

Type **41P**  
Type **42P**

# 5 Port Solenoid Valve Base Mounted Manifold Bar Stock Type/Flat Ribbon Cable C € Series SY3000/5000/7000

## How to Order Manifold

### Type 41P/Compact style

**SS5Y 5 - 41P - 05 - C8** - -

Manifold series

3	SY3000
5	SY5000

Stations

03	3 stations
:	:
12	12 stations

\* SS5Y3 has 4 to 12 stations.

A, B port size			Thread type		CE-compliant
Thread piping			Nil	Rc	
Symbol	Port size	Applicable series	F	G	Nil
M5	M5 x 0.8	SY3000	N	NPT	Q
01	1/8	SY5000	T	NPTF	CE-compliant

\* Except for M5      \* For DC only.

#### One-touch fitting (Metric size)

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

#### One-touch fitting (Inch size)

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

### Type 42P/Common external pilot capable

**SS5Y 5 - 42P - 05 - C8** - -

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

03	3 stations
:	:
12	12 stations

\* SS5Y3 has 4 to 12 stations.

A, B port size			Thread type		CE-compliant
Thread piping			Nil	Rc	
Symbol	Port size	Applicable series	F	G	Nil
01	1/8	SY3000	N	NPT	Q
02	1/4	SY5000	T	NPTF	CE-compliant
02	1/4	SY7000			* For DC only.

#### One-touch fitting (Metric size)

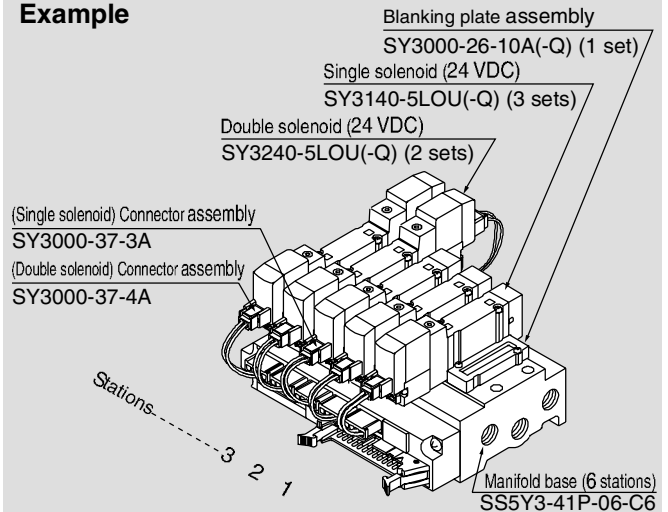
Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C10	One-touch fitting for ø10	SY7000

#### One-touch fitting (Inch size)

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

## How to Order Manifold Assembly (Example)

### Example



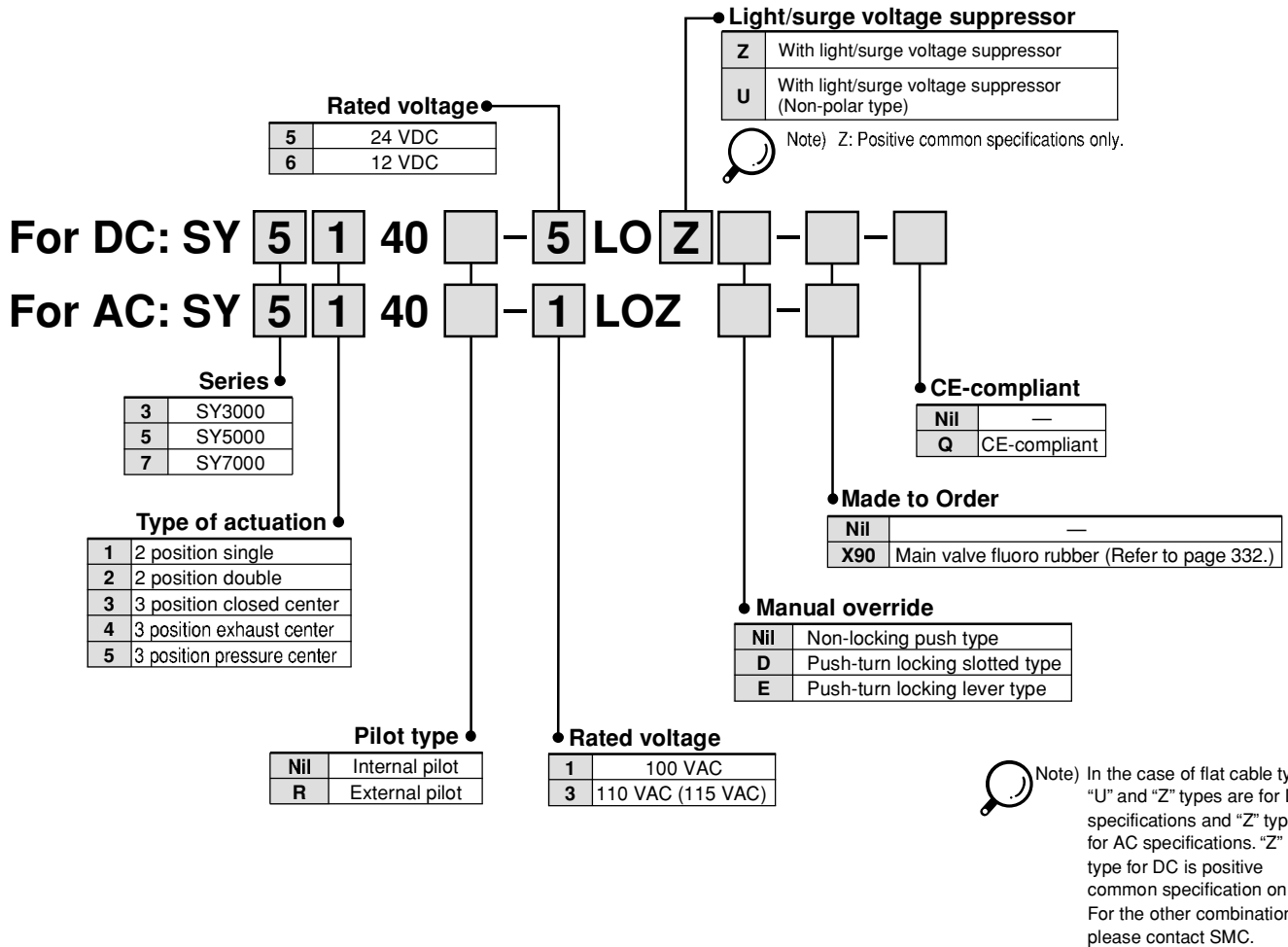
- SS5Y3-41P-06-C6 ... 1 set (Type 41P, 6-station manifold base part no.)**  
 \* **SX3000-26-10A ... 1 set (Blanking plate assembly part no.)**  
 \* **SY3140-5LOU ... 3 sets (Single solenoid part no.)**  
 \* **SY3240-5LOU ... 2 sets (Double solenoid part no.)**  
 \* **SY3000-37-3A ... 3 sets (Connector assembly part no.)**  
 \* **SY3000-37-4A ... 2 sets (Connector assembly part no.)**

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

Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

Note) Please indicate the connector assembly part no. (page 215) that connects the valve and the manifold.

## How to Order Valve



## Connector Assembly

### For 12, 24 VDC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-3A	SY5000-37-3A
Double solenoid, 3 position type	SY3000-37-4A	SY5000-37-4A
Single with spacer assembly	SY5000-37-3A	SY5000-37-5A
Double, 3 position with spacer assembly	SY3000-37-6A	SY5000-37-6A

### For 100 VAC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-32A	SY5000-37-15A
Double solenoid, 3 position type	SY3000-37-33A	SY5000-37-16A
Single with spacer assembly	SY5000-37-15A	SY5000-37-17A
Double, 3 position with spacer assembly	SY3000-37-34A	SY5000-37-18A

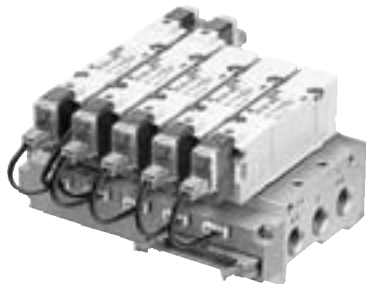
### For 100 VAC (115 VAC)

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-35A	SY5000-37-19A
Double solenoid, 3 position type	SY3000-37-36A	SY5000-37-20A
Single with spacer assembly	SY5000-37-19A	SY5000-37-21A
Double, 3 position with spacer assembly	SY3000-37-37A	SY5000-37-22A

## Flat Ribbon Cable Manifold Specifications

- Multiple valve wiring is simplified through the use of the flat cable connector.
- Clean appearance

In the case of a flat ribbon cable type, each valve is wired on the print board of manifold base to allow the external wiring to be piped all together with 26 pins MIL connector.



Model	SS5Y3-41P(-Q)	SS5Y3-42P(-Q)	SS5Y5-41P(-Q)	SS5Y5-42P(-Q)	SS5Y7-42P(-Q)
Applicable valve	SY3□40		SY5□40		SY7□40
Manifold type	Single base/B mount				
P(SUP)/R(EXH)	Common SUP, Common EXH				
Valve stations	4 to 12 stations <sup>(1)</sup>		3 to 12 stations <sup>(Note 1)</sup>		
A, B port Porting specifications	Location				
	Direction				
Port size	P, EA, EB port		1/8		1/4
	A, B port		1/8	1/4	1/4
Manifold base mass W (g), n: Stations	M5 x 0.8 W = 39n + 83	1/8 W = 48n + 99	1/8 W = 67n + 118	1/4 W = 88n + 151	1/4 W = 109n + 174
Applicable flat ribbon cable connector	Flat ribbon cable connector, Socket: 26 pins MIL type with strain relief, Conforming to MIL-C-83503				
Internal wiring	In common between +COM and -COM (Z type: +COM only).				
Rated voltage <sup>(Note 4)</sup>	12, 24 VDC, 100, 110 VAC				

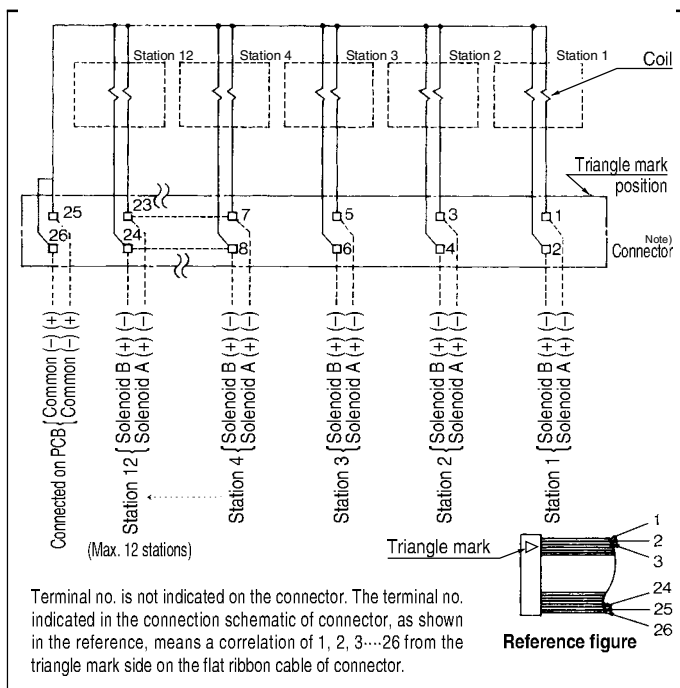
- Note 1) For more than 10 stations (more than 5 stations in case of SS5Y7), supply pressure to P port on both sides and exhaust from EA/EB port on both sides.
- Note 2) The withstand voltage specification for the wiring unit section is JIS C 0704, Grade 1 or its equivalent.
- Note 3) Refer to "Manifold Option" on page 238.
- Note 4) CE-compliant: For DC only.

## Flow Characteristics

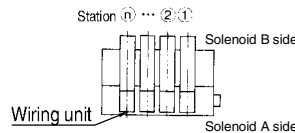
Model	Port size		Flow characteristics					
	1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)		
			C (dm <sup>3</sup> /(s·bar))	b	Cv	C (dm <sup>3</sup> /(s·bar))	b	Cv
SS5Y3-41P	1/8	C6	0.75	0.19	0.18	0.81	0.23	0.20
SS5Y3-42P	1/8	C6	0.75	0.20	0.18	0.82	0.20	0.20
SS5Y5-41P	1/4	C8	1.8	0.23	0.44	1.9	0.16	0.45
SS5Y5-42P	1/4	C8	1.9	0.20	0.46	1.9	0.12	0.43
SS5Y7-42P	1/4	C10	3.0	0.25	0.75	3.0	0.12	0.66

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

## Internal Wiring of Manifold (Non-polar type)



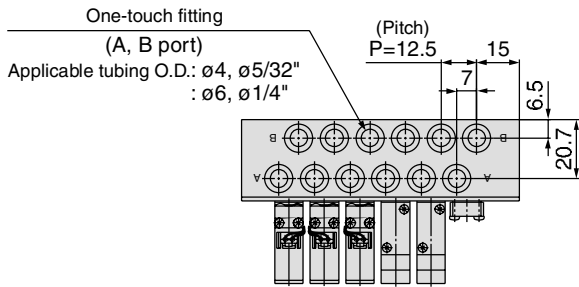
- For more than 10 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid A side.
- The maximum number of stations that can be accommodated is 12. For more stations, please contact SMC.



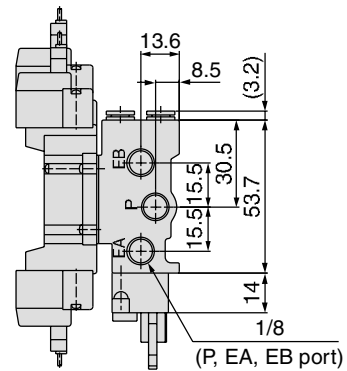
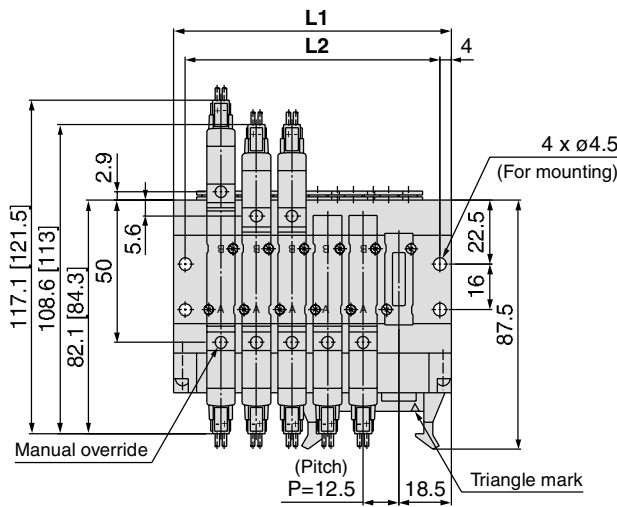
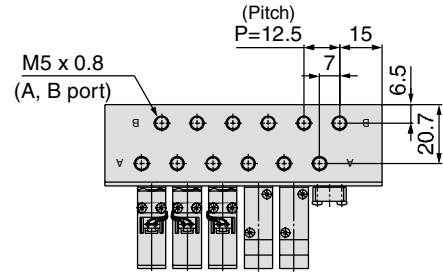
### ⚠ Caution

- For non-polar (U) valves, the electrical DC connections can be used with either positive and negative COM. For type (Z), only use with positive COM as the valve does not operate correctly when used with negative COM.

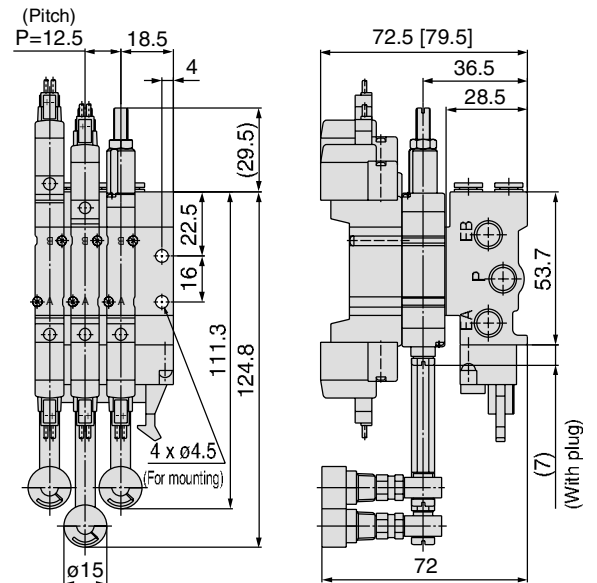
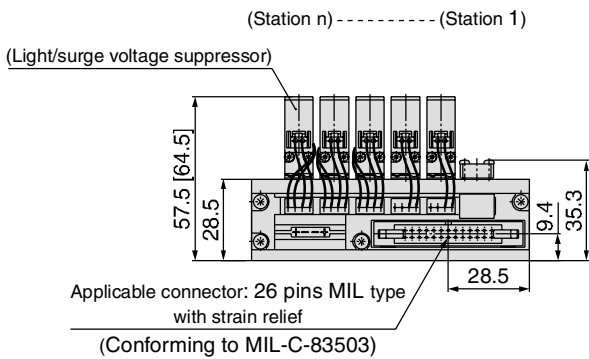
**SY3000: SS5Y3-41P- Stations -M5,** C4, N3  
C6, N7



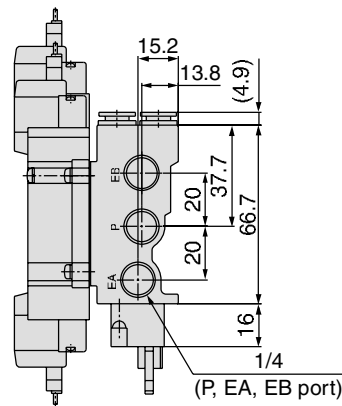
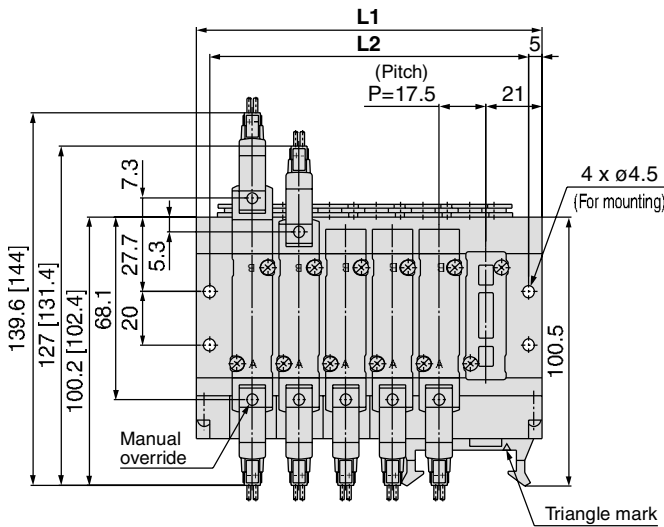
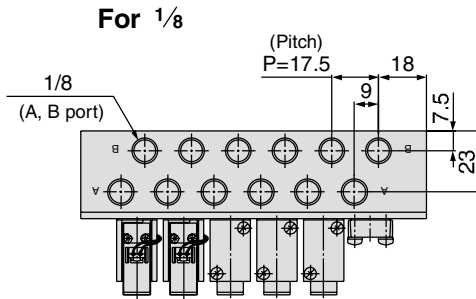
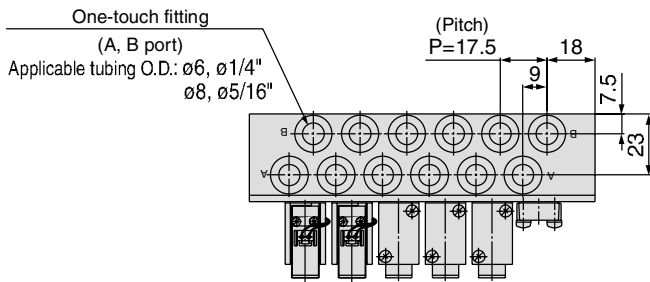
**For M5 x 0.8**



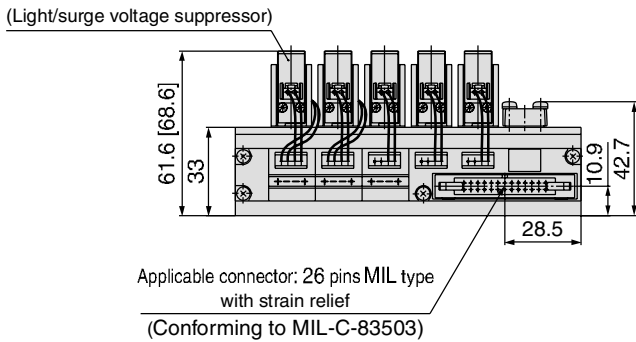
**With interface regulator (with gauge)**



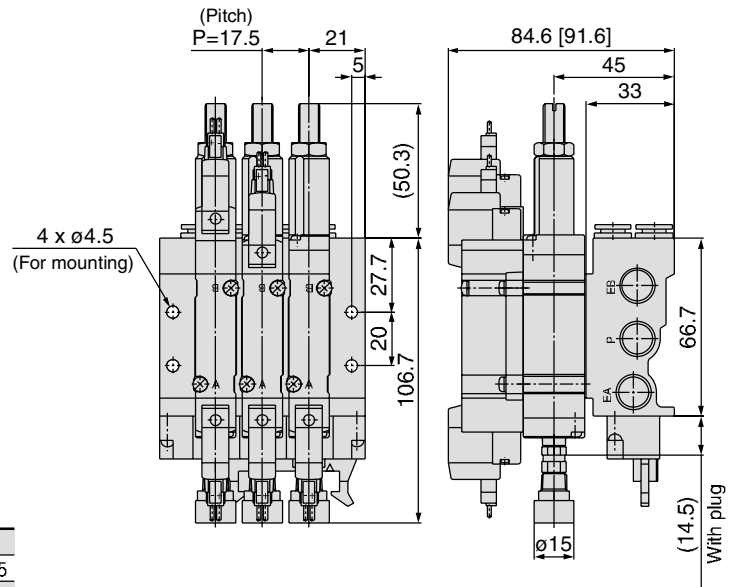
Stations n	4	5	6	7	8	9	10	11	12
<b>L1</b>	72.5	85	97.5	110	122.5	135	147.5	160	172.5
<b>L2</b>	64.5	77	89.5	102	114.5	127	139.5	152	164.5



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

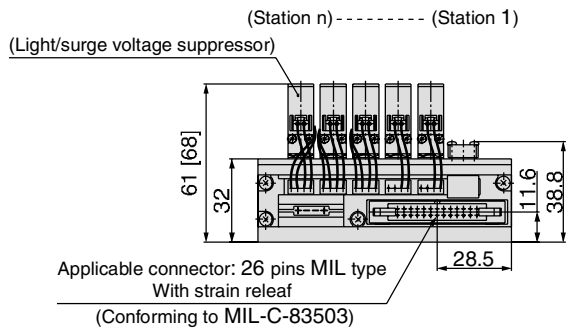
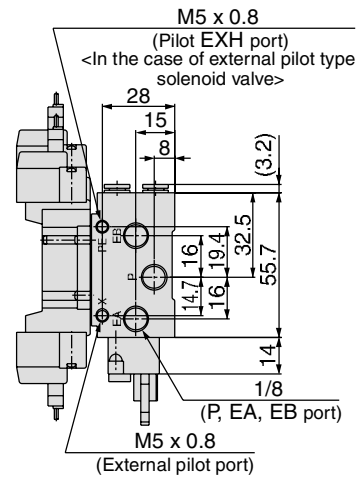
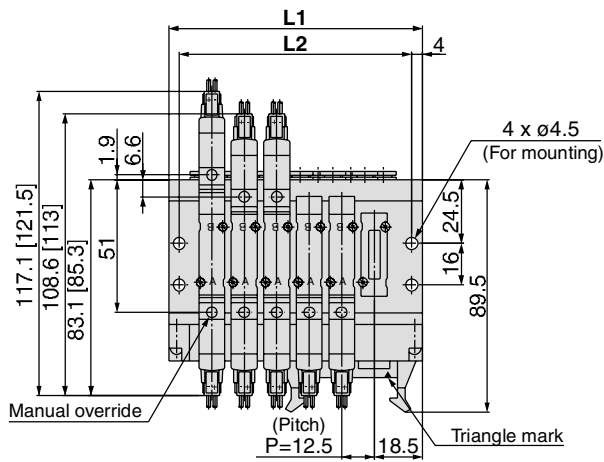
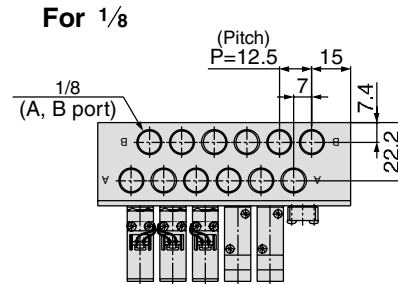
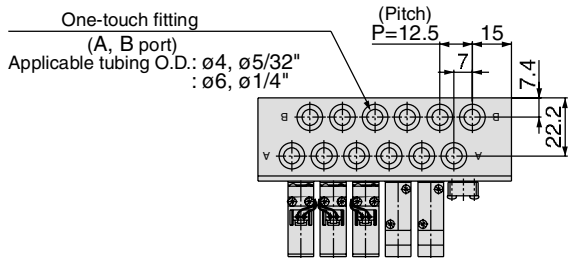


**With interface regulator (with gauge)**

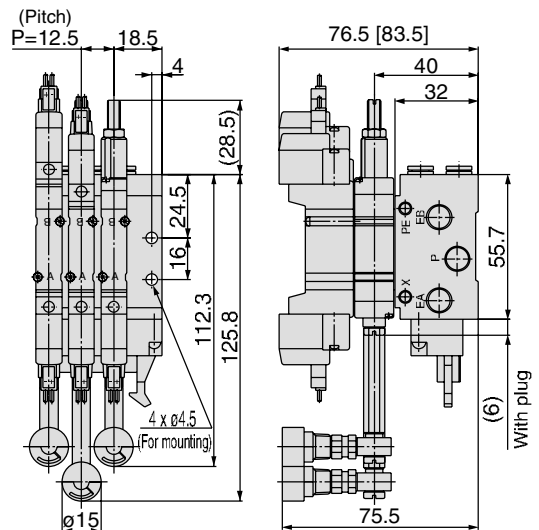


Stations n	3	4	5	6	7	8	9	10	11	12
L1	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L2	67	84.5	102	119.5	137	154.5	172	189.5	207	224.5

**SY3000: SS5Y3-42P- Stations -01**, C4, N3  
C6, N7

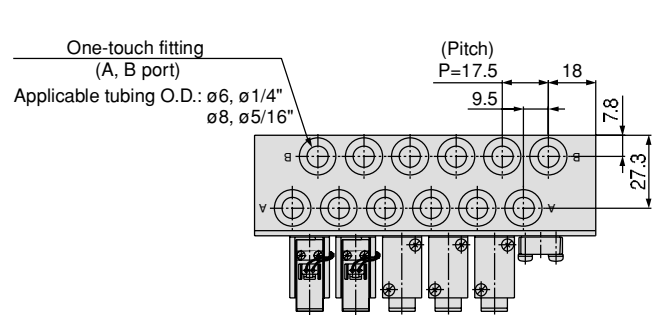


**With interface regulator (with gauge)**

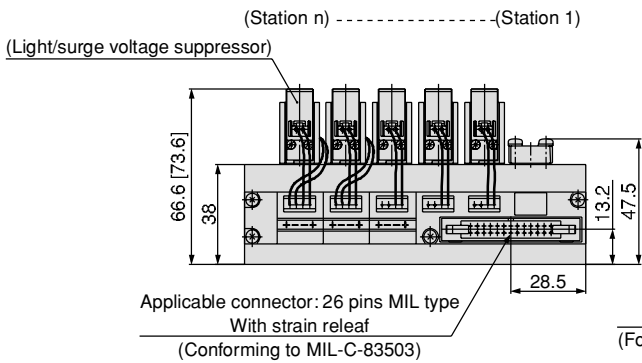
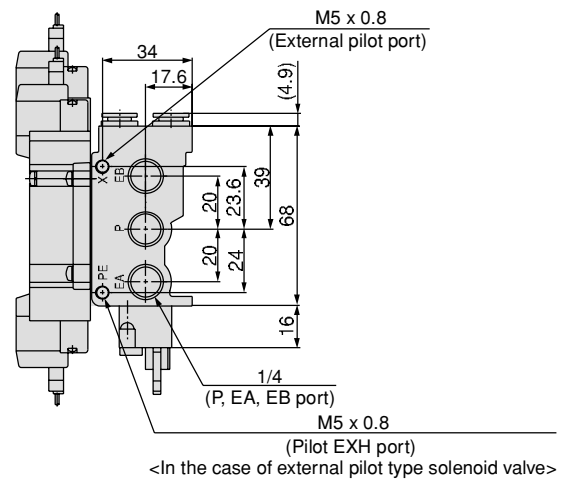
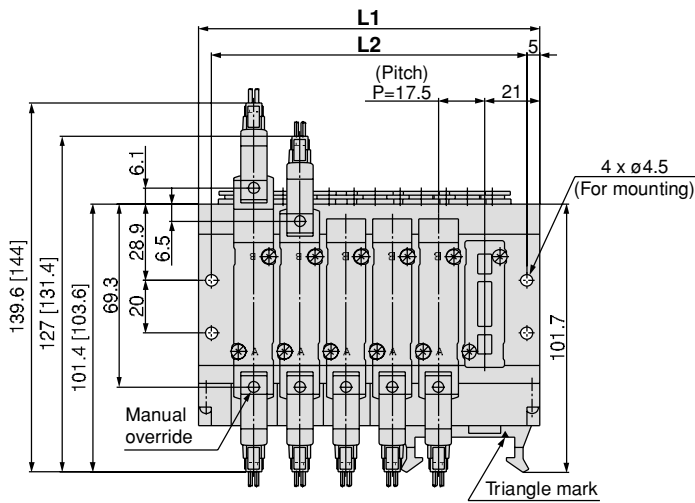
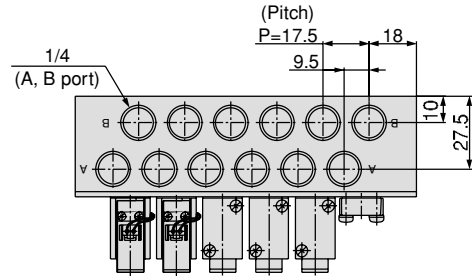


Stations n	4	5	6	7	8	9	10	11	12
<b>L1</b>	72.5	85	97.5	110	122.5	135	147.5	160	172.5
<b>L2</b>	64.5	77	89.5	102	114.5	127	139.5	152	164.5

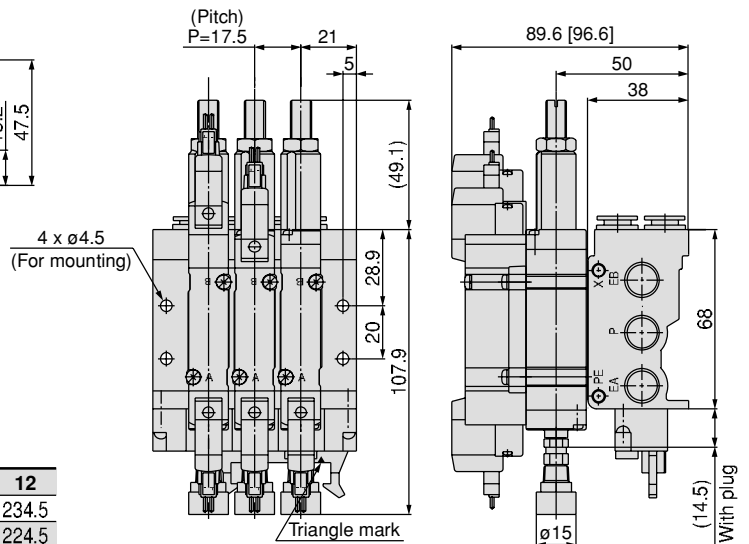
**Grommet (G)**



For  $1/4$



**With interface regulator (with gauge)**



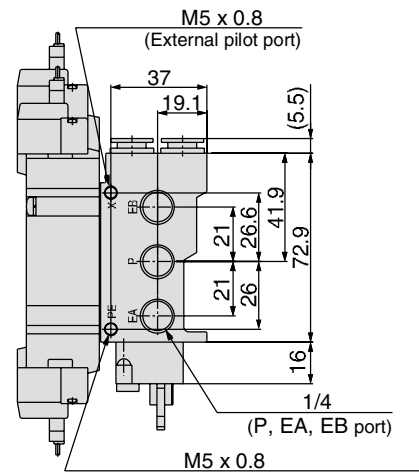
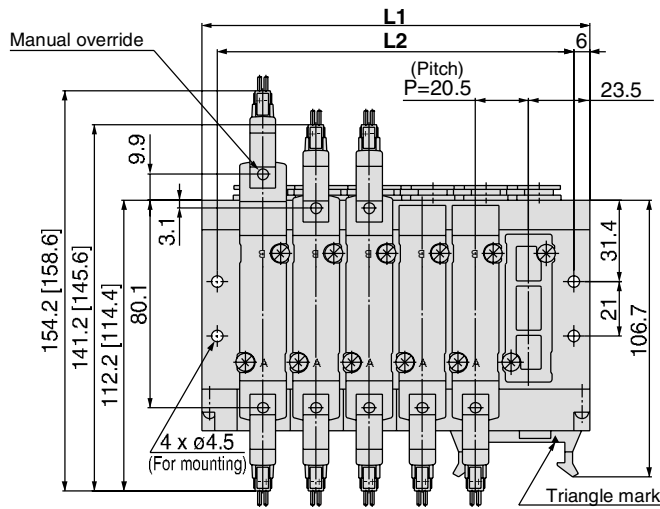
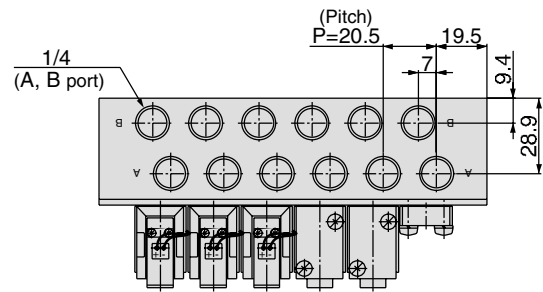
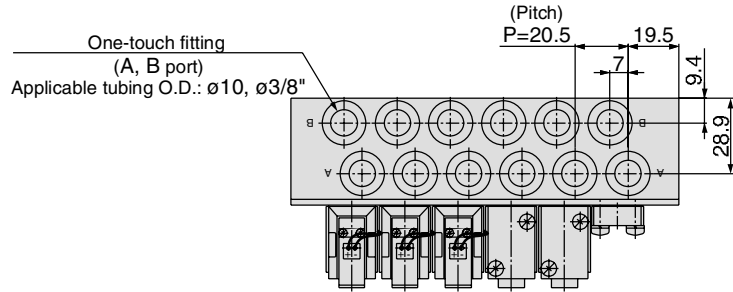
Stations n	3	4	5	6	7	8	9	10	11	12
L1	77	94.5	112	129.5	147	164.5	182	199.5	217	234.5
L2	67	84.5	102	119.5	137	154.5	172	189.5	207	224.5

**SY7000: SS5Y7-42P- Stations -02, C10, N11**



**Grommet (G)**

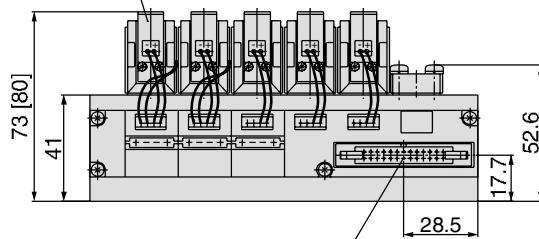
For 1/4



<In the case of external pilot type solenoid valve>

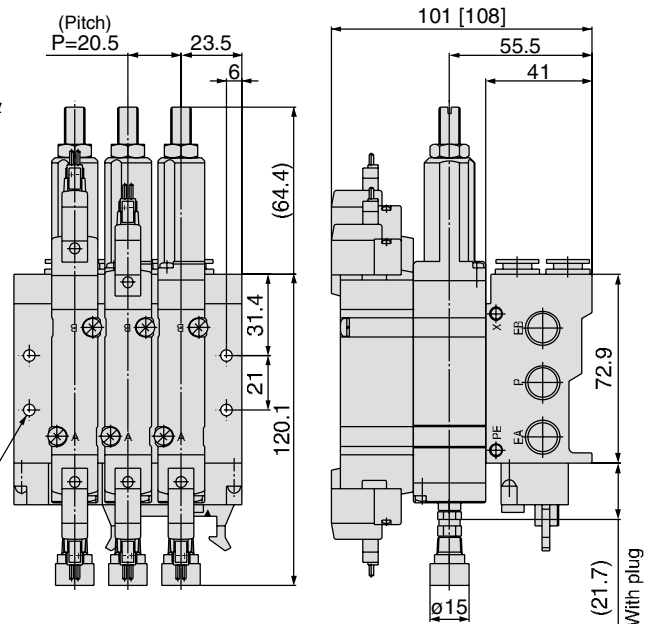
(Station n) ----- (Station 1)

(Light/surge voltage suppressor)



Applicable connector: 26 pins MIL type  
With strain relief  
(Conforming to MIL-C-83503)

**With interface regulator (with gauge)**



Stations n	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	76	96.5	117	137.5	158	178.5	199	219.5	240	260.5

4 x ø4.5 (For mounting)