

5 Port Solenoid Valve

Series SZ3000

Non Plug-in Type

How to Order

● Non plug-in manifold

SS5Z3-60-05 U

Stations

02	2 stations
⋮	⋮
20	20 stations

SUP/EXH block mounting position

D	D side (2 to 10 stations)
U	U side (2 to 10 stations)
B	Both sides (2 to 20 stations)
M*	Special specifications

* For special specifications, indicate separately by the manifold specification sheet.

Option
When a longer DIN rail is desired than the specified stations, specify the station number to be required.

SUP/EXH block fitting specifications

Nil	Straight
L	Elbow type (Upward)
B	Elbow type (Downward)

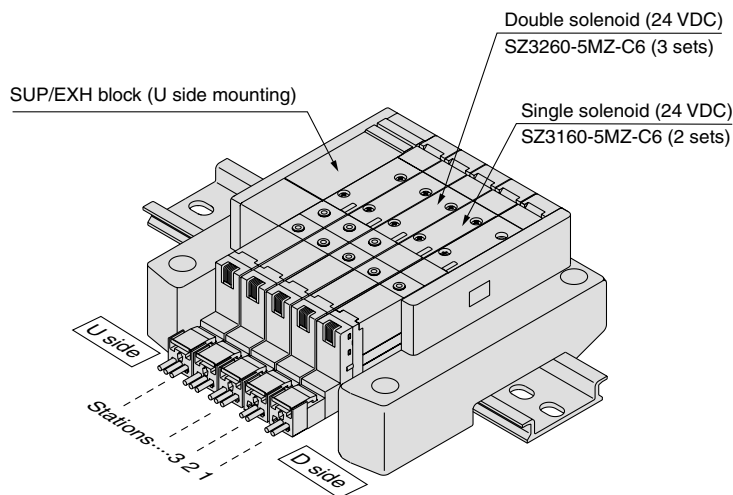
Pilot type

Nil	Internal pilot
R	External pilot

- SV
- SZ
- SY
- SYJ
- SX

How to Order Valve Manifold Assembly

Ordering example (SZ3000, Non plug-in)



SS5Z3-60-05U..... 1 set (Manifold part number)
 *SZ3160-5MZ-C6 2 sets (Single solenoid part no.)
 *SZ3260-5MZ-C6 3 sets (Double solenoid part no.)

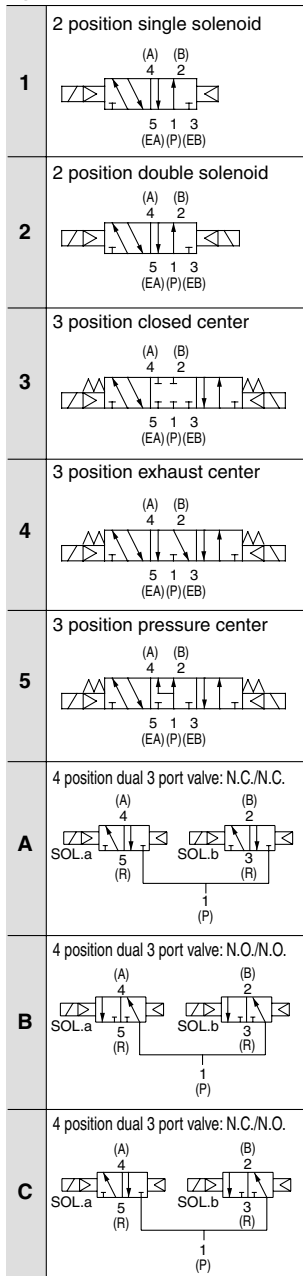
↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

Stations are counted from D side as the 1st one. Indicate the valves to be attached below the manifold part number, in order starting from station 1 as shown in the drawing. When entry of part numbers becomes complicated, indicate on the manifold specification sheet.

How to Order

SZ3 **1** **60** **5** **M** **C6**

Type of actuation



Pilot type

Nil	Internal pilot
R	External pilot

- The 4 position dual 3 port valve is not available with external pilot specifications.

Back pressure check valve

Nil	None
K	Built-in

- The built-in back pressure check valve type has an effective area approximately 20% smaller.
- The 3 position closed center and 3 position pressure center are not available with back pressure check valve.

Rated voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

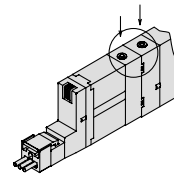
Common specifications

Nil	Positive common
N	Negative common

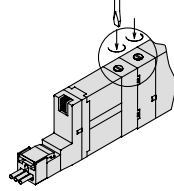
- The symbol is "Nil" when not equipped with light/surge voltage suppressor.

Manual override

Nil: Non-locking push type



D: Push-turn locking slotted type

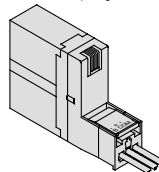


Light/Surge voltage suppressor

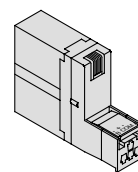
Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

Electrical entry

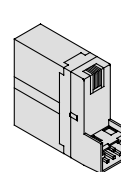
M: With lead wire (Length 300 mm)



MN: Without lead wire

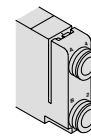


MO: Without connector

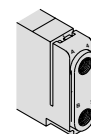


A, B port size

C4: One-touch fitting for $\phi 4$
C6: One-touch fitting for $\phi 6$



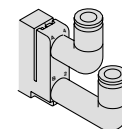
M5: M5 x 0.5



Elbow fitting assembly (Upward)

L4: $\phi 4$ elbow fitting assembly

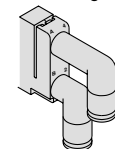
L6: $\phi 6$ elbow fitting assembly



Elbow fitting assembly (Downward)

B4: $\phi 4$ elbow fitting assembly

B6: $\phi 6$ elbow fitting assembly



Cassette Type Manifold Non Plug-in Type Series SZ3000

Manifold Specifications



Made to Order Specifications
(For details, refer to page 1-3-38.)

Model		Type SS5Z3-60	
Manifold		Non plug-in type	
1 (P: SUP), 3/5 (R: EXH) system		Common SUP, EXH	
Valve stations		2 to 20 stations	
4(A), 2(B) port Porting specifications	Location	Valve	
	Direction	Lateral, Upward, Downward	
Port size	1(P), 3/5(R) port	C8	
	4(A), 2(B) port	C4, C6, M5	
Weight W (g) ⁽²⁾ (n: Number of SUP/EXH blocks) (m: Weight of DIN rail)		W = 34n + m + 89	



Note 1) In cases such as those where many valves are operated simultaneously, use type B (double side SUP/EXH), applying pressure to the 1(P) ports on both sides and exhausting from the 3(R) ports on both sides.

Note 2) The weight W is the value for the D-sub connector manifold with power supply terminals only. To obtain the weight with solenoid valves attached, add the solenoid valve weights given on page 1-3-10 for the appropriate number of stations. For DIN rail weight, refer to page 1-3-12.

Flow Characteristics

Port size		Flow characteristics					
1, 5, 3 (P, EA, EB)	4, 2 (A, B)	1 → 2/4 (P → A/B)			4/2 → 3 (A/B → R)		
		C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv
C8	C4	0.58 [0.49]	0.26 [0.36]	0.14 [0.13]	0.76 [0.65]	0.15 [0.20]	0.18 [0.15]
	C6	0.73 [0.64]	0.24 [0.27]	0.18 [0.16]	0.77 [0.74]	0.19 [0.16]	0.19 [0.19]
	M5	0.60 [0.57]	0.38 [0.35]	0.17 [0.15]	0.67 [0.58]	0.16 [0.39]	0.16 [0.16]



Note) • The value is for manifold base with 5 stations and individually operated 2 position type.
• Values inside [] are for 4 position dual 3 port valves.

SV

SZ

SY

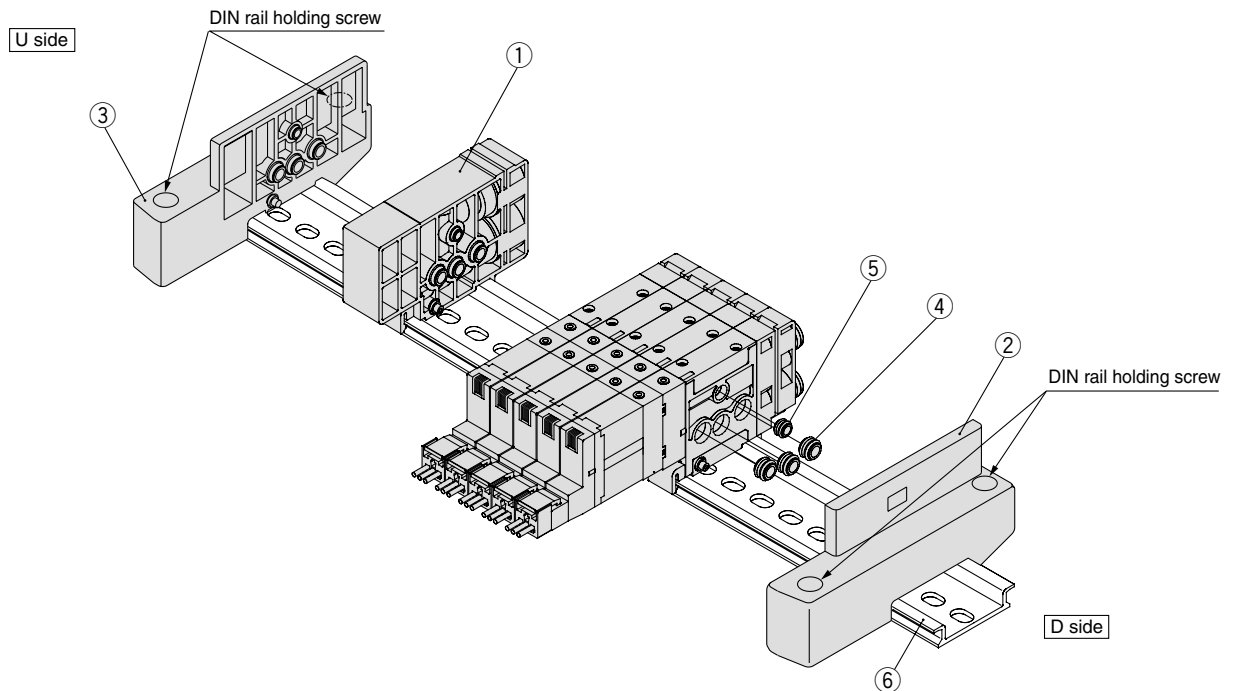
SYJ

SX

Series SZ3000

Manifold Exploded View

Type 60 (Non plug-in) manifold



Component Parts

No.	Description	Part no.	Note
①	SUP/EXH block assembly	SZ3000-50-2A-□□	C6: With One-touch fitting for ø6 C8: With One-touch fitting for ø8 L6: With One-touch fitting for ø6 (Elbow fetching upward) L8: With One-touch fitting for ø8 (Elbow fetching upward) B6: With One-touch fitting for ø6 (Elbow fetching downward) B8: With One-touch fitting for ø8 (Elbow fetching downward)
②	End block assembly	SZ3000-53-8A	D side
③	End block assembly	SZ3000-53-7A	U side
④	SUP block bush assembly	SZ3000-114-3A	
⑤	SUP block bush assembly	SZ3000-114-1A	
⑥	DIN rail	VZ1000-11-1-□	Refer to page 1-3-12.

Manifold Station Expansion

Station expansion is possible at any position.

- (1) Loosen one DIN rail holding screw on either U side or D side.
- (2) Separate the blocks at the location where station expansion is desired.
- (3) Mount the valve on the DIN rail.
- (4) While pressing the manifold together from both sides, retighten the DIN rail holding screw of the end block assembly which was loosened.

⚠ Caution (Tightening torque: 1.4 N-m)

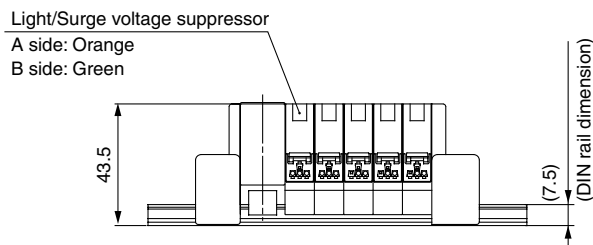
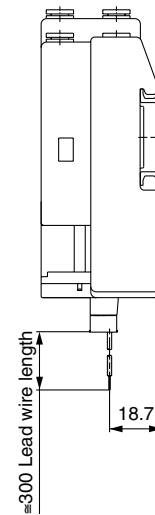
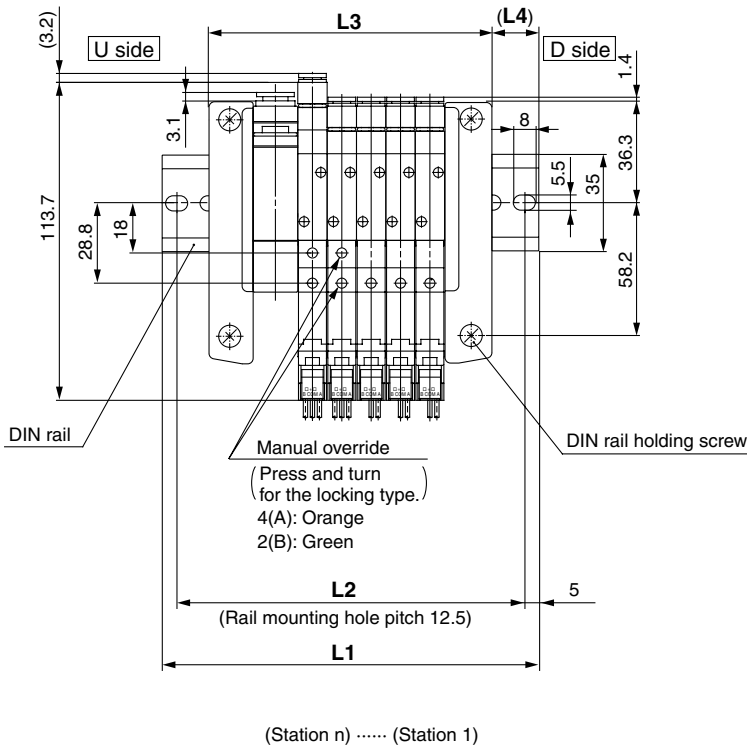
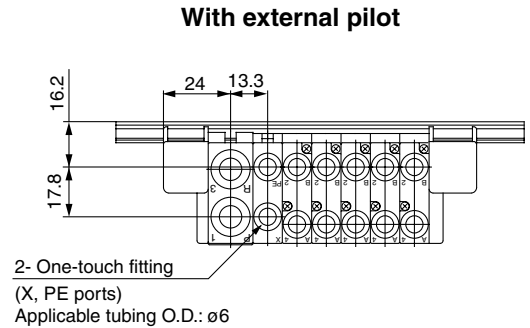
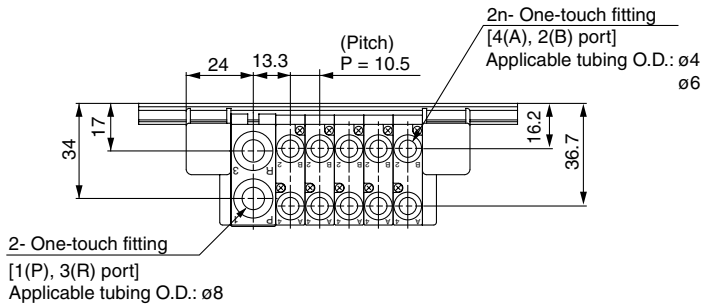
⚠ Caution

1. Be sure to shut off the power and air supplies before disassembly. Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work.
2. When disassembly and assembly are performed, air leakage may result if connections between blocks and tightening of the end block's holding screw, is inadequate. Before supplying air, confirm that there are no gaps, etc. between blocks, and that manifold blocks are securely fastened to the DIN rail. Then supply air and confirm that there is no air leakage before operating.

Cassette Type Manifold Non Plug-in Type Series SZ3000

Dimensions: SZ3000 Non Plug-in

SS5Z3-60- Stations U



Note) For manifold dimensions with elbow fitting, refer to page 1-3-24.

Internal Pilot Manifold L Dimension

n: Stations

L \ n	2	3	4	5	6	7	8	9	10
L1	98	110.5	123	135.5	135.5	148	160.5	173	185.5
L2	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	70	80.5	91	101.5	112	122.5	133	143.5	154
L4	14	15	16	17	12	13	14	15	16

External Pilot Manifold L Dimension

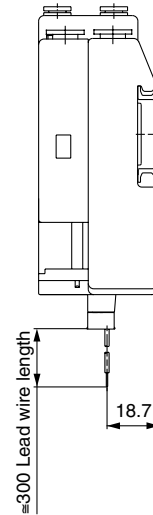
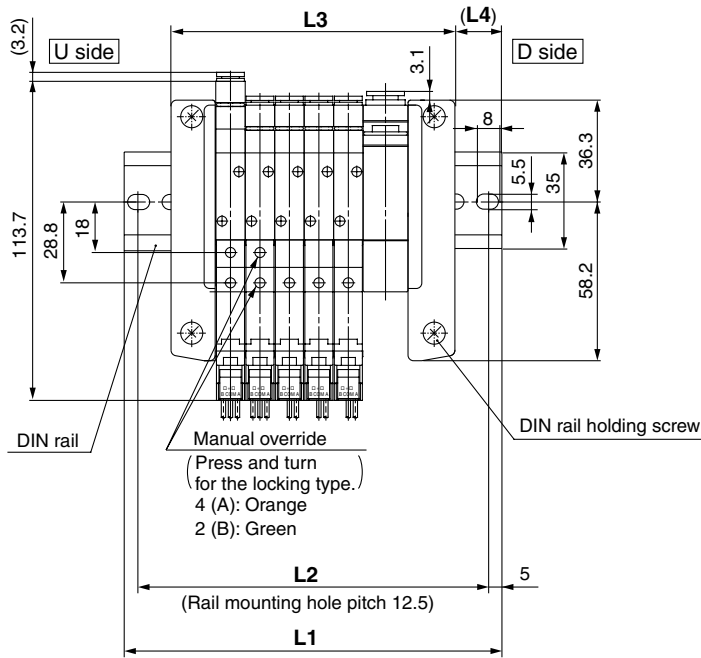
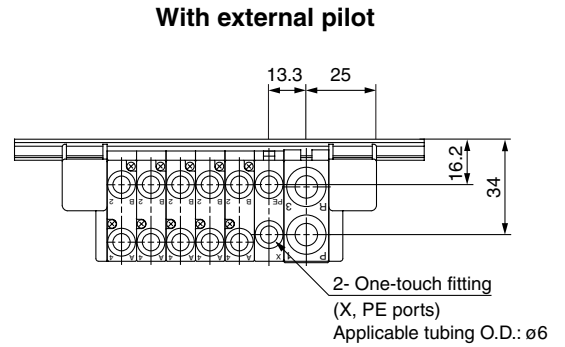
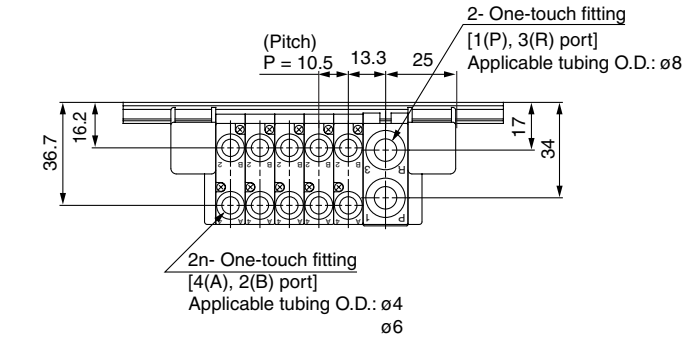
n: Stations

L \ n	2	3	4	5	6	7	8	9	10
L1	110.5	123	135.5	135.5	148	160.5	173	185.5	198
L2	100	112.5	125	125	137.5	150	162.5	175	187.5
L3	80.5	91	101.5	112	122.5	133	143.5	154	164.5
L4	15	16	17	12	13	14	15	16	17

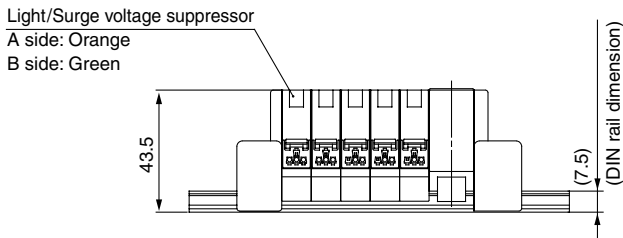
Series SZ3000

Dimensions: SZ3000 Non Plug-in

SS5Z3-60- Stations D



(Station n) (Station 1)



Note) For manifold dimensions with elbow fitting, refer to page 1-3-24.

Internal Pilot Manifold L Dimension

n: Stations

L \ n	2	3	4	5	6	7	8	9	10
L1	98	110.5	123	135.5	135.5	148	160.5	173	185.5
L2	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	70	80.5	91	101.5	112	122.5	133	143.5	154
L4	14	15	16	17	12	13	14	15	16

External Pilot Manifold L Dimension

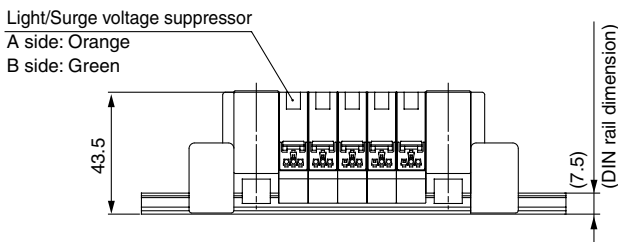
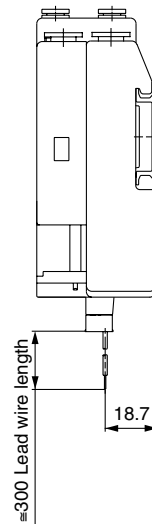
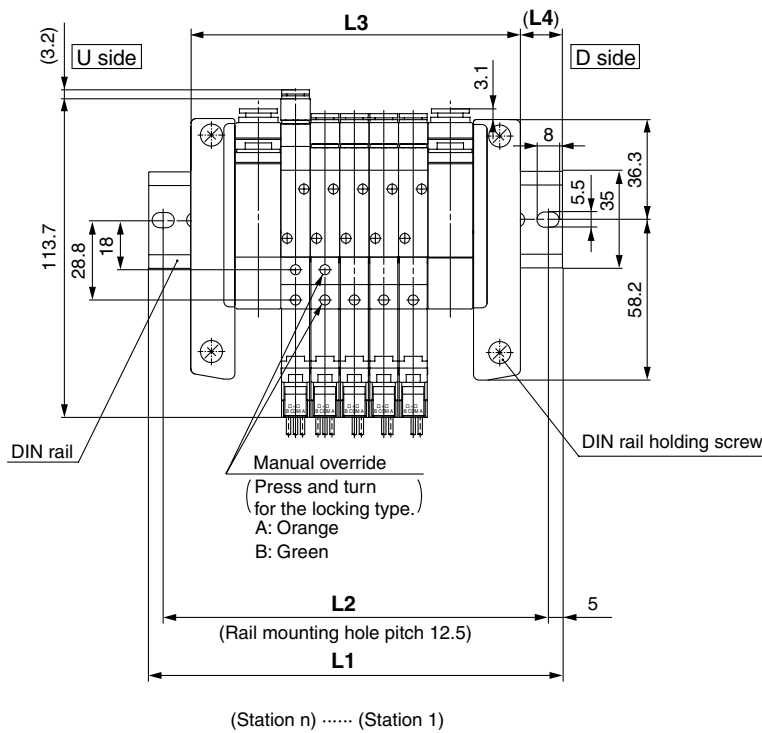
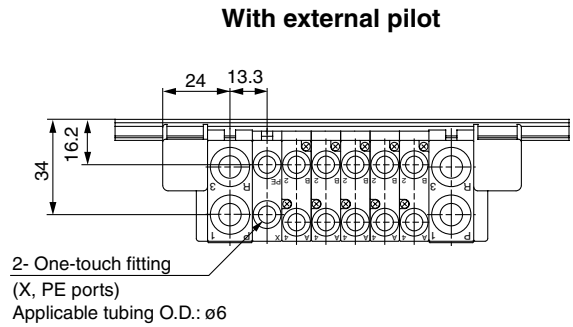
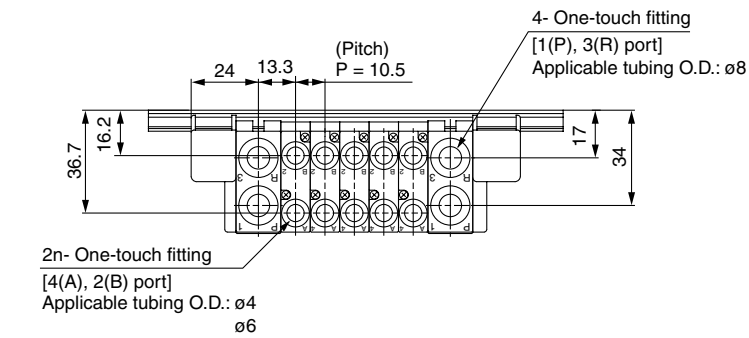
n: Stations

L \ n	2	3	4	5	6	7	8	9	10
L1	110.5	123	135.5	135.5	148	160.5	173	185.5	198
L2	100	112.5	125	125	137.5	150	162.5	175	187.5
L3	80.5	91	101.5	112	122.5	133	143.5	154	164.5
L4	15	16	17	12	13	14	15	16	17

Cassette Type Manifold Non Plug-in Type Series SZ3000

Dimensions: SZ3000 Non Plug-in

SS5Z3-60- Stations B



Note) For manifold dimensions with elbow fitting, refer to page 1-3-24.

Internal Pilot Manifold L Dimension

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	110.5	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	310.5
L2	100	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	300
L3	86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5	233	243.5	254	264.5	275
L4	12	13	14	15	16	17	12	13	14	15	16	17	12	13	14	15	16	17	18

External Pilot Manifold L Dimension

n: Stations

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	310.5	310.5
L2	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	300	300
L3	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5	233	243.5	254	264.5	275	285.5
L4	13.5	14.5	15.5	16.5	17.5	12	13	14	15	16	17	12	13	14	15	16	17	18	12.5