

Type **20**

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

Series SY3000/5000/7000

How to Order Manifold

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

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

02	2 stations
⋮	⋮
20	20 stations



* This also includes the number of blanking plate assemblies.

Thread type

Nil	Rc
00F	G
00N	NPT
00T	NPTF

CE-compliant

Nil	—
Q	CE-compliant

How to Order Manifold Assembly (Example)

Example

Cylinder port size

C6: With one-touch fitting for ø6

Double solenoid (24 VDC)

SY3220-5G-C6 (2 sets)

Single solenoid (24 VDC)

SY3120-5G-C6 (2 sets)

Blanking plate assembly

SY3000-26-9A (1 set)

Manifold base (5 stations)

SS5Y3-20-05

Stations ... 3 2 1

SS5Y3-20-05 1 set (Type 20, 5-station 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 Valve

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

Series

3	SY3000
5	SY5000
7	SY7000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Coil specifications

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

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

Rated voltage

For DC		For AC (50/60 Hz)	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
V	6 VDC	3	110 VAC [115 VAC]
S	5 VDC	4	220 VAC [230 VAC]
R	3 VDC		

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

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Made to Order

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

CE-compliant

Nil	—
Q	CE-compliant

* For DC only except DIN terminal.

Manual override

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

Light/surge voltage suppressor

Electrical entry for G, H, L, M, W

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

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

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

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	SY3000
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	SY7000

One-touch fitting (Inch size)

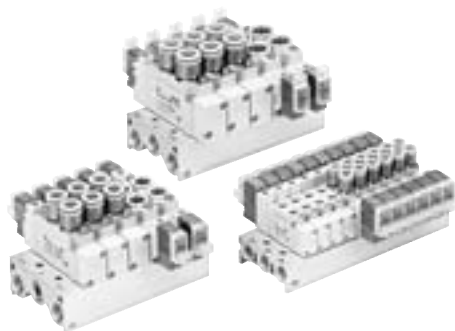
Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	SY3000
N3	One-touch fitting for ø5/32"	SY5000
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16"	SY7000
N9	One-touch fitting for ø5/16"	SY7000
N11	One-touch fitting for ø3/8"	SY7000

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	(SY5000/7000 only) D: With connector DO: Without connector Y: With connector YO: Without connector	WO: Without connector cable W□: With connector cable (Note)

* LN, MN type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).
For details, refer to page 336.
* For connector cable of M8 connector, refer to page 339.
* M8 thread 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.

Note) When placing an order for body ported solenoid valve as a single unit, mounting screw for manifold and gasket are not attached. Order them separately, if necessary.
(For details, refer to page 173.)



Manifold Specifications

Model	SS5Y3-20(-Q)	SS5Y5-20(-Q)	SS5Y7-20(-Q)
Applicable valve	SY3□20	SY5□20	SY7□20
Manifold type	Single base/B mount		
P (SUP)/R (EXH)	Common SUP, Common EXH		
Valve stations	2 to 20 stations ^{Note 1)}		
A, B port location	Valve		
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) C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10)
Manifold base mass 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 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 173.

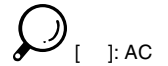
Flow Characteristics

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

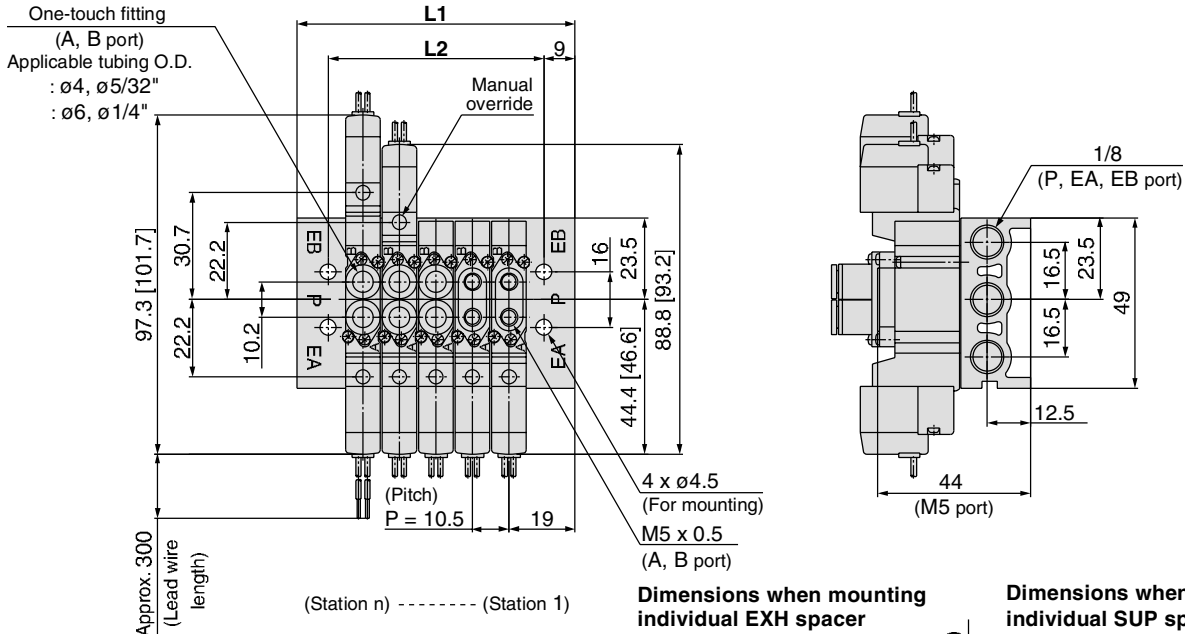


Note) The value is for manifold base with 5 stations and individually operated 2 position type.

SY3000: SS5Y3-20- Stations -

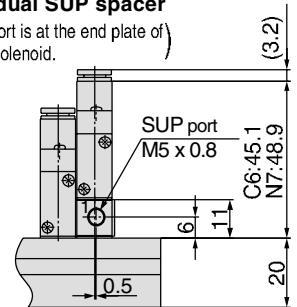
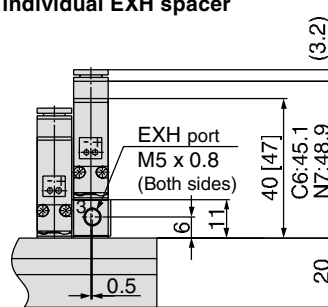
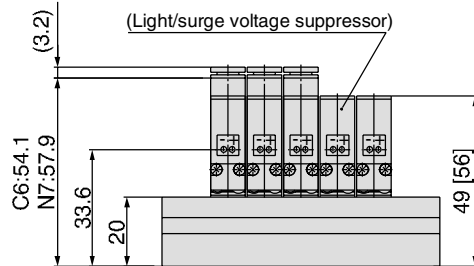


Grommet (G)

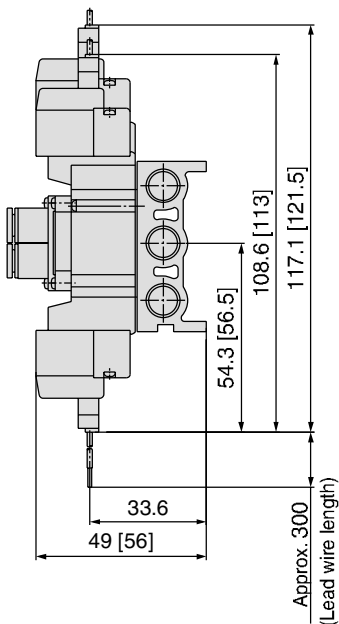


Dimensions when mounting individual EXH spacer

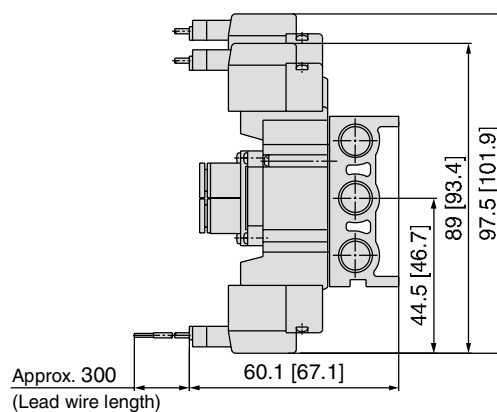
Dimensions when mounting individual SUP spacer
(SUP port is at the end plate of single solenoid.)



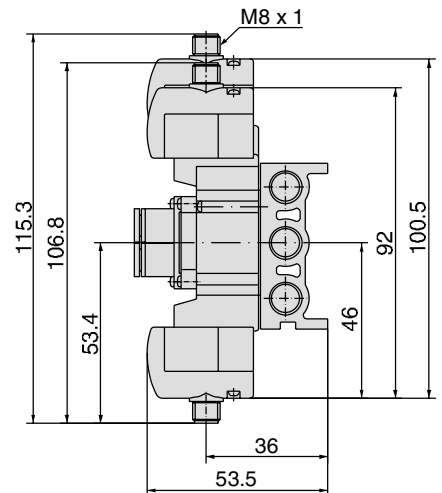
L plug connector (L)



M plug connector (M)



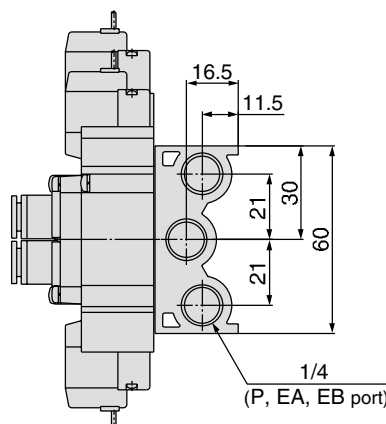
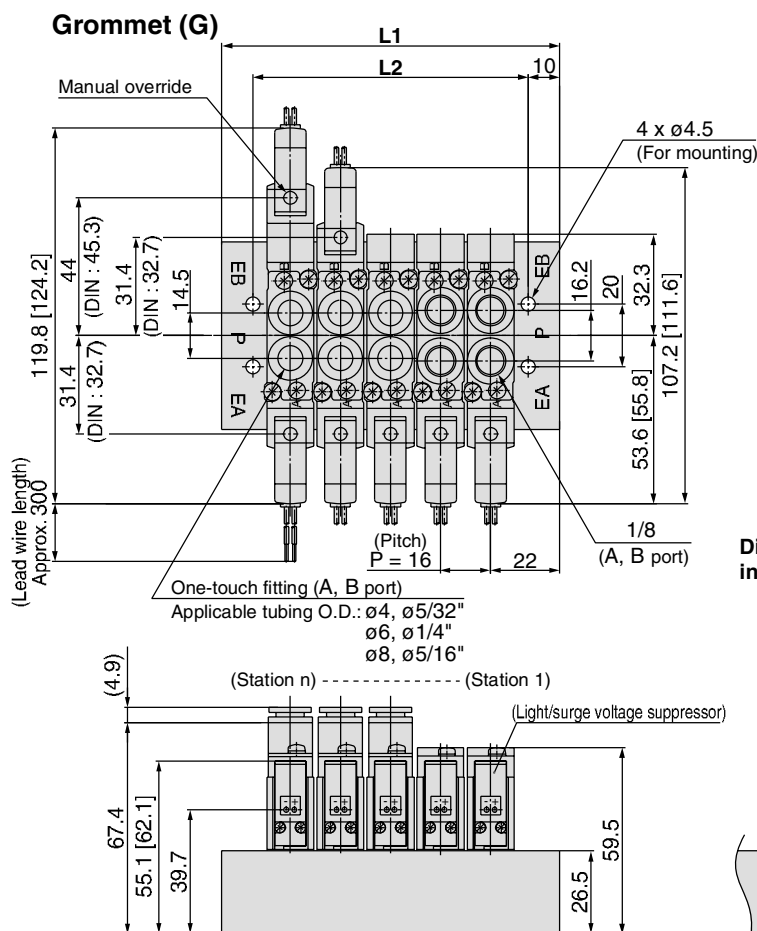
M8 connector (WO)



Note) Refer to page 340 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

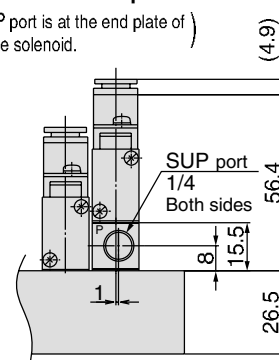
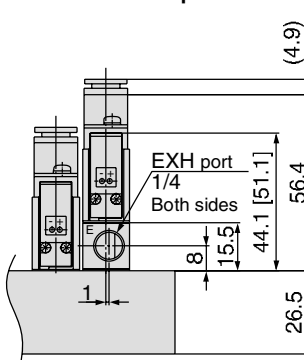
SY5000: SS5Y5-20- Stations -



Dimensions when mounting individual EXH spacer

Dimensions when mounting individual SUP spacer

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

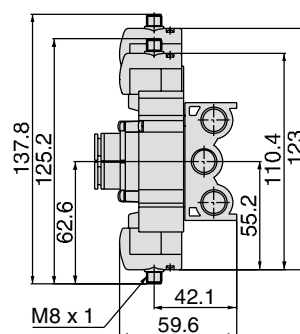
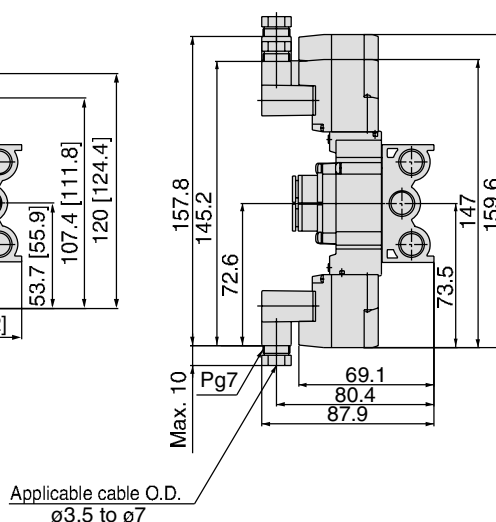
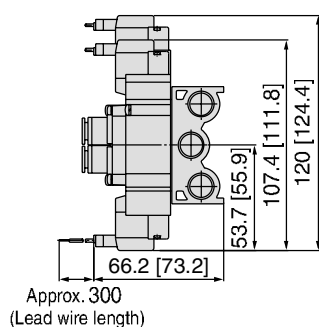
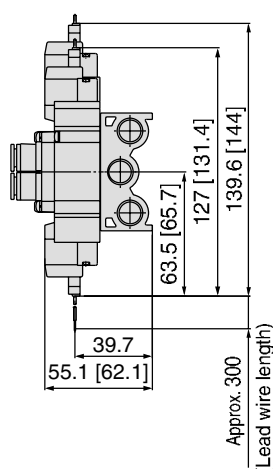


L plug connector (L)

M plug connector (M)

DIN terminal (D, Y)

M8 connector (WO)



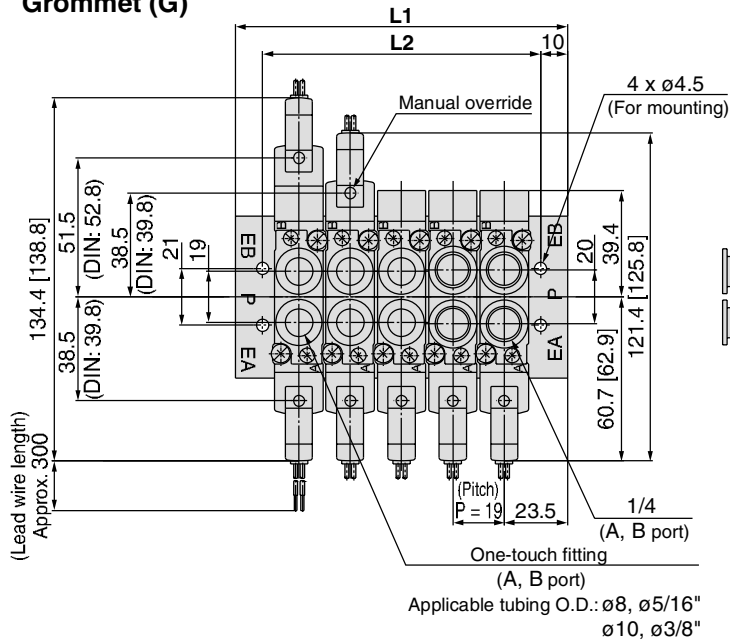
Note) Refer to page 340 for dimensions of connector types.

Stations n	2 stations	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 stations
L1	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

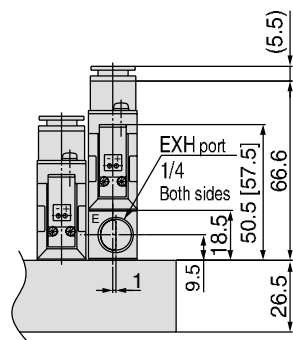
SY7000: SS5Y7-20- Stations -



Grommet (G)

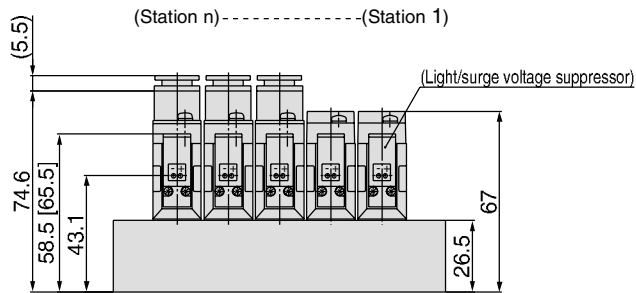
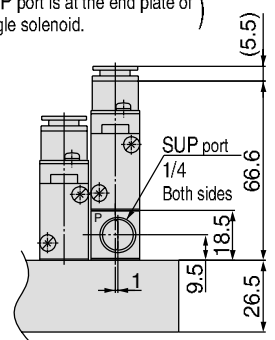


Dimensions when mounting individual EXH spacer

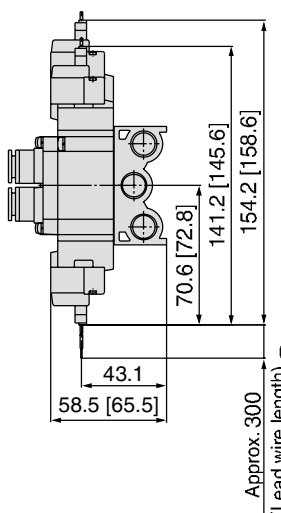


Dimensions when mounting individual SUP spacer

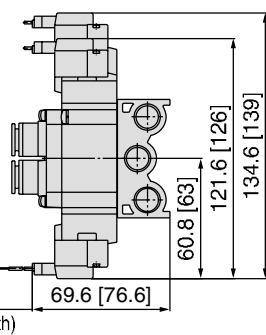
(SUP port is at the end plate of single solenoid.)



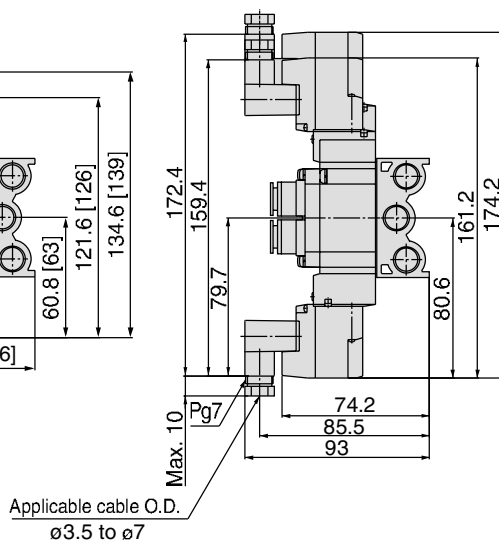
L plug connector (L)



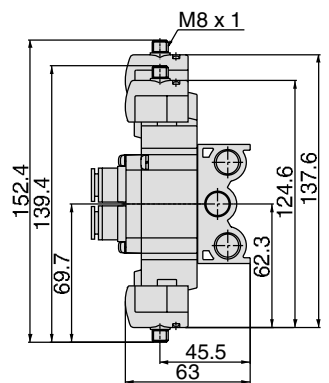
M plug connector (M)



DIN terminal (D, Y)



M8 connector (WO)



Note) Refer to page 340 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	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388