

# 5 Port Solenoid Valve Body Ported Manifold Stacking Type/Individual Wiring



Type **23**

## Series **SY9000**

### How to Order Manifold

**SS5Y 9-23-05** - [ ] - [ ] - [ ]

**Manifold series**

9	SY9000
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**Valve stations**

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

\* This also includes the number of blanking plate assemblies.

**Thread type**

Nil	Rc
00F	G
00N	NPT
00T	NPTF

**Option**

Symbol	Mounting
Nil	Direct mounting
D	DIN rail mounting (with DIN rail)
D0	DIN rail mounting (without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

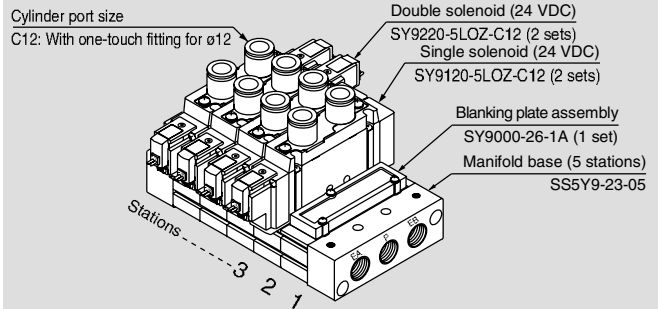
**CE-compliant**

Nil	—
Q	CE-compliant

\* Type 23 manifold of Series SY9000 is concurrently used for the internal and external pilot.

### How to Order Manifold Assembly (Example)

#### Example



**SS5Y9-23-05** ..... 1 set (Type 23, 5-station manifold base part no.)  
 \* **SY9000-26-1A** ..... 1 set (Blanking plate assembly part no.)  
 \* **SY9120-5LOZ-C12** ... 2 sets (Single solenoid part no.)  
 \* **SY9220-5LOZ-C12** ... 2 sets (Double solenoid part no.)

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

Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

## How to Order Valve

**SY 9 1 20**   - **5 L**   - **02**   -  -

**Series**

9	SY9000
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**Type of actuation**

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

**Pilot specifications**

Nil	Internal pilot
R	External pilot

\* In the case of external pilot specifications, it cannot be used as a single unit.

**Coil specifications**

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

\* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

**Rated voltage**

For DC		For AC (50/60 Hz)	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
V	6 VDC	3	110 VAC [115 VAC]
S	5 VDC	4	220 VAC [230 VAC]
R	3 VDC		

\* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.  
\* For type W□, DC voltage is only available.

**Made to Order**

Nil	—
X90	Main valve fluoro rubber (Refer to page 332.)

**Thread type**

Nil	Rc
F	G
N	NPT
T	NPTF

**CE-compliant**

Nil	—
Q	CE-compliant

\* For DC only except DIN terminal.

**Manual override**

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

**A, B port size Thread piping**

Symbol	Port size
02	1/4
03	3/8

**One-touch fitting (Metric size)**

Symbol	Port size
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12

**One-touch fitting (Inch size)**

Symbol	Port size
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

**Light/surge voltage suppressor Electrical entry for G, H, L, M, W**

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

\* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.  
\* For "R" and "U", DC voltage is only available.  
\* Power saving circuit is only available in the "Z" type.

**Electrical entry for D, Y**

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

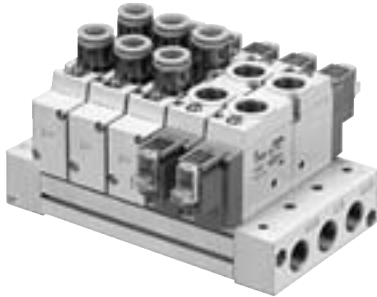
\* DOZ and YOZ are not available.  
\* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

**Electrical entry**

24, 12, 6, 5, 3 VDC/ 100, 110, 200, 220 VAC			24, 12 VDC/ 100, 110, 200, 220 VAC	24, 12, 6, 5, 3 VDC
Grommet	L plug connector	M plug connector	DIN terminal	M8 connector
<b>G:</b> Lead wire length 300 mm	<b>L:</b> With lead wire (Length 300 mm)	<b>M:</b> With lead wire (Length 300 mm)	<b>D:</b> With connector	<b>WO:</b> Without connector cable
<b>H:</b> Lead wire length 600 mm	<b>LN:</b> Without lead wire	<b>MN:</b> Without lead wire	<b>DO:</b> Without connector	<b>W□:</b> With connector cable <sup>Note)</sup>
	<b>LO:</b> Without connector	<b>MO:</b> Without connector	<b>Y:</b> With connector	
			<b>YO:</b> Without connector	

\* LN, MN type: with 2 sockets.  
\* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 336.  
\* For connector cable of M8 connector, refer to page 339.  
\* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 331 for details.  
\* Refer to page 336 for the lead wire length of L and M plug connectors.  
\* Refer to page 337 for the connector assembly with cover for L and M plug connectors.  
Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 340.

Note) When placing an order for body ported solenoid valve as a single unit, mounting screw for manifold and gasket are not attached. Order them separately, if necessary.  
For details, refer to page 173.



## Manifold Specifications

Model	<b>SS5Y9-23(-Q)</b>	
Applicable valve	<b>SY9□20</b>	
Manifold type	Stacking type	
P (SUP)/R (EXH)	Common SUP, Common EXH	
Valve stations	2 to 20 stations <sup>Note1)</sup>	
A, B port location	Valve	
Port size	P, EA, EB port	3/8
	A, B port	1/4 3/8 C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10) C12 (One-touch fitting for ø12)
Manifold base mass W (g) n: Stations	W = 66n + 246	



Note 1) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA/EB port on both sides.

Note 2) Refer to "Manifold Option" on page 173.

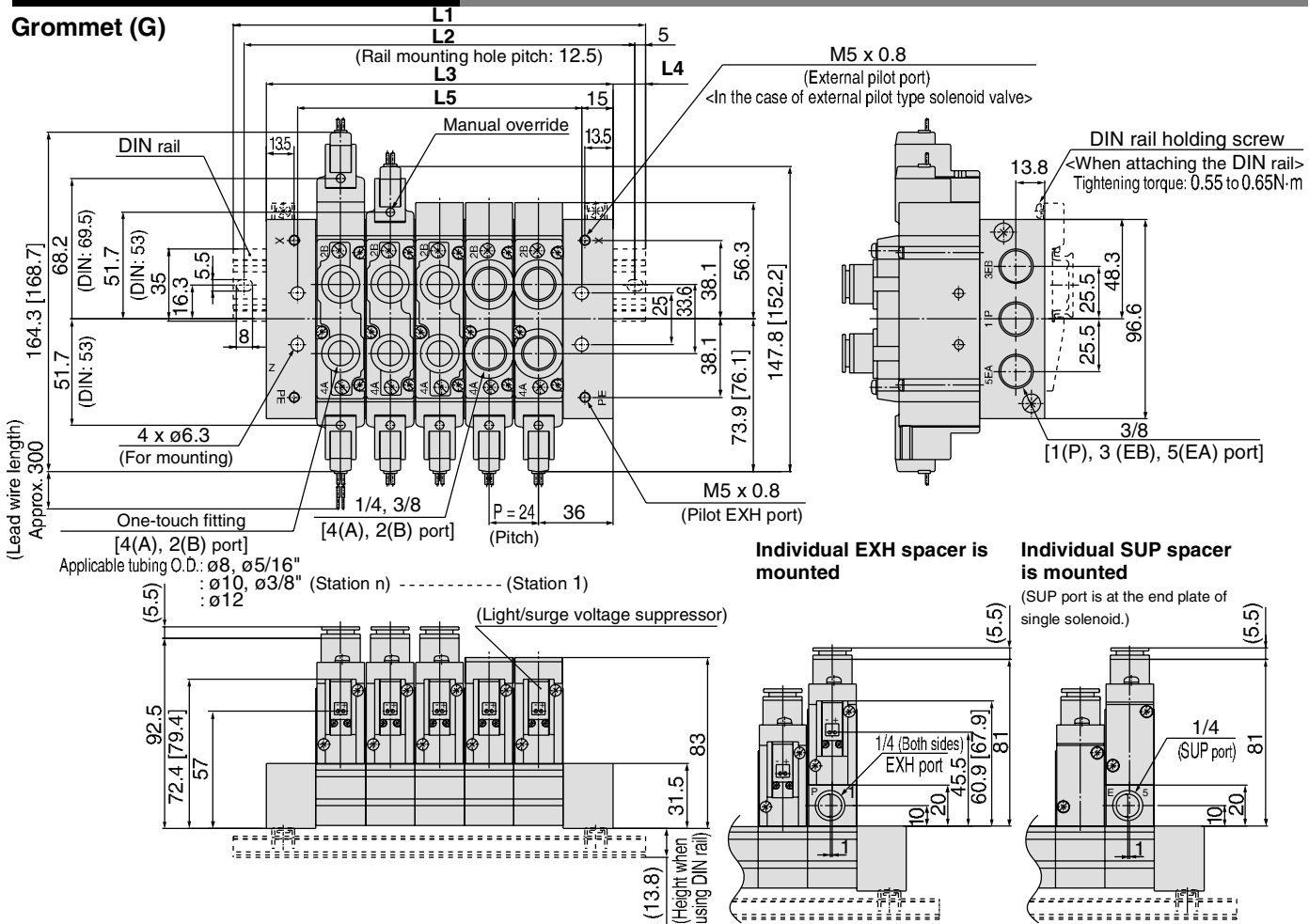
## Flow Characteristics

Model	Port size		Flow characteristics					
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)		
			C (dm <sup>3</sup> /(s·bar))	b	Cv	C (dm <sup>3</sup> /(s·bar))	b	Cv
<b>SS5Y9-23(-Q)</b>	3/8	C12	6.3	0.20	1.5	8.2	0.28	1.9



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

**SY9000: SS5Y9-23-Stations-(D)**

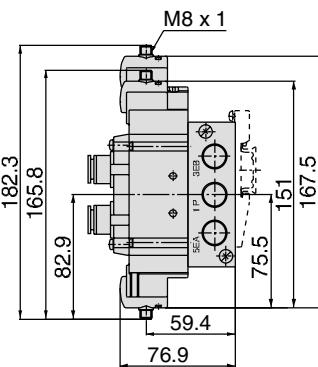
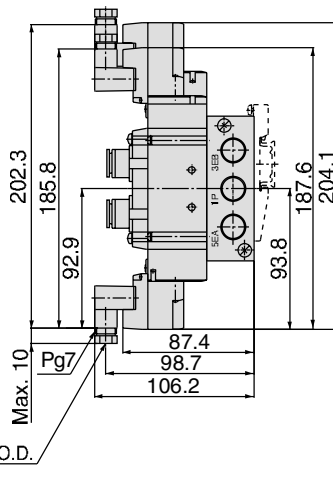
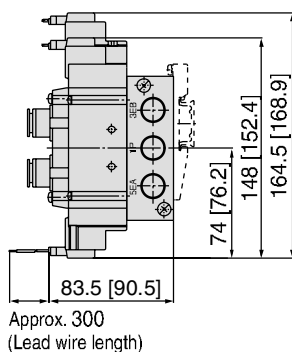
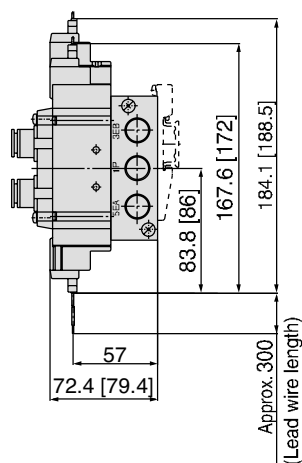


**L plug connector (L)**

**M plug connector (M)**

**DIN terminal (D, Y)**

**M8 connector (WO)**



Note) Refer to page 340 for dimensions of connector types.

Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
<b>L1</b>	123	148	173	198	223	248	273	298	323	335.5	360.5	385.5	410.5	435.5	460.5	485.5	510.5	535.5	560.5
<b>L2</b>	112.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	325	350	375	400	425	450	475	500	525	550
<b>L3</b>	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528
<b>L4</b>	13.5	14	14.5	15	15.5	16	16.5	17	17.5	12	12.5	13	13.5	14	14.5	15	15.5	16	16.5
<b>L5</b>	66	90	114	138	162	186	210	234	258	282	306	330	354	378	402	426	450	474	498

Note) In the case of direct mounting without DIN rail, total width of manifold is L3.