36	31.5	4.5	-	7	M5×0.8	4	9	9.5		5.5
25	27.5	37.5	22.5	32.5	37.5	32.5	5	-	12	M6×1.0	4.5	11			5.5

Bore (mm)/Symbol	O	P1	P3	P4	S	T1	T2	V	W
12	M5×0.8	Double Sides: φ6.5 / Thread: M4×0.7 / Through Ports: φ3.4	11	3.5	25	15.5	22	6	5
16	M5×0.8	Double Sides: φ6.5 / Thread: M4×0.7 / Through Ports: φ3.4	11	3.5	29	20	28	8	6
20	M5×0.8	Double Sides: φ9 / Thread: M6×1.0 / Through Ports: φ5.2	17	7	36	25.5	36	10	8
25	M5×0.8	Double Sides: φ9 / Thread: M6×1.0 / Through Ports: φ5.2	17	7	40	28	40	12	10

Overall Dimensions

ACQΦ32~Φ100
Stroke≤100



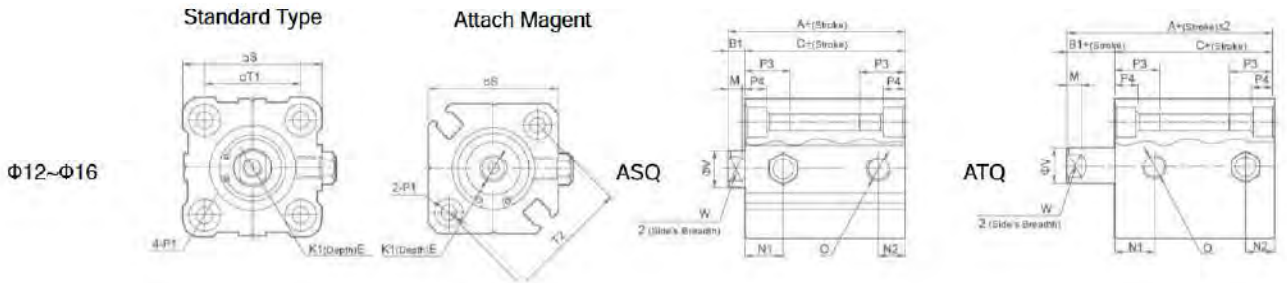
ACQ Series Thin Type (Compact) Cylinder

Dimension Sheet

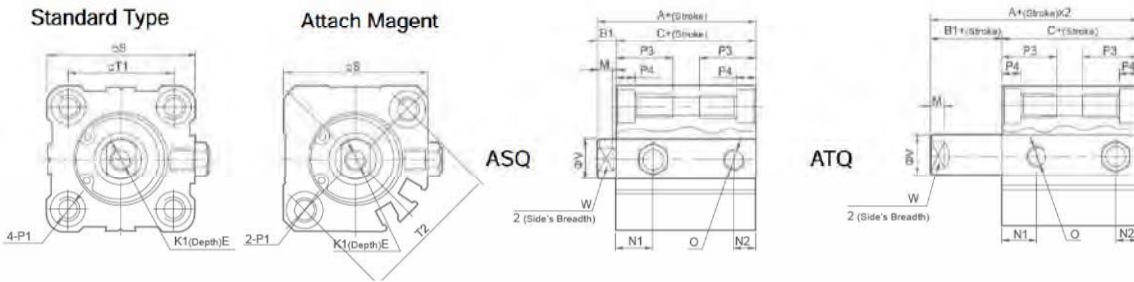
Type	Standard Type				Attach Magnet		B1	D	E	K1	M	Standard Type	Attach Magnet	Standard Type	Attach Magnet	
Symbol Bore (mm)	A		C		A	C						N1		N2		
	Stroke≤50	Stroke≥60	Stroke≤50	Stroke≥60												
32	Stroke= 5	30	40	23	33	40	33	7	49.5	13	M8×1.25	6	7.5	10.5	6.5	7.5
	Stroke > 5												10.5		7.5	
40	Stroke= 5	36.5	46.5	29.5	39.5	46.5	39.5	7	57	13	M8×1.25	6	11		8	
	Stroke > 5															
50	Stroke= 5	38.5	48.5	30.5	40.5	48.5	40.5	8	71	15	M10×1.5	6.5	9	10.5	9	10.5
	Stroke > 5												10.5		10.5	
63	Stroke= 5	44	54	36	46	54	46	8	84	15	M10×1.5	6.5	14	15	9.5	10.5
	Stroke > 5												15		10.5	
80		53.5	63.5	43.5	53.5	63.5	53.5	10	104	20	M16×2.0	8.5	18		14	
100		65	75	53	63	75	63	12	123.5	26	M20×2.5	9.5	20		17.5	

Bore (mm)/Symbol	O	P1	P3	P4	S	T1	T2	V	W
32	G1/8"	Double Sides: φ9 / Thread: M6×1.0 / Through ports: φ5.2	17	7	45	34	-	16	14
40	G1/8"	Double Sides: φ9 / Thread: M6×1.0 / Through ports: φ5.2	17	7	53	40	-	16	14
50	G1/4"	Double Sides: φ11 / Thread: M8×1.25 / Through ports: φ6.5	22	8	64	50	-	20	17
63	G1/4"	Double Sides: φ14 / Thread: M10×1.5 / Through ports: φ8.7	28.5	10.5	77	60	-	20	17
80	G3/8"	Double Sides: φ17.5 / Thread: M12×1.75 / Through ports: φ10.7	35.5	13.5	98	77	-	25	22
100	G3/8"	Double Sides: φ17.5 / Thread: M12×1.75 / Through ports: φ10.7	35.5	13.5	117	94	-	32	27

Dimension Sheet



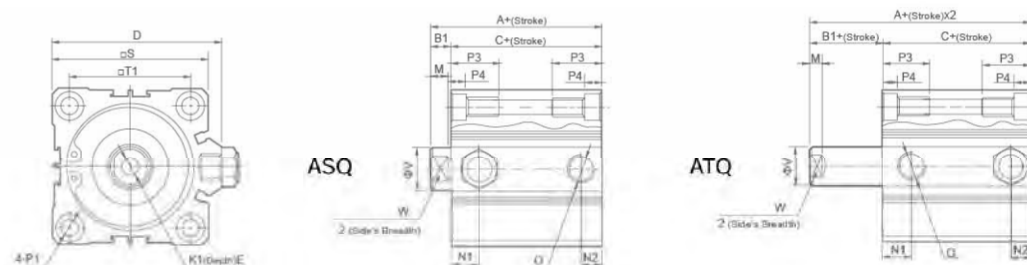
Φ20~Φ25



ACQ Series Thin Type (Compact) Cylinder

Overall Dimensions

Φ32~Φ63



Dimension Sheet

Type	Without Magent						Attach Magent					
Bore(mm)/ Symbol	A			C			A			C		
Stroke	5/10	15/20	25/30	5/10	15/20	25/30	5/10	15/20	25/30	5/10	15/20	25/30
12	25.5	30.5	-	22	27	-	36.5	41.5	-	33	38	-
16	27	32	-	23.5	28.5	-	39	44	-	35.5	40.5	-
20	29	34	39	24.5	29.5	34.5	41	46	51	36.5	41.5	46.5
25	32.5	37.5	42.5	27.5	32.5	37.5	42.5	47.5	52.5	37.5	42.5	47.5
32	35	40	45	28	33	38	45	50	55	38	43	48
40	41.5	46.5	51.5	34.5	39.5	44.5	51.5	56.5	61.5	44.5	49.5	54.5
50	48.5	53.5	58.5	40.5	45.5	50.5	58.5	63.5	68.5	50.5	55.5	60.5
63	54	59	64	46	51	56	64	69	74	56	61	66

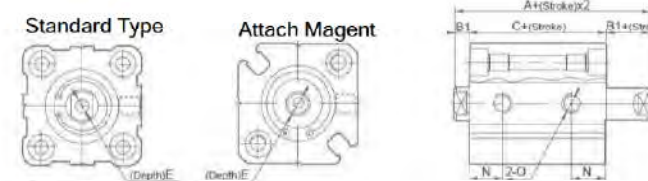
Type	B1	D	E	K1	M	Standard Type	Attach Magent	Standard Type	Attach Magent
Bore(mm)/Symbol						N1		N2	
12	3.5	-	6	M3×0.5	3.5	7.5	9	5	7
16	3.5	-	8	M4×0.7	3	8	9.5	5.5	
20	4.5	-	7	M5×0.8	4	9	9.5	5.5	
25	5	-	12	M6×1.0	4.5	11		5.5	
32	7	49.5	13	M8×1.25	6	10.5		7.5	
40	7	57	13	M8×1.25	6	11		8	
50	8	71	15	M10×1.5	6.5	10.5		10.5	
63	8	84	15	M10×1.5	6.5	15		10.5	

Bore(mm)/Symbol	O	P1	P3	P4	S	T1	T2	V	W
12	M5×0.8	Double Sides: Φ6.5 / Thread: M4×0.7 / Through ports: Φ3.4	11	3.5	25	15.5	22	6	5
16	M5×0.8	Double Sides: Φ6.5 / Thread: M4×0.7 / Through ports: Φ3.4	11	3.5	29	20	28	8	6
20	M5×0.8	Double Sides: Φ9 / Thread: M6×1.0 / Through ports: Φ5.2	17	7	36	25.5	36	10	8
25	M5×0.8	Double Sides: Φ9 / Thread: M6×1.0 / Through ports: Φ5.2	17	7	40	28	40	12	10
32	G1/8"	Double Sides: Φ9 / Thread: M6×1.0 / Through ports: Φ5.2	17	7	45	34	-	16	14
40	G1/8"	Double Sides: Φ9 / Thread: M6×1.0 / Through ports: Φ5.2	17	7	53	40	-	16	14
50	G1/4"	Double Sides: Φ11 / Thread: M10×1.25 / Through ports: Φ6.5	22	8	64	50	-	20	17
63	G1/4"	Double Sides: Φ14 / Thread: M10×1.5 / Through ports: Φ8.7	28.5	10.5	77	60	-	20	17

ACQ Series Thin Type (Compact) Cylinder

Overall Dimensions

ACQD Type Φ12~Φ16



ACQD Type Φ20~Φ25



ACQD Type Φ32~Φ100



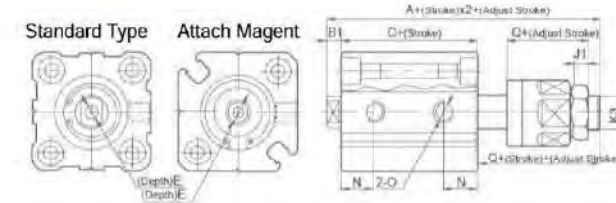
Dimension Sheet

Type	Standard Type		Attach Magnet		B1	E	N
Bore(mm)/Symbol	A	C	A	C			
12	32.2	25.2	39.4	32.4	3.5	6	9
16	33	26	43	36	3.5	8	9.5
20	35	26	47	38	4.5	7	9.5
25	39	29	49	39	5	9.5(S=5) 12(S>5)	11
32	44.5	30.5	54.5	40.5	7	9(S≤10) 13(S>10)	10
40	54	40	64	50	7	11(S≤10) 13(S>10)	13
50	56.5	40.5	66.5	50.5	8	12(S≤10) 15(S>10)	13.5
63	58	42	68	52	8	12(S≤10) 15(S>10)	14.5(S=5) 16(S>5)
80	71	51	81	61	10	14(S≤15) 20(S>15)	16
100	84.5	60.5	94.5	70.5	12	20(S≤25) 26(S>25)	21

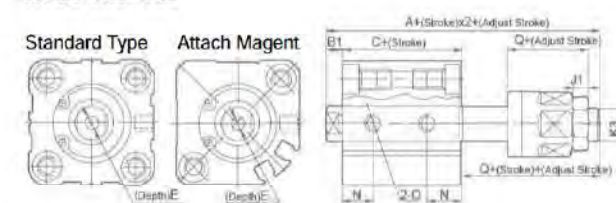
Note: If dimension not remarked, it is same as standard.

Overall Dimensions

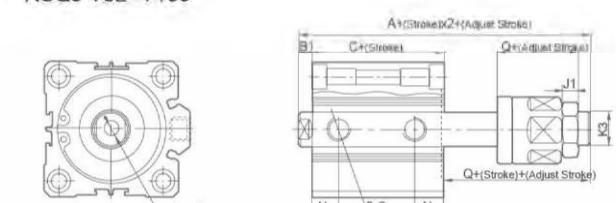
ACQJ Φ12~Φ16



ACQJ Φ20~Φ25



ACQJ Φ32~Φ100



Dimension Sheet

Type	Standard Type		Attach Magnet		B1	E	N	Q	J1	K3
Bore(mm)/Symbol	A	C	A	C						
12	45.2	25.2	52.4	32.4	3.5	6	9	17	4	M5×0.8
16	50	26	60	36	3.5	8	9.5	21	5	M6×1.0
20	55	26	67	38	4.5	7	9.5	25	6	M8×1.2
25	60.5	29	70.5	39	5	9.5(S=5) 12(S>5)	11	27	6	M10×1.2
32	64.9	30.5	74.9	40.5	7	9(S≤10) 13(S>10)	10	28	7	M12×1.2
40	74.5	40	84.5	50	7	11(S≤10) 13(S>10)	13	28	7	M12×1.2
50	77	40.5	87	50.5	8	12(S≤10) 13(S>10)	13.5	29	8	M16×1.
63	78.4	42	88.4	52	8	12(S≤10) 15(S>10)	14.5(S=5) 16(S>5)	29	8	M16×1.
80	95.8	51	105.8	61	10	14(S≤15) 20(S>15)	16	35.5	10	M20×1.
100	114.3	60.5	124.3	70.5	12	20(S≤25) 26	21	42.5	13.5	M27×2.

CQ2 Series Compact Cylinder



CQ2B 20 x 25D



CQ2B 40 x 25



CQ2B 32 x 30-M

Ordering Code

CQ2		20	×	10	D	
Series Code	Back Cover Type	Cylinder Bore		Stroke	Action	Cylinder body (optional)
CQ2: Normal Type CDQ2: Attach magnet Type	B: With through bore A: With female thread on both ends	Single action: 12mm~50mm Double action: 12mm~100mm		0~100mm	D: Double action S: Single action (with spring return) T: Single action (with spring extent)	Blank: Inner Thread M: Outer Thread C: With Cushion

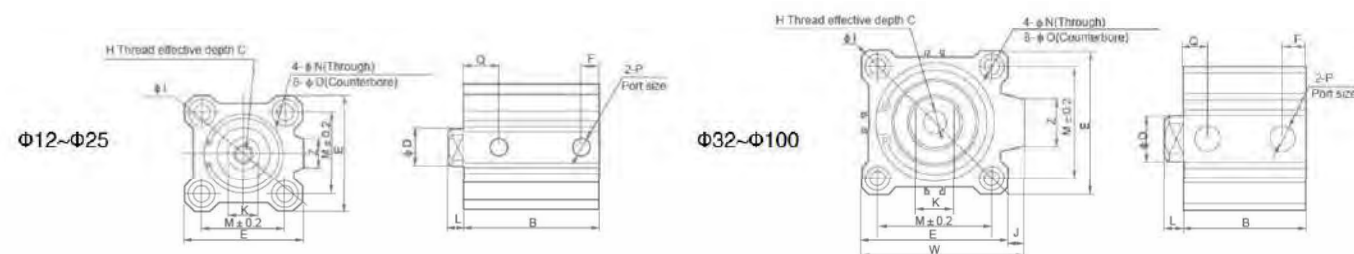
Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Working Medium	Air									
Motion Pattern	Double action / Single Action Extrusion type / Single Action Drawing-In Type									
Ensured Pressure	15.3 kgf/cm ² (1.5 MPa)									
Resistance	10.2 kgf/cm ² (1.0 MPa)									
Max. Pressure	10.2 kgf/cm ² (1.0 MPa)									
Environment And Fluid Temp	5~+60°C									
Thread Type	Inner Thread (Standard) / Outer Thread (Optional)									
Buffering	NO									
Margin of Stroke Error (mm)	+1.0 0									
Installation	Through Hole (Standard), Inner size on the two sides (Optional)									
Port size	M5×0.8		G1/8"			G1/4"			G3/8"	

Note: Pls Confirm Single Type Can't With Cushion.

Overall Dimensions

Through Hole Type/CQ2B Series



CQ2 Series Compact Cylinder

Dimension Sheet (Double Action)

Model	Stroke range (mm)	B	ΦD	E	F	H	C	ΦI	J	K	L	M	ΦN	ΦO	P	Q	W	Z
CQ2B12-DD	5~30	17+st	6	25	5	M3×0.5	6	32	-	5	3.5	15.5	3.5	6.5 depth 3.5	M5×0.8	7.5	-	-
CQ2B16-DD	5~30	18.5+st	8	29	5.5	M4×0.7	8	38	-	6	3.5	20	3.5	6.5 depth 3.5	M5×0.8	8	-	10
CQ2B20-DD	5~50	19.5+st	10	36	5.5	M6×0.8	7	47	-	8	4.5	25.5	5.5	9 depth 7	M5×0.8	9	-	10
CQ2B25-DD	5~50	22.5+st	12	40	5.5	M8×1.0	12	52	-	10	5	28	5.5	9 depth 7	M5×0.8	11	-	10
CQ2B32-DD	5~50	23+st	16	45	5.5	M8×1.25	13	60	4.5	14	7	34	5.5	9 depth 7	M5×0.8 1/8	11.5	49.5	18
CQ2B40-DD	5~50	29.5+st	16	52	8	M8×1.25	13	69	5	14	7	40	5.5	9 depth 7	1/8	11	57	18
CQ2B50-DD	10~50	30.5+st	20	64	10.5	M10×1.5	15	86	7	17	8	50	6.6	11 depth 8	1/4	10.5	71	22
CQ2B63-DD	10~50	36+st	20	77	10.5	M10×1.5	15	103	7	17	8	60	9	14 depth 10.5	1/4	15	84	22
CQ2B80-DD	10~50	43.5+st	25	95	12.5	M16×2.0	21	132	6	22	10	77	11	17.5 depth 13.5	3/8	16	104	26
CQ2B100-DD	10~50	53+st	30	117	13	M20×2.5	27	156	6.5	27	12	94	11	17.5 depth 13.5	3/8	23	123.5	26

St= Stroke

Note 1: The standard stroke is at a distance of each 5 mm.

Note 2: The stroke between 55mm~100mm (55, 60, 65, 70, 80, 85, 90, 95.) need to be added thickness of 5, 10, 15 or 20mm pad.

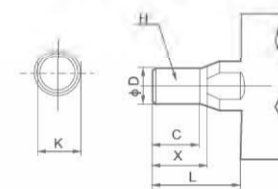
Note 3: External dimensions with bumper are same as standard type as shown above.

Dimension Sheet (Double Action)

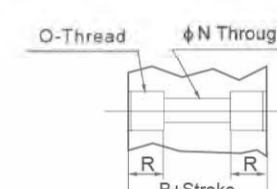
Model	B			ΦD	E	F		H	C	ΦI	J	K	L	M	ΦN	ΦO	P			Q		W	Z
	5st	10st	20st			5st	10st										5st	10st	20st	5st	10st		
CQ2B12-SS	22	27	-	6	25	5	5	M3×0.5	6	32	-	5	3.5	15.5	3.5	6.5 depth 3.5	M5×0.8	-	7.5	7.5	-	-	
CQ2B16-SS	23.5	28.5	-	8	29	5.5	5.5	M4×0.7	8	38	-	6	3.5	20	3.5	6.5 depth 3.5	M5×0.8	-	8	8	-	10	
CQ2B20-SS	24.5	29.5	-	10	36	5.5	5.5	M5×0.8	7	47	8	4.5	25.5	5.5	9	9 depth 7	M5×0.8	-	9	9	-	10	
CQ2B25-SS	27.5	32.5	-	12	40	5.5	5.5	M6×1.0	12	52	10	5	28	5.5	9	9 depth 7	M5×0.8	-	11	11	-	10	
CQ2B32-SS	28	33	-	16	45	5.5	7.5	M8×1.25	13	60	4.5	14	34	5.5	9	9 depth 7	M5×0.8 1/8	-	11.5	11.5	49.5	18	
CQ2B40-SS	34.5	39.5	-	16	52	8	8	M8×1.25	13	69	5	14	40	5.5	9	9 depth 7	1/8	-	11	11	57	18	
CQ2B50-SS	-	40.5	50.5	20	64	10.5	10.5	M10×1.5	15	86	7	17	50	6.6	11	11 depth 8	-	1/4	-	10.5	10.5	71	22

St= Stroke

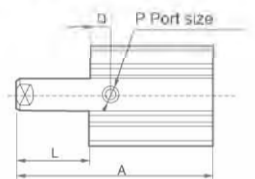
Outer Thread Type



(Inner Thread Type) / CQ2A



Single Action (with Spring extent) Φ12~Φ25



Outer Thread Type

Bore (mm)	C	X	ΦD	H	L	K
12	9	10.5	6	M5×0.8	14	5
16	10	12	8	M6×1.0	15.5	6
20	12	14	10	M8×1.25	18.5	8
25	15	17.5	12	M10×1.25	22.5	10
32	10.5	13.5	16	M14×1.5	28.5	14
40	20.5	23.5	16	M14×1.5	28.5	14
50	26	28.5	20	M18×1.5	33.5	17
63	26	28.5	20	M18×1.5	33.5	17
80	32.5	35.5	25	M22×1.5	43.5	22
100	32.5	35.5	30	M26×1.5	43.5	27

Note 3: InnerThread Type

Bore (mm)	O	R
12	M4×0.7	7
16	M4×0.7	7
20	M6×1.0	10
25	M6×1.0	10
32	M6×1.0	10
40	M6×1.0	10
50	M8×1.25	14
63	M10×1.5	18
80	M12×1.75	22
100	M12×1.75	22

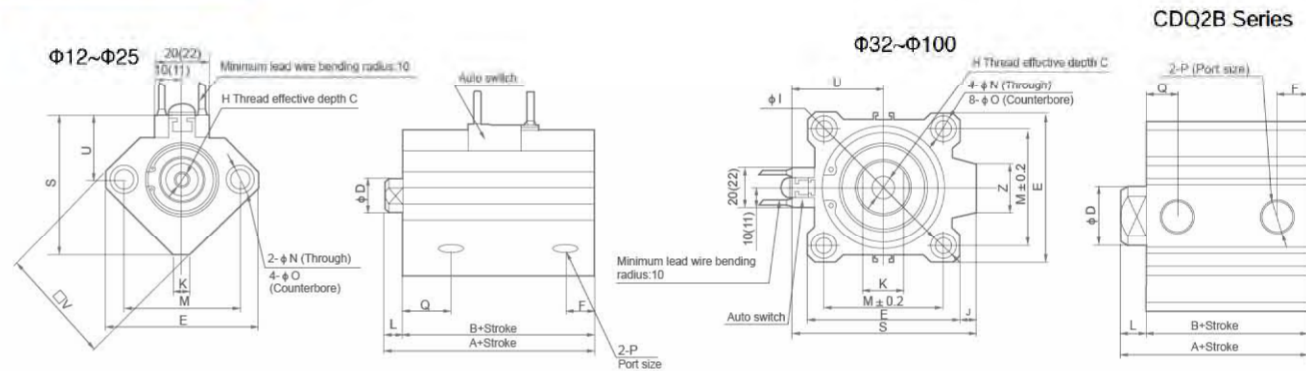
Single Action (with Spring extent)

Bore (mm)	A			L		
	5st	10st	20st	5st	10st	20st
12	30.5	40.5	-	8.5	13.5	-
16	32	42	-	8.5	13.5	-
20	34	44	-	9.5	14.5	-
25	37.5	47.5	-	10	15	-
32	40	50	-	12	17	-
40	46.5	56.5	-	12	17	-
50	-	58.5	78.5	-	18	28

External dimensions with bumper are same as standard type as shown above.

CQ2 Series Compact Cylinder

Overall Dimensions



Dimension Sheet (Double Action)

Model	Stroke Range (mm)	A	B	ΦD	E	F	H	C	ΦI	J	K	L	M	ΦN	ΦO	P	Q	S	U	V	Z
CDQ2B12	5~30	31.5	28	6	32	6.5	M3×0.5	6	-	-	5	22	3.5	6.5	6.5 depth 3.5	M5×0.8	11	35.5	19.5	25	-
CDQ2B16	5~30	34	30.5	8	38	5.5	M4×0.7	8	-	-	6	28	3.5	6.5	6.5 depth 3.5	M5×0.8	10	41.5	22.5	29	-
CDQ2B20	5~50	36	31.5	10	46.8	5.5	M5×0.8	7	-	-	8	36	5.5	9	9 depth 7	M5×0.8	10.5	48	24.5	36	-
CDQ2B25	5~50	37.5	32.5	12	52	5.5	M6×1.0	12	-	-	10	40	5.5	9	9 depth 7	M5×0.8	11	53.5	27.5	40	-
CDQ2B32	5~50	40	33	16	45	7.5	M8×1.25	13	60	4.5	14	34	5.5	9	9 depth 7	1/8	10.5	58.5	31.5	-	18
CDQ2B40	5~50	46.5	39.5	16	52	8	M8×1.25	13	69	5	14	40	5.5	9	9 depth 7	1/8	11	66	35	-	18
CDQ2B50	10~50	48.5	40.5	20	64	10.5	M10×1.5	15	86	7	17	50	6.6	11	11 depth 8	1/4	10.5	80	41	-	22
CDQ2B63	10~50	54	46	20	77	10.5	M10×1.5	15	103	7	17	60	9	14	14 depth 10.5	1/4	11.5	93	47.5	-	22
CDQ2B80	10~50	63	53.5	25	95	12.5	M16×2.0	21	132	6	22	77	11	17.5	17.5 depth 13.5	3/8	13	112.5	57.5	-	26
CDQ2B100	10~50	75	63	30	117	13	M20×2.5	27	156	6.5	27	94	11	17.5	17.5 depth 13.5	3/8	23	132.5	67.5	-	26

Note 2: Long Stroke

Model	Stroke (mm)	A	B	F	P	Q
32	75, 100	40	33	7.5	1/8	10.5
40	75, 100	46.5	39.5	8	1/8	11
50	75, 100	48.5	40.5	10.5	1/4	10.5
63	75, 100	54	46	10.5	1/4	15
80	75, 100	63.5	53.5	12.5	3/8	16
100	75, 100	75	63	13	3/8	23

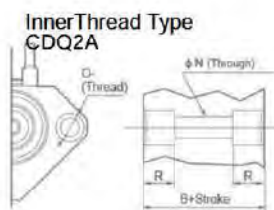
Note 1: The standard stroke is at a distance of each 5 mm.

Note 2: The stroke between 55mm~100mm (55, 60, 65, 70, 80, 85, 90, 95,) need to be added thickness of 5, 10, 15 or 20mm pad.

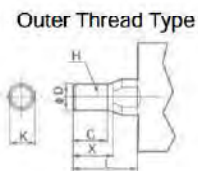
Note 3: External dimensions with rump are same as standard type as shown above.

Note 4: The stroke of cylinder in 5 mm can be fixed only one magnetism switch

Note 3: InnerThread Type



Bore (mm)	Q	R
12	M4×0.7	7
16	M4×0.7	7
20	M6×1.0	10
25	M6×1.0	10
32	M6×1.0	10
40	M6×1.0	10
50	M8×1.25	14
63	M10×1.5	18
80	M12×1.75	22
100	M12×1.75	22



Outer Thread Type

Bore (mm)	C	X	ΦD	H	L	K
12	9	10.5	6	M5×0.8	14	5
16	10	12	8	M6×1.0	15.5	6
20	12	14	10	M8×1.25	18.5	8
25	15	17.5	12	M10×1.25	22.5	10
32	20.5	23.5	16	M14×1.5	28.5	14
40	20.5	23.5	16	M14×1.5	28.5	14
50	26	28.5	20	M18×1.5	33.5	17
63	26	28.5	20	M18×1.5	33.5	17
80	32.5	35.5	25	M22×1.5	43.5	22
100	32.5	35.5	25	M26×1.5	43.5	27

CJP Series Needle Cylinder



CJPB 10 x 15

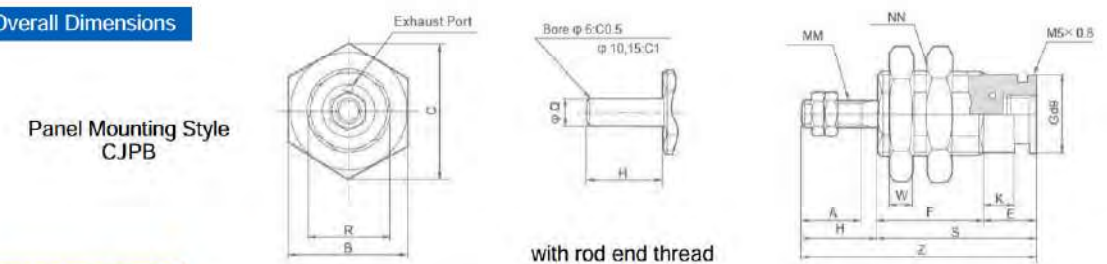
Ordering Code

Series Code	Cylinder Bore	Stroke	Thread Type
CJPB: Panel Mount Type	6 mm	0 ~ 30 mm	Blank: With Thread
CJPS: Invisible Type	10 mm		B: No Thread
CJPD: Double Action Type	15 mm		

Specification

Bore (mm)	6	10	15
Working Medium	Air		
Motion Pattern	Double Action / Single Action (Drawing-in Type)		
Ensured Pressure Resistance	10.5 kgf/cm ² (1.05 MPa)		
Max. Pressure	7 kgf/cm ² (0.7 MPa)		
Min. Pressure	2 kgf/cm ² (0.2 MPa)	1.5 kgf/cm ² (0.15 MPa)	
Operating Temperature Range	5~ +60°C		
Buffering	NO		
Margin of Stroke Error (mm)	+1.0 0		
Port size	M5×0.8 Panel Mount Type		

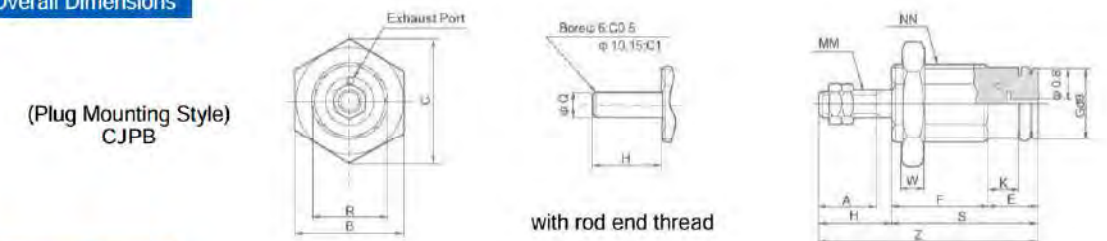
Overall Dimensions



Dimension Sheet

Bore (mm)	A	B	C	E	F			ΦG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	20st							5st	10st	20st		5st	10st	20st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	4	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	5	37.5	43.5	50	6

Overall Dimensions



Dimension Sheet

Bore (mm)	A	B	C	E	F			ΦG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	20st							5st	10st	20st		5st	10st	20st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	4	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	5	37.5	43.5	50	6

ROTARY TABLE/AIR GRIPPER/RODLESS CYLINDERS

Cylinders for special industries and requirement. It is the high cost effective product you can find in our company. They are include: TN/CXS(Double-Shaft), MGP(Three-Shaft), MSQ/CRQ2/CRA1(Rotary table), SHZ/XHC/SHY(Clamp Gripper), SHL(Parallel style), SHT(Angle Gripper), SHS(Round Body) and CY3(Rodless). etc.

TN Series Double-Shaft Cylinder



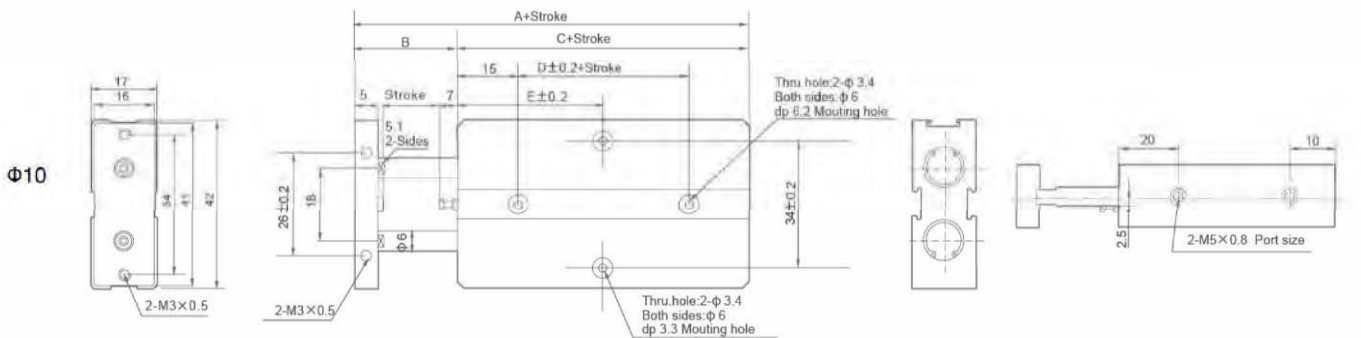
Ordering Code

TN	20	×	50	—	S
Series Code	Cylinder Bore		Stroke		Thread Type
Double Shaft	10 mm				Blank: Without Magnet
Double Action Type	16 mm				S: Attach Magnet
	20 mm				
	25 mm				
	32 mm				

Specification

Bore (mm)	10	16	20	25	32
Motion Pattern	Double action				
Working Medium	Air				
Operating Pressure Range	1~9 kgf/cm ²				
Ensured Pressure Resistance	10.5 kgf/cm ²				
Operating Temperature Range	-5 ~ +70°C				
Operating Speed Range	100~500 mm/s				
Adjustable Stroke	-10 ~ 0 mm				
Cushion Type	Adjustable Cushion				
Non-rotating Precision	0.4°		0.3°		
Port Size	M5×0.8				G1/8"

Overall Dimensions

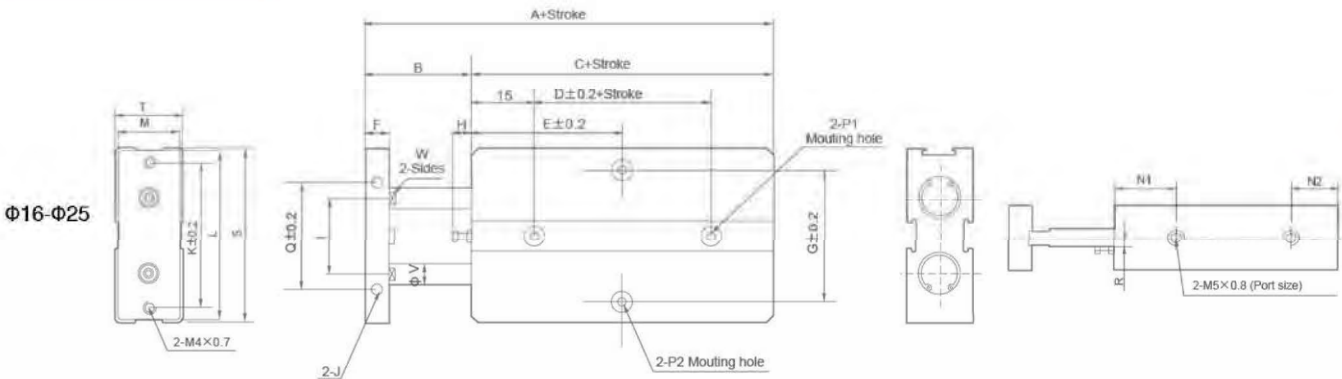


Dimension Sheet

Bore Size	A	B	C	D	E						
Item					10	20	30	40	50	60	70
10	63	12	51	10	30	30	35	40	45	50	55

TN Series Double-Shaft Cylinder

Overall Dimensions

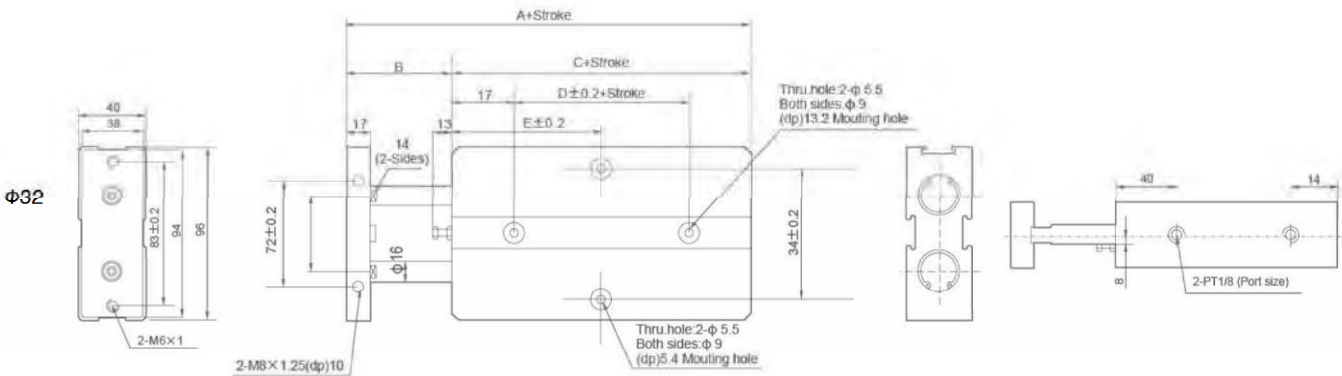


Dimension Sheet

Bore Size	A	B	C	D	E												F	G	H	I
					10	20	30	40	50	60	70	80	90	100	125	150				
16	68	15	53	20	30	35	40	45	50	55	60	65	70	75	87.5	100	8	47	6	24
20	78	20	58	20	35	35	40	45	50	55	60	65	70	75	87.5	100	10	55	9	28
25	81	19	62	30	40	40	45	50	55	60	65	70	75	80	92.5	105	10	66	8	34

Bore Size	J	K	L	M	N1	N2	P1	P2	Q	R	S	T	V	M
16	M4×0.7 / dp 5	47	53	20	22	11	Both sides: Ø7.5 (dp) 7.2 mm Thru. hole: Ø4.5	Both sides: Ø8 (dp) 4.4 mmThru. hole: Ø4.5	34	3	54	21	8	6.1
20	M4×0.7 / dp 5	55	61	24	25	12	Both sides: Ø7.5 (dp) 7.2 mm Thru. hole: Ø4.5	Both sides: Ø8 (dp) 4.4 mmThru. hole: Ø4.5	44	3.5	62	25	10	8.1
25	M4×0.7 / dp 6	66	72	29	27	12	Both sides: Ø7.5 (dp) 7.2 mm Thru. hole: Ø4.5	Both sides: Ø8 (dp) 4.4 mmThru. hole: Ø4.5	56	7	73	30	12	10.2

Overall Dimensions



Dimension Sheet

Bore Size	A	B	C	D	E											
					10	20	30	40	50	60	70	80	90	100	125	150
32	108	30	78	35	45	50	55	60	65	70	75	80	85	90	102.5	115

CXS Series Double-Shaft Cylinder

Ordering Code



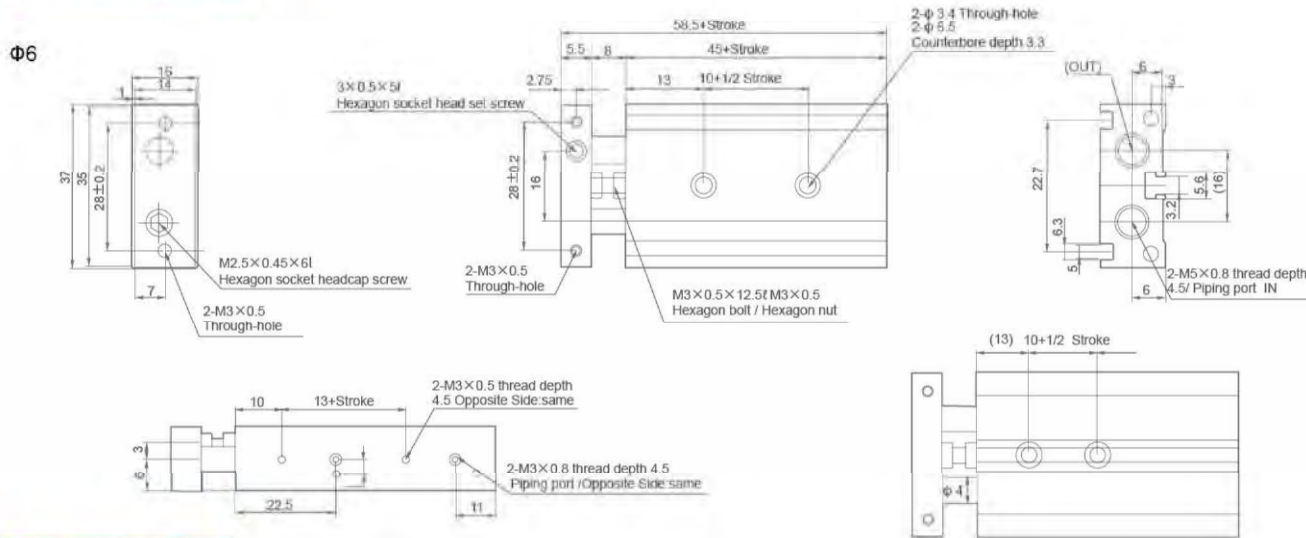
CXS 20 x 50

Series Code	Type of Bearing	Cylinder Bore	Stroke
CXS: Attach Magnet Type	M: Slide Bearing Type L: Ball Guide Bearing Type	6 mm 10 mm 15 mm 20 mm 25 mm 32 mm	Φ6: 0-50 mm Φ10-32: 0-100 mm

Specification

Bore (mm)	6	10	15	20	25	32	
Working Medium	Air						
Motion Pattern	Double action						
Ensured Pressure Resistance	1.05MPa (10.7kgf/cm²)						
Max. pressure	0.7MPa (7.1kgf/cm²)						
Min. pressure	0.15MPa (1.5 kgf/cm²)	0.1MPa (1.0kgf/cm²)		0.05MPa (0.51kgf/cm²)			
Operating Temperature Range	5--+60°C						
Buffering	Both ends buffer						
Structure	Double Power						
Stroke Adjustable Range	Return Stroke: 0~5mm						
Bearing	Slide Bearing / Ball Guide Bearing						
Precision of Piston rod Non-rotating	(Slide Bearing)	±0.1	±0.15	±0.13	±0.11	±0.1	±0.08
	(Ball Guide Bearing)	±0.1	±0.1	±0.07	±0.06	±0.05	±0.04
Port size	M5×0.8			G1/8"			

Overall Dimensions

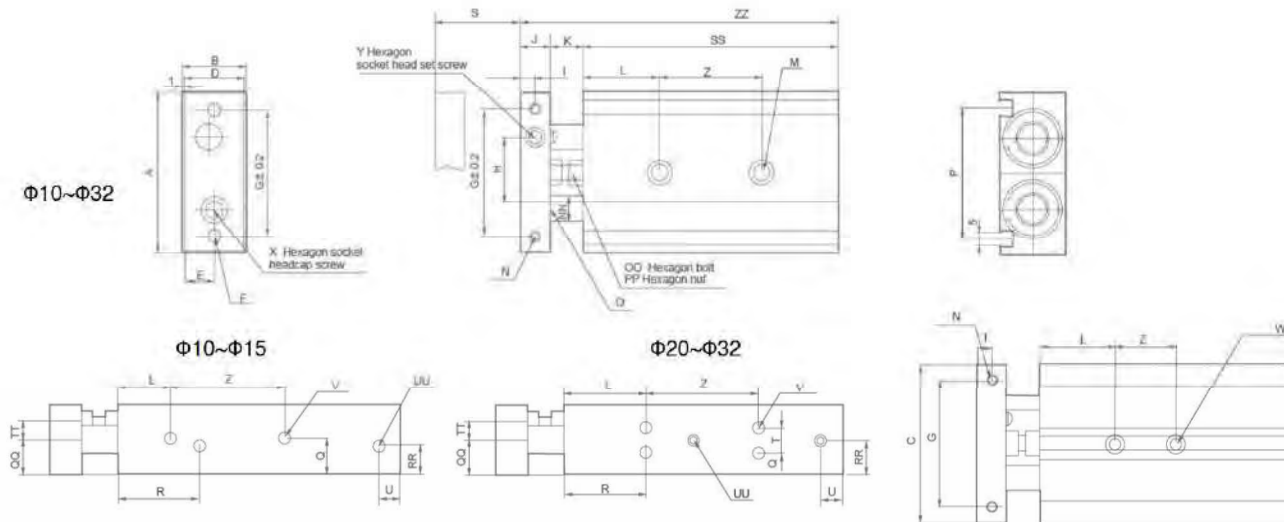


Dimension Sheet

Model	Stroke	10+1/2 Stroke	13+Stroke	45+Stroke	58.5+Stroke
CXSø6-10	10	15	23	55	68.5
CXSø6-20	20	20	33	65	78.5
CXSø6-30	30	25	43	75	88.5
CXSø6-40	40	30	53	85	95.5
CXSø6-50	50	35	63	95	108.5

CXS Series Double-Shaft Cylinder

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	NN	NN	O	OO	P
CXSø10-10 /20/30/40/50	46	17	44	15	7.5	2-M4×0.7	35	20	4	8	9	20	2-ø3.4 through 2-ø6.5 Counterbore depth 3.3	2-M3×0.5 thread depth 5	Φ6	5	M4×0.7×14.5L	33.6
CXSø15-10 /20/30/40/50	58	20	56	16	9	2-M5×0.8	45	25	5	10	9	30	2-ø4.3 through 2-ø8 Counterbore depth 4.4	2-M3×0.7 thread depth 6	Φ8	6	M4×0.7×14.5L	48
CXSø20-10/20/ 30/40/50/100	65	25	62	23	11.5	2-M5×0.8	50	28	6	12	12	30	2-ø5.5 through 2-ø9.5 Counterbore depth 5.3	2-M3×0.7 thread depth 6	Φ10	8	M6×1.0×18.5L	53
CXSø25-10/20/ 30/40/50/75/100	80	30	78	28	14	2-M6×1.0	60	35	6	12	12	30	2-ø6.9 through 2-ø11 Counterbore depth 6.3	2-M3×0.8 thread depth 7.5	Φ12	10	M6×1.0×18.5L	64
CXSø32-10/20/ 30/40/50/75/100	98	38	96	35	18	2-M8×1.25	75	44	8	16	14	30	2-ø6.9 through 2-ø11 Counterbore depth 6.3	2-M3×0.8 thread depth 8	Φ16	13	M8×12.5×23L	76

Model	PP	Q	QQ	R	RR	T	TT	U	UU	V	W	X	Y
CXSø10-10 /20/30/40/50	M4×0.7	8.5	7	30	7	-	5	8	4-M5×0.8 thread depth 4.5	4-M3×0.5 thread depth 4.5	4-M3×0.5 thread depth 4.5	M3×0.5×10L	M3×0.5×5L
CXSø15-10 /20/30/40/50	M4×0.7	10	10	38.5	10	-	5	8	4-M5×0.8 thread depth 4.5	4-M4×0.7 thread depth 5	2-M5×0.8 thread depth 8	M5×0.8×10L	M4×0.7×4L
CXSø20-10/20/ 30/40/50/100	M5×0.8	7.75	12.5	45	7.75	9.5	6.5	8	4-M5×0.8 thread depth 4.5	8-M4×0.7 thread depth 6	2-M6×1.0 thread depth 10	M6×1.0×12L	M5×0.8×5L
CXSø25-10/20/ 30/40/50/75/100	M6×1.0	8.5	15	46	15	9	9	9	4-1/8 thread depth 6.5	8-M5×0.8 thread depth 7.5	2-M8×1.25 thread depth 12	M8×1.0×14L	M6×1.0×5L
CXSø32-10/20/ 30/40/50/75/100	M8×1.25	9	19	56	19	20	11.5	10	4-1/8 thread depth 6.5	8-M5×0.8 thread depth 7.5	2-M8×1.25 thread depth 12	M8×1.25×16L	M8×1.25×8L

Model	S	SS	Z	ZZ	Model	S	SS	Z	ZZ	Model	S	SS	Z	ZZ	Model	S	SS	Z	ZZ
CXSø10-10	10	65	82	30	CXSø15-10	10	70	89	25	CXSø20-10	10	80	104	30	CXSø25-10	10	82	106	40
CXSø10-20	20	75	92	30	CXSø15-20	20	80	99	25	CXSø20-20	20	90	114	30	CXSø25-20	20	95	116	40
CXSø10-30	30	85	102	30	CXSø15-30	30	90	109	30	CXSø20-30	30	100	124	30	CXSø25-30	30	102	126	40
CXSø10-40	40	95	112	40	CXSø15-40	40	100	119	35	CXSø20-40	40	110	134	40	CXSø25-40	40	112	136	50
CXSø10-50	50	105	122	40	CXSø15-50	50	110	129	40	CXSø20-50	50	120	144	40	CXSø25-50	50	122	146	50
										CXSø20-75	75	145	169	60	CXSø25-75	75	147	171	70
										CXSø20-100	100	170	194	60	CXSø25-100	100	172	196	70

CU Series Free Installation Cylinder



CDU 25 x 30



CDUK 16 x 30

Ordering Code

CU		10	×	30		
Series Code	CU: Normal Type CDU: Attach Magnet Type					
Kinds	Blank: Normal Type K: Non-Rotating Piston Rod Type					
Cylinder Bore	6mm 10mm 16mm 20mm 25mm 32mm					
Stroke	0-50mm					
Action	D: Double Action S: Single Action Spring Drawing-in Type T: Single Action Spring Extrusion Type					

Specification

Bore (mm)		6	10	16	20	25	32
Working Medium		Air					
Motion Pattern		Double action / Single Action Extrusion type / Single Action Drawing-in Type					
Ensured Pressure Resistance		1.05 MPa (10.5 kgf/cm²)					
Max. Working Pressure		0.7 MPa (7.1 kgf/cm²)					
Min. Operating Pressure	Single	0.2 MPa	0.15 MPa		0.13 MPa		
	Double	0.12 MPa	0.06 MPa		0.05 MPa		
Ambient and Medium Temperature		Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)					
Lubrication		Non-lube					
Piston Speed		50–500 mm/s					
Cushion		Rubber bumper (Note)					
Rod End Thread		Male thread					
Thread Tolerance		Class 2					
Cushion		Both ends buffer					
Margin of Stroke Error (mm)		+1.0 0 mm					
Precision of Piston Rod with Non-rotating		±0.8°		±0.5°			
Port Size		M5×0.8		G1/8"			

Note: Φ6 single acting with auto switch type: One side rubber bumper.

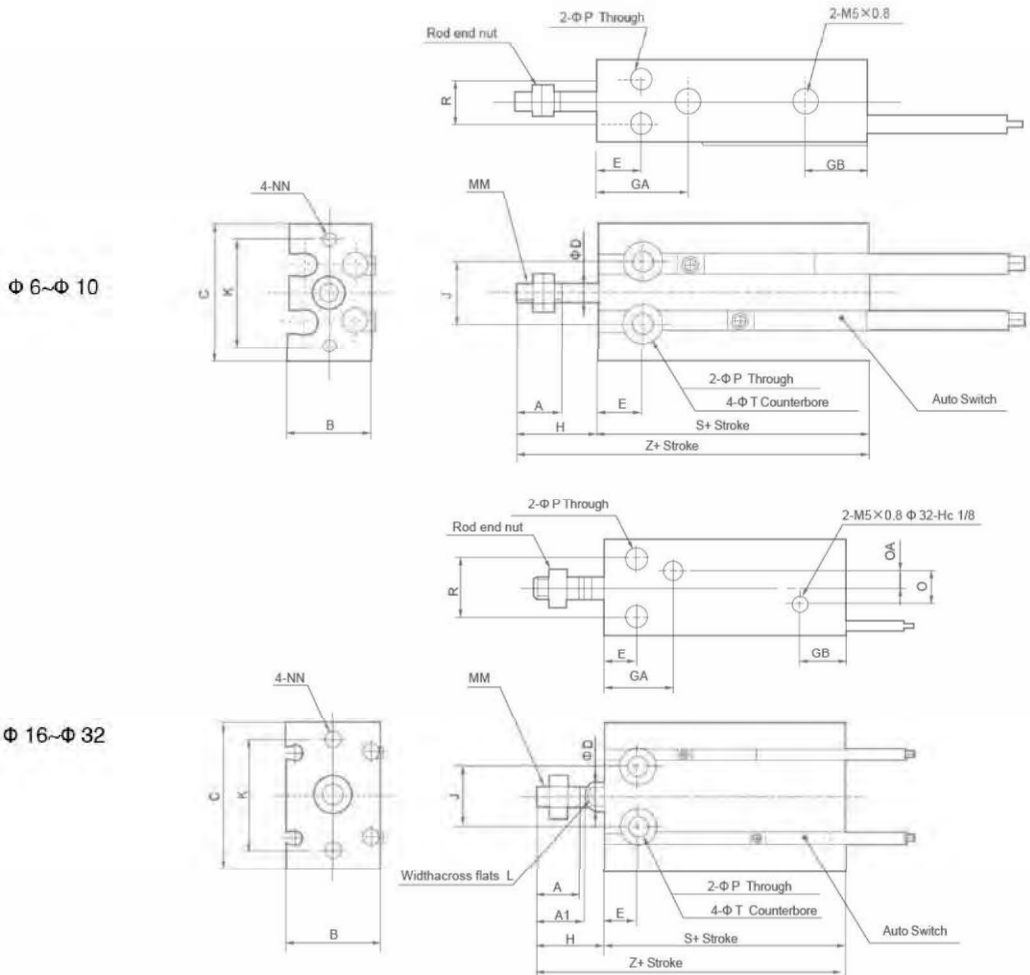
Standard Stroke

Action Type	Bore size(mm)	Standard stroke(mm)
Double Acting	6,10,16 20,25,32	5,10,15,20,25,30 5,10,15,20,25,30,40,50
Single Acting	6,10,16,20,25,32	5,10,15

CU Series Free Installation Cylinder

Overall Dimensions

Double Acting, Single Rod



Dimension Sheet

Bore size (mm)	A	A1	B	C	D	E	GA	GB	H	K	J	L	MM
6	7	-	13	22	3	7	15	10	13	17	10	-	M3×0.5
10	10	-	15	24	4	7	16.5	10	16	18	11	-	M4×0.7
16	11	12.5	20	32	6	7	16.5 (Note)	11.5	16	25	14	5	M5×0.8
20	12	14	26	40	8	9	19	12.5	19	30	16	6	M6×1.0
25	15.5	18	32	50	10	10	21.5	13	23	38	20	8	M8×1.25
32	19.5	22	40	62	12	11	23	12.5	27	48	24	10	M10×1.25

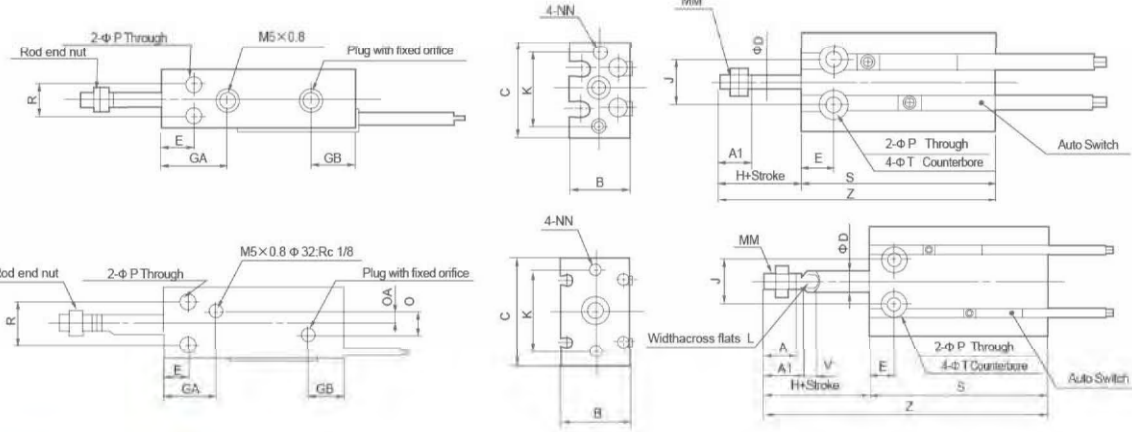
Bore size (mm)	NN	P	Q	QA	R	T	Without Auto Switch		With Auto Switch	
							S	Z	S	Z
6	M3×0.5 depth 5	3.2	-	-	7	6 depth 4.8	33	46	33	46
10	M3×0.5 depth 5	3.2	-	-	9	6 depth 5	36	52	36	52
16	M4×0.7 depth 6	4.5	4	2	12	7.6 depth 6.5	30	46	40	56
20	M5×0.8 depth 8	5.5	9	4.5	16	9.3 depth 8	36	55	46	65
25	M5×0.8 depth 8	5.5	9	4.5	20	9.3 depth 9	40	63	50	73
32	M6×1.0 depth 9	6.6	13.5	4.5	24	11 depth 11.5	42	69	52	79

Note: 5 Stroke(CU16-5D): 14.5mm

CU Series Free Installation Cylinder

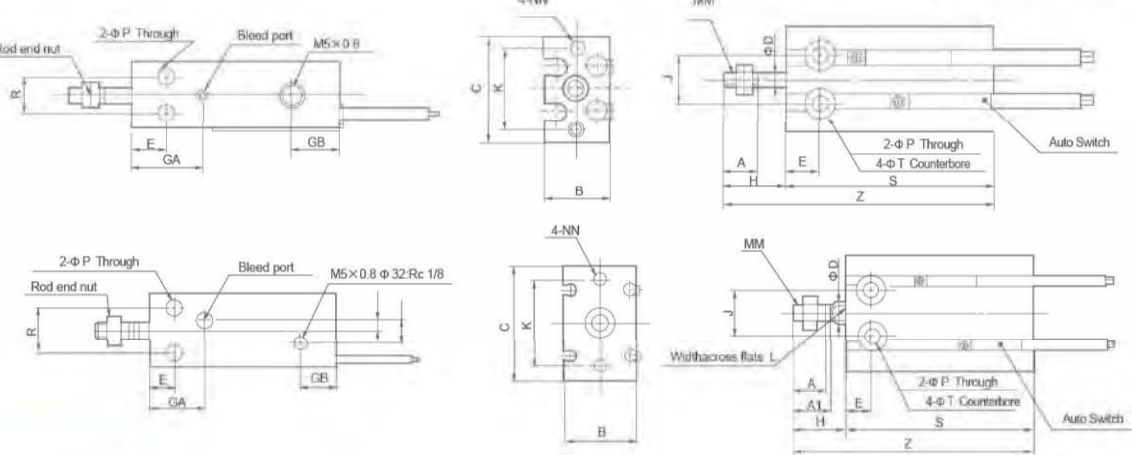
Overall Dimensions

Single Acting, Spring Extend



Overall Dimensions

Single Acting, Spring Return



Dimension Sheet

Bore Size (mm)	A	A1	B	C	D	E	GA	GB	H	K	J	L	MM	NN (depth)	P
6	7	-	13	22	3	7	15	10	13	17	10	-	M3×0.5	M3×0.5 (depth) 5	3.2
10	10	-	15	24	4	7	16.5	10	18	18	11	-	M4×0.7	M3×0.5 (depth) 5	3.2
16	11	12.5	20	32	5	9	16.5	11.5	16	25	14	5	M5×0.8	M4×0.7 (depth) 6	4.5
20	12	14	26	40	8	9	19	12.5	19	30	20	6	M6×1.0	M5×0.8 (depth) 8	5.5
25	15.5	18	32	50	10	10	21.5	13	23	38	20	8	M8×1.25	M5×0.8 (depth) 8	5.5
32	19.5	22	40	62	12	11	23	12.5	27	48	24	10	M10×1.25	M6×1.1 (depth) 9	6.6

Bore Size (mm)	Q	QA	R	T	V (Note)	Without Auto Switch						With Auto Switch					
						S			Z			S			Z		
						5st	10st	15st	5st	10st	15st	5st	10st	15st	5st	10st	15st
6	-	-	7	6 (depth) 4.8	-	38	43	48	56	66	76	38	43	48	56	66	76
10	-	-	9	6 (depth) 5	-	41	46	56	62	72	87	41	46	56	62	72	87
16	4	2	12	7.6 (depth) 6.6	3.5	45	50	60	66	76	91	45	50	60	66	76	91
20	9	4.5	16	9.3 (depth) 8	5	50	46	56	65	75	90	51	56	66	75	85	100
25	9	4.5	20	9.3 (depth) 9	5	45	50	60	73	83	98	55	60	70	83	93	108
32	13.5	4.5	24	11 (depth) 11.5	5	47	52	62	79	89	104	57	62	72	89	99	114

Note: "V" Only for Single Acting, Spring Extend

STM Series Slide Bearing Cylinder



Ordering Code

STM	B	16	×	50
Series Code	Type of Bearing	Cylinder Bore		Stroke
Sliding Type	B: Body fixed Type S: Sliding Block Fixed Type	10 mm 16 mm 20 mm 25 mm		0~250 mm

Specification

Item	10	16	20	25
Motion Pattern	Double Action			
Working Medium	Air			
Operating Temp. Range	-5~+70°C			
Operating Pressure Range	1.0~9.0 kgf/cm ²			
Ensured Pressure Resistance	13.5 kgf/cm ²			
Operating Speed Range	50~200 mm/s			
Buffer Type	Shock Absorber			
Lubrication	NO			
Non-Rotating Precision	±0.1°		±0.05°	
Port Size	M5×0.8			G1/8"

Standard Stroke

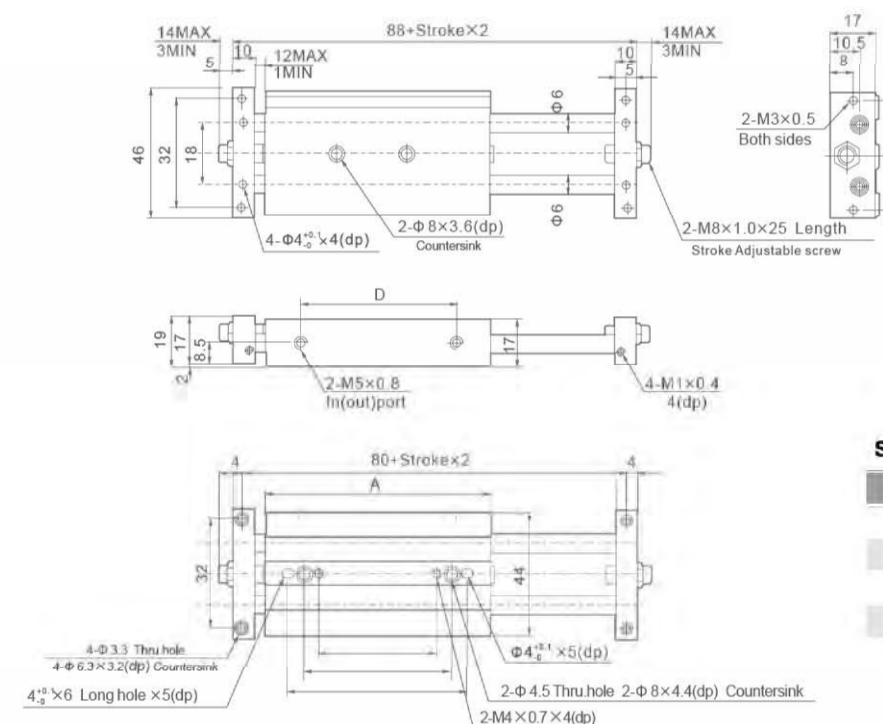
Bore Size (mm)	Standard Stroke (mm)
10	25, 50, 75, 100
16	25, 50, 75, 100, 125, 150, 175, 200
20	25, 50, 75, 100, 125, 150, 175, 200, 250
25	25, 50, 75, 100, 125, 150, 175, 200, 250

Theoretical Thrust

Bore Size (mm)	Rod Size (mm)	Pressure Area (cm ²)	Operating Pressure (kgf/cm ²)								
			1	2	3	4	5	6	7	8	9
10	6	0.5	0.48	0.95	1.43	1.9	2.38	2.85	3.43	3.8	4.28
16	8	1.51	1.43	2.87	4.3	5.74	7.17	8.61	10.04	11.48	12.91
20	10	2.36	2.24	4.48	6.73	8.97	11.21	13.45	15.69	17.94	20.18
25	12	3.78	3.51	7.18	10.77	14.36	17.96	21.55	25.14	28.73	32.32

STM Series Slide Bearing Cylinder

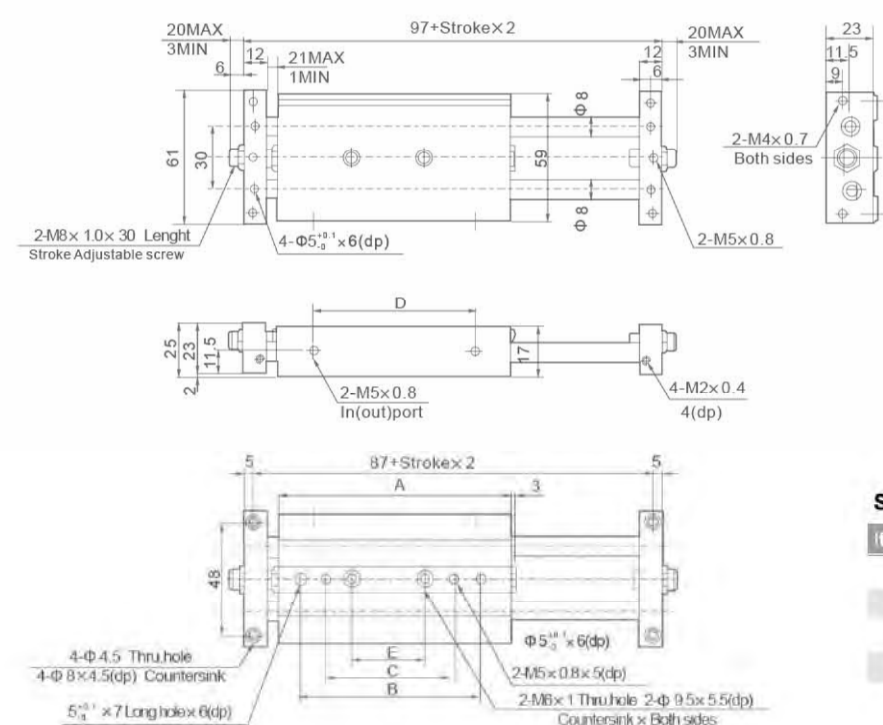
Overall Dimensions



STMB-10

Item/Stroke	25	50	75	100
A	81	106	131	156
B	65	85	85	85
C	35	60	60	60
D	46	71	96	121
E	15	40	40	40

Overall Dimensions

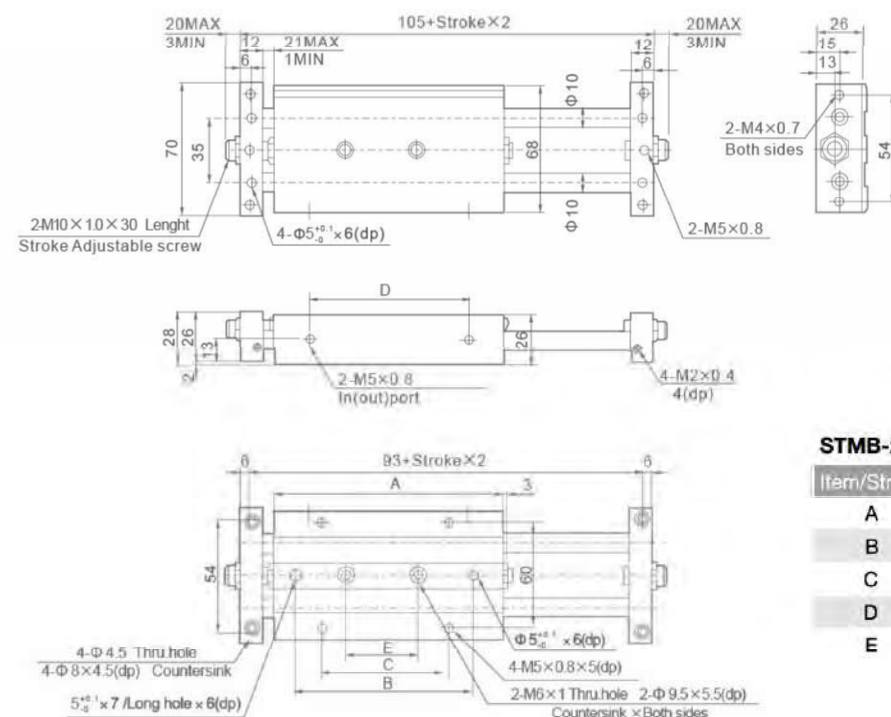


STMB-16

Item/Stroke	25	50	75	100	125	150	175	200
A	86	111	136	161	186	211	236	261
B	55	70	105	130	150	150	150	150
C	-	-	75	100	120	120	120	120
D	48	73	98	123	148	173	198	223
E	25	50	45	70	90	90	90	90

STM Series Slide Bearing Cylinder

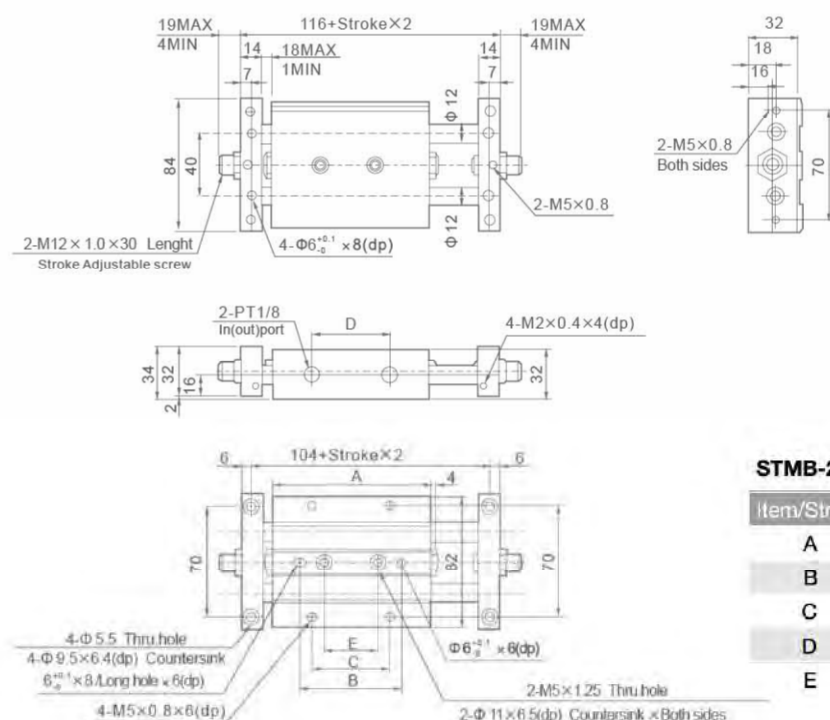
Overall Dimensions



STMB-20

Item/Stroke	25	50	75	100	125	150	175	200	250
A	94	119	144	169	194	219	244	269	319
B	60	85	110	135	150	150	150	150	150
C	50	50	75	100	120	120	120	120	120
D	53	78	103	128	153	178	203	228	278
E	35	45	45	70	90	90	90	90	90

Overall Dimensions

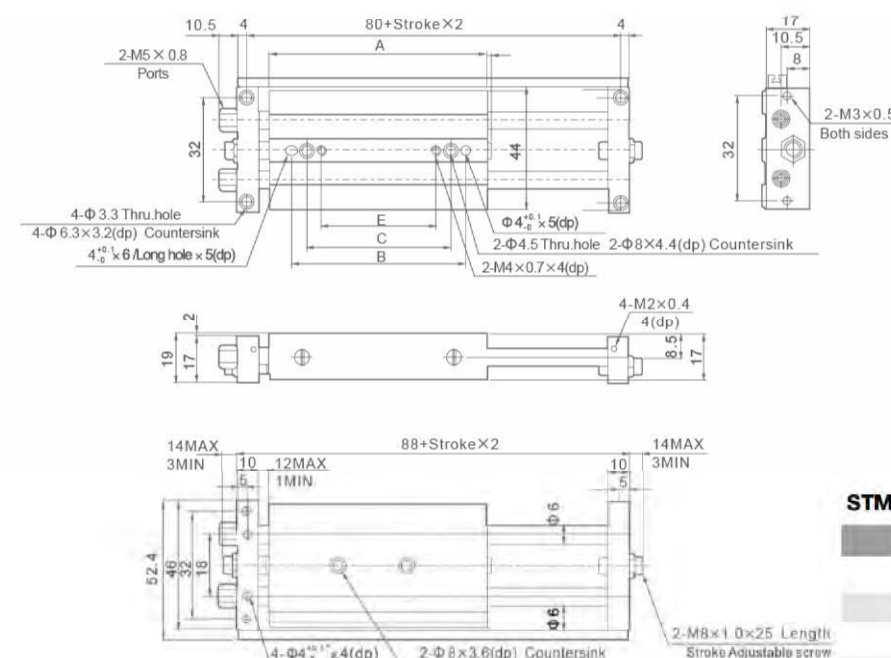


STMB-25

Item/Stroke	25	50	75	100	125	150	175	200	250
A	101	126	151	176	201	226	251	276	326
B	65	90	115	140	140	140	140	140	140
C	50	50	75	100	100	100	100	100	100
D	50	75	100	125	150	175	200	225	175
E	35	45	45	70	95	100	100	100	100

STM Series Slide Bearing Cylinder

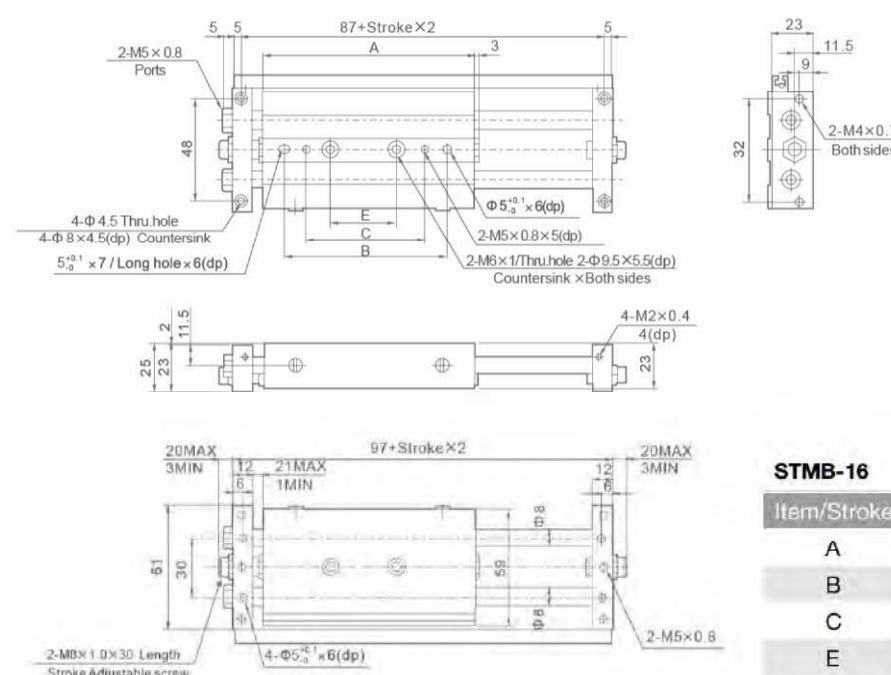
Overall Dimensions



STMB-10

Item/Stroke	25	50	75	100
A	81	106	131	156
B	65	85	85	85
C	35	60	60	121
E	15	40	40	40

Overall Dimensions

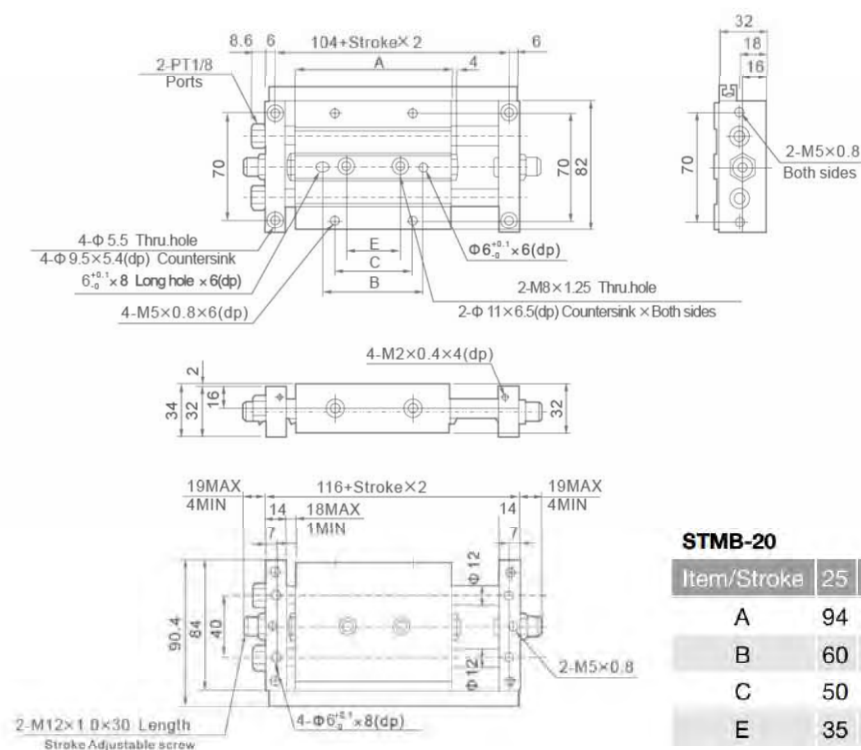


STMB-16

Item/Stroke	25	50	75	100	125	150	175	200
A	86	111	136	161	186	211	236	261
B	55	70	105	130	150	150	150	150
C	-	-	75	100	120	120	120	120
E	25	50	45	70	90	90	90	90

STM Series Slide Bearing Cylinder

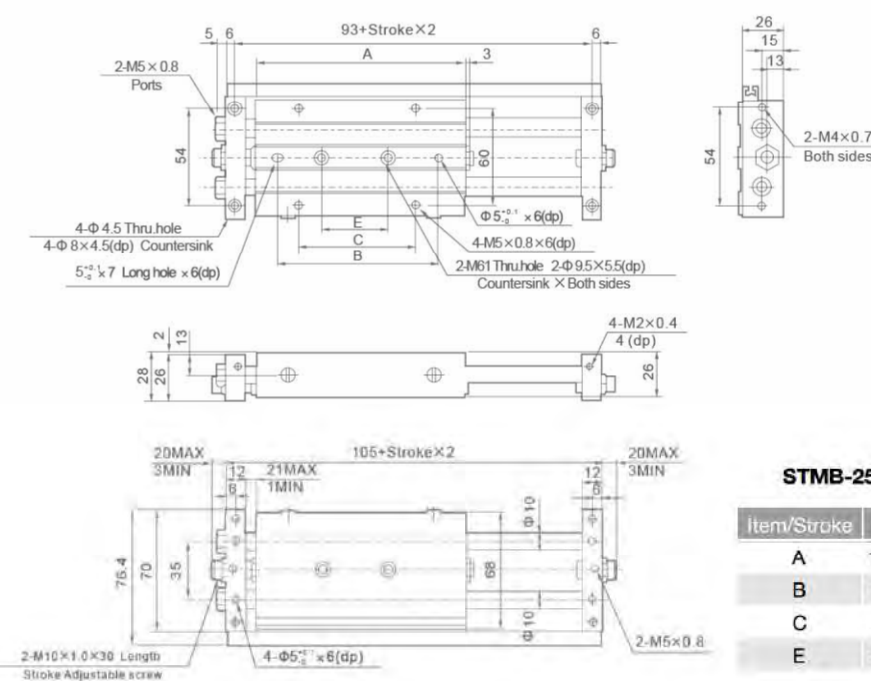
Overall Dimensions



STMB-20

Item/Stroke	25	50	75	100	125	150	175	200	250
A	94	119	144	169	194	219	244	269	319
B	60	85	110	135	150	150	150	150	150
C	50	50	75	100	120	120	120	120	120
E	35	45	45	70	90	90	90	90	90

Overall Dimensions



STMB-25

Item/Stroke	25	50	75	100	125	150	175	200	250
A	101	126	151	176	201	226	251	276	326
B	65	90	115	140	140	140	140	140	140
C	50	50	75	100	100	100	100	100	100
E	35	45	45	70	95	100	100	100	100

MGP Series Three-Shaft Cylinder



MGPM 20 x 30



MGPM 25 x 50

Ordering Code

MGP

Series Code

MGP: Attach magnet Type

M

Type of Bearing

M: Slide Bearing
L: Ball Guide Bearing

25

×

40

Cylinder Bore

12 mm – 100 mm

Stroke

10 – 200 mm
Note: Non-standard stroke like (5, 10, 15, 20, 35, ...) we are add subplate of 5, 10, 15, 20 mm on standard stroke.

Specification

Bore (mm)		12	16	20	25	32	40	50	63	80	100
Working Medium		Air									
Motion Pattern		Double-action									
Ensured Pressure Resistance		1.5Mpa (15.3kgf/cm ²)									
Max. Operating pressure		1.0Mpa (10.2kgf/cm ²)									
Min. Operating pressure		0.12Mpa (1.2kgf/cm ²)									
Ambient and Medium Temperature		-10~+60°C									
Piston Speed		50~500mm/s					50~400mm/s				
Buffer		Rubber Cushion									
Tolerance of Stroke		+1.5 0 mm									
Bearing		Slide Bearing / Ball Guide Bearing									
Precision of Piston rod Non-rotating	Slide Bearing	±0.08°		±0.07°		±0.06°		±0.05°		±0.04°	
	Ball Guide Bearing	±0.10°		±0.09°		±0.08°		±0.06°		±0.05°	
Port size		M5×0.8		G1/8"			G1/4"			G3/8"	

Standard Stroke

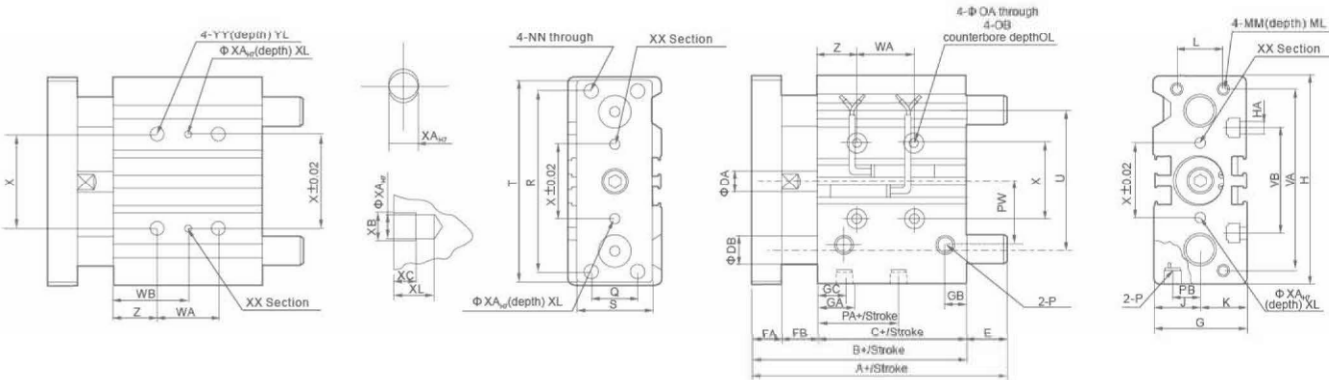
Bore size (mm)	Standard stroke (mm)
12, 16	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250
20, 25	20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400
32 to 100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

Note: MGP Series cylinder with 100mm Bore is Being Developed. Not Available At the moment.

MGP Series Three-Shaft Cylinder

Overall Dimensions

Φ 12~Φ 25



MGPM, MGPL Common Dimension Sheet

Bore size	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML	NN	OA
12	10, 20, 30, 40, 50, 75, 100	42	29	6	8	5	26	11	7.5	58	M4	13	13	18	M4x0.7	10	M4x0.7	4.3
16		46	33	8	8	5	30	11	8	64	M4	15	15	22	M5x0.8	12	M5x0.8	4.3
20	20, 30, 40, 50, 75, 100, 125, 150, 175, 200	53	37	10	10	6	36	10.5	8.5	83	M5	18	18	24	M5x0.8	13	M5x0.8	5.6
25		53.5	37.5	12	10	6	42	11.5	9	93	M5	21	21	30	M6x1.0	15	M6x1.0	5.6

Bore size	Standard stroke (mm)	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB	X	XA	XB	XC	YL	Z
12	10, 20, 30, 40, 50, 75, 100	8	4.5	M5x0.8	13	8	18	14	48	22	56	41	50	37	23	3	3.5	3	10	5
16		8	4.5	M5x0.8	15	10	19	16	54	25	62	46	56	38	24	3	3.5	3	10	5
20	20, 30, 40, 50, 75, 100, 125, 150, 175, 200	9.5	5.5	RC1/8	12.5	10.5	25	18	70	30	81	54	72	44	28	3	3.5	3	12	17
25		9.5	5.5	RC1/8	12.5	13.5	28.5	26	78	38	91	64	82	50	34	4	4.5	3	12	17

Bore size	Standard stroke (mm)	WA			WB			XL	YY
		30 st or less	Over 40 st to 100 st	125 st or less	30 st or less	Over 40 st to 100 st	125 st or less		
12	10, 20, 30, 40, 50,	20	40	-	15	25	-	6	M5x0.8
16	75, 100	24	44	-	17	27	-	6	M5x0.8
20	20, 30, 40, 50, 75,	24	44	120	29	39	77	6	M6x1.0
25	100, 125, 150, 175, 200	24	44	120	29	39	77	6	M6x1.0

MGPM Slide Bearing

Bore size	A			DB	E		
	50st≥	50st<100st≥	100st<		50st≥	50st<100st≥	100st<
12	42	60.5	85	8	0	18.5	43
16	46	64.5	95	10	0	18.5	49

MGPM Slide Bearing

Bore size	A			DB	E		
	50st≥	50st<200st≥	200st<		50st≥	50st<200st≥	200st<
20	53	53	122	16	0	31.5	69
25	53.5	53.5	122	20	0	31.5	68.5

MGPL Ball Bushing Bearing

A			DB	E		
30st<	30st<100st≥	100st<		30st≥	30st<100st≥	100st<
43	55	85	6	1	13	43
49	65	95	8	3	19	49

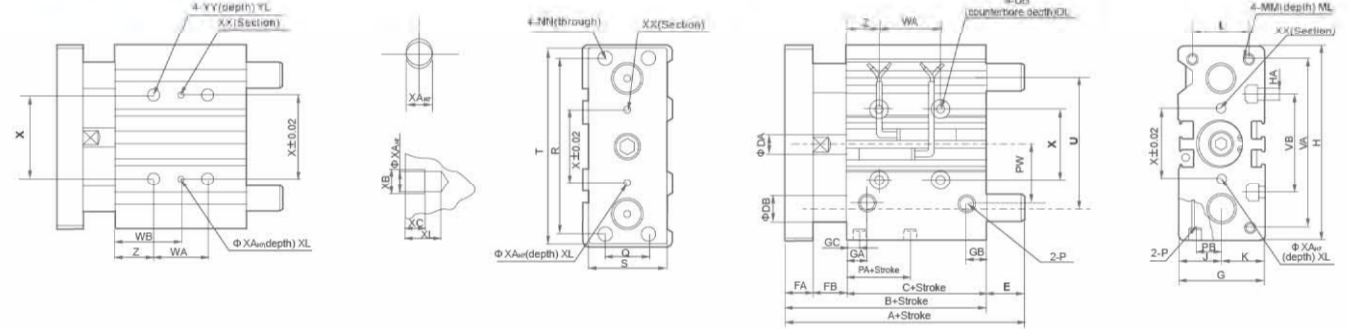
MGPL Ball Bushing Bearing

A				DB	E			
30st≥	30st<100st≥	100st<200st≥	200st<		30st≥	30st<100st≥	100st<200st≥	200st<
63	80	104	122	10	10	27	51	69
69.5	80.5	104.5	122	13	16	32	51	68.5

MGP Series Three-Shaft Cylinder

Overall Dimensions

Φ 32~Φ 63



MGPM, MGPL Common Dimension Sheet

Bore size	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	K	L	MM	ML	NN	OA
32	25, 50, 70, 100, 125, 50, 175, 200	59.5	37.5	16	12	10	48	12.5	9	12.5	112	M6	24	24	34	M8x1.25	20	M8x1.25	6.6
40		66	44	16	12	10	54	14	10	14	120	M6	27	27	40	M8x1.25	20	M8x1.25	6.6
50		72	44	20	16	12	64	14	11	12	148	M8	32	32	46	M10x1.5	22	M10x1.5	8.6
63		77	49	20	16	12	78	16.5	13.5	16.5	162	M10	39	39	58	M10x1.5	22	M10x1.5	8.6

Bore size	Standard stroke (mm)	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB	X	XA	XB	XC	XL	Z
32	25, 50, 70, 100, 125, 150, 175, 200	11	7.5	RC1/8	7	15	34	30	96	44	110	78	98	63	42	4	4.5	3	6	21
40		11	7.5	RC1/8	13	18	38	30	104	44	118	86	106	72	50	4	4.5	3	6	22
50		14	9	RC1/4	9	21.5	47	40	130	60	146	110	130	92	66	5	6	4	8	24
63		14	9	RC1/4	14	28	55	50	130	70	158	124	142	110	80	5	6	4	8	24

Bore size	Standard stroke (mm)	WA			WB			YY	YL
		25 st	50,75,100 st	100 st or above	25 st	50,75,100 st	100 st or above		
32	25, 50, 70, 100, 125, 150, 175, 200	24	48	124	33	45	83	M8x1.25	16
40		24	48	124	34	46	84	M8x1.25	16
50		24	48	124	36	48	86	M10x1.5	20
63		28	52	128	38	50	88	M10x1.5	20

MGPM Slide Bearing

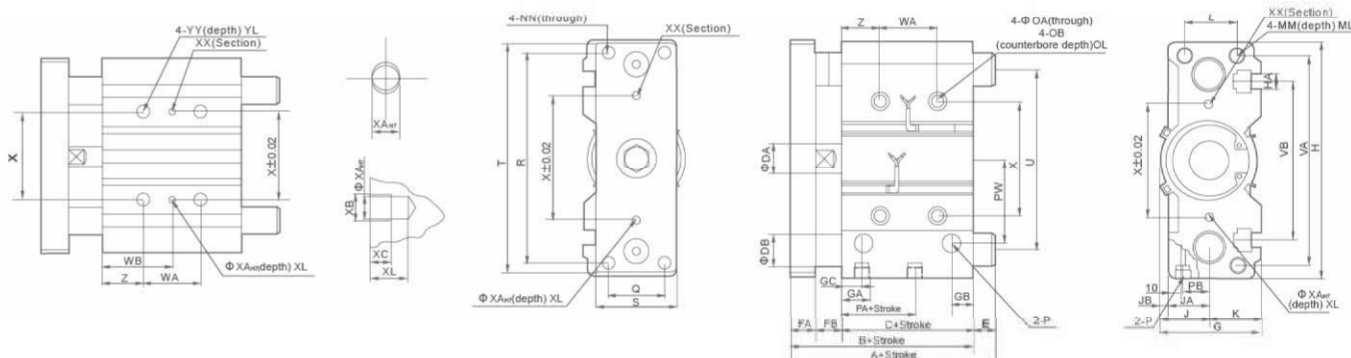
Bore size	A			DB	E		
	50st≥	50st<200st≥	200st<		50st≥	50st<200st≥	200st<
32	97	102	140	20	37.5	42.5	80.5
40	97	102	140	20	31	36	74
50	106.5	118	161	25	34.5	46	89
63	106.5	118	161	25	29.5	41	84

MGPL Ball Bushing Bearing

Bore size	A				DB	E			
	30st≥	30st<100st≥	100st<200st≥	200st<		30st≥	30st<100st≥	100st<200st≥	200st<
32	81	98	118	140	16	21.5	38.5	58.5	80
40	81	98	118	140	16	15	32	52	74
50	93	114	134	161	20	21	42	62	89
63	93	114	134	161	20	16	37	57	84

MGP Series Three-Shaft Cylinder

Overall Dimensions



 Dimension Sheet

Bore size	Standard stroke (mm)	B	C	DA	FA	FB	G	GA	GB	GC	H	HA	J	LA	JB	K	L	MM	ML	NN	OA
80	20, 50, 75, 100, 125, 150,	95.5	56.5	25	22	18	91.5	19	15.5	14.5	202	M12	45.5	38	7.5	46	54	M12×1.75	30	M12×1.75	10.6
100	175, 200	116	66	30	25	25	111.5	23	19	18	240	M14	55.5	45	10.5	56	62	M14×2.0	32	M14×2.0	12.5

Bore size	Standard stroke (mm)	OB	OL	P	PA	PB	PW	Q	R	S	T	U	VA	VB	X	XA	XB	XC	YL	Z
80	20, 50, 75, 100, 125, 150,	17.5	8	RC3/8	14.5	25.5	74	52	174	75	198	156	180	140	100	6	7	5	10	28
100	175, 200	20	8	RC3/8	17.5	32.5	89	64	210	90	236	188	210	166	124	6	7	5	10	11

Bore size	Standard stroke (mm)	WA			WB			YY	YL
		25 st	0,75,100 st	100 st or above	25 st	50,75,100 st	100 st or above		
80	20, 50, 75, 100, 125, 150,	28	52	128	42	54	92	M12x1.75	24
100	175, 200	48	72	148	35	47	85	M14x2.0	28

MGPM Slide Bearing

Bore size	A			DB	E		
	50st≥	50st<200st≥	200st<		50st≥	50st<200st≥	200st<
80	115	142	193	30	18.5	45.5	96.5
100	137	162	203	36	21	46	87

MGPL Ball Bushing Bearing

Bore size	A				DB	E			
	30st≥	30st<100st≥	100st<200st≥	200st<		30st≥	30st<100st≥	100st<200st≥	200st<
80	109.5	130	160	193	25	13	33.5	63.5	96.5
100	121	147	180	203	30	5	31	64	87

RSQ Series Stopper Cylinder



RSQA 50 x 75R

Ordering Code

RSQ			20	$\times$	15	$-$	S	$-$	
Series Code	Mounting Type	Acting Type	Cylinder		Stroke		Magnet Code		Fixed Type
RSQ Series	Blank: Through Hole (Standard) A: Both Ends Tapped Style	Blank: Basic Type B: Basic type (with spring) SA: Single acting Spring extend	20 mm 32 mm 40 mm 50 mm				Blank: Without Magnet S: With Magnet		Blank: Round bar type K: Chamfered type R: Roller type L: Level roller type (with shock absorber)

Bore (mm)	20	32	40	50
Motion Pattern	Double acting, Double acting with spring loaded, Single acting (Spring extend)			
Fluid	Air			
Ensured Pressure Resistance	1.5Mpa (15.3kgf/cm ²)			
Max. pressure	1.0Mpa (10.2kgf/cm ²)			
Ambient and fluid temperature	-10~+70°C With auto switch: No freezing +60°C			
Buffering	Rubber bumper			
Tolerance of stroke	±1.4(mm) 0			
*Lubrication	Not required			
Mounting	Through-hole, Both ends tapped common			
Port Size	RC(PT1/8)			

Model

Bore (mm)		20	32	40	50
Mounting	Through-hole	●	●	●	●
	Both ends tapped style	●	●	●	●
Built-in magnet		●	●	●	●
Piping	Screw-in type	Rc 1/8			
	Built-in One-touch fittings	Φ6/4	Φ8/6		
Action		Double acting, Single acting (Single extend), Double acting with spring loaded			
Rod end configuration	Round bar	●	●		
	Chamfered	●	●		
	Roller type	●	●		
	Lever type	-	●		

Ø12 tubes can have both through hole and tap mountings in the same tube

 Standard Stroke

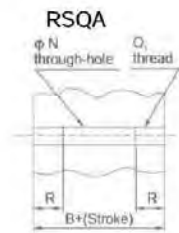
Bore size (mm)	Rod end configuration		
	Round bar, Chamfered type	Roller type	Lever type with shock absorber
20			-
32	10, 15, 20	10, 15, 20	10, 15, 20
40			
50	20, 25, 30	20, 25, 30	20, 25, 30

RSQ Series Stopper Cylinder

Overall Dimensions

Basic style: Through-hole mounting, Screw mounting

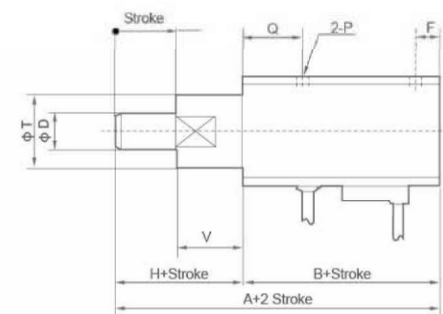
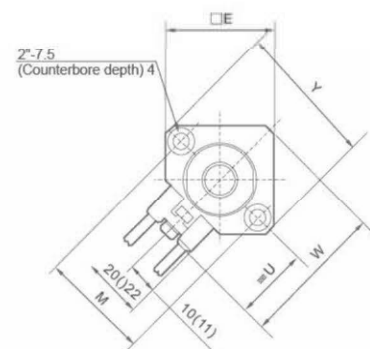
These 5 figures show the piston rod extended.



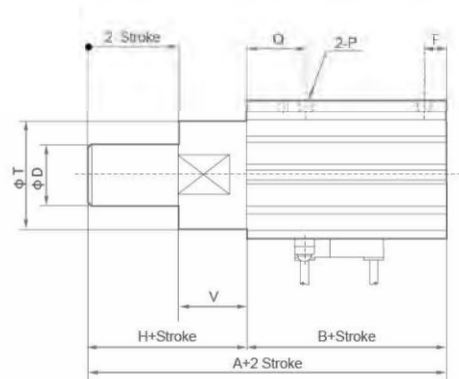
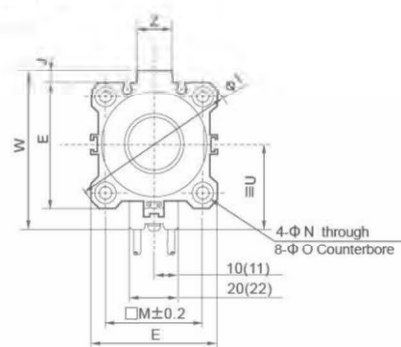
Screw mounting style: Both ends tapped style (mm)

Model	B	N	Q1	R
RSQA20	45	5.5	M6×1	10
RSQA32	48	5.5	M6×1	10
RSQA40	52.5	5.5	M6×1	10
RSQA50	54	6.6	M8×1.25	14

Φ20



Φ32~Φ50



Dimension Sheet

Bore size (mm)	A	B	D	E	F	G	H	I	J	M	N	O Counterbore	P	Q	T	U	V	W	Y	Z
20	67	45	12	36	8	4	22	-	-	36	5.5	9 depth 7	Rc 1/8	20	24	24.5	22	48	47	-
32	68	48	20	45	7.5	8	20	60	4.5	34	5.5	9 depth 7	Rc 1/8	20	36	31.5	20	58.5	-	14
40	80.5	52.5	25	52	8	10	28	69	5	40	5.5	9 depth 7	Rc 1/8	24.5	44	35	28	66	-	14
50	82	54	25	64	8	10	28	86	7	50	6.6	11 depth 8	Rc 1/8	24.5	56	41	28	80	-	19

Note1: Dimensions without auto switch are the same as drawing above.

Note2: These figures show the dimensions when equipped with D-A 73 or D-A 80 auto switches.

Note3: These figures show the piston rod extended.

SCK Series Clamping Cylinder

Welding equipment for automotive use

1. Disassemble
2. Light weight and Compact
3. No Lubrication
4. Build-in speed control
5. No need dust cover
6. Can be used for welding equipment which used to generate the electromagnetic



SCKA 50 x 50-S-Y

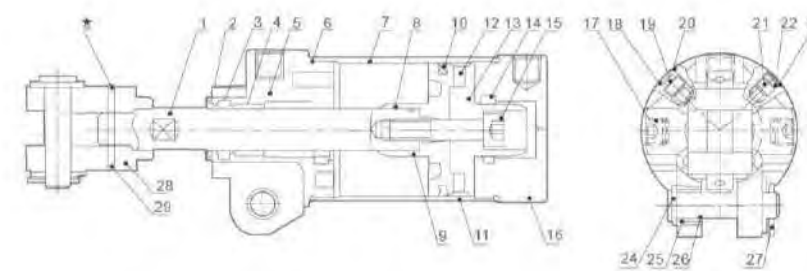


SCKB 63 x 75-S-Y

Ordering Code

Series Code	Split Pin Type	Cylinder Bore	Stroke	Magnet Code	Width of Earring
SCK	A: A Type B: B Type (Only available for 40-63mm)	40mm-80mm	0-150mm	Blank: Without Magnet S: With Magnet HS: With Powerful Magnet	Blank: No Accessory B: With Y Joint

Internal Structure



No.	Designation	No.	Designation
1	Piston rod	16	Rear cover
2	Dust ring	17	Limit screw
3	Front cover O-ring	18	O-ring
4	Slide bush	19	Speed control screw
5	Front cover	20	External reainer ring
6	O-ring	21	Cushion control screw
7	Aluminum tube	22	O-ring
8	Piston	23	External retainer ring
9	Piston rod O-ring	24	Gasket
10	Piston O-ring	25	Brass bush
11	Wear ring	26	PIN
12	Magnet	27	Split pin
13	Magnet base	28	Y
14	Cushion O-ring	29	Spring pin
15	Hexagon screw		

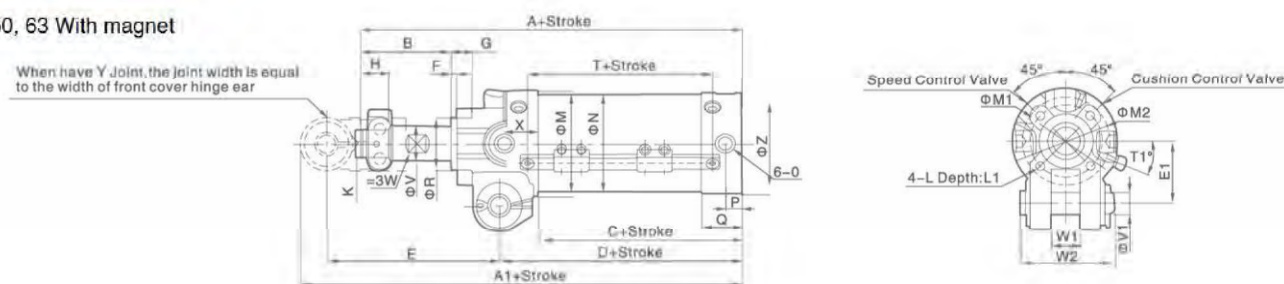
Specification

Bore(mm)	40	50	63	80
Working Medium	Air			
Ensured Pressure Resistance	1.5Mpa (15kgf/cm²)			
Max. Working pressure	1.0Mpa (10kgf/cm²)			
Min. Working pressure	0.1Mpa (1kgf/cm²)			
Temperature Range	-5~60°C			
Piston Speed	50~500mm/s			
Air Buffer	Yes			
Lubrication	No Need			
Thread Tolerance	6H			
Stroke Tolerance	±1.5 / 0 (mm)			
Speed Controller	Yes			
Mounting Type	Double Ear Ring			
Rc(PT) Port size	1/4"		3/8"	

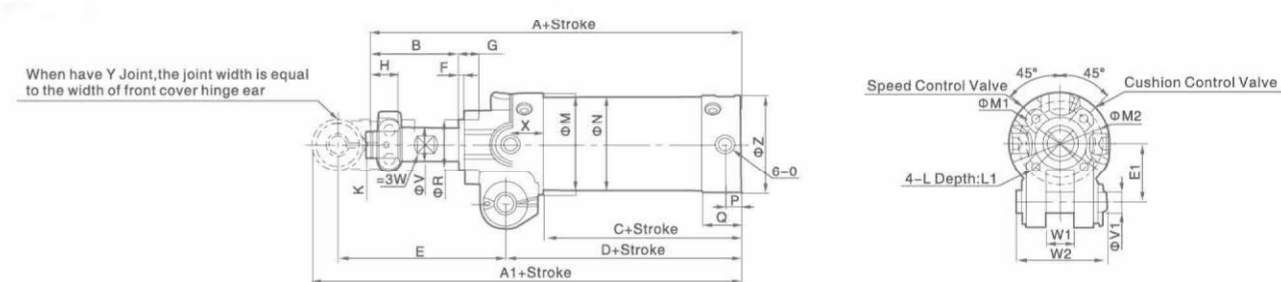
SCK Series Clamping Cylinder

Overall Dimensions

Φ40, 50, 63 With magnet



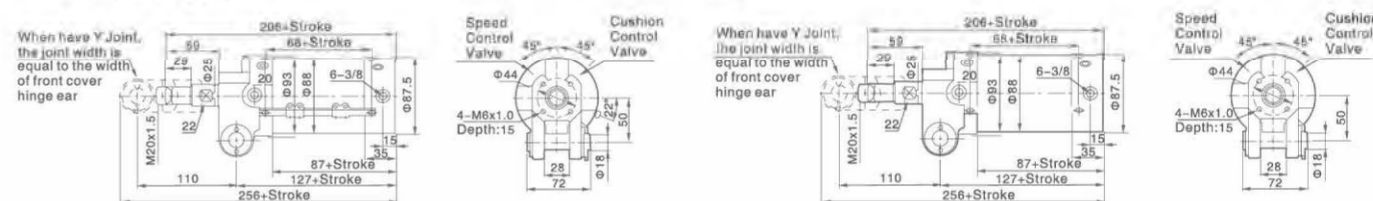
Φ40, 50, 63



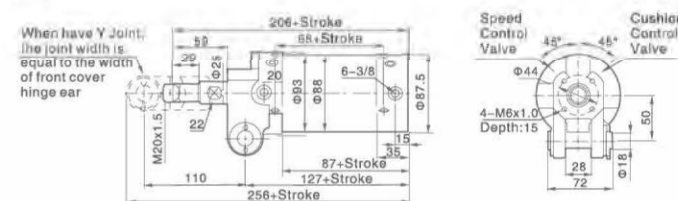
 Dimension Sheet

Bore size	A	A1	B	C	D	E	E1	F	G	H	K	L	L1	M	M1	M2	N	O	P	Q	R	V	V1	W	W1		W2	X	Z	T	T1
	SCKA		SCKB																												
40	162	196	51	59	84	97	35	3	11.5	16	M16x1.5	M6x1	13	52	40	50	45	1/4	9	21	30	20	12	17	16.5	19.5	54	20	47	54	24
50	165	199	51	65	87	97	35	3	11.5	16	M16x1.5	M6x1	12	60	40	50	55	1/4	9.5	23	30	20	12	17	16.5	19.5	54	19	57	54	22
63	167	201	51	67	87	97	35	3	11.5	16	M16x1.5	M6x1	12	74	40	50	68	1/4	9.5	23	30	20	12	17	16.5	19.5	54	19	70	54	22

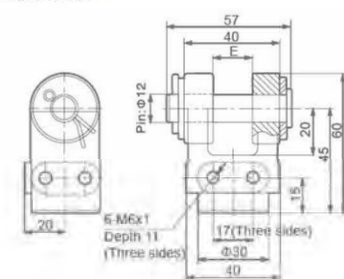
Φ80 With magnet



Φ80

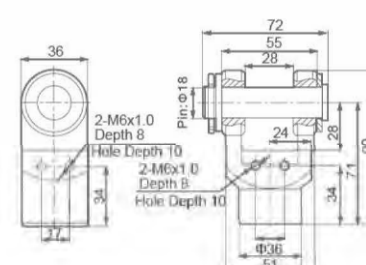
 Y Joint Overall Dimensions and Ordering Code

Φ40, 50, 63



Model	Fit for Bore Size	E
SCKA50-Y	40、50、63	16.5
SCKB50-Y	40、50、63	16.5

Φ80



MSQ Series Rotary Table, Rack & Pinion Cylinder



MSQB 20-A



MSQB 30-A

Ordering Code

MSQ **B** × **10** — **A** — **S**

Series Code **Type of Bearing** **Cylinder Bore** **Stroke** **Always With Magnet**

B: Basic Type
A: High Precision Type

10mm~200mm

A: With Adjustable Angle Screw
R: With Shock Absorber

Specification

Bore(mm)		10	20	30	50	70	100	200
	Fluid	Air (non-lube)						
Max. pressure	With adjustment bole	1Mpa (10.2kgf/cm ²)						
	R: With Shock Absorber	0.6MPa (6.1kgf/cm ²) / Note						
Min. pressure	Basic type	0.1MPa (1.0kgf/cm ²)						
	High precision type	0.2MPa			0.1MPa			-
Ambient and fluid temperature		0~60°C (No freezing)						
Cushion	With adjustment bole	Rubber bumper						
	R: With Shock Absorber	Shock absorber						
Angle adjustment range		0~190°						
Maximum rotation		190°						
Piston bore		Φ15	Φ18	Φ21	Φ25	Φ28	Φ32	Φ40
Port size	End ports	M5x0.8				RC1/8"		
	Side ports	M5x0.8						

■ **Note:** The maximum operating pressure of the actuator is restricted by the maximum allowable thrust of the shock absorber.

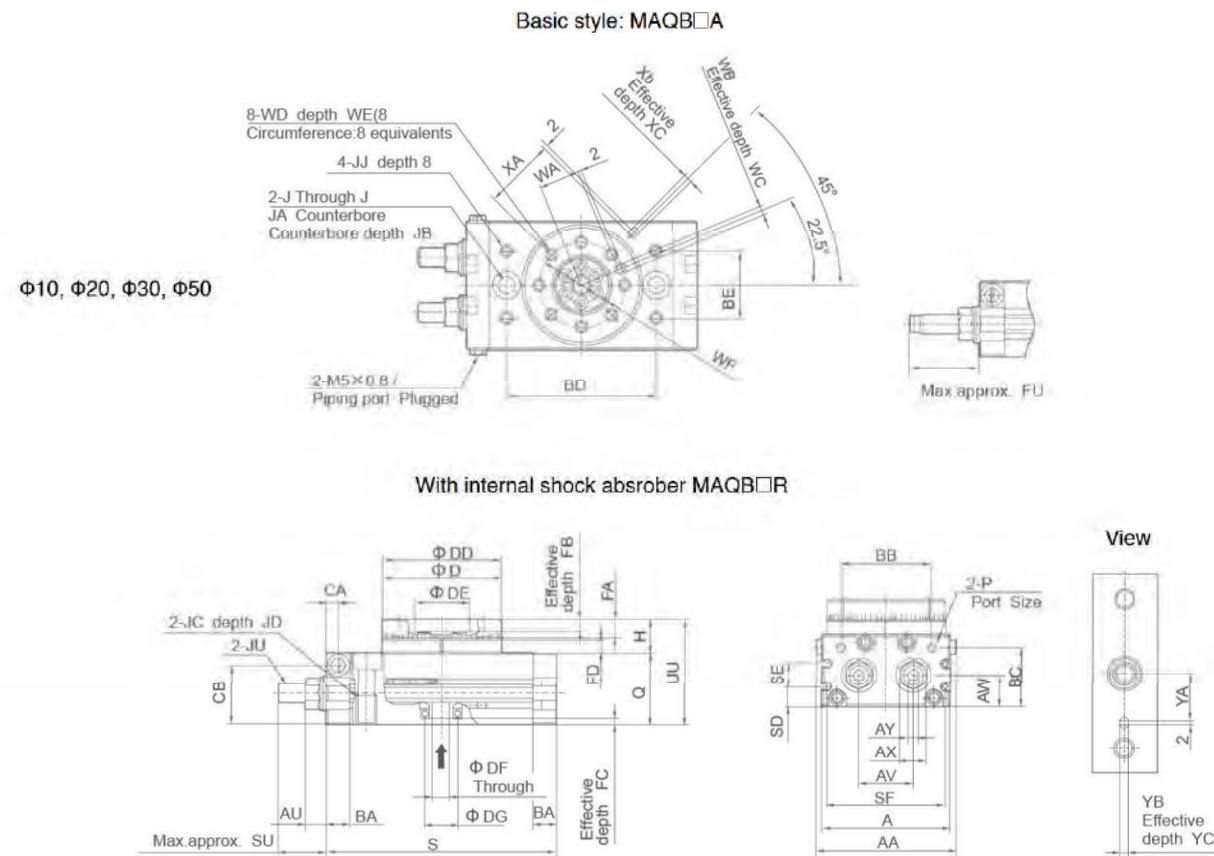
 Allowable Kinetic Energy and Rotation Time Adjustment Range

Bore Size (mm)	Allowable Kinetic Energy (mJ)		Rotation Time Adjustment Range For Stable Operation (S/90°)	
	With adjustment bolt	With internal shock absorber	With adjustment bolt	With internal shock absorber
10	7	39	0.2 to 1.0	0.2 to 0.7
20	25	116		
30	48	116		
50	81	294		
70	240	1100	0.2 to 1.5	0.2 to 1.0
100	320	1600	0.2 to 2.0	
200	560	2900	0.2 to 2.5	

■ Note: Be careful if a type with internal absorber is used below the minimum speed, the energy absorption ability will decrease drastically.

MSQ Series Rotary Table, Rack & Pinion Cylinder

Overall Dimensions



 Dimension Sheet

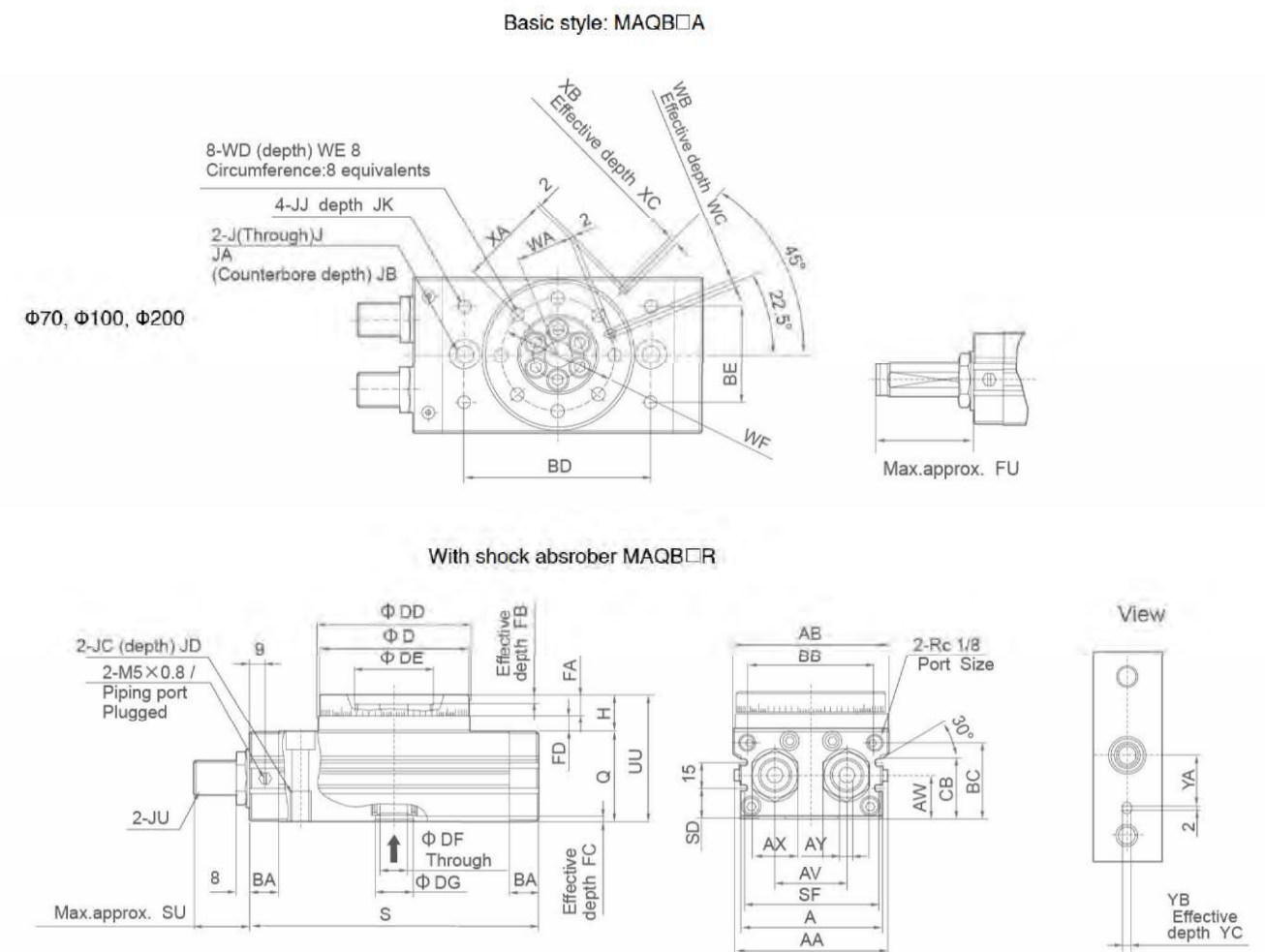
Bore size (mm)	AA	A	AU	AV	AW	AX	AY	BA	BB	BC	BD	BE	CA	CB	D	DD	DE	DF
10	55.4	50	8.6	20	15.5	12	4	9.5	34.5	27.8	60	27	4.5	28.5	46h9	46h9	20H9	5
20	70.8	65	10.6	27.5	16	14	5	12	46	30	67	34	6	30.5	60h9	61h9	28H9	9
30	75.4	70	10.6	29	18.5	14	5	12	50	32	84	37	6.5	33.5	65h9	67h9	32H9	9
50	85.4	80	14	38	22	19	6	15.5	63	37.5	100	50	10	37.5	75h9	77h9	35H9	10

Bore size (mm)	DG	FA	FB	FC	FD	H	J	JA	JB	JC	JD	JJ	JU	P
10	15H9	8	4	3	4.5	13	6.8	11	6.6	M8×1.25	12	M5×0.8	M8×1	M5×0.8
20	17H9	10	6	2.5	6.5	17	8.6	14	8.5	M10×1.5	15	M6×1	M10×1	M5×0.8
30	22H9	10	4.5	3	6.5	17	8.6	14	8.5	M10×1.5	15	M6×1	M10×1	Rc 1/8
50	26H9	12	5	3	7.5	20	10.5	18	10.5	M12×1.75	18	M8×1.25	M14×1.5	Rc 1/8

Bore size (mm)	Q	S	SD	SE	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC
10	34	92	9	13	45	17.7	47	15	3H9	3.5	M5x0.8	8	32	27	3H9	3.5	19	3H9	3.5
20	37	117	10	12	60	25	54	20.5	4H9	4.5	M6x1	10	43	36	4H9	4.5	24	4H9	4.5
30	40	127	11.5	14	65	25	57	23	4H9	4.5	M6x1	10	48	39	4H9	4.5	28	4H9	4.5
50	46	152	14.5	15	75	31.4	66	26.5	5H9	5.5	M8x1.25	12	55	45	5H9	5.5	33	5H9	5.5

MSQ Series Rotary Table, Rack & Pinion Cylinder

Overall Dimensions



 Dimension Sheet

Bore size (mm)	AA	AB	A	AV	AW	AX	AY	BA	BB	BC	BD	BE	CB	D	DD	DE
70	90	92	84	42	25.5	27	8	17	75	44.5	110	57	36	88h9	90h9	46H9
100	101	102	95	50	29.5	27	8	17	85	50.5	130	66	42	98h9	100h9	56H9
200	119	120	113	60	36.5	36	10	24	103	65.5	150	80	57	116h9	118h9	64H9

Bore size (mm)	DF	DG	FA	FB	FC	FD	H	J	JA	JB	JC	JD	JJ	JK	JU
70	16	22H9	12.5	5	3.5	6	22	10.4	17.5	10.5	M12×1.75	18	M6×1.25	10	M20×1.5
100	19	24H9	14.5	6	3.5	12	27	10.4	17.5	10.5	M12×1.75	18	M8×1.25	10	M20×1.5
200	24	32H9	16.5	9	5.5	15	32	14.2	20	12.5	M16×2	25	M12×1.75	13	M27×1.5

Bore size (mm)	Q	S	SD	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC
70	53	170	18	79	34.2	75	32.5	5H9	5.5	M8x1.25	12.5	67	54	5H9	3.5	39	5H9	3.5
100	59	189	22	90	34.3	86	37.5	6H9	6.5	M10x1.55	14.5	77	59	6H9	4.5	49	6H9	4.5
200	74	240	29	108	40.2	106	44	8H9	8.5	M12x1.75	16.5	90	69	8H9	6.5	54	8H9	6.5

CRQ2 Series Rotary Actuator (Pin Type)



Ordering Code

CRQ2B **S** **20** **□** **—** **90** **□**

Series Code CRQ2B: Normal Type
CDRQ2B: Attach Magnet Type

Shaft Type S: Single Shaft
D: Double Shaft

Cylinder Bore 10mm-40mm

Port Type Blank: M5X0.8 (Φ10, Φ15)
Blank: Rc1/8 (Φ20-Φ40)
G: G1/8 (Φ20-Φ40)
N: NPT1/8 (Φ20-Φ40)
NF: NPT1/8 (Φ20-Φ40)

Rotating Angle 90: 80°-100°
180: 170°-190°

Cushion Blank: Without (Φ20-Φ40)
Blank: Rubber (Φ10, Φ15)
C: Air Cushion (Φ20-Φ40)

CRQ2BS20-180

Specification

Bore (mm)		10	15	20	30	40
Working Medium		Air (to be filtered bu 40μm filter element)				
Action Type		Double-acting				
Operating Pressure Range (Mpa)		0.15~0.7		0.1~1.0		
Environment and Fluid Temperature		0~60℃				
Cushion Type		Rubber cushion		None/air cushion (optional)		
Rotating Angle		80°~100°, 170°~190°				
Adjustable Angle Range		±5°				
Output Torque (N)		0.3	0.75	1.8	3.1	5.3
Allowable Kinetic Energy	No Cushion	-	-	0.025	0.048	0.081
	Rubber Cushion	0.25×10³	0.39×10³	-	-	-
	Air Cushion	-	-	0.12	0.25	0.40
Rotating Time Range (Sec/90°)		0.2~0.7		0.2~1.0		

CRA1 Series Rotary Actuator (Rack & Pinion Type)



Ordering Code

CRA1 **B** **W** **□** **50** **—** **50** **□**

Series Code CRA1: Normal Type
CDRA1: Attach Magnet Type

Mounting Type B: Basic Type
L: Foot Type
F: Flange Type (Not available for Φ30)

Shaft Type S: Single Shaft (Not available for Φ30)
W: Double Shaft (Customized available)

Type Blank: Pneumatic
H: Air-hydro (Not available for Φ30)

Cylinder Bore 30mm-100mm

Rotating Angle 90: 90°
180: 180°
(100° and 190° available)

Cushion Blank: Without
C: Air Cushion (Not available for Φ30)

CDRA1BS30-90

Specification

Bore (mm)	30	50	63	80	100
Working Medium	Air (to be filtered by 40μm filter element)				
Action Type	Double-acting				
Max. Operating Pressure	1.0MPa				
Min. Operating Pressure	0.1MPa				
Environment and Fluid Temperature	0~60°C (No freezing)				
Backlash	Within 1° (For Φ30, no backlash due to the installed stopper under pressure)				
Tolerance in Rotating Angle	+4° 0				
Lubrication	Not required (Not-lube)				
Output Torque (N·m)	1.9	9.3	17	32	74
Allowable Kinetic Energy	No Air Cushion	0.01	0.05	0.12	0.16
	Air Cushion	-	0.98	1.2	2
Rotation Time Range (Sec/90°)	0.2~1	0.2~2	0.2~3	0.2~4	0.2~5
Port Size Rc	M5×0.8	Rc1/8	Rc1/8	Rc1/4	Rc3/8

SHZ Series Style Air Gripper



Ordering Code

SHZ **2** **—** **16** **D** **—** **1**

Model SHZ: Parallel fingers
SHZL: Long stroke fingers

Finger Quantity 2PCS

Bore Size 6mm-40mm

Action Type D: Double Action
S: Single Action (Normally open)
C: Single-Action (Normally closed)

Claw Form Blank: Standard Basic Type
1: Side screw installation
2: Opening and closing direction through-hole installation
N: Narrow basic type
N1: Side screw hole installation
N2: Opening and closing direction through hole installation

SHZ2-25D

Graphic Symbol

Double-acting, Internal grip	Double-acting, External grip	Single acting normally closed, Internal grip	Single acting normally closed, External grip

Specification

Bore(mm)		6	10	16	20	25	32	40
Working Medium		Air (to be filtered by 40 μm filter element)						
Operating pressure	Double-action	0.15~0.7	0.2~0.7	0.1~0.7			0.1~0.7	
	Single-action	0.3~0.7	0.35~0.7	0.25~0.7			0.25~0.7	
Ambient fluid temperature		-10~60°C						
Repeatability (mm)		±0.01					±0.02	
The highest frequency of use		180 (XHZL Series 120) (c.p.m)					60 (c.p.m)	
Lubrication		Not required						
Action type		Double acting • Single acting						
Auto switch (optional)		Solid state auto switch						
Port size		M3×0.5			M5×0.8			

Gripping Force

Model	Gripping force N				Opening/Closing (Both sides) mm
	RMS each finger gripping force				
	Double-acting		Single acting		
	External	Internal	External	Internal	
SHZ-6□	3.3	6.1	1.9	3.7	4
SHZ-10□	11	17	7.1	13	4
SHZ-16□	34	45	27	38	6
SHZ-20□	42	86	33	57	10
SHZ-25□	65	104	45	83	14
SHZ-32□	158	193	131	161	22
SHZ-40□	254	318	217	267	30

Model	Gripping force N				Opening/Closing (Both sides) mm
	RMS each finger gripping force				
	Double-acting		Single acting		
	External	Internal	External	Internal	
SHZL-10□	11	17	7.1	13	8
SHZL-16□	34	45	27	38	12
SHZL-20□	42	66	33	57	18
SHZL-25□	65	104	50	85	22

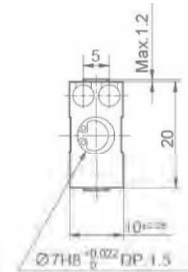
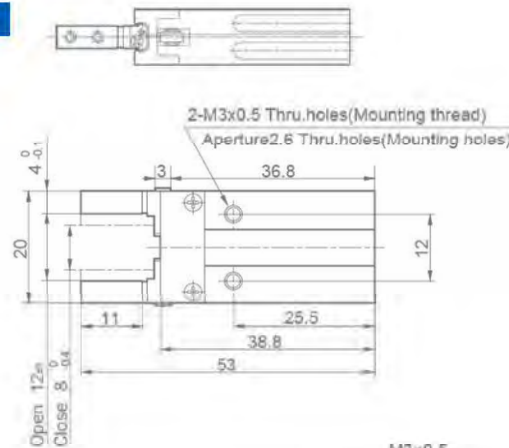
□ = Express D = Double-acting

S = Single acting (normally closed)

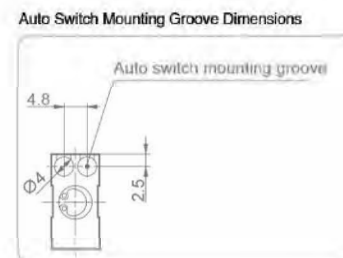
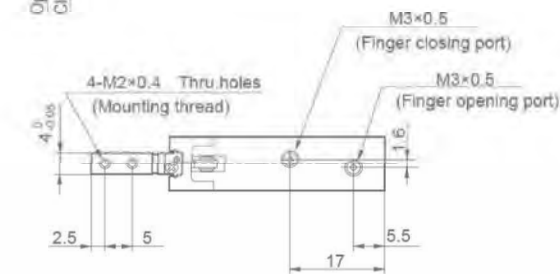
C = Single acting (normally open)

SHZ Series Style Air Gripper

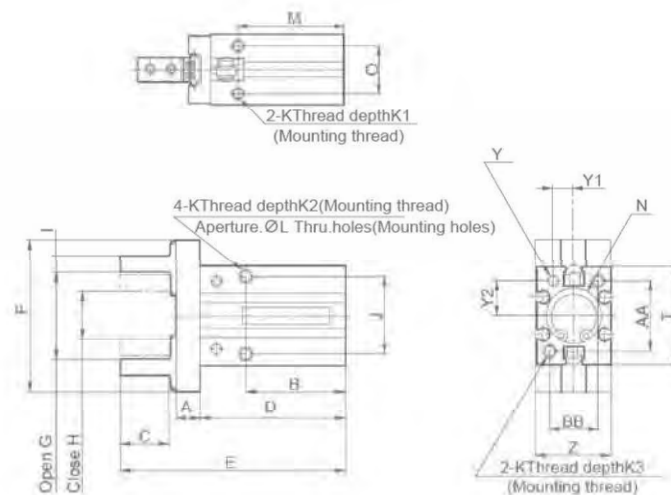
Overall Dimensions



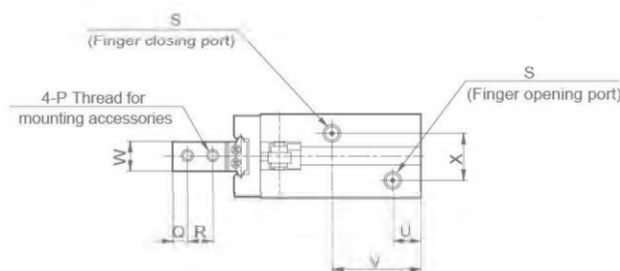
SHZ-6□ (Φ6)
Double acting
Single acting



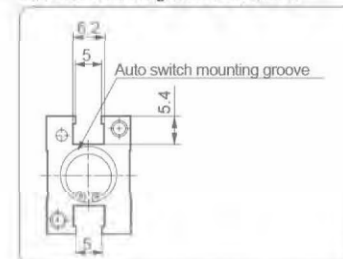
For single acting, the port on one side will turn into breathing hole.



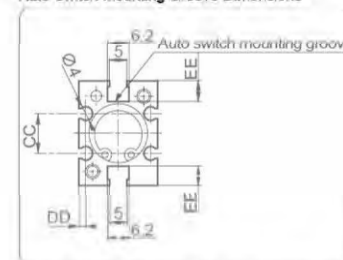
SHZ- □□(Φ10~Φ40)
Double acting
Single acting



For single acting, the port on one side will turn into breathing hole.

SHZ-10□
Auto Switch Mounting Groove Dimensions

Note: Through-hole mounting is not possible when using the auto switch at the square groove.

SHZ-□□
Auto Switch Mounting Groove Dimensions

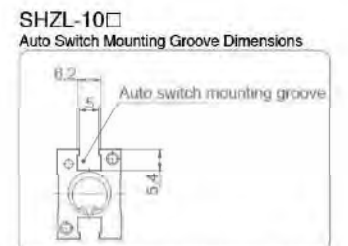
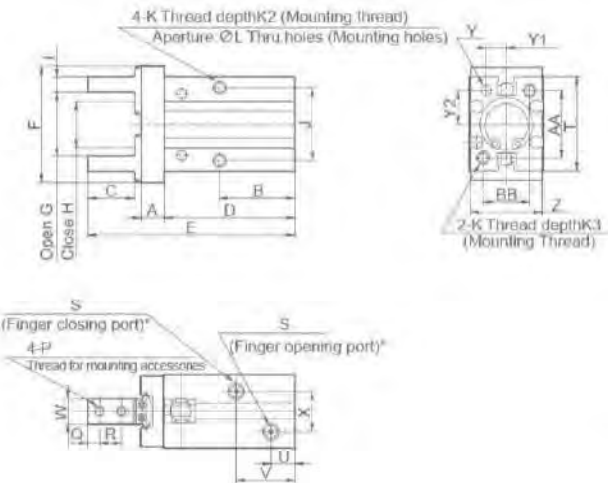
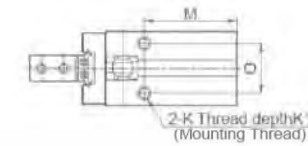
Note: Through-hole mounting is not possible when using the auto switch at the square groove.

SHZ Series Style Air Gripper

 Dimension Sheet

Bore(mm)	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	ΦL	M	N		Q	P	Q
10	6	23	12	37.8	57	29	15.2 ^{+2.9 -0.6}	11.2 ^{+2.9 -0.7}	4 ^{-0.1 -0.1}	16	M3×0.5	6	5.5	6	2.6	27	Φ11H9 ^{-0.013 -0.013}	Dp2	11.4	M2.5×0.45	3
16	7.5	24.5	15	42.5	67.3	38	20.9 ^{+3.2 -0.6}	14.9 ^{+3.2 -0.7}	5 ^{-0.1 -0.1}	24	M4×0.7	4.5	8	8	3.4	30	Φ17H9 ^{-0.013 -0.013}	Dp2	16	M3×0.5	4
20	9.5	29	20	52.8	84.8	50	26.3 ^{+3.2 -0.6}	16.3 ^{+3.2 -0.7}	8 ^{-0.1 -0.1}	30	M5×0.8	8	10	10	4.3	35	Φ21H9 ^{-0.002 -0.002}	Dp3	18.6	M4×0.7	5
25	11	30	25	63.6	102.7	63	33.3 ^{+3.5 -0.6}	19.3 ^{+3.5 -0.8}	10 ^{-0.1 -0.1}	36	M6×1	10	12	12	5.1	36.5	Φ26H9 ^{-0.002 -0.002}	Dp3.5	22	M5×0.8	6
32	12	40(49)	29	67(76)	113(122)	97	48 ^{+2.5 -0.6}	26 ^{+2.5 -0.8}	12 ^{-0.1 -0.1}	46	M6×1	10	13	13	5.1	48(57)	Φ34H9 ^{-0.002 -0.002}	Dp4	26	M6×1	7
40	15	49(62)	36	83(96)	139(152)	119	60 ^{+2.7 -0.2}	30 ^{+2.7 -0.8}	14 ^{-0.1 -0.1}	56	M8×1.25	13	16	17	6.6	58(71)	Φ42H9 ^{-0.002 -0.002}	Dp4	32	M8×1.25	9

Bore(mm)	R	S	T	U	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	5.7	M3×0.5	23	9	19	5 ^{0 -0.05}	11	Φ2H9 ^{+0.020 0} Dp:3	16.4±0.05	5.2±0.02	7.6±0.02	18	12	-	-	-
16	7	M5×0.8	30.6	7.5	19	8 ^{0 -0.06}	13	Φ3H9 ^{+0.020 0} Dp:3	23.6±0.05	6.5±0.02	11±0.02	22	15	11.6	2.1	5.8
20	9	M5×0.8	42	10	23	10 ^{0 -0.06}	15	Φ4H9 ^{+0.020 0} Dp:4	27.6±0.05	7.5±0.02	7.5±0.02	32	18	14	2.1	9
25	12	M5×0.8	52	10.7	23.5	12 ^{0 -0.06}	20	Φ4H9 ^{+0.020 0} Dp:4	33.6±0.05	10±0.02	10±0.02	40	22	19	3.5	11.5
32	14	M5×0.8	60	11	31(37)	15 ^{0 -0.06}	24	Φ5H9 ^{+0.020 0} Dp:5	40±0.1	12±0.02	12±0.02	46	26	24	3.3	11.5
40	17	M5×0.8	72	12	38(45)	18 ^{0 -0.06}	28	Φ5H9 ^{+0.020 0} Dp:5	48±0.1	14±0.02	14±0.02	56	32	29.4	3.7	13

 Overall Dimensions

Note: Through-hole mounting is not possible when using the auto switch at the square groove.



Note: Through-hole mounting is not possible when using the auto switch at the square groove.

SHZL-□□ (Φ10~Φ25)
Double acting
Single acting

 Dimension Sheet

Bore(mm)	A	B	C	D	E	F	G	H	I	J	K	K1	K2	K3	FL	M	N	O	P	Q	
10	6	25(35)	12	37.8(47.8)	57(67)	35	19.2 ^{+0.2 -0.1}	11.2 ^{+0.2 -0.1}	4 ^{+0.1 -0.1}	16	M3×0.5	6	5.5	6	2.6	29(39)	Φ11H9 ^{+0.043 -0.043}	Dp:2	11.4	M2.5×0.45	3
16	7.5	31(36)	15	45.2(50.2)	70(75)	47	26.9 ^{+0.2 -0.2}	14.9 ^{+0.3 -0.1}	5 ^{+0.1 -0.1}	24	M4×0.7	4.5	8	8	3.4	36(41)	Φ17H9 ^{+0.043 -0.043}	Dp:2	16	M3×0.5	4
20	9.5	36(42)	20	58(64)	90(98)	62	34.3 ^{+0.2 -0.2}	16.3 ^{+0.3 -0.1}	8 ^{+0.1 -0.1}	30	M5×0.8	8	10	10	4.3	43(49)	Φ21H9 ^{+0.050 -0.050}	Dp:3	18.6	M4×0.7	5
25	11	40(50)	25	68.9(78.9)	108(116)	75	41.3 ^{+0.2 -0.2}	19.3 ^{+0.4 -0.1}	10 ^{+0.1 -0.1}	36	M6×1	10	12	12	5.1	48(58)	Φ26H9 ^{+0.050 -0.050}	Dp:3.5	22	M5×0.8	6

Bore(mm)	R	S	T	U	V	W	X	Y	Z	Y1	Y2	AA	BB	CC	DD	EE
10	5.7	M3×0.5	23	8	21(31)	5 ^{0_{-0.05}}	11	Φ2H9 ^{-0.005} Dp:3	16.4±0.05	5.2±0.02	7.6±0.02	18	12	-	-	-
16	7	M5×0.8	30.6	8	25(30)	8 ^{0_{-0.07}}	13	Φ3H9 ^{-0.005} Dp:3	23.6±0.05	6.5±0.02	11±0.02	22	15	11.6	2.1	5.8
20	9	M5×0.8	42	10	30(36)	10 ^{0_{-0.06}}	15	Φ4H9 ^{-0.005} Dp:4	27.6±0.05	7.5±0.02	16.8±0.02	32	18	14	2.1	9
25	12	M5×0.8	52	10	33(43)	12 ^{0_{-0.06}}	20	Φ4H9 ^{-0.005} Dp:4	33.6±0.05	10±0.02	21.8±0.02	40	22	19	3.5	11.5

SHZ Series Style Air Gripper

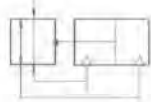


SHZ2-25D

Ordering Code

SHY	2	16	D	2
Series Code	Finger Quantity	Bore Size	Action Type	Claw Form
SHY: 180° open and close your fingers	2PCS	10mm~25mm	D: Double Action	Blank: Standard thread installation 2: Opening and closing direction through-hole installation

Graphic Symbol



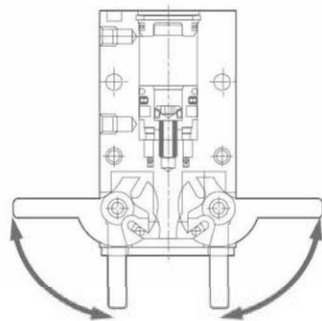
- Auto switch is attachable.
- 180° Retractable simplify pick and place operation.
- May be suitable for use under special circumstances, the finger opening and closing part specifically designed to prevent small items from entering.
- Easy to install, with positioning holes.

Specification

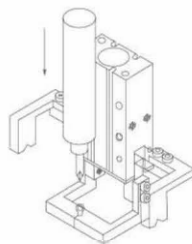
Bore(mm)	10	16	20	25
Working Medium	Air (to be filtered by 40µm filter element)			
Action Type	Double-acting			
Max.operating Pressure (Mpa)	0.6			
Min.operating Pressure (Mpa)	0.1			
Ambient Fluid Temperature	-10~+60°C			
Max.operating Frequency	60c.p.m			
Repeatability (Mm)	±0.2mm			
Holding Torque N·m Note1)	0.16	0.54	1.1	2.28
Lubrication Note2)	Not required			
Port Size	M5×0.8			

Note 1: At the pressure of 0.5 Mpa
Note 2: If you need lubrication, use turbine No.1 oil ISO VG32.

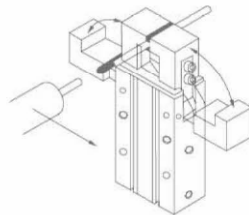
Chart



Fuction Example



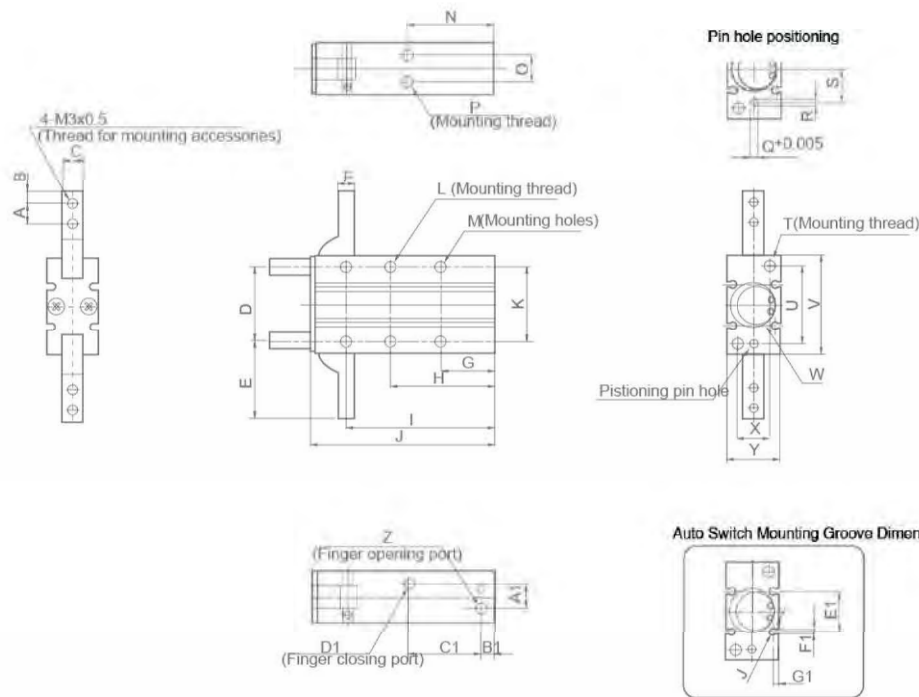
Fixing screws



Clamping wire

SHY Series Style Air Gripper

Overall Dimensions



Dimension Sheet

Bore(mm)	A	B	C	D	E	F	G	H
10	6	3	6 ^{+0.05} _{-0.005}	22	23.5	4	18	35
16	7	4	8 ^{+0.08} _{-0.005}	28	28.5	10	20	41
20	9	5	10 ^{+0.05} _{-0.005}	36	37	8	25	50
25	12	6	12 ^{+0.05} _{-0.005}	45	45	10	30	60

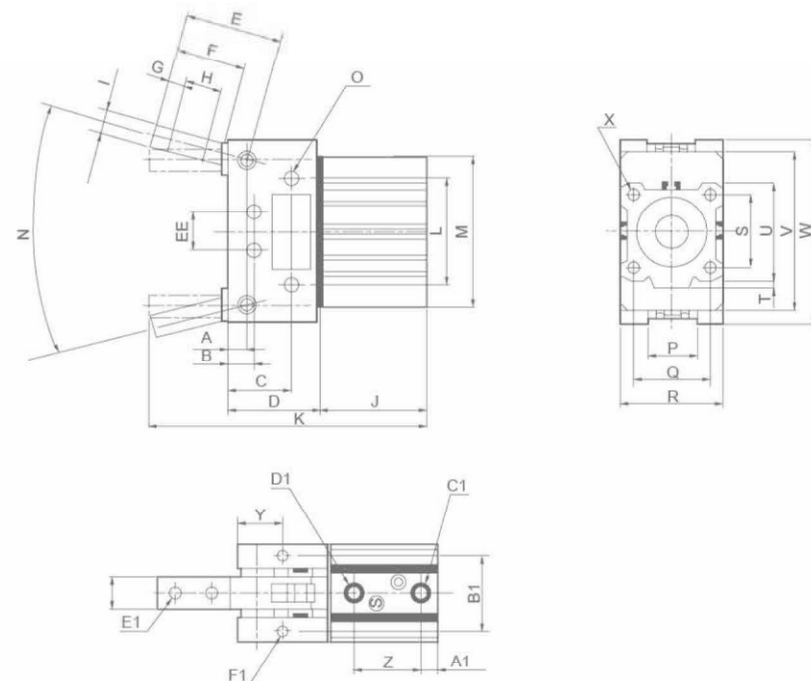
Bore(mm)	I	J	K	L	M	N	O	P
10	47.5	58	24	4-M3×0.5 / Thread dep 6	2-Φ3.4	30	19	2-M3×0.5 / Thread dep 6
16	55.5	69	30	4-M3×0.7 / Thread dep 8	2-Φ4.5	33	12	2-M4×0.7 / Thread dep 5
20	69	86	36	4-M5×0.8 / Thread dep 10	2-Φ5.5	42	14	2-M5×0.8 / Thread dep 10
25	86	107	30	4-M6×1 / Thread dep 12	2-Φ6.6	52	12	2-M6×1 / Thread dep 10

Bore(mm)	Q	R	S	T	U	V	W	X
10	3H9 ^{+0.05} ₀	4	9	2-M3×0.5 / Thread dep 6	24	30	Φ11h9 ^{+0.043} ₀	9
16	3H9 ^{+0.05} ₀	4	19	2-M3×0.7 / Thread dep 8	30	38	Φ17h9 ^{+0.043} ₀	12
20	4h9 ^{+0.002} ₀	5	19	2-M5×0.8 / Thread dep 10	38	48	Φ21h9 ^{+0.052} ₀	16
25	4h9 ^{+0.002} ₀	5	23	2-M6×1 / Thread dep 12	46	58	Φ26h9 ^{+0.052} ₀	18

Bore(mm)	Y	Z	A1	B1	C1	D1	E1	F1	G1
10	15	M5×0.8	3	7	23	M5×0.8	13	3	2
16	20	M5×0.8	8	7	25	M5×0.8	18	3	2.5
20	26	M5×0.8	12	8	32	M5×0.8	20	3	3
25	30	M5×0.8	14	8	42	M5×0.8	24	3	3

SHT Series Angle Style Air Gripper (Toggle Type)

Overall Dimensions



Dimension Sheet

Bore (mm)	A	B	C	D	E	F	G	H	I
32	8	12	28	41.6	42	32	8	16	5.5
40	8	12	28	42	48	37	10	18	7
50	10	16	35	52.5	54	40	10	22	8
63	10	17	35	53.2	60	45	11	24	10

Bore (mm)	J	K	L	M	N	O	EE	P
32	48	123.6	50	68	Open: 28°, Closed: -3°	Double Sides: 4-M6 / Thread: Dep 10	18	22
40	54.5	136.5	60	74	Open: 27°, Closed: -3°	Double Sides: 4-M8 / Thread: Dep 10	24	29
50	60.5	157	80	100	Open: 23°, Closed: -2°	Double Sides: 4-M10 / Thread: Dep 12	30	36
63	66	169.2	90	104	Open: 23°, Closed: -2°	Double Sides: 4-M12 / Thread: Dep 17	36	40

Bore (mm)	Q	R	S	T	U	V	W	X
32	34±0.2	46	34±0.2	4.5	45	72	86	4-M6 / Thread: Dep 10
40	40±0.2	53	40±0.2	5	52	82	96	4-M8 / Thread: Dep 10
50	50±0.2	66	50±0.2	7	64	110	124	4-M8 / Thread: Dep 14
63	60±0.2	80	60±0.2	7	77	116	132	4-M10 / Thread: Dep 18

Bore (mm)	Y	Z	A1	B1	C1	D1	E1	F1
32	20	30	7.5	34	Finger Open: Rc(PT)1/8	Finger Closed: Rc(PT)1/8	4-M6 / Thread: Dep 5.1	4-M6 / Thread: Dep 15
40	20	35.5	8	40	Finger Open: Rc(PT)1/8	Finger Closed: Rc(PT)1/8	4-M8 / Thread: Dep 6.8	4-M8 / Thread: Dep 12
50	25	39.5	10.5	52	Finger Open: Rc(PT)1/4	Finger Closed: Rc(PT)1/4	4-M10 / Thread: Dep 8.6	4-M10 / Thread: Dep 12
63	25	40.5	10.5	50	Finger Open: Rc(PT)1/4	Finger Closed: Rc(PT)1/4	4-M12 / Thread: Dep 10.4	4-M12 / Thread: Dep 10

SHL Series Parallel Style Wide Opening Air Gripper



SHL 2-20D

Ordering Code

SHL **2** × **16** **D**

Series Code **Finger Quantity** **Cylinder Bore** **Action Type** **Finger Open/Closed Stroke**

SHL: Wide Opening 2PCS Air Gripper 10mm~40mm D: Double Action

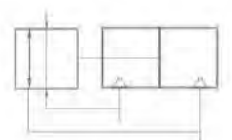
Bore	10	16	20	25	32	40
Blank	20	30	40	50	70	100
1	40	60	80	100	120	160
2	60	80	100	120	160	200

- Long finger stroke, suitable for large volume workpiece.
- Dual piston design can increase retention.
- Fingers synchronized by rack and pinion mechanism.
- Dust protection design adopt special sealing.

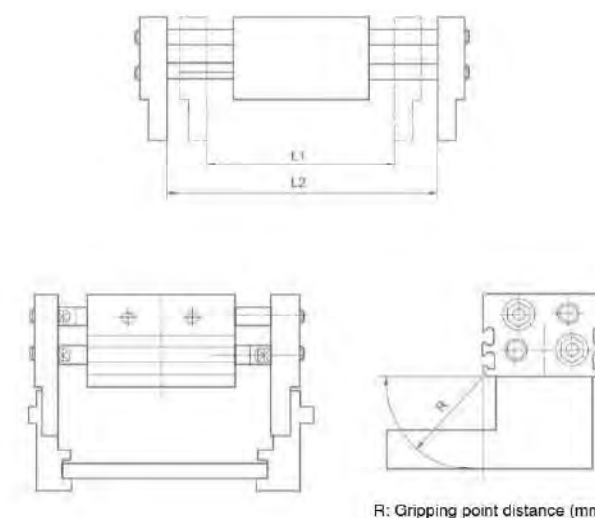
Specification

Bore (mm)	10	16	20	25	32	40
Fluid	Air					
Motion Pattern	Double Acting					
Max. pressure Mpa	0.6 (6.1)					
Max. pressure Mpa	0.15			0.1		
Ambient and Fluid Temperature	-10~60°C					
Auto Switch (optional)	±0.1mm					
Effective Gripping Force (N) at 0.5 Mpa	14	45	74	131	228	396
Port Size	M5×0.8 G1/8"					

Graphic Symbol



Stroke

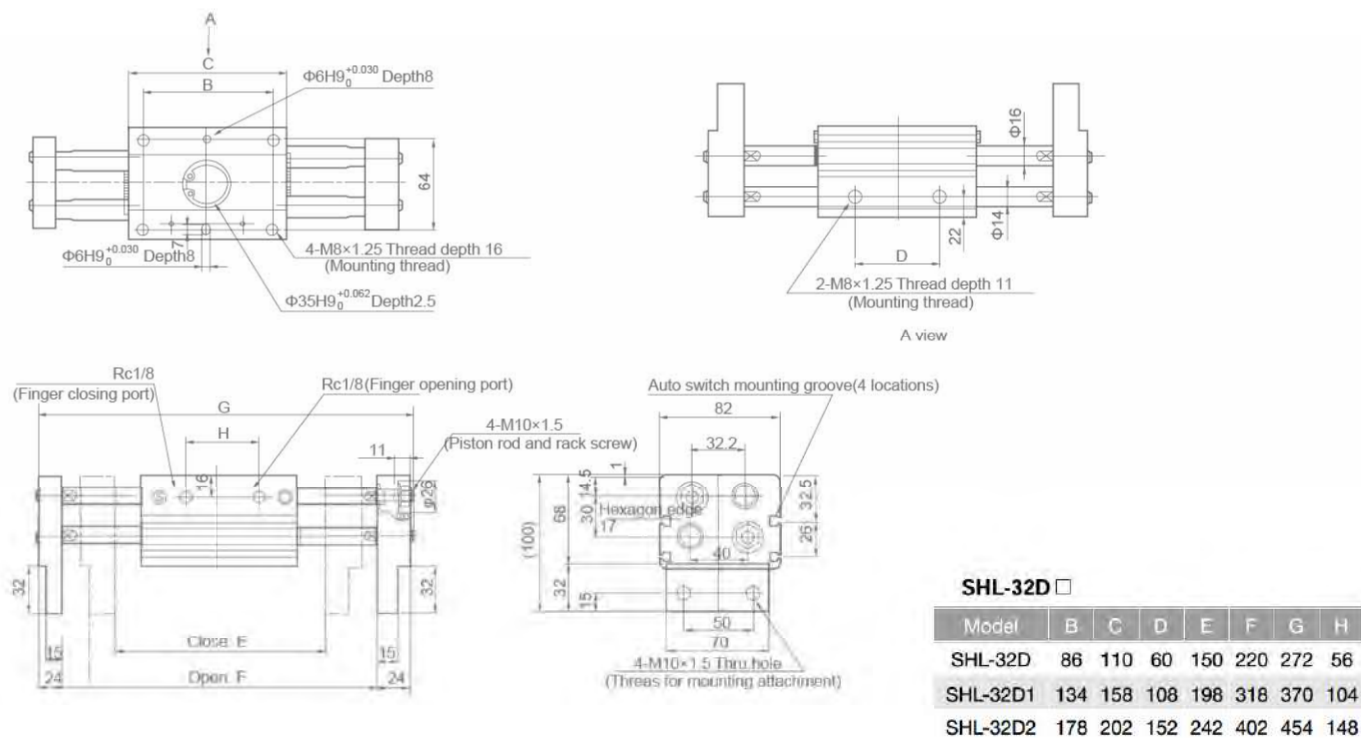


R: Gripping point distance (mm)

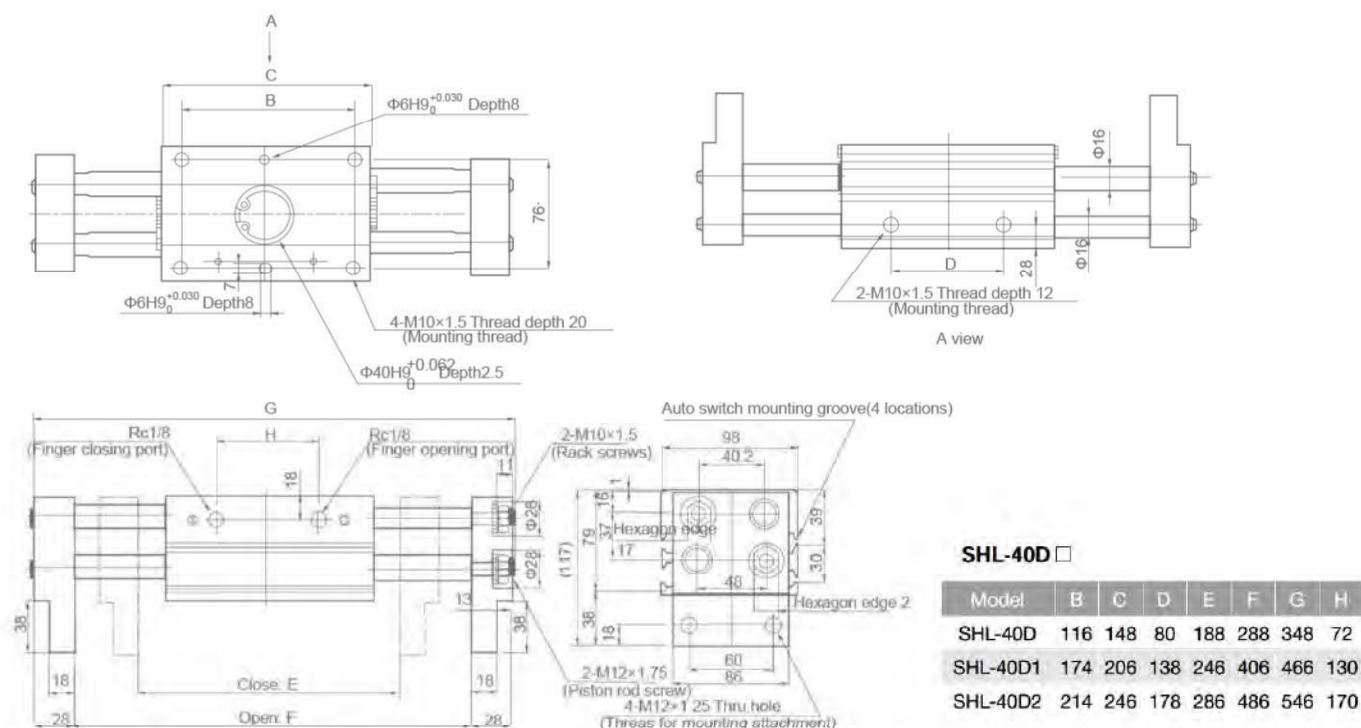
Model	Bore size (mm)	Max. operating frequency c.p.m	Opening/Closing stroke (L1-L2) (mm)	Width at closing (mm) L1	Width at the opening (mm) L2
SHL-10D	10	60	20	56	76
SHL-10D1		40	40	78	118
SHL-10D2		40	60	96	156
SHL-16D	16	60	30	68	98
SHL-16D1		40	60	110	170
SHL-16D2		40	80	130	210
SHL-20D	20	60	40	82	122
SHL-20D1		40	80	142	222
SHL-20D2		40	100	162	262
SHL-25D	25	60	50	100	150
SHL-25D1		40	100	182	282
SHL-25D2		40	120	200	320
SHL-32D	32	30	70	150	220
SHL-32D1		20	120	198	318
SHL-32D2		20	160	242	402
SHL-40D	40	30	100	188	288
SHL-40D1		20	160	246	406
SHL-40D2		20	200	286	486

SHL Series Parallel Style Wide Opening Air Gripper

Overall Dimensions



Overall Dimensions



SHF Series Low Profile Air Gripper (Parallel Type)



SHF2-20D

Ordering Code

Series Code	Finger Quantity	Cylinder Bore	Action	Stroke	Body Type
SHF: Parallel Type Low profile Air Gripper	2: 2PCS	8mm~20mm	D: Double Action	Blank: Short Stroke 1: Middle Stroke 2: Long Stroke	Blank: Axial Porting Type R: Side Porting Type

Specification

Bore (mm)	8	12	16	20
Working Medium	Air (No Lubrication)			
Operating Pressure Range (Mpa)	0.15~0.7		0.1~0.7	
Ambient and Fluid	-10~+60°C (Not freezing)			
Repeatability Precision (mm)	±0.05			
Max. Motion Frequency (c.p.m)	Short stroke: 120, Middle stroke: 120, Long stroke: 60			
Motion Pattern	Double acting			
Each Gripper Effective Grip Power	19	48	90	141
Open Close Stroke (Both Side)	8,16,32	12,24,48	16,32,64	20,40,80

① If gripper have unbalance loading, for the gear distance, the max, is ±0.15mm

② When pressure is 0.5 mpa, grip power distance is 20mm

SHW Series Angular Air Grippers (Rack & Pinion Type)



SHW2-32D

Ordering Code

Series Code	Finger Quantity	Cylinder Bore	Action	Finger Type
SHW: Rack&Pinion Type Air Angular Gripper	2: 2PCS	20mm~50mm	D: Double Action	Blank: Flat Type (Standard) 1: Right Angle Type (Tapped Mounting)

Specification

Bore (mm)	20	25	32	40	50
Working Medium	Air				
Motion Pattern	Double acting				
Max. Operating Pressure (Mpa)	0.7				
Min. Operating Pressure (Mpa)	0.15				
Ambient and Fluid	-10~+60°C (Not freezing)				
Max. Motion Frequency	60 c.p.m		30 c.p.m		
Repeatability Precision	±0.2 mm				
Note(1) Grip Moment	0.3	0.73	1.61	3.7	8.27
Note(2) Lubrication	Not required				
Port Size	M5×0.8		Rc 1/8		Rc 1/4

Note 1: At 0.5MPa pressure ambient

Note 2: If need lubrication please use ISOVG32

SHS2 Series Slide Guide Air Gripper (Round Body)

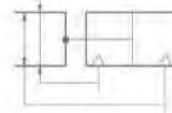


SHS2-32D

Ordering Code

SHS	2	32	D
Series Code	Finger Quantity	Bore Size	Action
SHY: Round Body Type	2: 2PCS	16mm~63mm	D: Double Action

Graphic Symbol



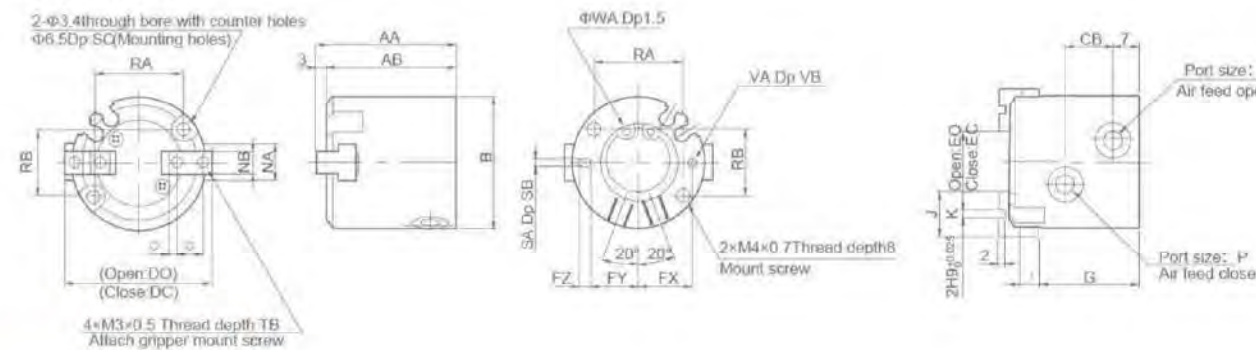
Specification

Bore (mm)	16	20	25	32	40	50	63
Working Medium	Air						
Operating Pressure Range	0.2~0.6 MPa			0.1~0.6 MPa			
Ambient and Fluid	-10~+60°C						
Repeatability Precision	±0.01 mm						
Max. Motion Frequency	120 c.p.m			60 c.p.m			
Lubrication	Not required						
Motion Pattern	Double acting						
Note: Grip power pressure 0.5 MPa	Outer diameter grip	21	37	63	111	177	280
	Inner diameter grip	23	42	71	123	195	306
Gripper Stroke	4	4	6	8	8	12	16
Port Size	M5×0.5			M5×0.8			
Magnetism Switch				With magnet			

① Grip outer diameter power, Φ16-Φ25 grip distance L = 30mm

Overall Dimensions

SHS2-16D~25D



Dimension Sheet

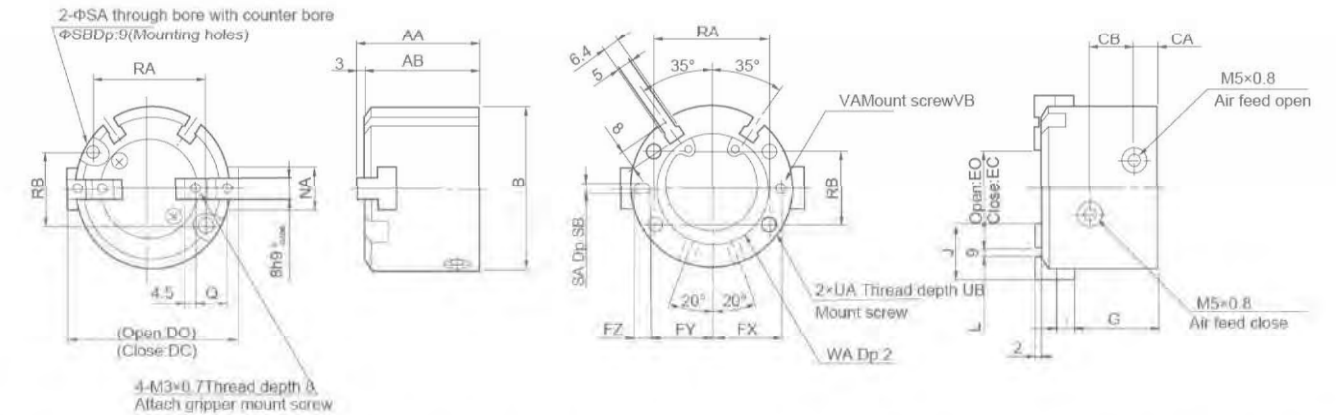
Bore (mm)	AA	AB	B	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	NA	NB	O	P	Q
16	35	32	30	11	30	34	10	14	12.5	11	3	25	4	10	4	8	5h9 ⁰ _{-0.020}	2	M3×0.5	6
20	38	35	25	13	36	40	12	16	14.5	13	3	27	5	12	5	10	6h9 ⁰ _{-0.030}	2.5	M5×0.8	7
25	40	37	42	15	42	48	14	20	17	14.5	5	32	5	14	6	12	6h9 ⁰ _{-0.030}	3	M5×0.8	8

Bore (mm)	RA	RB	SC	TB	VA	VB	WA	SA	SB
16	18	16	8	5	2H9 ^{+0.025} ₀	2	17H9 ⁰ _{-0.020}	2H9 ^{+0.025} ₀	2
20	24	18	9.5	6	2H9 ^{+0.025} ₀	2	21H9 ⁰ _{-0.030}	2H9 ^{+0.025} ₀	2
25	26	22	10	6	3H9 ^{+0.025} ₀	3	3H9 ⁰ _{-0.030}	3H9 ^{+0.025} ₀	3

SHS2 Series Slide Guide Air Gripper (Round Body)

Overall Dimensions

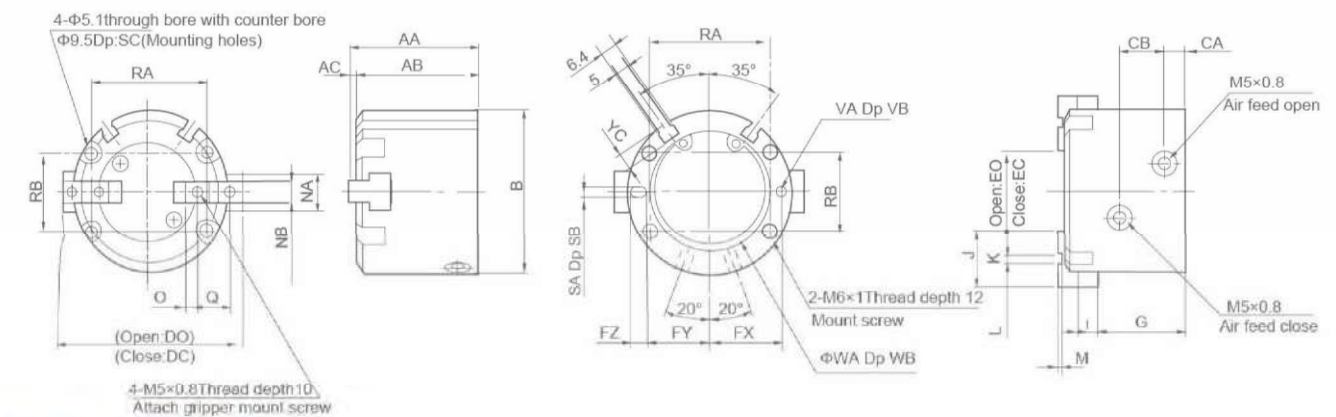
SHS2-32D~40D



Bore (mm)	AA	AB	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	L	NA
32	44	41	36	8	16	56	64	16	24	23	20.5	5	30.5	6	20	2H9 ^{+0.025} ₀	14
40	47	44	42	8	17	62	70	20	28	26.5	23.5	6	32	7	21	3H9 ^{+0.025} ₀	16
Bore (mm)	Q	RA	RB	SA	SB	UA	UB	VA	VB	WA	SA	SB					
32	11	38	25	4.5	8	M5×0.8	10	3H9 ^{+0.025} ₀	3	34H9 ^{+0.025} ₀	3H9 ^{+0.025} ₀	3					
40	12	44	28	5.5	9.5	M6×1	14	4H9 ^{+0.025} ₀	4	42H9 ^{+0.025} ₀	4H9 ^{+0.025} ₀	4					

Overall Dimensions

SHS2-50D~63D



Dimension Sheet

Bore(mm)	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K
50	55	52	3	70	9	20	70	82	22	34	31	28	6	37.5	9	24	10
63	66	62	4	86	12	86	102	30	30	46	38	34.5	7	44	11	28	11

Bore(mm)	L	M	NA	NB	O	Q	RA	RB	SC	VA	VB	WA	WB	SA	SB	YC
50	4H9 ^{+0.025} ₀	2	18	10H9 ⁰ _{-0.045}	5	14	52	34	12	4H9 ^{+0.025} ₀	4	52H9 ^{+0.025} ₀	2	4H9 ^{+0.025} ₀	4	7
63	6H9 ^{+0.025} ₀	3	24	12H9 ⁰ _{-0.045}	5.5	17	66	38	14	5H9 ^{+0.025} ₀	5	65H9 ^{+0.025} ₀	2.5	5H9 ^{+0.025} ₀	5	7.5

SHS3 Series Slide Guide Air Gripper (Round Body)



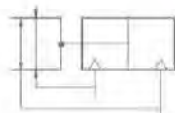
SHS3-20D

Ordering Code

SHS — **3** —  — **32** — **D**

Series Code SHS: Round Body Type
Finger uantity 3: 3PCS
Type Blank: Standard
J: With Cover
L: Long Stroke
Cylinder Bore J: 16mm-80mm
L: 16mm~125mm
Action D: Double Action

Graphic Symbol



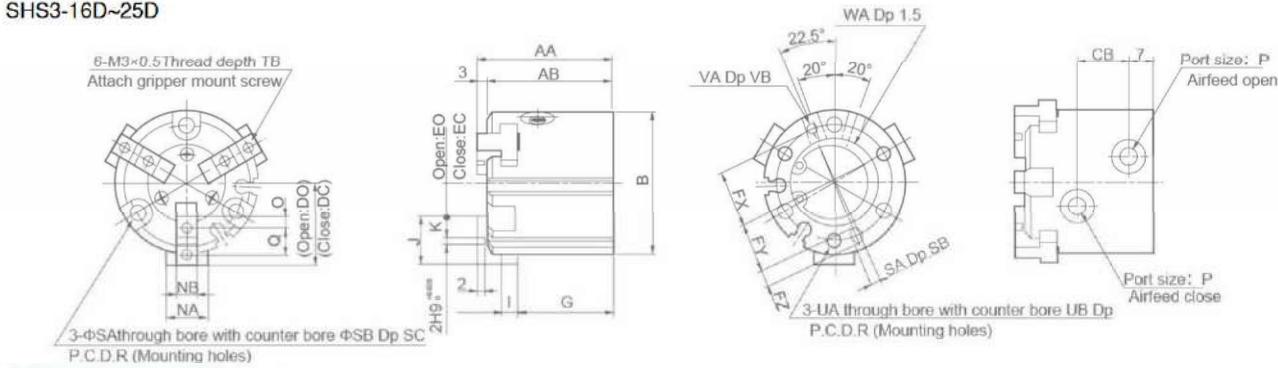
Specification

Bore (mm)	16	20	25	32	40	50	63	80	100	125	
Working Medium	Air										
Operating Pressure Range	0.2~0.6 MPa					0.1~0.6 MPa					
Ambient and Fluid						-10~+60°C					
Repeatability Precision						±0.01					
Max Motion Frequency	120 c.p.m					60 c.p.m					
Lubrication						Not required					
Motion Pattern						Double acting					
Note: Grip power pressure 0.5 MPa	Outer Diameter Grip	14	25	42	74	118	187	335	500	150	1270
	Inner Diameter Grip	16	28	47	82	130	204	359	525	780	1320
	With Dustpreient Cover Outer Diameter Grip	9	21	36	62	97	155	280	400	-	-
With Cover: Standard Gripper Stroke	4	4	6	8	8	12	16	20	24	32	
Long Stroke Gripper Stroke	10	10	12	16	20	26	32	40	48	64	
Port Size	M3 x 0.5					M3 x 0.8					
Magnetism Switch						With Magnet					

Note: Grip outer diameter power, Φ16-Φ25 grip distance L= 20mm, Φ32-Φ63, grip distance L= 30mm, Φ80-Φ125, grip distance L= 50mm

Overall Dimensions

SHS3-16D~25D



Dimension Sheet

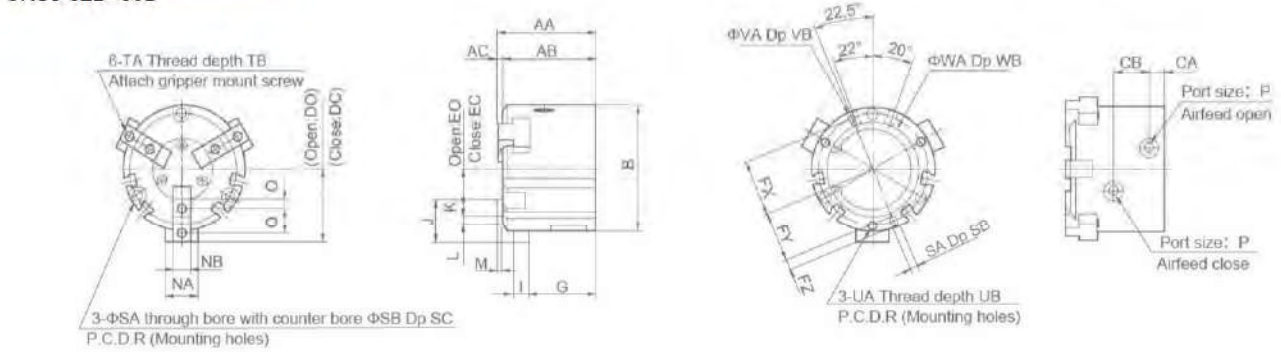
Bore (mm)	AA	AB	B	CB	DC	DO	EC	EO	FX	FY	FZ	G	H	I	J	K	NA	NB	O	P	Q	R
16	35	32	30	11	15	17	5	7	12.5	11	3	25	25	4	10	4	8	5h9	2	M3x0.5	6	25
20	38	35	36	13	18	20	6	8	14.5	13	3	27	27	5	12	5	10	6h9	2.5	M5x0.8	7	29
25	40	37	42	15	21	24	7	10	17	14.5	5	28	28	5	14	6	12	6h9	2	M5x0.8	8	34

Bore (mm)	SA	SB	SC	TB	UA	UB	VA	VB	WA	SA	SB
16	3.4	6.5	8	5	M3x0.5	4.5	2H9 ^{+0.025} ₀	2	2H9 ^{+0.025} ₀	17H9 ^{+0.025} ₀	2
20	3.4	6.5	9.5	6	M3x0.5	6	2H9 ^{+0.025} ₀	3	2H9 ^{+0.025} ₀	21H9 ^{+0.025} ₀	2
25	4.5	8	10	6	M4x0.7	6	3H9 ^{+0.025} ₀	3	3H9 ^{+0.025} ₀	26H9 ^{+0.025} ₀	3

SHS3 Series Slide Guide Air Gripper (Round Body)

Overall Dimensions

SHS3-32D~80D



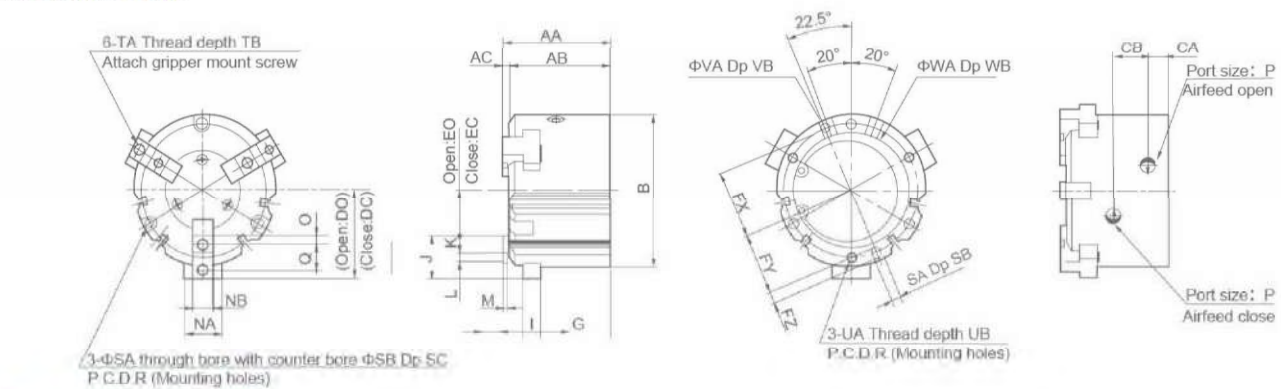
Overall Dimensions

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

Bore (mm)	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	SA	SB	VC
32	4.5	M5x0.8	11	44	4.5	8	9	M4x0.7	8	M4x0.7	6	3H9 ^{+0.025} ₀	3	34H9 ^{+0.025} ₀	2	3H9 ^{+0.025} ₀	3	6
40	4.5	M5x0.8	12	53	5.5	9.5	9	M5x0.8	7.5	M5x0.8	7.5	5H9 ^{+0.025} ₀	4	42H9 ^{+0.025} ₀	2	4H9 ^{+0.025} ₀	4	8
50	5	M5x0.8	14	62	5.5	9.5	12	M5x0.8	10	M5x0.8	10	4H9 ^{+0.025} ₀	4	52H9 ^{+0.025} ₀	2	4H9 ^{+0.025} ₀	4	8
63	5.5	M5x0.8	17	76	6.6	11	14	M5x0.8	12	M6x1	9	5H9 ^{+0.025} ₀	5	62H9 ^{+0.025} ₀	2.5	5H9 ^{+0.025} ₀	5	7.5
80	6	Rc1/8	20	95	6.6	11	19	M6x1	12	M6x1	12	6H9 ^{+0.025} ₀	6	82H9 ^{+0.025} ₀	3	6H9 ^{+0.025} ₀	6	8

Overall Dimensions

SHS3-100D~125D



Dimension Sheet

Bore (mm)	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	H	I	J	K	L	M	NA	NB
100	96	90	6	134	18	30.6	78	78	28	40	59	54	10	63	15	38	15	8H9 ^{+0.025 0}	4	34	18H9 ^{+0.025 0}	
125	122	114	8	186	23.5	82	98	98	30	46	74	68	10	84	18	52	21	10H9 ^{+0.025 0}	6	40	22H9 ^{+0.025 0}	

Bore (mm)	O	P	Q	R	SA	SB	SC	TA	TB	UA	UB	VA	VB	WA	WB	SA	SB
100	7.5	Rc1/4	23	118	9	14	21	M8x1.25	16	M8x1.25	16	8H9 ^{+0.025 0}	6	102H9 ^{+0.027 0}	4	8H9 ^{+0.025 0}	6
125	10.5	Rc3/8	31	148	11	17.5	34	M10x1.5	20	M10x1.5	20	10H9 ^{+0.026 0}	8	130H9 ^{+0.029 0}	6	10H9 ^{+0.025 0}	8

SHS4 Series Slide Guide Air Gripper (Round Body)



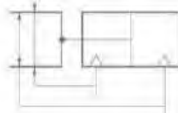
SHS4-32D

SHS **4** **—** **32** **D**

Series Code **Finger uantity** **Cylinder Bore** **Action**

SHS: Round Body Type 4: 4PCS J: 16mm-63mm D: Double Action

Graphic Symbol

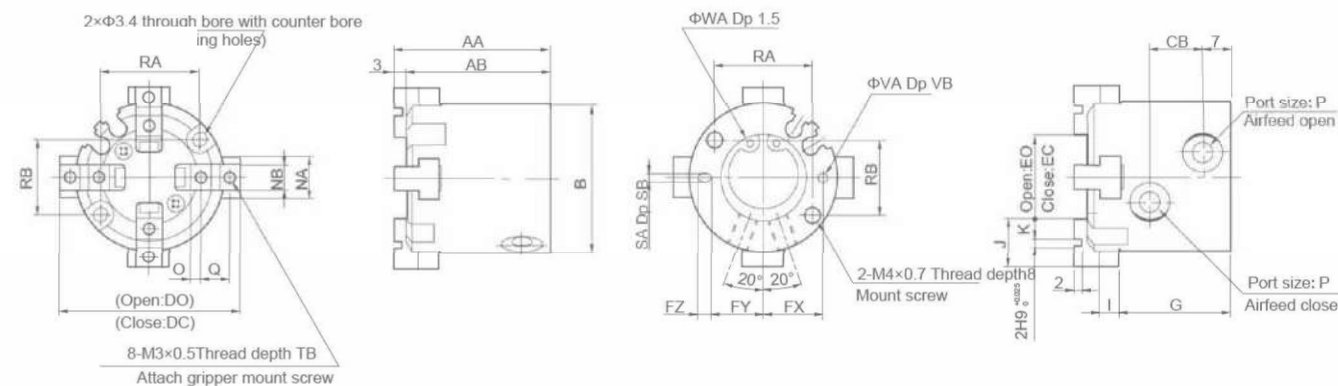


Specification

Bore (mm)	16	20	25	32	40	50	63
Working Medium	Air						
Operating Pressure Range	0.2~0.6 MPa			0.1~0.6 MPa			
Ambient and Fluid	-10~+60°C						
Repeatability Precision	±0.01						
Max Motion Frequency	120 c.p.m			60 c.p.m			
Lubrication	Not required						
Motion Pattern	Double acting						
Note: Grip power pressure 0.5 MPa	Outer Diameter Grip	10	19	31	55	88	251
	Inner Diameter Grip	12	21	35	61	97	268
Gripper Stroke	4	4	6	8	8	12	16
Port Size	M3 x 0.5			M3 x 0.8			
Magnetism Switch	With Magnet						

Note: Grip outer diameter power, Φ16-Φ25 grip distance 20mm, Φ32-Φ63, grip distance 30mm

Overall Dimensions



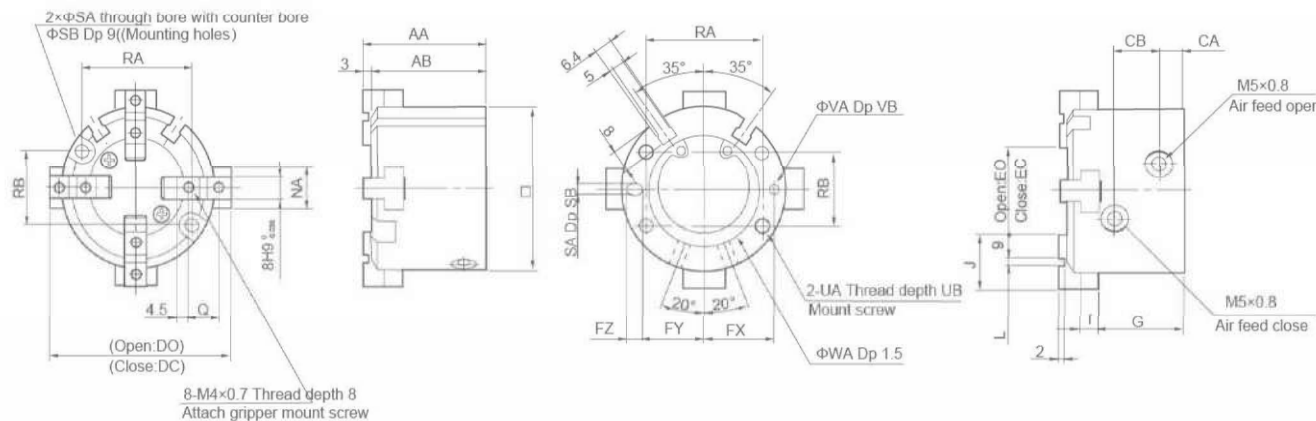
Dimension Sheet

Bore (mm)	AA	AB	B	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	NA	NB	Q	P	Q
16	35	32	30	11	33	37	13	17	12.5	11	3	25	4	10	4	8	5H9 ^{+0.000} ₀	2	M3x0.5	6
20	38	35	36	13	39	43	15	19	14.5	13	3	27	5	12	5	10	6H9 ^{+0.000} ₀	2.5	M5x0.8	7
25	40	37	42	15	48	54	20	26	17	14.5	5	28	5	14	6	12	8H9 ^{+0.000} ₀	3	M5x0.8	8
Bore (mm)	RA	RB	SC	TB	VA	VB	WA	SA	SB											
16	18	16	8	5	2H9 ^{+0.025} ₀	2	17H9 ^{+0.020} ₀	2H9 ^{+0.025} ₀	2											
20	24	18	9.5	6	2H9 ^{+0.02} ₀	2	21H9 ^{+0.02} ₀	2H9 ^{+0.02} ₀	2											
25	26	22	10	6	3H9 ^{+0.025} ₀	3	26H9 ^{+0.025} ₀	3H9 ^{+0.025} ₀	3											

SHS4 Series Slide Guide Air Gripper (Round Body)

Overall Dimensions

SHS4-32D~40D

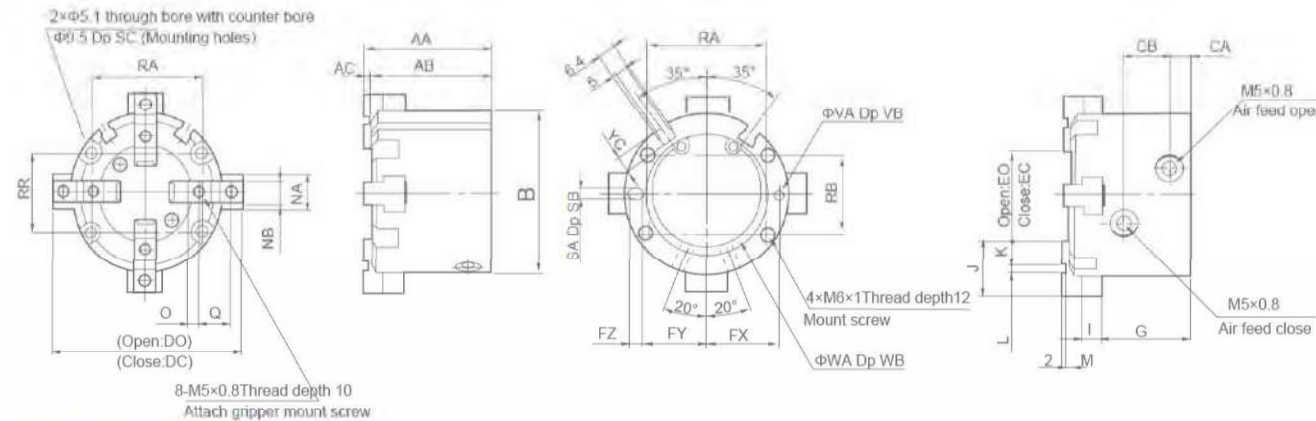


Bore (mm)	AA	AB	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	L	NA	Q	RA	RB	SA
32	44	41	56	8	16	60	68	20	28	23	20.5	5	30.5	6	20	2H9 ^{+0.020} ₀	14	11	38	25	4.5
40	47	44	62	9	17	66	74	24	32	26.5	23.5	6	32	7	21	3H9 ^{+0.02} ₀	16	12	44	28	5.5

Bore (mm)	SB	UA	UB	VA	VB	WA	SA	SB
32	8	M5x0.8	10	3H9 ^{+0.025} ₀	3	34H9 ^{+0.052} ₀	3H9 ^{+0.025} ₀	3
40	9.5	M6x1	12	4H9 ^{+0.03} ₀	4	42H9 ^{+0.057} ₀	4H9 ^{+0.030} ₀	4

Overall Dimensions

SHS4-50D~63D



Dimension Sheet

Bore (mm)	AA	AB	AC	B	CA	CB	DC	DO	EC	EO	FX	FY	FZ	G	I	J	K	L	M	NA	NB		
50	55	52	3	70	9	20	74	86	28	38	31	28	6	37.5	9	24	10	4H9 ^{+0.030} ₀	2	18	10H9 ^{+0.030} ₀		
63	66	62	4	86	12	22	91	107	35	51	38	34.5	7	44	11	28	11	6H9 ^{+0.030} ₀	3	24	12H9 ^{+0.030} ₀		
Bore (mm)	Q		Q		RA		RB		SC		VA		VB		WA		WB		SA		SB		YC
50	5		14		52		34		12		4H9 ^{+0.030} ₀		4		52H9 ^{+0.034} ₀		2		4H9 ^{+0.030} ₀		4		7
63	5.5		17		66		38		14		6H9 ^{+0.030} ₀		5		65H9 ^{+0.034} ₀		2.5		5H9 ^{+0.030} ₀		5		7.5

CY3B Series Rodless Cylinder



CY3B 20 x 400

Ordering Code

CY3	B	25	×	50
Series Code	Piping Form	Bore Size		Stroke
CY3: Standard	B: Normal Type	15mm-40mm		See Stroke List

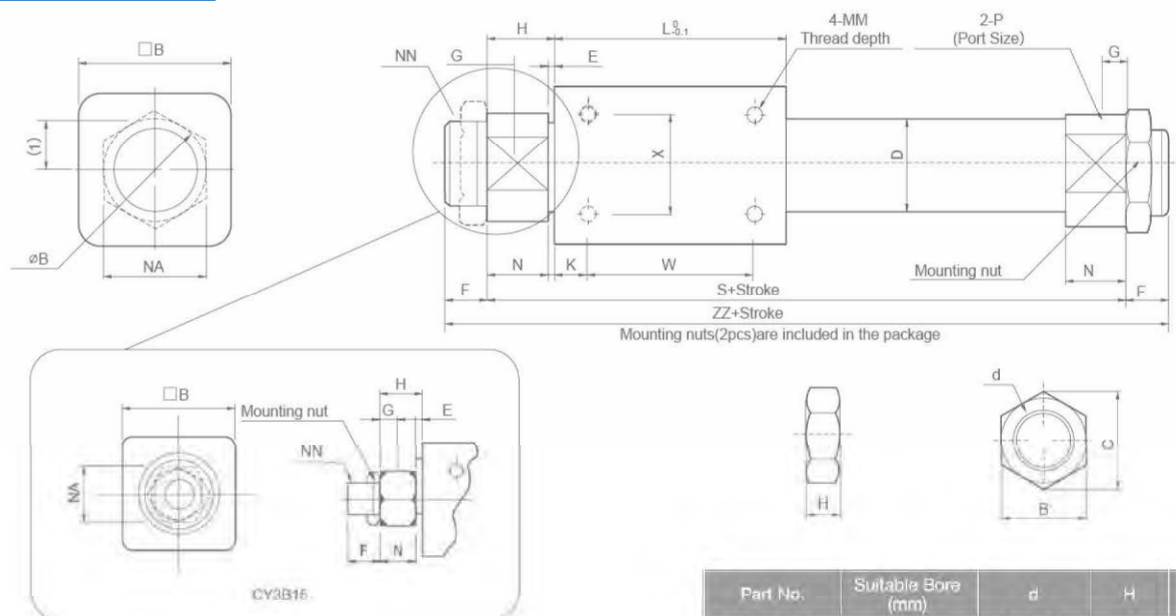
Specification

Bore (mm)	15	20	25	32	40
Working Medium	Air (to be filtered by 40µm filter element)				
Max. operating Pressure	0.7 Mpa				
Min. operating Pressure	0.16 Mpa	0.15 Mpa	0.14 Mpa	0.12 Mpa	0.12 Mpa
Environment And Fluid Temperature	-10~60°C (No freezing)				
Piston Speed (mm/s)	50~400				
Cushion Type	Rubber cushion on both ends				
Stroke Tolerance (mm)	0~250: $^{+1.0}_0$ 251~1000: $^{+1.4}_0$ 1001~: $^{+1.4}_0$				
Magnet Holding Force (N)	137	231	363	588	922
Size Port	M5x0.8		Rc1/8		

Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)	
		Without Switch	With Switch
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	1000	750
20		1500	1000
25	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800		1200
32		3000	
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000		1500

Overall Dimensions



Part No.	Suitable Bore (mm)	d	H	B	C
SNJ-016B	15	M10x1.0	4	14	16.2
SN-020B	20	M20x1.5	8	26	30
SN-032B	25, 32	M26x1.5	8	32	37
SN-040B	40	M32x2.0	10	41	47.3

Dimension Sheet

Bore (mm)	B	D	E	F	G	H	I	J	K	L	MM	N	NA	NN	R	S	W	X	ZZ
15	35	16.6	3	10	5.5	13	-	6	11	57	M4x0.7	11	17	M10x1	-	83	35	19	103
20	36	21.6	2	13	7.5	20	12	6	8	66	M4x0.7	18	24	M20x1.5	28	106	50	25	132
25	46	26.4	2	13	7.5	20.5	15	8	10	70	M5x0.8	18.5	30	M26x1.5	34	111	50	30	137
32	60	33.6	2	16	8	22	18	8	15	80	M6x1	36	36	M26x1.5	40	124	50	40	156
40	70	41.6	3	16	11	29	23	10	92	92	M6x1	46	46	M32x2	50	150	60	40	182

CY3R Series Rodless Cylinder



CY3R 25x300

Ordering Code

CY3R	G	25	×	50
Series Code	Piping Form	Bore Size		Stroke
CY3R: Magnetically Coupled-Direct mount Type	Blank: Both sides of the pipe G: Centralized piping	15mm-40mm		See Stroke List

Specification

Bore (mm)	15	20	25	32	40
Fluid	Air (Non Lub)				
Max. Operating Pressure	0.7 Mpa				
Min. Operating Pressure	0.16	0.15	0.14	0.12	0.12
Environment and Fluid Temperature	-10~60°C (No freezing)				
Piston Speed (mm/s)	50~500				
Cushion Type	Rubber cushion on both ends				
Stroke Tolerance	0~250: $^{+1.0}_0$ 251~1000: $^{+1.4}_0$ 1001~1500: $^{+1.8}_0$				
Magnet Holding Force (N)	137	231	363	588	922
Port Size	M5x0.8		Rc1/8		

Stroke

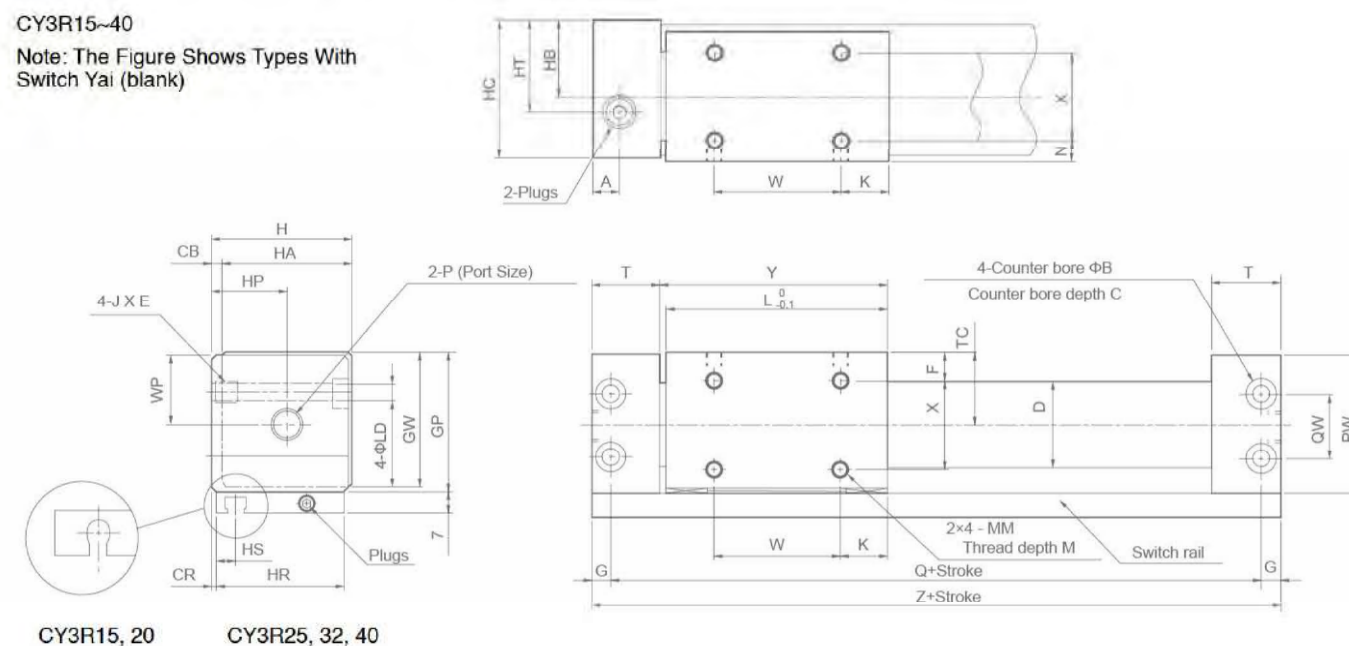
Bore (mm)	Standard Stroke (mm)
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500
20	
25	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800
32	
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000

70% longer wear ring length achieving an improvement in bearing performance compared to CY3B.
A special resin Lub-retainer is installed on the dust seal to achieve idea lubrication on the external surface of the cylinder tube.
By using a Lub-retainer, the minimum operating pressure is reduced by 30%.
The mounting dimensions are the same as CY3B series.

Overall Dimensions

CY3R15~40

Note: The Figure Shows Types With Switch Yai (blank)



CY3R Series Rodless Cylinder

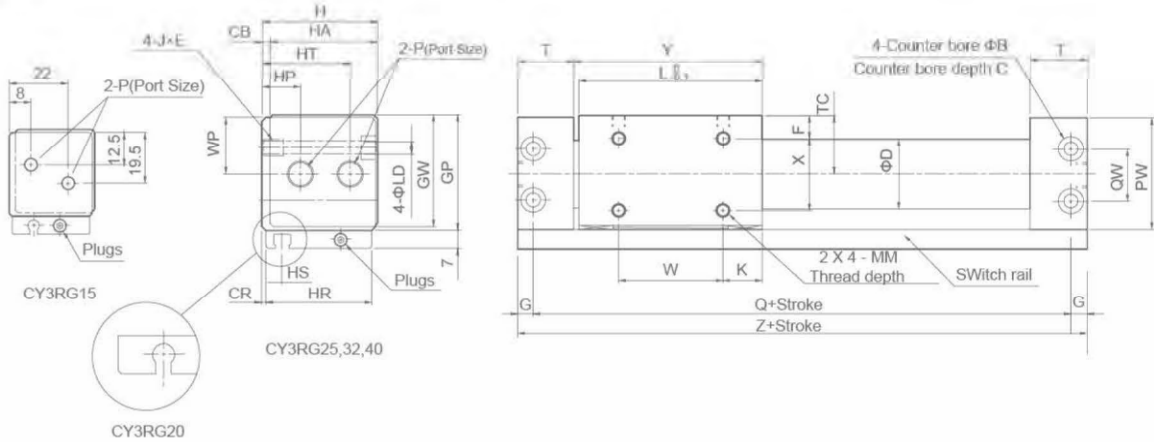
Dimension Sheet

Bore (mm)	A	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	J×E	K
15	10.5	8	4.2	2	0.5	16.6	8	5	33	31.5	32	30	17	31	17	30	8.5	17	M5×0.8×7	14
20	9	9.5	5.2	3	1	21.6	9	6	39	37.5	39	36	21	38	24	36	7.5	24	M8×1×8	11
25	8.5	9.5	5.5	3	1	26.4	8.5	6	44	42.5	44	41	23.5	43	23.5	41	6.5	23.5	M8×1×8	15
32	10.5	11	6.5	3	1.5	33.6	10.5	7	55	53.5	45	52	29	54	29	51	7	29	M8×1.25×10	13
40	10	11	6.5	5	2	41.6	13	7	65	63.5	67	62	36	66	36	62	8	36	M8×1.25×10	15

Bore (mm)	L	LD	M	MM	N	PW	Q	QW	T	TC	W	WP	X	Y	Z
15	53	4.3	5	M4×0.7	6	32	84	18	19	17	25	16	18	54.5	94
20	62	5.6	5	M4×0.7	7	38	95	17	20.5	20	40	19	22	64	107
25	70	5.6	6	M5×0.8	6.5	43	105	20	21.5	22.5	40	21.5	28	72	117
32	76	7	7	M6×1	8.5	54	116	26	24	28	50	27	35	72	130
40	90	7	8	M6×1	11	64	134	34	26	33	60	32	40	93	148

Dimension Sheet

CY3RG15~40



Dimension Sheet

Bore (mm)	A	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	J×E	K
15	10.5	8	4.2	2	0.5	16.6	8	5	33	31.5	32	30	17	31	17	30	8.5	17	M5×0.8×7	14
20	9	9.5	5.2	3	1	21.6	9	6	39	37.5	39	36	24	38	24	36	7.5	24	M8×1×8	11
25	8.5	9.5	5.2	3	1	26.4	8.5	6	44	42.5	44	41	23.5	43	23.5	41	6.5	23.5	M6×1×8	15
32	10.5	11	6.5	3	1.5	33.6	10.5	7	55	53.5	55	55	29	54	29	51	7	29	M8×1.25×10	13
40	10	11	6.5	5	2	41.6	13	7	65	63.5	67	67	36	66	36	62	8	36	M8×1.25×10	15

Bore (mm)	L	LD	M	MM	N	PW	Q	QW	T	TC	W	WP	X	Y	Z	HP	HT
15	53	4.3	5	M4×0.7	6	32	84	18	19	17	25	16	18	54.5	94	-	-
20	62	5.6	5	M4×0.7	7	38	95	17	20.5	20	40	19	22	64	107	11	28
25	70	5.6	6	M5×0.8	6.5	43	105	20	21.5	22.5	40	21.5	28	72	117	14.5	33.5
32	76	7	7	M6×1	8.5	54	116	26	24	28	50	27	35	79	130	20	41
40	90	7	8	M6×1	11	64	134	34	26	33	60	32	40	93	148	25	50

Note: The unmarked sizes are the same as both sides piping type.

CY3S Series Rodless Cylinder

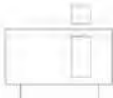


CY3S 25 x 300

Ordering Code

CY3S	—	20	—	H	×	50	—	BS
Series Code		Bore Size		Manget Holding Force Type		Stroke		Stroke
CY3S: Sliding Type CDY3S: With Switch Rail		6mm~40mm		H: High L: Lower (Φ6~Φ10, No.L)		See Stroke List		Blank: With adjusting screw B: 2 hydraulic shock absorbers BS: 1 pcs hydraulic shock absorber

Graphic Symbol



Specification

Bore Size (mm)	6	10	15	20	25	32	40	50	63
Working Medium	Air (to be filtered by 40μm filter element)								
Action Type	Double-acting								
Max. Operating Pressure	0.7 MPa								
Min. Operating Pressure	0.18 MPa								
Environment and Fluid Temperature	-10~60°C (No freezing)								
Piston Speed	50~400 mm/s								
Cushion Type	Rubber cushion on both ends								
Stroke Tolerance	0~250 ⁺¹⁰ , 251~1000 ⁺¹⁴ , 1001~ ⁺¹⁸								
Lubrication	Not required (Non-lube)								
Port Size	M5×0.8			Rc1/8			Rc1/4		
Mounting Method	Unlimited								

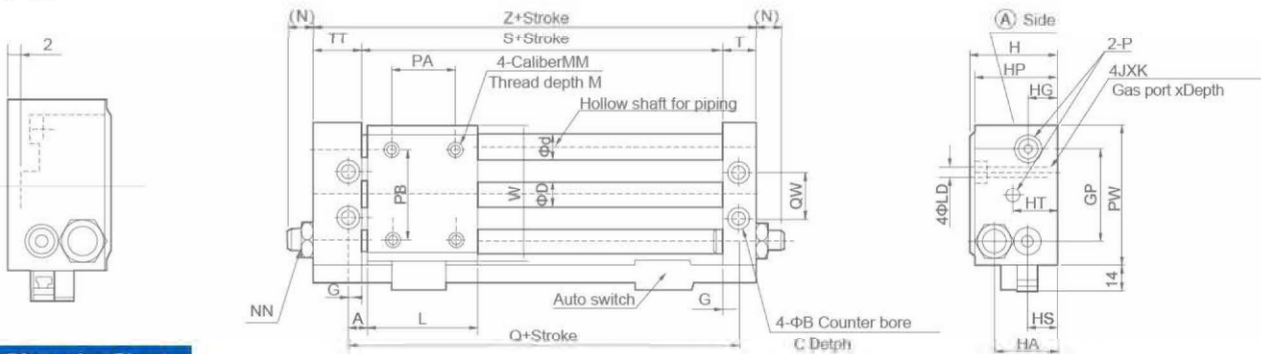
Stroke

Bore (mm)	Standard Stroke (mm)	Longest Stroke (mm)	
		Basic	Slider Type
6	50, 100, 150, 200	300	300
10	50, 100, 150, 200, 250, 300	500	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	—	750
20	—	—	1000
25	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	—	—
32	—	—	1500
40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	—	—

CY3S Series Rodless Cylinder

Overall Dimensions

CY3S6~10



Dimension Sheet

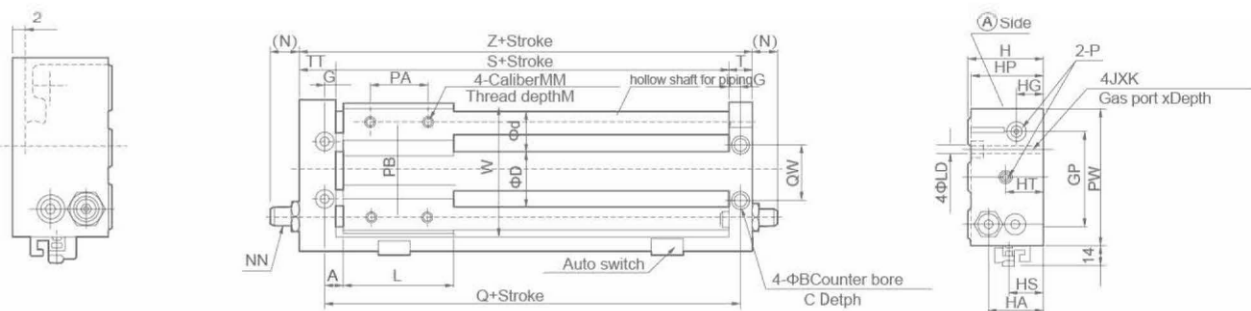
Bore (mm)	Travel Range	ΦD	Φd	A	ΦB	C	HT	G	GP	H	HA	HG	HP	HS	T	JxK	L	LD	M
6	~300	7.6	8	6	6.5	3	17	6	32	27	19	8	26	8	10	M4×0.7x6.5	40	3.5	6
20	~300	12	10	7.5	8	4	18	6.5	40	34	25.5	12	33	14	12.5	M4×0.8x9.5	45	4.3	6

Bore (mm)	MM	NN	(N)	P	*PA	PB	PW	QW	Q	S	TT	Z	W
6	M4×0.7	M8×1.0	10	M5×0.8	25	25	50	16	52	42	16	68	46
10	M4×0.7	M8×1.0	9.5	M5×0.8	25	38	60	20	60	47	20.5	80	58

Note: Auto switch can also be mounted on (A) side
Equle about center for PA and L

Overall Dimensions

CY3S15~40



Dimension Sheet

Bore (mm)	Travel Range	ΦD	Φd	A	ΦB	C	HT	G	GP	H	HA	HG	HP	HS	T	JxK	L	LD	M
15	~750	16.6	12	7.5	9.5	5	21	6.5	52	40	29	13	39	15	12.5	M6×1.0×9.5	60	5.6	8
20	~1500	21.6	16	10	9.5	5.2	20	8.5	62	46	30	17	45	25.5	16.5	M6×1.0×9.5	70	5.6	10
25	~1500	26.4	20	10	11	6.5	20	8.5	70	54	38	20	53	53	18.5	M8×1.25×10	70	7	10
32	~1500	33.6	20	12.5	14	8	24	9.5	86	66	46	24	64	27	18.5	M10×1.5×15	85	8.7	12
40	~1500	41.6	25	12.5	14	8	25	10.5	104	76	57	25	74	30	20.5	M10×1.5×15	95	8.7	12

Bore (mm)	MM	NN	(N)	P	*PA	PB	PW	QW	Q	S	TT	Z	W
15	M5×0.8	M8×1.0	7.5	M5×0.8	30	50	75	30	75	62	22.5	97	72
20	M6×1.0	M10×1.0	9.5	1/8	40	70	90	38	90	73	25.5	115	87
25	M6×1.0	M14×1.5	11	1/8	40	70	100	42	90	73	25.5	115	97
32	M8×1.25	M20×1.5	11.5	1/8	40	75	122	50	110	91	28.5	138	112
40	M8×1.25	M20×1.5	10.5	1/8	65	105	145	64	120	99	35.5	155	142

Note: Auto switch can also be mounted on (A) side
Equle about center for PA and L

CY3L Series Rodless Cylinder

Ordering Code



Series Code	Bore Size	Manget Holding Foece Type	Stroke	Stopper Form
CY3L: Sliding Type Ball Guide Bearing Type	15mm~40mm	H: High L: Lower (Φ6~Φ10.No.L)	See Stroke List	No mark: With adjusting screw B: 2 hydraulic shock absorbers BS: 1 pcs hydraulic shock absorber

Specification

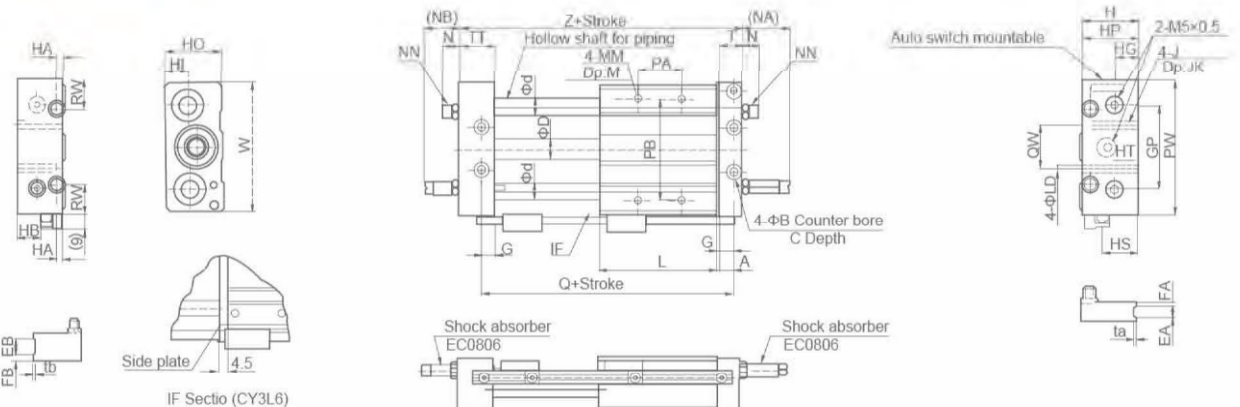
Bore (mm)	6	10	15	20	25	32	40
Working Medium	Air (to be filtered by 40μm filter element)						
Action Type	Double-acting						
Max. Operating Pressure	0.7 MPa						
Min. Operating Pressure	0.18 MPa						
Environment and Fluid Temperature	-10~60°C (No freezing)						
Piston Speed	50~1000 mm/s						
Cushion Type	Rubber cushion on both ends, Shock absorber (Optional)						
Stroke Tolerance (mm)	0~250 , 251~1000 ^{±0.1} , 1001~1500 ^{±0.3}						
Lubrication	Not required (Non-lube)						
Port Size	M5×0.8			Rc1/8			Rc1/4
Mounting Method	Unlimited						

Stroke

Bore (mm)	Standard Stroke (mm)	Longest Stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	750
20		1000
25	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	
32		1500
40	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	

Overall Dimensions

CY3L 6~10



CY3L Series Rodless Cylinder

Dimension Sheet

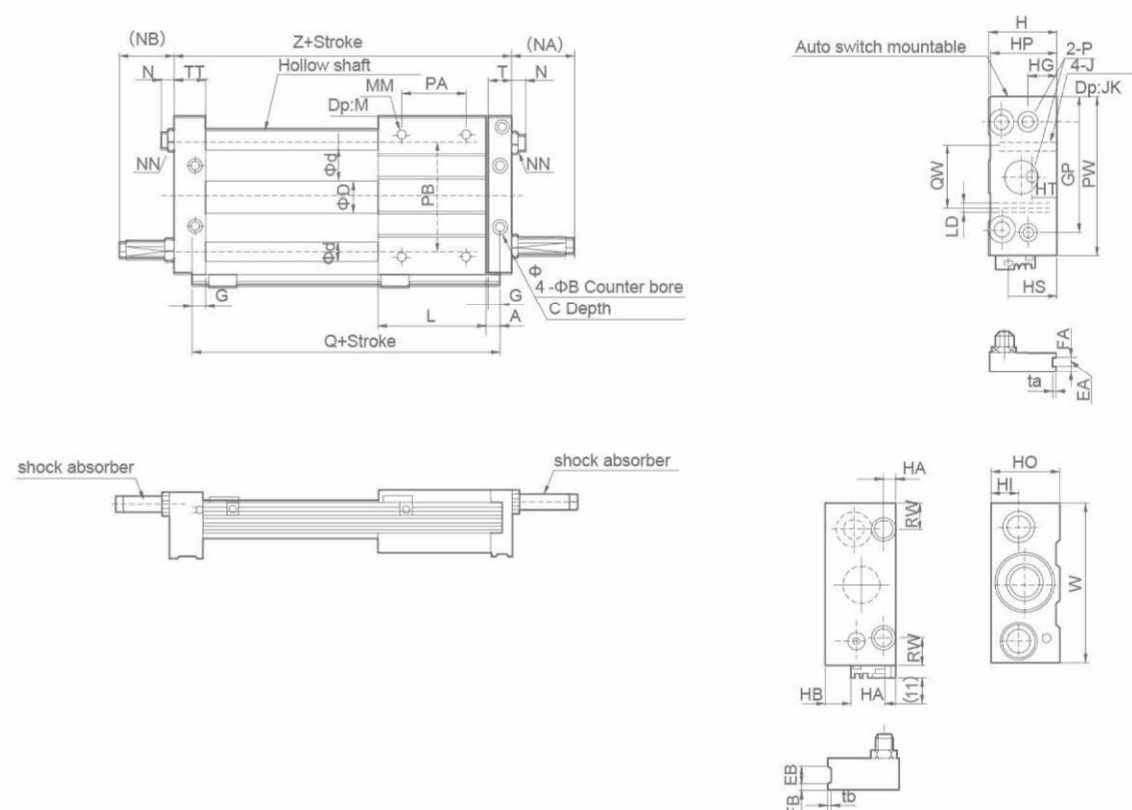
Bore (mm)	Travel Range	A	B	C	D	d	EA	EB	FA	FB	G	GP	H	HA	HB	HG	HI	HO	HP	HS	HT
6	~300	7	6.5	3	7.6	8	-	-	-	-	6	36	27	6	10	11	9	25	26	14	16
10	~300	8.5	8	4	12	10	6	12	3	5	7.5	50	34	6	17.5	14.5	13.5	33	33	21.5	18

Bore (mm)	J	JK	L	D	M	MM	N	(NA)	(NB)	NN	*PA	PB	PW	Q	QW	RW	T	TT	ta	tb	Vt	Z
6	M4×0.7	6.5	40	3.5	6	M4×0.7	10	30	24	M8×1.0	24	40	60	54	20	12	10	16	-	-	56	68
10	M5×0.8	9.5	68	4.3	8	M4×0.7	9.5	27	19	M8×1.0	30	60	80	85	28	17.5	12.5	20.5	0.5	1.0	77	103

Note: Equle about center for PA and L.

Overall Dimensions

CY3L15~40



Dimension Sheet

Bore (mm)	Travel Range	A	B	C	D	d	EA	EB	FA	FB	G	GP	H	HA	HB	HG	HI	HO	HP	HS	HT	J	JK	L	LD
15	~750	7.5	9.5	5	16.6	12	6	13	3	6	6.5	65	40	6.5	4	16	14	38	39	25	16	M6×1.0	9.5	75	5.6
20	~1500	9.5	9.5	5.2	21.6	16	-	-	-	-	8.5	80	46	9	10	18	44	44	45	31	20	M8×1.0	10	86	5.6
25	~1500	9.5	9.5	6.5	26.4	16	8	14	4	7	8.5	90	54	9	18	23	21	52	53	39	20	M8×1.25	10	86	7
32	~1500	10.5	14	8	33.6	20	8	16	5	7	9.5	110	66	12	26.5	26.5	24.5	64	64	47.5	25	M10×1.5	15	100	9.2
40	~1500	11.5	14	8	41.6	25	10	20	5	10	10.5	130	78	12	35	30.5	28.5	76	74	56	30	M10×1.5	15	136	9.2

Bore (mm)	M	MM	(N)	(NA)	(NB)	NN	P	*PA	PB	PW	Q	QW	RW	T	ta	tb	TT	W	Z	Shock Absorber
15	8	M5×0.8	7.5	27	17	M8×1.0	M5×0.8	45	70	35	90	30	15	12.5	0.5	1	22.5	92	112	HAC0806
20	10	M6×1.0	10	29	20	M10×1.0	1/8	50	90	120	105	40	28	16.5	-	-	25.5	117	130	HAC1005
25	10	M6×1.0	11	49	40	M14×1.5	1/8	60	100	130	105	50	22	16.5	0.5	1	25.5	127	130	HAC1412
32	12	M8×1.25	12	52	42	M20×1.5	1/8	70	120	160	121	60	33	18.5	0.5	1	28.5	157	149	HAC2020
40	12	M8×1.25	10.5	51	36	M20×1.5	1/4	90	140	190	159	84	35	20.5	1	1	35.5	187	194	HAC2020

Note: Equle about center for PA and L.

SHSH Series Air Gripper (Through-hole type)

Ordering Code



SHSH3-20D

Series Code	Dust Cover	Finger Quantity	Cylinder Bore	Action	Center Pusher	Dust Cover Material
SHSH: Through-hole Type	Blank: None J: With Dust Cover (Φ16, Φ20, Φ25 are not available with Dust cover)	3: 3PCS	16mm~80mm	D: Double-acting	Blank: None A: Cylinder Type B: Spring Type (Φ16, Φ20, Φ25 are not available with Dust cover)	Blank: CR F: FKM S: Si(with dust cover only)

Specification

Bore (mm)		16	20	25	32	40	50	63	80
Working Medium					Air (No Lubrication)				
Operating Pressure Range			0.2~0.6		0.1~0.6				
Ambient and Fluid Temp.					-10~+60°C (Not freezing)				
Repeatability Precision					±0.01				
Max. Motion Frequency			120		60		30		
Lubrication					Not required				
Motion Pattern					Double acting				
Note: Grip Power Pressure @0.5Mpa	Inner Diameter Grip	9	21	36	62	97	155	280	400
	With Dustprelent Cover Outer Diameter Grip	15	26	45	77	118	187	329	490
Center Hole Diameter		Φ3H10 ₀ ^{+0.002}	Φ3H10 ₀ ^{+0.002}	Φ4H10 ₀ ^{+0.003}	Φ6H10 ₀ ^{+0.003}	Φ10H10 ₀ ^{+0.003}	Φ12H10 ₀ ^{+0.003}	Φ16H10 ₀ ^{+0.003}	Φ20H10 ₀ ^{+0.003}
Open Close Stroke (mm)		4	4	6	8	8	12	16	20

Note: Grip distance, Φ16-Φ25, is 20mm, at Φ32-Φ63, is 30 mm, at Φ80, is 50mm

SRC Series Twist Clamp Cylinder

Ordering Code



SRC40-90L

Series Code	Rotary Direction	Cylinder Bore	Stroke(push)	Plate Type
SRC: Twist Clamp Cylinder	R: Right L: Left	25mm-63mm	25: 10 mm 32: 13 mm 40: 13 mm 50: 15 mm 63: 15 mm	Blank: Single Plate D: Double Plate (not available for Φ25)

Specification

Bore (mm)	25	32	40	50	63
Motion Pattern	Double Action				
Working Medium	Air				
Operating	1.5~9.5 (150~950) kg/cm2 (kpa)				
Operating Temperature	0~60				
Operating Stroke	30~500 mm/sec				
Rotating Stroke (mm)	11	13	15		
Pushing Stroke (mm)	11	13	15		
Rotating Angle	90° can be customized (0°, 45°, 90°)				
Rotating Direction	Left-handed rotation [from right to left]-L, Right-handed rotation [from left to right]-R				
Cushion Direction	Rubber Gasket Buffer				
Lubrication	Self Motion Finish Pattern				
Port Size	M5×0.8				

ACK Series Twist Clamp Cylinder



ACKL25-90

Ordering Code

ACK	L	25	90	
Series Code	Finger Quantity	Cylinder Bore	Rotary Angle	Thread Type
ACK: Twist Clamp Cylinder (Double Acting Type) ACKD: Twist Clamp Cylinder (Double Push Plate Type, only for 90°)	L: Push and turn left When the piston of cylinder moves downward, the swivel arms moves anticlockwise, this is called levorotatory R: Push and turn right When the piston of cylinder moves downward, the swivel arms moves clockwise, this is called destrorotatory	25mm~63mm	90: 90° 180: 180°	Blank: PT N: NPT G: G

Specification

Bore (mm)	25	32	40	50	63
Motion Pattern	Double Action				
Working Medium	Air				
Operating Pressure Range	0.151.0 (23~148) kg/cm ² (kPa)				
Compression Resistance	1.5 (215) kg/cm ² (kPa)				
Working Temperature (°C)	-20~80°C				
Operating Speed Range	30~300 mm/s				
Stroke Tolerance Range	+1.0 0 ±1.5				
Rotating Angle Tolerance Range	±1.5				
*Cushion Model	crash pad				
*Port Size	M5×0.8	PT1/8			

MXH Series Slide Cylinder



MXH 16-10

Ordering Code

MXH	10	30
Series Code	Cylinder Bore	Stroke
MXH: Air Slide Table	6mm~20mm	5mm~60mm

Specification

Bore (mm)	6	10	16	20
Guide Bearing Width (mm)	5	7	9	12
Working Medium	Air (to be filtered by 40μm filter element)			
Action	Double acting			
Min. Operating Pressure	0.15 MPa	0.06 MPa		0.05 MPa
Max. Operating Pressure	0.7 MPa			
Ambient and Fluid Temperature	Without auto switch: -10~+70°C With auto switch: -10~+60°C (No freezing)			
Piston Speed	50~500 mm/s			
Allowable Kinetic Energy	0.0125	0.025	0.05	0.1
Lubrication	Non-lube			
Cushion	Rubber bumper on both ends			
Stroke Length Tolerance	+1.0 0			
Piping Port Size	M5×0.8			

Such as the need Lubrication, please use turbine No.1 oil ISO VG32.

MXS Series Slide Cylinder



MXS 12 x 50

Ordering Code

MXS	12	50		
Series Code	Cylinder Bore	Stroke	Adjuster Option	Function Option
MXS: Air Slide Table	6mm~20mm	10mm~150mm	Blank: Standard AS: Adjuster on extension end AT: Adjuster on retraction end A: Adjuster on both ends BS: Absorber on extension end (not available for Φ6) BT: Absorber on retraction end (not available for Φ6) B: Absorber on both ends (not available for Φ6)	Blank: Standard F: With buffer R: With end lock (not available for Φ6) P: Axial Piping Type FR: With buffer and end (not available for Φ6) FP: With Buffer and axial Piping Type

Specification

Bore (mm)	6x2 (Equivalent Φ8)	8x2 (Equivalent Φ11)	12x2 (Equivalent Φ17)	16x2 (Equivalent Φ22)	20x2 (Equivalent Φ28)	25x2 (Equivalent Φ35)
Working Medium	Air (to be filtered by 40μm filter element)					
Action Way	Double-acting					
Maximum Operating Pressure	0.7 MPa					
Minimum Operating Pressure	0.15 MPa					
Environment & Fluid Temperature	-10~+60°C					
Piston Speed	50~500 mm/s					
Buffering	Rubber buffer (standard)					
Lubrication	Non-lube					
Port Size	M3×0.5	M5×0.8	Rc1/8			

MXQ Series Slide Cylinder



MXQ 16 x 20

Ordering Code

MXQ	12		50		FR
Series Code	Cylinder Bore	Body Option	Stroke	Adjuster Option	Function Option
MXQ: Air Slide Table	6mm~25mm	Blank: Standard L: Symmetric Type	10mm~150mm	Blank: Standard AS: Buffer on extension end AT: Buffer on retraction end A: Adjuster on both ends BS: Absorber on extension end (not available for Φ6) BT: Absorber on retraction end (not available for Φ6) B: Absorber on both ends (not available for Φ6) CS: Metal stopper on extension end CT: Metal stopper on retraction end C: Metal stopper on both end	Blank: Standard F: With buffer R: With end lock (not available for Φ6) P: Axial Piping Type FR: With buffer and end lock (not available for Φ6) FP: With Buffer and axial Piping Type

Specification

Bore (mm)	6x2 (Equivalent Φ8)	8x2 (Equivalent Φ11)	12x2 (Equivalent Φ17)	16x2 (Equivalent Φ22)	20x2 (Equivalent Φ28)	25x2 (Equivalent Φ35)
Working Medium	Air (filtered by 40μm filter element)					
Action Way	Double-acting					
Maximum Operating Pressure	0.7 MPa					
Minimum Operating Pressure	0.15 MPa					
Environment & Fluid Temp.	-10~+60°C (But not frozen)					
Specifications	50~500 mm/s (Adjuster option/Metal stoppe: 50~200mm/s)					
Cushion	Rubber buffer (standard, Adjuster option / Rubber stopper) Shock absorber (Adjuster + absorber), None (Adjuster option / Metal stopper)					
Stroke Length Tolerance	No need					
Lubrication	Non-Lub					
Port Size	M3×0.5	M3×0.8	Rc1/8			

CRB2 Series Vane Rotary Actuators



CRB2BW30-270S

Series Code	Mounting Type	Shaft Type	Angle Adjuster	Cylinder Bore	Rotation Angle	Vane Type
CRB2: Rotary Vane CDRB2: With Magnet	B: Basic Type F: Flange Type (Not available for Φ40)	S: Single Shaft W: Double shaft	Blank: Without U: With	10mm-40mm	90: 90° 100: 100°(Double Vane) 180: 180° (Single Vane) 270: 270° (Single Vane)	S: Single Vane D: Double Vane

Specification

Bore (mm)	10	15	20	30	40
Working Medium	Air (filtered by 40μm filter element)				
Max. Operating Pressure	0.7 MPa				
Min. Operating Pressure	0.2 MPa				
Ambient and Fluid Temperature	5~60°C				
Rotation Time Adjustment Range	0.03~0.3s				
Allowable Kinetic Energy	Single Vane	With Cushion	0.00015	0.00025	0.0001
		Without Cushion	0.001	0.003	0.015
	Double Vane		0.0003	0.0012	0.0033
Shaft Load	Radial		15	15	25
	Thrust		10	10	20
Connection Size	Side Ported	M3x0.5			M5x0.8
	Axial Ported	(Single-blade cylinder side swing angle 90°, 180°-M5x0.8)			
Angle Adjustable Range of Angle Adjustment Unit	Single vane	0~230°			0~230°
	Double Vane	0~90°			

MRHQ Series Rotary Gripper(Angular Type)



MRHQ16-180S

Series Code	Finger Quantity	Action	Rotation Angle	Single Vane
MRHQ: Rotary 2 Fingers Gripper	10mm-25mm	D: Double-acting S: Single-acting (Normally Open) C: Single-acting (Normally Closed)	90: 90° 180: 180°	Single Vane

Specification

Bore (mm)	10	16	20	25
Working Medium	Air (filtered by 40μm filter element)			
Claw Motion Pattern	0.7			
Operating Pressure Range (MPa)	Double Action	0.25~0.7	0.1~0.7	0.25~1.0
	Single Action	0.35~0.7	0.25~0.7	
Pendulum Angle	90°±10°, 180°±10°			
Claw Grip Open Close Repeatability Precision	±0.01 mm			
Claw Highest Motion Frequency	180 c.p.m			
Ambient & Fluid Temperature	5~60°C (Not freezing)			
Pendulum Adjustable Time	0.07~0.3s/90° (0.5 MPa)			
Permission Kinetic Energy (J)	0.0046	0.014	0.034	0.074
Gripper Open/Close Stroke (mm)	4	61	0	14

MSUB Series Rotary Table (Vane Type)



MSUB7-180S

Series Code	Cylinder Bore	Stroke	Vane Type
MSUB: Normal Type MDSUB: Attach Magnet Type	1: MSUB 1 3: MSUB 3 7: MSUB 7 20: MSUB 20	90: 90° 180: 180°	S: Single Vane D: Double Vane

Specification

Model	MSUB1	MSUB3	MSUB7	MSUB20
Vane Pattern	Single Vane			
Rotating angle	90°±10°	180°±10°	90°±10°	180°±10°
Working Medium	Air (No Lubrication)			
Ambient and fluid temperature	5~60°C			
Operating Pressure range (MPa)	0.2~0.7			
Rotation time adjustable range (0.5MPa)	0.07~0.3s/90°			
Bearing	Bearing			
Port size	Body side	M3x0.5	M5x0.8	
Rotation Precision	Within 0.03mm			
Permission axle Lead	Radial direction	20	40	50
	Axial direction	15	30	60
	Moment (N·m)	0.3	0.7	0.9

MU Series Plate Air Cylinder



MDUD 25 x 40

Series Code	Body Option	Mounting Type	Cylinder Bore	Stroke	Function Option	Rod End Thread
MU: Normal Type MDU: Attach Magnet Type	Blank: Single rod W: Double rod	B: Basic Type	25mm~63mm		D: Double-acting S: Single-acting Extrusion Type T: Single-acting Drawing-in Type	Blank: Rod end Female Thread M: Rod end Male Thread

Specification

Bore (mm)	25	32	40	50	63
Working Medium	Air				
Action way	Double-acting, Single-acting Drawing-in Type, Single-acting Extrusion Type				
Maximum operating pressure	0.7 MPa				
Minimum operating pressure	Double-acting: 0.05 MPa Single-acting: 0.18 MPa				
Environment and fluid temperature	-10~60				
Piston Speed	50~500 mm/s				
Cushion	Two side rubber cushion				
Stroke adjustable Range	+1.4				
Lubrication	No need				
Precision of Piston rod Non-rotating	±1°				
Port Size Rc	M5x0.8	1/8			1/4

Such as the need Lubrication, please use turbine No.1 oil ISO VG32

SHTG Series Rotary Indexing Table



Ordering Code

SHTG	90	2	A	P4
Series Code Rotary indexing table	Cylinder Size 65mm~220mm	Indexing 2: 2 indexing stations 3: 3 indexing stations 4: 4 indexing stations 6: 6 indexing stations 8: 8 indexing stations 12: 12 indexing stations 24: 24 indexing stations	Position Sensing A: For proximity sensor	Energy through-feed Blank: None P4: Pneumatic, 4 ducts P4L12: Pneumatic, 4 ducts and electric, 12 cables P4E4: Pneumatic, 4 ducts and electric, 4 cables

Specification

Size (mm)	65	90	140	220
Operating Medium	Compressed air			
Mode Of Operation	Double-acting			
Operating Pressure	0.4~0.8MPa			
Ambient Temperature	5~60°C			
Storage Temperature	-20~80°C			
Cushioning	Adjustable shock absorber stroke, hard characteristic curve			
Indexing	2, 3, 4, 6, 8, 12, 24			
Theoretical Torque At 0.6MPa	2.1Nm	4.4Nm	18.1Nm	58.9Nm
Parallelism Of Plate	≤0.04mm			
Axial Eccentricity Of Plate	≤0.02mm			
Concentricity Of Plate	≤0.02mm			
Repetition Accuracy Of Swivel Angle	≤0.03°			
Max. Mass Moment Of Inertia Without Flow Control	0.016kgm ²	0.03kgm ²	0.3kgm ²	2.5kgm ²
Port Size	M5			

SFM Series Guide Rod Cylinder



Ordering Code

SFM	20	25	B	P	A	GF
Series Guided Cylinder Double-acting	Position Sensing 6mm~100mm	Stroke Range 10mm~400mm	Generation Blank: Standard B: Function- optimised	Cushioning P: Elastic cushioning rings/plates on both sides PPV: Pneumatic cushioning, adjustable at both ends YSRW: Shock absorber, self adjusting, progressive	Position Sensing A: For proximity sensor	Guide GF: Plain bearing KF: Recirculating

Specification

Piston Diameter (mm)	6	10	12	18	20	25	32	40	50	63	80	100
Operating Medium	Compressed air											
Operating Pressure (MPa)	0.2~0.8	0.15~0.8		0.2~1		0.15~1		0.1~1		0.05~1		
Ambient Temperature	SFM-...-GF	-10~60°C		SFM-...-KF		-20~80°C		-5~60°C				
Cleanroom Class	SFM-...-GF	-		SFM-...-KF		8		6		-		
Port Size	M3			M5		G1/8"		G1/4"		G3/8"		

SRRD Series Twin Pistons Semi-rotary Cylinder



Ordering Code

SRRD	10	180	FH	P2	P	A	PS1	E1
Series Twin Pistons Semi-rotary Cylinder	Size 8mm 10mm 12mm	Nominal Swivel Angle 180: 180°	Output Shaft FH: Flanged shaft, hollow	Energy through Feed Blank: None P2 P2E2P4 P4E6 P8 P8E8	Cushioning P Y9 Y10 T12 Y14	Position Sensing A: For Proximity Sensor	Intermediate Position Blank: None PS1: 1 Intermediate Position	End-Position Locking Blank: None E1: Both Sides

Note:

P2: Pneumatic, 2 ducts
P2E2: Pneumatic, 2 ducts and electric, 2 signals
P4: Pneumatic, 4 ducts
P4E6: Pneumatic, 4 ducts and electric, 6 signals
P8: Pneumatic, 8 ducts
P8E8: Pneumatic, 8 ducts and electrical, 8 signals

Note:

P: Elastic cushioning rings/plates on both sides
Y9: Shock absorber, self-adjusting, linear, at both ends
Y10: Shock absorber, self-adjusting, linear at both ends, hard
Y12: Shock absorber, self-adjusting, linear at both ends, external
Y14: Shock absorber, self-adjusting, linear on both sides, soft

Specification

Size (mm)	8	10	12
Operating Medium	Compressed air		
Mode of Operation	Double-acting		
Operating Pressure	SRRD-...-P SRRD-...-Y9/-Y12 0.3~0.8MPa 0.2~1MPa		
Ambient Temperature	-10~60°C		
Storage Temperature	-20~60°C		
Swivel Angle	180°		
Repetition Accuracy	≤ 0.03°		
Axial Run-out	≤ 0.02mm		
Max. axial load (static)	Pulling Pushing 260N 700N	260N 1100N	330N 1400N
Port Size	M3		

SSM Series Semi-Rotary Cylinder



Ordering Code

SSM	T	8	90	P	A	□	□
Series Semi-rotary Cylinder	Design Type Blank: Standard Tandem, vane	Size 6mm 8mm 10mm	Nominal Swivel Angle 90: 90° 180: 180° 200: 200° 240: 240°	Cushioning P: Elastic cushioning rings /Plater on Both Sides	Position Sensing Blank: None A: For Proximity Sensor	Adjustable Swivel Angle Blank: Fixed swivel angle FF: Adjustable swivel angle	Shaft Blank: Spigot shaft FW: Flanged shaft

Specification

Size (mm)	6	8	10
Operating Medium	Compressed air		
Operating Pressure	SSM SSM-T 0.35~0.8MPa 0.4~0.8MPa	0.35~0.8MPa 0.4~0.8MPa	0.25~0.8MPa 0.35~0.8MPa
Ambient Temperature	0~60°C		
Storage Temperature	20°C		
Cushioning	Elastic cushioning rings/plates at both ends		
Swivel Angle	SSM SSM-...-FF 90° or 180°	90° or 180°	90°, 180° or 240° 0~200°
Max. Swivel Frequency At 0.6MPa	3Hz		
Cushioning Angle	SSM SSM-T 0.6cm ³	0.7cm ³	5.5cm ³
Air Consumption at Swivel Angle of 90° and 0.6MPa	SSM-T 1.2cm ³	1.4cm ³	11cm ³
Port Size	M3		

SRVS Series Semi-Rotary Cylinder



SRVS25-270-P

Ordering Code

SRVS	12	180	P
Series	Type of Bearing	Nominal Swivel Single	Cushioning
Semi-rotary Cylinder, double-acting	6mm~40mm	90: 90° 180: 180° 270: 270°	P: Elastic Cushioning rings/plates on both sides

Specification

Size (mm)		6	8	12	16	25	32	40
Operating Medium		Compressed Air						
Operating Pressure		0.35~0.8MPa		0.25~0.8MPa		0.2~0.8MPa		
Ambient Temperature		0~60°C						
Storage Temperature		20°C						
Cushioning		Elastic Cushioning At Both Ends						
Swivel Angle		90° or 180°		90° or 180° or 270°				
Cushioning Angle		0.5°						
Repetition Accuracy		1°						
Max. Swivel Frequency At 0.6 MPa	Swivel Angle 90°, 180°	3Hz						
	Swivel Angle 270°	2Hz						
Port Size		M3		M5			G1/8"	

SSR Series Semi-Rotary Cylinder



SSRL16-180-P-FW

Ordering Code

SSR	16	180	P	FW
Series	Bore Size	Nominal Swivel Single	Cushioning	Shaft
SSR: Semi-Rotary Cylinder SSRL: Semi-Rotary Cylinder	10mm~40mm	180: 180°	P: Elastic Cushioning rings/plates on both sides	Blank: Spigot Shaft FW: Flanged Shaft

Specification

Size (mm)	10	12	16	25	32	40
Operating Medium	Compressed air					
Operating Pressure	0.25~0.8MPa	0.2~0.8MPa			0.15~0.8MPa	
Temperature Range	-10~60°C					
Type Of Mounting	With through-hole					
	Via accessories					
Mounting Position	Optional					
Max. Swivel Angle	0~181°			0~184°		
Port Size	M3		M5		G1/8"	

SHPS Series Parallel Gripper



SHPS2-16-A

Ordering Code

SHPS	2	10	A	
Series	Finger Quantity	Bore Size	Position Sensing	Gripping Force Backup
Parallel Gripper	2 PCS	6mm~35mm	A: For Proximity Sensor	Blank: None NC: N/O Contact NO: Opening

Specification

Size (mm)		6	10	16	20	25	35
Operating Medium		Compressed Air					
Mode Of Operation		Double-Acting					
Max. Operating Pressure		0.8MPa					
Min. Operating Pressure	SHPS-...-A	0.2MPa					
	SHPS-...-A-N	-	0.4MPa				
Ambient Temperature		5~60°C					
Gripper Function		Parallel					
Guide		Plain-Bearing Guide					
Gripping Force Backup	-	NO, NC	NO, NC	NO, NC	NO, NC	NO, NC	NO, NC
Stroke Per Gripper Jaw	2	3	5	6.5	7.5	12.5	
Repetition Accuracy		≤0.02mm					
Max. Interchangeability		±0.2mm					
Max. Operating Frequency		4Hz		3Hz		2Hz	
Rotational Symmetry		< Φ0.2mm					
Port Size		M3			M5		G1/8"

SHRS Series Radial Gripper



SHRS2-25-A

Ordering Code

SHRS	2	16	A	
Series	Finger Quantity	Bore Size	Position Sensing	Gripping Force Backup
Radial Gripper	2 PCS	10mm~49mm	A: For Proximity Sensor	Blank: None NC: N/O Contact

Specification

Size (mm)		10	16	25	32	40
Operating Medium				Compressed Air		
Mode Of Operation				Double-Acting		
Max. Operating Pressure				0.8MPa		
Min. Operating Pressure	SHRS-...-A		0.2MPa			
	SHRS-...-A-NC		0.4MPa			
Ambient Temperature				5-60°C		
Max. Opening Angle				180°		
Repetition Accuracy				≤ 0.1mm		
Max. Interchangeability				≤ ±0.2mm		
Max. Operating Frequency		4Hz		3Hz		2Hz
Rotational Symmetry				< Φ0.2mm		
Port Size		M3		M5		G1/8"

SGPD Series Sealed Parallel Gripper



SGPD2-25-A

Ordering Code

SGPD — **2** — **20** — **A** — 

Series: Sealed Parallel Gripper
Finger Quantity: 2 PCS
Bore Size: 16mm~80mm
Position Sensing: A: For Proximity Sensor
Gripping Force Backup: Blank: None
NC: N/O Contact
NO: Opening


Specification

Size (mm)		10	20	25	35	40	50	63	80
Operating Medium					Compressed Air				
Mode Of Operation					Double-Acting				
Max. Operating Pressure					0.8MPa				
Min. Operating Pressure	SGPD-...-A	0.3MPa							
	SGPD-...-A-G	0.4MPa							
Operating Pressure For Sealing Air					0~0.5MPa				
Ambient Temperature					5~60℃				
Repetition Accuracy		≤0.03mm	≤0.04mm				≤0.05mm		
Max. Interchangeability					≤±0.2mm				
Max. Operating Frequency			≤3Hz				≤2Hz		
Rotational Symmetry					<Φ0.2mm				
Port Size				M5				G1/8"	G1/4"
Port Size, Sealing Air		M3				M5			
Port Size, Lubrication Nipple		M3				M5			

SGPT-B Series Heavy-Duty Parallel Gripper



SGPT35-A-B

Ordering Code

SGPT — **20** — **A** — **B** — **F** — 

Series: Heavy-Duty Parallel Gripper
Bore Size: 16mm~80mm
Position Sensing: A: For Proximity Sensor
Position Sensing: B: B Series
Gripping Force: Blank: S standard
F: High
Gripping Force Backup: NC: N/O Contact
NO: Opening

Specification

Size (mm)		16	20	25	35	40	50	63	80	
Operating Medium		Compressed Air								
Mode Of Operation		Double-Acting								
Max. Operating Pressure		0.8MPa								
Min. Operating Pressure	SGPT-...-A-B	0.3MPa								
	SGPT-...-A-B-G	0.4MPa								
Operating Pressure For Sealing Air		0-0.05MPa								
Ambient Temperature		5-60°C								
Repetition Accuracy		±0.01mm	±0.02mm				±0.025mm			
Max. Interchangeability						0.2mm				
Max. Operating Frequency		3Hz						2Hz		
Rotational Symmetry						<Φ0.2mm				
Port Size		M5						G1/8"		G1/4"
Port Size, Sealing Air		M3						M5		

SRB Series Servo Electric Cylinder



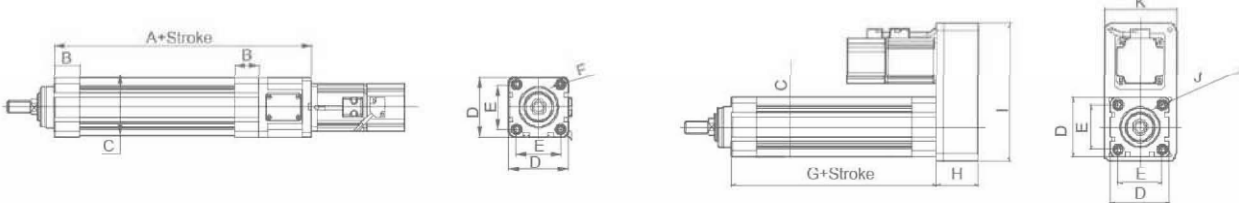
Ordering Code

SRB — **50** — **L10** — **S100** —  — **SRW** — **SRZX** — **P100W** — **B**

Series Code: Bore
32mm
50mm
63mm
80mm
100mm
120mm
Lead: L10
Stroke: S100
50~500mm
Installation: SRQD: Front Flange
Front Connector: SRW: External Thread
SRN: Internal Thread
SRCX: Fork Pin End
SRQT: Hinged Ball Head
Input: SRZX: Linear Mounting Flange
P10: Parallel Mounting 1:1
P20: Parallel Mounting
Servo Motor Type: P100W
M: Mitsubishi
Y: Yaskawa
P: Panasonic
F: Fuji
T: Delta
Brake: B

Model	SRB32	SRB50	SRB63	SRB80	SRB100	SRB120
Screw Diameter (mm)	Φ8	Φ16	Φ20	Φ25	Φ32	Φ40
Screw Lead (mm)	1 2 5 10 20	5 10 20 25 50 100	5 10 20 25 50 100	5 10 20 25 50 100	5 10 20 25 50 100	5 10 20 25 50 100
Rated Dynamic Load (Kgf)	160 85 1112 839 554 1484 1516 764 1650 1638 1232 2730 4680 1901 2990 5170 3959					
Maximum Input Speed (r/min)	3000					
Maximum Operating Speed (r/min)	50 100 250 500 1000	250 500 1000	250 500 1000	167 333 666 166 333 666		
Adapted Motor Power (W)	100	400	400/750	750/1000	1000/1500	1000/1500
Maximum Output (Kgf)	20	100	300	800	3000	5000
Repeated Precision (mm)	±0.02					
Stroke Range (mm)	50~300	50~600	50~600	50~500		
(Special stroke can be customized) (Special stroke can be customized)						

Overall Dimensions



Bore (mm)	A	B	C	D	E	F	G	H	I	J	K
32	153.5	—	47	47	32.5	4-M6	100.5	38	109.5	4-M6	—
50	218	30	63	64	46.5	4-M8 Dep18	158	40	143.5	4-M8 Dep18	82
63	231	32	74	76	56.57	4-M8 Dep18	163	54	178	4-M8 Dep18	92
80	284	33	92	93	72	4-M8 Dep18	197	93	213.4	4-M8 Dep18	112
100	332	37	109	110	89	4-M10 Dep18	214	85	326.5	4-M10 Dep18	—
120	381	—	140	140	110	4-M14	237	75	330	4-M14	—

S Series Ball-Screw Type Electric Cylinder



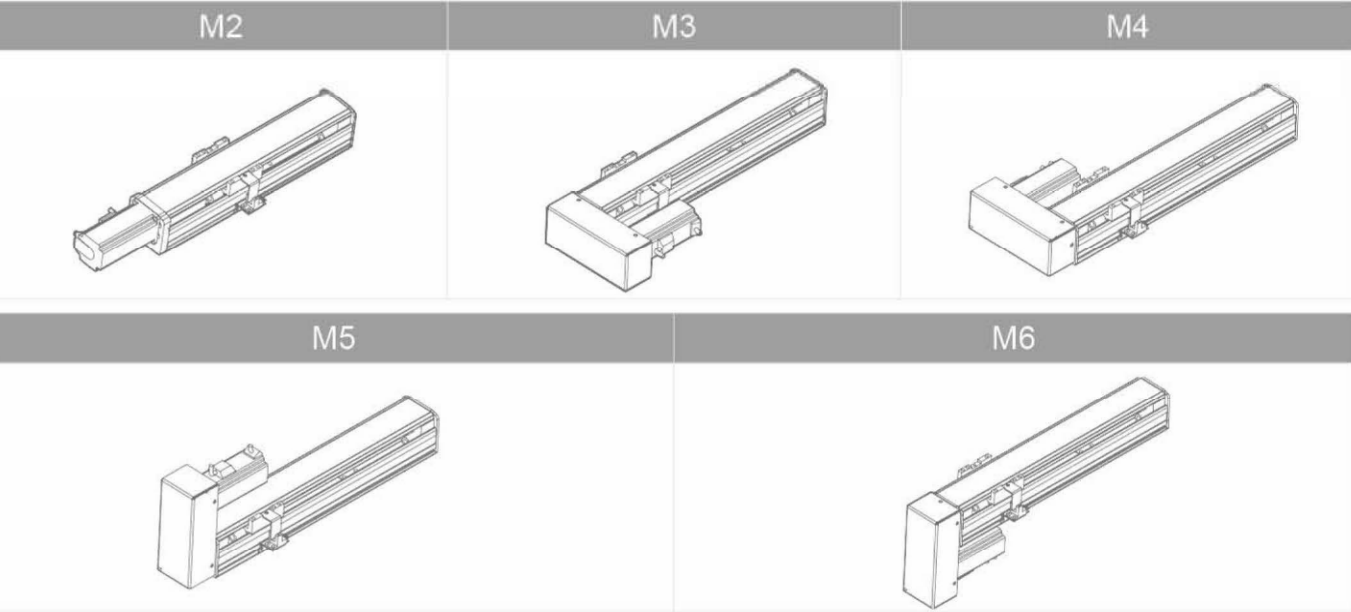
Ordering Code

S50D	L10	S800	M2	M	100W	B
Model	Lead	Stroke	Installation	Servo Motor Type	Motor Output	Brake
S50D S80D S100S S100D S136D S168D S202D		100~1450mm	M1: Motor inside position (Available for 100,168, 202) M2: Motor outside position M3: Motor outside, rightward position M4: Motor outside, leftward position M5: Motor outside, upper position M6: Motor outside, lower position	H: Hiwin S: Sanyo M: Mitsubishi Y: Yaskawa P: Panasonic F: Fuji T: Delta	100~750mm	

Specification

Model		S50D		S80D				S100S/S100D				S36D				S168D				S202D				
AC Servo motor output (W)		100W						400W				200W				400W				750W				
Repeatability (mm)		±0.02																						
B.S (Φ)		12	12	16	16	16	16	16	16	16	16	16	16	16	16	25	25	25	25	32	32	32	32	32
Lead (mm)		5	10	5	10	16	20	5	10	16	20	5	10	16	20	5	10	20	25	5	10	20	25	32
Maximum speed (mm/sec)		250	500	250	500	800	1000	250	500	800	1000	250	500	800	1000	250	500	1000	1250	1250	500	1000	1250	1600
Maximum payload (kg)	Level use (H)	9	5.5	35	25	15	10	50	35	25	20	85	70	65	35	110	80	75	65	120	100	85	75	65
	Vertical use (V)	2.5	1.2	13	9	5	4	15	10	8	5	25	20	15	8	40	35	15	11	55	45	25	23	20
Rated thrust (N)		70	35	300	150	85	75	300	150	85	75	640	320	225	160	945	480	240	200	2050	1025	560	420	350
Stroke (mm)		100~800: 50 (Interval)						100~1050: 50 (Interval)										100~1450: 50 (Interval)						

Motor Direction



SC Series Ball-Screw Type Electric Cylinder (Clean Room)



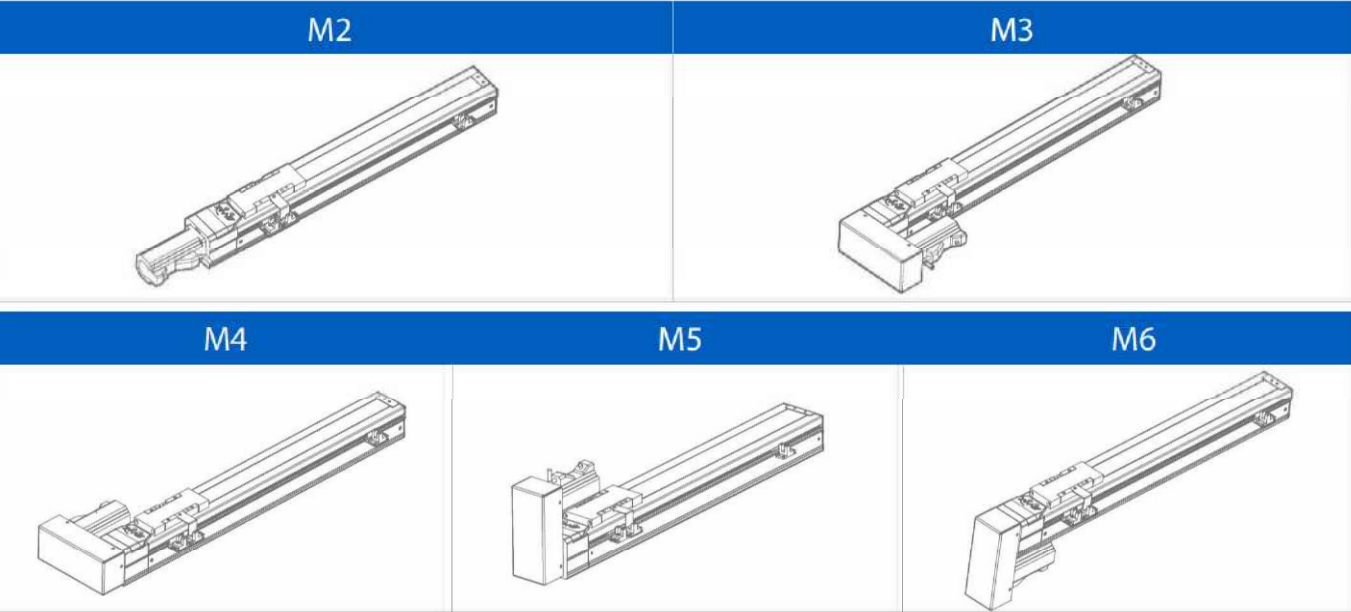
Ordering Code

SC50D	L10	S800	M2	M	100W	B
Model	Lead	Stroke	Motor Direction	Motor Brand	Motor Output	Brake
SC50D SC80D SC100S SC136D SC168D		100~1250mm	M1: Motor inside position (Available for 136) M2: Motor outside position M3: Motor outside, rightward position M4: Motor outside, leftward position M5: Motor outside, upper position M6: Motor outside, lower position	H: Hiwin S: Sanyo M: Mitsubishi Y: Yaskawa P: Panasonic F: Fuji D: Delta	100~400W	

Specification

Model	SC50D		SC80D		SC100D				SC136D				SC168D				
AC Servo motor output (W)					100W				200W				400W				
Repeatability (mm)	±0.02																
B.S(Φ)	12	12	12	12	16	16	16	16	16	16	16	16	25	20	20	25	
Lead (mm)	5	10	5	10	5	10	16	20	5	10	16	20	5	10	20	25	
Maximum speed (mm/sec)	250	500	250	500	250	500	800	1000	250	500	800	1000	250	500	800	1250	
Maximum payload (kg)	Level use (H)	9	5.5	30	15	50	35	25	20	80	70	65	35	110	80	75	65
	Vertical use (V)	2.5	1.2	9	5	12	10	8	5	25	20	15	8	40	35	15	11
	Rated thrust (N)	70	35	250	130	300	150	85	75	640	320	225	160	945	480	240	200
Stroke (mm)	100~800: 50 (Interval)						100~1050: 50 (Interval)						100~1250: 50 (Interval)				

Motor Direction



SB Series Belt Type Electric Cylinder (General)



Ordering Code

SB50D	L35	S500	B1	M	100W	B
Model	Lead	Stroke	Motor Direction	Motor Brand	Motor Output	Brake
SB50D SB80D SB100S SB100D SB136D SB168D SB202D		100~3050mm	B1: Motor leftward, upper position B2: Motor rightward, upper position B3: Motor leftward, horizontal position B4: Motor rightward, horizontal position B5: Motor leftward, lower position B6: Motor rightward, lower position	H: Hiwin S: Sanyo M: Mitsubishi Y: Yaskawa P: Panasonic F: Fuji B: Belta	100~400W	

Specification

Model	XB50D	XB80D	XB100S	XB100D	XB136D	XB168D	XB202D
AC Servo motor output (W)	100W	100W 200W	100W 200W	100W 200W	200W		400W
Repeatability (mm)	±0.04						
Equivalent to lead	35	28	35	28	40		76
Maximum speed (mm/sec)	1718	1400	1600	1400	32		45
Maximum payload (kg)	8	20 28	10 15	20 25			2000
Stroke (mm)	100~800: 50 (Interval)	100~1500: 50 (Interval)	150~1850: 50 (Interval)		150~3050: 100 (Interval)		

Motor Direction

B1	B2	B3
B4	B5	B6



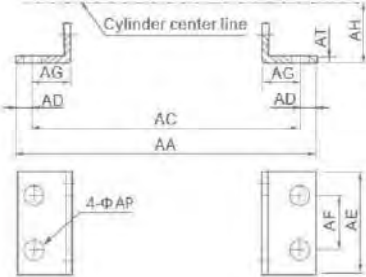
CYLINDER ACCESSORIES

Cylinder accessories include the mounting parts used to fix air cylinders, typically made of aluminum or steel. They are available for both Standard Cylinders and Mini Cylinders. Magnetic switches are used as sensors connected to PLCs to detect the position of the piston inside the air cylinder.



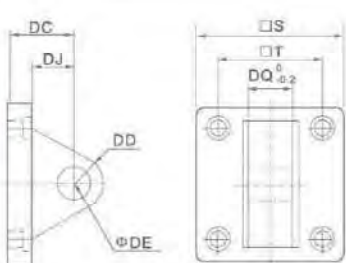
Pneumatic Cylinders

ISO Standard Cylinder Accessories



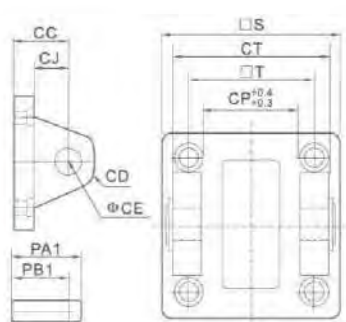
Symbol / Bore	32	40	50	63	80	100	125	160	200
AA	158	179	190	209	248	266	290	340	380
AC	142	161	170	185	210	228	250	300	320
AD	8	9	10	12	19	19	20	20	30
AE	47	53	65	75	95	115	140	180	220
AF	32	36	45	50	63	75	90	115	135
AG	24	28	32	32	41	45	45	60	70
AH	32	36	45	50	63	71	90	115	135
AP	7	9	9	9	12	14.5	16.5	18.5	24
AT	3	3	3	3	4	4	6	6	9

ISO-LB Type Foot Bracket



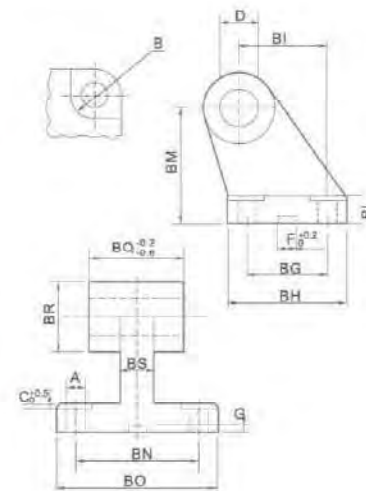
Symbol / Bore	32	40	50	63	80	100	125	160	200
S	47	53	65	75	95	115	140	180	220
T	32.5	38	46.5	56.5	72	89	110	140	175
DC	22	25	27	32	36	41	50	55	60
DD	9	12	12	15	15	20	25	30	30
DE	10	12	12	16	16	20	25	30	30
DJ	13	16	17	22	22	27	33	35.5	36
DQ	25.8	27.8	31.7	39.7	49.7	59.7	69.7	89.7	89.7

ISO-CA Type Single Earring



Symbol / Bore	32	40	50	63	80	100	125	160	200
CC	22	25	27	32	36	41	50	55	60
CD	9	12	12	15	15	20	25	30	30
CE	10	12	12	16	16	20	25	30	30
CJ	13	16	17	22	22	27	31	35.5	36
CP	26	28	32	40	50	60	70	90	90
CT	45	52	60	70	90	110	130	170	170
PA1	51	59	67	77	97	119	139	181	181
PB1	45.5	52.5	60.5	70.5	90.5	110.5	130.5	170.5	170.5
S	47	53	65	75	95	115	140	180	220
T	32.5	38	46.5	56.5	72	89	110	140	175

ISO-CB+Pin Type Double Earring



Symbol / Bore	32	40	50	63	80	100	125
A	6.6	6.6	9	9	11	11	14
B	11	11	15	15	18	18	20
BG	18	22	30	35	40	50	60
BH	31	35	45	50	60	70	90
BI	21	24	33	37	47	55	70
BL	8	10	12	14	14	17	20
BM	32	36	45	50	63	71	90
BN	38	41	50	52	66	76	94
BO	51	54	65	67	86	96	124
BS	10	15	16	16	20	20	30
BR	20	22	26	30	30	38	45
C	1.6	1.6	1.6	1.6	2.5	2.5	3.2
D	10	12	12	16	16	20	25
F	10.5	10.5	10.5	10.5	10.5	10.5	10.5
G	3	3	3	3	3	3	3
BQ	26	28	32	40	50	60	70

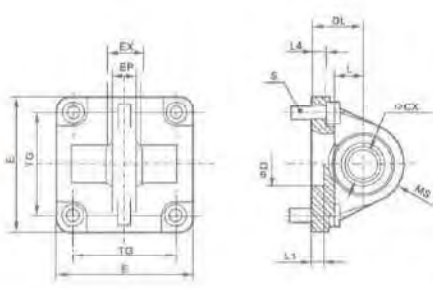
ISO-SDB Type

Pneumatic Cylinders

ISO Standard Cylinder Accessories



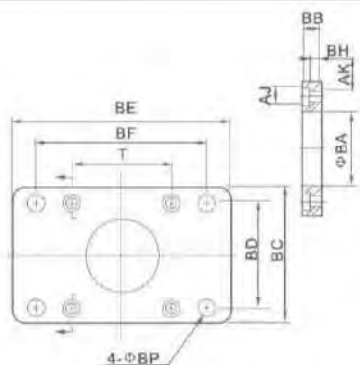
ISO-RB Type



Symbol / Bore	32	40	50	63	80	100
TG	32.5	38	46.5	56.5	72	89
ΦCX	10	12	16	16	20	20
DL	22	25	27	32	36	41
L	12	15	15	20	20	25
EX	14	16	21	21	25	25
EP	10.5	12	15	15	18	18
S	M6×20	M6×20	M8×20	M8×20	M10×25	M10×25
L4	5.5	5.5	6.5	6.5	10	10
D	30	35	40	45	45	55
L1	7	7	7	7	9	9
E	45	52	65	75	95	115
MS	16	18	21	23	28	30



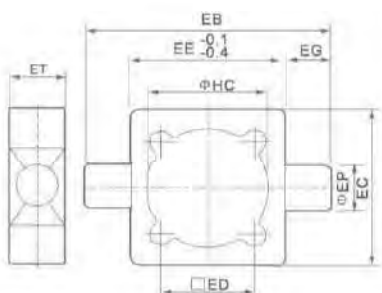
ISO-FA/FB Type Flange



Symbol / Bore	32	40	50	63	80	100	125	160	200
AJ	11	11	14	14	17	17	19	25	25
AK	7	7	9	9	11	11	13	17	17
BA	30.5	35.5	40.5	45.5	55.5	60.5	65.5	75.5	75.5
BB	10	10	12	12	16	16	20	20	25
BC	47	53	65	75	95	115	140	180	225
BD	32	36	45	50	63	75	90	115	135
BE	80	90	110	125	154	186	224	280	320
BF	64	72	90	100	126	150	180	230	270
BH	4	4	4	6	6	6	8	8	12
BP	7	9	9	9	12.5	14.5	16.5	18.5	24
T	32.5	38	46.5	56.5	72	89	110	140	175



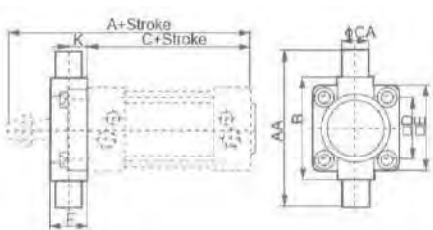
ISO-SI-TC Type



Symbol / Bore	32	40	50	63	80	100
EB	100	113	125	140	160	182
EC	53	63	75	90	105	128
ED	32.5	38	46.5	56.5	72	89
EE	52	63	75	90	110	128
EG	25	25	25	25	25	25
EP	12	16	16	16	20	25
ET	20	22	22	28	28	34
HC	37	45	55	68	87	107.5



ISO-F-TC Type



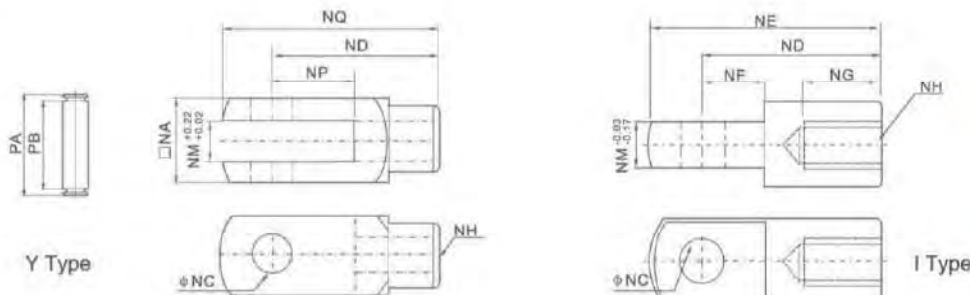
Symbol / Bore	32	40	50	63	80	100	125	160	200
A	142	94	74	50	12	32.5	46	19	10
C	159	105	95	63	16	38	52	21	10
AA	175	106	107	75	16	46.5	64	26	12
B	190	121	130	90	20	56.5	74	28	12
CA	214	128	150	110	20	72	94	31	16
D	229	138	182	132	25	89	114	35	16
E	279	160	210	160	25	110	139	43	20
F	332	180	264	200	32	140	179	56	20
K	347	180	314	250	32	175	218	64	20

ISO Standard Cylinder Accessories

ISO-Y Joint



ISO-Y+Pin ISO-Y+Clip

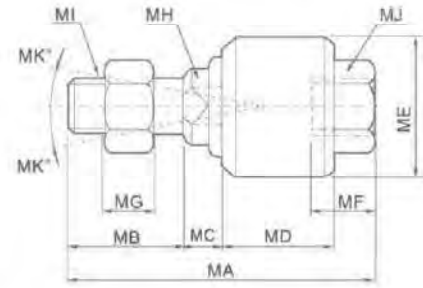


ISO-I Joint

Symbol / Bore	32	40	50	63	80	100	125	160	200
NA	19	25.4	32	32	44.4	44.4	55	70	70
NC	10	12	16	16	20	20	30	35	35
ND	40	48	64	64	80	80	110	144	144
NE	52	67	89	89	112	112	155	201	201
NF	15	24	32	32	40	40	50	50	55
NG	20	20	23	23	30	30	56	72	72
NH	M10×1.25	M12×1.25	M16×1.5	M16×1.5	M20×1.5	M20×1.5	M27×2.0	M36×2.0	M36×2.0
NM	10	12	16	16	20	20	30	35	35
NP	20	24	32	32	40	40	54	72	72
NQ	52	62	83	83	105	105	148	191	191
PA	26.2	32.8	39.3	39.3	53.3	53.3	64	80	80
PB	20	26.5	33	33	45	45	55.6	70.6	70.6



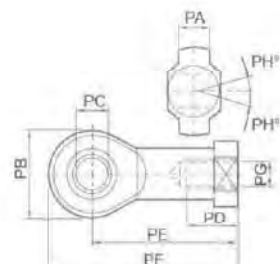
ISO-UJ Type Float Joint



Symbol / Bore	MA	MB	MC	MD	ME	MF	MG	MH	MI	MK
32	58	22	7	21	26	11.5	7	10	M10×1.25	12
40	58	22	8	21	28	11.5	8	12	M12×1.25	12
50	90	27	10	41	44.5	20	10	17	M16×1.5	7
63	90	27	10	41	44.5	20	10	17	M16×1.5	7
80	102	29	13	46	53	24	13	22	M20×1.5	10
100	102	29	13	46	53	24	13	22	M20×1.5	10
125	147	54	13	64	62	39	14	25	M27×2.0	9
160	147	43	23	58	88	35	13.5	36	M36×2.0	15
200	147	43	23	58	88	35	13.5	36	M36×2.0	15

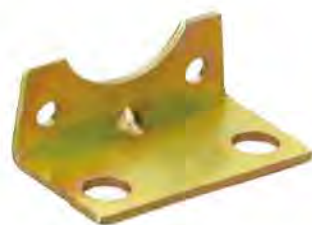


ISO-PHS Type Fish Eye Joint

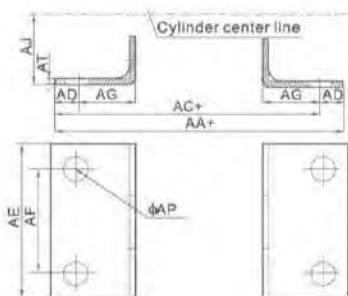


Symbol / Bore	PA	PB	PC	PD	PE	PF	PG	PH
32	11	26	10	21	43	56	M10×1.25	13
40	12	30	12	24	50	65	M12×1.25	13
50	15	38	16	33	64	83	M16×1.5	15
63	15	38	16	33	64	83	M16×1.5	15
80	18	46	20	40	77	100	M20×1.5	15
100	18	46	20	40	77	100	M20×1.5	15
125	37	70	30	51	110	145	M27×2.0	15
160	43	80	35	56	125	165	M36×2.0	16
200	43	80	35	56	125	165	M36×2.0	16

Standard Cylinder Accessories



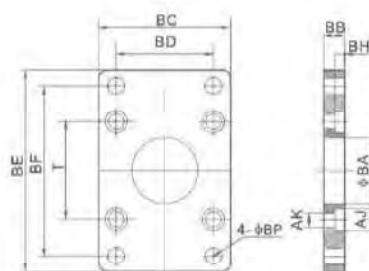
LB Type Foot Bracket



Symbol / Bore	32	40	50	63	80	100	125	160	200
AA	153	169	173	184	199	210	249	328	380
AC	134	140	149	158	167	174	213	288	320
AD	9.5	14.5	12	13	16	18	18	20	30
AE	50	57	68	80	97	112	140	180	220
AF	33	36	47	56	70	84	90	115	135
AG	20.5	23.5	28	31	30	30	45	60	70
AJ	28	30	36.5	41	49	57	90	115	135
AP	9	12	12	12	14	14	16	18	24
AT	3	3	3	3	4	4	8	8	10



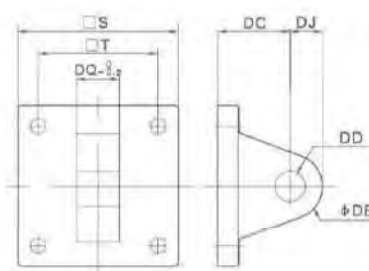
FA/FB Type Flange



Symbol / Bore	32	40	50	63	80	100	125	160	200
BA	28.3	32.3	38.3	38.3	47.3	47.3	56	63	81
BB	10	10	10	12	16	16	16	20	25
BC	47	52	65	76	95	115	140	180	220
BD	33	36	47	56	70	84	90	115	135
BE	72	84	104	116	143	162	224	280	332
BF	58	70	86	98	119	138	180	230	270
BH	6.5	6.5	6.5	8.5	10.5	10.5	10.5	12.5	16.5
AJ	10.5	10.5	13.5	13.5	5	19	25	25	25
AK	6.5	6.5	6.5	8.5	10.5	10.5	12.5	16.5	16.5
BP	7	7	9	9	11	11	16	18	24
T	33	37	47	56	70	84	110	140	175



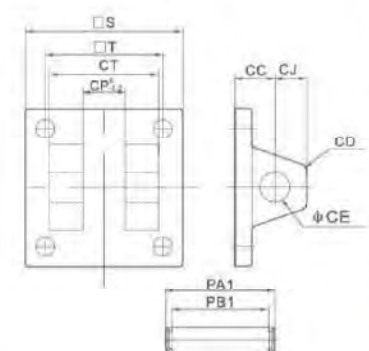
CA Type Single Earring



Symbol / Bore	32	40	50	63	80	100	125	160	200
S	48	50	62	75	94	112	140	180	220
T	33	37	47	56	70	84	110	140	175
DC	34	34	34	34	48	48	50	55	60
DD	14	14	14	14	20	20	25	30	30
DE	12	14	14	14	20	20	25	30	30
DJ	14	14	15	15	20	20	25	30	30
DQ	16	20	20	20	32	32	70	90	90



CB+Pin Type Double Earring



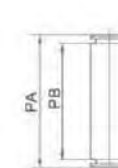
Symbol / Bore	32	40	50	63	80	100	125	160	200
CC	19	19	19	32	32	50	50	55	60
CD	5	5	3	2	8	8	25	30	30
CE	12	14	14	14	20	20	25	30	30
CJ	13	13	15	15	21	21	25	30	30
CP	16	20.5	20.3	20.3	32.3	32.3	70	90	90
CT	32	44	52	52	64	64	120	160	160
PAI	41	51.8	60.3	60.3	73.8	73.8	130	170	170
PBI	33.5	45.8	54	54	65.5	65.5	121.5	161.5	161.5
S	48	50	62	75	94	112	140	180	220
T	33	37	47	56	70	84	110	140	175

Note: CA and CB From 32-100, we can supply two kinds of materials products: 1.Iron 2. Aluminum. When placing order, please indicate product material. From 125-200 are all iron.

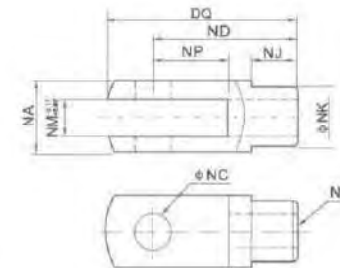
Standard Cylinder Accessories



Y+Pin Type Joint



Y Type



I Type

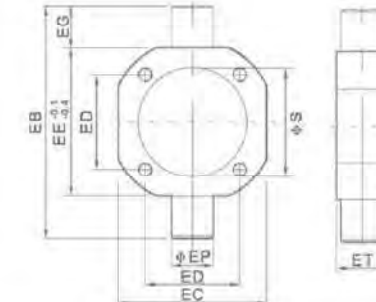


I Type Joint

Symbol / Bore	32	40	50	63	80	100	125	160	200
NA	19	25.4	32	32	44.4	44.4	64	80	80
NB	20	24	32	32	40	40	45	54	54
NC	10	12	16	16	20	20	20	30	30
ND	40	48	64	64	80	80	102	120	120
NE	52	67	89	89	112	112	121	130	130
NF	15	24	32	32	40	40	52	35	35
NG	20	20	23	23	30	30	56	50	50
NH	M10×1.25	M12×1.25	M16×1.5	M16×1.5	M20×1.5	M20×1.5	M27×2	M36×2	M36×2
NJ	12	20	22	22	30	30	27	40	40
NK	18	23	30	30	39	39	38	54	54
NM	10	12	16	16	20	20	32	40	40
MP	20	24	32	32	40	40	35	35	35
NQ	52	62	83	83	105	105	122	150	150
PA	25	32.8	39.3	39.3	53.3	53.3	74	91	91
PB	19.5	26.5	33	33	45	45	63.5	81	81



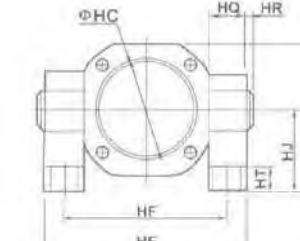
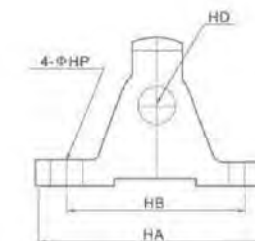
TC Type



Symbol / Bore	32	40	50	63	80	100	125	160	200
EB	88.5	113	126	138	164	182	210	264	320
EC	52	63	76	88	114	132	160	200	248
ED	33	37	47	56	70	84	110	140	175
EE	55	63	76	88	114	132	160	200	248
EG	16.75	25	25	25	25	25	32	32	36
EP	16	25	25	25	25	25	32	32	32
ET	30	30	30	30	30	35	35	41	49
S	37.5	45.5	56.5	68.5	87.5	107.5	134.5	172.5	219.5



TC-M Type

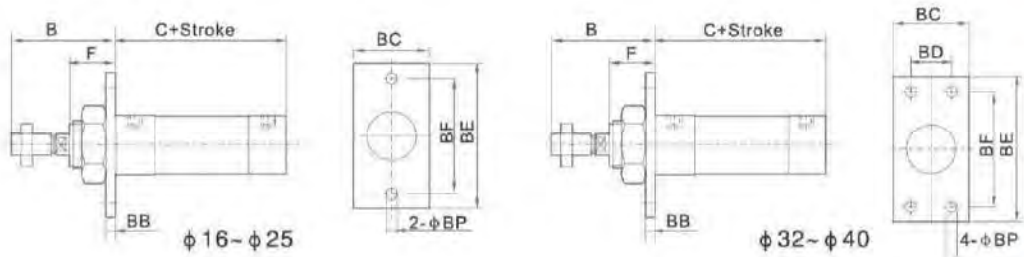


Symbol / Bore	HA	HB	HC	HD	HE	HF	HI	HJ	HQ	HR	HT	HP
40	110	80	45.5	22	109	86	81.5	50	23	2	12	12
50	110	80	55.5	22	122	99	88	50	23	2	12	12
63	110	80	68.5	22	134	111	94	50	23	2	12	12
80	120	85	87.5	22	160	137	127	70	23	2	14	14
100	120	85	107.5	22	178	155	136	70	23	2	14	14

Mini Cylinder Accessories



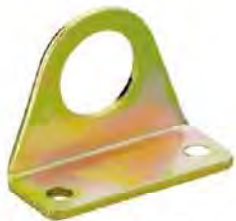
M-FA Type Flange



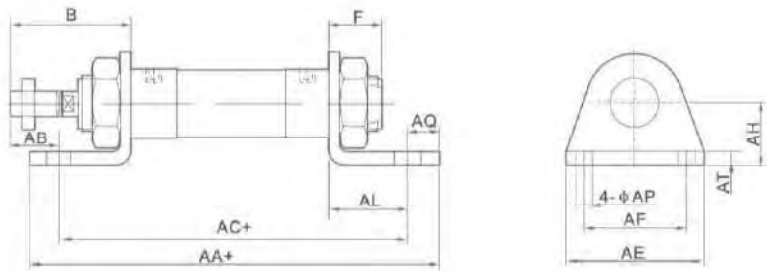
M-FA-A Type

Symbol	Bore	B	C		C (MSA Series)		C (MSAL Series)		BB	BC	BD	BE	BF	BP	F
			MA Series	MAL Series	0-50	51-100	0-50	51-100							
16	16	38	60	-	60	85	-	-	3	26	-	52	40	5.5	16
20	20	40	76	70	76	101	70	95	4	33	-	64	50	6.5	12
25	25	44	76	70	76	101	70	95	4	33	-	64	50	6.5	14
32	32	44	76	70	76	101	70	95	4	47	33	72	58	6.5	14
40	40	46	76	92	76	101	92	117	4	50	36	84	70	6.5	14

Our company can also provide this used for mini cylinder flange from 16~25, if you need, pls add A after all ordering code, like M-FA-20-A



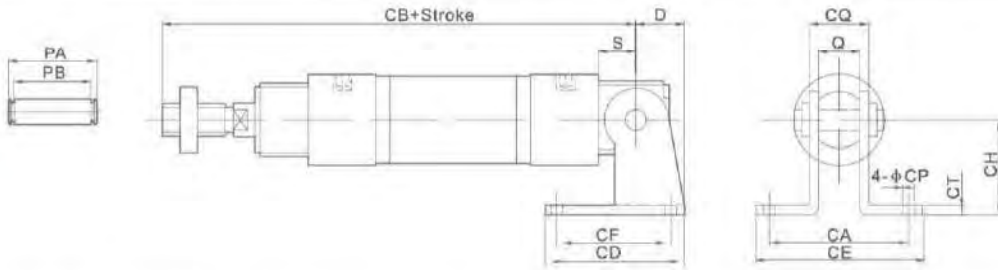
M-LB Type Foot Bracket



Sym bol	B	F	AA (MA Serie s)	AA (MAL Serie s)	AA (MSA)		AA (MSAL)		AB	AC (MA Serie s)	AC (MAL Serie s)	AC (MSA)		AC (MSAL)		AE	AF	AL	AQ	AP	AT	AH
					0-50	51- 100	0-50	51- 100				0-50	51- 100	0-50	51- 100							
16	38	16	98	-	98	123	-	-	25	86	-	86	111	-	-	44	32	13	6	5.5	3	20
20	40	12	122	116	122	147	116	141	25	106	100	106	131	100	125	54	40	15	8	6.5	3	25
25	44	14	122	116	122	147	116	141	29	106	100	106	131	100	125	54	40	15	8	6.5	3	25
32	44	14	142	136	142	167	136	161	19	126	120	126	151	120	145	59	45	25	8	6.5	4	32
40	46	14	142	158	142	167	158	183	21	126	142	126	151	142	167	64	50	25	8	6.5	4.5	36



M-SDB Type Bracket



Symbol	Bore	D	S	Q	CA	AA (MSA Series)	CB (MAL Series)	CB (MSA)		CB (MSAL)		CD	CE	CF	CH	CT	CP	CQ	PA	PB
								0-50	51-100	0-50	51-100									
16	16	16	9	12	-	107	-	107	132	-	-	23	-	12	20	3	5.5	16.5	21	17
20	20	21	12	16	51	128	122	128	153	122	147	48	67	32	32	3	6.5	22	27	22.5
25	25	21	12	16	51	132	126	132	157	126	151	48	67	32	32	3	6.5	22	27	22.5
32	32	27	15	16	51	135	129	135	160	129	154	52	67	36	36	3	6.5	24	30	24.5
40	40	27	15	20	55	137	153	137	162	153	178	56	71	40	40	3	6.5	28	34	28.5

Mini Cylinder Accessories

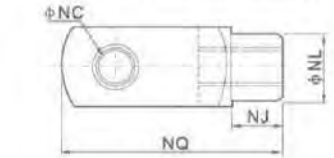
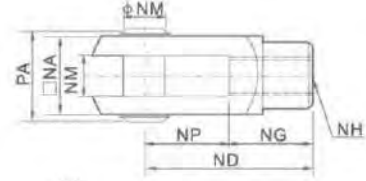
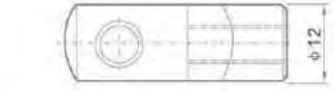
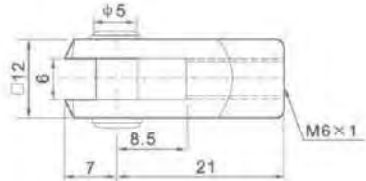
M-Y Joint



M-Y+Pin



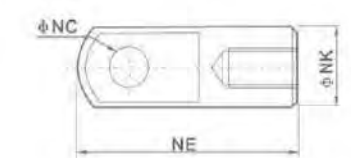
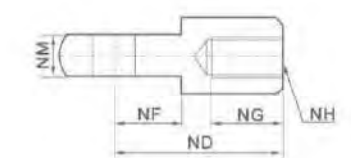
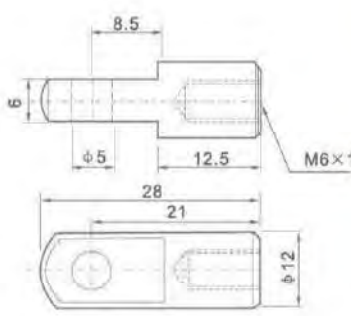
M-I Joint



16



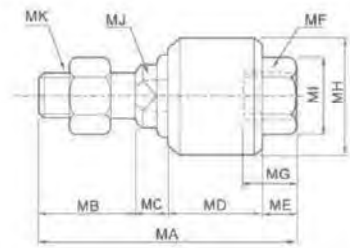
20-40



Symbol Bore	NA	NC	ND	NE	NF	NG	NH	NJ	NK	NL	NM	NN	NP	NQ	PA	PB
20	16	8	30	40	11	15	M8x1.25	10	16	14	8	8	15	40	21	16.5
25	19	10	40	52	15	20	M10x1.25	12	20	18	10	10	20	52	25	19.5
32	19	10	40	52	15	20	M10x1.25	12	20	18	10	10	20	52	25	19.5
40	25.4	10	45	57	15	25	M12x1.25	15	24	23	14	10	20	57	31	26



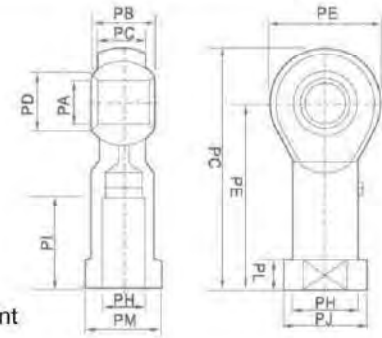
M-UJ Type Float Joint



Symbol/Bore	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK
20	51	20	6	17	8	M8x1.25	12	24	13	8	M8x1.25
25	58	22	7	21	8	M10x1.25	12	26	17	10	M10x1.25
32	58	22	7	21	8	M10x1.25	12	26	17	10	M10x1.25
40	58	22	8	21	7	M12x1.25	12	28	19	12	M12x1.25



M-PHS Type Fish Eye Joint

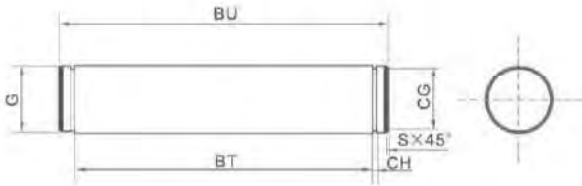
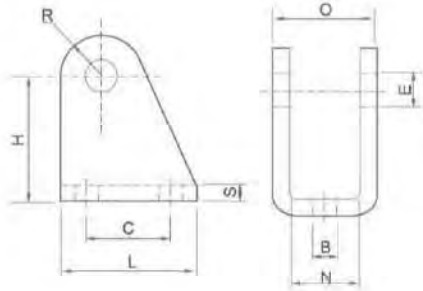


Symbol/Bore	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM
20	8	12	9	10.4	22	36	47	M8x1.25	17	16	12.5	5	14
25	10	14	11	12.9	26	43	56	M10x1.25	21	19	15	6.5	17
32	10	14	11	12.9	26	43	56	M10x1.25	21	19	15	6.5	17
40	12	16	12	15.4	30	50	65	M12x1.25	24	22	17.5	6.5	19

Mini Cylinder Accessories



M-U+Pin



Symbol / Bore	B	E	C	H	L	N	O	R	S	G	BT	CG	CH	BU	S
8/10	4.5	4	12.5	24	20	8.1	13	5	2.5	4	14	2.5	0.5	17	0.2
12/16	5.5	6	15	27	25	13	18	7	2.5	6	19	4	0.8	24	0.4
20/25	6.6	8	20	29.5	32	16.1	24	10	4	8	25.2	5	0.9	29.5	0.5

Special Cylinder Accessories



■ Our company can customize all kinds of non-standard cylinder accessories according to your drawing or sample.

Seal Kits for Pneumatic Cylinder

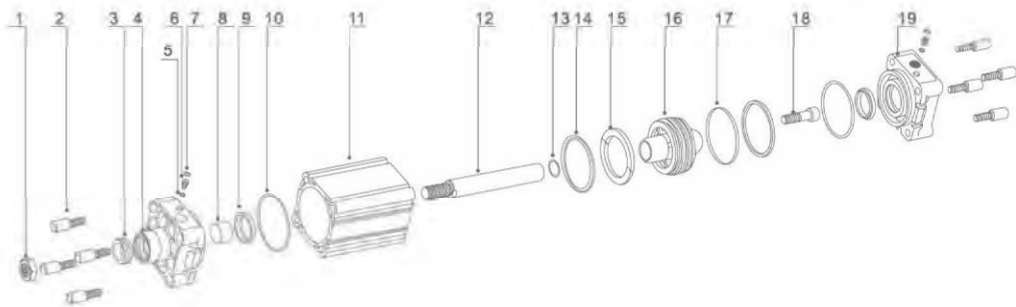
Product	Model	Cylinder Bore Size	Temperature
	Seal kits-DNC	Φ32~125	-5~75°C
	Seal kits-DNG	Φ160~320	
	Seal kits-SI	Φ32~200	
	Seal kits-SC	Φ32~200	
	Seal kits-MA	Φ10~40	
	Seal kits-MAL	Φ16~40	
	Seal kits-SDA	Φ12~100	
	Seal kits-ADVU	Φ16~80	
	Seal kits-ADN	Φ12~63	

Product	Model	Cylinder Bore Size	Temperature
	Seal kits-DNC-Viton	Φ32~125	-10~150°C
	Seal kits-DNG-Viton	Φ160~320	
	Seal kits-SI-Viton	Φ32~200	
	Seal kits-SC-Viton	Φ32~200	
	Seal kits-MA-Viton	Φ10~40	
	Seal kits-MAL-Viton	Φ16~40	
	Seal kits-SDA-Viton	Φ12~100	
	Seal kits-ADVU-Viton	Φ16~80	

Assembly Kits for Pneumatic Cylinder

☛ DNC Series Cylinder Kits

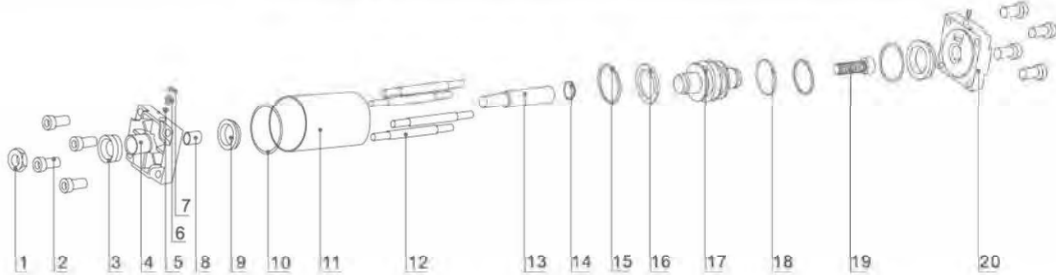
Product	Model/ Specification	Part Name	Material	Part Name	Material
	DNC Kits (ISO15552) Bore size: Φ32, 40, 50, 63, 80, 100, 125	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self-lubricating bearing	PTFE + Brass
		Piston rod (Without)	S45C hard chrome carbon steel	Magnet (optional)	RbFeb
		Barrel (Without)	Hard anodized aluminum	Cushion needle	Brass
		Front cover seal	PU	Hexagon screw	Carbon steel
		Cushion seal	NBR	Nut	Carbon steel
		Piston rod O-Ring	NBR	Profile bolt	Carbon steel
		Cover O-Ring	NBR		



No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Nut	5	O-Ring	9	Cushion seal	13	Rod O-Ring	17	Wear ring
2	Profile bolt	6	Adjustable screw	10	Cover O-Ring	14	Piston seal	18	Hex Socket Screw
3	Front Cover seal	7	Block slip	11	Barrel (Without)	15	Magnet (optional)	19	Back cover
4	Front cover	8	Self Lubricating bearing	12	Piston rod (Without)	16	Piston		

☛ DNC Series Cylinder Kits

Product	Model/ Specification	Part Name	Material	Part Name	Material
	DNG Kits (ISO15552) Bore size: Φ160, 200, 250, 320	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self lubricating bearing	PTFE + Brass
		Piston rod (Without)	S45C hard chrome carbon steel	Magnet (optional)	RbFeb
		Barrel (Without)	Hard anodized aluminum	Cushion needle	Brass
		Front cover seal	PU	Hexagon screw	Carbon steel
		Cushion seal	NBR	Nut	Carbon steel
		Piston rod O-ring	NBR	Profile bolt	Carbon steel
		Cover O-ring	NBR		

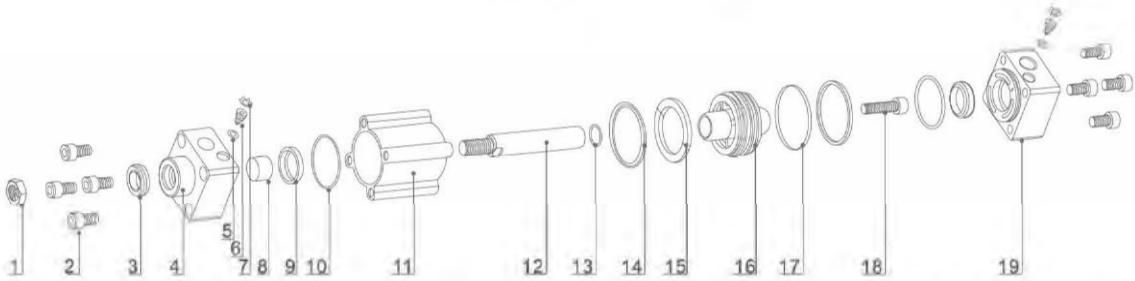


	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Nut	5	O-Ring	9	Cushion seal	13	Tierod (Without)	17	Piston
2	Profile bolt	6	Adjustable screw	10	Cover O-Ring	14	Rod O-R ing	18	Wear ring
3	Front Cover seal	7	Block slip	11	Barrel (Without)	15	Piston seal	19	Hex Socket Screw
4	Front cover	8	Self Lubricating bearing	12	Piston rod (Without)	16	Magnet (optional)	20	Back cover

Assembly Kits for Pneumatic Cylinder

SI Series Cylinder Kits

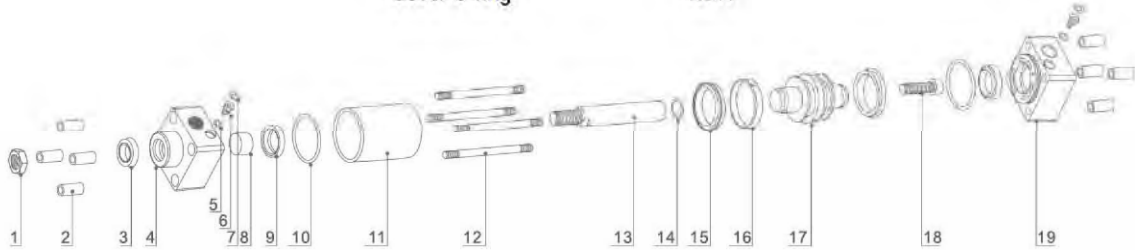
Product	Model/Specification	Part name	Material	Part name	Material
	SI Kits (ISO 6431) Bore size: Ø32, 40, 50, 63, 80, 100, 125, 160, 200	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self-lubricating bearing	PTFE+Brass
		Piston rod (Without)	S45C hard chrome carbon steel	Magnet (optional)	RbFeb
		Barrel (Without)	Hard anodized Aluminum	Cushion needle	Brass
		Front Cover seal	NBR	Hexagon screw	Carbon steel
		Cushion seal	NBR	Nut	Carbon steel
		Piston rod O-ring	NBR	Profile bolt	Carbon steel
		Cover O-ring	NBR		



No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Nut	5	O-Ring	9	Cushion seal	13	Rod O-Ring	17	Wear ring
2	Profile bolt	6	Adjustable screw	10	Cover O-Ring	14	Piston seal	18	Hex socket screw
3	Front Cover seal	7	Block slip	11	Barrel (Without)	15	Magnet (optional)	19	Back cover
4	Front Cover	8	Self lubricating bearing	12	Piston rod(Without)	16	Piston		

SI Series Cylinder Kits

Product	Model/Specification	Part name	Material	Part name	Material
	Bore size: Ø32, 40, 50, 63, 80, 100, 125, 160, 200	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self-lubricating bearing	PTFE+Brass
		Piston rod (Without)	S45C hard chrome carbon steel	Magnet (optional)	RbFeb
		Barrel (Without)	Hard anodized aluminum	Cushion needle	Brass
		Front Cover seal	NBR	Hexagon screw	Carbon steel
		Cushion seal	NBR	Nut	Carbon steel
		Piston rod O-ring	NBR	Tie-rod nut	Carbon steel
		Cover O-ring	NBR		

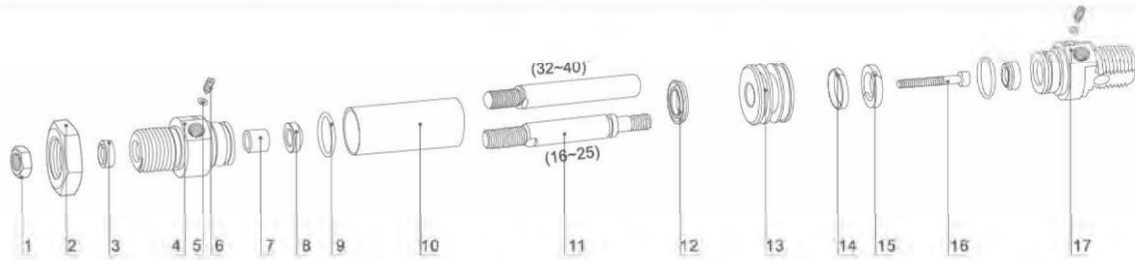


No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Nut	5	O-Ring	9	Cushion seal	13	Piston rod (Without)	17	Piston
2	Tie-rod nut	6	Adjustable screw	10	Cover O-Ring	14	Rod O-Ring	18	Hex socket screw
3	Front cover seal	7	Block slip	11	Barrel (Without)	15	Piston seal	19	Back cover
4	Front cover	8	Self-lubricating bearing	12	Tie rod (Without)	16	Wear ring		

Assembly Kits for Pneumatic Cylinder

MA/MA6432 Series Cylinder Kits

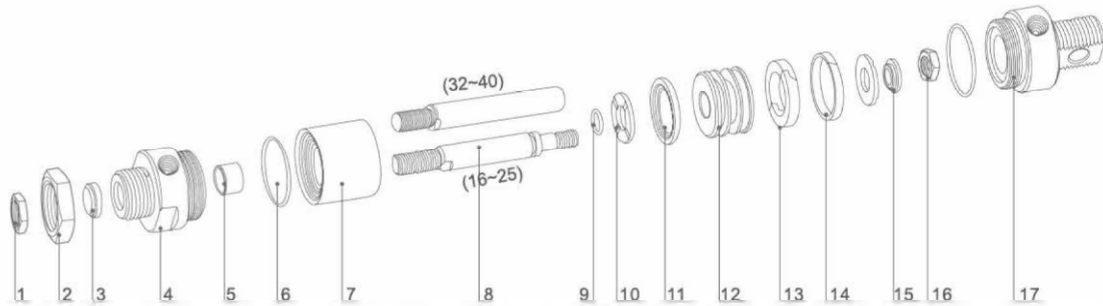
Product	Model/Specification	Part name	Material	Part name	Material
	MA Kits Bore size: Ø16, 20, 25, 32, 40 MA6432 Kits (ISO 6432) Bore size: Ø8, 10, 12, 16, 20, 25, 32, 40, 50, 63	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self lubricating bearing	PTFE+Brass
		Barrel (Without)	S45C hard crhrome carbon steel	Magnet(optional)	RbFeb
		Front Cover seal	NBR	Cushion needle	Brass
		Cushion seal	NBR	Hexagon screw	Carbon steel
		Piston rod O-ring	NBR	Nut	Carbon steel
		Cover O-ring	NBR		



No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Rod nut	5	O-ring	9	Cover O-ring	13	Piston	17	Back cover
2	Cover Nut	6	Adjustable screw	10	Barrel (Without)	14	Wear ring		
3	Front Cover seal	7	Self Lubricating bearing	11	Piston rod (Without)	15	Magnet (optional)		
4	Front cover	8	Cushion ring	12	Piston seal	16	Hexagon Screw		

MAL Series Cylinder Kits

Product	Model/ Specification	Part name	Material	Part name	Material
	MAL Kits Bore size: φ16, 20, 25, 32, 40	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Wear ring	PA66
		Piston	Aluminum alloy	Self lubricating bearing	PTFE+Brass
		Piston rod (Without)	S45C hard chrome carbon steel	Magnet(optional)	RbFeb
		Barrel (Without)	Hard anodized aluminum	Cushion needle	Brass
		Anti-bump cushion	NBR	Hexagon screw	Carbon steel
		Front Cover seal	NBR	Nut	Carbon steel
		Cover O-ring	NBR	Muffler	Cu

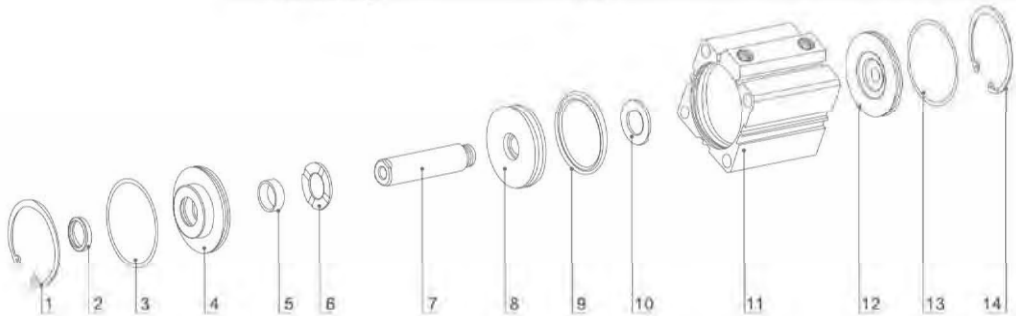


No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Rod nut	5	Self Lubricating bearing	9	Rod O-ring	13	Magnet(optional)	17	back Cover
2	Cover Nut	6	Cover O-ring	10	Anti-bump cushion	14	Wear ring		
3	Front Cover seal	7	Barrel(Without)	11	Piston seal	15	Impact gasket		
4	Front cover	8	Piston rod(Without)	12	Piston	16	Nut		

Assembly Kits for Pneumatic Cylinder

SDA Series Cylinder Kits

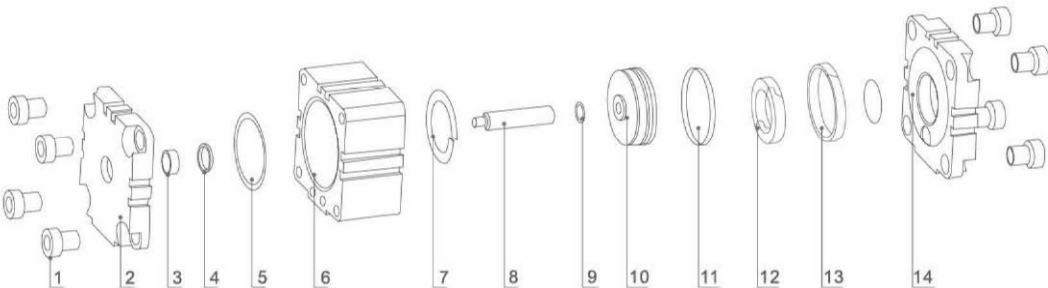
Product	Model/Speci- fication	Part name	Material	Part name	Material
	Bore size: Φ12,16,20, 25,32,40, 50,63,80,100	Front cover	Aluminum alloy	Piston seal	NBR
		Back cover	Aluminum alloy	Self-lubricating bearing	PTFE+Brass
		Piston	Aluminum alloy	Magnet(optional)	RbFeb
		Piston rod (Without)	S45C hard chrome carbon steel	C type buckle	Steel
		Barrel (Without)	Hard anodized aluminum	Nut	Carbon steel
		Anti-bump cushion	NBR	Muffler	Cu
		Cover O-ring	NBR		



No.	Designation	No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	C type buckle	4	Front cover	7	Piston rod (Without)	10	Anti-bump cushion	13	Cover O-ring
2	Front cover seal	5	Self-lubricating bearing	8	Piston	11	Barrel (Without)	14	C type bukcle
3	Cover O-ring	6	Anti-bump cushion	9	Piston Seal	12	Back cover		

ADVU Series Cylinder Kits

Product	Model/Speci- fication	Part name	Material	Part name	Material
	ADVU Kits (ISO6431) Bore size: Φ16,20, 25,32,40,50, 63,80	Front cover	Aluminum alloy	Cover O-ring	NBR
		Back cover	Aluminum alloy	Piston seal	NBR
		Piston	Aluminum alloy	Wear ring	PA66
		Piston rod(Without)	S45C hard chrome carbon steel	Self-lubricating bearing	PTFE+Brass
		Barrel(Without)	Hard anodized aluminum	Magnet(optional)	RbFeb
		Front Cover seal	NBR	Nut	Carbon steel
		Cushion seal	NBR	Profile bolt	Carbon steel
		Piston rod O-ring	NBR		



No.	Designation	No.	Designation	No.	Designation	No.	Designation
1	Profile bolt	5	Front Cover seal	9	Rod O-ring	13	Wear ring
2	Front cover	6	Barrel (Without)	10	Piston	14	Back cover
3	Self Lubricating bearing	7	Backup ring	11	Piston seal		
4	Cushion seal	8	Piston rod (Without)	12	Magnet (optional)		

Assembly Kits for Pneumatic Cylinder

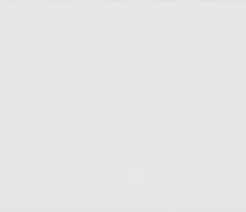
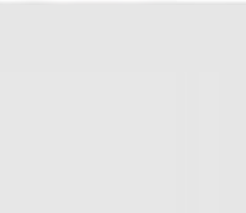
Product	Model/Specification	Product
	MB Kits (Japan Stadard) Bore size: Φ32, 40, 50, 63, 80,100	
	CQ2 Kits (Japan Stadard) Bore size: Φ12, 16, 20, 25, 32, 40, 50, 63, 80, 100	
	XENG Kits (ISO 15552) Bore size: Φ32, 40, 50, 63, 80, 100	



■ Our company have R&D departement, can research develop and produce all kinds of cylinders with advanced technology and sufficient professional experience.

■ Apart from the regular pneumatic cylinder assembly kits, our company also can supply other type cylinder assembly kits. We have develop some inch size assembly kits, for example 4", 6", 8", 10" etc and other size. If you have new requirement and new products need to design and develop, please don't hesitate to contact us, we will try our best to help you.

Tube and Piston Rod for Pneumatic Cylinder

Product	Model/Specification	Product
	DNC Square Aluminum Tube Bore size: Φ32, 40, 50, 63, 80, 100, 125	DNT With Groove Aluminum Tube
	SI Aluminum Tube Bore size: Φ32, 40, 50, 63, 80, 100, 125, 160, 200	
	DNG, SC, MAL Round Aluminum Tube Bore size: Φ16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320	ADN Aluminum Tube
	ADVU Aluminum Tube Bore size: Φ20, 25, 32, 40, 50, 63, 80	Bore size: Φ12, 16, 20, 25, 32, 40, 50, 63
	SDA Aluminum Tube Bore size: Φ12, 16, 20, 25, 32, 40, 50, 63, 80, 100 Note: Normally we provide SDA un-oxidized aluminum tube, if you need that with oxide, pls be specified, because price is different.	CQ2 Aluminum Tube Bore size: Φ12, 16, 20, 25, 32, 40, 50, 63, 80, 100 Note: Normally we provide CQ2 un-oxidized aluminum tube, if you need that with oxide, pls be specified, because price is different.
	MA, MA6432 Stainless Steel Tube (High precision) Bore size: Φ8, 10, 12, 16, 20, 25, 32, 40, 50, 63	Piston Rod (45# Steel Chrome-plated) Bore size: Φ6, 8, 10, 12, 16, 20, 25, 32, 40, 45, 50, 60, 70, etc. Note: SACHIO can provide different material and diameters piston rods including stainless steel.

■ In addition to the above general sales of pneumatic cylinder aluminum tubes, our company also have some other types of aluminum tubes.

If you find the complete cylinder on the catalogue, and only need aluminum tubes, please do not hesitate to contact us, we will try our best to help you.

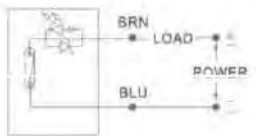
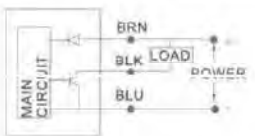
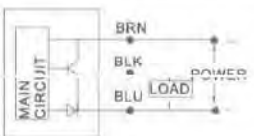
SC-03 Series Magnetism Switch



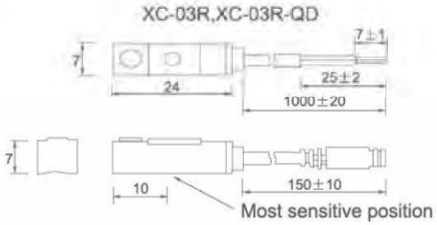
Features and Applications

1. Compact design
2. LSU type LED light
3. Anti-vibration application
4. Simple installation
5. BK series metal band together
6. Suitable for many kinds of air cylinder.

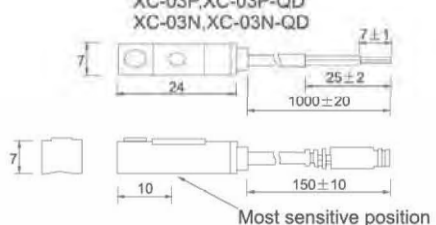
Specification

Model	SC-03R	SC-03N	SC-03P
Connect Diagram			
Parameter			
Wiring method	2-Wire Type	3-Wire Type	
Switching logic	SPST Normally Open	Solid State Output, Normally Open	
Sensor type	Reed switch	NPN Input	PNP Output
Operating voltage	5-240V DC/AC	5-30V DC	
Max. switching current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	20mA max @ 24V (Switch Active)	
Voltage drop	3.0V max.	0.5V max @ 200mA	
Leakage current	None	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Max. exchange frequency	200Hz	1000Hz	
Temperature range		-10~70°C	
Shock	30G	50G	
Vibration		9G	
Enclosure classification		IEC 529 IP67 (NEMA 6)	
Protection circuit	None	With protection	
Cable	Φ2.8, 2C PVC Gray color, oil resistance PVC	Φ2.8, 2C PVC Black color, oil resistance PVC	

Overall Dimensions



XC-03R, XC-03R-QD



XC-03P, XC-03P-QD
XC-03N, XC-03N-QD

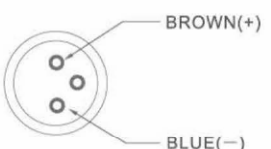
Joint Pipe Bore

PBK metal band for XC-03 series
For round cylinder Φ6-Φ63



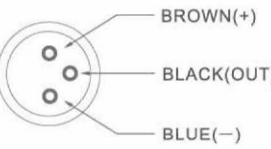
QD Pinout

2 wire QD wiring



BROWN(+)
BLUE(-)

3 wire QD wiring



BROWN(+)
BLACK(OUT)
BLUE(-)

SC-21R Series Magnetism Switch



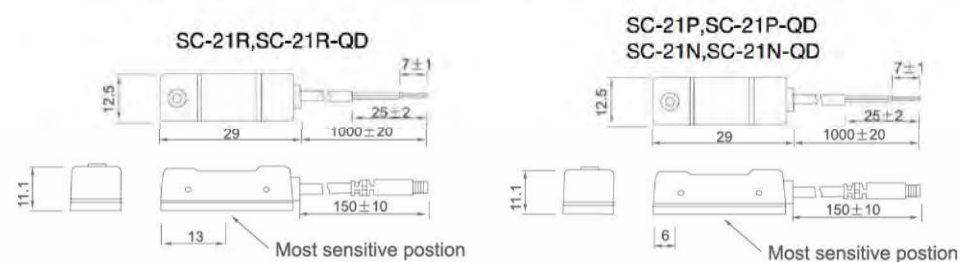
Features and Applications

1. Compact design
2. LED light
3. Anti-vibration application
4. PI, PM series clamp together
5. Simple installation
6. Suitable for all kinds of standard tie-rod

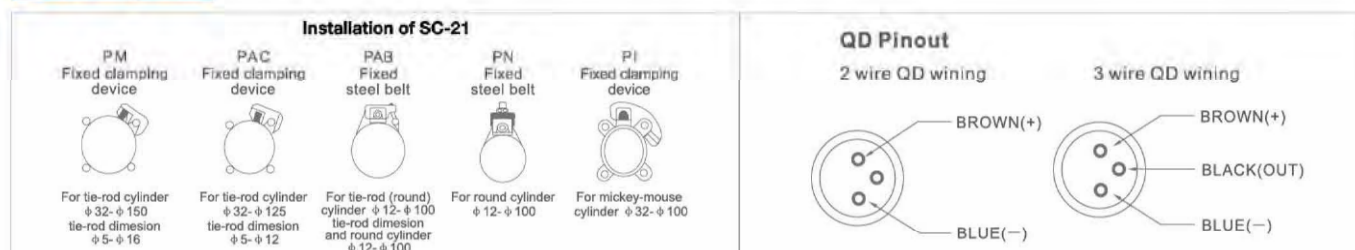
Specification

Model	SC-21R	SC-21N	SC-21P
Connect Diagram			
Parameter			
Wiring method	2-Wire Type	3-Wire Type	
Switching logic	SPST Normally Open	Solid State Output, Normally Open	
Sensor type	Reed switch	NPN Input	PNP Output
Operating voltage	5-240V DC/AC	5-30V DC	
Max. switching current	100mA max.	200mA max.	
Contact rating	10W max.	6W max.	
Current consumption	None	20mA max@24V (Switch Active)	
Voltage drop	3.5V max.	0.5V max	
Leakage current	None	0.01mA max.	
Indicator	Red LED	Red LED	Green Led
Max. eSChange frequency	200Hz	1000Hz	
Temperature range		~10-70°C	
Shock	30G	50G	
Vibration		9G	
Enclosure classification	IEC 529 IP67 (NEMA 6)		
Protection circuit	None	With protection	
Cable	Φ4.0, 2C PVC Gray color, oil resistance PVC	Φ4.0, 2C PVC Black color, oil resistance PVC	

Overall Dimensions



Joint Pipe Bore



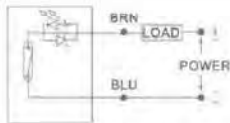
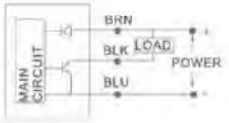
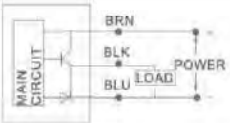
SC-31R Series Magnetism Switch



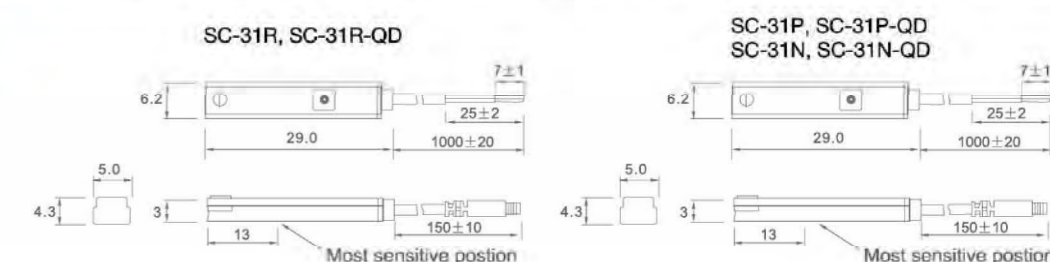
Features and Applications

1. Compact design
2. LED light
3. Anti-vibration application
4. For groove and bandage fixing type
5. Simple installation
6. Suitable for all kinds of groove type and mini type cylinder.

Specification

Model	SC-31R	SC-31N	SC-31P
Connect Diagram			
Parameter			
Wiring method	2-Wire Type	3-Wire Type	
Switching Logic	SPST Normally Open	Solid State Output, Normally Open	
Sensor type	Reed switch	NPN Input	PNP Output
Operating voltage	5-240V DC/AC	5-30V DC	
Max. switching current	100mA max.	100mA max.	
Contact rating	10W max.	3W max.	
Current consumption	None	17mA max @ 24V (Switch Active)	14mA max @ 24V (Switch Active)
Voltage drop	2.5V max. @ 100mA	0.5V max. @ 200mA	
Leakage current	None	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Max. eSChange frequency	200Hz	1000Hz	
Temperature range		-10~70℃	
Shock	30G	50G	
Vibration		9G	
Enclosure classification	IEC 529 IP67 (NEMA 6)		
Protection circuit	None	With protection	
Cable	φ3.0, 2C PVC Gray color, oil resistance PVC	φ3.0, 2C PVC Black color, oil resistance PVC	

Overall Dimensions



Joint Pipe Bore



SC-11R Series Magnetism Switch



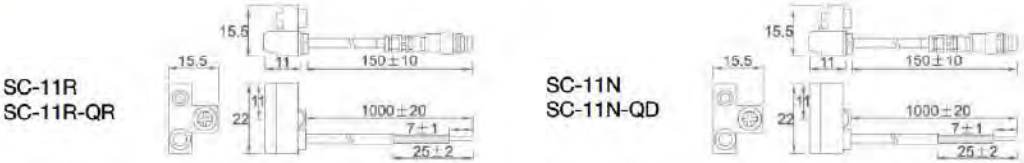
Features and Applications

1. Compact design
2. LED light
3. Anti-vibration application
4. PI,PM series clamp together
5. Simple installation
6. Suitable for all kinds of standard tie-rod

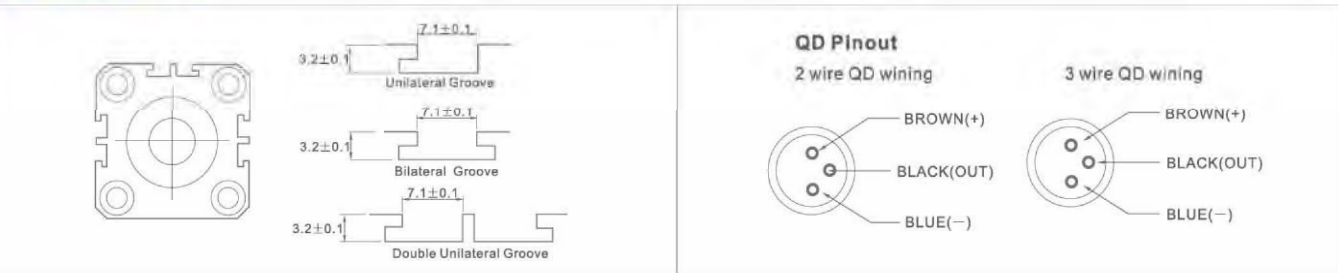
Specification

Model	SC-11R	SC-11RB	SC-11N	SC-11P
Connect Diagram				
Parameter				
Switching logic	SPST Normally Open	SPST Normally Closed	Solid State Output, Normally Open	
Sensor type	Reed switch		NPN Input	PNP output
Operating voltage	5-240V DC/AC		5-30V DC	
Max. switching current	100mA max.		200mA max.	
Contact rating	10W max.		6W max.	
Current consumption	None		20mA max@ 24V(Switch Active)	
Voltage drop	2.5V max.@100mA		0.5V max @ 200mA	
Leakage current	None		0.01mA max.	
Indicator	Red LED		Red LED	Green LED
Cabel	Φ3.2,2C PVC Gray color,oil resistance PVC		Φ3.2,3C PVC Black color,oil resistance PVC	
Sensitivity			40Gauss	
Max.switch frequency	200Hz		1000Hz	
Temperature range			-10~70	
Shock	30G		50G	
Vibration			9G	
Enclosure classification			IEC 529 IP67(NEMA 6)	
Protection circuit	None		With protection	

Overall Dimensions

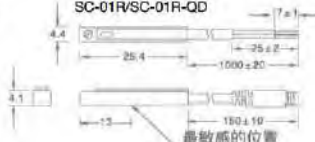
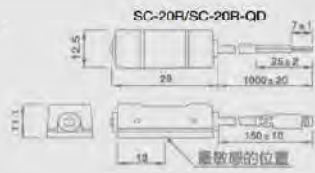
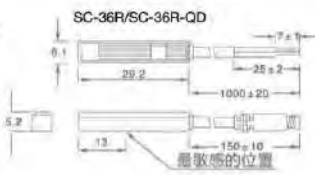
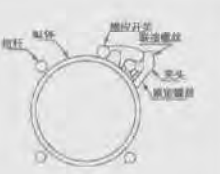
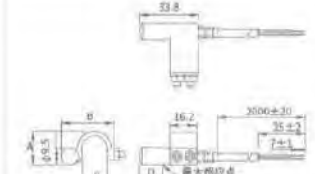


Joint Pipe Bore



Magnetism Switch

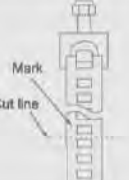
Specification

Model	Product	Contact Type	Working Voltage	Diameter	Joint Pipe Bore
SC-01R Series		Amagnetic reed Switch contact	5~240V DC/AC	 SC-01R/SC-01R-QD 最敏感的位置	SDA Φ20~Φ100 (适用气缸)
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-07R Series		Amagnetic reed Switch contact	5~240V DC/AC	 SC-07R/SC-07R-QD 最敏感的位置	CQ2B Φ20~Φ100 (适用气缸)
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-15R Series		Amagnetic reed Switch contact	5~240V DC/AC	 SC-15R/SC-15R-QD 最敏感的位置	适用圆形管气缸
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-20R Series		Amagnetic reed Switch contact	5~240V DC/AC	 SC-20R/SC-20R-QD 最敏感的位置	PM固定夹具 PAC固定夹具 PAB PN PI 固定钢带 固定钢带 固定钢带
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-36R Series		Amagnetic reed Switch contact	5~240V DC/AC	 SC-36R/SC-36R-QD 最敏感的位置	适用XHYZ、XHY气缸
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-17R Series		Amagnetic reed Switch contact	10~28V DC	 SC-17R 最大感应点	 适用XHYZ、XHY气缸 最大感应点
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			
SC-27R Series		Amagnetic reed Switch contact	10~28V DC	 SC-27R 最大感应点	 适用XHYZ、XHY气缸 最大感应点
		Contactless NPN transistors	5~30V DC		
		Contactless PNP transistors			

BK / PBN / PN Series Clamp

BK Series Clamp

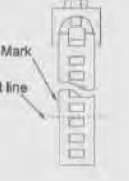
Clamp is designed for mounting SC-03 series sensor on $\Phi 6$ bore and above round cylinder

Product	Dimension	Mounting			
		Step 1	Step 2	Step 3	Step 4
		1. Release the screw up 2. Make the screw within the collect	1. Put one end of the band to the hanger 2. Install the switch and strain the metal band. 3. Another end of the band to the hanger and make mark.	1. Cut the metal band at the opposite face of the marked position	1. Put the metal band on the marked position. 2. Install the switch, lock the screw. 3. Finally lock the screw nut.
					

BK-81: For round cylind cylinder and tie-rod cylinder $\Phi 6$ - $\Phi 63$.
BK-82: For round cylind cylinder and tie-rod cylinder $\Phi 6$ - $\Phi 125$. (Speed design for $\geq \Phi 125$)

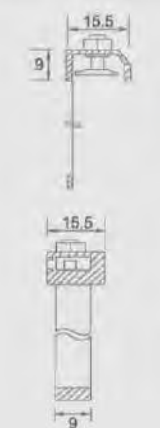
PBN Series Clamp

Clamp is designed for mounting SC-21 series sensor on $\Phi 12$ bore and above round cylinder

Product	Dimension	Mounting			
		Step 1	Step 2	Step 3	Step 4
		1. Release the screw up 2. Make the screw within the collect	1. Put one end of the band to the hanger 2. Install the switch and strain the metal band. 3. Another end of the band to the hanger and make mark.	1. Cut the metal band at the opposite face of the marked position	1. Put the metal band on the marked position. 2. Install the switch, lock the screw. 3. Finally lock the screw nut.
					

PBN Series Clamp

Clamp is designed for mounting SC-21 series sensor on $\Phi 12$ bore and above round cylinder

Product	Dimension	Mounting			
		Step 1	Step 2	Step 3	Step 4
		1. Release the screw up 2. Make the screw within the collect	1. Put one end of the band to the hanger 2. Install the switch and strain the metal band. 3. Another end of the band to the hanger and make mark.	1. Cut the metal band at the opposite face of the marked position	1. Put the metal band on the marked position. 2. Install the switch, lock the screw. 3. Finally lock the screw nut.
					

PN

S

20

12: Round cylinder $\Phi 12$
16: Round cylinder $\Phi 16$
150: Round cylinder $\Phi 150$
S: Stainless steel round cylinder
A: Aluminum round cylinder

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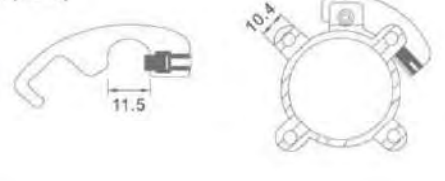
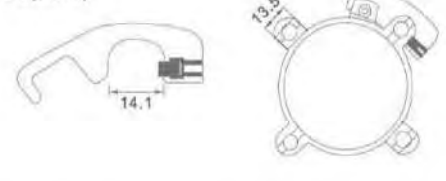
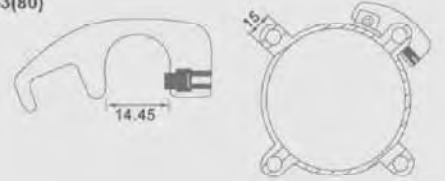
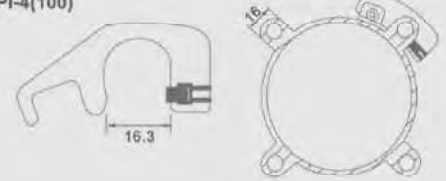
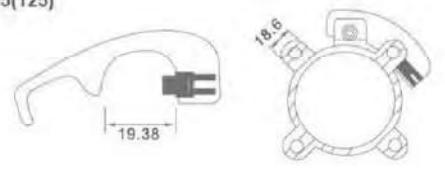
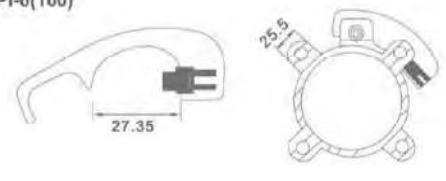
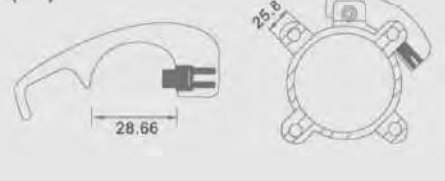
SACHIO® Sophistication
Redefined

Pneumatics

PI / PAC Series Bracket

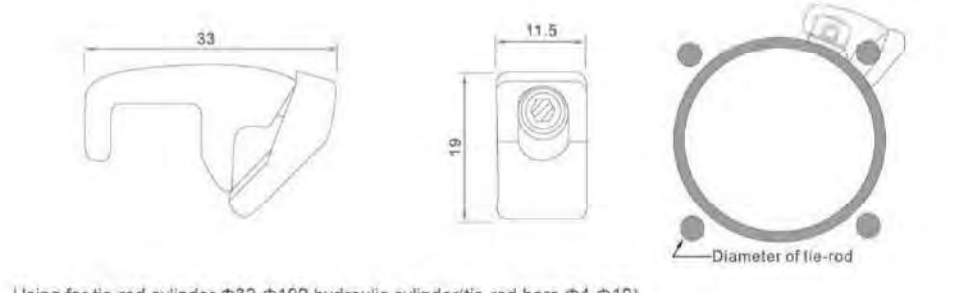
PI Series Clamp

Bracket is designed for mounting SC-21 series sensor on ISO profile cylinder.

Product	Dimension/Installation	
	PI-1(32/40)	
	PI-2(50/63)	
	PI-3(80)	
	PI-4(100)	
	PI-5(125)	
	PI-6(160)	
	PI-7(200)	

PAC Series Clamp

Bracket is designed for mounting SC-21 series on tie-rod cylinder.

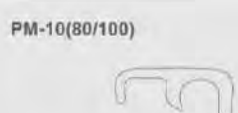
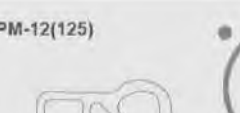
Product	Dimension/Installation	
		
	Using for tie-rod cylinder $\Phi 32$ - $\Phi 100$, hydraulic cylinder (tie-rod bore $\Phi 4$ - $\Phi 10$)	

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PM / SU Series Bracket

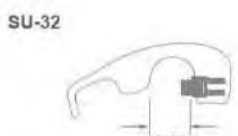
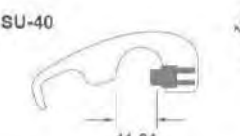
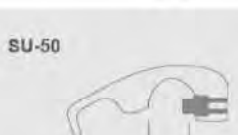
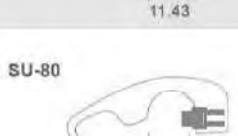
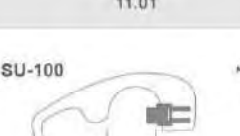
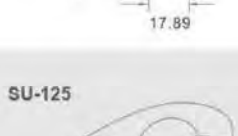
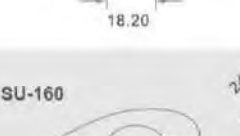
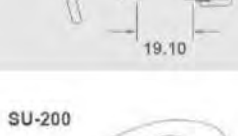
PM Series Bracket

Bracket is designed for mounting SC-21 series on tie-rod cylinder.

Product	Dimension/Installation	
	PM-6(32/40/50)	 Dia. of Tie rod: $\phi 5-\phi 6$
	PM-8(63)	 Dia. of Tie rod: $\phi 8$
	PM-10(80/100)	 Dia. of Tie rod: $\phi 10$
	PM-12(125)	 Dia. of Tie rod: $\phi 12$
	PM-16(160/200)	 Dia. of Tie rod: $\phi 16$

SU Series Bracket

Bracket is designed for mounting SC-21 series on cylinder (SU Type).

Product	Dimension/Installation	
	SU-32	 10.50
	SU-40	 10.25
	SU-50	 11.43
	SU-63	 11.01
	SU-80	 17.89
	SU-100	 18.20
	SU-125	 19.10
	SU-160	 25.49
	SU-200	 26.50

HAC Series Chock Absorbers



Ordering Code

HAC	25	50	2	N
Series Code	Outside Diameter	Stroke	Impact speed	Buffer cap
HAC: Multi Non-Adjustable Type HACD: Double Direction Cushion Type				
1. High Impact Speed 2. Medium Impact Speed 3. Low Impact Speed				
Blank: With buffer cap N: Without buffer cap				

Specification

Model	Stroke	Max Absorbing Energy (NM)	Max Absorb. Energy/Hour (NM)	Max Effective Mass(kg)			Max Impact Speed (m/s)		
				1	2	3	1	2	3
HAC-0806	6	2	7200	0.5	2	6	2	1	0.5
HAC-1005	5	3	10800	1	3	7	3	1.5	0.8
HAC-1008	8	4	14400	2	4	9	3	1.5	0.8
HAC-1210	10	5	18000	5	10	30	2	1.5	0.8
HAC-1412	12	15	36000	8	50	100	3	1.5	0.8
HAC-1416	16	20	40000	10	70	150	3	1.5	0.8
HAC-1425	25	25	48000	12	80	160	3	1.5	0.8
HAC-2020	20	40	48000	30	200	700	3.5	2	1
HAC-2030	30	50	54000	30	200	700	3.5	2	1
HAC-2050	50	60	66000	60	400	1200	3.5	2	1
HAC-2525	25	80	60000	200	600	1200	4	2.5	1
HAC-2540	40	120	84000	300	800	2000	4	2.5	1
HAC-2550	50	98	98000	15	40	160	4	2.5	1
HAC-2580	80	150	127500	20	50	200	4	2.5	1
HAC-3660	60	250	125000	400	1500	2400	4	2.5	1
HACD-2030	30	45	54000	40	300	900	3.5	2	1
HACD-2035	35	52	64400	40	200	650	3.5	2	1

Working Temperature: -10~85°C

PM / SU Series Bracket



Ordering Code

HAD — **25** **25** **1** 

Series Code **Outside Diameter** **Stroke** **Impact speed** **Buffer cap**

HAD: Adjustable Series

1. High Impact Speed
2. Medium Impact Speed
3. Low Impact Speed

Blank: With buffer cap
N: Without buffer cap

HAD2025 **HAD2540**

Specification

Model	Stroke	Max Absorbing Energy (NM)	Max Absorb. Energy/Hour (NM)	Max Effective Mass (kg)	Max Impact Speed (m/s)
HAD-1410	10	20	24,000	80	3.2
HAD-2016N/2016	16	25	32,000	200	3.6
HAD2050-N/2050	25	39	39,000	312	3.6
HAD2525-N/2525	25	85	51,000	400	3.6
HAD2540	40	100	84,000	700	3.6
HAD2550	50	98	98,000	720	4.2
HAD3625	25	150	9,000	1400	3.2
HAD3650	50	300	108,000	1400	4.8
HAD4225	25	260	130,000	3000	3.6
HAD4250	50	500	155,000	4,000	4.8
HAD4275	75	750	187,500	6,000	4.8
HAD64050	50	12000	1,560,000	12,727	1.6
HAD64100	100	24000	1,920,000	18,181	1.6
HAD64150	150	36000	2,520,000	23,636	1.6

Working Temperature: -10~+85°C

HR Series Speed Regulator



Ordering Code

HR — **30**

Series Code **Max.Stroke**

HAD: Adjustable oil speed regulator

15: 15mm
30: 30mm
60: 60mm
80: 80mm
100: 100mm

HR30

Model	A	B	Max Stroke(mm)	Maximum load(kgf)
HR15	157	142	15	350
HR30	208	178	30	350
HR60	286	225	60	350
HR80	342	262	80	350
HR100	396	296	100	350

Working Temperature: -10~+85°C



Pneumatic Cylinders

Pneumatic Cylinders

PNEUMATIC ACTUATORS

In accordance with ISO5211, VD/VDE3845, and NAMUR international standards, SACHIO provides high-quality pneumatic actuators featuring a compact and modernized design. Available in both single-acting and double-acting versions, they come in sizes ranging from 32 mm to 270 mm, meeting a variety of application requirements to satisfy customer needs.



Pneumatic Cylinders

SAT Series Pneumatic Actuator



SAT-52DA



SAT-63DA



SAT-75DA

Ordering Code

S	AT	75	DA	
SACHIO Product	Actuator Type	Size 32-270mm	Return Type DA: Air Return Type SR: Spring Return Type	Qty of Spring 5-12pcs

Product Instruction

Designing Features of SACHIO 10 Series Pneumatic Actuator

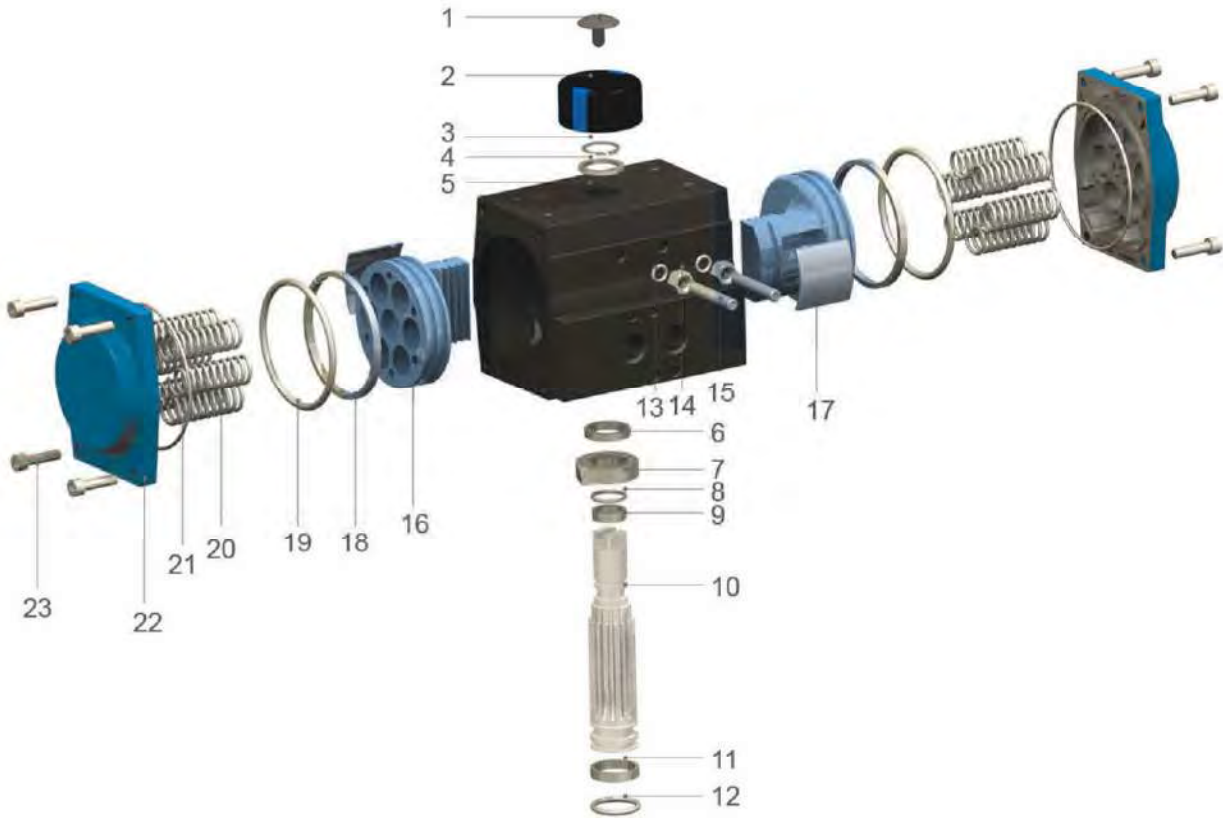
- Extruded aluminum ASTM6005 body with both internal and external corrosion protection having honed cylinder surface for longer life and low coefficient of friction.
- Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation, reverse rotation can be accomplished in the field by simply inverting the pistons.
- Multiple bearings and guides on racks and pistons, low friction, high cycle life and prevent shaft blow out.
- Modular preloaded spring cartridge design, with coated spring for simple versatile range, greater safety and corrosion resistance, longer cycle life.
- Fully machined teeth on piston and pinion for accurate low backlash rack and pinion engagement, maximum efficiency.
- Carbon steel with nickel plated or stainless steel fasteners for long term corrosion resistance.
- Full conformance to the latest specifications: ISO5211, DIN 3337 and Namur or product interchangeability and easy mounting of solenoids, limit switches and other accessories.



Pneumatic Cylinders

SAT Series Pneumatic Actuator

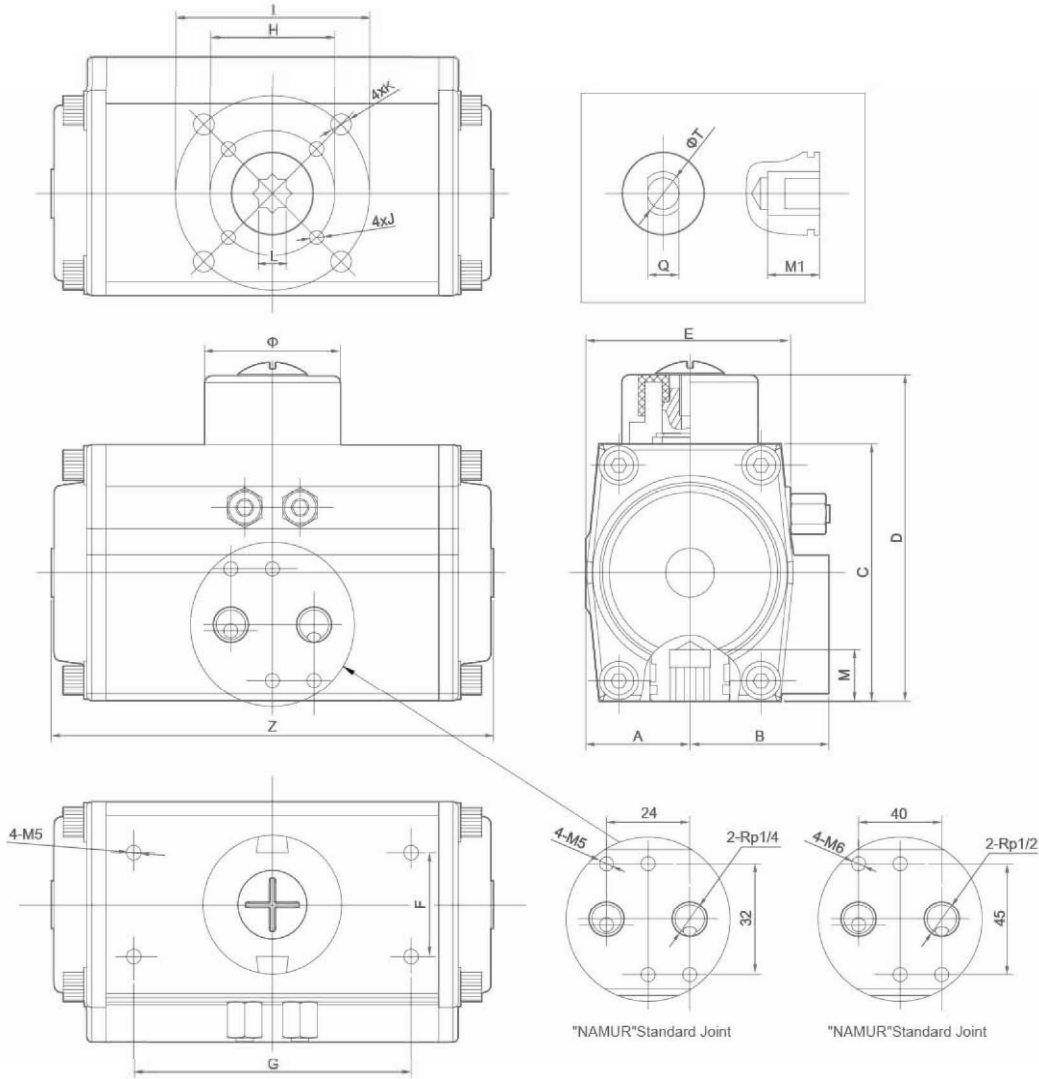
Part list & Material



No	Designation	Qty	Standard Material	Protection	Optional Material
1	Indicator Screw	1	Plastics		
2	Indicator	1	Plastics		
3	Circlip	1	Carbon Steel	Nickel Plated	Stainless Steel
4	Gasket	1	Engineering Plastics		
5	Body	1	Cast Aluminum	Hard Anodize, Etc	
6	Retainer Ring	1	Engineering Plastics		
7	Cam	1	Steel Alloy		
8	O-ring (Upper Bearing)	1	NBR		Fluorine Rubber / Silicone Rubber
9	Upper Bearing	1	Engineering Plastics		
10	Pinion	1	Carbon Steel / Stainless Steel	Nickel Plated	Stainless Steel
11	Lower Bearing	1	Engineering Plastics		
12	O-ring (Lower Bearing)	1	NBR		Fluorine Rubber / Silicone Rubber
13	O-ring (Adjust Screw)	2	NBR		Fluorine Rubber / Silicone Rubber
14	Nut (Adjust Screw)	2	Carbon Steel	Nickel Plated	Stainless Steel
15	Adjust Screw	2	Carbon Steel	Nickel Plated	Stainless Steel
16	Piston	2	Cast Aluminum / Casting	Anodized / Zinc Galvanized	Stainless Steel
17	Guide (Piston)	2	Engineering Plastics		
18	O-ring (Piston)	2	NBR		Fluorine Rubber / Silicone Rubber
19	Washer (Piston)	2	Engineering Plastics		
20	Spring (Single Acting)	0-12	Spring Steel	Dipping Paint	
21	O-ring (End Cap)	2	NBR		Fluorine Rubber / Silicone Rubber
22	End Cap	2	Cast Aluminum	Powder Coating, Etc	
23	Cap Screw	8	Carbon Steel	Nickel Plated	Stainless Steel

SAT Series Pneumatic Actuator

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	Z	Q	Air joint
32DA	20	25	45	65	-	25	50	Φ36	-	M5x8	-	9x9	12	100	40	NAMUR Rp 1/8"
40DA	25	32	60	80	50	25	50	Φ36	Φ50	M5x8	M6x8	9x9	12	108	40	NAMUR Rp 1/8"
52DA/SR	30	40	74.3	95	59	30	80	Φ36	Φ50	M5x8	M6x8	11x11	15	135	40	NAMUR Rp 1/4"
63DA/SR	36	44	88	107.5	74	30	80	Φ50	Φ70	M6x10	M8x13	14x14	16	142	40	NAMUR Rp 1/4"
75DA/SR	42	50	100.5	121	80.5	30	80	Φ50	Φ70	M6x10	M8x13	14x14	16	168	40	NAMUR Rp 1/4"
83DA/SR	46	57	108.5	128.7	88	30	80	Φ50	Φ70	M6x10	M8x13	17x17	19	188	40	NAMUR Rp 1/4"
92DA/SR	50	57	117	137	96.5	30	80	Φ50	Φ70	M6x10	M8x13	17x17	22	192	40	NAMUR Rp 1/4"
105DA/SR	57.5	64	133	153	109.5	30	80	Φ70	Φ102	M8x13	M10x16	22x22	26	258	40	NAMUR Rp 1/4"
127DA/SR	68.5	69	161	181	132	30	80/130	Φ70	Φ102	M8x13	M10x16	22x22	26	310	55	NAMUR Rp 1/4"
140DA/SR	75	77	180	200	137.5	30	80/130	Φ102	Φ125	M10x16	M12x20	27x27	31	370	55	NAMUR Rp 1/4"
160DA/SR	86	78	198	218	158	30	80/130	Φ102	Φ125	M10x16	M12x20	27x27	31	397	55	NAMUR Rp 1/4"
190DA/SR	103	103	230	260	189	30	130	-	Φ140	-	M16x25	36x36	40	525	80	NAMUR Rp 1/4"
210DA/SR	113	113	255	285	210	30	130	-	Φ140	-	M16x25	36x36	40	532	80	NAMUR Rp 1/4"
240DA/SR	129	129	290	320	245	30	130	-	Φ165	-	M20x25	46x46	50	602	80	NAMUR Rp 1/4"
270DA/SR	146	146	326	356	273	30	130	-	Φ165	-	M20x25	46x46	50	722	80	NAMUR Rp 1/2"

SAT Series Pneumatic Actuator



Connection Type

1. Air supply connection is designed in accordance with NAMUR Standard to install solenoid valves.
2. The NAMUR drive pin and the NAMUR top mounting connection permit direct installation of accessories such as limit switch box and positioner.
3. Bottom mounting connection is designed in accordance with ISO5211 and DIN3337 standards for direct mounting with valve gear boxes or mounting brackets.

New Type

New connection types are continued researching and developing.

Customer Need

We can design and produce all kinds of connection types according to customer's needs.

Air Volume (cm³)

Model	32	40	52	63	75	83	92	105	127	140	160	190	210	240	270
CW	40	65	135	220	350	540	760	1100	2150	2950	4260	5900	7500	11000	17000
CCW	30	43	110	160	270	410	570	860	1590	2100	3080	5900	7500	9000	14000

Weight (kgs)

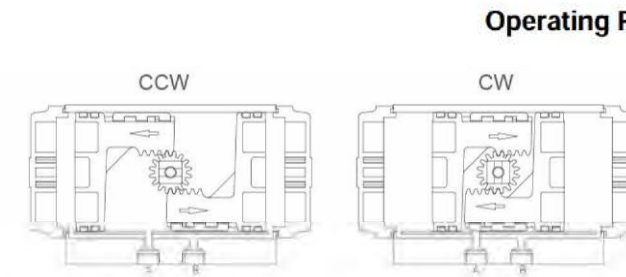
Model	32	40	52	63	75	83	92	105	127	140	160	190	210	240	270
DA	0.5	0.75	1.1	1.96	2.4	2.9	3.95	5.8	9.3	14.5	17.5	31.3	46.8	67.3	97
SR			1.6	2.1	3	3.9	5.4	8.1	12.9	18.7	23.5	35.3	58.8	80.2	118

Note: Spring Return unit weights are with full 6 sets of springs per piston.

Pneumatic Cylinders

SAT Series Pneumatic Actuator

Double Acting Operating Principle



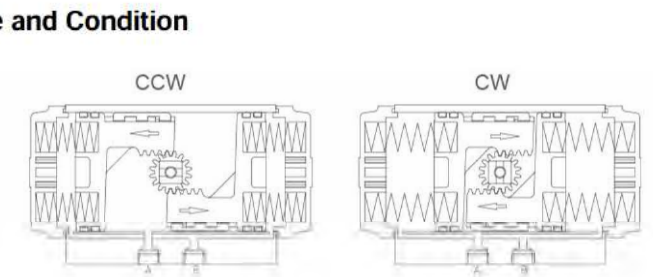
CCW

Input the compressed air from the A, the left and right plungers move reversely, the output pinion rotates counter-clockwise, and the air at the sides of the both plungers exhausts from B.

CW

Input the compressed air from the B, the left and right plungers move to the center, the output pinion rotates clockwise, and the air between the two plungers exhausts from A.

Single Acting Operating Principle



CCW

Input the compressed air from the A, the left and right plungers move reversely, the output pinion rotates counter-clockwise, and the air at the sides of the both plungers exhausts from B.

CW

When it is out of air or power, the two plungers move to the center under the spring action, the output pinion rotates clockwise.

Operating Condition

1. Operating Media

Dry and clear air, or the non-corrosive gases
The maximum particle diameter must less than 40μm

2. Air Supply Pressure

The minimum supply pressure is 2.5Bar
The maximum supply pressure is 10Bar

3. Operating Temperature

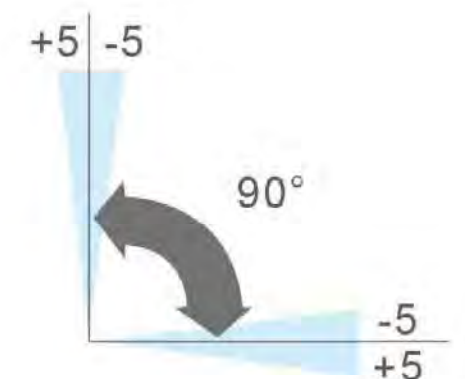
Standard: -20°C~+80°C
Low temperature: -35°C~+80°C (can be customized)
High temperature: -15°C~+150°C (can be customized)

4. Travel Adjustment

Have adjustment range of +5 degree for the rotation at 0 and 90 degree

5. Application

Either indoor or outdoor



Pneumatic Cylinders

SAT Series Pneumatic Actuator

Double Acting Torque List

Torque List and Reference Selection

Torque Model	Air Pressure (Bar)									
	2.5	3	3.5	4	4.5	5	5.5	6	7	8
SAT-32DA	3.2	3.8	4.4	5.0	5.7	6.31	6.9	7.6	8.8	10.1
SAT-40DA	4.9	6.0	6.9	7.9	8.9	9.85	10.8	11.8	13.8	15.8
SAT-52DA	9.9	12.0	13.8	15.8	17.7	19.7	21.7	23.6	27.6	31.5
SAT-63DA	14.5	17.7	20.3	23.2	26.1	29.0	31.9	34.8	40.6	46.4
SAT-75DA	24.8	30.2	34.7	39.6	44.6	49.5	54.5	59.4	69.3	79.2
SAT-83DA	35.3	43.0	49.4	56.4	63.5	70.5	77.6	84.6	98.7	112.8
SAT-92DA	49.5	60.4	69.3	79.2	89.1	99.0	108.9	118.8	138.6	158.4
SAT-105DA	80.5	98.2	112.7	128.8	144.9	161.0	177.1	193.2	225.4	257.6
SAT-127DA	141.5	172.6	198.1	226.4	254.7	283.0	311.3	339.6	396.2	452.8
SAT-140DA	215.0	262.3	301	344.0	387.0	430.0	473.0	516	602.0	688.0
SAT-160DA	281.0	342.8	393.4	449.6	505.8	562.0	618.2	674.4	786.8	899.2
SAT-190DA	532.0	638.4	744.8	851.2	957.6	1064.0	1170.4	1276.8	1489.6	1702.4
SAT-210DA	665.0	798.0	931.0	1064.0	1197.0	1330.0	1463	1596.0	1862.0	2128.0
SAT-240DA	962.0	1154.4	1346.8	1539.2	1731.6	1924.0	2116.4	2308.8	2693.6	3078.4
SAT-270DA	1462.0	1754.4	2046.8	2339.2	2631.6	2924.0	3216.4	3508.8	4093.6	4678.4

TYPE: Double acting pneumatic actuator

The suggested safe factor for double acting actuators under normal working conditions is 20% ~ 30%.

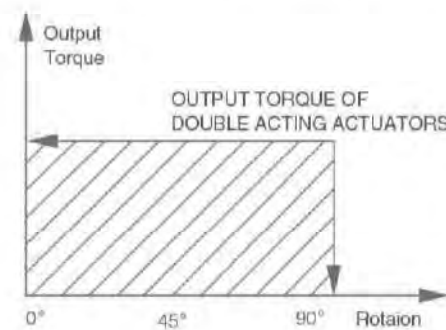
Example:

The torque needed by valve= 100 Nm

The torque considered safe factor= 100 (1+30%) = 130 Nm

Air supply pressure= 5Bar

According to the above table, we can choose the minimum model is SAT-105DA.



Reference Selection

Model	If air pressure	Reference	Reference	Valve	Double	ISO5211
SAT-32DA	6.3	-	-	-	9	F03
SAT-40DA	9.85	-	-	-	9	F03/05
SAT-52DA	19.7	40	2"	9	9	F03/05
SAT-63DA	29	65	2.5"	11	11	F05/07
SAT-75DA	49.5	80	3"	20	14	F05/07
SAT-83DA	70.5	100	4"	29	17	F05/07
SAT-92DA	99	100	4"	47	17	F05/07
SAT-105DA	161	125	5"	82	22	F07/10
SAT-127DA	283	150	6"	130	22	F07/10
SAT-140DA	430	250	10"	360	27	F10/12
SAT-160DA	562	250	10"	360	27	F10/12
SAT-190DA	1064	300	12"	475	36	F14
SAT-210DA	1330	350	14"	760	36	F14
SAT-240DA	1924	400	16"	1300	46	F16
SAT-270DA	2924	500	20"	2340	46	F16

SAT Series Pneumatic Actuator

Single Acting Torque List and Reference Selection

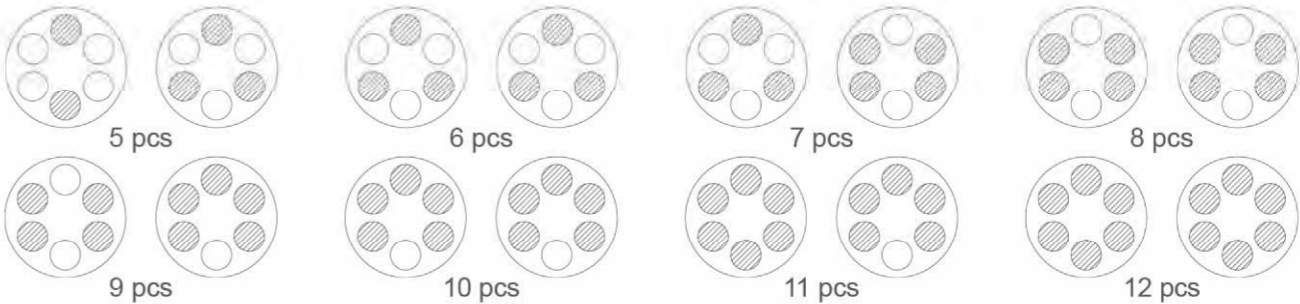
Model Torque	Spring Sets	Spring Torque		Air Pressure(Bar)																							
				2.5		3		3.5		4		4.5		5		5.5		6		7		8					
		90°	0°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°				
52	4	6.6	3.8	6.1	3.3	8.1	5.2	10	7.2	12	9.2	13.9	11.1	15.9	13.1	17.9	15.1	19.8	17	23.8	21	27.7	24.9				
	5	8.3	4.8			5.1	3.6	9	5.5	11	7.5	13	9.5	15	11.5	16.9	13.4	18.9	15.4	22.8	19.3	26.8	23.3				
	6	9.9	5.7					8.1	3.9	10.1	5.9	12	7.8	14	9.8	16	11.8	17.9	13.7	21.9	17.7	25.8	21.6				
	7	11.6	6.7							9.1	4.2	11.1	6.2	13.1	8.2	15	10.1	17	12.1	20.9	16	24.9	20				
	8	13.2	7.6									10.1	4.5	12.1	6.5	14.1	8.5	16	10.4	20	14.4	23.9	18.3				
	9	14.9	8.6									9.2	2.9	11.2	4.9	13.1	6.8	15.1	8.8	19	12.7	23	16.7				
	10	16.5	9.5											10.2	3.2	12.2	5.2	14.1	7.1	18.1	11.1	22	15				
	11	18.2	10.5													11.2	3.5	13.2	5.5	17.1	9.4	21.1	13.4				
	12	19.8	11.4															12.2	3.8	16.2	7.8	20.1	11.7				
	4	10.6	5.3	9.2	3.9	12.1	6.8	15	9.7	17.9	12.6	20.8	15.5	23.7	18.4	26.6	21.3	29.5	24.2	35.3	30	41.1	35.8				
	5	13.3	6.7			10.8	4.1	13.7	7	16.6	9.9	19.5	12.8	22.4	15.7	25.3	18.6	28.2	21.5	34	27.3	39.8	33.1				
	6	16	8					12.3	4.3	15.2	7.2	18.1	10.1	21	13	23.9	15.9	26.8	18.8	32.6	24.6	38.4	30.4				
63	7	18.6	9.3							13.9	4.6	16.8	7.5	19.7	10.4	22.6	13.3	25.5	16.2	31.3	22	37.1	27.8				
	8	21.3	10.6									15.5	4.8	18.4	7.7	21.3	10.6	24.2	13.5	30	19.3	35.8	25.1				
	9	23.9	12											17	5.1	19.9	8	22.8	10.9	28.6	16.7	34.4	22.5				
	10	26.6	13.3													18.6	5.3	21.5	8.2	27.3	14	33.1	19.8				
	11	29.3	14.6															20.2	5.5	26	11.3	31.8	17.1				
	12	31.9	16																	24.6	8.7	30.4	14.5				
	4	18.7	10.9	13.9	6	18.8	11	23.8	15.9	28.7	20.9	33.7	25.8	38.6	30.8	43.6	35.7	48.5	40.7	58.4	50.6	68.3	60.5				
	5	23.4	13.6			16.1	6.3	21	11.3	26	16.2	30.9	21.2	35.9	26.1	40.8	31.1	45.8	36	55.7	45.9	65.6	55.8				
	6	28.1	16.3					18.3	6.6	23.3	11.5	28.2	16.5	33.2	21.4	38.1	26.4	43.1	31.3	53	41.2	62.9	51.1				
	7	32.8	19.1							20.5	6.8	25.5	11.8	30.4	16.7	35.4	21.7	40.3	26.6	50.2	36.5	60.1	46.4				
	8	37.4	21.8									22.8	7.1	27.7	12.1	32.7	17	37.6	22	47.5	31.9	57.4	41.8				
	9	42.1	24.5											25	7.4	29.9	12.3	34.9	17.3	44.8	27.2	54.7	37.1				
10	46.8	27.2													27.2	7.7	32.2	12.6	42.1	22.5	52	32.4					
11	51.5	30															29.4	7.9	39.3	17.8	49.2	27.7					
12	56.2	32.7																		36.6	13.1	46.5	23				
75	4	28.8	17.1	18.1	6.4	25.2	13.5	32.2	20.5	39.3	27.6	46.3	34.6	53.4	41.7	60.4	48.7	67.5	55.8	81.6	69.9	95.7	84				
	5	36.1	21.4			20.9	6.3	27.9	13.3	35	20.4	42	27.4	49.1	34.5	56.1	41.5	63.2	48.6	77.3	62.7	91.4	76.8				
	6	43.3	25.7					23.6	6.1	30.7	13.1	37.7	20.2	44.8	27.2	51.8	34.3	58.9	41.3	73	55.4	87.1	69.5				
	7	50.5	30							26.4	5.9	33.5	13	40.5	20	47.6	27.1	54.6	34.1	68.7	48.2	82.8	62.3				
	8	57.7	34.3									29.2	5.8	36.2	12.8	43.3	19.9	50.3	26.9	64.4	41	78.5	55.1				
	9	64.9	38.6											31.9	5.6	39	12.7	46	19.7	60.1	33.8	74.2	47.9				
	10	72.1	42.8													34.7	5.5	41.8	12.5	55.9	26.6	70	40.7				
	11	79.3	47.1															37.5	5.3	51.6	19.4	65.7	33.5				
	12	86.5	51.4																	47.3	12.2	61.4	26.3				
	4	36.7	23.7	25.8	12.8	35.7	22.7	45.6	32.6	55.5	42.5	65.4	52.4	75.3	62.3	85.2	72.2	95.1	82.1	115	102	135	122				
	5	45.9	29.6	19.9	3.6	29.8	13.5	39.7	23.4	49.6	33.3	59.5	43.2	69.4	53.1	79.3	63	89.2	72.9	109	92.7	129	112				
	6	55.1	35.5			23.9	4.3	33.8	14.2	43.7	24.1	53.6	34	63.5	43.9	73.4	53.8	83.3	63.7	103	83.5	123	103				
7	64.3	41.4					27.9	5	37.8	14.9	47.7	24.8	57.6	34.7	67.5	44.6	77.4	54.5	97.2	74.3	117	94.1					
8	73.5	47.4							31.8	5.7	41.7	15.6	51.6	25.5	61.5	35.4	71.4	45.3	91.2	65.1	111	84.9					
9	82.7	53.3									35.8	6.4	45.7	16.3	55.6	26.2	65.5	36.1	85.3	55.9	105	75.7					
10	91.8	59.2											39.8	7.2	49.7	17.1	59.6	27	79.4	46.8	99.2	66.6					
11	101	65.1													43.8	7.9	53.7	17.8	73.5	37.6	93.3	57.4					
12	110	71															47.8	8.6	67.6	28.4	87.4	48.2					
92	4	63.2	34.4	46.1	17.3	62.2	33.4	78.3	49.5	94.4	65.6	111	81.7	127	97.8	143	114	159	130	191	162	223	194				
	5	79	43			53.6	17.6	69.7	33.7	85.8	49.8	102	65.9	118	82	134	98.1	150	114	182	146	215	173				
	6	94.8	51.6					61.1	17.9	77.2	34	93.3	50.1	109	66.2	126	82.3	142	98.4	174	131	206	163				
	7	111	60.2							68.6	18.2	84.7	34.3	101	50.4	117	66.5	133	82.6	165	115	197	147				
	8	126	68.8									76.1	18.5	92.2	34.6	108	50.7	124	66.8	157	99	189	131				
	9	142	77.4											83.6	18.8	100	34.9	116	51	148	83.2	180	115				
	10	158	86													91.1	19.1	107	35.2	139	67.4	172	100				
	11	174	94.6															98.6	19.4	131	51.6	163	83.8				
	12	190	103																	122	35.8	154	68				
	4	128	77.1	64.4	13.8	92.7	42.1	121	70.4	149	98.7	178	127	206	155	234	184	263	212	319	269	376	325				
	5	160	96.4			73.4	10.2	102	38.5	130	66.8	158	95.1	187	123	215	152	243	180	300	237	356	293				
	6	192	116							111	34.9	139	63.2	167	91.5	196	120	224	148	281	205	337	261				
7	223	135									120	31.3	148	59.6	176	87.9	205	116	261	173	318	229					
8	255	154											129	27.6	157	55.9	185	84.2	242	141	299	197					
9	287	173													138	24	166	52.3	223	109	279	166					
10	319	193															147	20.4	203	77	260	134					
11	351	212																	184	45.1	241	102					
12	383	231																	165	13.2	222	69					

SAT Series Pneumatic Actuator

Single Acting Torque List and Reference Selection

Torque	Model	Spring Sets	Spring Torque		Air Pressure(Bar)																			
					2.5		3		3.5		4		4.5		5		5.5		6		7		8	
			90°	0°	90°	90°	90°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
140	4	181	102	113	34.3	156	77.3	199	120	242	163	285	206	328	249	371	292	414	335	500	421	586	507	
	5	226	128			131	32.1	174	75.1	219	118	260	161	303	204	346	247	389	290	475	376	561	462	
	6	271	153					148	29.9	191	72.9	234	116	277	159	320	202	363	245	449	331	535	417	
	7	316	179							166	27.7	209	70.7	252	114	295	157	338	200	424	286	510	372	
	8	361	204									183	25.6	226	68.6	269	112	312	155	398	241	484	327	
	9	407	230											201	23.4	244	66.4	287	109	373	195	459	281	
	10	452	255													218	21.2	261	64.2	347	150	433	236	
	11	497	281														236	19	322	105	408	191		
	12	542	306																256	19	322	105	408	191
	4	234	143	138	47	194	103	251	159	307	216	363	272	419	328	475	384	532	440	644	553	756	665	
	5	293	179			159	44.7	215	101	271	157	327	213	384	270	440	326	496	382	608	494	721	607	
	6	351	214					179	42.4	235	98.6	292	155	348	211	404	267	460	323	573	436	685	548	
7	410	250							200	40.1	256	96.3	312	153	368	209	425	265	537	377	649	490		
160	8	468	286									220	37.8	276	94	333	150	389	206	501	319	614	431	
	9	527	321											241	35.5	297	91.7	353	148	466	260	578	373	
	10	585	357													261	33.2	317	89.4	430	202	542	314	
	11	644	393															282	30.9	394	143	507	256	
	12	702	428																	358	84.8	471	197	
	4	242	160	372	290	478	396	585	503	691	609	798	716	904	822	1010	928	1117	1035	1330	1248	1542	1460	
	5	309	200	332	223	438	329	545	436	651	542	758	649	864	755	970	861	1077	968	1290	1181	1502	1393	
	6	371	240	292	161	398	267	505	374	611	480	718	587	824	693	930	799	1037	906	1250	1119	1462	1331	
	7	433	280	252	99	358	205	465	312	571	418	678	525	784	631	890	737	997	844	1210	1057	1422	1269	
	8	495	320		318	143	425	250	531	356	638	463	744	569	850	675	957	782	1170	995	1382	1207		
	9	557	360				385	188	491	294	598	401	704	507	810	613	917	720	1130	933	1342	1145		
	10	618	400						451	233	558	340	664	446	770	552	877	659	1090	872	1302	1084		
11	680	440								518	278	624	384	730	490	837	597	1050	810	1262	1022			
12	742	480										584	322	690	428	797	535	1010	748	1222	960			
190	4	304	220	445	361	578	494	711	627	844	760	977	893	1110	1026	1243	1159	1376	1292	1642	1558	1908	1824	
	5	380	275	390	285	523	418	656	551	789	684	922	817	1055	950	1188	1083	1321	1216	1587	1482	1853	1748	
	6	456	330	335	209	468	342	601	475	734	608	867	741	1000	874	1133	1007	1266	1140	1532	1406	1798	1672	
	7	532	385	280	133	413	266	546	399	679	532	812	665	945	798	1078	931	1211	1064	1477	1330	1743	1596	
	8	608	440		358	190	431	323	624	456	757	589	890	722	1023	855	1156	988	1422	1254	1688	1520		
	9	684	495				436	247	569	380	702	513	835	646	968	779	1101	912	1367	1178	1633	1444		
	10	760	550						514	304	647	437	780	570	913	703	1046	836	1312	1102	1578	1368		
	11	836	605								592	361	725	494	858	627	991	760	1257	1026	1523	1292		
	12	912	660										670	418	903	551	936	684	1202	950	1468	1216		
	4	443	328	634	519	826	711	1019	904	1211	1096	1404	1289	1596	1481	1788	1673	1981	1866	2366	2251	2750	2635	
	5	554	410	552	408	744	600	937	793	1129	985	1322	1178	1514	1370	1705	1562	1899	1755	2284	2140	2668	2524	
	6	665	492	470	297	662	489	855	682	1047	874	1240	1067	1432	1259	1624	1451	1817	1644	2202	2029	2586	2413	
240	7	776	575	387	186	579	378	772	571	964	763	1157	956	1349	1148	1541	1340	1734	1533	2119	1918	2503	2302	
	8	887	656		498	267	691	460	883	652	1076	845	1268	1037	1460	1229	1653	1422	2038	1807	2422	2191		
	9	998	739				608	349	800	541	993	734	1185	926	1377	1118	1570	1311	1955	1696	2339	2080		
	10	1108	821						718	431	911	624	1103	816	1295	1008	1488	1201	1873	1586	2257	1970		
	11	1219	903								829	513	1021	705	1213	897	1406	1090	1791	1475	2175	1859		
	12	1330	985										939	594	1131	786	1324	979	1709	1364	2093	1748		
	4	631	448	1014	831	1306	1123	1599	1416	1891	1708	2184	2001	2476	2293	2768	2585	3061	2878	3646	3463	4230	4047	
	5	787	560	902	675	1194	967	1487	1260	1779	1552	2072	1845	2364	2137	2656	2429	2946	2722	3534	3307	4118	3891	
	6	943	672	790	519	1082	811	1375	1104	1667	1396	1960	1689	2252	1981	2544	2273	2837	2566	3422	3151	4006	3735	
	7	1101	783	679	361	971	653	1264	946	1556	1238	1849	1531	2141	1823	2433	2115	2726	2408	3311	2993	3895	3577	
	8	1258	895		859	495	1152	789	1444	1081	1737	1374	2029	1666	2321	1958	2614	2251	3199	2836	3783	3420		
	9	1416	1007				1040	631	1332	923	1625	1216	1917	1508	2209	1800	2502	2093	3087	2678	3671	3262		
10	1572	1119						1220	767	1513	1060	1805	1352	2097	1644	2390	1937	2975	2522	3559	3106			
11	1730	1231								1401	902	1693	1194	1985	1486	2278	1779	2863	2364	3447	2948			
12	1887	1342										1582	1037	1874	1329	2167	1622	2752	2207	3336	2791			

Springs mounting form for spring return actuators:



SAT Series Pneumatic Actuator

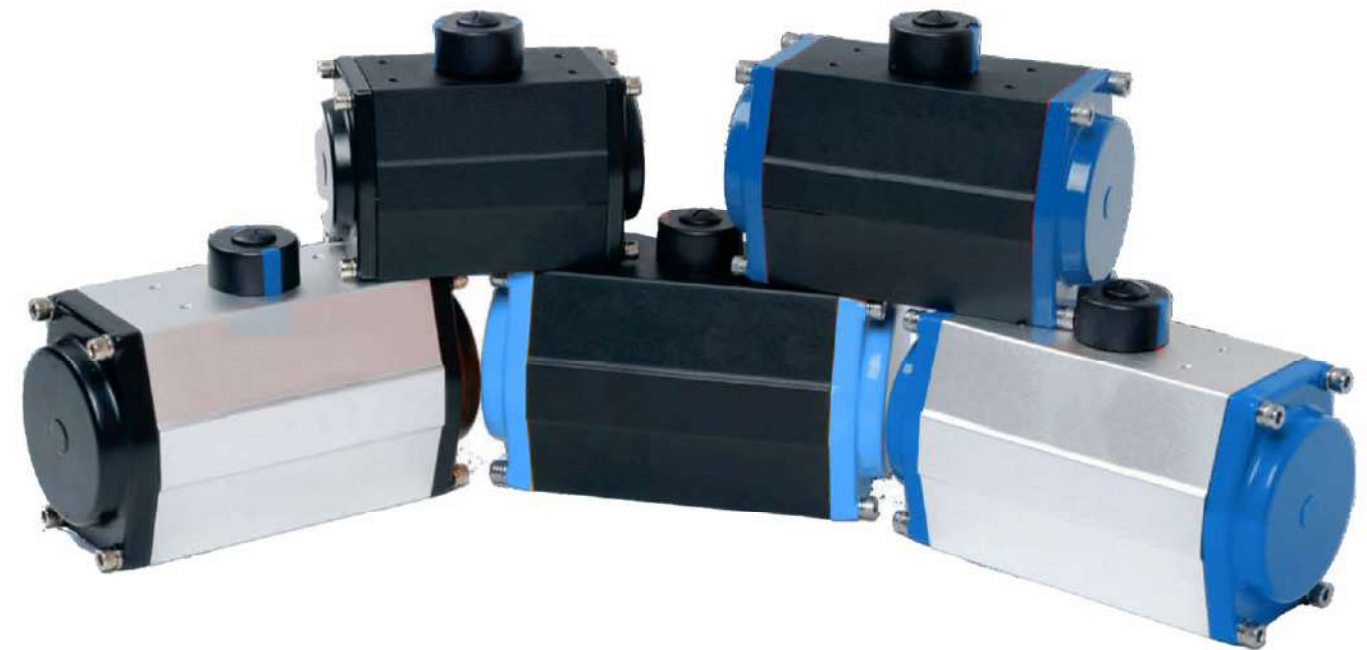
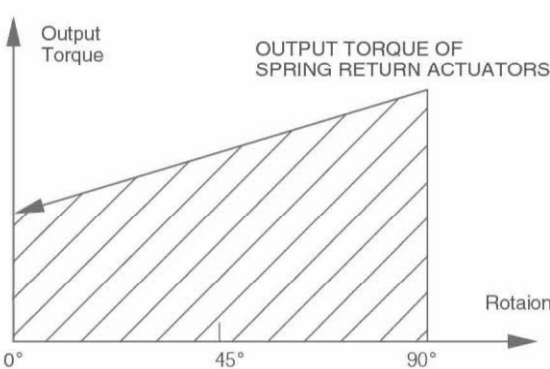
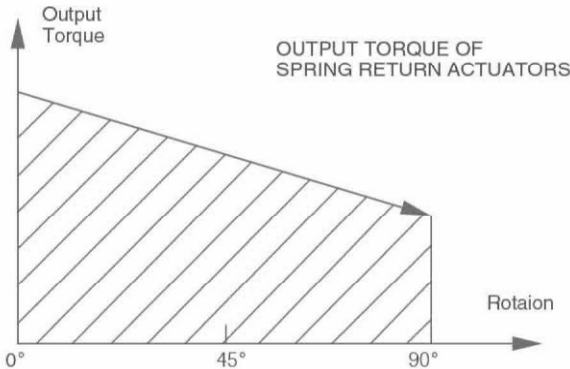
Reference Selection

TYPE:

Single acting pneumatic actuator
The suggested safe factor for single acting actuators under normal working conditions is 20%-30%.

Example:

The torque needed by valve-100 Nm
The torque considered safe factor= 100 (1+30%) = 130 Nm
Air supply pressure= 5Bar
According to the above table, we can choose the minimum model is SAT-40SR with full 6pcs spring.



SSP Series Pneumatic Disc Ball Valve



A variety of valve body styles are available Valve type: 2-way, 3-way L, 3-way T and 4-ways is optional. Sealing is available in a variety of materials. Port connection DNO8-DN100.

Ordering Code

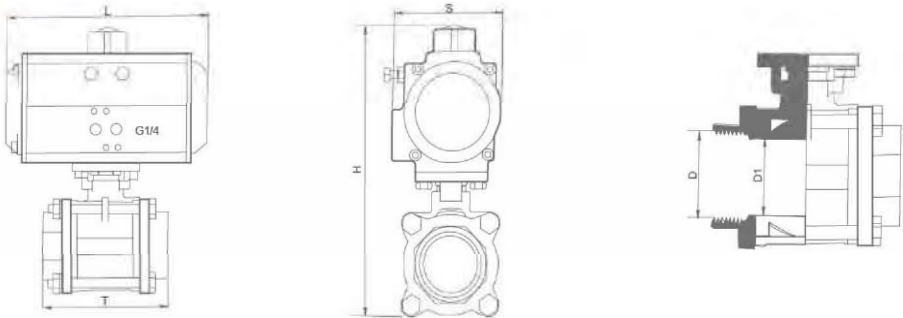
SSP		2	2	025	—	F	1	P	16
Series Code	Valve Body Form	Valve Type	Port Code	Sealing Material	Connecting Type	Body Material	Pressure		
Pneumatic Ball Valve	2: 2-Piece body 3: 3-piece body	2: 2-way 2H: high platform type 3T: 3-way T type 3TH: high platform type 3L: 3-way L type 3LH: high platform type 4X: 3-way X type 4XH: high platform type	15: G1/2" 20: G3/4" 25: G1" 32: G1-1/4" 40: G1-1/2" 50: G2"	F: PTFE (-29~180°C) R: RTFE (-29~200°C) T: Ceramic (-40~350°C) N: NBR (-20~90°C) D: EPDM (-20~120°C) K: PEEK (-29~285°C) W: Metal (500°C)	1: Female Thread 2: Male Thread 3: Butt Weld Ends 4: Flange Ends 5: Tri-Clamp Type 6: Wafer type Flange 7: Socket Weld 8: Union style	P: 304/CF8 R: 316/CF8M PL: 304L/CF3 RL: 316L/CF3M C: WCB Q: Ductile iron	16: PN1.6MPa 25: PN2.5MPa 40: PN4.0MPa 64: PN6.4MPa		
Valve Model Blank: Ball Valve H: Handle Ball Valve M: Multi-pass Distribution Ball Valve									

Specification

Nominal Diameter DN (mm)		DN10-100				
Nominal pressure	PN(MPa)	1.0	1.6	2.5	4.0	6.4
Test Pressure	Strength Test	1.5	2.4	3.75	6.0	9.60
	Seal Test	1.1	1.76	2.75	4.4	7.04
	Low Pressure Seal Test	0.5-0.7				
Working Media		Water, Oil, Steam, Nitric acid (Temperates ≤ 200°C), Acetic acid (Temperates ≤ 200°C)				
Connection Form		Thread Type, Wedged Type				
Spool Form		O-shaped ball spool				
Sealing Packing		PTFE, Flexible graphite				
Flow Characteristics		Approximate Quick-opening Type				
Action Range		0-90°C				
Q Leakage Q		According Gb/T4213-92, <rated Kv 0.01% (Soft seal: Zero leakage)				
Basic Error		With Positioner: < Total Stroke ±2%				
Dead Zone		With Positioner: < Total Stroke 2%				
Adjustable Range		250:1				
Configure Actuator		SAT Series Single Action (SR), Double Action (DA), Pneumatic Actuator				
Control Mode		Switch Two Position Control, 4-20ma Modulating Control				

SSP Series Pneumatic Disc Ball Valve

Overall Dimensions



Dimension Sheet

Nominal Diameter DN (mm)	PN:1.6MPa						Actuator Specification
	L	T	H	S	D1	D	
8	147	70	152	71.5	8	11.5	SATD-52
10	147	70	152	71.5	10	15	SATD-52
15	147	70	152	71.5	15	19	SATD-52
20	147	77	160	71.5	20	24	SATD-52
25	147/168	84	170/185	71.5 / 83.5	25	30	SATD-52/63
32	168	100	197	83.5	32	39	SATD-63
40	168/184	108	211/224	83.5 / 96	40	44	SATD-63/75
50	184/204	125	228/357	96 / 104	50	56.5	SATD-75/83
65	204/260	162	302/310	104 / 109	65	72.5	SATD-83/92
80	260/268	191	328/344	109 / 125	80	84.5	SATD-92/105
100	268/310	241	371/403	125 / 147	100	110	SATD-105/125

SDF Series Pneumatic Wafer Butterfly Valve



Pneumatic soft sealing butterfly valve is composed of pneumatic actuator and midline sealing butterfly valve. The soft sealing butterfly valve is divided into two structures wafer type and flange type. The products are widely used in water supply and drainage and gas pipelines such as food, medicine, chemical industry, petroleum, electric power, light textile and papermaking.

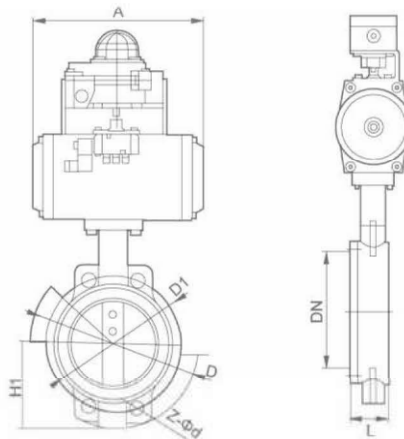
SDF	1	—	Z	—	T	—	DN50	—	SAT63
Series Code	Structure Type		Stroke		Adjust Stroke		Port Size		Actuator Code
Pneumatic Wafer Butterfly Valve	1: Middle		Z: Puctile C: Cast Steel P: SS304		T: Ductile Iron B: Cast Steel S: SS304		DN50~DN500		SAT

SDF Series Pneumatic Wafer Butterfly Valve

Specification

Nominal Diameter DN (mm)		DN50-800		
Nominal Pressure	PN(MPa)	0.6	1.0	1.6
Test Pressure	Strength Test	0.9	1.5	2.4
	Seal Test	0.66	1.1	1.76
	Low Pressure Seal Test	0.5-0.7		
Working Media		Air, Water, Steam, Gas, Oil		
Actuator Model		SAT Series Single Double Action Pneumatic Actuator		
Air Supply Pressure		0.4-0.7 MPa		
Air Connection		G1/4", G1/8", G3/8", G1/2"		
Ambient Temperature		-30-70℃		
Action Form		Single Action, Double Action		

Overall Dimensions



 Dimension Sheet

Nominal Diameter DN (mm)	L	D1	D	Z-Dd	H1	A
50	43	125	165	4-18	80	150
65	46	145	185	4-18	89	175
80	46	160	200	8-18	95	185
100	52	180	220	8-18	114	210
125	56	210	250	8-18	127	265
150	56	240	285	8-22	139	270
200	60	295	340	8-22	175	310
250	68	350	395	12-22	203	390
300	78	400	445	12-23	242	460
350	78	460	505	16-23	267	525
400	88	515	565	16-28	309	532
450	108	565	615	20-28	328	532
500	127	620	670	20-28	361	602

APL Series Limit Switch Box



■ **Summary:**

APL-210N position Limit switch is a signal device for the remote control of valve, show the working condition of valve by the switch, it contains mechanical switch and proximity switch, and widely applies to petroleum, chemical industry, pharmacy, food, electricity, coal gas, pro- environment, metallurgy and paper making etc.

■ Performance Features

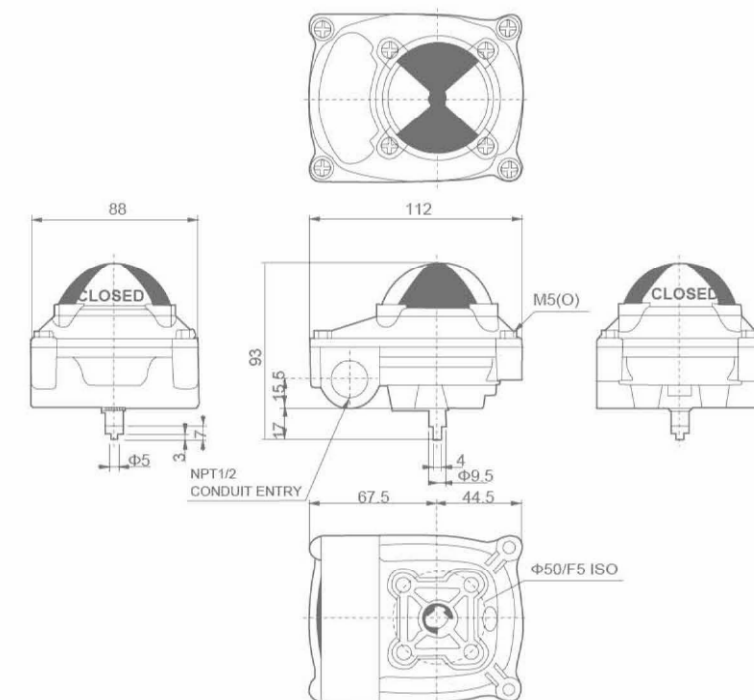
The switch is installed separately, convenient maintenance and replacement

1. Firm and compact design. 2. Die-casting aluminum;
3. Quick cam machine. 4. Fix springs on the cam without tools. 5. Convenient installation.
NAMUR standard stainless steel and frame-Reasonable design for frame connecting hole.
convenient installtion

Specification

Parameter	Standard	Option	Material	
Protection	IP67 / NEMA4 & 4X	IP68	Shell	Die-casting aluminum
Ambient	-20°C ~ 80°C			
Wiring	2*NPT1/2	PF1/2", P1/2"	Indicator cover	Polyester coating
		M20, PG13.5	Indicator	ABC/polyester coating
Terminal	8 Points (0.08 ~ 2.6mm ²)		cam	Polyester coating
Position Indicator	Close: red	Close: red	Spring	Stainless Steel
	Open: yellow	Open: green	Screw	Stainless Steel
Switch	Mechanical Switch: X2		O-ring	NBR
	Proximity Switch: X2		Washer	Bronze
External Painting	Polyester Coating	Red, Green, Blue, Yellow Nylon Painting	E-ring	Stainless Steel
			Earth Line	Stainless Steel
Axis	Standard Axis (17mm)	Lengthen Axis	Frame	Stainless Steel

Overall Dimensions



SOLENOID VALVES

Solenoid valves are used for change directional of air flow, control by electricity. There are 3/2, 5/2 and 5/3 way/position as optional, and the port size from M5 to 1/2". SACHIO never stop its step to improve the quality, 2 times life time, less friction inside the valve body and high dust prevention, the new type of solenoid valve is available now.



4V, 3V Series Solenoid Valve, 4A, 3A Series Pneumatic Control Valve

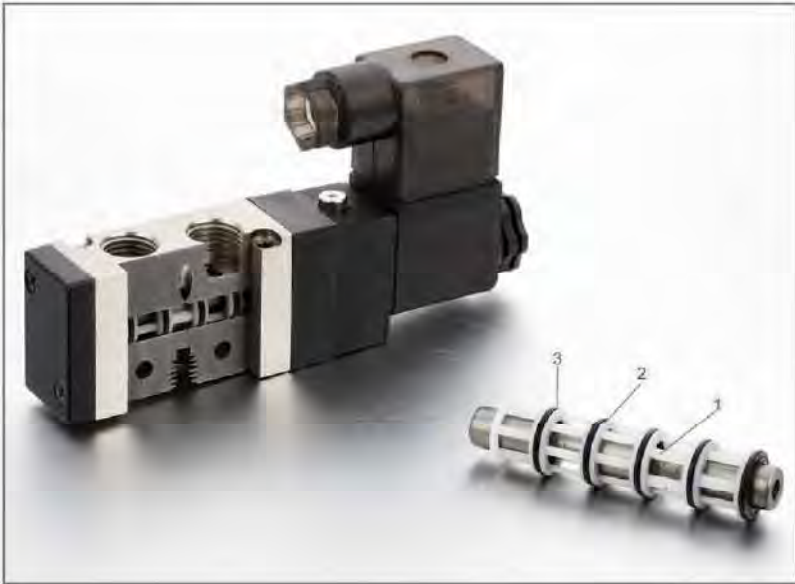


Product Instruction

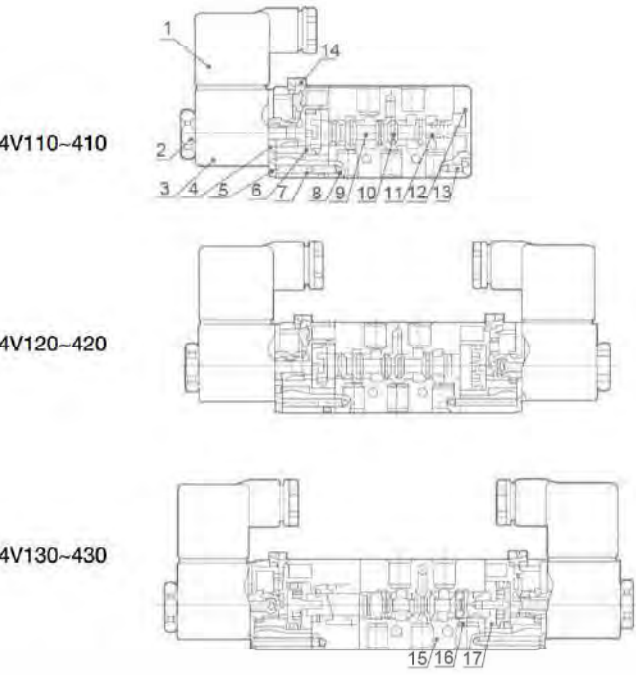
This solenoid valve is our new developed product. All the installation dimension is the same as 3V, 4V series, and the valve spindle material is still aluminum, but we changed the material outside valve spindle into POM (polyformaldehyde). Then it will be not only the seal-ring that operate separately, which will bring the new product two advantages:

If you need this new product, please add the word "new" (abbreviation "N") after the ordering code, for example: 4V210-08-N.

- 1. High dust prevention, air-proof
- 2. One or twice lifetime than normals
- 1. Spool: material aluminum 6061
- 2. O-ring: material NBR
- 3. White case: material POM



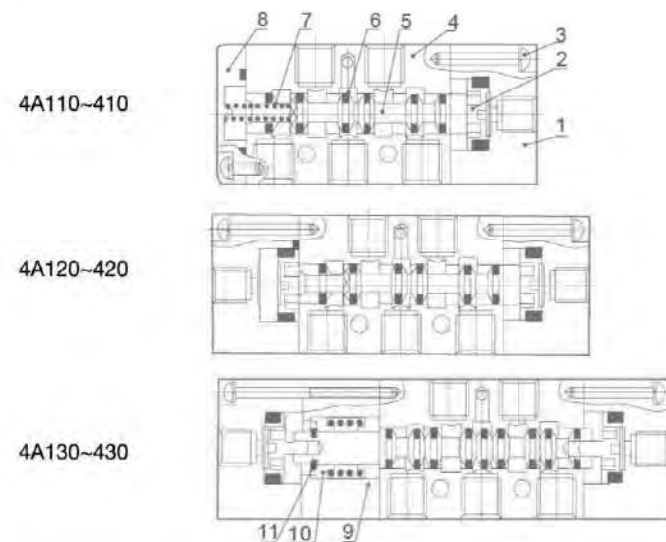
4V Series Internal Structure



No	Designation	No	Designation
1	Connector	12	Seal ring
2	Nut	13	O-ring
3	Coil	14	Spool
4	Active Amature	15	O-ring
5	Steel Part	16	Spring
6	Piston	17	Pin
7	Body	18	Spring Seat
8	Wearing	19	Spring
9	End Cap	20	Side Cover
10	Screw	21	Spring Seat
11	Spring		

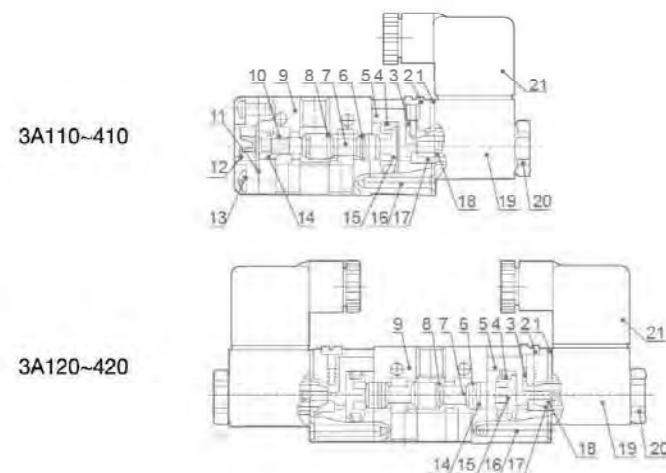
4V, 3V Series Solenoid Valve, 4A, 3A Series Pneumatic Control Valve

4A Series Internal Structure



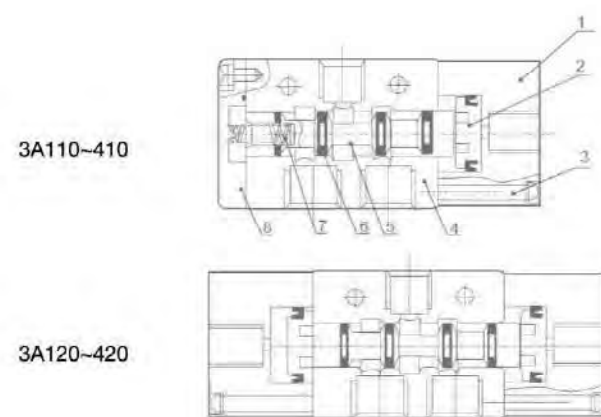
No	Designation
1	Air control cover
2	Piston
3	Screw
4	Valve body
5	Spool
6	O-ring
7	Spring
8	Rear cover
9	Back seat
10	Spring seat
11	C-type buckle

3V Series Internal Structure



No	Designation	No	Designation
1	Washer	12	End Cap
2	Pin	13	Screw
3	Spring	14	Wearing
4	O-ring	15	Piston
5	Body	16	Screw
6	O-ring	17	O-ring
7	Spool	18	Active Amature
8	O-ring	19	Coil
9	Body	20	Nut
10	Spring	21	Connector
11	Seal		

3A Series Internal Structure



No	Designation
1	Air control cover
2	Piston
3	Screw
4	Valve body
5	Spool
6	O-ring
7	Spring
8	Rear cover

4V, 3V100 Series Solenoid Valve, 4A, 3A100 Series Pneumatic Control Valve



Ordering Code

4V	1	10	06		AC220V	
Specification Code	Series Code	Coil and Places	Port Size	Port connection and Initial State	Standard Voltage	Wiring Form
4V: Two (Three)-position Five-way Solenoid Valve 4A: Two (Three)-position Five-way pneumatic control valve 3V: Two-position Three-way Solenoid valve 3A: Two-position Three-way Pneumatic control valve	100 Series	10: Single-head Double-position 20: Double-head Double-position 30C: Double-head Three-position Close Type 30E: Double-head Three-position Exhaust Type 30P: Double-head Three-position Pressure Type	M5: M5x0.8 06: G1/8"	NC: Two-position Three-way Normal Close Type NO: Two-position Three-way Normal Open Type	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Standard Connector LD: Brown With Lighting Connector LD1: White With Lighting Connector W: Lead Wire Type

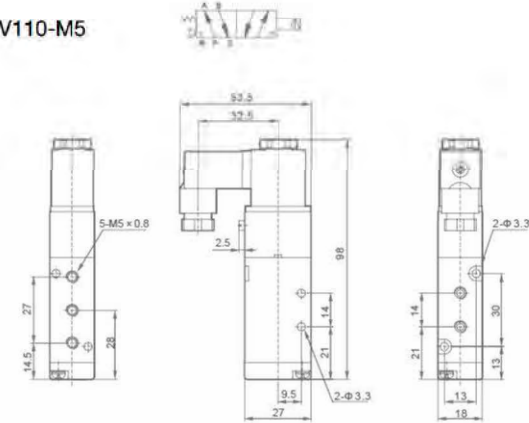
Specification

Model	4V110-M5	4V120-M5	4V130C-M5	4V130E-M5	4V130P-M5	4V110-06	4V120-06	4V130C-06	4V130E-06	4V130P-06
Model	4A110-M5	4A120-M5	4A130C-M5	4A130E-M5	4A130P-M5	4A110-06	4A120-06	4A130C-06	4A130E-06	4A130P-06
Position and Way No.	Two-position Five-way		Three-position Five-way			Two-position Five-way		Three-position Five-way		
Effective Sectional Area	10mm ² (CV 0.56)		7mm ² (CV= 0.40)			12mm ² (CV= 0.67)		9mm ² (CV= 0.5)		
Model	3V110-M5	3V120-M5	3A110-M5	3A120-M5	3V110-06	3V120-06	3A110-06	3A120-06		
Position and Way No.	Two-position Three-way				Two-position Three-way					
Effective Section Area	10mm ² (CV= 0.56)				12mm ² (CV= 0.67)					
Joint Pipe Bore	Air Inlet= Air Outlet= Exhaust= M5x0.8				Air Inlet= Air Outlet= Exhaust= G1/8"					
Working Medium	40 Micron Filtered Air									
Motion Pattern	Inner Guide Type									
Working-pressure	0.15~0.8 M Pa									
Max. Pressure Resistance	1.2MPa									
Operating Temperature	5~50°C									
Voltage Range	±10%									
Power Consumption	AC: 2.5VA DC: 2.5W									
Insulation & Protection Class	F Class. IP65									
Wiring Form	Lead Wire or Connector type									
Highest Action Frequency	5 Cycle / Second									
Shortest Excitation Time	0.05 Second									

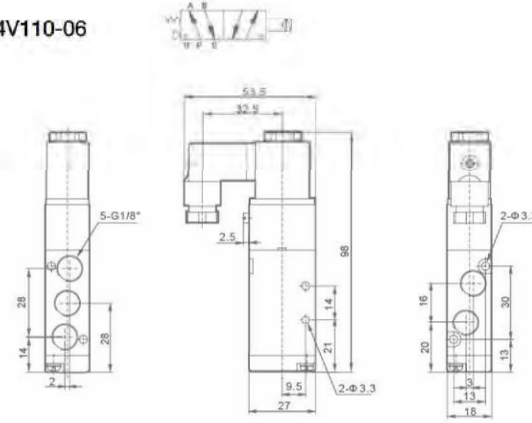
4V, 3V 100 Series Solenoid Valve, 4A, 3A100 Series Pneumatic Control Valve

Overall Dimensions

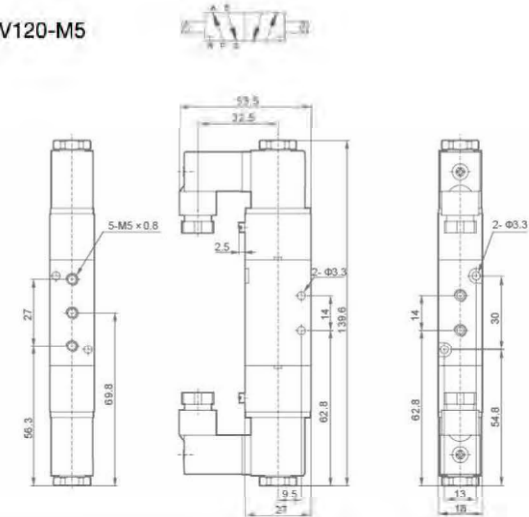
4V110-M5



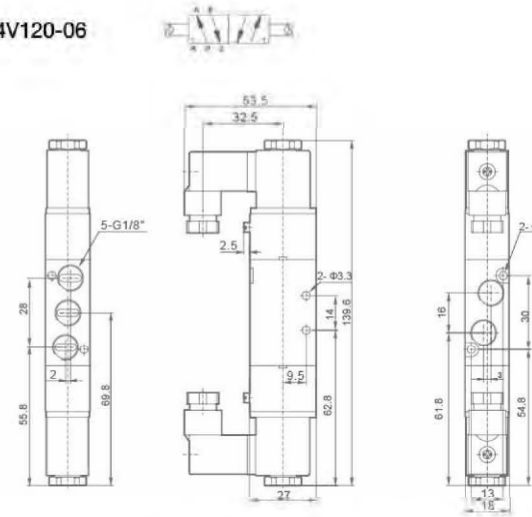
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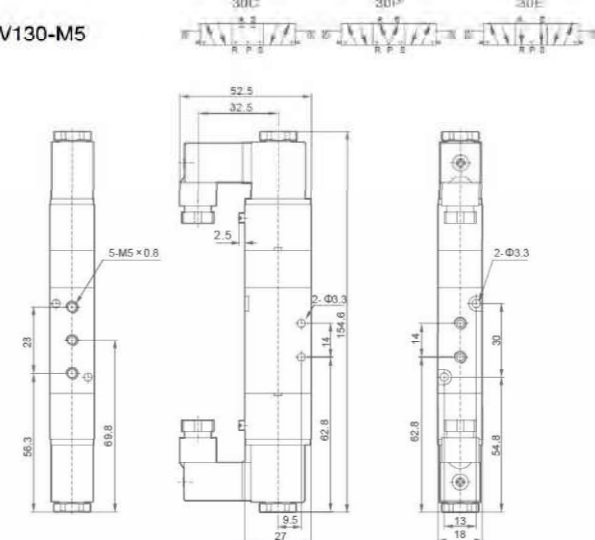
4V120-M5



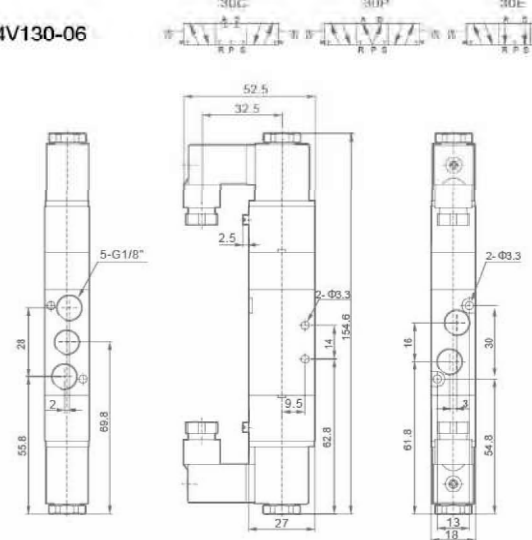
4V120-06



4V130-M5



4V130-06

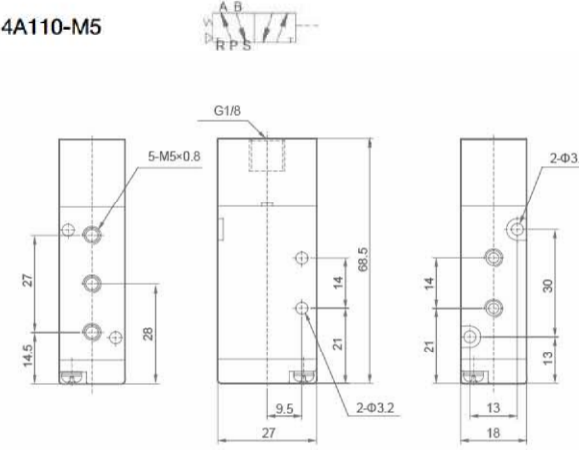


Directional Valves

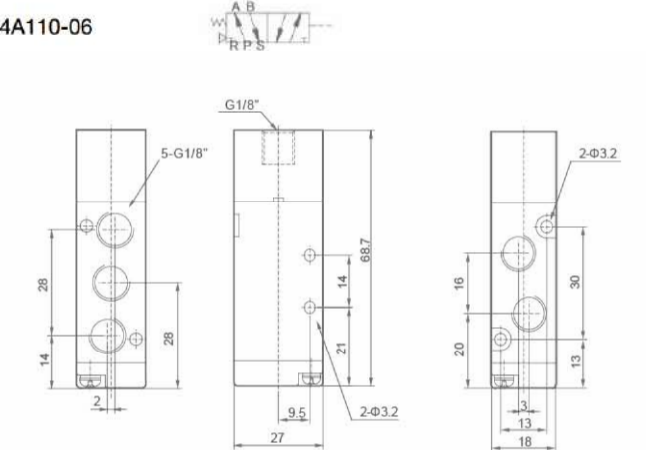
4V, 3V100 Series Solenoid Valve, 4A, 3A100 Series Pneumatic Control Valve

Overall Dimensions

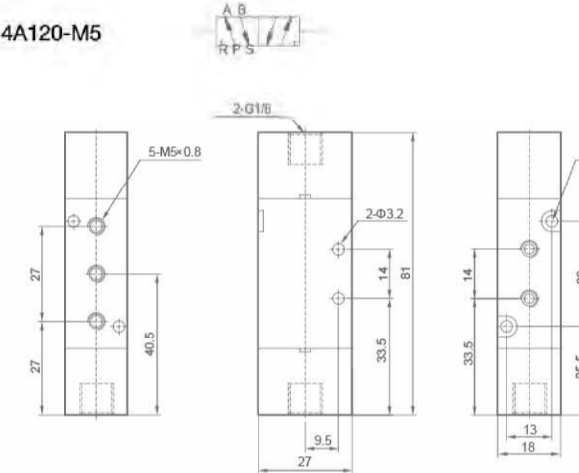
4A110-M5



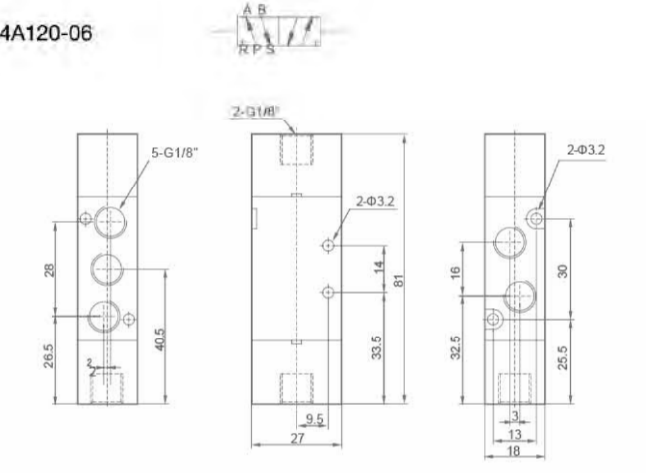
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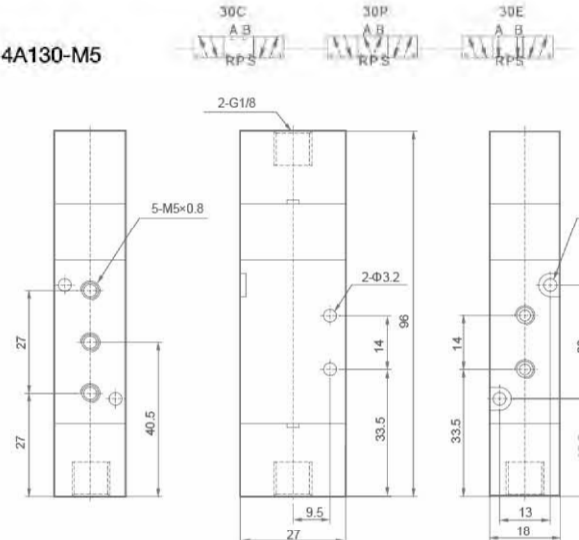
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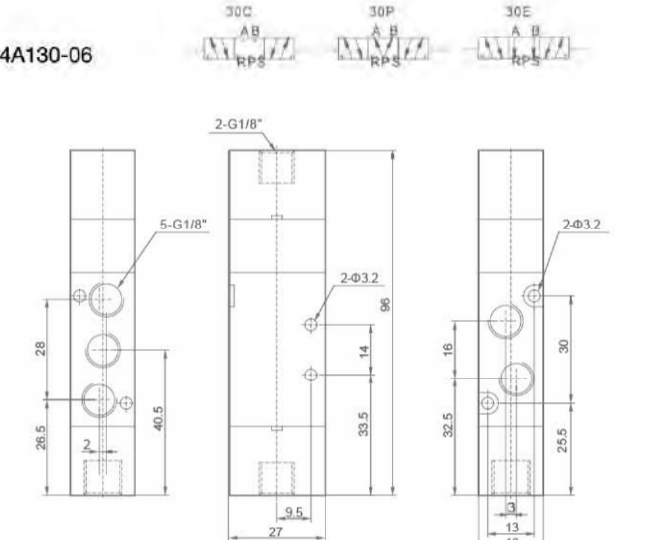
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4A130-M5



4A130-06

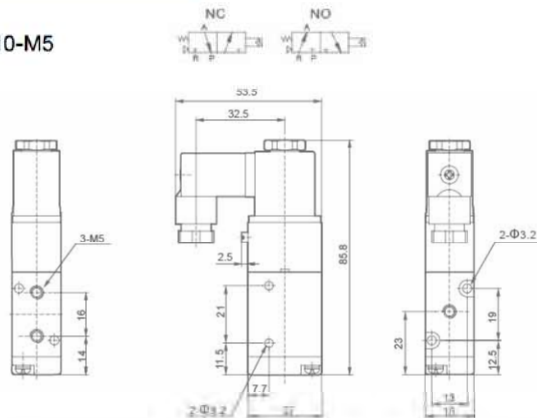


Directional Valves

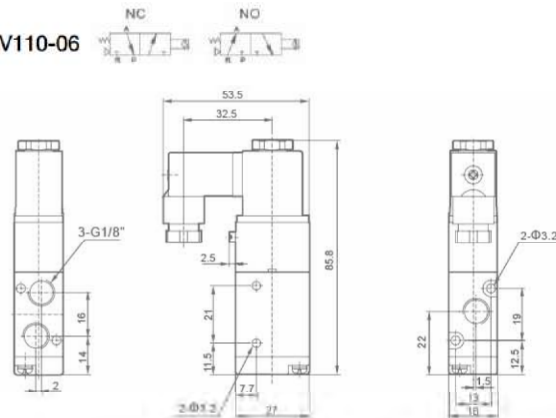
4V, 3V100 Series Solenoid Valve, 4A, 3A100 Series Pneumatic Control Valve

Overall Dimensions

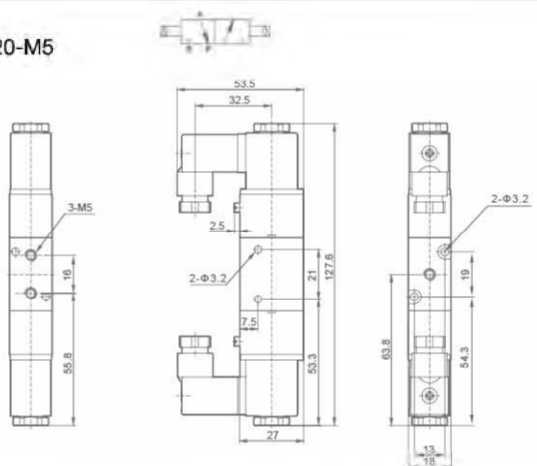
3V110-M5



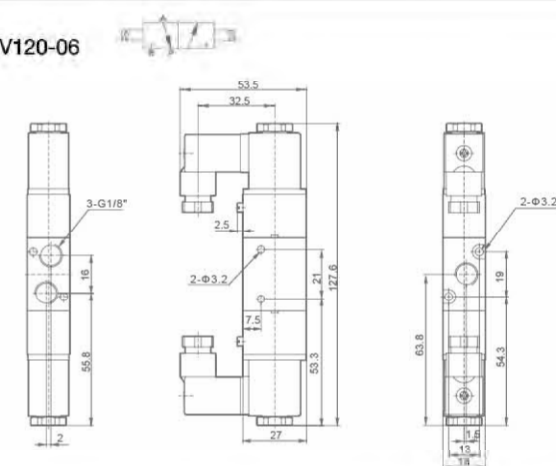
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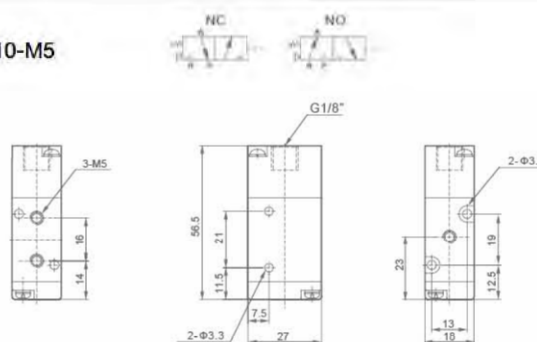
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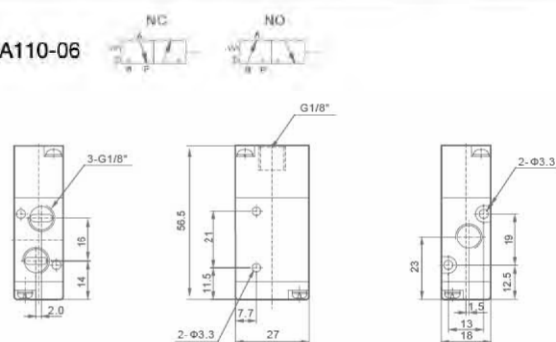
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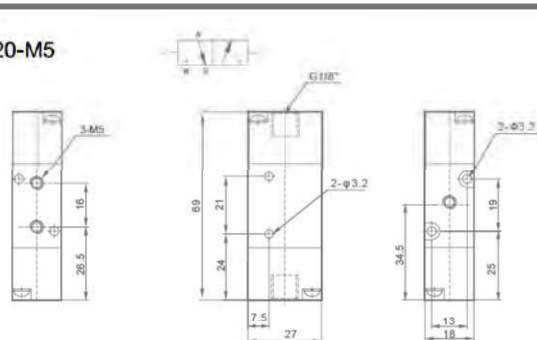
3A110-M5



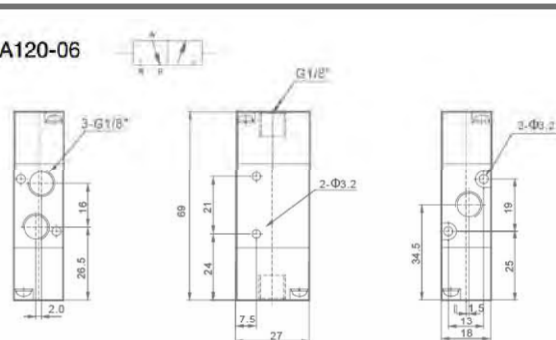
3A110-06



3A120-M5



3A120-06



Directional Valves

4V, 3V200 Series Solenoid Valve, 4A, 3A200 Series Pneumatic Control Valve



4A210-08



4V210-08



3A220-08



3V220-08

Ordering Code

4V	2	10	08		AC220V	
Specification Code	Series Code	Coil and Places	Port Size	Port connection and Initial State	Standard Voltage	Wiring Form
4V: Two(Three)-position Five-way Solenoid Valve 4A: Two(Three)-position Five-way pneumatic control valve 3V: Two-position Three-way Solenoid valve 3A: Two-position Three-way Pneumatic control valve	200 Series	10: Single-head Double-position 20: Double-head Double-position 30C: Double-head Three-position Close Type 30E: Double-head Three-position Exhaust Type 30P: Double-head Three-position Pressure Type	06: G1/8" 08: G1/4"	NC: Two-position Three-way Normal Close Type NO: Two-position Three-way Normal Open Type	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Standard Connector LD: Brown With Lighting Connector LD1: White With Lighting Connector W: Lead Wire Type

Specification

Model	4V210-06	4V220-06	4V230C-06	4V230E-06	4V230P-06	4V210-08	4V220-08	4V230C-08	4V230E-08	4V230P-08
	4A210-06	4A220-06	4V230C-06	4A230E-06	4A230P-06	4A210-08	4A220-08	4A230C-08	4A230E-08	4A230P-08
Position and Way No.	Two-position Five-way		Three-position Five-way			Two-position Five-way		Three-position Five-way		
Effective Sectional Area	14mm ² (CV= 0.78)		12mm ² (CV= 0.67)			16mm ² (CV= 0.89)		12mm ² (CV= 0.67)		

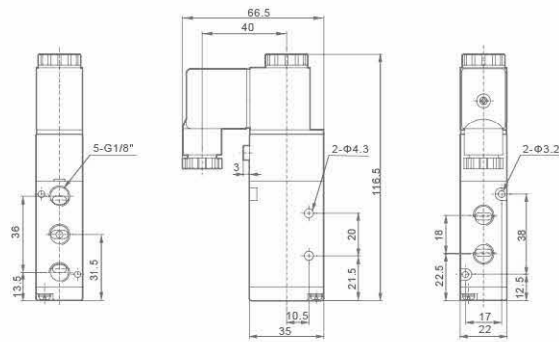
Model	3V210-06	3V220-06	3A210-06	3A220-06	3V210-08	3V220-08	3A210-08	3A220-08
Position and Way No.	Two-position Three-way				Two-position Three-way			
Effective Section Area	14mm ² (CV= 0.78)				16mm ² (CV= 0.89)			
Joint Pipe Bore	Air Inlet= Air Outlet= Exhaust= G1/8"				Air Inlet= Air Outlet 1/4" Exhaust= G1/1/8"			
Working Medium	40 Micron Filtered Air							
Motion Pattern	Inner Guide Type							
Working-pressure	0.15~0.8 M Pa							
Max. Pressure Resistance	1.2MPa							
Operating Temperature	5~50°C							
Voltage Range	±10%							
Power Consumption	AC: 2.5VA DC: 2.5W							
Insulation & Protection Class	F Class. IP65							
Wiring Form	Lead Wire or Connector type							
Highest Action Frequency	5 Cycle / Second							
Shortest Excitation Time	0.05 Second							

Directional Valves

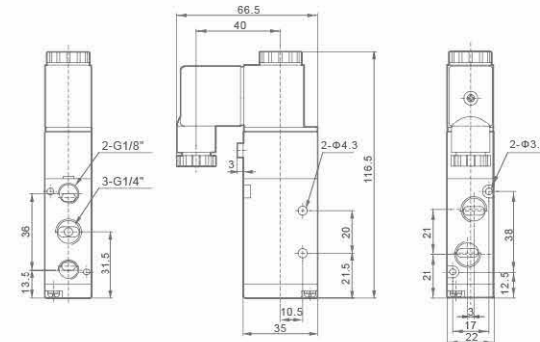
4V, 3V200 Series Solenoid Valve, 4A, 3A200 Series Pneumatic Control Valve

Overall Dimensions

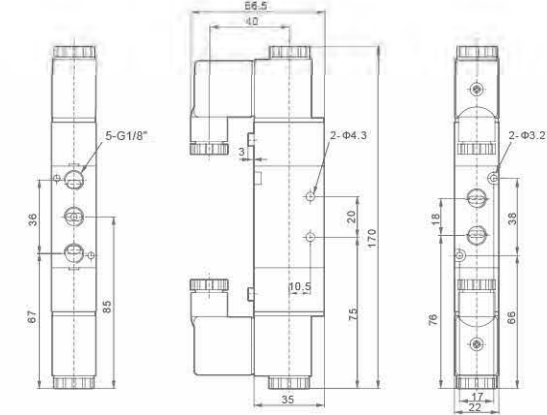
4V210-06



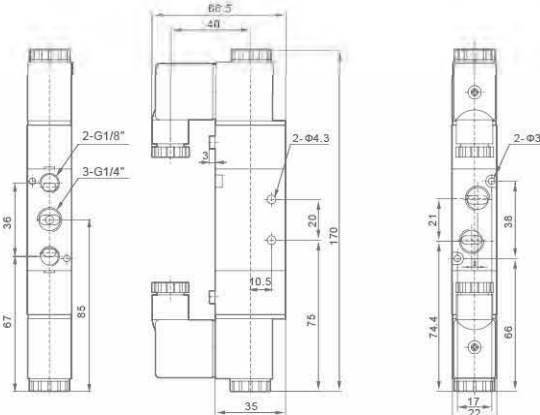
4V210-08



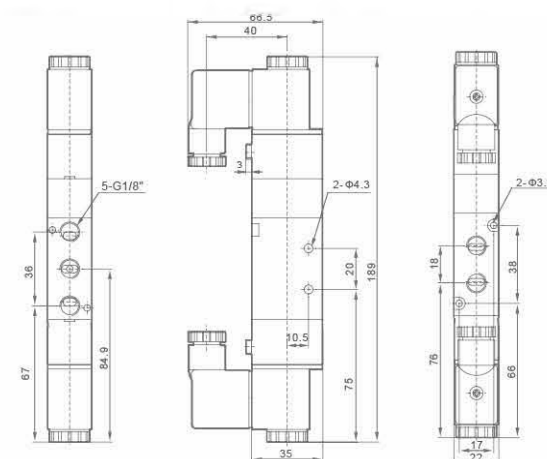
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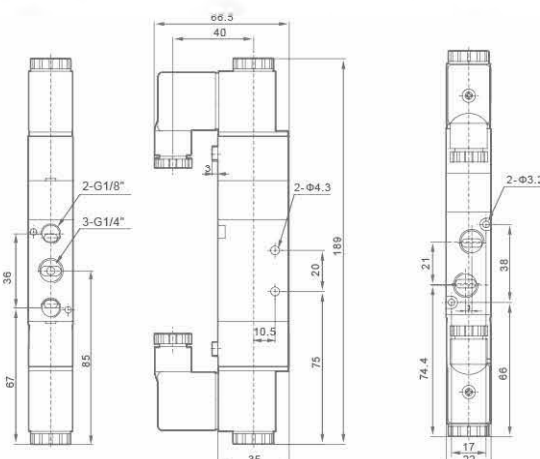
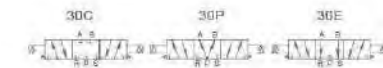
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4V230-06



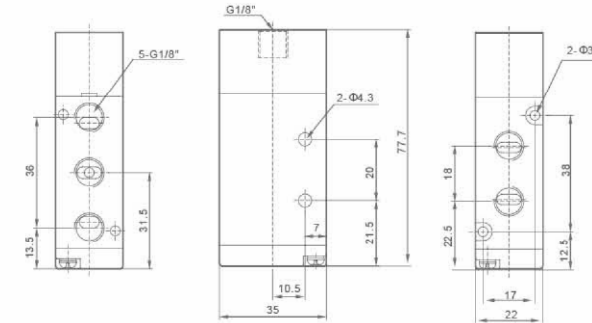
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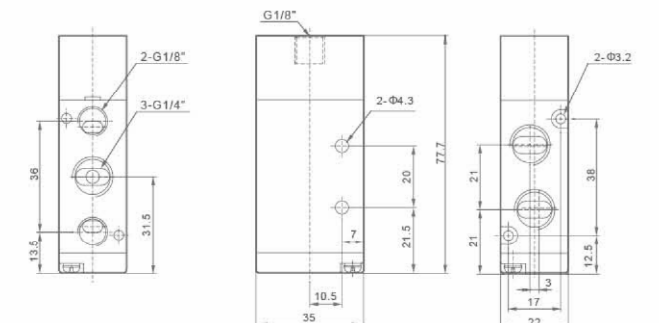
4V, 3V200 Series Solenoid Valve, 4A, 3A200 Series Pneumatic Control Valve

Overall Dimensions

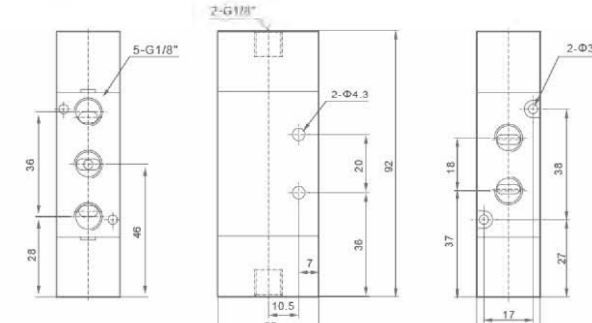
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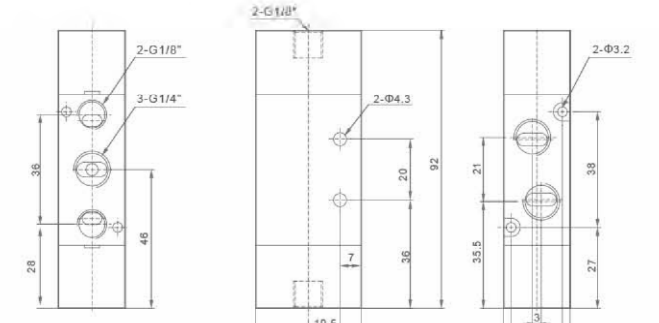
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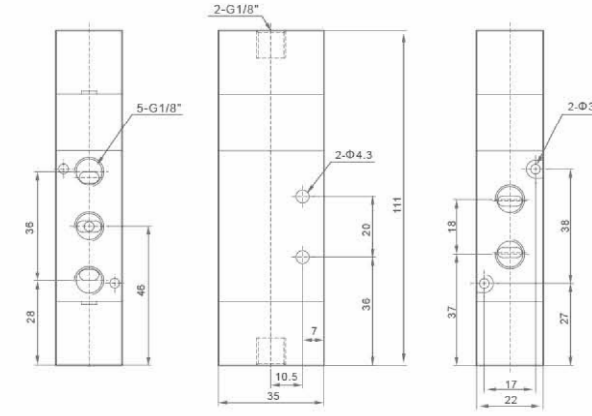
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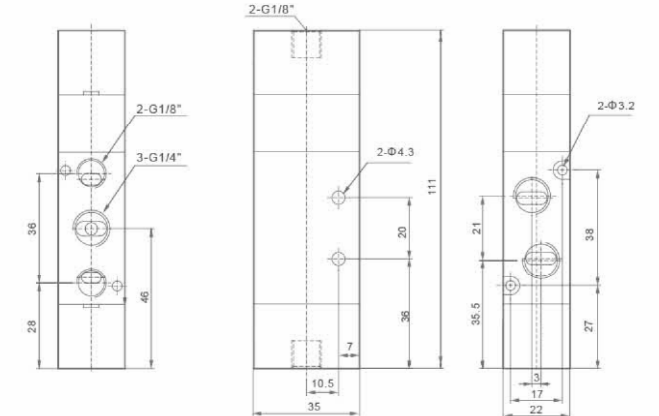
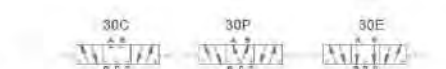
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4A230-06

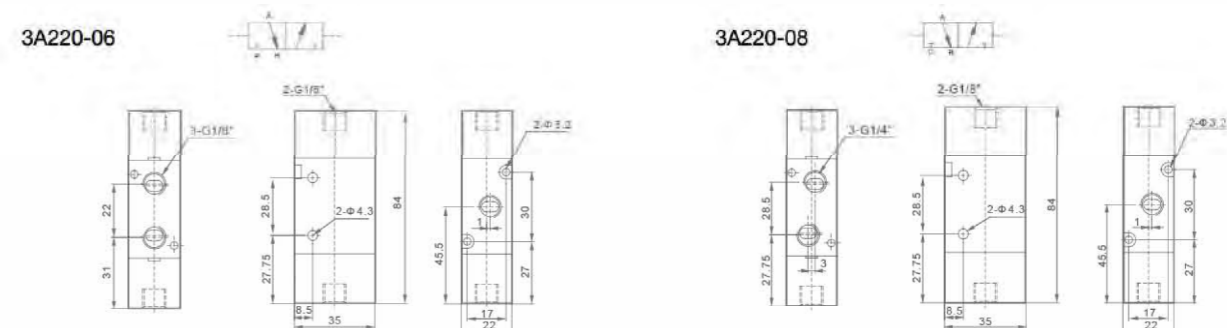
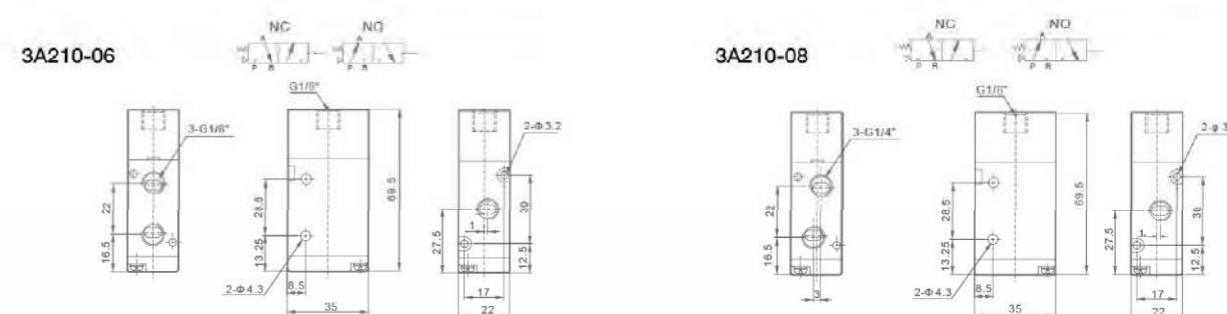
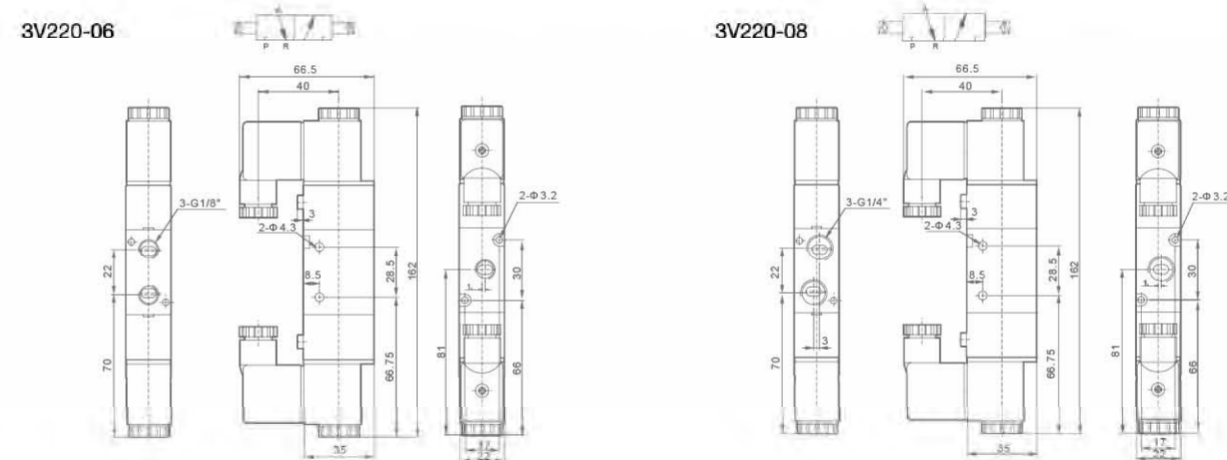
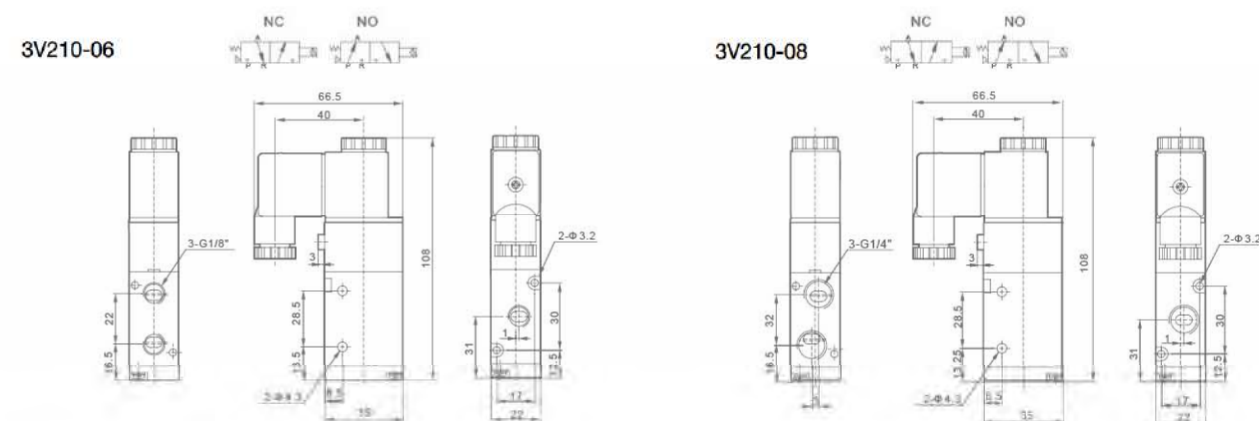


4A230-08



4V, 3V200 Series Solenoid Valve, 4A, 3A200 Series Pneumatic Control Valve

Overall Dimensions



4V, 3V300 Series Solenoid Valve, 4A, 3A300 Series Pneumatic Control Valve



Ordering Code

4V	3	10	10		AC220V	
Specification Code	Series Code	Coil and Places	Port Size	Port connection and Initial State	Standard Voltage	Wiring Form
4V: Two(Three)-position Five-way Solenoid Valve 4A: Two(Three)-position Five-way pneumatic control valve 3V: Two-position Three-way Solenoid valve 3A: Two-position Three-way Pneumatic control valve	300 Series	10: Single-head Double-position 20: Double-head Double-position 30C: Double-head Three-position Close Type 30E: Double-head Three-position Exhaust Type 30P: Double-head Three-position Pressure Type	08: G1/4" 10: G3/8"	NC: Two-position Three-way Normal Close Type NO: Two-position Three-way Normal Open Type	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Standard Connector LD: Brown With Lighting Connector LD1: White With Lighting Connector W: Lead Wire Type

Specification

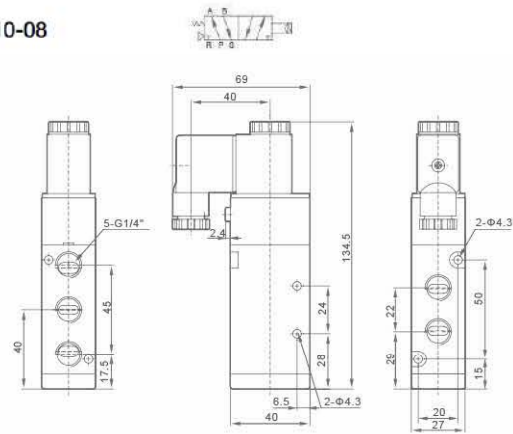
Model	4V310-08	4V320-08	4V330C-08	4V330E-08	4V330P-08	4V310-10	4V320-10	4V330C-10	4V330E-10	4V330P-10
Position and Way No.	Two-position Five-way		Three-position Five-way			Two-position Five-way		Three-position Five-way		
Effective Sectional Area	25mm ² (CV= 1.40)		18mm ² (CV= 1.00)			30mm ² (CV= 1.68)		18mm ² (CV= 1.00)		

Model	3V210-08	3V220-08	3A310-08	3A320-08	3V310-10	3V2320-10	3A310-10	3A220-10
Position and Way No.	Two-position Three-way				Two-position Three-way			
Effective Section Area	25mm²(CV= 1.40)				30mm²(CV= 1.68)			
Joint Pipe Bore	Air Inlet= Air Outlet= Exhaust= G1/4"				Air Inlet= Air Outlet= 3/8" Exhaust= G1/4"			
Working Medium	40 Micron Filtered Air							
Motion Pattern	Inner Guide Type							
Working-pressure	0.15~0.8 M Pa							
Max. Pressure Resistance	1.2MPa							
Operating Temperature	5~50°C							
Voltage Range	±10%							
Power Consumption	AC: 4.5VA DC: 3W							
Insulation & Protection Class	F Class. IP65							
Wiring Form	Lead Wire or Connector type							
Highest Action Frequency	5 Cycle / Sec							
Shortest Excitation Time	0.05 Second							

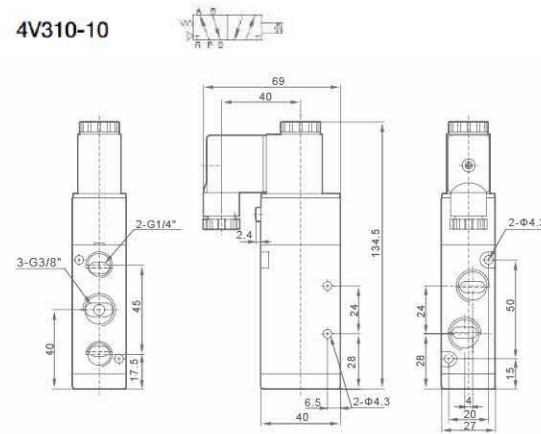
4V, 3V300 Series Solenoid Valve, 4A, 3A300 Series Pneumatic Control Valve

Overall Dimensions

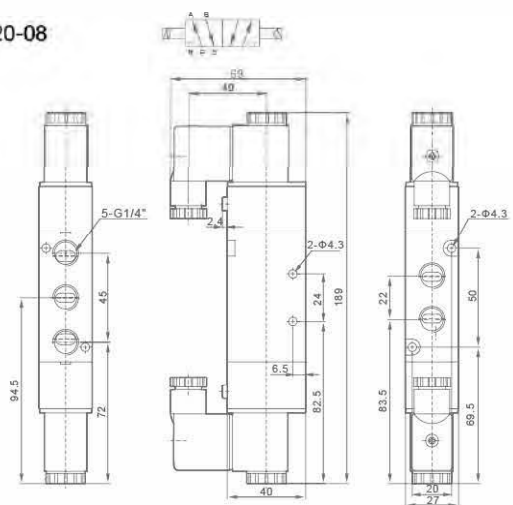
4V310-08



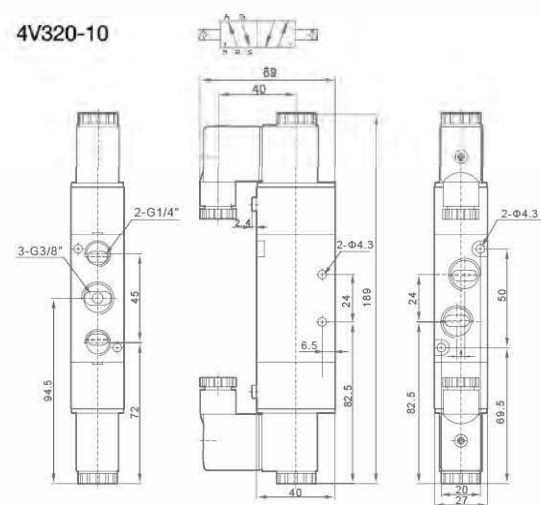
4V310-10



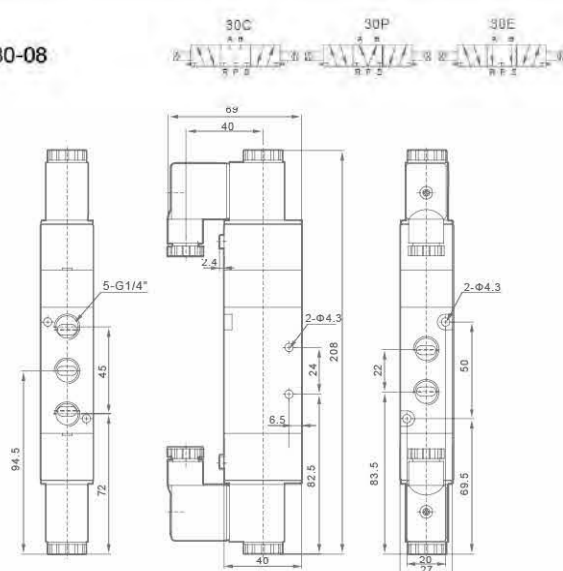
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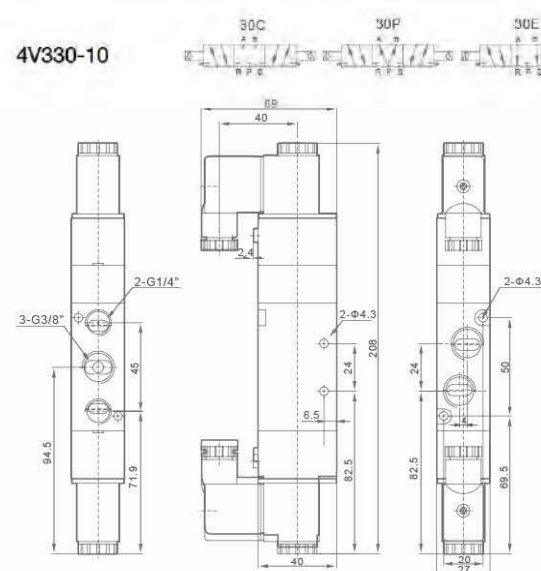
4V320-10



4V330-08



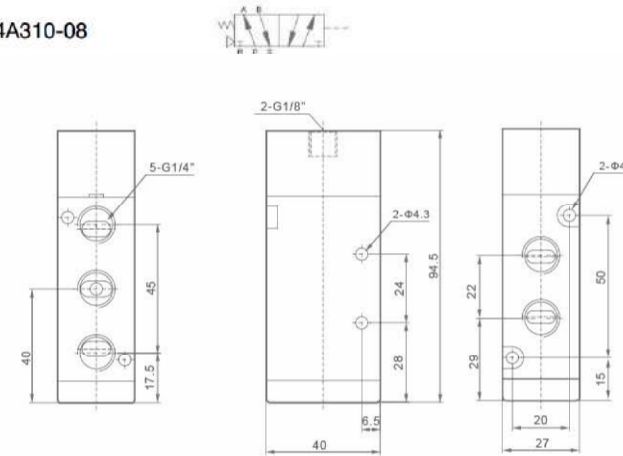
4V330-10



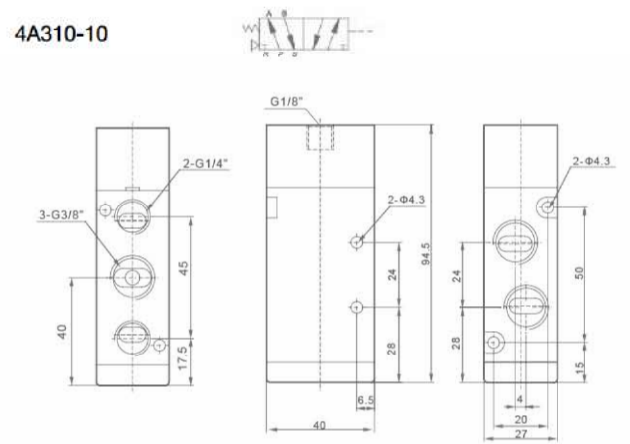
4V, 3V300 Series Solenoid Valve, 4A, 3A400 Series Pneumatic Control Valve

Overall Dimensions

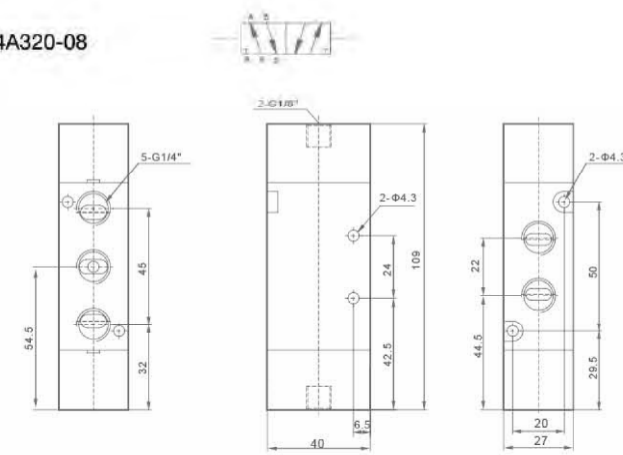
4A310-08



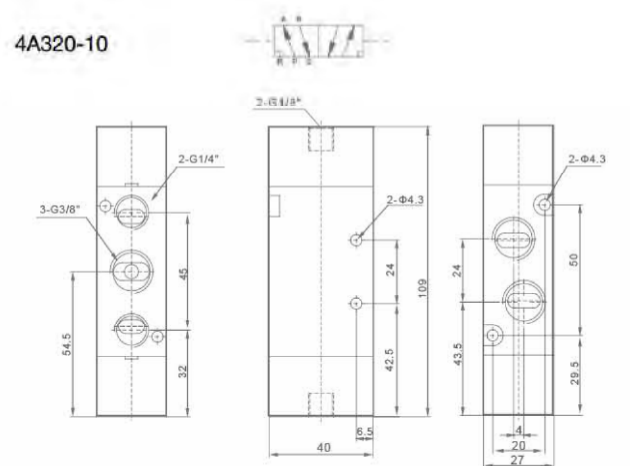
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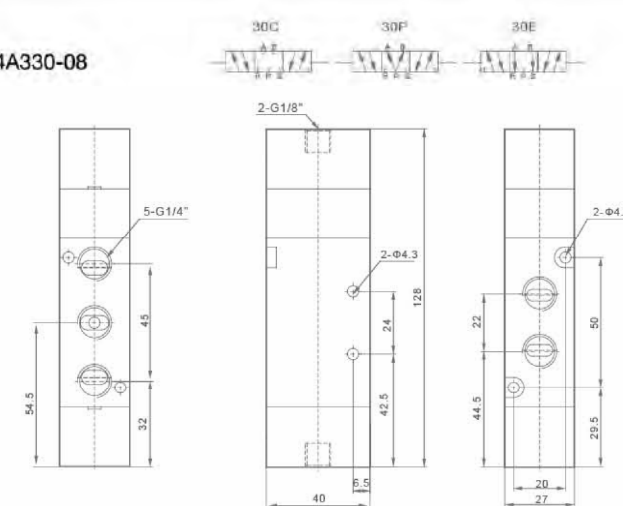
4A320-08



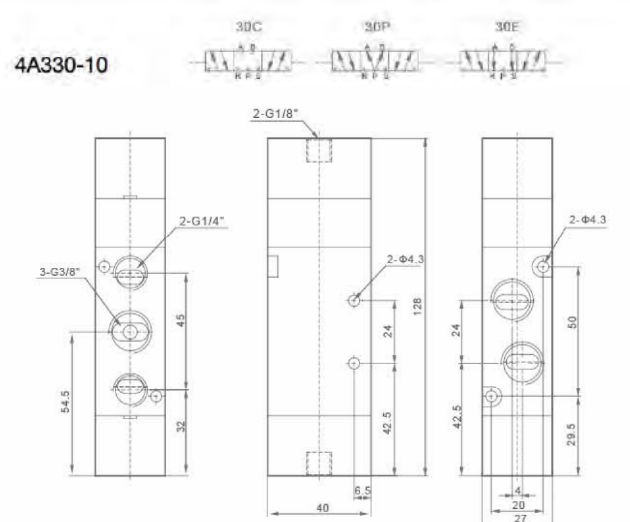
4A320-10



4A330-08

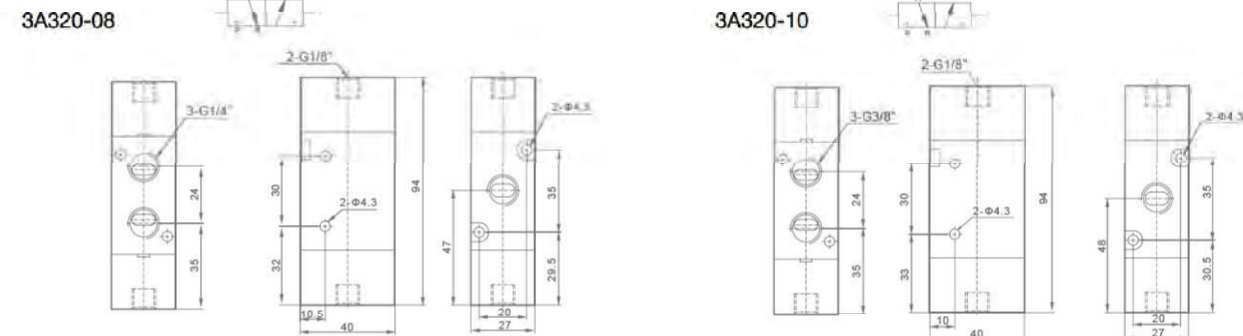
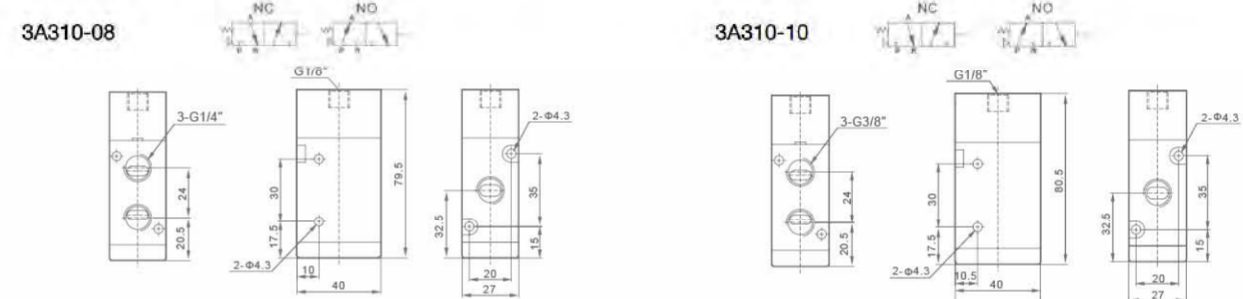
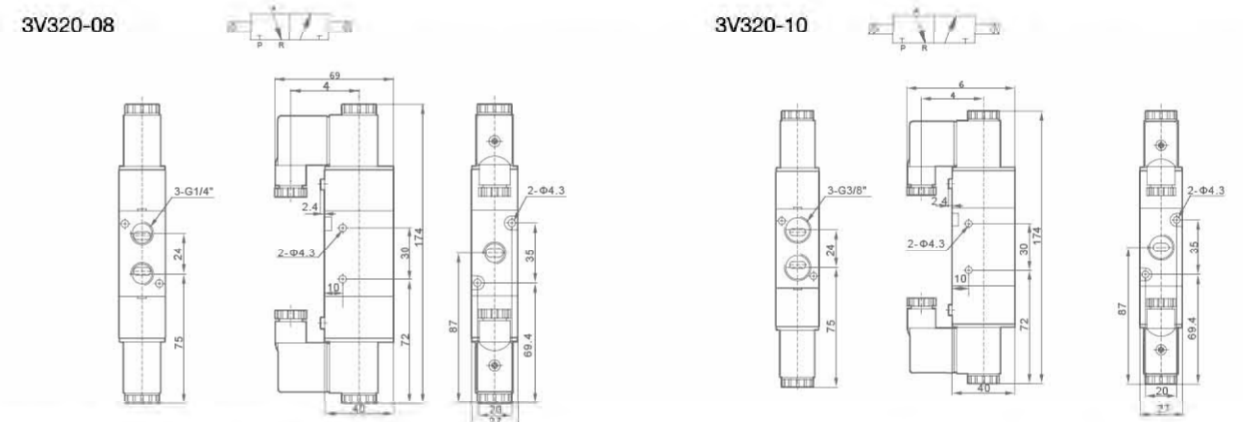
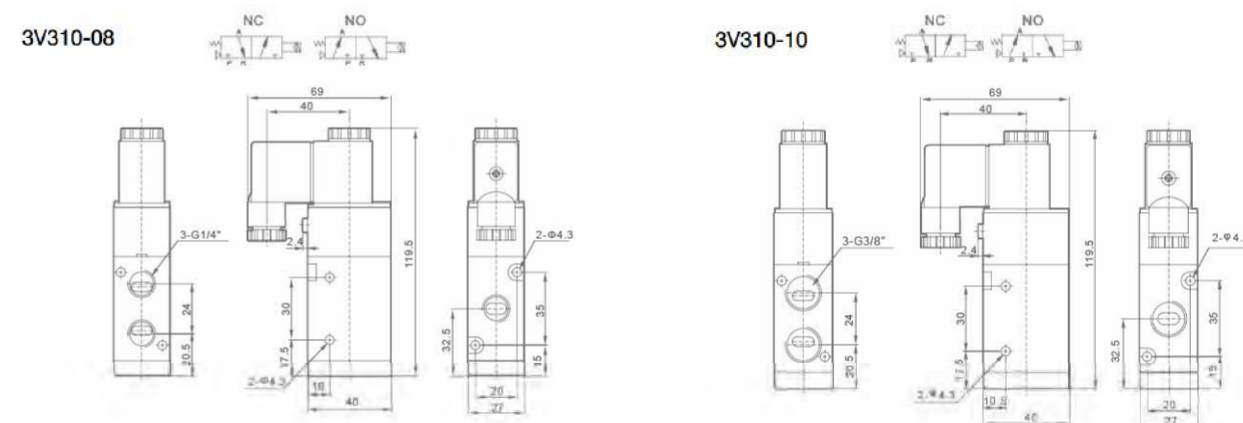


4A330-10

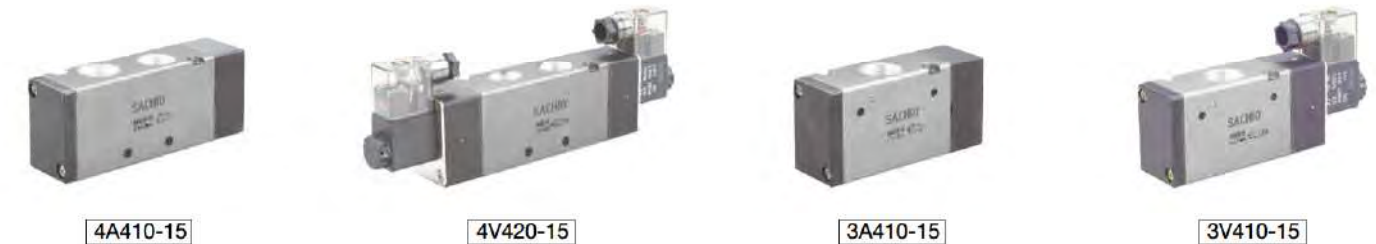


4V, 3V300 Series Solenoid Valve, 4A, 3A400 Series Pneumatic Control Valve

Overall Dimensions



4V, 3V400 Series Solenoid Valve, 4A, 3A400 Series Pneumatic Control Valve



Ordering Code

4V	4	10	10		AC220V	
Specification Code	Series Code	Coil and Places	Port Size	Port connection and Initial State	Standard Voltage	Wiring Form
4V: Two(Three)-position Five-way Solenoid Valve 4A: Two(Three)-position Five-way pneumatic control valve 3V: Two-position Three-way Solenoid valve 3A: Two-position Three-way Pneumatic control valve	400 Series	10: Single-head Double-position 20: Double-head Double-position 30C: Double-head Three-position Close Type 30E: Double-head Three-position Exhaust Type 30P: Double-head Three-position Pressure Type	10: G3/8" 15: G1/2"	NC: Two-position Three-way Normal Close Type NO: Two-position Three-way Normal Open Type	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Standard Connector LD: Brown With Lighting Connector LD1: White With Lighting Connector W: Lead Wire Type

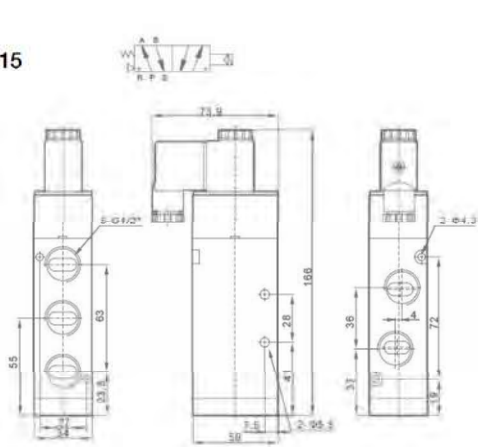
Specification

Model	4V410-15	4V420-15	4V430C-15	4V430E-15	4V430P-15
Position and Way No.	4A410-15	4A420-15	4A430C-15	4A430E-15	4A430P-15
Effective Section Area	Two-position Five-way 50mm ² (CV= 2.79)		Three-position Five-way 30mm ² (CV= 1.68)		
Model	3V410-15	3V420-15	3A410-15	3A420-15	
Position and Way No.	Two-position Three-way				
Effective Section Area	50mm ² (CV= 2.79)				
Joint Pipe Bore	Air Inlet= Air Outlet= Exhaust= G1/2"				
Working Medium	40 Micron Filtered Air				
Motion Pattern	Inner Guide Type				
Working-pressure	0.15~0.8 M Pa				
Max. Pressure Resistance	1.2MPa				
Operating Temperature	5~50°C				
Voltage Range	±10%				
Power Consumption	AC: 4.5VA DC: 3W				
Insulation & Protection Class	F Class. IP65				
Wiring Form	Lead Wire or Connector type				
Highest Action Frequency	5 Cycle / Sec				
Shortest Excitation Time	0.05 Second				

4V, 3V400 Series Solenoid Valve, 4A, 3A400 Series Pneumatic Control Valve

Overall Dimensions

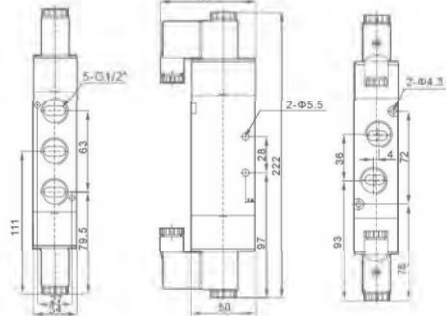
4V410-15



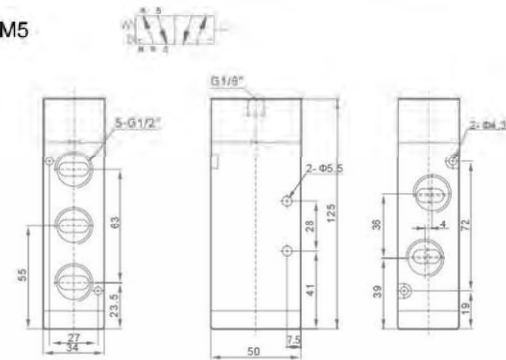
4V420-15



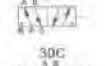
4V430-15



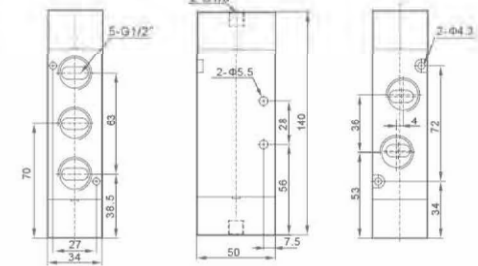
4V410-M5



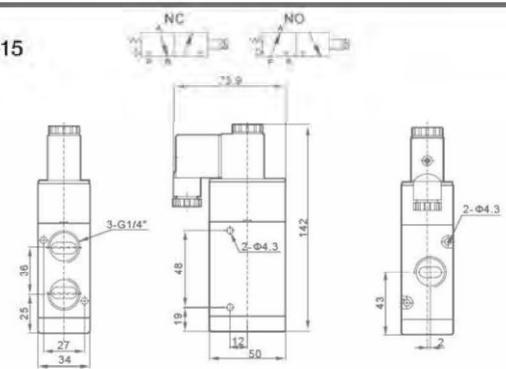
4A420-15



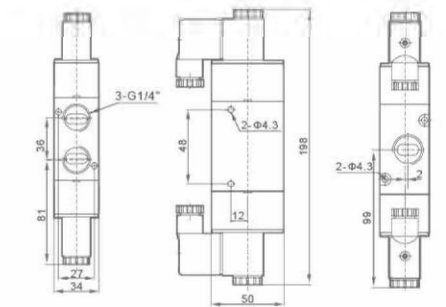
4A430-15



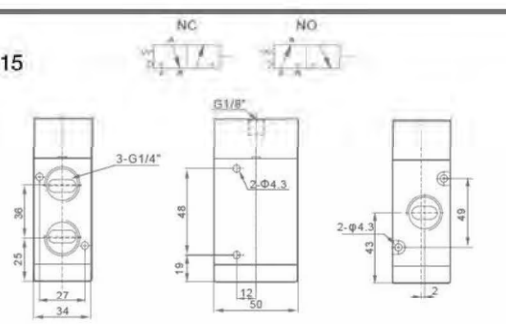
3A410-15



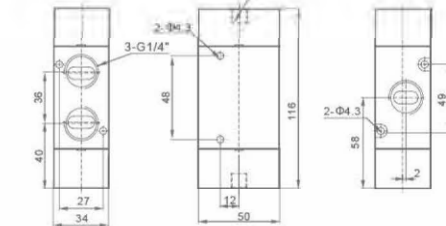
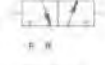
3A420-15



3A420-15



3A420-15



4M Series Plate Type Valve



4M210-08



4M310-10



4M220-08

Ordering Code

4M

Specification Code
4V: Two(Three)-position
Five-way Plate Type Valve

2

Body Size
2: 1/8" and 1/4"
Valve body
3: 1/4" and 3/8"
Valve body

10

Coil and Places
10: Single-head
Double-position
20: Double-head
Double-position

06

Port Size
06: G1/8"
08: G1/4"
10: G3/8"

AC220V

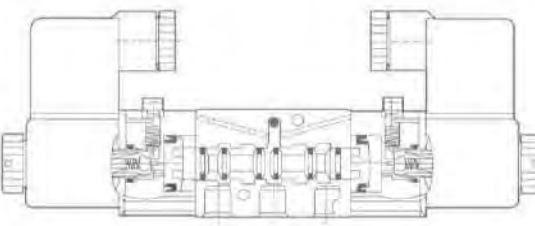
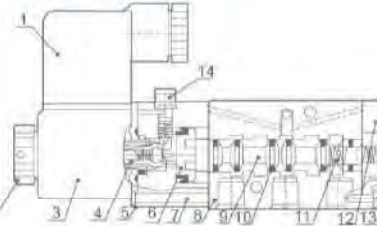
Standard Voltage
DC12V
DC24V
AC24V 50Hz/60Hz
AC110V 50Hz/60Hz
AC220V 50Hz/60Hz
AC380V 50Hz/60Hz

Wiring Form
Blank: Standard
Connector
LD: Brown With
Lighting Connector
LD1: White With
Lighting Connector
W: Lead Wire Type

Graphic Symbol



Internal Structure



No	Designation	No	Designation
1	Connector	8	Valve body
2	Nut	9	Spool
3	Coil	10	O-ring
4	Pilot untis	11	Spring
5	Plate	12	Rear cover
6	Piston	13	Screw
7	Screw	14	Manual override

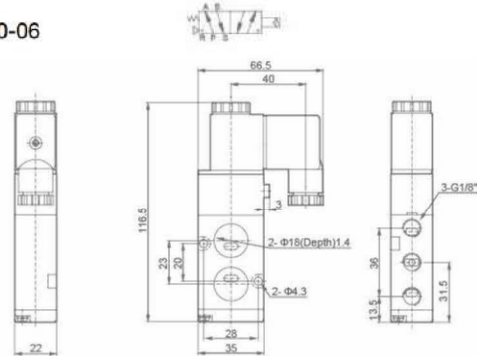
Specification

Model	4M210-06	4M220-06	4M210-08	4M220-08	4M310-08	4M320-08	4M310-10	4M320-10
Working Medium	40 Micron Filtered Air							
Motion Pattern	Inner Guide Type							
Position and Way No.	Two-position Five-way							
Effective Section Area	14mm²(CV= 0.78)		16mm²(CV= 0.89)		25mm²(CV= 1.39)		30mm²(CV= 1.67)	
Port Size	Air Inlet= Exhaust= G1/8"		Air Inlet= G1/4" / Exhaust= G1/8"		Air Inlet= Exhaust= G1/4"		Air Inlet= G3/8" / Exhaust= G1/4"	
Lubricate	Not Necessary							
Working Pressure	0.15~0.8 MPa							
Max. Pressure Resistance	1.2 MPa							
Operating Temperature	5~60°C							
Voltage Range	-15% ~ +10%							
Power Consumption	AC380V: 2.5VA, AC220V: 2.0VA, AC110V: 2.5VA, AC24V: 3.5VA, DC24V: 3.0W, DC12V: 2.5W							
Insulation & Protection	F Class. IP65							
Wiring Form	Lead wire or Connector Type							
Highest Action Frequency	5 Cycle / Sec							
Shortest Excitation Time	0.05 Second							

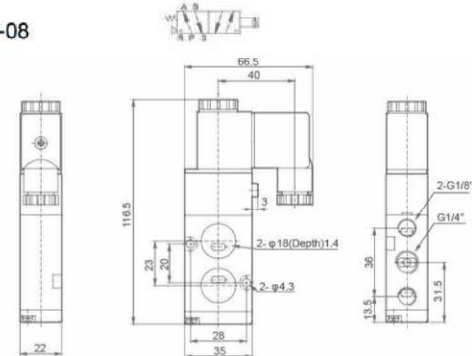
4M Series Plate Type Valve

Overall Dimensions

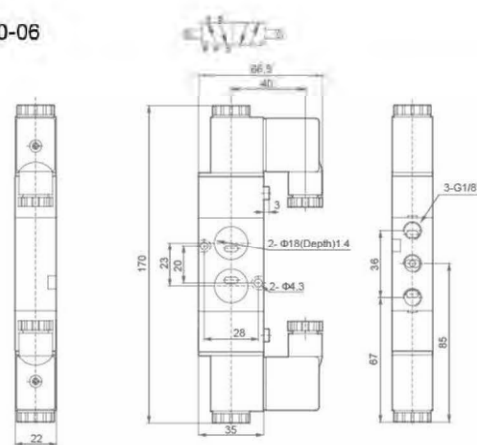
4M210-06



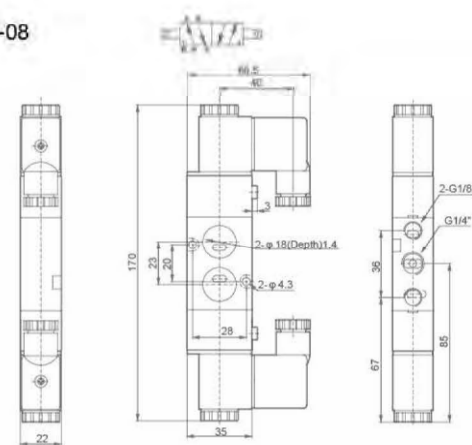
4M210-08



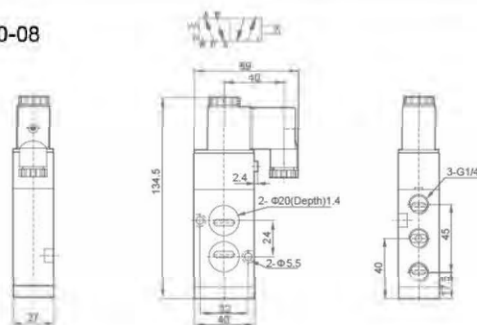
4M220-06



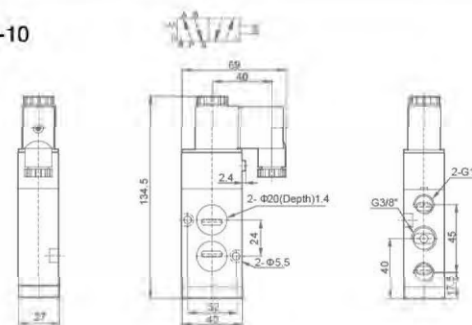
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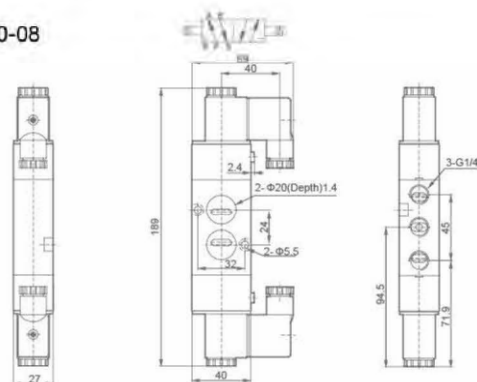
4M310-08



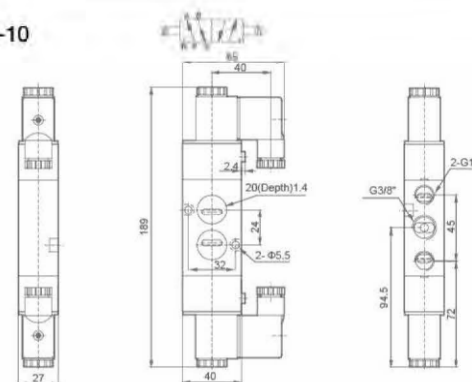
4M310-10



4M320-08



4M320-10



VF, VZ Series Solenoid Valve



VF5120



VF3230

Ordering Code

VF3

Series Code

VF3 Series
VF5 Series
VZ5 Series

1

Coil and Places

1: Single-head Double-position
2: Double-head Double-position
3: Double-head Three-position Close Type
4: Double-head Three-position Exhaust Type
5: Double-head Three-position Pressure Type

30

Port Size

VF3: 30
VF5: 20
VZ5: 20

AC220V

Standard Voltage

DC12V
DC24V
AC24V 50Hz/60Hz
AC110V 50Hz/60Hz
AC220V 50Hz/60Hz
AC380V 50Hz/60Hz

□

Wiring Form

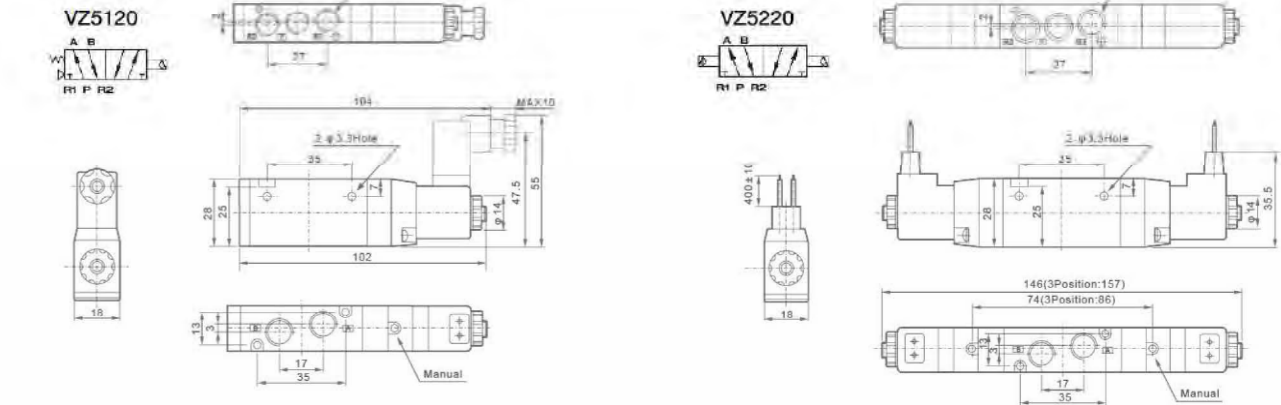
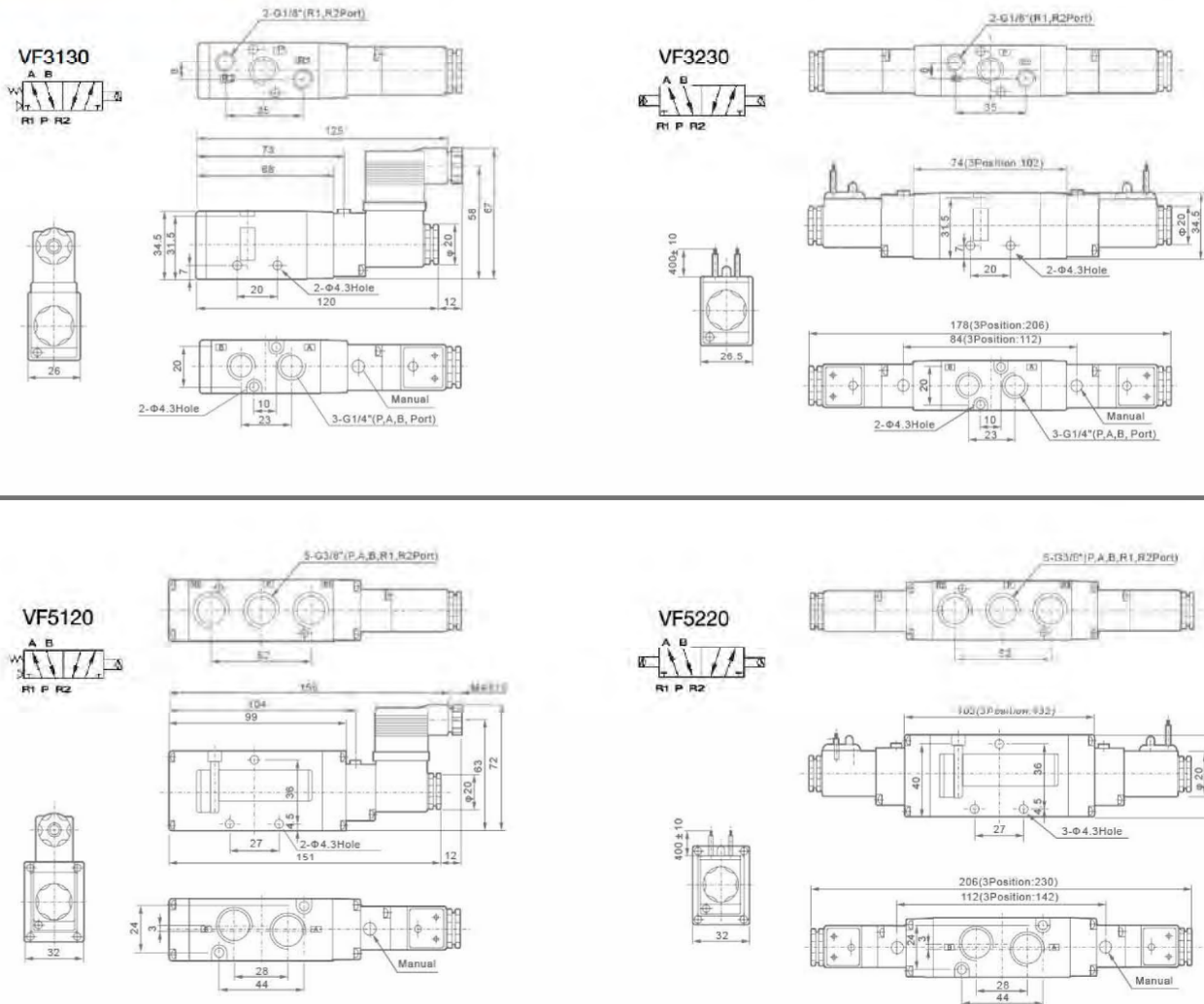
Blank: Standard
Connector
LD: With
Lighting Connector
W: Lead Wire Type

Specification

Parameter	VF3130	VF3230	VF33(4/5)30	VF5120	VF5220	VF53(4/5)20	VZ5120	VZ5220	VZ53(4/5)20
Position and Way No.	Two-position Five-way		Three-position Five-way	Two-position Five-way		Three-position Five-way	Two-position Five-way		Three-position Five-way
Effective Section Area	16mm ² (CV= 0.89)		12mm ² (CV= 0.67)	25mm ² (CV= 1.40)		18mm ² (CV= 1.00)	12mm ² (CV= 0.67)		9mm ² (CV= 0.50)
Working Medium	40 Micron Filtered Air								
Motion Pattern	Inner Guide Type								
Working Pressure	0.15~0.8 MPa								
Max. Pressure Resistance	1.2 MPa								
Operating Temperature	5~50°C								
Voltage Range	±10%								
Power Consumption	AC: 4.5VA, DC: 3W								
Insulation & Protection	IP65/F Class.IP65								
Wiring Form	Lead Wire or Connector Type								
Highest Action Frequency	5 Cycle / Sec								
Shortest Excitation Time	0.05 Second								

VF, Series Solenoid Valve

Overall Dimensions



SY3000 Series 5 Port Low Energy Consumption High Performance Valve



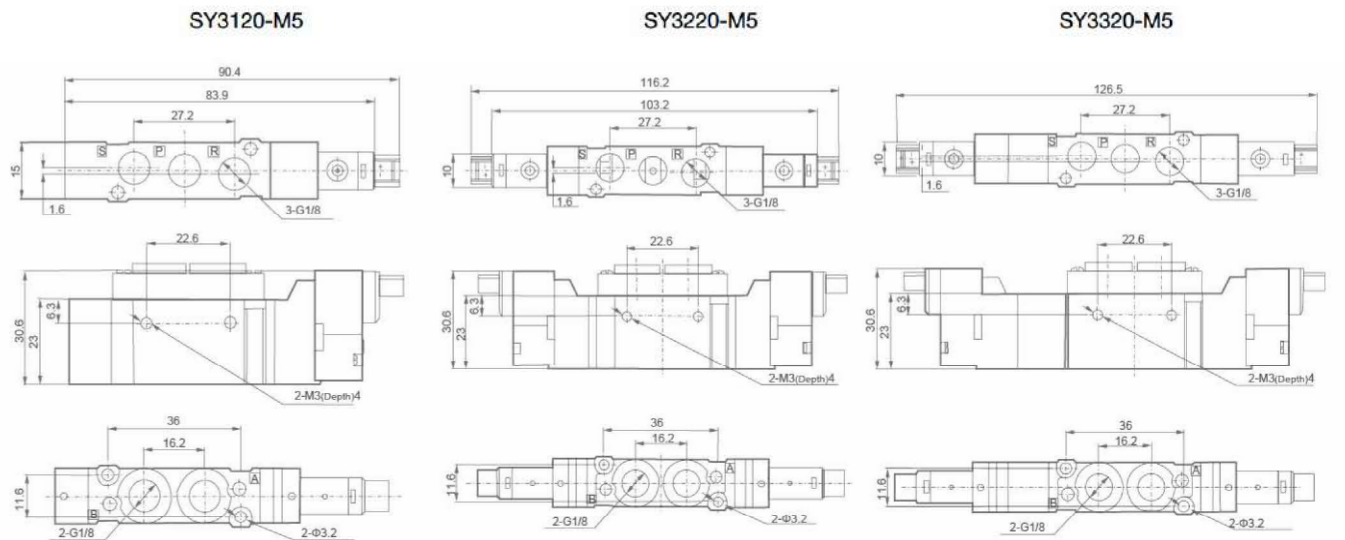
Ordering Code

SY3	1	20	—	A	L	Z	D	M5
Series Code	Coil and Places	Direct Piping Type	Nominal Voltage	Pin Type	Manual Operation Mode	Port Size		
SY3 Series	1: Single-head Double-position 2: Double-head Double-position 3: Double-head Three-position Close Type 4: Double-head Three-position Exhaust Type 5: Double-head Three-position Pressure Type		A: DC12V B: DC24V C: AC110V D: AC220V	L: Vertical Type M: Straight Line Type G: Lead Wire Type	Blank: Non-Locking D: Screwdriver Downward Locking E: Hand Lever Pushdown Locking	M5: M5		

Specification

Model	SY3120-M5	SY3220-M5	SY3320-M5	SY3420-M5	SY3520-M5
Function Engery	Single-head Double-position	Double-head Double-position	Double-head Three-position Close Type	Double-head Three-position Exhaust Type	Double-head Three-position Pressure Type
Cv Valve (P-A/B)		0.25		0.19	
Cv Valve (A/B-R/S)		0.27	0.2		0.25
Joint Pipe Bore			M5		
Working Pressure		0.15~0.7MPa		0.2~0.7MPa	
Working Medium			40 Micron Filtered Air		
Motion Pattern			Inner Guide Type		
Highest Action Frequency		15 cycle/Second		5 cycle/Second	
Response Time (ms)		12 below		15 below	
Operating Temperature			-5~60°C		

Overall Dimensions



SY5000 Series 5 Port Low Energy Consumption High Performance Valve



SY5120-01



SY5220-01



SY5320-01

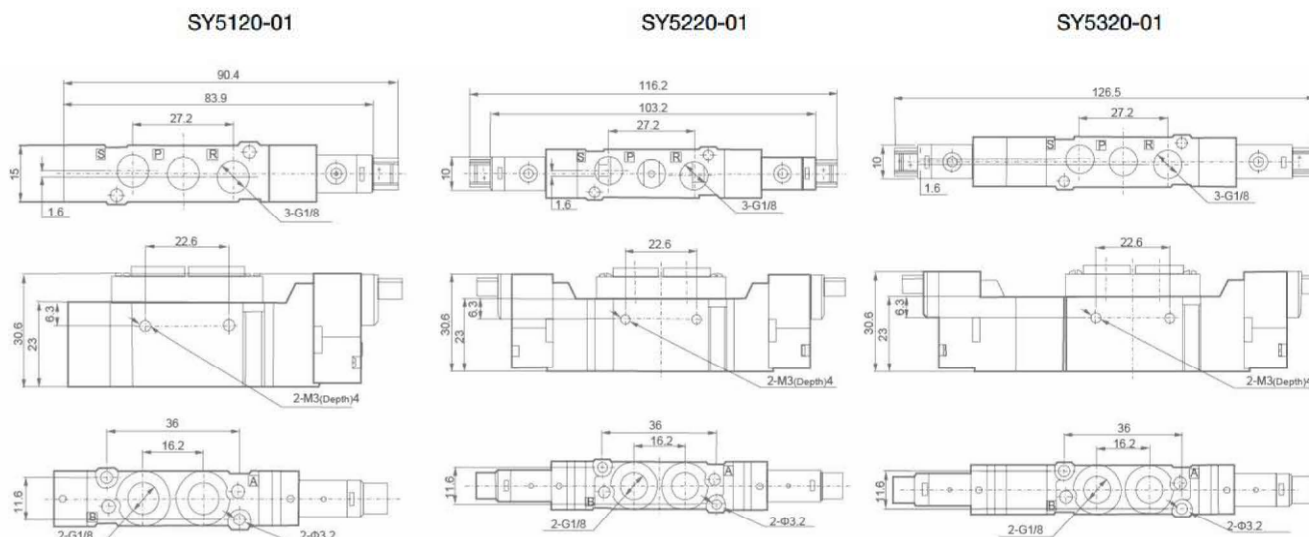
Ordering Code

SY5	1	20	—	A	L	Z	D	M5
Series Code SY5 Series	Coil and Places 1: Single-head Double-position 2: Double-head Double-position 3: Double-head Three-position Close Type 4: Double-head Three-position Exhaust Type 5: Double-head Three-position Pressure Type	Direct Piping Type		Nominal Voltage A: DC12V B: DC24V C: AC110V D: AC220V	Pin Type L: Vertical Type M: Straight Line Type G: Lead Wire Type	Manual Operation Mode Blank: Non-Locking D: Screwdriver Downward Locking E: Hand Lever Pushdown Locking		Port Size 01: G1/8"

Specification

Parameter	SY5120-01	SY5220-01	SY5320-01	SY5420-01	SY5520-01
Function Engineering	Single-head Double-position	Double-head Double-position	Double-head Three-position Close Type	Double-head Three-position Exhaust Type	Double-head Three-position Pressure Type
Cv Valve (P-A/B)	0.67		0.52	0.46	0.89
Cv Valve (A/B-R/S)	0.69		0.49	0.75	0.5
Joint Pipe Bore	G1/8"				
Working Pressure	0.15~0.7 MPa		0.2~0.7 MPa		
Working Medium	40 Micron Filtered Air				
Motion Pattern	Inner Guide Type				
Highest Action Freq.	8 cycle/second		5 cycle/second		
Response Time (ms)	19 below		32 below		
Operating Temperature	-5~60°C				

Overall Dimensions



SY7000 Series 5 Port Low Energy Consumption High Performance Valve



SY7120-02



SY7220-02



SY7320-02

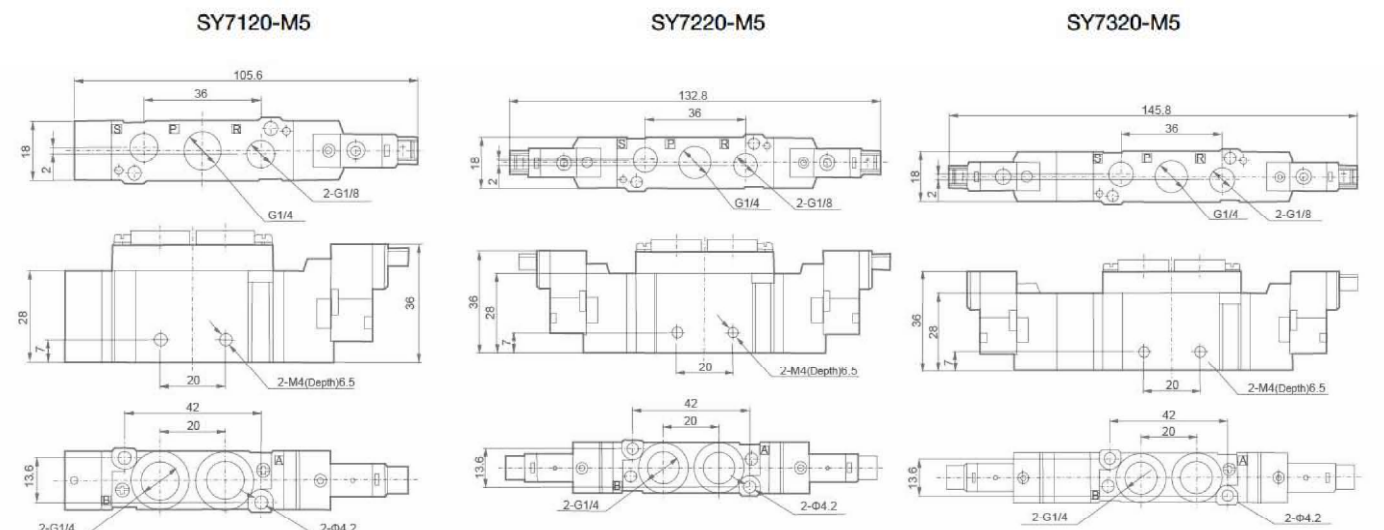
Ordering Code

SY7	1	20	—	A	L	Z	D	02
Series Code SY7Series	Coil and Places 1: Single-head Double-position 2: Double-head Double-position 3: Double-head Three-position Close Type 4: Double-head Three-position Exhaust Type 5: Double-head Three-position Pressure Type	Direct Piping Type		Nominal Voltage A: DC12V B: DC24V C: AC110V D: AC220V	Pin Type L: Vertical Type M: Straight Line Type G: Lead Wire Type	Manual Operation Mode Blank: Non-Locking D: Screwdriver Downward Locking E: Hand Lever Pushdown Locking		Port Size 02: G1/4"

Specification

Model	SY7120-02	SY7220-02	SY7320-02	SY7420-02	SY7520-02
Function Engineering	Single-head Double-position	Double-head Double-position	Double-head Three-position Close Type	Double-head Three-position Exhaust Type	Double-head Three-position Pressure Type
Cv Valve (P-A/B)	1.15		0.84	0.74	1.36
Cv Valve (A/B-R/S)	1.05		0.75	1.15	0.66
Joint Pipe Bore	G1/4"				
Working Pressure	0.15~0.7 MPa		0.2~0.7 MPa		
Working Medium	40 Micron Filtered Air				
Motion Pattern	Inner Guide Type				
Highest Action Freq.	8 cycle/Second			5 cycle/Second	
Response Time (ms)	31 below			50 below	
Operating Temperature	-5~60°C				

Overall Dimensions



3V1 Series Solenoid Valve



3V1-06

Ordering Code

3V	1	06	B	AC220V	
Specification Code	Series Code	Port Size		Standard Voltage	Wiring Form
3V: Two-position Three-way Solenoid Valve	100 Series	M5: M5x0.8 06: G1/8"		DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Standard Connector G: Lead Wire Type L: With Lighting Connector

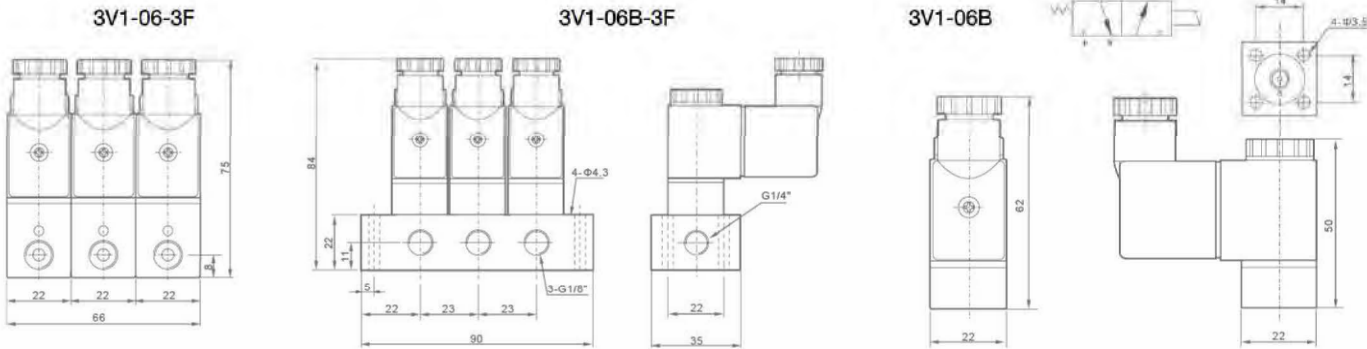
Connecting Type

Blank: Pipe Connection Type
B: Plate Connection Type

Specification

Model	3V1-M5	3V1-06
Working Medium	40 Micron Filtered Air	
Motion Pattern	Direct Drive Type	
Joint Pipe Bore	M5	1/8"
Ambient Temperature	-10~+60°C	
Gas Temperature	5~60°C	
Air Outlet Diameter	1.0 mm	
Lubrication	Not Necessary	
Working-pressure	0~0.8 MPa	
Max. Pressure Resistance	1.2 MPa	
Power Consumption	AC: 4.5VA, DC: 3.0W	
Protect Class	IP65	
Power Connection Form	Gorl	
Material of Body	Aluminum alloy	
Highest Action Frequency	10 Cycle / Sec	
Insulation	F Class	
Voltage Range	±10%	
Shortest Excitation Time	0.05 Second	

Overall Dimensions



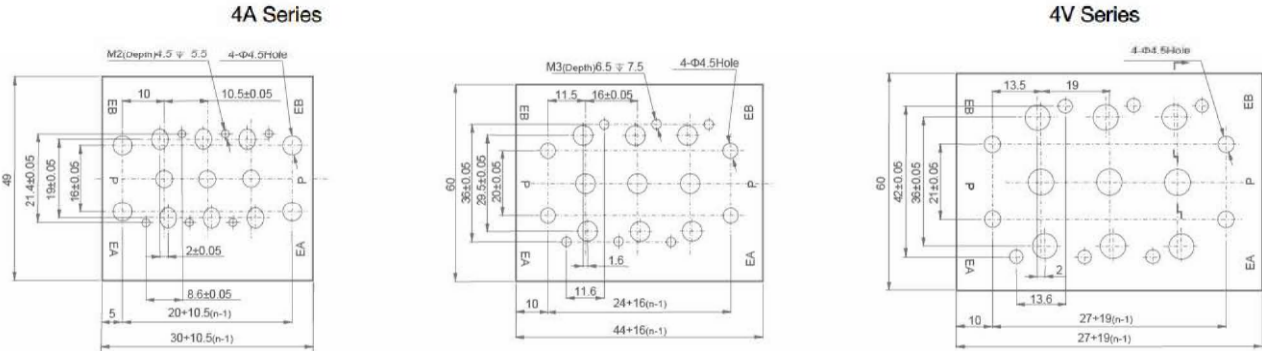
Base For 4V, 4A Series Valve



Ordering Code

4V	100M	F
Series Code	Standard Voltage	Wiring Form
4V: For 4V Series Uses 4A: For 4A Series Uses	100M: Base for 100 Series Use 200M: Base for 200 Series Use 300M: Base for 300 Series Use 400M: Base for 400 Series Use	100M: Wantonly Joint 200M: Wantonly Joint 300M: Wantonly Joint 400M: Wantonly Joint

Overall Dimensions



Dimension Sheet (4A Series)

Model	A	B	C	E	F	G	H	I	J	K	L															
											1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
100M-□F	58	43.2	20	4.5	18.3	19	5	10	0.8	139.4	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323
200M-□F	61	50.7	21	4.5	22.4	23	6	12	1.2	170	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391
300M-□F	75	64.8	26	4.5	27.3	27	6	13.5	2.5	188.8	54	82	110	138	166	194	222	250	278	306	334	362	-	-	-	-
400M-□F	104	94.5	32	5.5	34.3	31.5	7	14.5	5	221.8	63	98	133	168	203	238	273	-	-	-	-	-	-	-	-	-

Model	M	P																Q	R	S	T	U	V	W	X	Y
		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F									
100M-□F	154.5	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	G1/4"	40	30	29	14	9	79	25	27
200M-□F	189	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379	G1/4"	43	32	30.5	14.5	9	93	26	35
300M-□F	208	42	70	98	126	154	182	210	238	266	294	322	350	-	-	-	-	G3/8"	53	48	37.5	13.5	11	99.5	30	40
400M-□F	243	49	84	119	154	189	224	259	-	-	-	-	-	-	-	-	-	G1/2"	68	67	52	18.5	18	112.5	38	50

Dimension Sheet (4V Series)

Model	A	B	C	E	F	G	H	I	J	K	L															
											1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
100M-□F	58	43.2	20	4.5	18.3	19	5	10	0.8	81	38	57	76	95	114	133	152	171	190	209	225	247	266	285	304	323
200M-□F	61	50.7	21	4.5	22.4	23	6	12	1.2	92	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391
300M-□F	75	64.8	26	4.5	27.3	27	6	13.5	2.5	111	54	82	110	138	166	194	222	250	278	305	334	362	-	-	-	-
400M-□F	104	94.5	32	5.5	34.3	31.5	7	14.5	5	142	71	98	133	168	203	238	273	-	-	-	-	-	-	-	-	-

Model	M	P																Q	R	S	T	U	V	X	Y
		1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F								
100M-□F	96	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	G1/4"	40	30	29	14	9	25	27
200M-□F	111	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379	G1/4"	43	32	30.5	14.5	9	26	35
300M-□F	130	42	70	98	126	154	182	210	238	266	294	322	350	-	-	-	-	G3/8"	53	48	37.5	13.5	11	30	40
400M-□F	163	49	84	119	154	189	224	259	-	-	-	-	-	-	-	-	-	G1/2"	68	67	52	18.5	18	38	50

Base For VF, VZ Series Valve



Ordering Code

VF3000M

Specification Code

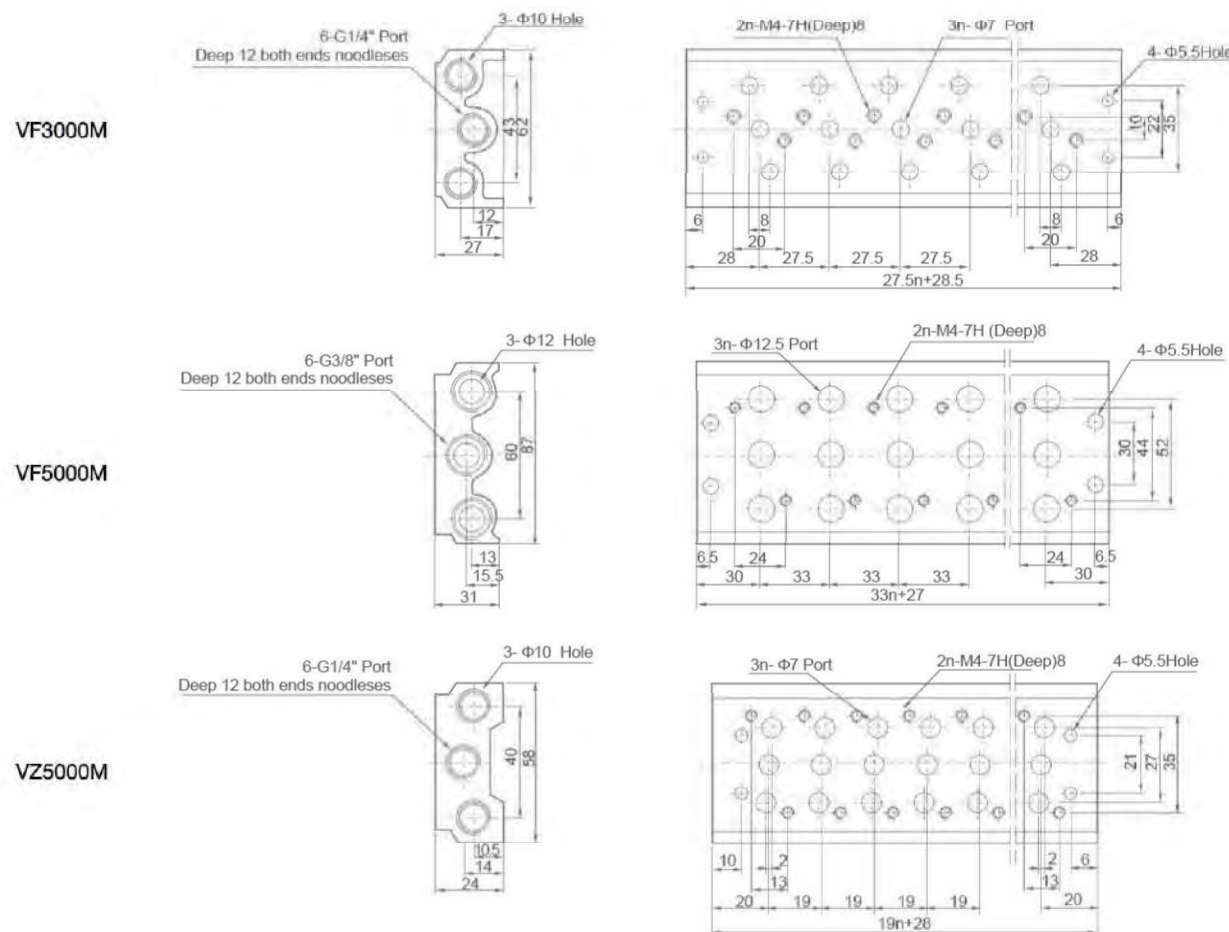
VF3000M: Base for VF3 Series Use
VF5000M: Base for VF5 Series Use
VZ5000M: Base for VZ5 Series Use

F

Joint Base Number

VF3000M: Wantonly Joint
VF5000M: Wantonly Joint
VZ5000M: Wantonly Joint

Overall Dimensions



Blind plate for 4V, 4A Series Valve



Ordering Code

4V, 4A

Series Code
4V: For 4V Series Use
4A: For 4A Series Use

100M

Specification Code
100M: For 100 Series Use
200M: For 200 Series Use
300M: For 300 Series Use
400M: For 400 Series Use

B

Blind Plate Code
B: Base Purposed
Blind Plate

Blind plate Operating Instructions.
When base quantity is more than solenoid (pneumatic) valve quantity, can use blind plate to seal the redundant valve base temporary, and then change it if add eSTra solenoid (pneumatic) valve. Like this can expand system.

Base For 4V, 4A Series Valve



Ordering Code

SY3000M

Series

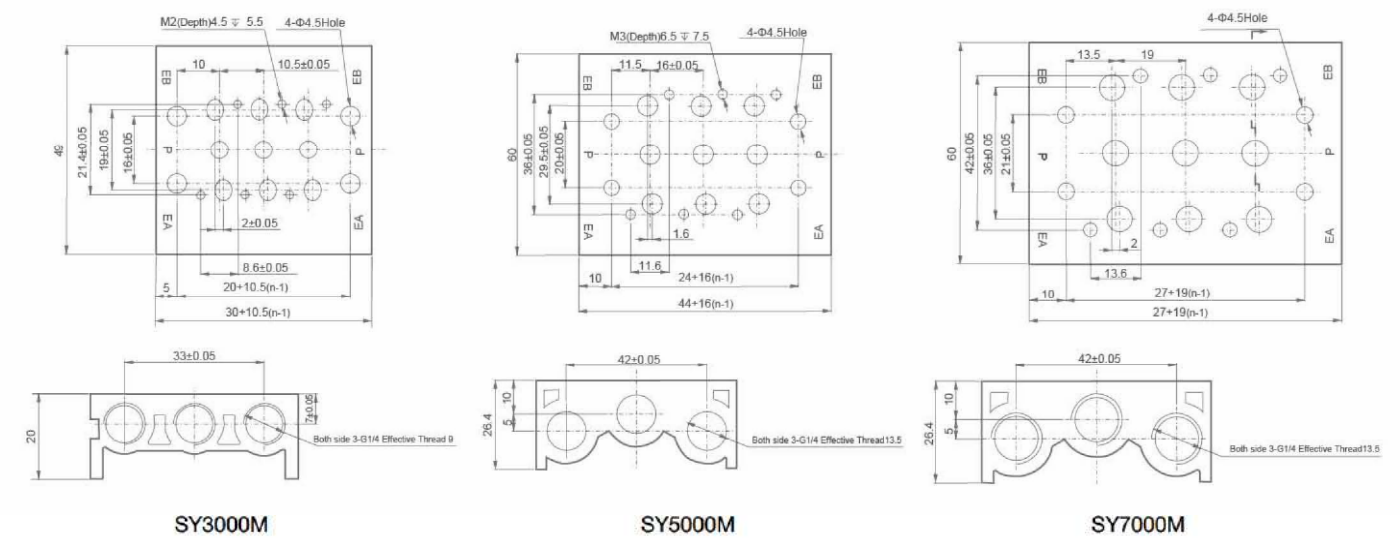
SY3000M: For SY3 Series Use
SY5000M: For SY5 Series Use
SY7000M: For SY7 Series Use

F

Joint Base Number

SY3000M: Wantonly Joint
SY5000M: Wantonly Joint
SY7000M: Wantonly Joint

Overall Dimensions



Base For 3V, 3A Series Valve



Ordering Code

3V

Series Code
3V: For 3V Series Ues
3A: For 3A Series Ues

100M

Specification Code
100M: Base for 100 Series Use
200M: Base for 200 Series Use
300M: Base for 300 Series Use

F

Joint Base Number
100M: Wantonly Joint
200M: Wantonly Joint
300M: Wantonly Joint

Special Valve Valve



Our company can customize all kinds of non-standard valve base accessories according to your drawing or sample.

HAND/MECHANICAL VALVE

The valve is controlled by human or machine, to switch the direction of air flow. These valves included hand pull, hand draw, button control, rotary and foot valve. Body is made from aluminum, machining by CNC center. SACHIO used the high grade of material and imported machine to make all the details perfect.



MSV Series Mechanical Valve



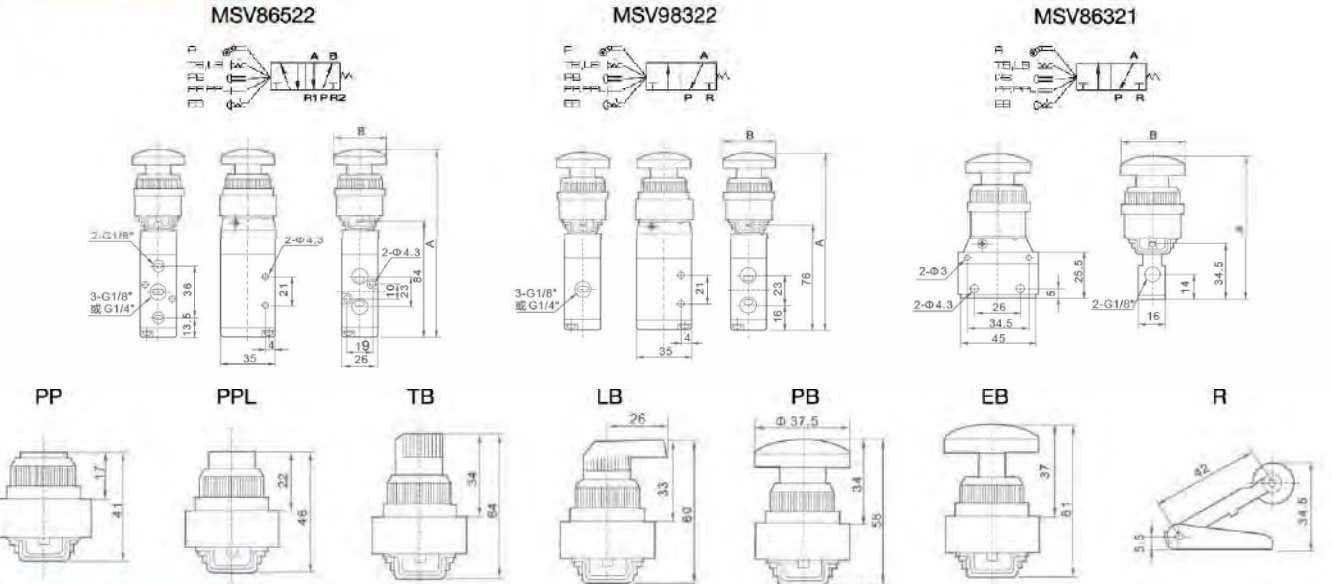
Ordering Code

MSV	98	32	1	R
Specification Code	Series Code	Position and Way No	Port Size	Button Type
Mechanical Valve	98 Series 88 Series	32: Two-position Three-way 52: Two-position Five-way	1: G1/8" 2: G1/4"	Blank: Normal Type R: Roller Type TB: Selective Knob LB: Strengthened Knob PB: Large Round Button PP: Plat Round Button PPL: Convex Round Button EB: With Lock Button

Specification

Model	MSV86321	MSV86522	MSV98322
Working Medium	40 Micron Filtered Air		
Position and Way No.	Two-position Three-way	Two-position Five-way	Two-position Three-way
Effective Section Area	12mm ² (CV= 0.67)	16mm ² (CV= 0.89)	16mm ² (CV= 0.89)
Port Size	G1/8"	G1/4"	G1/4"
Pressure Range	0~0.8 MPa		
Temperature Range	0~60°C		

Overall Dimensions



Dimension Sheet

Model	Symbol / Model	PP	PPL	LB	TB	EB	PB	R
MSV86522	A	114	119	133	136.5	134	131	107.5
	B	39.5	24.5	26.5	36.5	39.5	37.5	42.5
MSV98322	A	106	111	125	129.5	126	123	99.5
	B	39.5	24.5	26.5	36.5	39.5	37.5	42.5
MSV86321	A	66	71	85	88.5	86	83	59.5
	B	39.5	24.5	26.5	36.5	39.5	37.5	42.5

JMJ Series Mechanical Valve



Ordering Code

JMJ

Specification Code
Joint Pipe Bore G1/4" Two-position
Three-way Mechanical Valve

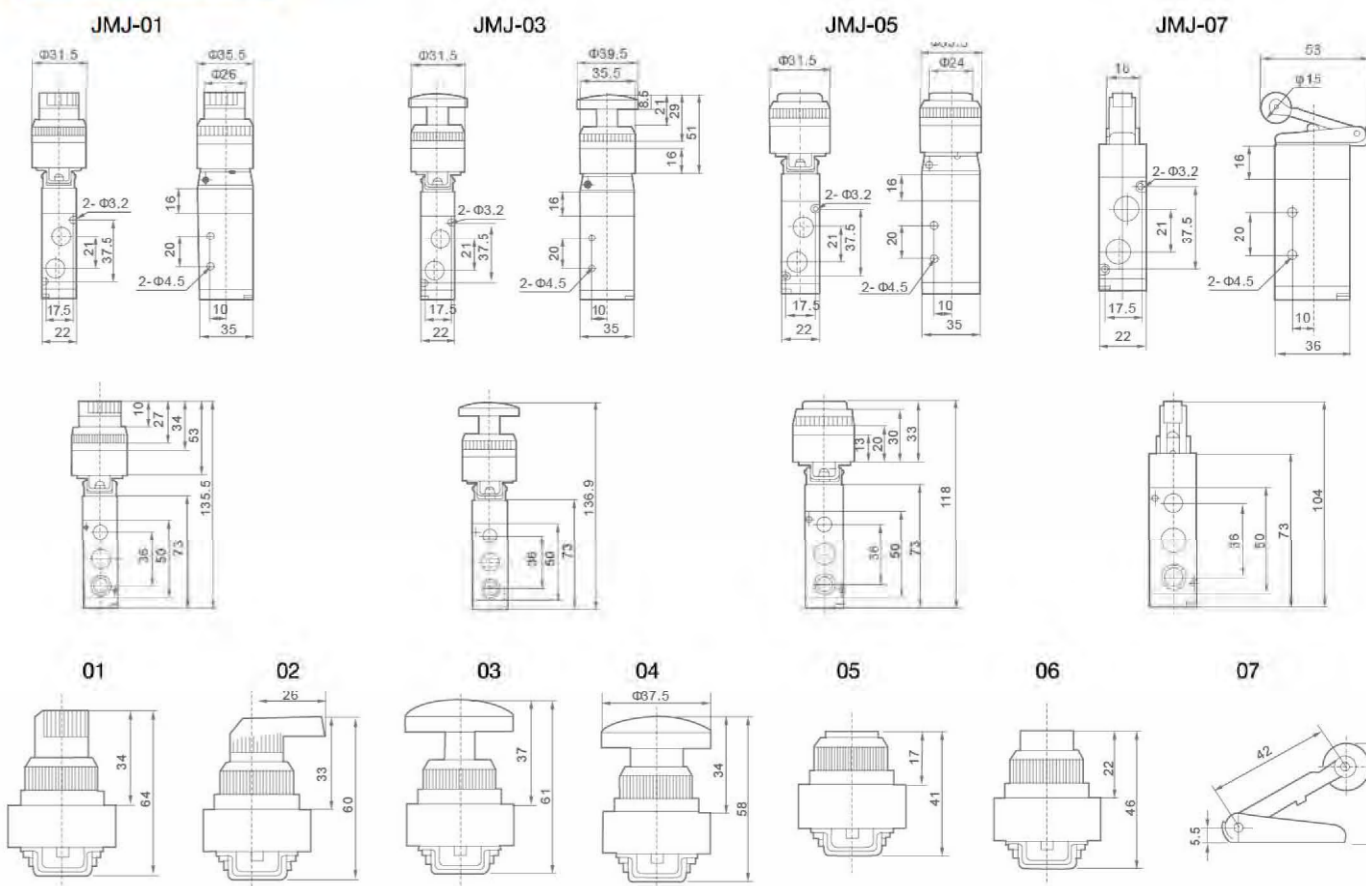
01

Button Type
01: Selective Knob
02: Strengthened Knob
03: With Lock Button
04: Large Round Button
05: Flat Round Button
06: Convex Round Button
07: Roller Type

Specification

Model	JMJ-01, 02, 03, 04, 05, 06, 07
Port Size	G1/4"
Working Medium	Air
Temperature Range	0~60°C
Pressure Range	0~1 MPa
Effective Section Area	25 mm ²
Lubrication	Not Necessary

Overall Dimensions



JM Series Mechanical Valve



Ordering Code

JM

Specification Code
Stop-type Mechanical Valve

05

Button Type
05: Selective Knob
06: With Lock Button
06A: Convex Round Button
07: Roller Type

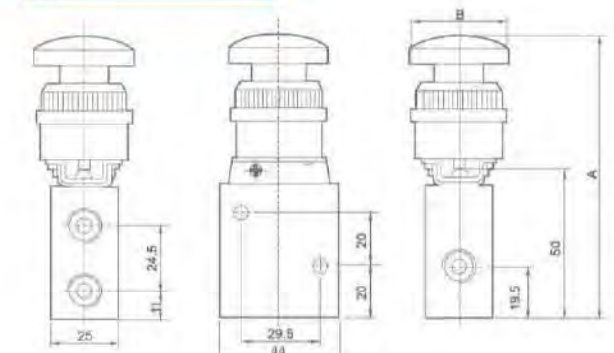
Specification

Model	JM-05	JM-06	JM-06A	JM-07
Working Medium	40 Micron Filtered Air			
Position and Way No.	Two-position Three-way, Two-position Two-way			
Port Size	G1/4"			
Working-pressure Range	0~0.8 MPa			
Operating Temperature	0~60°C			

Dimension Sheet

Model	JM-05	JM-06	JM-06A	JM-07
A	114	111	96	84.5
B	36.5	39.5	39.5	42.5

Overall Dimensions



MOV Series Mechanical Valve



Ordering Code

MOV

Specification Code
Machine-Control,
Hand-Control Valve

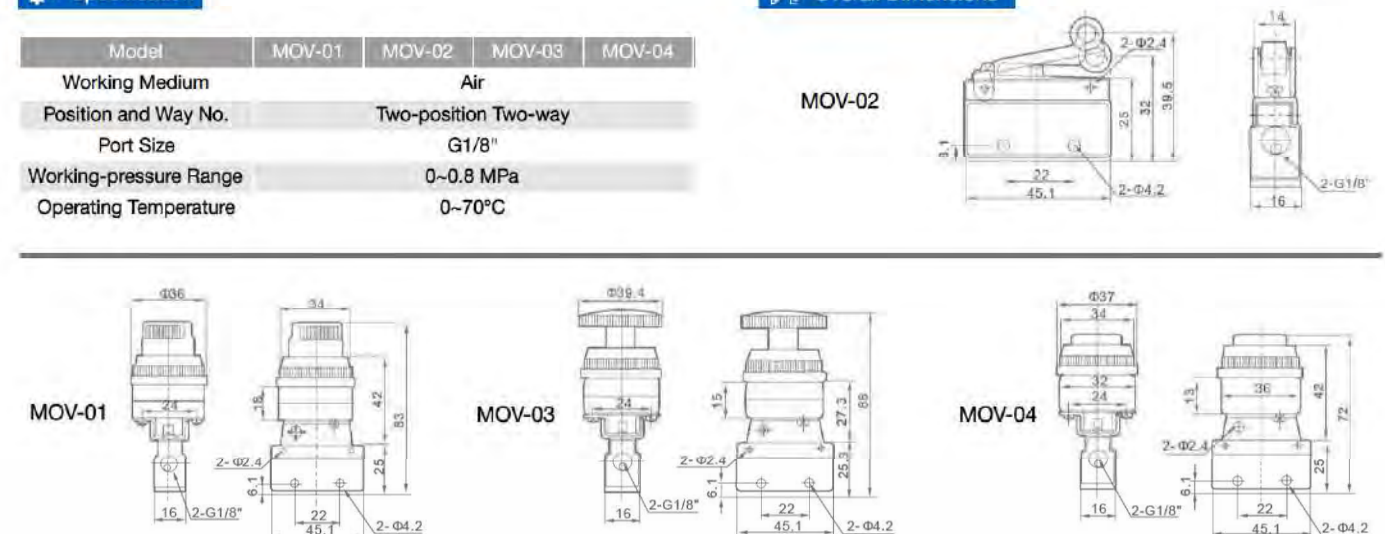
01

Button Type
01: Selective Knob
02: Roller Type
03: With Lock Button
04: Convex Round Button

Specification

Model	MOV-01	MOV-02	MOV-03	MOV-04
Working Medium	Air			
Position and Way No.	Two-position Two-way			
Port Size	G1/8"			
Working-pressure Range	0~0.8 MPa			
Operating Temperature	0~70°C			

Overall Dimensions



SS3 Series Mechanical Valve



Ordering Code

S3	PM	06	R								
Specification Code	Button Type	Port Size	Button Color								
Two-Position Three way Mechanical Valve	B: Normal C: Long Handle D: Short Handle Y: Roocker R: Roller lever L: One way Roller lever V: Vertical roller PL: Park Rotation Button PP: Convers Button PF: Plat Button PM: Large Round Button HS: Selective Knob	05: M5 06: PT1/8" 08: PT1/4"	<table><tr><th>Specification</th><th>Button Color</th></tr><tr><td>PL Type</td><td>R : Red</td></tr><tr><td>PP Type / PF Type PM Type / HS Type</td><td>R : Red G : Green B : Black</td></tr><tr><td>Other Model</td><td>No</td></tr></table>	Specification	Button Color	PL Type	R : Red	PP Type / PF Type PM Type / HS Type	R : Red G : Green B : Black	Other Model	No
Specification	Button Color										
PL Type	R : Red										
PP Type / PF Type PM Type / HS Type	R : Red G : Green B : Black										
Other Model	No										

Specification

Model	S3B	S3C	S3D	S3V	S3R	S3L	S3Y	S3PM	S3PP	S3PF	S3PL	S3HS
Working Medium	Filtered 40µm Air											
Motion Pattern	External Direct Action Control											
Port Size	05: M5; 06: PT1/8"; 08: PT1/4"											
Effective Sectional Area	05: 2.4mm ² (Cv = 0.45); 08: 12.0mm ² (Cv = 0.67)											
Position and Way Area	Two-Position Three-Way											
Lubrication	Not required											
Working Pressure Resistance	0~0.8MPa											
Ensured Pressure Resistance	1.5MPa											
Working Temperature	-20~70°C											
Body Material	Aluminum Alloy											

ST Series Toggles Valve



3R/4R Series Hand-draw Valve



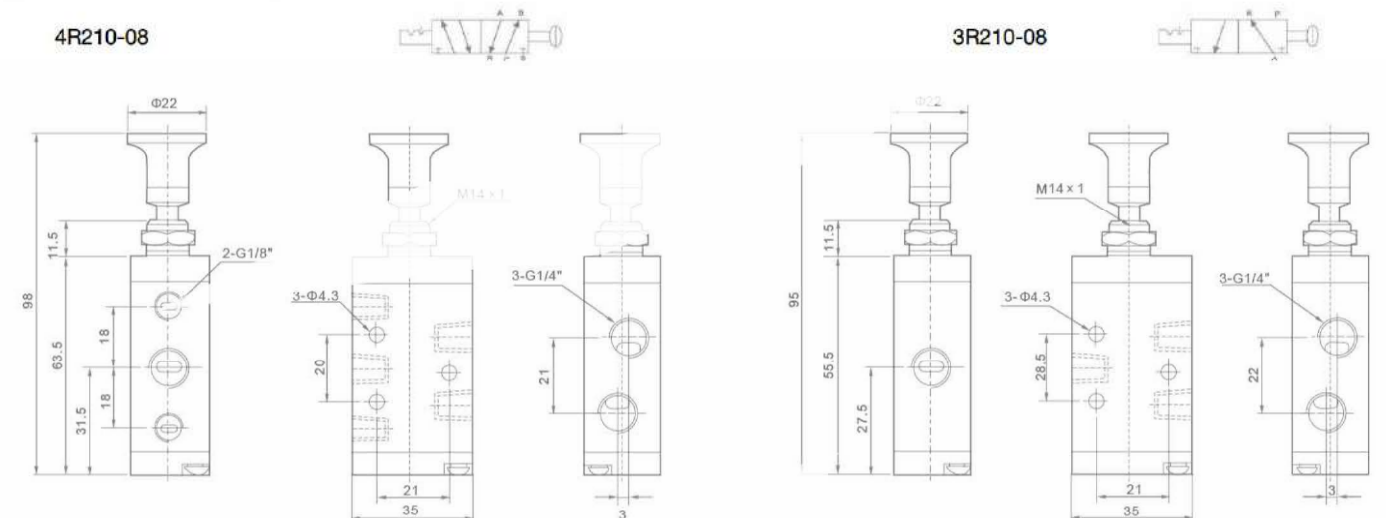
Ordering Code

4R	2	10	06
Specification Code	Series Code	Number Places	Port Size
4R : Two-position Five-way Hand-draw Valve 3R: Two-position Five-way Hand-draw Valve	100 Series 200 Series 300 Series 400 Series	10: Single-head Double-position	06: G1/8" 08: G1/4" 10: G3/8" 15: G1/2"

Specification

Model	4R110-06	4R210-08	4R310-10	4R410-15	3R110-06	3R210-08	3R310-10	3R410-15
Working Medium	Compressed Air							
Position and Way No.	Two-position Five-way				Two-position Three-way			
Joint Pipe Bore	G1/8"	G1/4"	G3/8"	G1/2"	G1/8"	G1/4"	G3/8"	G1/2"
Working-pressure Range	0~1.0 MPa							
Operating Temperature	-5~60°C							
Operating Method	Direct Action Type							
Lubrication	Not Required							

Overall Dimensions



HV, K34 Series Hand-Switching Valve



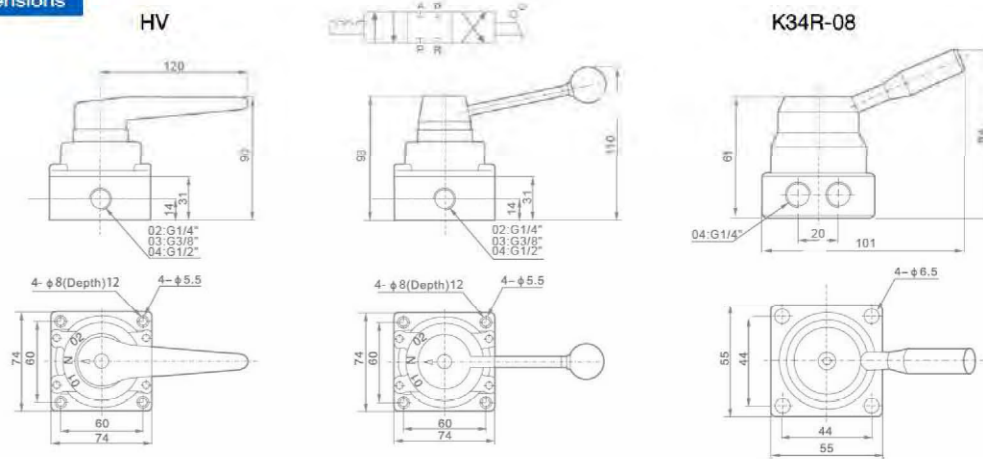
Ordering Code

HV	02		K	34	R	L8	D
Series Code HV Series	Port Size 02: G1/4" 03: G3/8" 04: G1/2"	Joint Pipe Type Blank: Pipe Connection Type B: Plate Connection Type	Series Code K Series	Position and way No. 24: Two-position Four-way 34: Three-position Four-way	Type Code R: Hand-switching Valve	Port Size L6: G1/8" L8: G1/4"	Base Joint

Specification

Model	HV-02	HV-03	HV-04	K34R ₆ -L6	K34R ₆ -L8
Working Medium	40 Micron Filtered Air				
Effective Sectional Area	30 mm ² (Cv = 1.68)			18 mm ² (Cv = 1.00)	
Port Size	G1/4"	G3/8"	G1/2"	G1/8"	G1/4"
Working-pressure Range	0~0.8 MPa				
Operating Temperature Range	0~60°C				

Overall Dimensions



4HV Series Hand-Switching Valve



Ordering Code

4HV	230	08	T
Series 4HV Series	Position and way No. 230: Two-position Four-way 330: Three-position Four-way	Port Size 08: G1/4" 10: G3/8" 15: G1/2"	Install Type Blank: Body of Valve Install T: Panel Install

4HV330-10

TSV Series Hand-Pull Valve



TSV86522-M

TSCV98322-M

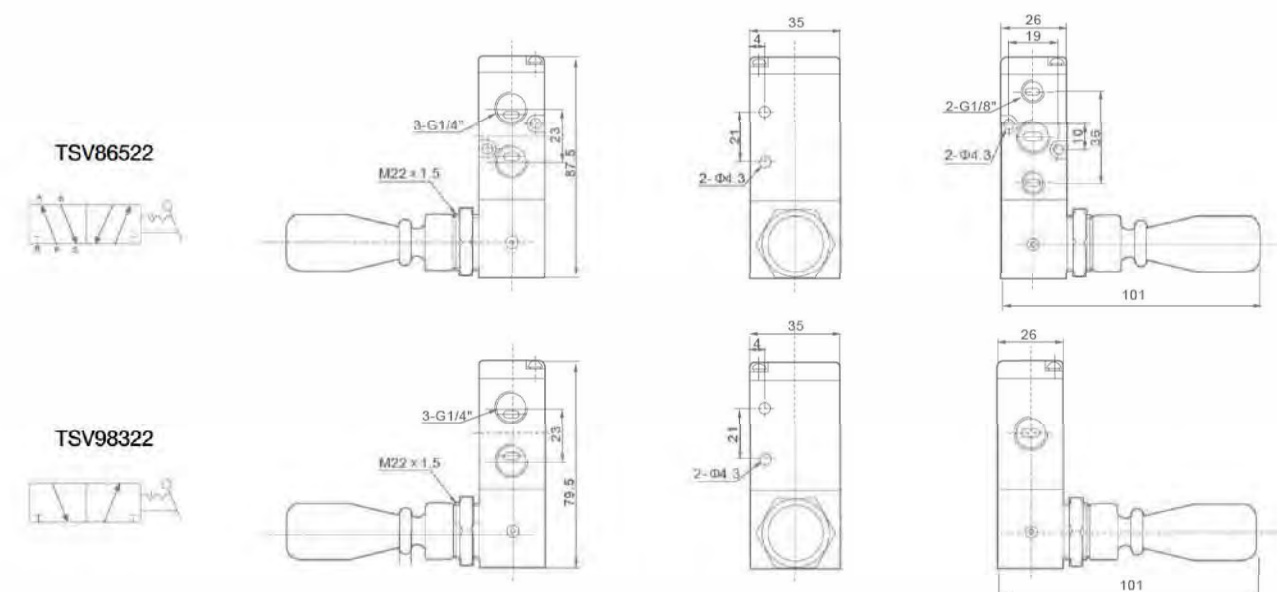
Ordering Code

TSV86	52	2	M	TSV98	32	2	M
Specification Code Hand-pull Series	Port Size Two-position Three-way	Port Size 1: G1/8" 2: G1/4"	Type Code M: Machinery Locking Type S: Spring Return Type	Specification Code Hand-Pull Valve	Position and way No. Two-position Three-way	Port Size 1: G1/8" 2: G1/4"	Type Code M: Machinery Locking type S: Spring Return Type

Specification

Model	TSV86522M/S	TSV98322M/S
Working Medium	40 Micron Filtered Air	
Motion Pattern	Direct Drive Type	
Effective Sectional Area	18 mm ² (Cv = 1.00)	
Port Size	G1/4"	
Working-pressure Range	0~1.0 MPa	
Operating Temperature	0~60°C	

Overall Dimensions



4H Series Hand-Pull Valve



4H330-10



4H210-08

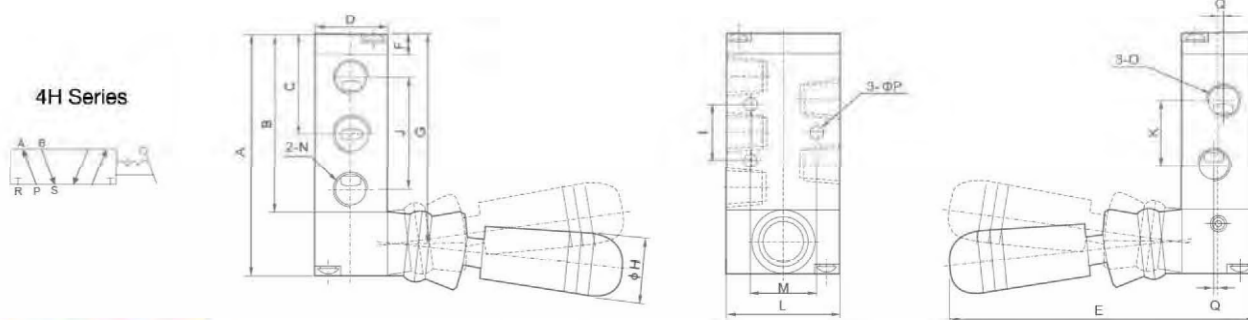
Ordering Code

4H	2	10	—	06	—	
Specification Code	Position and way No	Number of Places		Port Size		Wiring Form
4H: Two(Three)-position Five-way Hand Pull Valve	2: 200 Series 3: 300 Series 4: 400 Series	10: Single-head Double-position 30: Single-head Three-position		06: G1/8" 08: G1/4" 10: G3/8" 15: G1/2"		Blank: Two-Position Five-way lock type L: Three-Position Five-way lock type S: Two(Three)- Position Five-way spring return type

Specification

Model	4H210-06	4H210-08	4H230-08	4H310-08	4H310-10	4H330-10	4H410-15	4H430-15
Working Medium	40 Micron Filtered Air							
Motion Pattern	Direct Drive Type							
Effective Section Area	14 mm ² (CV= 0.78)	16 mm ² (CV= 0.89)	12 mm ² (CV= 0.67)	25 mm ² (CV= 1.4)	30 mm ² (CV= 1.68)	30 mm ² (CV= 1.68)	50 mm ² (CV= 2.79)	50 mm ² (CV= 2.79)
Port Size	Air Inlet= Air Outlet= Exhaust= G1/8"	Air Inlet= Air Outlet= Exhaust= G1/4"		Air Inlet= Air Outlet= Exhaust= G1/4"	Air Inlet= G3/8", Air Outlet= Exhaust= G1/4"		Air Inlet= Air Outlet= Exhaust= G1/2"	
Working Pressure Range	0-1.0 MPa							
Operating Temp. Range	0-60°C							

Overall Dimensions



Dimension Sheet

Symbol / Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
4H210-06	76.5	56.5	31.5	22	95	6.5	66.5	18	20	36	21	35	21	G1/8"	G1/8"	4.3	-
4H230-06	76.5	56.5	31.5	22	95	6.5	66.5	18	20	36	21	35	21	G1/8"	G1/8"	4.3	-
4H230-06(S)	97.5	75.5	31.5	22	95	6.5	85.5	18	20	36	21	35	21	G1/8"	G1/8"	4.3	-
4H210-08	76.6	56.5	31.5	22	95	6.5	66.5	18	20	36	21	35	21	G1/8"	G1/4"	4.3	1.5
4H230-08L	97.5	75.5	31.5	22	95	6.5	66.5	18	20	36	21	35	21	G1/8"	G1/4"	4.3	1.5
4H230-08(S)	97.5	75.5	31.5	22	95	6.5	85.5	18	20	36	21	35	21	G1/8"	G1/4"	4.3	1.5
4H310-08	92	72.5	40	27	100	7.5	82.5	18	24	45	24	40	27	G1/4"	G1/4"	4.3	-
4H310-10	92	72.5	40	27	100	7.5	82.5	18	24	45	24	40	27	G1/4"	G3/8"	4.3	2
4H410-15	126	102	55.5	34	100	7.5	114	18	28	63	36	50	35	G1/2"	G1/2"	5.5	-

4F, FV Series Foot Valve



4F210-08L



4F210-08



FV420



4F210-08LG

Ordering Code

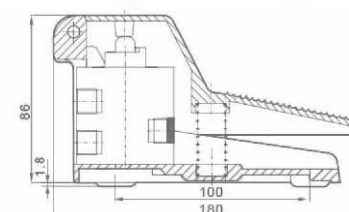
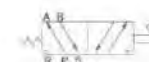
4F	—	2	10	—	08	—		FV	—	320
Specification Code		Series Code	Number of Places		Port Code		Type Code	Specification Code		Position and way No
4H: Two(Three)-position Five-way Hand Pull Valve		02: 200 Series	10: Single-head Double-position		08: G1/4"		Blank: Standard Type L: With Lock G: With Cover LG: With Lock And Cover	FV: Foot Valve		320: Two-position Three-way 420: Two-position Four-way

Specification

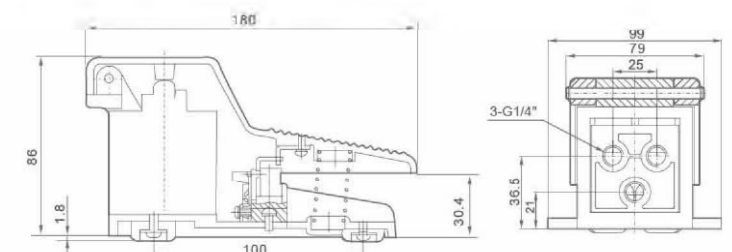
Model	4F210-06	4F210-08L	4F210-08G	4F210-08LG	FV420	FV320
Working Medium	40 Micron Filtered Air					
Position and Way Number	Two-position Five-way				Two-position Four-way	Two-position Three-way
Motion Patten	Direct Drive Type					
Port Size	Air Inlet= Air Outlet= Exhaust= G1/4"				Air Inlet= Air Outlet= G1/4" Exhaust= G1/8"	
Working-pressure Range	0.15~0.9MPa					
Operating Temperature Range	0~60℃					

Overall Dimensions

4F210-08

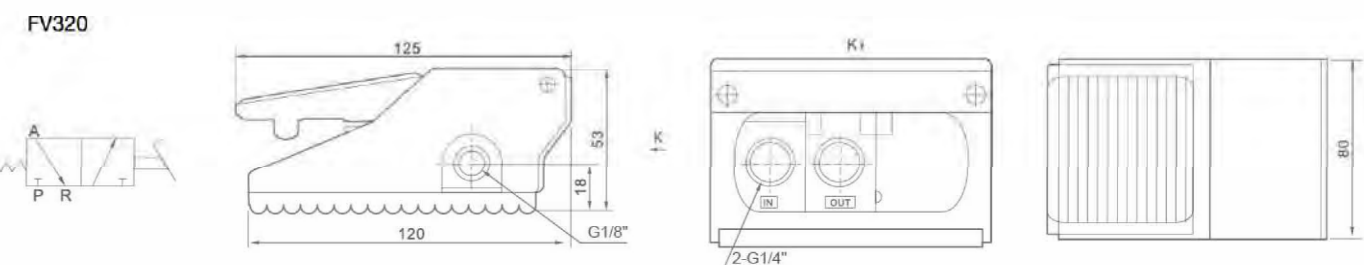
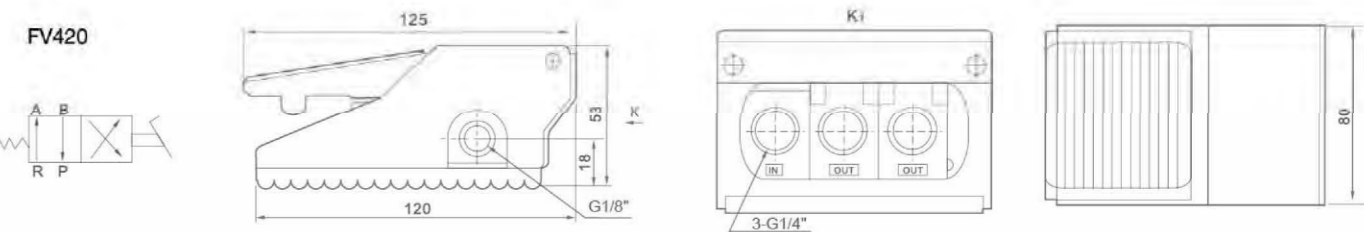
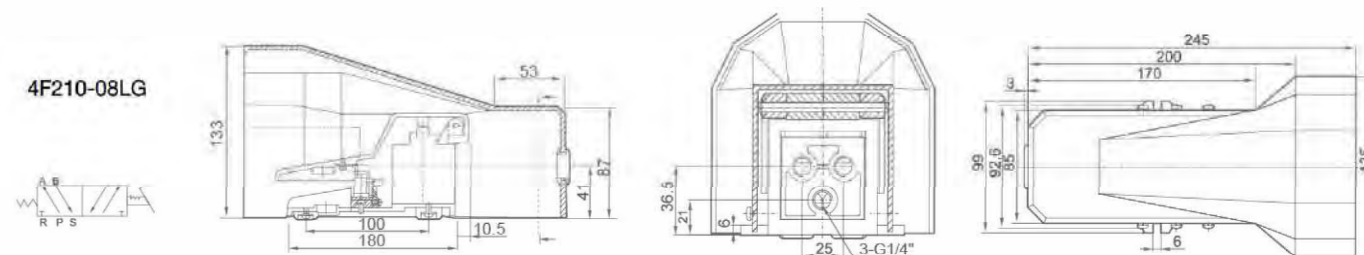
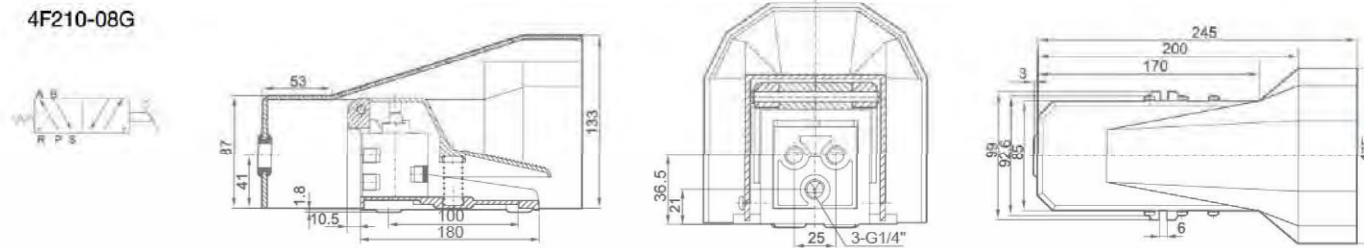


4F210-08L



4F, FV Series Foot Valve

Overall Dimensions



Directional Valves

SK Series Foot Valve



Ordering Code

SK	23	R7	L8
Series Code Foot Valve	Position and Way Number 23: Two-position Four-way 25: Three-position Four-way	Type Code R7: Foot Type	Port Size L6: G1/8" L8: G1/4" L15: G1/2"

Specification

Model	SK23R7-L6	SK25R7-L8
Diameter	6mm	8mm
Working Medium	Compress Air	
Working Pressure	0.05~0.8MPa	
Medium Temperature	-10~55°C	
Environment Temperature	-5~50°C	
Effective Sectional Area	10mm ²	20mm ²
Letting Out Amount	≤50 cm ³ /min	
Operating Power	≤80N	≤100N
Life (ten thousand)	≥200	

SH Series Manual Valve



Ordering Code

SH	402	S
Series Code Foot Valve	Port Size 402: G1/4" 403: G3/8"	Type Code Blank: Immobility Type S: Spring Reset Type

Specification

Model	SH-402	SH-402S	SH-403	SH-403S
Working Medium	Air			
Working-pressure Range	0.15~0.9MPa			
Working-temperature Range	0~70°C			
Port Size	G1/4"		G3/8"	
Position Number	Two-position Five-way			

ST Series Foot Valve



Ordering Code

ST	402	S
Series Code Foot Valve	Port Size 402: G1/4" 403: G3/8"	Type Code Blank: Immobility Type S: Spring Reset Type

Specification

Model	SH-402	SH-402S	SH-403	SH-403S
Working Medium	Air			
Working-pressure Range	0.15~0.9MPa			
Working-temperature Range	0~70°C			
Port Size	G1/4"		G3/8"	
Position Number	Two-position Five-way			

Directional Valves

RE Series Flow Control Valve



RE-02

Ordering Code

RE

Series Code
RE: Ordinary Type
Flow Control Valve

01

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"

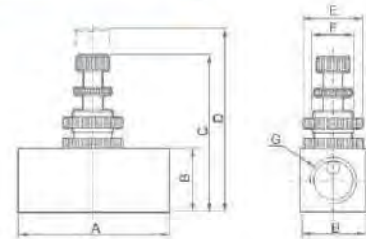
Graphic Symbol



Specification

Model	RE-01	RE-02	RE-03	RE-04
Port Size	G1/8"	G1/4"	G3/8"	G1/2"
Working Medium	Air			
Working-pressure Range	0~0.95MPa			
Operating Temperature Range	0~60°C			

Overall Dimensions



Dimension Sheet

Model/Symbol	A	B	C	D	E	F	G
RE-01	45	19	43	50	Φ19	M14×1	G1/8
RE-02	45	19	43	50	Φ19	M14×1	G1/4
RE-03	55	25	55	62	Φ25	M18×1	G3/8
RE-04	55	25	55	62	Φ25	M18×1	G1/2

ASC Series Accurate Type Flow Control Valve



ASC-06

Ordering Code

ASC

Series Code
ASC: Accurate Type
Flow Control Valve

08

Port Size
06: G1/8"
08: G1/4"
10: G3/8"
15: G1/2"

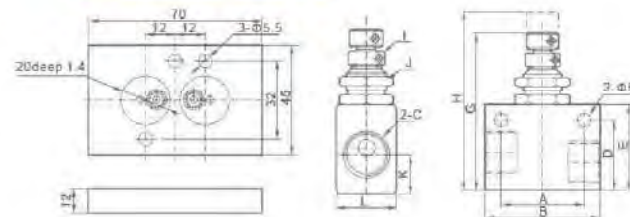
Graphic Symbol



Specification

Model	ASC-06	ASC-08	ASC-10	ASC-15
Port Size	G1/8"	G1/4"	G3/8"	G1/2"
Working Medium	Air			
Working-pressure Range	0~0.95MPa			
Operating Temperature Range	0~60°C			

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L
ASC-06	22	32	G1/8	22	27	4.3	49.7	56.5	M6×0.5	M12×0.75	12	18
ASC-08	26	36	G1/4	22	27	4.3	49.7	56.5	M6×0.5	M12×0.75	12	18
ASC-10	28	40	G3/8	25	30	4.3	52.7	59.5	M6×0.5	M12×0.75	13	22
ASC-15	28	40	G1/2	30	35	4.3	58.7	65.5	M6×0.5	M12×0.75	13.5	26

KLA Series Check Valve



KLA-06

Ordering Code

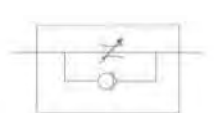
KLA

Series Code
KLA: Check Valve

10

Port Size
06: G1/8"
08: G1/4"
10: G3/8"
15: G1/2"
20: G3/4"
25: G1"

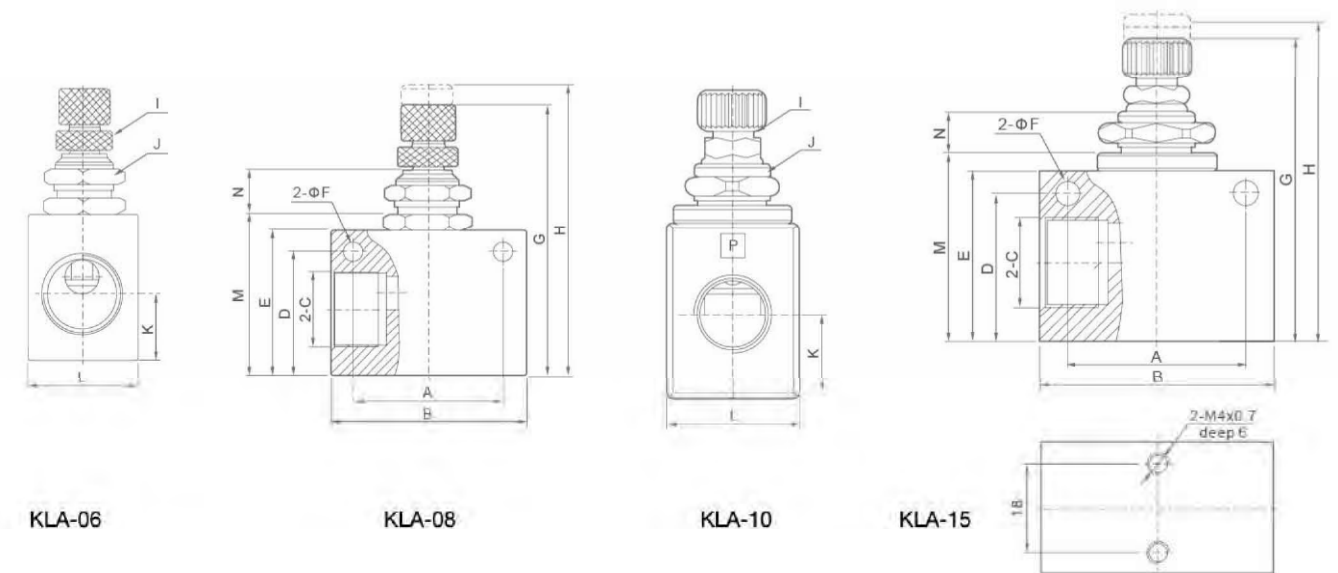
Graphic Symbol



Specification

Model	KLA-06	KLA-08	KLA-10	KLA-15
Working Medium	Air			
Port Size	G1/8"	G1/4"	G3/8"	G1/2"
Working-pressure Range	0.5~0.95 Kg/cm ²			
Ensured Pressure Resistance	15.0 Kg/cm ²			
Operating Temperature Range	-5~80°C			
Body of Material	Aluminum Alloy			
Standard Rated Flow (L/min)	Check Valve	200	450	1250
	One-way Valve	400	800	2000

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
KLA-06	22	32	PT1/8	18	23	4.3	46.8	52.3	M6×0.5	M12×0.75	10	18	26	8.6
KLA-08	26	36	PT1/4	23	27	4.3	50.8	56.3	M6×0.5	M12×0.75	13.5	18	30	8.6
KLA-10	35	50	G3/8	32	37	5.3	65	74	M8×0.75	M16×1	17.5	28	40.5	10.2
KLA-15	35	50	G1/2	32	37	5.3	65	74	M8×0.75	M16×1	17.5	28	40.5	10.2

KA Series Check Valve

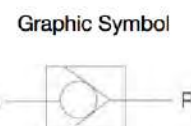


KA-08

Ordering Code

KA
Series
KA: Check Valve

L8
Port Size
L06: G1/8"
L08: G1/4"
L10: G3/8"
L15: G1/2"
L20: G3/4"
L25: G1"
L32: G1-1/4"
L40: G1-1/2"
L50: G2"



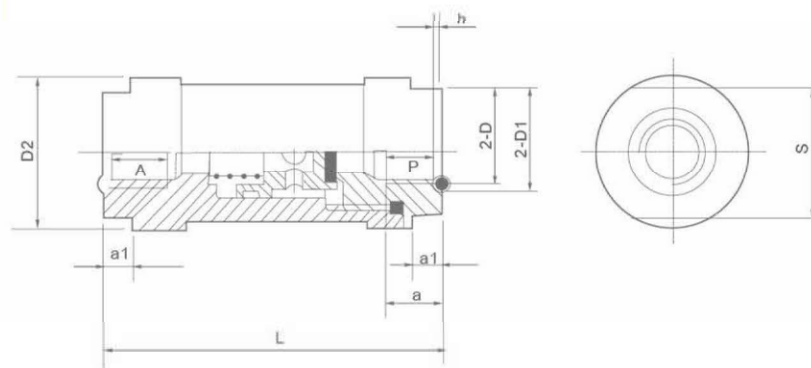
Product Instruction

The valve is unidirectional control element. When passing the valve, the working medium can only flow along a given direction. In operation, when the medium pressure direction changed, the valve functions to stop the return of the medium in the system.

Specification

Model	KA-06	KA-08	KA-10	KA-15	KA-20	KA-25	KA-32	KA-40	KA-50
Working-Pressure	0.05~0.8MPa								
Environment Temperature	-10~+55°C								
Medium Temperature	0~+55°C								
Circulating	10	20	40	60	110	190	300	400	650
Startup Ability	≤0.03MPa								
Leak Out Flow(cm³/min)	50	50	120	120	250	250	500	500	500
Respond Time (Sec)	0.03								
Life(Ten thousand Times)	≥150								

Overall Dimensions



Dimension Sheet

Model	Joint Pipe Code	D	D1	D2	S	L	a	a1	h
KA-L06	6	G1/8 M10×1	Φ13	Φ28	24	64	10	6	1.4 ⁰ _{-0.1}
KA-L08	8	G1/4 M12×1.5	Φ16	Φ28	24	64	12	6	1.4 ⁰ _{-0.1}
KA-L10	10	G3/8 M16×1.5	Φ20	Φ40	36	86	14	10	1.8 ⁰ _{-0.1}
KA-L15	15	G1/2 M20×1.5	Φ26	Φ40	36	86	14	10	1.8 ⁰ _{-0.1}
KA-L20	20	G3/4 M27×2	Φ32	Φ55	46	112	21	12	1.8 ⁰ _{-0.1}
KA-L25	25	G1 M33×2	Φ40	Φ55	46	112	23	12	2.7 ⁰ _{-0.1}
KA-L32	32	G1-1/4 M42×2	Φ48	Φ88	75	161	25	22	2.7 ⁰ _{-0.1}
KA-L40	40	G1-1/8 M48×2	Φ54	Φ88	75	161	26	26	2.7 ⁰ _{-0.12}
KA-L50	50	G2 M60×2	Φ70	Φ100	90	95	26	26	4.5 ⁰ _{-0.18}

KAM Series Check Valve



KAM-08

Ordering Code

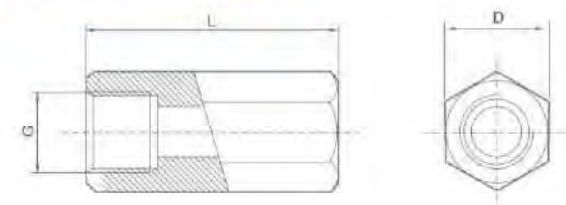
KAM
Series Code
KAM: Check Valve

15
Port Size
08: G1/8"
08: G1/4"
10: G3/8"
15: G1/2"

Specification

Model	KAM-06	KAM-08	KAM-10	KAM-15
Port Size	G1/8"	G1/4"	G3/8"	G1/2"
Flow mm²/S	10	20	40	60
Leak Out Flow(cm³/min)	≤45	≤60	≤80	≤95
Operation Medium	Compress Air			
Working Temperature Range	-5~60°C			
Working Pressure	0.05~1.2MPa			

Overall Dimensions



Dimension Sheet

Model	G	L	D
KAM-06	G1/8"	37	14
KAM-08	G1/4"	48	17
KAM-10	G3/8"	50	21
KAM-15	G1/2"	60	24

AS Series Check Valve



AS4000-02

Ordering Code

AS
Series Code
AS: Check Valve

15
Specification Code
4000

02
Port Size
02: G1/4"
03: G3/8"
04: G1/2"

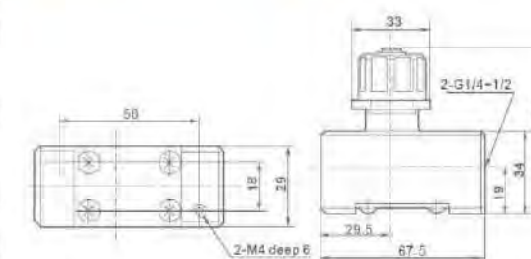
Graphic Symbol



Specification

Model		AS4000-02	AS4000-03	AS4000-04
Port Size		G1/4"	G3/8"	G1/2"
Free Flow	Flow(L/min)	1670		
	Effective Section Area(mm²)	25.5		
Controlled Flow	Flow(L/min)	1670		
	Effective Section Area(mm²)	25.5		
Ensured Pressure Resistance			1.5MPa	
Highest Working Pressure			1.0MPa	
Lowest Working Pressure			0.05MPa	
Ambient and Media Temperature			5~50°C	
Regulated Flow Turns			8~9	

Overall Dimensions



AS4000

Note: Input pressure is 0.5MPa.
Note: 8 turns for AS4000

SQ Series Quick Exhaust Valve

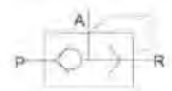


SQ170800

The valve is generally installed on the pipeline between the cylinder and reversal valve and near the cylinder, which directly discharge the air from cylinder without passing the reversal valve and thus to achieve the goal of fast reversion of cylinder. The effect on improving cylinder speed is especially obvious.

P: Connect reversal valve export
A: Connect cylinder
R: Connect muffler

Graphic Symbol



Ordering Code

SQ

Series Code
SQ: Quick Exhaust Valve

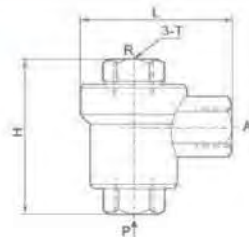
170800

Port Size
170600: G1/8"
170800: G1/4"
171000: G3/8"
171500: G1/2"
172000: G3/4"

Specification

Model	SQ170600	SQ170800	SQ171000	SQ171500
Joint Threaded	G1/8"	G1/4"	G3/8"	G1/2"
Port Size	6mm	6mm	8mm	15mm
Flow	≥0.9m³/min	≥0.9m³/min	≥2.5m³/min	≥4.5m³/min
Timerate(Ten Thousand Times)	≤200			
Working Pressure Range	0.12~1.0MPa			
Exchange Times(S)	≤0.03	≤0.03	≤0.04	≤0.05

Overall Dimensions



Dimension Sheet

Model	T	H	L
SQ170600	G1/8"	39	32
SQ170800	G1/4"	51	45
SQ171000	G3/8"	68	62
SQ171500	G1/2"	77	86

QE Series Quick Exhaust Valve



QE-02

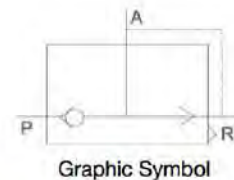
Ordering Code

QE

Series Code
QE: Quick Exhaust Valve

01

Port Size
01: G1/8" 02: G1/4"
03: G3/8" 04: G1/2"
06: G3/4"



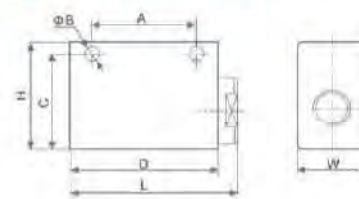
Specification

Model	QE-01	QE-02	QE-03	QE-04	QE-06
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"
Effective Sectional Area	16mm²	27.5mm²	38mm²	71mm²	72.5mm²
Working Medium	Air				
Working Pressure Range	0~1.0MPa				
Operating Temperature Range	0~60°C				

Dimension Sheet

Model/Symbol	Bore	L	W	H	A	B	C	D
QE-01	G1/8"	46	20	32	30	4.3	27	40
QE-02	G1/4"	62	25	40	39	5.6	33.5	55
QE-03	G3/8"	62	25	40	39	5.6	33.5	55
QE-04	G1/2"	98	38	64	60	8.5	51	90
QE-06	G3/4"	98	38	64	60	8.5	51	90

Overall Dimensions



SKP Series Quick Exhaust Valve



SKP-L6

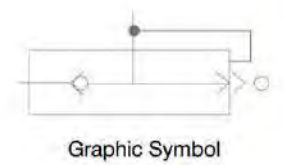
Ordering Code

SKP

Series Code
SKP: Quick Exhaust Valve

L15

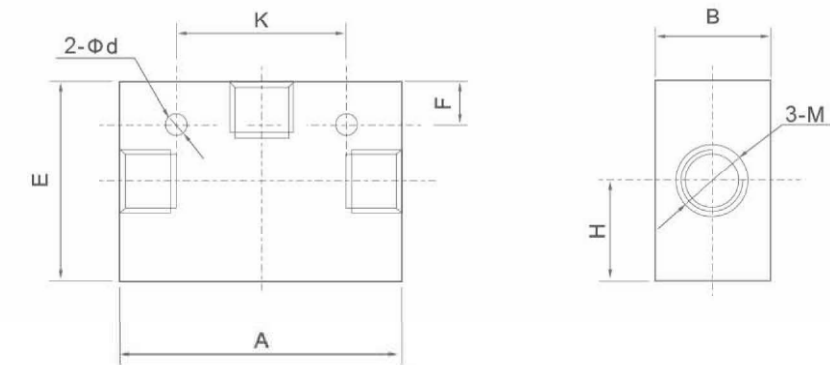
Port Size
L6: G1/8" L25: G1"
L8: G1/4" L32: G1-1/4"
L10: G3/8" L40: G1-1/2"
L15: G1/2" L50: G2
L20: G3/4"



Specification

Model		SKP-L6	SKP-L8	SKP-L10	SKP-L15	SKP-L20	SKP-L25	SKP-L32	SKP-L40	SKP-L50
Section Area	P→A	10	20	40	60	110	190	300	400	650
	A→□	20	40	60	110	190	300	400	650	900
Leak Out Flow(cm³/min)		≤10		≤25		≤50		≤70		
Working Medium		Compressed Air								
Operating Temperature Range		-5~+60°C								
Working-pressure		0.05~1.2MPa								

Overall Dimensions



Dimension Sheet

Model/Symbol	M	A	K	B	E	H	F	d
SKP-L6	G1/8"	75	-	36	41	10	-	-
SKP-L8	G1/4"							
SKP-L10	G3/8"	82	58	44	60	23	8	7
SKP-L15	G1/2"							
SKP-L20	G3/4"	128	98	72	95	36	8	10
SKP-L25	G1"							
SKP-L32	G1 1/4"	158	126	88	112	44	10	10
SKP-L40	G1 1/2"							
SKP-L50	G2"	190	148	102	130	52	10	12

SST Series Shuttle Valve



SST-02

Ordering Code

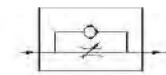
SST

Series Code
SST: Shuttle Valve

01

Port Size
01: G1/8" 04: G1/2"
02: G1/4" 06: G3/4"
03: G3/8" 08: G1"

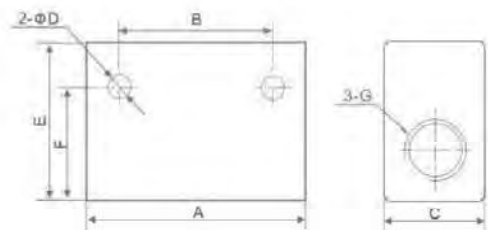
Graphic Symbol



Specification

Model	SST-01	SST-02	SST-03	SST-04	SST-06	SST-08
Working Medium	Air					
Effective Section Area	7.5mm ²	21mm ²	40mm ²	60mm ²	110mm ²	190mm ²
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"	G1"
Working Pressure Range	0~1.0MPa					
Operating Temperature Range	-5~60°C					

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G
SST-01	40	24	16	4.5	25	20.5	G1/8"
SST-02	50	35	22	5.5	35	25	G1/4"
SST-03	75	48	30	7	50	42	G3/8"
SST-04	75	48	30	7	50	42	G1/2"
SST-06	110	72	40	7	70	58	G3/4"
SST-08	110	72	40	7	70	58	G1"

CV Series Vacuum Valve



CV-15L

Ordering Code

CV

Series Code
CV: Vacuum Valve

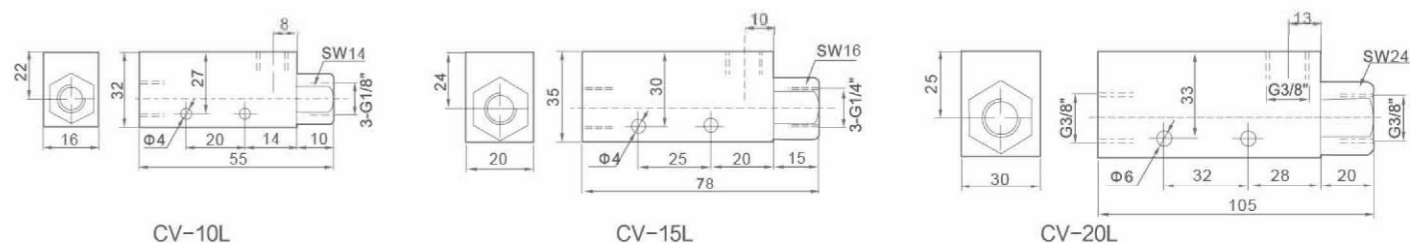
15L

Port Size
10L: G1/8"
15L: G1/4"
20L: G3/8"

Specification

Model	CV-10L	CV-15L	CV-20L
Working Medium	Air		
Working Pressure Range	0~1.0MPa		
Shortest Excitation Time	0.05 Second		
Operating Temperature Range	≤10cm ³ /min		

Overall Dimensions



HSV Series Hand Sliding Valve



HSV-01FM

HSV-03

Ordering Code

HSV

Series Code
HSV: Hand Sliding Valve

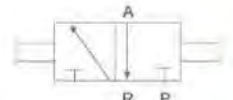
03

Port Size
01: G1/8"
02: G1/4"
03: G3/8"
04: G1/2"
06: G3/4"

□

Port Form
Blank: Two Side Inner Thread
FM: One Side Inner Thread and
One Side Inner Thread
FF: Two Side Outer Thread

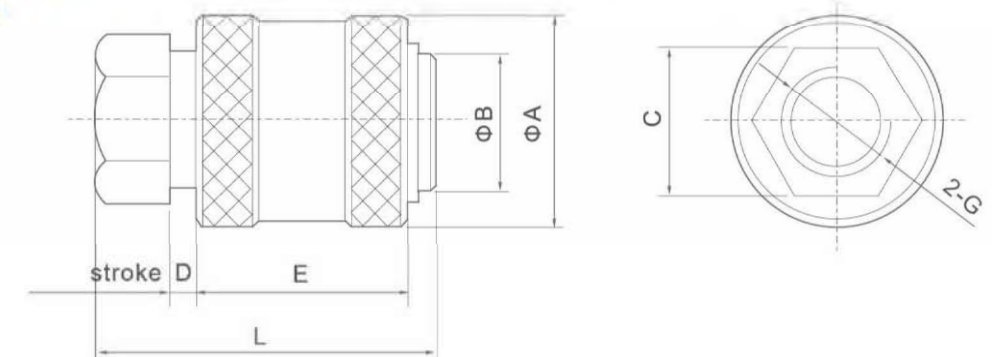
Graphic Symbol



Specification

Model	HSV-01	HSV-02	HSV-03	HSV-04	HSV-06
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"
Flow Bore	4mm	7mm	10mm	12mm	18mm
Working Medium	Filtered Air				
Working-pressure	0~1.0MPa				
Ambient Temperature Range	5~60°C				
Working Force	20N				30N

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	L	G
HSV-01	20	13	14	3	20	32	G1/8"
HSV-02	27	18	19	5	32	48	G1/4"
HSV-03	30	21	22	5	32	48	G3/8"
HSV-04	38	24	27	10	40	70	G1/2"
HSV-06	45	32	34	10	45	75	G3/4"

MQ Series Precision Flow Control Valve



MQ-M5

Ordering Code

MQ

Series Code
MQ: Precision Flow Control Valve

M5

Port Size
M5: M5

2 POSITION 2 WAY SOLENOID VALVES

This kind of valve widely used in wide different industry, you can find the valve with different material like brass, stainless steel, engineering plastic, and they are used for pressure range from 0 to 50 bar, temperature from -10°C to 180°C. If there is no current models with your meet, please contact us, we are available to provide specialized valves according to your requirement.



General Information About Solenoid Valve

Inner structure and categories of two way solenoid valves

Direct Acting Solenoid Valves

Including normal close style (N.C.) and normal open style (N.O.). The N.C. style solenoid valve stay close at power off condition. When power on, the coil yields electricity-magnetic force, which exceed the spring force and hence pulls active armature approaching to static armature, the valve becomes open; when power off, the electricity-magnetic force disappear and the active armature go back to its original place by the spring force, the valve close. The N.O. style is just opposite. These valve are normally simple structure, dependable action, fast response, high, frequency and with ≤6mm small orifice size (N.O. style ≤4mm).

Diaphragm Pilot Solenoid Valves

This style valve makes main valve and pilot valve together, when power on, the coil yields electricity-magnetic force pulls active armature approaching to static armature, the pilot valve open and control the main valve to open, when power off, the electricity- magnetic force disappear and with the gravity and spring force, the active armature close the pilot valve, which control the main valve to close. The N.O. style is just opposite. These valve are normally with bigger orifice size and ≤10Bar working pressure and with zero differential working pressure.

Piston Pilot Solenoid Valves

Similar with piston pilot solenoid valves, but supports for higher pressure and temperature, with ≤1 bar differential working pressure.

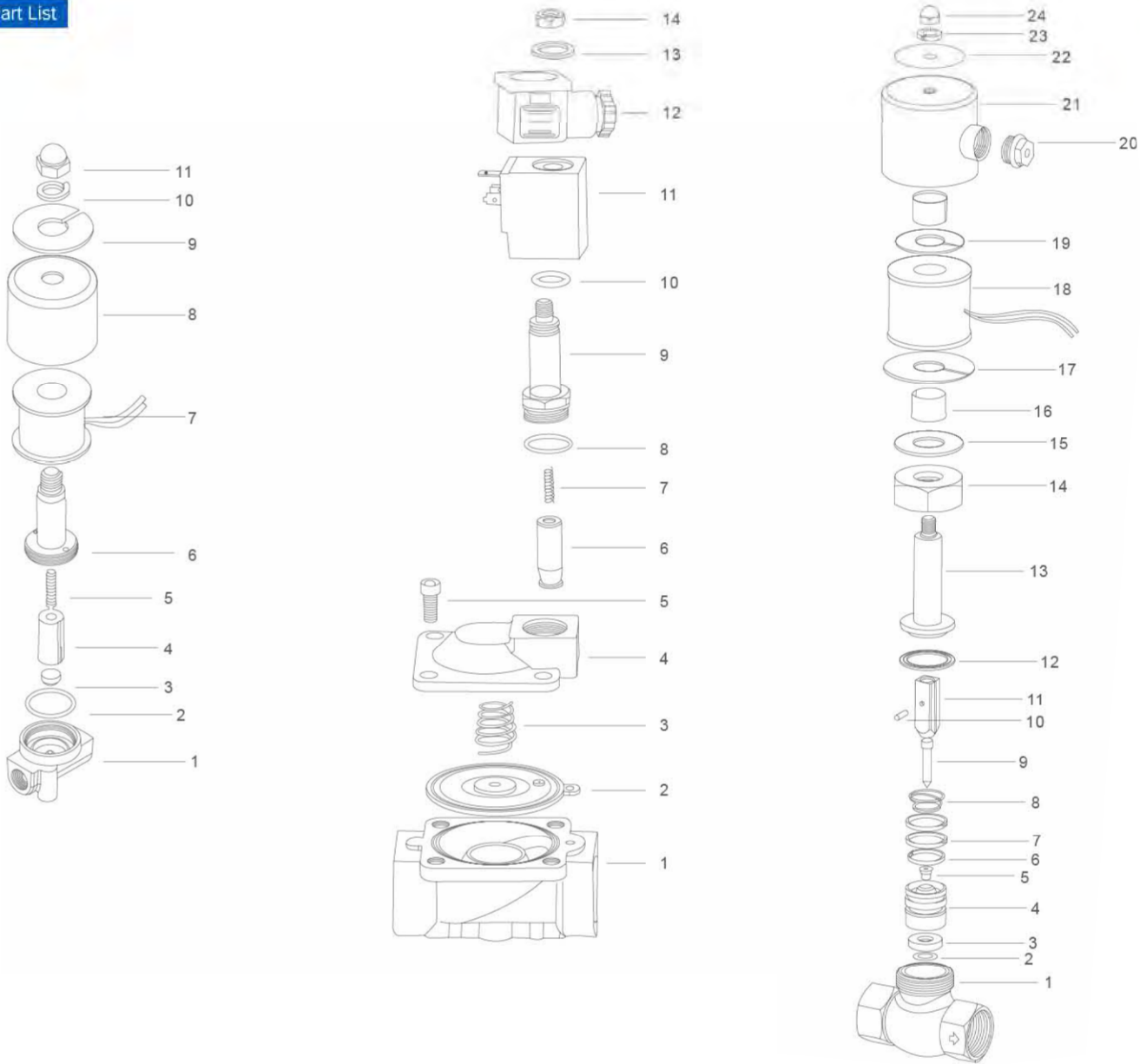
Seal Features

Medium	Material Applicability							
		NBR	HNBR	EPDM	VMQ	FKM	PTFE	PU
Highest working temperature		80°C	120°C	120°C	180°C	120°C	200°C	80°C
Lowest working temperature		-5°C	-10°C	-20°C	-40°C	-20°C	-50°C	-20°C
Anti-burning		X	X	X	△	○	○	△
Steam		X	△	○	○	△	○	X
Oil		○	○	X	△	○	○	○
O ₃		△	○	○	○	○	○	○
Chemical		△	○	○	○	○	○	○
Acid		△	○	○	△	○	○	X
Alkalty		○	○	○	△	○	○	X
Water		○	○	○	○	○	○	○
Wearing		○	○	○	X	○	○	○
Anti distortion		○	○	○	○	○	X	X
Tension		○	○	○	X	○	X	○

Description of the symbol: ○ Very Good ○ Good △ Normal level × Not ok

General Information About Solenoid Valve

Part List



No	Designation
1	Valve body
2	O-ring
3	Seal pad
4	Pilot
5	Spring
6	Armature
7	Coil
8	Steel washer
9	Washer
10	Spring washer
11	Nut

No	Designation
1	Valve body
2	Diaphragm
3	Diaphragm spring
4	Valve cover
5	Hexagon screw
6	Pilot units
7	Plunger Spring
8	O-ring
9	Plunger tube assembly
10	O-ring
11	Coil
12	Connector
13	Gasket
14	Lock Nut

No	Designation	No	Designation
1	Valve body	13	Static armature
2	Washer	14	Nut
3	Seal pad	15	Gasket
4	Valve core	16	Bushing
5	Seal	17	Steel plate
6	Gasket	18	Coil
7	Guide ring	19	Steel plate
8	Spring	20	Nut
9	Valve needle	21	Steel cover
10	Pin	22	Min plate
11	Armature	23	Spring washer
12	Seal ring	24	Nut

2V Series 2/2 Solenoid Valve



Ordering Code

2V	025	06	—	AC220V	—	V
Specification Code	Aperture of Port Size	Port Size		Standard Voltage		Oil Seal Code
2V: Two-position Two-way Solenoid Valve	025: 2.5mm 130: 13mm 250: 25mm	06: G1/8" 08: G1/4" 10: G3/8" 15: G1/2" 20: G3/4" 25: G1"		DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz		Blank: NBR V: VITON (For High temperature)

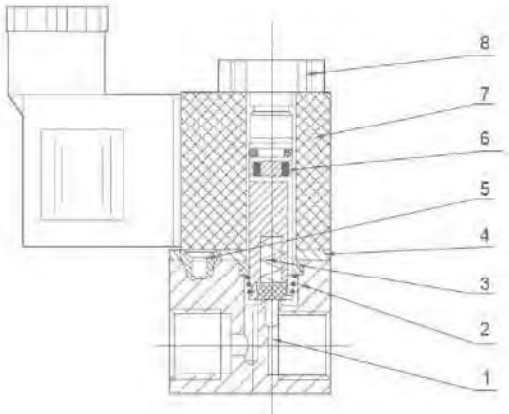
Graphic Symbol



Specification

Model	2V025-06	2V025-08	2V130-10	2V130-15	2V250-20	2V250-25
Working Medium	Air, Water, Oil					
Motion Pattern	Direct Drive Type		Guide Type			
Type			Normal Close Type			
Aperture of Flow Rate(mm)	2.5		13		25	
CV Value	0.23		6.2		23	
Port Size	G1/8"	G1/4"	G3/8"	G1/2"	G3/4"	G1"
Operation Fluid Viscosity	20 CST (Below)					
Working-pressure	Air, Water, Oil 0~0.8MPa		Air, Water, Oil 0.05~0.7MPa			
Max.Pressure Resistance	12kgf/cm ²		10.5kgf/cm ²			
Operating Temperature Range	-10~+80°C					
Voltage Range	±10%					
Protect Class	IP65					
Power Consumption	AC: 7VA860Hz PC: 6W					
Insulation	F Class					
Material of Body	Aluminum or Brass			Brass		
Material of Oil Seal	NBR or VITON		NBR			
Shortest ESCitation Time	0.05 Second					

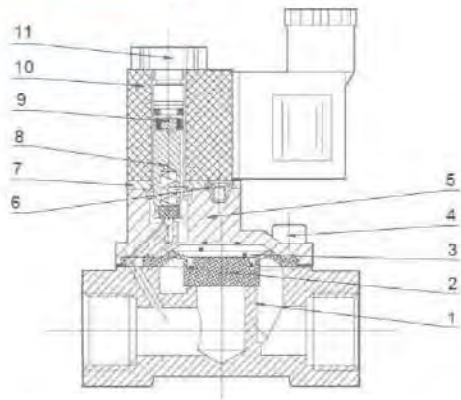
Internal Structure



No	Name
1	Body Of Valve
2	Spring
3	Assembly Of Iron Core
4	Assembly Of Iron Core
5	Cruciform Slot Screw
6	Platen
7	Coil
8	Nut

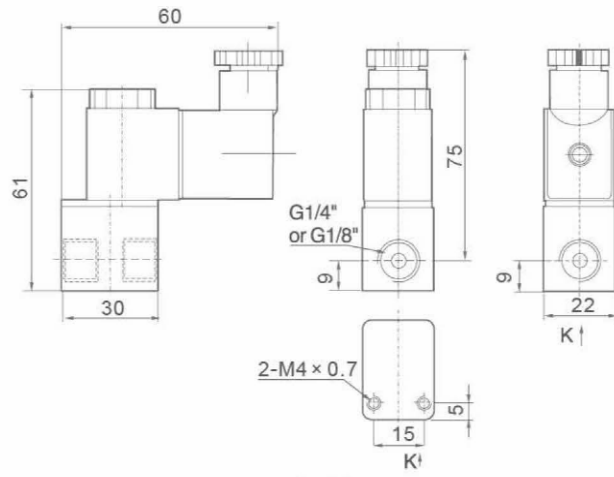
2V Series 2/2 Solenoid Valve

Internal Structure

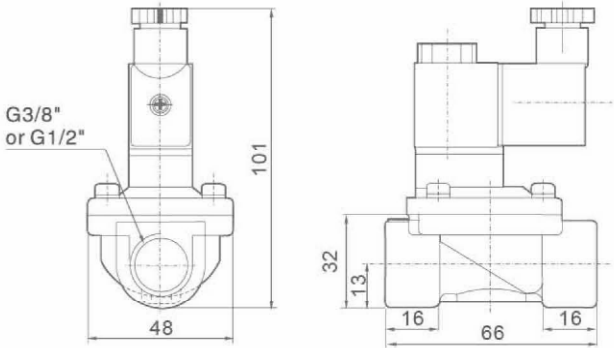


No	Name
1	Body Of Valve
2	Diaphragm
3	Spring
4	Socket Hexagon Screws
5	Cover board
6	Cruciform Slot Screw
7	Platen
8	Assembly Of Iron Core
9	Assembly Of Iron Core
10	Coil
11	Nut

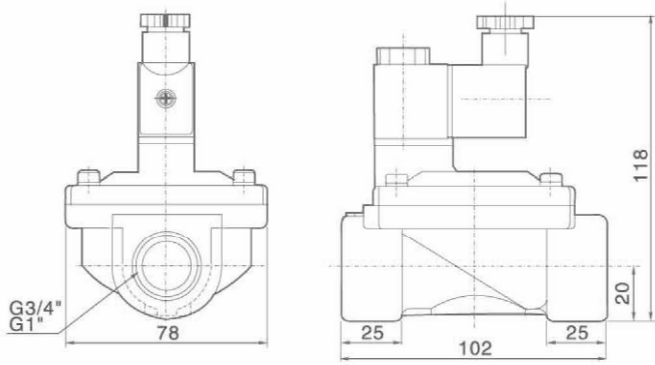
Overall Dimensions



2V025



2V130



2V250

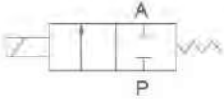
2P Series 2/2 Solenoid Valve (Plastic Steel Type)



Ordering Code

2P	025	06	AC220V	
Specification Code	Aperture of Flow Rate	Port Size	Standard Voltage	Wiring Form
2P: Two-position Two-way Solenoid Valve (Reinforced plastic steel type)	025: 2.5mm	05: G1/8" 08: G1/4"	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead wire Type D: Joint Connector

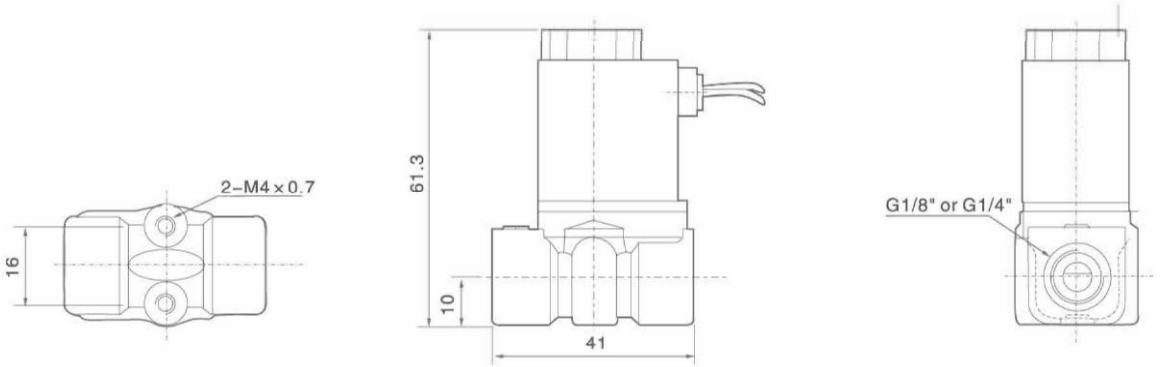
Graphic Symbol



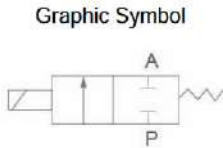
Specification

Model	2P025-06	2P025-08
Working Medium	Air, Water, Oil, gas	
Motion Pattern	Direct Drive Type	
Type	Normal Close Type	
Aperture of Flow Rate (mm)	2.5	
CV Value	0.23	
Joint Pipe Bore	G1/8"	G1/4"
Operation Fluid Viscosity	20 CST (Below)	
Working-pressure	0~0.7 MPa	
Max. Pressure Resistance	1.0 MPa	
Operating Temperature	-5~80°C	
Voltage Range	±10%	
Material of Body	Engineering Plastic Steel	
Material of Oil Seal	NBR EPDM or VITON	

Overall Dimensions



2W(UD) Series 2/2 Direct Drive Type Solenoid Valve (Small Aperture)



Ordering Code

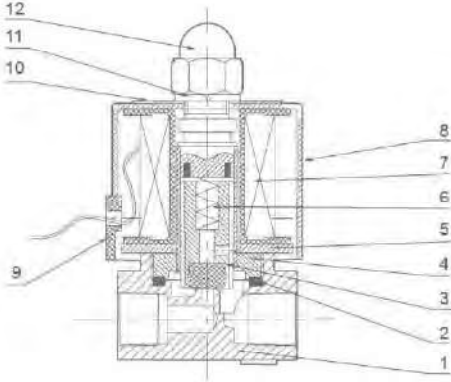
2W	025	08	F	AC220V	
Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
2W: Two-position Two-way solenoid valve direct drive type 2WH: Two-position Two-way solenoid valve (High pressure direct drive Type)	012: 1.2mm 020: 2.0mm 025: 2.5mm 040: 4.0mm	06: G1/8" 08: G1/4" 10: G3/8"	Blank: Pipe Joint Type F: Flange Type	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead wire Type D: Joint Connector E: Blast-proof Coil G: Water-proof Coil

Specification

Model	2W025-06	2W025-08	2W040-10	2WH012-06	2WH012-08	2WH020-10
Working Medium	Air, Water, Oil, Gas					
Motion Pattern	Direct Drive Type					
Type	Normal Close Type					
Aperture of Flow Rate(mm)	2.5		4	1.2		2
CV Value	0.23		0.60	0.05		0.15
Joint Pipe Bore	G1/8"	G1/4"	G3/8"	G1/8"	G1/4"	G3/8"
Operation Fluid Viscosity	20 CST(Below)					
Working-pressure MPa	Air, Water, Oil, gas: 0~0.7MPa			Air, Water, Oil: 0~2.0MPa		
Max. Pressure Resistance MPa	1.0			3.5		
Operating Temperature	-5~+80℃					
Voltage Range	±10%					
Material of Body	Brass					
Material of Oil Seal	NBR EPDM or VITON					

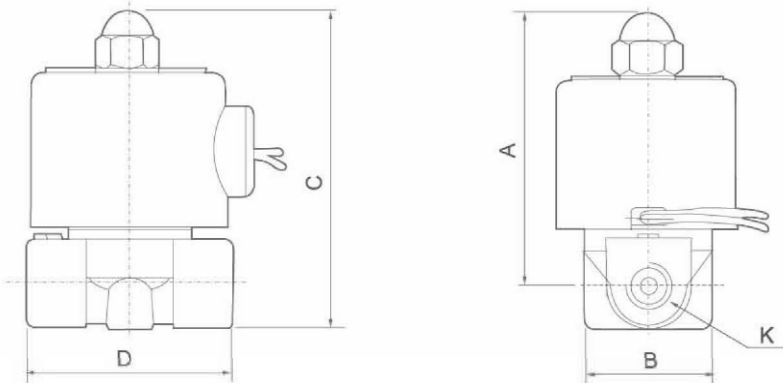
2W(UD) Aperture 2/2 Direct Drive Type Solenoid Valve (Small Aperture)

Internal Structure



No	Name
1	Body Of Valve
2	O-ring
3	Assembly Of Iron Core
4	Assembly Of Iron Core
5	Magnetic Plate
6	Spring
7	Assembly Of Coil
8	Iron Cover
9	Cord-locks
10	Name Plate
11	Gasket
12	Head Cover Nut

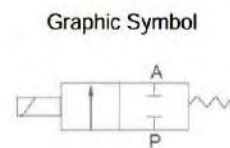
Overall Dimensions



Dimension Sheet

Symbol/Model	A	B	C	D	K(PT)
2W025-06	66	30.3	75	41.5	G1/8"
2W025-08	66	30.3	75	41.5	G1/4"
2W040-10	74	32.2	85.5	53	G3/8"
2WH012-06	66	30.3	75	40.5	G1/8"
2WH012-08	66	30.3	75	40.5	G1/4"
2WH020-10	74	32.3	85.5	53	G3/8"

2W(UW) Series 2/2 Direct Drive Type Solenoid Valve (Large Aperture)



Ordering Code

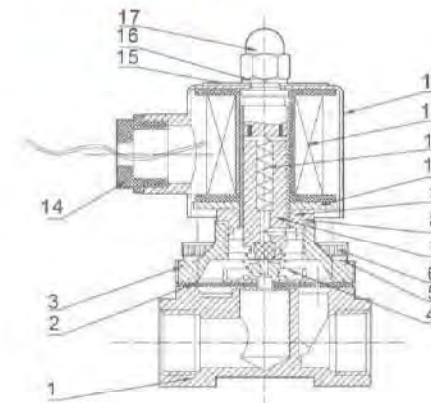
2W	160	15	F	AC220V	
Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
2W: Two-position Two-way solenoid valve (direct drive type)	160: 16mm 200: 20mm 250: 25mm 350: 35mm 500: 50mm	10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 35: G1 1/4" 40: G1 1/2" 50: G2"	Blank: Pipe Joint Type F: Flange Type	DC12V DC24V AC24V 50Hz/60Hz AC36V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead wire Type D: Joint Connector

Specification

Model	2W160-10	2W160-15	2W200-20	2W250-25	2W350-35	2W400-40	2W500-50
Working Medium	Air, Water, Oil, gas						
Motion Pattern	Direct Drive Type						
Type	Normal Close Type						
Aperture of Flow Rate (mm)	16	20	25	35	40	50	
CV Value	4.8	7.6	12	24	29	48	
Port Size	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"	G2"
Operation Fluid Viscosity	20 CST (Below)						
Working-pressure	Air: 0~0.7MPa Water: 0~0.5MPa Gas: 0~0.7MPa						
Max. Pressure Resistance	1.0MPa						
Operating Temperature Range	-5~+80°C						
Voltage Range	±10%						
Material of Body	Brass						
Material of Oil Seal	NBR EPDM or VITON						

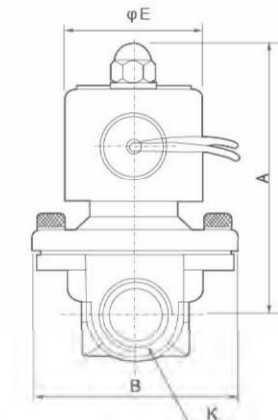
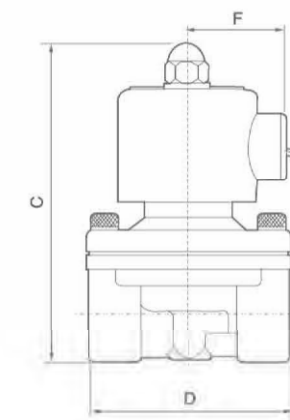
2W(UW) Aperture 2/2 Direct Drive Type Solenoid Valve (Large Aperture)

Internal Structure



No	Name	No	Name
1	Body Of Valve	10	Magnetic Plate
2	Assembly Of Diaphragm	11	Spring
3	Valve Cover	12	Assembly Of Coil
4	Pull Spring	13	Iron Cover
5	Gasket	14	Cord-locks
6	Socket Hexagon Screws	15	Name Plate
7	Assembly Of Iron Core	16	Gasket
8	Seal Gasket	17	Head Cover Nut
9	Assembly Of Iron Core		

Overall Dimensions

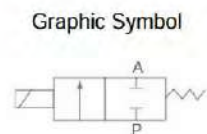


2W(Large Aperture)

Dimension Sheet

Model	A	B	C	D	E	F	K
2W160-10	101.5	57	117	67	50	36	G3/8"
2W160-15	101.5	57	117	67	50	36	G1/2"
2W200-20	107	57	123.5	72	50	36	G3/4"
2W250-25	111.5	73.5	134.5	92	50	36	G1"
2W350-35	142	95	172	125	70.5	56	G1 1/4"
2W400-40	142	95	172	125	70.5	56	G1 1/2"
2W500-50	172	123	209	168	70.5	56	G2"

2S Series Steels Steel Solenoid Valve



Ordering Code

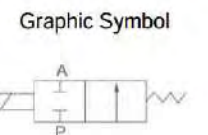
Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
2S	025	08	F	AC220V	
2S: Two-position Two-way solenoid valve (Stainless Steel direct drive type)	025: 2.5mm 040: 4.0mm 160: 16mm 200: 20mm 250: 25mm 350: 35mm 400: 40mm 500: 50mm	08: G1/4" 10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 35: G1 1/4" 40: G1 1/2" 50: G2"	Blank: Pipe Joint Type F: Flange Type	DC12V DC24V AC24V 50Hz/60Hz AC36V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead wire Type D: Joint Connector E: Blast-proof Coil G: Water-proof Coil

Specification

Model	2S025-06(08)	2S040-10	2S160-10(15)	2S200-20	2S250-25	2S350-35(40)	2S500-50
Working Medium	Air, Water, Oil, Gas						
Motion Pattern	Direct Drive Type						
Type	Normal Close Type						
Aperture of Flow Rate(mm)	2.5	5	16	20	35	40	50
CV Value	0.23	0.6	4.8	7.6	24	29	48
Port Size	G1/8" G1/4"	G3/8"	G3/8" G1/2"	G3/4"	G1"	G1 1/4" G1 1/2"	G2"
Operation Fluid Viscosity	20 CST (Below)						
Working-pressure	Air: 0~0.7MPa Water: 0~0.5MPa, Air: 0~0.7MPa, Oil: 0~0.5MPa, Gas: 0~0.7MPa						
Max. Pressure Resistance	1.05MPa						
Operating Temperature Range	-5~+80°C						
Voltage Range	±10%						
Material of Body	Stainless steel						
Material of Oil Seal	NBR EPDM or VITON						

Note: 2S Series Solenoid Valve's Overall Dimension, Flow Chart and Inner Structure all Same as 2W Series.

2W/2S Normal Open Series Solenoid Valve



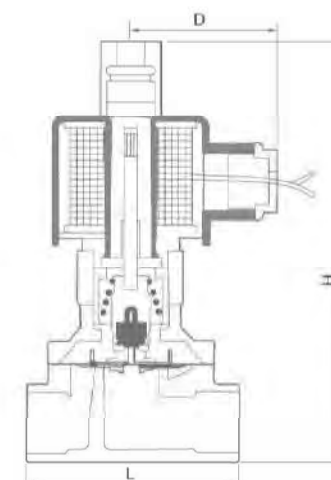
Ordering Code

Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
2W	160	10	NO	AC220V	
2W: Two-position Two-way solenoid valve (direct drive type) 2S: Stainless Steel two-position two way solenoid valve (direct drive type)	040: 4.0mm 160: 16mm 200: 20mm 250: 25mm	10: G3/8" 15: G1/2" 20: G3/4" 25: G1"	NO: Normal Open	DC12V DC24V AC24V 50Hz/60Hz AC36V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead wire Type D: Joint Connector E: Blast-proof Coil G: Water-proof Coil

Specification

Model	2W/2S(040-10NO)	2W/2S(160-10NO)	2W/2S(160-15NO)	2W/2S(200-20NO)	2W/2S(250-25NO)
Working Medium	Air, Water, Oil, Gas				
Motion Pattern	Direct Drive Type				
Type	Normal Open Type				
Aperture of Flow Rate(mm)	4	16	16	20	25
CV Value	0.6	4.8	4.8	7.6	12
Port Size	G3/8"	G3/8"	G1/2"	G3/4"	G1"
Operation Fluid Viscosity	20 CST (Below)				
Working-pressure	Water: 0~0.5MPa, Air: 0~0.7MPa, Oil: 0~0.5MPa, Gas: 0~0.7MPa				
Max. Pressure Resistance	1.05MPa				
Operating Temperature Range	-5~+80°C				
Voltage Range	±10%				
Material of Body	2W: Brass, 2S: Stainless steel				
Material of Oil Seal	NBR EPDM or VITON				

Overall Dimensions



Dimension Sheet

Model	L	H	D
2W040-10NO	53	105	54
2W160-10NO	69	116	62
2W160-15NO	69	116	62
2W200-20NO	73	127	62
2W250-25NO	99	135	62

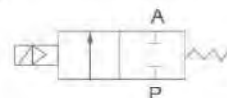
2L(US) Series 2/2 Solenoid Valve



Ordering Code

2L	170	15	AC220V
Specification Code	Aperture of Flow Rate	Port Size	Standard Voltage
2L: Steam Type Two-position Two-way solenoid valve	170: 17mm 200: 22mm 300: 30mm 500: 50mm	10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 35: G1 1/4" 40: G1 1/2" 50: G2"	DC12V DC24V AC24V 50Hz/60Hz AC36V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz

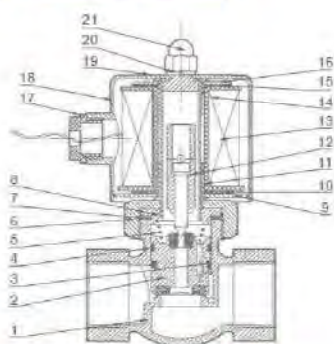
Graphic Symbol



Specification

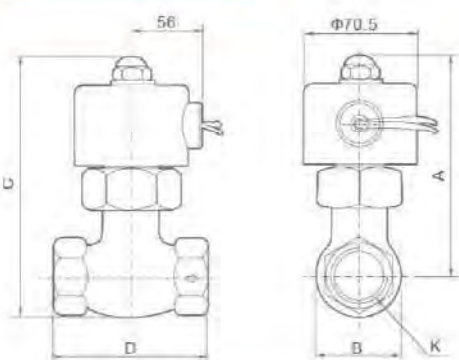
Model	2L170-10	2L170-15	2L170-20	2L200-25	2L300-35	2L300-40	2L500-50
Working Medium	Air, Water, Steam						
Motion Pattern	Guide Type						
Type	Normal Close Type						
Aperture of Flow Rate(mm)	17		22		30		50
CV Value	4.8		12		20		48
Port Size	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"	G2"
Operation Fluid Viscosity	20 CST(Below)						
Working-pressure	Air, Water, Steam:0.1~1.5MPa						
Max. Pressure Resistance	2.25MPa						
Operating Temperature Range	-5~+180°C						
Voltage Range	±10%						
Material of Body	Brass						
Material of Oil Seal	PTFE						

Internal Structure



No	Name	No	Name	No	Name
1	Body Of Valve	8	Assembly of Iron Core	15	Gasket
2	Assembly Of Piston	9	Magnetic Plate	16	Magnetic Plate
3	Springiness Spacer	10	Gasket	17	Cord-locks
4	Wear Strip	11	Bush	18	Iron Cover
5	Spring	12	Assembly Of Iron Core	19	Name Plate
6	Nut	13	Assembly Of Coil	20	Gasket
7	O-ring	14	Bush	21	Head Cover Nut

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	K
2L170-10	125	38	146	76	G3/8"
2L170-15	125	42	146	81	G1/2"
2L170-20	125	47	146	84	G3/4"
2L200-25	136	54	162	91.5	G1"
2L300-35	148	76	185	111	G1 1/4"
2L300-40	148	76	185	111	G1 1/2"
2L500-50	176	88	223	164	G2"

PU220 Series 2/2 Solenoid Valve (Direct Drive Type)



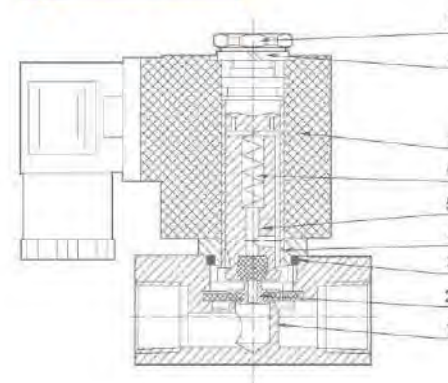
Ordering Code

PU	220	02	A	AC220V	T
Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
PU: Two-position Two-way solenoid valve	220: Direct Drive Type	01: G1/8" 03: G3/8" 06: G3/4" 12: G1 1/4" 20: G3/4"	02: G1/4" 04: G1/2" 08: G1" 14: G1 1/2"	A: Large Flux AR: Small Aperture Direct Drive F: Flange Type	AC220V AC110V DC12V DC24V
					Blank: Standard Coil T: Timer Coil

Specification

Model	PU220-01AR	PU220-02AR	PU220-03AR	PU220-03A	PU220-04AR	PU220-04A	PU220-06A	PU220-08A
Working Medium	Air, Water, Oil							
Motion Pattern	220: Direct Drive Type/225: Guide Type							
Type	Normal Close Type							
Aperture of Flow Rate(mm)	1.5	2.3	8	13	8	13	20	25
CV Value	0.10	0.18	1.00	4.00	1.00	4.00	8.60	11.00
Joint Pipe Bore	G1/8"	G1/4"	G3/8"	G3/8"	G1/2"	G1/2"	G3/4"	G1"
Operation Fluid Viscosity	50 CST							
Working-pressure	0~0.7MPa							
Max. Pressure Resistance	1.05MPa							
Operating Temperature Range	-5~+80°C							

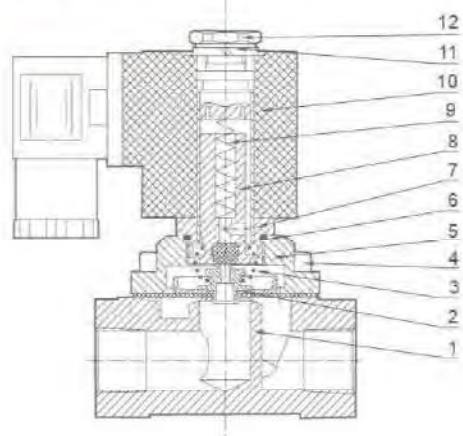
Internal Structure



No	Name
1	Body Of Valve
2	Assembly of Diaphragm
3	O-ring
4	Assembly Of Iron Core
5	Assembly Of Iron Core
6	Spring
7	Coil
8	Gasket
9	Nut

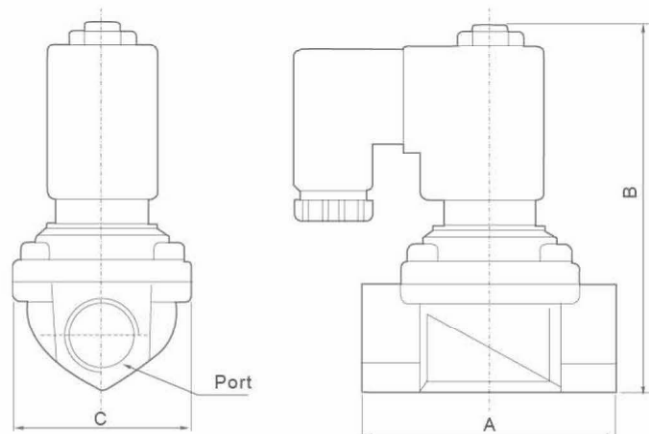
PU220 Series 2/2 Solenoid Valve (Direct Drive Type)

Internal Structure



No	Name	No	Name
1	Body Of Valve	7	Assembly Of Iron Core
2	Assembly Of Diaphragm	8	Assembly Of Iron Core
3	Pull Spring	9	Spring
4	Socket Hexagon Screws	10	Coil
5	Valve Cover	11	Gasket
6	O-ring	12	Nut

Overall Dimensions



Dimension Sheet

Model	Port	A	B	C
PU220-01AR	G1/8"	22	72	22
PU220-02AR	G1/4"	35	72	25.4
PU220-03AR	G3/8"	55	79.5	30
PU220-03A	G3/8"	65.5	101	48
PU220-04A	G1/2"	65.5	101	48
PU220-06A	G3/4"	71	107	58
PU220-08A	G1"	97	120	70

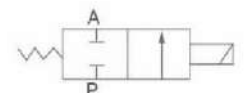
PU 225 Series 2/2 Solenoid Valve (Guide Type)



Ordering Code

Specification Code	Aperture of Flow Rate	Port Size	Initial Estate	Standard Voltage	Wiring Form
PU: Two-position Two-way solenoid valve SPU: Stainless Steel Two-position Two-way solenoid valve	220: Guide Type	03: G3/8" 06: G3/4" 12: G1 1/4" 20: G3/4"	04: G1/2" 08: G1" 14: G1 1/2"	A: Standart Type F: Flange Type AC220V AC110V DC12V DC24V	Blank: Standard Coil T: Timer Coil

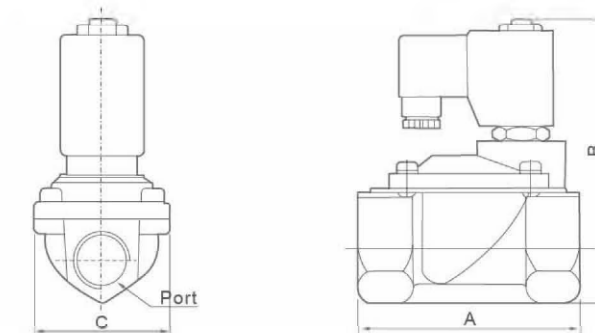
Graphic Symbol



Specification

Model	PU225-03A	PU225-04A	PU225-06A	PU225-08A	PU225-12A	PU225-14A	PU225-20A
Working Medium	Air, Water, Oil						
Motion Pattern	Guide Type						
Type	Normal Close Type						
Aperture of Flow Rate(mm)	13	13	25	25	38	38	50
CV Value	4.50	4.50	12.00	12.00	22.00	30.00	48.00
Port Size	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"	G2"
Operation Fluid Viscosity	50 CST (Below)						
Working-pressure	0.05~1.0MPa						
Max. Pressure Resistance	1.5MPa						
Operating Temperature Range	-5~+80°C						
Material of Body	Brass or steel						

Overall Dimensions



Dimension Sheet

Model	Port	A	B	C
PU225-03A	G3/8"	66.5	106.5	48.0
SPU225-03A				
PU225-04A	G1/2"	66.5	106.5	48.0
SPU225-04A				
PU225-06A	G3/4"	72.0	113.0	58.0
SPU225-06A				
PU225-08A	G1"	96.0	121.0	70.0
SPU225-08A				
PU225-12A	G1 1/4"	128.0	145.5	96.0
SPU225-12A				
PU225-14A	G1 1/2"	128.0	145.5	96.0
SPU225-14A				
PU225-20A	G2"	161.0	160.5	112.0

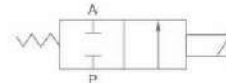
PU 225 Series 2/2 Solenoid Valve (Steam Type)



Ordering Code

PU	225	03	S	AC220V
Specification Code	Motion Pattern	Port Size	Initial Estate	Standard Voltage
PU: Two-position Two-way solenoid valve	225: Guide Type	03: G3/8" 04: G1/2" 06: G3/4" 08: G1"	S: Steam Type	AC220V AC110V DC12V DC24V

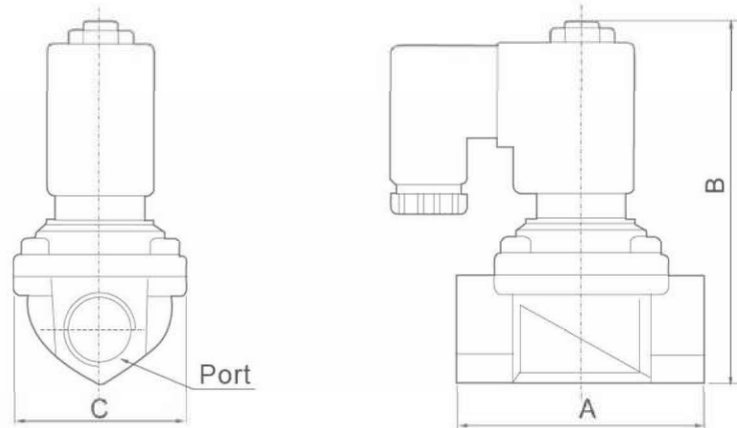
Graphic Symbol



Specification

Model	PU225-03S	PU225-04S	PU225-06S	PU225-08S
Working Medium	Air, Water, Oil			
Motion Pattern	Guide Type			
Type	Normal Close Type			
Aperture of Flow Rate(mm)	13	13	25	25
CV Value	4.50	4.50	12.00	12.00
Port Size	G3/8"	G1/2"	G3/4"	G1"
Operation Fluid Viscosity	50 CST			
Working-pressure	0.05~1.0MPa			
Max. Pressure Resistance	1.5MPa			
Operating Temperature Range	-10~+185°C			

Overall Dimensions



Dimension Sheet

Model	Port	A	B	C
PU225-03S	G3/8"	65	121	48
PU225-04S	G1/2"	65	121	48
PU225-06S	G3/4"	97	152	70
PU225-08S	G1"	97	152	70

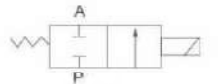
VX Series 2/2 Solenoid Valve



Ordering Code

VX2120	08	AC220V
Specification Code	Port Size	Standard Voltage
	06: G3/4" 08: G1/4" 10: G3/8" 15: G1/2"	DC12V DC24V AC24V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz

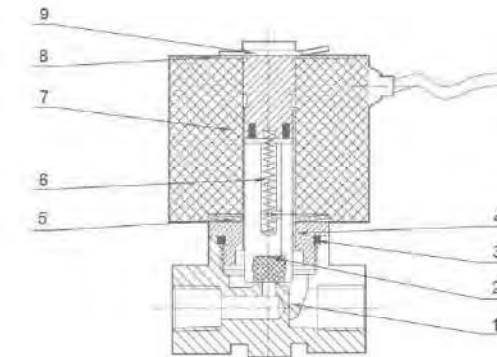
Graphic Symbol



Specification

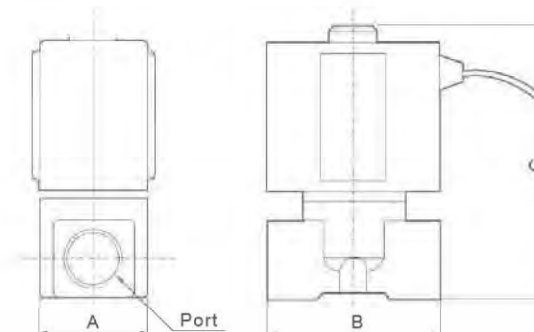
Model	VX2120-06	VX2120-08	VX2120-10	VX2120-15
Working Medium	Air, Water, Steam			
Motion Pattern	Direct Drive Type			
Type	Normal Close Type			
Working-pressure	0~1.0MPa			
Aperture of Flow Rate(mm)	3		10	13
Port Size	G1/8"	G1/4"	G3/8"	G1/2"
Operating Temperature Range	-5~+150°C		-5~+80°C	
Material of Oil Seal	VITON		NBR	

Internal Structure



No	Name
1	Body Of Valve
2	Assembly Of Iron Core
3	O-ring
4	Assembly Of Iron Core
5	Spring
6	Spring
7	Coil
8	Name Plate
9	Clip

Overall Dimensions



Dimension Sheet

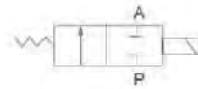
Model	Port	A	B	C
VX2120-06	G1/8"	26	40	66
VX2120-08	G1/4"	26	40	66
VX2120-10	G3/8"	40	48	80
VX2120-15	G1/2"	47	66	88

VXF Series Solenoid Valve



Ordering Code			
VX2150	06	AC220V	☐
Specification Code	Port Size	Standard Voltage	Wiring Form
	06: G3/4" 10: G1" 14: G1½"	DC12V DC24V AC24V 50Hz/60Hz AC36V 50Hz/60Hz AC110V 50Hz/60Hz AC220V 50Hz/60Hz AC380V 50Hz/60Hz	Blank: Lead Wire Type D: Joint Connector

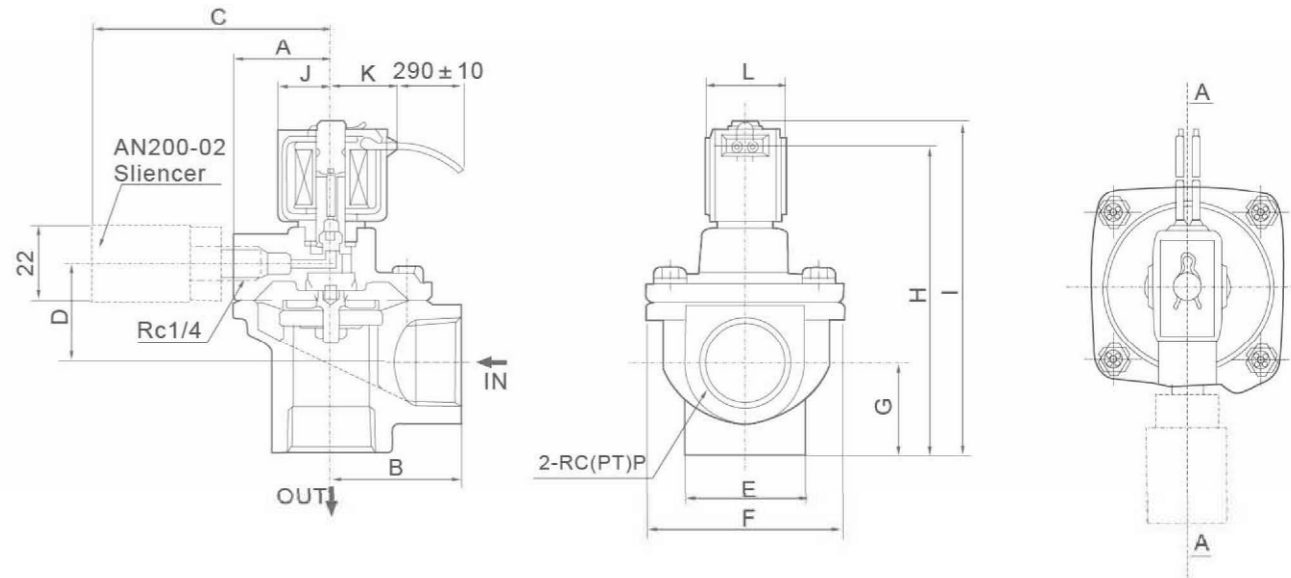
Graphic Symbol



Specification

Model	VXF2150-06	VXF2160-10	VXF2280-14
Port Size	G3/4"	G1"	G1½"
Max. Operating Differential Pressure	1.0MPa		
Min. Operating Differential Pressure	0.031MPa		
Section (mm)	20	27	40
Effective Area of Section	170	330	810
CV Value	9.5	18.5	45
Exhaust Orifice	Rc(PT)1/4		

Overall Dimensions



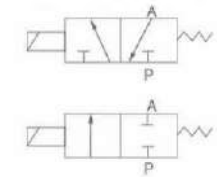
Dimension Sheet

Model	A	B	C	D	E	F	G	H	I	J	K	L	P
VXF2150	33	40	85	32.5	36	66	25	103	110	20	23	30	G3/4"
VXF2160	37	48	89	38	45	74	33.5	118	125	20	23	30	G1"
VXF2280	28	68	81	58	110	110	62.5	174	184	23	25	35	t"

SC22/23 Series Solenoid Valve



Graphic Symbol



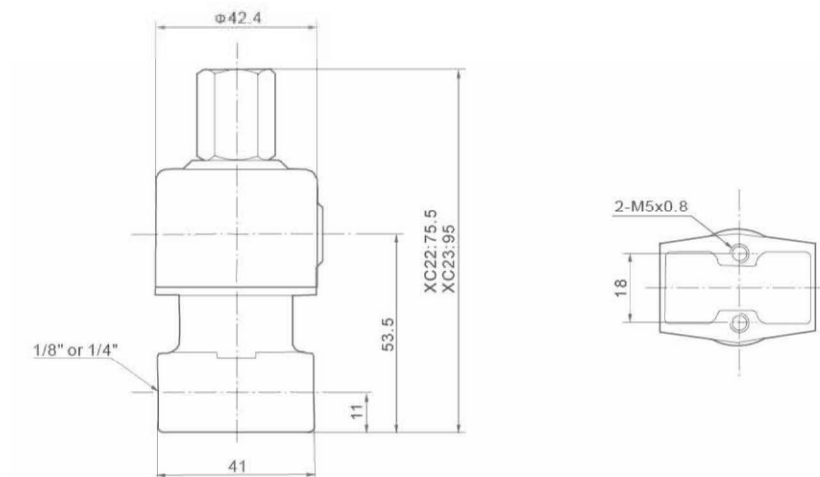
Ordering Code

SC	23	06	AC220V
Factory Code	The Position Counting	Port Size	Standard Voltage
	22: Two Position Two Way 23: Two Position Three Way	06: G1/8" 08: G1/4"	DC12V DC24V AC24V 50/60Hz AC36V 50/60Hz AC110V 50/60Hz AC220V 50/60Hz AC380V 50/60Hz

Specification

Model	SC22-06	SC22-08	SC23-06	SC23-08
Working Medium	Air, Water, Oil			Air
Aperture of Flow Rate(mm)	1.6	2.4	3.2	4.0
CV Value	0.10	0.21	0.33	0.43
Port size	G1/8"		G1/4"	G1/8"
Working-pressure Range	0~1.5	0~1.0	0~0.7	0~0.5
Voltage Range	±10%			
Material of oil seal	NBR or VITON			

Overall Dimensions



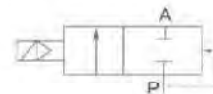
SC5404 Series High Pressure, High Temperature Solenoid Valve



Ordering Code

Factory Code	Model	Port Size	Standard Voltage	Wiring Form
SC	5404	04	AC220V	
		02: G1/4"	DC12V DC24V	Blank: Lead
		04: G1/2"	AC24V 50/60Hz	Wire Type
		06: G3/4"	AC36V 50/60Hz	D: Joint
		08: G1"	AC110V 50/60Hz	Connector
			AC220V 50/60Hz	
			AC380V 50/60Hz	

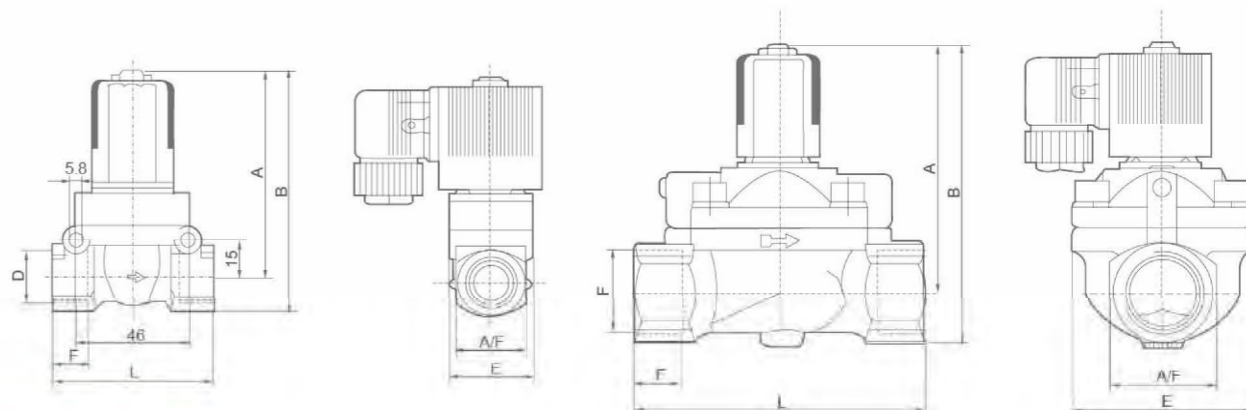
Graphic Symbol



Specification

Model	SC5404-04	SC5404-06	SC5404-08
Working Medium	Air, Water, Oil		
Motion Pattern	Guide Type		
Type	Normal Close Type		
Aperture of Flow Rate(mm)	12	25	25
KV Value	2.0	5.0	10.0
Joint Pipe Bore	G1/2"	G3/4"	G1"
Working-pressure(kgf/cm ²)	Gas:1~50,Liquid:1~50	Gas:1~40,Liquid:1~25	Gas:1~40, Liquid:1~25
Max. Pressure Resistance(kgf/cm ²)	75	60	
Operating Temperature Range(°C)	-5~+150°C		
Voltage Range	±10%		
Protect Class	IP65		
Power Consumption	AC:5.5VA DC:9W		
Insulation	F Class		
Material of Body	Brass		
Material of Oil Seal	PTFE		

Overall Dimensions



Dimension Sheet

Model	Bore(mm)	Port	A	B	F	E	L	A/F
SC5404-04	12.0	G1/2"	83.0	98	14	32	63	27
SC5404-06	20.0	G3/4"	99.5	125	16	60	92	40
SC5404-08	25.0	G1"	99.5	125	16	60	92	40

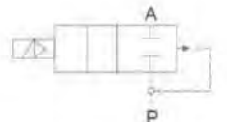
SC6213 Series Diaphragm Type Solenoid Valve



Ordering Code

Factory Code	Model	Port Size	Standard Voltage	Wiring Form
SC	6213	04	AC220V	
		02: G1/4"	DC12V	Blank: Lead
		03: G3/8"	DC24V	Wire Type
		04: G1/2"	AC36V 50Hz/60Hz	D: Joint
		06: G3/4"	AC24V 50Hz/60Hz	Connector
		08: G1"	AC110V 50Hz/60Hz	
			AC220V 50Hz/60Hz	
			AC380V 50Hz/60Hz	

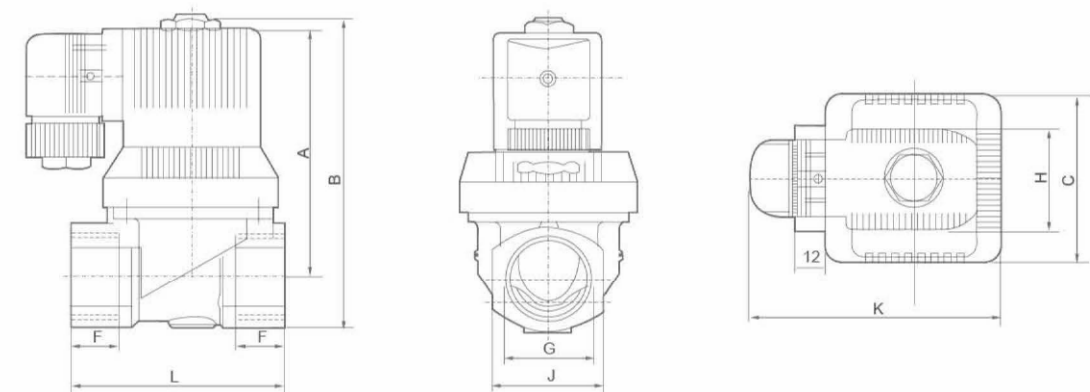
Graphic Symbol



Specification

Model		SC6213-02	SC6213-03	SC6213-04	SC6213-04	SC6213-06	SC6213-06	SC6213-08
Inside Nominal Diameter(mm)		10			14		25	
Port Size		G1/4"	G3/8"	G1/2"	G1/2"	G3/4"	G3/4"	G1"
Working Pressure(MPa)					0.03~1.0			
Environment Temperature(°C)					-10~+55			
Medium Temperature(°C)					-10~+90			
Kv Value(m³/h)		2		3.6	8.3	8.3	11	11
Power	AC(VA)				14			
Consumptin	DC(W)				8			
Change Frequency(Hz)		≥1					≥0.5	
Power/Voltage		AC: 50Hz 24V, 36V, 110V, 220V. DC:24V, 12V						

Overall Dimensions



Dimension Sheet

Model	G	C	F	L	J	A	B	H	K
SC6213-02	G1/4"	38	14	50	26	71	85	35	71
SC6213-03	G3/8"	38	14	50	26	71	85	35	71
SC6213-04	G1/2"	38	14	50	26	71	85	35	71
SC6213-04	G1/2"	45	16	58	31	82	96	35	80
SC6213-06	G3/4"	45	16	58	31	82	96	35	80
SC6213-06	G3/4"	65	18	80.5	41	96	117	35	90
SC6213-08	G1"	65	18	80.5	41	96	117	35	90

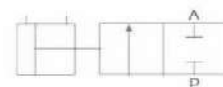
2Q Series Air Control Two-Way Valve



Ordering Code

2Q	200	25
Specification Code	Aperture of Flow Rate	Port Size
2Q: Two-position Two-way Air Control Valve	160: 16mm 200: 22mm 250: 25mm 400: 40mm 500: 50mm	15: G1/2" 20: G3/4" 25: G1" 40: G1½" 50: G2"

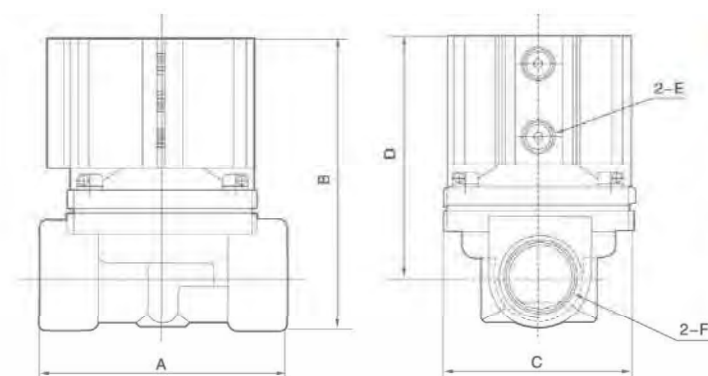
Graphic Symbol



Specification

Model	2Q160-15	2Q200-20	2Q250-25	2Q400-40	2Q500-50
Working Medium	Air, Water, Oil, Gas				
Motion Pattern	Direct Drive				
Aperture of Flow Rate(mm)	16	20	25	40	50
CV Value	4.8	12	7.6	29	48
Joint Pipe Bore	G1/2"	G3/4"	G1"	G1½"	G2"
Operation Fluid Viscosity	50 CST (Below)				
Working-pressure Range	0~0.7Mpa				
Max. Pressure Resistance	1.05Mpa				
Control Pressure Range	0.3~0.6Mpa				
Operating Temperature Range	-5~100°C				
Material of Body	Brass				
Material of Oil Seal	PTFE				
Control Joint Pipe Bore	2-M5	2-G1/8"	2-G1/8"	2-G1/4"	2-G1/4"

Overall Dimensions



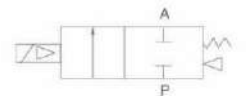
Dimension Sheet

Model	A	B	C	D	E	F
2Q160-15	67	89	57	75	M5	G1/2"
2Q200-20	99	116	57	95	G1/8"	G3/4"
2Q250-25	99	116	57	95	G1/8"	G1"
2Q350-35	127	123	93	97	G1/4"	"
2Q400-40	123	146	95	116	G1/4"	G1½"
2Q500-50	170	155	118	114	G1/4"	G2"

SLP Series 2/2 Solenoid Valve (Normal Close)



Graphic Symbol



Ordering Code

SLP	06		E2	3L	S1	H
SLP Series	Port Size	Seal Material	Cylinder Bore	Stroke	Body Material	Magnet Code
	06: G1/8" 10: G3/8" 20: G3/4" 35: G1½" 40: G1½" 50: G2" F: Flange	Blank: NBR V: VITON E: EPDM	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	1L: 1.0 2.5L: 2.5 4L: 4.0 6L: 6.0 10.5L: 10.5 13L: 13.0 20L: 20.0 25L: 25.0 35L: 35.0 40L: 40.0 50L: 50.0	Blank: Brass S1: SS316	Blank: Normal close. H: Normal open

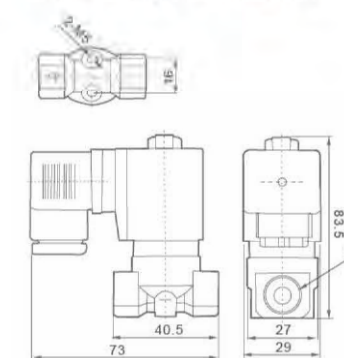
- SLP series, 2 port, 2 position, 1/8" port size, NBR Seal, AC110V, Orifice: 3mm, Brass valve body, normal close, model: SLP06E1-3L
- SLP series, 2 port, 2 position, 3/8" port size, VITON Seal, AC220V, Orifice: 13mm, SS316 valve body, normal open, model: SLP10VE2-13LS1H

Product Instruction

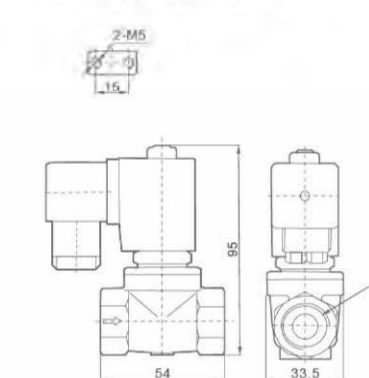
- Normal Close, available body: brass, SS316.
- Multiple seals are available for different medium.
- Wide size range from 1/8" to 2" with both thread and flange connection.
- Diaphragm pilot solenoid valve, with lower working pressure.

Overall Dimensions

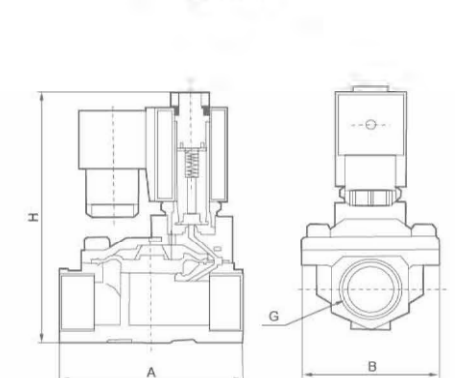
Φ3mm, Φ4mm, G1/8", G1/4", G3/8"



Φ10.5mm, G1/4", G3/8", G1/2"



big orifice



SLP Series 2/2 Solenoid Valve (Normal Close)

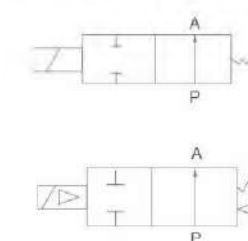
Specification

Port Size (G)	Orifice (mm)	CV Value	Pressure difference(Bar)				Max. temperat ure (°C)	Power		Model 220VAC 50/60Hz		Overall dimension
			Min. pressure	Max. working pressure				VA	W			
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST				AC 220	DC 24V	Brass
1/8"	3	0.23	0	13	13	10	80	22	13	SLP06E2-3L	SLP06E2-3LS1	
	3	0.23	0	13	13	—	130	22	13	SLP06EE2-3L	SLP06EE2-3LS1	
	3	0.23	0	13	13	10	120	22	13	SLP06VE2-3L	SLP06VE2-3LS1	
	3	0.23	0	13	13	10	80	22	13	SLP08E2-3L	SLP08E2-3LS1	
1/4"	3	0.23	0	13	13	—	130	22	13	SLP08EE2-3L	SLP08EE2-3LS1	
	3	0.23	0	13	13	10	120	22	13	SLP08VE2-3L	SLP08VE2-3LS1	
	10.5	1.47	0	10	10	10	80	22	13	SLP08E2-10.5L	—	
	10.5	1.47	0	10	10	—	130	22	13	SLP08EE2-10.5L	—	
	10.5	1.47	0	10	10	10	120	22	13	SLP08VE2-10.5L	—	
	3	0.3	0	13	13	10	80	22	13	SLP10E2-3L	SLP10E2-3LS1	
	3	0.3	0	13	13	10	130	22	13	SLP10EE2-3L	SLP10EE2-3LS1	
	3	0.3	0	13	13	10	120	22	13	SLP10VE2-3L	SLP10VE2-3LS1	
3/8"	4	0.6	0	8	8	6	80	22	13	SLP10E2-4L	SLP10E2-4LS1	
	4	0.6	0	8	8	6	130	22	13	SLP10EE2-4L	SLP10EE2-4LS1	
	4	0.6	0	8	8	6	120	22	13	SLP10VE2-4L	SLP10VE2-4LS1	
	10.5	1.68	0	10	10	10	80	22	13	SLP10E2-10.5L	—	
	10.5	1.68	0	10	10	—	130	22	13	SLP10EE2-10.5L	—	
	10.5	1.68	0	10	10	10	120	22	13	SLP10VE2-10.5L	—	
	13	4.5	0.5	16	16	13	80	22	13	SLP10E2-13L	SLP10E2-13LS1	
	13	4.5	0.5	16	16	—	130	22	13	SLP10EE2-13L	SLP10EE2-13LS1	
	13	4.5	0.5	16	16	13	120	22	13	SLP10VE2-13L	SLP10VE2-13LS1	
	1/2"	10.5	1.75	0	10	10	10	80	22	13	SLP15E2-10.5L	—
10.5		1.75	0	10	10	—	130	22	13	SLP15EE2-10.5L	—	66×48×112
10.5		1.75	0	10	10	10	120	22	13	SLP15VE2-10.5L	—	66×48×112
13		4.5	0.5	16	16	13	80	22	13	SLP15E2-13L	SLP15E2-13LS1	66×48×112
13		4.5	0.5	16	16	—	130	22	13	SLP15EE2-13L	SLP15EE2-13LS1	66×48×112
13		4.5	0.5	16	16	13	120	22	13	SLP15VE2-13L	SLP15VE2-13LS1	66×48×112
3/4"	20	7.6	0.5	16	16	13	80	22	13	SLP-20E2	SLP-20E2S1	75×58×118
	20	7.6	0.5	16	16	—	130	22	13	SLP-20EE2	SLP-20EE2S1	75×58×118
	20	7.6	0.5	16	16	13	120	22	13	SLP-20VE2	SLP-20VE2S1	75×58×118
1"	25	12	0.5	16	16	13	80	22	13	SLP-25E2	SLP-25E2S1	96×70×131
	25	12	0.5	16	16	—	130	22	13	SLP-25EE2	SLP-25EE2S1	96×70×131
1-1/4"	25	12	0.5	16	16	13	120	22	13	SLP-25VE2	SLP-25VE2S1	96×70×131
	35	22	0.5	16	16	13	80	22	13	SLP-35E2	SLP-35E2S1	131×96×146
	35	22	0.5	16	16	—	130	22	13	SLP-35EE2	SLP-35EE2S1	131×96×146
1-1/2"	35	22	0.5	16	16	13	120	22	13	SLP-35VE2	SLP-35VE2S1	131×96×146
	40	30	0.5	16	16	13	80	22	13	SLP-40E2	SLP-40E2S1	131×96×146
	40	30	0.5	16	16	—	130	22	13	SLP-40EE2	SLP-40EE2S1	131×96×146
	40	30	0.5	16	16	13	120	22	13	SLP-40VE2	SLP-40VE2S1	131×96×146
2"	50	48	0.5	16	16	13	80	22	13	SLP-50E2	SLP-50E2S1	165×120×167
	50	48	0.5	16	16	—	130	22	13	SLP-50EE2	SLP-50EE2S1	165×120×167
	50	48	0.5	16	16	13	120	22	13	SLP-50VE2	SLP-50VE2S1	165×120×167
Flange conn- ection	25	12	0.5	16	16	13	80	80	13	—	SLPFEE2-25LS1	134×110×160
	25	12	0.5	16	16	—	130	130	13	—	SLPFEE2-25LS1	134×110×160
Flange conn- ection	25	12	0.5	16	16	13	120	120	13	—	SLPPFVE2-25VLS1	134×110×160
	35	22	0.5	16	16	13	80	22	13	—	SLPFEE2-35LS1	160×135×175
	35	22	0.5	16	16	—	130	22	13	—	SLPFEE2-35LS1	160×135×175
Flange conn- ection	35	22	0.5	16	16	13	120	22	13	—	SLPPFVE2-35LS1	160×135×175
	40	30	0.5	16	16	13	80	22	13	—	SLPFEE2-40LS1	160×145×180
	40	30	0.5	16	16	—	130	22	13	—	SLPFEE2-40LS1	160×145×180
Flange conn- ection	40	30	0.5	16	16	13	120	22	13	—	SLPFVE2-40LS1	160×145×180
	50	48	0.5	16	16	13	80	22	22	—	SLPFEE2-50LS1	200×160×207
	50	48	0.5	16	16	—	130	22	22	—	SLPFEE2-50LS1	200×160×207
	50	48	0.5	16	16	13	120	22	22	—	SLPPFVE2-50LS1	200×160×207

SLP Series 2/2 Solenoid Valve (Normal Open)



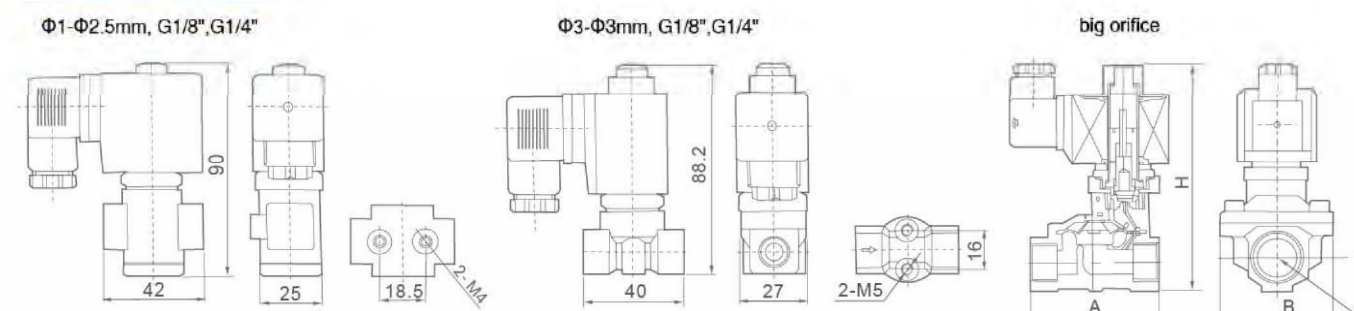
Graphic Symbol



Product Instruction

- 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.

Overall Dimensions



Specification

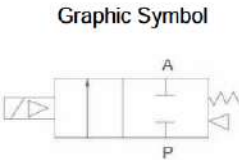
Port Size (G)	Orifice (mm)	CV Value	Pressure difference(Bar)				Max. temperature (°C)	Power		Model 220VAC 50/60Hz	
			Min. pressur e	Max. working pressure				VA 220	W 24V	Brass	Stainless steel
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST					
1/8"	1	0.04	0	30	30	25	80	22	13	SLP06E2-1LH	SLP06E2-1LS1H
	1	0.04	0	30	30	—	130	22	13	SLP06EE2-1LH	SLP06EE2-1LS1H
	1	0.04	0	30	30	25	120	22	13	SLP06VE2-1LH	SLP06VE2-1LS1H
	1.5	0.09	0	20	20	15	80	22	13	SLP06E2-1.5LH	SLP06E2-1.5LS1H
	1.5	0.09	0	20	20	—	130	22	13	SLP06EE2-1.5LH	SLP06EE2-1.5LS1H
	1.5	0.09	0	20	20	15	120	22	13	SLP06VE2-1.5LH	SLP06VE2-1.5LS1H
	2.5	0.2	0	15	15	12	80	22	13	SLP06E2-2.5LH	SLP06E2-2.5LS1H
	2.5	0.2	0	15	15	—	130	22	13	SLP06EE2-2.5LH	SLP06EE2-2.5LS1H
	2.5	0.2	0	15	15	12	120	22	13	SLP06VE2-2.5LH	SLP06VE2-2.5LS1H
	3	0.25	0	12	12	10	80	22	13	SLP06E2-3LH	SLP06E2-3LS1H
	3	0.25	0	12	12	—	130	22	13	SLP06EE2-3LH	SLP06EE2-3LS1H
	3	0.25	0	12	12	10	120	22	13	SLP06VE2-3LH	SLP06VE2-3LS1H

SLP Series 2/2 Solenoid Valve (Normal Open)

Specification

Port Size (G)	Orifice (mm)	CV Value	Pressure difference (Bar)				Max. temperature (°C)	Power		Model 220VAC 50/60Hz		Overall dimension
			Min. pressure	Max. working pressure				VA AC 220	W DC 24V			
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST				Brass	Stainless steel	Length×Width×Height A×B×H(mm)
1/4"	1	0.04	0	30	30	25	80	22	13	SLP08E2-1LH	SLP08E2-1LS1H	
	1	0.04	0	30	30	—	130	22	13	SLP08EE2-1LH	SLP08EE2-1LS1H	
	1	0.04	0	30	30	25	120	22	13	SLP08VE2-1LH	SLP08VE2-1LS1H	
	1.5	0.09	0	20	20	15	80	22	13	SLP08E2-1.5LH	SLP08E2-1.5LS1H	
	1.5	0.09	0	20	20	—	130	22	13	SLP08EE2-1.5LH	SLP08EE2-1.5LS1H	
	1.5	0.09	0	20	20	15	120	22	13	SLP08VE2-1.5LH	SLP08VE2-1.5LS1H	
	2.5	0.2	0	15	15	12	80	22	13	SLP08E2-2.5LH	SLP08E2-2.5LS1H	
	2.5	0.2	0	15	15	—	130	22	13	SLP08EE2-2.5LH	SLP08EE2-2.5LS1H	
	2.5	0.2	0	15	15	12	120	22	13	SLP08VE2-2.5LH	SLP08VE2-2.5LS1H	
	3	0.25	0	12	12	10	80	22	13	SLP08E2-3LH	SLP08E2-3LS1H	
	3	0.25	0	12	12	—	130	22	13	SLP08EE2-3LH	SLP08EE2-3LS1H	
	3	0.25	0	12	12	10	120	22	13	SLP08VE2-3LH	SLP08VE2-3LS1H	
3/8"	13	4.5	0.5	8	8	7	80	33	32	SLP10E2-13LH	SLP10E2-13LS1H	66×48×124
	13	4.5	0.5	8	8		120	33	32	SLP10EE2-13LH	SLP10EE2-13LS1H	66×48×124
	13	4.5	0.5	8	8	7	120	33	32	SLP10VE2-13LH	SLP10VE2-13LS1H	66×48×124
1/2"	13	4.5	0.5	8	8	7	80	33	32	SLP15E2-13LH	SLP15E2-13LS1H	66×48×124
	13	4.5	0.5	8	8		120	33	32	SLP15EE2-13LH	SLP15EE2-13LS1H	66×48×124
	13	4.5	0.5	8	8	7	120	33	32	SLP15VE2-13LH	SLP15VE2-13LS1H	66×48×124
3/4"	20	7.6	0.5	8	8	7	80	33	32	SLP-20E2H	SLP-20E2S1H	75×58×130
	20	7.6	0.5	8	8		120	33	32	SLP-20EE2H	SLP-20EE2S1H	75×58×130
	20	7.6	0.5	8	8	7	120	33	32	SLP-20VE2H	SLP-20VE2S1H	75×58×130
1"	25	12	0.5	8	8	7	80	33	32	SLP-25E2H	SLP-25E2S1H	96×70×143
	25	12	0.5	8	8		120	33	32	SLP-25EE2H	SLP-25EE2S1H	96×70×143
	25	12	0.5	8	8	7	120	33	32	SLP-25VE2H	SLP-25VE2S1H	96×70×143
1-1/4"	35	22	0.5	8	8	7	80	33	32	SLP-35E2H	SLP-35E2S1H	131×96×158
	35	22	0.5	8	8		120	33	32	SLP-35EE2H	SLP-35EE2S1H	131×96×158
	35	22	0.5	8	8	7	120	33	32	SLP-35VE2H	SLP-35VE2S1H	131×96×158
1-1/2"	40	30	0.5	8	8	7	80	33	32	SLP-40E2H	SLP-40E2S1H	131×96×158
	40	30	0.5	8	8		120	33	32	SLP-40EE2H	SLP-40EE2S1H	131×96×158
	40	30	0.5	8	8	7	120	33	32	SLP-40VE2H	SLP-40VE2S1H	131×96×158
2"	50	48	0.5	8	8	7	80	33	32	SLP-50E2H	SLP-50E2S1H	165×120×179
	50	48	0.5	8	8		120	33	32	SLP-50EE2H	SLP-50EE2S1H	165×120×179
	50	48	0.5	8	8	7	120	33	32	SLP-50VE2H	SLP-50VE2S1H	165×120×179
Flange connection	25	12	0.5	8	8	7	80	33	32		SLPFE2-25LS1H	134×110×172
	25	12	0.5	8	8		120	33	32		SLPFEE2-25LS1H	134×110×172
	25	12	0.5	8	8	7	120	33	32		SLPFVE2-25LS1H	134×110×172
Flange connection	35	22	0.5	8	8	7	80	33	32		SLPFE2-35LS1H	160×135×187
	35	22	0.5	8	8		120	33	32		SLPFEE2-35LS1H	160×135×187
	35	22	0.5	8	8	7	120	33	32		SLPFVE2-35LS1H	160×135×187
Flange connection	40	30	0.5	8	8	7	80	33	32		SLPFE2-40LS1H	160×145×192
	40	30	0.5	8	8		120	33	32		SLPFEE2-40LS1H	160×145×192
	40	30	0.5	8	8	7	120	33	32		SLPFVE2-40LS1H	160×145×192
Flange connection	50	48	0.5	8	8	7	80	33	32		SLPFE2-50LS1H	200×160×219
	50	48	0.5	8	8		120	33	32		SLPFEE2-50LS1H	200×160×219
	50	48	0.5	8	8	7	120	33	32		SLPFVE2-50LS1H	200×160×219

THP Series 2/2 Solenoid Valve (Normal Close)



Ordering Code

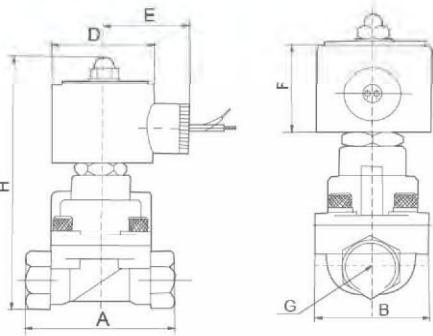
THP	06	E2		2.5L	S2		
THP Series	Port Size	Cylinder Bore	Seal Material	Orifice(mm)	Body Material	Control Style	Seal Material
	06: G1/8" 10: G3/8" 20: G3/4" 35: G1 1/4" 40: G1 1/2" 50: G2" 25F: 1" Flange 35F: 1 1/2" Flange 40F: 1 1/4" Flange 50F: 2" Flange	08: G1/4" 15: G1/2" 25: G1" E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	T: Teflon V: VITON(N,V, E) orifice ≤φ5.5mm optional)	2.5L: 2.5 4.5L: 4.5 15L: 15.0 20L: 20.0 25L: 25.0 35L: 35.0 40L: 40.0 50L: 50.0 Cancel if same with port size	Blank: Brass S1: SS316 S2: SS304	Blank: Normal close H: Normal Open	Blank: DIN Connector F: Flying leads

- THP series, 2 port, 2 position, 1/8" port size, AC110V, NBR Seal, Orifice: 2.5mm, Brass valve body, normal close, DINcoil, model:THP06E1-2.5L
- THP series, 2 port, 2 position, 3/8" port size, AC220V, teflon Seal, Orifice: 15mm, SS304 valve body, normal open, flying leads coil, model: THP10TE2-15LS2HF

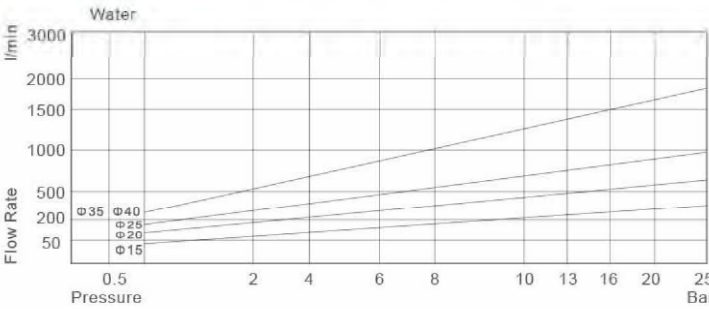
Product Instruction

- Normal Close, available body: brass,SS304, SS316
- Multiple seals are available for different medium
- Wide size range from 1/8" to 2"
- DIN style / flying leads coil, thread / flange connection
- Piston pilot solenoid valve with high working pressure and temperature

Overall Dimensions



Flow Chart

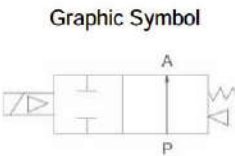


THP Series 2/2 Solenoid Valve (Normal Close)

Specification

ort Size (G)	Orifice (mm)	CV Value	Pressure difference(Bar)									Max temper ature (°C)	Power		Model 220VAC 50/60Hz		Overall dimension
			Min. pressure	Max. working pressure							VA		W	Brass	Stainless steel	Length×Width ×Height A×B×H(mm)	
				Air, Gas		Water, Hot water, Liquid		Light oil ≤20CST		Steam							
				AC	DC	AC	DC	AC	DC								AC/DC
G1/8"	2.5	0.23	0	8	8	8	8	6	6	10	180	22	13	THP06T-2.5L	—	48×25×85.5	
	2.5	0.23	0	13	13	13	13	7	7	10	110	22	13	THP06V-2.5L	—	48×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	165	22	13	THP06T-4.5L	—	58×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	110	22	13	THP06V-4.5L	—	58×25×85.5	
G1/4"	2.5	0.23	0	7	4	7	4	4	4	10	180	22	13	THP08T-2.5L	—	48×25×85.5	
	2.5	0.23	0	13	13	13	4	7	7	10	110	22	13	THP08V-2.5L	—	48×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	165	22	13	THP08T-4.5L	—	58×25×85.5	
	4.5	0.6	0	7	4	7	4	4	4	7	110	22	13	THP08V-4.5L	—	58×25×85.5	
G3/8"	15	4.5	0.5	25	20	25	20	20	20		110	33	32	THP10T-15L	THP10T-15LS2	75×52×129	
	15	4.5	0.5	25	20	25	20	20	20	10	185	30	25	THP10T-15LF	THP10T-15LS2F	75×52×129	
G1/2"	15	4.5	0.5	25	20	25	20	20	20		110	33	32	THP-15T	THP-15TS2	75×52×129	
	15	4.5	0.5	25	20	25	20	20	20	10	185	30	25	THP-15TF	THP-15TS2F	75×52×129	
G3/4"	20	9	0.5	25	20	25	20	20	20		110	33	32	THP-20T	THP-20TS2	85×60×141	
	20	9	0.5	25	20	25	20	20	20	10	185	30	25	THP-20TF	THP-20TS2F	85×60×141	
G1"	25	13	0.5	25	20	25	20	20	20		110	33	32	THP-25T	THP-25TS2	100×70×148	
	25	13	0.5	25	20	25	20	20	20	10	185	30	25	THP-25TF	THP-25TS2F	100×70×148	
G1¼"	35	26	0.5	25	20	25	20	20	20	10	110	33	32	THP-35T	THP-35TS2	120×90×168	
	35	26	0.5	25	20	25	20	20	20		185	30	25	THP-35TF	THP-35TS2F	120×90×168	
G1½"	35	26	0.5	25	20	25	20	20	20	10	110	33	32	THP40T-35L	THP40T-35LS2	120×90×168	
	35	26	0.5	25	20	25	20	20	20		185	30	25	THP40T-35LF	THP40T-35LS2F	120×90×168	
G2"	50	48	0.5	25	20	25	20	20	20		110	33	32	—	THP-50TS2	150×110×190	
	50	48	0.5	25	20	25	20	20	20	10	185	30	25	—	THP-50TS2F	150×110×190	
G1" Flange	25	13	0.5	25	20	25	20	20	20		110	33	32	—	THPPFT-25LS2	134×110×185	
	25	13	0.5	25	20	25	20	20	20	10	185	30	25	—	THPFT-25LS2F	134×110×185	
G1¼" Flange	35	26	0.5	25	20	25	20	20	20		110	33	32	—	THPFT-35LS2	160×135×200	
	35	26	0.5	25	20	25	20	20	20	10	185	30	25	—	THPFT-35LS2F	160×135×200	
G1½" Flange	35	26	0.5	25	20	25	20	20	20		110	33	32	—	THPFT-40LS2	160×145×205	
	35	26	0.5	25	20	25	20	20	20	10	185	30	25	—	THPFT-40LS2F	160×145×205	
G2" Flange	50	45	0.5	25	20	25	20	20	20	10	110	33	32	—	THPFT-50LS2	200×155×250	
	50	45	0.5	25	20	25	20	20	20		185	30	25	—	THPFT-50LS2F	200×155×250	

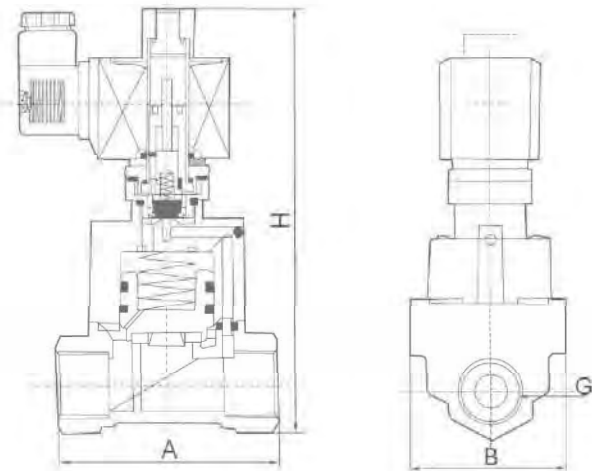
THP Series 2/2 Solenoid Valve (Normal Close)



Product Instruction

- Normal Close, available body: brass,SS304, SS316
- Multiple seals are available for different medium
- Wide size range from 1/8" to 2"
- DIN style / flying leads coil, thread / flange connection
- Piston pilot solenoid valve with high working pressure and temperature

Overall Dimensions



Specification

Port Size (G)	Orifice (mm)	CV Value	Pressure difference (Bar)					Max. Temperature (°C)	Power		Model		Overall Dimensions (mm) Length x Width x Height A x B x H (mm)
			Min. Pressure	Max. working pressure					VA AC 220	W DC 24V	220VAC	50/60Hz	
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST	Steam						
											130	33	
3/8"	15	4.5	0.5	8	8	8	8	130	33	32	THP10T-15LH	THP10T-15LS2H	75×52×147
	15	4.5	0.5	8	8	8	8	130	33	32	THP10T-15LHF	THP10T-15LS2HF	75×52×147
1/2"	15	4.5	0.5	8	8	8	8	130	33	32	THP-15TH	THP-15TS2H	75×52×147
	15	4.5	0.5	8	8	8	8	130	33	32	THP-15THF	THP-15TS2HF	75×52×147
3/4"	20	9	0.5	8	8	8	8	130	33	32	THP-20TH	THP-20TS2H	85×60×159
	20	9	0.5	8	8	8	8	130	33	32	THP-20THF	THP-20TS2HF	85×60×159
1"	25	13	0.5	8	8	8	8	130	33	32	THP-25TH	THP-25TS2H	100×70×166
	25	13	0.5	8	8	8	8	130	33	32	THP-25THF	THP-25TS2HF	100×70×166
1-1/4"	35	26	0.5	6	6	6	6	130	33	32	THP-35TH	THP-35TS2H	120×90×186
	35	26	0.5	6	6	6	6	130	33	32	THP-35THF	THP-35TS2HF	120×90×186
1-1/2"	35	26	0.5	6	6	6	6	130	33	32	THP40T-35LH	THP40T-35LS2H	120×90×186
	35	26	0.5	6	6	6	6	130	33	32	THP-40FET2S2HF	THP40T-35LS2HF	120×90×186
1"	25	25	0.5	8	8	8	8	130	33	32	-	THP-25FET2S2H	134×110×200
Flange	25	13	0.5	8	8	8	8	130	33	32	-	THP-25FET2S2HF	134×110×200
1-1/4"	35	26	0.5	6	6	6	6	130	33	32	-	THP-32FET2S2H	160×134×215
Flange	35	26	0.5	6	6	6	6	130	33	32	-	THP-32FET2S2HF	160×134×215
1-1/2"	40	26	0.5	6	6	6	6	130	33	32	-	THP-40FET2S2H	160×145×200
Flange	40	26	0.5	6	6	6	6	130	33	32	-	THP-40FET2S2HF	160×145×200

SPT Series Electronic-drain Valve



Product Instruction

The electronic-drain valve is made of solid state electronic time-setting and solenoid valve, which can make the compress condensates water drain automatically. It is widely used in filter drier, oil/water segrator, refrigerant compressed air drying machine, drying machine, air compressor drip-feet, etc. The time of drain and interval can be adjustable according to different needs.

Specification

Model	SPT, SPT-A, SPT-B
Various pressure can be provided	1.6MPa, 4.0MPa, 8.0MPa
Various electric voltages can be provided	AC220V, AC110V, DC24V
Variety connects can be provided	G1/2" female thread
Interval	(OFF) 0.5 ~ 45 Minutes
Drain time	(ON) 0.5 ~ 10 Seconds
Manual test button	TEST
Protection grade	IP65
Insulate grade	H class (Max/temp: 180°C)

- It is can susbsitute for the expensive process valve;
- Only one type applies all applications;
- It is can be installed simply full-automatically, without maintenane;
- Sieve of ball valve can be mached

Fluid Process Valves

SMFZ Series Right Angle Pulse Valve



Ordering Code

S	MF	Z	25	P	EX
SACHIO Product	Pulse Valve	Type Code Z: Solenoid Control ZQ: Pneumatic Control	Orifice Size	Thread Type Blank: Normal Thread Type A: Thread Type+ Insert pipe P: Thread Type S: Double Diaphragms J: Thread Type (Economy Type)	Wiring Form Blank: Normal Type EX: EX-Proof Type

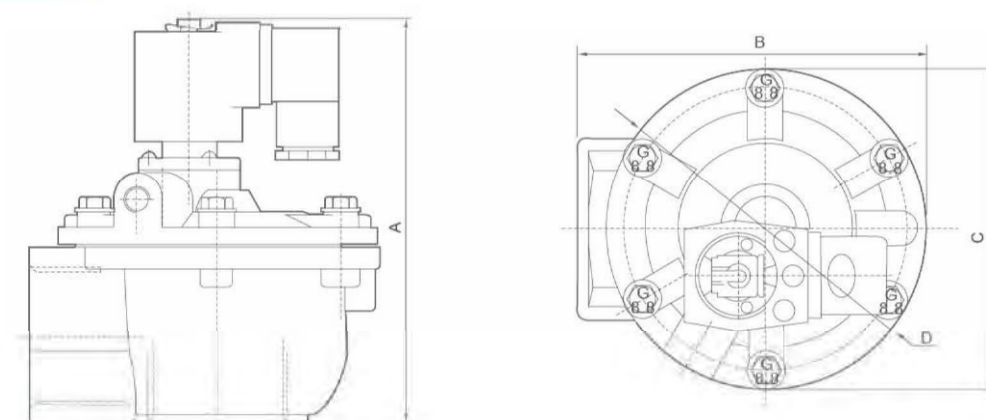
Speciality

Adopt international advanced technology.
Used for dust remover.
Key parts all made of imported materials.
Pneumatic control type, solenoid control type, ex-proof solenoid control type for choose.
Female thread connection port,easy to be mounted.

Specification

Model	SMF-Z-20A	SMF-Z-20P	SMF-Z-20	SMF-Z-25	SMF-Z-25P	SMF-Z-35P	SMF-Z-40S	SMF-Z-50S	SMF-Z-62S	SMF-Z-76S	SMF-Z-100S
Working Pressure	0.3 ~ 0.8 MPa										
Ambient Temperature	-5 ~ 55°C										
Relative Humidity	< 85%										
Working Medium	Clean Air										
Voltage	AC110V / AC220V / DC24V										
Diaphragm Life Cycles	Over 1000k Cycles										
Orifice (mm)	Φ20	Φ20	Φ20	Φ25	Φ25	Φ35	Φ40	Φ50	Φ62	Φ76	Φ100
Connection Port	G3/4"	G3/4"	G3/4"	G1"	G1"	G1 1/2"	G1 1/2"	G2"	G2 1/2"	G3"	Φ100

Overall Dimensions



Dimension Sheet

Model	SMF-Z-20A	SMF-Z-20P	SMF-Z-20	SMF-Z-25	SMF-Z-25P	SMF-Z-35P	SMF-Z-40S	SMF-Z-50S	SMF-Z-62S	SMF-Z-76S	SMF-Z-100S
A	173	124	110	110	124	142	166	202	222	245	356.5
B	145	105	90.5	90.5	105	121	132	210	210	230.5	286.5
C	-	82.5	75	75	82.5	-	-	-	-	-	-
D	Φ90	-	-	-	-	Φ112	Φ137	Φ185	Φ185	Φ200	Φ221

Fluid Process Valves

SMFY Series In Line Valve



Ordering Code

S	MF	Y	50	S	EX
SACHIO Product	Pulse Jet Valve	Type Code Y: Solenoid Control YQ: Pneumatic Control	Orifice	Double Diaphragms	Wiring Form Blank: Normal Type EX: EX-Proof Type

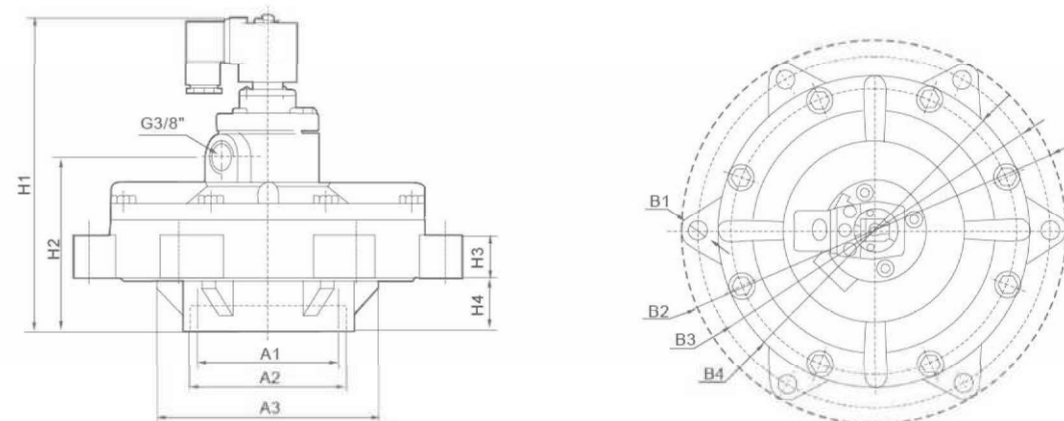
Speciality

Adopt international advanced technology.
Used for dust remover.
Key parts all made of imported materials.
Pneumatic control type, solenoid control type, ex-proof solenoid control type for choose.
Directing mounted to gas bag better blowing effect and small loss of air source

Specification

Model	SMFY-Y50S	SMFY-Y62S	SMFY-Y76S
Working Pressure	0.3 ~ 0.8 MPa		
Ambient Temperature	-5 ~ 55°C		
Relative Humidity	< 85%		
Working Medium	Clean Air		
Voltage	AC110V / AC220V / DC24V		
Diaphragm Life Cycles	Over One Million Cycles		
Orifice (mm)	Φ50	Φ62	Φ76
Connection Port	G2"	a	G3"

Overall Dimensions



Dimension Sheet

Model	A1	A2	A3	B1	B2	B3	B4	H1	H2	H3	H4
SMFY-Y50S	Φ64.5	Φ78.5	Φ118	6-Φ11.5	Φ200	Φ180	Φ159	187	100	25	31
SMFY-Y62S	Φ80	Φ93.5	Φ145	6-Φ11	Φ226	Φ204	Φ185	197	107	34.5	35
SMFY-Y76S	Φ90	Φ99	Φ141	6-Φ11	Φ248	Φ227	Φ200	205	113	27	34

SMF Series Insert Pipe Pulse Valve



Ordering Code

S	MF	□	25	DD	EX
SACHIO Product	Pulse Jet Valve	Type Code Blank: Solenoid Control Q: Pneumatic Control	Orifice Solenoid	Insert Pipe Type	Wiring Form Blank: Normal Type EX: EX-Proof Type

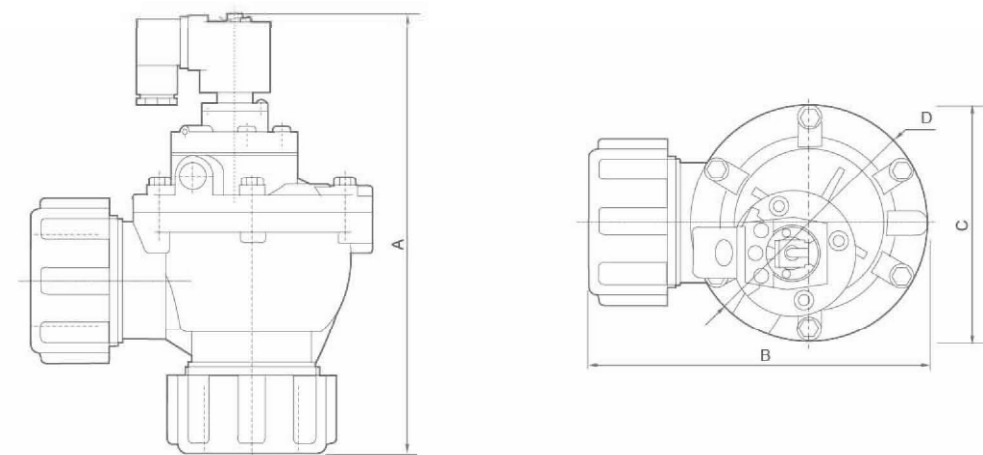
Speciality

Adopt international advanced technology.
Used for dust remover.
Key parts all made of imported materials.
Pneumatic control type, solenoid control type, ex-proof solenoid control type for choose.
Insert pipe style, much easier to be mounted.

Specification

Model	SMF-25DD	SMF-45DD
Working Pressure	0.3~0.8MPa	
Ambient Temperature	-5~55°C	
Relative Humidity	< 85%	
Working Medium	Clean Air	
Voltage	AC110V / AC220V / DC24V	
Diaphragm Life Cycles	Over One Million Cycles	
Orifice (mm)	Φ25	Φ45
Connection Port	G1"	G1½"

Overall Dimensions



Dimension Sheet

Model	A	B	C	D
SMF-25DD	189	131	82.5	-
SMF-45DD	237	179.5	-	Φ126

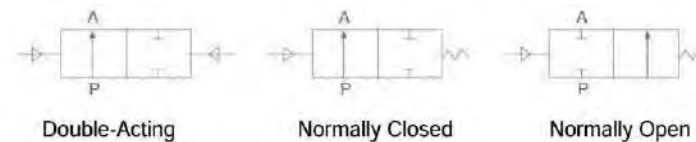
SCP Series Plastic Actuator Bevel Valve



Ordering Code

SCP	15	50	S	C	
Series Code	Port Size	Actuator Size	Action Type	Action Type	Body Material
SCP Series Plastic Bevel Valve	10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 32: G1 1/4" 40: G1 1/2" 50: G2" 65: G2 1/2" 80: G3"	40: 40mm 50: 50mm 63: 63mm 80: 80mm 100: 100mm	S: Single Action D: Double Action	C: Normal Close (Standard) O: Normal Open	Blank: SS304 (Standard) 316: SS316 316L: SS316L

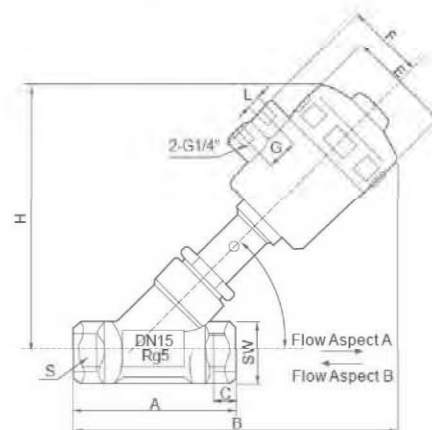
Graphic Symbol



Specification

Model	10	15	20	25	32	40	50	65	80
Port Size	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"	G2"	G2 1/2"	G3"
KV Value (m³/h)	3.7	4.2	9	19	33	42	59	90	135
Max. Working Pressure (MPa)	0~1.6	0~1.6	0~1.1	0~1.1	0~1.5	0~1.25	0~1.0	0~1.6	0~1.6
Min. Pilot Pressure (MPa)	0.39	0.39	0.39	0.42	0.5	0.44	0.4	0.4	0.4
Actuator Size	40	50	50	50/63	63	63	63/80	80	100
Medium Temp.	-10 ~ +180°C								
Flow Direction	A (Flow Direction The Seat) or B (Flow Direction Above the Seat)								

Overall Dimensions



Dimension Sheet

Orifice Size (mm)	Port Size	Actuator Size (Φmm)	A	B	C	ΦE	F	H	S	SW	G	L
10	G3/8"	40	65	142	12	53	30	85	G3/8"	25	20	G1/8"
15	G1/2"	50	76	168	14	64	44	115	G1/2"	28	24	G1/4"
20	G3/4"	50	92	175	16	64	44	131	G3/4"	32	24	G1/4"
25	G1"	63	103	218	21	80	54	166	G1"	39	24	G1/4"
32	G1 1/4"	63	112	228	19	80	54	172	G1 1/4"	49	24	G1/4"
40	G1 1/2"	63	129	232	21	80	54	174	G1 1/2"	56	24	G1/4"
50	G2"	80	143	263	27	100	62	202	G2"	68	24	G1/4"
65	G2 1/2"	80	186	280	28	100	62	209	G2 1/2"	84	24	G1/4"
80	G3"	100	218	355	34	125	71	268	G3"	101	30	G1/4"

SC Series Stainless Steel Bevel Valve



Ordering Code

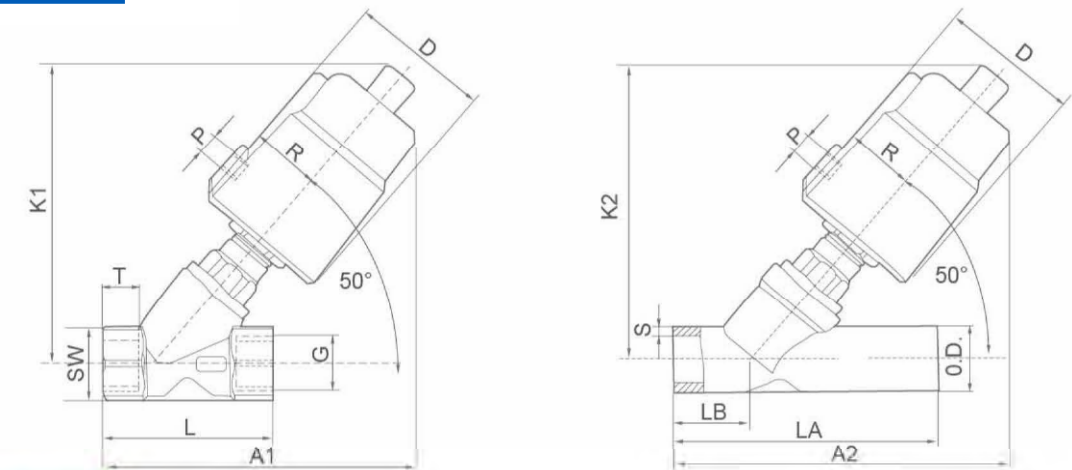
SC	10	40		
Series Code	Type Code	Actuator Size	Type	Body Material
SC Series Stainless Steel Bevel Valve	10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 32: G1 1/4" 40: G1 1/2" 50: G2" 65: G2 1/2" 80: G3"	40: 40mm 50: 50mm 63: 63mm 90: 90mm 100: 100mm	SC: Single Action Normal Close SO: Single Action Normal Open DC: Double Action Normal Close DF: Double Action Free Installation	Blank: SS304 (Standard) 316: SS316 316L: SS316L

Specification

Model	SC10-80SC/SO/DC/DF
Port size	DN10-DN50
Thread	G3/8"-G3"
Welded	DIN11850, 2 DIN11850, 3 ISO2037
Valve Body	CF8M
Actuator	CF8
Seat seals	PTFE
Stem seals	PTFE/FKM
Piston seals	FKM/NBR

Model	SC10-80SC/SO/DC/DF
Applicable Medium	Water, liquid, neutral gas, water steam, slight corrosive gas and liquid
Temperature Range	PTFE: -10°C to +180°C
Ambient Temperature	-10°C to +60°C
Viscosity	max. 600 mm²/s
Installation	Any position
Controlling Medium	Air or neutral gas
Controlling Pressure Range	0.3 ~ 1 MPa

Overall Dimensions



Dimension Sheet

Specification	Actuator (mm)	Thread										Welded				
		D	R	P	G	K1	A1	L	T	SW	O.D.	K2	A2	LA	LB	S
DN10	40	53	28	G1/8"	G3/8"	105	144	65	12	25	/	/	/	/	/	/
DN15	50	56	35	G1/8"	G1/2"	142	182	76	14	28	21	115	142	100	18	3
DN20	50	56	35	G1/8"	G3/4"	152	189	92	16	32	27	131	170	117	30	3
DN25	50	56	35	G1/8"	G1"	155	207	103	21	39	34	138	175	130	30	3
DN25	63	70	43	G1/8"	G1"	176	217	103	21	39	34	166	200	130	30	3
DN32	63	70	43	G1/8"	G1 1/4"	177	222	112	19	49	42	172	207	145	30	3
DN40	63	70	43	G1/8"	G1 1/2"	182	225	129	21	56	48	174	207	160	30	3
DN50	63	70	43	G1/8"	G2"	196	249	143	24	68	60	193	227	190	30	4
DN50	90	94	56	G1/4"	G2"	206	268	143	27	68	60	202	235	190	30	4
DN65	90	94	56	G1/4"	G2 1/2"	215	290	186	28	84	76	209	255	230	40	5
DN80	125	135	73	G1/4"	G3"	295	335	218	34	101	/	/	/	/	/	/

SQ22HD Series Right Angle Valve



Ordering Code

S	Q	22	HD	—	□	—	□	—	□
SACHIO Product	Right angle valve code	Two-position Two-way	Air Control liquid valve		Connection Size		Type		Material
					15: G1/2" 20: G3/4" 25: G1" 32: G1 1/4" 40: G1 1/2" 50: G2"		S: Single Acting type D: Double Acting type K: Normally Open		Blank: Normal type H: High temperature type

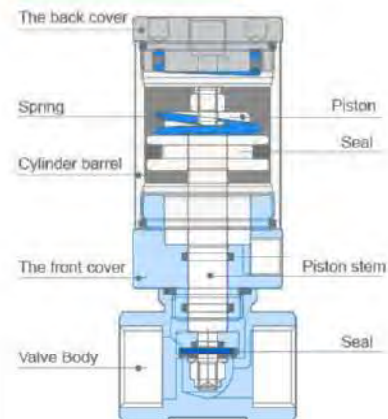
Product Instruction

Classical design, durable Air control design, energy saving and environmental protection big flow rate, safety and Precision
Can work at low pressure, smartness for on and off, good seal performance. There are two kinds of structure single acting type and double acting type.

Application: food, medicine, industry, abstersion, landification, printing, etc.

Remark: Normally open: Flow comes under the piston seal, against arrow on body.

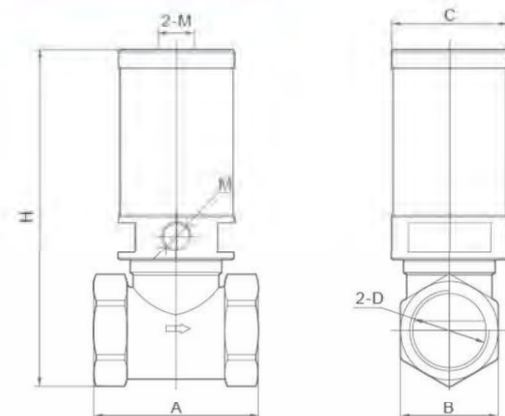
Internal Structure



Specification

Model	Orifice	Medium	Working pressure	Temp range	Kv value (m³/k)
SQ22HD-15	15mm	Compress Air Water Oil	0.2~0.6MPa	-5-60°C(High temperature) -5-150°C	4
SQ22HD-20	20mm				5
SQ22HD-25	25mm				10
SQ22HD-32	32mm				25
SQ22HD-40	40mm				25
SQ22HD-50	50mm				40

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	H	M
SQ22HD-15	47	26	31	G1/2"	96	G1/8"
SQ22HD-20	54	33	31	G3/4"	102	G1/8"
SQ22HD-25	66	34	38	G1"	115	G1/8"
SQ22HD-32	77	48	46	G1 1/4"	143	G1/8"
SQ22HD-40	86	54	56	G1 1/2"	160	G1/8"
SQ22HD-50	116	67	69	G2"	182	G1/8"

SGV 200 Series Process Valve



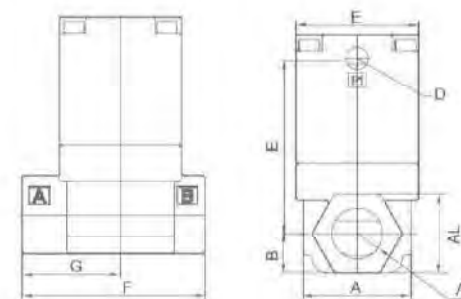
Ordering Code

SGV2	0	1	15	—	NC	M
SGV Series Process Valve	Control Method	Type Code	Nominal Diameter		Control Function	Seals Material
	0: Air Operated 1: External Pilot Solenoid	1: For Compressed Air and Air-hydro Circuit Control 2: For Flow Control 3: Coolant Valve 4: Steam Valve	06: G1/8" 08: G1/4" 10: G3/8" 15: G1/2" 20: G3/4" 25: G1" 32: G1 1/4" 40: G1 1/2" 50: G2"		NO: Normal Open NC: Normal Closed CO: Double Acting	B: NBR F: FKM P: PTFE M: METAL

Specification

Model	GV2*1—BFC seal material: NBR/FKM/EPR			GV2*2—BFC seal material: NBR/FKM/EPR			GV2*3—M seal material: Metal		GV2*4—F seal material: PTFE	
	NBR	FKM	EPR	NBR	FKM	EPR				
Fluid	NBR Air (standard dry), CO ₂ (less than 0.7 MPa), N ₂ , Turbine oil, Hydraulic fluid (40~100 mm²/s)	Argon, Helium, Turbine oil, Hydraulic fluid (40~100 mm²/s)	CO ₂ (0.7 MPa or more)	Water, oil, Air, Vacuum etc. (-5~60°C)	Water, oil, etc. Air Operated Only (-5~99°C)		Coolant (-5~60°C) (-5~99°C for air operated)		Steam (-5~180°C)	
Body / Actuator Material	S.S304 / Aluminum alloy									
Seal Material	NBR	FKM	EPR	NBR	FKM	EPR	NBR	FKM		
Temperature of Medium	-5~60°C	-5~99°C		-5~60°C	-5~99°C		-5~60°C	-5~99°C	-5~180°C	
Ambient Temperature	-5~50°C (Air operated type 60°C)								-5~60°C	
Proof Pressure	1.5 MPa									
Operating Pressure	0~1.0 MPa			NO: CO and NC std. orifice dia: low vacuum to 0.5 MPaNC, smaller orifice dia: low vacuum to 1.0 MPa			0~1.0 MPa		0~0.9 MPa	
External Pilot Air	Pressure range	0.2~0.7 MPa			NC: 0.25~0.7 MPa NO/CO: 0.1±0.25 × Use Pressure - 0.25 ± 0.25 × Use Pressure MPa			NC: 0.25~0.7 MPa NO/CO: 0.1±0.25 × Use Pressure ~0.7MPa		NC: 0.3~0.7 MPa NO: CO: 0.1±0.25x Use Pressure ~ 0.25±0.25x Use Pressure Mpa
	Lubrication	Not required (use turbine oil Class 1 ISO VG32, if lubricated.)								
	Temperature	-5 to 50°C (Air operated type: 60°C)								-5 to 60°C

Overall Dimensions



Dimension Sheet

Model	Port Size	A	B	C	D	E	F	G	AS	AL
DN 6	G1/8"	28	12.5	39.5	1/8	27	45	24	1/8	23
DN 8	G1/4"	28	12.5	39.5	1/8	27	45	24	1/4	23
DN 10	G3/8"	28	12.5	39.5	1/8	27	45	24	1/4	23
DN 10	G3/8"	37	14	55	1/8	42	63	34	3/8	27
DN 15	G1/2"	37	14	55	1/8	42	63	34	1/2	27
DN 20	G3/4"	46	17.5	60.5	1/8	50	80	43	3/4	33
DN 25	G1"	58	20	73	1/8	60	90	49	1	40
DN 32	G1 1/4"	68	26.5	94	1/8	77	105	52.5	1-1/4	48
DN 40	G1 1/2"	85	30	107	1/4	96	120	60	1-1/2	55
DN 50	G2"	100	37	123	1/4	113	140	70	2	66

PAV100 Series Pneumatic Axial Valve



Ordering Code

PAV — **101** — **15** — **NC** — **E**

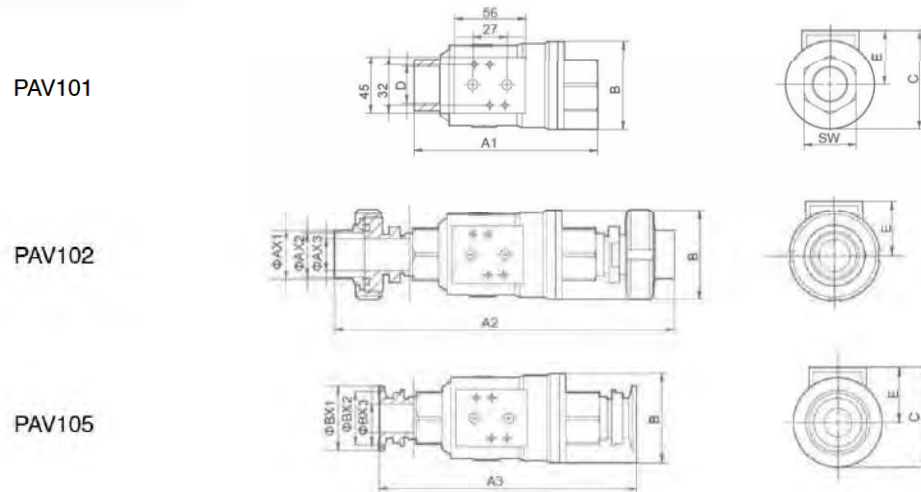
Series Code **Model** **Nominal Diameter** **Control Function** **Seat Seals**

PAV Series 101: 101 Female Threaded (Standard)
102: 102 Flare Connection
105: 105 Tri-Clamp End 10: G3/8"
15: G1/2"
20: G3/4"
25: G1"
32: G1 1/4"
40: G1 1/2"
50: G2" NO: Normal Open
NC1: Normal Closed (Single Acting)
NC2: Normal Closed (Single Acting)
NA: Double Acting E: EPDM (Standard)
F: FKM

Specification

Model	PAV101~105: DN1050
Temperature of Medium	NBR -10~70°C FKM -10~150°C EPDM -10~130°C
Temperature of Pilot Valve	-10~60°C
Working Pressure	0~1.6 MPa
Max. Control Pressure of Pilot Valve	1 MPa
Control Pressure Range (double acting)	0.35~0.8 MPa
Control Pressure Range (single acting)	0.45~0.8 MPa
Ambient and Fluid of Pilot Valve	Filtered Air or gas
Material of Body	S.S.304/316
Seals of Proof of Duty	FPM
Piston Seals	FKM/NBR

Overall Dimensions



Dimension Sheet

DN	Port Size	A1	A2	A3	B	C	D	E	SW	AX1	AX2	AX3	BX1	BX2	BX3
DN 10	G3/8"	98	192	158	46	46	3/8	33	22	19	15.5	14	50.5	43.5	10
DN 15	G1/2"	112	206	172	52	52	1/2	35	27	25.5	22	14	50.5	43.5	13
DN 20	G3/4"	135	233	195	64	64	3/4	40	32	32	29	18	50.5	43.5	19
DN 25	G1"	143	245	203	69	69	1	43	41	38	35	22	50.5	43.5	25
DN 32	G1 1/4"	165	284	235	86	86	1-1/4	51	50	45	40	27	50.5	43.5	32
DN 40	G1 1/2"	180	300	250	96	96	3/8	58	56	51	47.5	33	64	56.5	38
DN 50	G2"	207	332	287	108	108	3/8	62	70	57	53	43	64	56.5	50

PAV200 Series Pneumatic Axial Valve




Ordering Code

PAV — **201** — **15** — **NC** — **B** — ☐

Series Code **Model** **Actuator Size** **Action Type** **Seat Seals** **Style**

PAV Series 201: 201 Female Threaded(Standard)
202: 202 Flare Connection
205: 205 Tri-Clamp End 10: G3/8"
15: G1/2"
20: G3/4"
25: G1"
32: G1 1/4"
40: G1 1/2"
50: G2" NO: Normal Open
NC1: Normal Closed (Single Acting)
NC2: Normal Closed (Single Acting)
NA: Double Acting Blank: PU(Standard)
F: FKM
B: NBR Blank: Common Style
H: High Pressure Style

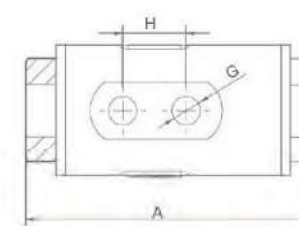
Model	PAV201205: DN0850
Temperature of Pilot Valve	-10~60°C
Max. Control Pressure of Pilot Valve	1.0 MPa
Ambient and Fluid of Pilot Valve	Filtered Air or gas
Control Pressure Range (double acting)	0.45~0.8 MPa
Control Pressure Range (single acting)	0.5~0.8 MPa
Temperature of Medium	-20~80°C
Filtering Accuracy of Media	200 mesh (0.074 mm)
Material of Body	S.S.304/316
Common Style Working Pressure	1.6 MPa
High Pressure Style Max. Working Pressure	Liquid 12 MPa Gas 8 MPa
Applicable Medium	Water, air, oil and other non-corrosive liquids or gases

Specification

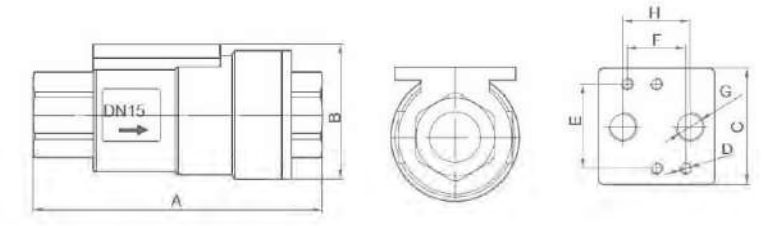
Model	PAV201205: DN0850
Temperature of Pilot Valve	-10~60°C
Max. Control Pressure of Pilot Valve	1.0 MPa
Ambient and Fluid of Pilot Valve	Filtered Air or gas
Control Pressure Range (double acting)	0.45~0.8 MPa
Control Pressure Range (single acting)	0.5~0.8 MPa
Temperature of Medium	-20~80°C
Filtering Accuracy of Media	200 mesh (0.074 mm)
Material of Body	S.S.304/316
Common Style Working Pressure	1.6 MPa
High Pressure Style Max. Working Pressure	Liquid 12 MPa Gas 8 MPa
Applicable Medium	Water, air, oil and other non-corrosive liquids or gases

Overall Dimensions

DN08~10



DN15~25



Dimension Sheet

DN	Port Size	Kv (m³/h)	A	B	C	D	E	F	G	H
DN 8	G1/4"	1.9	78	38	/	/	/	/	G1/8	17
DN 10	G3/8"	2.5	77	40	/	/	/	/	G1/8	17
DN 15	G1/2"	5.7	99	45	40	M4	29	20	G1/8	20
DN 20	G3/4"	8.8	110	57	49	M5	32	24	G1/8	24
DN 25	G1"	13.3	123	67	64	M5	32	24	G1/8	24

HLP Series Pressure Controller

Descriptions

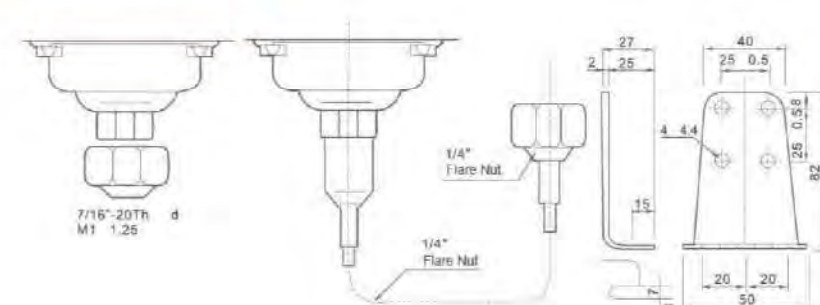
For use with fluorinated refrigerants as well as with air and water. (Allowable Fluid Temp : -10°C~+110°C)
Various contact functions available,
With SPDT contact mechanism,
Renovated micro-switch structure ensures the reliable switch function,
Manual-controlled and no use of other instruments to have a function test,
Flexible mounting plate suits various kinds of application.

Specification

Model	Range (bar)		Differential (bar)		Factory Setting (bar)		Max. Bellows Press (bar)
	Min.	Max.	Min.	Max.	OFF	ON	
HLP503	-0.7	3	0.2	1.5	2	1	16.5
HLP506	-0.7	6	0.6	4	3	2	16.5
HLP506M	-0.7	6	Duplicate voltage disparity ≤ 1		3	Manual Reset	16.5
HLP110	1	10	1	3	6	5	16.5
HLP516	5	16	1	4	10	8	35
HLP520	5	24	2	5	16	13	35
HLP530D	5	30	5	10	20	15	35
HLP530	8	30	Fixed 3-5		20	15-17	35
HLP530M	8	30	Duplicate voltage disparity ≤ 4		20	Manual Reset	35

Model	Press Side	Range (bar)		Differential (bar)		Factory Setting (bar)		Max. Bellows Press (bar)
		Min.	Max.	Min.	Max.	OFF	ON	
HLP830	Low Side	-0.7	6	0.6	4	3	2	16.5
	High Side	8	30	Fixed 3~5		2	15	35
HLP830HM	Low Side	-0.7	6	0.6	4	3	2	16.5
	High Side	8	30	Duplicate voltage disparity ≤ 4		20	Manual Reset	35
HLP830HLM	Low Side	-0.7	6	Duplicate voltage disparity ≤ 4		3	Manual Reset	16.5
	High Side	8	30	Duplicate voltage disparity ≤ 4		20	Manual Reset	35

Overall Dimensions



Slight Moving Switch's Date

Specified Electric Current (A)	Specified Voltage (V)	
	A.C. 125	A.C. 125
Non-Inductive Current	48	12
Maximum Load	48	12
Twinking Electric Current	228	72

SGT Series Pneumatic Gear Vibrator

Feature

Product Features

Vibration intensity can be adjusted based on air pressure, can immediately start, stop, fast, low-noise, vibration force, security.

Application

Feed material conveyor, vibrating screening, vibrating hopper, to help fill packaging, foundry sand mold vibration.

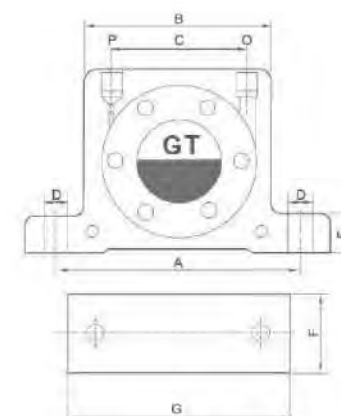
Works

Copper eccentric gear installed counterweight impact at intake charge into the gear thrust gear rotates, the eccentric rotation of the centrifugal weight with vibration, the gear driven by a bearing, low noise.

Specification

Model	Frequency (V.P.M)			Vibration Power (N)			Air Consumption (L/min)		
	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa
SGT-8	34.850	42.000	45.500	980	2.100	2.800	46	80	112
SGT-10	27.500	35.000	37.500	840	1.390	2.400	46	80	112
SGT-13	26.000	30.000	33.000	1.400	2.440	3.730	120	200	290
SGT-16	17.000	21.500	24.000	1.220	2.090	3.160	120	200	290
SGT-20	17.000	20.000	23.000	2.170	4.040	5.520	185	325	455
SGT-25	12.000	15.500	17.000	2.120	3.510	5.070	185	325	455
SGT-32	13.000	14.000	16.000	3.380	5.430	7.540	330	530	745
SGT-36	7.800	10.000	13.000	3.300	5.000	7.150	330	530	745
SGT-40	7.500	8.800	9.500	4.350	7.350	9.850	408	428	680
SGT-48	5.800	7.500	9.700	4.950	7.750	10.6007	408	428	680
SGT-60	4.758	6.530	8.515	5.700	9.800	11.150	505	600	920

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	P/O
SGT-8	68	50	28	7	12	35	86	1/8
SGT-10	68	50	28	7	12	35	86	1/8
SGT-13	90	65	39	9	16	43	113	1/4
SGT-16	90	65	39	9	16	43	113	1/4
SGT-20	104	82	56	9	17	56	128	1/4
SGT-25	104	82	56	9	17	56	128	1/4
SGT-32	130	103	76	11	21	73	160	3/8
SGT-36	130	103	76	11	21	73	160	3/8
SGT-40	152	122	85	18	27	80	194	3/8
SGT-48	152	122	85	18	27	80	194	3/8
SGT-60	195	140	96	21	30	95	240	1/2

SK Series Pressure Ball Vibrator



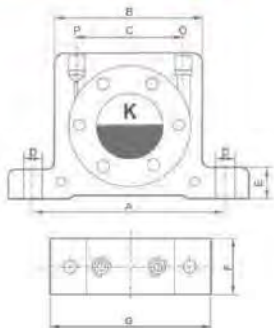
SK-10

SK-16

Specification

Model	Frequency (V.P.M)			Vibration Power (N)			Air Consumption (L/min)		
	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa
SK-8	22.500	27.250	34.100	245	465	700	90	150	190
SK-10	22.500	27.250	34.100	245	465	700	90	150	190
SK-13	13.250	17.500	19.000	440	820	1.200	100	190	270
SK-16	13.250	17.500	19.000	440	820	1.200	100	190	270
SK-20	10.000	12.750	14.111	950	1.675	2.000	150	270	400
SK-25	10.000	12.750	14.111	950	1.675	2.000	150	270	400
SK-32	7.500	9.350	11.000	2000	3.150	4.000	270	460	680
SK-36	7.500	9.350	11.000	2000	3.150	4.000	270	460	680

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	P/O
SK-8	68	50	28	7	12	22	86	1/4
SK-10	68	50	28	7	12	22	86	1/4
SK-13	90	65	39	9	16	27	113	1/4
SK-16	90	65	39	9	16	27	113	1/4
SK-20	104	82	57	9	17	38	128	1/4
SK-25	104	82	57	9	17	38	128	1/4
SK-32	130	103	76	11	21	50	160	3/8
SK-36	130	103	76	11	21	50	160	3/8

SR Series Roller Vibrator



SR-50

Specification

Model	Frequency (V.P.M)			Vibration Power (N)			Air Consumption (L/min)		
	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa	0.2 Mpa	0.4 Mpa	0.6 Mpa
SR-50	25.150	35.150	36.150	1.175	2.955	4.2550	1.550	1.450	1.950
SR-65	19.150	21.150	26.150	2.755	4.855	6.1550	2.150	3.100	4.150
SR-80	15.650	18.650	19.150	3.150	6.125	7.450	4.500	4.350	5.750
SR-100	11.050	14.150	15.150	3.765	6.750	8.955	5.600	5.550	7.350

Feature

This small pneumatic vibrator design is simple, but still gives a strong centrifugal force. Body made from an extruded aluminum, refined steel roll in which the scrolling. This steel roller by the two special high-impact plastic cover positioning. The housing has two horizontal and two vertical holes, making installation easy. Air into two mutually perpendicular intake of an entry. The two air intakes for the standard pipe thread. Is not a block intake, supplied with a pipe plug.

SNTP Series Piston Reciprocating Type Ball Vibrator



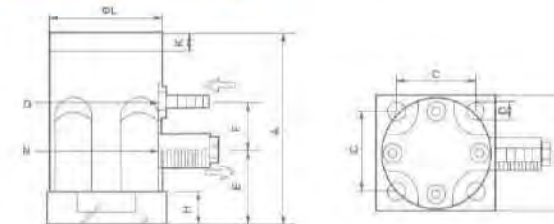
Feature

Big power with lower noise.
Standard frequency is from 43 to 146 times per minute.
Excitation force is from 150N to 2039N.
The frequency and vibration amplitude can be adjusted via regulating the working pressure.
The normal maximum working pressure is 150 degrees centigrade (We can also make special type, such as 200 degrees centigrade)
The pneumatic hammer can be used for severe environment.

Specification

Model	Frequency (V.P.M)			Vibration Power (N)			Air Consumption (L/min)
	0.2 MPa	0.4 MPa	0.6 MPa	0.2 MPa	0.4 MPa	0.6 MPa	
SNTP25	5.840	6.950	8.780	265	435	825	33-108
SNTP32	2.950	4.075	5.045	285	605	925	50-198
SNTP48	2.610	3.450	4.310	780	1.300	2.030	96-336

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	F	G	H	K	L	N
SNTP25	90	60	46	6.5	36	14.5	G1/8"	15	8	51	G1/8"
SNTP32	140	75	51	11	48	32	G1/4"	20	10	70	G1/4"
SNTP48	194	100	78	13	60	51	G3/8"	25	15	95	G3/8"

SFP-M-M Series Piston type Pneumatic Hammer



Feature

Product Features

Big power with lower noise
Standard frequency is from 10 to 60 times per minute. Excitation force is from 484N to 13800N
The frequency and vibration amplitude can be adjusted via regulating the working pressure. The normal maximum working pressure is 150 degrees centigrade.
(We can also make special type, such as 200 degrees centigrade).
The pneumatic hammer can be used for severe environment.

Application

Hopper feed, Casting industry, Pipelining Compaction. Screening, Conveyor, etc

Structure

Aluminium shell with special high grade grease, long life time, is suitable for different application situation

Specification

Model	Frequency x 1000		Vibration Power (N)		Air Consumption (L/min)
	0.2 MPa	0.6 MPa	0.2 MPa	0.6 MPa	
SFP-M-12-M	5	6.7	34	74	0.5
SFP-M-18-M	4	5.9	68	188	4
SFP-M-25-M	3	4.2	142	504	23
SFP-M-35-M	3	4.6	248	1080	24

SBVP Series Piston Type Pneumatic Hammer



Feature

Product Features

Vibration intensity can be adjusted based on air pressure, can immediately start, stop, fast, low-noise, vibration force, security.

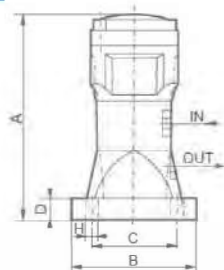
Application

Feed material conveyor, vibrating screening, vibrating hopper, to help fill packaging, foundry sand mold vibration.

Specification

Model	Frequency (V.P.M)			Vibration Power (N)			Air Consumption (L/min)
	2 MPa	4 MPa	6 MPa	2 MPa	4 MPa	6 MPa	
SBVP-30C	1760	2300	2850	195	380	560	230
SBVP-40C	1330	1670	1870	270	530	720	250
SBVP-50C	1000	1220	1350	400	760	1000	270

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	H	IN	OUT
SBVP-30C	128	90	68	18	12	1/4"	1/4"
SBVP-40C	160	100	78	18	12	1/4"	1/4"
SBVP-50C	208	140	105	20	16	1/4"	1/4"

SSK Series Pneumatic Percussion Hammer



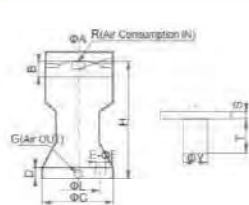
Feature

The main characteristics are magnetic impact of large powder faling effect, air consumption, low operating cost, energy-saving effect is good percussion interval adjustable quality, reliable, low failure rate, structure is simple, easy removal, innovative designs, chic, piston impact resistance, (can be customized explosion proof). Widely used in pesticides pharmaceuticals, chemicals, cement, dyes, pigments, food, electronics, building materials, mining, environmental protection and other industries, is powerful powder processing line auxiliary equipment.

Specification

Model	Operating Pressure (MPa)	Air Consumption (L/min)	Wallop (kgm/sec)
SSK-30	0.3~0.7	0.028	~0.75
SSK-40	0.3~0.7	0.082	~2.2
SSK-60	0.3~0.7	0.228	~7.4
SSK-80	0.4~0.5	0.455	~16.4
SSK-100	0.5~0.7	1.012	~30.0

Overall Dimensions



Dimension Sheet

Model	A	B	C	D	E	G	H	L	S	T	Y	R
SK-30	75	10	82	13	9	1/8	132	68	6	50	27	1/4
SK-40	90	12	97	18	11	1/4	162	78	10	60	34	1/4
SK-60	121	13	143	19	15	1/4	215	100	10	60	48	1/4
SK-80	160	17	170	20	17	3/8	260	140	14	90	70	3/8
SK-100	200	18	200	23	17	3/8	318	160	18	90	70	3/8

Other Solenoid Valve / Solenoid Valve Accessories

Model	Product	Name Specification	Model	Product	Specification
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4VSC-08



Valve type: 5 port 2 way
Orifice size: 25mm2 (CV=1.40)
Fluid Air (to be filtered by 40µm filter element)
Acting Inner guide type
Pressure range: 0.25~1.0 MPa
Proof pressure: 1.2MPa
Temperature: 5~50°C
Voltage range: -10%~+10%
Power consumption: AC: 5.5W DC: 4.8W
Insulation&Protection: Class & IP65
Max frequency: 5 cycles
Min activating time: 0.05 sec

SR2
Valve
Group



Fluid medium: Compress Air
Motion pattern: Direct acting
Type: Normal Close, (2/2,3/2)
Orifice: 1.2mm
Connection port: G1/8"
Working pressure: 0~0.8Mpa
Working temperature: -20°C ~80°C
Voltage Range: DC6~220V,
AC24~220V, 50/60Hz±10%
Material of Body: Aluminium alloy
Seal: NBR

SCZ-
110-10-A
Small
Valve
Group



Fluid medium: Compress Air
Pattern: Direct acting
Type: Normal Close, Two-position Three-way
Orifice: 0.7mm
Connection port: M5
Working pressure: 0~0.8Mpa
Working temperature: 0~60 °C
Voltage Range: DC 12V~DC24V, +10%
Power: ≤3W
Material of Body Aluminum
Seal: FPM

DL-6A
DL-6B
DL-6K DL
Orifice
Adjustable
Steam
Solenoid
Valve



Medium: Water, Steam
Pattern: Direct acting
Type: Normal Close Orifice:
2.5mm(DL-6A,DL-
6B)/0-2.5mm(DL-6K)
Connection port: G1/4", G1/8"
Working pressure: 0~0.8Mpa
Ambient temperature: 0.1~180°C
Voltage: AC24, AC110V, AC220-
240V,
50/60Hz, +10%
Material of Body: Stainless
Steel+Brass
Seal: PTFE

Q22XD-2L
Q23XD-2L



Port size: M10x1, G1/8"
Use Pressure: 0.15 to 0.8Mpa
Apply Temperature: -5°C ~50°C

F17 Petrol
Solenoid
Valve



Fluid medium: Petrol and solvents
Motion Pattern: Direct acting
Type: Normal Close, Two-position
Two-way
Orifice: Φ1.8mm, Φ3mm
Connection port: Φ4 hose
Working pressure: 0~0.35Mpa
Working temperature: -40°C ~80°C
Voltage Range: DC12V DC24V
Material of Body: POM
Seal: VITON

3VKZF-
15/10~
25/20
3AKZF-
15/10~
25/20



Working Medium: Air
Motion Pattern: Stop Type
Aperture of Flow Rate: 3V:16mm/25mm
3A: 16mm/25mm
Port Size, G1/2" / G3/8", G1"/G3/4",
Working-pressure: 0~1.0MPa
Max. Pressure Resistance: 1.5MPa
Voltage Range: -10%~+10%
Material of Body: Aluminium

RSC-1
RSC-2



RSC Water Dispenser Series
Solenoid Valve G1/8"-G1/4"
Continuous Service: 100%
Wire Length: 30cm(12")

SC601
5/2 3/2
(Armature)



Often used for 4V110 etc
and small-sized special
electromagnetism valves.

SC603 5/2
3/2
(Armature)



Often used for 4V210,
4V310, 4V410 etc valves.

SCB601
5/2 3/2
(Armature
With Base)



Often used for 4V110 etc
and small-sized special
electromagnetism valves.

SCB603,
5/2 3/2
(Armature
With Base)



Often used for 4V210,
4V310, 4V410 etc valves.

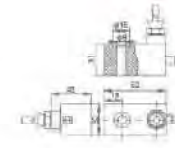
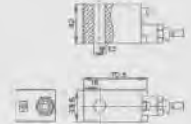
Solenoid Valve Accessories

Model	Product	Specification	Model	Product	Specification
Coil-110		Coil aperture, Height: Φ8x31 Applicable power and Voltage AC 6VA 12V-220V DC 3W 6V-110V	Coil-210		Coil aperture, Height: Φ9x29.5 Applicable power and Voltage AC 6VA 12V-220V DC 3W 6V-110V
DIN 43650C-AC or DC (Connectors)		Distance: 9.4mm Form: 2+1 GND Protection Class: IP65 (60529 Situation of IEC) Working Voltage: AC250V DC300V Nominal Current: 10A Contact Resistance: ≤5Ω Max.Conductor Section: 3x0.75mm ² Fixing Screw: M3x25	DIN 43650B-AC or DC (Connectors)	 White Brown	Distance: 11mm Form: 2+1 GND Protection Class: IP65 (60529 Situation of IEC) Working Voltage: AC250V DC300V Nominal Current: 10A Contact Resistance: ≤5mΩ Max.Conductor Section: 3x1.5mm ² Fixing Screw: M3x30
DIN 43650A (Connectors)		Distance: 18mm Form: 2+1 GND Protection Class: IP65(60529 Situation of IEC) Working Voltage: AC250V DC300V Nominal Current: 10A Contact Resistance: ≤5mΩ Max.Conductor Section: 3x1.5mm ² Fixing Screw: M3x28	2V,2P Series Coil		Coil Aperture, height: Φ9x29.5 Applicable Power And Voltage: AC 8VA 12-220V DC 6 W 6V-110V
2W (UD) Series Coil UD-08		Coil Aperture, height: Φ14x31 Applicable Power And Voltage: AC 28VA 24-380V DC 12 W 6-380V	2W (UD) Coil UD-15		Coil aperture, Height: Φ16x37 Applicable power and Voltage: AC 18VA 24V-380V DC 16W 12V-380V
2W (UW) Series Coil		Coil Aperture, height: Φ16x17 Applicable Power And Voltage: AC 28VA 24-380V DC 24 W 24-380V	2W (2L,US) Large Aperture Coil US-H		Coil Aperture, height: Φ23x55 Applicable Power And Voltage: AC 28VA 24-380V DC 24 W 24-380V
2W(2L,US) Large Aperture Plastic Capsulation Coil		Coil Aperture, height: Φ22x55 Applicable Power And Voltage: AC 28VA 24-380V DC 24 W 24-380V	AB410A		Coil Aperture, height: Φ16x38 Applicable Power And Voltage: AC 28VA 24-380V DC 18 W 12-220V
PU Series Coil		Coil Aperture, height: Φ14.5x42 Applicable Power And Voltage: AC 15VA 24-380V DC 12.5 W 12-110V	VX Series Coil		Coil aperture, Height: 11x35 Applicable power and Voltage AC 13VA 12V-380V DC 8W 6V-380V

Fluid Process Valves

Model	Product	Specification	Model	Product	Specification
PU220 Series Diaphragm		PU220-03A PU220-04A PU220-06A PU220-08A	PU225 Series Diaphragm		PU225-03A PU225-04A PU225-06A PU225-08A
2W Series Diaphragm		2W-160-15 2W-200-20 2W-250-25 2W-350-35 2W-400-40 2W-500-50	2L(US) Series Piston		2L-170-10/15/20 2L-200-25 2L-350-35/40 2L-500-50

Explosion-proof Coil & Timer

Model	Product	Specification	Model	Specification
Product No. SC280 Product Type 0980,0981	 	Normal Voltage AC220V, AC110V, AV24V, DC24V, DV12 Other Voltage can be customized Normal Power AC5.5VA,DC5W Other Power can be customized Explosion-proof level Exm I / II T4 Connection Type Connector Type Applicability EX-proof Solenoid Valve		
Product No. SC281 Product Type 1380,1381	 	Normal Voltage AC220V, AC110V, AV24V, DC24V, DV12 Other Voltage can be customized Normal Power AC5.5VA, DC5W Other Power can be customized Explosion-proof level Exm I / II T4 Connection Type Connector Type Cable Applicability EX-proof Solenoid Valve		
Valve Timer-1		Supply voltage 24.240V AC/DC-50Hz/60Hz for "CE" marked Absorption current Timer Operating current 4 mA max temperature -10°C +50°C Class protection IP65-EN60529 Switch holding voltage 400V Max Switch capacity 1A Inrush current 10A for 10ms Duty cycle 100% ED Switch Life 3x10 ⁸ Time ON From 0.5 to 10s. Time OFF From 0.5 to 45s. Indicators Yellow LED Test Manual override Termination DIN43650A		

Fluid Process Valves

PNEUMATIC ACCESSORIES

Users usually overlook these accessories, but they are most necessary element in pneumatic system. SACHIO knows the importance of these small parts, we never give up the high quality standard. The pneumatic accessories we can offer is plastic fittings, brass fittings, quick connectors, pipe fittings, quick couplers, air pipe (PU/PE/PA) and air guns etc.

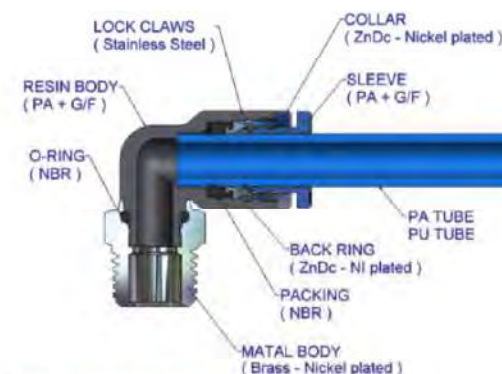
Fittings, Tubings & Accessories



Metric Size R (PT) Thread Type

One-Touch Fittings

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 284 PSI	0 ~ 20 kgf/cm ² (0 ~ 1980 kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 176 °F	0 ~ 80 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

PC 08-02

① ② ③

① Type

② Tube Dia (ØD)

Code	4	6	8	10	12	16
Dia	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16

③ Thread Size (T)

• Metric Thread & R/PT Thread

	Metric Size		Taper Pipe Thread			
Code	M5	M6	1	2	3	4
Size	M5 x 0.8	M6 x 1	R1/8	R1/4	R3/8	R1/2

④ COLOR (Gray fitting can be produced)

	BK	GR
Color	Black	Gray

PC 08-02 GR

① ② ③ ④



Application

- One-touch joints used in pneumatic piping.
- Used for a wide variety of models to meet all needs.

Features

- Easy to connect/disconnect tube by one touch.
- PC type is useful for piping in confined space, given its six-angle wrench processing inside.
- Elliptical sleeve makes it possible to apply and remove the tube easily in confined space.
- Fittings are equipped with a Gasket, O-ring and Teflon-Treatment already on the thread.

Case In Use

- POC Model
 - The hexagonal hole of the inside body makes it possible to tighten the fitting with a hexagonal wrench.
 - A hexagonal wrench must be used due to the round exterior.
- PL Model
 - Flexible for directional tube laying given its revolving construction of body (PL and PT type).
- Elliptical Sleeve
 - Elliptical sleeve makes it possible to apply and remove the tube easily in confined spaces.

Caution

- Be sure to read the "Common Precautions" and the "Using Precautions of Fitting Series" (P12) before using.
- Inputting tube on the fitting, be sure to push it deeply into the inside.
- In case of incorrect installation, there is a risk of air leakage or loose tube.

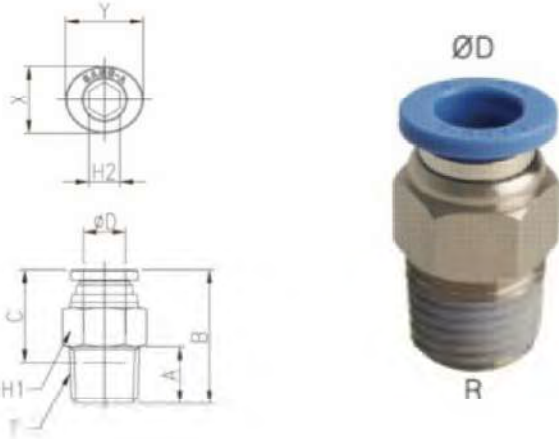
Warning

- Be sure to confirm that proper conditions are met (specifications), otherwise there may be air leakage by damage on the fitting body.

Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

PC Male Straight



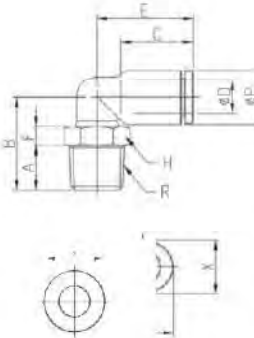
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	A	B	C	H1	H2	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PC 03M3	3	M3	3	20.4	14.5	8	1.5	8.6	1.2	4.5	100
PC 03M5	3	M5	4	20.1	14.5	8	2	8.6	2	4.7	100
PC 03M6	3	M6	5	21.1	14.5	9	2	8.6	2	6.8	100
PC 04M3	4	M3	3	20.4	14.5	8	1.5	8.6	1.2	4.2	100
PC 04M5	4	M5	4	20.1	14.5	8	2	8.6	2	4.5	100
PC 04M6	4	M6	5	21.1	14.5	9	3	8.6	3	6.3	100
PC 0401	4	R1/8	8	20.1	14.5	10	3	8.6	3	8.6	100
PC 0402	4	R1/4	11	20.1	14.5	14	3	8.6	3	17.3	100
PC 0403	4	R3/8	12	21.1	14.5	17	3	8.6	3	30.0	50
PC 06M5	6	M5	4	21.8	15.5	11	2	11	2	8.3	100
PC 06M6	6	M6	5	22.8	15.5	11	3	11	3	8.0	100
PC 0601	6	R1/8	8	22	15.5	11	4	11	4	9.2	100
PC 0602	6	R1/4	11	22.8	15.5	14	4	11	4	18.2	100
PC 0603	6	R3/8	12	21.8	15.5	17	4	11	4	28.4	50
PC 0604	6	R1/2	15	25.8	15.5	21	4	11	4	54.4	50
PC 0801	8	R1/8	8	27.7	17.8	13	5	13	4	13.7	100
PC 0802	8	R1/4	11	25.7	17.8	14	6	13	5	17.1	100
PC 0803	8	R3/8	12	23.7	17.8	17	6	13	6	27.3	50
PC 0804	8	R1/2	15	26.7	17.8	21	6	13	6	51.8	50
PC 1001	10	R1/8	8	20.4	19.4	17	5	16	6	22.2	50
PC 1002	10	R1/4	11	32.4	19.4	17	6	16	5	27.6	50
PC 1003	10	R3/8	12	28.4	19.4	17	8	16	8	29.3	50
PC 1004	10	R1/2	15	27.3	19.4	21	8	16	8	48.5	50
PC 1201	12	R1/8	8	32.4	22.4	19	5	19.5	5	28.9	50
PC 1202	12	R1/4	11	35.4	22.4	19	6	19.5	6	34.2	50
PC 1203	12	R3/8	12	31.8	22.4	19	8	19.5	8	33.5	50
PC 1204	12	R1/2	15	33.8	22.4	21	8	19.5	8	54.8	25
PC 1403	14	R3/8	12	30	24.4	22	8	23	8	53.9	25
PC 1404	14	R1/2	15	36.5	24.4	22	10	23	10	58.0	25
PC 1603	16	R3/8	12	39.7	25	24	8	24	8	58.7	25
PC 1604	16	R1/2	15	42.2	25	24	10	24	10	58.2	25

*Hexagonal wrench may be used for a proper tightening.

Metric Size R (PT) Thread Type

PL Male Elbow

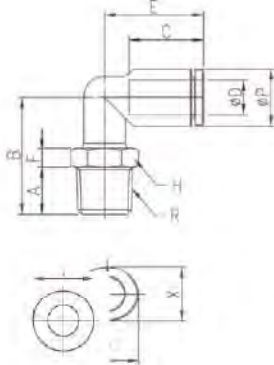


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PL 03M3	3	M3	9	3	14.6	14.5	17.1	5.4	9	8.6	1.2	4.5	100
PL 03M5	3	M5	9	3	14.6	14.5	17.1	4.4	9	8.6	2	4.7	100
PL 03M6	3	M6	9	5	15.6	14.5	17.1	4.4	9	8.6	2.5	5.2	100
PL 04M3	4	M3	9	3	14.6	14.5	17.1	5.4	9	8.6	1.2	4.4	100
PL 04M5	4	M5	9	4	14.6	14.5	17.1	4.4	9	8.6	2	4.6	100
PL 04M6	4	M6	9	5	15.6	14.5	17.1	4.4	9	8.6	3	5	100
PL 0401	4	R1/8	9	8	17.8	14.5	17.1	5	10	8.6	3.2	7.9	100
PL 0402	4	R1/4	9	11	20.8	14.5	17.1	5	14	8.6	3.2	17	100
PL 0403	4	R3/8	9	12	21.8	14.5	17.1	5	17	8.6	3.2	26.4	50
PL 06M5	6	M5	11.2	4	15.7	15.5	18	4.4	9	11	2	5.4	100
PL 06M6	6	M6	11.2	5	16.7	15.5	18	4.4	9	11	3	5.9	100
PL 0601	6	R1/8	11.2	8	18.9	15.5	18	5	10	11	4	8.7	100
PL 0602	6	R1/4	11.2	11	21.9	15.5	18	5	14	11	4	17.8	50
PL 0603	6	R3/8	11.2	12	22.9	15.5	18	5	17	11	4	27.2	50
PL 0604	6	R1/2	11.2	15	26.9	15.5	18	6	21	11	4	49.5	25
PL 0801	8	R1/8	13.6	8	20.3	17.8	23.6	5	10	13	5.5	10.4	50
PL 0802	8	R1/4	13.6	11	22.8	17.8	23.6	4.5	14	13	5.5	19.1	50
PL 0803	8	R3/8	13.6	12	23.8	17.8	23.6	4.5	17	13	5.5	28.4	50
PL 0804	8	R1/2	13.6	15	27.8	17.8	23.6	5.5	21	13	5.5	50.7	25
PL 1001	10	R1/8	16.3	8	23.6	19.4	25	6.5	17	16	6	20.8	50
PL 1002	10	R1/4	16.3	11	28.6	19.4	25	6.5	17	16	8	25.5	25
PL 1003	10	R3/8	16.3	12	26.1	19.4	25	5	17	16	9	27.2	25
PL 1004	10	R1/2	16.3	15	29.1	19.4	25	5	21	16	9	47.5	25
PL 1201	12	R1/8	19.7	8	25.5	22.4	32.2	6.5	17	19.5	6	26.4	25
PL 1202	12	R1/4	19.7	11	28.5	22.4	32.2	6.5	17	19.5	8	31.1	25
PL 1203	12	R3/8	19.7	12	28	22.4	32.2	5	17	19.5	9.5	33.1	25
PL 1204	12	R1/2	19.7	15	31	22.4	32.2	5	21	19.5	9.5	52.8	25
PL 1403	14	R3/8	23.5	12	35	24.4	31.9	10.5	20	23	11	52.7	20
PL 1404	14	R1/2	23.5	15	37.5	24.4	31.9	10	21	23	12	67	20
PL 1603	16	R3/8	25.6	12	36	25	34	10.5	20	24	11	52.9	20
PL 1604	16	R1/2	25.6	15	38.5	25	34	10	21	24	13	67.2	20

*Rotating body construction after a proper installation.

PL(L) Male Elbow



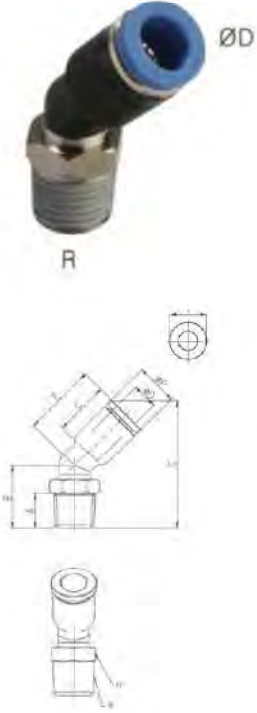
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PL 04M3(L)	4	M3	9	3	17.8	14.5	17.1	5.4	9	8.6	1.2	4.0	100
PL 04M5(L)	4	M5	9	4	17.8	14.5	17.1	4.4	9	8.6	2	4.2	100
PL 04M6(L)	4	M6	9	5	18.8	14.5	17.1	4.4	9	8.6	3	4.6	100
PL 0401(L)	4	R1/8	9	8	21	14.5	17.1	5	10	8.6	3.2	7.2	100
PL 0402(L)	4	R1/4	9	11	24	14.5	17.1	5	14	8.6	3.2	15.5	100
PL 0403(L)	4	R3/8	9	12	25	14.5	17.1	5	17	8.6	3.2	24.0	50
PL 06M5(L)	6	M5	11.2	4	19.4	15.5	18	4.4	9	11	2	5.2	100
PL 06M6(L)	6	M6	11.2	5	20.4	15.5	18	4.4	9	11	3	5.6	100
PL 0601(L)	6	R1/8	11.2	8	22.6	15.5	18	5	10	11	4	8.2	100
PL 0602(L)	6	R1/4	11.2	11	25.6	15.5	18	5	14	11	4	16.5	50
PL 0603(L)	6	R3/8	11.2	12	26.6	15.5	18	5	17	11	4	25	50
PL 0804(L)	8	R1/2	11.2	15	30.6	15.5	18	6	21	11	4	45.3	25
PL 0801(L)	8	R1/8	13.6	8	25.3	17.8	23.6	5	10	13	5.5	9.3	50
PL 0802(L)	8	R1/4	13.6	11	27.8	17.8	23.6	4.5	14	13	5.5	17.2	50
PL 0803(L)	8	R3/8	13.6	12	28.8	17.8	23.6	4.5	17	13	5.5	25.6	50
PL 0804(L)	8	R1/2	13.6	15	32.8	17.8	23.6	5.5	21	13	5.5	45.8	25
PL 1001(L)	10	R1/8	16.3	8	29.7	19.4	25	6.5	17	16	6	21.9	50
PL 1002(L)	10	R1/4	16.3	11	32.7	19.4	25	6.5	17	16	8	26.2	25
PL 1003(L)	10	R3/8	16.3	12	32.2	19.4	25	5	17	16	9	28.0	25
PL 1004(L)	10	R1/2	16.3	15	35.2	19.4	25	5	21	16	9	45.9	25
PL 1201(L)	12	R1/8	19.7	8	31.4	22.4	32.2	6.5	17	19.5	6	24.6	25
PL 1202(L)	12	R1/4	19.7	11	34.4	22.4	32.2	6.5	17	19.5	8	28.9	25
PL 1203(L)	12	R3/8	19.7	12	33.9	22.4	32.2	5	17	19.5	9.5	30.7	25
PL 1204(L)	12	R1/2	19.7	15	36.9	22.4	32.2	5	21	19.5	9.5	48.6	25

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

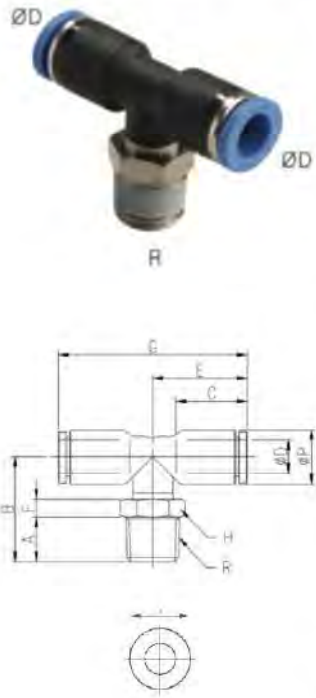
PL45 Male 45° Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	H	G	X	Orifice (Ømm)	W/G (g)	Qty/ Inbox
PL45 04M5	4	M5	9	4	13.1	14.5	17.1	9	28.1	8.6	2	4.8	100
PL45 04M6	4	M6	9	5	14.1	14.5	17.1	9	29.1	8.6	3	5.2	100
PL45 0401	4	R1/8	9	8	16.3	14.5	17.1	10	31.3	8.6	3.2	7.8	100
PL45 0402	4	R1/4	9	11	19.3	14.5	17.1	14	34.3	8.6	3.2	16.1	100
PL45 0403	4	R3/8	9	12	20.3	14.5	17.1	17	35.3	8.6	3.2	24.6	50
PL45 06M5	4	M5	11.2	4	13.7	15.5	18	9	30.1	11	2	5	100
PL45 06M6	6	M6	11.2	5	14.7	15.5	18	9	31.1	11	3	5.4	100
PL45 0601	6	R1/8	11.2	8	16.9	15.5	18	10	33.3	11	4	8.0	100
PL45 0602	6	R1/4	11.2	11	19.9	15.5	18	14	36.3	11	4	16.3	50
PL45 0603	6	R3/8	11.2	12	20.9	15.5	18	17	37.3	11	4	24.0	50
PL45 0604	6	R1/2	11.2	15	24.0	15.5	18	21	41.3	11	4	45.1	50
PL45 0801	6	R1/8	13.6	8	17.5	17.8	23.6	10	38.6	13	5.5	8.8	50
PL45 0802	8	R1/4	13.6	11	20	17.8	23.6	14	41.1	13	5.5	16.7	50
PL45 0803	8	R3/8	13.6	12	21	17.8	23.6	17	42.1	13	5.5	25.1	50
PL45 0804	8	R1/2	13.6	15	25	17.8	23.6	21	46.1	13	5.5	45.4	25
PL45 1001	8	R1/8	16.3	8	19.6	19.4	25	17	42.7	16	6	21.1	25
PL45 1002	10	R1/4	16.3	11	22.6	19.4	25	17	45.7	16	8	25.4	25
PL45 1003	10	R3/8	16.3	12	22.1	19.4	25	17	45.2	16	9	27.2	25
PL45 1004	10	R1/2	16.3	15	25.1	19.4	25	21	48.2	16	9	45.1	25
PL45 1201	12	R1/8	19.7	8	21.1	22.4	32.2	17	50.4	19.5	6	23.6	25
PL45 1202	12	R1/4	19.7	11	24.1	22.4	32.2	17	53.4	19.5	8	27.9	25
PL45 1203	12	R3/8	19.7	12	23.6	22.4	32.2	17	52.9	19.5	9.5	29.7	25
PL45 1204	12	R1/2	19.7	15	26.6	22.4	32.2	21	55.9	19.5	9.5	47.6	25

PT Male Branch Tee



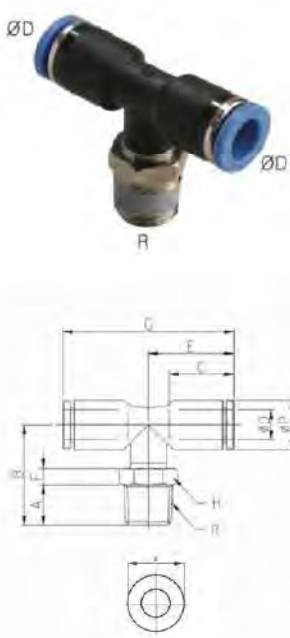
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	X	Orifice (Ømm)	W/G (g)	Qty/ Inbox
PT 03M3	3	M3	9	3	16.6	14.5	17.1	5.4	34.2	9	8.6	1.2	6.2	100
PT 03M5	3	M5	9	4	16.6	14.5	17.1	4.4	34.2	9	8.6	2	6.4	100
PT 03M6	3	M6	9	5	17.6	14.5	17.1	4.4	34.2	9	8.6	3	6.8	100
PT 04M3	4	M3	9	3	16.6	14.5	17.1	5.4	34.2	9	8.6	1.2	6.0	100
PT 04M5	4	M5	9	4	16.6	14.5	17.1	4.4	34.2	9	8.6	2	6.2	100
PT 04M6	4	M6	9	5	17.6	14.5	17.1	4.4	34.2	9	8.6	3	6.7	100
PT 0401	4	R1/8	9	8	19.8	14.5	17.1	5	34.2	10	8.6	3.2	9.5	100
PT 0402	4	R1/4	9	11	22.8	14.5	17.1	5	34.2	14	8.6	3.2	18.7	50
PT 0403	4	R3/8	9	12	23.8	14.5	17.1	5	34.2	17	8.6	3.2	28.0	50
PT 06M5	6	M5	11.2	4	17.7	15.5	18	4.4	35.9	9	11	2	7.7	50
PT 06M6	6	M6	11.2	5	18.7	15.5	18	4.4	36.9	9	11	3	8.2	50
PT 0601	6	R1/8	11.2	8	20.9	15.5	18	5	35.9	10	11	4	11	50
PT 0602	6	R1/4	11.2	11	23.9	15.5	18	5	35.9	14	11	4	20.2	50
PT 0603	6	R3/8	11.2	12	24.9	15.5	18	5	35.9	17	11	4	29.5	50
PT 0604	6	R1/2	11.2	15	28.9	15.5	18	6	35.9	21	11	4	51.9	25
PT 0801	8	R1/8	13.6	8	23.5	17.8	23.6	5	47.2	10	13	5.5	14.9	50
PT 0802	8	R1/4	13.6	11	26	17.8	23.6	4.5	47.2	14	13	5.5	23.6	50
PT 0803	8	R3/8	13.6	12	27	17.8	23.6	4.5	47.2	17	13	5.5	32.9	50
PT 0804	8	R1/2	13.6	15	31	17.8	23.6	5.5	47.2	21	13	5.5	55.2	25
PT 1001	10	R1/8	16.3	8	258	19.4	25	6.5	50	17	16	6	26.3	25
PT 1002	10	R1/4	16.3	11	28.8	19.4	25	6.5	50	17	16	8	31	25
PT 1003	10	R3/8	16.3	12	29.3	19.4	25	5	50	17	16	9	33	25
PT 1004	10	R1/2	16.3	15	31.3	19.4	25	5	50	21	16	9	52.7	25
PT 1201	12	R1/8	19.7	8	27.5	22.4	32.2	6.5	64.4	17	19.5	6	37	20
PT 1202	12	R1/4	19.7	11	30.5	22.4	32.2	6.5	64.4	17	19.5	8	41.7	20
PT 1203	12	R3/8	19.7	12	30	22.4	32.2	5	64.4	17	19.5	9.5	43.7	20
PT 1204	12	R1/2	19.7	15	33	22.4	32.2	5	64.4	21	19.5	9.5	63.4	20
PT 1403	14	R3/8	23.5	12	37.45	24.4	31.9	10.5	63.8	20	23	11	60.1	12
PT 1404	14	R1/2	23.5	15	39.95	24.4	31.9	10	63.8	21	23	12	83.4	12
PT 1603	16	R3/8	25.6	12	38.5	25	34	10.5	68	20	24	11	69.8	12
PT 1604	16	R1/2	25.6	15	41	25	34	10	68	21	24	13	84.1	12

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

PT(L) Male Branch Tee



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	X	Orifice (Ømm)	W/G (g)	Qty/ Inbox
PT 04M3(L)	4	M3	9	3	17.8	14.5	17.1	5.4	9	34.2	9	10.8	1.2	6
PT 04M5(L)	4	M5	9	4	17.8	14.5	17.1	4.4	9	34.2	9	10.8	2	6.1
PT 04M6(L)	4	M6	9	5	18.8	14.5	17.1	4.4	9	34.2	9	10.8	3	6.5
PT 0401(L)	4	R1/8	9	8	21	14.5	17.1	5	34.2	10	8.6	3.2	9.1	100
PT 0402(L)	4	R1/4	9	11	24	14.5	17.1	5	34.2	14	8.6	3.2	17.4	50
PT 0403(L)	4	R3/8	9	12	25	14.5	17.1	5	34.2	17	8.6	3.2	25.9	50
PT 06M5(L)	6	M5	11.2	4	19.4	15.5	18	4.4	35.9	9	11	2	7.4	50
PT 06M6(L)	6	M6	11.2	5	20.4	15.5	18	4.4	35.9	9	11	3	7.8	50
PT 0601(L)	6	R1/8	11.2	8	22.6	15.5	18	5	35.9	10	11	4	10.4	50
PT 0602(L)	6	R1/4	11.2	11	25.0	15.5	18	5	35.9	14	11	4	16.7	50
PT 0603(L)	6	R3/8	11.2	12	26.6	15.5	18	5	35.9	17	11	4	27.2	50
PT 0604(L)	6	R1/2	11.2	15	30.6	15.5	18	6	35.9	21	11	4	47.5	25
PT 0801(L)	8	R1/8	13.6	8	25.3	17.8	23.6	5	47.2	10	13	5.5	12.7	50
PT 0802(L)	8	R1/4	13.6	11	27.8	17.8	23.6	4.5	47.2	14	13	5.5	20.6	50
PT 0803(L)	8	R3/8	13.6	12	28.8	17.8	23.6	4.5	47.2	17	13	5.5	29	50
PT 0804(L)	8	R1/2	13.6	15	32.8	17.8	23.6	5.5	47.2	21	13	5.5	49.3	25
PT 1001(L)	10	R1/8	16.3	8	29.7	19.4	25	6.5	50	17	16	6	29	25
PT 1002(L)	10	R1/4	16.3	11	32.7	19.4	25	6.5	50	17	16	8	33.3	25
PT 1003(L)	10	R3/8	16.3	12	32.2	19.4	25	5	50	17	16	9	35.1	25
PT 1004(L)	10	R1/2	16.3	15	35.2	19.4	25	5	50	21	16	9	53	25
PT 1201(L)	12	R1/8	19.7	8	31.4	22.4	32.2	6.5	64.4	17	19.5	6	33.8	20
PT 1202(L)	12	R1/4	19.7	11	34.4	22.4	32.2	6.5	64.4	17	19.5	8	38.1	20
PT 1203(L)	12	R3/8	19.7	12	33.9	22.4	32.2	5	64.4	17	19.5	9.5	39.9	20
PT 1204(L)	12	R1/2	19.7	15	36.0	22.4	32.2	5	64.4	21	19.5	9.5	57.8	20

*Rotating body construction after a proper installation.

PST Male Run Tee

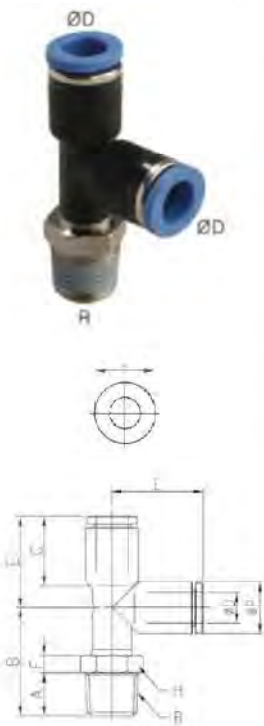


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	X	Orifice (Ømm)	W/G (g)	Qty/ Inbox
PST 03M3	3	M3	9	3	14.6	14.5	17.1	5.4	34.2	9	8.6	1.2	6.2	100
PST 03M5	3	M5	9	4	14.6	14.5	17.1	4.4	34.2	9	8.6	2	6.4	100
PST 03M6	3	M6	9	5	15.6	14.5	17.1	4.4	34.2	9	8.6	3	6.8	100
PST 04M3	4	M3	9	3	14.6	14.5	17.1	5.4	34.2	9	8.6	1.2	6	100
PST 04M5	4	M5	9	4	14.6	14.5	17.1	4.4	34.2	9	8.6	2	6.2	100
PST 04M6	4	M6	9	5	15.6	14.5	17.1	4.4	34.2	9	8.6	3	6.8	100
PST 0401	4	R1/8	9	8	17.8	14.5	17.1	5	34.2	10	8.6	3.2	9.5	100
PST 0402	4	R1/4	9	11	20.8	14.5	17.1	5	34.2	14	8.6	3.2	18.6	50
PST 0403	4	R3/8	9	12	21.8	14.5	17.1	5	34.2	17	8.6	3.2	28	50
PST 06M5	6	M5	11.2	4	15.7	15.5	18	4.4	35.9	9	11	2	7.9	50
PST 06M6	6	M6	11.2	5	16.7	15.5	18	4.4	35.9	9	11	3	8.4	50
PST 0601	6	R1/8	11.2	8	18.9	15.5	18	5	35.9	10	11	4	11.2	50

Metric Size R (PT) Thread Type

PST(L) Male Run Tee



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PST 04M3(L)	4	M3	9	3	17.8	14.5	17.1	5.4	9	8.6	1.2	5.4	100
PST 04M5(L)	4	M5	9	4	17.8	14.5	17.1	4.4	9	8.6	2	5.6	100
PST 04M6(L)	4	M6	9	5	18.8	14.5	17.1	4.4	9	8.6	3	6	100
PST 0401(L)	4	R1/8	9	8	21	14.5	17.1	5	10	8.6	3.2	8.6	100
PST 0402(L)	4	R1/4	9	11	24	14.5	17.1	5	14	8.6	3.2	16.9	50
PST 0403(L)	4	R3/8	9	12	25	14.5	17.1	5	17	8.6	3.2	25.4	50
PST 06M5(L)	6	M5	11.2	4	19.4	15.5	19	4.4	9	11	2	7.3	50
PST 06M6(L)	6	M6	11.2	5	20.4	15.5	19	4.4	9	11	3	7.7	50
PST 0601(L)	6	R1/8	11.2	8	22.6	15.5	19	5	10	11	4	10.3	50
PST 0602(L)	6	R1/4	11.2	11	25.6	15.5	19	5	14	11	4	10.6	50
PST 0603(L)	6	R3/8	11.2	12	26.6	15.5	19	5	17	11	4	27.1	50
PST 0604(L)	6	R1/2	11.2	15	30.6	15.5	19	6	21	11	4	47.4	25
PST 0801(L)	8	R1/8	13.6	8	25.3	17.8	23.6	5	10	13	5.5	12.4	50
PST 0802(L)	8	R1/4	13.6	11	27.8	17.8	23.6	4.5	14	13	5.5	20.3	50
PST 0803(L)	8	R3/8	13.6	12	28.8	17.8	23.6	4.5	17	13	5.5	28.7	25
PST 0804(L)	8	R1/2	13.6	15	32.8	17.8	23.6	5.5	21	13	5.5	49	25
PST 1001(L)	10	R1/8	16.3	8	29.7	19.4	25	6.5	17	16	6	23.9	25
PST 1002(L)	10	R1/4	16.3	11	32.7	19.4	25	6.5	17	16	8	28.2	25
PST 1003(L)	10	R3/8	16.3	12	32.2	19.4	25	5	17	16	9	30	25
PST 1004(L)	10	R1/2	16.3	15	35.2	19.4	25	5	21	16	9	47.9	25
PST 1201(L)	12	R1/8	19.7	8	31.4	22.4	32.2	6.5	17	19.5	6	33.3	20
PST 1202(L)	12	R1/4	19.7	11	34.4	22.4	32.2	6.5	17	19.5	8	37.6	20
PST 1203(L)	12	R3/8	19.7	12	33.9	22.4	32.2	5	17	19.5	9.5	39.4	20
PST 1204(L)	12	R1/2	19.7	15	36.9	22.4	32.2	5	21	19.5	9.5	57.3	20

*Rotating body construction after a proper installation.

POC Round Male Straight



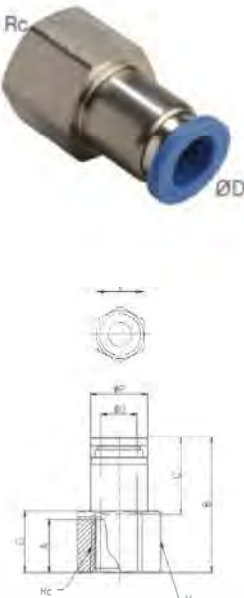
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
POC 03M3	3	M3	8.2	3	20.4	14.5	1.5	8.6	1.2	4.1	100
POC 03M5	3	M5	8.2	4	20.1	14.5	2	8.6	2	4.5	100
POC 03M6	3	M6	8.8	5	21.1	14.5	2	8.6	2	6	100
POC 04M3	4	M3	8.2	3	20.4	14.5	1.5	8.6	1.2	3.9	100
POC 04M5	4	M5	8.2	4	20.1	14.5	2	8.6	2	4.2	100
POC 04M6	4	M6	8.8	5	21.1	14.5	3	8.6	3	5.5	100
POC 0401	4	R1/8	10	6	20.1	14.5	3	8.6	3	6	100
POC 0402	4	R1/4	13.5	11	20.1	14.5	3	8.6	3	16.6	100
POC 0403	4	R3/8	17	12	21.1	14.5	3	8.6	3	26.2	50
POC 06M5	6	M5	11	4	21.8	15.5	2	11	2	7.2	100
POC 06M6	6	M6	11	5	22.8	15.5	3	11	3	7.8	100
POC 0601	6	R1/8	11	8	22	15.5	4	11	4	8.6	100
POC 0602	6	R1/4	13.5	11	22.8	15.5	4	11	4	16.8	100
POC 0603	6	R3/8	17	12	21.8	15.5	4	11	4	27.8	50
POC 0801	8	R1/8	13	8	27.7	17.8	5	13	5	13.1	100
POC 0802	8	R1/4	13.5	11	25.7	17.8	6	13	6	15.5	100
POC 0803	8	R3/8	17	12	23.7	17.8	6	13	6	25.9	50
POC 0804	8	R1/2	21	15	26.7	17.8	6	13	6	50.5	50
POC 1001	10	R1/8	15.5	8	29.4	19.4	5	16	5	18	50
POC 1002	10	R1/4	15.5	11	32.4	19.4	6	16	6	23.3	50
POC 1003	10	R3/8	17	12	28.4	19.4	8	16	8	25.7	50
POC 1004	10	R1/2	21	15	27.3	19.4	8	16	8	46.7	50
POC 1201	12	R1/8	18.8	8	32.4	22.4	5	19.5	5	24.5	50
POC 1202	12	R1/4	18.8	11	35.4	22.4	6	19.5	6	29.7	50
POC 1203	12	R3/8	18.8	12	31.8	22.4	8	19.5	8	30.2	50
POC 1204	12	R1/2	21	15	33.8	22.4	8	19.5	8	50.6	25

*Hexagonal wrench may be used for a proper tightening.

Metric Size R (PT) Thread Type

PCF Female Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	Rc	ØP	G	A	B	C	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PCF 03M3	3	M3	8.8	5	3.5	18	14.5	9	8.6	2.5	6.4	100
PCF 03M5	3	M5	8.8	5	5	20.5	14.5	9	8.6	2.5	7.3	100
PCF 04M3	4	M3	8.8	5	3.5	18	14.5	9	8.6	2.5	7.3	100
PCF 04M5	4	M5	8.8	5	5	20.5	14.5	9	8.6	3.2	7.0	100
PCF 0401	4	Rc1/8	8.8	11	9	24.4	14.5	13	8.6	3.2	13.5	100
PCF 0402	4	Rc1/4	8.8	14	12	27.4	14.5	17	8.6	3.2	24.9	100
PCF 0403	4	Rc3/8	8.8	15	13	28.4	14.5	19	8.6	3.2	26.3	50
PCF 0601	6	Rc1/8	11	11	9	25.4	15.5	13	11	5	14.8	100
PCF 0602	6	Rc1/4	11	14	12	28.4	15.5	17	11	5	26.1	50
PCF 0603	6	Rc3/8	11	15	13	29.4	15.5	19	11	5	27.6	50
PCF 0801	8	Rc1/8	13	10	9	27.7	17.8	13	13	7.0	18.4	50
PCF 0802	8	Rc1/4	13	14	12	30.7	17.8	17	13	7.0	27.7	50
PCF 0803	8	Rc3/8	13	15	13	31.7	17.8	19	13	7.0	29.2	50
PCF 0804	8	Rc1/2	13	18	16	34.7	17.8	24	13	7.0	50.5	25
PCF 1001	10	Rc1/8	15.5	10	9	29.4	19.4	17	16	7.0	29.9	50
PCF 1002	10	Rc1/4	15.5	13	12	32.4	19.4	17	16	9	30.3	50
PCF 1003	10	Rc3/8	15.5	15	13	33.4	19.4	19	16	9	32.5	25
PCF 1004	10	Rc1/2	15.5	18	16	36.4	19.4	24	16	9	53.6	25
PCF 1202	12	Rc1/8	18.8	12	12	35.4	22.4	19	19.5	10.0	45.3	25
PCF 1203	12	Rc1/4	18.8	15	13	36.4	22.4	19	19.5	10.0	39.4	25
PCF 1204	12	Rc3/8	18.8	18	16	39.4	22.4	24	19.5	10.0	60.6	25

*Rotating body construction after a proper installation.

PH Male Banjo



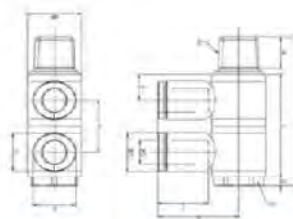
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	ØM	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PH 03M5	3	M5	9	3.5	17.8	14.5	19.5	6.6	2.5	8	11.8	10	8.6	2	6.0	100
PH 04M5	4	M5	9	3.5	17.8	14.5	19.5	6.6	2.5	8	11.8	10	8.6	2	5.9	100
PH 0401	4	R1/8	9	8	26.5	14.5	21.5	7.3	2.5	13	14.5	14	8.6	3.2	16.1	50
PH 0402	4	R1/4	9	11	34	14.5	24	9	3	17	18	19	8.6	3.2	31.4	50
PH 0403	4	R3/8	9	12	30.8	14.5	25.7	10.5	4	21	21	22.4	8.6	3.2	52.6	50
PH 06M5	6	M5	11.2	3.5	17.8	15.5	20.5	7.1	2.5	8	11.8	10	8.6	2	6.7	100
PH 0601	6	R1/8	11.2	8	26.6	15.5	22.6	7.3	2.6	13	14.5	14	11	5	16.0	60
PH 0602	6	R1/4	11.2	11	34	15.5	25	9	3	17	18	19	11	5	32.2	50
PH 0603	6	R3/8	11.2	12	39.8	15.5	26.7	10.5	4	21	21	22.4	11	5	53.3	25
PH 0801	8	R1/8	13.6	8	26.5	17.8	25.6	8	2.5	13	14.5	14	13	6	18.1	50
PH 0802	8	R1/4	13.6	11	34	17.8	28.1	9	3	17	18	19	13	7	33.5	50
PH 0803	8	R3/8	13.6	12	30.8	17.8	29.8	10.5	4	21	21	22.4	13	7	53.8	25
PH 0804	8	R1/2	13.6	15	44.8	17.8	32.1	11	5	24	22	27	13	7	89.2	25
PH 1002	10	R1/4	16.3	11	34	19.4	28.9	9.7	3	17	18	19	16	8	36.7	25
PH 1003	10	R3/8	16.3	12	30.8	19.4	30.6	10.5	4	21	21	22.4	16	9	56.0	25
PH 1004	10	R1/2	16.3	15	44.8	19.4	32.9	11	5	24	22	27	16	9	90.4	20
PH 1203	12	R3/8	19.7	12	30.8	22.4	35.9	11.9	4	21	21	22.4	19.5	9.2	60.2	25
PH 1204	12	R1/2	19.7	15	44.8	22.4	38.2	11.9	5	24	22	27	19.5	9.5	94.6	20

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

PH(D2) Double Universal Elbow

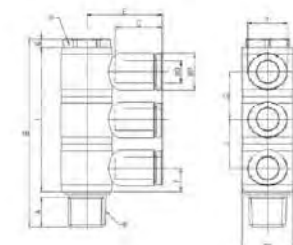


MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	OP	A	B	C	E	F	G	H	I	J	OK	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PH 03M5(2)	3	M5	0	3.5	20.6	14.5	19.5	6.6	2.5	8	23.6	11.8	10	8.6	2	10.2	25
PH 04M5(2)	4	M5	0	3.5	29.6	14.5	19.5	6.6	2.5	8	23.6	11.8	10	8.6	2	10.0	25
PH 0401(2)	4	R1/8	0	8	41	14.5	21.5	7.3	2.5	13	29	14.5	14	8.6	3.2	24.7	25
PH 0402(2)	4	R1/4	0	11	52	14.5	24	9	3	17	36	18	19	8.6	3.2	48.9	25
PH 0403(2)	4	R3/8	0	12	60.8	14.5	25.7	10.5	4	21	42	21	22.4	8.6	3.2	75.2	25
PH 06M5(2)	6	M5	11.2	3.5	29.6	15.5	20.5	7.1	2.5	8	23.6	11.8	10	11	2	11.6	25
PH 0601(2)	6	R1/8	11.2	8	41	15.5	22.5	7.3	2.5	13	29	14.5	14	11	5	26.2	25
PH 0602(2)	6	R1/4	11.2	11	52	15.5	25	9	3	17	36	18	19	11	5	48.5	25
PH 0603(2)	6	R3/8	11.2	12	60.8	15.5	26.7	10.5	4	21	42	21	22.4	11	5	76.8	25
PH 0801(2)	8	R1/8	10.6	0	41	17.0	25.0	0	2.5	10	44	14.5	14	10	6	20.0	25
PH 0802(2)	8	R1/4	13.6	11	52	17.8	28.1	0	4	17	36	18	19	13	7	51.1	25
PH 0803(2)	8	R3/8	13.6	12	60.8	17.8	29.8	10.5	3	21	42	21	22.4	13	7	77.6	25
PH 0804(2)	8	R1/2	13.6	15	66.8	17.8	32.1	11	5	24	44	22	27	13	7	125.2	25
PH 1002(2)	10	R1/4	16.3	11	52	19.4	28.0	9.7	3	17	36	18	19	16	8	57.4	25
PH 1003(2)	10	R3/8	16.3	12	60.8	19.4	30.6	10.5	4	21	42	21	22.4	16	9	82	20
PH 1004(2)	10	R1/2	16.3	15	66.8	19.4	32.9	11	5	24	44	22	27	16	9	127.6	20
PH 1203(2)	12	R3/8	19.7	12	60.8	22.4	35.9	11.9	4	21	42	21	22.4	19.5	9.2	90.5	9
PH 1204(2)	12	R1/2	19.7	15	66.8	22.4	38.2	11.9	5	24	44	22	27	19.5	9.5	138.1	9

*Rotating body construction after a proper installation.

PH(D3) Triple Universal Elbow

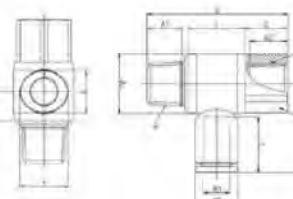


MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	OP	A	B	C	E	F	G	H	I	J	J2	OK	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PH 03M5(3)	3	M5	0	3.5	41.4	14.5	19.5	6.6	2.5	8	35.4	11.8	11.8	10	8.6	2	14.5	25
PH 04M5(3)	4	M5	0	3.5	41.4	14.5	19.5	6.6	2.5	8	35.4	11.8	11.8	10	8.6	2	14.2	25
PH 0401(3)	4	R1/8	0	8	55.5	14.5	21.5	7.3	2.5	13	43.5	14.5	14.5	14	8.6	3.2	33.5	25
PH 0402(3)	4	R1/4	0	11	70	14.5	24	9	3	17	54	18	18	19	8.6	3.2	61.5	25
PH 0403(3)	4	R3/8	0	12	81.8	14.5	25.7	10.5	4	21	63	21	21	22.4	8.6	3.2	98.0	25
PH 06M5(3)	6	M5	11.2	3.5	41.4	15.5	20.5	7.1	2.5	8	35.4	11.8	11.8	10	11	2	16.6	25
PH 0601(3)	6	R1/8	11.2	8	55.5	15.5	22.5	7.3	2.5	13	43.5	14.5	14.5	14	11	5	36.7	25
PH 0602(3)	6	R1/4	11.2	11	70	15.5	25	9	3	17	54	18	18	19	11	5	63.8	25
PH 0603(3)	6	R3/8	11.2	12	81.8	15.5	26.7	10.5	4	21	63	21	21	22.4	11	5	100.3	25
PH 0801(3)	8	R1/8	13.6	8	55.5	17.8	25.6	8	2.5	13	43.5	14.5	14.5	14	13	6	39.5	25
PH 0802(3)	8	R1/4	13.6	11	70	17.8	28.1	9	3	17	54	18	18	19	13	7	67.5	25
PH 0803(3)	8	R3/8	13.6	12	81.8	17.8	29.8	10.5	4	21	63	21	21	22.4	13	7	101.6	20
PH 0804(3)	8	R1/2	13.6	15	88.8	17.8	32.1	11	5	24	66	22	22	27	13	7	161.0	20
PH 1002(3)	10	R1/4	16.3	11	70	19.4	28.9	9.7	3	17	54	18	18	19	16	8	77.3	12
PH 1003(3)	10	R3/8	16.3	12	81.8	19.4	30.6	10.5	4	21	63	21	21	22.4	16	9	108.2	12
PH 1004(3)	10	R1/2	16.3	15	88.8	19.4	32.9	11	5	24	66	22	22	27	16	9	164.6	12
PH 1203(3)	12	R3/8	19.7	12	81.8	22.4	35.9	11.9	4	21	63	21	21	22.4	19.5	9.2	120.9	9
PH 1204(3)	12	R1/2	19.7	15	88.8	22.4	38.2	11.9	5	24	66	22	22	27	19.5	9.5	177.4	9

*Rotating body construction after a proper installation.

PHF Female Banjo



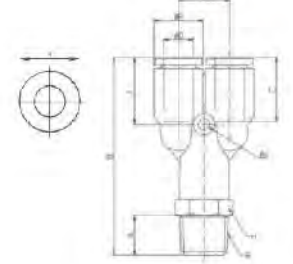
MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	Rc	OP	A1	A2	B	C	E	F	G	H	I	OK	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PHF 03M5-M5	3	M5	M5	0	3.5	5	20.8	14.5	19.5	6.6	5.5	8	11.8	10	8.6	2	6.8	100
PHF 04M5-M5	4	M5	M5	0	3.5	5	20.8	14.5	19.5	6.6	5.5	8	11.8	10	8.6	2	6.7	100
PHF 0401-01	4	R1/8	R1/8	0	8	9	34.5	14.5	21.5	7.3	10.5	13	14.5	14	8.6	3.2	21.2	50
PHF 0402-02	4	R1/4	R1/4	0	11	12	44.5	14.5	24	9	13.5	17	18	10	8.6	3.2	42	50
PHF 0403-03	4	R3/8	R3/8	0	12	13	50.8	14.5	25.7	10.5	15	21	21	22.4	8.6	3.2	66.8	50
PHF 06M5-M5	6	M5	M5	11.2	3.5	5	20.8	15.5	20.5	7.1	5.5	8	11.8	10	11	2	7.5	50
PHF 0601-01	6	R1/8	R1/8	11.2	8	9	34.5	15.5	22.5	7.3	10.5	13	14.5	14	11	5	22	50
PHF 0602-02	6	R1/4	R1/4	11.2	11	12	44.5	15.5	25	9	13.5	17	18	19	11	5	42.8	50
PHF 0603-03	6	R3/8	R3/8	11.2	12	13	50.8	15.5	26.7	10.5	15	21	21	22.4	11	5	67.5	50
PHF 0801-01	8	R1/8	R1/8	13.6	8	9	34.5	17.8	25.6	8	10.5	13	14.5	14	13	6	23.2	50
PHF 0802-02	8	R1/4	R1/4	13.6	11	12	44.5	17.8	28.1	9	13.5	17	18	19	13	7	44.1	50
PHF 0803-03	8	R3/8	R3/8	13.6	12	13	50.8	17.8	29.8	10.5	15	21	21	22.4	13	7	68	25
PHF 0804-04	8	R1/2	R1/2	13.6	15	16	58.8	17.8	32.1	11	19	24	22	27	13	7	106.4	25
PHF 1002-02	10	R1/4	R1/4	16.3	11	12	44.5	19.4	28.9	9.7	13.5	17	18	19	16	8	47.3	25
PHF 1003-03	10	R3/8	R3/8	16.3	12	13	50.8	19.4	30.6	10.5	15	21	21	22.4	16	9	70.2	25
PHF 1004-04	10	R1/2	R1/2	16.3	15	16	58.8	19.4	32.9	11	19	24	22	27	16	9	107.6	20
PHF 1203-03	12	R3/8	R3/8	19.7	12	13	50.8	22.4	35.9	11.9	15	21	21	22.4	19.5	9.2	74.4	20
PHF 1204-04	12	R1/2	R1/2	19.7	15	16	58.8	22.4	38.2	11.9	19	24	22	27	19.5	9.5	111.8	20

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

PWT Male Y



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	OP	A	B	C	OD	J	F	H	K	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PWT 04M5	4	M5	0	4	37.4	14.5	3.2	0.3	13.2	0	8.6	2	8.0	50
PWT 04M6	4	M6	0	5	38.4	14.5	3.2	0.3	13.2	0	8.6	2.1	8.4	50
PWT 0401	4	R1 / 8	0	8	40.6	14.5	3.2	0.3	13.2	10	8.6	2.1	11.6	50
PWT 0402	4	R1 / 4	0	11	43.6	14.5	3.2	0.3	13.2	14	8.6	2.1	20.5	50
PWT 0403	4	R3 / 8	0	12	44.6	14.5	3.2	0.3	13.2	17	8.6	2.1	28.8	50
PWT 06M5	6	M5	11.2	4	40.5	15.5	3.2	11.4	14.1	11	11	2	12.9	50
PWT 06M6	6	M6	11.2	5	41.5	15.5	3.2	11.4	14.1	11	11	3	13.3	50
PWT 0601	6	R1 / 8	11.2	8	43.7	15.5	3.2	11.4	14.1	11	11	3.6	15.2	50
PWT 0602	6	R1 / 4	11.2	11	46.7	15.5	3.2	11.4	14.1	14	11	3.6	23.1	50
PWT 0603	6	R3 / 8	11.2	12	47.7	15.5	3.2	11.4	14.1	17	11	3.6	35.2	25
PWT 0804	8	R1 / 2	11.3	15	51.7	15.5	3.2	11.4	14.1	21	11	3.6	52.6	25
PWT 0801	8	R1 / 8	13.6	8	52.6	17.8	3.2	14.2	18.6	13	13	5.4	23.3	50
PWT 0802	8	R1 / 4	13.6	11	55.1	17.8	3.2	14.2	18.6	14	13	5.4	27.9	50
PWT 0803	8	R3 / 8	13.6	12	56.1	17.8	3.2	14.2	18.6	17	13	5.4	36.2	25
PWT 0804	8	R1 / 2	13.6	15	60.1	17.8	3.2	14.2	18.6	21	13	5.4	57.2	25
PWT 1001	10	R1 / 8	16.3	8	53	19.4	4.2	17	18	17	16	8	30.6	25
PWT 1002	10	R1 / 4	16.3	11	56	19.4	4.2	17	18	17	16	6.4	35.2	25
PWT 1003	10	R3 / 8	16.3	12	58	19.4	4.2	17	18	17	16	6.4	40.8	25
PWT 1004	10	R1 / 2	16.3	15	61	19.4	4.2	17	18	21	16	6.4	58.8	25
PWT 1201	12	R1 / 8	19.7	8	62.9	22.4	4.2	20	23.9	10	18.5	6	49	25
PWT 1202	12	R1 / 4	19.7	11	65.9	22.4	4.2	20	23.9	19	18.5	7.3	53.7	20
PWT 1203	12	R3 / 8	19.7	12	67.9	22.4	4.2	20	23.9	19	18.5	7.3	59.5	20
PWT 1204	12	R1 / 2	19.7	15	70.9	22.4	4.2	20	23.9	21	18.5	7.3	74.9	20

Metric Size R (PT) Thread Type

PCJ Plug-In Male



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PCJ 04M5	4	M5	9	5	14.6	14.5	17.1	9.8	9	8.6	3.2	4.8	100
PCJ 04M6	4	M6	9	6	15.6	14.5	17.1	10.8	9	8.6	3.2	5	100
PCJ 0401	4	R1/8	9	9	18.6	14.5	17.1	13.8	13	8.6	3.2	14.7	100
PCJ 0402	4	R1/4	9	12	21.6	14.5	17.1	16.8	17	8.6	3.2	28.6	50
PCJ 06M5	6	M5	11.2	5	15.7	15.5	18	9.8	9	11	3.5	5.7	100
PCJ 06M6	6	M6	11.2	6	16.7	15.5	18	10.8	9	11	4	5.9	100
PCJ 0601	6	R1/8	11.2	9	19.7	15.5	18	13.8	13	11	4	15.5	50
PCJ 0602	6	R1/4	11.2	12	22.7	15.5	18	16.8	17	11	4	20.4	50
PCJ 0603	6	R3/8	11.2	13	23.7	15.5	18	17.8	19	11	4	32.6	25
PCJ 0801	8	R1/8	13.6	9	21.7	17.8	23.6	14.4	13	13	5.5	17.9	50
PCJ 0802	8	R1/4	13.6	12	24.7	17.8	23.6	17.4	17	13	5.5	32.4	50
PCJ 0803	8	R3/8	13.6	13	25.7	17.8	23.6	18.4	19	13	5.5	35.9	25
PCJ 1002	10	R1/4	16.3	12	26	19.4	25	16.9	17	16	9	30.8	25
PCJ 1003	10	R3/8	16.3	13	27	19.4	25	17.9	19	16	9	34.0	25
PCJ 1004	10	R1/2	16.3	16	30	19.4	25	20.9	24	16	9	60.3	25
PCJ 1202	12	R1/4	19.7	12	27.9	22.4	32.2	16.9	17	19.5	9.5	36.4	25
PCJ 1203	12	R3/8	19.7	13	28.9	22.4	32.2	17.9	19	19.5	9.5	39.6	20
PCJ 1204	12	R1/2	19.7	16	31.9	22.4	32.2	20.9	24	19.5	9.5	65.9	20

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

PTF Female Branch Tee

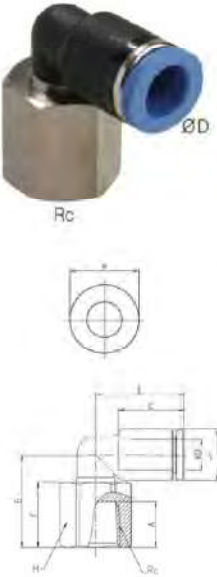


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PTF 04M5	4	M5	9	5	16.6	14.5	17.1	9.8	34.2	9	8.6	6.8	6.6	100
PTF 04M6	4	M6	9	6	17.6	14.5	17.1	10.8	34.2	9	8.6	6.7	6.7	50
PTF 0401	4	R1/8	9	9	20.6	14.5	17.1	13.8	34.2	13	8.6	16.4	16.4	50
PTF 0402	4	R1/4	9	12	23.6	14.5	17.1	16.8	34.2	17	8.6	30.2	30.2	50
PTF 06M5	6	M5	11.2	5	17.7	15.5	18	9.8	35.9	9	11	8.1	8.1	50
PTF 06M6	6	M6	11.2	6	18.7	15.5	18	10.8	35.9	9	11	8.2	8.2	50
PTF 0601	6	R1/8	11.2	9	21.7	15.5	18	13.8	35.9	13	11	17.9	17.9	50
PTF 0602	6	R1/4	11.2	12	24.7	15.5	18	16.8	35.9	17	11	31.7	31.7	50
PTF 0603	6	R3/8	11.2	13	25.7	15.5	18	17.8	35.9	19	11	34.9	34.9	50
PTF 0801	8	R1/8	13.6	9	24.9	17.8	23.6	14.4	47.2	13	13	22.4	22.4	25
PTF 0802	8	R1/4	13.6	12	27.9	17.8	23.6	17.4	47.2	17	13	36.9	36.9	25
PTF 0803	8	R3/8	13.6	13	28.9	17.8	23.6	18.4	47.2	19	13	40.5	40.5	25
PTF 1002	10	R1/4	16.3	12	28.2	19.4	25	16.9	50	17	16	36.3	36.3	25
PTF 1003	10	R3/8	16.3	13	29.2	19.4	25	17.9	50	19	16	39.5	39.5	25
PTF 1004	10	R1/2	16.3	16	32.2	19.4	25	20.9	50	24	16	65.8	65.8	25
PTF 1202	12	R1/4	19.7	12	29.9	22.4	32.2	16.9	64.4	17	19.5	47.0	47.0	25
PTF 1203	12	R3/8	19.7	13	30.9	22.4	32.2	17.9	64.4	19	19.5	50.2	50.2	25
PTF 1204	12	R1/2	19.7	16	33.9	22.4	32.2	20.9	64.4	24	19.5	76.5	76.5	25

*Rotating body construction after a proper installation.

PLF Female Elbow

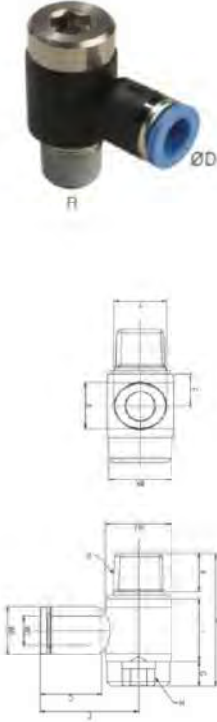


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PLF 04M5	4	M5	9	5	14.6	14.5	17.1	9.8	9	8.6	3.2	4.8	100
PLF 04M6	4	M6	9	6	15.6	14.5	17.1	10.8	9	8.6	3.2	5	100
PLF 0401	4	R1/8	9	9	18.6	14.5	17.1	13.8	13	8.6	3.2	14.7	100
PLF 0402	4	R1/4	9	12	21.6	14.5	17.1	16.8	17	8.6	3.2	28.6	50
PLF 06M5	6	M5	11.2	5	15.7	15.5	18	9.8	9	11	3.5	5.7	100
PLF 06M6	6	M6	11.2	6	16.7	15.5	18	10.8	9	11	4	5.9	100
PLF 0601	6	R1/8	11.2	9	19.7	15.5	18	13.8	13	11	4	15.5	50
PLF 0602	6	R1/4	11.2	12	22.7	15.5	18	16.8	17	11	4	20.4	50
PLF 0603	6	R3/8	11.2	13	23.7	15.5	18	17.8	19	11	4	32.6	25
PLF 0801	8	R1/8	13.6	9	21.7	17.8	23.6	14.4	13	13	5.5	17.9	50
PLF 0802	8	R1/4	13.6	12	24.7	17.8	23.6	17.4	17	13	5.5	32.4	50
PLF 0803	8	R3/8	13.6	13	25.7	17.8	23.6	18.4	19	13	5.5	35.9	25
PLF 1002	10	R1/4	16.3	12	26	19.4	25	16.9	17	16	9	30.8	25
PLF 1003	10	R3/8	16.3	13	27	19.4	25	17.9	19	16	9	34.0	25
PLF 1004	10	R1/2	16.3	16	30	19.4	25	20.9	24	16	9	60.3	25
PLF 1202	12	R1/4	19.7	12	27.9	22.4	32.2	16.9	17	19.5	9.5	36.4	25
PLF 1203	12	R3/8	19.7	13	28.9	22.4	32.2	17.9	19	19.5	9.5	39.6	20
PLF 1204	12	R1/2	19.7	16	31.9	22.4	32.2	20.9	24	19.5	9.5	65.9	20

*Rotating body construction after a proper installation.

POL Hex Holed Banjo



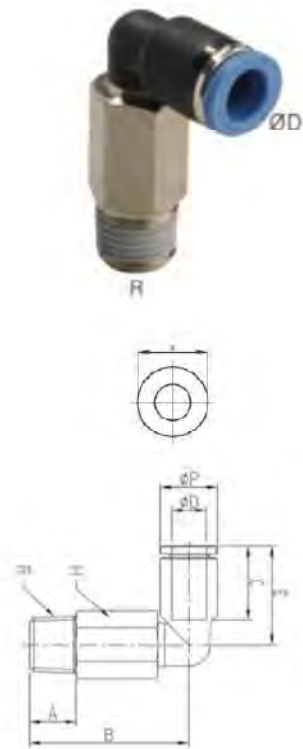
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	ØJ	ØK	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PTF 04M5	3	M5	9	3.5	19.3	14.5	19.5	6.6	4	3	11.8	10	9	8.6	2	8.4	100
PTF 04M6	4	M5	9	3.5	19.3	14.5	19.5	6.6	4	3	11.8	10	9	8.6	2	8.3	100
PTF 0401	4	R1/8	9	8	30	14.5	21.5	7.3	6	6	14.5	14	13	8.6	3.2	18.5	50
PTF 0402	4	R1/4	9	11	38	14.5	24	9	7	8	18	19	18	8.6	3.2	37.5	50
PTF 06M5	4	R3/8	9	12	42.8	14.5	25.7	10.5	7	10	21	22.4	21	8.6	3.2	57.6	25
PTF 06M6	6	M5	11.2	3.5	19.3	15.5	20.5	7.1	4	3	11.8	10	9	8.6	2	7.1	100
PTF 0601	6	R1/8	11.2	8	30	15.5	22.5	7.3	6	6	14.5	14	13	11	5	19.3	50
PTF 0602	6	R1/4	11.2	11	38	15.5	25	9	7	8	18	19	18	11	5	38.3	50
PTF 0603	6	R3/8	11.2	12	42.8	15.5	26.7	10.5	7	10	21	22.4	21	11	5	58.3	25
PTF 0801	8	R1/8	13.6	8	30	17.8	25.6	8	6	6	14.5	14	13	13	6	20.5	50
PTF 0802	8	R1/4	13.6	11	38	17.8	28.1	9	7	8	18	19	18	13	7	39.6	50
PTF 0803	8	R3/8	13.6	12	42.8	17.8	29.8	10.5	7	10	21	22.4	21	13	7	58.8	25
PTF 1002	8	R1/2	13.6	15	50.8	17.8	32.1	11	11	12	22	27	23	13	7	105.9	20
PTF 1003	10	R1/4	16.3	11	38	19.4	28.9	9.7	7	8	18	19	18	18	8	42.8	25
PTF 1004	10	R3/8	16.3	12	42.8	19.4	30.6	10.5	7	10	21	22.4	21	16	9	61.0	25
PTF 1202	10	R1/2	16.3	15	50.8	19.4	32.9	11	11	12	22	27	25	18	9	107.1	20
PTF 1203	12	R3/8	19.7	12	42.8	22.4	35.9	11.9	7	10	21	22.4	21	10.5	9.2	85.2	25
PTF 1204	12	R1/2	19.7	15	50.8	22.4	38.2	11.9	11	12	22	27	25	19.5	9.5	111.3	20

*Rotating body construction after a proper installation.

Metric Size R (PT) Thread Type

PLL Extended Male Elbow



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	ØP	A	B	C	E	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PLL03M3	3	M3	9	3	27.1	14.5	17.1	9	8.6	1.2	10.7	100
PLL03M5	3	M5	9	4	27.1	14.5	17.1	9	8.6	2	10.7	100
PLL04M3	4	M3	9	3	27.1	14.5	17.1	9	8.6	1.2	10.5	100
PLL04M5	4	M5	9	4	27.1	14.5	17.1	9	8.6	2	10.5	100
PLL04M6	4	M6	9	5	28.1	14.5	17.1	9	8.6	3	11	100
PLL0401	4	R1/8	9	8	30.3	14.5	17.1	10	8.6	3.2	14.7	50
PLL0402	4	R1/4	9	11	33.3	14.5	17.1	14	8.6	3.2	31	50
PLL0403	4	R3/8	9	12	34.3	14.5	17.1	17	8.6	3.2	44.4	50
PLL06M5	6	M5	11.2	4	28.2	15.5	18	9	11	2	11.4	50
PLL06M6	6	M6	11.2	5	29.2	15.5	18	9	11	3	11.8	50
PLL0601	6	R1/8	11.2	8	31.4	15.5	18	10	11	4	15.5	50
PLL0602	6	R1/4	11.2	11	34.4	15.5	18	14	11	4	31.8	50
PLL0603	6	R3/8	11.2	12	35.4	15.5	18	17	11	4	45.2	50
PLL0801	8	R1/8	13.6	8	35.3	17.8	23.6	10	13	5.5	18.6	50
PLL0802	8	R1/4	13.6	11	37.8	17.8	23.6	14	13	5.5	35.8	50
PLL0803	8	R3/8	13.6	12	38.8	17.8	23.6	17	13	5.5	50.0	25
PLL0804	8	R1/2	13.6	15	42.8	17.8	23.6	21	13	5.5	84.1	20
PLL1001	10	R1/8	16.3	8	44.8	19.4	25	17	16	6	55	25
PLL1002	10	R1/4	16.3	11	47.8	19.4	25	17	16	8	50.4	25
PLL1003	10	R3/8	16.3	12	47.3	19.4	25	17	16	9	58.2	25
PLL1004	10	R1/2	16.3	15	50.3	19.4	25	21	16	8	94.4	20
PLL1201	12	R1/8	19.7	8	46.65	22.4	32.2	17	19.5	6	60.6	25
PLL1202	12	R1/4	19.7	11	49.65	22.4	32.2	17	19.5	8	85	25
PLL1203	12	R3/8	19.7	12	49.15	22.4	32.2	17	19.5	9.5	63.8	20
PLL1204	12	R1/2	19.7	15	52.15	22.4	32.2	21	19.5	9.5	100	20
PLL1403	14	R3/8	23.5	12	62.55	24.4	31.9	20	23	11	117.4	16
PLL1404	14	R1/2	23.5	15	65.5	24.4	31.9	21	23	12	128.4	16
PLL1604	16	R1/2	25.6	15	66.1	25	34	21	24	13	128.6	16

*Hexagonal wrench may be used for a proper tightening.

PLL(L) Extended Male Elbow



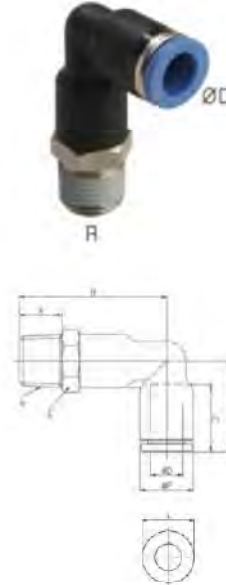
MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	ØP	A	B	C	E	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PLL04M3(L)	4	M3	9	3	30.3	14.5	17.1	9	8.6	1.2	9.6	100
PLL04M5(L)	4	M5	9	4	30.3	14.5	17.1	9	8.6	2	9.6	100
PLL04M6(L)	4	M6	9	5	31.3	14.5	17.1	9	8.6	3	10.1	100
PLL0401(L)	4	R1/8	9	8	33.5	14.5	17.1	10	8.6	3.2	13.4	50
PLL0402(L)	4	R1/4	9	11	36.5	14.5	17.1	14	8.6	3.2	28.2	50
PLL0403(L)	4	R3/8	9	12	37.5	14.5	17.1	17	8.6	3.2	40.4	50
PLL06M5(L)	6	M5	11.2	4	31.9	15.5	18	9	11	2	10.6	50
PLL06M6(L)	6	M6	11.2	5	32.9	15.5	18	9	11	3	11.1	50
PLL0601(L)	6	R1/8	11.2	8	35.1	15.5	18	10	11	4	14.4	50
PLL0602(L)	6	R1/4	11.2	11	38.1	15.5	18	14	11	4	29.2	50
PLL0603(L)	6	R3/8	11.2	12	39.1	15.5	18	17	11	4	41.4	50
PLL0801(L)	8	R1/8	13.6	8	40.3	17.8	23.6	10	13	5.5	16.7	50
PLL0802(L)	8	R1/4	13.6	11	42.8	17.8	23.6	14	13	5.5	32.4	50
PLL0803(L)	8	R3/8	13.6	12	43.8	17.8	23.6	17	13	5.5	45.3	25
PLL0804(L)	8	R1/2	13.6	15	47.8	17.8	23.6	21	13	5.5	76.3	20
PLL1001(L)	10	R1/8	16.3	8	50.85	19.4	25	17	16	6	50.6	25
PLL1002(L)	10	R1/4	16.3	11	53.85	19.4	25	17	16	8	54.6	25
PLL1003(L)	10	R3/8	16.3	12	53.35	19.4	25	17	16	9	53.5	25
PLL1004(L)	10	R1/2	16.3	15	56.35	19.4	25	21	16	9	86.4	20
PLL1201(L)	12	R1/8	19.7	8	62.55	22.4	32.2	17	19.5	6	65.7	25
PLL1202(L)	12	R1/4	19.7	11	65.55	22.4	32.2	17	19.5	8	90.7	25
PLL1203(L)	12	R3/8	19.7	12	65.5	22.4	32.2	17	19.5	9.5	58.6	20
PLL1204(L)	12	R1/2	19.7	15	68.05	22.4	32.2	21	19.5	9.5	91.5	20

*Hexagonal wrench may be used for a proper tightening.

Metric Size R (PT) Thread Type

PLL Union Straight



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	R	ØP	A	B	C	E	H	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PLL04M5	4	M5	9	4	27.1	14.5	17.1	9	8.6	2	6.7	100
PLL04M6	4	M6	9	5	28.1	14.5	17.1	9	8.6	3	7.1	100
PLL0401	4	R1/8	9	8	30.3	14.5	17.1	10	8.6	3.2	9.1	50
PLL0402	4	R1/4	9	11	33.3	14.5	17.1	14	8.6	3.2	17.2	50
PLL0403	4	R3/8	9	12	34.3	14.5	17.1	17	8.6	3.2	24.7	50
PLL06M5	6	M5	11.2	4	28.2	15.5	18	11	11	2	9.6	50
PLL06M6	6	M6	11.2	5	29.2	15.5	18	11	11	3	10.0	50
PLL0801	8	R1/8	11.2	8	31.4	15.5	18	11	11	5	11.7	50
PLL0802	8	R1/4	11.2	11	34.4	15.5	18	14	11	5	18.0	50
PLL0803	8	R3/8	11.2	12	35.4	15.5	18	17	11	5	26.9	50
PLL0804	8	R1/2	11.2	15	39.4	15.5	18	21	11	5	45.7	25
PLL0801	8	R1/8	13.6	8	35.3	17.8	23.6	13	13	6	16.5	50
PLL0802	8	R1/4	13.6	11	37.8	17.8	23.6	14	13	7	20.7	50
PLL0803	8	R3/8	13.6	12	38.8	17.8	23.6	17	13	7	28.2	25
PLL0804	8	R1/2	13.6	15	42.8	17.8	23.6	21	13	7	47.3	25
PLL1001	10	R1/8	16.3	8	44.8	19.4	25	17	16	6	23.2	25
PLL1002	10	R1/4	16.3	11	47.8	19.4	25	17	16	8	27.4	25
PLL1003	10	R3/8	16.3	12	47.3	19.4	25	17	16	9	32.5	25
PLL1004	10	R1/2	16.3	15	50.3	19.4	25	21	16	9	40.7	20
PLL1201	12	R1/8	19.7	8	46.7	22.4	32.2	19	19.5	6	35.6	25
PLL1202	12	R1/4	19.7	11	49.7	22.4	32.2	19	19.5	8	39.9	25
PLL1203	12	R3/8	19.7	12	49.2	22.4	32.2	19	19.5	10	45.1	20
PLL1204	12	R1/2	19.7	15	52.2	22.4	32.2	21	19.5	10	59.1	20

PUC Union Straight



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	ØP	B	C	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PUC 03	3	9	30.2	14.5	8.6	2.5	3.3	100
PUC 04	4	9	30.2	14.5	8.6	3.2	3.1	100
PUC 06	6	11.2	32	15.5	11	5	4.8	50
PUC 08	8	13.6	40.2	17.8	13	7	8.8	50
PUC 10	10	16.3	40	19.4	16	9	10.6	50
PUC 12	12	19.7	54.8	22.4	19.5	10	20.9	25
PUC 14	14	23.5	50.8	24.4	23	12	32.7	20
PUC 16	16	25.6	52	25	24	14	32.8	20

PUL Union Elbow



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	ØP	B	C	F	ØD	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PUL03	3	9	17.1	14.5	6	3.2	3.2	2.5	3.5	100
PUL04	4	9	17.1	14.5	6	3.2	3.2	3.2	3.2	100
PUL06	6	11.2	19	15.5	6.7	3.2	3.2	5	4.0	50
PUL08	8	13.6	23.6	17.8	8.5	3.2	3.2	7	9.4	50
PUL10	10	16.3	25	19.4	10	4.2	4.2	9	11.8	25
PUL12	12	19.7	32.2	22.4	12	4.2	4.2	10	22.5	25
PUL14	14	23.5	31.0	24.4	13.5	4.2	4.2	12	36.7	20
PUL16	16	25.6	34	25	15	4.2	4.2	14	36.5	20

PUT Union Tee



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	ØP	B	C	E	F	Ød	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PUT 03	3	9	34.2	14.5	17.1	12	3.2	8.6	2.5	5.3	100
PUT 04	4	9	34.2	14.5	17.1	12	3.2	8.6	3.2	5	100
PUT 06	6	11.2	38	15.5	19	13	3.2	11	5	7.3	50
PUT 08	8	13.6	47.2	17.8	23.6	18	3.2	13	7	14.1	50
PUT 10	10	16.3	50	19.4	25	24	4.2	16	9	17.7	25
PUT 12	12	19.7	64.4	22.4	32.2	28	4.2	19.5	10	33.5	20
PUT 14	14	23.5	63.8	24.4	31.9	27	4.2	23	12	57.3	12
PUT 16	16	25.16	68	25	34	30	4.2	24	14	53.8	12

Metric Size R (PT) Thread Type

PY Union Y



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	OP	B	C	F	J	Od	X	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PY 03	3	0	31.2	14.5	13.2	9.3	3.2	8.6	2.1	5.2	100
PY 04	4	0	31.2	14.5	13.2	9.3	3.2	8.6	2.1	4.9	100
PY 06	6	11.2	34.7	15.5	14.1	11.4	3.2	11	3.6	7.3	50
PY 08	8	13.6	44.2	17.8	18.6	14.2	3.2	13	5.4	13.9	50
PY 10	10	16.3	46	19.4	18	17	4.2	16	6.4	17.7	25
PY 12	12	19.7	56.8	22.4	23.9	20	4.2	19.5	7.3	32.5	20
PY 14	14	23.5	59.3	24.4	24.4	24	4.2	23	8.8	53.7	12
PY 16	16	25.16	62	25	24	26	4.2	24	12	55.5	12

PG Reducer



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	B	C1	C2	X1	X2	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PG 0403	4	3	0	0	30.2	14.5	14.5	8.6	8.6	2.5	2.9	100
PG 0604	6	4	11.2	9	31.5	15.5	14.5	11	8.6	3.2	3.8	100
PG 0804	8	4	13.6	9	33.3	17.8	14.5	13	8.6	3.2	4.9	50
PG 0806	8	6	13.6	11.2	34.3	17.8	15.5	13	11	5	5.8	50
PG 1006	10	6	16.3	11.2	35.9	19.4	15.5	16	11	5	7.2	50
PG 1008	10	8	16.3	13.6	38.2	19.4	17.8	16	13	7	8.4	50
PG 1208	12	8	19.7	13.6	41.2	22.4	17.8	19.5	13	7	12.4	25
PG 1210	12	10	19.7	16.3	42.8	22.4	19.4	19.5	16	9	14.0	25
PG 1612	16	12	25.6	19.7	48.9	25	22.4	24	19.5	10	23.4	25

PUG Different Dia of Union Tee



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	B	C1	C2	E	F1	F2	G	Od	X1	X2	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PUG 604	6	4	11.2	9	37.9	15.5	14.5	19	6.5	6	18.1	3.2	11	8.6	3.2	6.2	50
PUG 804	8	4	13.6	11.2	47.2	17.8	14.5	23.6	8.5	8	19.6	3.2	13	8.6	3.2	12.1	50
PUG 806	8	6	13.6	11.2	47.2	17.8	15.5	23.6	8.5	8	20	3.2	13	11	5	10	50
PUG 1006	10	6	16.3	13.6	50	19.4	15.5	25	10	9.5	23.5	4.2	16	11	5	18.3	25
PUG 1008	10	8	16.3	13.6	50	19.4	17.8	25	10	0.5	24.1	4.2	16	13	7	14.7	25
PUG 1208	12	8	19.7	16.3	64.4	22.4	17.8	32.2	12	10	25.1	4.2	19.5	13	7	30.1	25
PUG 1210	12	10	19.7	16.3	64.4	22.4	19.4	32.2	12	10	25.5	4.2	19.5	16	9	25.6	20

PW Reducer Y



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	B	C1	C2	Od	F	J	X1	X2	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PW 0604	4	6	9	11.2	32.5	14.5	15.5	3.2	13.2	9.3	8.6	11	2.6	5.1	100
PW 0804	4	8	11.2	13.6	37.7	14.5	17.8	3.2	13.7	11.4	8.6	13	2.6	12.3	50
PW 0806	6	8	11.2	13.6	38.5	15.5	17.8	3.2	14.1	11.4	11	13	4.1	8.2	50
PW 1006	6	10	13.6	16.3	42.6	15.5	19.4	3.2	17.2	14.2	11	16	4.1	10.8	25
PW 1008	8	10	13.6	16.3	43.2	17.8	19.4	3.2	17.8	14.2	13	16	6.4	12.6	25
PW 1208	8	12	16.3	19.7	50.5	17.8	22.4	4.2	17.6	17	13	19.5	6.4	29.4	25
PW 1210	10	12	16.3	19.7	50.9	19.4	22.4	4.2	18	17	13	19.5	7	20.4	25

PZA Union Cross



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	OP	C	E	F	Od	X	W.G (g)	Qty/ Inbox
PZA 04	4	0	14.5	17.1	6	3.2	8.6	5.9	50
PZA 06	6	11.2	15.5	19	6.5	3.2	11	8.0	50
PZA 08	8	13.6	17.8	23.6	8.5	3.2	13	14.8	25
PZA 10	10	16.3	19.4	25	10	4.2	16	21.1	25
PZA 12	12	19.7	22.4	32.2	12	4.2	19.5	38.8	15

Metric Size R (PT) Thread Type

PZA22 Different Dia of Union Cross (2/2)



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	C1	C2	B1	B2	E1	E2	F1	F2	Od	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PZA22 0806	8	6	13.6	11.2	17.8	15.5	47.2	39.9	23.6	20	8	17	3.2	5	12.2	25
PZA22 1008	10	8	16.3	13.6	19.4	17.8	50	48.2	25	24.1	9.5	20	4.2	7	18	25
PZA22 1210	12	10	19.7	16.3	22.4	19.4	64.4	51	32.2	25.5	10	24	4.2	9	30.3	15

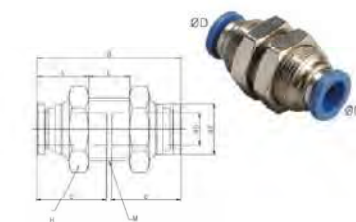
PZA31 Different Dia of Union Cross (3/1)



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	C1	C2	B1	B2	E1	E2	F1	F2	Od	X1	X2	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PZA31 806	8	6	13.6	11.2	17.8	15.5	43.6	39.9	23.6	20	8	17	3.2	13	11	5	10.9	25
PZA31 1008	10	8	16.3	13.6	19.4	17.8	49.1	48.2	25	24.1	9.5	20	4.2	16	13	7	16.5	25
PZA31 1210	12	10	19.7	16.3	22.4	19.4	57.7	51	32.2	25.5	10	24	4.2	19.5	16	9	25.9	15

PMM Bukhead Union



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	OP	M	A	H	B	G	E	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PMM 04	4	8.8	M12 X 1.5P	10.7	14	30	14.5	8.6	3.2	18.6	100
PMM 06	6	11	M14X 1.5P	11.3	17	31.9	15.5	8.4	5	25.5	50
PMM 08	8	13	M16 X 1.5P	13.2	19	37	17.8	10.6	7	35.5	50
PMM 10	10	15.5	M20 X 2.0P	13.6	24	40.1	19.4	12.9	9	60.7	25
PMM 12	12	18.8	M24 X 2.0P	15.3	26	45.8	22.4	15.4	10	78.3	25

PPM Bukhead Union P



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	M	G	H	B	C1	C2	E	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PPM 04	4	4	9	9	M12 X 1.5P	5	14	30	14.5	14.5	7.1	3.2	0.2	100
PPM 06	6	6	11.2	11.2	M14X 1.5P	5	17	31.9	15.5	15.5	8.6	5	0.3	50
PPM 08	8	8	13.6	13.6	M16 X 1.5P	6	19	36.6	17.8	17.8	8.8	7	13.2	50
PPM 10	10	10	16.3	16.3	M20 X 2.0P	6	24	40	19.4	19.4	10.2	9	22.1	25
PPM 12	12	12	19.7	19.7	M24 X 2.0P	6	27	46	22.4	22.4	11.9	10	28.2	20

PLM Bukhead Union P



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP1	OP2	C1	C2	M	B	E	F	G	H	I	Orifice (Ømm)	W.G (g)	Qty/ Inbox
PLM 04	4	4	9	9	14.5	14.5	M12 X 1.5P	33.2	17.1	11.6	5	14	5.1	3.2	6.1	50
PLM 06	6	6	11.2	11.2	15.5	15.5	M14X 1.5P	35.3	18	13	5	17	6.6	4	9.5	50
PLM 08	8	8	13.6	13.6	17.8	17.8	M16 X 1.5P	40.9	23.6	14	6	19	6.8	5.5	15.2	25
PLM 10	10	10	16.3	16.3	19.4	19.4	M20 X 2.0P	45.6	25	16	6	24	8.15	9	21.9	20
PLM 12	12	12	19.7	19.7	22.4	22.4	M24 X 2.0P	52.1	32.2	18	6	27	9.85	9.5	38.6	15

PCP Straight Ace Coupler Plug



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD1	OD2	OP	B	L	C	W.G (g)	Qty/ Inbox
PCP 04	4	10.9	13.1	31.6	20.5	14.5	19	100
PCP 06	6	10.9	13.1	30.3	20.5	15.5	18	100
PCP 08	8	10.9	13.1	35.2	20.5	17.8	19	100
PCP 10	10	10.9	13.1	41.8	20.5	19.4	31	50
PCP 12	12	10.9	13.1	45.8	20.5	22.4	43	50
PCP 14	14	10.9	13.1	47.8	20.5	24.4	45	25
PCP 16	16	10.9	13.1	48.5	20.5	25	54	25

Metric Size R (PT) Thread Type

PA Dual Male Banjo



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	J	K	X	Drill Dia (Ømm)	W/G (g)	Qty/ Inbox
PA 04M5	4	M5	9	3.5	17.8	14.5	18.16	6.6	2.5	8	11.8	10	9.3	8.6	2	7.4	50
PA 0401	4	R1/8	9	8	26.5	14.5	20.16	7.3	2.5	13	14.5	14	9.3	8.6	3.2	17.6	50
PA 0402	4	R1/4	9	11	34	14.5	22.16	9.1	3	17	18	19	9.3	8.6	3.2	32.8	50
PA 0403	4	R3/8	9	12	39.8	14.5	24.16	10.5	4	21	21	22.4	9.3	8.6	3.2	54.1	25
PA 0601	6	R1/8	11.2	8	26.5	15.5	22	7.3	2.5	13	14.5	14	11.4	11	5	19.2	50
PA 0602	6	R1/4	11.2	11	34	15.5	23.5	9	3	17	18	19	11.4	11	5	34.3	50
PA 0603	6	R3/8	11.2	12	39.8	15.5	25.7	10.5	4	21	21	22.4	11.4	11	5	55.7	25
PA 0801	8	R1/8	13.6	8	26.5	17.8	25.16	8	2.5	13	14.5	14	14.2	13	5.2	22	25
PA 0802	8	R1/4	13.6	11	34	17.8	28.1	9	3	17	18	19	14.2	11.3	6.8	37.1	25
PA 0803	8	R3/8	13.6	12	39.8	17.8	29.0	10.5	4	21	21	22.4	14.2	13	7	57.3	25
PA 0804	8	R1/2	13.6	15	44.8	17.8	32.1	11	5	24	22	27	14.2	13	7	92.4	20
PA 1002	10	R1/4	16.3	11	34	19.4	27.5	9.7	3	17	18	19	17	16	7.3	38.4	20
PA 1003	10	R3/8	16.3	12	39.8	19.4	29.16	10.5	4	21	21	22.4	17	116	9	61.3	20
PA 1004	10	R1/2	16.3	15	44.8	19.4	31.5	11	5	24	22	27	17	116	9	95.3	10
PA 1203	12	R3/8	19.7	12	39.8	22.4	32.4	11.9	4	21	21	22.4	20	19.5	8.7	69.6	10
PA 1204	12	R1/2	19.7	15	44.8	22.4	34.9	11.9	5	24	22	27	20	19.5	10	103.7	10

PA(D2) Double Branch A



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	J	K	L	X	Drill Dia (Ømm)	W/G (g)	Qty/ Inbox
PA 04M5(2)	4	M5	9	3.5	29.6	14.5	18.6	6.6	2.5	8	23.6	11.8	10	9.3	8.6	2	13.1	25
PA 0401(2)	4	R1/8	9	8	41	14.5	20.6	7.3	2.5	13	29	14.5	14	9.3	8.6	3.2	27.6	25
PA 0402(2)	4	R1/4	9	11	52	14.5	22.6	9	3	17	36	18	19	9.3	8.6	3.2	49.7	25
PA 0403(2)	4	R3/8	9	12	60.8	14.5	24.6	10.5	4	21	42	21	22.4	9.3	8.6	3.2	78.3	25
PA 0601(2)	6	R1/8	11.2	8	41	15.5	22	7.3	2.5	13	29	14.5	14	11.4	11	5	30.9	25
PA 0602(2)	6	R1/4	11.2	11	52	15.5	23.5	9	3	17	36	18	19	11.4	11	5	52.7	25
PA 0603(2)	6	R3/8	11.2	12	60.8	15.5	25.7	10.5	4	21	42	21	22.4	11.4	11	5	81.4	25
PA 0801(2)	8	R1/8	13.6	8	41	17.8	25.6	8	2.5	13	29	14.5	14	14.2	13	5.2	36.5	20
PA 0802(2)	8	R1/4	13.6	11	52	17.8	28.1	9	3	17	36	18	19	14.2	13	6.8	58.3	20
PA 0803(2)	8	R3/8	13.6	12	60.8	17.8	29.6	10.5	4	21	42	21	22.4	14.2	13	7	84.8	20
PA 0804(2)	8	R1/2	13.6	15	66.8	17.8	32.1	11	5	24	44	22	27	14.2	13	7	131.7	20
PA 1002(2)	10	R1/4	16.3	11	52	19.4	27.5	9.7	3	17	36	18	19	17	16	7.3	60.8	12
PA 1003(2)	10	R3/8	16.3	12	60.8	19.4	29.6	10.5	4	21	42	21	22.4	17	16	9	92.7	12
PA 1004(2)	10	R1/2	16.3	15	66.8	19.4	31.5	11	5	24	44	22	27	17	16	9	137.5	12
PA 1203(2)	12	R3/8	19.7	12	60.8	22.4	32.4	11.9	4	21	42	21	22.4	20	19.5	8.7	109.2	6
PA 1204(2)	12	R1/2	19.7	15	66.8	22.4	34.9	11.9	5	24	44	22	27	20	19.5	10	154.3	6

PA(D3) Triple Branch A



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	J	J2	K	L	X	Drill Dia (Ømm)	W/G (g)	Qty/ Inbox
PA 04M5(3)	4	9	3.5	41.4	14.5	18.6	6.6	2.5	8	35.4	11.8	11.8	11.8	10	9.3	8.6	2	18.7	25
PA 0401(3)	4	9	8	55.5	14.5	20.6	7.8	2.5	13	43.5	14.5	14.5	14.5	14	9.3	8.6	3.2	37.7	25
PA 0402(3)	4	9	11	70	14.5	22.6	9	3	17	54	18	18	18	19	9.3	8.6	3.2	65.6	25
PA 0403(3)	4	9	12	81.8	14.5	24.6	10.5	4	21	63	21	21	21	22.4	9.3	8.6	3.2	102.8	25
PA 0601(3)	6	11.2	8	55.5	15.5	22	7.8	2.5	13	43.5	14.5	14.5	14.5	14	11.4	11	5	42.8	20
PA 0602(3)	6	11.2	11	70	15.5	23.5	9	3	17	54	18	18	18	19	11.4	11	5	70.2	20
PA 0603(3)	6	11.2	12	81.8	15.5	25.7	10.5	4	21	63	21	21	21	22.4	11.4	11	5	107.3	20
PA 0801(3)	8	13.6	8	55.5	17.8	25.6	8	2.5	13	43.5	14.5	14.5	14.5	14	14.2	13	5.2	51	16
PA 0802(3)	8	13.6	11	70	17.8	28.1	19	3	17	54	18	18	18	19	14.2	13	6.8	78.5	16
PA 0803(3)	8	13.6	12	81.8	17.8	29.6	10.5	4	21	63	21	21	21	22.4	14.2	13	7	112.3	12
PA 0804(3)	8	13.6	15	88.8	17.8	32.1	11	5	24	66	22	22	22	27	14.2	13	7	170.9	12
PA 1002(3)	10	16.3	11	70	19.4	27.5	9.7	3	17	54	18	18	18	19	17	16	7.3	82.3	9
PA 1003(3)	10	16.3	12	81.8	19.4	29.6	10.5	4	21	63	21	21	21	22.4	17	16	9	134.6	9
PA 1004(3)	10	16.3	15	88.8	19.4	31.5	11	5	24	66	22	22	22	27	17	16	9	190.4	9
PA 1203(3)	12	19.7	12	81.8	22.4	32.4	11.9	4	21	63	21	21	21	22.4	20	19.5	8.7	140	6
PA 1204(3)	12	19.7	15	88.8	22.4	34.9	11.9	5	24	66	22	22	22	27	20	19.5	10	204.8	6

Metric Size R (PT) Thread Type

PAF Dual Female Banjo



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	Rc	ØD	A1	A2	B	C	E	T	G	H	I	J	K	X	Drill Dia (Ømm)	W/G (g)	Qty/ Inbox
PAF 04M5	4	M5	M5	9	3.5	5	20.8	14.5	18.6	6.6	5.5	8	11.8	10	9.3	8.6	2	8.2	50
PAF 0401	4	R1/8	R1/8	9	8	9	34.5	14.5	20.6	7.3	10.5	13	14.5	14	9.3	8.6	3.2	22.6	50
PAF 0402	4	R1/4	R1/4	9	11	12	44.5	14.5	22.6	9	13.5	17	18	19	9.3	8.6	3.2	43.4	50
PAF 0403	4	R3/8	R3/8	9	12	13	50.8	14.5	24.6	10.5	15	21	21	22.4	9.3	8.6	3.2	68.3	25
PAF 0601	6	R1/8	R1/8	11.2	8	9	34.5	15.5	22	7.3	10.5	13	14.5	14	11.4	11	5	24.3	50
PAF 0602	6	R1/4	R1/4	11.2	11	12	44.5	15.5	23.5	9	13.5	17	18	19	11.4	11	5	44.9	50
PAF 0603	6	R3/8	R3/8	11.2	12	13	50.8	15.5	25.7	10.5	15	21	21	22.4	11.4	11	5	69.9	25
PAF 0801	8	R1/8	R1/8	13.6	8	9	34.5	17.8	25.6	8	10.5	13	14.5	14	14.2	13	5.2	27.1	25
PAF 0802	8	R1/4	R1/4	13.6	11	12	44.5	17.8	28.1	9	13.5	17	18	19	14.2	13	6.8	47.7	25
PAF 0803	8	R3/8	R3/8	13.6	12	13	60.8	17.8	29.6	10.5	15	21	21	22.4	14.2	13	7	71.6	25
PAF 0804	8	R1/2	R1/2	13.6	15	16	58.8	17.8	32.1	11	19	24	22	27	14.2	13	7	109.6	20
PAF 1002	10	R1/4	R1/4	16.3	11	12	44.5	19.4	27.5	9.7	13.5	17	18	19	17	16	7.3	40	15
PAF 1003	10	R3/8	R3/8	16.3	12	13	60.8	19.4	29.6	10.5	15	21	21	22.4	17	16	9	75.5	15
PAF 1004	10	R1/2	R1/2	16.3	15	16	58.8	19.4	31.5	11	19	24	22	27	17	16	9	112.5	15
PAF 1203	12	R3/8	R3/8	19.7	12	13	60.8	22.4	32.4	11.9	15	21	21	22.4	20	19.5	8.7	83.8	10
PAF 1204	12	R1/2	R1/2	19.7	15	16	58.8	22.4	34.9	11.9	19	24	22	27	20	19.5	10	120.9	10

Metric Size R (PT) Thread Type

PGJ Plug-in Reducer



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PGJ 0604	6	4	9	36.1	15.5	14.5	11.3	8.6	3.2	1.8	100
PGJ 0804	8	4	9	36.9	17.8	14.5	11.3	8.6	3.2	2.1	100
PGJ 0806	8	6	11.2	39.5	17.8	15.5	12.6	11	5	2.9	50
PGJ 1006	10	6	11.2	40.3	19.4	15.5	12.6	11	5	3.2	50
PGJ 1008	10	8	13.6	45.6	19.4	17.8	16.3	13	7	4.6	50
PGJ 1206	12	6	11.2	45	22.4	15.5	16.3	13	5	4.3	25
PGJ 1208	12	8	13.6	46.6	22.4	17.8	16.6	15	7	5.4	25
PGJ 1210	12	10	16.3	46.6	22.4	19.4	15	16	9	6.7	25

PLJ Plug-in Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLJ 03	3	3	9	23.5	14.5	14.5	17.1	8.6	1.5	1.8	100
PLJ 04	4	4	9	23.5	14.5	14.5	17.1	8.6	2.5	1.8	100
PLJ 06	6	6	11.2	29.6	15.5	15.5	18	8.6	4	3.0	50
PLJ 08	8	8	13.6	32.8	17.8	17.8	23.6	13	6	4.9	50
PLJ 10	10	10	16.3	36.2	19.4	19.4	25	16	8	7.3	25
PLJ 12	12	12	19.7	39.9	22.4	22.4	32.2	19.5	9	13.5	25
PLJ 14	14	14	23.5	42.8	24.4	24.4	31.9	23	11	21.4	20
PLJ 16	16	16	25.6	44.8	25	25	34	24	13	21.8	15

PLJ45 Plug-In Extended Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLJ45 04	4	4	9	35	14.5	14.5	20	8.6	2	1.7	100
PLJ45 06	6	6	11.2	41.9	15.5	15.5	26	11	4	2.8	50
PLJ45 08	8	8	13.6	49.1	17.8	17.8	28	13	6	4.6	50
PLJ45 10	10	10	16.3	53.6	19.4	19.4	30.5	16	8	6.7	25
PLJ45 12	12	12	19.7	62.3	22.4	22.4	33	19.5	9	12.5	25

PLLJ Plug-In Extended Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLLJ 04	4	4	9	33.5	14.5	14.5	17.1	8.6	2.5	1.9	100
PLLJ 06	6	6	11.2	42.1	15.5	15.5	18	11	4	3.3	50
PLLJ 08	8	8	13.6	47.8	17.8	17.8	23.6	13	6	5.1	50
PLLJ 10	10	10	16.3	53.7	19.4	19.4	25	16	8	7.5	25
PLLJ 12	12	12	19.7	60.9	22.4	22.4	32.2	19.5	9	15.1	25
PLLJ 14	14	14	23.5	67.3	24.4	24.4	31.9	23	11	23.4	20
PLLJ 16	16	16	25.6	71.3	25	25	34	24	13	24.5	20

Metric Size R (PT) Thread T pe

PLLJ45 Plug-in Reducer Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLLJ45 04	4	4	9	49	14.5	14.5	30	8.6	2	1.9	100
PLLJ45 06	6	6	11.2	54.4	15.5	15.5	38	11	4	3.1	50
PLLJ45 08	8	8	13.6	64.1	17.8	17.8	43	13	6	5.1	50
PLLJ45 10	10	10	16.3	71.1	19.4	19.4	48	16	8	7.4	25
PLLJ45 12	12	12	19.7	83.3	22.4	22.4	54	19.5	9	13.9	25

PLGJ Plug-in Reducer Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLGJ 0604	6	4	9	28.5	15.5	14.5	17.1	8.6	3.2	2.1	50
PLGJ 0806	8	6	11.2	30.6	17.8	15.5	18	11	5	3.2	50
PLGJ 1008	10	8	13.6	33.8	19.4	17.8	23.6	13	7	5.4	50
PLGJ 1210	12	10	16.3	38.2	22.4	19.4	25	16	9	8.1	25

PLGJ45 Plug-in Reducer Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	E	X	Orifice (Ømm)	W.(g)	Qty/ box
PLGJ45 0604	4	6	9	40	14.5	15.5	25	8.6	3.2	2.0	100
PLGJ45 0806	6	8	11.2	43.9	15.5	17.8	27.5	11	4	3.1	50
PLGJ45 1008	8	10	13.6	51.1	17.8	19.4	30	13	6	4.9	25
PLGJ45 1210	10	12	16.3	55.6	19.4	22.4	32.5	16	8	8.2	25

PIJ Tube Spicler



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	B	C	Orifice (Ømm)	W.(g)	Qty/ box
PIJ 04	4	37.5	17.75	2	0.5	100
PIJ 06	6	39.5	18.75	4	0.9	100
PIJ 08	8	43.2	20.6	5	1.7	50
PIJ 10	10	47	22.5	6.5	3	50
PIJ 12	12	52.8	25.4	8	4.4	50
PIJ 16	16	60	29	13	8.5	50

Metric Size R (PT) Thread Type

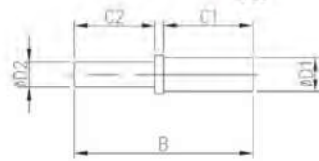
PJH Plug-in Extended Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	B	C	ØD1	ØD2	ØD3	ØF1	ØF2	L1	L2	W.G (g)	Q'ty/ Inbox
PJH 04-04	36	16	4	4.8	5.9	2	2	18	17	0.9	100
PJH 04-05	36	16	4	6	6.9	2	4.2	18	17	0.8	100
PJH 06-05	41	17	6	5.9	6.9	4	4	23	17	1.1	100
PJH 06-06	41	17	6	6.8	7.9	4	4	23	17	1.4	100
PJH 08-06	43	18.5	8	6.8	7.9	6	4	25	17	1.7	100
PJH 08-08	48.2	18.5	8	8.6	10	6	6	25	22	2.3	100
PJH 10-08	50.2	21	10	6.6	10	0	6.2	27	22	2.7	100
PJH 12-08	54.2	22.5	12	8.6	10	10	6.2	31	22	2.8	100
PJH 12-10	54.7	22.5	12	10.6	12	10	8	31	22.5	3.1	50
PJH 12-13	55	22.5	12	13.5	15	10	10	31	22.5	5	50
PJH 14-14	59.5	24.5	14	14.7	16	12	10	35.5	22.5	5.8	50
PJH 04-1/8	36	16	4	3.8	5	2	2	17	17	0.5	100
PJH 08-1/4	43	18.5	8	7.3	8.5	6	4.6	24	17	1.7	100
PJH 10-1/4	45.2	21	10	7.3	8.5	8	4.6	26	17	2.3	100
PJH 12-1/2	55	22.5	12	13.2	14.5	10	10	30	22.5	4.7	50
PJH 14-1/2	59.5	24.5	14	13.2	14.5	12	10	34.5	22.5	4.8	50

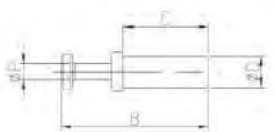
PIG Reducer Tube Splicer



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	B	C1	C2	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PIG 06-04	6	4	37.5	18.6	17.7	2	0.7	100
PIG 08-04	6	4	44	22	19	2	0.9	100
PIG 08-06	8	6	41.2	20.6	18.6	4	1.5	100
PIG 10-06	10	6	48	25	20	4	1.6	100
PIG 10-08	10	8	45	22.6	20.4	5	2.8	100
PIG 12-08	12	8	52	27	22	5	2.6	50
PIG 12-10	12	10	49.8	25.4	22.4	5.5	4.0	50
PIG 16-12	16	12	54	27	25	9	8.2	50

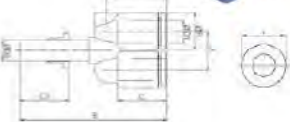
PP Plug



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	B	ØP	C	W.G(g)	Qty/box
PP 04	4	30	2	19	0.4	100
PP 06	6	34	3	20	0.7	100
PP 08	8	38	4	22	1.4	100
PP 10	10	41	5	25	2	50
PP 12	12	43	7	27	3.6	50
PP 16	16	47	9	31	4	25

PYJ Plug-in Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	F	J	X	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PYJ 04	4	4	9	37.8	14.5	14.5	16	9.3	8.6	2	3.4	100
PYJ 06	6	6	11.2	45	15.5	15.5	17.2	11.4	11	3.5	5.4	50
PYJ 08	8	8	13.6	53.1	17.8	17.8	22	14.2	13	4.4	9.2	50
PYJ 10	10	10	16.3	56	19.4	19.4	22.6	17	16	5.6	13.5	25
PYJ 12	12	12	19.7	63.4	22.4	22.4	27.2	20	19.5	6.4	24.0	20

Metric Size R (PT) Thread Type

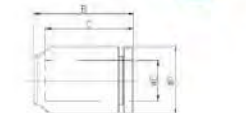
PWJ Plug-in Reducer Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	B	C1	C2	F	J	X	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PWJ 0604	6	4	9	42.8	14.5	14.5	16	9.3	8.6	2	3.7	50
PWJ 0806	8	6	11.2	45.5	15.5	15.5	17.2	11.4	11	3.5	5.8	50
PWJ 1008	10	8	13.6	53.1	17.8	17.8	22	14.2	13	4.4	9.3	50
PWJ 1210	12	10	16.3	58	19.4	19.4	22.6	17	16	5.6	14.4	25

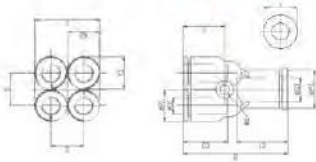
PPF Cap



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	B	C	X	W.G (g)	Q'ty/ Inbox
PPF 04	4	9	15.6	14.5	8.6	1.4	100
PPF 06	6	11.2	17	15.5	11	2.2	100
PPF 08	8	13.6	19.8	17.8	13	3.6	100
PPF 10	10	16.3	21	19.4	16	5.1	50
PPF 12	12	19.7	26.4	22.4	19.5	8.3	50

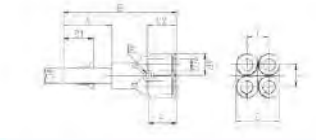
PXG Reducer Double Y Union



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP1	ØP2	B	C1	C2	E	F	G	Ød	K1	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PXG 0604	6	4	11.2	9	32.5	15.5	14.5	18.2	13.1	9.2	3.2	11	2.3	7.8	25
PXG 0806	8	6	13.6	11.2	36.5	17.8	15.5	22.6	14.5	11.5	3.2	13	3.7	14.0	25

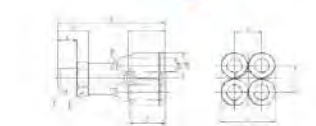
PXJ Reducer Double Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	A	B	C1	C2	F	G	H	I	Ød	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PXJ 0604	6	4	9	23	53	15.5	14.5	13.1	18.2	9.2	3.2	2.3	2.3	8.2	25
PXJ 0806	8	6	11.2	25	58.5	17.8	15.5	14.5	22.6	11.5	3.2	3.7	3.7	13.2	25

PXT Male Double Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	Ød	Orifice (Ømm)	W.G (g)	Q'ty/ Inbox
PXT 0401	4	R1/8	9	8	41.5	14.5	13	13.1	18.2	11	9.2	3.2	2.3	14.2	25
PXT 0402	4	R1/4	9	11	44.5	14.5	16	13.1	18.2	14	9.2	3.2	2.3	22.3	25
PXT 0601	6	R1/8	11.2	8	45	15.5	13	14.5	22.6	13	11.5	3.2	3.7	20.4	25
PXT 0602	6	R1/4	11.2	11	47.5	15.5	15.5	14.5	22.6	14	11.5	3.2	3.7	27.6	25

Metric Size R (PT) Thread Type

PKG Reducer Triple Branch Union



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP1	ØP2	B	C1	C2	Ød	F1	F2	J	X1	X2	Orifice (Ømm)	W.G(g)	Qty/box
PKG 0604	6	4	11.2	9	54.7	15.5	14.5	3.2	6.5	30.6	9.3	11	8.6	3.2	7.9	25
PKG 0804	8	4	13.6	9	59.4	17.8	14.5	3.2	8.5	31.6	9.3	13	8.6	3.2	10.3	25
PKG 0806	8	6	13.6	11.2	66	17.8	15.5	3.2	8.5	38.8	11.4	13	10	5	13	25
PKG 1006	10	6	16.3	11.2	68.8	19.4	15.5	4.2	10	38.8	11.4	16	13	5	15.8	25
PKG 1008	10	8	16.3	13.6	76.4	19.4	17.8	4.2	10	47.4	14.2	16	13	7	20.4	20

PKJ Plug-In Reducer Triple Branch



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØD3	ØP1	ØP2	B	C1	C2	C3	J	X1	X2	Orifice (Ømm)	W.G(g)	Qty/box
PKJ 0804	8	4	8	11.2	9	64.2	15.5	14.5	15.5	9.3	11	8.6	3.2	7.7	25
PKJ 0804	8	4	8	13.6	9	68.5	17.8	14.5	17.8	9.3	13	8.6	3.2	9.6	25
PKJ 0806	8	6	8	13.6	11.2	75	17.8	15.5	17.8	11.4	13	11	5	12.2	25
PKJ 1006	10	6	10	16.3	11.2	78.4	19.4	15.5	19.4	11.4	16	11	5	14.8	25
PKJ 1008	10	8	10	16.3	13.6	86.2	19.4	17.8	19.4	14.2	16	13	7	19.4	20

PKD Male Reducer Triple Branch



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	R	ØP1	ØP2	B	C1	C2	A	H	J	X1	X2	Orifice (Ømm)	W.G(g)	Qty/box
PKD 0604-01	6	4	R1/8	11.2	9	63.8	15.5	14.5	8	11	9.3	11	8.6	3.2	16.8	25
PKD 0604-02	6	4	R1/4	11.2	9	66.8	15.5	14.5	11	14	9.3	11	8.6	3.2	23.8	25
PKD 0804-02	8	4	R1/4	13.6	9	70.3	17.8	14.5	11	14	9.3	13	8.6	3.2	25.8	25
PKD 0806-02	8	6	R1/4	13.6	11.2	76.9	17.8	15.5	11	14	11.4	13	11	5	28.5	25
PKD 0806-03	8	6	R3/8	13.6	11.2	77.9	17.8	15.5	12	17	11.4	13	11	5	36.0	25
PKD 1008-03	10	8	R3/8	16.3	13.6	88.4	19.4	17.8	12	17	14.2	16	13	7	44.9	20

CAS Insert-Tube



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØA	ØB	ØC	D	E	F	H	I	L	X	W (g)	Qty/box
CAS-N04	4	8.1	4.2	2.5	11	4.7	16	7.8	3.5	11	10	12	100
CAS-N06	6	10	6.2	4	13	5	17.2	8.2	4	13	12	14	100
CAS-N08	8	12	8.2	6	15	4.8	18.2	9.2	4.5	15	14	16	100
CAS-N10	10	15.1	10.2	8	18	5.8	21	10.2	5	18	17	19	100
CAS-N12	12	17.7	12.2	10	22	5.2	22.4	12.2	5	22	21	23	100

CASI Insert-Tube Clip



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	A	B	C	T	Qty/box
CASI 04	5.2	9	11.3	6	0.8	100
CASI 06	7.9	10	13.5	7	1	100
CASI 08	9.7	11	15.3	8	1	100
CASI 10	11.9	13.5	18.5	10	1.2	100
CASI 12	14.8	14.3	20.5	11	1.6	100

Metric Size R (PT) Thread Type

PC-C Male Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	B	H	A	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PC 03-M3C	3	M3	9.5	13.6	6	3	7	1.2	1.3	100
PC 03-M5C	3	M5	9.5	15.7	8	3.5	7	2	3.1	100
PC 03-M6C	3	M6	9.5	16.5	8	4.5	7	2	3.3	100
PC 04-M3C	4	M3	11.5	17.2	8	3	10	1.2	3.2	100
PC 04-M5C	4	M5	11.5	15.7	8	3.5	10	2	2.9	100
PC 04-M6C	4	M6	11.5	16.9	8	4.5	10	3	3.2	100
PC 04-01C	4	R1/8	11.5	15.7	10	8	10	3	6	100
PC 06-M5C	6	M5	12.5	16.8	10	3.5	12	2	3.8	100
PC 06-M6C	6	M6	12.5	17.8	10	4.5	12	3	4.1	100
PC 06-01C	6	R1/8	12.5	17.9	10	8	12	4.5	5.3	100

PL-C Male Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	B	E	C	A	H	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PL 03-M3C	3	M3	6	12.4	11.2	9.5	3	6	6	1.2	1.6	100
PL 03-M5C	3	M5	6	13.5	11.2	9.5	3.5	8	8	2	2.7	100
PL 03-M6C	3	M6	6	14.5	11.2	9.5	4.5	8	8	2.4	3	100
PL 04-M3C	4	M3	8	14	15.6	11.5	3	8	8	1.2	3.3	100
PL 04-M5C	4	M5	8	13.5	15.6	11.5	3.5	8	8	2	3.3	100
PL 04-M6C	4	M6	8	14.5	15.6	11.5	4.5	10	8	2.4	3.7	100
PL 04-01C	4	R1/8	8	15.6	15.6	11.5	8	12	8	2.8	6.1	100
PL 06-M5C	6	M5	10.5	13.5	16.9	12.5	3.5	8	10	2	3.9	100
PL 06-M6C	6	M6	10.5	14.5	16.9	12.5	4.5	8	10	2.4	4.2	100
PL 06-01C	6	R1/8	10.5	16.9	16.9	12.5	8	12	10	3	6.8	100

PT-C Male Branch Tee



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	C	A	B	E	H	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PT 03-M3C	3	M3	6	9.5	3	12.4	11.2	6	7	1.2	2	100
PT 03-M5C	3	M5	6	9.5	3.5	13.5	11.2	8	7	2	3.2	100
PT 03-M6C	3	M6	6	9.5	4.5	14.5	11.2	8	7	2.4	3.5	100
PT 04-M3C	4	M3	8	11.5	11.5	15	13.1	8	10	1.2	4.2	100
PT 04-M5C	4	M5	8	11.5	11.5	14.5	13.1	8	10	2	4.1	100
PT 04-M6C	4	M6	8	11.5	11.5	15.5	13.1	10	10	2.4	4.4	100
PT 04-01C	4	R1/8	8	11.5	11.5	16.4	13.1	12	10	2.8	6.9	100
PT 06-M5C	6	M5	10.5	12.5	12.5	15.5	14.4	8	12	2	5.4	100
PT 06-M6C	6	M6	10.5	12.5	12.5	16.5	14.4	8	12	2.4	5.7	100
PT 06-01C	6	R1/8	10.5	12.5	12.5	17.4	14.4	10	12	3	8.2	100

POC-C Round Male Straight

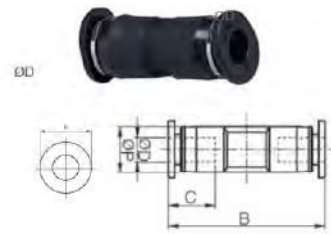


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	A	B	E	H	ØP	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
POC 03-M3C	3	M3	9.5	3	15.9	12.4	1.5	6	7	1.2	1.7	100
POC 03-M5C	3	M5	9.5	3.5	17.5	13.5	2	8	7	2	3.8	100
POC 03-M6C	3	M6	9.5	4.5	19.7	14.5	3	8	7	2	4.2	100
POC 04-M3C	4	M3	11.5	3	18	15	1.5	8	10	1.2	3.4	100
POC 04-M5C	4	M5	11.5	3.5	18.7	14.5	2.5	8	10	2	3.8	100
POC 04-M6C	4	M6	11.5	4.5	19.7	15.5	3	8	10	3	4	100
POC 04-01C	4	R1/8	11.5	8	15.8	16.4	3	10	10	3	5.5	100
POC 06-M5C	6	M5	12.5	3.5	17.3	15.5	2.5	10	12	2	3.9	100
POC 06-M6C	6	M6	12.5	4.5	18.3	16.5	3	10	12	3	4.1	100
POC 06-01C	6	R1/8	12.5	8	16.9	17.4	4	10	12	4.5	4.5	100

Metric Size R (PT) Thread Type

PUC-C Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	B	C	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PUC 03C	3	6	20.4	9.5	7	2.5	1.1	100
PUC 04C	4	8	23.8	11.5	10	3	2	100
PUC 06C	6	10.5	25.1	12.5	12	4	3.2	100

PUL-C Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	Ød	C	F	B	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PUL 03C	3	6	3.2	9.5	4.5	11.4	7	2.5	1.1	100
PUL 04C	4	8	3.2	11.5	5.8	13.9	10	3	2.1	100
PUL 06C	6	10.5	3.2	12.5	6.5	15.4	12	4	3.4	100

PUT-C Union Tee



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØP	Ød	F	C	B	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PUT 03C	3	6	3.2	4.5	9.5	11.4	7	2.5	1.7	100
PUT 04C	4	8	3.2	5.8	11.5	13.9	10	3	3.1	100
PUT 06C	6	10.5	3.2	6.5	12.5	15.4	12	4	5	100

PCF-C Female Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	Rc	ØP	Ød	A	B	H	ØP	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PCF 03-M3C	3	M3	5	0.5	3	14.9	8	8	7	2	3.8	100
PCF 03-M5C	3	M5	5	0.5	5	16.9	8	6	8	2.5	4.1	100
PCF 04-M3C	4	M3	5	11.5	3	15	8	8	10	2	3.7	100
PCF 04-M5C	4	M5	5	11.5	5	17	8	8	10	2.5	3.8	100

PST-C Male Run Tee



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	Ød	A	B	E	H	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PST 03-M3C	3	M3	6	0.5	3	11.4	11.2	6	7	1.2	2	100
PST 03-M5C	3	M5	6	9.5	3.5	13.5	11.2	8	7	2	3.3	100
PST 03-M6C	3	M6	6	9.5	4.5	14.5	11.2	8	7	2.4	3.6	100
PST 04-M3C	4	M3	6	11.5	3	15	13.1	8	10	1.2	4.2	100
PST 04-M5C	4	M5	8	11.5	3.5	14.5	13.1	8	10	2	4.3	100
PST 04-M6C	4	M6	8	11.5	4.5	15.5	13.1	8	10	2.4	4.5	100
PST 04-01C	4	R1/8	8	11.5	8	16.4	13.1	10	10	2.8	7	100
PST 06-M5C	6	M5	10.5	12.5	3.5	16.4	14.4	8	12	2	5.6	100
PST 06-M6C	6	M6	10.5	12.5	4.5	17.5	14.4	8	12	2.4	5.9	100
PST 06-01C	6	R1/8	10.5	12.5	8	18	14.4	10	12	3	8.4	100

Metric Size R (PT) Thread Type

PLL-C Extend Male Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	B	E	G	A	H	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PLL 03-M3C	3	M3	6	19.4	11.2	0.5	3	6	7	1.2	3.1	100
PLL 03-M5C	3	M5	6	25.5	11.2	9.5	3.5	8	7	2	7.6	100
PLL 04-M3C	4	M3	8	23	15.6	11.5	3	8	10	1.2	7.4	100
PLL 04-M5C	4	M5	8	25.5	15.6	11.5	3.5	8	10	2	7.9	100
PLL 04-M6C	4	M6	8	26	15.6	11.5	4.5	8	10	2.4	8.3	100
PLL 04-01C	4	R1/8	8	28.1	15.6	11.5	8	10	10	2.8	13.2	100
PLL 06-M5C	6	M5	10.5	25.5	18.9	12.5	3.5	8	12	2	8.5	100
PLL 06-M6C	6	M6	10.5	26	16.9	12.5	4.5	8	12	2.4	8.9	100
PLL 06-01C	6	R1/8	10.5	29.4	16.9	12.5	8	10	12	3	13.7	100

PGJ-C Reducer



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØP1	ØD2	ØP	C1	C2	E	B	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PGJ 04-03C	3	4	6.5	9.5	11.5	11.2	29.2	7	2.5	0.9	100
PGJ 06-04C	4	6	9	11.5	12.5	13.2	33.2	10	3	1.8	100

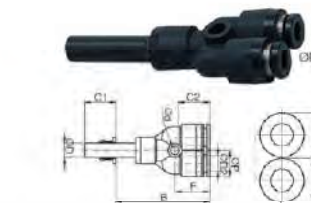
PW-C Reducer Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP1	ØP2	Ød	F	J	C1	C2	E	X1	X2	Orifice (Ømm)	W.G (g)	Qty / Inbox
PW 04-03C	4	3	8	8	3.2	13.4	8	11.5	9.5	30	10	7	2.5	3.6	100
PW 06-04C	6	4	10.5	8	3.2	13.6	10.5	12.5	11.5	31.5	12	10	3	4.1	100

PWJ-C Plug-in Reducer Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	ØT	C2	Ød	F	J	E	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PWJ 04-03C	4	3	8	11.5	9.5	3.2	13.4	8	33	7	2	3.7	100
PWJ 06-04C	6	4	10.5	12.5	11.5	3.2	13.6	10.5	38.5	10	3	4.2	100

PLJ-C Plug-in Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	Ød	B	E	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PLJ 03C	3	6	9.5	21.6	11.2	7	1.5	1.2	100
PLJ 04C	4	8	11.5	27.6	15.6	10	2	2	100
PLJ 06C	6	10.5	12.5	29.6	16.9	12	2.4	2.6	100

Metric Size R (PT) Thread Type

PMM-C Bulkhead Union



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	M	ØP	A	E	B	H	G	Orifice (Ømm)	W.G (g)	Qty / Inbox
PMM 03C	3	M8 x 0.75P	6	7	7.5	20	10	9.5	2	5.2	100
PMM 04C	4	M10 x 1.0P	8	9	7.5	24	12	11.5	3	8.6	100
PMM 06C	6	M12 x 1.0P	10.5	10.5	8	25.9	14	12.5	4	13.4	100

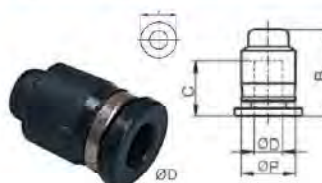
PCC-C Round Male Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	M	L	C	A	B	H	ØP	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PCC 03-M8C	3	M8 x 0.75	11.1	9.5	3.5	14.6	2	8	7	2.5	2.9	100
PCC 04-M8C	4	M8 x 0.75	11	11.5	3.5	14.5	2.5	8	10	2.5	2.3	100
PCC 04-M8C	4	M8 x 0.75	10.5	11.5	4	14.5	3	10	10	3	4.6	100
PCC 06-M8C	6	M8 x 0.75	11.5	12.5	4	14.5	4	12	12	4	3.5	100

PPF-C Cap



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	B	C	X	W.G (g)	Qty / Inbox
PPF 03C	3	6	10.7	9.5	7	0.5	100
PPF 04C	4	8	12	11.5	10	1	100
PPF 06C	6	10.5	12.5	12.5	12	1.5	100

PZA-C Union Cross



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	Ød	F	E	C	X	W.G (g)	Qty / Inbox
PZA 03C	3	6	3.2	4.5	11.5	9.5	7	2.5	2.2
PZA 04C	4	8	3.2	6.5	18.6	11.5	10	3	4.1
PZA 06C	6	10.4	3.2	6.5	15.0	12.5	12	4	6.6

PYJ-C Plug-in Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	Ød	F	C	J	B	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PYJ 03C	3	8	3.2	13.2	9.5	8	43.5	7	1.5	3	100
PYJ 04C	4	8	3.2	13.3	11.5	8	45	10	2	3.5	100
PYJ 06C	6	10.5	3.2	13.6	12.5	10.4	50.5	12	2.4	3.5	100

PG-C Reducer



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP1	ØP2	C1	C2	B	X1	X2	Orifice (Ømm)	W.G (g)	Qty / Inbox
PG 0403C	3	4	6	8	9.5	11.5	22.5	7	10	2.5	1.5	100
PG 0604C	4	6	8	10.5	11.5	12.5	24	10	12	3	2.5	100

Metric Size R (PT) Thread Type

PYC-C Union Y



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	Ød	F	C	J	B	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PY 03C	3	8	3.2	13.2	9.5	8	20.9	7	2.5	3.6	100
PY 04C	4	8	3.2	13.3	11.5	8	30.1	10	3	3.4	100
PY 06C	6	10.5	3.2	13.6	12.5	10.5	32.1	12	4	5.3	100

PP-C Plug



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	B	G	ØP	W.G (g)	Qty / Inbox
PP 03C	3	22	6.5	4	0.3	100

PLM-C Bulkhead Union P



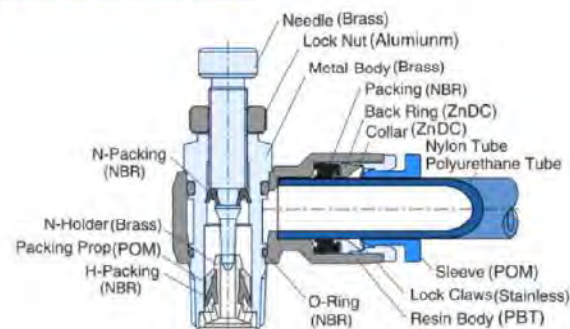
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØP1	ØD1	ØP2	ØD2	E	C1	C2	B	F	G	H	ØJ	M	X	Orifice (Ømm)	W.G (g)	Qty / Inbox
PLM 03C	6.3	3	6	3	10.6	9.5	9.5	22.4	11	2	10	12.5	M8 x 0.75P	9	2.5	5.2	100
PLM 04C	8	4	8	4	15.3	11.5	11.5	24.4	13	3	12	14	M8 x 0.75P	10	3	8.6	100
PLM 06C	10.4	6	10	6	16.3	12.5	12.5	31.5	16.6	4	14	17	M8 x 0.75P	12	4	13.4	100

Metric Size R (PT) Thread Type

Speed Controllers

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150 PSI	0 ~ 9 kgf/cm ² (0 ~ 900kPa)
Negative Pressure	7.5PSI	0.5kgf/cm ² (50kPa)
Temperature Range	32 ~ 140 °F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

NSE 08-02 O

① ② ③ ④

① Type

② Tube Dia (ØD)

Code	03	04	06	08	10	12	16
Dia	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16

③ Thread Size (T)

	Metric Size		Taper Pipe Thread			
Code	M3	M5	Ø1	Ø2	Ø3	Ø4
Size	M3 x 0.5	M5 x 0.8	R1/8	R1/4	R3/8	R1/2

④ Control Method

Type	Metric Out		Metric In	
Sleeve	Standard	Compact	Standard	Compact
Symbol	Blue	Black	Red	Red

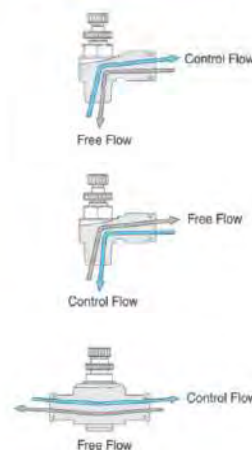
Application

- Valve used for controlling the operation speed of a driving device.
- Used for movement of machines such as cylinder, pneumatic finger, etc.

Features

- Precisely permit the optimal rate of airflow for the smooth cylinder movement of driving devices.
- The compact and light body permits use in confined space.
- Uni-directional airflow is available for either exhaust or inlet flow control methods.
- The compact design provides a comparable range of speed as the conventional speed controllers do.

Case In Use



- Out-Type**
 - The way to control of airflow from the thread to the sleeve.
 - Air passes freely from the sleeve to the thread.
- In-Type**
 - The way to control of airflow from the sleeve to the thread.
 - Air passes freely from the thread to the sleeve.
- Flat-Type**
 - The way to control of Free Flow or Control Flow upon piping in accordance with the signal on the body.
 - Air flows from each side of sleeve.

Caution

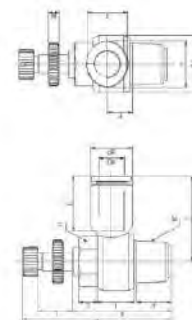
- Be sure to read "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Never remove the needle by force. It causes separation of the needle from the body.
- There can be a slight leakage, therefore do not use in applications requiring zero air flow rate.

Warning

- Be sure to use after confirming structural diagram and control direction of each controller, otherwise fittings may result in damage.
- Never roll or turn the body by force.
- When controlling the objective machine's speed, slowly open the needle of speed controller from the closed position.

Metric Size R (PT) Thread Type

NSE Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	ØP	A	B	C	E	F	G	H	I	ØJ	K	L	M	X	W.G(μ)	Qty/Inbox
NSE 04M5	4	M5	9	3.5	29.5	14.5	19.1	6.5	4	8	9.1	10.4	19.5	5	2.5	8.6	8	100
NSE 0401	4	R1/8	9	7.7	40.1	14.5	20.9	7	4	10	12.2	14.4	25.6	10.5	3.5	8.6	17.2	50
NSE 0402	4	R1/4	9	11.2	48	14.5	22.8	7	6	14	12	18.4	31.9	11.1	3.5	8.6	34.4	50
NSE 06M5	6	M5	11.2	3.5	29.5	15.5	21	7.7	4	8	9.1	10.4	19.5	5	2.5	8.6	9.1	100
NSE 0601	6	R1/8	11.2	7.7	40.1	15.5	22	7	4	10	12.2	14.4	25.6	10.5	3.5	11	17.9	50
NSE 0602	6	R1/4	11.2	11.2	48	15.5	24	7	6	14	12	18.4	31.9	11.1	3.5	11	35.1	50
NSE 0603	6	R3/8	11.2	13.3	54.2	15.5	26	8.7	5	19	13.7	22	37.2	12	3.5	11	62.5	25
NSE 0801	8	R1/8	13.6	7.7	40.1	17.8	25.1	8	4	10	12.2	14.4	25.6	10.5	3.5	13	19	50
NSE 0802	8	R1/4	13.6	11.2	48	17.8	27.6	8.1	6	14	12	18.4	31.9	11.1	3.5	13	36.1	50
NSE 0803	8	R3/8	13.6	13.3	54.2	17.8	28.6	8.1	5	19	15.7	22	37.2	12	3.5	13	63.5	25
NSE 0804	8	R1/2	13.6	16.5	59.8	17.8	31.6	8.4	5.5	24	18	28	42.8	12	3.5	13	94	20
NSE 1002	10	R1/4	16.3	11.2	40	19.4	29.6	9.6	6	14	12	18.4	31.9	11.1	3.5	16	39.9	25
NSE 1003	10	R3/8	16.3	13.3	54.2	19.4	30	9.7	5	19	15.7	22	37.2	12	3.5	16	67.8	25
NSE 1004	10	R1/2	16.3	16.5	59.8	19.4	32.9	10	5.5	24	18	28	42.8	12	3.5	16	98.7	20
NSE 1202	12	R1/4	19.7	11.2	48	22.4	33.9	11.3	6	14	12	18.4	31.9	11.1	3.5	10.5	42.5	25
NSE 1203	12	R3/8	19.7	13.3	54.2	22.4	35.9	11.4	5	19	15.7	22	37.2	12	3.5	19.5	70.6	25
NSE 1204	12	R1/2	19.7	16.5	59.8	22.4	38.9	11.7	5.5	24	18	28	42.8	12	3.5	10.5	100.4	20

NSE-C Mini Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	E	A	H	ØP	ØK	L1 (Max)	L2	W.G(μ)	Qty/Inbox
NSE 03-M3C	3	M3	9.5	14	4	8	6.3	10	26.5	6.9	6.7	100
NSE 03-M5C	3	M5	9.5	14	4	8	6.3	10	2.5	6.4	8.1	100
NSE 04-M3C	4	M3	11.5	15.7	4	8	8	10	26.5	6.9	17.5	100
NSE 04-M5C	4	M5	11.5	15.7	4	8	8	10	26.5	6.4	34.7	100
NSE 04-01C	4	R1/8	11.5	17.8	8	10	8	14	36	11.2	6.1	50
NSE 06-M3C	6	M3	12.5	16.4	4	8	10.4	10	26.5	6.9	18.2	100
NSE 06-M5C	6	M5	12.5	16.4	4	8	10.4	10	26.5	6.4	35.4	100
NSE 06-01C	6	R1/8	12.5	18.2	8	10	10.4	14	36	11.2	63.0	50
NSE 06-02C	6	R1/4	12.5	20.1	11	14	10.4	18	41.5	11.2	19.1	50

NSS Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	E	A	H	ØP	ØK	L1 (Max)	L2	W.G(μ)	Qty/Inbox
NSS 04-M5	4	M5	16	15.9	3.5	8	10.4	10.4	28.5	30.8	8.9	100
NSS 04-01	4	R1/8	16	18.1	8	10	10.4	14.4	36	33.9	24.1	50
NSS 04-02	4	R1/4	16	20.1	11.2	14	10.4	18.4	41.5	34.9	44.6	50
NSS 06-M5	6	M5	17	15.9	3.5	8	12.4	10.4	28.5	32.2	9.8	100
NSS 06-01	6	R1/8	17	18.1	8	10	12.4	14.4	36	35.3	24.8	50
NSS 06-02	6	R1/4	17	20.1	11.2	14	12.4	18.4	41.5	36.3	45.2	50
NSS 06-03	6	R3/8	17	22.5	13.3	19	12.4	22	47	37.3	55	25
NSS 08-01	8	R1/8	18.5	18.1	8	10	14.4	14.4	36	36.8	41.9	50
NSS 08-02	8	R1/4	18.5	20.1	11.2	14	14.4	18.4	41.5	37.8	48.2	50
NSS 08-03	8	R3/8	18.5	22.5	13.3	19	14.4	22	47	38.8	57	25
NSS 08-04	8	R1/2	18.5	24.9	16.5	24	14.4	28	52	39.8	65	25
NSS 10-02	10	R1/4	21	20.1	11.2	14	17.6	18.4	41.5	40.5	76.7	25
NSS 10-03	10	R3/8	21	22.5	13.3	19	17.6	22	47	41.5	84.6	25
NSS 10-04	10	R1/2	21	24.9	16.5	24	17.6	28	52	42.5	88	20
NSS 12-02	12	R1/4	22.5	20.1	11.2	14	21.2	18.4	41.5	42	84	25
NSS 12-03	12	R3/8	22.5	22.5	13.3	19	21.2	22	47	43	85.6	20
NSS 12-04	12	R1/2	22.5	24.9	16.5	24	21.2	28	52	44	95	20

Metric Size R (PT) Thread Type

NSF Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	A	B	C	E	F	G	I	J	L	M	Ød	X	W.G (g)	Qty/Inbox
NSF 04	4	9	11	38.8	14.5	28.7	6.5	6.5	20	14	5	2.5	3.2	8.6	11.54	50
NSF 06	6	11.2	15	48.7	15.5	40.9	8.5	10.9	28	20	9.5	3.5	4.2	11	27.81	25
NSF 08	8	13.6	18	53.0	17.8	46.2	8.5	12	30	22	10.2	3.5	4.2	13	40.37	25
NSF 10	10	16.3	21	60.6	19.4	52.6	11	12	34	26	11.5	3.5	4.2	16	66.35	20
NSF 12	12	19.7	28	73.8	22.4	55.6	13	16	40	32	11.5	3.5	4.2	10.5	110.59	12

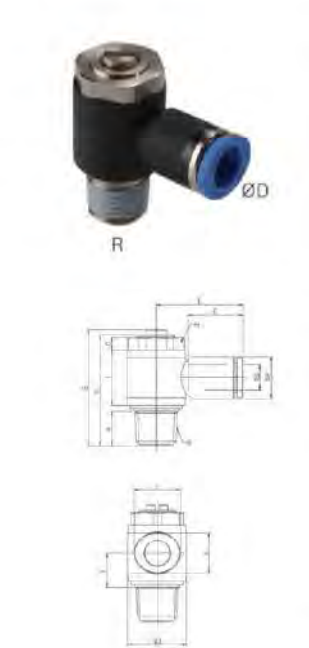
NSF-C Mini Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	A	B	Ød	C	F2	G	J	ØP	S	W.G (g)	Qty/Inbox
NSF 03C	3	11	33	3.2	9.5	4.25	13.5	14	6.3	8.75	8.75	50

NSH Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

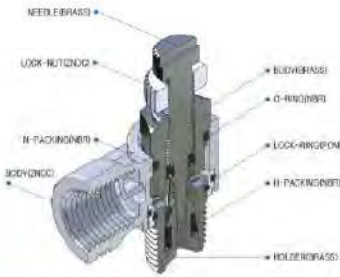
Part Number	ØD	H	ØP	A	B	C	E	F	G	H	I	ØJ	K	X	W.G (g)	Qty/Inbox
NSH 03M5	3	M5	9	3.5	22.5	14.5	19.5	6.6	3.5	8	11.8	10	21	8.6	6.6	100
NSH 04M5	4	M5	9	3.5	22.5	14.5	19.5	6.6	3.5	8	11.8	10	21	8.6	7	100
NSH 0401	4	R1/8	9	8	30	14.5	21.5	8.8	4	13	14.5	14	28.5	8.6	19.5	50
NSH 0402	4	R1/4	9	11	38	14.5	24	11	4	17	18	10	36.1	8.6	37.4	50
NSH 0403	4	R3/8	9	12	45.2	14.5	25.7	13.3	5.5	21	21	22.4	42.5	8.6	70.6	25
NSH 06M5	6	M5	11.2	3.5	22.5	15.5	20.5	7.1	3.5	8	11.8	10	21	8.6	7.8	100
NSH 0601	6	R1/8	11.2	8	30	15.5	22.5	8.8	4	13	14.5	14	28.5	11	20.2	50
NSH 0602	6	R1/4	11.2	11	38	15.5	25	11	4	17	18	10	36.1	11	38.2	50
NSH 0603	6	R3/8	11.2	12	45.2	15.5	26.7	13.3	5.5	21	21	22.4	42.5	11	71.4	25
NSH 0801	8	R1/8	13.6	8	30	17.8	25.6	9.5	4	13	14.5	14	28.5	13	21.5	50
NSH 0802	8	R1/4	13.6	11	38	17.8	28.1	11	4	17	18	10	36.1	13	39.5	50
NSH 0803	8	R3/8	13.6	12	45.2	17.8	29.8	13.3	5.5	21	21	22.4	42.5	13	71.8	25
NSH 0804	8	R1/2	13.6	15	51.4	17.8	32.1	13.8	7	24	22	27	48.7	13	111.7	20
NSH 1002	10	R1/4	16.3	11	38	19.4	28.9	11.7	4	17	18	19	36.1	16	42.4	25
NSH 1003	10	R3/8	16.3	12	45.2	19.4	30.6	13.3	5.5	21	21	22.4	42.5	16	73.8	25
NSH 1004	10	R1/2	16.3	15	51.4	19.4	32.9	13.8	7	24	22	27	48.7	16	112.8	20
NSH 1203	12	R3/8	19.7	12	45.2	22.4	35.9	13.3	5.5	21	21	22.4	42.5	19.5	78.2	25
NSH 1204	12	R1/2	19.7	15	51.4	22.4	38.2	13.8	7	24	22	27	48.7	19.5	117.2	20



Metric Size R (PT) Thread Type

Metal Body Speed Controllers

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)
Working Pressure Range	9kgf/cm ² (0.9Mpa)
Negative Pressure	1kgf/cm ² (0.1Mpa)
Temperature Range	-750mmHg(10Torr)
Applicable Tube Material	0~60°C



Product Code System

NSL 02- O

① ② ③

① Type

② Tube Dia (ØD)

• Metric Size & Taper Pipe Thread

Section		Metric Size	Taper Pipe Thread			
		M5	01	02	03	04
Diameter	Cylinder direct		R(PT)1/8	R(PT)1/4	R(PT)3/8	R(PT)1/2
	Tube direct	M5 x 0.8	Rc(PT)1/8	Rc(PT)1/4	Rc(PT)3/8	Rc(PT)1/2

• Parallel Pipe Thread

Section		Taper Pipe Thread			
		G01	G02	G03	G04
Diameter	Cylinder direct	PF 1/8	PF 1/4	PF 3/8	PF 1/2
	Tube direct	PF 1/8	PF 1/4	PF 3/8	PF 1/2

• Unified Fine Thread & American Standard Taper Pipe Thrd

Section		Unified Fine Thread	American Standard Taper Pipe Thread(Inch)			
		U10	N01	N02	N03	N04
Diameter	Cylinder direct	10-32UNF	NPT 1/8	NPT 1/4	NPT 3/8	NPT 1/2
	Tube direct	10-32UNF	NPT 1/8	NPT 1/4	NPT 3/8	NPT 1/2

③ Control Method

Type	Metric Out	Metric in
Symbol		

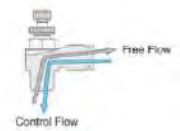
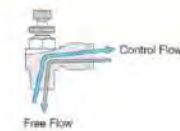
Application

- Valve used for controlling the operation speed of a driving device.
- Using the pipe which connected to actuator

Features

- Reduce the number and cost of the plumber.
- Piping can be set freely.
- Easy speed control, permit constant speed in low flow area.
- Needle valve leak prevention appliance.

Case In Use



- Out-Type
 - The way to control of airflow from the thread to the sleeve.
 - Air passes freely from the sleeve to the thread.
- In-Type
 - The way to control of airflow from the sleeve to the thread.
 - Air passes freely from the thread to the sleeve.

Caution

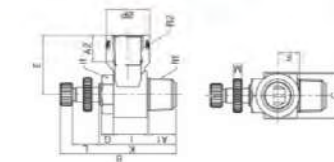
- Be sure to read "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Never remove the needle by force. It causes separation of the needle from the body.
- There can be a slight leakage, therefore do not use in applications requiring zero air flow rate.

Warning

- Be sure to use after confirming structural diagram and control direction of each controller, otherwise fittings may result in damage.
- Never roll or turn the body by force.
- When controlling the objective machine's speed, slowly open the needle of speed controller from the closed position.

Metric Size R (PT) Thread Type

NSL Straight



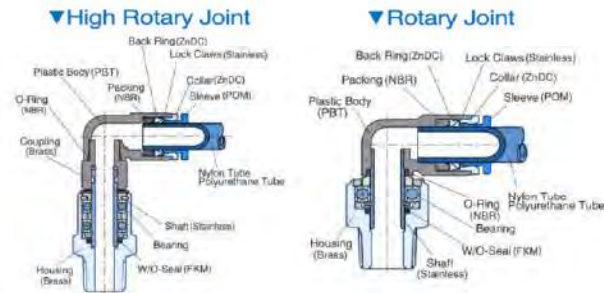
MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	R1	R2	OP	A1	A2	B	C	E	F	G	H	I	QJ	K	L	M	W.G(g)	Qty/In box
NSL M5	M5	M5	8	3.5	4.5	29.5	8	10.5	6.0	4	8	9.1	10	19.5	5	2.5	8.7	100
NSL 01	R1/8	R1/8	14	7.7	8.5	40.1	14	18	7.8	4	10	12.2	14.6	25.6	10.5	3.5	23.5	50
NSL 02	R1/4	R1/4	18	11.2	11	48	18	25	9	5	14	14	19	31.0	11.1	3.5	51	50
NSL 03	R3/8	R3/8	22	13.3	12	54.2	22	30	11	5	19	15.7	24	37.2	12	3.5	100.4	25
NSL 04	R1/2	R1/2	27	16.5	15	61.8	27	35.5	13.5	5.5	24	20	29	44.8	12	3.5	187	20

Metric Size R (PT) Thread Type

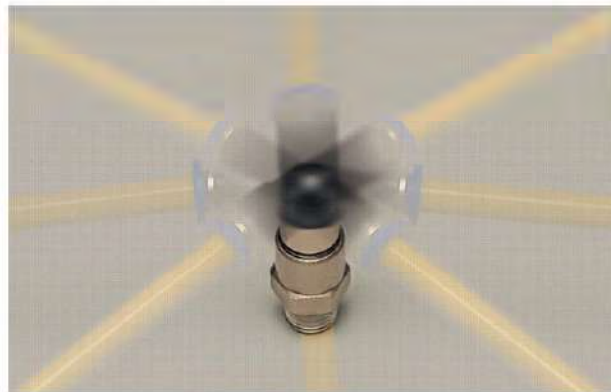
Rotary Joints

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150 PSI	0 ~ 9 kgf/cm ² (0 ~ 900 kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 140°F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

NHRC 06-G01

① ② ③

① Type

② Tube Dia (ØD)

Code	04	06	08	10	12
Dia	Ø4	Ø6	Ø8	Ø10	Ø12

③ Thread Size (T)

	Metric Size		Taper Pipe Thread			
Code	M3	M5	01	02	03	04
Size	M3 x 0.5	M5 x 0.8	R1/8	R1/4	R3/8	R1/2

Number of Rotations

	Tube Dia	Ø4	Ø6	Ø8	Ø10	Ø12
rpm	Low	NRC, NRL	500	500	400	300
	High	NHRC, NHRL, NHRC, NHRL	1,500	1,200	1,200	1,000

Application

- Used for supplying compressed air at swiveling or swinging connections.
- Used for index tables and industrial robots.

Features

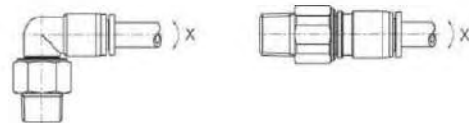
- Built in bearings, suitable for high-speed swiveling pneumatic connections.

Caution

- Be sure to read "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.

Warning

- When using at high speed, use PU tube.
- Nylon or other hard tube can cause overload of the rotation.



Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

NRC Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	F	OP	C	A	B	HxØ	RPM	Orifice (mm)	W.G (g)	Qty/Inbox
NRC 04-M5	4	M5	17.7	10.4	16	3.5	33.4	12x13	500	2	12.2	100
NRC 04-M6	4	M6	17.7	10.4	16	4.5	33.0	12x13	500	3	12.6	100
NRC 04-01	4	R1/8	17.7	10.4	16	8	34.7	12x13	500	3	14.2	100
NRC 06-M5	6	M5	18.5	12.4	17	3.5	36.5	14x15	500	2	17.1	100
NRC 06-M6	6	M6	18.5	12.4	17	4.5	36.5	14x15	500	3	19.1	100
NRC 06-01	6	R1/8	18.5	12.4	17	8	36.5	14x15	500	4	16.9	50
NRC 08-01	8	R1/4	20.2	14.4	17	11	36.5	14x15	500	4	21.0	50
NRC 08-02	8	R1/8	20.2	14.4	18.5	8	43.6	17x18	400	6	30.2	50
NRC 08-03	8	R3/8	22.8	14.4	18.5	12	43.6	17x18	400	6	39.8	50
NRC 10-03	10	R3/8	29.8	18	21	12	56.1	22x24	300	7.5	86.7	25
NRC 10-04	10	R1/2	29.8	18	21	15	57.1	22x24	300	7.5	77.7	25
NRC 12-03	12	R3/8	31.5	21.8	22.5	12	61.5	24x26	250	9	95.6	25
NRC 12-04	12	R1/2	31.5	21.8	22.5	15	61.5	24x26	250	9	101.1	25

NRL Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	F	OP	C	A	B	HxØ	RPM	Orifice (mm)	W.G (g)	Qty/Inbox
NRL 04-M5	4	M5	20.2	10.4	16	3.5	20.7	12x13	500	2	12.3	100
NRL 04-M6	4	M6	20.2	10.4	16	4.5	21.2	12x13	500	3	13	100
NRL 04-01	4	R1/8	20.2	10.4	16	8	22.0	12x13	500	4	13.7	100
NRL 06-M5	6	M5	22.9	12.4	17	3.5	24.2	14x15	500	2	17.9	50
NRL 06-M6	6	M6	22.9	12.4	17	4.5	24.2	14x15	500	3	19.8	50
NRL 06-01	6	R1/8	22.9	12.4	17	8	24.2	14x15	500	4	17.6	50
NRL 08-02	8	R1/4	22.9	12.4	17	11	26.2	14x15	500	4	22.2	50
NRL 08-01	8	R1/8	25.9	14.4	18.5	8	30.6	17x18	400	6	29	50
NRL 08-02	8	R1/4	25.9	14.4	18.5	11	30.6	17x18	400	6	31.7	50
NRL 08-03	8	R3/8	25.9	14.4	18.5	12	30.6	17x18	400	6	40.8	50
NRL 10-03	10	R3/8	29.8	17.6	21	12	35.3	22x24	300	7.5	82.0	25
NRL 10-04	10	R1/2	29.8	17.6	21	15	36.3	22x24	300	7.5	73.1	25
NHL 12-03	12	R3/8	32.7	21	22.5	12	40.5	24x26	250	9	81	25
NRL 12-04	12	R1/2	32.7	21	22.5	15	40.5	24x26	250	9	87.6	25

NHRC Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	F	C	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G (g)	Qty/Inbox
NHRC 04-M0	4	M0	21.7	16	42.4	10.4	11	3.9	12	1000	2	23.7	100
NHRC 04-M6	4	M6	21.7	16	43.2	10.4	11	4.5	12	1500	3	23.8	100
NHRC 04-01	4	R1/8	21.7	16	46.7	10.4	11	8	12	1500	3	28.2	50
NHRC 06-01	6	R1/8	24.0	17	52.0	13	15	8	17	1200	4	27	50
NHRC 06-02	6	R1/4	24.0	17	52.0	13	15	11	17	1200	4	55.4	50
NHRC 08-01	8	R1/8	24.3	18.5	52.3	14.4	15	8	17	1200	6	51.5	50
NHRC 08-02	8	R1/4	24.3	18.5	55.3	14.4	15	11	17	1200	6	57.4	50
NHRC 10-03	10	R3/8	29.3	21	64.8	18	20	12	24	1000	7.5	114.1	25
NHRC 10-04	10	R1/2	29.3	21	67.8	18	20	15	24	1000	7.5	130.1	25
NHRC 12-03	12	R3/8	32.0	22.5	67.5	21.8	20	12	24	1000	9	119.1	25
NHRC 12-04	12	R1/2	32.0	22.5	70.5	21.8	20	15	24	1000	9	135.2	25

Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

NHRL Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	F	G	B	ØP1	ØP2	A	H	RPM	Orifice (mm)	W.G (g)	Qty/ Inbox
NHRL 04-M5	4	M5	20.2	16	33	10	11	3.5	12	1500	2	20.1	100
NHRL 04-M6	4	M6	20.0	16	34.0	10	11	4.5	12	1500	3	20.6	100
NHRL 04-01	4	R1/8	20.2	16	37.5	10	11	8	12	1500	6	25	50
NHRL 06-01	6	R1/8	22.9	17	43.2	12.4	14	8	17	1200	6	44.4	50
NHRL 06-02	6	R1/4	22.9	17	46.2	12.4	14	11	17	1200	6	50.2	50
NHRL 08-01	8	R1/8	25.9	18.5	44.2	14.4	14	8.0	17	1200	6	47.3	50
NHRL 08-02	8	R1/4	25.9	18.5	47.2	14.4	14	11	17	1200	6	53.0	50
NHRL 10-03	10	R3/8	29.8	21	55.3	17.6	20	12	24	1000	9	107.9	20
NHRL 10-04	10	R1/2	29.8	21	58.3	17.6	20	15	24	1000	9	124.6	20
NHRL 12-03	12	R3/8	33.7	22.5	57.0	21.8	20	12	24	1000	9	113.2	20
NHRL 12-04	12	R1/2	33.7	22.5	60.0	21.8	20	15	24	1000	9	128.9	20

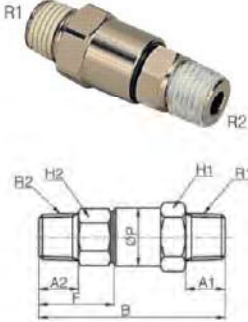
NHRF Bush



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	R1	R2	F	B	ØP	A1	A2	H1	H2	RPM	Orifice (mm)	W.G (g)	Qty/ Inbox
NHRF 01-01	R1/8	Rc1/8	21	49	16.5	8	8	17	14	1200	6	48.2	50
NHRF 01-02	R1/8	Rc1/4	24	52	16.5	8	12	17	17	1200	6	50	50
NHRF 02-01	R1/4	Rc1/8	21	52	16.5	11	9	17	14	1200	6	60.5	50
NHRF 02-02	R1/4	Rc1/4	24	55	16.5	11	12	17	17	1200	6	63.6	50
NHRF 03-03	R3/8	Rc3/8	28	63.5	23.5	12	13	24	22	1000	9	126.8	25
NHRF 03-04	R3/8	Rc1/2	31	66.5	23.5	12	16	24	24	1000	9	131	25
NHRF 04-03	R1/2	Rc3/8	28	66.5	23.5	15	13	24	22	1000	9	145	25
NHRF 04-04	R1/2	Rc1/2	31	69.5	23.5	15	16	24	24	1000	9	150.3	25

NHRS Nipple



MODEL (ØD-T) Tube(Metric) – Thread(R)

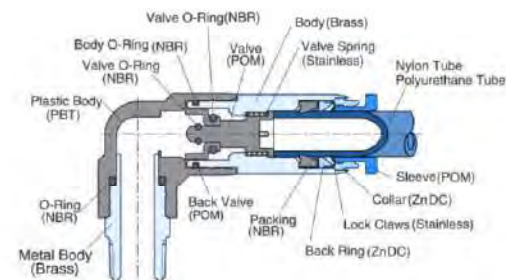
Part Number	R1	R2	F	B	ØP	A1	A2	H1	H2	RPM	Orifice (mm)	W.G (g)	Qty/ Inbox
NHRS 01-01	R1/8	R1/8	21	49	16.5	8	8	17	14	1200	6	43.7	50
NHRS 01-02	R1/8	R1/4	24	52	16.5	8	11	17	14	1200	6	52	50
NHRS 02-01	R1/4	R1/8	21	52	16.5	11	8	17	14	1200	6	52	50
NHRS 02-02	R1/4	R1/4	24	55	16.5	11	11	17	14	1200	6	55.3	50
NHRS 03-03	R3/8	R3/8	28	63.5	23.5	12	12	24	22	1000	9	120.2	25
NHRS 03-04	R3/8	R1/2	31	66.5	23.5	12	15	24	22	1000	9	135	25
NHRS 04-03	R1/2	R3/8	28	66.5	23.5	15	12	24	22	1000	9	135	25
NHRS 04-04	R1/2	R1/2	31	69.5	23.5	15	15	24	22	1000	9	150	25



Metric Size R (PT) Thread Type

Stop Fittings

Structural Diagram



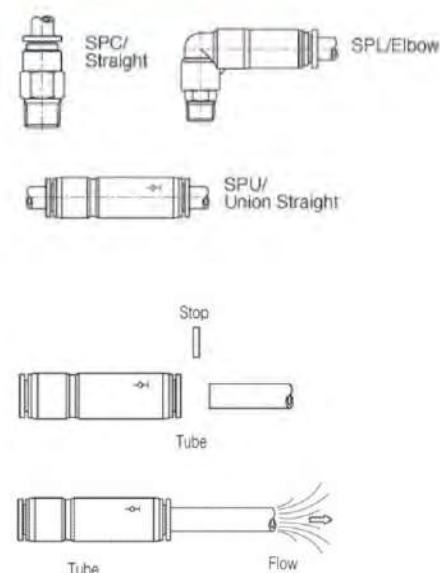
Application

- Installed where the pneumatic connections are changed frequently.
- Used at laboratory or for instructing pneumatic connections.

Features

- Upon disconnecting the tube, the airflow will stop.

Control Method



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150 PSI	0 ~ 9 kgf/cm ² (0 ~ 900 kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 140°F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

SPC 06-01

① ② ③

① Type

② Tube Dia (ØD)

Code	04	06	08	10	12
Dia	Ø4	Ø6	Ø8	Ø10	Ø12

③ Thread Size (T)

	Metric Size		Taper Pipe Thread			
Code	M3	M5	01	02	03	04
Size	M3 x 0.5	M5 x 0.8	R1/8	R1/4	R3/8	R1/2

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Be sure to confirm the direction of the stop instrument.

Warning

- Be careful of spring-up of the tube in case of disconnection when the pressure is on in the stop fitting.

Metric Size R (PT) Thread Type

SPC Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	H	C	ØP	E	A	W.G (g)	Qty/Inbox
SPC 04-01	4	R1/8	10	16	10	25.5	8	10.5	100
SPC 06-01	6	R1/8	12	17	12	27.8	8	12.7	100
SPC 06-02	6	R1/4	14	17	13	27.8	11	21.3	50
SPC 08-01	8	R1/8	14	18.5	14	31.8	8	24.0	50
SPC 08-02	8	R1/4	14	18.5	14	31.8	11	20.4	50
SPC 08-03	8	R3/8	17	18.5	17	31.8	12	38.7	50
SPC 10-02	10	R1/4	17	21	17	36.1	11	20.4	50
SPC 10-03	10	R3/8	17	21	17	36.1	12	34.3	50
SPC 10-04	10	R1/2	21	21	18	36.1	15	61.0	50
SPC 12-03	12	R3/8	21	22	20.2	44.2	12	58.8	25
SPC 12-04	12	R1/2	21	22	20.2	44.2	15	66.9	25

SPU Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	C1	C2	ØP	B	W.G (g)	Qty/Inbox
SPU 04	4	16	16	10	42.9	6.6	50
SPU 06	6	17	17	12.4	46.9	8.2	50
SPU 08	8	18.5	18.5	14.4	52.6	12.7	50
SPU 10	10	21	21	17.6	59.2	22.9	50
SPU 12	12	22	22	21.2	71.8	36.8	25

SPUM Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	ØP	C1	C2	F	B	L	ØN	K	W.G (g)	Qty/Inbox
SPUM 04	4	4	10.4	16	16	9.4	37.4	43.2	17	10	7.4	50
SPUM 06	6	6	12.4	17	17	9.9	41.5	47.7	20.5	12	9.0	50
SPUM 08	8	8	14.4	18.5	18.5	10.6	47.2	53.4	23	14	15.9	50
SPUM 10	10	10	17.6	21	21	11.3	52.9	59.9	29	17	27.7	50
SPUM 12	12	12	21.2	22	22	10.5	63.3	70.9	32	21	35.5	25

SPL Elbow



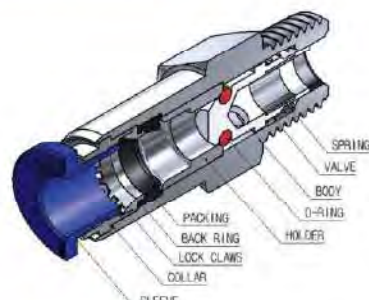
MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	E	ØP	B	H	A	W.G (g)	Qty/Inbox
SPL 04-M5	4	M5	16	30.7	10	22.1	10	5.5	15.9	100
SPL 04-M6	4	M6	16	30.7	10	22.1	10	5.5	15.9	100
SPL 04-01	4	R1/8	16	30.7	10	24.6	10	8	19.7	50
SPL 06-M5	6	M5	17	31.9	12.8	22.6	12	8.5	20.1	100
SPL 06-01	6	R1/8	17	31.9	12.8	24	12	8	20.5	50
SPL 06-02	6	R1/4	17	31.9	12.8	28	14	11	30.6	50
SPL 08-01	8	R1/8	18.5	40.8	14.4	27	14	8	32	50
SPL 08-02	8	R1/4	18.5	40.8	14.4	31	14	11	39.2	50
SPL 08-03	8	R3/8	18.5	40.8	14.4	32	17	12	48.8	50
SPL 10-02	10	R1/4	21	47.6	17.6	35	17	11	56.2	25
SPL 10-03	10	R3/8	21	47.6	17.6	36	17	12	65.9	25
SPL 10-04	10	R1/2	21	47.6	17.6	39	21	15	80.5	25
SPL 12-03	12	R3/8	22	55.5	21	38	21	12	83.7	25
SPL 12-04	12	R1/2	22	55.5	21	41	21	15	106.6	25

Metric Size R (PT) Thread Type

Check Valves

Structural Diagram



Specification

Fluid	Air (No other gases or liquids)	
Working Pressure Range	0 ~ 284 PSI	0~20Kgf/cm ² (0~1960kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 176°F	0 ~ 80 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

PCVC 06 - 01 0

① ② ③ ④

① Type

② Tube Dia (ØD)

Code	04	06	08	10	12
Dia	Ø4	Ø6	Ø8	Ø10	Ø12

③ Thread Size (T)

	Metric Size		Taper Pipe Thread			
Code	M5	M6	01	02	03	04
Dia	M5x0.08	M6x1.0	R1/8	R1/4	R3/8	R1/2

④ Thread Size (T)

Type	Metric IN	Metric OUT
Air Flow	Thread to Tube	Tube to Thread
PCVC		
PCVF		
PCVU		

In case of PCVU model, you should pipe according to signal of the body.

Application

- Check Valves permit airflow in one direction
- Used for maintaining the output pressure at a constant level

Features

- The check valves permit the airflow in one direction but stops in the reverse direction
- The check valve works at the pressure of 0.1Kgf/cm, keep 1.42 PSI in vacuum and connect at a low pressure.

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Be sure to confirm the direction of the stop instrument.
- Reverse direction will not allow airflow.

Warning

- Be Careful of a scald by the heat generation on the body
- for the high frequency of stop circulation effect.

Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

PCVC Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	T	H	G	ØP	B	A	W.G(g)	Qty / Inbox
PCVC 04M5	4	M5	9	16	8.8	5.4	9.7	9.7	100
PCVC 04M6	4	M6	9	16	8.8	6.4	6.4	10.1	1000
PCVC 0401	4	R1/8	10	16	8.8	8	8	10.8	1000
PCVC 0801	8	R1/8	12	17	11	8	8	13.6	1000
PCVC 0802	8	R1/4	14	17	11	11	11	22	50
PCVC 0801	8	R1/8	14	18.5	13	8	8	18.1	50
PCVC 0802	8	R1/4	14	18.5	13	11	11	21.6	50
PCVC 1003	10	R3/8	24	21	25	12	12	43	20
PCVC 1004	10	R1/2	27	21	28	15	15	54.2	20
PCVC 1203	12	R3/8	24	22	25	12	12	48.1	20
PCVC 1204	12	R1/2	27	22	28	15	115	61.1	20

PCVF Buch



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	R1	R2	H	A1	A2	B	W.G(g)	Qty / Inbox
PCVF 01-01	R1/8	Rc1/8	14	6	9	22.8	21.2	100
PCVF 02-02	R1/4	Rc1/4	17	8	11	28.5	37.8	50
PCVF 03-03	R3/8	Rc3/8	24	10	13	54.3	53	25
PCVF 04-04	R1/2	Rc1/2	27	12	16	63.1	61.3	25

PCVU Union Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

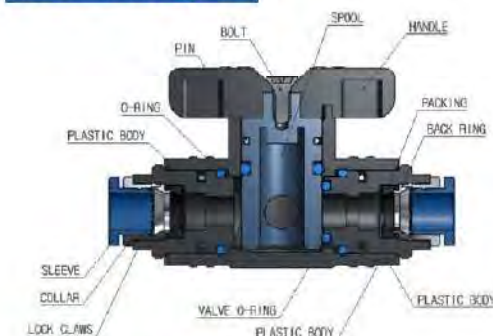
Part Number	ØD	C1	C2	ØP	R	W.G(g)	Qty / Inbox
PCVU 04	4	16	16	10	40.4	4.0	100
PCVU 06	6	17	17	11.2	47.7	7.5	50
PCVU 08	8	18.5	18.5	13.8	50.4	11.7	50
PCVU 10	10	21	21	25	71.5	56	25
PCVU 12	12	22	22	25	77	63	25

Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

Ball Valves

Structural Diagram



Specification

Fluid	Air & Water	
Working Pressure Range	0 ~ 284 PSI	
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 176°F	0 ~ 80 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

BC 20 - 08 02

① ② ③ ④

① Type

② Effective Sectional Area

Metric Size		
Code	20	60
Size	20mm ²	60mm ²

③ Tube Dia (øD)

Code	06	08	10	12
Dia	ø6	ø8	ø10	ø12

④ Thread Size (T)

Taper Pipe Thread				
Code	02	02	03	04
Dia	R1/8	R1/4	R3/8	R1/2

Application

- Used for controlling air supply in the opened and closed positions.

Features

- Available for water as well as air with PPS resin body.
- The sectional dimension of the compact body optimizes as much flow as the tube capacity in proportion.

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Be sure to turn at a right angle (90°) when operating handle, otherwise it may cause the shortage of fluid.

Warning

- When using with water, the pressure must not exceed 0-3 kgf/cm².
- Be sure not to use in a place of vibration, bending, or shocking.
- Be sure to confirm that the Lock Pin is applied correctly. Without the Lock Pin, the body can be disassembled.

Metric Size R (PT) Thread Type

BUC Union



MODEL (øD-T) Tube(Metric) – Thread(R)

Part Number	øD	øD2	C1	C2	OP1	OP2	B	B1	W.G(g)	Qty/Inbox
BUC 20-0606	6	6	17	17	17	17	55.3	23	20.3	25
BUC 20-0808	8	8	18.5	18.5	17	17	57.6	23	21.1	25
BUC 60-1010	10	10	21	21	24	24	74.4	28	47.5	12
BUC 60-1212	12	12	22	22	24	24	80.2	28	52.4	12

BUG Reducing Union



MODEL (øD-T) Tube(Metric) – Thread(R)

Part Number	øD1	øD2	C1	C2	OP1	OP2	B	B1	W.G(g)
BUG 20-0806	8	6	17	17	17	17	56.45	23	25
BUG 60-1210	12	10	21	21	24	24	77.3	28	12

BM Bulkhead Union



MODEL (øD-T) Tube(Metric) – Thread(R)

Part Number	øD1	øD2	M	C1	C2	OP	LP	HP	E	B	B1	W.G(g)	Qty/Inbox
BM 20-0606	6	6	M16	17	17	17	19	19	42.65	70.3	23	53.1	25
BM 20-0806	8	6	M16	18.5	17	17	19	19	43.6	71.25	23	50.7	25
BM 20-0808	8	8	M16	18.5	18.5	17	19	19	43.6	72.4	23	51.2	25
BM 60-1010	10	10	M22	21	21	24	24	26	54.4	91.6	28	121.8	12
BM 60-1210	12	10	M22	22	21	24	24	26	55.4	92.6	28	116.7	12
BM 60-1212	12	12	M22	22	22	24	24	26	55.4	95.5	28	119.2	12

BL Elbow



MODEL (øD-T) Tube(Metric) – Thread(R)

Part Number	øD	R	C	OP	E	L	A	H	B	B1	W.G(g)	Qty/Inbox
BL 20-06-01	6	R1/8	17	17	23	30.75	8	17	53.75	27.7	30.9	25
BL 20-06-02	6	R1/4	17	17	23	33.75	11	17	56.75	27.7	36	25
BL 20-06-03	6	R3/8	17	17	23	34.75	12	17	57.75	27.7	42	25
BL 20-08-01	8	R1/8	18.5	17	23	30.75	8	17	53.75	28.85	31.4	25
BL 20-08-02	8	R1/4	18.5	17	23	33.75	11	17	56.75	28.85	36.3	25
BL 20-08-03	8	R3/8	18.5	17	23	34.75	12	17	57.75	28.85	42.3	25
BL 60-10-02	10	R1/4	21	24	28	44.1	11	24	72.1	38.1	93	12
BL 60-10-03	10	R3/8	21	24	28	45.1	12	24	73.1	38.1	98	12
BL 60-10-04	10	R1/2	21	24	28	49.1	15	24	77.1	38.1	105.7	12
BL 60-12-02	12	R1/4	22	24	28	44.4	11	24	72.1	41	95.4	12
BL 60-12-03	12	R3/8	22	24	28	45.1	12	24	73.1	41	100.4	12
BL 60-12-04	12	R1/2	22	24	28	49.1	15	24	77.1	41	108	12

Metric Size R (PT) Thread Type

BC Straight



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	C	ØP	A	H	J	ØK	B	W.G (g)	Qty / Inbox
BC 20-06-01	6	R1/8	17	17	8	17	58.35	17	23	32.1	25
BC 20-06-02	6	R1/4	17	17	11	17	61.35	17	23	37.1	25
BC 20-06-03	6	R3/8	17	17	12	17	62.35	17	23	43	25
BC 20-08-01	8	R1/8	18.5	17	8	17	59.5	17	23	32.5	25
BC 20-08-02	8	R1/4	18.5	17	11	17	62.5	17	23	37.5	25
BC 20-08-03	8	R3/8	18.5	17	12	17	63.5	17	23	43.4	25
BC 60-10-02	10	R1/4	21	24	11	24	80.4	24	28	94.4	12
BC 60-10-03	10	R3/8	21	24	12	24	81.4	24	28	99	12
BC 60-10-04	10	R1/2	21	24	15	24	85.4	24	28	107.2	12
BC 60-12-02	12	R1/4	22	24	11	24	83.3	24	28	96.9	12
BC 60-12-03	12	R3/8	22	24	12	24	84.3	24	28	101.9	12
BC 60-12-04	12	R1/2	22	24	15	24	88.3	24	28	109.6	12

BUL Union Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	C1	C2	ØP1	ØP2	ØK	B	L	B1	W.G(g)	Qty/ Inbox
BUL 20-0606	6	6	17	17	17	17	17	50.7	22.7	22.7	18.2	25
BUL 20-0808	8	8	18.5	18.5	17	17	17	51.85	28.85	28.85	20	25
BUL 60-1010	10	10	21	21	24	24	24	66.1	66.1	66.1	46	12
BUL 60-1212	12	12	22	22	24	24	24	69	69.0	69.0	51	12

BLG Union Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	C1	C2	ØP1	ØP2	E	ØK	H	B1	W.G(g)	Qty/ Inbox
BLC 20-0606	6	6	17	18.5	17	17	27.7	17	50.7	28.35	19.6	25
BLC 20-0808	8	8	18.5	17	17	17	28.35	17	51.85	27.7	19.6	25
BLC 60-1010	10	10	21	22	24	24	38.1	24	66.1	41	48.5	12
BLC 60-1212	12	10	22	21	24	24	41	24	69	38.1	48.5	12

BLM Bulkhead Union Elbow



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD1	ØD2	M	C1	C2	ØP	E	ØK	B	H1	H2	B1	W.G(g)	Qty/ Inbox
BLM 20-0606	6	6	M16	17	17	17	23	17	65.7	19	19	27.7	52	25
BLM 20-0808	8	6	M16	18.5	17	17	23	17	66.65	19	19	27.7	49.8	25
BLM 20-0808	8	8	M16	18.5	18.5	17	23	17	66.65	19	19	28.85	50	25
BLM 60-1010	10	10	M22	21	21	24	28	24	83.3	24	26	38.1	120.4	12
BLM 60-1210	12	10	M22	22	21	24	28	24	84.3	24	26	38.1	115	12
BLM 60-1212	12	12	M22	22	22	24	28	24	84.3	24	26	41	117.7	12

Fittings, Tubings & Accessories

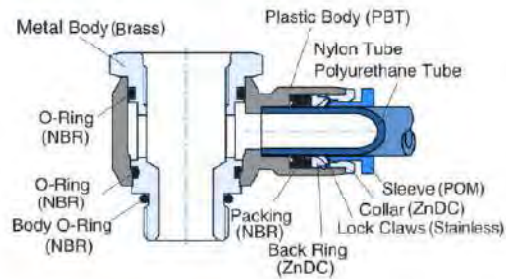


Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

Main Blocks

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150 PSI	0 ~ 9kgf/cm ² (0 ~ 900 kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 140°F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

BHF 14 - 08

① ② ③

① Type

② Thread Size (T)

Metric Size				
Code	08	12	14	18
Size	M8 x 1.0	M12 x 1.0	M14 x 1.0	M18 x 1.0

Thread Size					
Code	M5	M6	01	02	03
Size	M5 x 0.8	M6 x 1.0	R1/8	R1/4	R3/8

③ Tube Dia (ø)

Taper Pipe Thread				
Code	04	06	08	10
Dia	Ø04	Ø06	Ø08	Ø10

Application

- Used for controlling air supply in the opened and closed positions.

Features

- Available for water as well as air with PPS resin body.
- The sectional dimension of the compact body optimizes as much flow as the tube capacity in proportion.

Method of Assembly

- The above pictures show that the metric threads can connect to each different Main Block with the same thread size.
- Generally, BHF, BHM, and BMR decide the shape of complete assembly and BMR, BI, BRM, BUMR, BMF used for outlet of air at the end.
- BPM or BCM is used for blocking the outlet.
- For the connection of different thread sizes of Main Block, use BMM.
- BUMM is for connecting with female Main Block and BBA is for bracketing the assembly.

Case In Use



Using Items
• BHF
• BMF
• BUMM
• BBA



Using Items
• BHM
• BMR
• BMM
• BPM



Using Items
• BHF
• BHM
• BL
• BPM



Using Items
• BHF
• BHM
• BMR
• BMR

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Use a wrench to assemble or disassemble the Main Block.

Warning

- When installing multiple connections, be sure to fix it with bracket BBA. Failure to do so may cause damage or transformation of the blocks.

Metric Size R (PT) Thread Type

BHF Universal Quick



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	ØP	C	E	H	A1	A2	M1	M2	G	B	ØK	Office (mm)	W.G(g)	Qty/Inbox
BHF 0408	4	10.4	16	23.4	14	6.5	7	M8	M8	4	25.7	15.5	3	14.3	50
BHF 0608	6	12.4	17	24.2	14	6.5	7	M8	M8	4	25.7	15.5	5	16.4	50
BHF 0612	6	12.4	17	26.7	17	7	7.5	M12	M12	4	27.2	20	5	24.5	50
BHF 0812	8	14.4	18.5	29.2	17	7	7.5	M12	M12	4	27.2	20	7	25.7	50
BHF 0814	8	14.4	18.5	31.2	22	8	8.5	M14	M14	4	31.2	24.5	7	27.7	25
BHF 1014	10	17.6	21	32	22	8	8.5	M14	M14	4	31.2	24.5	8	40.2	25
BHF 1214	12	21	22.5	33.8	22	8	8.5	M14	M14	4	31.2	24.5	10	43.4	20
BHF 1218	12	21	22.5	36.8	24	8	8.5	M18	M18	5	35.2	30	10	57.3	20

BMF Bulkhead Reducer



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	C	ØP	M1	M2	G1	G2	H1	H2	B	Office (mm)	W.G(g)	Qty/Inbox
BMF 04M8	4	14	9.6	M12	M8	8	4	14	14	25	3	18.1	50
BMF 06M8	6	15.5	11.6	M14	M8	8	4	17	17	27.5	4.5	28.9	50
BMF 06M12	6	15.5	11.6	M14	M12	10	4	17	17	26.5	4.5	33	50
BMF 08M12	8	16.3	13.6	M16	M12	10	5	19	19	29	7	36.6	50
BMF 08M14	8	16.3	13.6	M16	M14	12	5	19	19	31	9	37.2	25
BMF 10M12	10	18.7	16.8	M20	M12	10	5	22	22	31.3	7	58.6	50
BMF 10M14	10	18.7	16.8	M20	M14	10	5	24	24	31.3	9	62.2	25
BMF 12M14	12	21.8	19.6	M22	M14	12	6	24	26	34.4	11	74.1	25
BMF 12M18	12	21.8	19.6	M22	M18	12	6	26	26	34.4	11	74.8	25

BMR Bush



MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	H	A	M	R	G	B	Office (mm)	W.G(g)	Qty/Inbox
BMR 0801	12	8	M8	R1/8	12	20	6	10.9	100
BMR 1201	17	8	M12	R1/8	12	20	6	18.0	100
BMR 1202	17	11	M12	R1/4	12	23	9	20.8	100
BMR 1203	17	12	M12	R3/8	12	24	10	36.5	100
BMR 1402	19	11	M14	R1/4	12	23	9	23.3	50
BMR 1403	19	12	M14	R3/8	12	24	12	25.6	50
BMR 1404	22	15	M14	R1/2	10	25	13	43.3	50
BMR 1803	22	12	M18	R3/8	13	25	12	31.6	50
BMR 1804	24	15	M18	R1/2	10	25	12	41.7	50

BHMR Universal RC Thread

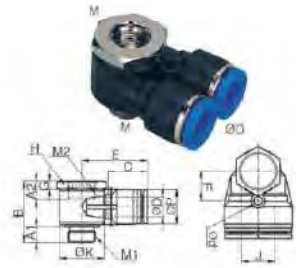


MODEL (ØD-T) Tube(Metric) – Thread(R)

Part Number	ØD	R	M	E	A1	A2	G1	G2	H1	H2	B	ØK	Office (mm)	W.G(g)	Qty/Inbox
BHMR 08M5	12.5	M5	M8	R1/8	6.5	5	4	4	14	11	25.7	15.5	4	21.5	50
BHMR 08M6	12.5	M6	M8	R1/8	6.5	6	4	4	14	11	25.7	15.5	4	21.1	50
BHMR 0801	14.5	R1/8	M8	R1/4	6.5	10	4	4	17	14	26.7	20	5	31	50
BHMR 12M6	12.5	M6	M12	R3/8	7	8	4	4	17	11	27.2	20	4	29.2	50
BHMR 1201	14.5	R1/8	M12	R1/4	7	8	4	4	17	14	27.2	20	5	33.4	50
BHMR 1401	14.5	R1/8	M14	R3/8	8	10	4	4	22	14	31.2	24.5	5	43.8	25
BHMR 1402	21	R1/4	M14	R1/2	8	14	4	4	22	19	31.2	24.5	9	43.7	25
BHMR 1802	21	R1/4	M18	R3/8	8	14	5	4	24	19	35.2	30	9	71.5	20
BHMR 1803	25	R3/8	M18	R1/2	8	17	5	5	27	22	35.2	30	9	72.5	20

Metric Size R (PT) Thread Type

BHWF Universal Branch



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	C	OP	E	G	H	A1	A2	M1	M2	B	F	J	OK	Od	Orifice (mm)	W.G(g)	Qty/Inbox
BHWF 1014	10	21	18	34.3	4	22	8	8.5	M14	M14	31.2	15	17	23	4.4	8	47.4	20
BHWF 1218	12	22.5	21	38.3	5	24	8	8.5	M18	M18	35.2	17	20	30	4.4	10	67.5	20

BCM Cap



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	L	M	B	W.G(g)	Qty/Inbox
BCM 08	12	7	M8	20	18.1	100
BCM 12	14	7.5	M12	22	25	100
BCM 14	17	8.5	M14	23	33.3	100
BCM 18	22	8.5	M18	25	63.8	100

BRM Bush



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	R	M	G	A	W.G(g)	Qty/Inbox
BRM 08M5	12	M5	M8	4	6.5	4.7	100
BRM 12M6	14	M6	M12	4	7	9.1	100
BRM 1401	17	R1/8	M14	4	8	6.1	100
BRM 1802	19	R1/4	M18	4	8	14	100

BHM Universal M Thread



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OP	E	E1	E2	H1	H2	A1	A2	M1	M2E	B	OK	Orifice (mm)	W.G(g)	Qty/Inbox
BHM 1208	12.4	26	4	4	17	12	7	7	M8	M12	27.2	20	5	33.3	50
BHM 1212	18	20.5	4	4	17	17	7	7.5	M12	M12	27.2	20	9	48.5	50
BHM 1412	18	31.5	4	4	22	17	8	7.5	M12	M14	31.2	24.5	9	58.7	25
BHM 1414	21	34	4	4	22	19	8	8.5	M14	M14	31.2	24.5	9	55.3	25
BHM 1814	21	37	5	4	24	19	8	8.5	M14	M18	35.2	30	9	69.3	20
BHM 1818	25	35.5	5	4	27	22	8	8.5	M18	M18	35.2	30	13	75	20

BMM Bush

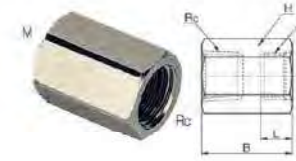


MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	M1	M2	G	A	W.G(g)	Qty/Inbox
BMM 1208	14	M12	M8	5	7	7.8	100
BMM 1412	17	M14	M12	4	8	10.8	100
BMM 1814	19	M18	M14	4	8	23.5	100

Metric Size R (PT) Thread Type

BUMR Socket



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	L	Rc	M	B	Orifice (mm)	W.G(g)	Qty/Inbox
BUMR 0801	12	7	Rc1/8	M8	20	6	11.8	100
BUMR 1202	17	7.5	Rc1/4	M12	24	9	27.8	50
BUMR 1403	22	8.5	Rc3/8	M14	27	11	67.9	20
BUMR 1804	27	8.5	Rc1/2	M18	28	15	84	25

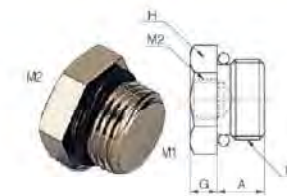
BUMM Nipple



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	A	M	G	B	Orifice (mm)	W.G(g)	Qty/Inbox
BUMM 0808	12	6.5	M8	4	17	4	6.7	100
BUMM 1212	14	7	M12	4	18	7	11.2	100
BUMM 1414	17	8	M14	4	20	9	15	50
BUMM 1818	19	8	M18	4	20	13	18.5	50

BPM Plug



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	H	M1	M2	G	H	W.G(g)	Qty/Inbox
BPM 08	6.5	M8	M6	4	12	8.5	100
BPM 12	7	M12	M6	4	14	10.1	100
BPM 14	8	M14	M6	4	17	16	100
BPM 18	8	M18	M6	4	19	24.5	100

BL Elbow



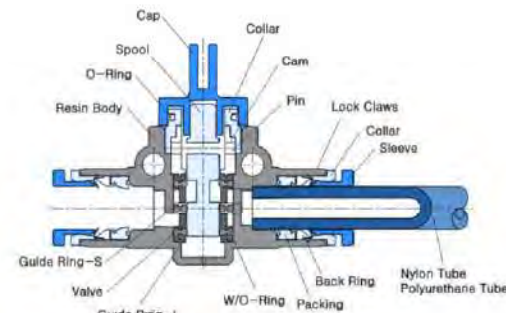
MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	E	F	A	R	M	B	Orifice (mm)	W.G(g)	Qty/Inbox
BL 0801	17	8	8	R1/8	M8	28	6	39.9	100
BL 1201	18	10	11	R1/8	M12	29	6	45.2	100
BL 1202	19	10	11	R1/4	M12	32	9	47.1	100
BL 1402	22	12	11	R1/4	M14	37	9	76.8	50
BL 1403	22	12	12	R3/8	M14	38	12	80.4	50
BL 1404	22	12	15	R1/2	M14	39	13	88	50
BL 1803	27	14	12	R3/8	M18	44	9	145.3	25
BL 1804	27	14	15	R1/2	M18	45	13	153.5	25

Metric Size R (PT) Thread Type

Hand Valves

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 - 284 PSI	0 - 20kgf/cm ² (0 - 1960kPa)
Negative Pressure	-29.5 in Hg	-750 mm-Hg (10 Torr)
Temperature Range	32 ~ 176°F	0 ~ 80 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

HVFS 16 - 01

① ② ③

① Type

② Tube Dia (øD)

Code	04	06	08	10	12
Dia	ø4	ø6	ø8	ø10	ø12

③ Thread Dia (T)

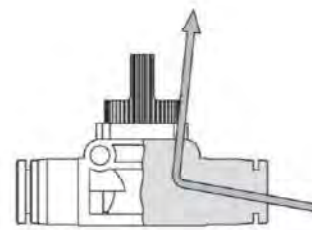
Taper Pipe Thread				
Code	01	02	03	04
Size	R1/8	R1/4	R3/8	R1/2

Application

- Used for turning air pressure on and off for pneumatic devices.

Features

- When off, the three-way direction control valve discharges the residual pressure and blocks air flow-in.



3 Way Direction, 2 Way Direction

- The three-way direction control valve, when the air is stopped, discharges residual pressure to the outlet, which assures safety in repairing or adjusting connected devices.
- The two-way direction control valve does not discharge residual pressure, and is suitable for a reservoir tank or other device that does not require a discharging residual pressure.
- The two-way direction control valve is also suitable for the system where a vacuum pipe is used.

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- When operating handle, turn at a right angle (90°), otherwise it may cause a shortage of fluid.

Metric Size R (PT) Thread Type

HVSS Nipple



MODEL (ØD-T) Tube(Metric) - Thread(R)

Part Number	A1	A2	L1	L2	B	E	J	F	H1	H2	R1	R2	Ød	G	W.G(g)	Qty/Inbox
HVSS 01-01	8	8	35	35	70	40.7	17.58	18.2	13	13	R1/8	R1/8	4.2	22.2	35.8	25
HVSS 02-01	11	8	37.5	35	72.5	40.7	17.6	18.2	14	13	R1/4	R1/8	4.2	22.2	39.8	25
HVSS 02-02	11	11	37.5	37.5	75	40.7	17.6	18.2	14	14	R1/4	R1/4	4.2	22.2	44	25
HVSS 03-02	12	11	42.5	40.5	83	40.9	21.2	24	17	17	R3/8	R1/4	4.2	20.1	63.6	20
HVSS 03-03	12	12	42.5	42.5	85	40.9	21.2	24	17	17	R3/8	R3/8	4.2	20.1	68.7	20
HVSS 04-03	15	12	45.5	42.5	88	40.9	21.2	24	21	17	R1/2	R3/8	4.2	20.1	85.9	20
HVSS 04-04	15	15	45.5	45.5	91	40.9	21.2	24	21	21	R1/2	R1/2	4.2	20.1	103.1	20

HVFS Straight Fitting Thread



MODEL (ØD-T) Tube(Metric) - Thread(R)

Part Number	ØD	ØP	C	L1	L2	A	B	G	F	H	R	Ød	E	J	W.G(g)	Qty/Inbox
HVFS 04-01	4	9	14.5	31	21.6	8	52.6	22.2	18.2	10	R1/8	4.2	40.7	17.6	20.1	25
HVFS 04-02	4	9	14.5	34	21.6	11	55.6	22.2	18.2	14	R1/4	4.2	40.7	17.6	28.2	25
HVFS 04-03	4	9	14.5	35	21.6	12	56.6	22.2	18.2	17	R3/8	4.2	40.7	17.6	35.7	25
HVFS 06-01	6	11.2	15.5	33.5	24.5	8	58	22.2	18.2	11	R1/8	4.2	40.7	17.6	22.7	25
HVFS 06-02	6	11.2	15.5	36.5	24.5	11	61	22.2	18.2	14	R1/4	4.2	40.7	17.6	29.9	25
HVFS 06-03	6	11.2	15.5	37.5	24.5	12	62	22.2	18.2	17	R3/8	4.2	40.7	17.6	37.9	25
HVFS 08-01	8	13.6	17.8	35	26.6	8	61.6	22.2	18.2	13	R1/8	4.2	40.7	17.6	26.6	25
HVFS 08-02	8	13.6	17.8	37.5	26.6	11	64.1	22.2	18.2	14	R1/4	4.2	40.7	17.6	30.8	25
HVFS 08-03	8	13.6	17.8	38.5	26.6	12	65.1	22.2	18.2	17	R3/8	4.2	40.7	17.6	38.3	25
HVFS 10-02	10	16.3	19.4	40.5	30.5	11	71	20.1	24	17	R1/4	4.2	40.9	21.2	42.5	20
HVFS 10-03	10	16.3	19.4	42.5	30.5	12	73	20.1	24	17	R3/8	4.2	40.9	21.2	47.6	20
HVFS 10-04	10	16.3	19.4	45.5	30.5	15	76	20.1	24	21	R1/2	4.2	40.9	21.2	64.8	20
HVFS 12-02	12	19.7	22.4	42.5	33.4	11	75.9	20.1	24	19	R1/4	4.2	40.9	21.2	52.1	20
HVFS 12-03	12	19.7	22.4	44.5	33.4	12	77.9	20.1	24	19	R3/8	4.2	40.9	21.2	57.3	20
HVFS 12-04	12	19.7	22.4	47.5	33.4	15	80.9	20.1	24	21	R1/2	4.2	40.9	21.2	71.3	20

GHVFF Union Straight



MODEL (ØD-T) Tube(Metric) - Thread(R)

Part Number	ØD1	ØD2	ØP1	ØP2	A	B	C1	C2	E	F1	F2	G	H	I2	J	K1	K2	Ød	X	W.G(g)	Qty/Inbox
GHVFF 04-04	4	4	9	9	17.6	43.2	14.5	14.5	40.7	10.3	5.7	22.2	21.6	21.6	18.2	7.6	7.6	4.2	8.6	14	25
GHVFF 06-06	6	6	11.2	11.2	17.6	48.9	15.5	15.5	40.7	8	8	22.2	24.5	24.5	18.2	10.5	10.5	4.2	11	15.6	25
GHVFF 08-08	8	8	13.6	13.6	17.6	53.2	17.8	17.8	40.7	8	8	22.2	26.6	26.6	18.2	12.6	12.6	4.2	13	17.6	25
GHVFF 10-10	10	10	16.3	16.3	21.2	61	10.4	10.4	40.9	10.1	10.1	20.1	30.5	30.5	24	13.5	13.5	4.2	16	26.5	20
GHVFF 12-12	12	12	19.7	19.7	21.2	66.8	22.4	22.4	40.9	10.1	10.1	20.1	33.4	33.4	24	16.4	16.4	4.2	18.5	33	16

Metric Size R (PT) Thread Type
HVSF Straight Thread-Fitting



MODEL (OD-T) Tube(Metric) – Thread(R)

Part Number	OD	ØP	C	L1	L2	A	B	G	F	H	H	Ød	E	J	W.G(g)	Qty/ Inbox
HVSF 04-01	4	Ø	14.5	31	21.6	8	52.6	22.2	18.2	10	R1/8	4.2	40.7	17.6	20.1	25
HVSF 04-02	4	Ø	14.5	34	21.6	11	55.6	22.2	18.2	14	R1/4	4.2	40.7	17.6	28.2	25
HVSF 04-03	4	Ø	14.5	35	21.6	12	56.6	22.2	18.2	17	R3/8	4.2	40.7	17.6	35.7	25
HVSF 06-01	6	11.2	15.5	33.5	24.5	8	58	22.2	18.2	11	R1/8	4.2	40.7	17.6	22.7	25
HVSF 06-02	6	11.2	15.5	36.5	24.5	11	61	22.2	18.2	14	R1/4	4.2	40.7	17.6	29.9	25
HVSF 06-03	6	11.2	15.5	37.5	24.5	12	62	22.2	18.2	17	R3/8	4.2	40.7	17.6	37.9	25
HVSF 08-01	8	13.6	17.8	35	26.6	8	61.6	22.2	18.2	13	R1/8	4.2	40.7	17.6	26.6	25
HVSF 08-02	8	13.6	17.8	37.5	26.6	11	64.1	22.2	18.2	14	R1/4	4.2	40.7	17.6	30.8	25
HVSF 08-03	8	13.6	17.8	38.5	26.6	12	65.1	22.2	18.2	17	R3/8	4.2	40.7	17.6	38.3	25
HVSF 10-02	10	16.3	19.4	40.5	30.5	11	71	20.1	24	17	R1/4	4.2	40.9	21.2	42.5	20
HVSF 10-03	10	16.3	19.4	42.5	30.5	12	73	20.1	24	17	R3/8	4.2	40.9	21.2	47.6	20
HVSF 10-04	10	16.3	19.4	45.5	30.5	15	76	20.1	24	21	R1/2	4.2	40.9	21.2	64.8	20
HVSF 12-02	12	19.7	22.4	42.5	33.4	11	75.9	20.1	24	19	R1/4	4.2	40.9	21.2	52.1	20
HVSF 12-03	12	19.7	22.4	44.5	33.4	12	77.9	20.1	24	19	R3/8	4.2	40.9	21.2	57.3	20
HVSF 12-04	12	19.7	22.4	47.5	33.4	15	80.9	20.1	24	21	R1/2	4.2	40.9	21.2	71.3	20

Fittings, Tubings & Accessories

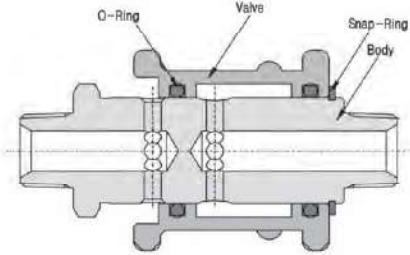


Fittings, Tubings & Accessories

Metric Size R (PT) Thread Type

Hand Slide Valves

Structural Diagram



Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150 PSI	0 ~ 9kgf/cm ² (0 ~ 900kPa)
Negative Pressure	-29.50 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 140°F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

HSV M - 01

① ② ③

① Type

② Connection Size

Code	M	H			P
		H20	H30	H40	
Dia	③	Ø9	Ø11	Ø15	Ace Coupler Plug

③ Thread Size (T)

Code	M5	M6	01	02	03	04	06
Size	M5x0.8	M6x1.0	R1/8	R1/4	R3/8	R1/2	R3/4

Application

- Used for turning air pressure on and off for pneumatic devices.

Features

- Made of brass or aluminum for a long life-span.

Case In Use



Caution

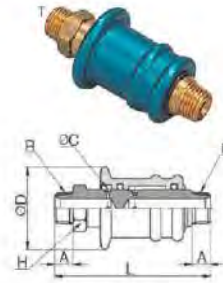
- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- If valve is not open enough, it causes a shortage of air or fluid.

Warning

- When installing multiple connections, be sure to fix it with bracket BBA. Failure to do so may cause damage or transformation of the blocks.

Metric Size R (PT) Thread Type

HSV (M) Nipple Slide Type



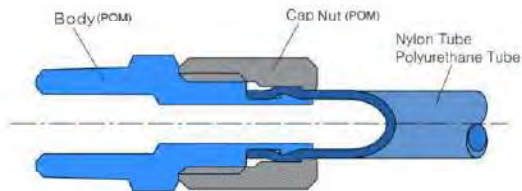
MODEL (ØD-T) Tube(Metric) - Thread(R)

Part Number	ØD	L	A	R	ØC	H	Orifice (mm)	W.G(g)	Qty/Inbox
HSV M-M5	20	45	4.5	M5	1.4	0	2.4	22.0	50
HSV M-01	24	53.8	7.5	R1/8	1.4	14	4.5	45.4	25
HSV M-02	35	71.9	8.5	R1/4	3.3	17	8	112.3	12
HSV M-03	45	83	11	R3/8	3.8	26	9	180	6
HSV M-04	45	85	12	R1/2	3.8	26	13	250.6	6
HSV M-06	50	103	14	R3/4	6.0	32	10	400.4	3

Metric Size R (PT) Thread Type

Two Touch Fittings

Structural Diagram



Application

- Nut-tightened air connector used for pneumatic piping.

Features

- Effective use at the place of vibration or rocking.
- Long life-span made of plastic.
- Excellent in anti-corrosion and anti-chemicals.

Specification

Fluid	AIR (No other gases or liquids)	
Working Pressure Range	0 ~ 150PSI	0 ~ 9kgf/cm ² (0 ~ 900kPa)
Negative Pressure	-29.5 in Hg	-750 mmHg (10 Torr)
Temperature Range	32 ~ 140°F	0 ~ 60 °C
Applicable Tube Material	Polyurethane and Nylon	



Product Code System

TC 04 - 01

① ② ③

① Type

② Tube Dia (øD)

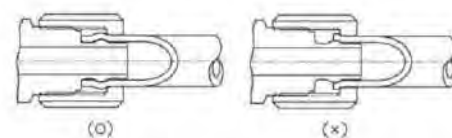
Code	04	06	08	10	12
Dia	ø4	ø6	ø8	ø10	ø12

③ Thread Dia (T)

Taper Pipe Thread				
Code	01	02	03	04
Size	R1/8	R1/4	R3/8	R1/2

Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Fastening the cap by force will cause damage on thread or body.
- Push the tube fully into the end when connecting.
- Cut the used part of tube after using once.
- Seal with teflon, failure to do so will cause air leakage.



Metric Size R (PT) Thread Type

TC Straight



MODEL (øD-T)

Part Number	øD	R	A	L	H	øP	Orifice (mm)	W.G(g)	Qty/Inbox
TC 04-01	4	R1/8	8	25	12	10	2	1.8	100
TC 04-02	4	R1/4	11	28	14	10	2	2.5	100
TC 06-01	6	R1/8	8	20	12	12	3	2.8	100
TC 06-02	6	R1/4	11	32	14	12	3	4.8	100
TC 08-01	8	R1/8	8	30.5	14	14	4.6	3.3	50
TC 08-02	8	R1/4	11	33.5	14	14	4.6	4.7	50
TC 08-03	8	R3/8	12	34.5	17	14	4.6	6.3	50
TC 10-02	10	R1/4	11	34.5	17	17	5.2	5.9	50
TC 10-03	10	R3/8	12	35.5	17	17	5.2	8.2	50
TC 12-03	12	R3/8	12	41.5	19	18	6.5	10.7	50
TC 12-04	12	R1/2	15	44.5	22	18	6.5	13	25

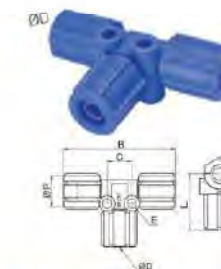
TL Elbow



MODEL (øD-T)

Part Number	øD	R	A	B1	B2	C	L1	L2	Orifice (mm)	W.G(g)	Qty/Inbox
TL 04-01	4	R1/8	8	16.5	20	10	16	21	2	3	100
TL 04-02	4	R1/4	11	19.5	23	15	16	23.5	2	3.5	100
TL 06-01	6	R1/8	8	16	20	10	20	25	3	4.8	100
TL 06-02	6	R1/4	11	18	22	14	26	29	3	6.8	100
TL 08-01	8	R1/8	8	17	22	14	23.5	30.5	4.6	5.2	50
TL 08-02	8	R1/4	11	21	26	14	23.5	30.5	4.6	7	50
TL 08-03	8	R3/8	12	23	27	17	24.5	33	4.6	10.1	50
TL 10-02	10	R1/4	11	21.5	27.5	17	25.5	34	5.2	9.2	50
TL 10-03	10	R3/8	12	22.5	28.5	17	25.5	34	5.2	11.1	50
TL 12-03	12	R3/8	12	25	34.5	19	32	41.5	6.5	15.3	50
TL 12-04	12	R1/2	15	28	37.5	22	33.5	44.5	6.5	21	25

TUT Union Tee



MODEL (øD-T)

Part Number	øD	øP	B	C	E	L	Orifice (mm)	W.G(g)	Qty/Inbox
TUT 04	4	10	36	7.5	2.4	18	2	4.8	100
TUT 06	6	12	41	11	3.2	23	3	10	50
TUT 08	8	14	50	11	4.2	25	4.6	13	25
TUT 10	10	17	50.8	11	4.2	25.5	5.2	19.6	25
TUT 12	12	19	68	16	7	34	6.5	30.8	20

THT (D1) Single Universal Tee



MODEL (øD-T)

Part Number	øD	R	A	B	B1	H	L	L1	øP	Orifice (mm)	W.G(g)	Qty/Inbox
THT 0401-D1	4	R1/8	8	40.4	15.4	14	30.2	21	10	2	18.1	50
THT 0402-D1	4	R1/4	11	40.4	15.4	14	33.2	24	10	2	30.6	50
THT 0601-D1	6	R1/8	8	46.4	15.4	14	30.3	21	12	3	21	50
THT 0602-D1	6	R1/4	11	46.4	15.4	14	33.3	24	12	3	32.5	25
THT 0801-D1	8	R1/8	8	54	19	17	32.2	22	14	4.6	32.7	25
THT 0802-D1	8	R1/4	11	54	19	17	35.2	25	14	4.6	33.5	25
THT 0803-D1	8	R3/8	12	54	19	17	36.2	26	14	4.6	40	25
THT 1002-D1	10	R1/4	11	59	23	21	42.5	30	17	5.2	35.6	25
THT 1003-D1	10	R3/8	12	59	23	21	43.5	31	17	5.2	66.5	25
THT 1004-D1	12	R1/2	15	59	23	21	47	34	17	5.2	75	20
THT 1202-D1	12	R1/4	11	76	30	27	47	33	19	6.5	51.1	20
THT 1203-D1	12	R3/8	12	76	30	27	47	33	19	6.5	74.5	20
THT 1204-D1	12	R1/2	15	76	30	27	51	37	19	6.5	85	20

Metric Size R (PT) Thread Type

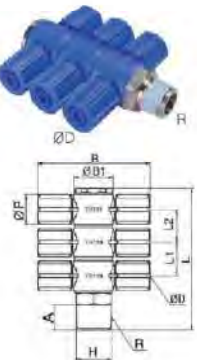
THT (D2) Double Universal Tee



MODEL (ØD-T)

Part Number	ØD	R	A	B	B1	H	L	L1	ØP	Orifice (mm)	W.(g)	Qty/Inbox
THT 0401-D2	4	R1/8	8	40.4	15.4	14	44.2	14	10	2	30.4	25
THT 0402-D2	4	R1/4	11	40.4	15.4	14	47.2	14	10	2	45.4	25
THT 0601-D2	6	R1/8	8	46.4	15.4	14	44.3	21	12	3	34.2	25
THT 0602-D2	6	R1/4	11	46.4	15.4	14	47.3	24	12	3	48.7	25
THT 0801-D2	8	R1/8	8	54	19	17	48.3	22	14	4.6	47.5	20
THT 0802-D2	8	R1/4	11	54	19	17	51.3	25	14	4.6	50.7	20
THT 0803-D2	8	R3/8	12	54	19	17	52.3	26	14	4.6	105	12
THT 1002-D2	10	R1/4	11	59	23	21	62.5	20	17	5.2	54.6	12
THT 1003-D2	10	R3/8	12	59	23	21	63.5	20	17	5.2	106.6	12
THT 1004-D2	12	R1/2	15	59	23	21	66.5	34	17	5.2	110	12
THT 1202-D2	12	R1/4	11	76	30	27	68.8	21.8	19	6.5	86.8	9
THT 1203-D2	12	R3/8	12	76	30	27	69.8	21.8	19	6.5	119	6
THT 1204-D2	12	R1/2	15	76	30	27	72.8	37	19	6.5	125	6

THT (D3) Triple Universal Tee



MODEL (ØD-T)

Part Number	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.(g)	Qty/Inbox
THT 0401-D3	4	R1/8	8	40.4	15.4	14	58.2	14	14	10	2	42.8	20
THT 0402-D3	4	R1/4	11	40.4	15.4	14	61.2	14	14	10	2	61.6	20
THT 0601-D3	6	R1/8	8	46.4	15.4	14	58.3	14	14	12	3	47.2	15
THT 0602-D3	6	R1/4	11	46.4	15.4	14	61.3	14	14	12	3	67.2	15
THT 0801-D3	8	R1/8	8	54	19	17	64.3	16	16	14	4.6	70.1	12
THT 0802-D3	8	R1/4	11	54	19	17	67.3	16	16	14	4.6	70.4	12
THT 0803-D3	8	R3/8	12	54	19	17	68.3	16	16	14	4.6	135.6	6
THT 1002-D3	10	R1/4	11	59	23	21	82.5	20	20	17	5.2	75.6	12
THT 1003-D3	10	R3/8	12	59	23	21	83.5	20	20	17	5.2	141.5	6
THT 1004-D3	12	R1/2	15	59	23	21	86.5	34	34	17	5.2	145.6	6
THT 1202-D3	12	R1/4	11	76	30	27	90.6	21.8	21.8	19	6.5	145	6
THT 1203-D3	12	R3/8	12	76	30	27	91.6	21.8	21.8	19	6.5	150.3	6
THT 1204-D3	12	R1/2	15	76	30	27	94.6	37	37	19	6.5	165	6

THL (D1) Single Universal Elbow

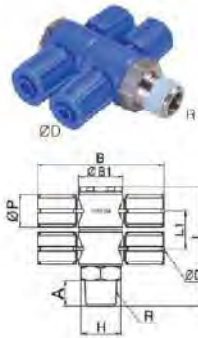


MODEL (ØD-T)

Part Number	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.(g)	Qty/Inbox
THL 0401-D1	4	R1/8	8	20.2	27.9	14	30.2	21	14	10	2	18.7	50
THL 0402-D1	4	R1/4	11	20.2	27.9	14	33.2	24	14	10	2	19.7	50
THL 0601-D1	6	R1/8	8	23.2	30.9	14	30.3	21	14	12	3	19.7	50
THL 0602-D1	6	R1/4	11	23.2	30.9	14	33.3	24	14	12	3	31.2	25
THL 0801-D1	8	R1/8	8	26.9	36.4	17	32.2	22	16	14	4.6	55	25
THL 0802-D1	8	R1/4	11	26.9	36.4	17	35.2	25	16	14	4.6	60	25
THL 0803-D1	8	R3/8	12	26.9	36.4	17	36.2	26	16	14	4.6	65.2	20
THL 1002-D1	10	R1/4	11	29.5	41	21	42.5	30	20	17	5.2	32.5	25
THL 1003-D1	10	R3/8	12	29.5	41	21	43.5	31	20	17	5.2	66.6	20
THL 1004-D1	12	R1/2	15	29.5	41	21	47	34	34	17	5.2	72	20
THL 1202-D1	12	R1/4	11	38	53	27	47	33	21.8	19	6.5	67	20
THL 1203-D1	12	R3/8	12	38	53	27	48	34	21.8	19	6.5	69.3	20
THL 1204-D1	12	R1/2	15	38	53	27	51	37	37	19	6.5	73	20

Metric Size R (PT) Thread Type

THL (D2) Double Universal Tee



MODEL (ØD-T)

Part Number	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.(g)	Qty/Inbox
THL 0401-D2	4	R1/8	8	20.2	27.9	14	44.2	21	14	10	2	20.7	25
THL 0402-D2	4	R1/4	11	20.2	27.9	14	47.2	24	14	10	2	34	25
THL 0601-D2	6	R1/8	8	23.2	30.9	14	44.3	21	14	12	3	31.7	25
THL 0602-D2	6	R1/4	11	23.2	30.9	14	47.3	24	14	12	3	46.2	25
THL 0801-D2	8	R1/8	8	26.9	36.4	17	48.3	22	16	14	4.6	45	25
THL 0802-D2	8	R1/4	11	26.9	36.4	17	51.3	25	16	14	4.6	47.2	25
THL 0803-D2	8	R3/8	12	26.9	36.4	17	52.3	26	16	14	4.6	100.7	25
THL 1002-D2	10	R1/4	11	29.5	41	21	62.5	30	20	14	5.2	49.1	20
THL 1003-D2	10	R3/8	12	29.5	41	21	63.5	31	20	17	5.2	103.2	12
THL 1004-D2	12	R1/2	15	29.5	41	21	66.5	34	20	17	5.2	108	12
THL 1202-D2	12	R1/4	11	38	53	27	68.8	32.9	21.8	19	6.5	115	9
THL 1203-D2	12	R3/8	12	38	53	27	69.8	33.9	21.8	19	6.5	120	9
THL 1204-D2	12	R1/2	15	38	53	27	72.8	37	21.8	19	6.5	131	9

THL (D3) Triple Universal Elbow



MODEL (ØD-T)

Part Number	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.(g)	Qty/Inbox
THL 0401-D3	4	R1/8	8	20.2	27.9	14	58.2	21	14	10	2	40.5	50
THL 0402-D3	4	R1/4	11	20.2	27.9	14	61.2	24	14	10	2	42	50
THL 0601-D3	6	R1/8	8	23.2	30.9	14	58.3	21	14	12	3	43.3	25
THL 0602-D3	6	R1/4	11	23.2	30.9	14	61.3	24	14	12	3	62.9	20
THL 0801-D3	8	R1/8	8	26.9	36.4	17	64.3	22	16	14	4.6	61.5	20
THL 0802-D3	8	R1/4	11	26.9	36.4	17	67.3	25	16	14	4.6	64.4	20
THL 0803-D3	8	R3/8	12	26.9	36.4	17	68.3	26	16	14	4.6	73.4	12
THL 1002-D3	10	R1/4	11	29.5	41	21	82.5	30	20	14	5.2	67.2	20
THL 1003-D3	10	R3/8	12	29.5	41	21	83.5	31	20	17	5.2	80	12
THL 1004-D3	12	R1/2	15	29.5	41	21	86.5	34	20	17	5.2	91	6
THL 1202-D3	12	R1/4	11	38	53	27	90.6	32.9	21.8	19	6.5	100	8
THL 1203-D3	12	R3/8	12	38	53	27	91.6	33.9	21.8	19	6.5	109	8
THL 1204-D3	12	R1/2	15	38	53	27	94.6	37	21.8	19	6.5	120	6

Silencers



Product Code System



SL 01

- ① Type
② Thread Size (T)

Threads Size	Metric Thread	Tape Pipe Thread									
Code	M5	01	02	03	04	06	08	10	12	16	
Size	M5	R1/8	R1/4	R3/8	R1/2	R3/4	R1	R1 1/4	R1 1/2	R2	

Threads Size	Tape Parallel Thread					
Code	G01	G02	G03	G04	G06	G08
Size	R1/8	R1/4	R3/8	R1/2	R3/4	R1

Application

- Used for suppressing the noise of air release, applied to exhausted port of machine.

Features

- Excellent noise suppression effect.
- Several options of materials (Brass, Stainless Steel, Plastic, Al).
- High durability and wide applications.
- Compact design is suitable for installing in confined space.

Case In Use

- Applied to exhausted port of machine.
- Sintering Silencer for anti-corrosion & high temperature place and ST Silencer for superior silence & contaminated place.



Caution

- Be sure to read the "Common Precautions" and "Using Precautions of Fitting Series" (P12) before using.
- Replace silencer after moderate use.
- Seal with Teflon, failure to do so will cause air leakage.
- Clean regularly to maintain good air release efficiency.
- Fastening the thread by force will cause damage on the body.

Plastick Silencer

ST



Application: Used for suppressing the noise of air release, applied to exhausted port of machine.

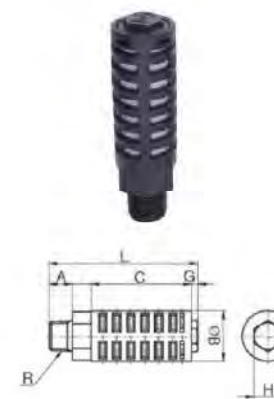
Material: PBT, PE

- Feature:**
- Small size used for in low noisy applications.
 - Made of plastic, very light and strong.
 - Compact design is suitable for installing in confined space.

MODEL (OD-T) Tube (Metric) – Thread (R) (mm)

Model	R	ØB	L	C	A	H1	H2	G1	G2	W.G (g)	Qty/Inbox
ST M5	M5	7.5	18	-	5	-	-	-	-	0.5	100
ST 01	R1/4	10.6	36.1	25.7	8	-	5.5	8	2.1	3	100
ST 02	R1/4	22	63.7	43	10	19	12	8	2.7	10.5	25
ST 03	R1/4	25	84.5	58	13.5	22	14	10	3.0	18.5	20
ST 04	R1/4	30	103.5	64	15.5	27	19	10.5	3.5	20.5	12
ST G01	G1/4	16	41	25	7	14	8	7	2	4.5	50
ST G02	G1/4	21	64	42.5	10	18	12	10	2.5	12	25
ST G03	G1/4	25	89.5	59.5	13	21.5	14.5	10	2.5	19.5	20
ST G04	G1/4	30	104	67	14	26	19	10	3	30	12

ST-M (Silencer Manifold)



Application: Used for suppressing the noise of air release, applied to exhausted port of machine.

Material: PBT, PE

- Feature:**
- Excellent noise suppression effect
 - Made of plastic, very light and strong
 - Compact design is suitable for installing in confined space

MODEL (OD-T) Tube (Metric) – Thread (R) (mm)

Model	R	ØB	L	C	A	H	G	W.G (g)	Qty/Inbox
ST M02	R1/4	15	46.5	36	8	10	2.5	4.8	50
ST M03	R1/4	22	57.7	45	10	12	2.7	13.7	25

STP



Application: Used for suppressing the noise of air release, applied to exhausted port of machine.

Material: Nylon, PE

- Feature:**
- Small size used for in low noisy applications.
 - Made of plastic, very light and strong.
 - Compact design is suitable for installing in confined space.

MODEL (OD-T) Tube (Metric) – Thread (R) (mm)

Model	A	ØD	ø	F	B	L	W.G (g)	Qty/Inbox
STP G01	G 1/8	15	3	7	13	20.5	3.5	100
STP G02	G 1/4	18	5	8.7	15	29.2	6.5	100
STP G03	G 3/8	24	8	10	20	38.4	38.4	50

Plastic Silencer

SMT



Application: Used for suppressing the noise of air release, applied to exhausted port of machine.

Material: PE

Feature: • Used for high flow and pressure applications.

- Made of plastic, very light and strong.
- Excellent noise suppression effect.

MODEL (OD-T) Tube (Metric) – Thread (R) (mm)

Model	R	A	B	L	F	W.G (g)	Qty/ Inbox
SMT M5	M5	4	3	23	7	0.5	100
SMT G01	G1/4	6.3	3.5	30	12.5	1.5	50
SMT G02	G1/4	7.4	4	34.5	17	4	100
SMT G03	G3/8	10.5	5	65	25	8	25
SMT G04	G1/2	10.6	6	67	25	9	25
SMT G06	G3/4	16	6.5	138	37	40.5	8
SMT G08	G1	20	7	150	48	59	15

SLT



Application: Used for suppressing the noise of air release, applied to the exhausted port of machines.

Material: PE

Feature: • Used for high flow and pressure applications.

- Made of plastic, very light and strong.
- Excellent noise suppression effect.

MODEL (OD-T) Tube(Inch) – Thread(NPT) (mm)

Model	R	A	B	L	F	W.G (g/v)	Qty/ Inbox
SLT G01	G1/4	16	3.5	32	6.5	3.5	100
SLT G02	G1/4	20	4	42	8	6	50
SLT G03	G3/8	24	5	56	10	12.5	25
SLT G04	G1/2	24	6	56	10	14.5	25
SLT G06	G3/4	48	6.5	114	18.5	105.5	4
SLT G08	G1	48	7	114	18.5	113.5	4

Sintering Silencer

SL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Brass

Feature: • Silencer with brass sintering – non-burnable and resistant to high heat and pressure.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	B	L	D	H	W.G (g)	Qty/ Inbox
SL M5	M5	4	3	20.7	4	9	3	100
SL 01	R1/4	7	3.5	24.5	8	12	6	100
SL 02	R1/4	9.5	4	31.5	10	15	12	50
SL 03	R3/8	10.5	5	39.8	12.5	19	22	50
SL 04	R1/2	12	6	47.3	15	22	27	25
SL 06	R3/4	12	6.5	55.8	19	27	55	20
SL 08	R1	14.5	7	70.5	32	36	122.5	8
SL 10	R1 1/4	15	7.5	75.8	36	42	202.6	6
SL 12	R1 1/2	15	8	81.8	38	52	260	4
SL 16	R2	16.5	9	85.8	50	64	415.5	2

Sintering Silencer

SM



Application: Hydraulic & Pneumatic equipment, Water Purifiers, Automobile parts, Water Ionizers, Water Heaters, Tooling, etc.

Material: Brass

Feature: • Silencer with Brass Sintering – non-burnable, highly resistant to heat and high pressure.

Compact height makes it easy to install in confined spaces.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	B	L	H	W.G (g)	Qty/ Inbox
SM M5	M5	4	3	8.5	8	1	100
SM 01	R1/4	7	3.5	11.5	12	5.5	100
SM 02	R1/4	9.5	4	15	15	10.5	100
SM 03	R3/8	10.5	5	17	10	17	50
SM 04	R1/2	12	6	20	22	29	25
SM 06	R3/4	12	6.5	20.5	27	40	25
SM 08	R1	14.5	7	24.5	36	75	15

SSL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Stainless Steel

Feature: • Silencer made from stainless steel – strong in heat and high pressure.

Excellent anti-corrosion and chemical resistance.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	B	D	D1	H	W.G (g)	Qty/ Inbox
SSL 01	R1/4	7	4.5	29	8.2	12	8.5	50
SSL 02	R1/4	9.5	6.5	33.5	10.5	12.5	14	50
SSL 03	R3/8	10.5	5.5	40.5	12.5	15	25.5	25
SSL 04	R1/2	12	6.5	50.5	16	19	36	25
SSL 06	R3/4	12	7	62	22	28	71.5	10
SSL 08	R1	15	7	71	27.5	30	115	8

SCL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Steel, Brass

Feature: • Silencer with brass sintering is heat-resistant and strong under high pressure.

- Silencer with steel provides excellent anti-corrosion.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	B	D	D1	F	L	W.G (g)	Qty/ Inbox
SCL M5	M5	6.5	5.5	3	5	16	1.5	100	
SCL 01	R1/4	12	8	6.5	7	22	7	100	
SCL 02	R1/4	15	11	9	9.5	27.5	14	100	
SCL 03	R3/8	19	14	11.5	10.5	38.5	27	50	
SCL 04	R1/2	23	18	15.5	12	45	46.5	25	
SCL 06	R3/4	30	25	22	12	57	74.5	20	
SCL 08t	R1	37	30	28	14.5	66.5	110	8	

Sintering Silencer

SCEL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Steel, Brass

Feature:

- Brass sintered silencer: non-burnable, strong under high heat and pressure.
- Steel silencer: excellent in anti-corrosion.
- Offers superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	OD2	F	L	W.G (g)	Qty/Inbox
SCEL M5	M5	6.5	5.5	3	0	16	1.5	100
SCEL 01	R 1/4	12	8	6.5	7	22	7	100
SCEL 02	R 1/4	15	11	9	8.5	27/5	14	100
SCEL 03	R 3/8	19	14	11.5	10.5	38.5	27	50
SCEL 04	R 1/2	23	18	15.5	12	45	46.5	25
SCEL 06	R 3/4	30	25	22	12	57	74.5	20
SCEL 08	R 1	37	30	28	14.5	66.5	119	8

SCTL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Steel, Brass

Feature:

- Silencer with Brass Sintering, which is non-burnable and strong in heat and high pressure.
- Silencer with Steel is excellent in anti-corrosion.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	OD2	F	H	S	L	W.G (g)	Qty/Inbox
SCTL 01	R 1/4	12	10	6.5	7	3	8	24	6	100
SCTL 02	R 1/4	15	11.5	9	9.5	4	10	31.5	14.5	100
SCTL 03	R 3/8	19	15.5	11.5	10.5	5	13	39.5	30	50
SCTL 04	R 1/2	23	17.8	15.5	12	6	15	47.5	47	25
SCTL 06	R 3/4	30	25	22	12	6	19	59	77.5	20
SCTL 08	R 1	37	31	28	14.5	7	24	72	121.5	8

SCB



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Steel, Red Copper

Feature:

- It is strong in heat and high pressure.
- Strong thread with red copper.
- It is excellent in anti-corrosion and anti-chemicals.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	F	H	L	W.G (g)	Qty/Inbox
SCB M5	R M5	8	3	4.5	11	18	2.5	100
SCB 6S	R 1/4	11	6.5	7	14	23/5	7	100
SCB 8L	R 3/4	13	7	8	25	38	18	100

Sintering Silencer

SDL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Brass

Feature:

- Silencer with Brass Sintering which is not burn is strong in heat and high pressure.
- Excellent noise suppression effect.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	OD2	F	G	T	L	W.G (g)	Qty/Inbox
SDL 01	R 1/4	11	8	6	7	1/5	2	22.5	5	100
SDL 02	R 1/4	14	10	8.5	9.5	1/5	2	28	10.5	100
SDL 03	R 3/8	18	15	11	11	2	2	36	24.5	50
SDL 04	R 1/2	24	19	15	12	2	3	45	49	25
SDL 06	R 3/4	29.5	20	20	12	2/5	3	65	81.5	20
SDL 08	R 1	35.5	26.5	25	15	4	4	75	125.5	8

SEL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Brass

Feature:

- Silencer with Brass Sintering which is not burn is strong in heat and high pressure.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	OD2	F	B	S	L	W.G (g)	Qty/Inbox
SEL 01	R 1/4	10	8	4	7	4	13	29	10	100
SEL 02	R 1/4	14	12	6	9/5	4	17	35.5	20	100
SEL 03	R 3/8	16.5	15	9	10/5	5	22	38.5	24.5	50
SEL 04	R 1/2	20.5	19	12	12	7	27	44	58	25
SEL 06	R 3/4	24	22	16	14	10	32	65	74	20
SEL 08	R 1	31	28	22	16	10	41	75	115.5	8

STL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Brass

Feature:

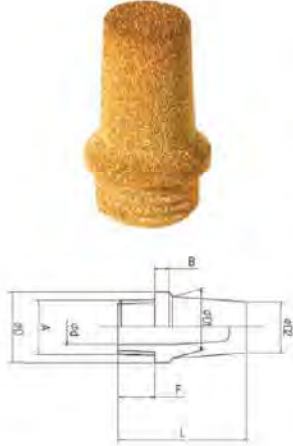
- Silencer with Brass Sintering which does not burn, and is strong against heat and high pressure.
- Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	A	OD	OD1	OD2	F	H	CH	L	W.G (g)	Qty/Inbox
STL 01	R 1/4	12	8.5	5	7	4/5	7	23.5	5.5	100
STL 02	R 1/4	14	11.5	6.2	9.5	4/5	9	29.5	14.5	100
STL 03	R 3/8	18	15.5	9	10.5	6	13	36.5	29	50
STL 04	R 1/2	24	20.5	13	12	7	17	45	64	25

Sintering Silencer

SBL



Application: Hydraulic & Pneumatic equipment, Water Purifier, Automobile parts, Water Ionizer, Water Heater, Tooling, etc.

Material: Brass

Feature: • Silencer with Brass Sintering which is not burn, is strong in heat and high pressure.
• Superior mechanical strength.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	A	OD	OD1	OD2	OD3	F	H	L	W.G (g)	Qty/Inbox
SBL 01	R1/4	12.5	10.8	9	6	7	2.5	23	5.5	100
SBL 02	R1/4	18	13.2	11	7.5	9/5	3	29.5	14.5	100
SBL 03	R1/4	20	16.5	14.5	10	10/5	3.5	37.5	29	50
SBL 04	R1/2	26	20.5	18	12	12	4	45	64	25

SB



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.

Material: Steel

Feature: • Used for high exhaust flow and unifying force applications.
• Excellent noise suppression effect.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	A	F	OD	OD1	L	B	S	W.G (g)	Qty/Inbox
SB 01	R1/4	7	10.4	6	35	3/5	11.1	8	50
SB 02	R1/4	11	13.4	8.5	45	4	14.29	15.5	50
SB 03	R1/4	12.8	16.5	12	53	4/5	17.4	24.5	25
SB 04	R1/2	15.817	21.5	15	70	5	22.2	50.5	25
SB 06	R1/4	.7	26.5	20	80	6	27	71.5	12
SB 08	R1	22.5	32.3	26	98	7	33.3	126.5	12
SB 10	R1/4	23	42.3	32	114	7/5	43	253.5	2
SB 12	R1/2	25.5	50.3	40	127	8/5	51	321	2
SB 16	R2	26	50.3	50	140	9	60	450.5	1

SLM



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.

Material: AL

Feature: • Used for high exhaust flow and unifying force applications.
• AL material strong in corrosion and poor environment.
• Excellent noise suppression effect.
• Used for large equipment with high exhaust flow.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	A	F	OD	OD1	L	B	S	W.G (g)	Qty/Inbox
SB 01	R1/4	7	10.4	6	35	3/5	11.1	8	50
SB 02	R1/4	11	13.4	8.5	45	4	14.29	15.5	50
SB 03	R1/4	12.8	16.5	12	53	4/5	17.4	24.5	25
SB 04	R1/2	15.817	21.5	15	70	5	22.2	50.5	25
SB 06	R1/4	.7	26.5	20	80	6	27	71.5	12
SB 08	R1	22.5	32.3	26	98	7	33.3	126.5	12
SB 10	R1/4	23	42.3	32	114	7/5	43	253.5	2
SB 12	R1/2	25.5	50.3	40	127	8/5	51	321	2
SB 16	R2	26	50.3	50	140	9	60	450.5	1

Sintering Silencer

SAM



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.

Material: AL, Brass

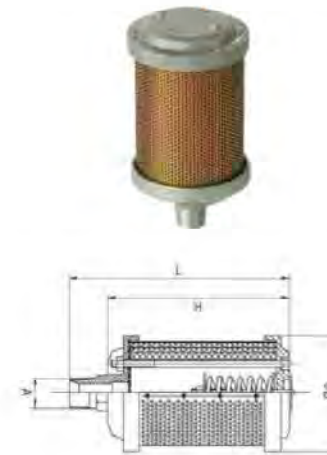
Feature: • Designed for exhausting water or remnants.
• AL material strong in corrosion and poor environment.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	A	B	OD	K	OD1	F	H	H1	S	L	W.G (g)	Qty/Inbox
SAM 01	R1/4	R1/4	16	14	5.5	7	34	7	16	49	18.5	50
SAM 02	R1/4	R1/4	18.5	17	8	9/5	39	10	19	55.5	28.5	25
SAM 03	R1/4	R1/4	22	20	10	12/5	44	10	22	61.5	41	25
SAM 04	R1/2	R1/2	28	26	14.5	16/5	55	10	28.7	77	78	10
SAM 06	R1/4	R1/4	37.5	35	21	19	62	17.5	38	88	153	6

SAL



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.

Material: AL

Feature: • Used for large equipment with high exhaust flow and noise.
• AL material strong in corrosion and poor environment.
• High silence effect with high density and exhaust flow.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	A	OD	H	L	W.G (g)	Qty/Inbox
SAL 04	R1/2	80	125	150	331	1
SAL 06	R1/4	87	156	180	513	3
SAL 08	R1	99	183	218	710	3
SAL 10	R1 1/4	99	183	218	731	3
SAL 12	R1 1/2	133	297	340	1.5	1
SAL 16	R2	133	432	470	2502	1

SBC



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.

Material: Brass

Feature: • Silencer with Brass Sintering has the flow controller which controls the speed of cylinder.

MODEL (OD-T) Tube(Metric) – Thread(R)

(mm)

Model	R	A	B	C	L	H	M	W.G (g)	Qty/Inbox
SBC 01	R1/4	7	3	10	34	12	M4 x 0.5	17.5	50
SBC 02	R1/4	9.5	4	10.5	37	14	M5 x 0.5	27.5	25
SBC 03	R1/4	10.5	4	15	48	17	M7 x 0.75	47	25
SBC 04	R1/4	12	5	22	58.5	24	M9 x 0.75	84	12
SBC 06	R1/4	12	7	24	66	27	M10 x 1	140	12
SBC 08	R1	14.5	8	34	80.5	34	M10 x 1	224.5	9

Sintering Silencer

SCC



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.
Material: Brass
Feature: • Silencer with Brass Sintering has the flow controller which controls the speed of cylinder.
MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	B	L1	L	H	M	W.G (g)	Qty/ Inbox
SCC 01	R½	7	13.5	22.9	34.2	13	M4 x 0.5	16	50
SCC 02	R½	9.5	15.5	27.5	38.5	14	M5 x 0.5	28	25
SCC 03	R½	10.5	17.5	30.5	44	17	M7 x 0.75	44.5	25
SCC 04	R½	12	20	34	48.5	22	M8 x 0.75	77.5	20
SCC 06	R¾	14.5	24	41.5	60	27	M10 x 1	125.5	20
SCC 08	R1	16	31	50	70	34	M10 x 1	216	9

Fittings, Tubings & Accessories

SDC



Application: Hydraulic & Pneumatic equipment, Automobile parts, Tooling, etc.
Material: Brass
Feature: • Silencer with Brass Sintering has the flow controller which controls the speed of cylinder.
• Easy to install it in the defined space, due to compact height.

MODEL (OD-T) Tube(Metric) – Thread(R) (mm)

Model	R	A	L1	L	L1	L2	H	L	M	F	W.G (g)	Qty/ Inbox
SDC 01	R½	7	5	12	11.5	21/8	12	24	M6 x 0.75	10 x 2	16	50
SDC 02	R½	9.5	6.5	14	15	25/8	15	29.5	M8 x 0.5	12 x 2	28	25
SDC 03	R¾	10.5	8.5	17	16.5	31	18	33.5	M10 x 1	14 x 2	44.5	25
SDC 04	R¾	12	8.5	18	20	33.5	22	37	M12 x 1	16 x 2	77.5	20
SDC 06	R¾	12	11	23	21	46	27	48	M14 x 1	20 x 3	125.5	20
SDC 08	R1	15	15.5	28	25	55.5	34	57	M16 x 1.5	25 x 3	216	9



Fittings, Tubings & Accessories

METAL FITTINGS

Fittings, Tubings & Accessories



Metal Push-In Fittings

Fittings, Tubings & Accessories

SMPC		Model (ØD-T)								
		Tube(Metric)-Thread(R)			Tube(Inch)-Thread(R)			Tube(Inch)-Thread(NPT)		
	Male Stud	MPC03-M3	SMPC06-01	SMPC10-04	SMPC1/8-01	SMPC1/4-03	SMPC1/2-02	SMPC1/8-U10	SMPC3/16-N03	SMPC3/8-N01
		SMPC03-M5	SMPC06-02	SMPC12-02	SMPC1/8-02	SMPC5/16-01	SMPC1/2-03	SMPC1/8-N01	SMPC1/4-U10	SMPC3/8-N02
		SMPC04-M5	SMPC08-01	SMPC12-03	SMPC5/32-01	SMPC5/16-02	SMPC1/2-04	SMPC1/8-N02	SMPC1/4-N01	SMPC3/8-N03
		SMPC04-01	SMPC08-02	SMPC12-04	SMPC5/32-02	SMPC5/16-03		SMPC5/32-U10	SMPC1/4-N02	SMPC3/8-N04
		SMPC04-02	SMPC08-03	SMPC14-03	SMPC3/16-01	SMPC5/16-04		SMPC5/32-N01	SMPC1/4-N03	SMPC1/2-N02
		SMPC05-M5	SMPC08-04	SMPC14-04	SMPC3/16-02	SMPC3/8-01		SMPC5/32-N02	SMPC5/16-N01	SMPC1/2-N03
		SMPC05-01	SMPC10-01	SMPC16-03	SMPC3/16-03	SMPC3/8-02		SMPC3/16-U10	SMPC5/16-N02	SMPC1/2-N04
		SMPC05-02	SMPC10-02	SMPC16-04	SMPC1/4-01	SMPC3/8-03		SMPC3/16-N01	SMPC5/16-N03	
		SMPC06-M5	SMPC10-03		SMPC1/4-02	SMPC3/8-04		SMPC3/16-N02	SMPC5/16-N04	

SMPOC		Model (ØD-T)									
		Tube(Metric)-Thread(R)			Tube(Inch)-Thread(R)			Tube(Inch)-Thread(NPT)			
	Round Male Stud	SMPOC03-M3	SMPOC06-01	SMPOC10-04	SMPOC1/8-01	SMPOC1/4-03	SMPOC1/2-02	SMPOC1/8-U10	SMPOC3/16-N03	SMPOC3/8-N01	
		SMPOC03-M5	SMPOC06-02	SMPOC12-02	SMPOC1/8-02	SMPOC5/16-01	SMPOC1/2-03	SMPOC1/8-N01	SMPOC1/4-U10	SMPOC3/8-N02	
		SMPOC04-M5	SMPOC08-01	SMPOC12-03	SMPOC5/32-01	SMPOC5/16-02	SMPOC1/2-04	SMPOC1/8-N02	SMPOC1/4-N01	SMPOC3/8-N03	
		SMPOC04-01	SMPOC08-02	SMPOC12-04	SMPOC5/32-02	SMPOC5/16-03		SMPOC5/32-U10	SMPOC1/4-N02	SMPOC3/8-N04	
		SMPOC04-02	SMPOC08-03								
		SMPOC05-M5	SMPOC08-04	SMPOC14-04	SMPOC3/16-02	SMPOC3/8-01		SMPOC5/32-N02	SMPOC5/16-N01	SMPOC1/2-N03	
		SMPOC05-01	SMPOC10-01	SMPOC16-03	SMPOC3/16-03	SMPOC3/8-02		SMPOC3/16-U10	SMPOC5/16-N02	SMPOC1/2-N04	
		SMPOC05-02	SMPOC10-02	SMPOC16-04	SMPOC1/4-01	SMPOC3/8-03		SMPOC3/16-N01	SMPOC5/16-N03		
		SMPOC06-M5	SMPOC10-03		SMPOC1/4-02	SMPOC3/8-04		SMPOC3/16-N02	SMPOC5/16-N04		

SMPCF		Model (ØD-T)								
		Tube(Metric)-Thread(R)			Tube(Inch)-Thread (R)			Tube(Inch)-Thread(NPT)		
	Female Stud	SMPCF04-01	SMPCF08-04	SMPCF14-03	SMPCF1/8-01	SMPCF1/4-03	SMPCF1/2-02	SMPCF1/8-N01	SMPCF1/4-N03	SMPCF3/8-N04
		SMPCF04-02	SMPCF10-01	SMPCF14-04	SMPCF1/8-02	SMPCF5/16-01	SMPCF1/2-03	SMPCF1/8-N02	SMPCF1/4-U10	SMPCF1/2-N02
		SMPCF05-01	SMPCF10-02	SMPCF16-03	SMPCF5/32-01	SMPCF5/16-02	SMPCF1/2-04	SMPCF5/32-N01	SMPCF5/16-N01	SMPCF1/2-N03
		SMPCF05-02	SMPCF10-03	SMPCF16-04	SMPCF5/32-02	SMPCF5/16-03		SMPCF5/32-N02	SMPCF5/16-N02	SMPCF1/2-N04
		SMPCF06-01	SMPCF10-04		SMPCF3/16-01	SMPCF5/16-04		SMPCF3/16-N01	SMPCF5/16-N03	
		SMPCF06-02	SMPCF12-01		SMPCF3/16-02	SMPCF3/8-01		SMPCF3/16-N02	SMPCF5/16-N04	
		SMPCF08-01	SMPCF12-02		SMPCF3/16-03	SMPCF3/8-02		SMPCF3/16-N03	SMPCF3/8-N01	
		SMPCF08-02	SMPCF12-03		SMPCF1/4-01	SMPCF3/8-03		SMPCF1/4-N01	SMPCF3/8-N02	
		SMPCF08-03	SMPCF12-04		SMPCF1/4-02	SMPCF3/8-04		SMPCF1/4-N02	SMPCF3/8-N03	

SMPL		Model (ØD-T)								
		Tube (Metric)- Thread(R)			Tube(Inch)-Thread(R)			Tube(Inch)-Thread(NPT)		
	Male Stud Swive Elbow	SMPL03-M3	SMPL06-01	SMPL10-04	SMPL1/8-01	SMPL1/4-03	SMPL1/2-02	SMPL1/8-U10	SMPL3/16-N03	SMPL3/8-N01
		SMPL03-M5	SMPL06-02	SMPL12-02	SMPL1/8-02	SMPL5/16-01	SMPL1/2-03	SMPL1/8-N01	SMPL1/4-U10	SMPL3/8-N02
		SMPL04-M5	SMPL08-01	SMPL12-03	SMPL5/32-01	SMPL5/16-02	SMPL1/2-04	SMPL1/8-N02	SMPL1/4-N01	SMPL3/8-N03
		SMPL04-01	SMPL08-02	SMPL12-04	SMPL5/32-02	SMPL5/16-03		SMPL5/32-U10	SMPL1/4-N02	SMPL3/8-N04
		SMPL04-02	SMPL08-03	SMPL12-04	SMPL3/16-01	SMPL5/16-04		SMPL5/32-N01	SMPL1/4-N03	SMPL1/2-N02
		SMPL05-M5	SMPL08-04	SMPL14-04	SMPL3/16-02	SMPL3/8-01		SMPL5/32-N02	SMPL5/16-N01	SMPL1/2-N03
		SMPL05-01	SMPL10-01	SMPL16-03	SMPL3/16-03	SMPL3/8-02		SMPL3/16-U10	SMPL5/16-N02	SMPL1/2-N04
		SMPL05-02	SMPL10-02	SMPL16-04	SMPL1/4-01	SMPL3/8-03		SMPL3/16-N01	SMPL5/16-N03	
		SMPL06-M5	SMPL10-03		SMPL1/4-02	SMPL3/8-04		SMPL3/16-N02	SMPL5/16-N04	

SMPLN		Model(ØD-T)								
		Tube(Metric)-Thread (R)			Tube(Inch)-Thread(R)			Tube(Inch)-Thread(NPT)		
	Male Stud Elbow	SMPLN03-M3	SMPLN06-01	SMPLN10-04	SMPLN1/8-01	SMPLN1/4-03	SMPLN1/2-02	SMPLN1/8-U10	SMPLN3/16-N03	SMPLN3/8-N01
		SMPLN03-M5	SMPLN06-02	SMPLN12-02	SMPLN1/8-02	SMPLN5/16-01	SMPLN1/2-03	SMPLN1/8-N01	SMPLN1/4-U10	SMPLN3/8-N02
		SMPLN04-M5	SMPLN08-01	SMPLN12-03	SMPLN5/32-01	SMPLN5/16-02	SMPLN1/2-04	SMPLN1/8-N02	SMPLN1/4-N01	SMPLN3/8-N03
		SMPLN04-01	SMPLN08-02	SMPLN12-04	SMPLN5/32-02	SMPLN5/16-03		SMPLN5/32-U10	SMPLN1/4-N02	SMPLN3/8-N04
		SMPLN04-02	SMPLN08-03	SMPLN14-03	SMPLN3/16-01	SMPLN5/16-04		SMPLN5/32-N01	SMPLN1/4-N03	SMPLN1/2-N02
		SMPLN05-M5	SMPLN08-04	SMPLN14-04	SMPLN3/16-02	SMPLN3/8-01		SMPLN5/32-N02	SMPLN5/16-N01	SMPLN1/2-N03
		SMPLN05-01	SMPLN10-01	SMPLN16-03	SMPLN3/16-03	SMPLN3/8-02		SMPLN3/16-U10	SMPLN5/16-N02	SMPLN1/2-N04
		SMPLN05-02	SMPLN10-02	SMPLN16-04	SMPLN1/4-01	SMPLN3/8-03		SMPLN3/16-N01	SMPLN5/16-N03	
		SMPLN06-M5	SMPLN10-03		SMPLN1/4-02	SMPLN3/8-04		SMPLN3/16-N02	SMPLN5/16-N04	

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SMPLL	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPLL04-M5	SMPLL08-01	SMPLL12-02	SMPLL1/8-01	SMPLL1/4-03	SMPLL1/2-02	SMPLL1/8-U10	SMPLL3/16-N03	SMPLL3/8-N01
	SMPLL04-01	SMPLL08-02	SMPLL12-03	SMPLL1/8-02	SMPLL5/16-01	SMPLL1/2-03	SMPLL1/8-N01	SMPLL1/4-U10	SMPLL3/8-N02
	SMPLL04-02	SMPLL08-03	SMPLL12-04	SMPLL5/32-01	SMPLL5/16-02	SMPLL1/2-04	SMPLL1/8-N02	SMPLL1/4-N01	SMPLL3/8-N03
	SMPLL05-M5	SMPLL08-04	SMPLL14-03	SMPLL5/32-02	SMPLL5/16-03		SMPLL5/32-U10	SMPLL1/4-N02	SMPLL3/8-N04
	SMPLL05-01	SMPLL10-01	SMPLL14-04	SMPLL3/16-01	SMPLL5/16-04		SMPLL5/32-N01	SMPLL1/4-N03	SMPLL1/2-N02
	SMPLL05-02	SMPLL10-02	SMPLL16-03	SMPLL3/16-02	SMPLL3/8-01		SMPLL5/32-N02	SMPLL5/16-N01	SMPLL1/2-N03
	SMPLL06-M5	SMPLL10-03	SMPLL16-04	SMPLL3/16-03	SMPLL3/8-02		SMPLL3/16-U01	SMPLL5/16-N02	SMPLL1/2-N04
	SMPLL06-01	SMPLL10-04		SMPLL1/4-01	SMPLL3/8-03		SMPLL3/16-N01	SMPLL5/16-N03	
	SMPLL06-02	SMPLL12-01		SMPLL1/4-02	SMPLL3/8-04		SMPLL3/16-N02	SMPLL5/16-N04	

SMPLF	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPLF04-01	SMPLF08-04	SMPLF14-03	SMPLF1/8-01	SMPLF1/4-03	SMPLF1/2-02	SMPLF1/8-N01	SMPLF1/4-N03	SMPLF3/8-N04
	SMPLF04-02	SMPLF10-01	SMPLF14-04	SMPLF1/8-02	SMPLF5/16-01	SMPLF1/2-03	SMPLF1/8-N02	SMPLF1/4-U10	SMPLF1/2-N02
	SMPLF05-02	SMPLF10-02	SMPLF16-03	SMPLF5/32-01	SMPLF5/16-02	SMPLF1/2-04	SMPLF5/32-N01	SMPLF5/16-N01	SMPLF1/2-N03
	SMPLF05-01	SMPLF10-03	SMPLF16-04	SMPLF5/32-02	SMPLF5/16-03		SMPLF5/32-N02	SMPLF5/16-N02	SMPLF1/2-N04
	SMPLF06-01	SMPLF10-04		SMPLF3/16-01	SMPLF5/16-04		SMPLF3/16-N01	SMPLF5/16-N03	
	SMPLF06-02	SMPLF12-01		SMPLF3/16-02	SMPLF3/8-01		SMPLF3/16-N02	SMPLF5/16-N04	
	SMPLF08-01	SMPLF12-02		SMPLF3/16-03	SMPLF3/8-02		SMPLF3/16-N03	SMPLF3/8-N01	
	SMPLF08-02	SMPLF12-03		SMPLF1/4-01	SMPLF3/8-03		SMPLF1/4-N01	SMPLF3/8-N02	
	SMPLF08-03	SMPLF12-04		SMPLF1/4-02	SMPLF3/8-04		SMPLF1/4-N02	SMPLF3/8-N03	

SMPT	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPT04-M5	SMPT08-01	SMPT12-02	SMPT1/8-01	SMPT1/4-03	SMPT1/2-02	SMPT1/8-U10	SMPT3/16-N03	SMPT3/8-N01
	SMPT04-01	SMPT08-02	SMPT12-03	SMPT1/8-02	SMPT5/16-01	SMPT1/2-03	SMPT1/8-N01	SMPT1/4-U10	SMPT3/8-N02
	SMPT04-02	SMPT08-03	SMPT12-04	SMPT5/32-01	SMPT5/16-02	SMPT1/2-04	SMPT1/8-N02	SMPT1/4-N01	SMPT3/8-N03
	SMPT05-M5	SMPT08-04	SMPT14-03	SMPT5/32-02	SMPT5/16-03		SMPT5/32-U10	SMPT1/4-N02	SMPT3/8-N04
	SMPT05-01	SMPT10-01	SMPT14-04	SMPT3/16-01	SMPT5/16-04		SMPT5/32-N01	SMPT1/4-N03	SMPT1/2-N02
	SMPT05-02	SMPT10-02	SMPT16-03	SMPT3/16-02	SMPT3/8-01		SMPT5/32-N02	SMPT5/16-N01	SMPT1/2-N03
	SMPT06-M5	SMPT10-03	SMPT16-04	SMPT3/16-03	SMPT3/8-02		SMPT3/16-U10	SMPT5/16-N02	SMPT1/2-N04
	SMPT06-01	SMPT10-04		SMPT1/4-01	SMPT3/8-03		SMPT3/16-N01	SMPT5/16-N03	
	SMPT06-02	SMPT12-01		SMPT1/4-02	SMPT3/8-04		SMPT3/16-N02	SMPT5/16-N04	

SMPD	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPD04-M5	SMPD08-01	SMPD12-02	SMPD1/8-01	SMPD1/4-03	SMPD1/2-02	SMPD1/8-U10	SMPD3/16-N03	SMPD3/8-N01
	SMPD04-01	SMPD08-02	SMPD12-03	SMPD1/8-02	SMPD5/16-01	SMPD1/2-03	SMPD1/8-N01	SMPD1/4-U10	SMPD3/8-N02
	SMPD04-02	SMPD08-03	SMPD12-04	SMPD5/32-01	SMPD5/16-02	SMPD1/2-04	SMPD1/8-N02	SMPD1/4-N01	SMPD3/8-N03
	SMPD05-M5	SMPD08-04	SMPD14-03	SMPD5/32-02	SMPD5/16-03		SMPD5/32-U10	SMPD1/4-N02	SMPD3/8-N04
	SMPD05-01	SMPD10-01	SMPD14-04	SMPD3/16-01	SMPD5/16-04		SMPD5/32-N01	SMPD1/4-N03	SMPD1/2-N02
	SMPD05-02	SMPD10-02	SMPD16-03	SMPD3/16-02	SMPD3/8-01		SMPD5/32-N02	SMPD5/16-N01	SMPD1/2-N03
	SMPD06-M5	SMPD10-03	SMPD16-04	SMPD3/16-03	SMPD3/8-02		SMPD3/16-U10	SMPD5/16-N02	SMPD1/2-N04
	SMPD06-01	SMPD10-04		SMPD1/4-01	SMPD3/8-03		SMPD3/16-N01	SMPD5/16-N03	
	SMPD06-02	SMPD12-01		SMPD1/4-02	SMPD3/8-04		SMPD3/16-N02	SMPD5/16-N04	

SMPS	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPS04-M5	SMPS08-01	SMPS12-02	SMPS1/8-01	SMPS1/4-03	SMPS1/2-02	SMPS1/8-U10	SMPS3/16-N03	SMPS3/8-N01
	SMPS04-01	SMPS08-02	SMPS12-03	SMPS1/8-02	SMPS5/16-01	SMPS1/2-03	SMPS1/8-N01	SMPS1/4-U10	SMPS3/8-N02
	SMPS04-02	SMPS08-03	SMPS12-04	SMPS5/32-01	SMPS5/16-02	SMPS1/2-04	SMPS1/8-N02	SMPS1/4-N01	SMPS3/8-N03
	SMPS05-M5	SMPS08-04	SMPS14-03	SMPS5/32-02	SMPS5/16-03		SMPS5/32-U10	SMPS1/4-N02	SMPS3/8-N04
	SMPS05-01	SMPS10-01	SMPS14-04	SMPS3/16-01	SMPS5/16-04		SMPS5/32-N01	SMPS1/4-N03	SMPS1/2-N02
	SMPS05-02	SMPS10-02	SMPS16-03	SMPS3/16-02	SMPS3/8-01		SMPS5/32-N02	SMPS5/16-N01	SMPS1/2-N03
	SMPS06-M5	SMPS10-03	SMPS16-04	SMPS3/16-03	SMPS3/8-02		SMPS3/16-U10	SMPS5/16-N02	SMPS1/2-N04
	SMPS06-01	SMPS10-04		SMPS1/4-01	SMPS3/8-03		SMPS3/16-N01	SMPS5/16-N03	
	SMPS06-02	SMPS12-01		SMPS1/4-02	SMPS3/8-04		SMPS3/16-N02	SMPS5/16-N04	

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SMPMF	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPMF04-01	SMPMF08-04	SMPMF14-03	SMPMF1/8-01	SMPMF1/4-03	SMPMF1/2-02	SMPMF1/8-N01	SMPMF1/4-N03	SMPMF3/8-N04
	SMPMF04-02	SMPMF10-01	SMPMF14-04	SMPMF1/8-02	SMPMF5/16-01	SMPMF1/2-03	SMPMF1/8-N02	SMPMF1/4-U10	SMPMF1/2-N02
	SMPMF05-01	SMPMF10-02	SMPMF16-03	SMPMF5/32-01	SMPMF5/16-02	SMPMF1/2-04	SMPMF5/32-N01	SMPMF5/16-N01	SMPMF1/2-N03
	SMPMF05-02	SMPMF10-03	SMPMF16-04	SMPMF5/32-02	SMPMF5/16-03		SMPMF5/32-N02	SMPMF5/16-N02	SMPMF1/2-N04
	SMPMF06-01	SMPMF10-04		SMPMF3/16-01	SMPMF5/16-04		SMPMF3/16-N01	SMPMF5/16-N03	
	SMPMF06-02	SMPMF12-01		SMPMF3/16-02	SMPMF3/8-01		SMPMF3/16-N02	SMPMF5/16-N04	
	SMPMF08-01	SMPMF12-02		SMPMF3/16-03	SMPMF3/8-02		SMPMF3/16-N03	SMPMF3/8-N01	
	SMPMF08-02	SMPMF12-03		SMPMF1/4-01	SMPMF3/8-03		SMPMF1/4-N01	SMPMF3/8-N02	
	SMPMF08-03	SMPMF12-04		SMPMF1/4-02	SMPMF3/8-04		SMPMF1/4-N02	SMPMF3/8-N03	

SMPH	Model (øD-T)								
	Tube (Metric) - Thread (R)			Tube (Inch) - Thread (R)			Tube (Inch) - Thread (NPT)		
	SMPH04-M5	SMPH08-01	SMPH12-02	SMPH1/8-01	SMPH1/4-03	SMPH1/2-02	SMPH1/8-U10	SMPH3/16-N03	SMPH3/8-N01
	SMPH04-01	SMPH08-02	SMPH12-03	SMPH1/8-02	SMPH5/16-01	SMPH1/2-03	SMPH1/8-N01	SMPH1/4-U10	SMPH3/8-N02
	SMPH04-02	SMPH08-03	SMPH14-03	SMPH5/32-01	SMPH5/16-02	SMPH1/2-04	SMPH1/8-N02	SMPH1/4-N01	SMPH3/8-N03
	SMPH05-M5	SMPH08-04	SMPH14-03	SMPH5/32-02	SMPH5/16-03		SMPH5/32-U10	SMPH1/4-N02	SMPH3/8-N04
	SMPH05-01	SMPH10-01	SMPH16-03	SMPH3/16-01	SMPH5/16-04		SMPH5/32-N01	SMPH1/4-N03	SMPH1/2-N02
	SMPH05-02	SMPH10-02	SMPH16-04	SMPH3/16-02	SMPH3/8-01		SMPH5/32-N02	SMPH5/16-N01	SMPH1/2-N03
	SMPH06-M5	SMPH10-03		SMPH3/16-03	SMPH3/8-02		SMPH3/16-U10	SMPH5/16-N02	SMPH1/2-N04
	SMPH06-01	SMPH10-04		SMPH1/4-01	SMPH3/8-03		SMPH3/16-N01	SMPH5/16-N03	
	SMPH06-02	SMPH12-01		SMPH1/4-02	SMPH3/8-04		SMPH3/16-N02	SMPH5/16-N04	

SMPUC	Model (øD)		SMPUL	Model (øD)	
	Tube (Metric)	Tube (Inch)		Tube (Metric)	Tube (Inch)
	SMPUC 03	SMPUC 1/8		SMPUL 03	SMPUL 1/8
	SMPUC 04	SMPUC 5/32		SMPUL 04	SMPUL 5/32
	SMPUC 05	SMPUC 3/16		SMPUL 05	SMPUL 3/16
	SMPUC 06	SMPUC 1/4		SMPUL 06	SMPUL 1/4
	SMPUC 08	SMPUC 5/16		SMPUL 08	SMPUL 5/16
	SMPUC 10	SMPUC 3/8		SMPUL 10	SMPUL 3/8
	SMPUC 12	SMPUC 1/2		SMPUL 12	SMPUL 1/2
	SMPUC 14			SMPUL 14	
	SMPUC 16			SMPUL 16	

SMPUT		Model (øD)		SMPY		Model (øD)	
 øD	Tube (Metric)	Tube (Inch)	 ø	Tube (Metric)	Tube (Inch)		
	SMPUT 03	SMPUT 1/8		SMPY 03	SMPY 1/8		
	SMPUT 04	SMPUT 5/32		SMPY 04	SMPY 5/32		
	SMPUT 05	SMPUT 3/16		SMPY 05	SMPY 3/16		
	SMPUT 06	SMPUT 1/4		SMPY 06	SMPY 1/4		
	SMPUT 08	SMPUT 5/16		SMPY 08	SMPY 5/16		
	SMPUT 10	SMPUT 3/8		SMPY 10	SMPY 3/8		
	SMPUT 12	SMPUT 1/2		SMPY 12	SMPY 1/2		
	SMPUT 14			SMPY 14			
SMPUT 16		SMPY 16					
Union Tee				Union Y			

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SMPG	MODEL(ΦD1-ΦD2)		SMPTG	MODEL(ΦD1-ΦD2)	
	Tube(Metric)	Tube(Inch)		Tube (Metric)	Tube (Inch)
	SMPG 06-04	SMPG 1/4-5/32		SMPTG 06-04	SMPTG 1/4-5/32
	SMPG 08-04	SMPG 1/4-1/8		SMPTG 08-04	SMPTG 1/4-1/8
	SMPG 08-06	SMPG 3/16-5/32		SMPTG 08-06	SMPTG 3/16-5/32
	SMPG 10-06	SMPG 5/16-1/4		SMPTG 10-06	SMPTG 5/16-1/4
	SMPG 10-08	SMPG 3/8-1/4		SMPTG 10-08	SMPTG 3/8-1/4
	SMPG 12-08	SMPG 3/8-5/16		SMPTG 12-08	SMPTG 3/8-5/16
	SMPG 12-10	SMPG 1/2-3/8		SMPTG 12-10	SMPTG 1/2-3/8
	SMPG 14-10			SMPTG 14-10	
	SMPG 14-12			SMPTG 14-12	
	SMPG 16-12			SMPTG 16-12	
Union Reducer			Union Tee Reducer		

SMPGJ	Model (ΦD-T)		SMPLJ	Model (ΦD-T)	
	Tube(Metric)-Thread(G)			Tube(Metric)-Thread(G)	
	SMPGJ 06-04	SMPGJ 1/4-5/32		SMPLJ 04	SMPLJ 1/8
	SMPGJ 08-04	SMPGJ 5/16-5/32		SMPLJ 05	SMPLJ 5/32
	SMPGJ 08-06	SMPGJ 6/16-1/4		SMPLJ 06	SMPLJ 3/16
	SMPGJ 10-06	SMPGJ 3/8-1/4		SMPLJ 08	SMPLJ 1/4
	SMPGJ 10-08	SMPGJ 3/8-5/16		SMPLJ 10	SMPLJ 5/16
	SMPGJ 12-08	SMPGJ 1/2-1/4		SMPLJ 12	SMPLJ 3/8
	SMPGJ 12-08			SMPLJ 14	SMPLJ 1/2
	SMPGJ 12-10			SMPLJ 16	
Plug-In Reducer			Plug-In Elbow		

Metal Push-In Fittings With G Thread(O-Ring)

SMPC-G	MODEL (ΦD-T)		SMPOC-G	MODEL (ΦD-T)	
	Tube(Metric)-Thread(G)			Tube(Metric)-Thread(G)	
	SMPC03-G01	SMPC10-G02		SMPOC03-G01	SMPOC10-G02
	SMPC04-G01	SMPC10-G03		SMPOC04-G01	SMPOC10-G03
	SMPC04-G02	SMPC10-G04		SMPOC04-G02	SMPOC10-G04
	SMPC05-G01	SMPC12-G01		SMPOC05-G01	SMPOC12-G01
	SMPC05-G02	SMPC12-G02		SMPOC05-G02	SMPOC12-G02
	SMPC06-G01	SMPC12-G03		SMPOC06-G01	SMPOC12-G03
	SMPC06-G02	SMPC12-G04		SMPOC06-G02	SMPOC12-G04
	SMPC08-G01	SMPC14-G03		SMPOC08-G01	SMPOC14-G03
	SMPC08-G02	SMPC14-G04		SMPOC08-G02	SMPOC14-G04
	SMPC08-G03	SMPC16-G03		SMPOC08-G03	SMPOC16-G03
	SMPC08-G04	SMPC16-G04		SMPOC08-G04	SMPOC16-G04
	SMPC10-G01			SMPOC10-G01	
Male Stud			Round Male Stud		

SMPL-G	Model (ΦD-T)		SMPLL-G	Model (ΦD-T)	
	Tube(Metric)-Thread(G)			Tube(Metric)-Thread(G)	
	SMPL03-G01	SMPL10-G02		SMPLL04-G01	SMPLL10-02
	SMPL04-G01	SMPL10-G03		SMPLL04-G02	SMPLL10-03
	SMPL04-G02	SMPL10-G04		SMPLL05-G01	SMPLL10-04
	SMPL05-G01	SMPL12-G01		SMPLL05-G02	SMPLL12-01
	SMPL05-G02	SMPL12-G02		SMPLL06-G01	SMPLL12-02
	SMPL06-G01	SMPL12-G03		SMPLL06-G02	SMPLL12-03
	SMPL06-G02	SMPL12-G04		SMPLL08-G02	SMPLL12-04
	SMPL08-G01	SMPL14-G03		SMPLL08-G02	SMPLL14-02
	SMPL08-G02	SMPL14-G04		SMPLL08-G02	SMPLL14-03
	SMPL08-G03	SMPL16-G03		SMPLL08-G02	SMPLL14-04
	SMPL08-G04	SMPL16-G04		SMPLL10-G02	SMPLL16-02
	SMPL10-G01				
Male Stud Elbow			EStended Male Elbow		

Metal Push-In Fittings With G Thread(O-Ring)

SMPT-G	Model (Φ D-T)		SMPD-G	MODEL (ΦD - T)	
	Tube (Metric) - Thread (G)			Tube (Metric) - Thread (G)	
	SMPT04-G01	SMPH10-G02		SMPD04-G01	SMPD10-G02
	SMPT04-G02	SMPH10-G03		SMPD04-G02	SMPD10-G03
	SMPT05-G01	SMPH10-G04		SMPD05-G01	SMPD10-G04
	SMPT05-G02	SMPH12-G01		SMPD05-G02	SMPD12-G01
	SMPT06-G01	SMPH12-G02		SMPD06-G01	SMPD12-G02
	SMPT06-G02	SMPH12-G03		SMPD06-G02	SMPD12-G03
	SMPT08-G01	SMPH12-G04		SMPD08-G01	SMPD12-G04
	SMPT08-G02	SMPH14-G03		SMPD08-G02	SMPD14-G03
	SMPT08-G03	SMPH14-G04		SMPD08-G03	SMPD14-G04
	SMPT08-G04	SMPH16-G03		SMPD08-G04	SMPD16-G03
	SMPT10-G01	SMPH16-G04		SMPD10-G01	SMPD16-G04
Male Stud Branch Tee			Male Run Tee		

SMPH-G	Model (ΦD-T)	
	Tube(Metric) - Thread(G)	
	SMPH04-G01	SMPH10-G02
	SMPH04-G02	SMPH10-G03
	SMPH05-G01	SMPH10-G04
	SMPH05-G02	SMPH12-G01
	SMPH06-G01	SMPH12-G02
	SMPH06-G02	SMPH12-G03
	SMPH08-G01	SMPH12-G04
	SMPH08-G02	SMPH14-G03
	SMPH08-G03	SMPH14-G04
	SMPH08-G04	SMPH16-G03
	SMPH10-G01	SMPH16-G04
Single Male Banjo		

Stainless Steel Push-In Fittings

SMPCS	MODEL (ΦD-T)		SMPLS-G	MODEL (ΦD-T)	
	Tube (Metric) - Thread (G)			Tube (Metric) - Thread (G)	
	SMPL03-G01	SMPL10-G02		SMPLL04-G01	SMPLL10-G02
	SMPL04-G01	SMPL10-G03		SMPLL04-G02	SMPLL10-G03
	SMPL04-G02	SMPL10-G04		SMPLL05-G01	SMPLL10-G04
	SMPL05-G01	SMPL12-G01		SMPLL05-G02	SMPLL12-G01
	SMPL05-G02	SMPL12-G02		SMPLL06-G01	SMPLL12-G02
	SMPL06-G01	SMPL12-G03		SMPLL06-G02	SMPLL12-G03
	SMPL06-G02	SMPL12-G04		SMPLL08-G01	SMPLL14-G04
	SMPL08-G01	SMPL14-G03		SMPLL08-G02	SMPLL14-G05
	SMPL08-G02	SMPL14-G04		SMPLL08-G03	SMPLL16-G03
	SMPL08-G03	SMPL16-G03		SMPLL08-G04	SMPLL16-G04
	SMPL08-G04	SMPL16-G04		SMPLL10-G01	
	SMPL10-G01			SMPLL16-G04	
Male Stud			Male Stud Elbow		

SMPCFS	Model (ΦD-T)		SMPTS	Model (ΦD-T)	
	Tube(Metric) - Thread(G)			Tube(Metric) - Thread(G)	
	SMPCFS04-M5	SMPCFS10-02		SMPTS04-M5	SMPTS10-02
	SMPCFS04-01	SMPCFS10-03		SMPTS04-01	SMPTS10-03
	SMPCFS04-02	SMPCFS10-04		SMPTS04-02	SMPTS10-04
	SMPCFS06-M5	SMPCFS12-01		SMPTS06-M5	SMPTS12-01
	SMPCFS06-01	SMPCFS12-02		SMPTS06-01	SMPTS12-02
	SMPCFS06-02	SMPCFS12-03		SMPTS06-02	SMPTS12-03
	SMPCFS06-03	SMPCFS12-04		SMPTS06-03	SMPTS12-04
	SMPCFS08-04	SMPCFS14-02		SMPTS06-04	SMPTS14-02
	SMPCFS08-01	SMPCFS14-03		SMPTS08-01	SMPTS14-03
	SMPCFS08-02	SMPCFS14-04		SMPTS08-02	SMPTS14-04
	SMPCFS08-03	SMPCFS16-02		SMPTS08-03	SMPTS16-02
	SMPCFS08-04	SMPCFS16-03		SMPTS08-04	SMPTS16-03
	SMPCFS10-01	SMPCFS16-04		SMPTS10-01	SMPTS16-04
Single Male Banjo			Male Stud Branch Tee		

Stainless Steel Push-In Fittings

SMPDS	Model (ΦD-T)		SMPMFS	Model (ΦD-T)	
	Tube(Metric)-Thread(G)			Tube(Metric)-Thread(G)	
	SMPDS04-M5	SMPDS10-02		SMPMF04-M5	SMPMF10-02
	SMPDS04-01	SMPDS10-03		SMPMF04-01	SMPMF10-03
	SMPDS04-02	SMPDS10-04		SMPMF04-02	SMPMF10-04
	SMPDS06-M5	SMPDS12-01		SMPMF06-M5	SMPMF12-01
	SMPDS06-01	SMPDS12-02		SMPMF06-01	SMPMF12-02
	SMPDS06-02	SMPDS12-03		SMPMF06-02	SMPMF12-03
	SMPDS06-03	SMPDS12-04		SMPMF06-03	SMPMF12-04
	SMPDS06-04	SMPDS14-02		SMPMF06-04	SMPMF14-02
	SMPDS08-01	SMPDS14-03		SMPMF08-01	SMPMF14-03
	SMPDS08-02	SMPDS14-04		SMPMF08-02	SMPMF14-04
	SMPDS08-03	SMPDS16-02		SMPMF08-03	SMPMF16-02
	SMPDS08-04	SMPDS16-03		SMPMF08-04	SMPMF16-03
	SMPDS10-01	SMPDS16-04		SMPMF10-01	SMPMF16-04
Male Run Tee			Female Stud		

SMNSES	Model (ΦD-T)		SMPHS	Model (ΦD-T)	
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(R)	
	SMNSES04-M5	SMNSES08-03		SMPHS04-M5	SMPHS08-03
	SMNSES04-01	SMNSES08-04		SMPHS04-01	SMPHS08-04
	SMNSES04-02	SMNSES10-01		SMPHS04-02	SMPHS10-01
	SMNSES06-M5	SMNSES10-02		SMPHS06-M5	SMPHS10-02
	SMNSES06-01	SMNSES10-03		SMPHS06-01	SMPHS10-03
	SMNSES06-02	SMNSES10-04		SMPHS06-02	SMPHS10-04
	SMNSES06-03	SMNSES12-01		SMPHS06-03	SMPHS12-01
	SMNSES06-04	SMNSES12-02		SMPHS06-04	SMPHS12-02
	SMNSES08-01	SMNSES12-03		SMPHS08-01	SMPHS12-03
	SMNSES08-02	SMNSES12-04		SMPHS08-02	SMPHS12-04
Elbow(G Thread)			Single Male Banjo		

SMPUCS	Model (ΦD)	SMPULS	Model (ΦD)
	Tube(Metric)		Tube(Metric)
 ΦD	SMPUCS 04	 ΦD	SMPULS 04
	SMPUCS 06		SMPULS 06
	SMPUCS 08		SMPULS 08
	SMPUCS 10		SMPULS 10
	SMPUCS 12		SMPULS 12
	SMPUCS 14		SMPULS 14
	SMPUCS 16		SMPULS 16
Union Straight		Union Elbow	

SMPUTS	Model (ΦD)	SMPMS	Model (ΦD)
	Tube(Metric)		Tube(Metric)
	SMPUTS 04		SMPMS 04
	SMPUTS 06		SMPMS 06
	SMPUTS 08		SMPMS 08
	SMPUTS 10		SMPMS 10
	SMPUTS 12		SMPMS 12
	SMPUTS 14		SMPMS 14
	SMPUTS 16		SMPMS 16
Union Tee		Balkhead Union	

Stainless Steel Push-In Fittings

SMPYS	MODEL(ΦD)		SMNSFS	MODEL(ΦD)	
	Tube (Metric)			Tube(Metric)	
	SMPYS04			SMNSFS04	
	SMPYS06			SMNSFS06	
	SMPYS08			SMNSFS08	
	SMPYS10			SMNSFS10	
	SMPYS12			SMNSFS12	
Union Y			Union Straight		

SMPUGS	MODEL(ΦD1-ΦD1)		SMPTGS	MODEL(ΦD1-ΦD1)	
	Tube(Metric)			Tube(Metric)	
	SMPUGS06-04			SMPTGS06-04	
	SMPUGS08-06			SMPTGS08-06	
	SMPUGS10-06			SMPTGS10-08	
	SMPUGS10-08			SMPTGS12-08	
	SMPUGS14-08			SMPTGS12-10	
	SMPUGS14-10				
	SMPUGS14-12				
	SMPUGS16-12				
Union Reducer			Union Tee Reducer		

SMPWS	MODEL(ΦD1-ΦD1)	
	Tube(Metric)	
	SMPWS06-04	
	SMPWS08-06	
	SMPWS10-08	
	SMPWS12-08	
	SMPWS12-10	
Union W		

Stainless Steel Push-In Fittings With G Thread(O-Ring)

SMPCS-G	MODEL(ΦD-T)		SMPLS-G	MODEL(ΦD-T)	
	Tube(Metric)-Thread(G)			Tube(Metric)-Thread(G)	
	SMPCS04-M5	SMPCS10-G02		SMPLS04-M5	SMPLS10-G02
	SMPCS04-G01	SMPCS10-G03		SMPLS04-G01	SMPLS10-G03
	SMPCS04-G02	SMPCS10-G04		SMPLS04-G02	SMPLS10-G04
	SMPCS05-G01	SMPCS12-G01		SMPLS05-G01	SMPLS12-G01
	SMPCS05-G02	SMPCS12-G02		SMPLS05-G02	SMPLS12-G02
	SMPCS06-G01	SMPCS12-G03		SMPLS06-G01	SMPLS12-G03
	SMPCS06-G02	SMPCS12-G04		SMPLS06-G02	SMPLS12-G04
	SMPCS08-G01	SMPCS14-G03		SMPLS08-G01	SMPLS14-G03
	SMPCS08-G02	SMPCS14-G04		SMPLS08-G02	SMPLS14-G04
	SMPCS08-G03	SMPCS16-G03		SMPLS08-G03	SMPLS16-G03
	SMPCS08-G04	SMPCS16-G04		SMPLS08-G04	SMPLS16-G04
	SMPCS10-G01			SMPLS10-G01	
Male Stud			Male Stud Elbow		

Metal Speed Controls

Feature

- Accurate regulation of an optimal air flow rate for Precise motion control.
- The compact design provides the comparable rang of speed as the larger standard Speed continue roller do.

Specification

Material	Body and collet: Nickel-plated Brass O-ring: NBR (other material is available on request)
Threads	BSPT, BSPP, NPT, Metric threads
Pressure	0.8 – 16 bar (see tube)
Fluid	Compressed air
Temperature	-10°C ~ 60°C (see data of used tubing)

When You order Control In Type, Pls Put BA! The End of Model Type. For ESample: SMNSE08-02B

SMNSE	MODEL(ΦD-T)					
	Tube (Metric) - Thread (R)		Tube (Inch) - Thread (R)		Tube (Inch) - Thread (NPT)	
	SMNSE04-M5	SMNSE08-03	SMNSE1/8-01	SMNSE5/16-03	SMNSE1/8-U10	SMNSE1/4-N02
	SMNSE04-M6	SMNSE08-04	SMNSE1/8-02	SMNSE5/16-04	SMNSE1/8-N01	SMNSE1/4-N03
	SMNSE04-01	SMNSE10-01	SMNSE5/32-01	SMNSE3/8-01	SMNSE1/8-N02	SMNSE5/16-N01
	SMNSE04-02	SMNSE10-02	SMNSE5/32-02	SMNSE3/8-02	SMNSE5/32-U10	SMNSE5/16-N02
	SMNSE04-03	SMNSE10-03	SMNSE3/16-01	SMNSE3/8-03	SMNSE5/32-N01	SMNSE5/16-N03
	SMNSE06-M5	SMNSE10-04	SMNSE3/16-02	SMNSE3/8-04	SMNSE5/32-N02	SMNSE3/8-N01
	SMNSE06-M6	SMNSE12-01	SMNSE3/16-03	SMNSE1/2-02	SMNSE3/16-U10	SMNSE3/8-N02
	SMNSE06-01	SMNSE12-02	SMNSE1/4-01	SMNSE1/2-03	SMNSE3/16-N01	SMNSE3/8-N03
	SMNSE06-02	SMNSE12-03	SMNSE1/4-02	SMNSE1/2-04	SMNSE3/16-N02	SMNSE3/8-N04
	SMNSE06-03	SMNSE12-04	SMNSE1/4-03		SMNSE3/16-N03	SMNSE1/2-N02
	SMNSE08-01	SMNSE16-03	SMNSE5/16-01		SMNSE1/4-U10	SMNSE1/2-N03
	SMNSE08-02	SMNSE16-04	SMNSE5/16-02		SMNSE1/4-N01	SMNSE1/2-N04

Metal Speed Controls With G Thread(O-Ring)

SMNSE-G	MODEL(ΦD-T)			
	Tube (Metric) - Thread (G)		Tube (Inch) - Thread (G)	
	SMNSE04-G01	SMNSE10-G02	SMNSE1/8-G01	SMNSE5/16-G03
	SMNSE04-G02	SMNSE10-G03	SMNSE1/8-G02	SMNSE5/16-G04
	SMNSE05-G01	SMNSE10-G04	SMNSE5/32-G01	SMNSE3/8-G01
	SMNSE05-G02	SMNSE12-G01	SMNSE5/32-G02	SMNSE3/8-G02
	SMNSE06-G01	SMNSE12-G02	SMNSE3/16-G01	SMNSE3/8-G03
	SMNSE06-G02	SMNSE12-G03	SMNSE3/16-G02	SMNSE3/8-G04
	SMNSE08-G01	SMNSE12-G04	SMNSE3/16-G03	SMNSE1/2-G02
	SMNSE08-G02	SMNSE14-G03	SMNSE1/4-G01	SMNSE1/2-G03
	SMNSE08-G03	SMNSE14-G04	SMNSE1/4-G02	SMNSE1/2-G04
	SMNSE08-G04	SMNSE16-G03	SMNSE1/4-G03	
	SMNSE10-G01	SMNSE16-G04	SMNSE5/16-G01	
			SMNSE5/16-G02	

Rapid Fittings For The Plastic Tubings

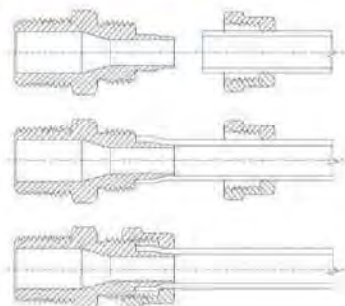
Feature

- The rapid fittings can be used with rigid nylon tubes.
- A locking nut is provided and can be tightened both manually and With a spanner.
- The special shape of the guiding cone ensures that the tube can not be accidentally cut.

Specification

Material	Body and collet: Nickel-plated Brass O-ring: NBR (other material is available on request)
Threads	BSPT, BSPP, NPT, Metric threads
Pressure	0.8 – 16 bar (see tube)
Fluid	Compressed air
Temperature	-10°C ~ 60°C (see data of used tubing)

Construction



Rapid Fittings For The Plastic Tubings

SRPC	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRPC-5/3-M5	SRPC-6/4-02	SRPC-10/8-02	SRPC-5/3-G01	SRPC-8/6-G02	SRPC-10/8-G04
	SRPC-5/3-M6	SRPC-6/4-03	SRPC-10/8-03	SRPC-6/4-G01	SRPC-8/6-G03	SRPC-12/10-G03
	SRPC-5/3-01	SRPC-8/6-01	SRPC-10/8-04	SRPC-6/4-G02	SRPC-10/8-G01	SRPC-12/10-G04
	SRPC-6/4-M5	SRPC-8/6-02	SRPC-12/10-03	SRPC-6/4-G03	SRPC-10/8-G02	
	SRPC-6/4-M6	SRPC-8/6-03	SRPC-12/10-04	SRPC-8/6-G01	SRPC-10/8-G03	
	SRPC-6/4-01	SRPC-10/8-01				

SRSPC	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRSPC-5/3-M5	SRSPC-6/4-02	SRSPC-10/8-02	SRSPC-5/3-G01	SRSPC-8/6-G01	SRSPC-10/8-G02
	SRSPC-5/3-M6	SRSPC-6/4-03	SRSPC-10/8-03	SRSPC-6/4-G01	SRSPC-8/6-G02	SRSPC-10/8-G03
	SRSPC-5/3-01	SRSPC-8/6-01	SRSPC-10/8-04	SRSPC-6/4-G02	SRSPC-8/6-G03	SRSPC-10/8-G04
	SRSPC-6/4-M5	SRSPC-8/6-02	SRSPC-12/10-03	SRSPC-6/4-G03	SRSPC-10/8-G01	SRSPC-12/10-G03
	SRSPC-6/4-M6	SRSPC-8/6-03	SRSPC-12/10-04			SRSPC-12/10-G04
	SRSPC-6/4-01	SRSPC-10/8-01				

SRPCF	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRPCF-5/3-M5	SRPCF-6/4-01	SRPCF-10/8-01	SRPCF-5/3-G01	SRPCF-8/6-G02	SRPCF-10/8-G04
	SRPCF-5/3-M6	SRPCF-6/4-02	SRPCF-10/8-02	SRPCF-6/4-G01	SRPCF-8/6-G03	SRPCF-12/10-G03
	SRPCF-5/3-01	SRPCF-6/4-03	SRPCF-10/8-03	SRPCF-6/4-G02	SRPCF-10/8-G01	SRPCF-12/10-G04
	SRPCF-6/4-M5	SRPCF-8/6-01	SRPCF-10/8-04	SRPCF-6/4-G03	SRPCF-10/8-G02	
	SRPCF-6/4-M6	SRPCF-8/6-02	SRPCF-12/10-03	SRPCF-8/6-G01	SRPCF-10/8-G03	
		SRPCF-8/6-03	SRPCF-12/10-04			

SRPL	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRPL-5/3-M5	SRPL-6/4-02	SRPL-10/8-02	SRPL-5/3-G01	SRPL-8/6-G02	SRPL-10/8-G04
	SRPL-5/3-M6	SRPL-6/4-03	SRPL-10/8-03	SRPL-6/4-G01	SRPL-8/6-G03	SRPL-12/10-G03
	SRPL-5/3-01	SRPL-8/6-01	SRPL-10/8-04	SRPL-6/4-G02	SRPL-10/8-G01	SRPL-12/10-G04
	SRPL-6/4-M5	SRPL-8/6-02	SRPL-12/10-03	SRPL-6/4-G03	SRPL-10/8-G02	
	SRPL-6/4-M6	SRPL-8/6-03	SRPL-12/10-04	SRPL-8/6-G01	SRPL-10/8-G03	
	SRPL-6/4-01	SRPL-10/8-01				

SRPLN	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRPLN-5/3-M5	SRPLN-6/4-02	SRPLN-10/8-02	SRPLN-5/3-G01	SRPLN-8/6-G01	SRPLN-10/8-G03
	SRPLN-5/3-M6	SRPLN-6/4-03	SRPLN-10/8-03	SRPLN-6/4-G01	SRPLN-8/6-G02	SRPLN-10/8-G04
	SRPLN-5/3-01	SRPLN-8/6-01	SRPLN-10/8-04	SRPLN-6/4-G02	SRPLN-8/6-G03	SRPLN-12/10-G03
	SRPLN-6/4-M5	SRPLN-8/6-02	SRPLN-12/10-03	SRPLN-6/4-G03	SRPLN-10/8-G01	SRPLN-12/10-G04
	SRPLN-6/4-M6	SRPLN-8/6-03	SRPLN-12/10-04			
	SRPLN-6/4-01	SRPLN-10/8-01				

SRPLF	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	SRPLF-5/3-M5	SRPLF-6/4-02	SRPLF-10/8-02	SRPLF-5/3-G01	SRPLF-8/6-G01	SRPLF-10/8-G03
	SRPLF-5/3-M6	SRPLF-6/4-03	SRPLF-10/8-03	SRPLF-6/4-G01	SRPLF-8/6-G02	SRPLF-10/8-G04
	SRPLF-5/3-01	SRPLF-8/6-01	SRPLF-10/8-04	SRPLF-6/4-G02	SRPLF-8/6-G03	SRPLF-12/10-G03
	SRPLF-6/4-M5	SRPLF-8/6-02	SRPLF-12/10-03	SRPLF-6/4-G03	SRPLF-10/8-G01	SRPLF-12/10-G04
	SRPLF-6/4-M6	SRPLF-8/6-03	SRPLF-12/10-04			
	SRPLF-6/4-01	SRPLF-10/8-01				

Metal Push-In Fittings

SRPT	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRPT-5/3-M5	SRPT-6/4-02	SRPT-10/8-02	SRPT-5/3-G01	SRPT-8/6-G02	SRPT-10/8-G04
	SRPT-5/3-M6	SRPT-6/4-03	SRPT-10/8-03	SRPT-6/4-G01	SRPT-8/6-G03	SRPT-12/10-G03
	SRPT-5/3-01	SRPT-8/6-01	SRPT-10/8-04	SRPT-8/6-G02	SRPT-10/8-G01	SRPT-12/10-G04
	SRPT-6/4-M5	SRPT-8/6-02	SRPT-12/10-03	SRPT-6/4-G03	SRPT-10/8-G02	
	SRPT-6/4-M6	SRPT-8/6-03	SRPT-12/10-04	SRPT-8/6-G01	SRPT-10/8-G03	
	SRPT-6/4-01	SRPT-10/8-01				

Swivel Male Tee

SRPTN	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRPTN-5/3-M5	SRPTN-6/4-02	SRPTN-10/8-02	SRPTN-5/3-G01	SRPTN-8/6-G02	SRPTN-10/8-G04
	SRPTN-5/3-M6	SRPTN-6/4-03	SRPTN-10/8-03	SRPTN-6/4-G01	SRPTN-8/6-G03	SRPTN-12/10-G03
	SRPTN-5/3-01	SRPTN-8/6-01	SRPTN-10/8-04	SRPTN-6/4-G02	SRPTN-10/8-G01	SRPTN-12/10-G04
	SRPTN-6/4-M5	SRPTN-8/6-02	SRPTN-12/10-03	SRPTN-6/4-G03	SRPTN-10/8-G02	
	SRPTN-6/4-M6	SRPTN-8/6-03	SRPTN-12/10-04	SRPTN-8/6-G01	SRPTN-10/8-G03	
	SRPTN-6/4-01	SRPTN-10/8-01				

Male Tee

SRPD	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRPD-5/3-M5	SRPD-6/4-02	SRPD-10/8-02	SRPD-5/3-G01	SRPD-8/6-G02	SRPD-10/8-G04
	SRPD-5/3-M6	SRPD-6/4-03	SRPD-10/8-03	SRPD-6/4-G01	SRPD-8/6-G03	SRPD-12/10-G03
	SRPD-5/3-01	SRPD-8/6-01	SRPD-10/8-04	SRPD-6/4-G02	SRPD-10/8-G01	SRPD-12/10-G04
	SRPD-6/4-M5	SRPD-8/6-02	SRPD-12/10-03	SRPD-6/4-G03	SRPD-10/8-G02	
	SRPD-6/4-M6	SRPD-8/6-03	SRPD-12/10-04	SRPD-8/6-G01	SRPD-10/8-G03	
	SRPD-6/4-01	SRPD-10/8-01				

Swivel Male Run Tee

SRPDN	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRPDN-5/3-M5	SRPDN-6/4-02	SRPDN-10/8-02	SRPDN-5/3-G01	SRPDN-8/6-G02	SRPDN-10/8-G04
	SRPDN-5/3-M6	SRPDN-6/4-03	SRPDN-10/8-03	SRPDN-6/4-G01	SRPDN-8/6-G03	SRPDN-12/10-G03
	SRPDN-5/3-01	SRPDN-8/6-01	SRPDN-10/8-04	SRPDN-6/4-G02	SRPDN-10/8-G01	SRPDN-12/10-G04
	SRPDN-6/4-M5	SRPDN-8/6-02	SRPDN-12/10-03	SRPDN-6/4-G03	SRPDN-10/8-G02	
	SRPDN-6/4-M6	SRPDN-8/6-03	SRPDN-12/10-04	SRPDN-8/6-G01	SRPDN-10/8-G03	
	SRPDN-6/4-01	SRPDN-10/8-01				

Male Run Tee

SRPH	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRPH-5/3-M5	SRPH-6/4-02	SRPH-10/8-02	SRPH-5/3-G01		SRPH-10/8-G04
	SRPH-5/3-M6	SRPH-6/4-03	SRPH-10/8-03	SRPH-6/4-G01		SRPH-12/10-G03
	SRPH-5/3-01	SRPH-8/6-01	SRPH-10/8-04	SRPH-6/4-G02		SRPH-12/10-G04
	SRPH-6/4-M5	SRPH-8/6-02	SRPH-12/10-03	SRPH-6/4-G03		
	SRPH-6/4-M6	SRPH-8/6-03	SRPH-12/10-04	SRPH-8/6-G01		
	SRPH-6/4-01	SRPH-10/8-01				

Single Male Banjo

SRPDH	Tube(Metric)-Thread (F)			Tube(Metric)-Thread (G)		
	SRDPH-5/3-M5	SRDPH-6/4-02	SRDPH-10/8-02	SRDPH-5/3-G01	SRDPH-8/6-G02	SRDPH-10/8-G04
	SRDPH-5/3-M6	SRDPH-6/4-03	SRDPH-10/8-03	SRDPH-6/4-G01	SRDPH-8/6-G03	SRDPH-12/10-G03
	SRDPH-5/3-01	SRDPH-8/6-01	SRDPH-10/8-04	SRDPH-6/4-G02	SRDPH-10/8-G01	SRDPH-12/10-G04
	SRDPH-6/4-M5	SRDPH-8/6-02	SRDPH-12/10-03	SRDPH-6/4-G03	SRDPH-10/8-G02	
	SRDPH-6/4-M6	SRDPH-8/6-03	SRDPH-12/10-04	SRDPH-8/6-G01	SRDPH-10/8-G03	
	SRDPH-6/4-01	SRDPH-10/8-01				

Double Male Banjo

Rapid Fittings For The Plastic Tubings

SRPTH	Tube(Metric)-Thread (F)		Tube(Metric)-Thread (G)		SRPUC	MODEL(ΦD)
	SRTPH-5/3-M5	SRTPH-8/6-02	SRTPH-5/3-G01	SRTPH-10/8-G02		Tube (Metric)
	SRTPH-5/3-M6	SRTPH-8/6-03	SRTPH-6/4-G01	SRTPH-10/8-G03		SRPUC-5/3
	SRTPH-5/3-01	SRTPH-10/8-01	SRTPH-6/4-G02	SRTPH-10/8-G04		SRPUC-6/4
	SRTPH-6/4-M5	SRTPH-10/8-02	SRTPH-6/4-G03	SRTPH-12/10-G03		SRPUC-8/6
	SRTPH-6/4-M6	SRTPH-10/8-03	SRTPH-8/6-G01	SRTPH-12/10-G04		SRPUC-10/8
	SRTPH-6/4-01	SRTPH-10/8-04	SRTPH-8/6-G02			SRPUC-12/10
	SRTPH-6/4-02	SRTPH-12/10-03	SRTPH-8/6-G03			
	SRTPH-6/4-03	SRTPH-12/10-04	SRTPH-10/8-G01			

Tripe Male Banjo

SRPUL	MODEL(ΦD)	SRPUT	MODEL(ΦD)	SRPZA	MODEL(ΦD)
	Tube (Metric)		Tube (Metric)		Tube (Metric)
	SRPUL-5/3		SRPUT-5/3		SRPZA-5/3
	SRPUL-6/4		SRPUT-6/4		SRPZA-6/4
	SRPUL-8/6		SRPUT-8/6		SRPZA-8/6
	SRPUL-10/8		SRPUT-10/8		SRPZA-10/8
	SRPUL-12/10		SRPUT-12/10		SRPZA-12/10

Elbow

Union Straight

Cross

SRPM	MODEL(ΦD)	SRM	MODEL(ΦD)
	Tube (Metric)		Tube (Metric)
	SRPM-5/3		SRM-5/3
	SRPM-6/4		SRM-6/4
	SRPM-8/6		SRM-8/6
	SRPM-10/8		SRM-10/8
	SRPM-12/10		SRM-12/10

Bulkhead Union

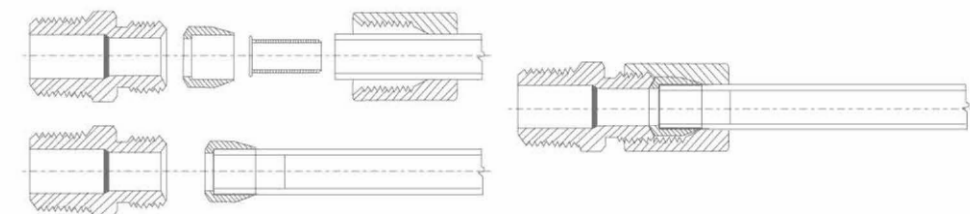
Locking Nut

Pipe Joint Fittings

Specification

- The Pipe joint fittings can be used with rigid nylon tubes.
- A locking nut is provided and can be tightened both manually and With a spanner.
- The special shape of the guiding cone ensures that the tube can not be accidentally cut.

Construction



Pipe Joint Fittings

SQPC	MODEL(ΦD-T)					
	Tube(Metric)-Thread (R)			Tube(Metric)-Thread (G)		
	ΦD					
	SQPC 04-01	SQPC 08-02	SQPC 12-02	SQPC 04-G01	SQPC 08-G02	SQPC 12-G02
	SQPC 04-02	SQPC 08-03	SQPC 12-03	SQPC 04-G02	SQPC 08-G03	SQPC 12-G03
	SQPC 06-01	SQPC 10-02	SQPC 12-04	SQPC 06-G01	SQPC 10-G02	SQPC 12-G04
	SQPC 06-02	SQPC 10-03		SQPC 06-G02	SQPC 10-G03	
	SQPC 08-01	SQPC 10-04		SQPC 08-G01	SQPC 10-G04	
Male Straight						

SQPL	MODEL(ΦD-T)					
	Tube(Metric)-Thread (R)			Tube(Metric)-Thread (G)		
	ΦD					
	SQPL 04-01	SQPL 08-02	SQPL 12-02	SQPL 04-G01	SQPL 08-G02	SQPL 12-G02
	SQPL 04-02	SQPL 08-03	SQPL 12-03	SQPL 04-G02	SQPL 08-G03	SQPL 12-G03
	SQPL 06-01	SQPL 10-02	SQPL 12-04	SQPL 06-G01	SQPL 10-G02	SQPL 12-G04
	SQPL 06-02	SQPL 10-03		SQPL 06-G02	SQPL 10-G03	
	SQPL 08-01	SQPL 10-04		SQPL 08-G01	SQPL 10-G04	
Male Elbow						

SQPCF	MODEL(ΦD-T)					
	Tube(Metric)-Thread (R)			Tube(Metric)-Thread (G)		
	ΦD					
	SQPCF 04-01	SQPCF 08-02	SQPCF 12-02	SQPCF 04-G01	SQPCF 08-G02	SQPCF 12-G02
	SQPCF 04-02	SQPCF 08-03	SQPCF 12-03	SQPCF 04-G02	SQPCF 08-G03	SQPCF 12-G03
	SQPCF 06-01	SQPCF 10-02	SQPCF 12-04	SQPCF 06-G01	SQPCF 10-G02	SQPCF 12-G04
	SQPCF 06-02	SQPCF 10-03		SQPCF 06-G02	SQPCF 10-G03	
	SQPCF 08-01	SQPCF 10-04		SQPCF 08-G01	SQPCF 10-G04	
Female W/low						

SQPT	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	ΦD					
	SQPT 04-01	SQPT 08-02	SQPT 12-02	SQPT 04-G01	SQPT 08-G02	SQPT 12-G02
	SQPT 04-02	SQPT 08-03	SQPT 12-03	SQPT 04-G02	SQPT 08-G03	SQPT 12-G03
	SQPT 06-01	SQPT 10-02	SQPT 12-04	SQPT 06-G01	SQPT 10-G02	SQPT 12-G04
	SQPT 06-02	SQPT 10-03		SQPT 06-G02	SQPT 10-G03	
	SQPT 08-01	SQPT 10-04		SQPT 08-G01	SQPT 10-G04	
Male Tee						

SQPD	MODEL(ΦD-T)					
	Tube(Metric)-Thread(R)			Tube(Metric)-Thread(G)		
	ΦD					
	SQPD 04-01	SQPD 08-02	SQPD 12-02	SQPD 04-G01	SQPD 08-G02	SQPD 12-G02
	SQPD 04-02	SQPD 08-03	SQPD 12-03	SQPD 04-G02	SQPD 08-G03	SQPD 12-G03
	SQPD 06-01	SQPD 10-02	SQPD 12-04	SQPD 06-G01	SQPD 10-G02	SQPD 12-G04
	SQPD 06-02	SQPD 10-03		SQPD 06-G02	SQPD 10-G03	
	SQPD 08-01	SQPD 10-04		SQPD 08-G01	SQPD 10-G04	
Run Tee						

SQPUC		MODEL(ΦD)		SQPUL		MODEL(ΦD)		SQPUT		MODEL(ΦD)	
	ΦD	Tube (Metric)			ΦD	Tube (Metric)			ΦD	Tube (Metric)	
		SQPUC 04				SQPUL 04				SQPUT 04	
		SQPUC 06				SQPUL 06				SQPUT 06	
		SQPUC 08				SQPUL 08				SQPUT 08	
		SQPUC 10				SQPUL 10				SQPUT 10	
		SQPUC 12				SQPUL 12				SQPUT 12	
Union Straight				Union Elbow				Union Tee			

Pipe Joint Fittings

SQPZA		SQPM		SQS	
	MODEL(ΦD) Tube (Metric)		MODEL(ΦD) Tube (Metric)		MODEL(ΦD) Tube (Metric)
	SQPZA 04		SQPM 04		SQS 04
	SQPZA 06		SQPM 06		SQS 06
	SQPZA 08		SQPM 08		SQS 08
	SQPZA 10		SQPM 10		SQS 10
	SQPZA 12		SQPM 12		SQS 12
Union Cross		Bulkhead Union		Nut	

SQI	MODEL(ΦD)	
	Tube (Metric)	
	ΦD	
	SQI 04	
	SQI 06	
	SQI 08	
	SQI 10	
	SQI 12	

Pipe Fittings

Feature

- When involved in factory maintenance or Plant installation, it's often difficult to be certain which size of fittings with be required. Our Pipe fittings provide a cost effective solution to solve this problem.

Specification

Material	Nickel-plated Brass
Threads	BSPT, BSPP, NPT, Metric threads
Pressure	(See tube)
Fluid	Compressed air
Temperature	(See data of used tubing)

SPS	MODEL(ΦT1-ΦT2)					
	Thread(R) T1-Thread(R) T2		Thread(NPT) T1-Thread(NPT) T2		Thread(G) T1-Thread(G) T2	
	ΦD		ΦD		ΦD	
	SPSM 01-01	SPSM 06-06	SPSM N01-N01	SPSM N06-N06	SPSM G01-G01	SPSM G06-G06
	SPSM 02-02	SPSM 06-04	SPSM N02-N02	SPSM N06-N04	SPSM G02-G02	SPSM G06-G04
	SPSM 02-01	SPSM 06-03	SPSM N02-N01	SPSM N06-N03	SPSM G02-G01	SPSM G06-G03
	SPSM 03-03	SPSM 06-02	SPSM N03-N03	SPSM N06-N02	SPSM G03-G03	SPSM G06-G02
	SPSM 03-02	SPSM 08-08	SPSM N03-N02	SPSM N08-N08	SPSM G03-G02	SPSM G08-G08
	SPSM 03-01	SPSM 08-06	SPSM N03-N01	SPSM N08-N06	SPSM G03-G01	SPSM G08-G06
	SPSM 04-04	SPSM 08-04	SPSM N04-N04	SPSM N08-N04	SPSM G04-G04	SPSM G08-G04
	SPSM 04-03	SPSM 08-03	SPSM N04-N03	SPSM N08-N03	SPSM G04-G03	SPSM G08-G03
	SPSM 04-02		SPSM N04-N02		SPSM G04-G02	
	SPSM 04-01		SPSM N04-N01		SPSM G04-G01	
Straight Male						

SPSF	MODEL(ΦT1-ΦT2)					
	Thread(R) T1-Thread(R) T2		Thread(NPT) T1-Thread(NPT) T2		Thread(G) T1-Thread(G) T2	
	ΦD		ΦD		ΦD	
	SPSF 01-01	SPSF 04-01	SPSF N01-N01	SPSF N04-N01	SPSF G01-G01	SPSF G04-G01
	SPSF 02-02	SPSF 06-06	SPSF N02-N02	SPSF N06-N06	SPSF G02-G02	SPSF G06-G06
	SPSF 02-01	SPSF 06-04	SPSF N02-N01	SPSF N06-N04	SPSF G02-G01	SPSF G06-G04
	SPSF 03-03	SPSF 06-03	SPSF N03-N03	SPSF N06-N03	SPSF G03-G03	SPSF G06-G03
	SPSF 03-02	SPSF 06-02	SPSF N03-N02	SPSF N06-N02	SPSF G03-G02	SPSF G06-G02
	SPSF 03-01	SPSF 08-08	SPSF N03-N01	SPSF N08-N08	SPSF G03-G01	SPSF G08-G08
	SPSF 04-04	SPSF 08-06	SPSF N04-N04	SPSF N08-N06	SPSF G04-G04	SPSF G08-G06
	SPSF 04-03	SPSF 08-04	SPSF N04-N03	SPSF N08-N04	SPSF G04-G03	SPSF G08-G04
	SPSF 04-02	SPSF 08-03	SPSF N04-N02	SPSF N08-N03	SPSF G04-G02	SPSF G08-G03
Straight Female						

Pipe Fittings

SPOF



Plug

MODEL (T)

Thread (R)	Thread (NPT)
SPOF G01	SPOF N01
SPOF G02	SPOF N02
SPOF G03	SPOF N03
SPOF G04	SPOF N04
SPOF G06	SPOF N06
SPOF G08	SPOF N08

SPEL



Equal Male Stud Elbow

MODEL (ΦD-T)

Thread (R)	Thread (NPT)
SPEL 01	SPEL 01N01
SPEL 02	SPEL 02N02
SPEL 03	SPEL 03N03
SPEL 04	SPEL 04N04
SPEL 06	SPEL 06N06
SPEL 08	SPEL 08N08

SPSMF



Straight Male To Female

MODEL(ΦT1-ΦT2)

Thread (R)T1-Thread (R)T2	Thread (NPT)T1-Thread (NPT)T2	Thread (G)T1-Thread (G)T2
SPSMF 01-01	SPSMF 06-06	SPSMF G01-G01
SPSMF 02-02	SPSMF 06-04	SPSMF G02-G02
SPSMF 02-01	SPSMF 06-03	SPSMF G02-G01
SPSMF 03-03	SPSMF 06-02	SPSMF G03-G03
SPSMF 03-02	SPSMF 08-08	SPSMF G03-G02
SPSMF 03-01	SPSMF 08-06	SPSMF G03-G01
SPSMF 04-04	SPSMF 08-04	SPSMF G04-G04
SPSMF 04-03	SPSMF 08-03	SPSMF G04-G03
SPSMF 04-02	SPSMF 04-N02	SPSMF G04-G02
SPSMF 04-01	SPSMF 04-N01	SPSMF G04-G01

SPFL



Equal Female Stud W/low

MODEL(T)

Thread (R)	Thread (NPT)
SPFL 01	SPFL N01
SPFL 02	SPFL N02
SPFL 03	SPFL N03
SPFL 04	SPFL N04
SPFL 06	SPFL N06
SPFL 08	SPFL N08

SPRMF



Reduce Male to Female

MODEL(ΦT1-ΦT2)

Thread (R)	Thread (NPT)	Thread (G)
SPRMF 02-01	SPRMF N02-N01	SPRMF G02-G01
SPRMF 03-01	SPRMF N03-N01	SPRMF G03-G01
SPRMF 03-02	SPRMF N03-N02	SPRMF G03-G02
SPRMF 04-01	SPRMF N04-N01	SPRMF G04-G01
SPRMF 04-02	SPRMF N04-N02	SPRMF G04-G02
SPRMF 04-03	SPRMF N04-N03	SPRMF G04-G03
SPRMF 06-02	SPRMF N06-N02	SPRMF G06-G02
SPRMF 06-03	SPRMF N06-N03	SPRMF G06-G03
SPRMF 06-04	SPRMF N06-N04	SPRMF G06-G04

SPEFL



Equal Female Stud Elbow

MODEL(T)

Thread (R)	Thread (NPT)
SPEFL 01	SPEFL N01
SPEFL 02	SPEFL N02
SPEFL 03	SPEFL N03
SPEFL 04	SPEFL N04
SPEFL 06	SPEFL N06
SPEFL 08	SPEFL N08

SPO



PIUG

MODEL(T)

Thread (R)	Thread (NPT)	Thread (G)
SPO M5	SPO N01	SPO G01
SPO 01	SPO N02	SPO G02
SPO 02	SPO N03	SPO G03
SPO 03	SPO N04	SPO G04
SPO 04	SPO N06	SPO G06
SPO 06	SPO N08	SPO G08
SPO 08		

SPOHH



PLUG

MODEL(T)

Thread (R)	Thread (NPT)	Thread (G)
SPOHH M5	SPOHH N01	SPOHH G01
SPOHH 01	SPOHH N02	SPOHH G02
SPOHH 02	SPOHH N03	SPOHH G03
SPOHH 03	SPOHH N04	SPOHH G04
SPOHH 04	SPOHH N06	SPOHH G06
SPOHH 06	SPOHH N08	SPOHH G08
SPOHH 08		

SPOH



PIUG

MODEL(T)

Thread (R)	Thread (NPT)	Thread (G)
SPOH M5	SPOH N01	SPOH G01
SPOH 01	SPOH N02	SPOH G02
SPOH 02	SPOH N03	SPOH G03
SPOH 03	SPOH N04	SPOH G04
SPOH 04	SPOH N06	SPOH G06
SPOH 06	SPOH N08	SPOH G08
SPOH 08		

Pipe Fittings

SPZ



In&Out Thread

MODEL(ΦT1-ΦT2)

Thread (R)T1-(G)T2	Thread (NPT)T1-T2	Thread (G)T1-T2
SPZ 02-G01	SPZ N02-N01	SPZ G02-G01
SPZ 03-G01	SPZ N03-N01	SPZ G03-G01
SPZ 03-G02	SPZ N03-N02	SPZ G03-G02
SPZ 04-G01	SPZ N04-N01	SPZ G04-G01
SPZ 04-G02	SPZ N04-N02	SPZ G04-G02
SPZ 04-G03	SPZ N04-N03	SPZ G04-G03
SPZ 06-G02	SPZ N06-N02	SPZ G06-G02
SPZ 06-G03	SPZ N06-N03	SPZ G06-G03
SPZ 06-G04	SPZ N06-N04	SPZ G06-G04

SPMT



Male Stud Branch Tee

MODEL(T)

Thread (G)	Thread (NPT)
SPMT 01	SPMT N01
SPMT 02	SPMT N02
SPMT 03	SPMT N03
SPMT 04	SPMT N04
SPMT 06	SPMT N06
SPMT 08	SPMT N08

SPSMT



Male Tee

MODEL(T)

Thread (G)	Thread (NPT)
SPSMT 01	SPSMT N01
SPSMT 02	SPSMT N02
SPSMT 03	SPSMT N03
SPSMT 04	SPSMT N04
SPSMT 06	SPSMT N06
SPSMT 08	SPSMT N08

SPSFT



Male To Female Tee

MODEL(T)

Thread (G)	Thread (NPT)
SPSFT 01	SPSFT N01
SPSFT 02	SPSFT N02
SPSFT 03	SPSFT N03
SPSFT 04	SPSFT N04
SPSFT 06	SPSFT N06
SPSFT 08	SPSFT N08

SPFT



Equal Female Tee

MODEL(T)

Thread (G)	Thread (NPT)
SPFT 01	SPFT N01
SPFT 02	SPFT N02
SPFT 03	SPFT N03
SPFT 04	SPFT N04
SPFT 06	SPFT N06
SPFT 08	SPFT N08

SPMST



Male Run Tee

MODEL(T)

Thread (G)	Thread (NPT)
SPMST 01	SPMST N01
SPMST 02	SPMST N02
SPMST 03	SPMST N03
SPMST 04	SPMST N04
SPMST 06	SPMST N06
SPMST 08	SPMST N08

SPMMT



Double Male to Female Tee

MODEL(T)

Thread(G)	Thread(NPT)
SPMMT 01	SPMMT N01
SPMMT 02	SPMMT N02
SPMMT 03	SPMMT N03
SPMMT 04	SPMMT N04
SPMMT 06	SPMMT N06
SPMMT 08	SPMMT N08

SPYF



Female Y

MODEL(T)

Thread(G)	Thread(NPT)
SPYF G01	SPYF N01
SPYF G02	SPYF N02
SPYF G03	SPYF N03
SPYF G04	SPYF N04

SPHTM



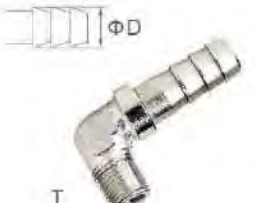
Male Barb

MODEL(ΦD-T)

Tube(Metric)-Thread(R)	Tube(Metric)-Thread(G)	Tube(Metric)-Thread(NPT)
SPHTM05-01	SPHTM10-02	SPHTM05-G01
SPHTM05-02	SPHTM10-03	SPHTM05-G02
SPHTM07-01	SPHTM12-02	SPHTM07-G01
SPHTM07-02	SPHTM12-03	SPHTM07-G02
SPHTM08-01	SPHTM12-04	SPHTM08-G01
SPHTM08-02	SPHTM17-03	SPHTM08-G02
SPHTM09-01	SPHTM17-04	SPHTM09-G01
SPHTM09-02	SPHTM18-03	SPHTM09-G02
SPHTM09-03	SPHTM18-04	SPHTM09-G03
SPHTM10-01	SPHTM10-G01	SPHTM10-N01

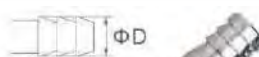
Pipe Fittings

SPHTF	MODEL(ΦD-T)					
	Tube(Metric)-Thread (R)		Tube(Metric)-Thread (G)		Tube(Metric)-Thread (NPT)	
	SPHTF05-01	SPHTF10-02	SPHTF05-G01	SPHTF10-G02	SPHTF05-N01	SPHTF10-N02
	SPHTF05-02	SPHTF10-03	SPHTF05-G02	SPHTF10-G03	SPHTF05-N02	SPHTF10-N03
	SPHTF07-01	SPHTF12-02	SPHTF07-G01	SPHTF12-G02	SPHTF07-N01	SPHTF12-N02
	SPHTF07-02	SPHTF12-03	SPHTF07-G02	SPHTF12-G03	SPHTF07-N02	SPHTF12-N03
	SPHTF08-01	SPHTF12-04	SPHTF08-G01	SPHTF12-G04	SPHTF08-N01	SPHTF12-N04
	SPHTF08-02	SPHTF17-03	SPHTF08-G02	SPHTF17-G03	SPHTF08-N02	SPHTF17-N03
	SPHTF09-01	SPHTF17-04	SPHTF09-G01	SPHTF17-G04	SPHTF09-N01	SPHTF17-N04
	SPHTF09-02	SPHTF18-03	SPHTF09-G02	SPHTF18-G03	SPHTF09-N02	SPHTF18-N03
	SPHTF09-03	SPHTF18-04	SPHTF09-G03	SPHTF18-G04	SPHTF09-N03	SPHTF18-N04
	SPHTF10-01		SPHTF10-G01		SPHTF10-N01	
Female Barb						

SPLB	MODEL(ΦD-T)					
	Tube(Metric)-Thread (R)		Tube(Metric)-Thread (G)		Tube(Metric)-Thread (NPT)	
	SPLB05-01	SPLB10-02	SPLB05-G01	SPLB10-G02	SPLB05-N01	SPLB10-N02
	SPLB05-02	SPLB10-03	SPLB05-G02	SPLB10-G03	SPLB05-N02	SPLB10-N03
	SPLB07-01	SPLB12-02	SPLB07-G01	SPLB12-G02	SPLB07-N01	SPLB12-N02
	SPLB07-02	SPLB12-03	SPLB07-G02	SPLB12-G03	SPLB07-N02	SPLB12-N03
	SPLB08-01	SPLB12-04	SPLB08-G01	SPLB12-G04	SPLB08-N01	SPLB12-N04
	SPLB08-02	SPLB17-03	SPLB08-G02	SPLB17-G03	SPLB08-N02	SPLB17-N03
	SPLB09-01	SPLB17-04	SPLB09-G01	SPLB17-G04	SPLB09-N01	SPLB17-N04
	SPLB09-02	SPLB18-03	SPLB09-G02	SPLB18-G03	SPLB09-N02	SPLB18-N03
	SPLB09-03	SPLB18-04	SPLB09-G03	SPLB18-G04	SPLB09-N03	SPLB18-N04
	SPLB10-01		SPLB10-G01		SPLB10-N01	
Male Elbow Barb						

SPYT		MODEL(ΦD-T)		SPMFM		MODEL(ΦD-T)	
 ΦD T Female to Male Y		Thread(G)	Thread(NPT)	 T Female Bulkhead		Thread(G)	Thread(NPT)
		SPYT 01	SPYT N01			SPMFM G01	SPMFM N01
		SPYT 02	SPYT N02			SPMFM G02	SPMFM N02
		SPYT 03	SPYT N03			SPMFM G03	SPMFM N03
		SPYT 04	SPYT N04			SPMFM G04	SPMFM N04

SPFC	MODEL(T)		SPBB	MODEL(ΦD)	
	Thread(G)	Thread(NPT)		Tube	
	SPFC G01	SPFC N01		PBB 05	
	SPFC G02	SPFC N02		PBB 07	
	SPFC G03	SPFC N03		PBB 08	
	SPFC G04	SPFC N04		PBB 09	
				PBB 10	
				PBB 12	
				PBB 17	
				PBB 18	
Equal Female Cross			Barb Union		

SPFCT		MODEL(T)		SPTB		MODEL(ΦD)	
 T Equal Female to Male Cross	Thread(G)	Thread(NPT)	 ΦD T Barb T	Tube			
	SPFCT 01	SPFCT N01		PTB 05			
	SPFCT 02	SPFCT N02		PTB 07			
	SPFCT 03	SPFCT N03		PTB 08			
	SPFCT 04	SPFCT N04		PTB 09			
				PTB 10			
				PTB 12			
				PTB 17			
				PTB 18			

AIR COUPLERS

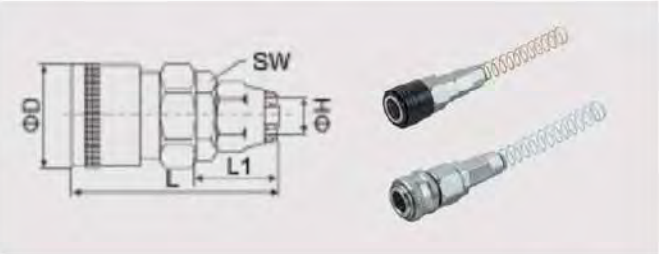


Fittings, Tubings & Accessories

Japan Type One Touch Quick Coupler

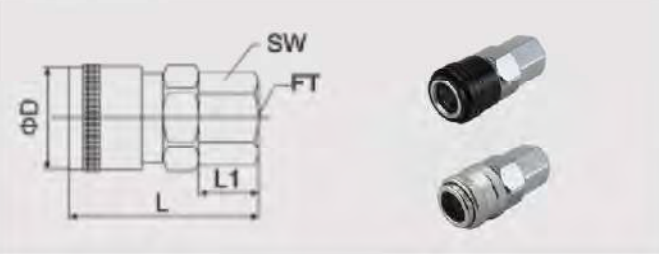


SPT+N (Push On Hose Nut W/Spring)



Part Number	L	ØD	L1	SW	ØH
20SPT+N	57	Ø28.5	14	19	Ø5x8
30SPT+N	81	Ø28.5	16	19	Ø6.5x10
40SPT+N	86	Ø28.5	19	19	Ø8x12

SFT (Female Thread)



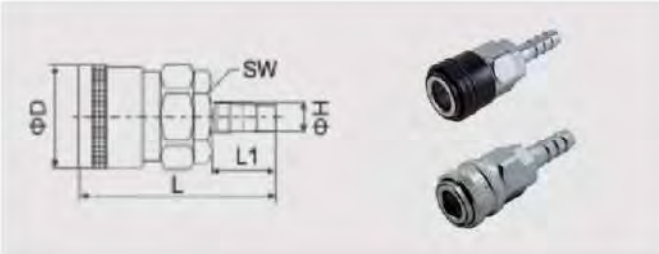
Part Number	L	ØD	L1	SW	FT
20SFT	52	Ø28.5	17.5	19	1/4"BBP
30SFT	53	Ø28.5	18.5	21	3/8"BBP
40SFT	55	Ø28.5	20	25	1/2"BBP

SMT (Male Thread)



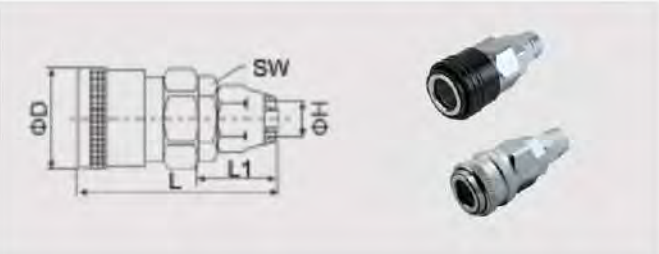
Part Number	L	ØD	L1	SW	ØH
20SMT	54	Ø28.5	13	19	1/4"BBP
30SMT	55	Ø28.5	14	19	3/8"BBP
40SMT	57	Ø28.5	15	21	1/2"BBP

SHT (Push On Hose Barb)



Part Number	L	ØD	L1	SW	ØH
20SHT	68	Ø28.5	27	19	Ø9
30SHT	70	Ø28.5	29	19	Ø11
40SHT	74	Ø28.5	32	19	Ø13 (Ø14.0)

SPT (Push On Hose Barb)



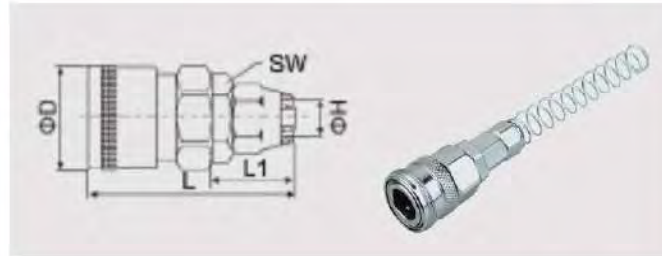
Part Number	L	ØD	L1	SW	ØH
10SPT	54	Ø28.5	13	19	Ø4x8
20SPT	55	Ø28.5	14	19	Ø5x8
30SPT	57	Ø28.5	16	19	Ø6.5x10
40SPT	60	Ø28.5	19	19	Ø8x12

Fittings, Tubings & Accessories

Japan Type Two Touch Quick Coupler

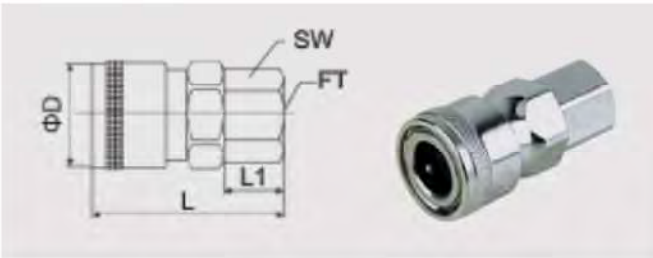


SPA+N (Push On Hose Nut W/Spring)



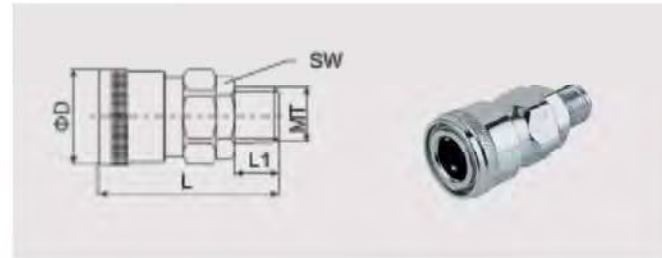
Part Number	L	OD	L1	SW	OH
20SPA+N	57	Ø28.5	14	19	Ø5x8
30SPA+N	81	Ø28.5	16	19	Ø6.5x10
40SPA+N	86	Ø28.5	19	19	Ø8x12

SFA (Female Thread)



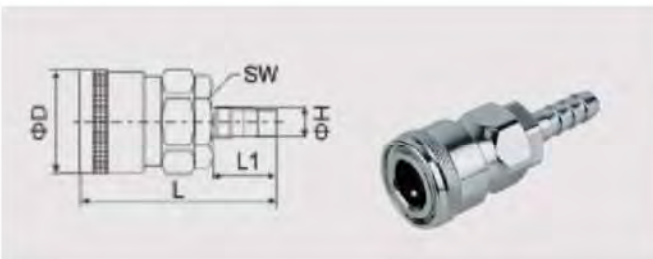
Part Number	L	OD	L1	SW	FT
20SFA	52	Ø28.5	17.5	19	1/4"BBP
30SFA	53	Ø28.5	18.5	21	3/8"BBP
40SFA	55	Ø28.5	20	25	1/2"BBP

SMA (Male Thread)



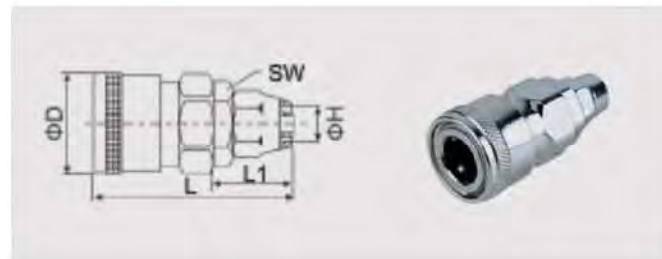
Part Number	L	OD	L1	SW	OH
20SMA	54	Ø28.5	13	19	1/4"BBP
30SMA	55	Ø28.5	14	19	3/8"BBP
40SMA	57	Ø28.5	15	21	1/2"BBP

SHA (Push On Hose Barb)



Part Number	L	OD	L1	SW	OH
20SHA	68	Ø28.5	27	19	Ø9
30SHA	70	Ø28.5	29	19	Ø11
40SHA	74	Ø28.5	32	19	Ø13 (Ø14.6)

SPA (Push On Hose Barb)

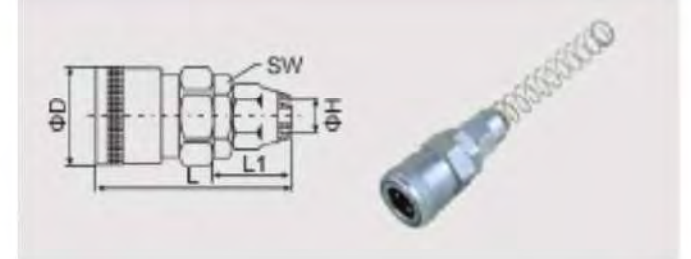


Part Number	L	OD	L1	SW	OH
10SPA	54	Ø28.5	13	19	Ø4x8
20SPA	55	Ø28.5	14	19	Ø5x8
30SPA	57	Ø28.5	16	19	Ø6.5x10
40SPA	60	Ø28.5	19	19	Ø8x12

Japan Type Two Touch Quick Coupler

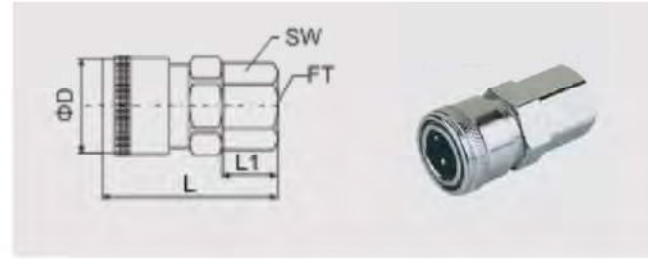


SPB+N (Push On Hose Nut W/Spring)



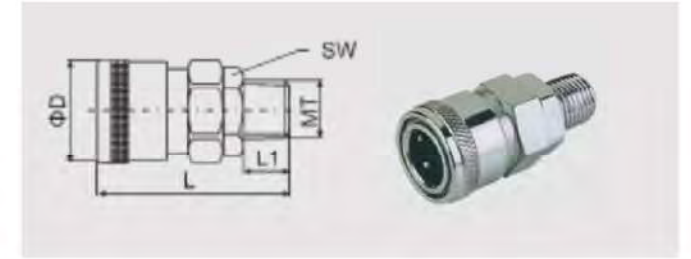
Part Number	L	OD	L1	SW	OH
20SPB+N	57	Ø28.5	14	19	Ø5x8
30SPB+N	81	Ø28.5	16	19	Ø6.5x10
40SPB+N	86	Ø28.5	19	19	Ø8x12

SFB (Female Thread)



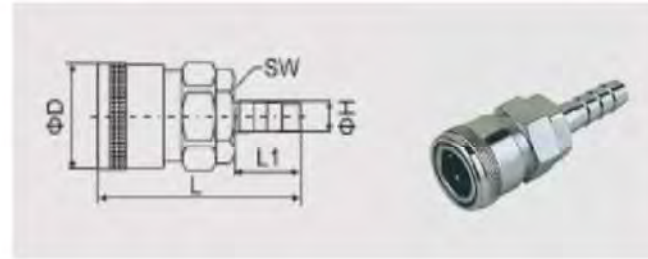
Part Number	L	OD	L1	SW	FT
20SFB	52	Ø28.5	17.5	19	1/4"BBP
30SFB	53	Ø28.5	18.5	21	3/8"BBP
40SFB	55	Ø28.5	20	25	1/2"BBP

SMB (Male Thread)



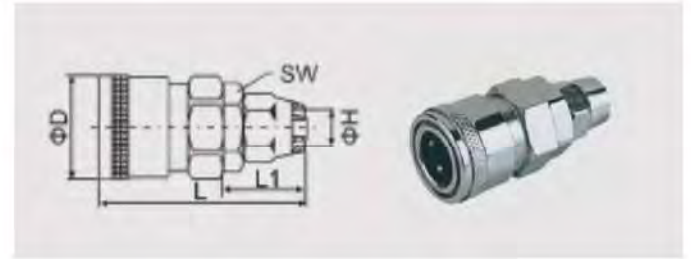
Part Number	L	OD	L1	SW	OH
20SMB	54	Ø28.5	13	19	1/4"BBP
30SMB	55	Ø28.5	14	19	3/8"BBP
40SMB	57	Ø28.5	15	21	1/2"BBP

SHB (Push On Hose Barb)



Part Number	L	OD	L1	SW	OH
20SHB	68	Ø28.5	27	19	Ø9
30SHB	70	Ø28.5	29	19	Ø11
40SHB	74	Ø28.5	32	19	Ø13 (Ø14.6)

SPB (Push On Hose Barb)

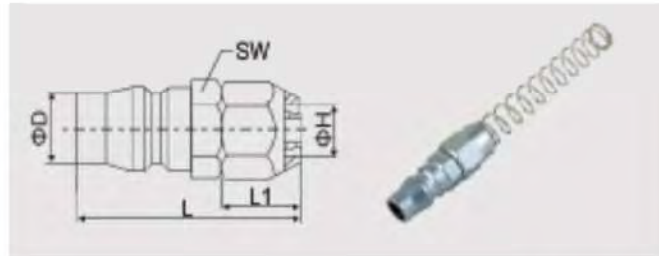


Part Number	L	OD	L1	SW	OH
10SPB	54	Ø28.5	13	19	Ø4x8
20SPB	55	Ø28.5	14	19	Ø5x8
30SPB	57	Ø28.5	16	19	Ø6.5x10
40SPB	60	Ø28.5	19	19	Ø8x12

Quick Coupler-Plug

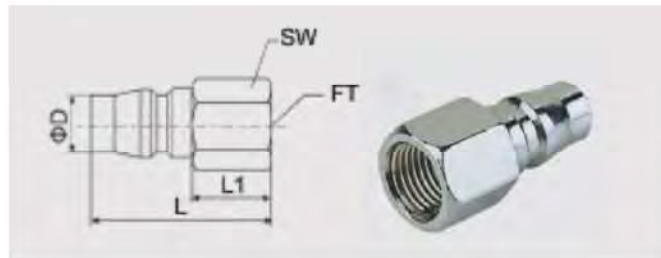


PP+N (Push On Hose Nut W/Spring)



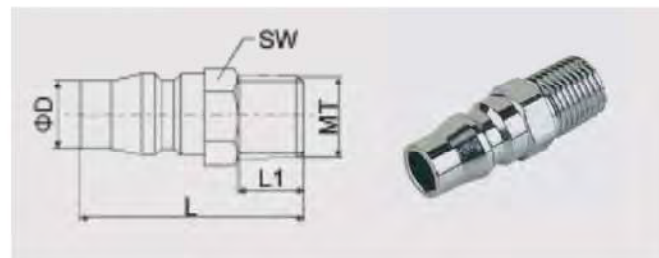
Part Number	L	OD	L1	SW	OH
20PP+N	43	Ø11	14	15	Ø5x8
30PP+N	47	Ø11	16	16	Ø6.5x10
40PP+N	50	Ø11	19	19	Ø8x12

PF (Female Thread)



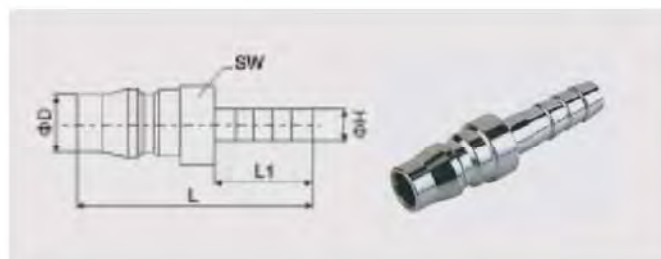
Part Number	L	OD	L1	SW	FT
20PF	37	Ø11	16.5	17	1/4" BSP
30PF	39	Ø11	18.5	21	3/8" BSP
40PF	40.5	Ø11	20	25	1/2" BSP

PM (Male Thread)



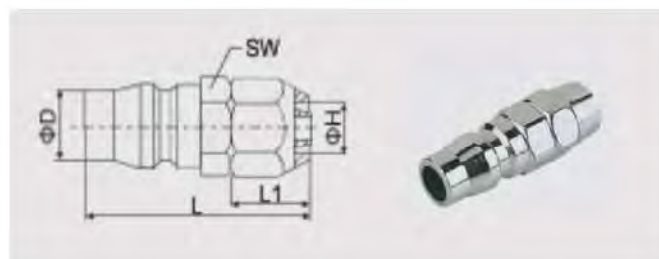
Part Number	L	OD	L1	SW	MT
20PM	40	Ø11	13	14	1/4" BSP
30PM	41	Ø11	14	19	3/8" BSP
40PM	42.5	Ø11	15	21	1/2" BSP

PH (Push On Hose Barb)



Part Number	L	OD	L1	SW	OH
20PH	54	Ø11	27	15	Ø9
30PH	58	Ø11	29	15	Ø11
40PH	60	Ø11	32	18	Ø13 (Ø14.6)

PP (Push On Hose Barb)

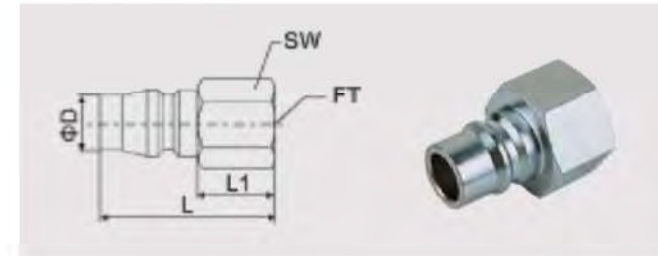


Part Number	L	OD	L1	SW	OH
10PP	40	Ø11	13	14	Ø4x8
20PP	41	Ø11	14	14	Ø5x8
30PP	43	Ø11	18	16	Ø6.5x10
40PP	48	Ø11	19	19	Ø8x12

Fittings, Tubings & Accessories

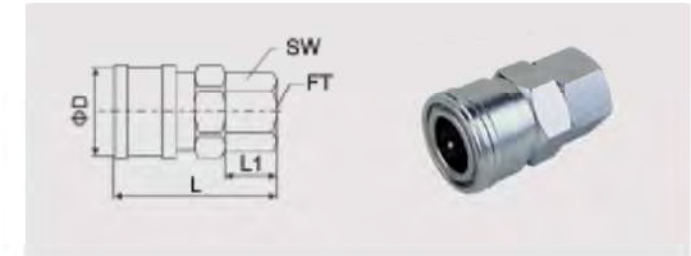
Mass Flow Quick Coupler

MF-PF (Push On Hose Barb)



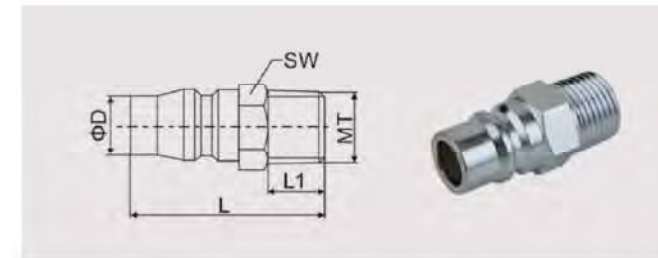
Part Number	L	OD	L1	SW	FT
MF-40 PF	44	Ø17.5	20	27	1/2" BSP
MF-60 PF	46	Ø17.5	22	32	3/4" BSP
MF-80 PF	49	Ø17.5	24	40	1" BSP

MF-SF (Female Thread)



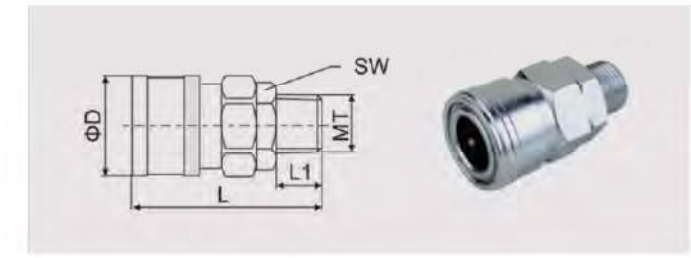
Part Number	L	OD	L1	SW	FT
MF-40 SF	60	Ø38.5	20	29	1/2" BSP
MF-60 SF	62	Ø38.5	22	32	3/4" BSP
MF-80 SF	64	Ø38.5	24	40	1" BSP

MF-PM (Push On Hose Barb)



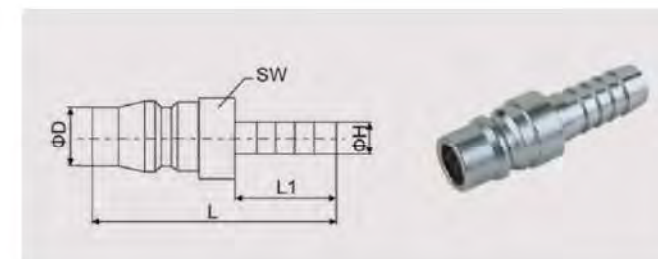
Part Number	L	OD	L1	SW	MT
MF-400 PM	50	Ø17.5	18	22	1/2" BSP
MF-600 PM	51	Ø17.5	18.3	29	3/4" BSP
MF-800 PM	54	Ø17.5	20	38	1" BSP

MF-SM (Male Thread)



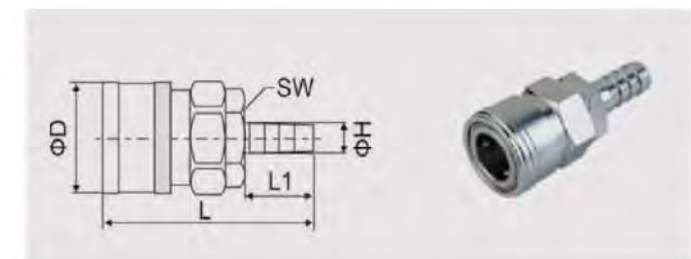
Part Number	L	OD	L1	SW	MT
MF-400 GM	64	Ø38.5	13	29	1/2" BSP
MF-600 GM	68	Ø38.5	15	29	3/4" BSP
MF-800 GM	70	Ø38.5	19	38	1" BSP

MF-PH (Push On Hose Barb)



Part Number	L	OD	L1	SW	OH
MF-400 PH	68	Ø17.5	38	22	Ø15
MF-600 PH	72	Ø17.5	40	25	Ø21
MF-800 PH	75	Ø17.5	41	30	Ø27

MF-SH (Push On Hose Barb)

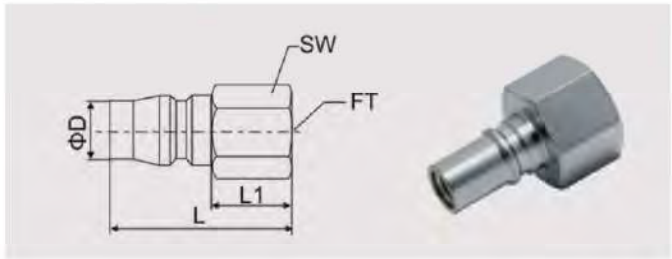


Part Number	L	OD	L1	SW	OH
MF-400 SH	84	Ø38.5	35	29	Ø15
MF-600 SH	90	Ø38.5	42	29	Ø21
MF-800 SH	100	Ø38.5	52	32	Ø27

Fittings, Tubings & Accessories

Mid-Mass Flow Quick Coupler

MM-PF (Push On Hose Barb)



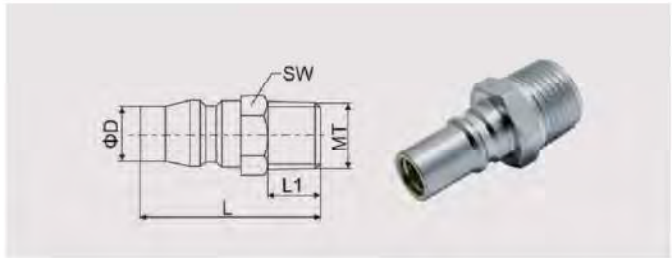
Part Number	L	OD	L1	SW	FT
MM-40 PF	47.5	Ø13.9	20	27	1/2" BSP
MM-80 PF	49.5	Ø13.9	22	27	3/4" BSP

MM-SF (Female Thread)



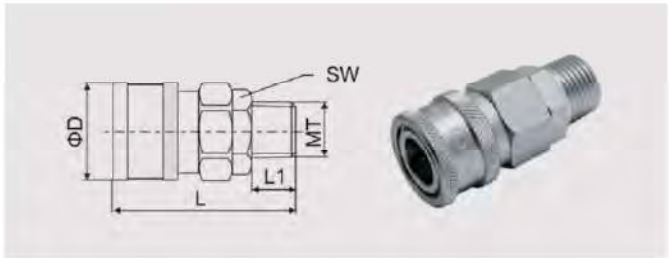
Part Number	L	OD	L1	SW	FT
MM-40 SF	61.7	Ø31.6	20	27	1/2" BSP
MM-80 SF	63.7	Ø31.6	22	30	3/4" BSP

MM-PM (Push On Hose Barb)



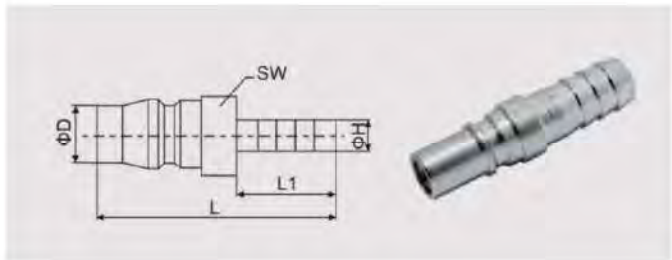
Part Number	L	OD	L1	SW	FT
MM-40 PM	50	Ø13.9	15.5	27	1/2" BSP
MM-80 PM	52	Ø13.9	17	27	3/4" BSP

MM-SM (Male Thread)



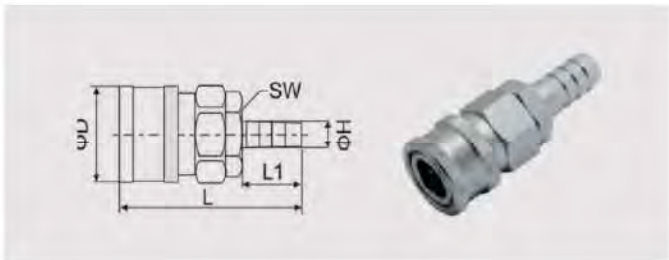
Part Number	L	OD	L1	SW	MT
MM-40 GM	64.7	Ø31.6	15.5	24	1/2" BSP
MM-80 GM	68.2	Ø31.6	17	27	3/4" BSP

MM-PH (Push On Hose Barb)



Part Number	L	OD	L1	SW	ØH
MM-40 PH	85.5	Ø13.9	30.5	18	Ø15
MM-80 PH	70	Ø13.9	35	23	Ø21

MM-SH (Push On Hose Barb)



Part Number	L	OD	L1	SW	ØH
MM-40 SH	79.7	Ø31.6	30.5	24	Ø15
MM-80 SH	84.2	Ø31.6	35	27	Ø21

Coupler With Aluminum Socket

MLV (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

MLY (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMV (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMY (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMVT (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
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SMYT (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMVT-N (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMYT-N (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

Coupler With Aluminum Socket

SML-2 (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
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SML-4 (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SML-3 (Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SML-5 (Two Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMLT-2 (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
------	------	------	------

SMLT-3 (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
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SMLT-4 (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
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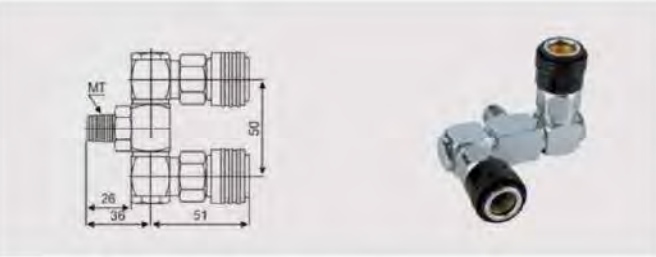
SMLT-5 (One Touch Quick Coupler With Aluminum Socket)



Size	1/4"	3/8"	1/2"
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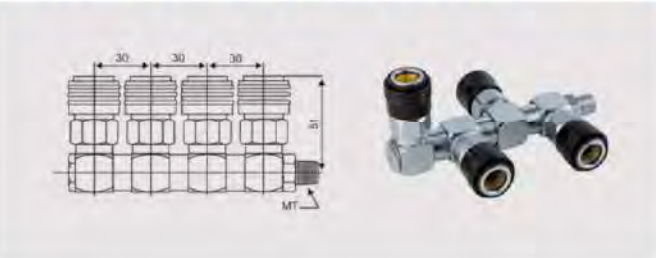
Swivel Quick Coupler

SMVT-2M (Swivel Quick Coupler)



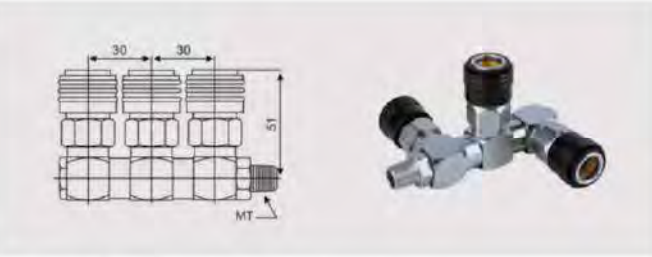
Size	1/4"	3/8"	1/2"
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SMVT-4M (Swivel Quick Coupler)



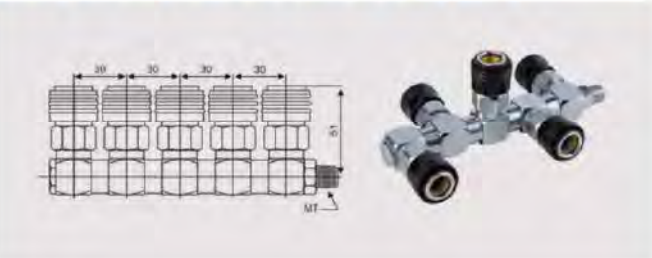
Size	1/4"	3/8"	1/2"
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SMVT-3M (Swivel Quick Coupler)



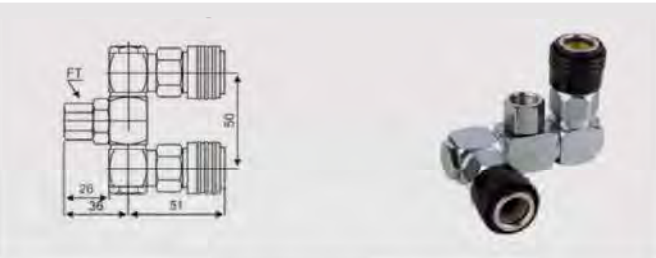
Size	1/4"	3/8"	1/2"
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SMVT-5M (Swivel Quick Coupler)



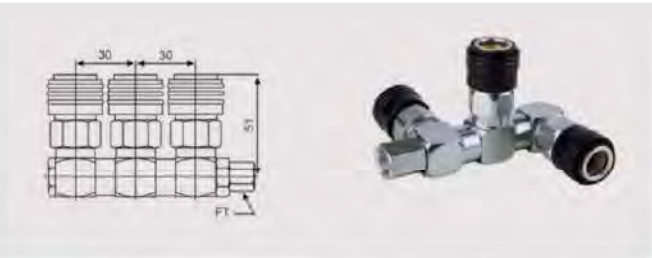
Size	1/4"	3/8"	1/2"
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SMVT-2F (Swivel Quick Coupler)



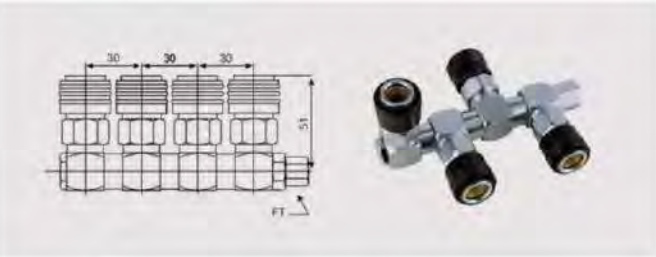
Size	1/4"	3/8"	1/2"
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SMVT-3F (Swivel Quick Coupler)



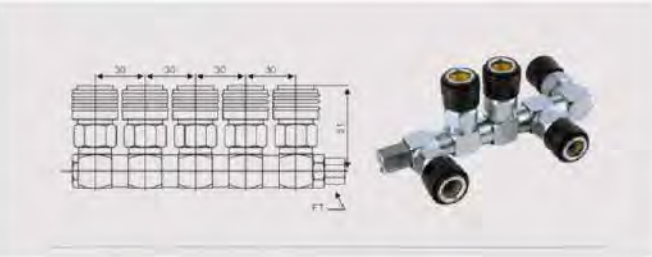
Size	1/4"	3/8"	1/2"
------	------	------	------

SMVT-4F (Swivel Quick Coupler)



Size	1/4"	3/8"	1/2"
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SMVT-5F (Swivel Quick Coupler)



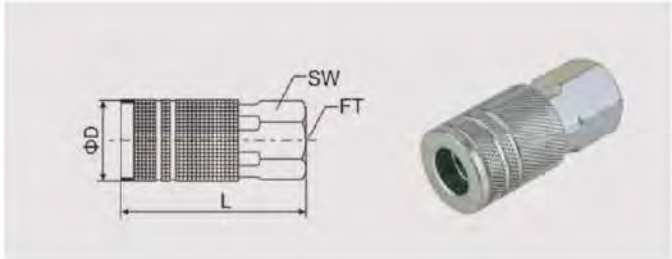
Size	1/4"	3/8"	1/2"
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Fittings, Tubings & Accessories

Fittings, Tubings & Accessories

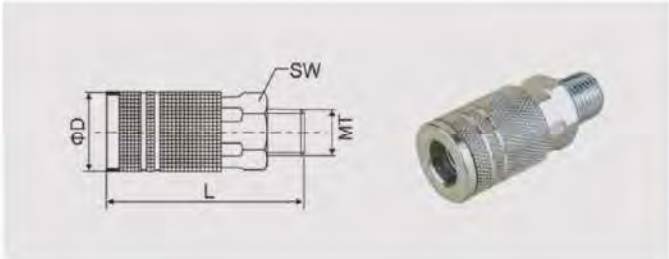
USA Type Quick Coupler

SU3-SF (Female Thread)



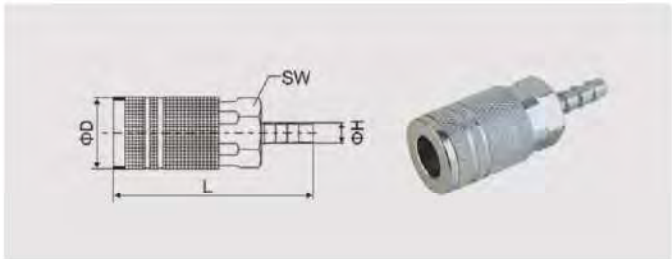
Part Number	L	OD	L1	SW	FT
SU3-2SF	46	Ø22	13.5	19	1/4"NPT
SU3-3SF	48	Ø22	15.5	20	3/8"NPT
SU3-4SF	50.5	Ø22	17.5	25	1/2"NPT

SU3-SM (Male Thread)



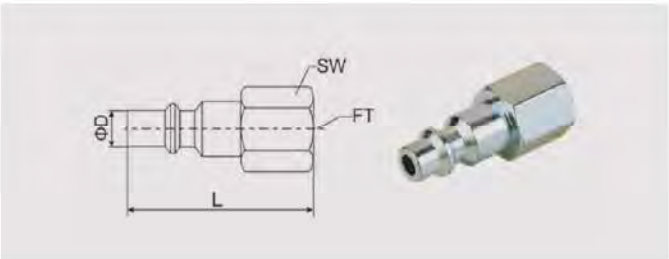
Part Number	L	OD	L1	SW	MT
SU3-2SM	55	Ø22	10.5	19	1/4"NPT
SU3-3SM	55.5	Ø22	11	19	3/8"NPT
SU3-4SM	59	Ø22	13.5	21	1/2"NPT

SU3-SH (Hose Barb)



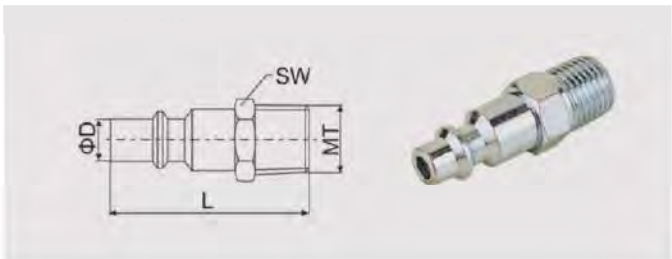
Part Number	L	OD	L1	SW	OH
SU3-2PH	60.5	Ø22	16	19	Ø6.35
SU3-3PH	62.5	Ø22	18	19	Ø8
SU3-4PH	64.5	Ø22	20	19	Ø10

SU3-PF (Female Thread)



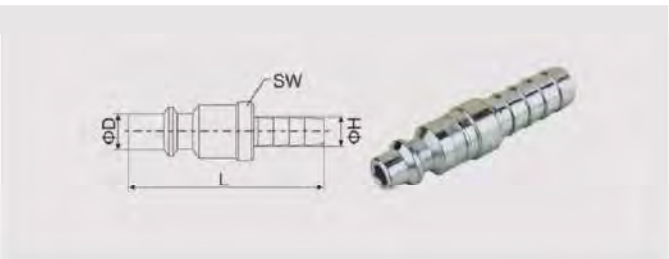
Part Number	L	OD	L1	SW	FT
SU3-2PF	37	Ø7.9	14	16	1/4"NPT
SU3-3PF	39	Ø7.9	16	20	3/8"NPT
SU3-4PF	41.5	Ø7.9	18.5	25	1/2"NPT

SU3-PM (Male Thread)



Part Number	L	OD	L1	SW	MT
SU3-2PM	38.5	Ø7.9	10.5	14	1/4"NPT
SU3-3PM	40	Ø7.9	11	17	3/8"NPT
SU3-4PM	43.5	Ø7.9	13.5	21	1/2"NPT

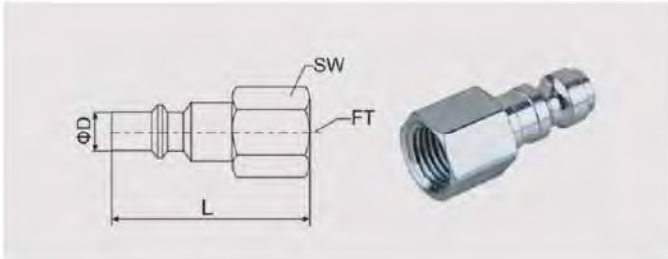
SU3-PH (Hose Barb)



Part Number	L	OD	L1	SW	OH
SU3-2PH	43	Ø7.9	16	13	Ø6.35
SU3-3PH	46	Ø7.9	18	13	Ø8
SU3-4PH	48	Ø7.9	20	13	Ø10

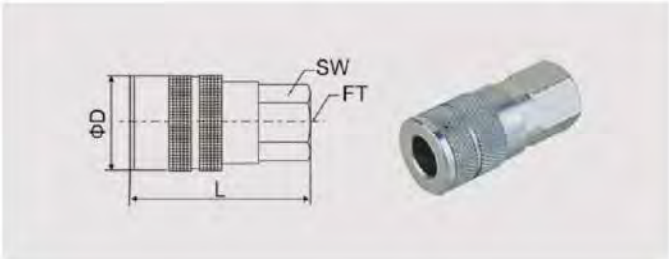
USA Type Quick Coupler

SU5-PF (Female Thread)



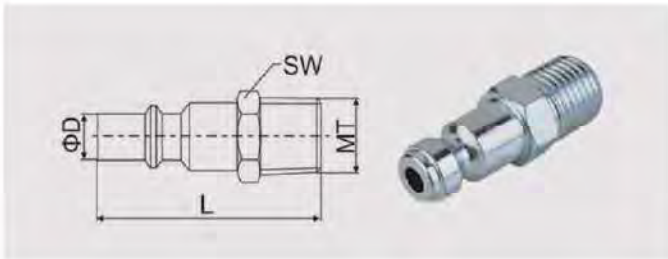
Part Number	L	OD	L1	SW	FT
SU5-2PF	37	Ø7.9	14	16	1/4"NPT
SU5-3PF	39	Ø7.9	18	20	3/8"NPT
SU5-4PF	41.5	Ø7.9	18.5	25	1/2"NPT

SU5-SF (Male Thread)



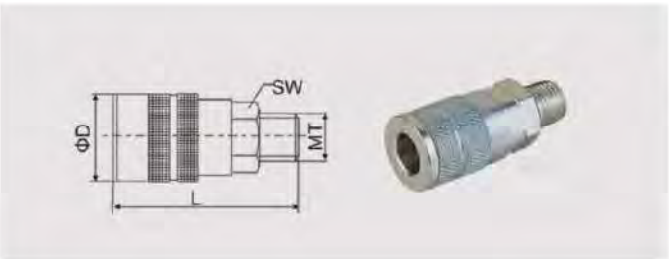
Part Number	L	OD	L1	SW	MT
SU5-2SF	47.5	Ø24	15.5	17	1/4"NPT
SU5-3SF	48	Ø24	18	20	3/8"NPT
SU5-4SF	50.5	Ø24	18.5	25	1/2"NPT

SU5-PM (Hose Barb)



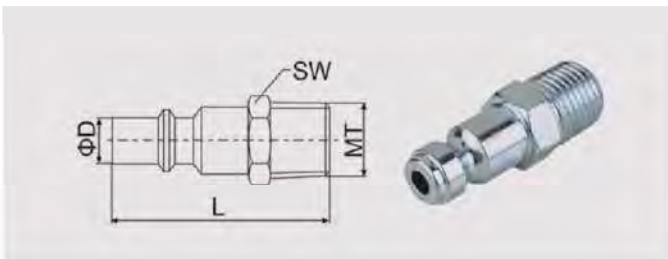
Part Number	L	OD	L1	SW	MT
SU5-2PM	38.5	Ø7.9	10.5	14	1/4"NPT
SU5-3PM	40	Ø7.9	11	17	3/8"NPT
SU5-4PM	43.5	Ø7.9	13.5	21	1/2"NPT

SU5-SM (Female Thread)



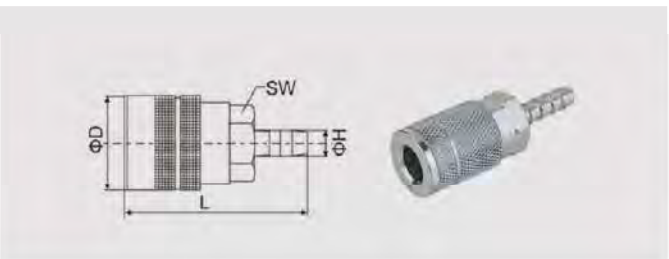
Part Number	L	OD	L1	SW	FT
SU5-2SM	50.5	Ø24	10.5	17	1/4"NPT
SU5-3SM	51.5	Ø24	11	17	3/8"NPT
SU5-4SM	55	Ø24	13.5	21	1/2"NPT

SU5-PH (Male Thread)



Part Number	L	OD	L1	SW	OH
SU5-2PH	43	Ø7.9	18	13	Ø6.35
SU5-3PH	46	Ø7.9	18	13	Ø8
SU5-4PH	48	Ø7.9	20	13	Ø10

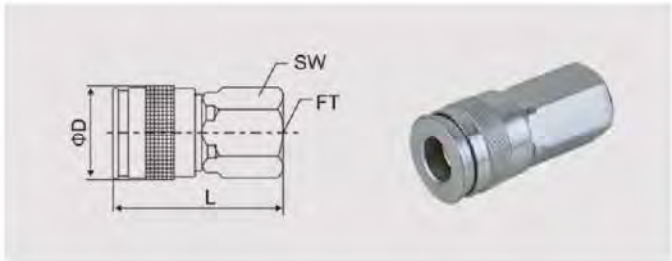
SU5-SH (Hose Barb)



Part Number	L	OD	L1	SW	OH
SU5-2SH	56	Ø24	16	17	Ø6.35
SU5-3SH	58	Ø24	18	17	Ø8
SU5-4SH	60	Ø24	20	17	Ø10

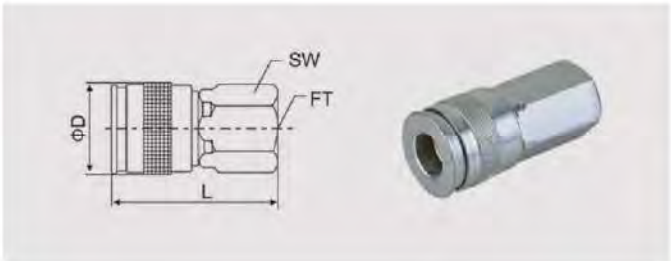
USA Type Quick Coupler

SU13-SF (Female Thread)



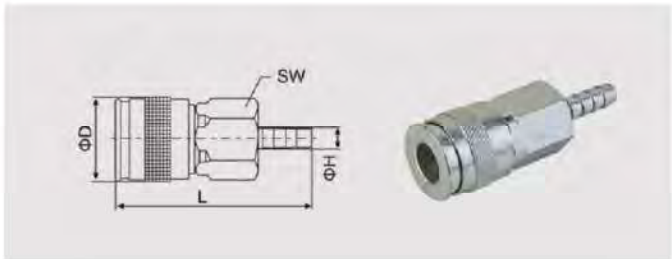
Part Number	L	OD	L1	SW	FT
SU13-2SF	55	Ø25	27	21	1/4"NPT
SU13-3SF	58	Ø25	28	21	3/8"NPT
SU13-4SF	57.5	Ø25	30.5	25	1/2"NPT

SU13-SM (Male Thread)



Part Number	L	OD	L1	SW	MT
SU13-2SM	54.3	Ø25	11	21	1/4"NPT
SU13-3SM	55.3	Ø25	11.5	21	3/8"NPT
SU13-4SM	56	Ø25	13.5	21	1/2"NPT

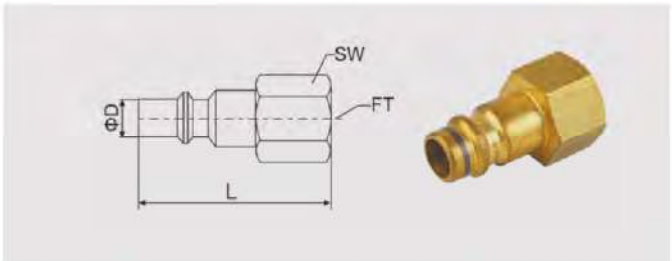
SU13-SH (Hose Barb)



Part Number	L	OD	L1	SW	OH
SU13-2SH	59.3	Ø25	16	21	Ø6.35
SU13-3SH	61.3	Ø25	18	21	Ø8
SU13-4SH	63.3	Ø25	20	21	Ø10

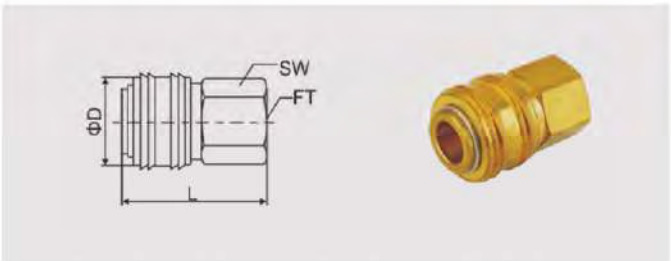
Europe Type Quick Coupler

SE-PF (Female Thread)



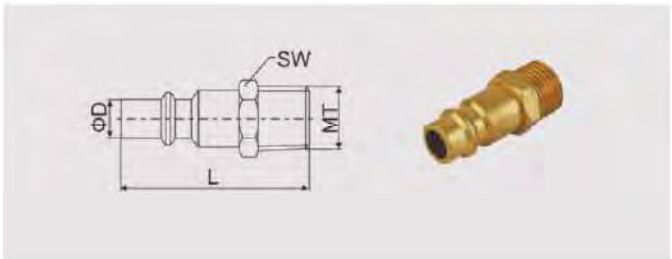
Part Number	L	OD	L1	SW	FT
SE-2PF	35.5	Ø9.9	15	16	1/4"NPT
SE-3PF	37	Ø9.9	16.5	20	3/8"NPT
SE-4PF	38.5	Ø9.9	18	25	1/2"NPT

SE-SF (Male Thread)



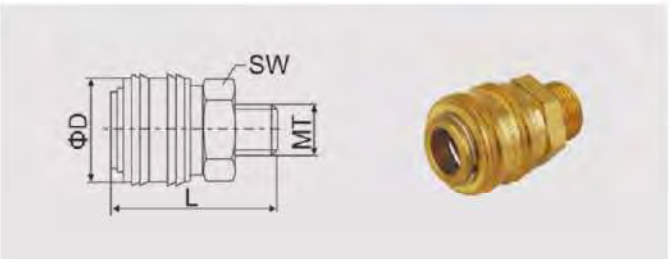
Part Number	L	OD	L1	SW	FT
SE-2SF	41	Ø26	17	21	1/4"NPT
SE-3SF	42	Ø26	18	21	3/8"NPT
SE-4SF	45	Ø26	24	25	1/2"NPT

SE-PM (Hose Barb)



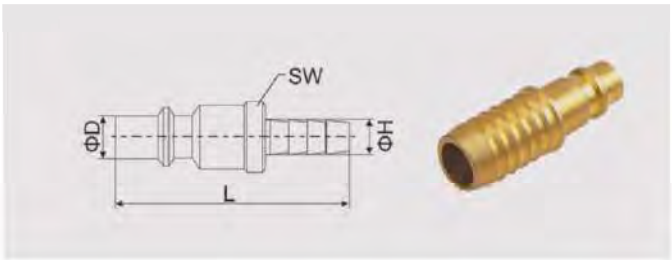
Part Number	L	OD	L1	SW	MT
SE-2PM	36	Ø9.9	10.5	14	1/4"NPT
SE-3PM	37	Ø9.9	11	17	3/8"NPT
SE-4PM	41	Ø9.9	13.5	21	1/2"NPT

SE-SM (Female Thread)



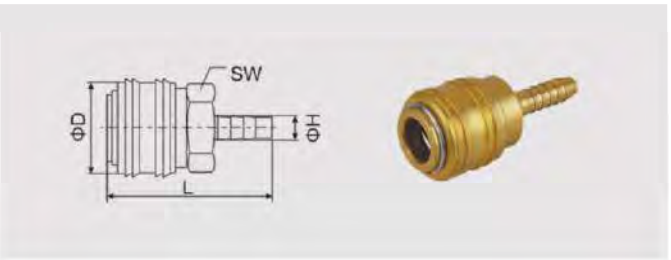
Part Number	L	OD	L1	SW	FT
SE-2SM	42.5	Ø26	10.5	21	1/4"NPT
SE-3SM	43	Ø26	11	21	3/8"NPT
SE-4SM	47	Ø26	13.5	21	1/2"NPT

SE-PH (Male Thread)



Part Number	L	OD	L1	SW	OH
SE-2PH	40.5	Ø9.9	18	13	Ø6.35
SE-3PH	42.5	Ø9.9	18	13	Ø8
SE-4PH	45.5	Ø9.9	20	13	Ø10

SE-SH (Hose Barb)



Part Number	L	OD	L1	SW	OH
SE-2SH	49	Ø26	16	21	Ø6.35
SE-3SH	51	Ø26	18	21	Ø8
SE-4SH	53	Ø26	20	21	Ø10

AIR TUBES

Fittings, Tubings & Accessories



PU (Polyurethane) Tube

PU STRAIGHT TUBE



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U1x0425	2.5	4	200	-20°C-60°C (-5°F → 140°F)	150 PSI (10Bar/1MPa)
U1x0504	4	6	200		150 PSI (10Bar/1MPa)
U1x0805	5	8	100		150 PSI (10Bar/1MPa)
U1x1085	6.5	10	100		150 PSI (10Bar/1MPa)
U1x1208	8	12	100		135 PSI (9Bar/0.9MPa)
U1x1410	10	14	50		100 PSI (7Bar/0.7MPa)
U1x1612	12	16	50		100 PSI (7Bar/0.7MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U1x04160	0.16"	1/4"	100	-20°C-60°C (-5°F → 140°F)	150 PSI (10Bar/1MPa)
U1x05160	0.187"	5/16"	100		135 PSI (9Bar/0.9MPa)
U1x08250	0.25"	3/8"	50		135 PSI (9Bar/0.9MPa)
U1x10230	0.32"	1/2"	50		135 PSI (9Bar/0.9MPa)
U1x16375	0.375"	9/16"	50		135 PSI (9Bar/0.9MPa)

Features

- Super mechanical strength and excellent abrasive resistance
- Superior heat and cold resistance
- Oil resistance & Light weight
- Meet the international norms : ISO 14743 , ISO 14746

Color Code(x)

- 1: Orange
- 2: Blue
- 3: Black
- 4: Yellow
- 5: Clear
- 6: Green

PU RECOIL TUBE



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U2x0425	2.5	4	3M	-20°C-60°C (-5°F → 140°F)	150 PSI (10Bar/1MPa)
U2x0504	4	6	3M		150 PSI (10Bar/1MPa)
U2x0805	5	8	6M		150 PSI (10Bar/1MPa)
U2x1085	6.5	10	9M		150 PSI (10Bar/1MPa)
U2x1208	8	12	12M		135 PSI (9Bar/0.9MPa)
U2x1410	10	14	15M		100 PSI (7Bar/0.7MPa)
U2x1612	12	16			100 PSI (7Bar/0.7MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U2x04160	0.16"	1/4"	3M	-20°C-60°C (-5°F → 140°F)	150 PSI (10Bar/1MPa)
U2x05160	0.187"	5/16"	6M		135 PSI (9Bar/0.9MPa)
U2x08250	0.25"	3/8"	9M		135 PSI (9Bar/0.9MPa)
U2x10230	0.32"	1/2"	12M		135 PSI (9Bar/0.9MPa)
U2x16375	0.375"	9/16"	15M		135 PSI (9Bar/0.9MPa)

Features

- Super mechanical strength and excellent abrasive resistance
- Superior heat and cold resistance
- Oil resistance & Light weight
- Meet the international norms : ISO / TS 11619

Color Code(x)

- 1: Orange
- 2: Blue
- 3: Black
- 4: Yellow
- 5: Clear
- 6: Green

PU BRAID TUBE



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U710605	5	8	100	-20°C-60°C (-5°F → 140°F)	175 PSI (12Bar/1.2MPa)
U711065	6.5	10	100		200 PSI (14Bar/1.4MPa)
U711208	8	12	100		200 PSI (14Bar/1.4MPa)
U711410	10	14	50		200 PSI (14Bar/1.4MPa)
U711611	11	16	50		200 PSI (14Bar/1.4MPa)
U711813	13	18	50		200 PSI (14Bar/1.4MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U71516187	0.187"	5/16"	100	-20°C-60°C (-5°F → 140°F)	200 PSI (14Bar/1.4MPa)
U71308250	0.25"	3/8"	100		200 PSI (14Bar/1.4MPa)
U71102230	0.32"	1/2"	100		200 PSI (14Bar/1.4MPa)
U71916375	0.375"	9/16"	50/100		200 PSI (14Bar/1.4MPa)
U714564500	0.5"	45/64"	50		200 PSI (14Bar/1.4MPa)

Features

- Lighter weight
- High flexibility even under 0° C
- High durability
- Meet the international norms : ISO 14743, ISO 11619

PU RECOIL BRAID TUBE



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U810605	5	8	3M	-20°C-60°C (-5°F → 140°F)	175 PSI (12Bar/1.2MPa)
U811065	6.5	10	6M		200 PSI (14Bar/1.4MPa)
U811208	8	12	9M		200 PSI (14Bar/1.4MPa)
U811410	10	14	12M		200 PSI (14Bar/1.4MPa)
U811611	11	16	15M		200 PSI (14Bar/1.4MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U81516187	0.187"	5/16"	3M	-20°C-60°C (-5°F → 140°F)	200 PSI (14Bar/1.4MPa)
U81308250	0.25"	3/8"	6M		200 PSI (14Bar/1.4MPa)
U81102230	0.32"	1/2"	9M		200 PSI (14Bar/1.4MPa)
U81916375	0.375"	9/16"	12M		200 PSI (14Bar/1.4MPa)
			15M		200 PSI (14Bar/1.4MPa)

Features

- Lighter weight
- High flexibility even under 0° C
- High durability

Fittings, Tubings & Accessories

Nylon Tube

NYLON STRAIGHT TUBE (NYLON6)



Metrics Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U3x0425	2.5	4	200	-40°C→+80°C (-40°F→+176°F)	500 PSI (34Bar/3.4MPa)
U3x0604	4	6	100		500 PSI (34Bar/3.4MPa)
U3x0806	6	8	100		340 PSI (23Bar/2.3MPa)
U3x1008	8	10	100		300 PSI (21Bar/2.1MPa)
U3x1209	9	12	100		300 PSI (21Bar/2.1MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U3x104180	0.18"	1/4"	100	-40°C→+80°C (-40°F→+176°F)	366 PSI (26Bar/2.6MPa)
U3x060606	0.5"	5/8"	100		225 PSI (15Bar/1.5MPa)
U3x080875	0.275"	3/8"	100		353 PSI (24Bar/2.4MPa)
U3x102375	0.375"	1/2"	100		362 PSI (26Bar/2.6MPa)

Color Code(x)

- 1: Black
- 2: White

NYLON STRAIGHT TUBE (NYLON12)



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U5x0425	2.5	4	200	-40°C→+110°C (-40°F→+230°F)	500PSI (34Bar/3.4MPa)
U5x0604	4	6	100		500PSI (34Bar/3.4MPa)
U5x0806	6	8	100		300PSI (21Bar/2.1MPa)
U5x1008	8	10	100		300PSI (21Bar/2.1MPa)
U5x1209	9	12	100		300PSI (21Bar/2.1MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U5x180104	1/4"	0.18"	100	-40°C→+110°C (-40°F→+230°F)	366PSI (26Bar/2.6MPa)
U5x060606	5/8"	0.5"	100		225PSI (15Bar/1.5MPa)
U5x075308	3/8"	0.275"	50		353PSI (24Bar/2.4MPa)
U5x075102	1/2"	0.375"	50		362PSI (26Bar/2.6MPa)

Features

- Excellent dimension stability
- Superior heat and cold resistance
- Lighter proportion
- Excellent resistance to kinds of chemicals and liquids
- Highly resistance to impact resilience in low temperature
- Excellent durability
- Low penetrability
- Meet the international norms : ISO 14743

Color Code(x)

- 1: Black
- 2: White

NYLON RECOIL TUBE (NYLON6)



PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U4x0604	4	6	3M	-40°C→+80°C (-40°F→+176°F)	300 PSI (21Bar/2.1MPa)
U4x0606	6	8	6M		300 PSI (21Bar/2.1MPa)
U4x1075	7.5	10	9M		300 PSI (21Bar/2.1MPa)
U4x1210	10	12	15M		300 PSI (21Bar/2.1MPa)

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U4x104180	0.18"	1/4"	3M	-40°C→+80°C (-40°F→+176°F)	300 PSI (21Bar/2.1MPa)
U4x060606	0.5"	5/8"	6M		300 PSI (21Bar/2.1MPa)
U4x102275	0.275"	1/2"	12M		300 PSI (21Bar/2.1MPa)
			15M		300 PSI (21Bar/2.1MPa)

Features

- Light weight and permanently coiled.
- Quality nylon formulation resists moisture absorption and abrasion.
- Each assembly is supplied with durable brass compression fittings, tube inserts and hose Femules.
- Material: Nylon6
- Meet the international norms : ISO 14743

Color Code(x)

- 1: Black
- 2: White

NYLON RECOIL TUBE (NYLON12)



Metric Units

PART NUMBER	I.D. (mm)	O.D. (mm)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U6x0604	4	6	3M	-40°C→+110°C (-40°F→+230°F)	300PSI (21Bar/2.1MPa)
U6x0806	6	8	6M		300PSI (21Bar/2.1MPa)
U6x1075	7.5	10	9M		300PSI (21Bar/2.1MPa)
U6x1209	9	12	15M		300PSI (21Bar/2.1MPa)

Imperial Units

PART NUMBER	I.D. (inch)	O.D. (inch)	LENGTH (M)	TEMPERATURE	WORKING PRESSURE AT 23°C (73.4°F)
U6x104180	0.18"	1/4"	3M	-40°C→+110°C (-40°F→+230°F)	300 PSI (21Bar/2.1MPa)
U6x080875	0.275"	3/8"	6M		300 PSI (21Bar/2.1MPa)
U6x102375	0.375"	1/2"	12M		300 PSI (21Bar/2.1MPa)
			15M		300 PSI (21Bar/2.1MPa)

Color Code(x)

- 1: Black
- 2: White





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Sophistication
Redefined

Pneumatics

AIR GUNS

Fittings, Tubings & Accessories



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Fittings, Tubings & Accessories



DG-10-1



DG-10-2



DG-10-3



A60-1



A60-2



A60-3



A60-9



DG-15



DG-8



DG-9

Type	DG-10-1	DG-10-2	DG-10-3	A60-1	A60-2	A60-3	A60-9	DG-15	DG-8	DG-9
Working pressure(MPa)	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6
Standard length(mm)	28	50.5	94	26.5	108.5	215.5	26.5	26.5	26.5	125.5
Nozzle size(mm)	Φ 2.0	Φ 3.4	Φ 3.4	Φ 2.0	Φ 3.8	Φ 3.8	Φ 2.0	Φ 2.0	Φ 2.0	Φ 3.8

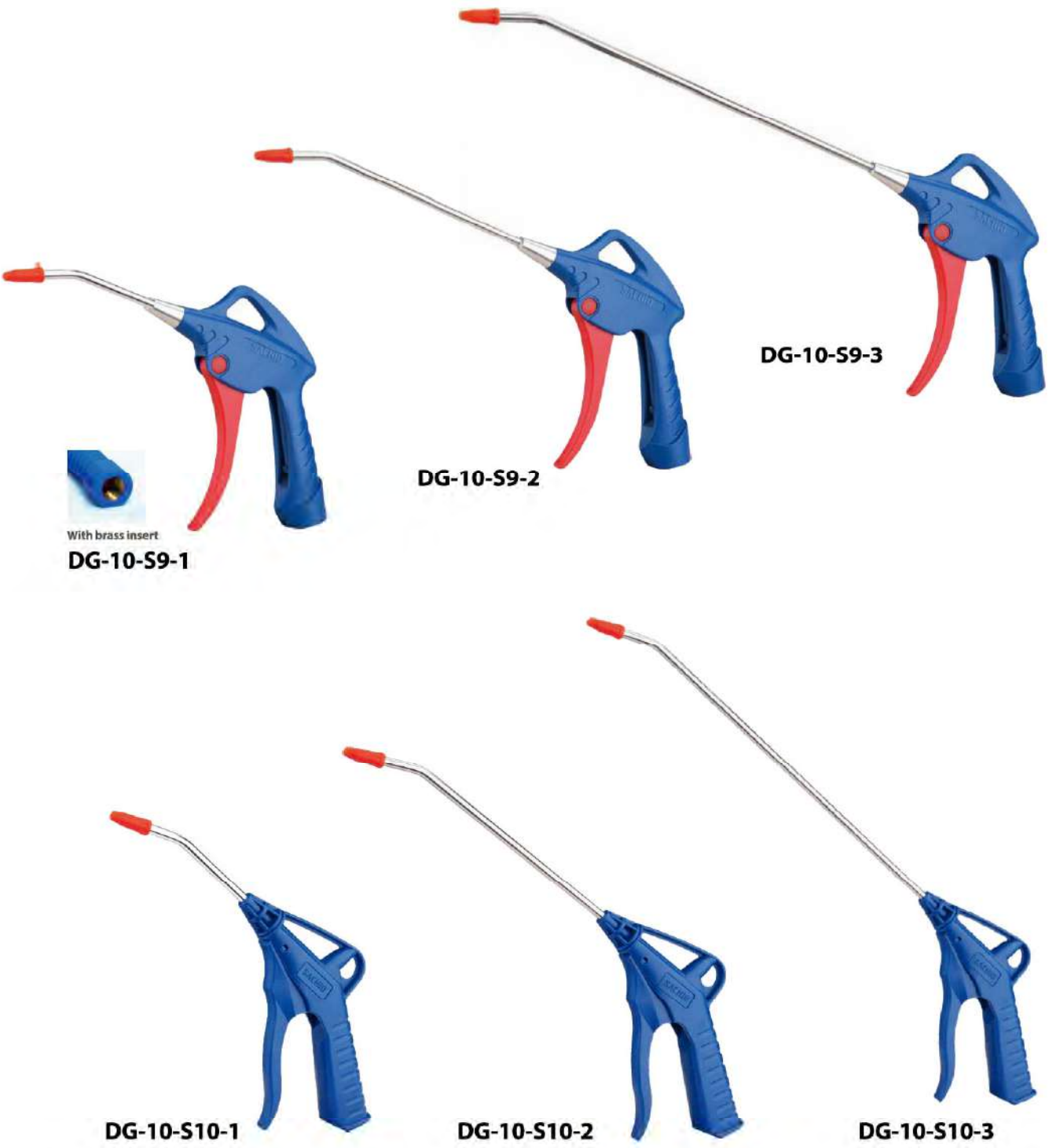


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MODEL	DG-10-S9-1	DG-10-S9-2	DG-10-S9-3	DG-10-S10-1	DG-10-S10-2	DG-10-S10-3
Working pressure(MPa)	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6
Standard length(mm)	100	200	300	100	200	300
Nozzle size(mm)	Φ 2.5	Φ 2.5	Φ 2.5	Φ 2.5	Φ 2.5	Φ 2.5

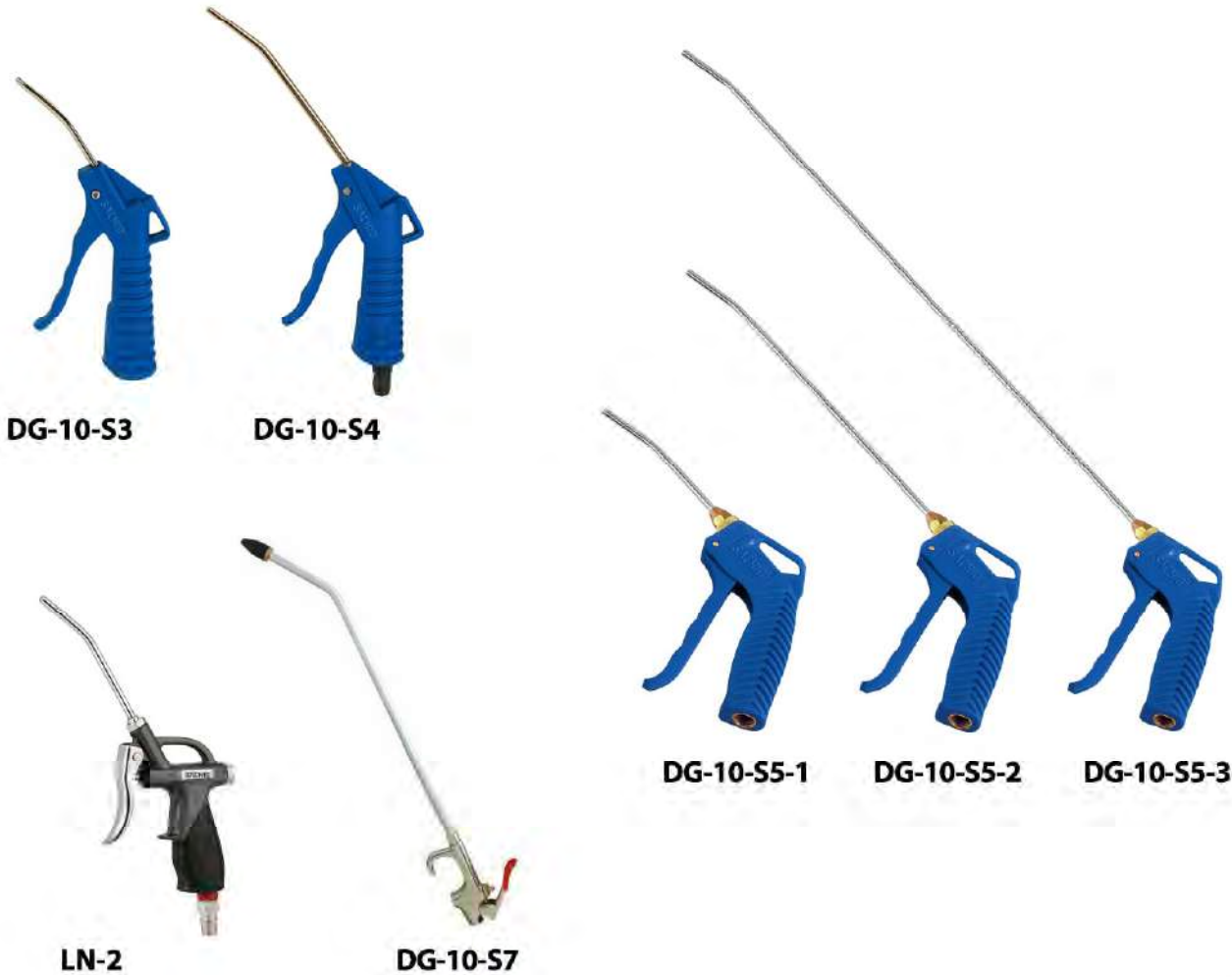


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MODEL	DG-10-S1	DG-10-S2	DG-10-S3	DG-10-S4	DG-10-S5-1	DG-10-S5-2	DG-10-S5-3	LN-2	DG-10-A	DG-10-AA	DG-10-S7	DG-10-S8
Working pressure(MPa)	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6
Standard length(mm)	107	281	107	281	82.5	327	527	107	28	50/94	313.5	107
Nozzle size(mm)	Φ 3.8	Φ 3.8	Φ 3.8	Φ 3.8	Φ 3.0	Φ 4.0	Φ 4.0	Φ 3.8	Φ 2.0	Φ 2.0	Φ 2.5	Φ 3.8