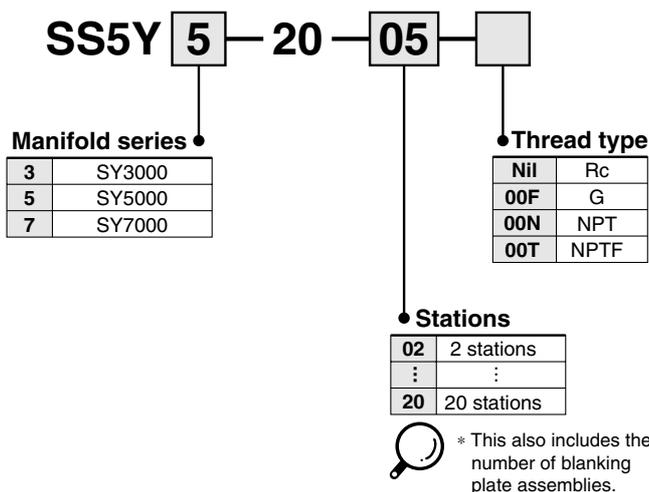


# Series SY3000/5000/7000 Body Ported Manifold Bar Stock Type Individual Wiring

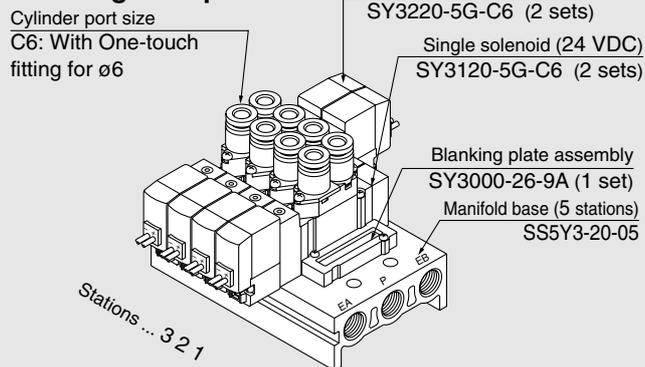
Type **20**

## How to Order Manifold



## How to Order Valve Manifold Assembly

### Ordering example



- |                |  |
|----------------|--|
| SS5Y3-20-05    | 1 set (Type 20, 5 stations manifold base part no.) |
| * SY3000-26-9A | 1 set (Blanking plate assembly part no.)           |
| * SY3120-5G-C6 | 2 sets (Single solenoid part no.)                  |
| * SY3220-5G-C6 | 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 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", "DO" or "W□" type.

**Rated voltage**

DC		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" 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.

**Thread type**

Nil	Rc
F	G
N	NPT
T	NPTF

**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	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	
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 ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
N3	One-touch fitting for ø5/32"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16"	
N9	One-touch fitting for ø5/16"	SY7000
N11	One-touch fitting for ø3/8"	

**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.  
\* For DIN terminal of SY3000 series, refer to page 1-4-207.  
\* DIN terminal type "Y" conforming to DIN4365C standard is also available. For details, refer to catalog on page 1-4-201.  
\* For connector cable of M8 connector, refer to page 1-4-209.



Note) When placing an order for body ported solenoid valve as a single unit, mounting bolt for manifold and gasket are not attached. Order them separately, if necessary. (For details, refer to catalog in page 1-4-61.)

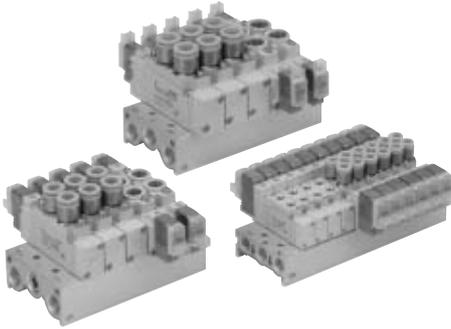
SV

SZ

SY

SYJ

SX



## Manifold Specifications

Model	SS5Y3-20	SS5Y5-20	SS5Y7-20	
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 <sup>Note 1)</sup>			
A, B port location	Valve			
Port size	P, EA, EB port	1/8	1/4	1/4
	A, B port	M5 x 0.8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	1/8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)	1/4 C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10)
Manifold base weight W (g) n: Stations	W = 13n + 35	W = 36n + 64	W = 43n + 64	

 Note 1) For more than 10 stations (more than 5 stations in the 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 1-4-61.

## 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
SS5Y3-20	1/8	C6	0.72	0.29	0.18	0.80	0.36	0.21
SS5Y5-20	1/4	C8	1.9	0.28	0.48	2.2	0.20	0.53
SS5Y7-20	1/4	C10	3.6	0.31	0.93	3.6	0.27	0.88

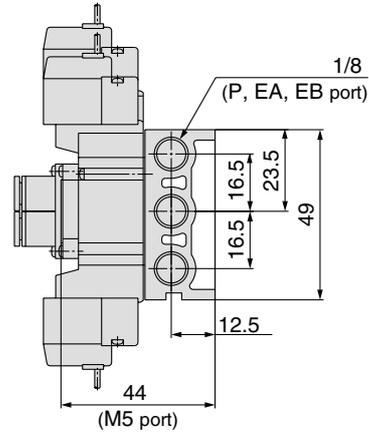
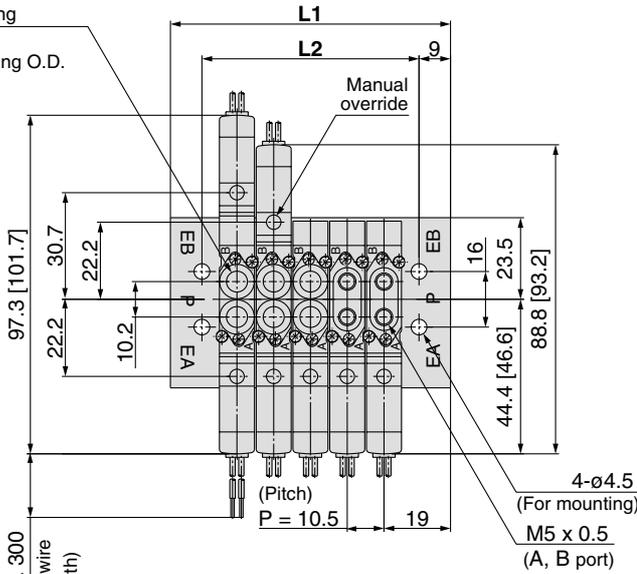
 Note) The value is for manifold base with 5 stations and individually operated 2 position type.

SY3000/SS5Y3-20-Stations



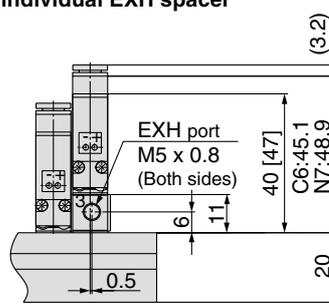
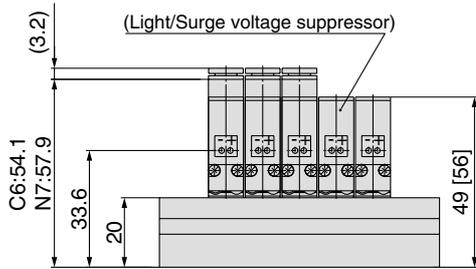
Grommet (G)

One-touch fitting  
(A, B port)  
Applicable tubing O.D.  
:  $\phi 4$ ,  $\phi 5/32$ "  
:  $\phi 6$ ,  $\phi 1/4$ "



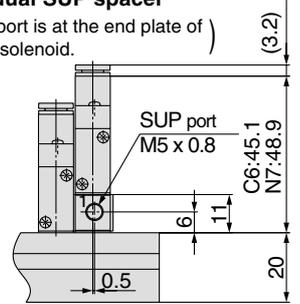
Approx. 300 (Lead wire length)  
(Station n) ----- (Station 1)

Dimensions when mounting individual EXH spacer



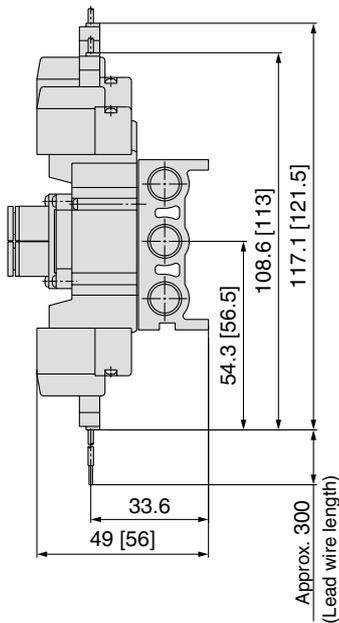
Dimensions when mounting individual SUP spacer

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

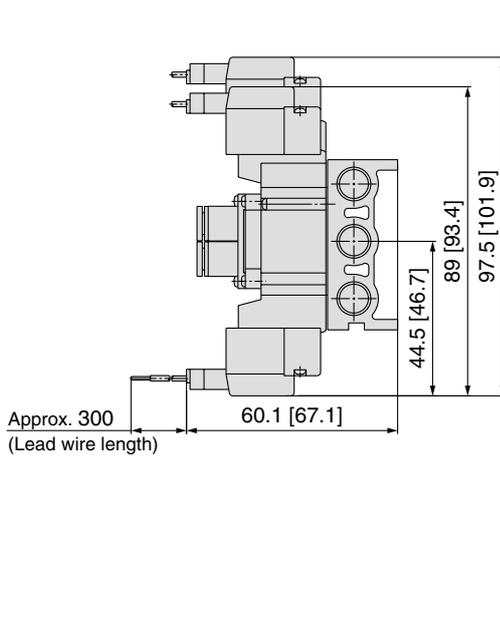


- SV
- SZ
- SY
- SYJ
- SX

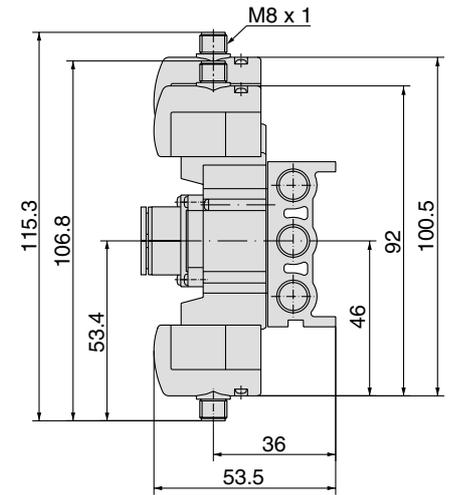
L plug connector (L)



M plug connector (M)



M8 connector (WO)



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

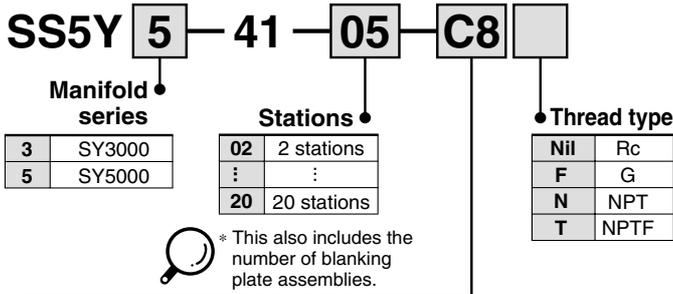
Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
L1	48.5	59	69.5	80	90.5	101	111.5	122	132.5	143	153.5	164	174.5	185	195.5	206	216.5	227	237.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

Type **41**  
Type **42**

# Series SY3000/5000/7000 Base Mounted Manifold Bar Stock Type Individual Wiring

## How to Order Manifold

### Type 41 (Compact type)



#### A, B port size Thread piping

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

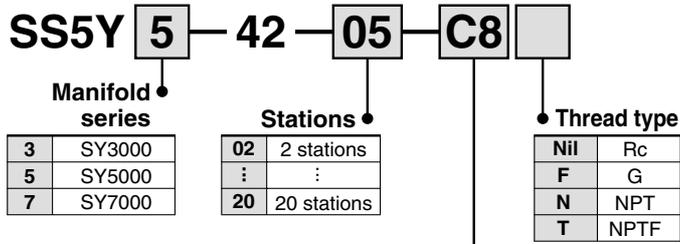
#### One-touch fitting (Metric size)

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

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

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

### Type 42 (External pilot capable type)



#### A, B port size Thread piping

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

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

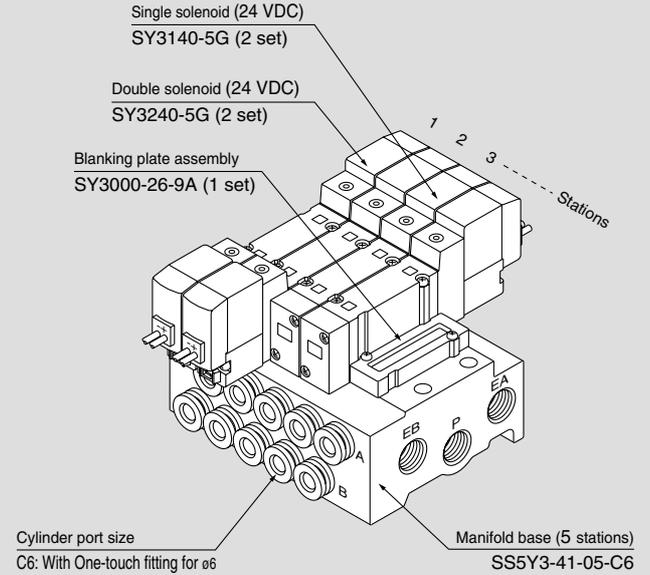
Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C10	One-touch fitting for ø10	SY7000

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

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

## How to Order Valve Manifold Assembly

### Ordering example



**SS5Y3-41-05-C6** 1 set (Type 41, 5 stations manifold base part no.)  
 \*SY3240-5G 2 sets (Double solenoid part no.)  
 \*SY3140-5G 2 sets (Single solenoid part no.)  
 \*SY3000-26-9A 1 set (Blanking plate assembly 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 5 2 40 [ ] [ ] 5 L [ ] [ ]

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

Pilot type

Nil	Internal pilot
R	External pilot

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", "DO" or "W□" type.

Rated voltage

DC

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

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

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

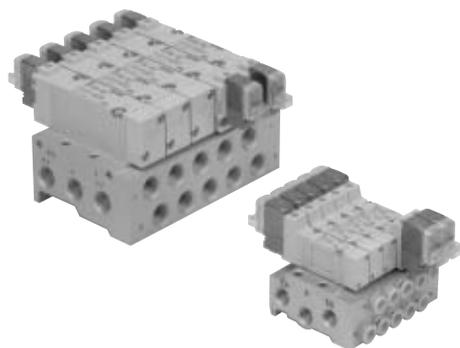
SV

SZ

SY

SYJ

SX



## Manifold Specifications

Model	SS5Y3-41	SS5Y3-42	SS5Y5-41	SS5Y5-42	SS5Y7-42
Applicable valve	SY3□40		SY5□40		SY7□40
Manifold type	Single base/B mount				
P(SUP)/R(EXH)	Common SUP, Common EXH				
Valve stations	2 to 20 stations <sup>Note 1)</sup>				
A, B port	Base				
Porting specifications	Direction				
	Side				
Port size	P, EA, EB port	1/8		1/4	
	A, B port	M5 x 0.8, C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	1/8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6)	1/8 C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)	1/4 C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)
Manifold base weight W (g) n: Stations	W = 30n + 50	W = 37n + 63	W = 61n + 101	W = 79n + 127	W = 100n + 151



Note 1) For more than 10 stations (more than 5 stations in the 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 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 <sup>3</sup> /s·bar)	b	Cv	C (dm <sup>3</sup> /s·bar)	b	Cv
SS5Y3-41	1/8	C6	0.75	0.19	0.18	0.81	0.23	0.20
SS5Y3-42	1/8	C6	0.75	0.20	0.18	0.82	0.20	0.20
SS5Y5-41	1/4	C8	1.8	0.23	0.44	1.9	0.16	0.45
SS5Y5-42	1/4	C8	1.9	0.20	0.46	1.9	0.12	0.43
SS5Y7-42	1/4	C10	3.0	0.25	0.75	3.0	0.12	0.66

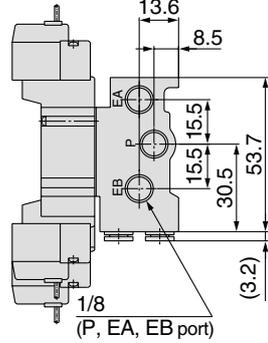
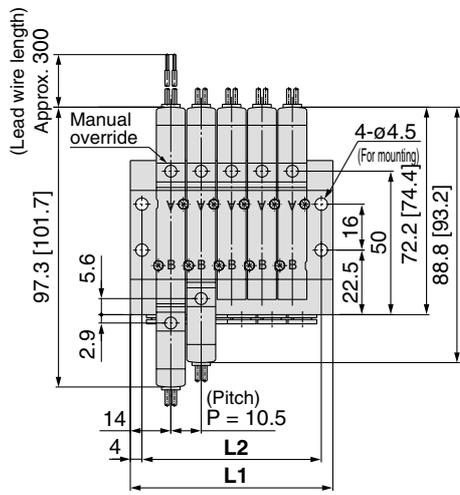


Note) The value is for manifold base with 5 stations and individually operated 2 position type.

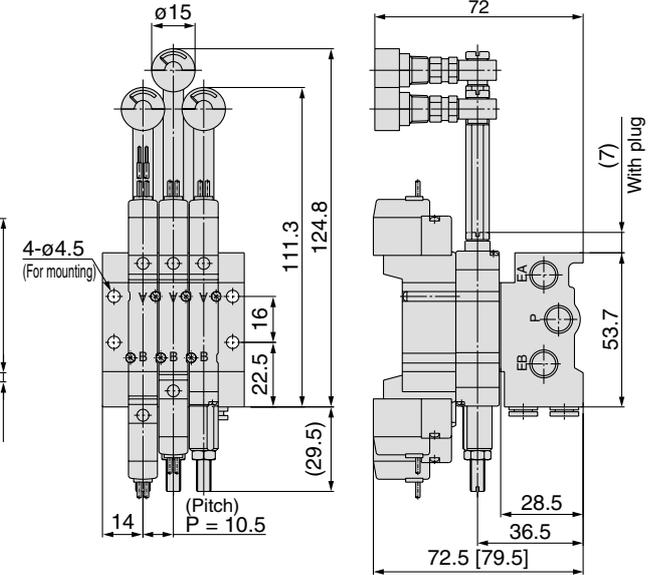
**SY3000: SS5Y3-41- Stations -M5, C4, N3**  **C6, N7**



**Grommet (G)**

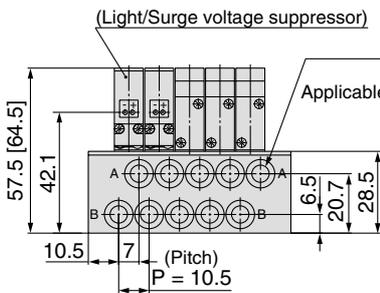


**With interface regulator (with gauge)**

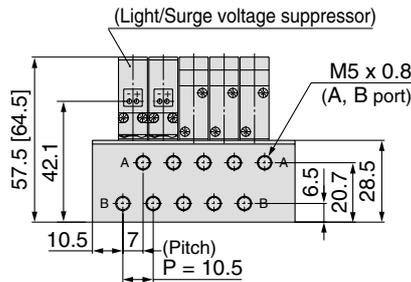


- SV
- SZ
- SY**
- SYJ
- SX

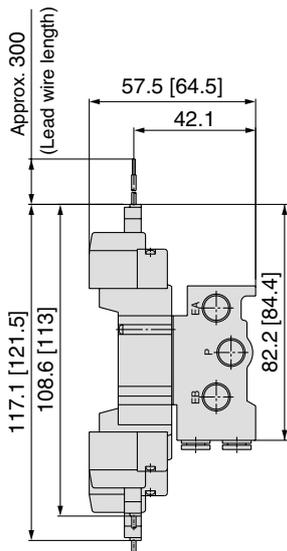
(Station 1) ----- (Station n)



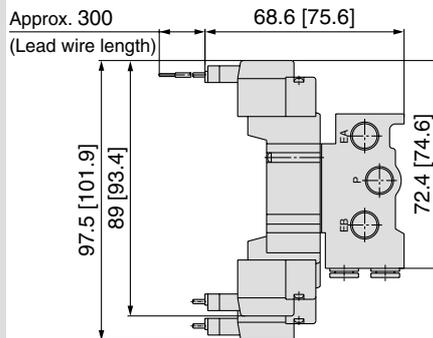
**For M5**



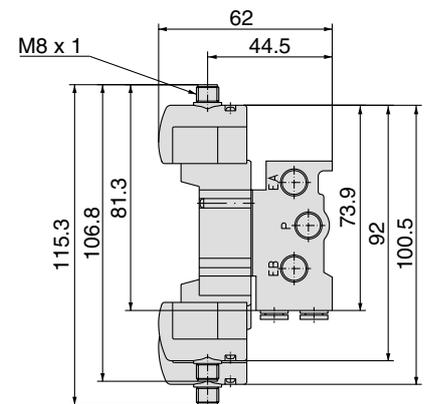
**L plug connector (L)**



**M plug connector (M)**



**M8 connector (WO)**



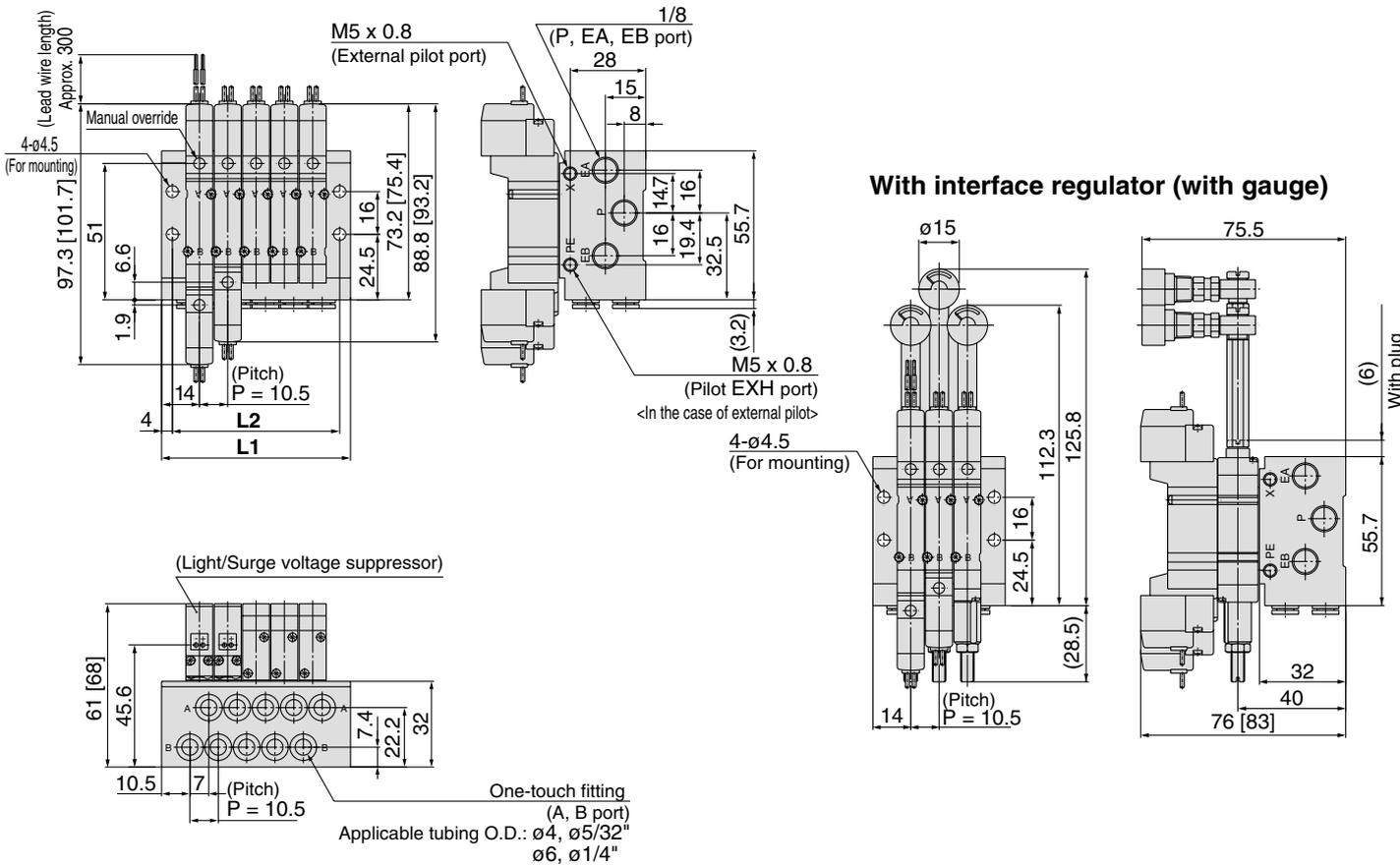
Note) Refer to page 1-4-20 for dimensions of connector types.

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>	38.5	49	59.5	70	80.5	91	101.5	112	122.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5
<b>L2</b>	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

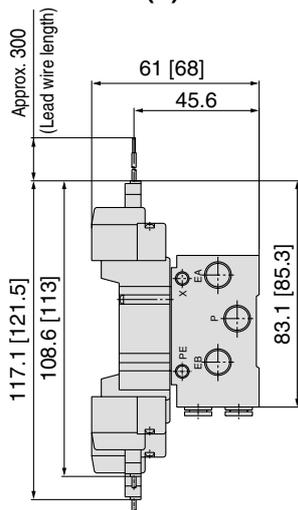
SY3000: SS5Y3-42- Stations  C4, N3  C6, N7



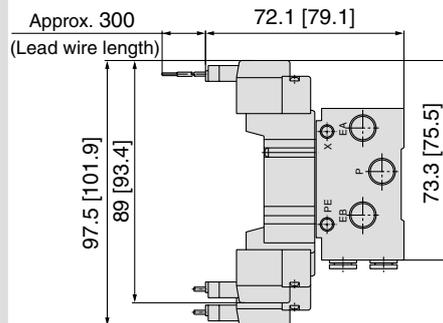
Grommet (G)



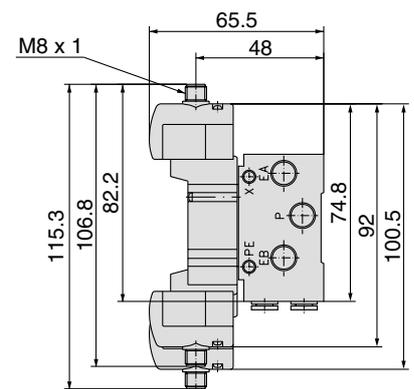
L plug connector (L)



M plug connector (M)



M8 connector (WO)

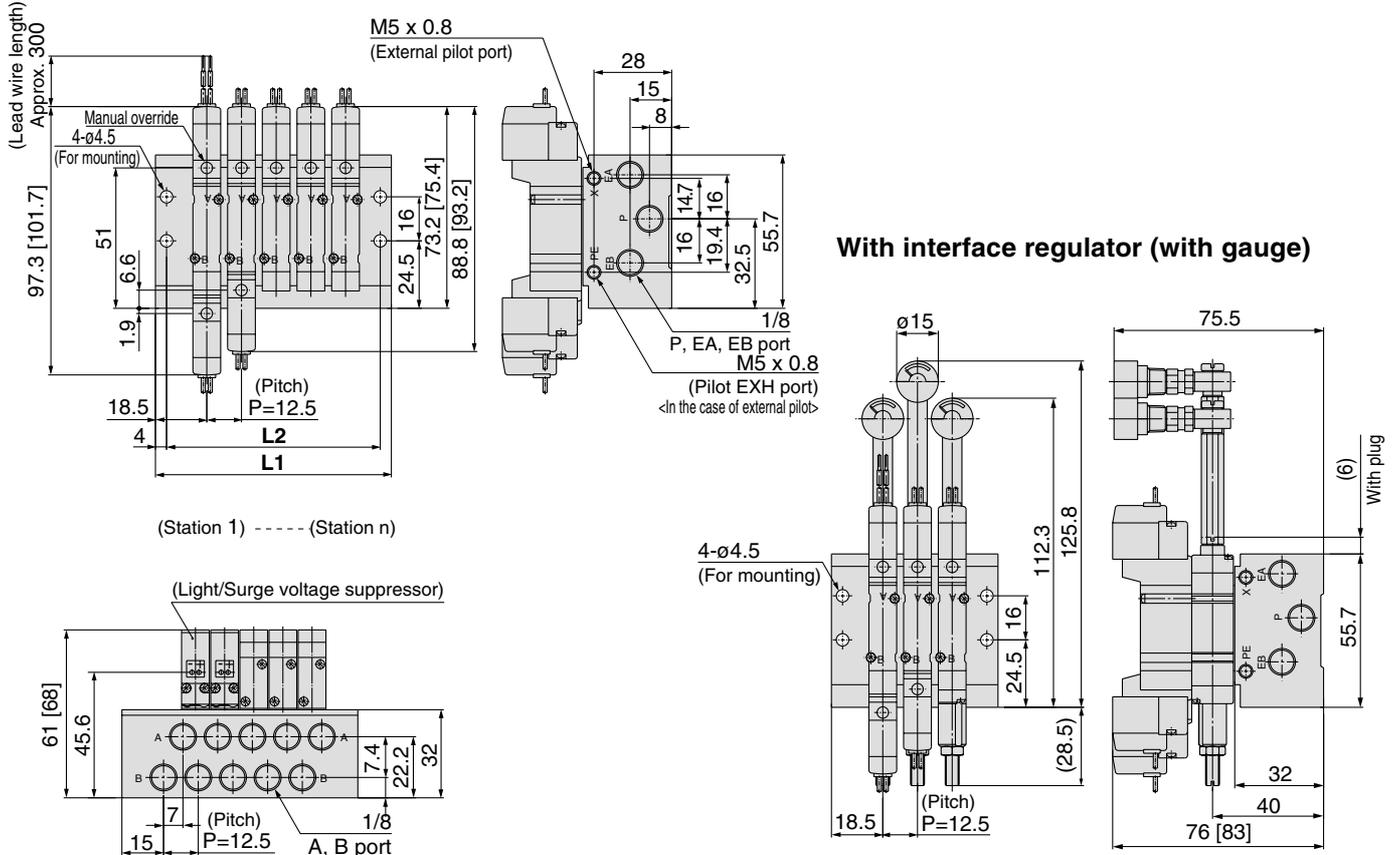


Note) Refer to page 1-4-210 for dimensions of connector types.

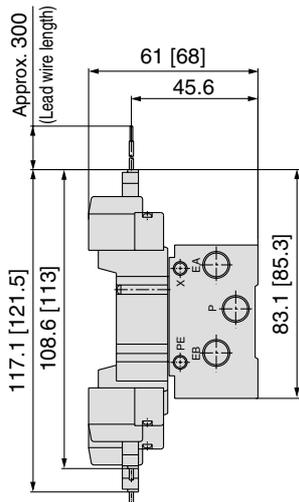
Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
L1	38.5	49	59.5	70	80.5	91	101.5	112	122.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

**SY3000: SS5Y3-42- Stations -01**

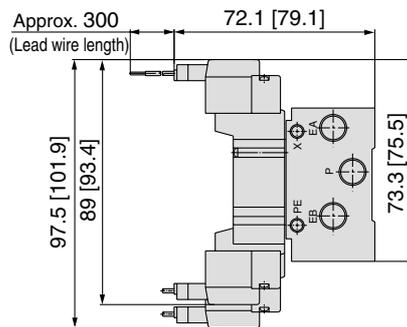
**Grommet (G)**



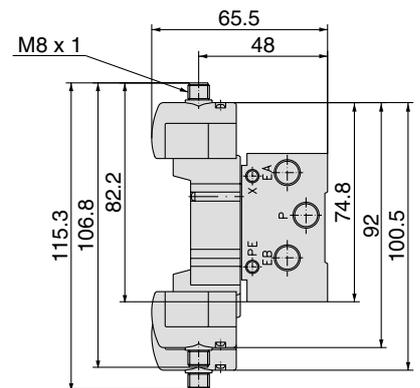
**L plug connector (L)**



**M plug connector (M)**



**M8 connector (WO)**



Note) Refer to page 1-4-210 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>	47.5	60	72.5	85	97.5	110	122.5	135	147.5	160	172.5	185	197.5	210	222.5	235	247.5	260	272.5
<b>L2</b>	39.5	52	64.5	77	89.5	102	114.5	127	139.5	152	164.5	177	189.5	202	214.5	227	239.5	252	264.5