

Series SY9000 Base Mounted Manifold Stacking Type Individual Wiring

Type **43**

How to Order Manifold

SS5Y9-43-05U **C8**

Manifold series
9 SY9000

Valve stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

* This also includes the number of blanking plate assemblies.

P, R port outlets

Symbol	Port outlet	Applicable stations
U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 20 stations

SUP/EXH block assembly specifications

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

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Option

Symbol	Mounting
Nil	Direct mounting
D	DIN rail mounting (with DIN rail)
DO	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.

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 $\phi 8$
C10	One-touch fitting for $\phi 10$
C12	One-touch fitting for $\phi 12$
M	Mixed

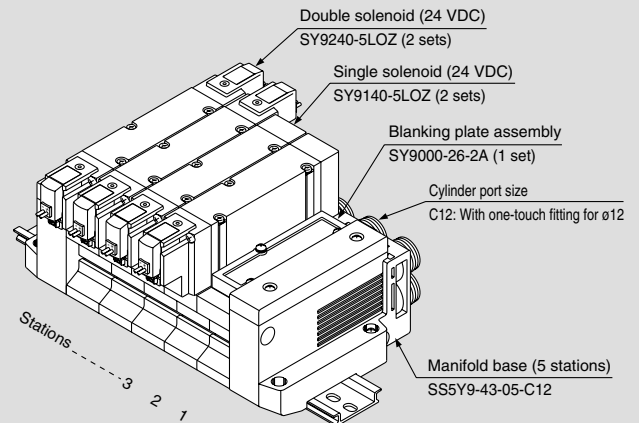
One-touch fitting (Inch size)

Symbol	Port size
N9	One-touch fitting for $\phi 5/16$ "
N11	One-touch fitting for $\phi 3/8$ "
M	Mixed

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

How to Order Valve Manifold Assembly

Ordering example



SS5Y9-43-05B-C12 1 set (Type 43, 5 stations manifold base part no.)
 * **SY9000-26-2A** 1 set (Blanking plate assembly part no.)
 * **SY9140-5LOZ** 2 sets (Single solenoid part no.)
 * **SY9220-5LOZ** 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 Valves

SY 9 **2** **40** **5** **L**

• **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 type**

Nil	Internal pilot
R	External pilot

• **Coil specifications**

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

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


• **Rated voltage**

For DC

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

For AC (50/60 Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

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


• **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

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

 * "DOZ" is 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
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	D: With connector	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	DO: Without connector	
	LO: Without connector	MO: Without connector		

 * "LN", "MN" type: with 2 sockets.
 * DIN terminal type "Y" conforming to DIN43650C standard is also available. For details, refer to page 1-4-201.
 * For connector cable of M8 connector, refer to page 1-4-210.

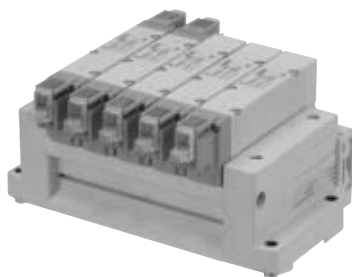
SV

SZ

SY

SYJ

SX



Manifold Specifications

Model		SS5Y9-43
Applicable valve		SY9□40
Manifold type		Stacking type
P(SUP)/R(EXH)		Common SUP, Common EXH
Valve stations		2 to 20 stations ⁽¹⁾
A, B port	Location	Base
Porting specifications		Side
Port size	P, EA, EB port	C12 (One-touch fitting for ø12)
	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 weight W (g), n: Stations		W = 107n + 330



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 1-4-114.

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 /(sbar))	b	Cv	C (dm ³ /(sbar))	b	Cv
SS5Y9-43	C12	C12	6.4	0.29	1.6	7.3	0.29	1.8

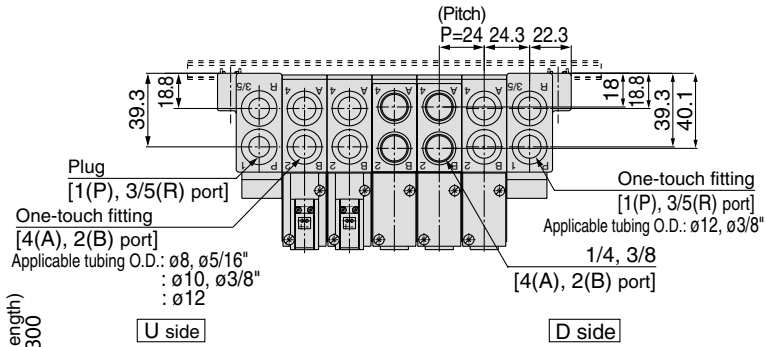


Note) The value is for manifold base with 5 stations and individually operated 2 position type.

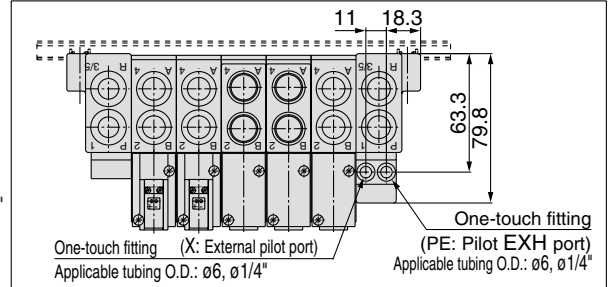
SY9000: SS5Y9-43- Stations 02, C8, N9 03, C10, N11 (-D)



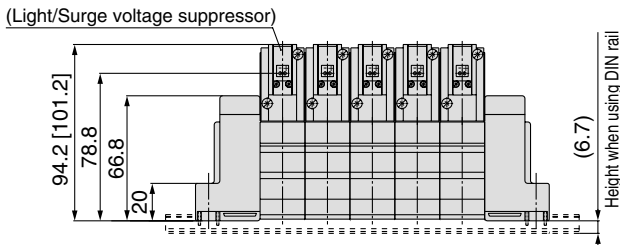
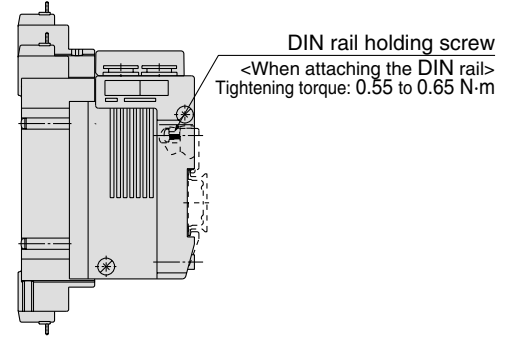
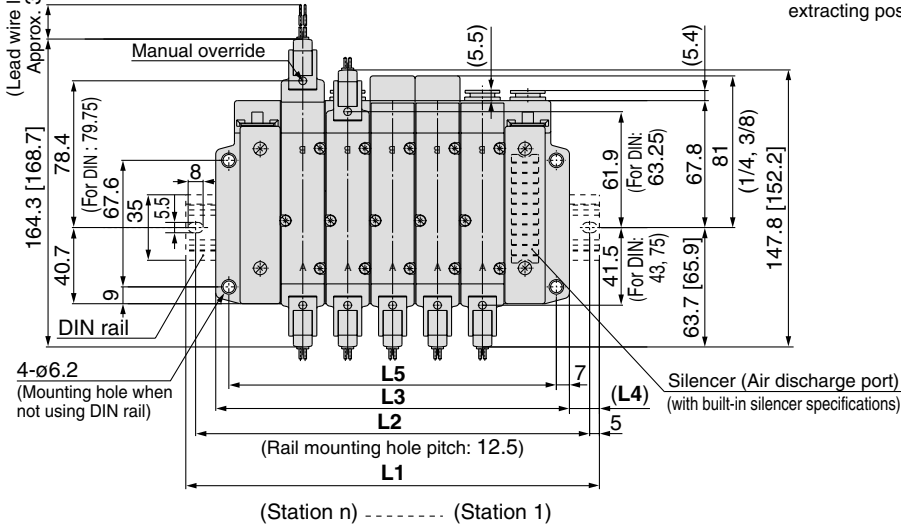
Grommet (G)



With External Pilot Specifications



* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the D side.



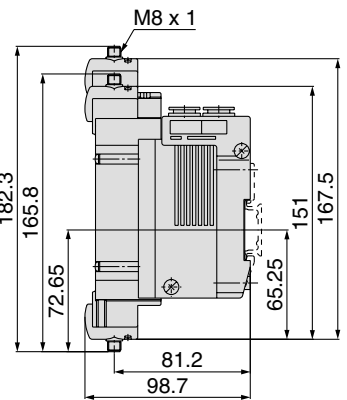
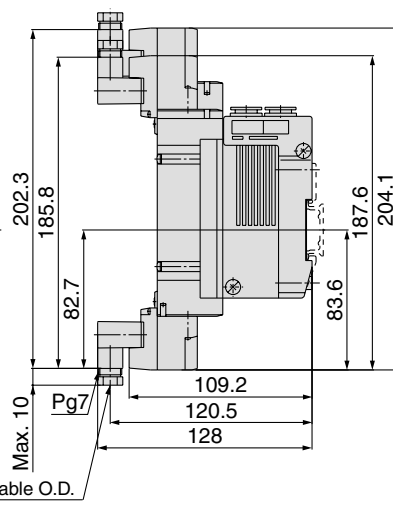
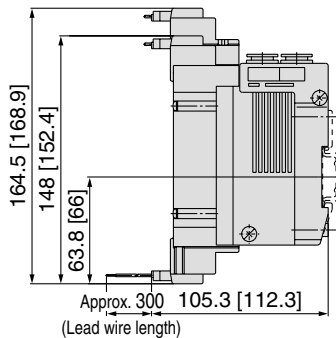
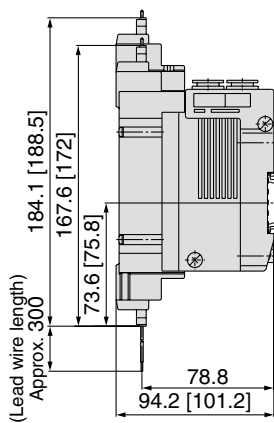
Stations n	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	198	223	248	260.5	285.5	310.5	335.5
L2	137.5	162.5	187.5	212.5	237.5	250	275	300	325
L3	117	141	165	189	213	237	261	285	309
L4	15.5	16	16.5	17	17.5	12	12.5	13	13.5
L5	103	127	151	175	199	223	247	271	295

L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (WO)



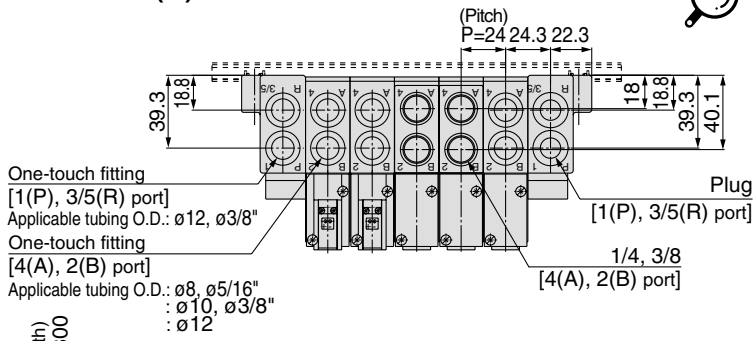
Note) Refer to page 1-4-210 for dimensions of connector types.

- SV
- SZ
- SY
- SYJ
- SX

SY9000: SS5Y9-43- Stations U 02 C9, N9 -03 C10, N11 (-D)

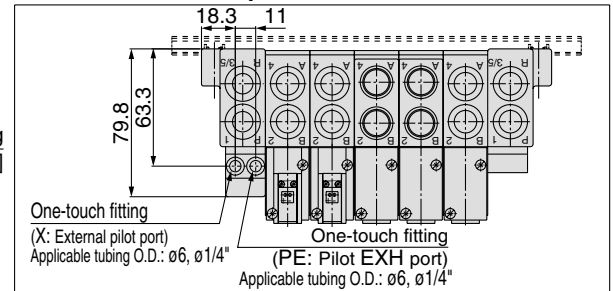


Grommet (G)

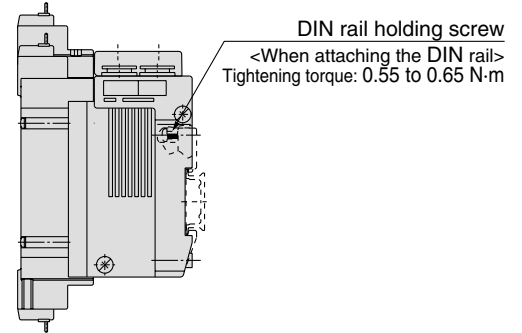
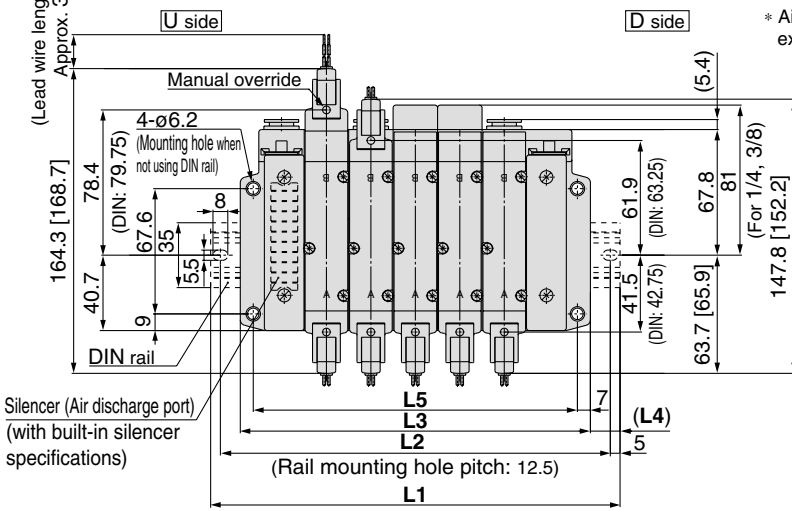


* When P, R port outlets are indicated on the U side, the P, R ports on the opposite side are plugged.

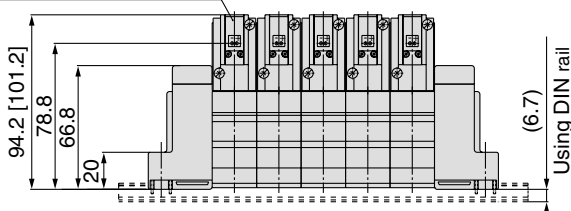
With External Pilot Specifications



* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the D side.



(Station n) ----- (Station 1)
(Light/Surge voltage suppressor)



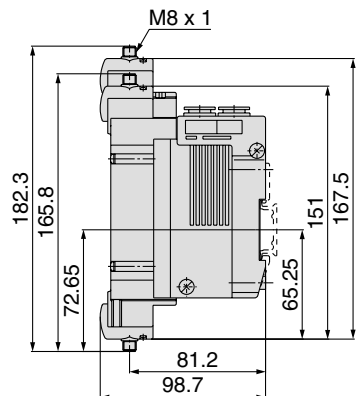
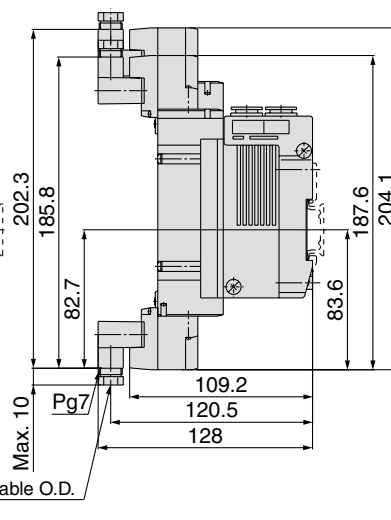
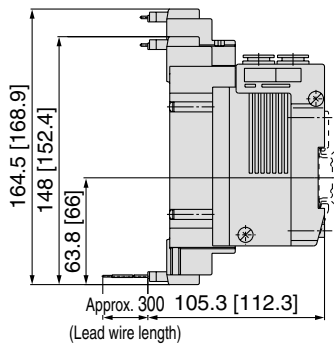
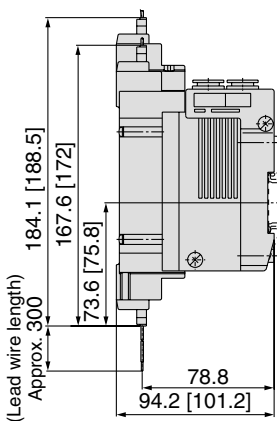
Stations n	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	198	223	248	260.5	285.5	310.5	335.5
L2	137.5	162.5	187.5	212.5	237.5	250	275	300	325
L3	117	141	165	189	213	237	261	285	309
L4	15.5	16	16.5	17	17.5	12	12.5	13	13.5
L5	103	127	151	175	199	223	247	271	295

L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (WO)

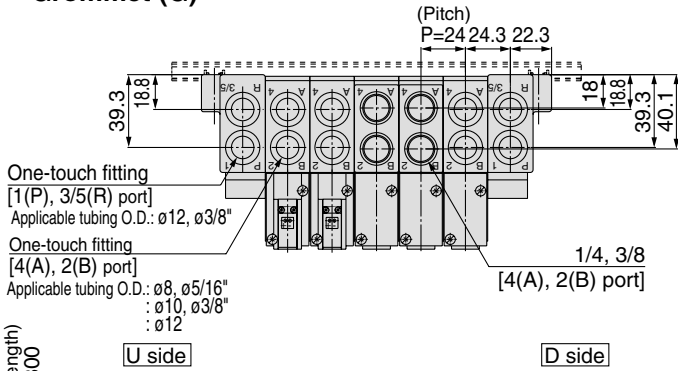


Note) Refer to page 1-4-210 for dimensions of connector types.

SY9000: SS5Y9-43- Stations B - ^{02, C8, N9} _{03, C10, N11} (-D)

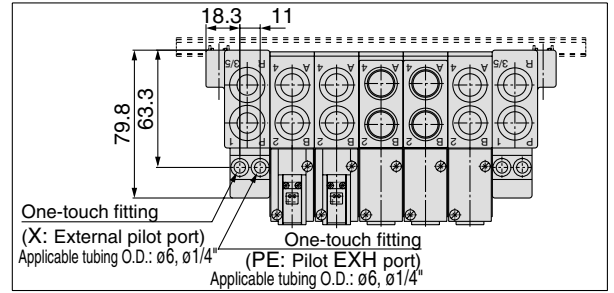


Grommet (G)

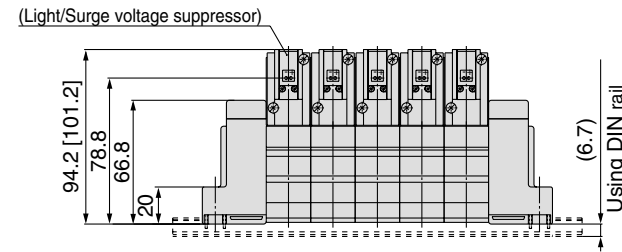
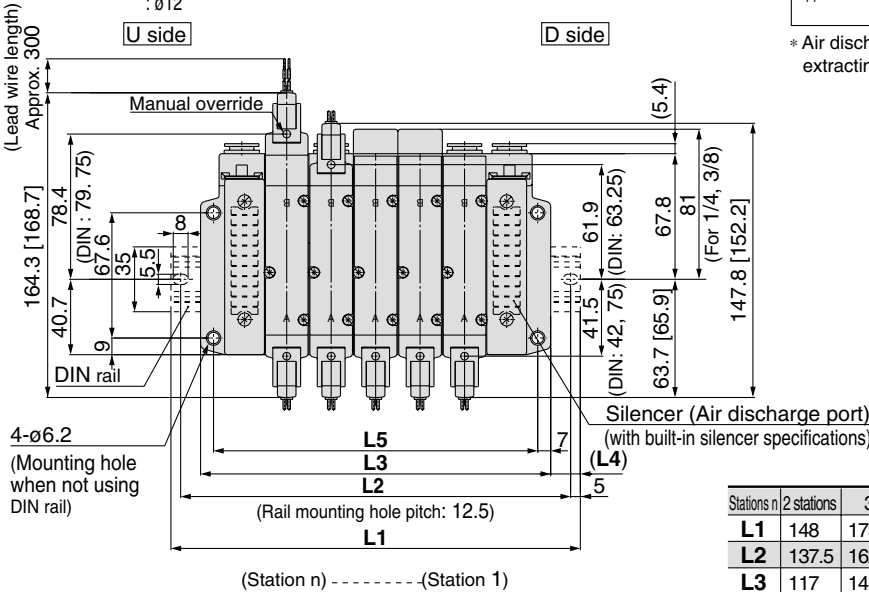


* When P, R port outlets are indicated on the B side, the P, R ports on the both sides are in the open state.

With External Pilot Specifications



* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the B side (both sides).



- SV
- SZ
- SY
- SYJ
- SX

Stations n	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	198	223	248	260.5	285.5	310.5	335.5
L2	137.5	162.5	187.5	212.5	237.5	250	275	300	325
L3	117	141	165	189	213	237	261	285	309
L4	15.5	16	16.5	17	17.5	12	12.5	13	13.5
L5	103	127	151	175	199	223	247	271	295

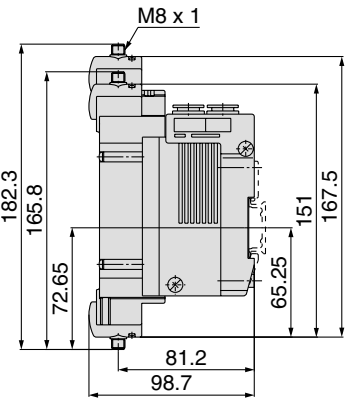
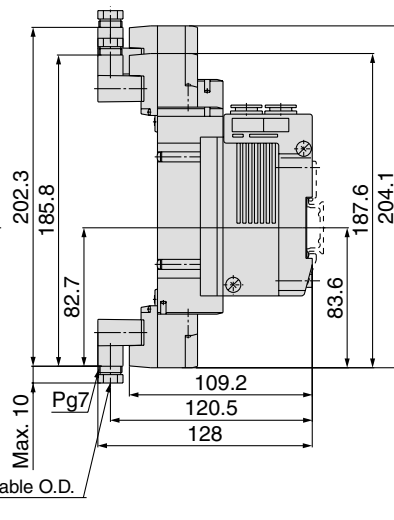
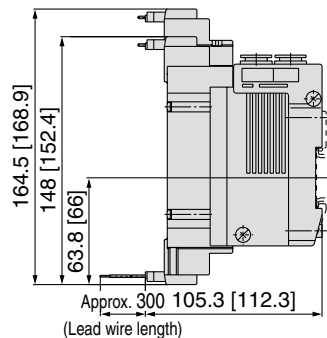
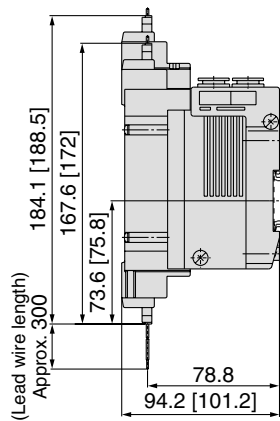
Stations n	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	360.5	385.5	410.5	435.5	460.5	485.5	510.5	535.5	560.5	573
L2	350	375	400	425	450	475	500	525	550	562.5
L3	333	357	381	405	429	453	477	501	525	549
L4	14	14.5	15	15.5	16	16.5	17	17.5	18	12
L5	319	343	367	391	415	439	463	487	511	535

L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (WO)



Note) Refer to page 1-4-210 for dimensions of connector types.

Series SY9000 Base Mounted Manifold Stacking Type Flat Ribbon Cable

Type **43P**

How to Order Manifold

SS5Y9 - 43P - 05 U [] C8 [] []

Manifold series

9	SY9000
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Valve stations

Symbol	Stations
04	4 stations
:	:
12	12 stations

* This also includes the number of blanking plate assemblies.

P, R port outlets

Symbol	Port outlet	Applicable stations
U	U side	4 to 10 stations
D	D side	
B	Both sides	4 to 12 stations

SUP/EXH block assembly specifications

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

Thread type

Nil	Rc
F	G
N	NPT
T	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.

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
M	Mixed

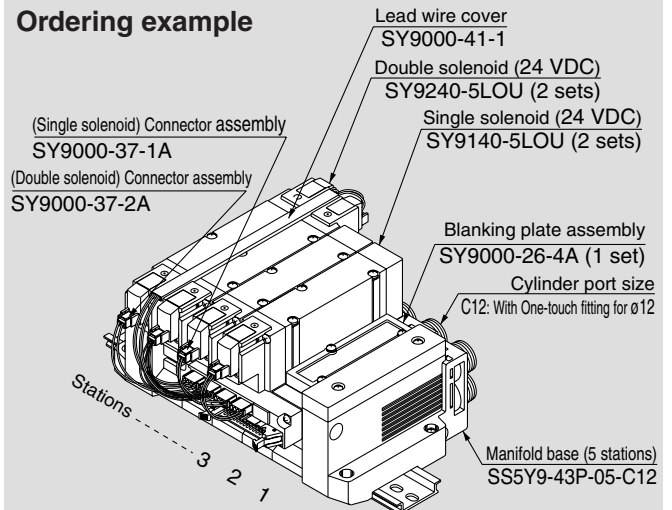
One-touch fitting (Inch size)

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

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

How to Order Valve Manifold Assembly

Ordering example

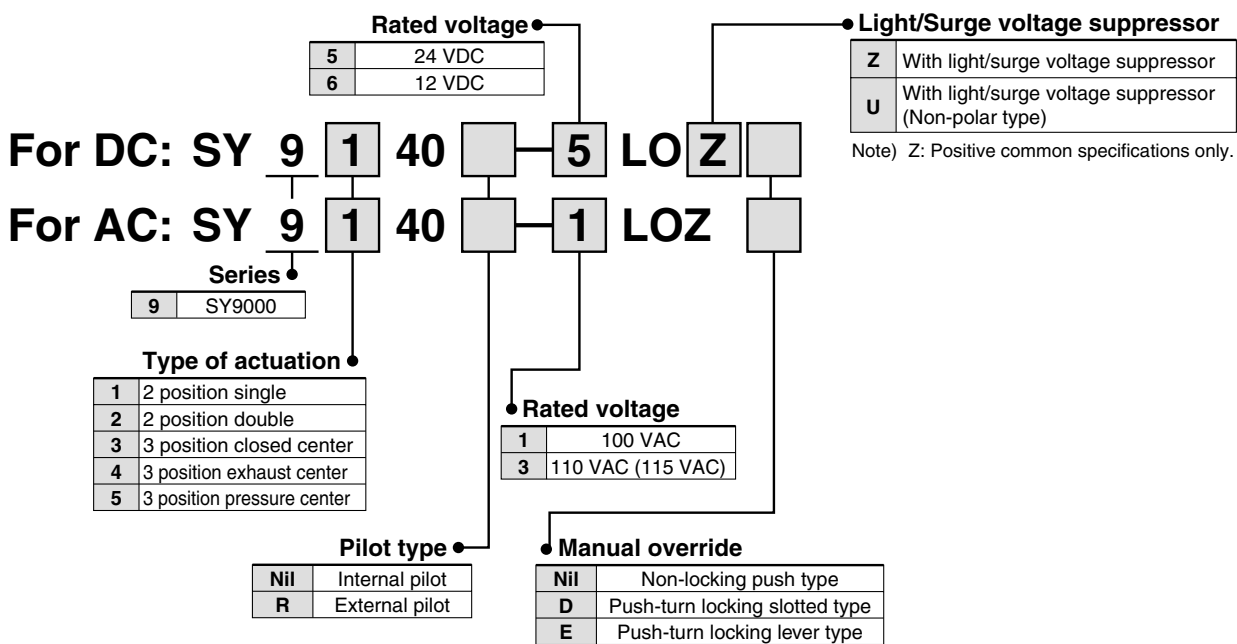


SS5Y9-43P-05B-C12	1 set (Type 43, 5 stations manifold base part no.)
* SY9000-26-4A	1 set (Blanking plate assembly part no.)
* SY9140-5LOU	2 sets (Single solenoid part no.)
* SY9240-5LOU	2 sets (Double solenoid part no.)
* SY9000-37-1A	2 sets (Connector assembly part no.)
* SY9000-37-2A	2 sets (Connector assembly part no.)
* SY9000-41-1	1 set (Lead wire cover)

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 Valves



- SV
- SZ
- SY**
- SYJ
- SX

Note) In the case of flat cable type, "U" and "Z" types are for DC specifications and "Z" type is for AC specifications. "Z" type for DC is positive common specification only. For the other combination, please contact SMC.

How to Order Connector Assembly

For 12/24 VDC

For DC	For SY9000
For single solenoid	SY9000-37-1A
Double solenoid, 3 position type	SY9000-37-2A
Single with spacer assembly	SY9000-37-3A
Double, 3 position with spacer assembly	SY9000-37-4A

For 100 VAC

For DC	For SY9000
For single solenoid	SY9000-37-1B
Double solenoid, 3 position type	SY9000-37-2B
Single with spacer assembly	SY9000-37-3B
Double, 3 position with spacer assembly	SY9000-37-4B

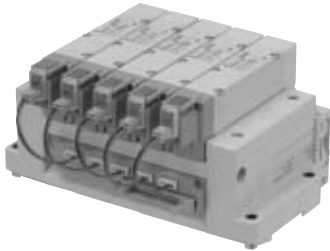
For 110 VAC (115 VAC)

For DC	For SY9000
For single solenoid	SY9000-37-1C
Double solenoid, 3 position type	SY9000-37-2C
Single with spacer assembly	SY9000-37-3C
Double, 3 position with spacer assembly	SY9000-37-4C

- Multiple valve wiring is simplified through the use of the flat cable connector.

• Clean appearance

In the case of a flat ribbon cable type, each valve is wired on the print board of manifold base to allow the external wiring to be piped all together with 26 pins MIL connector.



Flat Ribbon Cable Manifold Specifications

Model	SS5Y9-43P	
Applicable valve	SY9□40	
Manifold type	Stacking type	
P (SUP)/R (EXH)	Common SUP, Common EXH	
Valve stations	4 to 12 stations ^{Note 1)}	
A, B port Porting specifications	Location	Base
	Direction	Side
Port size	P, EA, EB port	C12 (One-touch fitting for ø12)
	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 weight W (g) n: Stations	W = 114n + 343	
Applicable flat ribbon cable connector	Flat ribbon cable connection, Socket: 26 pins MIL with strain relief, Conforming to MIL-C-83503	
Internal wiring	In common between +COM and -COM (Z type: +COM only)	
Rated voltage	12, 24 VDC, 100, 110 VAC	

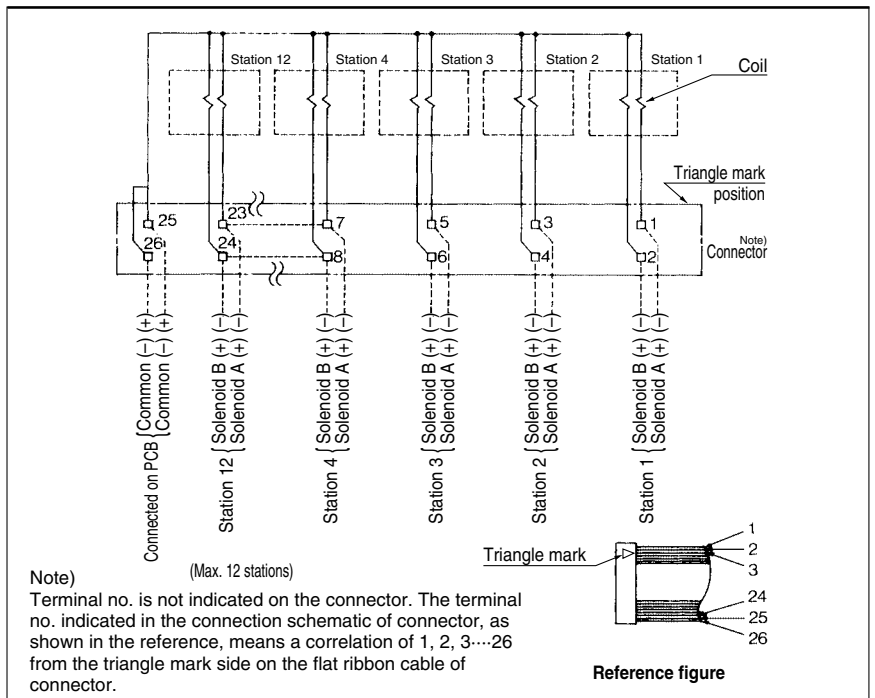
- Note 1) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA/EB port on both sides.
 Note 2) The withstand voltage specification for the wiring unit section is JIS C 0704, Grade 1 or its equivalent.
 Note 3) Refer to "Manifold Option" on page 1-4-114.

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
SS5Y9-43P	C12	C12	6.4	0.29	1.6	7.3	0.29	1.8

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

Internal Wiring of Manifold (Non-polar type)



Caution

- For non-polar (U) valves, the electrical DC connections can be used with either positive and negative COM. For type (Z), only use with positive COM as the valve does not operate correctly when used with negative COM.

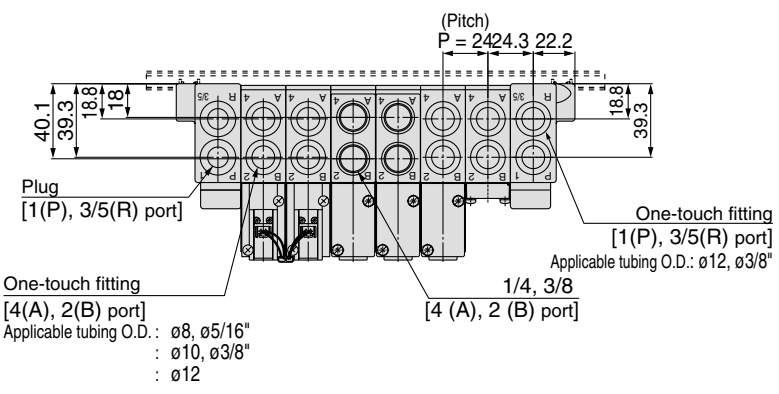
- For more than 10 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid A side.
- The maximum number of stations that can be accommodated is 12. For more stations, please contact SMC.



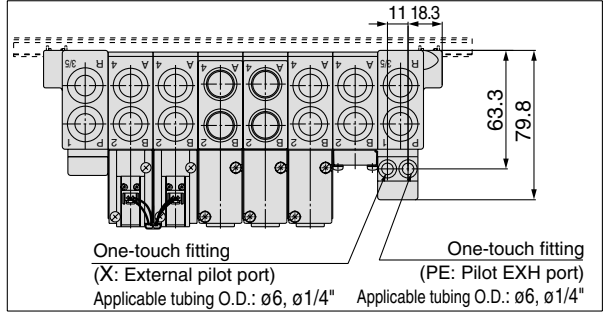
SY9000: SS5Y9-43P- Stations D ⁰² ⁰³ ^{C8, N9} ^{C10, N11} ^{C12} **(-D)**

[]: AC

* When P, R port outlets are indicated on the D side, the P, R ports on the opposite side are plugged.

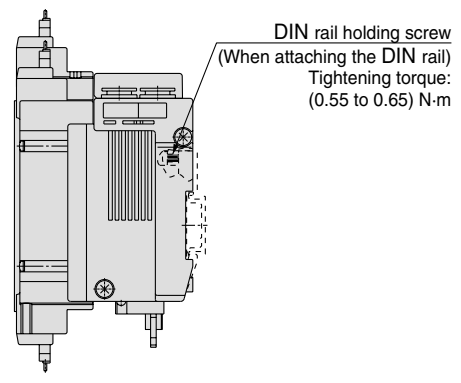
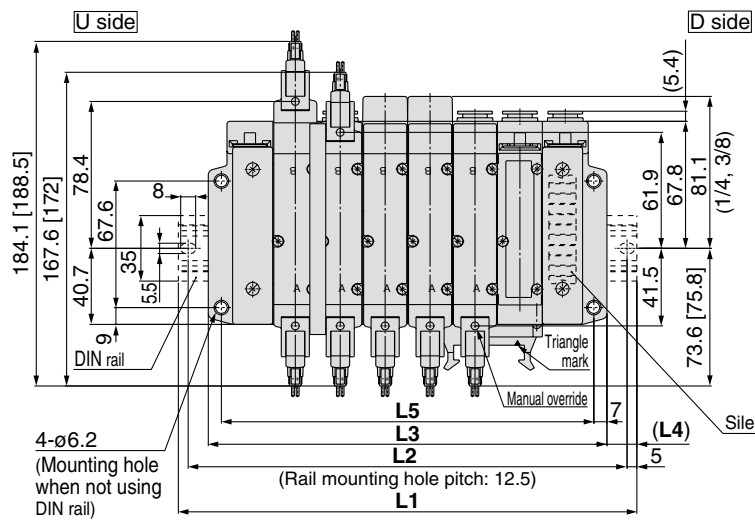


With External Pilot Specifications

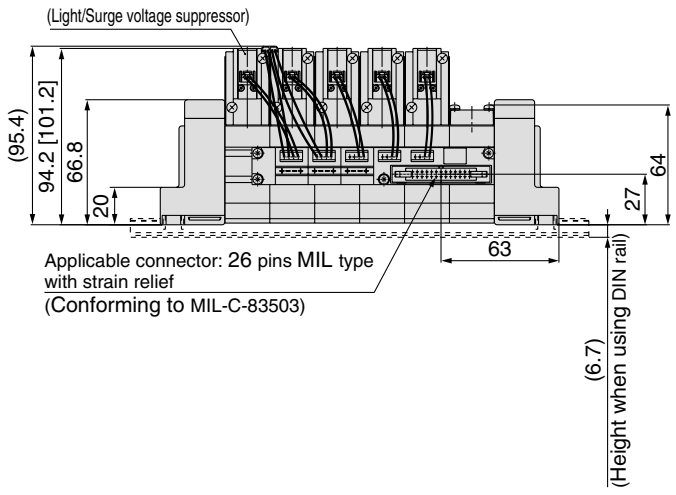


* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the D side.

- SV
- SZ
- SY
- SYJ
- SX

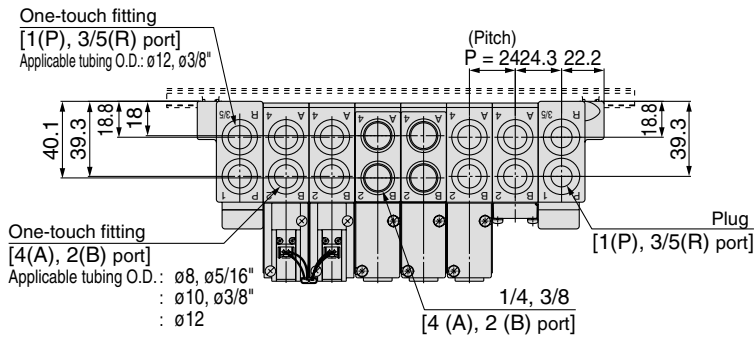


(Station n)----- (Station 1)

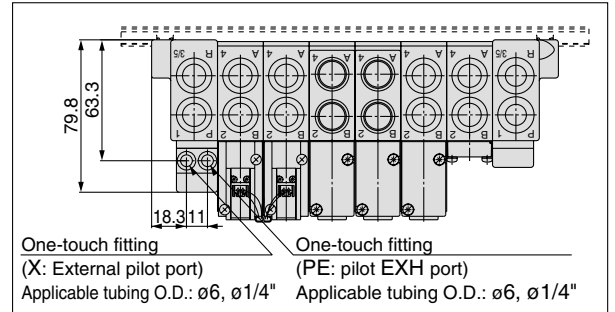


Stations n	4 stations	5	6	7	8	9	10 stations
L1	198	223	248	260.5	285.5	310.5	335.5
L2	187.5	212.5	237.5	250	275	300	325
L3	165	189	213	237	261	285	309
L4	16.5	17	17.5	12	12.5	13	13.5
L5	151	175	199	223	247	271	295

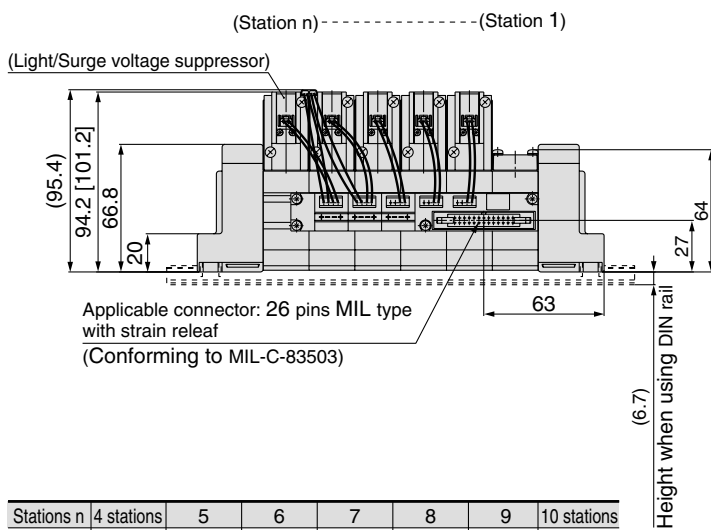
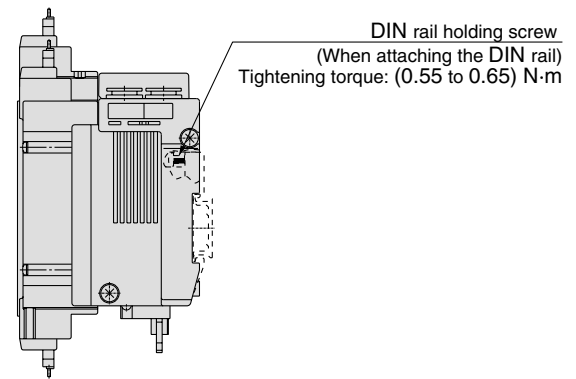
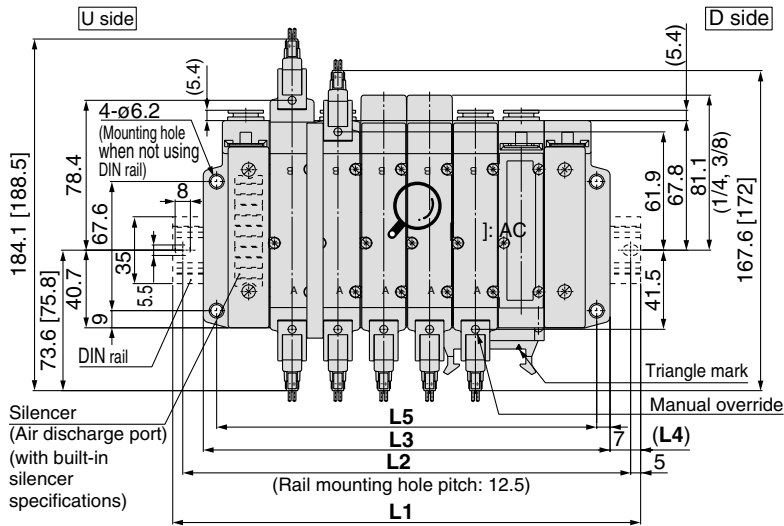
* When P, R port outlets are indicated on the U side, the P, R ports on the opposite side are plugged.



With External Pilot Specifications



* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the U side.

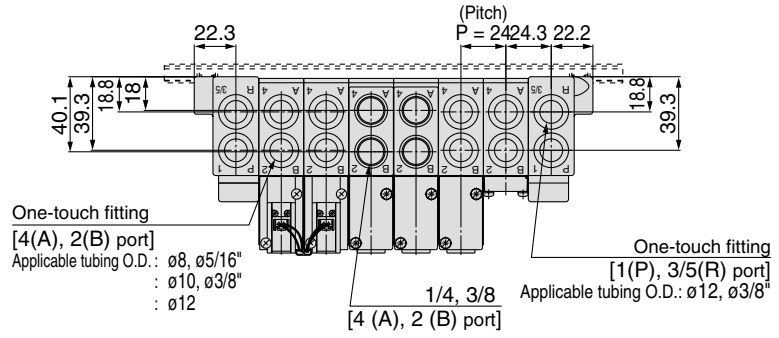


Stations n	4 stations	5	6	7	8	9	10 stations
L1	198	223	248	260.5	285.5	310.5	335.5
L2	187.5	212.5	237.5	250	275	300	325
L3	165	189	213	237	261	285	309
L4	16.5	17	17.5	12	12.5	13	13.5
L5	151	175	199	223	247	271	295

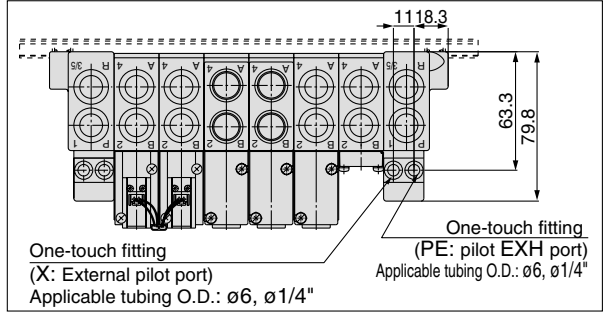
SY9000: SS5Y9-43P- Stations B ⁰² ₀₃ C8, N9
 C10, N11
 C12 (-D)

[] : AC

* When P, R port outlets are indicated on the B side, the P, R ports on the both sides are in the open state.

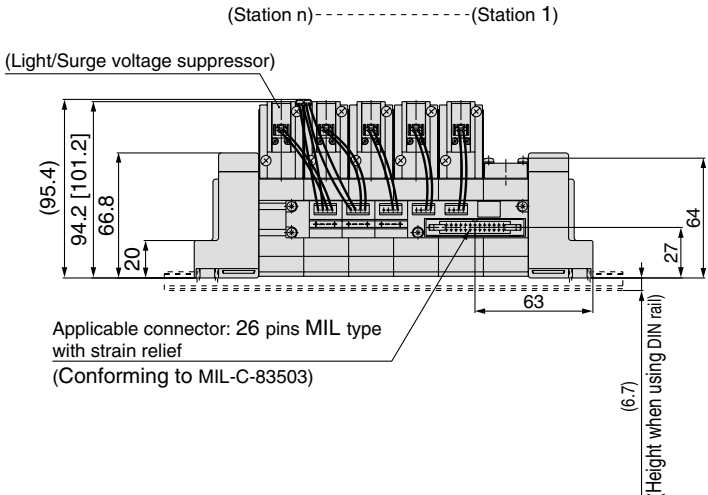
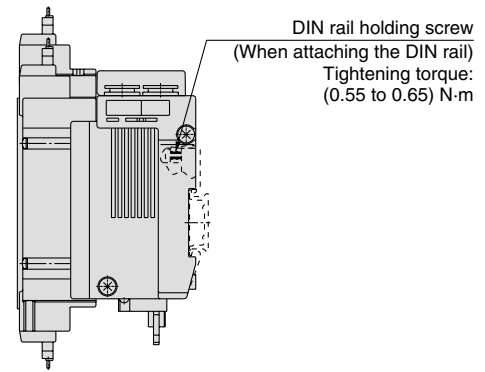
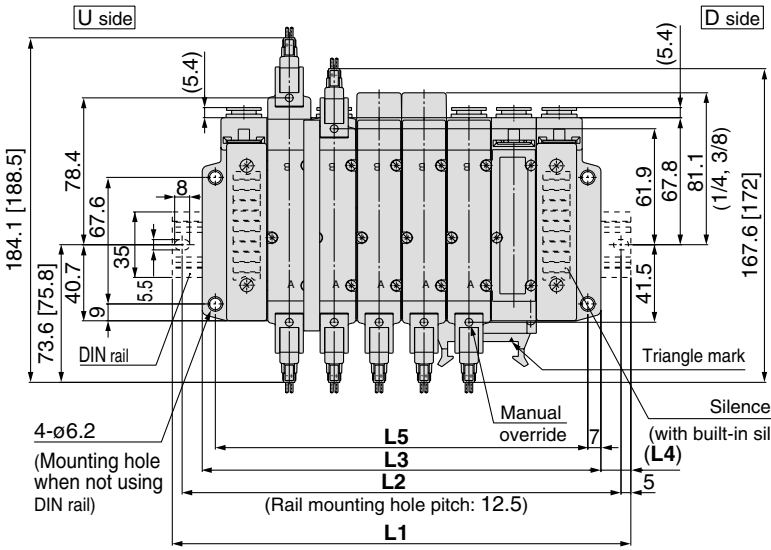


With External Pilot Specifications

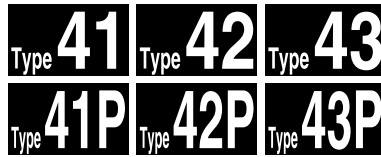


* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the B side (both sides).

- SV
- SZ
- SY**
- SYJ
- SX

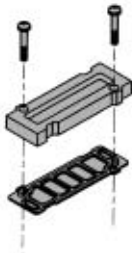


Stations n	4 stations	5	6	7	8	9	10	11	12 stations
L1	198	223	248	260.5	285.5	310.5	335.5	360.5	385.5
L2	187.5	212.5	237.5	250	275	300	325	350	375
L3	165	189	213	237	261	285	309	333	357
L4	16.5	17	17.5	12	12.5	13	13.5	14	14.5
L5	151	175	199	223	247	271	295	319	343



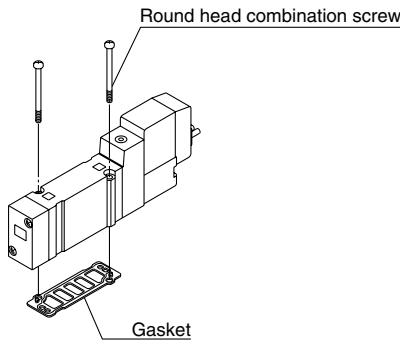
Manifold Option

■ Type 41, 42, 43
Blanking plate assembly



Series	Assembly part no.
SY3000	SY3000-26-9A
SY5000	SY5000-26-20A
SY7000	SY7000-26-22A
SY9000	SY9000-26-2A

■ Gasket assembly part no.



Series	Gasket assembly
SY3000	SY3000-GS-2
SY5000	SY5000-GS-2
SY7000	SY7000-GS-2
SY9000	SY9000-GS-2

Note) Gasket assembly consists of mounting screws (2 pcs.) and a gasket.

Caution

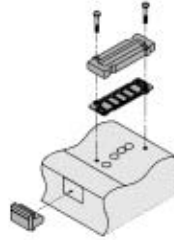
Mounting screw tightening torques

- M2: 0.16 N·m
- M3: 0.8 N·m
- M4: 1.4 N·m

Warning

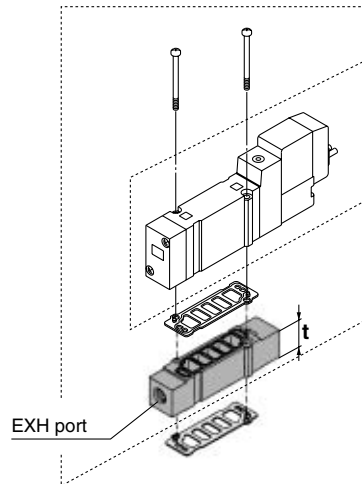
When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions, and then mount it.

■ Type 41P, 42P, 43P
Blanking plate assembly



Series	Assembly part no.
SY3000	SY3000-26-10A
SY5000	SY5000-26-21A
SY7000	SY7000-26-23A
SY9000	SY9000-26-4A

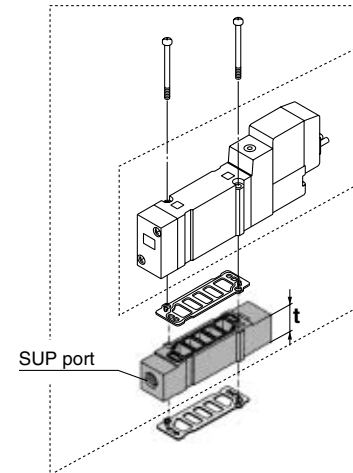
■ Individual EXH spacer assembly



Series	Assembly part no.	Port size	t
SY3000	SY3000-39-2A	M5 x 0.8	11
SY5000	SY5000-39-16*A	1/8	15
SY7000	SY7000-39-16*A	1/4	18
SY9000	SY9000-39-2*A	1/4	20

Note) In case of 41P, 42P and 43P, for protection of the wiring unit section from drainage, piping at the EA port should be arranged so that it will not be directly exposed to exhaust from the valve.

■ Individual SUP spacer assembly

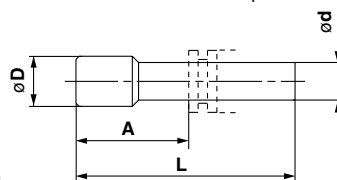


Series	Assembly part no.	Port size	t
SY3000	SY3000-38-2A	M5 x 0.8	11
SY5000	SY5000-38-16*A	1/8	15
SY7000	SY7000-38-16*A	1/4	18
SY9000	SY9000-38-2*A	1/4	20

Note) • The SUP port of SY3000, 5000 and 7000 may be either on the lead wire side or on the end plate side. (An assembly is shipped under the condition shown in the figure.)
• The end plate side is only available to SY9000.

■ Plug (white)

These are inserted in unused cylinder ports and SUP, EXH ports. Purchasing order is available in units of 10 pieces.



Dimensions

Applicable fittings size od	Model	A	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
12	KQ2P-12	24	44.5	14
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
3/8"	KQ2P-11	22	43	11.5

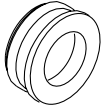
* Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Manifold Option

■ SUP block disk (For SY9000)

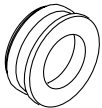
By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.



Series	Part no.
SY9000	SY9000-57-1A

■ EXH block disk (For SY9000)

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 blocking disks are needed to divide both exhausts.)



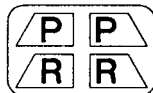
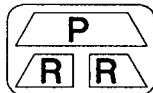
Series	Part no.
SY9000	SY9000-57-1A

■ Label for block disk (For SY9000)

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

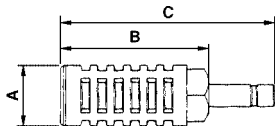
Label for SUP block disk Label for EXH block disk Label for SUP/EXH block disk



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 (For SY9000)

The silencer plugs directly into the One-touch fittings of the manifold R (exhaust) port.



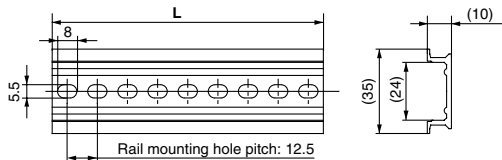
For Series	Model	Effective area	A	B	C
SY9000 (ø12)	AN300-KM12	41 mm ²	ø25	70	98

■ DIN Rail Dimensions/Weight for SY9000

VZ1000-11-4-□

● Refer to L dimensions

* Fill in □ with an appropriate no. listed on the table of DIN rail dimensions shown below.

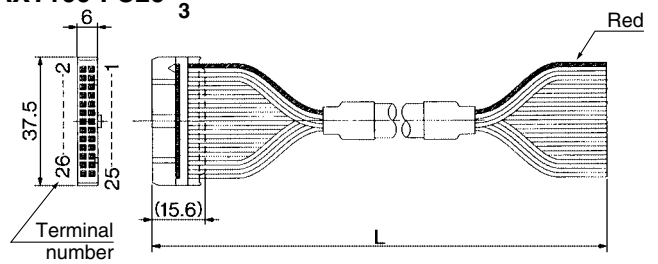


No.	0	1	2	3	4	5	6	7	8	9
L Dimension	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5
Weight (g)	24.8	28	31.1	34.3	37.4	40.6	43.8	46.9	50.1	53.3
No.	10	11	12	13	14	15	16	17	18	19
L Dimension	223	235.5	248	260.5	273	285.5	298	310.5	323	335.5
Weight (g)	56.4	59.6	62.7	65.9	69.1	72.2	75.4	78.6	81.7	84.9
No.	20	21	22	23	24	25	26	27	28	29
L Dimension	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5
Weight (g)	88	91.2	94.4	97.5	100.7	103.9	107	110.2	113.3	116.5

Note) • For DIN rail, refer to page 1-4-208.
• Refer to L1 dimension on pages starting with pages 1-4-111 to 113 for lengths that correspond to the number of manifold stations.

■ Cable assembly

AXT100-FC26-1



Connector assembly for flat ribbon cables

Cable length (L)	Assembly part no.	Note
1.5 m	AXT100-FC26-1	Cable 26 core x 28 AWG
3 m	AXT100-FC26-2	
5 m	AXT100-FC26-3	

* For other commercial connectors, use a 20 pins with strain relief conforming to MIL-C-83503.

Connector manufacturers' example

- Hirose Electric Co., Ltd.
- Japan Aviation Electronics Industry, Ltd.
- Sumitomo 3M Limited
- J.S.T. Mfg. Co., Ltd.
- Fujitsu Limited

SV

SZ

SY

SYJ

SX

Manifold Option

How to Order Interface Regulator

Series SY3000

ARBY3000-05-P-2

Pressure gauge connection port

05	Pressure gauge (G15-10-01)
M1	Plug (M-5P)



Note In the case of Series ARBY3000 with a pressure gauge when mounting on the manifold, use caution that the part numbers are different between the odd no. stations and the even no. stations to avoid gauges from interfering from each others.

Regulating port

P	P port
A1	A port (P controlled type, A port regulation)
B1	B port (P controlled type, B port regulation)

Series SY5000

ARBY5000-00-P-2

Pressure gauge connection port

00	Pressure gauge (G15-10-01)
M1	Plug (M-5P)

Regulating port

P	P port
A1	A port (P controlled type, A port regulation)
B1	B port (P controlled type, B port regulation)

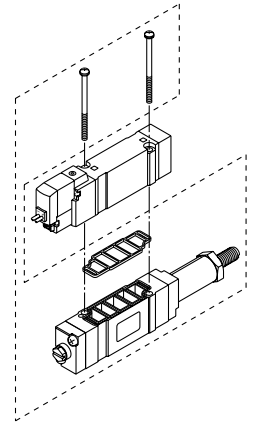
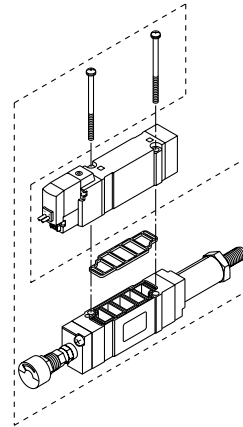
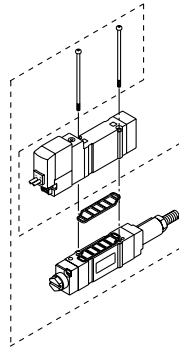
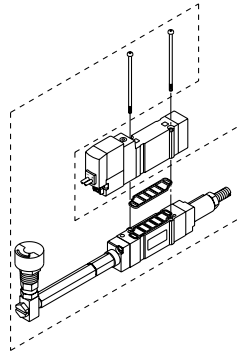
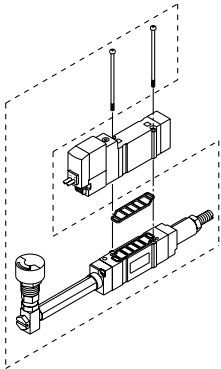
ARBY3000-05-□-2
(For odd number stations)

ARBY3000-06-□-2
(For even number stations)

ARBY3000-M1-□-2

ARBY5000-00-□-2

ARBY5000-M1-□-2



Series SY7000

ARBY7000-00-P-2

Pressure gauge connection port

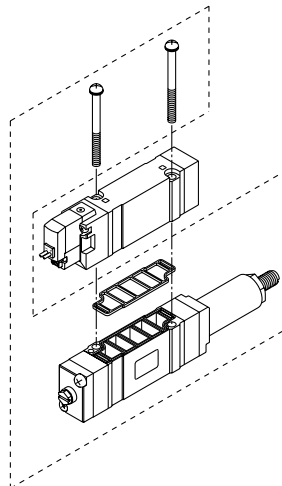
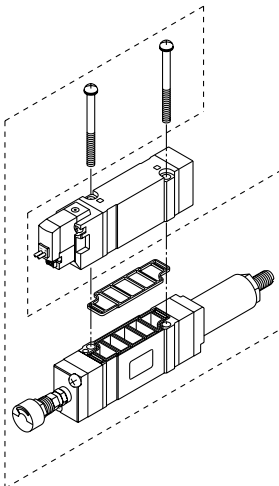
00	Pressure gauge (G15-10-01)
M1	Plug (M-5P)

Regulating port

P	P port
A1	A port (P controlled type, A port regulation)
B1	B port (P controlled type, B port regulation)

ARBY7000-00-□-2

ARBY7000-M1-□-2



Accessory

Series	Round head combination screw	Gasket
ARBY3000	SY3000-23-10 (M2336)	SX3000-57-4
ARBY5000	M3 x 48.5, Matt nickel plated	SX5000-57-6
ARBY7000	M4 x 57, Matt nickel plated	SX7000-57-4

Caution

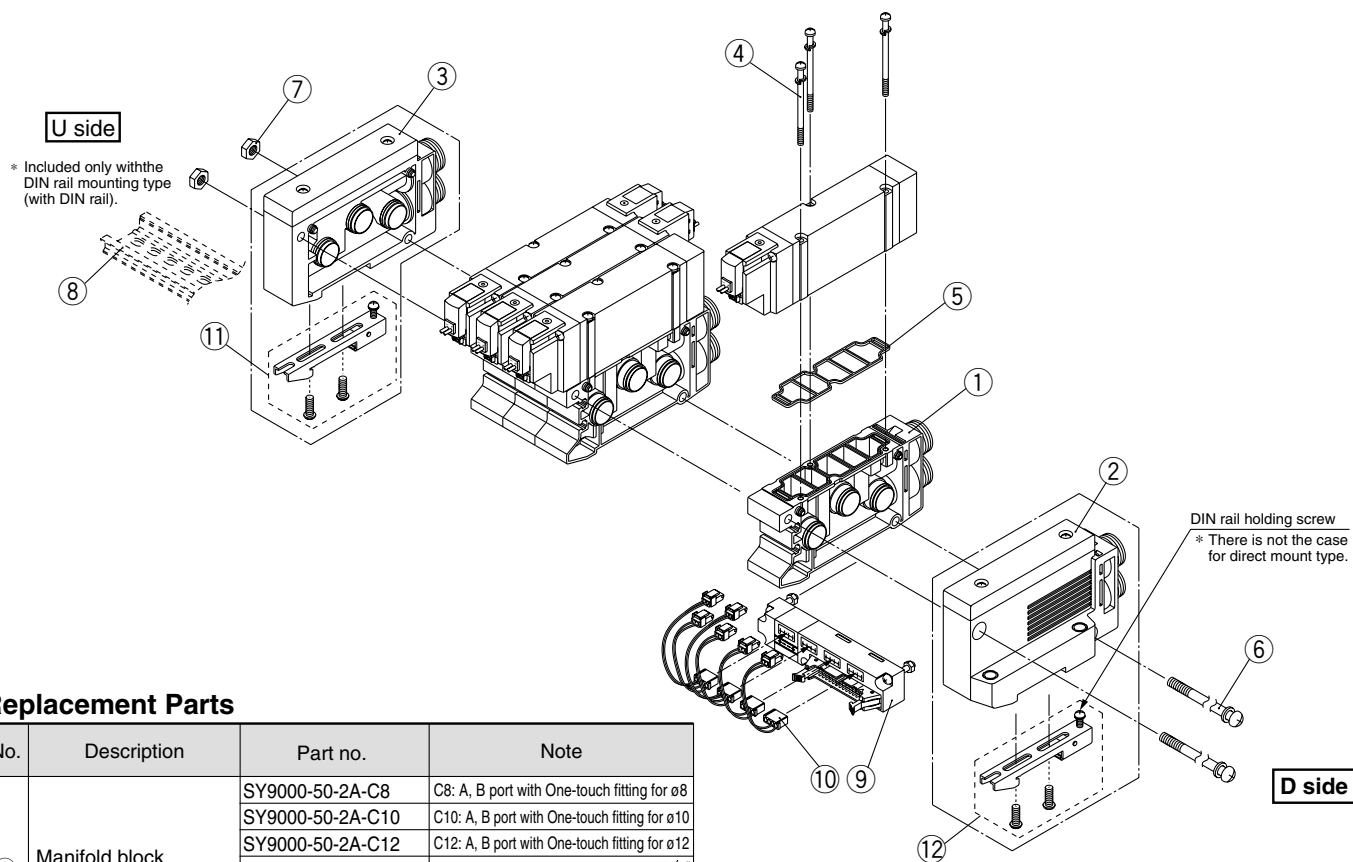
Mounting screw tightening torques

M2: 0.16 N·m

M3: 0.8 N·m

M4: 1.4 N·m

Base Mounted Manifold Exploded View

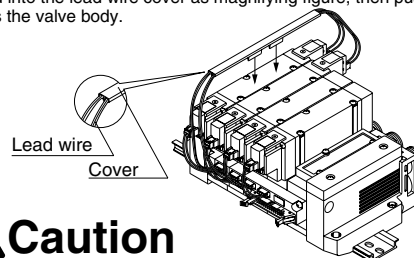


- SV
- SZ
- SY
- SYJ
- SX

Replacement Parts

No.	Description	Part no.	Note
①	Manifold block assembly	SY9000-50-2A-C8	C8: A, B port with One-touch fitting for $\phi 8$
		SY9000-50-2A-C10	C10: A, B port with One-touch fitting for $\phi 10$
		SY9000-50-2A-C12	C12: A, B port with One-touch fitting for $\phi 12$
		SY9000-50-2A-N9	N9: A, B port with One-touch fitting for $\phi 5/16"$
		SY9000-50-2A-N11	N11: A, B port with One-touch fitting for $\phi 3/8"$
		SY9000-50-2A-02*	02: A, B port $1/4"$ (* thread type)
	SY9000-50-2A-03*	03: A, B port $3/8"$ (* thread type)	
④	Round head combination screw	SY9000-18-2	M3 x 42, Matt nickel plated
⑤	Gasket	SY9000-11-2	
⑥	Tension bolt	SY9000-23-□	□ at the end of part number corresponds with the number of manifold station. Specify the same number as the number of stations.
⑦	Hexagon nut	SY9000-25-1	
⑧	DIN rail	VZ1000-11-4-□	Refer to page 1-4-115.
⑨	Wiring unit assembly	SY9000-36-□A	□ at the end of part number corresponds with the number of manifold station. Specify the same number as the number of stations (4 to 12 stations)
⑩	Connector assembly	SY9000-37-□□	Refer to page 1-4-109.
⑪	Lead wire cover	SY9000-41-1	
⑫	Clamp sub assembly	SY9000-30-1A	Included only with the DIN rail mounting type.

⑪ **How to assemble lead wire cover**
 Lead wire cover is only usable for double solenoid valves. Lead wire is inserted into the lead wire cover as magnifying figure, then push it until it touches the valve body.



Caution

For type 43P (Flat cable manifold) of Series SY9000, the lead wire cover is attached for bundling the lead wires for each solenoid. In case such as adding double solenoid valve, etc., order separately lead wire cover as well.

② SUP/EXH block assembly no. (D side mounting)

- Direct mount type: **SY9000-70-** □ **A-** □
- DIN rail mounting type: **SY9000-72-** □ **A-** □

• P, R port

C12	One-touch fitting for $\phi 12$
N11	One-touch fitting for $\phi 3/8"$
00	Plug

Specifications

1	Internal pilot
3	External pilot
4	Internal pilot/Built-in silencer
5	External pilot/Built-in silencer

③ SUP/EXH block assembly no. (U side mounting)

- Direct mount type: **SY9000-71-** □ **A-** □
- DIN rail mounting type: **SY9000-73-** □ **A-** □

• P, R port

C12	One-touch fitting for $\phi 12$
N11	One-touch fitting for $\phi 3/8"$
00	Plug

Specifications

1	Internal pilot
3	External pilot
4	Internal pilot/Built-in silencer
5	External pilot/Built-in silencer

How to Increase Manifold Base (Series SY9000 only) Manifold case can be added at any location.

When a type 43 manifold base is added, tension bolts as well as manifold block assembly will be required. Order the tension bolt suitable for the stations after a station was increased (decreased), since the length of a tension bolt differs by the number of stations. (For changing the number of stations for a type 43P manifold, wiring unit for the stations and lead assembly will be required.)

- 1 Loosen the tension bolts connecting the manifold base, and pull out both of 2 tension bolts.
(When equipped with a DIN rail, loosen one DIN rail holding screw on either U side or D side.)
- 2 Separate the blocks at the location where station expansion is desired.
- 3 Mount additional manifold block assembly.
- 4 Press block-to-block so that there's no gap. After connection, insert a tension bolt for desired stations and then tighten it.

⚠ Caution (Tightening torque: 2.9 N·m)

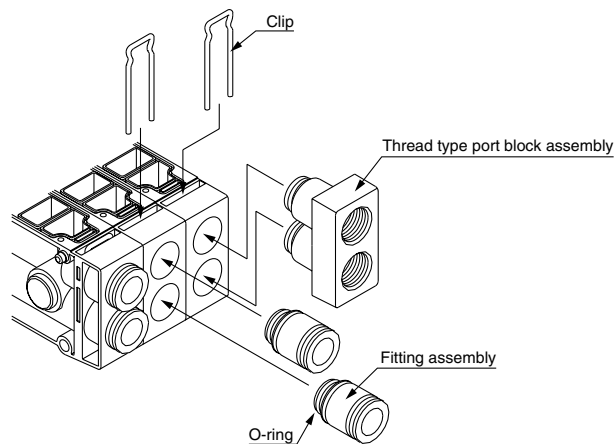
(When equipped with a DIN rail, be sure to tighten the DIN rail holding screws after tightening the tension bolts. Tightening torque: 1.4 N·m)

⚠ Caution

1. Be sure to shut off the power and air supplies 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. When disassembly and assembly are performed, air leakage may result if connections between blocks and tightening of the end block's holding screw, is inadequate.
3. By adding wiring unit assembly to type 43 manifold, it can be changed to type 43P manifold, too.

How to Replace A, B Port Fitting Assembly

By replacing manifold block fitting assemblies or the threaded port block assembly of a type 43(P) manifold, the port size of the A and B ports can be changed. To replace these parts, remove the clip with a flat head screwdriver after the valve has been removed. Insert the fitting assemblies or threaded port block assembly, and then reinsert the clip so that it does not protrude from the manifold block.

**Fitting Assembly Part No.**

Port size	Part no.	Note
One-touch fitting assembly for $\phi 8$	VVQ4000-50B-C8	
One-touch fitting assembly for $\phi 10$	VVQ4000-50B-C10	
One-touch fitting assembly for $\phi 12$	VVQ4000-50B-C12	
One-touch fitting for $\phi 5/16$ "	VVQ4000-50B-N9	
One-touch fitting for $\phi 3/8$ "	VVQ4000-50B-N11	
1/4 threaded type port block assembly	SY9000-58A-02*	—* at the end of part number denotes the thread type.
3/8 threaded type port block assembly	SY9000-58A-03*	—* at the end of part number denotes the thread type.
Plug assembly	SY9000-62-1A	

Note 1) Be careful to avoid damage or contamination of O-rings, as this can cause air leakage.

Note 2) Although replacing One-touch fittings of P, R port is also possible, use caution to the cases, etc. in which solenoid valves are often used at the same time by using the smaller sized fittings than the standard size ($\phi 12$). Because there may not be able to supply or exhaust air sufficiently in comparison with the valve performances. Besides, although fittings used for A, B port are the same, it is not possible to use the threaded type port block assembly.