How to Order Manifold

SS5Y 5 — 20 — 05 — ☐

Manifold series

3	SY3000
5	SY5000
7	SY7000

Thread type

Nil	Rc
00F	G
00N	NPT
00T	NPTF

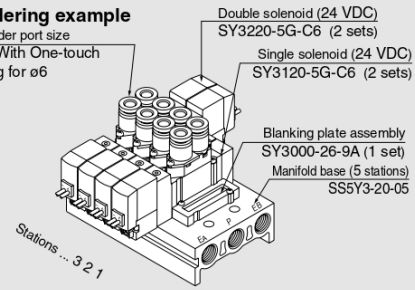
Stations

02	2 stations
⋮	⋮
20	20 stations

* This also includes the number of blanking plate assemblies.

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

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.

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

∗ "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.

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.

Manual override

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

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

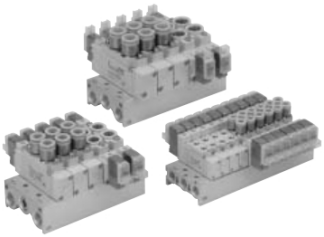
One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
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"	SY5000
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	
N9	One-touch fitting for ø5/16"	SY7000
N11	One-touch fitting for ø3/8"	

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.)



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 Note 1)		
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

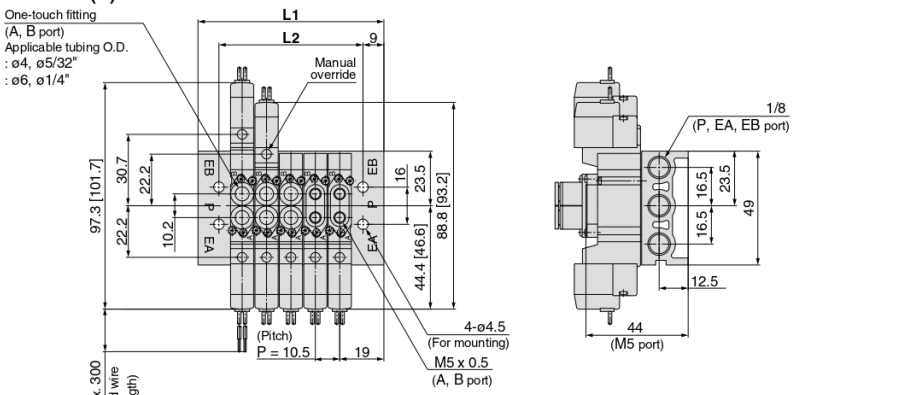
Note 1) For more than 10 stations (more than 5 stations in the case of SS5Y7), supply pressure to P port on both sides and exhaust from EA/EB port on both sides.
Note 2) Refer to "Manifold Option" on page 1-4-61.

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 (dm³/(s·bar))	b	Cv	C (dm³/(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

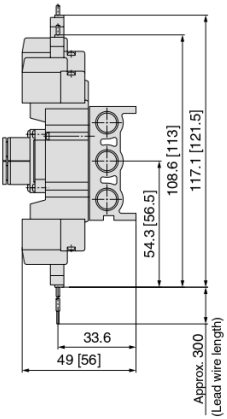
Note) The value is for manifold base with 5 stations and individually operated 2 position type.

Grommet (G)

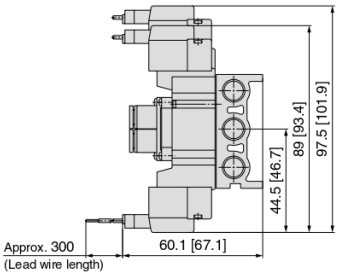


SV
SZ
SY
SYJ
SX

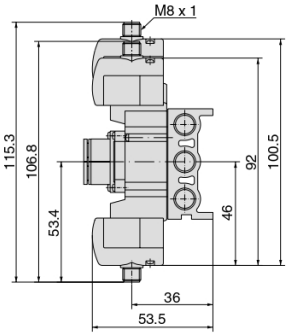
L plug connector (L)



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

How to Order Manifold

Type 41 (Compact type)

SS5Y 5 — 41 — 05 — C8 [ ]

Manifold series

3	SY3000
5	SY5000

Stations

02	2 stations
⋮	⋮
20	20 stations

* This also includes the number of blanking plate assemblies.

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

One-touch fitting (Metric size)

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

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"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16"	

Type 42 (External pilot capable type)

SS5Y 5 — 42 — 05 — C8 [ ]

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

02	2 stations
⋮	⋮
20	20 stations

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

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)

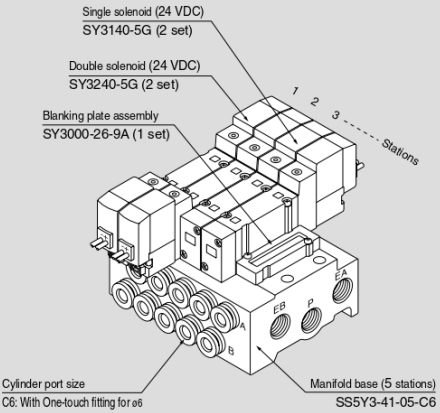
Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	SY7000

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"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16"	
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

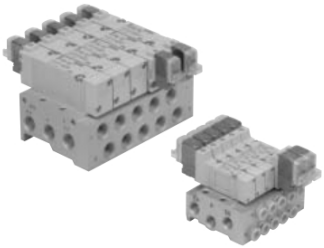
Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

∗ "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.



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 Note 1)				
A, B port Porting specifications	Location	Base				
	Direction	Side				
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)	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)	1/4 C10 (One-touch fitting for ø10)
Manifold base weight W (g) n: Stations		W = 30n + 50	W = 37n + 63	W = 61n + 101	W = 79n + 127	W = 100n + 151

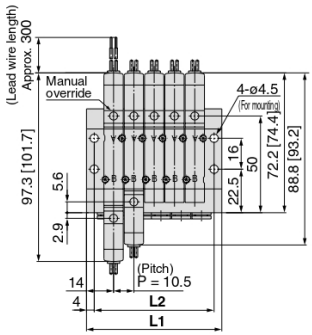
Note 1) For more than 10 stations (more than 5 stations in the case of SS5Y7), supply pressure to P port on both sides and exhaust from EA/EB port on both sides.
Note 2) Refer to "Manifold Option" on page 1-4-114.

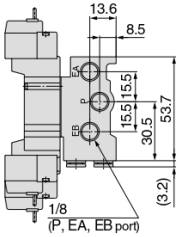
Flow Characteristics

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 (dm³/(s·bar))	b	Cv	C (dm³/(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

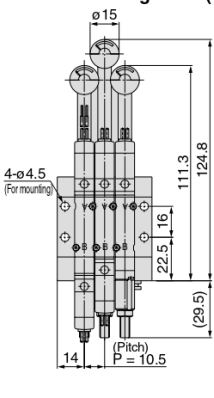
Note) The value is for manifold base with 5 stations and individually operated 2 position type.

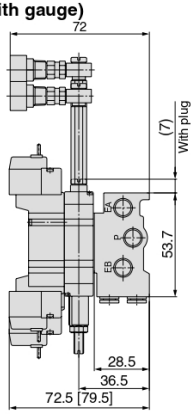
Grommet (G)





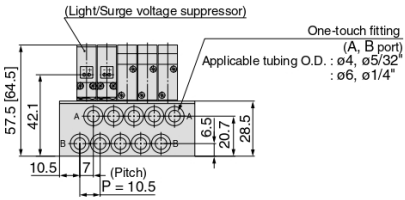
With interface regulator (with gauge)



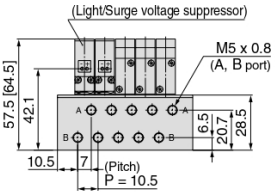


SV
SZ
SY
SYJ
SX

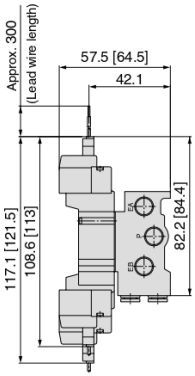
(Station 1) - - - - - - (Station n)



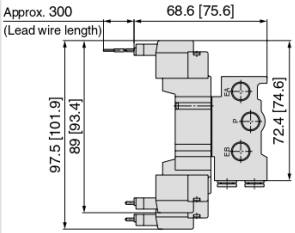
For M5



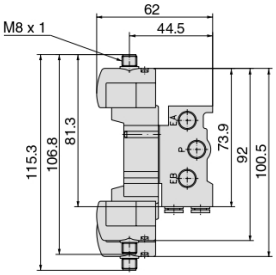
L plug connector (L)



M plug connector (M)



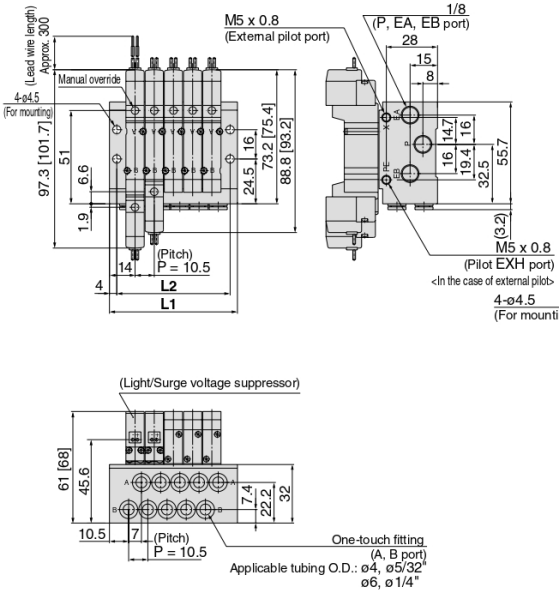
M8 connector (WO)



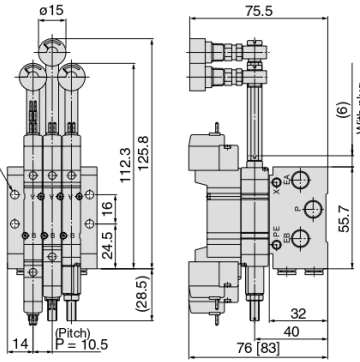
Note) Refer to page 1-4-20 for dimensions of connector types.

Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
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

Grommet (G)

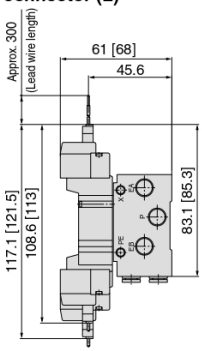


With interface regulator (with gauge)

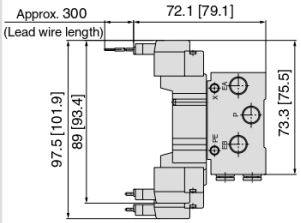


SV
SZ
SY
SYJ
SX

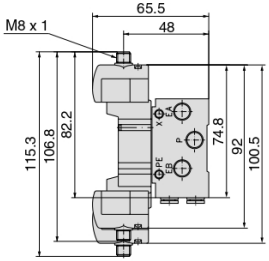
L plug connector (L)



M plug connector (M)



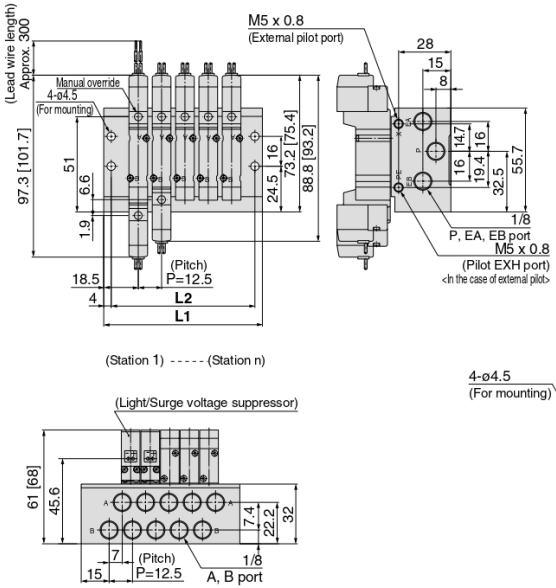
M8 connector (WO)



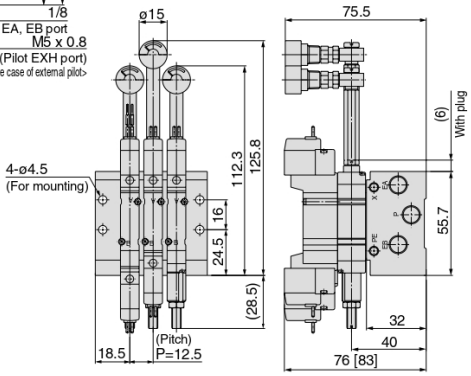
Note) Refer to page 1-4-210 for dimensions of connector types.

Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
L1	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

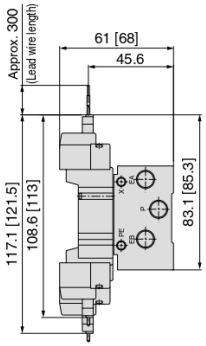
Grommet (G)



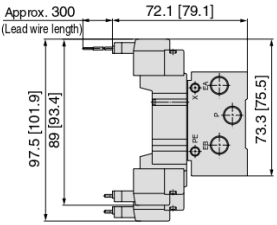
With interface regulator (with gauge)



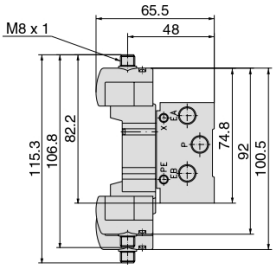
L plug connector (L)



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	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
L2	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