

Non Plug-in

Body Ported

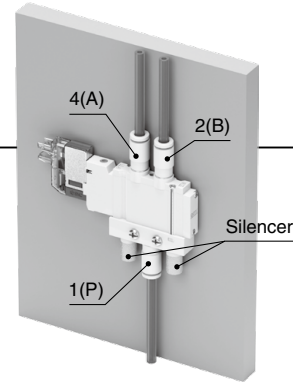
Single Unit (For Mounting P.E Plate)

Compact 5-Port Solenoid Valve



RoHS

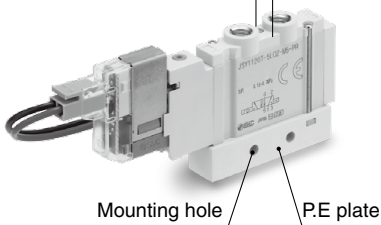
A body ported type
(single unit) has been added.



Can drive $\varnothing 32^{*1}$ bore cylinders

JSY1000

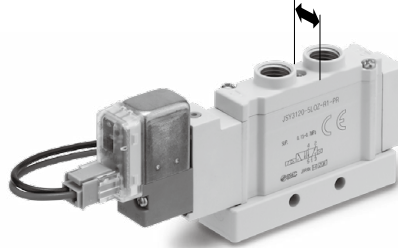
6.4 mm



Can drive $\varnothing 50^{*1}$ bore cylinders

JSY3000

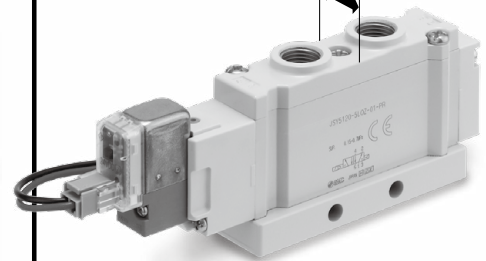
10 mm



Can drive $\varnothing 80^{*1}$ bore cylinders

JSY5000

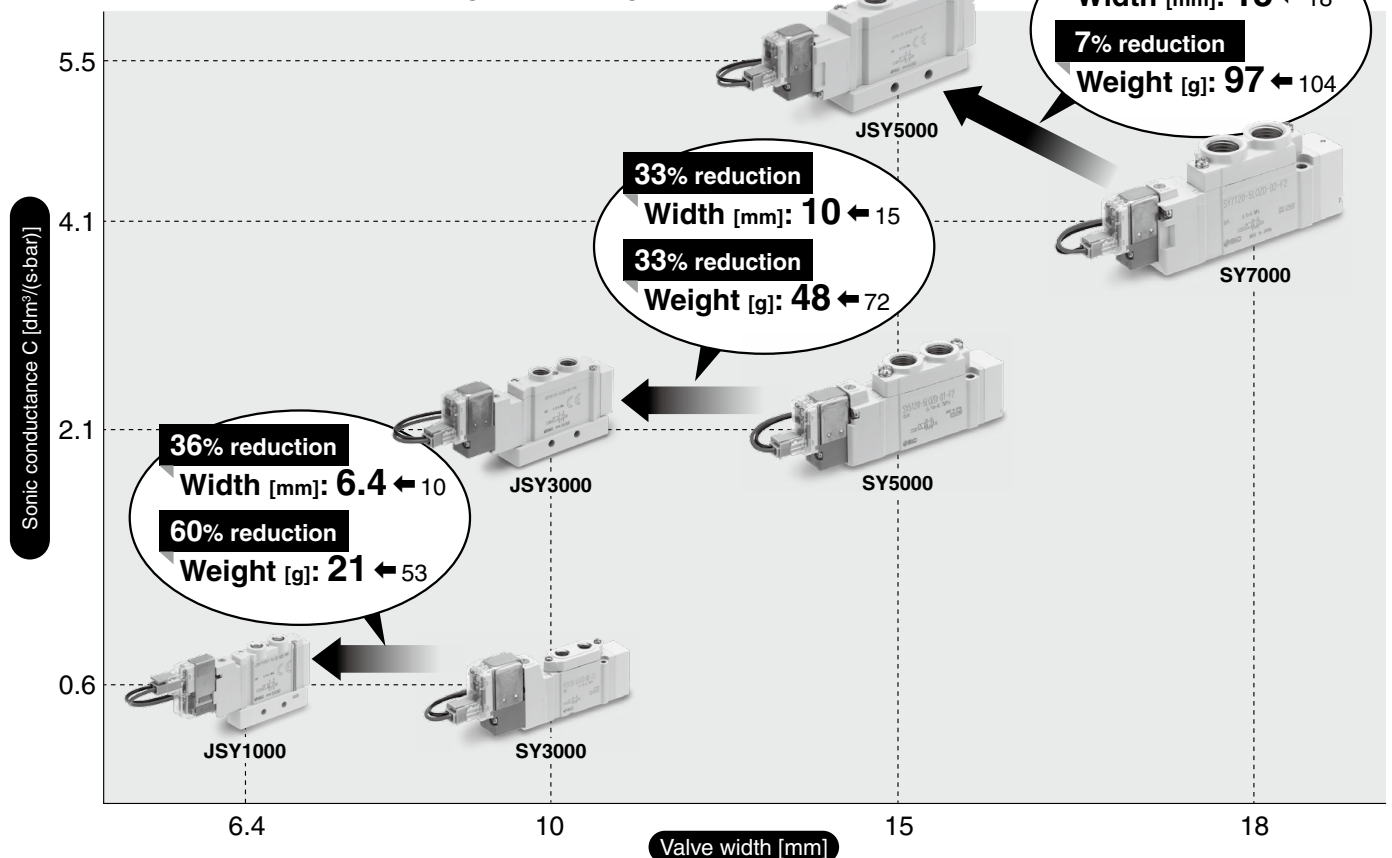
15 mm



*1 The cylinder speed is 300 mm/s.

The valve size can be reduced.

This allows for space saving and weight reduction.



JSY1000/3000/5000 Series



21-E771

JSY1000/3000/5000 Series Valve Specifications

Valve Specifications

Valve type				Rubber seal
Fluid				Air
Internal pilot operating pressure range [MPa]		2-position single		0.15 to 0.7
		2-position double		0.1 to 0.7
Ambient and fluid temperatures [°C]				-10 to 50 (No freezing)
Max. operating frequency [Hz]	JSY1000 JSY3000	2-position single/double		5
	JSY5000	2-position single/double		5
Manual override				Non-locking push type
				Push-turn locking slotted type
				Push-turn locking lever type
Pilot exhaust type	Internal pilot			Individual exhaust
Lubrication				Not required
Mounting orientation*1				Unrestricted
Impact/Vibration resistance*1 [m/s²]				150/30
Enclosure				IP40
Electrical entry				L plug connector (L), M plug connector (M)
Coil rated voltage [V]				24 VDC
Allowable voltage fluctuation		JSY1000		-7% to +10% of the rated voltage (24 VDC)
		JSY3000/5000		±10% of rated voltage
Power consumption [W]	DC	Standard	JSY3000/5000	0.4
		With power-saving circuit	JSY1000	0.2*2 [Inrush: 0.5, Holding: 0.2]
			JSY3000/5000	0.1 [Inrush: 0.4, Holding: 0.1]
			(Made to Order)	
Surge voltage suppressor				Diode
Indicator light				LED

*1 Impact resistance: No malfunction occurred when tested in the axial direction and at a right angle to the main valve and armature in both an energized and a de-energized state, once in each condition. (Value in the initial state)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both an energized and a de-energized state in the axial direction and at a right angle to the main valve and armature. (Value in the initial state)

*2 JSY1000 series available as power-saving type only. Standard type (without power-saving circuit) cannot be selected.

Response Time/Valve Weight

Body Ported

Series	Seal type	Model	Type of actuation	Response time [ms] (at 0.5 MPa)*1		Valve weight [g]
				Standard		
				With light/surge voltage suppressor		
				Z type		
JSY1000	Rubber seal	JSY1120T	2-position single	15	21	
		JSY1220T	2-position double	5	28	
JSY3000		JSY3120	2-position single	27	48	
		JSY3220	2-position double	10	63	
JSY5000		JSY5120	2-position single	42	97	
		JSY5220	2-position double	13	113	

*1 Based on the JIS B 8419: 2010 dynamic performance test (Coil temperature 20°C, at rated voltage)

JSY1000/3000/5000 Series

Type 20

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

Single Unit Specifications



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

Flow Rate Characteristics

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

* Calculation of effective area S and sonic conductance C: $S = 5.0 \times C$

Non Plug-in Body Ported

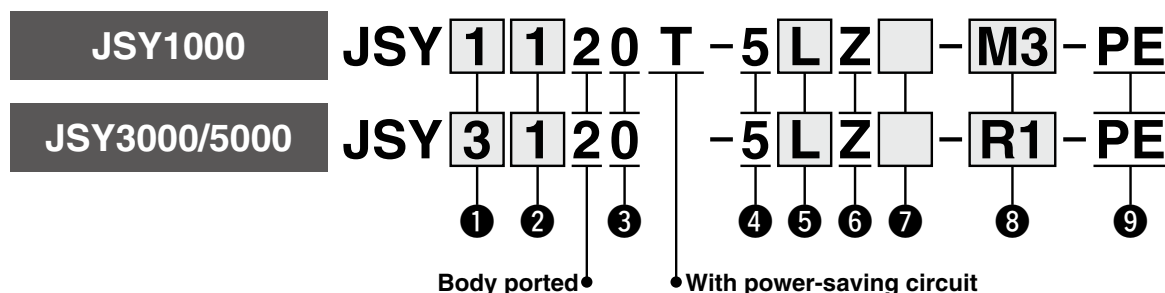
Single Unit (For Mounting P.E Plate)

Type 20
Top Ported

JSY1000/3000/5000 Series



How to Order Valves



1 Series

1	JSY1000
3	JSY3000
5	JSY5000

2 Type of actuation

1	2-position single
2	2-position double

3 Body option

0	Pilot valve exhaust method
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4 Rated voltage

5	24 VDC
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5 Electrical entry

	L plug connector		M plug connector	
	L	LO	M	MO
JSY1000	L: With lead wire (300 mm) 	LO: Without connector 	M: With lead wire (300 mm) 	MO: Without connector
JSY3000 JSY5000	L: With lead wire (300 mm) 	LO: Without connector 	M: With lead wire (300 mm) 	MO: Without connector

* Refer to the **Web Catalog** for the lead wire lengths of "L" and "M" plug connectors.

6 Light/surge voltage suppressor and common specifications

Z	With light/surge voltage suppressor
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7 Manual override

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

8 4(A)/2(B) port size thread piping

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

9 With P.E plate

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

Caution

If the JSY3000/5000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order" on the back cover. Additionally, if it is to be used at an energizing rate of over 50%, please select the product with a power-saving circuit. For the JSY1000 series, only the power-saving circuit specification is available.

Made to Order Made to Order
(Refer to the back cover for details.)

Specification

With power-saving circuit
(Continuous duty type):
0.1 W (JSY3000/5000)

Caution

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

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

*1 The part number is for 1 piece. (Sales unit: 10 pcs.)

*1 Tightening torque: 2 to 3 N·m (One-touch fitting)

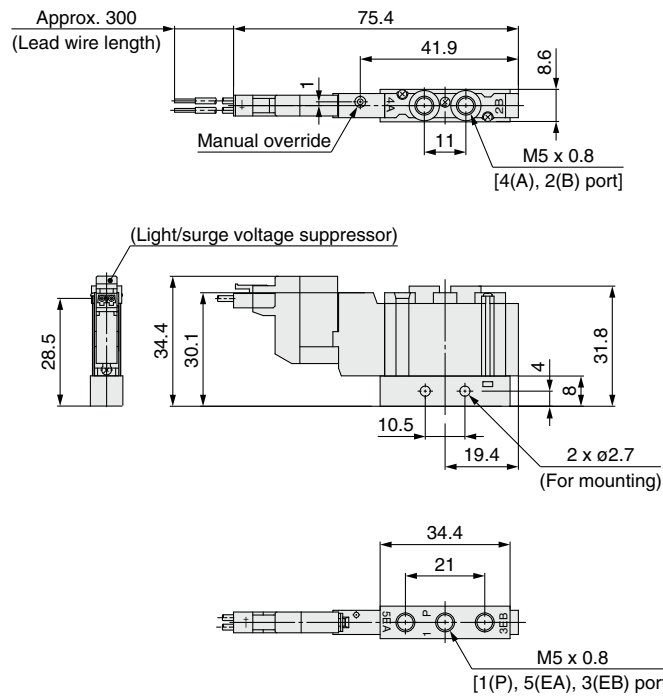
Dimensions: JSY1000 Series

Body Ported
Single Unit

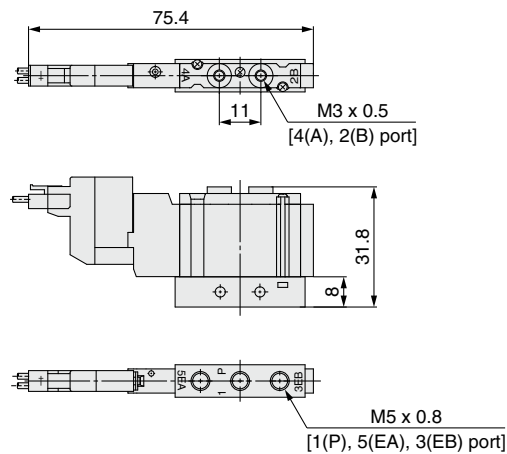
Type 20/Top Ported
Port Size: M3, M5



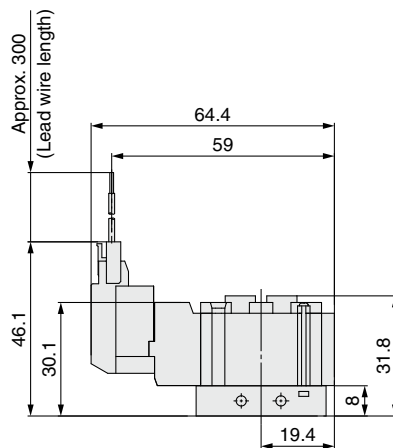
2-position single/L plug connector (L) JSY1120T-5LZ□-M5-PE



JSY1120T-5LZ□-M3-PE



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

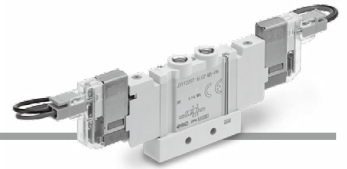


JSY1000/3000/5000 Series

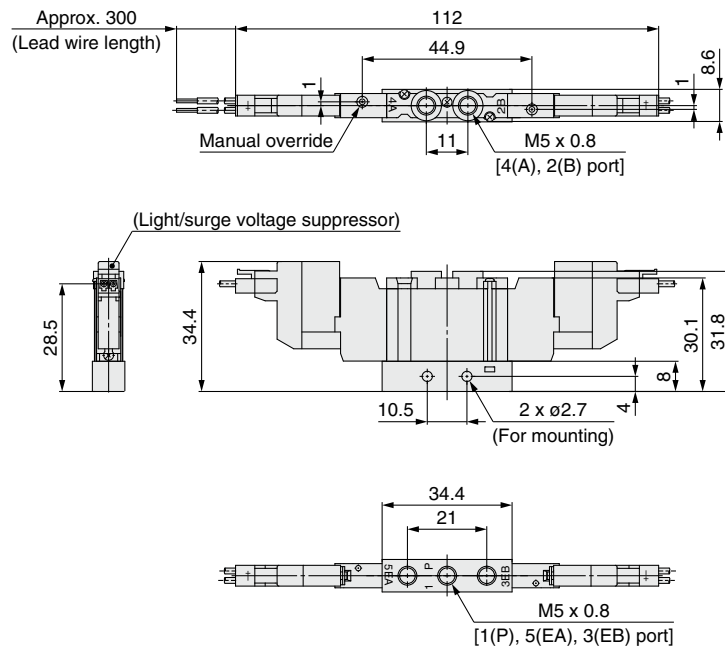
Dimensions: JSY1000 Series

Body Ported
Single Unit

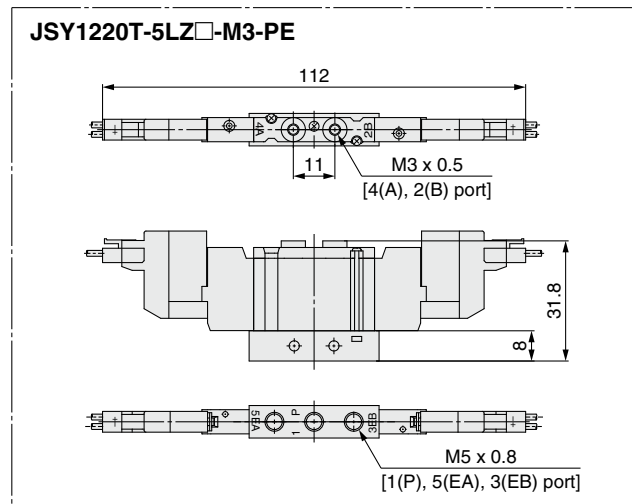
Type 20/Top Ported
Port Size: M3, M5



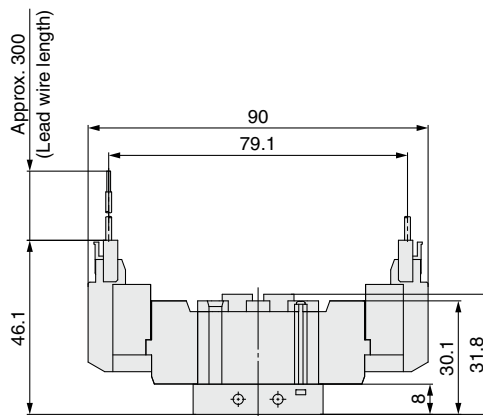
2-position double/L plug connector (L) JSY1220T-5LZ□-M5-PE



JSY1220T-5LZ□-M3-PE



M plug connector (M) JSY1220T-5MZ□-M5-PE



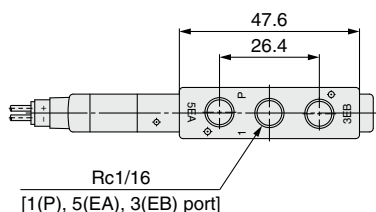
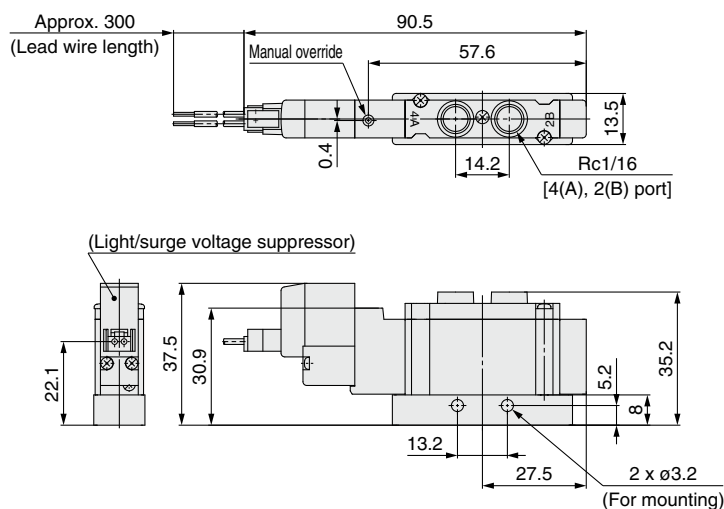
Dimensions: JSY3000 Series

Body Ported
Single Unit

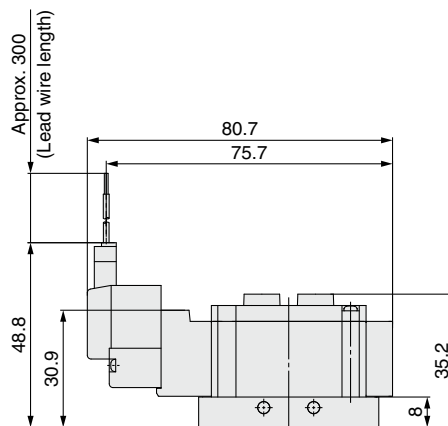
Type 20/Top Ported
Port Size: Rc1/16



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



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



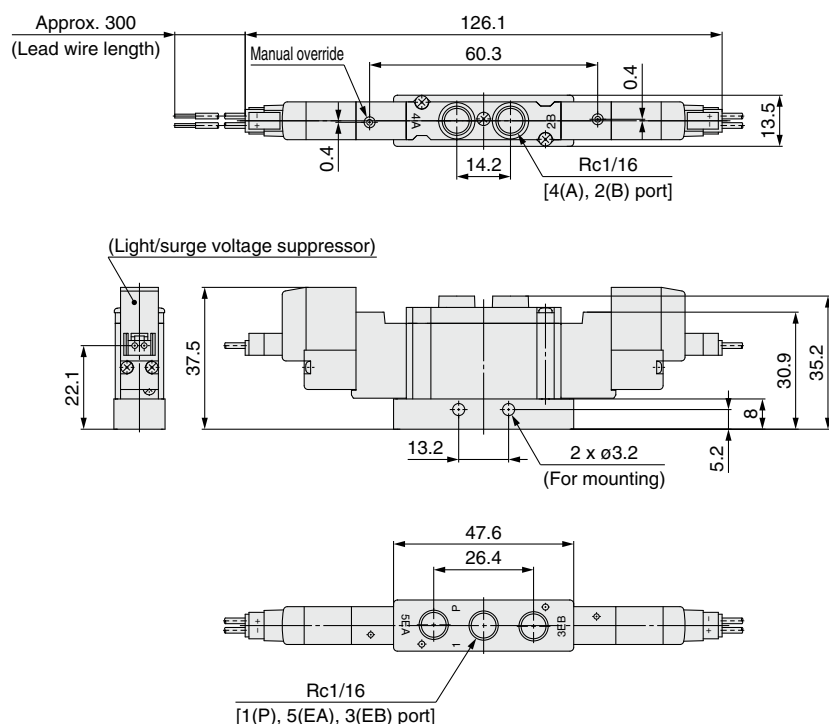
JSY1000/3000/5000 Series

Dimensions: JSY3000 Series

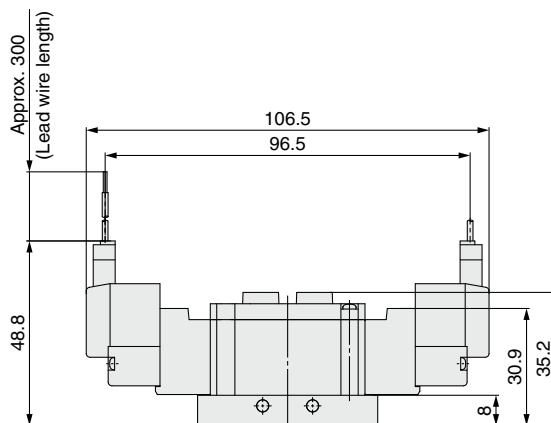
Body Ported
Single Unit

Type 20/Top Ported
Port Size: Rc1/16

2-position double/L plug connector (L) JSY3220-5LZ□-R1-PE



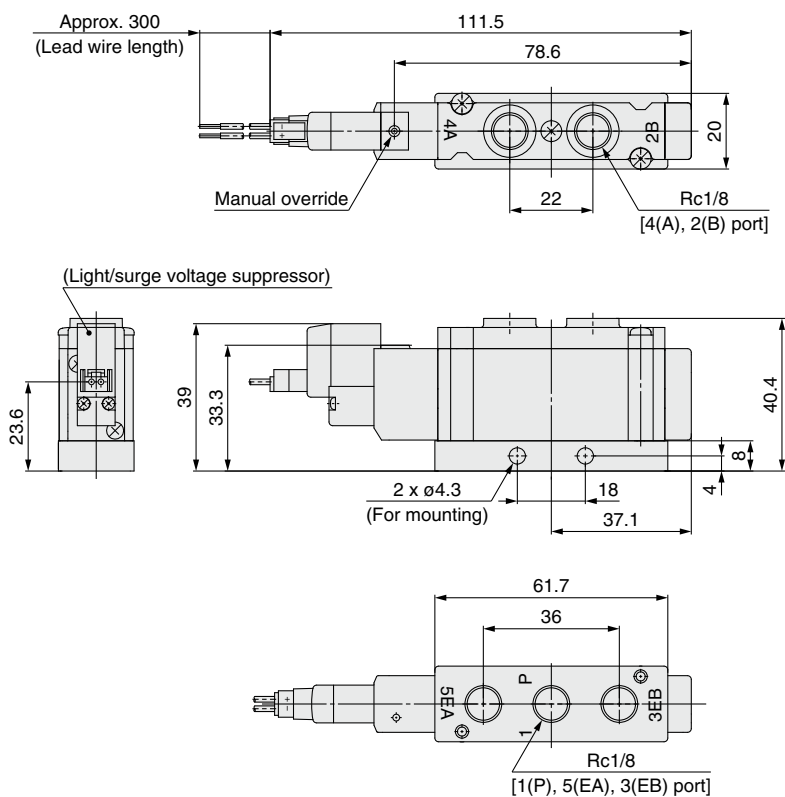
M plug connector (M) JSY3220-5MZ□-R1-PE



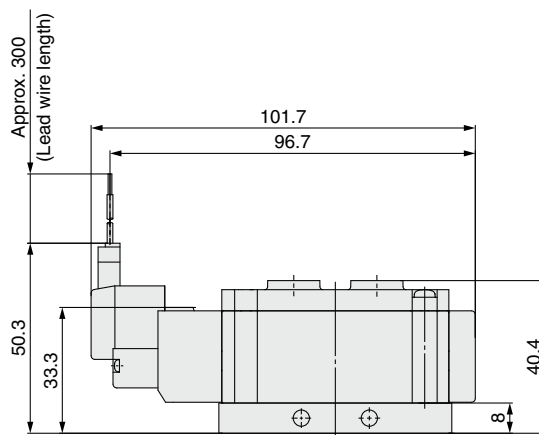
Dimensions: JSY5000 Series

Body Ported Single Unit	Type 20/Top Ported Port Size: Rc1/8
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2-position single/L plug connector (L)
JSY5120-5LZ□-01-PE



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



JSY1000/3000/5000 Series

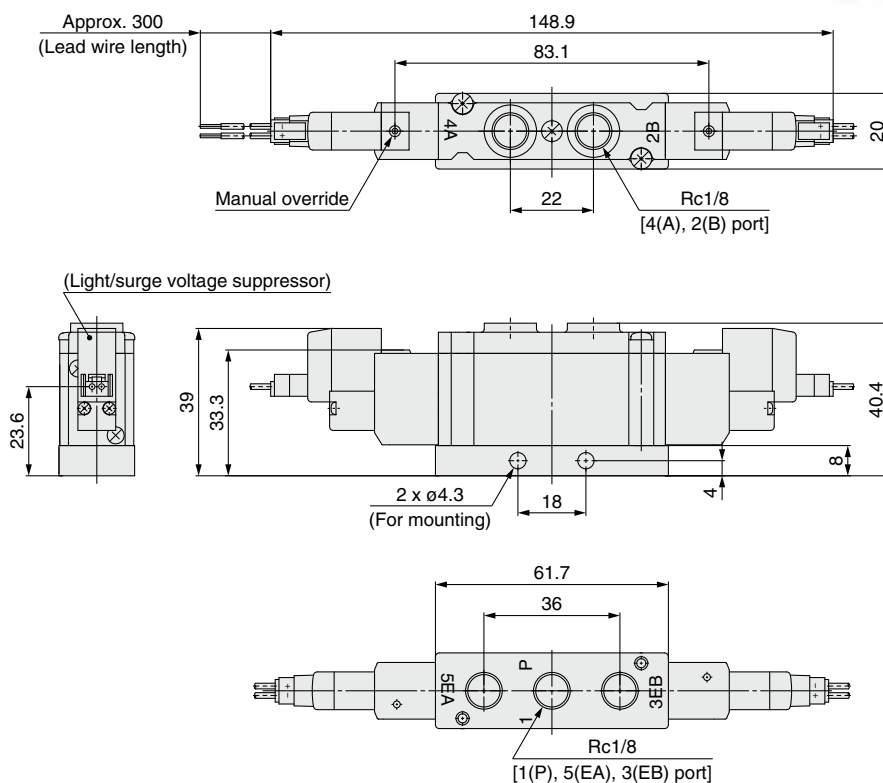
Dimensions: JSY5000 Series

Body Ported
Single Unit

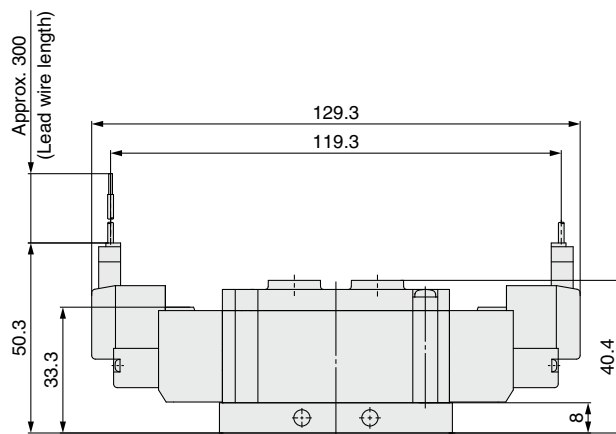
Type 20/Top Ported
Port Size: Rc1/8



2-position double/L plug connector (L) JSY5220-5LZ□-01-PE

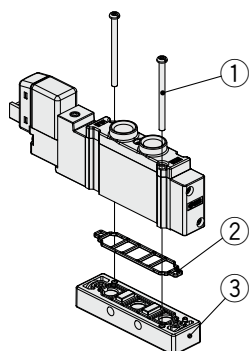


M plug connector (M) JSY5220-5MZ□-01-PE



JSY1000/3000/5000 Series

Non Plug-in Single Unit Parts Nos.



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

■ P.E Plate

JSY **3** 1V-7A-**R1**

①

②

① Series

1	JSY1000
3	JSY3000
5	JSY5000

② Thread piping

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

JSY1000/3000/5000 Series

Made to Order

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



1 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 energized for long periods of time.

Be careful of the energizing time when the power-saving circuit is selected.

0.1 W: JSY3000/5000

How to Order Valves

JSY $\frac{3}{5}$ 20 T - 5 Z - - PE

• Coil type

T

With power-saving circuit (Continuous duty type)

 **Safety Instructions** Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.