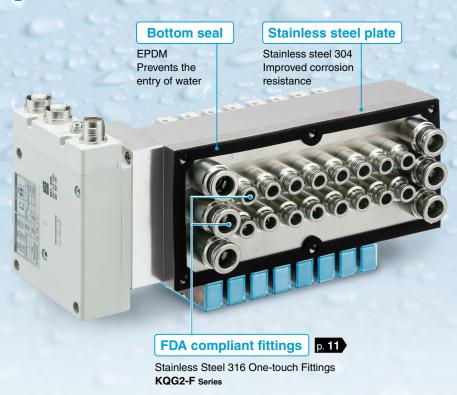


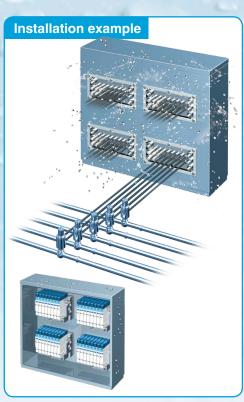


# Plug-in Bottom Ported Manifold RoHS with Stainless Steel Plate



# **Bottom seal/stainless steel plate** prevents the flooding of valves



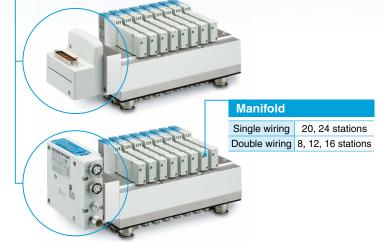


# Trim plate (Option) p. 10



# Wiring

D-sub connector/Flat ribbon cable/Terminal block box/Lead wire/ Serial unit (EX600, EX245, EX250, EX260)



JSY3000-S Series

### **Manifold Specifications**

		D-sub connector	Flat ribb	on cable	Terminal	block box		
Model		F type	P type	PG type (20 pins)	TC type (Spring type)	T type (Screw clamping type)		
Number of pins/outputs		25 pins	26 pins	20 pins	32 outputs	20 outputs		
Manifold type	9		Plug-in metal base, Bottom ported					
SUP/EXH port type		Common SUP/EXH						
	Double wiring	8, 12 stations	8, 12 stations	8 stations	8, 12, 16 stations	8 stations		
stations*1	Valve stations*1 Single wiring		8, 12, 16, 20, 24 stations	8, 12, 16 stations	8, 12, 16, 20, 24 stations	8, 12, 16, 20 stations		
4(A), 2(B) port		1/8" (R, G, NPT)						
Port size 1(P), 3(EB), 5(EA) port		1/4" (R, G, NPT)						
Enclosure (Bott	om ported installation surface only)*2	IP67						

<sup>\*1</sup> The wiring can only be all double wiring or all single wiring. The number of manifold stations is limited by the number of outputs of the SI units and connector assemblies connected. For the single wiring specification, only single valves can be mounted. Double, 3-position, or 4 position valves cannot be used with the single wiring specification.

# **Manifold Flow Rate Characteristics**

	Port size		Valve flow rate characteristics*3			
Model	1, 5, 3	4, 2	1 → 4/2 (P → )	A/B)	4/2 → 5/3 (A/B	→ E)
	(P, EA, EB)	(A, B)	C [dm <sup>3</sup> /(s·bar)]	b	C [dm3/(s·bar)]	b
JJ5SY3-S51	G1/4"	G1/8"	2.31	0.43	2.13	0.31

<sup>\*3</sup> The values are for an individually operated 2-position type manifold base with 8 stations.

#### Response Time/Valve Weight

	Seal type	type Model		Response time [n	Weight [g]		
Series			Type of actuation	With light/surge voltage suppressor			
				Z type	U type		
		JSY3100	2-position single	27	18	54.0	
JSY3000	Dubbarasal	JSY3200	2-position double	13	12	63.0	
3513000	Rubber seal	Hubber seal	JSY3(3/4/5)00	3-position	27	24	67.0
		JSY3(A/B/C)00	4-position dual 3-port valve	23	23	63.0	

<sup>\*4</sup> Based on the dynamic performance test, JIS B 8419-2010 (Coil temperature: 20°C, at rated voltage)

#### Manifold Weight

						Unit: g	
Madal	Description	Number of stations					
Model	Description	8	12	16	20	24	
JJ5SY3-S51S0-□□-01	<b>5SY3-S51S0-</b> □□ <b>-01</b> Manifold base		2359	2904	3444	4018	
JJ5SY3-S51S0-□□-C6	JJ5SY3-S51S0-□□-C6 Manifold base (With fitting)		2955	3593	4226	4893	
JSY31M-191P-1A-□□ Trim plate		38.0	48.1	58.3	68.4	75.5	

<sup>\*</sup> The "□□" indicates the number of stations.

<sup>\*2</sup> The enclosure IP rating is for when the product's bottom surface is mounted on a cabinet or panel. Equipped with valves, the electric wiring side is IP40.

<sup>\*</sup> Calculation of effective area S and sonic conductance C: S = 5.0 x C

<sup>\*</sup> To obtain the weight with valves attached, add the valve weights given above for the appropriate number of stations.

Add the weight of option "P" (trim plate) separately.

<sup>\*</sup> The weights of connector assemblies and SI units are not included. Add the weights on the next page. For I/O units, refer to the JSY series **Web Catalog** and add the weights separately.

# Plug-in Bottom Ported Manifold with Stainless Steel Plate JSY3000-S Series



Valve and manifold specifications not listed are the same as those of the standard product. More information can be viewed here.

			r					
Lead wire				Serial wiring				None
L type			S6□ (EX600)	SA□ (EX245)	S□ (EX250)	SI (EX2		S0
34 cores	17 cores	9 cores	32 outputs	32 outputs	32 outputs	32 outputs	16 outputs	32 outputs
Plug-in metal base, Bottom ported								
Common SUP/EXH								
8, 12, 16 stations	8 stations	1	8, 12, 16 stations	8 stations	8, 12, 16 stations			
8, 12, 16, 20, 24 stations	8, 12, 16 stations	8 stations	8, 12, 16, 20, 24 stations	8, 12, 16 stations	8, 12, 16, 20, 24 stations			
1/8" (R, G, NPT)								
1/4" (R, G, NPT)								
				IP67				

# **Connector Assembly and SI Unit Weight**

			Unit: g
Description	Model	Part no.	Weight
D-sub connector	F	VVQC1000-F25-1	80
Flat vibban aabla	Р	VVQC1000-P26-1	70
Flat ribbon cable	PG	VVQC1000-P20-1	70
Terminal block box	TC	SY30M-130-1A	227
Terminal block box	Т	VVQC1000-T0-1	439
	L (34 cores, 0.6 m)	SY30M-14-4A-1-1	176
	L (34 cores, 1.5 m)	SY30M-14-4A-1-2	276
	L (34 cores, 3 m)	SY30M-14-4A-1-3	579
	L (17 cores, 0.6 m)	SY30M-14-4A-2-1	133
Lead wire	L (17 cores, 1.5 m)	SY30M-14-4A-2-2	192
	L (17 cores, 3 m)	SY30M-14-4A-2-3	327
	L (9 cores, 0.6 m)	SY30M-14-4A-3-1	121
	L (9 cores, 1.5 m)	SY30M-14-4A-3-2	164
	L (9 cores, 3 m)	SY30M-14-4A-3-3	203
	S6□	EX600-S□-□*1	300
		EX245-SPN1/2A	465
	CA	EX245-SPN3A	540
Serial unit	SA□	EX245-FPS1/2	1100
		EX245-FPS3	1200
	S□	EX250-S□-□*1	250
	S□	EX260-S□-□*1	200

 $<sup>\</sup>ast 1~$  For details, refer to the Web Catalog of the plug-in JSY series.



# Plug-in Bottom Ported Manifold with Stainless Steel Plate

JSY3000-S Series ROHS



#### D-sub connector/Flat ribbon cable/Terminal block box/Lead wire

Refer to page 5 for How to Order Manifolds for serial wiring.

Type 51 **Bottom Ported** 

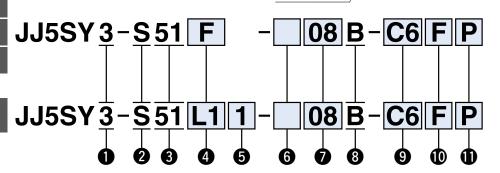
**How to Order Manifolds** 

Connector entry direction adjustable D-sub connector

Connector entry direction adjustable flat ribbon cable

(Spring type) Terminal block box

Lead wire



## Series

JSY3000

4 Wiring/Connection

Symbol	Туре			
F Connector entry direction adjustable D-sub connector (25 pins)				
P Connector entry direction adjustable flat ribbon cable (26 pins)				
PG Connector entry direction adjustab flat ribbon cable (20 pins)				
TC	Spring type terminal block box (32 outputs)			
Т	Terminal block box (20 outputs)			
L1	Lead wire (34 cores)			
L2	Lead wire (17 cores)			
L3	Lead wire (9 cores)			

\* Refer to the manifold specifications on pages 1 and 2 for details on wiring.

2 Manifold with stainless steel plate

Lead wire length When lead wire "L1," "L2," or "L3" is selected

1	0.6 m
2	1.5 m
3	3 m

**6** Wiring type

D-sub connector

Symbol	Note
Nil	All double wiring*1
S	All single wiring*2, *3

3 Plug-in metal base, Bottom ported

- \*1 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations.
- \*2 Only single valves can be used. Other valves cannot be used.
- \*3 Only the single wiring specification can be selected if 20 or 24 stations is required. (Add an "S" to the part number when ordering.)

#### Valve stations

Symbol	Stations	Note	
08	8 stations		
12	12 stations	All double wiring*4	
16	16 stations		
20	20 stations	All single wiring	
24	24 stations	All single wiring	

\*4 Depending on the wiring (type) and connection methods, it may be changed to the single wiring specification.

### 8 1(P), 5(EA)/3(EB) port entry

B Both sides	
--------------	--

#### 9 4(A)/2(B) port size One-touch fitting\*5 p. 11

Symbol	4(A)/2(B) port	1(P)/3(EB), 5(EA) port
C6	ø6	ø10
C8	ø8	010
N7	ø1/4"	ø3/8"

#### Thread piping

Symbol	4(A)/2(B) port	1(P)/3(EB), 5(EA) port
01	1/8	1/4

\*5 Fittings are shipped together with the product. In addition, the thread of the enclosed fitting is a G thread. For details, refer to page 11.

#### Thread type (Fill in only for thread piping.)

Nil	Rc
F	G
N	NPT

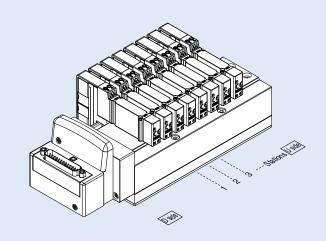
# Option p. 10

Nil	None
P	Trim plate



#### **How to Order Manifold Assembly**

#### Example (JJ5SY3-S51F-08B-01)

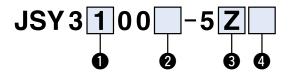


- JJ5SY3-S51F-08B-01 ··· 1 set (8-station manifold base part no.)
- \* JSY3200-5U ...... 4 sets (2-position double part no.)
- \* JSY3A00-5U ············· 4 sets (4-position dual 3-port (N.C./N.C.) part no.)

  → The asterisk denotes the symbol for the assembly.
  - → The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.
- $\cdot$  For the valve arrangement, the valve closest to the D side is considered the 1st station.
- Under the manifold part number, state the valves to be mounted in order starting
  with the 1st station as shown in the figure. If the arrangement becomes too
  complicated, specify the details on a manifold specification sheet.

#### **How to Order Valves**

Refer to pages 3, 5, and 6 for How to Order Manifolds.



#### Type of actuation

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

# 2 Coil specifications

Nil	Standard
Т	With power-saving circuit (Continuous duty type)

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

# 3 Light/surge voltage suppressor

Symbol	With light	Surge voltage suppressor	Common specification
U			Non-polar
z	•	•	Polar Positive common
NZ			Polar Negative common

- Only "Z" and "NZ" types are available with a powersaving circuit.
- When the non-polar common specification type is selected, take measures to prevent surge voltage.

#### 4 Manual override

Nil Non-locking push type	
D Push-turn locking slotted type	
E	Push-turn locking lever type

### **∧** Caution

- If the product is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification.
- \* Refer to the "With power-saving circuit" section in the "Specific Product Precautions" of the plugin type JSY series Web Catalog for details.



# Plug-in Bottom Ported Manifold with Stainless Steel Plate

Type 51 **Bottom Ported** 

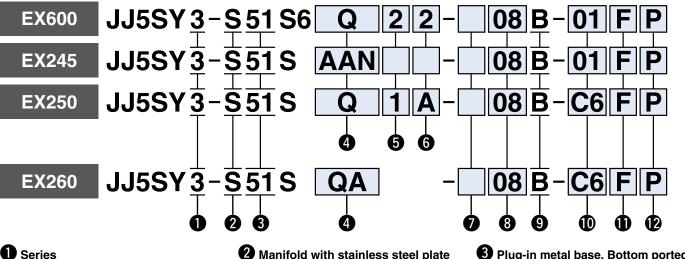
# JSY3000-S Series ROHS



#### Serial wiring

Refer to page 3 for How to Order Manifolds for the D-sub connector, flat ribbon cable, terminal block box, and lead wire.

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



JSY3000

2 Manifold with stainless steel plate

3 Plug-in metal base, Bottom ported

#### For EX600

#### 4 SI unit

0	Without SI unit	
Q	DeviceNet® (Version A)	
N	PROFIBUS DP (Version A)	
V	CC-Link	
EA EtherNet/IP™ (2 ports)		
F	PROFINET	
FA	PROFINET (IO-Link unit)	
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. For mounting, refer to the EX600 series in the Web Catalog.

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

	M12 power	7/8 inch	M12 power supply connector IN/OUT, A-coded	
SI unit output polarity	supply connector B-coded (EX600-ED2)	COLLIGECTOL	Pin arrangement 1 (EX600- ED4)	Pin arrangement 2 (EX600- ED5)
Without SI unit	Nil			
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.
- When not selecting an SI unit, the symbol will be

## 6 I/O unit stations

Nil	None	
1	1 station	
:	:	
9	9 stations	

- When not selecting an SI unit, the symbol will be
- 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.

#### For EX245

# 4 SI unit

Symbol (Output polarity) Negative common (PNP)	Protocol	Communication connector	Communication connector specifications
0	Without SI unit		
AAN		Push/Pull (SCRJ): 2 pcs.	Push/Pull (24 V): 2 pcs.
ABN	PROFINET	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).

## With or without I/O modules

Nil	Without I/O module	
Υ	With I/O module	

\* When not selecting an SI unit, the symbol will be "nil."

### 6 Number of I/O modules

Nil	Without I/O module
1	1 station
:	:
8	8 stations

\* When not selecting an SI unit, the symbol will be "nil."





#### For EX250

#### 4 SI unit

0	Without SI unit				
Q	DeviceNet® (Negative common)				
N	PROFIBUS DP (Negative common)				
TA		2 power supply	8 in/8 out		
TB	AS-Interface	systems	4 in/4 out		
TC	(Negative common)	1 power supply	8 in/8 out		
TD		system	4 in/4 out		
Υ	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.

## **5** Input block stations

Nil	None			
1	1 station			
:	:			
8	8 stations			

\* When not selecting an SI unit, the symbol will be "nil." The maximum number of stations is limited for the AS-Interface applicable SI unit.

### 6 Input block type

• 1	7 .	
	PNP sensor input	NPN sensor input
Without input block	N	lil
M12, 2 inputs	Α	D
M12, 4 inputs	В	E
M8, 4 inputs	С	F

\* When not selecting an SI unit, the symbol will be "nil."

#### For EX260

# 4 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	
0	*1	Wit	thout SI u	nit	
QA	QAN	DeviceNet®	32	Mio	
QB	QBN	Devicemet	16	M12	
NA	NAN		32	M10	
NB	NBN	PROFIBUS	16	M12	
NC	NCN	DP	32	<b>5</b> 1 110	
ND	NDN		16	D-sub*3	
VA	VAN	CC-Link	32	M12	
VB	VBN	OG-LITIK	16	IVIIZ	

- \*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.

- Symbol (Output polarity) Number Communication Positive common Negative common Protocol of connector (NPN) (PNP) outputs DAN DA 32 EtherCAT M12 DB **DBN** 16 FA **FAN** 32 **PROFINET** M12 FB **FBN** 16 EΑ **EAN** 32 EtherNet/IP™ M12 EB **EBN** 16 \_\*2 GAN Ethernet 32 M12 \_\*2 **GBN POWERLINK** 16 \_\_\_\*2 **KAN** IO-Link 32\*4 M12
- \*3 IP40 for the D-sub applicable communication connector specification.
- \*4 Only the 32 outputs type is available.
- \* DIN rail cannot be mounted without SI unit.

## Wiring type

Symbo	Note Note
Nil	All double wiring*1
S	All single wiring*2, *3

- \*1 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations.
- \*2 Only single valves can be used. Other valves cannot be used.
- \*3 Only the single wiring specification can be selected if 20 or 24 stations is required. (Add an "S" to the part number when ordering.)

#### Thread type (Fill in only for thread piping.)

	71 1			
Nil		Rc		
F		G		
N		NPT	•	

#### 8 Valve stations

Symbol	Stations	Note
08	8 stations	
12	12 stations	All double wiring*1
16	16 stations	
20	20 stations	All single wiring
24	24 stations	All single willing

\*1 Depending on the wiring (type) and connection methods, it may be changed to the single wiring specification.

## 9 1(P), 5(EA)/3(EB) port entry

B Both sides

#### Option p. 10

Nil	None
Р	Trim plate

# 10 4(A)/2(B) port size One-touch fitting\*1 p. 11

Symbol	4(A)/2(B) port	1(P)/3(EB), 5(EA) port						
C6	ø6	ø10						
C8	ø8	010						
N7	ø1/4"	ø3/8"						

#### Thread piping

a.a. b.ba							
Symbol 4(A)/2(B) port		1(P)/3(EB), 5(EA) port					
01	1/8	1/4					

\*1 Fittings are shipped together with the product. In addition, the thread of the enclosed fitting is a G thread. For details, refer to page 11.

#### ■ Trademark

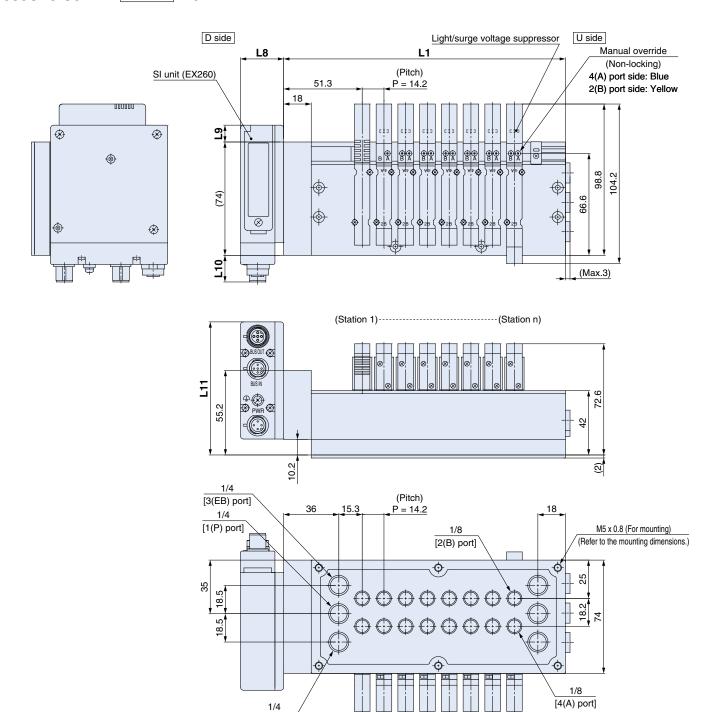
EtherNet/IP® is a registered trademark of ODVA, Inc.



# JSY3000-S Series

## **Dimensions**

#### JJ5SY3-S51□□- Stations B-01□



\* These figures show the JJ5SY3-51SFAN-08B-01.

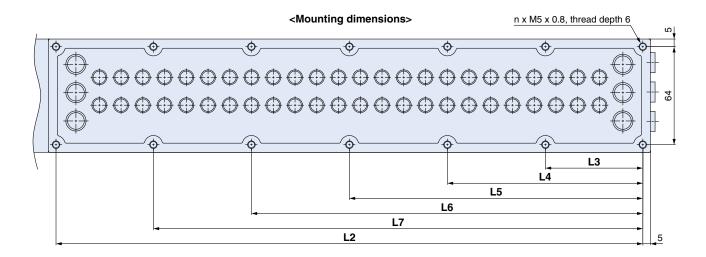
#### L: Dimensions (Manifold model: JJ5SY1-S51S0-□□-01)

	D-sub	Flat ribbon	Terminal block		Lead wire		Se	rial	
	F	Р	TC	Т	L	EX600	EX245	EX250	EX260
L8	36.5	36.5	67.5	88.8	36.5	81.0	112.6	102.0	28.2
L9	1.0	1.0	28.4	35.9	-1.4	23.4	23.4	4.0	11.0
L10	-8.2	-8.2	0.2	15.1	11.8	8.6	34.8	10.2	17.4
L11	70.2	70.2	81.2	87.9	66.8	66.8	102.2	70.2	86.9

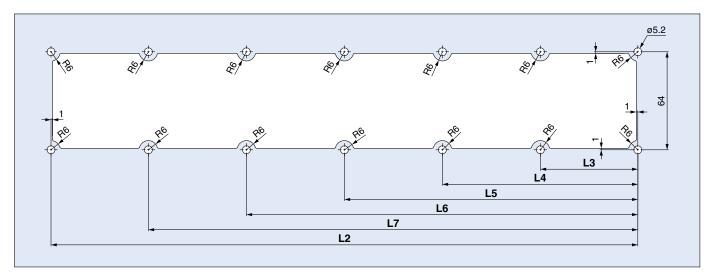
[5(EA) port]

#### **Dimensions**

#### JJ5SY3-S51□□- Stations B-01□



#### Panel cutout dimensions



#### L: Dimensions (Manifold model: JJ5SY1-S51S0-DD-01)

		,			
Stations	8	12	16	20	24
L1	184.0	240.8	297.6	354.4	411.2
L2	156.0	212.8	269.6	326.4	383.2
L3	78.0	71.0	67.4	65.7	63.6
L4	_	141.8	134.8	130.7	127.6
L5	_	_	202.2	195.7	191.6
L6	_	_	_	260.7	255.6
L7	_	_	_	_	319.6

□□: Number of stations



# JSY3000-S Series Manifold Exploded View

Connector assembly and SI unit		sembly and SI unit	Manifold assembly
D-sub connector	F type		
Flat ribbon cable	P/PG type	2	LIEGV2 CE1CO □□
Terminal block box	TC type	3	JJ5SY3-S51S0-□□
T type	4		
Lead wire	L type	5	(Replacement part)
	EX600	6	
Serial unit	EX245	7	(Option)
	EX250	8	
	EX260	9	

# **Assembly and Part Nos.**

No.	Description	Part no.	Note
1	D-sub connector	VVQC1000-F25-1	25 pins
2 FI	Flat ribbon cable	VVQC1000-P26-1	26 pins
	Flat fibboli cable	VVQC1000-P20-1	20 pins
3	Terminal block	SY30M-130-1A	32 outputs, Spring type
4	box	VVQC1000-T0-1	20 outputs, Screw clamping type
5 Le		SY30M-14-4A-1-1	34 cores, 0.6 m
		SY30M-14-4A-1-2	34 cores, 1.5 m
		SY30M-14-4A-1-3	34 cores, 3 m
		SY30M-14-4A-2-1	17 cores, 0.6 m
	Lead wire	SY30M-14-4A-2-2	17 cores, 1.5 m
		SY30M-14-4A-2-3	17 cores, 3 m
		SY30M-14-4A-3-1	9 cores, 0.6 m
		SY30M-14-4A-3-2	9 cores, 1.5 m
		SY30M-14-4A-3-3	9 cores, 3 m

No.	Description	Part no.	Note
6		EX600-S□-□*1	
		EX245-SPN1/2A	
7		EX245-SPN3A	
′	Serial unit	EX245-FPS1/2	
		EX245-FPS3	
8		EX250-S□-□*1	
9		EX260-S□-□*1	
10	Bottom seal	JSY31M-90P-1A-□	☐: Number of stations
11	Trim plate	JSY31M-191P-1A-□	□: Number of stations

<sup>\*1</sup> For details, refer to the **Web Catalog** of the plug-in JSY series.

# JSY3000-S Series Options

# **Option/Replacement Part Nos.**

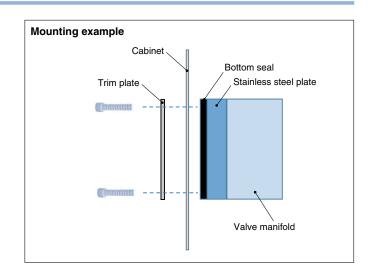
#### **Trim Plate**

- · A decorative panel to make the appearance look clean when used with a roughly cut cabinet
- · If the wall of the cabinet is thin and the gasket seals are not uniform, it can be attached to stabilize the gasket seating force.



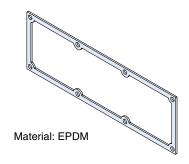


• Inread piping		
Stations		
8		
12		
16		
20		
24		



#### **Bottom Seal**

# JSY31M-90P-1A-8

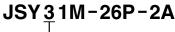


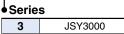
I hread piping		
Symbol	Stations	
8	8	
12	12	
16	16	
20	20	
24	24	

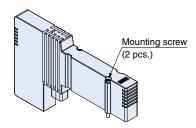
#### **Blanking Plate**

[With 2 mounting screws]

Used when valve additions are expected or for maintenance









#### **⚠** Caution

Tightening torque for mounting screws M2: 0.16 N·m (JSY3000)



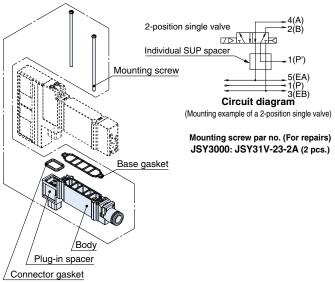
Circuit diagram

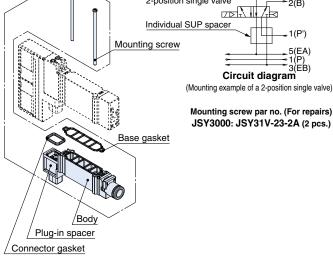
# JSY3000-S Series

#### Option/Replacement Part Nos.

#### **Individual SUP Spacer**

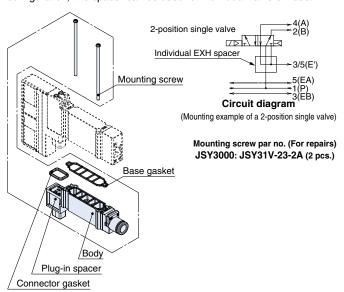
[With a connector gasket, a base gasket, and two mounting screws] When the same manifold is to be used for different pressures, an individual SUP spacer assembly can be used to act as a supply port for different pressures.

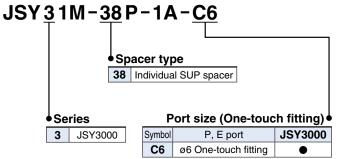




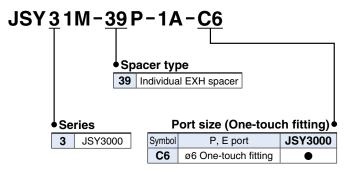
#### Individual EXH spacer

[With a connector gasket, a base gasket, and two mounting screws] When valve exhaust affects other stations due to the circuit configuration, this spacer can be used for individual valve exhaust.











### FDA Compliant Fittings/Stainless Steel 316 One-touch Fittings

Symbol-	Fitting part no.		
	4(A), 2(B) port	1(P), 3(EB), 5(EA) port	
C6	KQG2S06-G01-F	KQG2S10-G02-F	
C8	KQG2S08-G01-F	KQG2510-G02-F	
N7	KQG2S07-G01-F-X73	KQG2S11-G02-F-X73	

Tighten fittings with sealant using the proper tightening torques in the table below.

	· · · ·
Connection thread size	Proper tightening torque [N·m]
G01(G1/8)	3 to 5
G02(G1/4)	8 to 12

Insufficient tightening may cause seal failure or loosen the threads. For reuse

- (1) Normally, fittings with a sealant can be reused up to 6 to 10 times.
- (2) The seal ring cannot be replaced.

For other precautions, refer to the specific product precautions in the Web Catalog of the KQG2-F series.







# Plug-in Bottom Ported Manifold with Stainless Steel Plate

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

# **SMC** Corporation

Akihabara UDX 15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, JAPAN Phone: 03-5207-8249 Fax: 03-5298-5362 https://www.smcworld.com

© 2022 SMC Corporation All Rights Reserved