

Type **20**

5 Port Solenoid Valve Body Ported Manifold Bar Stock Type/Individual Wiring



Series SY3000/5000/7000

How to Order Manifold

SS5Y **5** - **20** - **05** - **□** - **□**

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

02	2 stations
:	:
20	20 stations

* This also includes the number of blanking plate assemblies.

Thread type

Nll	Rc
00F	G
00N	NPT
00T	NPTF

CE-compliant

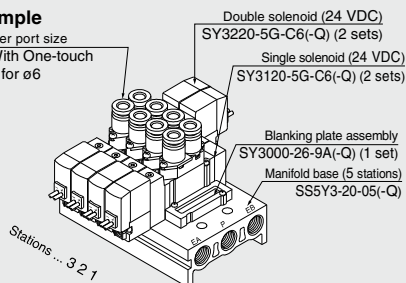
Nll	—
Q	CE-compliant

Note) AC-type models that are CE-compliant have DIN terminals only.

How to Order Manifold Assembly (Example)

Example

Cylinder port size
C6: With One-touch
fitting for ø6



SS5Y3-20-05 (-Q) 1 set (Type 20, 5-station manifold base part no.)
 * SY3000-26-9A (-Q) 1 set (Blanking plate assembly part no.)
 * SY3120-5G-C6 (-Q) ... 2 sets (Single solenoid part no.)
 * SY3220-5G-C6 (-Q) ... 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

Note) AC-type models that are CE-compliant have DIN terminals only.

SY 5 1 20 **- 5 L** **- 01**

Series

3	SY3000
5	SY5000
7	SY7000

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

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.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Manual override

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

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

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

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.
Note) AC-type models that are CE-compliant have DIN terminals only.

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 L: With lead wire (Length 300 mm) LN: Without lead wire LO: Without connector	M plug connector M: With lead wire (Length 300 mm) MN: Without lead wire MO: Without connector	DIN terminal (SY5000/7000 only) D: With connector DO: Without connector Y: With connector YO: Without connector
M8 connector			W□: Without connector cable W□: With connector cable (Note)

CE compliant DC AC

Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 510.)

CE-compliant

Nil	—
Q	CE-compliant

Note) AC-type models that are CE-compliant have DIN terminals only.

A, B port size
Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	

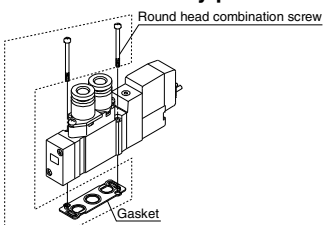
One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø3/32	SY3000
N7	One-touch fitting for ø1/4	
N3	One-touch fitting for ø3/32	SY5000
N7	One-touch fitting for ø1/4	
N9	One-touch fitting for ø5/16	SY7000
N9	One-touch fitting for ø5/16	
N11	One-touch fitting for ø3/8	

- SJ
- SY
- SY
- SV
- SYJ
- SZ
- VF
- VP4
- S0700
- VQ
- VQ4
- VQ5
- VQC
- VQC4
- VQZ
- SQ
- VFS
- VFR
- VQ7

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.

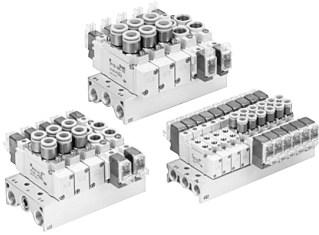
Gasket assembly part no.



Series	Gasket assembly part no.
SY3000	SY3000-GS-1
SY5000	SY5000-GS-1
SY7000	SY7000-GS-1

Note) The gasket assembly includes 10 sets of mounting screws and a gasket.

- * LN, MN type: with 2 sockets.
- * "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 519.
- * For connector cable of M8 connector, refer to page 522.
- * M8 thread conforming to IEC60947-5-2 standard is also available. Refer to page 509 for details.
- * Refer to page 519 for the lead wire length of L and M plug connectors.
- * Refer to page 520 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 523.



Manifold Specifications

Model	SS5Y3-20(-Q)	SS5Y5-20(-Q)	SS5Y7-20(-Q)
Applicable valve	SY3□20	SY5□20	SY7□20
Manifold type	Single base/B mount		
P (SUP)/R (EXH)	Common SUP, Common EXH		
Valve stations	2 to 20 stations ^{Note1)}		
A, B port location	Valve		
Port size	P, EA, EB port	1/8	1/4
	A, B port	1/8	1/4
	M5 x 0.8	C4 (One-touch fitting for ø4)	C8 (One-touch fitting for ø8)
	C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)	C10 (One-touch fitting for ø10)
Manifold base weight W (g) n: Stations	W = 13n + 24	W = 36n + 64	W = 43n + 35

Note 1) For more than 10 stations (more than 5 stations in case of SS5Y7), 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 353.

Flow Characteristics

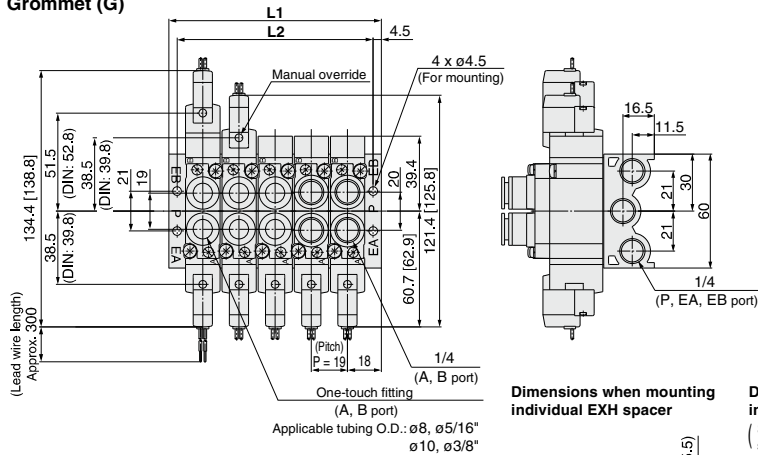
Model	Port size		Flow characteristics					
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)		
			C (dm ³ /s(bar))	b	Cv	C (dm ³ /s(bar))	b	Cv
SS5Y3-20(-Q)	1/8	C6	0.72	0.29	0.18	0.80	0.36	0.21
SS5Y5-20(-Q)	1/4	C8	1.9	0.28	0.48	2.2	0.20	0.53
SS5Y7-20(-Q)	1/4	C10	3.6	0.31	0.93	3.6	0.27	0.88

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

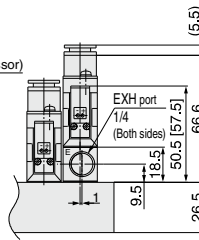
SY7000: SS5Y7-20-Stations - ☐

[]: AC

Grommet (G)

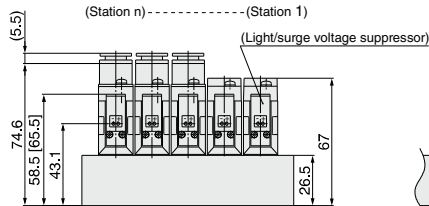
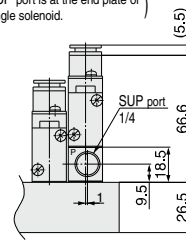


Dimensions when mounting individual EXH spacer

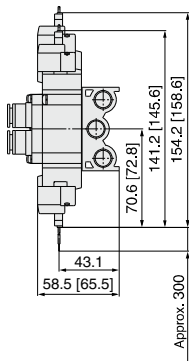


Dimensions when mounting individual SUP spacer

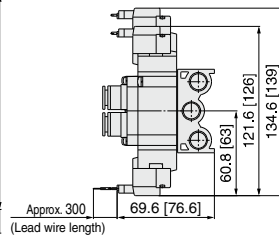
(SUP port is at the end plate of single solenoid.)



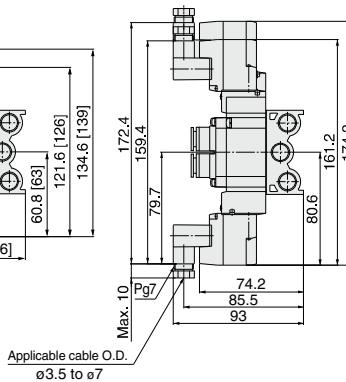
L plug connector (L)



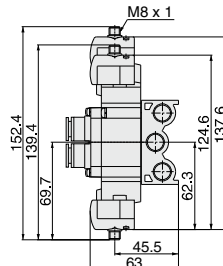
M plug connector (M)



DIN terminal (D, Y)



M8 connector (WO)



Note) Refer to page 523 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
L1	55	74	93	112	131	150	169	188	207	226	245	264	283	302	321	340	359	378	397
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

SJ

SY

SY

SV

SYJ

SZ

VF

VP4

S0700

VQ

VQ4

VQ5

VQC

VQC4

VQZ

SQ

VFS

VFR

VQ7