Compact 5-Port Solenoid Valve

JSY1000/3000/5000 Series

Non Plug-in

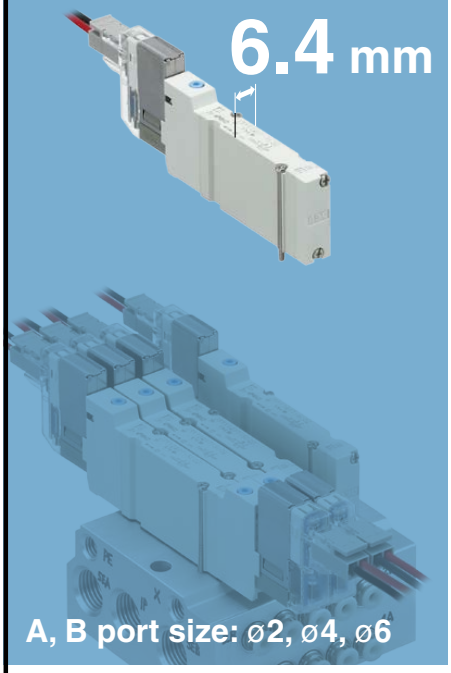
Size reduction possible thanks to a flow increase

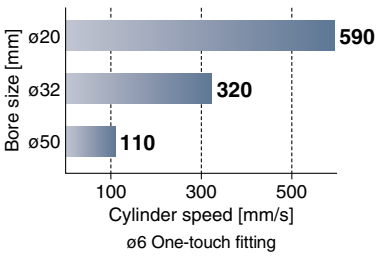
This leads to space saving, weight reduction, and a large flow rate.

*1 JSY3000 only

Possible to drive ø32*2 bore cylinders

JSY1000

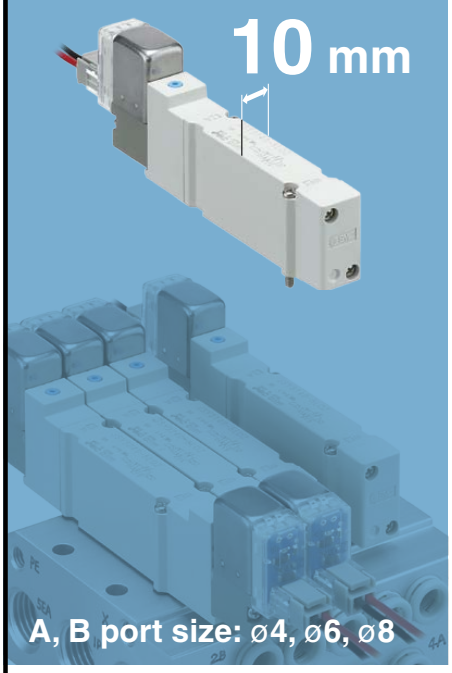


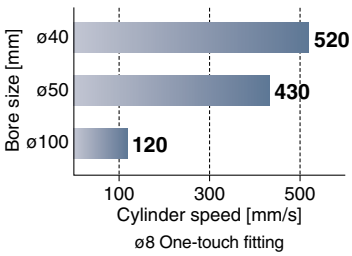


ø6 One-touch fitting

Possible to drive ø50*2 bore cylinders

JSY3000

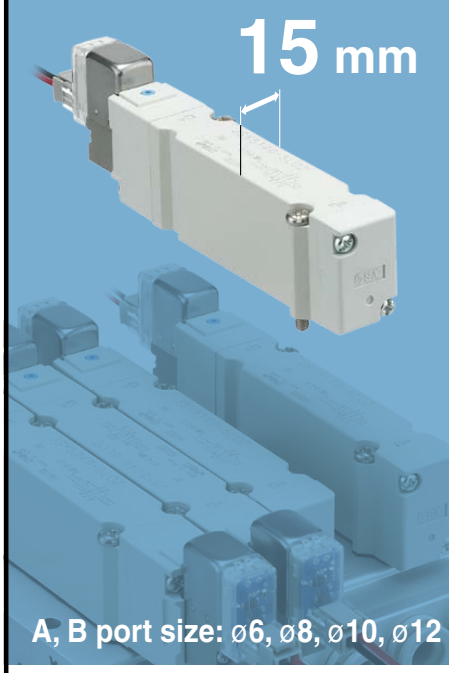




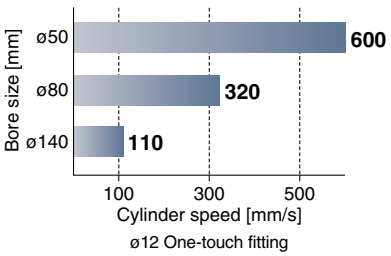
ø8 One-touch fitting

Possible to drive ø80*2 bore cylinders

JSY5000



*2 The cylinder speed is 300 mm/s



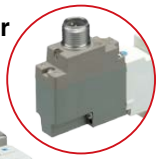
ø12 One-touch fitting

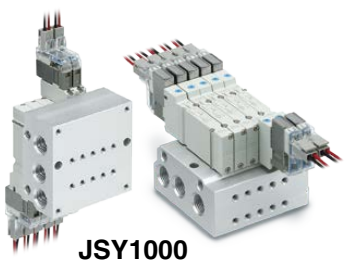
Refer to pages 168 to 171 for detailed conditions regarding the above cylinder speed.

An M8 connector has been added.
(JSY3000/5000 only)
p. 179

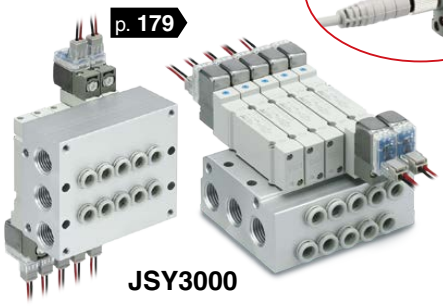


New An M12 connector has been added.
(JSY5000 only)
p. 179





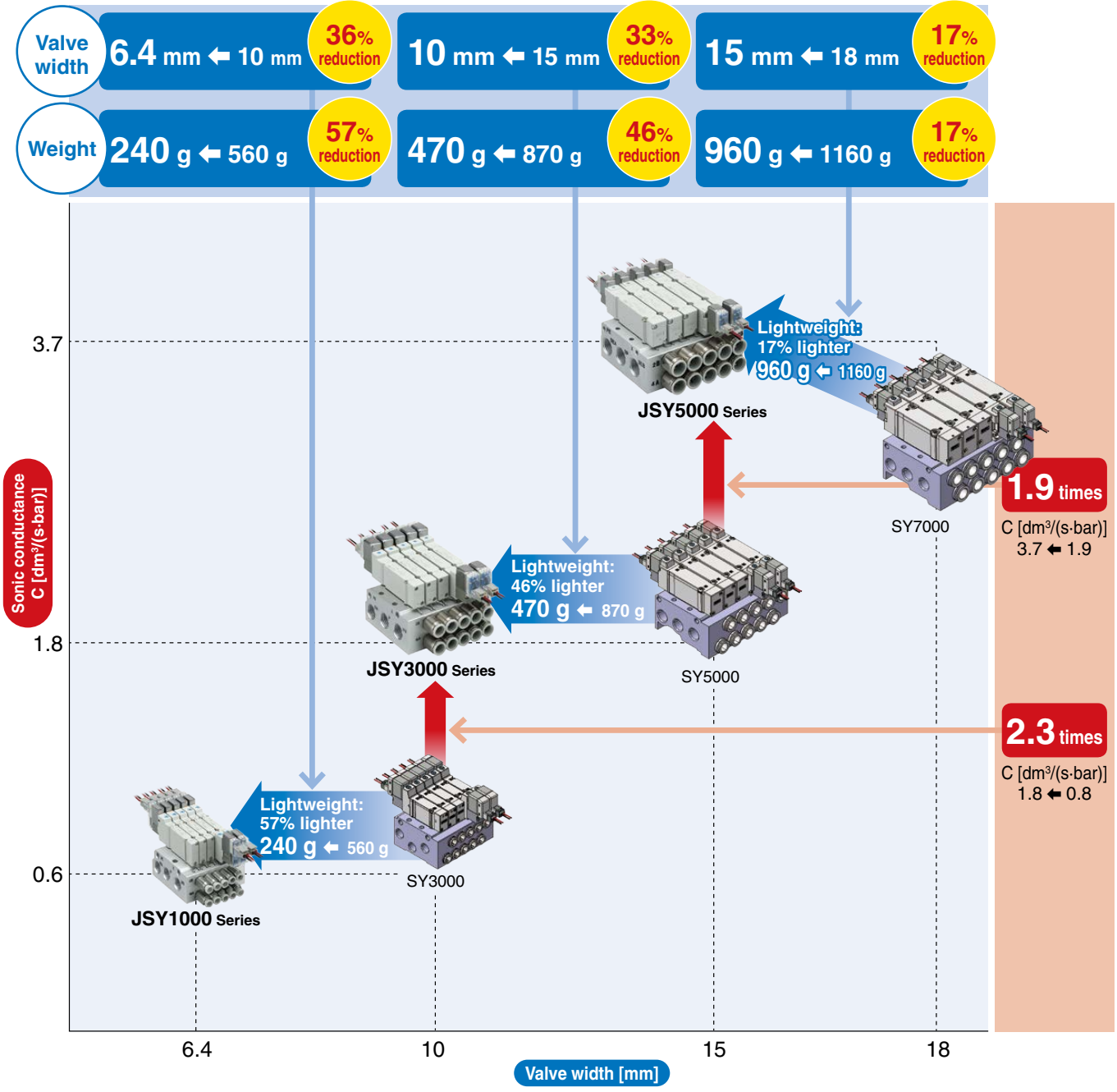
JSY1000



JSY3000

JSY5000

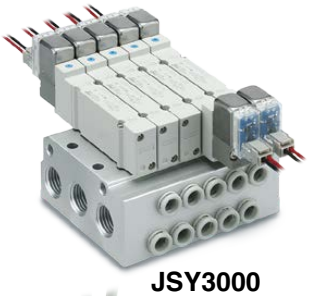
Series Map



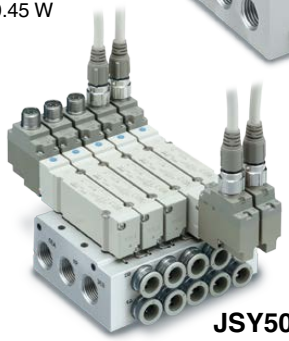
Power Consumption

With power saving circuit	JSY3000/5000	JSY1000	Standard	JSY3000/5000 *2
	0.1 W	0.2 W		0.4 W

*2 JSY1000 series available as power saving type only.
* DIN terminal: 0.45 W



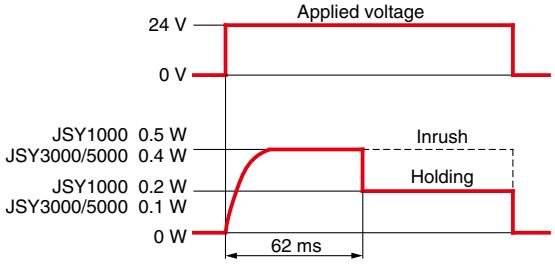
JSY3000



JSY5000

Power consumption is reduced by power saving circuit.

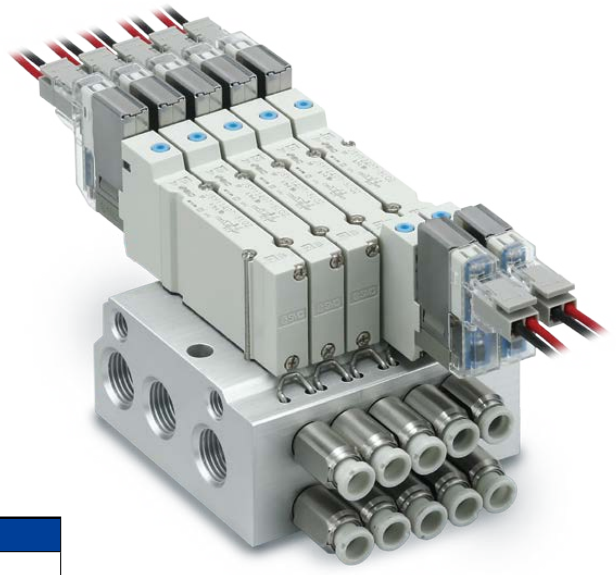
Power consumption is decreased to approx. 1/2.5 to 1/4 of the amount consumed at startup by reducing the wattage required to hold the valve in an energized state.
(Effective energizing time is over 62 ms at 24 VDC.) Refer to the electrical power waveform as shown on the right.



Space Saving

Volume Max. **36% reduction**

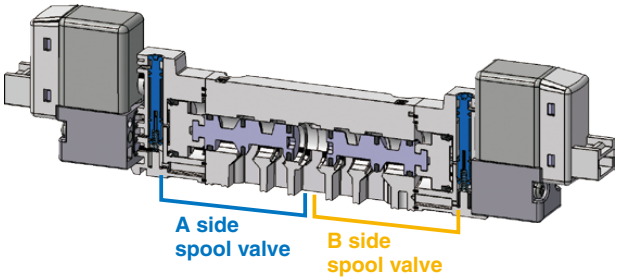
Weight Max. **57% reduction**



	Volume [cm³]	Weight [g]
JSY1000	210	240
SY3000	330 (36% reduction)	560 (57% reduction)
JSY3000	460	470
SY5000	640 (28% reduction)	870 (46% reduction)
JSY5000	850	960
SY7000	990 (14% reduction)	1160 (17% reduction)

4-Position Dual 3-Port Valve Available

• Two 3-port valves built into one body

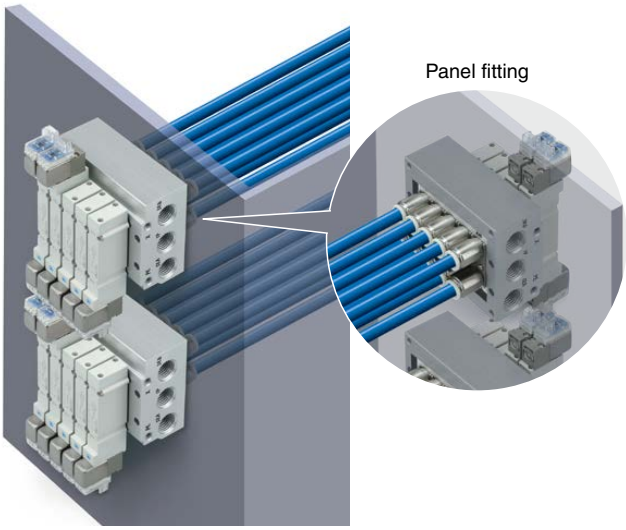


• 3-port valves on the A and B sides can operate independently.
• When used as a 3-port valve, only half the number of stations is required.
• Can also be used as a 4-position, 5-port valve

• Combination examples

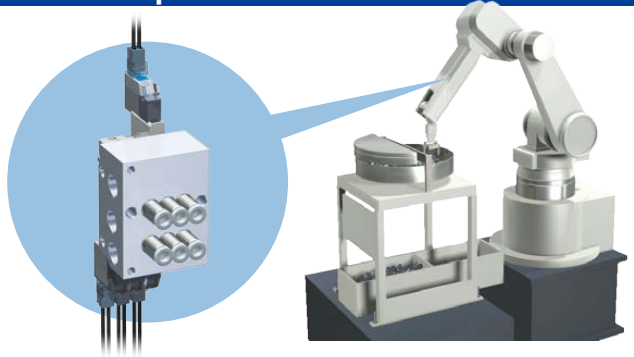
Model	A side	B side
JSY□A4□	N.C. valve	N.C. valve
JSY□B4□	N.O. valve	N.O. valve
JSY□C4□	N.C. valve	N.O. valve

Bottom ported is prepared (A, B port).

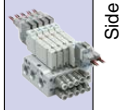
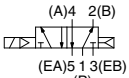
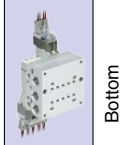
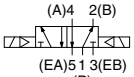
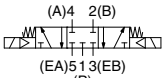
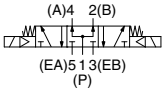
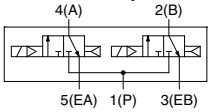
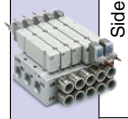
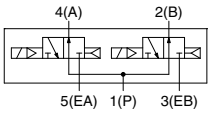
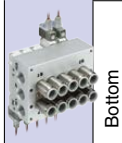
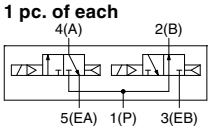


Application Examples





Series Variations

	Piping direction	Sonic conductance C [dm³/(s·bar)] {4/2→5/3 (A/B→EA/EB)} 4 (A), 2 (B) port	Sonic conductance C [dm³/(s·bar)] {4/2→5/3 (A/B→EA/EB)}	Type of actuation	Rated voltage	Port size: A, B port: Thread piping: M3	M5	1/8	1/4	Port size: A, B port: One-touch fitting: ø2	ø4	ø6	ø8	ø10	ø12	P, E port	Manifold Options: Blanking plate	Individual SUP spacer	Individual EXH spacer	SUP stop valve spacer with residual pressure release valve	Valve Options: Vacuum/Low pressure specification	Different pressures	Reverse pressure	Mixed fitting sizes	Enclosure IP65 compliant
JSY 1000 	Side	ø6	0.63	**2-position single** 	24 VDC	●	●	—	—	●	●	●	—	—	—	1/8	○ p.201	○ p.201	○ p.201	○ *1 p.201-1	▲ External pilot	○ Individual SUP	▲ External pilot	●	—
	Bottom		0.75	**2-position double** 																					
				3-position closed center 																					
JSY 3000 	Side	ø8	1.81	**3-position exhaust center** 		—	●	●	—	—	●	●	●	—	—	1/4									●	
	Bottom		2.13	**3-position pressure center** 																					
				4-position dual 3-port valve N.C. valve x 2 pcs. 																					
JSY 5000 	Side	ø12	3.72	**N.O. valve x 2 pcs.** 		—	—	●	●	—	—	●	●	●	●	3/8				—					● *2	
	Bottom		4.47	**N.C. valve, N.O. valve 1 pc. of each** 																					

● Standard ○ Option ▲ Made to Order (Refer to page 203.)

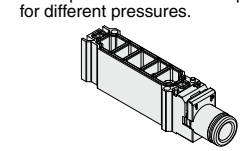
*1 Only M5 and ø6 for the A, B ports

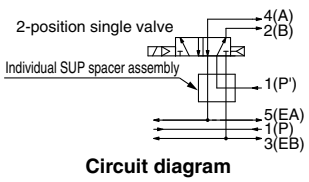
*2 Only for when using an M8 connector, DIN terminal, or M12 connector (DIN terminal and M12 connector: Only for the JSY5000)

Manifold Options

Individual SUP spacer p.201

When the same manifold is used for different pressures, an individual SUP spacer is used as a supply port for different pressures.



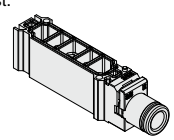


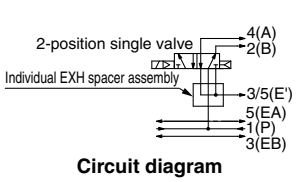
Circuit diagram

(Mounting example of a 2-position single valve)

Individual EXH spacer p.201

When valve exhaust affects other stations due to the circuit configuration, this spacer is used for individual valve exhaust.



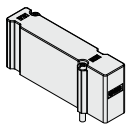


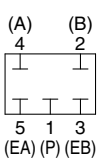
Circuit diagram

(Mounting example of a 2-position single valve)

Blanking plate p.201

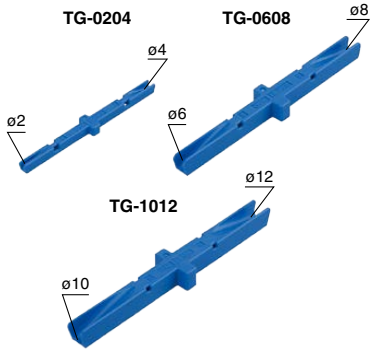
Used when valve additions are expected or for maintenance.





Tube Releasing Tool

This tool is used for removing the tube from port A and B. p.199



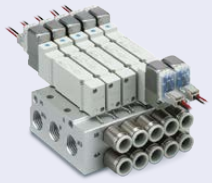
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(Specifications, Response Time, Weight) ..... p. 172

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Manifold

Non Plug-in **Metal Base**

Type 40 Side Ported/Type 41 Bottom Ported ..... p. 177



JSY1000
Side ported



JSY1000
Bottom ported



JSY3000
Side ported



JSY3000
Bottom ported



JSY5000
Side ported



JSY5000
Bottom ported

Non Plug-in Metal Base (Specifications, Flow Rate Characteristics, Weight) ..... p. 177

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Manifold Exploded View ..... p. 198

One-touch Fittings, Clip, Port Plate, Tube Releasing Tool ..... p. 199

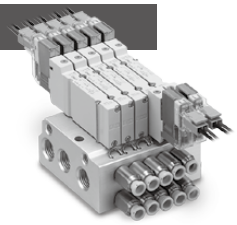
Manifold Options ..... p. 200

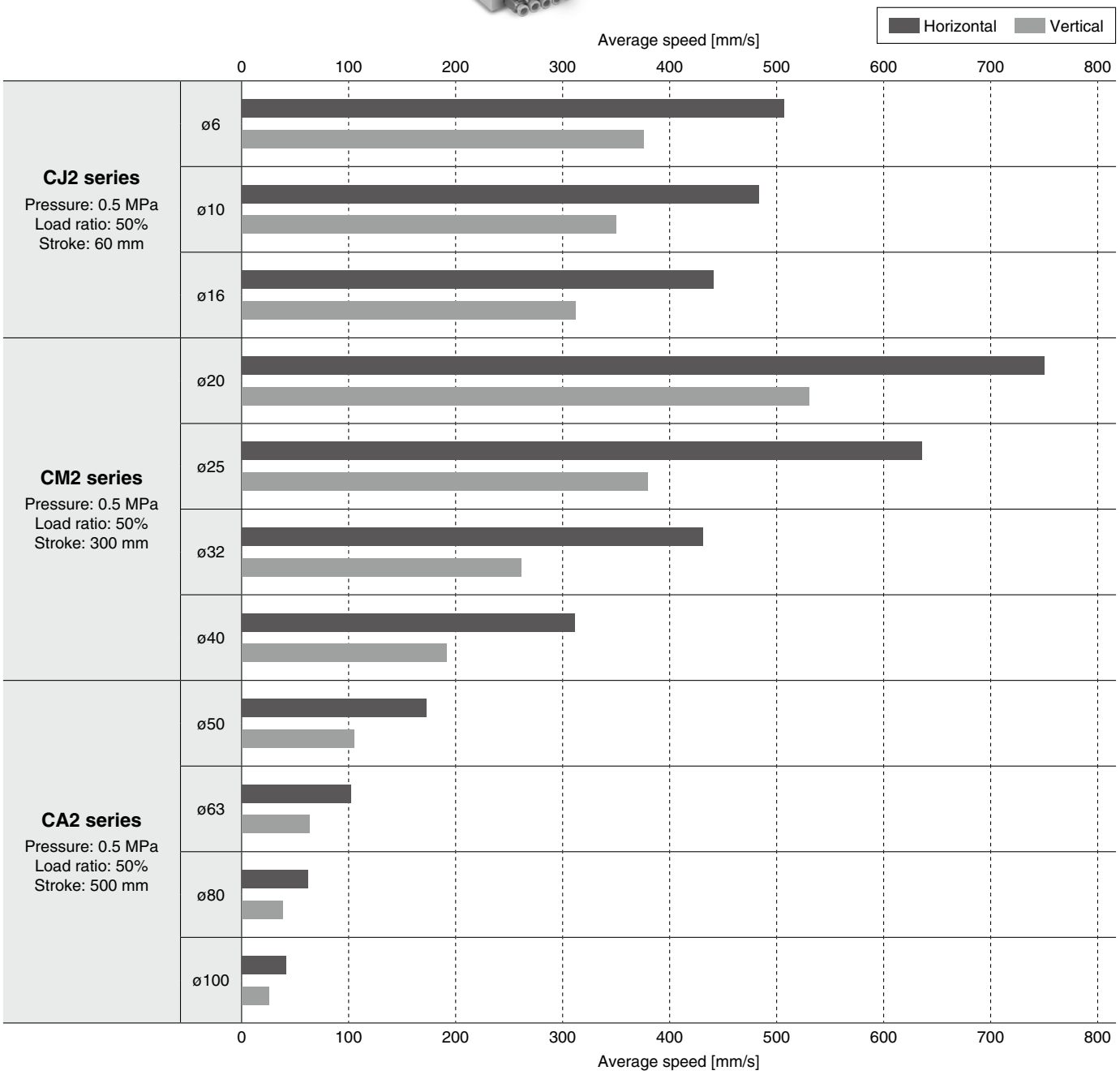
Made to Order ..... p. 203

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Optimum Actuation Size Chart of Air Cylinder

For JSY1000, A, B port: ø4

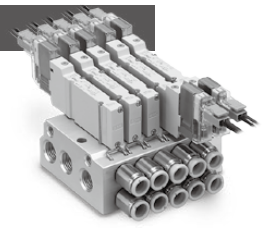


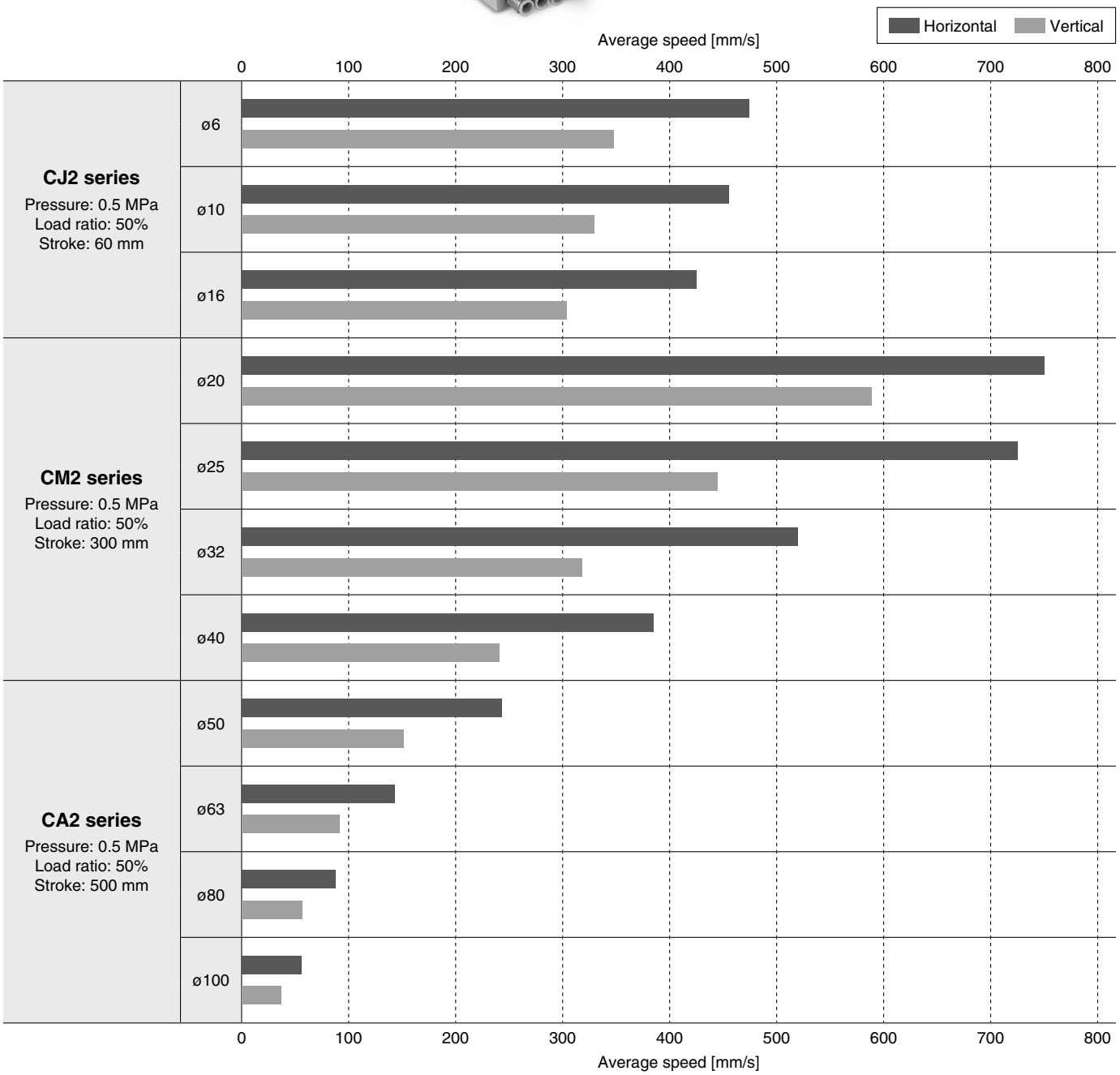


* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100%
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalog for details.

Optimum Actuation Size Chart of Air Cylinder

For JSY1000, A, B port: ø6

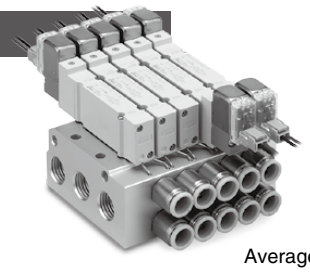


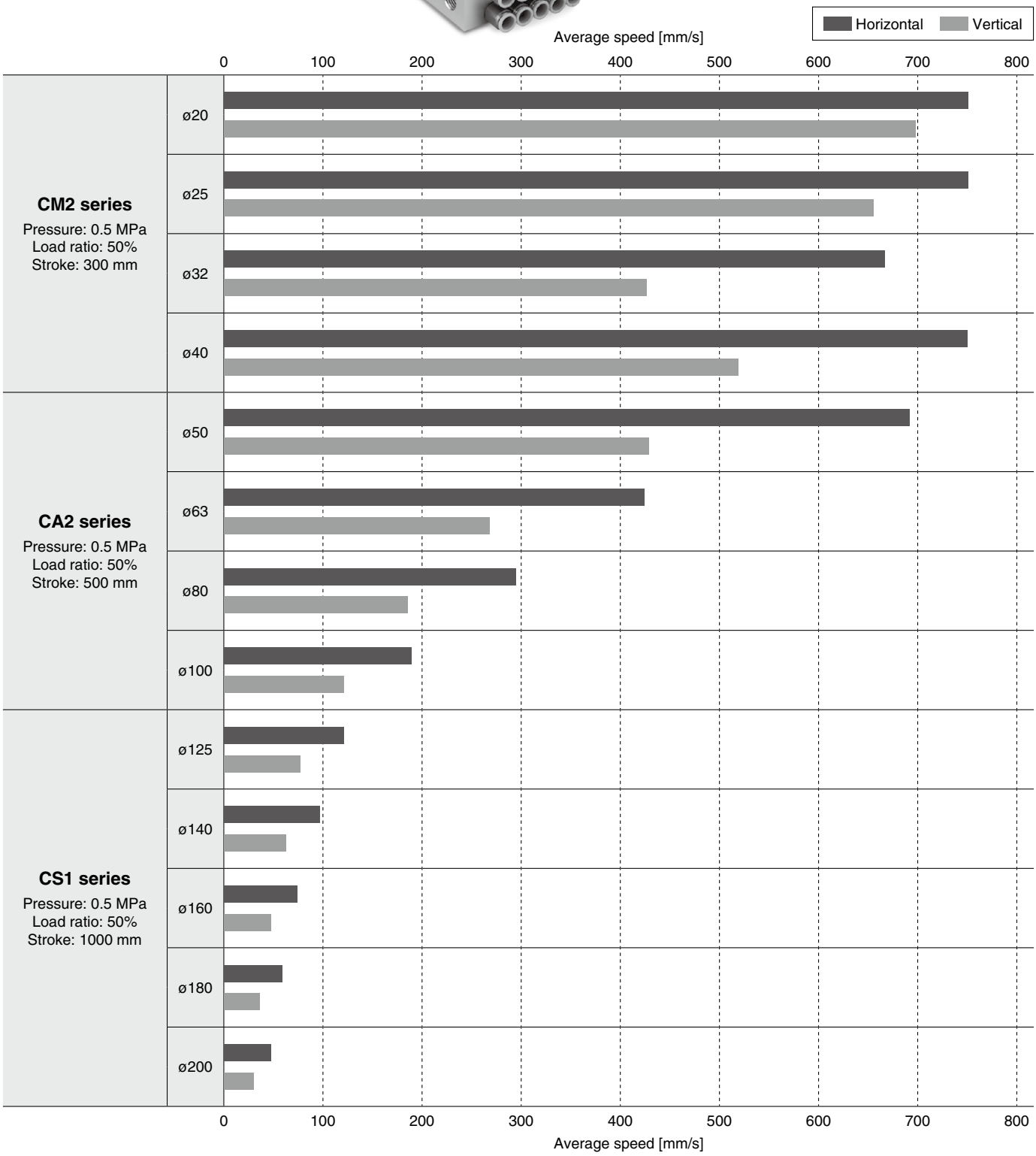


* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100%
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalog for details.

Optimum Actuation Size Chart of Air Cylinder

For JSY3000, A, B port: ø8

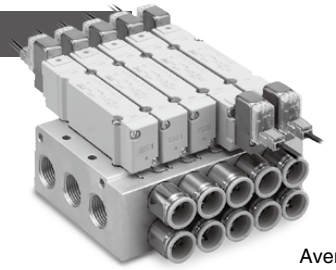


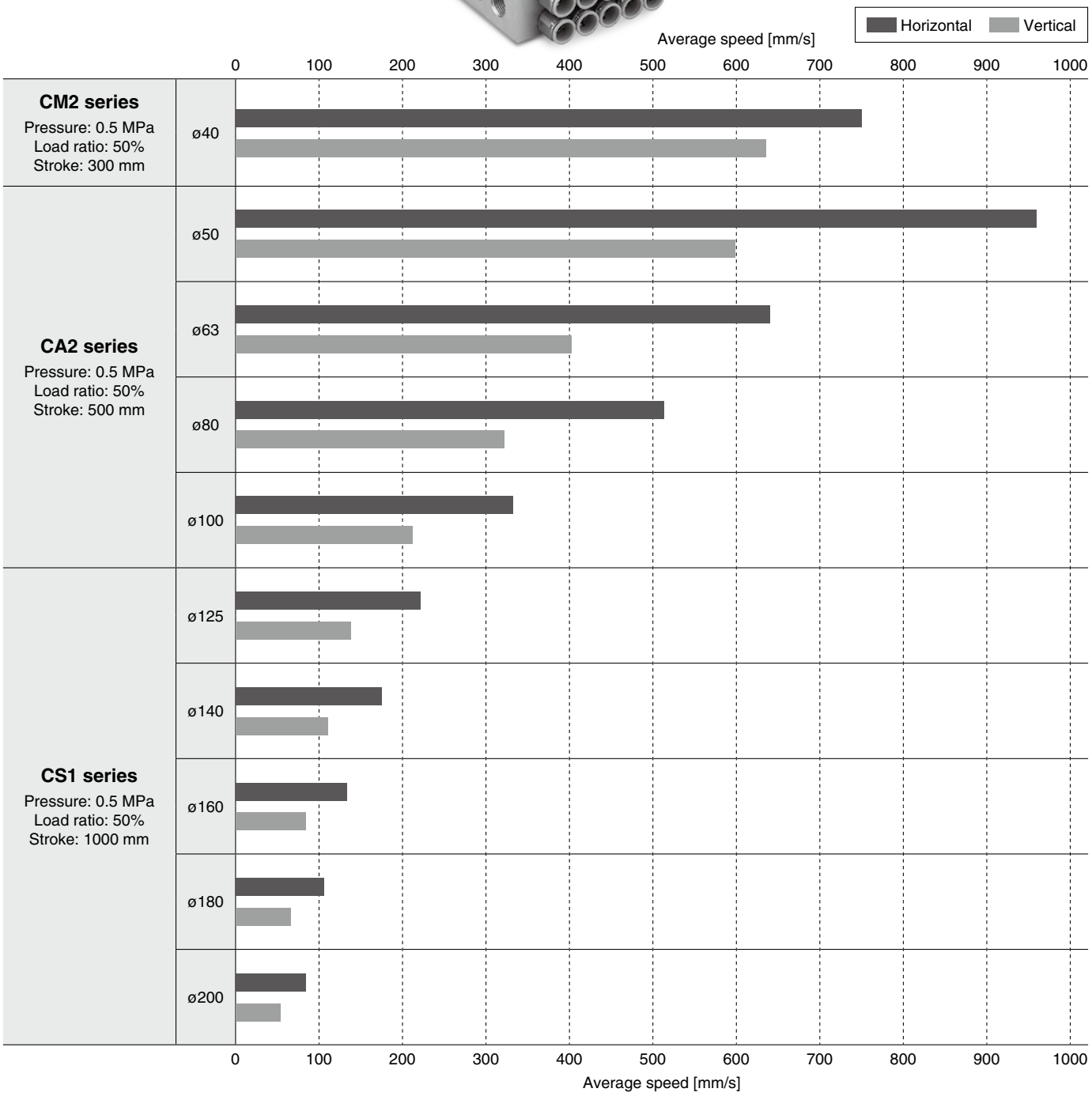


* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100%
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalog for details.

Optimum Actuation Size Chart of Air Cylinder

For JSY5000, A, B port: ø12





* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 100%
* Cylinder for horizontal use are based on the coefficient of rolling friction 0.1.
* Operating piston speed is different depending on the applicable cylinder. Refer to the cylinder catalog for details.

JSY1000/3000/5000 Series
Valve Specifications

Valve Specifications

Valve type				Rubber seal
Fluid				Air
Internal pilot operating pressure range [MPa]	**2-position single**			0.15 to 0.7
	2-position double			0.1 to 0.7
	3-position			0.2 to 0.7
	4-position dual 3-port valve			0.15 to 0.7
External pilot operating pressure range [MPa] (Made to Order)	**Operating pressure range**			–100 kPa to 0.7
	Pilot pressure range		**2-position single**	0.25 to 0.7
			2-position double	
			3-position	
Ambient and fluid temperatures [°C]				–10 to 50 (No freezing)
Max. operating frequency [Hz]	**JSY1000/3000**		**2-position single/double**	5
			4-position dual 3-port valve	
			3-position	3
	JSY5000		**2-position single/double**	5
			4-position dual 3-port valve	3
			3-position	3
Manual override				Non-locking push type
				Push-turn locking slotted type
				Push-turn locking lever type
Pilot exhaust type	**Internal pilot**			Individual exhaust
	External pilot (Made to Order)			
Lubrication				Not required
Mounting orientation∗1				Unrestricted
Impact/Vibration resistance∗1 **[m/s²]**				150/30
Enclosure				IP40: L plug connector (L), M plug connector (M) IP65: DIN terminal (D) (Y), M8 connector (W) (WA), M12 connector (K)
Electrical entry				L plug connector (L), M plug connector (M), DIN terminal (D) (Y), M8 connector (W) (WA), M12 connector (K)
Coil rated voltage [V]				24 VDC
Allowable voltage fluctuation			**JSY1000**	–7% to +10% of the rated voltage (24 VDC)
			JSY3000/5000	±10% of the rated voltage
Power consumption [W]	**DC**	**Standard**	**JSY3000/5000**	0.4 (DIN terminal: 0.35 W [Without light], 0.45 [With light])
		With power saving circuit∗4	**JSY1000**	0.2∗2 [Inrush 0.5, Holding 0.2]
			JSY3000/5000	0.1∗3 [Inrush 0.4, Holding 0.1]
Surge voltage suppressor				Diode (Varistor for the DIN terminal type)
Indicator light				LED

∗1 Impact resistance: No malfunction occurred when it is tested in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)
Refer to page 210 for the fixation of DIN rail mounting type manifold.
∗2 JSY1000 series available as power saving type only. Standard type (without power saving circuit) cannot be selected.
∗3 The type with a power-saving circuit is not available for the DIN terminal, M8 connector, and M12 connector types.
∗4 For details, refer to page 208.

Response Time/Valve Weight

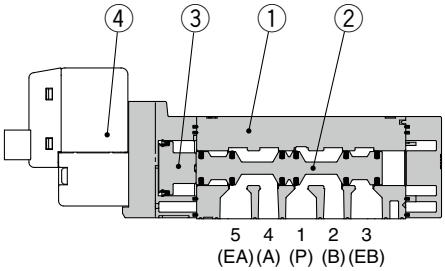
Series	Seal type	Model	Type of actuation	Response time [ms] (at 0.5 MPa)*1	Weight [g]			
				Standard				
				With light/surge voltage suppressor	L/M plug connector	DIN terminal	W/WA M8 connector	K M12 connector
				Z type				
JSY1000	Rubber seal	**JSY1140T**	2-position single	15	17	—	—	—
		JSY1240T	2-position double	5	24			
		JSY1(3/4/5)40T	3-position	13	25			
		JSY1(A/B/C)40T	4-position dual 3-port valve	14	24			
JSY3000		**JSY3140**	2-position single	27	34		38	
		JSY3240	2-position double	10	49		57	
		JSY3(3/4/5)40	3-position	30	52		60	
		JSY3(A/B/C)40	4-position dual 3-port valve	27	48		56	
JSY5000		**JSY5140**	2-position single	42	66	94	70	88
		JSY5240	2-position double	13	83	139	91	127
		JSY5(3/4/5)40	3-position	40	93	149	101	137
		JSY5(A/B/C)40	4-position dual 3-port valve	41	80	136	88	124

*1 Based on dynamic performance test, JIS B 8419-2010. (Coil temperature: 20°C, at rated voltage)
* The valve response time may vary depending on the operating conditions.

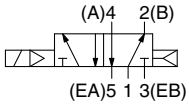
JSY1000/3000/5000 Series
Valve Construction

Rubber Seal

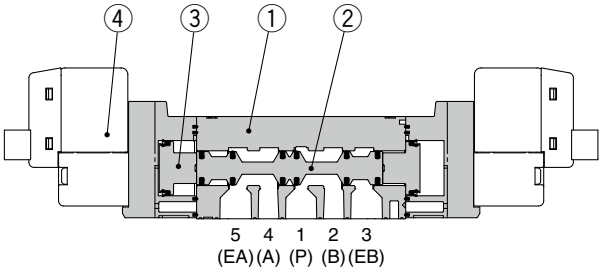
2-position single



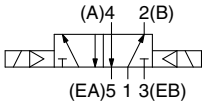
2-position single



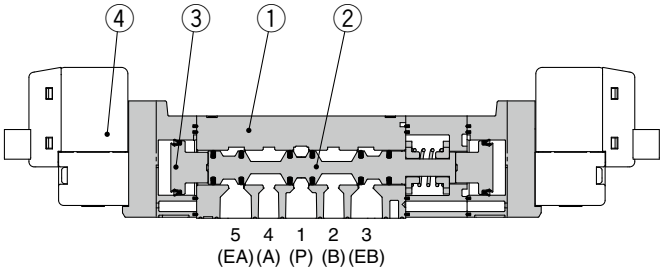
2-position double



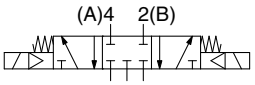
2-position double



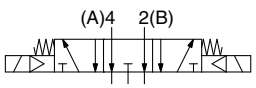
3-position closed center/exhaust center/pressure center



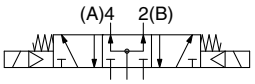
3-position closed center



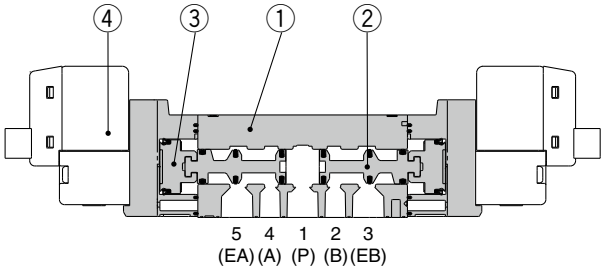
3-position exhaust center



3-position pressure center

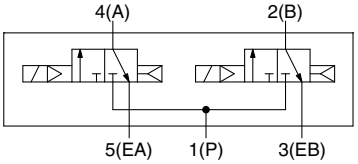


4-position dual 3-port valve

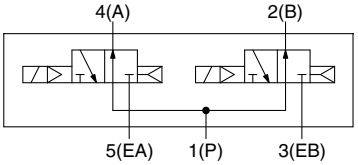


4-position dual 3-port valve

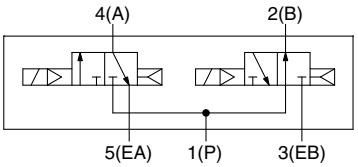
N.C. valve x 2 pcs.



N.O. valve x 2 pcs.



N.C. valve, N.O. valve 1 pc. of each



Component Parts

No.	Description	Material
1	**Body**	Aluminum die-casted
2	**Spool valve**	Aluminum/HNBR (4-position solenoid valve: Resin/HNBR)
3	**Piston**	Resin
4	**Pilot valve assembly**	—

JSY1000/3000/5000 Series
Valve Replacement Parts

How to Order Pilot Valves

For JSY1000

V050 T – 5 □ Z

Coil type

T	With power saving circuit

Rated voltage

5	24 VDC

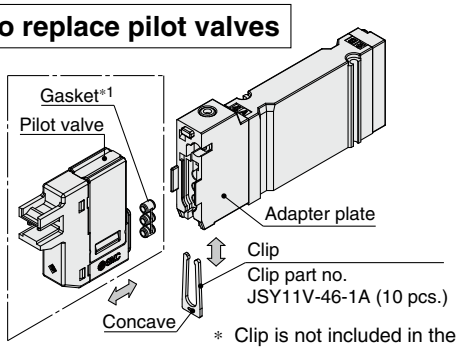
Electrical entry

L	L plug connector	With lead wire
LO		Without connector
M	M plug connector	With lead wire
MO		Without connector

Light/surge voltage suppressor

Z	With light/surge voltage suppressor

How to replace pilot valves



* Clip is not included in the pilot valve.

⚠Caution

Removal

1) Remove the clip from the adapter plate by using a flat head screwdriver on the concave of the clip.
2) Remove the pilot valve in the direction of the arrow. (Remove also the gasket together.)

Mounting

1) Mount the pilot valve on the adapter plate.
2) Insert the clip into the adapter plate so that the clip will not protrude from the end of the adapter plate.

*1 Confirm that the gasket is mounted on the pilot valve.

For JSY3000/5000

V111 □ – 5 □ Z

Coil type

Nil	Standard
T	With power saving circuit

* Power saving circuit is not available in the case of W□ or WA□ type.

Rated voltage

5	24 VDC

Electrical entry

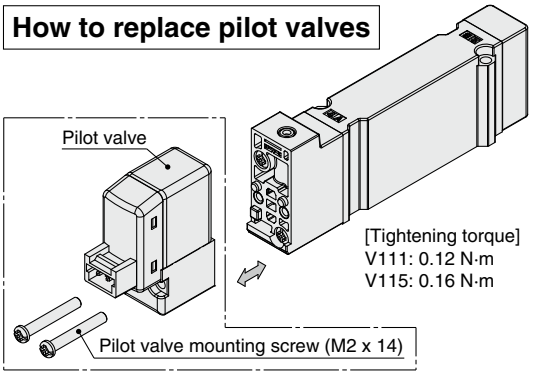
L	L plug connector	With lead wire
LO		Without connector
M	M plug connector	With lead wire
MO		Without connector
WO	M8 connector	Without connector cable
W□		With connector cable
WAO	M8 connector	Without connector cable
WA□		With connector cable

* Refer to "Electrical entry" on page 179 for details on options "WAO" and "WA□".
* For W□ and WA□, enter the cable length symbols in □. Please be sure to fill in the blank referring to page 207.
* The "WAO" and "WA□" M8 connectors are IEC 60947-5-2 standard compliant.
* When replacing only the pilot valve assembly, be aware that the V111 and the V115 are not interchangeable.

Light/surge voltage suppressor

Z	With light/surge voltage suppressor

How to replace pilot valves



DIN terminal type, M12 connector type (JSY5000 only)

V115 – 5 D □

Rated voltage

5	24 VDC

Electrical entry

D	DIN terminal (D type)	With connector
DO		Without connector
Y	DIN terminal (Y type)	With connector
YO		Without connector
K□	M12 connector	With connector cable
KO		Without connector cable

* When replacing only the pilot valve assembly, be aware that the V111 and the V115 are not interchangeable.
* Refer to "Electrical entry" on page 179 for details on the "K□" and "KO" types.
* Enter the cable length symbols in K□. Please be sure to fill in the blank referring to page 207.

Light/Surge voltage suppressor

Electrical entry for K

Z	With light/surge voltage suppressor

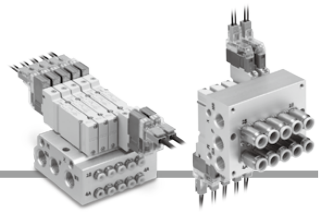
Electrical entry for D, Y

S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* Only "DOS" and "YOS" are available for the S type.
* DOZ and YOZ are not available

JSY1000/3000/5000 Series Type 40, 41

Non Plug-in Metal Base



Manifold Specifications

Manifold type			Non plug-in metal base
SUP/EXH port type			Common SUP/EXH
Valve stations			2 to 20 stations
Port size	**1(P), 3/5(E) port**	**JSY1000**	1/8
		JSY3000	1/4
		JSY5000	3/8
	4(A), 2(B) port	**JSY1000**	M3 x 0.5, M5 x 0.8 ø2 One-touch fitting, ø4 One-touch fitting, ø6 One-touch fitting
		JSY3000	M5 x 0.8, 1/8 ø4 One-touch fitting, ø6 One-touch fitting, ø8 One-touch fitting
		JSY5000	1/8, 1/4 ø6 One-touch fitting, ø8 One-touch fitting, ø10 One-touch fitting, ø12 One-touch fitting

Manifold Flow Rate Characteristics/Manifold Weight

Model	Port size		Valve flow rate characteristics				Weight: W [g]*1 (n: stations)	
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)		4/2 → 5/3 (A/B → E)			
			C [dm³/(s·bar)]	b	C [dm³/(s·bar)]	b	Fixed: C□	Replaceable: KC□
JJ5SY1-40 (Side ported)	1/8	KC6	0.62	0.34	0.63	0.28	20.1n + 38	30.5n + 35
JJ5SY1-41 (Bottom ported)	1/8	KC6	0.74	0.46	0.75	0.36	20.8n + 38	33.8n + 35
JJ5SY3-40 (Side ported)	1/4	KC8	1.86	0.36	1.81	0.27	38.0n + 84	54.4n + 86
JJ5SY3-41 (Bottom ported)	1/4	KC8	2.31	0.43	2.13	0.31	41.2n + 84	59.6n + 80
JJ5SY5-40 (Side ported)	3/8	KC12	3.61	0.30	3.72	0.18	90.1n + 148	121.5n + 144
JJ5SY5-41 (Bottom ported)	3/8	KC12	4.28	0.40	4.47	0.25	95.8n + 133	140.1n + 122

*1 Weight: W is the value of the internal pilot, and maximum manifold size with tube fitting type. Valve is not included. To obtain the weight with valves attached, add the valve weights given on page 173 for the appropriate number of stations.

* Calculation of effective area S and sonic conductance C: S = 5.0 x C
* The value is for manifold base with 5 stations and individually operated 2-position type.
* Bottom port is available only for 4, 2 (A, B) port.

Type 40
Side Ported

Type 41
Bottom Ported

Non Plug-in Metal Base
JSY1000/3000/5000 Series

*1 JSY3000 only

Internal Pilot

How to Order Manifolds

JJ5SY 3 – 40 – 05 D – C6 ❑ ❑

❶ ❷ ❸ ❹ ❺ ❻ ❼

Made to Order
(Refer to page 203 for details.)

Specification
External pilot

❶ Series

1	JSY1000
3	JSY3000
5	JSY5000

❷ Type

40	Side ported
41	Bottom ported

* The external pilot specification should be ordered as Made to Order. For details, refer to page 203.

❸ Valve stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

❹ P, E port entry

U	U side*1
D	D side*1
B	Both sides

*1 Plugs are mounted on the opposite side of the selected ports.

❺ A, B port size

Thread piping

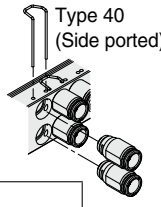
Symbol	A, B port	JSY1000	JSY3000	JSY5000
M3	M3 x 0.5	●	—	—
M5	M5 x 0.8	●	●	—
01	1/8	—	●	●
02	1/4	—	—	●

One-touch fitting (Metric)

	Symbol	A, B port	JSY1000	JSY3000	JSY5000
Fixed	**C2**	ø2	●	—	—
	C4	ø4	●	—	—
	C6	ø6	—	●	—
	C8	ø8	—	—	●
Replaceable	**KC2**	ø2	●	—	—
	KC4	ø4	●	●	—
	KC6	ø6	●	●	●
	KC8	ø8	—	●	●
	KC10	ø10	—	—	●
	KC12	ø12	—	—	●
	M∗1	A, B ports mixed	●∗2	●	●
P, E port size (Thread piping)			1/8	1/4	3/8



Type 40 (Side ported)



Type 41 (Bottom ported)



❻ Thread type

Nil	Rc
F	G
N	NPT

❼ Mounting

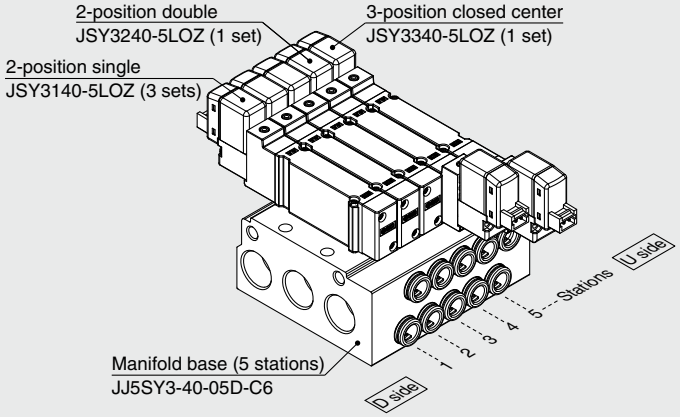
Nil	Direct mounting	
D	DIN rail mounting (With DIN rail)	
D0	DIN rail mounting (Without DIN rail)	
D3	For 3 stations	Specify a longer rail than the standard length.
⋮	⋮	
D20	For 20 stations	

* Only direct mounting is available for Type 41 (Bottom ported).
* Refer to page 209 for the fixation of DIN rail mounting type manifold.

*1 When ports are mixed sizes, indicate the piping specifications on the manifold specification sheet.
*2 In case of replacement of JSY1000 One-touch fitting, A and B port can only be mixed on the manifold base for KC2 and KC4.

How to Order Manifold Assembly

Example (JJ5SY3-40-❑)



JJ5SY3-40-05D-C6 ··1 set (Type 40 5-station manifold base part no.)
* **JSY3140-5LOZ·····3 sets (2-position single part no.)**
* **JSY3240-5LOZ·····1 set (2-position double part no.)**
* **JSY3340-5LOZ·····1 set (3-position closed center part no.)**

The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.

· The valve arrangement is numbered as the 1st station from the D side.
· Under the manifold part number, state the valves to be mounted in order from the 1st station as shown in the figure. If the arrangement becomes complicated, specify on a manifold specification sheet.

Internal Pilot

How to Order Valves (With two mounting screws)

JSY 3 1 4 0 ❸ – 5 ❹ Z ❻

❶ ❷ ❸ ❹ ❺ ❻

Made to Order **Made to Order**
(Refer to page 203 for details.)

Specification
External pilot

❶ Series

1	JSY1000
3	JSY3000
5	JSY5000

❷ Type of actuation

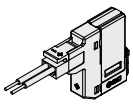
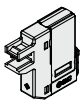
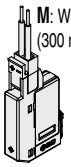
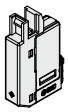
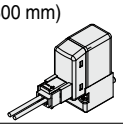
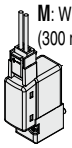
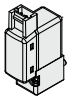
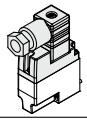
1	2-position	Single
2		Double
3	3-position	Closed center
4		Exhaust center
5		Pressure center
A	4-position dual 3-port	N.C./N.C.
B		N.O./N.O.
C		N.C./N.O.

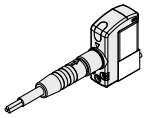
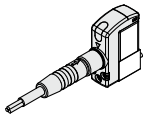
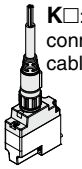
❸ Coil specifications

Symbol	Coil specifications	JSY1000	JSY3000	JSY5000
Nil	Standard	—	●	●
T	With power-saving circuit (Continuous duty type)	●	●	●

* For the JSY1000 series, only the power-saving circuit specification is available.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to page 208.
* Power saving circuit is not available in the case of D□, Y□, W□, K□ type.

❹ Electrical entry

	L plug connector		M plug connector		DIN terminal (JSY5000 only)	
	L	**LO**	**M**	**MO**	**D, Y**	**DO, YO**
JSY1000	**L**: With lead wire (300 mm) 	**LO**: Without connector 	**M**: With lead wire (300 mm) 	**MO**: Without connector 	—	—
JSY3000 JSY5000	**L**: With lead wire (300 mm) 	**LO**: Without connector 	**M**: With lead wire (300 mm) 	**MO**: Without connector 	**D, Y**: With connector 	**DO, YO**: Without connector 

	M8 connector*1				M12 connector (JSY5000 only)	
	W□	**WO**	**WA□**	**WAO**	**K□**	**KO**
JSY1000	—	—	—	—	—	—
JSY3000 JSY5000	**W□**: With connector cable 	**WO**: Without connector cable 	**WA□**: With connector cable 	**WAO**: Without connector cable 	**K□**: With connector cable 	**KO**: Without connector cable 

* Refer to page 206 for the lead wire length of L and M plug connectors.
* The "WAO" and "WA□" M8 connectors are IEC 60947-5-2 standard compliant.
* Refer to page 208 for polarity details and the pin wiring diagram.
* For connector cable of M8 connector, refer to page 207.
* For the M8 connector with a connector cable, only American certification (UL) is available.
* Fnter the cable length symbols in □. Please be sure to fill in the blank referring to page 207.
* For connector cable of M12 connector, refer to page 207.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 210.

❺ Light/surge voltage suppressor

Electrical entry for L, M, W, WA, K

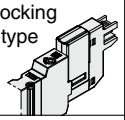
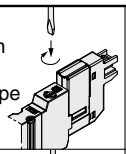
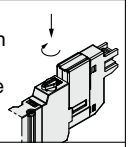
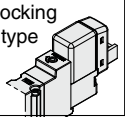
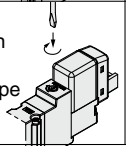
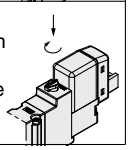
Z	With light/surge voltage suppressor (Polar type)

Electrical entry for D, Y

S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* Only "DOS" and "YOS" are available for the S type.
* "DOZ" and "YOZ" are not available

❻ Manual override

JSY1000	**Nil**: Non-locking push type 	**D**: Push-turn locking slotted type 	**E**: Push-turn locking lever type 
JSY3000/5000	**Nil**: Non-locking push type 	**D**: Push-turn locking slotted type 	**E**: Push-turn locking lever type 

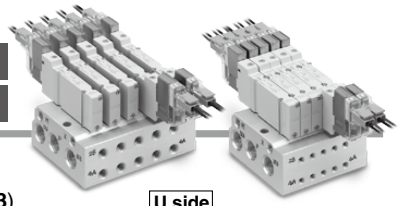
When ordering a valve individually, the base gasket is not included.
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance service.
Refer to page 198 for base gasket and mounting screw part numbers.

⚠ Caution

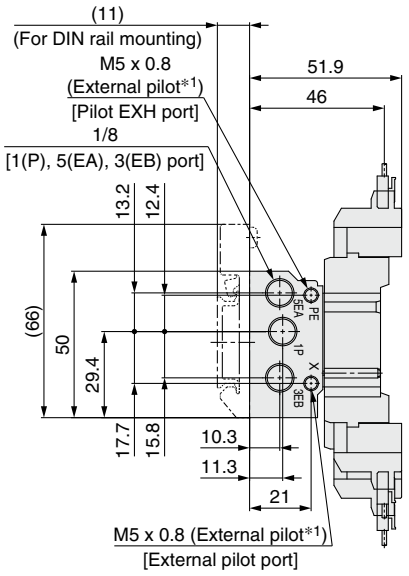
If the JSY3000/5000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification.

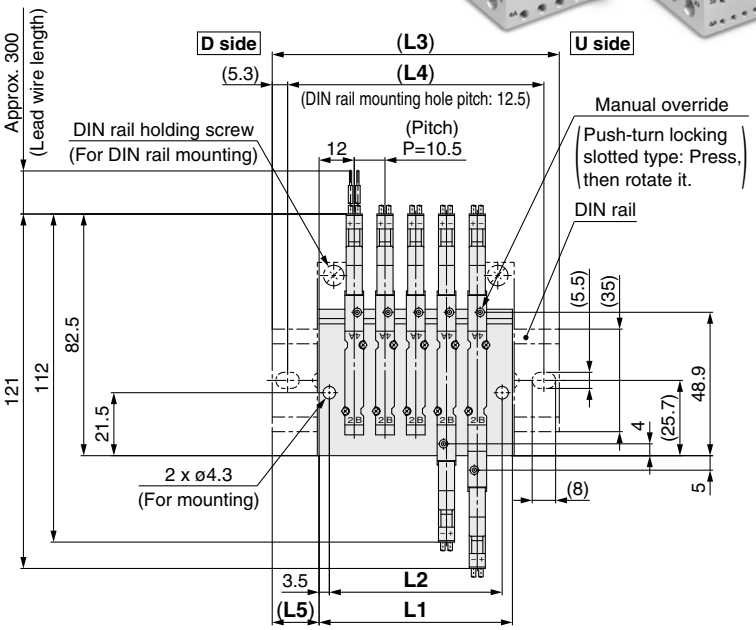
Dimensions: JSY1000 Series

Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: M3, M5**

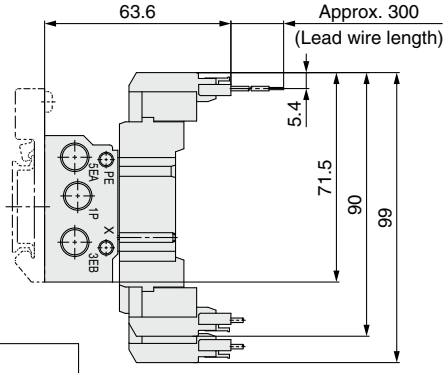


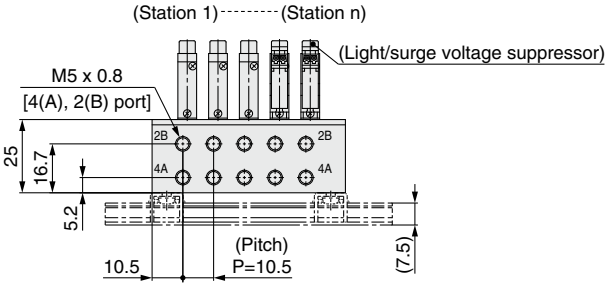
JJ5SY1-40(R)-Stations U/D-M3/M5□(D)



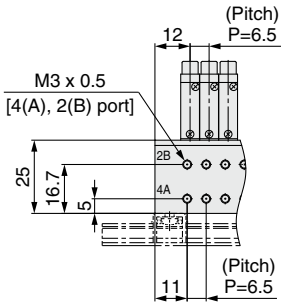


M plug connector (M)

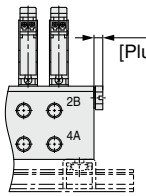




Port size M3



40R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY1-40-05B-M5."

L Dimensions: Port Size M5

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L2	27.5	38.0	48.5	59.0	69.5	80.0	90.5	101.0	111.5	122.0	132.5	143.0	153.5	164.0	174.5	185.0	195.5	206.0	216.5
L3	60.5	73.0	85.5	98.0	110.5	123.0	123.0	135.5	148.0	160.5	173.0	185.5	198.0	198.0	210.5	223.0	235.5	248.0	260.5
L4	50.0	62.5	75.0	87.5	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	187.5	187.5	200.0	212.5	225.0	237.5	250.0
L5	13.0	14.0	15.0	16.0	17.0	18.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	13.5	14.5	15.5	16.5	17.5	18.5

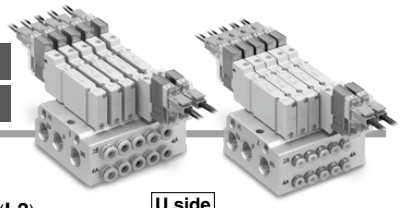
L Dimensions: Port Size M3

n: Stations

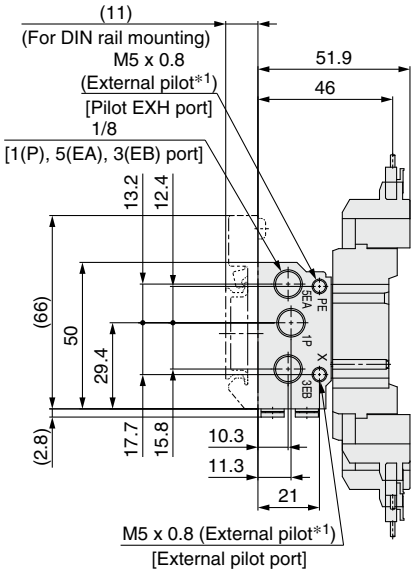
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	30.5	37.0	43.5	50.0	56.5	63.0	69.5	76.0	82.5	89.0	95.5	102.0	108.5	115.0	121.5	128.0	134.5	141.0	147.5
L2	23.5	30.0	36.5	43.0	49.5	56.0	62.5	69.0	75.5	82.0	88.5	95.0	101.5	108.0	114.5	121.0	127.5	134.0	140.5
L3	60.5	73.0	73.0	85.5	85.5	98.0	98.0	110.5	110.5	123.0	123.0	135.5	135.5	148.0	148.0	160.5	160.5	173.0	173.0
L4	50.0	62.5	62.5	75.0	75.0	87.5	87.5	100.0	100.0	112.5	112.5	125.0	125.0	137.5	137.5	150.0	150.0	162.5	162.5
L5	15.0	18.0	15.0	18.0	14.5	17.5	14.5	17.5	14.0	17.0	14.0	17.0	13.5	16.5	13.5	16.5	13.0	16.0	13.0

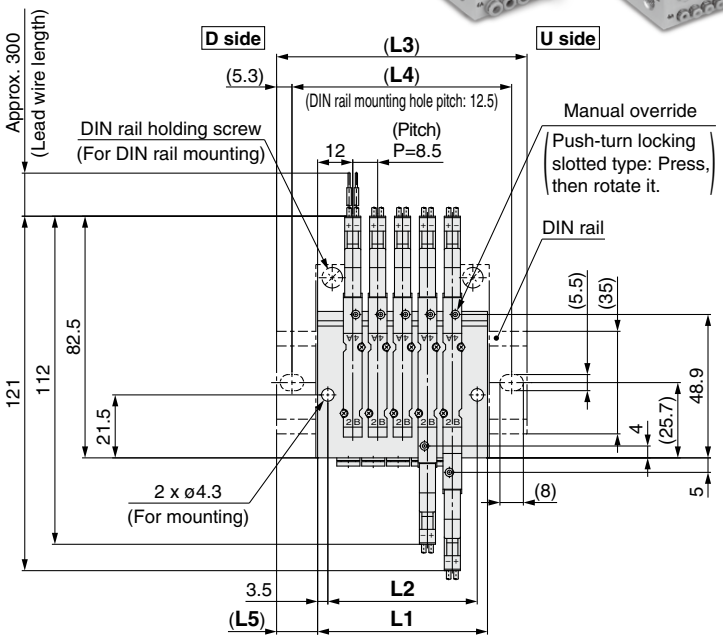
Dimensions: JSY1000 Series

Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: ø2, ø4/Fixed**

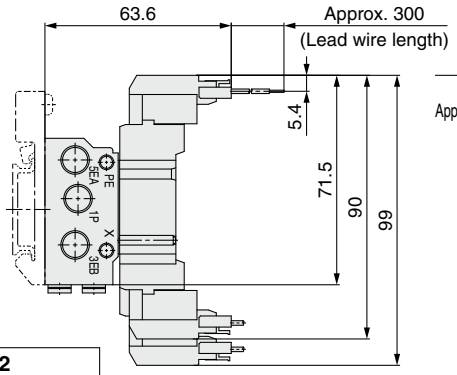


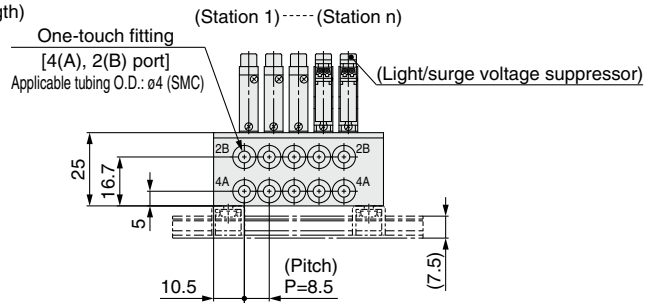
JJ5SY1-40(R)-Stations U/D-C2/C4□(D)



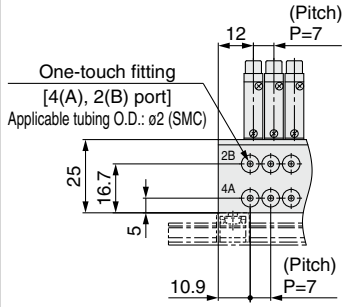


M plug connector (M)

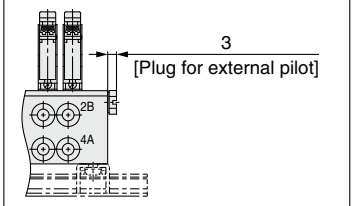




One-touch fitting ø2



40R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY1-40-05B-C4."

L Dimensions: Port Size C4

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	32.5	41.0	49.5	58.0	66.5	75.0	83.5	92.0	100.5	109.0	117.5	126.0	134.5	143.0	151.5	160.0	168.5	177.0	185.5
L2	25.5	34.0	42.5	51.0	59.5	68.0	76.5	85.0	93.5	102.0	110.5	119.0	127.5	136.0	144.5	153.0	161.5	170.0	178.5
L3	60.5	73.0	85.5	85.5	98.0	110.5	110.5	123.0	135.5	135.5	148.0	160.5	160.5	173.0	185.5	185.5	198.0	210.5	223.0
L4	50.0	62.5	75.0	75.0	87.5	100.0	100.0	112.5	125.0	125.0	137.5	150.0	150.0	162.5	175.0	175.0	187.5	200.0	212.5
L5	14.0	16.0	18.0	14.0	16.0	18.0	13.5	15.5	17.5	13.5	15.5	17.5	13.0	15.0	17.0	13.0	15.0	17.0	19.0

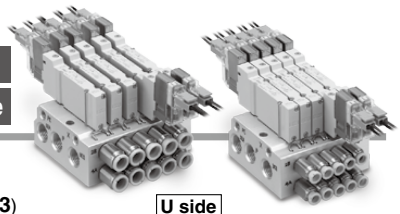
L Dimensions: Port Size C2

n: Stations

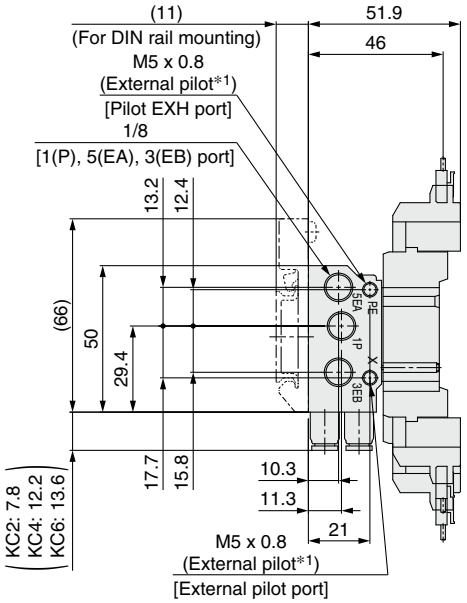
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0	157.0
L2	24.0	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0
L3	60.5	73.0	73.0	85.5	85.5	98.0	110.5	110.5	123.0	123.0	135.5	135.5	148.0	148.0	160.5	173.0	173.0	185.5	185.5
L4	50.0	62.5	62.5	75.0	75.0	87.5	100.0	100.0	112.5	112.5	125.0	125.0	137.5	137.5	150.0	162.5	162.5	175.0	175.0
L5	15.0	17.5	14.0	17.0	13.5	16.0	19.0	15.5	18.0	14.5	17.5	14.0	16.5	13.0	16.0	18.5	15.0	18.0	14.5

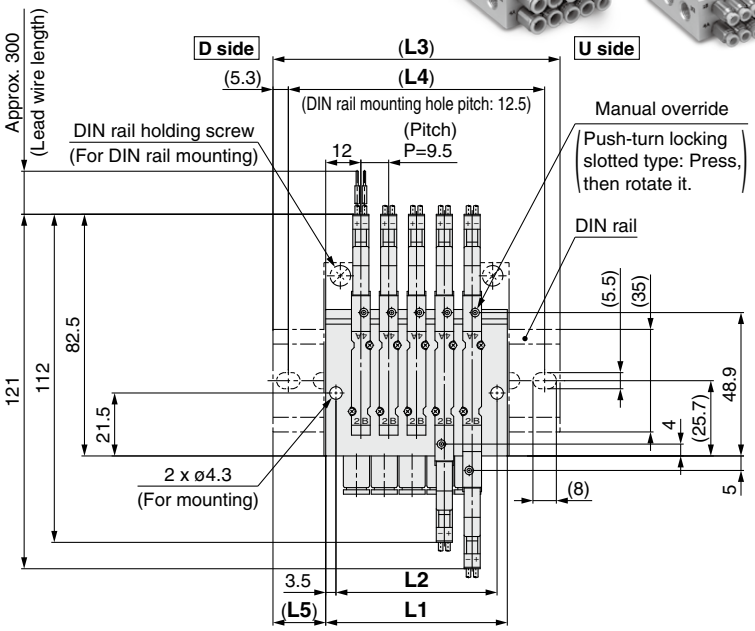
Dimensions: JSY1000 Series

Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: ø2, ø4, ø6/Replaceable**

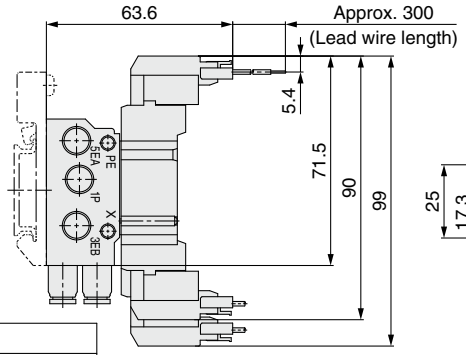


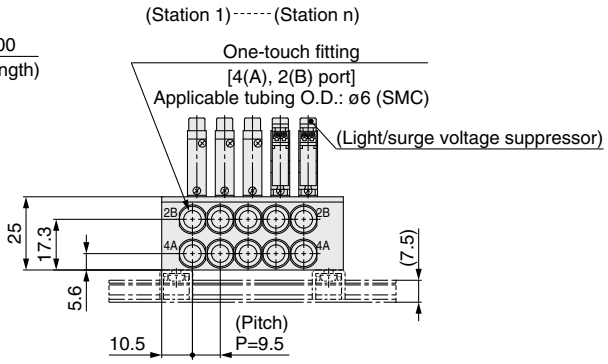
JJ5SY1-40(R)-Stations U/D/B - KC2/KC4/KC6 □(D)



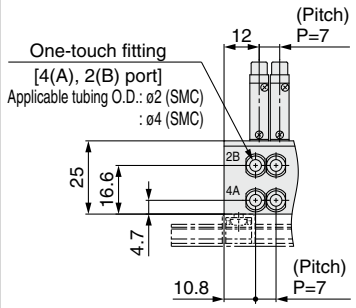


M plug connector (M)

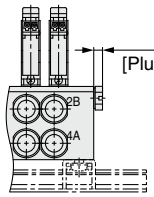




One-touch fitting KC2/KC4



40R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY1-40-05B-KC6."

L Dimensions: Port Size KC6

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	33.5	43.0	52.5	62.0	71.5	81.0	90.5	100.0	109.5	119.0	128.5	138.0	147.5	157.0	166.5	176.0	185.5	195.0	204.5
L2	26.5	36.0	45.5	55.0	64.5	74.0	83.5	93.0	102.5	112.0	121.5	131.0	140.5	150.0	159.5	169.0	178.5	188.0	197.5
L3	60.5	73.0	85.5	98.0	98.0	110.5	123.0	135.5	135.5	148.0	160.5	173.0	173.0	185.5	198.0	210.5	223.0	223.0	235.5
L4	50.0	62.5	75.0	87.5	87.5	100.0	112.5	125.0	125.0	137.5	150.0	162.5	162.5	175.0	187.5	200.0	212.5	212.5	225.0
L5	13.5	15.0	16.5	18.0	13.5	15.0	16.5	18.0	13.0	14.5	16.0	17.5	13.0	14.5	16.0	17.5	19.0	14.0	15.5

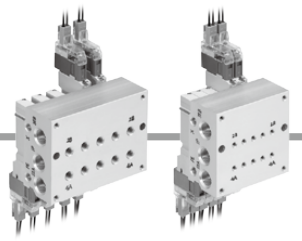
L Dimensions: Port Sizes KC2, KC4

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0	157.0
L2	24.0	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0
L3	60.5	73.0	73.0	85.5	85.5	98.0	110.5	110.5	123.0	123.0	135.5	135.5	148.0	148.0	160.5	173.0	173.0	185.5	185.5
L4	50.0	62.5	62.5	75.0	75.0	87.5	100.0	100.0	112.5	112.5	125.0	125.0	137.5	137.5	150.0	162.5	162.5	175.0	175.0
L5	15.0	17.5	14.0	17.0	13.5	16.0	19.0	15.5	18.0	14.5	17.5	14.0	16.5	13.0	16.0	18.5	15.0	18.0	14.5

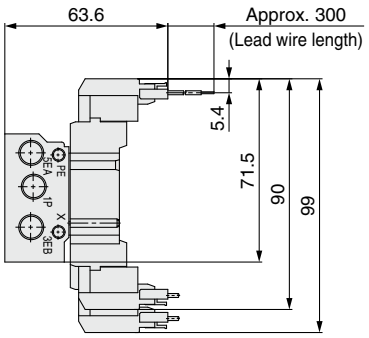
Dimensions: JSY1000 Series

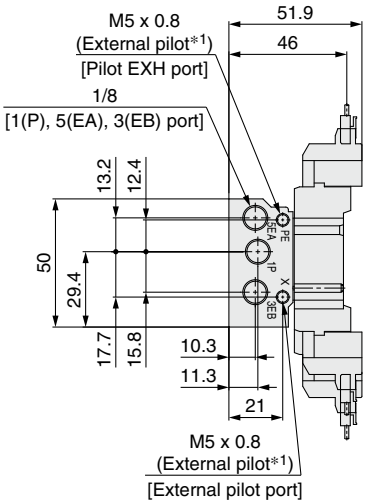
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: M3, M5**

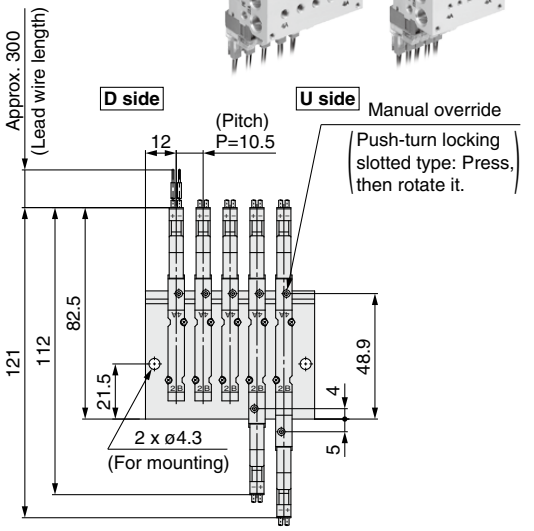


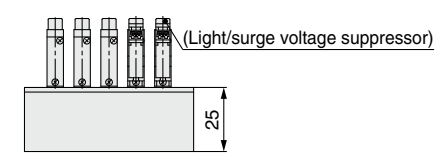
JJ5SY1-41(R)-Stations U/D/B-M3/M5□

M plug connector (M)

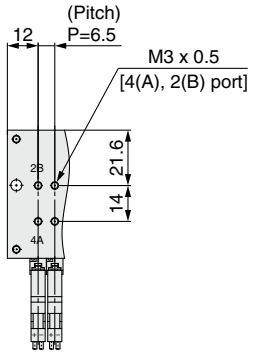




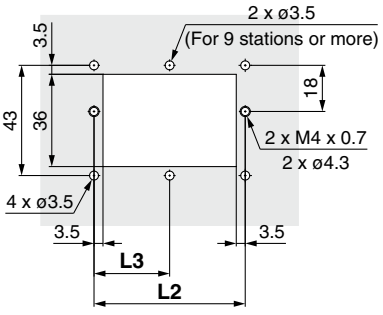


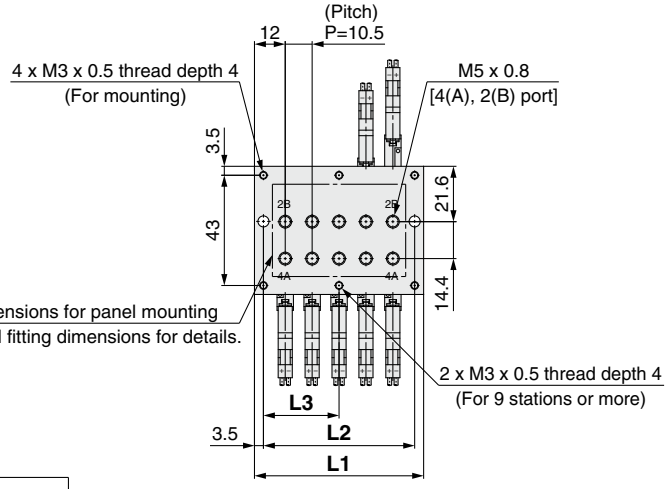


Port size M3

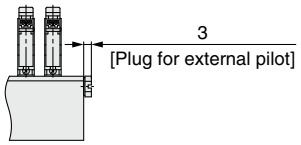


Panel fitting dimensions





41R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY1-41-05B-M5."

L Dimensions: Port Size M5

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L2	27.5	38.0	48.5	59.0	69.5	80.0	90.5	101.0	111.5	122.0	132.5	143.0	153.5	164.0	174.5	185.0	195.5	206.0	216.5
L3	—	—	—	—	—	—	—	50.5	55.8	61.0	66.3	71.5	76.8	82.0	87.3	92.5	97.8	103.0	108.3

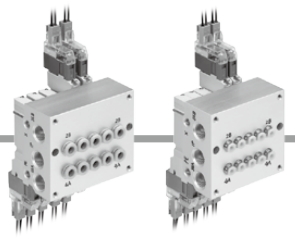
L Dimensions: Port Size M3

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	30.5	37.0	43.5	50.0	56.5	63.0	69.5	76.0	82.5	89.0	95.5	102.0	108.5	115.0	121.5	128.0	134.5	141.0	147.5
L2	23.5	30.0	36.5	43.0	49.5	56.0	62.5	69.0	75.5	82.0	88.5	95.0	101.5	108.0	114.5	121.0	127.5	134.0	140.5
L3	—	—	—	—	—	—	—	34.5	37.8	41.0	44.3	47.5	50.8	54.0	57.3	60.5	63.8	67.0	70.3

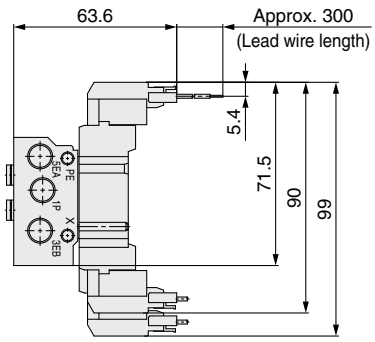
Dimensions: JSY1000 Series

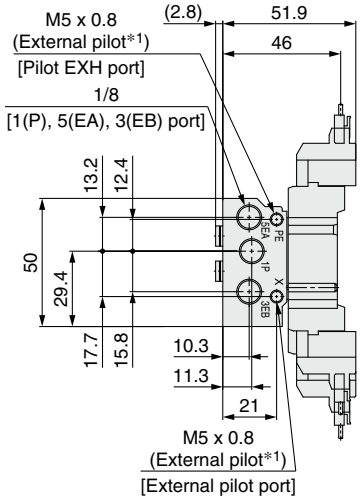
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: ø2, ø4/Fixed**

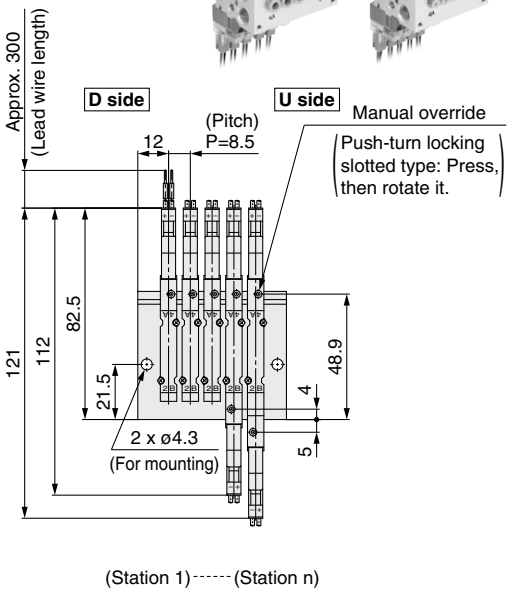


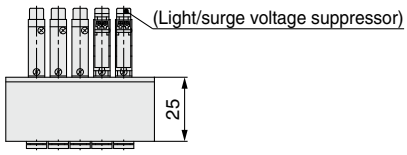
JJ5SY1-41(R)-Stations U/D/B-C2/C4□

M plug connector (M)

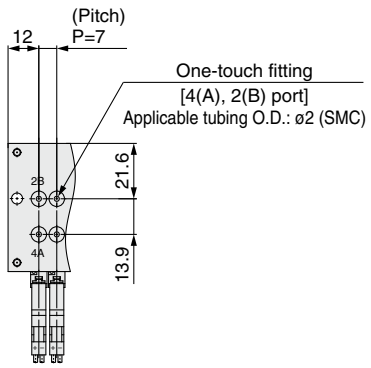


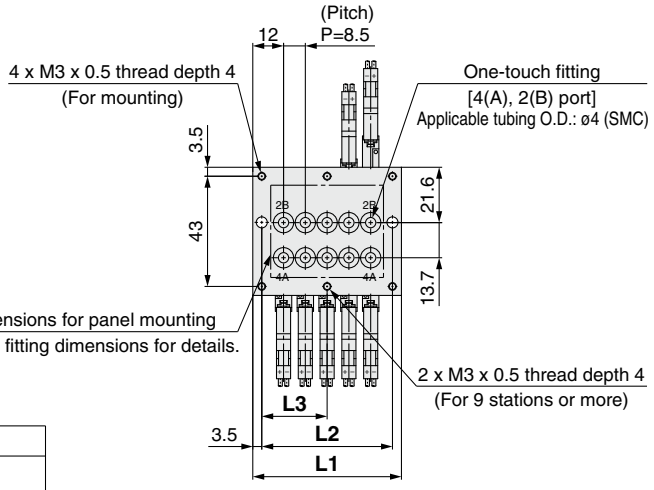




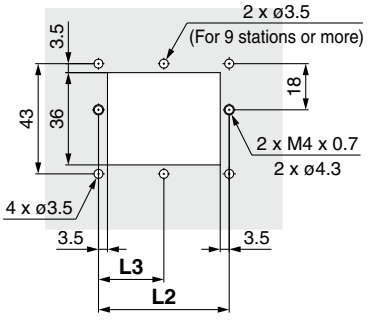


One-touch fitting ø2

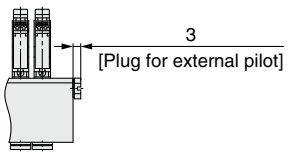




Panel fitting dimensions



41R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.

* These figures show the "JJ5SY1-41-05B-C4."

L Dimensions: Port Size C4

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	32.5	41.0	49.5	58.0	66.5	75.0	83.5	92.0	100.5	109.0	117.5	126.0	134.5	143.0	151.5	160.0	168.5	177.0	185.5
L2	25.5	34.0	42.5	51.0	59.5	68.0	76.5	85.0	93.5	102.0	110.5	119.0	127.5	136.0	144.5	153.0	161.5	170.0	178.5
L3	—	—	—	—	—	—	—	42.5	46.8	51.0	55.3	59.5	63.8	68.0	72.3	76.5	80.8	85.0	89.3

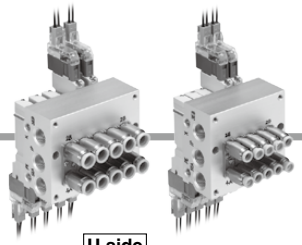
L Dimensions: Port Size C2

n: Stations

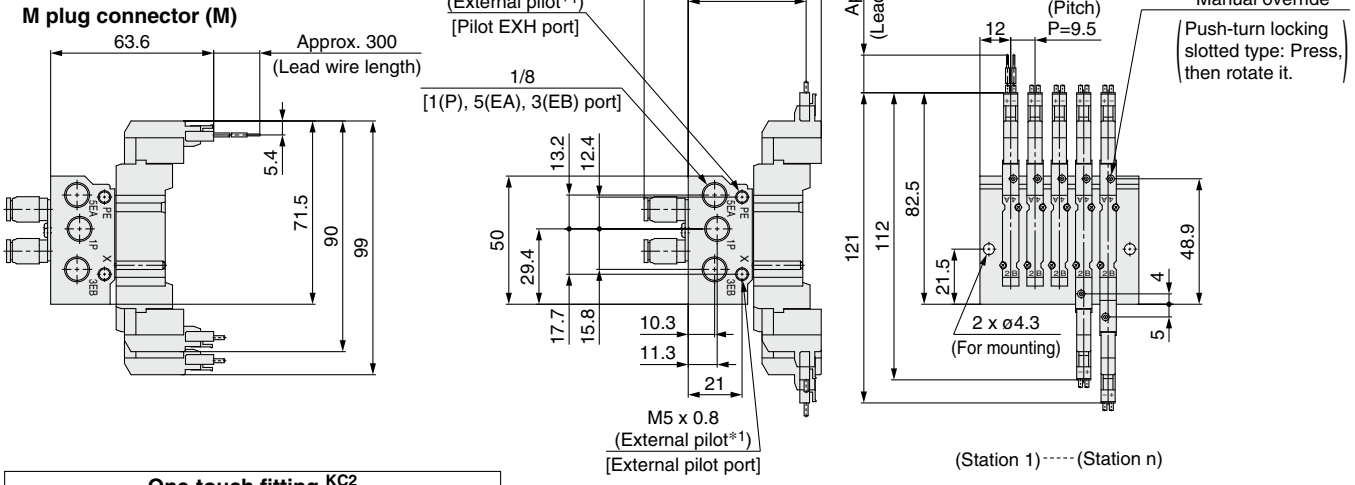
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0	157.0
L2	24.0	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0
L3	—	—	—	—	—	—	—	36.5	40.0	43.5	47.0	50.5	54.0	57.5	61.0	64.5	68.0	71.5	75.0

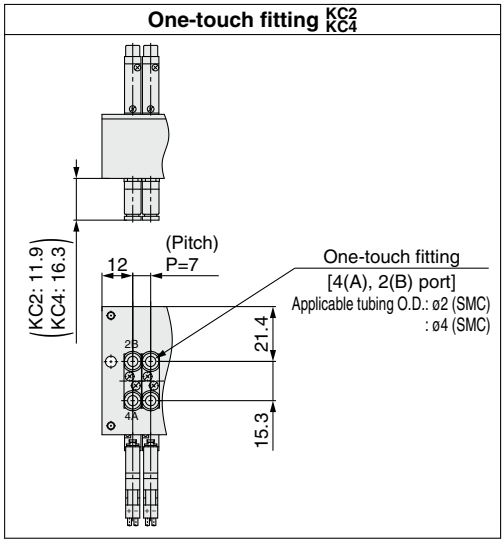
Dimensions: JSY1000 Series

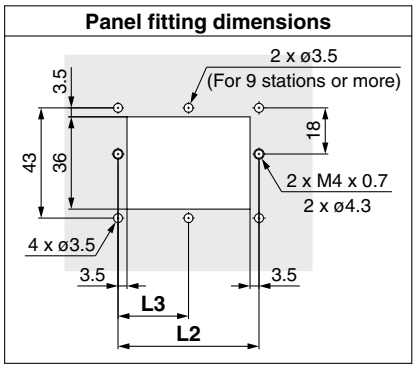
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: ø2, ø4, ø6/Replaceable**

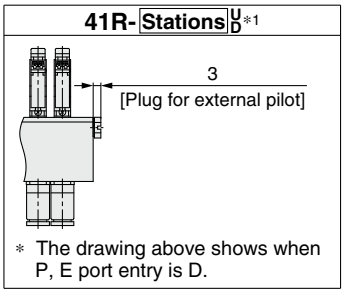


JJ5SY1-41(R)- Stations U D B - KC2 KC4 KC6 □

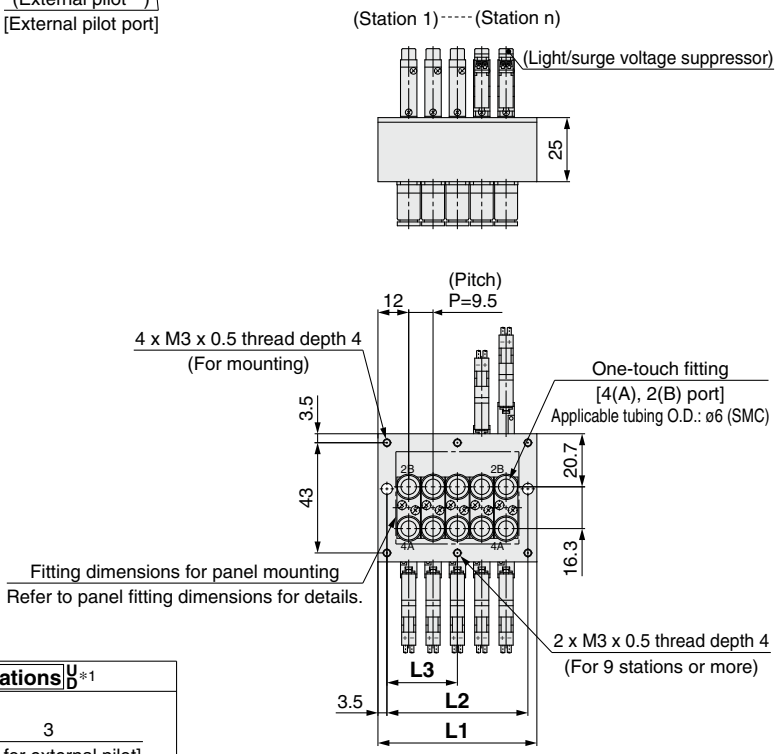








* The drawing above shows when P, E port entry is D.



*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY1-41-05B-KC6."

L Dimensions: Port Size KC6

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	33.5	43.0	52.5	62.0	71.5	81.0	90.5	100.0	109.5	119.0	128.5	138.0	147.5	157.0	166.5	176.0	185.5	195.0	204.5
L2	26.5	36.0	45.5	55.0	64.5	74.0	83.5	93.0	102.5	112.0	121.5	131.0	140.5	150.0	159.5	169.0	178.5	188.0	197.5
L3	—	—	—	—	—	—	—	46.5	51.3	56.0	60.8	65.5	70.3	75.0	79.8	84.5	89.3	94.0	98.8

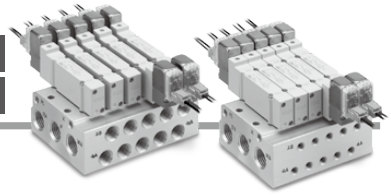
L Dimensions: Port Sizes KC2, KC4

n: Stations

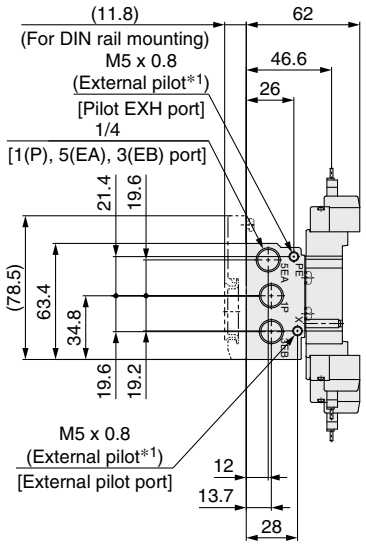
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0	157.0
L2	24.0	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0
L3	—	—	—	—	—	—	—	36.5	40.0	43.5	47.0	50.5	54.0	57.5	61.0	64.5	68.0	71.5	75.0

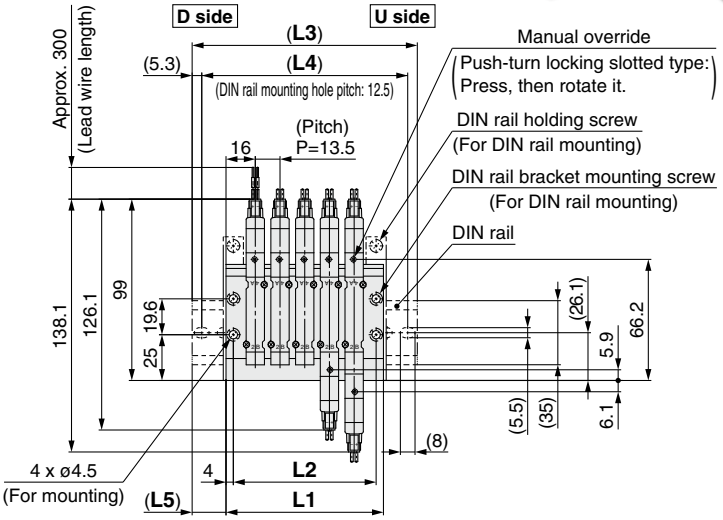
Dimensions: JSY3000 Series

Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: M5, 1/8**

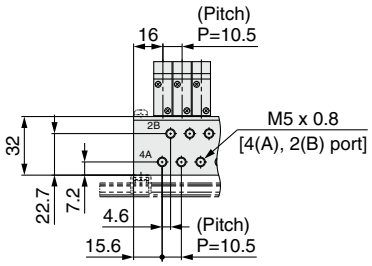


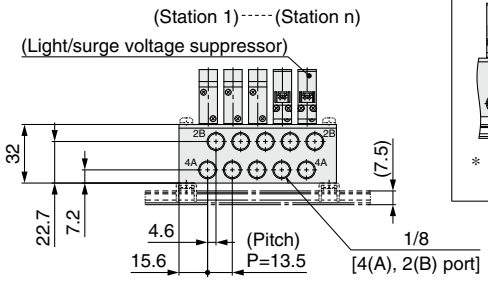
JJ5SY3-40(R)-Stations U/D/B-M5/01 □(D)



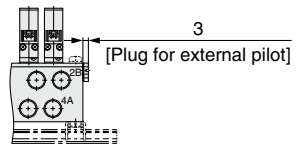


Port size M5





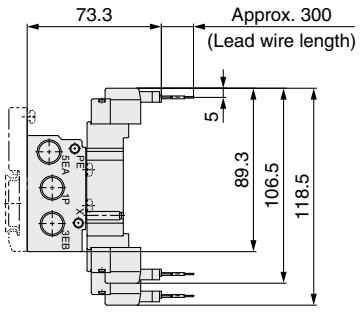
40R-Stations U/D*1



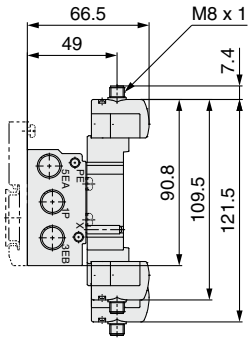
* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY3-40-05-01."

M plug connector (M)



M8 connector (W, WA)



L Dimensions: Port Size 01 (1/8)

n: Stations

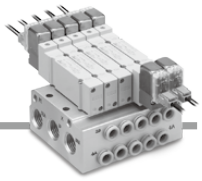
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	45.5	59.0	72.5	86.0	99.5	113.0	126.5	140.0	153.5	167.0	180.5	194.0	207.5	221.0	234.5	248.0	261.5	275.0	288.5
L2	37.5	51.0	64.5	78.0	91.5	105.0	118.5	132.0	145.5	159.0	172.5	186.0	199.5	213.0	226.5	240.0	253.5	267.0	280.5
L3	73.0	85.5	110.5	123.0	135.5	148.0	160.5	173.0	185.5	198.0	210.5	223.0	235.5	248.0	273.0	285.5	298.0	310.5	323.0
L4	62.5	75.0	100.0	112.5	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	262.5	275.0	287.5	300.0	312.5
L5	14.0	13.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0	13.5	19.5	19.0	18.5	18.0	17.5

L Dimensions: Port Size M5

n: Stations

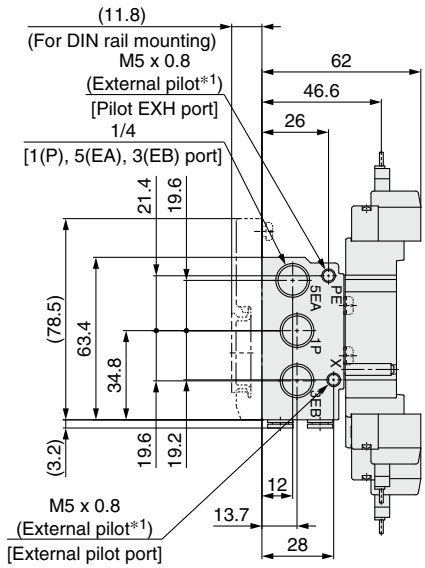
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	73.0	85.5	98.0	110.5	123.0	123.0	135.5	148.0	160.5	173.0	185.5	185.5	198.0	210.5	223.0	235.5	248.0	248.0	260.5
L4	62.5	75.0	87.5	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0	212.5	225.0	237.5	237.5	250.0
L5	15.5	16.5	17.5	18.5	19.5	14.0	15.0	16.0	17.0	18.0	19.0	14.0	15.0	16.0	17.0	18.0	19.0	13.5	14.5

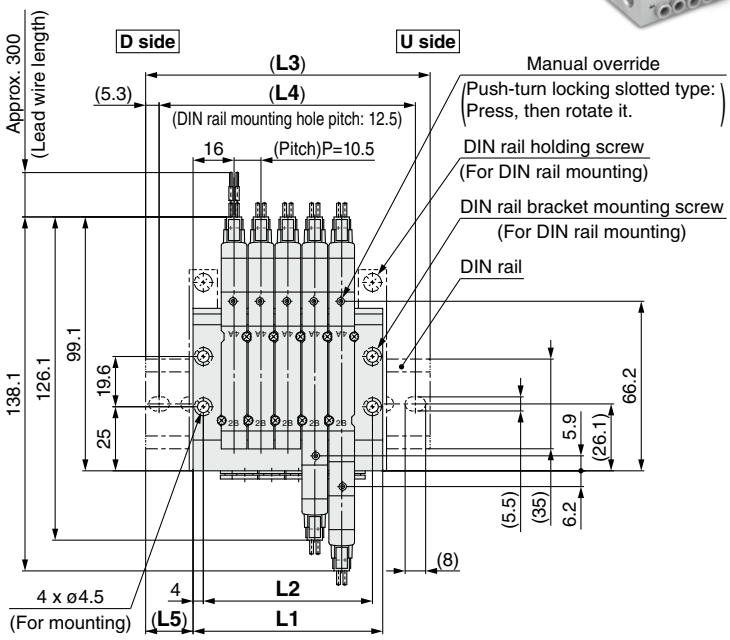
Non Plug-in Metal Base | Type 40/Side Ported | Port Size: ø6/Fixed

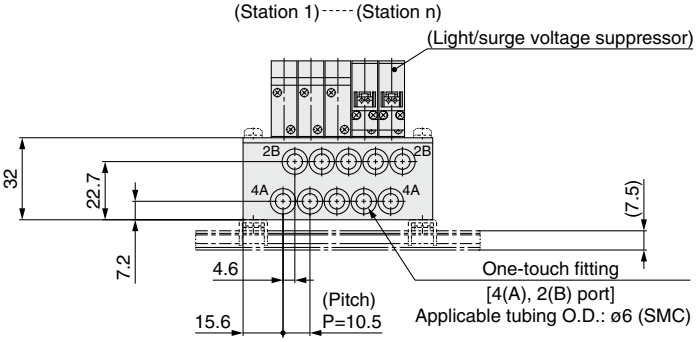


Dimensions: JSY3000 Series

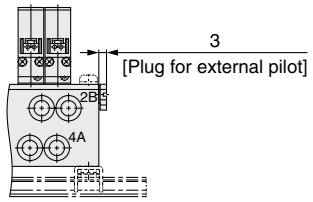
JJ5SY3-40(R)-Stations U/D-C6□(D)







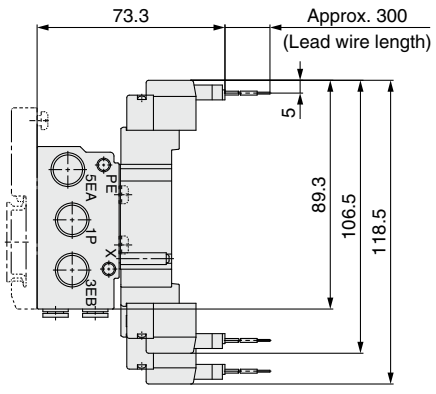
40R-Stations U/D*1



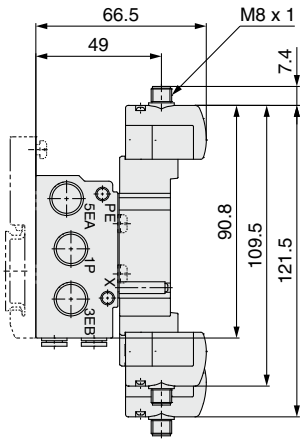
* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY3-40-05-C6."

M plug connector (M)



M8 connector (W, WA)

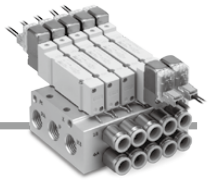


L Dimensions: Port Size C6

n: Stations

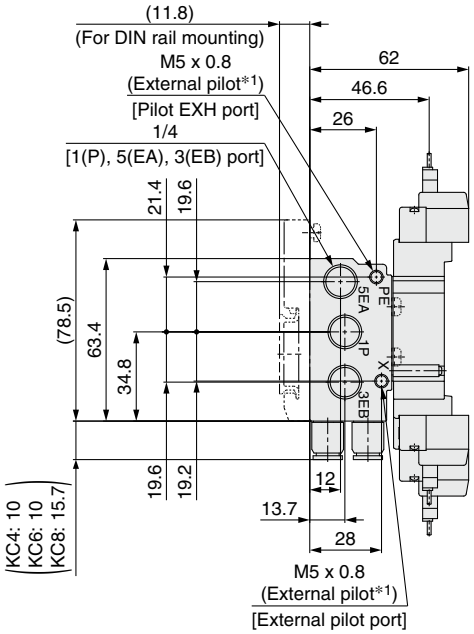
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	73.0	85.5	98.0	110.5	123.0	123.0	135.5	148.0	160.5	173.0	185.5	185.5	198.0	210.5	223.0	235.5	248.0	248.0	260.5
L4	62.5	75.0	87.5	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0	212.5	225.0	237.5	237.5	250.0
L5	15.5	16.5	17.5	18.5	19.5	14.0	15.0	16.0	17.0	18.0	19.0	14.0	15.0	16.0	17.0	18.0	19.0	13.5	14.5

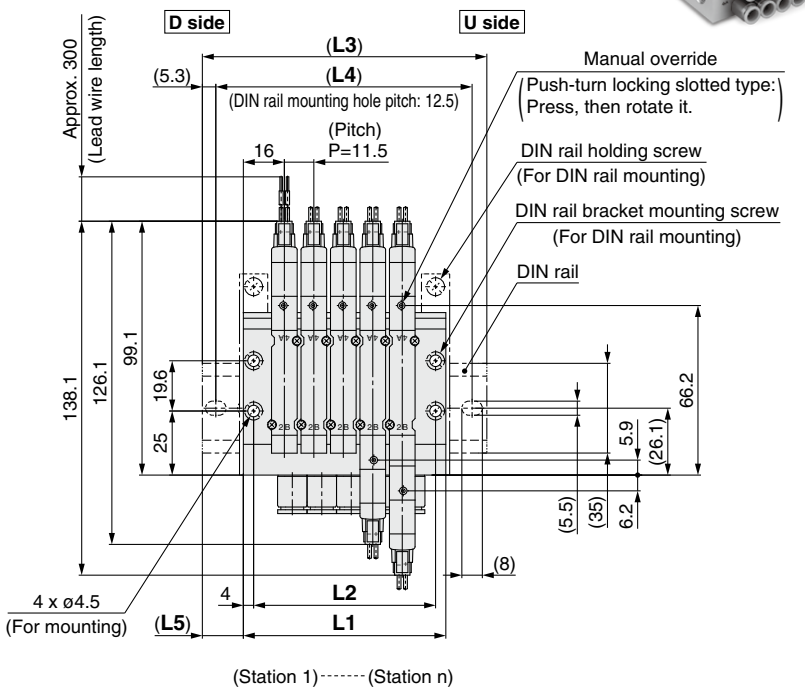
Non Plug-in Metal Base | Type 40/Side Ported | Port Size: ø4, ø6, ø8/Replaceable

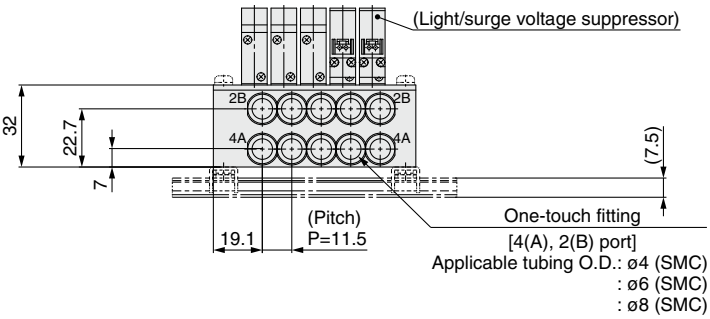


Dimensions: JSY3000 Series

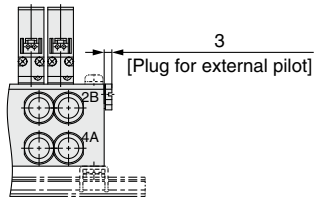
JJ5SY3-40(R)-Stations U/D/B - KC4/KC6/KC8 □(D)







40R-Stations U/D*1

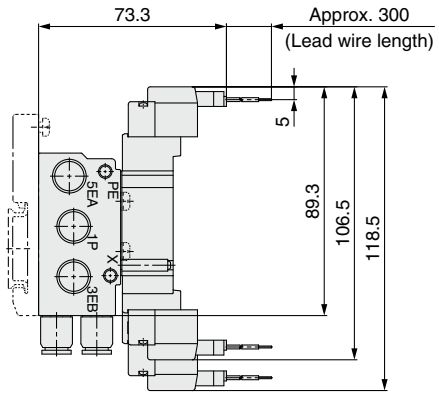


* The drawing above shows when P, E port entry is D.

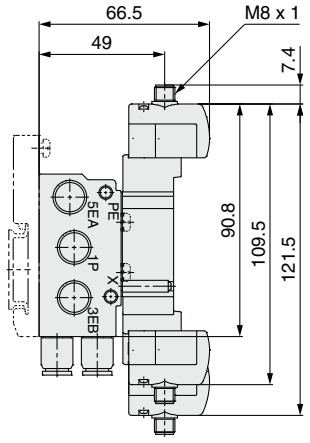
*1 The external pilot (R) should be ordered as Made to Order.

* These figures show the "JJ5SY3-40-05-KC8."

M plug connector (M)



M8 connector (W, WA)



L Dimensions: Port Sizes KC4, KC6, KC8

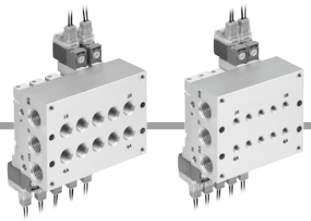
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	44.5	56.0	67.5	79.0	90.5	102.0	113.5	125.0	136.5	148.0	159.5	171.0	182.5	194.0	205.5	217.0	228.5	240.0	251.5
L2	36.5	48.0	59.5	71.0	82.5	94.0	105.5	117.0	128.5	140.0	151.5	163.0	174.5	186.0	197.5	209.0	220.5	232.0	243.5
L3	73.0	85.5	98.0	110.5	123.0	135.5	148.0	160.5	173.0	185.5	198.0	198.0	210.5	223.0	235.5	248.0	260.5	273.0	285.5
L4	62.5	75.0	87.5	100.0	112.5	125.0	137.5	150.0	162.5	175.0	187.5	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0
L5	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0

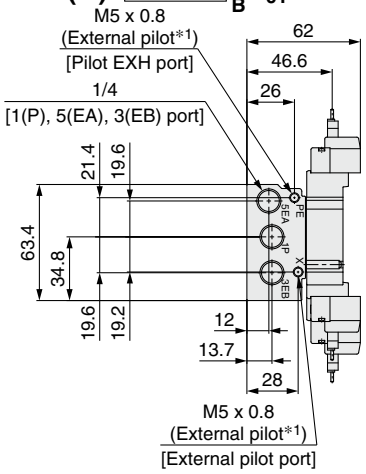
SMC

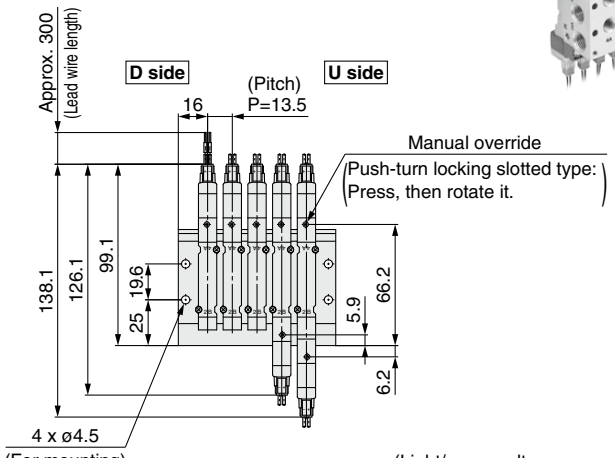
Dimensions: JSY3000 Series

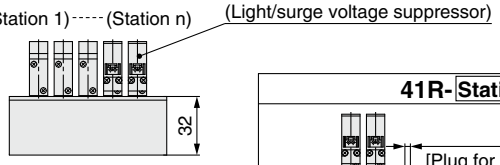
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: M5, 1/8**



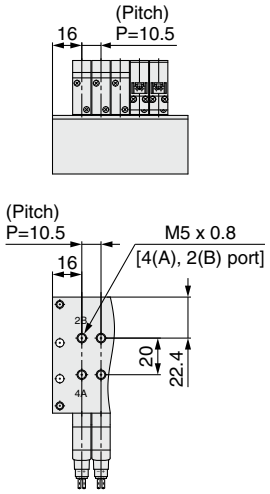
JJ5SY3-41(R)-Stations U/D/B - M5/01 □

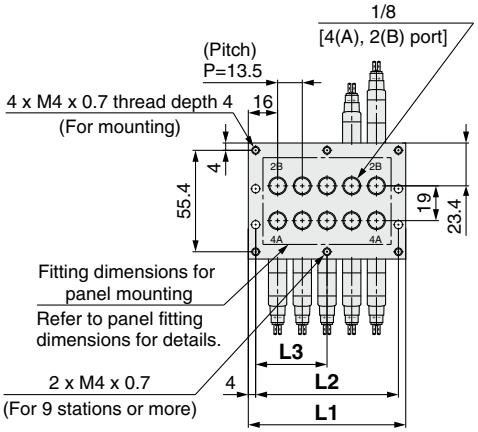




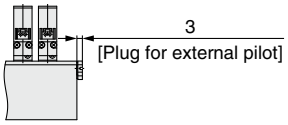


Port size M5



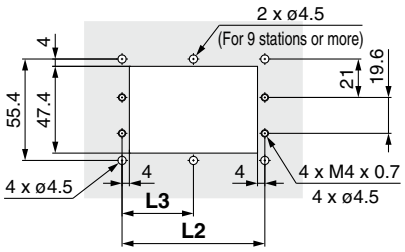


41R-Stations U/D*1



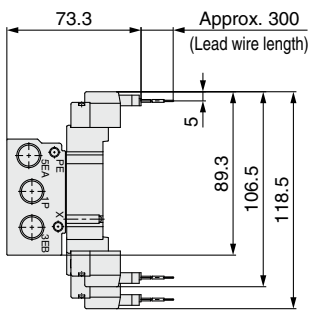
* The drawing above shows when P, E port entry is D.

Panel fitting dimensions

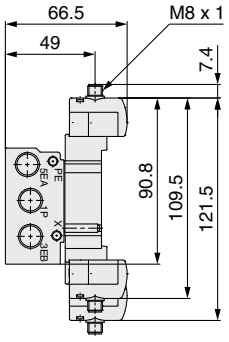


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY3-41-05-01."

M plug connector (M)



M8 connector (W, WA)



L Dimensions: Port Size 01 (1/8)

n: Stations

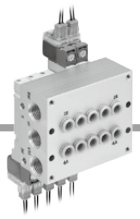
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	45.5	59.0	72.5	86.0	99.5	113.0	126.5	140.0	153.5	167.0	180.5	194.0	207.5	221.0	234.5	248.0	261.5	275.0	288.5
L2	37.5	51.0	64.5	78.0	91.5	105.0	118.5	132.0	145.5	159.0	172.5	186.0	199.5	213.0	226.5	240.0	253.5	267.0	280.5
L3	—	—	—	—	—	—	—	66.0	72.8	79.5	86.3	93.0	99.8	106.5	113.3	120.0	126.8	133.5	140.3

L Dimensions: Port Size M5

n: Stations

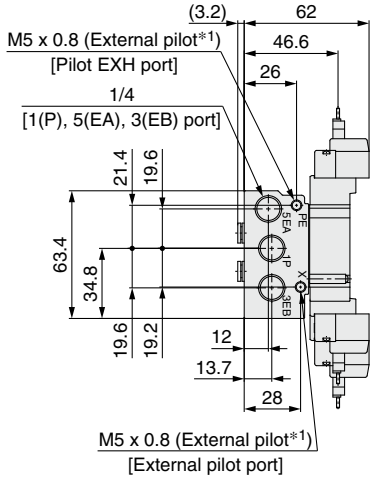
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	—	—	—	—	—	—	—	54.0	59.3	64.5	69.8	75.0	80.3	85.5	90.8	96.0	101.3	106.5	111.8

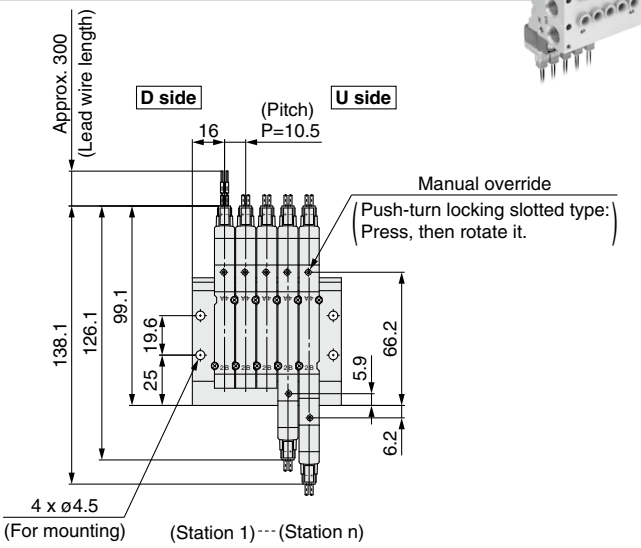
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: ø6/Fixed**

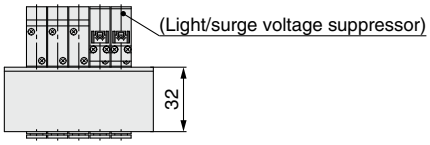


Dimensions: JSY3000 Series

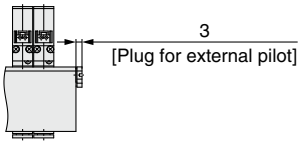
JJ5SY3-41(R)-Stations U/D/B-C6□





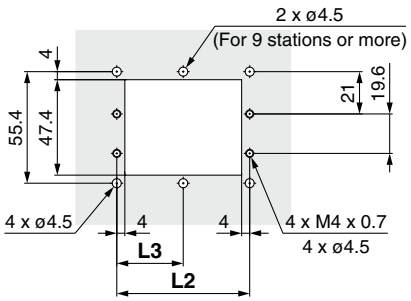


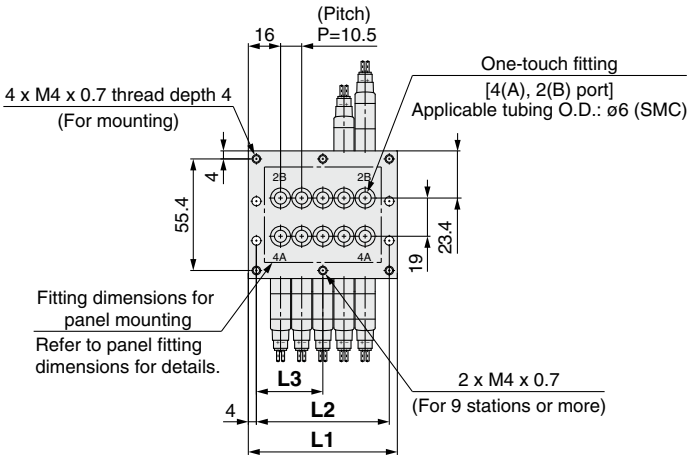
41R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

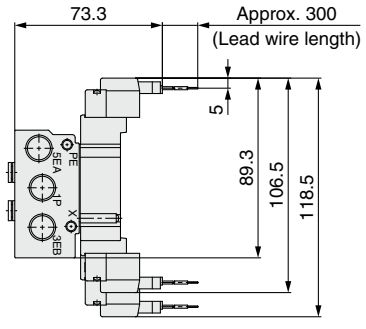
Panel fitting dimensions



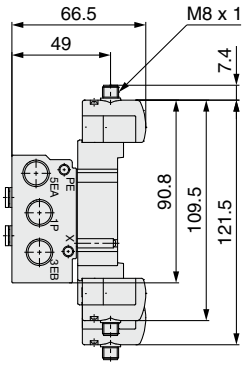


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY3-41-05-C6."

M plug connector (M)



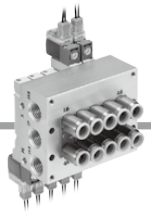
M8 connector (W, WA)



L Dimensions: Port Size C6

n: Stations

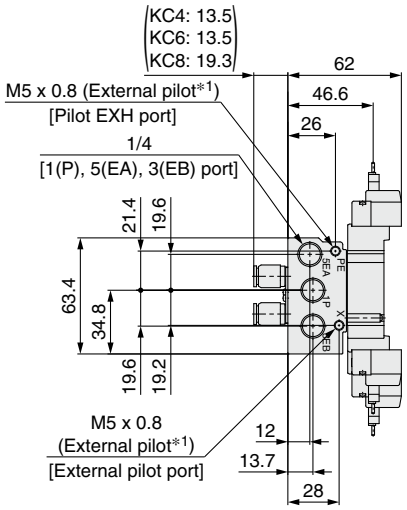
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	—	—	—	—	—	—	—	54.0	59.3	64.5	69.8	75.0	80.3	85.5	90.8	96.0	101.3	106.5	111.8

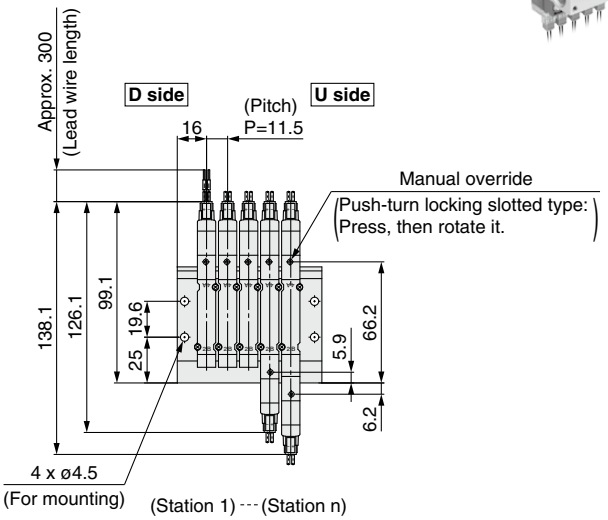


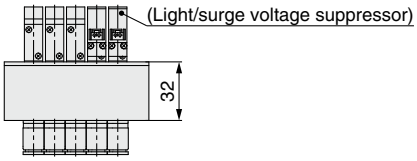
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: ø4, ø6, ø8/Replaceable**

Dimensions: JSY3000 Series

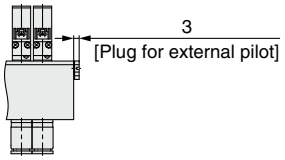
JJ5SY3-41(R)- Stations U/D/B - KC4/KC6/KC8 □





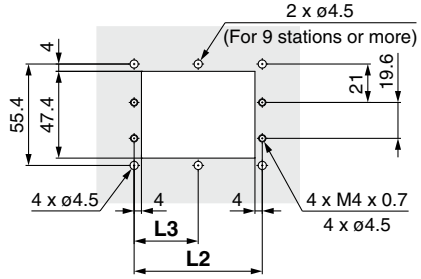


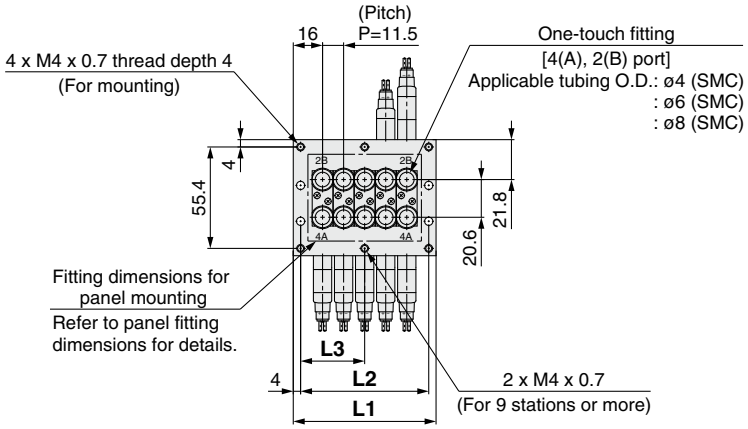
41R- Stations U/D *1



* The drawing above shows when P, E port entry is D.

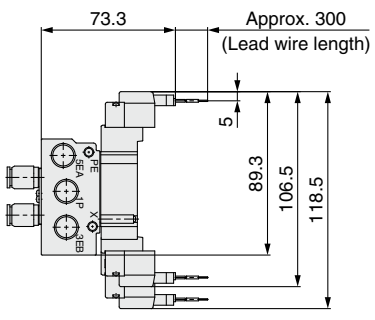
Panel fitting dimensions



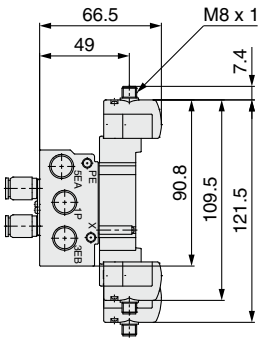


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY3-41-05-KC8."

M plug connector (M)



M8 connector (W, WA)

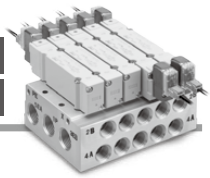


L Dimensions: Port Sizes KC4, KC6, KC8

n: Stations

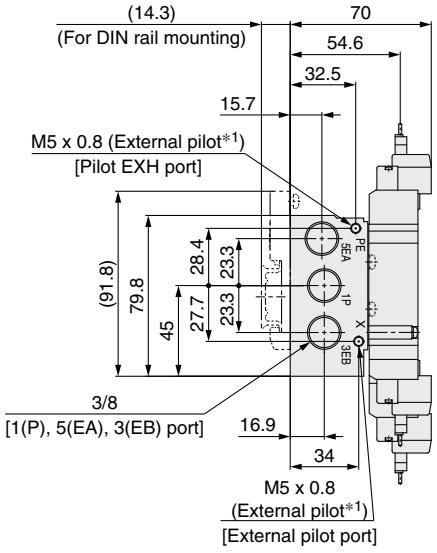
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	43.5	55.0	66.5	78.0	89.5	101.0	112.5	124.0	135.5	147.0	158.5	170.0	181.5	193.0	204.5	216.0	227.5	239.0	250.5
L2	35.5	47.0	58.5	70.0	81.5	93.0	104.5	116.0	127.5	139.0	150.5	162.0	173.5	185.0	196.5	208.0	219.5	231.0	242.5
L3	—	—	—	—	—	—	—	58.0	63.8	69.5	75.3	81.0	86.8	92.5	98.3	104.0	109.8	115.5	121.3

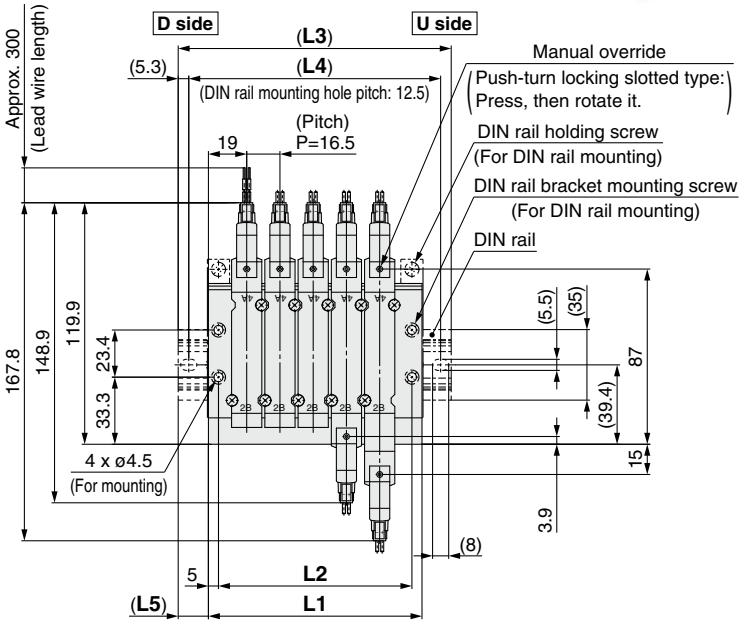
Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: 1/8, 1/4**



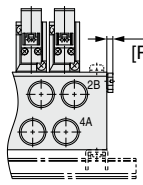
Dimensions: JSY5000 Series

JJ5SY5-40(R)-Stations U/D/B-01/02□(D)

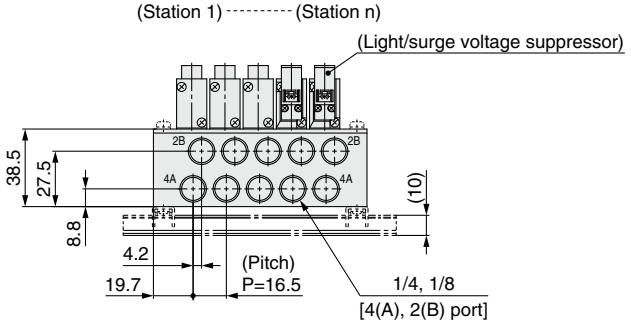




40R-Stations U/D*1

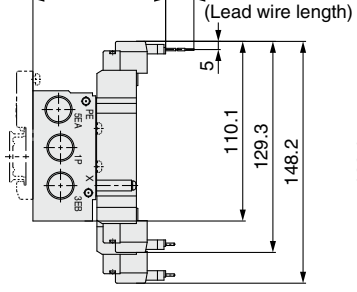


* The drawing above shows when P, E port entry is D.

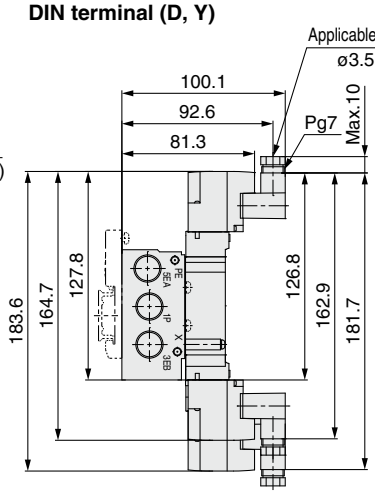


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY5-40-05B-02."

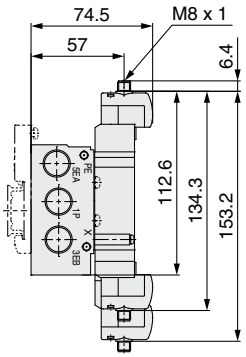
M plug connector (M)



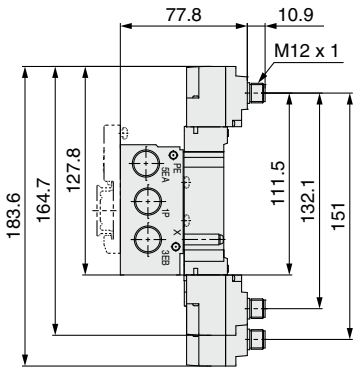
DIN terminal (D, Y)



M8 connector (W, WA)



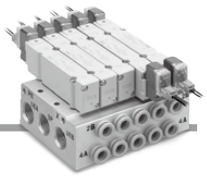
M12 connector (K)



L Dimensions: Port Sizes 01 (1/8), 02 (1/4)

n: Stations

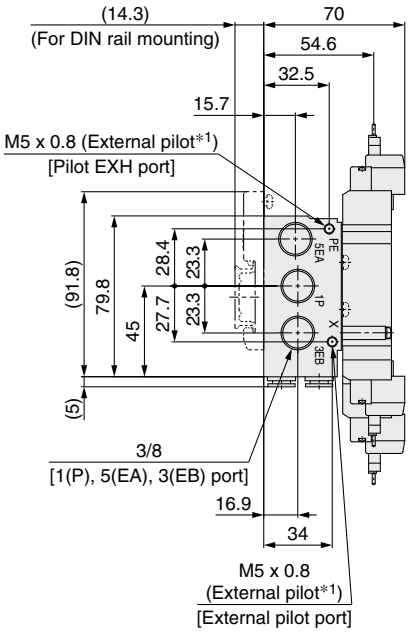
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.5	73.0	89.5	106.0	122.5	139.0	155.5	172.0	188.5	205.0	221.5	238.0	254.5	271.0	287.5	304.0	320.5	337.0	353.5
L2	46.5	63.0	79.5	96.0	112.5	129.0	145.5	162.0	178.5	195.0	211.5	228.0	244.5	261.0	277.5	294.0	310.5	327.0	343.5
L3	85.5	98.0	123.0	135.5	148.0	173.0	185.5	198.0	223.0	235.5	248.0	273.0	285.5	298.0	323.0	335.5	348.0	373.0	385.5
L4	75.0	87.5	112.5	125.0	137.5	162.5	175.0	187.5	212.5	225.0	237.5	262.5	275.0	287.5	312.5	325.0	337.5	362.5	375.0
L5	14.5	12.5	17.0	15.0	13.0	17.0	15.0	13.0	17.5	15.5	13.5	17.5	15.5	13.5	18.0	16.0	14.0	18.0	16.0

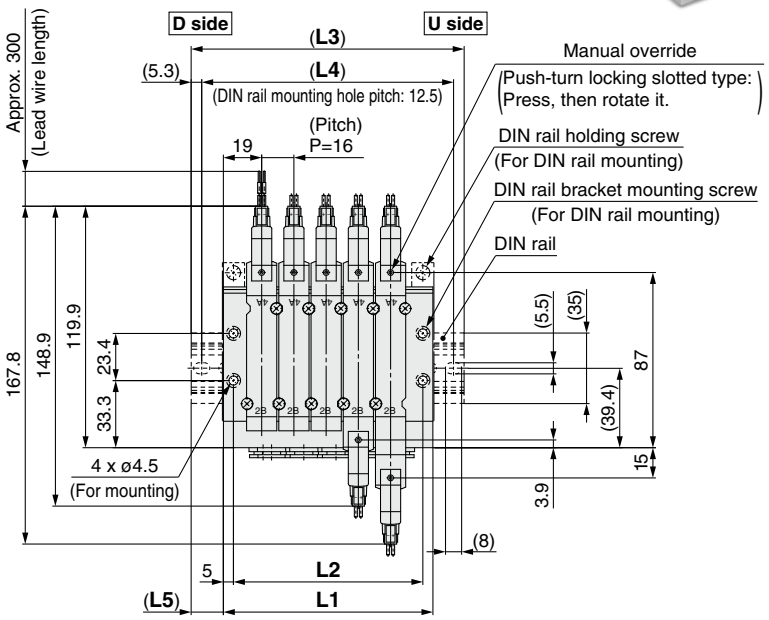


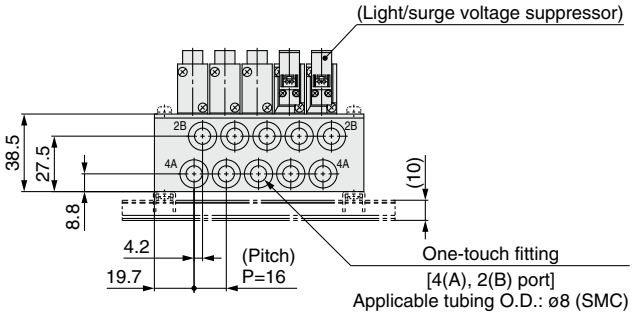
Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: ø8/Fixed**

Dimensions: JSY5000 Series

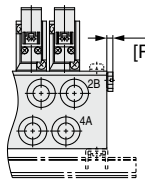
JJ5SY5-40(R)-Stations U/D-C8□(D)







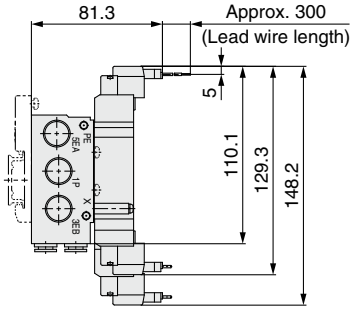
40R-Stations U/D*1



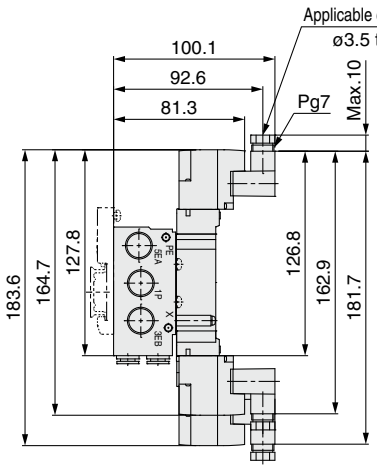
* The drawing above shows when P, E port entry is D.

*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY5-40-05B-C8."

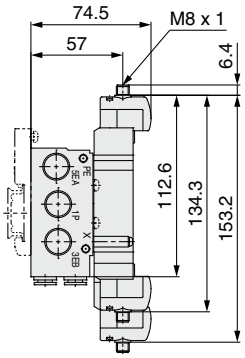
M plug connector (M)



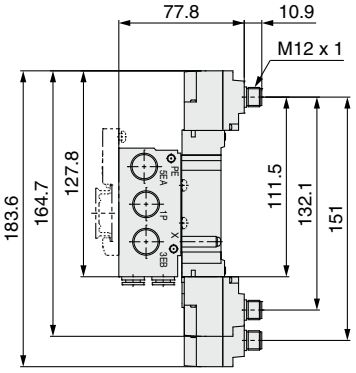
DIN terminal (D, Y)



M8 connector (W, WA)



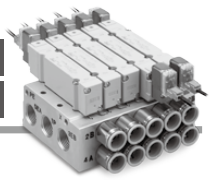
M12 connector (K)



L Dimensions: Port Size C8

n: Stations

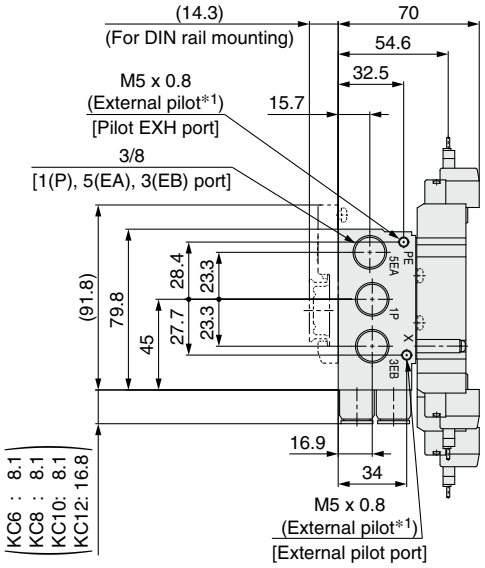
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.0	72.0	88.0	104.0	120.0	136.0	152.0	168.0	184.0	200.0	216.0	232.0	248.0	264.0	280.0	296.0	312.0	328.0	344.0
L2	46.0	62.0	78.0	94.0	110.0	126.0	142.0	158.0	174.0	190.0	206.0	222.0	238.0	254.0	270.0	286.0	302.0	318.0	334.0
L3	85.5	98.0	123.0	135.5	148.0	160.5	185.5	198.0	210.5	223.0	248.0	260.5	273.0	298.0	310.5	323.0	348.0	360.5	373.0
L4	75.0	87.5	112.5	125.0	137.5	150.0	175.0	187.5	200.0	212.5	237.5	250.0	262.5	287.5	300.0	312.5	337.5	350.0	362.5
L5	15.0	13.0	17.5	16.0	14.0	12.5	17.0	15.0	13.5	11.5	16.0	14.5	12.5	17.0	15.5	13.5	18.0	16.5	14.5

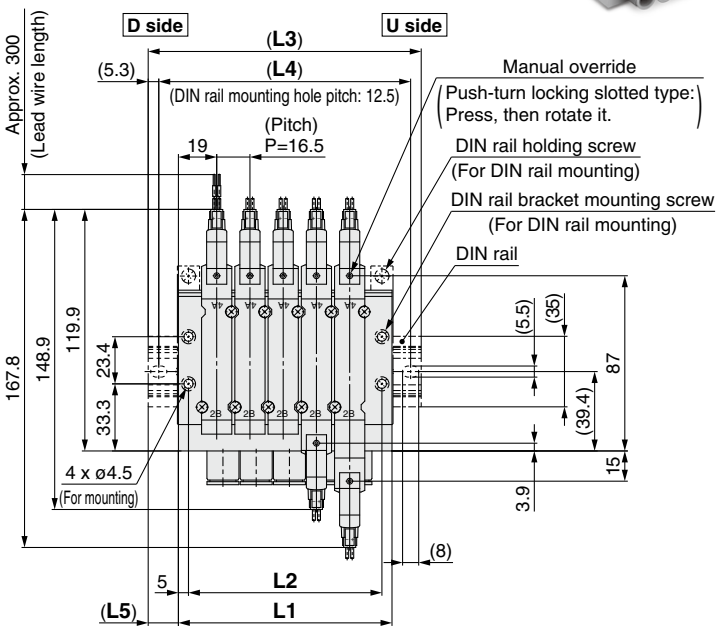


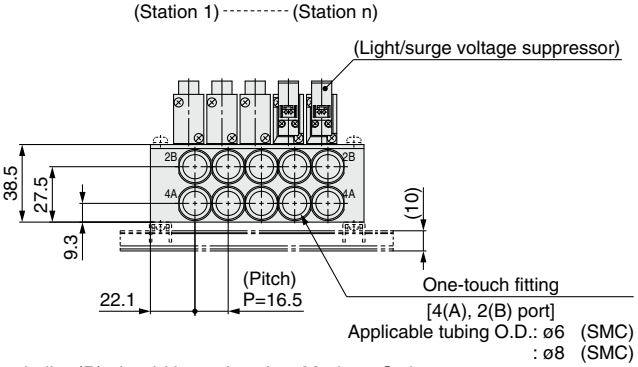
Non Plug-in Metal Base | **Type 40/Side Ported** | **Port Size: ø6, ø8, ø10, ø12/Replaceable**

Dimensions: JSY5000 Series

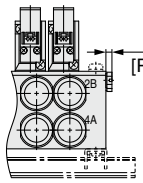
JJ5SY5-40(R)-Stations U/D/B - KC6/KC8/KC10/KC12 □(D)







40R-Stations U/D*1

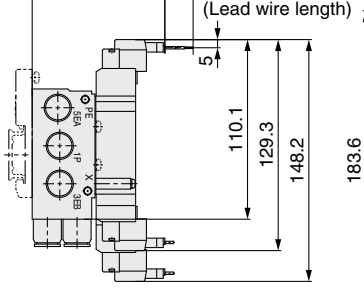


* The drawing above shows when P, E port entry is D.

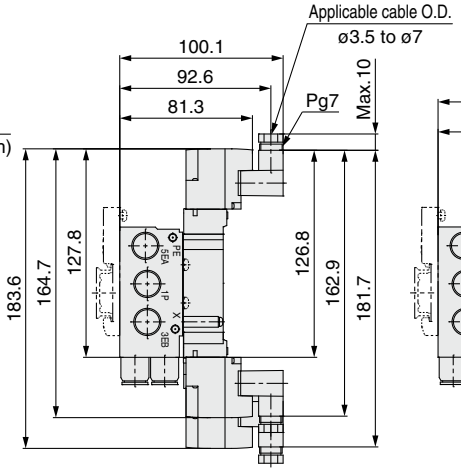
*1 The external pilot (R) should be ordered as Made to Order.

* These figures show the "JJ5SY5-40-05B-KC12."

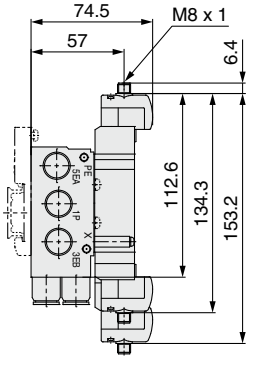
M plug connector (M)



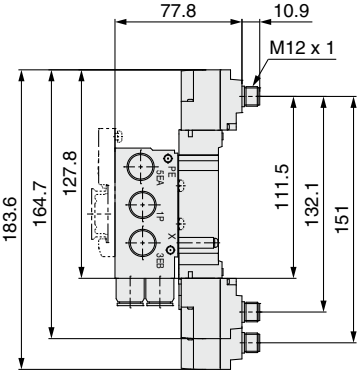
DIN terminal (D, Y)



M8 connector (W, WA)



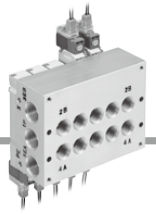
M12 connector (K)



L Dimensions: Port Sizes KC6, KC8, KC10, KC12

n: Stations

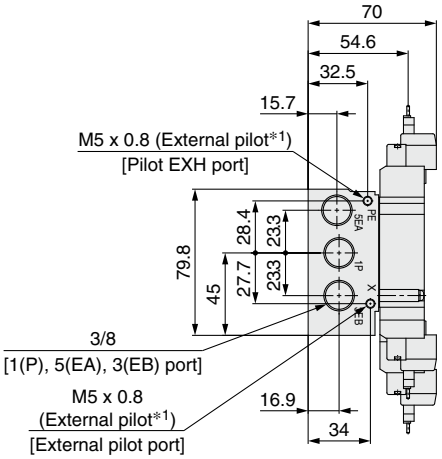
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.5	73.0	89.5	106.0	122.5	139.0	155.5	172.0	188.5	205.0	221.5	238.0	254.5	271.0	287.5	304.0	320.5	337.0	353.5
L2	46.5	63.0	79.5	96.0	112.5	129.0	145.5	162.0	178.5	195.0	211.5	228.0	244.5	261.0	277.5	294.0	310.5	327.0	343.5
L3	85.5	98.0	123.0	135.5	148.0	173.0	185.5	198.0	223.0	235.5	248.0	273.0	285.5	298.0	323.0	335.5	348.0	373.0	385.5
L4	75.0	87.5	112.5	125.0	137.5	162.5	175.0	187.5	212.5	225.0	237.5	262.5	275.0	287.5	312.5	325.0	337.5	362.5	375.0
L5	14.5	12.5	17.0	15.0	13.0	17.0	15.0	13.0	17.5	15.5	13.5	17.5	15.5	13.5	18.0	16.0	14.0	18.0	16.0

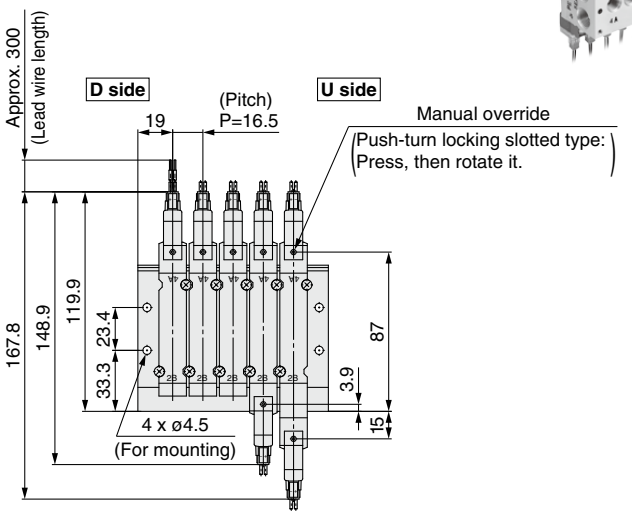


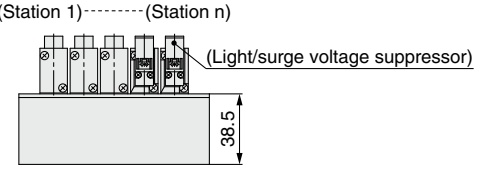
Non Plug-in Metal Base | **Type 41/Bottom Ported** | **Port Size: 1/8, 1/4**

Dimensions: JSY5000 Series

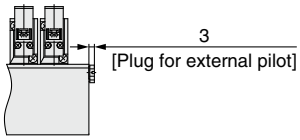
JJ5SY5-41(R)- Stations U/D/B - 01/02 □





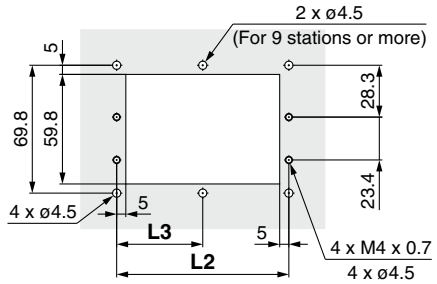


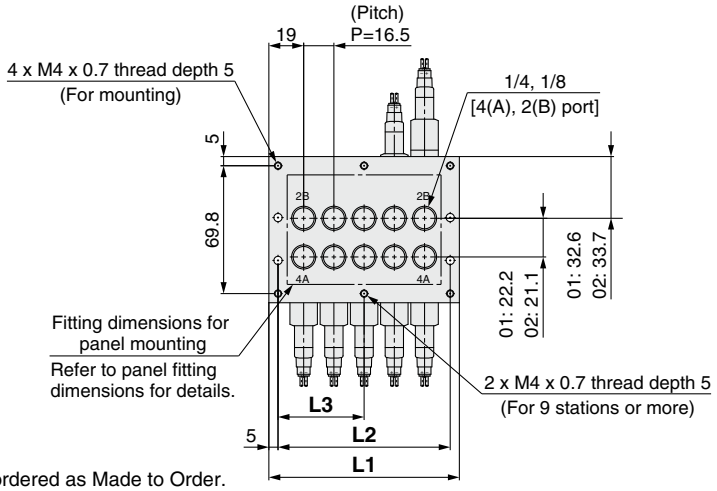
41R- Stations U/D *1



* The drawing above shows when P, E port entry is D.

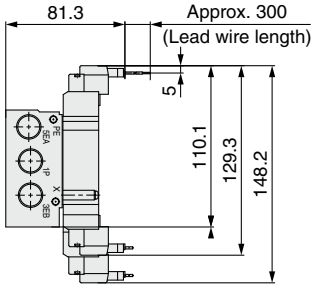
Panel fitting dimensions



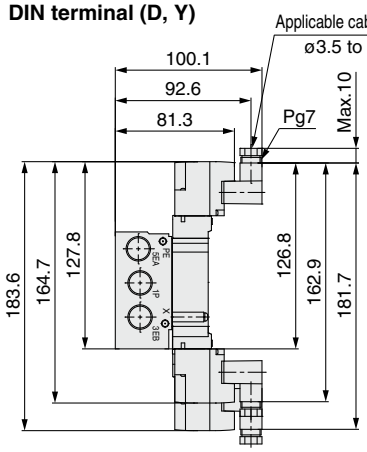


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY5-41-05B-02."

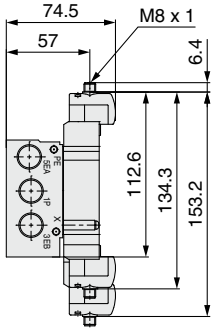
M plug connector (M)



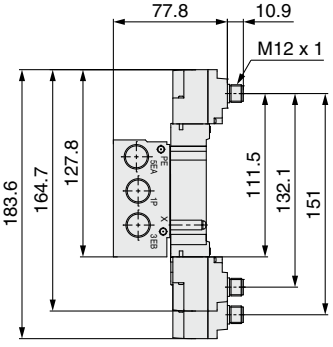
DIN terminal (D, Y)



M8 connector (W, WA)



M12 connector (K)

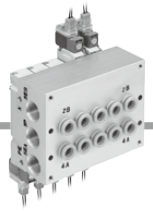


L Dimensions: Port Sizes 01 (1/8), 02 (1/4)

n: Stations

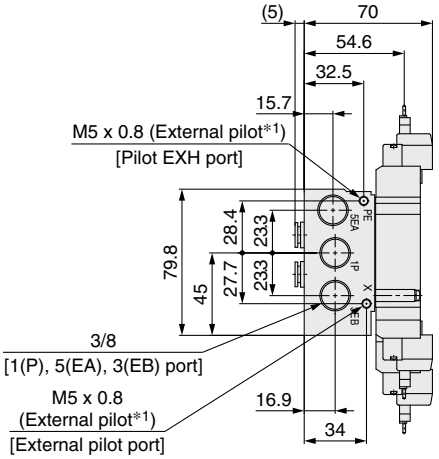
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	54.5	71.0	87.5	104.0	120.5	137.0	153.5	170.0	186.5	203.0	219.5	236.0	252.5	269.0	285.5	302.0	318.5	335.0	351.5
L2	44.5	61.0	77.5	94.0	110.5	127.0	143.5	160.0	176.5	193.0	209.5	226.0	242.5	259.0	275.5	292.0	308.5	325.0	341.5
L3	—	—	—	—	—	—	—	80.0	88.3	96.5	104.8	113.0	121.3	129.5	137.8	146.0	154.3	162.5	170.8

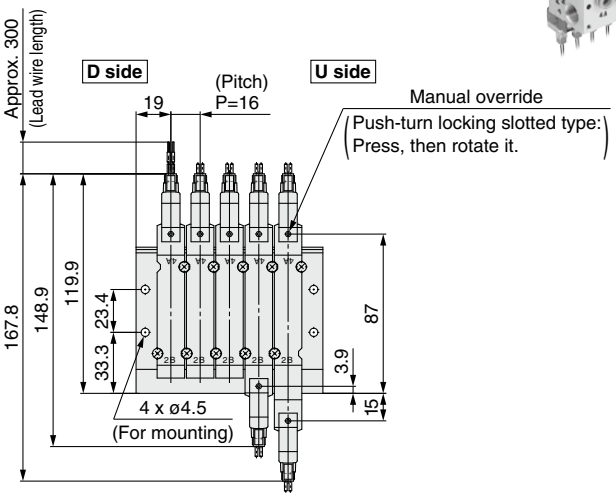
Non Plug-in Metal Base | Type 41/Bottom Ported | Port Size: ø8/Fixed

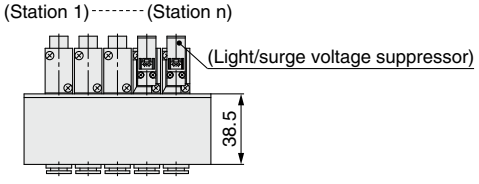


Dimensions: JSY5000 Series

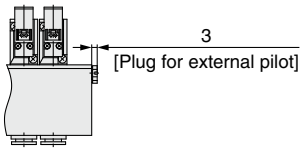
JJ5SY5-41(R)-Stations U/D-C8□





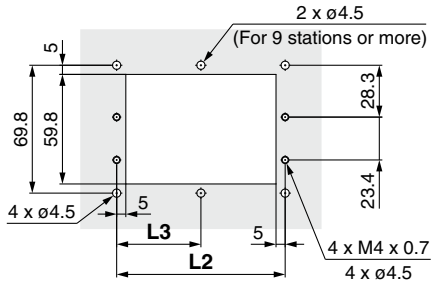


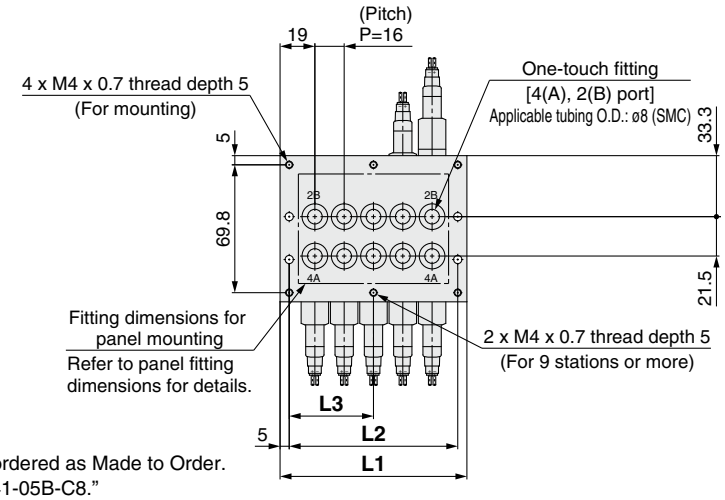
41R-Stations U/D*1



* The drawing above shows when P, E port entry is D.

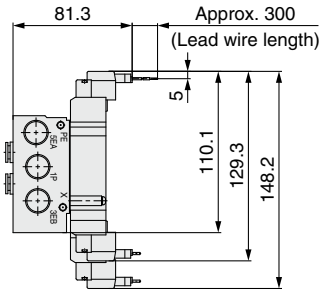
Panel fitting dimensions



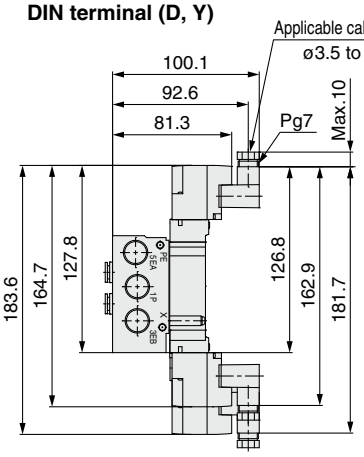


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY5-41-05B-C8."

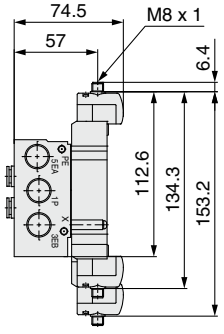
M plug connector (M)



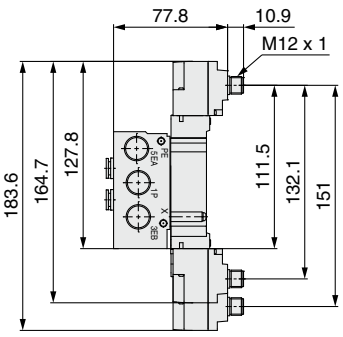
DIN terminal (D, Y)



M8 connector (W, WA)



M12 connector (K)

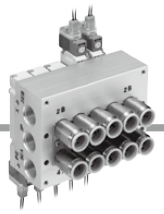


L Dimensions: Port Size C8

n: Stations

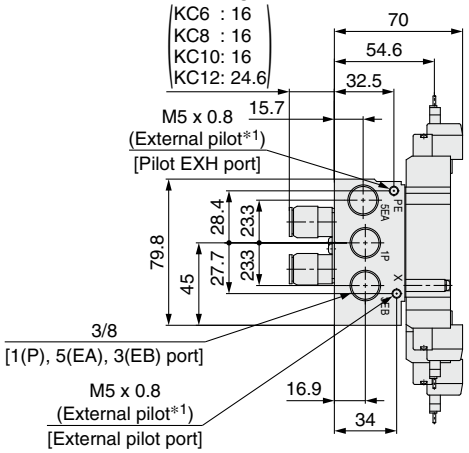
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	54.0	70.0	86.0	102.0	118.0	134.0	150.0	166.0	182.0	198.0	214.0	230.0	246.0	262.0	278.0	294.0	310.0	326.0	342.0
L2	44.0	60.0	76.0	92.0	108.0	124.0	140.0	156.0	172.0	188.0	204.0	220.0	236.0	252.0	268.0	284.0	300.0	316.0	332.0
L3	—	—	—	—	—	—	—	78.0	86.0	94.0	102.0	110.0	118.0	126.0	134.0	142.0	150.0	158.0	166.0

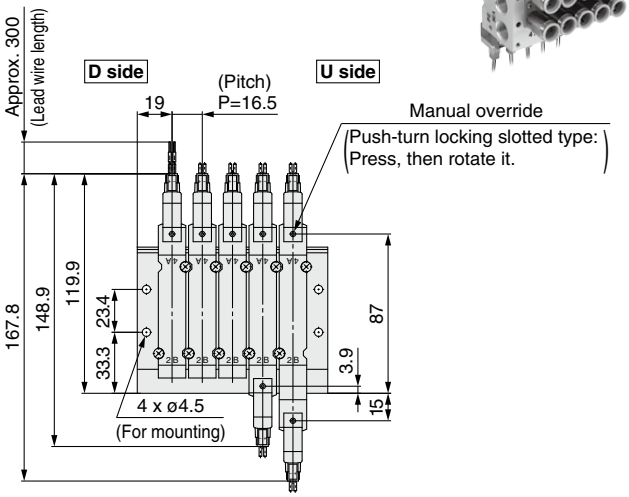
Non Plug-in Metal Base | Type 41/Bottom Ported | Port Size: ø6, ø8, ø10, ø12/Replaceable

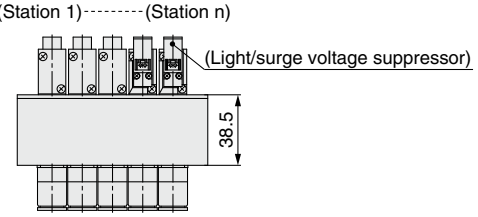


Dimensions: JSY5000 Series

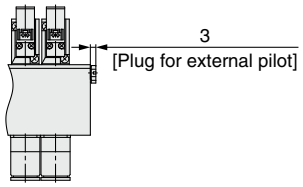
JJ5SY5-41(R)- Stations U D B - KC6 KC8 KC10 KC12 □





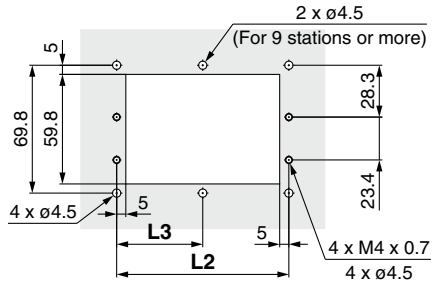


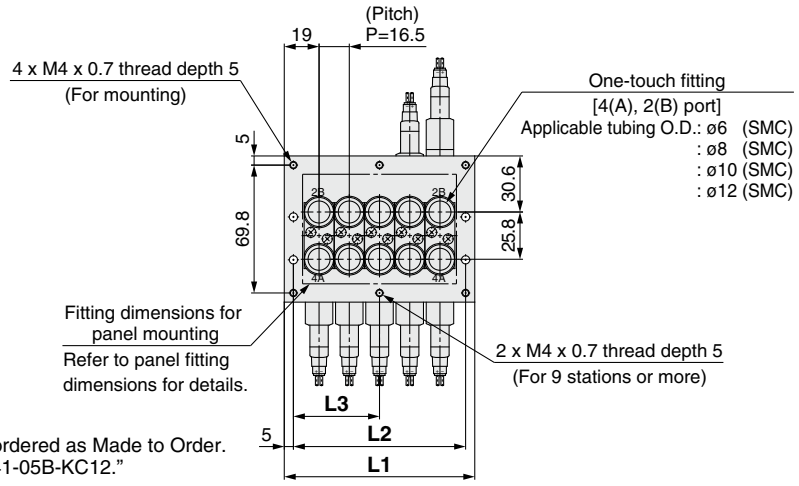
41R- Stations U D *1



* The drawing above shows when P, E port entry is D.

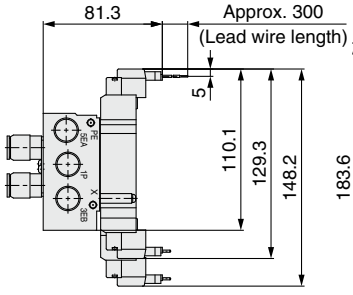
Panel fitting dimensions



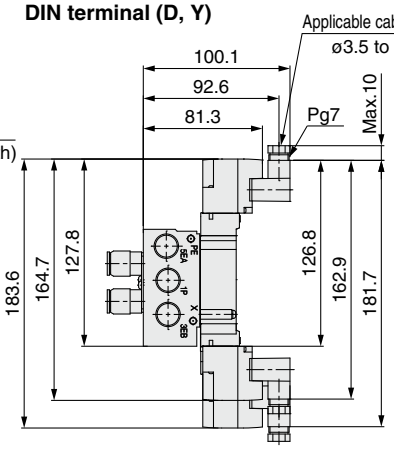


*1 The external pilot (R) should be ordered as Made to Order.
* These figures show the "JJ5SY5-41-05B-KC12."

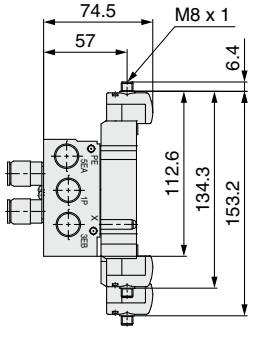
M plug connector (M)



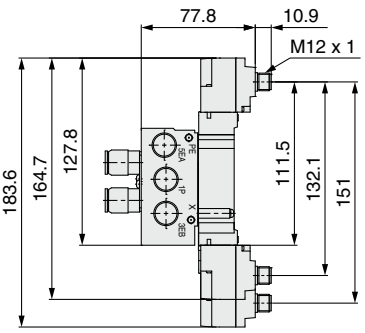
DIN terminal (D, Y)



M8 connector (W, WA)



M12 connector (K)



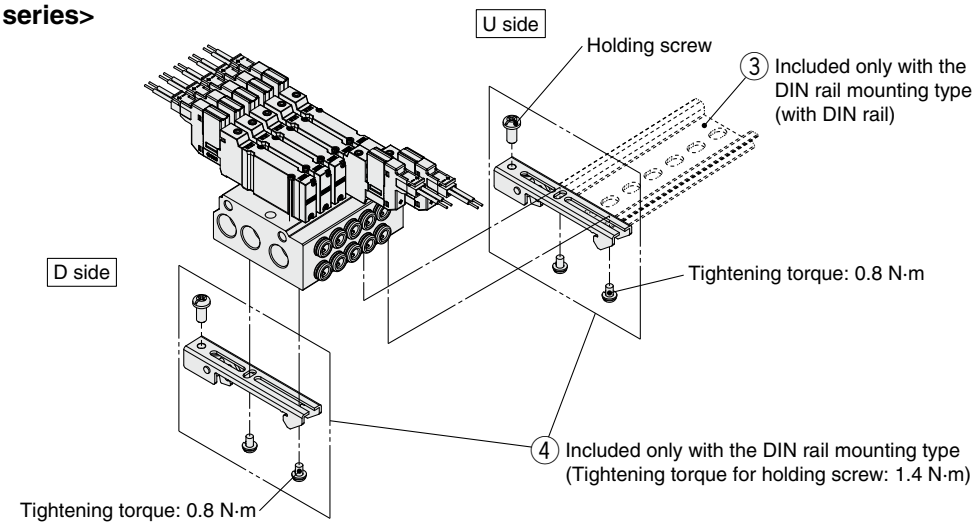
L Dimensions: Port Sizes KC6, KC8, KC10, KC12

n: Stations

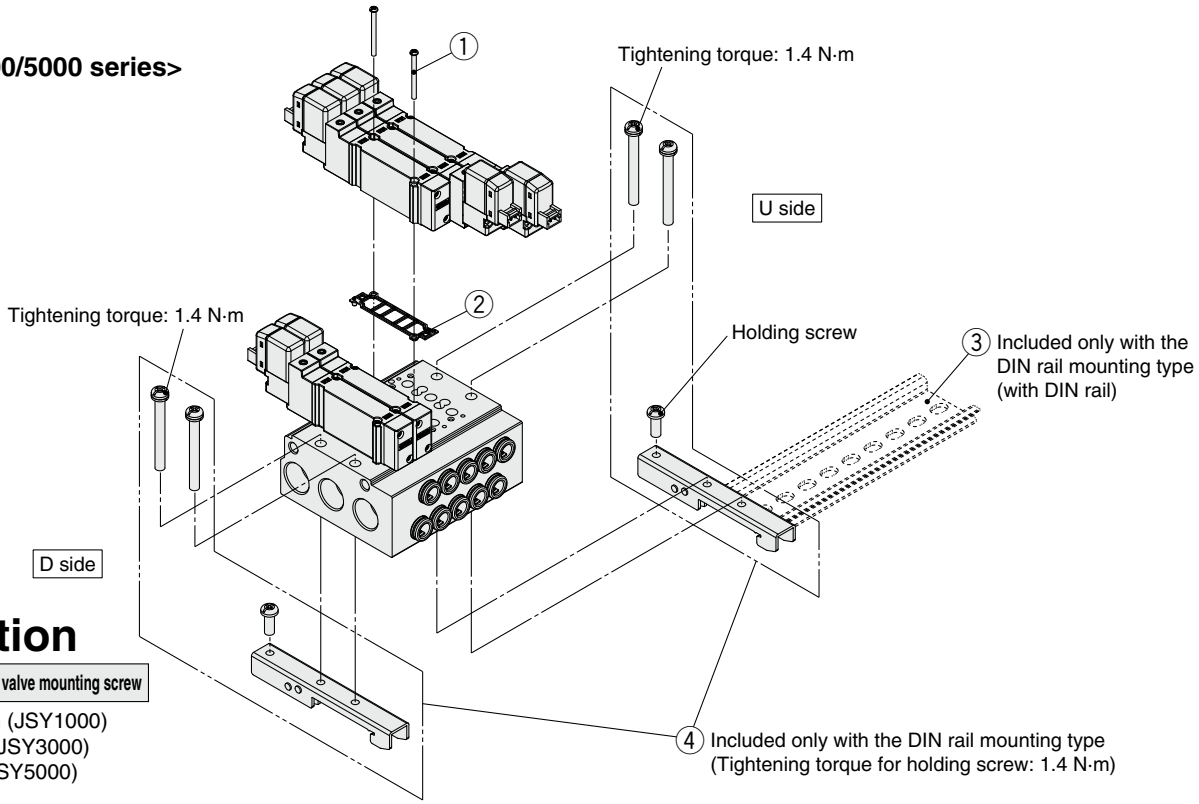
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	54.5	71.0	87.5	104.0	120.5	137.0	153.5	170.0	186.5	203.0	219.5	236.0	252.5	269.0	285.5	302.0	318.5	335.0	351.5
L2	44.5	61.0	77.5	94.0	110.5	127.0	143.5	160.0	176.5	193.0	209.5	226.0	242.5	259.0	275.5	292.0	308.5	325.0	341.5
L3	—	—	—	—	—	—	—	80.0	88.3	96.5	104.8	113.0	121.3	129.5	137.8	146.0	154.3	162.5	170.8

Non Plug-in Metal Base Manifold Exploded View

<JSY1000 series>



<JSY3000/5000 series>



⚠ Caution

Tightening torque for valve mounting screw

M1.4: 0.06 N·m (JSY1000)
M2: 0.16 N·m (JSY3000)
M3: 0.8 N·m (JSY5000)

Manifold Parts Nos.

No.	Description	Part number			Note
		JSY1000	JSY3000	JSY5000	
①	**Valve mounting screw**	**JSY11V-23-1A** (M1.4 x 21.5)	**JSY31V-23-4A** (M2 x 22)	**JSY51V-23-4A** (M3 x 27)	Part numbers shown on the left are for 10 valves. (20 pcs.)
②	**Base gasket**	**JSY11M-11-1A**	**JSY31M-11-1A**	**JSY51M-11-1A**	Part numbers shown on the left are for 10 valves. (10 pcs.)
③	**DIN rail**	**VZ1000-11-1-□**	**VZ1000-11-1-□**	**VZ1000-11-4-□**	Refer to page 200.
④	**Clamp bracket**	**JSY11M-15-1A**	**JSY31M-15-1A**	**JSY51M-15-1A**	Part numbers shown on the left are for one manifold. (2 sets of clamp brackets)

JSY1000/3000/5000 Series
One-touch Fittings, Clip, Port Plate, Tube Releasing Tool

Refer to “How to Replace One-touch Fittings” on page 208 for the replacement method.

■ One-touch Fittings

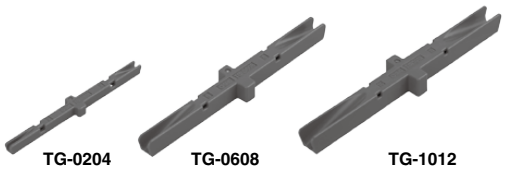
Port size		JSY1000	JSY3000	JSY5000	Note
A, B port	ø2	KQSY10-C2	—	—	Part number is for one piece. (Sales unit: 10 pcs.)
	ø4	KQSY10-C4-X1336	KQSY30-C4	—	
	ø6	KQSY11-C6	KQSY30-C6	KQSY50-C6	
	ø8	—	KQSY30-C8	KQSY50-C8	
	ø10	—	—	KQSY50-C10	
	ø12	—	—	KQSY50-C12-X1336	

■ Clip, Port Plate

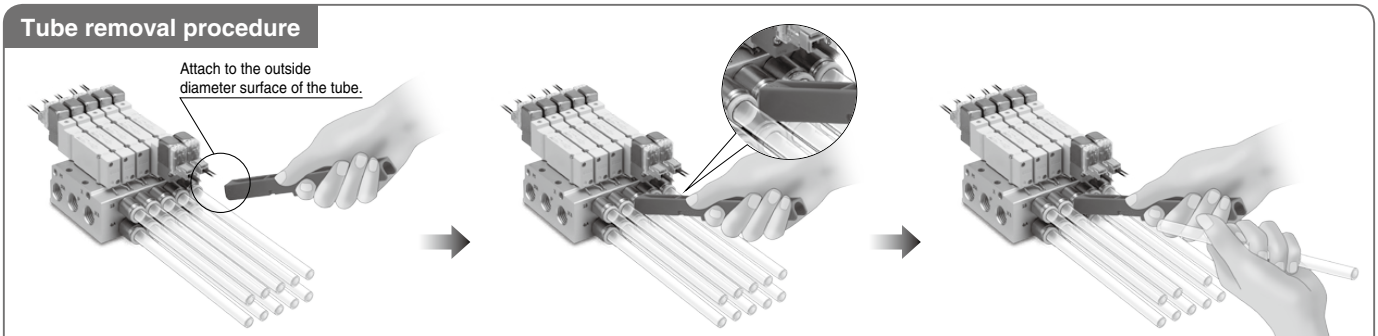
	JSY1000		JSY3000	JSY5000	Note
	For A, B port C2/C4 fittings	For A, B port C6 fittings			
Clip	JSY11M-19-4A	JSY11M-19-3A	JSY31M-19-3A	JSY51M-19-3A	Part number is for 10 pieces.
Port plate	JSY11M-10-4A	JSY11M-10-3A	JSY31M-10-3A	JSY51M-10-3A	Part number is for 10 pieces.

■ Tube Releasing Tool (This tool is used for removing the tube from port A and B.)

Part number	TG-0204	TG-0608	TG-1012
Applicable tubing O.D.	ø2/ø4	ø6/ø8	ø10/ø12



Tube removal procedure



(1) Set the release tool to the outside diameter surface.

(2) Push the fitting release bushing using the release tool.

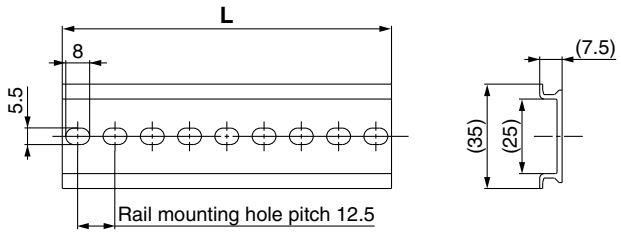
(3) Remove the tube.

Manifold Options

■ DIN rail dimensions/weight for the JSY1000/3000 Non Plug-in metal base

VZ1000-11-1-□

∗ After confirming the L3 dimension in the dimensions table of each series, refer to the DIN rail dimensions table below and specify the number in the box □.



No.	S3	S2	S1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L dimension	60.5	73	85.5	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5
Weight [g]	10.9	13.1	15.4	17.6	19.9	22.1	24.4	26.6	28.9	31.1	33.4	35.6	37.9	40.1	42.4	44.6	46.9	49.1	51.4

No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
L dimension	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5	523
Weight [g]	53.6	55.9	58.1	60.4	62.5	64.9	67.1	69.4	71.6	73.9	76.1	78.4	80.6	82.9	85.1	87.4	89.6	91.9	94.1

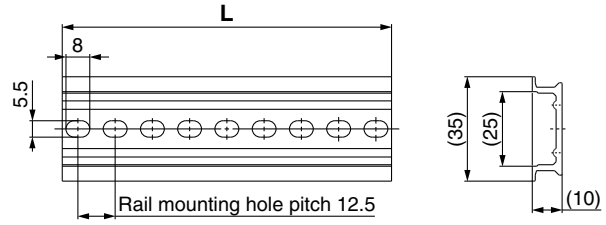
No.	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
L dimension	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	660.5	673	685.5	698	710.5	723	735.5	748	760.5
Weight [g]	96.4	98.6	100.9	103.1	105.4	107.6	109.9	112.1	114.4	116.6	118.9	121.1	123.4	125.6	127.9	130.1	132.4	134.6	136.9

No.	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
L dimension	773	785.5	798	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	935.5	948	960.5	973	985.5
Weight [g]	139.1	141.4	143.6	145.9	148.1	150.4	152.6	154.9	157.1	159.4	161.6	163.9	166.1	168.4	170.6	172.9	175.1	177.4

■ DIN rail dimensions/weight for the JSY5000 Non Plug-in metal base

VZ1000-11-4-□

∗ After confirming the L3 dimension in the dimensions table of each series, refer to the DIN rail dimensions table below and specify the number in the box □.



No.	S1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
L dimension	85.5	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	310.5
Weight [g]	21.7	24.8	28	31.1	34.3	37.4	40.6	43.8	46.9	50.1	53.3	56.4	59.6	62.7	65.9	69.1	72.2	75.4	78.6

No.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
L dimension	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5	523	535.5	548
Weight [g]	81.7	84.9	88	91.2	94.4	97.5	100.7	103.9	107	110.2	113.3	116.5	119.7	122.8	126	129.2	132.3	135.5	138.6

No.	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
L dimension	560.5	573	585.5	598	610.5	623	635.5	648	660.5	673	685.5	698	710.5	723	735.5	748	760.5	773	785.5
Weight [g]	141.8	145	148.1	151.3	154.5	157.6	160.8	163.9	167.1	170.3	173.4	176.6	179.8	182.9	186.1	189.2	192.4	195.6	198.7

No.	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
L dimension	798	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	935.5	948	960.5	973	985.5
Weight [g]	201.9	205.1	208.2	211.4	214.5	217.7	220.9	224	227.2	230.4	233.5	236.7	239.8	243	246.2	249.3

⚠Caution

Tightening torque for mounting screw
M1.4: 0.06 N·m (JSY1000)
M2: 0.16 N·m (JSY3000)
M3: 0.8 N·m (JSY5000)

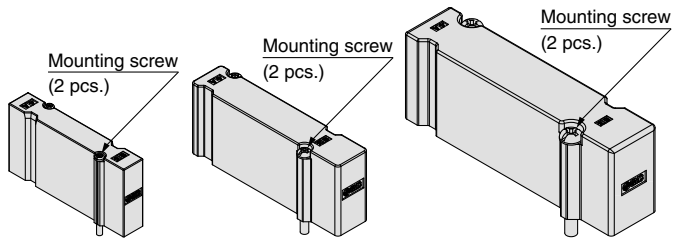
Manifold Options

∗ Refer to page 202 for dimensions.

■ Blanking plate

[With two mounting screws]

Used when valve additions are expected or for maintenance.



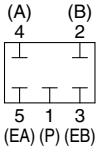
JSY11M-26-1A **JSY31M-26-1A** **JSY51M-26-1A**

How to Order Blanking Plates

JSY 3 1M – 26 – 1A

Series

1	JSY1000
3	JSY3000
5	JSY5000

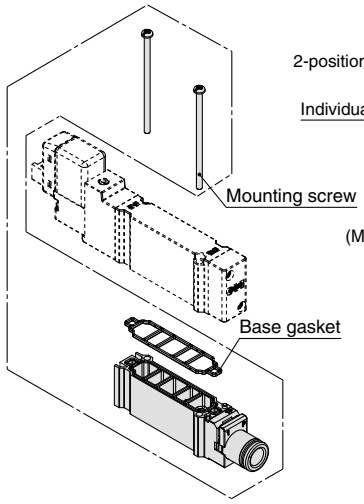


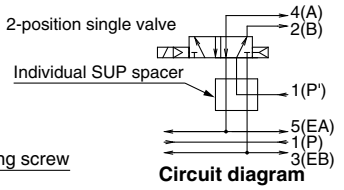
Circuit diagram

■ Individual SUP spacer

[With a base gasket and two mounting screws]

When the same manifold is used for different pressures, an individual SUP spacer is used as a supply port for different pressures.





Circuit diagram

(Mounting example of a 2-position single valve)

Part numbers of mounting screw (For repairs)

JSY1000: JSY11V-23-2A (2 pcs.)
JSY3000: JSY31V-23-5A (2 pcs.)
JSY5000: JSY51V-23-5A (2 pcs.)

How to Order Individual SUP/EXH Spacers

JSY 3 1M – 38 – 1A – C6

Spacer type

38	Individual SUP spacer
39	Individual EXH spacer

Series

1	JSY1000
3	JSY3000
5	JSY5000

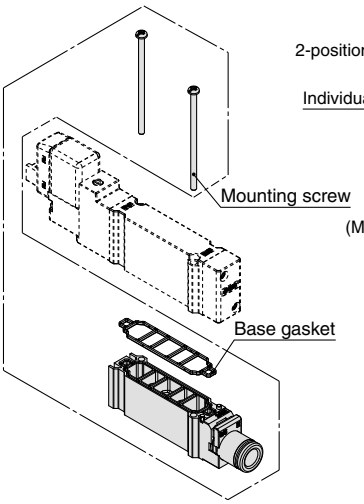
Port size (One-touch fittings)

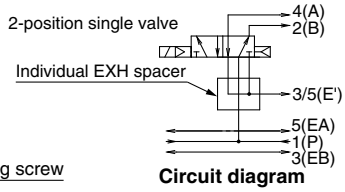
Symbol	P, E port	JSY1000	JSY3000	JSY5000
C4	ø4 One-touch fitting	●	—	—
C6	ø6 One-touch fitting	—	●	—
C8	ø8 One-touch fitting	—	—	●
C10	ø10 One-touch fitting	—	—	●
C12	ø12 One-touch fitting	—	—	●

■ Individual EXH spacer

[With a base gasket and two mounting screws]

When valve exhaust affects other stations due to the circuit configuration, this spacer is used for individual valve exhaust.





Circuit diagram

(Mounting example of a 2-position single valve)

Part numbers of mounting screw (For repairs)

JSY1000: JSY11V-23-2A (2 pcs.)
JSY3000: JSY31V-23-5A (2 pcs.)
JSY5000: JSY51V-23-5A (2 pcs.)

Refer to the operation manual for spacer combinations and mounting screws. (Other spacer combinations are not possible for the JSY1000 series.)
Please download the Operation Manual via the SMC website: https://www.smcworld.com

⚠Caution

Tightening torque for mounting screw
M1.4: 0.06 N·m (JSY1000)
M2: 0.16 N·m (JSY3000)

Manifold Options

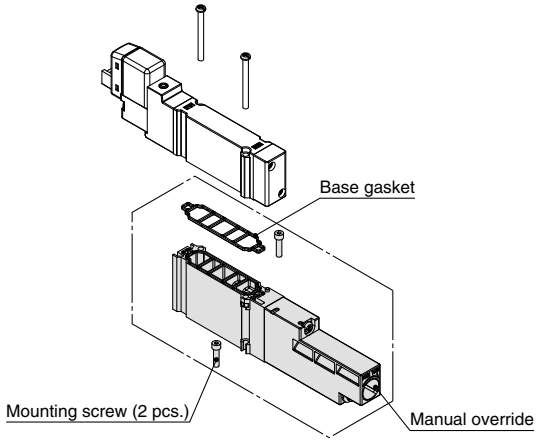
∗ Refer to page 202-1 for dimensions.

■SUP stop valve spacer with residual pressure release valve

[With a base gasket and two mounting screws]

It is used to shut off the supply air to valves individually.

∗ Only compatible when the JSY1000 series 4(A), 2(B) ports are port size M5 or KC6
∗ This product is only for internal pilot specification manifolds, as the external pilot air cannot be shut off.
∗ If the product is equipped with a 3-position closed center valve, residual pressure cannot be released, so use in combination with a 3-port valve, which can be connected to the 4(A), 2(B) piping port.



Part numbers of mounting screw (For repairs)
JSY1000: Z2-SR1-A (10 pcs.)
JSY3000: **SY30M-56-1A** (2 pcs.)

[How to mount SUP stop valve spacer with residual pressure release valve]

Mount the base gasket (manifold part) to the SUP stop valve manifold base side.
Insert the SUP stop valve mounting screw from the side of the spacer, and mount it to the manifold block.
Tighten the SUP stop valve mounting screw to the specified tightening torque.
Mount the valve and tighten the valve mounting screws to the specified tightening torque after mounting the SUP stop valve spacer with residual pressure release valve.

∗ Be aware that the nut may come off. If the nut comes off, attach it to the spacer as shown in the drawing.
∗ Tightening with a hexagon wrench is possible with the nut attached.

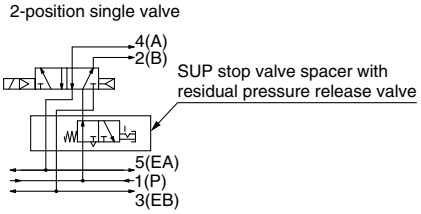
JSY 3 1M − 50 − 1A

Series

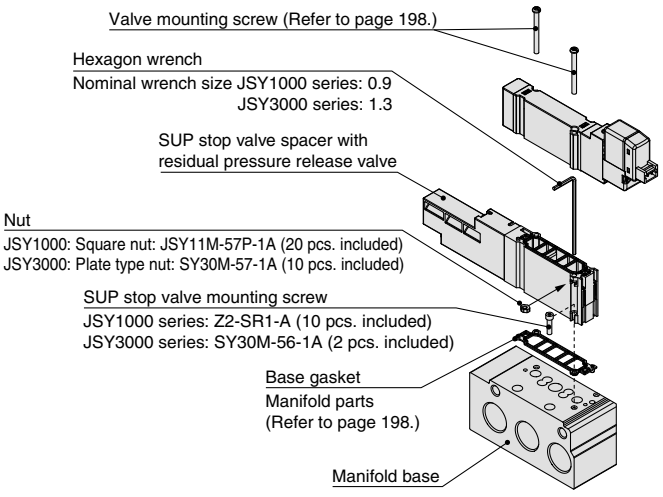
1	JSY1000
3	JSY3000

Manual override	Push-turn locking slotted type

If you want to lock the manual override, push it down until it stops, and then turn it 90° clockwise. Be careful to avoid turning it without pushing it all the way down as this may result in spacer damage, air leakage, or another form of malfunction.
To release the manual override, turn it counterclockwise. When turning the manual override, do not apply more torque than necessary. (0.1 N·m)



Circuit diagram
(Mounting example of a 2-position single valve)



Model	Port size		Flow rate characteristics							
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4 (P → A)		1 → 2 (P → B)		4 → 5 (A → EA)		2 → 3 (B → EB)	
			C [dm³/(s·bar)]	b	C [dm³/(s·bar)]	b	C [dm³/(s·bar)]	b	C [dm³/(s·bar)]	b
JSY11M-50-1A	1/8	KC6	0.52	0.27	0.54	0.26	0.62	0.26	0.60	0.21
JSY31M-50-1A	1/4	KC8	1.5	0.16	1.4	0.12	1.9	0.07	1.7	0.15

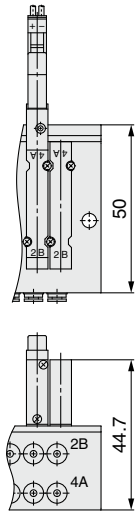
∗ Calculation of effective area S and sonic conductance C: S = 5.0 x C
∗ The value is for manifold base with 5 stations and individually operated 2-position type.
∗ When the manifold is the metal base side ported type (type 40)

Refer to the operation manual for spacer combinations and mounting screws. (Other spacer combinations are not possible for the JSY1000 series.)
Please download the Operation Manual via the SMC website: https://www.smcworld.com

Dimensions: Manifold Options

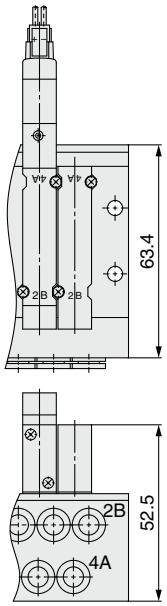
■Blanking plate

JSY1000 series



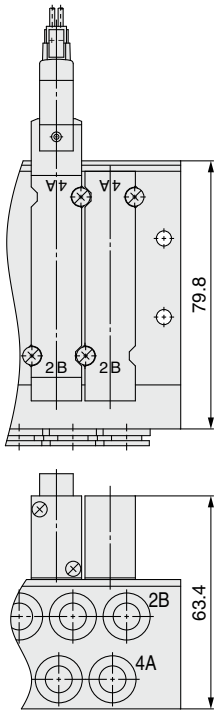
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JSY3000 series



<Type 40>

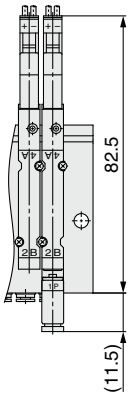
JSY5000 series

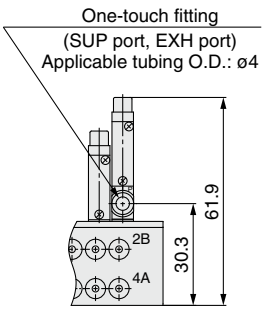


<Type 40>

■Individual SUP/EXH spacer

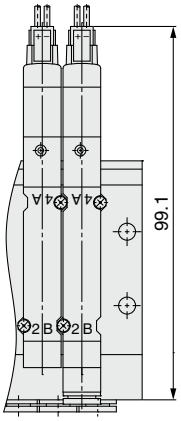
JSY1000 series

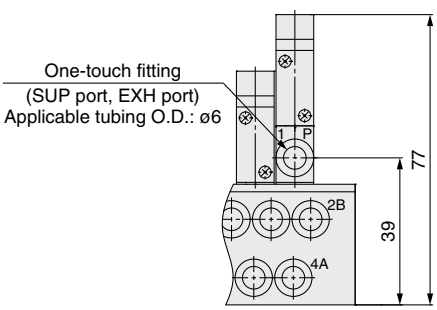




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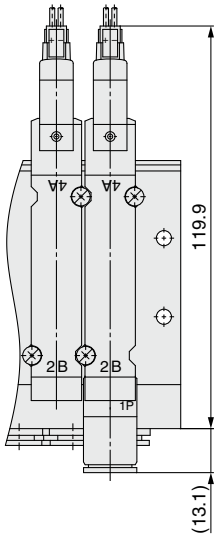
JSY3000 series

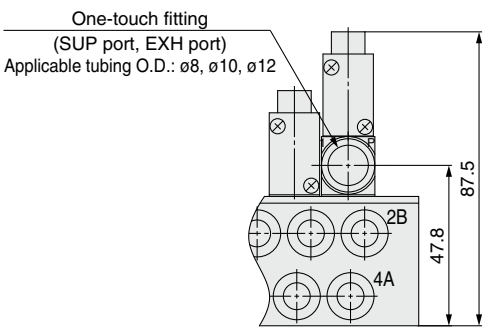




<Type 40>

JSY5000 series





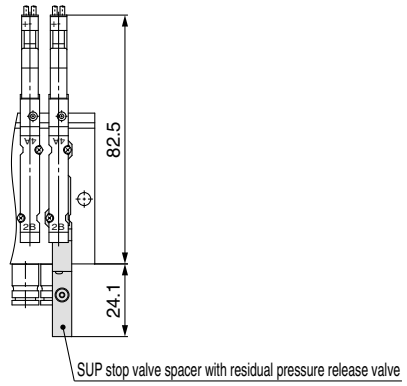
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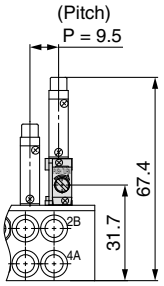
Dimensions: Manifold Options

■SUP stop valve spacer with residual pressure release valve

JSY1000 series

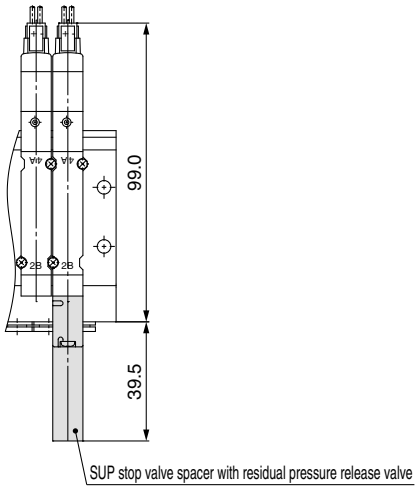
* Only compatible when the JSY1000 series 4(A), 2(B) ports are port size M5 or KC6

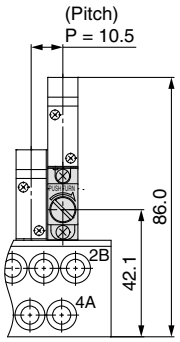




<Type 40>

JSY3000 series





<Type 40>

JSY1000/3000/5000 Series
Made to Order

Please contact SMC for detailed dimensions, specifications, and delivery times.

Made to Order

1 External Pilot

How to Order Manifolds

p.178

JJ5SY 1/3/5 – 40/41 R – □□ – □□□

Type

R	External pilot

How to Order Valves

p.179

JSY1□40R T – 5□□□

JSY3/5□40R□ – 5□□□

Coil type

Pilot type

R	External pilot

* External pilot specification is not applicable for 4-position dual 3-port valves.
* When pilot type “R” is selected, select the external pilot type “R” for the manifold model.

JSY1000/3000/5000 Series
Specific Product Precautions 1

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Environment

⚠Warning

Do not use valves in atmospheres of corrosive gases, chemicals, sea water, water, water vapor, or where there is direct contact with any of these.

Valve Mounting

⚠Caution

Mount it so that there is no slippage or deformation in gaskets, and tighten with the tightening torque as shown below.

Series	Thread size	Tightening torque
JSY1000	M1.4	0.06 N·m
JSY3000	M2	0.16 N·m
JSY5000	M3	0.8 N·m

Manual Override

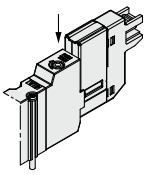
⚠Warning

1. Do not apply excessive torque when turning the manual override. [0.05 N·m]
   When locking the manual override, be sure to push it down before turning. Turning without first pushing it down can cause damage to the manual override and other trouble such as air leakage, etc.
2. Manual override is used to switch the main valve without inputting an electrical signal for the valve. When manual operation is performed, the connected actuator will start operating, so be sure to confirm that it is safe to operate beforehand.

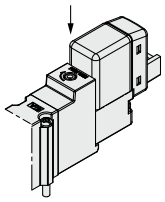
■ Non-locking push type

Push down on the manual override button until it stops.

JSY1000 series



JSY3000/5000 series



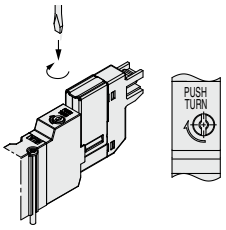
Manual Override

⚠Warning

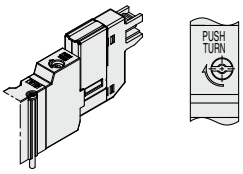
■ Push-turn locking slotted type [D type]

Push down on the manual override with a small flat head screwdriver until it stops, and then turn it 90° clockwise. The manual override is then locked. To release it, turn it counterclockwise.
If it is not turned, it can be operated the same way as the non-locking push type.

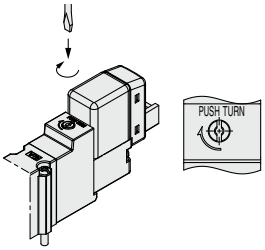
JSY1000 series



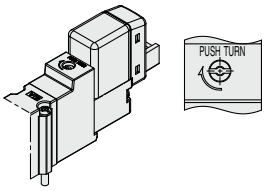
Locked position



JSY3000/5000 series

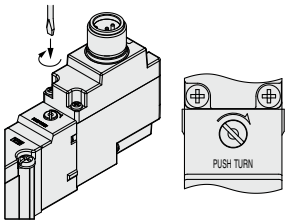


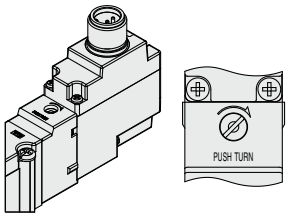
Locked position



JSY5000 series (DIN terminal, M12 connector type)

Locked position





JSY1000/3000/5000 Series
Specific Product Precautions 2

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

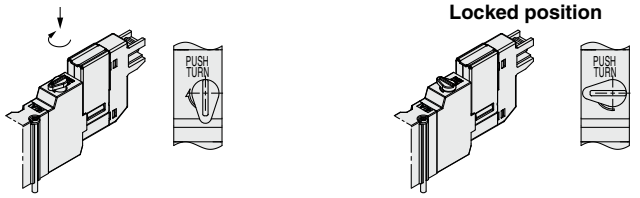
Manual Override

⚠Warning

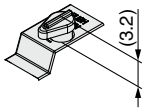
■Push-turn locking lever type [E type]

Push down on the manual override by finger until it stops, and then turn it 90° clockwise. The manual override is then locked. To release it, turn it counterclockwise.
If it is not turned, it can be operated the same way as the non-locking push type.

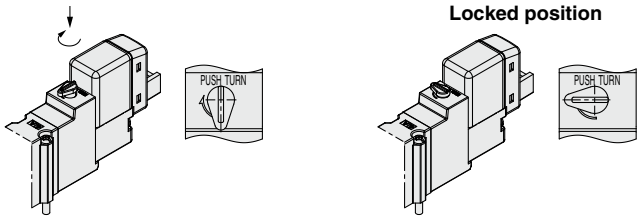
JSY1000 series



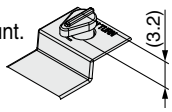
Carefully check the manual override projection amount.
Max. (at OFF): 3.2 mm



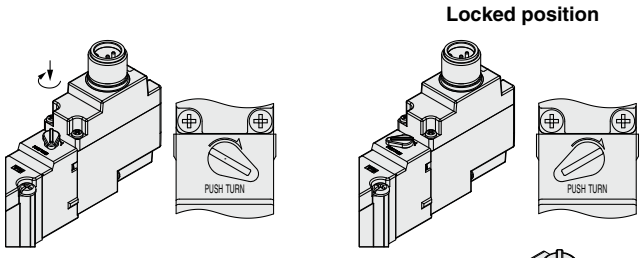
JSY3000/5000 series



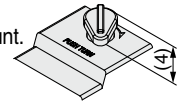
Carefully check the manual override projection amount.
Max. (at OFF): 3.2 mm



JSY5000 series (DIN terminal, M12 connector type)



Carefully check the manual override projection amount.
Max. (at OFF): 4 mm



Used as a 3-Port Valve

⚠Caution

■In case of using a 5-port valve as a 3-port valve

The JSY1000/3000/5000 series can be used as normally closed (N.C.) or normally open (N.O.) 3-port valves by closing one of the cylinder ports 4(A) or 2(B) with a plug. However, they should be used with the exhaust ports kept open.

Plug position		B port	A port
Type of actuation		N.C.	N.O.
Number of solenoids	Single	(A)4 2(B) (EA)5 1 3(EB) (P)	(A)4 2(B) (EA)5 1 3(EB) (P)
	Double	(A)4 2(B) (EA)5 1 3(EB) (P)	(A)4 2(B) (EA)5 1 3(EB) (P)

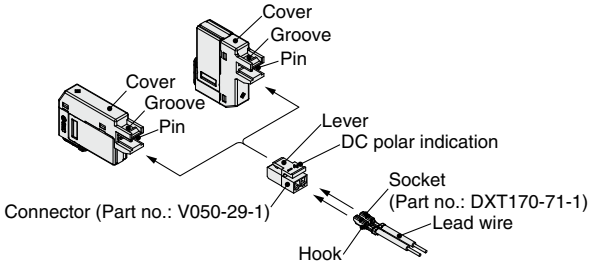
How to Use L/M Plug Connector

⚠Caution

1. Attaching and detaching connectors

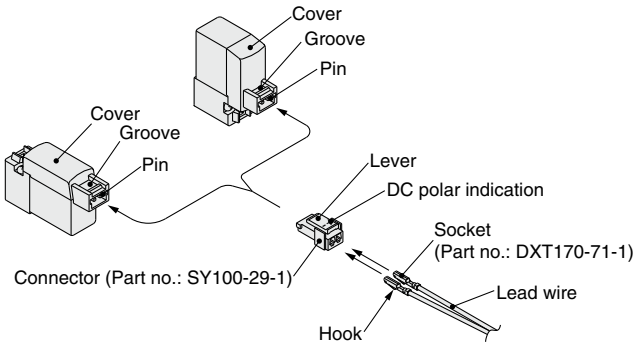
- To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever's pawl is pushed into the groove and locks.
- To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb, and pull the connector straight out.

For JSY1000



∗ In order not to damage the connector and cover, do not pull the lead wire excessively (with a force of 10 N or more).

For JSY3000/5000



∗ In order not to damage the connector and cover, do not pull the lead wire excessively (with a force of 30 N or more).

JSY1000/3000/5000 Series
Specific Product Precautions 3

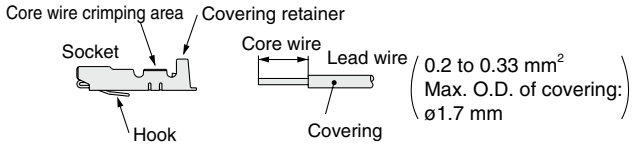
Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

How to Use L/M Plug Connector

⚠Caution

2. Crimping connection of lead wire and socket

Strip 3.2 to 3.7 mm at the end of lead wires, insert the end of the core wires evenly into the sockets, and then crimp it by a crimping tool. When this is done, take care that the coverings of the lead wires do not enter the core wire crimping area.
(Please contact SMC for the dedicated crimping tools.)



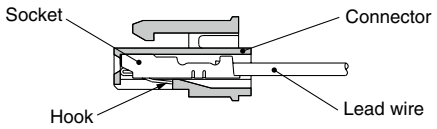
3. Attaching and detaching lead wires with sockets

● Attaching

Insert the sockets into the square holes of the connector (⊕, ⊖ indication), and continue to push the sockets all the way in until they lock by hooking into the seats in the connector.
(When they are pushed in, their hooks open and they are locked automatically.) Then confirm that they are locked by pulling lightly on the lead wires.

● Detaching

To detach a socket from a connector, pull out the lead wire while pressing the socket's hook with a stick having a thin tip (approx. 1 mm).
If the socket will be used again, first spread the hook outward.



Plug Connector

<How to Order>
L/M Plug Connector

■ For JSY1000

V050-30-□A-□

● Rated voltage

Symbol	Rated voltage	Lead wire color
4	DC	Red, Black
Nil	Without lead wire*1	

*1 With connector and 2 of sockets only

● Lead wire length

Symbol	Lead wire length
Nil	300 mm
6	600 mm
10	1000 mm
20	2000 mm
30	3000 mm
50	5000 mm

■ For JSY3000/5000

SY100-30-□A-□

● Rated voltage

Symbol	Rated voltage	Lead wire color
4	DC	Red, Black
Nil	Without lead wire*1	

*1 With connector and 2 of sockets only

● Lead wire length

Symbol	Lead wire length
Nil	300 mm
6	600 mm
10	1000 mm
20	2000 mm
30	3000 mm
50	5000 mm

How to Order

Specify the plug connector part number together with the part number for the plug connector type solenoid valve without connector.

<Example> Lead wire length 2000 mm
For DC
JSY3140-5LOZ
SY100-30-4A-20

JSY1000/3000/5000 Series
Specific Product Precautions 4

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Plug Connector

M8 Connector Type (JSY3000/5000), M12 Connector Type (JSY5000)

■ Connector cable

· Connector cable for M8/M12 can be ordered as follows:

How to Order

1. To order solenoid valve and connector cable at the same time. (Connector cable will be included in the shipment of the solenoid valve.)

M8 connector type (JSY3000/5000)

JSY$\frac{3}{5}$□40−5W□1Z□

IEC Standards compliant

Nil	None
A	IEC60947-2 compliant

Cable length (mm)

Symbol	Cable length (mm)
1	300
2	500
3	1000
4	2000
5	3000
6	4000
7	5000

M12 connector type (JSY5000)

JSY5□$\frac{2}{4}$0−5K1Z□

Cable length (mm)

Symbol	Cable length (mm)
1	300
2	500
3	1000
5	3000
7	5000

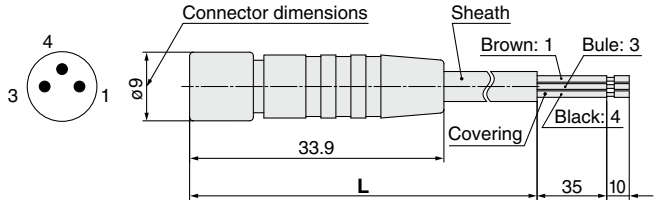
Ex. 1) Cable length: 300 mm

JSY3140-5W1Z

•Symbol for electrical entry

2. To order connector cable only

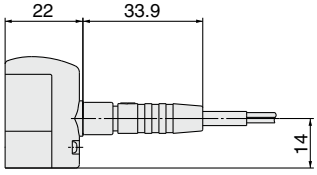
[M8 connector cable]



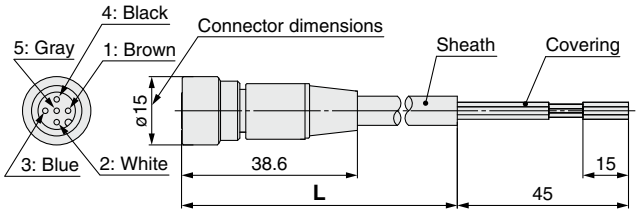
Cable length (L)	Part no.
300 mm	V100-49-1-1
500 mm	V100-49-1-2
1000 mm	V100-49-1-3
2000 mm	V100-49-1-4
3000 mm	V100-49-1-5
4000 mm	V100-49-1-6
5000 mm	V100-49-1-7

Sheath O.D.	ø3.4 mm
Cover diameter	ø1.16 mm
Conductor area	0.16 mm²

[Dimensions when installed]



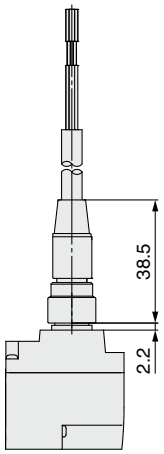
[M12 connector cable]



Cable length (L)	Part no.
300 mm	V100-200-5
500 mm	V100-200-5-5
1000 mm	V100-200-5-10
3000 mm	V100-200-5-30
5000 mm	V100-200-5-50

Sheath O.D.	ø6.5 mm
Cover diameter	ø1.8 mm
Conductor area	0.5 mm²

[Dimensions when installed]



DIN Connector Part No.

⚠Caution

< Type D>

With light

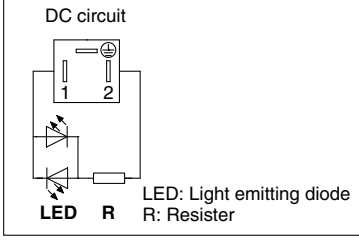
Rated voltage	Voltage symbol	Part no.
24 VDC	24V	SY100-61-3-05

< Type Y>

With light

Rated voltage	Voltage symbol	Part no.
24 VDC	24VN	SY100-82-3-05

Circuit Diagram with Light



JSY1000/3000/5000 Series
Specific Product Precautions 5

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

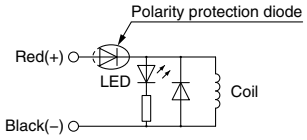
Surge Voltage Suppressor

⚠Caution

<For DC>

L/M Plug Connector

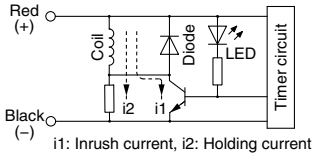
■ Polar type (For JSY3000/5000)
With light/surge voltage suppressor (□Z)



· Connect in accordance with the +, – polarity indication.
· When wiring is done at the factory, positive (+) is red and negative (–) is black.

■ With power saving circuit

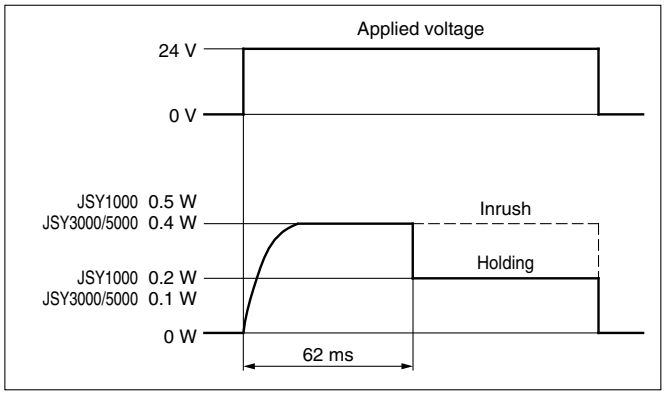
Power consumption is decreased to approx. 1/2.5 to 1/4 of the amount consumed at startup by reducing the wattage required to hold the valve in an energized state. (Effective energizing time is over 62 ms at 24 VDC.)



i1: Inrush current, i2: Holding current

The circuit shown above reduces the power consumption for holding in order to save energy. Refer to the electrical power waveform as shown below.

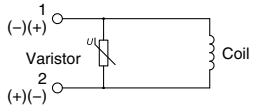
<Electrical power waveform with power saving circuit>



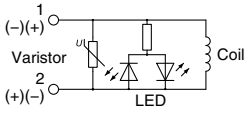
· Be careful not to reverse the polarity, since a diode to prevent the reversed current is not provided for the power saving circuit.
· Since the voltage will drop by approx. 0.5 V due to the transistor, pay attention to the allowable voltage fluctuation. (For details, refer to the solenoid specifications of each type of valve.)

DIN terminal (JSY5000)

With surge voltage suppressor (DOS) (YOS)



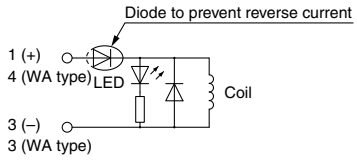
With light/surge voltage suppressor (DZ) (YZ)



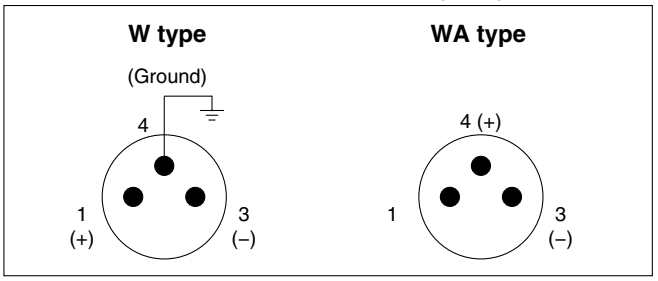
DIN terminal has no polarity.

M8 Connector Type (JSY3000/5000)

■ Polar type
With light/surge voltage suppressor (□Z)



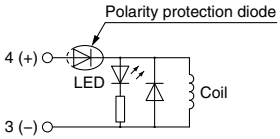
Solenoid valve side pin wiring diagram



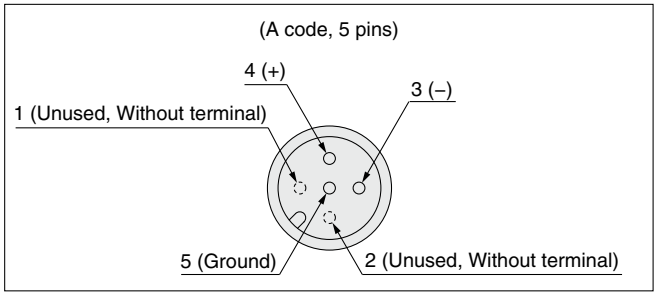
∗ The WA-type valve cannot be grounded.

M12 Connector (JSY5000)

■ Polar type
With light/surge voltage suppressor (□Z)



Solenoid valve side pin arrangement diagram



UL Approved Product

⚠Caution

When conformity to UL is required, the product should be used with a UL1310 Class 2 power supply.

The product is a UL approved product only if it has a c UL us or UL mark on the body.

JSY1000/3000/5000 Series
Specific Product Precautions 6

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Continuous Duty

⚠Caution

If a valve is energized continuously for long periods of time, the rise in temperature due to heat-up of the coil assembly may cause a decline in solenoid valve performance, reduce service life, or have adverse effects on peripheral equipment. If the valve is energized continuously for long periods of time, be sure to use a valve with power saving circuit. In particular, if three or more adjacent stations on the manifold are energized simultaneously for extended periods of time or if the valves on A side and B side are energized simultaneously for long periods of time, take special care as the temperature rise will be greater.

Energization of a 2-Position Double Solenoid Valve

⚠Caution

To avoid operation failure, do not energize the A side and B side of 2-position double solenoid valve at the same time.

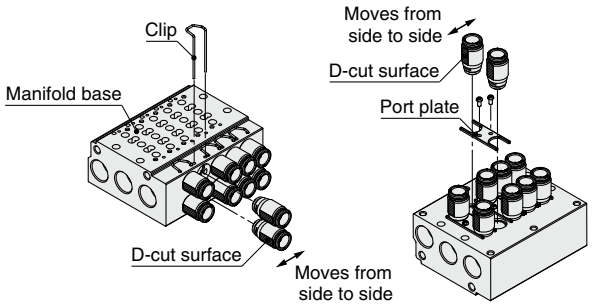
How to Replace One-touch Fittings

⚠Caution

By replacing One-touch fittings of manifold base, it is possible to change the connection diameter of the 4(A), 2(B), 1(P), 3/5(E) ports. When replacing the One-touch fittings, remove the clip or the plate before pulling the One-touch fittings off. Mount the One-touch fittings by following the removal procedure in reverse.
Use caution as it may cause air leakage if the clip and the plate are not inserted securely enough when they are switched. Refer to page 199 for part numbers of One-touch fittings.

Fitting direction is specified when the fittings below are used.
Assemble the fitting so that the D-cut surfaces of the fitting face sideways.
Fitting part no.: KQSY10-C4-X1336 (JSY1000)
KQSY50-C12-X1336 (JSY5000)

■ Metal base



* It is not possible to replace C2 or C4 fittings with C6 fittings for the JSY1000 series.
* Refer to page 199 for One-touch fitting, clip, and port plate part numbers.

One-touch Fittings

⚠Caution

■ Tube attachment/detachment for One-touch fittings

1) Tube attachment

1. Take a tube having no flaws on its periphery and cut it off at a right angle. When cutting the tube, use tube cutters TK-1, 2 or 3. Do not use pliers, nippers or scissors, etc. If cutting is done with tools other than tube cutters, the tube may be cut diagonally or become flattened, etc., making a secure installation impossible, and causing problems such as the tube pulling out after installation or air leakage. Allow some extra length in the tube.
2. Grasp the tube and push it in slowly, inserting it securely all the way into the fitting.
3. After inserting the tube, pull on it lightly to confirm that it will not come out. If it is not installed securely all the way into the fitting, this can cause problems such as air leakage or the tube pulling out.

2) Tube detachment

1. Push in the release button sufficiently, pushing its collar equally around the circumference.
2. Pull out the tube while holding down the release button so that it does not come out. If the release button is not pressed down sufficiently, there will be increased bite on the tube and it will become more difficult to pull it out.
3. When the removed tube is to be used again, cut off the portion which has been chewed before reusing it. If the chewed portion of the tube is used as is, this can cause trouble such as air leakage or difficulty in removing the tube.

Applicable Fittings: KQ2H, KQ2S, M Series

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D. ø2	ø4	ø6	ø8	ø10	ø12
JSY1000	JJ5SY1-40/41(R) Manifold base	1P, 5EA 3EB	1/8	KQ2H		●	●			
				KQ2S		●	●	●		
		X, PE	M5	KQ2H	●	●				
				KQ2S		●				
		4A, 2B	M5	KQ2H	●	●				
				KQ2S		●	●			
			M3	KQ2H	●					
				KQ2S	●					

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D. ø2	ø4	ø6	ø8	ø10	ø12
JSY3000	JJ5SY3-40/41(R) Manifold base	1P, 5EA 3EB	1/4	KQ2H		●	●	●		
				KQ2S			●	●		
		X, PE	M5	KQ2H	●	●	●			
				KQ2S		●	●			
		4A, 2B	1/8	KQ2H		●	●			
				KQ2S		●	●	●		
			M5	KQ2H	●	●	●			
				KQ2S		●	●			

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D. ø2	ø4	ø6	ø8	ø10	ø12
JSY5000	JJ5SY5-40/41(R) Manifold base	1P, 5EA 3EB	3/8	KQ2H			●	●	●	●
				KQ2S				●	●	●
		X, PE	M5	KQ2H	●	●	●			
				KQ2S		●	●			
		4A, 2B	1/4	KQ2H		●	●	●		
				KQ2S			●	●	●	
			1/8	KQ2H		●	●	●		
				KQ2S		●	●	●	●	

JSY1000/3000/5000 Series
Specific Product Precautions 7

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Other Tube Brands

⚠Caution

1. When using other than SMC brand tube, confirm that the following specifications are satisfied with respect to the tube outside diameter tolerance.

1) Nylon tube within ±0.1 mm
2) Soft nylon tube within ±0.1 mm
3) Polyurethane tube within +0.15 mm
within –0.2 mm

Do not use tube which do not meet these outside diameter tolerances. It may not be possible to connect them, or they may cause other trouble, such as air leakage or the tube pulling out after connection.

Fixation of DIN Rail Mounting Type Manifolds

⚠Caution

1. When the manifold is fixed with bolts on a mounting surface etc., it can be operated just by fixing on both ends of the DIN rail if the bottom surface of the DIN rail is entirely in contact with the mounting surface when mounted horizontally. However, if it is used with other mounting or with side or reverse mounting, fix the DIN rail with bolts at regular intervals. As a guide, insert bolts in 2 locations for 2-5 stations, 3 locations for 6-10 stations, 4 locations for 11-15 stations, and 5 locations for 16-20 stations.
2. When using the manifold with DIN rail in an environment where any vibration or impact is applied to it, the DIN rail itself may be broken. In particular, if the installation surface vibrates when mounting the manifold on the wall or if a load is directly applied to the manifold, the DIN rail may be broken, causing the manifold to drop. When any vibration, impact, or load is applied to the manifold, be sure to use the direct mounting manifold.

How to Use DIN Terminal

⚠Caution

Connection

1. Loosen the holding screw and pull the connector out of the solenoid valve terminal block.
2. After removing the holding screw, insert a flat head screwdriver, etc. into the notch on the bottom of the terminal block and pry it open, separating the terminal block and the housing.
3. Loosen the terminal screws (slotted screws) on the terminal block, insert the cores of the lead wires into the terminals according to the connection method, and fasten them securely with the terminal screws.
4. Secure the cord by fastening the gland nut.

⚠ Caution

When making connections, take note that using other than the supported size (ø3.5 to ø7) heavy duty cord will not satisfy IP65 (enclosure) standards. Also, be sure to tighten the gland nut and holding screw within their specified torque ranges.

Changing the entry direction

After separating the terminal block and housing, the cord entry can be changed by attaching the housing in the desired direction (4 directions at 90° intervals).

∗ Be careful not to damage the light with the cord's lead wires.

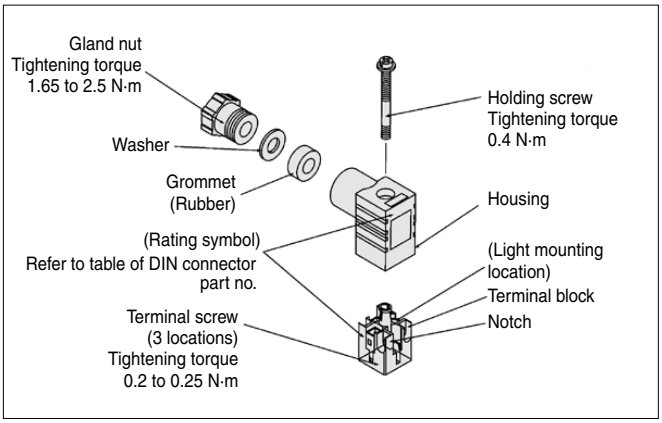
Precautions

Plug in and pull out the connector vertically without tilting to one side.

Compatible cable

Cord O.D.: ø3.5 to ø7

(Reference) 0.5mm², 2-core or 3-core, equivalent to JIS C 3306



Type "Y"

DIN connector type Y is a DIN connector that confirms to the DIN pitch 8-mm standard.

- D type DIN connector with 9.4 mm pitch between terminals is not interchangeable.
- To distinguish from the D type DIN connector, "N" is listed at the end of voltage symbol.
- Dimensions are completely the same as D type DIN connector.
- When replacing only the pilot valve assembly, it is interchangeable with the V115, but be aware that a V111 cannot be replaced with a V115 (and vice versa).

JSY1000/3000/5000 Series
Specific Product Precautions 8

Be sure to read this before handling the products. For safety instructions and 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

M8 Connector

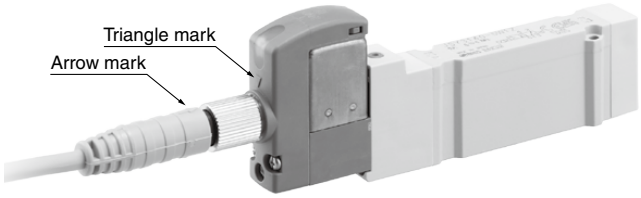
⚠Caution

1. M8 connector types have an IP65 (enclosure) rating, offering protection from dust and water. However please note: these products are not intended for use in water.
   Select a SMC connector cable (V100-49-1-□) or a FA sensor type connector, with M8 threaded 3 pin specifications conforming to Nippon Electric Control Equipment Association Standard, NECA4202 (IEC60947-5-2). Make sure the connector O.D. is 10.5mm or less when used with the JSY3000 series manifold. If more than 10.5mm, it cannot be mounted due to the size.
2. Do not use a tool to mount the connector, as this may cause damage. Only tighten by hand. (0.4 to 0.6 N·m)
3. The excessive stress on the cable connector will not be able to satisfy the IP65 rating. Please use caution and do not apply a stress of 30 N or greater.

⚠ Caution

Failure to meet IP65 performance may result if using alternative connectors than those shown above, or when insufficiently tightened.

Connector cable mounting



* Connector cable should be mounted in the correct direction. Make sure that the arrow symbol on the connector is facing the triangle symbol on the valve when using SMC connector cable (V100-49-1-□).

  Be careful not to squeeze it in the wrong direction, as problems such as pin damage may occur.

Installation

⚠Caution

Even though the inlet pressure is within the operating pressure range, when the piping diameter is restricted due to size reduction of supply port (P), the flow will be insufficient. In this case, the valve does not switch completely and the cylinder may malfunction.

Compact 5-Port Solenoid Valve

JSY1000/3000/5000 Series

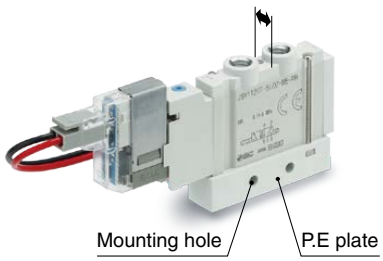
Non Plug-in | **Body Ported** | **Single Unit (For Mounting P.E Plate)**

RoHS

Can drive Ø32*1 bore cylinders

JSY1000

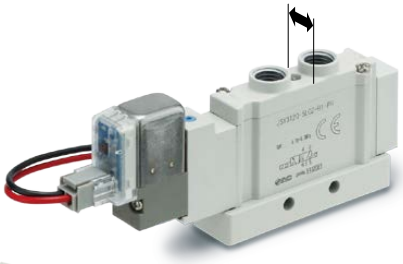
6.4 mm



Can drive Ø50*1 bore cylinders

JSY3000

10 mm



Can drive Ø80*1 bore cylinders

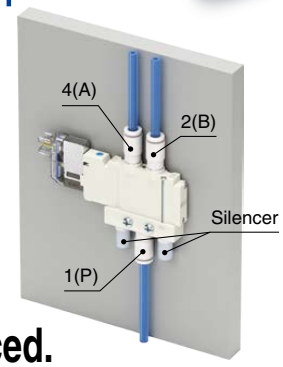
JSY5000

15 mm



*1 The cylinder speed is 300 mm/s.

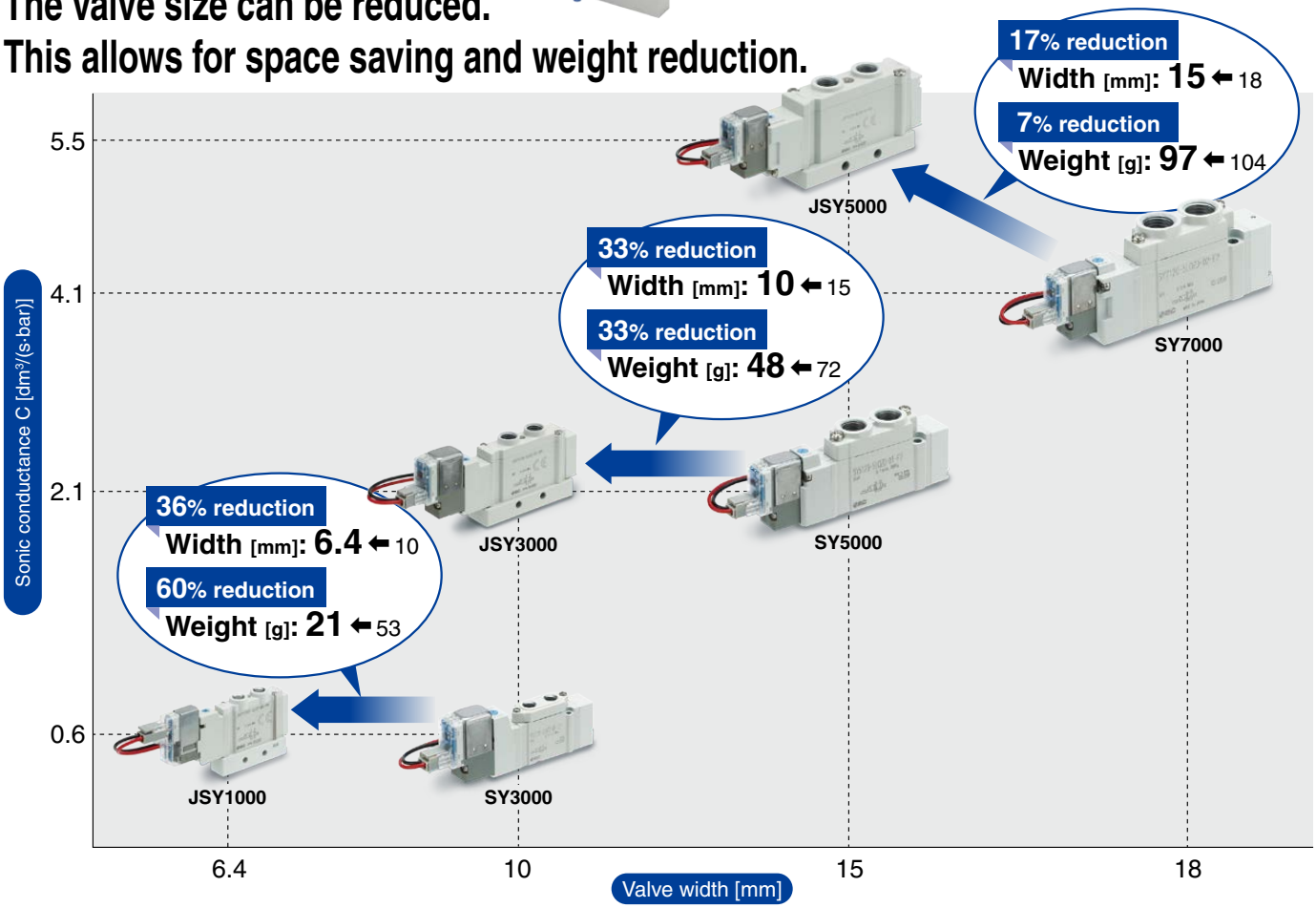
Wall mounting is possible.



New
- A 4-position dual 3-port type has been added.
- An M8 connector has been added. (JSY3000/5000 only)



The valve size can be reduced. This allows for space saving and weight reduction.



JSY1000/3000/5000 Series
Valve Specifications

Valve Specifications

Valve type				Rubber seal
Fluid				Air
Internal pilot operating pressure range [MPa]		**2-position single**		0.15 to 0.7
		2-position double		0.1 to 0.7
		3-position		0.2 to 0.7
		4-position dual 3-port valve		0.15 to 0.7
Ambient and fluid temperatures [°C]				–10 to 50 (No freezing)
Max. operating frequency [Hz]	**JSY1000 JSY3000**	**2-position single, double**		5
		4-position dual 3-port		
		3-position		3
	JSY5000	**2-position single, double**		5
		3-position		3
		4-position dual 3-port		
Manual override				Non-locking push type
				Push-turn locking slotted type
				Push-turn locking lever type
Pilot exhaust type	**Internal pilot**			Individual exhaust
Lubrication				Not required
Mounting orientation∗1				Unrestricted
Impact/Vibration resistance∗1 **[m/s²]**				150/30
Enclosure				IP40: L plug connector (L), M plug connector (M)/IP65: DIN terminal (D) (Y), M8 connector (W)(WA), M12 connector (K)
Electrical entry				L plug connector (L), M plug connector (M), DIN terminal (D, Y), M8 connector (W)(WA), M12 connector (K)
Coil rated voltage [V]				24 VDC
Allowable voltage fluctuation [V]	**JSY1000**			–7% to +10% of the rated voltage
	JSY3000/5000			±10% of rated voltage
Power consumption [W]	**DC**	**Standard**	**JSY3000/5000**	0.4 (DIN terminal: 0.35 W [Without light], 0.45 [With light])
		With power-saving circuit∗4	**JSY1000**	0.2∗2 [Inrush: 0.5, Holding: 0.2]
			JSY3000/5000	0.1∗3 [Inrush: 0.4, Holding: 0.1]
Surge voltage suppressor				Diode (Varistor for the DIN terminal type)
Indicator light				LED

∗1 Impact resistance: No malfunction occurred when tested in the axial direction and at a right angle to the main valve and armature in both an energized and a de-energized state, once in each condition. (Value in the initial state)
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both an energized and a de-energized state in the axial direction and at a right angle to the main valve and armature. (Value in the initial state)
∗2 JSY1000 series available as power-saving type only. Standard type (without power-saving circuit) cannot be selected.
∗3 The type with a power-saving circuit is not available for the DIN terminal, M8 connector, and M12 connector types.
∗4 For details, refer to page 208.

Response Time/Valve Weight

Body Ported

Series	Seal type	Model	Type of actuation	Response time [ms] (at 0.5 MPa)∗1 Standard With light/surge voltage suppressor Z type	Valve weight [g] L/M plug connector	DIN terminal	W/WA M8 connector	K M12 connector
JSY1000	Rubber seal	**JSY1120T**	2-position single	15	21	—	—	—
		JSY1220T	2-position double	5	28			
		JSY1(3/4/5)20T	3-position	13	29			
		JSY1 (A/B/C) 20T	4-position dual 3-port	14	28			
JSY3000		**JSY3120**	2-position single	27	48		52	
		JSY3220	2-position double	10	63		71	
		JSY3(3/4/5)20	3-position	30	66		74	
		JSY3 (A/B/C) 20	4-position dual 3-port	27	62		70	
JSY5000		**JSY5120**	2-position single	42	97	125	101	119
		JSY5220	2-position double	13	113	169	121	157
		JSY5(3/4/5)20	3-position	40	123	179	131	167
		JSY5 (A/B/C) 20	4-position dual 3-port	41	110	166	118	154

∗1 Based on the JIS B 8419: 2010 dynamic performance test (Coil temperature 20°C, at rated voltage)
∗ The valve response time may vary depending on the operating conditions.

JSY1000/3000/5000 Series Type 20

Non Plug-in Body Ported Single Unit (For Mounting P.E Plate)

Single Unit Specifications



Model			Non plug-in, For mounting P.E plate
Port size	1(P), 3/5(E) port	JSY1000	M5 x 0.8
		JSY3000	1/16
		JSY5000	1/8
	4(A), 2(B) port	JSY1000	M3 x 0.5, M5 x 0.8
		JSY3000	1/16
		JSY5000	1/8

Flow Rate Characteristics

Model	Port size		Valve flow rate characteristics			
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)		4/2 → 5/3 (A/B → E)	
			C [dm³/(s·bar)]	b	C [dm³/(s·bar)]	b
JSY1000	M5	M5	0.6	0.48	0.6	0.39
JSY3000	1/16	1/16	2.0	0.41	2.1	0.35
JSY5000	1/8	1/8	5.5	0.38	5.4	0.36

∗ Calculation of effective area S and sonic conductance C: S = 5.0 x C

Type 20
Top Ported

Non Plug-in **Body Ported**

Single Unit (For Mounting P.E Plate)

JSY1000/3000/5000 Series

How to Order Valves

JSY 3 1 20 □ – 5 □ Z □ – □ – PE

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

❶ Series

1	JSY1000
3	JSY3000
5	JSY5000

❷ Type of actuation

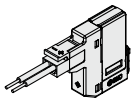
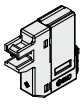
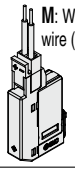
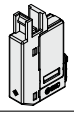
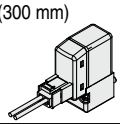
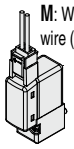
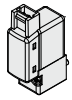
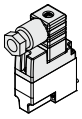
1	2-position	Single
2		Double
3	3-position	Closed center
4		Exhaust center
5		Pressure center
A	4-position dual 3-port	N.C./N.C.
B		N.O./N.O.
C		N.C./N.C.

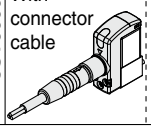
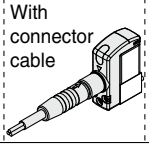
❸ Coil specifications

Symbol	Coil specifications	JSY1000	JSY3000	JSY5000
Nil	Standard	—	●	●
T	With power-saving circuit (Continuous duty type)	●	●	●

∗ For the JSY1000 series, only the power-saving circuit specification is available.
∗ Be careful of the energizing time when the power-saving circuit is selected. For details, refer to page 208.
∗ Power saving circuit is not available in the case of D□, Y□, W□, K□ type.

❹ Electrical entry

	L plug connector		M plug connector		DIN terminal (JSY5000 only)	
	L	**LO**	**M**	**MO**	**D,Y**	**DO,YO**
JSY1000	**L**: With lead wire (300 mm) 	**LO**: Without connector 	**M**: With lead wire (300 mm) 	**MO**: Without connector 	—	—
JSY3000 JSY5000	**L**: With lead wire (300 mm) 	**LO**: Without connector 	**M**: With lead wire (300 mm) 	**MO**: Without connector 	**D, Y**: With connector 	**DO, YO**: Without connector 

	M8 connector∗1				M12 connector (JSY5000 only)	
	W□	**WO**	**WA□**	**WAO**	**K□**	**KO**
JSY1000	—	—	—	—	—	—
JSY3000 JSY5000	**W□**: With connector cable 	**WO**: Without connector cable 	**WA□**: With connector cable 	**WAO**: Without connector cable 	**K□**: With connector cable 	**KO**: Without connector cable 

∗ Refer to page 206 for the lead wire length of L and M plug connectors.
∗ The "WAO" and "WA□" M8 connectors are IEC 60947-5-2 standard compliant.
∗ Refer to page 208 for polarity details and the pin wiring diagram.
∗ For connector cable of M8 connector, refer to page 207.
∗ For the M8 connector with a connector cable, only American certification (UL) is available.
∗ Fnter the cable length symbols in □. Please be sure to fill in the blank referring to page 207.
∗ For connector cable of M12 connector, refer to page 207.
∗ "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 210.

❺ Light/surge voltage suppressor

Electrical entry for L, M, W, WA, K

Z	With light/surge voltage suppressor (Polar type)

Electrical entry for D, Y

S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

∗ Only "DOS" and "YOS" are available for the S type.
∗ "DOZ" and "YOZ" are not available

❼ 4(A)/2(B) port size thread piping

Symbol	Thread piping	JSY1000	JSY3000	JSY5000
M3	M3 x 0.5	●	—	—
M5	M5 x 0.8	●	—	—
R1	Rc1/16	—	●	—
01	Rc1/8	—	—	●

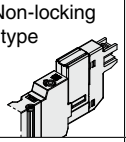
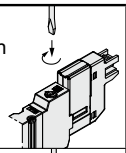
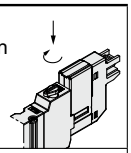
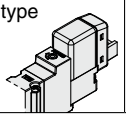
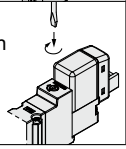
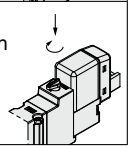
❽ With P.E plate

Symbol	Port size	JSY1000	JSY3000	JSY5000
PE	M5	●	—	—
	Rc1/16	—	●	—
	Rc1/8	—	—	●

⚠ Caution

If the JSY3000/5000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification.

❻ Manual override

JSY1000	**Nil**: Non-locking push type 	**D**: Push-turn locking slotted type 	**E**: Push-turn locking lever type 
JSY3000 JSY5000	**Nil**: Non-locking push type 	**D**: Push-turn locking slotted type 	**E**: Push-turn locking lever type 

⚠ Caution

Refer to the following to order the fitting/silencer for the 1/16 thread piping of the JSY3000 separately.

Description	Part number	Port size Piping/Type
One-touch fittings (Applicable tubing O.D.: ø6)	KQ2S06-R1AS-X1517∗1	Rc1/16
One-touch fittings (Applicable tubing O.D.: ø8)	KQSY-S08R1S∗1	
Silencer	INA-25-98	

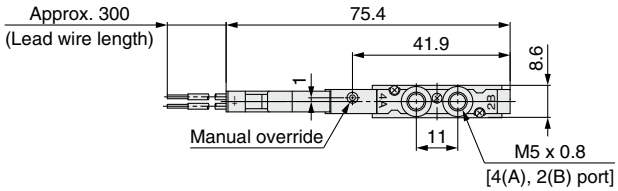
∗1 The part number is for 1 piece. (Sales unit: 10 pcs.)
∗1 Tightening torque: 2 to 3 N·m (One-touch fitting)

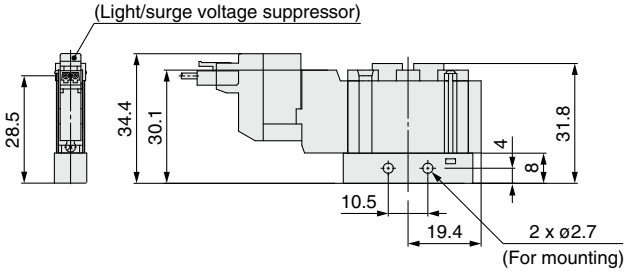
Dimensions: JSY1000 Series

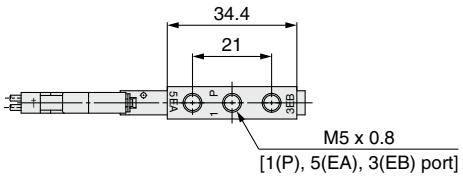
Body Ported **Single Unit**
Type 20/Top Ported
Port Size: M3, M5



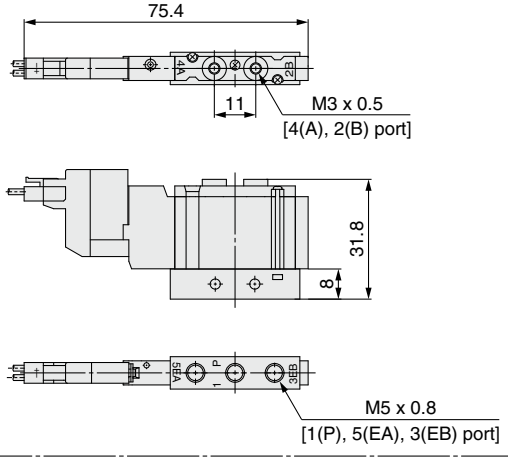
2-position single/L plug connector (L)
JSY1120T-5LZ□-M5-PE



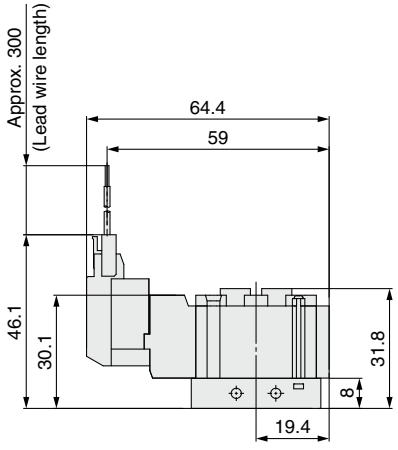




JSY1120T-5LZ□-M3-PE

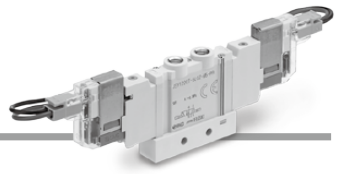


M plug connector (M)
JSY1120T-5MZ□-M5-PE



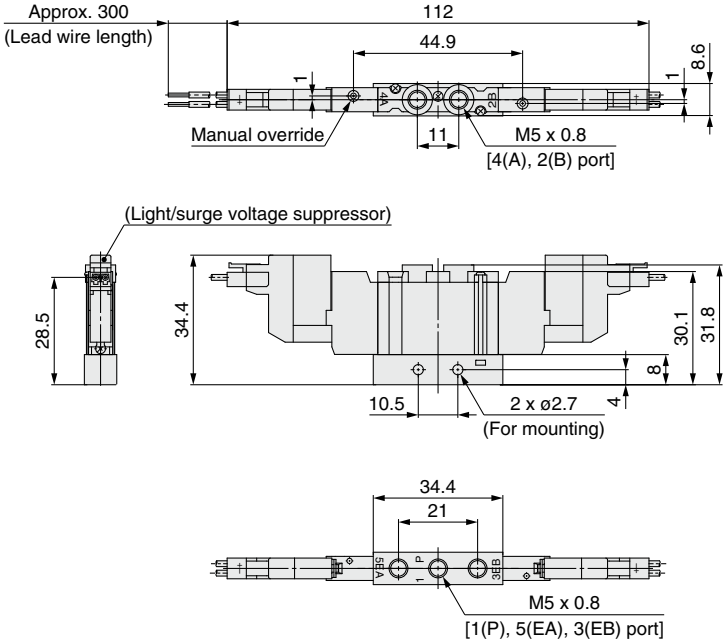
Dimensions: JSY1000 Series

Body Ported **Single Unit** | **Type 20/Top Ported** | **Port Size: M3, M5**

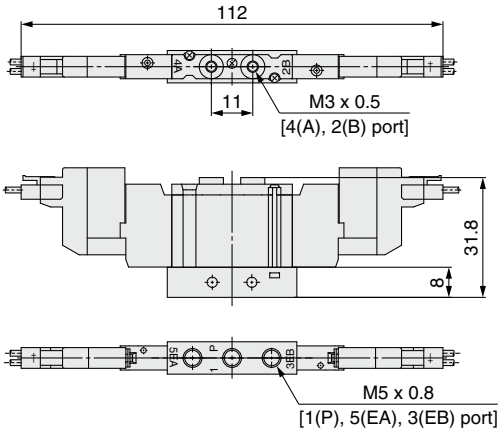


2-position double/4-position dual 3-port valve/L plug connector (L)

JSY1220T-5LZ□-M5-PE
JSY1A20T-5LZ□-M5-PE
JSY1B20T-5LZ□-M5-PE
JSY1C20T-5LZ□-M5-PE

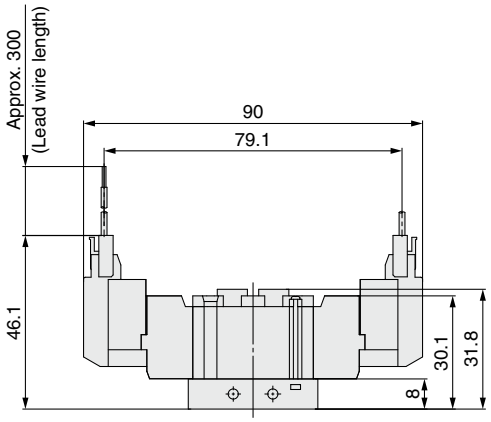


JSY1220T-5LZ□-M3-PE



M plug connector (M)

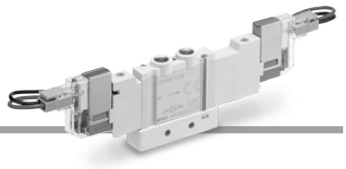
JSY1220T-5MZ□-M5-PE
JSY1A20T-5MZ□-M5-PE
JSY1B20T-5MZ□-M5-PE
JSY1C20T-5MZ□-M5-PE



Dimensions: JSY1000 Series

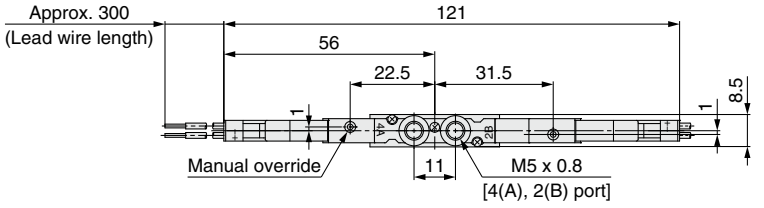
Body Ported
Single Unit

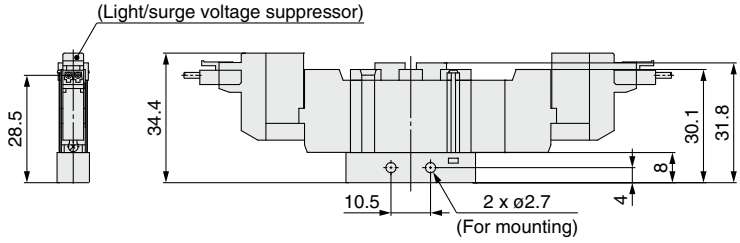
Type 20/Top Ported
Port Size: M3, M5

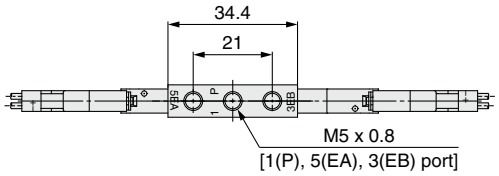


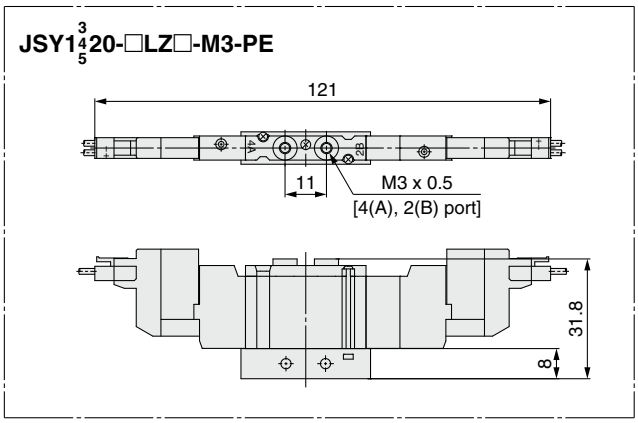
3-position closed center/exhaust center/pressure center

L plug connector (L): JSY1$^{3}_{5}$20-□LZ□-M5-PE



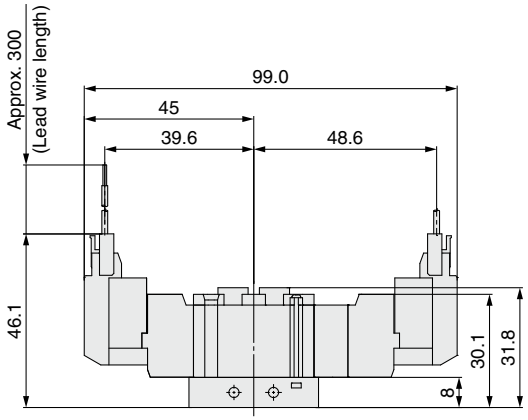






M plug connector (M)

JSY1$^{3}_{5}$20-□MZ□-M5-PE



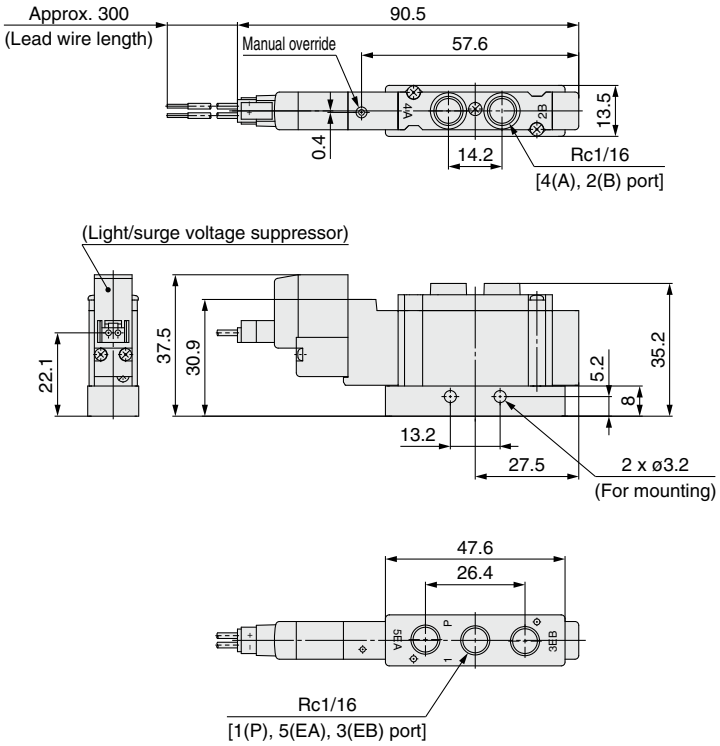
Dimensions: JSY3000 Series

Body Ported
Single Unit

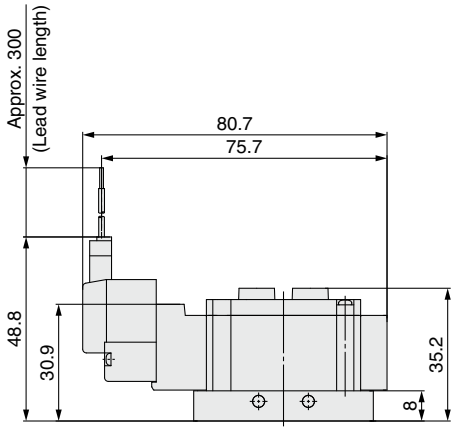
Type 20/Top Ported
Port Size: Rc1/16



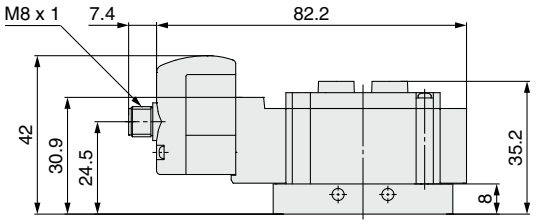
2-position single/L plug connector (L)
JSY3120-5LZ□-R1-PE



M plug connector (M)
JSY3120-5MZ□-R1-PE



M8 connector (W/WA)
JSY3120-5WOZ□-R1-PE



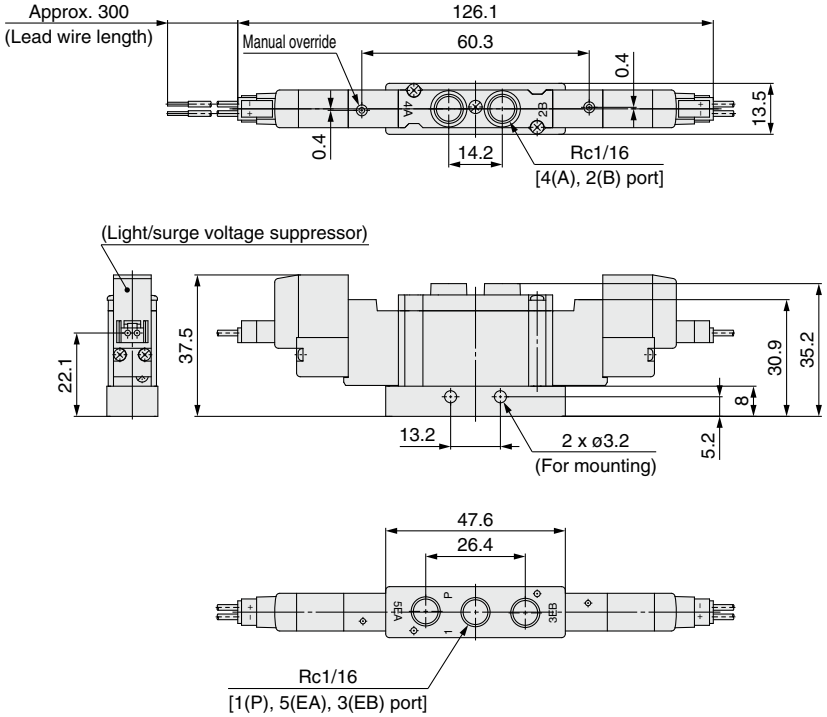
Dimensions: JSY3000 Series

Body Ported **Single Unit** | **Type 20/Top Ported** | **Port Size: Rc1/16**



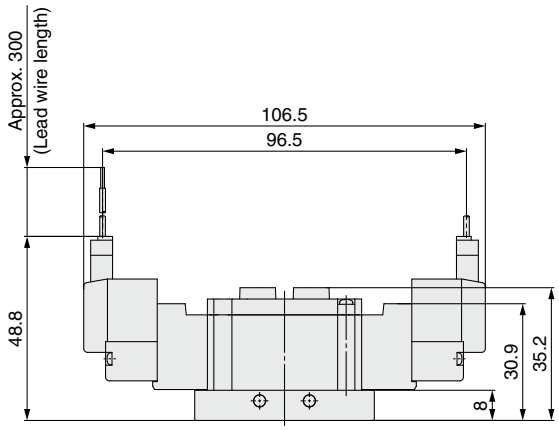
2-position double/4-position dual 3-port valve/L plug connector (L)

JSY3220-5LZ□-R1-PE
JSY3A20-5LZ□-R1-PE
JSY3B20-5LZ□-R1-PE
JSY3C20-5LZ□-R1-PE



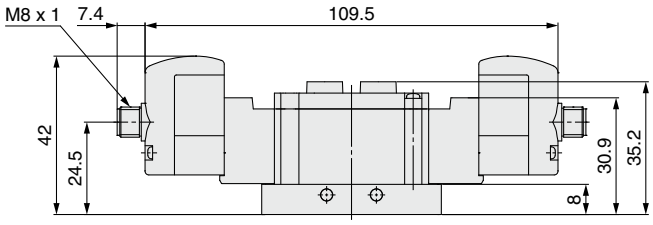
M plug connector (M)

JSY3220-5MZ□-R1-PE
JSY3A20-5MZ□-R1-PE
JSY3B20-5MZ□-R1-PE
JSY3C20-5MZ□-R1-PE



M8 connector (W/WA)

JSY3220-5WOZ□-R1-PE
JSY3A20-5WOZ□-R1-PE
JSY3B20-5WOZ□-R1-PE
JSY3C20-5WOZ□-R1-PE



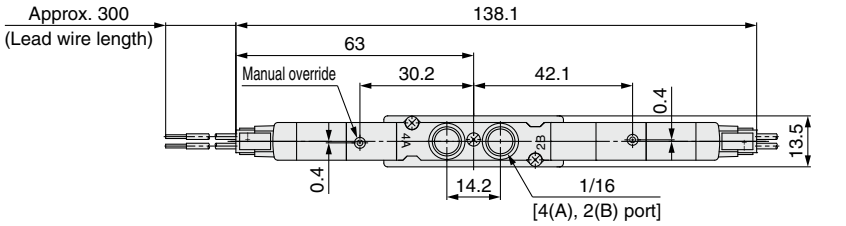
Dimensions: JSY3000 Series

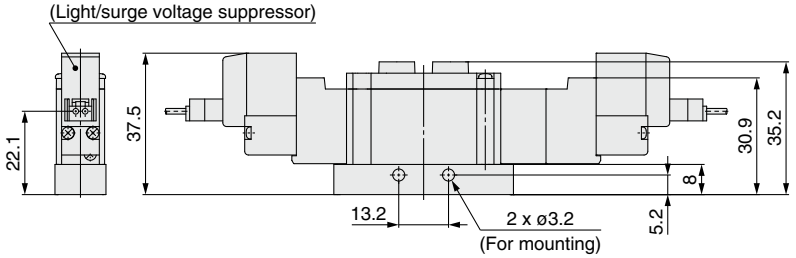
Body Ported Single Unit | Type 20/Top Ported | Port Size: Rc1/16

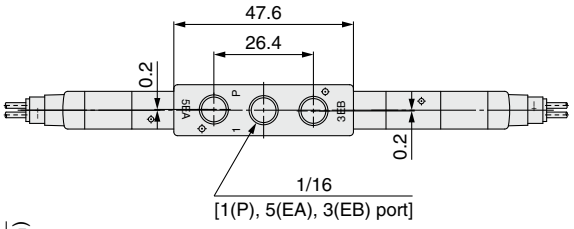


3-position closed center/exhaust center/pressure center

L plug connector (L): JSY3$^{3}_{5}$20-□LZ□-R1-PE

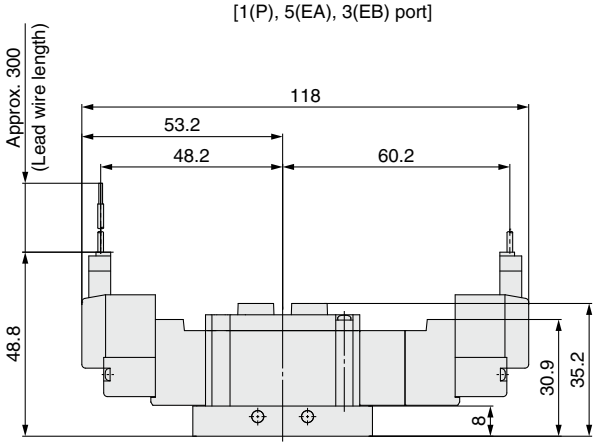






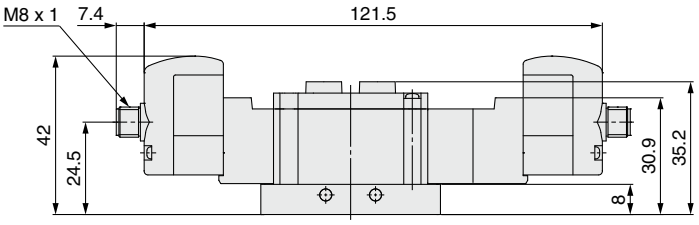
M plug connector (M)

JSY3$^{3}_{5}$20-□MZ□-R1-PE



M8 connector (W/WA)

JSY3$^{3}_{5}$20-5WOZ□-R1-PE

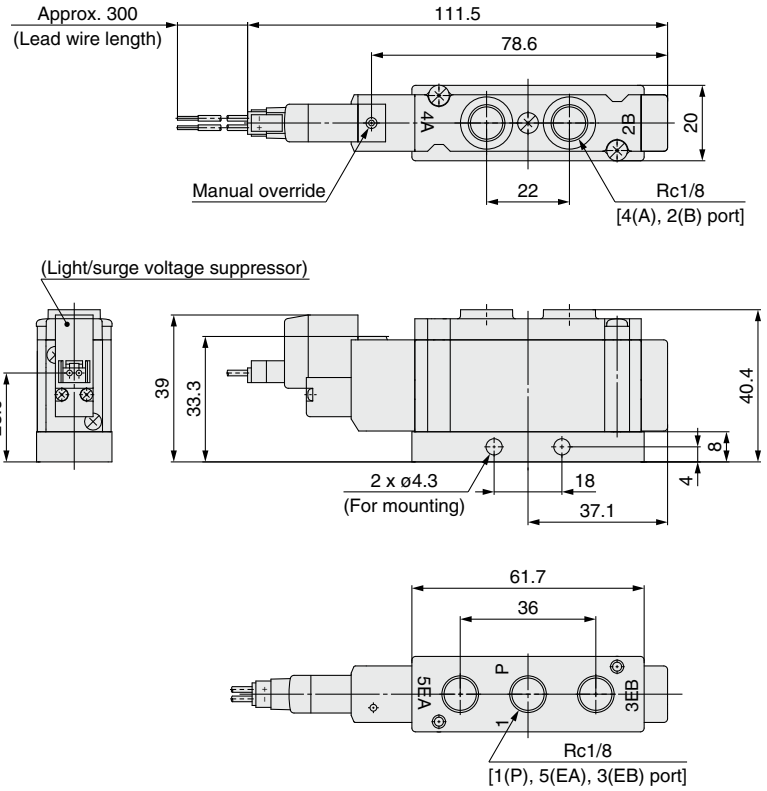


Dimensions: JSY5000 Series

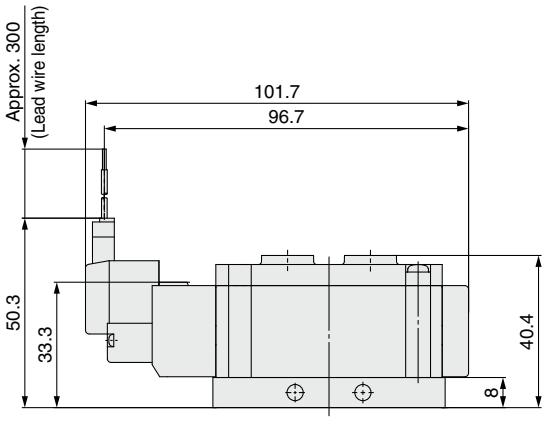
Body Ported Single Unit | Type 20/Top Ported | Port Size: Rc1/8



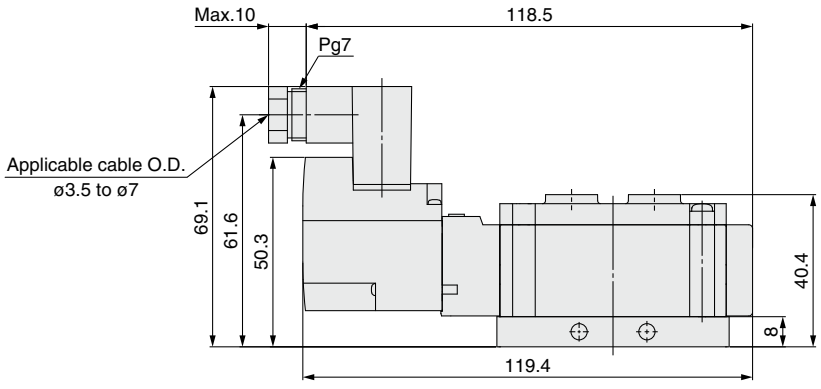
2-position single/L plug connector (L)
JSY5120-5LZ□-01-PE



M plug connector (M)
JSY5120-5MZ□-01-PE



DIN terminal (D, Y)
JSY5120-5(D,Y)Z□-01-PE

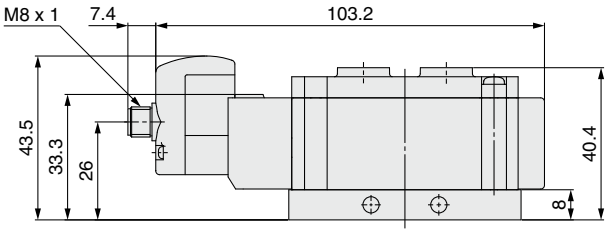


Dimensions: JSY5000 Series

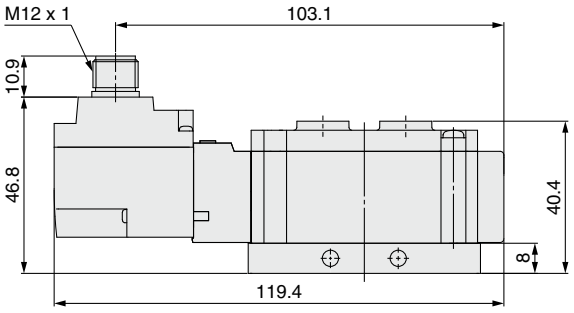
Body Ported Single Unit | **Type 20/Top Ported** | **Port Size: Rc1/8**



2-position single/M8 connector (W/WA)
JSY5120-5WOZ□-01-PE

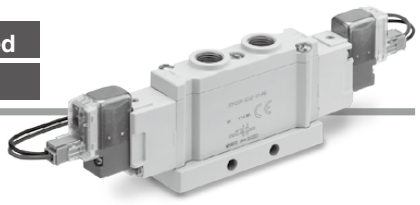


M12 connector (K)
JSY5120-5KOZ□-01-PE



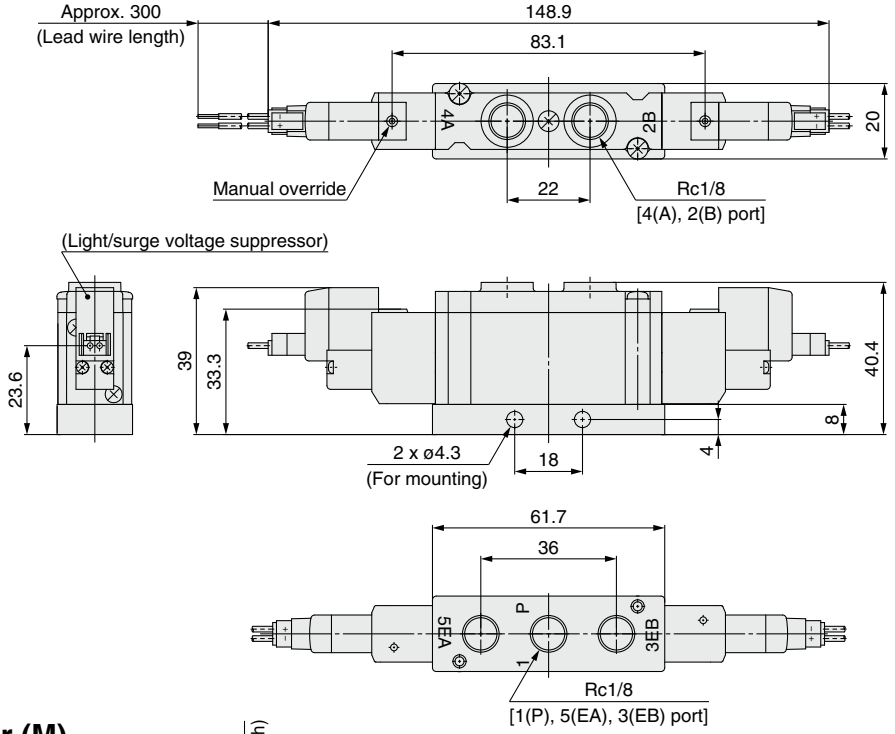
Dimensions: JSY5000 Series

Body Ported **Single Unit** | **Type 20/Top Ported** | **Port Size: Rc1/8**



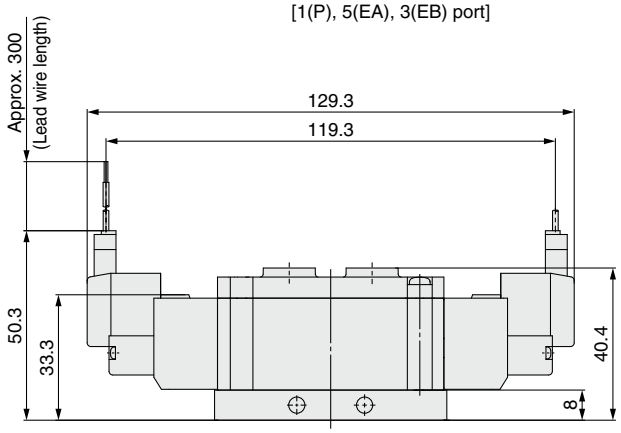
2-position double/4-position dual 3-port valve/L plug connector (L)

JSY5220-5LZ□-01-PE
JSY5A20-5LZ□-01-PE
JSY5B20-5LZ□-01-PE
JSY5C20-5LZ□-01-PE



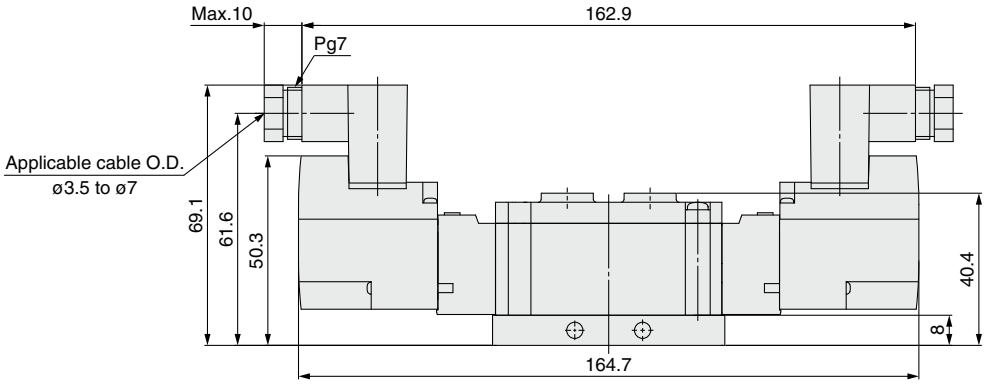
M plug connector (M)

JSY5220-5MZ□-01-PE
JSY5A20-5MZ□-01-PE
JSY5B20-5MZ□-01-PE
JSY5C20-5MZ□-01-PE



DIN terminal (D, Y)

JSY5220-5(D,Y)Z□-01-PE
JSY5A20-5(D,Y)Z□-01-PE
JSY5B20-5(D,Y)Z□-01-PE
JSY5C20-5(D,Y)Z□-01-PE



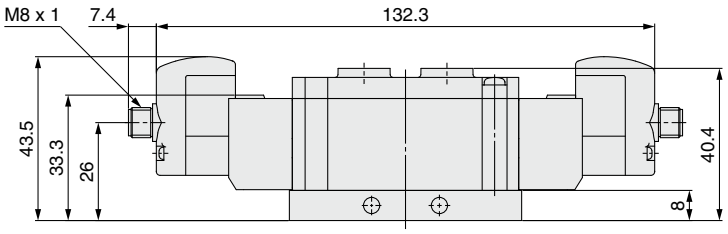
Dimensions: JSY5000 Series

Body Ported Single Unit | Type 20/Top Ported | Port Size: Rc1/8



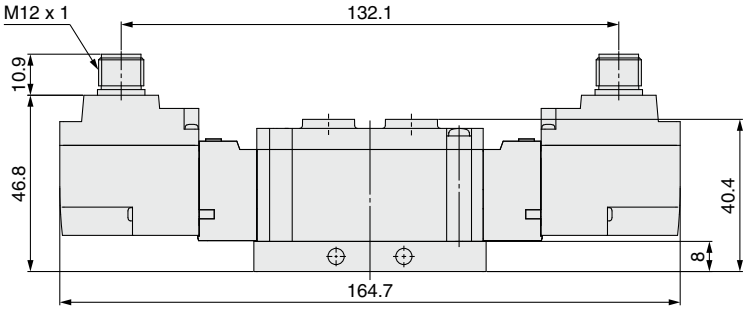
2-position double/4-position dual 3-port/M8 connector (W/WA)

JSY5220-5WOZ□-01-PE
JSY5A20-5WOZ□-01-PE
JSY5B20-5WOZ□-01-PE
JSY5C20-5WOZ□-01-PE



M12 connector (K)

JSY5220-5KOZ□-01-PE
JSY5A20-5KOZ□-01-PE
JSY5B20-5KOZ□-01-PE
JSY5C20-5KOZ□-01-PE



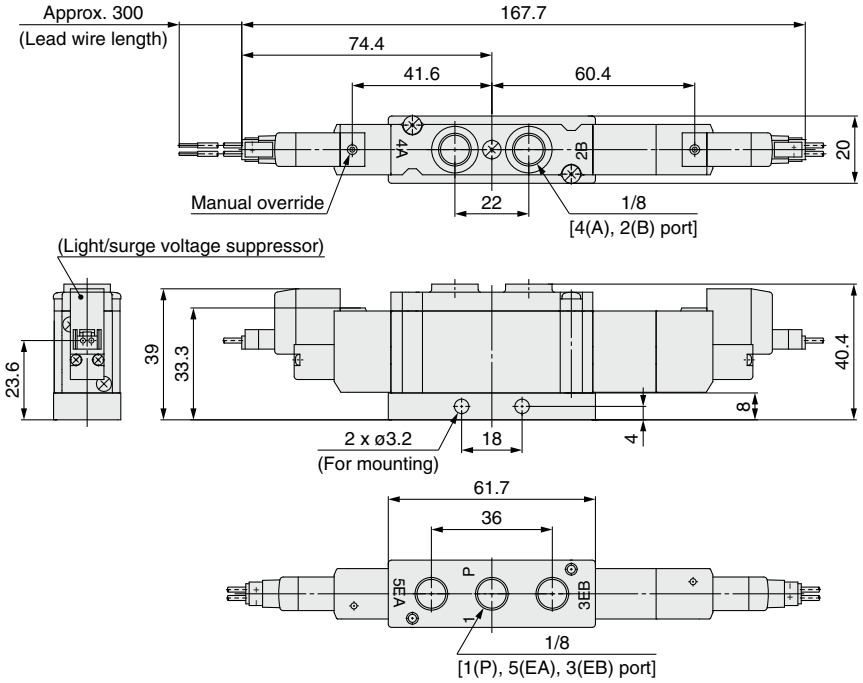
Dimensions: JSY5000 Series

Body Ported **Single Unit**
Type 20/Top Ported
Port Size: Rc1/8



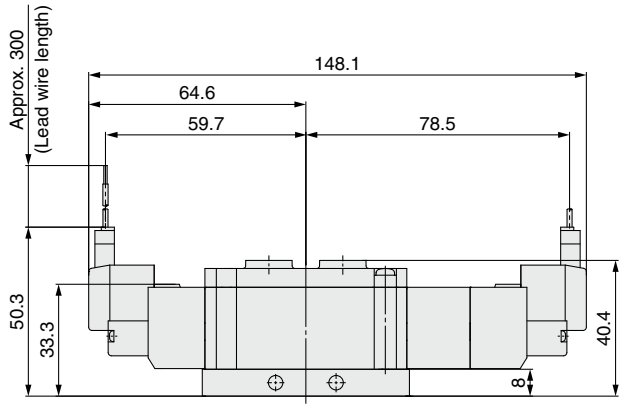
3-position closed center/exhaust center/pressure center

L plug connector (L): JSY5$^{3}_{4}_{5}$20-□LZ□-01-PE



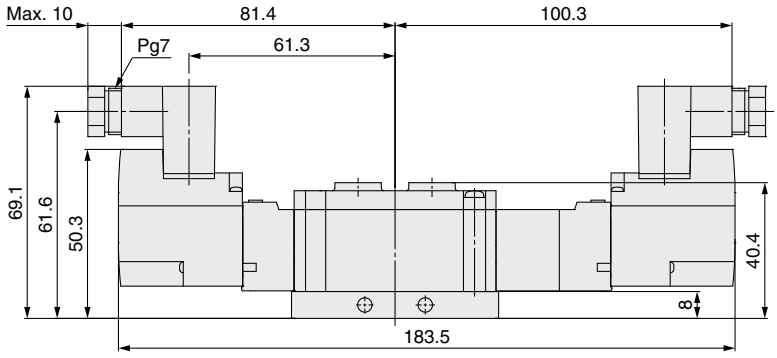
M plug connector (M)

JSY5$^{3}_{4}_{5}$20-□MZ□-01-PE



DIN terminal (D, Y)

JSY5$^{3}_{4}_{5}$20-5(D,Y)□-01-PE



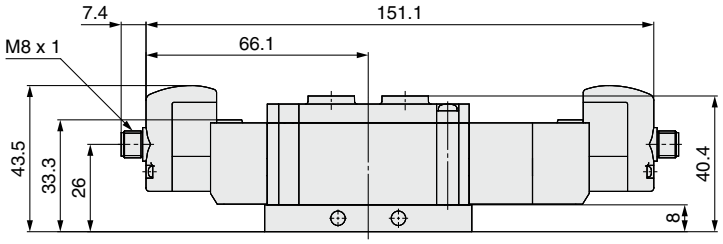
Dimensions: JSY5000 Series

Body Ported Single Unit | Type 20/Top Ported | Port Size: Rc1/8



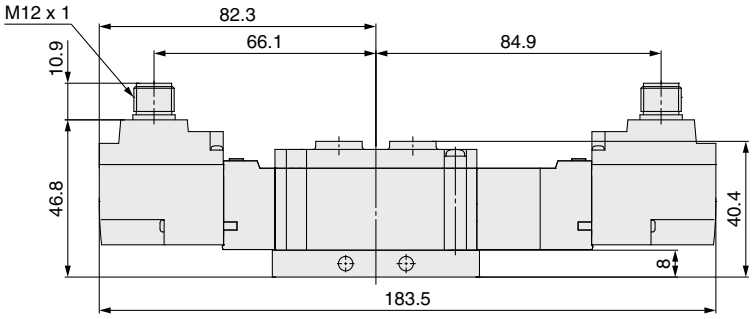
3-position closed center/Exhaust center/Pressure center
M8 connector (W/WA)

JSY5$^{3}_{4}_{5}$20-5WOZ□-01-PE

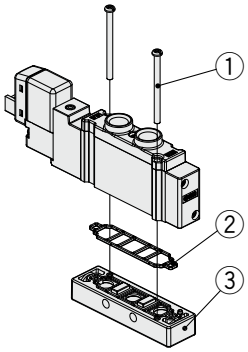


M12 connector (K)

JSY5$^{3}_{4}_{5}$20-5KO□-01-PE



JSY1000/3000/5000 Series
Non Plug-in Single Unit Parts Nos.



No.	Description	Part number			Note
		JSY1000	JSY3000	JSY5000	
①	**Valve mounting screw**	**JSY11V-23-3A** (M1.4 x 24.5)	**JSY31V-23-7A** (M2 x 27)	**JSY51V-23-7A** (M3 x 32)	Part numbers shown on the left are for 10 valves. (20 pcs.)
②	**Base gasket**	**JSY11M-9P-1A**	**JSY31M-9P-1A**	**JSY51M-9P-1A**	Part numbers shown on the left are for 10 valves. (10 pcs.)
③	**P.E plate assembly**	**JSY11V-7A-M5**	**JSY31V-7A-R1**	**JSY51V-7A-01**	With base gasket Available in units of 1 set For details, refer to the part numbers below.

■P.E Plate

JSY 3 1V-7A- R1

❶ ❷

❶ Series

1	JSY1000
3	JSY3000
5	JSY5000

❷ Thread piping

Symbol	Thread piping	JSY1000	JSY3000	JSY5000
M5	M5 x 0.8	●	—	—
R1	Rc1/16	—	●	—
01	Rc1/8	—	—	●