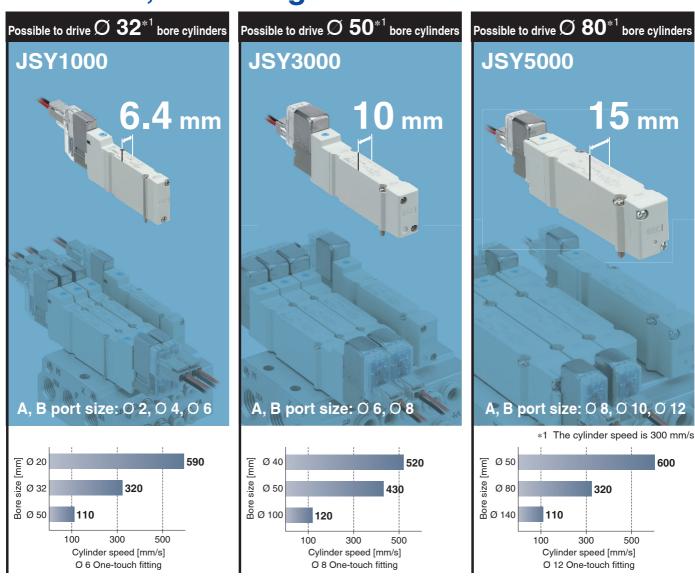
Non Plug-in

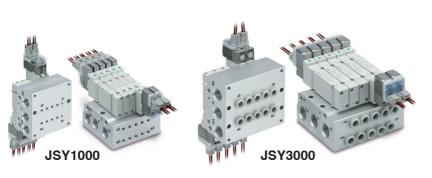
# Compact 5-Port Solenoid Valve New

Size reduction possible thanks to a flow increase This leads to space saving, weight reduction, and a large flow rate.





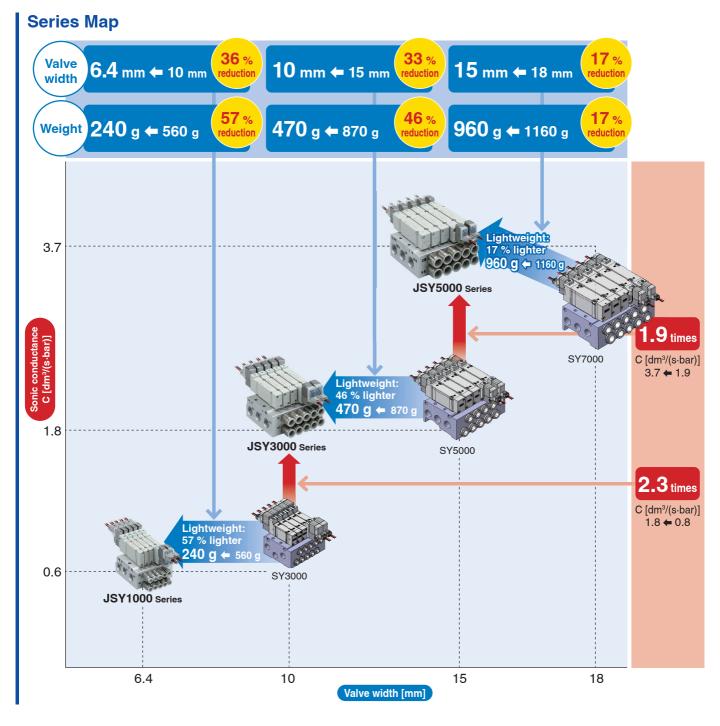
Refer to pages 5 to 8 for detailed conditions regarding the above cylinder speed.

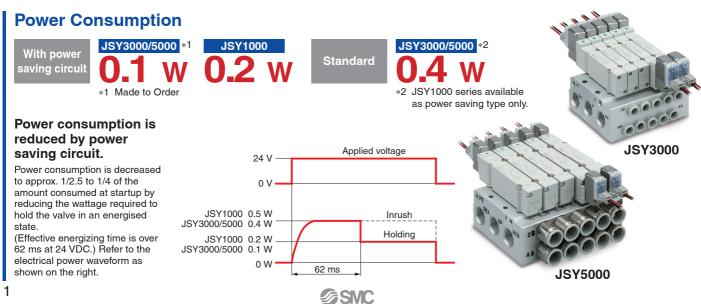




JSY1000/3000/5000 Series





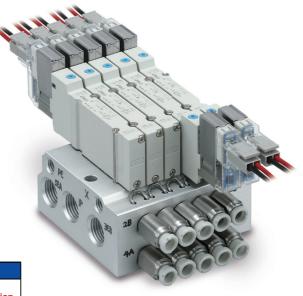


## **Space Saving**

36 % reduction

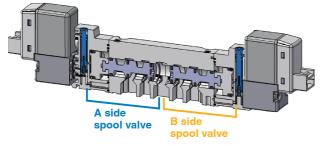
Weight 57 % reduction

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



#### 4-Position Dual 3-Port Valve Available

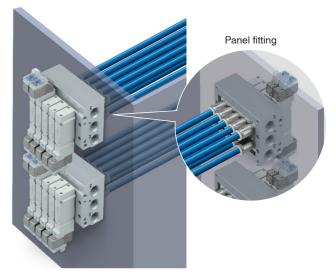
• Two 3-port valves built into one body



- 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

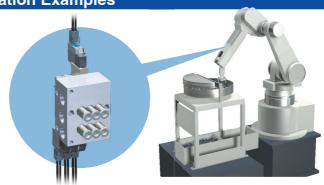
Model	A side	B side
JSY□A4□	N.C. valve	N.C. valve
JSY□B4□	N.O. valve	N.O. valve
JSY□C4□	N.C. valve	N.O. valve

### Bottom ported is prepared (A, B port).



#### **Application Examples**







#### **Series Variations**

	ر	Sonic con								P	ort s	ize					Monif	old On	tiono	V	alve O	ptions		liant
	Piping direction	4/2→	5/3		Rated voltage					A, B	port						Manii	old Op	lions	w cation	sarres	ssure	sizes	comp
	ng dir	(A/B→E	A/EB)]	Type of actuation	ed vo	Th	reac	l pipi	ng		One	-tou	ch fit	ting		P, E	ing	dual	dual pacer	um/Lov specifi	t press	e pres	tting 8	e IP65
	Pipir	2 (B) port			Rat	МЗ	M5	1/8	1/4	Ø2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12	port	Blanking plate	Individual SUP spacer	Individual EXH spacer	Vacuum/Low pressure specification	Different pressures	Reverse pressure	Mixed fitting sizes	Enclosure IP65 compliant
JSY 1000	Side		0.63	2-position single  (A)4 2(B)  (EA)5 1 3(EB)  (P)  2-position double  (A)4 2(B)												1/0								
	Bottom	Ø 6	0.75	(EA)5 1 3(EB) ((EA)5 1 3(EB) ((P)  3-position closed centre (A)4 2(B) ((EA)5 1 3(EB) ((EA)5 1 3(EB) ((P)			•			•		•				1/8								
JSY 3000	Side		1.81	3-position exhaust centre  (A)4 2(B)  (EA)513(EB)  (EA)513(EB)  3-position pressure centre	24																			
	Bottom	Ø 8	2.13	(A)4 2(B) (EA)513(EB)  4-position dual 3-port valve N.C. valve x 2 pcs. 4(A) 2(B)	VDC	_	•	•	_	_	_	•	•			1/4	O p. 38	O p. 38	o p. 38	External pilot	Individual SUP	External pilot	•	*1
JSY 5000	Side	Ø 12	3.72	5(EA) 1(P) 3(EB)  N.O. valve x 2 pcs.  4(A) 2(B)			_	•	•	_	_		•	•	•	3/8								•
	Bottom	.5 .2	4.47	5(EA) 1(P) 3(EB)  N.C. valve, N.O. valve 1 pc. of each 4(A) 2(B)  5(EA) 1(P) 3(EB)																				

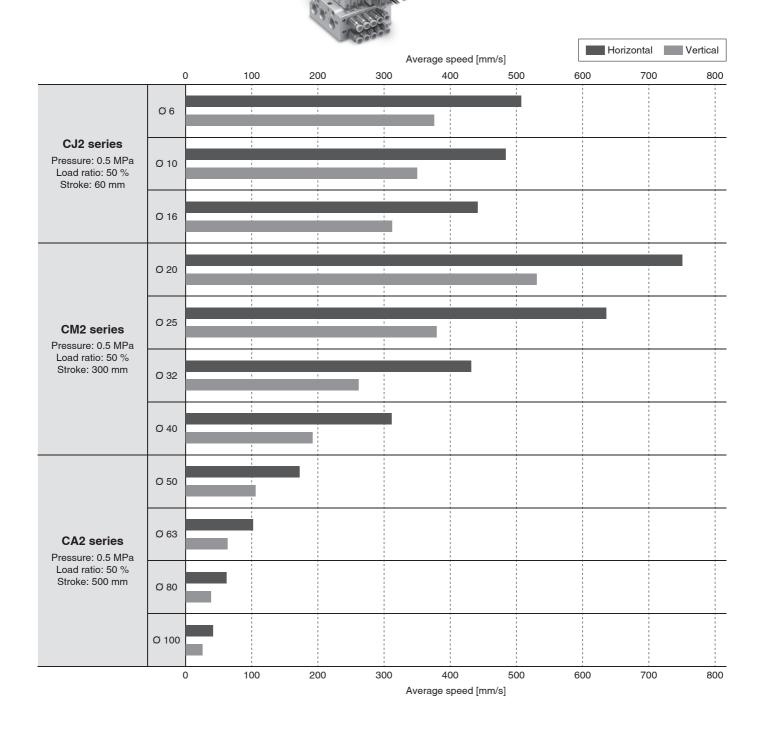
- Standard Option ▲ Made to Order (Refer to page 40.)
- \*1 When using M8 connector.

#### **Tube Releasing Tool Manifold Options** Individual SUP spacer p. 38 ■ Individual EXH spacer p. 38 Blanking plate p. 38 ■This tool is used for When the same manifold is used for When valve exhaust affects other Used when valve removing the tube different pressures, an individual SUP spacer is used as a supply port stations due to the circuit configuration, this spacer is used for individual valve additions are expected or for maintenance. from port A and B. for different pressures. For JSY1000/3000 O8 For JSY1000 2-position single valve 2-position single valve For JSY5000 Individual EXH spacer asse Individual EXH spacer -3/5(E') Circuit diagram Circuit diagram 5 1 3 (EA) (P) (EB) (Mounting example of a 2-position single valve) (Mounting example of a 2-position single valve) 3

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THE STATE OF THE S		Dimensions/JSY1000: Ty	pe 41 Bottom Ported······	p. 20
	1111	Dimensions/JSY3000: Ty	vpe 40 Side Ported ·····	p. 23
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For JSY1000, A, B port: Ø 4



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 catalogue for details.

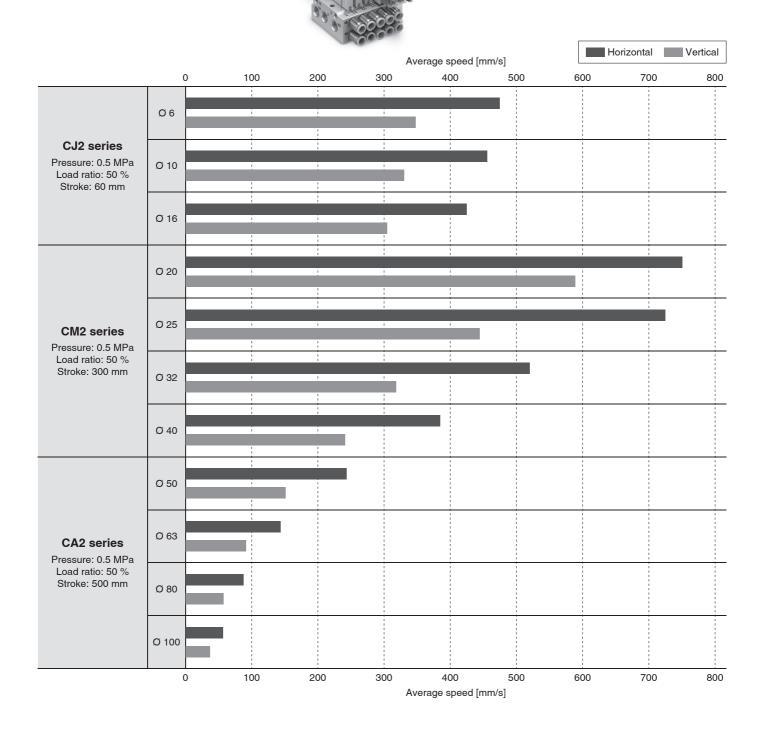


<sup>\*</sup> Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.

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 %

For JSY1000, A, B port: Ø 6



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 catalogue for details.

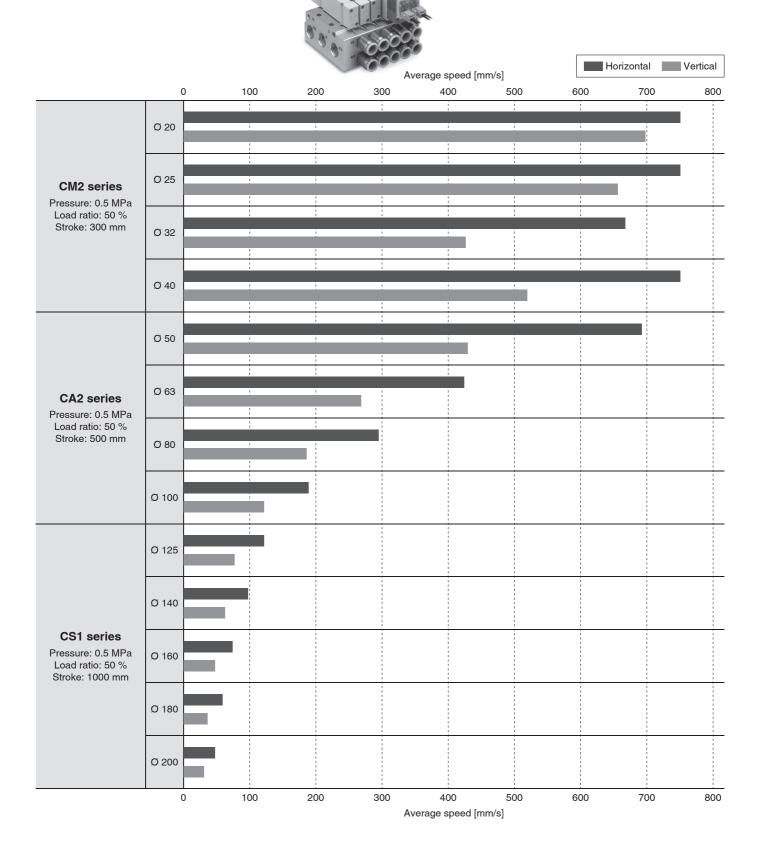


<sup>\*</sup> Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.

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 %

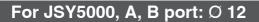
For JSY3000, A, B port: Ø 8

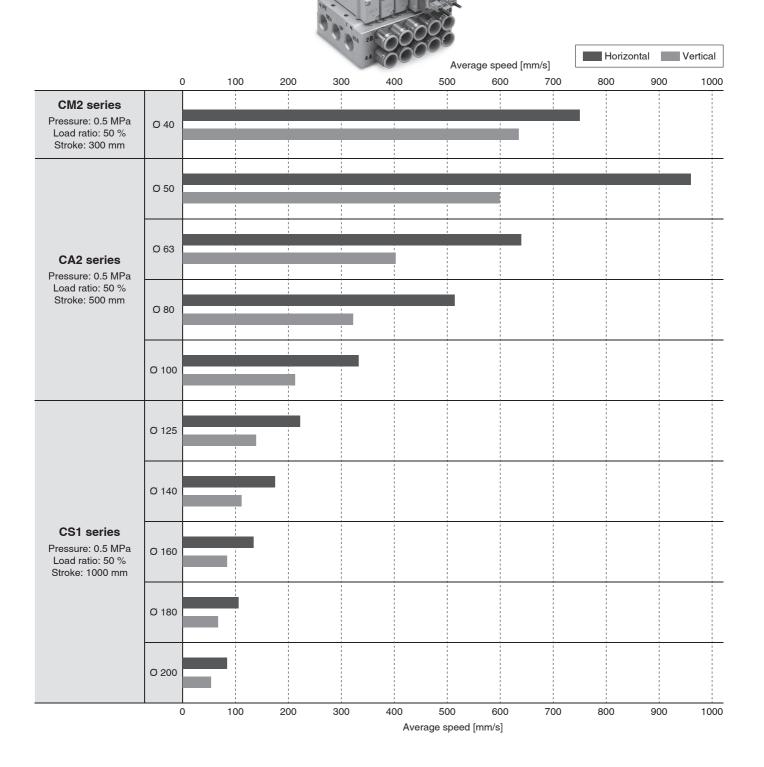


- \* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
- The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
- Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output) x 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 catalogue for details.







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 catalogue for details.



<sup>\*</sup> 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 %

# JSY1000/3000/5000 Series Valve Specifications

#### Valve Specifications

Pluid   Provision single			Valve type		Rubber seal				
	Fluid		•		Air				
Parametrian pressure range   Parametrian pressure range ra	Internal nilot	2-p	osition single		0.15 to 0.7				
May	•	2-position double			0.1 to 0.7				
Statemal pilot operating pressure range [MPa] (Made to Order)		3-p	osition		0.2 to 0.7				
Pilot pressure range [MPa] (Made to Order)   Pilot pressure range [MPa] (Mpa]	[MPa]	4-p	osition dual 3-po	rt valve	0.15 to 0.7				
operating pressure range [MPa] (Made to Order)         Pale of Papisition single 2-position double 3-position         2-position double 3-position         0.25 to 0.7           Ambient and fluid temperatures [°C]         — 5-position single/double 4-position single/double 4-position single/double 3-position         — 5-position single/double 4-position single/double 3-position         — 5-position single/double 4-position single/double 3-position         — 5-position single/double 3-position         — 5-position single/double 4-position single/double 3-position         — 5-position single/double 3-position         — 5-position single/double 4-position single/double 3-position         — 5-position single/double 3-position         — 5-position single/double 4-position single/double 3-position         — 5-position single/double 5-position         — 5-position single/double 4-position single/double 5-position         — 5-position single/double 4-position sin	External nilot	Op	erating pressure	range	-100 kPa to 0.7				
Find pressure (Made to Order)         Pilot pressure (Made to Order)         2-position double (3-position)         0.25 to 0.7           Max. operating frequency [Hz]         JSY1000/3000         2-position single/double (4-position dual 3-port valve (4-position d	•			2-position single					
Max. operating frequency [Hz]   Max. operating frequency [Hz				2-position double	0.25 to 0.7				
Max. operating frequency [Hz]         JSY1000/3000         2-position single/double 4-position dual 3-port valve 3-position	(Made to Order)	ran	ige	3-position					
Max. operating frequency [Hz]         JSY1000/3000         4-position dual 3-port valve 3-position 3-	Ambient and fluid tem	pera	tures [°C]	-	-10 to 50 (No freezing)				
Max. operating frequency [Hz]   Aposition   3   3   5   5   5   5   5   5   5   5		Ī		2-position single/double	_				
Position single/double		JS'	Y1000/3000	4-position dual 3-port valve	5				
				3-position	3				
Aposition dual 3-port valve   3   3   3   3   3   3   3   3   3				2-position single/double	5				
Non-locking push type   Push-turn locking slotted type   Push-turn locking lever type	[112]	JS	Y5000	4-position dual 3-port valve	3				
Push-turn locking slotted type				3-position	3				
Pulot exhaust type   Internal pilot   External pilot (Made to Order)   Individual exhaust				Non-locking push type					
Not required   Not required	Manual override				Push-turn locking slotted type				
External pilot (Made to Order)   External pilot (Made to Order)					Push-turn locking lever type				
Lubrication	Dilat aubayat tura	Internal pilot							
Mounting orientation*1	Pilot exhaust type	Ext	ternal pilot (Made	to Order)	individual exhaust				
Impact/Vibration resistance*1 [m/s²]   150/30	Lubrication	•			Not required				
P40/IP65: M8 connector (W) (WA) type	Mounting orientation*	1			Unrestricted				
Coil rated voltage [V]	Impact/Vibration resis	tance	e*1 [m/s <sup>2</sup> ]		150/30				
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]         With power saving circuit*3         JSY1000         0.2*2 [Inrush 0.5, Holding 0.2]           With power saving circuit*3         JSY3000/5000 (Made to Order)         0.1*4 [Inrush 0.4, Holding 0.1]           Surge voltage suppressor         Diode	Enclosure				IP40/IP65: M8 connector (W) (WA) type				
Allowable voltage fluctuation	Electrical entry				L plug connector (L), M plug connector (M), M8 connector (W)(WA)				
DC   Surge voltage fluctuation   JSY3000/5000   ±10 % of the rated voltage	Coil rated voltage [V]				24 VDC				
Standard   JSY3000/5000   ±10 % of the rated voltage	Allowable voltage flue	tuati		JSY1000	-7 % to +10 % of the rated voltage (24 VDC)				
Power consumption [W] With power saving circuit*3 With power saving circuit*3 Surge voltage suppressor  JSY1000 0.2*2 [Inrush 0.5, Holding 0.2] 0.1*4 [Inrush 0.4, Holding 0.1]	Allowable voltage fluc	iuali		JSY3000/5000	±10 % of the rated voltage				
[W] DC With power saving circuit*3 JSY3000/5000 (Made to Order) 0.1*4 [Inrush 0.4, Holding 0.1]  Surge voltage suppressor Diode		Standard JSY3000/5000		JSY3000/5000	0.4				
[W] saving circuit*3 JSY3000/5000 (Made to Order) 0.1*4 [Inrush 0.4, Holding 0.1]  Surge voltage suppressor Diode	Power consumption	Power consumption		JSY1000	0.2*2 [Inrush 0.5, Holding 0.2]				
	[W]	БС	min pomor		0.1*4 [Inrush 0.4, Holding 0.1]				
	Surge voltage suppressor				Diode				
	Indicator light				<del></del>				

<sup>\*1</sup> 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 energised and de-energised 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 energised and de-energised states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Refer to page 45-1 for the fixation of DIN rail mounting type manifold.



<sup>\*2</sup> JSY1000 series available as power saving type only. Standard type (without power saving circuit) cannot be selected.

<sup>\*3</sup> M8 connector with power saving circuit are not available.

<sup>\*4</sup> For details, refer to page 44.

# Valve Specifications JSY1000/3000/5000 Series

# Response Time/Valve Weight

				Response time [ms] (at 0.5 MPa)*1	Weight [g]		
Series	Seal type	Model	Model Type of actuation	Standard With light/surge voltage suppressor	L/M	W/WA	
				Z type	plug connector	M8 connector	
		JSY1140T	2-position single	15	17		
JSY1000		JSY1240T	2-position double	5	24		
J511000		JSY1(3/4/5)40T	3-position	13	25	_	
		JSY1(A/B/C)40T	4-position dual 3-port valve	14	24		
		JSY3140	2-position single	27	34	38	
JSY3000	Dubbanaal	JSY3240	2-position double	10	49	57	
J5 13000	Rubber seal	JSY3(3/4/5)40	3-position	30	52	60	
		JSY3(A/B/C)40	4-position dual 3-port valve	27	48	56	
		JSY5140	2-position single	42	66	70	
JSY5000		JSY5240	2-position double	13	83	91	
JS 15000		JSY5(3/4/5)40	3-position	40	93	101	
		JSY5(A/B/C)40	4-position dual 3-port valve	41	80	88	

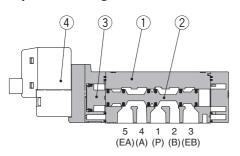
<sup>\*1</sup> Based on dynamic performance test, JIS B 8419-2010. (Coil temperature: 20 °C, at rated voltage)

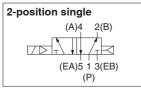


# JSY1000/3000/5000 Series Valve Construction

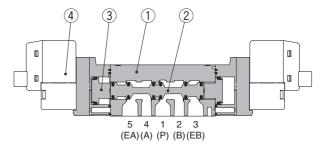
#### **Rubber Seal**

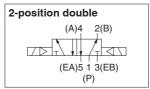
#### 2-position single



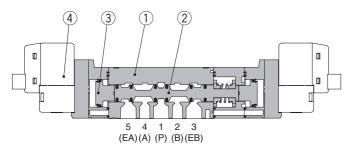


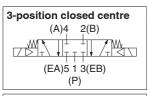
#### 2-position double

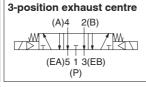


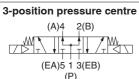


#### 3-position closed centre/exhaust centre/pressure centre

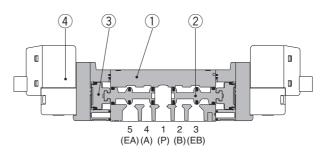


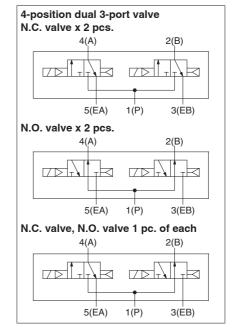






#### 4-position dual 3-port valve



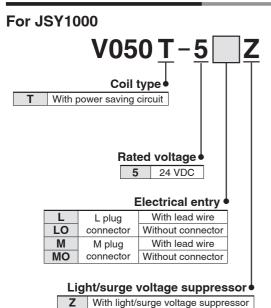


**Component Parts** 

00111	penent i arte	
No.	Description	Material
1	Body	Aluminium die-casted
2	Spool valve	Aluminium/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**



\* Clip is not included in the pilot valve.

# How to replace pilot valves Gasket\*1 Pilot valve Clip Clip part no. JSY11V-46-1A (10 pcs.)

#### **⚠** Caution

#### Remova

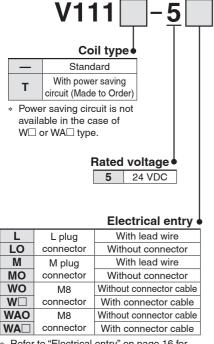
- Remove the clip from the adapter plate by using a flat head screwdriver on the concave of the clip.
- Remove the pilot valve in the direction of the arrow. (Remove also the gasket together.)

#### Mounting

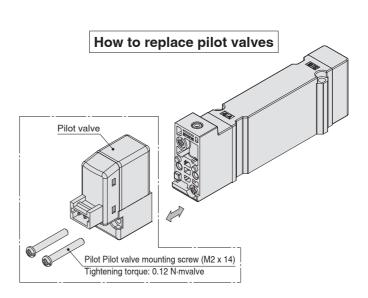
With light/surge voltage suppressor

- 1) Mount the pilot valve on the adapter plate.
- 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



- \* Refer to "Electrical entry" on page 16 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 43.
- \* The "WAO" and "WA□" M8 connectors are IEC 60947-5-2 standard compliant.





# JSY1000/3000/5000 Series Type 40, 41

# Non Plug-in Metal Base



Manifold typ	e		Non plug-in metal base
SUP/EXH po	ort type		Common SUP/EXH
Valve station	ns		2 to 20 stations
		JSY1000	1/8
	1(P), 3/5(E) port	JSY3000	1/4
		JSY5000	3/8
Port size		JSY1000	M3 x 0.5, M5 x 0.8 Ø 2 One-touch fitting, Ø 4 One-touch fitting, Ø 6 One-touch fitting
	4(A), 2(B) port JSY3000		M5 x 0.8, 1/8 Ø 6 One-touch fitting, Ø 8 One-touch fitting
		JSY5000	1/8, 1/4 Ø 8 One-touch fitting, Ø 10 One-touch fitting, Ø 12 One-touch fitting

#### Manifold Flow Rate Characteristics/Manifold Weight

	Port s	ize				Weight: W [g]*1				
Model	1, 5, 3	4, 2	1 → 4/	/2 (P →	A/B)	4/2 → 5	5/3 (A/E	3 → E)	(n: stations)	
	(P, EA, EB)	(A, B)	C [dm <sup>3</sup> /(s·bar)]	b	Q [l/min (ANR)]*2	C [dm³/(s⋅bar)]	b	Q [l/min (ANR)]*2	Fixed: C□	Replaceable: KC□
JJ5SY1-40 (Side ported)	1/8	KC6	0.62	0.34	162	0.63	0.28	158	20.1n + 38	30.5n + 35
JJ5SY1-41 (Bottom ported)	1/8	KC6	0.74	0.46	211	0.75	0.36	198	20.8n + 38	33.8n + 35
JJ5SY3-40 (Side ported)	1/4	KC8	1.86	0.36	492	1.81	0.27	452	38.0n + 84	54.4n + 86
JJ5SY3-41 (Bottom ported)	1/4	KC8	2.31	0.43	642	2.13	0.31	545	41.2n + 84	59.6n + 80
JJ5SY5-40 (Side ported)	3/8	KC12	3.61	0.30	918	3.72	0.18	881	90.1n + 148	121.5n + 144
JJ5SY5-41 (Bottom ported)	3/8	KC12	4.28	0.40	1164	4.47	0.25	1102	95.8n + 133	140.1n + 122

<sup>\*1</sup> 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 10 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.



<sup>\*2</sup> These values have been calculated according to ISO 6358 and indicate the flow rate under standard conditions with and inlet pressure of 0.6 MPa (relative pressure) and a pressure drop of 0.1 MPa.

# Type 40 Side Ported

Type 41
Bottom Ported

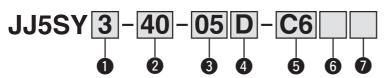
# Non Plug-in Metal Base

# JSY1000/3000/5000 Series

( E UK ROHS

**Internal Pilot** 

#### **How to Order Manifolds**



# 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### **2** Type

40	Side ported
41	Bottom ported

The external pilot specification should be ordered as Made to Order. For details, refer to page 40.

# Ord

Stations

2 stations

20 stations

# Made to Order (Refer to page 40 for details.)

Specification	
External pilot	

#### 4 P, E port entry

<b>U</b> , ,	- port entry
U	U side*1
D	D side*1
В	Both sides

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

# **5** 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	_	_	•

#### 6 Thread type

3 Valve stations

02

20

_	Rc
F	G
N	NPT
	F N

#### **7** Mounting

_		Direct mounting											
D	DIN rail	DIN rail mounting (With DIN rail)											
D0	I	DIN rail mounting (Without DIN rail)											
<b>D</b> 3	For 3 stations	Specify a longer rail											
:	:	than the standard											
D20	For 20 stations	length.											

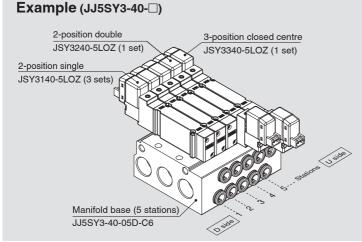
- Only direct mounting is available for Type 41 (Bottom ported).
- Refer to page 45-1 for the fixation of DIN rail mounting type manifold.

#### One-touch fitting (Metric)

S	Symbol	A, B port	JSY1000	JSY3000	JSY5000		
	C2	Ø2	•	_	_		
Fixed	C4	Ø 4	•	_	_	60	
l₩	C6	Ø 6	_	•	_	COL	
	C8	Ø 8	_	_			
	KC2	Ø2	•	_		Type 40	Type 41
<u>o</u>	KC4	Ø 4		_	_	(Side ported)	(Bottom ported)
ap	KC6	Ø 6	•	•	_	20	
ace	KC8	Ø 8	_	•	_		
Replaceable	KC10	Ø 10	_	_	•		
a a	KC12	Ø 12	_	_	•	900	
	M*1	A, B ports mixed	●* <sup>2</sup>	•			
		port size ad piping)	1/8	1/4	3/8		

- \*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**

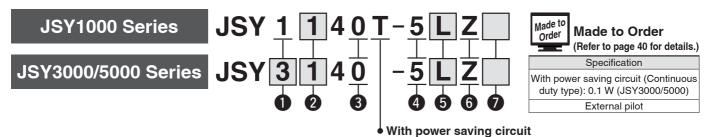


JJ5SY3-40-05D-C6··1 set (Type 40 5-station manifold base part no.)

- \* 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 centre part no.)
  - ➤The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.
- $\cdot$  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)



#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 2 Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
Α	Dual 3-port (N.C./N.C.)
В	Dual 3-port (N.O./N.O.)
С	Dual 3-port (N.C./N.O.)

#### 3 Pilot valve exhaust method

Pilot valve individual exhaust

4 Rated voltage 24 VDC

#### 5 Electrical entry

	L plug c	onnector	M plug co	nnector		M8 cor	nector *1	
	L	LO	M	MO	W□	WO	WA□	WAO
	L: With lead wire	LO: Without	M: With lead	MO: Without				
2	(300 mm)	connector	wire (300 mm)	connector				
JSY1000					_	_	_	_
	L: With lead wire	LO: Without	քե <b>M</b> : With lead	MO: Without	<b>W</b> □: With connector		<b>WA</b> □: With connector	WAO: Without
2 2	(300 mm)	connector	wire (300 mm)	connector	cable	connector cable	cable	connector cable
JSY3000 JSY5000								

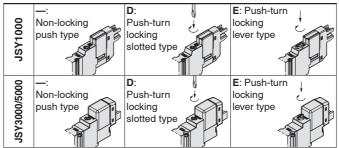
- \*1 Refer to page 43 for the lead wire length of L and M plug connectors.
- \*1 The "WAO" and "WA\[D]" M8 connectors are IEC 60947-5-2 standard compliant.
- \*1 Refer to page 44 for polarity details and the pin wiring diagram.
- \*1 For connector cable of M8 connector, refer to page 43. For W $\square$  and WA $\square$ , enter the cable length symbols in  $\square$ . Please be sure to fill in the blank referring to page 43.

#### 6 Light/surge voltage suppressor

	•
7	With light/surge voltage
_	suppressor



#### Manual override



#### 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 35 for base gasket and mounting screw part numbers.

#### **∕!∖** Caution

If the JSY3000/5000 series will be continuously energized, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 40. Additionally, when it is used at the energizing rate over 50%, please select the product with power saving circuit.

For the JSY1000 series only the power saving circuit is available.



Non Plug-in **Metal Base** 

Type 40/Side Ported Port Size: M3, M5

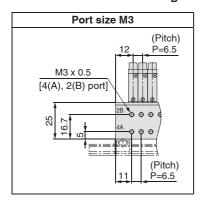
Approx. 300 (Lead wire length)

71.5

8 66

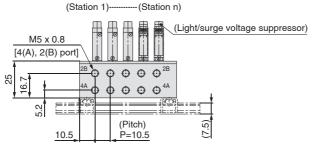
# Dimensions: JSY1000 Series

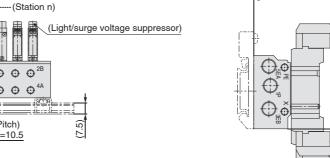
# JJ5SY1-40(R)-Stations P-M3 (D)

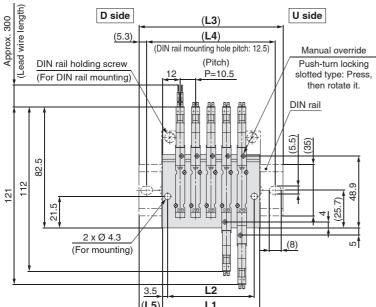


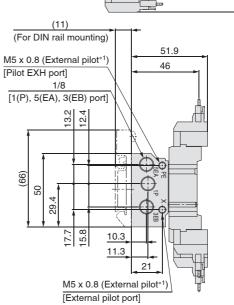
- 40R- Stations U \*1 [Plug for external pilot] Φ 0 **⊕** 4A 0 ----The drawing above shows when P, E port entry is D.
- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY1-40-05B-M5."

#### M plug connector (M)









#### 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

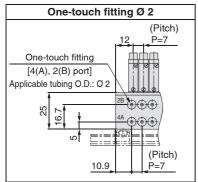
L_n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	30.5	37.0	43.5	50.0	56.5	63.0	69.5	76.0	82.5	89.0	95.5	102.0	108.5	115.0	121.5	128.0	134.5	141.0	147.5
L2	23.5	30.0	36.5	43.0	49.5	56.0	62.5	69.0	75.5	82.0	88.5	95.0	101.5	108.0	114.5	121.0	127.5	134.0	140.5
L3	60.5	73.0	73.0	85.5	85.5	98.0	98.0	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

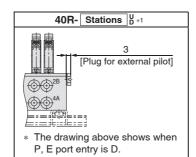
# Dimensions: JSY1000 Series

Non Plug-in Type 40/Side Ported Metal Base Port Size: 0 2, 0 4/Fixed



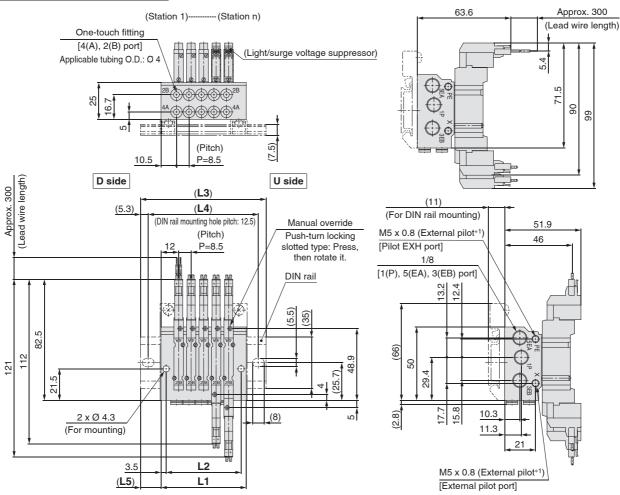
# JJ5SY1-40(R)-Stations $\stackrel{\text{U}}{\text{R}}$ - $\stackrel{\text{C2}}{\text{C4}}$ -(D)





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

#### M plug connector (M)



#### L Dimensions: Port Size C4

n: Stations

L	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

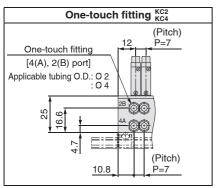
#### L Dimensions: Port Size C2

L	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

# Type 40/Side Ported Non Plug-in **Metal Base** Port Size: 0 2, 0 4, 0 6/Replaceable

# Dimensions: JSY1000 Series

# JJ5SY1-40(R)-Stations D KC2 □(D)



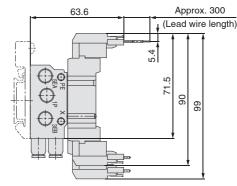
One-touch fitting [4(A), 2(B) port]

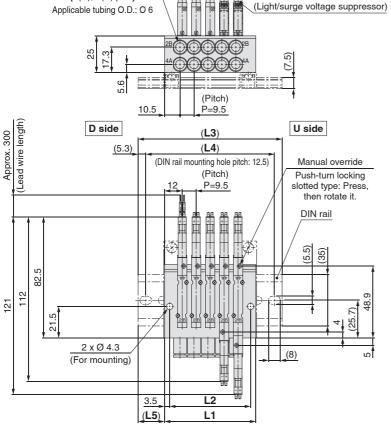
- 40R- Stations U \*1 [Plug for external pilot] The drawing above shows when
- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY1-40-05B-KC6."

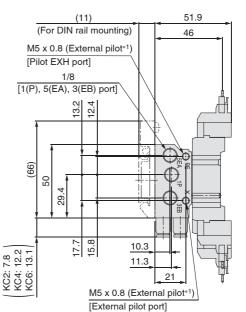
#### (Station 1)---- (Station n)



#### M plug connector (M)







#### L Dimensions: Port Size KC6

n: Stations

Ln	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

L	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

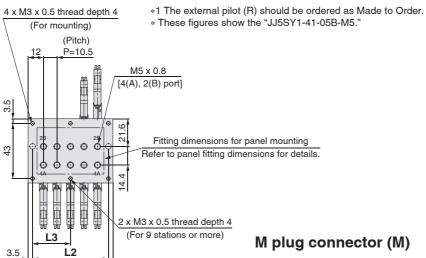
Metal Base Port Size: M3, M5

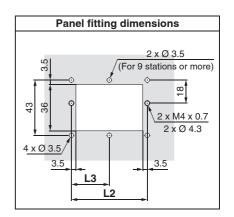
Non Plug-in Type 41/Bottom Ported

# Dimensions: JSY1000 Series

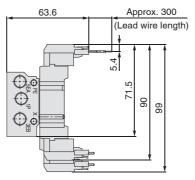
JJ5SY1-41(R)-Stations  $\stackrel{\text{U}}{\text{P}}$ - $\stackrel{\text{M3}}{\text{M5}}$ 

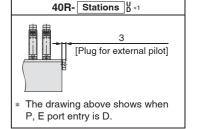


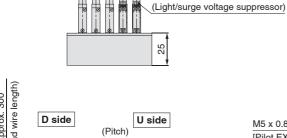




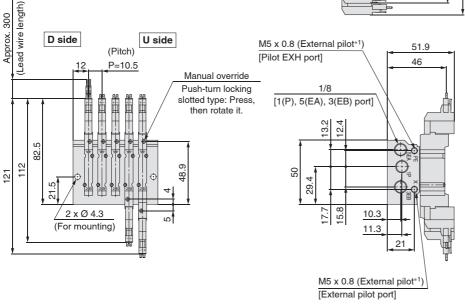
# M plug connector (M)

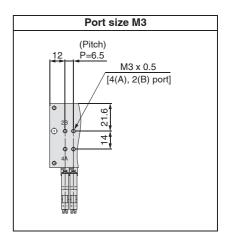






(Station 1)---- (Station n)





#### L Dimensions: Port Size M5

n:	Stations

-																				
	<u>L</u> _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

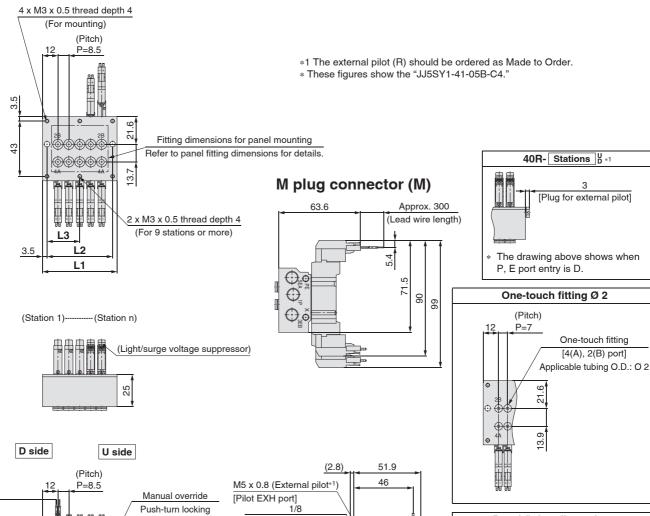
**Metal Base** 

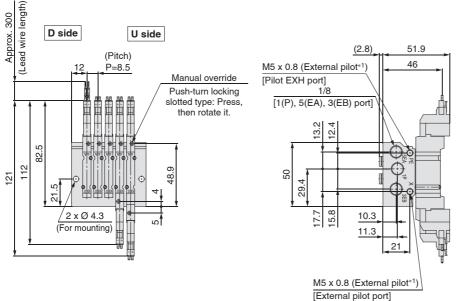
Non Plug-in Type 41/Bottom Ported Port Size: O 2, O 4/Fixed

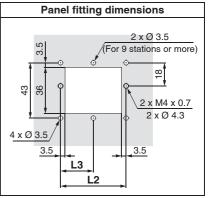
Dimensions: JSY1000 Series

JJ5SY1-41(R)-Stations  $_{\text{C}4}^{\text{U}}$ - $_{\text{C}4}^{\text{C}2}$ 









#### L Dimensions: Port Size C4

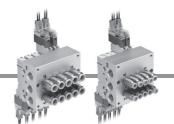
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	32.5	41.0	49.5	58.0	66.5	75.0	83.5	92.0	100.5	109.0	117.5	126.0	134.5	143.0	151.5	160.0	168.5	177.0	185.5
L2	25.5	34.0	42.5	51.0	59.5	68.0	76.5	85.0	93.5	102.0	110.5	119.0	127.5	136.0	144.5	153.0	161.5	170.0	178.5
L3	_	_	_	_	_	_	_	42.5	46.8	51.0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

#### L Dimensions: Port Size C2

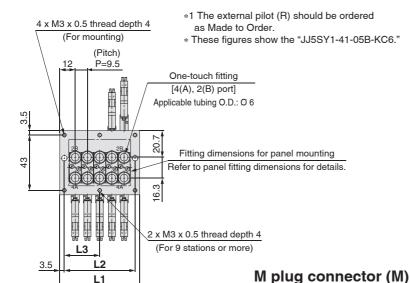
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0	157.0
L2	24.0	31.0	38.0	45.0	52.0	59.0	66.0	73.0	80.0	87.0	94.0	101.0	108.0	115.0	122.0	129.0	136.0	143.0	150.0
L3	_	_	_	_	_	_	_	36.5	40.0	43.5	47.0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

# Dimensions: JSY1000 Series

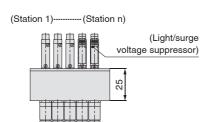
Non Plug-in Type 41/Bottom Ported Metal Base Port Size: 0 2, 0 4, 0 6/Replaceable

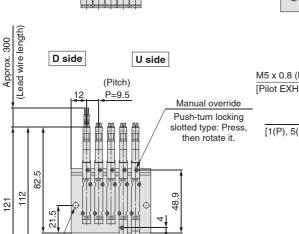


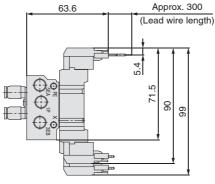
# JJ5SY1-41(R)-Stations D-KC2

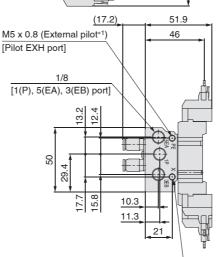


One-touch fitting KC 11.9 One-touch fitting [4(A), 2(B) port] X X 20 X .:. 40 Applicable tubing O.D.: Ø 2 ۲ 5.3



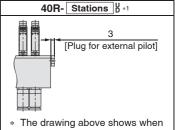






M5 x 0.8 (External pilot\*1) [External pilot port]

Panel fitting dimensions 2 x Ø 3.5 (For 9 stations or more) 43 36 2 x M4 x 0.7 2 x Ø 4.3 4 x Ø 3.5 3.5 3.5 L3



P, E port entry is D.

2 x t4.3

(For mounting)

L DIME	ensior	ns: Po	ort Siz	e KC	b					-	•	-						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: s	Stations
19	20

L	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

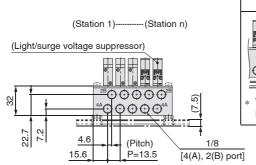
# Dimensions: JSY3000 Series

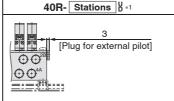
Non Plug-in Metal Base

Type **40/Side** Ported Port Size: M5, 1/8

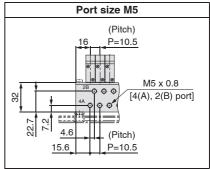


JJ5SY3-40(R)-Stations D-M5 (D)

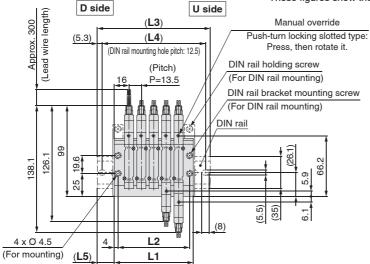


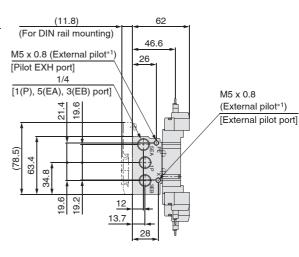


 The drawing above shows when P, E port entry is D.

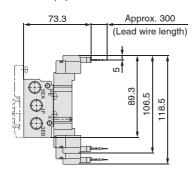


- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY3-40-05-01."

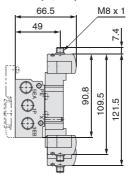




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Size 01 (1/8)

n: Stations

L	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

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

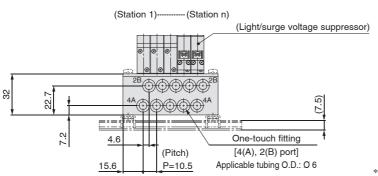
Non Plug-in Tyr Metal Base Por

Type **40/Side** Ported Port Size: © 6/Fixed

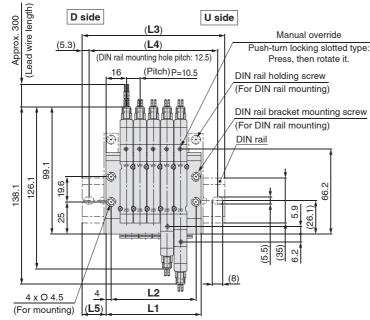


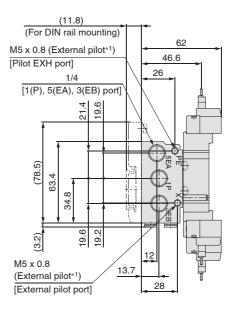
# Dimensions: JSY3000 Series

JJ5SY3-40(R)-Stations U- C6 □(D)

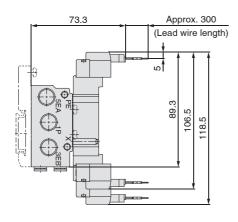


- \* The drawing above shows when P, E port entry is D.
- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY3-40-05-C6."

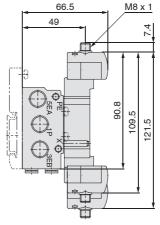




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Size C6

n.	Stations
H.	Stations

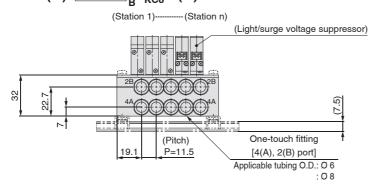
L	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	73.0	85.5	98.0	110.5	123.0	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

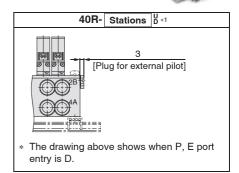
Non Plug-in Metal Base Type **40/Side** Ported Port Size: 0 6, 0 8/Replaceable



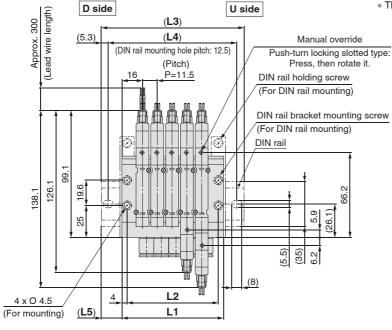
# Dimensions: JSY3000 Series

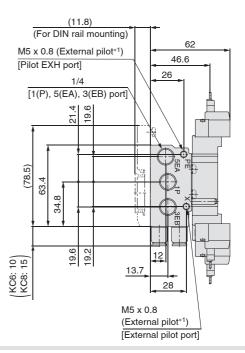
# JJ5SY3-40(R)-Stations D-KC6 C(D)



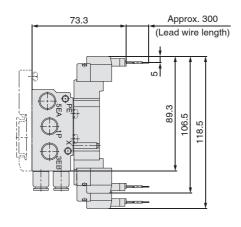


- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY3-40-05-KC8."

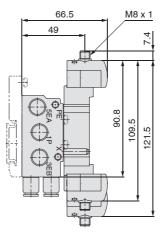




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Sizes KC6, KC8

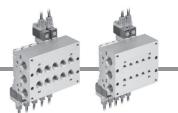
	O: ::
n:	Stations

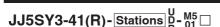
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	44.5	56.0	67.5	79.0	90.5	102.0	113.5	125.0	136.5	148.0	159.5	171.0	182.5	194.0	205.5	217.0	228.5	240.0	251.5
L2	36.5	48.0	59.5	71.0	82.5	94.0	105.5	117.0	128.5	140.0	151.5	163.0	174.5	186.0	197.5	209.0	220.5	232.0	243.5
L3	73.0	85.5	98.0	110.5	123.0	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

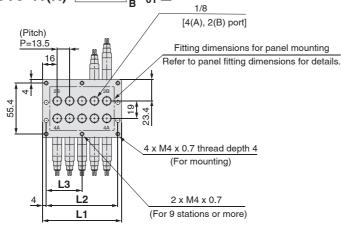
# Dimensions: JSY3000 Series

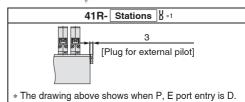
**Metal Base** 

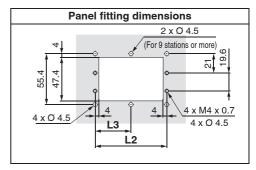
Non Plug-in Type 41/Bottom Ported Port Size: M5, 1/8

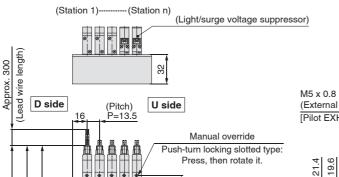




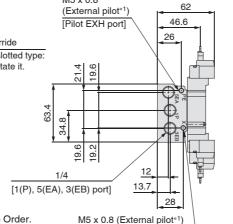




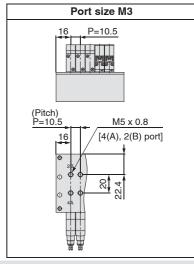




66.



[External pilot port]



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

\* These figures show the "JJ5SY3-41-05-01."

4 x Ø 4.5

(For mounting)

99

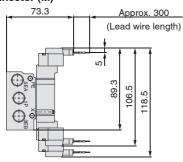
19.6

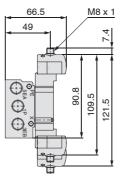
25

126.

138.

#### M plug connector (M) M8 connector (W, WA)





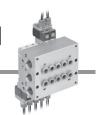
#### L Dimensions: Port Size 01 (1/8)

L Dime	ensio	ns: Po	ort Siz	e 01 (	(1/8)							- 1	H					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

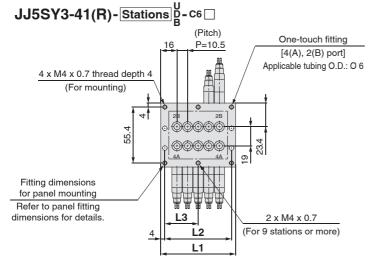
L Dime	ensio	ns: Po	ort Siz	e M5														n: 9	Stations
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	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

**Metal Base** 

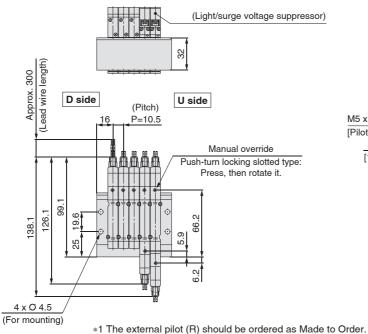
Non Plug-in Type 41/Bottom Ported Port Size: Ø 6/Fixed



# Dimensions: JSY3000 Series

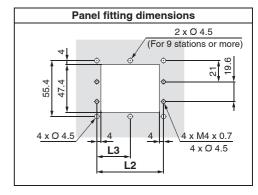


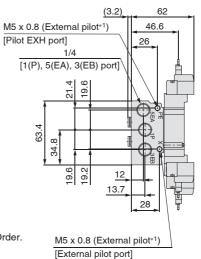
(Station 1)-(Station n)



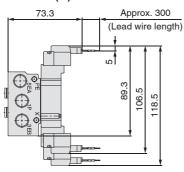
\* These figures show the "JJ5SY3-41-05-C6."

41R- Stations 8 \*1 [Plug for external pilot] \* The drawing above shows when P, E port entry is D.

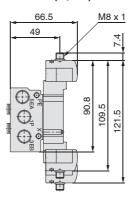




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Size C6

27

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

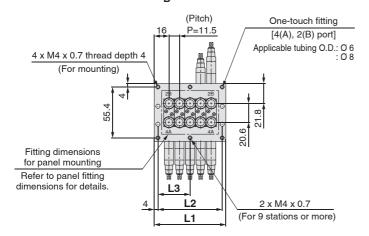
Non Plug-in Metal Base

Type **41/Bottom** Ported Port Size: 0 6, 0 8/Replaceable

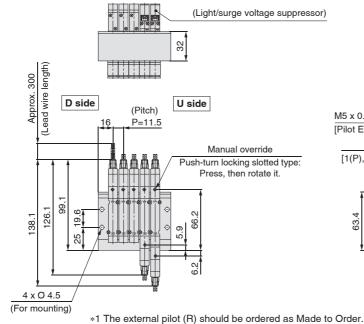


# Dimensions: JSY3000 Series

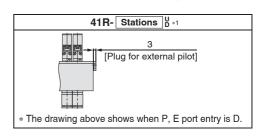
# JJ5SY3-41(R)-Stations D-KC6 CKC8

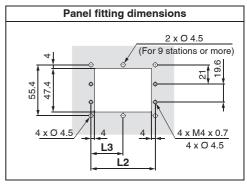


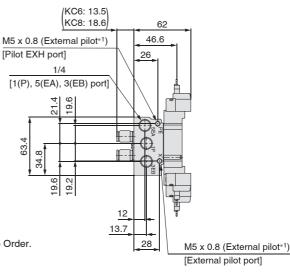
(Station 1)----(Station n)



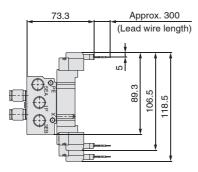
\* These figures show the "JJ5SY3-41-05-KC8."



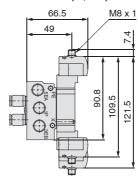




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Sizes 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

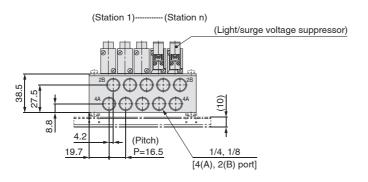
Non Plug-in **Metal Base** 

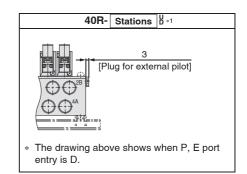
Type 40/Side Ported Port Size: 1/8, 1/4



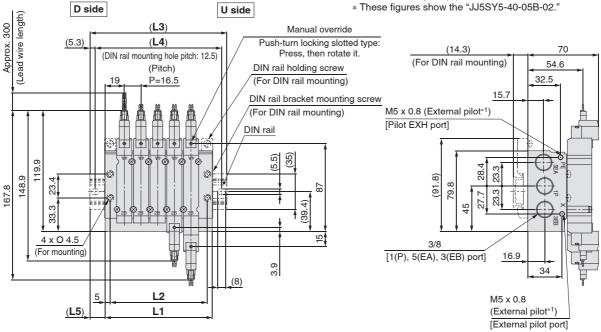
# Dimensions: JSY5000 Series

JJ5SY5-40(R)-Stations  $\stackrel{\text{U}}{\mathbb{D}}$  -  $\stackrel{\text{01}}{\mathbb{D}}$   $\square$  (D)

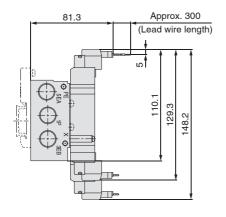




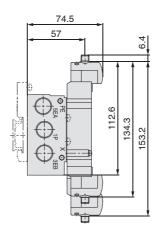
- \*1 The external pilot (R) should be ordered as Made to Order.



#### M plug connector (M)



#### M8 connector (W, WA)



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

n.	Stations
11.	Stations

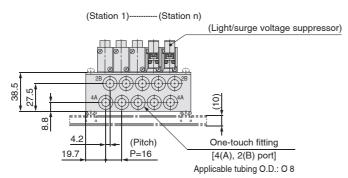
Ln	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.5	73.0	89.5	106.0	122.5	139.0	155.5	172.0	188.5	205.0	221.5	238.0	254.5	271.0	287.5	304.0	320.5	337.0	353.5
L2	46.5	63.0	79.5	96.0	112.5	129.0	145.5	162.0	178.5	195.0	211.5	228.0	244.5	261.0	277.5	294.0	310.5	327.0	343.5
L3	85.5	98.0	123.0	135.5	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

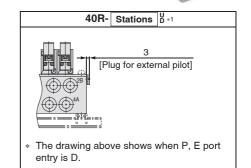
Non Plug-in **Metal Base** 

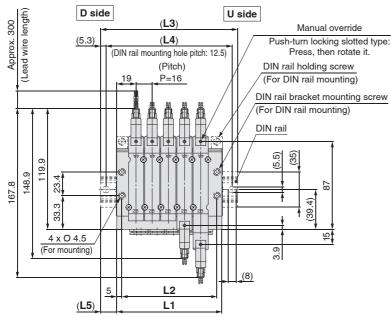
# Type 40/Side Ported Port Size: Ø 8/Fixed

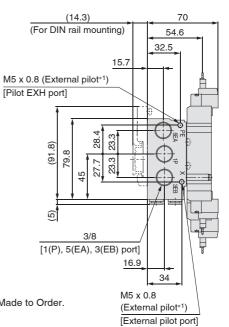
# Dimensions: JSY5000 Series

# JJ5SY5-40(R)-Stations D-C8 (D)



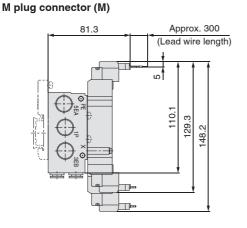


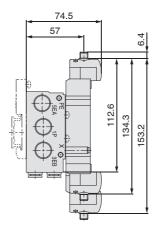




- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY5-40-05B-C8."

#### M8 connector (W, WA)





#### L Dimensions: Port Size C8

	04 - 4:
	Stations
١.	Otations

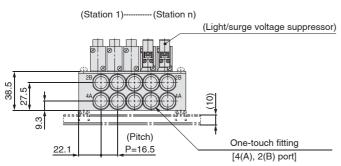
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.0	72.0	88.0	104.0	120.0	136.0	152.0	168.0	184.0	200.0	216.0	232.0	248.0	264.0	280.0	296.0	312.0	328.0	344.0
L2	46.0	62.0	78.0	94.0	110.0	126.0	142.0	158.0	174.0	190.0	206.0	222.0	238.0	254.0	270.0	286.0	302.0	318.0	334.0
L3	85.5	98.0	123.0	135.5	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 Type 40/Side Ported Metal Base Port Size: Ø 10, Ø 12/Replaceable

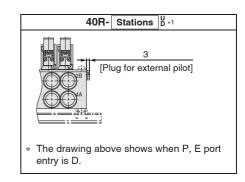


# Dimensions: JSY5000 Series

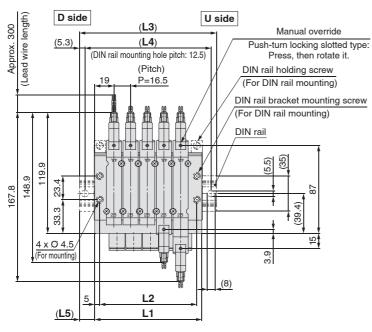
JJ5SY5-40(R)-Stations  $\stackrel{\text{U}}{\mathbb{P}}$ - $\stackrel{\text{KC10}}{\text{KC12}}\square(D)$ 

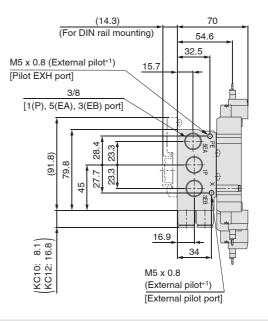


Applicable tubing O.D.: Ø 10, Ø 12

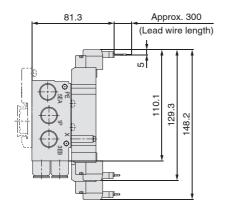


- \*1 The external pilot (R) should be ordered as Made to Order.
- \* These figures show the "JJ5SY5-40-05B-KC12."

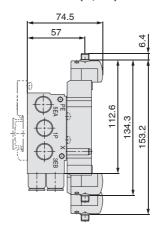




#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Sizes KC10, KC12

n.	Stations
11.	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

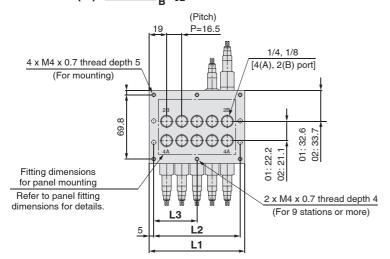
Non Plug-in **Metal Base** 

Type 41/Bottom Ported Port Size: 1/8, 1/4

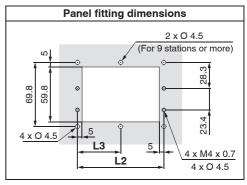


# Dimensions: JSY5000 Series

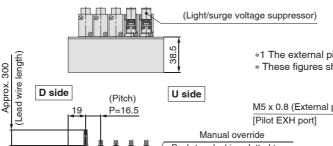
# JJ5SY5-41(R)-Stations D-01 - 01

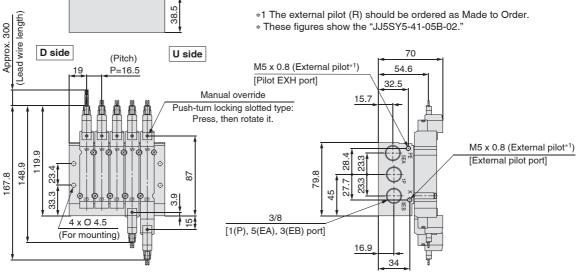


41R- Stations | +1 [Plug for external pilot] \* The drawing above shows when P, E port entry is D.

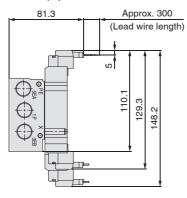




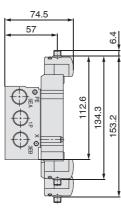




#### M plug connector (M)



#### M8 connector (W, WA)



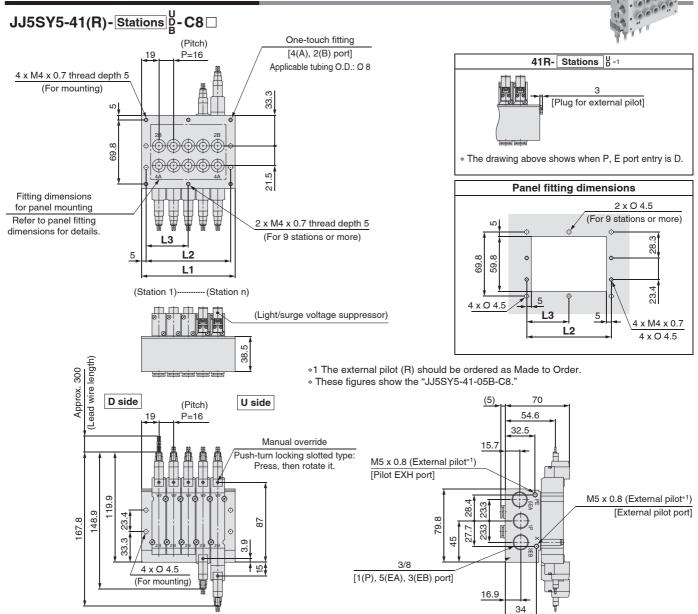
L Di

)imer	nsior	ıs: Po	ort Siz	es 01	(1/8)	, 02 (1	l/ <b>4</b> )						_					n: \$	Stations	i
n	0	2	4	-	6	7	0	0	40	44	10	40	4.4	4.5	10	47	40	10	-00	

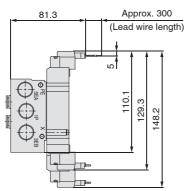
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	54.5	71.0	87.5	104.0	120.5	137.0	153.5	170.0	186.5	203.0	219.5	236.0	252.5	269.0	285.5	302.0	318.5	335.0	351.5
L2	44.5	61.0	77.5	94.0	110.5	127.0	143.5	160.0	176.5	193.0	209.5	226.0	242.5	259.0	275.5	292.0	308.5	325.0	341.5
L3	_	_	_	_	_	_	_	80.0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



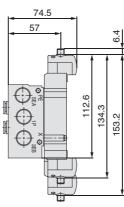
# Dimensions: JSY5000 Series



#### M plug connector (M)



#### M8 connector (W, WA)



#### L Dimensions: Port Size C8

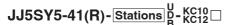
L n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	54.0	70.0	86.0	102.0	118.0	134.0	150.0	166.0	182.0	198.0	214.0	230.0	246.0	262.0	278.0	294.0	310.0	326.0	342.0
L2	44.0	60.0	76.0	92.0	108.0	124.0	140.0	156.0	172.0	188.0	204.0	220.0	236.0	252.0	268.0	284.0	300.0	316.0	332.0
L3	_	_	-	_	_	_	_	78.0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

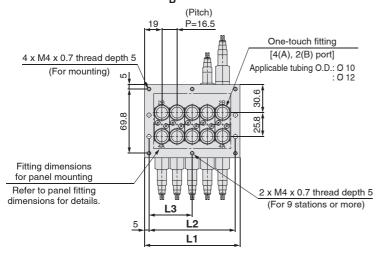
**Metal Base** 

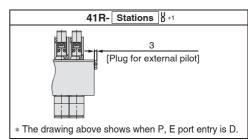
Non Plug-in Type 41/Bottom Ported Port Size: ∅ 10, ∅ 12/Replaceable

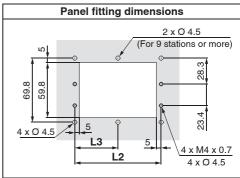


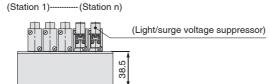
# Dimensions: JSY5000 Series

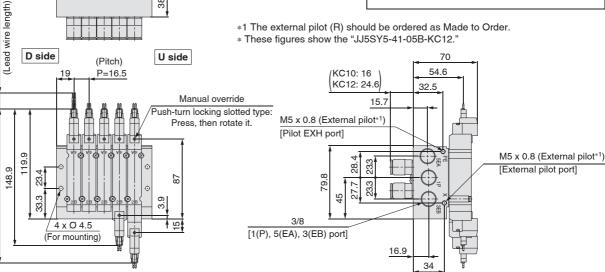








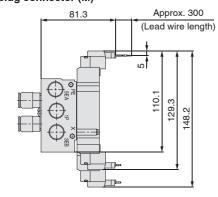




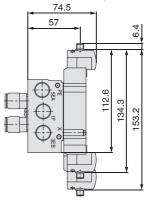
#### M plug connector (M)

Approx. 300

167.8



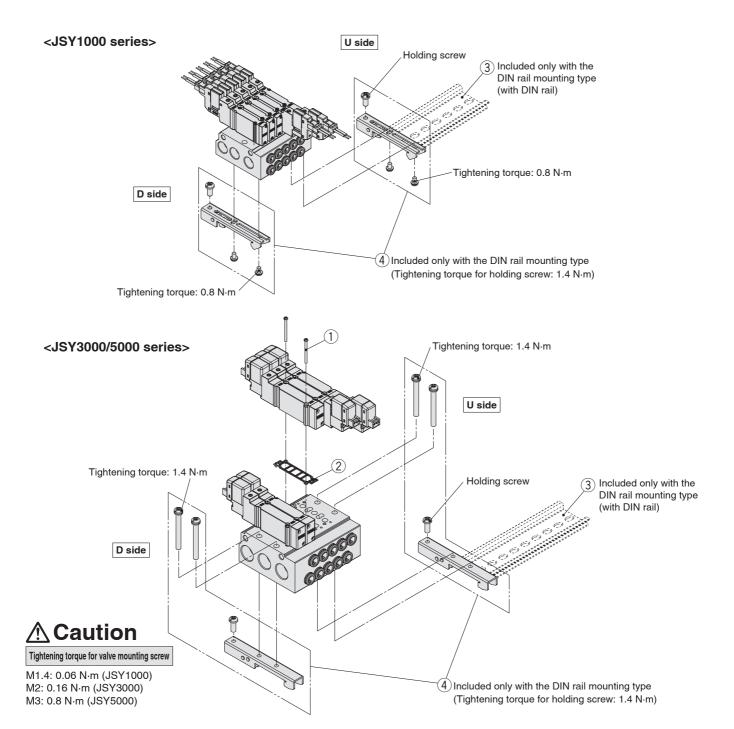
#### M8 connector (W, WA)



#### L Dimensions: Port Sizes KC10, KC12

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

# JSY1000/3000/5000 Series Type 40, 41 Non Plug-in Metal Base Manifold Exploded View



#### **Manifold Parts Nos.**

No.	Description		Part number		Note
NO.	Description	JSY1000	JSY3000	JSY5000	Note
1	Valve mounting screw	<b>JSY11V-23-1A</b> (M1.4 x 21.5)	<b>JSY31V-23-4A</b> (M2 x 22)	<b>JSY51V-23-4A</b> (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 37.
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 44 for the replacement method.

### ■ One-touch Fittings

Port size	Port size JSY1000		JSY3000	JSY5000	Note
	Ø2	KQSY10-C2	_	_	
	Ø 4 KQSY10-C4-X1336		_	_	
A, B port	Ø6	KQSY11-C6-X1336	KQSY30-C6	1	Part number is for one piece.
A, B port	Ø 8	1	KQSY30-C8-X1336	1	Sales unit: 10 pcs
	Ø 10	_	_	KQSY50-C10	
	Ø 12	_	_	KQSY50-C12-X1336	

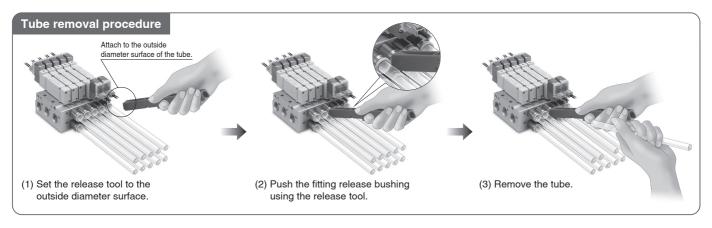
### **■**Clip, Port Plate

	JSY	1000					
	For A, B port KC2/KC4 fittings	For A, B port KC6 fittings	JSY3000	JSY5000	Note		
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.)

Series	For JSY1000 (6.5 mm pitch)	For JSY1000 (9 mm pitch) For JSY3000	For JSY5000
Releasing tool part no.	TG-0204	TG-0608	TG-1012
Applicable tubing O.D.	O 2/O 4	Ø 6/Ø 8	Ø 10/Ø 12



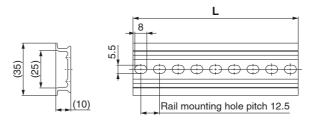


# JSY1000/3000/5000 Series Manifold Options

### ■ 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 □.

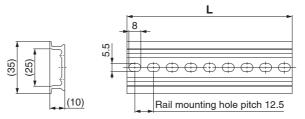


No.	S3	S2	S1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L dimension	60.5	73	85.5	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5
Weight [g]	10.9	13.1	15.4	17.6	19.9	22.1	24.4	26.6	28.9	31.1	33.4	35.6	37.9	40.1	42.4	44.6	46.9	49.1	51.4
No.	16	17	18	19	20	21	22	23	24	25	26	27	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	
		705.5	700	040 5	000	005.5	0.40	000 5	070	005.5	000	910.5	923	935.5	948	960.5	973	985.5	
L dimension	773	785.5	798	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	933.5	940	900.5	9/3	905.5	

### ■ 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  $\Box$ .



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
Weight [9]	141.0	175	140.1	131.3	154.5	157.0	100.0	100.9	107.1	170.5	170.4	170.0	173.0	102.3	100.1	109.2	132.7	100.0	100.7
No.	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	132.4	100.0	100.7
- 10.																	102.4	100.0	100.7



# Manifold Options JSY1000/3000/5000 Series

↑ 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)

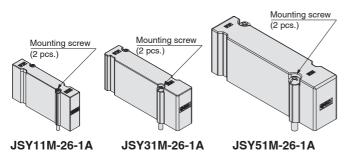
### **Manifold Options**

\* Refer to page 39 for dimensions.

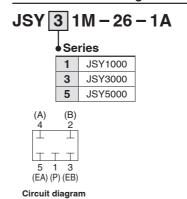
### ■ Blanking plate

[With two mounting screws]

Used when valve additions are expected or for maintenance.



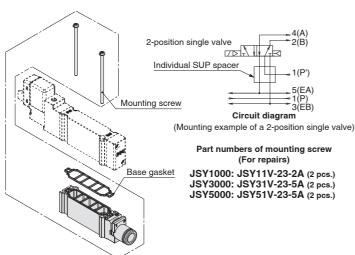
### **How to Order Blanking Plates**



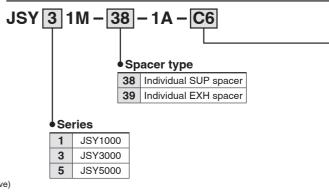
### ■Individual SUP spacer

[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.



### How to Order Individual SUP/EXH Spacers



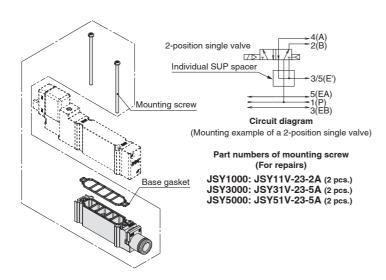
### 

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C4	Ø 4 One-touch fitting	•	_	
C6	Ø 6 One-touch fitting	_	•	_
C8	Ø 8 One-touch fitting	_	_	•
C10	Ø 10 One-touch fitting	_	_	•
C12	Ø 12 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.

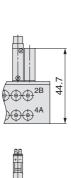


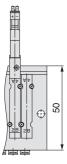


# JSY1000/3000/5000 Series

### **Dimensions: Manifold Options**

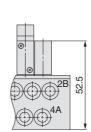
# **■** Blanking plate JSY1000 series

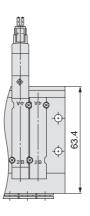




<Type 40>

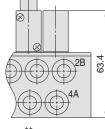
### JSY3000 series

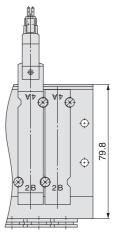




<Type 40>

JSY5000 series





<Type 40>

# ■ Individual SUP/EXH spacer

### JSY1000 series

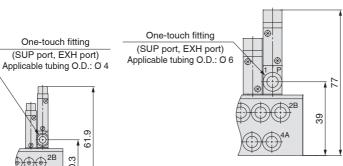
### JSY3000 series

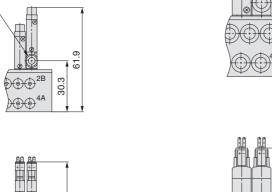
### JSY5000 series

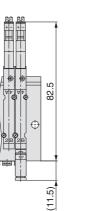
87.5

47.8

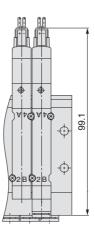
One-touch fitting (SUP port, EXH port) Applicable tubing O.D.: Ø 8, Ø 10, Ø 12



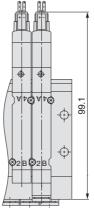




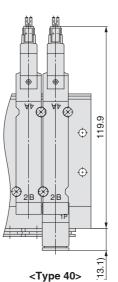
<Type 40>



<Type 40>







# JSY1000/3000/5000 Series

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

**Made to Order** 



### 1 External Pilot

How to Order Manifolds JJ5SY  $\frac{1}{5} - \frac{40}{41} \frac{R}{R} -$ 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.

# 2 Coil Type: With Power Saving Circuit (Continuous Duty Type)

Be sure to select the power saving circuit type when the JSY3000/5000 series is continuously energised for long periods of time. Be careful of the energising time when the power saving circuit is selected. Refer to page 44 for details. 0.1 W: JSY3000/5000

### **How to Order Valves**

JSY 
$$\frac{3}{5}$$
 40 T -5 Z Coil type

T With power saving circuit (Continuous duty type)

Pilot type (See above.)

\* M8 connector (W□/WA□) with power saving circuit are not available.





Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 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.smc.eu

### **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	МЗ	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.

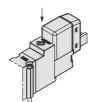
2. Regardless of an electric signal for the valve, the manual override is used for switching the main valve. Connected actuator is started by manual operation. Use the manual override after confirming that there is no danger.

### ■ 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 nonlocking push type.

### JSY1000 series

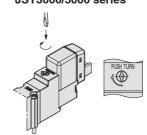




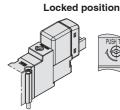




JSY3000/5000 series







### ■ Push-turn locking lever type [E type]

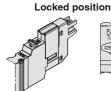
Push down on the manual override by finger until it stops, and then turn it 90° clockwise. The manual override is then locked. To release it, turn it counterclockwise.

If it is not turned, it can be operated the same way as the nonlocking push type.

### JSY1000 series



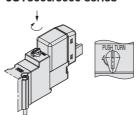


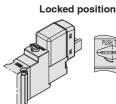




Carefully check the manual override projection amount. Max. (at OFF): 3.2 mm

## JSY3000/5000 series







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





Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 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.smc.eu

### 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.

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

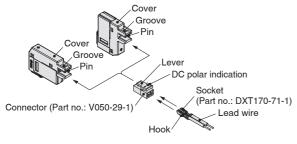
### How to Use L/M Plug Connector

### **⚠** Caution

### 1. Attaching and detaching connectors

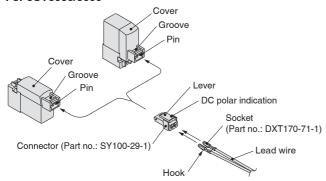
- To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever's pawl is pushed into the groove and locks.
- To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb,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



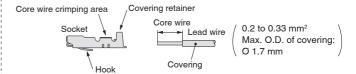
\* In order not to damage the connector and cover, do not pull the lead wire excessively (with a force of 30 N or more).

### 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

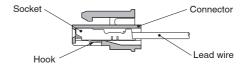
### Attaching

Insert the sockets into the square holes of the connector  $(\oplus, \ominus)$  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.







Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 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.smc.eu

### **Plug Connector** How to Order For JSY1000 V050-30 Rated voltage Lead wire length Symbol Rated voltage Lead wire colour Symbol Lead wire length DC Red, Black 300 mm Without lead wire\*1 6 600 mm 10 1000 mm \*1 With connector and 2 of sockets only 20 2000 mm 30 3000 mm 50 5000 mm ■ For JSY3000/5000 SY100-30

## How to Order

4

Rated voltage

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

Red, Black

Lead wire length

6

10

20

30

50

Symbol Lead wire length
— 300 mm

600 mm

1000 mm

2000 mm

3000 mm

5000 mm

<Example> Lead wire length 2000 mm

Symbol Rated voltage Lead wire colour

\*1 With connector and 2 of sockets only

Without lead wire\*1

For DC JSY3140-5LOZ SY100-30-4A-20

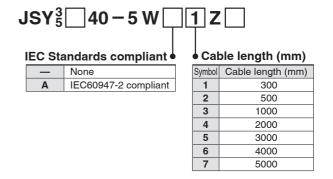
### M8 Connector Type (JSY3000/5000)

### **■** Connector cable

•Connector cable for M8 can be ordered as follows:

### **How to Order**

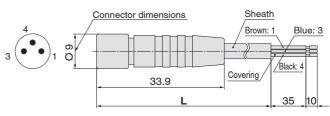
 To order solenoid valve and connector cable at the same time.
 (Connector cable will be included in the shipment of the solenoid valve.)



Ex. 1) Cable length: 300 mm JSY3140-5<u>W1Z</u>

→ Symbol for electrical entry

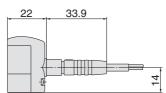
2. To order connector cable only



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
5000 mm	V100-49-1-7
3000 mm	V100-49-1-5
4000 mm	V100-49-1-6

Sheath O.D.	Ø 3.4 mm
Cover diameter	Ø 1.16 mm
Conductor area	0.16 mm <sup>2</sup>

### [Dimensions when installed]





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

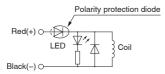
### **Surge Voltage Suppressor**



<For DC>

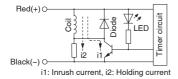
L/M Plug Connector

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



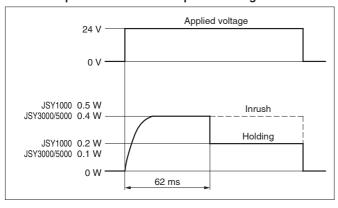
- · Connect in accordance with the +, polarity indication.
- · When wiring is done at the factory, positive (+) is red and negative (-) is black.
- With power saving circuit (JSY3000/5000: Made to Order)

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.)



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>

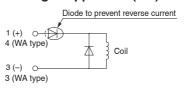


- Be careful not to reverse the polarity, since a diode to prevent the reversed current is not provided for the power saving circuit.
- Since the voltage will drop by approx. 0.5 V due to the transistor, pay attention to the allowable voltage fluctuation. (For details, refer to the solenoid specifications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

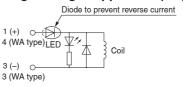
### M8 Connector Type (JSY3000/5000)

■ Polar type

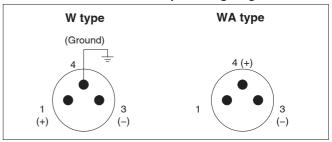
With surge voltage suppressor (□S)



### With light/surge voltage suppressor (□Z)



### Solenoid valve side pin wiring diagram



\* The WA-type valve cannot be grounded.





Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 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.smc.eu

### **Continuous Duty**

## **⚠** Caution

If a valve is energised 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 energised 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 energised simultaneously for extended periods of time or if the valves on A side and B side are energised 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.

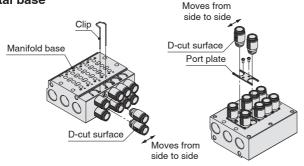
Use caution as it may cause air leakage if the clip and the plate are not inserted securely enough when they are switched. Refer to page 36 for part numbers of One-touch fittings.

Fitting direction is specified when the fittings below are used. Assemble the fitting so that the D-cut surfaces of the fitting face <a href="sideways">sideways</a>.

Fitting part no.: KQSY10-C4-X1336 (JSY1000)

KQSY11-C6-X1336 (JSY1000) KQSY30-C8-X1336 (JSY3000) 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 36 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.
- 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.
- 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	Piping   Port		Applicable tubing O.D.							
Series	iviodei	port	size	Fitting	Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12		
		1P, 5EA	1/8	KQ2H								
		3EB	1/0	KQ2S								
00		X, PE	M5	KQ2H								
JSY1000	JJ5SY1-40/41(R)		IVIO	KQ2S								
<u>`</u>	Manifold base	44 00	M5	KQ2H								
ဗ			IVIO	KQ2S								
		4A, 2B	МЗ	KQ2H								
			IVIO	KQ2S								

		D::	Dont		Λ.	ممانم	ماماء	tubin	~ ^	<u> </u>	
Series	Model	Piping	Port	Fitting	Applicable tubing O.D.						
0000		port	size	9	Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12	
		1P, 5EA	1/4	KQ2H							
00	3EB	1/4	KQ2S								
	JJ5SY3-40/41(R)	X, PE	M5	KQ2H							
300			IVIS	KQ2S							
JSY3000	Manifold base		1/8	KQ2H							
25	8	4A 0D	1/0	KQ2S							
		4A, 2B	M5	KQ2H							
			IVIO	KQ2S							

Series Model	Piping	Port size	Fitting	Applicable tubing O.D.					
	port			Ø2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12
JJ5SY5-40/41(R) Manifold base	1P, 5EA 3EB	3/8	KQ2H						$\supset$
			KQ2S						
	X, PE	M5	KQ2H						
			KQ2S						
	4A, 2B	1/4	KQ2H						
			KQ2S						
		1/8	KQ2H						
			KQ2S						
J	J5SY5-40/41(R)	port   1P, 5EA   3EB     X, PE	port   size   1P, 5EA   3/8   3/8	Port   Size   Fitting	Port   Size   Fitting   O 2	Port   Size   Fitting   O 2   O 4	1/4	Port   Size   Fitting   O 2   O 4   O 6   O 8	1P, 5EA   3/8   KQ2H   KQ2S   KQ2H   KQ2H   KQ2S   KQ2H



Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 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.smc.eu

### **Other Tube Brands**

### **⚠** Caution

 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.

### 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.

### **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)
- 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.



### Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) 1), and other safety regulations.

♠ Danger:

Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious

injury.

Marning:

Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious

Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate 1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components.

ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components.

IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements)

ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.

### Marning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

- 3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
  - 1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
  - 2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
  - 3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.
- 4. Our products cannot be used beyond their specifications. Our products are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not covered.
  - 1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
  - 2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, fuel equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogues and operation manuals.
  - 3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

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We develop, design, and manufacture our products to be used for automatic control equipment, and provide them for peaceful use in manufacturing industries.

Use in non-manufacturing industries is not covered.

Products we manufacture and sell cannot be used for the purpose of transactions or certification specified in the Measurement Act.

The new Measurement Act prohibits use of any unit other than SI units in Japan.

### Limited warranty and **Disclaimer/Compliance** Requirements

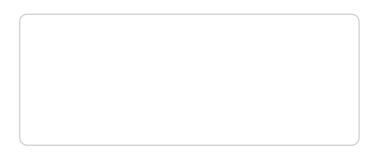
The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements". Read and accept them before using the product.

### **Limited warranty and Disclaimer**

- 1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first. 2) Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales
- 2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product
- 3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.
- 2) Vacuum pads are excluded from this 1 year warranty. A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited

### **Compliance Requirements**

- 1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
- 2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.



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