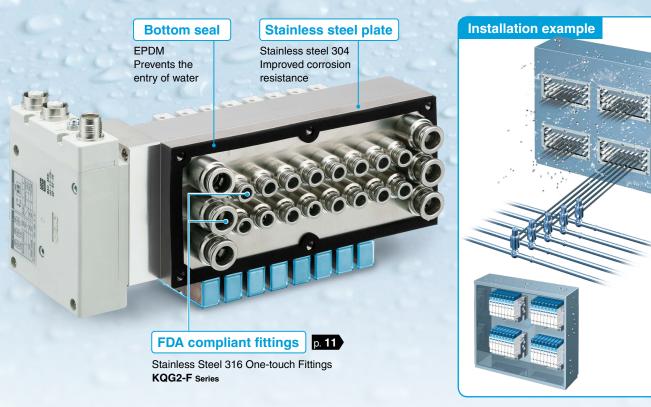


# Plug-in Bottom Ported Manifold (RoHS) with Stainless Steel Plate

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



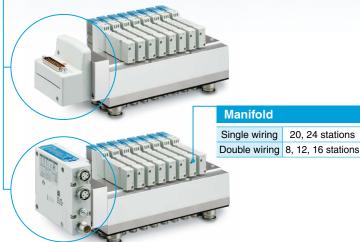
## Trim plate (Option) p. 10



## JSY3000-S Series

Wiring

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



Compatible with Ether Vet/IP and O IO-Link (EX260)

20.24 stations

JSY3000-S Series Type 51

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

#### **Manifold Specifications**

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

\*1 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.

\*2 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.

#### **Manifold Flow Rate Characteristics**

	Port size		Valve flow rate characteristics*3			
Model	1, 5, 3	4, 2	$1 \rightarrow 4/2 \ (P \rightarrow A/B)$		$4/2 \rightarrow 5/3 (A/B \rightarrow E)$	
	(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

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

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

#### **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	Rubber seal	JSY3200	2-position double	13	12	63.0
0313000		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

\*4 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	Manifold base	1814	2359	2904	3444	4018	
JJ5SY3-S51S0-□□-C6	Manifold base (With fitting)	2317	2955	3593	4226	4893	
JSY31M-191P-1A-□□	Trim plate	38.0	48.1	58.3	68.4	75.5	

\* The "
"
"
indicates the number of stations."

\* 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.

\* 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.

	Lead wire			Serial wiring				
	L type			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 r	netal base, Bottor	n ported			
	Common SUP/EXH							
8, 12, 16 stations	8 stations	—	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**

			Ui
Description	Model	Part no.	Weight
D-sub connector	F	VVQC1000-F25-1	80
Flat vikkon sakla	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
		EX245-SPN3A	540
Serial unit	SA	EX245-FPS1/2	1100
		EX245-FPS3	1200
	S□	EX250-S□-□*1	250
	S□	EX260-S□-□*1	200

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

## Plug-in Bottom Ported Manifold with Stainless Steel Plate ( E UK JSY3000-S Series RoHS

Type 51 Bottom Ported

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

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

 $\begin{array}{c} \begin{array}{c} \begin{array}{c} \text{Connector entry direction} \\ \text{adjustable D-sub connector} \end{array} \\ \hline \text{Connector entry direction} \\ \text{adjustable flat ribbon cable} \end{array} \\ \hline \text{(spring type) Terminal block box} \end{array} \\ \hline \text{Lead wire} \\ \begin{array}{c} \begin{array}{c} JJ5SY3-S51F \\ JJ5SY3-S51L11 \\ 0 \end{array} \\ \hline 0 \end{array} \\ \begin{array}{c} \begin{array}{c} 0 \end{array} \\ 0 \end{array} \\ \hline 0 \bigg \\ \hline 0 \bigg$  \\ \hline 0 \bigg \\ \hline 0 \bigg

How to Order Manifolds

Series		ries
	3	JSY3000

#### **4** Wiring/Connection

Symbol	Туре
F	Connector entry direction adjustable D-sub connector (25 pins)
Р	Connector entry direction adjustable flat ribbon cable (26 pins)
PG	Connector entry direction adjustable flat ribbon cable (20 pins)
тс	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.

#### Valve stations

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

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

<b>8</b> 1(P	), 5(EA)/3(EB) port entry
В	Both sides

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		

#### **3** Plug-in metal base, Bottom ported

#### 6 Wiring type

	5 /1
Symbol	Note
Nil	All double wiring*1
S	All single wiring <sup>*2, *3</sup>

\*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.)

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

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.)

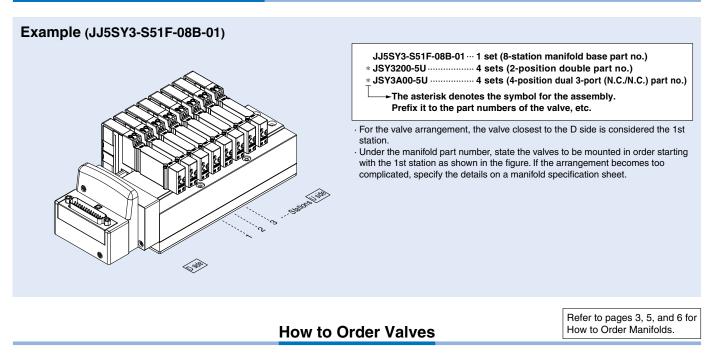
Nil	Rc	
F	G	
Ν	NPT	

#### Option p.10

Nil	None
Р	Trim plate

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

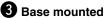
#### How to Order Manifold Assembly

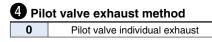


1 Ser	ries		
3		JSY3000	

0	Ту	pe	of	actuation
---	----	----	----	-----------

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





#### **5** Coil type

Nil	None			
Т	With power-saving circuit (Made to order) p. 12			

For the type with a power-saving circuit, only "Z" or "NZ" can be selected for D Light/surge voltage suppressor and common specification.

#### 6 Rated voltage 5

24 VDC

Light/surge voltage suppressor and common specification

8						
Symbol	With light	Surge voltage suppressor	Common specification			
U			Non-polar			
Z	•	•	Positive common			
NZ			Negative common			

\* When the non-polar common specification type is selected, take measures to prevent surge voltage.

#### 8 Manual override

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

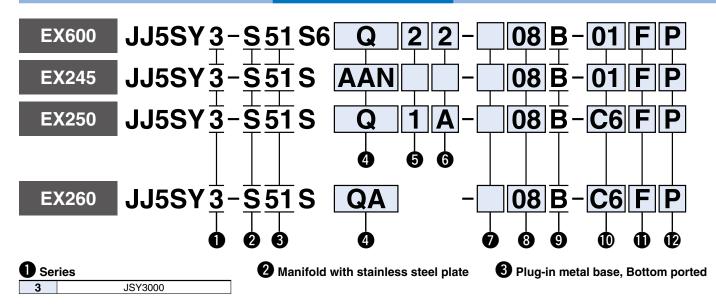
#### Type 51 Bottom Ported

# Plug-inBottom Ported Manifoldwith Stainless Steel Plate( € UKJSY3000-S SeriesRoHS

#### 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



#### For EX600

#### 4 SI unit

0	Without SI unit		
Q	DeviceNet <sup>®</sup> (Version A)		
Ν	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.

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

	M12 power	power supply	M12 power supply connector IN/OUT, A-coded	
SI unit output polarity	supply connector B-coded (EX600-ED2)		Pin arrangement 1 (EX600- ED4)	Pin arrangement 2 (EX600- ED5)
Without SI unit		N	il	·
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 "nil."

#### 6 I/O unit stations

Nil	None					
1	1 station					
:	i					
9	9 stations					

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

- \* 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)	Protocol	Communication	Communication	
Negative common (PNP)	1100001	connector	connector specifications	
0		Without SI unit		
AAN		Push/Pull (SCRJ): 2 pcs.	Push/Pull (24 V): 2 pcs.	
ABN	PROFINET	Push/Pull	Push/Pull	
		(RJ45): 2 pcs.	(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	n I/C	) m	odule		

 $\ast~$  When not selecting an SI unit, the symbol will be "nil."

#### 6 Number of I/O modules

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

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



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



#### For EX250

4	SI	unit

	anit						
0	Without SI unit						
Q		DeviceNet <sup>®</sup> (Ne	egative common)				
Ν		PROFIBUS DP (N	egative common)				
TA		2 power supply systems	8 in/8 out				
TB	AS-Interface		4 in/4 out				
TC	(Negative common)	1 power supply	8 in/8 out				
TD	system 4 in/4 out						
Y	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.

#### **5** Input block stations

Nil	None
1	1 station
:	E
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

	PNP sensor input	NPN sensor input
Without input block	Nil	
M12, 2 inputs	A D	
M12, 4 inputs	В	E
M8, 4 inputs	С	F

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

#### For EX260

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

of and (output polarity), i fotoool, namber of outpute, communication connectory									
Symbol (Out	tput polarity)	Num		Number		tput polarity)		Number	Communication
Positive common (NPN)	Negative common (PNP)	Protocol	of outputs	Communication connector	Positive common (NPN)	Negative common (PNP)	Protocol	of outputs	connector
0;	*1	Wit	thout SI u	nit	DA	DAN	EtherCAT	32	M12
QA	QAN	DeviceNet <sup>®</sup>	32	M12	DB	DBN	EllierCAT	16	IVITZ
QB	QBN	Devicemet	16	IVITZ	FA	FAN	PROFINET	32	M12
NA	NAN		32	M12	FB	FBN	PROFINEI	16	IVITZ
NB	NBN	PROFIBUS	16	IVITZ	EA	EAN	EtherNet/IP™	32	M12
NC	NCN	DP	32	D-sub*3	EB	EBN	Elliennel/IP····	16	IVITZ
ND	NDN		16	D-Sub*3	*2	GAN	Ethernet	32	M12
VA	VAN	CC-Link	32	M12	*2	GBN	POWERLINK	16	10112
VB	VBN	CC-LINK	16	10112	*2	KAN	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. \*4 Only the 32 outputs type is available.

\* DIN rail cannot be mounted without SI unit.

#### **7** Wiring type

Symbol	Note
Nil	All double wiring*1
S	All single wiring <sup>*2, *3</sup>

- \*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.)

Nil	Rc	
F	G	
N	NPT	

#### 8 Valve stations

Symbol	Stations	Note	
08	8 stations	All double wiring <sup>*1</sup>	
12	12 stations		
16	16 stations		
20	20 stations	All single wiring	
24	24 stations		

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

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

В	Both sides

#### Doption p. 10

<b>•</b>	
Nil	None
Р	Trim plate

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

\*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.

#### SMC

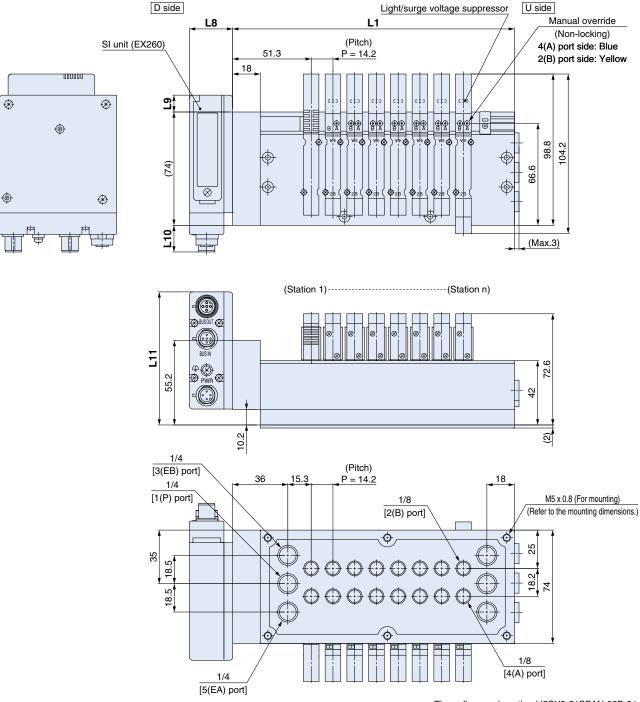
4(A)/2(B) port size	
One-touch fitting*1 p.11	

## JSY3000-S Series

#### **Dimensions**

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#### JJ5SY3-S51 - Stations B-01



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

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

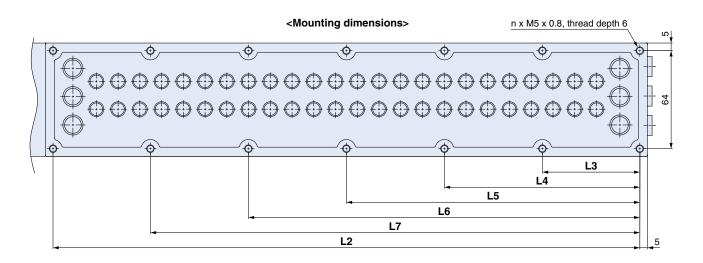
	D-sub	Flat ribbon	Termin	Terminal block			Se	rial	
	F	Р	тс	Т	L	EX600	EX245	EX250	EX260
L8	36.5	36.5	67.5	88.8	36.5	81.0	112.6	102.0	28.2
L9	1.0	1.0	28.4	35.9	-1.4	23.4	23.4	4.0	11.0
L10	-8.2	-8.2	0.2	15.1	11.8	8.6	34.8	10.2	17.4
L11	70.2	70.2	81.2	87.9	66.8	66.8	102.2	70.2	86.9

□□: Number of stations

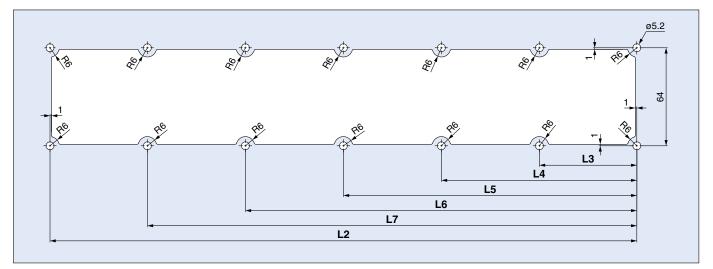


#### Dimensions

#### JJ5SY3-S51 Stations B-01



Panel cutout dimensions



		(			
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
					6 1 1

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

**SMC** 

## JSY3000-S Series Manifold Exploded View

(	Connector as	sembly and SI unit	Manifold assembly
D-sub connector	F type		
Flat ribbon cable	P/PG type	2	
Terminal block box	TC type	3	
Terminal Diock Dox	T type		
Lead wire	L type	5	(Replacement part)
	EX600	6	
Serial unit	EX245		(Option)
	EX250	8 Core	
	EX260	9	

#### Assembly and Part Nos.

No.	Description	Part no.	Note
1	D-sub connector	VVQC1000-F25-1	25 pins
2	Flat ribbon cable	VVQC1000-P26-1	26 pins
2	Flat HDDOIT 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
		SY30M-14-4A-1-1	34 cores, 0.6 m
		SY30M-14-4A-1-2	34 cores, 1.5 m
	Lead wire	SY30M-14-4A-1-3	34 cores, 3 m
		SY30M-14-4A-2-1	17 cores, 0.6 m
5		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	Serial unit	EX245-SPN3A	
'		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

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



#### **Option/Replacement Part Nos.**

#### Trim Plate

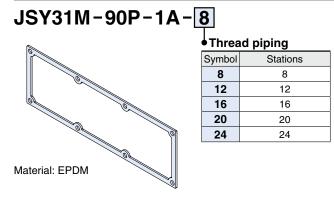
- $\cdot$  A decorative panel to make the appearance look clean when used with a roughly cut cabinet
- · If the wall of the cabinet is thin and the gasket seals are not uniform, it can be attached to stabilize the gasket seating force.

## JSY31M-191P-1A-8



• Thread piping				
Symbol	Stations			
8	8			
12	12			
16	16			
20	20			
24	24			

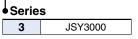
#### **Bottom Seal**

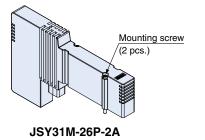


#### **Blanking Plate**

[With 2 mounting screws] Used when valve additions are expected or for maintenance

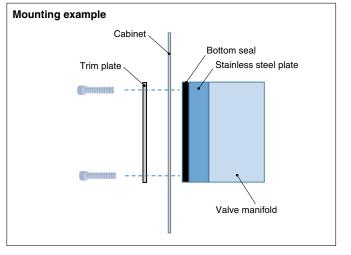










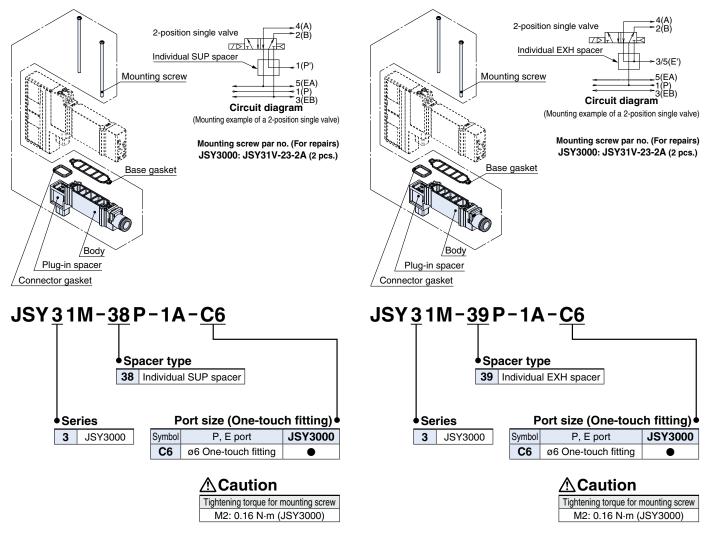


## JSY3000-S Series

#### **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.



#### 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	
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.



Individual EXH spacer

[With a connector gasket, a base gasket, and two mounting screws]

configuration, this spacer can be used for individual valve exhaust.

When valve exhaust affects other stations due to the circuit



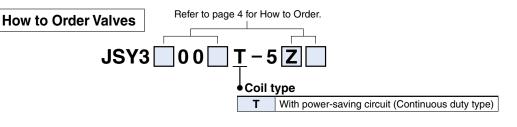
## JSY3000-S Series Made to Order

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



## **1** Coil type: With power-saving circuit (Continuous duty type)

Power consumption: 0.1 W



#### <u> C</u>aution

Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time. Be careful of the energizing time when the power-saving circuit is selected.

\* Refer to the "With power-saving circuit" section in the "Specific Product Precautions" of the plug-in type JSY series Web Catalog for details.



Plug-in Bottom Ported Manifold with Stainless Steel Plate

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

## SMC Corporation

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