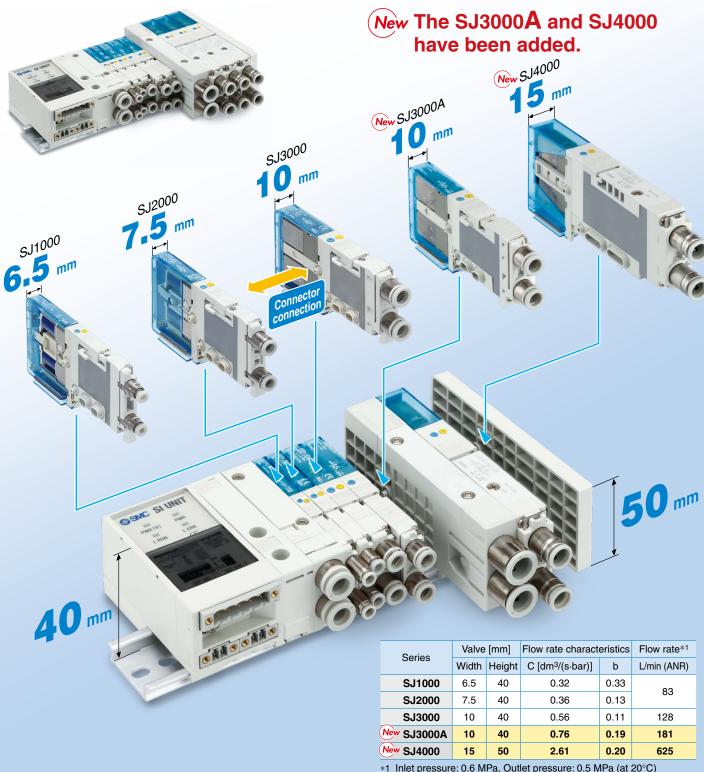
4-Port Solenoid Valve **Cassette Type Manifold**



Rubber Seal

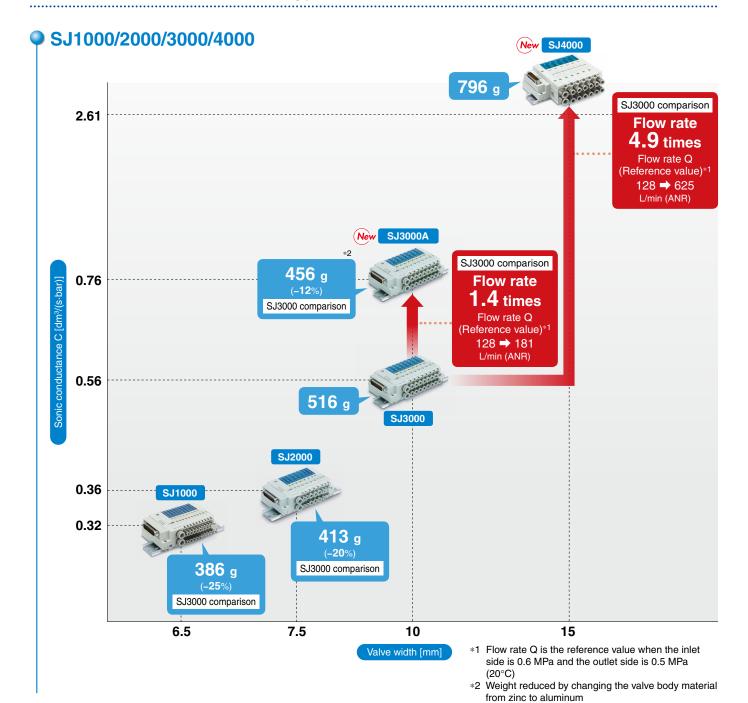


Allows for the mixed mounting of 5 SJ series valve sizes



*1 Inlet pressure: 0.6 MPa, Outlet pressure: 0.5 MPa (at 20°C)





Power consumption

0.15 W^{*1} (SJ3000/4000 with power-saving circuit) 0.23 W^{*1} (SJ1000/2000 with power-saving circuit) *1 Refer to page 140 for details.

Connector type (Card edge type)

SJ1000, SJ2000, SJ3000, and SJ4000 series valves can be mounted together.

- Easily increase or decrease the number of stations and easily replace valves
- •The 34-pin connector allows for up to 16 stations with double solenoids or 32 stations with single solenoids.



Non plug-in individual wiring

single solenoids

Weight (g) for the 5-station D sub-connector manifold/



The manifold uses halogen-free lead wires.



4-Port Solenoid Valve Cassette Type Manifold SJ1000/2000/3000/4000 Series

Piping variations

With One-touch fittings









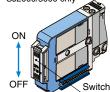
The threaded type is not available for the 1(P) or 3/5(E) ports.

	SJ1000	SJ2000	SJ3000	SJ4000
Elbow fitting	_	•	•	_
Thread piping	_	•	•	_

With switch (Connector type)

- It is possible to shut off the signal of each valve individually.
- Manual operation is possible by switching the valve OFF, even if it is in an energized state.

* SJ2000/3000 only



The valve coil is kept in a de-energized state even when there is an electric signal from the manifold side connector, and this enables manifold operation.

Manual locking

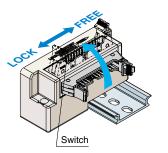
A sliding mechanism covers the manual override button to prevent unintentional operation.





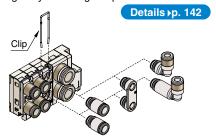
Connector mounting direction

Connecter mounting direction can be changed by sliding the switch.



Fittings are replaceable.

Fittings (including type and size) can be easily changed by removing a clip.



Valve connection mechanism

Connection between valves can be secured using the valve lock switch. Connection can be confirmed by checking to see whether the connection hook is inserted into the connection groove of the adjacent valve.

* Excludes the SJ4000

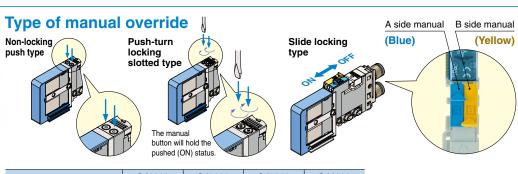




The word "FREE" can be seen when connection is unlocked.

Light indication



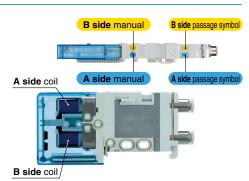


	SJ1000	SJ2000	SJ3000	SJ4000
Non-locking push type	•	•	•	•
Push-turn locking slotted type	•	•	•	•
Slide locking type	_	•	•	_

4-position dual 3-port valve

- 3-port valves integrated into a single valve
- It is possible to control the 4(A) and 2(B) ports individually.
- Can be mounted on the same manifold as a 4-port valve
- 3 types of combinations are available.

A side	B side	Symbol
N.C. valve	N.C. valve	4(A) 2(B)
N.O. valve	N.O. valve	4(A) 2(B) 75(EA) 1(P) 3(EB)
N.C. valve	N.O. valve	4(A) 2(B) VELLAS VELA (S) 5(EA) 1(P) 3(EB)



Connector Type Manifold



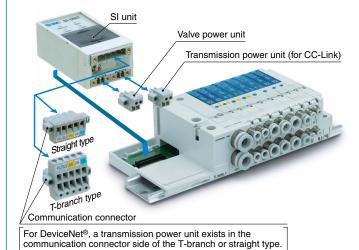
EX180 Integrated type (for output) serial transmission system



- CC-Link (32 outputs), DeviceNet[®] (16 or 32 outputs)
- The connector allows for easy attaching/detaching of the SI unit and wiring.

Separated valve power unit and transmission power unit/Improved maintenance safety

Select between a T-branch or a straight type communication connector



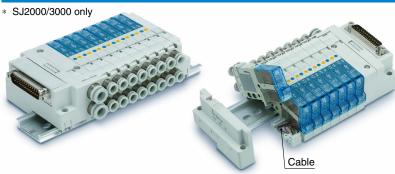
Flat ribbon cable

EX510 Gateway type serial transmission system



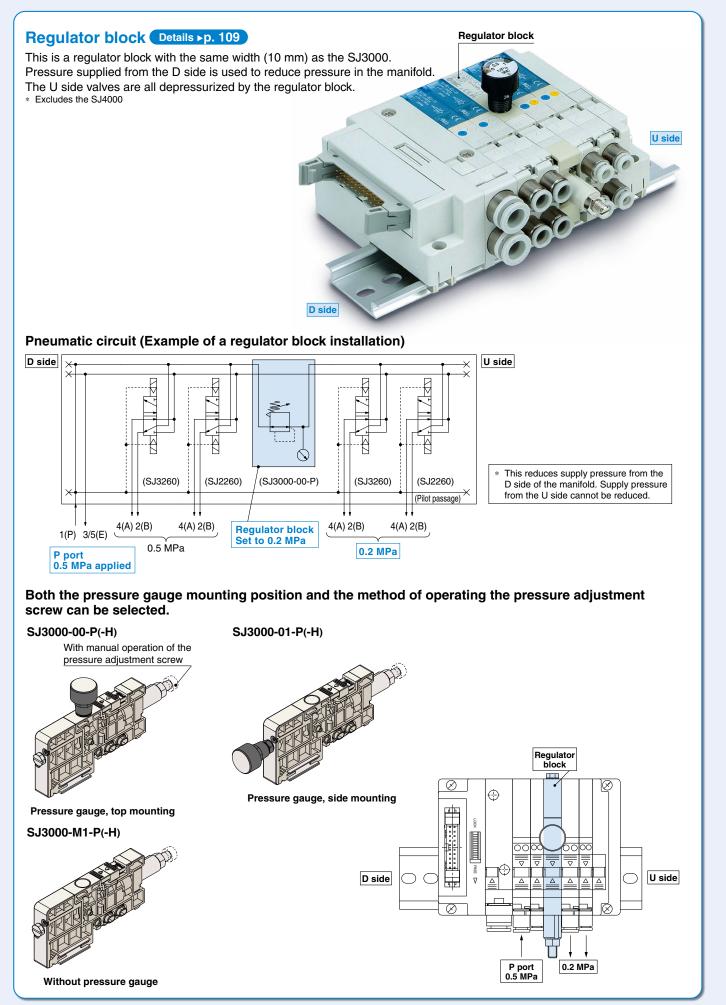
- Max. 128 points (Input 64 points/Output 64 points)
- All wires can be plugged into the connector units.
- CC-Link, DeviceNet®, and PROFIBUS-DP compliant

Plug-in Cable Type Manifold

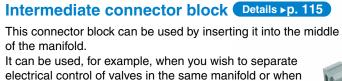


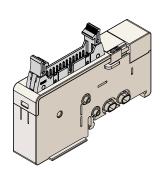


4-Port Solenoid Valve Cassette Type Manifold \$\int SJ1000/2000/3000/4000 \text{ Series}\$

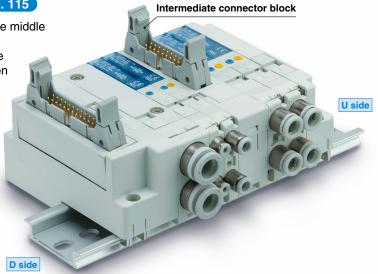


4-Port Solenoid Valve Cassette Type Manifold \$\int SJ1000/2000/3000/4000 \text{ Series}\$

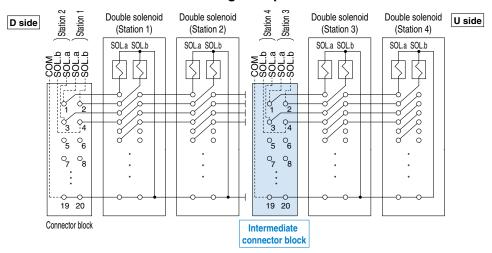




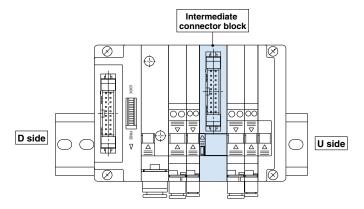
the number of control points is insufficient.



Intermediate connector block wiring example



- * The U side solenoid valve with an intermediate connector block can be controlled.
- * The intermediate connector block can be ordered using the manifold specification sheet.

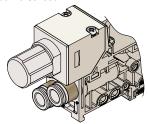


4-Port Solenoid Valve Cassette Type Manifold *SJ1000/2000/3000/4000 Series*

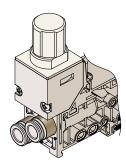
SUP/EXH block with regulator and pressure switch Details ▶ p. 111

This pressure regulator is intended to adjust the SUP pressure of the manifold. Additionally, a pressure switch and pressure gauge can be mounted on it.

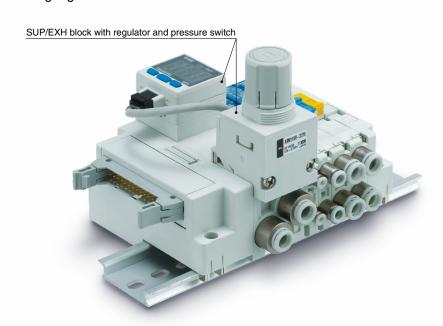
* Excludes the SJ4000



Lateral knob

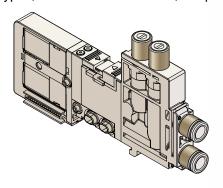


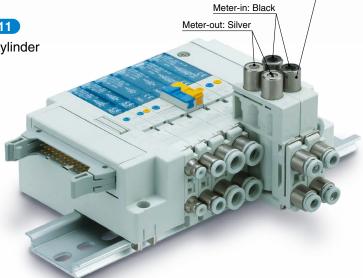
Upward knob



Valve with speed controller Details ▶ p. 111

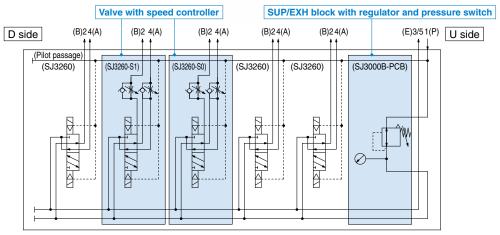
As a speed controller is built into this valve, the cylinder speed can be adjusted on the valve side. 2 types, meter-in and meter-out, are provided.





Valve with speed controller

Pneumatic circuit (Installation example of a SUP/EXH block with regulator and pressure switch and a valve with speed controller)



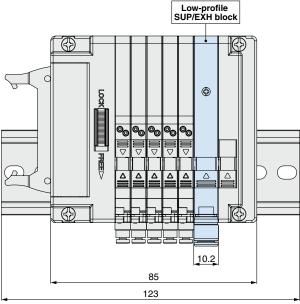
4-Port Solenoid Valve Cassette Type Manifold \$\int SJ1000/2000/3000/4000 \text{ Series}\$

Low-profile SUP/EXH block Details ▶p. 117 (Made to order)

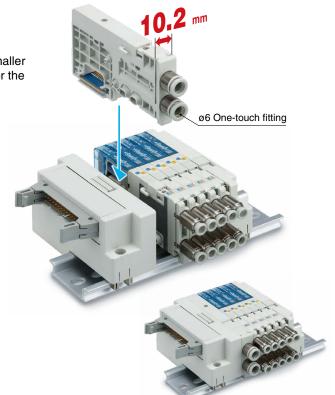
The width dimension of the SUP/EXH block is only 10.2 mm, smaller than the 15.5 mm width of the standard product, which allows for the length of the entire manifold to be reduced.

* Excludes the SJ4000

		[mm]
	Width	Reduction
Low-profile SUP/EXH block	10.2	5.3
Standard product	15.5	_



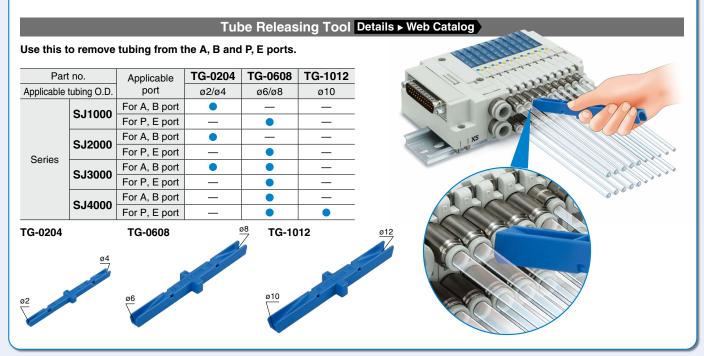
* SJ1000 5-station manifold example



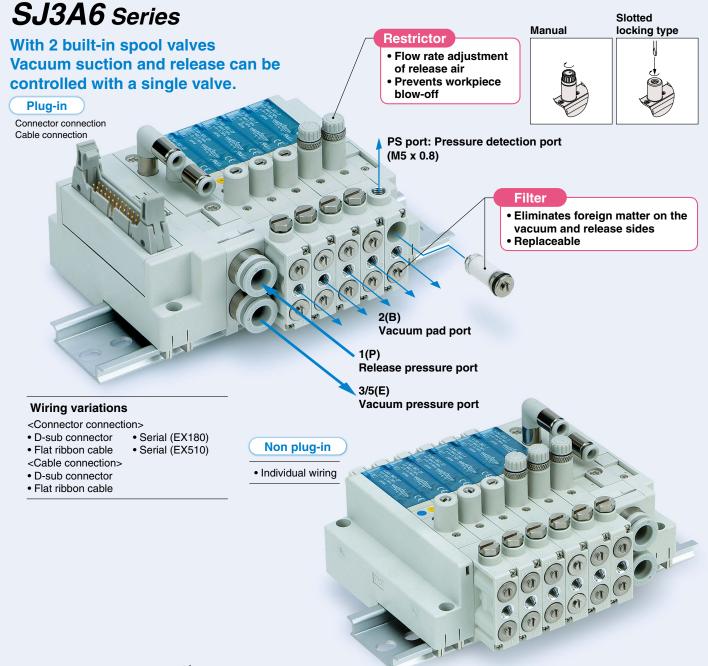
Flow Rate Characteristics

Flow hate Characteristics										
	Port	Port size Flow rate characteristics								
Series	1(P)	4, 2	1 → 4/2 (P → A/B)	$4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow \text{E)}$						
	3/5(E)	(A, B)	C [dm³/(s·bar)]	C [dm ³ /(s·bar)]						
SJ1000	C6	C2	0.12	0.13						
501000	Co	C4	0.26	0.30						
		C2	0.13	0.13						
SJ2000	C6	C4	0.30	0.34						
		МЗ	0.18	0.20						
		C2	0.13	0.14						
C 12000	C6	C4	0.38	0.45						
SJ3000	_ C6	C6	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
		M5	0.40	0.45						

- $\ast~$ The values are for an individually operated 2-position type manifold base with 5 stations.
- * Excludes the SJ3000A (Large flow type) and SJ4000



Vacuum Release Valve with Restrictor



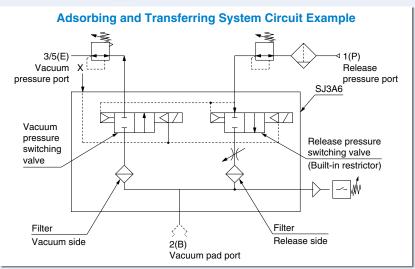
- Power consumption: 0.15 W*1 (with power-saving circuit)
- Width: 10 mm (same as the SJ3000 series)
- Equipped with restrictor to enable flow rate adjustment of release air
- Replaceable filters are built-in on the vacuum and release sides.
- Equipped with a pressure detection port which allows for the connection of a pressure switch, etc.
- Can be combined with 4-port solenoid valves, as well as SJ1000, 2000, and 3000 series valves (Special order)

(Please contact SMC for details.)

■ Enables 2-system pressure switching where the 1(P) port and the 3/5(E) port are set to different positive pressures

(In this case, flow can be adjusted on the P-port side only.)

*1 Refer to page 140 for details.





4-Port Solenoid Valve

SJ1000/2000/3000/4000 Series

Vacuum Release Valve with Restrictor

13A6 Se	eries	oo qns	at ribbo	EX1 (For ou	EX5 katewa	ndividı		
	Manifold type		Å	Ë		0)	_	
Plug-in	Connector type	SJ1000/2000/ 3000/4000 SS5J1/2/3/4-60□	p. 29	p. 29	p. 61	*8 p. 77	*1 *7 *8 • p. 30 p. 62 p. 78	
r iug-iii	Cable type	SJ2000/3000 SS5J2/3-60L□	p. 33	p. 33	_	_	_	
Non plug-	in	SJ2000/3000 SS5J2/3-60-□	_	_	_	_	p. 95	
Dlug in	Connector type	SJ3A6 SS3J3-V60□	p. 127	p. 127	p. 127	p. 127	*1 p. 128	
Plug-III	Cable type	SJ3A6 SS3J3-V60L□	p. 129	p. 129	_	_	_	
Non plug-	in	SJ3A6 SS3J3-V60-□	_	_	_	_	p. 133	
	Plug-in Plug-in	Plug-in Cable type Non plug-in Connector type Connector type	Connector type	Plug-in Connector type SJ1000/2000/3000/4000 SS5J1/2/3/4-60□ P. 29	Plug-in Connector type SJ1000/2000/3000/4000 SS5J1/2/3/4-60 P. 29 P. 33 P. 33	Connector type	Connector type	Plug-in Connector type SJ1000/2000/3000/3000/4000 P. 29 P. 29 P. 61 P. 77 P. 78 P.

- *1 A linkage-printed circuit board is built into individual wiring valves so as to allow for use in combination with the plug-in types.
- *2 Specify the required specifications on the manifold specification sheet.
- *3 All single wiring or all double wiring can be specified.
- *4 The vacuum release valve can only use double wiring.
- *5 Only the SJ3000 size is available.
- *6 Adding 1 additional station is possible up to the max. number of stations.

Connection

Parallel wiring | Serial transmission

on cable

nnector

Item

- *7 Only the SJ2000 and SJ3000 sizes are available.
- *8 Excludes the SJ4000



SJ1000/2000/3000/4000 Series SJ3A6 Series

				Mani	fold op	tions					Sole	noid va	lve spe	ecificat	tions
		ıţic				tch	ē			놧	Voltag	je suppi	ressor		
Mixed wiring Single/Double	Mixed type M60 SJ1000/2000/3000/4000	Block disk/ Different-pressure pneumatic circuit diagram	Blanking block	Dual flow fitting	Regulator block	SUP/EXH block with regulator and pressure switch	Valve with speed controller	Intermediate connector block	Increase of manifold stations	Low-profile SUP/EXH block	Non-polar	+/- common Polar	With power-saving circuit	With individual switch	Main valve fluororubber specification
*2	p. 29 p. 31	p. 103	p. 105	*5 p. 108	*8 p. 109	*8 p. 111	*5 p. 111	*8 p. 115	p. 90	*8 p. 117	*7			*7	*7 • p. 116
*3	_	p. 103	p. 105	*5 p. 108	_	_	*5 p. 111	_	*6 p. 91	p. 117	_	•		_	p. 116
•	*7 p. 95	p. 103	p. 105	*5 p. 108	p. 109	p. 111	*5 p. 111	_	p. 90	p. 117	_	•	_	_	p. 116
*4	_	p. 103	p. 105	_	_	_	_	p. 115	p. 90	p. 117		•	•		p. 116
*4	_	p. 103	p. 105	_	_	_	_	_	*6 p. 91	p. 117	_	•	•	_	p. 116
*4	_	p. 103	p. 105	_	-	_	-	-	p. 90	p. 117	_		_	_	p. 116

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85000	Dimensions: Connector Type, Cable Type	p. 37
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Q	How to Order: Connector Type	p. 61
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and the state of t	Individual Wiring	
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Construction/Circuit Example	e	p. 126
Plug-in Connector Type	Manifold/Cable Type Manifold	
	D-sub Connector/Flat Ribbon Cable/Serial Wiring (EX180/	EX510)
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(cocce	How to Order: Cable Type	p. 129
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Non Plug-in Individual V	Viring Manifold Individual Wiring How to Order Dimensions	•

Vacuum Release Valve with Restrictor SJ3A6 Series

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Manifold Exploded View: Connector Type, Cable Type, Individual Wiring p. 136

Specific Product Precautions p. 138

4-Port Solenoid Valve SJ1000/2000/3000/4000 Series Common Specifications

Manifold Specifications

			D-sub connector		Flat ribbon cable		Serial	wiring	Individual wiring			
Model*1		Type 60F (Connector type/ Cable type	Type 60P (Connector type/ Cable type	Type 60PG (Connector type/ Cable type	Type 60PH (Connector type/ Cable type	Type 60S□ (EX180/ (Connector type)	Type 60S6B*4 (EX510/ Connector type)	Type 60*4				
Manifol	nifold type Plug-in, Connector type/Cable type Plug-in, Connector type				nnector type	Non plug-in						
1(P: SU	P), 3/5(E: E)	KH)			C	Common SUP, EX	Н					
Valve st	tations		Connector type: Cable type: 2	1 to 24 stations to 20 stations	1 to 18 stations (Type PG)	1 to 8 stations	1 to 32 stations	1 to 16 stations	1 to 20 stations			
Applicable connector		tor	D-sub connector Compliant with MIL-C-24308 JIS-X-5101	Socket: 26 pins MIL type with strain relief	Flat ribbon cable connector Socket: 20 pins MIL type with strain relief Compliant with MIL-C-83503	Flat ribbon cable connector Socket: 10 pins MIL type with strain relief Compliant with MIL- C-83503	_	_	_			
	SJ1000			Connect	or type: positive c	ommon, negative	common		_			
Internal wiring	SJ2000/30	00(A)	Connector type: r	non-polar, positive o	common, negative of	common/Cable type:	positive common,	negative common	_			
wiinig	SJ4000		Connector type	: non-polar, positi	ve common, nega	ative common		_	_			
4(A), 2(E		Location	Valve									
piping s	pecification	Direction	Horizontal, Upward,	Horizontal, Upward, Downward (Elbow fittings are used for upward or downward. Upward and downward are not available for the SJ1000/4000								
	1(P), 3/5(E) port	SJ1000/ 2000/ 3000(A)		C6, C8, N7, N9*5								
Port		SJ4000				C10*6						
size		SJ1000				C2, C4						
	4(A),	SJ2000				C2, C4, N1, N3, M						
	2(B) port	SJ3000			C2, (C4, C6, N1, N3, N	7, M5					
		SJ3000A				C4, C6						
		SJ4000				C6, C8						
Weight W [g]*2		SJ1000/ 2000/ 3000(A)		Low-		ard: W = 51n + m block specification		133* ³				
(iii. iroigiit.	V: 5:11 (UII	SJ4000			Manifold [D-su	b connector]: W =	81n + m + 144					

- *1 The SJ1000/4000 series does not support cable connection or individual wiring.
- *2 The weight W is the value for the D-sub connector manifold with internal pilot and SUP/EXH block straight fittings specifications only. To obtain the weight with solenoid valves mounted, add the solenoid valve weights given on page 16 for the appropriate number of stations. Refer to page 106 for the weight of the DIN rail. (Please contact SMC for the weight of the external pilot specification with elbow fittings.)
- *3 Refer to page 117 for low-profile SUP/EXH block specifications.
- *4 Not available for the SJ4000 series
- *5 Inch size elbow fittings are not available.
- *6 Metric/Inch size elbow fittings are not available.
- * When many valves are operated simultaneously, use the B type (SUP/EXH both sides), supplying pressure to the 1(P) ports on both sides and exhausting from the 3/5(E) ports on both sides.



Common Specifications *SJ1000/2000/3000/4000 Series*

Flow Rate Characteristics

SJ1000 Series

Port s	size	Flow rate characteristics							
1(P)	4, 2		$1 \rightarrow 4/2 \text{ (P} \rightarrow A/B) $ $4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow E$						
3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv		
C8	C2	0.12	0.64	0.04	0.13	0.59	0.04		
	C4	0.28	0.35	0.08	0.32	0.33	0.08		

SJ2000 Series

Port size Flow rate characteristics											
1(P)	4, 2		$1 \rightarrow 4/2 \ (P \rightarrow A/B)$			$4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow \text{E)}$	→ E)				
3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	→ E) Cv 0.04				
	C2	0.13	0.55	0.04	0.13	0.50	0.04				
C8	C4	0.33	0.16	0.08	0.36	0.13	0.08				
	МЗ	0.18	0.52	0.06	0.20	0.29	0.06				

SJ3000 Series

Port s	ize			Flow rate ch	naracteristics		
1(P)	4, 2		$1 \rightarrow 4/2 \ (P \rightarrow A/B)$		$4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow \text{E)}$		
3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv
	C2	0.13	0.56	0.04	0.14	0.51	0.04
C 0	C4	0.42	0.17	0.11	0.45	0.16	0.11
C8	C6	0.55	0.10	0.12	0.56	0.11	0.12
	M5	0.40	0.28	0.11	0.45	0.15	0.11

SJ3000A Series

Port si	ize	Flow rate characteristics						
1(P)	4, 2		$1 \rightarrow 4/2 \ (P \rightarrow A/B)$			4/2 → 3/5 (A/B → E)		
3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm3/(s·bar)]	b	Cv	
	C4	0.53	0.34	0.17	0.75	0.21	0.20	
C8	C6	0.68	0.27	0.19	0.76	0.19	0.21	
	M5	0.55	0.33	0.16	0.75	0.21	0.20	

SJ4000 Series

004000	oci ica						
Port s	ize	Flow rate characteristics					
1(P)	4, 2		1 → 4/2 (P → A/B)			$4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow \text{E)}$	
3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv
C10	C6	1.47	0.36	0.43	2.34	0.34	0.70
C10	C8	2.14	0.24	0.58	2.61	0.20	0.68

* The values are for an individually operated 2-position type manifold base with 5 stations. Please contact SMC for details on 4-position dual 3-port valves.

t Individ

Specific Product Precautions





D-sub connector



Flat ribbon cable



EX180 Integrated type (for output) serial transmission system



EX510 Gateway type serial transmission system



Individual wiring

Solenoid Valve Specifications

Fluid			Air
Internal pilot	2-position		0.15 to 0.7
operating pressure	2-position	dual 3-port valve	0.1 to 0.7
range [MPa]	3-position		0.2 to 0.7
	Operating	pressure range	-100 kPa to 0.7
External pilot operating pressure	Pilot	2-position single	
range [MPa]	pressure	2-position double	0.25 to 0.7
•	range	3-position	
Ambient and fluid te	mperatures	s [°C]	-10 to 50 (No freezing)
	2-position single, double		10 (SJ4000: 5 Hz)
Max. operating frequency [Hz]	4-position dual 3-port valve		10 (304000. 3 112)
,, []	3-position		3
Manual override (Ma	nual anara	tion)	Non-locking push type
Mariuai Overriue (Ma	iluai opera	lion)	Push-turn locking slotted type
Pilot exhaust method	Internal p	ilot	Main and pilot valve common exhaust
FIIOL EXHAUST METHOD	External p	oilot	Pilot valve individual exhaust
Lubrication			Not required
Mounting orientation			Unrestricted
Impact/Vibration resistance [m/s²]			150/30
Enclosure			Dustproof

^{*} Impact resistance : No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states for each condition. (Value in the initial state)

Solenoid Specifications

Coil rated voltag	e	24 VDC, 12 VDC*4		
Allowable voltag	e fluctuation	±10% of rated voltage*1		
Power consumption [W]	Standard	SJ2000	0.55	
	Standard	SJ3000/4000	0.4	
	With power- saving circuit*3 (Continuous duty type)	SJ1000/2000	0.23*2 [Starting 0.55, Holding 0.23]	
		SJ3000/4000	0.15*2 [Starting 0.4, Holding 0.15]	
Surge voltage suppressor		Diode		
Indicator light		LED		

^{*1} For the allowable voltage fluctuation for Z and T types (with power-saving circuit), please observe the following range because they have voltage drop due to internal circuit.

Z type 24 VDC: -7% to +10%

12 VDC: -4% to +10%

T type 24 VDC: -5% to +10% 12 VDC: -6% to +10%

*2 Refer to page 140 for details.

- *3 SJ1000 series available as power-saving type only. Standard type (without power-saving circuit) cannot be selected.
- *4 The 12 VDC specification is not available for the SJ4000.

Response Time

Tune of actuation	Response time [ms] (at 0.5 MPa)				
Type of actuation	SJ1000	SJ2000	SJ3000	SJ4000	
2-position single	16	16	16	26	
2-position double	10	10	10	12	
3-position	20	34	22	29	
4-position dual 3-port valve	18	30	30	30	

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



Common Specifications **SJ1000/2000/3000/4000 Series**

Weight

Model: SJ1000/2000 Series

V Port size W						
Valve model		ype of actuation	4(A), 2(B)	Weight [g]		
		Single	.(- ,/, _(_/	34		
	2-position	Double	C2	38		
C IA COT OO		Closed center				
SJ1□60T-C2	3-position		/ ø2 One-	41		
	'	Pressure center	\touch fitting/			
	4-position	Dual 3-port valve		38		
	0	Single		36		
	2-position	Double	C4	40		
SJ1□60T-C4		Closed center				
5J1 1 601-C4	3-position	Exhaust center	ø4 One-	43		
	'	Pressure center	touch fitting			
	4-position	Dual 3-port valve		40		
	2-position	Single		43		
		Double	C2	46		
SJ2□60-C2	3-position	Closed center	/ ø2 One- \			
302-00-02		Exhaust center		50		
		Pressure center	\touch fitting/			
	4-position	Dual 3-port valve		46		
	2-position	Single		41		
	2-003111011	Double	C4	44		
SJ2□60-C4		Closed center	/ ø4 One- \			
302-00-04	3-position	Exhaust center	11	48		
		Pressure center	touch fitting			
	4-position			44		
	2-position	Single		39		
	2 position	Double		42		
SJ2□60-M3		Closed center	M3 x 0.5			
302_00-IVI3	3-position	Exhaust center	IVIO X 0.5	46		
		Pressure center				
	4-position	Dual 3-port valve		42		

^{*} Please contact SMC for the weight of elbow fittings.

Model: SJ3000 Series

Valve model		ype of actuation	Port size	Weight
valve model		ype or actuation	4(A), 2(B)	[g]
	2-position	Single		63
	2 position	Double	C2	71
SJ3□60-C2		Closed center	/ ø2 One- \	
SJ3□60-C2	3-position		touch fitting	75
		Pressure center	\touch illing/	
	4-position	Dual 3-port valve		71
	2-position	Single		65
	2 position	Double	C4	73
SJ3□60-C4		Closed center	/ ø4 One- \	
303_00-04	3-position	Exhaust center	1 1	77
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		73
	2-position	Single		61
	2-003111011	Double	C6	69
SJ3□60-C6	3-position	Closed center	/ ø6 One- \	
303-00-00		Exhaust center		73
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		69
	2-position	Single		57
	2-position	Double		65
SJ3□60-M5	3-position	Closed center	M5 x 0.8	
203 LOU-IVIS		Exhaust center	IVIO X U.O	69
		Pressure center		
	4-position	Dual 3-port valve		65
		Single	C4	53
SJ3□60A-C4			/ ø4 One- \	
		Double	touch fitting	64
		Cinalo	C6	49
SJ3□60A-C6	2-position	Single	/ ø6 One- \	49
	2-position	Double	touch fitting	60
		Single		46
SJ3□60A-M5			M5×0.8	
		Double		57

^{*} Please contact SMC for the weight of elbow fittings.

Model: SJ4000 Series

Valve model Tv		ype of actuation	Port size	Weight
valve model	<u>'</u>	ype or actuation	4(A), 2(B)	[g]
	2-position	Single		111
	2-position	Double	C6	121
SJ4□60-C6		Closed center	/ ø6 One- \	131
304_00-00	3-position	Exhaust center		
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		120
	2-position	Single		108
		Double	C8	118
SJ4□60-C8	3-position	Closed center	/ ø8 One- \	
304 <u>0</u> 00-00		Exhaust center	1 1	128
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		117

Valve model Type of actuation		vne of actuation	Port size	Weight
valve model	•	<u> </u>	4(A), 2(B)	[g]
	2-position	Single		63
	- pooliion	Double	C2	71
SJ3□60-C2		Closed center	/ ø2 One- \	
0000000	3-position	Exhaust center	touch fitting	75
		Pressure center	(touch litting)	
	4-position	Dual 3-port valve		71
	2-position	Single		65
	2 position	Double	C4	73
SJ3□60-C4		Closed center	/ ø4 One- \	
000000	3-position	Exhaust center	1 1	77
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		73
	2-position	Single		61
	2-position	Double	C6	69
SJ3□60-C6	3-position	Closed center	/ ø6 One- \	
303_00-00		Exhaust center	1 1	73
		Pressure center	\touch fitting/	
	4-position	Dual 3-port valve		69
	2-position	Single		57
		Double		65
SJ3□60-M5	3-position	Closed center	M5 x 0.8	
303 LOU-IVIS		Exhaust center	IVIO X U.O	69
		Pressure center		
	4-position	Dual 3-port valve		65
		Single	C4	53
SJ3□60A-C4		- Inglo	/ ø4 One- \	
303-00A-CT		Double	1 1	64
		Double	\touch fitting/	U-7
		Single	C6	49
SJ3□60A-C6	2-position	On 1910	/ ø6 One- \	
	2-position	Double	touch fitting	60
		Doublo	\touch hung/	
		Single		46
SJ3□60A-M5			M5×0.8	
OCCUPATION		Double	111070.0	57

Plug-in

SJ3A6

Plug-in

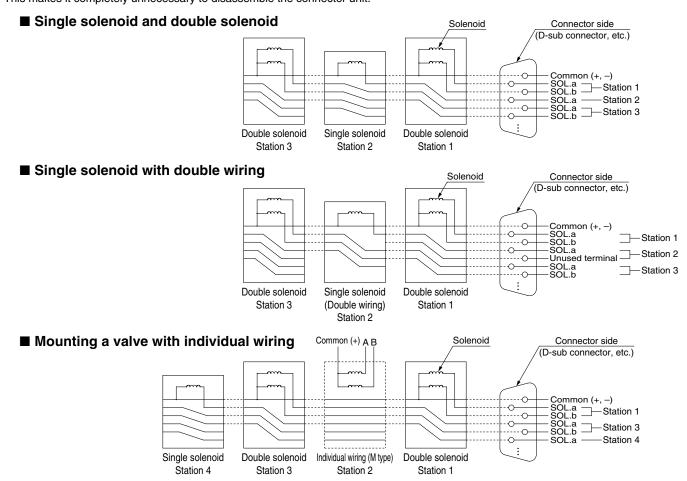
EX510 EX180 Flat Ribbon

Specific Product Precautions



Connector Wiring Diagram

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.



17

Construction

SJ1000/2000: Connector Type

Symbol

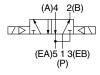
2-position single



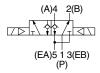
2-position single with back pressure check valve



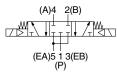
2-position double



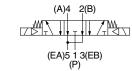
2-position double with back pressure check valve



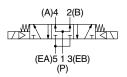
3-position closed center



3-position exhaust center



3-position pressure center



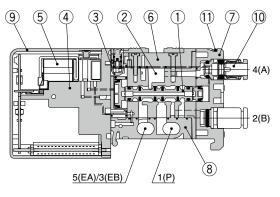
Component Parts

No.	Description	Material	Note
		Resin/HNBR	
1	Spool valve assembly	3-position solenoid valve:	_
		\Aluminum/HNBR/	
2	Body	Zinc die-cast	_
3	Adapter plate	Resin	White
4	Pilot adapter	Resin	White
5	Pilot valve assembly	_	_
6	Body cover	Resin	White
7	Port block	Resin	White
8	Bottom cover	Resin	White
9	Light cover	Resin	Light blue

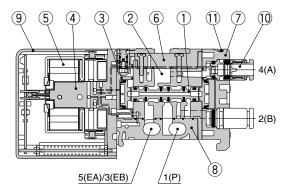
Replacement Parts

prince in the case of the case						
Description		Part no.				
One-touch fitting		Refer to the One-touch fitting part no. on page 142.				
Clin	SJ1000	SJ1000-CL-1 (10 pcs.)				
SJ2000		SJ2000-CL-1 (10 pcs.)				
	Descrip	Description One-touch fitting Clin SJ1000				

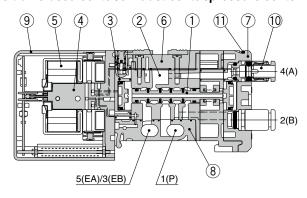
2-position single



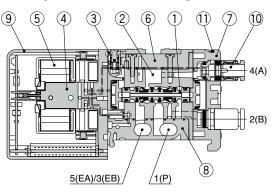
2-position double



3-position closed center/exhaust center/pressure center



SJ1260KT/SJ2260K [With back pressure check valve]



struction Common Specification

Plug-in

EX510 EX180 Flat Ribbon

lual Non

Manifold Options

Made to Order

SJ3A6

Common Spec.

Plug-in

D-sub Flat Ribbon Serial

Non Plug-in

Individual Wiring

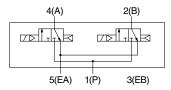
Specific Product Precautions



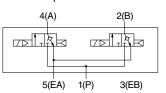
SJ1000/2000: Connector Type

Symbol

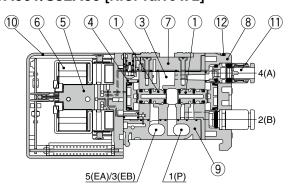
4-position dual 3-port valve SJ1A60T/SJ2A60 [N.C. valve x 2]



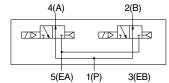
SJ1A60KT/SJ2A60K with back pressure check valve



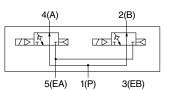
SJ1A60T/SJ2A60 [N.C. valve x 2]



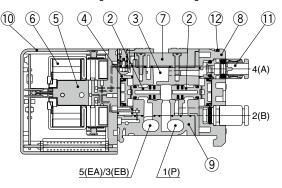
SJ1B60T/SJ2B60 [N.O. valve x 2]



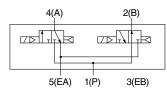
SJ1B60KT/SJ2B60K with back pressure check valve



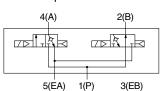
SJ1B60T/SJ2B60 [N.O. valve x 2]



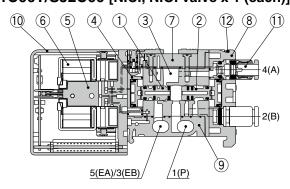
SJ1C60T/SJ2C60 [N.C., N.O. valve x 1 (each)]



SJ1C60KT/SJ2C60K with back pressure check valve



SJ1C60T/SJ2C60 [N.C., N.O. valve x 1 (each)]



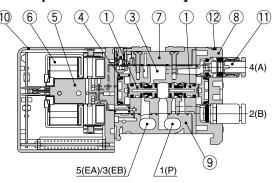
Component Parts

No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR	N.C. (Normally closed)
2	Spool valve assembly	Resin/HNBR	N.O. (Normally open)
3	Body	Zinc die-cast	_
4	Adapter plate	Resin	White
5	Pilot adapter	Resin	White
6	Pilot valve assembly	_	_
7	Body cover	Resin	White
8	Port block	Resin	White
9	Bottom cover	Resin	White
10	Light cover	Resin	Light blue
	9		

Replacement Parts

No.	Description		Part no.
11	One-touch fitting		Refer to the One-touch fitting part no. on page 142.
40 01:		SJ1000	SJ1000-CL-1 (10 pcs.)
12	Clip SJ2000		SJ2000-CL-1 (10 pcs.)

SJ1A60KT/SJ2A60K [With back pressure check valve]



Construction SJ1000/2000/3000/4000 Series

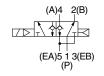
SJ3000: Connector Type

Symbol

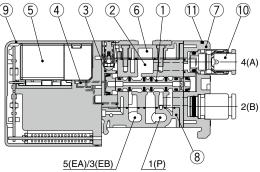
2-position single

2-position single with back pressure check valve



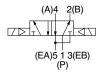


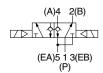
2-position single [SJ31□□(A)]



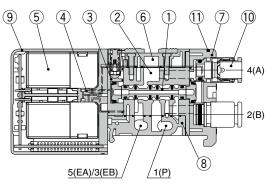
2-position double

2-position double with back pressure check valve



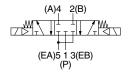


2-position double [SJ32□□(A)]

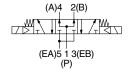


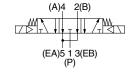
3-position closed center

3-position exhaust center



3-position pressure center





Component Parts

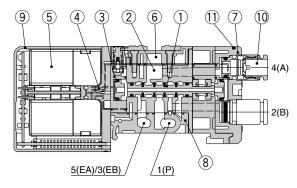
No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR (3-position solenoid valve: Aluminum/HNBR)	_
2	Body	Zinc die-cast*1	_
3	Adapter plate	Resin	White
4	Pilot adapter	Resin	White
5	Pilot valve assembly	_	_
6	Body cover	Resin	White
7	Port block	Resin	White
8	Bottom cover	Resin	White
9	Light cover	Resin	Light blue
*1 Aluminum die-cast is used for the SJ3000A.			

¹ Aluminum die-cast is used for the SJ3000A.

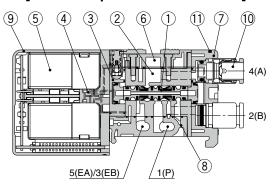
Replacement Parts

No.	Description	Part no.
10	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
11	Clip	SJ3000-CL-1 (10 pcs.)

3-position closed center/exhaust center/pressure center



SJ3260K [With back pressure check valve]



Made to Order SJ3A6

Plug-in

D-sub Flat Ribbon

EX510 EX180

Non Plug-in

Manifold Options

Plug-in

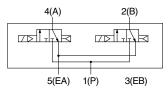
Specific Product Precautions



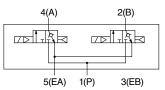
SJ3000: Connector Type

Symbol

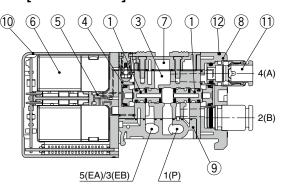
4-position dual 3-port valve SJ3A60 [N.C. valve x 2]



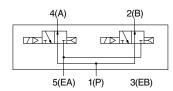
SJ3A60K with back pressure check valve



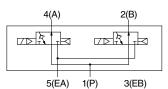
SJ3A60 [N.C. valve x 2]



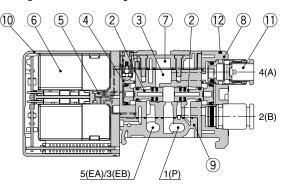
SJ3B60 [N.O. valve x 2]



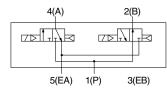
SJ3B60K with back pressure check valve



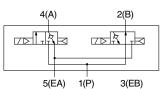
SJ3B60 [N.O. valve x 2]



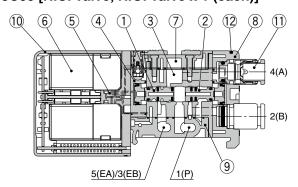
SJ3C60 [N.C., N.O. valve x 1 (each)]



SJ3C60K with back pressure check valve



SJ3C60 [N.C. valve, N.O. valve x 1 (each)]



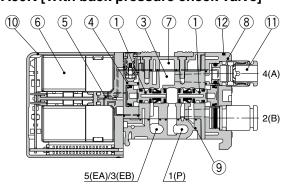
Component Parts

No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR	N.C. (Normally closed)
2	Spool valve assembly	Resin/HNBR	N.O. (Normally open)
3	Body	Zinc die-cast	_
4	Adapter plate	Resin	White
5	Pilot adapter	Resin	White
6	Pilot valve assembly	_	_
7	Body cover	Resin	White
8	Port block	Resin	White
9	Bottom cover	Resin	White
10	Light cover	Resin	Light blue

Replacement Parts

	ricpiacement i arts			
	No.	Description	Part no.	
11 One-touch fitting		One-touch fitting	Refer to the One-touch fitting part no. on page 142.	
12 Clip SJ3000-CL-1 (10 pcs.)		SJ3000-CL-1 (10 pcs.)		

SJ3A60K [With back pressure check valve]



Construction SJ1000/2000/3000/4000 Series

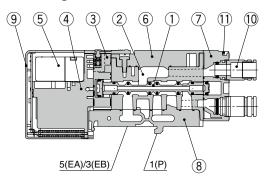
SJ4000: Connector Type

Symbol

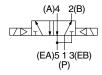
2-position single



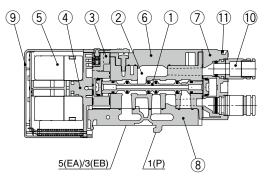
2-position single



2-position double



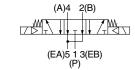
2-position double



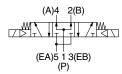
3-position closed center

(EA)5 1 3(EB) (P)

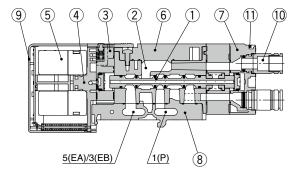
3-position exhaust center







3-position closed center/exhaust center/pressure center



Component Parts

No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR (3-position solenoid valve: Aluminum/HNBR)	_
2	Body	Aluminum die-cast	_
3	Adapter plate	Resin	White
4	Pilot adapter	Resin	White
5	Pilot valve assembly	_	_
6	Body cover	Resin	White
7	Port block	Resin	White
8	Bottom cover	Resin	White
9	Light cover	Resin	Light blue

Replacement Parts

No.	Description	Part no.
10	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
11	Clip	JSY31M-19P-1A (10 pcs.)

Plug-in

EX510 EX180 Plat Ribbon

Non Plug-in

Manifold Options

Made to Order

SJ3A6

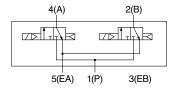
Plug-in

Specific Product Precautions

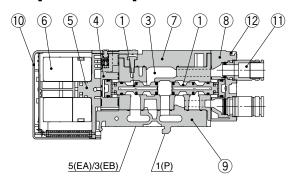
SJ4000: Connector Type

Symbol

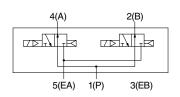
4-position dual 3-port valve SJ4A60 [N.C. valve x 2]



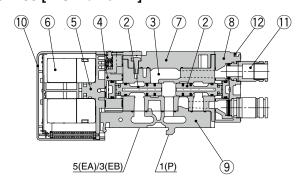
SJ4A60 [N.C. valve x 2]



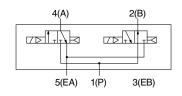
SJ4B60 [N.O. valve x 2]



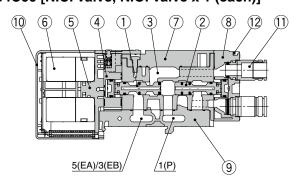
SJ4B60 [N.O. valve x 2]



SJ4C60 [N.C., N.O. valve x 1 (each)]



SJ4C60 [N.C. valve, N.O. valve x 1 (each)]



Component Parts

00111					
No.	Description	Material	Note		
1	Spool valve assembly	Resin/HNBR	N.C. (Normally closed)		
2	Spool valve assembly	Resin/HNBR	N.O. (Normally open)		
3	Body	Aluminum die-cast	_		
4	Adapter plate	Resin	White		
5	Pilot adapter	Resin	White		
6	Pilot valve assembly	_	_		
7	Body cover	Resin	White		
8	Port block	Resin	White		
9	Bottom cover	Resin	White		
10	Light cover	Resin	Light blue		

Replacement Parts

No.	Description	Part no.	
11	One-touch fitting	Refer to the One-touch fitting part no. on page 142.	
12	Clip	JSY31M-19P-1A (10 pcs.)	



Symbol

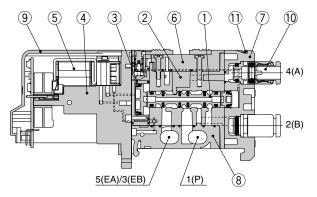
2-position single



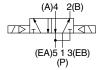
2-position single with back pressure check valve



2-position single



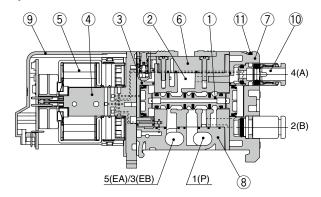
2-position double



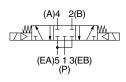
2-position double with back pressure check valve



2-position double

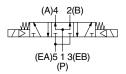


3-position closed center

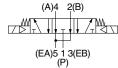




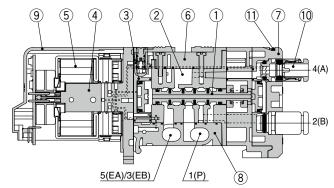




3-position	exhaust	center
------------	---------	--------



3-position closed center/exhaust center/pressure center



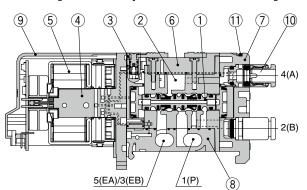
Component Parts

No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR (3-position solenoid valve: Aluminum/HNBR)	_
2	Body	Zinc die-cast	_
3	Adapter plate	Resin	White
4	Pilot adapter	Resin	White
5	Pilot valve assembly	_	_
6	Body cover	Resin	White
7	Port block	Resin	White
8	Bottom cover assembly	Resin	White
9	Light cover	Resin	Light blue

Replacement Parts

No.	Description	Part no.
10	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
11	Clip	SJ2000-CL-1 (10 pcs.)

SJ2260K [With back pressure check valve]



Plug-in

EX510 EX180 Plat Ribbon

Non Plug-in

Manifold Options

Made to Order

SJ3A6

Plug-in

Non Plug-in

Specific Product Precautions

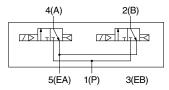


SJ2000/3000 Series

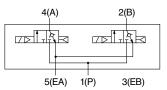
SJ2000: Cable Type

Symbol

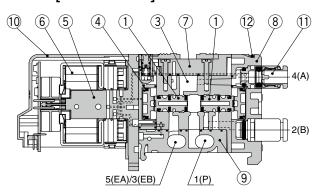
4-position dual 3-port valve SJ2A60 [N.C. valve x 2]



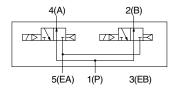
SJ2A60K with back pressure check valve



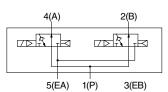
SJ2A60 [N.C. valve x 2]



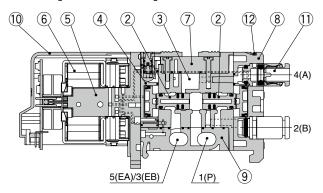
SJ2B60 [N.O. valve x 2]



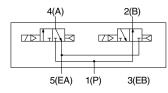
SJ2B60K with back pressure check valve



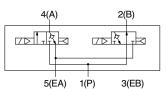
SJ2B60 [N.O. valve x 2]



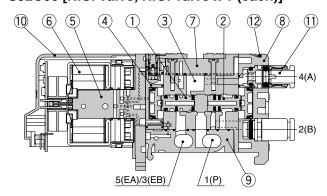
SJ2C60 [N.C., N.O. valve x 1 (each)]



SJ2C60K with back pressure check valve



SJ2C60 [N.C. valve, N.O. valve x 1 (each)]



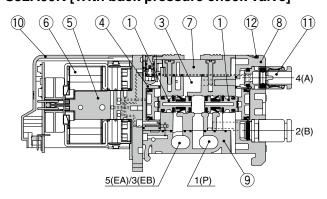
Component Parts

	P		
No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR	N.C. (Normally closed)
2	Spool valve assembly	Resin/HNBR	N.O. (Normally open)
3	Body	Zinc die-cast	_
4	Adapter plate	Resin	White
5	Pilot adapter	Resin	White
6	Pilot valve assembly	_	_
7	Body cover	Resin	White
8	Port block	Resin	White
9	Bottom cover assembly	Resin	White
10	Light cover	Resin	Light blue

Replacement Parts

ricpiacement i arts		
No. Description Part no.		Part no.
11	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
12	Clip	SJ2000-CL-1 (10 pcs.)

SJ2A60K [With back pressure check valve]



SJ3000: Cable Type

Symbol

2-position single

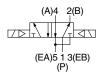
2-position single with back pressure check valve

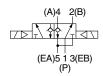




2-position double

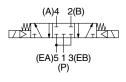
2-position double with back pressure check valve

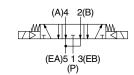




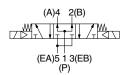
3-position closed center

3-position exhaust center





3-position pressure center



Component Parts

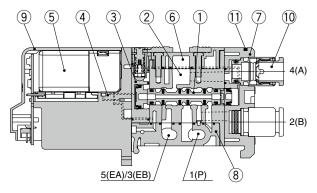
	o o in position to the to				
No.	Description	Material	Note		
1	Spool valve assembly	Resin/HNBR (3-position solenoid valve: Aluminum/HNBR)	_		
2	Body	Zinc die-cast*1	_		
3	Adapter plate	Resin	White		
4	Pilot adapter	Resin	White		
5	Pilot valve assembly	_	_		
6	Body cover	Resin	White		
7	Port block	Resin	White		
8	Bottom cover assembly	Resin	White		
9	Light cover	Resin	Light blue		
4 41					

^{*1} Aluminum die-cast is used for the SJ3000A.

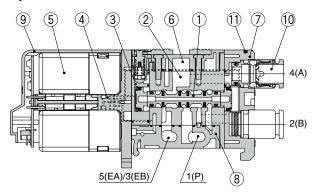
Replacement Parts

No.	Description	Part no.
10	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
11	Clip	SJ3000-CL-1 (10 pcs.)

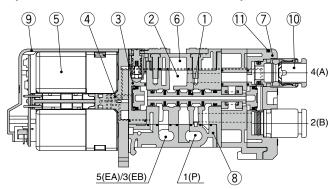
2-position single



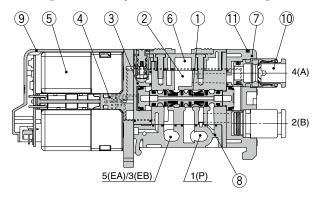
2-position double



3-position closed center/exhaust center/pressure center



SJ3260K [With back pressure check valve]



Plug-in

D-sub Flat Ribbon EX510 EX180

Non Plug-in

Manifold Options

Made to Order

SJ3A6

Plug-in

Specific Product Precautions

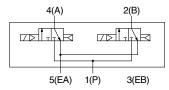


SJ2000/3000 Series

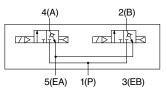
SJ3000: Cable Type

Symbol

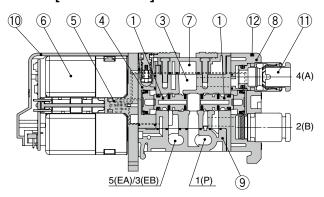
4-position dual 3-port valve SJ3A60 [N.C. valve x 2]



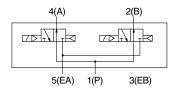
SJ3A60K with back pressure check valve



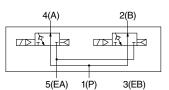
SJ3A60 [N.C. valve x 2]



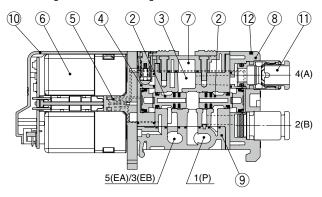
SJ3B60 [N.O. valve x 2]



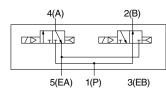
SJ3B60K with back pressure check valve



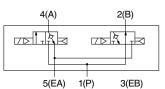
SJ3B60 [N.O. valve x 2]



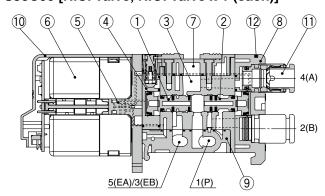
SJ3C60 [N.C., N.O. valve x 1 (each)]



SJ3C60K with back pressure check valve



SJ3C60 [N.C. valve, N.O. valve x 1 (each)]



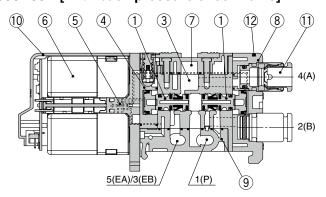
Component Parts

No.	Description	Material	Note
1	Spool valve assembly	Resin/HNBR	N.C. (Normally closed)
2	Spool valve assembly	Resin/HNBR	N.O. (Normally open)
3	Body	Zinc die-cast	_
4	Adapter plate	Resin	White
5	Pilot adapter	Resin	White
6	Pilot valve assembly	_	_
7	Body cover	Resin	White
8	Port block	Resin	White
9	Bottom cover assembly	Resin	White
10	Light cover	Resin	Light blue

Replacement Parts

ricpiacement i arts		
No. Description Part no.		Part no.
11	One-touch fitting	Refer to the One-touch fitting part no. on page 142.
12	Clip	SJ3000-CL-1 (10 pcs.)

SJ3A60K [With back pressure check valve]



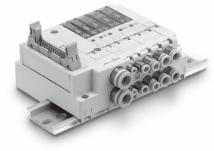
Plug-in Connector Type Manifold Cable Type Manifold

SJ1000/2000/3000/4000 Series



Connector Type Manifold
D-sub Connector/Flat Ribbon Cable

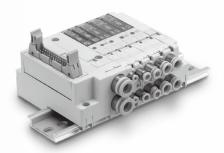




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Cable Type Manifold
D-sub Connector/Flat Ribbon Cable



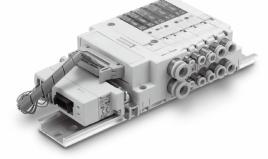


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Connector Type Manifold EX180 Integrated Type (For Output) Serial Transmission System



Connector Type Manifold EX510 Gateway Type Serial Transmission System

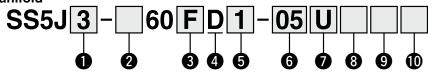


Plug-in Connector Type (CA CA **D-sub Connector/Flat Ribbon Cable** SJ1000/2000/3000 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

Connector type manifold



Series

1	SJ1000	
2	SJ2000	
	SJ3000	
3	(SJ1000/2000/3000 mixed*1)	
	mixed)	

*1 Select "3" for the combination of SJ1000 and SJ2000 valves.

2 Mixed mounting type

Nil	Standard*1
M	Mixed mounting*2

- *1 For SJ1000, 2000, and 3000 series valves. leave blank when only using a single series
- Select "M" when SJ1000, SJ2000, or SJ3000 series valves will be mounted on the same manifold base together.

3 Connector type

P: Flat ribbon cable (26 pins)

PH: Flat ribbon cable (10 pins)

Note

Up to 24 solenoids

can be selected.

Up to 8 solenoids can be selected.

Symbol Stations

24

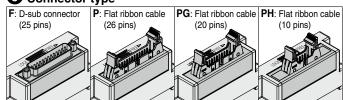
08

1 station

24 stations

1 station

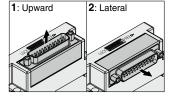
8 stations



4 Connector mounting position

Symbol	Mounting position
D	D side

5 Connector entry direction



6 Valve stations

F: D-sub connector

Symbol	Stations	Note
01	1 station	l la ta O4 a alamaida
1		Up to 24 solenoids can be selected.
24	24 stations	can be selected.

PG: Flat ribbon cable (20 pins)

Symbol	Stations	Note	
01	1 station	lla to 10 colonoido	
i		Up to 18 solenoid can be selected.	
18	18 stations		

SUP/EXH block mounting position

U	U side
D	D side
В	Both sides
M*1	Special specifications

*1 Specify the required specifications (including port sizes other than Ø8) on the manifold specification sheet.

Symbol Stations 01

Symbol	Stations	Note
01	1 station	l la ta 10 aalamaida
i		Up to 18 solenoids can be selected.
18	18 stations	can be selected.

This number also includes the blanking block. Since single and double wiring are available for the blanking block, select a model compatible with the valve wiring specification to be used. (Refer to page 105.)

8 Pilot type

Nil	Internal pilot
s	Internal pilot, Built-in silencer
R	External pilot
RS	External pilot, Built-in silencer

- There is no need to enter anything when the SUP/ EXH block mounting position "M" is selected
- * The 3/5(E) port is plugged for the built-in silencer type.

9 SUP/EXH block fitting specification

Nil	L	В
Straight fitting With external pilot spec. X, PE port: Elbow fitting	With external pilot spec.	Elbow fitting (Downward) With external pilot spec. X, PE port: Elbow fitting

* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

(IO) DIN rail length specified

D Entrainiongaropoomoa				
Nil	Standard length			
2	2 stations	Specify a length		
:		longer than that of		
24	24 stations	the standard rail.		

Specify the number of valve stations without exceeding the max. number of stations.

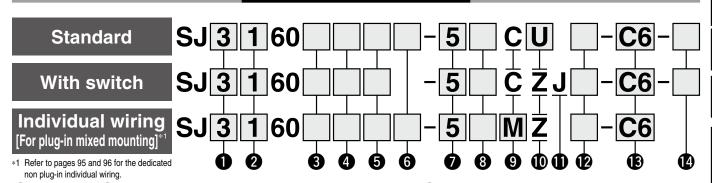
How to Order Manifold Assembly

Ordering example (SS5J3-60PD2-□) Double solenoid, individual wiring/ Double solenoid, with switch (24 VDC) lead wire length 300 mm (24 VDC) SJ3260-5CZJ-C6 (1 set) Double solenoid (24 VDC) SJ3260-5MZ-C6 (1 set) SJ3260-5CU-C6 (2 sets) Single solenoid (24 VDC) SJ3160-5CU-C6 (2 sets)

- SS5J3-60PD2-06D1 set (Manifold part no.) SJ3160-5CU-C62 sets (Single solenoid part no.) * SJ3260-5CU-C62 sets (Double solenoid part no.) * SJ3260-5CZJ-C6...... 1 set (Double solenoid, with switch part no.) SJ3260-5MZ-C61 set (Double solenoid, individual wiring/ lead wire length 300 mm part no.)
 - The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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.
- When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)

SUP/EXH block (D side mounting)

How to Order Solenoid Valves



Series

1	SJ1000
2	SJ2000
3	SJ3000

<u> 2</u>	Туре	of	actuation

ı	2-position single solenoid
2	2-position double solenoid
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

- * Refer to pages 281 to 284 for the symbol.
- * The large flow type ("A") is available only for actuation types "1" and "2."

Α

6 Coil type

Symbol	Coil type	SJ1000	SJ2000	SJ3000(A)
Nil	Standard		•	•
Т	T With power-saving circuit (Continuous duty type)		•	•

- * Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
- For the SJ1000 series, only the power-saving circuit type is available.

8

Nil Standard flow	type
A*1 Large flow t	ype

*1 SJ3000 series only

4 Pilot type

Nil	Internal pilot
R	External pilot

* The external pilot specification is not applicable for 4-position dual 3-port valves.

Back pressure check valve Nil None

Dual 3-port valve: N.C./N.C. **B** Dual 3-port valve: N.O./N.O. C Dual 3-port valve: N.C./N.O.

*	3-position and large flow type ("A")
	solenoid valves cannot be equipped
	with a back pressure check valve.

Built-in

Rated voltage 24 VDC 12 VDC

8 Common specification Positive common

Negative common

Leave blank for the non-polar type.

Coni	nector entry	·	·	
Symbol	C: Dedicated for centralized wiring	M: Individual wiring, With lead wire Length: 300 mm With linkage-printed circuit board	MN: Individual wiring, Without lead wire (With connector, socket) With linkage-printed circuit board	MO: Individual wiring, Without connector With linkage-printed circuit board
SJ1000	•	_	_	_
SJ2000	•	•		•
SJ3000	•	•	•	•

- * Connector entries with the symbol "M\sumsymbol" cannot use the switch signal from the common wiring on the manifold. For details, refer to the "Connector Wiring Diagram" on page 17.
- When ordering a connector separately, refer to pages 144 and 145.

10 Light/surge voltage suppressor

Symbol	Specification	SJ1000	SJ2000	SJ3000(A)	
U	With light/surge voltage suppressor (Non-polar type)	_	•	•	
With light/surge voltage suppressor (Polar type) With light/surge					

* When the type with a power-saving circuit, with a switch, or with individual wiring is used, the non-polar type cannot be selected.

With switch

SJ1000	SJ2000	SJ3000(A)
_	•	•

Manual override

Wallual Override			
Symbol/Specification	SJ1000	SJ2000	SJ3000(A)
Nil: Non-locking push type	•	•	•
D: Push-turn locking slotted type	•	•	•
F: Slide locking type	_	•	•

(B) A, B port size

Metric/One-touch fitting

wetric/One-touch fitting								
Symbol	Α,	В	port	SJ1000	SJ2000	SJ3000	SJ3000A	
C2	ار ال	٥	ð2	•	•	•	_	
C4	Straight	۵	3 4	•	•	•	•	
C6	S	Q	ø6	_	_	•	•	
L2		ntry	ø2	_	•	•	_	
L4		Upward entry	ø4	_	•	•	•	
L6	Elbow		ø6	_	_	•	•	
B2	Elb Elb	entry	ø2	_	•	•	_	
В4		Downward entry	ø4	_	•	•	•	
В6		Dowr	ø6	_	_	•	•	

Thread piping

Symbol	A, B port	SJ1000	SJ2000	SJ3000	SJ3000A	
МЗ	M3 x 0.5	_	•	_	_	
M5	M5 x 0.8	_	_	•	•	9

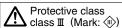
Inch	0	ne	-touch	fittin	g			
Symbol		Α,	B port	SJ1000	SJ2000	SJ3000	SJ3000A	
N1	ŧ		ø1/8"	_	•	•	_	
N3	Straight		ø5/32"	_	•	•	•	
N7	(O)		ø1/4"	_	_	•	•	
LN1		entry	ø1/8"	_	•	•	_	
LN3		Upward e	ø5/32"	_	•	•	•	
LN7	Elbow	I – I	ø1/4"	_	_	•	•	
BN1	置	entry	ø1/8"	_	•	•	_	
BN3		Downward	ø5/32"	_	•	•	•	
BN7		Dowr	ø1/4"	_	_	•	•	

МЗ	M3 x 0.5	_	•		_	
M5	M5 x 0.8	_	_	•	•	

Single solenoid wiring specification

Nil	Single wiring			
D	Double wiring			

Leave blank for 2-position double, 3-position, and 4-position solenoid valves. Select "D" only when setting a blank number for wiring. Refer to page 17 for details.



Construction

Plug-in

EX510 EX180

Non Plug-in

Made to Order

SJ3A6

Plug-in

Non Plug-in

Plug-in Connector Type

D-sub Connector/Flat Ribbon Cable

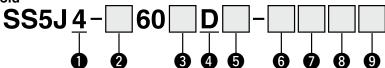


SJ4000 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

Connector type manifold



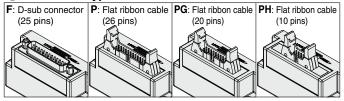
Series SJ4000

Mixed mounting type

Nil Standard (Dedicated for the SJ4000) Mixed mounting

- Leave blank when only using a single series.
- Select "M" when SJ1000, SJ2000, or SJ3000 series valves will be mounted on the same manifold base together.

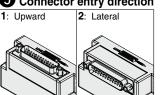
Connector type



4 Connector mounting position

	 	P-0
ח	D side	

Connector entry direction



6 Valve stations

F: D-sub connector

Symbol	Stations	Note
01	1 station	Un to O4 colonoido
:		Up to 24 solenoids can be selected.
24	24 stations	can be selected.

PG: Flat ribbon cable (20 pins)

Symbol	Stations	Note
01	1 station	l lo to 10 colonoido
:		Up to 18 solenoids can be selected.
18	18 stations	can be selected.

P: Flat ribbon cable (26 pins)

Symbol	Stations	Note
01	1 station	Up to 24 solenoids can be selected.
:		
24	24 stations	

PH: Flat ribbon cable (10 pins)

Symbol	Stations	Note		
01	1 station	llm to O colomoido		
:		Up to 8 solenoids can be selected.		
80	8 stations			

This number also includes the blanking block. Since single and double wiring are available for the blanking block, select a model compatible with the valve wiring specification to be used. (Refer to page 105.)

SUP/EXH block mounting position

U	U side		
D	D side		
В	Both sides		
M	Special specifications		

- * Special specifications (including instructions for port sizes other than the ø10 of the standard SUP/EXH block) must be specified separately on a manifold specification sheet.
- * For 11 or more valve stations, "B"

(both sides) is recommended.

9 DIN rail length specified					
Nil	Standard length				
2	2 stations	Specify a length			
:	:	longer than that of			
24	24 stations	the standard rail.			

* Specify the number of valve stations without exceeding the max. number of stations.

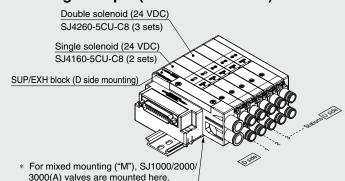
8 Pilot type

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

- There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.
- The 3/5(E) port is plugged for the built-in silencer type ("S").
- The SJ4000 does not have the external pilot and built-in silencer ("RS") type.

How to Order Manifold Assembly

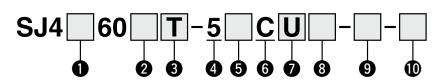
Ordering example (SS5J4-60FD2-05D)



- SS5J4-60FD2-05D1 set (Manifold part no.)
- SJ4160-5CU-C82 sets (Single solenoid part no.)
- SJ4260-5CU-C83 sets (Double solenoid part no.)
 - The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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.
- When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)
- For the mixed mounting ("M") of SJ4000 and SJ1000/2000/3000 valves, SJ1000/2000/3000 valves are mounted on the D side of the SJ4000 D side SUP/EXH block.
- The SJ4000 series does not have an elbow One-touch fitting.



How to Order Solenoid Valves



Type of actuation

1	2-position single solenoid		
2	2-position double solenoid		
3	3-position closed center		
4	3-position exhaust center		
5	3-position pressure center		
Α	Dual 3-port valve: N.C./N.C.		
В	B Dual 3-port valve: N.O./N.O.		
С	Dual 3-port valve: N.C./N.O.		

* Refer to pages 22 and 23 for the symbol.

2 Pilot type

Nil	Internal pilot
R	External pilot

* The external pilot specification is not applicable for 4-position dual 3-port valves.

3 Coil type

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

* Be sure to select the powersaving circuit type if the valve is to be continuously energized for long periods of time.

A Rated voltage

	5				2	4 V	DC			
*	12	٧	DC	is	not	ava	ilabl	e f	or	th
	SJ	400	00.							

5 Common specification

Nil	Positive common
N	Negative common

* Leave blank for the non-polar type.

6 Connector entry

С	Dedicated for centralized wiring

8 Manual override

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

A, B port size Metric/One-touch fitting

wether one-touch fitting				
C6	Straight	ø6		
C8		ø8		

Light/surge voltage suppressor

U	With light/surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Polar type)

* When the type with a power-saving circuit is used, the non-polar type cannot be

Single solenoid wiring specification

Nil	Single wiring
D	Double wiring

* Leave blank for 2-position double, 3-position, and 4-position solenoid valves.

- * SJ4000 series valves cannot be not equipped with a back pressure check valve.
- * The SJ4000 series does not have an A, B port inch-size or elbow One-touch fitting.

Plug-in



Plug-in

EX510 EX180

SJ3A6

Plug-in Cable Type

D-sub Connector/Flat Ribbon Cable RoHS

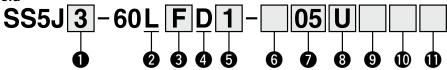


SJ2000/3000 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

Cable type manifold



Series

SJ2000 SJ3000

4 Connector mounting position

2 Cable type

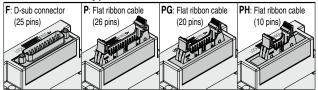
Symbol	Mounting position
D	D side

6 Manifold wiring specification

Nil	All double wiring*1
S	All single wiring*2

- *1 All double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations.
- *2 All single wiring: Available only for manifolds which have 2-position single valves on all stations
 - Note that 2-position double, 3-position, or 4-position valves cannot be used.
- If a mixture of single wiring and double wiring is required, it is available as a special order.

Connector type



Valve stations

F. D-Sub connector (25 pins)			
Symbol	Stations	Note	
02	2 stations	All double wiring	
:	:		
10	10 stations	wiiiig	
02	2 stations	All aireala	
:	:	All single wiring	
20	20 stations	wiiiig	

F: D cub connector (25 pinc)

	PG:	Fla	t ribbon	cable	(20	pins
Ιi	$\overline{}$		a			

Symbol	Stations	Note
02	2 stations	All double
:	:	wiring
09	9 stations	wiiiig
02	2 stations	All aireala
:	:	All single wiring
18	18 18 stations	

20 stations PH: Flat ribbon cable (10 pins)

P: Flat ribbon cable (26 pins)

All double

wiring

All single

wiring

2 stations

10 stations

2 stations

Symbol Stations

02

10

02

TILL HAL HODOLI GADIO (10 PILIO)			
Symbol	Stations	Note	
02	2 stations	ماطن مام ۸۱۱	
:	:	All double wiring	
04	4 stations	wiring	
02	2 stations	All aireala	
:	:	All single wiring	
08	8 stations	wiiiig	

- * The cable type is only applicable when there are 2 or more stations.

This number also includes the blanking plate.

one set on the U-side end of the manifold. 9 Pilot type

D

B

Nil	Internal pilot
S	Internal pilot, Built-in silencer
R	External pilot
RS	External pilot, Built-in silencer

Connector entry direction

8 SUP/EXH block mounting position

U side

D side

Both sides

Special specifications

Specify the required specifications

(including port sizes other than ø8)

on the manifold specification sheet.

Due to the length of the cable, the max.

number of supply and exhaust blocks that

can be installed is 3 in total: one set

between stations, one set on the D-side, and

2: Lateral

There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

SUD/FYH block fitting specification

SOF/EXH block litting specification					
Nil	L	В			
Straight fitting With external pilot spec. X, PE port: Elbow fitting	Elbow fitting (Upward) With external pilot spec. X, PE port: Straight fitting	Elbow fitting (Downward) With external pilot spec. X, PE port: Elbow fitting			

* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

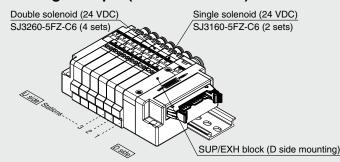
DIN rail length specified

Nil	Standard length			
3	3 stations	Specify a length		
÷	:	longer than that of		
20	20 stations	the standard rail.		

Specify the number of valve stations without exceeding the max. number of stations

How to Order Manifold Assembly

Ordering example (SS5J3-60LPD2)

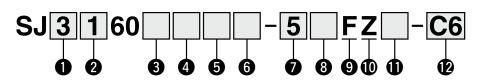


- SS5J3-60LPD2-06D-----1 set (Manifold part no.)
- SJ3160-5FZ-C62 sets (Single solenoid part no.)
- SJ3260-5FZ-C64 sets (Double solenoid part no.)

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

- 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.
- When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)

How to Order Solenoid Valves



Series

<u> </u>						
2	SJ2000					
3	SJ3000					

2 Type of actuation

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

- * Refer to pages 24 to 27 for the symbol.
- The large flow type ("A") is available only for actuation types "1" and "2."

Nil	Standard flow type
A *1	Large flow type

*1 SJ3000 series only

5 Back pressure check valve

	on procedure emeen van
Nil	None
K	Built-in

* 3-position and large flow type ("A") solenoid valves cannot be equipped with a back pressure check valve.

4 Pilot type

	Nil	Internal pilot		
	R	External pilot		

The external pilot specification is not applicable for 4-position dual 3-port valves.

6 Coil type

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

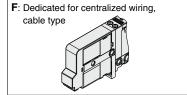
* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.

Rated voltage

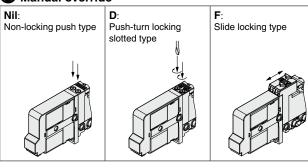
5	24 VDC
6	12 VDC

8 Common specification Nil Positive common Negative common

9 Connector entry



Manual override



Light/surge voltage suppressor

Z With light/surge voltage suppressor

A, B port size

Metric/One-touch fitting

Metric/One-touch fitting								
Symbol		Α,	B port	SJ2000	SJ3000	SJ3000A		
C2	ļ.		ø2	•	•	_		
C4	Straight		ø4	•	•	•		
C6	S		ø6	_	•	•		
L2	Elbow	entry	ø2	•	•	_		
L4				ø4	•	•	•	
L6		Upward	ø6	_	•	•		
B2		entry	ø2	•	•	_		
B4		Downward	ø4	•	•	•		
В6		Dowr	ø6	_	•	•		

Thread piping

Symbol	A, B port	A, B port SJ2000 SJ3000		SJ3000A		
МЗ	M3 x 0.5	•	_	_		
M5	M5 x 0.8	_	•	•		

Inch/One-touch fitting

inch/One-touch fitting								
Symbol		Α,	B port	SJ2000	SJ3000	SJ3000A		
N1	Straight		ø1/8"	•	•	_		
N3			ø5/32"	•	•	•		
N7	S		ø1/4"	_	•	•		
LN1	Elbow		entry	ø1/8"	•	•	_	
LN3				ø5/32"	•	•	•	
LN7		Upward	ø1/4"	_	•	•		
BN1	elb Elb	entry	ø1/8"	•	•	_		
BN3		Downward	ø5/32"	•	•	•		
BN7		Dowr	ø1/4"	_	•	•		

Protective class class Ⅲ (Mark: ﴿﴾)

Specific Product Precautions



Construction Plug-in

EX510 EX180

Non Plug-in

Made to Order

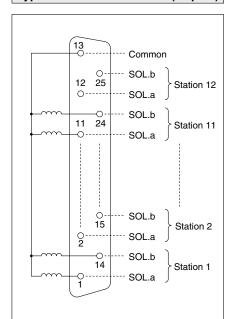
SJ3A6

Plug-in

Non Plug-in

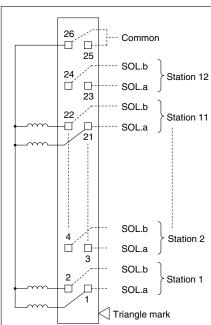
Manifold Electrical Wiring: Connector Type (Non-polar Type)

Type 60F: D-sub connector (25 pins)



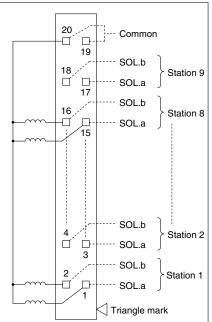
* This circuit is for the specifications with up to 12 stations of 2-position double, 3-position, and 4-position dual 3-port valves. There should be wired in order 1→14→2→15 without skipping or leaving any connectors remaining.

Type 60P: Flat ribbon cable (26 pins)



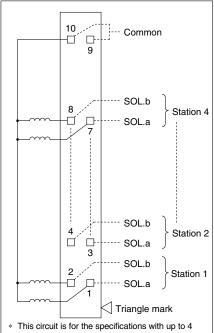
* This circuit is for the specifications with up to 12 stations of 2-position double, 3-position, and 4-position dual 3-port valves. There should be wired in order 1->2-3-4 without skipping or leaving any connectors remaining.

Type 60PG: Flat ribbon cable (20 pins)



* This circuit is for the specifications with up to 9 stations of 2-position double, 3-position, and 4-position dual 3-port valves. There should be wired in order 1→2→3→4 without skipping or leaving any connectors remaining.

Type 60PH: Flat ribbon cable (10 pins)



* This circuit is for the specifications with up to 4 stations of 2-position double, 3-position, and 4-position dual 3-port valves. There should be wired in order 1→2→3→4 without skipping or leaving any connectors remaining.

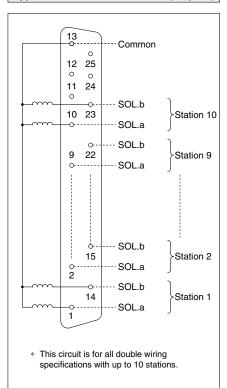
⚠ Caution

When the non-polar U type valves are used, either positive common or negative common wiring of the manifold is possible. However, when the Z type valves are used, select the positive common or negative common according to the wiring specifications.

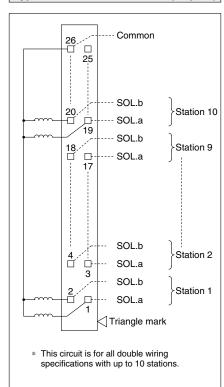


Manifold Electrical Wiring: Cable Type

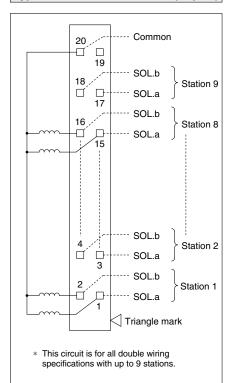
Type 60LF: D-sub connector (25 pins)



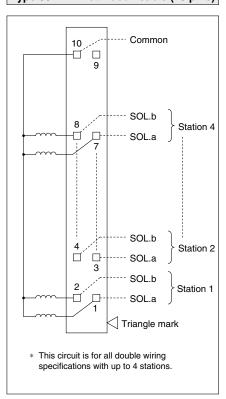
Type 60LP: Flat ribbon cable (26 pins)



Type 60LPG: Flat ribbon cable (20 pins)



Type 60LPH: Flat ribbon cable (10 pins)



⚠ Caution

For electrical connections, select the positive common or negative common according to the wiring specifications.



Individual Non Wiring Plug-in

Construction

Plug-in

EX510 EX180

ade to

SJ3A6

Common Spec

ibbon Plug-in

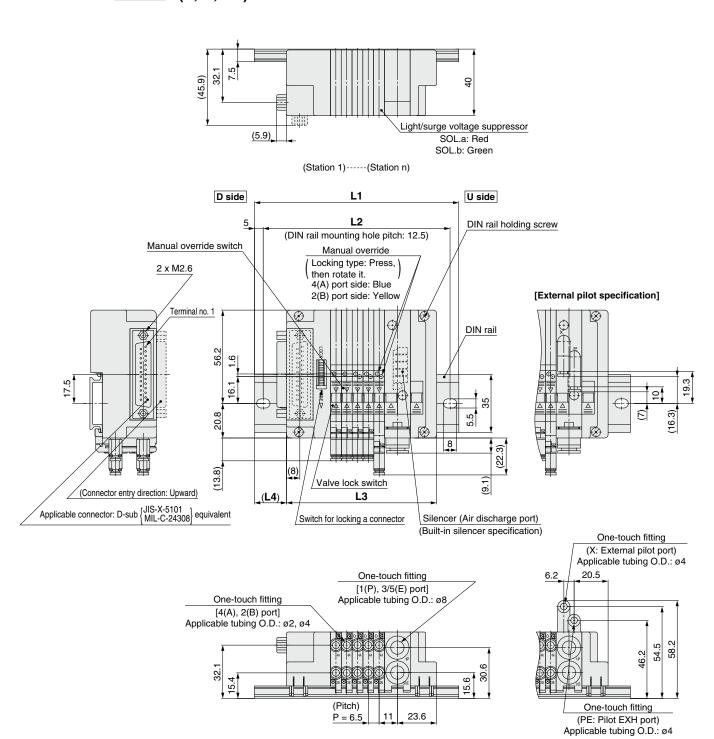
g-in Flat

Miring PI

Specific Product Precautions

Dimensions: **SJ1000** for D-sub Connector

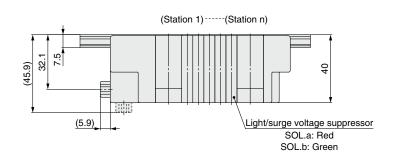
SS5J1-60FD₂-Stations U(S, R, RS)

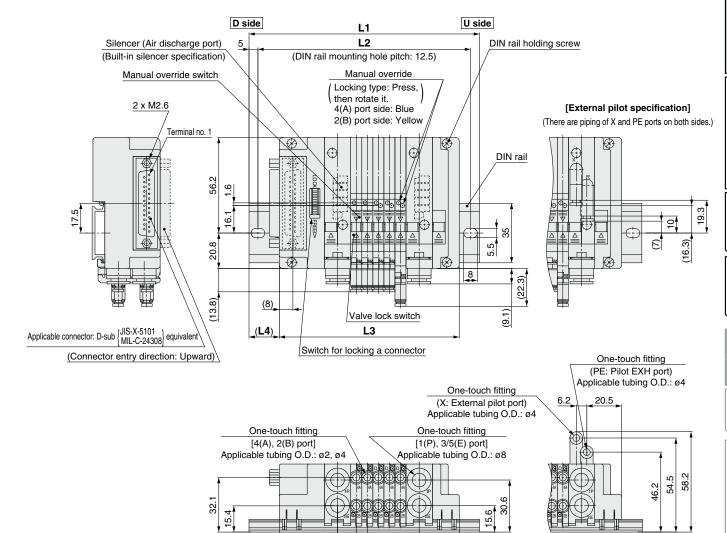


L: D	imei	nsior	าร																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248
L2	87.5	100	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	225	225	237.5	237.5
L3	64.3	70.8	77.3	83.8	90.3	96.8	103.3	109.8	116.3	122.8	129.3	135.8	142.3	148.8	155.3	161.8	168.3	174.8	181.3	187.8	194.3	200.8	207.3	213.8
L4	20	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21	18	21	17.5	20.5	23.5	20.5	23.5	20

Dimensions: SJ1000 for D-sub Connector

SS5J1-60FD₂-Stations B(S, R, RS)





<u>L: D</u>	imer	nsior	ıs																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	260.5
L2	100	112.5	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5	250	250
L3	79.8	86.3	92.8	99.3	105.8	112.3	118.8	125.3	131.8	138.3	144.8	151.3	157.8	164.3	170.8	177.3	183.8	190.3	196.8	203.3	209.8	216.3	222.8	229.3
14	18.5	21.5	18	21	18	21	17.5	20.5	23.5	20.5	23.5	20	23	20	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5

(Pitch)

 $\dot{P} = 6.5$

23.6

34.3

ction Common Oogo

Plug-in

EX510 EX180 Flat Rib

dual Non ng Plug-in

Manifold Options

Order

SJ3A6

Common Spec.

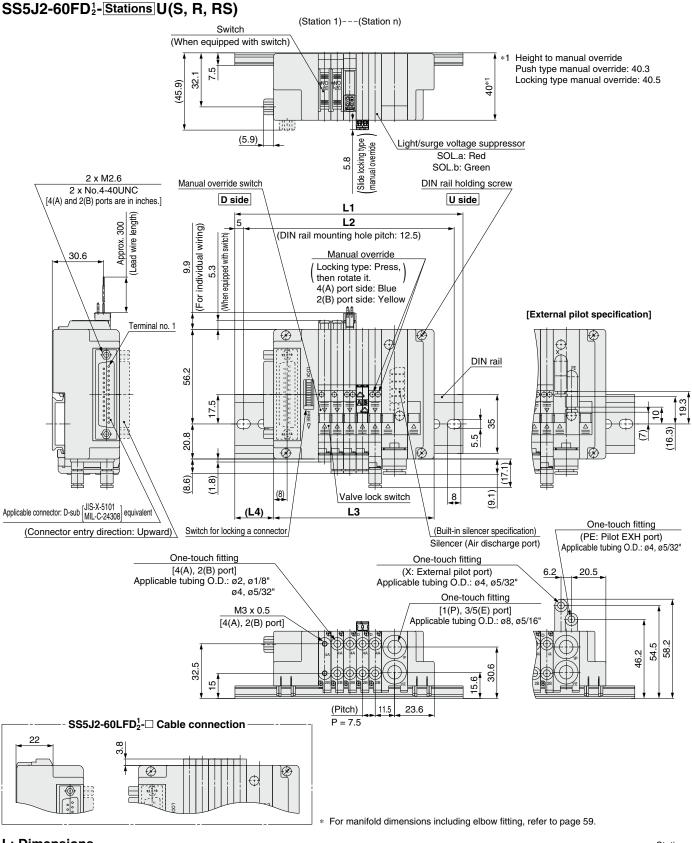
D-sub at Ribbon Plug-in Serial

Non Plug-in

Individual Wiring F

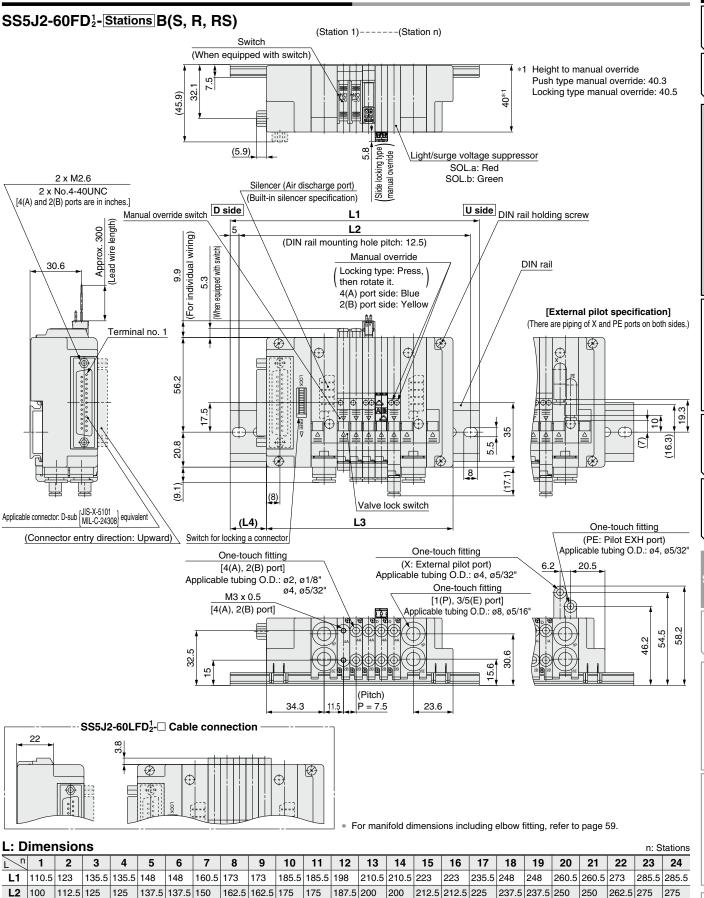
Specific Product

Dimensions: SJ2000 for D-sub Connector



L: C	imer	nsior	าร																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	110.5	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248	248	260.5	260.5	273
L2	87.5	100	100	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	237.5	237.5	250	250	262.5
L3	65.3	72.8	80.3	87.8	95.3	102.8	110.3	117.8	125.3	132.8	140.3	147.8	155.3	162.8	170.3	177.8	185.3	192.8	200.3	207.8	215.3	222.8	230.3	237.8
L4	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5

39



20.5

170.8

23

178.3 185.8

21.5 18

193.3 200.8 208.3

20.5 23 215.8 223.3

21.5 18

230.8

238.3 245.8

20.5 23

148.3 155.8 163.3

21.5

L3

L4

80.8

18

88.3

20.5 23

95.8 103.3

19

110.8

21.5 18

118.3 125.8

20.5 23

133.3

140.8

19

EX510 EX180

Non Plug-in

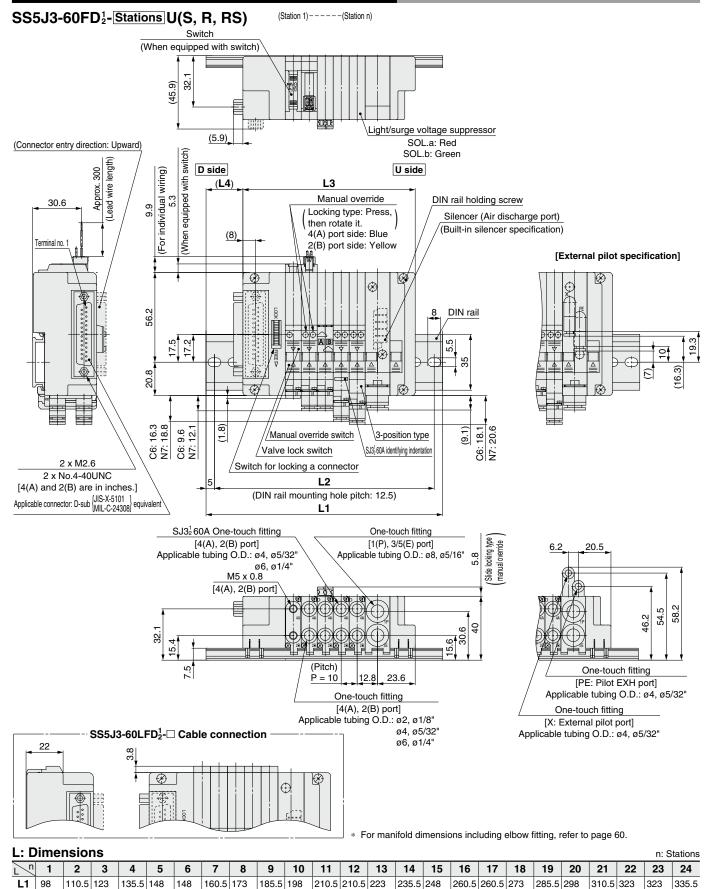
SJ3A6

Common Spec. Construction

Plug-in

253.3 Specific

Dimensions: SJ3000(A) for D-sub Connector



162.5 175

137.8

187.5 200

22

147.8 157.8

21

200

18

212.5 225

19.5

|167.8||177.8||187.8||197.8||207.8||217.8|

20.5

237.5 250

22.5

21.5

250

227.8

17.5 19

262.5 275

237.8 247.8

20

287.5 300

21

312.5 312.5

18.5

23.5

257.8 267.8 277.8 287.8

22

325

297.8

L2 87.5 100

L3 67.8

L4 18

41

112.5 125

87.8

97.8 107.8

21.5

77.8

19

137.5 137.5 150

22.5

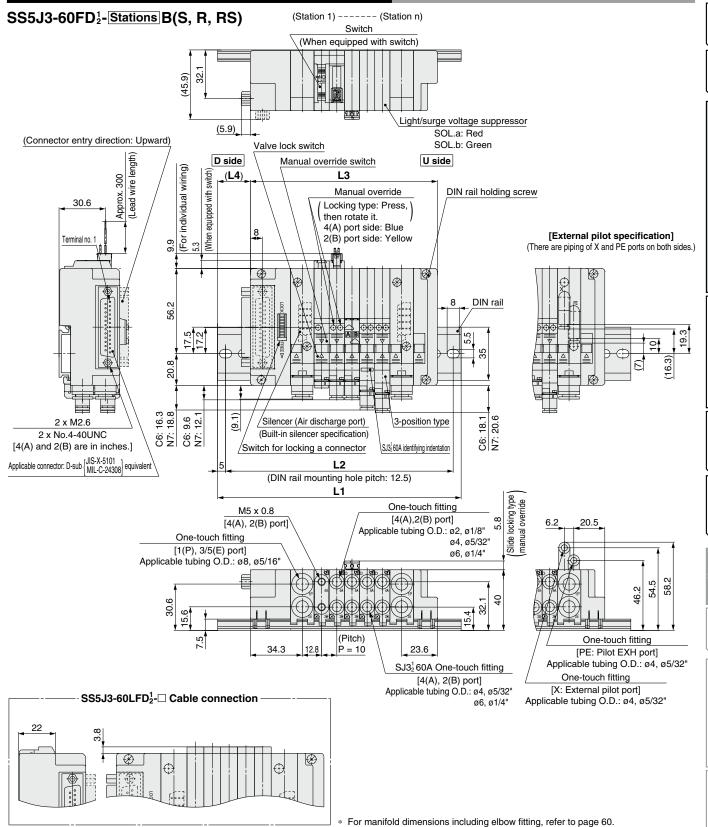
117.8

17.5

127.8

18.5

Dimensions: SJ3000(A) for D-sub Connector



L: D	imer	nsior	าร																				n: S	tations
L	1	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	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	298	310.5	323	335.5	348	348
L2	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	287.5	300	312.5	325	337.5	337.5
L3	83.3	93.3	103.3	113.3	123.3	133.3	143.3	153.3	163.3	173.3	183.3	193.3	203.3	213.3	223.3	233.3	243.3	253.3	263.3	273.3	283.3	293.3	303.3	313.3
L4	22.5	17.5	19	20	21	22	23.5	18.5	19.5	20.5	21.5	23	18	19	20	21	22.5	23.5	18.5	19.5	20.5	22	23	18

Plug-in

EX510 EX180

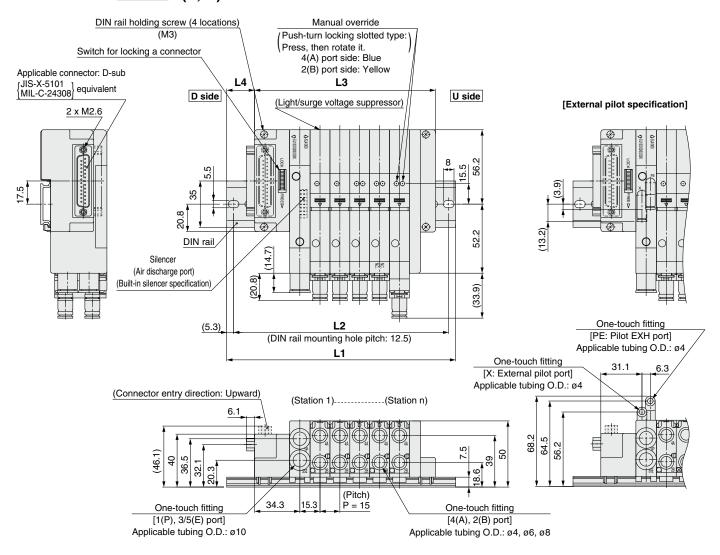
Non Plug-in

SJ3A6

Plug-in

Dimensions: **SJ4000** for D-sub Connector

SS5J4-60FD₂-Stations D(S, R)



L: [Dime	nsio	ns																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	148	160.5	173	185.5	198	223	235.5	248	260.5	273	298	310.5	323	335.5	348	373	385.5	398	410.5	423	448	460.5
L2	100	112.5	137.5	150	162.5	175	187.5	212.5	225	237.5	250	262.5	287.5	300	312.5	325	337.5	362.5	375	387.5	400	412.5	437.5	450
L3	76.8	91.8	106.8	121.8	136.8	151.8	166.8	181.8	196.8	211.8	226.8	241.8	256.8	271.8	286.8	301.8	316.8	331.8	346.8	361.8	376.8	391.8	406.8	421.8
L4	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5

Plug-in Connector Type/Cable Type D-sub Connector/Flat Ribbon Cable SJ1000/2000/3000/4000 Series

Dimensions: **SJ4000** for D-sub Connector

SS5J4-60FD₂-Stations U(S, R)

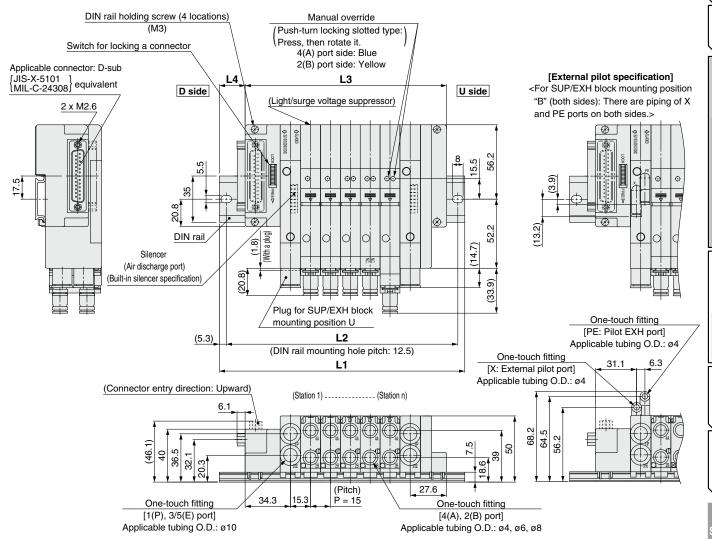
23.5 22

18.5

18.5 23.5

19.5

22



L: D	imer	nsior	าร																				n: S	tations
	1	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	148	160.5	173	185.5	198	223	235.5	248	260.5	273	298	310.5	323	335.5	348	373	385.5	398	410.5	423	448	460.5	473
L2	112.5	137.5	150	162.5	175	187.5	212.5	225	237.5	250	262.5	287.5	300	312.5	325	337.5	362.5	375	387.5	400	412.5	437.5	450	462.5
L3	92.3	107.3	122.3	137.3	152.3	167.3	182.3	197.3	212.3	227.3	242.3	257.3	272.3	287.3	302.3	317.3	332.3	347.3	362.3	377.3	392.3	407.3	422.3	437.3

22

19.5

18.5

23.5 22

19.5

18.5

23.5 22

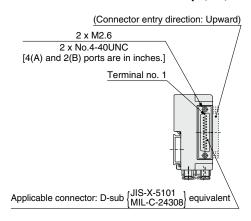
19.5 18.5 23.5

Specific Product Precautions



Dimensions: SJ1000/2000/3000(A) Mixed Manifold

SS5J3-M60FD₂-Stations U(S, R, RS)



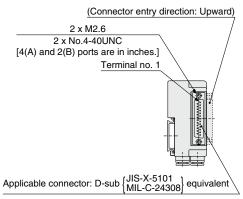
L dimension: Formula, L1 to L4
L3 = 6.5 x n1 + 7.5 x n2 + 10 x n3 + 57.8
M = (L3 + 9.9)/12.5 + 1
Decimal fractions are truncated.
L1 = M x 12.5 + 23
L2 = L1 - 10.5
L4 = (L1 - L3)/2 + 1

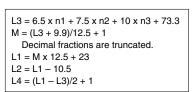
n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000(A)

* The dimensions of L1 to L4 for SS5J3-M60FD1/2-Stations D are the same as those of SS5J3-M60FD1/2-Stations U.

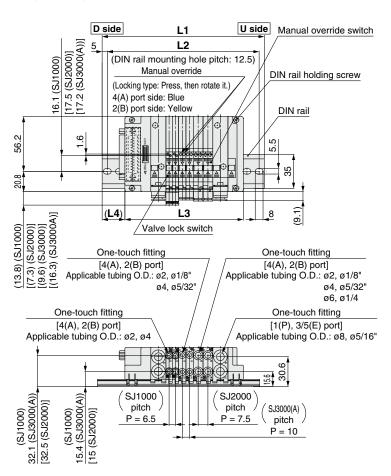
D side U side 11 Manual override switch L2 16.1 (SJ1000) [17.5 (SJ2000)] [17.2 (SJ3000(A))] (DIN rail mounting hole pitch: 12.5) Manual override Locking type: Press DIN rail holding screw then rotate it. 4(A) port side: Blue 2(B) port side: Yellow DIN rail **⊕** ∫ 56.2 (**L4**) (\$\sum_{\text{SJ2000}}\) (\$\sum_{\text{SJ2000}}\] (\$\sum_{\text{SJ3000}}\) (\$\sum_{\text{SJ3000A}}\) Valve lock switch One-touch fitting One-touch fitting [4(A), 2(B) port] [4(A), 2(B) port] (7.3) (S (9.6) (S (16.3) (13.8) (Applicable tubing O.D.: ø2, ø1/8" Applicable tubing O.D.: ø2, ø1/8" ø4, ø5/32 ø4, ø5/32" ø6, ø1/4" One-touch fitting One-touch fitting [4(A), 2(B) port] [1(P), 3/5(E) port] Applicable tubing O.D.: ø2, ø4 Applicable tubing O.D.: ø8, ø5/16" 30.6 (SJ1000) 15.4 (SJ3000(A)) [15 (SJ2000)] SJ1000 SJ3000(A) 32.1 (SJ3000(A)) [32.5 (\$J2000)] pitch pitch SJ2000 ` (371000) P = 6.5P = 10pitch P = 7.5

SS5J3-M60FD₂-Stations B(S, R, RS)





n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000(A)

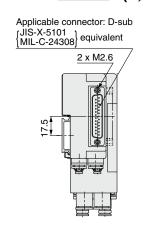




Plug-in Connector Type/Cable Type D-sub Connector/Flat Ribbon Cable SJ1000/2000/3000/4000 Series

Dimensions: SJ1000/2000/3000/4000 Mixed Manifold

SS5J4-M60FD₂-Stations D(S, R)

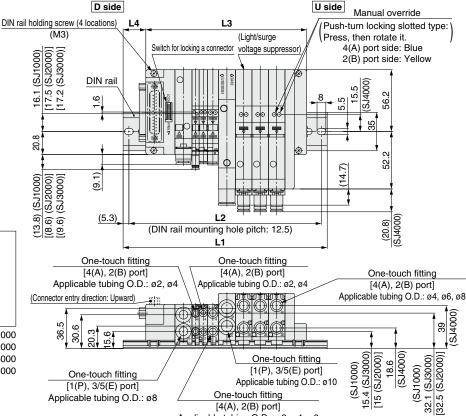


L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 77.3$ M = (L3 + 9.9)/12.5 + 1Decimal fractions are truncated. $L1 = M \times 12.5 + 23$ L2 = L1-10.5L4 = (L1-L3)/2 + 1

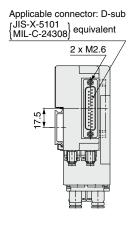
> n1 = Number of SJ1000 n2 = Number of SJ2000

n3 = Number of SJ3000

n4 = Number of SJ4000

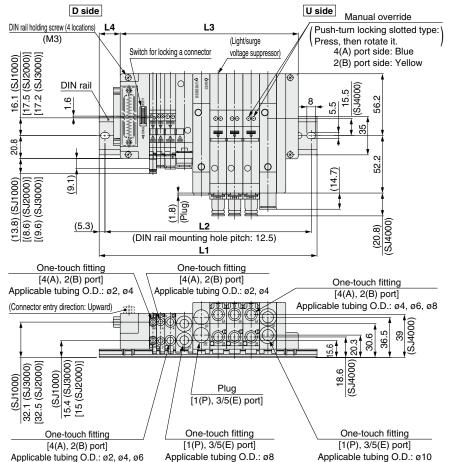


SS5J4-M60FD₂-Stations U(S, R)



L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 92.8$ M = (L3 + 9.9)/12.5 + 1Decimal fractions are truncated. $L1 = M \times 12.5 + 23$ L2 = L1 - 10.5L4 = (L1-L3)/2 + 1

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000 n4 = Number of SJ4000



Applicable tubing O.D.: ø2, ø4, ø6



Plug-in

Construction

Plug-in

EX510 EX180

Non Plug-in

Made to Order

SJ3A6

Non Plug-in

Individual Wiring

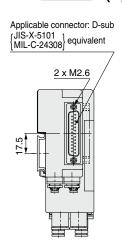
Specific

46

Dimensions: SJ1000/2000/3000/4000 Mixed Manifold

D side

SS5J4-M60FD₂-Stations B(S, R)

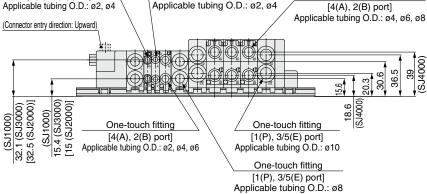


L dimension: Formula, L1 to L4 L3 = $6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 108.3$ M = (L3 + 9.9)/12.5 + 1 Decimal fractions are truncated. L1 = M × 12.5 + 23 L2 = L1-10.5 L4 = (L1-L3)/2 + 1

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000 n4 = Number of SJ4000

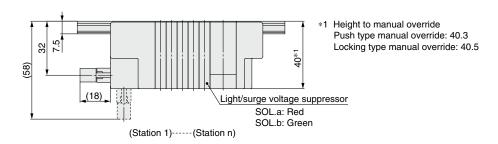
Manual override DIN rail holding screw (4 locations) Push-turn locking slotted type:\ (M3) (Light/surge Press, then rotate it. 4(A) port side: Blue Switch for locking a connector voltage suppressor 16.1 (SJ1000) [17.5 (SJ2000)] [17.2 (SJ3000)] 2(B) port side: Yellow DIN <u>rai</u>l (\$34000) 15.5 56.2 35 20.8 52.2 Φ (13.8) (SJ1000) [(8.6) (SJ2000)] [(9.6) (SJ3000)] (9.1) (20.8) (SJ4000) (5.3) (DIN rail mounting hole pitch: 12.5) One-touch fitting One-touch fitting [4(A), 2(B) port] Applicable tubing O.D.: ø2, ø4 [4(A), 2(B) port] One-touch fitting Applicable tubing O.D.: ø2, ø4 [4(A), 2(B) port]

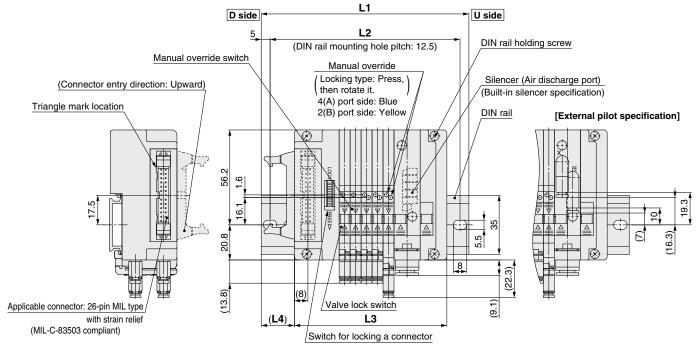
U side



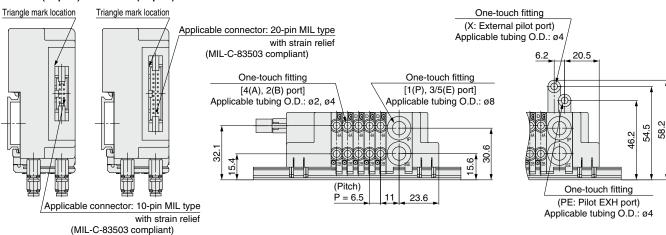
Dimensions: SJ1000 for Flat Ribbon Cable

SS5J1-60PD₂-Stations U(S, R, RS)





For 60PH (10 pins) For 60PG (20 pins)



Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

L: D	ime	nsior	าร																				n: S	Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248
L2	87.5	100	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	225	225	237.5	237.5
L3	64.3	70.8	77.3	83.8	90.3	96.8	103.3	109.8	116.3	122.8	129.3	135.8	142.3	148.8	155.3	161.8	168.3	174.8	181.3	187.8	194.3	200.8	207.3	213.8
L4	20	23	20	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21	24	21	24	20.5	23.5	20.5

Plug-in

EX510 EX180

Non Plug-in

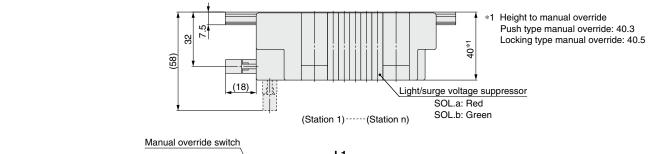
SJ3A6

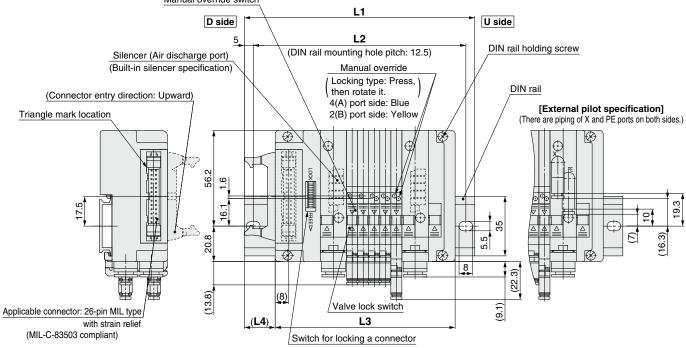
Plug-in

Specific Product Precautions

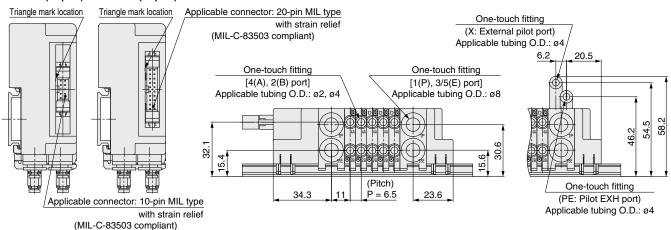
Dimensions: SJ1000 for Flat Ribbon Cable

SS5J1-60PD₂-Stations B(S, R, RS)





For 60PH (10 pins) For 60PG (20 pins)

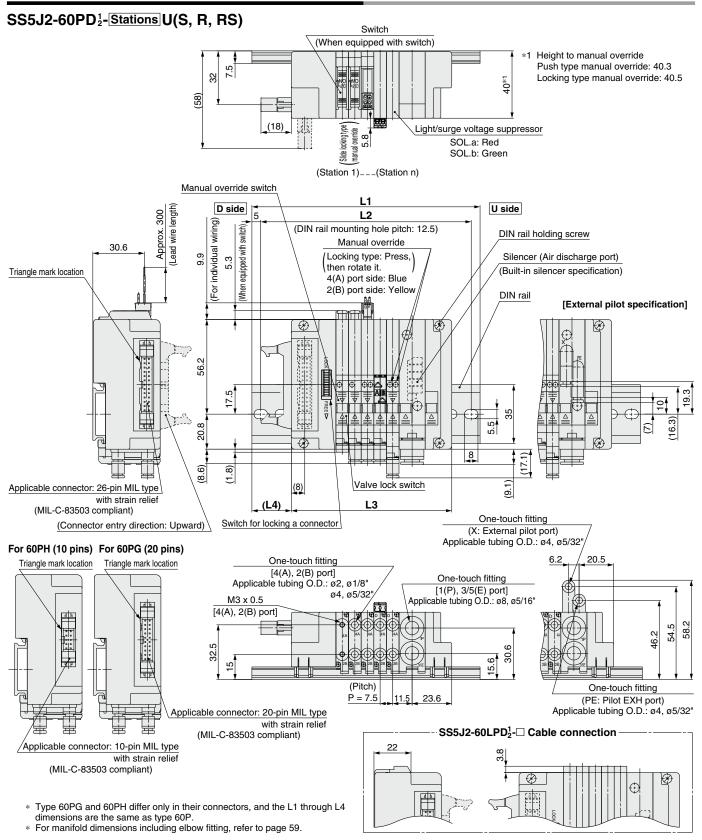


^{*} Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

L: D	imer	nsior	าร																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248	260.5	260.5
L2	100	112.5	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5	250	250
L3	79.8	86.3	92.8	99.3	105.8	112.3	118.8	125.3	131.8	138.3	144.8	151.3	157.8	164.3	170.8	177.3	183.8	190.3	196.8	203.3	209.8	216.3	222.8	229.3
L4	18.5	21.5	18.5	21.5	18	21	24	21	24	20.5	23.5	20.5	23.5	20	23	20	23	19.5	22.5	19.5	22.5	19	22	19

Plug-in Connector Type/Cable Type D-sub Connector/Flat Ribbon Cable SJ1000/2000/3000/4000 Series

Dimensions: SJ2000 for Flat Ribbon Cable



L: [Dimer	nsior	าร																				n: S	tations
	្ 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	110.5	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248	248	260.5	260.5	273
L2	87.5	100	100	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	237.5	237.5	250	250	262.5
L3	65.3	72.8	80.3	87.8	95.3	102.8	110.3	117.8	125.3	132.8	140.3	147.8	155.3	162.8	170.3	177.8	185.3	192.8	200.3	207.8	215.3	222.8	230.3	237.8
L4	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21

Construction

Plug-in

EX510 EX180

Non Plug-in

SJ3A6

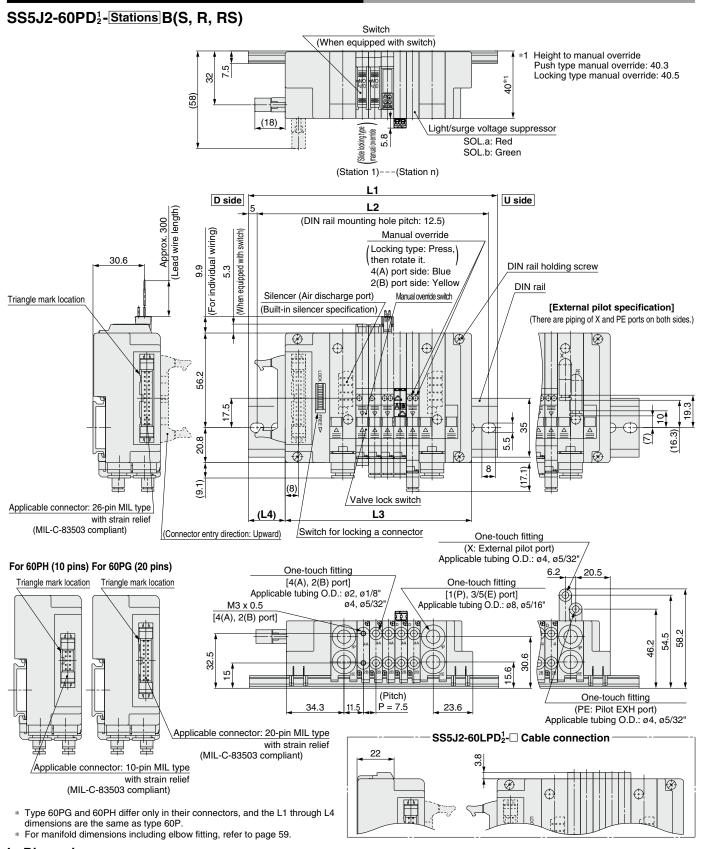
Plug-in

D-sub Flat Ribbon Serial

Non Plug-in

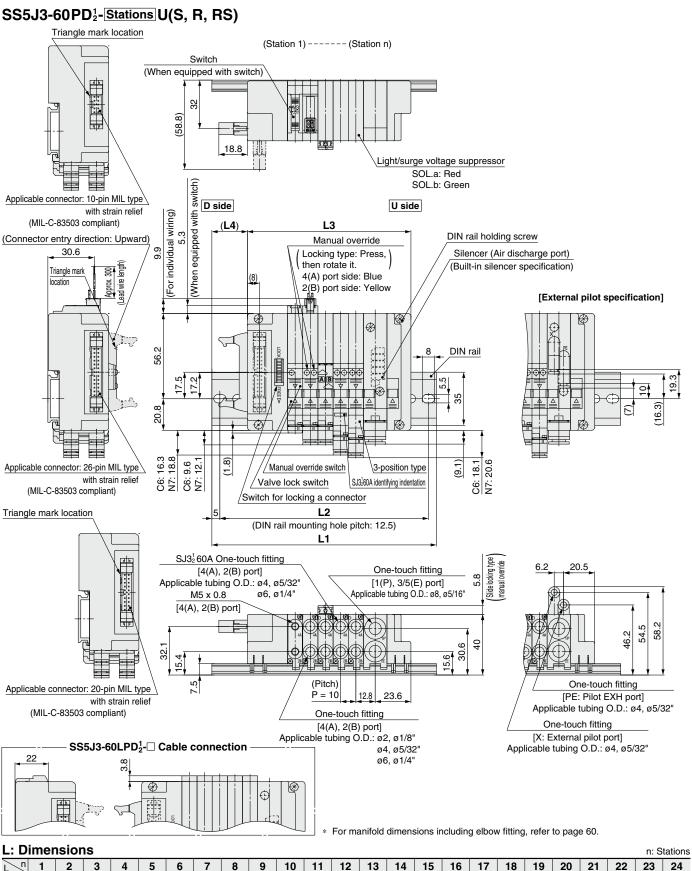
pecific Product

Dimensions: SJ2000 for Flat Ribbon Cable



L: D	imer	nsior	าร																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248	248	260.5	260.5	273	285.5	285.5
L2	106	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	237.5	237.5	250	250	262.5	275	275
L3	80.8	88.3	95.8	103.3	110.8	118.3	125.8	133.3	140.8	148.3	155.8	163.3	170.8	178.3	185.8	193.3	200.8	208.3	215.8	223.3	230.8	238.3	245.8	253.3
L4	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5

Dimensions: SJ3000(A) for Flat Ribbon Cable



210.5 210.5 223

200

|127.8|137.8|147.8|157.8|167.8|177.8|187.8|197.8|207.8|217.8

98

87.5 100

67.8

110.5 123

19.5

112.5 125

87.8

20.5

135.5 148

160.5

137.5 150

97.8 107.8 117.8

160.5 173

162.5 175

20

150

19

185.5 198

21.5

187.5 200

22.5 23.5

235.5 248

237.5 250

22

212.5 225

19.5 21

260.5 273

24

23

273

262.5 262.5 275

19

285.5 298

20.5

310.5 323

287.5 300

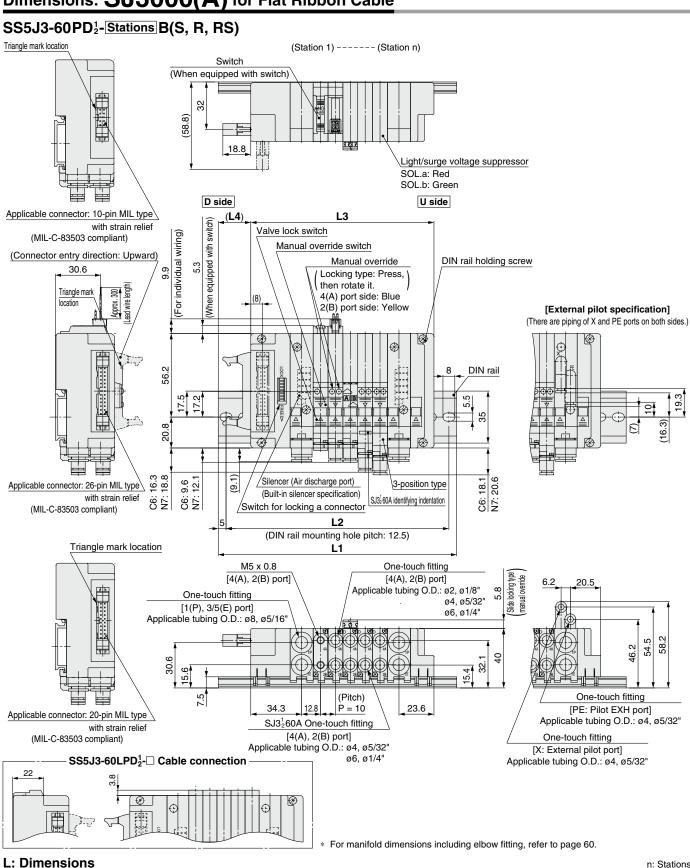
227.8 237.8 247.8 257.8 267.8 277.8 287.8 297.8

21.5 22.5

335.5

312.5 312.5 325

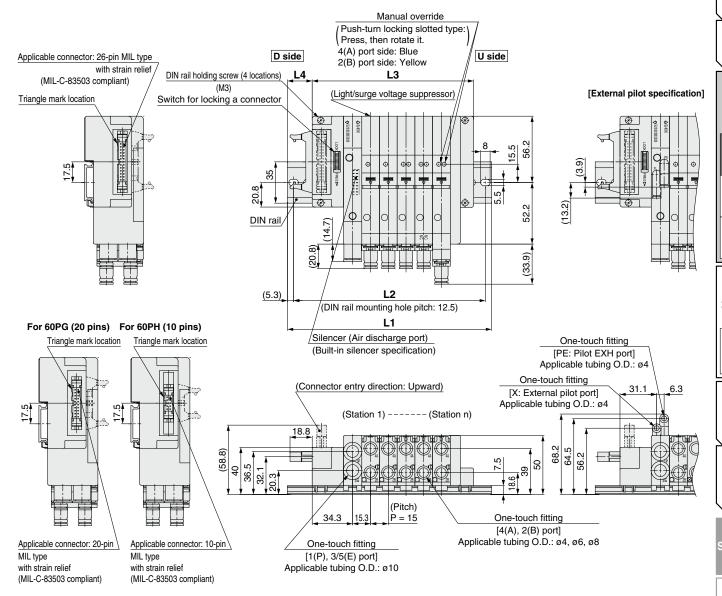
Dimensions: SJ3000(A) for Flat Ribbon Cable



L. D	ıııııeı	12101	13																				n: 5	tations
L	1	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	135.5	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	298	310.5	323	335.5	348	348
L2	112.5	112.5 125 125 137.5 150 162.5 175 175 187.5 200 212.5 225 237.5 237.5 250 262.5 275 287.5 287.5 287.5 300 312.5 325 337.5															337.5							
L3	83.3	93.3	103.3	113.3	123.3	133.3	143.3	153.3	163.3	173.3	183.3	193.3	203.3	213.3	223.3	233.3	243.3	253.3	263.3	273.3	283.3	293.3	303.3	313.3
L4	23	24	19	20.5	21.5	22.5	23.5	18.5	20	21	22	23	24.5	19.5	20.5	21.5	22.5	24	19	20	21	22	23.5	18.5
53												à CN												

Dimensions: SJ4000 for Flat Ribbon Cable

SS5J4-60PD₂-Stations D(S, R)



^{*} Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

L: D	imer	nsior	าร																				n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	148	160.5	173	185.5	198	223	235.5	248	260.5	273	298	310.5	323	335.5	348	373	385.5	398	410.5	423	448	460.5
L2	100	112.5	137.5	150	162.5	175	187.5	212.5	225	237.5	250	262.5	287.5	300	312.5	325	337.5	362.5	375	387.5	400	412.5	437.5	450
L3	76.8	91.8	106.8	121.8	136.8	151.8	166.8	181.8	196.8	211.8	226.8	241.8	256.8	271.8	286.8	301.8	316.8	331.8	346.8	361.8	376.8	391.8	406.8	421.8
L4	20	19	24	22.5	21.5	20	19	24	22.5	21.5	20	19	24	22.5	21.5	20	19	24	22.5	21.5	20	19	24	22.5

Construction

Plug-in

EX510 EX180

Non Plug-in

SJ3A6

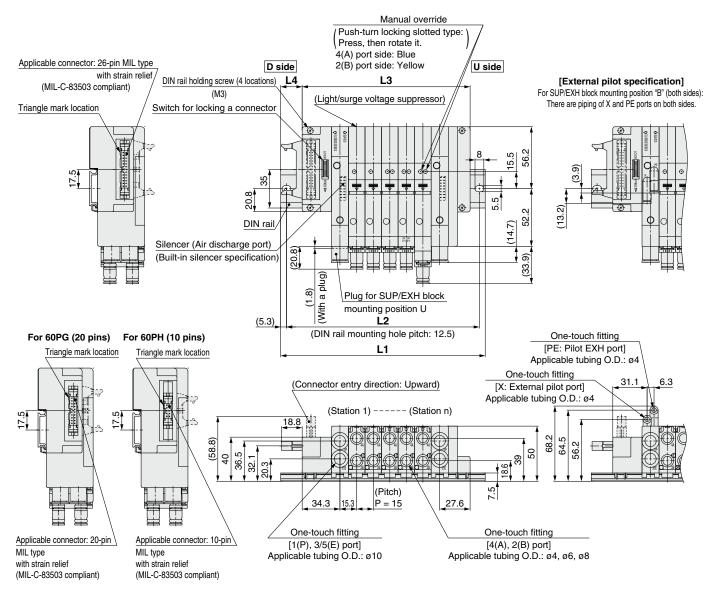
Plug-in

specific Produ Precautions



Dimensions: **SJ4000** for Flat Ribbon Cable

SS5J4-60PD₂-Stations U(S, R)



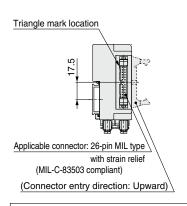
^{*} Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

L: C	L: Dimensions n: Stations																							
_ n	1	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	148	160.5	173	185.5	198	223	235.5	248	260.5	273	298	310.5	323	335.5	348	373	385.5	398	410.5	423	448	460.5	473
L2	112.5	137.5	150	162.5	175	187.5	212.5	225	237.5	250	262.5	287.5	300	312.5	325	337.5	362.5	375	387.5	400	412.5	437.5	450	462.5
L3	92.3	107.3	122.3	137.3	152.3	167.3	182.3	197.3	212.3	227.3	242.3	257.3	272.3	287.3	302.3	317.3	332.3	347.3	362.3	377.3	392.3	407.3	422.3	437.3
L4	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21	20	18.5	23.5	22.5	21



Dimensions: SJ1000/2000/3000(A) Mixed Manifold

SS5J3-M60PD₂-Stations U(S, R, RS)

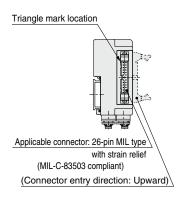


L dimension: Formula 11 to 14 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 57.8$ M = (L3 + 10.6)/12.5 + 1Decimal fractions are truncated. $L1 = M \times 12.5 + 23$ L2 = L1 - 10.5 L4 = (L1 - L3)/2 + 1.3

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000(A)

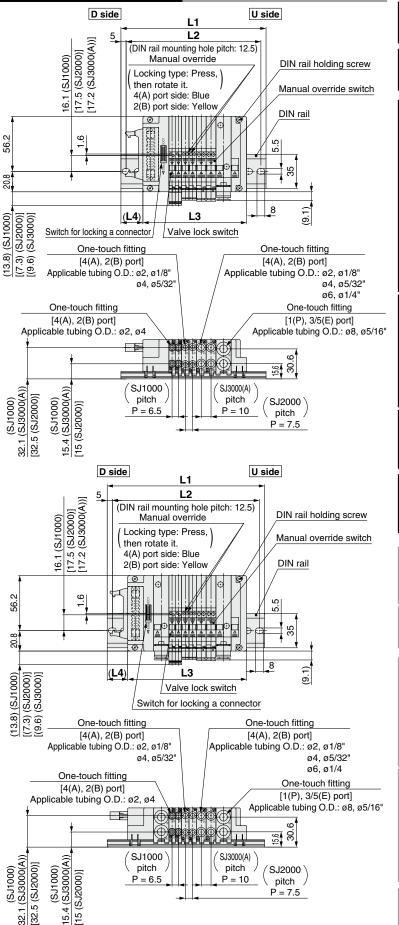
The dimensions of L1 to L4 for SS5J3-M60PD1/2- Stations D are the same as those of SS5J3-M60PD1/2- Stations U.

SS5J3-M60PD2-Stations B(S, R, RS)



L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 73.3$ M = (L3 + 10.6)/12.5 + 1Decimal fractions are truncated. L1 = M x 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 + 1.3

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000(A)



Construction

Plug-in

EX510 EX180

Non Plug-in

Made to Order

SJ3A6

Common Spec.

Plug-in

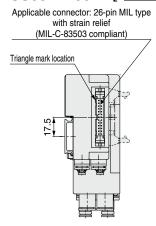
Non Plug-in

Individual Wiring

pecific Product

Dimensions: SJ1000/2000/3000/4000 Mixed Manifold

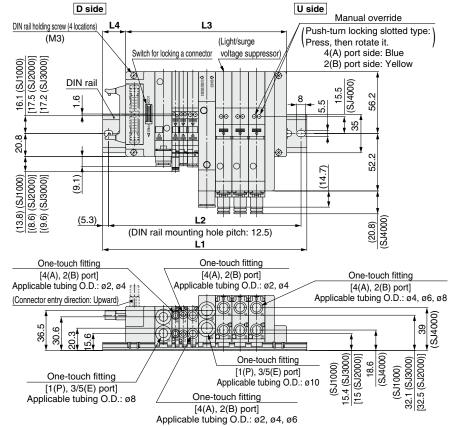
SS5J4-M60PD₂-Stations D(S, R)



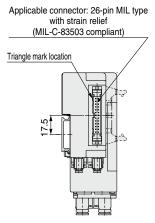
L dimension: Formula, L1 to L4 L3 = $6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 77.3$ M = (L3 + 10.6)/12.5 + 1 Decimal fractions are truncated. L1 = M x 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 + 1.3

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000

n4 = Number of SJ4000

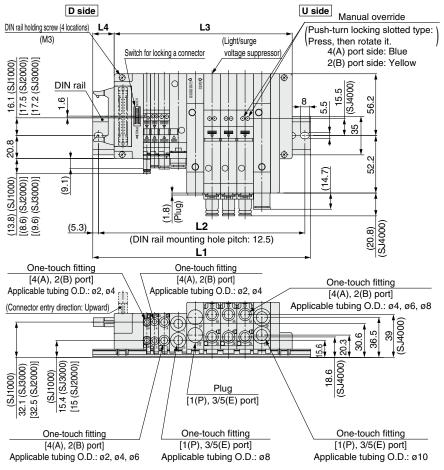


SS5J4-M60PD₂-Stations U(S, R)



L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 92.8$ M = (L3 + 10.6)/12.5 + 1Decimal fractions are truncated. $L1 = M \times 12.5 + 23$ L2 = L1 - 10.5L4 = (L1 - L3)/2 + 1.3

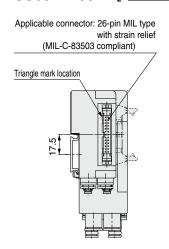
> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000 n4 = Number of SJ4000





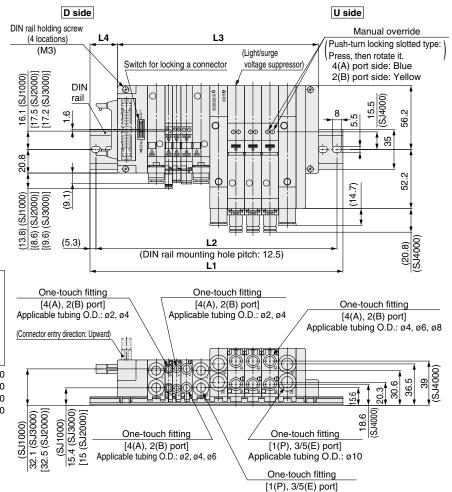
Dimensions: SJ1000/2000/3000/4000 Mixed Manifold

SS5J4-M60PD₂-Stations B(S, R)



L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 + 108.3$ M = (L3 + 10.6)/12.5 + 1Decimal fractions are truncated. L1 = M x 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 + 1.3

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000 n4 = Number of SJ4000



Applicable tubing O.D.: ø8

SMC

Construction

Plug-in

EX510 EX180

Non Plug-in

Made to Order

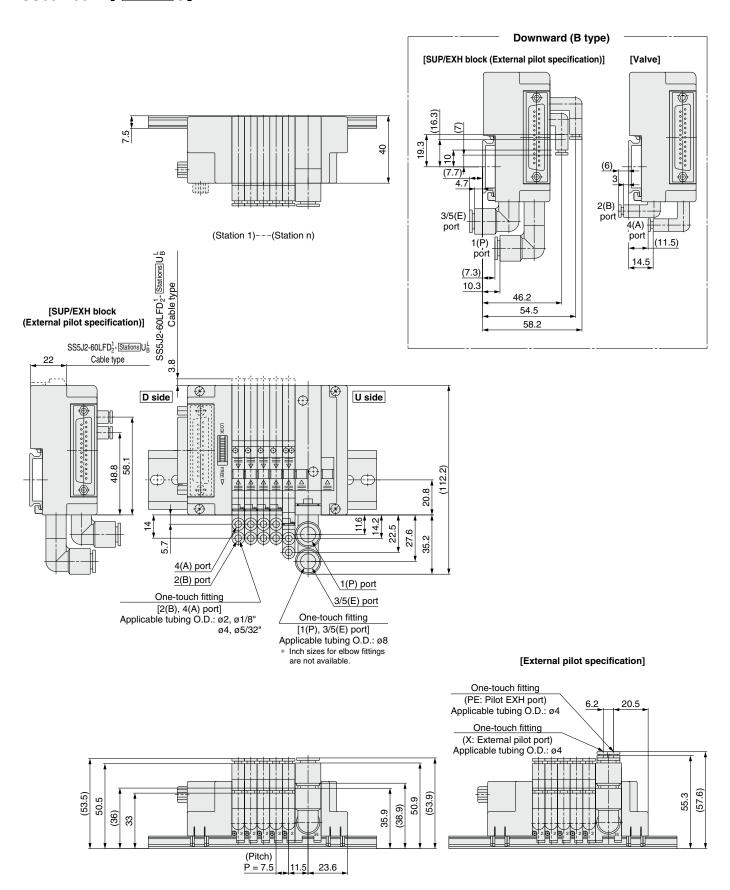
SJ3A6

Common Spec. Construction Plug-in

Specific Product Precautions

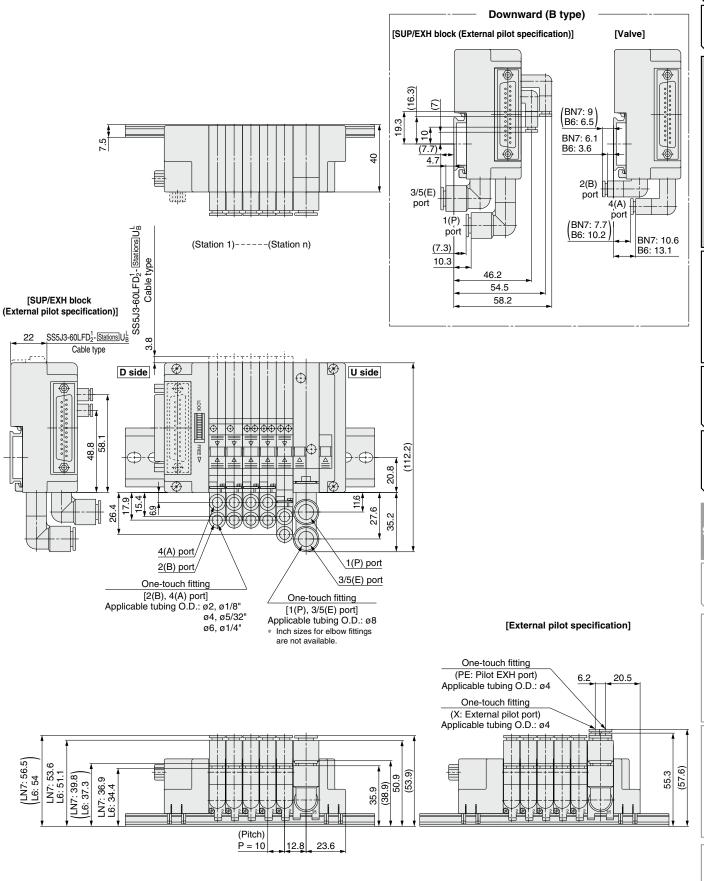
Dimensions: SJ2000 with Elbow Fittings

SS5J2-60FD₂-Stations U_B



Dimensions: SJ3000 with Elbow Fittings

SS5J3-60FD₂-Stations U_B



Construction

Plug-in

EX510 EX180

Non Plug-in

SJ3A6

Plug-in D-sub Flat Ribbon Serial

Non Plug-in

Individual Wiring

specific Product

Plug-in Connector Type EX180 Integrated Type (For Output) Serial Transmission System (RoHS)



Type 60S SJ1000/2000/3000 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

SS5J3-60SV2

Series

1	SJ1000
2	SJ2000
	SJ3000
3	(SJ1000/2000/
	3000 mixed*1)

*1 Select "3" for the combination of SJ1000 and SJ2000 valves.

2 Mixed mounting type

	Nil	Standard*1				
	М	Mixed mounting*2				
*1	For S	J1000, 2000, and 3000				
	series	valves, leave blank when				

only using a single series. *2 Select "M" when SJ1000, SJ2000, or SJ3000 series valves will be mounted on the same manifold base together.

Component module

0	Without SI unit
V2	CC-Link (32 points)
	DeviceNet® (32 points)
Q3	DeviceNet® (16 points)

* Please contact SMC for SI unit specifications.

4 Communication connector

Nil	T-branch type
Α	Straight type

* The communication connector and power connector are shipped together with the manifold. The power connector is only available for the straight

SI unit common specification

Nil	Positive common
N	Negative common

6 Unit mounting position

D side

Valve stations

Symbol	Stations	Note				
01	1 station					
÷	i	Up to 32 solenoids can be selected.				
32	32 stations	can be selected.				

This number also includes the blanking block Since single and double wiring are available for the blanking block, select a model compatible with the valve wiring specification to be used. (Refer to page 105.)

8 SUP/EXH block mounting position

U	U side
D	D side
В	Both sides
M*1	Special specifications

*1 Specify the required specifications (including port sizes other than ø8) on the manifold specification sheet.

9 Pilot type

Nil	Internal pilot
S	Internal pilot, Built-in silencer
R	External pilot
RS	External pilot, Built-in silencer

- There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.
- The 3/5(E) port is plugged for the built-in silencer type.

DIN rail length specified

Nil	Stan	dard length				
2	2 stations	Specify a length				
:		longer than that of				
32	32 stations	the standard rail.				

Specify the number of valve stations without exceeding the max. number of stations.

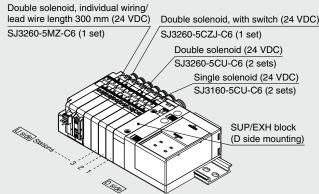
SUP/EXH block fitting specification

	Straight fitting				
Nil	With external pilot spec. X, PE port: Elbow fitting				
L	Elbow fitting (Upward) With external pilot spec. X, PE port: Straight fitting				
В	Elbow fitting (Downward) With external pilot spec. X, PE port: Elbow fitting				

* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

Ordering example (SS5J3-60SV2□-□)

How to Order Manifold Assembly



- SS5J3-60SV2D-06D 1 set (Manifold part no.) * SJ3160-5CU-C6 2 sets (Single solenoid part no.)
- * SJ3260-5CU-C6 2 sets (Double solenoid part no.) SJ3260-5CZJ-C6-----1 set (Double solenoid, with switch part no.)
- SJ3260-5MZ-C6 1 set (Double solenoid, individual wiring/ lead wire length 300 mm part no.)
 - The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- · 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. When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)

SI Unit Part Nos

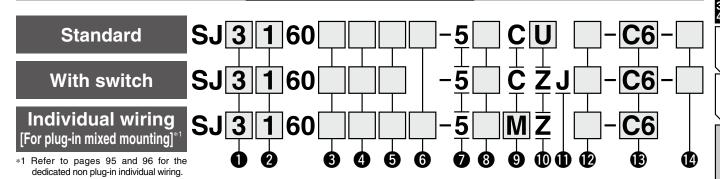
	1 411 1103.		
Symbol	Component module/Communication connector	Common specification	SI unit part no.
V2	CC-Link (32 points)	NPN output (Positive common)	EX180-SMJ3
V2N	T-branch type	PNP output (Negative common)	EX180-SMJ5
V2A	CC-Link (32 points)	NPN output (Positive common)	EX180-SMJ3A
V2AN	Straight type	PNP output (Negative common)	EX180-SMJ5A
Q2	DeviceNet® (32 points)	NPN output (Positive common)	EX180-SDN3
Q2N	T-branch type	PNP output (Negative common)	EX180-SDN5
Q2A	DeviceNet® (32 points)	NPN output (Positive common)	EX180-SDN3A
Q2AN	Straight type	PNP output (Negative common)	EX180-SDN5A
Q3	DeviceNet® (16 points)	NPN output (Positive common)	EX180-SDN4
Q3N	T-branch type	PNP output (Negative common)	EX180-SDN6
Q3A	DeviceNet® (16 points)	NPN output (Positive common)	EX180-SDN4A
Q3AN	Straight type	PNP output (Negative common)	EX180-SDN6A

	Specification	
Power source	Non-polar	24 VDC +10%/-5%
for driving valve	With power-saving circuit (Continuous duty)	24 VDC +10%/0%

For details on the EX180 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. Please download the Operation Manual via the SMC website: https://www.smcworld.com



How to Order Solenoid Valves



Series

_	
1	SJ1000
2	SJ2000
3	SJ3000

2 Type of	f actuation
-----------	-------------

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

- Refer to pages 18 to 21 for the symbol.
- The large flow type ("A") is available only for actuation types "1" and "2."

6 Coil type

Nil	Standard			_
	Otariaara	_	•	
	power-saving circuit ontinuous duty type)	•	•	•

- Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
- For the SJ1000 series, only the power-saving circuit type is available.

4 Pilot type

Standard flow type Internal pilot A*1 Large flow type External pilot *1 SJ3000 series only

The external pilot specification is not applicable for 4-position dual 3-port valves.

Back pressure check valve None

Built-in

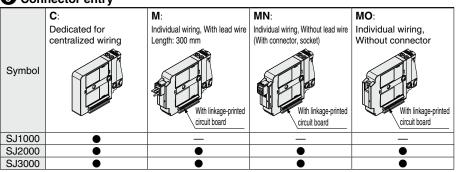
3-position and large flow type ("A") solenoid valves cannot be equipped with a back pressure check valve.

Rated voltage 5 24 VDC

8 Common specification

- Nil Positive common Negative common
- Leave blank for the non-polar type.
 - When the standard valve and valve with a switch are used, select a common specification that matches the SI unit common specification.

9 Connector entry



- Connector entries with the symbol "M\sum " cannot use the switch signal from the common wiring on the manifold. For details, refer to the "Connector Wiring Diagram" on page 17.
- When ordering a connector separately, refer to pages 144 and 145.

Light/surge voltage suppressor

S	ymbol	Specification	SJ1000	SJ2000	SJ3000(A)
	U	With light/surge voltage suppressor (Non-polar type)	_	•	•
	Z	With light/surge voltage suppressor (Polar type)	•	•	•

- When the type with a power-saving circuit, with a switch, or with individual wiring is used, the non-polar type cannot be selected.
- Select "CU" or "CZ" for the valve when the SI unit output polarity is Nil (positive common). Select "CU" or "NCZ" for the valve when the SI unit output polarity is N (negative common).

With switch

SJ1000	SJ2000	SJ3000(A)
_	•	•

Manual override

Wandar Overnae			
Symbol/Specification	SJ1000	SJ2000	SJ3000(A)
Nil: Non-locking push type	•	•	•
D: Push-turn locking slotted type	•	•	•
F: Slide locking type	_	•	•

(B) A, B port size

stric/One-touch fitting

				ouc				1
Symbol	A,	В	port	SJ1000	SJ2000	SJ3000	SJ3000A	
C2] ₌	٥	ð2	•	•	•		
C4	Straight	٥	ø 4	•	•	•	•	
C6	ြိ		ø6	_	_	•	•	
L2		ntry	ø2	_	•	•		
L4		Upward entry	ø4	_	•	•	•	
L6	Elbow	_	ø6	_	_	•	•	
B2		entry	ø2	_	•	•		
В4		Jownward entry	ø4	_	•	•	•	
В6		Down	ø6	_	_	•	•	

Thread piping

	aa pipiiig							
Symbol	A, B port	SJ1000	SJ2000	SJ3000	SJ3000A			
МЗ	M3 x 0.5	_	•	_	_			
M5	M5 x 0.8	_	_	•	•			

oh/Ono-touch fitting

incn/	U	ne	e-toucn	tittir	ıg			
Symbol		Α,	B port	SJ1000	SJ2000	SJ3000	SJ3000A	
N1	ιt		ø1/8"	_	•	•	_	
N3	Straight		ø5/32"	_	•	•	•	
N7	S		ø1/4"	_	_	•	•	
LN1		entry	ø1/8"	_	•	•	_	
LN3		Upward e	ø5/32"	_	•	•	•	
LN7	Elbow		ø1/4"	_	_	•	•	
BN1	田	entry	ø1/8"	_	•	•	_	
BN3		Downward	ø5/32"	_	•	•	•	
BN7		Dowr	ø1/4"	_	_	•	•	

Single solenoid wiring specification

wining opcomodate						
Nil	Single wiring					
D	Double wiring					

 Leave blank for 2-position double, 3-position, and 4-position solenoid valves. Select "D" only when setting a blank number for wiring. Refer to page 17 for details.

Protective class class II (Mark: (iii))

Construction Plug-in

D-sub Flat Ribbon EX180

EX510 Non Plug-in

SJ3A6

Plug-in

Non Plug-in

Plug-in Connector Type CE UK ROHS **EX180 Integrated Type**





Type 60S Superior Sup

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

SS5J4-|60S

Series

SJ4000

2 Mixed mounting type

Nil	Standard (Dedicated for the SJ4000)	
M	Mixed mounting	

- Leave blank when only using a single series.
- Select "M" when SJ1000, SJ2000, or SJ3000 series valves will be mounted on the same manifold base together.

3 Component module

Without SI unit	
CC-Link (32 points)	
DeviceNet® (32 points)	
DeviceNet® (16 points)	

* Please contact SMC for SI unit specifications.

4 Communication connector

Nil	T-branch type
Α	Straight type

The communication connector and power connector are shipped together with the manifold. The power connector is only available for the straight

SI unit common specification

Nil	Positive common
N	Negative common

6 Unit mounting position

D side

Valve stations

Symbol	Stations	Note
01	1 station	Un to 00 colonside
i	:	Up to 32 solenoids can be selected.
32	32 stations	can be selected.

This number also includes the blanking block. Since single and double wiring are available for the blanking block select a model compatible with the valve wiring specification to be used. (Refer to page 105.)

8 SUP/EXH block mounting position

U	U side	
D	D side	
В	Both sides	
M	Special specifications	

- * Special specifications (including instructions for port sizes other than the ø10 of the standard SUP/EXH block) must be specified separately on a manifold specification sheet.
- For 11 or more valve stations, "B" (both sides) is recommended.

9 Pilot type

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

- There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.
- The 3/5(E) port is plugged for the built-in silencer type ("S").
- The SJ4000 does not have the external pilot and built-in silencer ("RS") type.

DIN rail length specified

Nil	Standard length	
2	2 stations Specify a length	
:	:	longer than that of
32	32 stations	the standard rail.

Specify the number of valve stations without exceeding the max. number of

How to Order Manifold Assembly

Ordering example (SS5J4-60SV2□-□) Double solenoid (24 VDC) SJ4260-5CU-C8 (3 sets) Single solenoid (24 VDC) SJ4160-5CU-C8 (2 sets SUP/EXH block (D side mounting For mixed mounting ("M"), SJ1000/2000/3000(A)

valves are mounted here

SS5J4-60SV2D-05D 1 set (Manifold part no.) SJ4160-5CU-C8 2 sets (Single solenoid part no.)

SJ4260-5CU-C8 3 sets (Double solenoid part no.) The asterisk denotes the symbol for the assembly Prefix it to the part numbers of the solenoid valves, etc.

- 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
- When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)

SI Unit Part Nos.

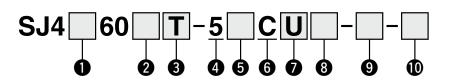
Symbol	Component module/Communication connector	Common specification	SI unit part no.
V2	CC-Link (32 points)	NPN output (Positive common)	EX180-SMJ3
V2N	T-branch type	PNP output (Negative common)	EX180-SMJ5
V2A	CC-Link (32 points)	NPN output (Positive common)	EX180-SMJ3A
V2AN	Straight type	PNP output (Negative common)	EX180-SMJ5A
Q2	DeviceNet® (32 points)	NPN output (Positive common)	EX180-SDN3
Q2N	T-branch type	PNP output (Negative common)	EX180-SDN5
Q2A	DeviceNet® (32 points)	NPN output (Positive common)	EX180-SDN3A
Q2AN	Straight type	PNP output (Negative common)	EX180-SDN5A
Q3	DeviceNet® (16 points)	NPN output (Positive common)	EX180-SDN4
Q3N	T-branch type	PNP output (Negative common)	EX180-SDN6
Q3A	DeviceNet® (16 points)	NPN output (Positive common)	EX180-SDN4A
Q3AN	Straight type	PNP output (Negative common)	EX180-SDN6A

Item		Specification
Power source Non-polar		24 VDC +10%/-5%
for driving valve	With power-saving circuit (Continuous duty)	24 VDC +10%/0%

For details on the EX180 Integrated Type (For Output) Serial Transmission System, refer to the **Web Catalog** and the Operation Manual. Please download the Operation Manual via the SMC website: https://www.smcworld.com

- For the mixed mounting ("M") of SJ4000 and SJ1000/2000/3000 valves, SJ1000/2000/3000 valves are mounted on the D side of the SJ4000 D side SUP/EXH block.
- The SJ4000 series does not have an elbow One-touch fitting.

How to Order Solenoid Valves



Type of actuation

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

* Refer to pages 22 and 23 for the symbol.

2 Pilot type

Nil	Internal pilot
R	External pilot

* The external pilot specification is not applicable for 4-position dual 3-port valves.

3 Coil type

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

* Be sure to select the powersaving circuit type if the valve is to be continuously energized for long periods of time.

Rated voltage

		_					
*	12	VDC	is	not	available	for	th
	SJ	4000.					

24 VDC

5 Common specification

Nil	Positive common
N	Negative common

* Leave blank for the non-polar type.

6 Connector entry

U

Ζ

С	Dedicated for centralized wiring

Light/surge voltage suppressor With light/surge voltage suppressor

When the type with a power-saving circuit

is used, the non-polar type cannot be

With light/surge voltage suppressor

(Non-polar type)

(Polar type)

8 Manual override

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

9 A, B port size Metric/One-touch fitting

			9
C6	Straight	ø6	
C8		ø8	

Single solenoid wiring specification

Nil	Single wiring
D	Double wiring

* Leave blank for 2-position double, 3-position, and 4-position solenoid valves.

- * SJ4000 series valves cannot be not equipped with a back pressure check valve.
- * The SJ4000 series does not have an A, B port inch-size or elbow One-touch fitting.

SJ3A6

Specific Product Precautions



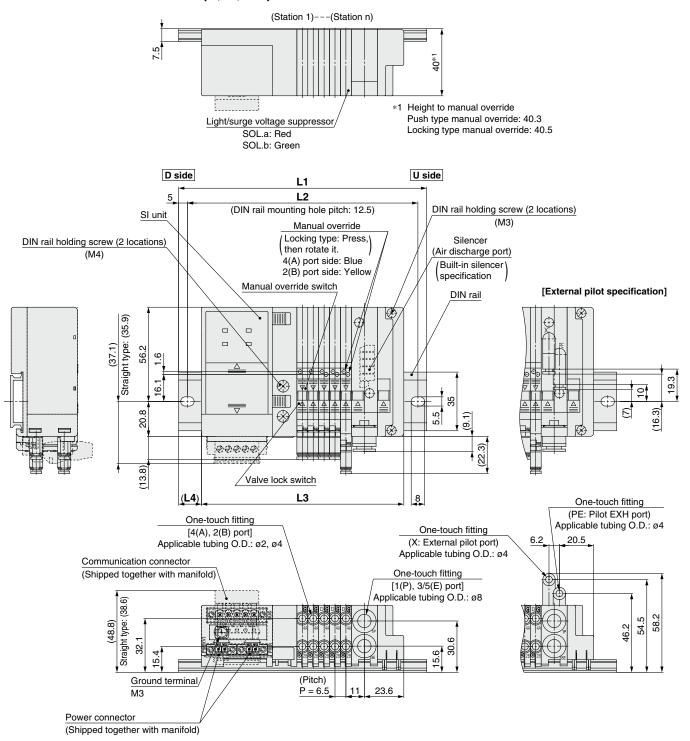
D-sub Flat Ribbon

Construction

EX180 EX510

Dimensions: SJ1000 for EX180 Integrated Type (For Output) Serial Transmission System

SS5J1-60S D-Stations U(S, R, RS)



L: Dim	L: Dimensions n: Stations														n: Stations	
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223
L2	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5
L3	94.7	101.2	107.7	114.2	120.7	127.2	133.7	140.2	146.7	153.2	159.7	166.2	172.7	179.2	185.7	192.2
L4	14	17	14	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5	12.5	15.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	223	235.5	235.5	248	248	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323
1.0	010.5	005	005	007.5	007 E	OFO	000 5	000 5	075	075	007 E	007 F	200	200	210 5	210 5

244.2

250.7

17.5

257.2

263.7

270.2

276.7

283.2

13.5

289.7

16.5

296.2

13.5

L3

L4

198.7

12

205.2

15

211.7

218.2

15

224.7

11.5

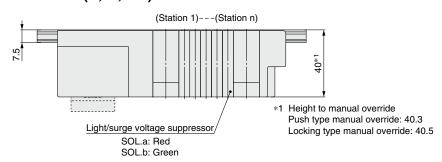
231.2

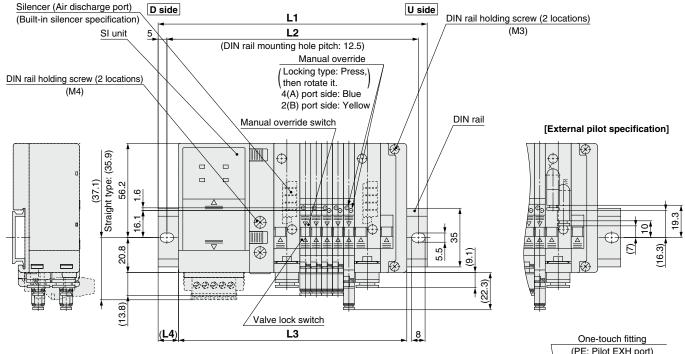
14.5

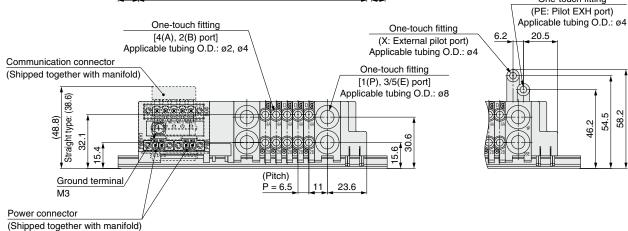
237.7

Dimensions: SJ1000 for EX180 Integrated Type (For Output) Serial Transmission System

SS5J1-60S D-Stations B(S, R, RS)







L: Dim	L: Dimensions n: Statio														n: Stations	
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	235.5
L2	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	225
L3	110.2	116.7	123.2	129.7	136.2	142.7	149.2	155.7	162.2	168.7	175.2	181.7	188.2	194.7	201.2	207.7
L4	12.5	15.5	12.5	15.5	12	15	12	15	11.5	14.5	17.5	14.5	17.5	14	17	14
		•		•										•		

L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323	323	335.5	335.5
L2	237.5	237.5	250	250	262.5	262.5	275	275	287.5	287.5	300	300	312.5	312.5	325	325
L3	214.2	220.7	227.2	233.7	240.2	246.7	253.2	259.7	266.2	272.7	279.2	285.7	292.2	298.7	305.2	311.7
L4	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5	12.5	15.5	12	15	12

Construction

D-sub Flat Ribbon

EX180 EX510

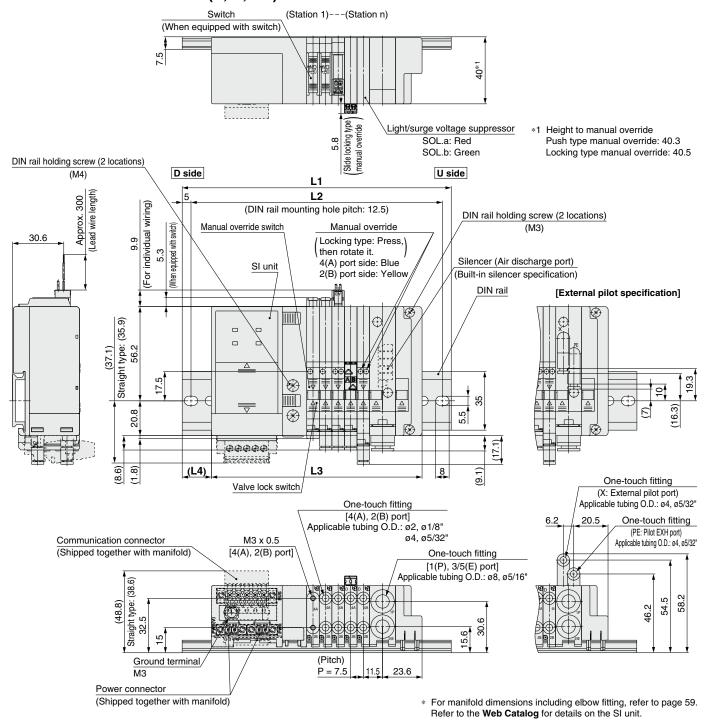
SJ3A6

Plug-in

Dimensions: SJ2000 for EX180 Integrated Type (For Output) Serial Transmission System

SS5J2-60S D-Stations U(S, R, RS)

67



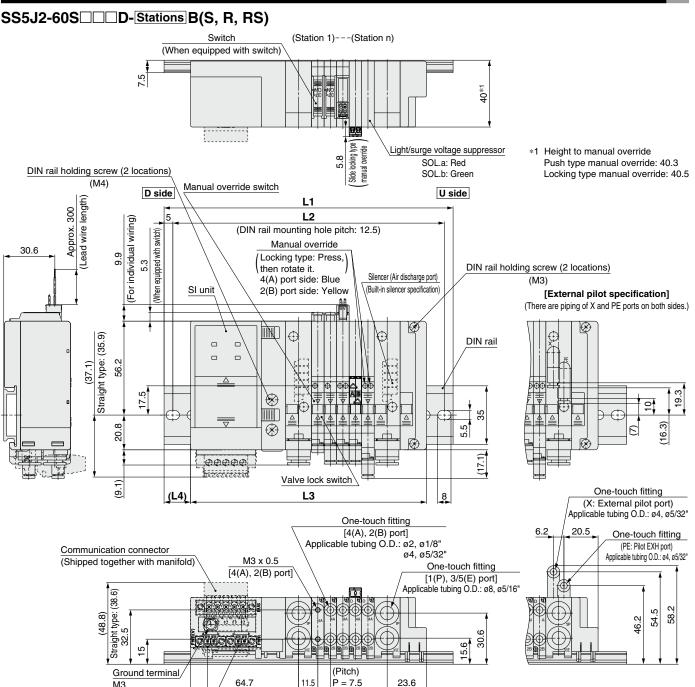
L: Dim	L: Dimensions n: Stations															
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	135.5	135.5	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	235.5	235.5
L2	112.5	125	125	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	225	225
L3	95.7	103.2	110.7	118.2	125.7	133.2	140.7	148.2	155.7	163.2	170.7	178.2	185.7	193.2	200.7	208.2
L4	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	248	248	260.5	273	273	285.5	285.5	298	310.5	310.5	323	323	335.5	348	348	360.5
L2	237.5	237.5	250	262.5	262.5	275	275	287.5	300	300	312.5	312.5	325	337.5	337.5	350
L3	215.7	223.2	230.7	238.2	245.7	253.2	260.7	268.2	275.7	283.2	290.7	298.2	305.7	313.2	320.7	328.2
L4	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16

M3 Power connector

(Shipped together with manifold)

Plug-in Connector Type EX180 Integrated Type (For Output) Serial Transmission System SJ1000/2000/3000 Series

Dimensions: SJ2000 for EX180 Integrated Type (For Output) Serial Transmission System



* For manifold dimensions including elbow fitting, refer to page 59. Refer to the Web Catalog for details on the SI unit.

L: Dim	L: Dimensions n: Stations															
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248
L2	125	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	225	225	237.5	237.5
L3	111.2	118.7	126.2	133.7	141.2	148.7	156.2	163.7	171.2	178.7	186.2	193.7	201.2	208.7	216.2	223.7
L4	12	14.5	17	13.5	16	12	14.5	17	13.5	16	12	14.5	17	13.5	16	12
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	260.5	273	273	285.5	285.5	298	310.5	310.5	323	323	335.5	348	348	360.5	360.5	373
L2	250	262.5	262.5	275	275	287.5	300	300	312.5	312.5	325	337.5	337.5	350	350	362.5
L3	231.2	238.7	246.2	253.7	261.2	268.7	276.2	283.7	291.2	298.7	306.2	313.7	321.2	328.7	336.2	343.7
L4	14.5	17	13.5	16	12	14.5	17	13.5	16	12	14.5	17	13.5	16	12	14.5

Construction

D-sub Flat Ribbon EX180

EX510 Non Plug-in

SJ3A6

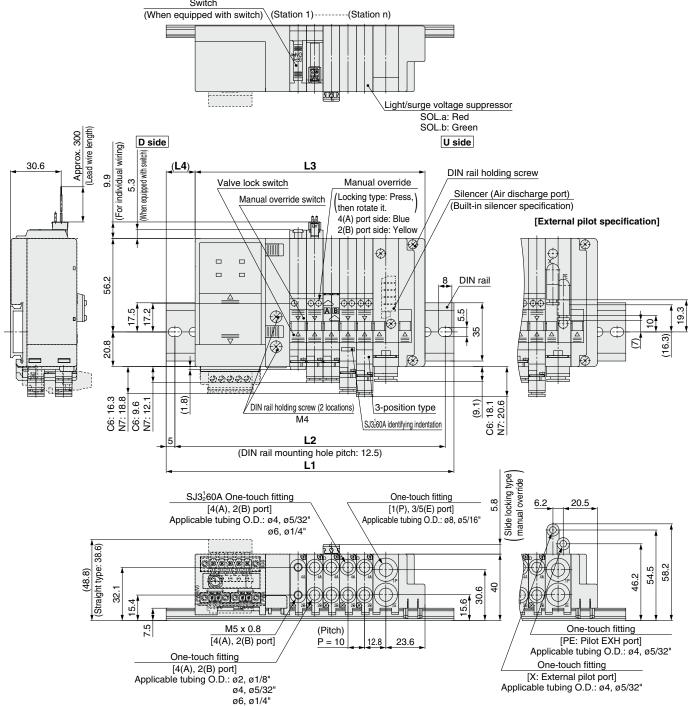
Plug-in

pecific Product

Dimensions: SJ3000 for EX180 Integrated Type (For Output) Serial Transmission System

SS5J3-60S D-Stations U(S, R, RS)

69



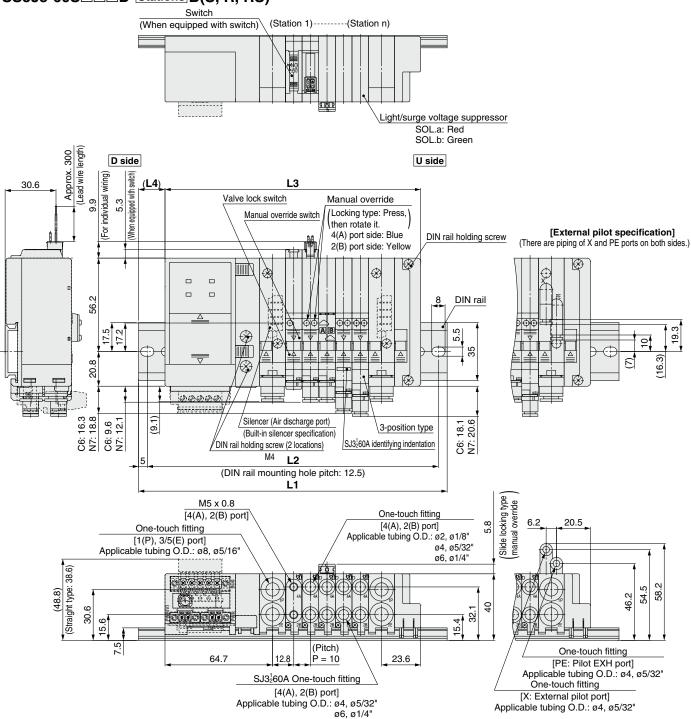
For manifold dimensions including elbow fitting, refer to page 60.
 Refer to the Web Catalog for details on the SI unit.

L: Dimensions n: Stations																
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5
L2	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275
L3	98.2	108.2	118.2	128.2	138.2	148.2	158.2	168.2	178.2	188.2	198.2	208.2	218.2	228.2	238.2	248.2
L4	12.5	13.5	14.5	16	17	12	13	14	15.5	16.5	17.5	12.5	13.5	15	16	17
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	285.5	298	310.5	323	335.5	348	348	360.5	373	385.5	398	398	410.5	423	435.5	448
L2	275	287.5	300	312.5	325	337.5	337.5	350	362.5	375	387.5	387.5	400	412.5	425	437.5
L3	258.2	268.2	278.2	288.2	298.2	308.2	318.2	328.2	338.2	348.2	358.2	368.2	378.2	388.2	398.2	408.2
L4	12	13	14.5	15.5	16.5	17.5	12.5	14	15	16	17	12	13.5	14.5	15.5	16.5

Plug-in Connector Type EX180 Integrated Type (For Output) Serial Transmission System SJ1000/2000/3000 Series

Dimensions: SJ3000 for EX180 Integrated Type (For Output) Serial Transmission System

SS5J3-60S D-Stations B(S, R, RS)



For manifold dimensions including elbow fitting, refer to page 60. Refer to the Web Catalog for details on the SI unit.

L: Dimensions n: Stations																
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	260.5	273	285.5	298
L2	137.5	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	250	262.5	275	287.5
L3	113.7	123.7	133.7	143.7	153.7	163.7	173.7	183.7	193.7	203.7	213.7	223.7	233.7	243.7	253.7	263.7
L4	17	12	13	14.5	15.5	16.5	17.5	12.5	14	15	16	17	12	13.5	14.5	15.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	310.5	310.5	323	335.5	348	360.5	373	373	385.5	398	410.5	423	423	435.5	448	460.5
L2	300	300	312.5	325	337.5	350	362.5	362.5	375	387.5	400	412.5	412.5	425	437.5	450
L3	273.7	283.7	293.7	303.7	313.7	323.7	333.7	343.7	353.7	363.7	373.7	383.7	393.7	403.7	413.7	423.7
L4	16.5	11.5	13	14	15	16	17.5	12.5	13.5	14.5	15.5	17	12	13	14	15

Construction

D-sub Flat Ribbon EX180

EX510 Non Plug-in

SJ3A6

Plug-in

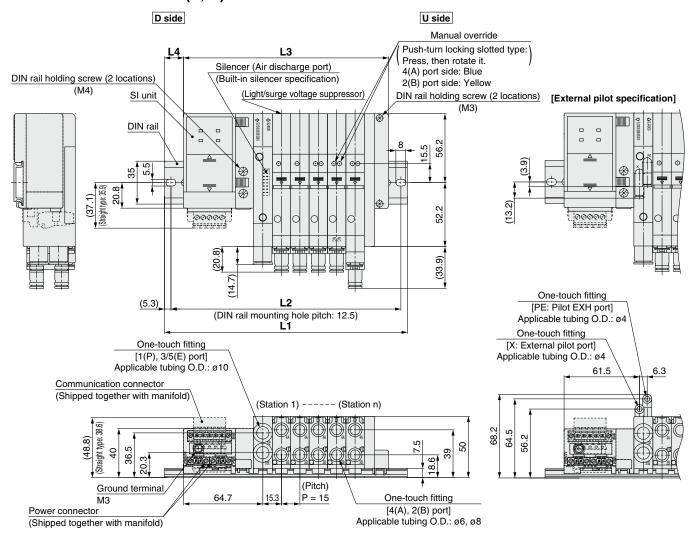
Non Plug-in

Specific Product Precautions

SJ4000 Series

Dimensions: SJ4000 for EX180 Integrated Type (For Output) Serial Transmission System

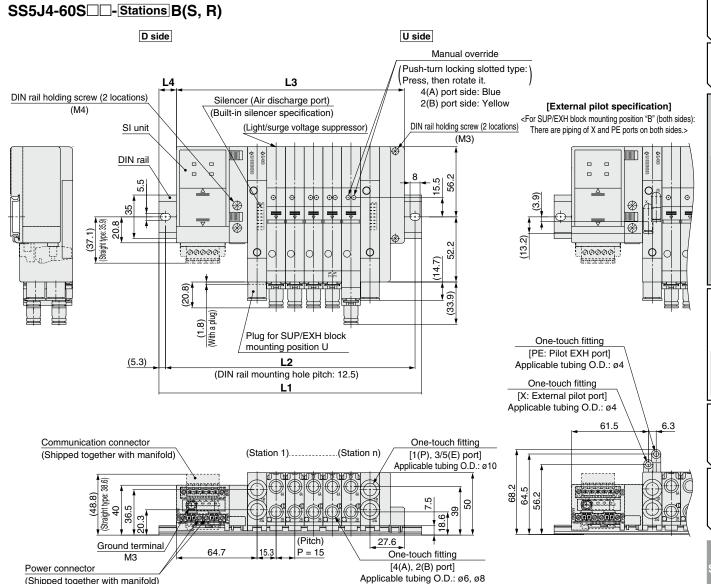
SS5J4-60S D-Stations D(S, R)



^{*} Refer to the Web Catalog for details on the SI unit.

L: Dimensions n: Stations																
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	160.5	185.5	198	210.5	223	235.5	260.5	273	285.5	298	310.5	335.5	348	360.5
L2	125	137.5	150	175	187.5	200	212.5	225	250	262.5	275	287.5	300	325	337.5	350
L3	107.2	122.2	137.2	152.2	167.2	182.2	197.2	212.2	227.2	242.2	257.2	272.2	287.2	302.2	317.2	332.2
L4	14	13	11.5	16.5	15.5	14	13	11.5	16.5	15.5	14	13	11.5	16.5	15.5	14
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	373	385.5	410.5	423	435.5	448	460.5	485.5	498	510.5	523	535.5	560.5	573	585.5	598
L2	362.5	375	400	412.5	425	437.5	450	475	487.5	500	512.5	525	550	562.5	575	587.5
L3	347.2	362.2	377.2	392.2	407.2	422.2	437.2	452.2	467.2	482.2	497.2	512.2	527.2	542.2	557.2	572.2
L4	13	11.5	16.5	15.5	14	13	11.5	16.5	15.5	14	13	11.5	16.5	15.5	14	13

Dimensions: SJ4000 for EX180 Integrated Type (For Output) Serial Transmission System



* Refer to the Web Catalog for details on the SI unit.

L: Dim	ensio	ns													r	: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	173	185.5	198	210.5	223	248	260.5	273	285.5	298	323	335.5	348	360.5	373
L2	137.5	162.5	175	187.5	200	212.5	237.5	250	262.5	275	287.5	312.5	325	337.5	350	362.5
L3	122.7	137.7	152.7	167.7	182.7	197.7	212.7	227.7	242.7	257.7	272.7	287.7	302.7	317.7	332.7	347.7
L4	12.5	17.5	16.5	15	14	12.5	17.5	16.5	15	14	12.5	17.5	16.5	15	14	12.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	398	410.5	423	435.5	448	473	485.5	498	510.5	523	548	560.5	573	585.5	598	623
L2	387.5	400	412.5	425	437.5	462.5	475	487.5	500	512.5	537.5	550	562.5	575	587.5	612.5
L3	362.7	377.7	392.7	407.7	422.7	437.7	452.7	467.7	482.7	497.7	512.7	527.7	542.7	557.7	572.7	587.7
L4	17.5	16.5	15	14	12.5	17.5	16.5	15	14	12.5	17.5	16.5	15	14	12.5	17.5

(Shipped together with manifold)

Construction Plug-in

D-sub Flat Ribbon EX180

EX510

Made t Order

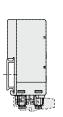
SJ3A6

Plug-in

72

Dimensions: SJ1000/2000/3000 Mixed Manifold

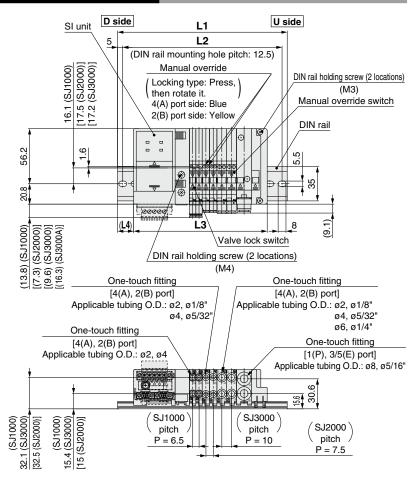
SS5J3-M60S D-Stations U(S, R, RS)



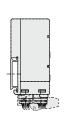
L dimension: Formula, L1 to L4 L3 = $6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 88.2$ M = (L3 + 4)/12.5 + 1 Decimal fractions are truncated. L1 = M × 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 - 2

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000

* The dimensions of L1 to L4 for SS5J3-M60S□□D-<u>Stations</u>D are the same as those of SS5J3-M60S□□D-<u>Stations</u>U.

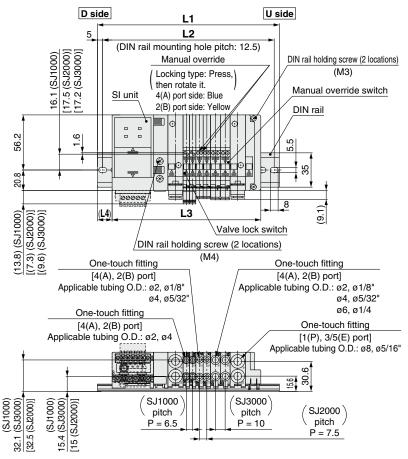


SS5J3-M60S D-Stations B(S, R, RS)



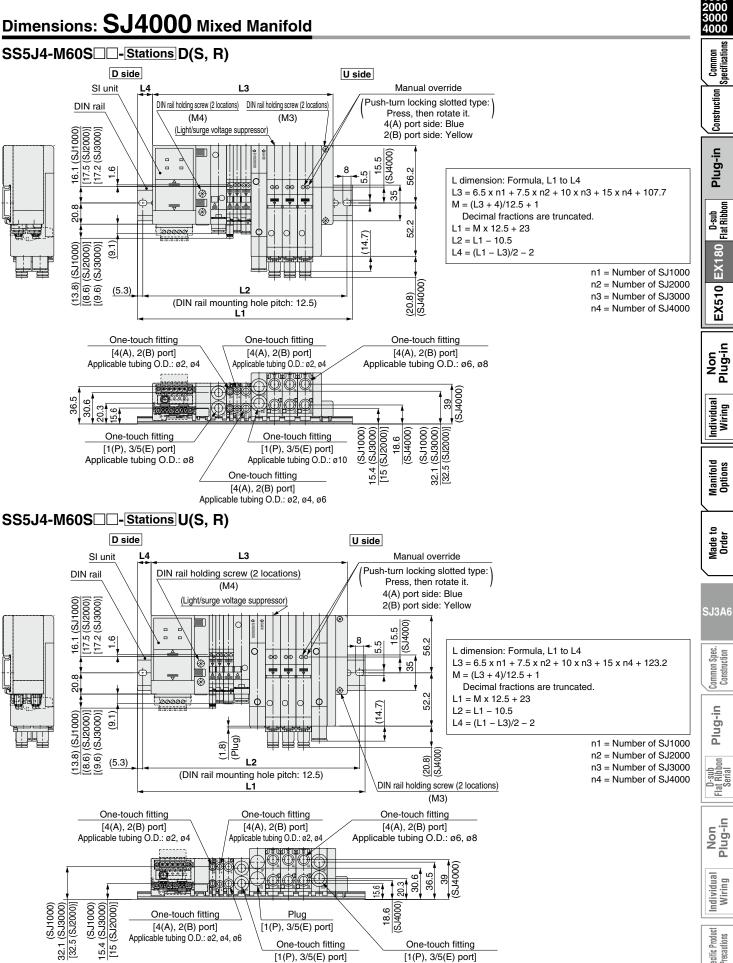
L dimension: Formula, L1 to L4 L3 = $6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 103.7$ M = (L3 + 4)/12.5 + 1 Decimal fractions are truncated. L1 = M × 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 - 2

> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000





Plug-in Connector Type EX180 Integrated Type (For Output) Serial Transmission System SJ4000 Series



[4(A), 2(B) port]

Applicable tubing O.D.: ø2, ø4, ø6

15.4

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

One-touch fitting

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

Applicable tubing O.D.: ø8

One-touch fitting

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

Applicable tubing O.D.: ø10

74

pecific Product

Plug-in

Construction

D-sub Flat Ribbon

EX180

EX510

SJ4000 Series

Dimensions: SJ4000 Mixed Manifold

SS5J4-M60S - Stations B(S, R) U side D side Manual override SI unit L3 Push-turn locking slotted type: DIN rail DIN rail holding screw (2 locations) Press, then rotate it. (Light/surge voltage suppressor) 4(A) port side: Blue 16.1 (\$J1000) [[17.5 (\$J2000)] [17.2 (\$J3000)] 2(B) port side: Yellow 15.5 (SJ4000) 56.2 1.6 L dimension: Formula, L1 to L4 $L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 15 \times n4 \times 138.7$ M = (L3 + 4)/12.5 + 1Decimal fractions are truncated. 8 $L1 = M \times 12.5 + 23$ L2 = L1 - 10.5(\$J2000) (\$J2000)] (\$J3000)] (9.1) L4 = (L1 - L3)/2 - 2n1 = Number of SJ1000(13.8) [(8.6) ([(9.6) ((20.8) (SJ4000) n2 = Number of SJ2000(5.3) L2 n3 = Number of SJ3000 (DIN rail mounting hole pitch: 12.5) n4 = Number of SJ4000 DIN rail holding screw (2 locations) One-touch fitting One-touch fitting One-touch fitting [4(A), 2(B) port] [4(A), 2(B) port] [4(A), 2(B) port] Applicable tubing O.D.: ø2, ø4 Applicable tubing O.D.: ø2, ø4 Applicable tubing O.D.: ø6, ø8 30.6 (\$J1000) 32.1 (\$J3000) [32.5 (\$J2000)] (\$J1000) 15.4 (\$J3000)] 18.6 (SJ4000) One-touch fitting [4(A), 2(B) port] Applicable tubing O.D.: ø2, ø4, ø6 One-touch fitting One-touch fitting

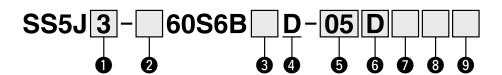
[1(P), 3/5(E) port] Applicable tubing O.D.: ø8 [1(P), 3/5(E) port] Applicable tubing O.D.: ø10

SMC

Plug-in Connector Type EX510 Gateway Type Serial Transmission System (RoHS) Type 60S6B SJ10000/2000/3000 Series

How to Order Manifolds

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.



Manifold series

1	SJ1000		
2 SJ2000			
3	SJ3000 (SJ1000/2000/3000 mixed*1)		

*1 Select "3" for the combination of SJ1000 and SJ2000 valves.

Mixed mounting type

Nil	Standard*1
M	Mixed mounting*2

- *1 For SJ1000, 2000, and 3000 series valves. leave blank when only using a single series.
- Select "M" when SJ1000, SJ2000, or SJ3000 series valves will be mounted on the same manifold base together.

3 SI unit common specification

Nil	Positive common	
N	Negative common	

4 Unit mounting position

D	D side

5 Valve stations

Symbol	Stations	Note			
01	1 station				
:	:	Up to 16 solenoids can be selected.			
16	16 stations	can be selected.			

This number also includes the blanking block. Since single and double wiring are available for the blanking block, select a model compatible with the valve wiring specification to be used.

6 SUP/EXH block mounting position

U	U side
D	D side
В	Both sides
M*1	Special specifications

Specify the required specifications (including port sizes other than Ø8) on the manifold specification sheet.

Pilot type

Nil	Nil Internal pilot	
S Internal pilot, Built-in silencer		
R External pilot		
RS	External pilot, Built-in silencer	

- There is no need to enter anything when the SUP/ EXH block mounting position "M" is selected.
- The 3/5(E) port is plugged for the built-in silencer

SUP/EXH block fitting specification

Nil	L	В
Straight fitting	Elbow fitting (Upward)	Elbow fitting (Downward)
With external pilot spec. X, PE port: Elbow fitting	With external pilot spec. X, PE port: Straight fitting	With external pilot spec. X, PE port: Elbow fitting

* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

9 DIN rail length specified

Nil	Standard length			
2	2 stations	Specify a length		
:	:	longer than that of		
16	16 stations	the standard rail.		

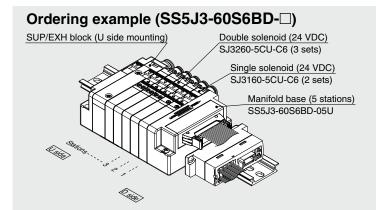
Specify the number of valve stations without exceeding the max. number of stations.

SI Unit Part Nos.

Symbol	SI unit specification	SI unit part no.
Nil	NPN output (Positive common)	EX510-S002C
N	PNP output (Negative common)	EX510-S102C

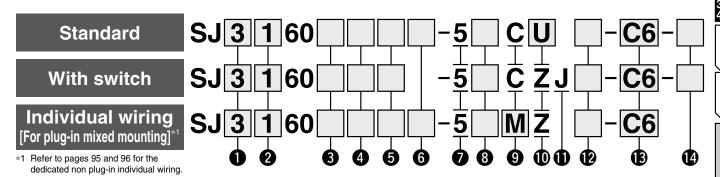
For details on the EX510 Gateway Type Serial Transmission System, refer to the Web Catalog and the Operation Manual. Please download the Operation Manual via the SMC website: https://www.smcworld.com

How to Order Manifold Assembly



- SS5J3-60S6BD-05U 1 set (Type 60S6B, 5-station manifold base part no.) SJ3160-5CU-C6 2 sets (Single solenoid part no.)
- SJ3260-5CU-C6 3 sets (Double solenoid part no.)
- The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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.
- When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)

How to Order Solenoid Valves



Series

U OCITICS			
1	SJ1000		
2	SJ2000		
3	SJ3000		

Type of actuation

1	2-position single solenoid	-
2	2-position double solenoid	E
3	3-position closed center	
4	3-position exhaust center	
5	3-position pressure center	

- Refer to pages 18 to 21 for the symbol.
- * The large flow type ("A") is available only for actuation types "1" and "2."

4 Pilot type Back pressure check valve

	Nil	Internal pilot				
	R	External pilot				
*	The external pilot specification					
	is not applicable for 4-position					

dual 3-port valves.

Built-in 3-position and large flow type ("A") solenoid valves cannot be equipped with a back pressure check valve.

None

Dual 3-port valve: N.C./N.C. Dual 3-port valve: N.O./N.O.

Dual 3-port valve: N.C./N.O.

6 Coil type

Symbol Coil type		SJ1000	SJ2000	SJ3000(A)
Nil	Standard	_	•	•
Т	With power-saving circuit (Continuous duty type)	•	•	•

- Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
- For the SJ1000 series, only the power-saving circuit type is available.

Rated voltage **5** 24 VDC

8 Common specification

Nil	Positive common
N	Negative common

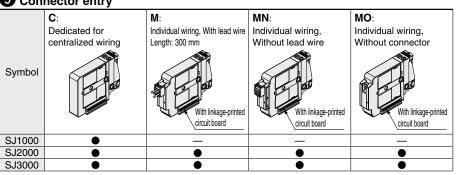
- Leave blank for the non-polar type.
- When the standard valve and valve with a switch are used, select a common specification that matches the SI unit common specification.

Connector entry

A*1 Large flow type

*1 SJ3000 series only

Standard flow type



- Connector entries with the symbol "M \square " cannot use the switch signal from the common wiring on the manifold. For details, refer to the "Connector Wiring Diagram" on page 17.
- When ordering a connector separately, refer to pages 144 and 145.

Light/surge voltage suppressor

Symbol	Specification	SJ1000	SJ2000	SJ3000(A)
C	With light/surge voltage suppressor (Non-polar type)	_	•	•
Z	With light/surge voltage suppressor (Polar type)	•	•	•

When the type with a power-saving circuit, with a switch, or with individual wiring is used, the non-polar type cannot be selected. Select "CU" or "CZ" for the valve when the SI unit output polarity is Nii (positive common).

Select "CU" or "NCZ" for the valve when the SI unit output polarity is N (negative common).

With switch

SJ1000	SJ2000	SJ3000(A)
1	•	•

Manual override

Symbol/Specification	SJ1000	SJ2000	SJ3000(A)
Nil: Non-locking push type	•	•	•
D: Push-turn locking slotted type	•	•	•
F: Slide locking type	_	•	•

(B) A, B port size

Metric/One-touch fitting

wetric/One-touch fitting								
Symbol	A,	В	port	SJ1000	SJ2000	SJ3000	SJ3000A	
C2	ŧ	Ç	ð2	•	•	•	_	
C4	Straight	Ç	5 4	•	•	•	•	
C6	S	Ç	ø6	_	_	•	•	
L2		ntry	ø2	_	•	•	_	
L4		ard e	ø4	_	•	•	•	
L6	Elbow	Upw	ø6	_	_	•	•	
B2	Ħ	entry	ø2	_	•	•		
В4		Downward entry Upward entry	ø4	_	•	•	•	
В6		Dowr	ø6	_	_	•	•	

Throad pining

11116	i ili eau pipilig							
Symbol	A, B port	SJ1000	SJ2000	SJ3000	SJ3000A			
М3	M3 x 0.5	_	•	_	_			
M5	M5 x 0.8	_	_	•	•	9		

Inch/	<u>'O</u>	ne	-touch					
Symbol		Α,	B port	SJ1000	SJ2000	SJ3000	SJ3000A	
N1	¥		ø1/8"	_	•	•	_	
N3	Straight		ø5/32"	_	•	•	•	
N7	S		ø1/4"	_	_	•	•	
LN1		ntry	ø1/8"	_	•	•	_	
LN3		Upward entry	ø5/32"	_	•	•	•	
LN7	Elbow		ø1/4"	_	_	•	•	
BN1	ᆲ	entry	ø1/8"	_	•	•	_	
BN3		Downward entry	ø5/32"	_	•	•	•	
BN7		Dowr	ø1/4"		_	•	•	

Single solenoid wiring specification

Nil	Single wiring
D	Double wiring

* Leave blank for 2-position double, 3-position, and 4-position solenoid valves. Select "D" only when setting a blank number for wiring. Refer to page 16 for details.

Protective class class II (Mark: (iii))



Construction

Plug-in

D-sub Flat Ribbon **EX180 EX510**

Non Plug-in

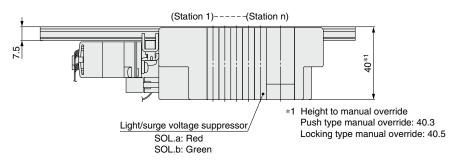
SJ3A6

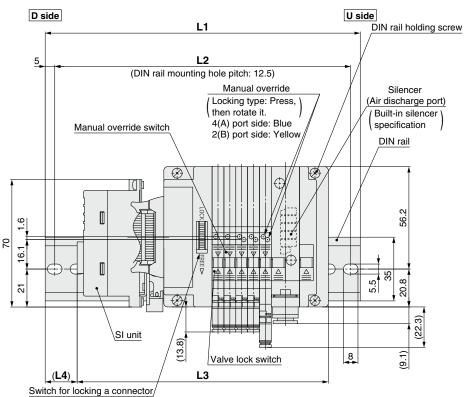
Plug-in

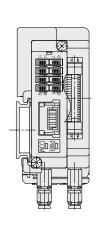
Non Plug-in

Dimensions: SJ1000 for EX510 Gateway Type Serial Transmission System

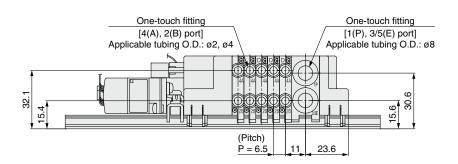
SS5J1-60S6B D-Stations U(S, R, RS)







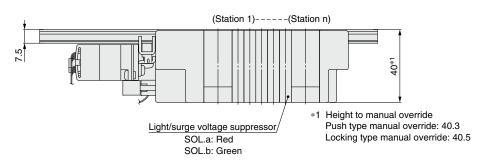
79

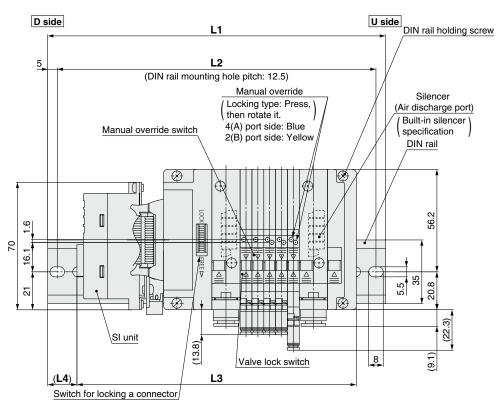


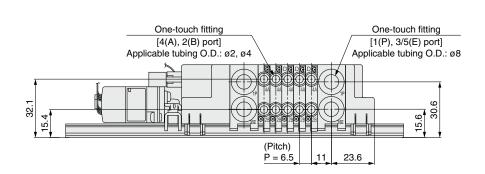
L	L: Dimensions n: S														n: Stations		
Ĺ	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	L1	135.5	148	148	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5
	L2	125	137.5	137.5	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225
	L3	111.9	118.4	124.9	131.4	137.9	144.4	150.9	157.4	163.9	170.4	176.9	183.4	189.9	196.4	202.9	209.4
	1.4	12	15	11.5	1/15	175	1/15	17.5	1/	17	1/	17	135	16.5	13.5	16.5	13

Dimensions: SJ1000 for EX510 Gateway Type Serial Transmission System

SS5J1-60S6B D-Stations B(S, R, RS)







_			_	 	_	 _	 	 	 		
.: Di	nensio	ns								n	: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248
L2	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5
L3	127.4	133.9	140.4	146.9	153.4	159.9	166.4	172.9	179.4	185.9	192.4	198.9	205.4	211.9	218.4	224.9
L4	16.5	13.5	16.5	13	16	13	16	12.5	15.5	12.5	15.5	12	15	12	15	11.5

Construction Specifi

Plug-in

EX510 EX180 Pat Ribbon

al Non Plug-in

Options

Order

SJ3A6

Common Spec Construction

n Plug-in

D-sub Flat Ribbon Serial

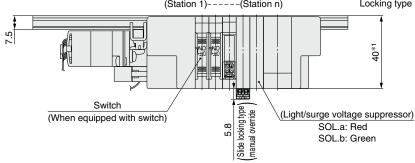
Non Plug-in

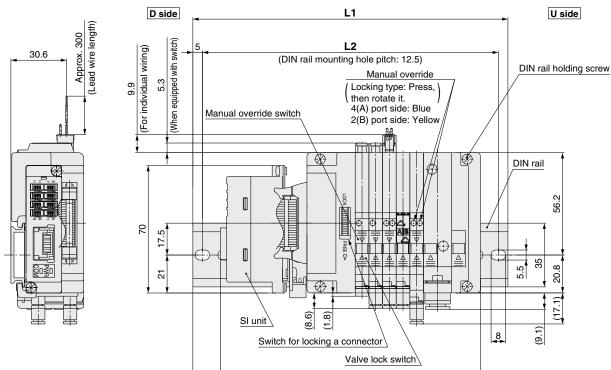
luct Individual S Wiring

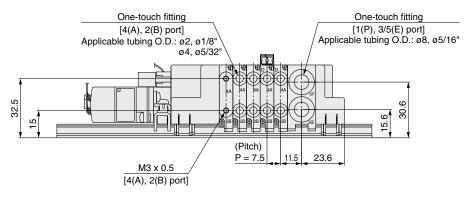
Dimensions: SJ2000 for EX510 Gateway Type Serial Transmission System

SS5J2-60S6B D-Stations U(S, R, RS)

*1 Height to manual override Push type manual override: 40.3 Locking type manual override: 40.5







L3

* Refer to page 67 for the external pilot specifications and page 59 for the dimensions of the manifold with elbow fittings. Refer to the Web Catalog for details on the SI unit.

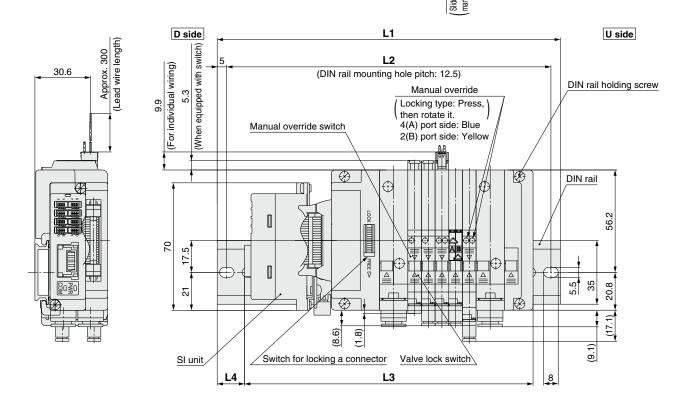
L: Dim	L: Dimensions n: Stations															
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	148	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5	235.5	248	260.5
L2	137.5	137.5	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225	225	237.5	250
L3	112.9	120.4	127.9	135.4	142.9	150.4	157.9	165.4	172.9	180.4	187.9	195.4	202.9	210.4	217.9	225.4
L4	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5

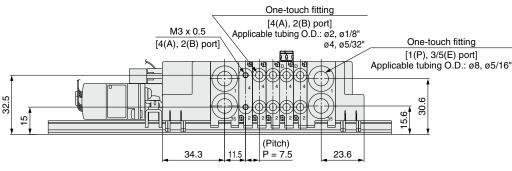
Dimensions: SJ2000 for EX510 Gateway Type Serial Transmission System

SS5J2-60S6B D-Stations B
Switch
(Station 1)----(Station n)

**1 Height to manual override: 40.3 Locking type manual override: 40.5 Locking type manual override: 40.5

**2 **Note: The image of the im





 Refer to page 68 for the external pilot specifications and page 59 for the dimensions of the manifold with elbow fittings. Refer to the Web Catalog for details on the SI unit.

L: Dimensions

n: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5	235.5	248	260.5	260.5	273
L2	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225	225	237.5	250	250	262.5
L3	128.4	135.9	143.4	150.9	158.4	165.9	173.4	180.9	188.4	195.9	203.4	210.9	218.4	225.9	233.4	240.9
L4	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16

| Construction | Commor | Specification

D-sub Plug-in

EX510 EX180

ring Plug-ir

Options

Order

SJ3A6

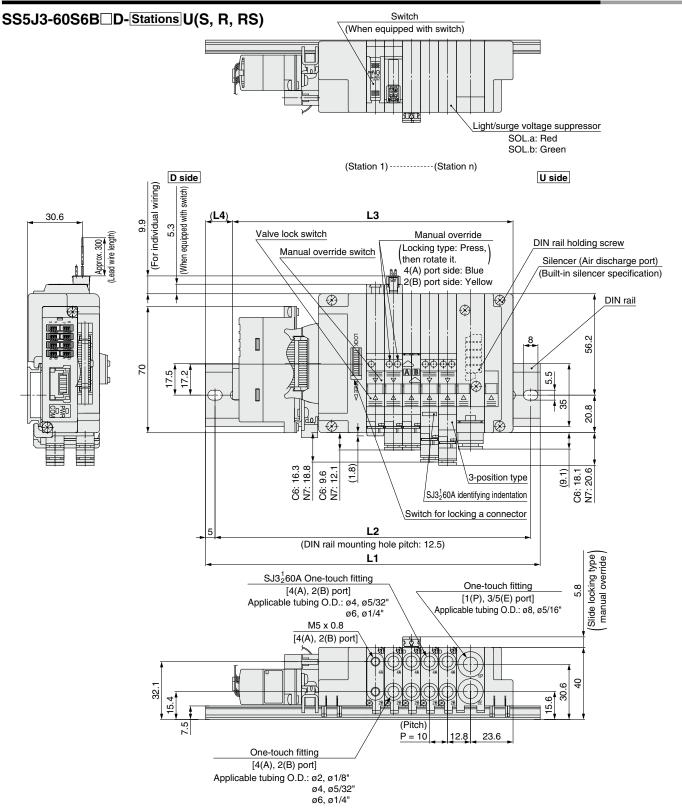
Common Spec. Construction

Sub Ribbon Plug-in rial

g-in

lividual Non Viring Plug-in

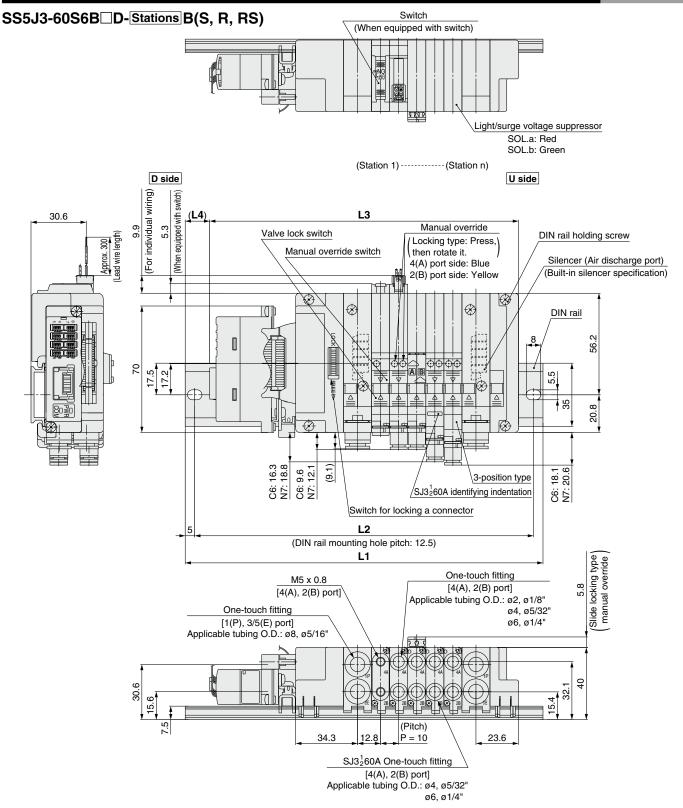
Dimensions: SJ3000 for EX510 Gateway Type Serial Transmission System



* Refer to page 69 for the external pilot specifications and page 60 for the dimensions of the manifold with elbow fittings. Refer to the **Web Catalog** for details on the SI unit.

L: Din	L: Dimensions n: Stations															
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	160.5	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	273	273	285.5	298
L2	137.5	150	150	162.5	175	187.5	200	200	212.5	225	237.5	250	262.5	262.5	275	287.5
L3	115.4	125.4	135.4	145.4	155.4	165.4	175.4	185.4	195.4	205.4	215.4	225.4	235.4	245.4	255.4	265.4
L4	16	17.5	12.5	13.5	14.5	15.5	17	12	13	14	15	16.5	17.5	12.5	13.5	14.5

Dimensions: SJ3000 for EX510 Gateway Type Serial Transmission System



 Refer to page 70 for the external pilot specifications and page 60 for the dimensions of the manifold with elbow fittings. Refer to the Web Catalog for details on the SI unit.

L: Dim	L: Dimensions n: Stations															
۲ /ء	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	160.5	173	185.5	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	298	310.5
L2	150	162.5	175	175	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	287.5	300
L3	130.9	140.9	150.9	160.9	170.9	180.9	190.9	200.9	210.9	220.9	230.9	240.9	250.9	260.9	260.9	280.9
L4	14.5	16	17	12	13	14	15.5	16.5	17.5	12.5	13.5	15	16	17	12	13

Construction Common Specifications

Plug-in

EX510 EX180 Pat Ribbon

ng Plug-in

Manifold Options

Order

SJ3A6

Common Spec.

bon Plug-in

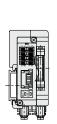
D-sub Flat Ribbon Serial

Non Plug-in

pecific Product
Precautions
Wiring

Dimensions: SJ1000/2000/3000 Mixed Manifold for EX510 Gateway Type Serial Transmission System

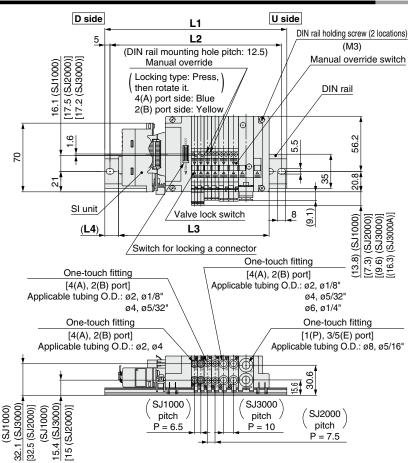
SS5J3-M60S6B D-Stations U(S, R, RS)



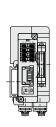
 $\begin{array}{l} L \ dimension: Formula, \ L1 \ to \ L4 \\ L3 = 6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 105.4 \\ M = (L3 + 4)/12.5 + 1 \\ Decimal \ fractions \ are \ truncated. \\ L1 = M \times 12.5 + 23 \\ L2 = L1 - 10.5 \\ L4 = (L1 - L3)/2 - 2 \end{array}$

n1 = Number of SJ1000 n2 = Number of SJ2000n3 = Number of SJ3000

* The dimensions of L1 to L4 for \$S5J3-M60\$6B\D-\Stations\D are the same as those of \$\$S5J3-M60\$6B\D-\Stations\U.

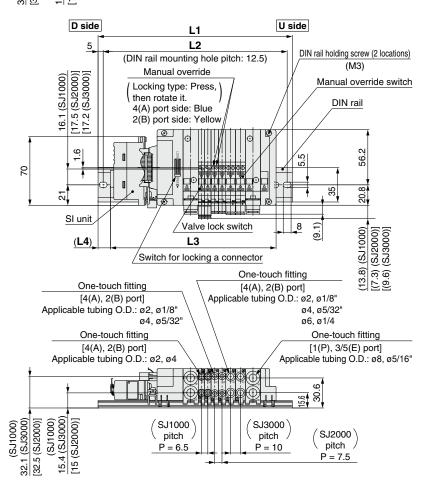


SS5J3-M60S6B D-Stations B(S, R, RS)



L dimension: Formula, L1 to L4 L3 = $6.5 \times n1 + 7.5 \times n2 + 10 \times n3 + 120.9$ M = (L3 + 4)/12.5 + 1Decimal fractions are truncated. L1 = M x 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 - 2

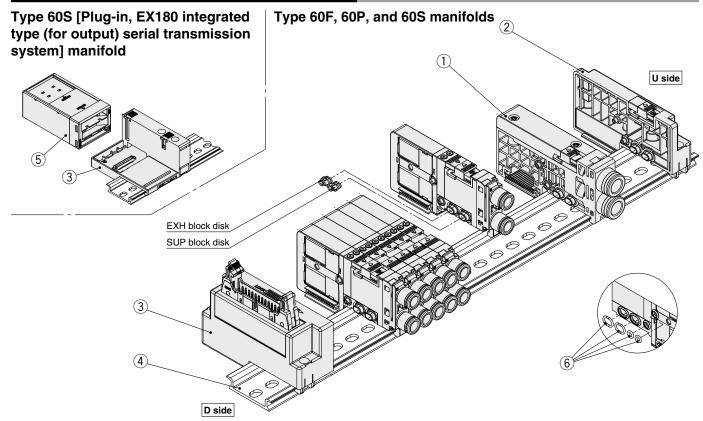
> n1 = Number of SJ1000 n2 = Number of SJ2000 n3 = Number of SJ3000





SJ1000/2000/3000/4000 Series Manifold Exploded View

SJ1000/2000/3000 Connector Type



Component Parts: Plug-in (Connector Type)

No.		Description	Part no.	Note				
		Internal pilot	SJ3000-50-1A-□□	(Metric size)				
		Internal pilot, Built-in silencer	SJ3000-50-1AS-□□	C6: With ø6 One-touch fitting (straight)				
		External pilot	SJ3000-50-1AR-□□ (X, PE port: Metric size ø4 Inch size ø5/32")	C8: With ø8 One-touch fitting (straight) L6: With ø6 One-touch fitting (elbow upward entry) L8: With ø8 One-touch fitting (elbow upward entry)				
1	SUP/EXH block	External pilot, Built-in silencer	SJ3000-50-1ARS-□□ (X port: Metric size ø4 Inch size ø5/32")	B6: With ø6 One-touch fitting (elbow downward enti B8: With ø8 One-touch fitting (elbow downward enti				
		For different pressures, Internal pilot*1	SJ3000-50-3A-□□	(Inch size)				
		For different pressures, Internal pilot, Built-in silencer*1	SJ3000-50-3AS-□□	N7: With 1/4" One-touch fitting (straight) N9: With 5/16" One-touch fitting (straight)				
2	End block	<u> </u>	SJ3000-53-1A	For the U side				
3	Connector block	(SJ3000-42-□A-□	Refer to the connector block part nos. shown below.				
4	DIN rail		VZ1000-11-1-□	Refer to page 106.				
5	SI unit		EX180-□□	Refer to the SI unit part nos. on page 61.				
6	O-ring for valve	connection*2	SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports)				

^{*1} As the valves cannot be operated only with the SUP/EXH block for different pressures, select them in combination with the SUP/EXH block for internal/external pilot. *2 Included with valves. SUP/EXH blocks, and connector blocks

Connector Block Part Nos.

CONNECTOR DIOCK FAIT NOS.			
Connector specifications	Mounting position	Part no.	Note
For D-sub connector (Locking bracket: Metric size thread)		SJ3000-42-1A-□	
For D-sub connector (Locking bracket: Unified thread)		SJ3000-42-1AU-□	
For flat ribbon cable with 26 pins		SJ3000-42-2A-□	□. 1 (0
For flat ribbon cable with 20 pins	D side	SJ3000-42-3A-□	□: 1 (Connector upward)□: 2 (Connector lateral)
For flat ribbon cable with 10 pins		SJ3000-42-4A-□	L. 2 (Connector lateral)
For EX180 serial wiring*1		SJ3000-42-20A	
For EX510 serial wiring*1		SJ3000-42-3A-2	

^{*1} An SI unit is not included.

Connector Block with SI Unit

Connector block with EX180 serial wiring	D side	SJ3000-42-20A-□□	For details on the $\Box\Box$ portion, refer to the SI unit part nos. on page 61.
Commoder Steek than Extres commitment	2 0.00	000000 .= =0/1	Evample: S I3000-42-20A-V2 (CC-Link compliant: T-branch type)

SMC

n Common Specifications

lug-in

EX180 Flat Ribbon

Plug-in

Individ

Man

SJ3A6

mon Spec. nstruction

ng-in ∥

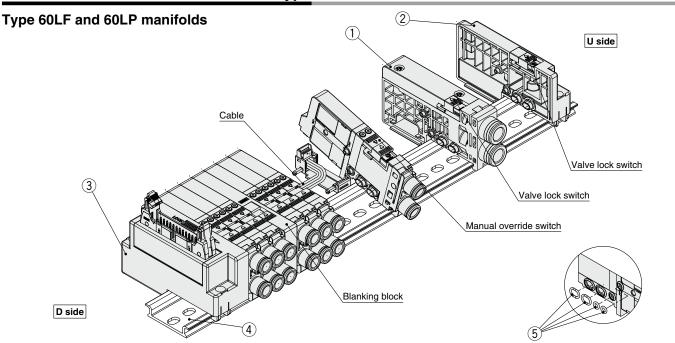
D-sub lat Ribbon Serial

> Non Jug-in

Individual Wiring

^{*} Refer to page 103 for the SUP/EXH block disk and method of handling parts at different pressures.

SJ1000/2000/3000 Cable Type

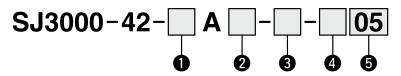


Component Parts: Plug-in (Cable Type)

No.		Description	Part no.	Note
		Internal pilot	SJ3000-50-5A-□□	(Metric size)
		Internal pilot, Built-in silencer	SJ3000-50-5AS-□□	` '
		External pilot	SJ3000-50-5AR-□□ (X, PE port: Metric size ø4 Inch size ø5/32")	C6: With ø6 One-touch fitting (straight) C8: With ø8 One-touch fitting (straight) L6: With ø6 One-touch fitting (elbow upward entry)
1	SUP/EXH block	External pilot, Built-in silencer	SJ3000-50-5ARS- (X port: Metric size ø4 Inch size ø5/32")	L8: With ø8 One-touch fitting (elbow upward entry) B6: With ø6 One-touch fitting (elbow downward entry) B8: With ø8 One-touch fitting (elbow downward entry)
		For different pressures, Internal pilot*1	SJ3000-50-6A-□□	(Inch size)
		For different pressures, Internal pilot, Built-in silencer*1	SJ3000-50-6AS-□□	N7: With 1/4" One-touch fitting (straight) N9: With 5/16" One-touch fitting (straight)
2	End block		SJ3000-53-1A	For the U side
3	Connector block	(SJ3000-42-□A-□	Refer to the connector block part nos. shown below.
4	DIN rail	-	VZ1000-11-1-□	Refer to page 106.
5	O-ring for valve	connection*2	SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports)

^{*1} As the valves cannot be operated only with the SUP/EXH block for different pressures, select them in combination with the SUP/EXH block for internal/external pilot.
*2 Included with valves, SUP/EXH blocks, and connector blocks
* Refer to page 103 for the SUP/EXH block disk and method of handling parts at different pressures.

●Connector Block



Connector type

	, , , , , , , , , , , , , , , , , , ,	
7	For D-sub connector	
8	For flat ribbon cable with 26 pins	SJ3000
9	For flat ribbon cable with 20 pins	series
10	For flat ribbon cable with 10 pins	
11	For D-sub connector	
12	For flat ribbon cable with 26 pins	SJ2000
13	For flat ribbon cable with 20 pins	series
14	For flat ribbon cable with 10 pins	

^{*} All connector block mounting positions are on the D side.

2 Locking bracket

Nil	Metric size thread				
U	Unified thread				
* D-sub connector only					

3 Connector entry direction

1	Upward		
2	Lateral		

1	Upward
2	Lateral

Nil	All double wiring
_	All single wiring

4 Wiring

5 Valve stations

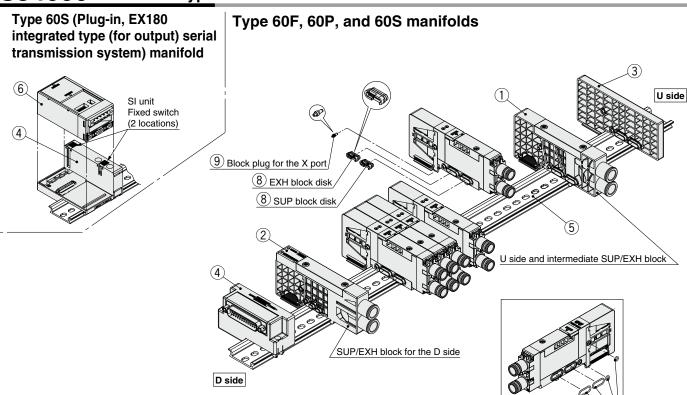
02 to 10	For D-sub connector	All double wiring
02 to 20	For D-sub connector	All single wiring
02 to 10	For flat ribbon cable with	All double wiring
02 to 20	26 pins	All single wiring
02 to 09	For flat ribbon cable with	All double wiring
02 to 18	20 pins	All single wiring
02 to 04	For flat ribbon cable with	All double wiring
02 to 08	10 pins	All single wiring



^{*} The connector block includes the cables necessary for the number of stations.

Manifold Exploded View **SJ1000/2000/3000/4000 Series**

SJ4000 Connector Type



Component Parts: Plug-in (Connector Type)

No.		Description	Part no.	Note
		Internal pilot	SJ4000-50-1A-□□	
	SUP/EXH block (For the U side and intermediate)	Internal pilot, Built-in silencer	SJ4000-50-1AS-□□	(Metric size)
1		External pilot	SJ4000-50-1AR-□□ (X, PE port: Metric size ø4)	C8: With ø8 One-touch fitting (straight) C10: With ø10 One-touch fitting (straight)
		Internal pilot	SJ4000-50-2A-□□	(Metric size) C8: With ø8 One-touch fitting (straight)
2	SUP/EXH block (For the D side)	Internal pilot, Built-in silencer	SJ4000-50-2AS-□□	C10: With ø10 One-touch fitting (straight) 00: P, E port plug (Excludes the built-in silencer)
		External pilot	SJ4000-50-2AR-□□	* This block is used as the D-side SUP/EXH block for SJ400 valves and the converter block for SJ1000/2000/3000 valve
3	End block		SJ4000-53-1A	For the U side
4	Connector block		SJ3000-42-□A-□	Refer to the connector block part nos. shown below.
5	DIN rail SI unit Seal for valve connection (For the SJ4000)*1 Block disk (For the SJ4000) Block plug (For the SJ4000)		VZ1000-11-1-□	Refer to page 106.
6			EX180-□□	Refer to the SI unit part nos. on page 61.
7			SJ4000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE por
8			SJ4000-44-1A	Supplied individually (For the P and E ports)
9			SJ4000-44-2A	The part no. shown on the left includes parts for 5 units. (5 pcs. for the X p

^{*1} Included with valves, SUP/EXH blocks, and connector blocks

Connector Block Part Nos.

Connector specifications	Mounting position	Part no.	Note
For D-sub connector (Locking bracket: Metric size thread)		SJ3000-42-1A-□	
For D-sub connector (Locking bracket: Unified thread)		SJ3000-42-1AU-	
For flat ribbon cable with 26 pins	D side	SJ3000-42-2A-□	☐: 1 (Connector upward)
For flat ribbon cable with 20 pins	D side	SJ3000-42-3A-□	☐: 2 (Connector lateral)
For flat ribbon cable with 10 pins		SJ3000-42-4A-□	
For EX180 serial wiring*1		SJ3000-42-20A	

^{*1} An SI unit is not included.

Connector Block with SI Unit

Connector block with EX180 serial wiring	D side	SJ3000-42-20A-□□	For details on the $\square\square$ portion, refer to the SI unit part nos. on page 61. Example: SJ3000-42-20A-V2 (CC-Link compliant, T-branch type)
--	--------	------------------	--

SMC

Specifications 000

Plug-in Cons

EX510 EX180 Flat Ribbon

Plug-in

Wiring

Manifold Options

Order

SJ3A6

nmon spec. onstruction

Plug-in

D-sub lat Ribbon Serial

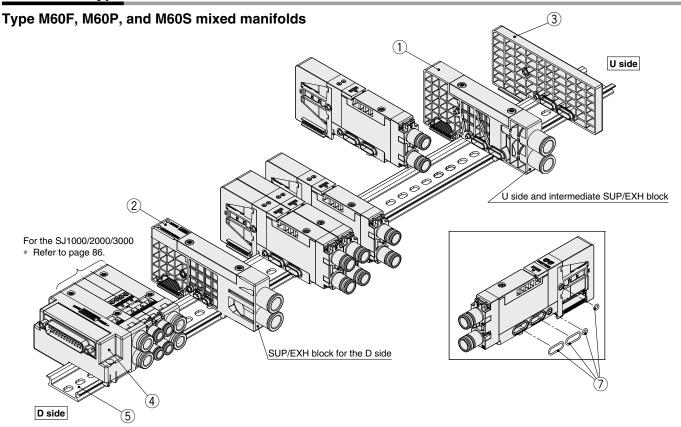
Non Plug-in

ndividual Wiring

^{*} For the SJ4000 series, there is no internal pilot specification SUP/EXH block for different pressures. Different pressures can only be used by partitioning the P and E ports and mounting a block plug to the X port. (Refer to the pneumatic circuit diagrams on page 104.)

SJ1000/2000/3000/4000 series Manifold Exploded View (Mixed Specification)

Connector Type



Component Parts: Plug-in (Connector Type)

No.		Description	Part no.	Note
		Internal pilot	SJ4000-50-1A-□□	
	SUP/EXH block	Internal pilot, Built-in silencer	SJ4000-50-1AS-□□	(Metric size)
1	(For the U side and intermediate)	External pilot	SJ4000-50-1AR- □□ (X, PE port: Metric size ø4)	C8: With ø8 One-touch fitting (straight) C10: With ø10 One-touch fitting (straight)
	SUP/EXH block (For the D side)	Internal pilot	SJ4000-50-2A-□□	(Metric size) C8: With ø8 One-touch fitting (straight)
2		Internal pilot, Built-in silencer	SJ4000-50-2AS-□□	C10: With ø10 One-touch fitting (straight) 00: P, E port plug (Excludes the built-in silencer)
		External pilot	SJ4000-50-2AR-□□	* This block is used as the D-side SUP/EXH block for SJ4000 valves and the converter block for SJ1000/2000/3000 valves
3	4 Connector block 5 DIN rail 6 SI unit		SJ4000-53-1A	For the U side
4			SJ3000-42-□A-□	Refer to the connector block part nos. shown below.
5			VZ1000-11-1-□	Refer to page 106.
6			EX180-□□	Refer to the SI unit part nos. on page 61.
7			SJ4000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports)

^{*1} Included with valves, SUP/EXH blocks, and connector blocks

Connector Block Part Nos.

Connector Block Fart Nos.			
Connector specifications	Mounting position	Part no.	Note
For D-sub connector (Locking bracket: Metric size thread)		SJ3000-42-1A-□	
For D-sub connector (Locking bracket: Unified thread)		SJ3000-42-1AU-	
For flat ribbon cable with 26 pins		SJ3000-42-2A-□	□ . 1 (0 t
For flat ribbon cable with 20 pins	D side	SJ3000-42-3A-□	□: 1 (Connector upward)□: 2 (Connector lateral)
For flat ribbon cable with 10 pins		SJ3000-42-4A-□	L. 2 (Connector lateral)
For EX180 serial wiring*1		SJ3000-42-20A	
For EX510 serial wiring*1		SJ3000-42-3A-2	

^{*1} An SI unit is not included.

Connector Block with SI Unit

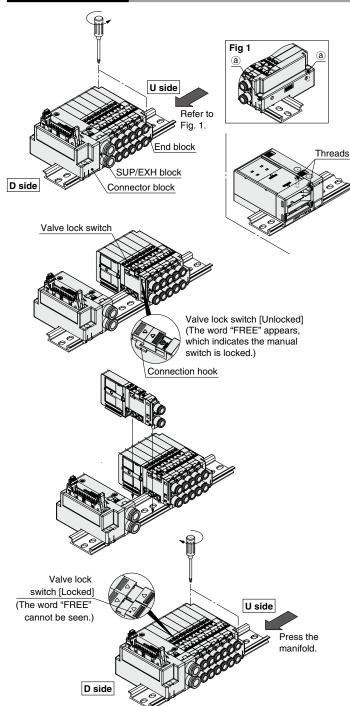
Connector block with EX180 serial wiring	D side	SJ3000-42-20A-□□	For details on the $\Box\Box$ portion, refer to the SI unit part nos. on page 61. Example: SJ3000-42-20A-V2 (CC-Link compliant, T-branch type)	



^{*} Contact SMC for details on using the SJ4000 mixed specification (SS5J4-M60 type) under different pressures.

How to Increase Manifold Stations

Connector Type



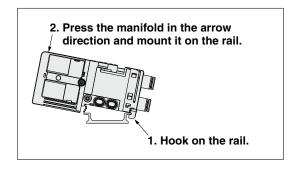
1 Loosen threads ⓐ, which are fixed onto the DIN rail (two locations on one side).

[* To replace the DIN rail, also loosen the screws (2 locations) on the connector block.]

In the direction of the coil, slide the valve where the station is desired to add and the valve lock switch on each block.

If blocks are removed without completely releasing the valve lock switch, the connection hook of that switch could be damaged or deformed.

3 Install an additional valve or a SUP/EXH block on the DIN rail.



A manifold equipped with a valve or a block can be mounted on the DIN rail. However, a serial connector block cannot be mounted on the DIN rail when it is connected with another block; the serial connector block must be mounted separately.

4 Press the valves and blocks to each other for connection. Press the valve lock switch in the cylinder port direction until it does not go any further. Fasten threads @ onto the DIN rail.

After fixing the connector block, fasten the threads onto the end block while holding it lightly by hand. This is necessary to improve sealing.

⚠ Caution

D-sub, Connector block for flat ribbon cable, End block M3: 0.6 N·m Connector block for EX180 serial wiring M4: 1.4 N·m Mounting bracket for EX510 serial wiring M4: 0.6 N·m

⚠ Caution

- 1. Be sure to turn off the power and stop the supply of air before disassembly. Furthermore, since air may remain inside the actuator, piping, and manifold, confirm that the air is completely exhausted before performing any work.
- After assembly and disassembly, air leakage could occur if blocks are not well connected or a thread is not tightly fastened onto the end block. Before supplying air, make sure that no gaps exist in between blocks and that the valve and block are tightly fastened onto the DIN rail. Also, make sure that air is not leaking before use.
- 3. For the SJ3Ã6 series manifold with vacuum release valve with restrictor, there is no valve lock switch for connecting, so when mounting, tighten the screws after checking that there are no gaps between valves.

common ecifications 000

Construction

Plug-in

EX510 EX180 D→

Plug-in

Wiring

Options

Order

SJ3A6

mon Spec.

Plug-in

D-sub at Ribbon Serial

Non Plug-in

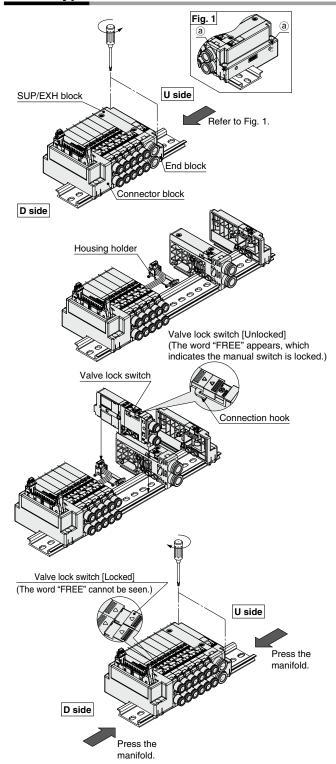
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c Product In





Cable Type



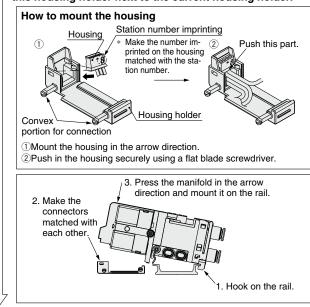
⚠ Caution

To increase a manifold station, a housing holder (refer to the table below) is required in addition to the solenoid valve.

For the manifold with less than the max. number of stations, spare housing (for one station) for adding the manifold station is stored in the housing holder of the last station or the SUP/EXH block. To increase a manifold station, follow the steps below to disassemble and reassemble the manifold.

Series	Housing hold	Material	Note	
SJ2000	SJ2000-86-1		Dooin	White
SJ3000	SJ3000-86-1		Resin	vviiite

- Loosen threads ⓐ, which are fixed onto the DIN rail (two locations).
- * To replace the DIN rail, also loosen the screws (2 locations) on the connector block.]
- 2 Slide the valve lock switch on each block toward the coil, and then remove the end block and SUP/EXH
- Take out the stored housing for adding the manifold station and assemble it to a newly added housing holder. Insert this housing holder next to the current housing holder.



Press the valves and blocks to each other for connection.
Press the valve lock switch in the cylinder port direction until it does not go any further. Fasten threads ⓐ onto the DIN rail.
Connect the added valve and SUP/EXH block, and then fasten the DIN rail fixing screws on the end block on the U side.

After fixing the connector block, fasten the threads onto the end block while holding it lightly by hand. This is necessary to improve sealing.

⚠ Caution D-sub, Connector block for flat ribbon cable, End block M3: 0.6 N⋅m

∧ Caution

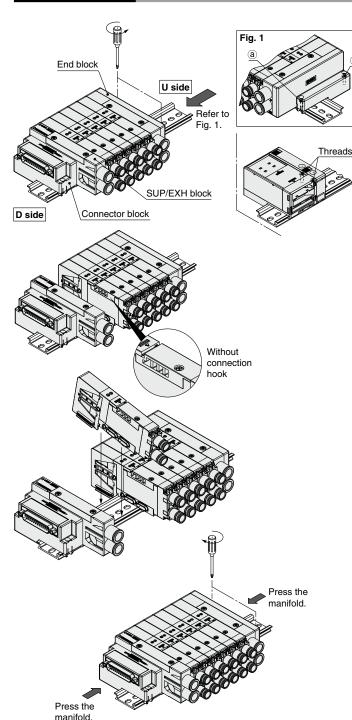
- 1. When adding a valve and SUP/EXH block, add the valve to the U side of the last station, and then add the SUP/EXH block to its U side. The SUP/EXH block cannot be added to a position adjacent to the connector block or an intermediate position.
- Be sure to turn off the power and stop the supply of air before disassembly. Furthermore, since air may remain inside the actuator, piping, and manifold, confirm that the air is completely exhausted before performing any work.
- 3. After assembly and disassembly, air leakage could occur if blocks are not well connected or a thread is not tightly fastened onto the end block. Before supplying air, make sure that no gaps exist in between blocks and that the valve and block are tightly fastened onto the DIN rail. Also, make sure that air is not leaking before use.
- 4. For the SJ3Ă6 series manifold with vacuum release valve with restrictor, there is no valve lock switch for connecting, so when mounting, tighten the screws after checking that there are no gaps between valves.



SJ4000 Series

How to Increase Manifold Stations

Connector Type

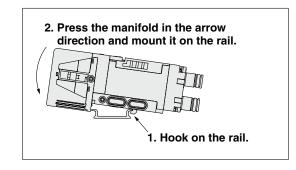


1 Loosen threads ⓐ, which are fixed onto the DIN rail (two locations on one side).

[* To replace the DIN rail, also loosen the screws (2 locations) on the connector block.]

2 Disconnect the valves and blocks where you want to increase the number of stations.

3 Install an additional valve or a SUP/EXH block on the DIN



A manifold equipped with a valve or a block can be mounted on the DIN rail. However, a serial connector block cannot be mounted on the DIN rail when it is connected with another block; the serial connector block must be mounted separately.

4 Press the valves and blocks together to connect them, and then tighten screw "a" to secure the DIN rail.

After fixing the connector block, fasten the threads onto the end block while holding it lightly by hand. This is necessary to improve sealing.

Caution (D-sub, Connector block for flat ribbon cable, End block M3: 0.6 N·m Connector block for EX180 serial wiring M4: 1.4 N·m

∕!∖ Caution

- 1. Be sure to turn off the power and stop the supply of air 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. After assembly and disassembly, air leakage could occur if blocks are not well connected or a thread is not tightly fastened onto the end block. Before supplying air, make sure that no gaps exist in between blocks and that the valve and block are tightly fastened onto the DIN rail. Also, make sure that air is not leaking before use.

Construction

Plug-in

EX510 EX180

SJ3A6

Plug-in

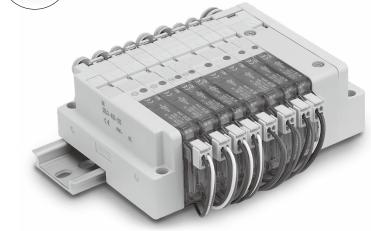
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Non Plug-in **Individual Wiring Manifold**

SJ2000/3000 Series





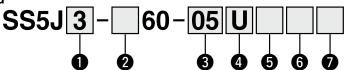
Made to Order

Non Plug-in Individual Wiring SJ2000/3000 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

Individual wiring manifold



Series

2	SJ2000
3	SJ3000
3	(SJ2000/3000 mixed)

Valve stations

Symbol	Stations
01	1 station
:	:
20	20 stations

2 Mixed mounting type

	<u></u>
Nil	Standard*1
M	Mixed mounting*2

- *1 There is no need to enter anything when you operate either the SJ2000 or SJ3000 series alone.
- *2 Select "M" when SJ2000 or SJ3000 series valves will be mounted on the same manifold base together.

4 SUP/EXH block mounting position

U	U side
D	D side
В	Both sides
M*1	Special specifications

*1 Specify the required specifications (including port sizes other than Ø8) on the manifold specification sheet.

5 Pilot type

	7
Nil	Internal pilot
S	Internal pilot, Built-in silencer
R	External pilot
RS	External pilot, Built-in silencer

- There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.
- * The 3/5(E) port is plugged for the built-in silencer type.

6 SUP/EXH block fitting specification

	Nil	L		В	
Straight fitting		Elbow fitting (Upward)	⊘(P a	Elbow fitting (Downward)	
With external		With external		With external	
pilot spec.		pilot spec.		pilot spec.	
X, PE port:		X, PE port:		X, PE port:	
Elbow fitting		Straight fitting		Elbow fitting	

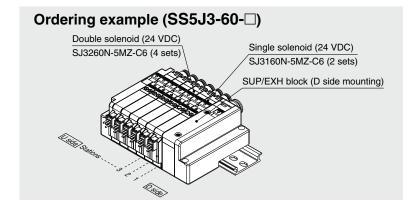
* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected.

7 DIN rail length specified

Nil		ndard length
2	2 stations	Specify a length
÷	:	longer than that of
20		the standard rail.

 Specify the number of valve stations without exceeding the max. number of stations

How to Order Manifold Assembly



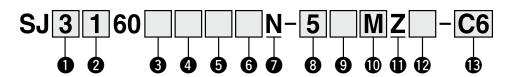
- SS5J3-60-06D.....1 set (Manifold part no.)
- * SJ3160N-5MZ-C6.....2 sets (Single solenoid part no.)

 * SJ3260N-5MZ-C6.....4 sets (Double solenoid part no.)
- The asterisk denotes the symbol for the assembly.
- Prefix it to the part numbers of the solenoid valves, 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.

SJ3A6

Specific F

How to Order Solenoid Valves



Series

• • • • • • • • • • • • • • • • • • • •		
2	SJ2000	
3	SJ3000	

2 Type of actuation

1	2-position single solenoid		
2	2-position double solenoid		
3	3-position closed center		
4	3-position exhaust center		
5 3-position pressure center			
Α	Dual 3-port valve: N.C./N.C.		
B Dual 3-port valve: N.O./N.O.			
С	Dual 3-port valve: N.C./N.O.		

* Refer to pages 18 to 21 for the symbol.

8 Rated voltage

5

6

Nil

Κ

Nil	Standard flow type
A *1	Large flow type

5 Back pressure check valve

3-position and large flow type ("A")

solenoid valves cannot be equipped

None

Built-in

*1 SJ3000 series only

6 Coil type

4 Pilot type

	71.
Nil	Standard
т	With power-saving circuit
•	(Continuous duty type)

The external pilot specification is not appli-

cable for 4-position dual 3-port valves.

Internal pilot External pilot

* Be sure to select the powersaving circuit type if the valve is to be continuously energized for long periods of time.

With light/surge voltage suppressor

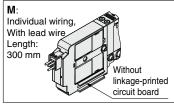
The large flow type ("A") is available only for actuation types "1" and "2."

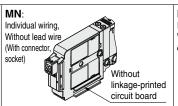
with a back pressure check valve. 9 Common specification

• • • • • • • • • • • • • • • • • • • •			
Nil	Positive common		
N	Negative common		

Connector entry

Non plug-in





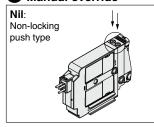
24 VDC

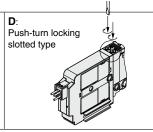
12 VDC

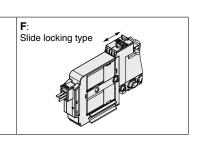
MO: Individual wiring, Without connecto linkage-printed circuit board

* When ordering a connector separately, refer to pages 144 and 145.

Manual override







(B) A, B port size

Metric/	Metric/One-touch fitting										
Symbol		Α,	B port	SJ2000	SJ3000	SJ3000A					
C2	Ħ		ø2	•	•	_					
C4	Straight		ø4	•	•	•					
C6	Š		ø6	_	•	•					
L2		entry	ø2	•	•	_					
L4		ard e	ø4	•	•	•					
L6	Elbow	Upward	Upwa	Upw	/ Upw	ø6	_	•	•		
B2	冒	entry	ø2	•	•	_					
B4		Downward Ø4 Ø6		•	•	•					
В6		Dowr	ø6	_	•	•					

Thread	ninina

Inread	i piping				
Symbol	A, B port	SJ2000	SJ3000	SJ3000A	
МЗ	M3 x 0.5	•	_	_	
M5	M5 x 0.8	_	•	•	

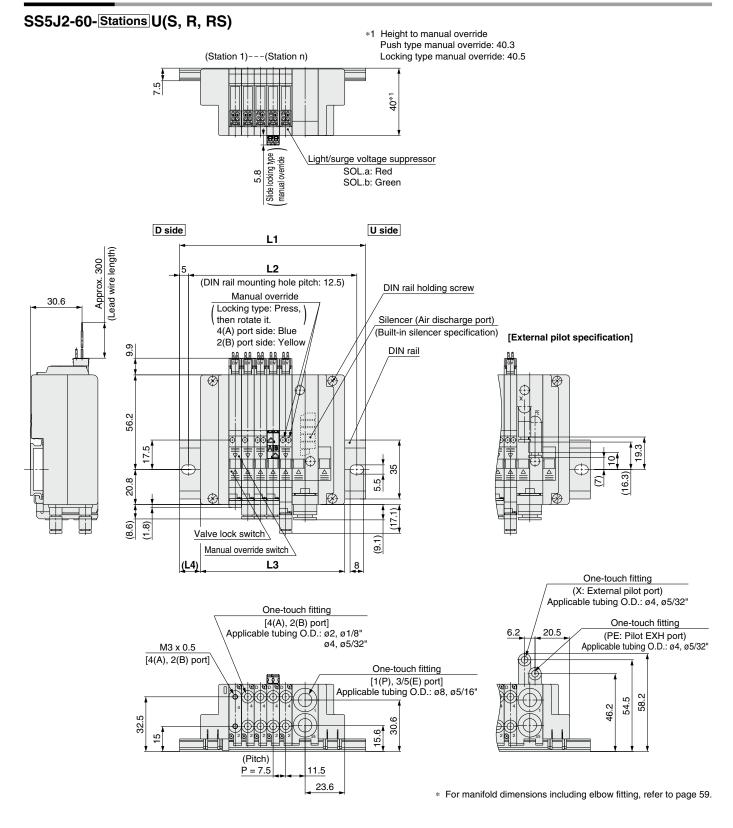
SMC

Inch/O	ne	-to	uch fittir				
Symbol		Α,	B port	SJ2000	SJ3000	SJ3000A	
N1	Ħ		ø1/8"	•	•	_	
N3	Straight		ø5/32"	•	•	•	
N7	ß		ø1/4"	_	•	•	
LN1		entry	ø1/8"	•	•	_	
LN3			ø5/32"	•	•	•	
LN7	Elbow	Upward	ø1/4"	_	•	•	
BN1	믋	entry	ø1/8"	•	•	_	
BN3		Downward	ø5/32"	•	•	•	
BN7		Dowr	ø1/4"	_	•	•	

Protective class class II (Mark: (iii))

SJ2000/3000 Series

Dimensions



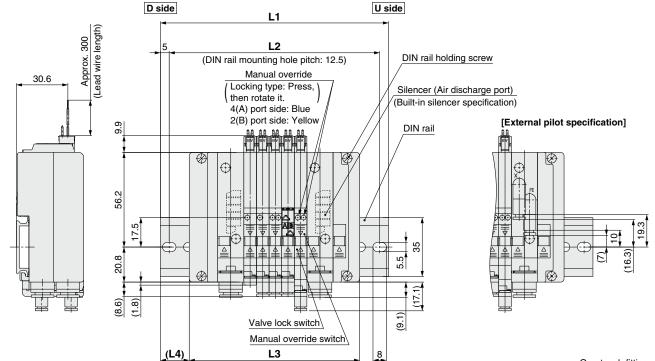
	L: Dim	nensi	ons																	n:	Stations
Ì	۲/ /ء	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	L1	85.5	98	98	110.5	110.5	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223
Ī	L2	75	87.5	87.5	100	100	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5
	L3	55.7	63.2	70.7	78.2	85.7	93.2	100.7	108.2	115.7	123.2	130.7	138.2	145.7	153.2	160.7	168.2	175.7	183.2	190.7	198.2
ı	Ι 4	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5

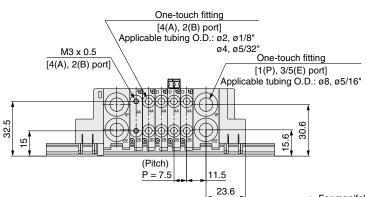
Non Plug-in Individual Wiring SJ2000/3000 Series

Dimensions

SS5J2-60-Stations B(S, R, RS) *1 Height to manual override Push type manual override: 40.3 (Station 1)---(Station n) Locking type manual override: 40.5 40*1

Slide locking type manual override Light/surge voltage suppressor SOL.a: Red SOL.b: Green





One-touch fitting (X: External pilot port) Applicable tubing O.D.: ø4, ø5/32" One-touch fitting 20.5 (PE: Pilot EXH port) Applicable tubing O.D.: ø4, ø5/32" 58.2 54.5 46.2

* For manifold dimensions including elbow fitting, refer to page 59.

Dimensions

L: Din	nensi	ons																	n:	Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	98	110.5	110.5	123	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248
L2	87.5	100	100	112.5	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	237.5
L3	71.2	78.7	86.2	93.7	101.2	108.7	116.2	123.7	131.2	138.7	146.2	153.7	161.2	168.7	176.2	183.7	191.2	198.7	206.2	213.7
L4	13.5	16	12	14.5	17	13.5	16	12	14.5	17	13.5	16	12	14.5	17	13.5	16	12	14.5	17

Plug-in

D-sub Flat Ribbon EX510 EX180

Made to Order

SJ3A6

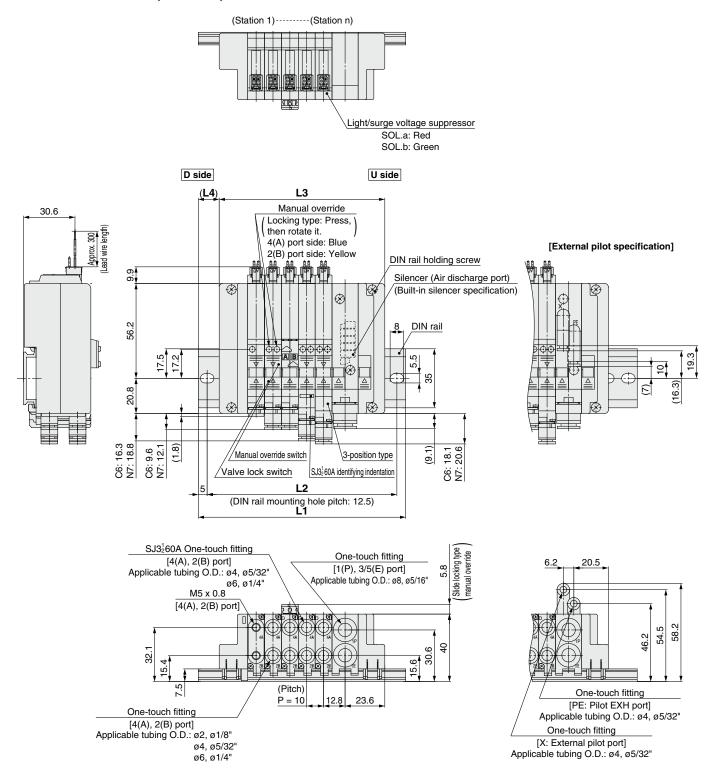
Plug-in

Non Plug-in

SJ2000/3000 Series

Dimensions

SS5J3-60-Stations U(S, R, RS)



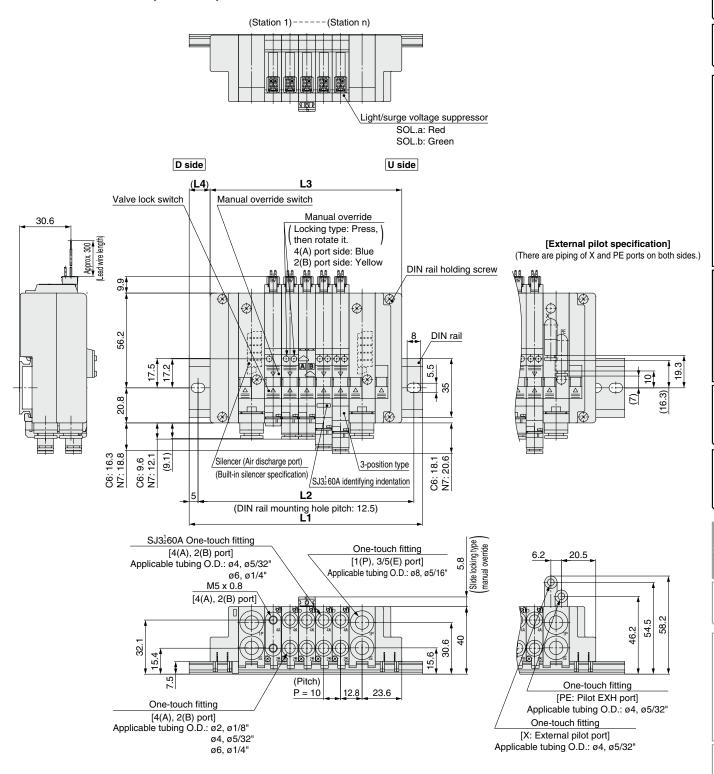
* For manifold dimensions including elbow fitting, refer to page 60.

L: Din	nensi	ons																	n:	Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	85.5	98	110.5	123	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5
L2	75	87.5	100	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275
L3	58.2	68.2	78.2	88.2	98.2	108.2	118.2	128.2	138.2	148.2	158.2	168.2	178.2	188.2	198.2	208.2	218.2	228.2	238.2	248.2
L4	13.5	14.5	16	17	12	13	14	15.5	16.5	17.5	12.5	13.5	15	16	17	12	13	14.5	15.5	16.5

Non Plug-in Individual Wiring SJ2000/3000 Series

Dimensions

SS5J3-60-Stations B(S, R, RS)



* For manifold dimensions including elbow fitting, refer to page 60.

	ISiO	

L: Din	nensi	ons																	n:	Stations
_ n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	98	110.5	123	135.5	148	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	260.5	273	285.5	298
L2	87.5	100	112.5	125	137.5	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	250	262.5	275	287.5
L3	73.7	83.7	93.7	103.7	113.7	123.7	133.7	143.7	153.7	163.7	173.7	183.7	193.7	203.7	213.7	223.7	233.7	243.7	253.7	263.7
L4	12	13	14.5	15.5	16.5	11.5	12.5	14	15	16	17.5	12	13.5	14.5	15.5	17	11.5	13	14	15

SMC

Plug-in

D-sub Flat Ribbon **EX510 EX180**

SJ3A6

Plug-in

Non Plug-in

Individual Wiring

SJ2000/3000 Series

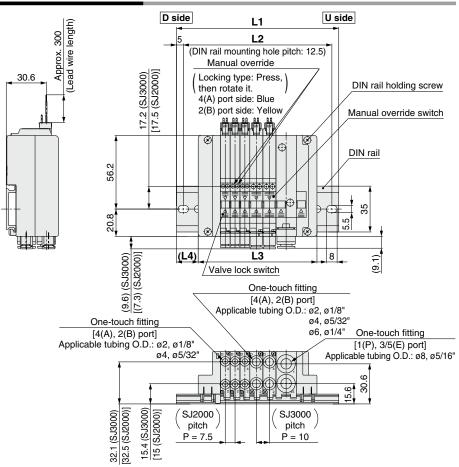
Dimensions: SJ2000/3000 Mixed Manifold

SS5J3-M60-Stations U(S, R, RS)

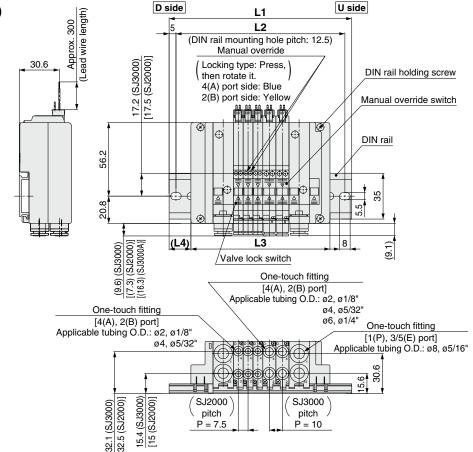
L dimension: Formula, L1 to L4 L3 = $7.5 \times n2 + 10 \times n3 + 48.2$ M = (L3 + 4)/12.5 + 1 Decimal fractions are truncated. L1 = M × 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 - 2

> n2 = Number of SJ2000 n3 = Number of SJ3000

* The dimensions of L1 to L4 for SS5J3-M60- Stations D are the same as those of SS5J3-M60- Stations U.



SS5J3-M60-Stations B(S, R, RS)



L dimension: Formula, L1 to L4 L3 = $7.5 \times n2 + 10 \times n3 + 63.7$ M = (L3 + 4)/12.5 + 1Decimal fractions are truncated. L1 = M × 12.5 + 23 L2 = L1 - 10.5 L4 = (L1 - L3)/2 - 2

> n2 = Number of SJ2000n3 = Number of SJ3000

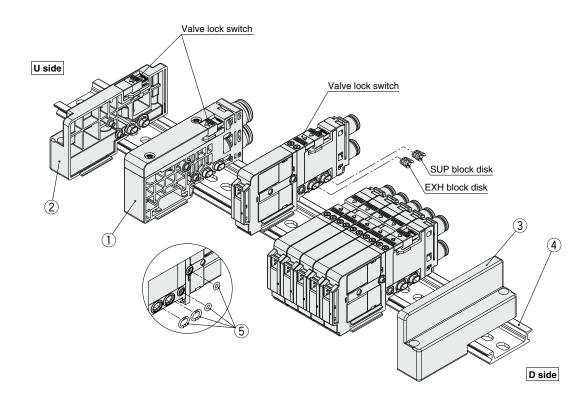


SJ2000/3000 Series **Manifold Exploded View**

Individual Wiring

Type 60 individual wiring (Non plug-in)

* Refer to page 90 for "How to Increase Manifold Stations."



No.		Description	Part no.	Note				
		Internal pilot	SJ3000-50-5A-□□	(M-4:::)				
		Internal pilot, Built-in silencer	SJ3000-50-5AS-□□	(Metric size) C6: With ø6 One-touch fitting (straight)				
	SUP/EYH block	External pilot	SJ3000-50-5AR-□□ (X, PE port: Metric size ø4 Inch size ø5/32")	C8: With ø8 One-touch fitting (straight)				
1	SUP/EXH block	External pilot, Built-in silencer	SJ3000-50-5ARS-□□ (X port: Metric size ø4 Inch size ø5/32")	B6: With ø6 One-touch fitting (elbow downward entry) B8: With ø8 One-touch fitting (elbow downward entry)				
		For different pressures, Internal pilot*1	SJ3000-50-6A-□□	(Inch size)				
		For different pressures, Internal pilot, Built-in silencer*1	SJ3000-50-6AS-□□	N7: With 1/4" One-touch fitting (straight) N9: With 5/16" One-touch fitting (straight)				
2	End block		SJ3000-53-1A	For the U side				
3	End block		SJ3000-53-2A	For the D side				
4	DIN rail		VZ1000-11-1-□	Refer to page 106.				
5	O-ring for valve	connection*2	SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports)				

^{*1} As the valves cannot be operated only with the SUP/EXH block for different pressures, select them in combination with the SUP/EXH block for internal/external pilot.

SJ3A6



^{*2} Included with valves, SUP/EXH blocks, and connector blocks

^{*} Refer to page 103 for the SUP/EXH block disk and method of handling parts at different pressures.

SJ1000/2000/3000/4000 Series Manifold Options

SJ1000/2000/3000 Common to Connector Type/Cable Type/Individual Wiring

■ SUP block disk

By placing a SUP block disk in a manifold valve's pressure supply passage, 2 different pressures (a high and a low pressure) can be supplied to 1 manifold. When supplying different pressures using the manifold of the internal pilot, fill out a manifold specification sheet to place an order for a SUP/EXH block for the internal pilot specifications and another SUP/EXH block for the different-pressure internal pilot specifications (Refer to Circuit Diagram 1).

For the SJ1000/2000/3000

The part number is for 1 pc									
Series	Part no.								
SJ1000									
SJ2000	SJ3000-44-1A								
SJ3000									

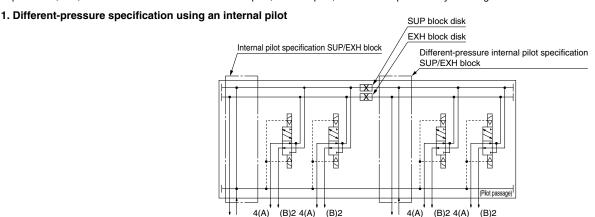
■ EXH block disk

By installing an EXH block disk in a manifold valve's exhaust passage, the valve's exhaust can be separated so that it will not affect other valves.

3/5(E)

[Different-pressure pneumatic circuit diagram]

• The SJ series supplies air to the pilot port of each valve using the 1(P) port of the SUP/EXH block. When using in situations where there are different pressures, etc., combine SUP/EXH blocks for internal pilot, external pilot, and different-pressure by referring to the circuit below.



2. Different-pressure specification using an external pilot (When using the external pilot SUP/EXH block)

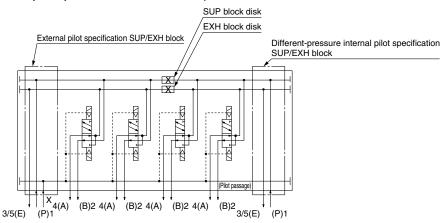
External pilot specification SUP/EXH block

Ext

Different-pressure specification using an external pilot (When using the different-pressure internal pilot specification SUP/EXH block)

3/5(E)

(P)1



3/5(E)

(P)1

3/5(E)

- * When operating under the different-pressure specification, supply the higher pressure to the pilot passage.
- * If there is a need to partition the pilot passage, please contact SMC



Manifold Options **SJ1000/2000/3000/4000** Series

(For the SJ4000)

SJ4000 Connector Type

■ SUP block disk

By placing a SUP block disk in a manifold valve's pressure supply passage, 2 different pressures (a high and a low pressure) can be supplied to 1 manifold.

■ EXH block disk

By installing an EXH block disk in a manifold valve's exhaust passage, the valve's exhaust can be separated so that it will not affect other valves.

■ Block plug for the X port (For the SJ4000)

(For the SJ4000)

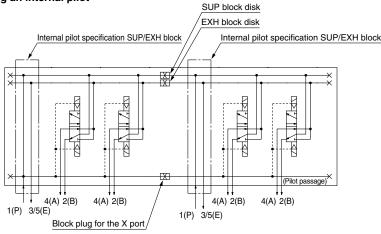


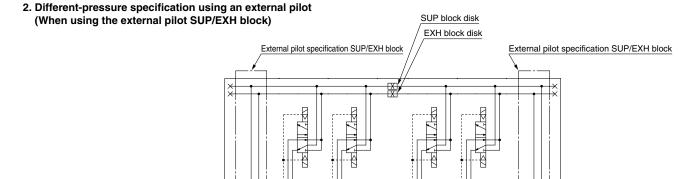
The part number is for 5 pc							
Series	Part no.						
SJ4000	SJ4000-44-2A						

[Different-pressure pneumatic circuit diagram]

• The SJ series supplies air to the pilot port of each valve using the 1(P) port of the SUP/EXH block. When using in situations where there are different pressures, etc., combine block disks for the SUP/EXH port and a block plug for the X port by referring to the circuit below.

1. Different-pressure specification using an internal pilot





4(A) 2(B)

4(A) 2(B)

1(P) 3/5(E)

* To mount a block plug to the pilot (X port) of an SJ1000/2000/3000 and SJ4000 series mixed-mounted manifold, contact SMC to order it as a special-order product.

4(A) 2(B)

4(A) 2(B)

3/5(E)

Construction Common Specifications

The part number is for 1 pc.

Part no.

SJ4000-44-1A

Series

SJ4000

Plug-in

EX510 EX180 | Flat Rib

Non Plug-in

Individu: Wiring

Manii Ontic

Mac Or

SJ3A6

Common Spec.

n Plug-in

D-sub Flat Ribbol Serial

> Non Plug-in

Individual Wiring

Specific Product Precautions



104

Common to Connector Type/Cable Type/Individual Wiring

■ Label for block disk (For the SJ1000/2000/3000)

These labels are attached to manifolds in which SUP and EXH block disks have been installed, in order to identify the installed locations. (Three sheets each included.)

SJ3000-155-1A

Label for SUP/EXH block disk

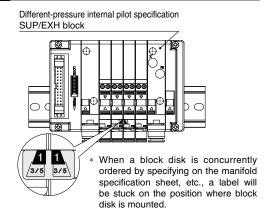


Label for SUP block disk



Label for EXH block disk





■ Label for block disk (For the SJ4000)

These labels are attached to manifolds in which SUP and EXH block disks and a block plug for the X port have been installed, in order to identify the installed locations. (Three sheets each included.)

SJ3000-155-2A

Label for SUP/EXH block disk



Label for EXH block disk

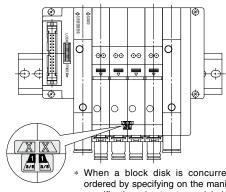


Label for SUP block disk



Label for X port block plug



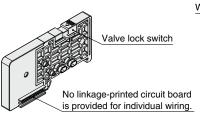


* When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

■ Blanking block

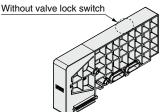
These are mounted when later addition of valves is planned, etc.

<Connector type/Individual wiring>



For the SJ1000/2000/3000

<Connector type>

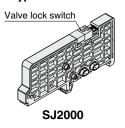


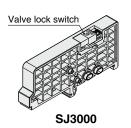
For the SJ4000

Series	Part no.	Note	Width
SJ1000 SJ2000	SJ3000-49-1A	Connector type (Single wiring)	
SJ3000	SJ3000-49-2A	Connector type (Double wiring)	
SJ3A6 *1 SJ3000-49-2A-N		Connector type (Double wiring)	7.5 mm
SJ2000 SJ3000	SJ3000-49-3A	Individual wiring	
SJ3A6*1	SJ3000-49-3A-N		
SJ4000*1	SJ4000-49-1A	Connector type (Single wiring)	15 mm
304000	SJ4000-49-2A	Connector type (Double wiring)	15 111111

^{*1} Valve lock switch is not available for the SJ3A6 and SJ4000.

<Cable type>





Series	Part no.	Width
SJ2000	SJ2000-49-4A	7.5 mm
SJ3000	SJ3000-49-4A	10 mm
SJ3A6*1	SJ3000-49-4A-N	10 111111

^{*1} Valve lock switch is not available for the SJ3A6.

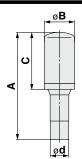


Manifold Options **SJ1000/2000/3000/4000** Series

Common to Connector Type/Cable Type/Individual Wiring

■ Silencer with One-touch fitting

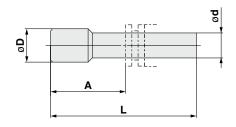
This silencer can be mounted on the manifolds' port 3/5 (E: Exhaust) with a single touch.



Series	Model	Effective area	Α	В	С	ø d
SJ1000 SJ2000 (ø8) SJ3000	AN15-C08	20 mm ²	45 mm	13 mm	20 mm	ø8
SJ4000 (ø10)	AN20-C10	30 mm ²	57.5 mm	16.5 mm	30.5 mm	ø10

■ Plug

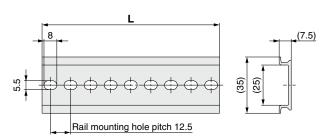
These are inserted in unused cylinder ports and P, E ports.



Dimensions				[mm]
Applicable fitting size \mathbf{od}	Model	Α	L	D
2	KJP-02	8.2	17	3
4	KQ2P-04	16	32	6
6	KQ2P-06	18	35	8
8	KQ2P-08	20.5	39	10
10	KQ2P-10	27.4	43	12
1/8"	KQ2P-01	16	31.5	5
5/32"	KQ2P-03	16	32	6
1/4"	KQ2P-07	18	35	8.5
5/16"	KQ2P-09	20.5	39	10

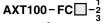
■ DIN rail

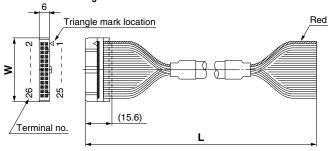
* Enter a number from the DIN rail dimension table shown below.



																						(Uni	it: mm)
No.	S1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
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	323	335.5	348	360.5
Weight [g]	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	53.6	55.9	58.1	60.4	62.6	64.9
No.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
INO.	22	20	24	23	20	21	20	23	30	31	32	33	J-7	33	30	31	30	33	40	71	72	70	77
L dimension	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5	523	535.5	548	560.5	573	585.5	598	610.5	623	635.5	648
Weight [g]	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	103.1	105.4	107.6	109.9	112.1	114.4	116.6

■ Flat ribbon cable





Flat Ribbon Cable

Cable length (L)	10 pins	20 pins	26 pins
1.5 m	AXT100-FC10-1	AXT100-FC20-1	AXT100-FC26-1
3 m	AXT100-FC10-2	AXT100-FC20-2	AXT100-FC26-2
5 m	AXT100-FC10-3	AXT100-FC20-3	AXT100-FC26-3
Connector width (W)	17.2	30	37.5

^{*} For other commercial connectors, use a type with strain relief that conforms to MIL-C-83503.

Connector manufacturers:

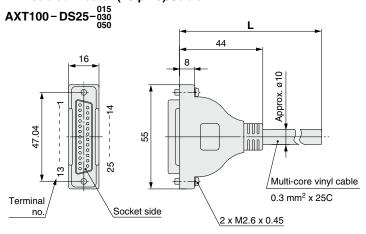
- HIROSE ELECTRIC CO., LTD.
- 3M Japan Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Limited
- J.S.T. Mfg. Co., Ltd.

Individual Wiring



Common to Connector Type/Cable Type/Individual Wiring

■ D-sub connector (25 pins)/Cable



D-sub Connector Cable

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-DS25-015	Cable 25 cores
3 m	AXT100-DS25-030	x 24AWG
5 m	AXT100-DS25-050	X Z4AVVG

For other commercial connectors, use a 25 pins type with female connector conforming to MIL-C-24308.

Connector manufacturers:

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

Electric Characteristics

Item	Characteristics
Conductor resistance Ω/km, 20°C	65 or less
Withstand pressure VAC, 1 min	1000
Insulation resistance MΩkm, 20°C	5 or less

* The min. bending radius for D-sub connector cables is 20 mm.

D-sub Connector Cable Cable Color List of Each Terminal No.

Terminal no.	Lead wire color	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	Gray	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	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None

Manifold Options SJ1000/2000/3000 Series

Common to Connector Type/Cable Type/Individual Wiring

■ Dual flow fitting (Set for SJ3000 series)

SJ3000-120-1A-C8

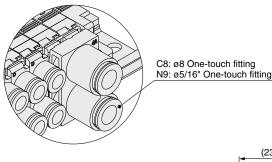
Port size

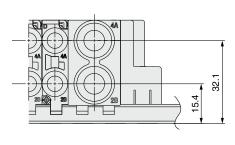
C8 Ø8

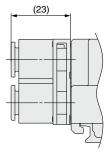
N9 Ø5/16"

This is a fitting for cylinder ports which enables simultaneous actuation and increase in flow rate of valves for 2 stations. This is a One-touch fitting with port sizes of ø8 and ø5/16".

* When arranging mounted to the valve, arrange the valve part no. using the part no. without the One-touch fitting, and then add the part no. for the dual flow fitting. If the arrangement is too complicated, please specify the details on a manifold specification sheet.







Specifications

g-in

Plug-in

EX510 EX180 Flat Rib

Non Plug-in

Individual Wiring

Manifold Options

Made to Order

SJ3A6

Construction

n Plug-in

D-sub Flat Ribbor Serial

Non Plug-in

Individua Wiring

Specific Product Precautions

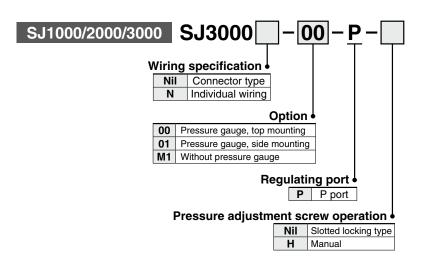


SJ1000/2000/3000 Series

For Connector Type/Individual Wiring

■ Regulator block/How to Order

This is used to reduce the pressure supplied from the D side inside the manifold. All valves on the U side are depressurized from the regulator block.

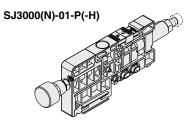


- * Be sure to apply the pressure from the 1(P) port of the manifold before using the regulator block.
- When ordering with a regulator block installed in the manifold, please order using the manifold specification sheet.

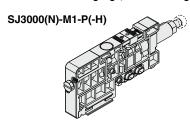
SJ3000(N)-00-P(-H)

With manual operation of pressure adjustment screw Valve lock switch*1 No linkage-printed circuit board is provided for individual wiring.

Pressure gauge, top mounting



Pressure gauge, side mounting

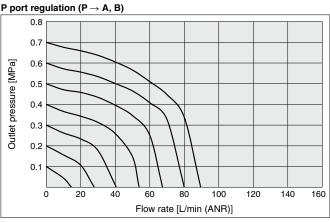


Without pressure gauge

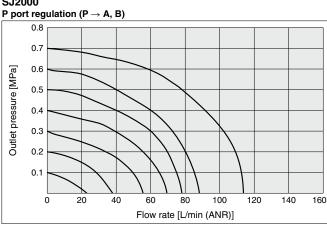
The valve lock switch is available only for the SJ1000/2000/3000 series.

■ Flow Rate Characteristics (Conditions: Inlet pressure 0.7 MPa when 2-position solenoid valve is mounted)

SJ1000



SJ2000



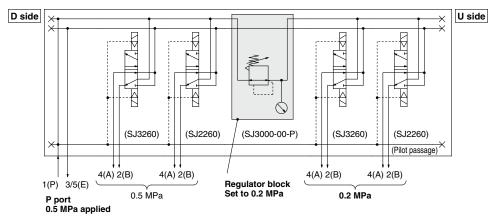
SJ3000 P port regulation (P \rightarrow A, B)

0.7 0.6 pressure [MPa] 0.5 0.4 0.3 Outlet 0.2 0.1 0 20 40 100 120 140 160 Flow rate [L/min (ANR)]

109

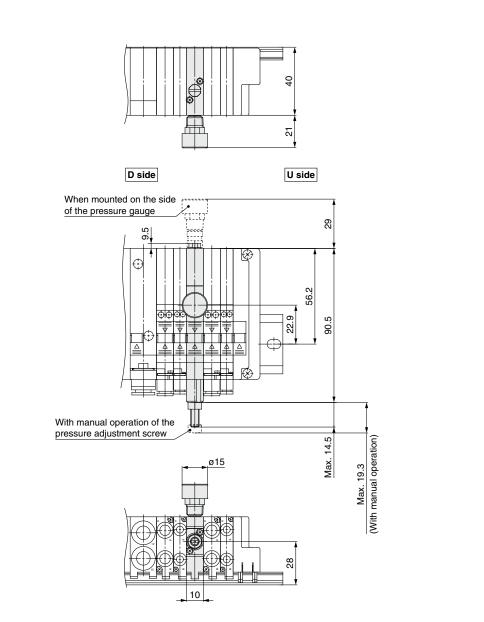
Manifold Options **SJ1000/2000/3000** Series

■ Pneumatic circuit (Regulator block mounting example)



* Reduces supply pressure from the D side of manifold Supply pressure from the U side cannot be reduced.

■ Dimensions





Plug-in

EX510 EX180 Flat Ribbon

Non Plug-in

ld Indiv

Made to Order

SJ3A6

Common Spe Construction

bon Plug-in

D-sub Flat Ribbon Serial

Non Plug-in

Individual Wiring

Specific Product Precautions

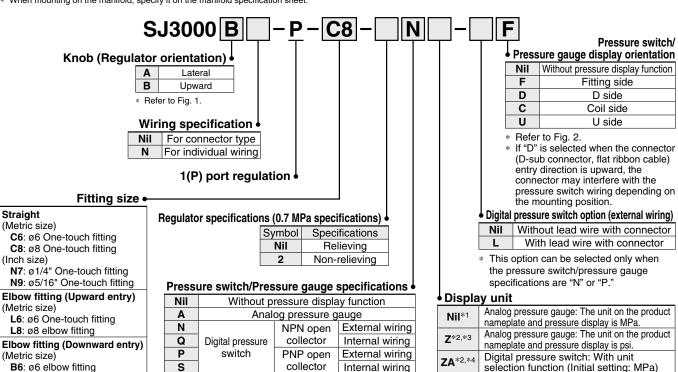


SJ1000/2000/3000 Series

For Connector Type/Individual Wiring

■ SUP/EXH block with regulator and pressure switch (for internal pilot manifold)/How to Order

When mounting on the manifold, specify it on the manifold specification sheet.



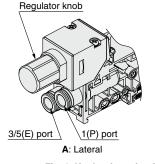
When the knob orientation is lateral, the elbow fitting (upward entry) cannot be

B8: Ø8 elbow fitting

- selected
- For the "Internal wiring" specifications, the wiring is assigned to the centralized wiring on the manifold. (For details, refer to "Electrical Wiring" on page 114.)
- For the internal wiring specifications, select an appropriate pressure switch according to the polarity of the valve to be mounted.
- For the serial manifold and non plug-in, "Q" and "S" (internal wiring specifications) cannot be selected.
- The analog pressure gauge is not applicable to copper-free specifications.

Nil*1	Analog pressure gauge: The unit on the product nameplate and pressure display is MPa.
Z *2,*3	Analog pressure gauge: The unit on the product nameplate and pressure display is psi.
ZA *2,*4	Digital pressure switch: With unit selection function (Initial setting: MPa)

- *1 A fixed unit (MPa) digital pressure switch is
- provided.
 This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.) Both "MPa" and "psi" are written on the unit display of the digital pressure switch.
- The digital pressure switch is equipped with a unit selection function, but it will be set to psi initially.
- *4 For digital pressure switches



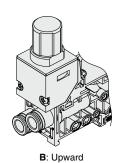
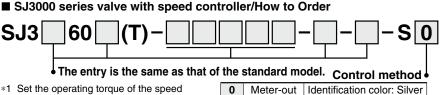


Fig. 1 Knob orientation (Regulator mounting orientation)

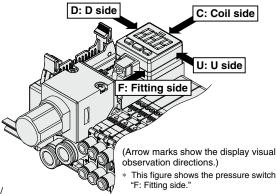
- Be sure to apply the pressure from the 1(P) port of the manifold before using the SUP/ EXH block with a regulator and pressure switch.
- For details on the regulator and electric circuit of the external wiring specifications, refer to the catalog of the ARM11 series.
- Applicable only to internal pilot specification manifolds
- This regulator block cannot be combined with the vacuum release valve of the SJ3A6 series.

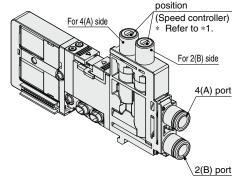
Fig. 2 Pressure switch/pressure gauge display orientation symbol



Meter-in

- controller to 0.1 N·m or less.
- Applicable only to the SJ3000 series However, this option is not selectable for the SJ3□60A.
- * Specify "S0" or "S1" at the end of the valve part no.





Identification color

Identification color: Black

Manifold Options SJ1000/2000/3000 Series

Construction

Plug-in

D-sub Flat Ribbon EX180 EX510

SJ3A6

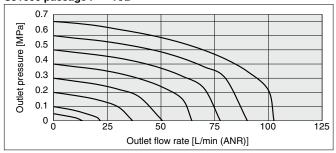
Plug-in

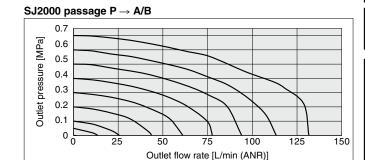
Specific Product Precautions

■ Flow rate characteristics

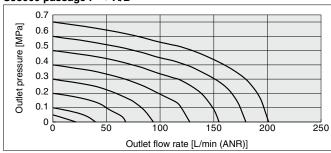
Regulator unit flow rate characteristics

SJ1000 passage P → A/B

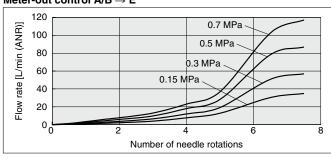


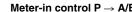


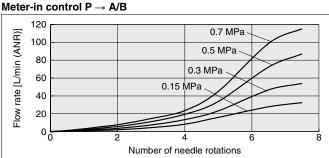
SJ3000 passage P → A/B



Valve with speed controller flow rate characteristics Meter-out control A/B \rightarrow E



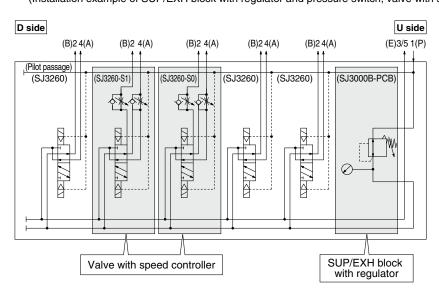




* The flow rate characteristics are characteristics of each individual product. Actual values may differ depending on the piping, circuitry, pressure conditions, etc. Also, depending on product specifications, there may be variations in the zero needle rotations position of the flow rate characteristics.

■ Pneumatic circuit

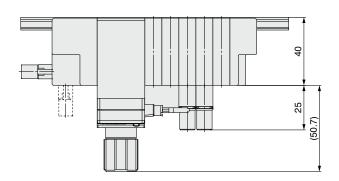
(Installation example of SUP/EXH block with regulator and pressure switch, valve with speed controller)

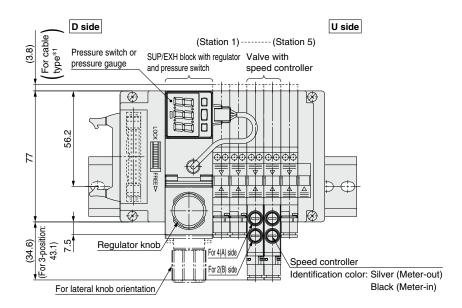


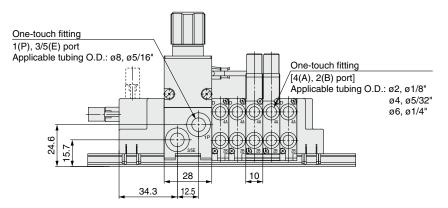
SJ1000/2000/3000 Series

For Connector Type/Individual Wiring

■ SUP/EXH block with regulator and pressure switch, valve with speed controller/Dimensions





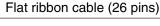


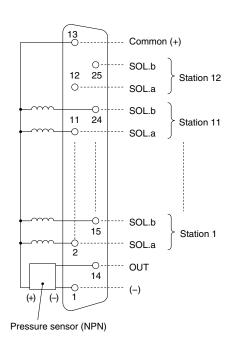
*1 The SUP/EXH block with regulator and pressure switch cannot be mounted on the plug-in cable type manifold.

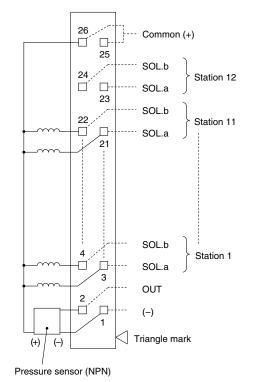
Manifold Options SJ1000/2000/3000 Series

■ Manifold electrical wiring when the SUP/EXH block with the regulator and pressure switch is mounted (Internal wiring and pressure switch (NPN))

D-sub connector (25 pins)

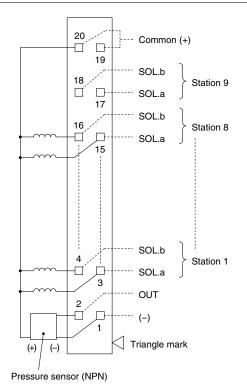


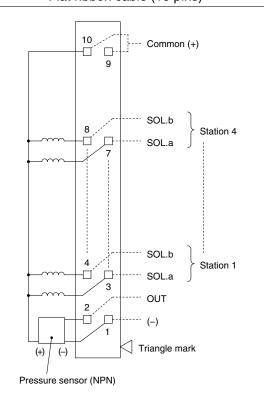




Flat ribbon cable (20 pins)

Flat ribbon cable (10 pins)





- * This figure shows when the SUP/EXH block with the regulator and pressure switch is mounted between the connector block and 1st station valve.
- * Applicable only to the connector type manifold



ريان

D-sub Flat Ribbon

Construction

EX510 EX180

dual Non ing Plug-in

Manifold Options

Made to Order

SJ3A6

Common Spec. Construction

bbon Plug-in

In Flat Ribb

vidual N

Specific Product Precautions

SJ1000/2000/3000 Series

For connector type

■ Intermediate connector block

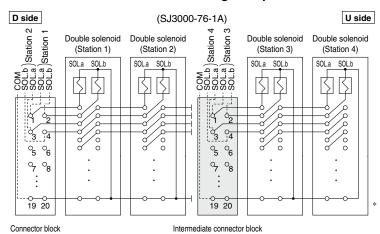
This connector block can be used by inserting it into the middle of the manifold.

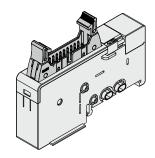
This can be used, for example, when you wish to separate electrical control of valves in the same manifold, or when the number of control points is insufficient.

Series	Part no.	Note
SJ1000 SJ2000	SJ3000-76-1A	Flat ribbon cable (20 pins)
SJ3000	SJ3000-76-4A	Flat ribbon cable (26 pins)

^{*} When ordering with an intermediate connector block installed in the manifold, please order using the manifold specification sheet.

■ Intermediate connector block wiring example

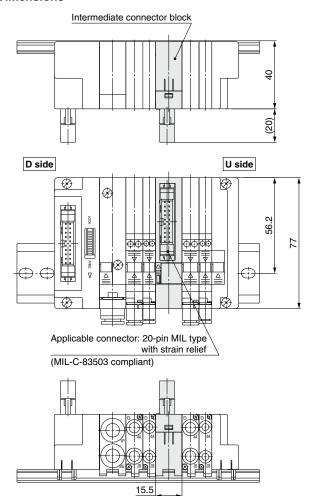




For flat ribbon cable (20 pins)

 Enables control of U side solenoid valves from the position where the intermediate connector block is installed

■ Dimensions



^{*} This drawing shows the SJ3000-76-1A.



SJ1000/2000/3000 Series Made to Order

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

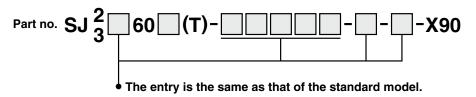


Symbol -X90

1 Main Valve Fluororubber Specification

Fluororubber is used for the rubber parts of the main valve to allow for use in the following situations.

- 1. When a lubricant other than the recommended turbine oil is used and there is a possibility of malfunction due to swelling of the spool valve seals
- 2. In environments where ozone may enter or is generated in the air supply



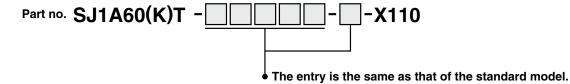
* As fluororubber is only used for the main valve of the -X90 series, use in environments requiring heat resistance should be avoided.

Symbol

-X110

2 Spring Return Specification (Dual 3-port Valve N.C./N.C.)

When the supply pressure is exhausted, the main valve is forcibly returned to the OFF position by the built-in spring.



Response time: 20 ms

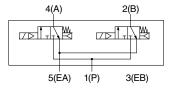
Max. operating frequency: 3 Hz

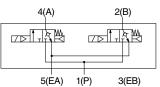
For other specifications, refer to the standard model.

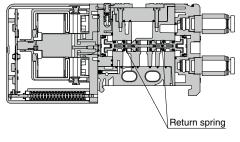
Symbol

SJ1A60T

SJ1A60KT (With back pressure check valve)







EX510 EX180

Non Plug-ir

Individua Wiring

Manifold Options

Made to Order

SJ3A6

Common Spec

Ribbon Plt

Non ug-in

Individual Wiring

Specific Product Precautions



Symbol

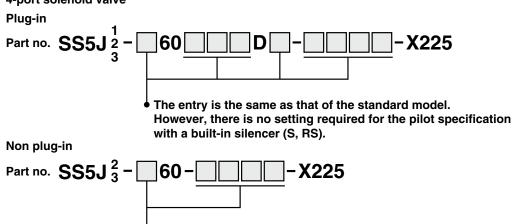
-X225

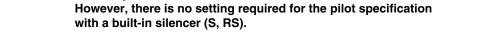
10.2 [Standard: 15.5]

3 Low-profile SUP/EXH Block Specification

The low-profile SUP/EXH block is 10.2 mm, which is smaller than the 15.5 mm standard SUP/EXH block. This reduction results in space saving. The 1(P) port and the 3/5(E) port fittings are straight union (metric size) C6s: \emptyset 6 One-touch fittings.

4-port solenoid valve





◆ The entry is the same as that of the standard model.

- * When the flow rate is insufficient, such as during the simultaneous operation of multiple valves, select the supply/exhaust block mounting position [B (both sides)] or use the standard manifold without using the -X225.
- * When ordering a manifold, specify the part nos. of the valves to be mounted on it. (An order cannot be placed with only the manifold part no.)
- * Check the "How to Order Manifolds" section of each valve to be mounted.
- * There is a made-to-order option that makes it so dual-flow fittings, etc., cannot be built into the manifold. Refer to the "Manifold Specifications Sheet" for more information.
- * When a silencer (AN10-C6) is used, it cannot be mounted next to a 3-position valve or a speed controller.

Flow Rate Characteristics

	Port	size			Flow rate ch	aracteristics		
Series	1(P)	4, 2	1 → 4/	2 (P → A/B)		4/2 → 3	3/5 (A/B → E)	
	3/5(E)	(A, B)	C [dm ³ /(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv
SJ1000	C6	C2	0.12	0.54	0.04	0.13	0.49	0.04
331000	Co	C4	0.26	0.29	0.07	0.30	0.23	0.08
		C2	0.13	0.55	0.04	0.13	0.53	0.04
SJ2000	C6	C4	0.30	0.31	0.08	0.34	0.33	0.08
		М3	0.18	0.48	0.06	0.20	0.26	0.06
		C2	0.13	0.66	0.04	0.14	0.60	0.04
SJ3000	C6	C4	0.38	0.17	0.10	0.45	0.15	0.11
303000		C6	0.45	0.19	0.12	0.51	0.19	0.12
		M5	0.40	0.26	0.11	0.45	0.18	0.11

^{*} The values are for an individually operated 2-position type manifold base with 5 stations.



^{*} Excludes the SJ3000A (large flow type) and SJ4000

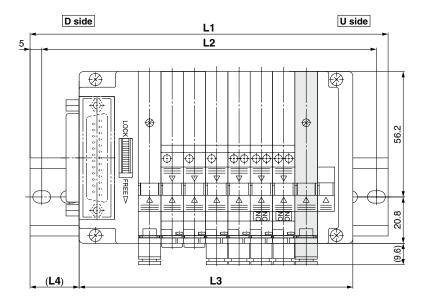
Made to Order **SJ1000/2000/3000 Series**

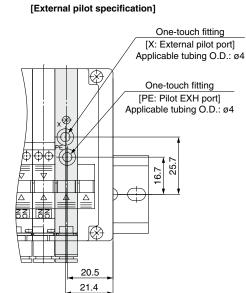
3 Low-profile SUP/EXH Block Specification

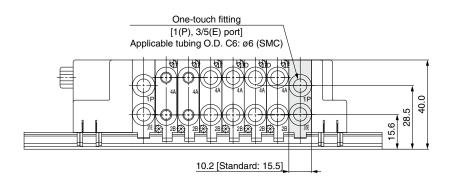
Symbol

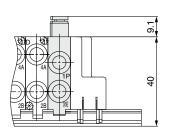
-X225

Dimensions









L: Dimensions

SS5	J1-6	0FD		U-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	98	110.5	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	235.5	248
L2	87.5	87.5	100	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	225	237.5
L3	59	65.5	72	78.5	85	91.5	98	104.5	111	117.5	124	130.5	137	143.5	150	156.5	163	169.5	176	182.5	189	195.5	202	208.5
L4	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21	18	21	17.5	20.5	17.5	20.5	23.5	20	23	20	23	19.5	22.5

SS5	J1-6	0FD	□- □	B-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	110.5	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5	235.5	248	248
L2	100	100	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225	225	237.5	237.5
L3	69.2	75.7	82.2	88.7	95.2	101.7	108.2	114.7	121.2	127.7	134.2	140.7	147.2	153.7	160.2	166.7	173.2	179.7	186.2	192.7	199.2	205.7	212.2	218.7
L4	23.5	20.5	23.5	20	23	20	23	19.5	22.5	19.5	22.5	19	22	19	22	18.5	21.5	18.5	21.5	18	21	18	21	17.5

SMC

Construction Specifications

Plug-in

EX510 EX180 Plat Ribbon

Plug-in

Options

Made 10 Order

SJ3A6

Construction

ub bbon Plug-in

D-sub Flat Ribbon Serial

Non Plug-in

Individual Wiring

Specific Product Precautions

SJ1000/2000/3000 Series

Symbol 3 Low-profile SUP/EXH Block Specification -X225 L: Dimensions SS5J1-60PD□-□U-X225 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 L1 98 110.5 110.5 123 123 135.5 135.5 148 148 160.5 160.5 173 185.5 185.5 198 210.5 210.5 223 235.5 235.5 248 L2 87.5 87.5 100 100 112.5 112.5 125 125 137.5 137.5 150 150 162.5 175 175 187.5 187.5 200 200 212.5 212.5 225 237.5 L3 72 78.5 85 91.5 98 104.5 111 117.5 124 130.5 137 143.5 150 156.5 163 169.5 176 182.5 189 195.5 202 208.5 18.5 21.5 18.5 24.5 23 SS5J1-60PD□-□B-X225 n: Stations n 1 2 3 4 5 6 7 8 10 11 14 15 16 23 24 9 12 13 17 18 19 20 21 22 **L1** 110.5 110.5 123 123 210.5 210.5 223 223 135.5 135.5 148 148 160.5 160.5 173 173 185.5 185.5 198 198 235.5 235.5 248 260.5 100 100 112.5 112.5 125 137.5 137.5 150 150 162.5 162.5 175 187.5 187.5 200 200 212.5 212.5 225 225 237.5 250 125 175 88.7 L3 75.7 82.2 |127.7 |134.2 |140.7 |147.2 | 166.7 173.2 179.7 186.2 192.7 199.2 205.7 212.2 218.7 69.2 95.2 101.7 108.2 114.7 121.2 153.7 160.2

SS5J1	I-60SV	//Q□D	-□U-X	225											r	: Stations
_ 	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	123	135.5	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5
L2	112.5	112.5	125	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200
L3	89.4	95.9	102.4	108.9	115.4	121.9	128.4	134.9	141.4	147.9	154.4	160.9	167.4	173.9	180.4	186.9
L4	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5	12.5	15.5	12	15	12
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	223	223	235.5	248	248	260.5	260.5	273	273	285.5	285.5	298	298	310.5	310.5	323
L2	212.5	212.5	225	237.5	237.5	250	250	262.5	262.5	275	275	287.5	287.5	300	300	312.5
L3	193.4	199.9	206.4	212.9	219.4	225.9	232.4	238.9	245.4	251.9	258.4	264.9	271.4	277.9	284.4	290.9
L4	15	11.5	14.5	17.5	14.5	17.5	14	17	14	17	13.5	16.5	13.5	16.5	13	16

19.5

22.5

19

19

22

18.5

21.5 18.5

21.5

24

23

20

19.5 22.5

SS5J1	I-60SV	//Q□D	-□B-X	225											r	: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223
L2	112.5	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5
L3	99.6	106.1	112.6	119.1	125.6	132.1	138.6	145.1	151.6	158.1	164.6	171.1	177.6	184.1	190.6	197.1
L4	11.5	14.5	17.5	14.5	17.5	14	17	14	17	13.5	16.5	13.5	16.5	13	16	13
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	235.5	235.5	248	248	260.5	260.5	273	273	285.5	285.5	298	310.5	310.5	323	323	335.5
L2	225	225	237.5	237.5	250	250	262.5	262.5	275	275	287.5	300	300	312.5	312.5	325
L3	203.6	210.1	216.6	223.1	229.6	236.1	242.6	249.1	255.6	262.1	268.6	275.1	281.6	288.1	294.6	301.1
L4	16	12.5	15.5	12.5	15.5	12	15	12	15	11.5	14.5	17.5	14.5	17.5	14	17

SS5J	1-60S6	B□D-	□U-X2	25											n	: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	148	160.5	160.5	173	173	185.5	185.5	198	198	210.5	210.5	223	223	235.5
L2	125	137.5	137.5	150	150	162.5	162.5	175	175	187.5	187.5	200	200	212.5	212.5	225
L3	106.6	113.1	119.6	126.1	132.6	139.1	145.6	152.1	158.6	165.1	171.6	178.1	184.6	191.1	197.6	204.1
L4	14.5	17.5	14	17	14	17	13.5	16.5	13.5	16.5	13	16	13	16	12.5	15.5

SS5J	1-60S6	B□D-	□B-X2	25											r	n: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	148	160.5	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	235.5	248
L2	137.5	137.5	150	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	225	237.5
L3	116.8	123.3	129.8	136.3	142.8	149.3	155.8	162.3	168.8	175.3	181.8	188.3	194.8	201.3	207.8	214.3
L4	15.5	12.5	15.5	12	15	12	15	11.5	14.5	17.5	14.5	17.5	14	17	14	17



L4 24

20.5

23.5

20.5

23.5 20

Made to Order **SJ1000/2000/3000 Series**

2000 3000 bol 4000

Common pecifications

Construction

Plug-in

EX510 EX180 Pat Rib

Non Plug-in

n loid

Order

SJ3A6

Plug-in Common S

Ribbon P Serial

Non Plug-in

Specific Product Indivi

Symbol -X225

3 Low-profile SUP/EXH Block Specification

L: Dimensions

SS5	J2-6	0FD	 -	U-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	98	110.5	123	123	135.5	135.5	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248	260.5	273
L2	87.5	87.5	100	112.5	112.5	125	125	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	225	225	237.5	237.5	250	262.5
L3	60	67.5	75	82.5	90	97.5	105	112.5	120	127.5	135	142.5	150	157.5	165	172.5	180	187.5	195	202.5	210	217.5	225	232.5
L4	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23

SSS	J2-6	0FD		B-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	110.5	123	123	135.5	148	148	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5	235.5	248	260.5	260.5	273	273
L2	100	100	112.5	112.5	125	137.5	137.5	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225	225	237.5	250	250	262.5	262.5
L3	70.2	77.7	85.2	92.7	100.2	107.7	115.2	122.7	130.2	137.7	145.2	152.7	160.2	167.7	175.2	182.7	190.2	197.7	205.2	212.7	220.2	227.7	235.2	242.7
L4	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18	20.5	23	19.5	22	18

•	555	J2-6	UPD	<u>'</u>	U-X	225																		n: S	tations
	L_n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	L1	98	98	110.5	123	123	135.5	135.5	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248	260.5	273
	L2	87.5	87.5	100	112.5	112.5	125	125	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	225	225	237.5	237.5	250	262.5
	L3	60	67.5	75	82.5	90	97.5	105	112.5	120	127.5	135	142.5	150	157.5	165	172.5	180	187.5	195	202.5	210	217.5	225	232.5
Ī	L4	22.5	18.5	21	23.5	20	22.5	18.5	21	23.5	20	22.5	18.5	21	23.5	20	22.5	18.5	21	23.5	20	22.5	18.5	21	23.5
-																									

SS	5J2-6	50PD	∐-∟	B-X	225																		n: S	tations
	ີ 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	110.5	123	123	135.5	148	148	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5	235.5	248	260.5	260.5	273	273
L2	100	100	112.5	112.5	125	137.5	137.5	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225	225	237.5	250	250	262.5	262.5
L3	70.2	77.7	85.2	92.7	100.2	107.7	115.2	122.7	130.2	137.7	145.2	152.7	160.2	167.7	175.2	182.7	190.2	197.7	205.2	212.7	220.2	227.7	235.2	242.7
L4	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5	21	23.5	19.5	22	18.5

SS5J2	2-60SV	//Q□D	-□U-X	225											r	n: Stations
٦ /ع	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	123	135.5	148	148	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5
L2	112.5	112.5	125	137.5	137.5	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225
L3	90.4	97.9	105.4	112.9	120.4	127.9	135.4	142.9	150.4	157.9	165.4	172.9	180.4	187.9	195.4	202.9
L4	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	235.5	248	260.5	260.5	273	273	285.5	298	298	310.5	310.5	323	335.5	335.5	348	348
L2	225	237.5	250	250	262.5	262.5	275	287.5	287.5	300	300	312.5	325	325	337.5	337.5
L3	210.4	217.9	225.4	232.9	240.4	247.9	255.4	262.9	270.4	277.9	285.4	292.9	300.4	307.9	315.4	322.9
L4	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5

SS5J2	2-60SV	//Q□D	-□B-X	225											r	n: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248
L2	125	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	212.5	225	237.5
L3	100.6	108.1	115.6	123.1	130.6	138.1	145.6	153.1	160.6	168.1	175.6	183.1	190.6	198.1	205.6	213.1
L4	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L1	248	260.5	260.5	273	285.5	285.5	298	298	310.5	323	323	335.5	335.5	348	360.5	360.5
L2	237.5	250	250	262.5	275	275	287.5	287.5	300	312.5	312.5	325	325	337.5	350	350
L3	220.6	228.1	235.6	243.1	250.6	258.1	265.6	273.1	280.6	288.1	295.6	303.1	310.6	318.1	325.6	333.1
L4	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5

SJ1000/2000/3000 Series

Symbol

-X225

3 Low-profile SUP/EXH Block Specification

L: Dimensions

SS5J2	2-60S6	B□D-	□U-X2	25											r	n: Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	148	160.5	173	173	185.5	185.5	198	210.5	210.5	223	223	235.5	248	248
L2	125	137.5	137.5	150	162.5	162.5	175	175	187.5	200	200	212.5	225	225	237.5	237.5
L3	107.6	115.1	122.6	130.1	137.6	145.1	152.6	160.1	167.6	175.1	182.6	190.1	197.6	205.1	212.6	220.1
L4	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14

S	SS5J2	2-60S6	B□D-	□B-X2	25											r	n: Stations
Ĺ	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	L1	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223	235.5	235.5	248	248	260.5
	L2	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5	225	225	237.5	250	250
	L3	117.8	125.3	132.8	140.3	147.8	155.3	162.8	170.3	177.8	185.3	192.8	200.3	207.8	215.3	222.8	230.3
	L4	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15

SS5	J2-60)-□U-	X225																n:	Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	85.5	85.5	98	98	110.5	123	123	135.5	135.5	148	160.5	160.5	173	173	185.5	198	198	210.5	210.5	223
L2	75	75	87.5	87.5	100	112.5	112.5	125	125	137.5	150	150	162.5	162.5	175	187.5	187.5	200	200	212.5
L3	50.4	57.9	65.4	72.9	80.4	87.9	95.4	102.9	110.4	117.9	125.4	132.9	140.4	147.9	155.4	162.9	170.4	177.9	185.4	192.9
L4	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15	17.5	14	16.5	12.5	15

SS5	J2-60)-□B·	-X225	j															n:	Stations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	85.5	98	110.5	110.5	123	123	135.5	148	148	160.5	160.5	173	185.5	185.5	198	198	210.5	223	223	235.5
L2	75	87.5	100	100	112.5	112.5	125	137.5	137.5	150	150	162.5	175	175	187.5	187.5	200	212.5	212.5	225
L3	60.6	68.1	75.6	83.1	90.6	98.1	105.6	113.1	120.6	128.1	135.6	143.1	150.6	158.1	165.6	173.1	180.6	188.1	195.6	203.1
L4	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16	12.5	15	17.5	13.5	16

SS5	J3-6	0FD		U-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	123	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	285.5	298	310.5	323	335.5
L2	87.5	100	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	275	287.5	300	312.5	325
L3	62.5	72.5	82.5	92.5	102.5	112.5	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5	212.5	222.5	232.5	242.5	252.5	262.5	272.5	282.5	292.5
L4	20.5	22	23	18	19	20	21.5	22.5	23.5	18.5	19.5	21	22	23	18	19	20.5	21.5	22.5	17.5	18.5	20	21	22

SS	5 J 3-6	0FD		B-X	225																		n: S	tations
7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	285.5	298	310.5	323	335.5	348
L2	100	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	275	287.5	300	312.5	325	337.5
L3	72.7	82.7	92.7	102.7	112.7	122.7	132.7	142.7	152.7	162.7	172.7	182.7	192.7	202.7	212.7	222.7	232.7	242.7	252.7	262.7	272.7	282.7	292.7	302.7
L4	22	23	18	19	20	21.5	22.5	23.5	18.5	19.5	21	22	23	18	19	20.5	21.5	22.5	17.5	18.5	20	21	22	23

SSS	J3-6	0PD	 -	U-X	225																		n: S	tations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	98	110.5	123	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	298	310.5	323	335.5
L2	87.5	100	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	287.5	300	312.5	325
L3	62.5	72.5	82.5	92.5	102.5	112.5	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5	212.5	222.5	232.5	242.5	252.5	262.5	272.5	282.5	292.5
L4	21	22	23.5	18	19.5	20.5	21.5	23	24	19	20	21	22.5	23.5	18.5	19.5	20.5	22	23	24	19	20	21.5	22.5

SS	5 J 3-6	0PD	□-□	B-X	225																		n: S	tations
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	110.5	123	123	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	298	310.5	323	335.5	348
L2	100	112.5	112.5	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	287.5	300	312.5	325	337.5
L3	72.7	82.7	92.7	102.7	112.7	122.7	132.7	142.7	152.7	162.7	172.7	182.7	192.7	202.7	212.7	222.7	232.7	242.7	252.7	262.7	272.7	282.7	292.7	302.7
L4	22	23.5	18	19.5	20.5	21.5	23	24	19	20	21	22.5	23.5	18.5	19.5	20.5	22	23	24	19	20	21.5	22.5	23.5
	•			•	•													•	•		•	•		

Made to Order **SJ1000/2000/3000 Series**

Symbol

-X225

L: Dimensions

SS5J3-60SV/Q□D-□U-X225

3 Low-profile SUP/EXH Block Specification

n: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	123	135.5	148	148	160.5	173	185.5	198	198	210.5	223	235.5	248	260.5	260.5	273
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	187.5	200	212.5	225	237.5	250	250	262.5
L3	92.9	102.9	112.9	122.9	132.9	142.9	152.9	162.9	172.9	182.9	192.9	202.9	212.9	222.9	232.9	242.9
L4	15	16	17.5	12	13.5	14.5	15.5	17	11.5	13	14	15	16.5	17.5	12.5	13.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L n	17 285.5	18 298	19 310.5	20 310.5	21 323	22 335.5	23 348	24 360.5	25 373	26 373	27 385.5	28 398	29 410.5	30 423	31 423	32 435.5
L \		_							-			_				
L1	285.5	298	310.5	310.5	323	335.5	348	360.5	373	373	385.5	398	410.5	423	423	435.5

SS5J3-60SV/Q□D-□B-X225

n: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	148	160.5	173	185.5	198	198	210.5	223	235.5	248	260.5	260.5	273	285.5
L2	125	137.5	137.5	150	162.5	175	187.5	187.5	200	212.5	225	237.5	250	250	262.5	275
L3	103.1	113.1	123.1	133.1	143.1	153.1	163.1	173.1	183.1	193.1	203.1	213.1	223.1	233.1	243.1	253.1
L4	16	17.5	12	13.5	14.5	15.5	17	11.5	13	14	15	16.5	17.5	12.5	13.5	14.5
L	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
L ₁	17 298	18 310.5	19 310.5	20 323	21 335.5	22 348	23 360.5	24 373	25 373	26 385.5	27 398	28 410.5	29 423	30 423	31 435.5	32 448
L				_					-			_			_	_
L1	298	310.5	310.5	323	335.5	348	360.5	373	373	385.5	398	410.5	423	423	435.5	448

SS5J3-60S6B \square D- \square U-X225

n: Stations

L n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298
L2	125	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5
L3	110.1	120.1	130.1	140.1	150.1	160.1	170.1	180.1	190.1	200.1	210.1	220.1	230.1	240.1	250.1	260.1
L4	12.5	14	15	16	17	12	13.5	14.5	15.5	16.5	11.5	13	14	15	16	17.5

SS5J3-60S6B□D-□B-X225

n: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	148	160.5	173	185.5	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	298
L2	137.5	150	162.5	175	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	287.5
L3	120.3	130.3	140.3	150.3	160.3	170.3	180.3	190.3	200.3	210.3	220.3	230.3	240.3	250.3	260.3	270.3
L4	14	15	16	17	12	13.5	14.5	15.5	16.5	11.5	13	14	15	16	17.5	12.5

SS5J3-60-□U-X225

n: Stations

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	85.5	98	98	110.5	123	135.5	148	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	260.5	273
L2	75	87.5	87.5	100	112.5	125	137.5	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	250	262.5
L3	52.9	62.9	72.9	82.9	92.9	102.9	112.9	122.9	132.9	142.9	152.9	162.9	172.9	182.9	192.9	202.9	212.9	222.9	232.9	242.9
L4	16	17.5	12.5	13.5	14.5	15.5	17	12	13	14	15	16.5	17.5	12.5	13.5	14.5	16	17	12	13

SS5J3-60-□B-X225

n: Stations

000	00 00		//																111.	Otations
L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	98	98	110.5	123	135.5	148	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	260.5	273	285.5
L2	87.5	87.5	100	112.5	125	137.5	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	250	262.5	275
L3	63.1	73.1	83.1	93.1	103.1	113.1	123.1	133.1	143.1	153.1	163.1	173.1	183.1	193.1	203.1	213.1	223.1	233.1	243.1	253.1
L4	17.5	12.5	13.5	14.5	15.5	17	12	13	14	15	16.5	17.5	12.5	13.5	14.5	16	17	12	13	14

Specific Product Precautions



> ruction Common Specifications

Plug-in

EX510 EX180 Flat Ribbo

Plug-in

Individual Wiring

Options

SJ3A6

on Spec. ruction

Plug-in Commo

Ribbon Plu Serial

Flat Ribt Serial

ividual No

123

Vacuum Release Valve with Restrictor

SJ3A6 Series

Plug-in Type

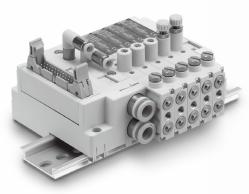
p. 127

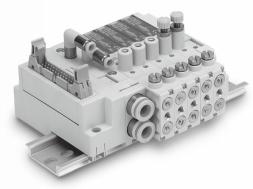
Connector Connection

D-sub Connector Flat Ribbon Cable Serial Wiring: EX180 Serial Wiring: EX510 p. 129

Cable Connection

D-sub Connector Flat Ribbon Cable

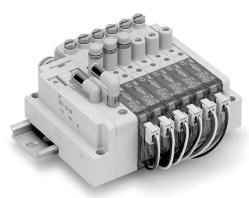




Non Plug-in Type Individual Wiring

p. 133

Individual Wiring



Construction Specificatio

Plug-in

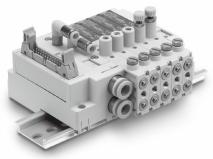
D-sub Flat Ribbon

EX510 EX180

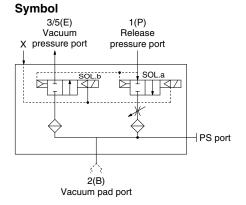
Non Plug-in

SJ3A6

Common Specifications







Response Time

Valve model	Response time [ms] (at 0.5 MPa)
SJ3A6-□□-□	19

Weight

Valve model	Weight [g]
SJ3A6-□□-P	79

Manifold Valve Specifications

V-l		0				
Valve construc	tion	3-position 3-port valve with restrictor				
Fluid		Air				
Operating	Release pressure port 1(P)	0.25 to 0.7				
pressure	Vacuum pressure port 3/5(E)	-100 kPa to 0.7*1				
range [MPa]	Pilot X port	0.25 to 0.7*2				
Ambient and flo	uid temperatures [°C]	-10 to 50 (No freezing)				
Max. operating	frequency [Hz]	3				
Manual avarrid	e (Manual operation)	Non-locking push type				
wanuai overnu	e (wanuai operation)	Push-turn locking slotted type				
Doctrictor once	ation	Manual				
Restrictor oper	ation	Slotted locking type				
Pilot method		External pilot/Pilot valve individual exhaust				
Lubrication		Not required				
Mounting orien	tation	Unrestricted				
Impact/Vibratio	n resistance [m/s²]*3	150/30				
Enclosure		Dustproof				

- *1 Can be used with positive pressure to suit the application
- *2 Please use with pilot X port pressure equal to or higher than the release port 1(P) pressure
- : No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states for each condition. (Value in the initial state)

Solenoid Specifications

Coil rated voltage		24 VDC, 12 VDC
Allowable voltage	fluctuation	±10% of rated voltage*1
Damas	Standard	0.4
Power consumption [W]	With power-saving circuit (Continuous duty type)	0.15*2 [Starting 0.4, Holding 0.15]
Surge voltage sup	pressor	Diode
Indicator type		LED

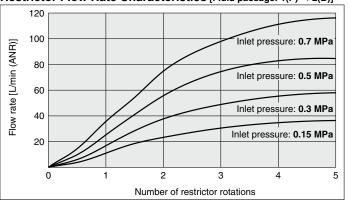
- *1 For the allowable voltage fluctuation for Z/T type (with power-saving circuit), please observe the following range because they have voltage drop due to internal circuit.
 - Z type 24 VDC: -7% to +10%
 - 12 VDC: -4% to +10%
 - T type 24 VDC: -5% to +10% 12 VDC: -6% to +10%
- *2 Refer to page 140 for details.

Flow Rate Characteristics

Flow Rate Characteristics (When restrictor is fully open)

Valve model	Fluid passage	1(P)	\rightarrow 2(B)		2(B) -	→ 3/5(E)	
valve model	2(B) Port size	C [dm3/(s·bar)]	b	Cv	C [dm3/(s·bar)]	b	Cv
SJ3A6-□□-□	M5	0.24	0.19	0.05	0.40	0.18	0.10

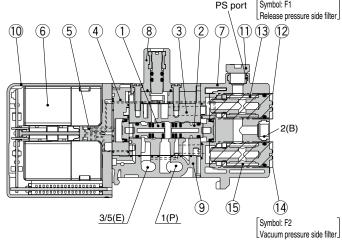
Restrictor Flow Rate Characteristics [Fluid passage: $1(P) \rightarrow 2(B)$]



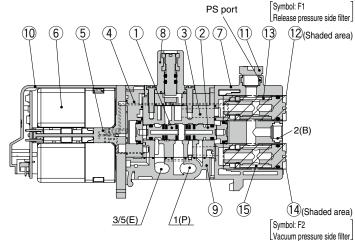
Construction/Circuit Example

Construction

Connector type



Cable type



Component Parts

No.	Description	Material	Note
1	Spool valve	Resin/HNBR	A side (for release pressure switching)
2	Spool valve	Resin/HNBR	B side (for vacuum pressure switching)
3	Body	Zinc die-cast	_
4	Adapter plate	Resin	White
5	Pilot adapter	Resin	White
6	Pilot valve	_	_
7	End cover	Resin	White
8	Restrictor block*1	Resin	White
9	Bottom cover	Resin	White
10	Light cover	Resin	Light blue

*1 Set the operating torque of the restrictor of the restrictor block to 0.3 N·m or less.

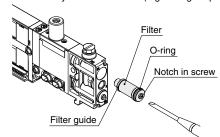
Component Parts

No.	Description	Part no.	Note
11	Plug	M-5P	PS port with plug
12	Filter assembly	SJ3000-110-1A	1 μm White <release pressure="" side=""></release>
13	Filter	SJ3000-107-1A	1 µm White <release pressure="" side="">, 5 pcs. included</release>
14	Filter assembly	SJ3000-110-2A	30 µm Light purple <vacuum pressure="" side=""></vacuum>
15	Filter	SJ3000-107-2A	30 µm Light purple <vacuum pressure="" side="">, 5 pcs. included</vacuum>

<Filter replacement instructions>

If there are situations such as filter clogging, a drop in suction force, or slow response time, stop operation and replace the filter.

- 1. Using a precision driver, remove the filter assembly $(\ensuremath{\mathfrak{D}}$ or $\ensuremath{\mathfrak{P}})$ from the main unit.
- 2. Turn the filter guide by hand and remove.
- Replace the filter (³ or ⁵) and gently hand tighten the filter guide. At this time, check that there is no foreign matter on the O-ring of the filter assembly.
- 4. Return the filter assembly to the main unit. (Tightening torque: 0.12 N·m)



After tightening the plug (M-5P) with a tightening torque of 1 N·m, or manually tightening, use the tightening tool and tighten it by 1/4 turn.

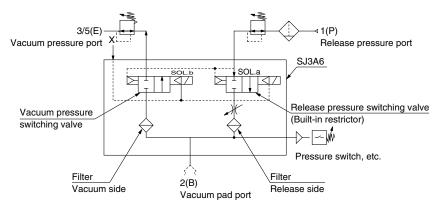
1214 Filter assembly (with filter)

1315 Filter (5 pcs. included)





Adsorbing and Transferring System Circuit Example



SMC

Common Specifications

Construction

Plug-in

EX510 EX180 Flat Ribbo

Non Plug-in

Wiri

Man

SJ3A6

mmon Spec. onstruction

Plug-in

D-sub Flat Ribbon Serial

> Non Plug-in

Individual Wiring

Specific Product Precautions

Plug-in Connector Type (CA CA

Vacuum Release Valve with Restrictor RoHS

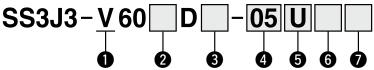


SJ3A6 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

●Vacuum release valve manifold with restrictor



Vacuum release valve with restrictor type

2 Connector type

Symbol	Mounting position	Page	Note
F	D-sub connector		
Р	Flat ribbon cable with 26 pins		Dorollol wiring
PG	Flat ribbon cable with 20 pins	29 Parallel wiring	
PH	Flat ribbon cable with 10 pins		
S□	EX180 serial transmission	61	Serial wiring
S6B□	EX510 serial transmission	77	Serial Willing

Connector entry

With parallel wiring specifications, it is necessary to select the connector entry direction (1: upward, 2: lateral). For details, refer to page 29.

4 Valve stations

F: D-sub connector

Symbol	Stations
01	1 station
i	
12	12 stations

Symbol	Stations
01	1 station
- :	:
04	4 stations

P: Flat ribbon cable (26 pins) PG: Flat ribbon cable (20 pins)

Symbol	Stations
01	1 station
:	:
12	12 stations

SOD EXSTOSE		
Symbol	Stations	
01	1 station	
	:	
08	8 stations	

Symbol	Stations
01	1 station
÷	:
09	9 stations

PH: Flat ribbon cable (10 pins) S6B□: EX510 serial transmission S□: EX180 serial transmission

Symbol	Stations	Note
01	1 station	There are limitations on the station
:	:	number, depending on the serial
16	16 stations	type. Refer to page 61 for details.

SUP/EXH block mounting position

	unang pooraon
U	U side
D	D side
В	Both sides
M*1	Special specifications

*1 Specify the required specifications (including port sizes other than ø8) on the manifold specification sheet.

* This number also includes the blanking block. For the blanking block, please select double wiring specifications.

6 SUP/EXH block fitting specification

	Nil		L		В
Straight fitting		Elbow fitting	₹ €	Elbow fitting	
X, PE port:		(Upward)		(Downward)	
Elbow fitting		X, PE port:		X, PE port:	
		Straight fitting		Elbow fitting	
			~		₩

There is no need to enter anything when the SUP/EXH block mounting position "M" is selected. Also, this manifold comes standard with external pilot specifications.

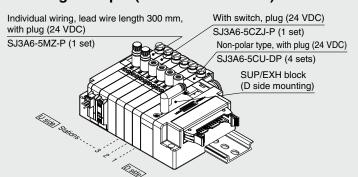
DIN rail length snecified

Specified				
Nil	Standard length			
2	2 stations	Specify a length		
÷		longer than that of		
16	16 stations	the standard rail.		

Specify the number of valve stations without exceeding the max. number of stations

How to Order Manifold Assembly

Ordering example (SS3J3-V60PD2-□)



- SS3J3-V60PD2-06D...... 1 set (Manifold part no.)
- SJ3A6-5CU-DP 4 sets (Non-polar type, with plug part no.)
- SJ3A6-5CZJ-P 1 set (With switch, plug part no.)
 - SJ3A6-5MZ-P..... 1 set (Individual wiring, lead wire length 300 mm, with plug part no.)
 - The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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.
- * When ordering a manifold, specify the part nos. of the valves to be mounted on it (An order cannot be placed with only the manifold part no.)

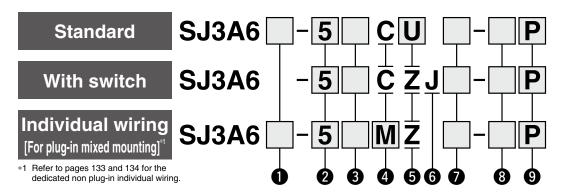
SJ 1000 2000 3000 4000

Common Specifications

Construction

Specific Product Precautions

How to Order Solenoid Valves (3-Position 3-Port with Restrictor)



1 Coil type

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

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

2 Rated voltage

Hateu voltage		
5	24 VDC	
6	12 VDC	

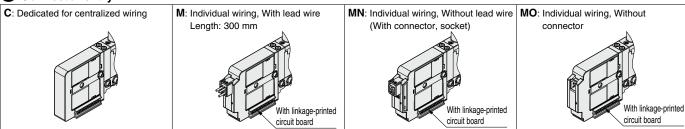
 Only 24 VDC is available for manifolds compatible with serial wiring.

3 Common specification

Nil	Positive common
N	Negative common

- * Leave blank for the non-polar type.
- * When the standard valve and valve with a switch are used on a manifold compatible with the serial transmission system, select a common specification that matches the SI unit common specification.

4 Connector entry



- $* \ \ Connector\ entries\ with\ the\ symbol\ "M\square"\ cannot\ use\ the\ switch\ signal\ from\ the\ common\ wiring\ on\ the\ manifold.$
- * When ordering a connector assembly separately, refer to pages 144 and 145.

5 Light/surge voltage suppressor

8 Needle operation

Nil: Manual

	• •
U	With light/surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Polar type)

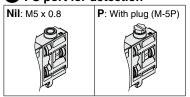
* When the type with a power-saving circuit, with a switch, or with individual wiring is used, the non-polar type cannot be selected.

D: Slotted locking

6 With switch



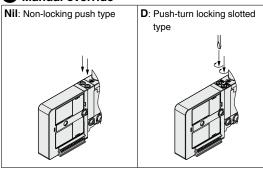
9 PS port for detection



* When mounting a pressure sensor, etc., select "Nil."

SMC

Manual override



* No slide locking type manual override setting is provided.

Set operation torque to 0.3 N·m or less.

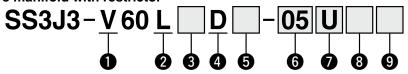
* There is no valve lock switch for linking the neighboring valve, etc., to the 3-position 3-port solenoid valve with restrictor. Please contact SMC if you wish to use the SJ1000/2000/3000 valve with a valve lock switch, or an end block or SUP/EXH block.

Plug-in Cable Type (CA CAL US **Vacuum Release Valve with Restrictor** SJ3A6 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

●Vacuum release valve manifold with restrictor



- Vacuum release valve with restrictor type
- 2 Cable type
- **Connector entry**

With parallel wiring specifications, it is necessary to select the connector entry direction (1: upward, 2: lateral). For details, refer to page 33.

3 Connector type

Symbol	Mounting position	Page	Note
F	D-sub connector		
Р	Flat ribbon cable with 26 pins	33	Dorollol wiring
PG	Flat ribbon cable with 20 pins	33	Parallel wiring
PH	Flat ribbon cable with 10 pins		

6 Valve stations

r. D-su	r. D-Sub connect		
Symbol	Stations		
02	2 stations		
:	:		
10	10 stations		

Symbol	Stations
02	2 stations
:	:
09	9 stations

P: Flat ribbon cable (26 pins)

Symbol	Stations
02	2 stations
:	:
10	10 stations

PG: Flat ribbon cable (20 pins) PH: Flat ribbon cable (10 pins)

Symbol	Stations
02	2 stations
:	:
04	4 stations

- This number also includes the blanking block.
- The cable type is only applicable when there are 2 or more stations.

4 Connector mounting position

poortion			
Symbol	Mounting position		
D	D side		

SUP/EXH block mounting position

	· · J · · · ·
U	U side
D	D side
В	Both sides
M*1	Special specifications

*1 For the special specifications, a port size of the SUP/EXH block can be specified. At this time, the mounting position becomes only U, D, or B.

8 SUP/EXH block fitting specification

	Nil		L		В
Straight fitting X, PE port: Elbow fitting		Elbow fitting (Upward) X, PE port: Straight fitting		Elbow fitting (Downward) X, PE port: Elbow fitting	
. There is no nee	d to optor opything who	n the CUD/EVIII	look mounting position	"M" is salasted A	les this monifold somes

no need to enter anything when the SUP/EXH block mounting position "M" is selected. Also, this manifold comes standard with external pilot specifications.

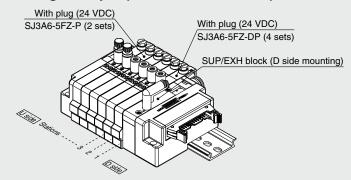
9 DIN rail length specified

Nil	Standard length			
3	3 stations Specify a length			
:	:	longer than that of		
10	10 stations the standard rail.			

When specifying a length longer than that of the standard rail, select the number of valve stations without exceeding the max. number of stations

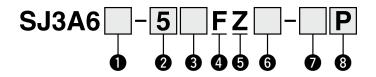
How to Order Manifold Assembly

Ordering example (SS3J3-V60LPD2-□)



- SS3J3-V60LPD2-06D1 set (Manifold part no.) SJ3A6-5FZ-DP4 sets (With plug part no.)
- SJ3A6-5FZ-P----2 sets (With plug part no.)
- The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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 Solenoid Valves (3-Position 3-Port with Restrictor)



1 Coil type

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

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

2 Rated voltage

_	
5	24 VDC
6	12 VDC

Nil	Positive common
N	Negative common

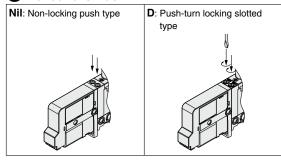
4 Connector entry



5 Light/surge voltage suppressor

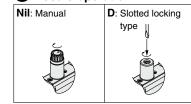
Z With light/surge voltage suppressor

6 Manual override



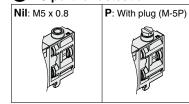
 $\ast\,$ No slide locking type manual override setting is provided.

Needle operation



* Set operation torque to 0.3 N·m or less.

8 PS port for detection



* When mounting a pressure sensor, etc., select "Nil."

 $\ast\,$ There is no valve lock switch for the 3-position 3-port solenoid valve with restrictor.

SJ3A6

ommon Spec. Construction

Plug-in

Flat Rib Seria

naiviauai Wiring

Specific Product Precautions



D-sub Plug-in Flat Ribbon

Construction Specifications

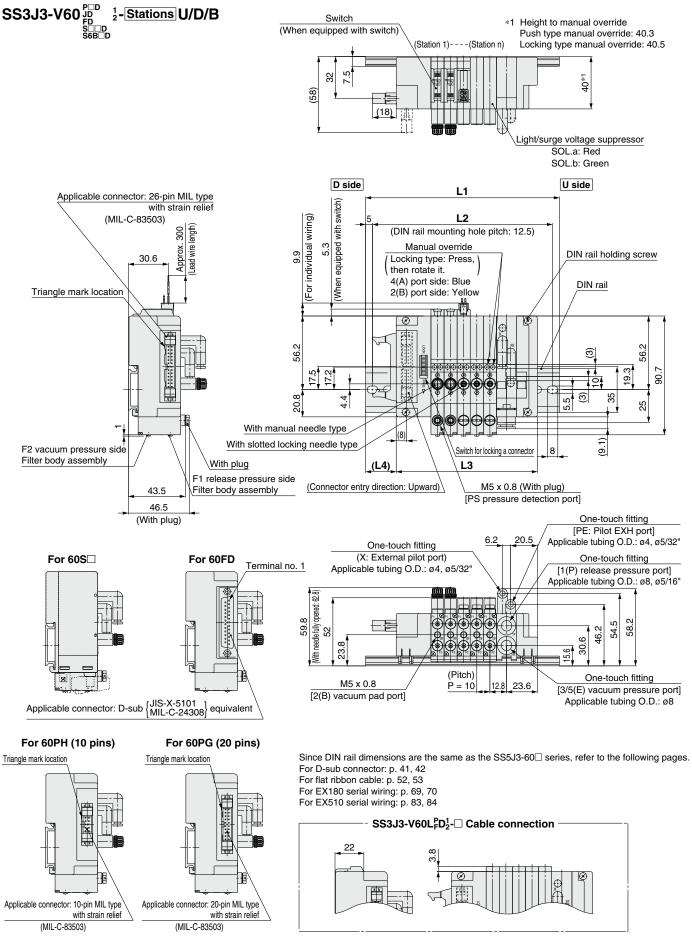
EX510 EX180 | F

Non Plug-in

> Manifold Ind Options W

> > Order

Dimensions



SMC



Individual Wiring

Specific Product Precautions

Non Plug-in Individual Wiring CECA CA

Vacuum Release Valve with Restrictor RoHS

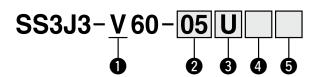


SJ3A6 Series

How to Order

An order cannot be placed with only the manifold part no. Be sure to order solenoid valves for mounting at the same time while referring to the ordering example.

Individual wiring manifold



Vacuum release valve with restrictor type

2 Valve stations

Symbol	Stations
01	1 station
:	:
20	20 stations

^{*} This number also includes the blanking block.

SUP/EXH block mounting position

U U side	
D D side	
В	Both sides
M*1 Special specification	

Specify the required specifications (including port sizes other than Ø8) on the manifold specification sheet.

4 SUP/EXH block fitting specification

Nil	L	L		В	
Straight fitting X, PE port: Elbow fitting	Elbow fitting (Upward) X, PE port: Straight fitting		Elbow fitting (Downward) X, PE port: Elbow fitting		

* There is no need to enter anything when the SUP/EXH block mounting position "M" is selected. Also, this manifold comes standard with external pilot specifications.

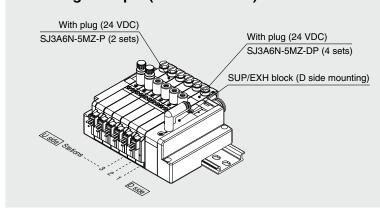
5 DIN rail length specified

Nil	Standard length				
2	2 stations	Specify a length			
	:	longer than that of			
20 10 stations		the standard rail.			

Specify the number of valve stations without exceeding the max. number of stations.

How to Order Manifold Assembly

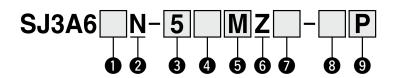
Ordering example (SS3J3-V60-□)



- SS3J3-V60-06D1 set (Manifold part no.)
- SJ3A6N-5MZ-DP-----4 sets (With plug part no.) SJ3A6N-5MZ-P2 sets (With plug part no.)
 - The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the solenoid valves, etc.
- 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.

Specific Produ Precautions

How to Order Solenoid Valves (3-Position 3-Port with Restrictor)



1 Coil type

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

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

2 For non plug-in only

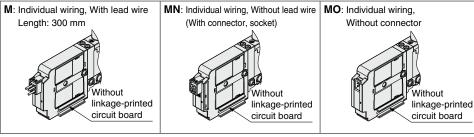
3 Rated voltage

5	24 VDC
6	12 VDC

4 Common specification

Nil	Positive common
N	Negative common

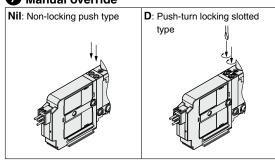
5 Connector entry



When ordering a connector assembly separately, refer to pages 144 and 145.

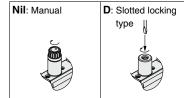
6 With light/surge voltage suppressor

Manual override



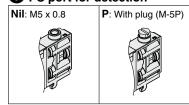
* No slide locking type manual override setting is provided.

8 Needle operation



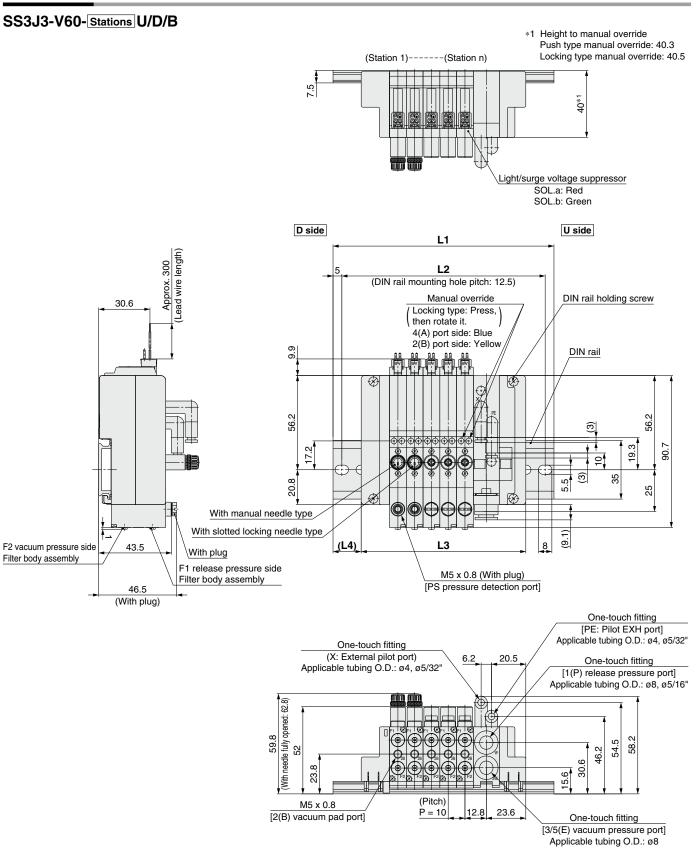
* Set operation torque to 0.3 N·m or less.

9 PS port for detection



* When mounting a pressure sensor, etc., select "Nil."

Dimensions

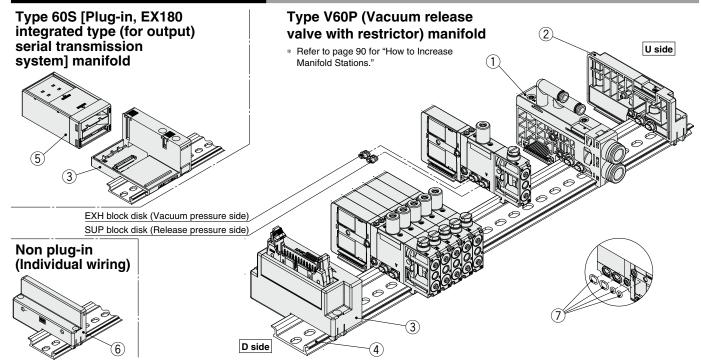


Since DIN rail dimensions are the same as the SS5J3-60-□ series, refer to pages 99 and 100.



Manifold Exploded View

Connector Type/Individual Wiring



No.		Description	Part no.	Note	
444		External pilot	SJ3000-50-1AR-□□-N (X, PE port: Metric size ø4 Inch size ø5/32")	(Metric size) C6: With ø6 One-touch fitting (straight) C8: With ø8 One-touch fitting (straight) L6: With ø6 One-touch fitting (elbow upward entry)	
1 *1	SUP/EXH block	For different pressures*2	SJ3000-50-3A-□□-N	L8: With ø8 One-touch fitting (elbow upward entry) B6: With ø6 One-touch fitting (elbow downward entry) B8: With ø8 One-touch fitting (elbow downward entry) (Inch size) N7: With 1/4" One-touch fitting (straight) N9: With 5/16" One-touch fitting (straight)	
2*1	End block		SJ3000-53-1A-N	For the U side	
3	Connector block	(SJ3000-42-□A-□	Refer to the connector block part nos. shown below.	
4	DIN rail		VZ1000-11-1-□	Refer to page 106.	
5	SI unit		EX180-□□	Refer to the SI unit part nos. on page 61.	
7	O-ring for valve connection*3		SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports	

Connector Block Part Nos.

Connector specifications	Mounting position	Part no.	Note
For D-sub connector (Locking bracket: Metric size thread)		SJ3000-42-1A-□	
For D-sub connector (Locking bracket: Unified thread)		SJ3000-42-1AU-□	
For flat ribbon cable with 26 pins		SJ3000-42-2A-□	☐: 1 (Connector upward)
For flat ribbon cable with 20 pins	D side	SJ3000-42-3A-□	
For flat ribbon cable with 10 pins		SJ3000-42-4A-□	□: 2 (Connector lateral)
For EX180 serial wiring*4		SJ3000-42-20A	
For EX510 serial wiring*4		SJ3000-42-3A-2	

*4 An SI unit is not included.

Component Parts: Non plug-in (Individual Wiring)

No.		Description	Part no.	Note	
1 *1	SUP/EXH block	External pilot	SJ3000-50-5AR-□□-N (X, PE port: Metric size ø4 Inch size ø5/32")	(Metric size) C6: With ø6 One-touch fitting (straight) C8: With ø8 One-touch fitting (straight) L6: With ø6 One-touch fitting (elbow upward entry) L8: With ø8 One-touch fitting (elbow upward entry)	
L	SUP/EXH BIOCK	For different pressures*2	SJ3000-50-6A-□□-N	B6: With ø6 One-touch fitting (elbow downward entry) B8: With ø8 One-touch fitting (elbow downward entry) (Inch size) N7: With 1/4" One-touch fitting (straight) N9: With 5/16" One-touch fitting (straight)	
2*1	End block		SJ3000-53-1A-N	For the U side	
4	DIN rail		VZ1000-11-1-□	Refer to page 106.	
6	End block		SJ3000-53-2A	For the D side	
7	O-ring for valve connection*3		SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE port	

^{*1} For the SJ3A6 series, valve lock and manual switches are not available.

^{*} Refer to page 103 for the SUP/EXH block disk and method of handling parts at different pressures.



Common Specifications

Construction

Plug-in

EX510 EX180 | Pat Ri

Plug-in

old ns N

ar a

SJ3A6

mmon Spec.

lug-in

D-sub Flat Ribbon Serial

> Non Plug-in

Individual Wiring

pecific Product Precautions

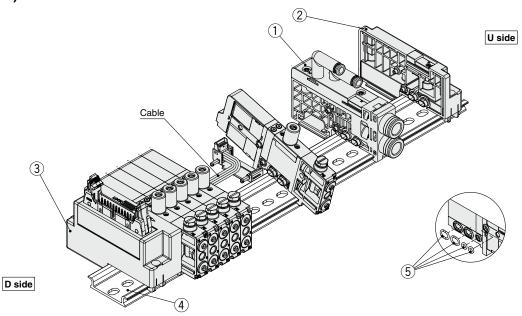
^{*2} As the valves cannot be operated only with the SUP/EXH block for different pressures, select them in combination with the SUP/EXH block for external pilot.

 $^{*3 \ \, \}text{Included with valves, SUP/EXH blocks, and connector blocks}$

Cable Type

Type V60LP (Vacuum release valve with restrictor) manifold

* Refer to page 91 for "How to Increase Manifold Stations."

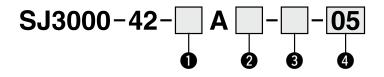


Component Parts: Plug-in (Cable Type)

No.	Description		Part no.	Note	
1 *1	CUD/FYII black	External pilot	SJ3000-50-5AR-□□-N (X, PE port: Metric size ø4 Inch size ø5/32"	(Metric size) C6: With ø6 One-touch fitting (straight) C8: With ø8 One-touch fitting (straight) L6: With ø6 One-touch fitting (elbow upward entry) L8: With ø8 One-touch fitting (elbow upward entry)	
	SUP/EXH block	For different pressures*2	SJ3000-50-6A-□□-N	B6: With ø6 One-touch fitting (elbow downward entry) B8: With ø8 One-touch fitting (elbow downward entry) (Inch size) N7: 1/4" One-touch fitting (straight) N9: 5/16" One-touch fitting (straight)	
2*1	End block		SJ3000-53-1A-N		
3	Connector block		SJ3000-42-□A-□	Refer to the connector block part nos. shown below.	
4	DIN rail		VZ1000-11-1-□	Refer to page 106.	
5	O-ring for valve connection	n* ³	SJ3000-96-1A	The part no. shown on the left includes parts for 5 units. (10 pcs. each for the P and E ports and for the X and PE ports)	

^{*1} For the SJ3A6 series, valve lock and manual switches are not available.

●Connector Block



Connector type

7	D-sub connector			
8 Flat ribbon cable with 26 pi				
9	Flat ribbon cable with 20 pins			
10	Flat ribbon cable with 10 pins			

^{*} All connector block mounting positions are on the D side.

The connector block includes the cables necessary for the number of stations.

2 Locking bracket

Nil	Metric size thread		
U	Unified thread		

* D-sub connector only

3 Connector entry direction

anconon				
1	Upward			
2	Latoral			

4 Valve stations

	2 to 10 D-sub connector						
02 to 10	Flat ribbon cable with 26 pins						
02 to 09	Flat ribbon cable with 20 pins						
02 to 04	Flat ribbon cable with 10 pins						



^{*2} As the valves cannot be operated only with the SUP/EXH block for different pressures, select them in combination with the SUP/EXH block for external pilot.

^{*3} Included with valves, SUP/EXH blocks, and connector blocks

* Refer to page 103 for the SUP/EXH block disk and method of handling parts at different pressures.



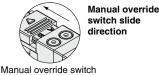
Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Manual Override Switch Operation

∕ Warning

For manual override operation, move the manual override switch to a position where letters A and B can be seen. [Manual override switch release status (refer to the figure below)] Operation with the manual override switch in a locked status can cause damage to the manual override and air leakage, so be sure to release the manual override switch before use. After manual override operation, lock the manual switch for use (when the manual override of the push-turn locking slotted type is locked, a manual override switch cannot be locked).





unlocked status

Manual override switch locked status

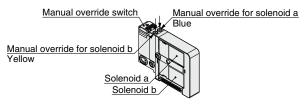
Manual Override Operation

Warning

When the manual override is operated, connected equipment will be actuated. Confirm safety before operating.

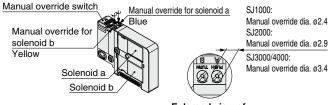
■Non-locking push type

Press in the direction of the arrow.



■Push-turn locking slotted type

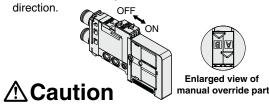
While pressing, turn in the direction of the arrow (90° clockwise). If it is not turned, it can be used in the same way as the nonlocking push type.



Enlarged view of manual override part

■Slide locking type (manual override)

Slide the manual override all the way to the ON side in the arrow direction. The manual override is then locked. To unlock the manual override, slide it toward the OFF side in the arrow



When you operate the D type with a screw driver, turn it gently using a watchmakers screw driver. [Torque: under 0.05 N·m] When you lock the manual override of the D type, be sure to push it before turning. [Load: 10 N or less] Turning without pushing can cause damage to the manual override and trouble such as air leakage, etc.

Valve with Switch

.↑Warning

When turning OFF the valve using the switch, move it to the position where the valve is locked. If the switch is at an improper position and is energized, equipment connected to the valve could be actuated.

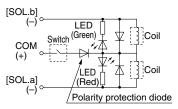
Also, if the switch is turned OFF on the valve in the energized state, be careful because any actuators connected to a single solenoid, a dual 3-port valve, or a 3-position valve will actuate.



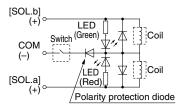
Normal operation: The valve is switched according to electric signals from the connector on the manifold side

The valve coil is kept in a deenergized state even when there is an electric signal from the connector on the manifold side.

Electric circuit diagram (with positive common and light/surge voltage suppressor)



(with negative common and light/surge voltage suppressor)



Built-in Back Pressure Check Valve Type

**** Caution

1. Valves with built-in back pressure check valve is to protect the back pressure inside a valve. For this reason, use caution the valves with external pilot specification cannot be pressurized from exhaust port [3/5(E)].

As compared with the types which do not integrate the back pressure check valve, C value of the flow rate characteristics (sonic conductance) goes down. For details, please contact SMC.

2. Do not switch valves when A or B port is open to the atmosphere, or while the actuators and air operated equipment are in operation. The back pressure prevention seal may be peeled off, which may cause air leakage or malfunctions. Use caution especially when performing a trial operation or maintenance work.

Exhaust Throttle

Caution

The SJ series pilot valve and main valve share a common exhaust inside the valve. Therefore, do not block the exhaust port when arranging the piping.

Construction

Plug-in

D-sub Flat Ribbon EX180 EX510

Non Plug-in

Manifold Options

SJ3A6

Plug-in







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.smcworld.com

Used as a 3-Port Valve

⚠ Caution

■When using a 4-port valve as a 3-port valve

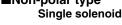
The SJ1000/2000/3000/4000 series can be used as normally closed (N.C.) or normally open (N.O.) 3-port valves by closing one of the cylinder ports 4(A) or 2(B) with a plug. However, they should be used with the exhaust ports kept open. They are convenient at times when a double solenoid type 3-port valve is required.

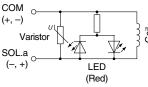
PΙι	g position	2(B) port	4(A) port		
Тур	e of actuation	N.C.	N.O.		
Number of solenoids	Single	(A)4 2(B) (R1)513(R2) (P)	(A)4 2(B) (R1)5 1 3(R2) (P)		
	Double	(A)4 2(B) (R1)513(R2) (P)	(A)4 2(B) (R1)5 1 3(R2) (P)		

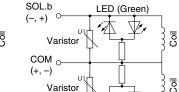
Light/Surge Voltage Suppressor

⚠ Caution

■Non-polar type





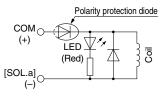


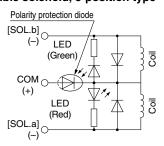
Double solenoid, 3-position type

■Positive common Single solenoid

Double solenoid, 3-position type

SOL.a (-, +)



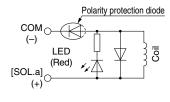


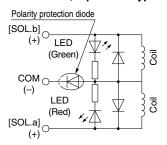
LED

(Red)

■Negative common Single solenoid

Double solenoid, 3-position type





Continuous Duty

∧ Caution

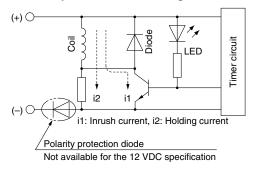
If a valve is energized continuously for long periods of time, the rise in temperature due to heat-up of the coil assembly may cause a decline in valve performance, reduce the service life, or have adverse effects on peripheral equipment. If the valve is energized continuously for long periods of time, be sure to use a valve with power-saving circuit (continuous duty type). 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.

If the continuously energized time exceeds three hours, please contact SMC.

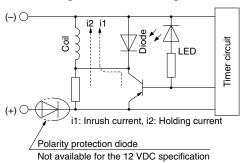
■With power-saving circuit

Power consumption is decreased to approx. 1/3 (for SJ3\(\)60(A)T and SJ4\(\)60T) compared with the standard model by reducing the wattage required to hold the valve in an energized state. (Effective energizing time is over 67 ms at 24 VDC.)

Electric circuit diagram (with power-saving circuit) In case of positive common, single solenoid



In case of negative common, single solenoid



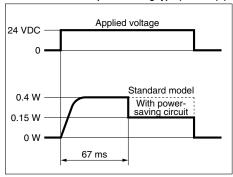


Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

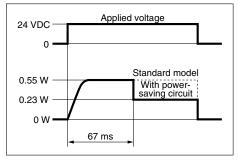
Working Principle

The circuit shown on page 139 reduces the power consumption for holding in order to save energy. Refer to the electrical power waveform as shown below.

Electrical power waveform of the power-saving type (SJ3□60(A)T, SJ4□60T)



Electrical power waveform of the power-saving type (SJ1□60T, SJ2□60T)



- The 12 VDC specification with power-saving circuit does not have the polarity protection diode. Do not make a mistake with the polarity.
- 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.)

Countermeasure for Surge Voltage Intrusion

■ Surge voltage intrusion

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 a valve in a de-energized state may switch over (see Fig. 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 Fig. 2).

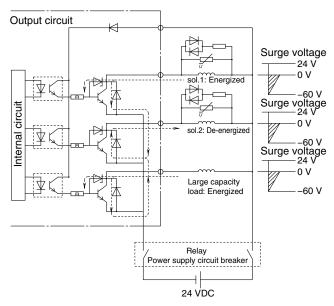


Fig. 1 Surge intrusion circuit example (NPN outlet example) (24 VDC)

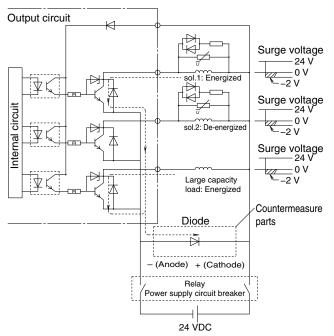


Fig. 2 Surge intrusion countermeasure example (NPN outlet example) (24 VDC)

ruction Common Specifications

Plug-in

EX510 EX180 Plat Ribbon

I Non Plug-in

fold Indi

ade to Order

SJ3A6

Common Spec. Construction

Sub Ribbon Plug-in

Non Flat Rii Iug-in Seri

Individual Wiring PI

Specific Produc Precautions



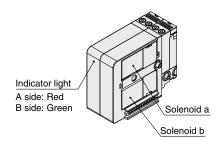


Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 3/4/5-port solenoid valve precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smcworld.com

Light Indication

⚠ Caution

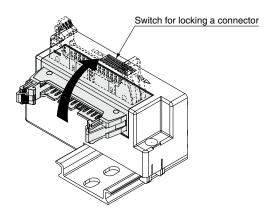
When equipped with light/surge voltage suppressor, the light window turns red when solenoid a is energized, and it turns green when solenoid b is energized.



Changing the Connector Entry Direction

∧ Caution

To change the connector's entry direction, set the switch on the top of the connector block to the FREE position, before turning the connector. Make sure to set the switch back to the LOCK position before connecting the connector. (When the switch is difficult to slide, move the connector a little so that it will slide easier.) 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. Thus, refrain from using in these ways.



Manifold Mounting

When attaching a manifold to a mounting surface, etc., with bolts, if the entire bottom surface of the DIN rail contacts the mounting surface in a horizontal mounting, it can be used by simply securing both ends of the DIN rail. However, for any other mounting method or for side facing and rear facing, etc., secure the DIN rail with bolts at uniform intervals using the following as a guide: 2 to 5 stations at 2 locations, 6 to 10 stations at 3 locations, 11 to 15 stations at 4 locations, 16 to 20 stations at 5 locations, 21 to 25 stations at 6 locations, 26 to 30 stations at 7 locations, and more than 30 stations at 8 locations.

In addition, even in the case of a horizontal mounting, if the mounting surface is subject to vibration, etc., take the same measures indicated above. If secured at fewer than the specified number of locations, warping or twisting may occur in the DIN rail and manifold, causing trouble such as air leakage.





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.smcworld.com

Fitting Replacement

. Caution

By replacing a valve's fitting, it is possible to change the port size of the 4(A), 2(B), 1(P), and 3/5(E) ports. When replacing it, pull out the fitting after removing the clip with a flat blade screw driver, etc. To mount a new fitting, insert it into place and then fully reinsert the clip.

<For the SJ1000/2000/3000> M5, M3 port block One-touch fitting (Elbow type) One-touch fitting (Long elbow type) One-touch fitting (Straight)

<For the SJ4000> SUP/EXH block (For the D side) SJ4 60 (Valve)

One-touch Fitting Part Nos.

Port	Port size	Part no.		
SJ1000	ø2 One-touch fitting (Straight)	KQSY10-C2		
4(A), 2(B)	ø4 One-touch fitting (Straight)	KQSY10-C4-X1336		
	ø2 One-touch fitting (Straight)	KJH02-C1		
	ø4 One-touch fitting (Straight)	KJH04-C1		
SJ2000	ø2 One-touch fitting (Elbow type)	KJL02-C1		
4(A)	ø4 One-touch fitting (Elbow type)	KJL04-C1-N		
2(B)	ø2 One-touch fitting (Long elbow type)	KJW02-C1		
	ø4 One-touch fitting (Long elbow type)	KJW04-C1-N		
	M3 port block	SJ2000-56-1A		
	ø2 One-touch fitting (Straight)	KJH02-C2		
	ø4 One-touch fitting (Straight)	KJH04-C2		
	ø6 One-touch fitting (Straight)	KJH06-C2		
0.10000	ø2 One-touch fitting (Elbow type)	KJL02-C2		
SJ3000	ø4 One-touch fitting (Elbow type)	KJL04-C2		
4(A) 2(B)	ø6 One-touch fitting (Elbow type)	KJL06-C2-N		
2(0)	ø2 One-touch fitting (Long elbow type)	KJW02-C2		
	ø4 One-touch fitting (Long elbow type)	KJW04-C2		
	ø6 One-touch fitting (Long elbow type)	KJW06-C2-N		
	M5 port block	SJ3000-56-1A		
SJ4000	ø4 One-touch fitting (Straight)	KQSY30-C4		
4(A)	ø6 One-touch fitting (Straight)	KQSY30-C6		
2(B)	ø8 One-touch fitting (Straight)	KQSY30-C8		
	ø6 One-touch fitting (Straight)	VVQ1000-51A-C6		
SJ1000	ø6 One-touch fitting (Elbow type)	SZ3000-74-1A-L6		
SJ2000 SJ3000	ø6 One-touch fitting (Long elbow type)	SZ3000-74-2A-L6		
1(P)	ø8 One-touch fitting (Straight)	VVQ1000-51A-C8		
3/5(E)	ø8 One-touch fitting (Elbow type)	SZ3000-74-1A-L8		
. ,	ø8 One-touch fitting (Long elbow type)	SZ3000-74-2A-L8		
SJ4000	ø8 One-touch fitting (Straight)	KQSY31-C8		
1(P) 3/5(E)	ø10 One-touch fitting (Straight)	KQSY31-C10-X133		

Inch Size

Port	Port size	Part no.
	ø1/8" One-touch fitting (Straight)	KJH01-C1
0.10000	ø5/32" One-touch fitting (Straight)	KJH03-C1
SJ2000 4(A)	ø1/8" One-touch fitting (Elbow type)	KJL01-C1
2(B)	ø5/32" One-touch fitting (Elbow type)	KJL03-C1
(_)	ø1/8" One-touch fitting (Long elbow type)	KJW01-C1
	ø5/32" One-touch fitting (Long elbow type)	KJW03-C1
	ø1/8" One-touch fitting (Straight)	KJH01-C2
	ø5/32" One-touch fitting (Straight)	KJH03-C2
	ø1/4" One-touch fitting (Straight)	KJH07-C2
SJ3000	ø1/8" One-touch fitting (Elbow type)	KJL01-C2
4(A)	ø5/32" One-touch fitting (Elbow type)	KJL03-C2
2(B)	ø1/4" One-touch fitting (Elbow type)	KJL07-C2
	ø1/8" One-touch fitting (Long elbow type)	KJW01-C2
	ø5/32" One-touch fitting (Long elbow type)	KJW03-C2
	ø1/4" One-touch fitting (Long elbow type)	KJW07-C2
1(P)	ø1/4" One-touch fitting (Straight)	VVQ1000-51A-N7
3/5(E)	ø5/16" One-touch fitting (Straight)	VVQ1000-51A-N9

- * To change the port size of the 1(P) or 3/5(E) ports into port sizes other than ø8 (straight) for the SJ1000/2000/3000 and ø10 (straight) for the SJ4000, specify the change on the manifold specification sheet
- Be careful to avoid damaging or contaminating the O-rings as this can cause air leakage.
- When removing a straight-type fitting from a valve, after removing the clip, attach tubing or a plug (KJP-02, KQ2P-□□) to the One-touch fitting, and pull it out while holding the tubing or plug. If it is pulled out while holding the release button of the fitting (resin part), the release button may be damaged.
- * Be sure to turn off the power and stop the supply of air before disassembly. Furthermore, since air may remain inside the actuator, piping, and manifold, confirm that the air is completely exhausted before starting any work
- While inserting tubing into an elbow-type fitting, hold the main body of the fitting by hand. Failure to do so will exert an undue force on the valve or the fitting, resulting in air leakage or damage
- Each fitting part no. contains 1 pc. Additionally, when the piping is constructed in the same direction using an elbow-type fitting, order an elbow-type and/or long elbow-type fitting. However, there are no elbow-type or inch-size fitting options for the SJ4000 series.
- SJ4000 series One-touch fittings are available in metric sizes (straight) only.

Clip Part Nos.

	тр								
	Part	Note							
SJ1000 SJ2000 SJ30			SJ4000	Note					
SJ1000-CL-1	SJ2000-CL-1	SJ3000-CL-1	JSY31M-19P-1A	These part numbers contain 10 pcs. each.					



Construction

Plug-in

EX180 EX510

SJ3A6

Plug-in





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.smcworld.com

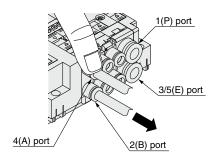
One-touch Fittings

⚠ Caution

The pitch of the SJ series piping ports (A, B, etc.) has been set assuming the use of KJ series One-touch fittings. Therefore, when using fittings with an M3 or M5 port block, there may be some interference between fittings, depending on the type and size, so please use after checking dimensions in the catalog for the pipe fitting being used.

1. 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 pinchers, nippers, 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) The 4(A) and 2(B) ports use the KJ series, so the tube can be removed by pressing on part of the release button. However, for the 1(P) and 3/5(E) ports, please press the release button evenly as before.
 - (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.



Hold down part of the release button with your finger or a similar tool, as shown in the diagram, and pull out in the direction indicated by the arrow.

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 ±0.1 mm 2) Soft nylon tube within ±0.1 mm
 - 3) Polyurethane tube within +0.15 mm, within -0.2 mm Do not use tube which does 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.

How to Use Plug Connector

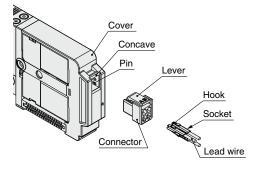
A Caution

When attaching and detaching a connector, first shut off the electric power and the air supply.

Also, crimp the lead wires and sockets securely.

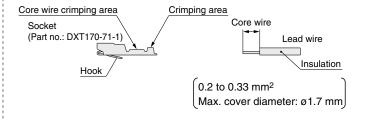
1. Connector attachment/detachment

- 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.



2. Crimping of lead wires and sockets

Peel 3.2 to 3.7 mm of the tip of the lead wire, enter the core wires neatly into a socket and crimp it with a special crimp tool. Be careful so that the cover of the lead wire does not enter into the crimping part. (Please contact SMC for the dedicated crimping tools.)







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.smcworld.com

How to Use Plug Connector

⚠ Caution

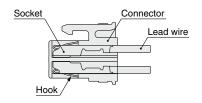
3. Lead wires with sockets attachment/detachment

Attachment

Insert the sockets into the square holes of the connector (with A, B, C, and N 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.) Next, confirm that they are locked by pulling lightly on the lead wires.

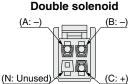
Detachment

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 is used again, spread the hook outward.



<Positive common>

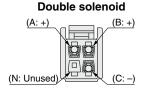
Single solenoid (A: -) (Unused) (N: Unused)



<Negative common>

(N: Unused

Single solenoid (A: +) (Unused)



Plug Connector Lead Wire Length

A Caution

Plug connector lead wires have a standard length of 300 mm, however, the following lengths are also available.

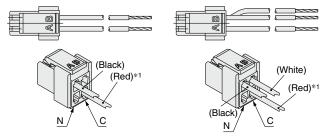
Connector Part Nos.

Single solenoid Double solenoid,

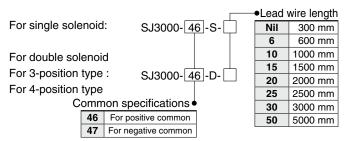
3-position type, 4-position type

SJ3000-46-S- (for positive common) SJ3000-46-D- (for positive common)

SJ3000-47-S- \Box (for negative common) SJ3000-47-D- \Box (for negative common)



*1 In case of negative common, the lead wire changes from red to yellow.



For single solenoid

Without lead wire: SJ3000-46-S-N (positive/negative common) (Connector, Socket x 2 pcs. only)

For double solenoid

Without lead wire: SJ3000-46-D-N (positive/negative common) (Connector, Socket x 3 pcs. only)

How to Order

Include the connector assembly part number together with the part number for the plug connector's solenoid valve without connector.

(Example) In case of lead wire length 2000 mm and positive common

SJ3160-5MOZ-C6 SJ3000-46-S-20

Connector for Manifolds (for Junction Common)

⚠ Caution

Using the connector (for junction common) for solenoid valves installed in the manifold reduces the labor involved in wiring work because common wiring for all solenoid valves is integrated into a single wire.

2000 3000 4000

Construction Specificati

Plug-in

EX510 EX180 Flat Ribbon

Plug-in

Individua Wiring

Manifold

Made to Order

SJ3A6

Common Spec. Construction

Plug-in

D-sub Flat Ribbon Serial

Non Plug-in

ndividual Wiring







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.smcworld.com

Connector (for Junction Common) Part Nos.

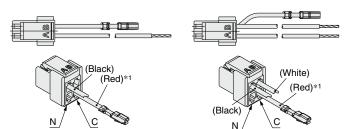
Single solenoid

Double solenoid,

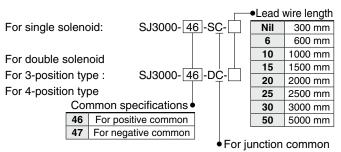
SJ3000-46-SC- (for positive common) SJ3000-47-SC-□ (for negative common)

3-position type, 4-position type SJ3000-46-DC- (for positive common)

SJ3000-47-DC-□ (for negative common)



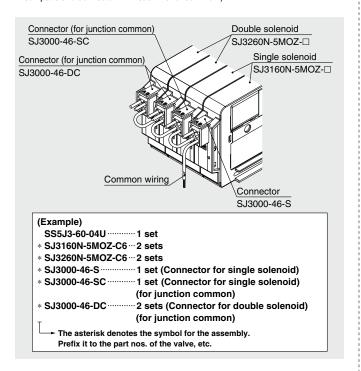
*1 In case of negative common, the lead wire changes from red to yellow.



How to Order

Indicate the part no. of the connector for the manifold and valve. If the arrangement is too complicated, please specify the details on a manifold specification sheet.

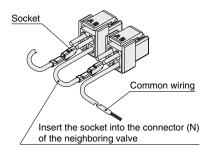
- Applications like connectors not wired to a valve are not possible.
- For the valve, please designate "No connector (MOZ)" for the connector type.
- Connector with lead wire for place where the signals are transmitted to the common wiring. (Only the valves of the first station and/or last station of the manifold are compatible to connector with lead wire for common.)



Wiring Instructions for Connector (for Junction Common)

∕!\ Caution

If only connector (for junction common) is ordered, please wire according to the instructions in the diagram below.





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.smcworld.com

Common pecifications 000

Construction

Plug-in

EX510 EX180 | Pi

al Non Plug-

nifold ions

Ma 0

SJ3A6

g-in Comm

D-sub Flat Ribbon Serial

Non Plug-in

> | Individua | Wiring

One-touch Fittings

⚠ Caution

When fittings are used, they may interfere with one another depending on their types and sizes. Therefore, the dimensions of the fittings to be used should first be confirmed in their respective catalogs.

Fittings whose compliance with the SJ series is already confirmed are stated below. If the fitting within the applicable range is selected, there will not be any interference.

Applicable Fittings: KQ2H, KQ2S Series KJH, KJS Series

Series	Model	Piping port	Port size	Fitting	Applicable tubing O.D.			
Series					ø2	ø3.2	ø4	ø6
			M5	KQ2H				
SJ3000	SJ3□60-□□-M5			KJH				
(10 mm pitch)	SJ3LIGU-LILL-IVIS	4A, 2B		KQ2S				
(KJS				
	SJ2□60-□□-M3	4A, 2B	М3	KQ2H				
SJ2000				KJH				
(7.5 mm pitch)				M3 KQ2S KJS				
(7.6 mm piton)								
				KQ2H				
SJ3A6	SJ3A6-□□			KJH				
1		2B	M5	KQ2S KJS				
(10 mm pitch)								
				L/19				

⚠ Safety Instructions

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

⚠ Danger: Danger indicates a hazard with a high level of risk which, If not avoided, will result in death or serious injury.

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

⚠ Caution: Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1:Robots

⚠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 catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

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

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

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

⚠ Caution

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

Use in non-manufacturing industries is not covered.

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

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

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".

Read and accept them before using the product.

Limited warranty and Disclaimer

- 1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2) Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales 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 catalog 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.

Revision History

- Edition B * A non plug-in type individual wiring manifold has been added.
 - * An EX510 serial wiring compatible type has been added.
 * A PC wiring compatible type has been added.

 - A regulator block and an intermediate connector block have been added as options.
 The SJ3A6 series vacuum release valve with restrictor has been added.

 - Number of pages has been increased from 48 to 96.
- Edition C * A plug-in cable type manifold has been added.

 * A SUP/EXH block with regulator and pressure switch, and a valve with speed controller have been added as options.
- A slide locking type manual override has been added.
- Number of pages has been increased from 96 to 112.

Edition D * The SJ1000 series has been added. * A low-profile SUP/EXH block has been added as an option. * Number of pages has been increased from 112 to 120. RQ

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Edition E * The SJ3000A and SJ4000 series have been added.

* Number of pages has been increased from 120 to 148.

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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