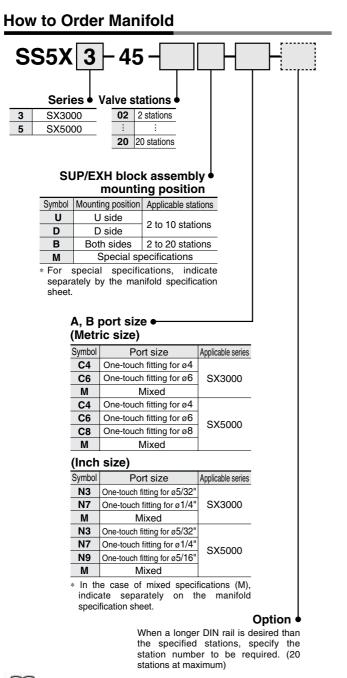
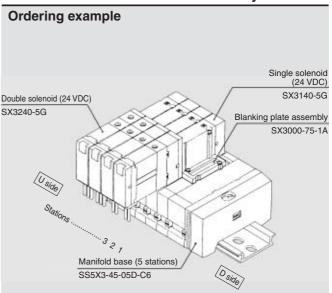
## Series SX3000/5000 Base Mounted Manifold Stacking Type DIN Rail Mounted Individual Wiring





Common connector assembly for manifoldRefer to page 1-6	• Connector assembly for L and M typesRefer to page 1-6-8.
, , , , , , , , , , , , , , , , , , , ,	Common connector assembly for manifoldRefer to page 1-6-9.

#### How to Order Valve Manifold Assembly



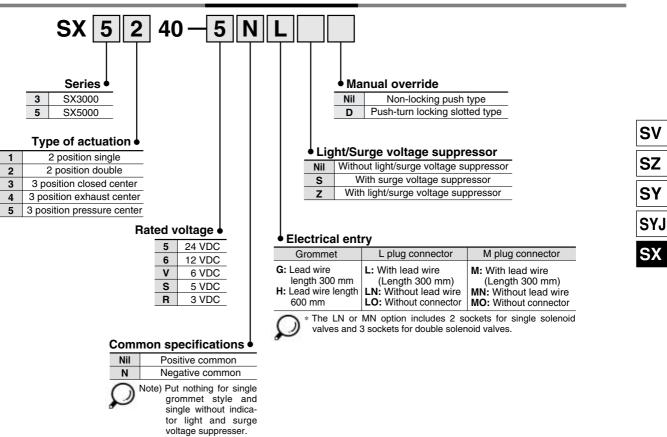
SS5X3-45-05D-C6 ···· 1 set (Type 45, 5-station manifold base part no.) \*SX3000-75-1A ········ 1 set (Blanking plate assembly part no.) \*SX3140-5G ·········· 2 sets (Single solenoid part no.) \*SX3240-5G ·········· 2 sets (Double solenoid part no.) T

→ \* The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the Manifold Specification Sheet to instruct us.

Base Mounted Series SX3000/5000

How to Order Valves







#### Manifold Specifications

Мо	del	SS5X3-45	SS5X5-45								
Applicab	le valve	SX3□40	SX5⊡40								
Manifold type		Stacking type/D	Stacking type/DIN rail mounted								
P(SUP), R(EXH	)	Common SUP	Common EXH								
Valve stations No	ote)	2 to 20 stations									
A, B port	Location	Ba	se								
specifications	Direction	Side									
	P, R port	C8 (One-touch fitting for ø8)	C10 (One-touch fitting for ø10)								
Port size	A, B port	C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)								
Manifold base w	eight W (g)	2 to 10 stations: W = 22n + 118 11 to 20 stations: W = 22n + 140	2 to 10 stations: $W = 47n + 156$ 11 to 20 stations: $W = 47n + 190$								

In: Stations11 to 20 stations: W = 22n + 14011 to 20 stations: W = 47n + 150Note)For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.

#### **Flow Characteristics**

		Port	size			Flow char	acteristics			
			5126	1 →	4/2 (P $\rightarrow$ )	A/B)	$4/2 \rightarrow 5/3 (A/B \rightarrow EA/EB)$			
Model		1, 5, 3 (P, EA, EB)	4, 2 (A, B)	C [dm³/ (s·bar)]	b	Cv	C [dm³/ (s·bar)]	b	Cv	
	SS5X3-45	C8	C6	0.88	0.21	0.22	0.95	0.18	0.22	
SS5X5-45		C10	C8	2.2	0.24	0.53	2.5	0.18	0.58	

Note) The value is for manifold base with 5 stations and individually operated 2 position type.



SV

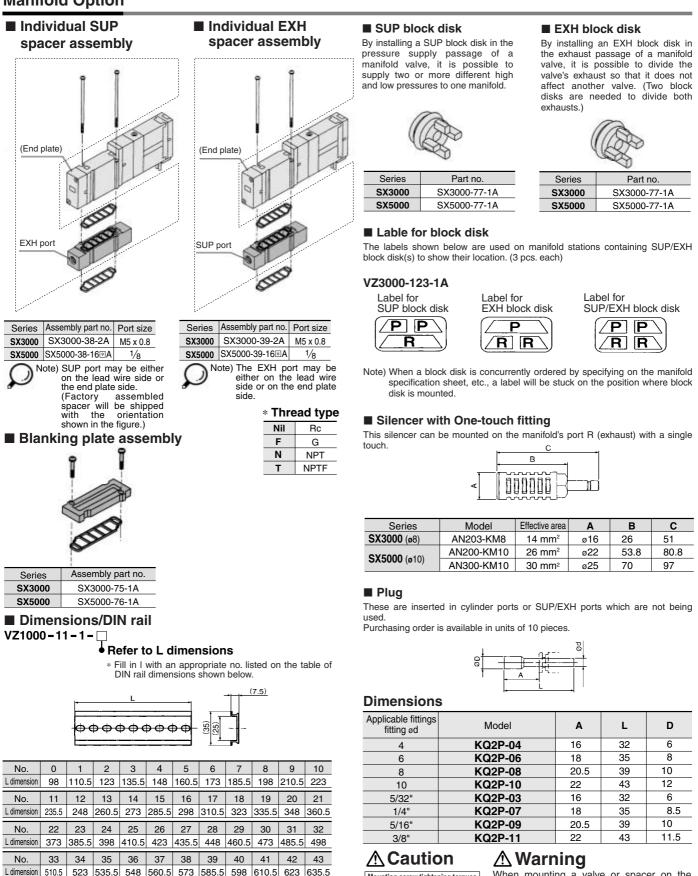
SZ

SY

SYJ

SX

#### Manifold Option



#### Mounting screw tightening torques M2: 0.17 N·m M3: 0.8 N·m M4: 1.4 N·m

#### When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-78 to 1-6-79, and then mount it.

No 66 67 68 69 70 71 L dimension 923 935.5 948 960.5 973 985.5

673 685 5 698 710 5 723 735 5 748 760.5 773

> 58 59 60 61 62 63

823 835.5

510.5

44 45 46 47 48 49 50 51

648 660 5

55 56 57

785 5

No

L dimension

No.

L dimension

523 535.5 548 560.5 573

798 810.5 585.5 598 610.5

848 860.5 873 885.5

623 635.5

64 65

898 910.5

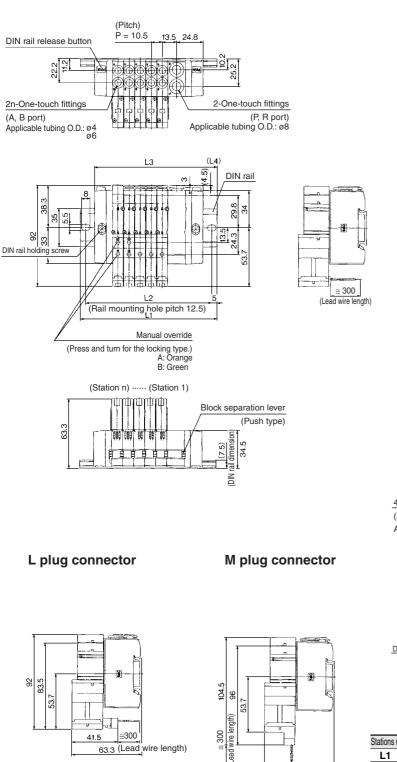
54

52 53

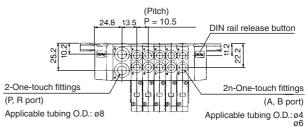


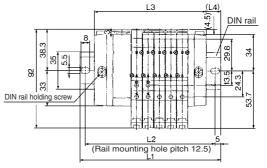
#### **Dimensions: Series SX3000**

#### SS5X3-45- Stations D-C4



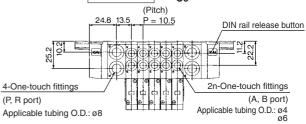
#### SS5X3-45- Stations U-C4

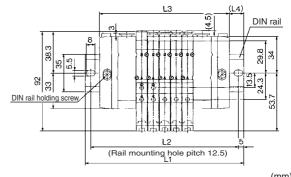




_										(mm)
Stations n 2 stations		2 stations	3	4	5	6	7	8	9	10 stations
	L1	98	110.5	123	135.5	148	148	160.5	173	185.5
	L2	87.5	100	112.5	125	137.5	137.5	150	162.5	175
	L3	70.5	81	91.5	102	112.5	123	133.5	144	154.5
	L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5

#### SS5X3-45- Stations B-C4





									(mm)	
Stations n	2 stations	3	4	5	6	7	8	9	10 stations	
L1	110.5	123	135.5	148	160.5	173	185.5	185.5	198	
L2	100	112.5	125	137.5	150	162.5	175	175	187.5	
L3	87	97.5	108	118.5	129	139.5	150	160.5	171	
L4	11.5	12.5	13.5	14.5	15.5	16.5	17.5	12.5	13.5	
Stations n	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5
L2	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300
L3	181.5	192	202.5	213	223.5	234	244.5	255	265.5	276

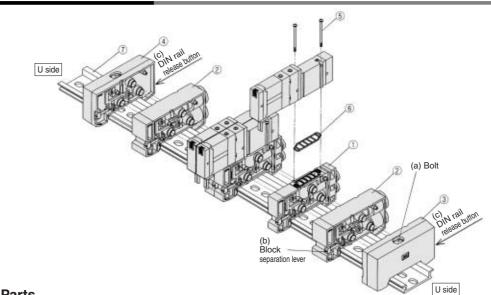


63.3



#### **Exploded View/DIN Rail Manifold**





#### **Replacement Parts**

Nia	Description	Par	t no.							
No.	Description	SX3000	SX5000	N	ote					
1	Manifold block assembly	SX3000-50-1A-□□	SX5000-50-1A-C6	SX3000     (Metric size)     C4: With One-touch fitting for ø4     C6: With One-touch fitting for ø6     SX5000     (Metric size)     C4: With One-touch fitting for ø4     C6: With One-touch fitting for ø6     C8: With One-touch fitting for ø8	(Inch size) N3: With One-touch fitting for ø5/32" N7: With One-touch fitting for ø1/4" (Inch size) N3: With One-touch fitting for ø5/32" N7: With One-touch fitting for ø1/4" N9: With One-touch fitting for ø5/16"					
				(Gasket 6 is included.)						
2	SUP/EXH block assembly	(Metric size) SX3000-51-1A (Inch size) SX3000-51-15A								
3	End block assembly R	SX3000-52-1A	SX5000-52-1A	For	D side					
4	End block assembly L	SX3000-53-1A	SX5000-53-1A	For	U side					
5	Round head combination screw	SX3000-22-2 (M2 x 24)	M3 x 30 (Matt nickel plated)							
6	Gasket	SX3000-57-4	SX5000-57-6							
$\overline{\mathcal{O}}$	DIN rail	VZ1000	)-11-1- 🗌	Refer to p	page 1-6-77.					

#### How to Increase Manifold Bases

Station expansion is possible at any position.

- Loosen bolt (a) fixing the manifold base until it begins to turn idly.
   (While pressing DIN rail release buttons (c) at two locations, separate the manifold base from the DIN rail.)
- (2) Press manifold block assembly splitting button (b), that are at the location where manifold bases are to be added, until button (b) locks, and then separate the block assemblies.
- (3) Mount additional manifold block assembly on the DIN rail as shown in the figure.
- (4) Press the block assembly until a click sound is produced, and tighten the bolts (a) to fix them to the DIN rail.

Caution (Tightening torque: 1.4 N·m)

(While lightly holding the blocks after fixing an end block on one side, tighten the other end block for better sealing.)

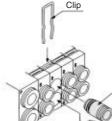
## Fig. (1) Block mounting procedure

#### **▲** Caution

- When adding manifold bases to use more than 10 stations, add SUP/EXH block assembly, as well.
- 2. When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.

Hook this section on the DIN rail and press in the direction of the arrow until a click sound is generated.

### How to Change Fitting Assembly



O-ring

Type 45 manifold permits change in the A and B port sizes by changing the manifold block fitting assembly.

After removing the valve, remove the clip with a screwdriver. To mount a new fitting assembly insert it and then insert a clip so it does not come out of the manifold block.

Fitting assembly

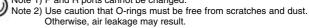
#### Fitting Assembly Part No. Metric size

SX3000	One-touch fitting for ø4	VVQ1000-50A-C4
573000	One-touch fitting for ø6	VVQ1000-50A-C6
	One-touch fitting for ø4	VVQ1000-51A-C4
SX5000	One-touch fitting for ø6	VVQ1000-51A-C6
	One-touch fitting for ø8	VVQ1000-51A-C8

Inch size

SX3000	One-touch fitting for ø5/32"	VVQ1000-50A-N3
575000	One-touch fitting for ø1/4"	VVQ1000-50A-N7
	One-touch fitting for ø5/32"	VVQ1000-51A-N3
SX5000	One-touch fitting for ø1/4"	VVQ1000-51A-N7
	One-touch fitting for ø5/16"	VVQ1000-51A-N9

Note 1) P and R ports cannot be changed.

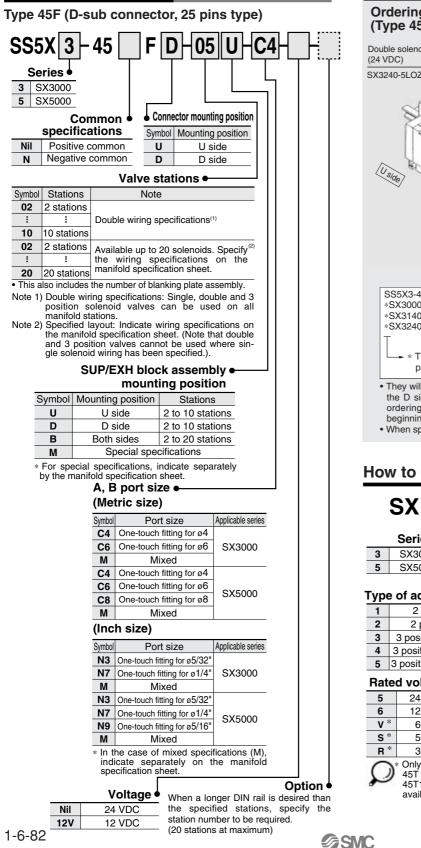




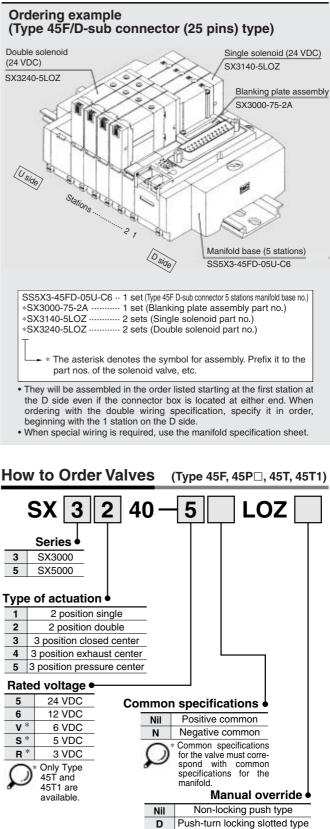


## Series SX3000/5000 **Base Mounted Manifold Stacking Type DIN Rail Mounted Plug-in**

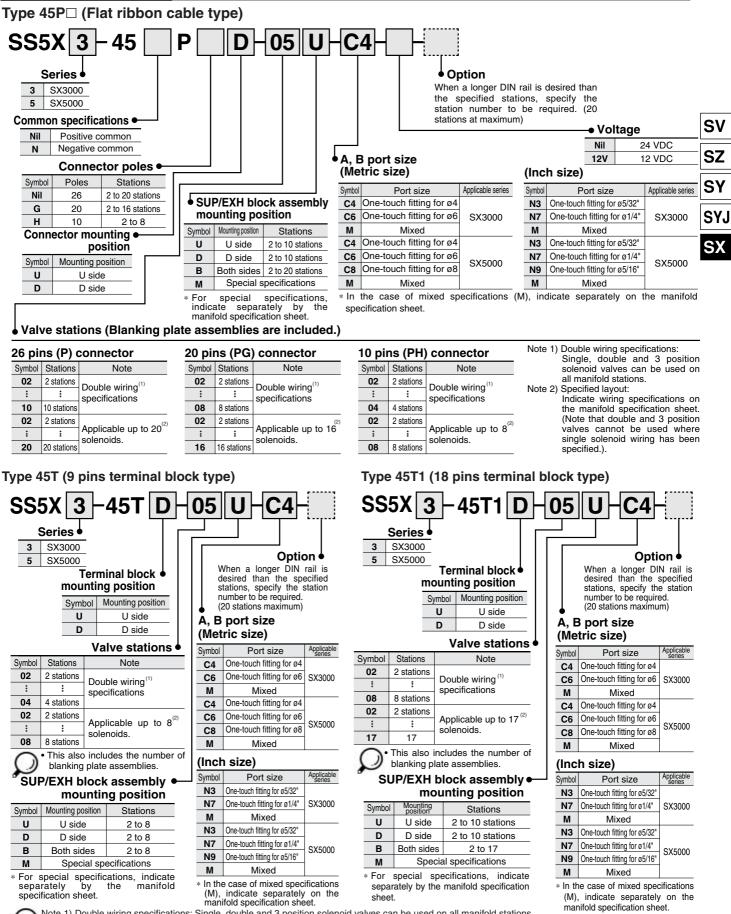
#### How to Order Manifold



#### How to Order Valve Manifold Assembly



#### How to Order Manifold



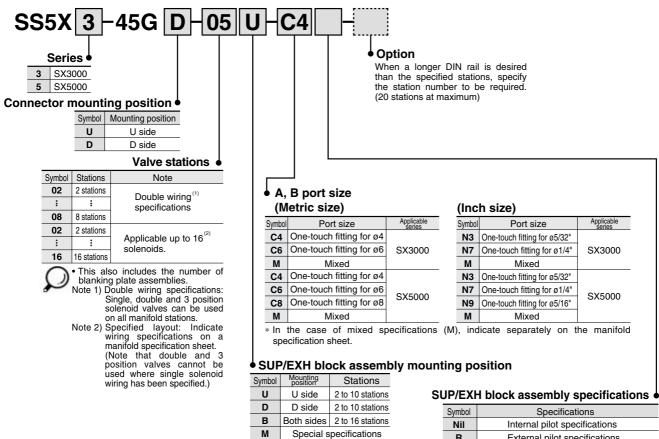
Note 1) Double wiring specifications: Single, double and 3 position solenoid valves can be used on all manifold stations. Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solend wiring has been specified.) Note 3) The terminal block (45T) manifold has no common polarity. It can be used for both positive and negative common.





#### How to Order Manifold

#### Type 45 P (Flat ribbon cable type (PC wiring system compatible))

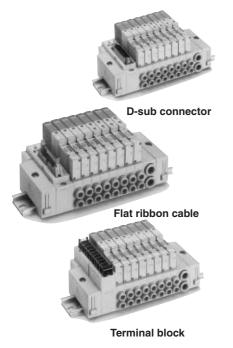


\* For special specifications, indicate separately by the manifold specification sheet.

Symbol	Specifications
Nil	Internal pilot specifications
R	External pilot specifications
S	Internal pilot/Built-in silencer
RS	External pilot/Built-in silencer

**Base Mounted** Series SX3000/5000





#### **Manifold Specifications**

1	Nodel		D-sub connector	Flat ribb	on cable ty	/pe 45P□	Termin	al block	Flat ribbon cable PC wiring system compatible		
			Type 45F	Type 45P	Type 45PG	Type 45PH	Type 45T	Type 45T1	Type 45G		
Manifold				Plug-in type							
P(SUP), R(	EXH)			Common SUP/Common EXH							
Valve statio	ns Note)		2 to 20	stations	2 to 16 stations	2 to 8 s	stations	2 to 17 stations	2 to 16 stations		
A, B porting		Location				Base					
specificatio	ns	Direction				Side					
	D. D. mart	SX3000			C8 (One	-touch fittir	ng for ø8)				
Port size	P, R port	SX5000		C10 (One-touch fitting for ø10)							
1 011 5126	A, B port	SX3000	C4	C4 (One-touch fitting for ø4)/C6 (One-touch fitting for ø6)							
	A, B poir	SX5000	C4 (One-to	uch fitting for	ø4)/C6 (One	e-touch fitting	g for ø6)/C8	(One-touch f	itting for ø8)		
Connector			Connector: Conforms to MIL-C- 24308	with strain relief; Conforming to	socket: 20 pins MIL with strain relief; Conforming to	10 pins MIL with strain relief;	Terminal block (M3) 9 pins	Terminal block (M3) 18 pins	Flat ribbon cable connector socket: 20 pins MIL with strain relief; Conforming to MIL-C-83503		
Internal wiri	ng		+COM (T	ype 45⊡), -	-СОМ (Тур	be 45N⊡)	In commo +COM ar	n between nd –COM.	+ COM		
Manifold bas weight W (g)	e	SX3000				tions: W = 2 ations: W =	••••				
n: Stations (D-sub conne	ector)	SX5000				tions: W = 5 ations: W =					

SV SZ SY SYJ SX

)	Note)	There is required.	a limit Please	to the refer	numbe to the	r of sta "How to	tions av o Order'	ailable '. For	e depe more	ending than	on 10	the static	numt	per of supply	solenoids
		through t	he "P" p	orts at	both en	ds of th	e manifo	old exh	aust tł	hrough	bot	th en	ds as	s well.	-

#### **Flow Characteristics**

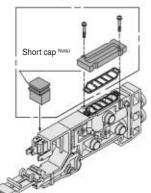
	Port	size	1 →	4/2 (P → /	Flow chara A/B)		/3 (A/B →	EA/EB)
Model	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	C [dm³/ (s·bar)]	b	Cv	C [dm³/ (s·bar)]	b	Cv
SS5X3-45I	C8	C6	0.88	0.21	0.22	0.95	0.18	0.22
SS5X5-45I	C10	C8	2.2	0.24	0.53	2.5	0.18	0.58

J

Note) The value is for manifold base with 5 stations and individually operated 2 position type.

#### **Manifold Option**

#### Blanking plate assembly



Series	Assembly part no.
SX3000	SX3000-75-2A
SX5000	SX5000-76-2A
	When mounting blank- ing plate, be sure to mount a short cap.

SUP block disk

By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.



Series	Part no.
SX3000	SX3000-77-1A
SX5000	SX5000-77-1A

■ EXH block disk By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve's exhaust so that it does not affect another valve. (Two block disks are needed to divide both divide exhausts.)



Series	Part no.
SX3000	SX3000-77-1A
SX5000	SX5000-77-1A

\_

#### Label for block disk

The labels shown below are used on manifold stations containing SUP/EXH block disk(s) to show their location. (3 pcs. each) VZ3000-123-1A (In common between SX3000 and 5000)

EXH block disk

Ρ

R R

Label for Label for

SUP block disk

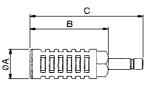






Note) When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

■ Silencer with One-touch fitting This silencer can be mounted on the manifold's port R (exhaust) with a single touch.

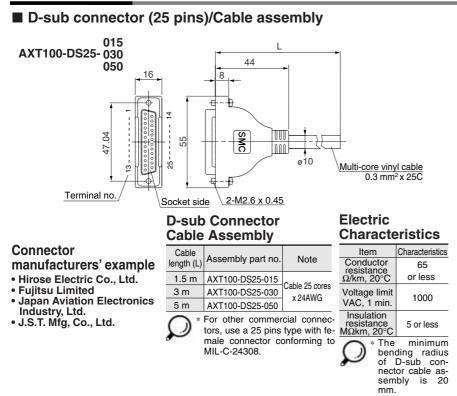


Series	Model	Effective area	А	В	С
SX3000 (ø8)	AN203-KM8	14 mm <sup>2</sup>	16	26	51
SX5000 (ø10)	AN200-KM10	26 mm <sup>2</sup>	22	53.8	80.8
<b>3A3000</b> (Ø10)	AN300-KM10	30 mm <sup>2</sup>	25	70	97



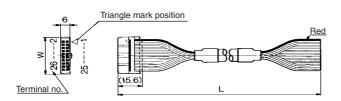


#### **Manifold Option**



#### ■ Flat ribbon cable connector/Cable assembly

#### AXT100-FC□-<sup>1</sup>/<sub>10</sub>



#### Flat Ribbon Cable Assembly

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 conform to MIL-C-83503.

#### Connector manufacturers' example

- Hirose Electric Co., Ltd.
   Sumitomo 3M Limited

- Fujitsu Limited
  Japan Aviation Electronics Industry, Ltd.
  J.S.T. Mfg, Co., Ltd.

#### ▲ Caution

Mounting screw tightening torques M2: 0.17 N·m M3: 0.8 N·m M4: 1.4 N·m

#### 🗥 Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-92 to 1-6-109, and then mount it.

#### **D-sub Connector Cable** Assembly Terminal No

ASSCIIID	ny reminai	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

Individual EXH

(End plate)

EXH port

SX3000

spacer assembly

# Individual SUP spacer assembly

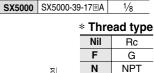
(End plate) EXH port

\$		
Series	Assembly part no.	Port size
SX3000	SX3000-38-3A	M5 x 0.8
SX5000	SX5000-38-17⊠A	1/8

#### Plug

Inserted into an unused cylinder port and SUP/EXH ports. Purchasing order is available in units of 10 pieces.





т

Series Assembly part no. Port size

M5 x 0.8

NPTF

SX3000-39-3A

## Dimensions

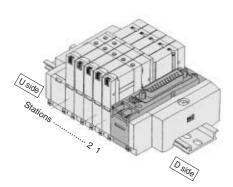
Dimension	5			
Applicable fittings size ød	Model	Α	L	D
4	KQ2P-04	16	32	6
6	KQ2P-06	18	35	8
8	KQ2P-08	20.5	39	10
10	KQ2P-10	22	43	12
5/32"	KQ2P-03	16	32	6
1/4"	KQ2P-07	18	35	8.5
5/16"	KQ2P-09	20.5	39	10
3/8"	KQ2P-11	22	43	11.5

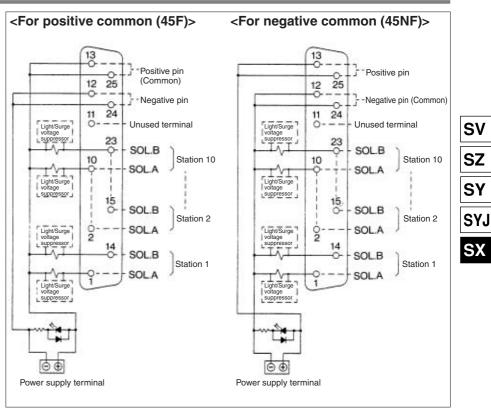


#### Internal Wiring of Manifold

#### Type 45(N)F: D-sub Connector

A D-sub connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.





• The power source terminal is used for connecting to an external power source.

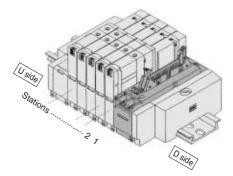
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications
  are specified on the manifold specification sheet, the valve assignment for the connector number will differ
  from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

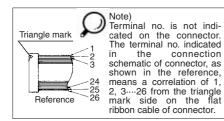
#### <For positive common (45P)> <For negative common (45NP)> 26 Positive pin (Common) - Positive pin (Common) 25 -0 2425 24 - Negative pin - Negative pin 22 23 22 23 Unused terminal 2021 SOL.B SOL.A Station 10 -Unused terminal 20<sup>21</sup>-SOL.B SOL.A Station 10 Light/Surge Light/Surge voltage ssor Μ ∆ī Light/Surge irge suppressor ssoi SOL.B) 4 SOL.B 4 0 SOL.A Station 2 SOLA Station 2 ġ Ъ З \_ \_ 3 Light/Surge voltage suppressor Light/Surge voltage SOL.B SOL.A Station 1 SOL.B SOL.A Station 1 2 2 1 1 <u>т∿т</u> Triangle mark 🛛 Triangle mark <u>v</u>1 Light/Surge voltage suppressor Light volta suppr C<sub>M</sub> be þ Power supply terminal Power supply terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

#### Type 45(N)P: Flat Ribbon Cable (26 pins)

A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.

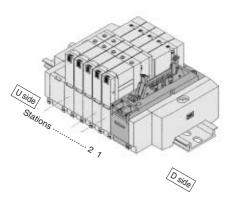


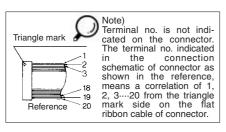


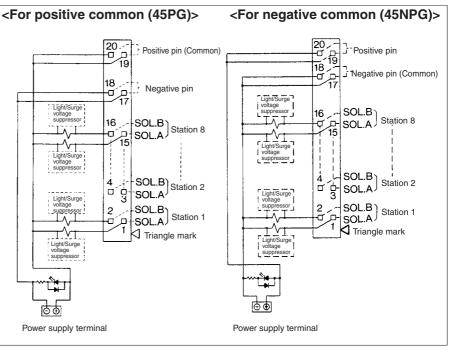


#### Type 45(N)PG: Flat Ribbon Cable (20 pins)

A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.



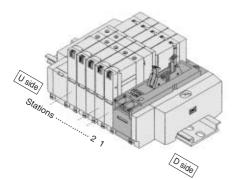


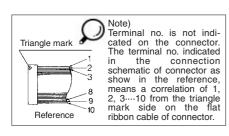


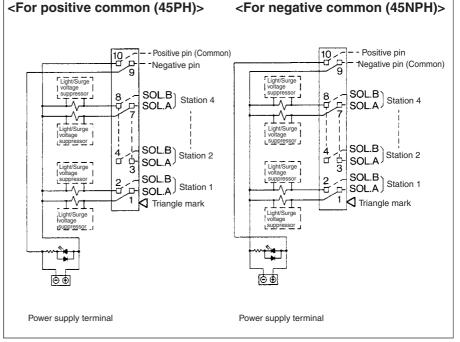
- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 8 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A
- The maximum number of stations is 16 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

#### Type 45(N)PH: Flat Ribbon Cable (10 pins)

A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.







- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
  The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

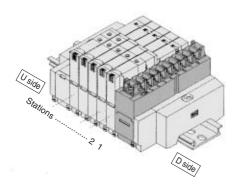


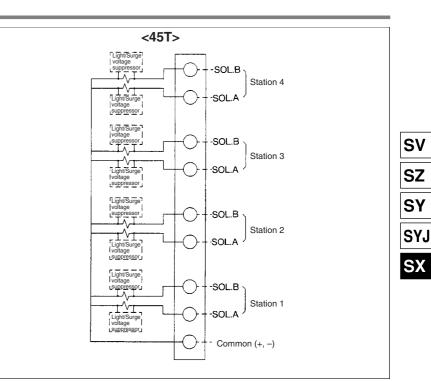


#### **Internal Wiring of Manifold**

### Type 45T: Terminal Block

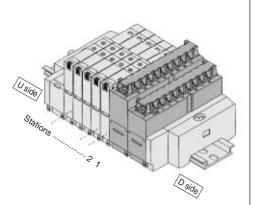
A terminal block style permits direct cable connection without treatment of lead wires.

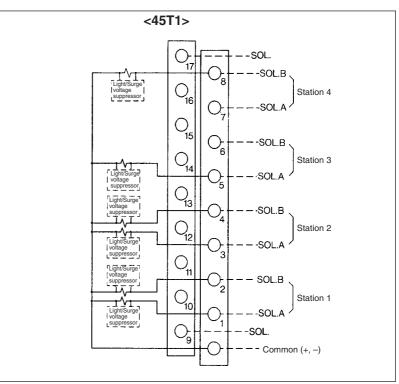




- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.

#### Type 45T1: Terminal Block





• The maximum number of stations is 17 in terms of manifold bases, as well as solenoids.

- (For more stations, please contact SMC.) Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.

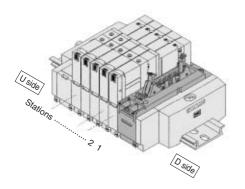


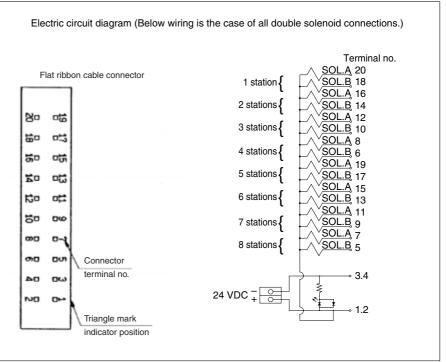


#### Internal Wiring of Manifold

#### Type 45G: Flat Ribbon Cable (PC Wiring System compatible)

It is the manifold for 20 pins flat ribbon cable connector which is compliant for PC wiring system.





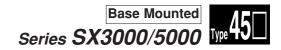
• The maximum number of stations is 16 in terms of manifold bases, as well as solenoids.

(For more stations, please contact SMC.)

• Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

Ш

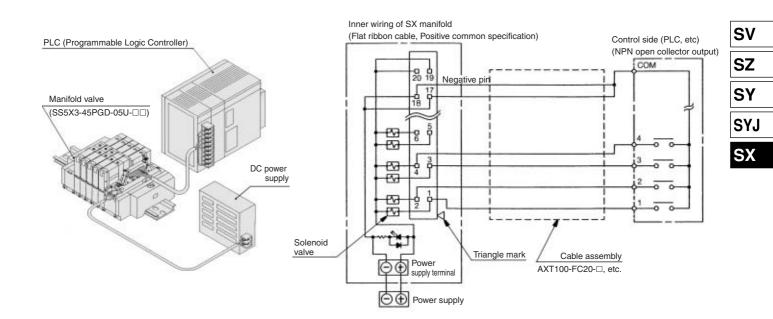
Refer to the separate catalog CAT.S02-20 for the details of PC Wiring System.



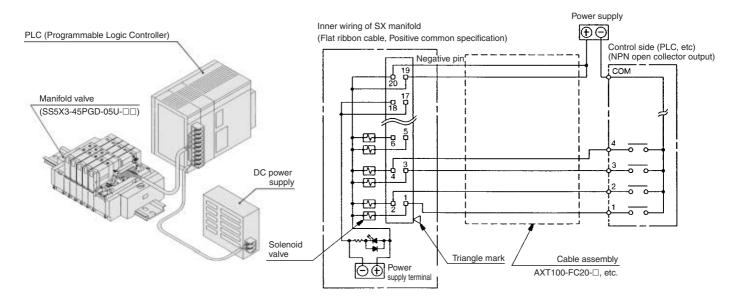
#### SS5X -45 Wiring of Plug-in Type

Power terminal is equipped with plug-in manifold of Series SX as standard. Power terminal enables the power supply to valve from either of manifold or controller side.

#### 1. Wiring example when using manifold power supply terminals



2. Wiring example when the power terminal of the manifold is not used (Power supplied at controller or in wiring)

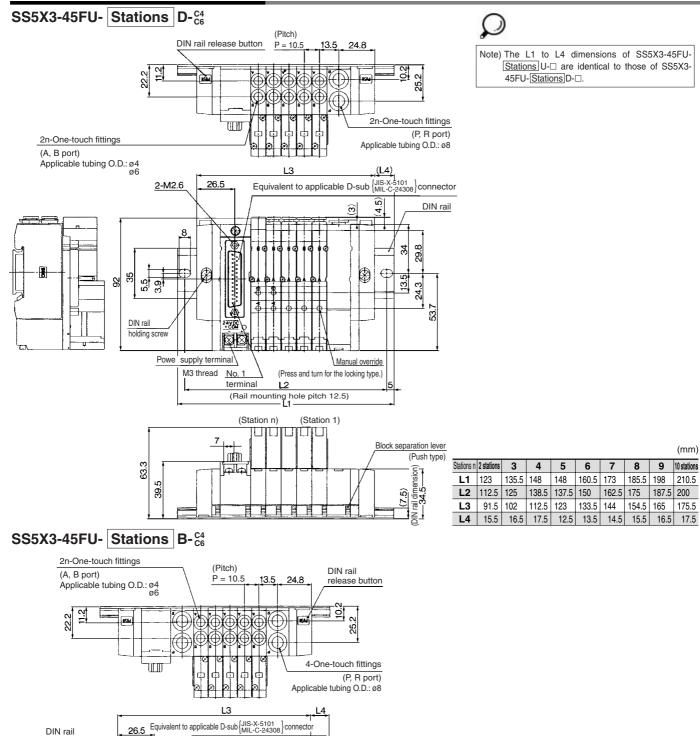


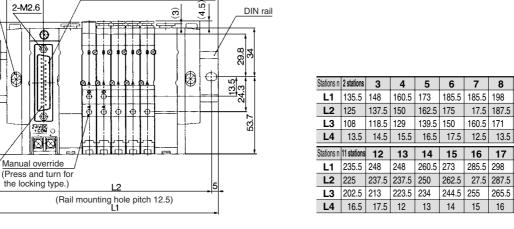
### **Caution**

• Single wire, COM position, etc. of PLC are different from each manufacturer. When connecting with PLC, read the specifications carefully and understand the electrical circuit. Poor wiring could cause damage to PLC, power source, etc. as well as manifold and valve.



#### SX3000: D-sub Connector/Plug-in





(mm)

10 stations

310.5 310.5 323

12

19 20 stations

312.5

13

210.5 223

200 212.5

181.5 192

14.5 15.5

8 9

198

17 18

298

287.5 300 300

265.5 276 286.5 297

16 17

1-6-92

DIN rail

holding screw

38

8

No. 1 terminal

5.5+

2-M2.6

C

XØ.

6

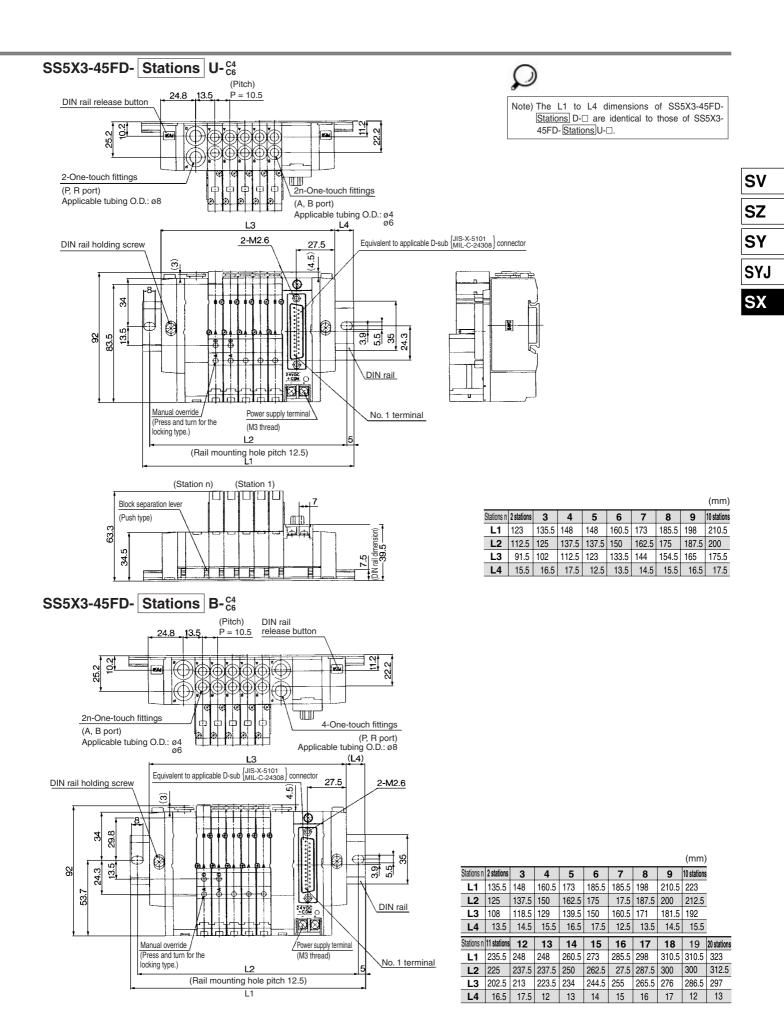
24VDC + CON

Manual override

 $\boxtimes \boxtimes$ 

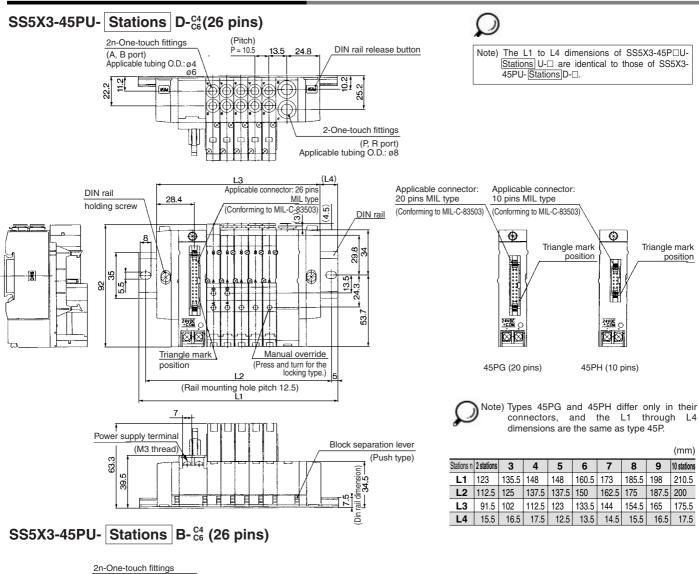


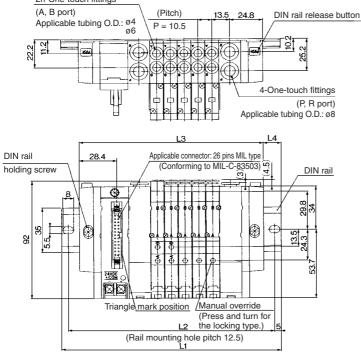
Base Mounted Series SX3000/5000





#### SX3000: Flat Ribbon Cable Type/Plug-in

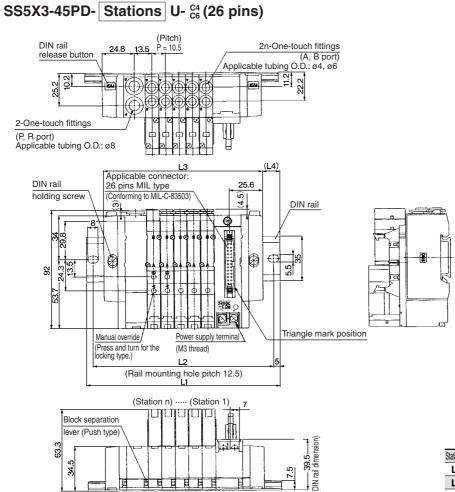




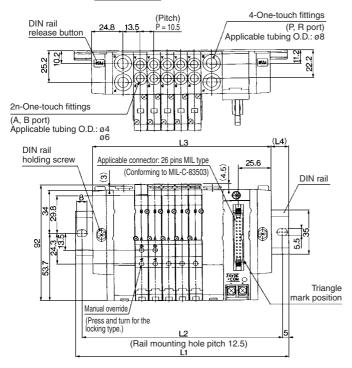
									(mm)	
Stations n	2 stations	3	4	5	6	7	8	9	10 stations	
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223	
L2	125	137.5	150	162.5	175	17.5	187.5	200	212.5	
L3	108	118.5	129	139.5	150	160.5	171	181.5	192	
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5	
Stations n	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	225	237.5	237.5	250	262.5	27.5	287.5	300	300	312.5
L3	202.5	213	223.5	234	244.5	255	265.5	276	286.5	297
L4	16.5	17.5	12	13	14	15	16	17	12	13



**Base Mounted** Series SX3000/5000



#### SS5X3-45PD- Stations B-<sup>C4</sup><sub>C6</sub> (26 pins)



									(mm)	
Stations n	2 stations	3	4	5	6	7	8	9	10 stations	
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223	
L2	125	137.5	150	162.5	175	175	187.5	200	212.5	
L3	108	118.5	129	139.5	150	160.5	171	181.5	192	
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5	
Stations n	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	225	237.5	237.5	250	262.5	27.5	287.5	300	300	312.5
L3	202.5	213	223.5	234	244.5	255	265.5	276	286.5	297
L4	16.5	17.5	12	13	14	15	16	17	12	13

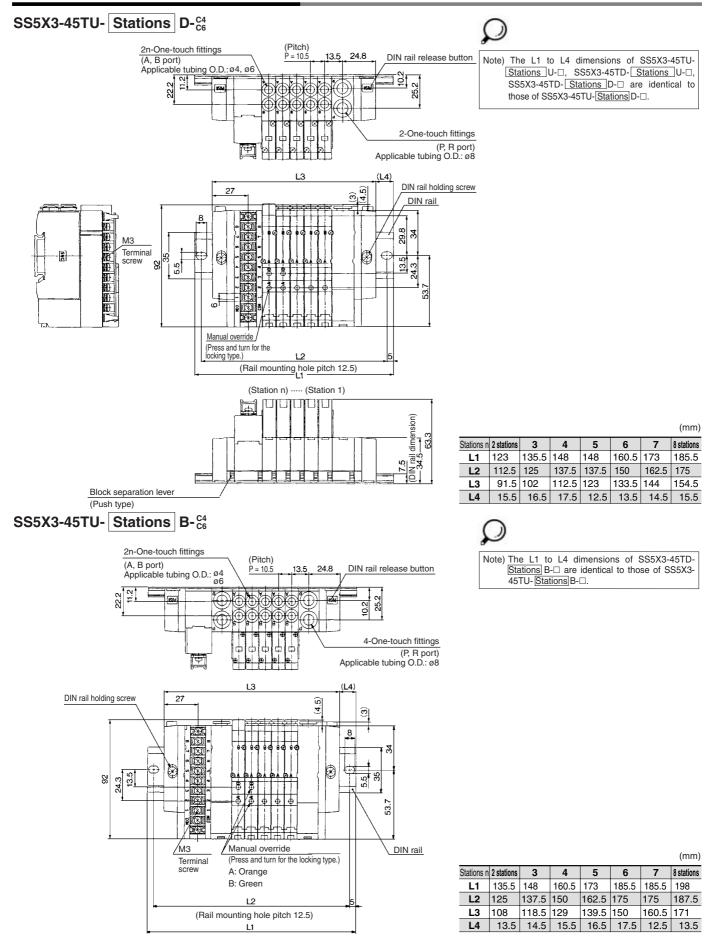
Note) The L1 to L4 dimensions of SS5X3-45PD-Stations D-D are identical to those of SS5X3-45PD-StationsU-□.

## SV SZ SY SYJ SX

									(mm)
Stations n	2 stations	3	4	5	6	7	8	9	10 stations
L1	123	135.5	148	148	160.5	173	185.5	198	210.5
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5	17.5



#### SX3000: 9 Pins Terminal Block/Plug-in

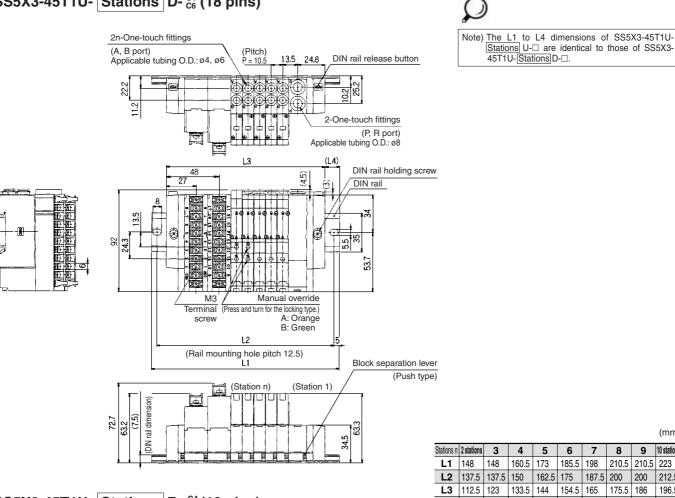




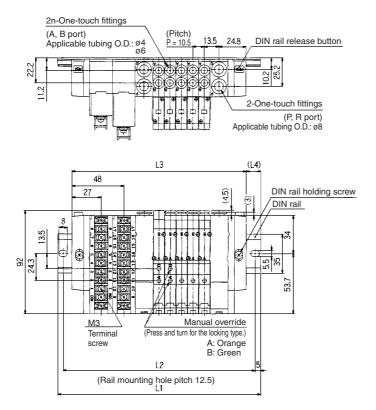


### SX3000: 18 Pins Terminal Block/Plug-in

#### SS5X3-45T1U- Stations D- <sup>C4</sup><sub>C6</sub> (18 pins)



#### SS5X3-45T1U- Stations B- <sup>C4</sup><sub>C6</sub>(18 pins)



Stations n	2 stations	3	4	5	6	7	8	9 stations
L1	160.5	173	185.5	185.5	198	210.5	223	235.5
L2	150	162.5	175	175	187.5	200	212.5	225
L3	129	139.5	150	160.5	171	181.5	192	202.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5
Stations n	10 stations	11	12	13	14	15	16	17 stations
Stations n	10 stations 248	<b>11</b> 248	<b>12</b> 248	<b>13</b> 260.5	<b>14</b> 273	<b>15</b> 285.5	<b>16</b> 298	17 stations 310.5
				-			-	
L1	248	248	248	260.5	273	285.5	298	310.5

4

160.5 173

5 6

L4 17.5 12.5 13.5 14.5 15.5 16.5 17.5 12 13

185.5 198

162.5 175 187.5 200 200

(mm)

9 10 stations

212.5

196.5

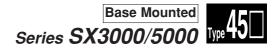
(mm)

210.5 210.5 223

175.5 186

8 7





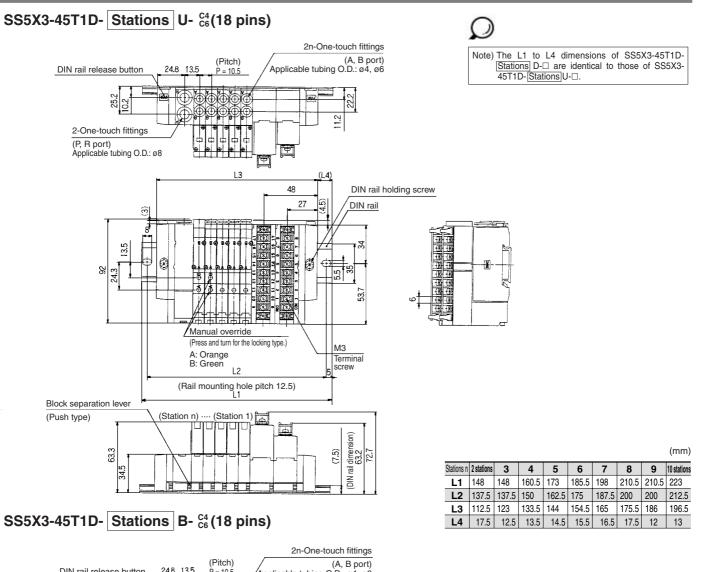
SV

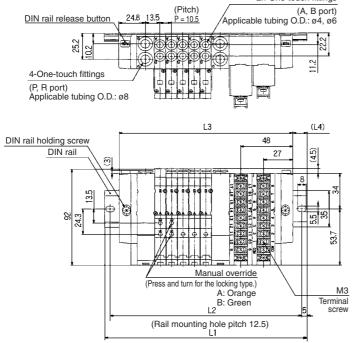
SZ

SY

SYJ

SX





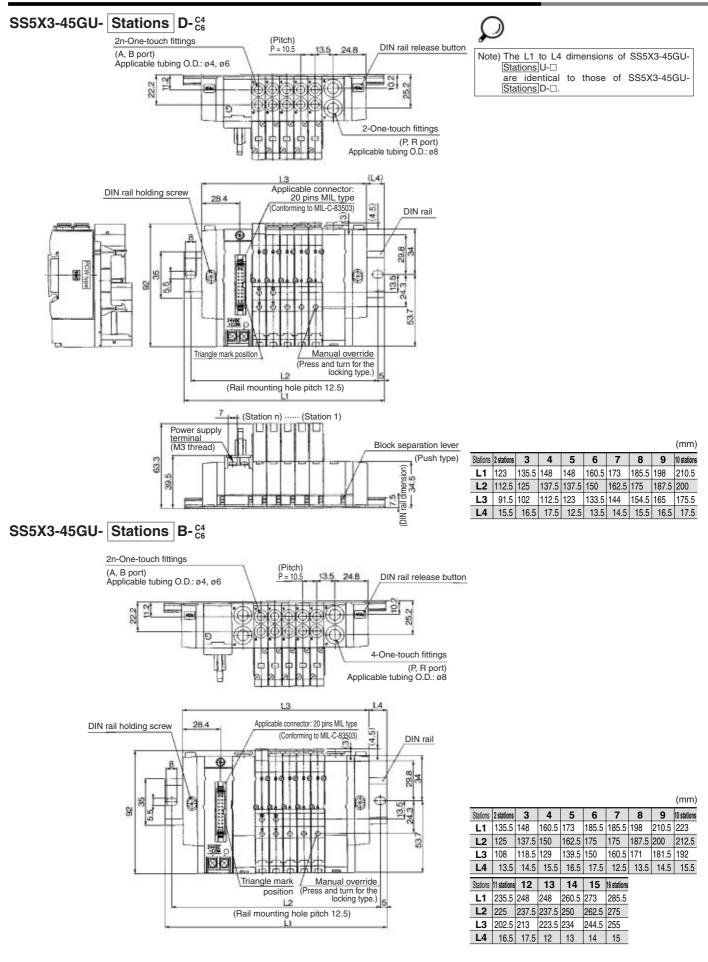
Stations n	2 stations	3	4	5	6	7	8	9 stations
L1	160.5	173	185.5	185.5	198	210.5	223	235.5
L2	150	162.5	175	175	187.5	200	212.5	225
L3	129	139.5	150	160.5	171	181.5	192	202.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5
Stations n	10 stations	11	12	13	14	15	16	17 stations
L1	248	248	260.5	273	285.5	298	310.5	310.5
		240	200.5	210	205.5	200	010.0	010.0
L2	237.5	237.5	250	262.5	275	287.5	300	300
L2 L3	-	-						

1-6-103

(mm)

**SMC** 

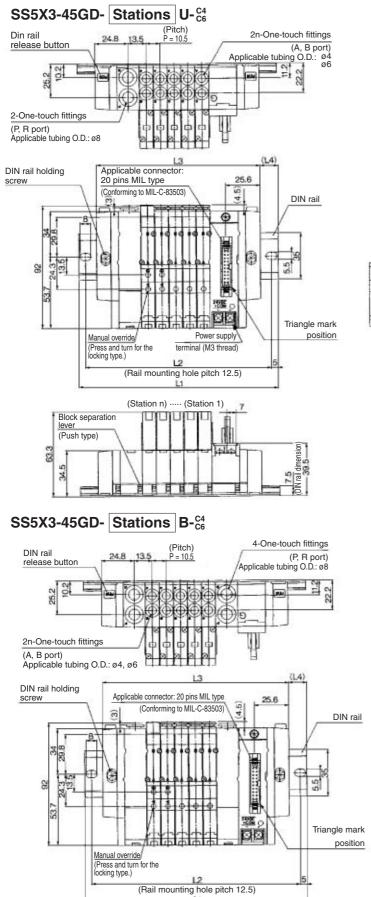




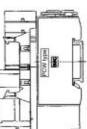
#### SX3000: PC Wiring System Compatible (Flat ribbon cable type/Plug-in)

Base Mounted Series SX3000/5000

()



Lt



Note) The L1 to L4 dimensions of SS5X3-45G	iD-
Stations D-D are identical to those	of
SS5X3-45GD-StationsU-□.	

SV
SZ
SY
SYJ
SX

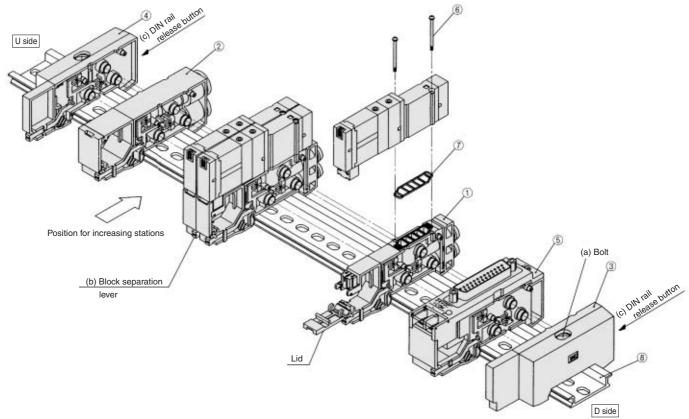
									(mm)
Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	123	135.5	148	148	160.5	173	185.5	198	210.5
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5
14	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5	17.5

									(mm)
Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5
Stations	11 stations	12	13	14	15	16 stations			
L1	235.5	248	248	260.5	273	285.5			
L2	225	237.5	237.5	250	262.5	275			
L3	202.5	213	223.5	234	244.5	255			
L4	16.5	17.5	12	13	14	15			



#### **Exploded View: DIN Rail Manifold**





#### **Replacement Parts**

Description fold block mbly /EXH block mbly block assembly block assembly block assembly ector block assembly onnector) ector block assembly		le, Double). Select a (Metric size) SX5000-51-2A (Inch size) SX5000-51-16A SX5000-52-2A SX5000-53-2A	No ers according to an attached lead wire in appropriate part number from among th R, P port SX3000 (Metric size): With One-touch fittings f R, P port SX5000 (Metric size): With One-touch fittings f For D For U	assembly based on the connector he manifold block assembly numbers for ø8 (Inch size): With One-touch fittings for ø5/16" for ø10 (Inch size): With One-touch fittings for ø3/18' side
mbly /EXH block mbly block assembly block assembly ector block assembly D-sub connector)	specification (Sing shown below. (Metric size) SX3000-51-2A (Inch size) SX3000-51-16A SX3000-52-2A SX3000-53-2A	le, Double). Select a (Metric size) SX5000-51-2A (Inch size) SX5000-51-16A SX5000-52-2A SX5000-53-2A	n appropriate part number from among th R, P port SX3000 (Metric size): With One-touch fittings f R, P port SX5000 (Metric size): With One-touch fittings f For D For U	he manifold block assembly numbers for ø8 (Inch size): With One-touch fittings for ø5/16" for ø10 (Inch size): With One-touch fittings for ø3/18' side
mbly block assembly block assembly ector block assembly D-sub connector)	(Inch size) \$X3000-51-16A SX3000-52-2A SX3000-53-2A	(Inch size) \$X5000-51-16A SX5000-52-2A SX5000-53-2A	R, P port SX5000 (Metric size): With One-touch fittings f For D For U	for ø10 (Inch size): With One-touch fittings for ø3/18 side
block assembly ector block assembly D-sub connector)	SX3000-53-2A	SX5000-53-2A	For U	
ector block assembly D-sub connector)				side
D-sub connector)	SX3000-64-1A	EXE000 64 1A		
ector block assembly		SX5000-64-1NA	-1A: +COM -1NA: –COM	
26 pins flat cable)	SX3000-64- <sup>2A</sup> 2NA-26	SX5000-64- <sup>2A</sup> 2NA-26		Note)
ector block assembly 20 pins flat cable)	SX3000-64- <sup>2A</sup> <sub>2NA</sub> -20	SX5000-64- <sup>2A</sup> 2NA-20	-2A: +COM 24 VDC	
ector block assembly 0 pins flat cable)	SX3000-64- <sup>2A</sup> 2NA-10	SX5000-64- <sup>2A</sup> -10		
ector block assembly 8 stations (T, T1) terminal block)	SX3000-64-3A	SX5000-64-3A		
ector block assembly 17 stations (T1) terminal block)	SX3000-64-8A	SX5000-64-8A	In common between	+COM and -COM.
head combination screw	SX3000-22-2 (M2 x 24)	M3 x 30 (Matt nickel plated)		
ket	SX3000-57-4	SX5000-57-6		
rail	VZ100	0-11-1- 🗌	Refer to page	ge 1-6-77.
	pins flat cable) tor block assembly pins flat cable) tor block assembly stations (T, T1) terminal block) tor block assembly stations (T1) terminal block) ead combination screw et til The numbers (5–1)	pins flat cable)SX3000-64- $^{2A}_{2NA}$ -20ctor block assembly pins flat cable)SX3000-64- $^{2A}_{2NA}$ -10ctor block assembly stations (T, T1) terminal block)SX3000-64-3Actor block assembly stations (T1) terminal block)SX3000-64-8Aead combination screwSX3000-22-2(M2 x 24)SX3000-57-4uilVZ1000	pins flat cable)SX3000-64- $\frac{2}{2NA}$ -20SX5000-64- $\frac{2}{2NA}$ -20ctor block assembly pins flat cable)SX3000-64- $\frac{2}{2NA}$ -10SX5000-64- $\frac{2}{2NA}$ -10ctor block assembly stations (T, TI) terminal block)SX3000-64-3ASX5000-64-3Actor block assembly rations (Ti) terminal block)SX3000-64-8ASX5000-64-8Astations (Ti) terminal block)SX3000-22-2M3 x 30ead combination screw(M2 x 24)(Matt nickel plated)etSX3000-57-4SX5000-57-6tilVZ1000-11-1-The numbers (S-1 to 4 are for 24 VDC. For 12 VDC, suffix -12V	pins flat cable)         SX3000-64-2nA-20         SX5000-64-2nA-20         -2NA: -COM.           ctor block assembly pins flat cable)         SX3000-64-2nA-10         SX5000-64-2nA-10         -2NA: -COM.           ctor block assembly stations (T, TI) terminal block/ stations (T) terminal block/         SX3000-64-3A         SX5000-64-3A         In common between           stor block assembly stations (T) terminal block/ stations (T1) terminal block/         SX3000-64-8A         SX5000-64-8A         In common between           stations (T1) terminal block/ stations (T1) terminal block/         SX3000-22-2         M3 x 30         In common between           ead combination screw (M2 x 24)         (Matt nickel plated)         Matt nickel plated)         Matt nickel plated)           et         SX3000-57-4         SX5000-57-6         The numbers ⑤-1 to 4 are for 24 VDC. For 12 VDC, suffix -12V to the parts no.

#### Manifold Block Assembly Part No.

Style of manifold	Wiring specifications	Manifold block assembly part no.	Note
For 45(N)F	Double	SX₅3000-50-2A-□□	
(D-sub connector)	Single	SX₅3000-50-3A-□□	• SX3000 (Metric size) (Inch size) C4: With One-touch fitting for ø4 N3: With One-touch fitting for ø5/32"
For 45(N) PG	Double	SX₅3000-50-4A-□□	C6: With One-touch fitting for ø6 N7: With One-touch fitting for ø1/4" X5000 (Metric size) (Inch size)
(Flat ribbon cable)	Single	SX₅3000-50-5A-□□	C4: With One-touch fitting for ø4 N3: With One-touch fitting for ø5/32"
For 45 T1	Double	SX₅3000-50-6A-□□	C6: With One-touch fitting for ø6 N7: With One-touch fitting for ø1/4" C8: With One-touch fitting for ø8 N9: With One-touch fitting for ø5/16"
(Terminal block)	Single	SX₅3000-50-7A-□□	(Gasket $\overline{O}$ supplied as an accessory.)



Base Mounted Series SX3000/5000

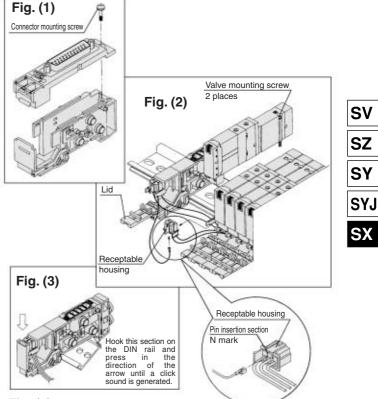


### How to Increase Manifold Bases

(1) Loosen bolt (a) fixing the manifold base until it begins to turn idly. (While pressing DIN rail release button (c), separate the manifold base from the DIN rail.) (2) Additional bases are to be added to the U side. Press splitting button (b) of the manifold block assembly on the U side until button (b) locks, and then separate the block assemblies. (3) Separate the connector block assembly in the same manner as 2. and remove the connector mounting screw shown in Fig. (1). (4) Loosen the valve mounting screw on the U side, remove the valve, and take out the receptacle housing. (Refer to Fig. (2).) Insert the common wire (red) of the manifold block assembly to be (5) added into the pin insertion section (N mark) of the receptacle housing that was taken out in 4, mount it on the manifold block, and mount the removed valve. (6) As shown in Fig. (3), mount the additional manifold block assembly on the DIN rail on the U side. Refer to the circuit diagram, and insert the lead wire (SOL.A: Black, SOL.B: White) as shown in Fig. (4). (7) Press the blocks against each other until a click sound is produced. place the lead wire in the manifold block, and close the lid without pinching the lead wire. (8) While lightly holding the blocks together so that there are no gaps between them, secure them to the DIN rail by tightening the screws A. (Tightening torque: 1.4 N·m)

### ▲ Caution

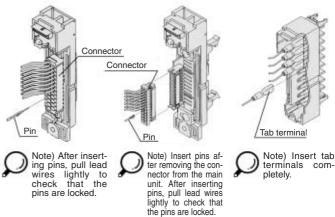
- Depending on the connector, there is a limit to the number of solenoids. When all manifold stations are wired for double solenoid valves, expansion of the manifold may not be possible. Please consult with SMC for more information.
- The manifold block assembly mounting position for additional manifold bases is always on the U side, because wires are connected to respective connectors sequentially from the D side.
- 3. When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.



#### Fig. (4)

D-sub connector (45F) Flat ribbon cable (45P

5PD) Terminal block (45T)



#### How to Change Fitting Assembly

Type 45 manifold permits change in the A and B port sizes by changing the manifold block fitting assembly. After removing the valve, remove the clip with a screwdriver. To mount a new fitting assembly insert it and then insert a clip so it does not come out of the manifold block.

#### Fitting Assembly Part No.

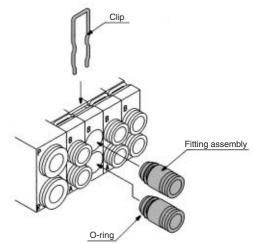
Metric size		
SX3000	One-touch fitting for ø4	VVQ1000-50A-C4
583000	One-touch fitting for ø6	VVQ1000-50A-C6
	One-touch fitting for ø4	VVQ1000-51A-C4
SX5000	One-touch fitting for ø6	VVQ1000-51A-C6
	One-touch fitting for ø8	VVQ1000-51A-C8

#### Inch size

SX3000	One-touch fitting for ø5/32"	VVQ1000-50A-N3
583000	One-touch fitting for ø1/4"	VVQ1000-50A-N7
	One-touch fitting for ø5/32"	VVQ1000-51A-N3
SX5000	One-touch fitting for ø1/4"	VVQ1000-51A-N7
	One-touch fitting for ø5/16"	VVQ1000-51A-N9
A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O		

Note 1) P and R ports cannot be changed.

Note 2) Use caution that O-rings must be free from scratches and dust. Otherwise, air leakage may result.

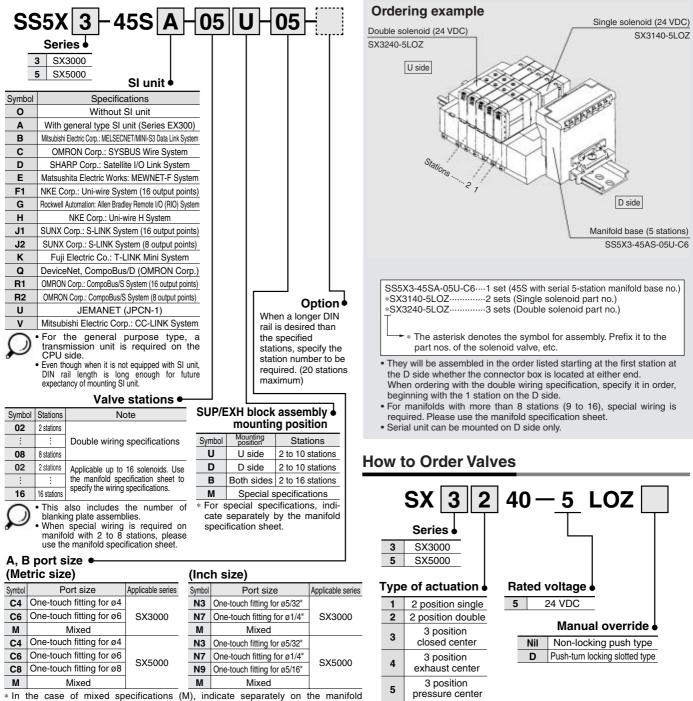




### Series SX3000/5000 Base Mounted Manifold Stacking Type DIN Rail Mounted Serial Transmission Type (Integrated)

#### How to Order Manifold

#### How to Order Valve Manifold Assembly



specification sheet.

#### SI Unit Part No.

Symbol	Specifications	For SS5X□-45S	Symbol	Specifications	For SS5XD-45S
Α	With general type SI unit (Series EX300)	EX322-S001	J1	SUNX Corp.: S-LINK System (16 output points)	EX122-SSL1
В	Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System	EX122-SMB1	J2	SUNX Corp.: S-LINK System (8 output points)	EX122-SSL2
С	OMRON Corp.: SYSBUS Wire System	EX122-STA1	к	Fuji Electric Co.: T-LINK Mini System	EX122-SFU1
D	SHARP Corp.: Satellite I/O Link System	EX122-SSH1	Q	DeviceNet, CompoBus/D (OMRON Corp.)	EX122-SDN1
Е	Matsushita Electric Works: MEWNET-F System	EX122-SPA1	R1	OMRON Corp.: CompoBus/S System (16 output points)	EX122-SCS1
F1	NKE Corp.: Uni-wire System (16 output points)	EX122-SUW1	R2	OMRON Corp.: CompoBus/S System (8 output points)	EX122-SCS2
G	Rockwell Automation: Allen Bradley Remote I/O (RIO) System	EX122-SAB1	U	JEMANET (JPCN-1)	EX122-SJN1
н	NKE Corp.: Uni-wire H System	EX122-SUH1	V	Mitsubishi Electric Corp.: CC-LINK System	EX122-SMJ1



Series SX3000/5000

**Base Mounted** 

SV

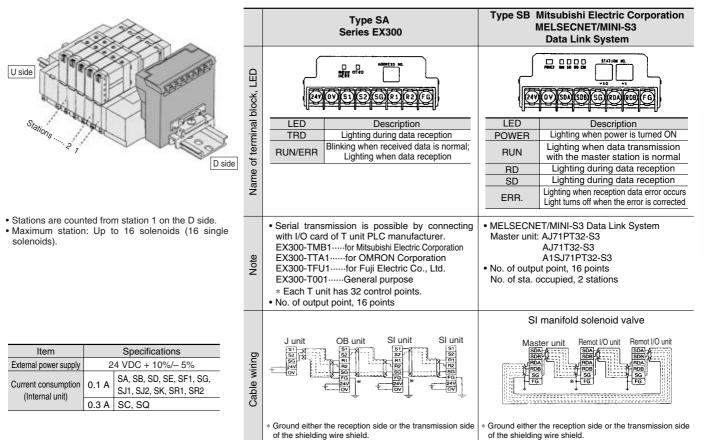
SZ

SY

SYJ

SX

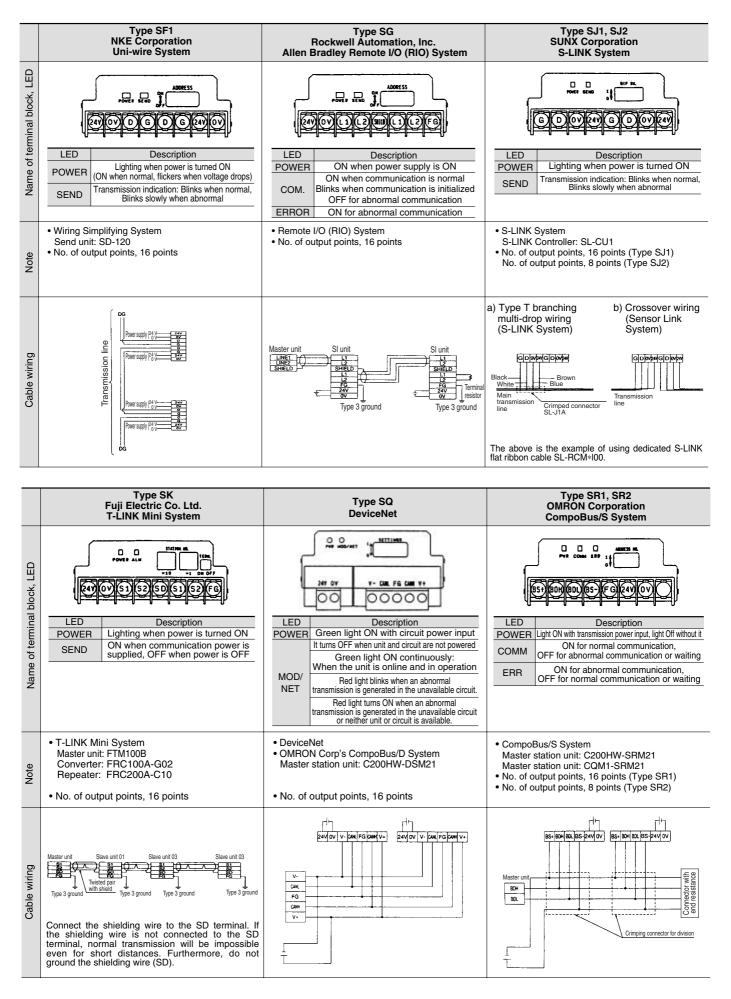
The serial transmission system reduces wiring work, while minimizing wiring and saving space.
 Maximum 16 stations (Specify a model with more than 9 stations by means of the manifold specification sheet.)



	Type SC OMRON Corporation SYSBUS Wire System	Type SD SHARP Corporation Satellite I/O Link System	Type SE Matsushita Electric Works, Ltd. MEWNET-F System
Name of terminal block, LED	LED       Description         RUN       ON when transmission is normal and PLC is in operation mode.         T/R       Blinks during data transmission/reception         ERR       ON when transmission is abnormal	LED         Description           POWER         ON when power supply is ON           RUN         Slave unit operates normally           ON for abnormal slave unit switch setting, abnormal communication, master unit           PLC stopped and defective slave unit           R.SET         ON for master unit control input	LED       Description         POWER       ON when power supply is ON         COMM       Blinks when transmission is normal         ALARM       ON for unit abnormality, blinks for station no. setting error
Note	<ul> <li>SYSBUS Wire System Master unit: Type C500-RM201 C200H-RH201</li> <li>No. of output points, 16 points</li> </ul>	<ul> <li>Satellite I/O Link System Master unit: ZW-31LM JW-31LM JW-23LM</li> <li>No. of output points, 16 points</li> </ul>	<ul> <li>MEWNET-F System Master unit: AFP3740 AFP5740</li> <li>No. of output points, 16 points</li> </ul>
Cable wiring	Master unit SI unit SI unit SI unit FG ZW Type 3 ground Type 3 ground	a) 2-wire type Wiring without signal ground line (SG) wow Master unit Slave unit 01 Type 3 ground Type 3 ground Type 3 ground Type 3 ground Wiring with signal ground line (SG) waser unit Slave unit 01 Slave unit 03 Slave unit 75 Wiring with signal ground line (SG) waser unit slave unit 01 Type 3 ground Type 3 ground Type 3 ground Type 3 ground	Master unit SI unit FG FG FG FC FC FC FC FC FC FC FC FC FC

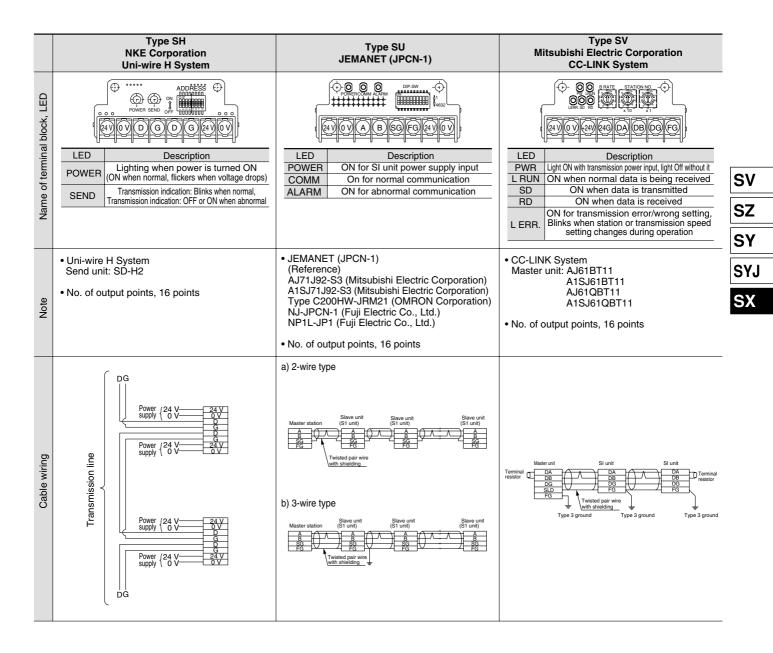






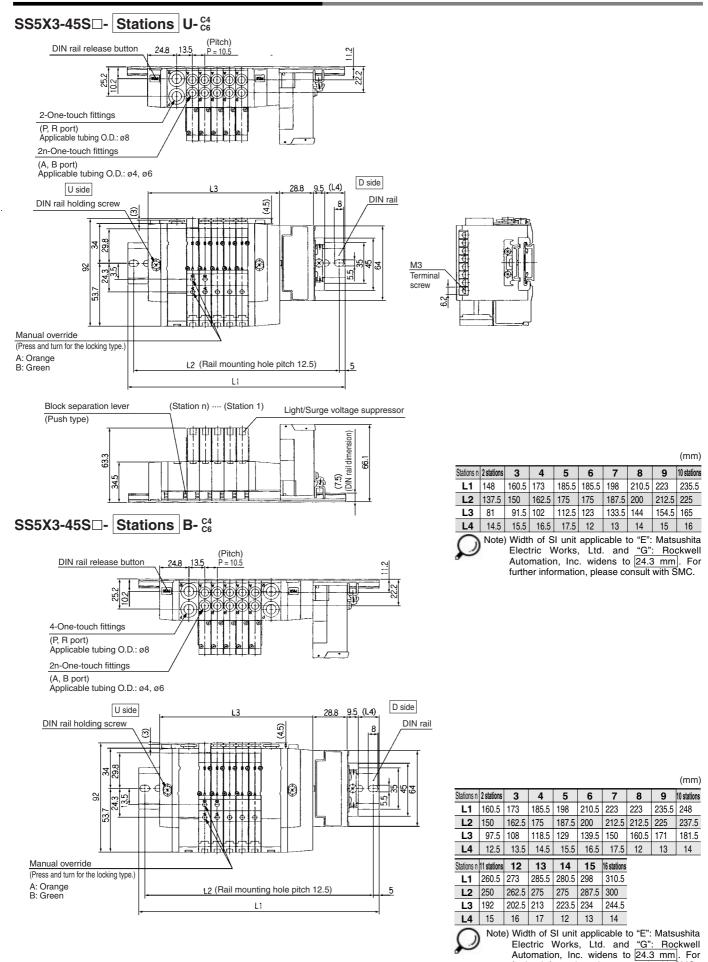


Base Mounted Series SX3000/5000



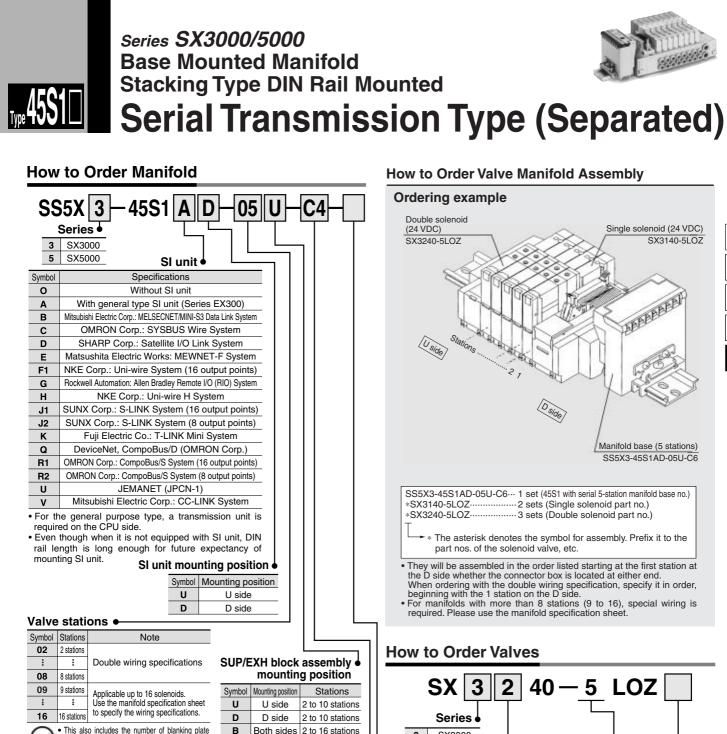


#### SX3000: Serial Transmission Unit/Plug-in





further information, please consult with SMC.



. This also includes the number of blanking plate assemblies · When special wiring is required on manifold with 2 to 8 stations, please use the manifold

#### specification sheet.

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

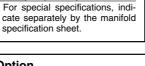
(				
Symbol	Port size	Applicable series		
C4	One-touch fitting for ø4			
C6	One-touch fitting for ø6	e-touch fitting for ø6 SX3000		
М	Mixed			
C4	One-touch fitting for ø4			
C6	One-touch fitting for ø6	SX5000		
C8	One-touch fitting for ø8			
М	Mixed			
(Inc	h size)			
Symbol	Port size	Applicable series		

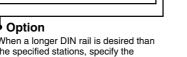
	Symbol	Port size	Applicable series				
	N3	One-touch fitting for ø5/32"	SX3000				
	N7	One-touch fitting for ø1/4"					
	М	Mixed					
	N3	One-touch fitting for ø5/32"					
		One-touch fitting for ø1/4"	SX5000				
		One-touch fitting for ø5/16"					
		Mixed					
· In the second of university of the stimula (NA)							

In the case of mixed specifications (M) indicate separately on the manifold specification sheet.

#### Option

М





station number to be required. 20 stations maximum)

#### SI Unit Part No.

Symbol	Specifications	For SS5XD-45S	Symbol	Specifications	For SS5XD-45S			
Α	With general type SI unit (Series EX300)	EX321-S001	J1	SUNX Corp.: S-LINK System (16 output points)	EX121-SSL1			
в	Mitsubishi Electric Corp.: MELSECNET/MINI-S3 Data Link System	EX321-S001	J2	SUNX Corp.: S-LINK System (8 output points)	EX121-SSL2			
С	OMRON Corp.: SYSBUS Wire System	EX121-STA1	к	Fuji Electric Co.: T-LINK Mini System	EX121-SFU1			
D	SHARP Corp.: Satellite I/O Link System	EX121-SSH1	Q	DeviceNet, CompoBus/D (OMRON Corp.)	EX121-SDN1			
Е	Matsushita Electric Works: MEWNET-F System	EX121-SPA1	R1	OMRON Corp.: CompoBus/S System (16 output points)	EX121-SCS1			
F1	NKE Corp.: Uni-wire System (16 output points)	EX121-SUW1	DO	OMRON Corp.:	EX121-SCS2			
G	Rockwell Automation:		R2	CompoBus/S System (8 output points)	EX121-3032			
G	Allen Bradley Remote I/O (RIO) System	U		JEMANET (JPCN-1)	EX121-SJN1			
н	NKE Corp.: Uni-wire H System	EX121-SUH1	v	Mitsubishi Electric Corp.: CC-LINK System	EX121-SMJ1			

2 position double

3 position closed center

3 position exhaust center

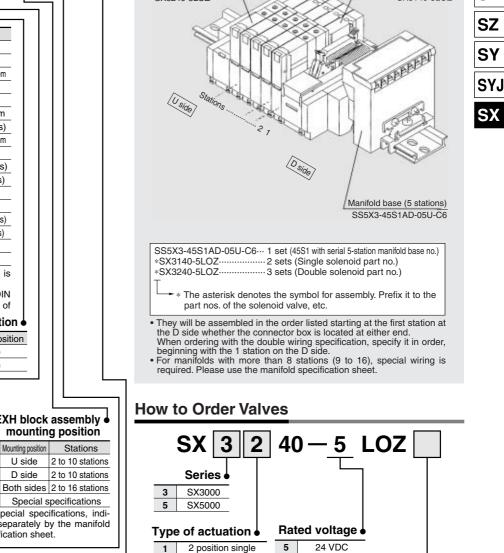
3 position pressure center

2

3

4

5



Nil

D

**SMC** 

Manual override

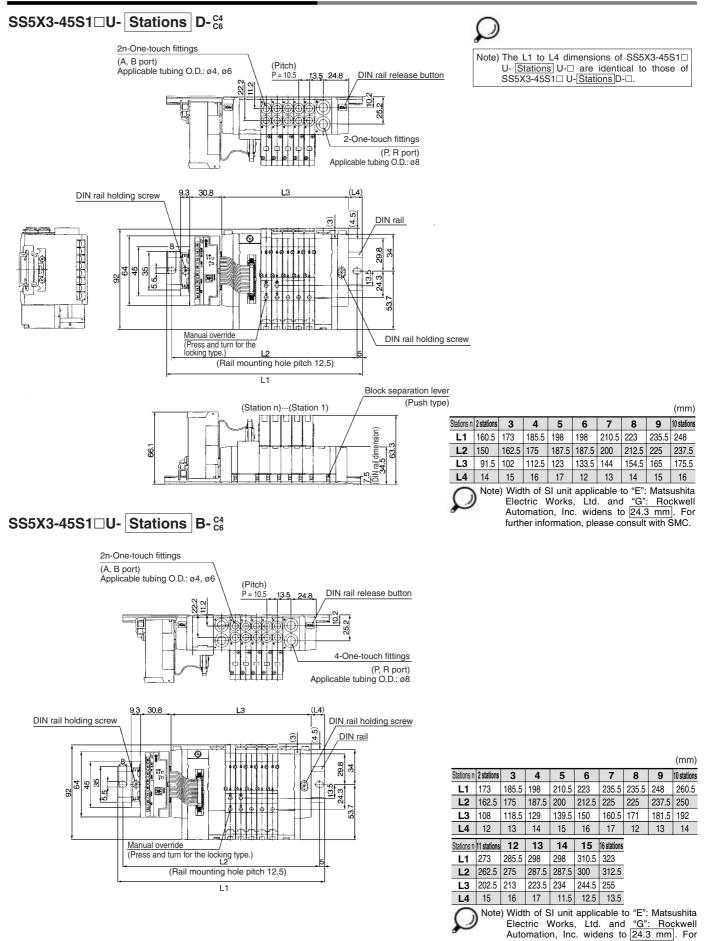
Non-locking push type

Push-turn locking slotted type

SV



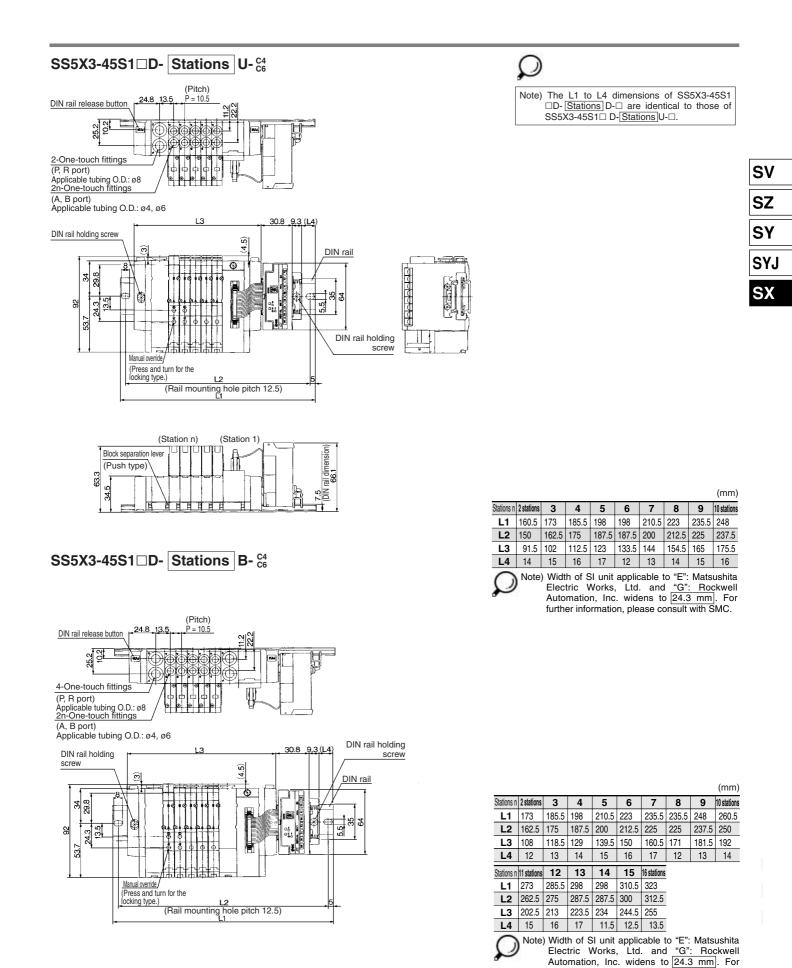
### SX3000: Serial Transmission Unit/Plug-in





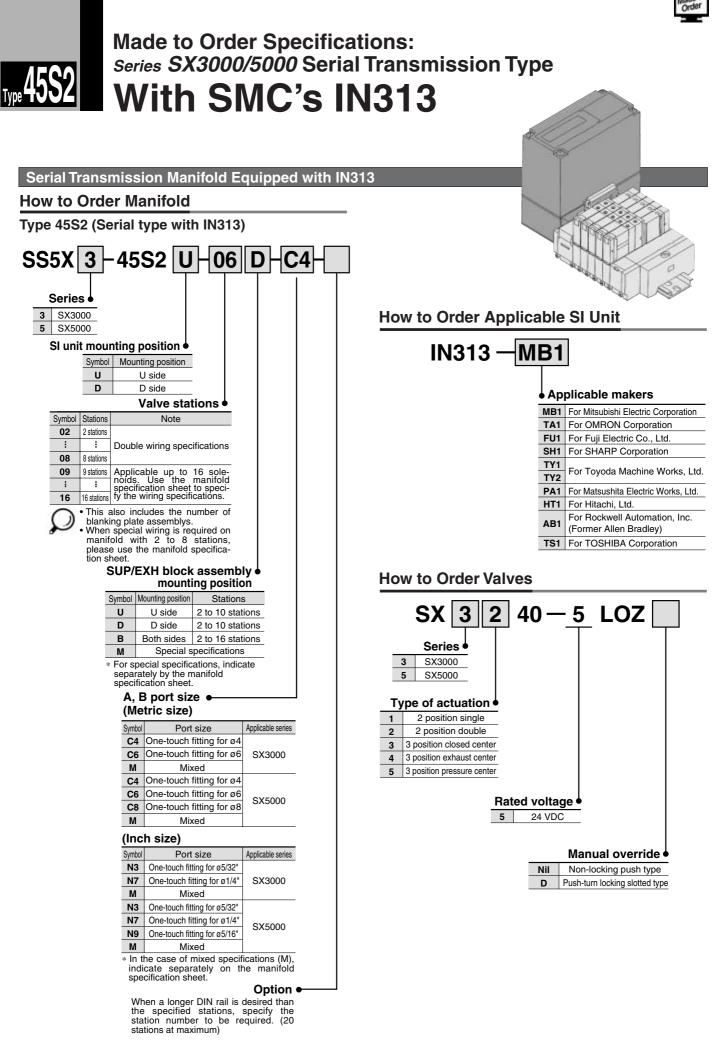
further information, please consult with SMC.

Base Mounted Series SX3000/5000



**SMC** 

further information, please consult with SMC.



**SMC** 



SV

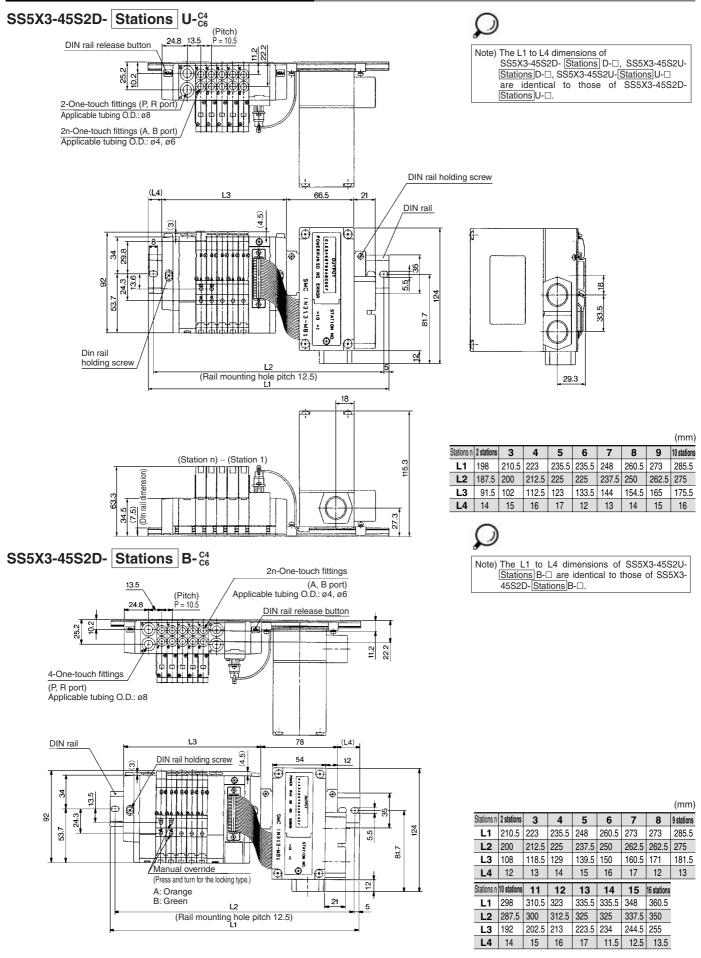
SZ

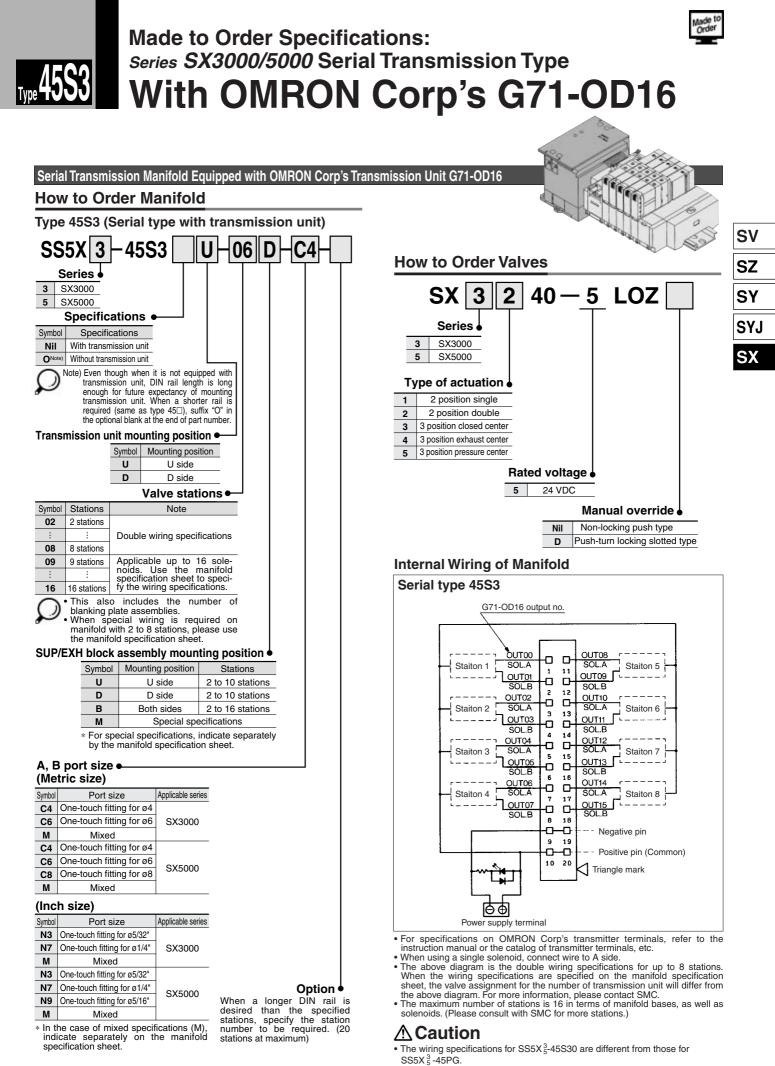
SY

SYJ

SX

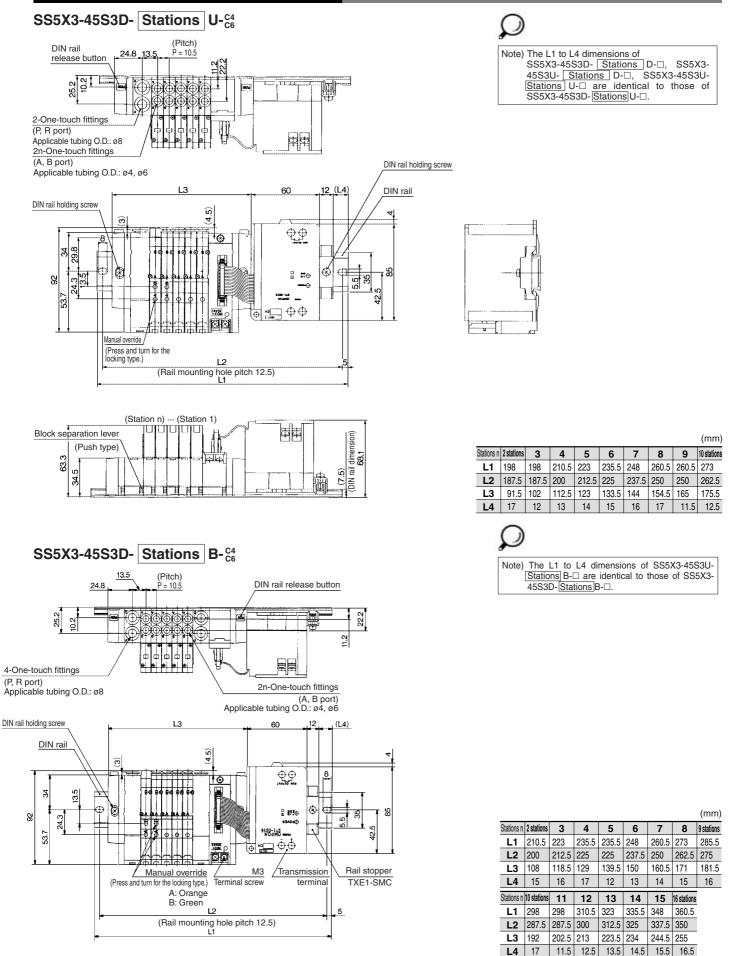
#### SX3000: Serial Transmission Unit/Plug-in







### SX3000: Serial Transmission Unit/Plug-in



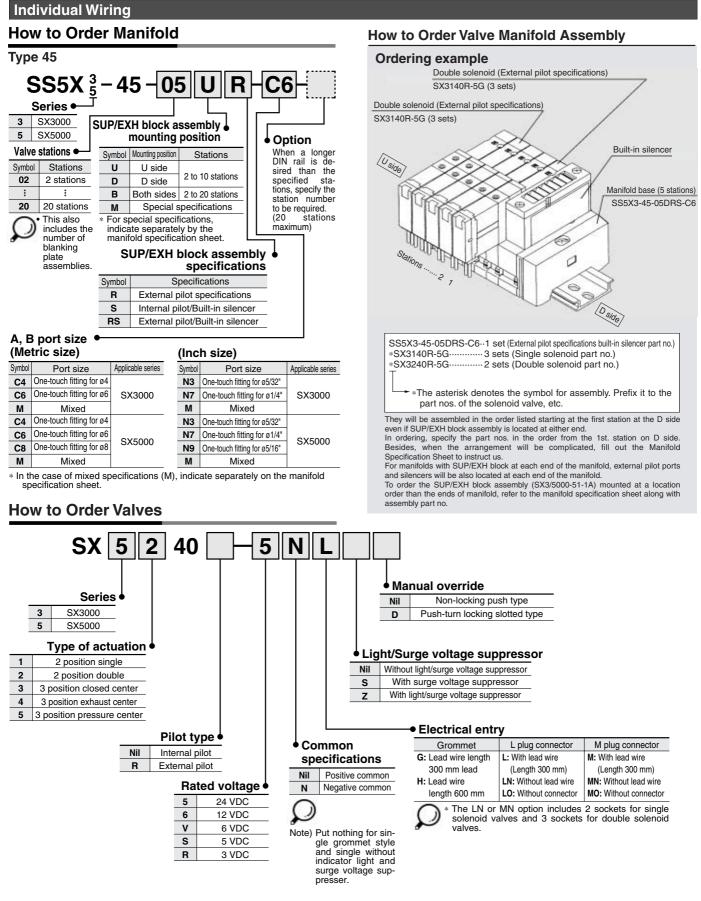




## Made to Order Specifications: Series SX3000/5000

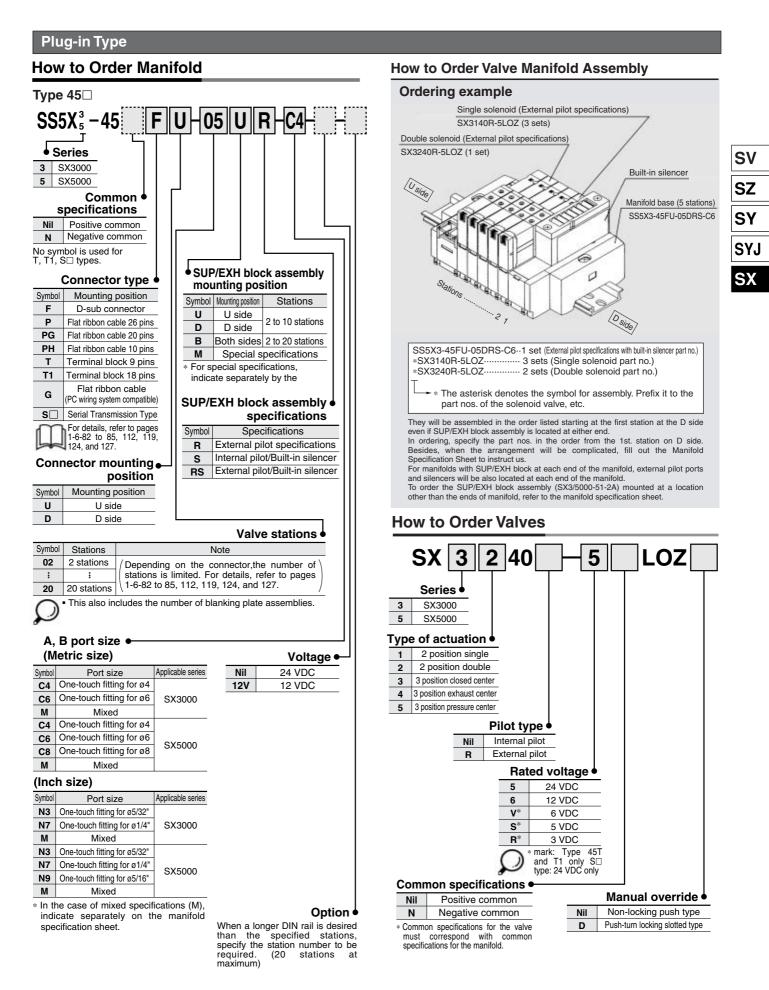


External pilot manifold bases for low-pressure/vacuum use are added to split style/DIN rail manifolds. The built-in silencer has produced a clear-cut appearance.



∕∂ SMC

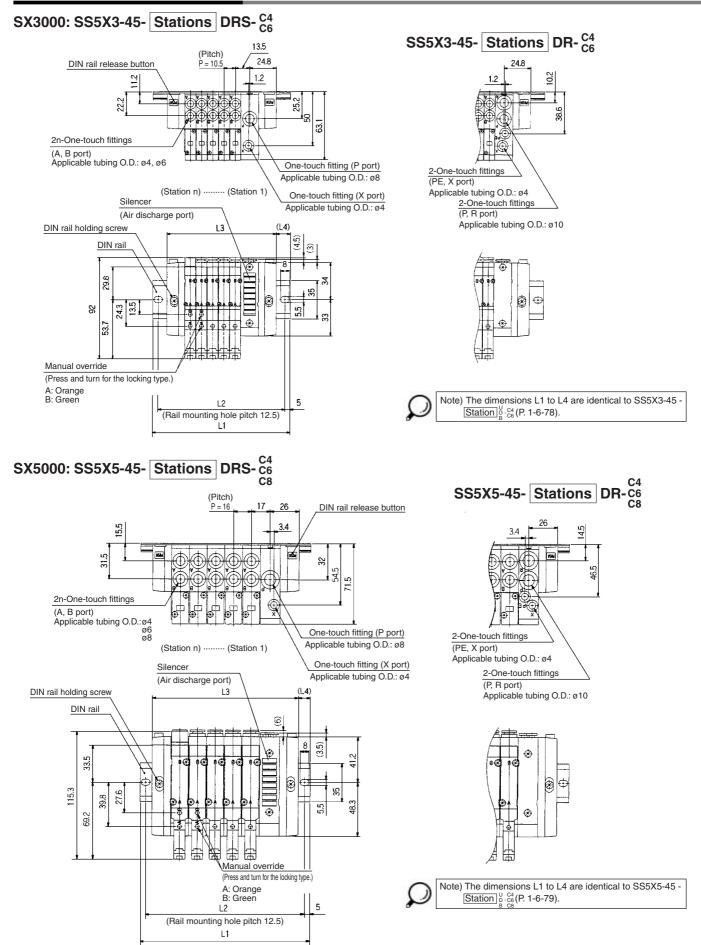
Made to Order Specifications Series SX3000/5000 Type 49 Type 4





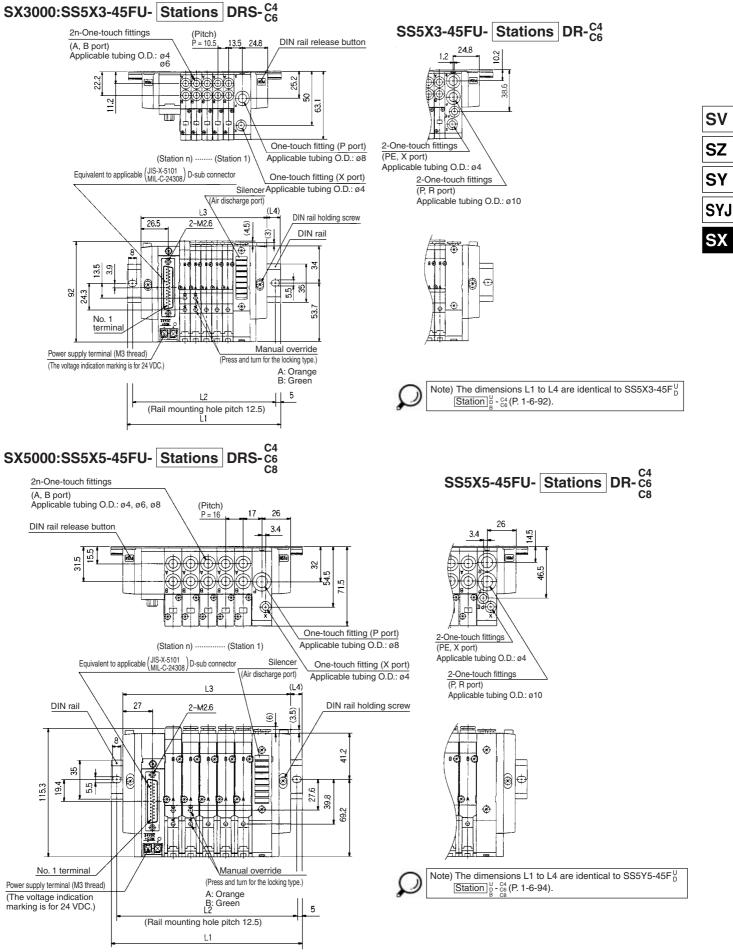


#### **External Pilot/Built-in Silencer**





#### External Pilot/Built-in Silencer



**SMC**