

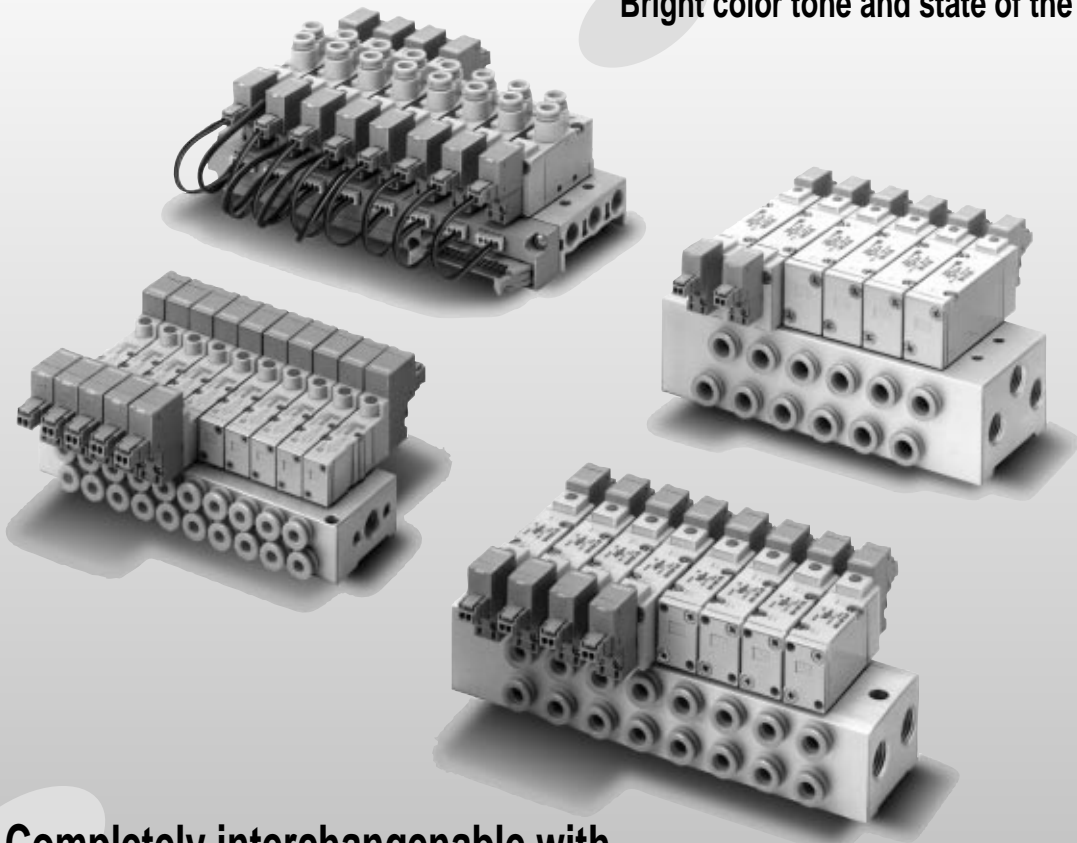
4, 5 Port Solenoid Valve Rubber Seal

Series *SYJ3000/5000/7000*

Low power consumption: 0.5W(Without light)

(Current draw: 21mA at 24V DC)

Bright color tone and state of the art design



**Completely interchangeable with
the previous series VJ3000/5000/7000
and VZ3000/5000**

Mounts on the same sub-plates and manifolds as
the VJ3000/5000/7000 and the VZ3000/5000.

	Series VJ	Series VZ
SYJ3000	VJ3000	—
SYJ5000	VJ5000	VZ3000
SYJ7000	VJ7000	VZ5000

Choice of pilot exhaust styles

Standard valve suitable for
copper free applications

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS


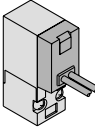



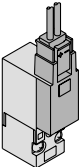


VS


VS7

4, 5 Port Solenoid Valve Rubber Seal

Series SYJ3000/5000/7000

Variations

	Series	Port size Effective area mm ² (Cv)	Actuation	Voltage	Electric entry	Option	Manual override	
						Light and surge voltage suppressor		
Body ported	SYJ3000 	M3 X 0.5: 0.9(0.05)		DC ■ 24V DC 12V DC 6V DC 5V DC 3V DC	Grommet 	DC ■ With surge voltage suppressor		
	SYJ5000 	M5 X 0.8: 3.6(0.2) C4: 3(0.17) C6: 3.4(0.19)						L plug connector ■ With light and surge voltage suppressor
	SYJ7000 	Rc(PT)1/8: 11(0.6) C6: 8.6(0.48) C8: 9.9(0.55)						
Base mounted	SYJ3000 	M5 X 0.8: 1.8(0.1)	3 position ● Closed center ● Exhaust center ● Pressure center	AC ■ 100V AC ^{50/60} Hz 110V AC ^{50/60} Hz 200V AC ^{50/60} Hz 220V AC ^{50/60} Hz		AC ⁽¹⁾ ■ With light and surge voltage suppressor	■ Non-locking push style ■ Push-turn- locking slotted style	
	SYJ5000 	Rc(PT)1/8: 4.5(0.25)						
	SYJ7000 	Rc(PT)1/8, 1/4: 12.6(0.7)						

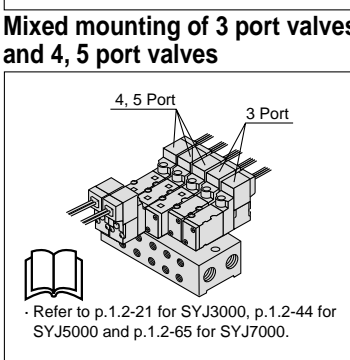
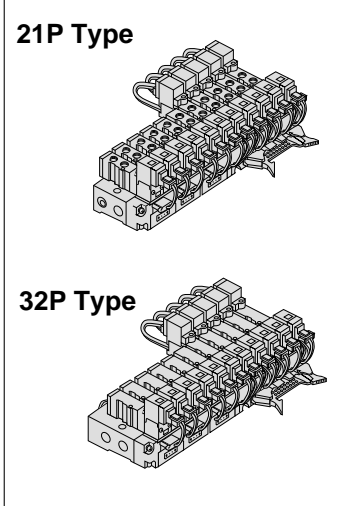
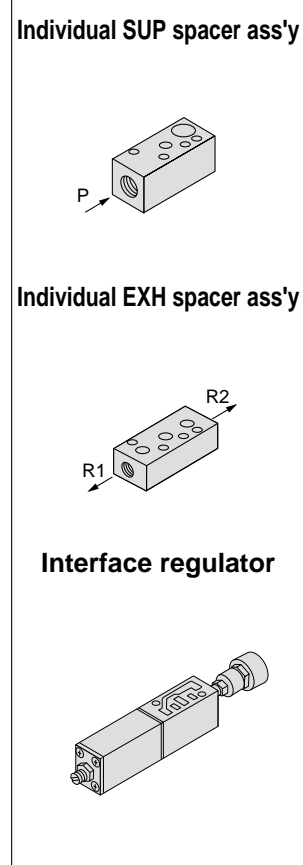
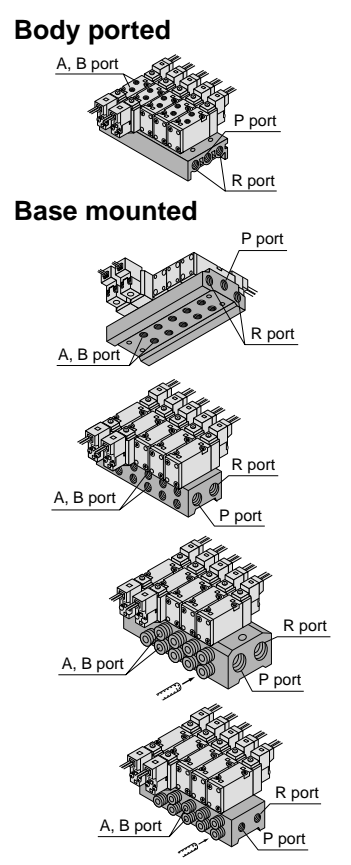
 Note 1) All AC voltage models have built-in surge voltage suppressor.

Series SYJ3000/5000/7000

Manifold Variations

Valve series	A, B port location	A, B port size						Manifold options			Flat cable manifold
		M3	M5	Rc(PT) 1/8	With built-in One-touch fitting			Individual SUP spacer ass'y	Individual EXH spacer ass'y	Interface regulator	
					Applicable tube O.D.						
						ø4	ø6	ø8			
Body ported	SYJ3000	●	—	—	—	—	—	—	—	—	●
	SYJ5000	—	●	—	●	●	—	—	—	—	●
	SYJ7000	—	—	●	—	●	●	—	—	—	●
Base mounted	SYJ3000	Side	●	●	—	●	—	—	—	—	●
		Bottom	—	—	—	—	—	—	—	—	—
	SYJ5000	Side	—	●	—	●	●	—	—	●	●
		Bottom	—	●	—	—	—	—	—	(P port regulation)	—
	SYJ7000	Side	—	—	●	—	●	●	—	●	—
		Bottom	—	—	●	—	—	—	—	(P port regulation)	—

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7



Series SYJ3000/5000/7000

⚠️ Precautions

Be sure to read before handling. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

⚠️ Warning

Operation of Manual Override

Use caution since manual override operation will operate any connected actuators.

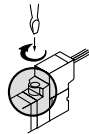
■ Non-locking push style [Standard]

Press in the direction of arrow.

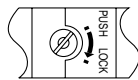


■ Push-turn-locking slotted style [D]

While pressing, turn in the direction of the arrow. If you do not turn, the mechanism does not lock.



Locked position



Note) A second manual override is located on the pilot valve assembly. It is only available as a non-locking push style. Simply depress in the direction of the arrow.

⚠️ Warning

Solenoid Valve with 200V/220V AC Specifications

For grommet or L/M plug connector solenoid valve with AC specifications, DC coil is operated with the rectifier circuit built in pilot valve.

Do not touch the pilot valve while energizing because the built-in rectifier circuit is heated and the temperature of the surface of pilot valve may be too high.

⚠️ Caution

Common Exhaust Port for the Pilot and Main Valve

Pilot air is exhausted through the main valve body rather than directly to atmosphere.

- Suitable for applications where exhausting the pilot valve to atmosphere would be detrimental to the surrounding working environment.

- For use in extremely dirty environments where there is the possibility that dust could enter the pilot exhaust and damage the valve.

Ensure that the piping of exhaust air is not too restrictive.

⚠️ Caution

Series SYJ3000/5000/7000 and Series SYJ300/500/700 can be mounted on the same manifold.

How to mount on the same manifold is shown on the following pages.

SYJ3000, SYJ300.....	P.1.2-21
SYJ5000, SYJ500.....	P.1.2-44
SYJ7000, SYJ700.....	P.1.2-65

In case that 4 or 5 port valve is used as 3 port valve Series SYJ 3000, 5000, 7000 may be used as a N.C. or N.O. 3 port valve by plugging one of the A, B ports. Be sure not to plug the exhaust ports. Can be used when a double solenoid, 3 port valve is required.

Plug position		B port	A port
Configuration		N.C.	N.O.
Number of solenoids	Single	Plug 	Plug
	Double	Plug 	Plug

(JIS Symbols above: Series SYJ5000)

⚠️ Caution

How to Use Plug Connector

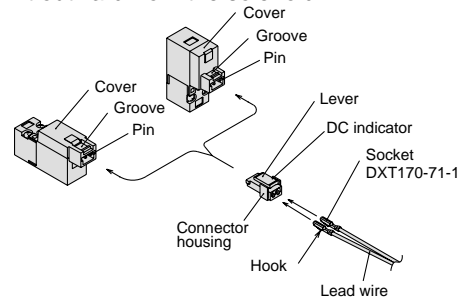
① Connection/Disconnection of connector

● Connection

Push the connector straight onto the pins of the solenoid, making sure the lip of the lever securely "locks" into the groove of the solenoid cover.

● Disconnection

Press the lever against the connector housing and pull it outward from the solenoid.

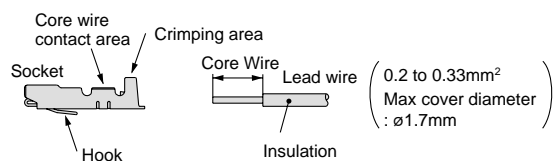


② Crimping connection of lead wire and socket

Strip 3.2 to 3.7mm of the lead wire ends, insert each stripped wire into a socket and crimp it using a special crimping tool.

Be careful that the outer insulation of the lead wires does not interfere with the socket contact part.

(Contact SMC for special crimping tools.)



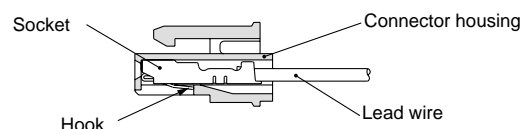
③ Connection/Disconnection of socket with lead wire

● Connection

Insert lead wire and crimped socket into square holes (indicated as positive or negative) of connector. Press the socket in fully until the hook of the socket locks into the groove of the connector housing. Confirm the locked position by lightly pulling on the lead wire.

● Disconnection

To remove the socket from the connector, pull out lead wire while depressing the hook of the socket with a fine screw driver (or similar). If the socket is to be re-used, reposition the hook again.




⚠ Caution

Plug Connector Lead Wire Length


Standard length is 300mm, but the following length is also available.

How to Order Connector Assembly

For DC: **SY100-30-4A** 

For 100V AC: **SY100-30-1A** 

For 200V AC: **SY100-30-2A** 

For other voltages of AC: **SY100-30-3A** 

Without lead wire: **SY100-30-A**
(with connector and 2pcs. of socket)

How to Order

To order a valve with lead wire length of other than 300mm, indicate part numbers of the valve without connector and the required connector ass'y separately.
(Example) 2000mm lead wire length

For DC: **SYJ3120-5LO-M3** For AC: **SYJ3120-1LO-M3**
SY100-30-4A-20 **SY100-30-1A-20**

Lead wire length

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

⚠ Caution

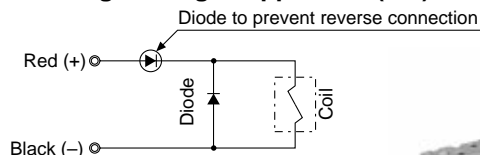
Surge Voltage Suppressor

< For DC >

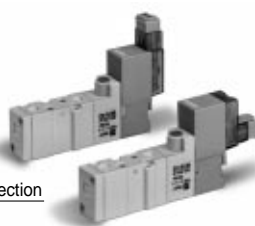
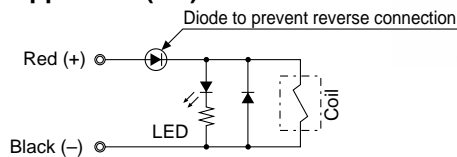
Grommet, L and M plug connector

■ Standard (With polarity)

With surge voltage suppressor (□S)

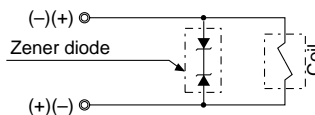


Indicator light and surge voltage suppressor (□Z)

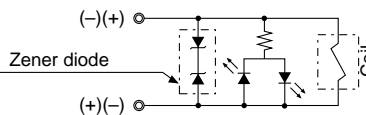


■ Non polar

With surge voltage suppressor (□R)



Indicator light and surge voltage suppressor (□U)



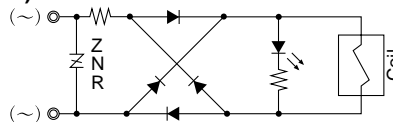
- Please correctly connect the lead wires to ⊕ (positive) and ⊖ (negative) indications on the connector.
- For non-polar type, the lead wires can be connected to either one.
- For DC voltages other than 12, 24 incorrect wiring will cause damage to the surge suppressor circuit. (Wrong polarity will cause trouble).
- Solenoids, whose lead wires have been pre-wired, are positive side red and negative side black.

< For AC >

("S" option is not available since voltage surge is automatically suppressed by the rectifier.)

Grommet, L and M plug connector

With light (□Z)



Note) In case of using a surge voltage suppressor except for the diode, pay attention to residual voltage in the controller depending on protecting element or rated voltage. In case of diode, the residual voltage is about IV.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

Series SYJ3000/5000/7000

⚠ Precautions

Be sure to read before handling. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

⚠ Caution Connector Ass'y with Protective Cover

- Connector ass'y with protective cover enhances dust protection.
- Effective in preventing possible short circuit problems due to contaminants in contact with connector section.
 - Cover material is chloroprene rubber which has excellent weatherability and electric insulation properties. However be careful not to allow contact with cutting oil.

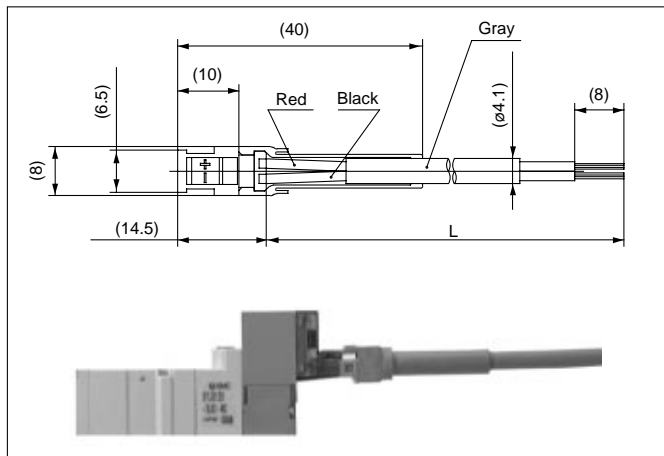
How to Order

SY100 - 68 - A

● Lead wire length

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

Connector Ass'y with Cover/Dimensions



How to Order Connector Ass'y with Protective Cover

Specify the part numbers of the solenoid valve without connector and the connector ass'y with protective cover separately.

EX.1) In case of 2000mm of lead wire

SYJ3120-5LOZ-M3

SY100-68-A-20

EX.2) In case of 300mm of lead wire (Standard)

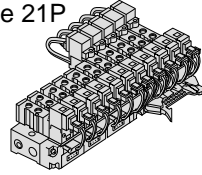
SYJ3120-5LPZ-M3

Symbol of connector ass'y with protective cover

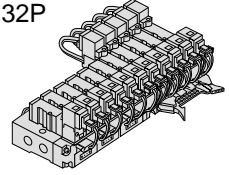
* It is not necessary to indicate the part number of connector ass'y with protective cover separately in this case.

⚠ Caution Flat Cable Manifold

Type 21P

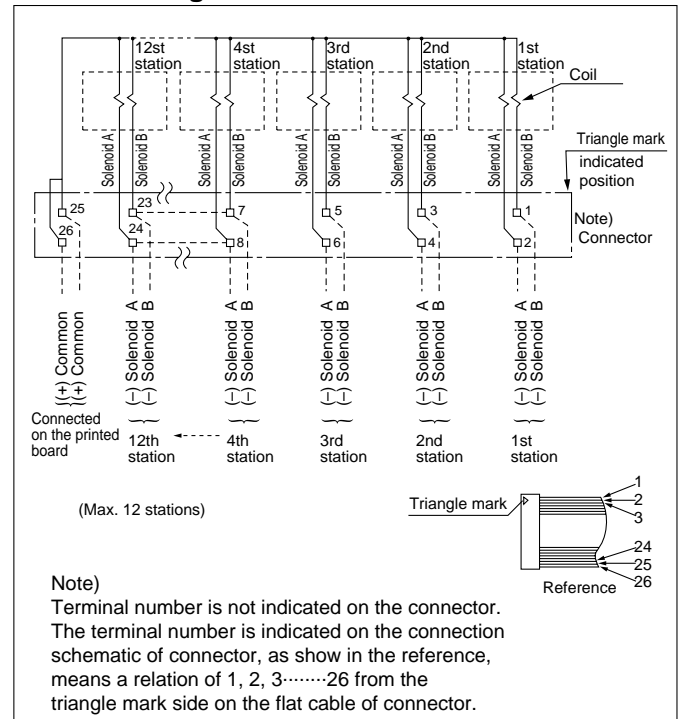


Type 32P



- With the flat cable manifold, each valve is wired to the manifold base. A single MIL flat cable connects the entire manifold to your power source. This greatly reduces installation time.

Internal wiring of manifold

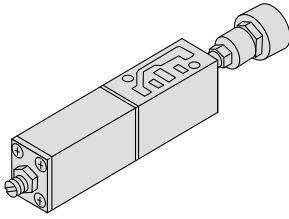


- For more than 10 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid B side.
- The maximum number of stations is 12. If more than 12 stations are required, consult SMC.
- Only non-polar valves are available for the flat cable manifold, therefore, either negative COM or positive COM wiring of the manifold is possible.

⚠ Caution Bracket

For bracket attached styles of SYJ3000 (Single) and SYJ7000, do not use it without bracket.

⚠ Caution Interface Regulator



Installing an interface regulator between a valve and the manifold base makes it possible to reduce the supply pressure to that valve without changing the supply pressure of the other stations on the manifold.

Specifications

Interface regulator	ARBYJ5000	ARBYJ7000	
Applicable solenoid valve	SYJ5000	SYJ7000	
Regulating port	P	P	
Proof pressure	1.5MPa		
Max. operating pressure	1.0MPa		
Setting pressure range	0.05 to 0.7MPa ⁽¹⁾		
Ambient and fluid temperature	5 to 60°C ⁽²⁾		
Thread size for connection of pressure gauge	M5 X 0.8		
Weight (kg)	0.06	0.09	
Effective area at supply side(mm ²) ⁽³⁾ S at P1=0.7MPa, P2 = 0.5MPa	P→A	1.9	5.1
	P→B	2.1	5.8
Effective area at exhaust side (mm ²) ⁽³⁾ S at P2 = 0.5MPa	A→EA	4.5	12.6
	B→EB	4.5	12.6

Note 1) Set the pressure within the operating pressure range of the solenoid valve.

Note 2) The maximum operating temperature for the valve is 50°C.

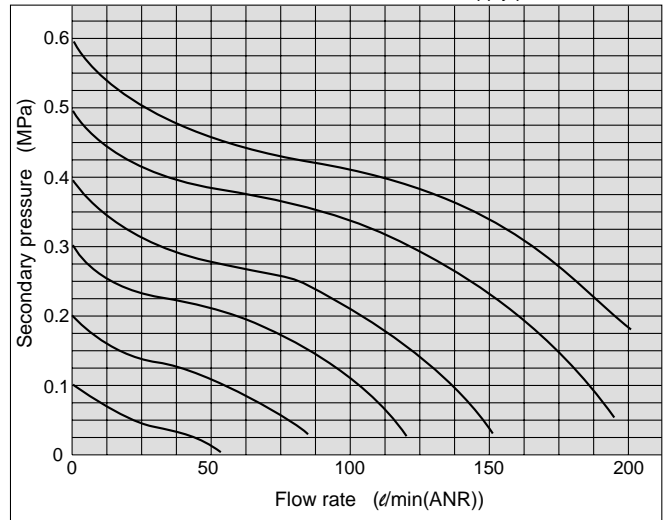
Note 3) The effective area listed is for a single solenoid 2 position valve mounted on a sub-plate.

Note 4) The interface regulator is only capable of regulating the "P" port pressure.

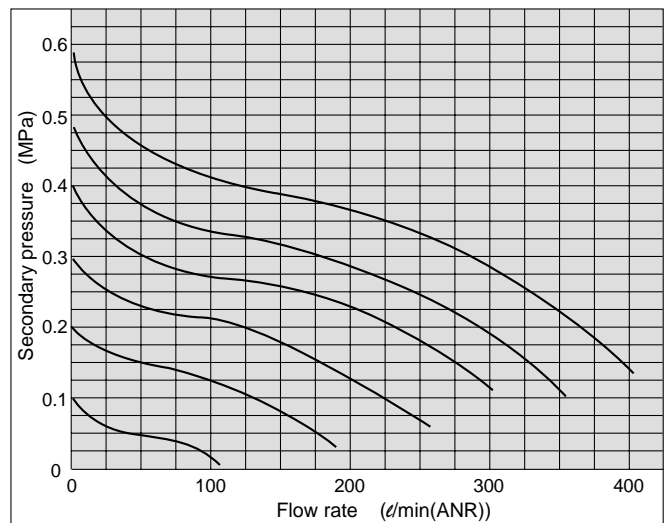
Flow rate (P→A)

●ARBYJ5000-00-P

Condition: Supply pressure 0.7MPa



●ARBYJ7000-00-P



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

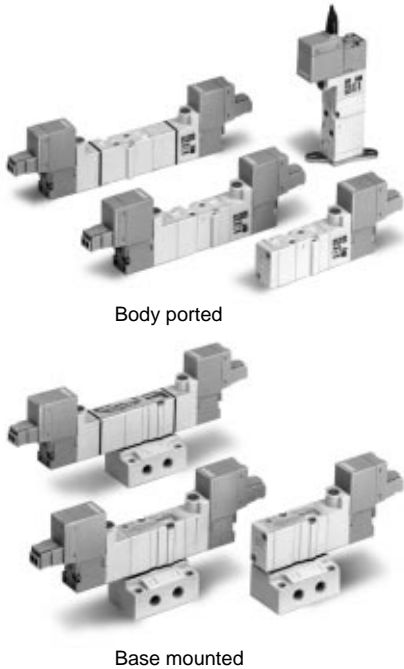
VS

VS7

4, 5 Port Solenoid Valve Rubber Seal

Series SYJ3000

Model



Valve model		Configuration		Port size	Effective area mm ² (Cv) ⁽¹⁾	Weight (g) ⁽²⁾⁽³⁾	
						Grommet	L/M plug connector
5 port Body ported	SYJ312□	2 position	Single	M3 X 0.5	0.9 (0.05)	33	35
	SYJ322□		Double			47	51
	SYJ332□	3 position	Closed center			50	54
	SYJ342□		Exhaust center				
	SYJ352□		Pressure center				
5 port Base mounted (With sub-plate)	SYJ314□	2 position	Single	M5 X 0.8	1.8 (0.1)	59(33)	61(35)
	SYJ324□		Double			73(47)	77(51)
	SYJ334□	3 position	Closed center			76(50)	80(54)
	SYJ344□		Exhaust center				
	SYJ354□		Pressure center				
4 port Base mounted (For manifold use only)	SYJ313□	2 position	Single	-	1.2 ⁽¹⁾ (0.067)	33	35
	SYJ323□		Double			47	51
	SYJ333□	3 position	Closed center			50	54
	SYJ343□		Exhaust center				
	SYJ353□		Pressure center				

Note 1) In case of M5 and mounted on manifold base.
 Note 2) (): Without sub-plate.
 Note 3) For DC voltages. For AC voltages add 1g to the weight of the single solenoid and 2g to the weight of the double solenoid and 3 position styles.

Specifications

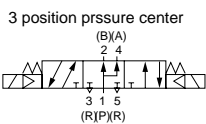
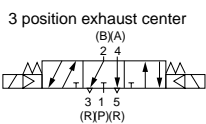
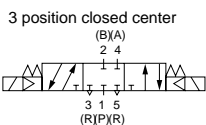
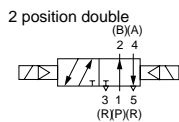
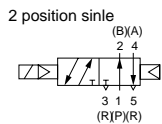
Fluid	Air	
Operating pressure range (MPa)	2 position single	0.15 to 0.7
	2 position double	0.1 to 0.7
	3 position	0.2 to 0.7
Ambient and fluid temperature °C		Max. 50
Response time (ms) ⁽⁴⁾ at 0.5MPa	2 position single, double	≤15
	3 position	≤30
Max. operating frequency (Hz)	2 position single, double	10
	3 position	3
Manual override	Non-locking push type, Push-turn-locking slotted style	
Pilot exhaust	Individual pilot exhaust, Common exhaust (pilot and main valve)	
Lubrication	Not required	
Mounting position	Free	
Impact/Vibration resistance (m/s ²) ⁽⁵⁾	150/30	
Protection structure	Dust proof	

Note 4) According to dynamic performance test JIS B8375-1981 (Coil temperature 20°C, at rated voltage, without surge voltage suppressor)
 Note 5) Impact resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)
 Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed at both energized and de-energized states to axis and right angle direction of the main valve and armature. (Value in the initial stage)

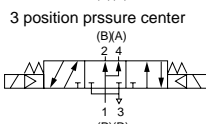
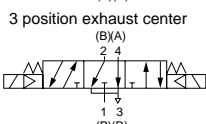
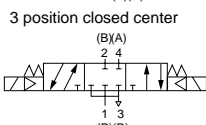
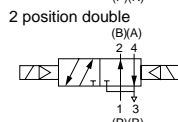
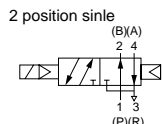
Solenoid Specifications

Electrical entry	Grommet(G)/(H), L plug connector(L), M plug connector(M)		
Coil rated voltage (V)	DC	24, 12, 6, 5, 3	
	AC50/60Hz	100, 110*, 200, 220**	
Allowable voltage	±10% rated voltage		
Power consumption (W) ⁽⁶⁾	DC	0.5 (With light: 0.55)	
Apparent power (VA)	AC	100V	0.9 (With light: 1.0)
		110V [115V]	1.0 (With light: 1.1) [1.1 (With light: 1.2)]
		200V	1.8 (With light: 1.9)
		220V [230V]	1.9 (With light: 2.0) [2.2 (With light: 2.3)]
Surge voltage suppressor	Diode		
Indicator light	LED		

JIS Symbol 5 Port



4 Port (manifold)

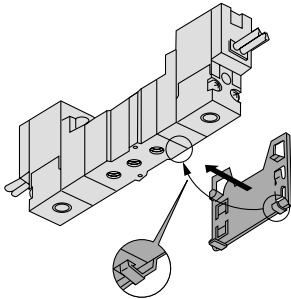


P.1.2-72

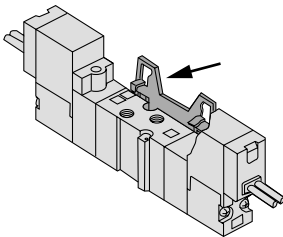
* Can be used for 115V AC in common.
 ** Can be used for 230V AC in common.
 Note 6) At rated voltage

Bracket Mounting

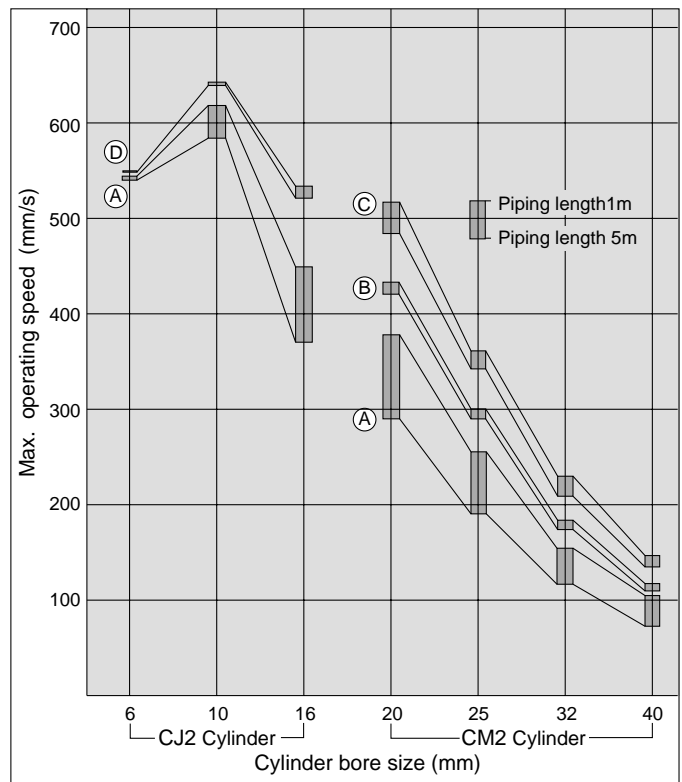
① Insert the lower hook of the mounting bracket into the groove on the bottom of the valve as shown.



② Press the valve and mounting bracket together until the upper hook of the bracket snaps into place in the groove on top of the valve.

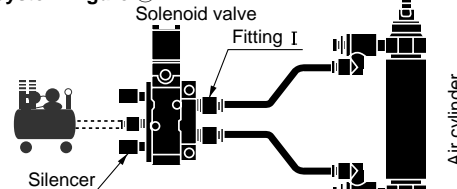


Cylinder Maximum Operating Speed

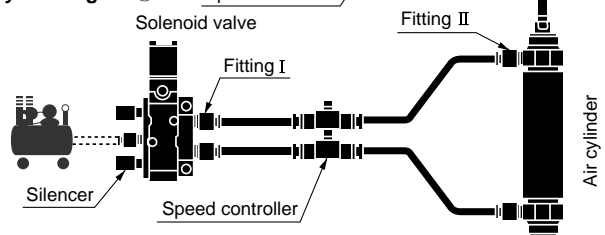


- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

● System Figure ①



● System Figure ②



- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Operating conditions) Pressure: 0.5MPa, Load rate: 50%
 At cylinder extended, cylinder stroke CJ2: 60mm
 CM2: 300mm

System components

System	Solenoid valve	Speed controller	Silencer	Fitting (Tube O.D. X Port size)		System Figure
				I	II	
(A)	SYJ3000 M5 X 0.8 (S = 1.8mm ²)	AS1301F-M5-04	AN120-M5 (S=5mm ²)	ø4 X M5	—	①
(B)		AS1301F-M5-06		ø6 X M5	—	
(C)		AS2301F-01-06		ø6 X 1/8	—	
(D)		AS2001F-06		—	ø6 X M5	ø6 X M5

Series SYJ3000

How to Order

Configuration

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

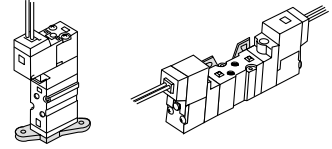
Light and surge voltage suppressor

—	Without light and surge suppressor
S	With surge suppressor
Z	With light and surge suppressor
R	With surge suppressor (Non-polar)
U	With light and surge suppressor (Non-polar)

* For AC voltage valves "S" option is not available. It is already built into the rectifier circuit.
* "R" and "U" types are available for DC voltage valves.

Bracket

—: Without bracket
F: With bracket



Single

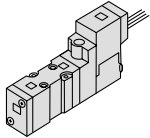
Double

Note) ● The double solenoid mounting bracket is supplied unattached.
● To order the double solenoid bracket for use with a single solenoid valve, order the single solenoid valve without a bracket and order the double solenoid bracket separately.
Example) SYJ3120-5M-M3, VJ3000-13-1

Rated voltage

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

5 port



(For manifold type 20)

Body ported

SYJ3 1 2 0 — 5 M — — M3 —

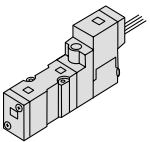
Base mounted (4 port)

SYJ3 2 3 0 — 5 M — — (For manifold use only.)

Base mounted (5 port)

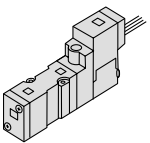
SYJ3 2 4 0 — 5 M — —

4 port



(Manifold type 31, S31, 32, S32)

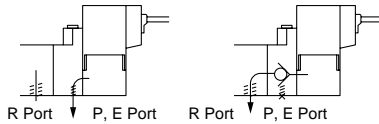
5 port



(For sub-plate, Manifold type 41, S41, 46, S46)

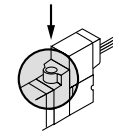
Body option

0: Individual exhaust for the pilot valve 3: Common exhaust for the pilot and main valves

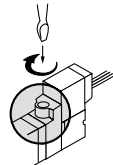


Manual override

—: Non-locking push style

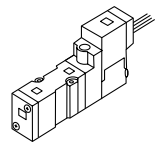


D: Push-turn-locking slotted style



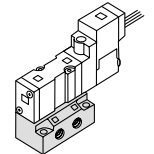
Port size

—: Without sub-plate



(With gasket and screws)

M5: With M5 port sub-plate



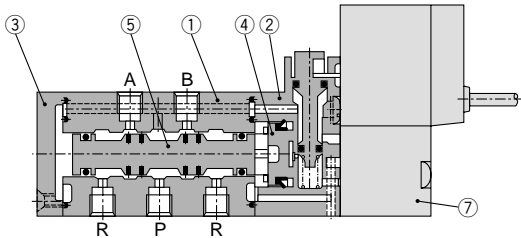
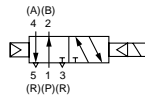
Electrical entry

24, 12, 6, 5, 3V DC/100, 110, 200, 220V AC			
Grommet	L plug connector	M plug connector	
G: 300mm lead wire	L: 300mm lead wire	M: 300mm lead wire	MN: Without lead wire
H: 600mm lead wire	LN: Without lead wire	MN: Without connector	MN: Without connector

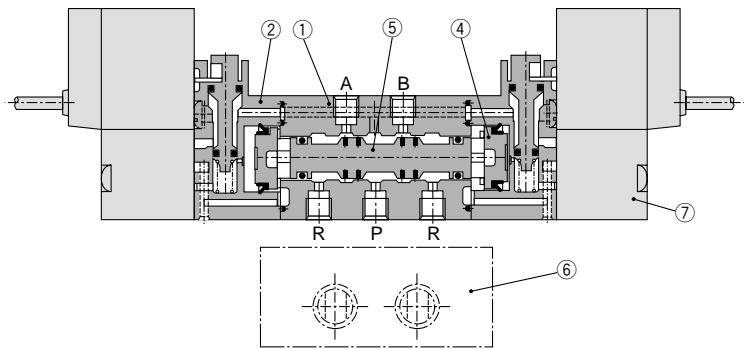
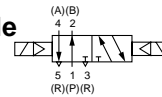
* LN and MN types are with 2 sockets.

Construction

2 position single

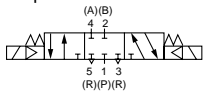


2 position double

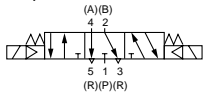


3 position closed center/exhaust center/pressure center

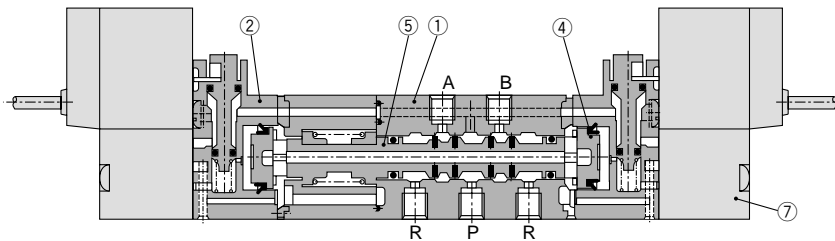
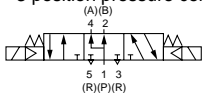
3 position closed center



3 position exhaust center



3 position pressure center



(This construction shows a closed center.)

Component Parts

No.	Description	Material	Note
①	Body	Zinc die cast	white
②	Piston plate	Resin	white
③	End cover	Resin	white
④	Piston	Resin	—
⑤	Spool Ass'y	—	—

Replacement Parts

No.	Description	Part No.	Note
⑥	Sub-plate	SYJ3000-22-1	Zinc die cast
⑦	Pilot valve	SY114-□□□	

How to Order Pilot Valve Assembly

SY114 — **5** **G** □

Voltage

5	24V DC
6	12V DC
V	6V DC
S	5V DC
R	3V DC
1	100V AC50/60Hz
2	200V AC50/60Hz
3	110V AC50/60Hz [115V AC50/60Hz]
4	220V AC50/60Hz [230V AC50/60Hz]

Electrical entry

G	Grommet (Lead wire length: 300mm)
H	Grommet (Lead wire length: 600mm)
L	L plug connector
LN	L plug connector
LO	L plug connector
M	M plug connector
MN	M plug connector
MO	M plug connector

Light and surge voltage suppressor

—	Without light and surge suppressor
S	With surge suppressor
Z	With light and surge suppressor
R	With surge suppressor (Non-polar)
U	With light and surge suppressor (Non-polar)

* For AC voltage valves "S" option is not available. It is already built into the rectifier circuit.

* "R" and "U" options are available for DC voltage valves only.

How to Order Connector Assembly

DC : SY100-30-4A-□
 100V AC : SY100-30-1A-□
 200V AC : SY100-30-2A-□
 Other AC voltages : SY100-30-3A-□

Without lead wire: SY100-30-A

(with connector and 2pcs. of socket)

Lead wire length

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

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

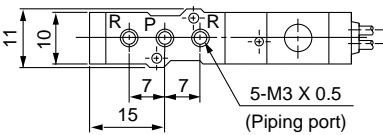
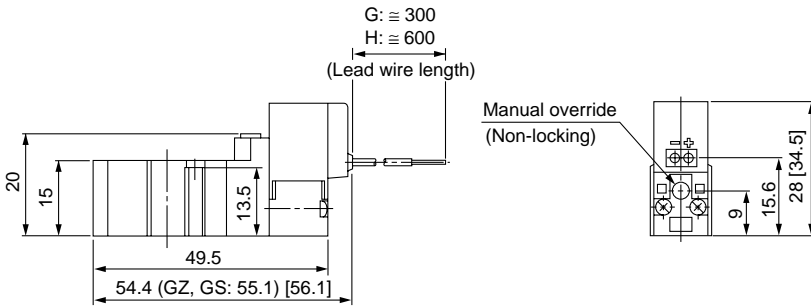
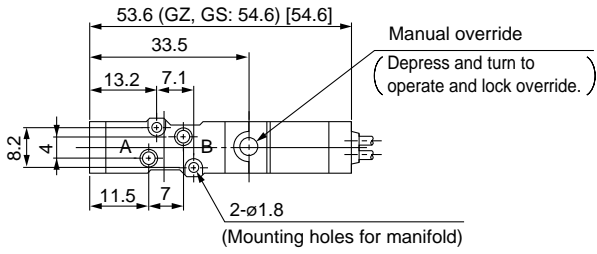
VS

VS7

Series SYJ3000

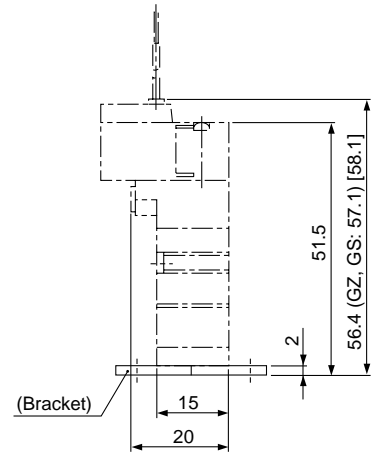
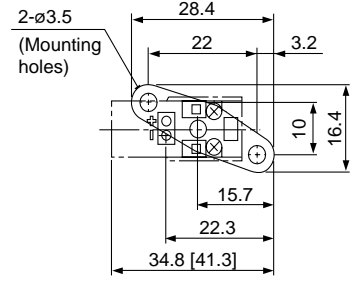
2 Position Single

Grommet (G), (H): SYJ3120-□^G□□-M3



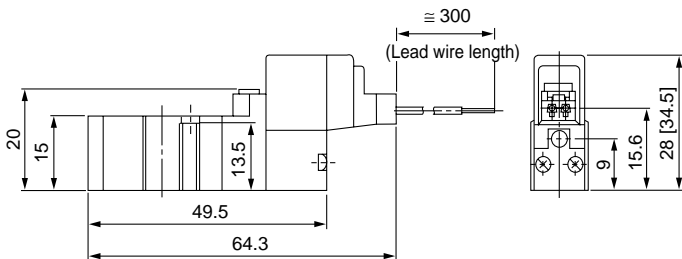
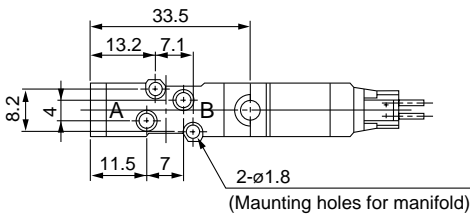
* [] for AC

With bracket



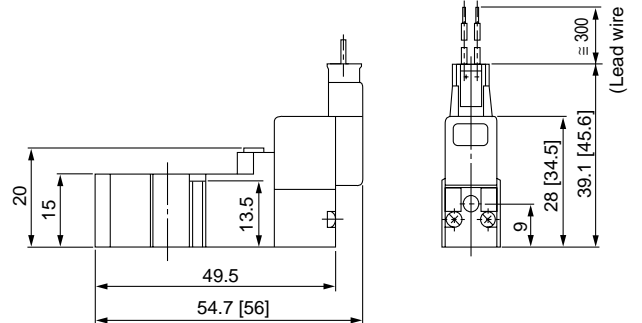
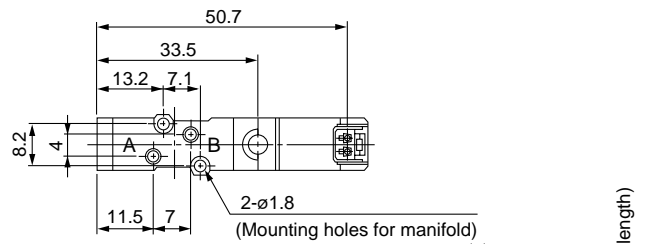
* [] for AC
* Other dimensions are the same as the grommet style.

L plug connector (L): SYJ3120-□L□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

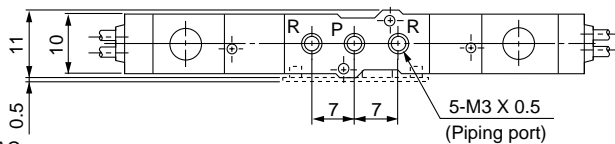
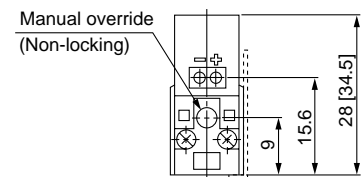
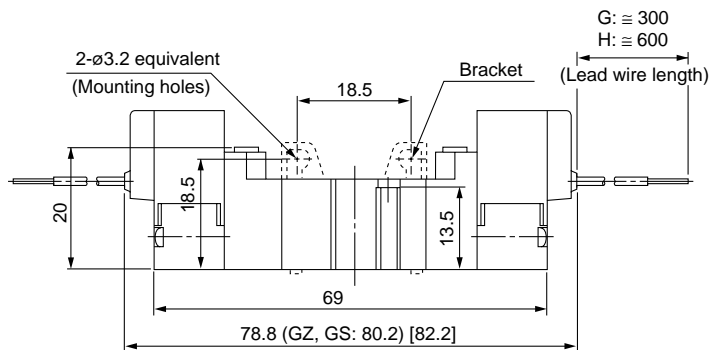
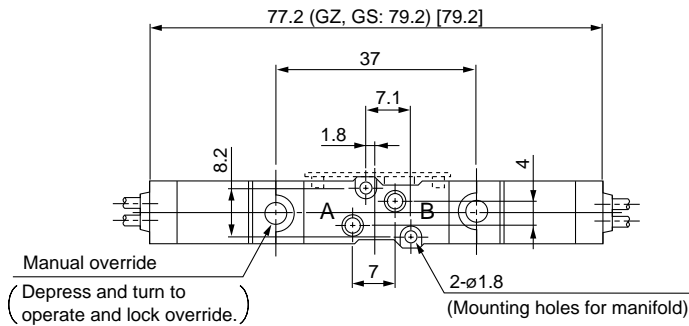
M plug connector (M): SYJ3120-□M□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

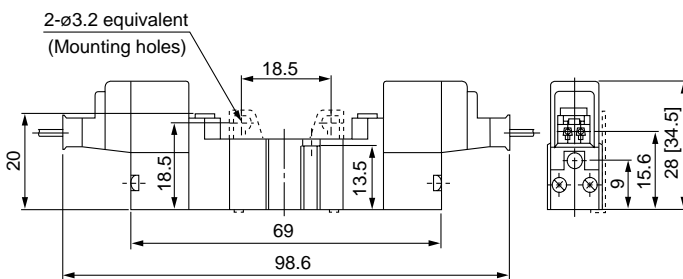
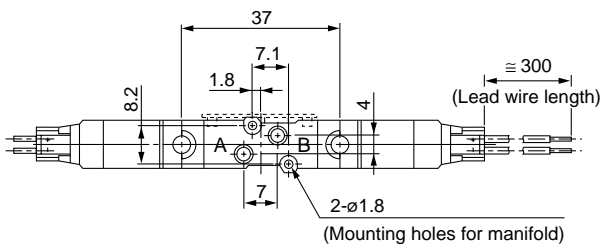
2 Position Double

Grommet (G), (H): SYJ3220-□^G□□-M3



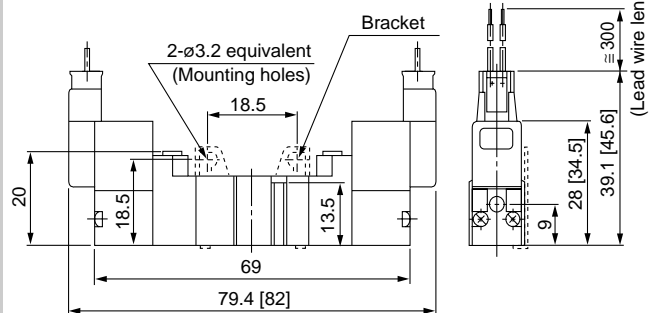
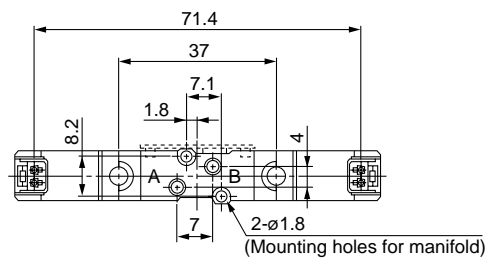
* [] for AC

L plug connector (L): SYJ3220-□L□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ3220-□M□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

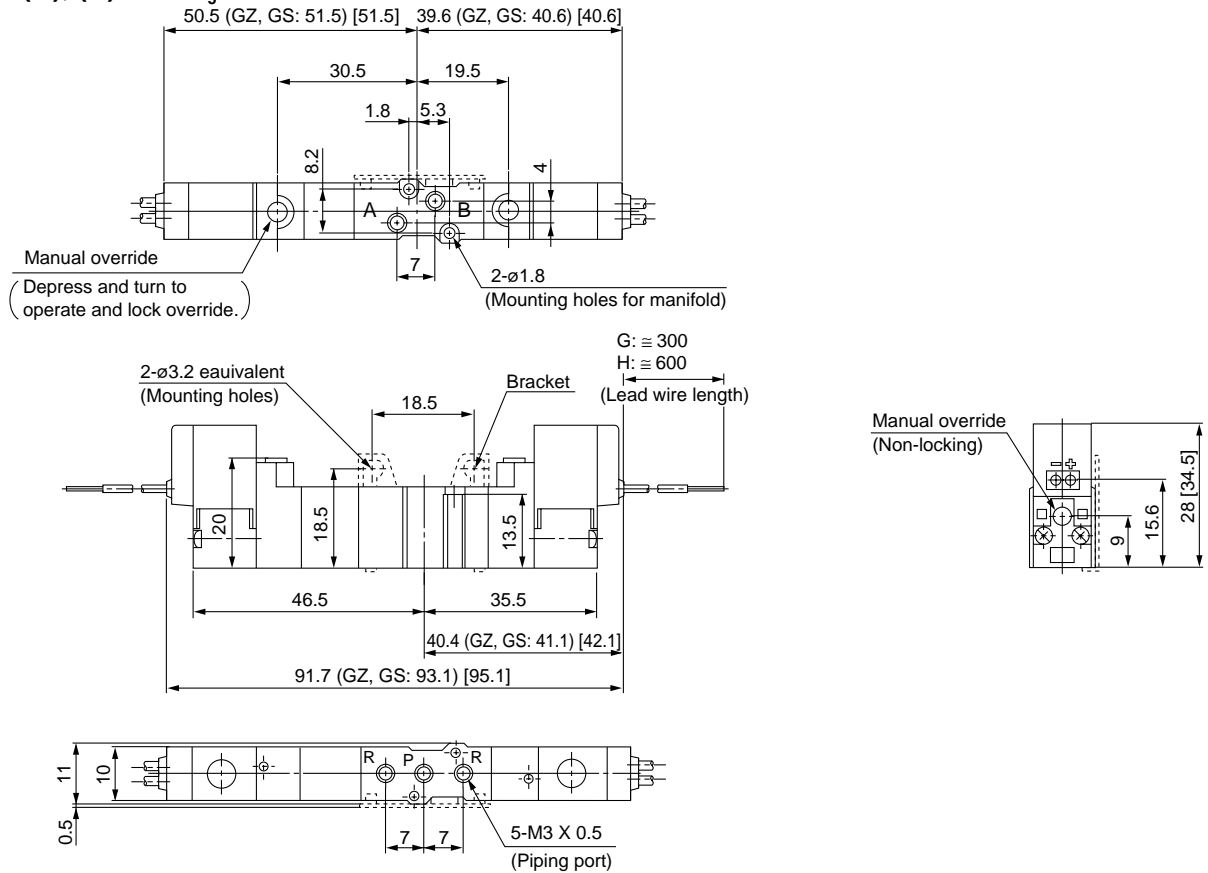
VS

VS7

Series SYJ3000

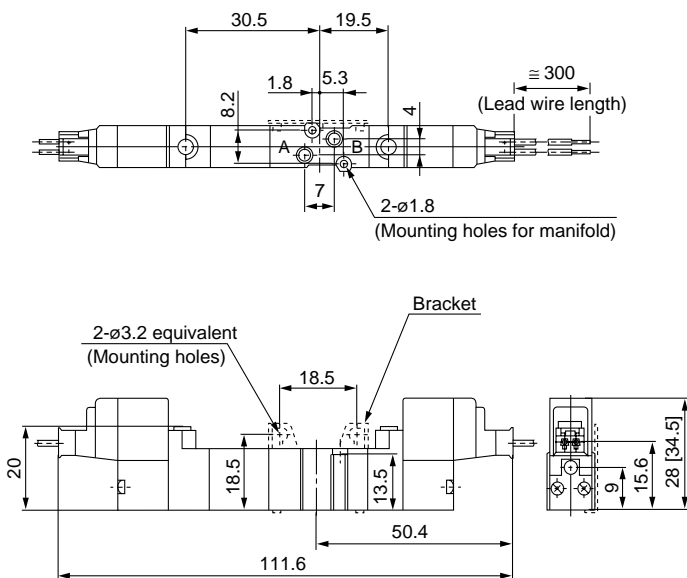
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ3 $\frac{3}{5}$ 20-□^G□□-M3



* [] for AC

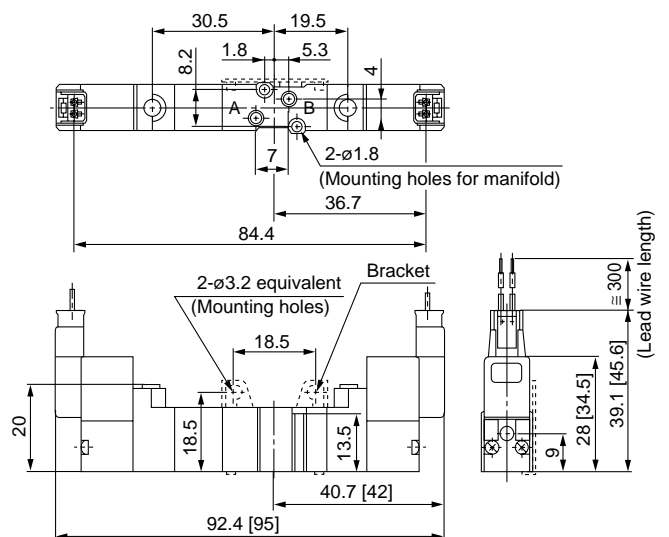
L plug connector (L): SYJ3 $\frac{3}{5}$ 20-□L□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

1.2-14

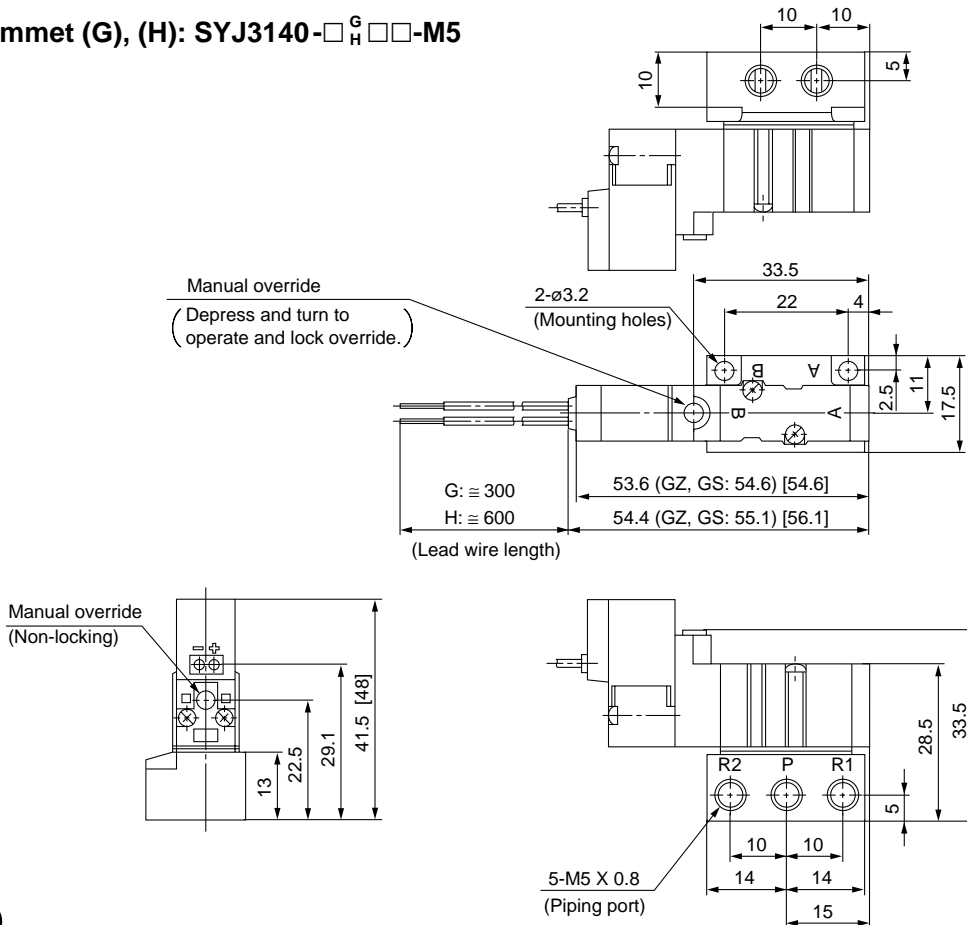
M plug connector (M): SYJ3 $\frac{3}{5}$ 20-□M□□-M3



* [] for AC
* Other dimensions are the same as the grommet style.

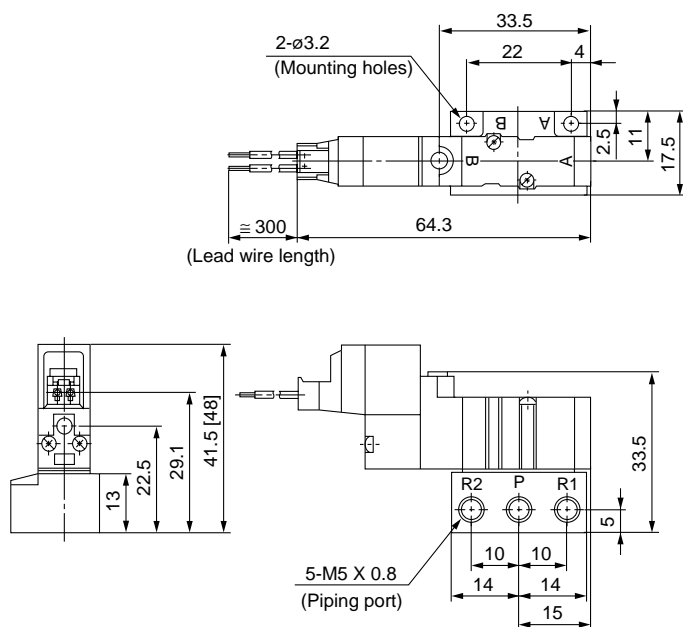
2 Position Single

Grommet (G), (H): SYJ3140-□^G□□□-M5



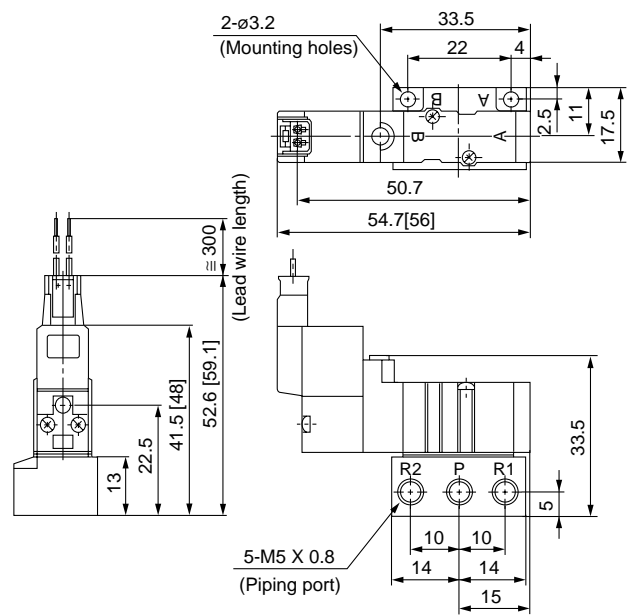
* [] for AC

L plug connector (L): SYJ3140-□L□□□-M5



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ3140-□M□□□-M5



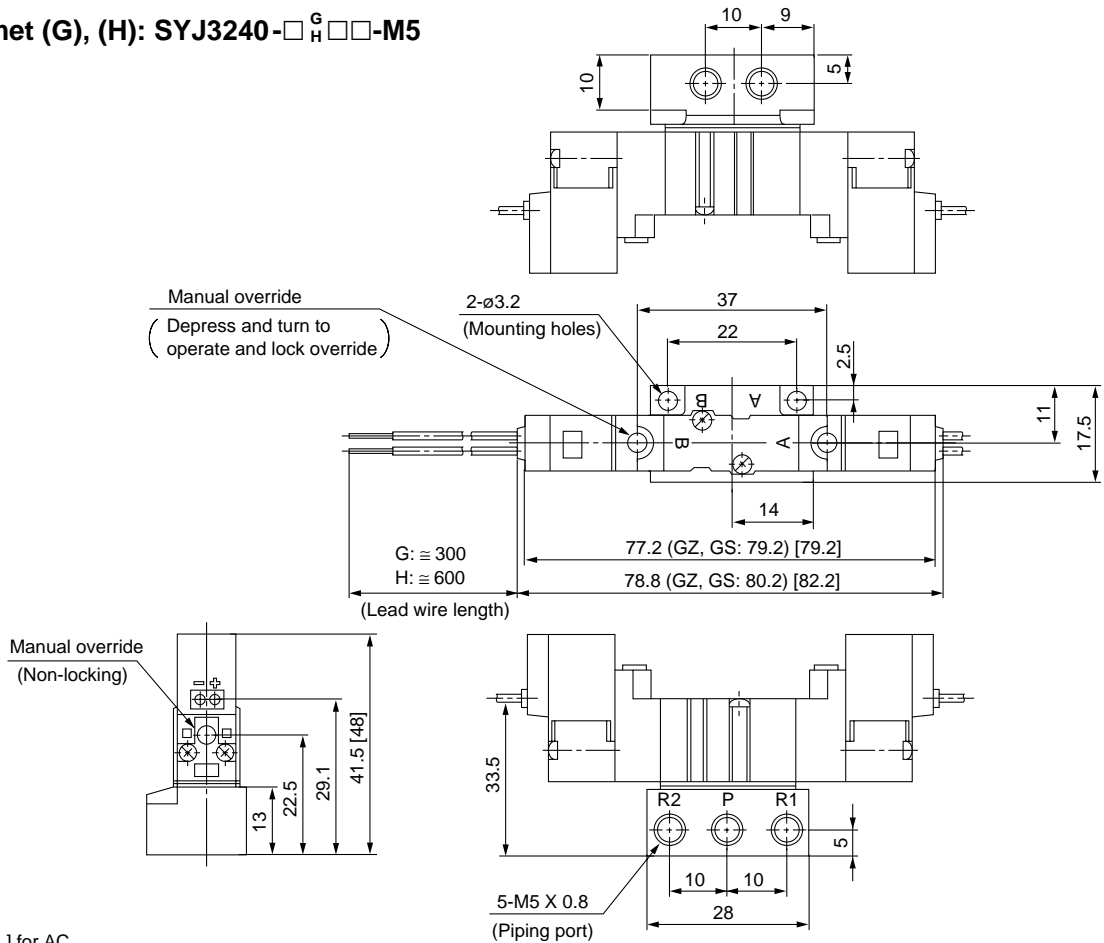
* [] for AC
* Other dimensions are the same as the grommet style.

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ3000

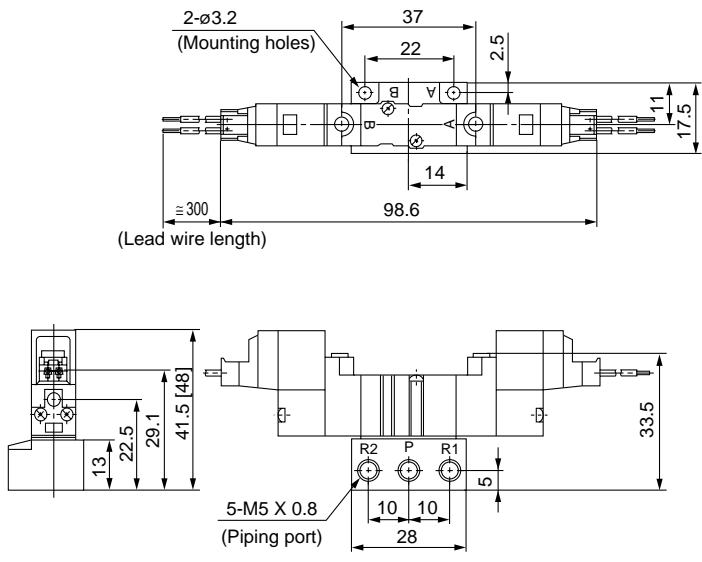
2 Position Double

Grommet (G), (H): SYJ3240-□^G□□-M5



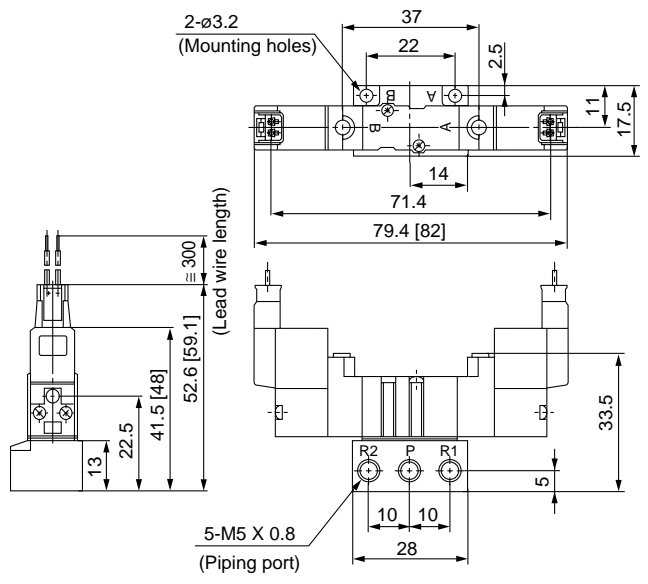
* [] for AC

L plug connector (L): SYJ3240-□L□□-M5



* [] for AC
* Other dimensions are the same as the grommet style.

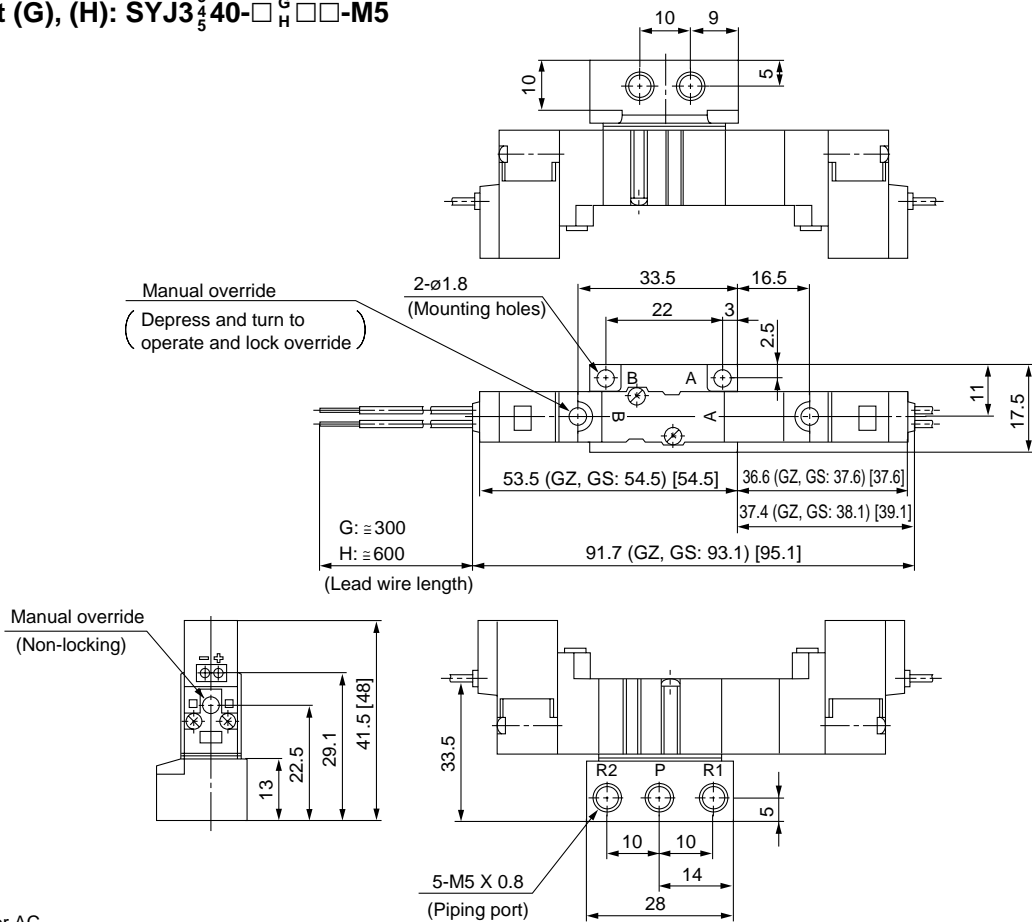
M plug connector (M): SYJ3240-□M□□-M5



* [] for AC
* Other dimensions are the same as the grommet style.

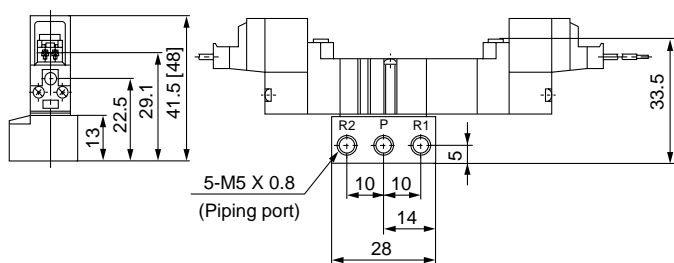
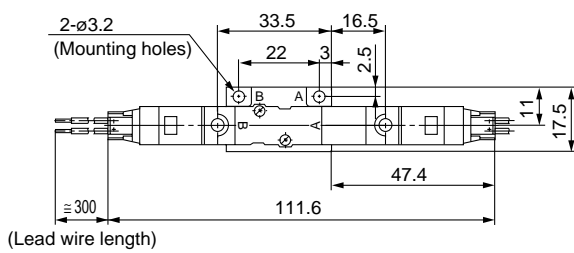
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ3³/₅40-□^G□□-M5



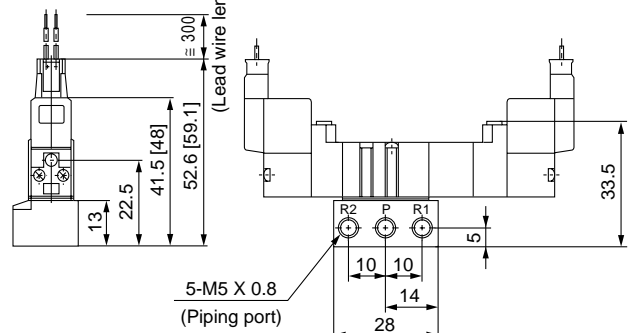
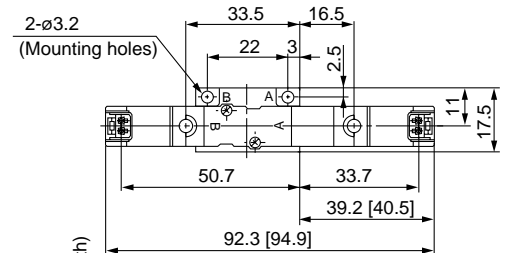
* [] for AC

L plug connector (L): SYJ3³/₅40-□L□□-M5



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ3³/₅40-□M□□-M5



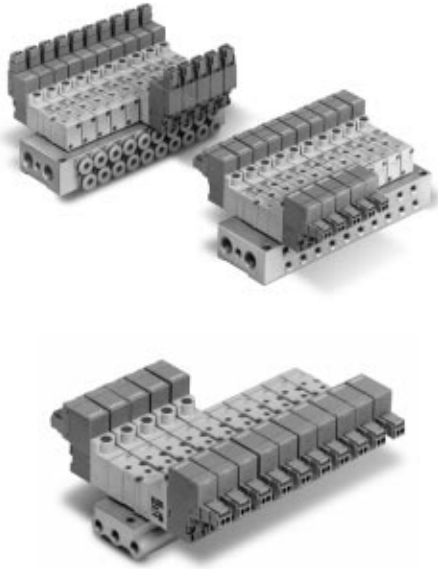
* [] for AC
* Other dimensions are the same as the grommet style.

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ3000 Manifold

Standard



Manifold Specifications

Type		20	31,S31	32,S32	41,S41	46,S46
Manifold style		Single base style/B mount				
P(SUP)/R(EXH)style		Common SUP, Common EXH				Common SUP Individual EXH
Valve stations		2 to 20 stations				
A, B port specifications	Location	Valve		Base		
	Direction	Top		Side		
Port size	P, R port	M5 X 0.8		Rc(PT)1/8		P: Rc(PT)1/8 R: M5 X 0.8
	A, B port	M3 X 0.5		M5 X 0.8, C4 (ø4 One-touch fitting)		
Effective area ⁽¹⁾ mm ² (Cv)	Body ported SYJ3□2□	0.9 (0.05)	—	—	—	—
	Base mounted SYJ3□3□	—	0.9 (0.05)	1.2(0.067)	—	—
	Base mounted SYJ3□4□	—	—	—	1.5(0.08)	1.0(0.055)



Note 1) Value for a single operation valve mounted on the manifold base.

How to Order Valve Manifold

Specify the part numbers for the valve(s), blank plate a'ssy and the manifold base.

Example

● SS5YJ3-20-031 pc. (Manifold base)	● SS5YJ3-S41-03-C41 pc. (Manifold base)
SYJ3120-5G-M3...2 pcs. (Valve)	SYJ3140-5LZ2 pcs. (Valve)
SYJ3000-21-1A ...1 pc. (Blank plate ass'y)	SYJ3000-21-2A1 pc. (Blank plate ass'y)

* Use manifold specification sheet.

Flat Cable Manifold

●Multiple valve wiring is simplified through the use of the flat cable connector.

●Clean appearance

With the flat cable manifold, each valve is wired to the manifold base.

A single MIL specification flat cable connects the entire manifold to the power source.

This greatly reduces installation time.



Type 21P

Type 32P

Flat Cable Manifold Specifications/(Refer to p.1.2-28 for dimensions.)

Type		21P	32P
Manifold style		Single base style/B mount	
P(SUP)/R(EXH)style		Common SUP/CommonEXH	
Valve stations		4 to 12 stations	
A,B port specifications	Location	Valve	Base
	Direction	Top	Side
Port size	P, R port	Rc(PT)1/8	
	A, B port	M3 X 0.5	M5 X 0.8, C4 (ø4 One-touch fitting)
Effective area (1) mm ² (Cv)	SYJ3□23	0.9 (0.05)	—
	SYJ3□33	—	1.2 (0.067)
Connector		Socket: 26 poles MIL type with strain relief conforms to MIL-C-83503	
Internal wiring(2)		Both for +COM and -COM	
Rated voltage		24V DC, 12V DC, 100V AC, 110V AC	



Note 1) Value for a single operation of 2 position valve mounted on manifold base.

Note 2) The withstand voltage specification for the wiring unit section conforms to JIS C0704, Grade I or its equivalent.

How to Order Valve Manifold

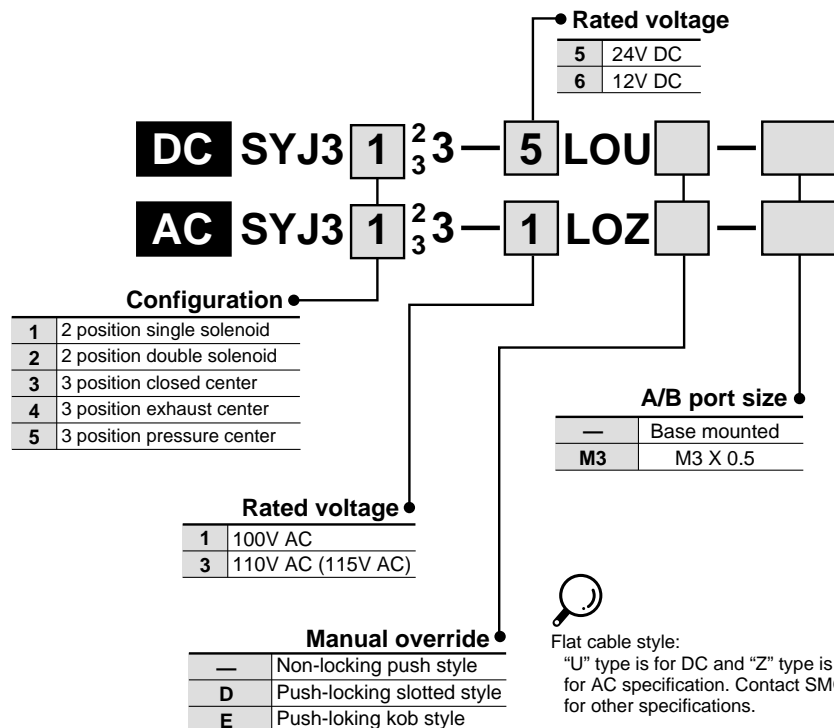
●SS5YJ3-32P-07-C4 1 pc. (Manifold base)	SYJ3000-21-4A1 pc. (Blank plate ass'y)
SYJ3133-5LOU3 pcs. (Valve)	SY3000-37-28A3 pcs. (Connector ass'y)
SYJ3233-5LOU3 pcs. (Valve)	SY3000-37-29A3 pcs. (Connector ass'y)

*Use manifold specification sheet.

⚠ Caution

The manifold can be wired for either positive or negative common because only non-polar valves are used. The use of valves other than non polar types are not recommended and may cause damage to the electrical circuit.

How to Order Valve



How to Order Connector Ass'y

For 12V/24V DC

Single solenoid	SY3000-37-28A
Double solenoid 3 position	SY3000-37-29A

For 100V DC

Single solenoid	SY3000-37-46A
Double solenoid 3 position	SY3000-37-47A

For 110V DC (115V AC)

Single solenoid	SY3000-37-54A
Double solenoid 3 position	SY3000-37-55A

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

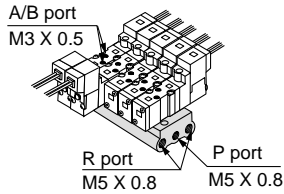
Series SYJ3000

Common SUP/Common EXH



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

20 Type (5 Port/Body ported)



How to Order

SS5YJ3-20-05

Stations	
02	2 stations
:	:
20	20 stations

Applicable solenoid valve
SYJ3□20-□□□□-M3
SYJ3□23-□□□□-M3

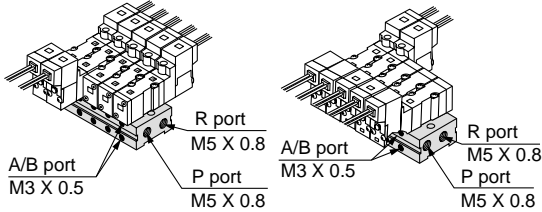
Applicable blank plate assembly
SYJ3000-21-1A

31 Type (4 Port/Base mounted)

31 Type

S31 Type

(Single solenoid coil is located on same side as the A, B port.)



How to Order

SS5YJ3-□-31-05-M3

Valve mounting direction

—	Single solenoid coil is located on opposite side as the A, B port.
S	Single solenoid coil is located on same side as the A, B port.

Stations

02	2 stations
:	:
20	20 stations

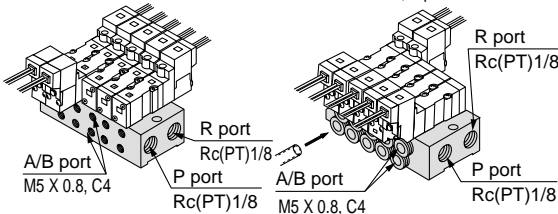
Applicable solenoid valve
SYJ3□30-□□□□
SYJ3□33-□□□□

32 Type (4 Port/Base mounted)

32 Type

S32 Type

(Single solenoid coil is located on same side as the A, B port.)



How to Order

SS5YJ3-□-32-05-M5

Valve mounting direction

—	Single solenoid coil is located on opposite side as the A, B port.
S	Single solenoid coil is located on same side as the A, B port.

Stations

02	2 stations
:	:
20	20 stations

A, B port side

M5	M5 X 0.8
C4	ø4 One-touch fitting

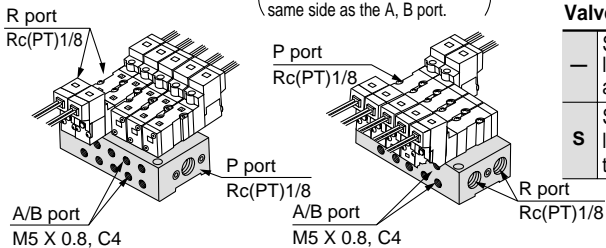
Applicable blank plate assembly
SYJ3000-21-2A

41 Type (5 Port/Base mounted)

41 Type

S41 Type

(Single solenoid coil is located on same side as the A, B port.)



How to Order

SS5YJ3-□-41-05-C4

Valve mounting direction

—	Single solenoid coil is located on opposite side as the A, B port.
S	Single solenoid coil is located on same side as the A, B port.

Stations

02	2 stations
:	:
20	20 stations

A, B port side

M5	M5 X 0.8
C4	ø4 One-touch fitting

Applicable solenoid valve
SYJ3□40-□□□□
SYJ3□43-□□□□

Applicable blank plate assembly
SYJ3000-21-2A

Common SUP/Individual EXH



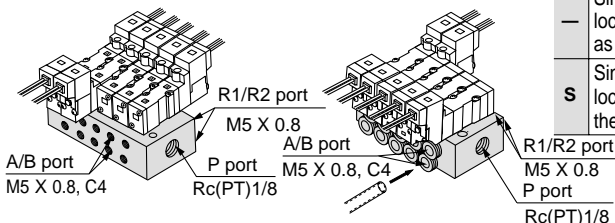
Note) For more than 10 stations, supply air to both sides of "P" port.

46 Type (5 Port/Base mounted)

46 Type

S46 Type

(Single solenoid coil is located on same side as the A, B port.)



How to Order

SS5YJ3-□-46-05-M5

Valve mounting direction

—	Single solenoid coil is located on opposite side as the A, B port.
S	Single solenoid coil is located on same side as the A, B port.

Stations

02	2 stations
:	:
20	20 stations

A, B port side

M5	M5 X 0.8
C4	ø4 One-touch fitting

Applicable solenoid valve
SYJ3□40-□□□□
SYJ3□43-□□□□

Applicable blank plate assembly
SYJ3000-21-2A

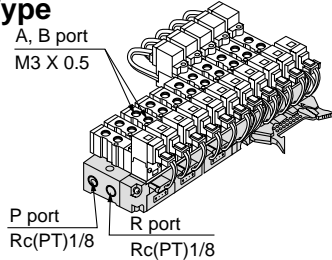
Flat Cable Manifold

Common SUP/Individual EXH



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

21P Type



How to Order

SS5YJ3-21P-07

Stations

04	4 stations
:	:
12	12 stations

Applicable valve

Refer to the p.1.2.-19.

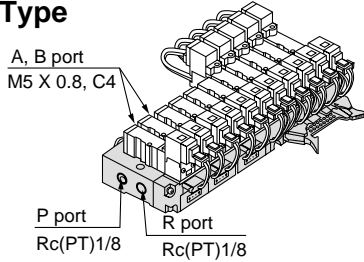
Applicable connector assembly

Refer to the p.1.2.-19.

Applicable blank plate assembly

SYJ3000-21-3A
(With dust cap)

32P Type



How to Order

SS5YJ3-32P-07-C4

Stations

04	4 stations
:	:
12	12 stations

A, B port side

M5	M5 X 0.8
C4	ø4 One-touch fitting

Applicable valve

Refer to the p.1.2.-19.

Applicable connector assembly

Refer to the p.1.2.-19.

Applicable blank plate assembly

SYJ3000-21-3A
(With dust cap)

Installation of the SYJ300 Valves on the SY3000 Manifold.

The SYJ3000 series valves can be mounted on the manifold for the SYJ3000 series.

① SS5YJ3-20, SS5YJ3-21P

The 3 port valve can be used on the 4 port manifold by simply sealing off the unused "R" port with plug VJ3000-33-1.

Applicable solenoid valve

SYJ312, SYJ312M
SYJ322, SYJ322M

② SS5YJ3-31, -S31, SS5YJ3-32, -S32, SS5YJ3-46, -S46, SS5YJ3-32P

The 3 port valve can be used on the 4 port manifold without modification. The A port of the valve will flow out of the B port of the manifold.

Applicable solenoid valve

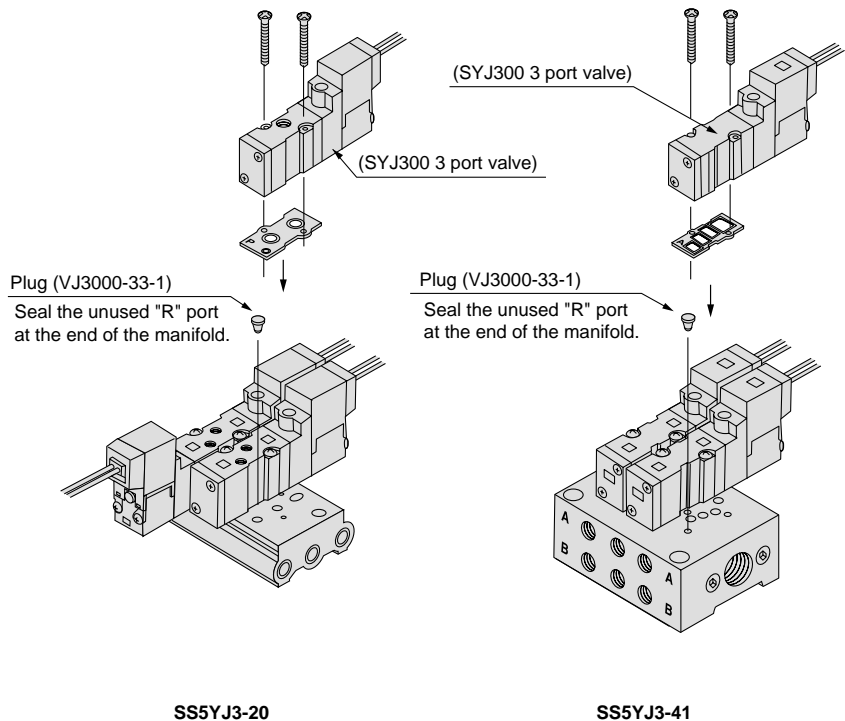
SYJ314, SYJ314M
SYJ324, SYJ324M

③ SS5YJ3-41, -S41

The 3 port valve can be used on the 4 port manifold by simply sealing off the unused "R" port with plug VJ3000-33-1. The A port of the valve will flow out of the B port of the manifold.

Applicable solenoid valve

SYJ314, SYJ314M
SYJ324, SYJ324M



SS5YJ3-20

SS5YJ3-41

A port of the 3 port valve flows out of the manifold B port.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

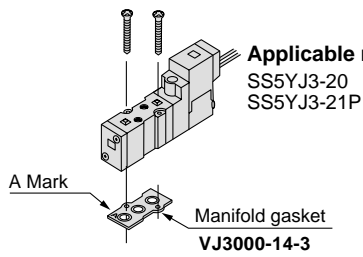
VS

VS7

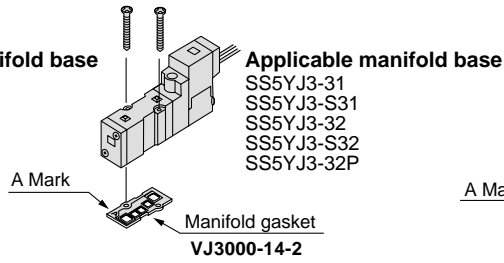
Series SYJ3000

Combination of Solenoid Valve, Manifold Gasket and Manifold Base

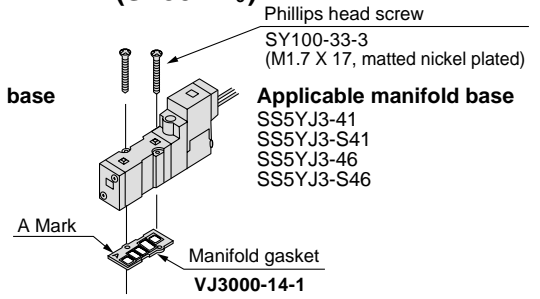
5 port body ported (SYJ3□2₃⁰)



4 port base mounted (SYJ3□3₃⁰)

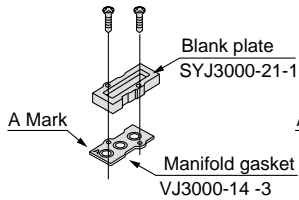


5 port base mounted (SYJ3□4₃⁰)



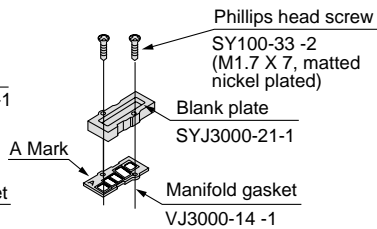
Combination of Blank Plate Ass'y and Manifold Base

Blank plate ass'y SYJ3000-21-1A



Applicable manifold base SS5YJ3-20

Blank plate ass'y SYJ3000-21-2A



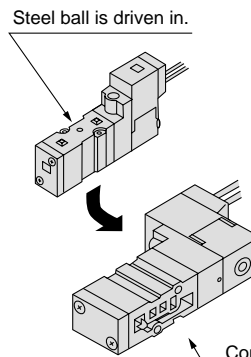
Applicable manifold base (sub-plate) SS5YJ3-41 SS5YJ3-S41 SS5YJ3-46 SS5YJ3-S46 SS5YJ3-31 SS5YJ3-S31 SS5YJ3-32 SS5YJ3-S32

Note) Manifold gasket "VJ3000-14-2" can be used with the following manifold bases.

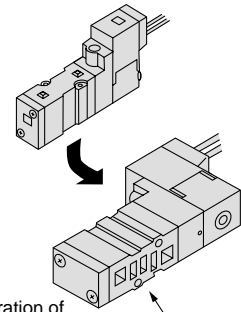
- SS5YJ3-31
- S31
- 32
- S32

Difference between SYJ3□3₃⁰ and SYJ3□4₃⁰

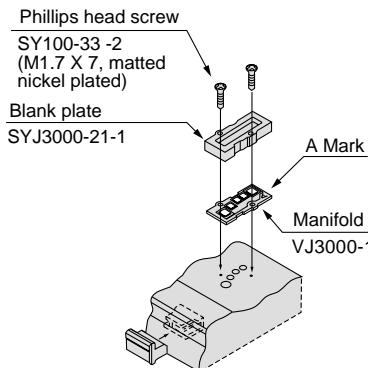
SYJ3□30, 3□33 (4 port)



SYJ3□40, 3□43 (5 port)

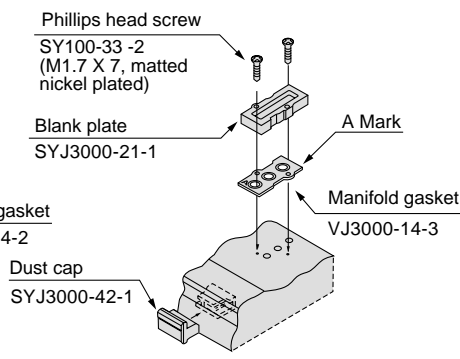


Blank plate ass'y SYJ3000-21-4A



Applicable manifold base SS5YJ3-32P

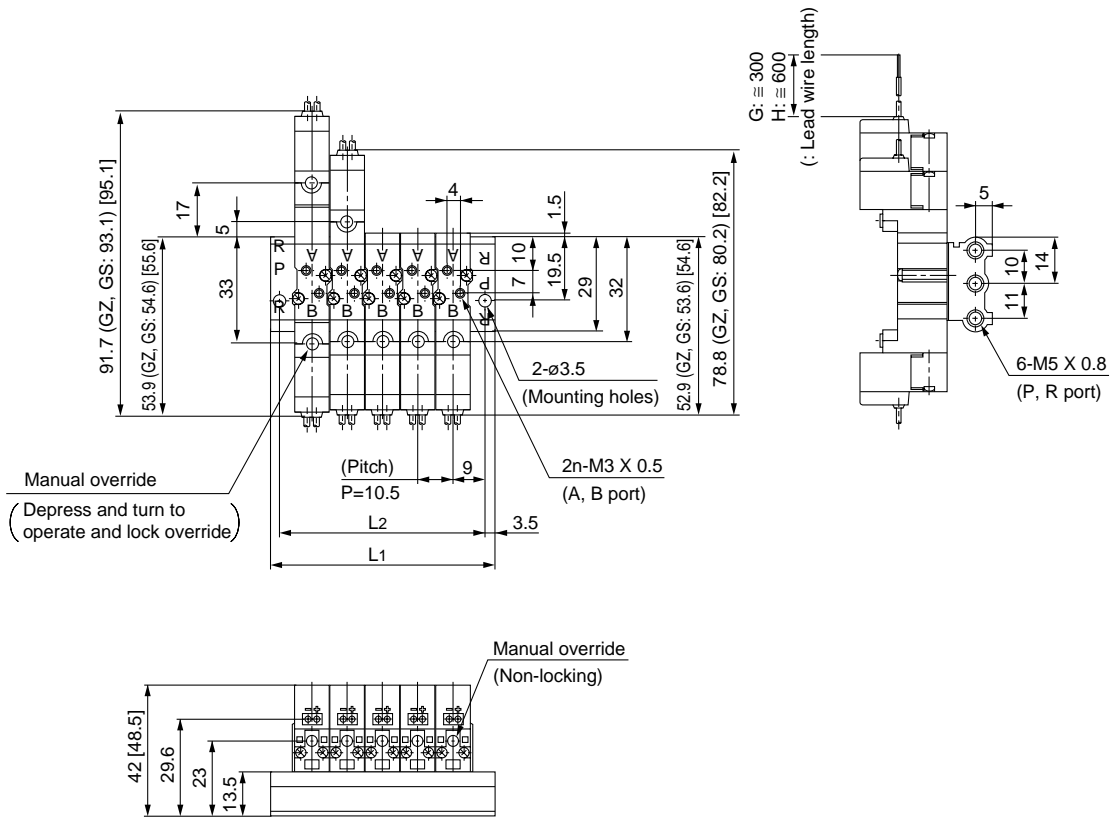
Blank plate ass'y SYJ3000-21-3A



Applicable manifold base SS5YJ3-21P

20 Type Manifold: Top Ported/SS5YJ3-20-Station

Grommet (G), (H)



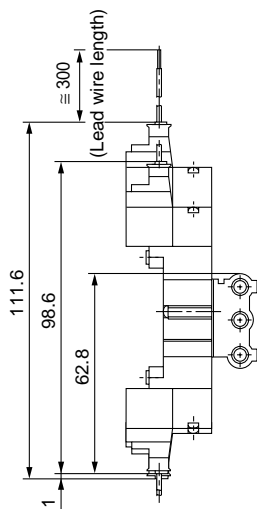
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

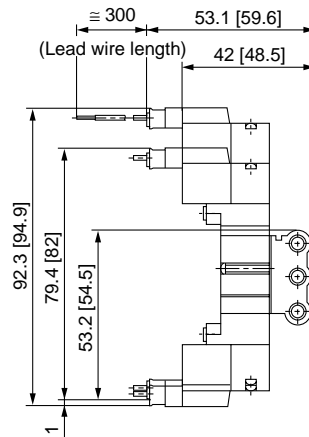


* [] for AC

L plug connector (L)



M plug connector (M)



* Other dimensions are the same as the grommet style.



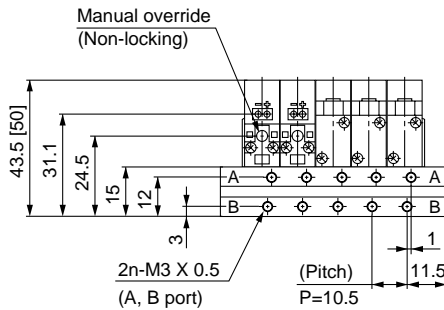
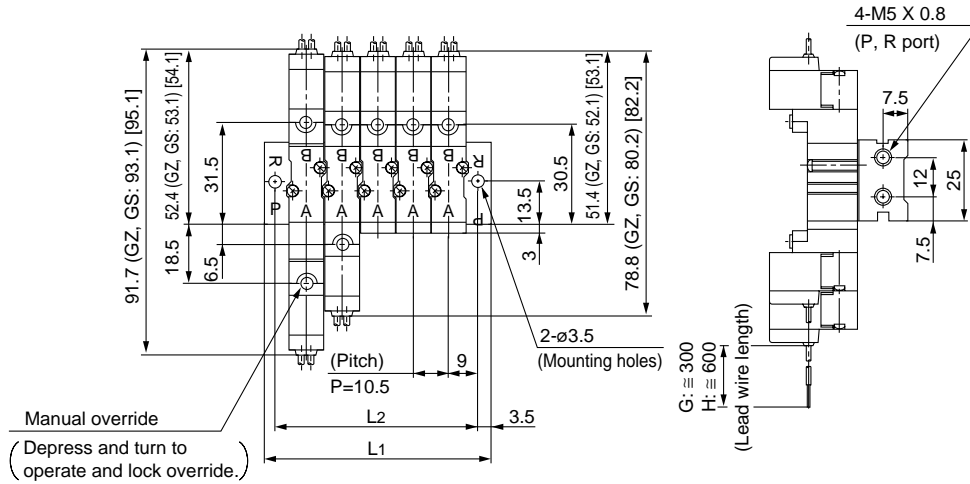
* [] for AC
* Other dimensions are the same as the grommet style.

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	35.5	46	56.5	67	77.5	88	98.5	109	119.5	130	140.5	151	161.5	172	182.5	193	203.5	214	224.5
L2	28.5	39	49.5	60	70.5	81	91.5	102	112.5	123	133.5	144	154.5	165	175.5	186	196.5	207	217.5

Series SYJ3000

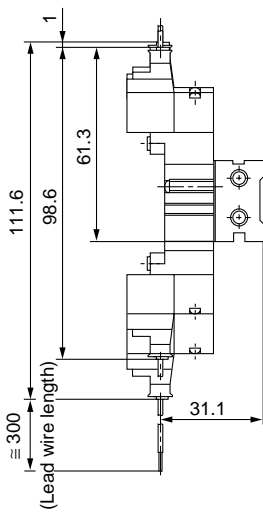
31 Type Manifold: Side Ported/SS5YJ3-31-Station -M3

Grommet (G), (H)

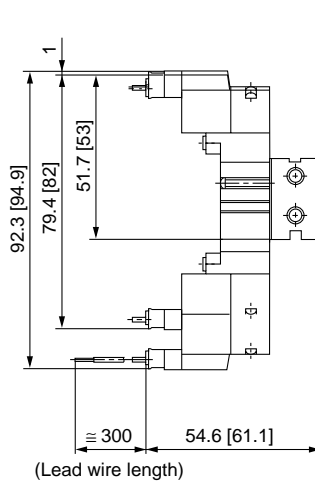


* [] for AC

L plug connector (L)



M plug connector (M)



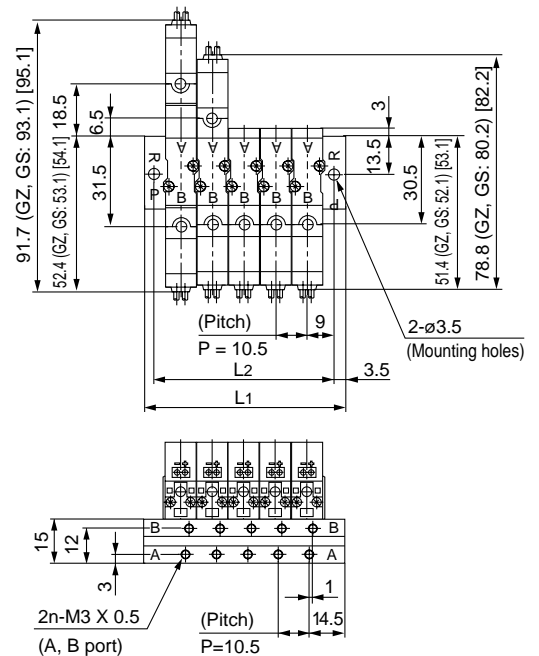
* Other dimensions are the same as the grommet style.



* [] for AC
* Other dimensions are the same as the grommet style.

S31 Type/Side Ported (Single solenoid coil is located on same side as the A, B port.)

SS5YJ3-S31-Station -M3

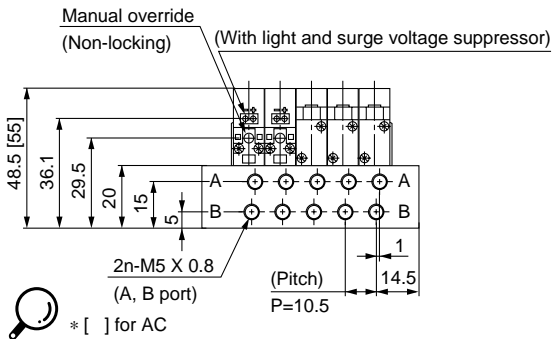
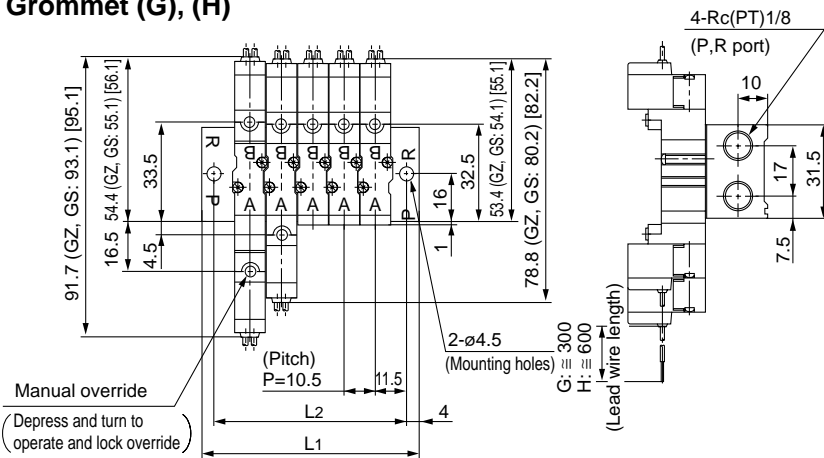


* [] for AC
* Other dimensions are the same as style 31.

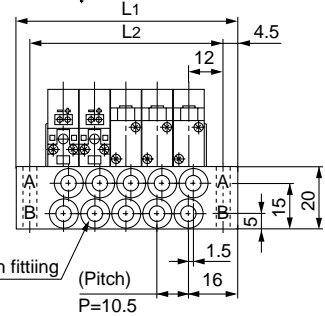
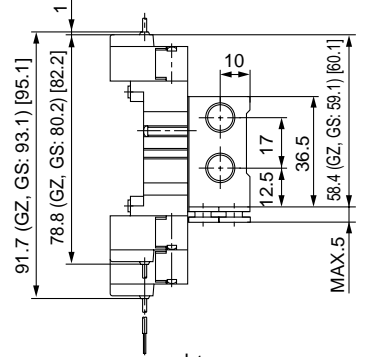
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	35.5	46	56.5	67	77.5	88	98.5	109	119.5	130	140.5	151	161.5	172	182.5	193	203.5	214	224.5
L2	28.5	39	49.5	60	70.5	81	91.5	102	112.5	123	133.5	144	154.5	165	175.5	186	196.5	207	217.5

32 Type Manifold: Side Ported/SS5YJ3-32- Station -M5, C4

Grommet (G), (H)

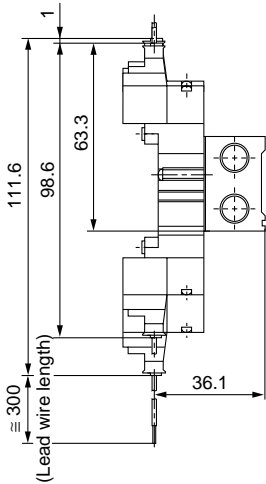


C4(Built-in One-touch fitting)



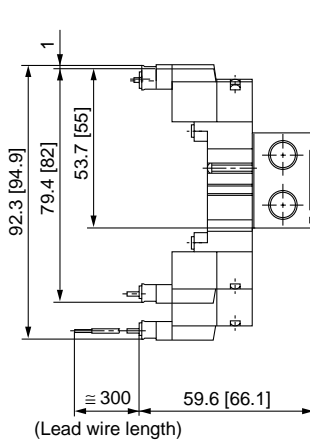
* [] for AC
* Other dimensions are the same as the M5.

L plug connector (L)



* Other dimensions are the same as the grommet style.

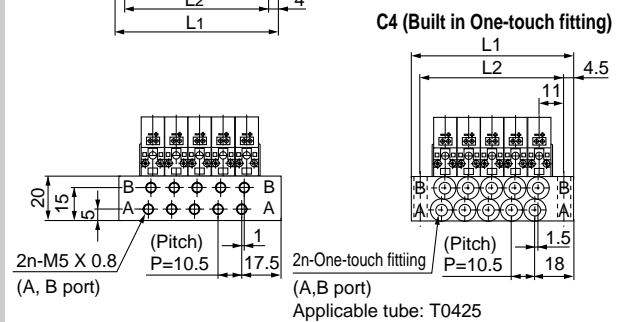
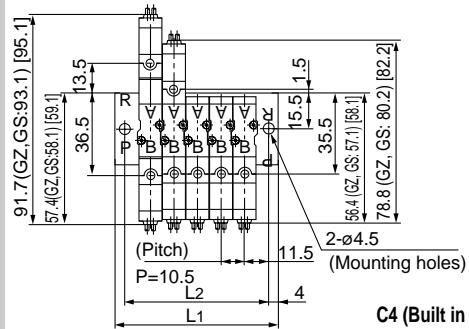
M plug connector (M)



* [] for AC
* Other dimensions are the same as the grommet style.

S32 Type/Side Ported (Single solenoid coil is located on same side as the A, B port.)

SS5YJ3-S32- Station -M5, C4



* [] for AC
* Other dimensions are the same as the type 32.

SS5YJ3-32, S32- Station -M5

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	41.5	52	62.5	73	83.5	94	104.5	115	125.5	136	146.5	157	167.5	178	188.5	199	209.5	220	230.5
L2	33.5	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5

SS5YJ3-32, S32- Station -C4

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42.5	53	63.5	74	84.5	95	105.5	116	126.5	137	147.5	158	168.5	179	189.5	200	210.5	221	231.5
L2	33.5	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5

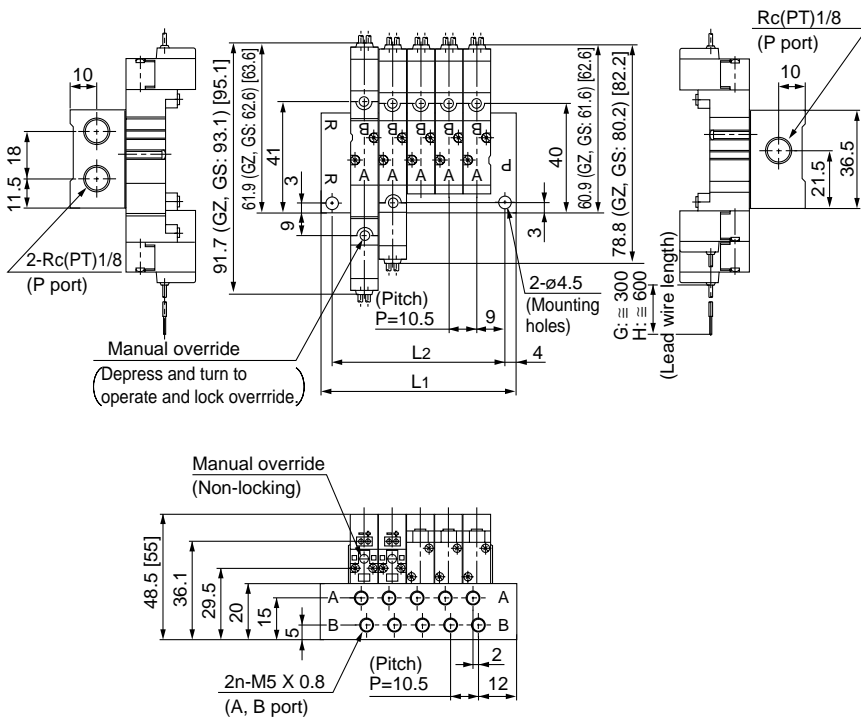
SY
SYJ
SX
VK
VZ
VF
VFR
VP7
VP4

VQ
VQ4
VQZ
VQD
VZS
VFS
VS
VS7

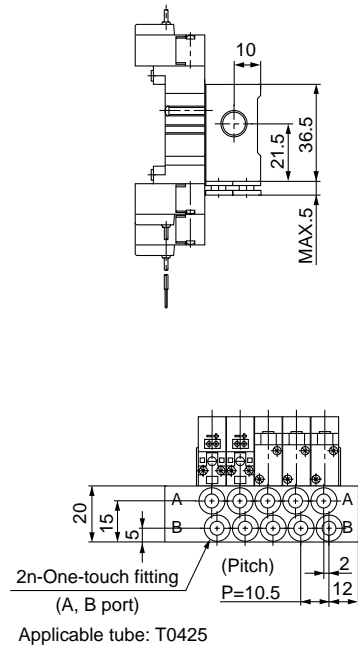
Series SYJ3000

41 Type Manifold: Side Ported/SS5YJ3-41-Station -M5, C4

Grommet (G), (H)



C4 (Built-in One-touch fitting)

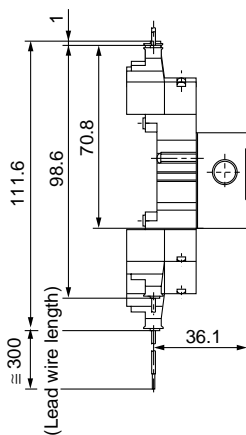


* Other dimensions are the same as the M5.

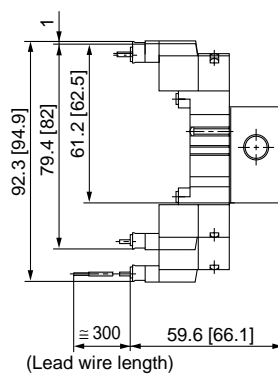


* [] for AC

L plug connector (L)



M plug connector (M)



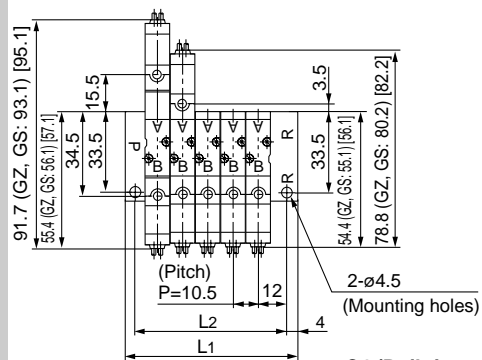
* Other dimensions are the same as the grommet style.



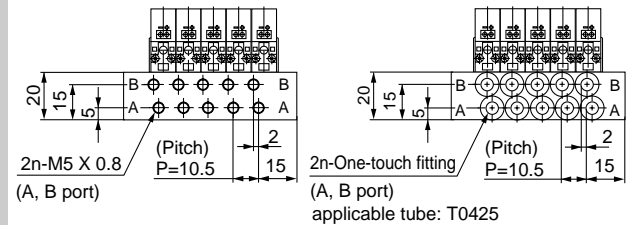
* [] for AC
* Other dimensions are the same as the grommet style.

S41 Type/Side Ported (Single solenoid coil is located on same side as the A, B port)

SS5YJ3-S41-Station -M5, C4



C4 (Built-in one-touch fitting)

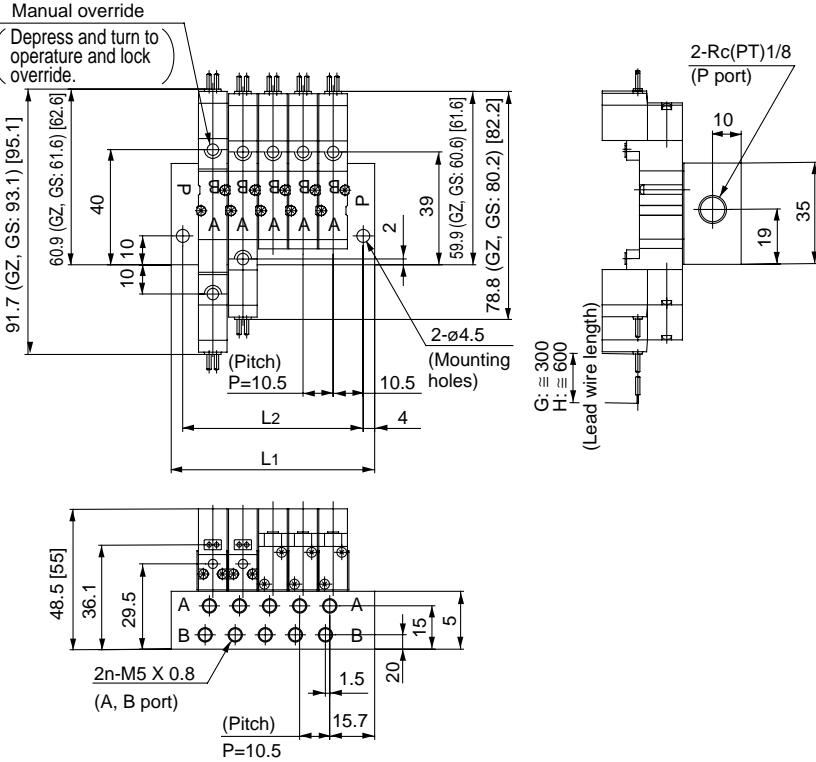


* [] for AC
* Other dimensions are the same as type 41.

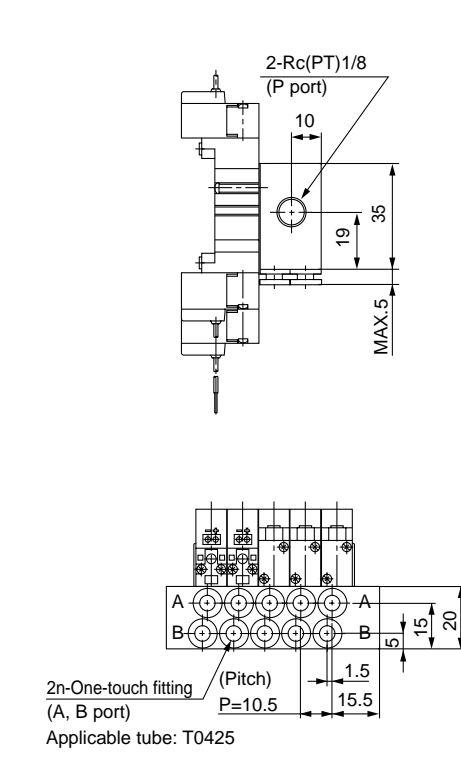
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	39.5	50	60.5	71	81.5	92	102.5	113	123.5	134	144.5	155	165.5	176	186.5	197	207.5	218	228.5
L2	31.5	42	52.5	63	73.5	84	94.5	105	115.5	126	136.5	147	157.5	168	178.5	189	199.5	210	220.5

46 Type Manifold: Side Ported/SS5YJ3-46-Station -M5, C4

Grommet (G), (H)

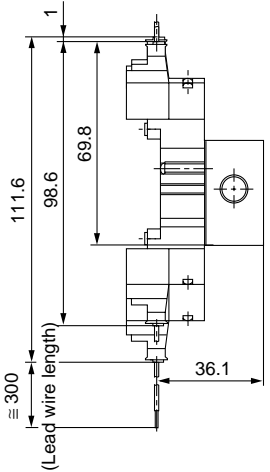


C4 (Built-in One-touch fitting)

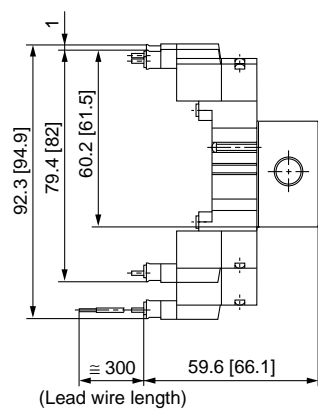


* [] for AC

L plug connector (L)



M plug connector (M)

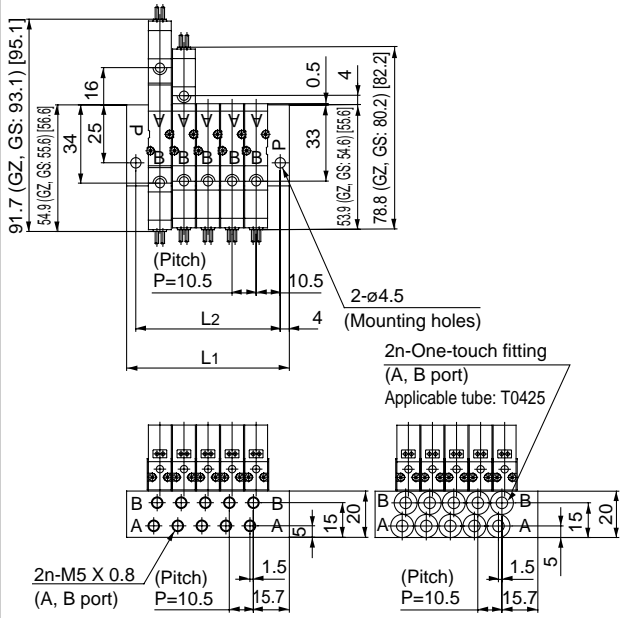


* Other dimensions are the same as the grommet style.

* [] for AC
* Other dimensions are the same as the grommet style.

S46 Type/Side Ported (Single solenoid coil is located on same side as the A, B port.)

SS5YJ3-S46-Station -M5, C4



* [] for AC
* Other dimensions are the same as type 46.

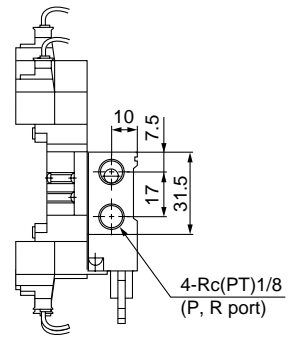
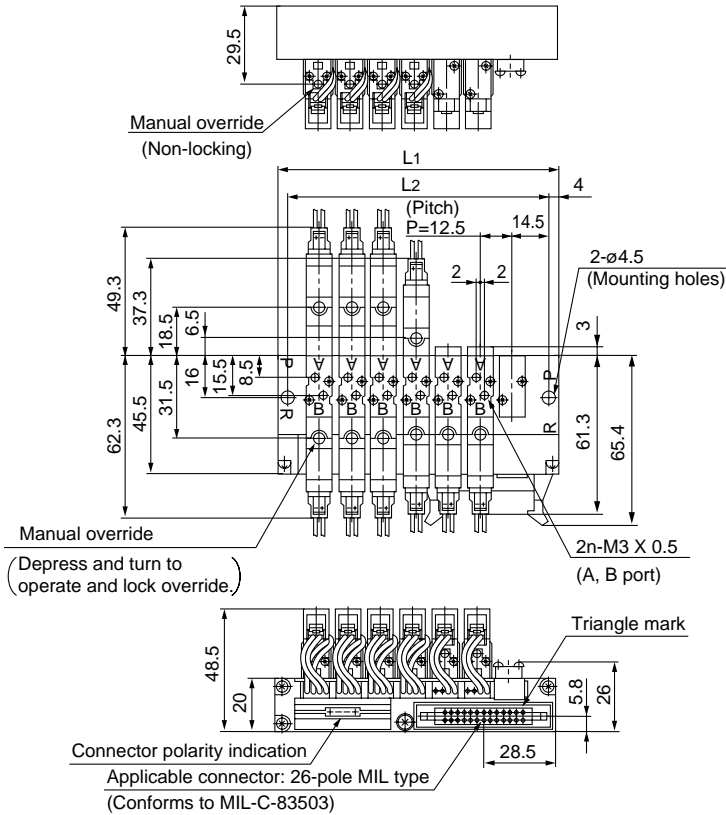
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	39.5	50	60.5	71	81.5	92	102.5	113	123.5	134	144.5	155	165.5	176	186.5	197	207.5	218	228.5
L2	31.5	42	52.5	63	73.5	84	94.5	105	115.5	126	136.5	147	157.5	168	178.5	189	199.5	210	220.5

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

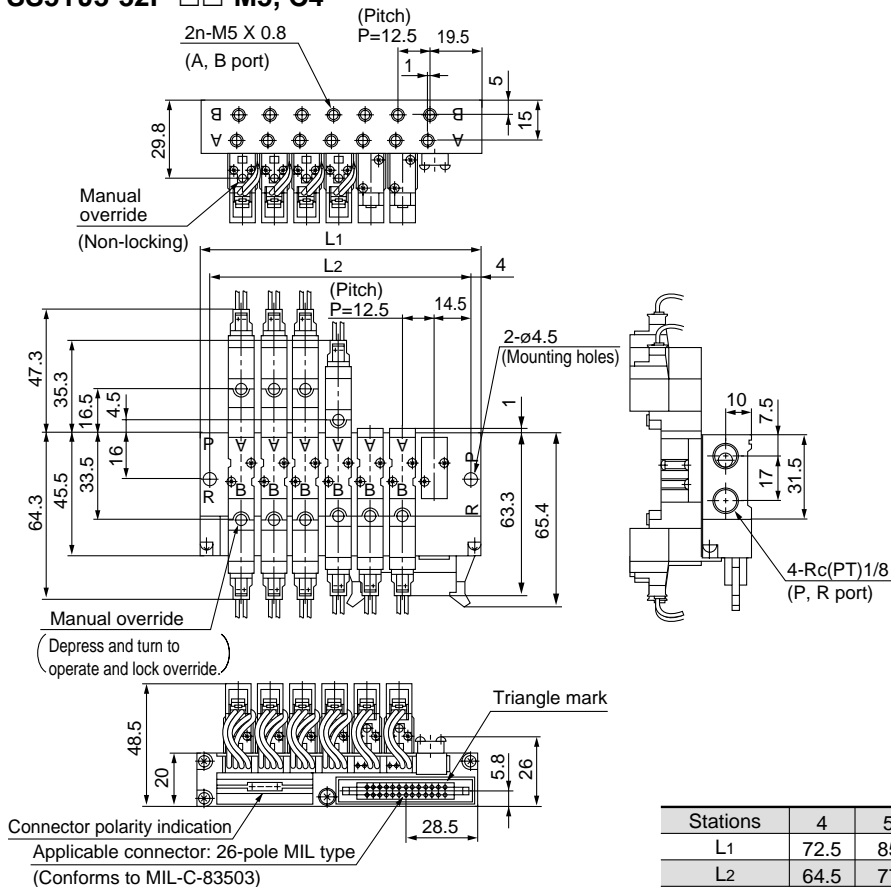
Series SYJ3000

Flat Cable Manifold

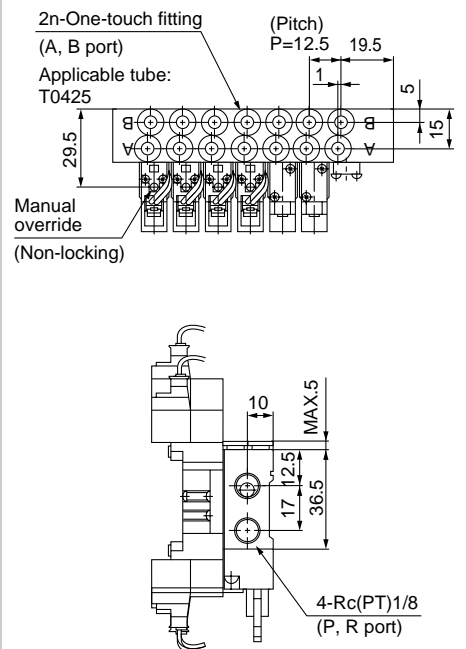
SS5YJ3-21P-Station



SS5YJ3-32P-□□-M5, C4



C4(Built-in One-touch fitting)



Stations	4	5	6	7	8	9	10	11	12
L1	72.5	85	97.5	110	122.5	135	147.5	160	172.5
L2	64.5	77	89.5	102	114.5	127	139.5	152	164.5

5 Port Solenoid Valve Rubber Seal Series SYJ5000

Model



Body ported



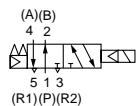
Base mounted

Valve model	Configuration	Port size	Effective area mm ² (Cv)	Weight (g) (2)(3)			
				Grommet	L/M plug connector		
Body ported	2 position	Single	M5 X 0.8	3.6 (0.2)	43	45	
							Double
		3 position		Closed center	3.2 (0.18)	69	
							Exhaust center
				Pressure center			
							3 position
	Double	3 (0.17)	65	69			
					3 position	Closed center	
	Exhaust center						
		Pressure center					
	3 position		Single	A, B port : C6 (ø6 One-touch fitting P, R port : M5 X 0.8)		3.5 (0.19)	
		Double			3.5 (0.19)		65
3 position			Closed center			3.2 (0.18) [2.4 (0.13)]	
		Exhaust center					
			Pressure center				
		Base mounted			2 position		Rc(PT)1/8
Double	4.5 (0.25)		92 (58)	96 (62)			
					3 position	Closed center	
Exhaust center							
	Pressure center						
Pressure center							

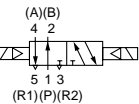
Note 1) [] for normal position. Exhaust center: A, B → R1, R2 Pressure center: P → A, B
 Note 2) (): Without sub-plate.
 Note 3) For DC/AC voltages, add 1g to the weight of the single solenoid and 2g to the weight of the double solenoid and 3 position types.

JIS Symbol

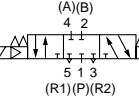
Body ported
2 position single



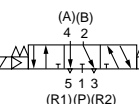
2 position double



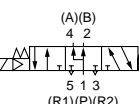
3 position closed center



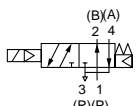
3 position exhaust center



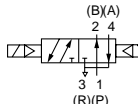
3 position pressure center



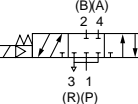
Base mounted (with sub-plate)
2 position single



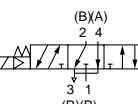
2 position double



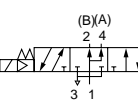
3 position closed center



3 position exhaust center



3 position pressure center



Specifications

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		Max. 50
Response time (ms) (4) at 0.5MPa	2 position single, double	≤ 25
	3 position	≤ 40
Max. operating frequency (Hz)	2 position single, double	5
	3 position	3
Manual override	Non-locking push, Push-turn-locking slotted style	
Pilot exhaust	Individual pilot exhaust, Common exhaust (pilot and main valve)	
Lubrication	Not required	
Mounting position	Free	
Impact/Vibration resistance (m/s ²) (5)	150/30	
Protection structure	Dust proof	

Note 4) According to dynamic performance test JIS B8375-1981 (Coil temperature 20°C, at rated voltage, without surge voltage suppressor)
 Note 5) Impact resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)
 Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed at both energized and de-energized states to axis and right angle direction of the main valve and armature. (Value in the initial stage)

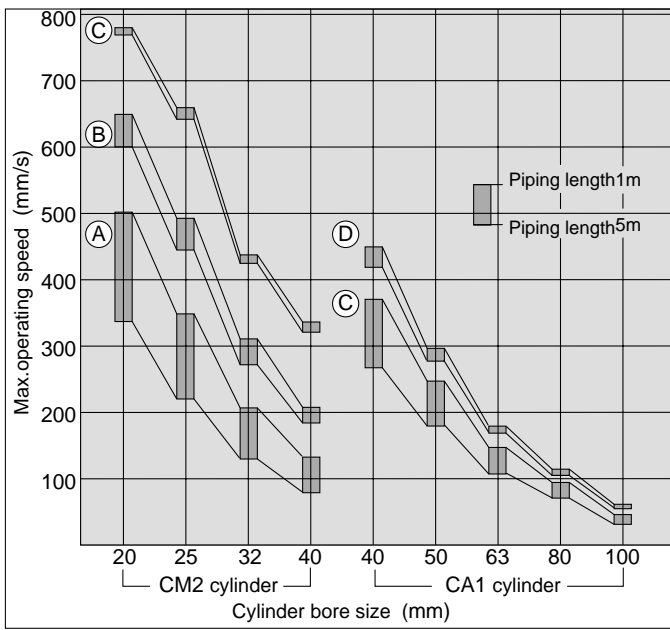
Solenoid Specifications

Electric entry		Grommet (G)/(H), L plug connector (L), M plug connector (M)	
Coil rated voltage (V)	DC	24, 12, 6, 5, 3	
	AC50/60Hz	100, 110*, 200, 220**	
Allowable voltage	±10% rated voltage		
Power consumption (W) (6)	DC	0.5 (With light: 0.55)	
Apparent power (VA)	AC	100V	0.9 (With light: 1.0)
		110V [115V]	1.0 (With light: 1.1) [1.1 (With light: 1.2)]
		200V	1.8 (With light: 1.9)
		220V [230V]	1.9 (With light: 2.0) [2.2 (With light: 2.3)]
Surge voltage suppressor	Diode		
Indicator light	LED		

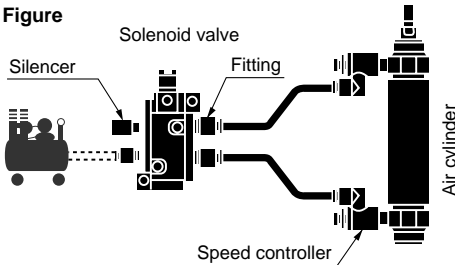
* 110V AC can be used for 115V AC.
 ** 220V AC can be used for 230V AC.
 Note 6) At rated voltage

Order Made P.1.2-72

Cylinder Maximum Operating Speed



System Figure



Operating conditions: Pressure 0.5MPa, Load rate 50%
 At cylinder extended, cylinder stroke CM2: 300mm
 CA1: 500mm

System components

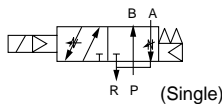
System	Solenoid valve	Speed controller	Silencer	Fitting (Tube O.D. X Port size)
(A)	SYJ5□40-01 Rc(PT)1/8 (S = 4.5mm ²)	AS2301F01-04	AN110-01 (S = 35mm ²)	ø4 X 1/8
(B)		AS2301F01-06		ø6 X 1/8
(C)		AS3301F ⁰² / ₀₅ -06		ø8 X 1/8
(D)		AS3301F ⁰² / ₀₅ -08		

Built-in Speed Controller Style

SYJ5□5□

- Built-in exhaust flow controls enable simple cylinder speed adjustments.
- When mounted on the manifold, the common exhaust discharges the pilot and main valve exhaust through a common exhaust port to enable simple exhausting.

JIS Symbol

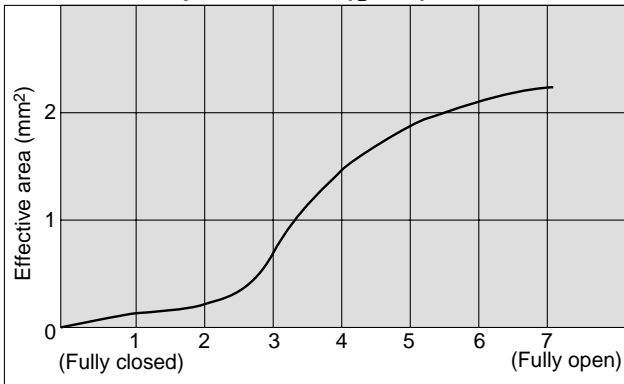


How to order valve with built-in speed controller

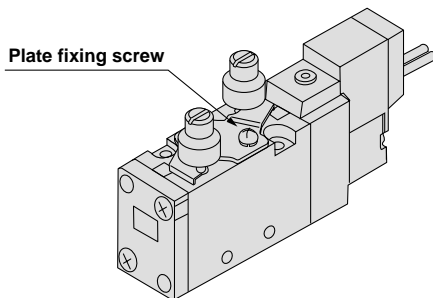
SYJ5□5□□□□□□□□□□□□□□□□

- Config.
- Body option
- Rated voltage
- Electrical entry
- Port size
- Manual override
- Light and surge voltage suppressor

Flow control specifications(A_B→R)



- Note) ● When using SYJ5□53 model the speed controller must be opened more than 1 complete rotation from fully closed in order to function properly.
 ● Adjust the speed controller with a torque of 0.3Nm or less.



Note) Do not loosen plate fixing screw.

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ5000

How to Order

Configuration

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

Rated voltage

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

Light and surge voltage suppressor

For electrical entry G,H,L and M

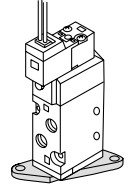
—	Without light and surge suppressor
S	With surge suppressor
Z	With light and surge suppressor
R	With surge suppressor (Non-polar)
U	With light and surge suppressor (Non-polar)



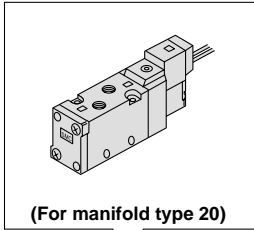
*For AC voltage valves "S" option is not available. It is already built into the rectifier circuit.
*“R” and “U” types are available for DC voltage valves.

Bracket

—: Without bracket
F: With bracket

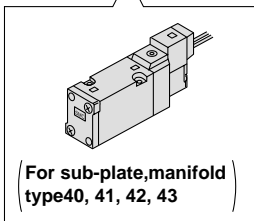
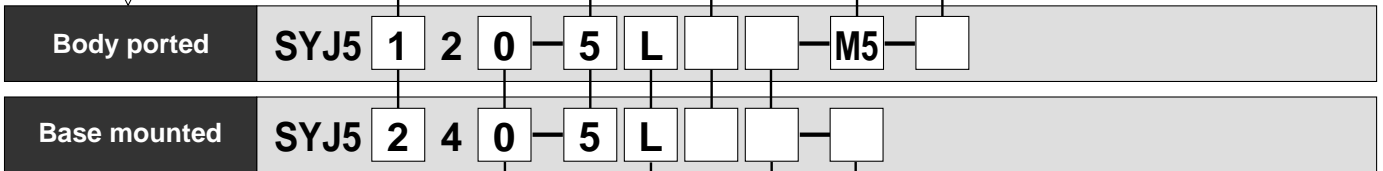


Note) · The double solenoid mounting bracket is supplied unattached.



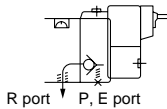
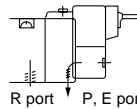
A, B port size

M5	M5 X 0.8
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting



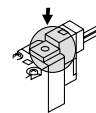
Body option

0: Individual exhaust for the pilot valve 3: Common exhaust for the pilot and main valves

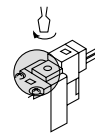


Manual override

—: Non-locking push style

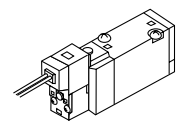


D: Push-turn-locking slotted style



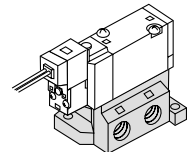
Port size

—: Without sub-plate



(With gasket and screws)

01: With Rc(PT)1/8 sub-plate



Electrical entry

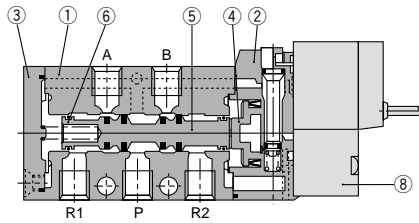
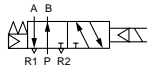
24V, 12V, 6V, 5V, 3V DC/100V, 110V, 200V, 220V AC			
Grommet	L plug connector	M plug connector	
G: 300mm lead wire	L: 300mm lead wire	M: 300mm lead wire	MN: Without lead wire
H: 600mm lead wire	LN: Without lead wire	LO: Without connector	MO: Without connector



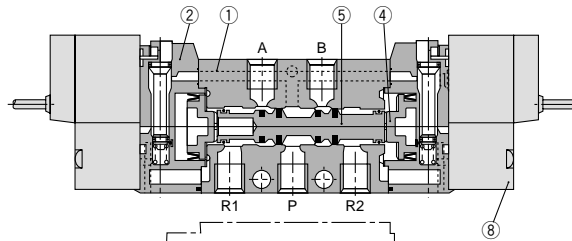
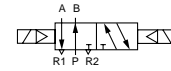
*LN and MN types are with 2 pcs. of socket.

Construction

2 position single

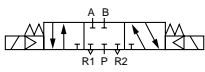


2 position double

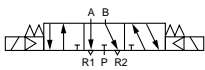


3 position closed center/exhaust center/pressure center

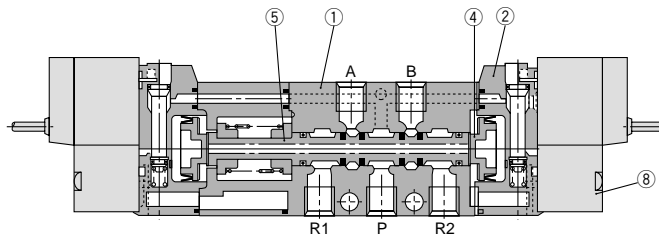
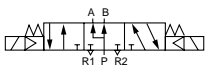
3 position closed center



3 position exhaust center



3 position pressure center



(This construction shows a closed center)

Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast	White
②	Piston plate	Resin	White
③	End cover	Resin	White
④	Piston	Resin	—
⑤	Spool ass'y	—	—
⑥	Spool spring	SUS	—

Replacement Parts

No.	Description	Part No.	Note
⑦	Sub-plate	SYJ5000-22-1	Aluminum die cast
⑧	Pilot valve	SY114-□□□	—

How to Order Pilot Valve Assembly

SY114 — **5** **G** □

Voltage

5	24V DC
6	12V DC
V	6V DC
S	5V DC
R	3V DC
1	100V AC50/60Hz
2	200V AC50/60Hz
3	110V AC50/60Hz [115V AC50/60Hz]
4	220V AC50/60Hz [230V AC50/60Hz]

Electrical entry

G	Grommet (Lead wire length: 300mm)	
H	Grommet (Lead wire length: 600mm)	
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

How to Order Connector Assembly

DC : SY100-30-4A-□
 100V AC : SY100-30-1A-□
 200V AC : SY100-30-2A-□
 Other AC voltages: SY100-30-3A-□

Lead wire length

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

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

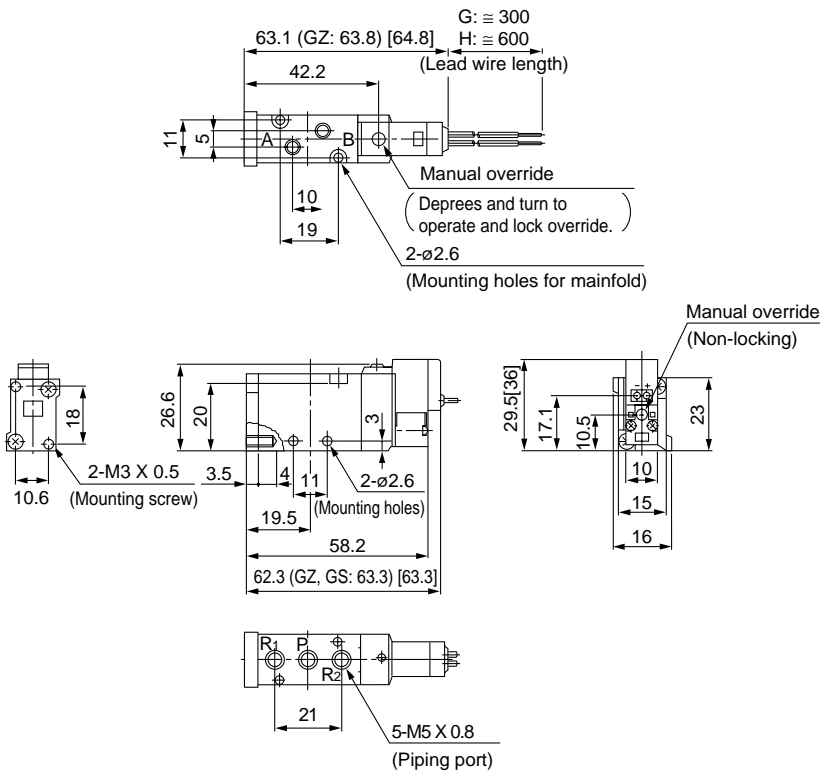
VS

VS7

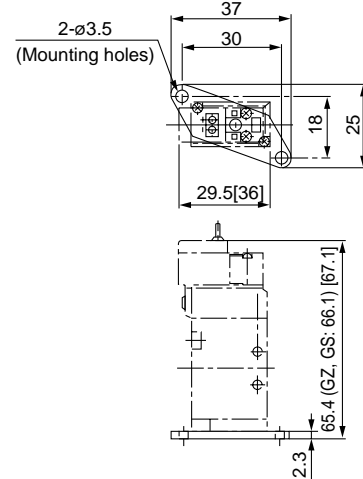
Series SYJ5000

2 Position Single

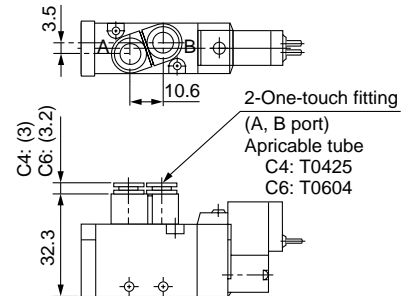
Grommet (G), (H): SYJ5120-□^G□□-M5



With bracket



Built-in One-touch fitting: SYJ5120-□^G□□-C4 C6

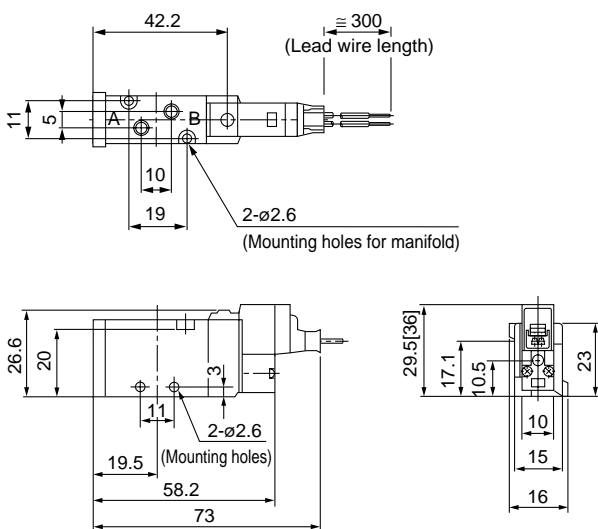


* [] for AC



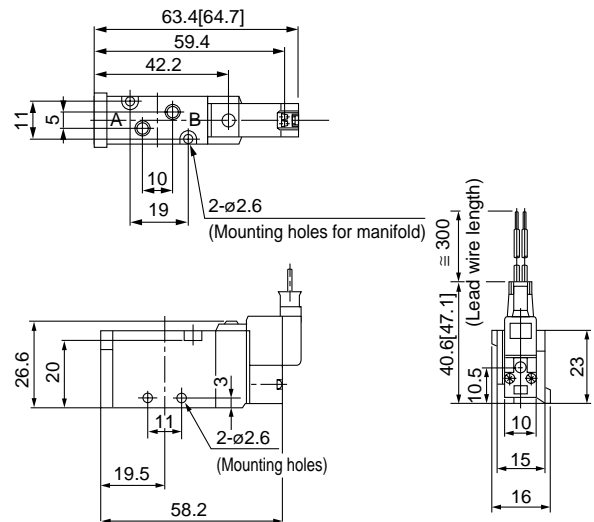
* [] for AC
* Other dimensions are the same as the grommet style.

L plug connector (L): SYJ5120-□L□□-M 5



* [] for AC
* Other dimintions are the same as the grommet style.

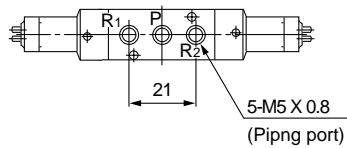
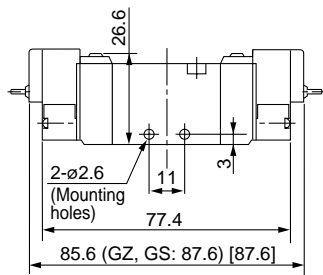
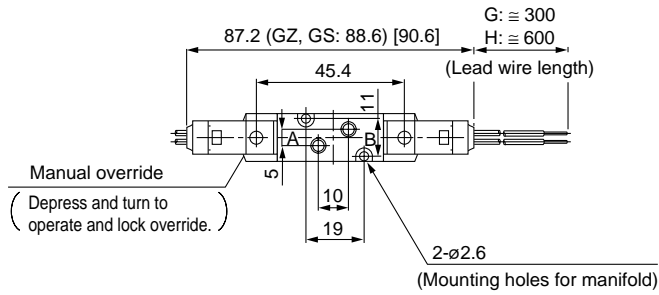
M plug connector (M): SYJ5120-□M□□-M 5



* [] for AC
* Other dimintions are the same as the grommet style.

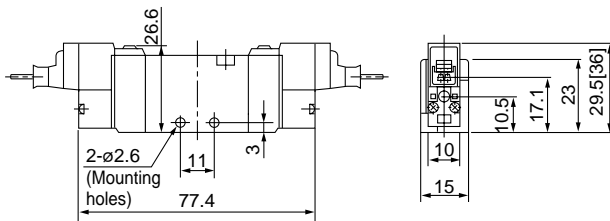
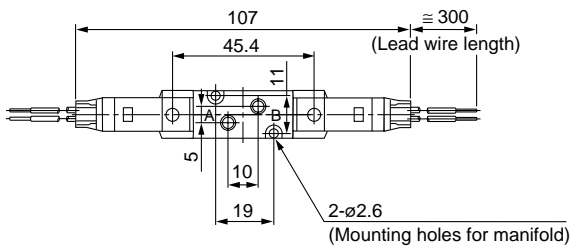
2 Position Double

Grommet (G), (H): SYJ5220-□_G□□-M 5



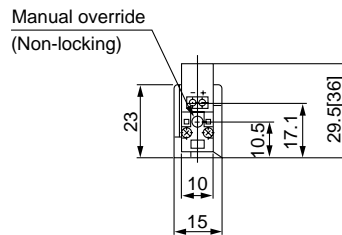
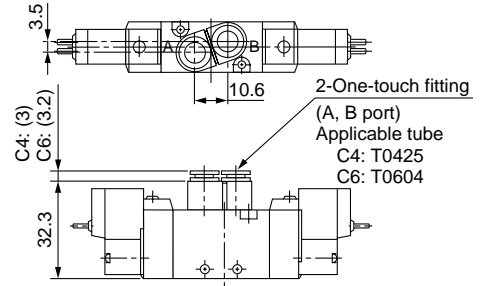
* [] for AC

L plug connector (L): SYJ5220-□L□□-M 5

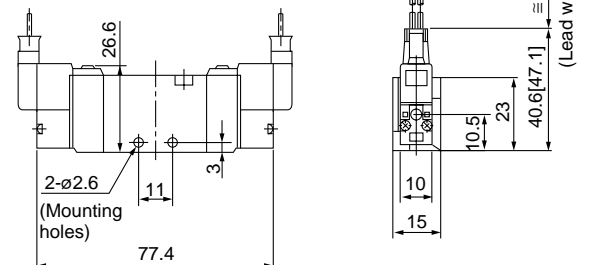
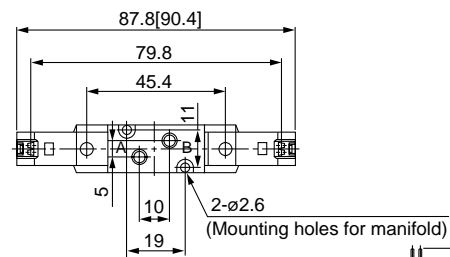


* [] for AC
* Other dimensions are the same as the grommet style.

Built-in One-touch fitting: SYJ5220-□_G□□-C₄ C₆



M plug connector (M): SYJ5220-□M□□-M 5



* [] for AC
* Other dimensions are the same as the grommet style.

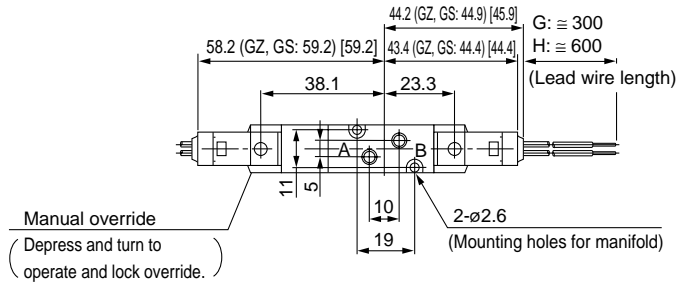
- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ5000

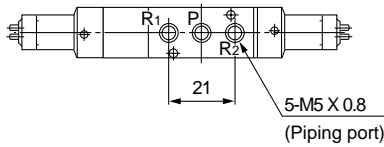
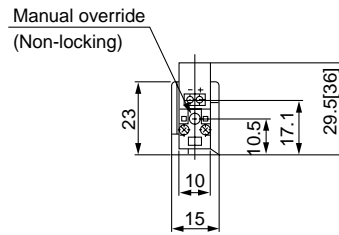
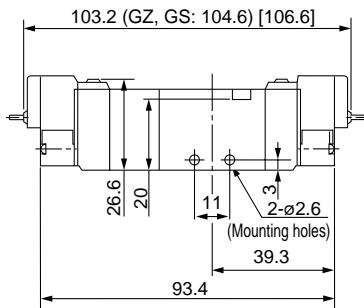
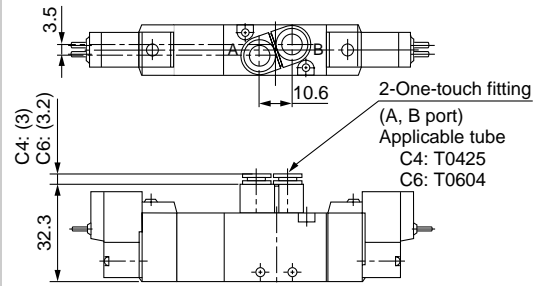
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ5 $\frac{3}{4}$ 20-□ $\frac{G}{H}$ □□-M 5



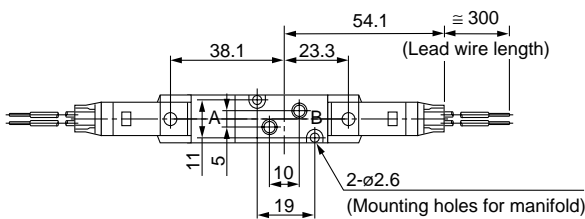
Built-in One-touch fitting:

SYJ5 $\frac{3}{4}$ 20-□ $\frac{G}{H}$ □□-C $\frac{C4}{C6}$

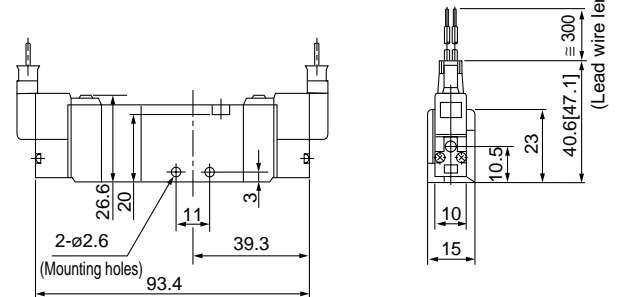
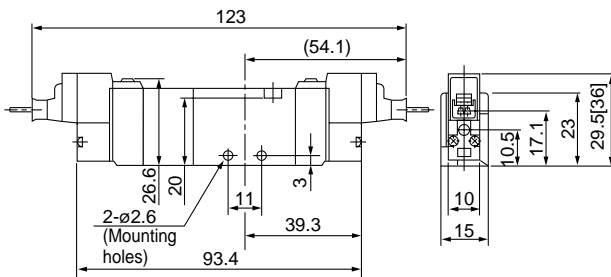
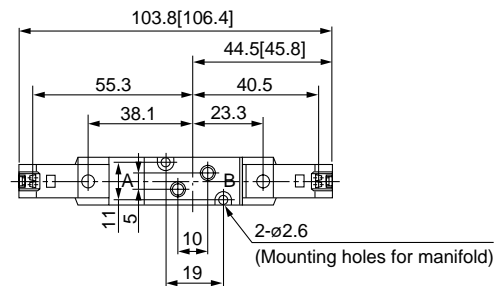


* [] for AC

L plug connector (L): SYJ5 $\frac{3}{4}$ 20-□L□□-M 5



M plug connector (M): SYJ5 $\frac{3}{4}$ 20-□M□□-M5



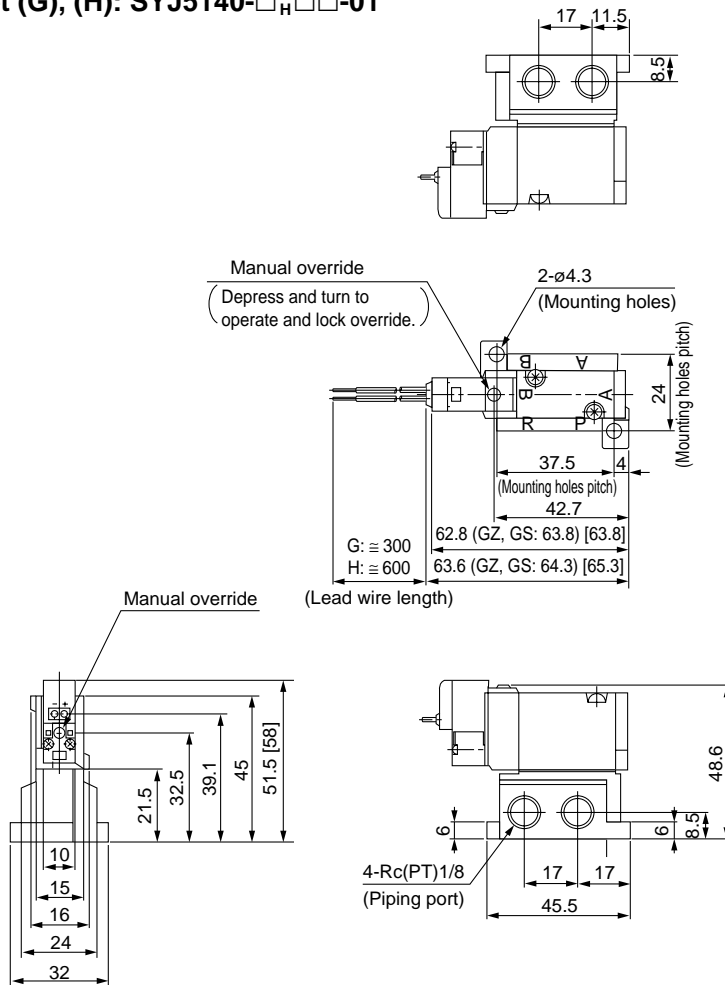
* [] for AC
* Other dimensions are the same as the grommet style.



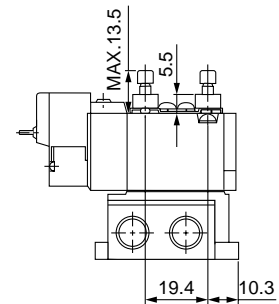
* [] for AC
* Other dimensions are the same as the grommet style.

2 Position Single

Grommet (G), (H): SYJ5140-□^G□□□-01



Built-in speed controller
SYJ5150-□^G□□□-01

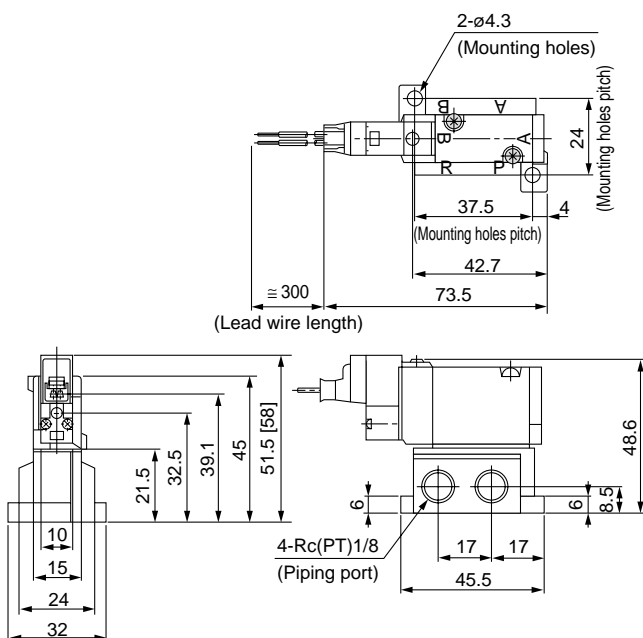


- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

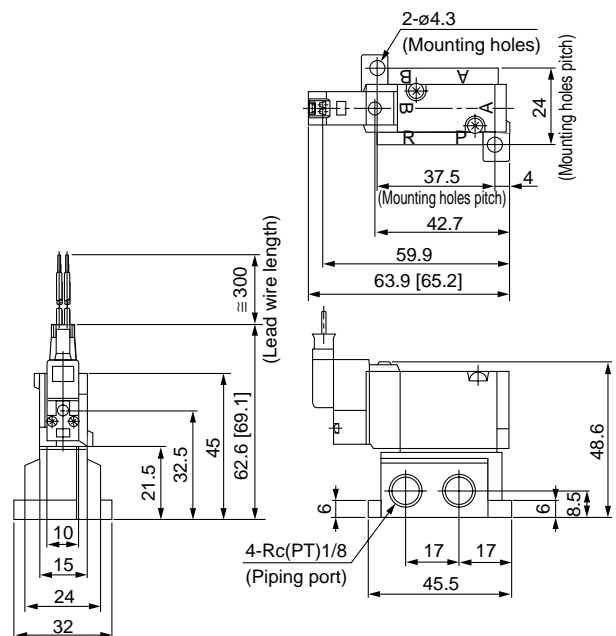
* [] for AC

L plug connector (L): SYJ5140-□L□□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ5140-□M□□□-01



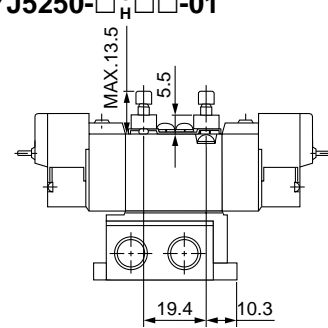
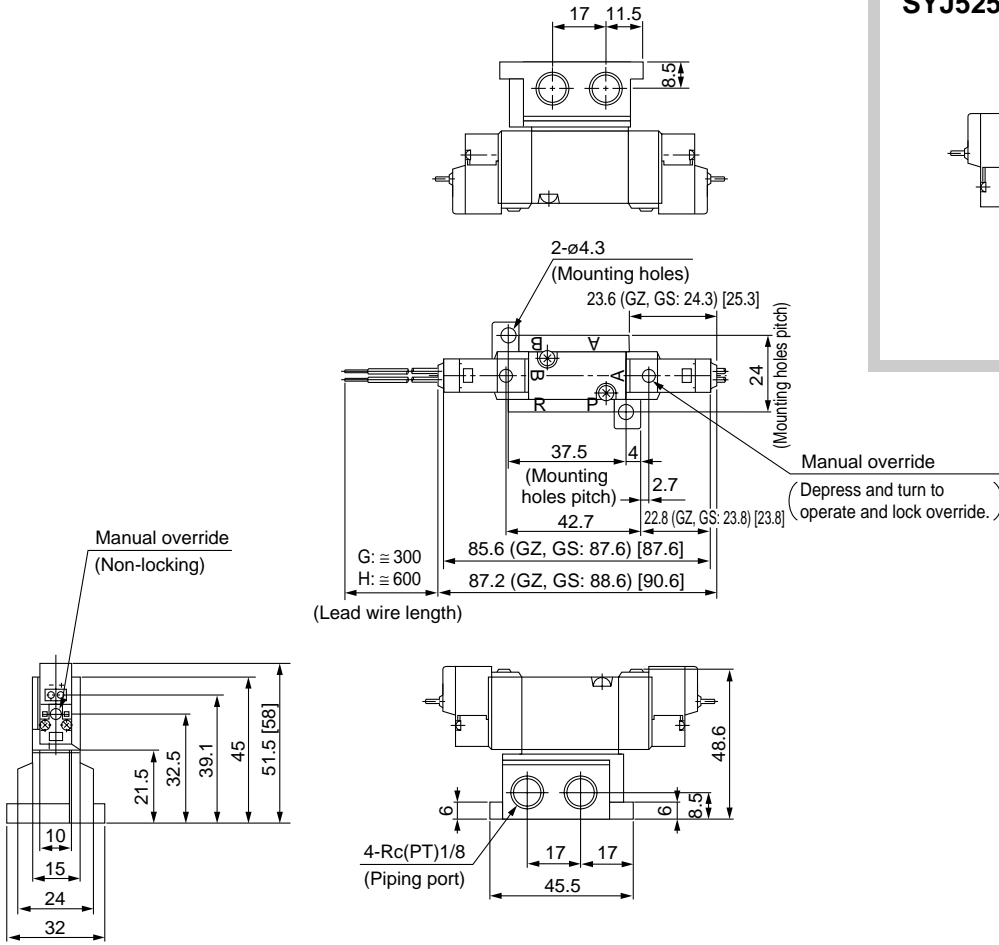
* [] for AC
* Other dimensions are the same as the grommet style.

Series SYJ5000

2 Position Double

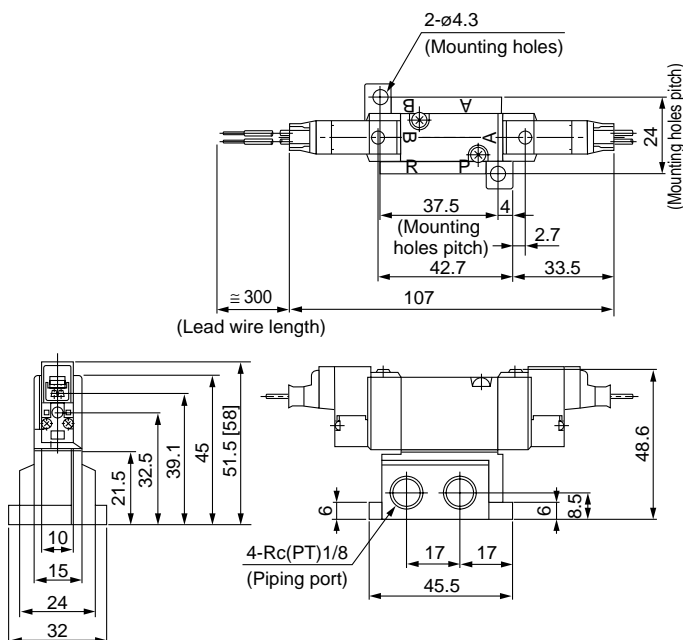
Grommet (G), (H): SYJ5240-□^G□□-01

Built-in speed controller
SYJ5250-□^G□□-01



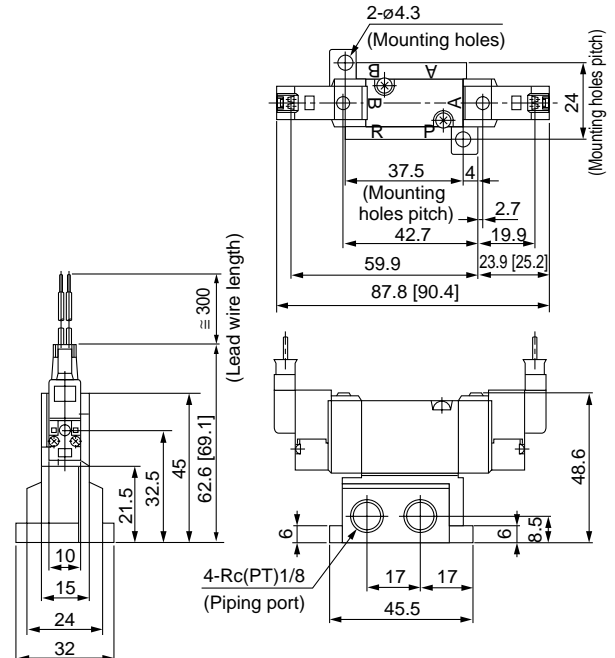
* [] for AC

L plug connector (L): SYJ5240-□L□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

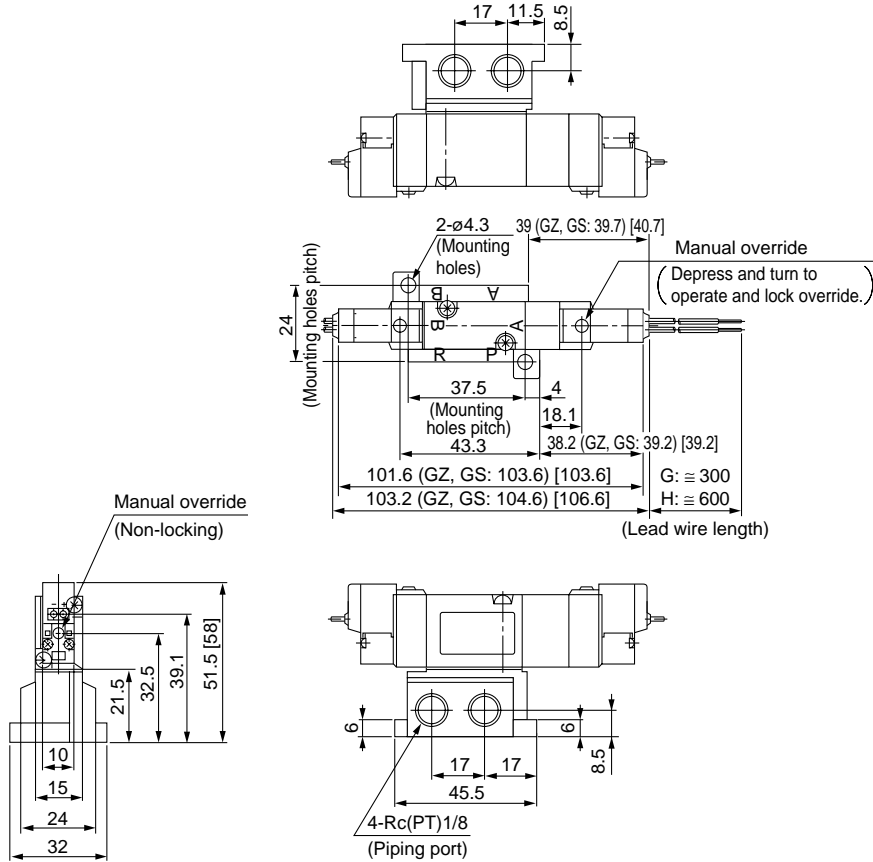
M plug connector (M): SYJ5240-□M□□-01



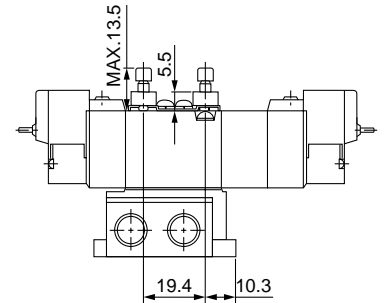
* [] for AC
* Other dimensions are the same as the grommet style.

3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ5 ³/₄ 40-□^G□□-01



Built-in speed controller
SYJ5 ³/₄ 50-□^G□□-01



- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

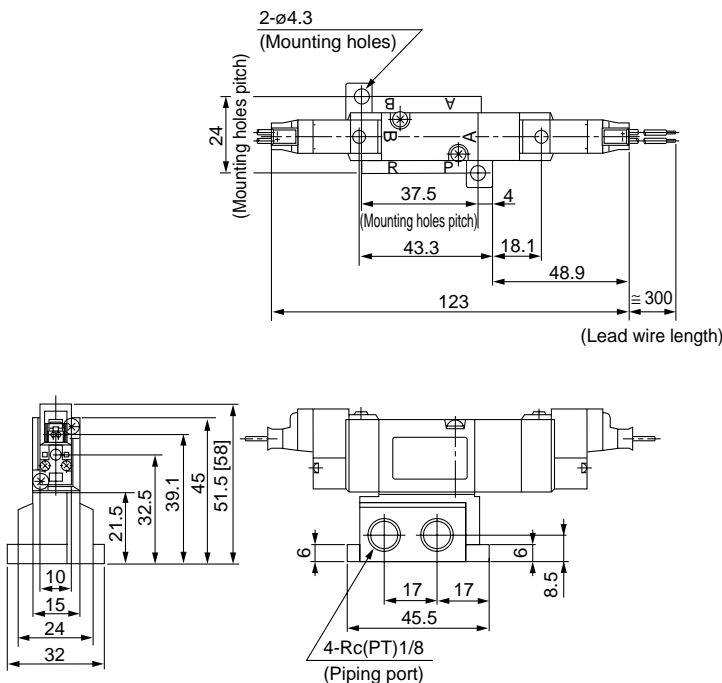
- VQ
- VQ4
- VQZ
- VQD

- VZS
- VFS
- VS
- VS7



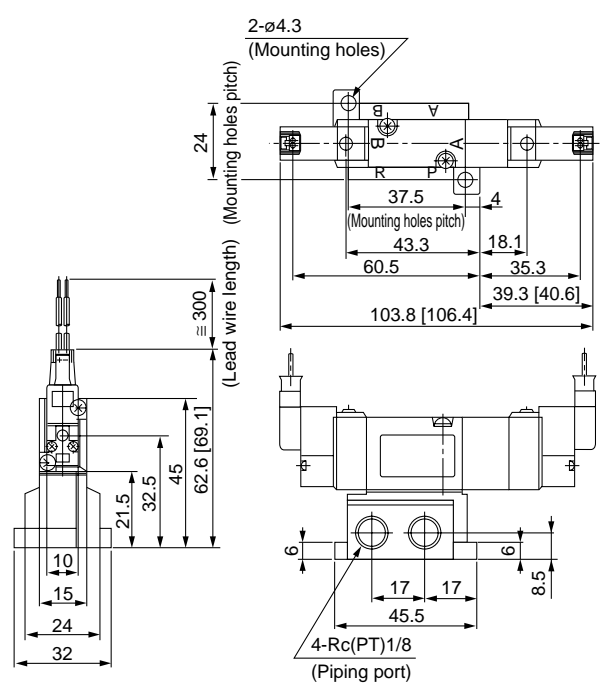
* [] for AC

L plug connector (L): SYJ5 ³/₄ 40-□^L□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ5 ³/₄ 40-□^M□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

Series SYJ5000 Manifold

Standard



Manifold Specifications

Type		20	40	41	42	43
Manifold style		Single base style/B mount				
P (SUP), R (EXH) style		Common SUP, Common EXH				
Valve stations		2 to 20 stations				
A, B port specifications	Location	Valve	Base	Base		
	Direction	Top	Bottom	Side		
Port size	P, R port	Rc(PT)1/8			Rc(PT)1/4	Rc(PT)1/8
	A, B port	M5 X 0.8 C4 C6	M5 X 0.8		Rc(PT)1/8, C6 (ø6 One-touch fitting)	C4 (ø4 One-touch fitting)
Valve effective area mm ² (Cv) ⁽¹⁾	Body ported SYJ5□2□	M5: 3.4 (0.19) C4: 3 (0.17) C6: 3.4 (0.19)	—	—	—	—
	Base mounted SYJ5□4□	—	3.0 (0.17)	2.9 (0.16)	3.8 (0.21)	3.2 (0.18)



Note 1) Value for a solenoid 2 position valve mounted on the manifold base.

How to Order Valve Manifold

Specify the part numbers for the valve(s), blank plate ass'y, and manifold base.

Example

- SS5YJ5-20-03 1 pc. (Manifold base)
- SYJ5120-5G-M5 2 pcs. (Valve)
- SYJ5000-21-1A 1 pc. (Blank plate ass'y)

- SS5YJ5-43-03-C4 1 pc. (Manifold base)
- SYJ5140-5LZ 1 pc. (Valve)
- SYJ5240-5LZ 1 pc. (Valve)
- SYJ5000-21-1A 1 pc. (Blank plate ass'y)

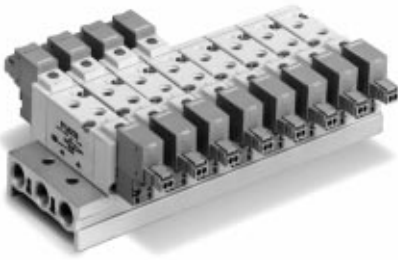
* Use manifold specification sheet.

Flat Cable Manifold

●Multiple valve wiring is simplified through the use of the flat cable connector.

●Clean appearance

With the flat cable manifold, each valve is wired to the manifold base. A single MIL specification flat cable connects the entire manifold to the power source. This greatly reduces installation time.



Flat Cable Manifold Specifications

Model		20P	41P	43P
Manifold style		Single base style/B mount		
P (SUP), R (EXH) style		Common SUP, Common EXH		
Valve stations		3 to 12 stations		
A, B port specifications	Location	Valve	Base	
	Direction	Top	Side	
Port size	P, R port	Rc(PT)1/8		
	A, B port	M5 X 0.8 C4 (ø4 One-touch fitting) C6 (ø6 One-touch fitting)	M5 X 0.8	C4 (ø4 One-touch fitting)
Valve effective area mm ² (Cv) ⁽¹⁾	Body ported SYJ5□23	M5: 3.4 (0.19) C4: 3 (0.17) C6: 3.4 (0.19)	—	—
	Base mounted SYJ5□43	—	2.9 (0.16)	3.2 (0.18)
Connector ⁽²⁾		Socket: 26 poles MIL type with strain relief conforms to MIL-C-83503		
Internal wiring		Both for +COM and -COM		
Rated voltage		24V DC, 12V DC, 100V AC, 110V AC		

⦿ Note 1) Value for single operation of 2 position valve mounted on manifold base.
 ⦿ Note 2) The withstand voltage specification for the wiring unit section conforms to JISC0704, Grade 1 or its equivalent.

How to Order Valve Manifold

Specify the part numbers for the valve(s), blank plate ass'y, and manifold base.

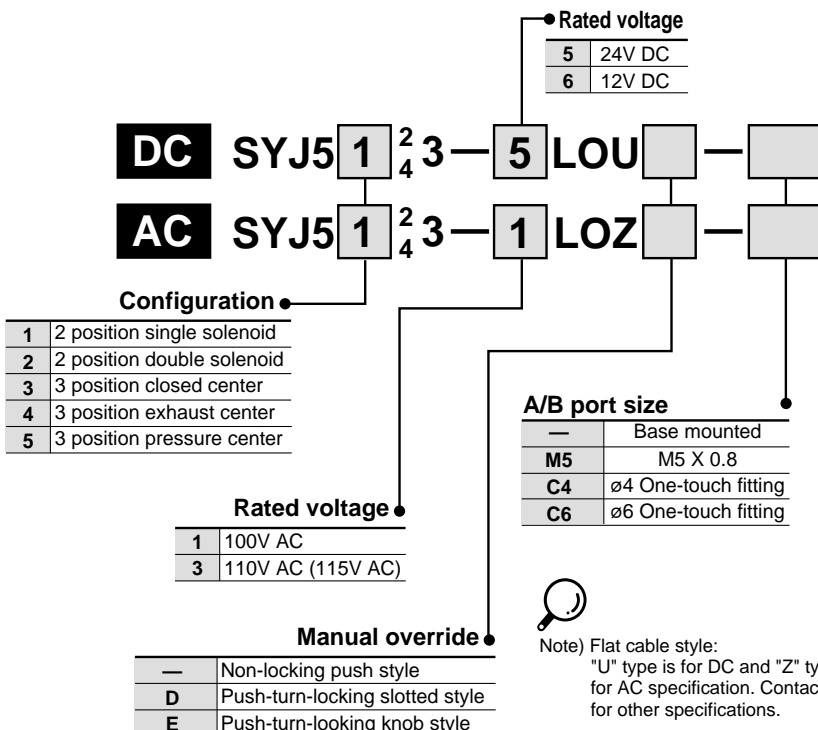
Example ●SS5YJ5-41P-07-C4 1 pc. (Manifold base)
 SYJ5143-5LOU 3 pcs. (Valve)
 SYJ5243-5LOU 3 pcs. (Valve)
 SYJ5000-21-3A 1 pc. (Blank plate ass'y)
 SY3000-37-3A 3 pcs. (Connector ass'y)
 SY3000-37-4A 3 pcs. (Connector ass'y)

*Use manifold specifications sheet.

⚠ Caution

The manifold can be wired for either positive or negative common because only non-polar valves are used. The use of valves other than non polar types are not recommended. It may cause damage to the electrical circuit.

How to Order Valve



How to Order Connector Ass'y

For 12V/24V DC

Single solenoid	SY3000-37-28A
Double solenoid 3 position	SY3000-37-29A
Single with interface ass'y	SY3000-37-40A
Double solenoid 3 position with inter face ass'y	SY3000-37-41A

For 100V DC

Single solenoid	SY3000-37-46A
Double solenoid 3 position	SY3000-37-47A
Single with interface ass'y	SY3000-37-48A
Double solenoid 3 position with inter face ass'y	SY3000-37-49A

For 110V DC (115V AC)

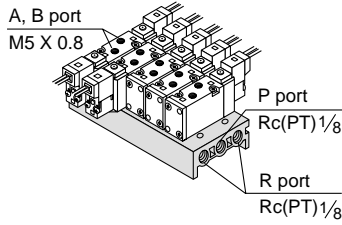
Single solenoid	SY3000-37-54A
Double solenoid 3 position	SY3000-37-55A
Single with interface ass'y	SY3000-37-56A
Double solenoid 3 position with inter face ass'y	SY3000-37-57A

Series SYJ5000

Common SUP/Common EXH

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

20 Type (5 Port/Body ported)



How to Order

SS5YJ5-20-05

Stations •	
02	2 stations
:	:
20	20 stations

Applicable solenoid valve

SYJ5□20-□□□□-^{M5}_{C4}
SYJ5□23-□□□□-^{M5}_{C4}_{C6}

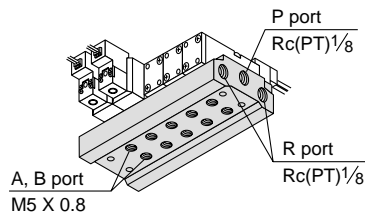
Applicable blank plate assembly

SYJ5000-21-1A

Applicable individual exhaust spacer assembly

SYJ5000-17-1A

40 Type (5 Port/Base mounted)



How to Order

SS5YJ5-40-05-M5

Stations •	
02	2 stations
:	:
20	20 stations

A, B port side •	
M5	M5 X 0.8

Applicable solenoid valve

SYJ5□40-□□□□
SYJ5□43-□□□□
SYJ5□50-□□□□
SYJ5□53-□□□□

Applicable blank plate assembly

SYJ5000-21-1A

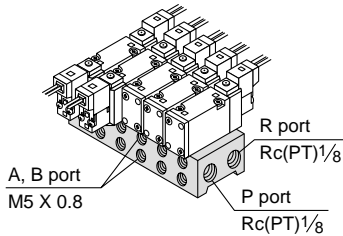
Applicable individual exhaust spacer assembly

SYJ5000-17-1A

Applicable interface regulator assembly

ARBYJ5000-00-P

41 Type (5 Port/Base mounted)



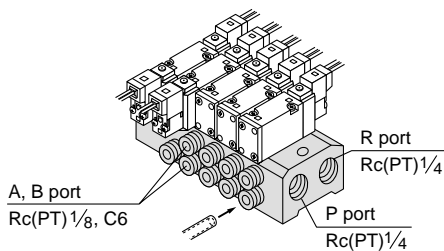
How to Order

SS5YJ5-41-05-M5

Stations •	
02	2 stations
:	:
20	20 stations

A, B port side •	
M5	M5 X 0.8

42 Type (5 Port/Base mounted)



How to Order

SS5YJ5-42-05-C6

Stations •	
02	2 stations
:	:
20	20 stations

A, B port side •	
01	Rc(PT)1/8
C6	ø6 One-touch fitting

Applicable solenoid valve

SYJ5□40-□□□□
SYJ5□43-□□□□
SYJ5□50-□□□□
SYJ5□53-□□□□

Applicable blank plate assembly

SYJ5000-21-1A

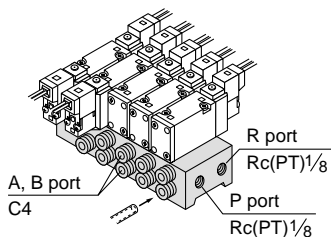
Applicable individual exhaust spacer assembly

SYJ5000-17-1A

Applicable individual supply spacer assembly

SYJ5000-16-2A

43 Type (5 Port/Base mounted)



How to Order

SS5YJ5-43-05-C4

Stations •	
02	2 stations
:	:
20	20 stations

A, B port side •	
C4	ø4 One-touch fitting

Applicable interface regulator assembly

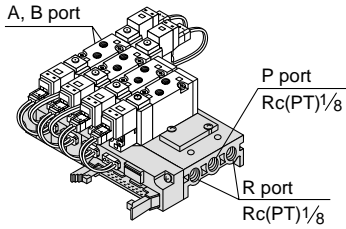
ARBYJ5000-00-P

Flat Cable Manifold

Common SUP/Common EXH

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

20P Type (5 Port/Body ported)



How to Order

SS5YJ5-20P-05

Stations	
03	3 stations
:	:
12	12 stations

Applicable solenoid valve
Refer to the p.1.2-41.

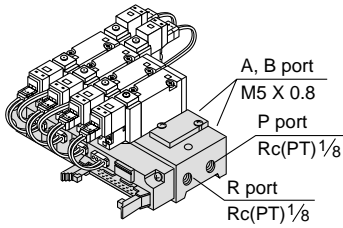
Applicable blank plate assembly
SYJ5000-21-3A

Applicable connector assembly
Refer to the p.1.2-41.

SY

SYJ

41P Type (5 Port/Base mounted)



How to Order

SS5YJ5-41P-05-M5

Stations	
03	3 stations
:	:
12	12 stations

Applicable solenoid valve
Refer to the p.1.2-41.

Applicable blank plate assembly
SYJ5000-21-3A

Applicable connector assembly
Refer to the p.1.2-41.

SX

VK

VZ

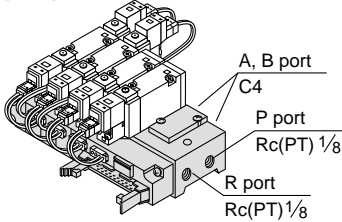
VF

VFR

VP7

VP4

43P Type (5 Port/Base mounted)



How to Order

SS5YJ5-43P-05-C4

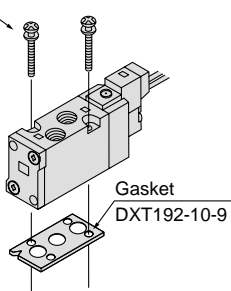
Stations	
03	3 stations
:	:
12	12 stations

Applicable connector assembly
Refer to the p.1.2-41.

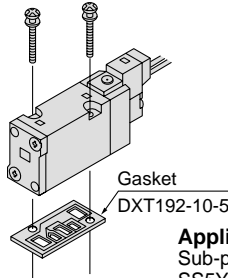
VQ

Combinations of Solenoid Valve, Manifold Gasket and Manifold Base

Phillips head screw
M2.5 X 25, matted
nickel plated
(With spring washer)



Applicable manifold base
SS5YJ5-20



Applicable manifold base
Sub-plate
SS5YJ5-40
SS5YJ5-41
SS5YJ5-42
SS5YJ5-43

VQ4

VQZ

VQD

VZS

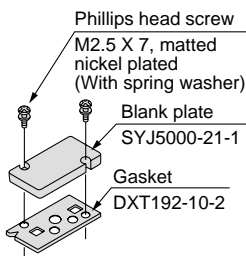
VFS

VS

VS7

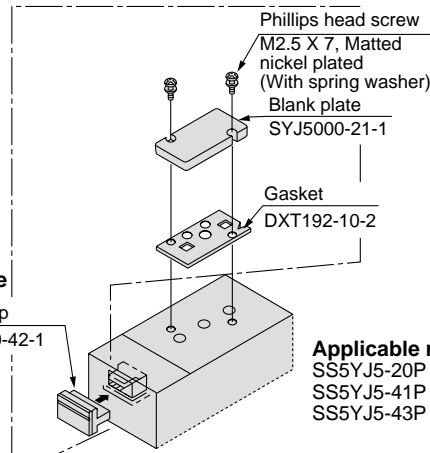
Blank Plate Assembly

SYJ5000-21-1A



Applicable manifold base
SS5YJ5-20
SS5YJ5-40
SS5YJ5-41
SS5YJ5-42
SS5YJ5-43

SYJ5000-21-3A

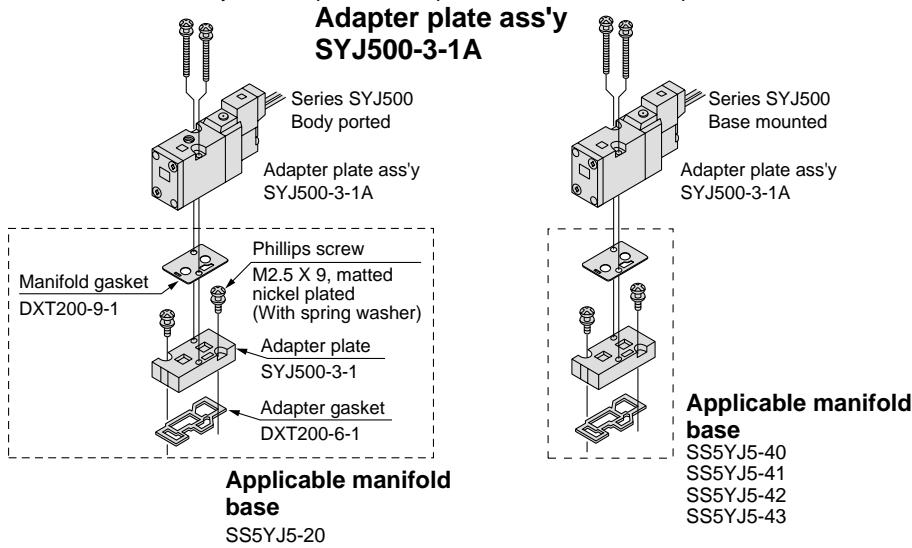


Applicable manifold base
SS5YJ5-20P
SS5YJ5-41P
SS5YJ5-43P

Series SYJ5000

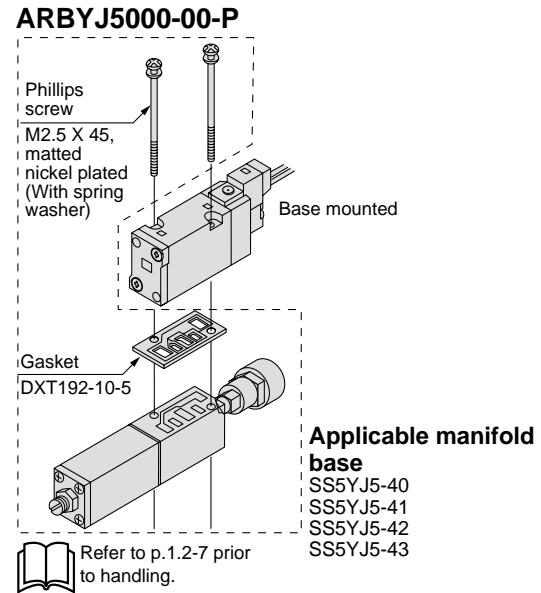
Installation of the SYJ500 Valve on the SYJ5000 Manifold

- Use of an adapter plate makes it possible to mount series SYJ500 on the manifold bases of series SYJ5000.
- When mounting the SYJ500 valve on the SYJ5000 manifold, the SYJ500 solenoid must be positioned on the same side of the manifold as a single solenoid SYJ5000. (See the figure below.)
- For base mounted style, the A port of the 3 port valve flows out the B port of manifold base.



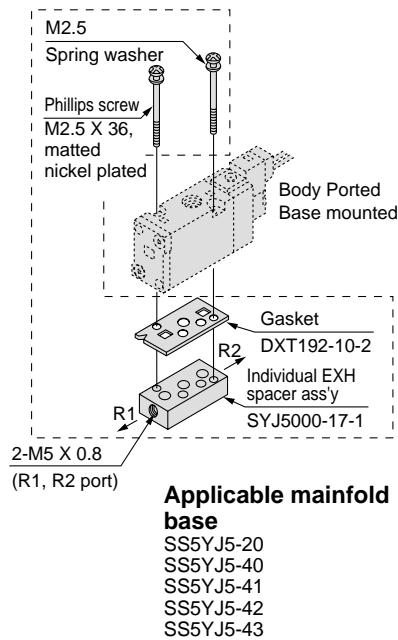
Interface Regulator (P regulation)

Putting interface regulator on the manifold base makes it possible to reduce supply pressure to a valve individually.



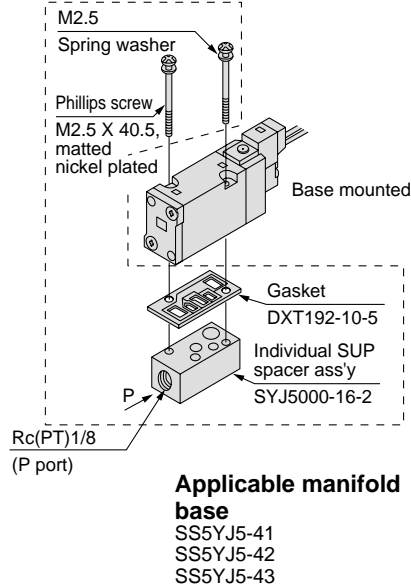
Individual EXH Spacer Ass'y

SYJ5000-17-1A



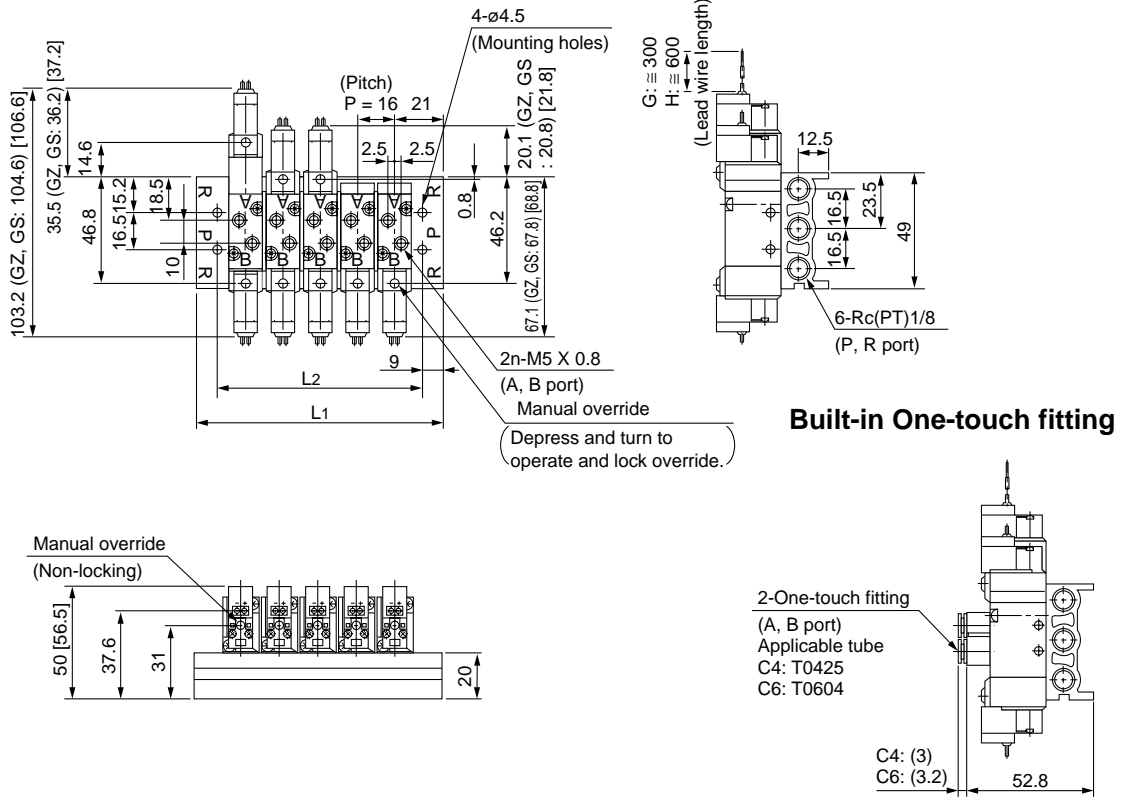
Individual SUP Spacer Ass'y

SYJ5000-16-2A



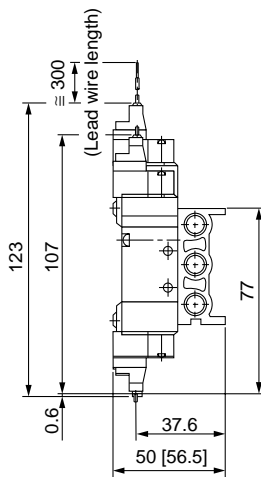
20 Type Manifold: Top Ported/SS5YJ5-20-Station

Grommet (G), (H)



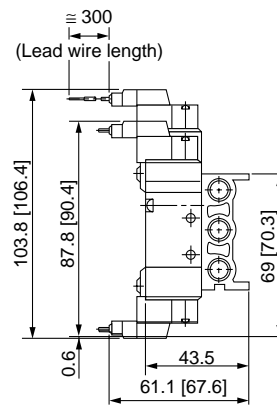
* [] for AC

L plug connector (L)



* [] for AC
*Other dimensions are the same as the grommet style.

M plug connector (M)



* [] for AC
*Other dimensions are the same as the grommet style.

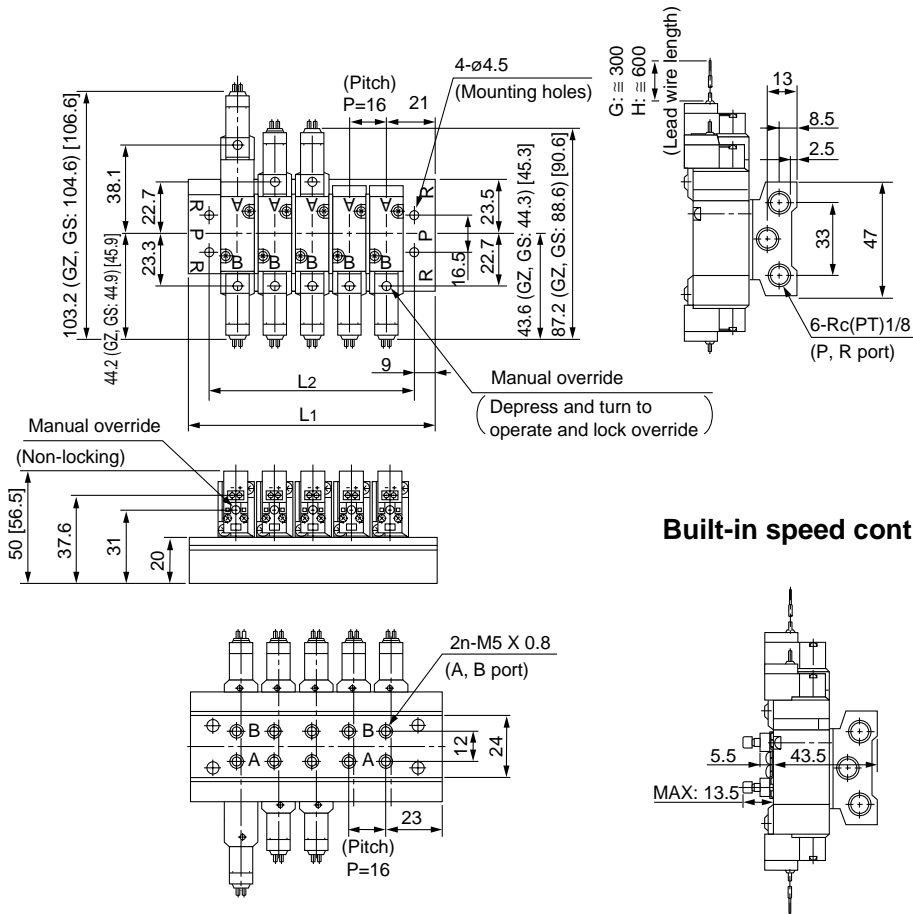
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ5000

40 Type Manifold: Bottom Ported/SS5YJ5-40-Station -M5

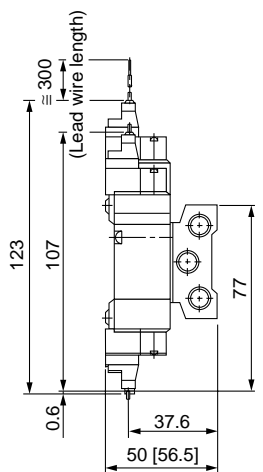
Grommet (G), (H)



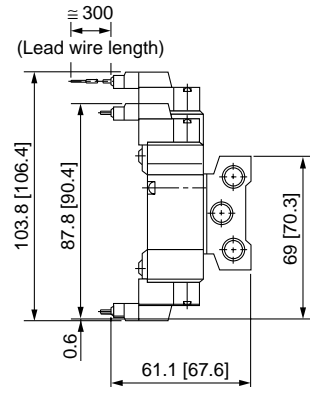
Built-in speed controller

* [] for AC

L plug connector (L)



M plug connector (M)



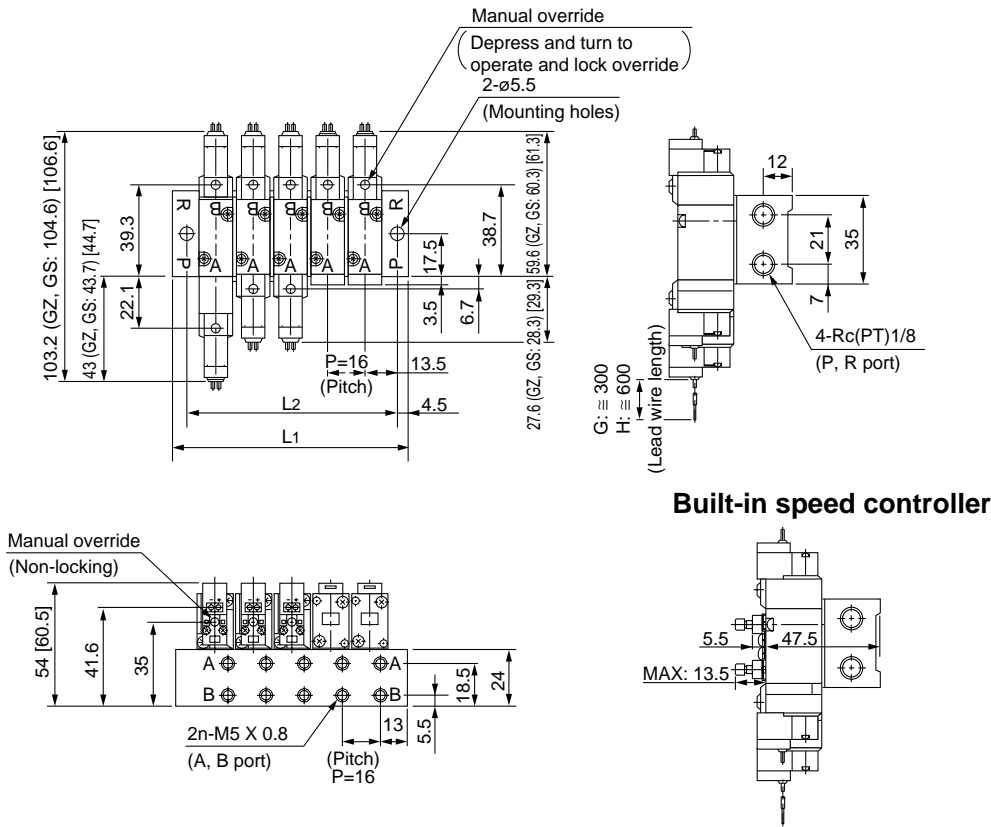
* [] for AC
* Other dimensions are the same as the grommet style.

* [] for AC
* Other dimensions are the same as the grommet style.

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

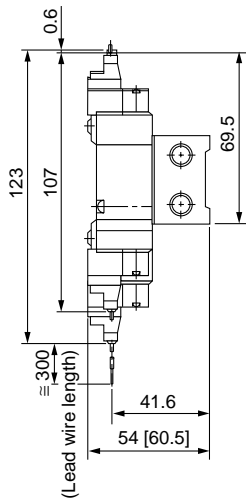
41 Type Manifold: Side Ported/SS5YJ5-41- Station -M5

Grommet (G), (H)



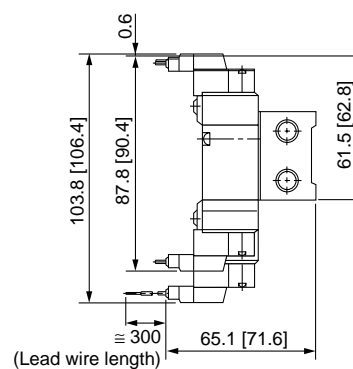
* [] for AC

L plug connector (L)



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M)



* [] for AC
* Other dimensions are the same as the grommet style.

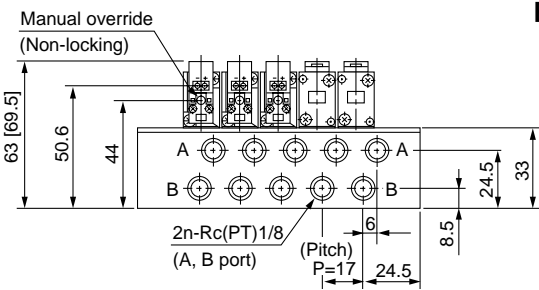
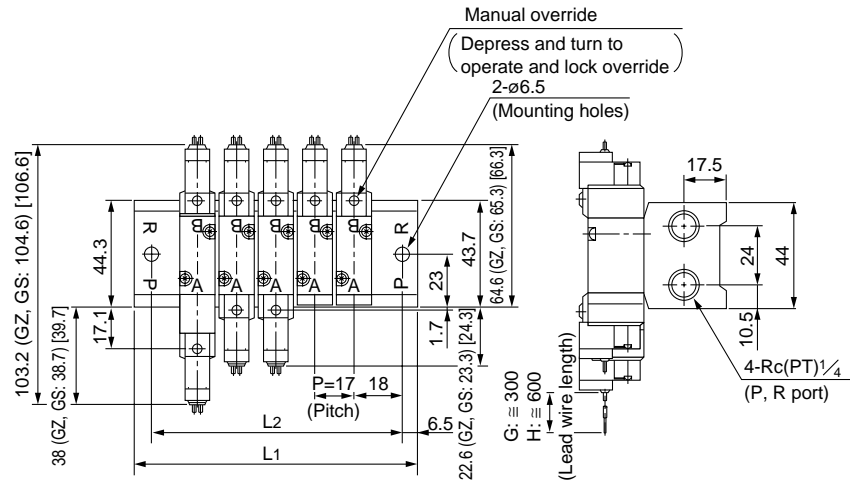
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

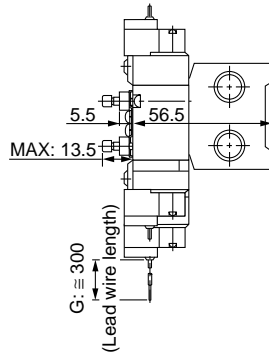
Series SYJ5000

42 Type Manifold: Side Ported/SS5YJ5-42-Station -01,C6

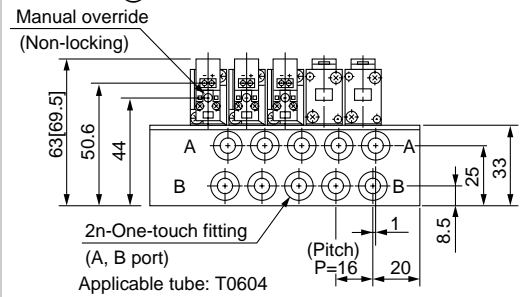
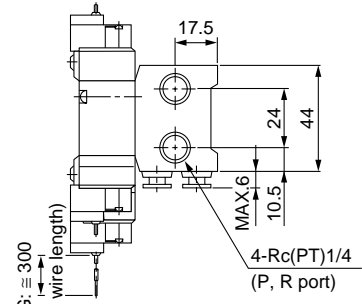
Grommet (G), (H)



Built-in speed controller



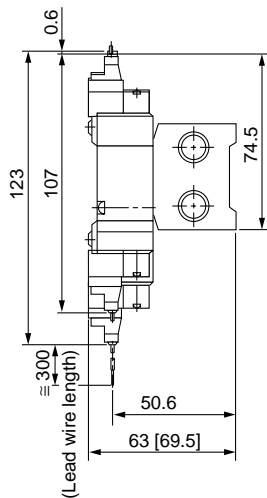
C6 (Built-in One-touch fitting)



* [] for AC
* Other dimensions are the same as the grommet style.

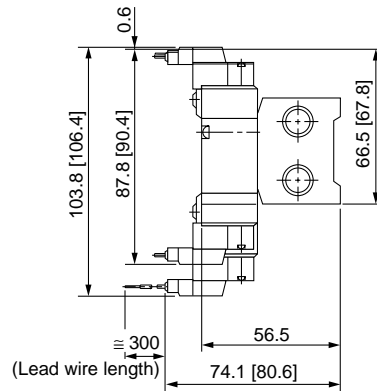
* [] for AC
* Other dimensions are the same as the grommet style.

L plug connector (L)



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M)

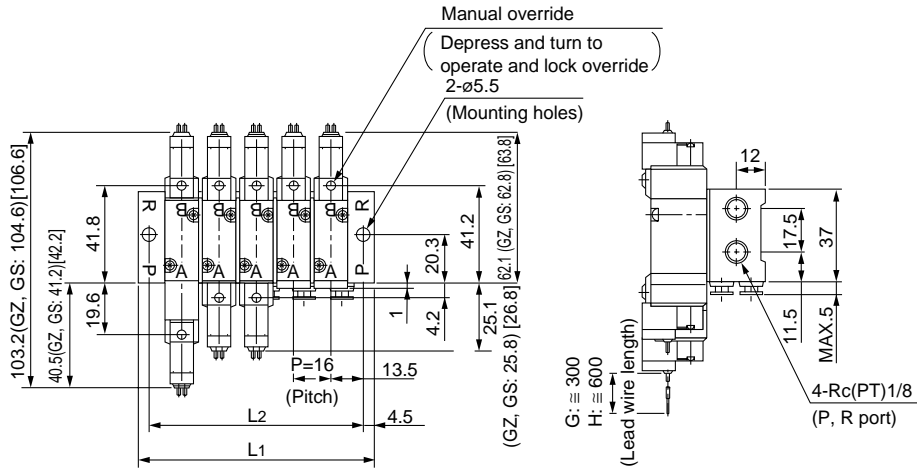


* [] for AC
* Other dimensions are the same as the grommet style.

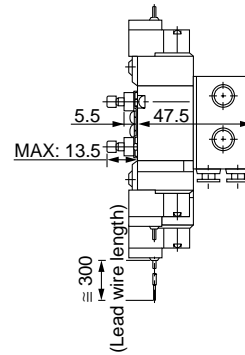
A, B port size	Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Rc(PT) 1/8	L1	66	83	100	117	134	151	168	185	202	219	236	253	270	287	304	321	338	355	372
	L2	53	70	87	104	121	138	155	172	189	206	223	240	257	274	291	308	325	342	359
C6(ø6 One-touch fitting)	L1	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337	353
	L2	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340

43 Type Manifold: Side Ported/SS5YJ5-43-Station -C4

Grommet (G), (H)

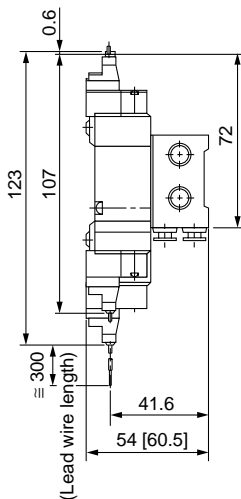


Built-in speed controller



* [] for AC

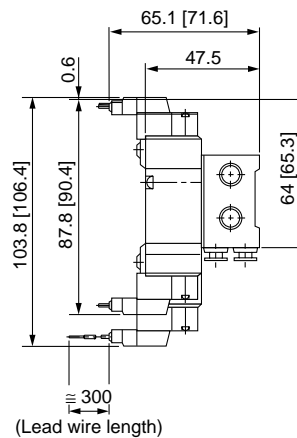
L plug connector (L)



* [] for AC

* Other dimensions are the same as the grommet style.

M plug connector (M)



* [] for AC

* Other dimensions are the same as the grommet style.

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

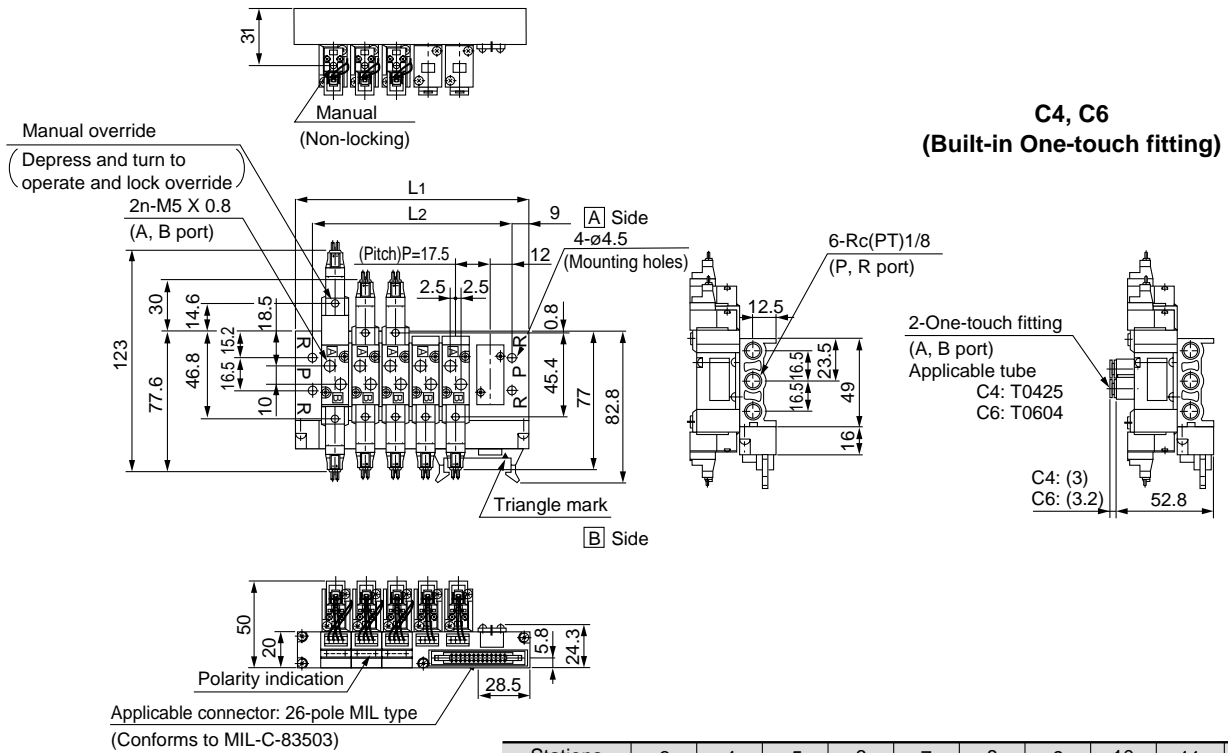
VS

VS7

Series SYJ5000

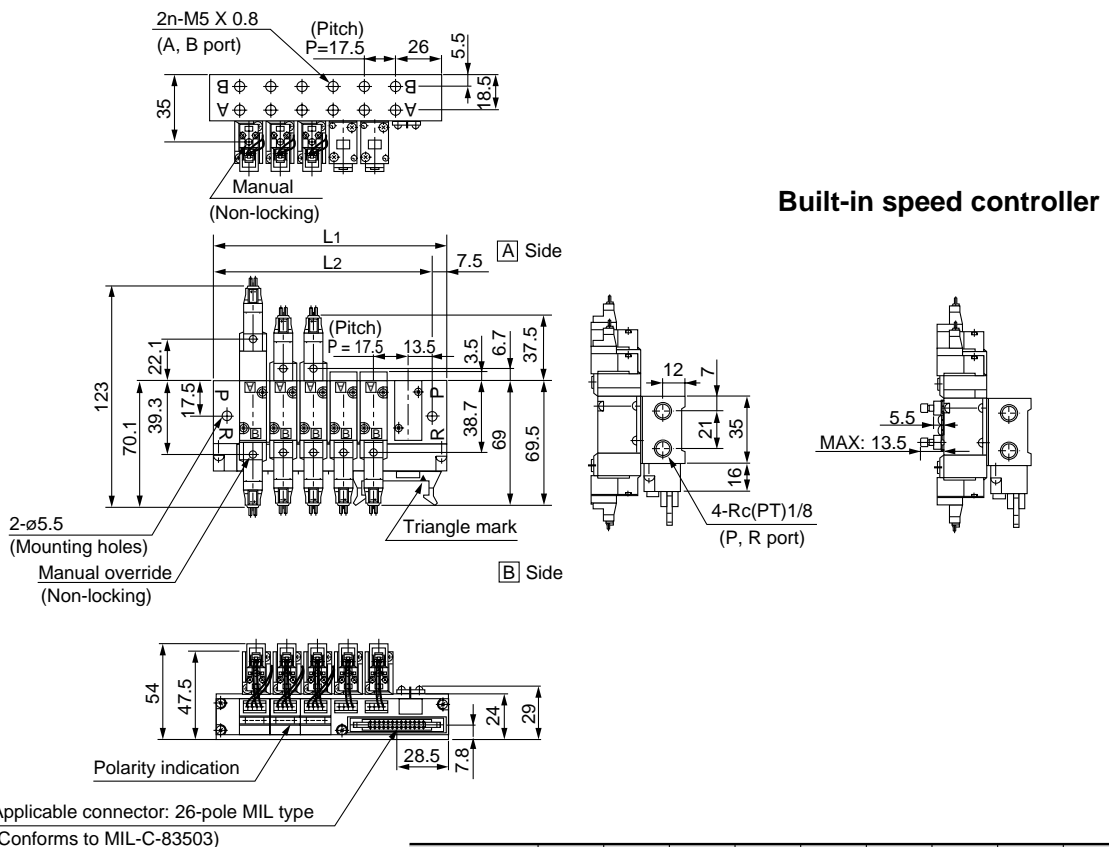
Flat Cable Manifold

SS5YJ5-20P- Station



Stations	3	4	5	6	7	8	9	10	11	12
L1	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L2	59	76.5	94	111.5	129	146.5	164	181.5	199	216.5

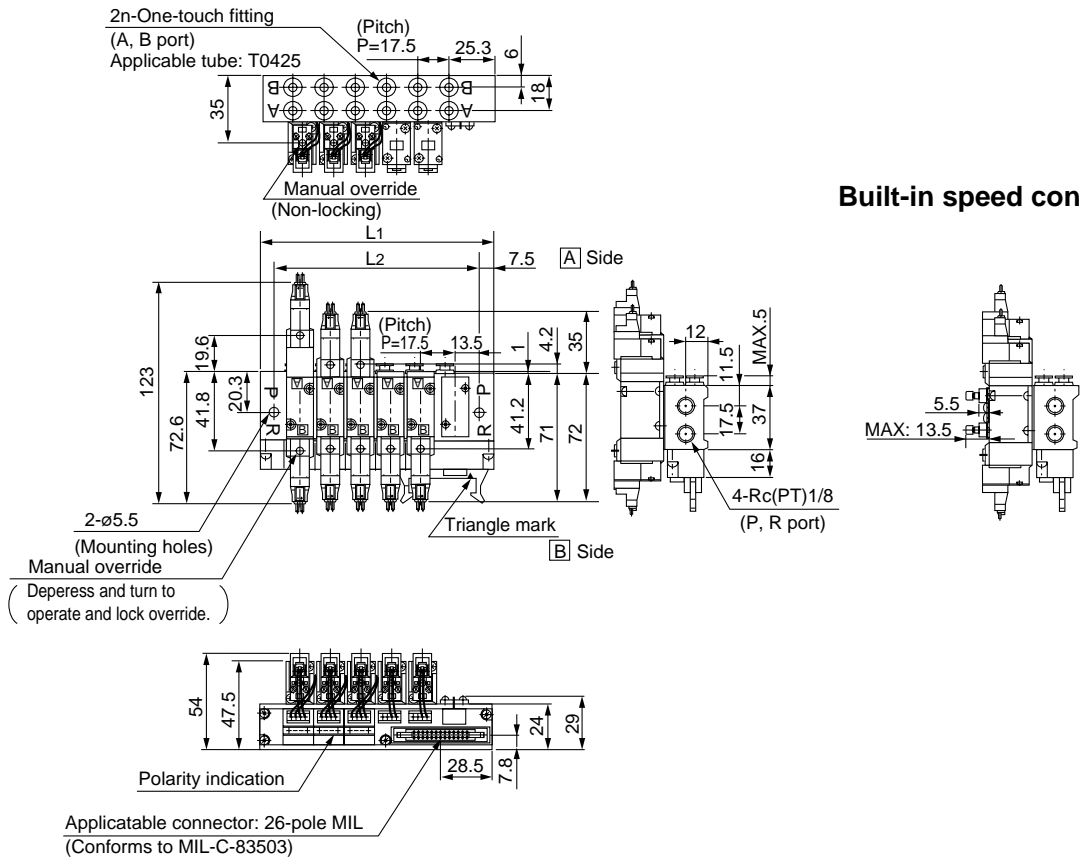
SS5YJ5-41P- Station -M5



Station	3	4	5	6	7	8	9	10	11	12
L1	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L2	62	79.5	97	114.5	132	149.5	167	184.5	202	219.5

Flat Cable Manifold

SS5YJ5-43P-Station -C4



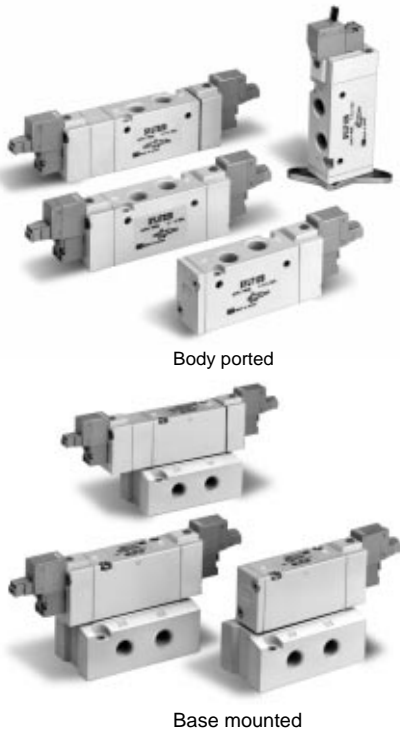
Built-in speed controller

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Stations	3	4	5	6	7	8	9	10	11	12
L1	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L2	62	79.5	97	114.5	132	149.5	167	184.5	202	219.5

5 Port Solenoid Valve Rubber Seal

Series SYJ7000



Body ported

Base mounted

Model

Valve model	Configuration	Port size	Effective area mm ² (Cv) ⁽¹⁾	Weight (g) ⁽²⁾⁽³⁾		
				Grommet	L / M plug connector	
SYJ7□20-□-01	2 position	Single	11 (0.6)	82	84	
		Double	11 (0.6)	92	96	
	3 position	Closed center	Rc(PT)1/8	8.5 (0.47)	102	106
		Exhaust center				
		Pressure center				
	SYJ7□20-□-C6	2 position	Single	8.6 (0.48)	93	95
Double			8.6 (0.48)	103	107	
3 position		Closed center	A, B port : C6 (ø6 One-touch fitting) P, R port : Rc(PT)1/8	7.1 (0.39)	113	117
		Exhaust center				
		Pressure center				
SYJ7□20-□-C8		2 position	Single	9.9 (0.55)	93	95
	Double		9.9 (0.55)	103	107	
	3 position	Closed center	A, B port : C8 (ø8 One-touch fitting) P, R port : Rc(PT)1/8	8.2 (0.46)	113	117
		Exhaust center				
		Pressure center				
	SYJ7□40-□-01 02	2 position	Single	12.6 (0.7)	162 (82)	164 (84)
Double			12.6 (0.7)	172 (92)	176 (96)	
3 position		Closed center	Rc(PT)1/8 Rc(PT)1/4	8.5 (0.47)	182 (102)	186 (106)
		Exhaust center				
		Pressure center				



Note 1) In case of M5 and mounted on manifold base.

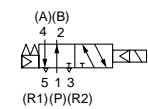
Note 2) () : Without sub-plate.

Note 3) For DC voltages. For AC voltages add 1g to the weight of the single solenoid and 2g to the weight of the double solenoid and 3 position types.

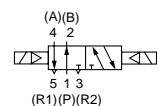
JIS Symbol

Body ported

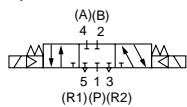
2 position single



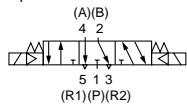
2 position double



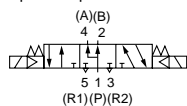
3 position closed center



3 position exhaust center

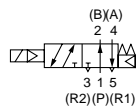


3 position pressure center

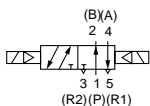


Base mounted

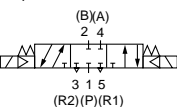
2 position single solenoid



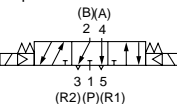
2 position double solenoid



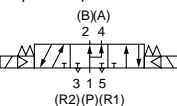
3 position closed center



3 position exhaust center



3 position pressure center



Specifications

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)		Max.50
Response time (ms) at 0.5MPa ⁽⁴⁾	2 position single, double	≤ 30
	3 position	≤ 60
Max.operating frequency (Hz)	2 position single, double	5
	3 position	3
Manual override		Non-locking push, Push-turn-locking slotted style
Pilot exhaust		Individual pilot exhaust, Common exhaust (pilot and main valve)
Lubrication		Not required
Mounting orientation		Universal
Impact/Vibration resistance (m/s ²) ⁽⁵⁾		150/30
Protection structure		Dust proof



Note 4) According to dynamic performance test JIS B8375-1981 (Coil temperature 20°C, at rated voltage, without surge voltage suppressor)

Note 5) Impact resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)

Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed at both energized and de-energized states to axis and right angle direction of the main valve and armature. (Value in the initial stage)

Solenoid Specifications

Electrical entry		Grommet (G)/(H), L plug connector (L), M plug connector (M)	
Coil reted voltage (V)	DC	24, 12, 6, 5, 3	
	AC50/60Hz	100, 110*, 200, 220**	
Allowable voltage		±10% rated voltage	
Power consumption (W) ⁽⁶⁾		DC	
Apparent power (VA)	AC	100V	0.5 (With light: 0.55)
		110V [115V]	0.9 (With light: 1.0)
		200V	1.0 (With light: 1.1) [1.1 (With light: 1.2)]
		220V [230V]	1.8 (With light: 1.9)
Surge voltage suppressor		1.9 (With light: 2.0) [2.2 (With light: 2.3)]	
Indicator light		Diode	
		LED	

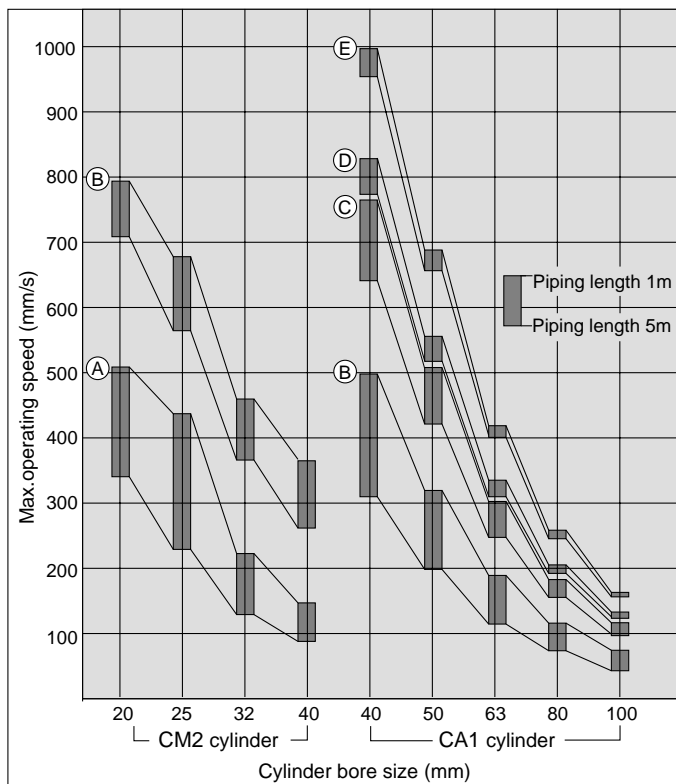


* Can be used for 115V AC in common.

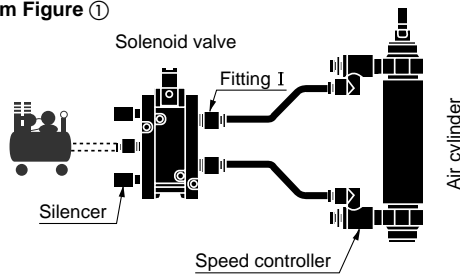
** Can be used for 230V AC in common.

Note 6) At rated voltage

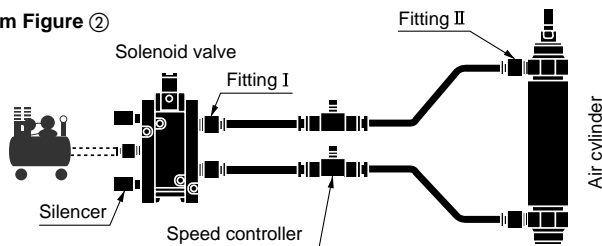
Cylinder Maximum Operating Speed



• System Figure ①



• System Figure ②



Operating conditions: Pressure 0.5MPa, Load rate 50%
 At cylinder extended, cylinder stroke CM2: 300mm
 CA1: 500mm

System components

System	Solenoid valve	Speed controller	Silencer	Fitting (Tube O.D. X Port size)		System figure
				I	II	
(A)	SYJ□40-01 Rc(PT)1/8 (S = 12.6mm ²)	AS2301F-01-04	AN110-01 (S = 35mm ²)	ø4 X 1/8	—	①
(B)		AS3301F- ⁰² / ₀₃ -06	AN200-02 (S = 35mm ²)	ø6 X 1/4	—	
(C)	SYJ□40-02 Rc(PT)1/4 (S = 12.6mm ²)	AS3301F- ⁰² / ₀₃ -08		ø8 X 1/4	—	
(D)		AS3301F- ⁰² / ₀₃ -10		ø10 X 1/4	—	
(E)		AS4001F-12		ø12 X 1/4	ø12 X 1/2	②

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ7000

How to Order

Configuration

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

Rated voltage

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

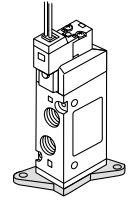
Light and surge voltage suppressor

—	Without light and surge suppressor
S	With surge suppressor
Z	With light and surge suppressor
R	With surge suppressor (Non-polar)
U	With light and surge suppressor (Non-polar)

*For AC voltage valves "S" option is not available. It is already built into the rectifier circuit.
* "R" and "U" types are available for DC voltage valves.

Bracket

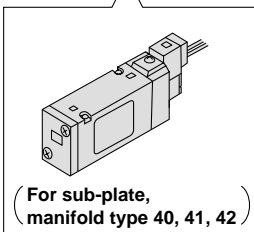
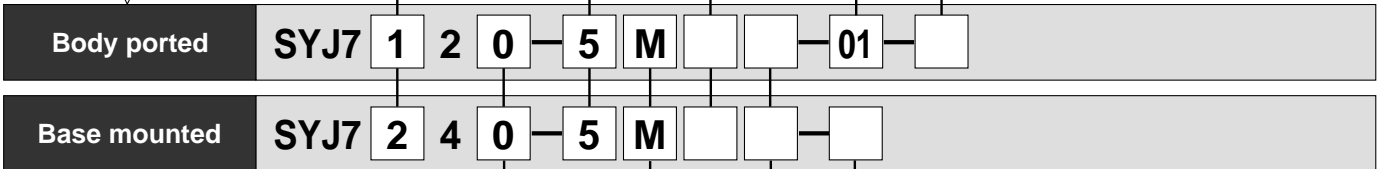
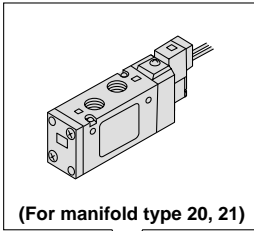
—: Without bracket
F: With bracket



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

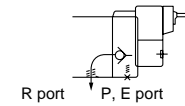
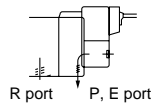
A/B port size

01	Rc(PT)1/8
C6	ø6 One-touch fitting
C8	ø8 One-touch fitting



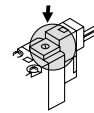
Body option

0: Individual exhaust for the pilot valve
3: Common exhaust for the pilot and main valve

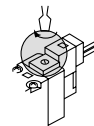


Manual override

—: Non-locking push style

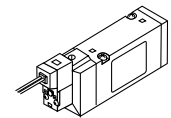


D: Push-turn-locking slotted style



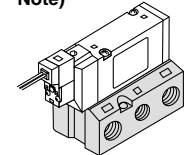
Port size

—: Without sub-plate

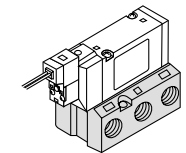


(With gasket and screws)

01: With Rc(PT)1/8 sub-plate
Note)



02: With Rc(PT)1/4 sub-plate



Note) R1 and R2 port size Rc(PT)1/4

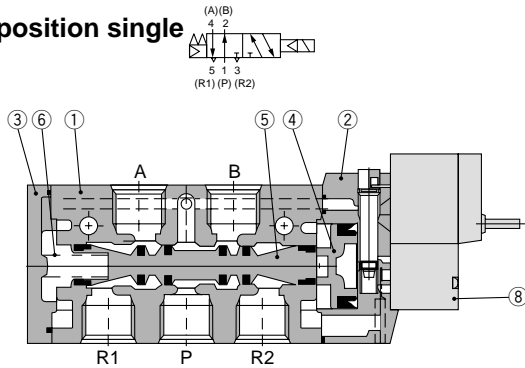
Electrical entry

24V, 12V, 6V, 5V, 3V DC/100V, 110V, 200V, 220V AC			
Grommet	L plug connector	M plug connector	
G: 300mm lead wire	L: 300mm lead wire	M: 300mm lead wire	MN: Without lead wire
H: 600mm lead wire	LN: Without lead wire	LO: Without connector	MO: Without connector

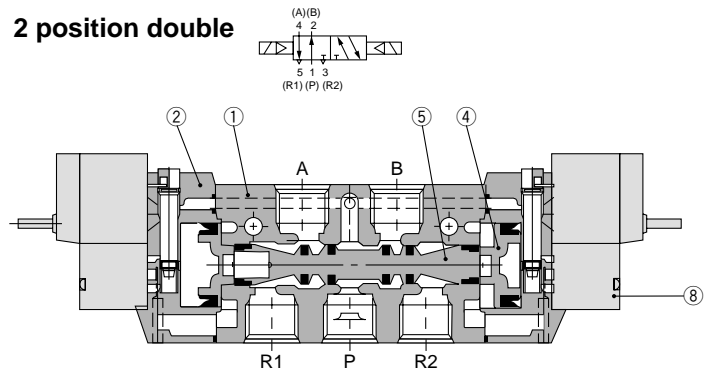
*LN and MN types are with 2 pcs. of socket.

Construction

2 position single

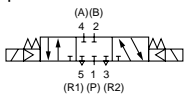


2 position double

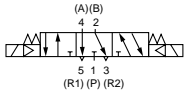


3 position closed center/exhaust center/pressure center

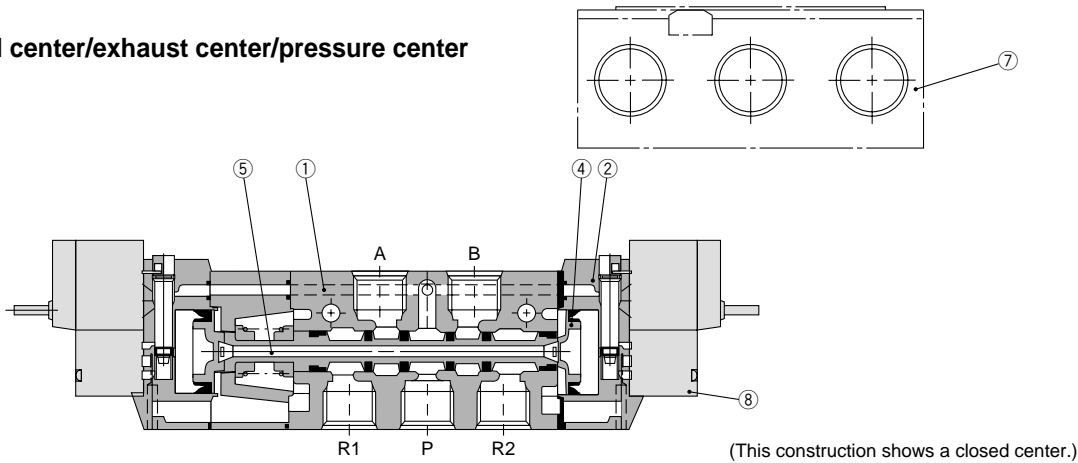
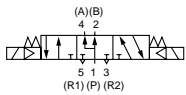
3 position closed center



3 position exhaust center



3 position pressure center



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast	white
②	Piston plate	Resin	white
③	End cover	Aluminum die cast	white
④	Piston	Resin	—
⑤	Spool ass'y	—	—
⑥	Spool spring	SUS	—

Replacement Parts

No.	Description	Parts No.	Note
⑦	Sub-plate	SYJ7000-22-1	Rc1/8 Aluminum die cast
		SYJ7000-22-2	Rc1/4 Aluminum die cast
⑧	Pilot valve	SY114-□□□	—

How to Order Pilot Valve Assembly

SY114 — **5** **G** □

Voltage

5	24V DC
6	12V DC
V	6V DC
S	5V DC
R	3V DC
1	100V AC50/60Hz
2	200V AC50/60Hz
3	110V AC50/60Hz [115V AC50/60Hz]
4	220V AC50/60Hz [230V AC50/60Hz]

Electrical entry

G	Grommet (Lead wire length: 300mm)
H	Grommet (Lead wire length: 600mm)
L	L plug connector
LN	LN plug connector
LO	LO plug connector
M	M plug connector
MN	MN plug connector
MO	MO plug connector

Light and surge voltage suppressor

—	Without light and surge suppressor
S	With surge suppressor
Z	With light and surge suppressor
R	With surge suppressor (Non-polar)
U	With light and surge suppressor (Non-polar)

*For AC voltage valves "S" option is not available. It is already built into the rectifier circuit.
*“R” and “U” options are available for DC voltage valves only.

How to Order Connector Assembly

DC: : SY100-30-4A-□
 100V AC: : SY100-30-1A-□
 200V AC: : SY100-30-2A-□
 Other AC voltages: SY100-30-3A-□
 Without lead wire (with connector and: SY100-30A
 2 pcs. of socket)

Lead wire length

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

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

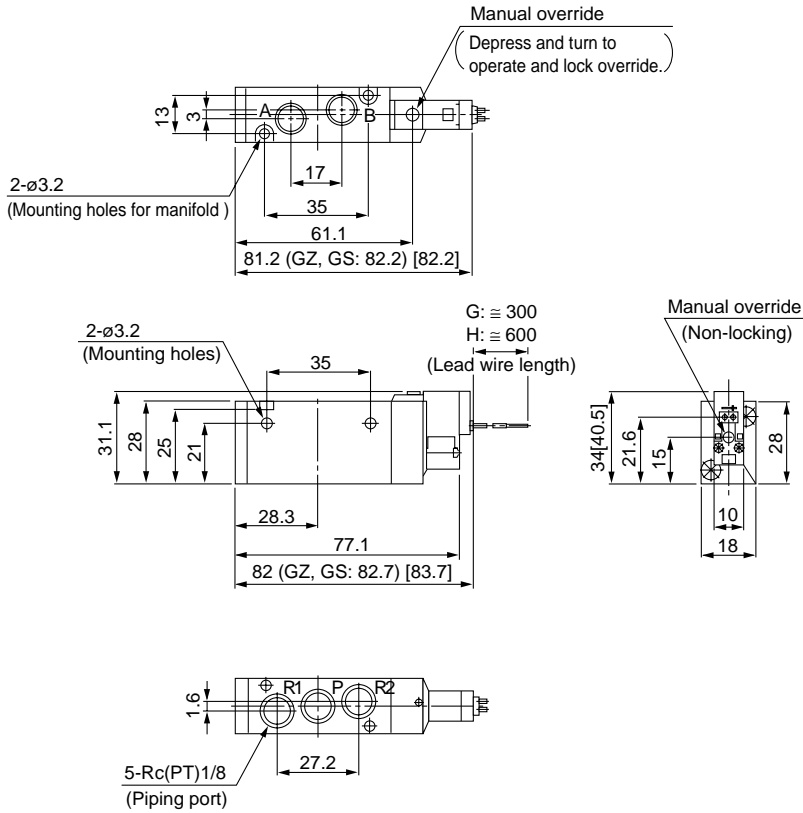
VS

VS7

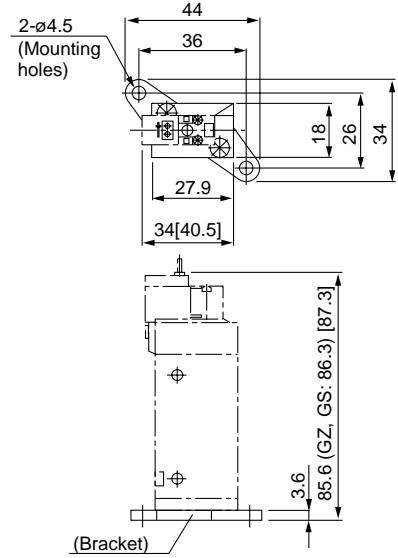
Series SYJ7000

2 Position Single

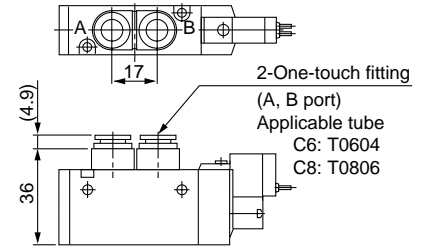
Grommet (G), (H): SYJ7120-□^G□□□-01



With bracket



Built-in One-touch fitting:
SYJ7120-□^G□□□-C₆
C₈

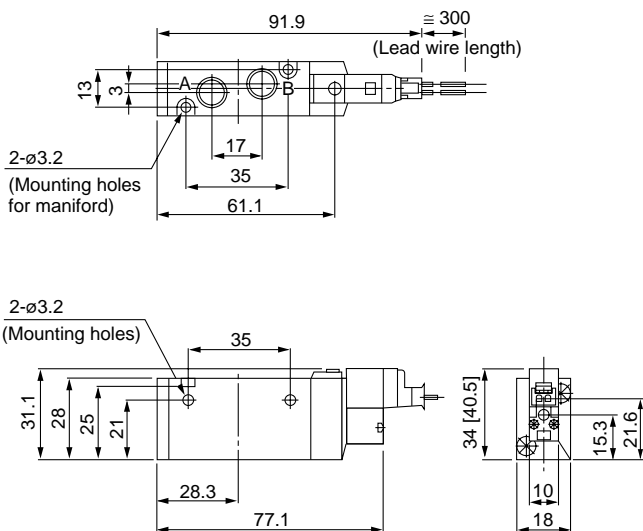


* [] for AC
* Other dimensions are the same as the grommet style.

* [] For AC

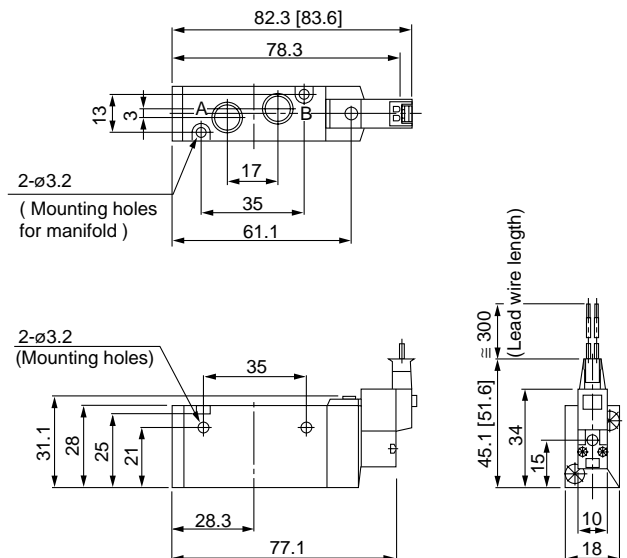
* [] for AC
* Other dimensions are the same as the grommet style.

L plug connector(L): SYJ7120-□L□□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

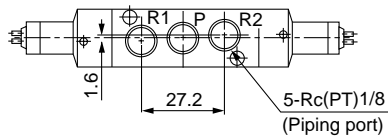
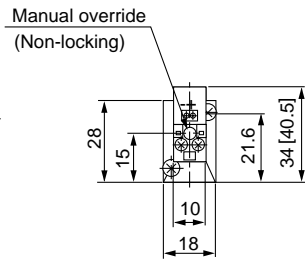
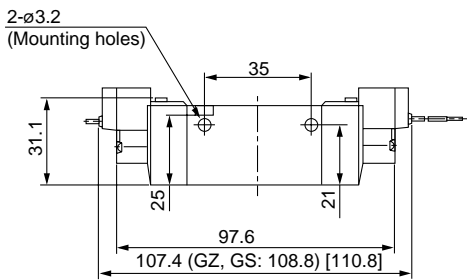
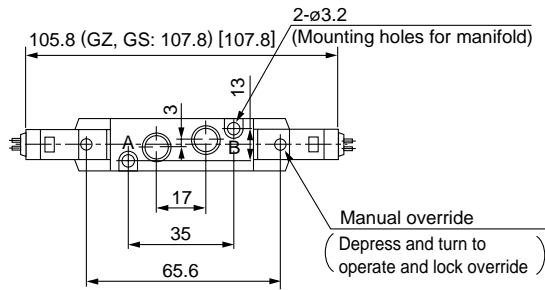
M plug connector (M): SYJ7120-□M□□□-01



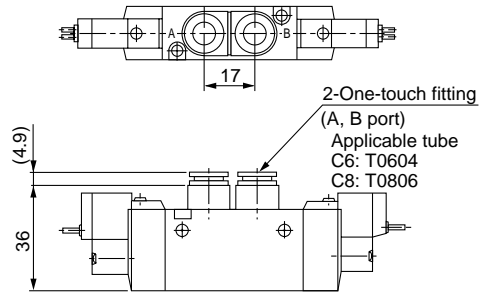
* [] for AC
* Other dimensions are the same as the grommet style.

2 Position Double

Grommet (G), (H): SYJ7220-□^G□□-01



Built-in One-touch fitting SYJ7220-□^G□□-□^{C6}_{C8}



SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

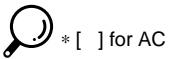
VQD

VZS

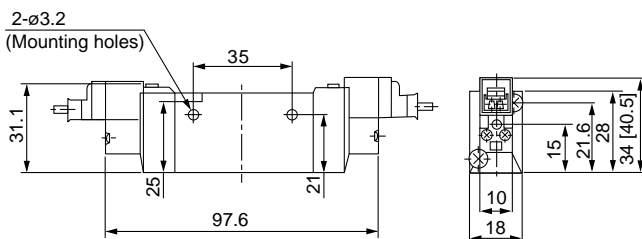
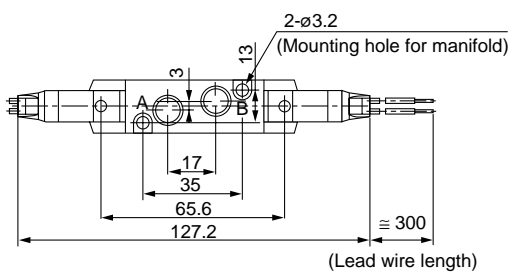
VFS

VS

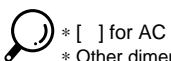
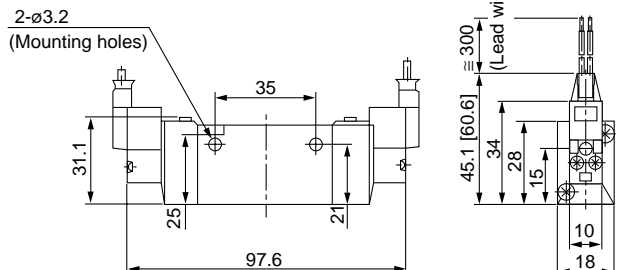
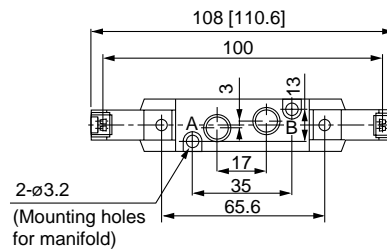
VS7



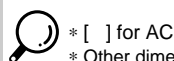
L plug connector(L): SYJ7220-□L□□-01



M plug connector (M): SYJ7220-□M□□-01



* Other dimensions are the same as the grommet style.

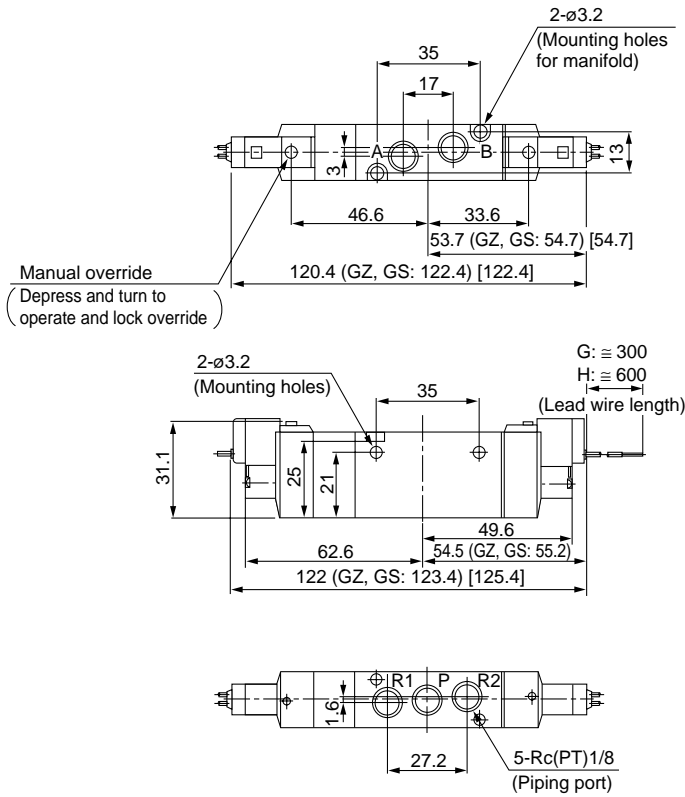


* Other dimensions are the same as the grommet style.

Series SYJ7000

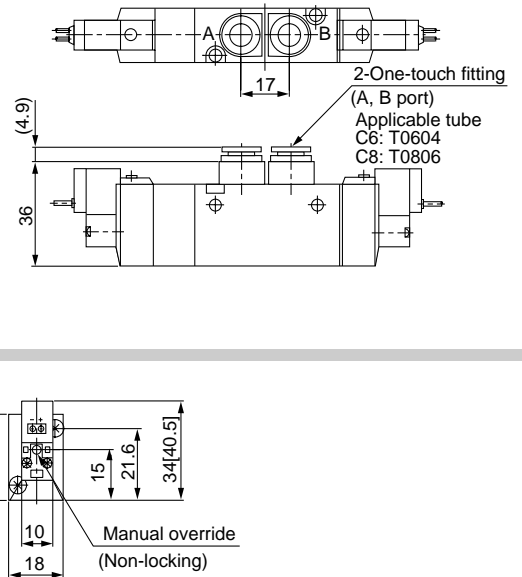
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ7 $\frac{3}{4}$ 20-□ $\frac{G}{H}$ □□-01



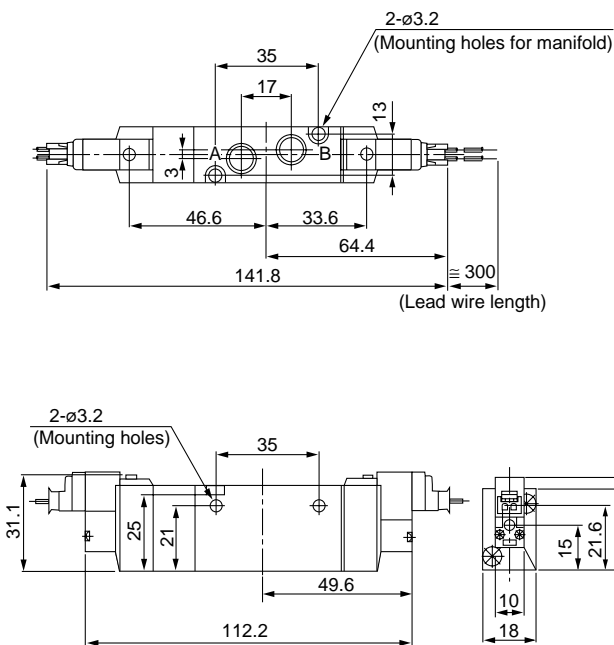
Built-in One-touch fitting:

SYJ7 $\frac{3}{4}$ 20-□ $\frac{G}{H}$ -□□ $\frac{C6}{C8}$

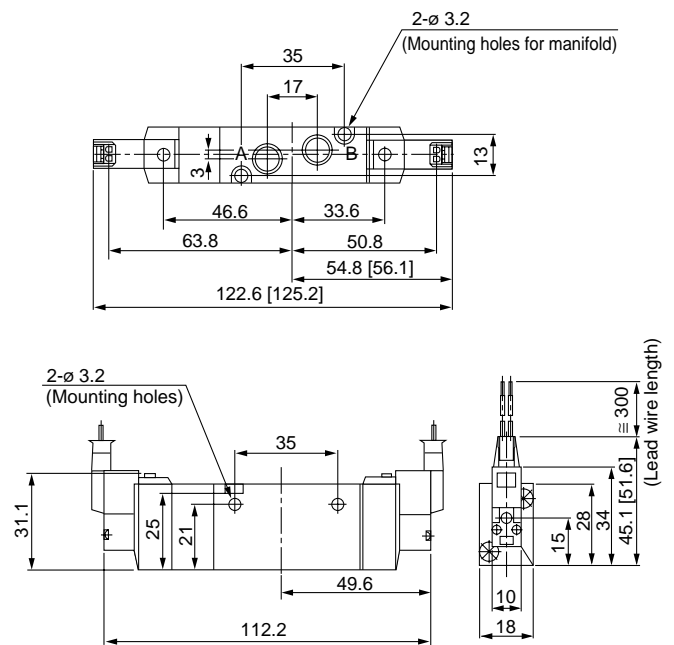


* [] for AC

L plug connector (L): SYJ7 $\frac{3}{4}$ 20-ILII-01



M plug connector (M): SYJ7 $\frac{3}{4}$ 20-□M□□-01



* [] for AC

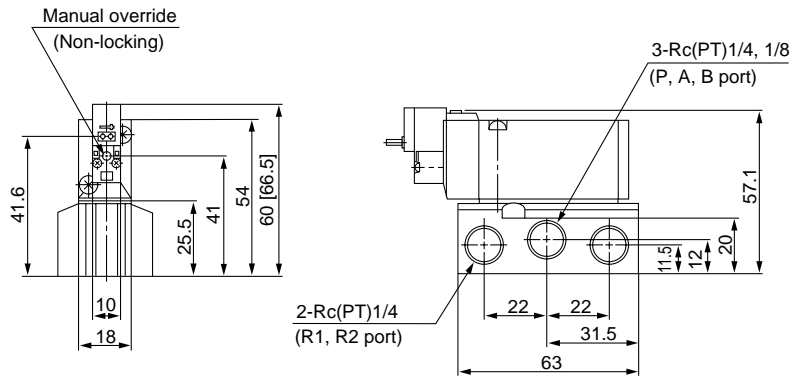
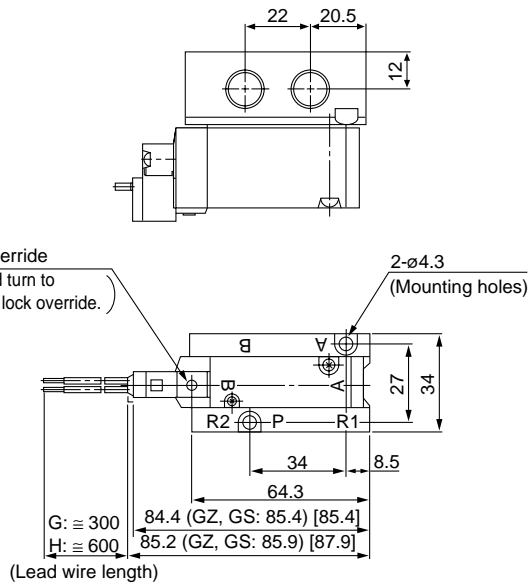
* Other dimensions are the same as the grommet style.

* [] for AC

* Other dimensions are the same as the grommet style.

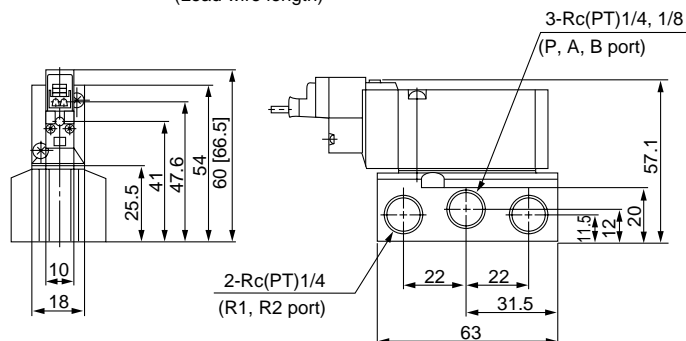
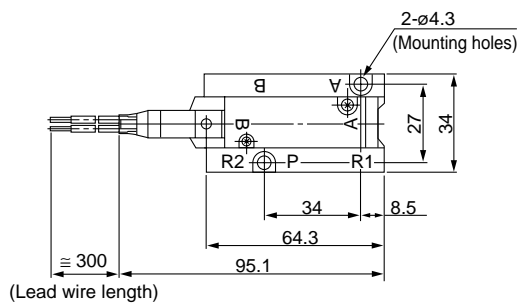
2 Position Single

Grommet (G), (H): SYJ7140-□□□□-01



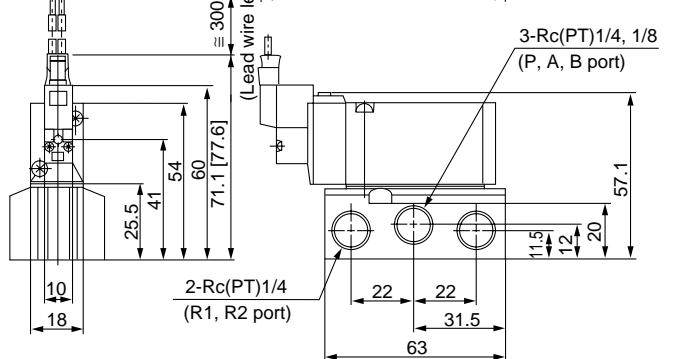
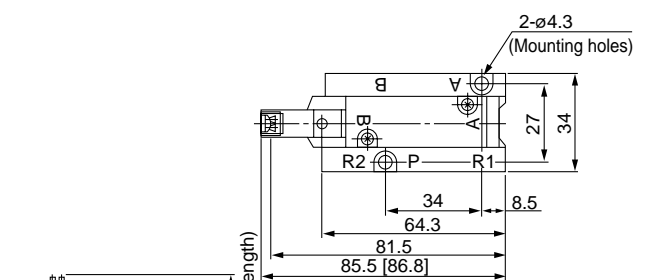
* [] for AC

L plug connector (L): SYJ7140-□□□□-01



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ7140-□M□□-01



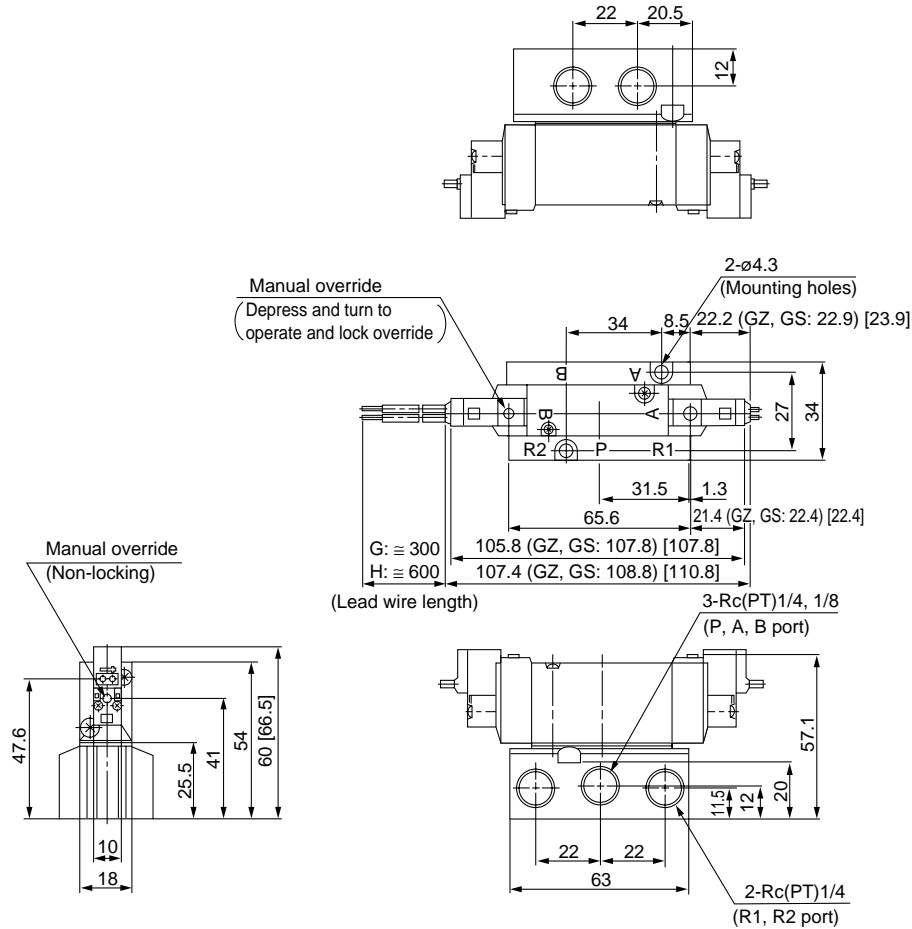
* [] for AC
* Other dimensions are the same as the grommet style.

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ7000

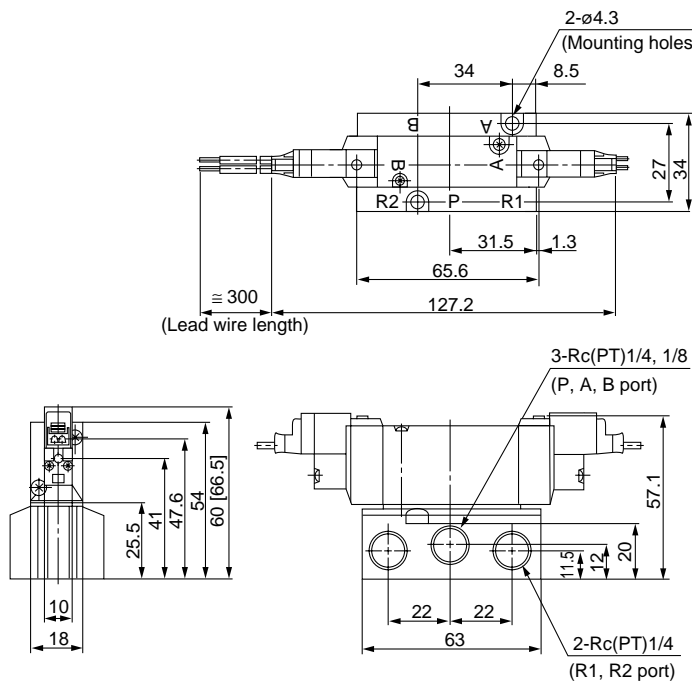
2 Position Double

Grommet (G), (H): SYJ7240-□^G□□-01
□□_H□□-02



* [] for AC

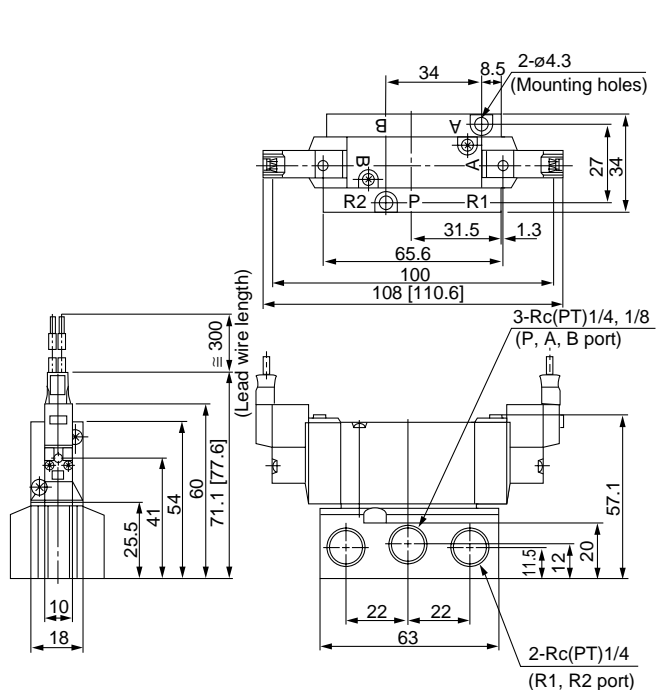
L plug connector (L): SYJ7240-□L□□-01
□□



* [] for AC
* Other dimensions are the same as the grommet style.

1.2-60

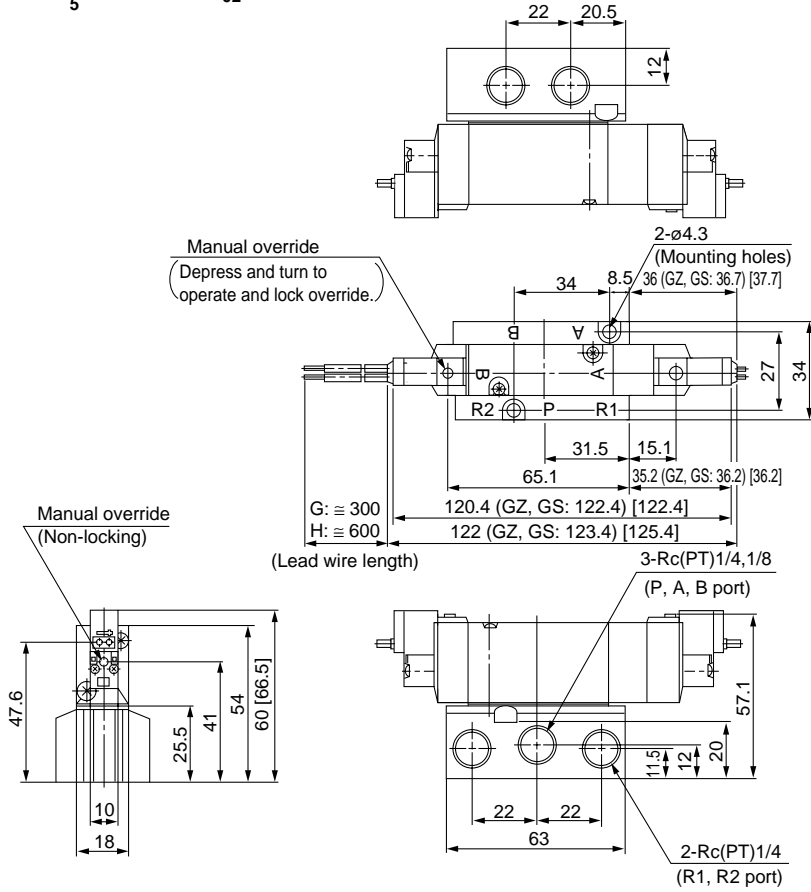
M plug connector (M): SYJ7240-□M□□-01
□□



* [] for AC
* Other dimensions are the same as the grommet style.

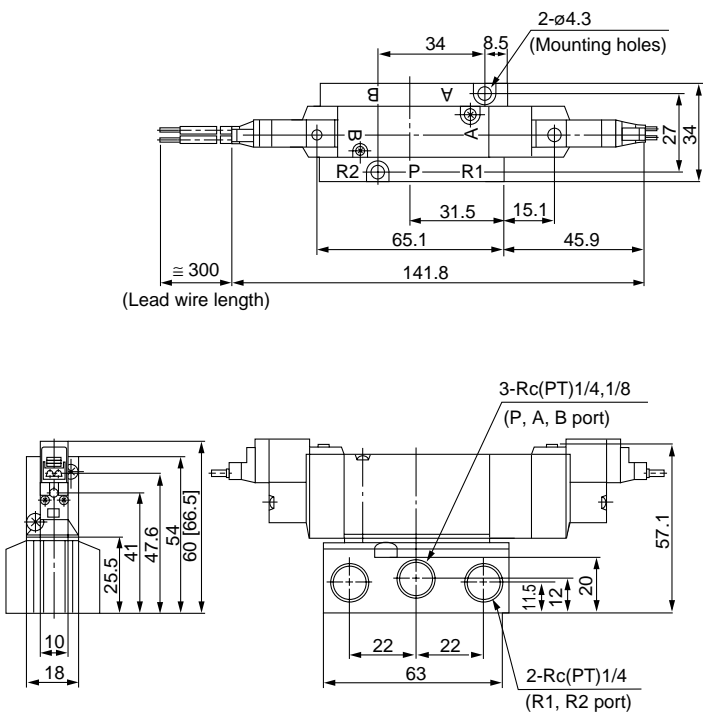
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet(G), (H): SYJ7³/₅40-□^G□□-0¹/₂



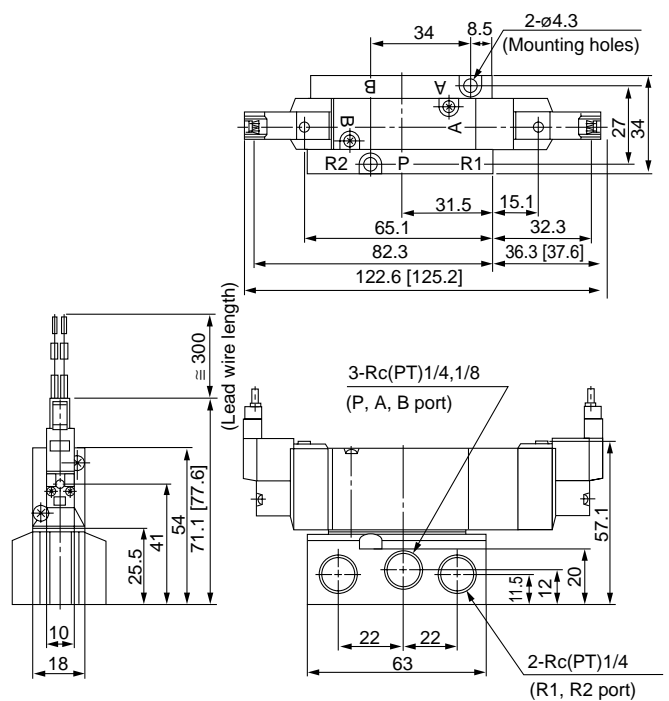
* [] for AC

L plug connector (L): SYJ7³/₅40-□L□□-0¹/₂



* [] for AC
* Other dimensions are the same as the grommet style.

M plug connector (M): SYJ7³/₅40-□M□□-0¹/₂



* [] for AC
* Other dimensions are the same as the grommet style.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

VS

VS7

Series SYJ7000

Manifold

Standard



Manifold Specifications

Type	20	21	40	41	42
Manifold style	Single base style/B mount				
P (SUP), R (EXH) style	Common SUP, Common EXH				
Valve stations	2 to 15 stations		2 to 20 stations		
A, B port specifications	Location	Valve		Base	Base
	Direction	Top		Bottom	Side
Port size	P, R port	Rc(PT)1/8		Rc(PT)1/4	
	A, B port	Rc(PT)1/8 C6 (ø6 One-touch fitting) C8 (ø8 One-touch fitting)		Rc(PT)1/8 C6 (ø6 One-touch fitting) C8 (ø8 One-touch fitting)	
Valve effective area ⁽¹⁾ mm ² (Cv)	Body ported SYJ7□2□	Rc(PT)1/8: 11 (0.6) C6: 8.6 (0.48) C8: 9.9 (0.55)		—	—
	Base mounted SYJ7□4□	—	—	11.9 (0.66)	9.5 (0.53) C6: 8.5 (0.47) C8: 9.7 (0.54)



Note 1) Value for a single solenoid 2 position valve mounted on the manifold.

How to Order Valve Manifold

Specify the part numbers for the valve(s), blank plate ass'y, and manifold base.

Example

- SS5YJ7-20-031 pc. (Manifold base)
- SYJ7120-5G-012 pcs. (Valve)
- SYJ7000-21-1A1 pc. (Blank plate ass'y)

- SS5YJ7-41-03-011 pc. (Manifold base)
- SYJ7140-5LZ1 pc. (Valve)
- SYJ7240-5LZ1 pc. (Valve)
- SYJ7000-21-1A1 pc. (Blank plate ass'y)

* Use manifold specification sheet.

Flat Cable Manifold

•Multiple valve wiring is simplified through the use of the flat cable connector.

•Clean appearance

With the flat cable manifold, each valve is wired to the manifold base. A single MIL specification flat cable connects the entire manifold to the power source. This greatly reduces installation time.



Flat Cable Manifold Specifications

Type		21P
Manifold style		Single base style/B mount
P (SUP), R (EXH) style		Common SUP, Common EXH
Valve stations		3 to 12 stations
A, B port specifications		Valve
Port size	P, R port	Rc(PT)1/4
	A, B port	Rc(PT)1/8, C6, C8
Valve effective area mm ² (Cv) ⁽¹⁾	SYJ7□23	Rc(PT)1/8: 11 (0.6)
		C6: 8.6 (0.48) C8: 9.9 (0.55)
Connector		Socket: 26 poles MIL type with strain relief conforms to MIL-C-83503
Internal wiring ⁽²⁾		Both for +COM and -COM
Rated voltage		24V DC, 12V DC

Note 1) Value for a single operation of 2 position valve mounted on the manifold base.
Note 2) The withstand voltage specification for the unit with section conforms to JISC0704, Grade 1 or its equivalent

How to Order Valve Manifold

Specify the part numbers for the valve(s), blank plate ass'y, and manifold base.

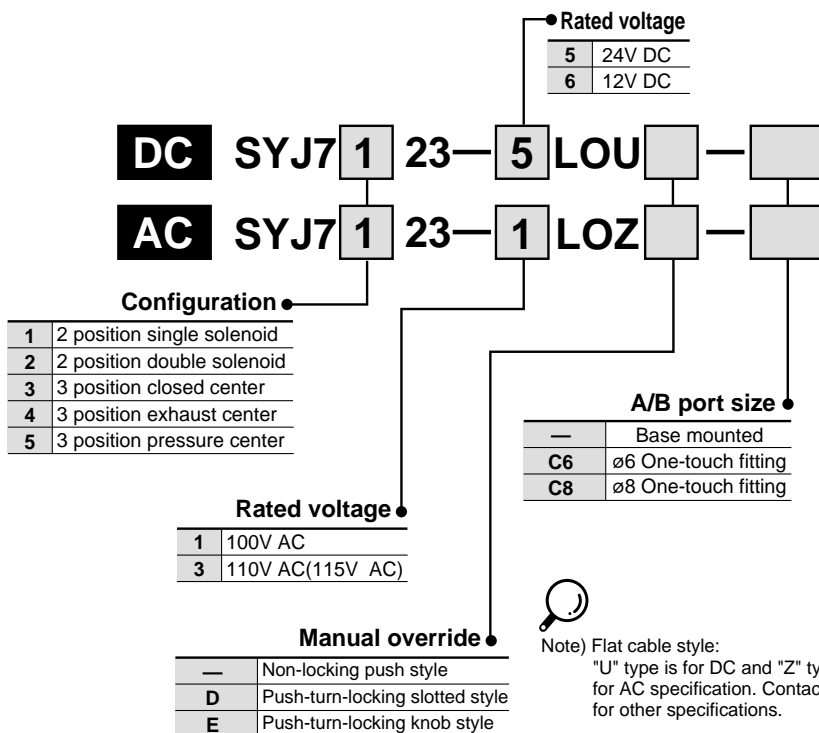
Example •SS5YJ7-21P-07..... 1 pc. (Manifold base)
 SYJ7123-5LOU-C8 3 pcs. (Valve)
 SYJ7223-5LOU-C8 3 pcs. (Valve)
 SYJ7000-21-3A 1 pc. (Blank plate ass'y)
 SY3000-37-42A 3 pcs. (Connector ass'y)
 SY3000-37-43A 3 pcs. (Connector ass'y)

* Use manifold specification sheet.

⚠ Caution

The manifold can be wired for either positive or negative common because only non-polar valves are used. The use of valves other than non polar types are not recommended. It may cause damage to the electrical circuit.

How to Order Valve



Note) Flat cable style: "U" type is for DC and "Z" type is for AC specification. Contact SMC for other specifications.

How to Order Connector Ass'y

For 12V/24V DC

Single solenoid	SY3000-37-42A
Double solenoid 3 position	SY3000-37-43A
Single with spacer ass'y	SY3000-37-44A
Double solenoid 3 position with spacer ass'y	SY3000-37-45A

For 100VDC

Single solenoid	SY3000-37-50A
Double solenoid 3 position	SY3000-3751A
Single with spacer ass'y	SY3000-37-52A
Double solenoid 3 position with spacer ass'y	SY3000-37-53A

For 110V DC(115V AC)

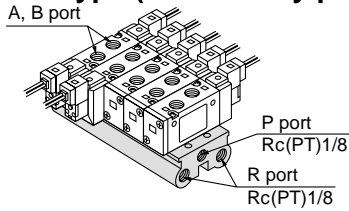
Single solenoid	SY3000-37-58A
Double solenoid 3 position	SY3000-37-59A
Single with spacer ass'y	SY3000-37-60A
Double solenoid 3 position with spacer ass'y	SY3000-37-61A

- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ7000

Common SUP/Common EXH

20 Type (5 Port/Body ported)



How to Order SS5YJ7-20-05

Stations	
02	2 stations
:	:
15	15 stations

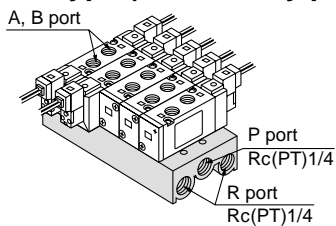
Applicable solenoid valve

SYJ7□20-□□□□-01
C6
C8

SYJ7□23-□□□□-01
C6
C8

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

21 Type (5 Port/Body ported)



How to Order SS5YJ7-21-05

Stations	
02	2 stations
:	:
20	20 stations

Applicable blank plate assembly

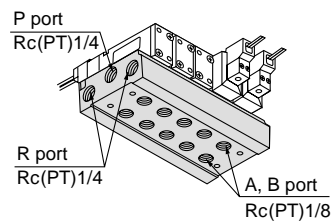
SYJ7000-21-1A

Applicable individual EXH spacer assembly

SYJ7000-17-1A

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

40 Type (5 Port/Base mounted)



How to Order SS5YJ7-40-05-01

Stations		A, B port side	
02	2 stations	01	Rc(PT)1/8
:	:		
20	20 stations		

Applicable solenoid valve

SYJ7□40-□□□□
SYJ7□43-□□□□

Applicable blank plate assembly

SYJ7000-21-1A

Applicable individual EXH spacer assembly

SYJ7000-17-2A

Applicable individual SUP spacer assembly

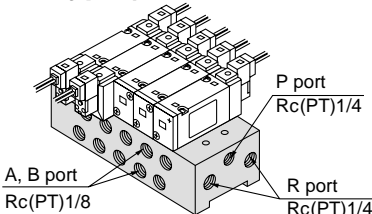
SYJ7000-16-2A

Applicable interface regulator

ARBYJ7000-00-P

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

41 Type (5 Port/Base mounted)



How to Order SS5YJ7-41-05-01

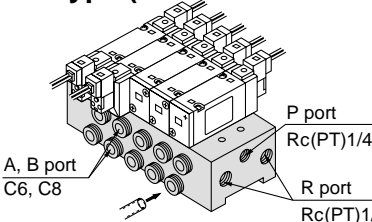
Stations		A, B port side	
02	2 stations	01	Rc(PT)1/8
:	:		
20	20 stations		

Applicable interface regulator

ARBYJ7000-00-P

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

42 Type (5 Port/Base mounted)



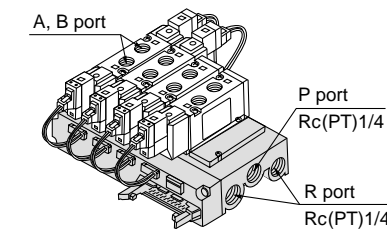
How to Order SS5YJ7-42-05-C6

Stations		A, B port side	
02	2 stations	C6	C6(ø6 One-touch fitting)
:	:	C8	C8(ø8 One-touch fitting)
20	20 stations		

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

Flat Cable Manifold/Common SUP/Common EXH

21P Type (5 Port/Body ported)



How to Order SS5YJ7-21P-05

Stations	
03	3 stations
:	:
12	12 stations

Applicable solenoid valve

Refer to the p.1.2-63.

Applicable blank plate assembly

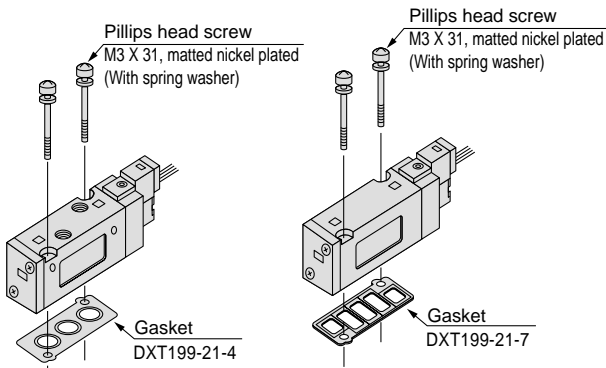
SYJ7000-21-3A

Applicable connector assembly

Refer to the p.1.2-63.

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

Combinations of Solenoid Valve, Manifold Gasket and Manifold Base

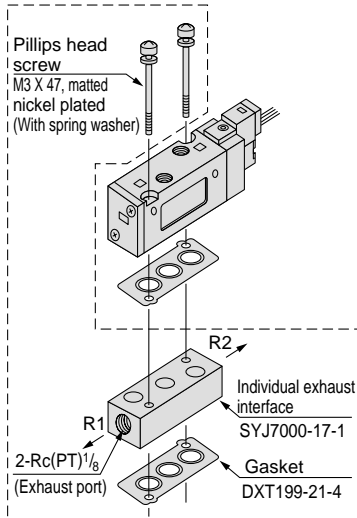


Applicable manifold base
SS5YJ7-20
SS5YJ7-21

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

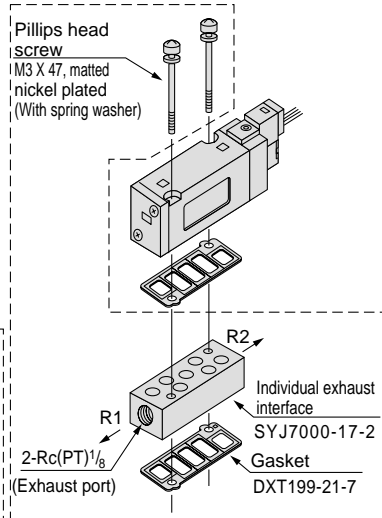
Individual Exhaust Interface Ass'y

SYJ7000-17-1A



Applicable manifold base
SS5YJ7-20
SS5YJ7-21

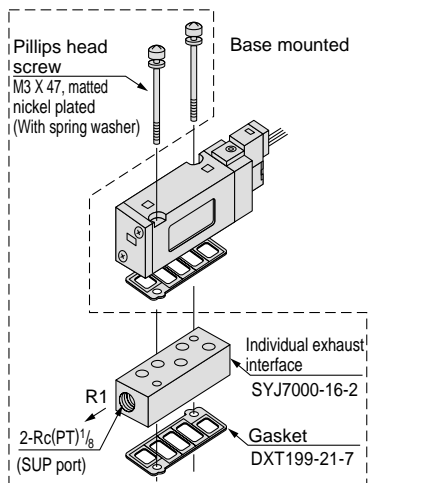
SYJ7000-17-2A



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

Individual Supply Interface Ass'y

SYJ7000-16-2A

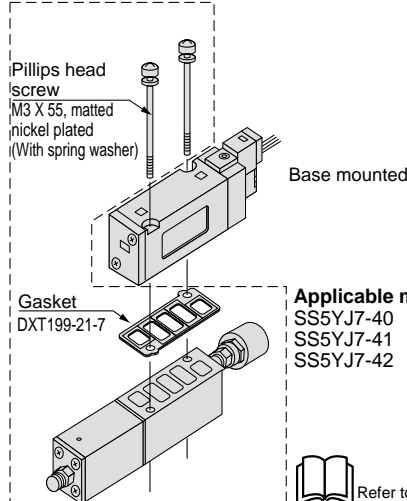


Applicable manifold base
SS5YJ7-40
SS5YJ7-41
SS5YJ7-42

Interface Regulator(P regulation)

Putting interface regulator on the manifold base makes it possible to reduce supply pressure to a valve individually.

ARBYJ5000-00-P



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



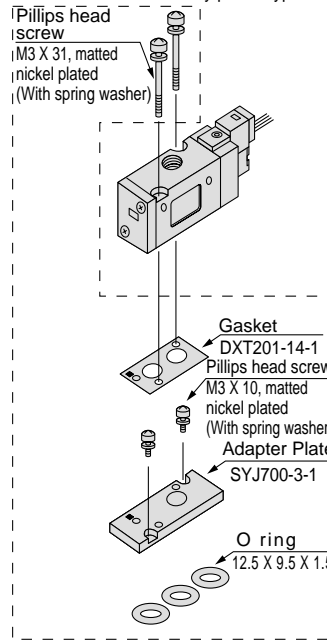
Refer to p.1.2-7 prior to handling

Installation of the SYJ700 Valve on the SYJ7000 Manifold

- Use of an adaptor plate makes it possible to mount series SYJ700 on the manifold bases of SYJ7000 series.
- Pilot valve should be installed to be located in the same side as the single solenoid of series SYJ7000 as shown in the following drawing.
- For base mounted style, the A port of the 3 port valve flows out the B port of manifold base.

Adaptor Plate Ass'y SYJ700-3-1A

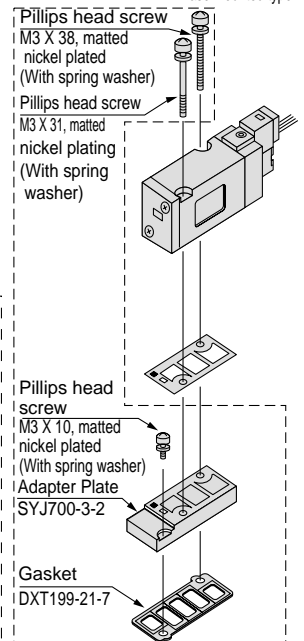
Series SYJ700
Body ported type



Applicable manifold base
SS5YJ7-20
SS5YJ7-21

Adaptor Plate Ass'y SYJ700-3-2A

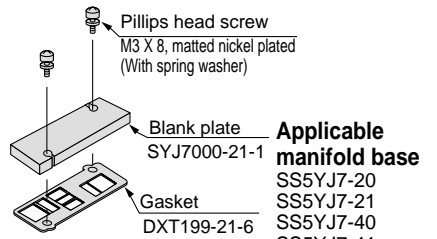
Series SYJ700
Base mounted type



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

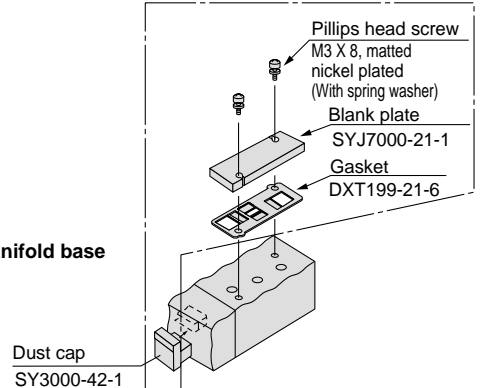
Blank Plate Assembly

SYJ7000-21-1A



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

SYJ7000-21-3A



Applicable manifold base
SS5YJ7-21P

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

VFS

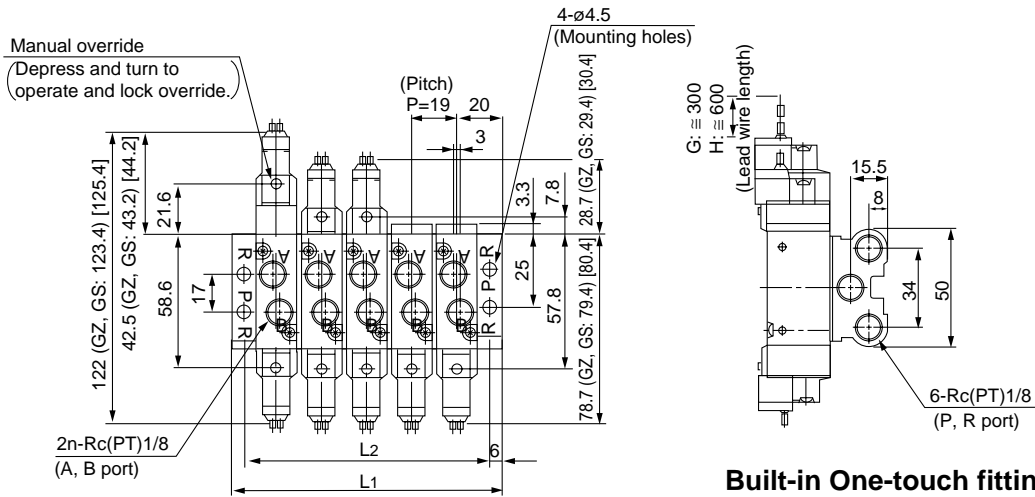
VS

VS7

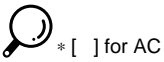
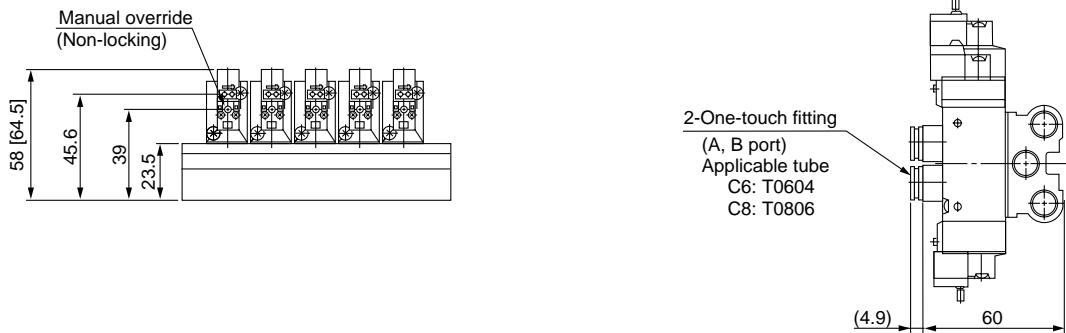
Series SYJ7000

20 Type Manifold: Top Ported/SS5YJ7-20-Station

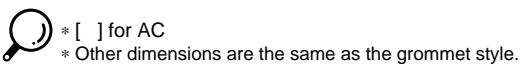
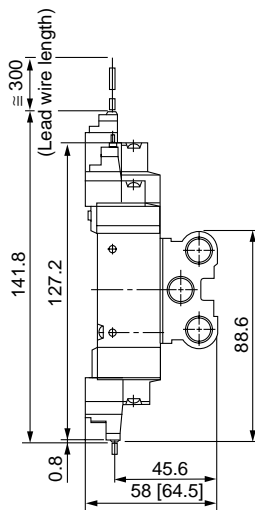
Grommet(G), (H)



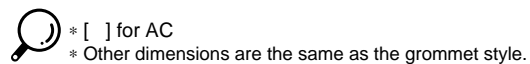
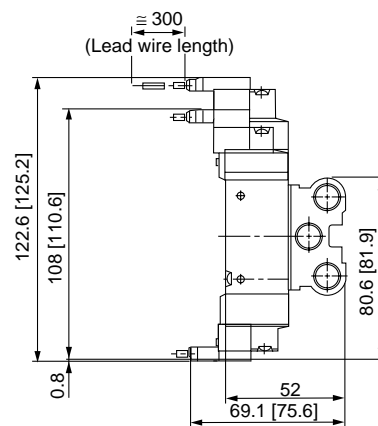
Built-in One-touch fitting



L plug connector (L)



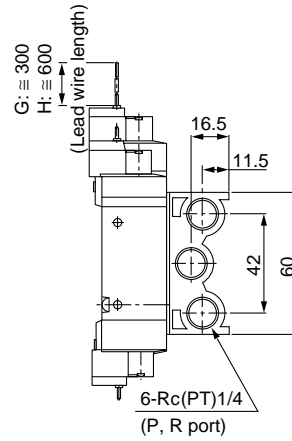
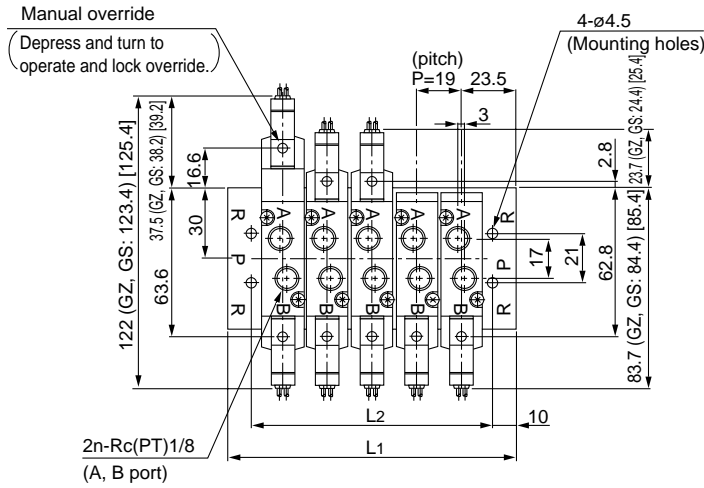
M plug connector (M)



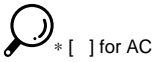
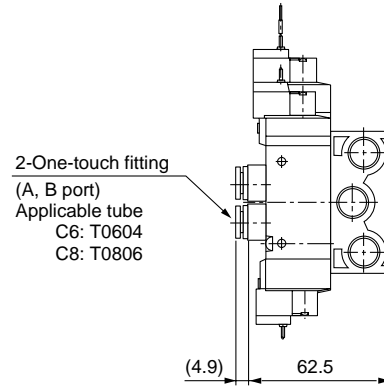
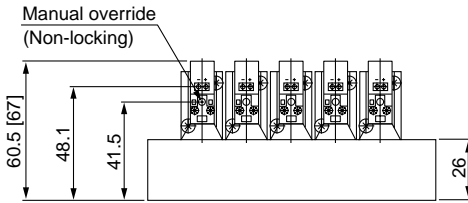
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L1	59	78	97	116	135	154	173	192	211	230	249	268	287	306
L2	47	66	85	104	123	142	161	180	199	218	237	256	275	294

21 Type Manifold: Top Ported/SS5YJ7-21-Station

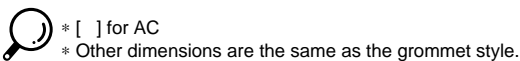
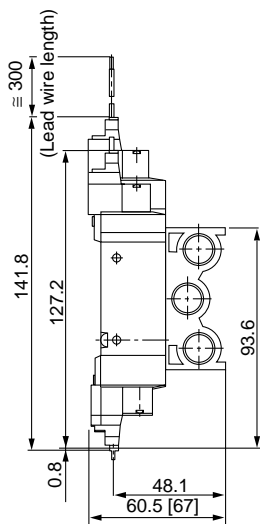
Grommet(G), (H)



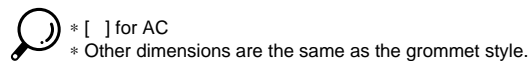
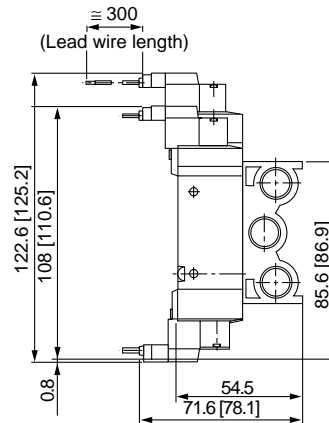
Built-in One-touch fitting



L plug connector (L)



M plug connector (M)



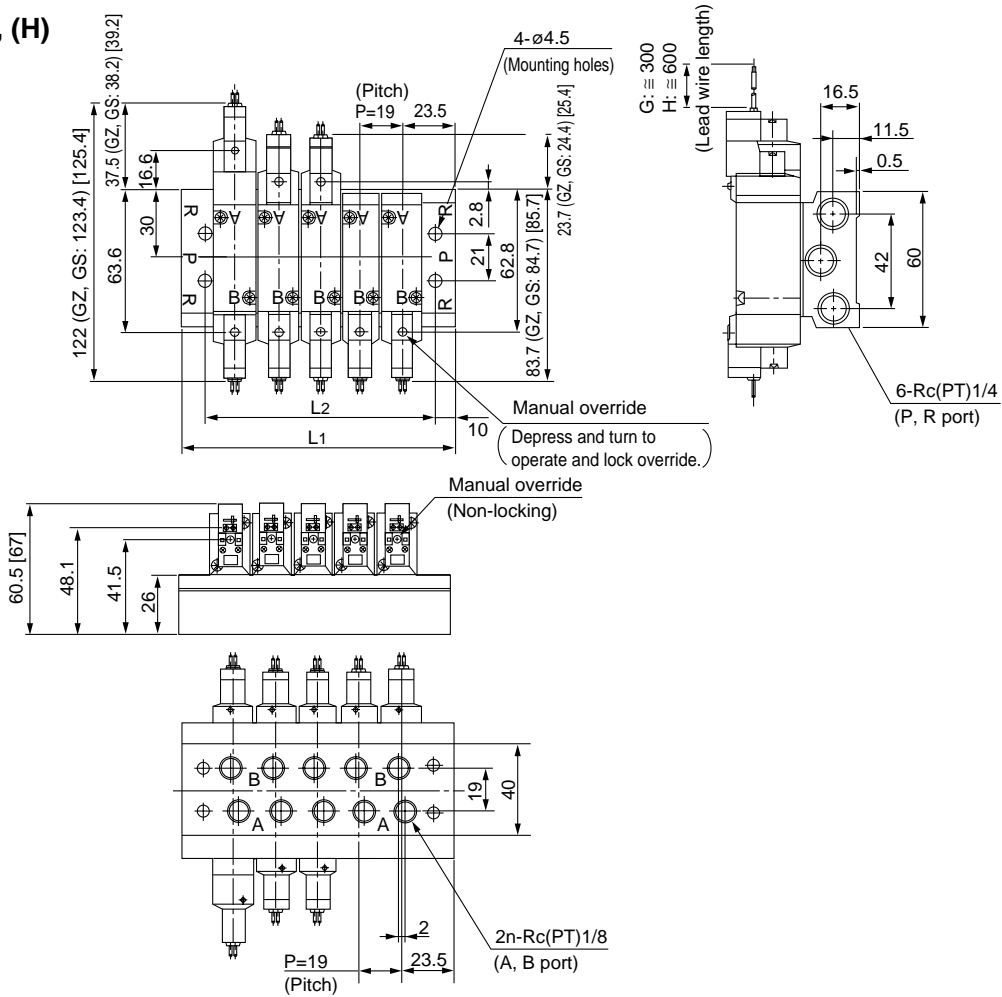
Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Series SYJ7000

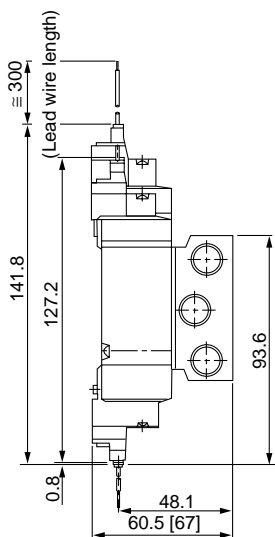
40 Type Manifold: Bottom Ported/SS5YJ7-40-Station -01

Grommet(G), (H)



* [] for AC

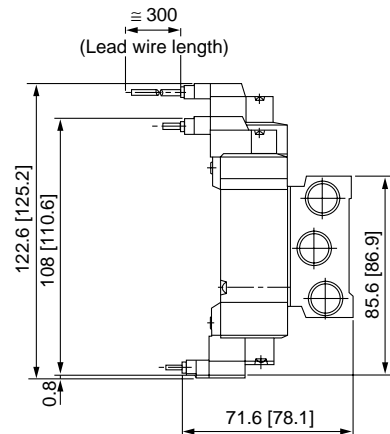
L plug connector (L)



* [] for AC

* Other dimensions are the same as the grommet style.

M plug connector (M)



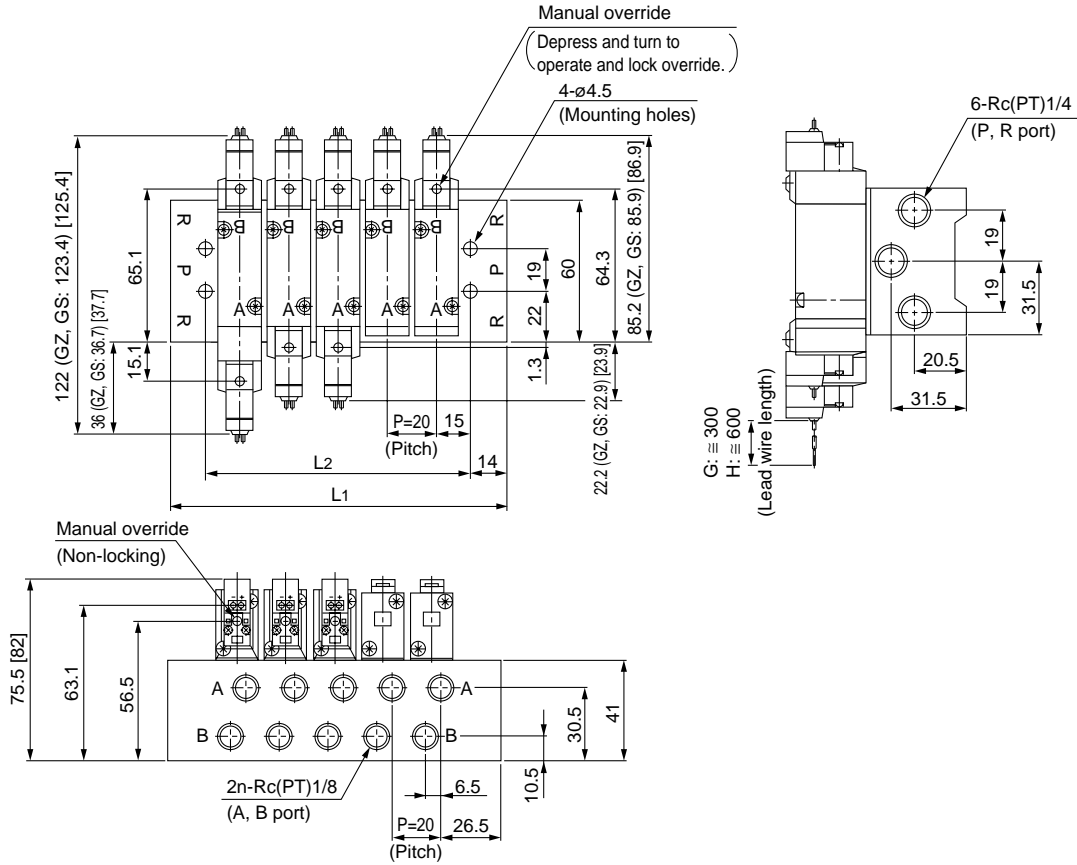
* [] for AC

* Other dimensions are the same as the grommet style.

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

41 Type Manifold: Side Ported/SS5YJ7-41-Station -01

Grommet (G), (H)

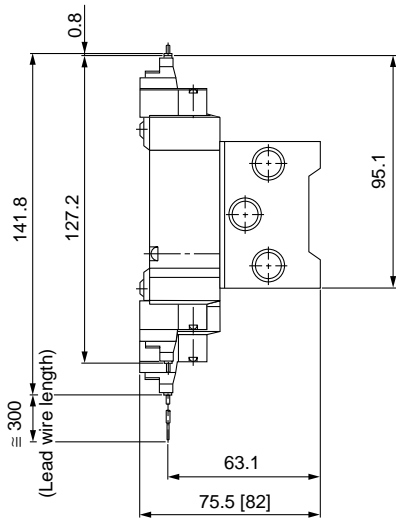


- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

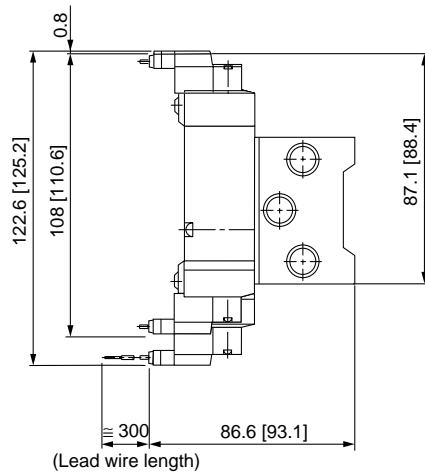
- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

* [] for AC

L plug connector (L)



M plug connector (M)



* [] for AC
* Other dimensions are the same as the grommet style.

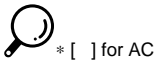
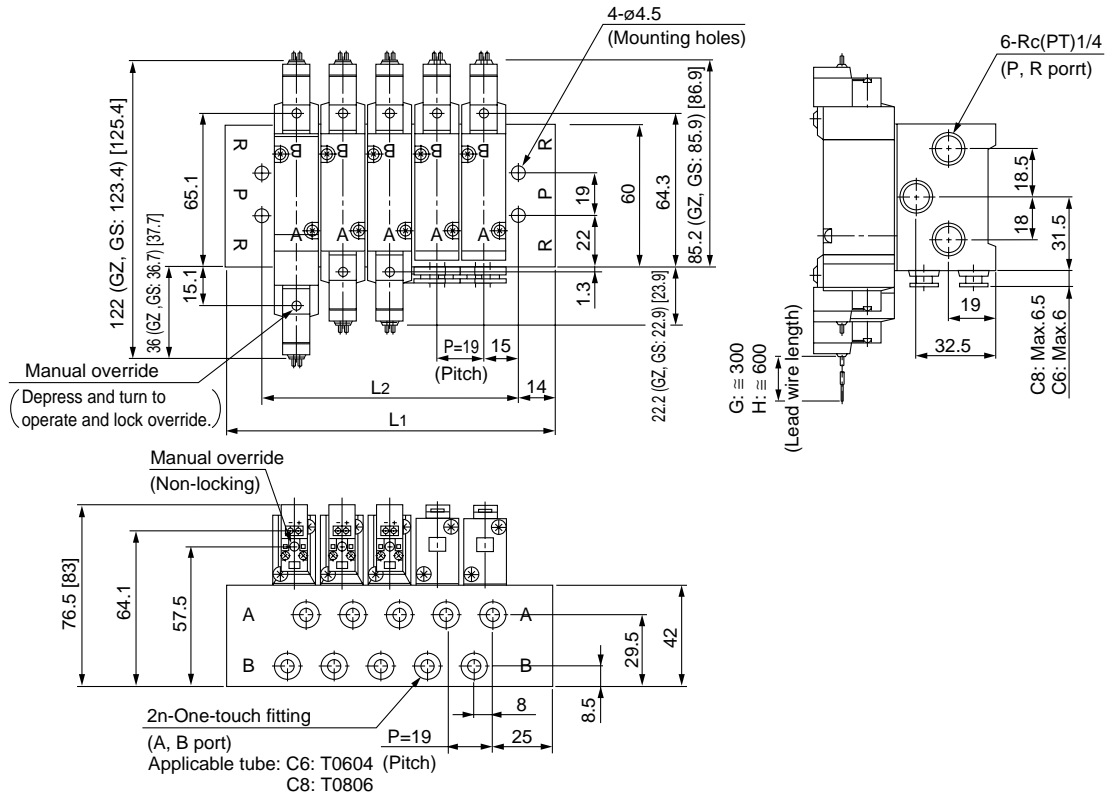
* [] for AC
* Other dimensions are the same as the grommet style.

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

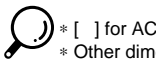
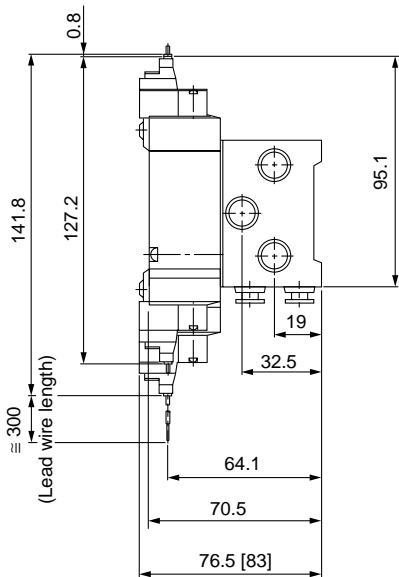
Series SYJ7000

42 Type Manifold: Side Ported/SS5YJ7-42-Station -C6, C8

Grommet(G), (H)

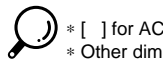
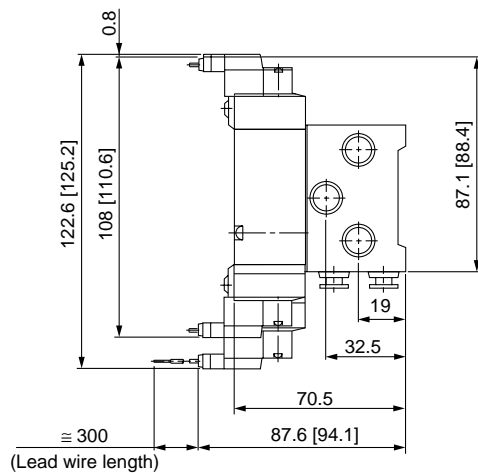


L plug connector (L)



* Other dimensions are the same as the grommet style.

M plug connector (M)

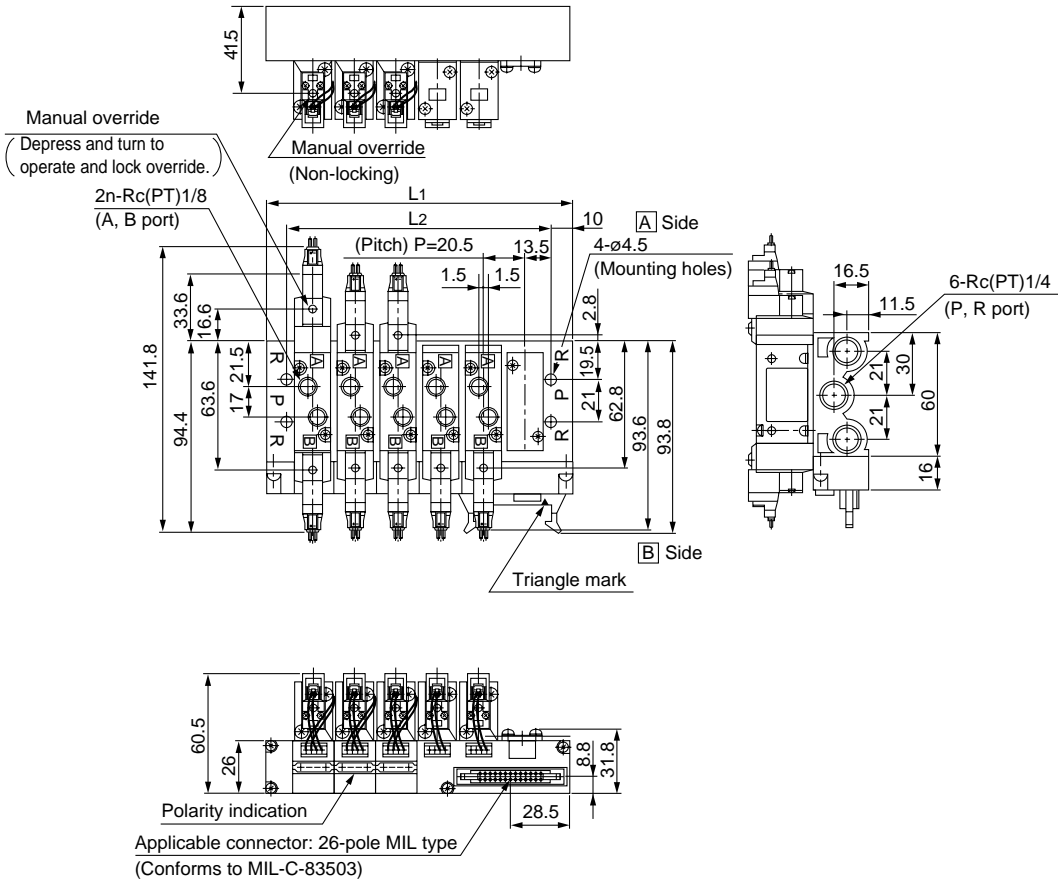


* Other dimensions are the same as the grommet style.

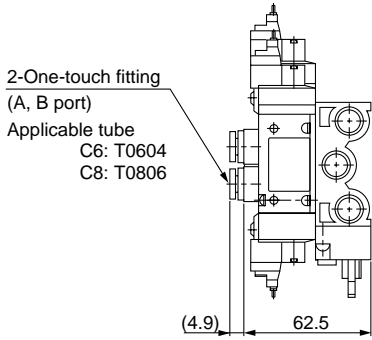
Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	77	96	115	134	153	172	191	210	229	248	267	286	305	324	343	362	381	400	419
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

Flat Cable Manifold

SS5YJ7-21P- Station



C6, C8(Built-in One-touch fittings)



- SY
- SYJ**
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4

- VQ
- VQ4
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

Station	3	4	5	6	7	8	9	10	11	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

Series SYJ3000/5000/7000 Made to Order Specifications



Power Saver

Power consumption is decreased by 1/3 by reducing the wattage required to hold the valve in an energized state.

Specifications

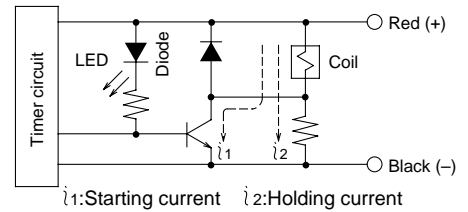
Series	3000 SYJ 5000 T 7000	
Coil rated voltage (V)	12, 24DC	
Power consumption (W)	Inrush	0.55
	Holding	0.22

Specifications other than above are the same as standard models.

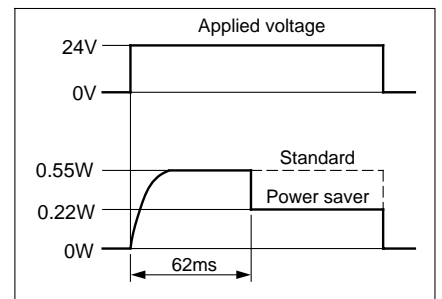
Operating Principles

The circuit shown below reduces current consumption at holding which reduces the overall power consumption. Refer to following power wave form.

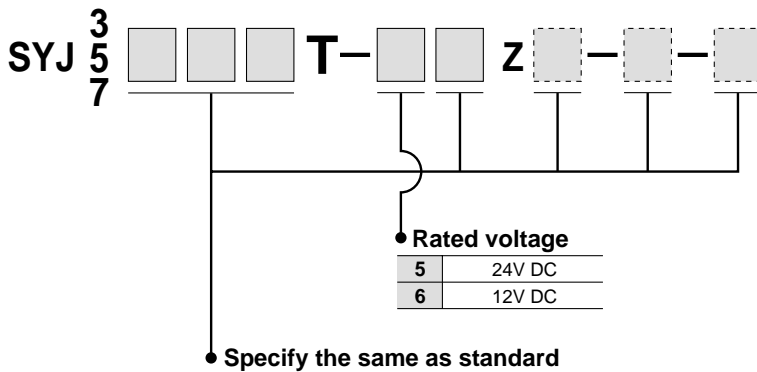
Electrical circuit (For power saver)



<Low Power consumption/Power wave style SYJ 3000 5000 T> 7000

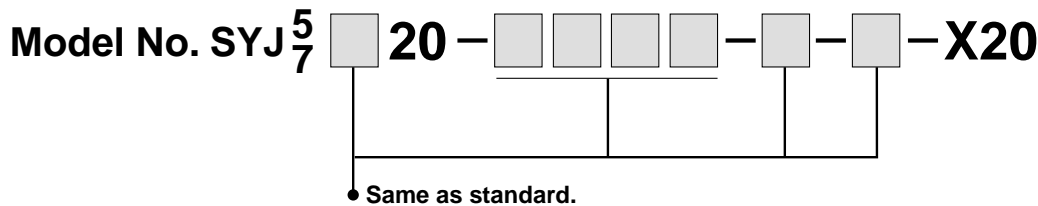


How to Order



External Pilot for Body Ported Style

Applicable solenoid valve series SYJ5□20, SYJ7□22



Operating pressure range MPa

Operating pressure range	-100kPa to 0.7
Pilot pressure range	0.15 to 0.7

External pilot port size

Series	Port size
SYJ5000, SYJ7000	M5 X 0.8

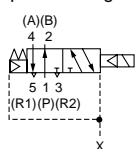
Dimensions

SYJ5000: Overall length 8mm longer

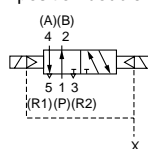
SYJ7000: Overall length 8mm longer

Body ported
JIS symbol

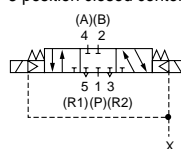
2 position single



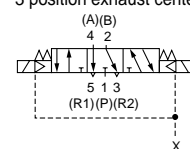
2 position double



3 position closed center



3 position exhaust center



3 position pressure center

