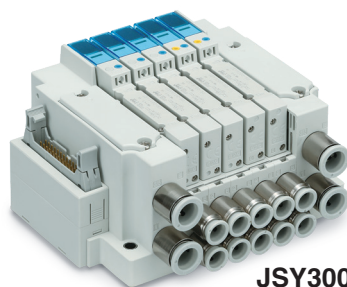


Plug-in

# Compact 5-Port Solenoid Valve



JSY1000



JSY3000

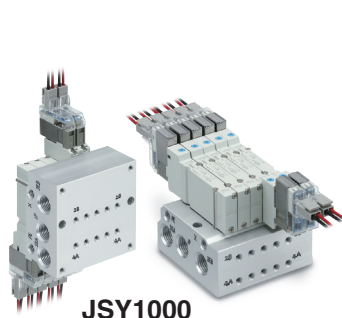


JSY5000

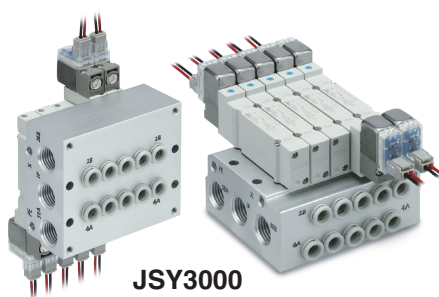
## *JSY1000/3000/5000 Series*

Non Plug-in

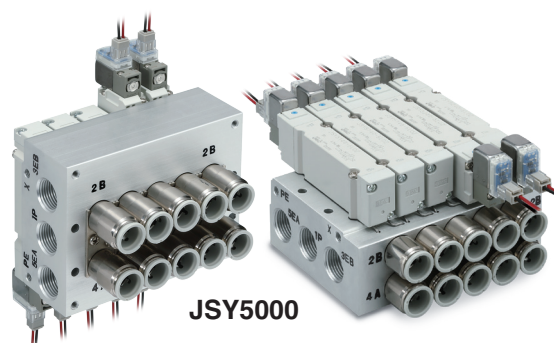
# Compact 5-Port Solenoid Valve



JSY1000



JSY3000



JSY5000

## *JSY1000/3000/5000 Series*

Plug-in

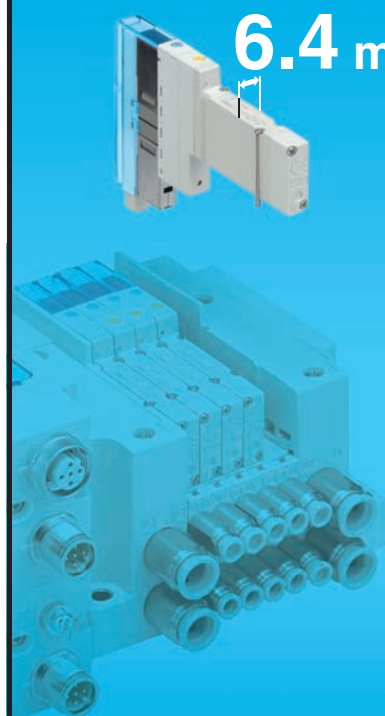
# Compact 5-Port Solenoid Valve **New**

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

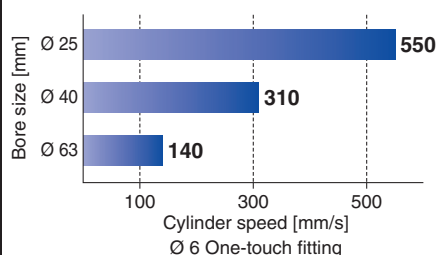
Possible to drive  $\varnothing 40^{*1}$  bore cylinders

**JSY1000**

**6.4 mm**



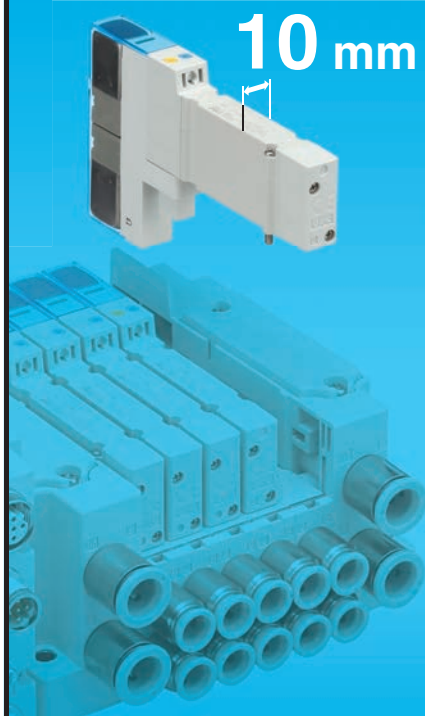
A, B port size:  $\varnothing 2, \varnothing 4, \varnothing 6$



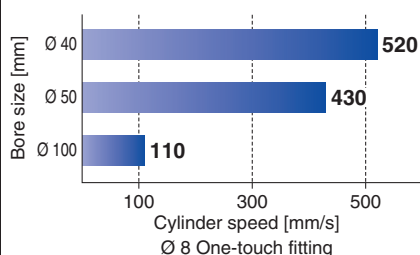
Possible to drive  $\varnothing 50^{*1}$  bore cylinders

**JSY3000**

**10 mm**



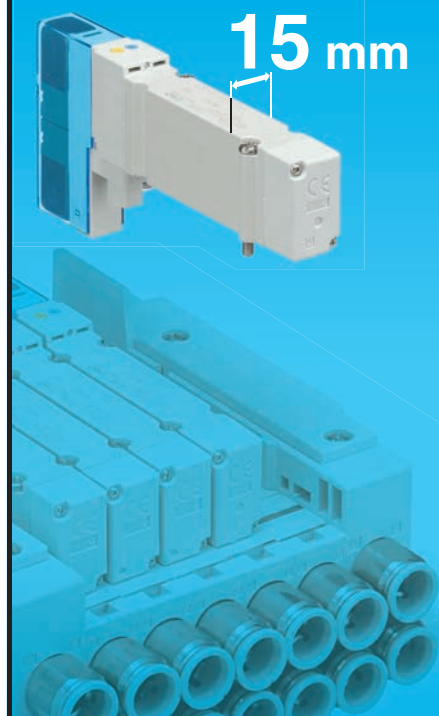
A, B port size:  $\varnothing 6, \varnothing 8$



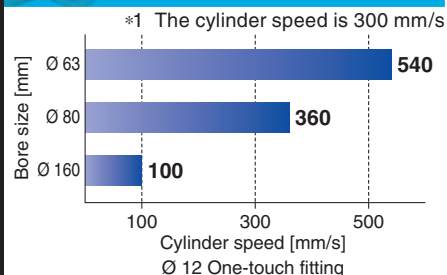
Possible to drive  $\varnothing 80^{*1}$  bore cylinders

**JSY5000**

**15 mm**



A, B port size:  $\varnothing 10, \varnothing 12$



Refer to pages 7 to 10 for detailed conditions regarding the above cylinder speed.



JSY1000



JSY3000



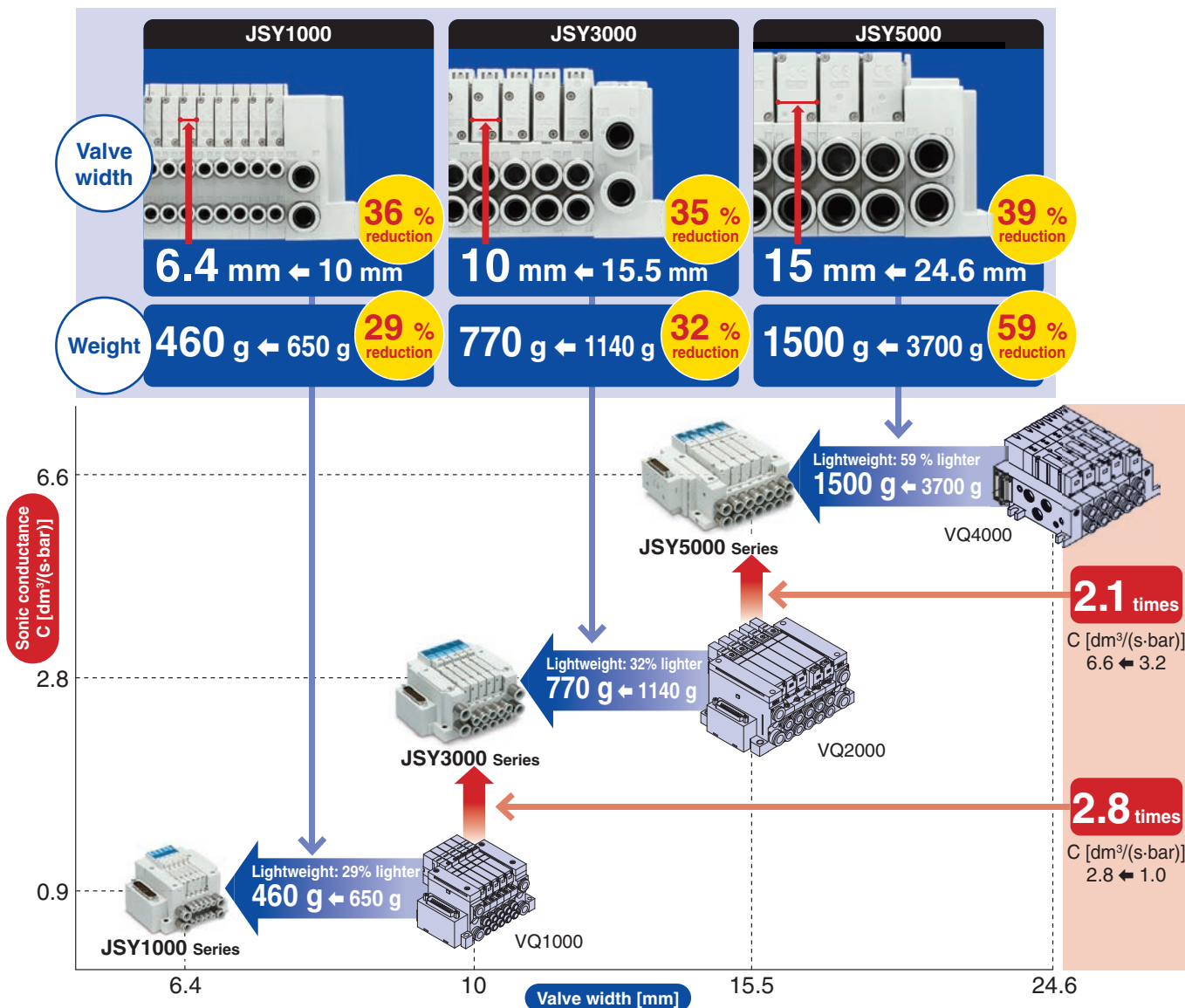
JSY5000

## JSY1000/3000/5000 Series



CAT.EUS11-110Aa-UK

## Series Map



## Power Consumption

With power saving circuit

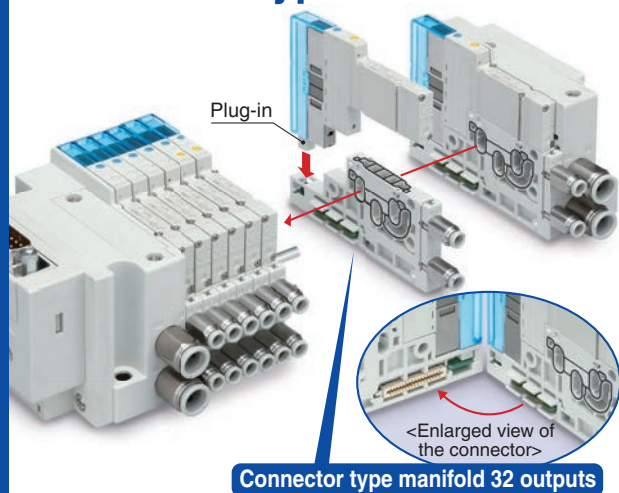
JSY3000/5000<sup>\*1</sup>  
**0.1 w**  
\*1 Made to Order

JSY1000  
**0.2 w**

Standard

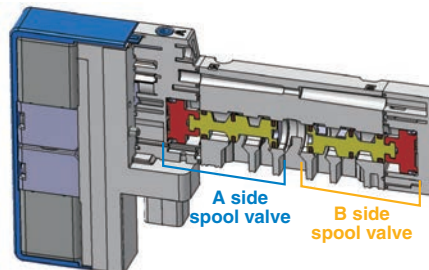
JSY3000/5000<sup>\*2</sup>  
**0.4 w**  
\*2 JSY1000 series available as power saving type only.

## Connector Type Manifold



## 4-Position Dual 3-Port Valve Available

- Two 3-port valves built into one body






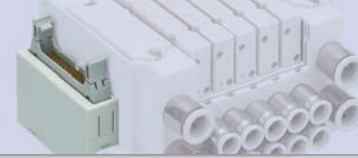




- 3 -port valves on the A and B sides can operate independently.
- When used as a 3 -port valve, only half the number of stations is required.
- Can also be used as a 4-position, 5-port valve

- Combination examples






Model	A side	B side
JSY□A0□	N.C. valve	N.C. valve
JSY□B0□	N.O. valve	N.O. valve
JSY□C0□	N.C. valve	N.O. valve



## Wiring

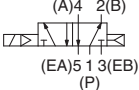
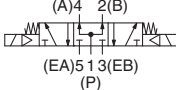
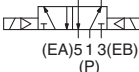
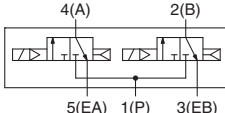

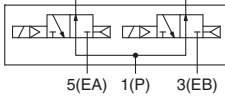
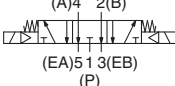
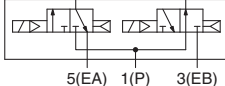
		JSY1000	JSY3000	JSY5000
D-sub Connector	<b>IP20 Compact type FC type</b> <p>p. 19</p> 	●	●	
	<b>IP40 Connector entry direction adjustable F type</b> <p>p. 19</p>  <p>Lateral Upward</p>	●	●	●
	<b>IP67 FW type</b> <p>p. 19</p> 		●	●
Flat Ribbon Cable	<b>Compact type PC/PGC/PHC type</b> <p>p. 19</p> 	●	●	
	<b>Connector entry direction adjustable P/PG/PH type</b> <p>p. 19</p>  <p>Lateral Upward</p>	●	●	●
Terminal Block Box	<b>Spring type TC type</b> <p>p. 41</p> 	●	●	●
	<b>T type</b> <p>p. 41</p> 	●	●	●
Lead Wire	 <p>p. 53</p>	●	●	●

## Serial Transmission System Compatible Protocols

Integrated Type (For Input/Output)			Integrated Type (For Output)	
<b>EX600</b>  <p>p. 61</p> <p>DeviceNet™ PROFIBUS DP CC-Link EtherNet/IP™ EtherCAT PROFINET EtherNet/IP™ compatible wireless base PROFINET compatible wireless base</p>	<b>EX245</b>  <p>p. 71</p> <p>PROFINET</p>	<b>EX250</b>  <p>p. 75</p> <p>DeviceNet™ PROFIBUS DP EtherNet/IP™ CANopen AS-Interface</p>	<b>EX260</b>  <p>p. 81</p> <p>DeviceNet™ PROFIBUS DP CC-Link EtherNet/IP™ EtherCAT PROFINET Ethernet POWERLINK IO-Link</p>	<b>EX120</b>  <p>p. 87</p> <p>DeviceNet™ CC-Link OMRON CompoBus/S CompoNet™</p>

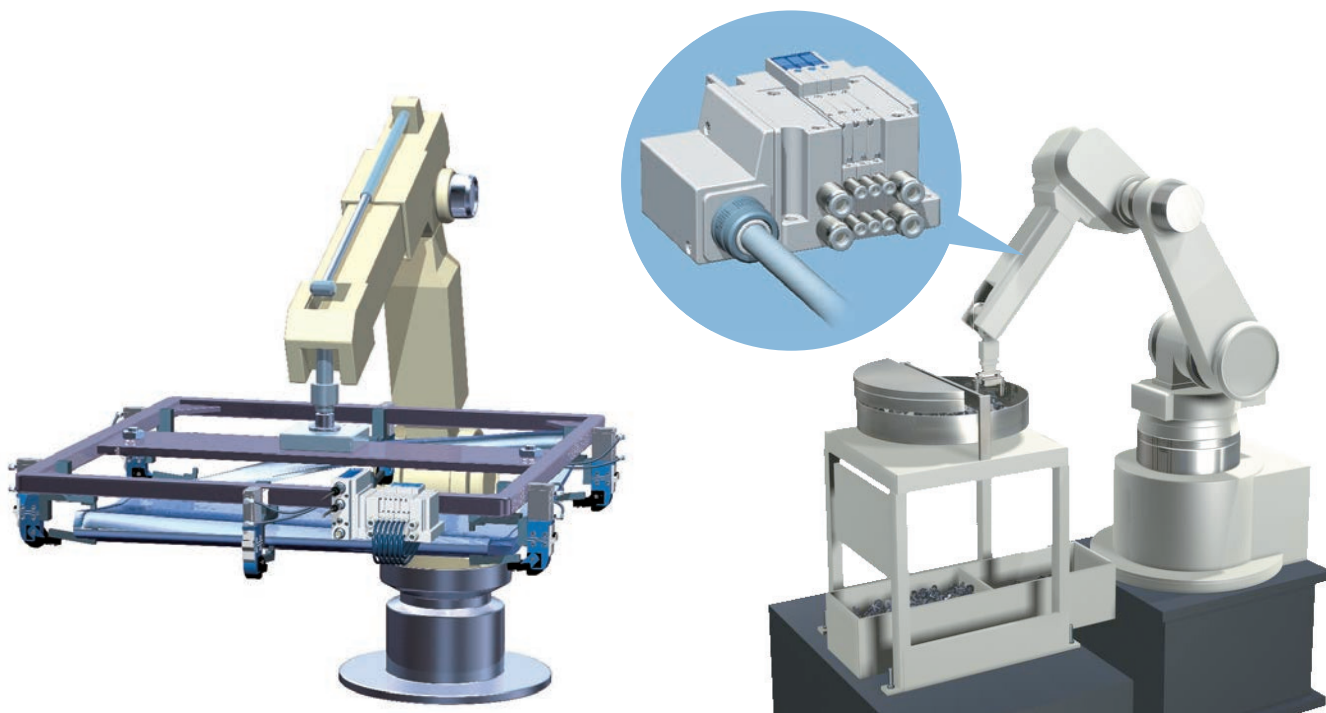


## Series Variations

Sonic conductance C [dm³/(s·bar)] 4/2→5/3 {(A/B→EA/EB)}			Type of actuation	Rated voltage	Port size						1(P), 3/5(E) port	
4(A), 2(B) port	4(A), 2(B) port											
	Ø 2	Ø 4			Ø 6	Ø 8	Ø 10	Ø 12				
JSY1000	Ø 4	0.87	<b>2-position single</b> 	<b>3-position pressure centre</b> 	24 VDC	●	●					Ø 8
	Ø 6	0.91	<b>2-position double</b> 	<b>4-position dual 3-port valve N.C. valve x 2 pcs.</b> 				●				
JSY3000	Ø 8	2.77	<b>3-position closed centre</b> 	<b>N.O. valve x 2 pcs.</b> 				●	●			Ø 10
JSY5000	Ø 12	6.59	<b>3-position exhaust centre</b> 	<b>N.C. valve, N.O. valve 1 pc. of each</b> 						●	●	Ø 12

● Standard ○ Option ▲ Made to Order

## Application Examples



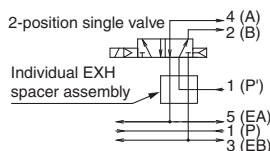
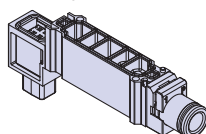
	Pitch width [mm]	Wiring		Manifold Options							Valve Options				
		Positive common	Negative common	Blanking plate	Individual SUP spacer	Individual EXH spacer	SUP/EXH blocking disk	Label for blocking disk	Silencer (One-touch fitting connection type)	Built-in silencer	Vacuum/Low pressure specification	Different pressures	Reverse pressure	Mixed fitting sizes	Enclosure IP67*1
	6.5	●	●	○ p. 117	○ p. 117	○ p. 117	○ p. 118	○ p. 118	○ p. 118	●	▲ External pilot	○ Individual SUP	▲ External pilot	●	—
	9														
	11.5														
	16														

\*1 Refer to the “Manifold Specifications” on pages 15 and 16 for details on IP67.

## Manifold Options

### Individual SUP spacer

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



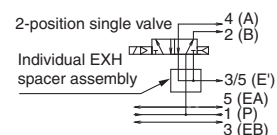
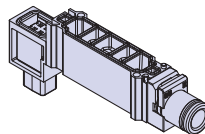
Circuit diagram

(Mounting example of a 2-position single valve)

p. 117

### Individual EXH spacer

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



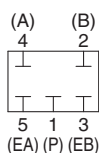
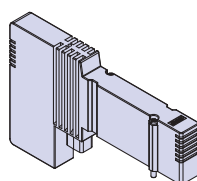
Circuit diagram

(Mounting example of a 2-position single valve)

p. 117

### Blanking plate

Used when valve additions are expected or for maintenance.

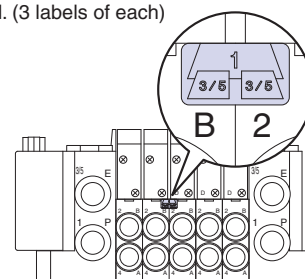
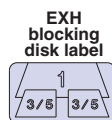
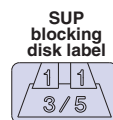
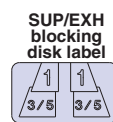


Circuit diagram

p. 117

### Label for blocking disk

Label to indicate and confirm on the manifold where the SUP/EXH blocking disk assemblies were inserted. (3 labels of each)



p. 118

### SUP/EXH blocking disk

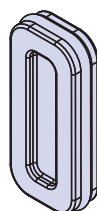
(For connector type manifold, Type 10)

#### [SUP blocking disk]

By inserting the SUP blocking disk in the pressure supply passage of the manifold valve, can provide two different high and low pressure in one manifold.

#### [EXH blocking disk]

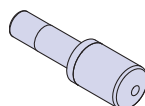
By inserting the EXH blocking disk in the exhaust passage of the manifold valve, can separate the exhaust from the valve so it does not affect the other valves. It can also be used for the manifold for the positive pressure and vacuum mixed manifold. (2 pieces are required to block EA/EB both sides of the EXH.)



p. 118

### Silencer (One-touch fitting connection type)

This silencer can be mounted to the 3/5 (E: EXH) port of the manifold in one step.

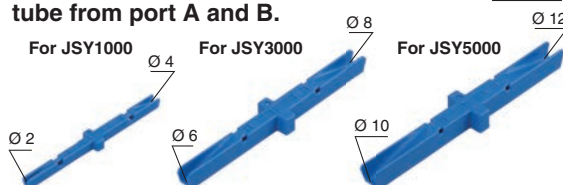


p. 118

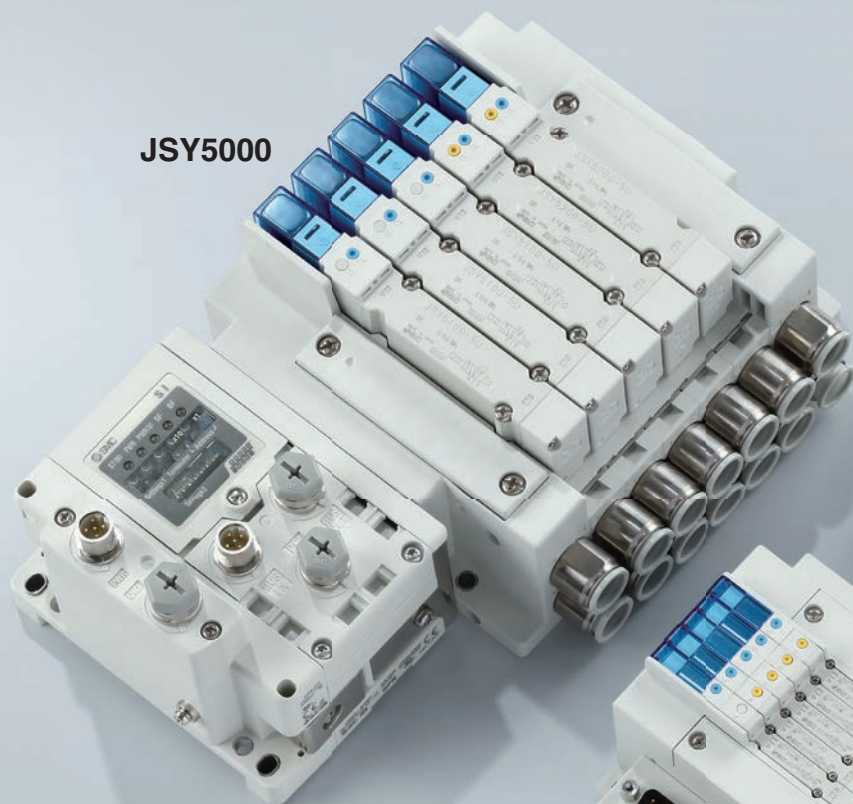
## Tube Releasing Tool

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

p. 115



**JSY5000**



**JSY3000**



**JSY1000**





# CONTENTS

Optimum Actuation Size Chart of Air Cylinder	p. 7
Valve Specifications	p. 11
Response Time	p. 12
Valve Weight	p. 12
Valve Construction	p. 13
Valve Replacement Parts: Pilot Valve	p. 14

<b>Plug-in Connector Connecting Base</b>	
Manifold Specifications	p. 15
Manifold Weight	p. 15
Manifold Flow Rate Characteristics	p. 15
Connector Wiring Layout	p. 17



D-sub connector



Flat ribbon cable



Terminal block box



Lead wire



EX600



EX245



EX250



EX260



EX120

## D-sub Connector, Flat Ribbon Cable [IP20/40/67]

How to Order	p. 19
Dimensions	
D-sub Connector (IP40/Connector Entry Direction Adjustable): F	p. 21
D-sub Connector (IP67): FW	p. 25
D-sub Connector (IP20/Compact Type): FC	p. 27
Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable): P/PG/PH	p. 30
Flat Ribbon Cable (IP20/Compact Type): PC/PGC/PHC	p. 34
Electrical Wiring Specifications: D-sub Connector Cable	p. 37
Electrical Wiring Specifications: Flat Ribbon Cable Connector	p. 38

## Spring Type Terminal Block Box, Terminal Block Box

How to Order	p. 41
Dimensions	
Spring Type Terminal Block Box	p. 43
Terminal Block Box	p. 47
Connection/Electrical Wiring Specifications	p. 51

## Lead Wire

How to Order	p. 53
Dimensions	p. 55
Electrical Wiring Specifications	p. 59

## EX600 Integrated Type (For Input/Output) Serial Transmission System (Fieldbus System)

How to Order	p. 61
Dimensions	p. 63

## EX245 Integrated Type (For Input/Output) Serial Transmission System

How to Order	p. 71
Dimensions	p. 73

## EX250 Integrated Type (For Input/Output) Serial Transmission System

How to Order	p. 75
Dimensions	p. 77

## EX260 Integrated Type (For Output) Serial Transmission System

How to Order	p. 81
Dimensions	p. 83

## EX120 Integrated Type (For Output) Serial Transmission System

How to Order	p. 87
Dimensions	p. 89

## Type 10/Side Ported: Common Dimensions

(External Pilot, Built-in Silencer/Mixed Size, Straight Port Type)	p. 93
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## Manifold Exploded View [By Wiring]

D-sub Connector/Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)	p. 99
D-sub Connector (IP67)	p. 100
D-sub Connector/Flat Ribbon Cable (IP20/Compact Type)	p. 101
Spring Type Terminal Block Box	p. 102
Terminal Block Box	p. 103
Lead Wire	p. 104
EX600	p. 105
EX245	p. 107
EX250	p. 109
EX260	p. 110
EX120	p. 111

## Manifold Exploded View [Common Parts]

Type 10: How to Increase Connector Type Manifolds	p. 112
JJ5SY1-10, JJ5SY3-10, JJ5SY5-10/Manifold Parts Nos.	p. 113

One-touch Fittings, Plug, Clip, Port Plate, Tube Releasing Tool	p. 115
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Manifold Options	p. 116
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Made to Order	p. 120
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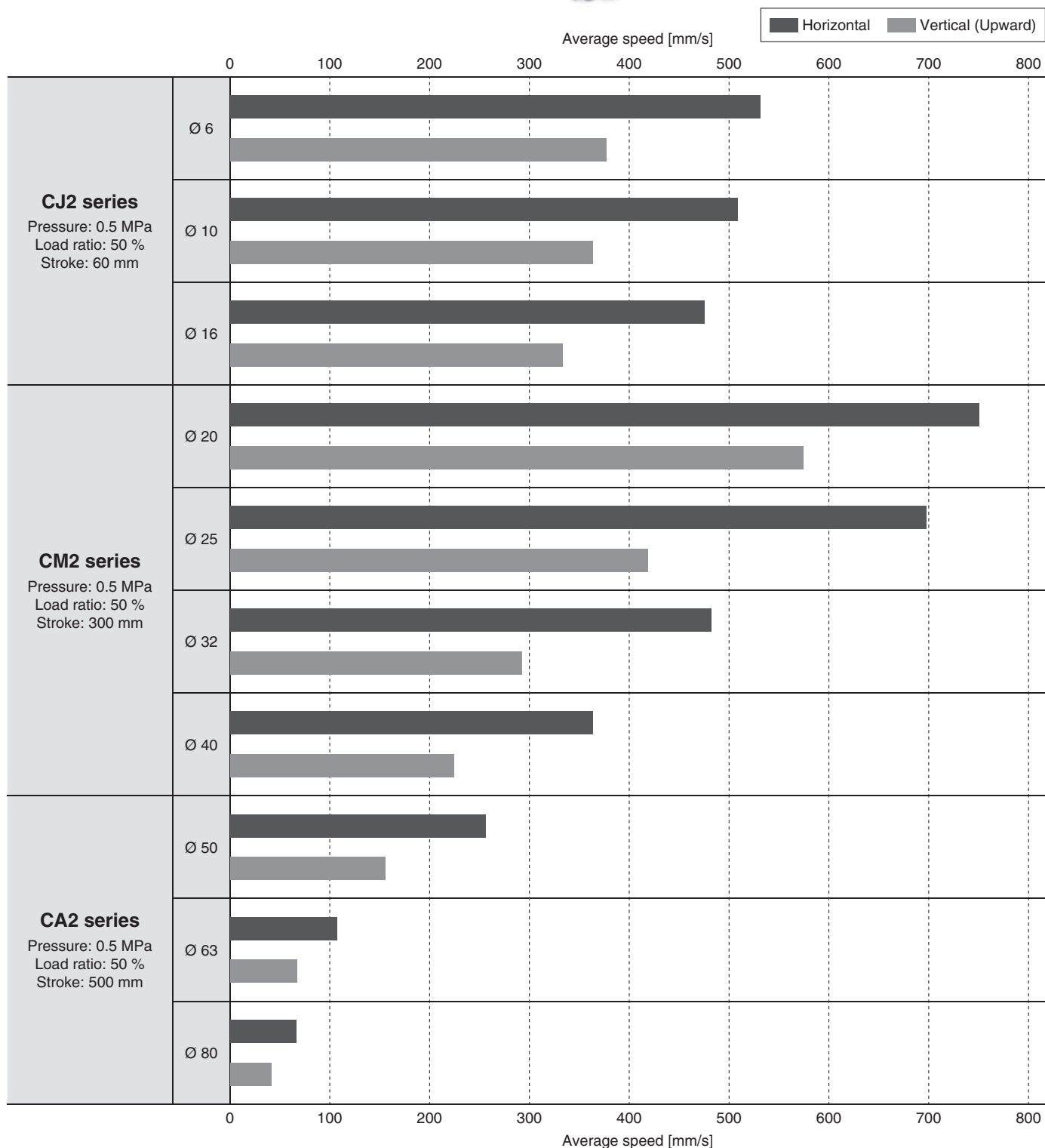
Specific Product Precautions	p. 121
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Model Index	p. 126
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Safety Instructions	Back cover
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# Optimum Actuation Size Chart of Air Cylinder

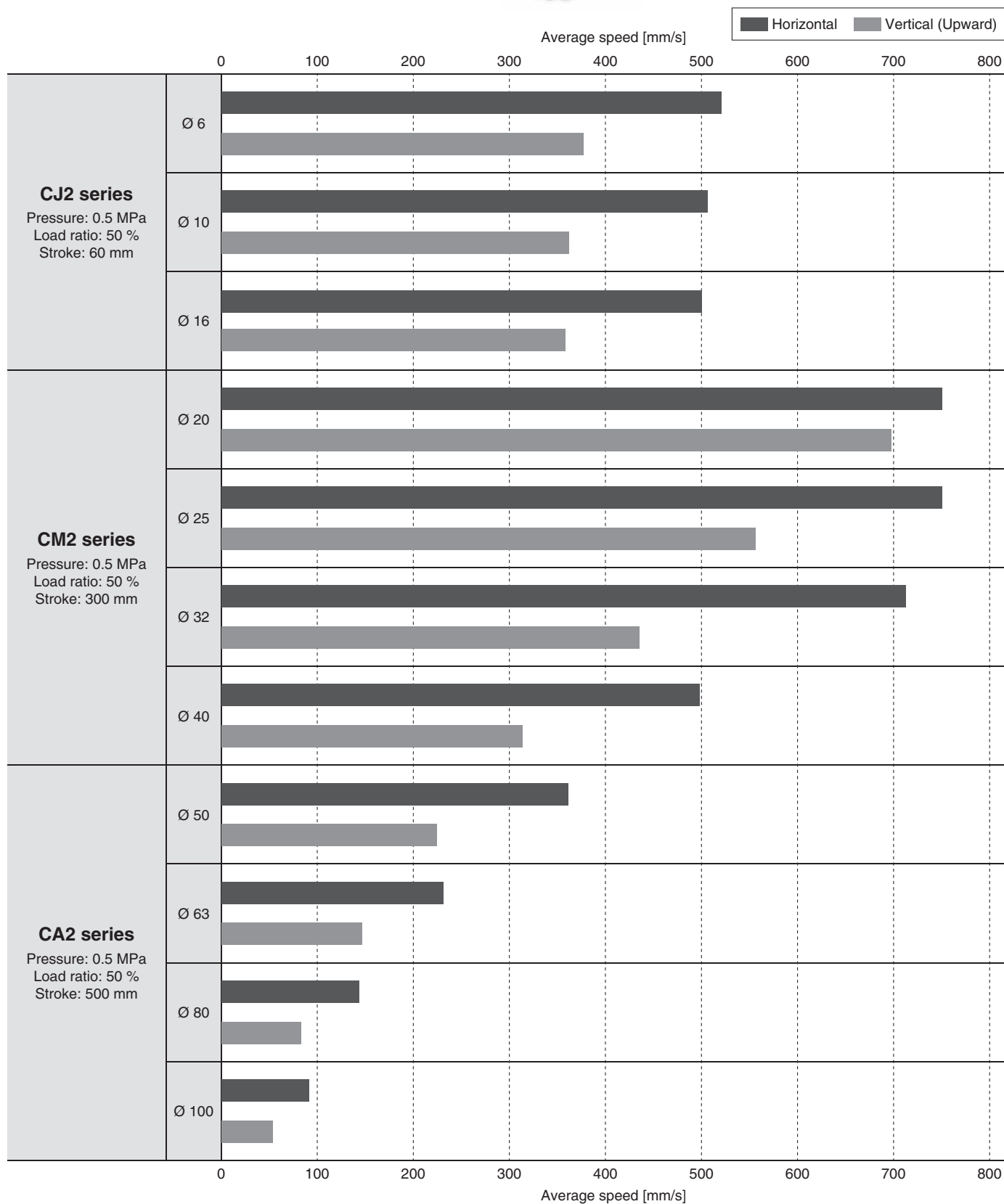
For JSY1000, A, B port: Ø 4



- \* 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.

# Optimum Actuation Size Chart of Air Cylinder

For JSY1000, A, B port: Ø 6

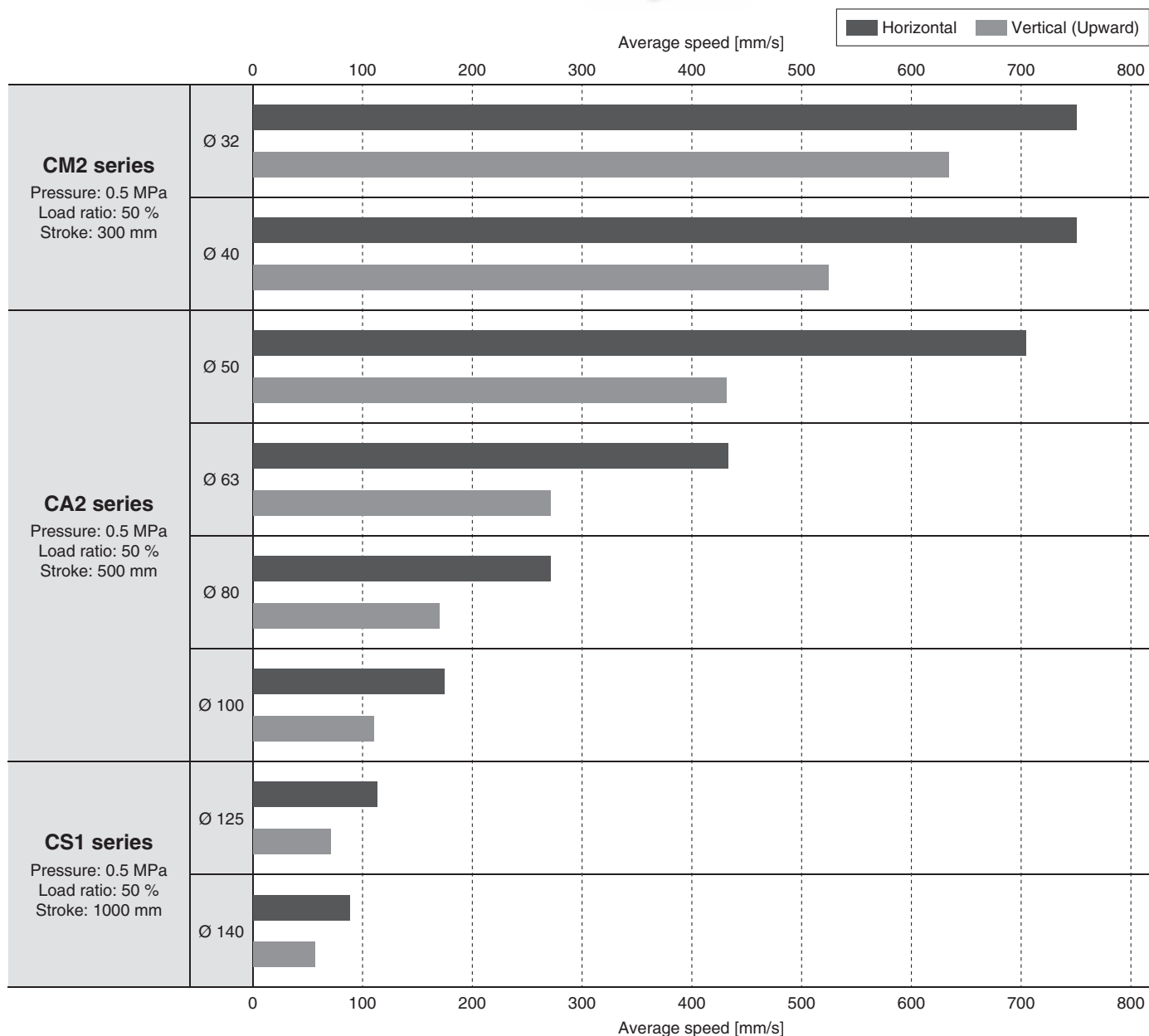


- \* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
- \* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
- \* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output)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



# Optimum Actuation Size Chart of Air Cylinder

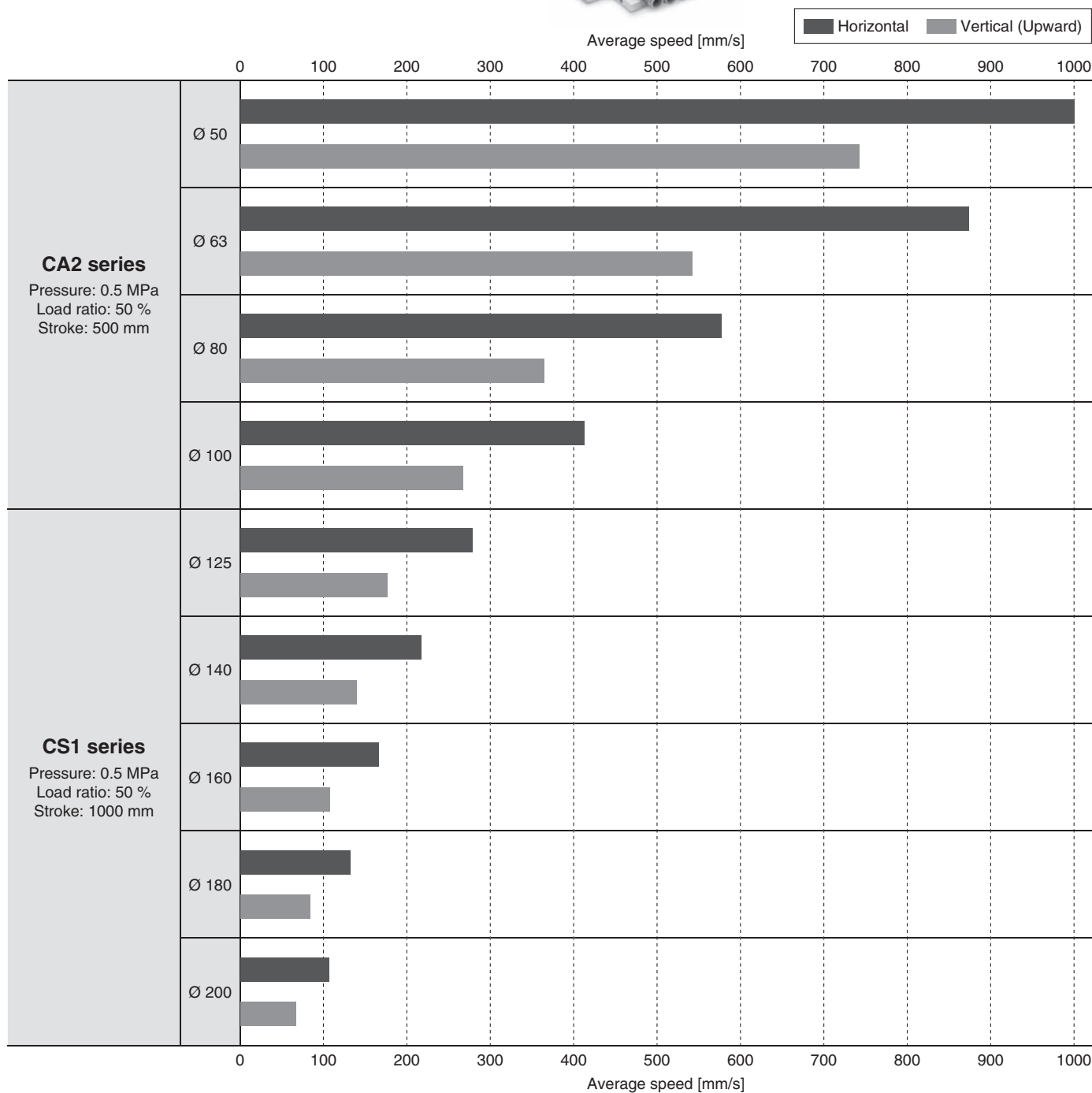
For JSY3000, A, B port: Ø 8



- \* 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.

# Optimum Actuation Size Chart of Air Cylinder

For JSY5000, A, B port: Ø 12



- \* 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.

# JSY1000/3000/5000 Series Valve Specifications

## Valve Specifications

Valve type			Rubber seal
Fluid			Air
Internal pilot operating pressure range [MPa]	2-position single		0.15 to 0.7
	2-position double		0.1 to 0.7
	3-position		0.2 to 0.7
	4-position dual 3-port valve		0.15 to 0.7
External pilot (Made to Order) operating pressure range [MPa]	Operating pressure range		−100 kPa to 0.7
	Pilot pressure range	2-position single	0.25 to 0.7
		2-position double	
		3-position	
Ambient and fluid temperatures [°C]			−10 to 50 (No freezing)
Max. operating frequency [Hz]	JSY1000/3000	2-position single/double	5
		4-position dual 3-port valve	
		3-position	
	JSY5000	2-position single/double	5
		4-position dual 3-port valve	3
		3-position	3
Manual override			Non-locking push type
			Push-turn locking slotted type
			Push-turn locking lever type*1
Pilot exhaust type	Internal pilot		Individual exhaust
	External pilot (Made to Order)		
Lubrication			Not required
Mounting orientation*2			Unrestricted
Impact/Vibration resistance*2 [m/s²]			150/30
Enclosure			JSY1000: IP40 JSY3000/5000: IP67 (Based on IEC60529)
Coil rated voltage [DC]			24 V
Allowable voltage fluctuation [V]			±10 % of the rated voltage
Power consumption [W]	Standard	JSY3000/5000	0.4
		JSY1000	0.2*3 [Inrush 0.5, Holding 0.2]
	With power saving circuit	JSY3000/5000 (Made to Order)	0.1*4 [Inrush 0.4, Holding 0.1]
Surge voltage suppressor			Diode (Varistor for non-polar type)
Indicator light			LED

\*1 Not available for the JSY1000 series

\*2 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 124 for the fixation of DIN rail mounting type manifold.

\*3 JSY1000 series available as power saving type only. Standard type (without power saving circuit) cannot be selected.

\*4 For details, refer to page 122.



## Response Time

Series	Model	Type of actuation	Response time [ms] <sup>*1</sup>	
			With light/surge voltage suppressor	
			Z type	U type
JSY1000	JSY1100	2-position single	15	—
	JSY1200	2-position double	7	
	JSY13/4/500	3-position	16	
	JSY1A/B/C00	4-position dual 3-port valve	19	
JSY3000	JSY3100	2-position single	27	18
	JSY3200	2-position double	13	12
	JSY33/4/500	3-position	27	24
	JSY3A/B/C00	4-position dual 3-port valve	23	23
JSY5000	JSY5100	2-position single	35	25
	JSY5200	2-position double	19	17
	JSY53/4/500	3-position	41	37
	JSY5A/B/C00	4-position dual 3-port valve	37	37

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

## Valve Weight

### JSY1000 Series

Valve model	Type of actuation		Weight [g]
JSY1□00	2-position	Single	24
		Double	27
	3-position	Closed centre	30
		Exhaust centre	
		Pressure centre	
	4-position	Dual 3-port valve	27

### JSY5000 Series

Valve model	Type of actuation		Weight [g]
JSY5□00	2-position	Single	91
		Double	100
	3-position	Closed centre	110
		Exhaust centre	
		Pressure centre	
	4-position	Dual 3-port valve	96

### JSY3000 Series

Valve model	Type of actuation		Weight [g]
JSY3□00	2-position	Single	54
		Double	63
	3-position	Closed centre	67
		Exhaust centre	
		Pressure centre	
	4-position	Dual 3-port valve	63

Chart

Valve

Connector  
Connecting Base  
Plug-in

D.sub  
Flat Ribbon

Terminal  
Block

Lead wire

EX600

EX245

EX250

EX260

EX120

Common  
Dimensions

Manifold  
Exploded View

Fittings, Replacement  
Parts, Tools

Manifold  
Options

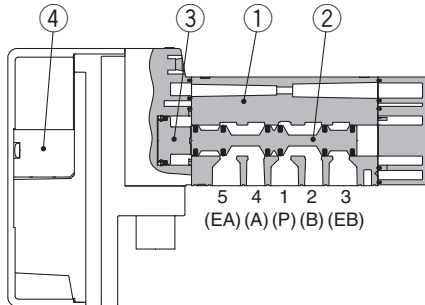
Made to  
Order

Specific Product  
Precautions

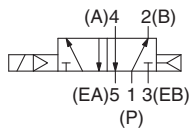
# JSY1000/3000/5000 Series Valve Construction

## Rubber Seal

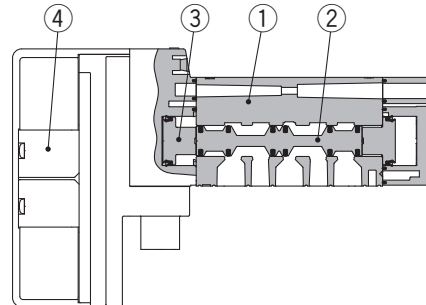
### 2-position single



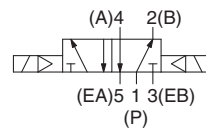
#### 2-position single



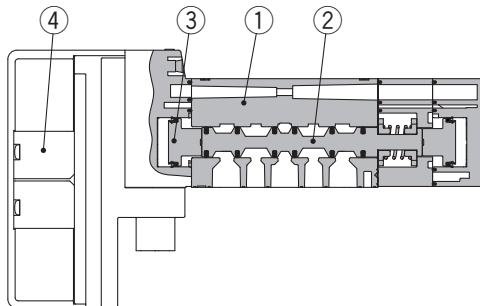
### 2-position double



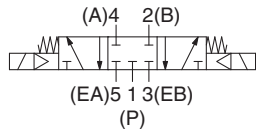
#### 2-position double



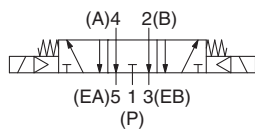
### 3-position closed centre/exhaust centre/pressure centre



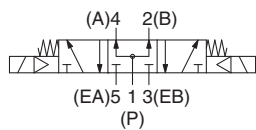
#### 3-position closed centre



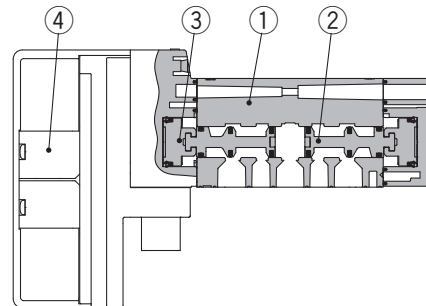
#### 3-position exhaust centre



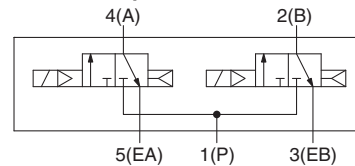
#### 3-position pressure centre



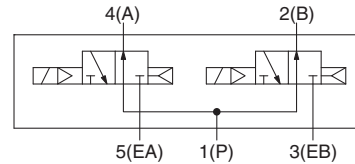
### 4-position dual 3-port valve



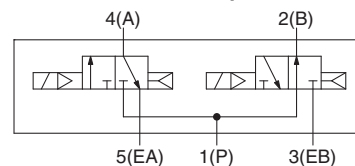
#### 4-position dual 3-port valve N.C. valve x 2 pcs.



#### N.O. valve x 2 pcs.



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



## Component Parts

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

## How to Order Pilot Valves (With a gasket and two mounting screws)<sup>\*3</sup>

V112    - 5 A

### Coil type

—	Standard
T	With power saving circuit (Made to Order)

### Rated voltage

5	24 VDC
---	--------

### Caution

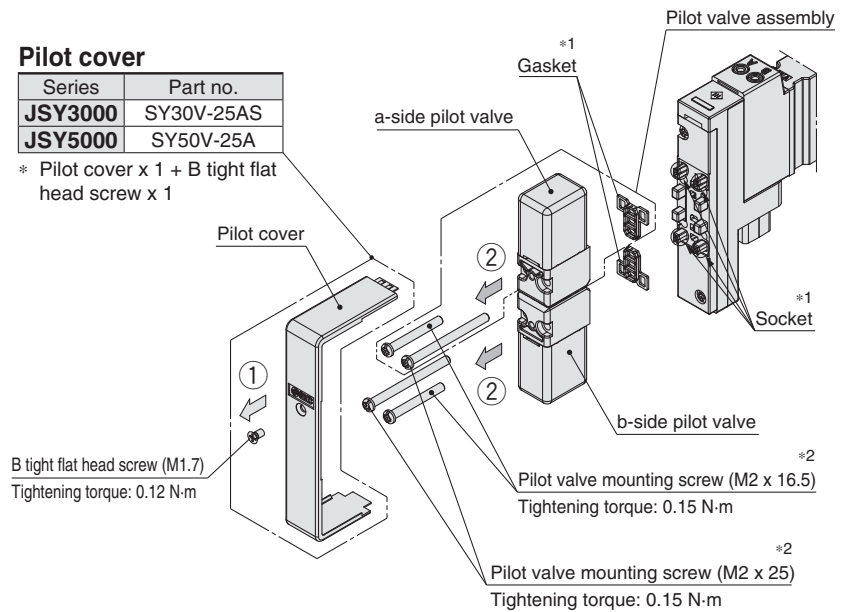
1. The coil specification and voltage (including light/surge voltage suppressor) cannot be changed by changing the pilot valve assembly.
2. When selecting the standard coil type, it is not possible to change to the power saving circuit type.
3. Replacement pilot valve for the JSY3000/5000

### How to replace pilot valves

#### Pilot cover

Series	Part no.
JSY3000	SY30V-25AS
JSY5000	SY50V-25A

\* Pilot cover x 1 + B tight flat head screw x 1



- Loosen B tight flat head screw to remove the pilot cover in the direction indicated by the arrow ①.
- Remove the pilot valve mounting screws.
- Remove the pilot valve in the direction indicated by the arrow ②.

\* Assemble by following the removal procedure in reverse.

\*1 Ensure the gasket is mounted, and take care not to bend the socket.

\*2 Be noted for mounting that there are two types of lengths for the pilot valve mounting screws.

\*3 **The pilot valve of the JSY1000 cannot be removed. This is irreplaceable.**



# JSY1000/3000/5000 Series Type 10

## Plug-in Connector Connecting Base

### Manifold Specifications

Model			D-sub connector			Flat ribbon cable					
			F type	FW type*1	FC type*2	P type	PG type	PH type	PC type*2	PGC type*2	PHC type*2
Manifold type			Plug-in connector connecting base								
SUP/EXH port type			Common SUP/EXH (Common for 3/5 port)								
Valve stations			2 to 24 stations			2 to 18 stations	2 to 8 stations	2 to 24 stations	2 to 18 stations	2 to 8 stations	
Applicable connector			D-sub connector conforming to MIL-C-24308 (Refer to page 37.)	Dedicated connector (Refer to page 37.)	D-sub connector conforming to MIL-C-24308 (Refer to page 37.)	Flat ribbon cable connector conforming to MIL-C-83503 (Refer to page 39.)					
						Socket: 26 pins MIL type	Socket: 20 pins MIL type	Socket: 10 pins MIL type	Socket: 26 pins MIL type	Socket: 20 pins MIL type	Socket: 10 pins MIL type
Internal wiring			Positive common, Negative common								
Port size	1(P), 3/5(E) port	JSY1000	Ø 8 One-touch fitting								
		JSY3000	Ø 10 One-touch fitting								
		JSY5000	Ø 12 One-touch fitting								
	4(A), 2(B) port	JSY1000	Ø 2 One-touch fitting, Ø 4 One-touch fitting, Ø 6 One-touch fitting								
		JSY3000	Ø 6 One-touch fitting, Ø 8 One-touch fitting								
		JSY5000	Ø 10 One-touch fitting, Ø 12 One-touch fitting								
Enclosure (Based on IEC60529)		JSY1000	IP40	—	IP20	IP40		IP20			
		JSY3000		IP67							
		JSY5000			—						

\*1 FW type is not available for JSY1000. Protection class for the JSY1000 is IP20 or IP40.

\*2 FC, PC, PGC, PHC types are not available for the JSY5000.

### Manifold Weight

												Unit: g
Model		① Per station	② Wiring									
			D-sub connector			Flat ribbon cable						
			F type	FW type*2	FC type*3	P type	PG type	PH type	PC type*3	PGC type*3	PHC type*3	
JSY1000	for Ø 4	21.3	308	—	233	306	304	298	233	231	225	
	for Ø 6	26.9	319	—	244	317	315	309	244	242	236	
JSY3000 for Ø 8		42.7	332	330	287	330	328	322	257	255	249	
JSY5000 for Ø 12		104	509	507	—	507	505	499	—	—	—	

Formula for manifold weight\*1

$$W = ① \times n + ② \quad (n: \text{stations})$$

JSY3000 series, D-sub connector, F type, 5 stations:  $(42.7 \times 5) + 332 = 545.5$  (g)

### Manifold Flow Rate Characteristics

Model	Port size		Valve flow rate characteristics					
	1, 3/5 (P, E)	4, 2 (A, B)	1→4/2 (P→A/B)			4/2→3/5 (A/B→E)		
			C [dm³/(s·bar)]	b	Q [l/min (ANR)]*2	C [dm³/(s·bar)]	b	Q [l/min (ANR)]*2
JJ5SY1-10 (Side ported)	C8	C4	0.63	0.46	179	0.87	0.47	250
		C6	0.96	0.30	244	0.91	0.48	263
JJ5SY3-10 (Side ported)	C10	C8	2.23	0.30	567	2.77	0.27	691
JJ5SY5-10 (Side ported)	C12	C12	6.40	0.22	1551	6.59	0.22	1597

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

\*1 Values measured in accordance with ISO 6358:1989, JIS B 8390:2000

\*2 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.



Terminal block box		Lead wire	Serial wiring				
T type	TC type	L type	S6□ type (EX600)	SA□ type (EX245)	S□ type (EX250)	S□ type (EX260)	S3□ type (EX120)
Plug-in connector connecting base							
Common SUP/EXH (Common for 3/5 port)							
2 to 20 stations	2 to 24 stations						2 to 16 stations
—							
Positive common, Negative common				Negative common	Positive common, Negative common		
Ø 8 One-touch fitting							
Ø 10 One-touch fitting							
Ø 12 One-touch fitting							
Ø 2 One-touch fitting, Ø 4 One-touch fitting, Ø 6 One-touch fitting							
Ø 6 One-touch fitting, Ø 8 One-touch fitting							
Ø 10 One-touch fitting, Ø 12 One-touch fitting							
IP40							IP20
IP67			IP67 （ I/O unit: partially IP40 ）	IP65	IP67	IP67 （ D-sub communication connector: IP40 ）	

Unit: g

② Wiring										
Terminal block box		Lead wire			Serial wiring					
T type	TC type	L type (0.6 m)	L type (1.5 m)	L type (3 m)	S6□ type (EX600)*4	SA□ type (EX245)*4	S□ type (EX250)*4	S□ type (EX260)	S3□ type (EX120)	
680	471	404	514	698	829	—	520	448	367	
689	480	413	523	707	838	—	529	457	367	
709	500	433	543	727	858	935	549	477	391	
914	705	638	748	932	1063	1100	754	682	568	

\*1 Weight: W is the value of the internal pilot, and maximum manifold size with tube fitting type. Valve is not included. To obtain the weight with valves attached, add the valve weights given on page 12 for the appropriate number of stations.

\*2 FW type is not available for the JSY1000.

\*3 FC, PC, PGC, PHC types are not available for the JSY5000.

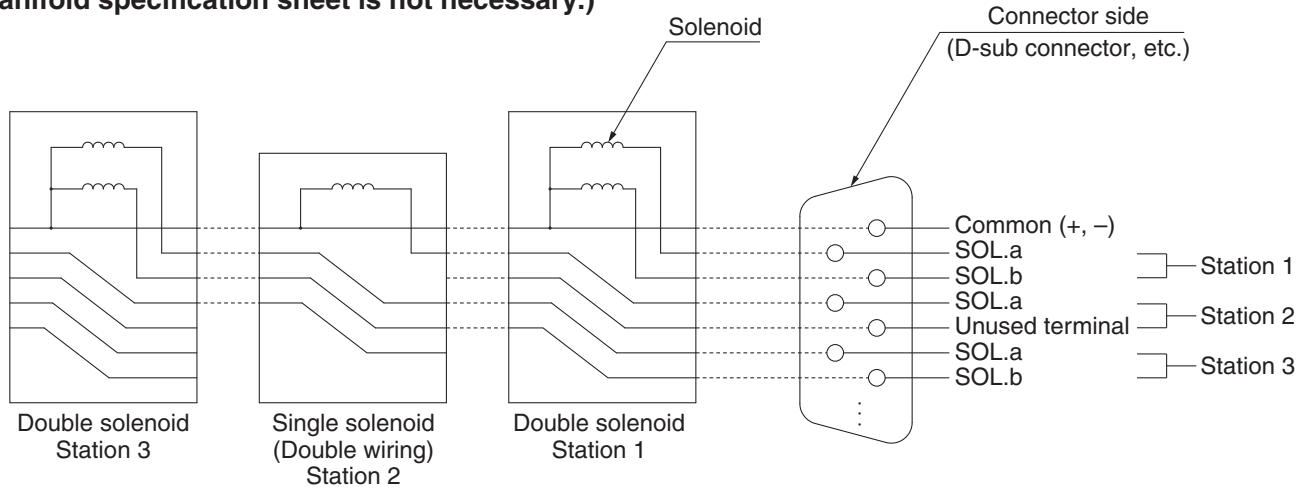
\*4 Serial unit weight is included, but I/O unit is not included. Add the weight for calculation when I/O unit is added.

# JSY1000/3000/5000 Series

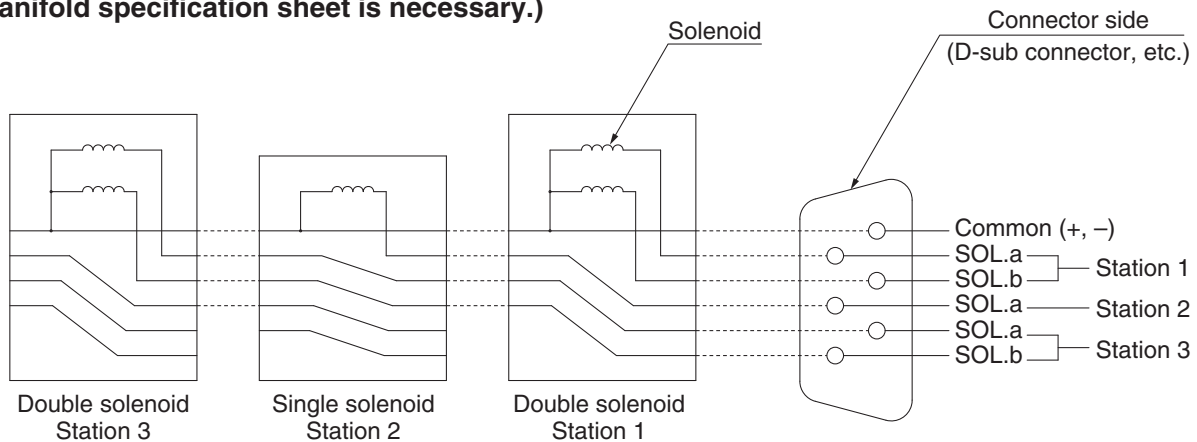
## Connector Wiring Layout

For both serial and parallel wiring, additional valves are sequentially assigned pins on the connector. This makes it completely unnecessary to disassemble the connector unit.

### ■ Single solenoid valve is installed to all double wiring. (in the case of all double wiring) (Manifold specification sheet is not necessary.)



### ■ Single/double wiring are mixed. (Manifold specification sheet is necessary.)



\* These diagrams are for the purpose of explanation, and differ from the actual connector wiring.

Specific Product Precautions	Made to Order	Manifold Options	Fittings, Replacement Parts, Tools	Manifold Exploded View	Common Dimensions	EX120	EX260	EX250	EX245	EX600	Lead wire	Terminal Block	D.sub Flat Ribbon	Plug-in Connector Connecting Base	Valve	Chart
------------------------------	---------------	------------------	------------------------------------	------------------------	-------------------	-------	-------	-------	-------	-------	-----------	----------------	-------------------	-----------------------------------	-------	-------

# Plug-in Connector Connecting Base

D-sub Connector Flat Ribbon Cable

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **F** **1** - **05** **D** **□** - **C6** **□**

1 2 3 4 5 6 7 8 9



**Made to Order**  
(Refer to page 120 for details.)

Specification  
External pilot (SUP/EXH block assembly)

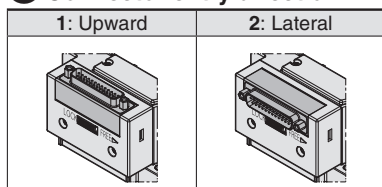
### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 2 Type

10	Side ported
----	-------------

### 4 Connector entry direction



\* The connector entry direction for connector types "FW," "FC," and "P□C" cannot be rotated. If it is necessary to change, order connector block assembly and SUP/EXH block assembly (pages 100 and 101) separately.

### 6 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

### 7 SUP/EXH block assembly

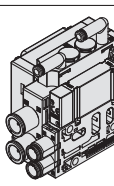
—	Internal pilot
S	Internal pilot, Built-in silencer

\* 3 / 5 (E) port is plugged for the built-in silencer type.

\* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 8 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



\*1 Indicate the sizes on the manifold specification sheet in the case of "CM."  
\* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 9 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

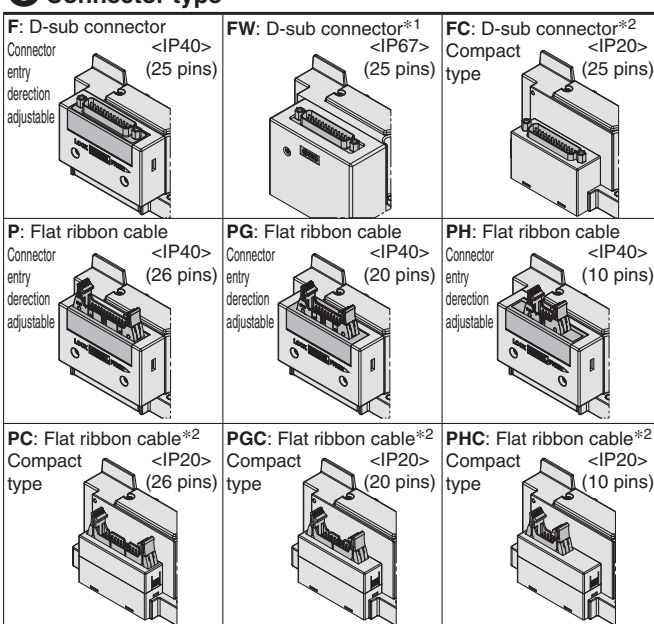
#### DIN Rail Option

—	DIN rail mounting (With DIN rail)
0	DIN rail mounting (Without DIN rail)
3	For 3 stations
⋮	⋮
24	For 24 stations

\* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown on the left.)

\* Refer to page 124 for the fixation of DIN rail mounting type manifold.

### 3 Connector type



\*1 FW is not available for the JSY1000.

\*2 Compact type is not available for the JSY5000.

### 5 Valve stations

F/FW/FC: D-sub connector (25 pins)

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
12	12 stations	
02	2 stations	Specified layout*2 (Up to 24 solenoids available)
⋮	⋮	
24	24 stations	

P/PC: Flat ribbon cable (26 pins)

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
12	12 stations	
02	2 stations	Specified layout*2 (Up to 24 solenoids available)
⋮	⋮	
24	24 stations	

PG/PGC: Flat ribbon cable (20 pins)

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
09	9 stations	
02	2 stations	Specified layout*2 (Up to 18 solenoids available)
⋮	⋮	
18	18 stations	

PH/PHC: Flat ribbon cable (10 pins)

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
04	4 stations	
02	2 stations	Specified layout*2 (Up to 8 solenoids available)
⋮	⋮	
08	8 stations	

\*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

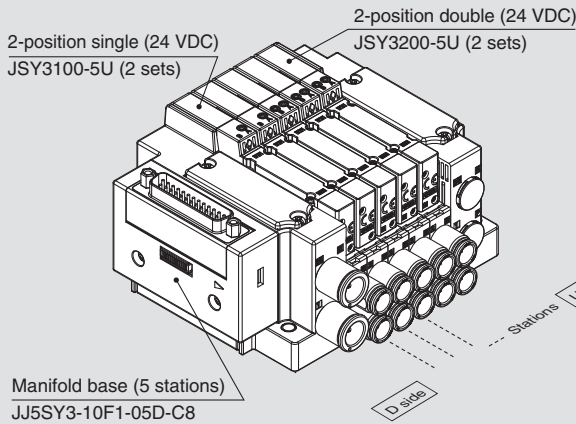
\*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

\* This also includes the number of blanking plates.



## How to Order Manifold Assembly

### Example (JJ5SY3-10F1-□)



JJ5SY3-10F1-05D-C8 ... 1 set (Type 10 5-station manifold base part no.)  
 \* JSY3100-5U ..... 2 sets (2-position single part no.)  
 \* JSY3200-5U ..... 3 sets (2-position double part no.)

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

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

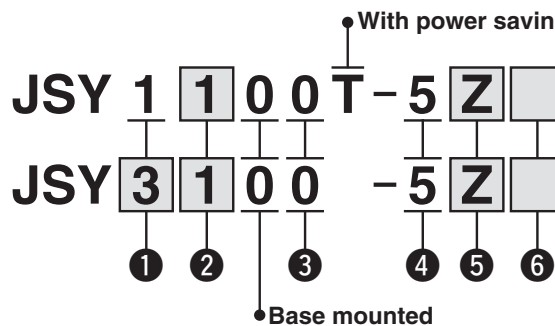
### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series



### Made to Order

(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

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

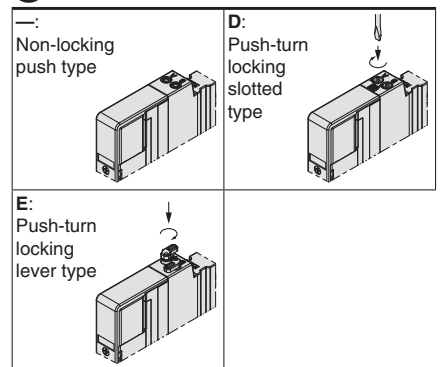
#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
Z	●	●	Positive common
NZ			Negative common

\* Only "Z" and "NZ" types are available for the JSY1000 series.

\* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

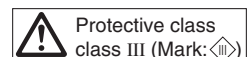
### Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit. For the JSY1000 series only the power saving circuit is available.

\* **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 113 for base gasket and mounting screw part numbers.

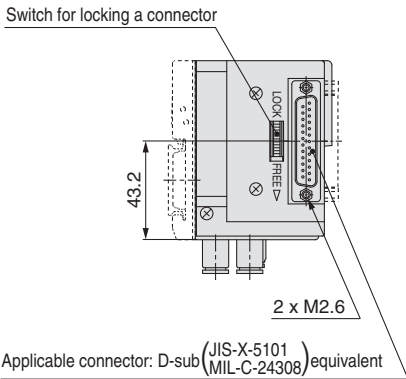
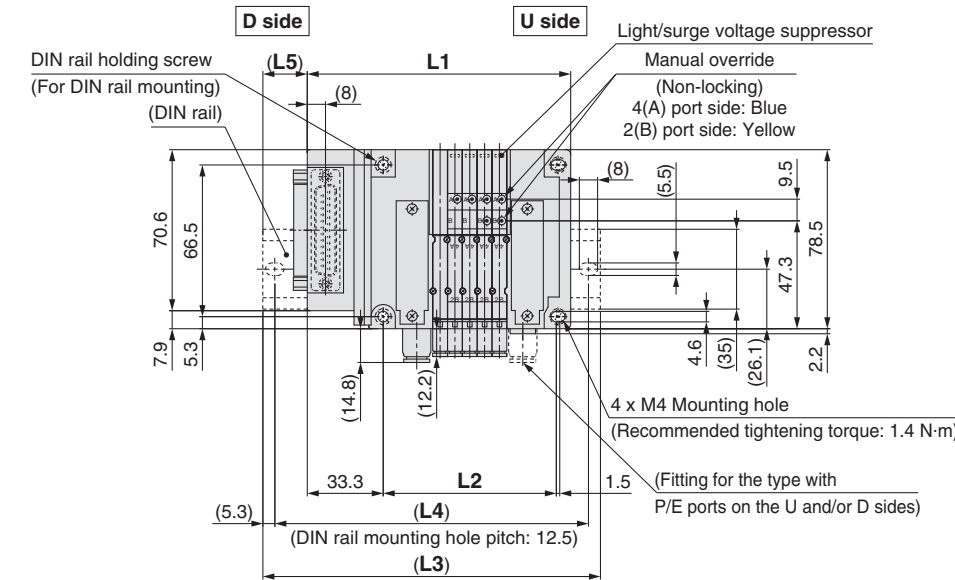
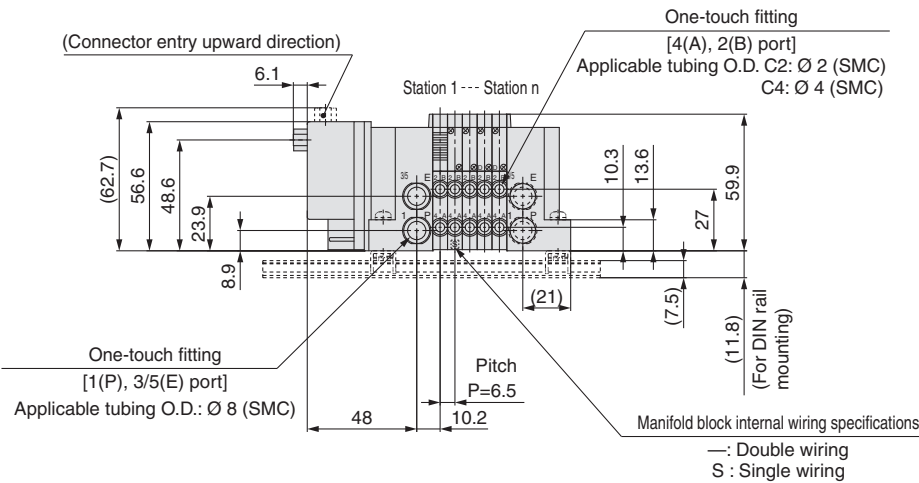
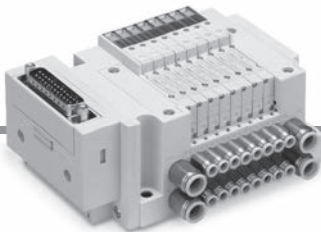


# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10F<sub>2</sub><sup>1</sup>- Stations  $\frac{U}{D}$ -C<sub>2</sub><sup>2</sup>-C<sub>4</sub><sup>3</sup>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)  
D-sub Connector (IP40/Connector Entry Direction Adjustable)



- \* These figures show the "JJ5SY1-10F2-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

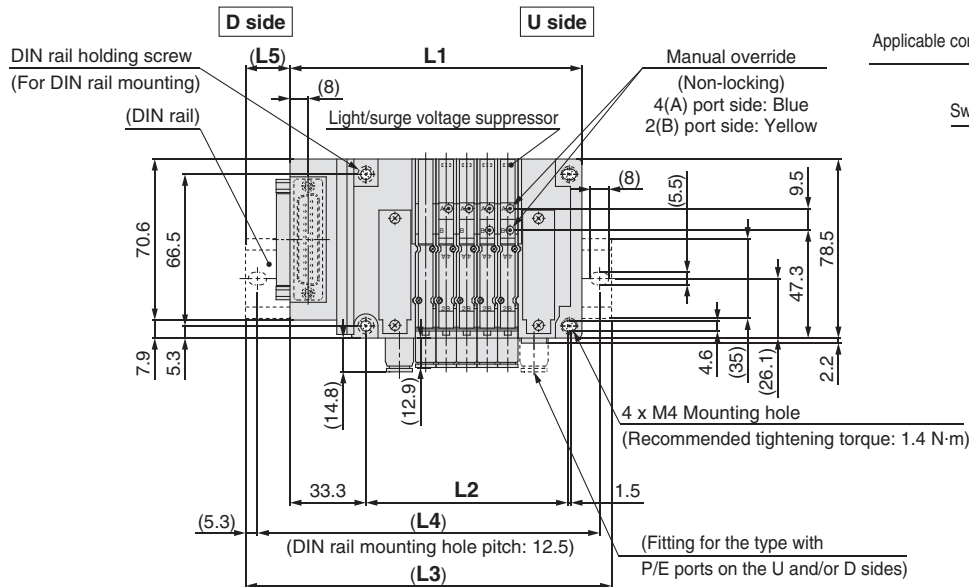
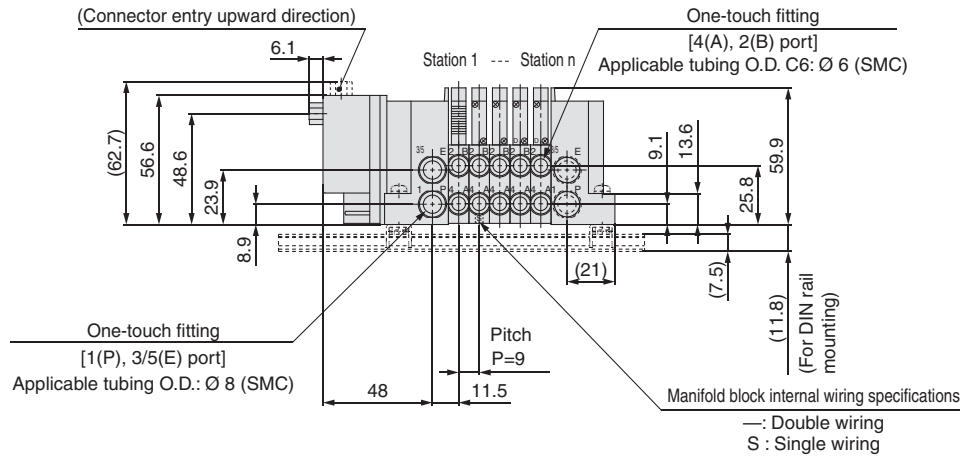
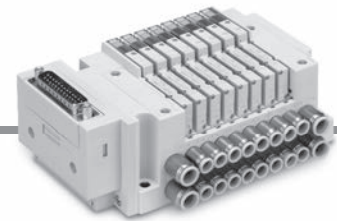
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	96	102.5	109	115.5	122	128.5	135	141.5	148	154.5	161	167.5	174	180.5	187
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223
L4	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5
L5	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21

L \ n	17	18	19	20	21	22	23	24
L1	193.5	200	206.5	213	219.5	226	232.5	239
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	223	235.5	248	248	260.5	260.5	273	273
L4	212.5	225	237.5	237.5	250	250	262.5	262.5
L5	18	21	24	20.5	23.5	20.5	23.5	20

## Dimensions: JSY1000 Series

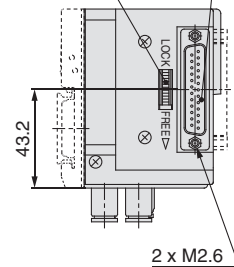
JJ5SY1-10F<sub>2</sub>-Stations  $\frac{U}{D}$ -C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)  
D-sub Connector (IP40/Connector Entry Direction Adjustable)



Applicable connector: D-sub (JIS-X-5101 (MIL-C-24308) equivalent)

Switch for locking a connector



- \* These figures show the "JJ5SY1-10F2-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	101	110	119	128	137	146	155	164	173	182	191	200	209	218	227
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	135.5	148	160.5	160.5	173	185.5	185.5	198	210.5	223	223	235.5	248	248	260.5
L4	125	137.5	150	150	162.5	175	175	187.5	200	212.5	212.5	225	237.5	237.5	250
L5	20.5	22	24	19.5	21	23	18.5	20	22	23.5	19	21	22.5	18	20

L \ n	17	18	19	20	21	22	23	24
L1	236	245	254	263	272	281	290	299
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3	273	285.5	285.5	298	310.5	310.5	323	335.5
L4	262.5	275	275	287.5	300	300	312.5	325
L5	21.5	23.5	19	20.5	22.5	18	19.5	21.5

Chart
Valve
Connector Connecting Base
Plug-in
D-sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

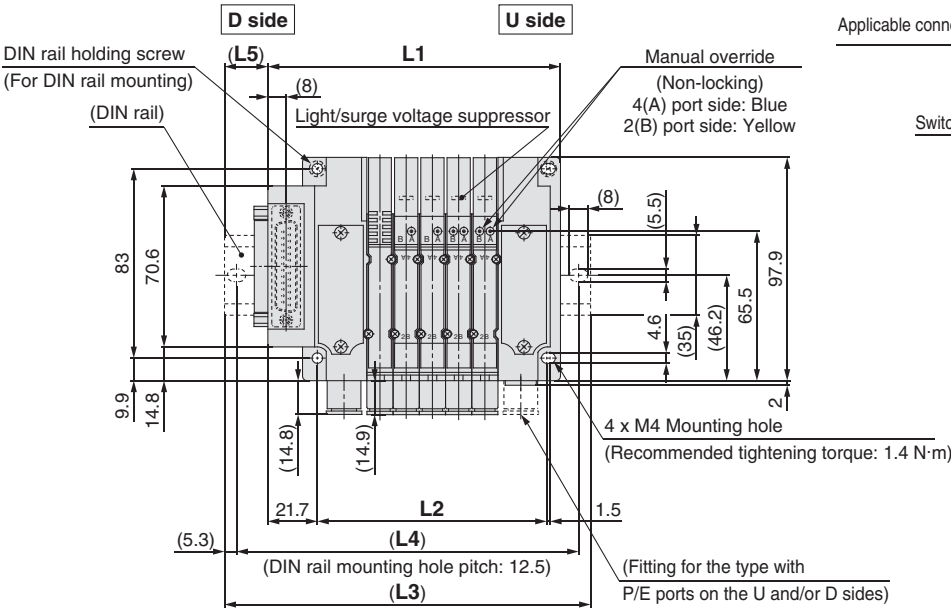
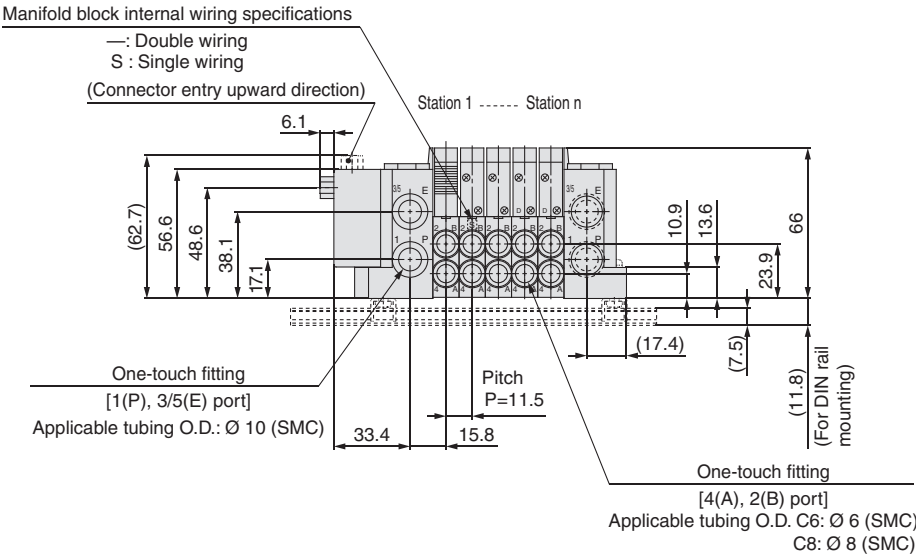
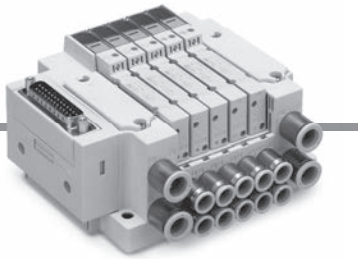
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

JJ5SY3-10F<sub>2</sub><sup>1</sup> - Stations  $\frac{U}{D}$  - C<sub>6</sub><sup>6</sup> (D)

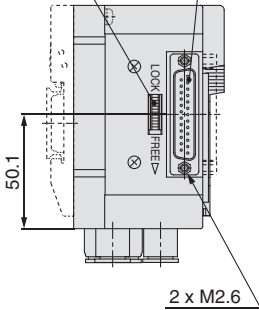
Type 10/Side Ported

D-sub Connector (IP40/Connector Entry Direction Adjustable)



Applicable connector: D-sub (JIS-X-5101 MIL-C-24308) equivalent

Switch for locking a connector



\* These figures show the "JJ5SY3-10F2-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

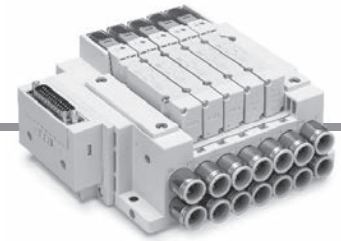
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	93.8	105.3	116.8	128.3	139.8	151.3	162.8	174.3	185.8	197.3	208.8	220.3	231.8	243.3	254.8
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	273	285.5
L4	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	262.5	275
L5	17.5	18	18.5	19	19.5	20	20.5	21	21.5	22	22.5	23	23.5	18	18.5

L \ n	17	18	19	20	21	22	23	24
L1	266.3	277.8	289.3	300.8	312.3	323.8	335.3	346.8
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	298	310.5	323	335.5	348	360.5	373	385.5
L4	287.5	300	312.5	325	337.5	350	362.5	375
L5	19	19.5	20	20.5	21	21.5	22	22.5

JJ5SY5-10F<sub>2</sub>- Stations  $\frac{U}{B}$ -C<sub>10</sub><sup>10</sup>(D)

**D-sub Connector (IP40/Connector Entry Direction Adjustable)**

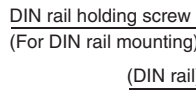


—: Double wiring  
S : Single wiring

Station 1----- Station n



### Switch for locking a connector



(Fitting for the type with  
P/E ports on the U and/or D sides)

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

## n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	160.5	173	185.5	210.5	223	235.5	260.5	273	285.5	298	323	335.5	348	360.5	385.5
L4	150	162.5	175	200	212.5	225	250	262.5	275	287.5	312.5	325	337.5	350	375
L5	22	20	18.5	23	21	19.5	24	22	20.5	18.5	23	21.5	19.5	18	22.5

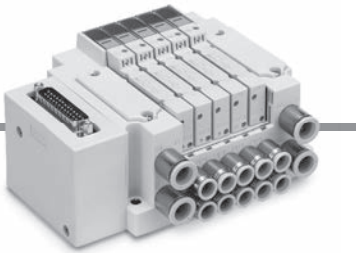
$\frac{L}{n}$	17	18	19	20	21	22	23	24
<b>L1</b>	363	379	395	411	427	443	459	475
<b>L2</b>	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
<b>L3</b>	398	410.5	435.5	448	460.5	473	498	510.5
<b>L4</b>	387.5	400	425	437.5	450	462.5	487.5	500
<b>L5</b>	20.5	19	23.5	21.5	20	18	22.5	21



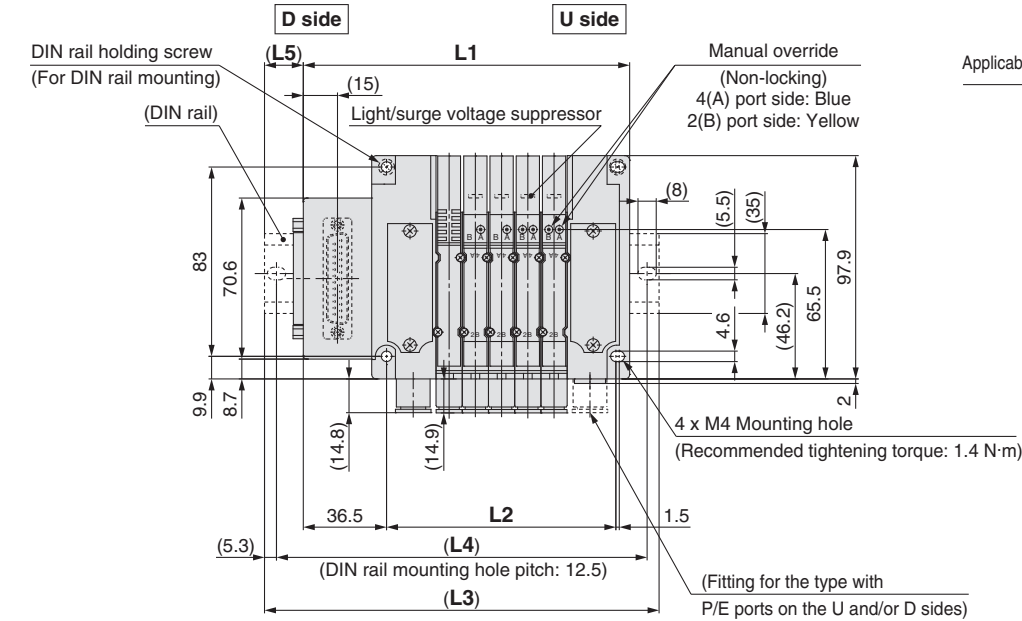
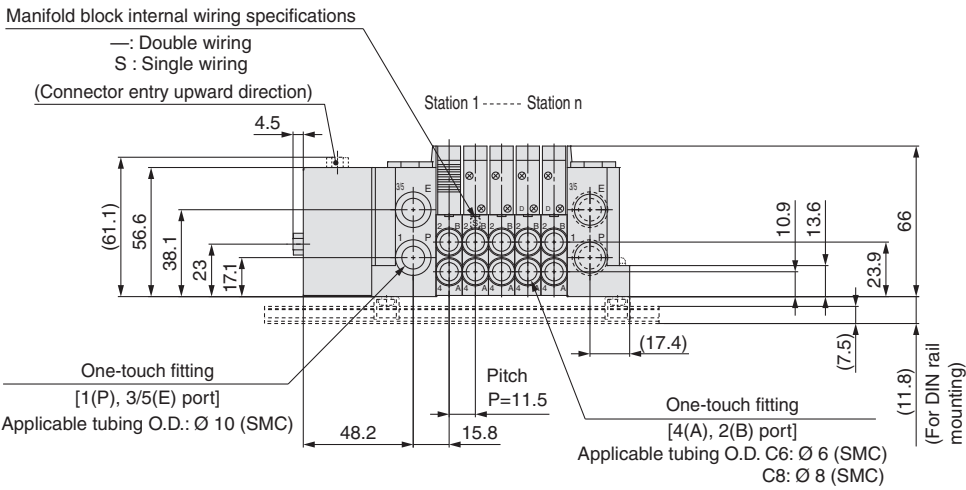
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

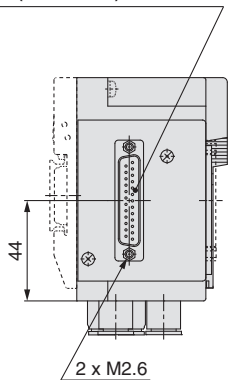
Type 10/Side Ported  
D-sub Connector (IP67)



JJ5SY3-10FW<sup>1</sup><sub>2</sub> - Stations  $\frac{U}{D}$  - C<sub>6</sub><sup>6</sup>/C<sub>8</sub><sup>8</sup> (D)



Applicable connector: D-sub (JIS-X5101 (MIL-C-24308) equivalent)



\* These figures show the "JJ5SY3-10FW2-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

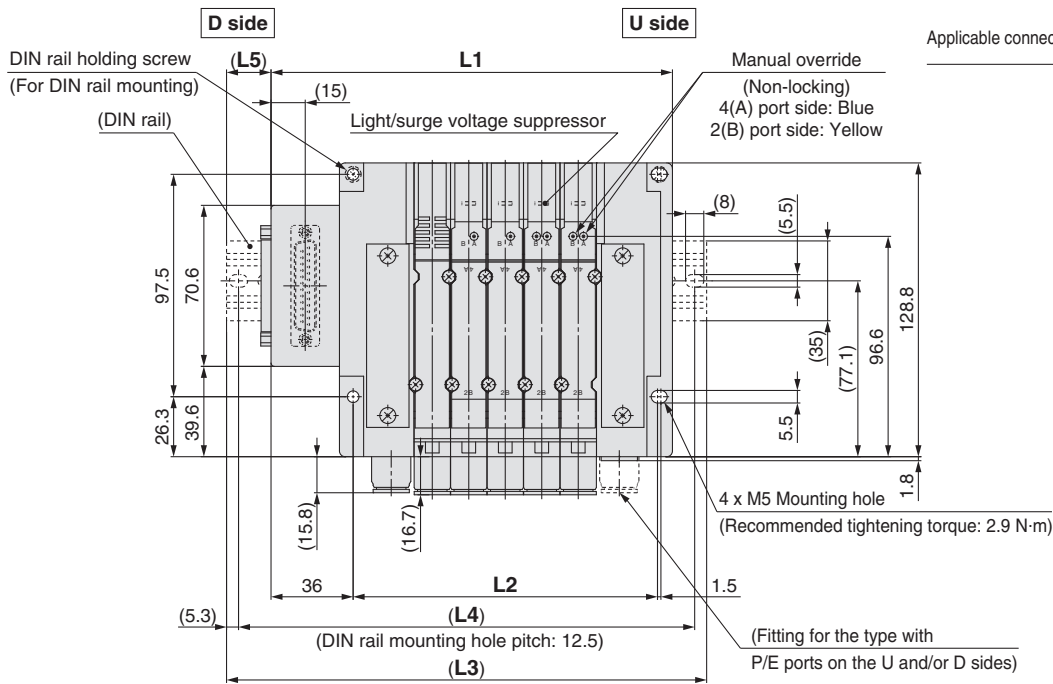
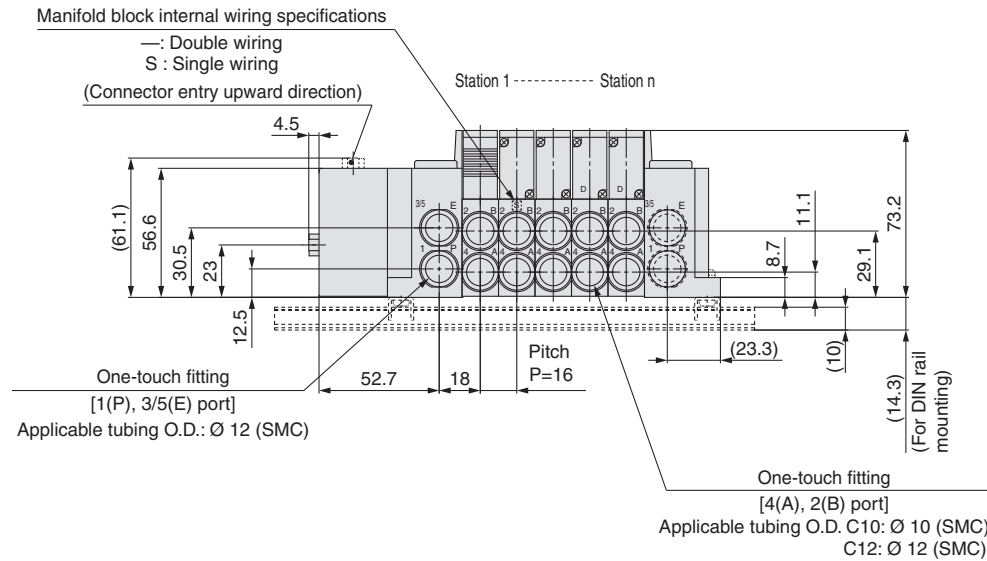
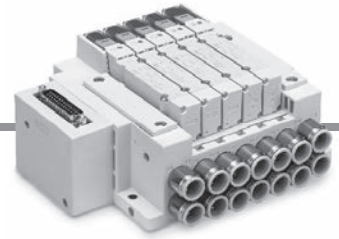
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	108.6	120.1	131.6	143.1	154.6	166.1	177.6	189.1	200.6	212.1	223.6	235.1	246.6	258.1	269.6
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	148	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	298
L4	137.5	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	287.5
L5	22	16	16.5	17	17.5	18	18.5	19	19.5	20	20.5	21	21.5	22	16.5

L \ n	17	18	19	20	21	22	23	24
L1	281.1	292.6	304.1	315.6	327.1	338.6	350.1	361.6
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	310.5	323	335.5	348	360.5	373	385.5	398
L4	300	312.5	325	337.5	350	362.5	375	387.5
L5	17	17.5	18	18.5	19	19.5	20	20.5

## Dimensions: JSY5000 Series

Type 10/Side Ported  
D-sub Connector (IP67)

JJ5SY5-10FW<sup>1</sup><sub>2</sub>-Stations <sup>U</sup><sub>D</sub>-C<sup>10</sup><sub>D</sub>-C<sup>12</sup><sub>(D)</sub>



Applicable connector: D-sub (JIS-X-5101 MIL-C-24308) equivalent

\* These figures show the "JJ5SY5-10FW2-05D-C12."  
\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	160.5	173	198	210.5	223	248	260.5	273	285.5	310.5	323	335.5	348	373	385.5
L4	150	162.5	187.5	200	212.5	237.5	250	262.5	275	300	312.5	325	337.5	362.5	375
L5	18.5	17	21.5	19.5	18	22.5	20.5	19	17	21.5	20	18	16.5	21	19

L \ n	17	18	19	20	21	22	23	24
L1	368	384	400	416	432	448	464	480
L2	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
L3	398	423	435.5	448	460.5	485.5	498	510.5
L4	387.5	412.5	425	437.5	450	475	487.5	500
L5	17.5	22	20	18.5	16.5	21	19.5	17.5

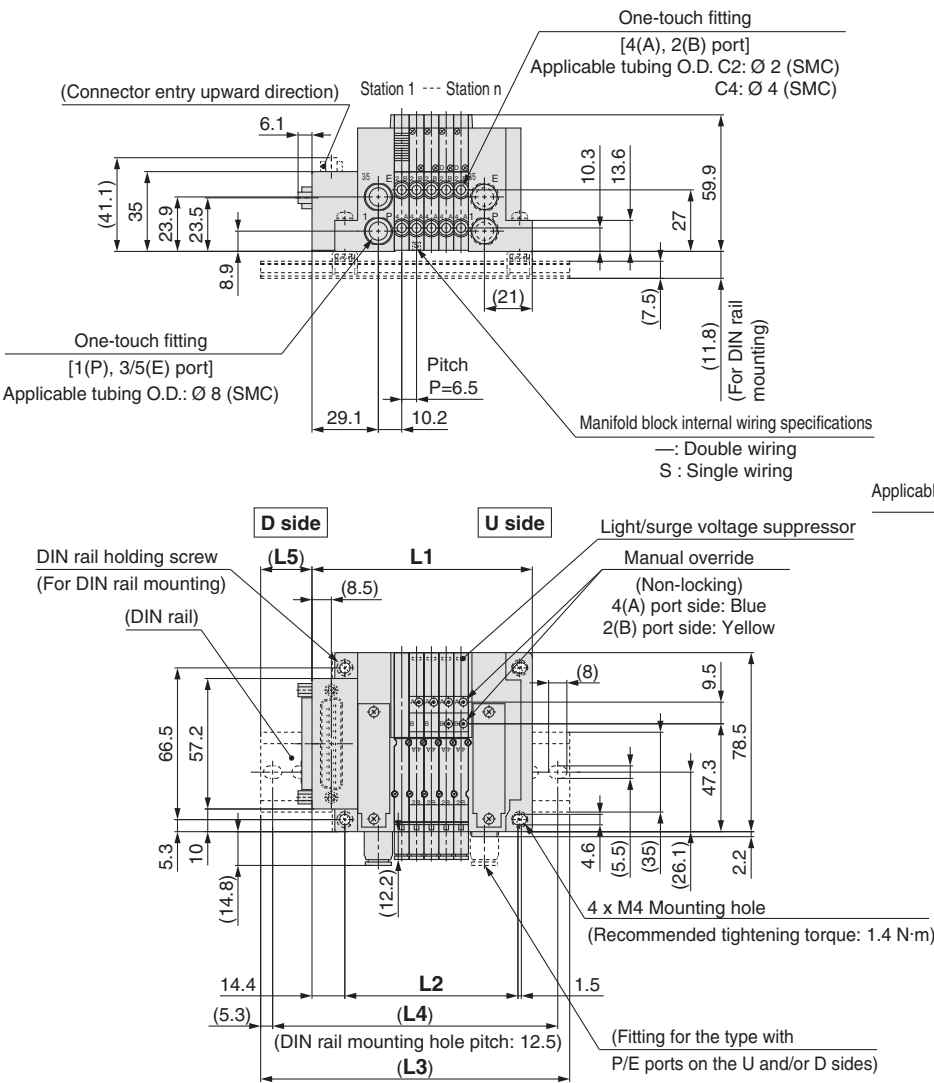
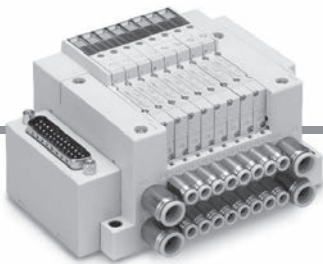
Chart
Valve
Connector Connecting Base
Plug-in
D-sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10FC<sub>2</sub><sup>1</sup>-Stations<sub>D</sub><sup>U</sup>-C<sub>2</sub><sup>C<sub>4</sub></sup>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)  
D-sub Connector (IP20/Compact Type)



\* These figures show the "JJ5SY1-10FC2-05D-C4."  
\* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.  
\* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	77.1	83.6	90.1	96.6	103.1	109.6	116.1	122.6	129.1	135.6	142.1	148.6	155.1	161.6	168.1
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198
L4	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5
L5	20	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18

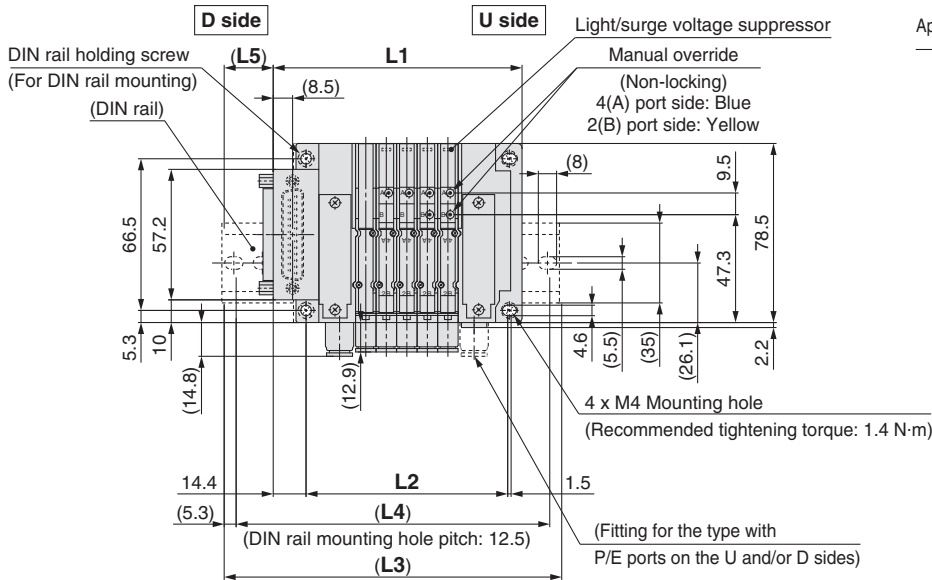
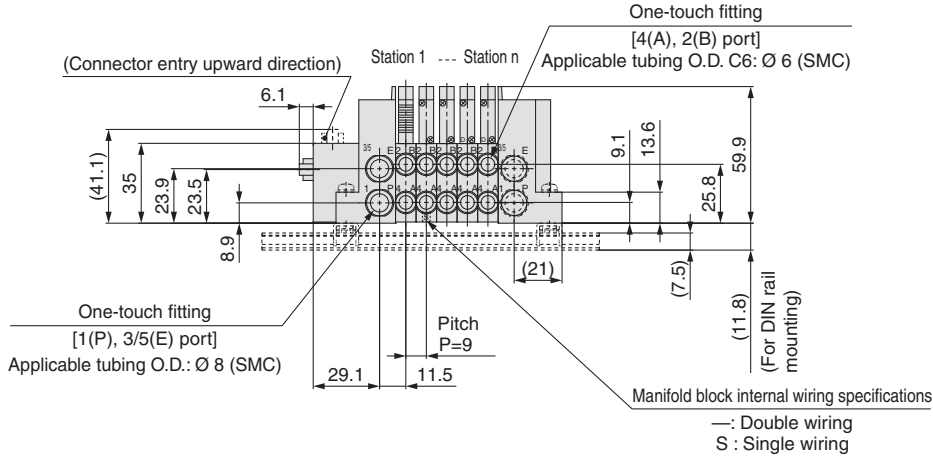
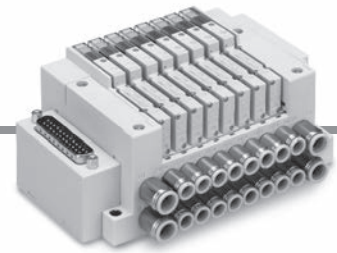
L \ n	17	18	19	20	21	22	23	24
L1	174.6	181.1	187.6	194.1	200.6	207.1	213.6	220.1
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	210.5	210.5	223	235.5	235.5	248	248	260.5
L4	200	200	212.5	225	225	237.5	237.5	250
L5	21	18	21	24	20.5	23.5	20.5	23.5

## Dimensions: JSY1000 Series

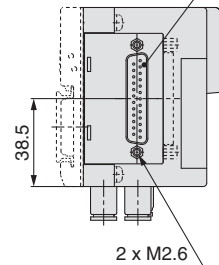
JJ5SY1-10FC<sub>2</sub><sup>1</sup>-<sup>U</sup>Stations<sup>D</sup>-C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)

D-sub Connector (IP20/Compact Type)



Applicable connector: D-sub (JIS-X-5101 (MIL-C-24308) equivalent)



\* These figures show the "JJ5SY1-10FC2-05D-C6."

\* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.

\* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

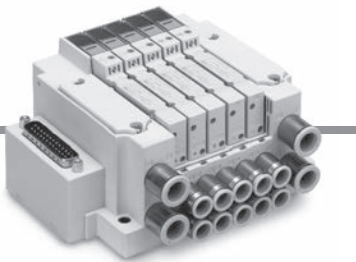
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	82.1	91.1	100.1	109.1	118.1	127.1	136.1	145.1	154.1	163.1	172.1	181.1	190.1	199.1	208.1
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	123	123	135.5	148	148	160.5	173	185.5	185.5	198	210.5	210.5	223	235.5	248
L4	112.5	112.5	125	137.5	137.5	150	162.5	175	175	187.5	200	200	212.5	225	237.5
L5	23.5	19	21	22.5	18	20	21.5	23.5	19	20.5	22.5	18	19.5	21.5	23

L \ n	17	18	19	20	21	22	23	24
L1	217.1	226.1	235.1	244.1	253.1	262.1	271.1	280.1
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3	248	260.5	273	285.5	285.5	298	310.5	310.5
L4	237.5	250	262.5	275	275	287.5	300	300
L5	18.5	20.5	22	24	19.5	21	23	18.5

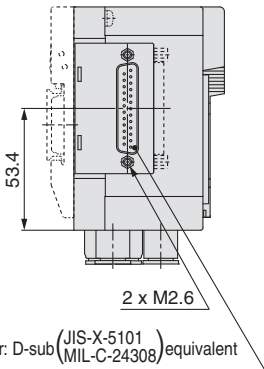
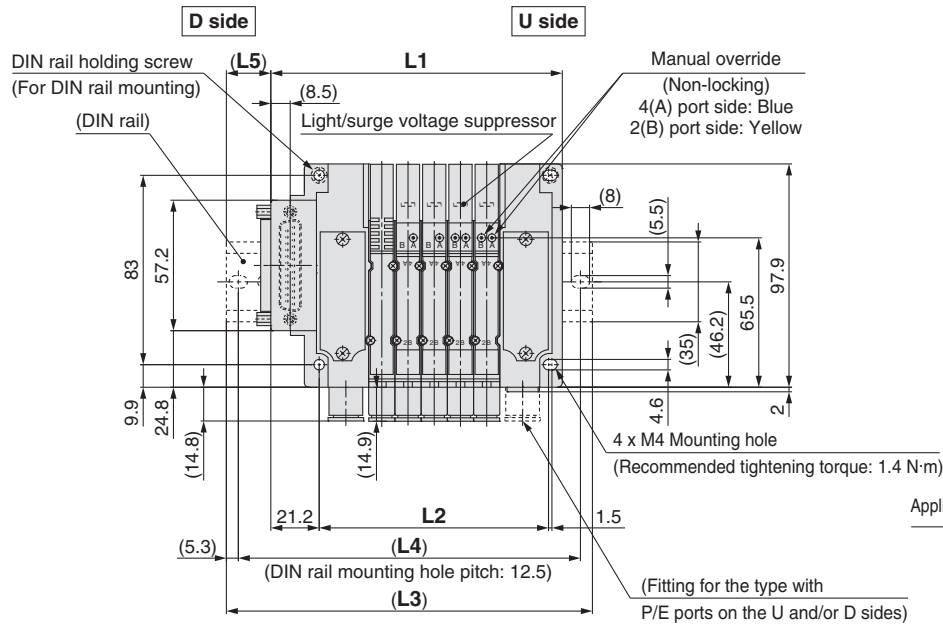
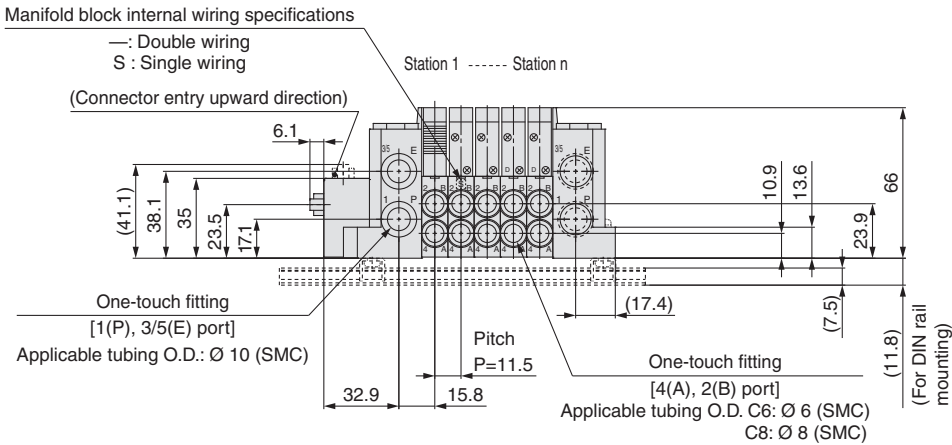
# JSY1000/3000/5000 Series

Dimensions: **JSY3000 Series**

Type 10/Side Ported  
D-sub Connector (IP20/Compact Type)



JJ5SY3-10FC<sub>2</sub><sup>1</sup>- Stations <sup>U</sup><sub>D</sub>-C<sub>6</sub><sup>8</sup>(D)



\* These figures show the “JJ5SY3-10FC2-05D-C8.”  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

## L: Dimensions

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	93.3	104.8	116.3	127.8	139.3	150.8	162.3	173.8	185.3	196.8	208.3	219.8	231.3	242.8	254.3
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	260.5	273	285.5
L4	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	250	262.5	275
L5	18	18.5	19	19.5	20	20.5	21	21.5	22	22.5	23	23.5	17.5	18	18.5

L \ n	17	18	19	20	21	22	23	24
L1	265.8	277.3	288.8	300.3	311.8	323.3	334.8	346.3
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	298	310.5	323	335.5	348	360.5	373	385.5
L4	287.5	300	312.5	325	337.5	350	362.5	375
L5	19	19.5	20	20.5	21	21.5	22	22.5

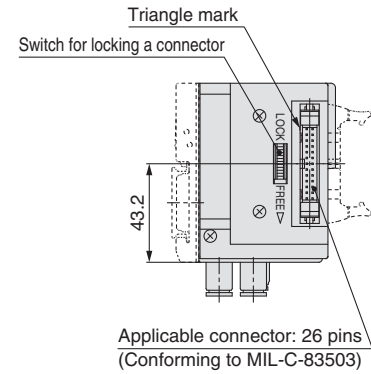
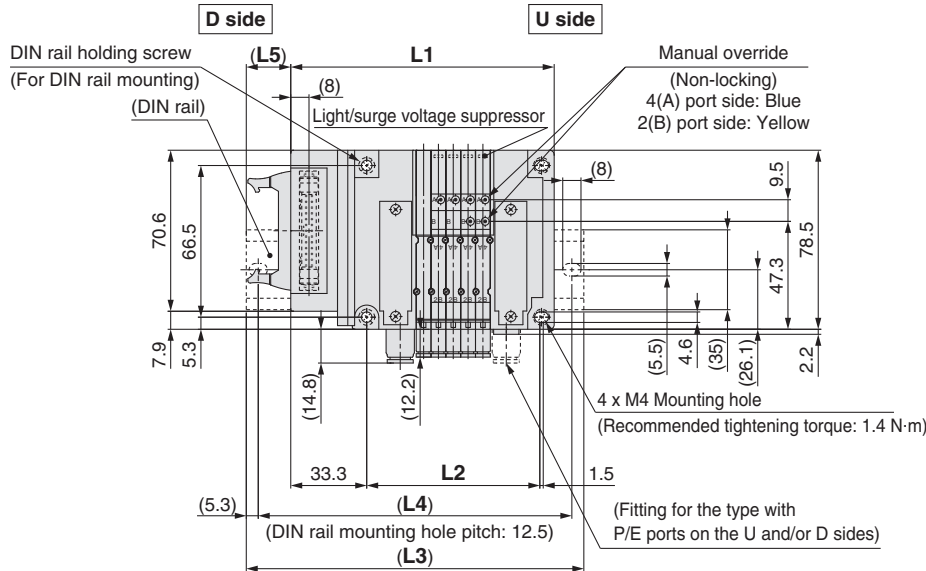
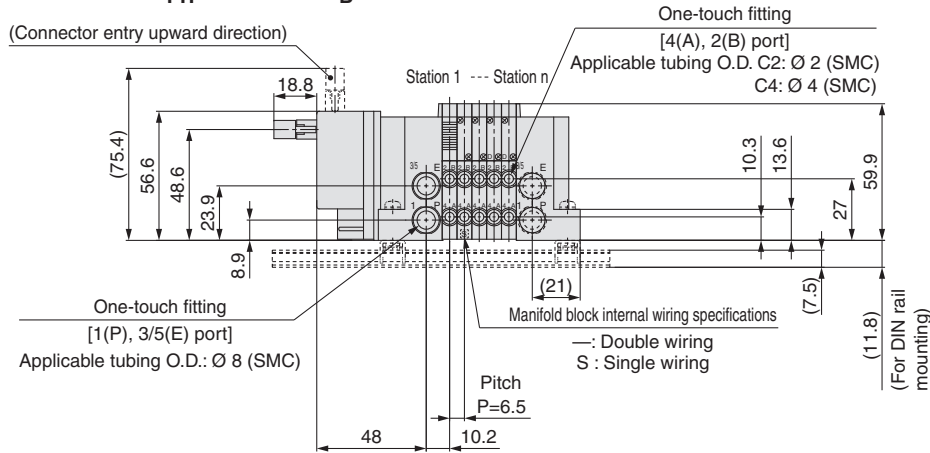
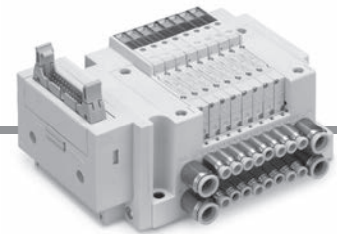


## Dimensions: JSY1000 Series

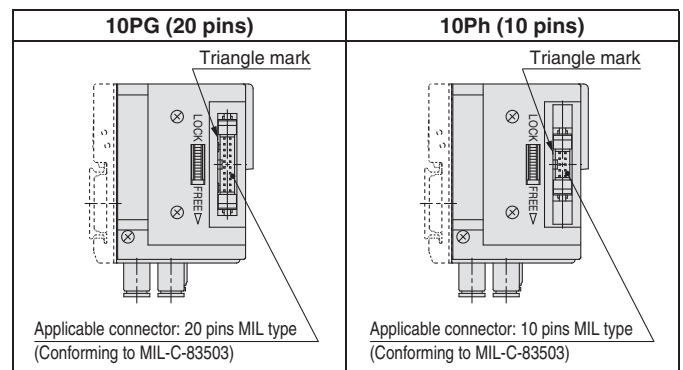
JJ5SY1-10<sup>P</sup><sub>PH</sub> 1-<sup>U</sup><sub>P</sub> Stations<sup>C</sup><sub>2</sub>-(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)



- \* These figures show the "JJ5SY1-10P2-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.



### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	96	102.5	109	115.5	122	128.5	135	141.5	148	154.5	161	167.5	174	180.5	187
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223
L4	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5
L5	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21

L \ n	17	18	19	20	21	22	23	24
L1	193.5	200	206.5	213	219.5	226	232.5	239
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	223	235.5	248	248	260.5	260.5	273	273
L4	212.5	225	237.5	237.5	250	250	262.5	262.5
L5	18	21	24	20.5	23.5	20.5	23.5	20

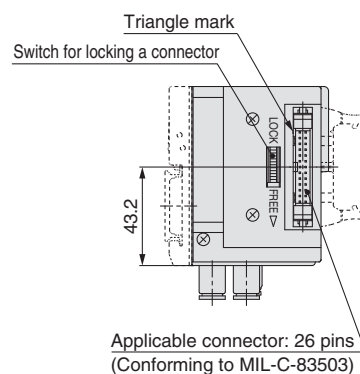
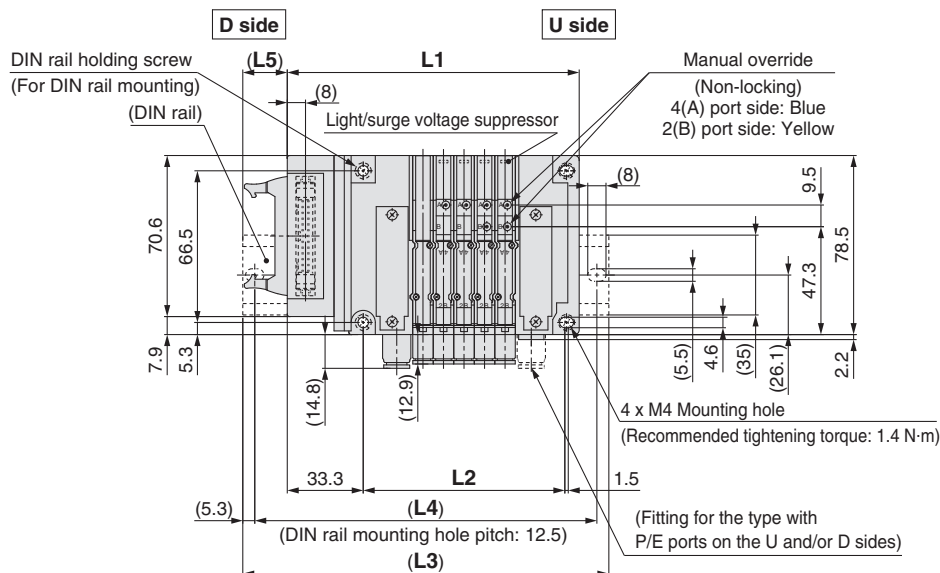
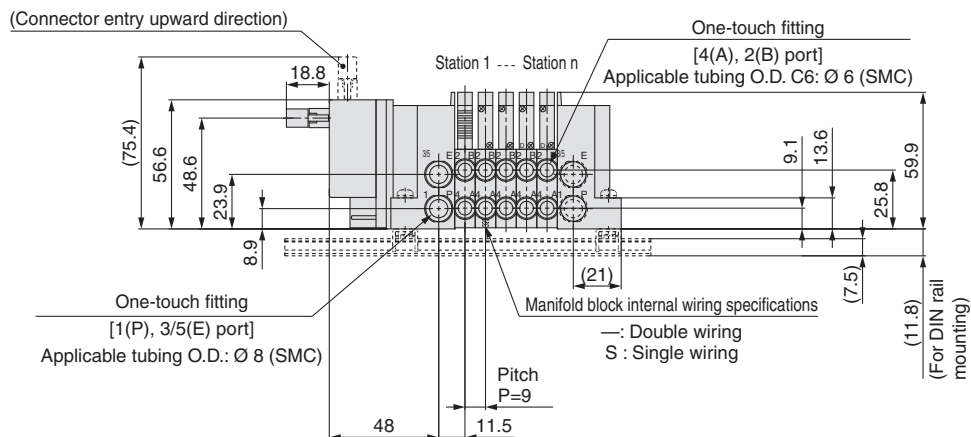
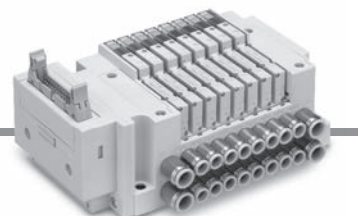
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10<sup>P</sup><sub>PH</sub> 1-<sup>U</sup><sub>B</sub> Stations C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)

Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)



- \* These figures show the "JJ5SY1-10P2-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

10PG (20 pins)	10PH (10 pins)
<p>Triangle mark</p> <p>Applicable connector: 20 pins MIL type (Conforming to MIL-C-83503)</p>	<p>Triangle mark</p> <p>Applicable connector: 10 pins MIL type (Conforming to MIL-C-83503)</p>

### L: Dimensions

	n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1		101	110	119	128	137	146	155	164	173	182	191	200	209	218	227	236	245	254	263	272	281	290	299
L2		61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3		135.5	148	160.5	160.5	173	185.5	185.5	198	210.5	223	223	235.5	248	248	260.5	273	285.5	285.5	298	310.5	310.5	323	335.5
L4		125	137.5	150	150	162.5	175	175	187.5	200	212.5	212.5	225	237.5	237.5	250	262.5	275	275	287.5	300	300	312.5	325
L5		20.5	22	24	19.5	21	23	18.5	20	22	23.5	19	21	22.5	18	20	21.5	23.5	19	20.5	22.5	18	19.5	21.5

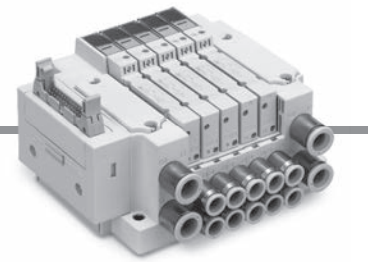
n: Stations

## Dimensions: JSY3000 Series

Type 10/Side Ported

Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)

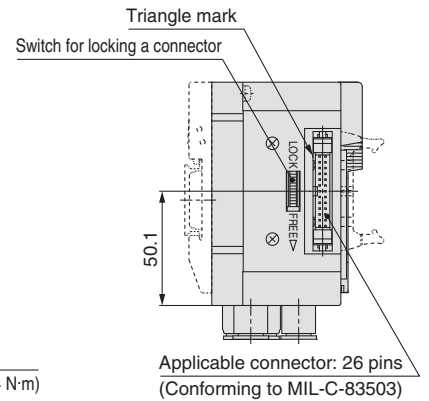
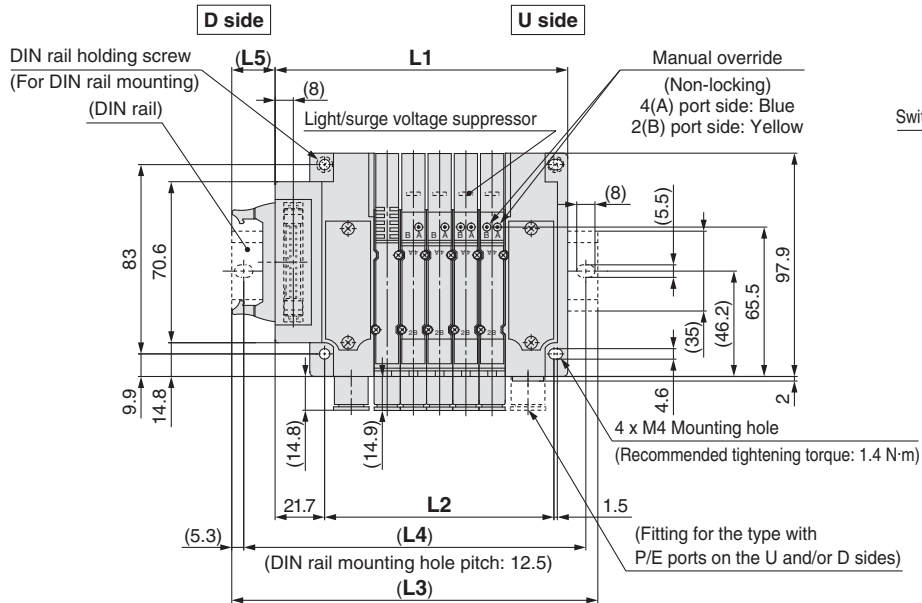
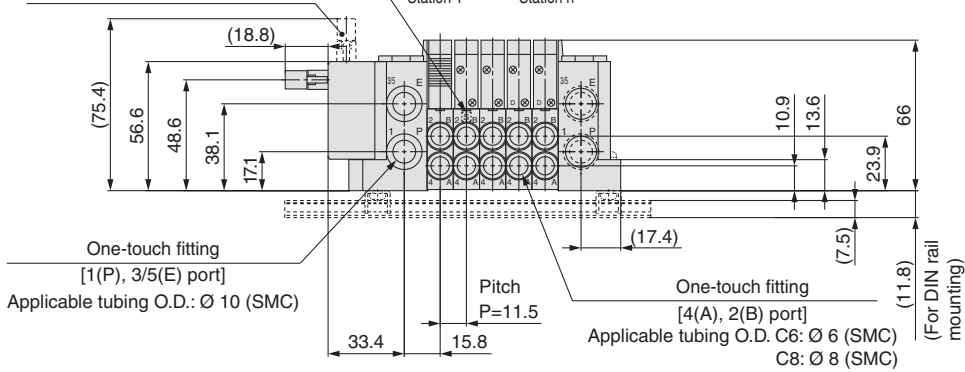
JJ5SY3-10<sup>PG</sup><sub>PH</sub>2-<sup>U</sup><sub>D</sub>Stations<sup>C6</sup><sub>C8</sub>(D)



Manifold block internal wiring specifications

—: Double wiring  
S: Single wiring

(Connector entry upward direction)



- \* These figures show the "JJ5SY3-10P2-05D-C8."
- \* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.

### L: Dimensions

n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	93.8	105.3	116.8	128.3	139.8	151.3	162.8	174.3	185.8	197.3	208.8	220.3	231.8	243.3	254.8	266.3	277.8	289.3	300.8	312.3	323.8	335.3	346.8
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5
L4	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375
L5	17.5	18	18.5	19	19.5	20	20.5	21	21.5	22	22.5	23	23.5	18	18.5	19	19.5	20	20.5	21	21.5	22	22.5

n: Stations

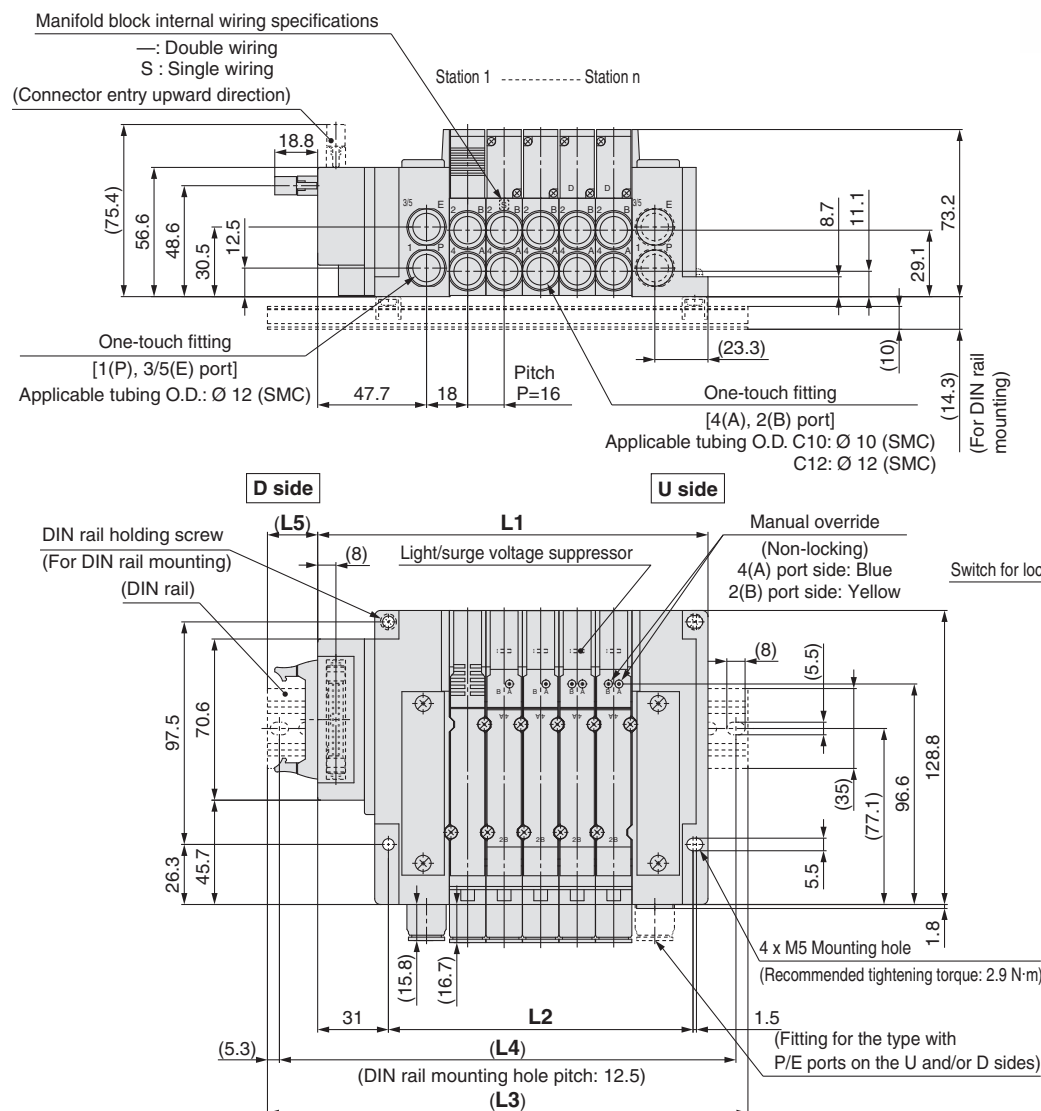
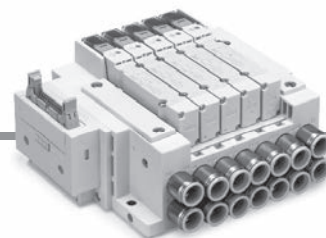
# JSY1000/3000/5000 Series

Type 10/Side Ported

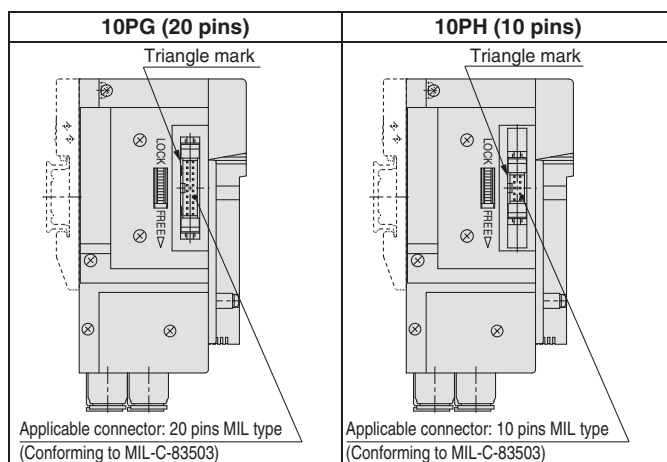
Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)

Dimensions: JSY5000 Series

JJ5SY5-10  $\frac{P}{PH} \frac{1}{2}$  - Stations  $\frac{U}{D}$  - C10(D)



- \* These figures show the "JJ5SY5-10P2-05D-C12."
- \* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PG and 10PH. L1 to L5 dimensions are the same as 10P type.



## L: Dimensions

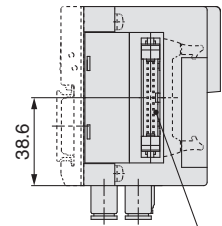
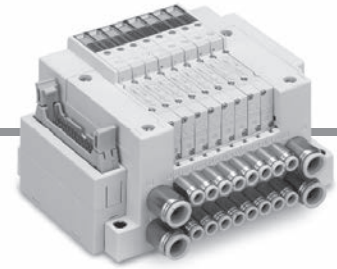
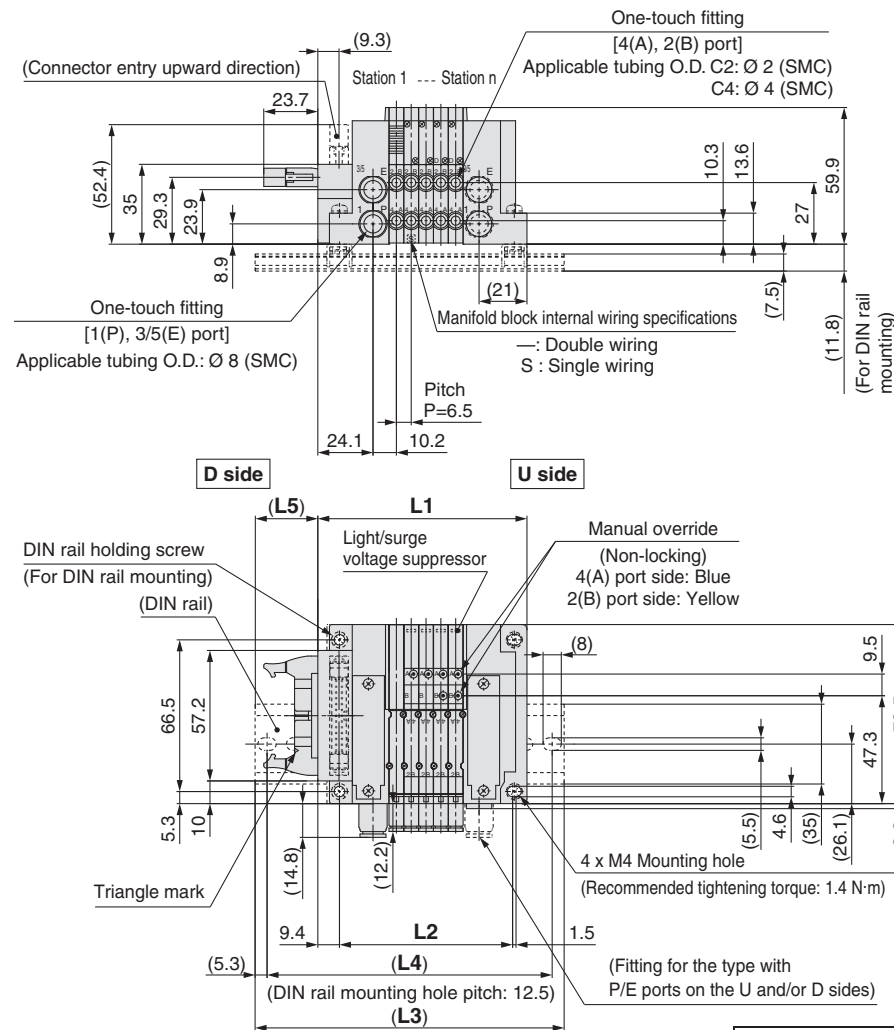
n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427	443	459	475
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
L3	160.5	173	185.5	210.5	223	235.5	260.5	273	285.5	298	323	335.5	348	360.5	385.5	398	410.5	435.5	448	460.5	473	498	510.5
L4	150	162.5	175	200	212.5	225	250	262.5	275	287.5	312.5	325	337.5	350	375	387.5	400	425	437.5	450	462.5	487.5	500
L5	22	20	18.5	23	21	19.5	24	22	20.5	18.5	23	21.5	19.5	18	22.5	20.5	19	23.5	21.5	20	18	22.5	21

n: Stations

## Dimensions: JSY1000 Series

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)  
Flat Ribbon Cable (IP20/Compact Type)

JJ5SY1-10<sup>P</sup><sub>PG</sub> C<sub>2</sub>-Stations<sup>U</sup><sub>P</sub>-C<sub>4</sub>(D)



Applicable connector: 26 pins  
(Conforming to MIL-C-83503)

- \* These figures show the "JJ5SY1-10PC2-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	72.1	78.6	85.1	91.6	98.1	104.6	111.1	117.6	124.1	130.6	137.1	143.6	150.1	156.6	163.1
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198
L4	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5
L5	25	28	24.5	27.5	24.5	27.5	24	27	24	27	23.5	26.5	23.5	26.5	23

L \ n	17	18	19	20	21	22	23	24
L1	169.6	176.1	182.6	189.1	195.6	202.1	208.6	215.1
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	210.5	210.5	223	235.5	235.5	248	248	260.5
L4	200	200	212.5	225	225	237.5	237.5	250
L5	26	23	26	29	25.5	28.5	25.5	28.5

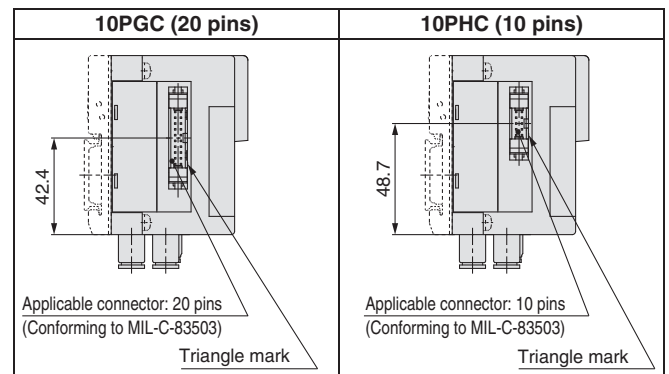


Chart
Valve
Connector Connecting Base
Plug-in
D.sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

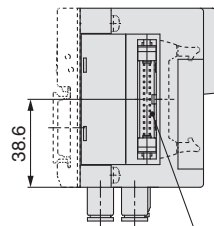
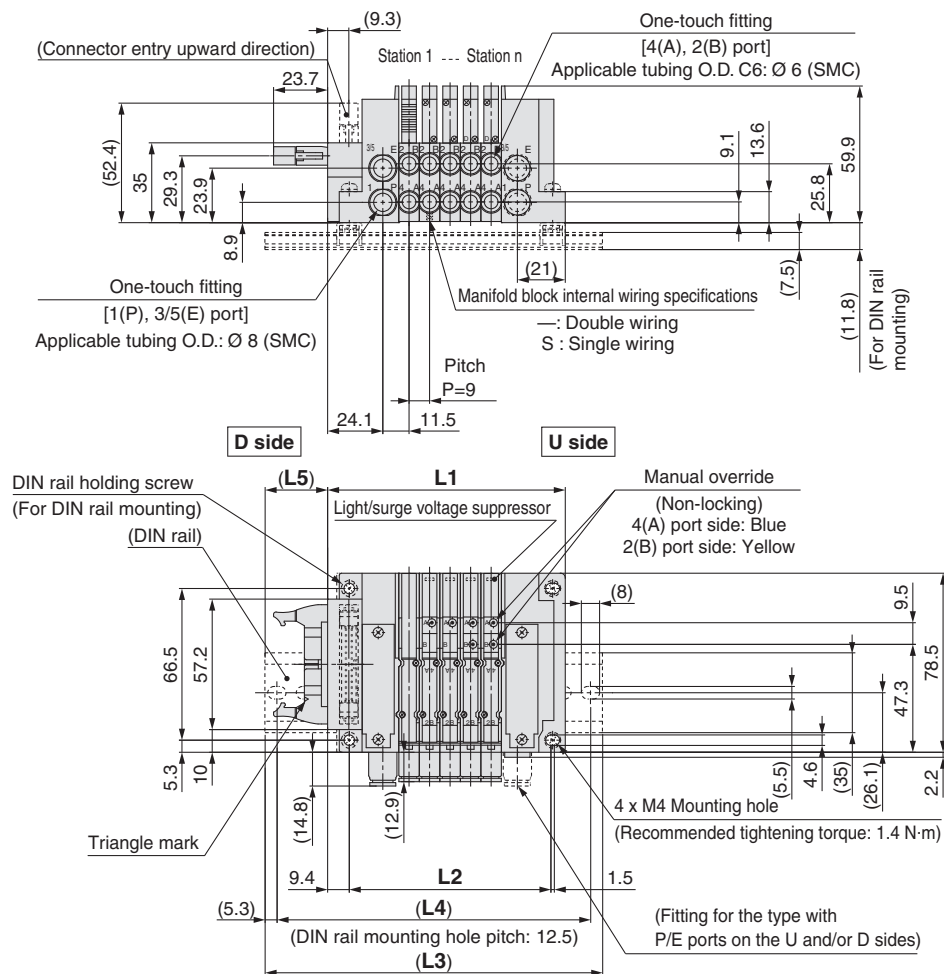
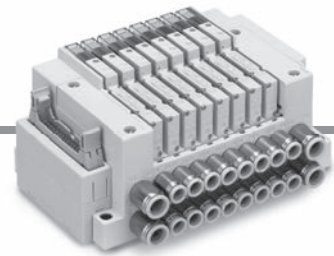


# JSY1000/3000/5000 Series

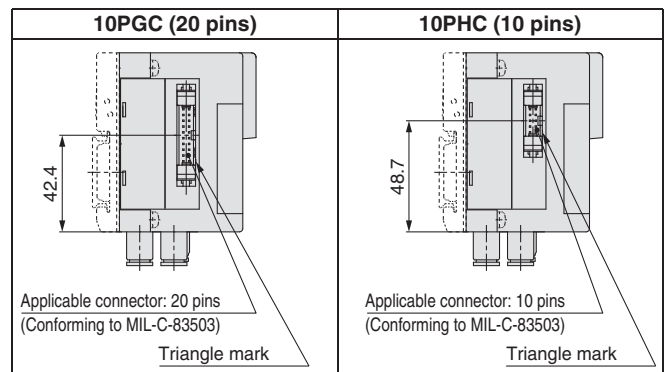
Type **10/Side** Ported (Applicable to Ø 6 fittings)

### Flat Ribbon Cable (IP20/Compact Type)

## Dimensions: JSY1000 Series

JJ5SY1-10<sup>P</sup><sub>PG</sub><sub>PH</sub>C<sub>2</sub>- Stations <sup>U</sup><sub>DB</sub>-C6(D)

Applicable connector: 26 pins  
(Conforming to MIL-C-83503)



- \* These figures show the “JJ5SY1-10PC2-05D-C6.”
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

## L: Dimensions

n: Stations

17 Dimensions															
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	77.1	86.1	95.1	104.1	113.1	122.1	131.1	140.1	149.1	158.1	167.1	176.1	185.1	194.1	203.1
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	123	123	135.5	148	148	160.5	173	185.5	185.5	198	210.5	210.5	223	235.5	248
L4	112.5	112.5	125	137.5	137.5	150	162.5	175	175	187.5	200	200	212.5	225	237.5
L5	28.5	24	26	27.5	23	25	26.5	28.5	24	25.5	27.5	23	24.5	26.5	28
L \ n	17	18	19	20	21	22	23	24							
L1	212.1	221.1	230.1	239.1	248.1	257.1	266.1	275.1							
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4							
L3	248	260.5	273	285.5	285.5	298	310.5	310.5							
L4	237.5	250	262.5	275	275	287.5	300	300							
L5	23.5	25.5	27	29	24.5	26	28	23.5							

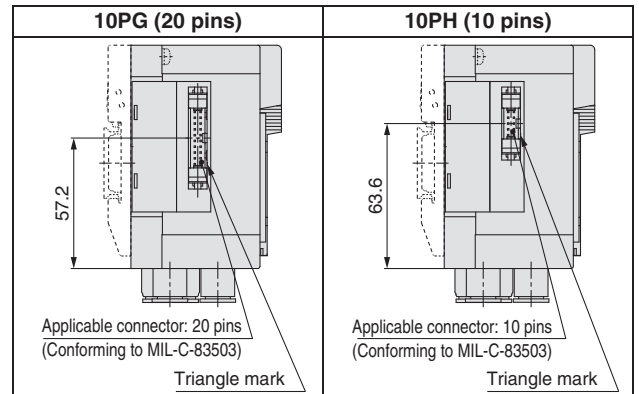
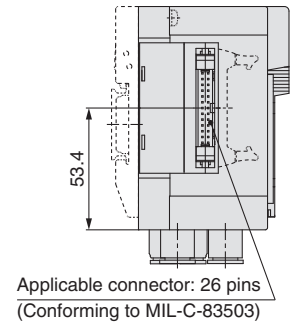
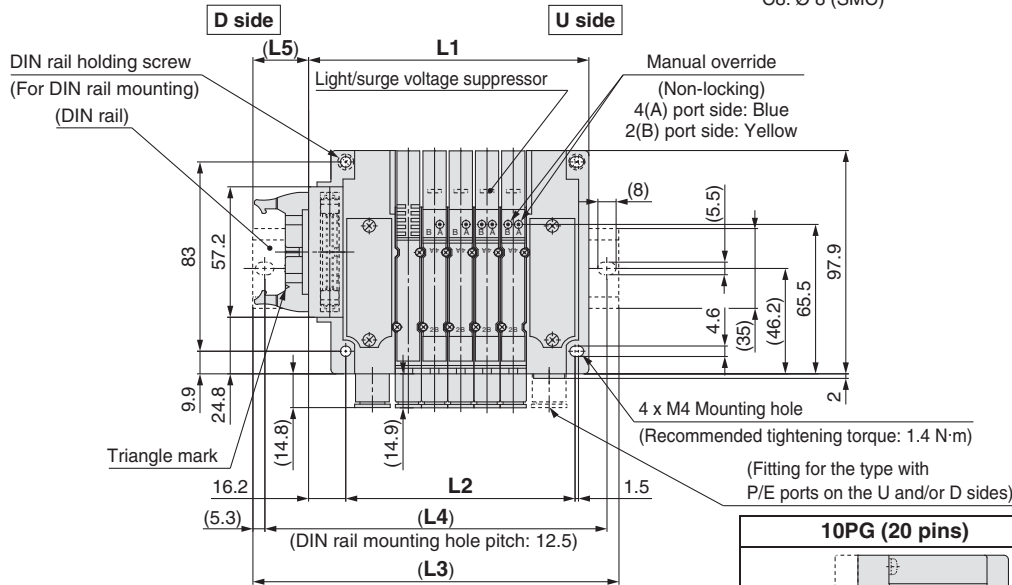
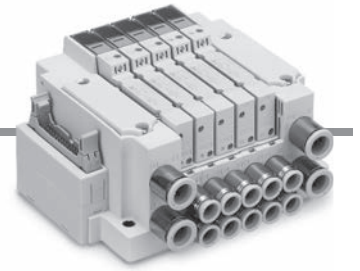
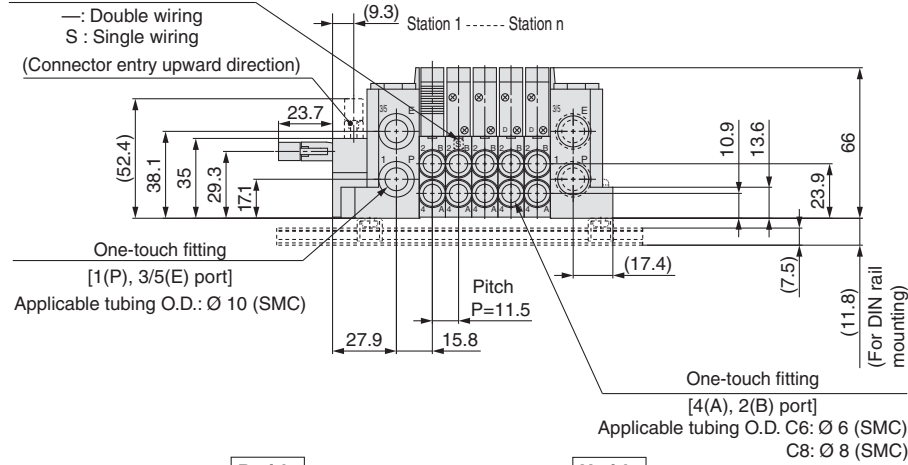
Type 10/Side Ported

Flat Ribbon Cable (IP20/Compact Type)

## Dimensions: JSY3000 Series

JJ5SY3-10<sup>P</sup><sub>PG</sub>C<sub>2</sub><sup>1</sup>-Stations<sup>U</sup><sub>D</sub>-C<sub>6</sub><sup>6</sup>(D)

Manifold block internal wiring specifications



- \* These figures show the "JJ5SY3-10PC2-05D-C8."
- \* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.
- \* Only connectors are different for 10PGC and 10PHC. L1 to L5 dimensions are the same as 10PC type.

### L: Dimensions

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	88.3	99.8	111.3	122.8	134.3	145.8	157.3	168.8	180.3	191.8	203.3	214.8	226.3	237.8	249.3
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	273	285.5
L4	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	262.5	275
L5	23	23.5	24	24.5	25	25.5	26	26.5	27	27.5	28	28.5	29	23	23.5

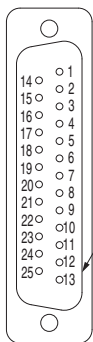
  

L \ n	17	18	19	20	21	22	23	24
L1	260.8	272.3	283.8	295.3	306.8	318.3	329.8	341.3
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	298	310.5	323	335.5	348	360.5	373	385.5
L4	287.5	300	312.5	325	337.5	350	362.5	375
L5	24	24.5	25	25.5	26	26.5	27	27.5

# JSY1000/3000/5000 Series

## Electrical Wiring Specifications

### D-sub connector



If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.

Connector terminal no.

	Terminal no.	Polarity
Station 1	SOL.a 1	(-) (+)
	SOL.b 14	(-) (+)
Station 2	SOL.a 2	(-) (+)
	SOL.b 15	(-) (+)
Station 3	SOL.a 3	(-) (+)
	SOL.b 16	(-) (+)
Station 4	SOL.a 4	(-) (+)
	SOL.b 17	(-) (+)
Station 5	SOL.a 5	(-) (+)
	SOL.b 18	(-) (+)
Station 6	SOL.a 6	(-) (+)
	SOL.b 19	(-) (+)
Station 7	SOL.a 7	(-) (+)
	SOL.b 20	(-) (+)
Station 8	SOL.a 8	(-) (+)
	SOL.b 21	(-) (+)
Station 9	SOL.a 9	(-) (+)
	SOL.b 22	(-) (+)
Station 10	SOL.a 10	(-) (+)
	SOL.b 23	(-) (+)
Station 11	SOL.a 11	(-) (+)
	SOL.b 24	(-) (+)
Station 12	SOL.a 12	(-) (+)
	SOL.b 25	(-) (+)
COM.	13	(+) (-)

Positive common Negative common

\* When using a valve with no polarity, either positive common or negative common can be used.

Terminal no.	Lead wire colour	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Grey	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Grey	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Grey	Red
24	Black	White
25	White	None

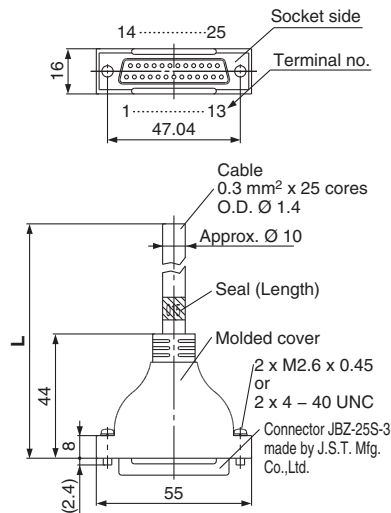
\* Connector made in conformity with MIL-C-24308

## Cable Assembly

### AXT100-DS25-030 (N) [IP40]

015  
050

—: Metric  
N: Inch



### Connector Manufacturer's Example

- Fujitsu Limited
- Japan Aviation Electronics Industry, Limited
- J.S.T. Mfg. Co., Ltd.
- HIROSE ELECTRIC CO., LTD.

### D-sub connector cable assembly [IP40]

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-DS25-015	Cable 0.3 mm² x 25 cores
3 m	AXT100-DS25-030	
5 m	AXT100-DS25-050	

- \* When using a standard commercial connector, use a 25-pin type female connector conforming to MIL-C-24308.
- \* Cannot be used for movable wiring
- \* Lengths other than the above are also available. Please contact SMC for details.

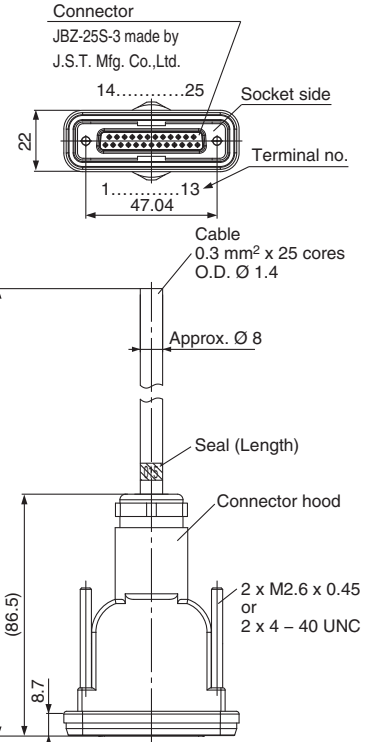
### D-sub connector cable assembly terminal numbers

Terminal no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Lead wire colour	Black	Brown	Red	Orange	Yellow	None	Pink	Blue	Purple	Grey	White	Black	Red	White	Yellow	Orange	Black	Pink	Blue	Purple	None	Grey	Orange	Black	White
Dot marking	None	None	None	None	None	None	None	None	White	Black	Black	Red	Red	Red	Black	Black	White	None	None	None	White	White	Red	Red	White

### SY30M-DS25-030 (N) [IP67]

015  
050

—: Metric  
N: Inch



### D-sub connector cable assembly [IP67]

Cable length (L)	Assembly part no.	Note
1.5 m	SY30M-DS25-015	Cable 0.3 mm² x 25 cores
3 m	SY30M-DS25-030	
5 m	SY30M-DS25-050	

- \* Be sure to use the connector cable assembly in the table, to satisfy enclosure IP67.
- \* Cannot be used for movable wiring

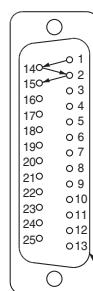
### Electrical characteristics

Item	Property
Conductor resistance /km, 20 °C	65 or less
Voltage limit V, 1 minute, AC	1000
Insulation resistance M /km, 20 °C	5 or more

\* The minimum bending radius of the D-sub connector cable is 20 mm.

## Specified Layout

### (25 pins)

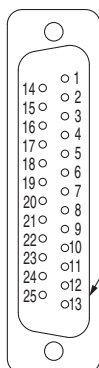


A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 24 or less. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.

COM.

## Electrical Wiring Specifications

## D-sub connector



If alignment is not specified, the internal wiring is double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve and option types.

	Lead wire no.	Polarity	
Station 1	SOL. a 1	(-)	(+)
	SOL. b 14	(-)	(+)
Station 2	SOL. a 2	(-)	(+)
	SOL. b 15	(-)	(+)
Station 3	SOL. a 3	(-)	(+)
	SOL. b 16	(-)	(+)
Station 4	SOL. a 4	(-)	(+)
	SOL. b 17	(-)	(+)
Station 5	SOL. a 5	(-)	(+)
	SOL. b 18	(-)	(+)
Station 6	SOL. a 6	(-)	(+)
	SOL. b 19	(-)	(+)
Station 7	SOL. a 7	(-)	(+)
	SOL. b 20	(-)	(+)
Station 8	SOL. a 8	(-)	(+)
	SOL. b 21	(-)	(+)
Station 9	SOL. a 9	(-)	(+)
	SOL. b 22	(-)	(+)
Station 10	SOL. a 10	(-)	(+)
	SOL. b 23	(-)	(+)
Station 11	SOL. a 11	(-)	(+)
	SOL. b 24	(-)	(+)
Station 12	SOL. a 12	(-)	(+)
	SOL. b 25	(-)	(+)
	COM. 13	(+)	(-)
		<b>Positive common</b>	<b>Negative common</b>

Terminal no.	Lead wire colour	Dot marking
1	White	None
2	Brown	None
3	Green	None
4	Yellow	None
5	Grey	None
6	Pink	None
7	Blue	None
8	Red	None
9	Black	None
10	Purple	None
11	Grey	Pink
12	Red	Blue
13	White	Green
14	Brown	Green
15	White	Yellow
16	Yellow	Brown
17	White	Grey
18	Grey	Brown
19	White	Pink
20	Pink	Brown
21	White	Blue
22	Brown	Blue
23	White	Red
24	Brown	Red
25	White	Black

\* When using a valve with no polarity, either positive common or negative common can be used.

\* Connector made in conformity with DIN47100.

## Connector Cable

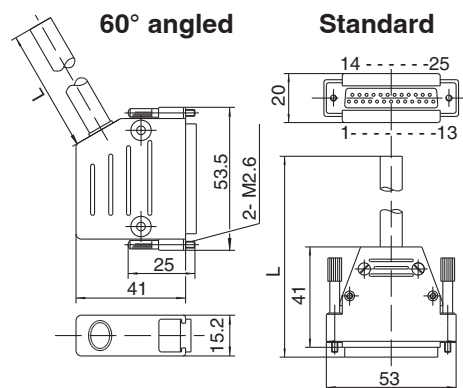
## GVVZS3000-21A-□ [IP40]

## D-sub connector/cable

Cable length (L)	Assembly part no.	Note
1 m	GVVZS3000-21A-160	60° angled
3 m	GVVZS3000-21A-260	60° angled
5 m	GVVZS3000-21A-360	60° angled
8 m	GVVZS3000-21A-460	60° angled
3 m	GVVZS3000-21A-2	Standard
5 m	GVVZS3000-21A-3	Standard
8 m	GVVZS3000-21A-4	Standard

## Shielded cable

Cable length (L)	Assembly part no.	Note
1 m	GVVZS3000-21A-1S	Shielded
3 m	GVVZS3000-21A-2S	Shielded
5 m	GVVZS3000-21A-3S	Shielded
8 m	GVVZS3000-21A-4S	Shielded
20 m	GVVZS3000-21A-5S	Made to order



## Electrical characteristics

Item	Property
Conductor resistance /km, 20 °C	Max. 57
Voltage limit V, 5 minute, AC	1500
Insulation resistance M /km, 20 °C	20



## Electrical Wiring Specifications

### Flat ribbon cable connector

26 □ □ 25
24 □ □ 23
22 □ □ 21
20 □ □ 19
18 □ □ 17
16 □ □ 15
14 □ □ 13
12 □ □ 11
10 □ □ 9
8 □ □ 7
6 □ □ 5
4 □ □ 3
2 □ □ 1

Connector terminal no.

Triangle mark indicator position

If alignment is not specified, the internal wiring is double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve and option types.

#### P, PC: Flat ribbon cable (26 pins)

##### <Double wiring>

	Terminal no.	Polarity
Station 1 { SOL. a	1 (-)	(+)
Station 1 { SOL. b	2 (-)	(+)
Station 2 { SOL. a	3 (-)	(+)
Station 2 { SOL. b	4 (-)	(+)
Station 3 { SOL. a	5 (-)	(+)
Station 3 { SOL. b	6 (-)	(+)
Station 4 { SOL. a	7 (-)	(+)
Station 4 { SOL. b	8 (-)	(+)
Station 5 { SOL. a	9 (-)	(+)
Station 5 { SOL. b	10 (-)	(+)
Station 6 { SOL. a	11 (-)	(+)
Station 6 { SOL. b	12 (-)	(+)
Station 7 { SOL. a	13 (-)	(+)
Station 7 { SOL. b	14 (-)	(+)
Station 8 { SOL. a	15 (-)	(+)
Station 8 { SOL. b	16 (-)	(+)
Station 9 { SOL. a	17 (-)	(+)
Station 9 { SOL. b	18 (-)	(+)
Station 10 { SOL. a	19 (-)	(+)
Station 10 { SOL. b	20 (-)	(+)
Station 11 { SOL. a	21 (-)	(+)
Station 11 { SOL. b	22 (-)	(+)
Station 12 { SOL. a	23 (-)	(+)
Station 12 { SOL. b	24 (-)	(+)
COM.	25 (+)	(-)
COM.	26 (+)	(-)

Positive Negative  
common common

#### PG, PGC: Flat ribbon cable (20 pins)

##### <Double wiring>

	Terminal no.	Polarity
Station 1 { SOL. a	1 (-)	(+)
Station 1 { SOL. b	2 (-)	(+)
Station 2 { SOL. a	3 (-)	(+)
Station 2 { SOL. b	4 (-)	(+)
Station 3 { SOL. a	5 (-)	(+)
Station 3 { SOL. b	6 (-)	(+)
Station 4 { SOL. a	7 (-)	(+)
Station 4 { SOL. b	8 (-)	(+)
Station 5 { SOL. a	9 (-)	(+)
Station 5 { SOL. b	10 (-)	(+)
Station 6 { SOL. a	11 (-)	(+)
Station 6 { SOL. b	12 (-)	(+)
Station 7 { SOL. a	13 (-)	(+)
Station 7 { SOL. b	14 (-)	(+)
Station 8 { SOL. a	15 (-)	(+)
Station 8 { SOL. b	16 (-)	(+)
Station 9 { SOL. a	17 (-)	(+)
Station 9 { SOL. b	18 (-)	(+)
COM.	19 (+)	(-)
COM.	20 (+)	(-)

Positive Negative  
common common

#### PH, PHC: Flat ribbon cable (10 pins)

##### <Double wiring>

	Terminal no.	Polarity
Station 1 { SOL. a	1 (-)	(+)
Station 1 { SOL. b	2 (-)	(+)
Station 2 { SOL. a	3 (-)	(+)
Station 2 { SOL. b	4 (-)	(+)
Station 3 { SOL. a	5 (-)	(+)
Station 3 { SOL. b	6 (-)	(+)
Station 4 { SOL. a	7 (-)	(+)
Station 4 { SOL. b	8 (-)	(+)
COM.	9 (+)	(-)
COM.	10 (+)	(-)

Positive Negative  
common common

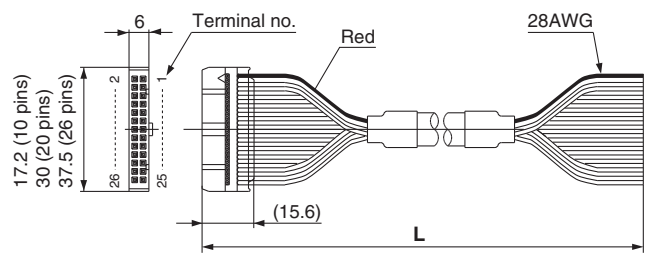
\* When using a valve with no polarity, either positive common or negative common can be used.



# JSY1000/3000/5000 Series

## Flat Ribbon Cable Connector

AXT100-FC<sup>10 1</sup><sub>20-2</sub>  
26 3



### Flat ribbon cable connector

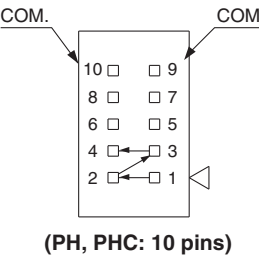
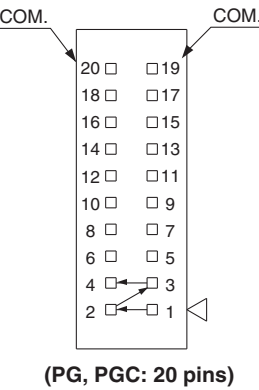
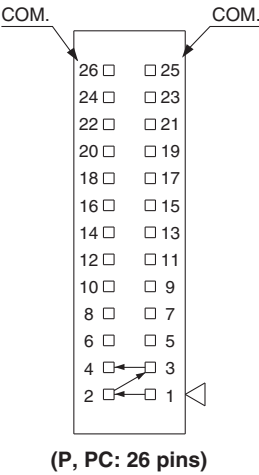
Cable length (L)	Assembly part no.		
	26 pins	20 pins	10 pins
1.5 m	AXT100-FC26-1	AXT100-FC20-1	AXT100-FC10-1
3 m	AXT100-FC26-2	AXT100-FC20-2	AXT100-FC10-2
5 m	AXT100-FC26-3	AXT100-FC20-3	AXT100-FC10-3

- \* When using a standard commercial connector, use a 26-pin, 20-pin or 10-pin type connector conforming to MIL-C-83503 with strain relief.
- \* Cannot be used for movable wiring.
- \* Lengths other than the above are also available. Please contact SMC for details.

### Connector Manufacturers' Example

- HIROSE ELECTRIC CO., LTD.
- 3M Japan Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Limited
- J.S.T. Mfg. Co., Ltd.
- Oki Electric Cable Co., Ltd.

## Specified Layout



Mixed wiring of single and double wiring can be specified on the manifold specification. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 24 or less for P and PC, 18 or less for PG and PGC, and 8 or less for PH and PHC. 1 solenoid is required for 2-position single, and 2 solenoids for 2-position double, 3-position and 4-position.

Specific Product Precautions	Made to Order	Manifold Options	Fittings, Replacement Parts, Tools	Manifold Exploded View	Common Dimensions	Connector					Valve	Chart
						EX120	EX260	EX250	EX245	EX600		

# Plug-in Connector Connecting Base

Spring Type Terminal Block Box

Terminal Block Box

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **TC** - **05** **D** **□** - **C6** **□**

1 2 3 4 5 6 7 8



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 2 Type

10	Side ported
----	-------------

### 3 Wiring

TC	Spring type terminal block box
T	Terminal block box

### 4 Valve stations

TC: Spring type terminal block box			T: Terminal block box		
Symbol	Stations	Note	Symbol	Stations	Note
02	2 stations	Double wiring*1	02	2 stations	Double wiring*1
⋮	⋮		⋮	⋮	
16	16 stations	Specified layout*2 (Up to 32 solenoids available)	10	10 stations	Specified layout*2 (Up to 20 solenoids available)
02	2 stations		02	2 stations	
⋮	⋮		⋮	⋮	
24	24 stations		20	20 stations	

\*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.  
Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

\*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

\*3 This also includes the number of blanking plates.

### 5 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

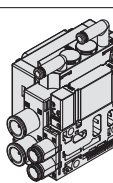
### 6 SUP/EXH block assembly

—	Internal pilot
S	Internal pilot, Built-in silencer

- \* 3/5(E) port is plugged for the built-in silencer type.
- \* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.
- \* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 7 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



- \*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
- \* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 8 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

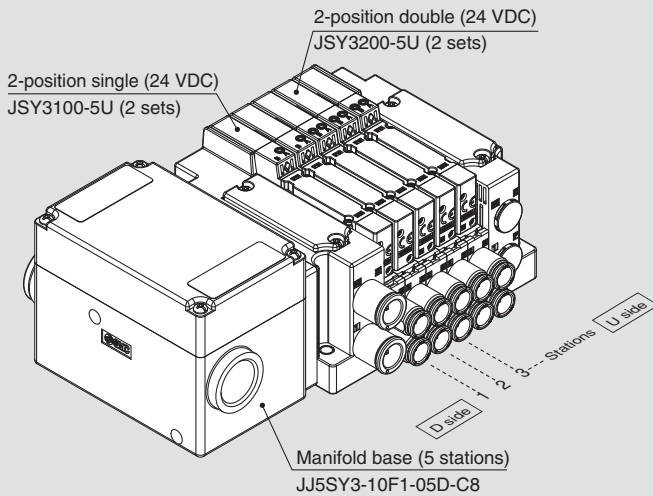
- \* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
- \* Refer to page 124 for the fixation of DIN rail mounting type manifold.

#### DIN Rail Option

—	DIN rail mounting (With DIN rail)	
0	DIN rail mounting (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the standard length.
⋮	⋮	
24	For 24 stations	

## How to Order Manifold Assembly

### Example (JJ5SY3-10TC-□)



JSY3200-5U... 1 set (Type 10 5-station manifold base part no.)

\* JSY3100-5U ..... 2 sets (2-position single part no.)

\* JSY3200-5U ..... 3 sets (2-position double part no.)

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

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

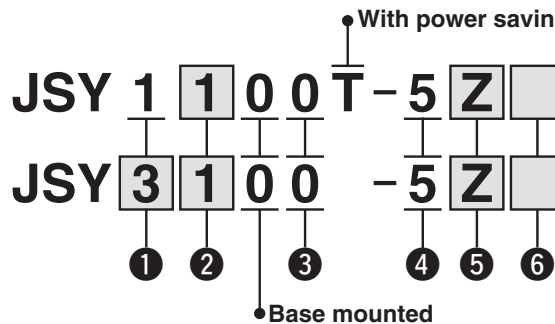
### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series



**Made to Order**  
(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

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

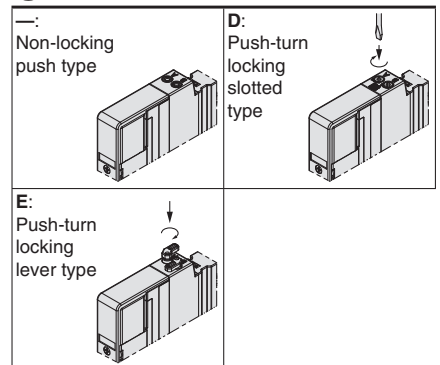
#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
Z	●	●	Positive common
NZ			Negative common

\* Only "Z" and "NZ" types are available for the JSY1000 series.

\* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

\* **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 113 for base gasket and mounting screw part numbers.

### Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.

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



Protective class  
class III (Mark: III)

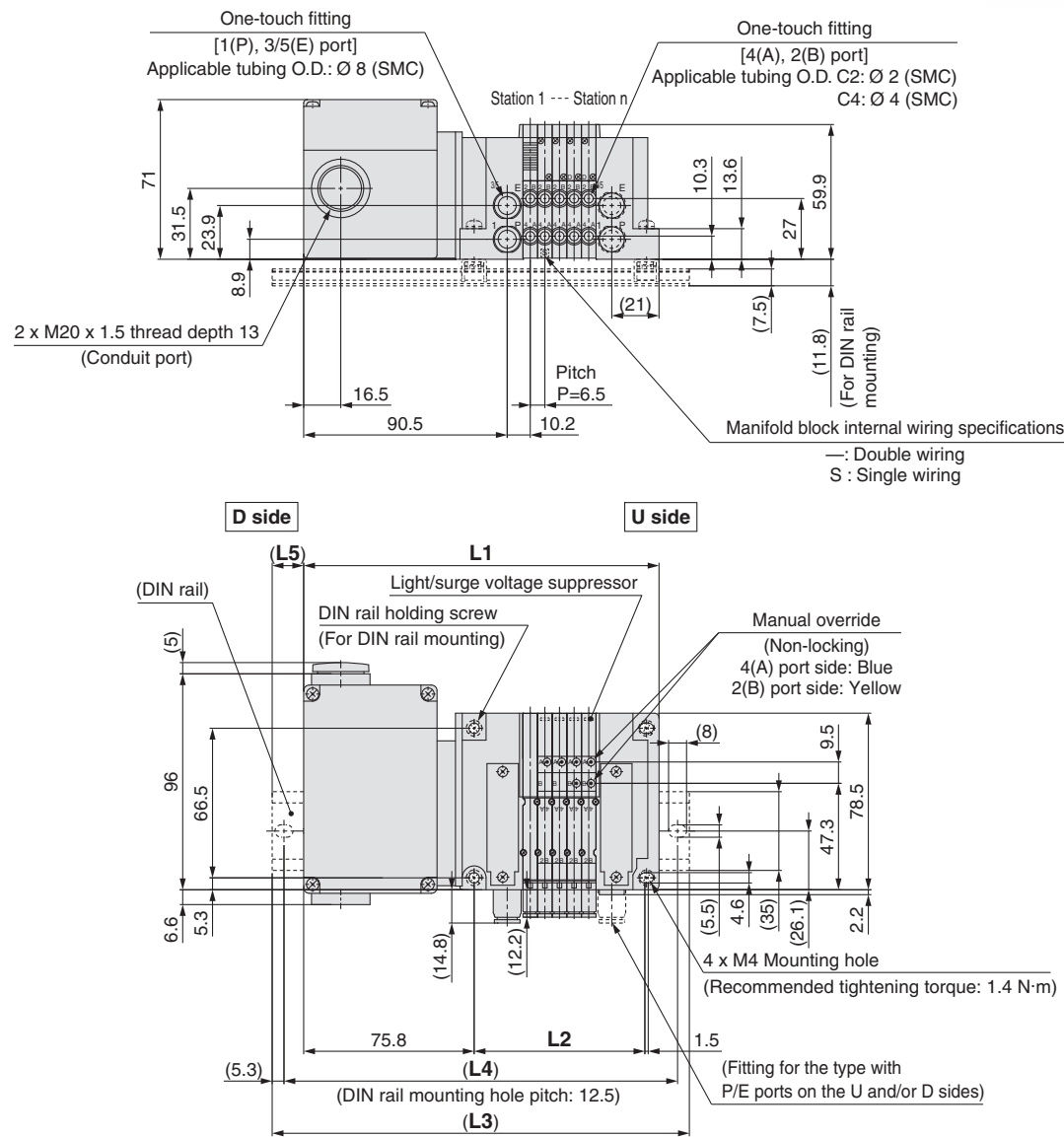
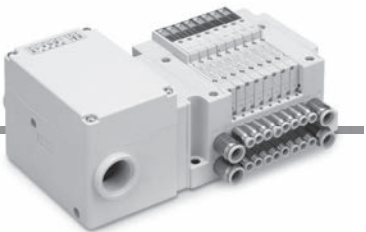
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10TC-Stations<sup>U</sup><sub>D</sub>-C<sub>2</sub><sup>C4</sup>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

Spring Type Terminal Block Box



- \* These figures show the "JJ5SY1-10TC-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

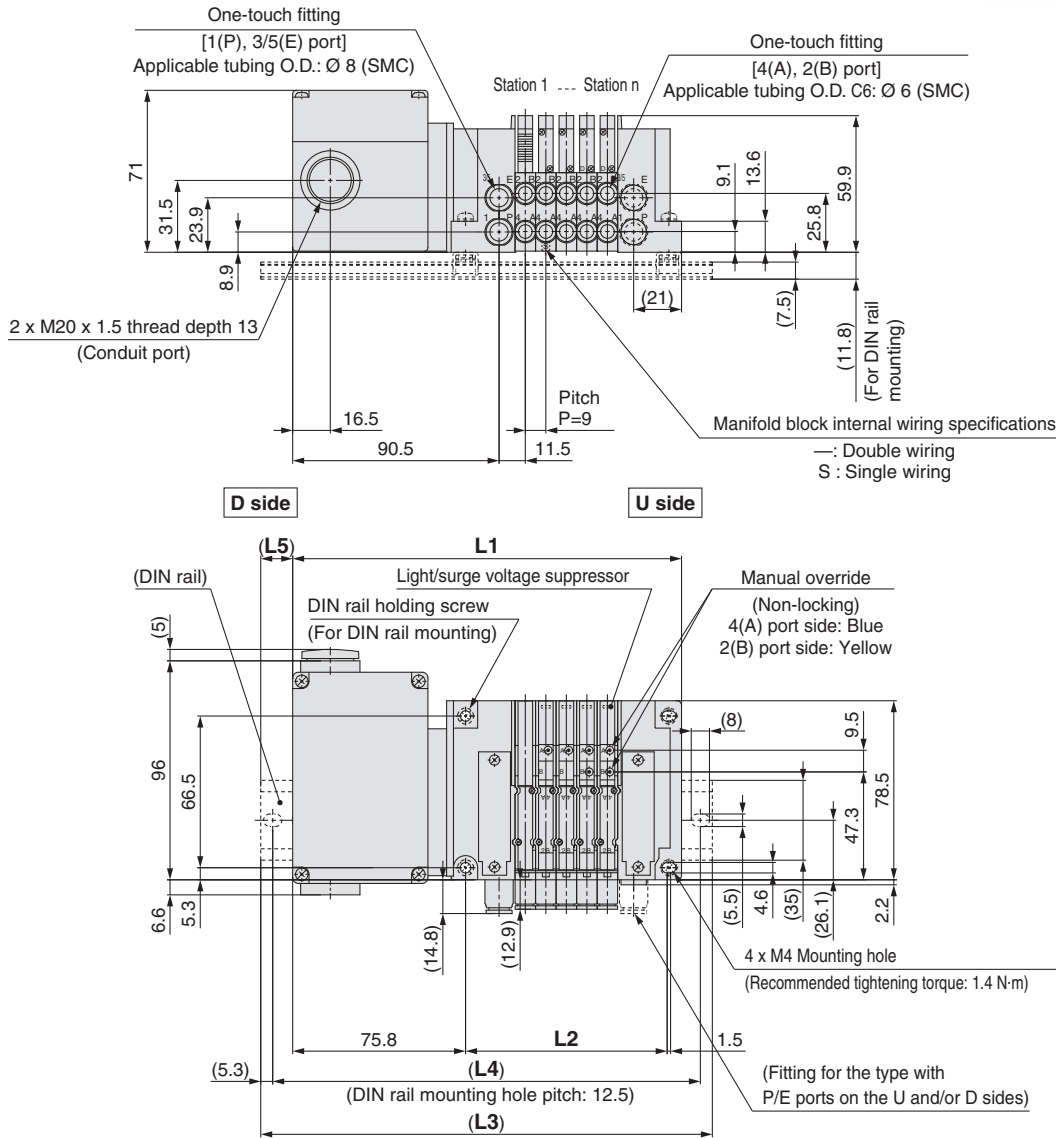
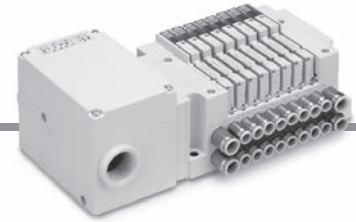
$\frac{L}{n}$	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	138.5	145	151.5	158	164.5	171	177.5	184	190.5	197	203.5	210	216.5	223	229.5
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5
L4	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5	250
L5	17.5	14	17	14	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5

$\frac{L}{n}$	17	18	19	20	21	22	23	24
L1	236	242.5	249	255.5	262	268.5	275	281.5
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	260.5	273	273	285.5	285.5	298	310.5	310.5
L4	250	262.5	262.5	275	275	287.5	300	300
L5	12.5	15.5	12	15	12	15	18	14.5

## Dimensions: JSY1000 Series

JJ5SY1-10TC-**Stations** <sup>U</sup><sub>D</sub>-C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)  
Spring Type Terminal Block Box



- \* These figures show the "JJ5SY1-10TC-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	143.5	152.5	161.5	170.5	179.5	188.5	197.5	206.5	215.5	224.5	233.5	242.5	251.5	260.5	269.5
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	173	185.5	185.5	198	210.5	223	223	235.5	248	248	260.5	273	285.5	285.5	298
L4	162.5	175	175	187.5	200	212.5	212.5	225	237.5	237.5	250	262.5	275	275	287.5
L5	15	16.5	12	14	15.5	17.5	13	14.5	16.5	12	13.5	15.5	17	12.5	14.5

L \ n	17	18	19	20	21	22	23	24
L1	278.5	287.5	296.5	305.5	314.5	323.5	332.5	341.5
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3	310.5	323	323	335.5	348	348	360.5	373
L4	300	312.5	312.5	325	337.5	337.5	350	362.5
L5	16	18	13.5	15	17	12.5	14	16

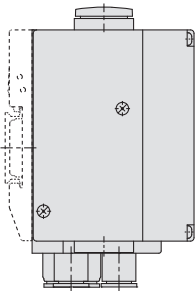
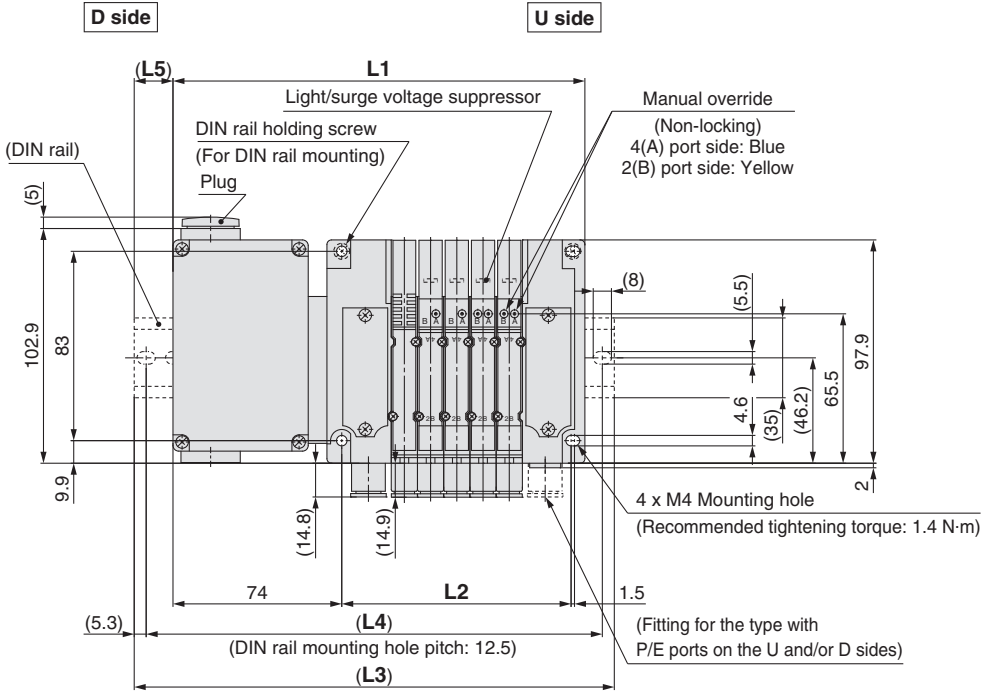
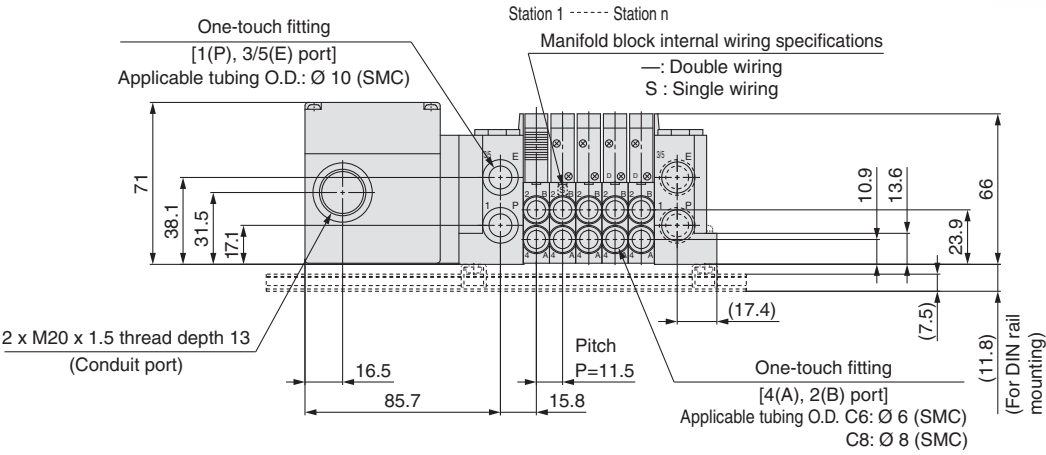


# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

JJ5SY3-10TC- Stations  $\frac{U}{D}$  - C<sub>6</sub><sup>6</sup>/C<sub>8</sub><sup>8</sup> (D)

Type 10/Side Ported  
Spring Type Terminal Block Box



\* These figures show the "JJ5SY3-10TC-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

$\frac{L}{n}$	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	146.1	157.6	169.1	180.6	192.1	203.6	215.1	226.6	238.1	249.6	261.1	272.6	284.1	295.6	307.1
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	173	185.5	198	210.5	223	235.5	248	260.5	273	273	285.5	298	310.5	323	335.5
L4	162.5	175	187.5	200	212.5	225	237.5	250	262.5	262.5	275	287.5	300	312.5	325
L5	13.5	14	14.5	15	15.5	16	16.5	17	17.5	11.5	12	12.5	13	13.5	14

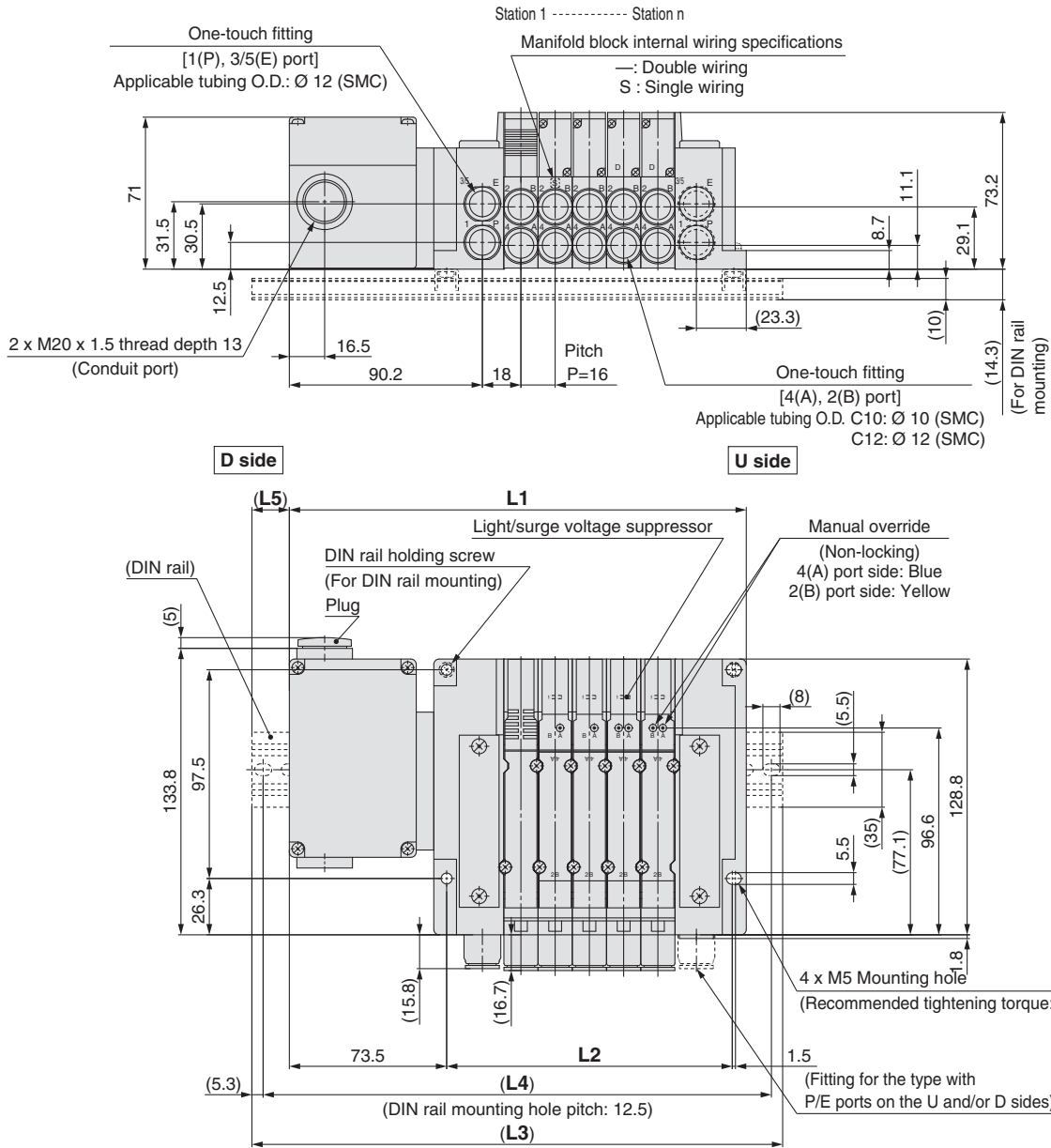
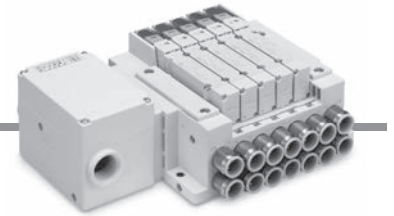
$\frac{L}{n}$	17	18	19	20	21	22	23	24
L1	318.6	330.1	341.6	353.1	364.6	376.1	387.6	399.1
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	348	360.5	373	385.5	398	410.5	423	423
L4	337.5	350	362.5	375	387.5	400	412.5	412.5
L5	14.5	15	15.5	16	16.5	17	17.5	12

## Dimensions: JSY5000 Series

JJ5SY5-10TC-  $\frac{U}{D}$  - C<sub>10</sub><sup>10</sup> - C<sub>12</sub><sup>12</sup> (D)

Type 10/Side Ported

Spring Type Terminal Block Box



\* These figures show the "JJ5SY5-10TC-05D-C12."

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5	325.5	341.5	357.5	373.5	389.5
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	198	210.5	223	248	260.5	273	285.5	310.5	323	335.5	360.5	373	385.5	398	423
L4	187.5	200	212.5	237.5	250	262.5	275	300	312.5	325	350	362.5	375	387.5	412.5
L5	16.5	14.5	13	17.5	15.5	14	12	16.5	15	13	17.5	16	14	12.5	17

L \ n	17	18	19	20	21	22	23	24
L1	405.5	421.5	437.5	453.5	469.5	485.5	501.5	517.5
L2	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
L3	435.5	448	473	485.5	498	510.5	535.5	548
L4	425	437.5	462.5	475	487.5	500	525	537.5
L5	15	13.5	18	16	14.5	12.5	17	15.5

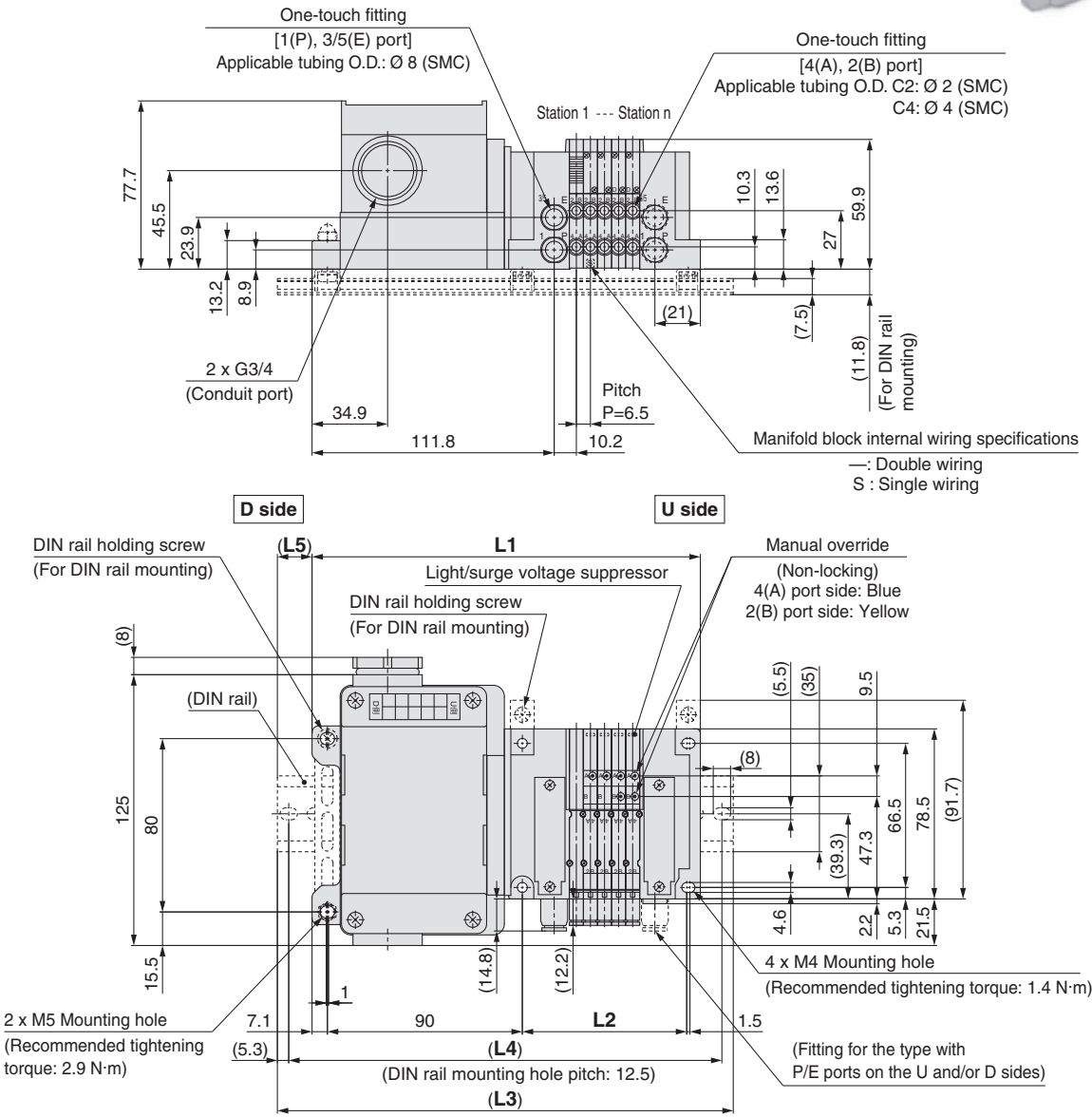
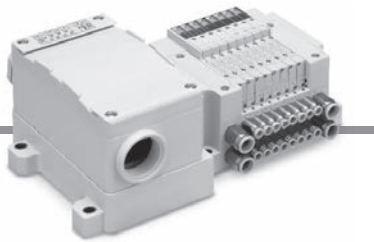
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10T- Stations  $\frac{U}{D}$  - C<sub>2</sub>-C<sub>4</sub>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

Terminal Block Box



\* These figures show the "JJ5SY1-10T-05D-C4."

\* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.

\* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	159.8	166.3	172.8	179.3	185.8	192.3	198.8	205.3	211.8	218.3	224.8	231.3	237.8	244.3	250.8
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	273	273	285.5
L4	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5	250	262.5	262.5	275
L5	13	16	13	16	13	16	12	15	12	15	12	15	18	15	18

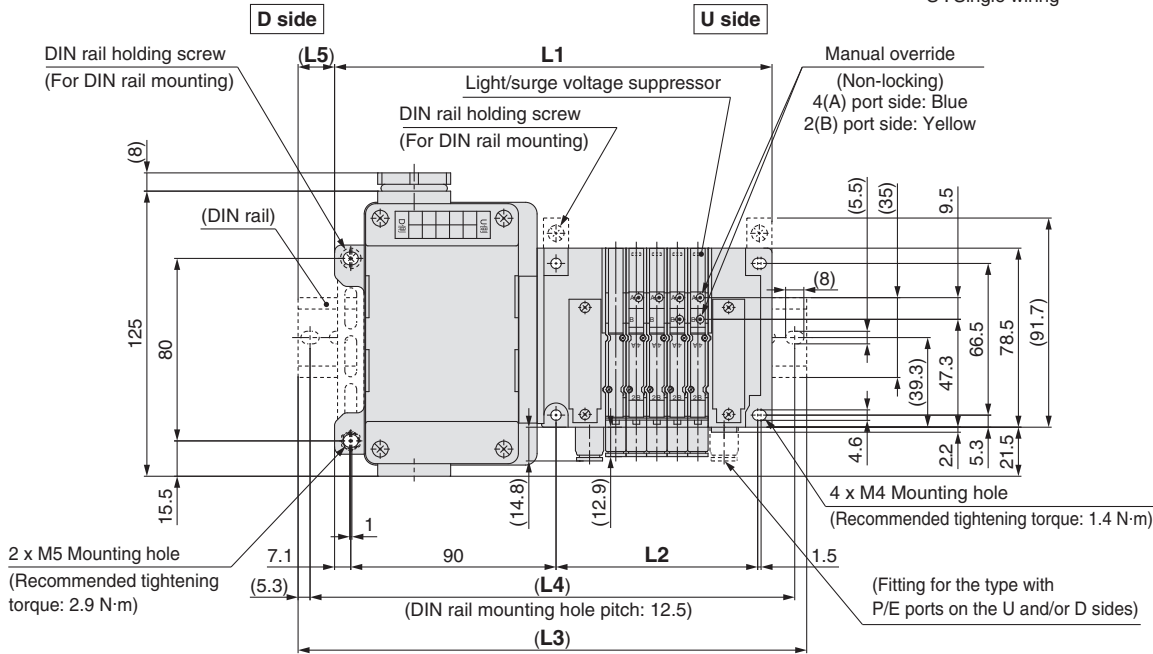
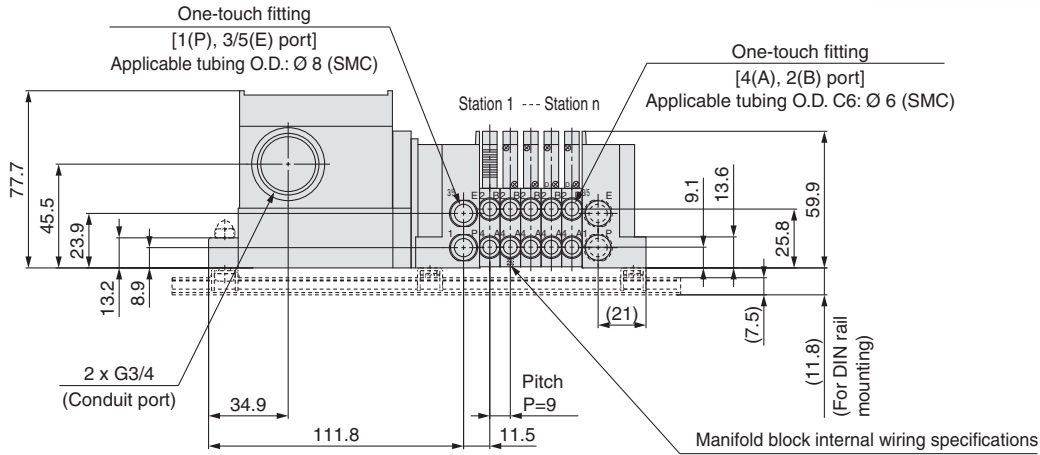
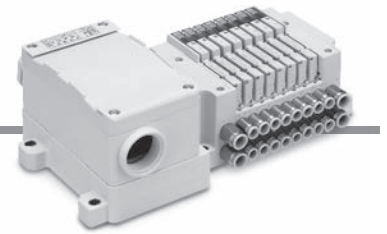
L \ n	17	18	19	20
L1	257.3	263.8	270.3	276.8
L2	153.9	160.4	166.9	173.4
L3	285.5	298	298	310.5
L4	275	287.5	287.5	300
L5	14	17	14	17

## Dimensions: JSY1000 Series

JJ5SY1-10T- **Stations** <sup>U</sup>/<sub>D</sub> - C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)

Terminal Block Box



- \* These figures show the "JJ5SY1-10T-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	164.8	173.8	182.8	191.8	200.8	209.8	218.8	227.8	236.8	245.8	254.8	263.8	272.8	281.8	290.8
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	198	198	210.5	223	235.5	235.5	248	260.5	260.5	273	285.5	298	298	310.5	323
L4	187.5	187.5	200	212.5	225	225	237.5	250	250	262.5	275	287.5	287.5	300	312.5
L5	17	12	14	16	18	13	15	17	12	14	16	17	13	15	16

L \ n	17	18	19	20
L1	299.8	308.8	317.8	326.8
L2	196.4	205.4	214.4	223.4
L3	323	335.5	348	360.5
L4	312.5	325	337.5	350
L5	12	14	15	17

Chart
Valve
Connector Connecting Base
Plug-in
D.sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

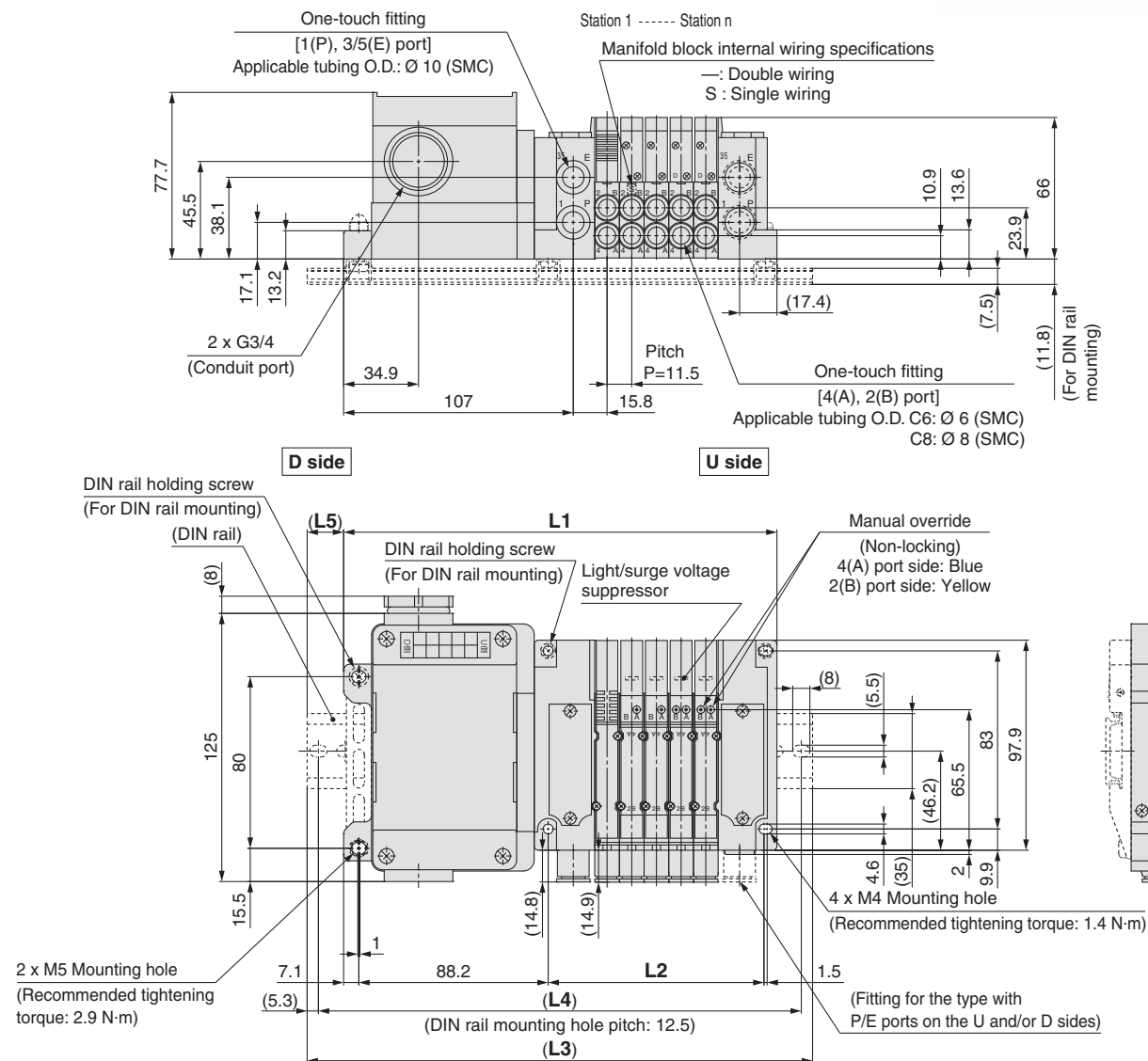
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

Type 10/Side Ported

Terminal Block Box

JJ5SY3-10T - Stations  $\frac{U}{D}$  - C<sub>6</sub> (D)



\* These figures show the "JJ5SY3-10T-05D-C8."

\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	167.4	178.9	190.4	201.9	213.4	224.9	236.4	247.9	259.4	270.9	282.4	293.9	305.4	316.9	328.4
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	198	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5	323	335.5	348	360.5
L4	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350
L5	16	16	17	17	18	12	12	13	13	14	14	15	15	16	16

L \ n	17	18	19	20
L1	339.9	351.4	362.9	374.4
L2	238.6	250.1	261.6	273.1
L3	373	385.5	398	398
L4	362.5	375	387.5	387.5
L5	17	17	18	12

## Dimensions: JSY5000 Series

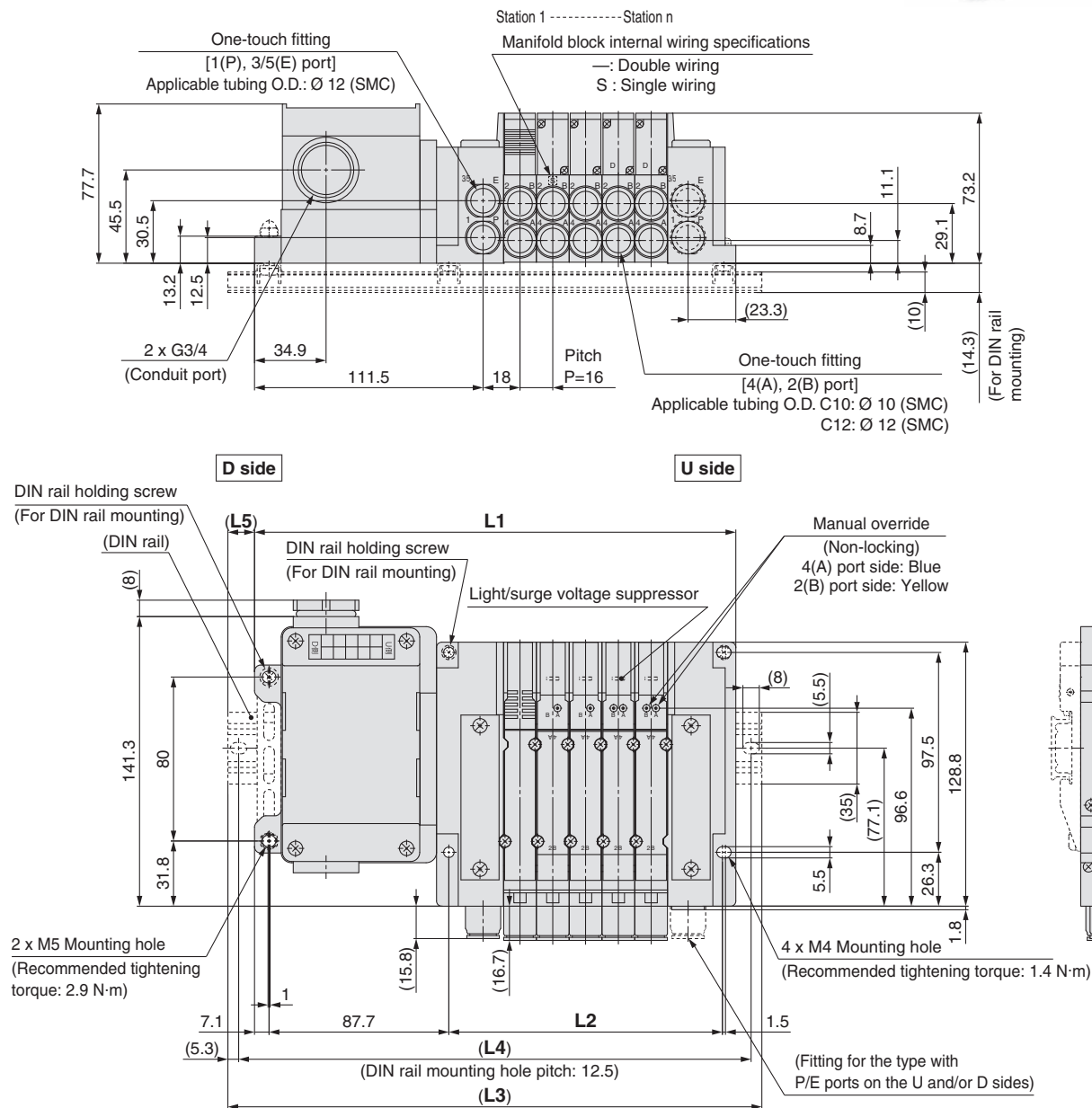
JJ5SY5-10T- 

Stations
----------

 $\frac{U}{B} - \frac{C_{10}}{C_{12}} (D)$ 

## Type 10/Side Ported

## Terminal Block Box



\* These figures show the “JJ5SY5-10T-05D-C12.”

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

## L: Dimensions

n: Stations

L Dimensions		M Dimensions													
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	186.8	202.8	218.8	234.8	250.8	266.8	282.8	298.8	314.8	330.8	346.8	362.8	378.8	394.8	410.8
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	210.5	235.5	248	260.5	285.5	298	310.5	323	348	360.5	373	398	410.5	423	435.5
L4	200	225	237.5	250	275	287.5	300	312.5	337.5	350	362.5	387.5	400	412.5	425
L5	12	16.5	14.5	13	17.5	15.5	14	12	16.5	15	13	17.5	16	14	12.5

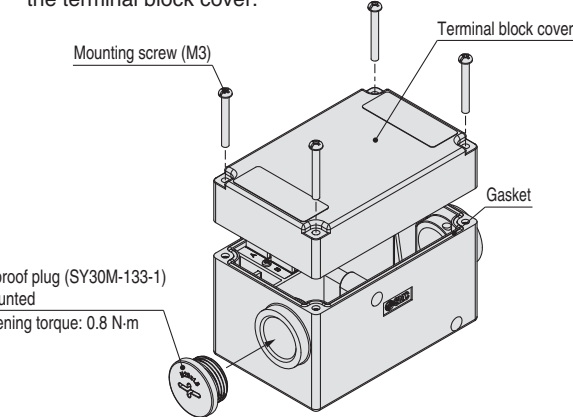
$\backslash$ n	17	18	19	20
L1	426.8	442.8	458.8	474.8
L2	325.5	341.5	357.5	373.5
L3	460.5	473	485.5	498
L4	450	462.5	475	487.5
L5	17	15	13.5	11.5



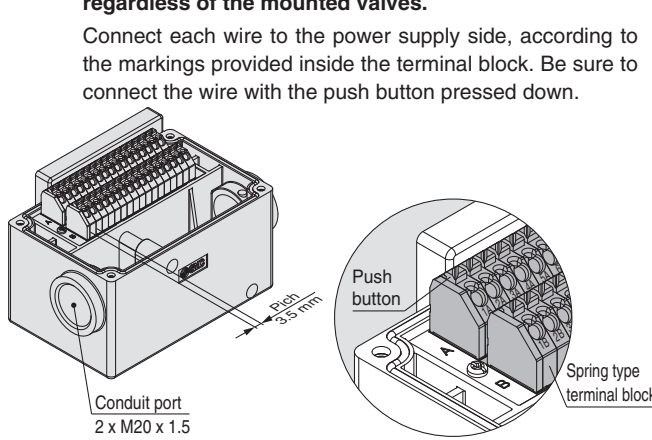
# JSY1000/3000/5000 Series

## Spring Type Terminal Block “TC” Connection

**Step 1. Remove the terminal block cover.**  
Loosen the 4 mounting screws (M3) to remove the terminal block cover.



**Step 2. The diagram below shows the terminal block wiring.**  
**All stations are provided with double wiring regardless of the mounted valves.**  
Connect each wire to the power supply side, according to the markings provided inside the terminal block. Be sure to connect the wire with the push button pressed down.

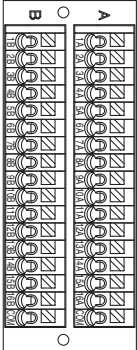


**Step 3. Mount the terminal block cover.**  
Securely tighten the mounting screws (M3) to the torque shown below only after confirming that the gasket is installed correctly.

Proper tightening torque [N·m]
0.54 to 0.66

• Applicable wire range: Conductor diameter Ø 0.5 to Ø 1.2 mm, Stranded wire AWG24 to 16

## Electrical Wiring Specifications (IP67 compliant)



If alignment is not specified, the internal wiring will be double wiring (connected to SOL. a and SOL. b) regardless of number of stations, valve types, and option types.

\* When using a valve with no polarity, either positive common or negative common can be used.

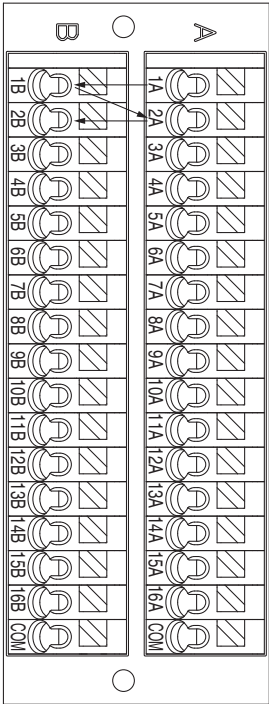
	Terminal no.	Polarity
Station 1	SOL. a 1A	(-) (+)
	SOL. b 1B	(-) (+)
Station 2	SOL. a 2A	(-) (+)
	SOL. b 2B	(-) (+)
Station 3	SOL. a 3A	(-) (+)
	SOL. b 3B	(-) (+)
Station 4	SOL. a 4A	(-) (+)
	SOL. b 4B	(-) (+)
Station 5	SOL. a 5A	(-) (+)
	SOL. b 5B	(-) (+)
Station 6	SOL. a 6A	(-) (+)
	SOL. b 6B	(-) (+)
Station 7	SOL. a 7A	(-) (+)
	SOL. b 7B	(-) (+)
Station 8	SOL. a 8A	(-) (+)
	SOL. b 8B	(-) (+)
Station 9	SOL. a 9A	(-) (+)
	SOL. b 9B	(-) (+)
Station 10	SOL. a 10A	(-) (+)
	SOL. b 10B	(-) (+)
Station 11	SOL. a 11A	(-) (+)
	SOL. b 11B	(-) (+)
Station 12	SOL. a 12A	(-) (+)
	SOL. b 12B	(-) (+)
Station 13	SOL. a 13A	(-) (+)
	SOL. b 13B	(-) (+)
Station 14	SOL. a 14A	(-) (+)
	SOL. b 14B	(-) (+)
Station 15	SOL. a 15A	(-) (+)
	SOL. b 15B	(-) (+)
Station 16	SOL. a 16A	(-) (+)
	SOL. b 16B	(-) (+)
	COM.	(+) (-)
	COM.	(+) (-)

Positive common

Negative common

**Specified Layout**

A mixture of single and double wiring can be specified on the manifold specification sheet. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 32 or less. 1 solenoid is required for the 2-position single, and 2 solenoids for the 2-position double, 3-position, and 4-position.





# Plug-in Connector Connecting Base

## Lead Wire

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **L1** **1** - **05** **U** - **C6**

1 2 3 4 5 6 7 8 9



**Made to Order**  
(Refer to page 120 for details.)

Specification  
External pilot (SUP/EXH block assembly)

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 2 Type

10	Side ported
----	-------------

### 3 Number of cores (Lead wire)

L1	34 cores
L2	17 cores
L3	9 cores

### 4 Lead wire length

1	0.6 m
2	1.5 m
3	3 m

### 6 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

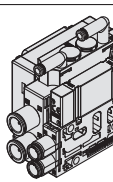
### 7 SUP/EXH block assembly

—	Internal pilot
S	Internal pilot, Built-in silencer

- \* 3/5(E) port is plugged for the built-in silencer type.
- \* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.
- \* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 8 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



- \*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
- \* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 5 Valve stations

#### L1□: 34 cores

Symbol	Stations	Note
02	2 stations	Double wiring*1
16	16 stations	
02	2 stations	Specified layout*2 (Up to 32 solenoids available)
16	16 stations	
24	24 stations	

#### L2□: 17 cores

Symbol	Stations	Note
02	2 stations	Double wiring*1
08	8 stations	
02	2 stations	Specified layout*2 (Up to 16 solenoids available)
08	8 stations	
16	16 stations	

#### L3□: 9 cores

Symbol	Stations	Note
02	2 stations	Double wiring*1
4	4 stations	
02	2 stations	Specified layout*2 (Up to 8 solenoids available)
08	8 stations	

- \*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
- \*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
- \*3 This also includes the number of blanking plates.

### 9 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

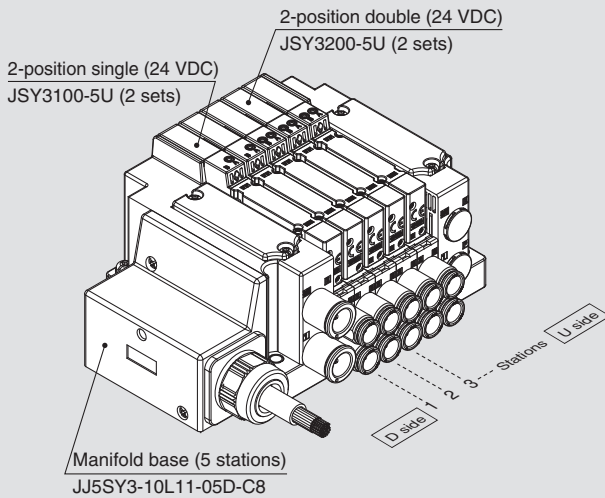
- \* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
- \* Refer to page 124 for the fixation of DIN rail mounting type manifold.

#### DIN Rail Option

—	DIN rail mounting (With DIN rail)
0	DIN rail mounting (Without DIN rail)
3	For 3 stations
24	For 24 stations
Specify a longer rail than the standard length.	

## How to Order Manifold Assembly

### Example (JJ5SY3-10L11-□)



JSY3100-5U..... 2 sets (2-position single part no.)

\* JSY3100-5U..... 2 sets (2-position single part no.)

\* JSY3200-5U..... 3 sets (2-position double part no.)

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

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

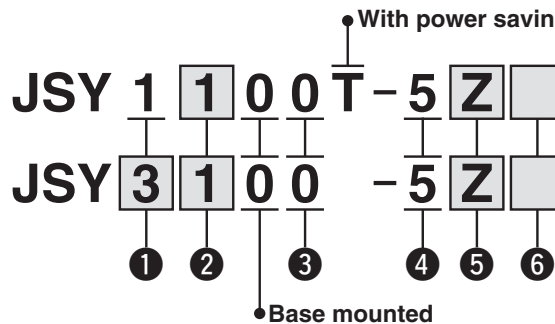
### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series



### Made to Order

(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

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

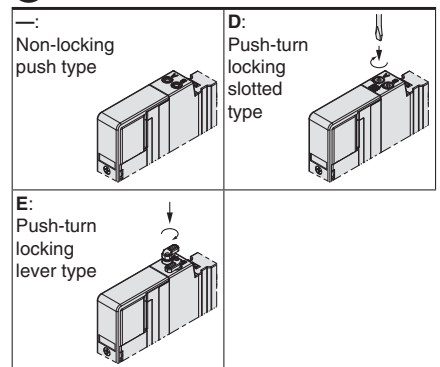
#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U	●	●	Non-polar
Z			Positive common
NZ			Negative common

\* Only "Z" and "NZ" types are available for the JSY1000 series.

\* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

\* **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 113 for base gasket and mounting screw part numbers.

### ⚠ Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.

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



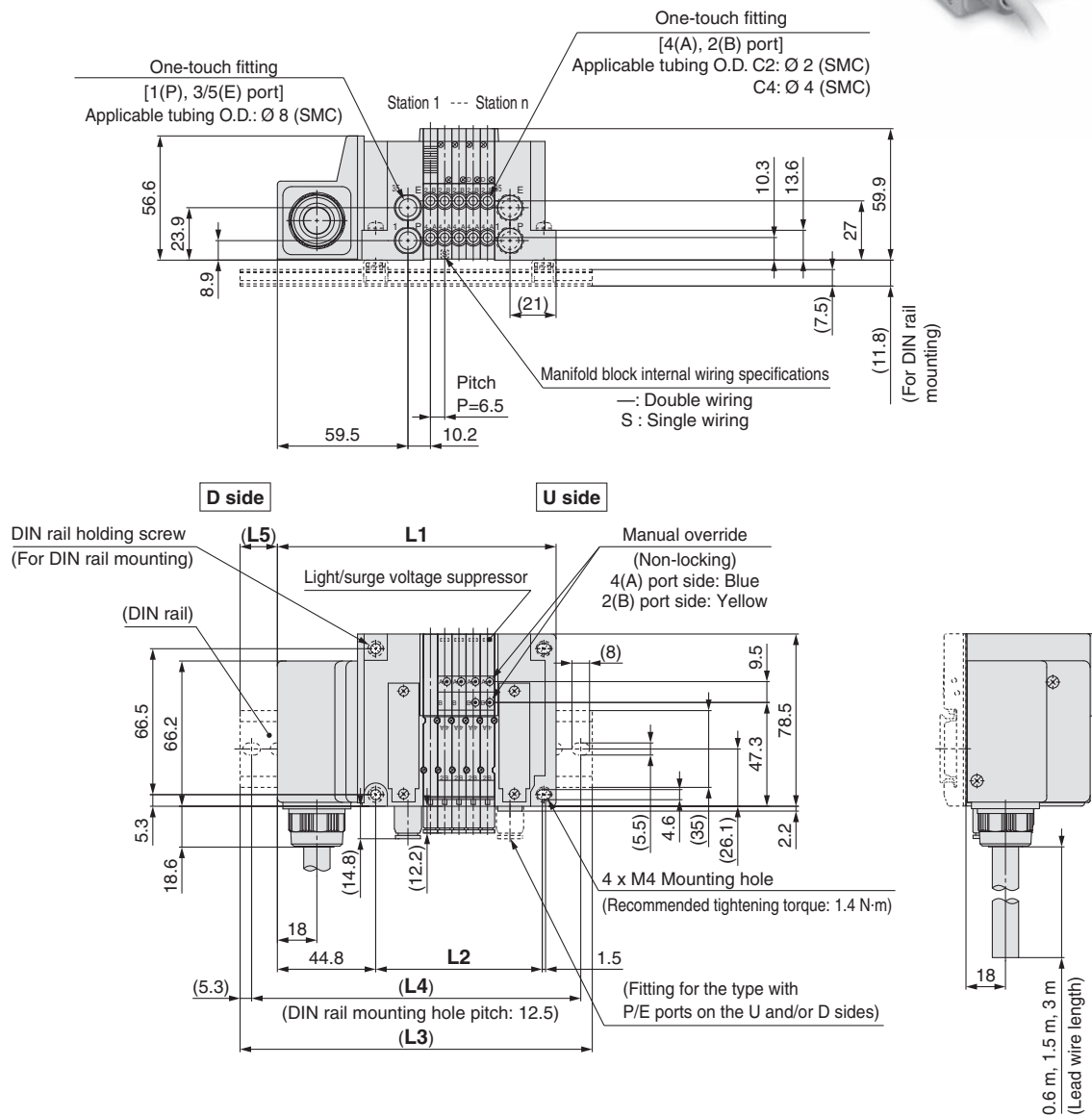
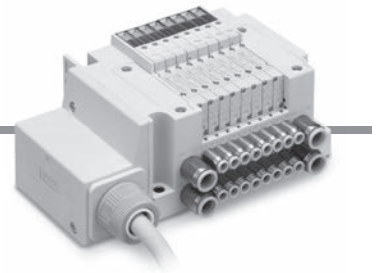
Protective class class III (Mark: ⚡)

# JSY1000/3000/5000 Series

### Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

## Lead Wire

## Dimensions: JSY1000 Series

JJ5SY1-10L<sup>1</sup><sub>2</sub>□ - Stations<sup>U</sup><sub>D</sub>-<sup>C2</sup><sub>C4</sub>(D)

- \* These figures show the “JJ5SY1-10L1□-05D-C4.”
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

## L: Dimensions

n: Stations

L Dimensions		n Dimensions													
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	107.5	114	120.5	127	133.5	140	146.5	153	159.5	166	172.5	179	185.5	192	198.5
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223
L4	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5
L5	14	17	14	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5	12.5

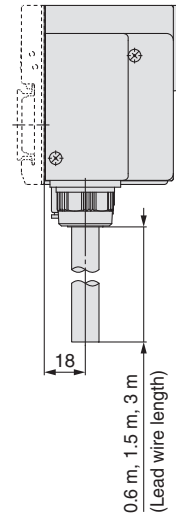
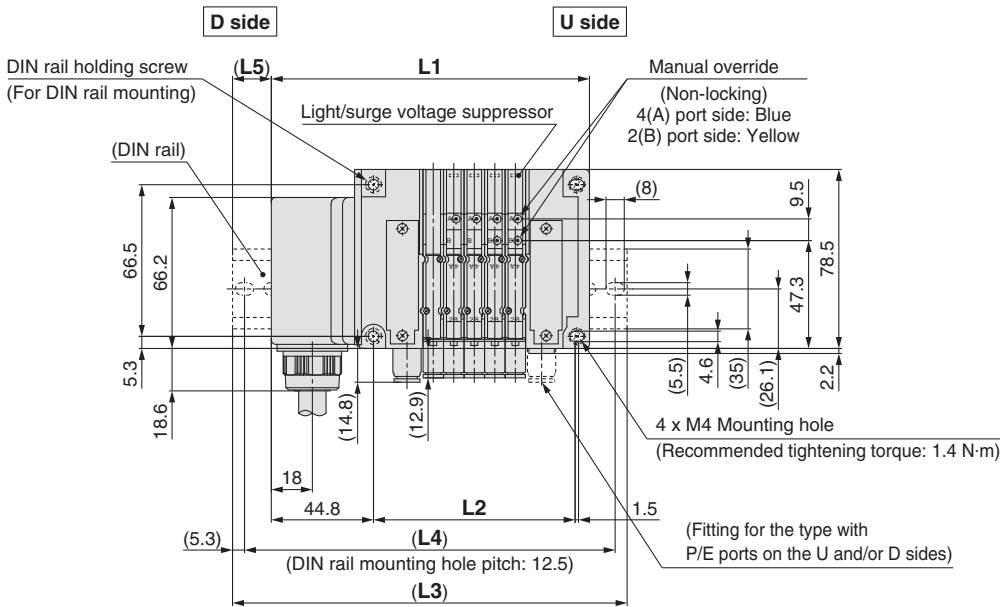
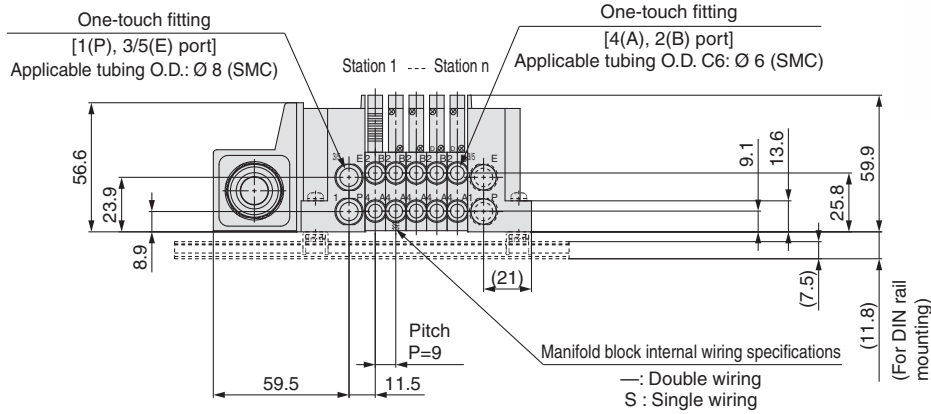
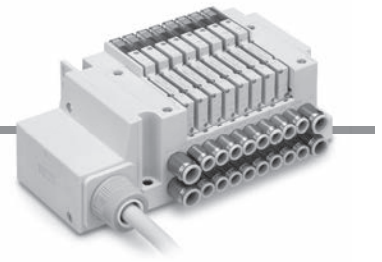
L \ n	17	18	19	20	21	22	23	24
L1	205	211.5	218	224.5	231	237.5	244	250.5
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	235.5	235.5	248	248	260.5	273	273	285.5
L4	225	225	237.5	237.5	250	262.5	262.5	275
L5	15.5	12	15	12	15	18	14.5	17.5



## Dimensions: JSY1000 Series

JJ5SY1-10L<sup>1</sup>/<sub>2</sub>□ - Stations<sup>U</sup>/<sub>D</sub> - C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)  
Lead Wire



- \* These figures show the "JJ5SY1-10L1□-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	112.5	121.5	130.5	139.5	148.5	157.5	166.5	175.5	184.5	193.5	202.5	211.5	220.5	229.5	238.5
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	148	148	160.5	173	173	185.5	198	210.5	210.5	223	235.5	235.5	248	260.5	273
L4	137.5	137.5	150	162.5	162.5	175	187.5	200	200	212.5	225	225	237.5	250	262.5
L5	18	13.5	15	17	12.5	14	16	17.5	13	15	16.5	12	14	15.5	17.5

L \ n	17	18	19	20	21	22	23	24
L1	247.5	256.5	265.5	274.5	283.5	292.5	301.5	310.5
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3	273	285.5	298	298	310.5	323	335.5	335.5
L4	262.5	275	287.5	287.5	300	312.5	325	325
L5	13	14.5	16.5	12	13.5	15.5	17	12.5

Chart
Valve
Connector Connecting Base
Plug-in
D.sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions



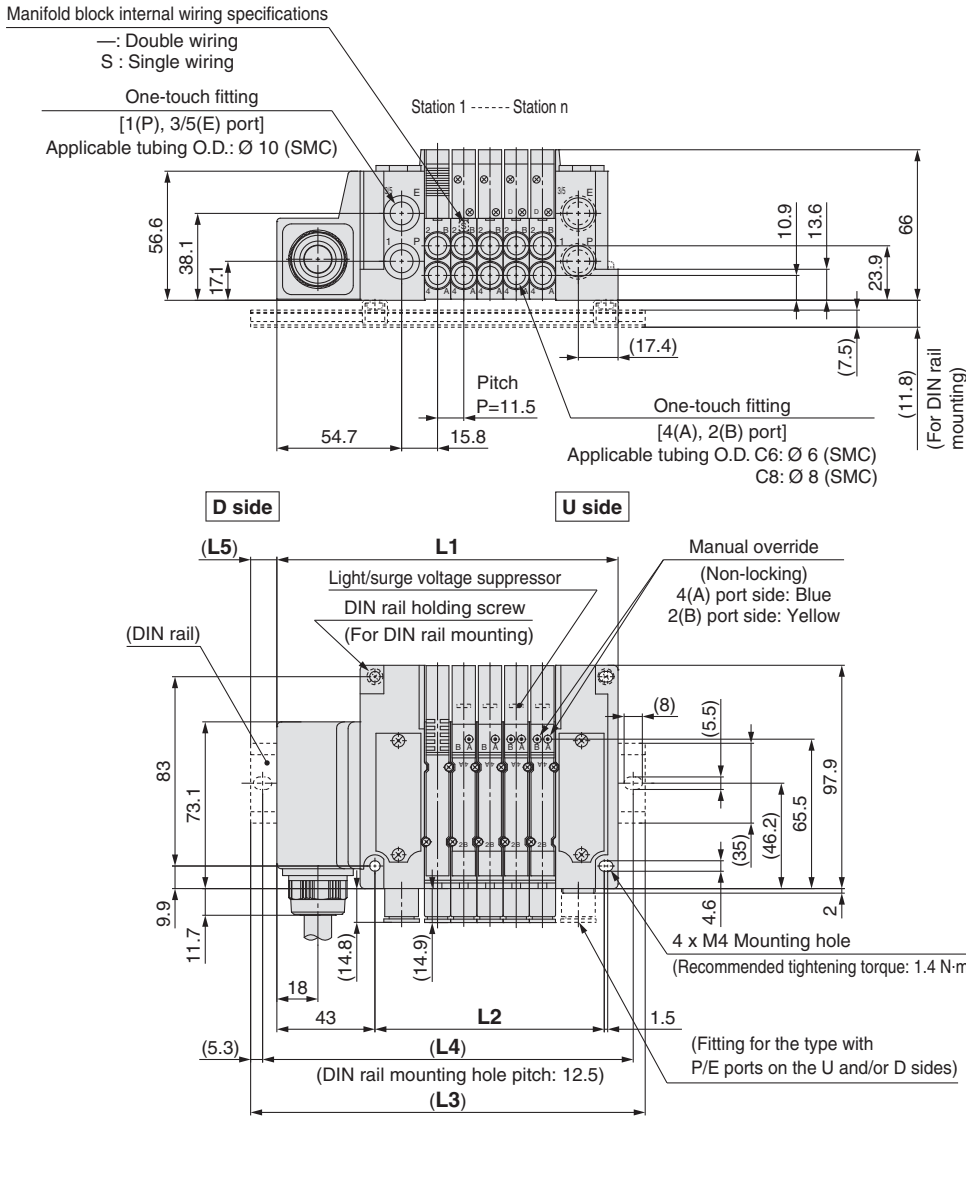
# JSY1000/3000/5000 Series

Dimensions: **JSY3000 Series**

Type 10/Side Ported  
Lead Wire



JJ5SY3-10L $\frac{1}{2}$ □ - Stations $\frac{U}{D}$ -C $\frac{6}{8}$ (D)



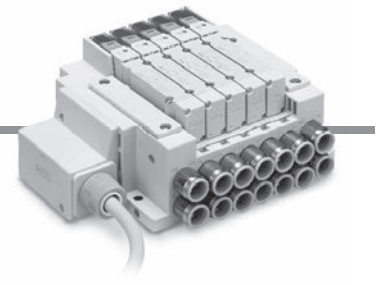
\* These figures show the "JJ5SY3-10L1□-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

L: Dimensions															n: Stations	
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
L1	115.1	126.6	138.1	149.6	161.1	172.6	184.1	195.6	207.1	218.6	230.1	241.6	253.1	264.6	276.1	
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1	
L3	148	160.5	173	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	310.5	
L4	137.5	150	162.5	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	
L5	16.5	17	17.5	11.5	12	12.5	13	13.5	14	14.5	15	15.5	16	16.5	17	

L \ n	17	18	19	20	21	22	23	24
L1	287.6	299.1	310.6	322.1	333.6	345.1	356.6	368.1
L2	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1
L3	323	323	335.5	348	360.5	373	385.5	398
L4	312.5	312.5	325	337.5	350	362.5	375	387.5
L5	17.5	12	12.5	13	13.5	14	14.5	15

## Dimensions: JSY5000 Series

Type 10/Side Ported  
Lead Wire



JJ5SY5-10L $\frac{1}{2}$ □ - Stations  $\frac{U}{D}$  - C $\frac{10}{12}$ (D)

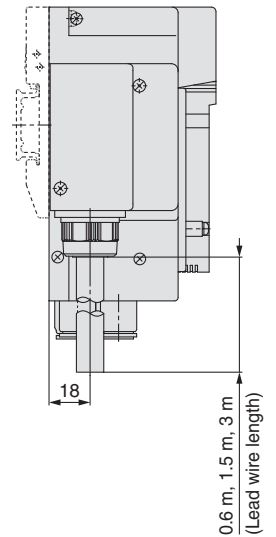
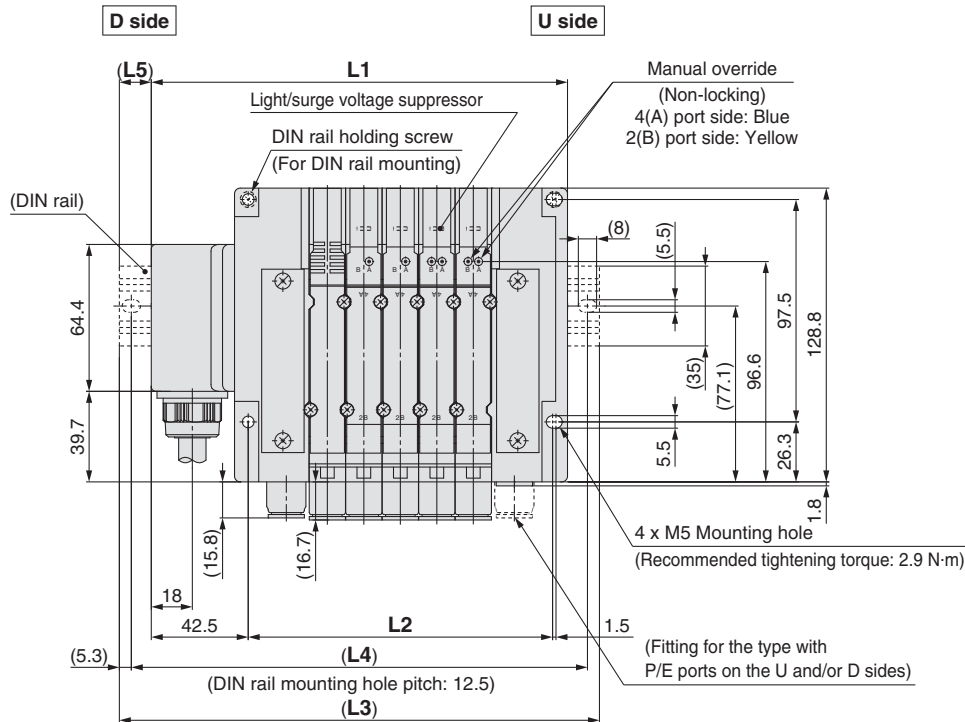
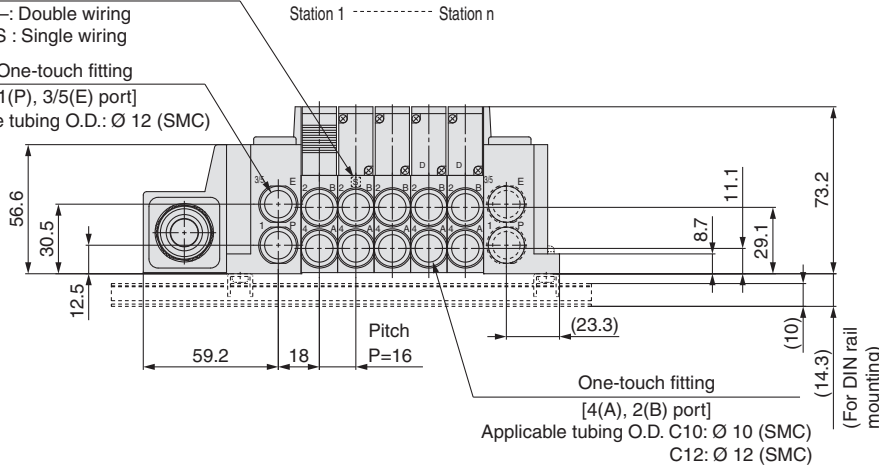
Manifold block internal wiring specifications

—: Double wiring  
S : Single wiring

One-touch fitting

[1(P), 3/5(E) port]

Applicable tubing O.D.: Ø 12 (SMC)



\* These figures show the "JJ5SY5-10L1□-05D-C12."

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	134.5	150.5	166.5	182.5	198.5	214.5	230.5	246.5	262.5	278.5	294.5	310.5	326.5	342.5	358.5
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	173	185.5	198	210.5	235.5	248	260.5	285.5	298	310.5	323	348	360.5	373	398
L4	162.5	175	187.5	200	225	237.5	250	275	287.5	300	312.5	337.5	350	362.5	387.5
L5	19.5	17.5	16	14	18.5	17	15	19.5	18	16	14.5	19	17	15.5	20

L \ n	17	18	19	20	21	22	23	24
L1	374.5	390.5	406.5	422.5	438.5	454.5	470.5	486.5
L2	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
L3	410.5	423	435.5	460.5	473	485.5	510.5	523
L4	400	412.5	425	450	462.5	475	500	512.5
L5	18	16.5	14.5	19	17.5	15.5	20	18.5

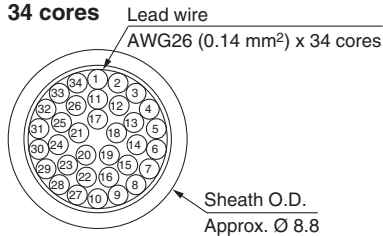
Chart
Valve
Connector Connecting Base
Plug-in
D.sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

# JSY1000/3000/5000 Series

## Electrical Wiring Specifications

### Lead wire

#### 34 cores



### Electrical characteristics

Item	Property
Conductor resistance $\Omega/\text{km}$ , 20 °C	143 or less
Voltage limit V, 1 minute, AC	2000
Insulation resistance $\text{M}\Omega/\text{km}$ , 20 °C	10 or more

\* Cannot be used for movable wiring.  
The minimum bending radius of the cable is 55 mm.

	Lead wire no.	Polarity
Station 1	SOL. a 1	(-)
	SOL. b 2	(+)
Station 2	SOL. a 3	(-)
	SOL. b 4	(+)
Station 3	SOL. a 5	(-)
	SOL. b 6	(+)
Station 4	SOL. a 7	(-)
	SOL. b 8	(+)
Station 5	SOL. a 9	(-)
	SOL. b 10	(+)
Station 6	SOL. a 11	(-)
	SOL. b 12	(+)
Station 7	SOL. a 13	(-)
	SOL. b 14	(+)
Station 8	SOL. a 15	(-)
	SOL. b 16	(+)
Station 9	SOL. a 17	(-)
	SOL. b 18	(+)
Station 10	SOL. a 19	(-)
	SOL. b 20	(+)
Station 11	SOL. a 21	(-)
	SOL. b 22	(+)
Station 12	SOL. a 23	(-)
	SOL. b 24	(+)
Station 13	SOL. a 25	(-)
	SOL. b 26	(+)
Station 14	SOL. a 27	(-)
	SOL. b 28	(+)
Station 15	SOL. a 29	(-)
	SOL. b 30	(+)
Station 16	SOL. a 31	(-)
	SOL. b 32	(+)
	COM. 33	(+)
	COM. 34	(-)

Positive common Negative common

Lead wire colour	Printed mark (Both sides)	
	Type	Colour
Orange	—	Red
		Black
Light grey	—	Red
		Black
White	—	Red
		Black
Yellow	—	Red
		Black
Pink	—	Red
		Black
Orange	--	Red
		Black
Light grey	--	Red
		Black
White	--	Red
		Black
Yellow	--	Red
		Black
Pink	--	Red
		Black
Orange	---	Red
		Black
Light grey	---	Red
		Black
White	---	Red
		Black
Yellow	---	Red
		Black
Pink	---	Red
		Black
Orange	----	Red
		Black
Light grey	----	Red
		Black

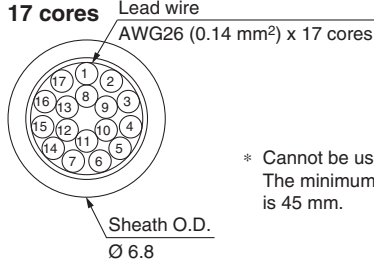
\* For negative common specification, a valve for negative common or a valve without polarity should be used.

## Specified Layout

Mixed wiring of single and double wiring can be specified on the manifold specification. The maximum number of stations is determined according to the number of solenoids. The total number of solenoids should be 32 or less. 1 solenoid is required for 2-position single, and 2 solenoids for 2-position double, 3-position and 4-position.

## Electrical Wiring Specifications

### Lead wire

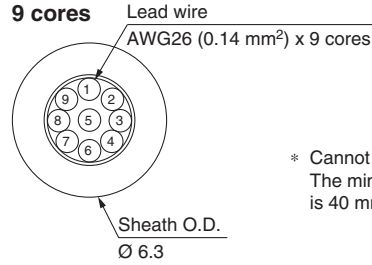


\* Cannot be used for movable wiring.  
The minimum bending radius of the cable is 45 mm.

	Lead wire no.	Polarity	Lead wire colour	Printed mark (Both sides)	
				Type	Colour
Station 1	SOL. a 1	(-) (+)	Orange	—	Red
	SOL. b 2	(-) (+)			Black
Station 2	SOL. a 3	(-) (+)	Light grey	—	Red
	SOL. b 4	(-) (+)			Black
Station 3	SOL. a 5	(-) (+)	White	—	Red
	SOL. b 6	(-) (+)			Black
Station 4	SOL. a 7	(-) (+)	Yellow	—	Red
	SOL. b 8	(-) (+)			Black
Station 5	SOL. a 9	(-) (+)	Pink	—	Red
	SOL. b 10	(-) (+)			Black
Station 6	SOL. a 11	(-) (+)	Orange	--	Red
	SOL. b 12	(-) (+)			Black
Station 7	SOL. a 13	(-) (+)	Light grey	--	Red
	SOL. b 14	(-) (+)			Black
Station 8	SOL. a 15	(-) (+)	White	--	Red
	SOL. b 16	(-) (+)			Black
	COM. 17	(+) (-)	Yellow	--	Red

Positive common      Negative common

\* For negative common specification, a valve for negative common or a valve without polarity should be used.



\* Cannot be used for movable wiring.  
The minimum bending radius of the cable is 40 mm.

	Lead wire no.	Polarity	Lead wire colour	Printed mark (Both sides)	
				Type	Colour
Station 1	SOL. a 1	(-) (+)	Orange	—	Red
	SOL. b 2	(-) (+)			Black
Station 2	SOL. a 3	(-) (+)	Light grey	—	Red
	SOL. b 4	(-) (+)			Black
Station 3	SOL. a 5	(-) (+)	White	—	Red
	SOL. b 6	(-) (+)			Black
Station 4	SOL. a 7	(-) (+)	Yellow	—	Red
	SOL. b 8	(-) (+)			Black
	COM. 9	(+) (-)	Pink	—	Red

Positive common      Negative common

### Electrical characteristics

Item	Property
Conductor resistance Ω/km, 20 °C	143 or less
Voltage limit V, 1 minute, AC	2000
Insulation resistance MΩ/km, 20 °C	10 or more

Chart

Valve

Connector  
Plug-in  
Connecting Base

D.sub  
Flat Ribbon

Terminal  
Block

Lead wire

EX600

EX245

EX250

EX260

EX120

Common  
Dimensions

Manifold  
Exploded View

Fittings, Replacement  
Parts, Tools

Manifold  
Options

Made to  
Order

Specific Product  
Precautions

# Plug-in Connector Connecting Base

EX600

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **S6** **Q** **2** **2** - **05** **U** - **C6**

1 2 3 4 5 6 7 8 9



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 2 Type

10	Side ported
----	-------------

### 3 SI unit

0	Without SI unit
Q	DeviceNet™ (Version A)
N	PROFIBUS DP (Version A)
V	CC-Link
EA	EtherNet/IP™ (2 ports)
D	EtherCAT
F	PROFINET
WE	EtherNet/IP™ compatible wireless base*1
WF	PROFINET compatible wireless base*1
WS	Wireless remote*1

- \*1 The wireless system is suitable for use only in a country where it is in accordance with the Radio Act and regulations of that country.
- \* I/O unit cannot be mounted without SI unit.
- \* Valve plate which connects manifold and SI unit is included, but it is not mounted to a valve without SI unit. Refer to the EX600 (page 105) for mounting.

### 4 SI unit output polarity, End plate type (Part no.)

SI unit output polarity	M12 power supply connector B-coded (EX600-ED2)	7/8 inch power supply connector (EX600-ED3)	M12 power supply connector IN/OUT, A-coded	
			Pin arrangement 1 (EX600-ED4)	Pin arrangement 2 (EX600-ED5)
Without SI unit	—			
SI unit positive common	2	3	6	8
SI unit negative common	4	5	7	9

- \* Ensure a match with the common specification of the valve to be used.
- \* Without SI unit, the symbol is —.

### 5 I/O unit stations

—	None
1	1 station
⋮	⋮
9	9 stations

- \* Without SI unit, the symbol is —.
- \* SI unit is not included in I/O unit stations.
- \* When I/O unit is selected, it is shipped separately, and assembled by users. Refer to the attached operation manual for mounting.

### 6 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
16	16 stations	Specified layout*2 (Up to 32 solenoids available)
02	2 stations	
⋮	⋮	
24	24 stations	

- \*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
- \*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)
- \* This also includes the number of blanking plates.

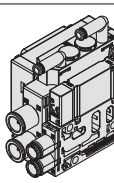
### 7 P, E port entry, SUP/EXH block assembly

P, E port entry	Internal pilot	Internal pilot, Built-in silencer
U side (2 to 10 stations)	U	C
D side (2 to 10 stations)	D	E
Both sides (2 to 24 stations)	B	F

- \* 3/5(E) port is plugged for the built-in silencer type.
- \* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.
- \* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 8 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



- \*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
- \* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 9 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

- \* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
- \* Refer to page 124 for the fixation of DIN rail mounting type manifold.

#### DIN Rail Option

—	DIN rail mounting (With DIN rail)
0	DIN rail mounting (Without DIN rail)
3	For 3 stations
⋮	⋮
24	For 24 stations

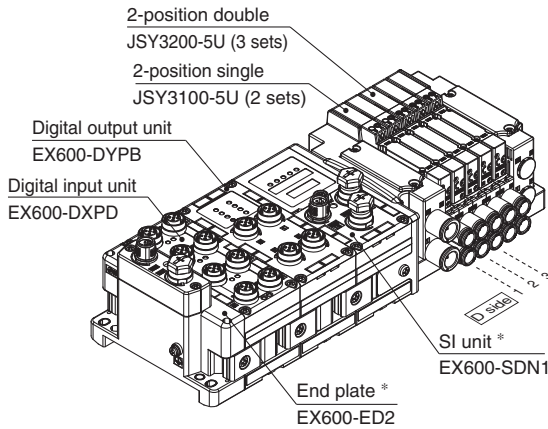
Specify a longer rail than the standard length.

- \* If the DIN rail must be mounted without an SI unit, select D0. Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 116 for the DIN rail part number.)

For details about the EX600 Integrated Type (For Input/Output) Serial Transmission System, refer to the **Web Catalogue** and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to pages 105 and 106. (IP40 specifications may be required according to the I/O unit to be selected.) Please download the Operation Manual via SMC website, <https://www.smc.eu>

## How to Order Manifold Assembly

### Example (JJ5SY3-10S6□-□)



JJ5SY3-10S6Q42-05B-C8 .. 1 set (Type 10 5-station manifold base part no.)  
 \* JSY3100-5U ..... 2 sets (2-position single part no.)  
 \* JSY3200-5U ..... 3 sets (2-position double part no.)  
 \* EX600-DXPD ..... 1 set I/O unit part number (Station 1)  
 \* EX600-DYPB ..... 1 set I/O unit part number (Station 2)  
 → The asterisk denotes the symbol for the assembly.  
 Prefix it to the part numbers of the valve, etc.

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

\*1 Do not enter the SI unit part number and the end plate part number together.

### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series

JSY 1 1 0 0 T - 5 Z □  
 JSY 3 1 0 0 - 5 Z □  
 1 2 3 4 5 6  
 • With power saving circuit  
 • Base mounted



**Made to Order**  
 (Refer to page 120 for details.)

Specification
With power saving circuit (Continuous duty type): 0.1 W (JSY3000/5000)
External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

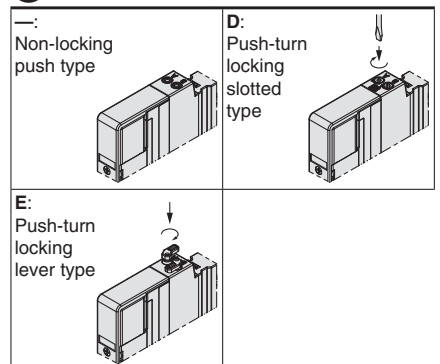
1	2-position	Single
2		Double
3	3-position	Closed centre
4		Exhaust centre
5		Pressure centre
A	4-position	N.C./N.C.
B	dual 3-port	N.O./N.O.
C		N.C./N.O.

#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U	●	●	Non-polar
Z			Positive common
NZ			Negative common

- \* Select a valve from U or Z when the SI unit polarity is positive common. Select a valve from U or NZ when the SI unit output polarity is negative common.
- \* Only "Z" and "NZ" types are available for the JSY1000 series.
- \* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

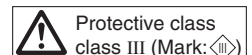
\* **When ordering a valve individually, the base gasket is not included.**

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 113 for base gasket and mounting screw part numbers.

### ⚠ Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.  
 For the JSY1000 series only the power saving circuit is available.



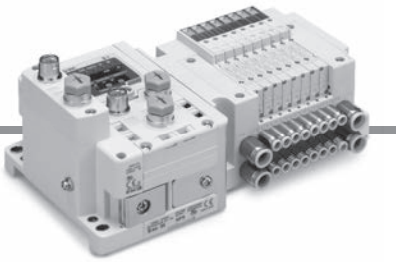


# JSY1000/3000/5000 Series

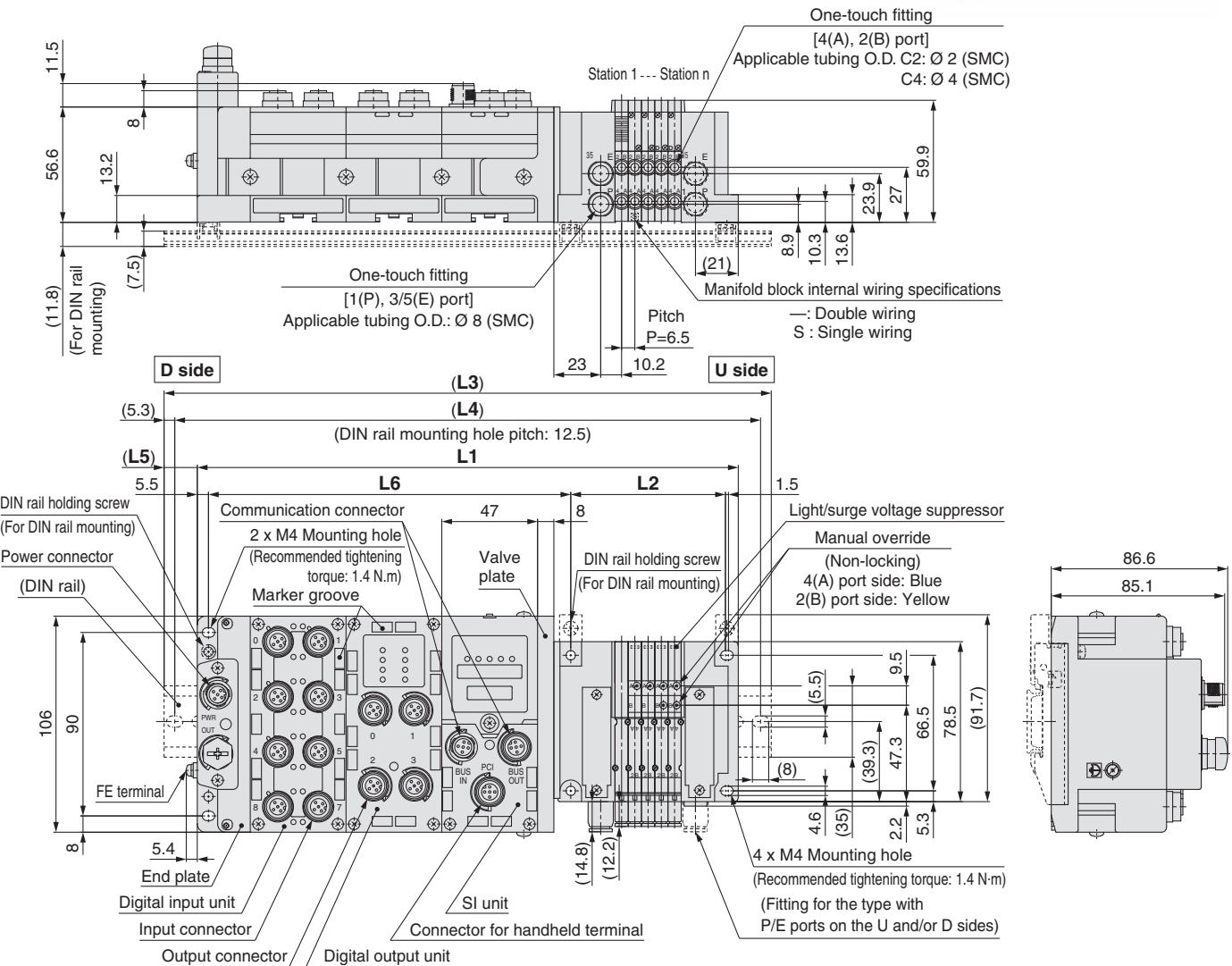
## Dimensions: JSY1000 Series

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

EX600 (M12 Connector)



JJ5SY1-10S6□□□□ - Stations  $\frac{U}{D}$  - C<sub>2</sub>(D)



$$\begin{aligned} L1 &= 6.5 \times n1 + 139 + 47 \times n2 \\ L2 &= 6.5 \times n1 + 43.4 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 47 \times n2 + 83.8 \end{aligned}$$

n1: Valve stations  
n2: I/O unit stations

- \* These figures show the "JJ5SY1-10S6Q22-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

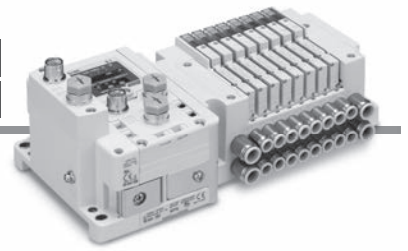
### L3: DIN Rail Overall Length

Valve stations I/O unit stations (n1) stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	260.5	273	273	285.5	298	298	310.5	310.5	323	323
1	223	235.5	235.5	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373
2	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373	385.5	385.5	398	398	410.5	410.5	423
3	323	323	335.5	348	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448	460.5	460.5
4	373	373	385.5	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448	460.5	473	473	485.5	485.5	498	498	510.5	510.5
5	410.5	423	435.5	435.5	448	448	460.5	460.5	473	473	485.5	485.5	498	498	510.5	510.5	523	523	535.5	535.5	548	548	560.5
6	460.5	473	473	485.5	485.5	498	498	510.5	510.5	523	523	535.5	535.5	548	548	560.5	560.5	573	573	585.5	585.5	598	598
7	510.5	523	523	535.5	535.5	548	548	560.5	560.5	573	573	585.5	585.5	598	598	610.5	610.5	623	623	635.5	635.5	648	648
8	560.5	560.5	573	573	585.5	585.5	598	598	610.5	610.5	623	623	635.5	648	648	660.5	660.5	673	673	685.5	685.5	698	698
9	610.5	610.5	623	623	635.5	635.5	648	648	660.5	660.5	673	673	685.5	685.5	698	698	710.5	710.5	723	723	735.5	735.5	748

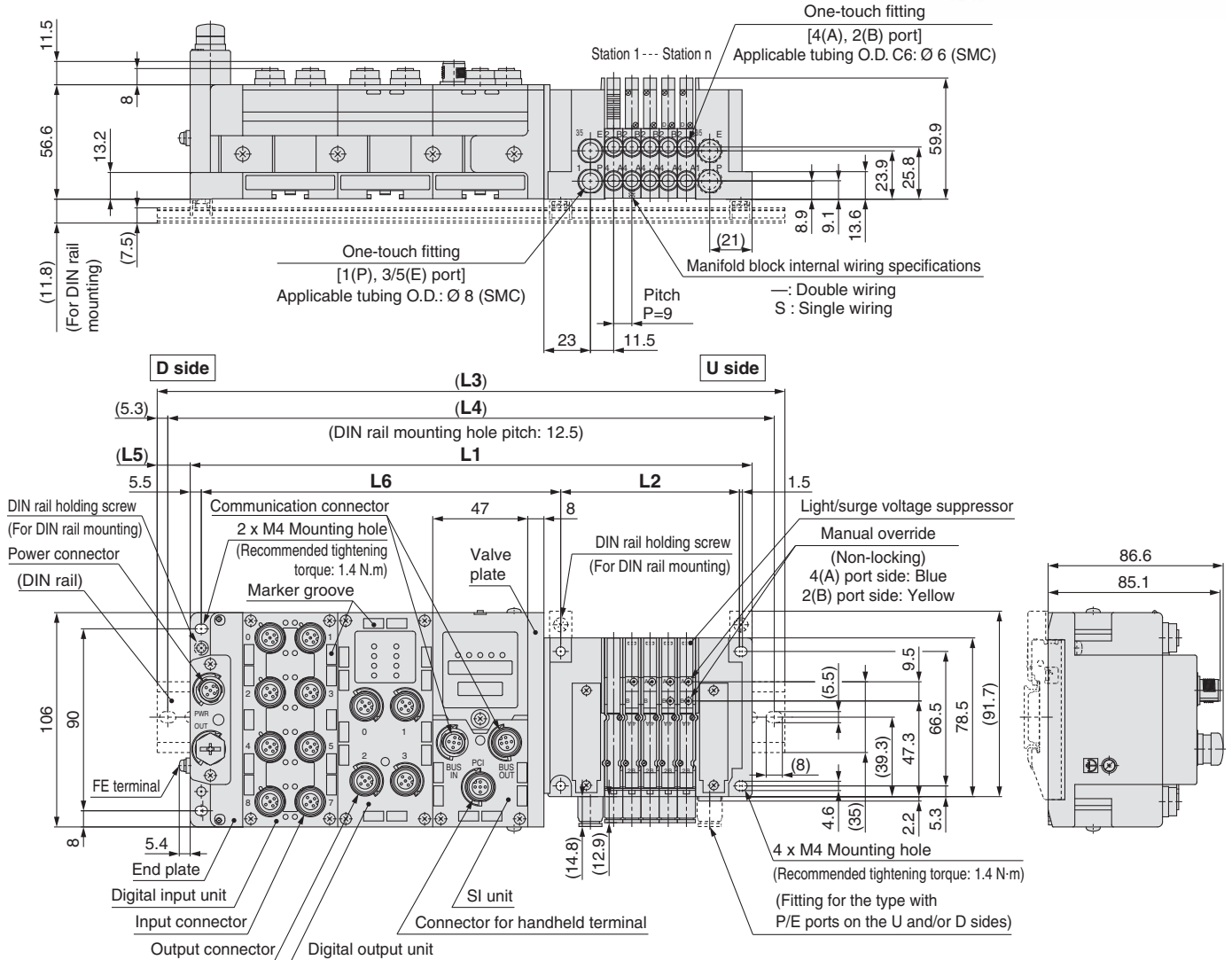
## Dimensions: JSY1000 Series

Type 10/Side Ported (Applicable to Ø 6 fittings)

EX600 (M12 Connector)



JJ5SY1-10S6□□□ - Stations  $\frac{U}{D}$ -C6(D)



$$\begin{aligned} L1 &= 9 \times n1 + 139 + 47 \times n2 \\ L2 &= 9 \times n1 + 43.4 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 47 \times n2 + 83.8 \end{aligned}$$

n1: Valve stations  
n2: I/O unit stations

- \* These figures show the "JJ5SY1-10S6Q22-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	198	210.5	210.5	223	235.5	235.5	248	260.5	273	273	285.5	298	298	310.5	323	335.5	335.5	348	360.5	360.5	373	385.5
1	235.5	248	248	260.5	273	273	285.5	298	310.5	310.5	323	335.5	335.5	348	360.5	373	373	385.5	398	410.5	410.5	423	435.5
2	285.5	285.5	298	310.5	310.5	323	335.5	348	348	360.5	373	385.5	385.5	398	410.5	410.5	423	435.5	448	448	460.5	473	473
3	323	335.5	348	360.5	360.5	373	385.5	385.5	398	410.5	423	423	435.5	448	448	460.5	473	485.5	485.5	498	510.5	510.5	523
4	373	385.5	398	398	410.5	423	423	435.5	448	460.5	460.5	473	485.5	485.5	498	510.5	523	523	535.5	548	560.5	560.5	573
5	423	435.5	435.5	448	460.5	460.5	473	485.5	498	498	510.5	523	535.5	535.5	548	560.5	560.5	573	585.5	598	598	610.5	623
6	473	473	485.5	498	510.5	510.5	523	535.5	535.5	548	560.5	573	573	585.5	598	598	610.5	623	635.5	648	660.5	660.5	673
7	510.5	523	535.5	548	548	560.5	573	573	585.5	598	610.5	610.5	623	635.5	635.5	648	660.5	673	673	685.5	698	710.5	710.5
8	560.5	573	585.5	585.5	598	610.5	610.5	623	635.5	648	648	660.5	673	685.5	685.5	698	710.5	710.5	723	735.5	748	748	760.5
9	610.5	623	623	635.5	648	660.5	660.5	673	685.5	685.5	698	710.5	723	723	735.5	748	748	760.5	773	785.5	785.5	798	810.5

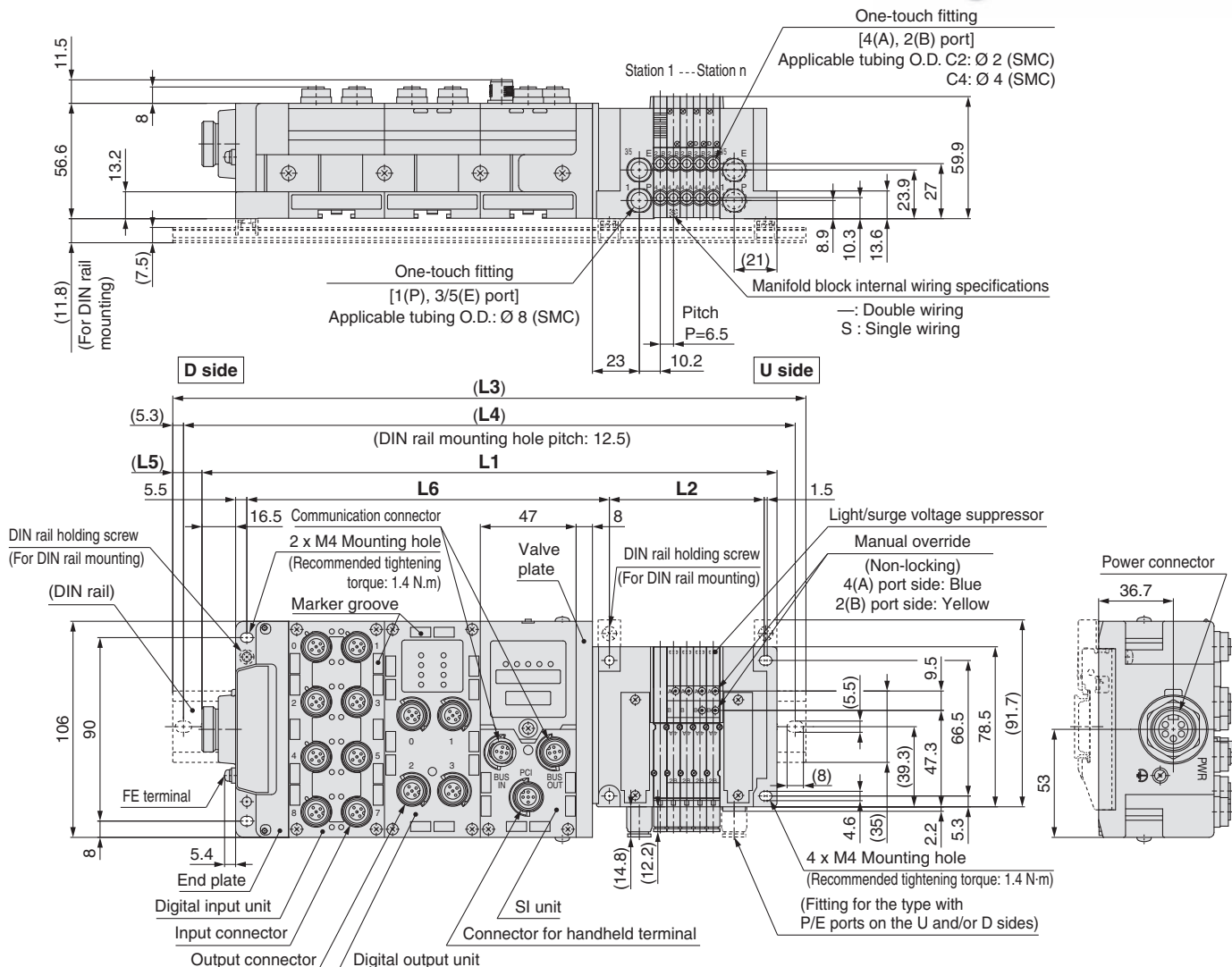
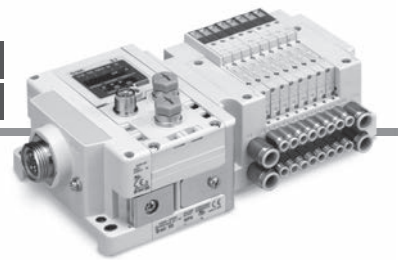
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10S6  $\square \frac{3}{5} \square$  - Stations  $\frac{U}{D}$  - C<sub>2</sub>/C<sub>4</sub>(D)

Type 10/Side Ported (Applicable to  $\varnothing 2$  and  $\varnothing 4$  fittings)

EX600 (7/8 Inch Connector)



$$\begin{aligned} L1 &= 6.5 \times n1 + 155.5 + 47 \times n2 \\ L2 &= 6.5 \times n1 + 43.4 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 47 \times n2 + 83.8 \end{aligned}$$

n1: Valve stations  
n2: I/O unit stations

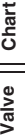
- \* These figures show the "JJ5SY1-10S6Q32-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5
1	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	335.5	335.5	348	348	360.5	360.5	373	373	385.5	385.5
2	298	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	410.5	423	423	435.5
3	335.5	348	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	423	423	435.5	435.5	448	448	460.5	460.5	473	473	485.5
4	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448	460.5	460.5	473	473	485.5	485.5	498	498	510.5	510.5	523	523
5	435.5	435.5	448	448	460.5	460.5	473	473	485.5	485.5	498	510.5	510.5	523	523	535.5	535.5	548	548	560.5	560.5	573	573
6	485.5	485.5	498	498	510.5	510.5	523	523	535.5	535.5	548	548	560.5	560.5	573	573	585.5	585.5	598	598	610.5	610.5	623
7	523	535.5	535.5	548	548	560.5	560.5	573	573	585.5	585.5	598	598	610.5	610.5	623	623	635.5	635.5	648	648	660.5	660.5
8	573	585.5	585.5	598	598	610.5	610.5	623	623	635.5	635.5	648	648	660.5	660.5	673	673	685.5	685.5	698	698	710.5	723
9	623	623	635.5	635.5	648	648	660.5	660.5	673	673	685.5	685.5	698	698	710.5	710.5	723	723	735.5	735.5	748	748	760.5

JJ5SY1-10S6  $\frac{3}{5}$  - Stations  $\frac{U}{B}$ -C6(D)

### EX600 (7/8 Inch Connector)



- \* These figures show the “JJ5SY1-10S6Q32-05D-C6.”
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

Specific Product Precautions	Made to Order	Manifold Options	Fittings, Replacement Parts, Tools	Manifold Exploded View	Common Dimensions
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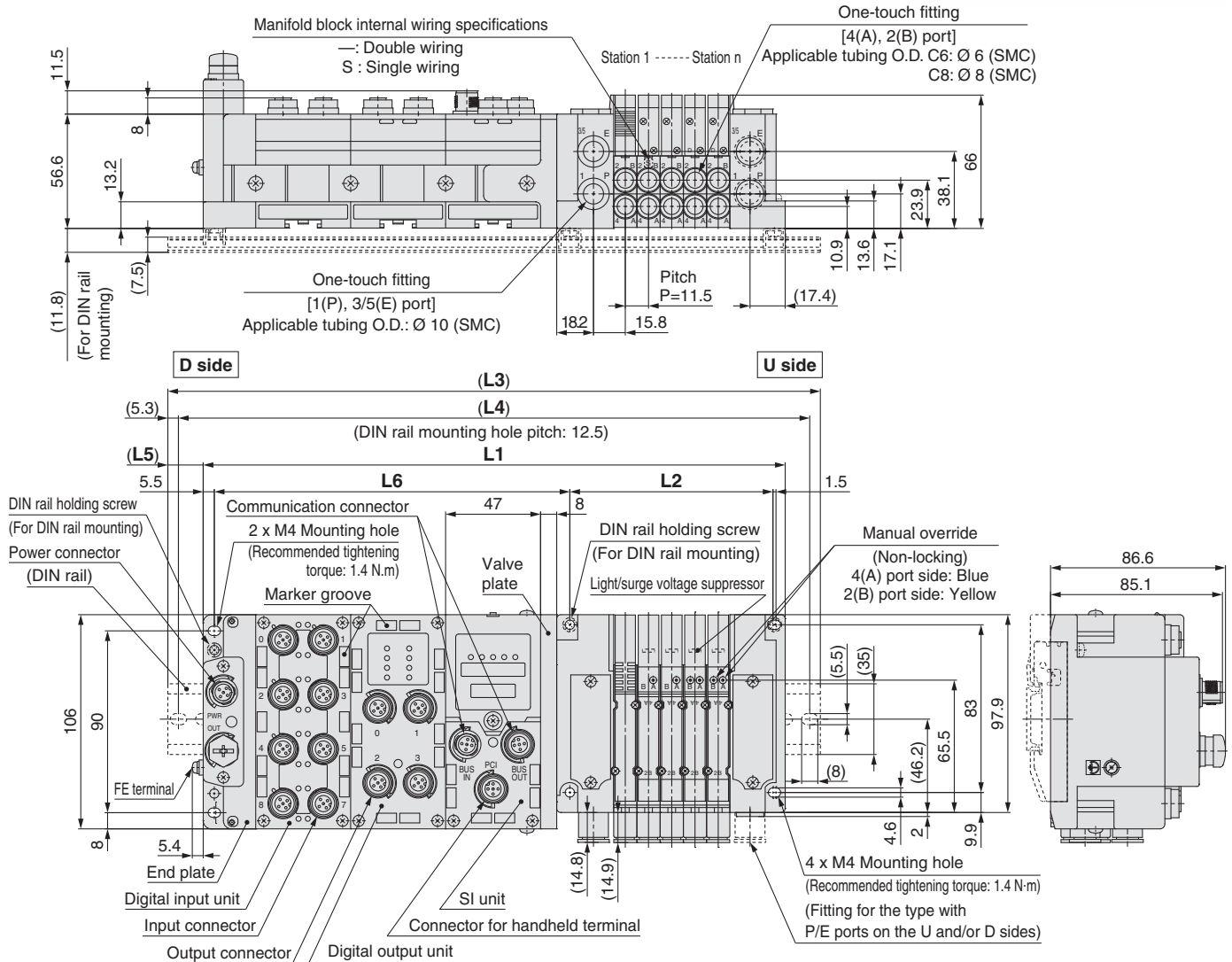
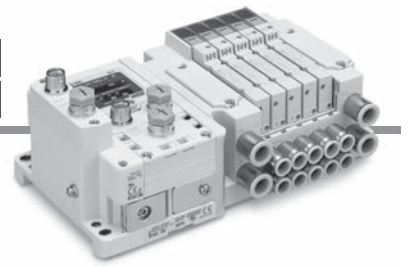
Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	198	210.5	223	235.5	235.5	248	260.5	260.5	273	285.5	298	298	310.5	323	323	335.5	348	360.5	360.5	373	385.5	398	398
1	248	260.5	273	273	285.5	298	298	310.5	323	335.5	335.5	348	360.5	373	373	385.5	398	398	410.5	423	435.5	435.5	448
2	298	310.5	310.5	323	335.5	348	348	360.5	373	373	385.5	398	410.5	410.5	423	435.5	435.5	448	460.5	473	473	485.5	498
3	348	348	360.5	373	385.5	385.5	398	410.5	410.5	423	435.5	448	448	460.5	473	473	485.5	498	510.5	510.5	523	535.5	548
4	385.5	398	410.5	423	423	435.5	448	448	460.5	473	485.5	485.5	498	510.5	523	523	535.5	548	548	560.5	573	585.5	585.5
5	435.5	448	460.5	460.5	473	485.5	498	498	510.5	523	523	535.5	548	560.5	560.5	573	585.5	585.5	598	610.5	623	623	635.5
6	485.5	498	498	510.5	523	535.5	535.5	548	560.5	560.5	573	585.5	598	598	610.5	623	623	635.5	648	660.5	660.5	673	685.5
7	535.5	535.5	548	560.5	573	573	585.5	598	598	610.5	623	635.5	635.5	648	660.5	673	673	685.5	698	698	710.5	723	735.5
8	573	585.5	598	610.5	610.5	623	635.5	648	648	660.5	673	673	685.5	698	710.5	710.5	723	735.5	748	760.5	773	773	785.5
9	623	635.5	648	648	660.5	673	685.5	685.5	698	710.5	710.5	723	735.5	748	748	760.5	773	773	785.5	798	810.5	810.5	823



## ***JSY1000/3000/5000 Series***

## EX600 (M12 Connector)

## Dimensions: JSY3000 Series

JJ5SY3-10S6  $\frac{4}{6\frac{7}{8}}$  - Stations  $\frac{U}{B}$ -C<sub>6</sub><sub>C8</sub>(D)
$$\begin{aligned} L1 &= 11.5 \times n1 + 136.6 + 47 \times n2 \\ L2 &= 11.5 \times n1 + 43.1 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 47 \times n2 + 82 \end{aligned}$$

n1: Valve stations  
n2: I/O unit stations

\* These figures show the "JJ5SY3-10S6Q22-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

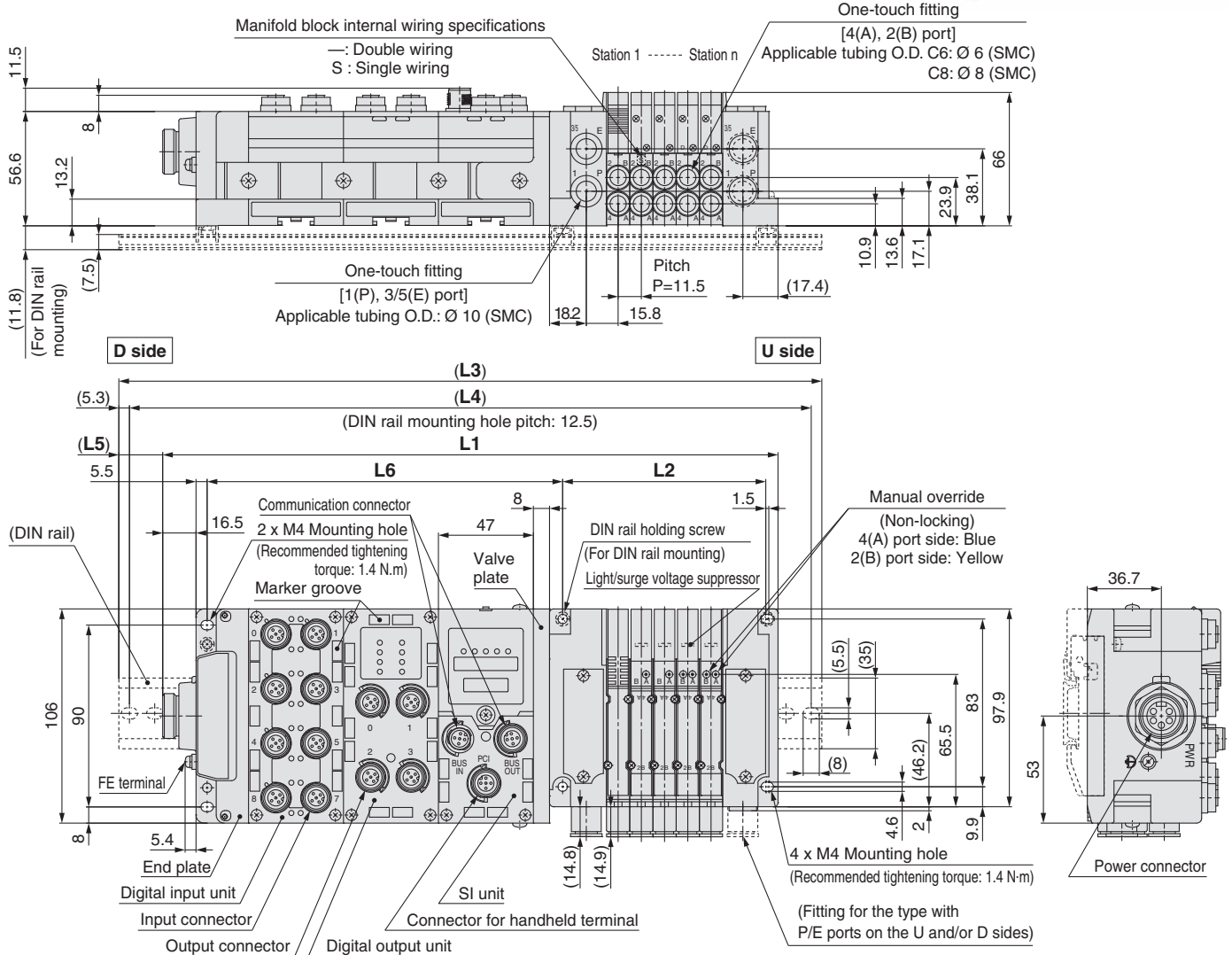
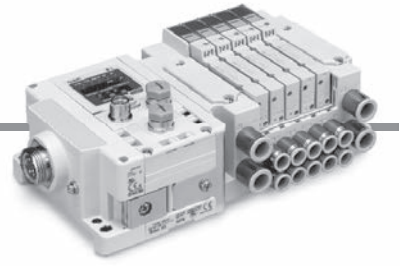
I/O unit stations (n2) \ Valve stations (n1)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448
1	235.5	248	260.5	273	285.5	298	310.5	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	460.5	473	485.5
2	285.5	298	310.5	323	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	473	485.5	498	510.5	523	535.5
3	335.5	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	485.5	498	510.5	523	535.5	548	560.5	573	585.5
4	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5
5	423	435.5	448	460.5	473	485.5	498	510.5	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	648	660.5	673
6	473	485.5	498	510.5	523	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	660.5	660.5	673	685.5	698	710.5	723
7	523	535.5	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	660.5	673	673	685.5	698	710.5	723	735.5	748	760.5	773
8	560.5	573	585.5	598	610.5	623	635.5	648	660.5	673	685.5	685.5	698	710.5	723	735.5	748	760.5	773	785.5	798	810.5	823
9	610.5	623	635.5	648	660.5	673	685.5	698	698	710.5	723	735.5	748	760.5	773	785.5	798	810.5	823	835.5	848	848	860.5

## Dimensions: JSY3000 Series

JJ5SY3-10S6□<sup>3</sup>/<sub>5</sub>□ - Stations<sup>U</sup>/<sub>D</sub> - C<sub>6</sub> (D)

Type 10/Side Ported

EX600 (7/8 Inch Connector)



$$\begin{aligned} L1 &= 11.5 \times n1 + 153.1 + 47 \times n2 \\ L2 &= 11.5 \times n1 + 43.1 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 47 \times n2 + 82 \end{aligned}$$

n1: Valve stations  
n2: I/O unit stations

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	223	235.5	248	260.5	273	285.5	285.5	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	423	435.5	448	460.5	473
1	273	285.5	298	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	435.5	448	460.5	473	485.5	498	510.5	523
2	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	448	460.5	473	485.5	498	510.5	523	535.5	548	560.5	573
3	360.5	373	385.5	398	410.5	423	435.5	448	460.5	460.5	473	485.5	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	610.5
4	410.5	423	435.5	448	460.5	473	473	485.5	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	623	635.5	648	660.5
5	460.5	473	485.5	485.5	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	660.5	673	685.5	698	710.5	710.5
6	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648	648	660.5	673	685.5	698	710.5	723	735.5	748	760.5
7	548	560.5	573	585.5	598	610.5	623	635.5	648	660.5	660.5	673	685.5	698	710.5	723	735.5	748	760.5	773	785.5	798	798
8	598	610.5	623	635.5	648	660.5	673	673	685.5	698	710.5	723	735.5	748	760.5	773	785.5	798	810.5	810.5	823	835.5	848
9	648	660.5	673	685.5	685.5	698	710.5	723	735.5	748	760.5	773	785.5	798	810.5	823	823	835.5	848	860.5	873	885.5	898

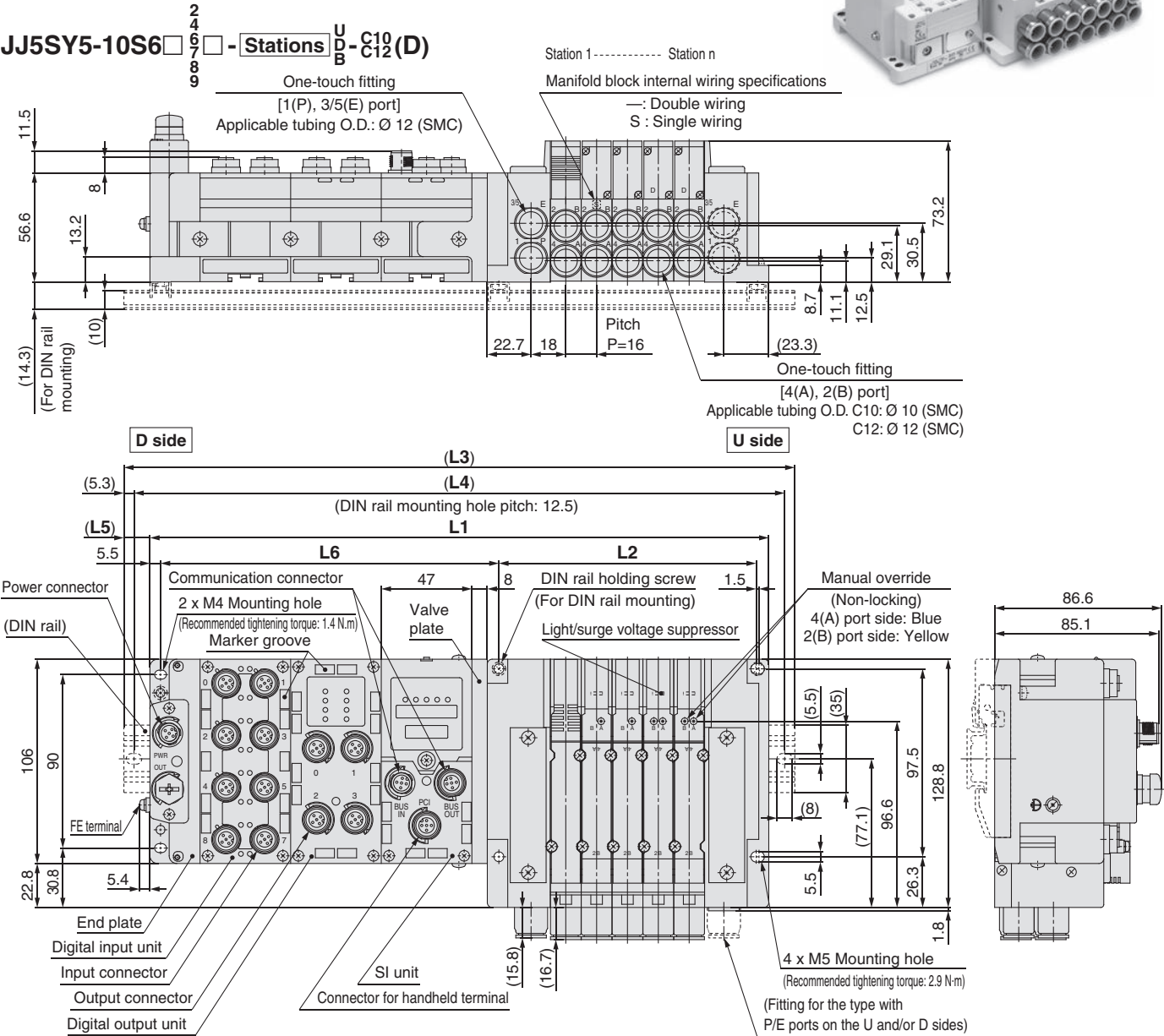
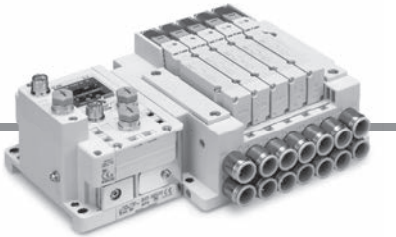
\* These figures show the "JJ5SY3-10S6Q32-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.



# JSY1000/3000/5000 Series

Dimensions: **JSY5000 Series**

Type 10/Side Ported  
EX600 (M12 Connector)



$L1 = 16 \times n1 + 147 + 47 \times n2$   
 $L2 = 16 \times n1 + 53.5$   
 $L4 = L3 - 10.5$   
 $L5 = (L3 - L1) / 2$   
 $L6 = 47 \times n2 + 81.5$

n1: Valve stations  
n2: I/O unit stations

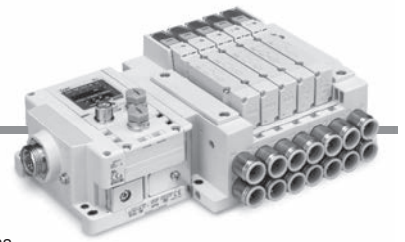
\* These figures show the "JJ5SY5-10S6Q22-05D-C12."  
\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	210.5	223	235.5	260.5	273	285.5	310.5	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	485.5	498	510.5	523	548	560.5
1	260.5	273	285.5	298	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	485.5	498	510.5	523	548	560.5	573	585.5	610.5
2	298	323	335.5	348	360.5	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	548	560.5	573	585.5	610.5	623	635.5	660.5
3	348	360.5	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	535.5	560.5	573	585.5	610.5	623	635.5	648	673	685.5	698
4	398	410.5	423	448	460.5	473	498	510.5	523	535.5	560.5	573	585.5	610.5	623	635.5	648	673	685.5	698	710.5	735.5	748
5	448	460.5	473	485.5	510.5	523	535.5	560.5	573	585.5	598	623	635.5	648	673	685.5	698	710.5	735.5	748	760.5	785.5	798
6	485.5	510.5	523	535.5	560.5	573	585.5	598	623	635.5	648	660.5	685.5	698	710.5	735.5	748	760.5	773	798	810.5	823	848
7	535.5	548	573	585.5	598	623	635.5	648	660.5	685.5	698	710.5	735.5	748	760.5	773	798	810.5	823	835.5	860.5	873	885.5
8	585.5	598	610.5	635.5	648	660.5	685.5	698	710.5	723	748	760.5	773	798	810.5	823	835.5	860.5	873	885.5	910.5	923	935.5
9	635.5	648	660.5	685.5	698	710.5	723	748	760.5	773	785.5	810.5	823	835.5	860.5	873	885.5	898	923	935.5	948	973	985.5

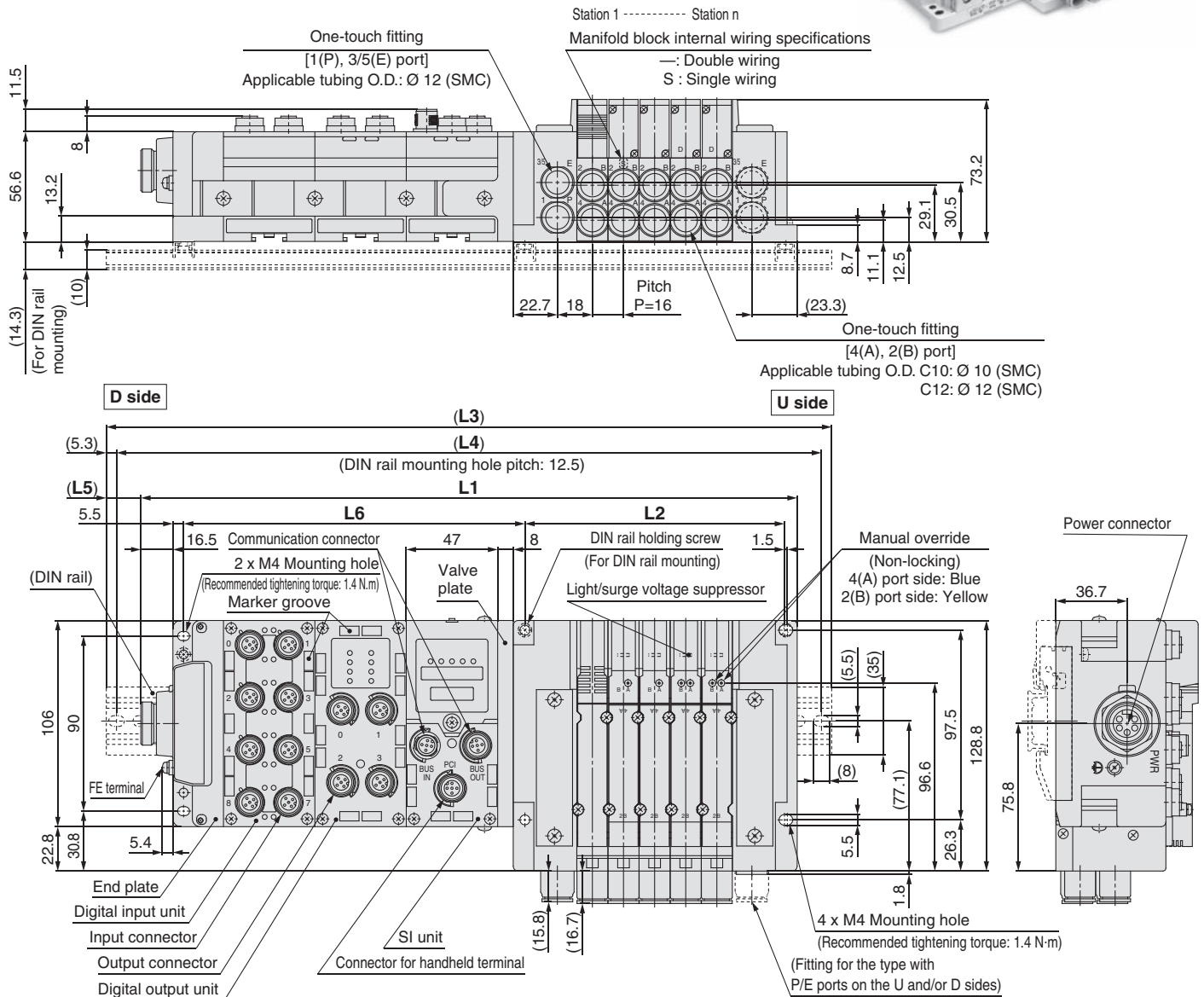
Type 10/Side Ported

EX600 (7/8 Inch Connector)



Dimensions: JSY5000 Series

JJ5SY5-10S6□<sup>3</sup>□ - Stations  $\frac{U}{D}$  - C<sub>10</sub><sup>10</sup>(D)



$$L1 = 16 \times n1 + 163.5 + 47 \times n2$$

$$L2 = 16 \times n1 + 53.5$$

$$L4 = L3 - 10.5$$

$$L5 = (L3 - L1) / 2$$

$$L6 = 47 \times n2 + 81.5$$

n1: Valve stations  
n2: I/O unit stations

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	223	235.5	260.5	273	285.5	310.5	323	335.5	348	373	385.5	398	423	435.5	448	460.5	485.5	498	510.5	523	548	560.5	573
1	273	285.5	298	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	485.5	498	510.5	523	548	560.5	573	598	610.5	623
2	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	548	560.5	573	585.5	610.5	623	635.5	660.5	673
3	360.5	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	548	560.5	573	585.5	610.5	623	635.5	648	673	685.5	698	723
4	410.5	423	448	460.5	473	498	510.5	523	535.5	560.5	573	585.5	610.5	623	635.5	648	673	685.5	698	723	735.5	748	760.5
5	460.5	473	498	510.5	523	535.5	560.5	573	585.5	598	623	635.5	648	673	685.5	698	710.5	735.5	748	760.5	785.5	798	810.5
6	510.5	523	535.5	560.5	573	585.5	598	623	635.5	648	673	685.5	698	710.5	735.5	748	760.5	773	798	810.5	823	848	860.5
7	548	573	585.5	598	623	635.5	648	660.5	685.5	698	710.5	735.5	748	760.5	773	798	810.5	823	848	860.5	873	885.5	910.5
8	598	623	635.5	648	660.5	685.5	698	710.5	723	748	760.5	773	798	810.5	823	835.5	860.5	873	885.5	910.5	923	935.5	948
9	648	660.5	685.5	698	710.5	723	748	760.5	773	798	810.5	823	835.5	860.5	873	885.5	898	923	935.5	948	973	985.5	—

\* These figures show the "JJ5SY5-10S6Q32-05D-C12."

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

# Plug-in Connector Connecting Base

EX245

Type 10/  
Side Ported

# JSY3000/5000 Series



## How to Order Manifold

**JJ5SY** **3** - **10 S** **AAN** **05** **D** - **C6**

1 2 3 4 5 6 7 8 9

Only direct mounting is selectable for the manifold.



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 1 Series

3	JSY3000
5	JSY5000

### 2 Type

10	Side ported
----	-------------

### 3 SI Unit specifications

Symbol (output polarity)	Protocol	Communication connector	Communication connector specifications
Negative common (PNP)			
0		Without SI unit	
AAN	PROFINET	Push/Pull (SCRJ): 2 pcs.	Push/Pull (24 V): 2 pcs.
ABN		Push/Pull (RJ45): 2 pcs.	Push/Pull (24 V): 2 pcs.
ACN		M12: 2 pcs.	7/8 inch: 2 pcs.

\* The valve output polarity for the SI unit is negative common (PNP).

### 4 With or without I/O modules

—	Without I/O module
Y	With I/O module

### 5 Number of I/O modules

—	Without I/O module (Without SI Unit)
1	1 station
:	:
8	8 stations

### 6 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring*1
:	:	
16	16 stations	Specified layout*2 (Available up to 32 solenoids)
02	2 stations	
:	:	
24	24 stations	

\*1 Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout

\*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet.  
(Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

\* This also includes the number of blanking plate assembly.

### 7 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

### 8 SUP/EXH block assembly

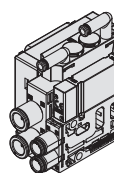
—	Internal pilot
S	Internal pilot, Built-in silencer
R	External pilot

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged.

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

### 9 A, B port size (Metric)

Symbol	A, B port	JSY3000	JSY5000
C6	Ø 6 One-touch fitting	●	—
C8	Ø 8 One-touch fitting	●	—
C10	Ø 10 One-touch fitting	—	●
C12	Ø 12 One-touch fitting	—	●
CM*1	Straight port, mixed sizes	●	●
P, E port size (One-touch fittings)		Ø 10	Ø 12

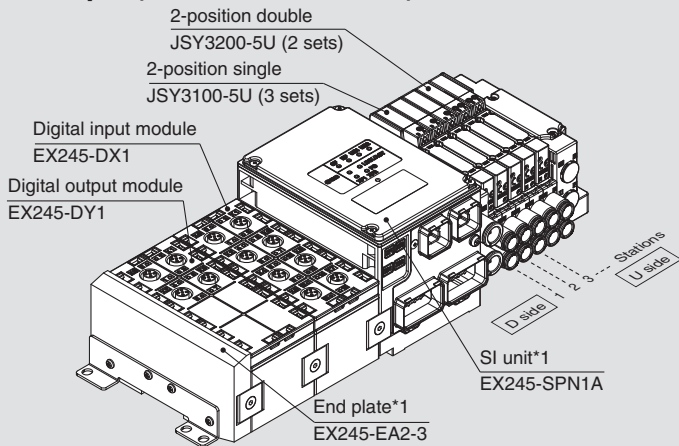


\*1 Indicate the sizes on the manifold specification sheet in the case of "CM."

For details about the EX245 Integrated-type (For Input/Output) Serial Transmission System, refer to the **Web Catalogue** and the **Operation Manual**. For details about part numbers of SI Units to be mounted, refer to pages 107 and 108. Please download the **Operation Manual** via SMC website, <https://www.smc.eu>

## How to Order Manifold Assembly

### Example (JJ5SY3-10SAAN□-□)



JJ5SY3-10SAANY2-05D-C6... 1 set (Type 10 5-station manifold base part no.)

\* JSY3100-5U ..... 3 sets (2-position single part no.)

\* JSY3200-5U ..... 2 sets (2-position double part no.)

\* EX245-DX1 ..... 1 set I/O module part number

\* EX245-DY1 ..... 1 set I/O module part number

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

- The valve arrangement is numbered as the 1st station from the D side.
- The I/O module station arrangement is numbered starting from the SI unit side.
- Under the manifold part number, state the valves to be mounted, then the I/O module in order from the 1st station as shown in the figure. If the arrangement becomes complicated, specify on a manifold specification sheet.

\*1 Do not enter the SI unit part number and the end plate part number together.

### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY3000/5000 Series

**JSY 3 1 0 0 - 5 NZ**

1 2 3 4 5 6

• Base mounted



### Made to Order

(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

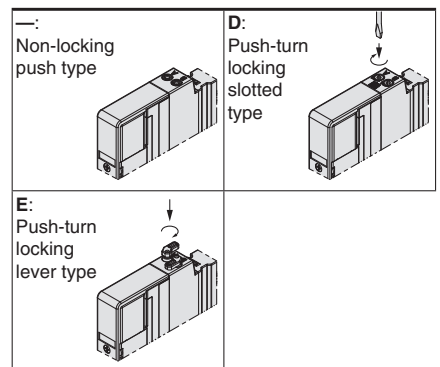
1	2-position	Single
2		Double
3	3-position	Closed centre
4		Exhaust centre
5		Pressure centre
A	4-position	N.C./N.C.
B	dual 3-port	N.O./N.O.
C		N.C./N.O.

#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U	●	●	Non-polar
NZ			Negative common

\* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* **When ordering a valve individually, the base gasket is not included.**

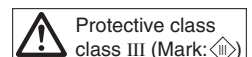
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance service.

Refer to page 113 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 120.

Additionally, when it is used at the energizing rate over 50 %, please select the product with power saving circuit.

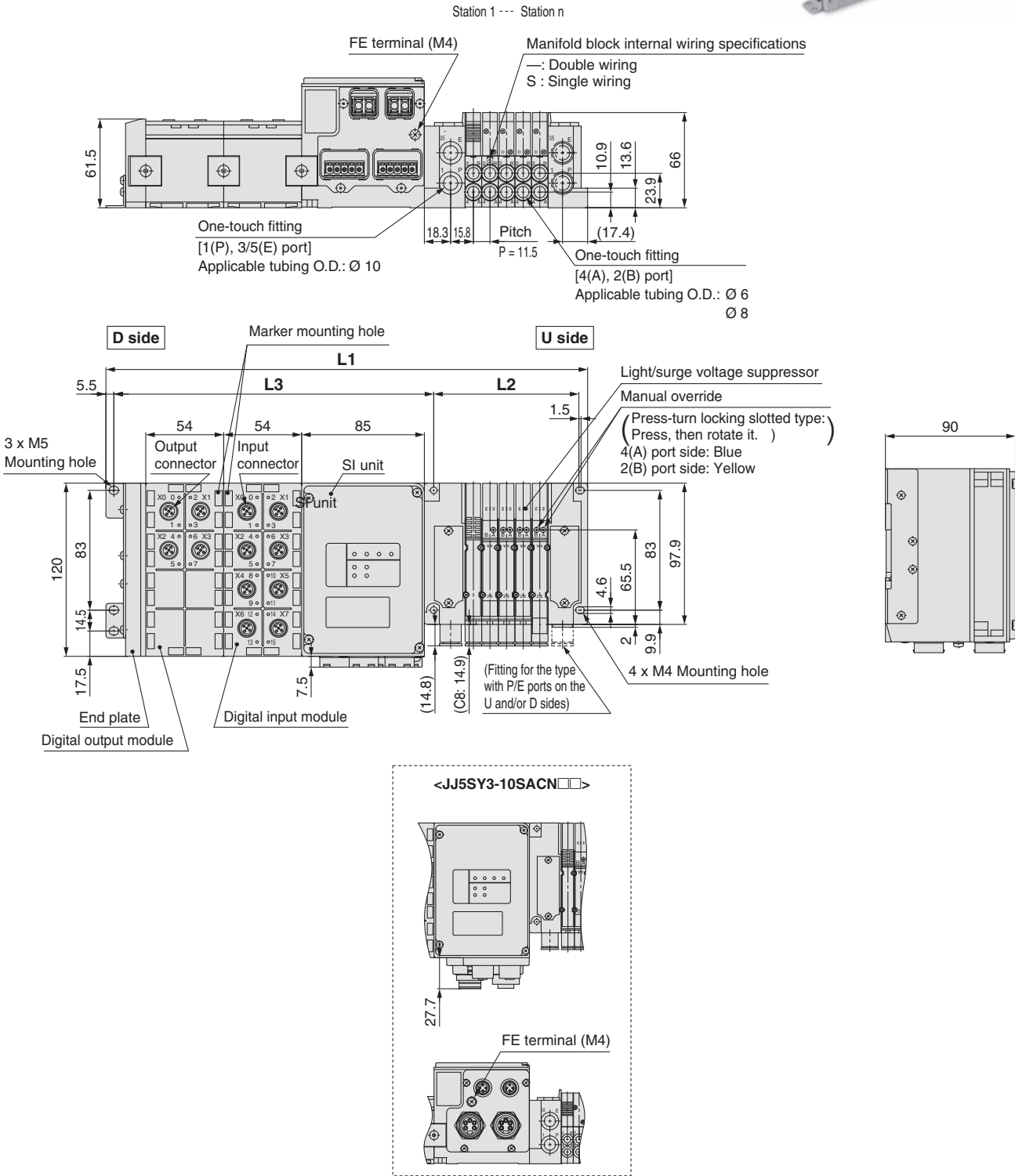
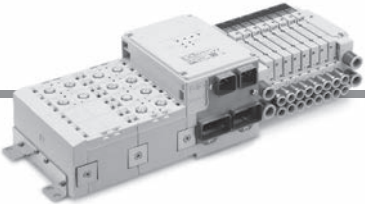


# JSY1000/3000/5000 Series

Dimensions: **JSY3000 Series**

Type 10/Side Ported  
EX245

JJ5SY3-10SA□ - Stations  $\frac{U}{D}$ -C6  
C8



$L1 = 11.5n1 + 168.2$  $L2 = 11.5n1 + 43.1$  $L3 = 54n2 + 113.6$

\* These figures show the “JJ5SY3-10SAANY2-05D-C8.”  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

**Dimensions**      \* The L1 dimension is the dimension without an I/O module. Add 54 mm to this dimension for each I/O module.  
                             \* n2 is the number of I/O module stations.

Valve stations n1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	191.2	202.7	214.2	225.7	237.2	248.7	260.2	271.7	283.2	294.7	306.2	317.7	329.2	340.7	352.2	363.7	375.2	386.7	398.2	409.7	421.2	432.7	444.2
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1	238.6	250.1	261.6	273.1	284.6	296.1	307.6	319.1

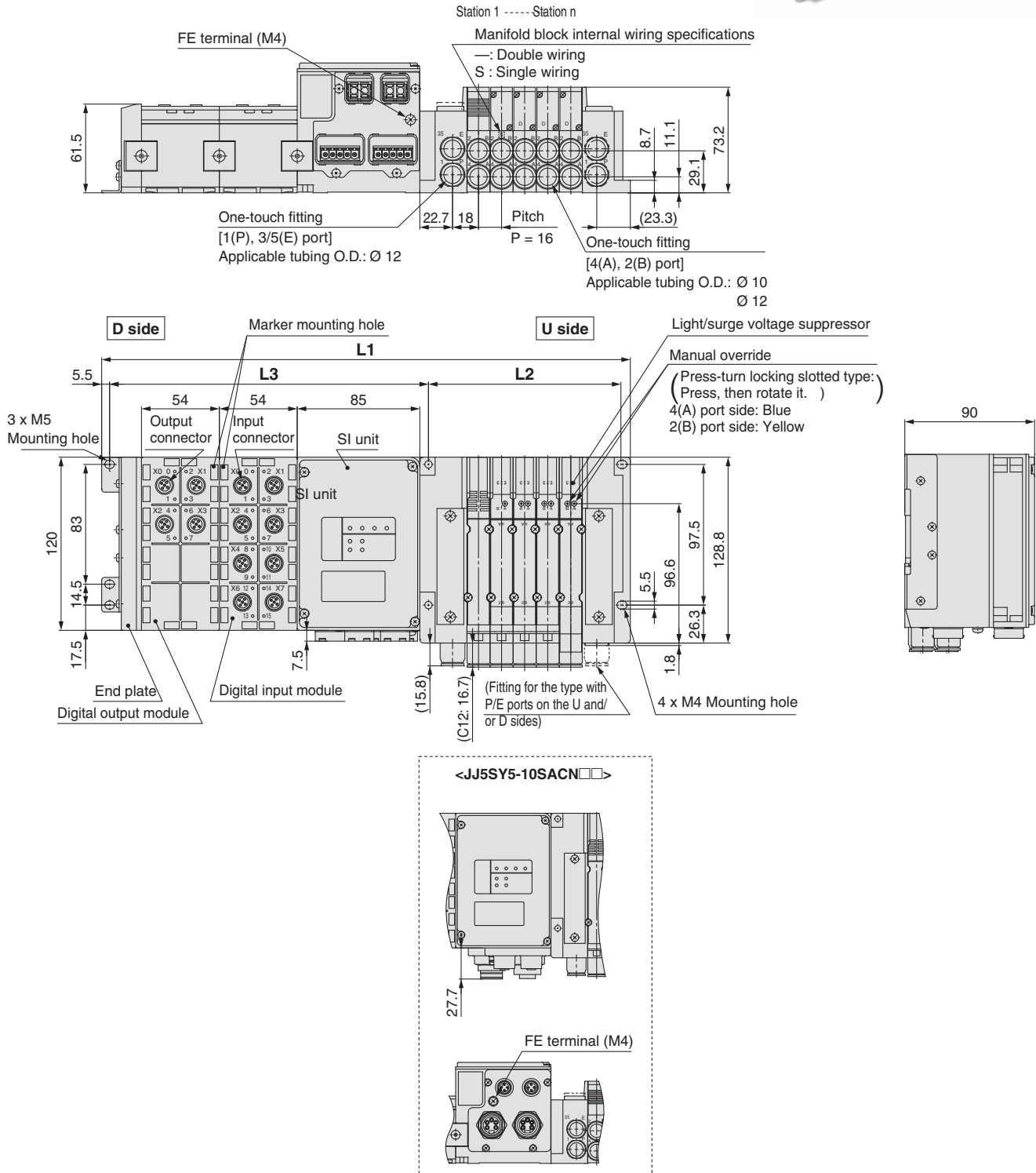
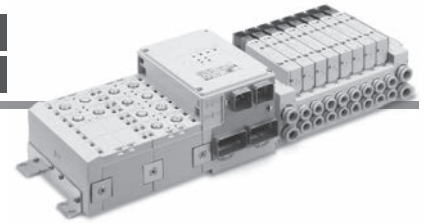


## Dimensions: JSY5000 Series

JJ5SY5-10SA□ - Stations  $\frac{U}{D}$  - C10  
C12

Type 10/Side Ported

EX245



$$\begin{aligned} L1 &= 16n1 + 178.6 \\ L2 &= 16n1 + 53.5 \\ L3 &= 54n2 + 113.1 \end{aligned}$$

\* These figures show the "JJ5SY5-10SAANY2-05D-C12."  
\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### Dimensions

\* The L1 dimension is the dimension without an I/O module. Add 54 mm to this dimension for each I/O module.  
\* n2 is the number of I/O module stations.

Valve stations n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	210.6	226.6	242.6	258.6	274.6	290.6	306.6	322.6	338.6	354.6	370.6	386.6	402.6	418.6	434.6	450.6	466.6	482.6	498.6	514.6	530.6	546.6	562.6
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5



# Plug-in Connector Connecting Base

EX250

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **S** **Q** **1** **A** - **05** **U** - **C6**

1 2 3 4 5 6 7 8 9



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 3 SI unit

0	Without SI unit		
Q	DeviceNet™ (Negative common)		
N	PROFIBUS DP (Negative common)		
TA	AS-Interface (Negative common)	2 isolated common type	8 in/8 out, 31 slave modes
TB			4 in/4 out, 31 slave modes
TC		1 common type	8 in/8 out, 31 slave modes
TD			4 in/4 out, 31 slave modes
Y	CANopen (Negative common)		
ZE	EtherNet/IP™ (Negative common)		

- \* Ensure a match with the common specification of the valve to be used.
- \* Input block cannot be mounted without SI unit.
- \* The supply current from the SI unit of AS-Interface applicable 1 power supply system specification to the input block and valve is limited.

### 2 Type

10	Side ported
----	-------------

### 4 Input block stations

—	None
1	1 station
⋮	⋮
8	8 stations

- \* Without SI unit, the symbol is —.
- The maximum number of stations is limited for the AS-Interface applicable SI unit.

### 5 Input block type

	PNP sensor input	NPN sensor input
Without input block	—	—
M12, 2 inputs	A	D
M12, 4 inputs	B	E
M8, 4 inputs	C	F

- \* Without SI unit, the symbol is —.

### 6 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
16	16 stations	Specified layout*2 (Up to 32 solenoids available)
02	2 stations	
⋮	⋮	
24	24 stations	

- \*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
- \*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.) When determining the number of valve stations, note that the maximum number of solenoids for the AS-Interface applicable SI unit specification is as follows.
  - 8 in/8 out specification: Max. 8 solenoids
  - 4 in/4 out specification: Max. 4 solenoids
- \* This also includes the number of blanking plates.
- \* For the product without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

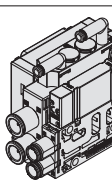
### 7 P, E port entry, SUP/EXH block assembly

P, E port entry	Internal pilot	Internal pilot, Built-in silencer
U side (2 to 10 stations)	U	C
D side (2 to 10 stations)	D	E
Both sides (2 to 24 stations)	B	F

- \* 3/5(E) port is plugged for the built-in silencer type.
- \* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.
- \* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 8 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



- \*1 Indicate the sizes on the manifold specification sheet in the case of "CM."
- \* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 9 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

- \* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
- \* Refer to page 124 for the fixation of DIN rail mounting type manifold.
- \* DIN rail mounting (D□) is not available for the product without the SI unit (S0).

#### DIN Rail Option

—	DIN rail mounting (With DIN rail)
0	DIN rail mounting (Without DIN rail)
3	For 3 stations
⋮	⋮
24	For 24 stations

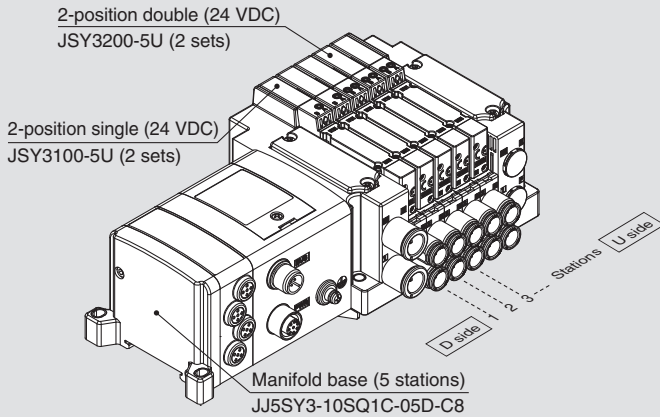
Specify a longer rail than the standard length.

- \* Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 116 for the DIN rail part number.)

For details about the EX250 Integrated Type (For Input/Output) Serial Transmission System, refer to the Web Catalogue and the Operation Manual. For details about part numbers of SI units to be mounted, refer to page 109. Please download the Operation Manual via SMC website, <https://www.smc.eu>

## How to Order Manifold Assembly

### Example (JJ5SY3-10S□-□)



JJ5SY3-10SQ1C-05D-C8 ... 1 set (Type 10 5-station manifold base part no.)  
 \* JSY3100-5U ..... 3 sets (2-position single part no.)  
 \* JSY3200-5U ..... 2 sets (2-position double part no.)

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

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

### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series

JSY 1 1 0 0 T - 5 Z □  
 JSY 3 1 0 0 - 5 Z □

① ② ③ ④ ⑤ ⑥

• With power saving circuit  
 • Base mounted



**Made to Order**  
 (Refer to page 120 for details.)

Specification
With power saving circuit (Continuous duty type): 0.1 W (JSY3000/5000)
External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

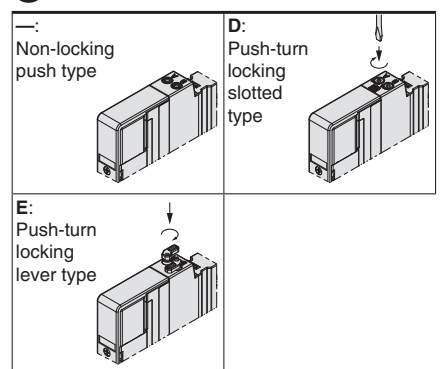
1	2-position	Single
2		Double
3	3-position	Closed centre
4		Exhaust centre
5		Pressure centre
A	4-position	N.C./N.C.
B	dual 3-port	N.O./N.O.
C		N.C./N.O.

#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
Z	●	●	Positive common
NZ			Negative common

- \* "U" is applicable for every SI unit. However, "Z" can be used only for CC-Link applicable unit and "NZ" is for units which are not CC-Link applicable.
- \* Only "Z" and "NZ" types are available for the JSY1000 series.
- \* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

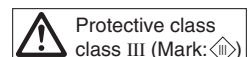
\* **When ordering a valve individually, the base gasket is not included.**

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 113 for base gasket and mounting screw part numbers.

### ⚠ Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.  
 For the JSY1000 series only the power saving circuit is available.



# JSY1000/3000/5000 Series

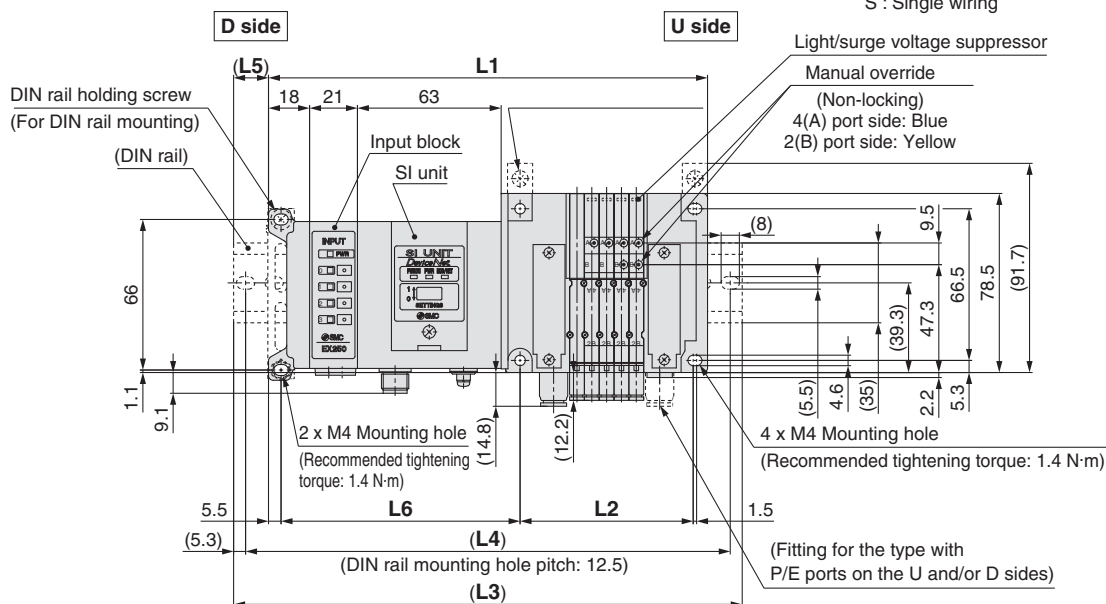
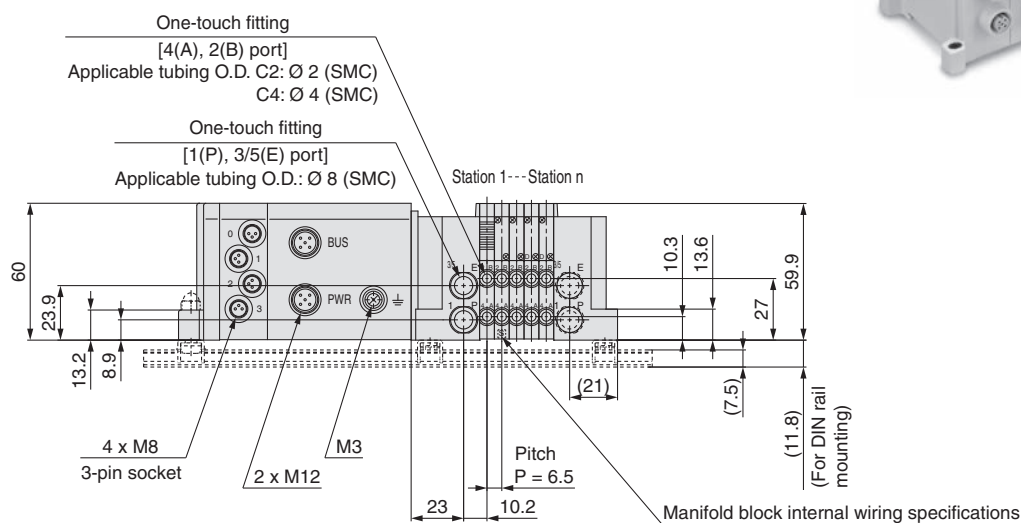
## Dimensions: JSY1000 Series

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)

EX250



JJ5SY1-10S□ - Stations  $\frac{U}{D}$  - C<sub>2</sub>(D)



$$\begin{aligned} L1 &= 6.5 \times n1 + 139 + 21 \times n2 \\ L2 &= 6.5 \times n1 + 43.4 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 21 \times n2 + 83.8 \end{aligned}$$

n1: Number of valve stations of the JSY1000  
n2: Input block stations

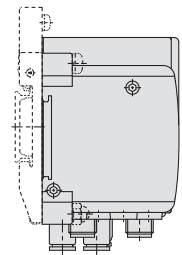
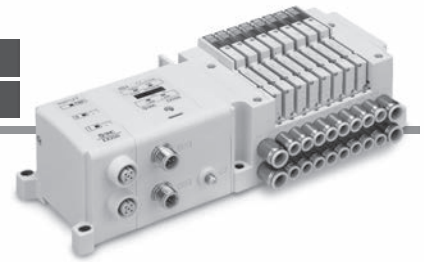
- \* These figures show the "JJ5SY1-10SQ1A-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	260.5	273	273	285.5	298	298	310.5	310.5	323	323
1	198	210.5	210.5	223	223	235.5	235.5	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5	348
2	223	235.5	235.5	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5
3	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	348	348	360.5	360.5	373	373	385.5	385.5
4	260.5	273	273	285.5	285.5	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5
5	285.5	298	298	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	410.5	423	435.5
6	310.5	310.5	323	323	335.5	335.5	348	348	360.5	360.5	373	373	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448
7	323	335.5	335.5	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448	460.5	460.5	473
8	348	360.5	360.5	373	373	385.5	385.5	398	398	410.5	410.5	423	423	435.5	435.5	448	448	460.5	460.5	473	485.5	485.5	498

JJ5SY1-10S□ - Stations <sup>U</sup><sub>B</sub>-C6(D)

## EX250



- \* These figures show the “JJ5SY1-10SQ1A-05D-C6.”
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	198	210.5	210.5	223	235.5	235.5	248	260.5	273	273	285.5	298	298	310.5	323	335.5	335.5	348	360.5	360.5	373	385.5
1	210.5	210.5	223	235.5	248	248	260.5	273	285.5	285.5	298	310.5	310.5	323	335.5	348	348	360.5	373	373	385.5	398	410.5
2	223	235.5	248	260.5	260.5	273	285.5	285.5	298	310.5	323	323	335.5	348	360.5	360.5	373	385.5	385.5	398	410.5	423	423
3	248	260.5	273	273	285.5	298	298	310.5	323	335.5	348	360.5	360.5	373	385.5	398	398	410.5	423	435.5	435.5	448	448
4	273	285.5	285.5	298	310.5	310.5	323	335.5	348	348	360.5	373	373	385.5	398	410.5	410.5	423	435.5	435.5	448	460.5	473
5	285.5	298	310.5	323	323	335.5	348	360.5	360.5	373	385.5	385.5	398	410.5	423	423	435.5	448	448	460.5	473	485.5	485.5
6	310.5	323	335.5	335.5	348	360.5	360.5	373	385.5	398	398	410.5	423	435.5	435.5	448	460.5	460.5	473	485.5	498	498	510.5
7	335.5	348	348	360.5	373	373	385.5	398	410.5	410.5	423	435.5	435.5	448	460.5	473	473	485.5	498	510.5	523	523	535.5
8	360.5	360.5	373	385.5	385.5	398	410.5	423	423	435.5	448	448	460.5	473	485.5	485.5	498	510.5	510.5	523	535.5	548	548

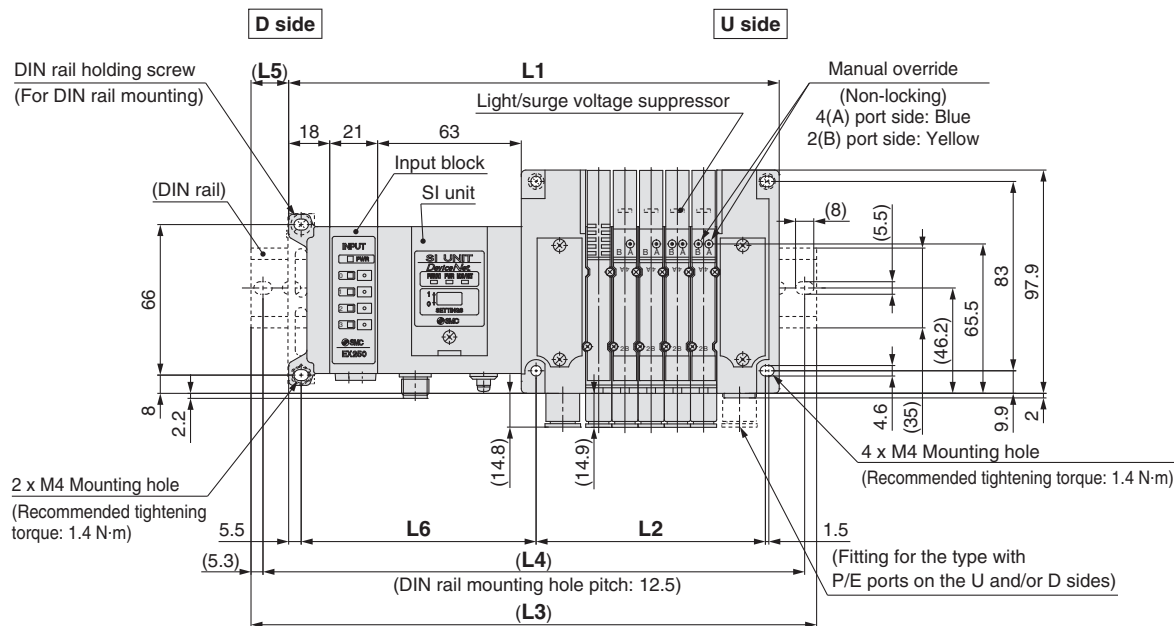
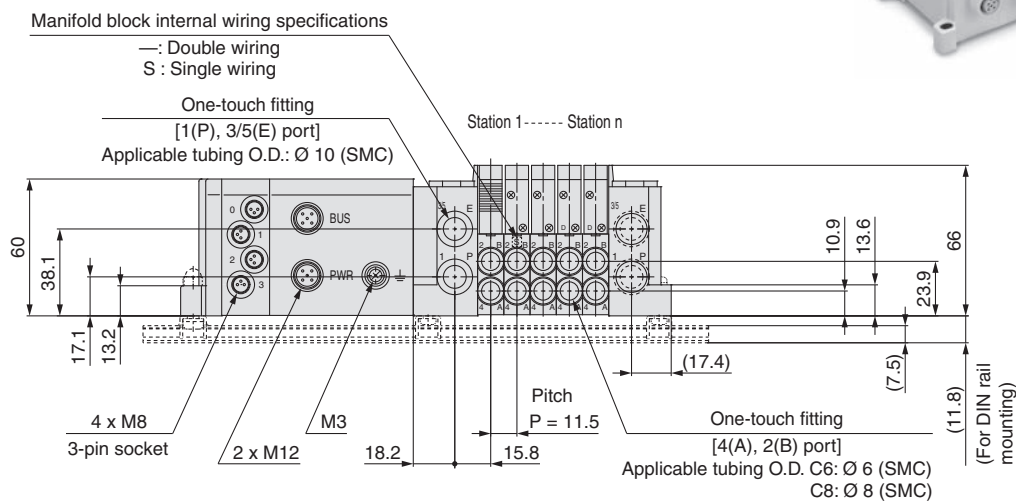
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

Type 10/Side Ported

EX250

JJ5SY3-10S□ - Stations  $\frac{U}{D}$  - C<sub>6</sub> C<sub>8</sub> (D)



$$\begin{aligned} L1 &= 11.5 \times n1 + 136.6 + 21 \times n2 \\ L2 &= 11.5 \times n1 + 43.1 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 21 \times n2 + 82 \end{aligned}$$

n1: Number of valve stations of the JSY3000  
 n2: Input block stations

\* These figures show the "JJ5SY3-10SQ1A-05D-C8."  
 \* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448
1	210.5	223	235.5	248	260.5	273	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	423	435.5	448	460.5
2	235.5	248	248	260.5	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5	398	398	410.5	423	435.5	448	460.5	473	485.5
3	248	260.5	273	285.5	298	310.5	323	335.5	348	360.5	373	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5
4	273	285.5	298	310.5	323	335.5	348	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	485.5	498	510.5	523
5	298	310.5	323	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	460.5	473	485.5	498	510.5	523	535.5	548
6	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	435.5	448	460.5	473	485.5	498	510.5	523	535.5	548	560.5	573
7	335.5	348	360.5	373	385.5	398	410.5	410.5	423	435.5	448	460.5	473	485.5	498	510.5	523	535.5	548	560.5	560.5	573	585.5
8	360.5	373	385.5	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5	523	535.5	535.5	548	560.5	573	585.5	598	610.5

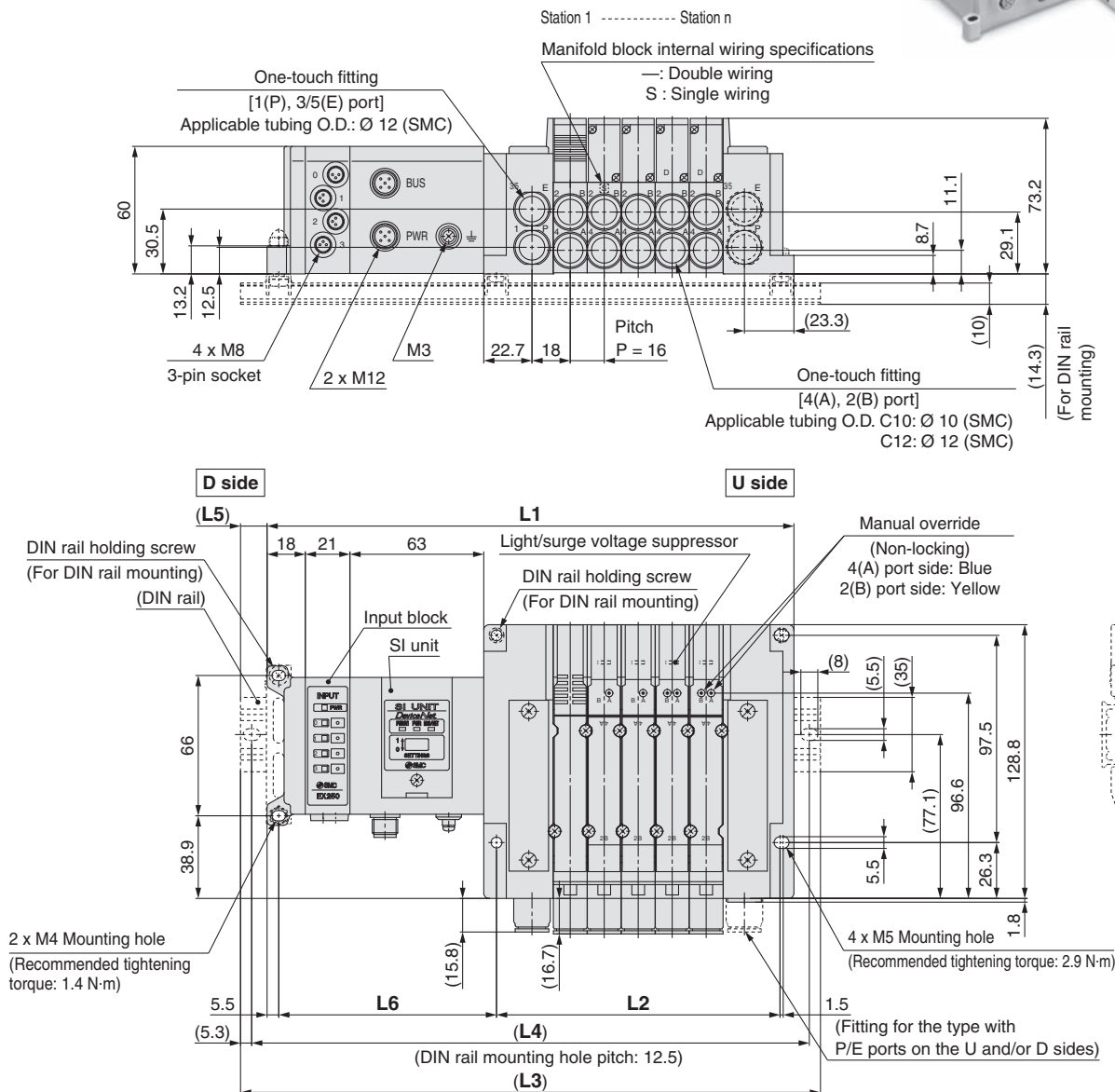
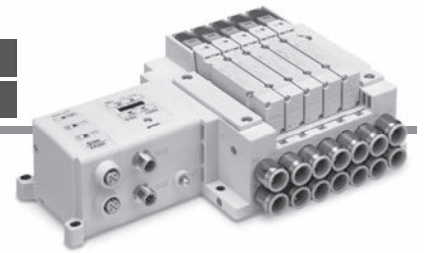


## Dimensions: JSY5000 Series

JJ5SY5-10S□ - Stations  $\begin{matrix} \text{U} \\ \text{D} \\ \text{B} \end{matrix}$  -  $\begin{matrix} \text{C}_{10} \\ \text{C}_{12} \end{matrix}$  (D)

Type 10/Side Ported

## EX250


$$\begin{aligned} L1 &= 16 \times n1 + 147 + 21 \times n2 \\ L2 &= 16 \times n1 + 53.5 \\ L4 &= L3 - 10.5 \\ L5 &= (L3 - L1) / 2 \\ L6 &= 21 \times n2 + 81.5 \end{aligned}$$

n1: Number of valve stations of the JSY5000  
n2: Input block stations

\* These figures show the “JJ5SY5-10SQ1A-05D-C12.”

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L3: DIN Rail Overall Length

Valve stations (n1) I/O unit stations (n2)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	210.5	223	235.5	260.5	273	285.5	310.5	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	485.5	498	510.5	523	548	560.5
1	235.5	248	260.5	273	298	310.5	323	335.5	360.5	373	385.5	410.5	423	435.5	448	473	485.5	498	523	535.5	548	560.5	585.5
2	248	260.5	285.5	298	310.5	335.5	348	360.5	373	398	410.5	423	448	460.5	473	485.5	510.5	523	535.5	560.5	573	585.5	598
3	273	285.5	298	323	335.5	348	373	385.5	398	410.5	435.5	448	460.5	485.5	498	510.5	523	548	560.5	573	585.5	610.5	623
4	298	310.5	323	335.5	360.5	373	385.5	410.5	423	435.5	448	473	485.5	498	510.5	535.5	548	560.5	585.5	598	610.5	623	648
5	310.5	335.5	348	360.5	373	398	410.5	423	435.5	460.5	473	485.5	510.5	523	535.5	548	573	585.5	598	623	635.5	648	660.5
6	335.5	348	360.5	385.5	398	410.5	435.5	448	460.5	473	498	510.5	523	548	560.5	573	585.5	610.5	623	635.5	660.5	673	685.5
7	360.5	373	385.5	398	423	435.5	448	473	485.5	498	510.5	535.5	548	560.5	585.5	598	610.5	623	648	660.5	673	685.5	710.5
8	373	398	410.5	423	435.5	460.5	473	485.5	510.5	523	535.5	548	573	585.5	598	610.5	635.5	648	660.5	685.5	698	710.5	723



# Plug-in Connector Connecting Base

EX260

Type 10  
Side Ported

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10 S** **QA** - **05 D** **□** - **C6** **□**

1 2 3 4 5 6 7 8



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 3 SI unit (Output polarity, Protocol, Number of outputs, Communication connector)

Symbol (Output polarity)	Positive common (NPN)	Negative common (PNP)	Protocol	Number of outputs	Communication connector
<b>0*1</b> Without SI unit					
<b>QA</b>	<b>QAN</b>		DeviceNet™	32	M12
<b>QB</b>	<b>QBN</b>			16	
<b>NA</b>	<b>NAN</b>		PROFIBUS DP	32	M12
<b>NB</b>	<b>NBN</b>			16	
<b>NC</b>	<b>NCN</b>			32	
<b>ND</b>	<b>NDN</b>			16	
<b>VA</b>	<b>VAN</b>		CC-Link	32	M12
<b>VB</b>	<b>VBN</b>			16	
<b>DA</b>	<b>DAN</b>		EtherCAT	32	M12
<b>DB</b>	<b>DBN</b>			16	
<b>FA</b>	<b>FAN</b>		PROFINET	32	M12
<b>FB</b>	<b>FBN</b>			16	
<b>EA</b>	<b>EAN</b>		EtherNet/IP™	32	M12
<b>EB</b>	<b>EBN</b>			16	
—*2	<b>GAN</b>		Ethernet POWERLINK	32	M12
—*2	<b>GBN</b>			16	
—*2	<b>KAN</b>		IO-Link	32*4	M12

\*1 Without SI unit, the output polarity is decided by the SI unit used.  
Ensure a match with the common specification of the valves to be used.

\*2 Positive common (NPN) type is not available.

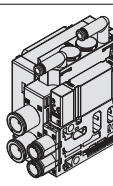
\*3 IP40 for the D-sub applicable communication connector specification.

\* DIN rail cannot be mounted without SI unit.

\*4 Only the 32 outputs type is available.

### 7 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
<b>C2</b>	Ø 2	●	—	—
<b>C4</b>	Ø 4	●	—	—
<b>C6</b>	Ø 6	●	●	—
<b>C8</b>	Ø 8	—	●	—
<b>C10</b>	Ø 10	—	—	●
<b>C12</b>	Ø 12	—	—	●
<b>CM*1</b>	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



\*1 Indicate the sizes on the manifold specification sheet in the case of "CM."

\* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

For details about the EX260 Integrated Type (For Input/Output) Serial Transmission System, refer to the **Web Catalogue** and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 110. Please download the **Operation Manual** via SMC website, <https://www.smc.eu>

### 2 Type

<b>10</b>	Side ported
-----------	-------------

### 5 P, E port entry

<b>U</b>	U side (2 to 10 stations)
<b>D</b>	D side (2 to 10 stations)
<b>B</b>	Both sides (2 to 24 stations)

### 6 SUP/EXH block assembly

—	Internal pilot
<b>S</b>	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

\* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.

### 4 Valve stations

In the case of the 32-output SI unit

Symbol	Stations	Note
<b>02</b>	2 stations	Double wiring*1
⋮	⋮	
<b>16</b>	16 stations	Specified layout*2 (Up to 32 solenoids available)
<b>02</b>	2 stations	
⋮	⋮	
<b>24</b>	24 stations	

In the case of the 16-output SI unit

Symbol	Stations	Note
<b>02</b>	2 stations	Double wiring*1
⋮	⋮	
<b>08</b>	8 stations	Specified layout*2 (Up to 16 solenoids available)
<b>02</b>	2 stations	
⋮	⋮	
<b>16</b>	16 stations	

\*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.  
Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

\*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

\* This also includes the number of blanking plates.

\* For the product without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

### 8 Mounting and Option

Symbol	Mounting
—	Direct mounting
<b>D</b> □	DIN rail mounting

\* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)

\* Refer to page 124 for the fixation of DIN rail mounting type manifold.

\* DIN rail mounting (D □) is not available for the product without the SI unit (S0).

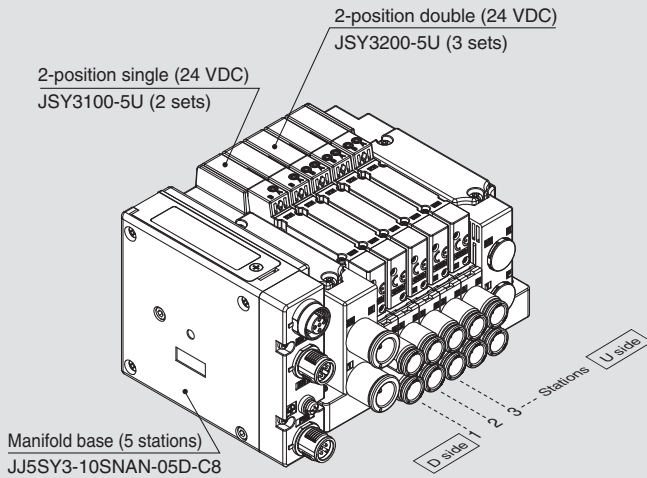
#### DIN Rail Option

—	DIN rail mounting (With DIN rail)	
<b>0</b>	DIN rail mounting (Without DIN rail)	
<b>3</b>	For 3 stations	Specify a longer rail than the standard length.
⋮	⋮	
<b>24</b>	For 24 stations	

\* Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 116 for the DIN rail part number.)

## How to Order Manifold Assembly

### Example (JJ5SY3-10SNAN-□)



JJ5SY3-10SNAN-05D-C8 .. 1 set (Type 10 5-station manifold base part no.)

\* JSY3100-5U ..... 2 sets (2-position single part no.)

\* JSY3200-5U ..... 3 sets (2-position double part no.)

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

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

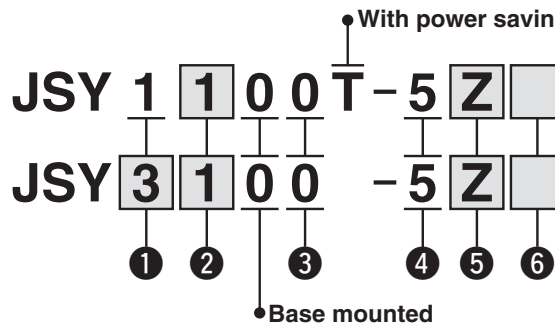
### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series



**Made to Order**  
(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

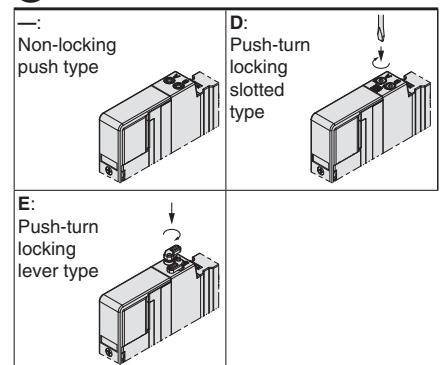
1	2-position	Single
2		Double
3	3-position	Closed centre
4		Exhaust centre
5		Pressure centre
A	4-position dual 3-port	N.C./N.C.
B		N.O./N.O.
C		N.C./N.O.

#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
Z	●	●	Positive common
NZ			Negative common

- \* Select a valve from U or Z when the SI unit output polarity is — (positive common). Select a valve from U or NZ when the SI unit output polarity is N (negative common).
- \* Only "Z" and "NZ" types are available for the JSY1000 series.
- \* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

\* **When ordering a valve individually, the base gasket is not included.**

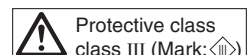
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance service.

Refer to page 113 for base gasket and mounting screw part numbers.

### ⚠ Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.

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

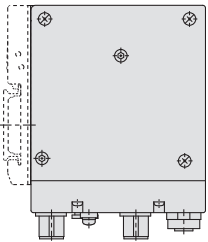
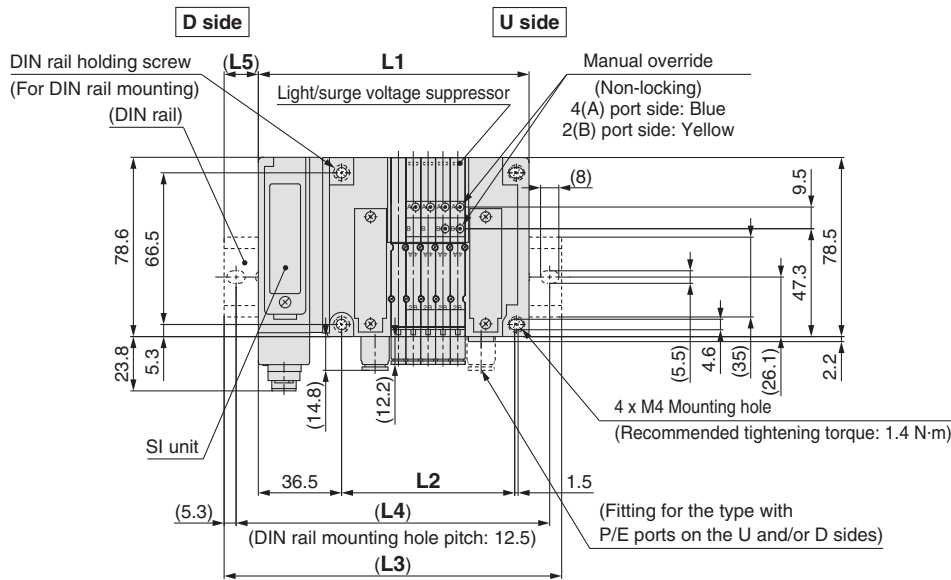
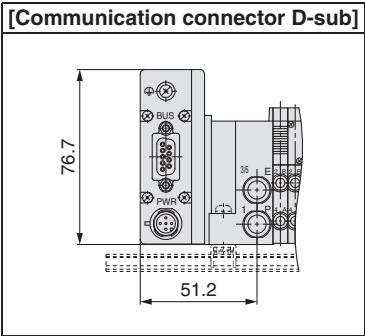
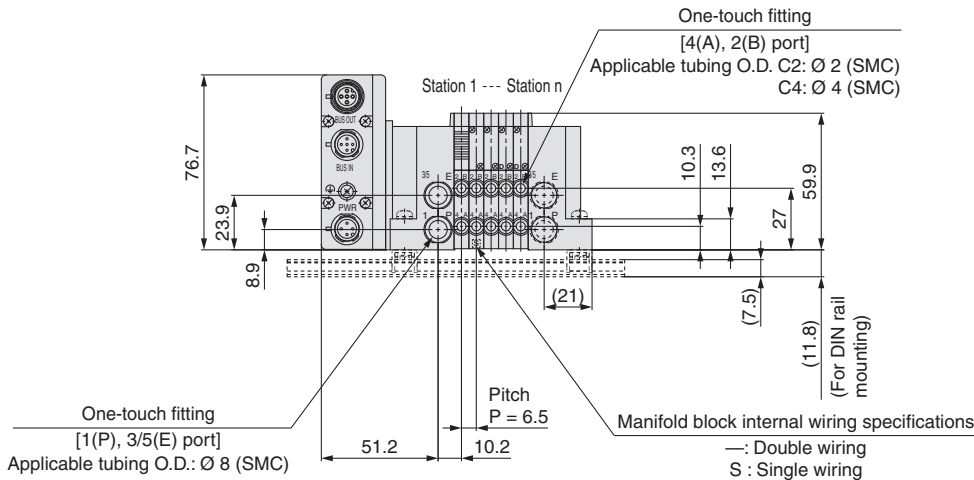


# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10S□ - Stations  $\frac{U}{D}$  - C<sub>2</sub>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)  
EX260



- \* These figures show the "JJ5SY1-10SQA-05D-C4."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

n: Stations

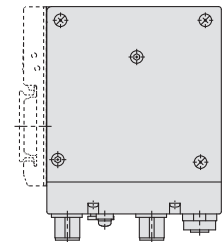
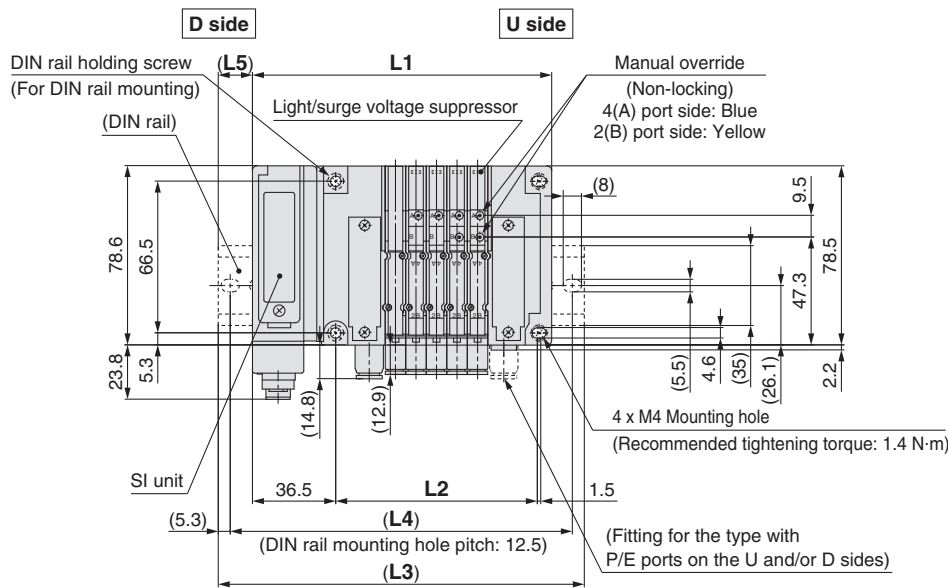
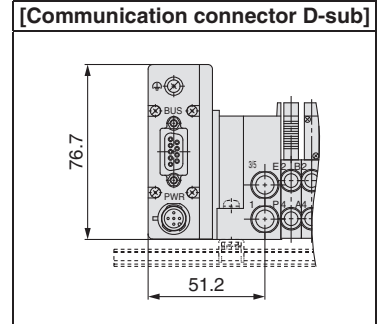
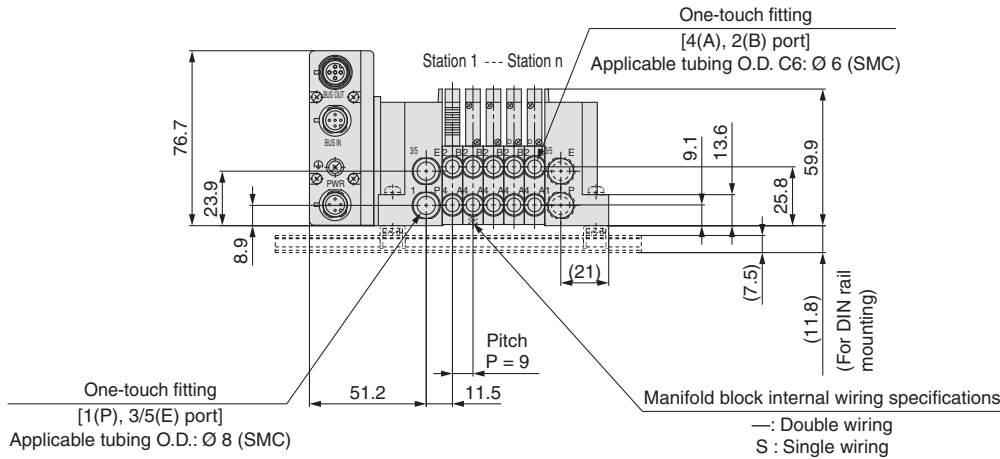
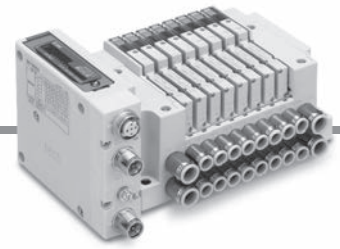
$\frac{L}{n}$	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	99.2	105.7	112.2	118.7	125.2	131.7	138.2	144.7	151.2	157.7	164.2	170.7	177.2	183.7	190.2
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	123	135.5	135.5	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223
L4	112.5	125	125	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5
L5	12	15	12	15	18	15	18	14	17	14	17	14	17	14	17

$\frac{L}{n}$	17	18	19	20	21	22	23	24
L1	196.7	203.2	209.7	216.2	222.7	229.2	235.7	242.2
L2	153.9	160.4	166.9	173.4	179.9	186.4	192.9	199.4
L3	223	235.5	235.5	248	248	260.5	260.5	273
L4	212.5	225	225	237.5	237.5	250	250	262.5
L5	13	16	13	16	13	16	13	16

## Dimensions: JSY1000 Series

JJ5SY1-10S□ - Stations  $\frac{U}{D}$  - C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)  
EX260



- \* These figures show the "JJ5SY1-10SQA-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

## L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	104.2	113.2	122.2	131.2	140.2	149.2	158.2	167.2	176.2	185.2	194.2	203.2	212.2	221.2	230.2
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	135.5	148	148	160.5	173	173	185.5	198	210.5	210.5	223	235.5	235.5	248	260.5
L4	125	137.5	137.5	150	162.5	162.5	175	187.5	200	200	212.5	225	225	237.5	250
L5	16	18	13	15	17	12	14	16	17	13	15	16	12	14	15

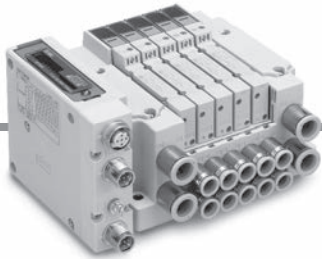
  

L \ n	17	18	19	20	21	22	23	24
L1	239.2	248.2	257.2	266.2	275.2	284.2	293.2	302.2
L2	196.4	205.4	214.4	223.4	232.4	241.4	250.4	259.4
L3	273	273	285.5	298	310.5	310.5	323	335.5
L4	262.5	262.5	275	287.5	300	300	312.5	325
L5	17	13	14	16	18	13	15	17

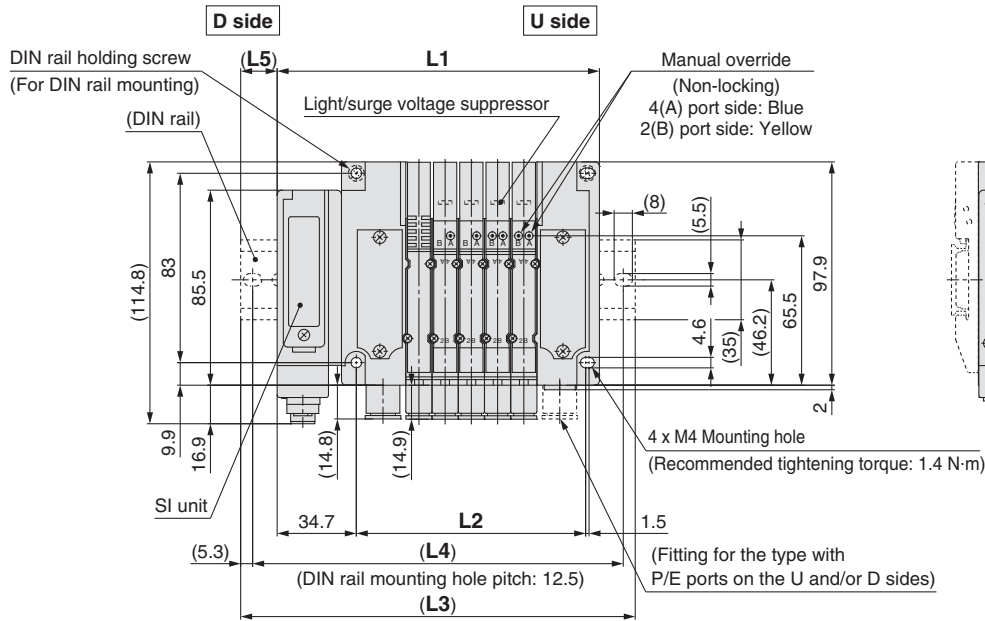
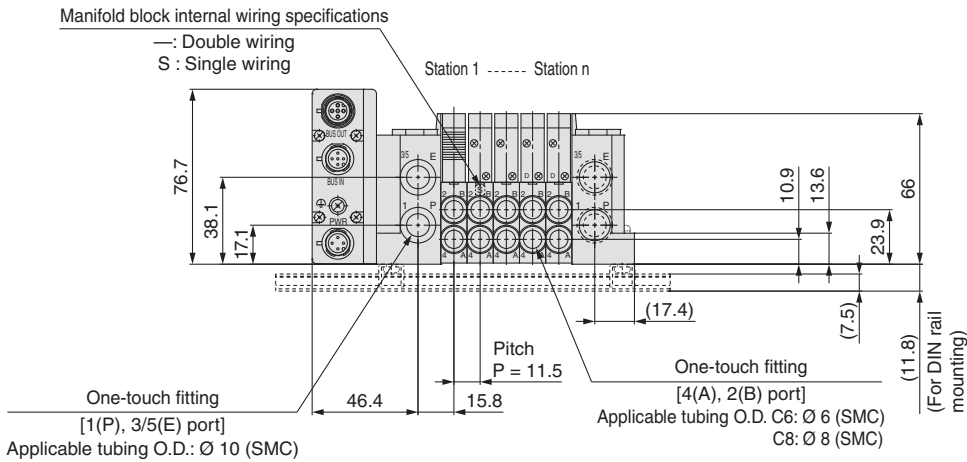
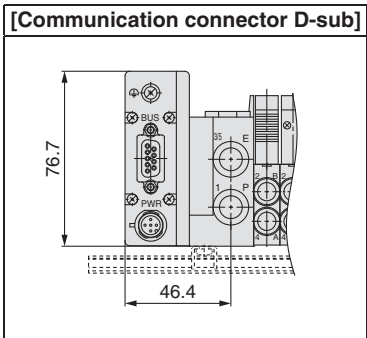
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

Type 10/Side Ported  
EX260



JJ5SY3-10S□ - Stations  $\frac{U}{D}$  - C<sub>6</sub>/C<sub>8</sub>(D)



\* These figures show the "JJ5SY3-10SQA-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	106.8	118.3	129.8	141.3	152.8	164.3	175.8	187.3	198.8	210.3	221.8	233.3	244.8	256.3	267.8
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	135.5	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	273	285.5	298
L4	125	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	262.5	275	287.5
L5	15	15	16	16	17	17	18	12	12	13	13	14	14	15	15

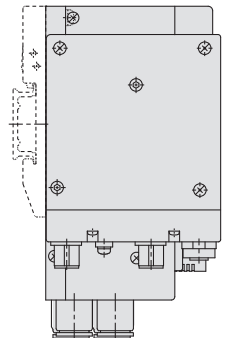
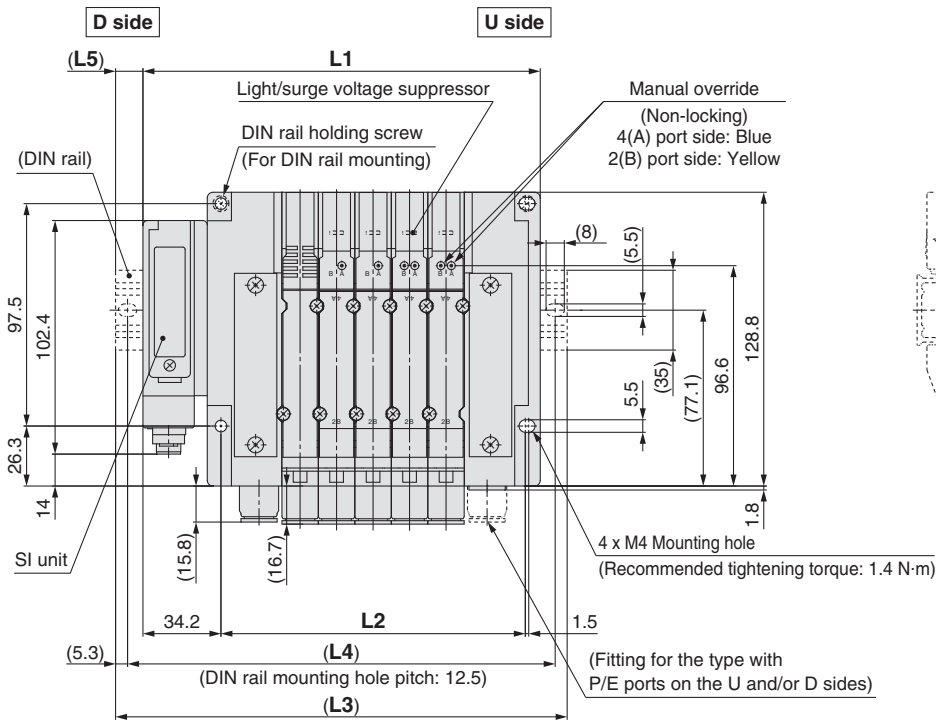
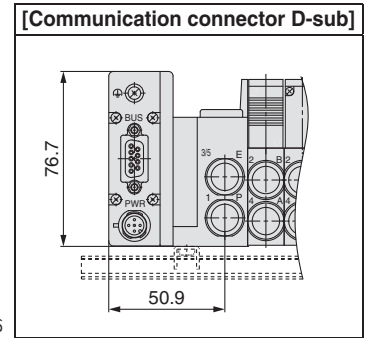
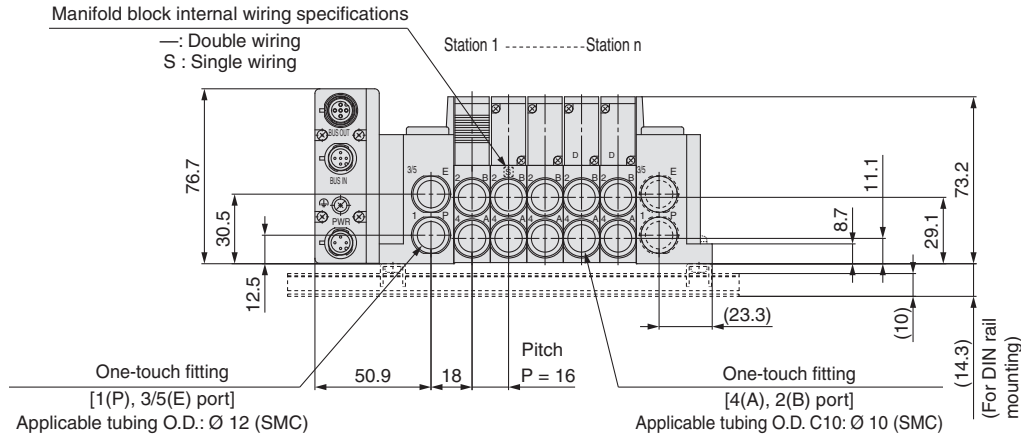
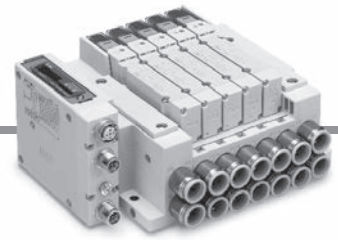
L \ n	17	18	19	20	21	22	23	24
L1	279.3	290.8	302.3	313.8	325.3	336.8	348.3	359.8
L2	238.6	250.1	261.1	273.1	284.6	296.1	307.6	319.1
L3	310.5	323	335.5	348	360.5	360.5	373	385.5
L4	300	312.5	325	337.5	350	350	362.5	375
L5	16	16	17	17	18	12	13	13



## Dimensions: JSY5000 Series

JJ5SY5-10S□ - Stations  $\frac{U}{D}$  - C10 (D)

Type 10/Side Ported  
EX260



\* These figures show the "JJ5SY5-10SQA-05D-C12."  
\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	126.2	142.2	158.2	174.2	190.2	206.2	222.2	238.2	254.2	270.2	286.2	302.2	318.2	334.2	350.2
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	160.5	173	185.5	198	223	235.5	248	273	285.5	298	310.5	335.5	348	360.5	385.5
L4	150	162.5	175	187.5	212.5	225	237.5	262.5	275	287.5	300	325	337.5	350	375
L5	17	16	14	12	17	15	13	18	16	14	12	17	15	13	18

L \ n	17	18	19	20	21	22	23	24
L1	366.2	382.2	398.2	414.2	430.2	446.2	462.2	478.2
L2	325.5	341.5	357.5	373.5	389.5	405.5	421.5	437.5
L3	398	410.5	423	448	460.5	473	485.5	510.5
L4	387.5	400	412.5	437.5	450	462.5	475	500
L5	16	14	13	17	15	14	12	16



# Plug-in Connector Connecting Base

EX120

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **10** **S3** **Q** - **05** **D** **□** - **□** **□**  
 1 2 3 4 5 6 7 8

### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

### 3 SI unit

0	Without SI unit	
Q	DeviceNet™ (Positive common NPN)	
R1	OMRON CompoBus/S	16 outputs
R2	(Positive common NPN)	8 outputs
V	CC-Link (Positive common NPN)	
ZB*1	CompoNet™	Positive common NPN
ZBN*1		Negative common PNP

\*1 The communication connector (for the opposite side) is not provided. Please order it separately.

\* Ensure a match with the common specification of the valve to be used.

### 2 Type

10	Side ported
----	-------------

### 5 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 16 stations)

### 6 SUP/EXH block

—	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

\* The external pilot specification should be ordered as Made to Order. For details, refer to page 120.



**Made to Order**  
(Refer to page 120 for details.)

Specification
External pilot (SUP/EXH block assembly)

### 4 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring*1
⋮	⋮	
08	8 stations	
02	2 stations	Specified layout*2 (Up to 16 solenoids available)
⋮	⋮	
16	16 stations	

\*1 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

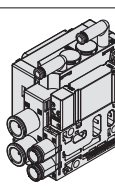
\*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

\* This also includes the number of blanking plates.

\* Since R2 type SI unit has 8 outputs, note that up to 8 solenoids can be accommodated.

### 7 A, B port size (Metric/One-touch fitting)

Symbol	A, B port	JSY1000	JSY3000	JSY5000
C2	Ø 2	●	—	—
C4	Ø 4	●	—	—
C6	Ø 6	●	●	—
C8	Ø 8	—	●	—
C10	Ø 10	—	—	●
C12	Ø 12	—	—	●
CM*1	Straight port, mixed sizes	●	●	●
P, E port size (One-touch fittings)		Ø 8	Ø 10	Ø 12



\*1 Indicate the sizes on the manifold specification sheet in the case of "CM."

\* The JSY1000 manifold pitch for C2 and C4 is 6.5 mm, and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

### 8 Mounting and Option

Symbol	Mounting
—	Direct mounting
D□	DIN rail mounting

\* Enter the number of stations inside □ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)

\* Refer to page 124 for the fixation of DIN rail mounting type manifold.

#### DIN Rail Option

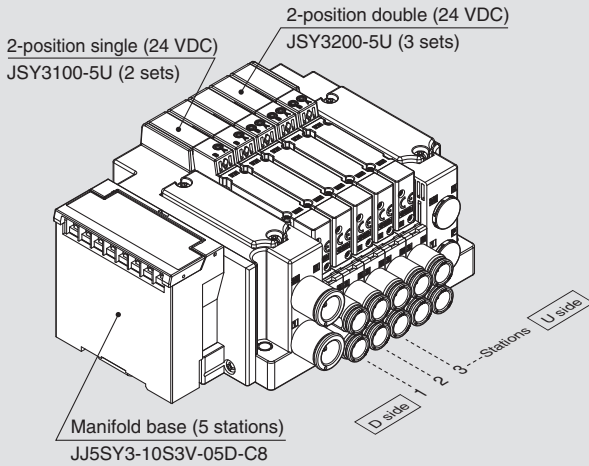
—	DIN rail mounting (With DIN rail)	
0	DIN rail mounting (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the standard length.
⋮	⋮	
16	For 16 stations	

\* If the DIN rail must be mounted without an SI unit, select D0. Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to page 116 for the DIN rail part number.)

For details about the EX120 Integrated Type (For Output) Serial Transmission System, refer to the **Web Catalogue** and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 111. Please download the Operation Manual via SMC website, <https://www.sm.eu>

## How to Order Manifold Assembly

### Example (JJ5SY3-10S3V-□)



**JJ5SY3-10S3V-05D-C8 ... 1 set (Type 10 5-station manifold base part no.)**

\* **JSY3100-5U** ..... 2 sets (2-position single part no.)

\* **JSY3200-5U** ..... 3 sets (2-position double part no.)

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

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

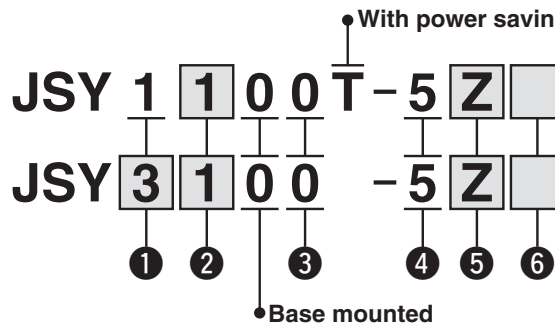
### Internal Pilot

## How to Order Valves (With mounting screw)

Refer to page 11 for valve specifications.

### JSY1000 Series

### JSY3000/5000 Series



**Made to Order**  
(Refer to page 120 for details.)

#### Specification

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

External pilot

#### 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

#### 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

#### 4 Rated voltage

5	24 VDC
---	--------

#### 2 Type of actuation

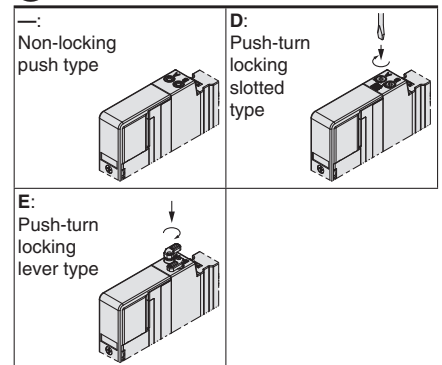
1	2-position	Single
2		Double
3	3-position	Closed centre
4		Exhaust centre
5		Pressure centre
A	4-position dual 3-port	N.C./N.C.
B		N.O./N.O.
C		N.C./N.O.

#### 5 Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
Z	●	●	Positive common
NZ			Negative common

- \* Select a valve from U or Z when the SI unit specification is positive common. Select a valve from U or NZ when the SI unit specification is ZBN (negative common).
- \* Only "Z" and "NZ" types are available for the JSY1000 series.
- \* When non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to page 123.

#### 6 Manual override



\* Push-turn locking lever type "E" is not available for the JSY1000.

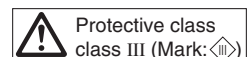
\* **When ordering a valve individually, the base gasket is not included.**

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 113 for base gasket and mounting screw part numbers.

### Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 120. Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.  
For the JSY1000 series only the power saving circuit is available.

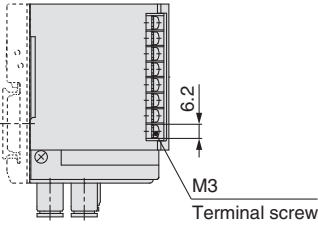
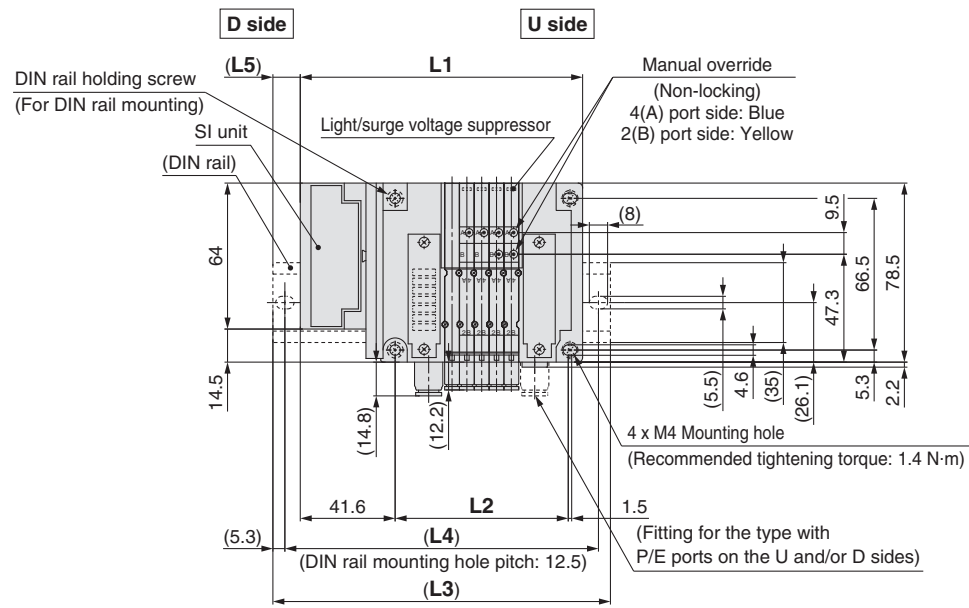
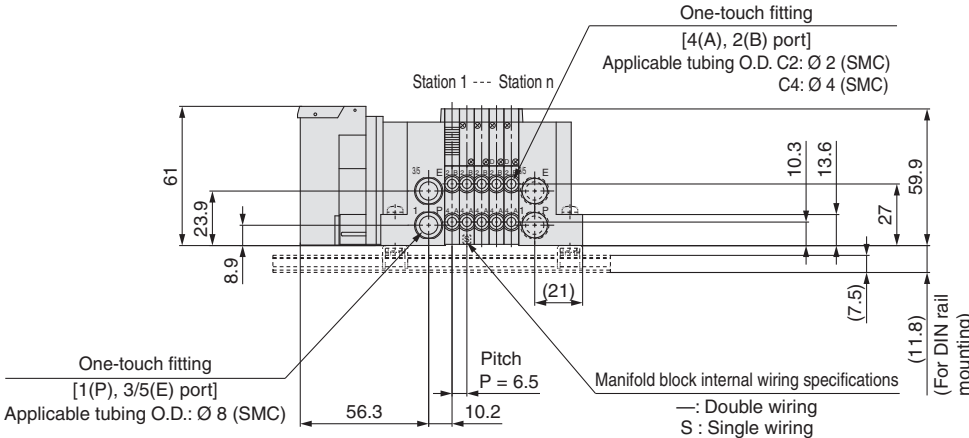
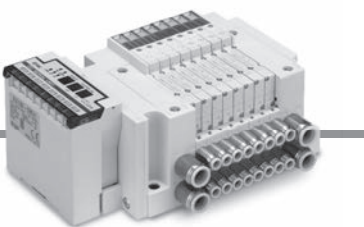


# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

JJ5SY1-10S3□ - Stations  $\frac{U}{D}$  - C<sub>2</sub>(D)

Type 10/Side Ported (Applicable to Ø 2 and Ø 4 fittings)  
EX120



\* These figures show the "JJ5SY1-10S3V-05D-C4."  
\* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.  
\* When CM is selected for mixed A, B port size and C6 (9 mm pitch) is included, refer to page 96 for dimensions.

### L: Dimensions

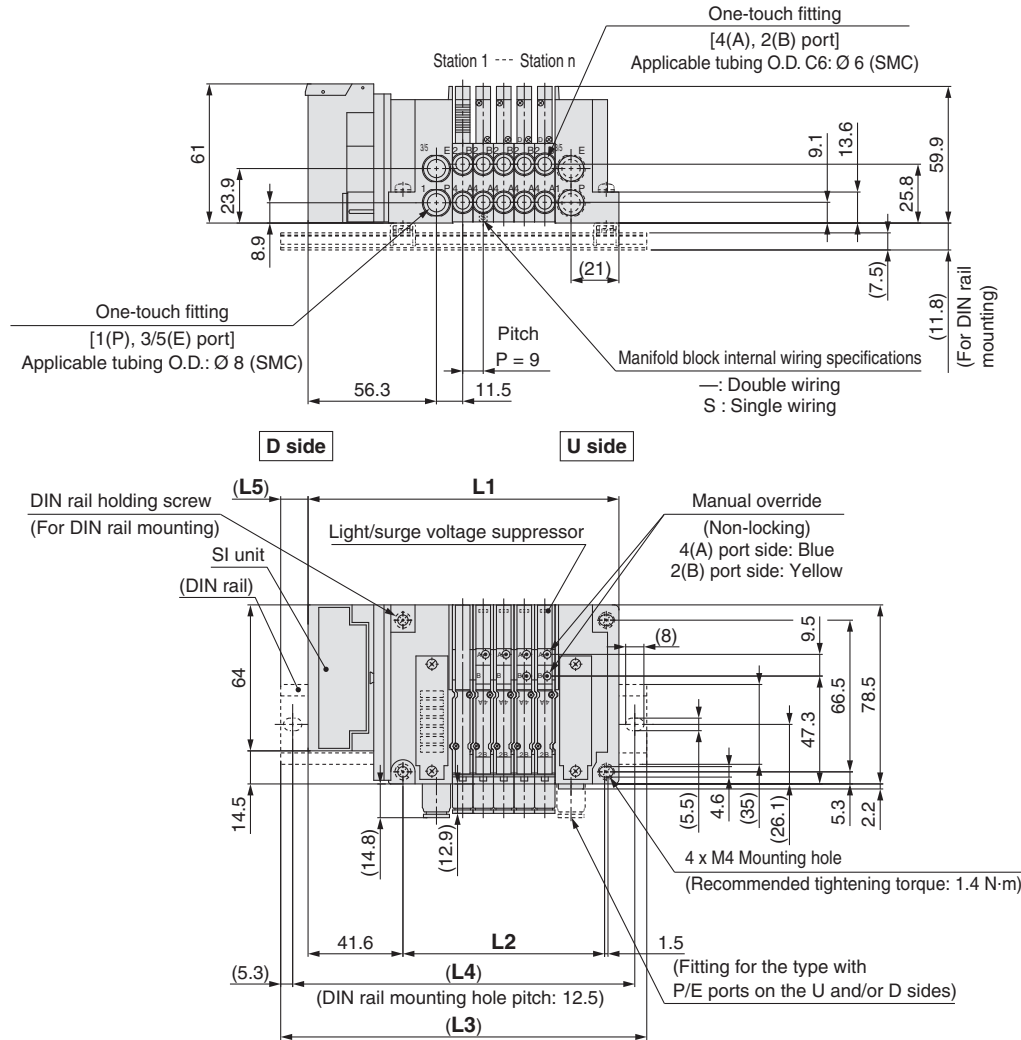
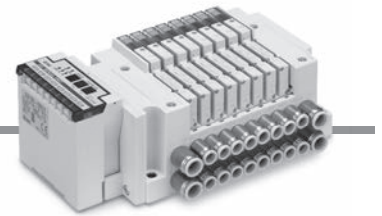
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	104.3	110.8	117.3	123.8	130.3	136.8	143.3	149.8	156.3	162.8	169.3	175.8	182.3	188.8	195.3
L2	56.4	62.9	69.4	75.9	82.4	88.9	95.4	101.9	108.4	114.9	121.4	127.9	134.4	140.9	147.4
L3	135.5	135.5	148	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	223
L4	125	125	137.5	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	212.5
L5	16	12	15	12	15	12	15	12	15	18	14	17	14	17	14



## Dimensions: JSY1000 Series

JJ5SY1-10S3□ - Stations  $\frac{U}{D}$  - C6(D)

Type 10/Side Ported (Applicable to Ø 6 fittings)  
EX120



- \* These figures show the "JJ5SY1-10S3V-05D-C6."
- \* Refer to page 93 for dimensions of external pilot (Made to Order) and silencer.
- \* When CM is selected for mixed A, B port size, refer to page 96 for dimensions.

### L: Dimensions

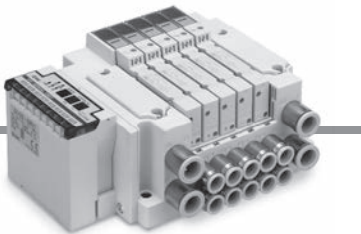
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	109.3	118.3	127.3	136.3	145.3	154.3	163.3	172.3	181.3	190.3	199.3	208.3	217.3	226.3	235.3
L2	61.4	70.4	79.4	88.4	97.4	106.4	115.4	124.4	133.4	142.4	151.4	160.4	169.4	178.4	187.4
L3	135.5	148	160.5	160.5	173	185.5	198	198	210.5	223	223	235.5	248	260.5	260.5
L4	125	137.5	150	150	162.5	175	187.5	187.5	200	212.5	212.5	225	237.5	250	250
L5	13	15	17	12	14	16	17	13	15	16	12	14	15	17	13

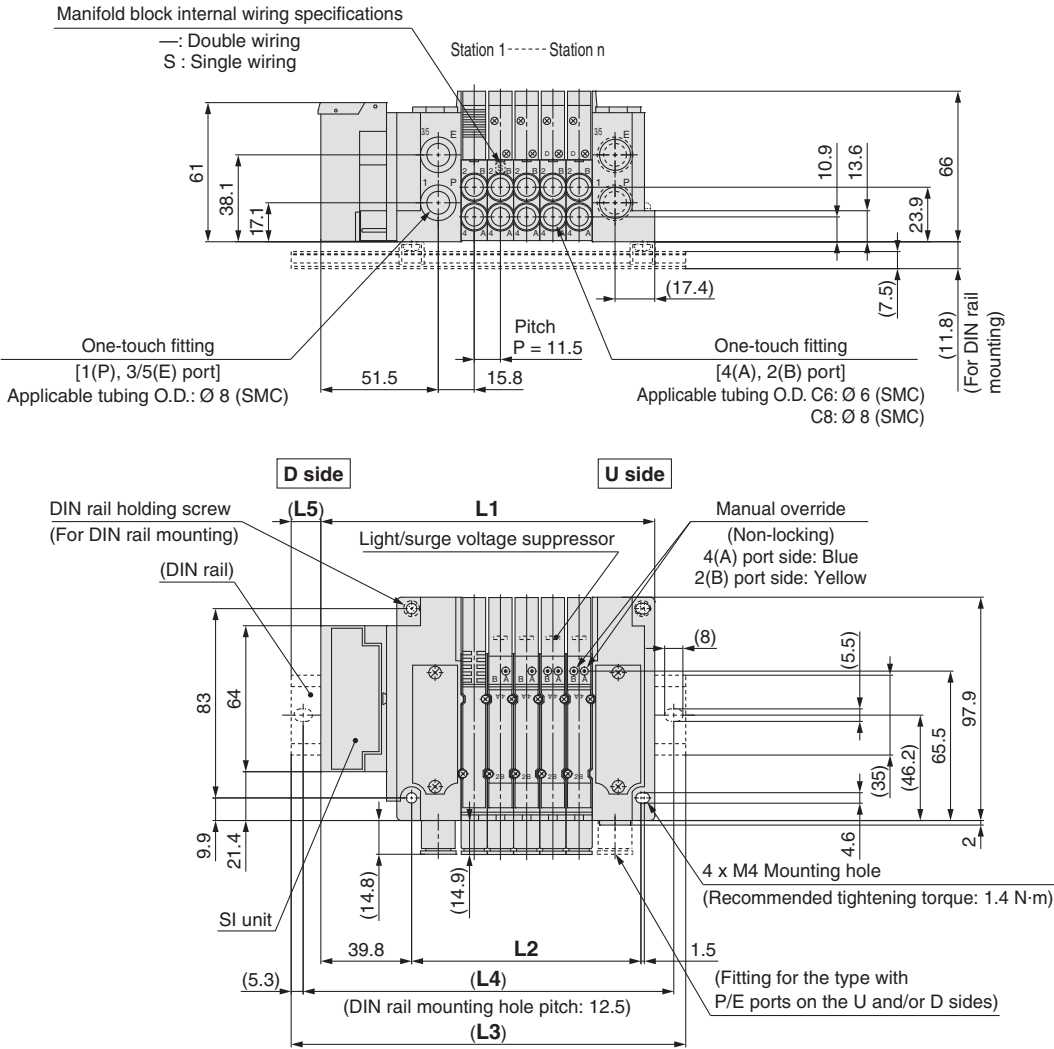
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

Type 10/Side Ported  
EX120



JJ5SY3-10S3□ - Stations  $\frac{U}{D}$  - C6 C8 (D)



\* These figures show the "JJ5SY3-10S3V-05D-C8."  
\* Refer to page 94 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

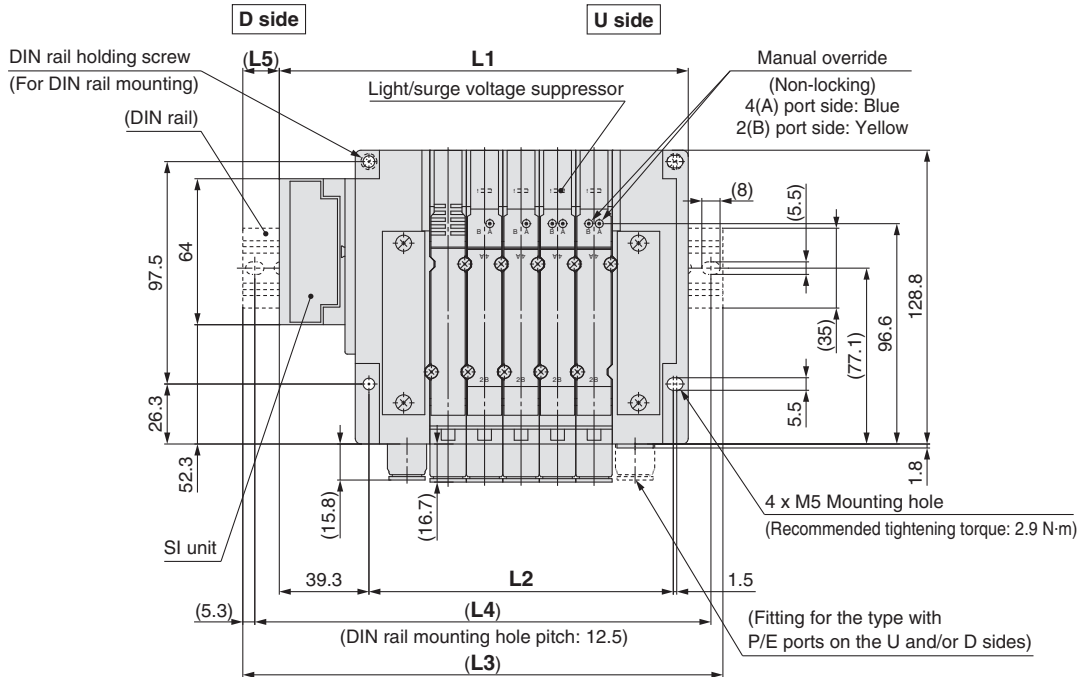
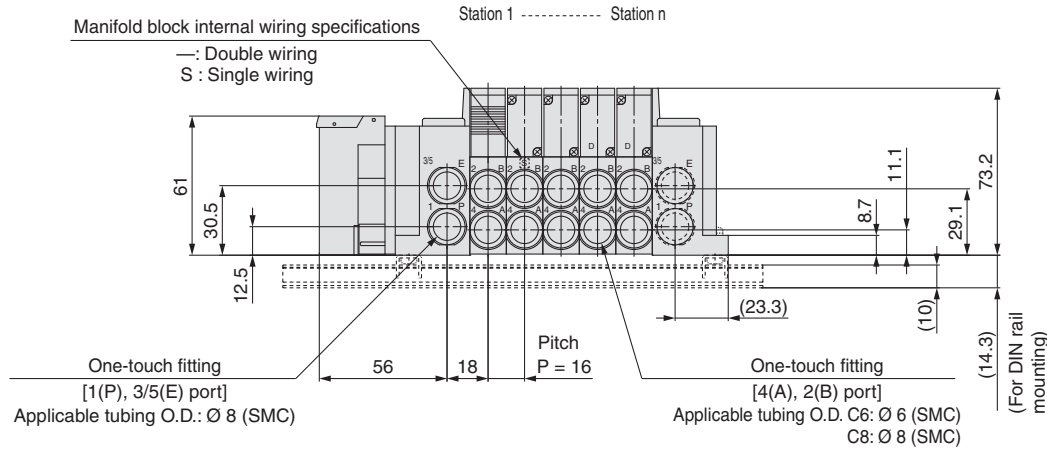
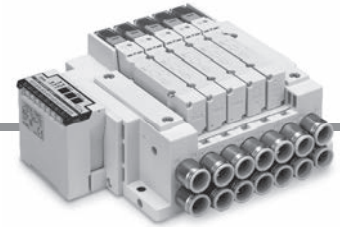
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	111.9	123.4	134.9	146.4	157.9	169.4	180.9	192.4	203.9	215.4	226.9	238.4	249.9	261.4	272.9
L2	66.1	77.6	89.1	100.6	112.1	123.6	135.1	146.6	158.1	169.6	181.1	192.6	204.1	215.6	227.1
L3	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	273	285.5	298
L4	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	262.5	275	287.5
L5	12	12	13	13	14	14	15	15	16	16	17	17	12	12	13

## Dimensions: JSY5000 Series

Type 10/Side Ported  
EX120

JJ5SY5-10S3□ - Stations  $\frac{U}{D}$  - C<sup>10</sup><sub>C<sup>12</sup></sub>(D)



\* These figures show the "JJ5SY5-10S3V-05D-C12."

\* Refer to page 95 for dimensions of external pilot (Made to Order) and silencer.

### L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	131.3	147.3	163.3	179.3	195.3	211.3	227.3	243.3	259.3	275.3	291.3	307.3	323.3	339.3	355.3
L2	85.5	101.5	117.5	133.5	149.5	165.5	181.5	197.5	213.5	229.5	245.5	261.5	277.5	293.5	309.5
L3	160.5	173	198	210.5	223	235.5	260.5	273	285.5	310.5	323	335.5	348	373	385.5
L4	150	162.5	187.5	200	212.5	225	250	262.5	275	300	312.5	325	337.5	362.5	375
L5	15	13	17	16	14	12	17	15	13	18	16	14	12	17	15

Chart
Valve
Connector Connecting Base
Plug-in
D.sub Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions



# JSY1000/3000/5000 Series

## Common Dimensions

Type 10/Side Ported

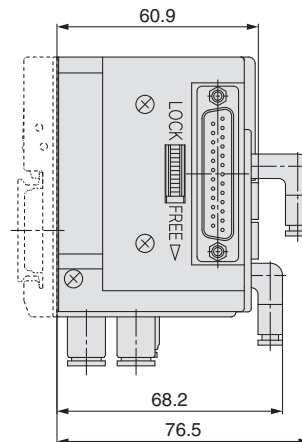
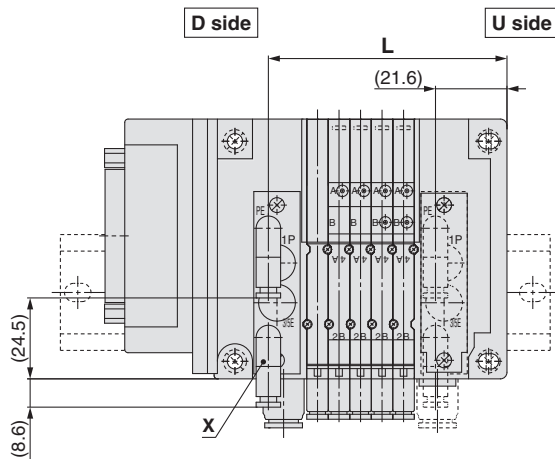
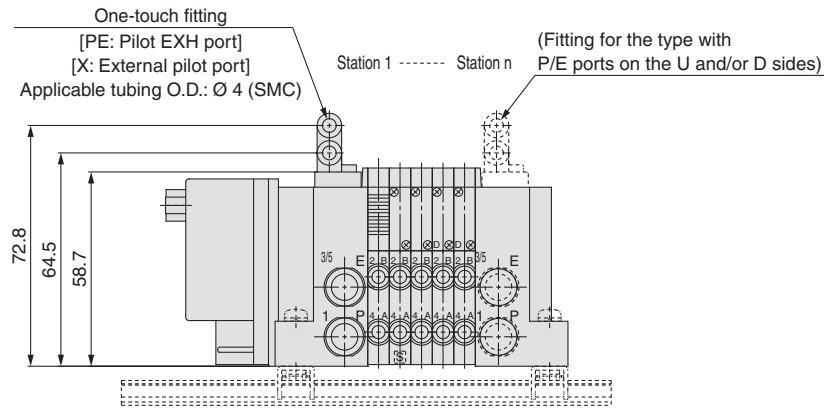
External Pilot, Built-in Silencer

Dimensions: **JSY1000 Series**

JJ5SY1-10□ - Stations  $\frac{U}{D}$  (S, R) -  $\frac{C2}{C6}$  (D)

External pilot (Made to Order)

P, E port entry: D

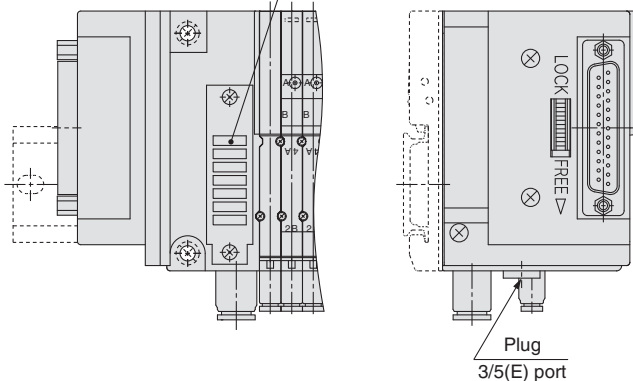


Built-in silencer

<Internal pilot>

P, E port entry: D

Silencer (Exhaust port)  
(Built-in silencer specification)



Calculation formula for L dimensions

$$L = 6.5 \times n1 + 9 \times n2 + 39.6$$

n1: Number of 6.5 mm pitch manifold block stations  
(Applicable fitting: Ø 2, Ø 4)

n2: Number of 9 mm pitch manifold block stations  
(Applicable fitting: Ø 6)

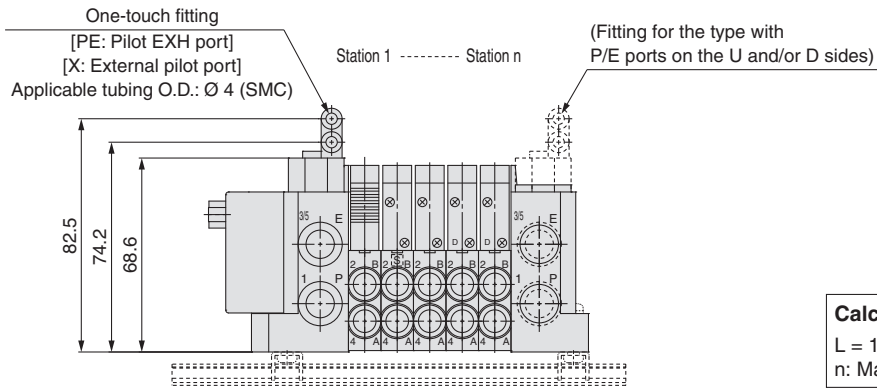
\* These figures show the "JJ5SY1-10F2-05DR-C4."

### Dimensions: JSY3000 Series

JJ5SY3-10□ - Stations  $\frac{U}{B}(S, R) - \frac{C_6}{C_8}(D)$ 

### External pilot (Made to Order)

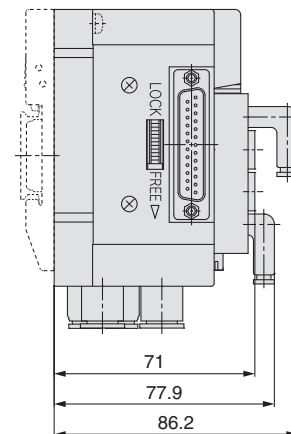
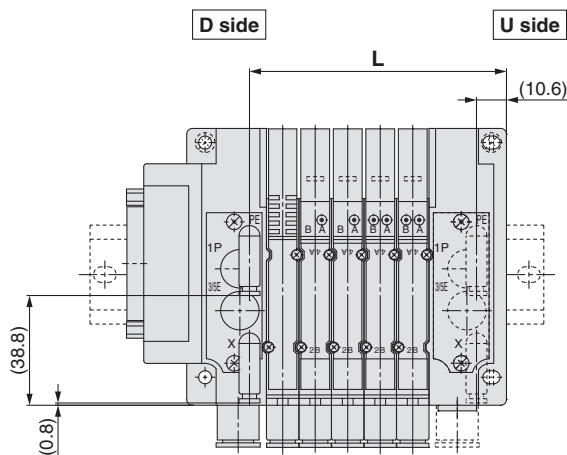
**P, E port entry: D**



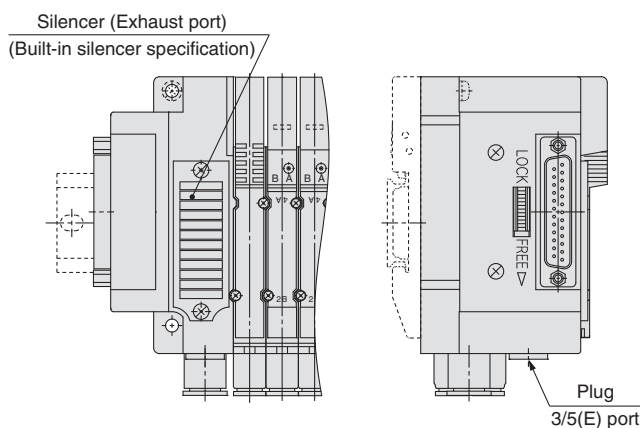
### Calculation formula for L dimensions

$$L = 11.5 \times n + 33.4$$

n: Manifold stations



- **Built-in silencer**  
    <Internal pilot>  
    P, E port entry: D



\* These figures show the “JJ5SY3-10F2-05DR-C8.”

# JSY1000/3000/5000 Series

Type 10/Side Ported

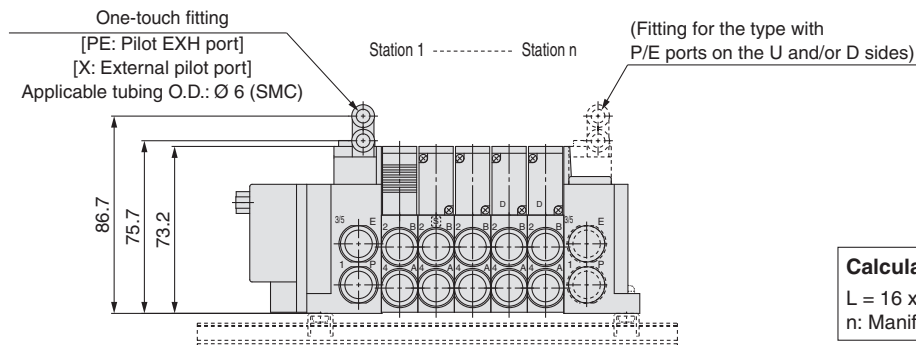
External Pilot, Built-in Silencer

## Dimensions: JSY5000 Series

JJ5SY5-10□ - Stations  $\frac{U}{D}$  (S, R) - C $\frac{10}{12}$  (D)

External pilot (Made to Order)

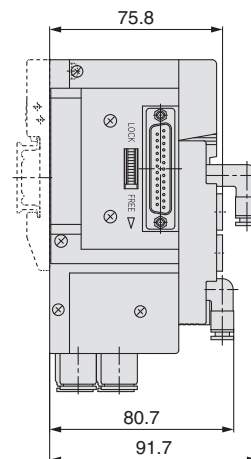
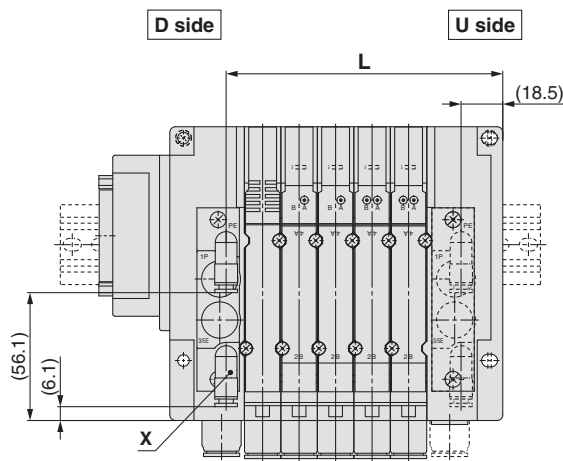
P, E port entry: D



### Calculation formula for L dimensions

$$L = 16 \times n + 41.5$$

n: Manifold stations

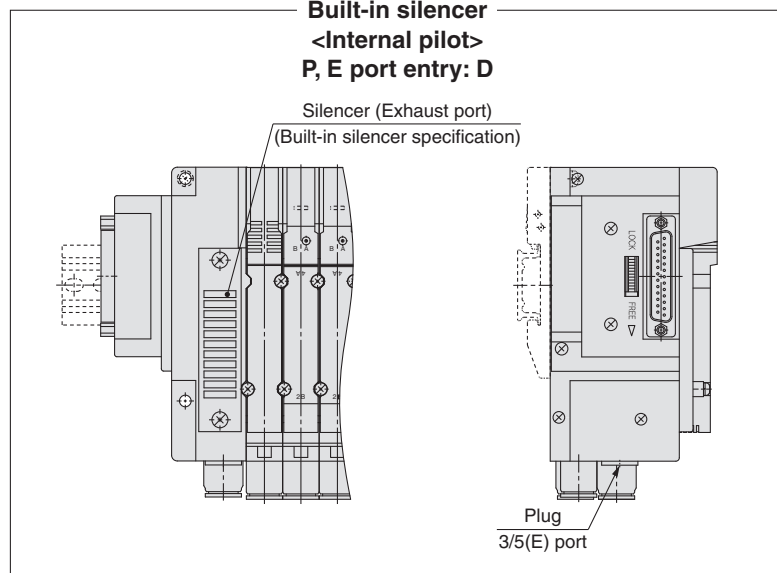


\* These figures show the "JJ5SY5-10F2-05DR-C12."

### Built-in silencer

<Internal pilot>

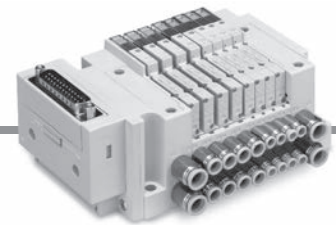
P, E port entry: D



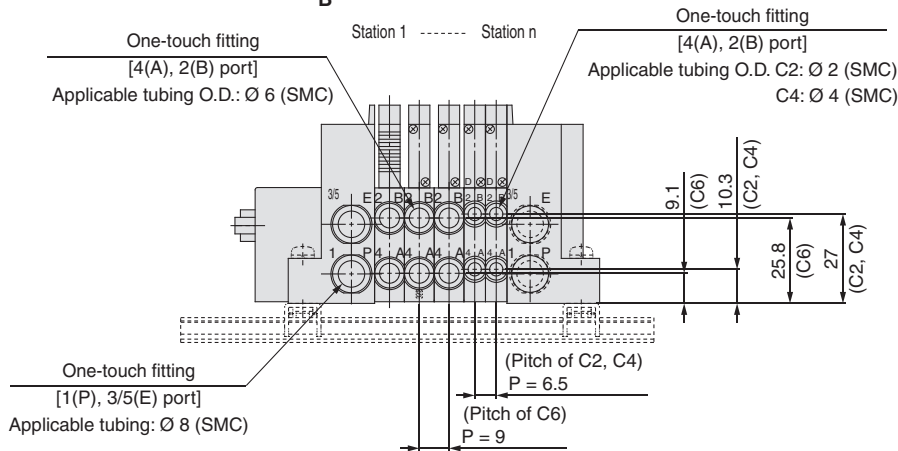
## Dimensions: JSY1000 Series

Type 10/Side Ported

Mixed Size, Straight Port Type

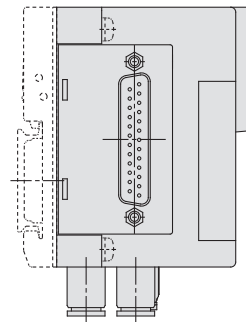
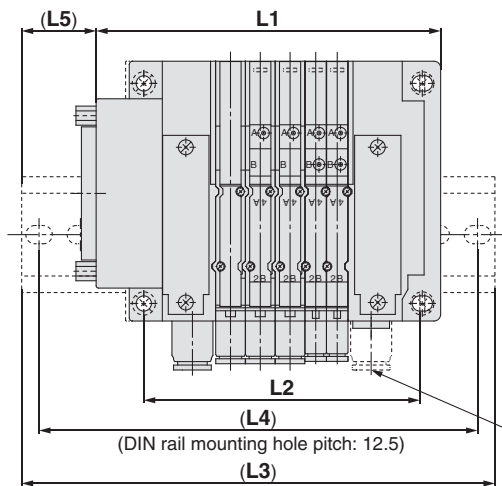


JJ5SY1-10□ - Stations  $\frac{U}{D}$  - CM



D side

U side



(Fitting for the type with P/E ports on the U and/or D sides)

- \* Refer to page 93 for dimensions of external pilot and built-in silencer.
- \* Refer to pages 63 to 66, 77, and 78 for dimensions when L6, b, and d are used for the calculation formula.
- \* Refer to pages below for dimensions that are not specified in each wiring specification.

D-sub connector (IP40/Connector entry direction adjustable)	pp. 21, 22
D-sub connector (IP20/Compact type)	pp. 27, 28
Flat ribbon cable (IP40/Connector entry direction adjustable)	pp. 30, 31
Flat ribbon cable (IP20/Compact type)	pp. 34, 35
Spring type terminal block box	pp. 43, 44
Terminal block box	pp. 47, 48
Lead wire	pp. 55, 56
EX600	pp. 63 to 66
EX250	pp. 77, 78
EX260	pp. 83, 84
EX120	pp. 89, 90

### Calculation formula for dimensions

$L1 = 6.5 \times n1 + 9 \times n2 + a + b \times n3$   
 $L2 = 6.5 \times n1 + 9 \times n2 + 43.4$   
 $M = \{(L1 + c) / 12.5\} + 1$  Decimal fractions are truncated.  
 $L3 = 12.5 \times M + 23$   
 $L4 = L3 - 10.5$   
 $L5 = (L3 - L1 + c) / 2$   
 $L6 = b \times n3 + d$

n1: Number of 6.5 mm pitch manifold block stations (Applicable fittings: Ø 2, Ø 4)  
 n2: Number of 9 mm pitch manifold block stations (Applicable fittings: Ø 6)  
 n3: Number of I/O units or input block stations

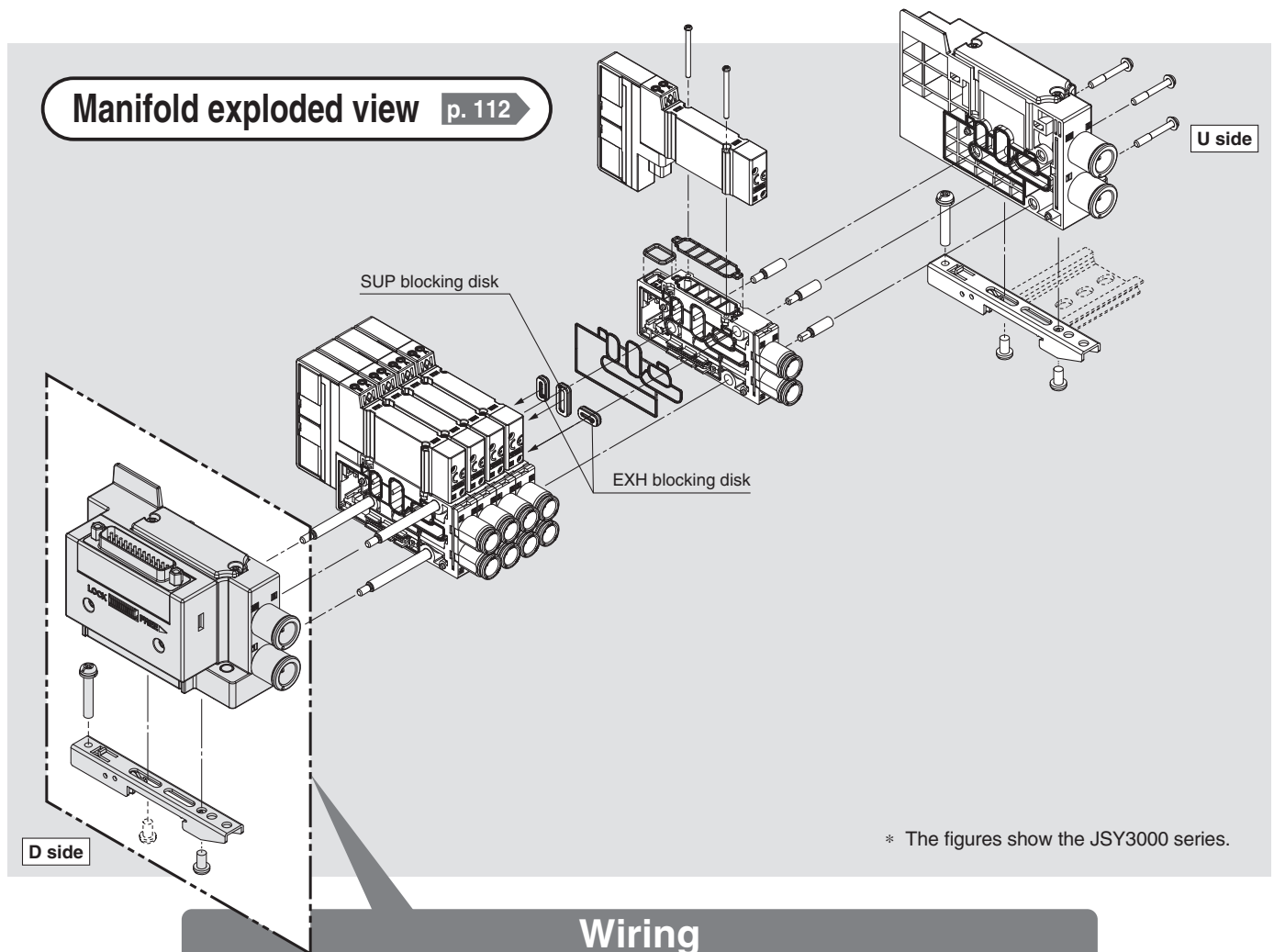
	Coefficient	a	b	c	d
D-sub connector (IP20/Compact type)	64.1	—	6.1	—	—
D-sub connector/Flat ribbon cable (IP40/Connector entry direction adjustable)	83	—	6.1	—	—
Flat ribbon cable (IP20/Compact type)	59.1	—	11.2	—	—
Spring type terminal block box	125.5	—	—	—	—
Terminal block box	146.8	—	—	—	—
Lead wire	94.5	—	—	—	—
Serial transmission: EX600 (M12 connector)	139	47	—	83.8	—
Serial transmission: EX600 (7/8 inch connector)	155.5	47	—	83.8	—
Serial transmission: EX250	139	21	—	83.8	—
Serial transmission: EX260	86.2	—	—	—	—
Serial transmission: EX120	91.3	—	—	—	—

\* FW [D-sub connector (IP67)] is not available for the JSY1000.

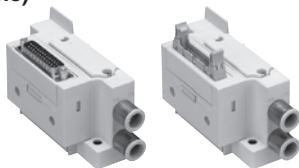

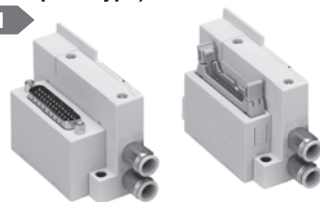
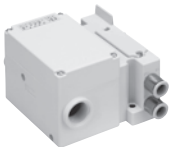

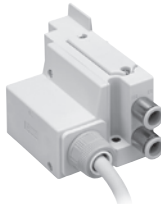
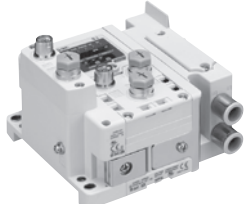



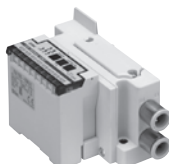


# JSY1000/3000/5000 Series Type 10

## Connector Connecting Base Manifold Exploded View



### Wiring

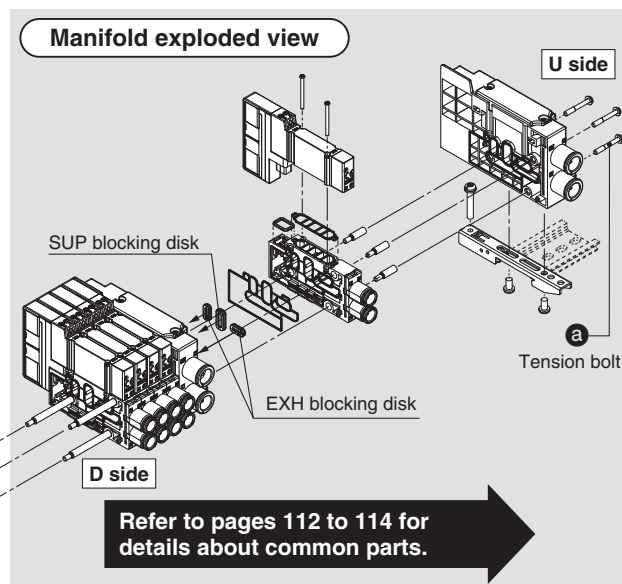
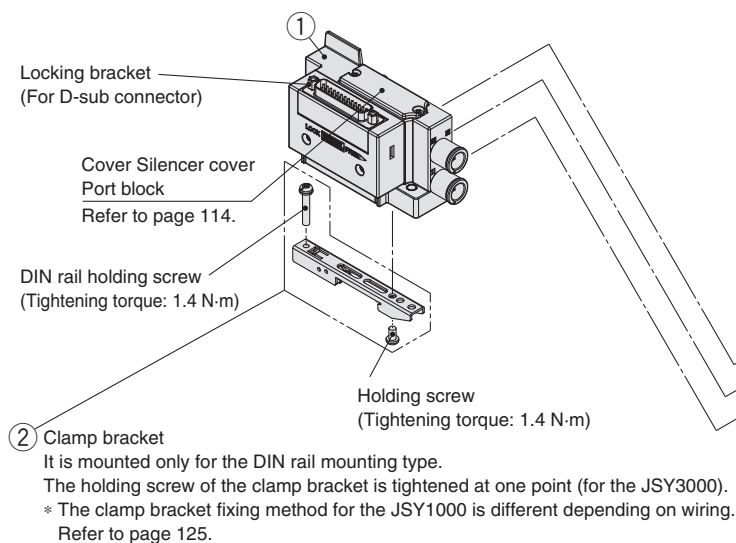
<p>D-sub Connector/Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)</p> <p>p. 99</p> 	<p>D-sub Connector (IP67) (For JSY3000/5000)</p> <p>p. 100</p> 	<p>D-sub Connector/Flat Ribbon Cable (IP20/Compact Type)</p> <p>p. 101</p> 	
<p>Terminal Block Box</p> <p>p. 102</p>  <p>Spring type (Compact type)</p>	<p>p. 103</p> 	<p>Lead Wire</p> <p>p. 104</p> 	<p>EX600</p> <p>p. 105</p> 
<p>EX245</p> <p>p. 107</p> 	<p>EX250</p> <p>p. 109</p> 	<p>EX260</p> <p>p. 110</p> 	<p>EX120</p> <p>p. 111</p> 



# JSY1000/3000/5000 Series

## Wiring

D-sub Connector/Flat Ribbon Cable (IP40/Connector Entry Direction Adjustable)



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY 3 1M-1P-3 A 1-C10

#### • Series

1	JSY1000
3	JSY3000
5	JSY5000

#### • Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

#### SUP/EXH block assembly

3	D-sub connector (25 pins)
4	Flat ribbon cable (26 pins)
5	Flat ribbon cable (20 pins)
6	Flat ribbon cable (10 pins)

#### • P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is “—” or “S.”  
Not available for “R” type.

#### Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### • Connector entry direction

1	Upward
2	Lateral

#### SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000 JSY3000	JSY5000
② Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

### ② Clamp bracket

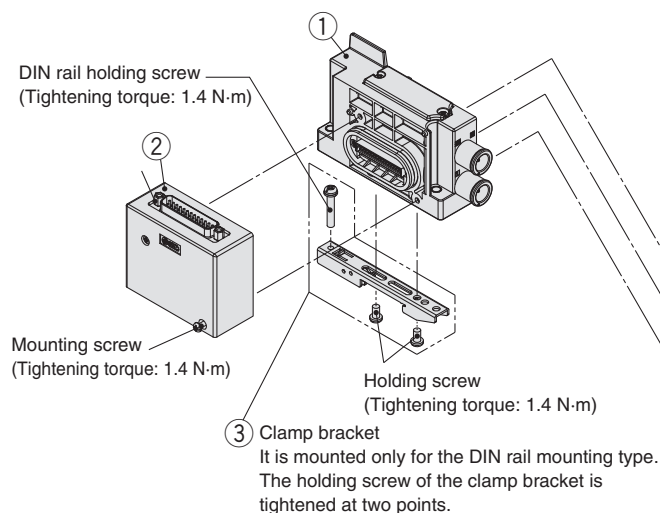
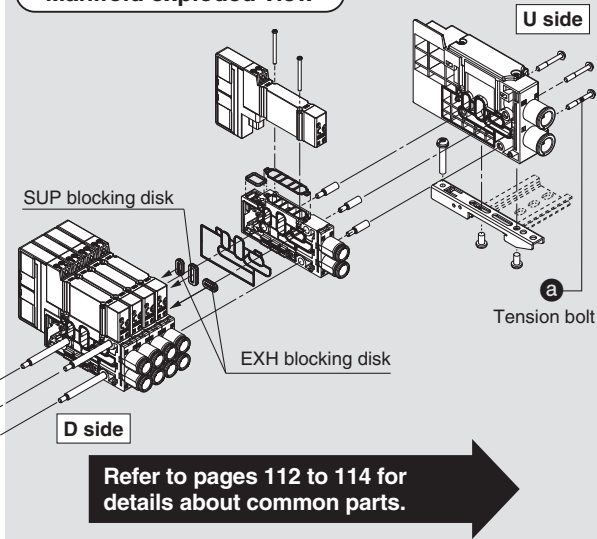
Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

## Wiring

**D-sub Connector (IP67)**

(For JSY3000/5000)

**Manifold exploded view****Manifold Parts Nos.**

## ① SUP/EXH block assembly

**JSY 3 1M-1P-1A - C10**

## • Series

3	JSY3000
5	JSY5000

## • Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

## • Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

## • P, E port size (One-touch fittings)

Symbol	P, E port	JSY3000	JSY5000
C10	Ø 10 One-touch fitting	●	—
C12	Ø 12 One-touch fitting	—	●
00*1	Plug	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

**SUP/EXH block assembly (D side) accessories and the number of accessories**

Accessories	JSY3000	JSY5000
Ⓐ Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

## ② D-sub connector block &lt;for IP67&gt;

Part no.	Connector entry direction
SY30M-14-9A1	Upward
SY30M-14-9A2	Lateral

## ③ Clamp bracket

Series	Part no.
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

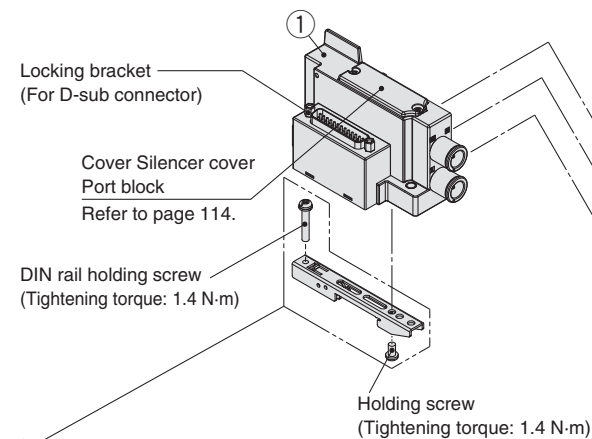
\* Part number is for one piece.

# JSY1000/3000/5000 Series

## Wiring

### D-sub Connector/Flat Ribbon Cable (IP20/Compact Type)

(For JSY1000/3000)



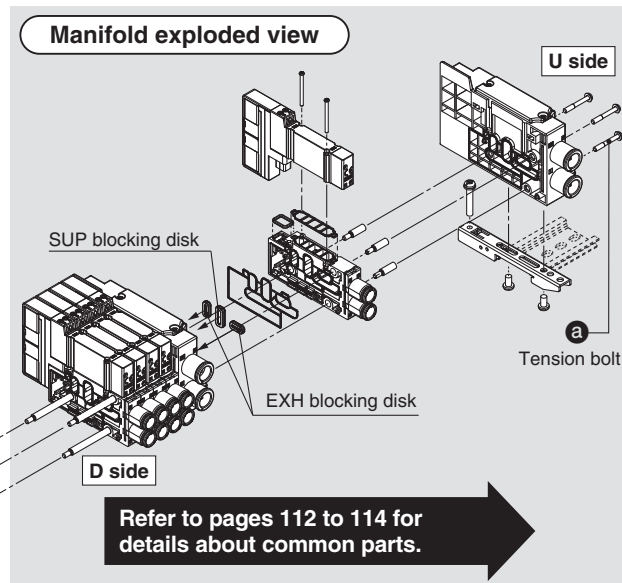
#### ② Clamp bracket

It is mounted only for the DIN rail mounting type.

The holding screw of the clamp bracket is tightened at one point (for the JSY3000).

\* The clamp bracket fixing method for the JSY1000 is different depending on wiring.

Refer to page 125.



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M - 1P - **9** A **1** - C10

#### • Series

1	JSY1000
3	JSY3000

#### • SUP/EXH block assembly

9	D-sub connector (25 pins)
10	Flat ribbon cable (26 pins)
11	Flat ribbon cable (20 pins)
12	Flat ribbon cable (10 pins)

#### • Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### • Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

#### • P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000
C8	Ø 8 One-touch fitting	●	—
C10	Ø 10 One-touch fitting	—	●
00*1	Plug	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

#### • Connector entry direction

1	Upward
2	Lateral

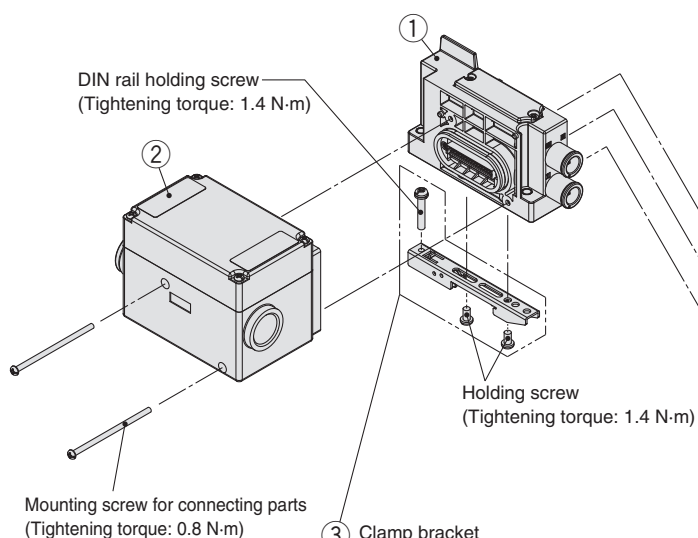
### ② Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A

\* Part number is for one piece.

## Wiring

## Spring Type Terminal Block Box



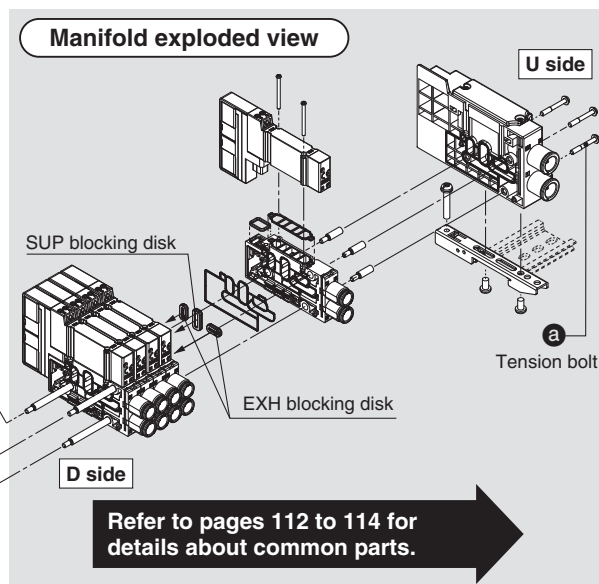
③ Clamp bracket

It is mounted only for the DIN rail mounting type.

The holding screw of the clamp bracket is tightened at two points.

\* The clamp bracket fixing method for the JSY1000 is different depending on wiring.

Refer to page 125.



## Manifold Parts Nos.

## ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

## • Series

1	JSY1000
3	JSY3000
5	JSY5000

## • Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

## • Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

## • P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is “—” or “S.”  
Not available for “R” type.

## SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000 JSY3000	JSY5000
a Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

## ② Terminal block assembly

SY30M-130-1A

## ③ Clamp bracket

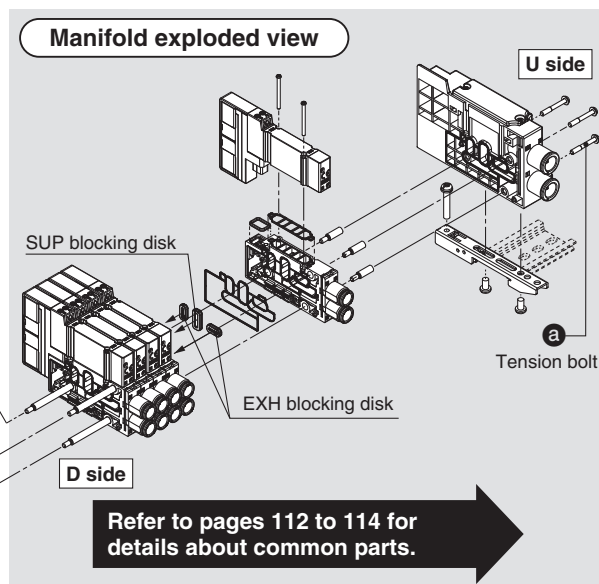
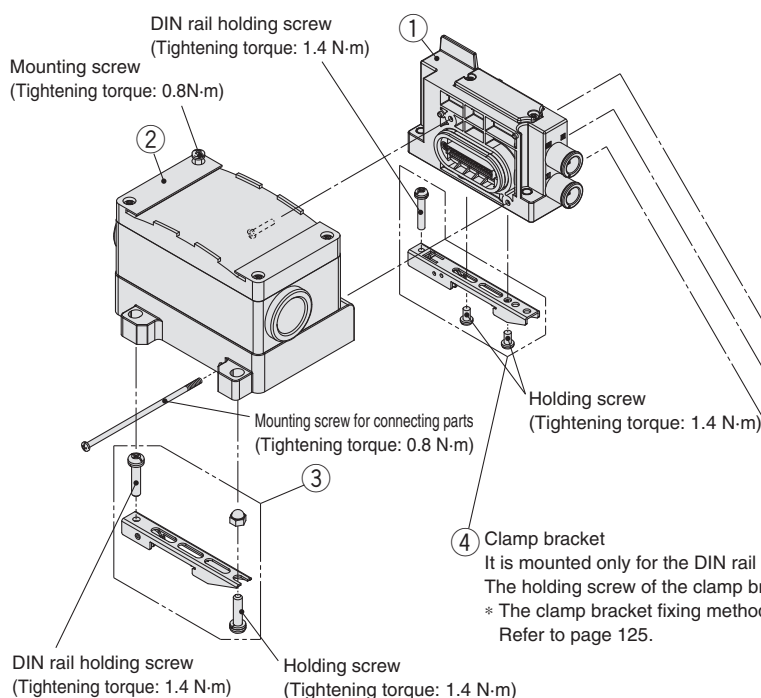
Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

# JSY1000/3000/5000 Series

## Wiring

### Terminal Block Box



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

#### • Series

1	JSY1000
3	JSY3000
5	JSY5000

#### • Mounting

Symbol	Mounting	JSY1000	JSY3000	JSY5000
—	Direct mounting	●	●	●
D00	DIN rail mounting (Without DIN rail)	●	—	—
D0	DIN rail mounting (Without DIN rail)	—	●	●

#### • Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### • P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is “—” or “S.”  
Not available for “R” type.

#### SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000 JSY3000	JSY5000
Ⓐ Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

### ② Terminal block box housing assembly

VVQC1000-T0-1

### ③ Clamp bracket for terminal block box

SY30M-15-4A

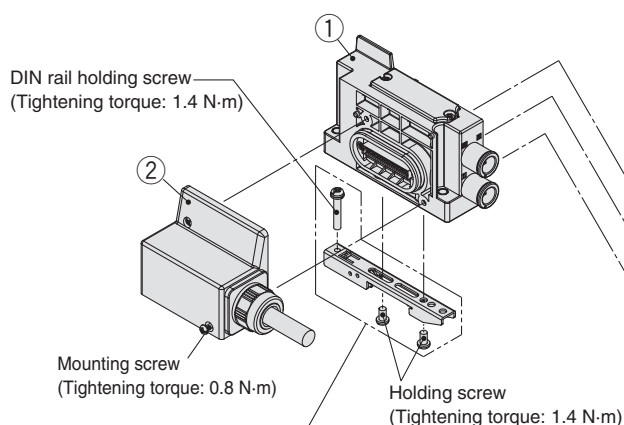
### ④ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-2A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

## Wiring

## Lead Wire

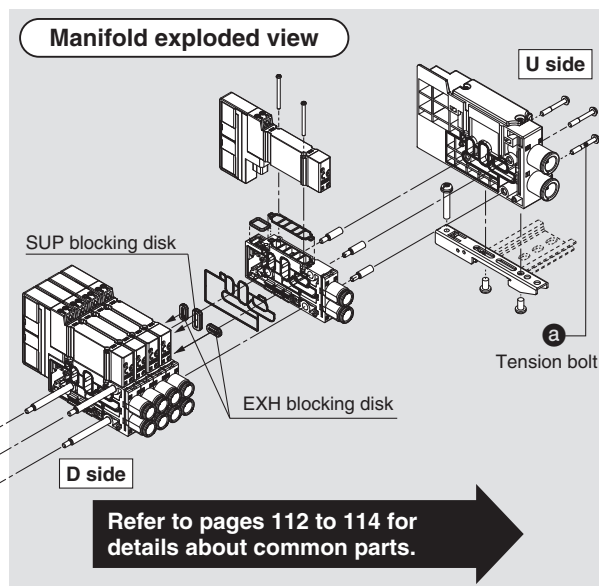


## ③ Clamp bracket

It is mounted only for the DIN rail mounting type.

The holding screw of the clamp bracket is tightened at two points.

\* The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 125.



## Manifold Parts Nos.

## ① SUP/EXH block assembly

**JSY 3 1M-1P-1A - C10**

## • Series

1	JSY1000
3	JSY3000
5	JSY5000

## • Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

## • Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

## • P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

## SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000 JSY3000	JSY5000
Ⓐ Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

## ② Lead wire connector block assembly

**SY30M-14-4A-1-1**

## • Number of cores (Lead wire)

Symbol	Number of cores
1	34
2	17
3	9

## • Lead wire length [m]

Symbol	Length
1	0.6
2	1.5
3	3

## ③ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

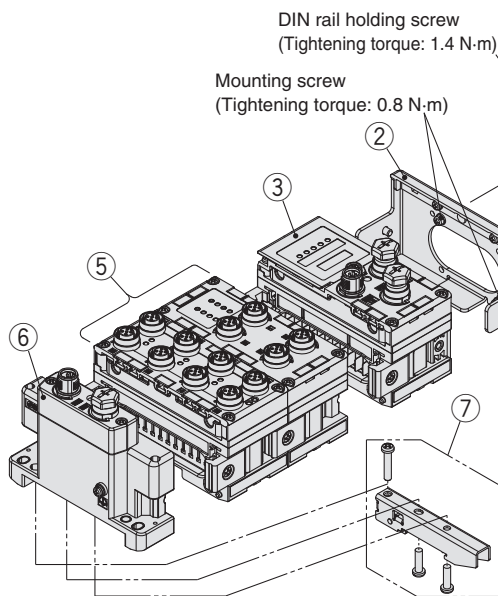
\* Part number is for one piece.



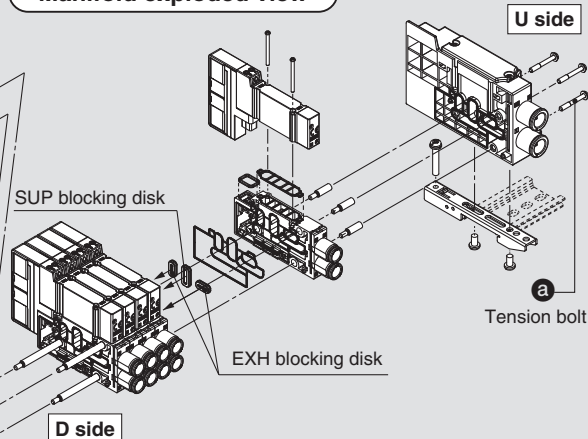
# JSY1000/3000/5000 Series

## Wiring

### EX600



### Manifold exploded view



Refer to pages 112 to 114 for details about common parts.

- ④ Clamp bracket  
It is mounted only for the DIN rail mounting type.  
The holding screw of the clamp bracket is tightened at two points.  
\* The clamp bracket fixing method for the JSY1000 is different depending on wiring. Refer to page 125.

## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### Mounting

Symbol	Mounting	JSY1000	JSY3000	JSY5000
—	Direct mounting	●	●	●
D00	DIN rail mounting (Without DIN rail)	●	—	—
D0	DIN rail mounting (Without DIN rail)	—	●	●

#### P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

### SUP/EXH block assembly (D side)

#### accessories and the number of accessories

Accessories	JSY1000/3000	JSY5000
② Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block

### ② Valve plate

EX600-ZMV2

\* With mounting screws (2 pcs. of M4 x 6 and 2 pcs. of M3 x 8)

### ④ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-2A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

### ③ EX600 SI unit

EX600-S **PR** **1**

#### Protocol

Symbol	Description
PR	PROFIBUS DP
DN	DeviceNet™
MJ	CC-Link
EN	EtherNet/IP™*1
EC	EtherCAT*1
PN	PROFINET*1

\*1 Cannot be communicated with the EX600-HT1-□

#### Version

Symbol	Description
—	When MJ, EN, EC, or PN is selected
A	When PR or DN is selected

#### Output type

Symbol	Description	Condition
1	PNP (Negative common)	Can be selected by all protocols excluding EN
2	NPN (Positive common)	Can be selected by all protocols excluding EN
3	PNP (Negative common) EtherNet/IP™ (2 ports)	Can be selected in the case of EN
4	NPN (Positive common) EtherNet/IP™ (2 ports)	Can be selected in the case of EN

### (Wireless compatible)

EX600-W **EN** **1**

#### Protocol

Symbol	SI unit type	Description
EN	Wireless base module	EtherNet/IP™*1
PN	Wireless base module	PROFINET*1
SV	Wireless remote module	—*1

\*1 Cannot be communicated with the EX600-HT1-□.  
\* The wireless system is suitable for use only in a country where it is in accordance with the Radio Act and regulations of that country.

#### Output type

Symbol	Description
1	PNP (Negative common)
2	NPN (Positive common)

### Manifold Parts Nos.

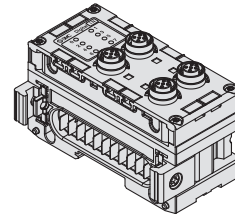
#### ⑤ EX600 Digital input unit

#### EX600-DX **P** **B**

Input type	
Symbol	Description
<b>P</b>	PNP
<b>N</b>	NPN

#### Number of inputs, Open-circuit detection, and Connector

Symbol	Number of inputs	Open-circuit detection	Connector
<b>B</b>	8	No	M12 connector (5 pins) 4 pcs.
<b>C</b>	8	No	M8 connector (3 pins) 8 pcs.
<b>C1</b>	8	Yes	M8 connector (3 pins) 8 pcs.
<b>D</b>	16	No	M12 connector (5 pins) 8 pcs.
<b>E</b>	16	No	D-sub connector (25 pins)*1*2
<b>F</b>	16	No	Spring type terminal block (32 pins)*1*2



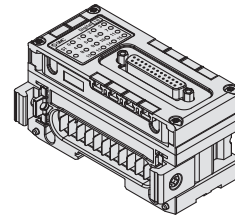
#### ⑤ EX600 Digital output unit

#### EX600-DY **P** **B**

Output type	
Symbol	Description
<b>P</b>	PNP
<b>N</b>	NPN

#### Number of outputs and Connector

Symbol	Number of outputs	Connector
<b>B</b>	8	M12 connector (5 pins) 4 pcs.
<b>E</b>	16	D-sub connector (25 pins)*1*2
<b>F</b>	16	Spring type terminal block (32 pins)*1*2



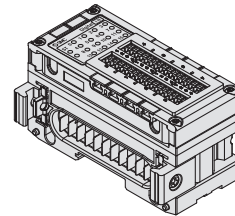
#### ⑤ EX600 Digital input/output unit

#### EX600-DM **P** **E**

Input/Output type	
Symbol	Description
<b>P</b>	PNP
<b>N</b>	NPN

#### Number of inputs/outputs and Connector

Symbol	Number of inputs	Number of outputs	Connector
<b>E</b>	8	8	D-sub connector (25 pins)*1*2
<b>F</b>	8	8	Spring type terminal block (32 pins)*1*2



#### ⑤ EX600 Analogue input/output unit

#### EX600-AX **A**

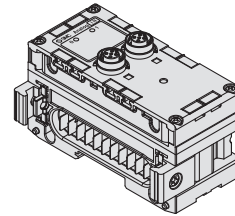
#### Analogue input/output

Symbol	Description
<b>AX</b>	Analogue input
<b>AY</b>	Analogue output

#### Number of input channels and Connector

Symbol	Number of input channels	Connector
<b>A</b>	2 channels	M12 connector (5 pins) 2 pcs.*3

\*3 Refer to \*1 and \*2 below for AY.



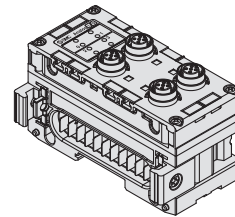
#### ⑤ EX600 Analogue input/output unit

#### EX600-AM **B**

#### Analogue input/output

#### Number of input/output channels and Connector

Symbol	Number of input channels	Number of output channels	Connector
<b>B</b>	2 channels	2 channels	M12 connector (5 pins) 4 pcs.*1*2



#### ⑥ EX600 End plate

#### EX600-ED **2** - **□**

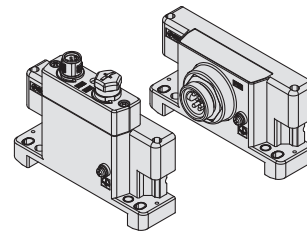
#### Power connector

Symbol	Connector
<b>2</b>	M12 power supply connector, B-coded
<b>3</b>	7/8 inch power supply connector
<b>4</b>	M12 power supply connector IN/OUT, A-coded, Pin arrangement 1
<b>5</b>	M12 power supply connector IN/OUT, A-coded, Pin arrangement 2

#### Mounting

Symbol	Description
—	Without DIN rail mounting bracket
<b>3</b>	With DIN rail mounting bracket

\* The pin layout for "4" and "5" pin connector is different.

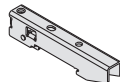


#### ⑦ Clamp bracket for EX600

#### EX600-ZMA3

#### Enclosed parts

Round head screw with washer (M4 x 20) 1 pc.  
P-tight screw (4 x 14) 2 pcs.

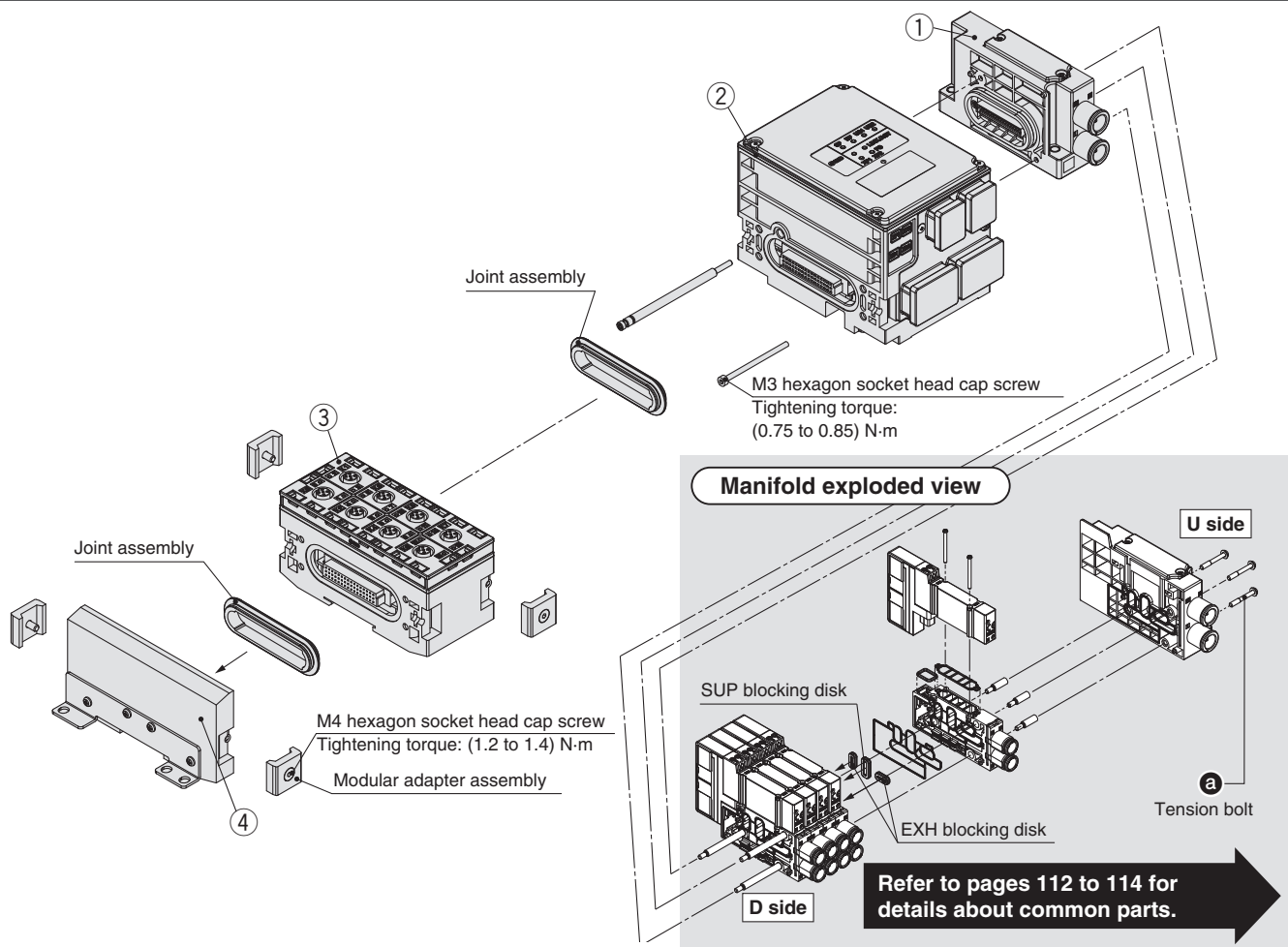


\*1 Cannot be communicated with the EX600-HT1-□ (Old version of the handheld terminal)  
\*2 Cannot be connected with the EX600-SPR1, EX600-SPR2, EX600-SDN1, or EX600-SDN2

# JSY1000/3000/5000 Series

## Wiring

### EX245



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

#### Series

3	JSY3000
5	JSY5000

#### Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### P, E port size (One-touch fittings)

Symbol	P, E port	JSY3000	JSY5000
C10	Ø 10 One-touch fitting	●	—
C12	Ø 12 One-touch fitting	—	●
00*1	Plug	●	●

\*1 Can be selected when the pilot, silencer type symbol is “—” or “S.” Not available for “R” type.

#### SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY3000	JSY5000
a Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block.

### ② EX245 SI Unit

EX245-S PN **1A**

#### SI unit

PROFINET



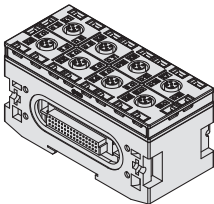
EX245-SPN1A EX245-SPN2A EX245-SPN3A

Manifold Parts Nos.

③ EX245 Digital input module

EX245 – DX1

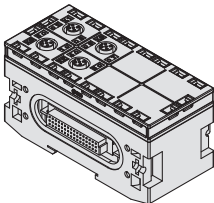
● Digital input module specification	
DX1	Digital input (16 inputs)



③ EX245 Digital output module

EX245 – DY1

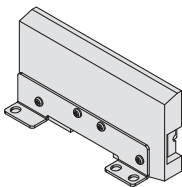
● Digital output module specification	
DY1	Digital output (8 outputs)



④ EX245 End Plate

EX245 – EA2 – 3

● Bracket	
3	For JSY/SY



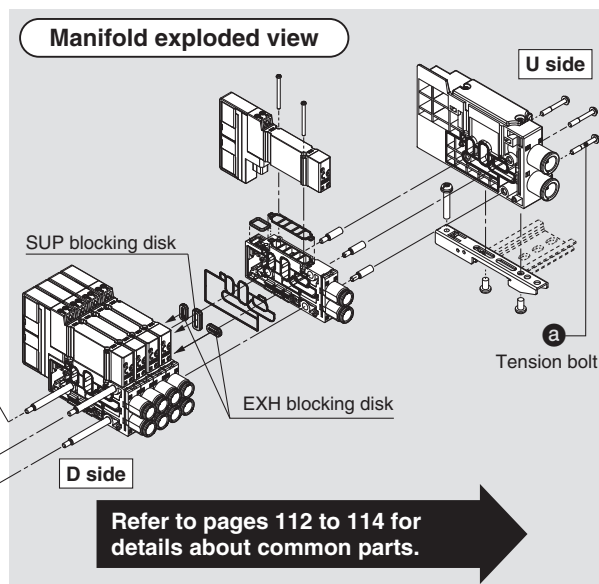
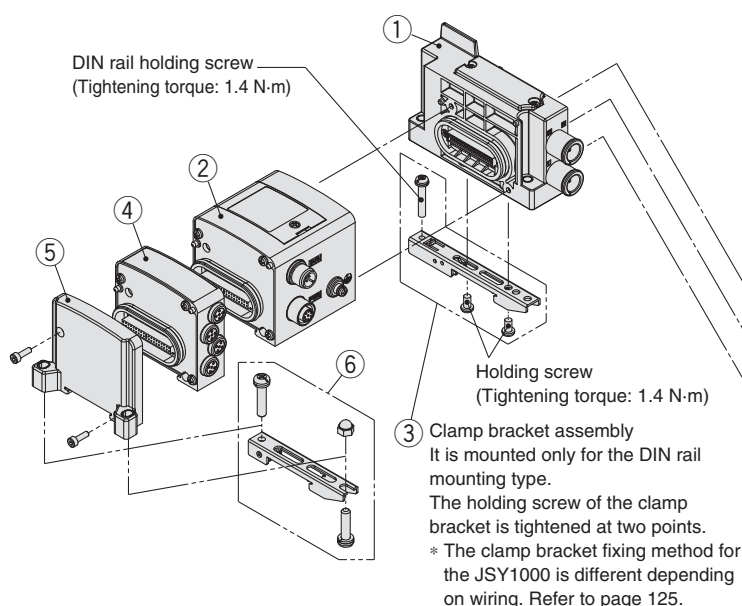
\* Refer to page 71 for manifold valve part numbers.  
Bracket 3 to 5 correspond to the mounting hole pitch of each manifold valve.

Chart
Valve
Connector
Connecting Base
Plug-in
D.sub
Flat Ribbon
Terminal Block
Lead wire
EX600
EX245
EX250
EX260
EX120
Common Dimensions
Manifold Exploded View
Fittings, Replacement Parts, Tools
Manifold Options
Made to Order
Specific Product Precautions

# JSY1000/3000/5000 Series

## Wiring

### EX250



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### Mounting

Symbol	Mounting	JSY1000	JSY3000	JSY5000
—	Direct mounting	●	●	●
D00	DIN rail mounting (Without DIN rail)	●	—	—
D0	DIN rail mounting (Without DIN rail)	—	●	●

#### P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

#### SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000 JSY3000	JSY5000
② Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block

### ② EX250 SI unit

EX250-S **DN1**

#### Communication protocol

DN1	DeviceNet™ (Negative common)
PR1	PROFIBUS DP (Negative common)
AS3	AS-Interface (8 in/8 out, 31 slave modes, 2 isolated common type) (Negative common)
AS5	AS-Interface (4 in/4 out, 31 slave modes, 2 isolated common type) (Negative common)
AS7	AS-Interface (8 in/8 out, 31 slave modes, 1 common type) (Negative common)
AS9	AS-Interface (4 in/4 out, 31 slave modes, 1 common type) (Negative common)
CA1A	CANopen (Negative common)
EN1	EtherNet/IP™ (Negative common)

### ③ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-2A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

### ④ Input block

EX250-IE **1**

#### Block type

1	M12 connector, 2 inputs
2	M12 connector, 4 inputs
3	M8 connector, 4 inputs

### ⑤ EX250 End plate assembly

EX250-EA1

\* With mounting screws (2 pcs. of M3 x 10)

### ⑥ Clamp bracket assembly for EX250

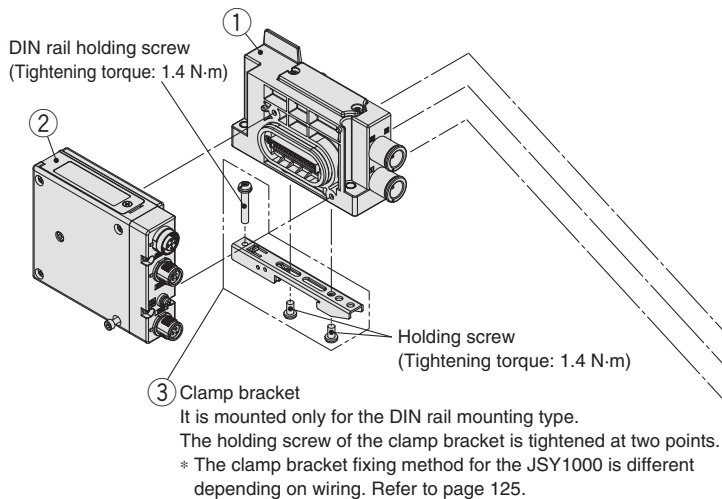
SY30M-15-3A

\* Part number is for one assembly.

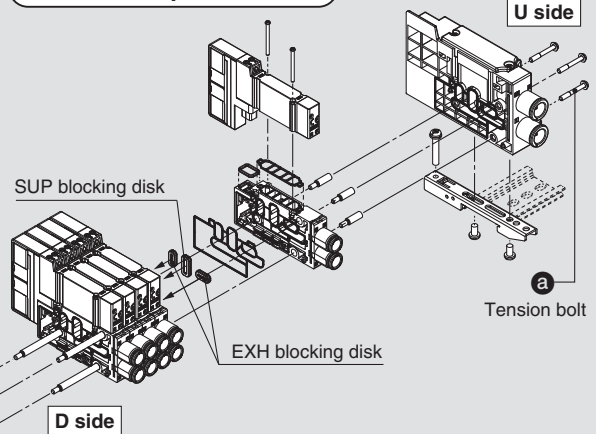


## Wiring

## EX260



## Manifold exploded view



Refer to pages 112 to 114 for details about common parts.

## Manifold Parts Nos.

## ① SUP/EXH block assembly

JSY **3** 1M-1P-1A **C10**

## Series

1	JSY1000
3	JSY3000
5	JSY5000

## Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

## Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

## P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

## SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000/3000	JSY5000
a Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block

## ② EX260 SI unit

EX260-S **PR1**

## Communication protocol

Symbol	Protocol	Number of outputs	SI unit output polarity	Communication connector	Manifold symbol	Symbol	Protocol	Number of outputs	SI unit output polarity	Communication connector	Manifold symbol
DN1	DeviceNet™	32	Source/PNP (Negative common)	M12	QAN	EC1	EtherCAT	32	Source/PNP (Negative common)	M12	DAN
DN2			Sink/NPN (Positive common)		QA	EC2			Sink/NPN (Positive common)		DA
DN3			Source/PNP (Negative common)		QBN	EC3			Source/PNP (Negative common)		DBN
DN4			Sink/NPN (Positive common)		QB	EC4			Sink/NPN (Positive common)		DB
PR1	PROFIBUS DP	32	Source/PNP (Negative common)	M12	NAN	PN1	PROFINET	32	Source/PNP (Negative common)	M12	FAN
PR2			Sink/NPN (Positive common)		NA	PN2			Sink/NPN (Positive common)		FA
PR3		16	Source/PNP (Negative common)	M12	NBN	PN3		16	Source/PNP (Negative common)	M12	FBN
PR4			Sink/NPN (Positive common)		NB	PN4			Sink/NPN (Positive common)		FB
PR5		32	Source/PNP (Negative common)	D-sub*1	NCN	EN1	EtherNet/IP™	32	Source/PNP (Negative common)	M12	EAN
PR6			Sink/NPN (Positive common)		NC	EN2			Sink/NPN (Positive common)		EA
PR7		16	Source/PNP (Negative common)		NDN	EN3		16	Source/PNP (Negative common)		EBN
PR8			Sink/NPN (Positive common)		ND	EN4			Sink/NPN (Positive common)		EB
MJ1	CC-Link	32	Source/PNP (Negative common)	M12	VAN	PL1	Ethernet	32	Source/PNP (Negative common)	M12	GAN
MJ2			Sink/NPN (Positive common)		VA	PL3			Source/PNP (Negative common)		GBN
MJ3		16	Source/PNP (Negative common)	M12	VBN	IL1	IO-Link	32	Source/PNP (Negative common)	M12	KAN
MJ4			Sink/NPN (Positive common)		VB						

\*1 Enclosure is IP40 when the communication connector is D-sub.

## ③ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

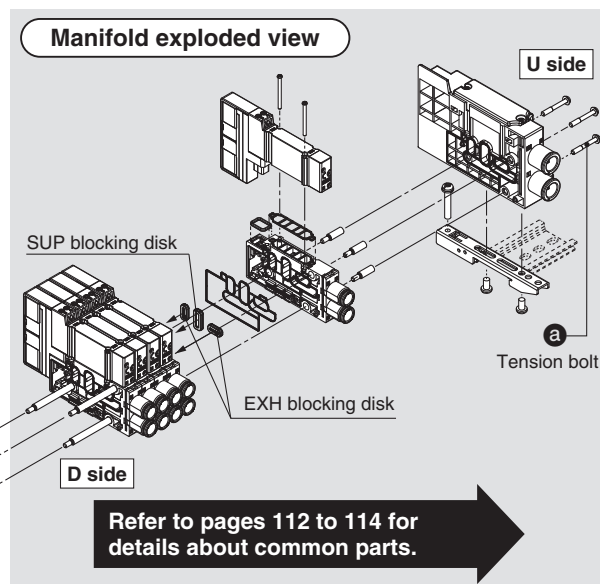
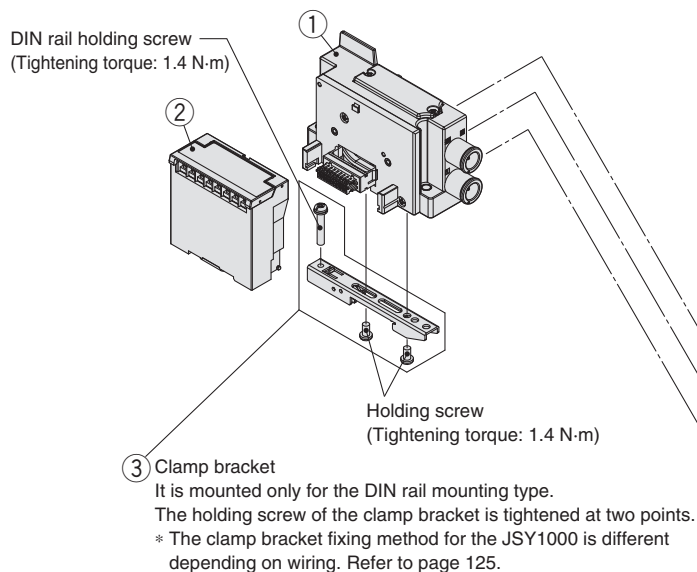
\* Part number is for one piece.



# JSY1000/3000/5000 Series

## Wiring

### EX120



## Manifold Parts Nos.

### ① SUP/EXH block assembly

JSY **3** 1M-1P-14A **C10**

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)

#### Pilot, Silencer type

Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is "—" or "S." Not available for "R" type.

#### SUP/EXH block assembly (D side) accessories and the number of accessories

Accessories	JSY1000/3000	JSY5000
a Tension bolt	None*1	3 pcs.

\*1 Since the nuts are embedded in the SUP/EXH block

### ② EX120 SI unit

EX120-S **DN1**

#### Communication protocol

DN1	DeviceNet™ (Positive common)
CS1	OMRON Corp.: CompoBus/S (16 outputs) (Positive common)
CS2	OMRON Corp.: CompoBus/S (8 outputs) (Positive common)
MJ1	CC-Link (Positive common)
CM1	CompoNet™ NPN (Positive common)
CM3	CompoNet™ PNP (Negative common)

### ③ Clamp bracket

Series	Part no.
JSY1000	JSY11M-15P-1A
JSY3000	SY30M-15-1A
JSY5000	SY50M-15-1A

\* Part number is for one piece.

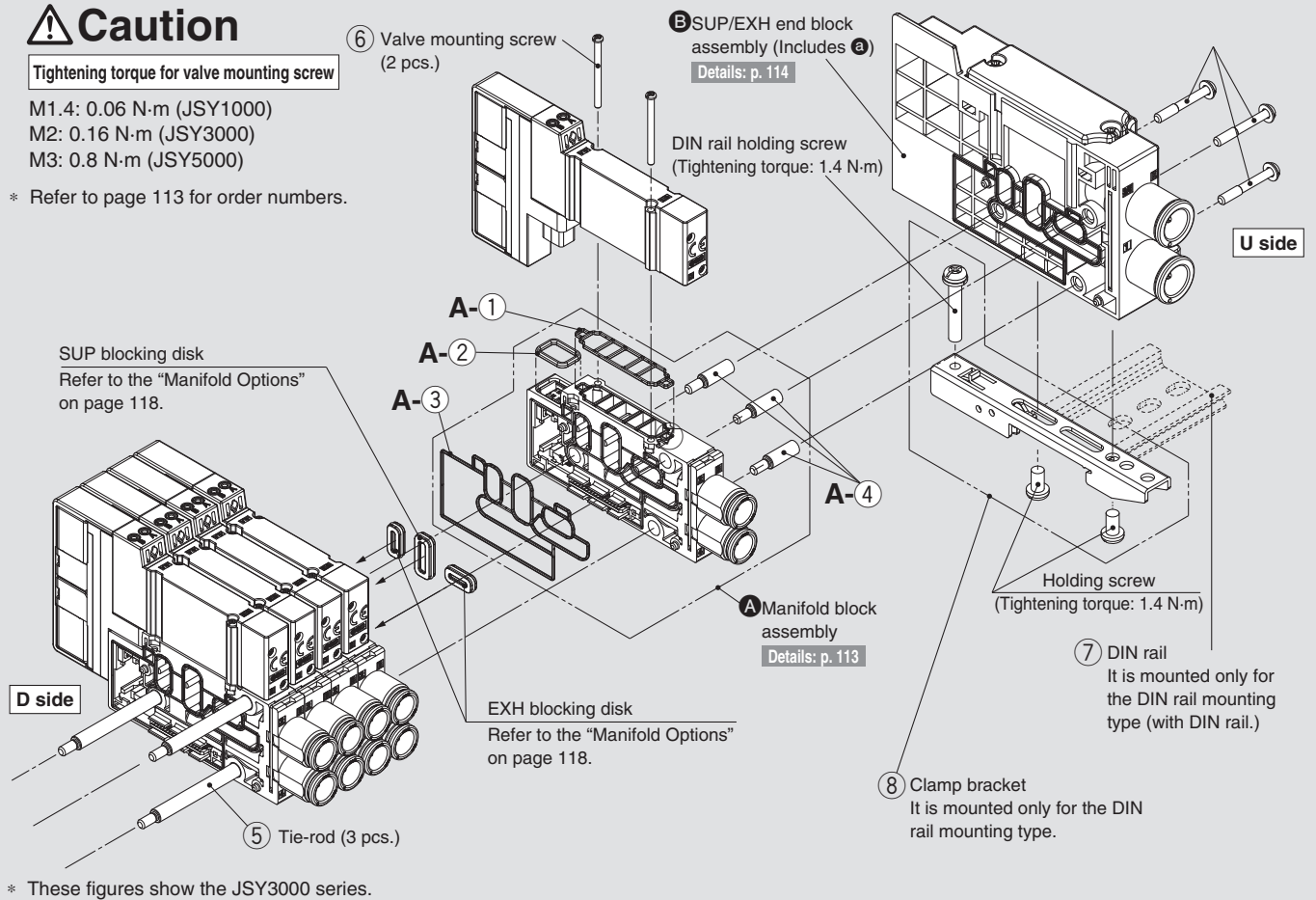
## Manifold Exploded View [Common Parts]

### ⚠ Caution

#### Tightening torque for valve mounting screw

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

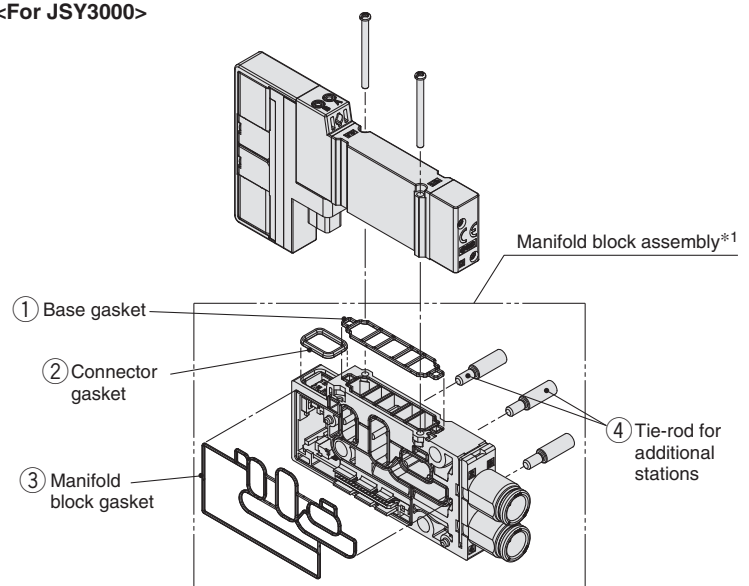
\* Refer to page 113 for order numbers.



## Type 10: How to Increase Connector Type Manifolds

- 1 Loosen the U-side tension bolt ①, and remove the ② SUP/EXH end block assembly.
- 2 Screw in ④ tie-rods for additional stations to the ⑤ tie-rod of the manifold.  
(Screw them in until there is no gap between the tie-rods.)
- 3 Connect the ③ manifold block assembly and ② SUP/EXH end block assembly to be added, and tighten the tension bolt ①.

<For JSY3000>



Tightening torque for tension bolt ① (M3): 0.8 N·m

### ⚠ Caution

1. Be sure to shut off the power and air supplies before disassembly.  
Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if the tightening of the tension bolt is inadequate.

#### \*1 Manifold block assembly

No.	Description	Quantity	Note
①②③	Gasket	1 pc. of each	For base, connector and manifold block
④	Tie-rod for additional stations	3	

Refer to page 113 for ordering single unit.

\* ② Connector gasket is not applicable to the JSY1000.

# JSY1000/3000/5000 Series

## For JJ5SY1-10, JJ5SY3-10, JJ5SY5-10

No.	Description	JSY1000		JSY3000	JSY5000	Note
		6.5 mm pitch	9 mm pitch			
A-①	Base gasket (for connector connecting base)	JSY11M-9P-1A		JSY31M-9P-1A	JSY51M-9P-1A	Part numbers shown on the left are for 10 valves. (10 pcs.)
A-②	Connector gasket	—		SX3000-146-2		Supplied individually
A-③	Manifold block gasket	JSY11M-9P-2		JSY31M-9P-2	JSY51M-9P-2	Supplied individually
A-④	Tie-rod for additional stations*1	JSY11M-49P-1-1-A (6.5 mm pitch)	JSY11M-49P-2-1-A (9 mm pitch)	JSY31M-49P-1-1-A (11.5 mm pitch)	SV2000-55-2A-A (16 mm pitch)	3 pcs. supplied
⑤	Tie-rod	JSY11M-49P-1-□-A (6.5 mm pitch)	JSY11M-49P-2-□-A (9 mm pitch)	JSY31M-49P-1-□-A (11.5 mm pitch)	SV2000-55-1-□-A (16 mm pitch)	□: Manifold stations (2 to 24 stations) 3 pcs. supplied
⑥	Valve mounting screw	JSY11V-23-1A (M1.4 x 21.5)		JSY31V-23-1A (M2 x 25)	JSY51V-23-1A (M3 x 29)	Part numbers shown on the left are for 10 valves. (20 pcs.)
⑦	DIN rail	VZ1000-11-1-□			VZ1000-11-4-□	Refer to page 116.
⑧	Clamp bracket*2 (for connector connecting base)	JSY11M-15P-1A (Refer to the table below.)*2 JSY11M-15P-2A (Refer to the table below.)		SY30M-15-1A	SY50M-15-1A	Supplied individually

\*1 The manifold of the JSY1000/3000 (JJ5SY1-10/JJ5SY3-10) can be assembled by connecting the tie-rods for number of manifold stations. The manifold of the JSY5000 (JJ5SY5-10) cannot be assembled by connecting the tie-rods for additional stations for the number of manifold. Tie-rod (SV2000-55-1-□-A) is necessary.

\*2 Part number of the clamp bracket for the JSY1000 is different depending on the manifold wiring. Refer to the table below. Refer to page 125 for assembly.

Table. JSY1000 series clamp bracket

Wiring (JSY1000 series)		JSY11M-15P-1A	JSY11M-15P-2A
F	D-sub connector	●	—
P□	Flat ribbon cable	●	—
TC	Spring type terminal block box	●	—
T	Terminal block box	—	●
L	Lead wire	●	—
S6	EX600	—	●
S□	EX250	—	●
S□□	EX260	●	—
S3	EX120	●	—

## Manifold Parts Nos.

### ① Manifold block assembly

JSY **3** 1M-2P-**1** D A-**C8**

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### Manifold pitch

1	JSY1000 (6.5 mm pitch) JSY3000 (11.5 mm pitch) JSY5000 (16 mm pitch)
2	JSY1000 (9 mm pitch)

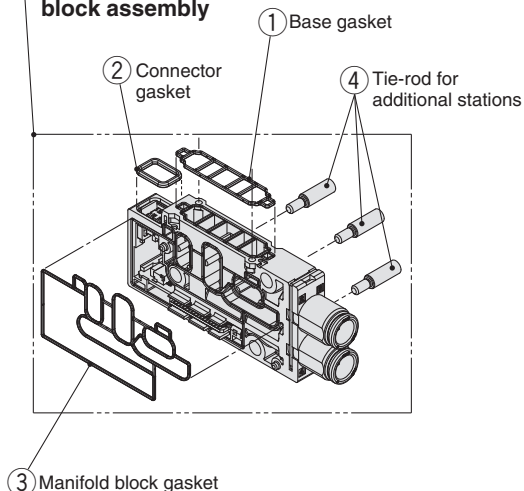
#### Wiring type

S	Single wiring
D	Double wiring

#### A, B port size (One-touch fittings)

Symbol	A, B port	JSY1000		JSY3000	JSY5000
		6.5 mm pitch	9 mm pitch		
C2	Ø 2 One-touch fitting	●	—	—	—
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	—	—	—	●

### ① Manifold (All parts inside ---- are included.) block assembly



### Manifold block assembly accessories and the number of accessories

Accessories	Quantity
① Base gasket	1 pc.
② Connector gasket*1	1 pc.
③ Manifold block gasket	1 pc.
④ Tie-rod for additional stations	3 pcs.

\*1 Not applicable to the JSY1000 series.

## Manifold Parts Nos.

### ③ SUP/EXH end block assembly

**JSY 3 1M-3P-1A - C10**

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

#### Pilot, Silencer type

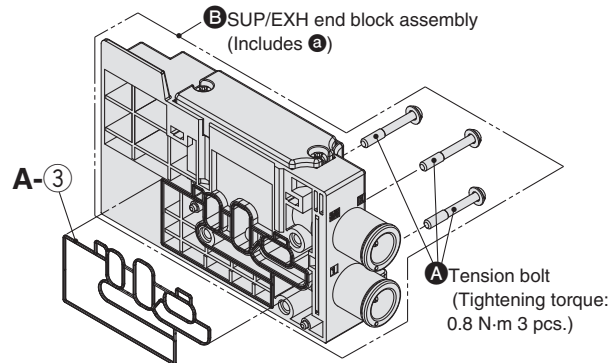
Symbol	Pilot type		Built-in silencer
	Internal	External (Made to Order)	
—	●	—	—
S	●	—	●
R	—	●	—

\* 3/5(E) port is plugged for the built-in silencer type.

#### P, E port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C8	Ø 8 One-touch fitting	●	—	—
C10	Ø 10 One-touch fitting	—	●	—
C12	Ø 12 One-touch fitting	—	—	●
00*1	Plug	●	●	●

\*1 Can be selected when the pilot, silencer type symbol is “—” or “S.” Not available for “R” type.



#### Mounting

—	Direct mounting
D0	DIN rail mounting (Without DIN rail)
D00*1	DIN rail mounting (Without DIN rail)

\*1 Part number only for the JSY1000

Part number is different depending on the wiring. Refer to Table 1.

**Table 1. JSY1000 series DIN rail mounting**

Symbol	Wiring
D0	D-sub connector (F type)
	Flat ribbon cable (P□ type)
	Spring type terminal block box (TC type)
	Lead wire (L type)
	EX260 (S□□ type)
D00	EX120 (S3 type)
	Terminal block box (T type)
	EX600 (S6 type)
	EX250 (S□ type)

#### SUP/EXH end block assembly accessories and the number of accessories

Accessories	Quantity
③ Tension bolt	3 pcs.
A-③ Manifold block gasket	1 pc.

\* Gasket is mounted.

### ⑧ Clamp bracket

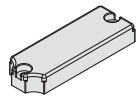
Series		Part no.
JSY1000	For D0	JSY11M-15P-1A
	For D00	JSY11M-15P-2A
JSY3000		SY30M-15-1A
JSY5000		SY50M-15-1A

\* Part number is for one piece.

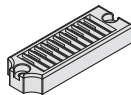
\* Part number of the JSY1000 is different depending on the manifold wiring.

Refer to the Table 1. JSY1000 series DIN rail mounting for selecting a clamp bracket.

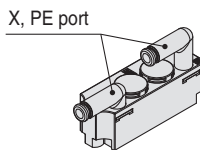
### ■ Cover, Silencer cover, Port block for SUP/EXH (end) block assembly



**Cover**  
(Internal pilot)



**Silencer cover**  
(Internal pilot, Built-in silencer)



**Port block**  
(External pilot: Made to Order)

- \* Cover, silencer cover, and port block are included in the SUP/EXH (end) block assembly, but they need to be ordered for piping specification change.
- \* Mounting screws (2 pcs.) for SUP/EXH end block assembly are included.

#### Tightening torque for mounting screw

JSY1000 (M2.5): 0.32 N·m  
JSY3000 (M3): 0.8 N·m  
JSY5000 (M4): 1.4 N·m

**JSY 3 1M-4P-1A**

**JSY 3 1M-5P-1A**

**JSY 3 1M-6P-1AR-00**

#### Series

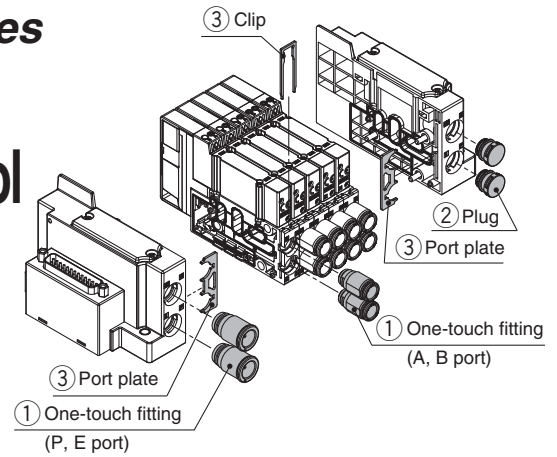
1	JSY1000
3	JSY3000
5	JSY5000

### ⚠ Caution

1. Be sure to shut off the power and air supplies before disassembly. Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if the tightening of the cover and port block assemblies are inadequate.

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

Refer to “How to Replace One-touch Fittings” on page 124 for the replacement method.



## ① One-touch Fittings

Series		JSY1000		JSY3000	JSY5000	Note
Port size		6.5 mm pitch	9 mm pitch			
A, B port	Ø 2	KQSY10-C2	—	—	—	Part number is for one piece. (Sales unit: 10 pcs.)
	Ø 4	KQSY10-C4-X1336	—	—	—	
	Ø 6	—	KQSY11-C6-X1336	KQSY30-C6	—	
	Ø 8	—	—	KQSY30-C8-X1336	—	
	Ø 10	—	—	—	KQSY50-C10	
	Ø 12	—	—	—	KQSY50-C12-X1336	
P, E port	Ø 8	KQSY30-C8-X1336		—	—	
	Ø 10	—		KQSY31-C10-X1336	—	
	Ø 12	—		—	KQSY50-C12-X1336	

\* Refer to page 124 for assembling when a fitting is replaced.

## ② Plug

Series	JSY1000	JSY3000	JSY5000	Note
Piping port				
P, E port	JSY11M-62P-1A	JSY31M-62P-1A	JSY51M-62P-1A	Part number is for one piece.

\* A, B port plug does not exist. Use the KQ2P series.

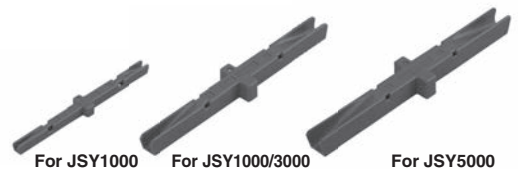
## ③ Clip, Port Plate

Series		JSY1000		JSY3000	JSY5000	Note
Piping port		For A, B port C2/C4 fittings	For A, B port C6 fittings			
A, B port (Clip)		SJ1000-CL-1	JSY11M-19P-1A	JSY31M-19P-1A	JSY51M-19P-1A	Part number is for 10 pieces.
P, E port (Port plate)		JSY11M-10P-1		JSY31M-10P-1	JSY51M-10P-1	Part number is for one piece.

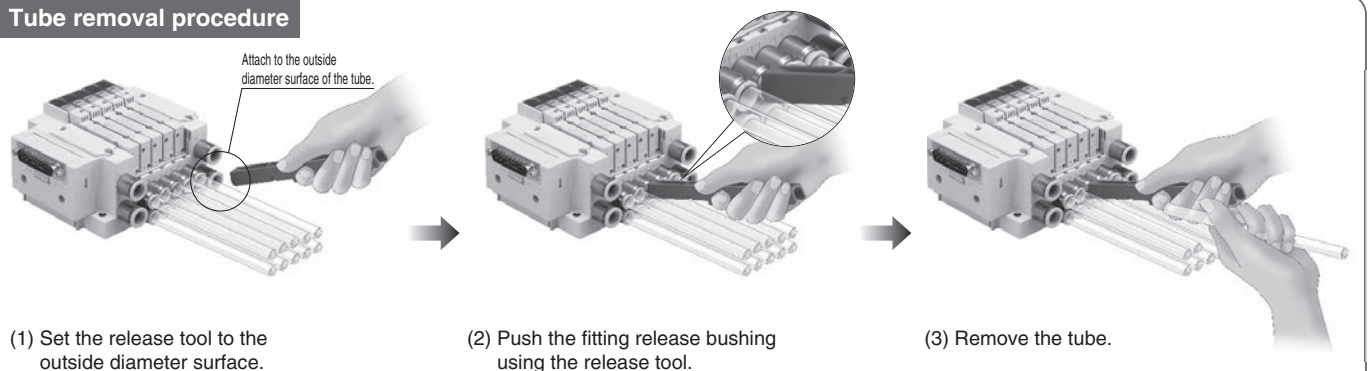
\* Refer to page 124 for assembling when a fitting is replaced.

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

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



### Tube removal procedure





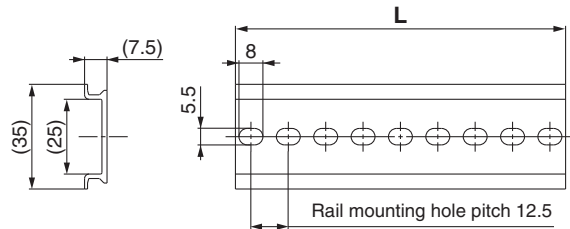
# JSY1000/3000/5000 Series

## Manifold Options

### ■ DIN rail dimensions/weight for the JSY1000/3000 **Plug-in** connector connecting 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 □.

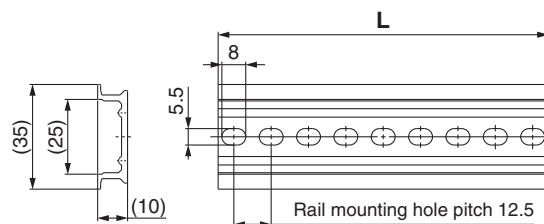


No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
L dimension	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5	273	285.5	298	310.5	323
Weight [g]	17.6	19.9	22.1	24.4	26.6	28.9	31.1	33.4	35.6	37.9	40.1	42.4	44.6	46.9	49.1	51.4	53.6	55.9	58.1
No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
L dimension	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	560.5
Weight [g]	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	96.4	98.6	100.9
No.	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
L dimension	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	798
Weight [g]	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	139.1	141.4	143.6
No.	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71				
L dimension	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	935.5	948	960.5	973	985.5				
Weight [g]	145.9	148.1	150.4	152.6	154.9	157.1	159.4	161.6	163.9	166.1	168.4	170.6	172.9	175.1	177.4				

### ■ DIN rail dimensions/weight for the JSY5000 **Plug-in** connector connecting base

#### VZ1000-11-4-□

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



No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
L dimension	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	323
Weight [g]	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	81.7
No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
L dimension	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	560.5
Weight [g]	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	141.8
No.	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
L dimension	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	798
Weight [g]	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	201.9
No.	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71				
L dimension	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	935.5	948	960.5	973	985.5				
Weight [g]	205.1	208.2	211.4	214.5	217.7	220.9	224	227.2	230.4	233.5	236.7	239.8	243	246.2	249.3				



# 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)

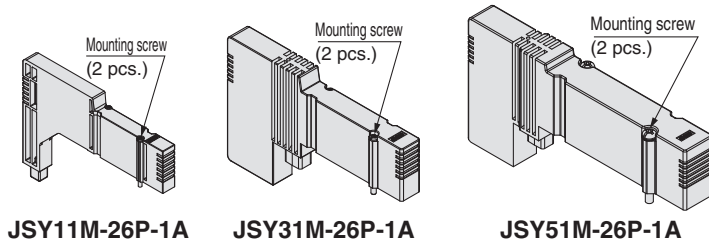
## Manifold Options

\* Refer to page 119 for dimensions.

### Blanking plate

[With two mounting screws]

Used when valve additions are expected or for maintenance.



JSY11M-26P-1A

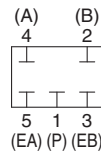
JSY31M-26P-1A

JSY51M-26P-1A

### JSY 3 1M - 26P - 1A

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

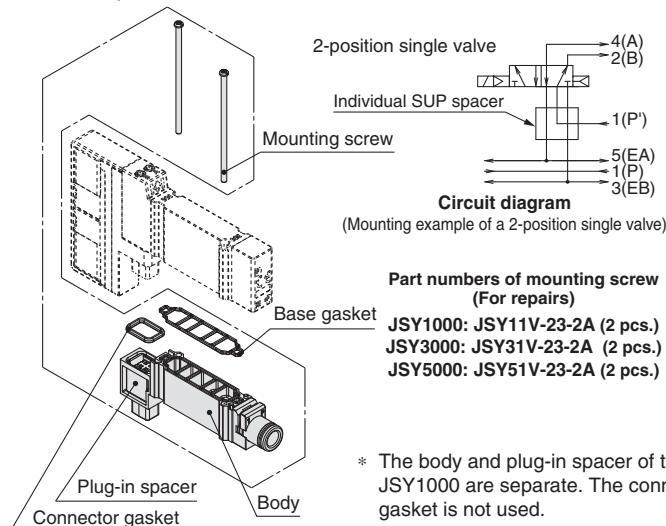


Circuit diagram

### Individual SUP spacer

[With a connector gasket, a base gasket, and two mounting screws]

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



### JSY 3 1M - 38 P - 1A - C6

#### Spacer type

38	Individual SUP spacer
39	Individual EXH spacer

#### Series

1	JSY1000
3	JSY3000
5	JSY5000

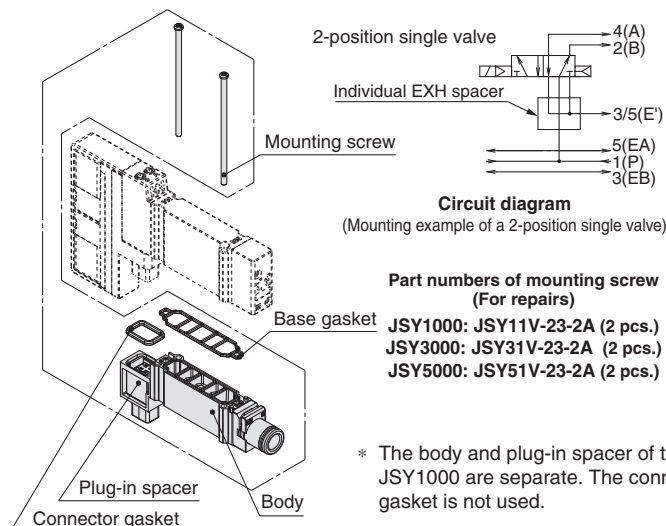
#### Port size (One-touch fittings)

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C4	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 connector gasket, a base gasket, and two mounting screws]

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



## Manifold Options

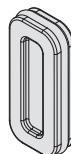
### ■ SUP/EXH blocking disk

#### [SUP blocking disk]

By inserting the SUP blocking disk in the pressure supply passage of the manifold valve, can provide two different high and low pressure in one manifold.

#### [EXH blocking disk]

By inserting the EXH blocking disk in the exhaust passage of the manifold valve, can separate the exhaust from the valve so it does not affect the other valves. It can also be used for the manifold for the positive pressure and vacuum mixed manifold. (2 pieces are required to block EA/EB both sides of the EXH.)

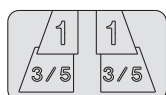


Series	SUP blocking disk	EXH blocking disk
<b>JSY1000</b>	JSY11M-40P-1A	JSY11M-40P-1A
<b>JSY3000</b>	JSY31M-40P-1A	JSY31M-40P-2A
<b>JSY5000</b>	JSY51M-40P-1A	JSY51M-40P-1A

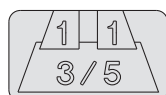
### ■ Label for blocking disk

Label to indicate and confirm on the manifold where the SUP/EXH blocking disk assemblies were inserted. (3 labels of each)

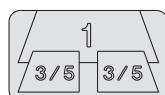
**SUP/EXH blocking disk label**



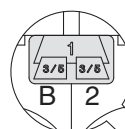
**SUP blocking disk label**



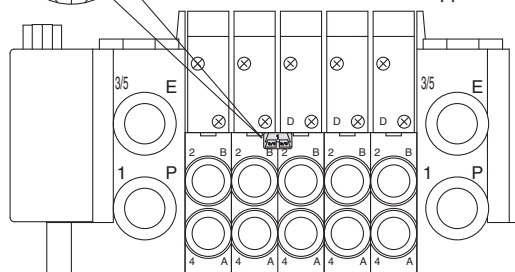
**EXH blocking disk label**



Series	Part no.
<b>JSY1000</b>	SJ3000-155-1A
<b>JSY3000</b>	
<b>JSY5000</b>	



\* If the blocking disk is ordered using the manifold specification sheet and ordered at the same time as the manifold, the position where the blocking disk is inserted will be labeled and shipped out.

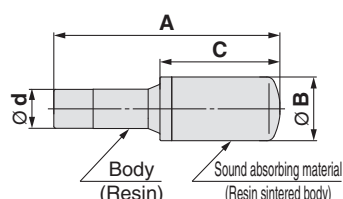


### ■ Silencer

#### (One-touch fitting connection type)

This silencer can be mounted to the 3/5 (E: EXH) port of the manifold in one step.

\* Shipped together with the product



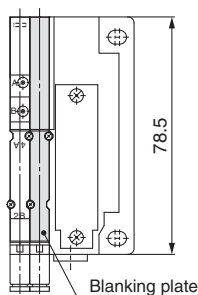
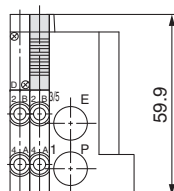
Series (Ø d)	Model	Effective area	A	B	C
For JSY1000 (Ø 8)	<b>AN15-C08</b>	20 mm <sup>2</sup>	45	13	20
For JSY3000 (Ø 10)	<b>AN20-C10</b>	30 mm <sup>2</sup>	57.5	16.5	30.5
For JSY5000 (Ø 12)	<b>AN30-C12</b>	41 mm <sup>2</sup>	71.5	20	43.5

# JSY1000/3000/5000 Series

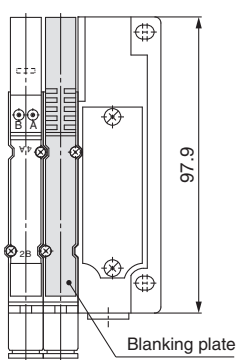
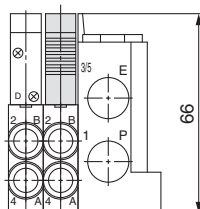
## Dimensions: Manifold Options

### ■ Blanking plate

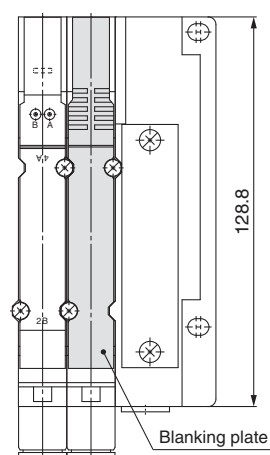
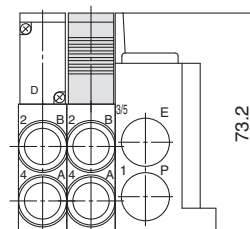
JSY1000 series



JSY3000 series

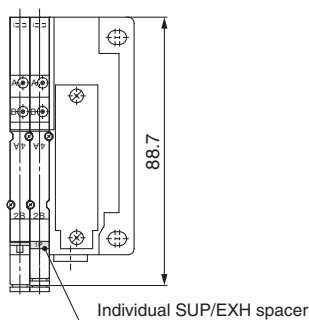
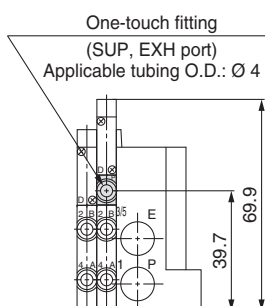


JSY5000 series

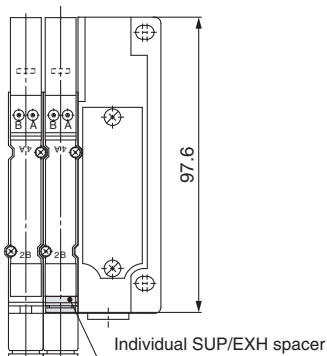
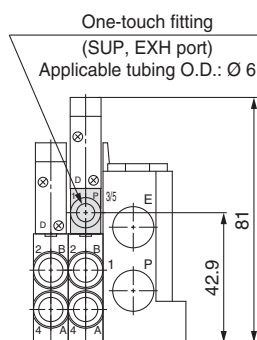


### ■ Individual SUP/EXH spacer

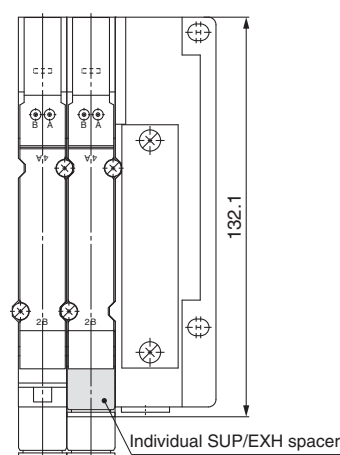
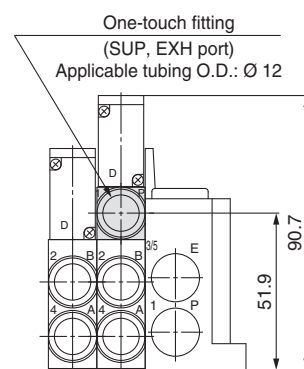
JSY1000 series



JSY3000 series



JSY5000 series





## 1 External Pilot

### How to Order Manifolds

Refer to the How to Order manifolds for each type.

For D-sub Connector/Flat Ribbon Cable/Lead Wire **pp. 19, 53**

JJ5SY  $\frac{1}{3}$  - 10   -   R -

For Terminal Block Box **p. 41**

JJ5SY  $\frac{1}{3}$  - 10  $\frac{T}{TC}$  -   R -

For EX260/EX245/EX120 **pp. 71, 81, 87**

JJ5SY  $\frac{1}{3}$  - 10  $\frac{S}{S3}$   -   R -

• SUP/EXH block assembly

R  External pilot

\* The combination of external pilot type "R" and silencer type "S" is not available.

\* Only the JSY3000/5000 can be selected for the EX245.

For EX600/EX250 **pp. 61, 75**

JJ5SY  $\frac{1}{3}$  - 10  $\frac{S6}{S}$     -   G -

• P, E port entry, SUP/EXH block assembly

P, E port entry	External pilot
U side (2 to 10 stations)	<b>G</b>
D side (2 to 10 stations)	<b>H</b>
Both sides (2 to 24 stations)	<b>J</b>

### How to Order Valves

JSY 1  00 R T - 5

JSY  $\frac{3}{5}$   00 R  - 5

• Coil type (See below.)

• Pilot type

R  External pilot

\* External pilot specification is not applicable for 4-position dual 3-port valves.

\* When pilot type "R" is selected, select the external pilot type "R" for the manifold SUP/EXH block assembly, and select either of "G/H/J" for the EX600/EX250 manifold.

## 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 122 for details.

0.1 W: JSY3000/5000

### How to Order Valves

JSY  $\frac{3}{5}$   00  T - 5

Pilot type (See above.)

Coil type

T With power saving circuit (Continuous duty type)

\* Only "Z" and "NZ" types are available for with the power saving circuit.

• Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
<b>Z</b>	●	●	Positive common
<b>NZ</b>			Negative common



# JSY1000/3000/5000 Series Specific Product Precautions 1

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 "Operation Manual" on the SMC website:  
<https://www.smc.es>

## Environment

### Warning

1. 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.
2. Products compliant with IP67 enclosures (based on IEC60529) are protected against dust and water, however, these products cannot be used in water. If using in an environment that is exposed to water and dust splashes, take measures such as using a protective cover.
3. When using built-in silencer type manifold with an IP67 enclosure, keep the exhaust port of the silencer from coming in direct contact with water or other liquids.

## Valve Mounting

### Caution

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

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

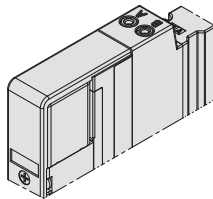
## Manual Override

### Warning

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

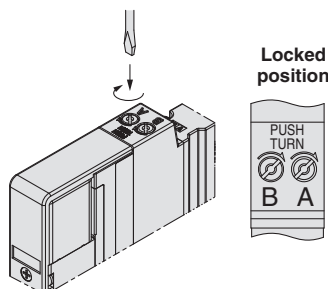
Push down on the manual override button until it stops.



#### Push-turn locking slotted type [D type]

Push down on the manual override with a small flat head screwdriver until it stops, and then turn it 90° clockwise. The manual override is then locked. To release it, turn it counterclockwise.

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

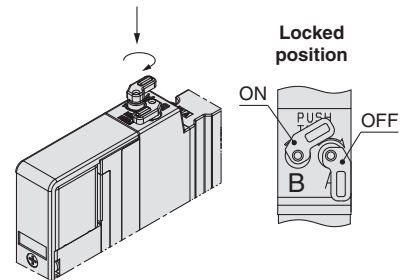


## Manual Override

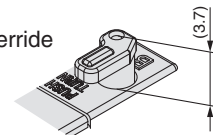
### Warning

#### Push-turn locking lever type [E type] (Only for the JSY3000/5000)

Push down on the manual override by finger until it stops, and then turn it 60° clockwise. The manual override is then locked. To release it, turn it counterclockwise. If it is not turned, it can be operated the same way as the non-locking push type.



Carefully check the manual override projection amount.  
Max. (at OFF): 3.7 mm



### Caution

Do not apply excessive torque when turning the manual override. [0.1 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.

## 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 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. Use them when a double solenoid type 3-port valve is required.

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



# JSY1000/3000/5000 Series

## Specific Product Precautions 2

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 "Operation Manual" on the SMC website:  
<https://www.smc.es>

### Light/Surge Voltage Suppressor

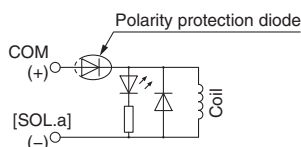
#### ⚠ Caution

##### ■ Polar type

###### Positive common

###### Single solenoid

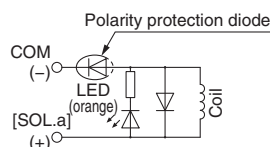
Light/surge voltage suppressor (□NZ)



###### Negative common

###### Single solenoid

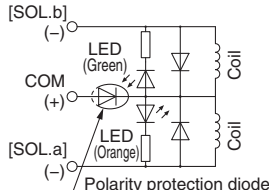
Light/surge voltage suppressor (□NZ)



###### Positive common

###### Double solenoid, 3-position, 4-position

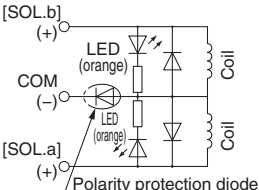
Light/surge voltage suppressor (□NZ)



###### Negative common

###### Double solenoid, 3-position, 4-position

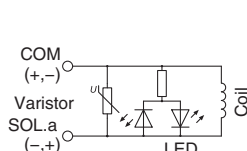
Light/surge voltage suppressor (□NZ)



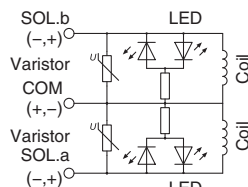
##### ■ Non-polar type

With light/surge voltage suppressor (□U)

###### Single solenoid



###### Double solenoid



\* Non-polar type is not available for the JSY1000.

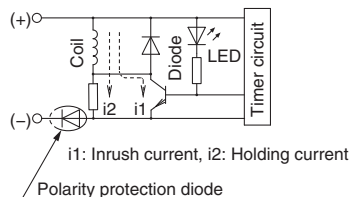
##### ■ With power saving circuit

(JSY3000/5000 series products are 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 67 ms at 24 VDC.)

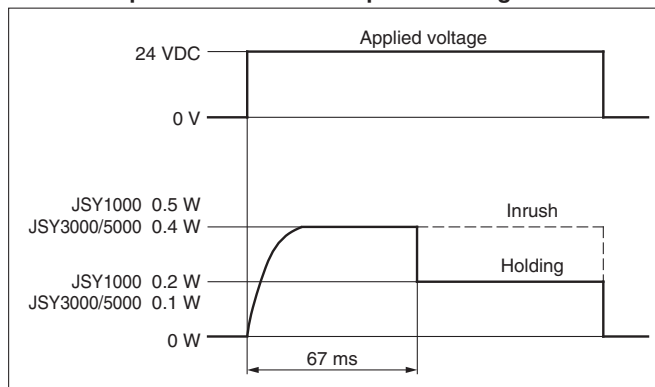
###### <Standard>

Electric circuit diagram  
(With power saving circuit)  
In the case of single solenoid



The circuit shown to the left 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>



\* 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.)

##### Residual voltage of the surge voltage suppressor

\* If a varistor or diode surge voltage suppressor is used, there is some residual voltage to the protection element and rated voltage. Therefore, refer to the below table and pay attention to the surge voltage protection on the controller side. Also, since the response time does change, refer to the valve specifications on page 12.

##### Residual Voltage

Surge voltage suppressor	24 VDC
Z	Approx. 1 V
U	Approx. 47 V

##### Continuous Duty

#### ⚠ Caution

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

##### Energization of a 2-Position Double Solenoid Valve

#### ⚠ Caution

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





# JSY1000/3000/5000 Series

## Specific Product Precautions 3

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### Countermeasure for Surge Voltage Intrusion

#### ⚠ Caution

##### ■ Sneak-in of surge voltage

With non-polar type valves, at times of sudden interruption of the loading power supply, such as emergency shutdown, surge voltage intrusion may be generated from loading equipment with a large capacity (power consumption), and the valve in a de-energised state may switch over (see Figure 1). When installing a breaker circuit for the loading power supply, consider using a valve with polarity (with polarity protection diode), or install a surge absorption diode between the loading equipment COM line and the output equipment COM line (see Figure 2).

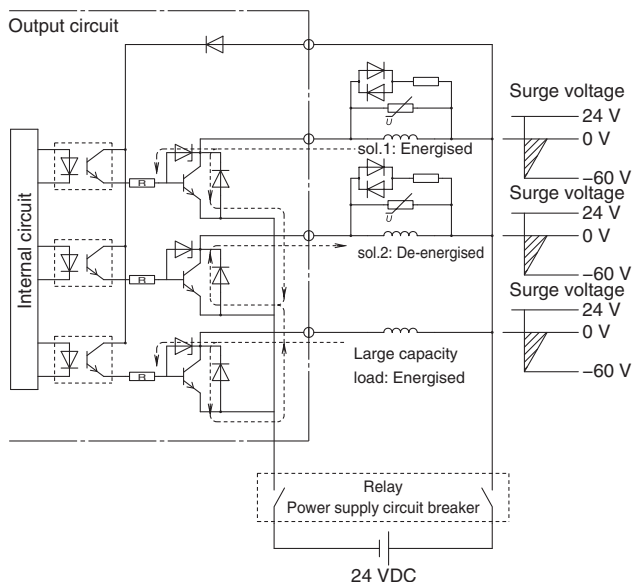


Figure 1. Surge intrusion circuit example (NPN outlet example) (24 VDC)

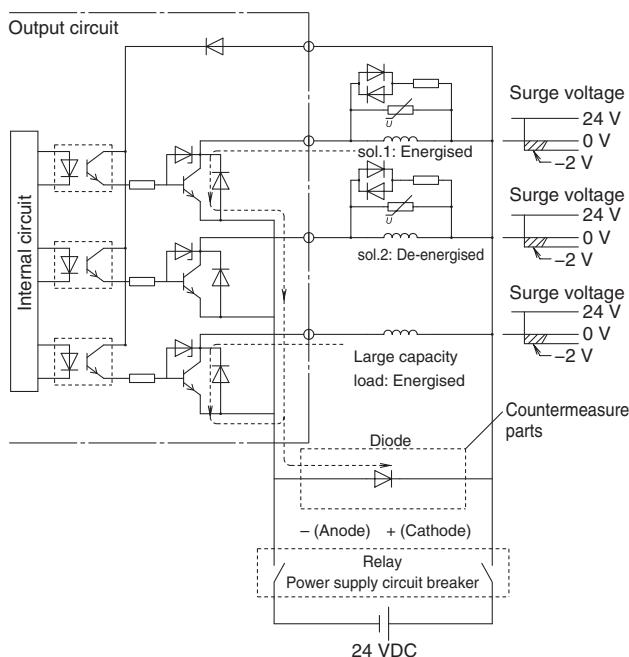


Figure 2. Surge intrusion circuit example (NPN outlet example) (24 VDC)

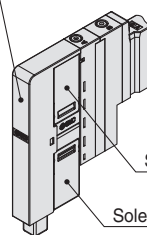
### Light Indication

#### ⚠ Caution

When equipped with indicator light and surge voltage suppressor, the light window turns orange when solenoid a is energised, and it turns green when solenoid b is energised.

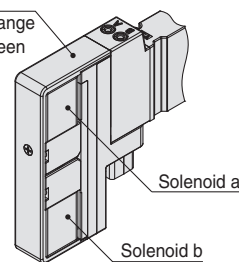
##### <JSY1000 series>

Light  
A side: Orange  
B side: Green



##### <JSY3000/5000 series>

Light  
A side: Orange  
B side: Green



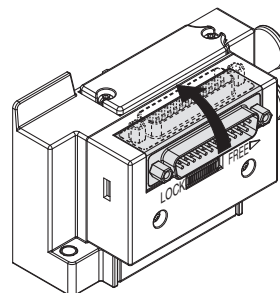
### Changing Connector Entry Direction

#### ⚠ Caution

Connector direction for electrical entry of D-sub connector and flat ribbon cable <IP 4 0> can be changed. If the directional change is required, slide the lever on the side of the connector block to the FREE position, and then change the direction as shown in the figure. Also, before connecting the connector, be sure to return the lever to the LOCK position. (If the lever is difficult to slide, move the connector a little bit to make it easier to slide the lever.)

If an excessive force is applied on the connector in the LOCK position, the connector block may be damaged. Also, using in such a way that the connector floats in the FREE position, it may cause the lead wire etc., to break.

\* Direction cannot be changed for D-sub connector <IP 6 7> or compact type.





# JSY1000/3000/5000 Series

## Specific Product Precautions 4

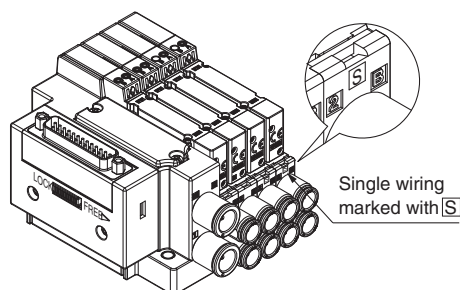
Be sure to read this before handling the products. Refer to the back cover for safety instructions.  
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<https://www.smc.es>

### How to Order Manifolds

#### ⚠ Caution

The letter "S" is indicated on manifold blocks for the JSY series as shown below. This indication refers to the type of substrate (single wiring) inside the manifold blocks. When there is no symbol, double wiring is used.

When the manifold specification sheet does not include a wiring specification, all stations will be double wiring specification. In this case, single and double solenoid valves can be mounted in any position, but when a single valve is used, there will be an unused control signal. To avoid this, indicate positions of manifold blocks for single wiring specification and double wiring specification on a manifold specification sheet. (Note that double, 3-or 4-position valves cannot be used for manifolds blocks with single wiring specification [S].)



### Substrate inside Manifolds

#### ⚠ Caution

The substrate inside of manifolds cannot be taken apart. Attempting to do so may damage parts.

### Fixation of DIN Rail Mounting Type Manifolds

#### ⚠ Caution

- 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, 5 locations for 16-20 stations and 6 locations for 21-24 stations.
- When using the manifold with DIN rail in an environment where any vibration or impact is applied to it, the DIN rail itself may be broken. In particular, if the installation surface vibrates when mounting the manifold on the wall or if a load is directly applied to the manifold, the DIN rail may be broken, causing the manifold to drop. When any vibration, impact, or load is applied to the manifold, be sure to use the direct mounting manifold.

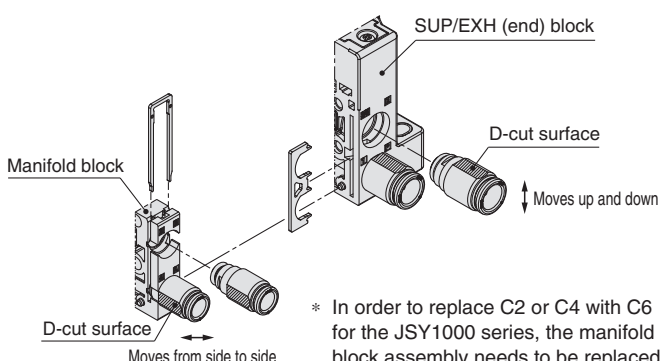
### How to Replace One-touch Fittings

#### ⚠ 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 115 for part numbers of One-touch fittings.

#### ■ Connector connecting base



- \* In order to replace C2 or C4 with C6 for the JSY1000 series, the manifold block assembly needs to be replaced. Please select the manifold block assembly on page 113.
- \* Refer to page 115 for One-touch fitting, clip, and port plate part numbers.

#### <Assembly method>

##### • SUP/EXH (end) block

Fitting direction is specified when the fittings below are used. Assemble the fitting so that the D-cut surfaces of the fitting face up and down.

Fitting part no.: KQSY30-C8-X1336 (JSY1000)  
KQSY50-C12-X1336 (JSY5000)

##### • Manifold block

Assemble the fitting so that the D-cut surfaces of the fitting face sideways.

Fitting part no.: KQSY10-C4-X1336 (JSY1000)  
KQSY11-C6-X1336 (JSY1000)  
KQSY30-C8-X1336 (JSY3000)  
KQSY50-C12-X1336 (JSY5000)

Chart

Valve

Connector  
Connecting Base  
Plug-in

D.sub  
Flat Ribbon

Terminal  
Block

Lead wire

EX600

EX245

EX250

EX260

EX120

Common  
Dimensions

Manifold  
Exploded View

Fittings, Replacement  
Parts, Tools

Manifold  
Options

Made to  
Order

Specific Product  
Precautions



# JSY1000/3000/5000 Series

## Specific Product Precautions 5

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 "Operation Manual" on the SMC website:  
<https://www.smc.es>

### Other Tube Brands

#### ⚠ Caution

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

- |                      |                                       |
|----------------------|---------------------------------------|
| 1) Nylon tube        | within $\pm 0.1$ mm                   |
| 2) Soft nylon tube   | within $\pm 0.1$ mm                   |
| 3) Polyurethane tube | within $+0.15$ mm<br>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.

### One-touch Fittings

#### ⚠ Caution

■ Tube attachment/detachment for One-touch fittings

##### 1) Tube attachment

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

##### 2) Tube detachment

Use the release tool when the removal of tube is difficult due to the tube size. Refer to page 115 for releasing tools.

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

### Fixing Method of JSY1000 Series Clamp Bracket

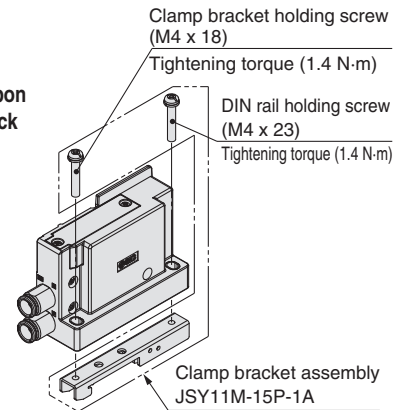
#### ⚠ Caution

The clamp bracket fixing method for the JSY1000 series is different depending on wiring.

##### ■ Wiring

<For D-sub connector/Flat ribbon cable/Spring type terminal block box/Lead wire/EX260/EX120>

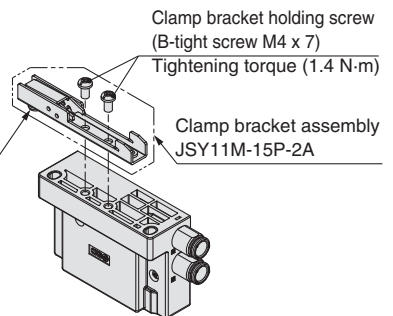
- \* When the DIN rail is not accommodated in the clamp bracket, loosen the DIN rail holding screw once and insert the DIN rail.



<For Terminal block box/EX600/EX250>

DIN rail holding screw  
Tightening torque (1.4 N·m)

- \* If the tightening torque of the holding screws is too much, the SUP/EXH end block will be broken.



### 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.

#### ■ Trademark

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EtherNet/IP™ is a trademark of ODVA.

CompoNet™ is a trademark of ODVA.

EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

# Model Index (Alphanumeric Order)

<b>JJ5SY1-10F</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector, Connector Entry Direction Adjustable <IP40>	<b>p. 19</b>
<b>JJ5SY1-10FC</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector, Compact Type <IP20>	<b>p. 19</b>
<b>JJ5SY1-10L1</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 34 cores	<b>p. 53</b>
<b>JJ5SY1-10L2</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 17 cores	<b>p. 53</b>
<b>JJ5SY1-10L3</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 9 cores	<b>p. 53</b>
<b>JJ5SY1-10P</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (26 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY1-10PC</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (26 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY1-10PG</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (20 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY1-10PGC</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (20 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY1-10PH</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (10 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY1-10PHC</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (10 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY1-10S</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX250 Series	<b>p. 71</b>
<b>JJ5SY1-10S□</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX260 Series	<b>p. 77</b>
<b>JJ5SY1-10S3</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX120 Series	<b>p. 83</b>
<b>JJ5SY1-10S6</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX600 Series	<b>p. 61</b>
<b>JJ5SY1-10T</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Terminal Block Box	<b>p. 41</b>
<b>JJ5SY1-10TC</b>	JSY1000	Type 10/Side Ported	Plug-in Connector Connecting Base: Spring Type Terminal Block Box	<b>p. 41</b>
<b>JJ5SY3-10F</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector, Connector Entry Direction Adjustable <IP40>	<b>p. 19</b>
<b>JJ5SY3-10FC</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector, Compact Type <IP20>	<b>p. 19</b>
<b>JJ5SY3-10FW</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector <IP67>	<b>p. 19</b>
<b>JJ5SY3-10L1</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 34 cores	<b>p. 53</b>
<b>JJ5SY3-10L2</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 17 cores	<b>p. 53</b>
<b>JJ5SY3-10L3</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 9 cores	<b>p. 53</b>
<b>JJ5SY3-10P</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (26 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY3-10PC</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (26 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY3-10PG</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (20 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY3-10PGC</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (20 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY3-10PH</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (10 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY3-10PHC</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Compact Type (10 pins) <IP20>	<b>p. 19</b>
<b>JJ5SY3-10S</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX250 Series	<b>p. 75</b>
<b>JJ5SY3-10S□</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX260 Series	<b>p. 81</b>
<b>JJ5SY3-10SA□</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX245 Series	<b>p. 71</b>
<b>JJ5SY3-10S3</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX120 Series	<b>p. 87</b>
<b>JJ5SY3-10S6</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX600 Series	<b>p. 61</b>
<b>JJ5SY3-10T</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Terminal Block Box	<b>p. 41</b>
<b>JJ5SY3-10TC</b>	JSY3000	Type 10/Side Ported	Plug-in Connector Connecting Base: Spring Type Terminal Block Box	<b>p. 41</b>
<b>JJ5SY5-10F</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector, Connector Entry Direction Adjustable <IP40>	<b>p. 19</b>
<b>JJ5SY5-10FW</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: D-sub Connector <IP67>	<b>p. 19</b>
<b>JJ5SY5-10L1</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 34 cores	<b>p. 53</b>
<b>JJ5SY5-10L2</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 17 cores	<b>p. 53</b>
<b>JJ5SY5-10L3</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Lead Wire, 9 cores	<b>p. 53</b>
<b>JJ5SY5-10P</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (26 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY5-10PG</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (20 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY5-10PH</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Flat Ribbon Cable, Connector Entry Direction Adjustable (10 pins) <IP40>	<b>p. 19</b>
<b>JJ5SY5-10S</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX250 Series	<b>p. 75</b>
<b>JJ5SY5-10S□</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX260 Series	<b>p. 81</b>
<b>JJ5SY5-10SA□</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX245 Series	<b>p. 71</b>
<b>JJ5SY5-10S3</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX120 Series	<b>p. 87</b>
<b>JJ5SY5-10S6</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: EX600 Series	<b>p. 61</b>
<b>JJ5SY5-10T</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Terminal Block Box	<b>p. 41</b>
<b>JJ5SY5-10TC</b>	JSY5000	Type 10/Side Ported	Plug-in Connector Connecting Base: Spring Type Terminal Block Box	<b>p. 41</b>



Non Plug-in

# Compact 5-Port Solenoid Valve **New**

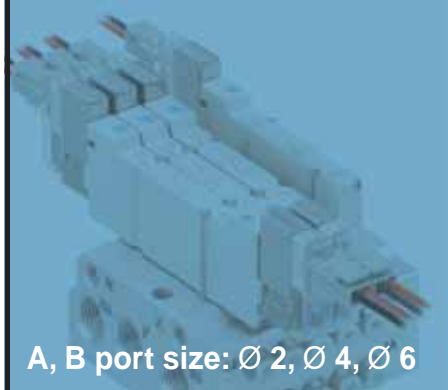
Size reduction possible thanks to a flow increase  

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

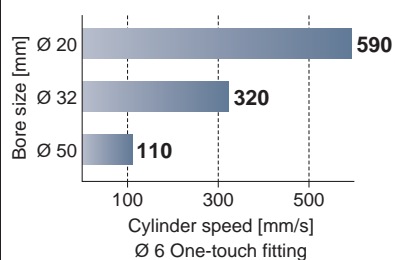
Possible to drive  $\varnothing 32^{*1}$  bore cylinders

**JSY1000**

**6.4 mm**



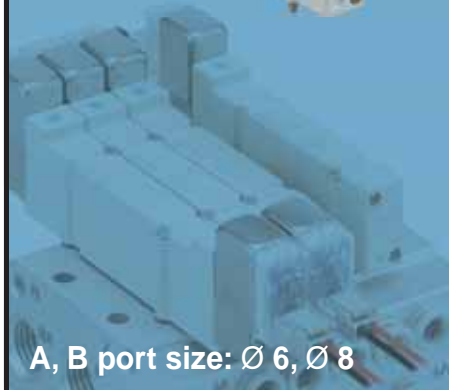
A, B port size:  $\varnothing 2, \varnothing 4, \varnothing 6$



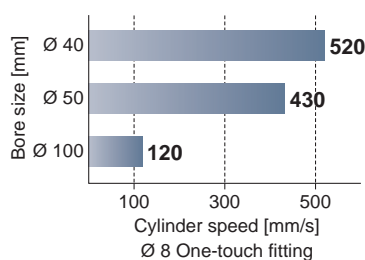
Possible to drive  $\varnothing 50^{*1}$  bore cylinders

**JSY3000**

**10 mm**



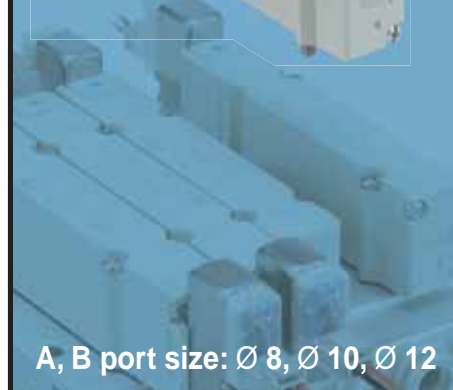
A, B port size:  $\varnothing 6, \varnothing 8$



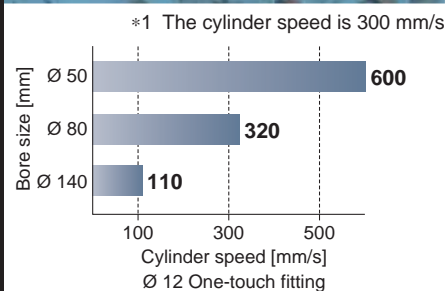
Possible to drive  $\varnothing 80^{*1}$  bore cylinders

**JSY5000**

**15 mm**



A, B port size:  $\varnothing 8, \varnothing 10, \varnothing 12$



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

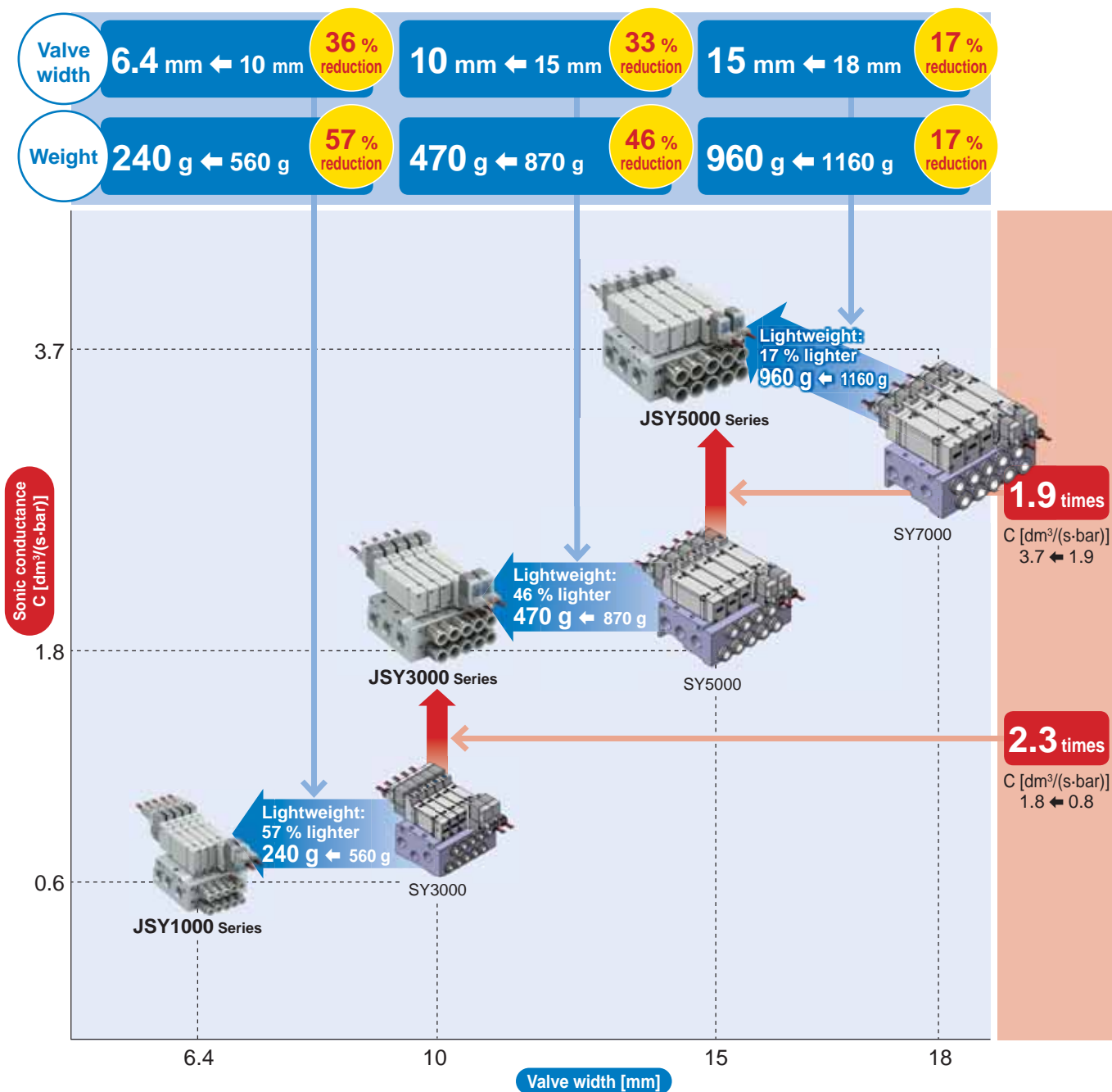


## JSY1000/3000/5000 Series



CAT.EUS11-113A-UK

## Series Map



## Power Saving

## Power Consumption

**0.1<sup>\*1</sup> w** **0.4<sup>\*1</sup> w**

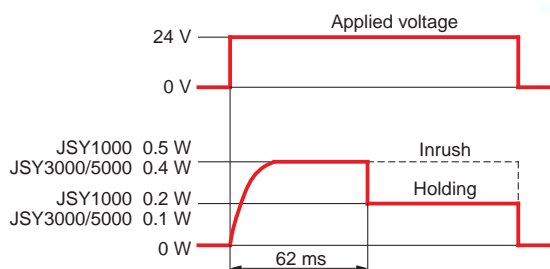
With power saving circuit

Without power saving circuit

\*1 JSY3000/5000

**Power consumption is reduced by power saving circuit.**

Power consumption is decreased by approx. 1/3 by reducing the wattage required to hold the valve in an energised state.  
(Effective energising time is over 62 ms at 24 VDC.) Refer to the electrical power waveform as shown on the right.

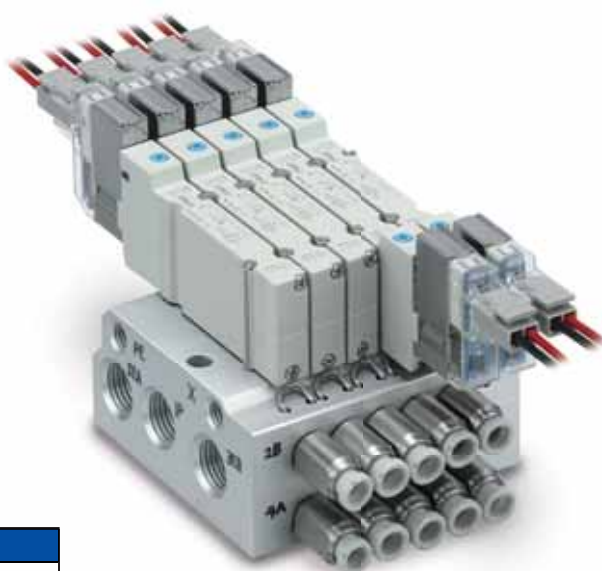




## Space Saving

**Volume**  
Max. **36 % reduction**

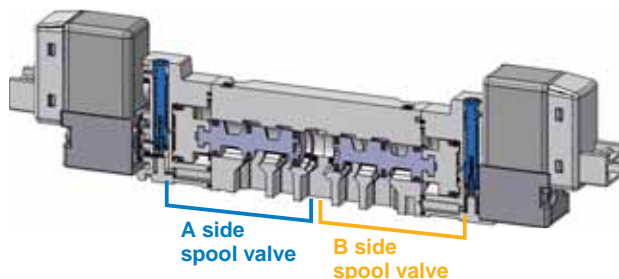
**Weight**  
Max. **57 % reduction**



	Volume [cm <sup>3</sup> ]	Weight [g]
<b>JSY1000</b>	<b>210</b>	<b>240</b>
SY3000	330	560
<b>JSY3000</b>	<b>460</b>	<b>470</b>
SY5000	640	870
<b>JSY5000</b>	<b>850</b>	<b>960</b>
SY7000	990	1160

## 4-Position Dual 3-Port Valve Available

- Two 3-port valves built into one body

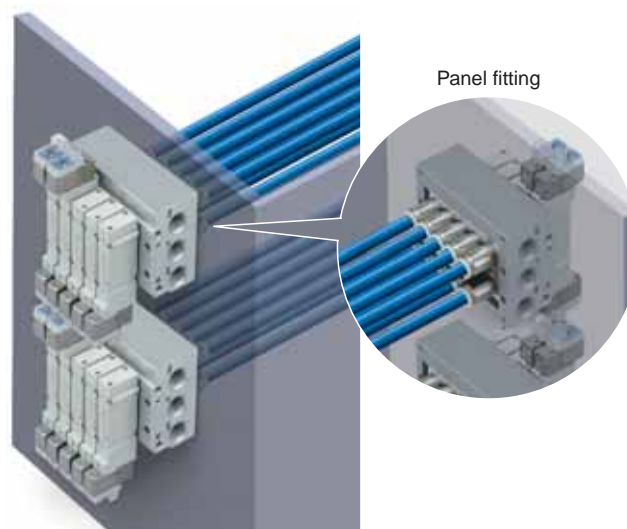


- 3-port valves on the A and B sides can operate independently.
- When used as a 3-port valve, only half the number of stations is required.
- Can also be used as a 4-position, 5-port valve

- Combination examples

Model	A side	B side
<b>JSY□A4□</b>	N.C. valve	N.C. valve
<b>JSY□B4□</b>	N.O. valve	N.O. valve
<b>JSY□C4□</b>	N.C. valve	N.O. valve



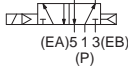
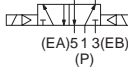


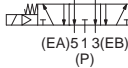
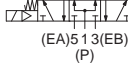


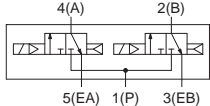
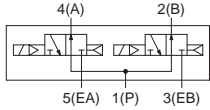
## Bottom ported is prepared (A, B port).



## Application Examples



## Series Variations

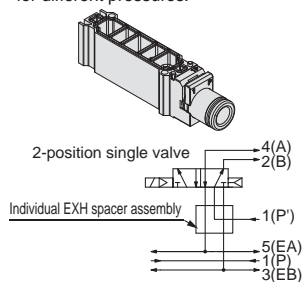
	Piping direction	Sonic conductance C [dm³/(s·bar)] $\left\{ \begin{array}{l} 4/2 \rightarrow 5/3 \\ (A/B \rightarrow EA/EB) \end{array} \right\}$	Type of actuation	Rated voltage	Port size										Manifold Options			Valve Options			
					A, B port													P, E port			
					Thread piping				One-touch fitting												
					M3	M5	1/8	1/4	Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12							
<b>JSY 1000</b>  	Side	0.63	<b>2-position single</b> (A)4 2(B)  (EA)5 1 3(EB) (P)	24 VDC																	
	Bottom	Ø 6	<b>2-position double</b> (A)4 2(B)  (EA)5 1 3(EB) (P)		●	●	—	—	●	●	●	—	—	—	1/8						
<b>JSY 3000</b>  	Side	1.81	<b>3-position exhaust centre</b> (A)4 2(B)  (EA)5 1 3(EB) (P)																		
	Bottom	Ø 8	<b>3-position pressure centre</b> (A)4 2(B)  (EA)5 1 3(EB) (P)		—	●	●	—	—	—	●	●	—	—	1/4	○ p. 38	○ p. 38	○ p. 38	▲ External pilot	○ Individual SUP	▲ External pilot
<b>JSY 5000</b>  	Side	3.72	 <b>N.O. valve x 2 pcs.</b>																		
	Bottom	Ø 12	 <b>N.C. valve, N.O. valve 1 pc. of each</b>		—	—	●	●	—	—	—	●	●	●	3/8						

● Standard ○ Option ▲ Made to Order (Refer to page 40.)

## Manifold Options

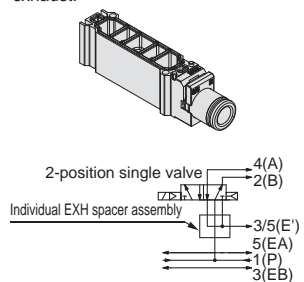
## Individual SUP spacer p. 38

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



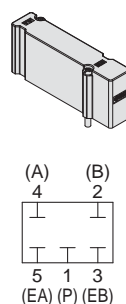
## Individual EXH spacer p. 38

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



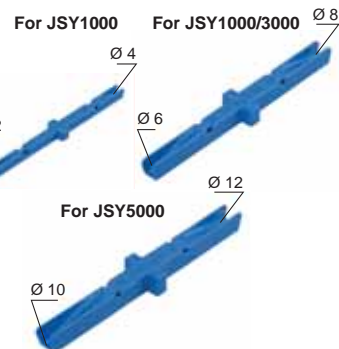
## Blanking plate p. 38

Used when valve additions are expected or for maintenance.




## Tube Releasing Tool

## This tool is used for removing the tube from port A and B. p. 36



# CONTENTS

Optimum Actuation Size Chart of Air Cylinder.....	p. 5	Valve Construction .....	p. 11
Valve Specifications (Specifications, Response Time, Weight).....	p. 9	Valve Replacement Parts .....	p. 12









Manifold

Non Plug-in

Metal Base

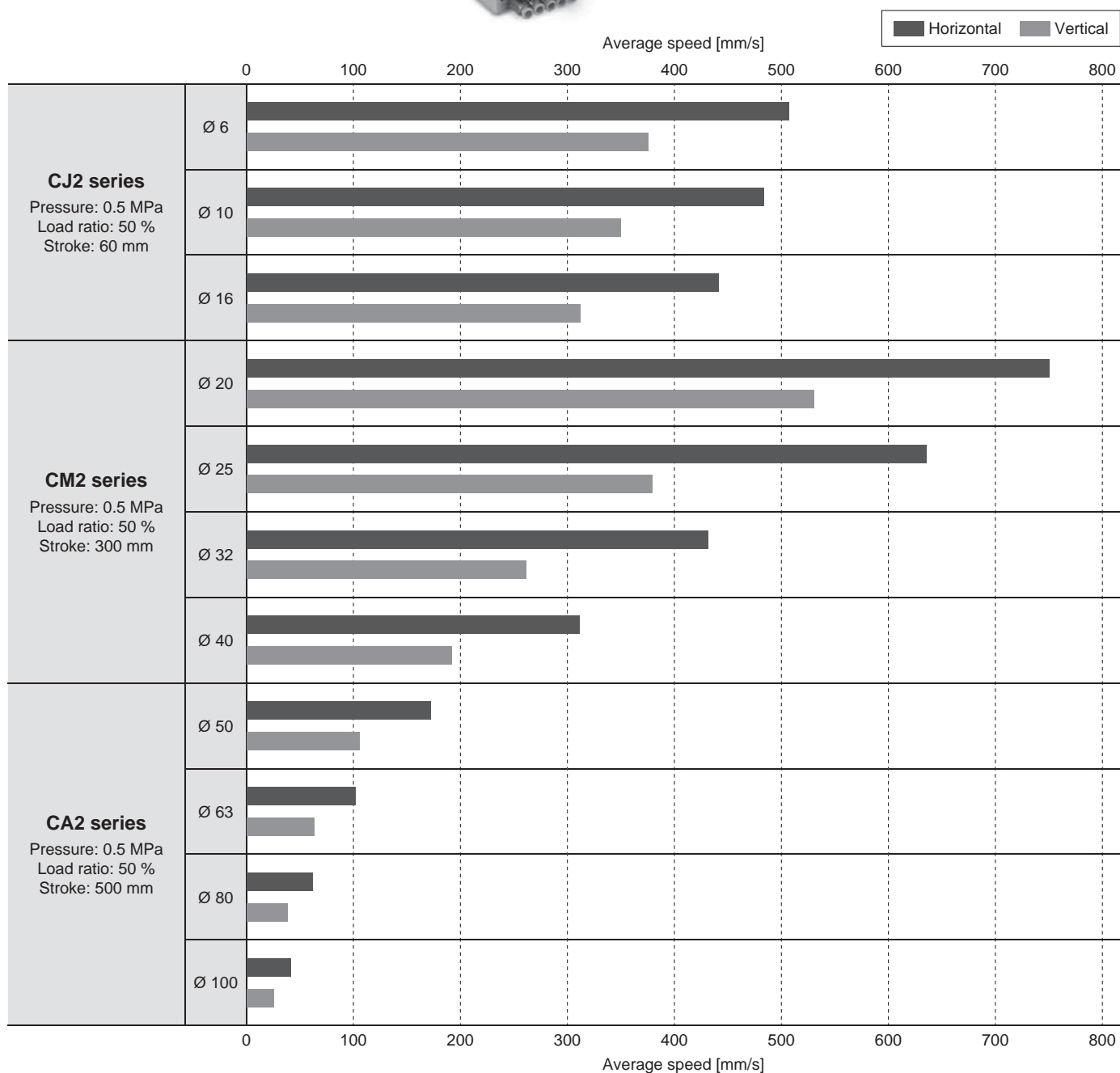
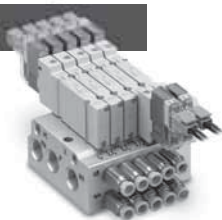
Type 40 Side Ported/Type 41 Bottom Ported ..... p. 14

 <p>JSY1000 Side ported</p>  <p>JSY1000 Bottom ported</p>	<div>Non Plug-in</div> Metal Base (Specifications, Flow Rate Characteristics, Weight)..... p. 14
	Dimensions/JSY1000: Type 40 Side Ported ..... p. 17
	Dimensions/JSY1000: Type 41 Bottom Ported ..... p. 20
 <p>JSY3000 Side ported</p>  <p>JSY3000 Bottom ported</p>	Dimensions/JSY3000: Type 40 Side Ported ..... p. 23
	Dimensions/JSY3000: Type 41 Bottom Ported ..... p. 26
 <p>JSY5000 Side ported</p>  <p>JSY5000 Bottom ported</p>	Dimensions/JSY5000: Type 40 Side Ported ..... p. 29
	Dimensions/JSY5000: Type 41 Bottom Ported ..... p. 32

Manifold Exploded View .....	p. 35
One-touch Fittings, Clip, Port Plate, Tube Releasing Tool .....	p. 36
Manifold Options.....	p. 37
Made to Order .....	p. 40
Specific Product Precautions.....	p. 41
Safety Instructions .....	Back cover

# Optimum Actuation Size Chart of Air Cylinder

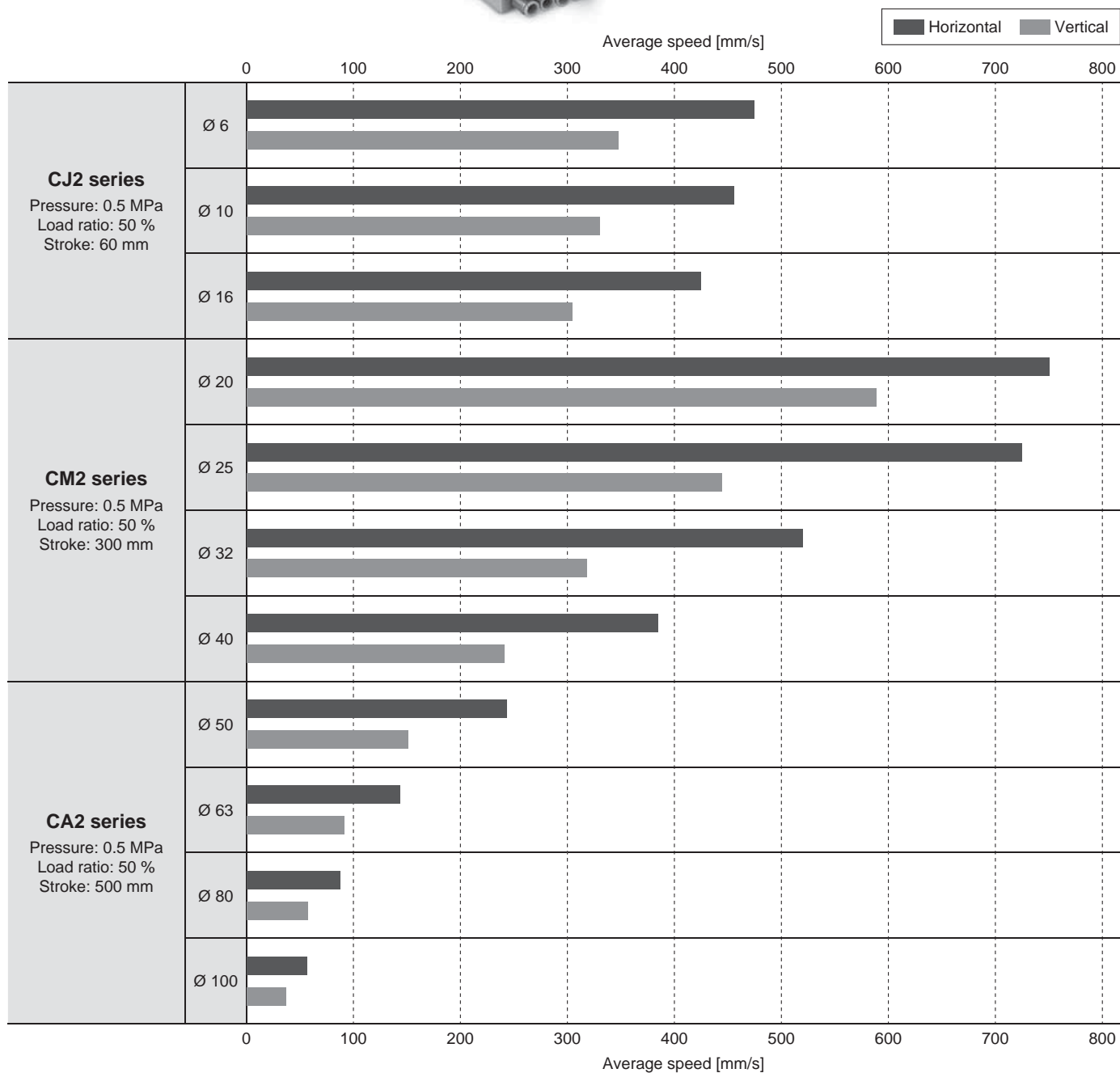
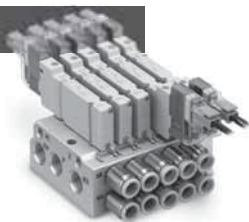
For JSY1000, A, B port: Ø 4



- \* 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.

# Optimum Actuation Size Chart of Air Cylinder

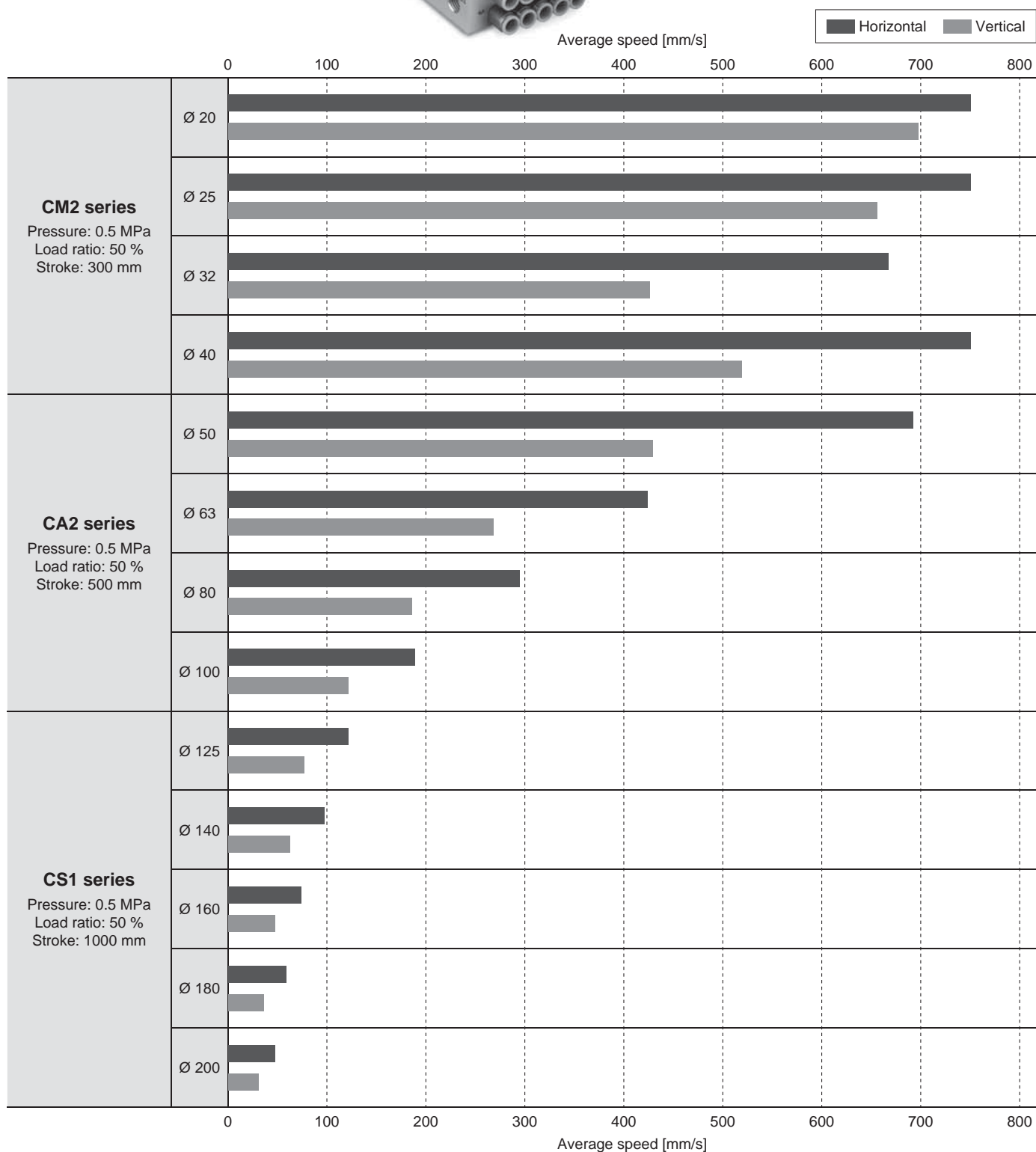
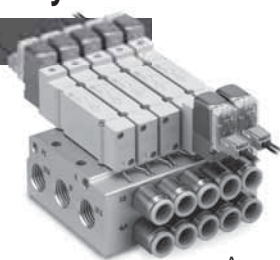
For JSY1000, A, B port: Ø 6



- \* 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.

# Optimum Actuation Size Chart of Air Cylinder

For JSY3000, A, B port: Ø 8

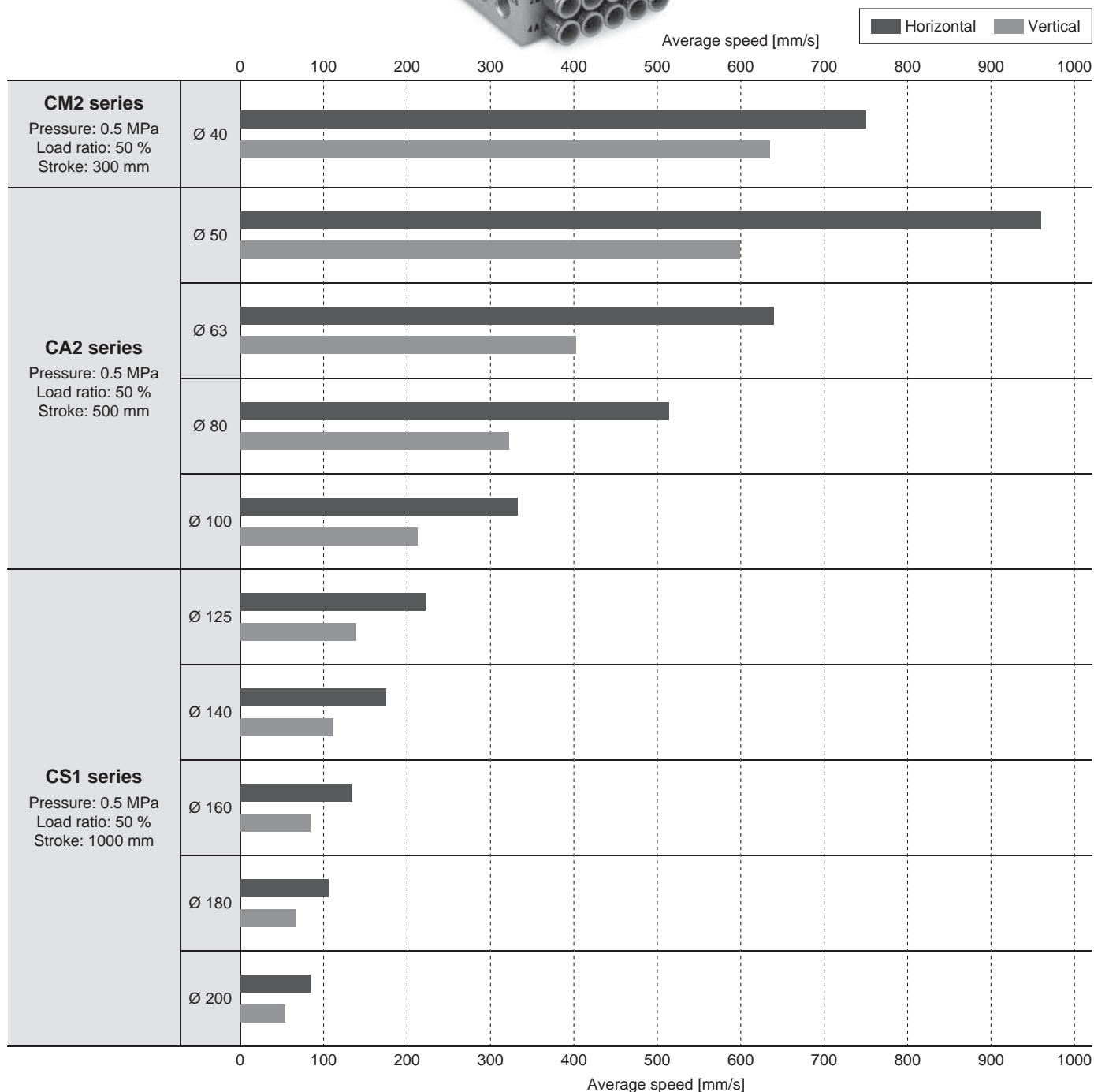
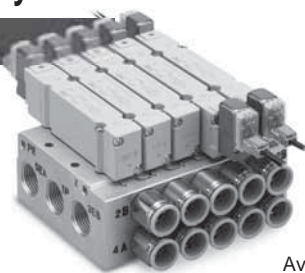


- \* Values at extension of a directly coupled cylinder when meter-out speed controllers are used with the needle full open.
- \* The average speed of the cylinder is obtained by dividing the stroke by the total stroke time.
- \* Formula for load ratio: Load ratio = ((Load mass x 9.8)/Theoretical output)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



# Optimum Actuation Size Chart of Air Cylinder

For JSY5000, A, B port: Ø 12



- \* 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.

# JSY1000/3000/5000 Series Valve Specifications

## Valve Specifications

Valve type			Rubber seal	
Fluid			Air	
Internal pilot operating pressure range [MPa]	2-position single		0.15 to 0.7	
	2-position double		0.1 to 0.7	
	3-position		0.2 to 0.7	
	4-position dual 3-port valve		0.15 to 0.7	
External pilot operating pressure range [MPa] (Made to Order)	Operating pressure range		-100 kPa to 0.7	
	Pilot pressure range	2-position single	0.25 to 0.7	
		2-position double		
		3-position		
Ambient and fluid temperatures [°C]			-10 to 50 (No freezing)	
Max. operating frequency [Hz]	JSY1000/3000	2-position single/double	5	
		4-position dual 3-port valve		
		3-position		
	JSY5000	2-position single/double	5	
		4-position dual 3-port valve	3	
		3-position	3	
Manual override			Non-locking push type	
			Push-turn locking slotted type	
			Push-turn locking lever type	
Pilot exhaust type	Internal pilot		Individual exhaust	
	External pilot (Made to Order)			
Lubrication			Not required	
Mounting orientation*1			Unrestricted	
Impact/Vibration resistance*1 [m/s²]			150/30	
Enclosure			IP40	
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		
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*3 [Inrush 0.4, Holding 0.1]
			(Made to Order)	
Surge voltage suppressor			Diode	
Indicator light			LED	

\*1 Impact resistance: No malfunction occurred when it is tested in the axial direction and at the right angles to the main valve and armature in both 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 for the fixation of DIN rail mounting type manifold.

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

\*3 For details, refer to page 43.

## Response Time/Valve Weight

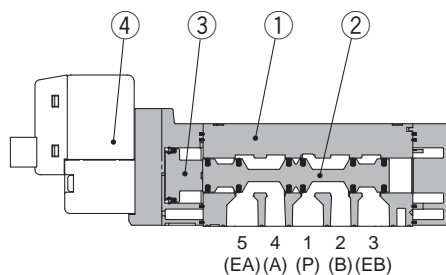
Series	Seal type	Model	Type of actuation	Response time [ms] (at 0.5 MPa)*1	Weight [g]
				Standard	
				With light/surge voltage suppressor	
				Z type	
JSY1000	Rubber seal	JSY1140T	2-position single	15	17
		JSY1240T	2-position double	5	24
		JSY1(3/4/5)40T	3-position	13	25
		JSY1(A/B/C)40T	4-position dual 3-port valve	14	24
JSY3000		JSY3140	2-position single	27	34
		JSY3240	2-position double	10	49
		JSY3(3/4/5)40	3-position	30	52
		JSY3(A/B/C)40	4-position dual 3-port valve	27	48
JSY5000		JSY5140	2-position single	42	66
		JSY5240	2-position double	13	83
		JSY5(3/4/5)40	3-position	40	93
		JSY5(A/B/C)40	4-position dual 3-port valve	41	80

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

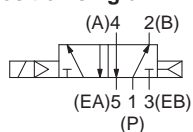
# JSY1000/3000/5000 Series Valve Construction

## Rubber Seal

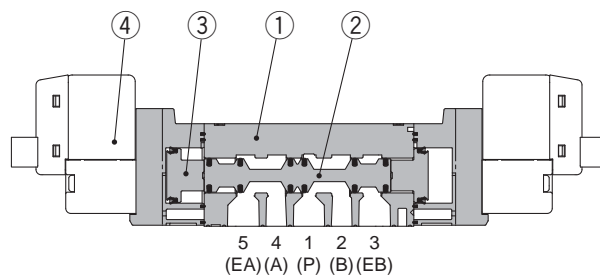
### 2-position single



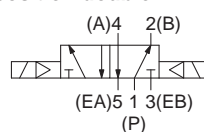
#### 2-position single



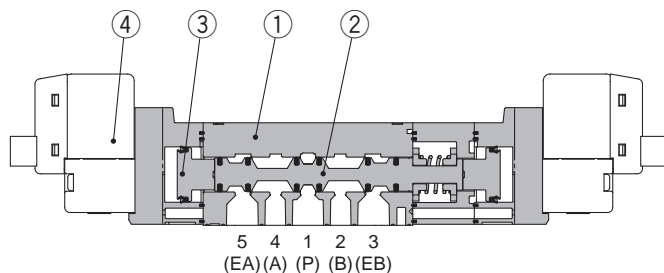
### 2-position double



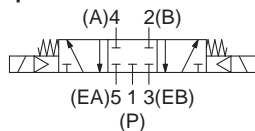
#### 2-position double



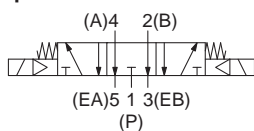
### 3-position closed centre/exhaust centre/pressure centre



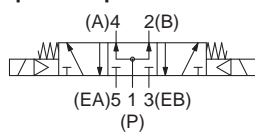
#### 3-position closed centre



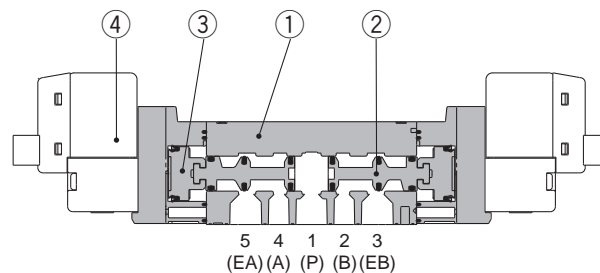
#### 3-position exhaust centre



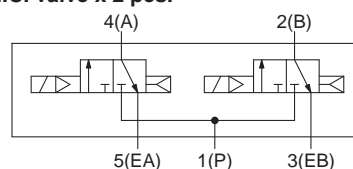
#### 3-position pressure centre



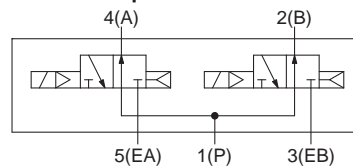
### 4-position dual 3-port valve



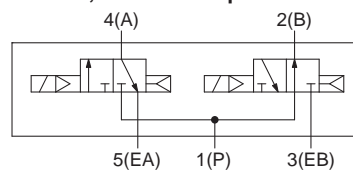
#### 4-position dual 3-port valve N.C. valve x 2 pcs.



#### N.O. valve x 2 pcs.



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



## Component Parts

No.	Description	Material
1	Body	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

### For JSY1000

**V050 T - 5 [ ] Z**

#### Coil type

<b>T</b>	With power saving circuit
----------	---------------------------

#### Rated voltage

<b>5</b>	24 VDC
----------	--------

#### Electrical entry

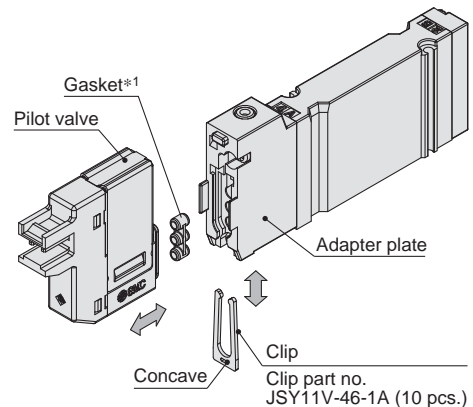
<b>L</b>	L plug connector with lead wire
<b>LO</b>	L plug connector without connector
<b>M</b>	M plug connector with lead wire
<b>MO</b>	M plug connector without connector

#### Light/surge voltage suppressor

<b>Z</b>	With light/surge voltage suppressor
----------	-------------------------------------

\* Clip is not included in the pilot valve.

### How to replace pilot valves



### Caution

#### Removal

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

#### Mounting

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

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

### For JSY3000/5000

**V111 [ ] - 5 [ ] Z**

#### Coil type

<b>—</b>	Standard
<b>T</b>	With power saving circuit (Made to Order)

#### Rated voltage

<b>5</b>	24 VDC
----------	--------

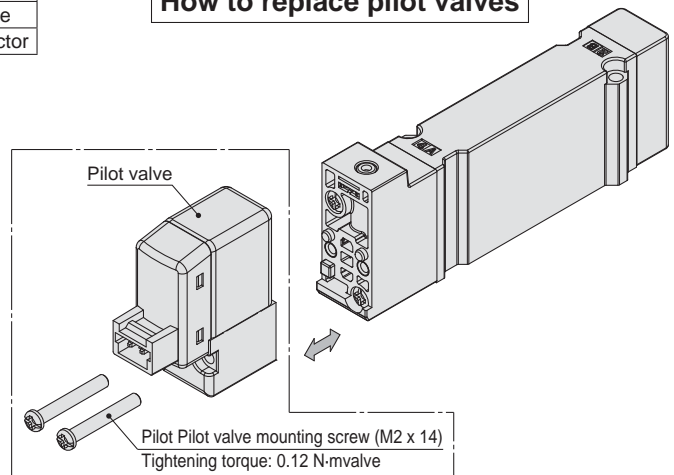
#### Light/surge voltage suppressor

<b>Z</b>	With light/surge voltage suppressor
----------	-------------------------------------

#### Electrical entry

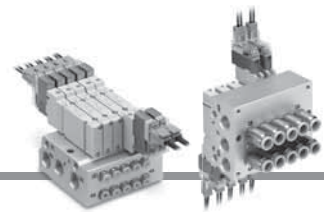
<b>L</b>	L plug connector	With lead wire
<b>LO</b>	L plug connector	Without connector
<b>M</b>	M plug connector	With lead wire
<b>MO</b>	M plug connector	Without connector

### How to replace pilot valves









### Manifold Specifications

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

Model	Port size		Valve flow rate characteristics						Weight: W [g]*1 (n: stations)	
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → E)				
			C [dm³/(s·bar)]	b	Q [l/min (ANR)]*2	C [dm³/(s·bar)]	b	Q [l/min (ANR)]*2	Fixed: C <input type="checkbox"/>	Replaceable: KC <input type="checkbox"/>
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

\*1 Weight: W is the value of the internal pilot, and maximum manifold size with tube fitting type. Valve is not included. To obtain the weight with valves attached, add the valve weights given on page 10 for the appropriate number of stations.

\*2 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.

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

\* The value is for manifold base with 5 stations and individually operated 2-position type.

\* Bottom port is available only for 4, 2 (A, B) port.

Type 40  
Side Ported

Type 41  
Bottom Ported

Non Plug-in Metal Base

# JSY1000/3000/5000 Series



Internal Pilot

## How to Order Manifolds

**JJ5SY** **3** - **40** - **05** **D** - **C6**    

1      2      3      4      5      6      7



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

Specification
External pilot

### 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.

### 3 Valve stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

### 4 P, E port entry

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

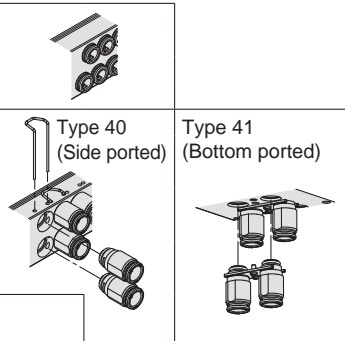
\*1 Plugs are mounted on the opposite side of the selected ports.

### 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	—	—	●

### One-touch fitting (Metric)

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



### 7 Mounting

—	Direct mounting
D	DIN rail mounting (With DIN rail)
D0	DIN rail mounting (Without DIN rail)
D3	For 3 stations
⋮	⋮
D20	For 20 stations

\* Only direct mounting is available for Type 41 (Bottom ported).

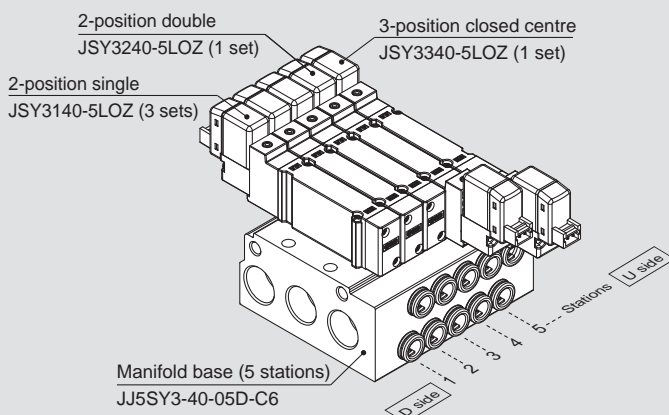
\* Refer to page 45 for the fixation of DIN rail mounting type manifold.

\*1 When ports are mixed sizes, indicate the piping specifications on the manifold specification sheet.

\*2 In case of replacement of JSY1000 One-touch fitting, A and B port can only be mixed on the manifold base for KC2 and KC4.

## How to Order Manifold Assembly

### Example (JJ5SY3-40-□)



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

\* JSY3140-5LOZ.....3 sets (2-position single part no.)

\* JSY3240-5LOZ.....1 set (2-position double part no.)

\* JSY3340-5LOZ.....1 set (3-position closed centre part no.)

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

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

## Internal Pilot

## How to Order Valves (With two mounting screws)

## JSY1000 Series

JSY 1 1 4 0 T - 5 L Z

1 2 3 4 5 6 7



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

## JSY3000/5000 Series

JSY 3 1 4 0 - 5 L Z

1 2 3 4 5 6 7

Specification
With power saving circuit (Continuous duty type): 0.1 W (JSY3000/5000)
External pilot

• With power saving circuit

## 1 Series

1	JSY1000
3	JSY3000
5	JSY5000

## 2 Type of actuation

1	2-position single
2	2-position double
3	3-position closed centre
4	3-position exhaust centre
5	3-position pressure centre
A	Dual 3-port (N.C./N.C.)
B	Dual 3-port (N.O./N.O.)
C	Dual 3-port (N.C./N.O.)

## 3 Pilot valve exhaust method

0	Pilot valve individual exhaust
---	--------------------------------

## 4 Rated voltage

5	24 VDC
---	--------

## 6 Light/surge voltage suppressor

Z	With light/surge voltage suppressor
---	-------------------------------------

## 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 
JSY3000/5000	L: With lead wire (300 mm) 	LO: Without connector 	M: With lead wire (300 mm) 	MO: Without connector 

\* Refer to page 43 for the lead wire length of L and M plug connectors.

## 7 Manual override

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

## ⚠ Caution

If the JSY3000/5000 series will be continuously energised, please be sure to use the power saving circuit (continuous duty type). Refer to Made to Order on page 40.

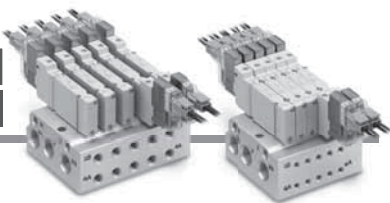
Additionally, when it is used at the energising rate over 50 %, please select the product with power saving circuit.

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

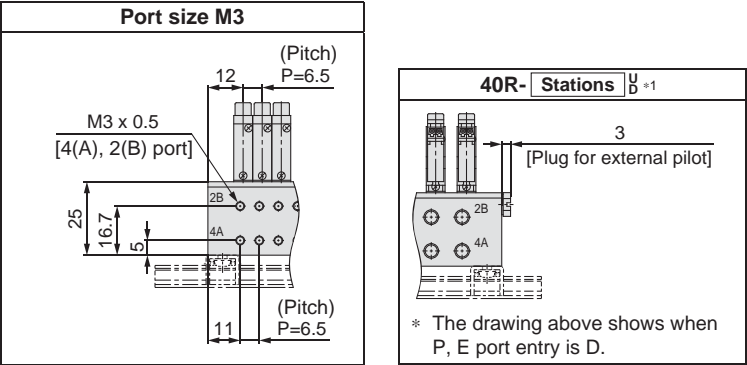
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

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

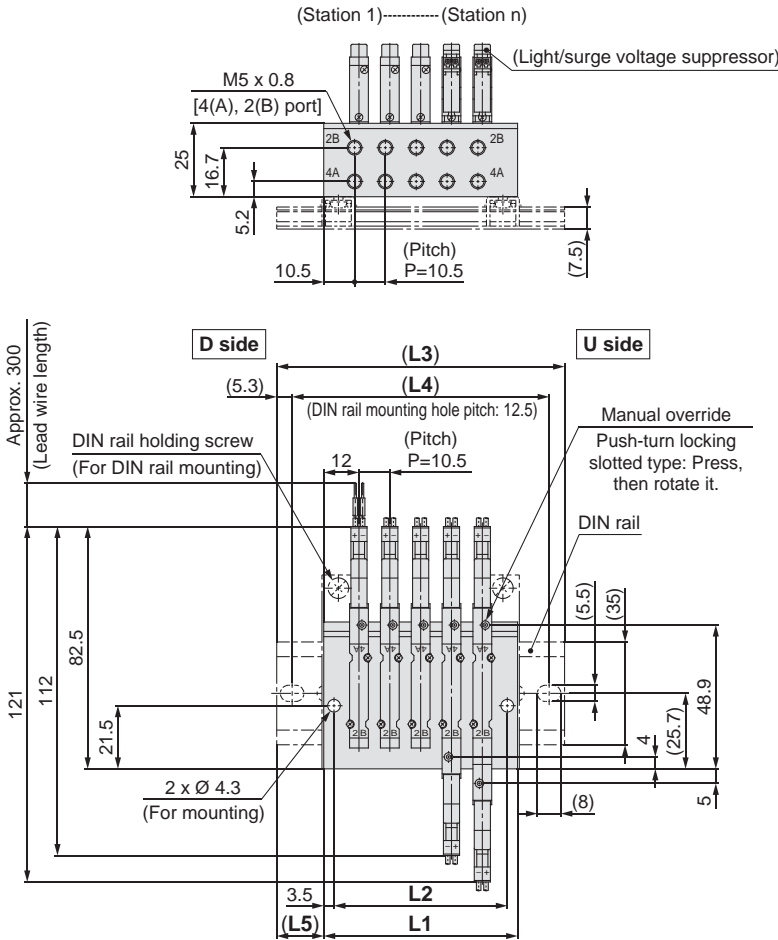
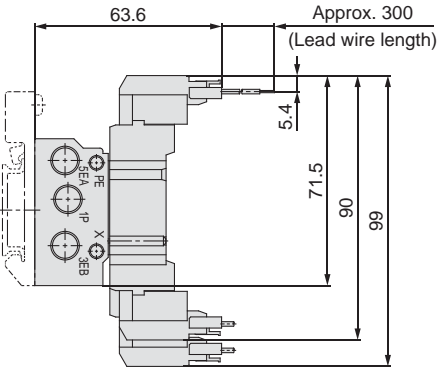


JJ5SY1-40(R)- Stations  $\frac{U}{D}$  - M3  $\square$  (D)



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

### M plug connector (M)

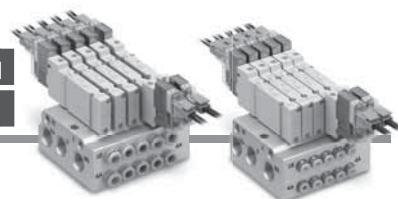


### L Dimensions: Port Size M5

		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

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

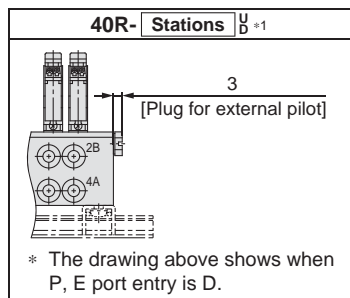
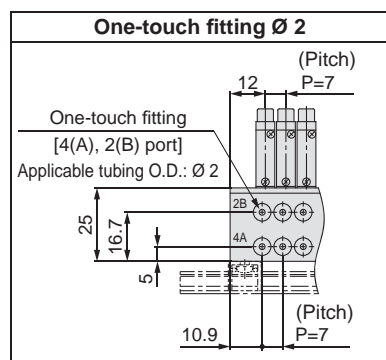


## Dimensions: JSY1000 Series

### Non Plug-in Metal Base

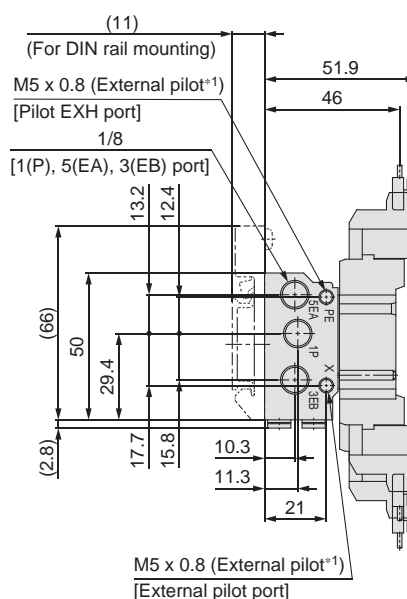
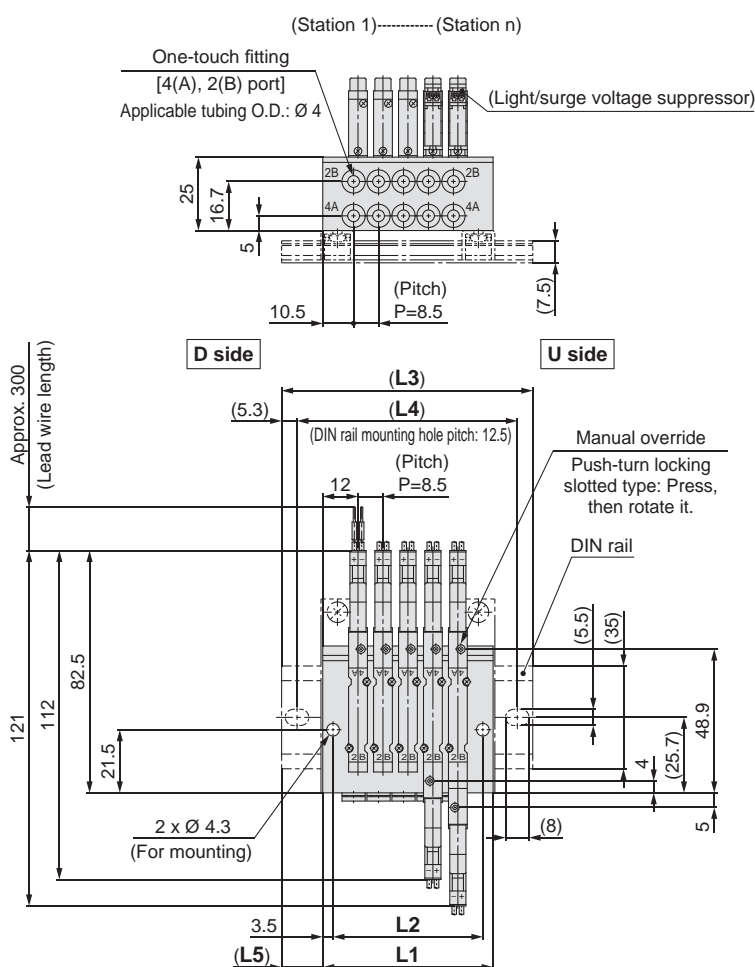
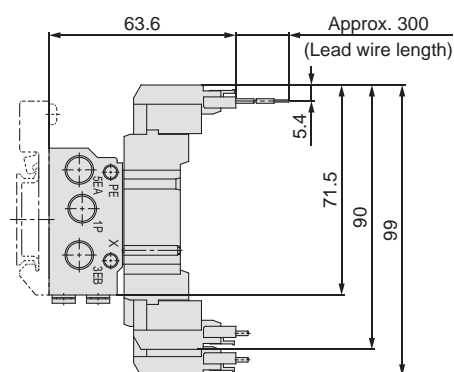
## Type 40/Side Ported

**Port Size: Ø 2, Ø 4/Fixed**

JJ5SY1-40(R)- Stations  $\frac{U}{D}$  -  $\frac{C2}{C4}$  (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

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

### L Dimensions: Port Size C2

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>L1</b>	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
<b>L2</b>	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
<b>L3</b>	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
<b>L4</b>	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
<b>L5</b>	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

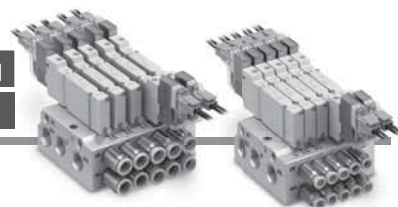
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

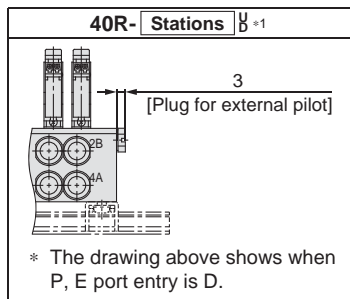
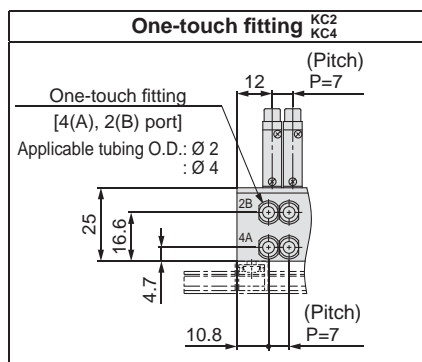
## Non Plug-in Metal Base

## Type 40/Side Ported

**Port Size: Ø 2, Ø 4, Ø 6/Replaceable**

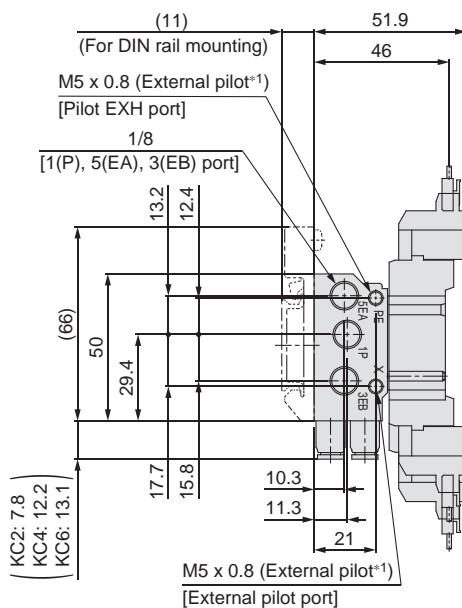
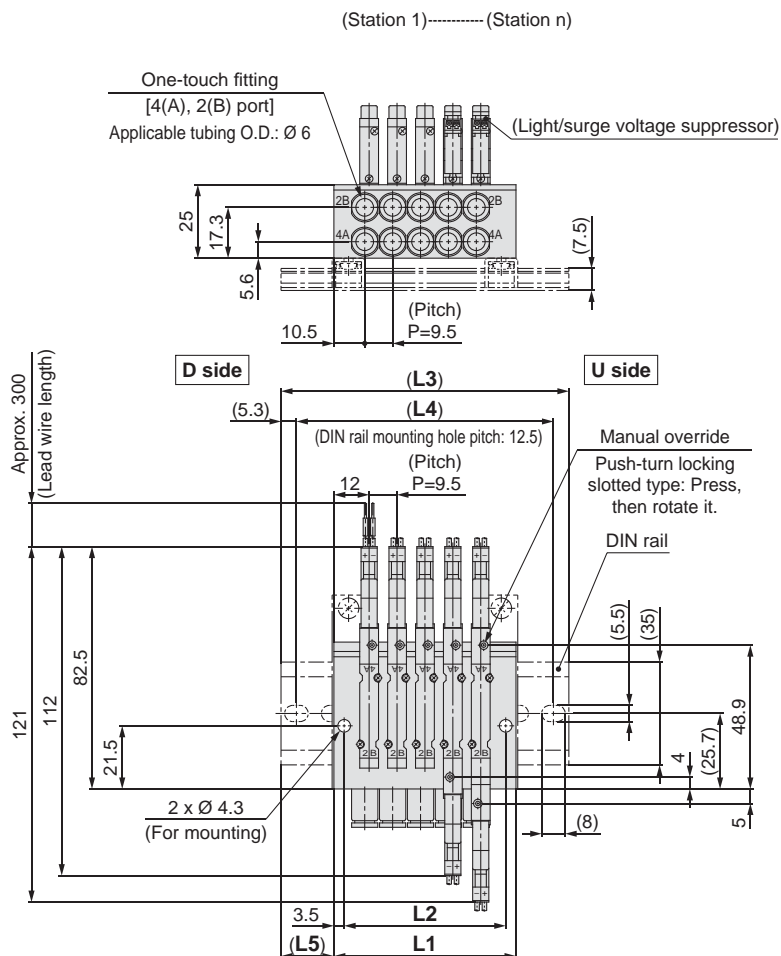
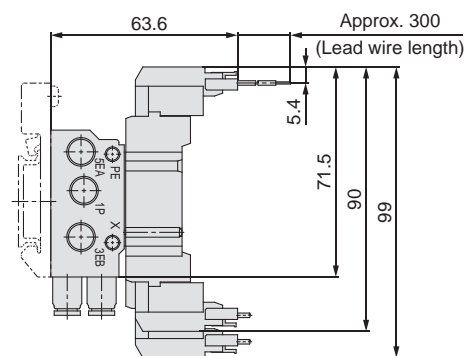
JJ5SY1-40(R)- Stations 

U	KC2
D	KC4
B	KC6

 (D)

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

### M plug connector (M)



### L Dimensions: Port Size KC6

n: Stations

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

### L Dimensions: Port Sizes KC2, KC4

n: Stations

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

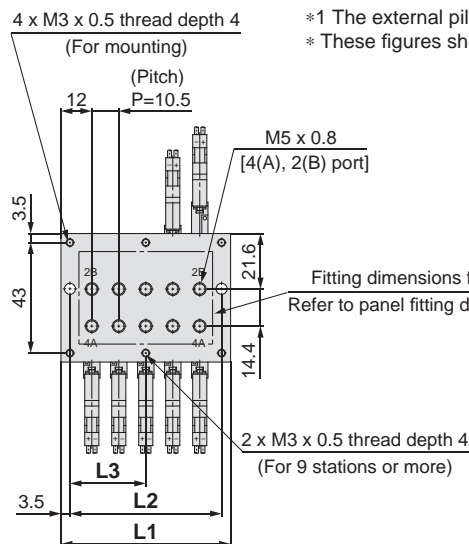
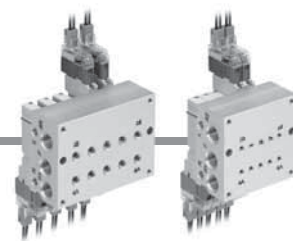


Non Plug-in

Metal Base **JSY1000/3000/5000 Series**Dimensions: **JSY1000 Series**Non Plug-in  
Metal Base

Type 41/Bottom Ported

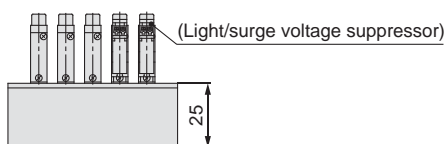
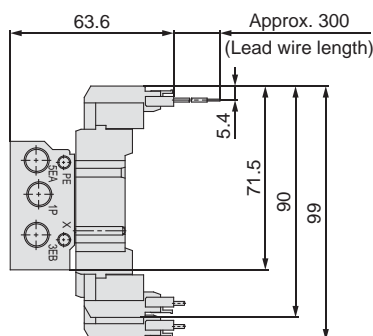
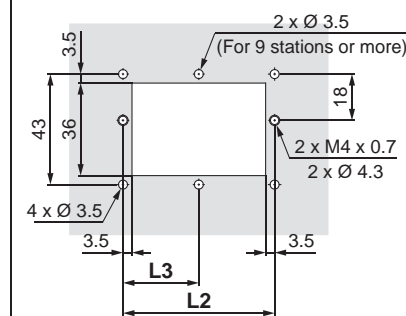
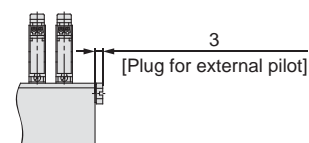
Port Size: M3, M5

JJ5SY1-41(R)- Stations  $\frac{U}{D}$  -  $\frac{M3}{M5}$  □

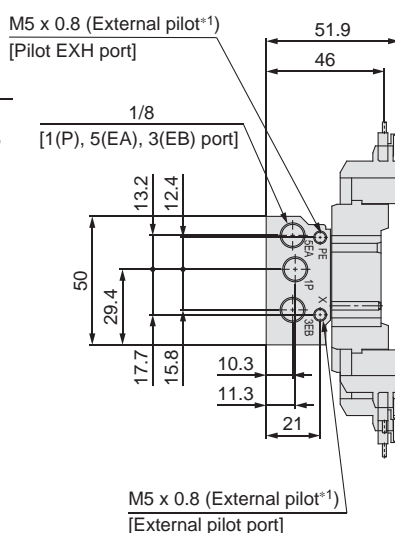
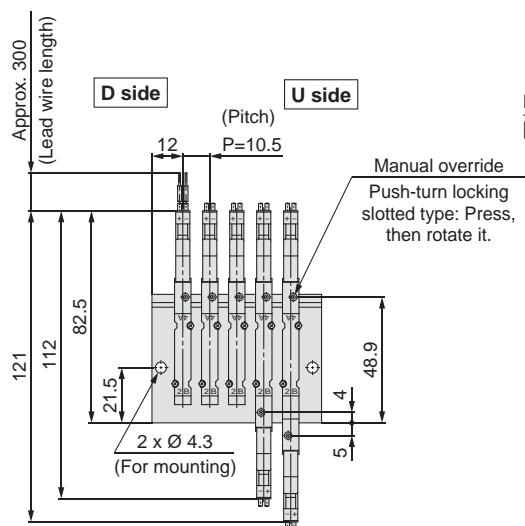
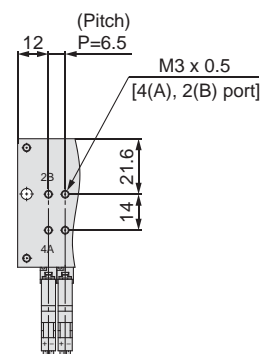
\*1 The external pilot (R) should be ordered as Made to Order.  
\* These figures show the "JJ5SY1-41-05B-M5."

Fitting dimensions for panel mounting  
Refer to panel fitting dimensions for details.

(Station 1).....(Station n)

**M plug connector (M)****Panel fitting dimensions**40R- Stations  $\frac{U}{D}$  +1

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

**Port size M3****L Dimensions: Port Size M5**

n: Stations

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

**L Dimensions: Port Size M3**

n: Stations

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

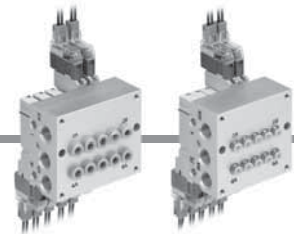
# JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

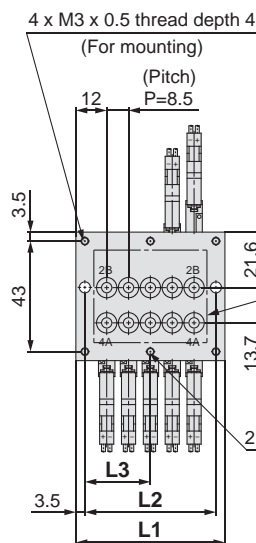
Non Plug-in  
Metal Base

Type 41/Bottom Ported

Port Size: Ø 2, Ø 4/Fixed



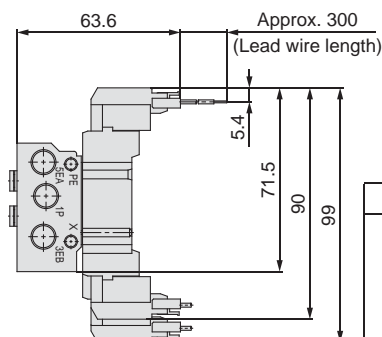
JJ5SY1-41(R)- Stations  $\frac{U}{D}$  - C2  $\square$  C4  $\square$



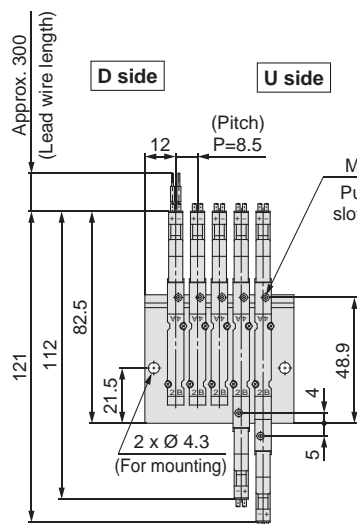
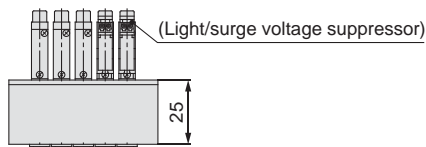
Fitting dimensions for panel mounting  
Refer to panel fitting dimensions for details.

\*1 The external pilot (R) should be ordered as Made to Order.  
\* These figures show the "JJ5SY1-41-05B-C4."

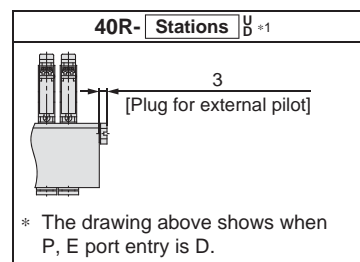
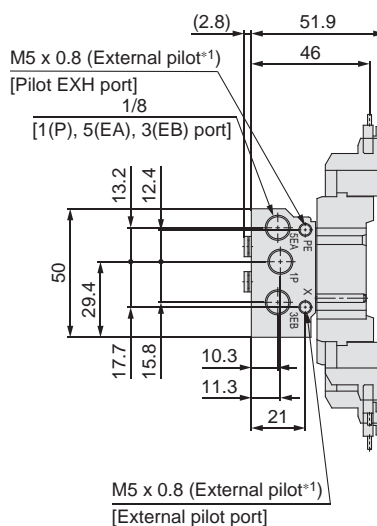
### M plug connector (M)



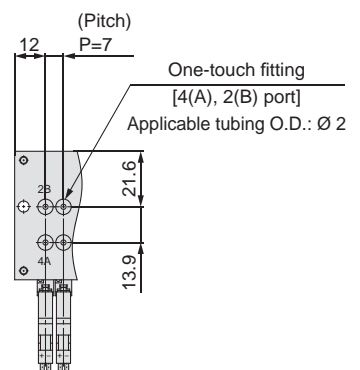
(Station 1).....(Station n)



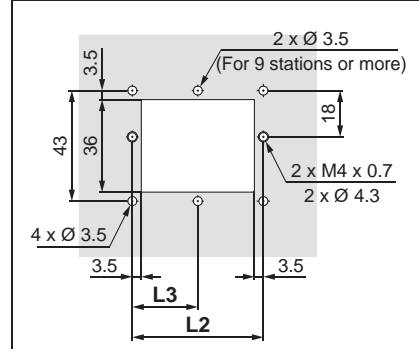
Manual override  
Push-turn locking  
slotted type: Press,  
then rotate it.



### One-touch fitting Ø 2



### Panel fitting dimensions



### 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

n: Stations

### 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

n: Stations

Non Plug-in

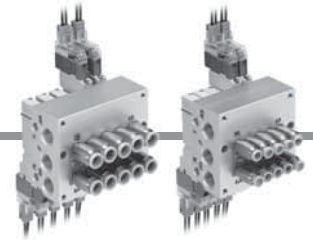
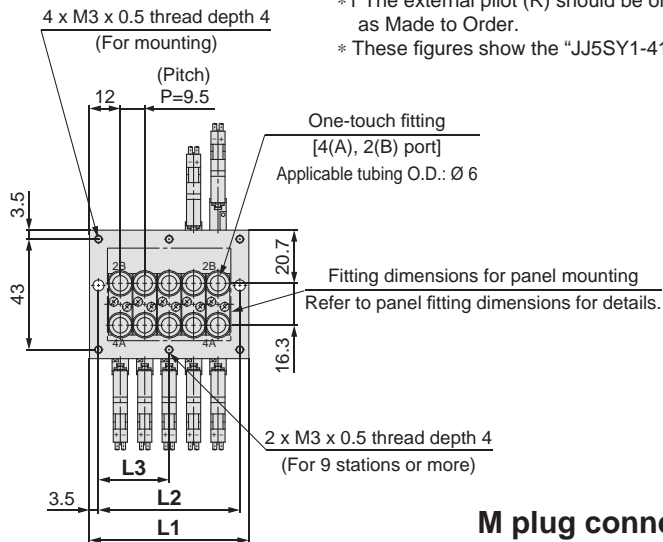
Metal Base JSY1000/3000/5000 Series

## Dimensions: JSY1000 Series

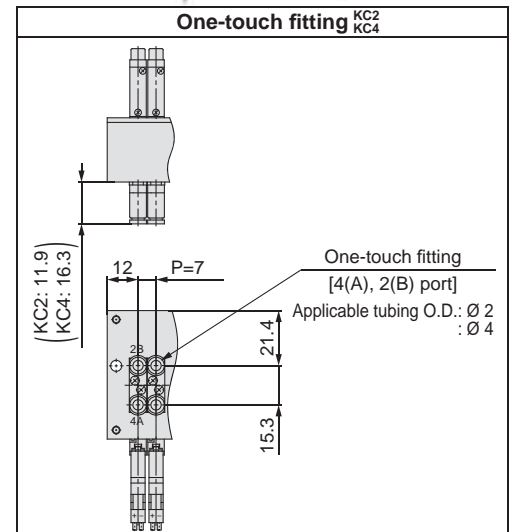
Non Plug-in  
Metal Base

Type 41/Bottom Ported

Port Size: Ø 2, Ø 4, Ø 6/Replaceable

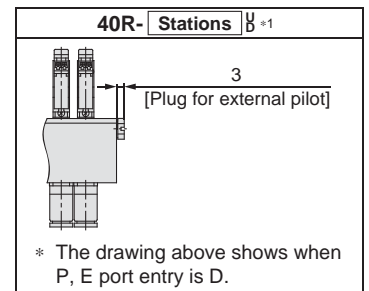
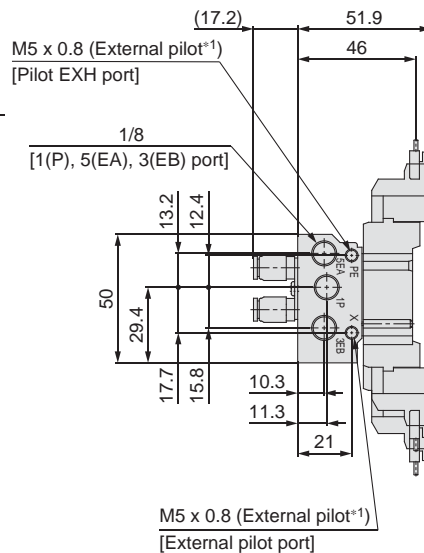
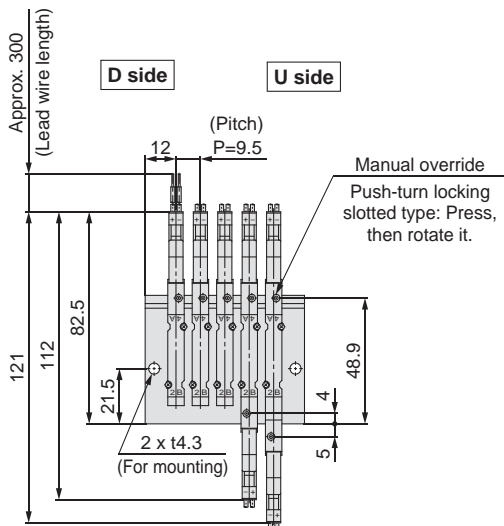
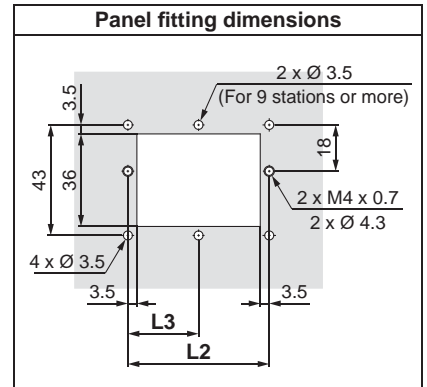
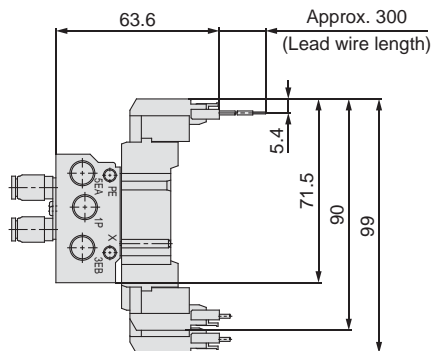
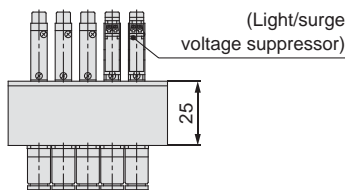
JJ5SY1-41(R)- Stations  $\frac{U}{D}$  -  $\frac{KC2}{KC4}$   $\frac{KC6}{KC6}$ 

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



## M plug connector (M)

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



## L Dimensions: Port Size KC6

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

## L Dimensions: Port Sizes KC2, KC4

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

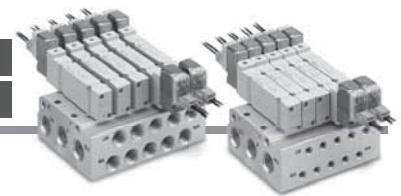
# JSY1000/3000/5000 Series

## Dimensions: JSY3000 Series

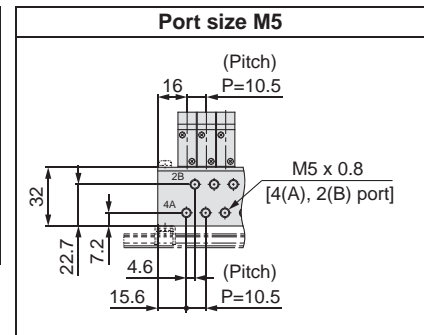
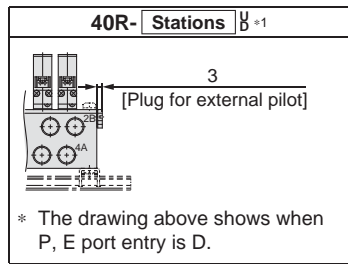
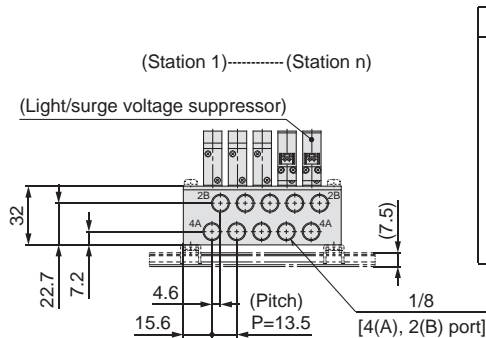
Non Plug-in  
Metal Base

Type 40/Side Ported

Port Size: M5, 1/8

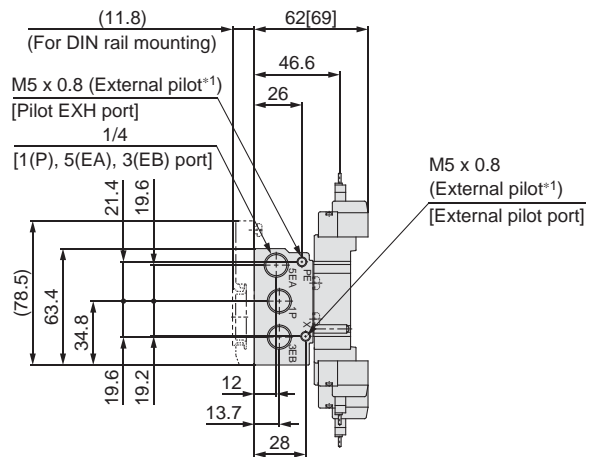
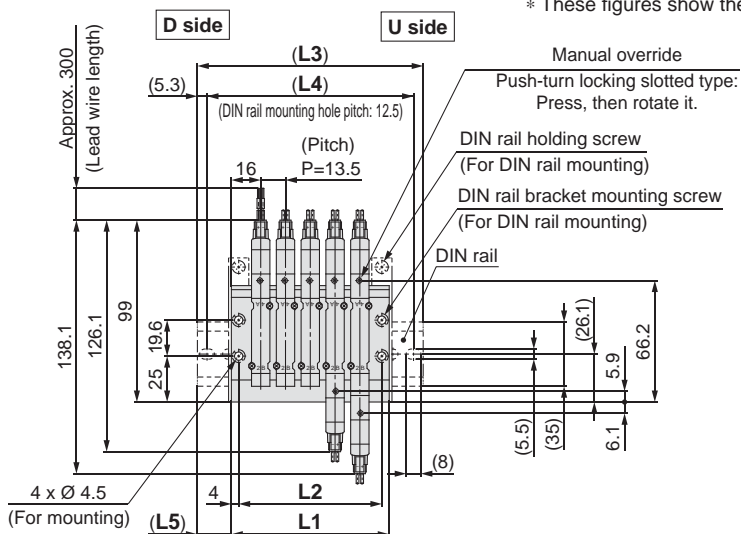


JJ5SY3-40(R)- Stations  $\frac{U}{D}$  - M5  $\frac{1}{8}$  (D)

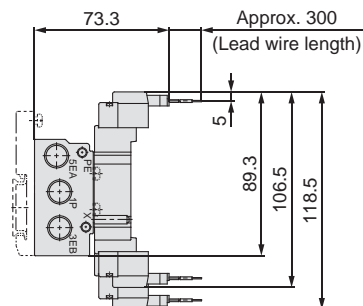


\*1 The external pilot (R) should be ordered as Made to Order.

\* These figures show the "JJ5SY3-40-05-01."



### M plug connector (M)



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

n: Stations

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

### L Dimensions: Port Size M5

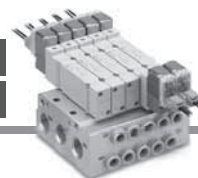
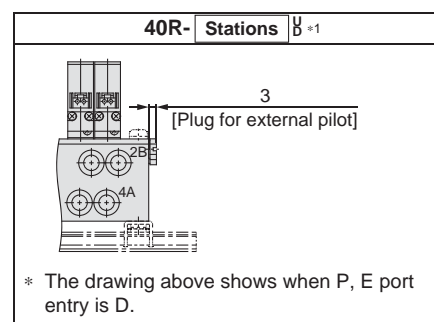
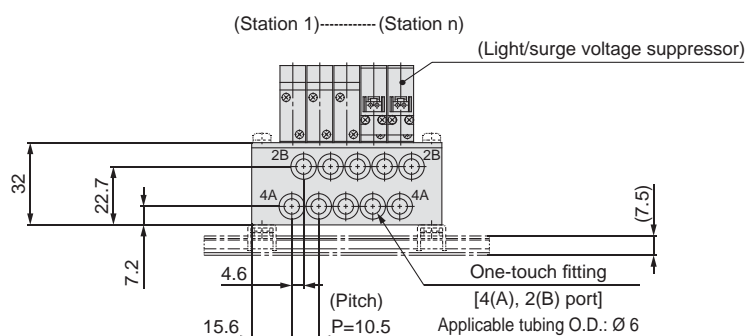
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0	181.5	192.0	202.5	213.0	223.5
L3	73.0	85.5	98.0	110.5	123.0	135.5	148.0	160.5	173.0	185.5	198.0	210.5	223.0	235.5	248.0	260.5	273.0	285.5	298.0
L4	62.5	75.0	87.5	100.0	112.5	125.0	137.5	150.0	162.5	175.0	187.5	200.0	212.5	225.0	237.5	250.0	262.5	275.0	287.5
L5	15.5	16.5	17.5	18.5	19.5	20.5	21.5	22.5	23.5	24.5	25.5	26.5	27.5	28.5	29.5	30.5	31.5	32.5	33.5

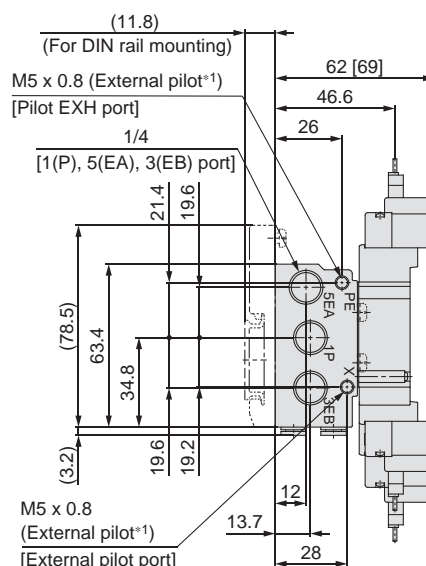
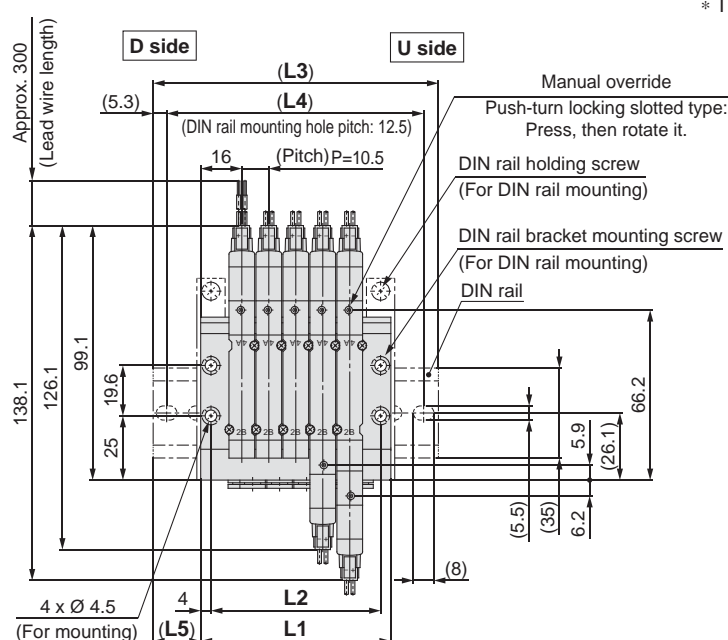
## Dimensions: JSY3000 Series

## Non Plug-in Metal Base

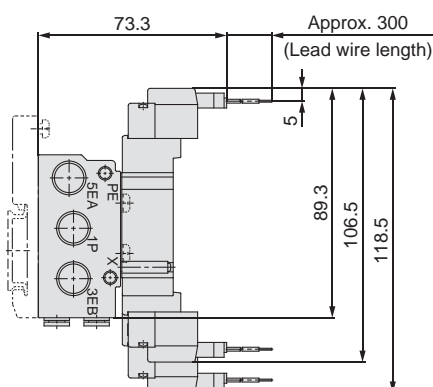
Type **40/Side** Ported  
Port Size: Ø 6/Fixed

JJ5SY3-40(R)- Stations <sup>U</sup><sub>D</sub> - C6 ☐ (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)**



**L Dimensions: Port Size C6**

n: Stations

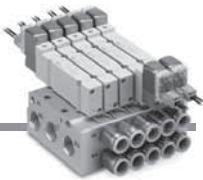
L Dimensions: Port Size C																			n: Stations	
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
L1	42.5	53.0	63.5	74.0	84.5	95.0	105.5	116.0	126.5	137.0	147.5	158.0	168.5	179.0	189.5	200.0	210.5	221.0	231.5	
L2	34.5	45.0	55.5	66.0	76.5	87.0	97.5	108.0	118.5	129.0	139.5	150.0	160.5	171.0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

JSY1000/3000/5000 Series

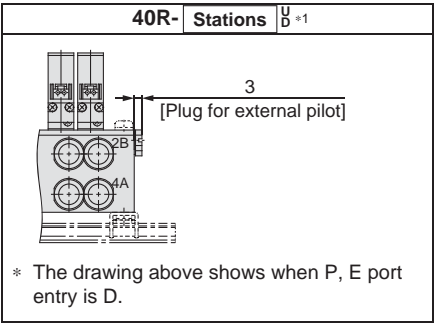
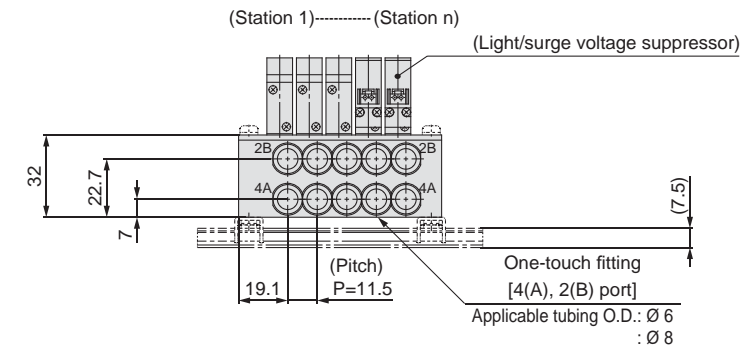
Dimensions: JSY3000 Series

Non Plug-in  
Metal Base

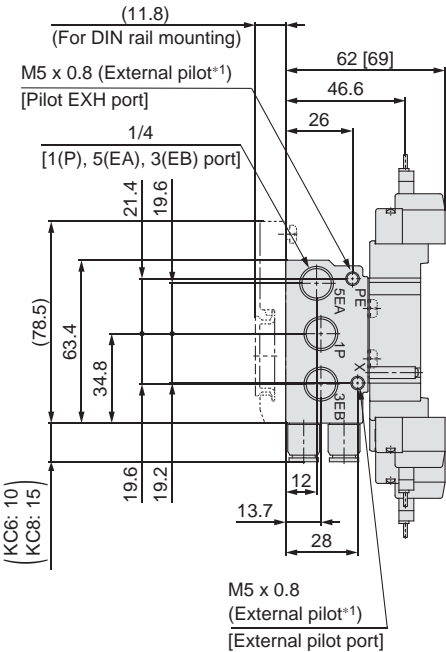
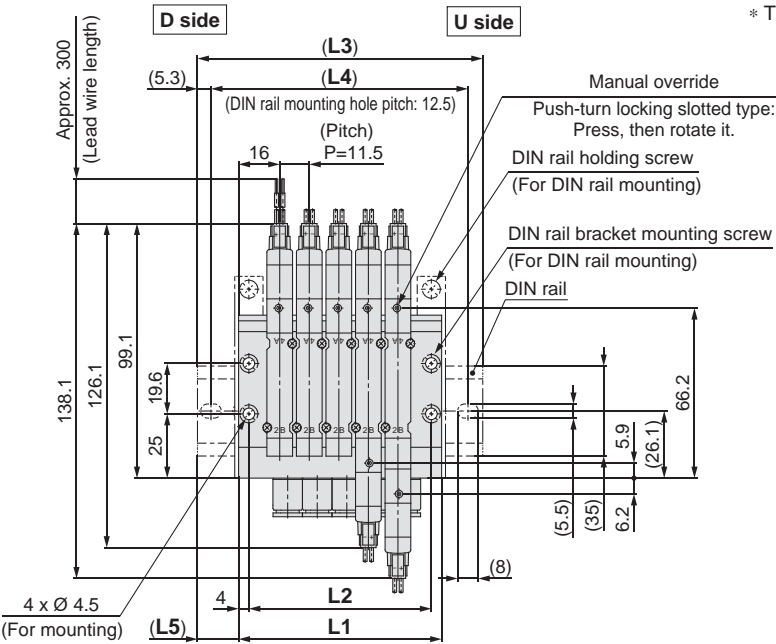
Type 40/Side Ported  
Port Size: Ø 6, Ø 8/Replaceable



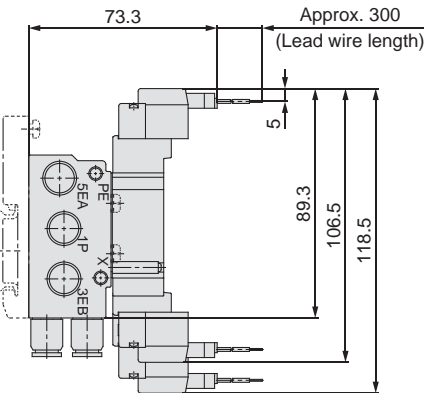
JJ5SY3-40(R)- Stations  $\frac{U}{D}$  - KC6 KC8 □(D)



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



M plug connector (M)



L Dimensions: Port Sizes KC6, KC8

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

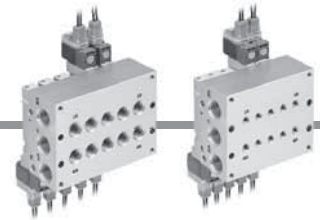
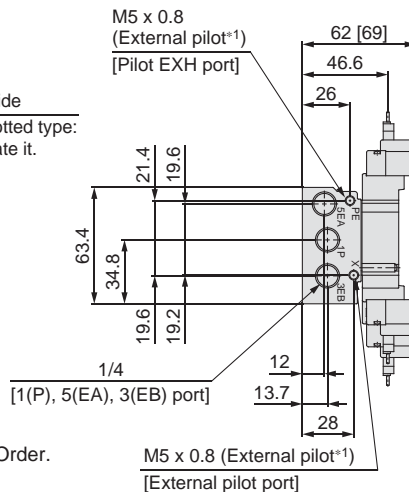
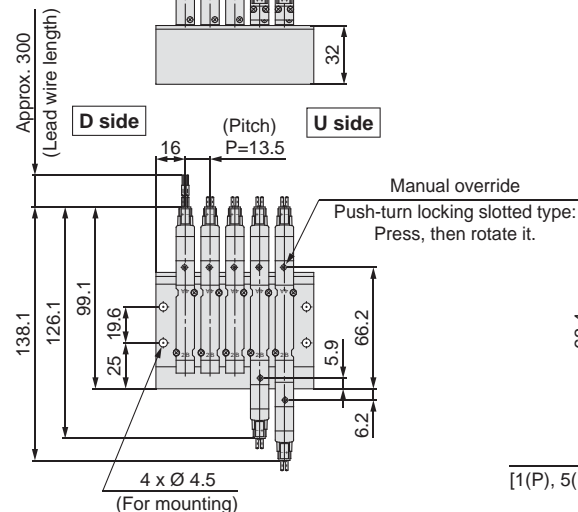
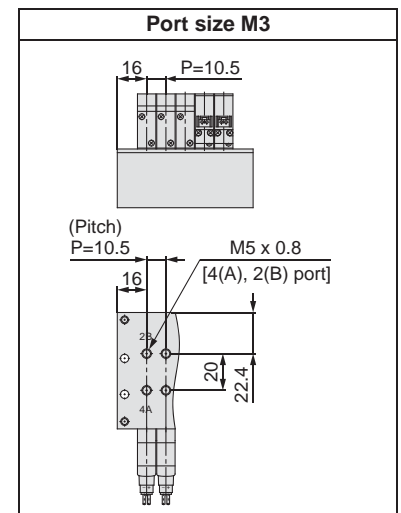
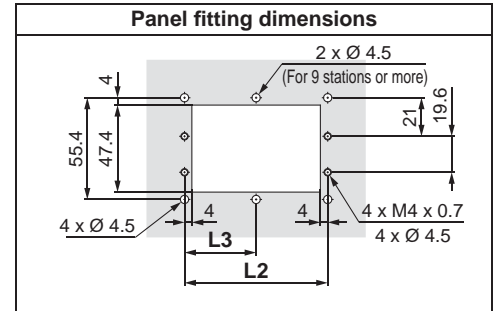
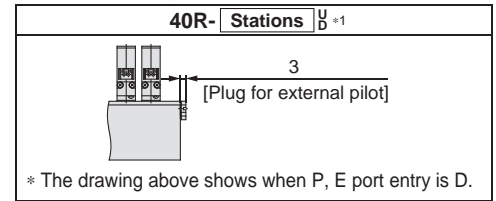
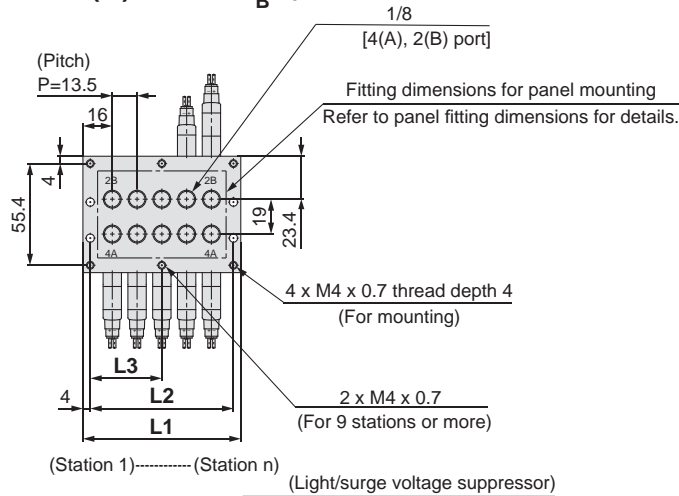


## Dimensions: JSY3000 Series

Non Plug-in  
Metal Base

Type 41/Bottom Ported

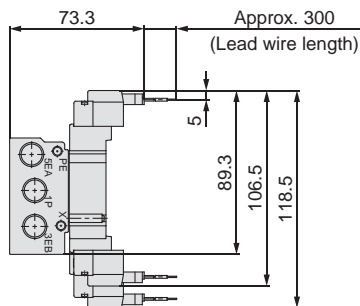
Port Size: M5, 1/8

JJ5SY3-41(R)- Stations  $\frac{U}{D} - \frac{M5}{01}$  ☐

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

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

## M plug connector (M)



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

n: Stations

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

## L Dimensions: Port Size M5

n: Stations

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

# JSY1000/3000/5000 Series

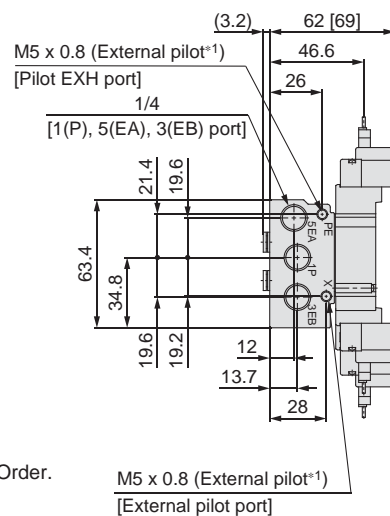
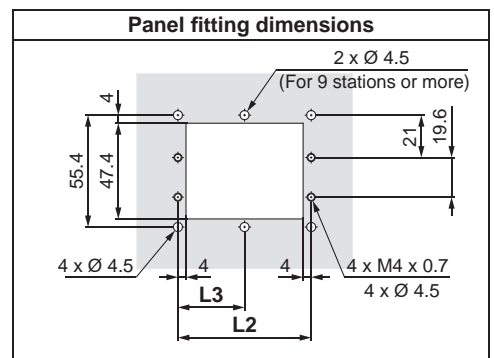
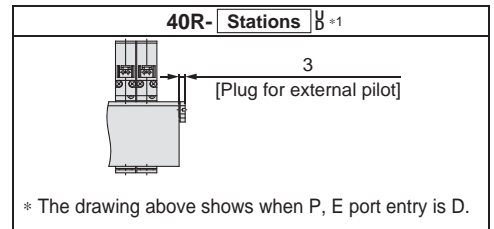
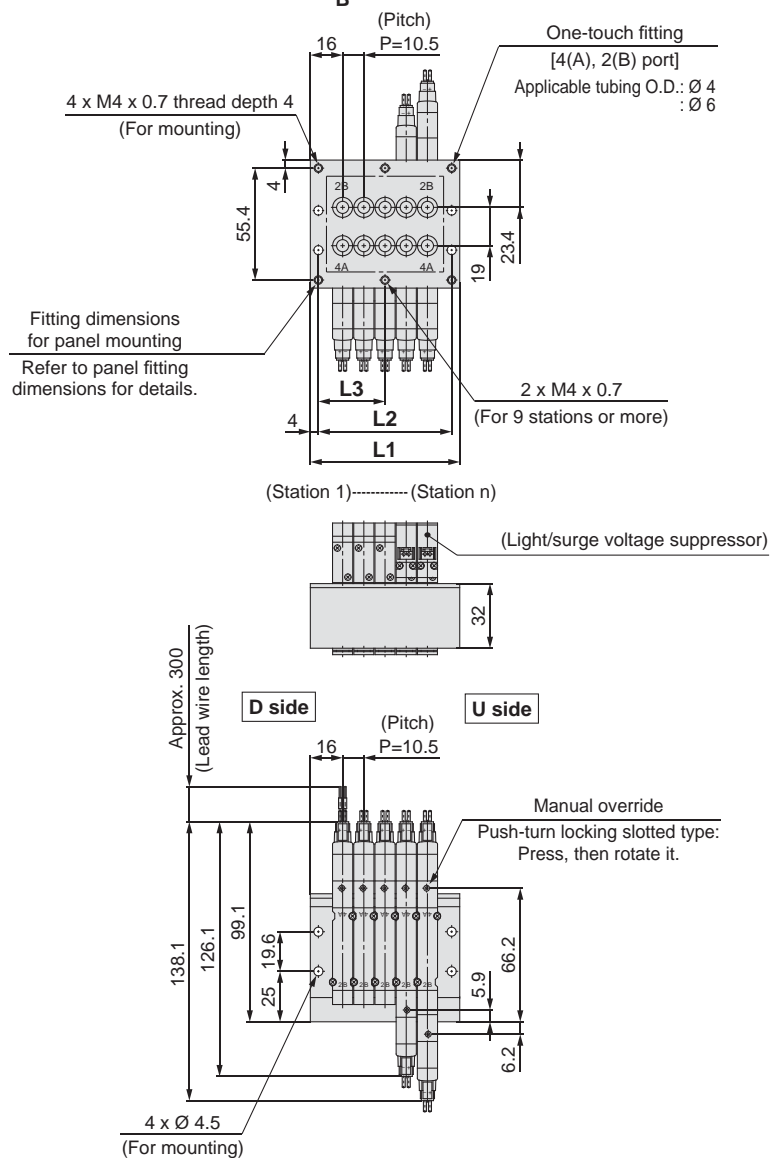
## Dimensions: JSY3000 Series

Non Plug-in  
Metal Base

Type 41/Bottom Ported  
Port Size: Ø 6/Fixed

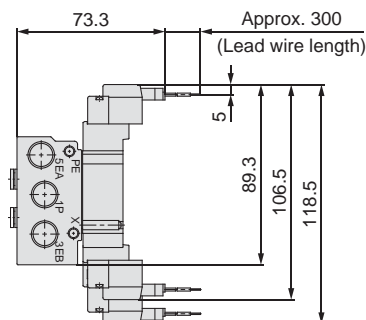


JJ5SY3-41(R)- Stations  $\frac{U}{D}$ -C6 □



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

### M plug connector (M)

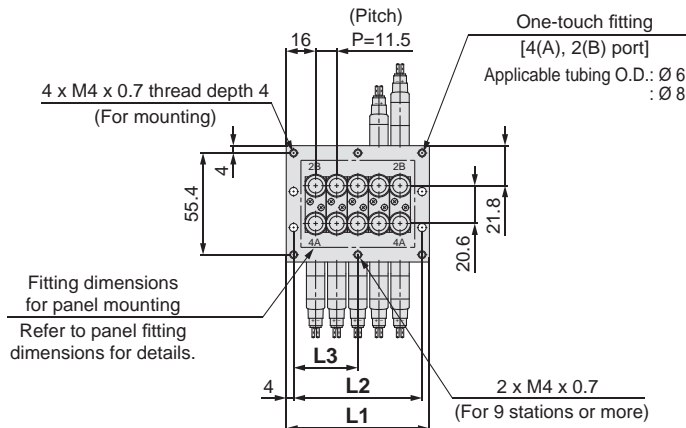


### L Dimensions: Port Size C6

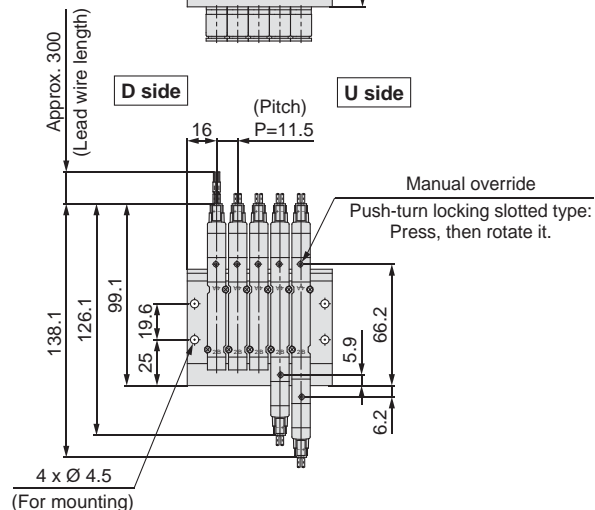
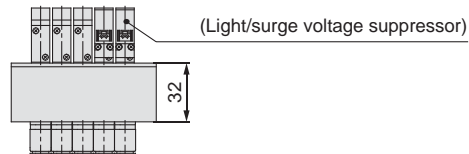
n: Stations

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

## Dimensions: JSY3000 Series

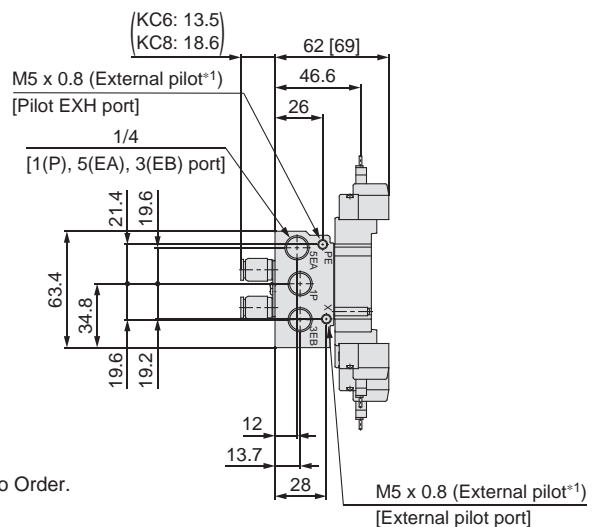
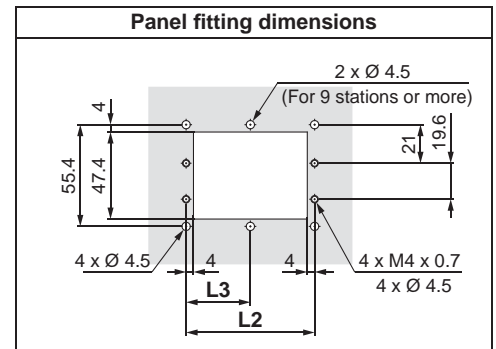
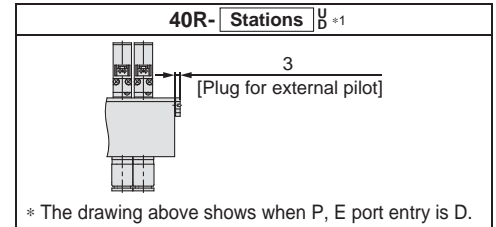
Non Plug-in  
Metal BaseType 41/Bottom Ported  
Port Size: Ø 6, Ø 8/ReplaceableJJ5SY3-41(R)- Stations  $\frac{U}{D}$  - KC6 KC8

(Station 1).....(Station n)

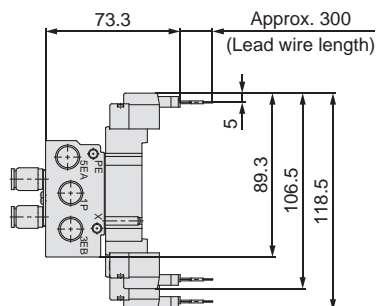


\*1 The external pilot (R) should be ordered as Made to Order.

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



## M plug connector (M)



## 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

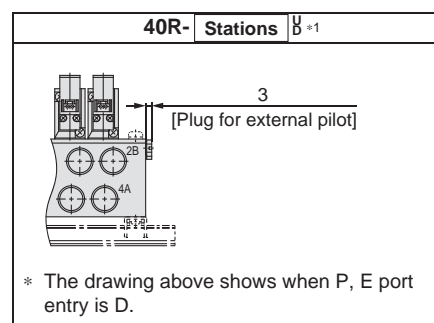
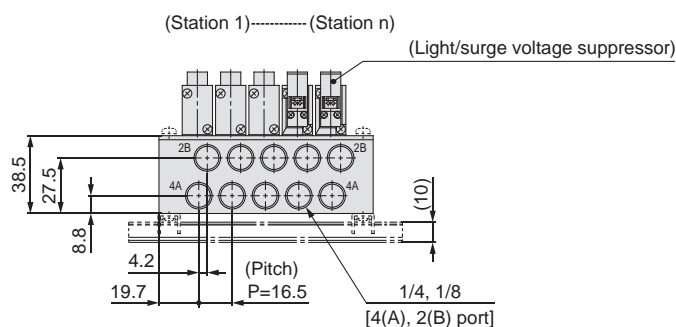
# JSY1000/3000/5000 Series

## Dimensions: JSY5000 Series

## Non Plug-in Metal Base

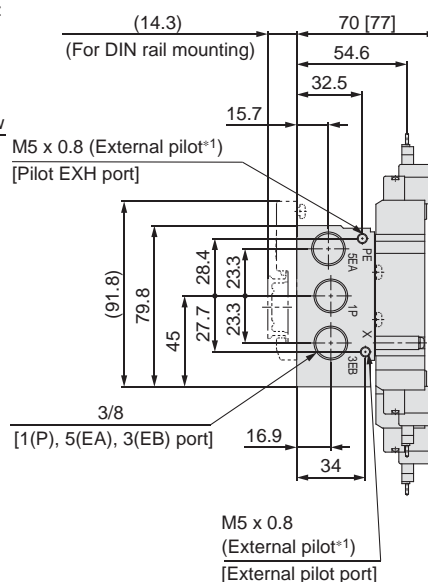
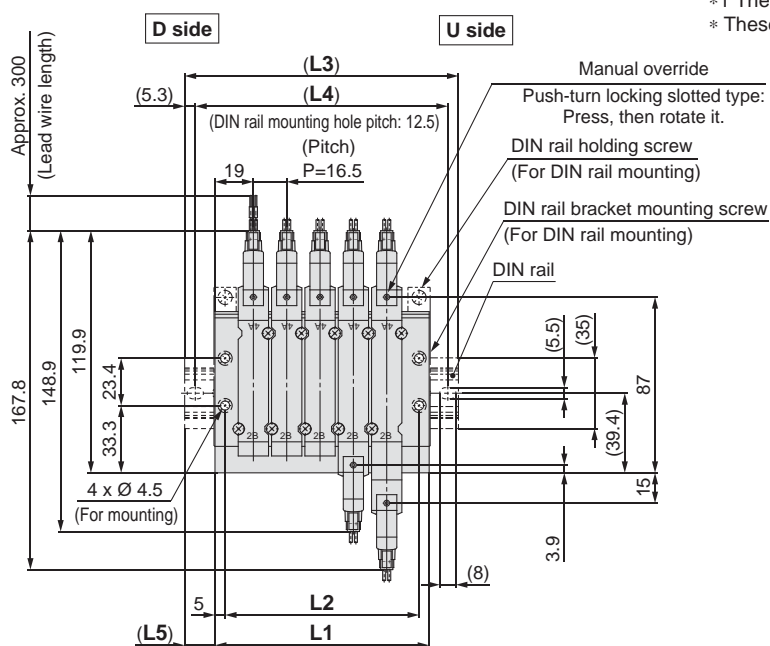
## Type 40/Side Ported

**Port Size: 1/8, 1/4**

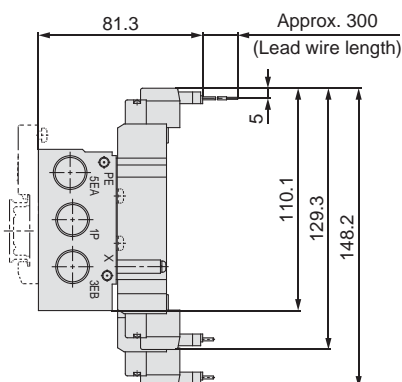
JJ5SY5-40(R)- Stations <sup>U</sup>01-02 ☐ (D)

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

\* These figures show the "JJ5SY5-40-05B-02."



**M plug connector (M)**



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

n: Stations

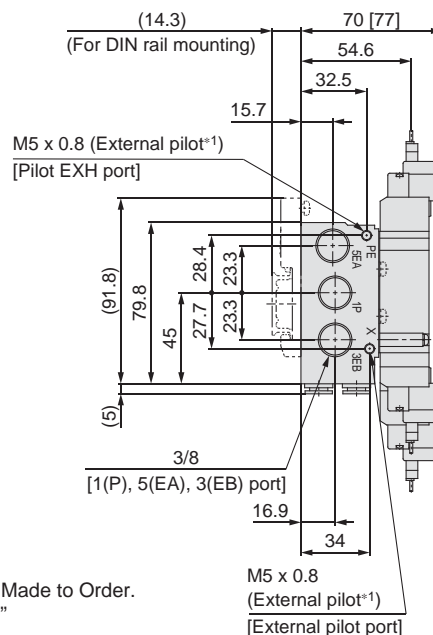
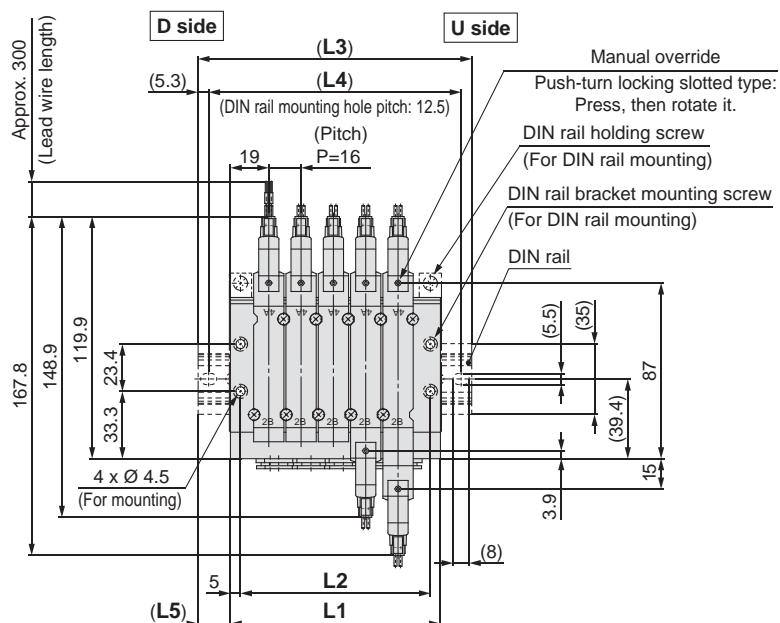
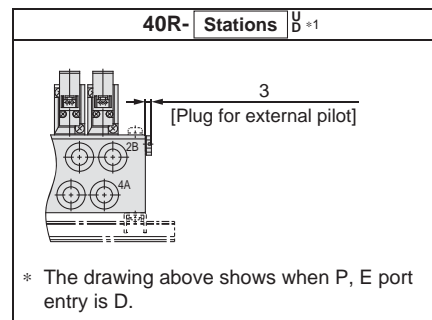
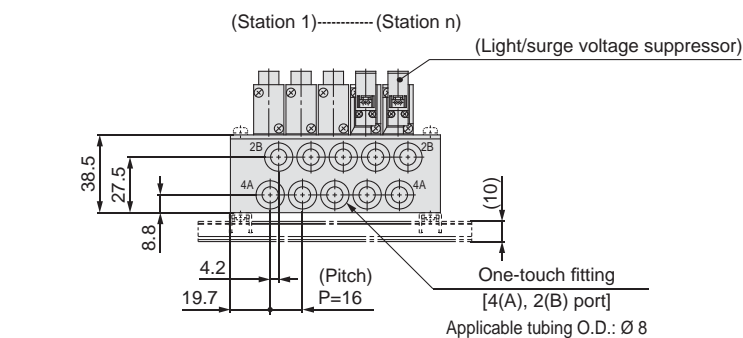
L Dimensions: Port Sizes 1" (17.5), 1.5" (38.1), 2" (50.8)																		n: Stations	
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	56.5	73.0	89.5	106.0	122.5	139.0	155.5	172.0	188.5	205.0	221.5	238.0	254.5	271.0	287.5	304.0	320.5	337.0	353.5
L2	46.5	63.0	79.5	96.0	112.5	129.0	145.5	162.0	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



## Dimensions: JSY5000 Series

## Non Plug-in Metal Base

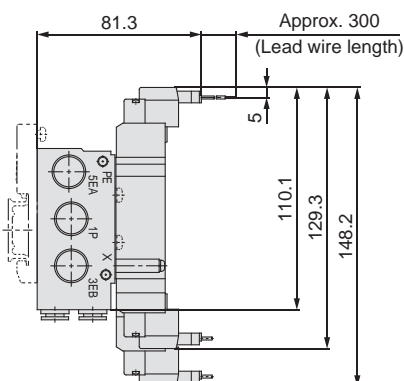
## Type 40/Side Ported

**Port Size: Ø 8/Fixed**JJ5SY5-40(R)- Stations <sup>U</sup><sub>D</sub> - C8 □ (D)

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

\* These figures show the "JJ5SY5-40-05B-C8."

**M plug connector (M)**



### L Dimensions: Port Size C8

n: Stations

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

# JSY1000/3000/5000 Series

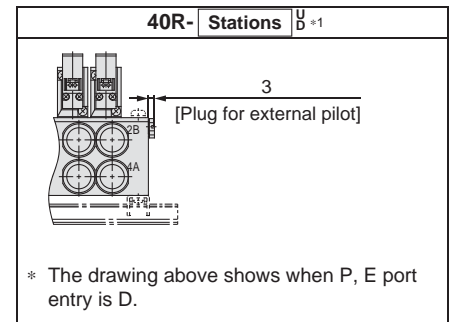
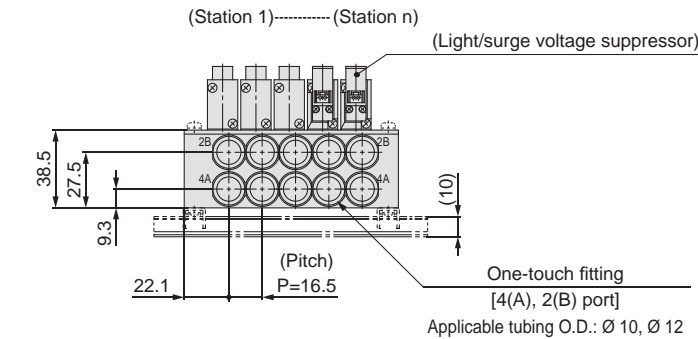
## Dimensions: JSY5000 Series

Non Plug-in  
Metal Base

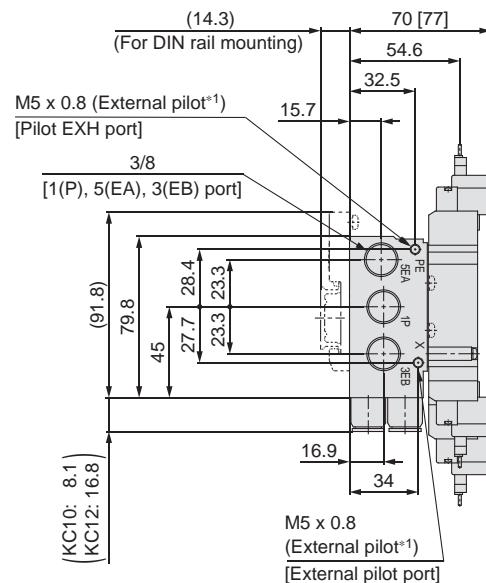
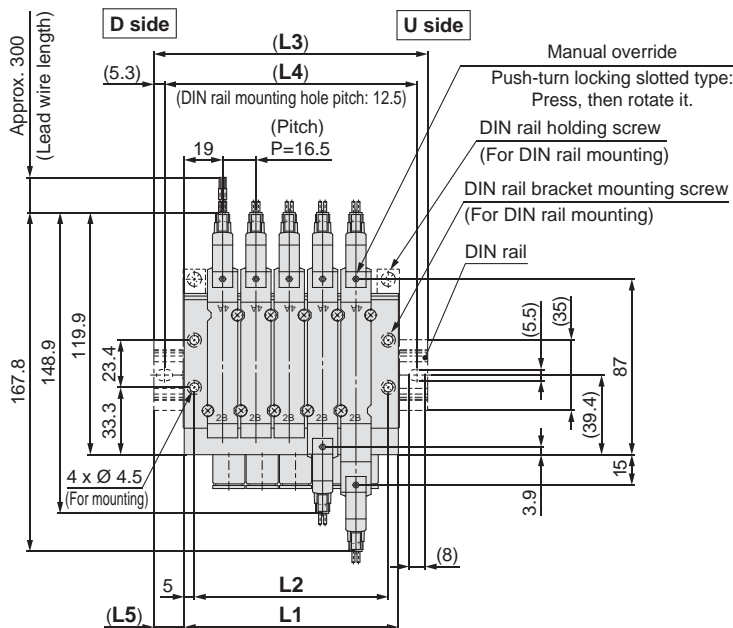
Type 40/Side Ported  
Port Size: Ø 10, Ø 12/Replaceable



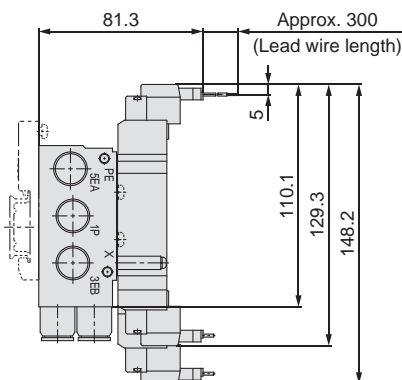
JJ5SY5-40(R)- Stations  $\frac{U}{D}$  - KC10 KC12 □(D)



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



### M plug connector (M)



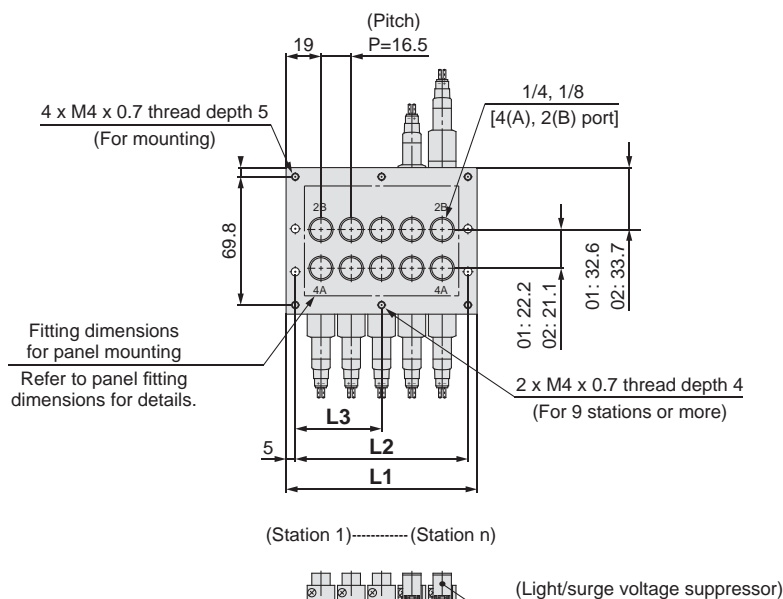
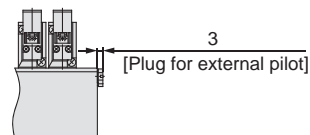
### L Dimensions: Port Sizes KC10, KC12

n: Stations

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

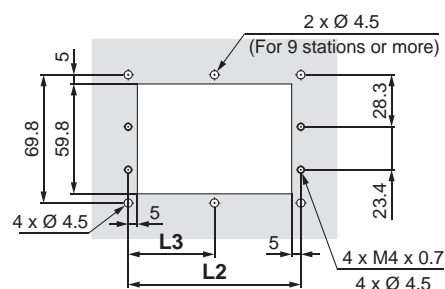


## Dimensions: JSY5000 Series

Non Plug-in  
Metal BaseType 41/Bottom Ported  
Port Size: 1/8, 1/4JJ5SY5-41(R)- Stations  $\frac{U}{D}$  - 01  $\square$ 40R- Stations  $\frac{U}{D}$  \*1

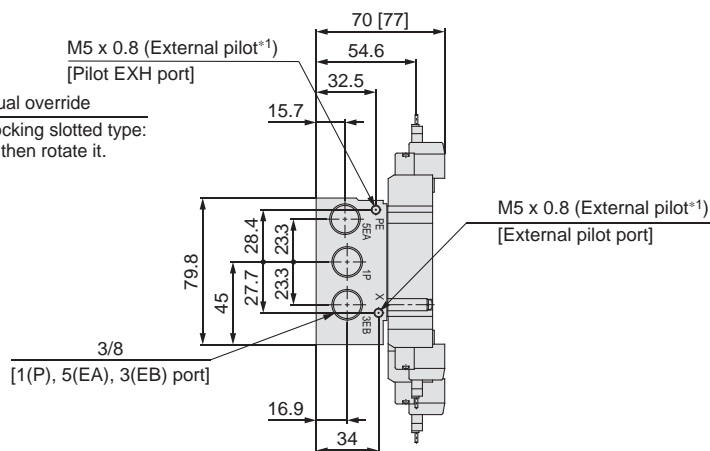
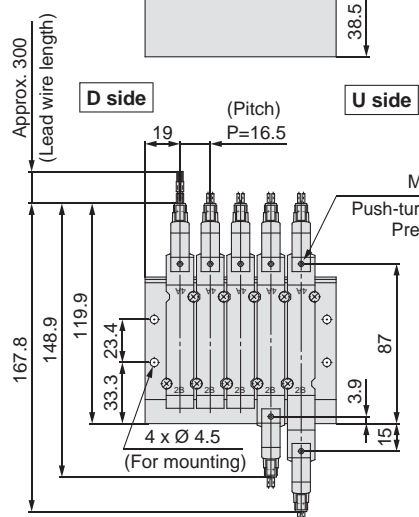
\* The drawing above shows when P, E port entry is D.

## Panel fitting dimensions

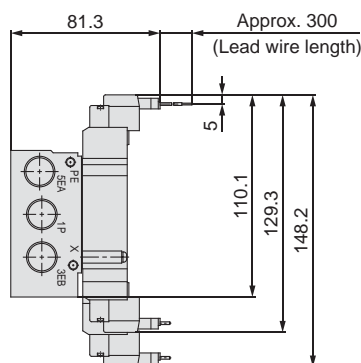


\*1 The external pilot (R) should be ordered as Made to Order.

\* These figures show the "JJ5SY5-41-05B-02."



## M plug connector (M)



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

n: Stations

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

JSY1000/3000/5000 Series

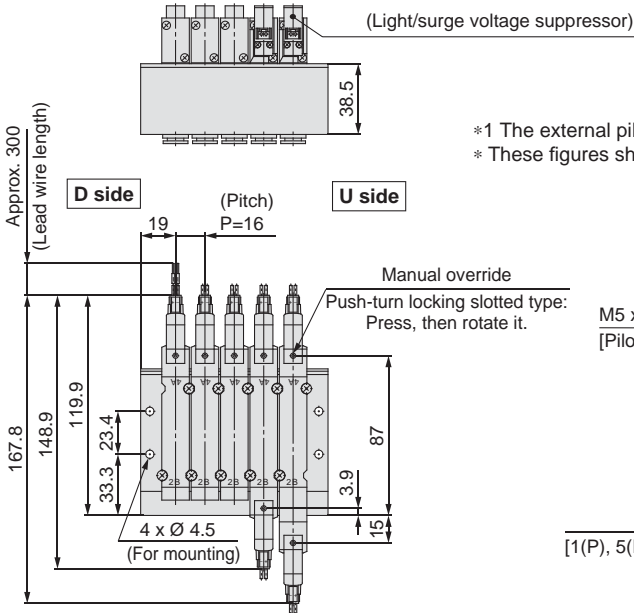
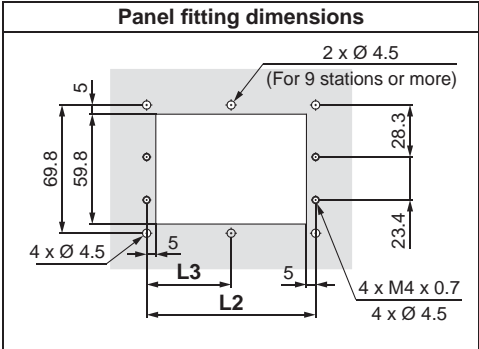
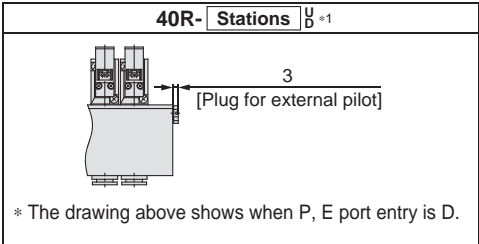
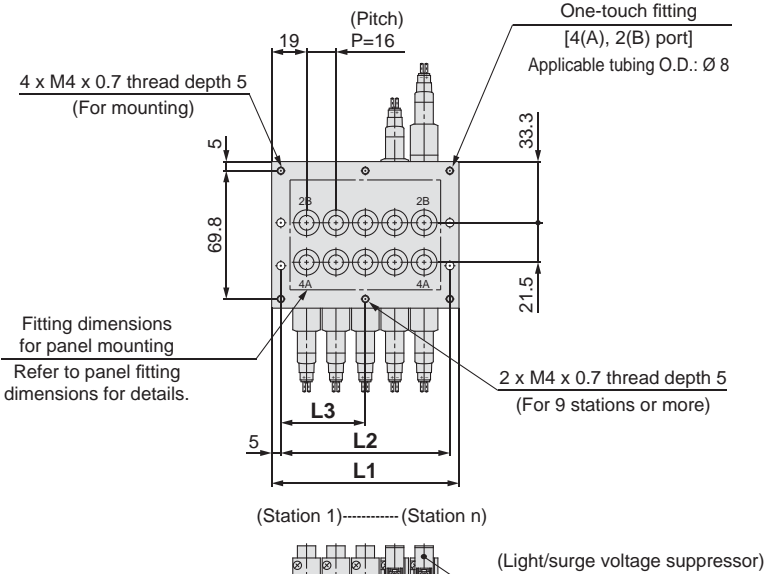
Dimensions: JSY5000 Series

Non Plug-in  
Metal Base

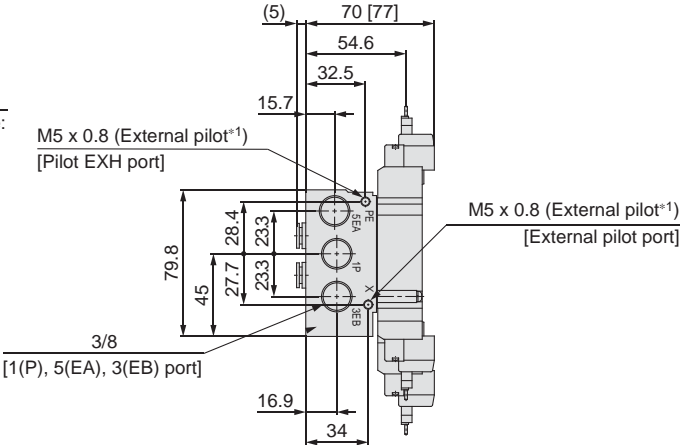
Type 41/Bottom Ported  
Port Size: Ø 8/Fixed



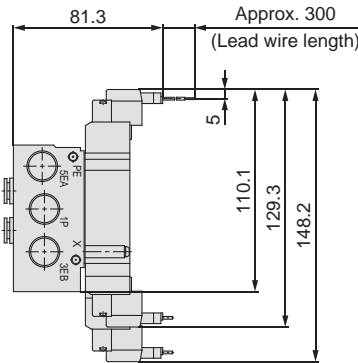
JJ5SY5-41(R)- Stations  $\frac{U}{D}$  - C8 □



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



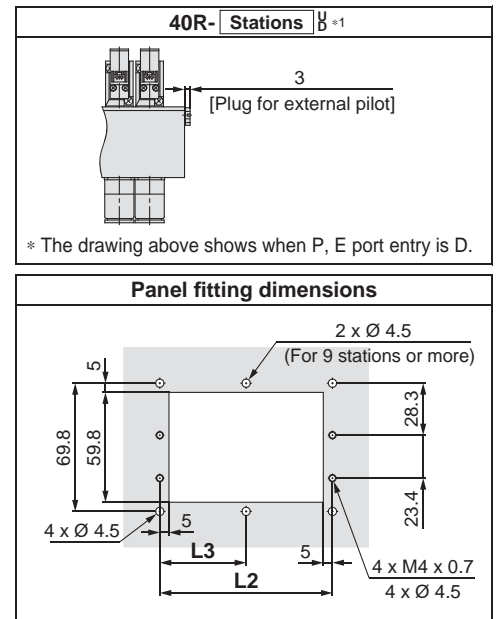
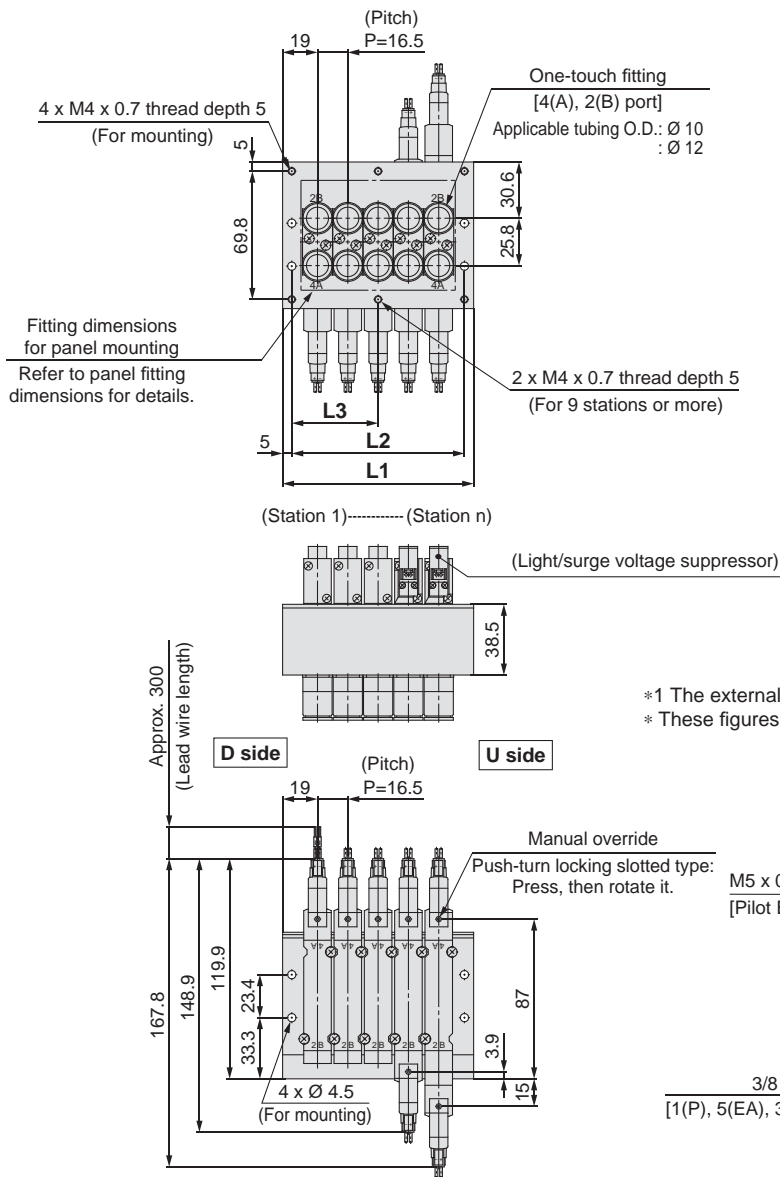
M plug connector (M)



L Dimensions: Port Size C8

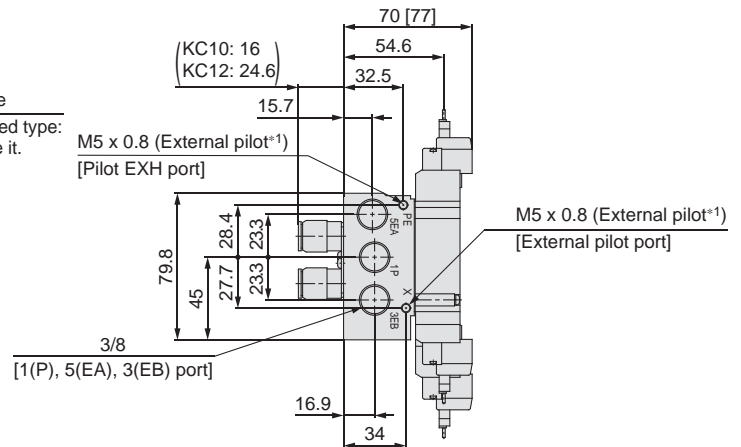
		n: Stations																		
L	n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1		54.0	70.0	86.0	102.0	118.0	134.0	150.0	166.0	182.0	198.0	214.0	230.0	246.0	262.0	278.0	294.0	310.0	326.0	342.0
L2		44.0	60.0	76.0	92.0	108.0	124.0	140.0	156.0	172.0	188.0	204.0	220.0	236.0	252.0	268.0	284.0	300.0	316.0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

## Dimensions: JSY5000 Series

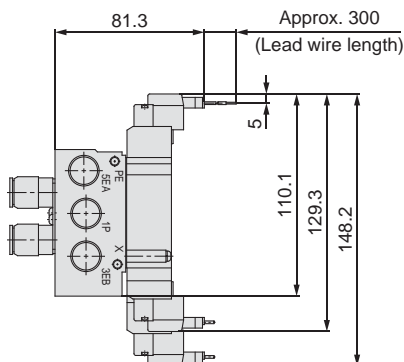
Non Plug-in  
Metal BaseType 41/Bottom Ported  
Port Size: Ø 10, Ø 12/ReplaceableJJ5SY5-41(R)- Stations  $\frac{U}{D}$  KC10 ☐ KC12 ☐

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

\* These figures show the "JJ5SY5-41-05B-KC12."



## M plug connector (M)



## L Dimensions: Port Sizes KC10, KC12

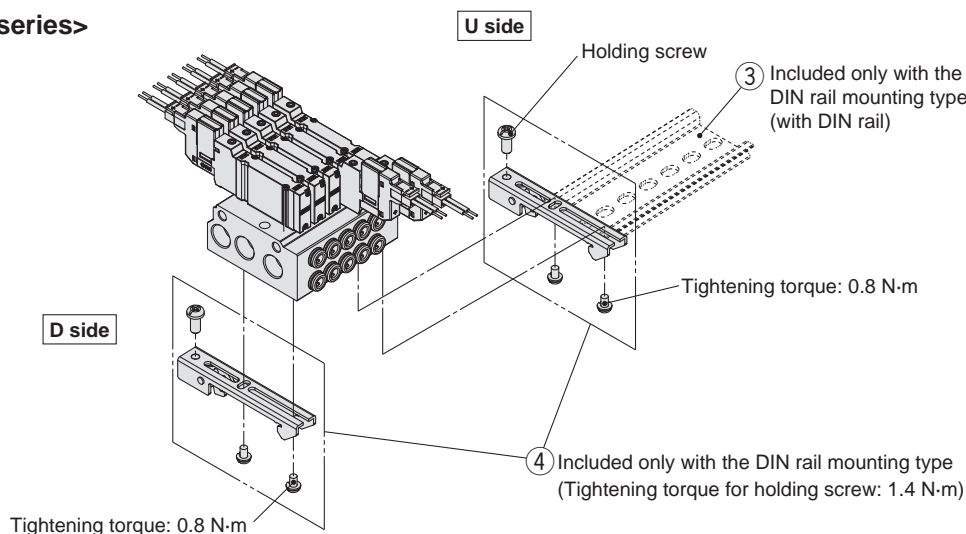
n: Stations

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

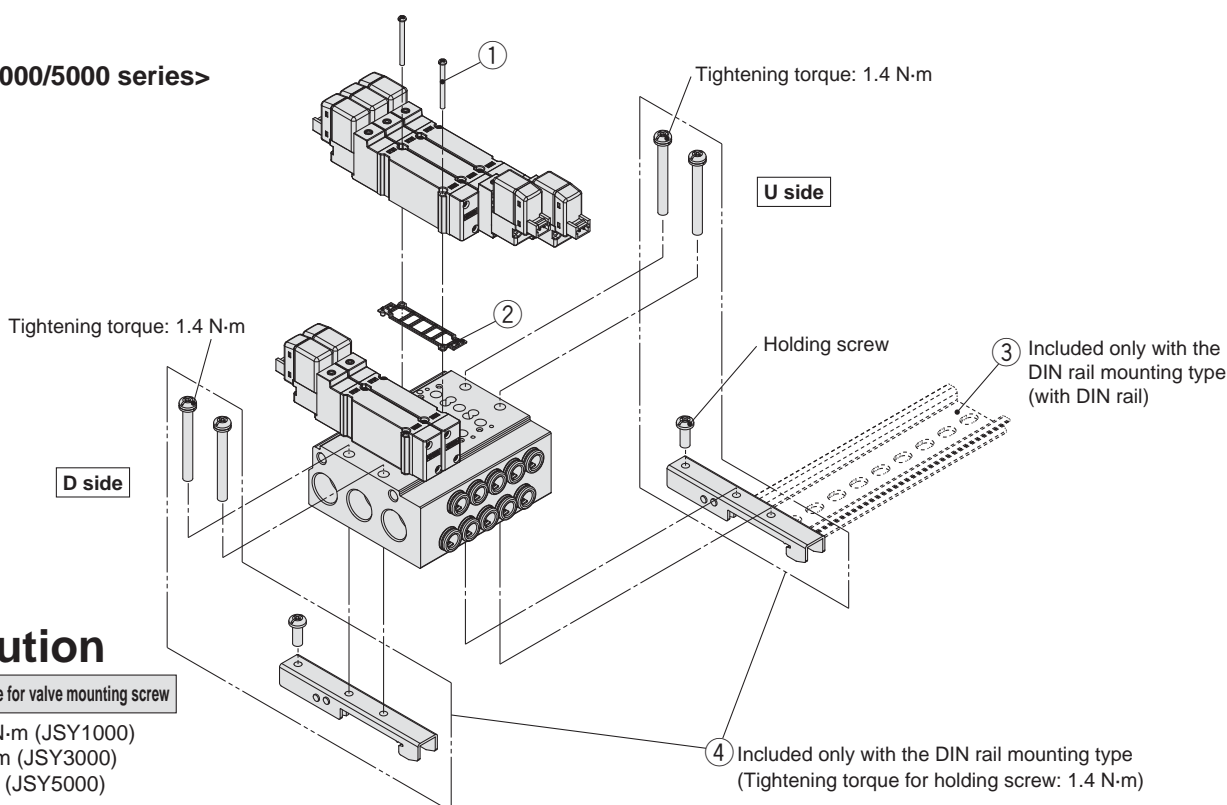
# JSY1000/3000/5000 Series Type 40, 41

## Non Plug-in Metal Base Manifold Exploded View

### <JSY1000 series>



### <JSY3000/5000 series>



### ⚠ Caution

Tightening torque for valve mounting screw

M1.4: 0.06 N·m (JSY1000)

M2: 0.16 N·m (JSY3000)

M3: 0.8 N·m (JSY5000)

### Manifold Parts Nos.

No.	Description	Part number			Note
		JSY1000	JSY3000	JSY5000	
①	Valve mounting screw	JSY11V-23-1A (M1.4 x 21.5)	JSY31V-23-4A (M2 x 22)	JSY51V-23-4A (M3 x 27)	Part numbers shown on the left are for 10 valves. (20 pcs.)
②	Base gasket	JSY11M-11-1A	JSY31M-11-1A	JSY51M-11-1A	Part numbers shown on the left are for 10 valves. (10 pcs.)
③	DIN rail	VZ1000-11-1-□	VZ1000-11-1-□	VZ1000-11-4-□	Refer to page 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	JSY1000	JSY3000	JSY5000	Note
A, B port	Ø 2	—	—	Part number is for one piece.
	Ø 4	—	—	
	Ø 6	KQSY30-C6	—	
	Ø 8	KQSY30-C8-X1336	—	
	Ø 10	—	KQSY50-C10	
	Ø 12	—	KQSY50-C12-X1336	

### Clip, Port Plate

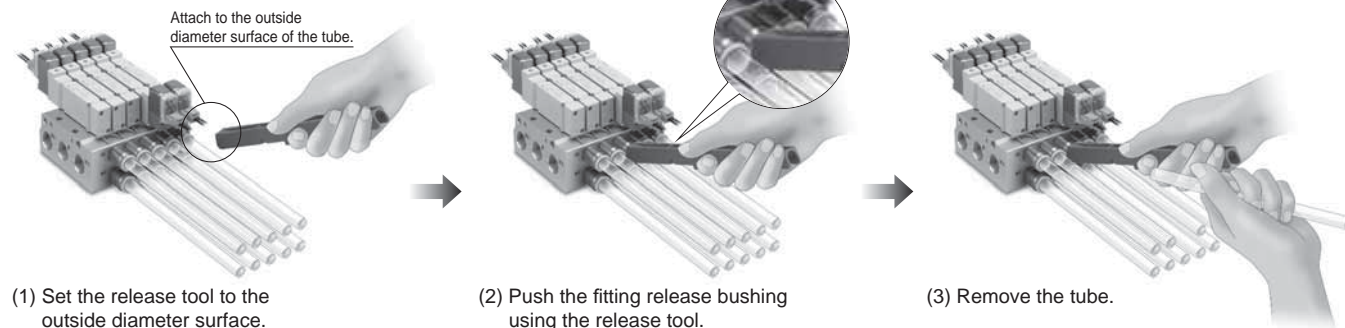
	JSY1000		JSY3000	JSY5000	Note
	For A, B port KC2/KC4 fittings	For A, B port kC6 fittings			
Clip	JSY11M-19-4A	JSY11M-19-3A	JSY31M-19-3A	JSY51M-19-3A	Part number is for 10 pieces.
Port plate	JSY11M-10-4A	JSY11M-10-3A	JSY31M-10-3A	JSY51M-10-3A	Part number is for 10 pieces.

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

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.	Ø 2/Ø 4	Ø 6/Ø 8	Ø 10/Ø 12



#### Tube removal procedure



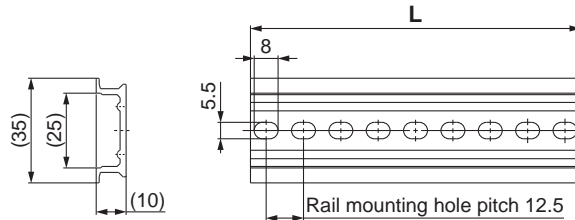
# JSY1000/3000/5000 Series

## 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

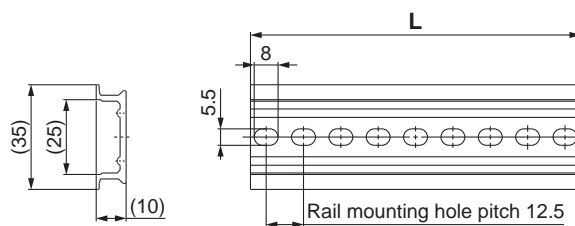
  

No.	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
L dimension	773	785.5	798	810.5	823	835.5	848	860.5	873	885.5	898	910.5	923	935.5	948	960.5	973	985.5
Weight [g]	139.1	141.4	143.6	145.9	148.1	150.4	152.6	154.9	157.1	159.4	161.6	163.9	166.1	168.4	170.6	172.9	175.1	177.4

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

#### VZ1000-11-4-□

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



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

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

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

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



## ⚠ Caution

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

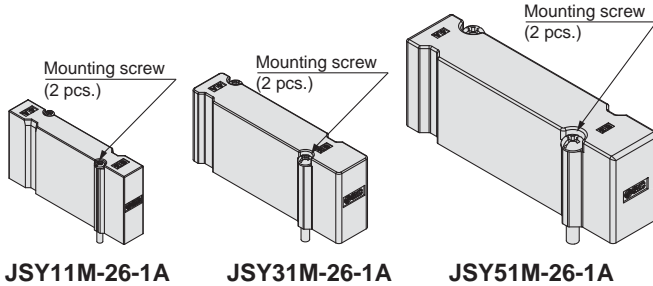
\* Refer to page 39 for dimensions.

## Manifold Options

### ■ Blanking plate

[With two mounting screws]

Used when valve additions are expected or for maintenance.



JSY11M-26-1A

JSY31M-26-1A

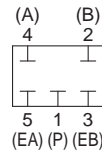
JSY51M-26-1A

### How to Order Blanking Plates

JSY **3** 1M - 26 - 1A

#### ● Series

1	JSY1000
3	JSY3000
5	JSY5000

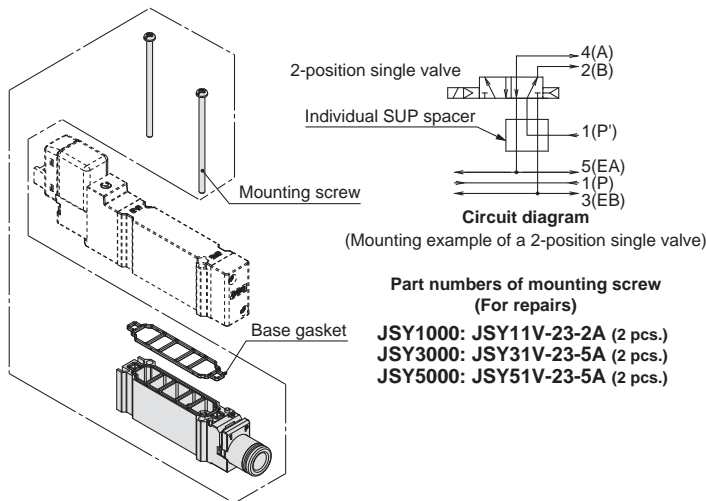


Circuit diagram

### ■ Individual SUP spacer

[With a base gasket and two mounting screws]

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



(Mounting example of a 2-position single valve)

#### Part numbers of mounting screw (For repairs)

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

### How to Order Individual SUP/EXH Spacers

JSY **3** 1M - **38** - 1A - **C6**

#### ● Spacer type

38	Individual SUP spacer
39	Individual EXH spacer

#### ● Series

1	JSY1000
3	JSY3000
5	JSY5000

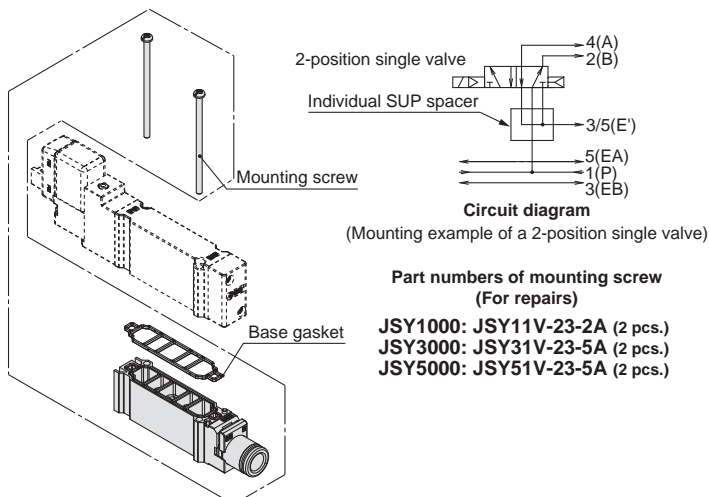
#### Port size (One-touch fittings) ●

Symbol	P, E port	JSY1000	JSY3000	JSY5000
C4	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.



(Mounting example of a 2-position single valve)

#### Part numbers of mounting screw (For repairs)

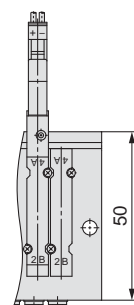
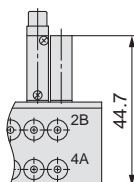
JSY1000: JSY11V-23-2A (2 pcs.)  
JSY3000: JSY31V-23-5A (2 pcs.)  
JSY5000: JSY51V-23-5A (2 pcs.)

# JSY1000/3000/5000 Series

## Dimensions: Manifold Options

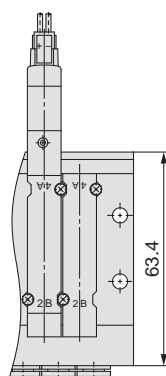
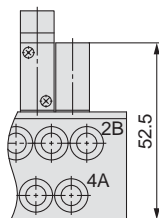
### ■ Blanking plate

#### JSY1000 series



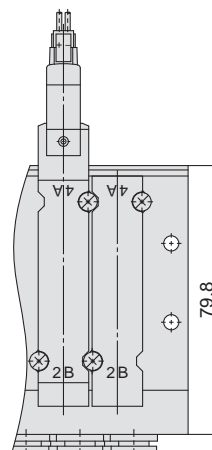
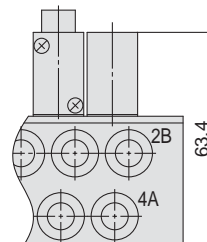
<Type 40>

#### JSY3000 series



<Type 40>

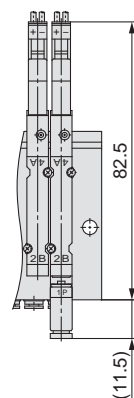
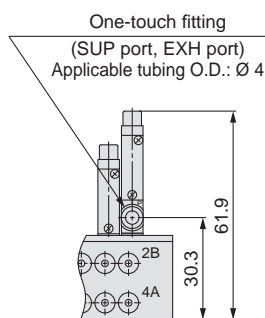
#### JSY5000 series



<Type 40>

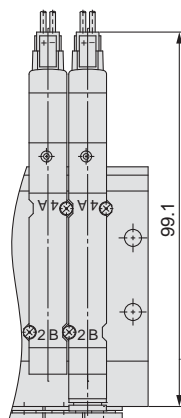
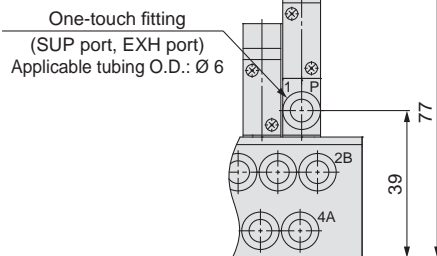
### ■ Individual SUP/EXH spacer

#### JSY1000 series



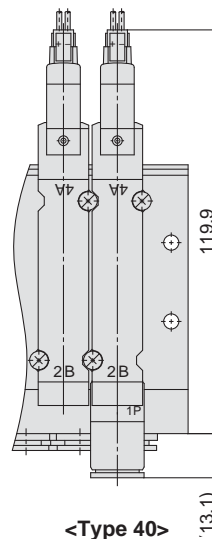
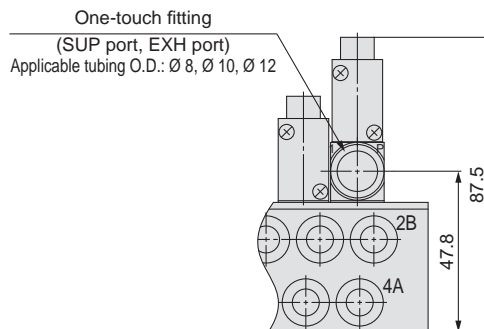
<Type 40>

#### JSY3000 series



<Type 40>

#### JSY5000 series



<Type 40>

### 1 External Pilot

#### How to Order Manifolds

p. 15

JJ5SY  $\frac{1}{3}$  -  $\frac{40}{41}$  R -   -

• Type

External pilot

#### How to Order Valves

p. 16

JSY 1  4 0 R T - 5

JSY  $\frac{3}{5}$   4 0 R  - 5

• Coil type (See below.)

• Pilot type

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 43 for details.

0.1 W: JSY3000/5000

#### How to Order Valves

JSY  $\frac{3}{5}$   4 0  T - 5 Z

• Coil type

With power saving circuit (Continuous duty type)

• Pilot type (See above.)



# JSY1000/3000/5000 Series Specific Product Precautions 1

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	M3	0.8 N·m

## Manual Override

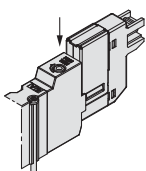
### Warning

- 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.
- 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.

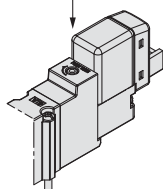
#### Non-locking push type

Push down on the manual override button until it stops.

JSY1000 series



JSY3000/5000 series



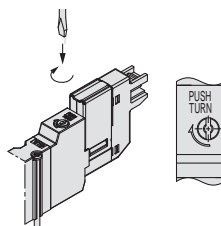
## Manual Override

### Warning

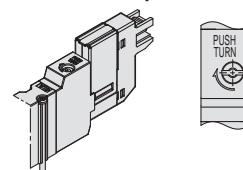
#### Push-turn locking slotted type [D type]

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 non-locking push type.

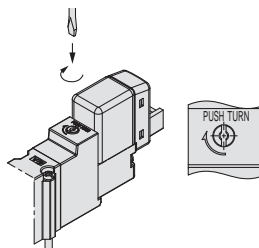
JSY1000 series



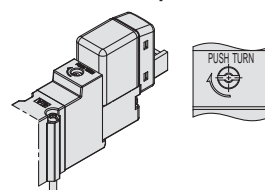
Locked position



JSY3000/5000 series



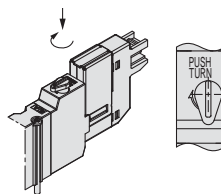
Locked position



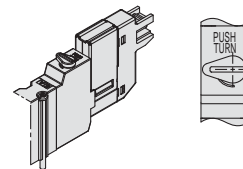
#### Push-turn locking lever type [E type]

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

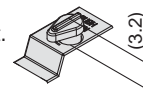
JSY1000 series



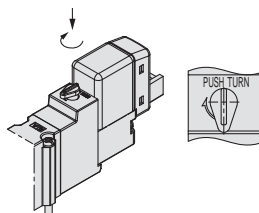
Locked position



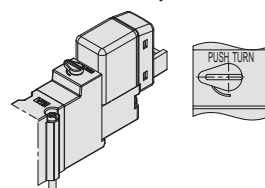
Carefully check the manual override projection amount.  
Max. (at OFF): 3.2 mm



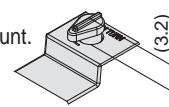
JSY3000/5000 series



Locked position



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





# JSY1000/3000/5000 Series

## Specific Product Precautions 2

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.

Plug position		B port	A port
Type of actuation		N.C.	N.O.
Number of solenoids	Single		
	Double		

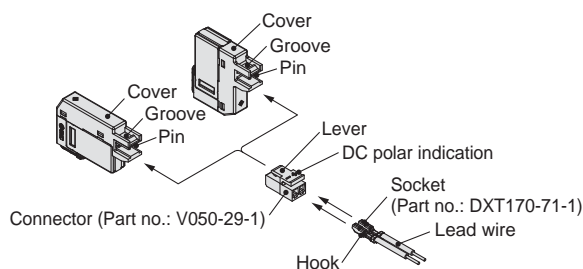
### How to Use Plug Connector

#### ⚠ Caution

##### 1. Attaching and detaching connectors

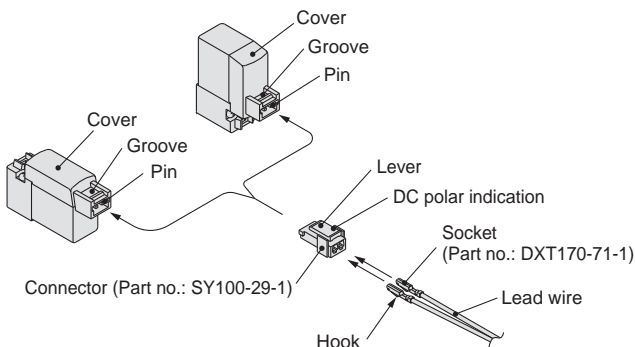
- To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever's pawl is pushed into the groove and locks.
- To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb,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



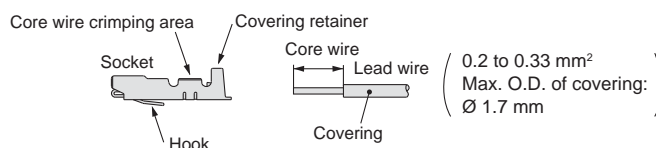
\* In order not to damage the connector and cover, do not pull the lead wire excessively (with a force of 30 N or more).

### How to Use Plug Connector

#### ⚠ Caution

##### 2. Crimping connection of lead wire and socket

Strip 3 . 2 to 3 . 7 mm at the end of lead wires, insert the end of the core wires evenly into the sockets, and then crimp it by a crimping tool. When this is done, take care that the coverings of the lead wires do not enter the core wire crimping area. (Please contact SMC for the dedicated crimping tools.)



##### 3. Attaching and detaching lead wires with sockets

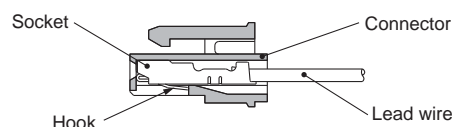
###### • Attaching

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

###### • Detaching

To detach a socket from a connector, pull out the lead wire while pressing the socket's hook with a stick having a thin tip (approx. 1 mm).

If the socket will be used again, first spread the hook outward.





# JSY1000/3000/5000 Series

## Specific Product Precautions 3

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-□A-□

##### ● Rated voltage

Symbol	Rated voltage	Lead wire colour
4	DC	Red, Black
—	Without lead wire*1	

\*1 With connector and 2 of sockets only

##### ● Lead wire length

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

##### ■ For JSY3000/5000

SY100-30-□A-□

##### ● Rated voltage

Symbol	Rated voltage	Lead wire colour
4	DC	Red, Black
—	Without lead wire*1	

\*1 With connector and 2 of sockets only

##### ● Lead wire length

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

#### How to Order

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

<Example> Lead wire length 2000 mm

For DC

JSY3140-5LOZ

SY100-30-4A-20

### Surge Voltage Suppressor

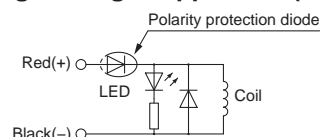
## Caution

<For DC>

L/M Plug Connector

##### ■ Polar type (For JSY3000/5000)

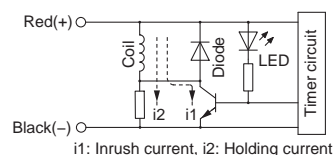
With light/surge voltage suppressor (□Z)



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

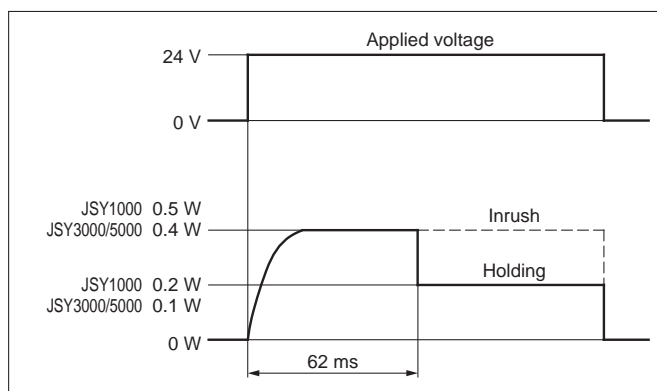
##### ■ With power saving circuit (JSY3000/5000: Made to Order)

Power consumption is decreased to approx. 1 / 4 compared with the standard product by reducing the wattage required to hold the valve in an energised state. (Effective energising 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>



- 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.)





# JSY1000/3000/5000 Series

## Specific Product Precautions 4

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

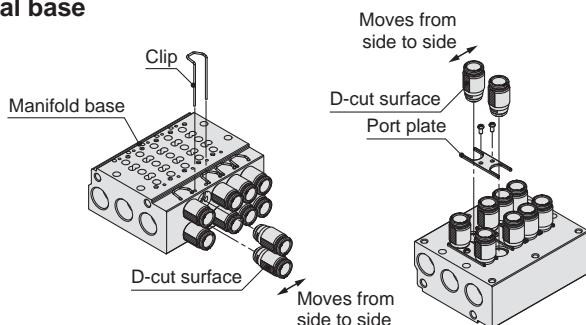
By replacing One-touch fittings of manifold base, it is possible to change the connection diameter of the 4(A), 2(B), 1(P), 3/5(E) ports. When replacing the One-touch fittings, remove the clip or the plate before pulling the One-touch fittings off. Mount the One-touch fittings by following the removal 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 sideways.

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 C 2 or C 4 fittings with C 6 fittings for the JSY1000 series.
- \* Refer to page 3 6 for One-touch fitting, clip, and port plate part numbers.

### One-touch Fittings

#### ⚠ Caution

##### ■ Tube attachment/detachment for One-touch fittings

###### 1) Tube attachment

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

###### 2) Tube detachment

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

### Applicable Fittings: KQ2H, KQ2S, M Series

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D.							
					Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12		
JSY1000	JJ5SY1-40/41(R) Manifold base	1P, 5EA 3EB	1/8	KQ2H								
				KQ2S								
		X, PE	M5	KQ2H								
				KQ2S								
		4A, 2B	M5	KQ2H								
				KQ2S								
			M3	KQ2H								
				KQ2S								

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D.							
					Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12		
JSY3000	JJ5SY3-40/41(R) Manifold base	1P, 5EA 3EB	1/4	KQ2H								
				KQ2S								
		X, PE	M5	KQ2H								
				KQ2S								
		4A, 2B	1/8	KQ2H								
				KQ2S								
			M5	KQ2H								
				KQ2S								

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D.							
					Ø 2	Ø 4	Ø 6	Ø 8	Ø 10	Ø 12		
JSY5000	JJ5SY5-40/41(R) Manifold base	1P, 5EA 3EB	3/8	KQ2H								
				KQ2S								
		X, PE	M5	KQ2H								
				KQ2S								
		4A, 2B	1/4	KQ2H								
				KQ2S								
			1/8	KQ2H								
				KQ2S								



# JSY1000/3000/5000 Series

## Specific Product Precautions 5

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

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

- |                      |                                       |
|----------------------|---------------------------------------|
| 1) Nylon tube        | within $\pm 0.1$ mm                   |
| 2) Soft nylon tube   | within $\pm 0.1$ mm                   |
| 3) Polyurethane tube | within $+0.15$ mm<br>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.

## 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)<sup>1)</sup>, and other safety regulations.

-  **Caution:** **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
-  **Warning:** **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
-  **Danger:** **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

- 1) ISO 4414: Pneumatic fluid power – General rules relating to systems.  
ISO 4413: Hydraulic fluid power – General rules relating to systems.  
IEC 60204-1: Safety of machinery – Electrical equipment of machines.  
(Part 1: General requirements)  
ISO 10218-1: Manipulating industrial robots - Safety.  
etc.

## Warning

### 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. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalogue.
3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

## Caution

### 1. The product is provided for use in manufacturing industries.

The product herein described is basically provided for peaceful use in manufacturing industries.  
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.  
If anything is unclear, contact your nearest sales branch.

## 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.<sup>2)</sup> Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
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 warranty.

### 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.

## Caution

### SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

## Safety Instructions

Be sure to read “Handling Precautions for SMC Products” (M-E03-3) before using.

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