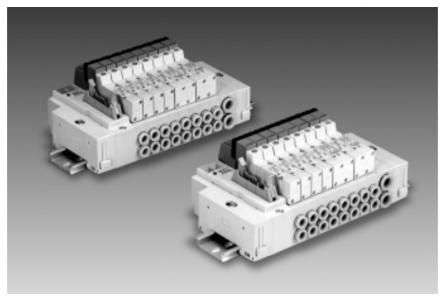
Rubber Seal 5 Port Solenoid Valve

Series SY3000/5000



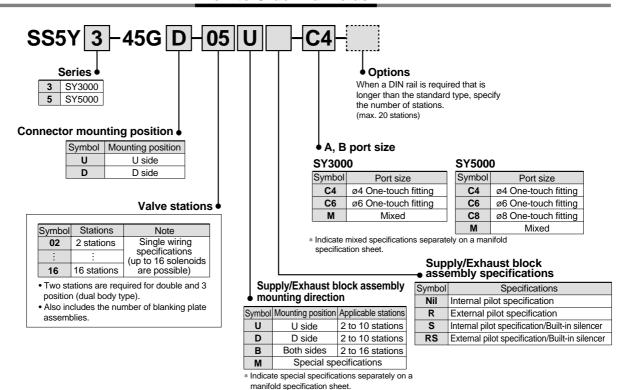
- Low power consumption: 0.55W (with light) (Current value: 23mA, 24VDC)
- Compact with high flow rate
 Cv factor 1.7 to 3 times greater with same body width as previous series
- High reliability
 Long life exceeding 50 million cycles
- Main valve and pilot valve common exhaust construction eliminates pilot valve exhaust mist and noise

Series			Тур	e of actua	A, B port size				
		2 position		3 position			One-touch fitting		
	Effective area mm² (Cv factor)	Single	Double	Closed center	Exhaust center	Pressure center	C4 (ø4)	C6 (ø6)	C8 (ø8)
SY3□40	4.68 (0.26)	•	•	•	•	•	•	•	
SY5□40	12.6 (0.7)	•	•	•	•	•	•	•	•

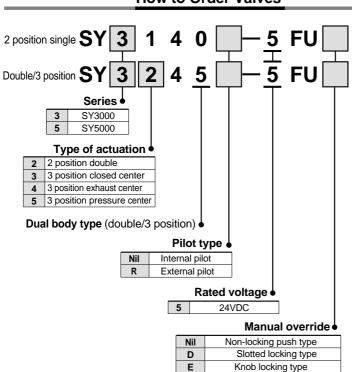


Series SY3000/5000

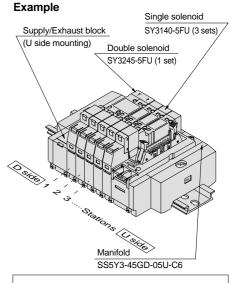
How to Order Manifolds



How to Order Valves



How to Order Manifold Assemblies



SS5Y3-45GD-05U-C6 1 set (manifold part number)

* SY3140-5FU 3 sets (single solenoid part number)

* SY3245-5FU 1 set (double solenoid part number)

The "*" symbol indicates mounting. Put the "*" symbol at the beginning of the part numbers for solenoid valves, etc., which are to be mounted.

- Valve stations are numbered from station 1 on the D side
- Indicate the valves to be mounted below the manifold part number, in order starting from station 1 as shown in the drawing. When a layout becomes complicated, please indicate it on a manifold specification sheet.
- Since double and 3 position (dual body type) valves use two stations on a manifold base, be careful of the number of stations in manifold base part numbers.



5 Port Solenoid Valve Series SY3000/5000

Manifold Specifications

	4 - 1 - 1		Flat and In 6 450				
N	lodel		Flat cable type 45G				
Manifold ty	/pe		Plug-in type				
P (SUP), R	(EXH)	system	Common SUP/EXH				
Valve static	ons ^{Note}	e1)	2 to 16 stations				
A, B port p	iping	Location	Base				
specification	ons	Direction	Side				
	P/R	SY3000	C8 (ø8 One-touch fitting)				
	ports	SY5000	C10 (ø10 One-touch fitting)				
Port size		SY3000	C4 (ø4 One-touch fitting)/C6 (ø6 One-touch fitting)				
	A/B	0)/5000	C4 (ø4 One-touch fitting)				
	ports	SY5000	C6 (ø6 One-touch fitting)/C8 (ø8 One-touch fitting)				
Valve effect area mm ²	tive	SY3000	C6: P→A/B 4.68 (0.26) A/B→R 4.68 (0.26)				
(Cv factor)	Note 2)	SY5000	C8: P→A/B 12.6 (0.7) A/B→R 12.6 (0.7)				
	Note 3	CV2000	2 to 10 stations: W = 26n + 172				
Weight W	(g)	SY3000	11 to 16 stations: W = 26n + 199				
n: Stations (D-sub con		CVEOO	2 to 10 stations: W = 54n + 227				
(D-Sub COII	mector) SY5000	11 to 16 stations: W = 54n + 264				

- Note 1) Available with up to 16 solenoids. When a large number of valves will be operated simultaneously, use type B (supply/exhaust on both sides), applying pressure to the P ports on both sides and releasing exhaust from the R ports on both sides
- Note 2) The value is for manifold base mounting (5 stations). 2 position type with single
- Note 3) The weight W is the value for the manifold only. To obtain the weight with solenoid valves, add the solenoid valve weights for the required number of stations. Furthermore, when mounting supply/exhaust block assemblies on both sides of type B with a 2 to 10 station manifold, calculate the weight W using the formula for 11 to 16 stations.

Solenoid Valve Specifications

Series			SY3000	SY5000			
Fluid			Air				
Internal pilot	2 position	on single	0.15	to 0.7			
operating pressure range	2 position	on double	0.1 to	o 0.7			
MPa	3 position	on	0.2 to	o 0.7			
External pilot	Operating	pressure range	-100kP	a to 0.7			
operating	Pilot	2 position single					
pressure range		2 position double	0.25	to 0.7			
MPa	range	3 position					
Ambient and flu	id tempe	rature °C	Maximum 50				
Max. operating	•	single, double	10	5			
frequency Hz	3 positio	n	3	3			
Manual override			Non-locking push type				
Marida Override			Slotted locking type, Knob locking type				
Pilot	Internal	pilot	Main valve/pilot valve	common exhaust type			
exhaust type	Externa	l pilot	Pilot valve individual exhaust type				
Lubrication			Not re	quired			
Mounting orientation			Unrestricted				
Impact/Vibration resistance m/s ^{2 Note)}			150/30				
Enclosure			Dust proof				

Note) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (Initial value)

Vibration resistance: No malfunction when tested with one sweep of 8.3 to 2000Hz in the axial direction and at a right angle to the main valve and armature, in both energized and deenergized states. (Initial value)

Solenoid Specifications

Rated coil voltage	24VDC
Allowable voltage fluctuation	±10% of rated voltage
Power consumption	0.55W
Surge voltage suppressor	Diode
Indicator light	LED

Response Time

Note) Based on JISB8375-1981 dynamic performance test (with coil temperature of 20°C and at rated voltage).

SY3000

	Response time ms					
Type of actuation	With light/surge voltage suppressor					
2 position single	12 or less					
2 position double	10 or less					
3 position	16 or less					

SY5000

	Response time ms
Type of actuation	With light/surge voltage suppressor
2 position single	19 or less
2 position double	18 or less
3 position	32 or less

Weights

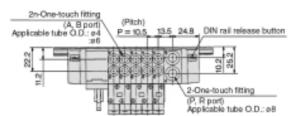
Valve model	Тур	Type of actuation			
SY3140	2 position	Single	51		
SY3□45	2 position	Double	77		
		Closed center			
	3 position	Exhaust center	82		
		Pressure center			
SY5140	2 position	Single	59		
	2 position	Double	102		
SY5□45		Closed center			
513 <u>□</u> 45	3 position	3 position Exhaust center			
		Pressure center			



Series SY3000/5000

SY3000: Flat Cable Type/Plug-in

SS5Y3-45GU- Stations D- C4 C6

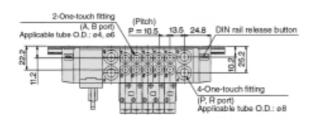


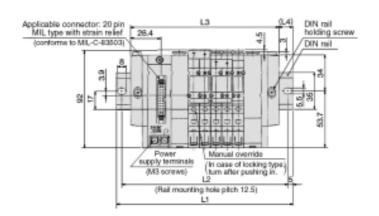
Note) L1 to L4 dimensions of **SS5Y3-45GU-**Stations U-C₆ are the same as SS5Y3
45GU-Stations D-C₆.

Applicable connector: 20 Mil. type with strain in (conforms to MIL-C-835	itief 28.4 Triangle up holding screw
603 305	7 (Station s) — (Station 1) Block separation button (push type)

Stations	2	3	4	5	6	7	8	9	10
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

SS5Y3-45GU- Stations B-C4

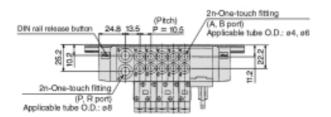




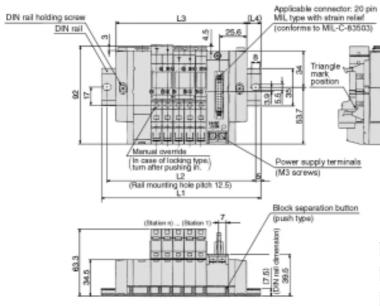
Stations	2	3	4	5	6	7	8	9	10
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5
Stations	11	12	13	14	15	16			
L1	235.5	248	248	260.5	273	285.5			
L2	225	237.5	237.5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

5 Port Solenoid Valve Series SY3000/5000

SS5Y3-45GD-Stations U-C4C6

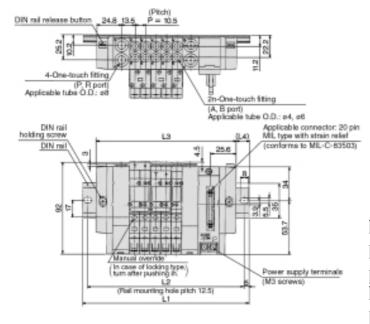


Note) L1 to L4 dimensions of \$S5Y3-45GD- $\overline{\text{Stations}}$ D- $^{\text{C4}}_{\text{C6}}$ are the same as \$S5Y3-45GD- $\overline{\text{Stations}}$ U- $^{\text{C4}}_{\text{C6}}$.



Stations	2	3	4	5	6	7	8	9	10
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

SS5Y3-45GD-Stations B-C4

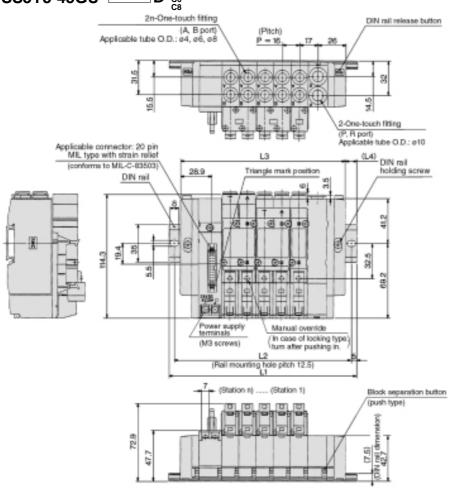


Stations	2	3	4	5	6	7	8	9	10
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5
Stations	11	12	13	14	15	16			
			_		-	-			
L1	235.5	248	248	260.5	273	285.5			
L2	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			

Series SY3000/5000

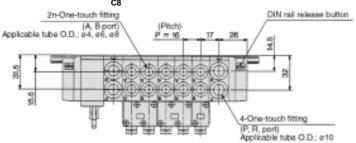
SY5000: Flat Cable Type/Plug-in

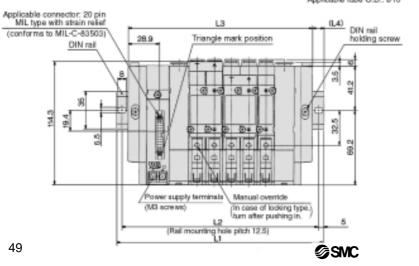
SS5Y5-45GU- Stations D-C6 C8



Stations									
L1	135.5	148	160.5	185.5	198	210.5	235.5	248	260.5
L2	125	137.5	150	175	187.5	200	225	237.5	250
L3	105	121	137	153	169	185	201	217	233
L4	15	13.5	11.5	16	14.5	12.5	17	15.5	13.5

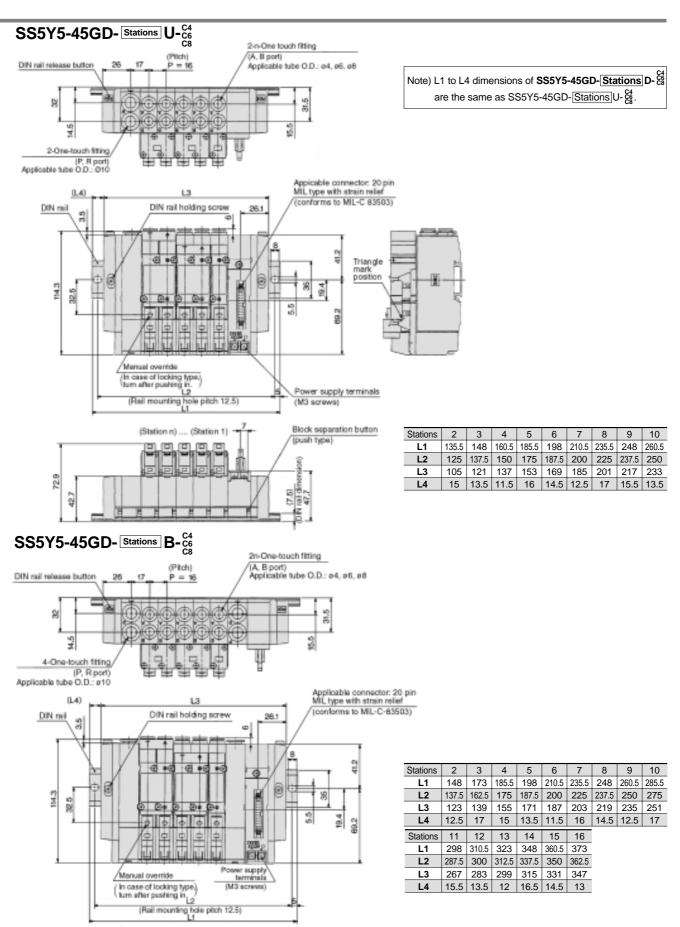
SS5Y5-45GU- Stations B- $^{\text{C4}}_{\text{C8}}$



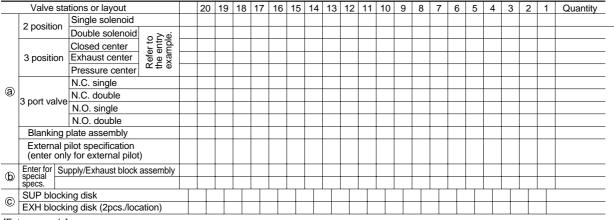


Stations	2	3	4	5	6	7	8	9	10
L1	148	173	185.5	198	210.5	235.5	248	260.5	285.5
L2	137.5	162.5	175	187.5	200	225	237.5	250	275
L3	123	139	155	171	187	203	219	235	251
L4	12.5	17	15	13.5	11.5	16	14.5	12.5	17
Stations	11	12	13	14	15	16			
L1	298	310.5	323	348	360.5	373			
L2	287.5	300	312.5	337.5	350	362.5			
L3	267	283	299	315	331	347			
L4	15.5	13.5	12	16.5	14.5	13			

5 Port Solenoid Valve Series SY3000/5000



SMC



[Entry example] 5 4 3 2 • Blanking plate assembly: SX3000-75-2A • Supply/Exhaust block assembly (standard): SX3000-51-2A Valve stations or layout • SUP blocking disk: SX3000-77-1A • Supply/Exhaust block assembly (R): SX3000-51-6A C4 Single solenoid • EXH blocking disk: SX3000-77-1A • Supply/Exhaust block assembly (S): SX3000-51-7A C 6 Double solenoid (2pcs./location) • Supply/Exhaust block assembly (RS): SX3000-51-8A

When the port sizes are mixed For SMC use only

Ente	r the ordered part numbers.		
	Part no.	Quantity	

Part no.	Quantity

Order no.	
Clerk (code no.)	
Dept. code	

Note) When there are special specifications for the mounting position of supply/exhaust block assemblies, enter the part numbers and quantities for the supply/exhaust block assemblies together with the manifold model.

Enter the ordered part numbers.

i the ordered part numbers.		
Part no.	Quantity	

Part no.	Quantity

Order no.	
Clerk (code no.)	
Dept. code	

Note) When there are special specifications for the mounting position of supply/exhaust block assemblies, enter the part numbers and quantities for supply/exhaust block assemblies together with the manifold model.

