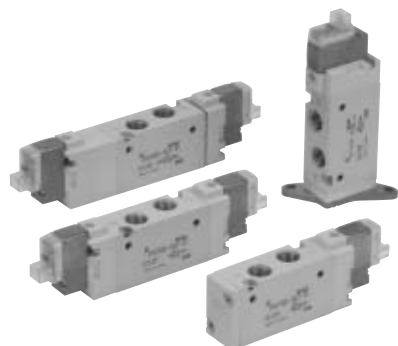


Rubber seal 5 Port Solenoid Valve Series SYJ7000

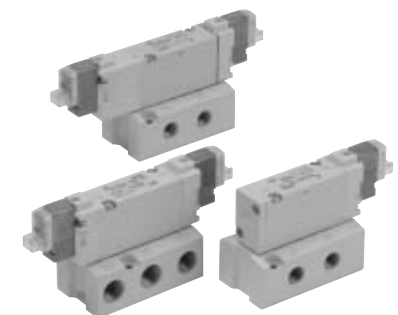


For details about certified products conforming to international standards, visit us at www.poweraire.com.

Specifications



Body ported



Base mounted

Fluid	Air	
Operating pressure range MPa	2 position single	0.15 to 0.7
	2 position double	0.1 to 0.7
	3 position	0.15 to 0.7
Ambient and fluid temperature (°C)	-10 to 50 (No freezing. Refer to page 83.)	
Response time (ms) ^{Note 1)} (at 0.5 MPa)	2 position single, double	30 or less
	3 position	60 or less
Max. operating frequency (Hz)	2 position single, double	5
	3 position	3
Manual override (Manual operation)	Non-locking push type, push-turn locking slotted type, push-turn locking lever type	
Pilot exhaust method	Individual exhaust for the pilot valve, common exhaust for the pilot and main valve	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Shock/Vibration resistance (m/s²) ^{Note 2)}	150/30	
Enclosure	Dust proof (* DIN terminal, M8 connector conforms to IP65.)	



* Based on IEC529

Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) Impact resistance:

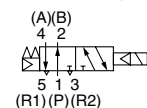
No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve and armature when pilot signal is ON and OFF. (Value in the initial state)

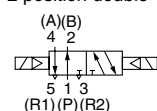
Solenoid Specifications

JIS Symbol Body ported

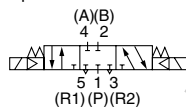
2 position single



2 position double



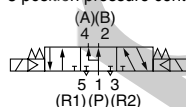
3 position closed center



3 position exhaust center

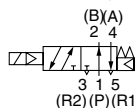


3 position pressure center

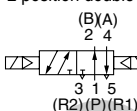


Base mounted

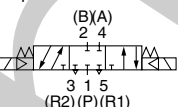
2 position single solenoid



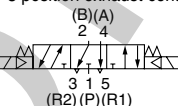
2 position double solenoid



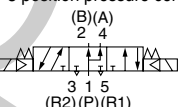
3 position closed center



3 position exhaust center



3 position pressure center



Electrical entry	Grommet (G), (H) L plug connector (L) M plug connector (M) DIN terminal (D) M8 Connector (W)		
Coil rated voltage (V)	DC	24, 12, 6, 5, 3	
	AC 50/60 Hz	100, 110, 200, 220	
Allowable voltage fluctuation	±10% of rated voltage		
Power consumption (W)	DC	Standard	0.35 {With light: 0.4 (DIN terminal with light: 0.45)}
		With power saving circuit	0.1 (With light only)
Apparent power VA*	AC	100V	1.4 (With light: 1.5)
		110V	1.6 (With light: 1.7)
		[115V]	[1.7 (With light: 1.8)]
		200V	2.3 (With light: 2.4)
		220V [230V]	2.5 (With light: 2.6) [2.7 (With light: 2.8)]
Surge voltage suppressor	Diode (DIN terminal, varistor when non-polar types)		
Indicator light	LED (Neon light when AC with DIN terminal)		



* In common between 110 VAC and 115 VAC, and between 220 VAC and 230 VAC.

* For 115 VAC and 230 VAC, the allowable voltage is -15% to +5% of rated voltage.



Made to Order

(For details, refer to pages 79 through 80.)

Flow Characteristics/Weight

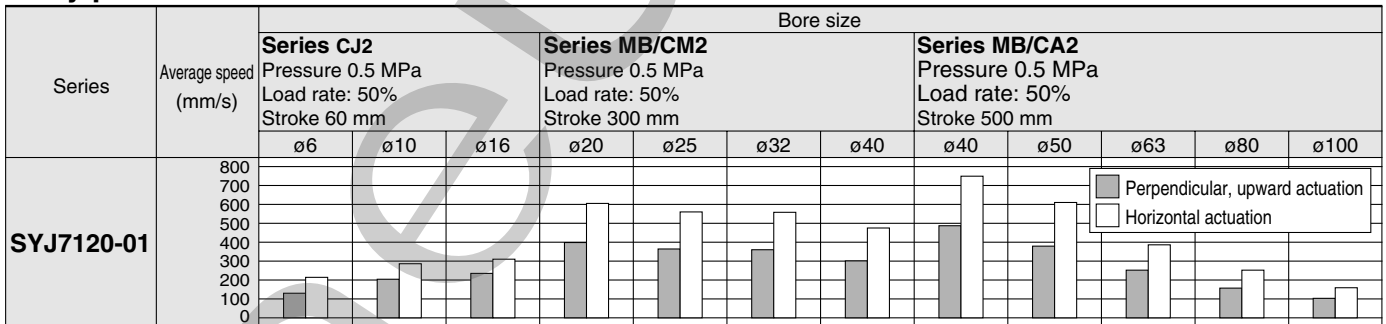
Valve model	Type of actuation	Port size		Flow characteristics ^{Note 1)}						Weight (g) ^{Note 2, 3)}					
		1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)			Grommet	L/M plug connector	DIN terminal	M8 connector		
				C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv						
Body ported	SYJ7□20-□-01	2 position	Single	1/8	1/8	2.2	0.36	0.58	2.4	0.34	0.63	85	86	107	90
			Double			98	100	142	108						
		3 position	Closed center			1.8	0.37	0.45	2.0	0.35	0.49	108	110	152	118
			Exhaust center			1.2	0.50	0.34	3.0 [1.3]	0.35[0.52]	0.73 [0.39]				
	SYJ7□20-□-C6	2 position	Single	1/8	C6 (One-touch fitting for ø6)	1.6	0.33	0.4	2.2	0.32	0.53	96	97	98	101
			Double			109	111	153	119						
		3 position	Closed center			1.4	0.27	0.35	1.9	0.33	0.49	119	121	163	129
			Exhaust center			1.1	0.37	0.27	2.5 [1.3]	0.32[0.54]	0.61 [0.38]				
	SYJ7□20-□-C8	2 position	Single	1/8	C8 (One-touch fitting for ø8)	2.0	0.39	0.52	2.3	0.34	0.61	96	97	98	101
			Double			109	111	153	119						
		3 position	Closed center			1.7	0.35	0.42	2.0	0.29	0.49	119	121	163	129
			Exhaust center			1.2	0.38	0.33	2.6 [1.3]	0.35[0.49]	0.67 [0.38]				
Base mounted	SYJ7□40-□-01	2 position	Single	1/8	1/8	2.3	0.45	0.57	2.8	0.37	0.71	165 (85)	166 (86)	187 (107)	170 (90)
			Double			178 (98)	180 (100)	222 (142)	188 (108)						
		3 position	Closed center			1.9	0.36	0.48	2.1	0.46	0.57	188 (108)	190 (110)	232 (152)	198 (118)
			Exhaust center			1.2	0.48	0.35	3.4 [1.3]	0.36[0.57]	0.86 [0.41]				
	SYJ7□40-□-02	2 position	Single	1/4	1/4	2.3	0.41	0.61	2.9	0.35	0.74	165 (85)	166 (86)	187 (107)	170 (90)
			Double			178 (98)	180 (100)	222 (142)	188 (108)						
		3 position	Closed center			1.9	0.46	0.50	2.2	0.44	0.60	188 (108)	190 (110)	232 (152)	198 (118)
			Exhaust center			1.3	0.45	0.35	3.7 [1.4]	0.27[0.56]	0.87 [0.43]				
			Pressure center	3.6 [0.83]	0.23 [0.55]	0.84 [0.25]	2.1	0.47	0.58						

Note 1) []: denotes the normal position. Exhaust center: 4/2 → 5/3, Pressure center: 1 → 4/2
 Note 2) (): Without sub-plate.
 Note 3) For DC voltages. For AC voltages add 3 g to the weight of the single solenoid and 6 g to the weight of the double solenoid and 3 position types.

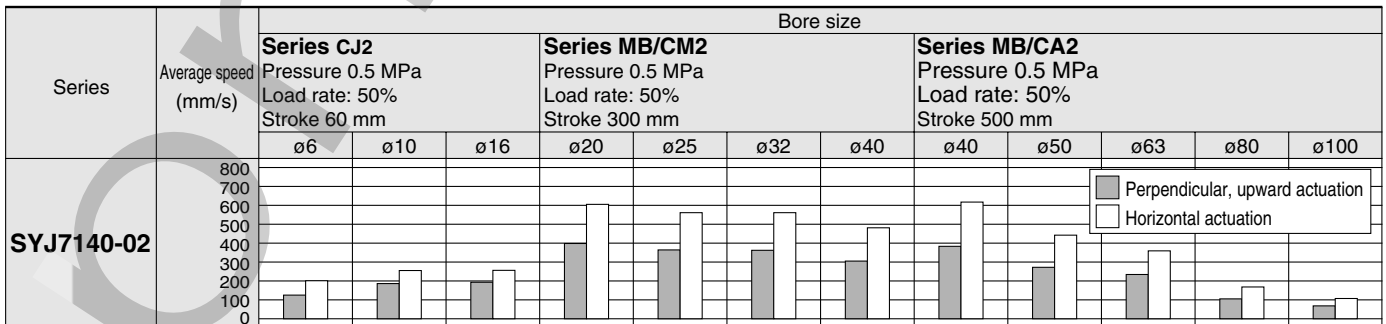
Cylinder Speed Chart

Body ported

Use as a guide for selection.
 Please confirm the actual conditions with P/A Sizing Program.



Base mounted



* Cylinder is in extending. Speed controller is meter-out, which is directly connected with cylinder and its needle is fully opened.
 * Average speed of cylinder is obtained by dividing the full stroke time by the stroke.
 * Load factor: (Load weight x 9.8) / Theoretical force) x 100%

Conditions

Body ported		Series CJ2	Series CM2	Series MB/CA2
SYJ7120-01	Tubing bore x Length	ø6 x 1 m		
	Speed controller	AS2301F-06	AS3301F-06	AS4001F-12
	Silencer	AN110-01	AN200-02	

Base mounted		Series CJ2	Series CM2	Series MB/CA2
SYJ7140-02	Tubing bore x Length	ø6 x 1 m		
	Speed controller	AS1301F-06	AS3001F-06	
	Silencer	AN110-01	AN200-02	AN3301F-06

Series SYJ7000

How to Order

Type of actuation

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

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 type "R" and "U", DC voltage is only available.
- * Power saving circuit is only available in the "Z" type.

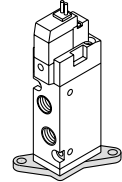
Electrical entry for D

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

- * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Bracket

Nil: Without bracket
F: With bracket



- Note) Do not remove the factory installed bracket from models with the bracket option. Removal of the bracket will cause the valve to leak.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

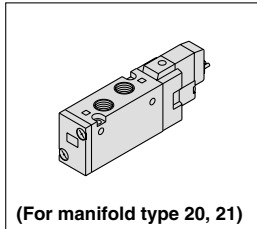
A, B port size

O1	1/8
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8
N7	One-touch fitting for ø1/4"
N9	One-touch fitting for ø5/16"

Rated voltage

DC	AC (50/60 Hz)
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC
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.

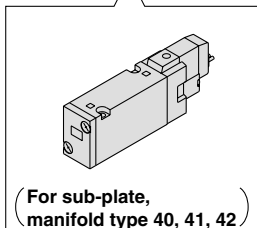


Body ported

SYJ7 1 2 0 □ 5 M □ □ □ 01 □ □ □

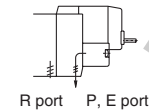
Base mounted

SYJ7 2 4 0 □ 5 M □ □ □ □ □ □ □

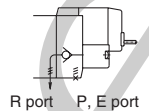


Body option

0: Pilot valve individual exhaust for the pilot valve



3: Common exhaust type for main and pilot valve



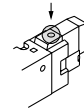
Coil specifications

Nil	Standard
T	With power saving circuit <24 V, 12 VDC only>

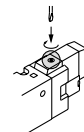
- * Power saving circuit is not available in the case of D, DO or W□ type.

Manual override

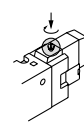
Nil: Non-locking push type



D: Push-turn locking slotted type



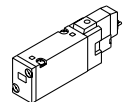
E: Push-turn locking lever type



Nil	Rc
F	G
N	NPT
T	NPTF

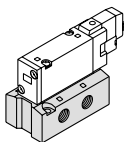
Port size

Nil: Without sub-plate

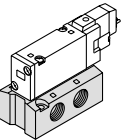


(With gasket and screws)

O1: 1/8 With sub-plate



O2: 1/4 With sub-plate



Note) R1, R2 port: 1/4

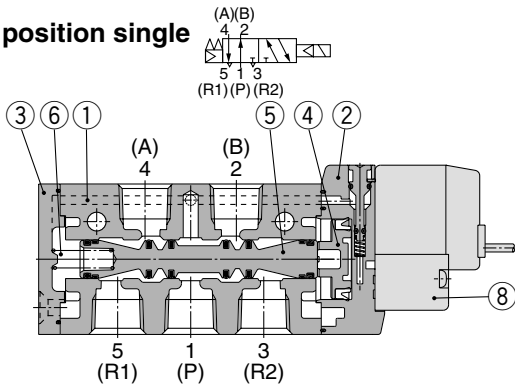
Electrical entry

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)	MN: Without lead wire	D: With connector	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	DO: Without connector	

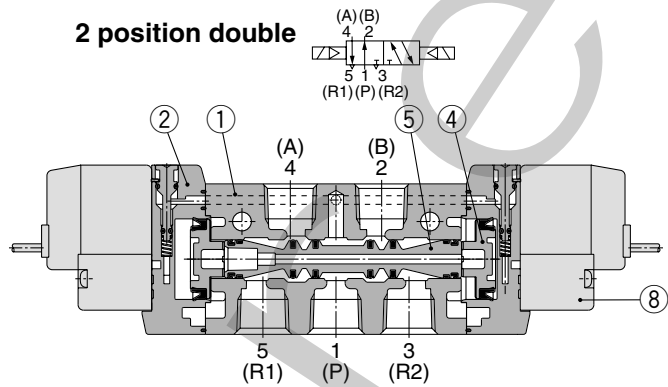
- * LN, MN type: with 2 sockets.
- * DIN connector "Type Y" conforming to DIN 43650C is also available. For details, refer to page 80.
- * For connector cable of M8 connector, refer to page 90.

Construction

2 position single

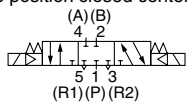


2 position double

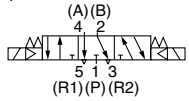


3 position closed center/Exhaust center/Pressure center

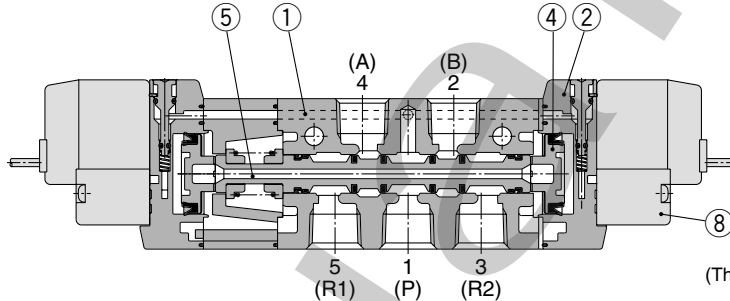
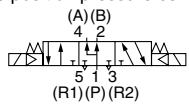
3 position closed center



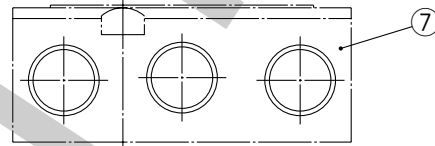
3 position exhaust center



3 position pressure center



(This figure shows a closed center type.)



Component parts

No.	Description	Material	Note
1	Body	Aluminum die-casted	White
2	Piston plate	Resin	White
3	End cover	Aluminum die-casted	White
4	Piston	Resin	—
5	Spool valve assembly	Aluminum, H-NBR	—
6	Spool spring	Stainless steel	—

Replacement parts

No.	Description	No.	Note
7	Sub-plate	SYJ7000-22-1	1/8 Aluminum die-casted
		SYJ7000-22-2	1/4
8	Pilot valve	V111(T)-□□□	—

How to Order Pilot Valve Assembly

V111 — 5 G

Coil specifications

Nil	Standard: DC specifications
A	Standard: AC specifications
T	With power saving circuit (24, 12 VDC only)

* Power saving circuit is not available in the case of W□ type.

Rated voltage

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

* For type W□, DC voltage is only available.

Light/surge voltage suppressor

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 type R and U, DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry

G	Grommet (300 mm lead wire)	
H	Grommet (600 mm lead wire)	
L	L plug connector	With lead wire
LN	L plug connector	Without lead wire
LO	L plug connector	Without connector
M	M plug connector	With lead wire
MN	M plug connector	Without lead wire
MO	M plug connector	Without connector
WO	M8 connector	Without connector cable

* For connector cable of M8 connector, refer to page 90.

V115 — 5 D

Rated voltage

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

Light/surge voltage suppressor

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

D	DIN terminal	With connector
DO	DIN terminal	Without connector

Note) Do not replace V111 (G, H, L, M, W) to V115 (DIN terminal) and vice versa when replacing pilot valve assembly only.

Series SYJ7000

How to Order Connector Assembly for L and M Plug Connector


- For DC : **SY100-30-4A-** 
- For 100 VAC : **SY100-30-1A-** 
- For 200 VAC : **SY100-30-2A-** 
- For other voltages of AC : **SY100-30-3A-** 

Without lead wire: **SY100-30-A**
(with connector and 2 of sockets only)

Lead wire length

Nil	300 mm
6	600 mm
10	1000 mm
15	1500 mm
20	2000 mm
25	2500 mm
30	3000 mm
50	5000 mm

How to Order M8 Connector Cable

V100-49-1- 

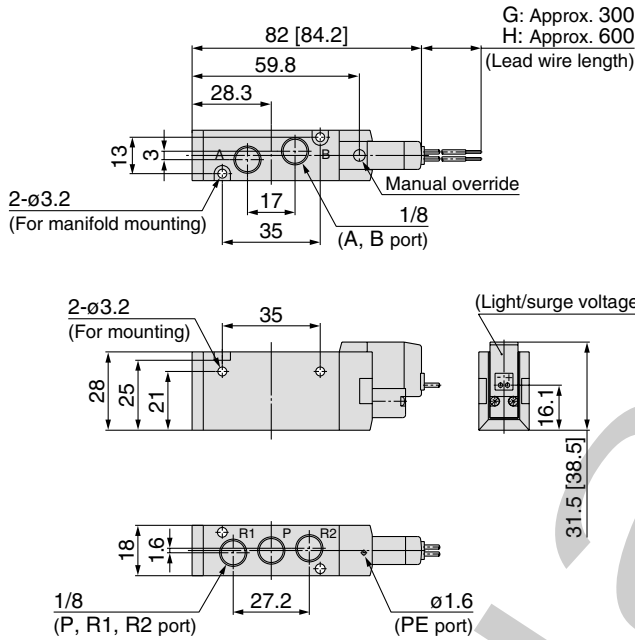
Cable length

1	300 mm
2	500 mm
3	1000 mm
4	2000 mm
7	5000 mm

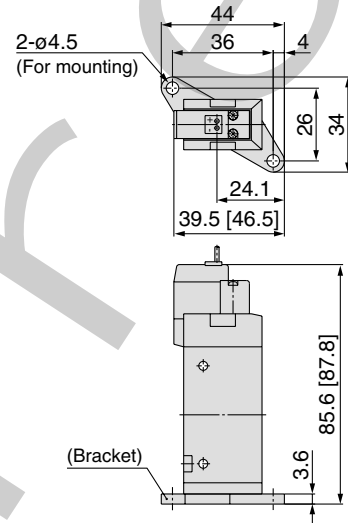
2 Position Single



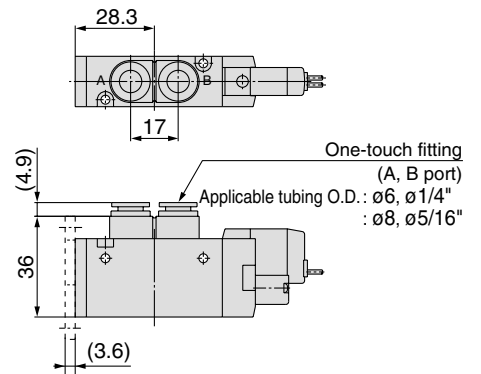
Grommet (G), (H): SYJ7120-□^G□□□-01□



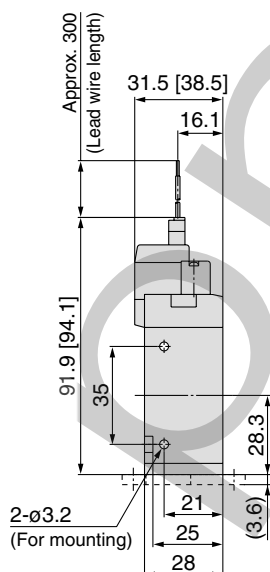
With bracket:
SYJ7120-□^G□□□-01□-F



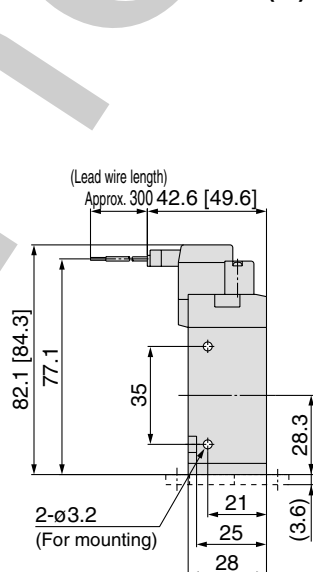
Built-in one-touch fitting:
SYJ7120-□^G□□□-^{C6, N7}_{C8, N9}□ (-F)



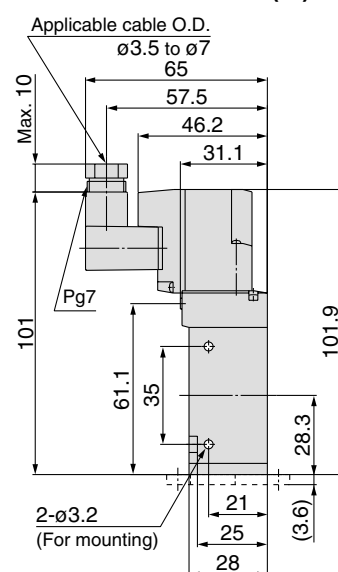
L plug connector (L):
SYJ7120-□L□□-01□ (-F)



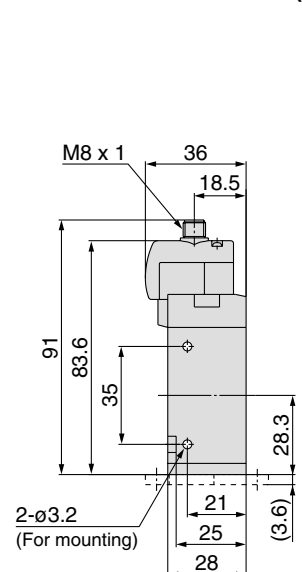
M plug connector (M):
SYJ7120-□M□□-01□ (-F)



DIN terminal (D):
SYJ7120-□D□□-01□ (-F)



M8 connector (W0):
SYJ7120-□W0□□-01□ (-F)



Refer to the page 91 for dimensions with connector cable.

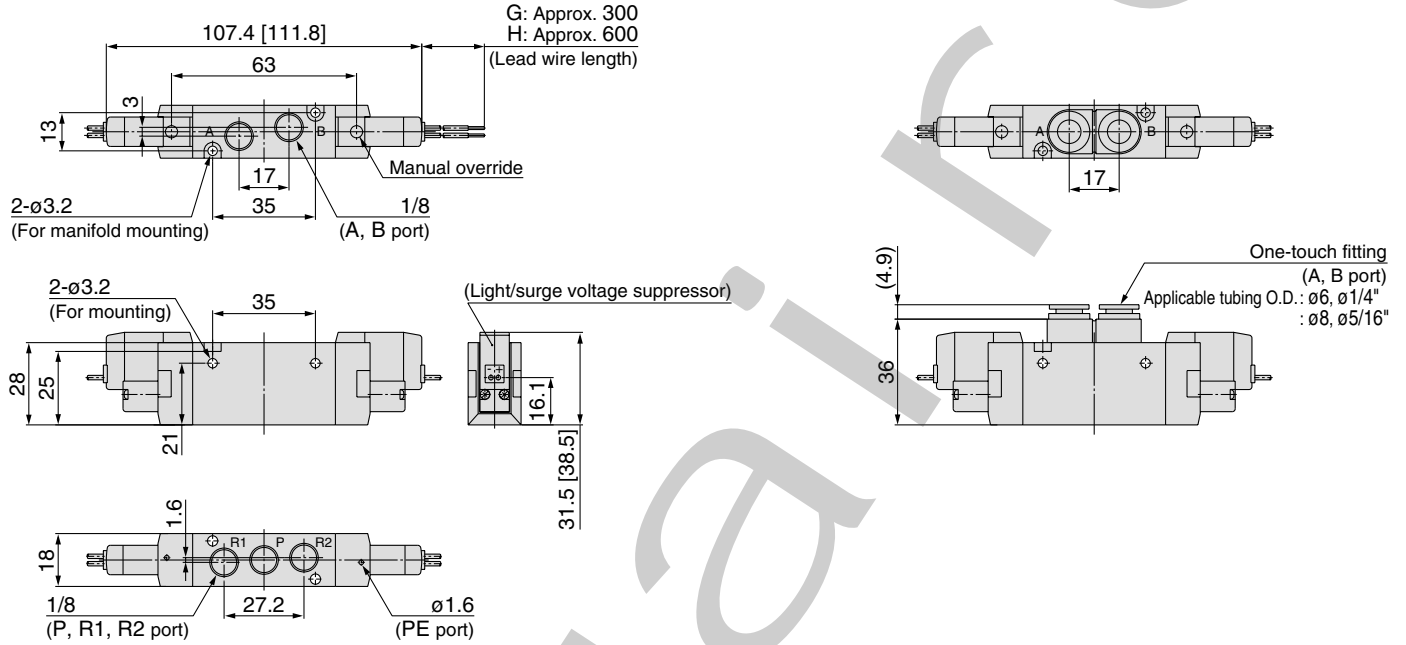
Series SYJ7000

2 Position Double



Grommet (G), (H): SYJ7220-□^G□□□-01□

Built-in one-touch fitting:
SYJ7220-□^G□□□-^{C6, N7}
^{C8, N9}□

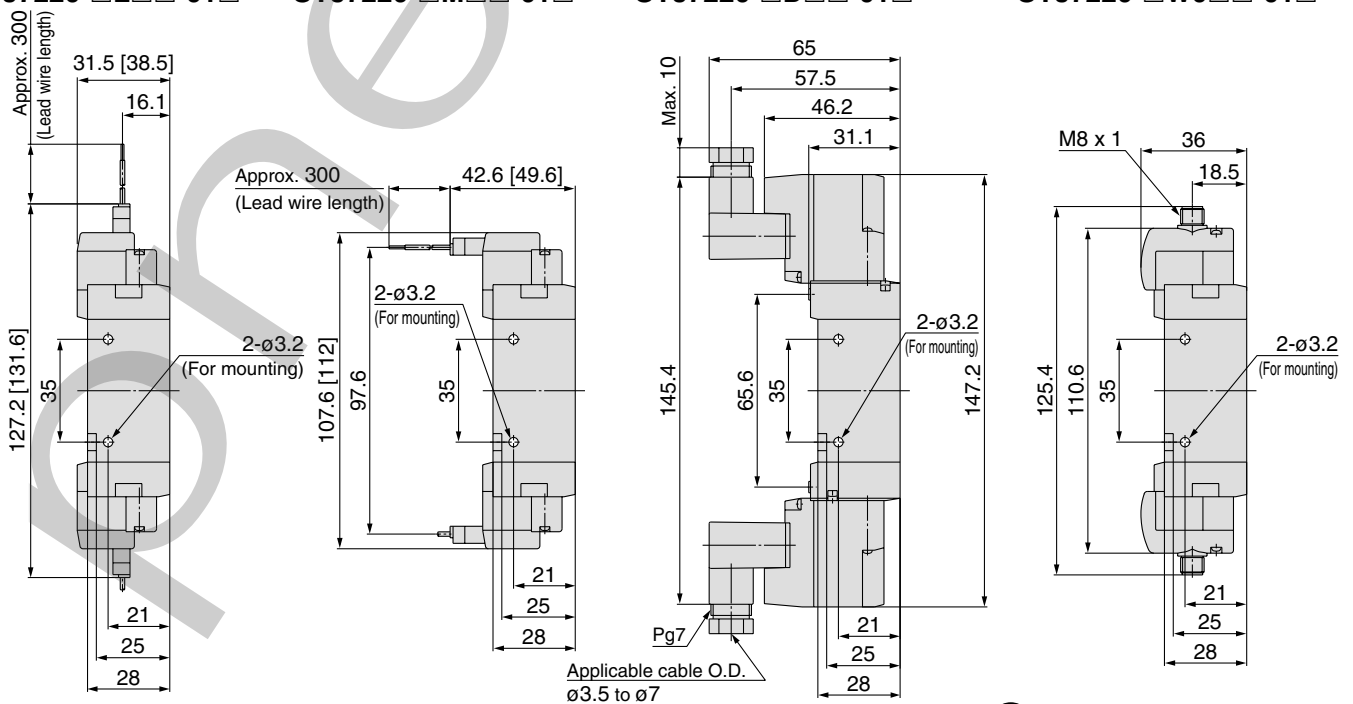


L plug connector (L):
SYJ7220-□L□□-01□

M plug connector (M):
SYJ7220-□M□□-01□

DIN terminal (D):
SYJ7220-□D□□-01□

M8 connector (W0):
SYJ7220-□W0□□-01□



Refer to the page 91 for dimensions with connector cable.

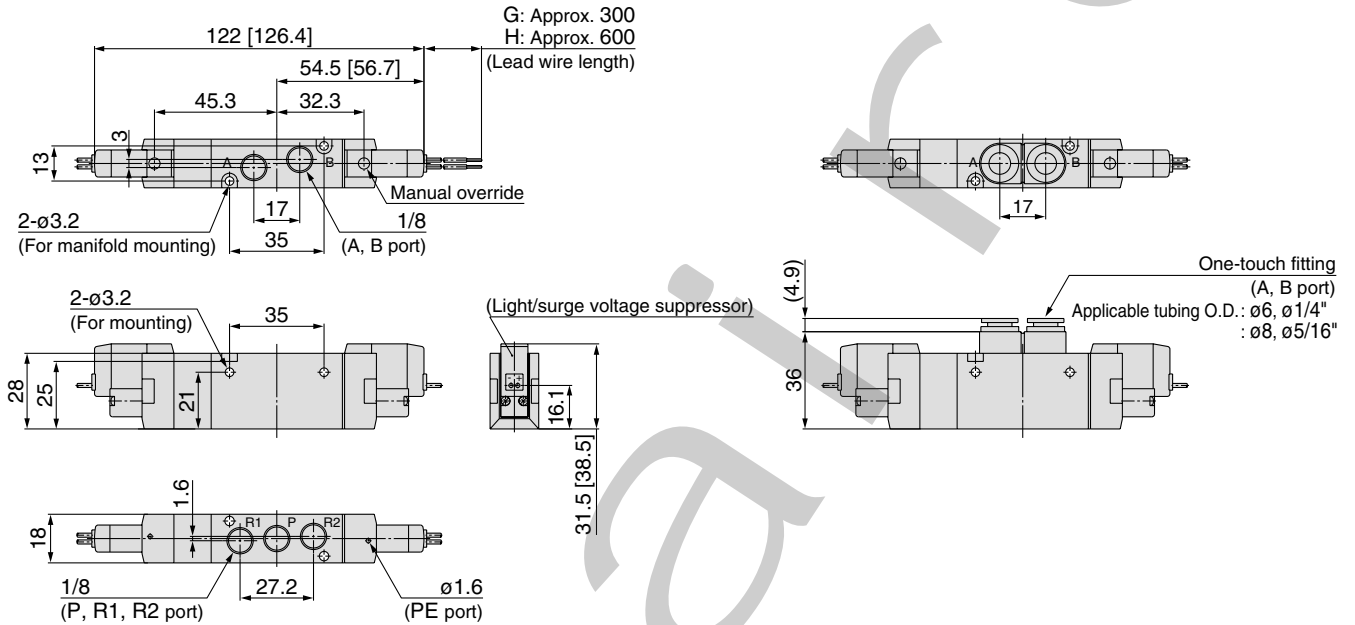
3 Position Closed Center/Exhaust Center/Pressure Center



Grommet (G), (H): SYJ7³/₅20-□^G□□-01□

Built-in one-touch fitting:

SYJ7³/₅20-□^G□□-^{C6, N7}□□^{C8, N9}□

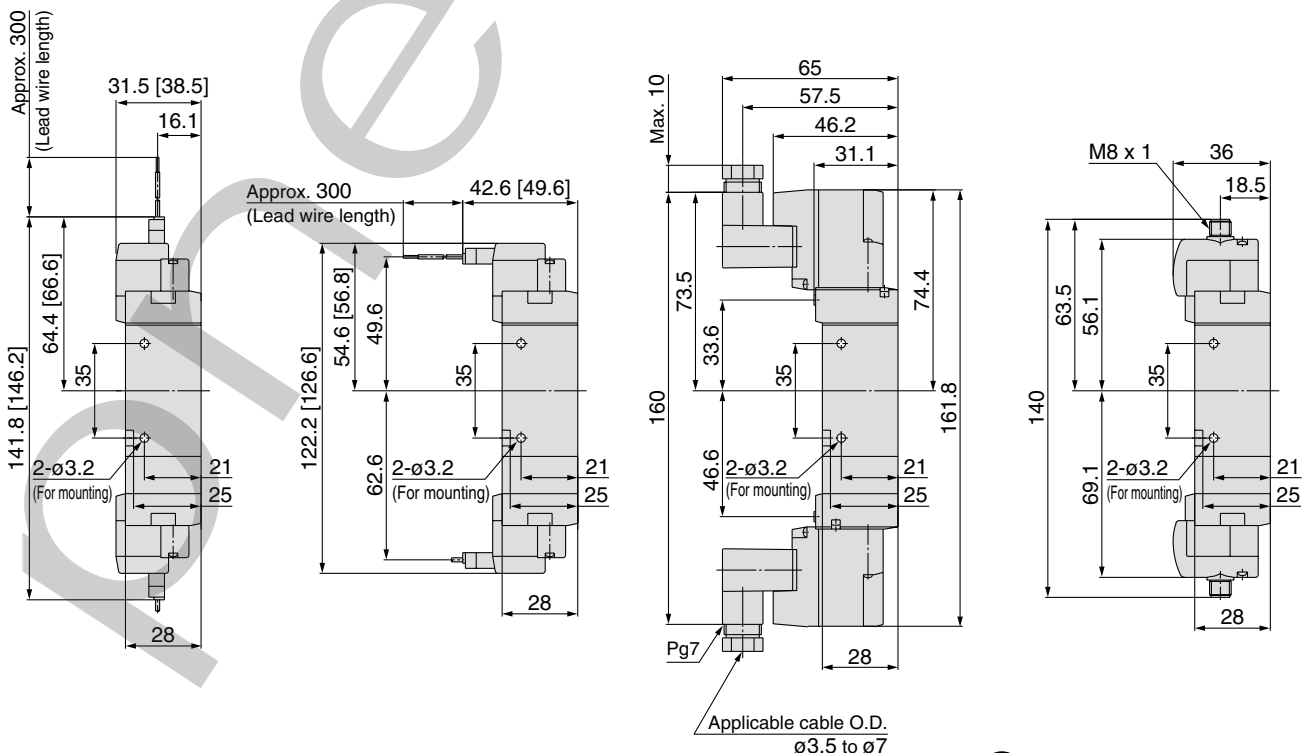


L plug connector (L):
SYJ7³/₅20-□L□□-01□

M plug connector (M):
SYJ7³/₅20-□M□□-01□

DIN terminal (D):
SYJ7³/₅20-□D□□-01□

M8 connector (W0):
SYJ7³/₅20-□W0□□-01□



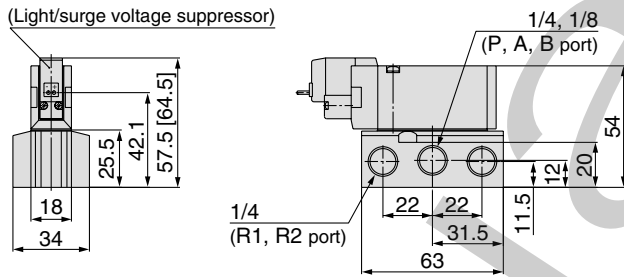
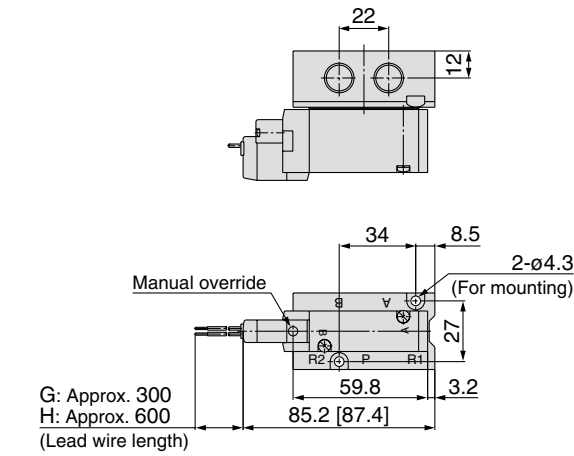
Refer to the page 91 for dimensions with connector cable.

Series SYJ7000

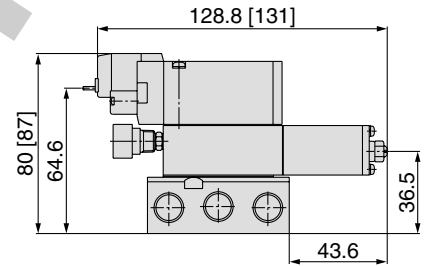
2 Position Single



Grommet (G), (H): SYJ7140-□□□□-01□□



With interface regulator

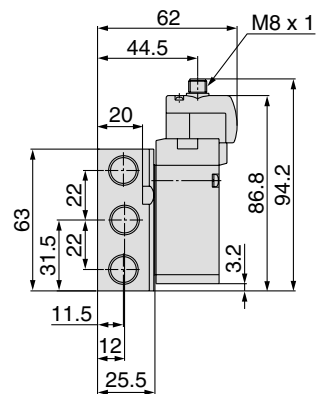
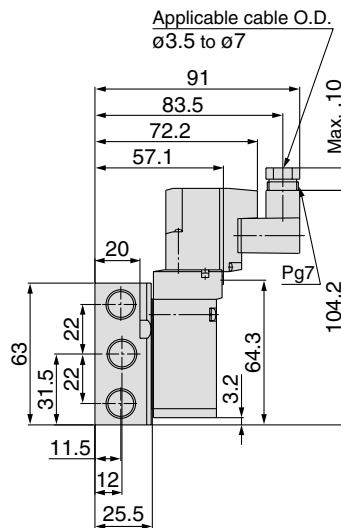
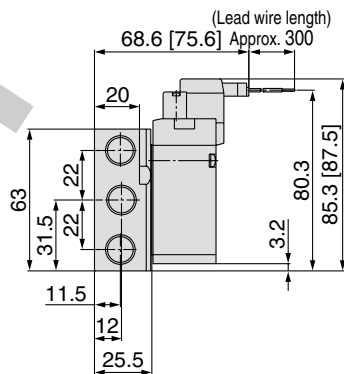
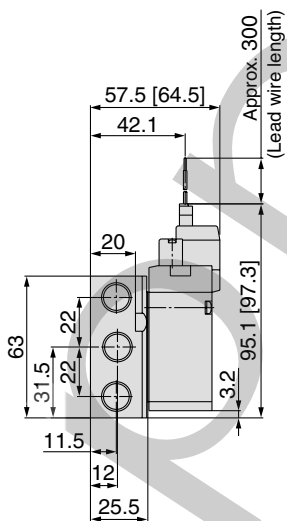


L plug connector (L):
SYJ7140-□□□□-01□□

M plug connector (M):
SYJ7140-□□□□-01□□

DIN terminal (D):
SYJ7140-□□□□-01□□

M8 connector (W0):
SYJ7140-□□□□-01□□

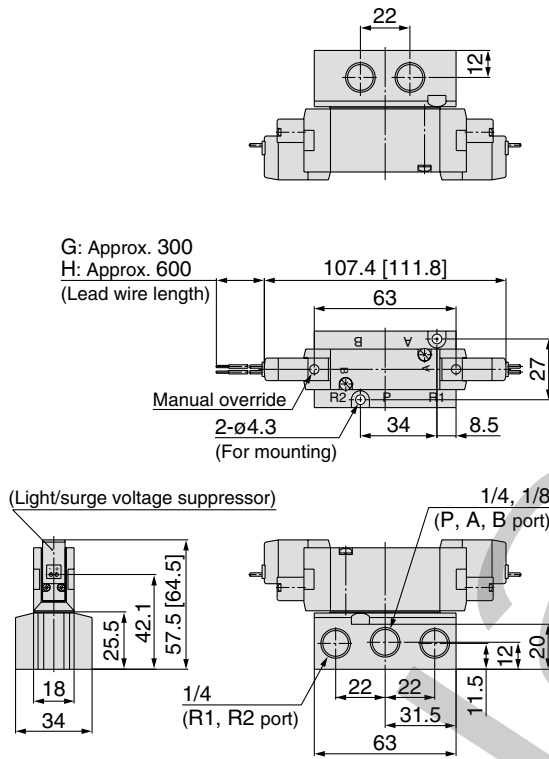


Refer to the page 91 for dimensions with connector cable.

2 Position Double

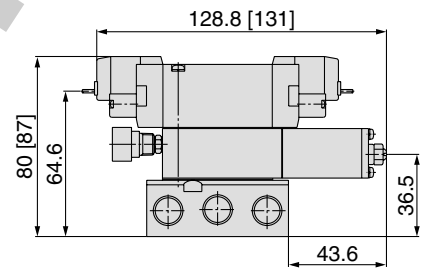


Grommet (G), (H): SYJ7240-□^G□□□-01□



G: Approx. 300
H: Approx. 600
(Lead wire length)

With interface regulator

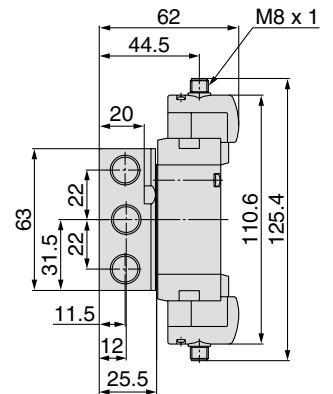
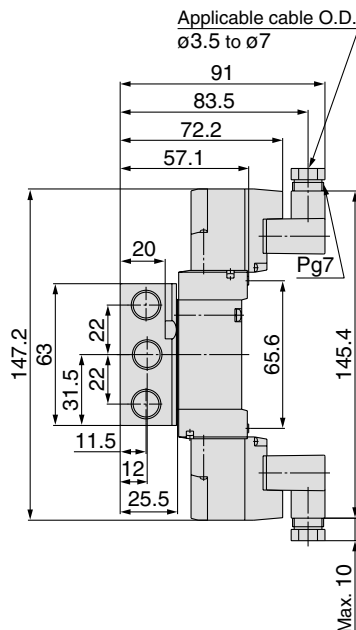
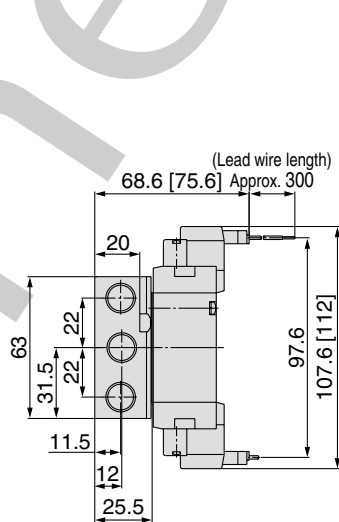
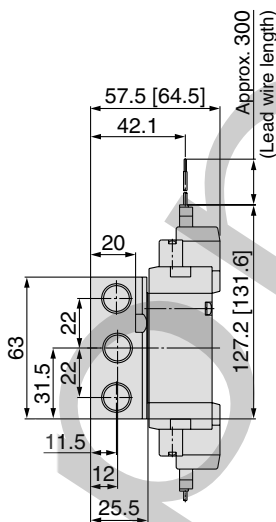


L plug connector (L):
SYJ7240-□L□□□-01□

M plug connector (M):
SYJ7240-□M□□□-01□

DIN terminal (D):
SYJ7240-□D□□□-01□

M8 connector (W0):
SYJ7240-□W0□□□-01□



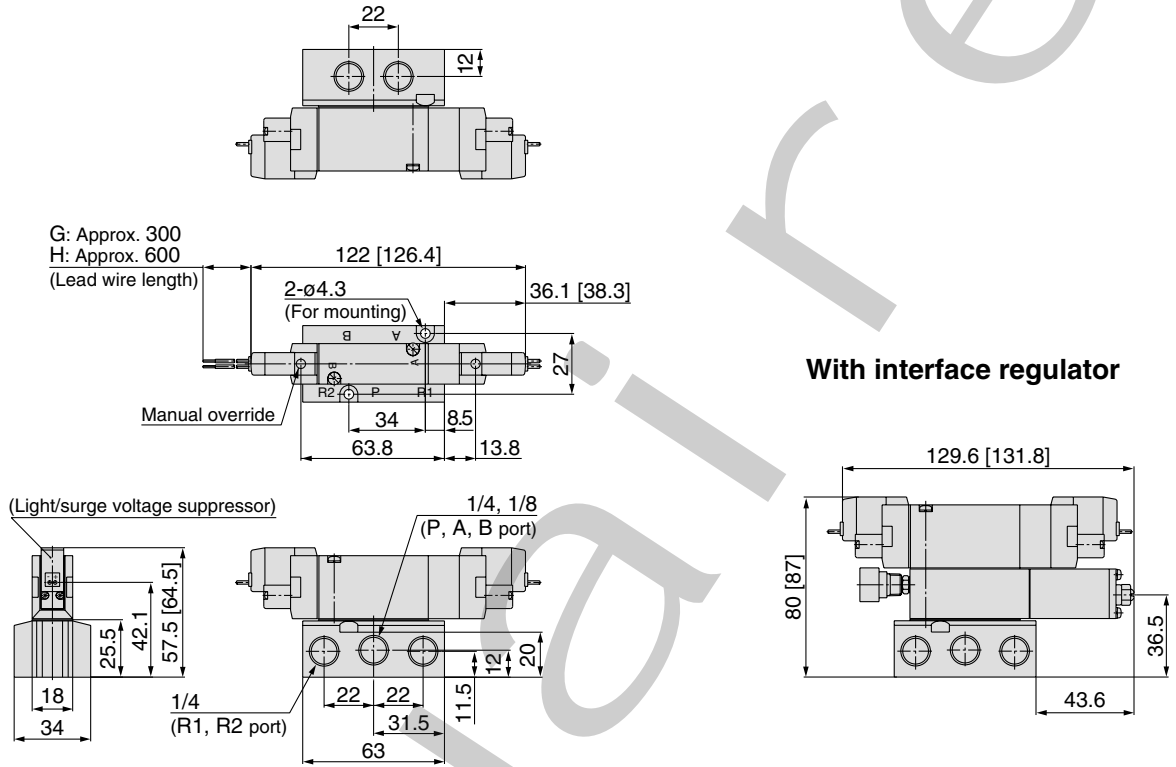
Refer to the page 91 for dimensions with connector cable.

Series SYJ7000

3 Position Closed Center/Exhaust Center/Pressure Center



Grommet (G), (H): SYJ7³/₅40-□^G□□-01□

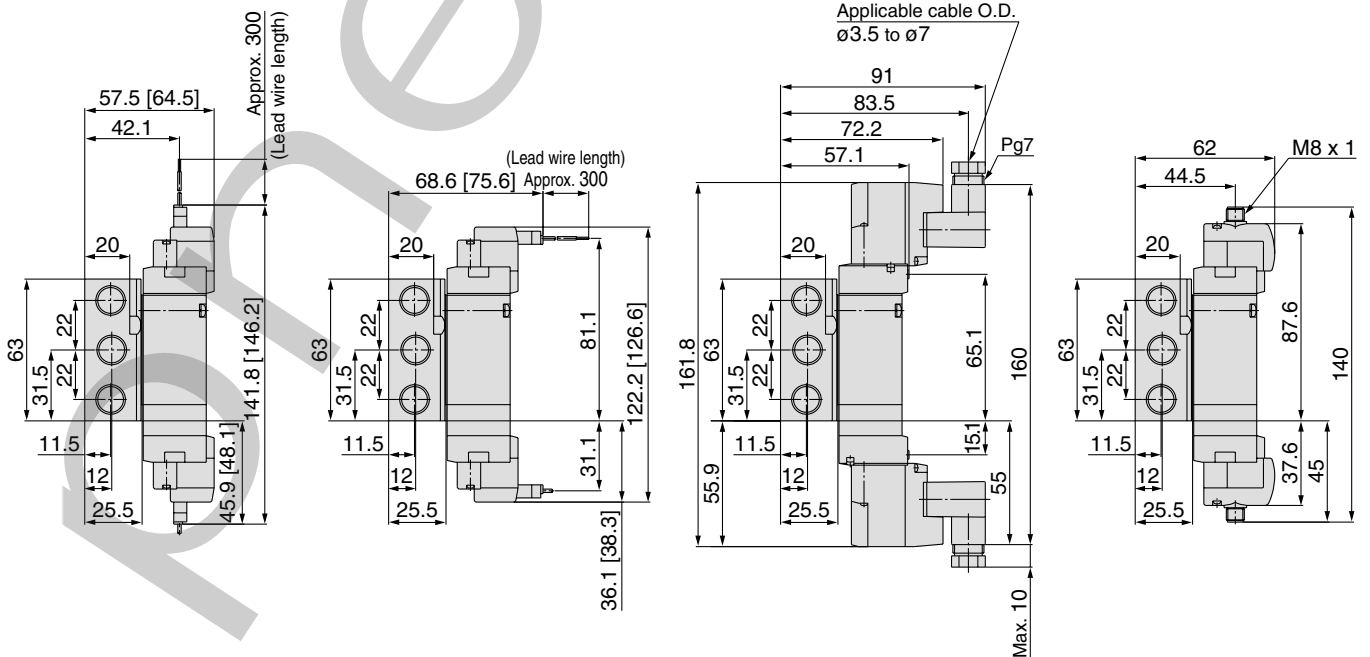


L plug connector (L):
SYJ7³/₅40-□L□□-01□

M plug connector (M):
SYJ7³/₅40-□M□□-01□

DIN terminal (D):
SYJ7³/₅40-□D□□-01□

M8 connector (W0):
SYJ7³/₅40-□W0□□-01□

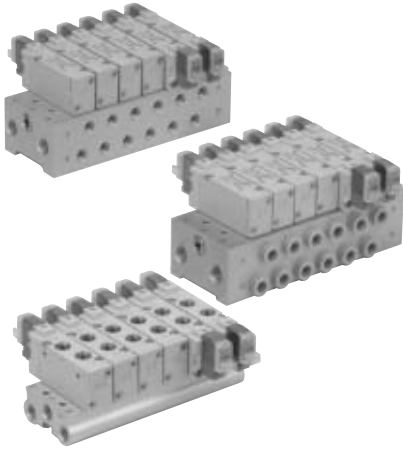


Refer to the page 91 for dimensions with connector cable.

Series SYJ7000

Manifold Specifications

Manifold Standard



Manifold Specifications

Model		Type 20	Type 21	Type 40	Type 20	Type 42
Manifold type		Single base/B mount				
P (SUP), R (EXH)		Common SUP, Common EXH				
Valve stations		2 to 15 stations		2 to 20 stations		
A, B port Porting specifications	Location	Valve		Base	Base	
	Direction	Top		Bottom	Side	
Port size	P, R port	1/8		1/4		
	A, B port	1/8 C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)		1/8		C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8)

Flow Characteristics

Manifold		Port size		Flow characteristics						
				1→4/2 (P→A/B)			4/2→5/3 (A/B→R)			
		1(P), 5/3(R) Port	2(B), 4(A) Port	C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	
Body ported for internal pilot	Type SS5YJ7-20	SYJ7□2□	1/8	1/8	2.2	0.35	0.57	2.3	0.26	0.55
			1/8	C6	1.4	0.32	0.37	2.0	0.25	0.49
	1/8		C8	1.7	0.38	0.45	2.1	0.25	0.51	
	1/4		1/8	2.1	0.36	0.55	2.3	0.26	0.54	
Base mounted for internal pilot	Type SS5YJ7-21	SYJ7□4□	1/4	C6	1.4	0.32	0.36	2.1	0.24	0.50
			1/4	C8	1.8	0.37	0.50	2.1	0.20	0.50
	Type SS5YJ7-40		1/4	1/8	2.1	0.28	0.51	2.5	0.23	0.59
			Type SS5YJ7-41	1/4	1/8	2.0	0.30	0.50	2.2	0.30
Type SS5YJ7-42-C6	1/4	C6	1.5	0.32	0.38	2.2	0.23	0.52		
	Type SS5YJ7-42-C8	1/4	C8	1.9	0.24	0.46	2.2	0.26	0.53	

Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold (Example)

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

Example: ● **SS5YJ7-20-03** 1 pc. (Manifold base)
 * **SYJ7120-5G-01** 2 pcs. (Valve)
 * **SYJ7000-21-1A** 1 pc. (Blanking plate assembly)

● **SS5YJ7-41-03-01** 1 pc. (Manifold base)
 * **SYJ7140-5LZ** 1 pc. (Valve)
 * **SYJ7240-5LZ** 1 pc. (Valve)
 * **SYJ7000-21-1A** 1 pc. (Blanking plate assembly)

↳The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

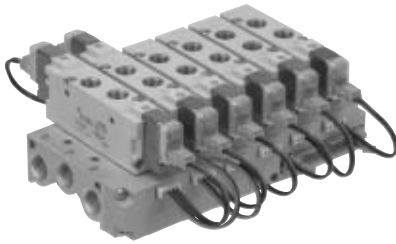
* Use manifold specification sheet.

Series SYJ7000

Flat Ribbon Cable Manifold

- 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		Type 21P
Manifold type		Single base/B mount
P (SUP), R (EXH)		Common SUP, Common EXH
Valve stations		3 to 12 stations
A, B port location		Valve
Port size	P, R port	1/4
	A, B port	1/8, C6, C8
Applicable flat ribbon cable connector		Socket: 26 pins MIL type with strain relief (MIL-C-83503)
Internal wiring		In common between +COM and -COM (Z type: +COM only).
Rated voltage		24, 12 VDC

Note 1) The value is for manifold base and individually operated 2 position type.
Note 2) The withstand voltage specification for the wiring unit section is JIS C 0704, Grade 1 or its equivalent.

Flow Characteristics

Manifold	Port size	Flow characteristics							
		1→4/2 (P→A/B)			4/2→5/3 (A/B→R)				
		1(P), 5/3(R) Port	2(B), 4(A) Port	C [dm³/(s-bar)]	b	Cv	C [dm³/(s-bar)]	b	Cv
Body ported for internal pilot	Type SSSYJ7-21P-01	1/4	1/8	2.1	0.36	0.55	2.3	0.26	0.54
	Type SSSYJ7-21P-C6 SYJ7□23	1/4	C6	1.4	0.32	0.36	2.1	0.24	0.50
	Type SSSYJ7-21P-C8	1/4	C8	1.8	0.37	0.50	2.1	0.20	0.50

Note) Value at manifold base mounted, 2 position single operating

How to Order Manifold (Example)

Instruct by specifying the valves, blanking plate assembly and connector assembly to be mounted on the manifold along with the manifold base model no.

Example: **SS5YJ7-21P-07** 1 pc. (Manifold base)
 * **SYJ7123-5LOU-C8** 3 pcs. (Valve)
 * **SYJ7223-5LOU-C8** 3 pcs. (Valve)
 * **SYJ7000-21-3A** 1 pc. (Blanking plate assembly)
 * **SY3000-37-3A** 3 pcs. (Connector assembly)
 * **SY3000-37-4A** 3 pcs. (Connector assembly)
 ↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

* Use manifold specification sheet.

How to Order Valve

Rated voltage

5	24 VDC
6	12 VDC

Light/surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.

For DC SYJ7 **1** 23 — **5** LO **Z** — **01**

For AC SYJ7 **1** 23 — **1** LOZ — **01**

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

Rated voltage

1	100 VAC
3	110 VAC (115 VAC)

Manual override

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

A, B port size

Symbol	Port size
01	1/8
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8
N7	One-touch fitting for ø1/4"
N9	One-touch fitting for ø5/16"

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 P/A.

How to Order Connector Assembly

For 12, 24 VDC

Single solenoid	SY3000-37-3A
Double solenoid, 3 position type	SY3000-37-4A
Single solenoid, individual SUP, EXH spacer	SY3000-37-3A
Double solenoid, 3 position individual SUP/EXH spacer	SY3000-37-6A
Interface regulator for single solenoid	SY3000-37-3A
Double solenoid, 3 position interface regulator	SY3000-37-6A
3 port adaptor plate	SY3000-37-3A

For 100 VAC

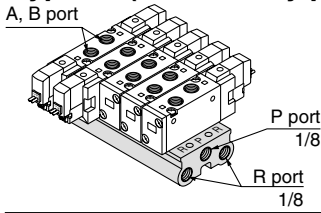
Single solenoid	SY3000-37-32A
Double solenoid, 3 position type	SY3000-37-33A
Single solenoid, individual SUP, EXH spacer	SY3000-37-15A
Double solenoid, 3 position individual SUP/EXH spacer	SY3000-37-34A
Interface regulator for single solenoid	SY3000-37-15A
Double solenoid, 3 position interface regulator	SY3000-37-34A
3 port adaptor plate	SY3000-37-32A

For 100 VAC (115 VAC)

Single solenoid	SY3000-37-35A
Double solenoid, 3 position type	SY3000-37-36A
Single solenoid, individual SUP, EXH spacer	SY3000-37-19A
Double solenoid, 3 position individual SUP/EXH spacer	SY3000-37-37A
Interface regulator for single solenoid	SY3000-37-19A
Double solenoid, 3 position interface regulator	SY3000-37-37A
3 port adaptor plate	SY3000-37-35A

Manifold Standard /Common SUP/Common EXH

Type 20 (5 Port/Body ported)



How to Order

SS5YJ7-20-05

Stations	
02	2 stations
:	:
15	15 stations

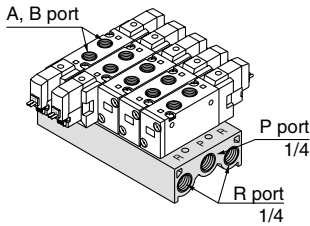
P, R port thread type	
Nil	Rc
00F	G
00N	NPT
00T	NPTF

Applicable solenoid valve

SYJ7000-20-□□□□-C6
01
C8
SYJ7000-23-□□□□-C6
01
C8

Note) For more than 6 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Type 21 (5 Port/Body ported)



How to Order

SS5YJ7-21-05

Stations	
02	2 stations
:	:
20	20 stations

P, R port thread type	
Nil	Rc
00F	G
00N	NPT
00T	NPTF

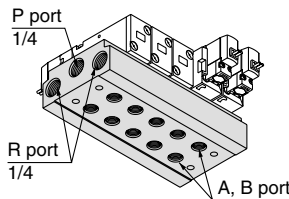
Applicable blanking plate assembly

SYJ7000-21-1A

Applicable individual EXH spacer assembly
SYJ7000-17-1A

Note) For more than 20 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Type 40 (5 Port/Base mounted)



How to Order

SS5YJ7-40-05-01

Stations	
02	2 stations
:	:
20	20 stations

A, B port size	
01	1/8

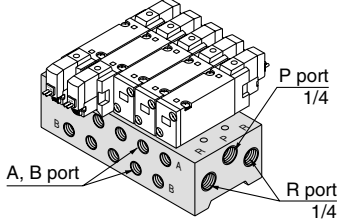
Thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

Applicable solenoid valve

SYJ7000-40-□□□□
SYJ7000-43-□□□□

Note) For more than 10 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Type 41 (5 Port/Base mounted)



How to Order

SS5YJ7-41-05-01

Stations	
02	2 stations
:	:
20	20 stations

A, B port size	
01	1/8

Thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

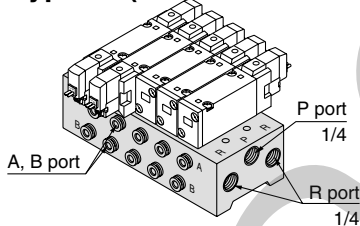
Applicable blanking plate assembly

SYJ7000-21-1A

Applicable individual EXH spacer assembly
SYJ7000-17-2A

Note) For more than 8 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Type 42 (5 Port/Base mounted)



How to Order

SS5YJ7-42-05-C6

Stations	
02	2 stations
:	:
20	20 stations

A, B port size	
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8
N7	One-touch fitting for ø1/4"
N9	One-touch fitting for ø5/16"

Thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

Applicable individual SUP spacer assembly
SYJ7000-16-2A

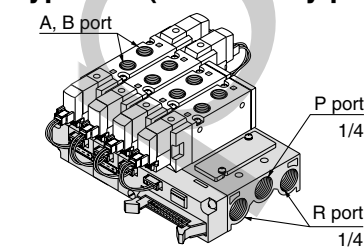
Applicable interface regulator

ARBYJ7000-00-P

Note) For more than 20 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Flat Ribbon Cable Manifold /Common SUP/Common EXH

Type 21P (5 Port/Body ported)



How to Order

SS5YJ7-21P-05

Stations	
03	3 stations
:	:
12	12 stations

P, R port thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

Applicable solenoid valve
Refer to page 59.

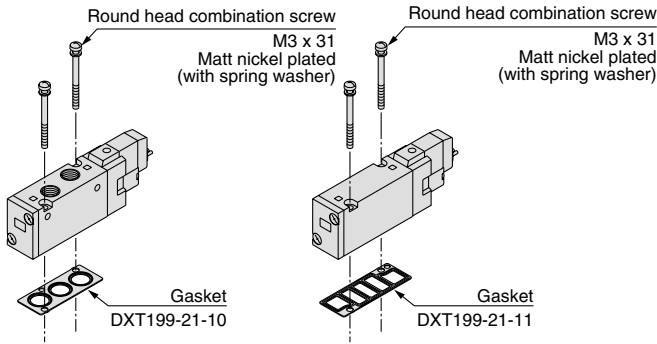
Applicable blanking plate assembly
SYJ7000-21-3A

Applicable connector assembly
Refer to page 59.

Note) For more than 10 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Series SYJ7000

Combinations of Solenoid Valve, Manifold Gasket and Manifold Base



Applicable manifold base
Type SS5YJ7-20
Type SS5YJ7-21

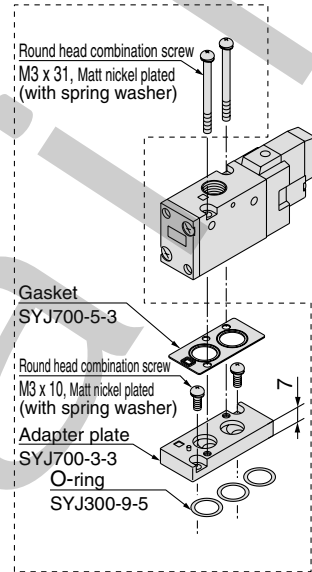
Applicable manifold base Sub-plate
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

Mix Installation of the SYJ700 and the SYJ7000 Valves on the Same Manifold

- Use of an adapter plate makes it possible to mount Series SYJ700 on the manifold bases of series SYJ7000.
- When mounting the SYJ700 valve on the SYJ7000 manifold, the SYJ700 solenoid must be positioned on the same side of the manifold as a single solenoid SYJ700. (Refer to the figure below.)
- For base mounted style, the A port of the 3 port valve flows out the B port of manifold base.

Adapter Plate Assembly SYJ700-3-1A

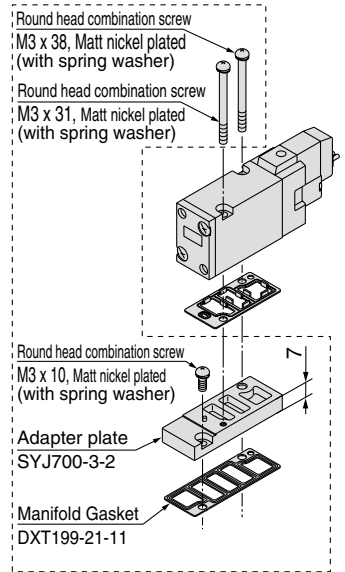
SYJ700 Series
Body ported



Applicable manifold base
Type SS5YJ7-20
Type SS5YJ7-21

Adapter Plate Assembly SYJ700-3-2A

SYJ700 Series
Base mounted



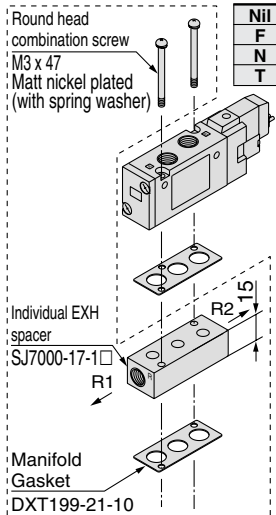
Applicable manifold base
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

Individual EXH Spacer Assembly

SYJ7000-17-1 □ A

• Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

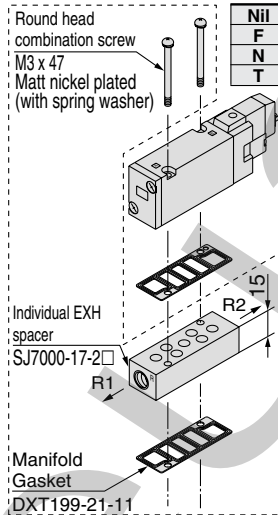


Applicable manifold base
Type SS5YJ7-20
Type SS5YJ7-21

SYJ7000-17-2 □ A

• Thread type

Nil	Rc
F	G
N	NPT
T	NPTF



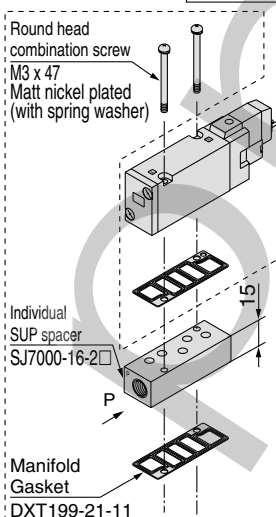
Applicable manifold base
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

Individual SUP Spacer Assembly

SYJ7000-16-2 □ A

• Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

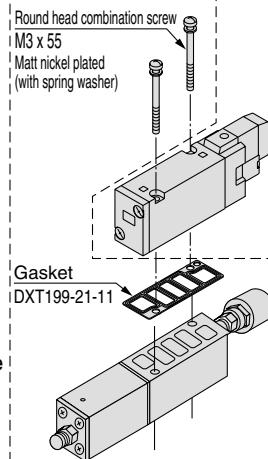


Applicable manifold base
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

Interface Regulator (P port regulation)

Spacer type regulating valve on manifold block can regulate the pressure to the valve individually.

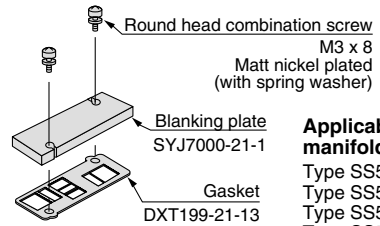
ARBYJ7000-00-P



Applicable manifold base
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

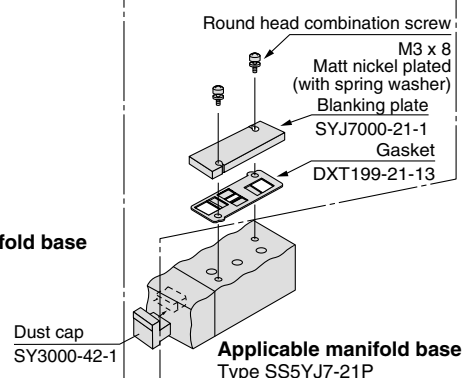
L Blanking Plate Assembly

SYJ7000-21-1A



Applicable manifold base
Type SS5YJ7-20
Type SS5YJ7-21
Type SS5YJ7-40
Type SS5YJ7-41
Type SS5YJ7-42

SYJ7000-21-3A



Applicable manifold base
Type SS5YJ7-21P

⚠ Caution

Mounting screw tightening torques

M3: 0.8 N·m

Use caution to the assembly orientation for solenoid valves, gasket, and optional parts.

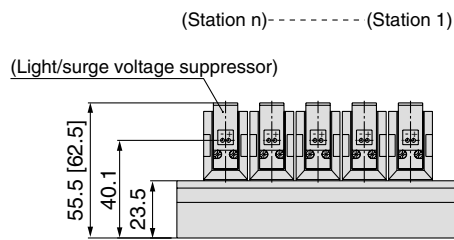
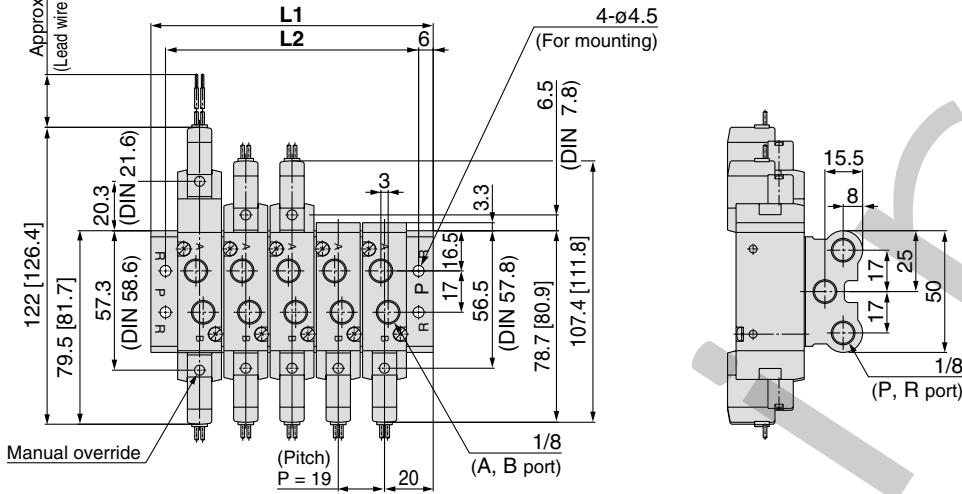


Refer to page 92 prior to handling.

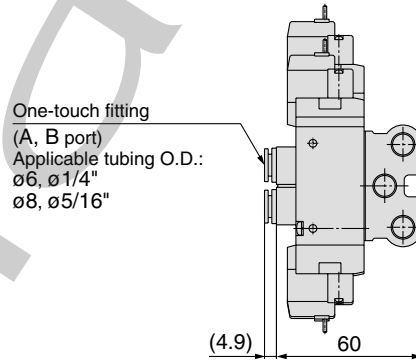
Type 20: Top Protod/SS5YJ7-20- Stations -00□



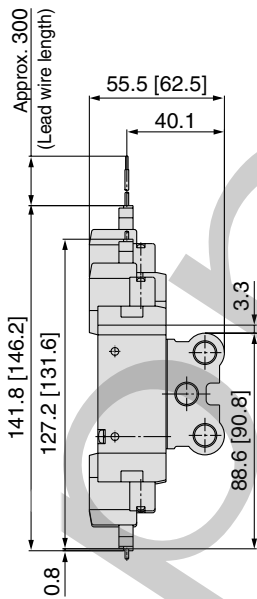
Grommet (G)



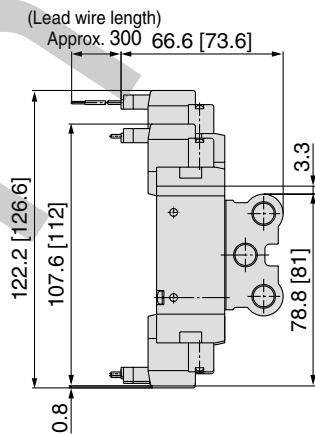
Built-in one-touch fitting



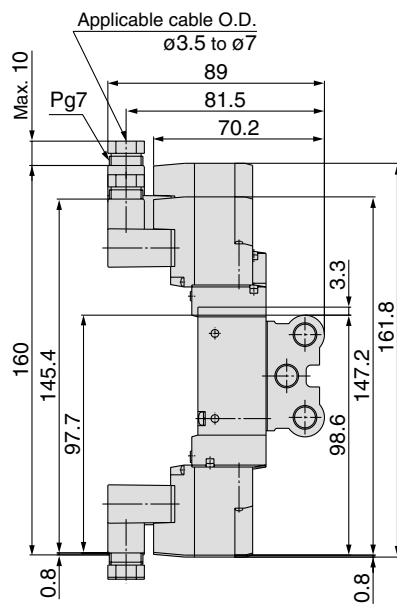
L plug connector (L)



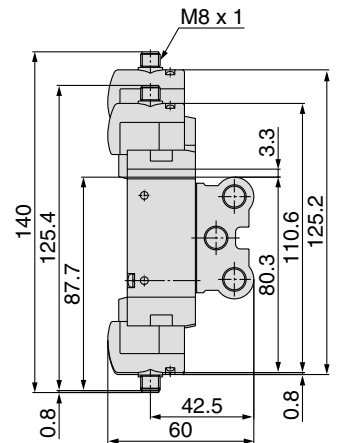
M plug connector (M)



DIN terminal (D)



M8 connector (W0)



Refer to the page 91 for dimensions with connector cable.

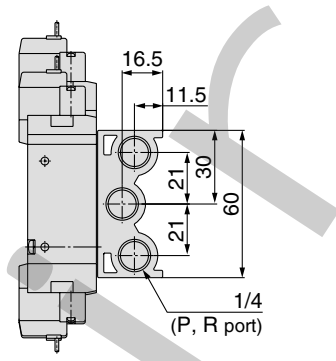
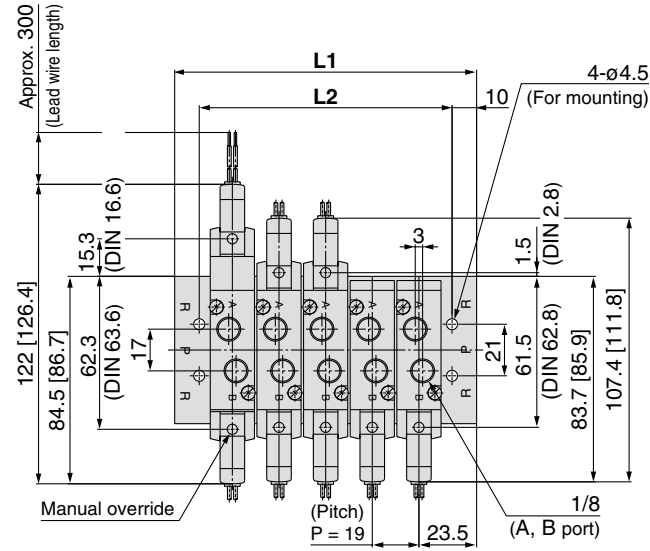
Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	Station 15
L1	59	78	97	116	135	154	173	192	211	230	249	268	287	306
L2	47	66	85	104	123	142	161	180	199	218	237	256	275	294

Series SYJ7000

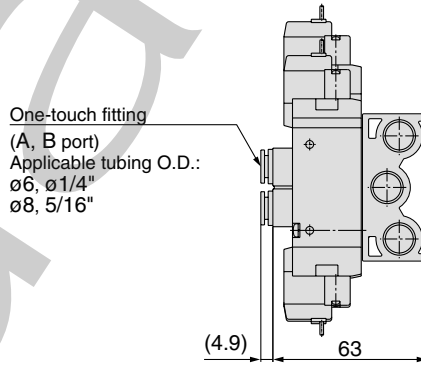
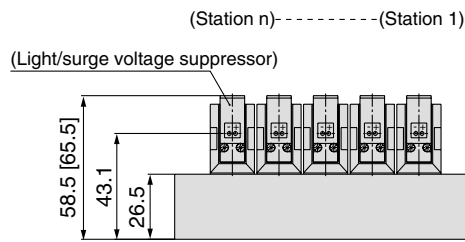
Type 21: Top Ported/SS5YJ7-21- Stations (-00□)



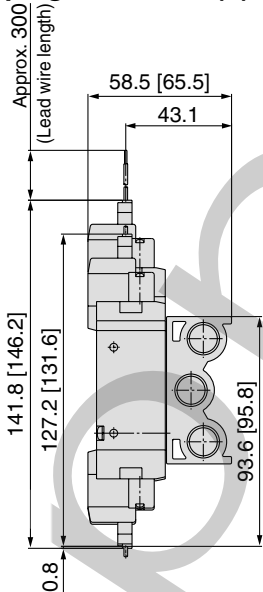
Grommet (G)



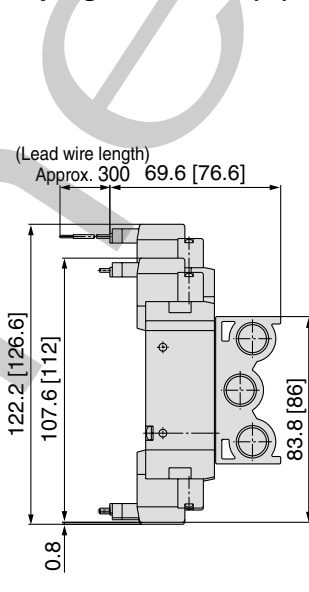
Built-in one-touch fitting



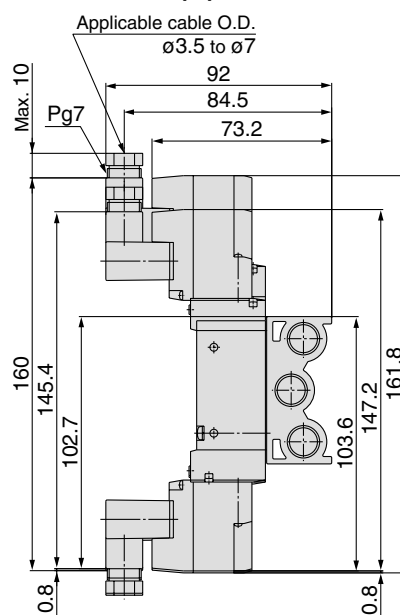
L plug connector (L)



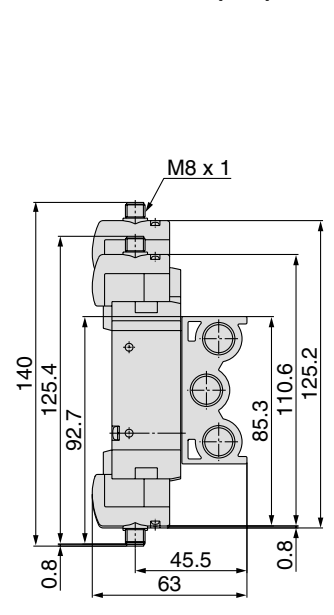
M plug connector (M)



DIN terminal (D)



M8 connector (W0)



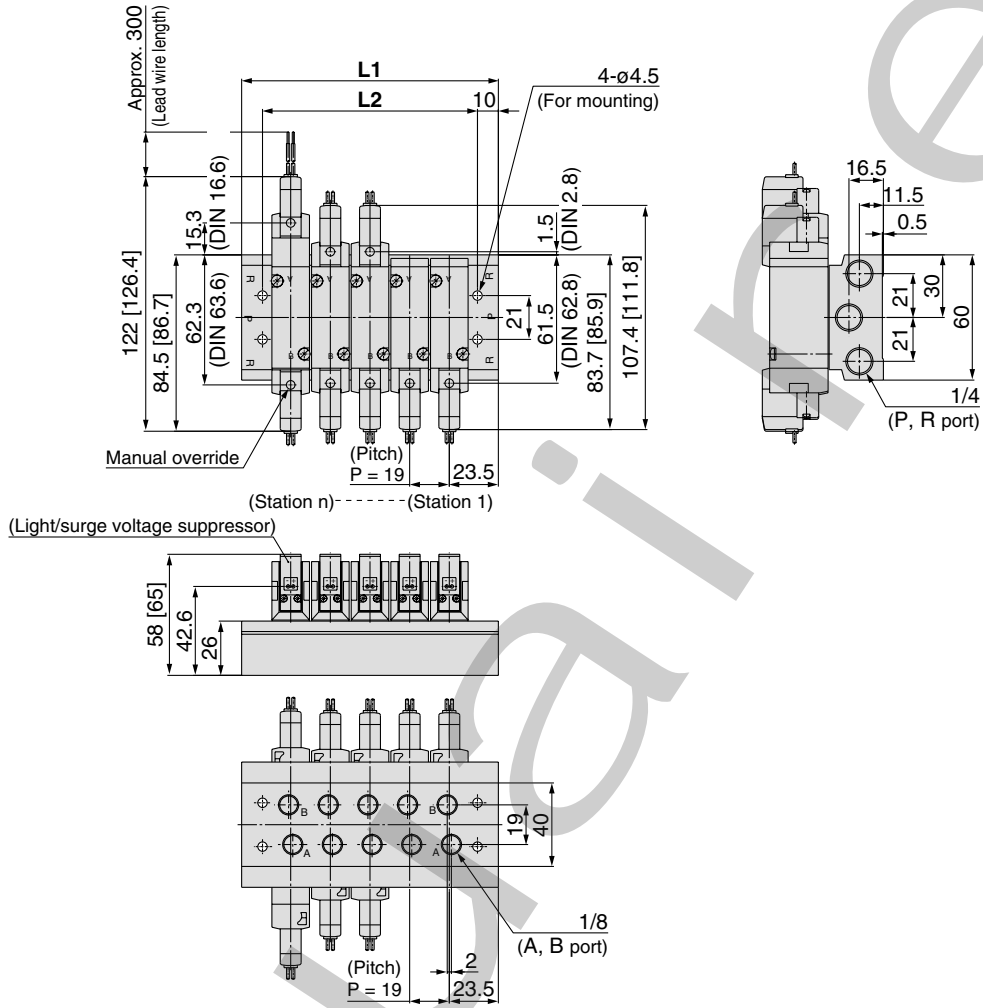
Refer to the page 91 for dimensions with connector cable.

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

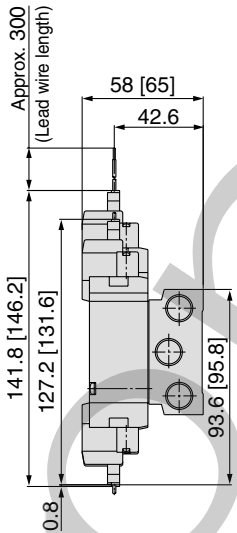
Type 40: Bottom Ported/SS5YJ7-40- Stations -01



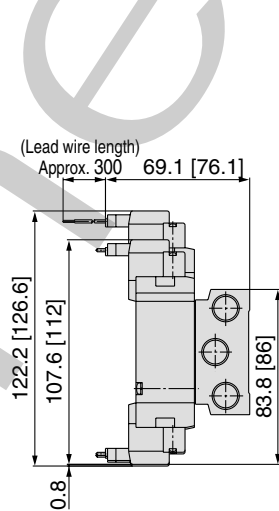
Grommet (G)



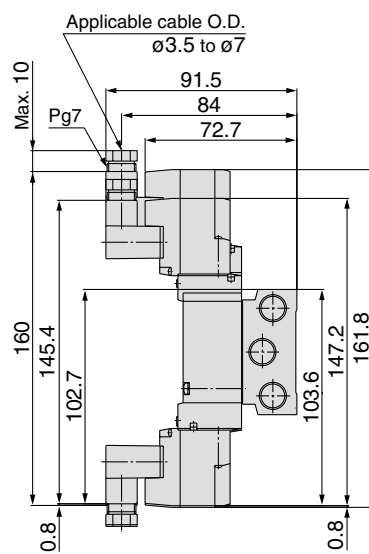
L plug connector (L)



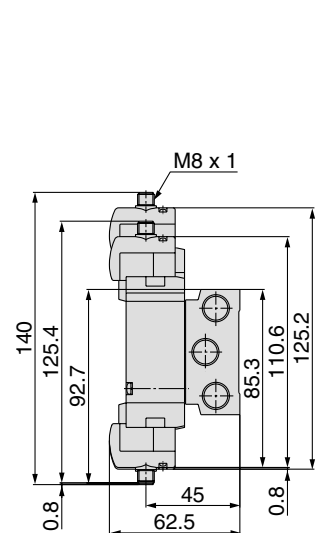
M plug connector (M)



DIN terminal (D)



M8 connector (W0)



Refer to the page 91 for dimensions with connector cable.

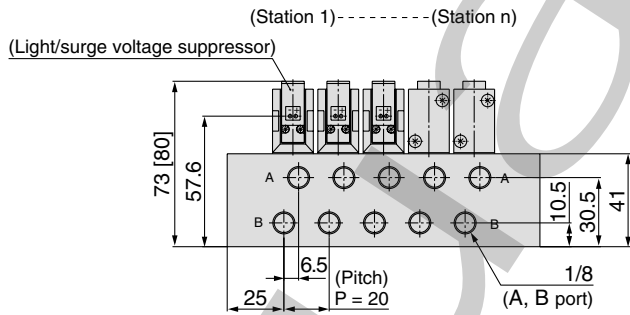
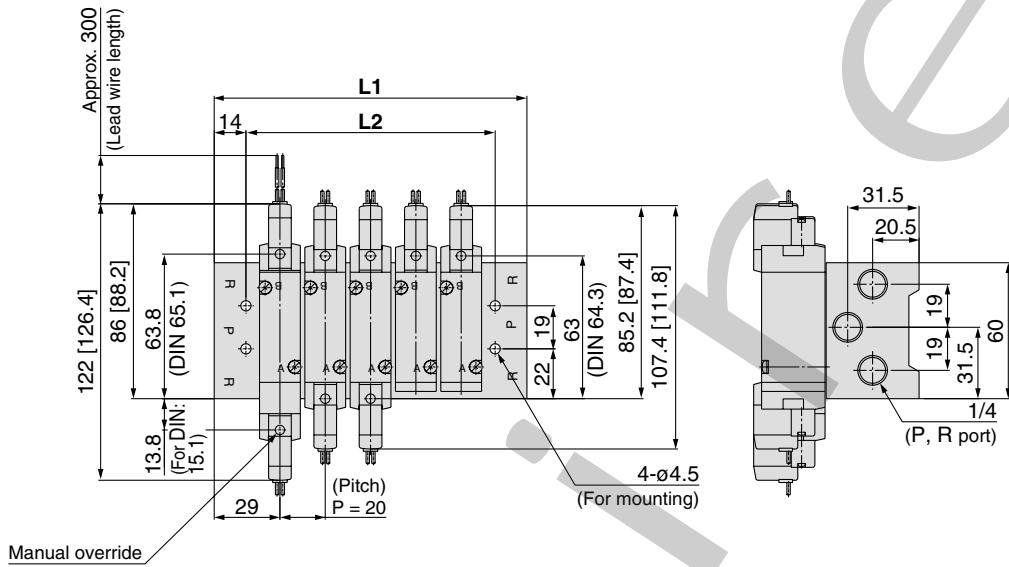
Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

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Type 41: Side Ported/SS5YJ7-41- Stations -01 □



Grommet (G)

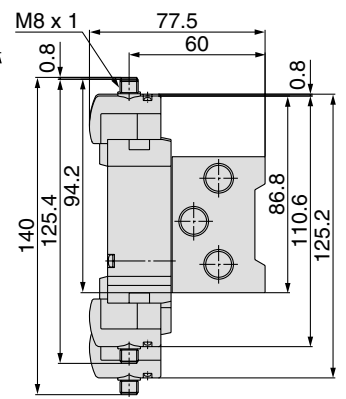
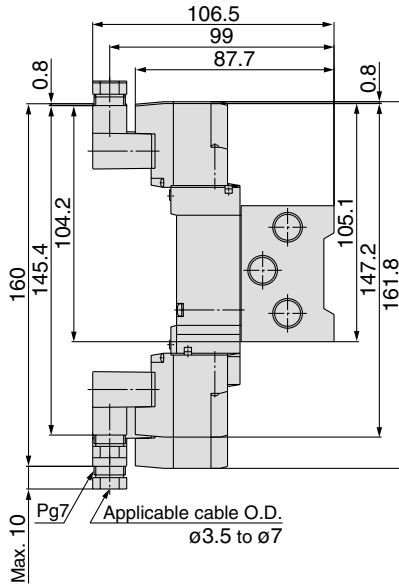
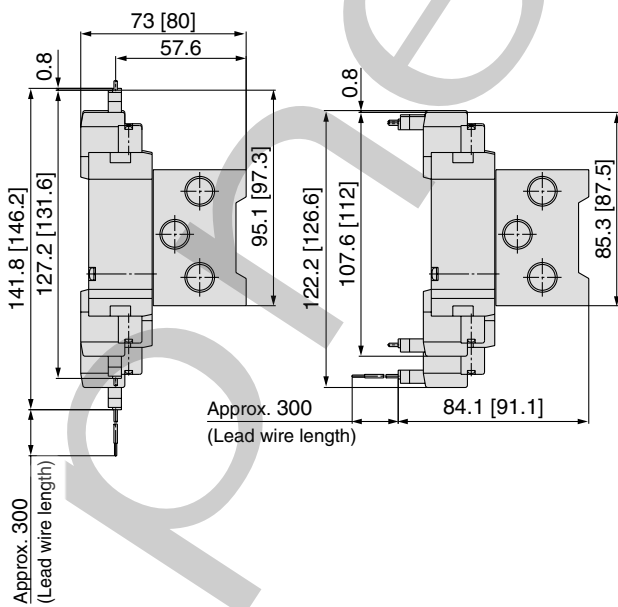


L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (W0)



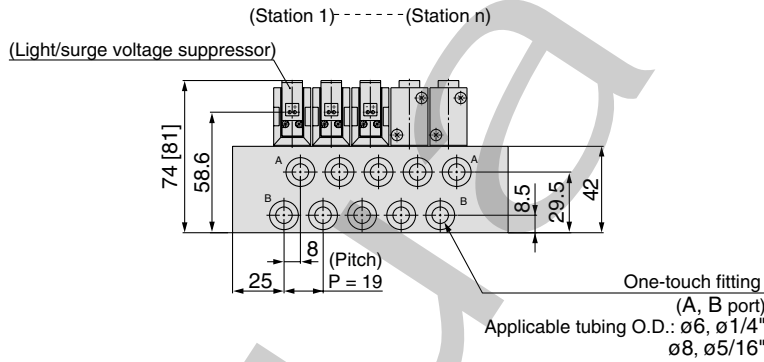
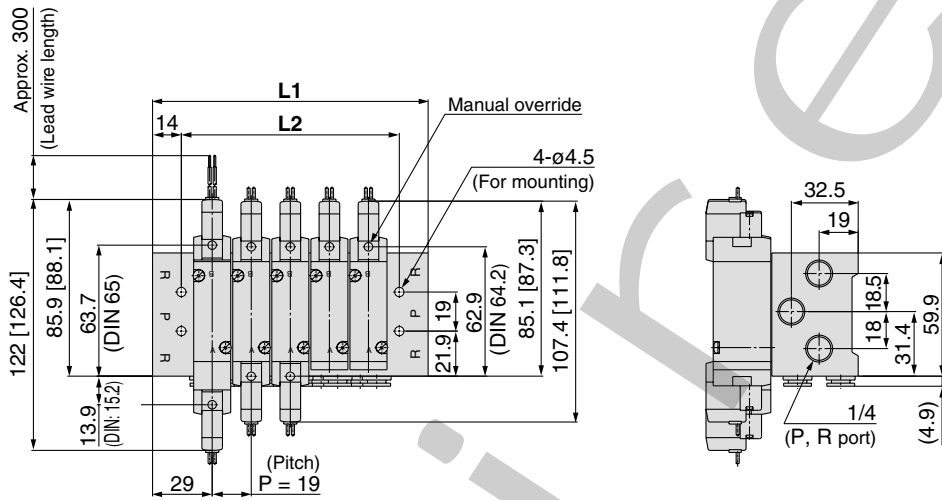
Refer to the page 91 for dimensions with connector cable.

Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
L1	78	98	118	138	158	178	198	218	238	258	278	298	318	338	358	378	398	418	438
L2	50	70	90	110	130	150	170	190	210	230	250	270	290	310	330	350	370	390	410

Type 42: Side Ported/SS5YJ7-42- Stations - C6,N7 C8,N9



Grommet (G)

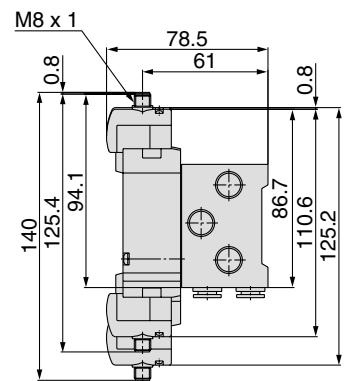
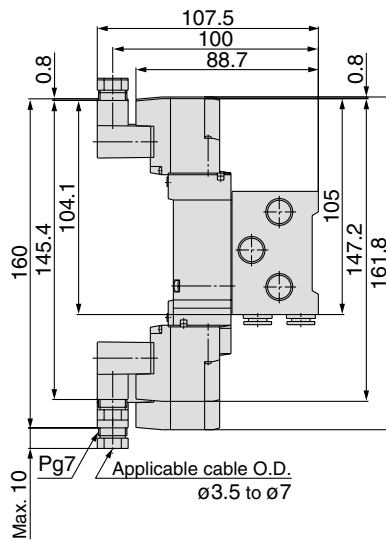
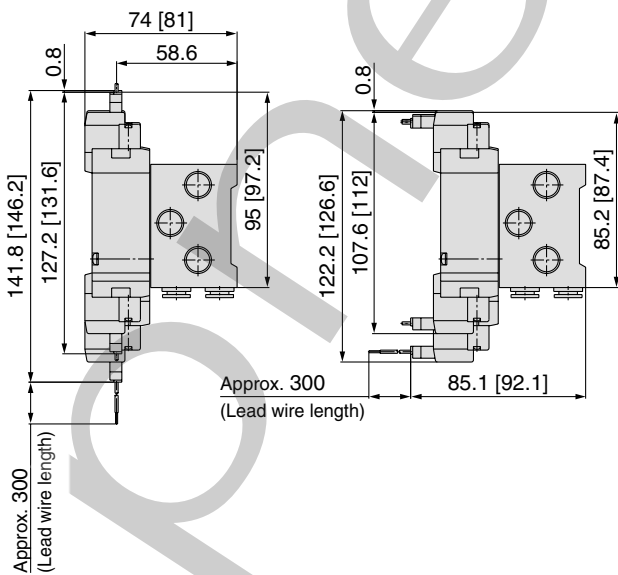


L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (W0)



Refer to the page 91 for dimensions with connector cable.

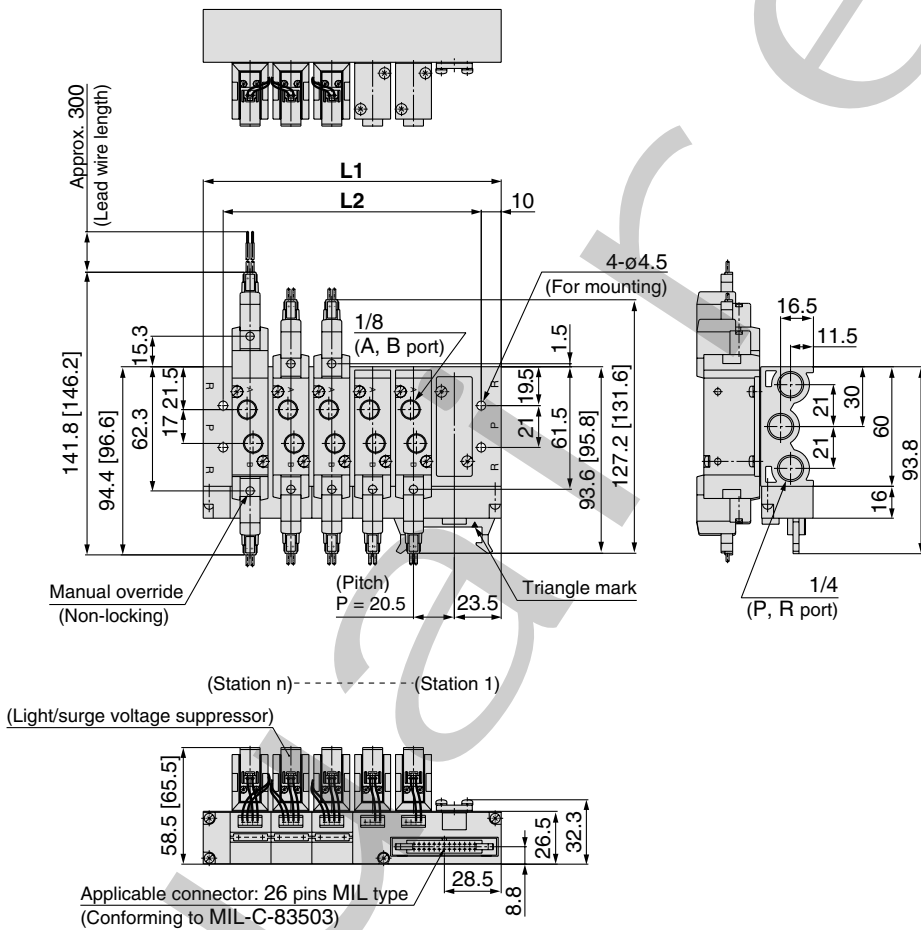
Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
L1	77	96	115	134	153	172	191	210	229	248	267	286	305	324	343	362	381	400	419
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

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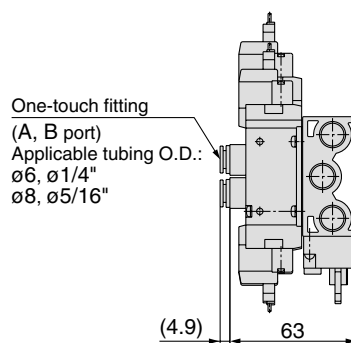
Flat Ribbon Cable Manifold



SS5YJ7-21P- Stations (-00□)



For built-in one-touch fitting



Station n	Station 3	4	5	6	7	8	9	10	11	Station 12
L1	88	108.5	129	149.5	170	190.5	211	231.5	252	272.5
L2	68	88.5	109	129.5	150	170.5	191	211.5	232	252.5