

## How to Order Valve

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

**Series**

9	SY9000
---	--------

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

**CE-compliant**

Nil	—
Q	CE-compliant

\* For DC only except DIN terminal.

**Made to Order**

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

**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 indicator light and 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.

**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
<b>G:</b> Lead wire length 300 mm	<b>L:</b> With lead wire (Length 300 mm)	<b>M:</b> With lead wire (Length 300 mm)	<b>D:</b> With connector
<b>H:</b> Lead wire length 600 mm	<b>LN:</b> Without lead wire	<b>MN:</b> Without lead wire	<b>DO:</b> Without connector
	<b>LO:</b> Without connector	<b>MO:</b> Without connector	<b>Y:</b> With connector
			<b>YO:</b> Without connector
			<b>W□:</b> Without connector cable
			<b>W□:</b> With connector cable <sup>Note)</sup>

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



## Manifold Specifications

Model		<b>SS5Y9-43(-Q)</b>
Applicable valve		<b>SY9□40</b>
Manifold type		Stacking type
P(SUP)/R(EXH)		Common SUP, Common EXH
Valve stations		2 to 20 stations <sup>(1)</sup>
A, B port	Location	Base
Porting specifications	Direction	Side
Port size	P, EA, EB port	C12 (One-touch fitting for ø12)
	A, B port	$\frac{1}{4}$ $\frac{3}{8}$ C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10) C12 (One-touch fitting for ø12)
Manifold base mass W (g), n: Stations		W = 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 238.

## Flow Characteristics

Model	Port size		Flow characteristics					
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)		
			C (dm <sup>3</sup> /s/bar)	b	Cv	C (dm <sup>3</sup> /s/bar)	b	Cv
<b>SS5Y9-43(-Q)</b>	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.

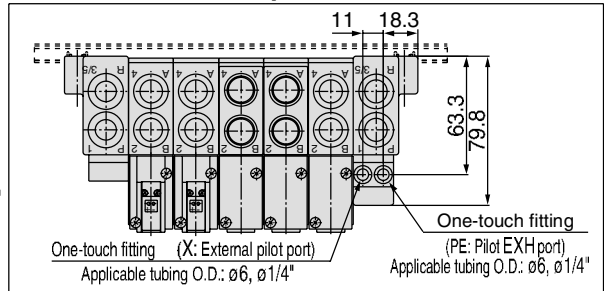
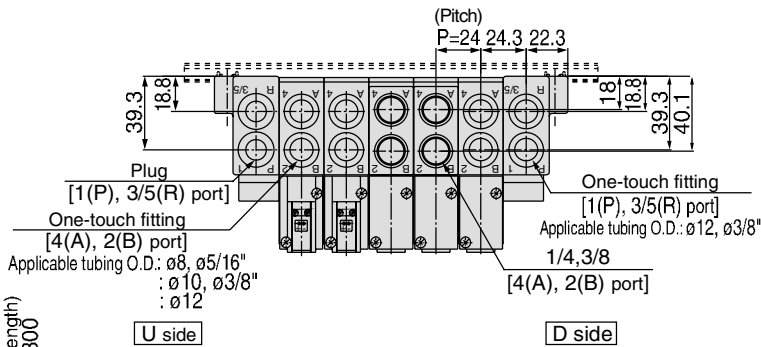
**SY9000: SS5Y9-43- Stations**  02 C8, N9  03 C10, N11  (-D)



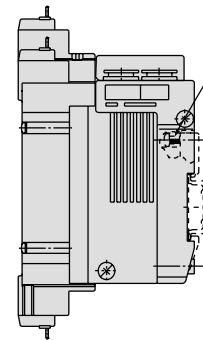
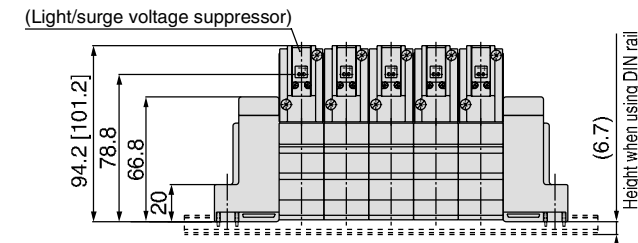
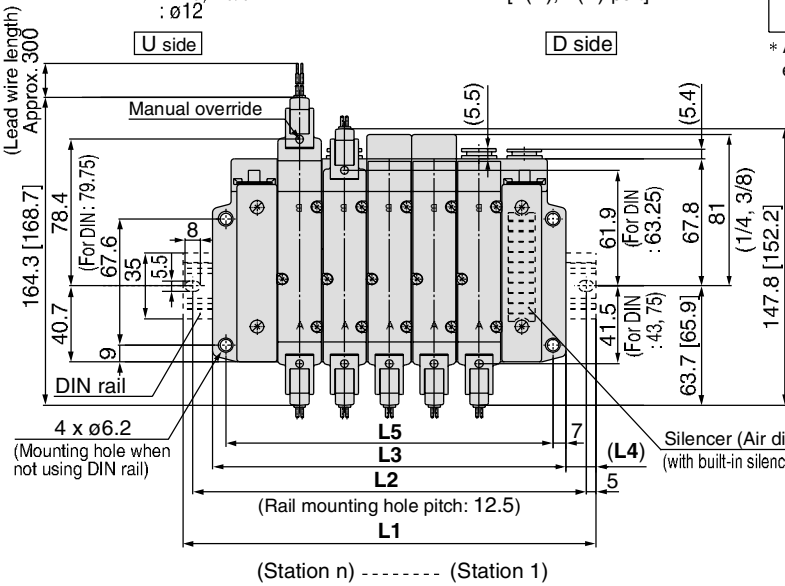
**Grommet (G)**

\* 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.



**DIN rail holding screw**  
 <When attaching the DIN rail>  
 Tightening torque: 0.55 to 0.65N·m

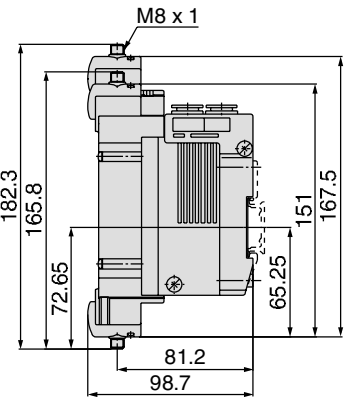
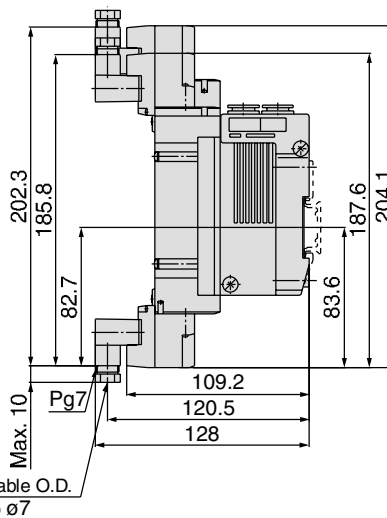
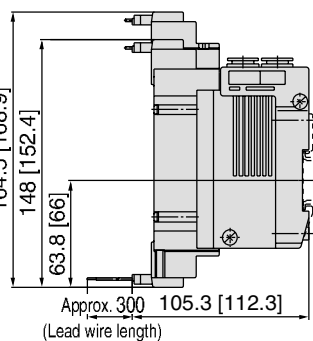
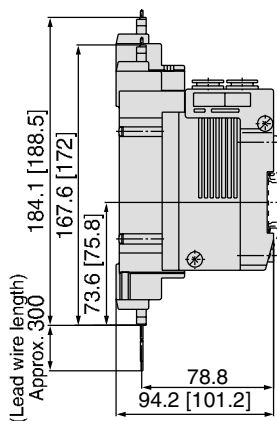
Stations n	2 stations	3	4	5	6	7	8	9	10 stations
<b>L1</b>	148	173	198	223	248	260.5	285.5	310.5	335.5
<b>L2</b>	137.5	162.5	187.5	212.5	237.5	250	275	300	325
<b>L3</b>	117	141	165	189	213	237	261	285	309
<b>L4</b>	15.5	16	16.5	17	17.5	12	12.5	13	13.5
<b>L5</b>	103	127	151	175	199	223	247	271	295

**L plug connector (L)**

**M plug connector (M)**

**DIN terminal (D, Y)**

**M8 connector (WO)**

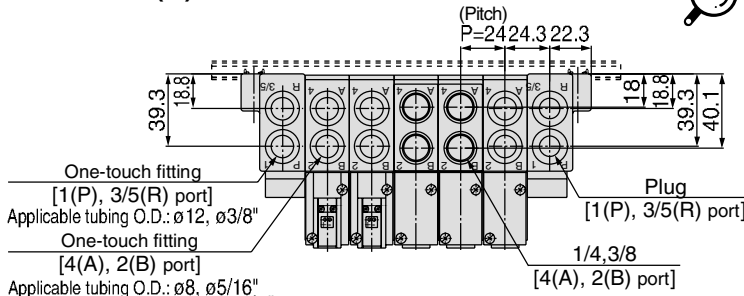


Note) Refer to page 340 for dimensions of connector types.

SY9000: SS5Y9-43- Stations U  <sup>02, C9, N9</sup> <sub>-03, C10, N11</sub>  (-D)

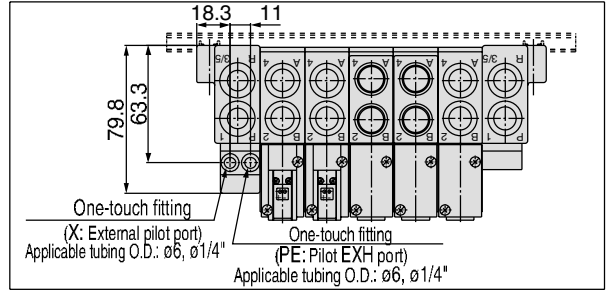


## Grommet (G)

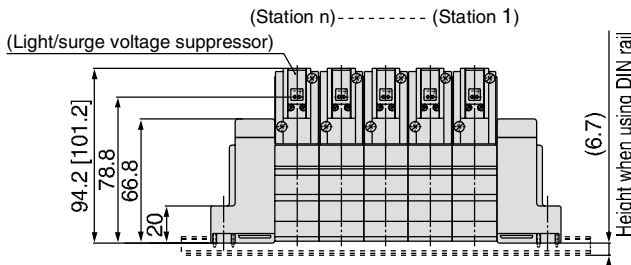
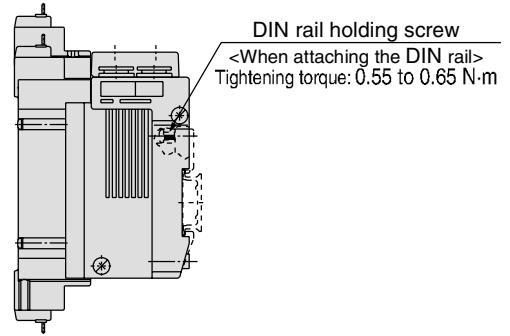
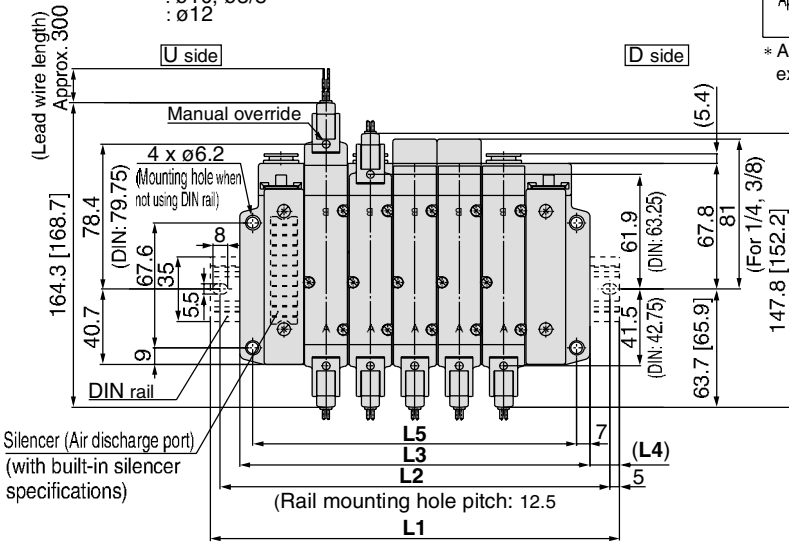


\* When P, R port outlets are indicated on the U side, the P, R ports on the opposite side are plugged.

## 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.



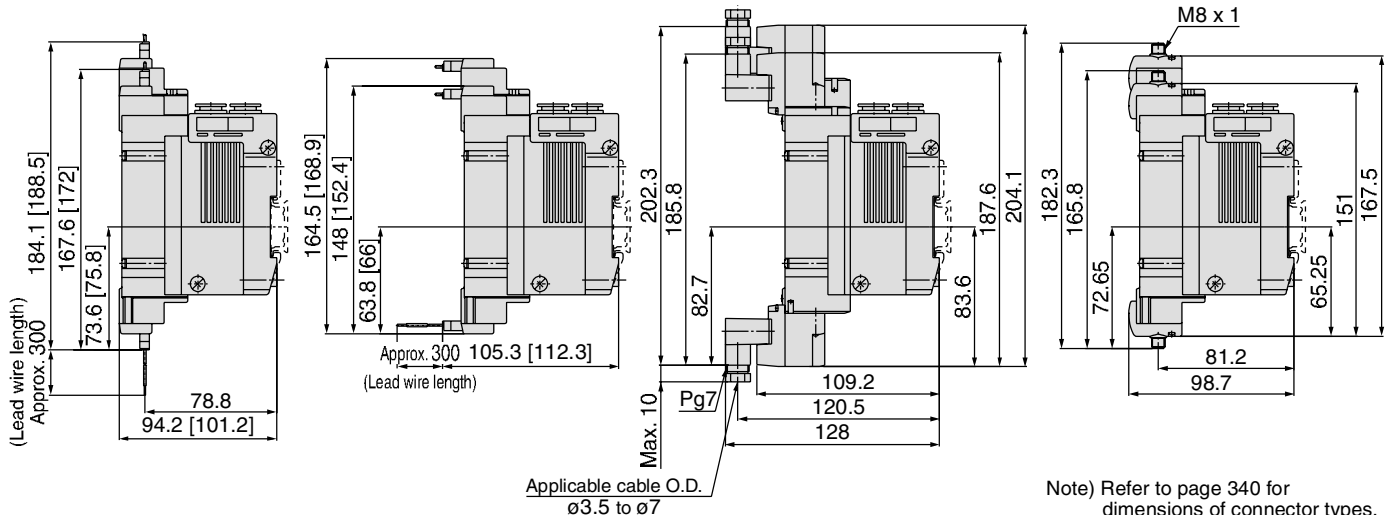
Stations n	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	198	223	248	260.5	285.5	310.5	335.5
L2	137.5	162.5	187.5	212.5	237.5	250	275	300	325
L3	117	141	165	189	213	237	261	285	309
L4	15.5	16	16.5	17	17.5	12	12.5	13	13.5
L5	103	127	151	175	199	223	247	271	295

## L plug connector (L)

## M plug connector (M)

## DIN terminal (D, Y)

## M8 connector (WO)

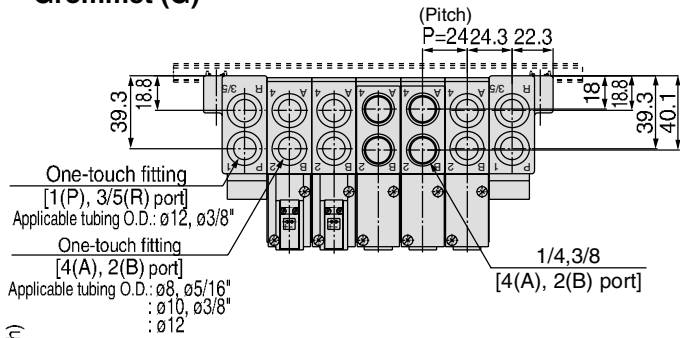


Note) Refer to page 340 for dimensions of connector types.

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

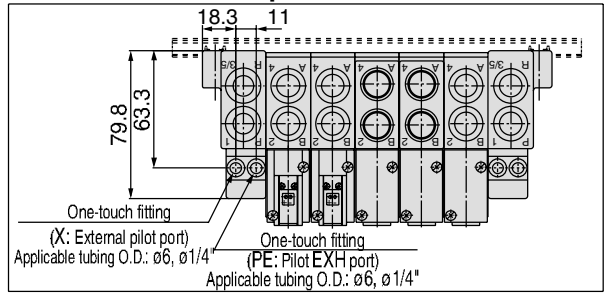


**Grommet (G)**

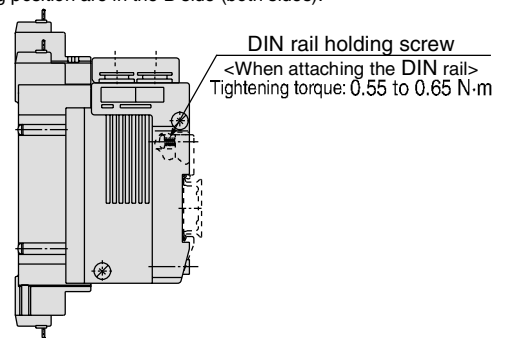
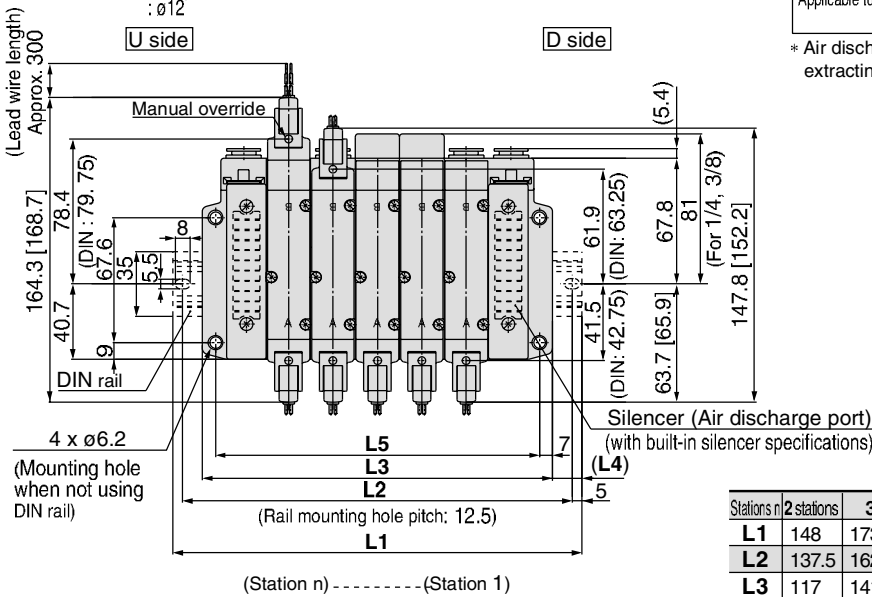


\* When P, R port outlets are indicated on the B side, the P, R ports on the both sides are in the open state.

**With External Pilot Specifications**

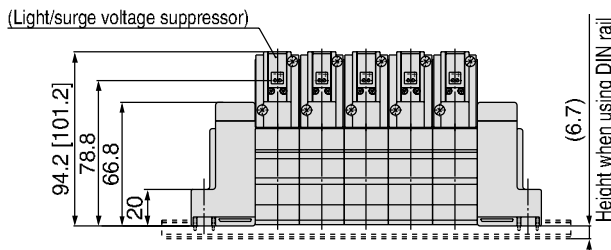


\* Air discharge port on the built-in silencer type and the external pilot's extracting position are in the B side (both sides).



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

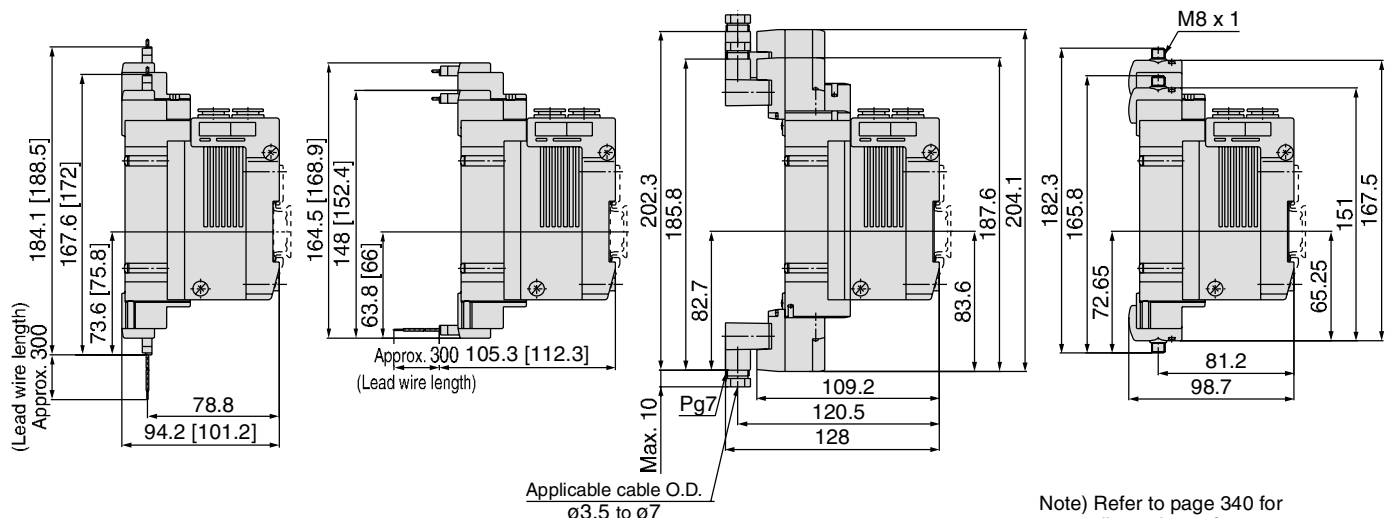


**L plug connector (L)**

**M plug connector (M)**

**DIN terminal (D, Y)**

**M8 connector (WO)**



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