

Series SX3000/5000/7000 Body Ported Manifold Bar Stock Type Individual Wiring

Type **20**

How to Order Manifold

SS5X **5** - 20 - **05**

| Series | |
|--------|--------|
| 3 | SX3000 |
| 5 | SX5000 |
| 7 | SX7000 |

| Stations | |
|----------|-------------|
| 02 | 2 stations |
| ⋮ | ⋮ |
| 20 | 20 stations |

| P, R ports Thread type | |
|---------------------------|------|
| Nil | Rc |
| 00F | G |
| 00N | NPT |
| 00T | NPTF |



- Connector assembly for L and M types..... Refer to page 1-6-8.
- Common connector assembly for manifold..... Refer to page 1-6-9.

How to Order Valve Manifold Assembly

Ordering example

Cylinder port size

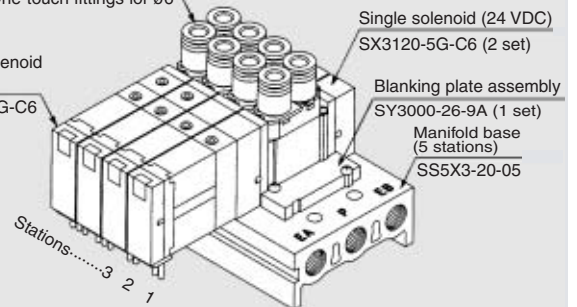
C6: With One-touch fittings for ø6

Double solenoid
(24 VDC)
SX3220-5G-C6
(2 set)

Single solenoid (24 VDC)
SX3120-5G-C6 (2 set)

Blanking plate assembly
SY3000-26-9A (1 set)

Manifold base
(5 stations)
SS5X3-20-05



SS5X3-20-05..... 1 set (Type 20, 5-station manifold base part no.)
 *SY3000-26-9A..... 1 set (Blanking plate assembly part no.)
 *SX3120-5G-C6..... 2 sets (Single solenoid part no.)
 *SX3220-5G-C6..... 2 sets (Double solenoid part no.)

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

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

How to Order Valves

SX **5** **1** 20 - **5** **N** **L** - **01**

| Series | |
|--------|--------|
| 3 | SX3000 |
| 5 | SX5000 |
| 7 | SX7000 |

Type of actuation

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

Rated voltage

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

Common specifications

| | |
|-----|-----------------|
| Nil | Positive common |
| N | Negative common |

Electrical entry

| | Grommet | L plug connector | M plug connector |
|----|-------------------------|-----------------------------------|-----------------------------------|
| G: | Lead wire length 300 mm | L: With lead wire (Length 300 mm) | M: With lead wire (Length 300 mm) |
| H: | Lead wire length 600 mm | LN: Without lead wire | MN: Without lead wire |
| | | LO: Without connector | MO: Without connector |



Note) Put nothing for single grommet style and single without indicator light and surge voltage suppresser.



* The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.

A, B port size

| Symbol | Port size | Applicable series |
|--------|---------------------------|-------------------|
| M5 | M5 x 0.8 | SX3000 |
| C4 | One-touch fitting for ø4 | |
| C6 | One-touch fitting for ø6 | |
| 01 | 1/8 | SX5000 |
| C4 | One-touch fitting for ø4 | |
| C6 | One-touch fitting for ø6 | |
| C8 | One-touch fitting for ø8 | SX7000 |
| 02 | 1/4 | |
| C8 | One-touch fitting for ø8 | |
| C10 | One-touch fitting for ø10 | |

Thread type

| | |
|-----|------|
| Nil | Rc |
| F | G |
| N | NPT |
| T | NPTF |

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 |

Manifold Specifications

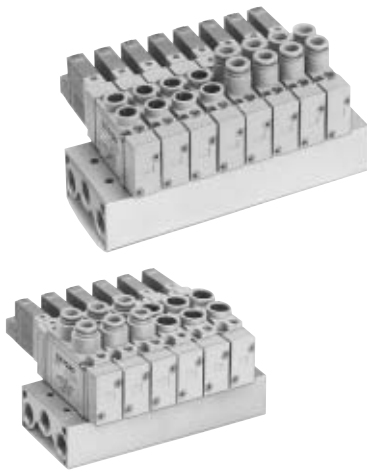
| Model | SS5X3-20 | SS5X5-20 | SS5X7-20 |
|---|-----------------------|--|---|
| Applicable valve | SX3□20 | SX5□20 | SX7□20 |
| Manifold type | Single base/B mount | | |
| P (SUP)/R (EXH) | Common SUP/Common EXH | | |
| Valve stations <small>Note</small> | 2 to 20 stations | | |
| A, B port location | Valve | | |
| Port size | P, EA, EB port | Rc 1/8 | Rc 1/4 |
| | A, B port | M5 x 0.8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) | Rc 1/8 C4 (One-touch fitting ø4) C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8) |
| Manifold base weight W (g) n: Stations | W = 19n + 45 | W = 43n + 77 | W = 51n + 81 |

Note) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA and EB port on both sides.

Flow Characteristics

| Model | Port size | | Flow characteristics | | | | | |
|----------|------------------------|----------------|-------------------------------------|------|------|-------------------------------------|------|------|
| | | | 1 → 4/2 (P → A/B) | | | 4/2 → 5/3 (A/B → EA/EB) | | |
| | 1, 5, 3 (P, EA, EB) | 4, 2 (A, B) | C [dm ³ / (s-bar)] | b | Cv | C [dm ³ / (s-bar)] | b | Cv |
| SS5X3-20 | Rc 1/8 | C6 | 0.72 | 0.29 | 0.18 | 0.80 | 0.36 | 0.21 |
| SS5X5-20 | Rc 1/4 | C8 | 1.9 | 0.28 | 0.48 | 2.2 | 0.20 | 0.53 |
| SS5X7-20 | Rc 1/4 | C10 | 3.6 | 0.31 | 0.93 | 3.6 | 0.27 | 0.88 |

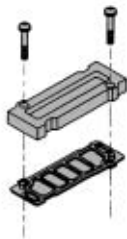
Note) The value is for manifold base with 5 stations and individually operated 2 position type.



SV
SZ
SY
SYJ
SX

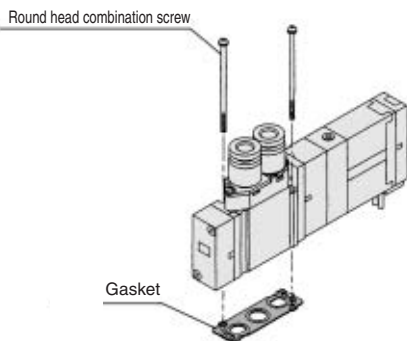
Manifold Option

■ Blanking plate assembly



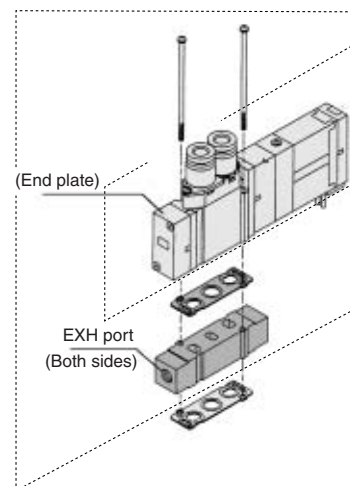
| Series | Assembly part no. |
|--------|-------------------|
| SX3000 | SY3000-26-9A |
| SX5000 | SY5000-26-20A |
| SX7000 | SY7000-26-22A |

■ Bolt and gasket part no.



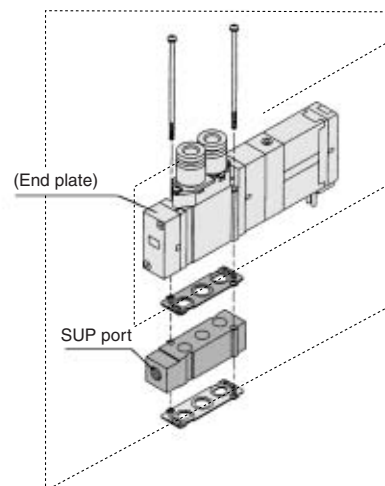
| Series | Round head combination screw | Gasket |
|--------|------------------------------|--------------|
| SX3000 | SX3000-22-2 (M2 x 24) | SY3000-11-24 |
| SX5000 | M3 x 30 (Matt nickel plated) | SY5000-11-10 |
| SX7000 | M4 x 35 (Matt nickel plated) | SY7000-11-9 |

■ Individual EXH spacer assembly



| Series | Assembly part no. | Port size |
|--------|-------------------|-----------|
| SX3000 | SX3000-39-1回A | M5 x 0.8 |
| SX5000 | SX5000-39-1回A | 1/8 |
| SX7000 | SX7000-39-20A | 1/4 |

■ Individual SUP spacer assembly



| Series | Assembly part no. | Port size |
|--------|-------------------|-----------|
| SX3000 | SX3000-38-1回A | M5 x 0.8 |
| SX5000 | SX5000-38-1回A | Rc 1/8 |
| SX7000 | SX7000-38-20A | Rc 1/4 |

■ Plug

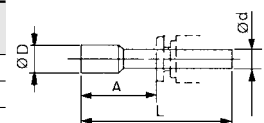
Inserted into an unused cylinder port and SUP/EXH ports. Purchasing order is available in units of 10 pieces.

Note) The SUP port may be either on the lead wire side or on the end plate side. (Factory assembled spacer will be shipped with the orientation shown in the figure.)

| * Thread type | |
|---------------|------|
| Nil | Rc |
| F | G |
| N | NPT |
| T | NPTF |

Dimensions

| Applicable fitting ød | Model | A | L | D |
|-----------------------|---------|------|----|------|
| 4 | KQ2P-04 | 16 | 32 | 6 |
| 6 | KQ2P-06 | 18 | 35 | 8 |
| 8 | KQ2P-08 | 20.5 | 39 | 10 |
| 10 | KQ2P-10 | 22 | 43 | 12 |
| 5/32" | KQ2P-03 | 16 | 32 | 6 |
| 1/4" | KQ2P-07 | 18 | 35 | 8.5 |
| 5/16" | KQ2P-09 | 20.5 | 39 | 10 |
| 3/8" | KQ2P-11 | 22 | 43 | 11.5 |



Caution

Mounting Screw Tightening Torques

M2: 0.17 N·m
M3: 0.8 N·m
M4: 1.4 N·m

Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-44 to 1-6-46, and then mount it.

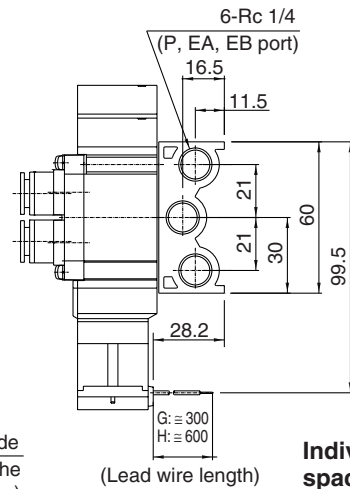
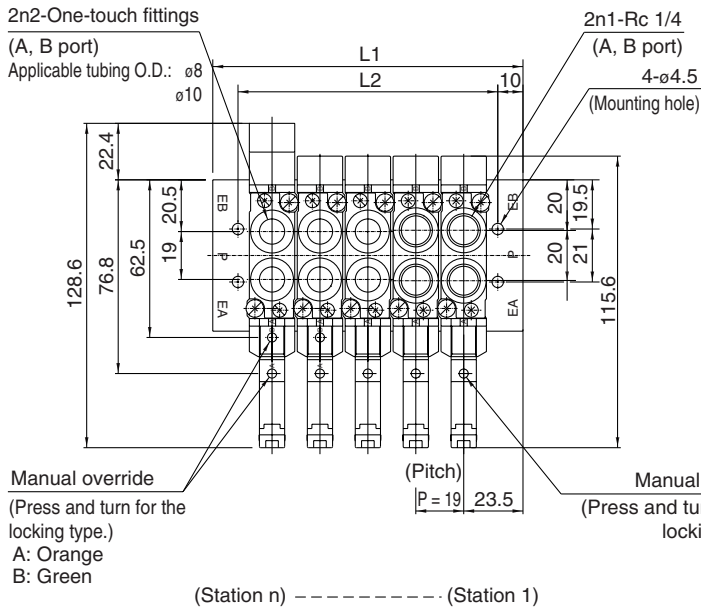
SX7000: SS5X7-20- Stations

Grommet (G)

2n2-One-touch fittings

(A, B port)

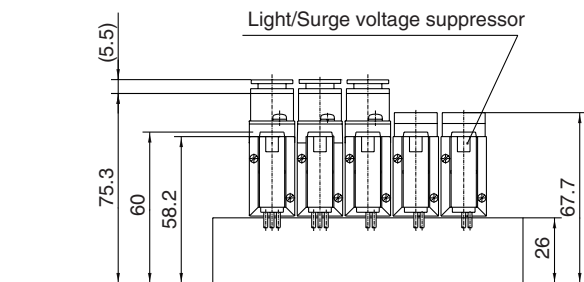
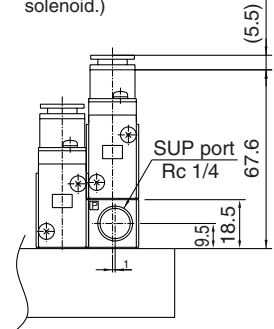
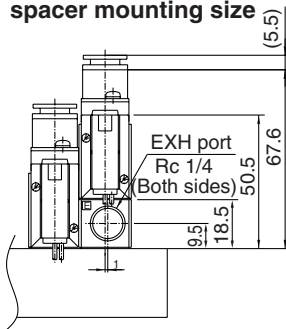
Applicable tubing O.D.: $\phi 8$
 $\phi 10$



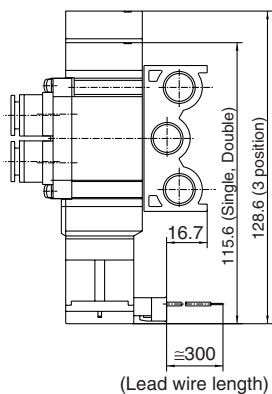
Individual SUP spacer mounting size

(SUP port is mounted on the end plate side of single solenoid.)

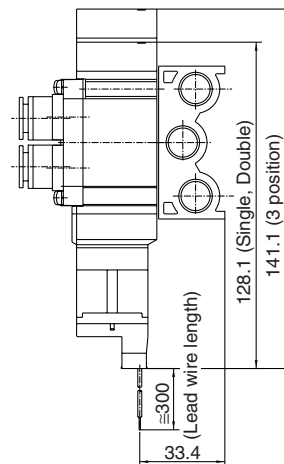
Individual EXH spacer mounting size



L plug connector (L)



M plug connector (M)



n: Stations (n1 + n2)

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

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

Series SX3000/5000/7000 Base Mounted Manifold Bar Stock Type Individual Wiring

How to Order Manifold

Type 41 (Compact type)

SS5X **5** — 41 — **05** — **C8** □

Series

| | |
|---|--------|
| 3 | SX3000 |
| 5 | SX5000 |

Stations

| | |
|----|-------------|
| 02 | 2 stations |
| ⋮ | ⋮ |
| 20 | 20 stations |

A/B port size
Thread piping

| Symbol | Port size | Applicable series |
|--------|-----------|-------------------|
| M5 | M5 x 0.8 | SX3000 |
| 01 | 1/8 | SX5000 |

Thread type

| | |
|-----|------|
| Nil | Rc |
| F | G |
| N | NPT |
| T | NPTF |

One-touch fitting (Metric size)

| Symbol | Port size | Applicable series |
|--------|--------------------------|-------------------|
| C4 | One-touch fitting for ø4 | SX3000 |
| C6 | One-touch fitting for ø6 | |
| C6 | One-touch fitting for ø6 | SX5000 |
| C8 | One-touch fitting for ø8 | |

One-touch fitting (Inch size)

| Symbol | Port size | Applicable series |
|--------|------------------------------|-------------------|
| N3 | One-touch fitting for ø5/32" | SX3000 |
| N7 | One-touch fitting for ø1/4" | |
| N7 | One-touch fitting for ø1/4" | SX5000 |
| N9 | One-touch fitting for ø5/16" | |

Type 42 (Common external pilot type)

SS5X **5** — 42 — **05** — **C8** □

Series

| | |
|---|--------|
| 3 | SX3000 |
| 5 | SX5000 |
| 7 | SX7000 |

Stations

| | |
|----|-------------|
| 02 | 2 stations |
| ⋮ | ⋮ |
| 20 | 20 stations |

A/B port size
Thread piping

| Symbol | Port size | Applicable series |
|--------|-----------|-------------------|
| 01 | 1/8 | SX3000 |
| 02 | 1/4 | SX5000 |
| 02 | 1/4 | SX7000 |

Thread type

| | |
|-----|------|
| Nil | Rc |
| F | G |
| N | NPT |
| T | NPTF |

One-touch fitting (Metric size)

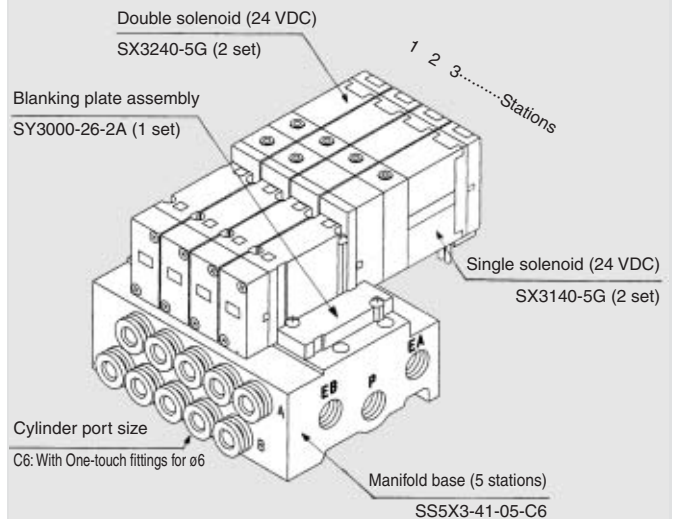
| Symbol | Port size | Applicable series |
|--------|---------------------------|-------------------|
| C4 | One-touch fitting for ø4 | SX3000 |
| C6 | One-touch fitting for ø6 | |
| C6 | One-touch fitting for ø6 | SX5000 |
| C8 | One-touch fitting for ø8 | |
| C10 | One-touch fitting for ø10 | SX7000 |

One-touch fitting (Inch size)

| Symbol | Port size | Applicable series |
|--------|------------------------------|-------------------|
| N3 | One-touch fitting for ø5/32" | SX3000 |
| N7 | One-touch fitting for ø1/4" | |
| N7 | One-touch fitting for ø1/4" | SX5000 |
| N9 | One-touch fitting for ø5/16" | |
| N11 | One-touch fitting for ø3/8" | SX7000 |

How to Order Valve Manifold Assembly

Ordering example



SS5X3-41-05-C6..... 1 set (Type 41, 5-station manifold base part no.)
 *SX3240-5G 2 sets (Double solenoid part no.)
 *SX3140-5G 2 sets (Single solenoid part no.)
 *SY3000-26-9A 1 set (Blanking plate 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.



- Connector assembly for L and M types.....Refer to page 1-6-8.
- Common connector ass'y for manifold.....Refer to page 1-6-9.

How to Order Valves

SX **5** **2** **40** **5** **N** **L**

● **Series**

| | |
|---|--------|
| 3 | SX3000 |
| 5 | SX5000 |
| 7 | SX7000 |

● **Type of actuation**

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

● **Pilot type**

| | |
|-----|----------------|
| Nil | Internal pilot |
| R | External pilot |

● **Rated voltage**

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

● **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**

| Grommet | L plug connector | M plug connector |
|-----------------------------------|--|--|
| G: Lead wire length 300 mm | L: With lead wire (Length 300 mm) | M: With lead wire (Length 300 mm) |
| H: Lead wire length 600 mm | LN: Without lead wire | MN: Without lead wire |
| | LO: Without connector | MO: Without connector |

* The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.

● **Common specifications**

| | |
|-----|-----------------|
| Nil | Positive common |
| N | Negative common |

Note) Put nothing for single grommet style and single without indicator light and surge voltage suppressor.

SV

SZ

SY

SYJ

SX



Manifold Specifications

| Model | SS5X3-41 | SS5X3-42 | SS5X5-41 | SS5X5-42 | SS5X7-42 |
|---|-----------------------|--|--|--|--|
| Applicable valve | SX3□40 | SX3□40(R) | SX5□40 | SX5□40(R) | SX7□40(R) |
| Manifold type | Single base/B mount | | | | |
| P(SUP)/R(EXH) | Common SUP/Common EXH | | | | |
| Valve stations ^{Note)} | 2 to 20 stations | | | | |
| A, B Porting specifications | Location | Base | | | |
| | Direction | Side | | | |
| Port size | P, EA, EB port | Rc 1/8 | | Rc 1/4 | |
| | A, B port | M5 x 0.8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) | Rc 1/8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) | Rc 1/8 C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8) | Rc 1/4 C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10) |
| Manifold base weight W (g) n: Stations | W = 30n + 50 | W = 37n + 63 | W = 61n + 101 | W = 79n + 127 | W = 100n + 151 |

Note) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA and EB port on both sides.

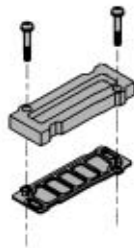
Flow Characteristics

| Model | Port size | | Flow characteristics ^{Note)} | | | | | |
|----------|------------------------|----------------|---------------------------------------|------|------|-------------------------------------|------|------|
| | | | 1 → 4/2 (P → A/B) | | | 4/2 → 5/3 (A/B → EA/EB) | | |
| | 1, 5, 3 (P, EA, EB) | 4, 2 (A, B) | C [dm ³ / (s-bar)] | b | Cv | C [dm ³ / (s-bar)] | b | Cv |
| SS5X3-41 | Rc 1/8 | C6 | 0.75 | 0.19 | 0.18 | 0.81 | 0.23 | 0.20 |
| SS5X3-42 | Rc 1/8 | C6 | 0.75 | 0.20 | 0.18 | 0.82 | 0.20 | 0.20 |
| SS5X5-41 | Rc 1/4 | C8 | 1.8 | 0.23 | 0.44 | 1.9 | 0.16 | 0.45 |
| SS5X5-42 | Rc 1/4 | C8 | 1.9 | 0.20 | 0.46 | 1.9 | 0.12 | 0.43 |
| SS5X7-42 | Rc 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.

Manifold Option

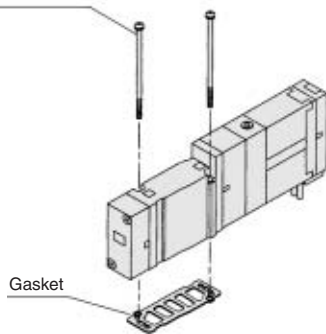
■ Blanking plate assembly



| Series | Assembly part no. |
|--------|-------------------|
| SX3000 | SY3000-26-9A |
| SX5000 | SY5000-26-20A |
| SX7000 | SY7000-26-22A |

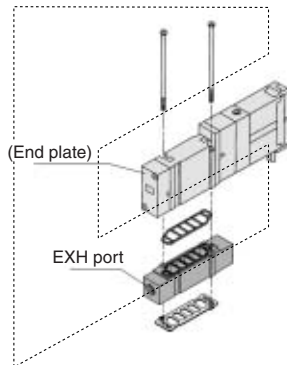
■ Bolt and gasket part no.

Round head combination screw



| Series | Round head combination screw | Gasket |
|--------|------------------------------|--------------|
| SX3000 | SX3000-22-2 (M2 x 24) | SY3000-11-25 |
| SX5000 | M3 x 30 (Matt nickel plated) | SY5000-11-15 |
| SX7000 | M4 x 35 (Matt nickel plated) | SY7000-11-11 |

■ Individual EXH spacer assembly



| Series | Assembly part no. | Port size |
|--------|-------------------|-----------|
| SX3000 | SX3000-39-2A | M5 x 0.8 |
| SX5000 | SX5000-39-16□A | 1/8 |
| SX7000 | SX7000-39-16□A | 1/4 |

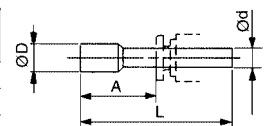
Note) The EXH port may be either on the lead wire side or on the end plate side. (An assembly is shipped under the condition shown in the figure.)

■ Plug

Inserted into an unused cylinder port and SUP/EXH ports. Purchasing order is available in units of 10 pieces.

Dimensions

| Applicable fittings fitting ød | Model | A | L | D |
|--------------------------------|---------|------|----|------|
| 4 | KQ2P-04 | 16 | 32 | 6 |
| 6 | KQ2P-06 | 18 | 35 | 8 |
| 8 | KQ2P-08 | 20.5 | 39 | 10 |
| 10 | KQ2P-10 | 22 | 43 | 12 |
| 5/32" | KQ2P-03 | 16 | 32 | 6 |
| 1/4" | KQ2P-07 | 18 | 35 | 8.5 |
| 5/16" | KQ2P-09 | 20.5 | 39 | 10 |
| 3/8" | KQ2P-11 | 22 | 43 | 11.5 |



⚠ Caution

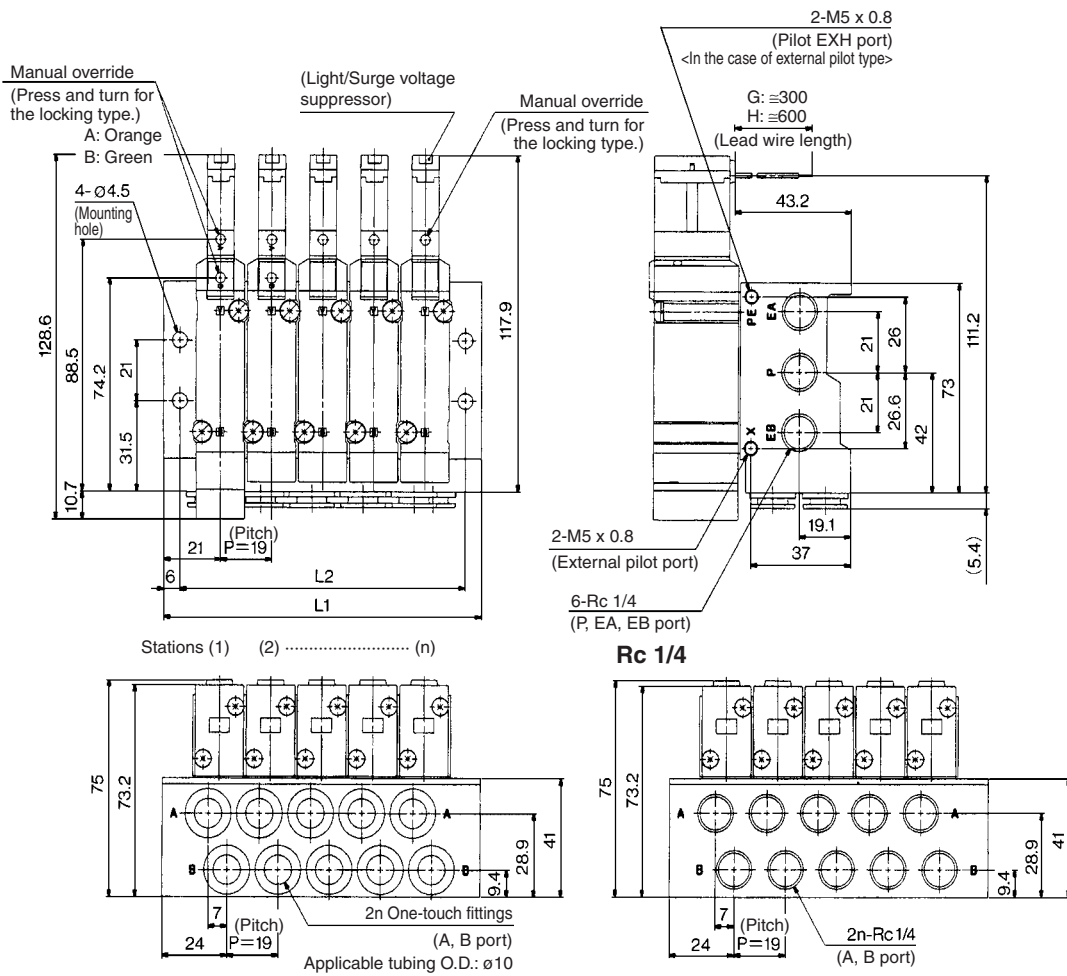
Mounting screw tightening torques
M2: 0.17 N·m
M3: 0.8 N·m
M4: 1.4 N·m

⚠ Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-57 to 1-6-63, and then mount it.

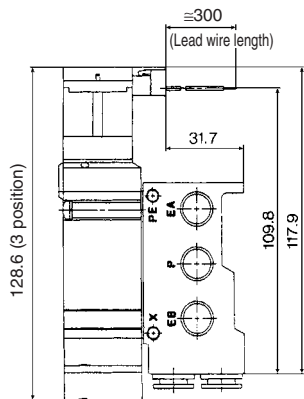
SX7000: SS5X7-42- Stations -02/C10

Grommet (G)

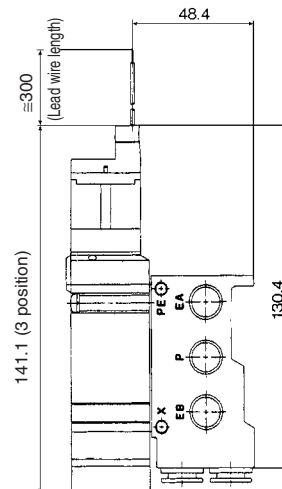


- SV
- SZ
- SY
- SYJ
- SX

L plug connector (L)



M plug connector (M)



| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 stations |
|------------|------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| L1 | 61 | 80 | 99 | 118 | 137 | 156 | 175 | 194 | 213 | 232 | 251 | 270 | 289 | 308 | 327 | 346 | 365 | 384 | 403 |
| L2 | 49 | 68 | 87 | 106 | 125 | 144 | 163 | 182 | 201 | 220 | 239 | 258 | 277 | 296 | 315 | 334 | 353 | 372 | 391 |