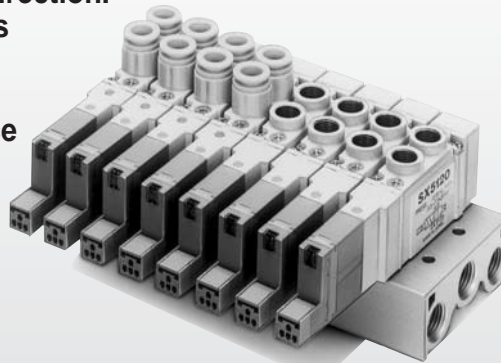


5 Port Solenoid Valve Rubber Seal Series SX

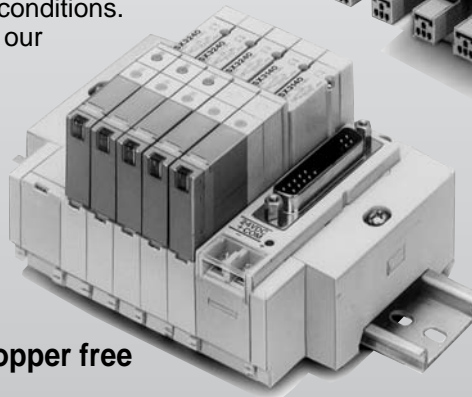
All pilot valves are located on the same side of the manifold. Pilot valves (single & double solenoid) on one side permit not only a reduction in the size of the valve but also a single wiring direction.

In addition, this reduces the necessary mounting space and provides a clean neat appearance.



Response time 10ms (Representative value)
(SX3000 single solenoid, 0.5MPa)

Long life exceeding 50 million cycles
(The valve may differ from a life under actual operating conditions. It is derived from our life test data.)



Compatible to copper free

No exhaust mist, no exhaust noise of pilot valve

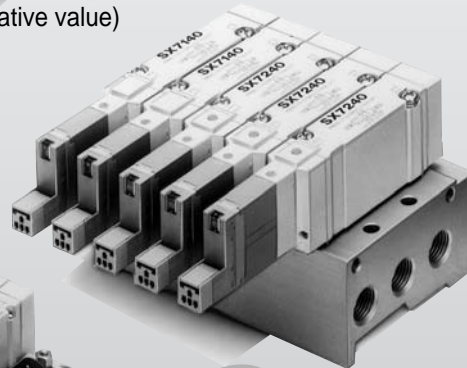
(Common exhaust for main and pilot valve)

Concentrated indicator lights

Low power consumption: 0.6W
(Current draw: 25mA at 24V DC)

It is possible to operate directly by using a PLC instead of a relay. Cost reduction can be achieved due to a compact switching device, resulting in low power consumption.

Compact design / Large flow capacity Nl/min factor for this series is 1,7 to 3 times larger than conventional valve with the same body width.



Improved drainage resistance

Bright color tone and "state of the art" design

The fittings of the cylinder ports can be changed simply for the modification of the port size or for replacement.

<Body ported>

| | Port size available | | |
|---------------|---------------------|-----|-----|
| SX3000 | C4 | C6 | M5 |
| SX5000 | C4, C6 | C8 | 1/8 |
| SX7000 | C8 | C10 | 1/4 |

Same manifold base as series SY

The characteristic values shown in the catalogue are representative values, not warranting the performance.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

Cylinder Actuating Speed

This table shows the standard values.
Check with the practical operating conditions referring to SMC's sizing program.

Body Ported

| Series | Cylinder actuating speed (mm/s) | Cylinder tube bore (mm) | | | | | | | | | | | |
|--|---------------------------------|---|-----|-----|--|-----|-----|-----|--|-----|-----|-----|------|
| | | Series CJ2 Pressure 0.5MPa Loading rate 50% Cylinder stroke 60mm | | | Series CM2 Pressure 0.5MPa Loading rate 50% Cylinder stroke 300mm | | | | Series CA1 Pressure 0.5MPa Loading rate 50% Cylinder stroke 500mm | | | | |
| | | ø6 | ø10 | ø16 | ø20 | ø25 | ø32 | ø40 | ø40 | ø50 | ø63 | ø80 | ø100 |
| SX3120 -C6 N _z /min: 225.75 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |
| SX5120 -01 N _z /min: 579.09 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |
| SX7120 -02 N _z /min: 853.91 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |



Cylinder speed of CJ2 and CM2 can be restricted with the flow controller installed in cylinders.
* At cylinder pushed out.

Base Mounted (With Sub-plate)

| Series | Cylinder actuating speed (mm/s) | Cylinder tube bore (mm) | | | | | | | | | | | |
|---|---------------------------------|---|-----|-----|--|-----|-----|-----|--|-----|-----|-----|------|
| | | Series CJ2 Pressure 0.5MPa Loading rate 50% Cylinder stroke 60mm | | | Series CM2 Pressure 0.5MPa Loading rate 50% Cylinder stroke 300mm | | | | Series CA1 Pressure 0.5MPa Loading rate 50% Cylinder stroke 500mm | | | | |
| | | ø6 | ø10 | ø16 | ø20 | ø25 | ø32 | ø40 | ø40 | ø50 | ø63 | ø80 | ø100 |
| SX3140 -01 N _z /min: 294.45 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |
| SX5140 -02 N _z /min: 687.05 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |
| SX7140 -02 -03 N _z /min: 1177.80 | 150 | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | |
| | 750 | | | | | | | | | | | | |



Cylinder speed of CJ2 and CM2 can be restricted with the flow controller installed in cylinders.
* Cylinder is extended.

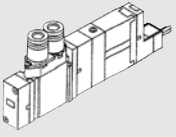
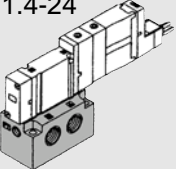
Conditions

| Body ported | | Series CJ2 | Series CM2 | Series CA1 |
|---|--------------------|--|---|------------|
| SX3120 -C6 (N _z /min:225.75) | Tube bore X length | ø6 X 1m | | |
| | Speed controller | AS2051F-06 (N _z /min:245.38) | | |
| | Silencer | AN120-M5 (N _z /min:265.01) | | |
| SX5120 -01 (N _z /min:579.09) | Tube bore X length | ø6 X 1m | ø8 X 1m | |
| | Speed controller | AS3001F-06 (N _z /min:353.34) | AS3001F-08 (N _z /min:549.64) | |
| | Silencer | AN101-01 (N _z /min:1089.47) | | |
| SX7120 -02 (N _z /min:853.91) | Tube bore X length | ø6 X 1m | ø10 X 1m | |
| | Speed controller | AS3001F-06 | AS4001F-10 (N _z /min:873.54) | |
| | Silencer | AN110-01 (N _z /min:1904.11) | | |

Conditions

| Base mounted | | Series CJ2 | Series CM2 | Series CA1 |
|---|--------------------|---|--|---|
| SX3140 -01 (N _z /min:294.45) | Tube bore X length | ø6 X 1m | | |
| | Speed controller | AS3001F-06 (N _z /min:353.34) | | |
| | Silencer | AN110-01 (N _z /min:1904.11) | | |
| SX5140 -02 (N _z /min:687.05) | Tube bore X length | ø6 X 1m | ø8 X 1m | |
| | Speed controller | AS3001F-06 | AS3001F-08 (N _z /min:549.64) | |
| | Silencer | AN110-01 (N _z /min:1904.11) | | |
| SX7140 -02 -03 (N _z /min:1177.8) | Tube bore X length | ø6 X 1m | ø10 X 1m | ø12 X 1m |
| | Speed controller | AS3001F-06 | AS4001F-10 (N _z /min:873.54) | AS4001F-12 (N _z /min:1148.36) |
| | Silencer | AN200-02 (N _z /min:1904.11) | | |

Valve Variations

| Series | | Effective area (mm ²) (N _z /min.) | Configuration | | | | | Voltage DC 24V 12V 6V 5V 3V | Electrical entry | | | Indicator light and surge suppressor | Manual override | | Bracket |
|--------------|---|--|-------------------|--------|---------------|----------------|-----------------|---|------------------|------------------|------------------|--------------------------------------|------------------|---------------------------|---------|
| | | | 2 position | | 3 position | | | | Grommet | L plug connector | M plug connector | | Non-locking push | Push-turn-locking slotted | |
| | | | Single | Double | Closed centre | Exhaust centre | Pressure centre | | | | | | | | |
| Body Ported | P.1.4-10  | SX3□20 | 4.14 (225.75) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | SX5□20 | 10.62 (579.09) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | SX7□20 | 15.66 (853.91) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Base Mounted | P.1.4-24  | SX3□40 | 5.4 (294.45) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | — |
| | | SX5□40 | 12.6 (687.05) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | — |
| | | SX7□40 | 21.6 (1177.80) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | — |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

| Series | | P, EA, EB port size | | | | A, B port size | | | | | | | | Operating conditions | | | | |
|--------------|---------------|---------------------|---------------|----------|-----|----------------|-----|-----|-----|-------------------|----|----|-----|---|----------------|----------------|------------------|-----------|
| | | M5 | 1/8 | 1/4 | 3/8 | M5 | 1/8 | 1/4 | 3/8 | One-touch fitting | | | | Ozone/Oil proof (Other than designated turbin oil) | Vacuum | Low pressure | Reverse pressure | Throttle |
| | | | | | | | | | | C4 | C6 | C8 | C10 | | | | | |
| Body Ported | SX3□20 | ● | — | — | — | ● | — | — | — | ● | ● | — | — | ▲ | — | — | — | ● |
| | SX5□20 | — | ● | — | — | — | ● | — | — | ● | ● | ● | — | — | — | — | — | ● |
| | SX7□20 | — | ● (EA, EB) | ● (P) | — | — | — | ● | — | — | — | ● | ● | — | — | — | — | — |
| Base Mounted | SX3□40 | — | ● | — | — | — | ● | — | — | — | — | — | — | ▲ | ● | ● | ● | ● |
| | SX5□40 | — | — | ● | — | — | — | ● | — | — | — | — | — | — | ● | ● | ● | ● |
| | SX7□40 | — | — | ● | ● | — | — | ● | ● | — | — | — | — | — | External pilot | External pilot | External pilot | Sub-plate |

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

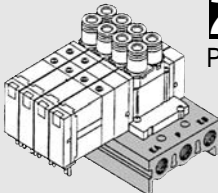
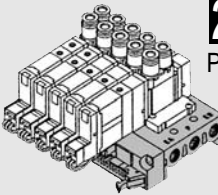
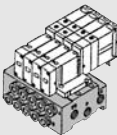
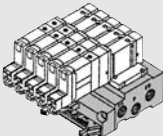
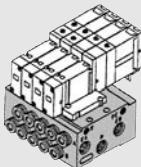
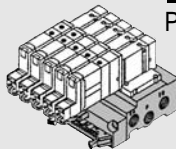
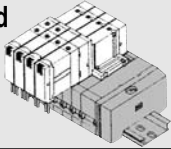
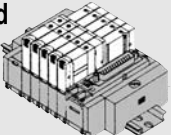
VFS

VS

VS7

VQ7

Manifold Variations

| Manifold Style | | Valve Series | Wiring | | | | | | | | | | |
|--|--|------------------------------------|-------------------|---------------------|---------------------------------------|--|--|-----------------------|------------------|-----------------|-----------------|---|---|
| | | | Connection | | | | | | Common spec. | | | | |
| | | | Individual wiring | Flat cable (26 pin) | <Plug-in> D-sub connector (25 pin) | <Plug-in> Flat cable (26, 20, 10 pin) | <Plug-in> Terminal block (9, 18 pole) | Serial interface unit | Common connector | Positive common | Negative common | | |
| Body Ported | Bar Style Individual wiring ■ Direct piping to the main unit of a valve. Combinations of different fittings are possible.  | 20 _{Type} P.1.4-38 | SX3□20 | | | | | | | | | | |
| | | | SX5□20 | ● | — | — | — | — | — | ● | — | — | |
| | | | SX7□20 | | | | | | | | | | |
| | Bar Style Flat cable ■ A 26-pole MIL connector permits one-hand wiring of external cables in a bundle.  | 20 _{P N Type} P.1.4-44 | SX3□20 | | | | | | | | | | |
| | | | SX5□20 | — | ● | — | — | — | — | — | ● | ● | |
| | | | SX7□20 | | | | | | | | | | |
| Base Mounted | Compact Bar Individual wiring ■ The base piping makes it easier to change valves.  | 41 _{Type} P.1.4-50 | SX3□40 | ● | — | — | — | — | — | ● | — | — | |
| | | | SX5□40 | | | | | | | | | | |
| | Compact Bar Flat cable ■ A 26-pole MIL connector permits one-hand wiring of external cables in a bundle.  | 41 _{P N Type} P.1.4-60 | SX3□40 | — | ● | — | — | — | — | — | ● | ● | |
| | | | SX5□40 | | | | | | | | | | |
| | External Pilot Capable Bar Individual wiring ■ The base piping makes it easier to change valves. ■ Vacuum-low pressure combination system is possible.  | 42 _{Type} P.1.4-50 | SX3□40 | | | | | | | | | | |
| | | | SX5□40 | ● | — | — | — | — | — | — | ● | — | — |
| | | | SX7□40 | | | | | | | | | | |
| | External Pilot Capable Bar Flat cable ■ A 26-pole MIL connector permits one-hand wiring of external cables in a bundle. ■ Vacuum-low pressure combination systems are possible.  | 42 _{P N Type} P.1.4-60 | SX3□40 | | | | | | | | | | |
| | | | SX5□40 | — | ● | — | — | — | — | — | — | ● | ● |
| | | | SX7□40 | | | | | | | | | | |
| | Stacking Style/DIN Rail Mounted Individual wiring ■ Stations can be increased on the DIN rail. Integral mounting of other electric parts is possible.  | 45 _{Type} P.1.4-70 | SX3□40 | ● | — | — | — | — | — | — | ● | — | |
| | | | SX5□40 | | | | | | | | | | |
| Stacking Style/DIN Rail Mounted Plug-in ■ Stations can be increased on the DIN rail. ■ A wide variety of centralized wiring methods is available.  | 45 _{Type} P.1.4-76 | SX3□40 | — | — | ● | ● | ● | ● | — | ● | ● | | |
| | | SX5□40 | | | | | | | | | | | |

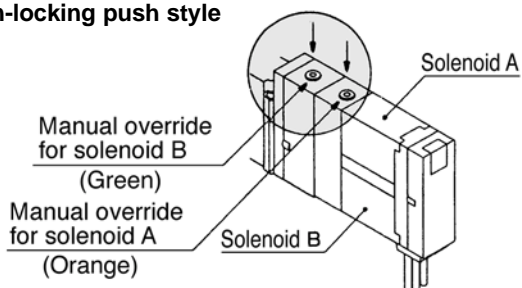
●Standard ●Option ▲Made to order

⚠ Precautions

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

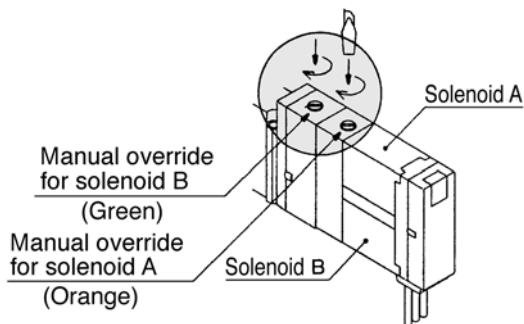
⚠ Warning Manual Operation

■ Non-locking push style



■ Push-turn-locking slotted style

While pressing, turn in the direction of the arrow. If you do not turn, the mechanism is the same as that of a non-locking push style.



⚠ Caution

- To lock manual override of push-locking turn slotted style, be sure to push it down and turn.
- When operating D type with a screw driver, turn it lightly.

⚠ Caution Throttle

Since series SX has a mechanism that the exhausted air from pilot valve is gathered with the exhaust of the main valve inside, make sure that the exhaust port is not restricted.

⚠ Caution

Usage of SX3000, 5000, 7000 as a 3 Way Valve

In case of using a 5-port valve

Series SX3000, 5000, 7000 may be used as and N.C. or N.O. 3 way 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 way valve is required.

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

⚠ Caution How to Use Plug Connector

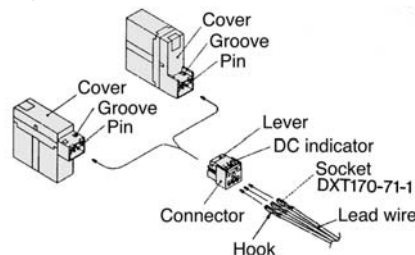
① Connection/Disconnection of connector

● Connection

Push the connector straight on to the pins of the solenoid, making sure the lip of the lever is securely positioned in the groove of the solenoid cover.

● Disconnection

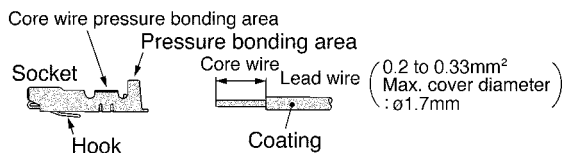
Press the lever against the connector and pull the connector away from the solenoid.



② Crimping connection of lead wire and socket

Peel 3.2 to 3.7mm of the tip of lead wire, enter the core wires neatly into a socket and press contact it by a special press tool. Be careful so that the cover of lead wire does not enter the core press contacting part.

(Crimping tool: DXT170-75-1)



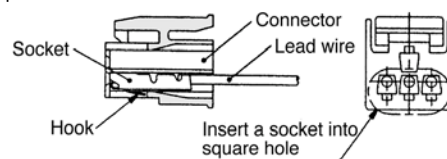
③ Connection/Disconnection of socket with lead wire

● Connection

Insert a socket into the square hole (indicated as positive/negative) of connector, push fully the lead wire and lock by hanging the hook of socket to the seat of connector. (Pushing-in can open the hook and lock it automatically.) Confirm the lock by lightly pulling the lead wire.

● Disconnection

For pulling-out the socket from the connector, pull out the lead wire with pushing the hook of socket by a stick with a fine point (ca. 1mm). If the socket is to be re-used, spread the hook to the outside.



■ Plug connector lead wire length

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

How To Order L/M Connector Ass'y

In case of positive common

For single solenoid: **SX100-40-4S-**

For double solenoid: **SX100-40-4D-**

For 3 position

In case of negative common

For single solenoid: **SX100-41-4S-**

For double solenoid: **SX100-41-4D-**

For 3 position

How to Order

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

| Lead wire length | Part Number |
|------------------|-------------|
| 300mm | — |
| 600mm | 6 |
| 1000mm | 10 |
| 1500mm | 15 |
| 2000mm | 20 |
| 2500mm | 25 |
| 3000mm | 30 |
| 5000mm | 50 |

<Ex.> 2000mm lead wire length
SX3120-5LO-M5
SX100-40-4S-20

⚠ Caution

Common Connector Ass'y For Manifold

With the common connector ass'y, all of the common lead wires are tied together and this reduces wiring time.

How to Order Common Connector Ass'y

**Positive common specification
For single solenoid
SX100-42-4S**



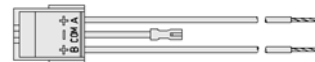
**Negative common specification
For single solenoid
SX100-43-4S**



**For double solenoid and 3 position
SX100-42-4D**



**For double solenoid and 3 position
SX100-43-4D**



**With lead wire for common for single solenoid
SX100-40-4S**



**With lead wire for common for single solenoid
SX100-41-4S**



**With lead wire for common for double solenoid and 3 position
SX100-40-4D**



(Lead wire 300mm)

**With lead wire for common for double solenoid and 3 position
SX100-41-4D**



(Lead wire 300mm)

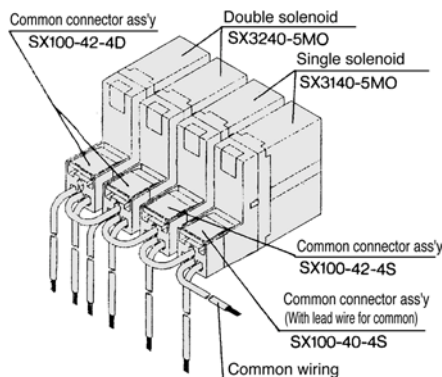
How to Order

When ordering a common connector lead wire ass'y, indicate the model no. for manifold, solenoid valve and common connector ass'y. For more complicated assemblies, refer to the manifold specification form.

Note 1) Applications like connectors not wired to a valve or when there is a blank station between valves is not possible.

Note 2) Designate "Without connector" of plug connector style for solenoid valve. Grommet style is not applicable.

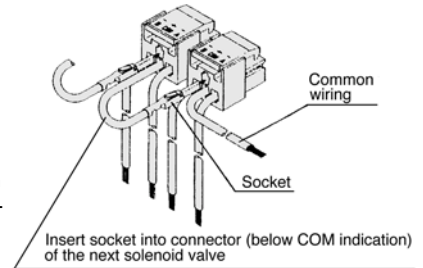
Note 3) Connector ass'y with lead wire for common should be used in the place where the signals are transmitted to the common wiring. (Only the valves of first station and/or last station of manifold is compatible to connector with lead wire for common.)



SS5X3-41-04-C6.....1set
 SX3140-5MO2set
 SX3240-5MO2set
 SX100-40-4S1set (Single solenoid with lead wire for common)
 SX100-42-4S1set (Single solenoid)
 SX100-42-4D2set (Double solenoid, 3 position)

Common connector assembly wiring

When only common connector ass'y is ordered, wiring should be done as shown in the illustration to the right. Refer to "How to use plug connector" on p.1.4-6 for further information on socket mounting.



Flat cable/Connector ass'y No. for 20P, 41P, & 42P

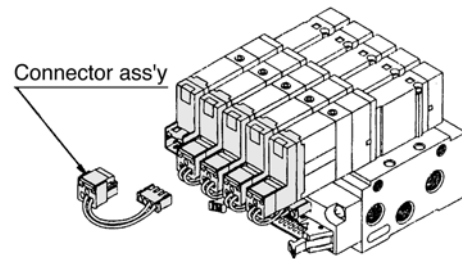
SX3000/5000/7000

● Positive common specification

For single solenoid : SX3000-23-1A
 For double solenoid, 3 position style : SX3000-23-2A

● Negative common specification

For single solenoid : SX3000-24-1A
 For double solenoid, 3 position style : SX3000-24-2A



⚠ Caution

One-touch fittings

The pitch between ports (P, A, B, etc.) of the SX series has been determined subject using the series KJ One-touch fittings.

Therefore, use of other fitting models may not be possible due to limited space.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

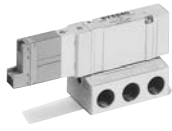
VQ7

⚠ Precautions

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

⚠ Caution

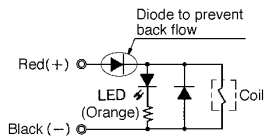
Indicator Light and Surge Suppressor



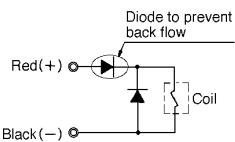
Positive common

Single solenoid

Indicator light and surge suppressor



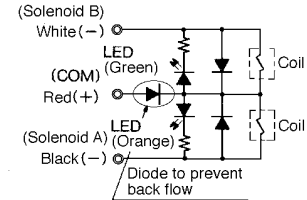
Surge voltage suppressor



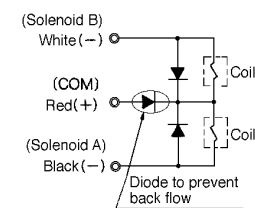
Positive common

Double solenoid, 3 position

Indicator light and surge suppressor



Surge voltage suppressor



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

Positive common specification A(-) : Black

COM(+): Red

B(-) : White (W/o lead wire in case of single solenoid)

Negative common specification A(+) : Black

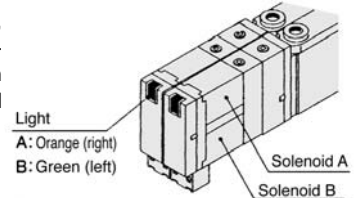
COM(-): Yellow

B(+) : White (W/o lead wire in case of single solenoid)

⚠ Caution

Indicator Light

When indicator lights with surge voltage suppressors are used, the orange indicator light represents solenoid A and the green indicator light represents solenoid B when energized.



⚠ Caution

Fixed DIN Rail Manifold

Fixed "45", "45□" DIN rail manifold to the setting side with screws, fix points as follows:

2 to 5 stations : 2 points

6 to 10 stations : 3 points

11 to 15 stations : 4 points

16 to 20 stations : 5 points

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

SX3000/5000/7000

Body Ported Valve

How to Order

SX 5 1 20 — 5 N L — — — 01 — — — -Q

Series

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

Configuration

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

Rated voltage

| | |
|---|------------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V | 6V DC |
| S | 5V DC |
| R | 3V DC |
| 9 | Less than 50 VDC |

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

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

Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

Manual override

—: Non-locking push style

D: Push-turn-locking slotted style

Indicator light and surge voltage suppressor

| | |
|---|--|
| — | Without indicator light and surge voltage suppressor |
| S | With surge voltage suppressor |
| Z | With indicator light and surge voltage suppressor |

Electrical entry

| 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 |

Bracket

—: Without bracket
F1: With foot bracket
F2: With side bracket

A/B port size

| | Port size | Series |
|-----|----------------------------|--------|
| M5 | M5 | |
| C4 | One-touch fittings for ø4 | SX3000 |
| C6 | One-touch fittings for ø6 | |
| 01 | 1/8 | |
| C4 | One-touch fittings for ø4 | SX5000 |
| C6 | One-touch fittings for ø6 | |
| C8 | One-touch fittings for ø8 | |
| 02 | 1/4 | |
| C8 | One-touch fittings for ø8 | SX7000 |
| C10 | One-touch fittings for ø10 | |

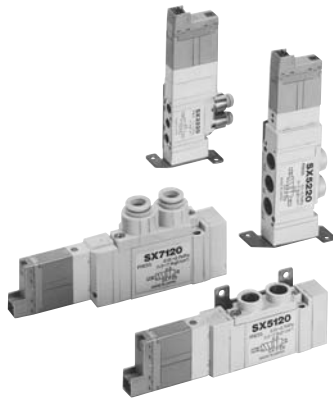
Protective class class III (Mark:)

Contact SMC for other voltages (9)


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

SX3000/5000/7000 Body Ported Valve

Specifications



| Series | | SX3000 | SX5000 | SX7000 |
|---|---------------------------|--|--------|--------|
| Fluid | | Air | | |
| Internal pilot | 2 position single | 0.15 to 0.7 | | |
| operating pressure range (MPa) | 2 position double | 0.1 to 0.7 | | |
| | 3 position | 0.2 to 0.7 | | |
| Ambient and fluid temperature °C | | Max. 50 | | |
| Max. operating frequency (Hz) | 2 position single, double | 10 | 5 | 5 |
| | 3 position | 3 | 3 | 3 |
| Manual override | | Non-locking push style, Push-turn-locking slotted style | | |
| Pilot exhaust | | Common exhaust for main and pilot valve | | |
| Lubrication | | Not required | | |
| Mounting position | | Free | | |
| Impact/Vibration resistance (m/s ²) | | 150/30 | | |
| Protection structure | | Dust proof | | |

 Note) Shock 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.

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




P.1.4-109 to 1.4-120

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 |
| Allowable voltage | | ±10% rated voltage |
| Power consumption (W) | DC | 0.6 (With light: 0.65) |
| Surge voltage suppressor | | Diode |
| Indicator light | | LED |

Response Time

 Note) According to JISB8375-1981 kinetic ability test (Coil temperature: 20°C, at rated voltage).

SX3000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|--|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 12 or less | 15 or less |
| 2 position double | 10 or less | 13 or less |
| 3 position | 15 or less | 20 or less |

SX5000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|--|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 19 or less | 26 or less |
| 2 position double | 18 or less | 22 or less |
| 3 position | 32 or less | 38 or less |

SX7000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|--|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 31 or less | 38 or less |
| 2 position double | 27 or less | 30 or less |
| 3 position | 50 or less | 56 or less |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

SX3000/5000/7000

Series SX3000

| Valve | Configuration | | Port size | | Effective area (mm ²) (Nl/min) | | Weight (g) | | |
|---------------|---------------|-----------------|-------------------------------------|------|--|---------------|----------------|---------------------|----|
| | | | P, EA, EB | A, B | P→A/B | A/B→EA/EB | Grommet | L, M plug connector | |
| SX3□20-□-M5-Q | 2 position | Single | M5 | | 3.6 (196.30) | 3.78 (206.12) | 62 | 63 | |
| | | Double | | | | | 70 | 72 | |
| | 3 position | Closed centre | | | 3.6 (196.30) | 3.78 (206.12) | [2.7 (147.23)] | 73 | 74 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX3□20-□-C4-Q | 2 position | Single | C4 (One-touch fitting for ø4) | | 3.42 (186.49) | 3.6 (196.30) | 72 | 73 | |
| | | Double | | | | | 80 | 81 | |
| | 3 position | Closed centre | | | 3.42 (186.49) | 3.42 (186.49) | 3.78 (206.12) | 82 | 84 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX3□20-□-C6-Q | 2 position | Single | C6 (One-touch fitting for ø6) | | 3.6 (196.30) | 4.14 (225.75) | 68 | 69 | |
| | | Double | | | | | 76 | 77 | |
| | 3 position | Closed centre | | | 3.6 (196.30) | 3.96 (215.93) | 4.5 (245.38) | 78 | 80 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |



Note []: Normal position

Series SX5000

| Valve | Configuration | | Port size | | Effective area (mm ²) (Nl/min) | | Weight (g) | | |
|---------------|---------------|-----------------|-------------------------------------|------|--|---------------|----------------|---------------------|----|
| | | | P, EA, EB | A, B | P→A/B | A/B→EA/EB | Grommet | L, M plug connector | |
| SX5□20-□-01-Q | 2 position | Single | Rc (PT) 1/8 | | 9.18 (500.57) | 10.6 (579.09) | 75 | 76 | |
| | | Double | | | | | 83 | 84 | |
| | 3 position | Closed centre | | | 7.56 (412.23) | 7.92 (431.86) | 12.06 (657.61) | 88 | 90 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX5□20-□-C4-Q | 2 position | Single | C4 (One-touch fitting for ø4) | | 5.5 (304.27) | 3.9 (215.93) | 83 | 84 | |
| | | Double | | | | | 91 | 92 | |
| | 3 position | Closed centre | | | 5.3 (284.64) | 3.9 (215.93) | 5.7 (314.08) | 96 | 97 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX5□20-□-C6-Q | 2 position | Single | C6 (One-touch fitting for ø6) | | 9 (490.75) | 9 (490.75) | 78 | 79 | |
| | | Double | | | | | 86 | 87 | |
| | 3 position | Closed centre | | | 7.38 (402.42) | 7.38 (402.42) | 9.72 (530.01) | 91 | 92 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX5□20-□-C8-Q | 2 position | Single | C8 (One-touch fitting for ø8) | | 9.18 (500.57) | 9.9 (539.83) | 79 | 80 | |
| | | Double | | | | | 87 | 88 | |
| | 3 position | Closed centre | | | 7.38 (402.42) | 7.92 (431.86) | 11.88 (647.79) | 92 | 93 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |



Note []: Normal position

Series SX7000

| Valve | Configuration | | Port size | | Effective area (mm ²) (Nl/min) | | Weight (g) | | |
|----------------|---------------|-----------------|---------------------------------------|---|--|----------------|------------------|---------------------|-----|
| | | | P, EA, EB | A, B | P→A/B | A/B→EA/EB | Grommet | L, M plug connector | |
| SX7□20-□-02-Q | 2 position | Single | 1/4 | | 16.2 (883.35) | 15.66 (853.91) | 108 | 109 | |
| | | Double | | | | | 116 | 117 | |
| | 3 position | Closed centre | | | 11.88 (647.79) | 16.74 (912.80) | [11.7 (637.98)] | 125 | 126 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX7□20-□-C8-Q | 2 position | Single | C8 (One-touch fitting for ø8) | P port : 1/4 EA, EB port : 1/8 | 13.86 (755.76) | 13.68 (745.94) | 114 | 116 | |
| | | Double | | | | | 122 | 124 | |
| | 3 position | Closed centre | | | 11.16 (608.53) | 14.4 (785.20) | [10.8 (588.90)] | 131 | 132 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |
| SX7□20-□-C10-Q | 2 position | Single | C10 (One-touch fitting for ø10) | | 15.84 (863.72) | 14.94 (814.65) | 110 | 111 | |
| | | Double | | | | | 118 | 119 | |
| | 3 position | Closed centre | | | 11.88 (647.79) | 16.2 (873.54) | [11.34 (618.35)] | 126 | 128 |
| | | Exhaust centre | | | | | | | |
| | | Pressure centre | | | | | | | |
| | | | | | | | | | |

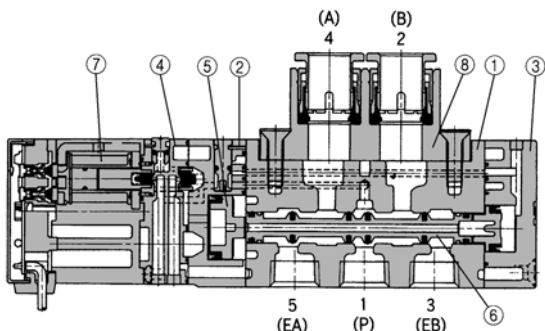
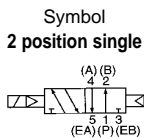


Note []: Normal position

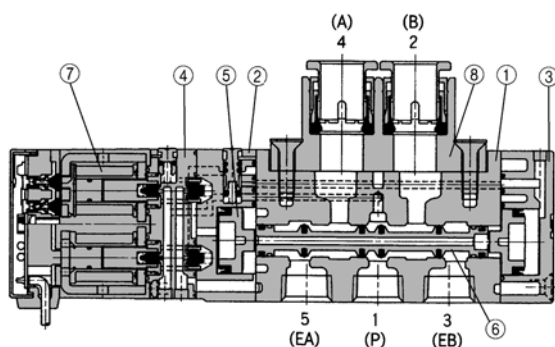
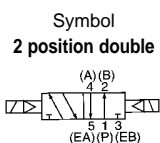
SX3000/5000/7000 Body Ported Valve

Construction

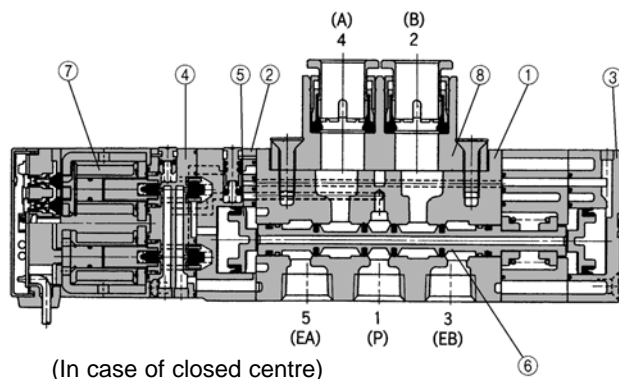
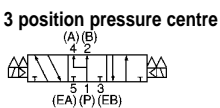
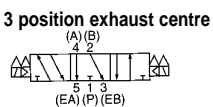
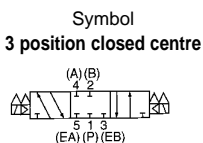
2 position single



2 position double



3 position closed centre/exhaust centre/pressure centre



Component Parts

| No. | Description | Material | Note |
|-----|---------------|--|-------|
| ① | Body | Aluminum die cast (SX3000: Zinc die cast) | White |
| ② | Adaptor plate | Resin | White |
| ③ | End plate | Resin | White |
| ④ | Pilot body | Resin | White |
| ⑤ | Piston | Resin | — |
| ⑥ | Spool ass'y | Aluminum/NBR | — |
| ⑦ | Mold coil | Resin | Gray |

Replacement Parts

| No. | Description | Part No. |
|-----|------------------|---|
| ⑧ | Port block ass'y | See "How to Order Port Block Ass'y" on p.1.4-14 |

How to Order Connector Ass'y for L and M Plug Connector

Positive common

For single solenoid : SX100 - 40 - 4S

For double solenoid, : SX100 - 40 - 4D
3 position

Negative common

For single solenoid : SX100 - 41 - 4S

For double solenoid, : SX100 - 41 - 4D
3 position

Lead wire length

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



Refer to p.1.4-6 for further information on connector ass'y.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

Bracket Assembly No.

| Description | Part No. |
|------------------|---|
| Bracket (For F1) | SX ³ 000-16-2A (With mounting screw) |
| Bracket (For F2) | SX ³ 000-16-1A (With mounting screw) |

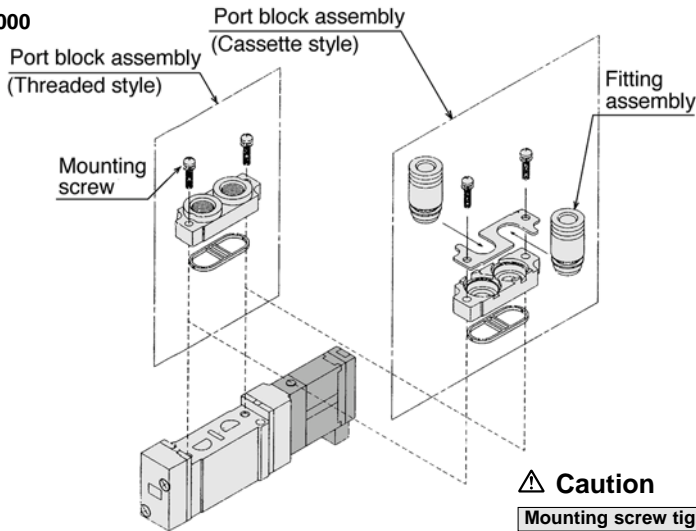
SX3000/5000/7000

How to Change Port Block Assembly

The cylinder port block assembly can easily be changed. When changing block ass'y, correct screw torque must be achieved.

Cut off the air supply to confirm that no air is left in the manifold before starting operation. Remaining air or inappropriate installation may cause an accident.

● **SX5000**



⚠ Caution

Mounting screw tightening torque

SX3000(M2): 0.09Nm
 SX5000(M2): 0.6Nm



* See "How to Order Port Block Assembly below for parts no.

How to Order Cylinder Port Block Assembly

SY 000—6A—

● **Series**

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

● **A/B port size**

| Symbol | Port size | Series |
|--------|---------------------------|--------|
| M5 | M5 | SX3000 |
| C4 | One-touch fitting for ø4 | |
| C6 | One-touch fitting for ø6 | |
| O1 | 1/8 | SX5000 |
| C4 | One-touch fitting for ø4 | |
| C6 | One-touch fitting for ø6 | |
| C8 | One-touch fitting for ø8 | SX7000 |
| O2 | 1/4 | |
| C8 | One-touch fitting for ø8 | |
| C10 | One-touch fitting for ø10 | |

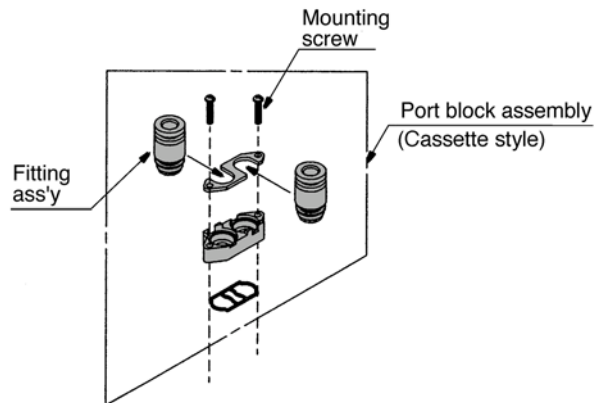
● **Thread**

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

SX3000/5000

* In case of SX3000/5000 port block assembly, only replacement of the fittings assembly is possible. Refer to the following numbers.

| | | |
|---------------|--------------------------|----------------|
| SX3000 | One-touch fitting for ø4 | VVQ1000-50A-C4 |
| | One-touch fitting for ø6 | VVQ1000-50A-C6 |
| SX5000 | One-touch fitting for ø4 | VVQ1000-51A-C4 |
| | One-touch fitting for ø6 | VVQ1000-51A-C6 |
| | One-touch fitting for ø8 | VVQ1000-51A-C8 |



⚠ Caution

Mounting screw tightening torque

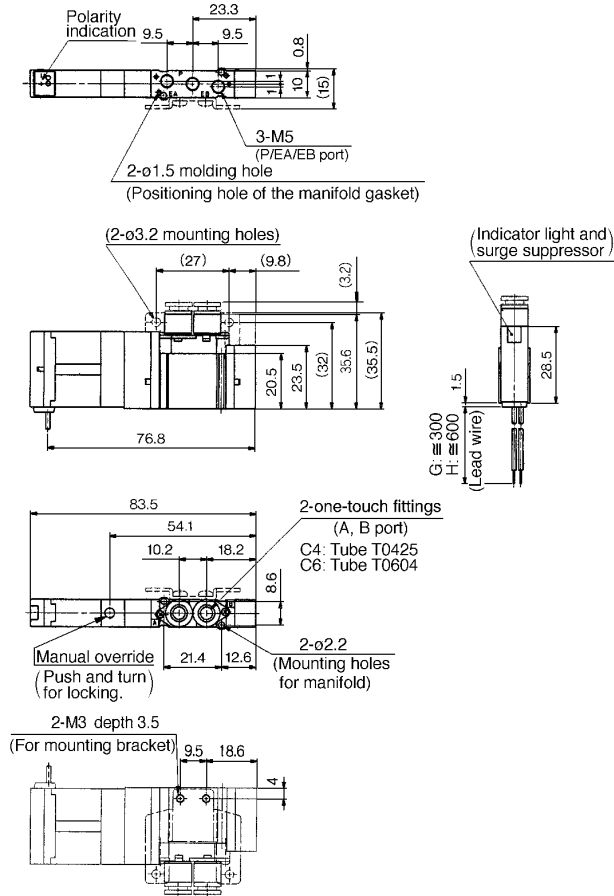
M2: 0.15Nm
 M3: 0.6Nm
 M4: 1.4Nm

SX3000/5000/7000 Body Ported Valve

Dimensions/Series SX3000

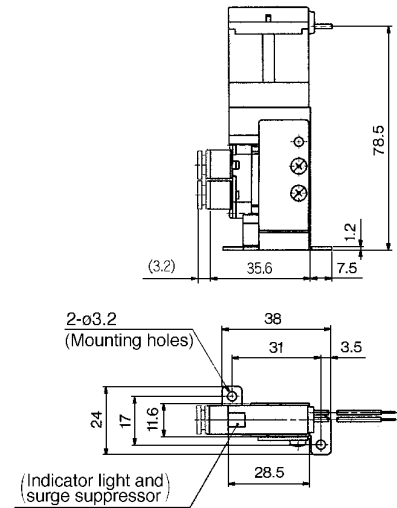
2 position single

Grommet (G), (H): SX3120-□_G□□□-C₄_{C6}(-F2)-Q

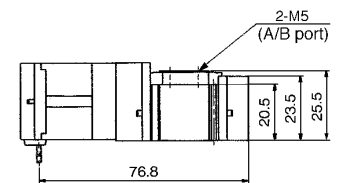


With foot bracket

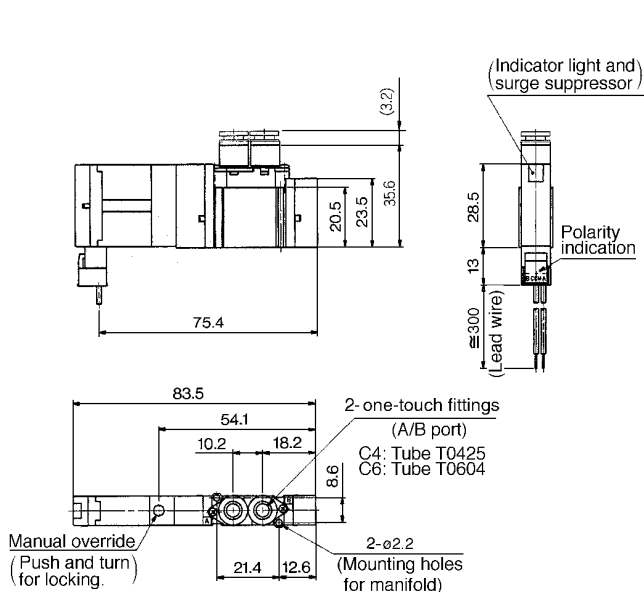
SX3120-□_G□□□-C₄_{C6}F1-Q



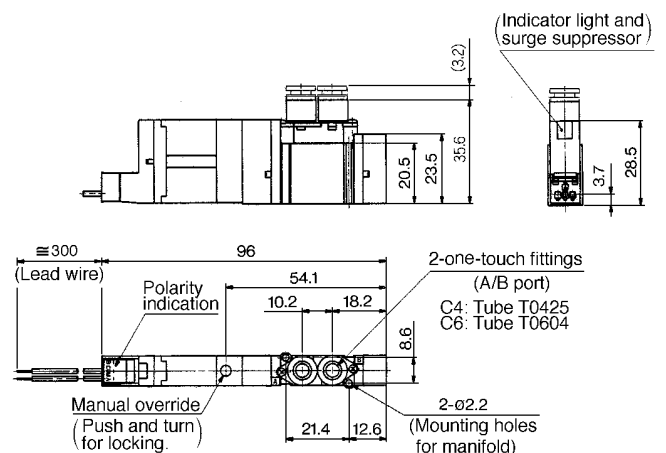
SX3120-□_G□□□-M5-Q



L plug connector (L): SX3120-□L□□-C₄_{C6}-Q



M plug connector (M): SX3120-□M□□-C₄_{C6}-Q



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

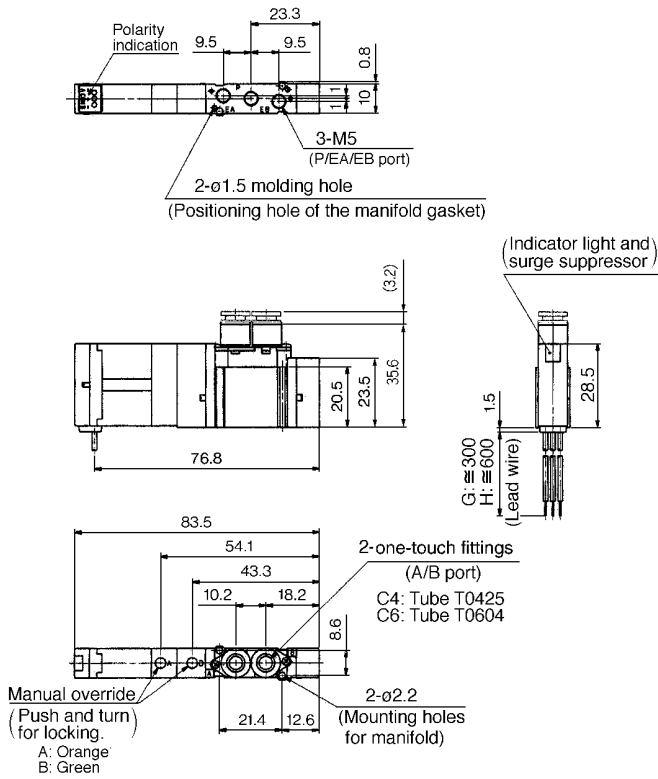
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX3000/5000/7000

Dimensions/Series SX3000

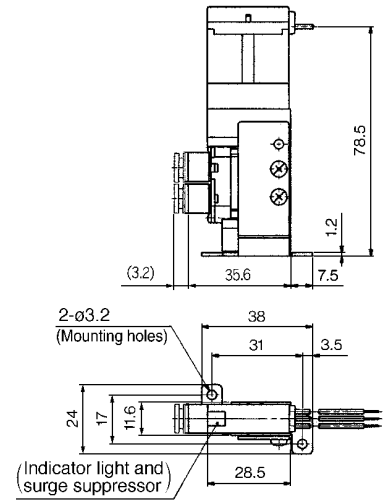
2 position double

Grommet (G), (H): SX3220-□_G□□□-C₄-C₆-Q

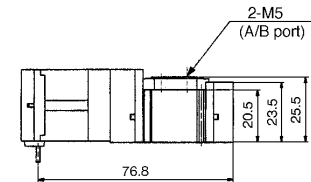


With foot bracket

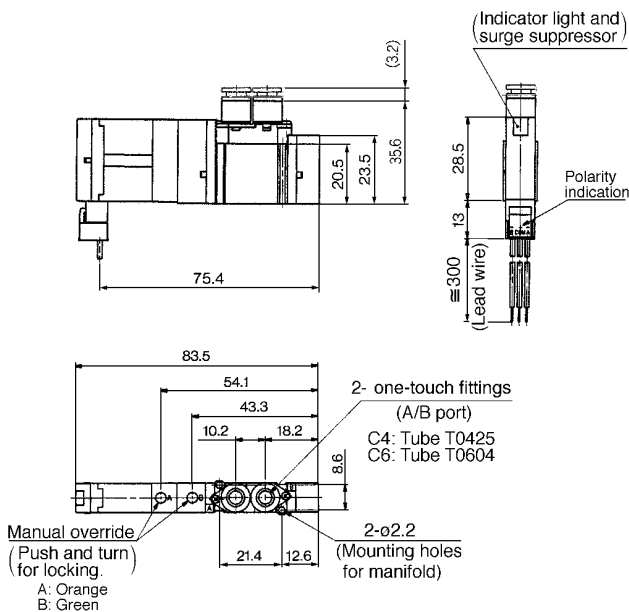
SX3220-□_G□□□-C₄-F1-Q



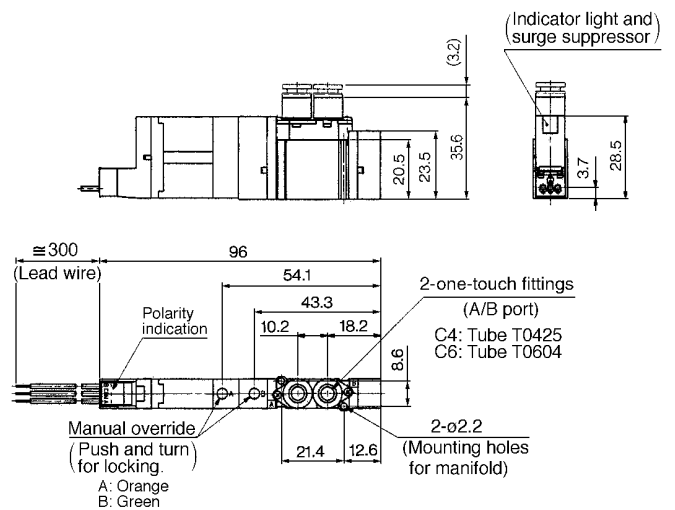
SX3220-□_G□□□-M5-Q



L plug connector (L): SX3220-□L□□□-C₄-C₆-Q



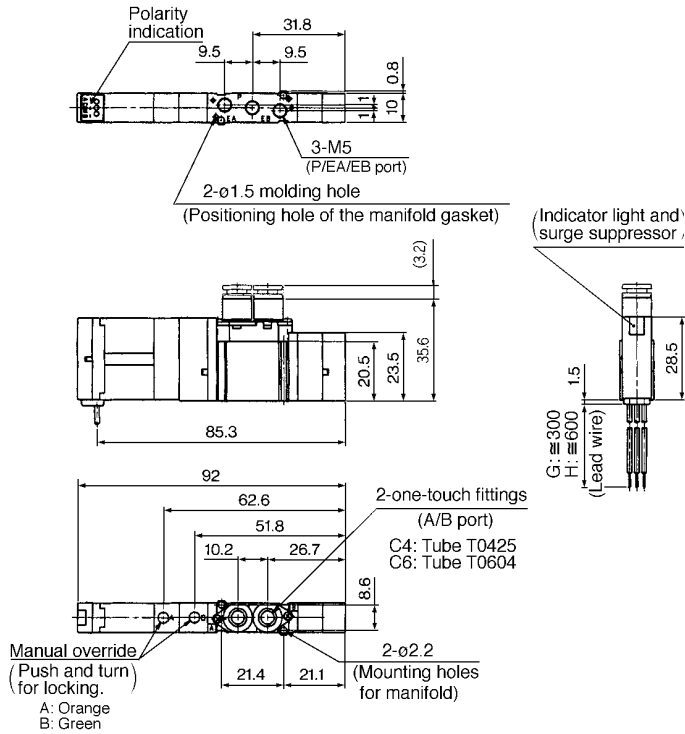
M plug connector (M): SX3220-□M□□□-C₄-C₆-Q



SX3000/5000/7000 Body Ported Valve

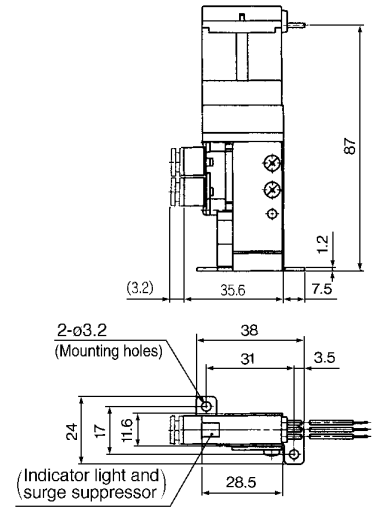
3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): $SX3\frac{3}{4}20\text{-}\square\text{G}\square\square\text{-C4-C6-Q}$

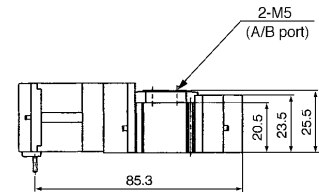


With foot bracket

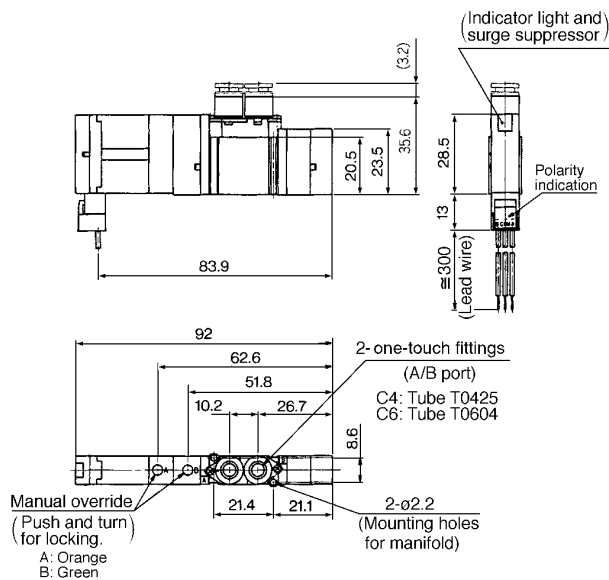
$SX3\frac{3}{4}20\text{-}\square\text{G}\square\square\text{-C4-F1-Q}$



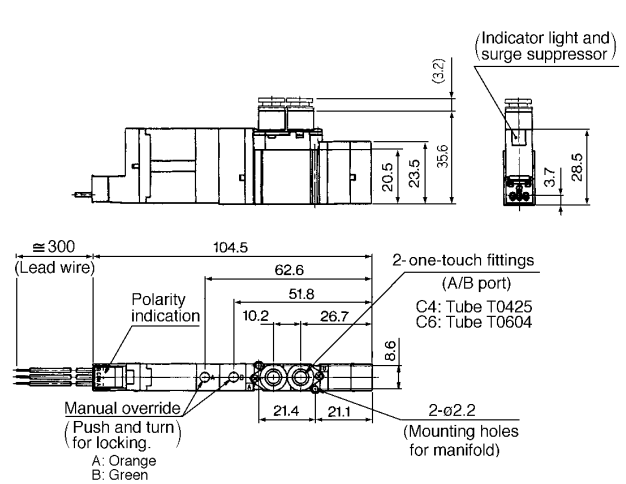
$SX3\frac{3}{4}20\text{-}\square\text{G}\square\square\text{-M5-Q}$



L plug connector (L): $SX3\frac{3}{4}20\text{-}\square\text{L}\square\square\text{-C4-C6-Q}$



M plug connector (M): $SX3\frac{3}{4}20\text{-}\square\text{M}\square\square\text{-C4-C6-Q}$



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

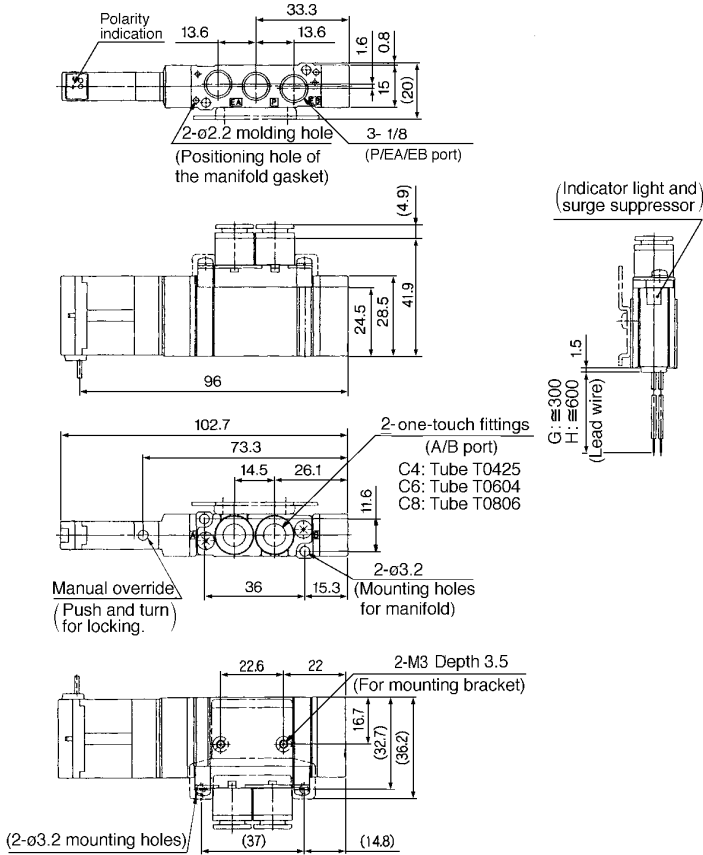
VQ7

SX3000/5000/7000

Dimensions/Series SX5000

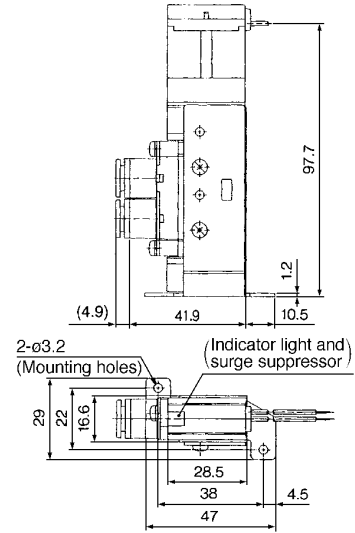
2 position single

Grommet (G), (H): SX5120-□^G□□ - ^{C4}_{C6}^{C8} (-F2)-Q

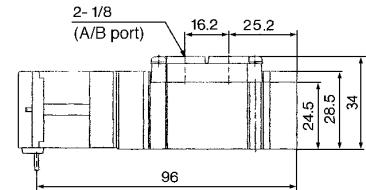


With foot bracket

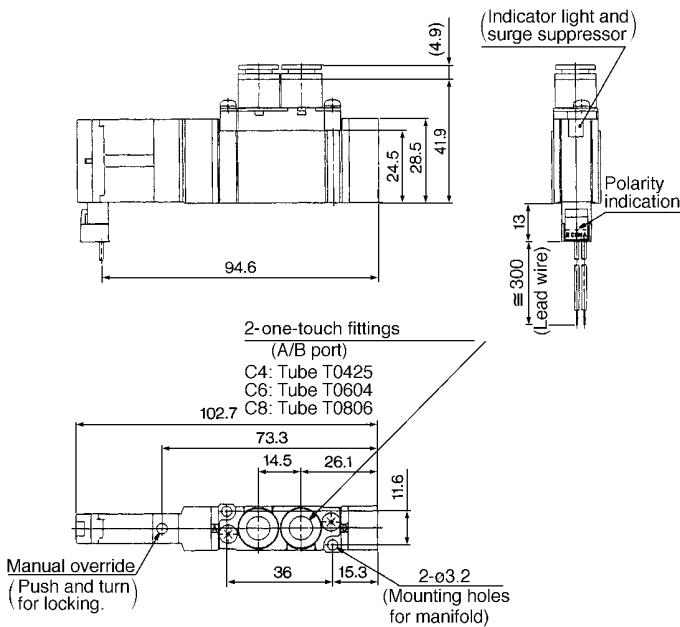
SX5120-□^G□□ - ^{C4}_{C6}^{C8} -F1-Q



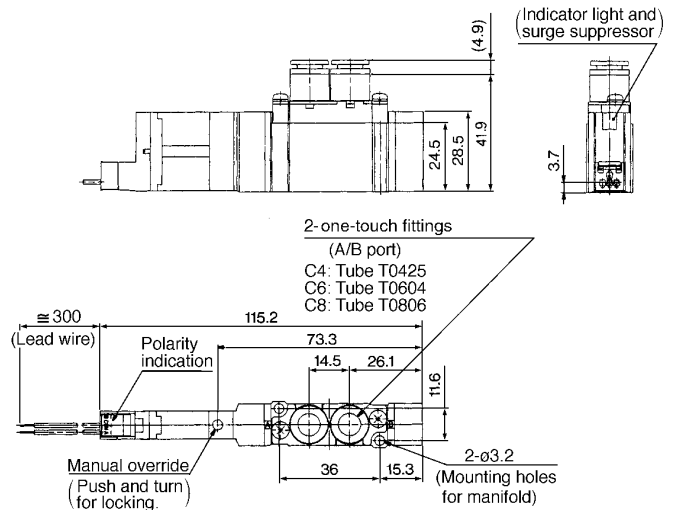
SX5120-□^G□□ -01□-Q



L plug connector (L): SX5120-□L□□ - ^{C4}_{C6}^{C8} -Q



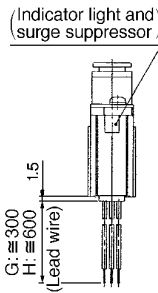
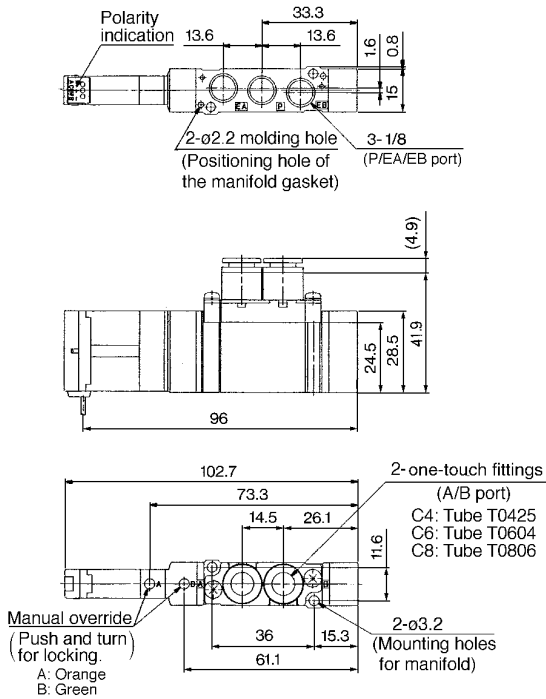
M plug connector (M): SX5120-□M□□ - ^{C4}_{C6}^{C8} -Q



SX3000/5000/7000 Body Ported Valve

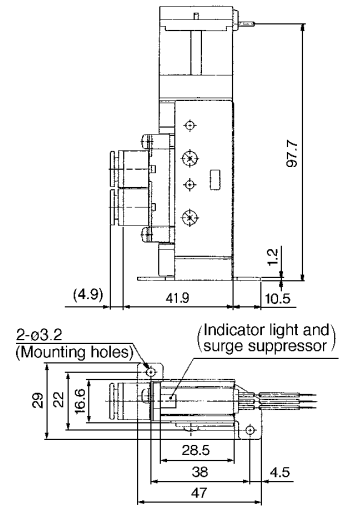
2 position double

Grommet (G), (H): SX5220-□^G□□ - C4
C6
C8 -Q

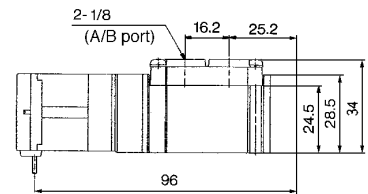


With foot bracket

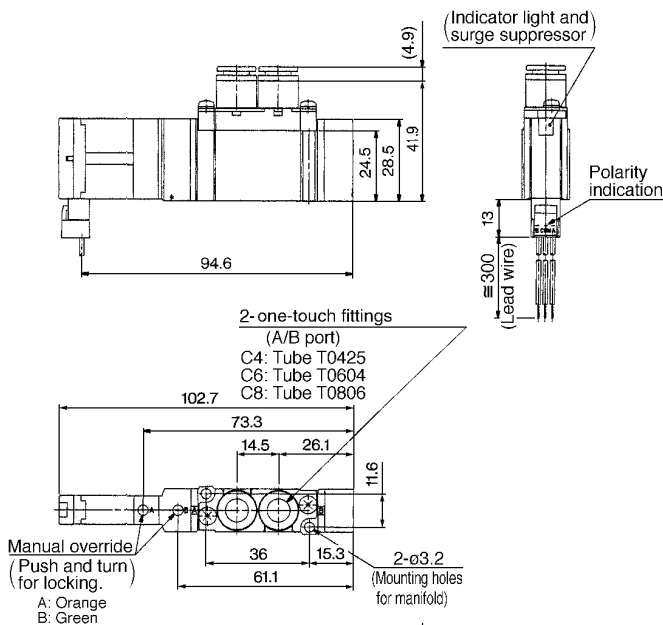
SX5220-□^G□□ - C4
C6
C8 -F1-Q



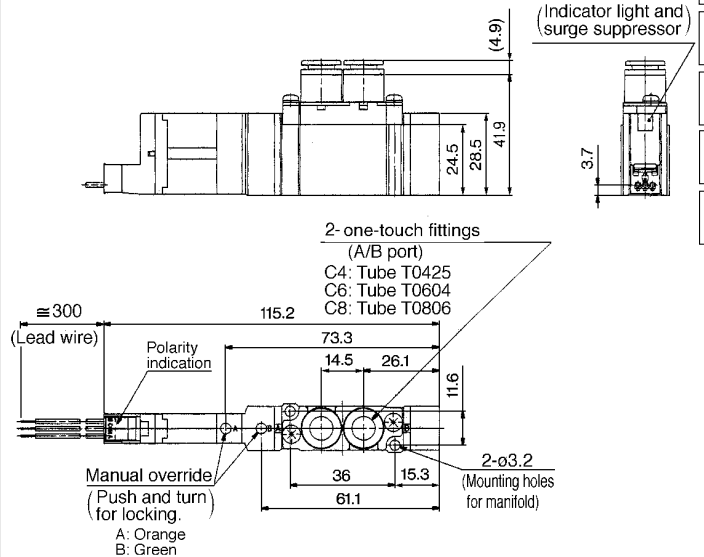
SX5220-□^G□□ -01□ -Q



L plug connector (L): SX5220-□L□□ - C4
C6
C8 -Q



M plug connector (M): SX5220-□M□□ - C4
C6
C8 -Q



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

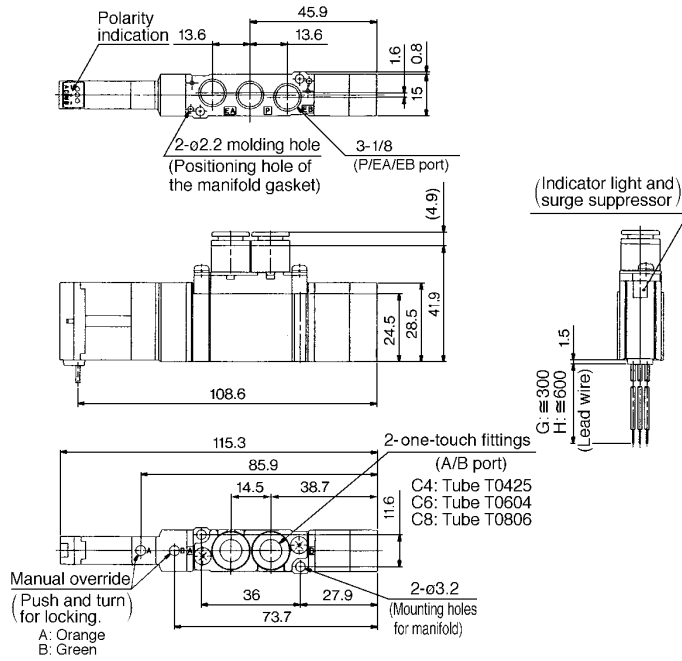
VQ7

SX3000/5000/7000

Dimensions/Series SX5000

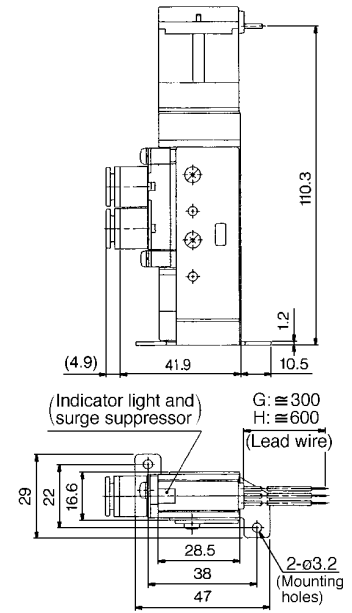
3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): $SX5 \frac{3}{4} 20$ -□_G□□□-_{C4}
_{C6} **-Q**
_{C8}

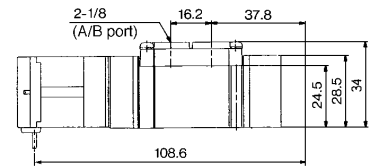


With foot bracket

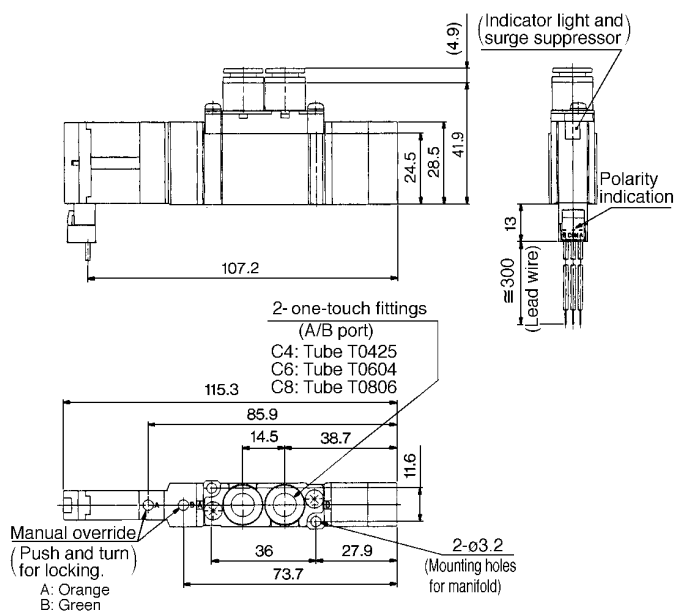
$SX5 \frac{3}{4} 20$ -□_G□□□-_{C4}
_{C6} **-F1-Q**
_{C8}



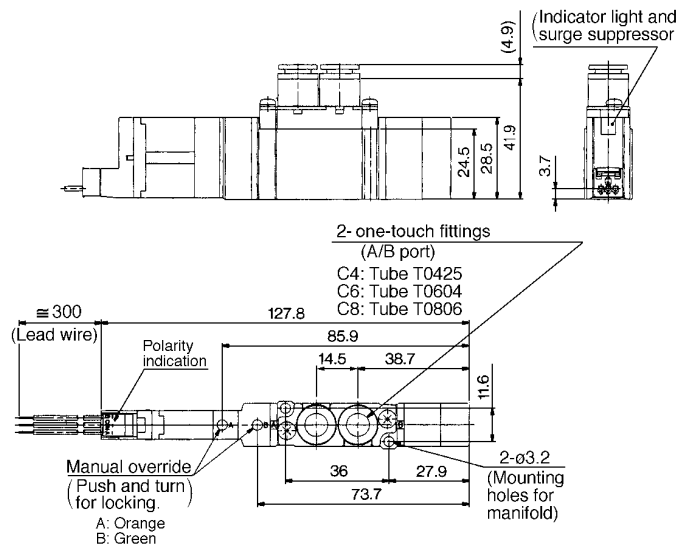
$SX5 \frac{3}{4} 20$ -□_G□□□-01□-Q



L plug connector (L): $SX5 \frac{3}{4} 20$ -□L□□□-_{C4}
_{C6} **-Q**
_{C8}



M plug connector (M): $SX5 \frac{3}{4} 20$ -□M□□□-_{C4}
_{C6} **-Q**
_{C8}

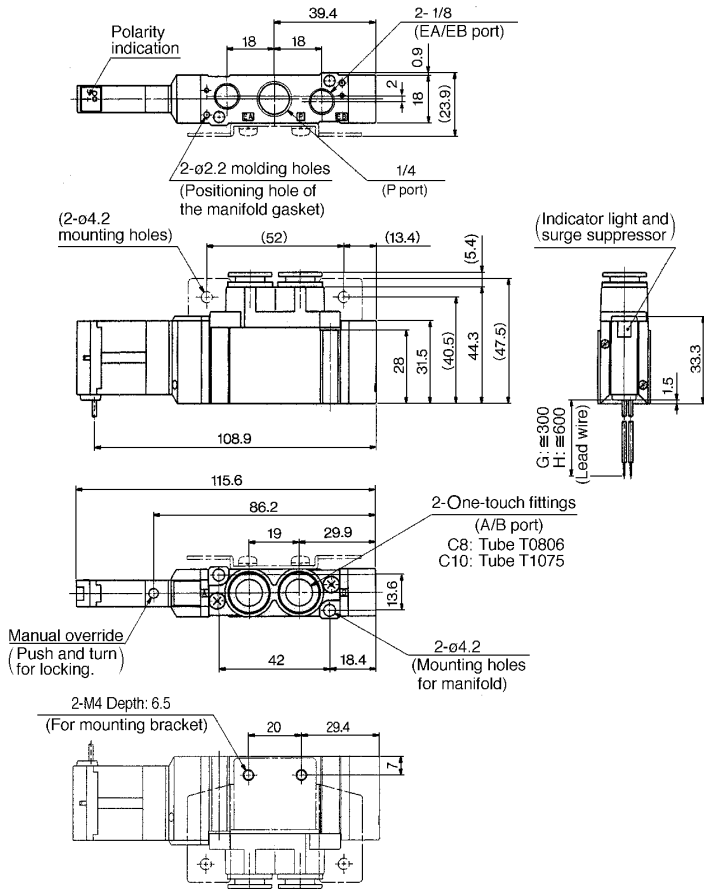


SX3000/5000/7000 Body Ported Valve

Dimensions/Series SX7000

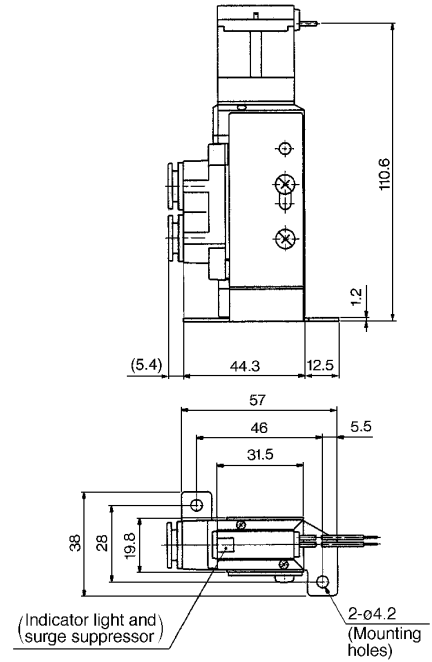
2 position single

Grommet (G), (H): SX7120-□_G□□□-C₈⁸/_{C10} (-F2) -Q

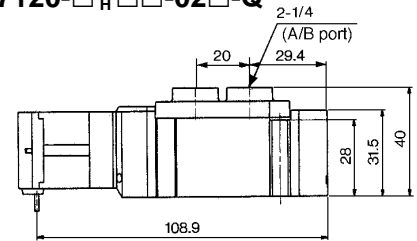


With foot bracket

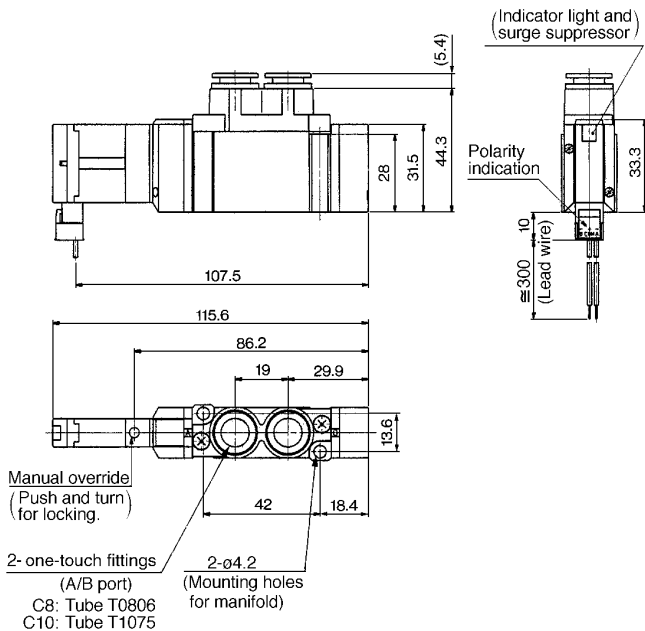
SX7120-□_G□□□-C₈⁸/_{C10} -F1 -Q



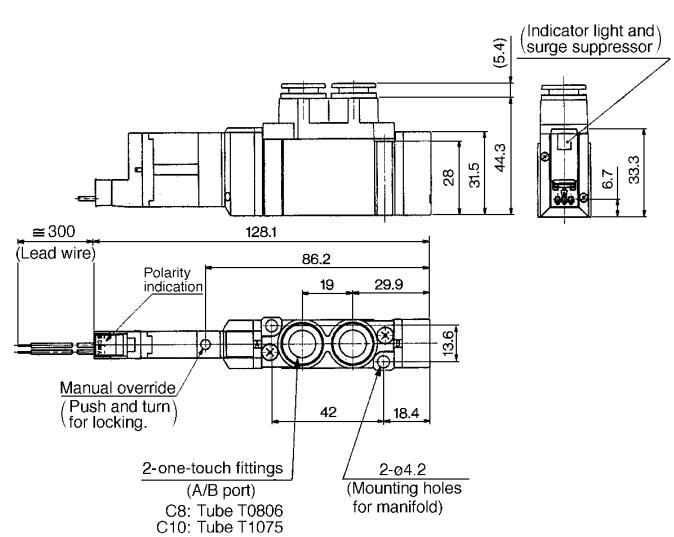
SX7120-□_G□□□-02□-Q



L plug connector (L): SX7120-□L□□□-C₈⁸/_{C10} -Q



M plug connector (M): SX7120-□M□□□-C₈⁸/_{C10} -Q



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

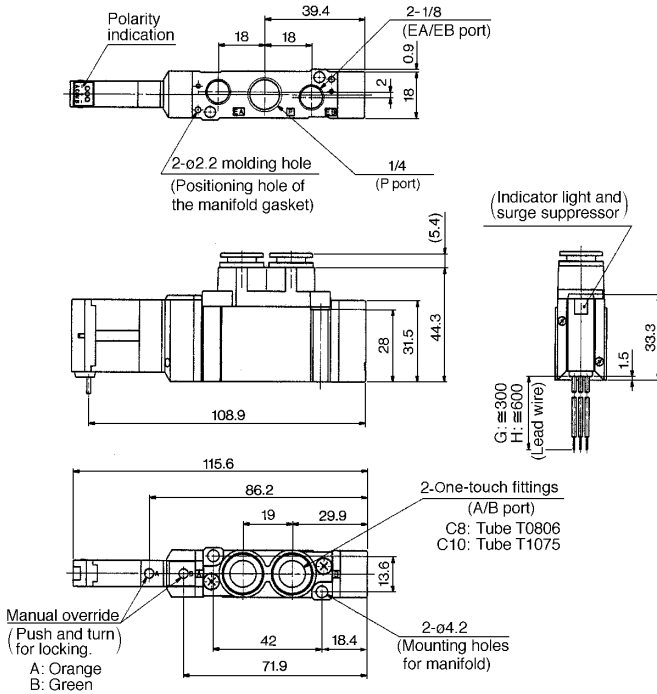
VQ7

SX3000/5000/7000

Dimensions/Series SX7000

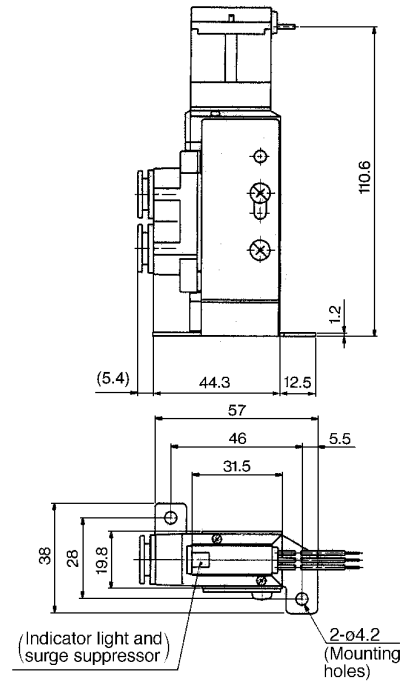
2 position double

Grommet (G), (H): SX7220-□_G□_H□□ -C₈
C₁₀ -Q

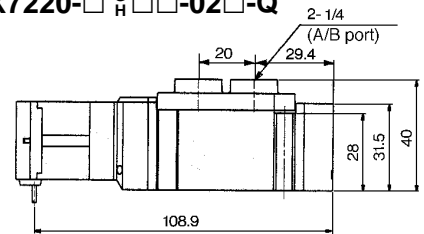


With foot bracket

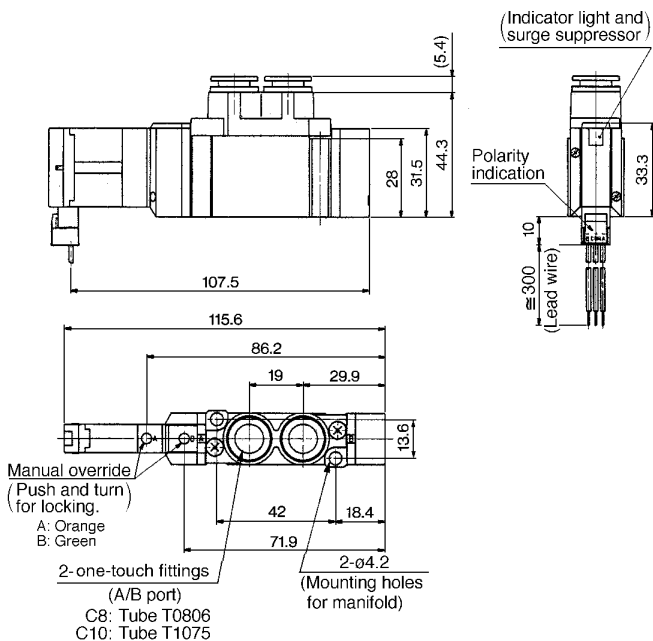
SX7220-□_G□_H□□ -C₈
C₁₀ -F1 -Q



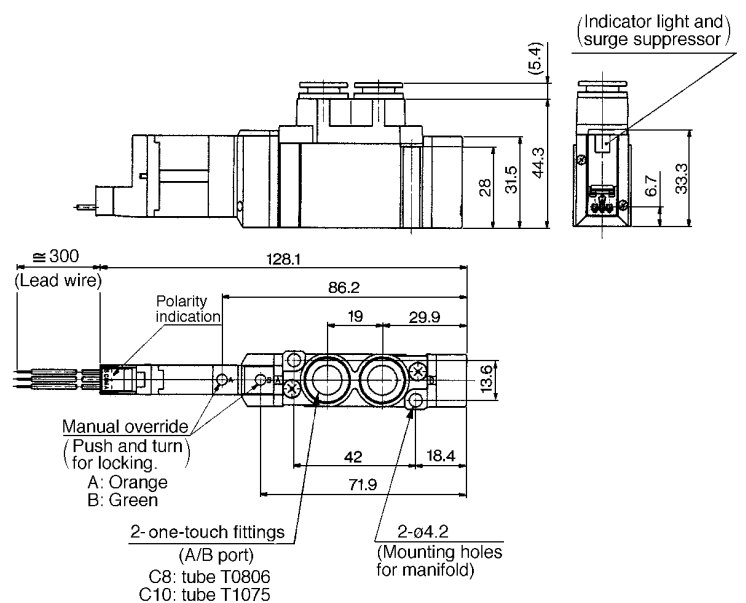
SX7220-□_G□_H□□ -02□ -Q



L plug connector (L): SX7220-□L□□ -C₈
C₁₀ -Q



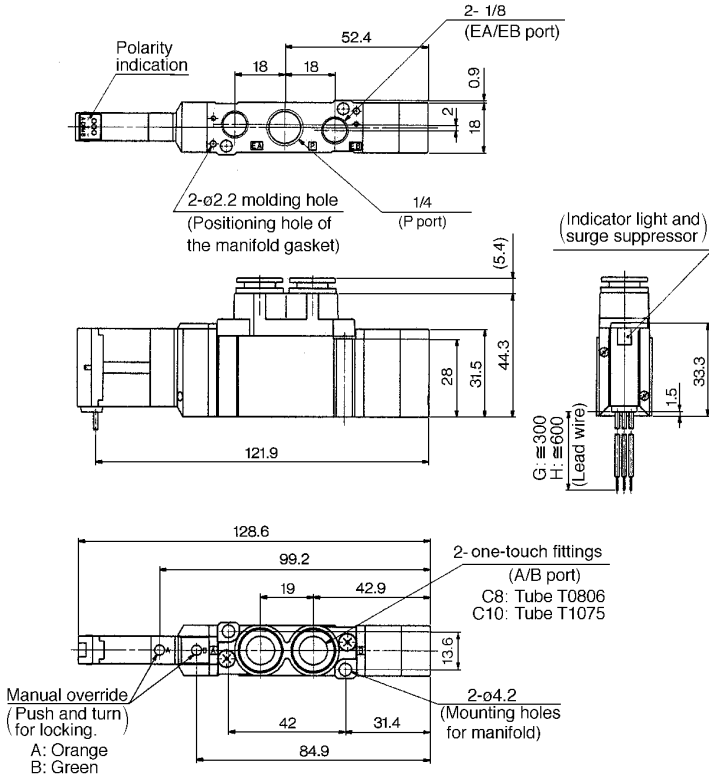
M plug connector (M): SX7220-□M□□ -C₈
C₁₀ -Q



SX3000/5000/7000 Body Ported Valve

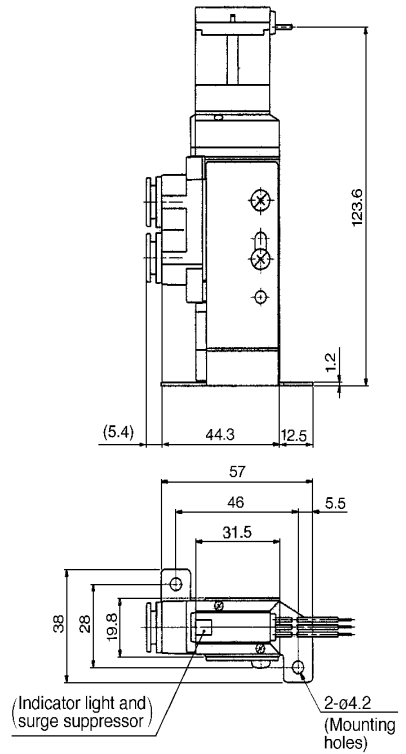
3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): $SX7 \frac{3}{4} 20\text{-}\square \square \square \square \text{-}C8 \text{-}Q$

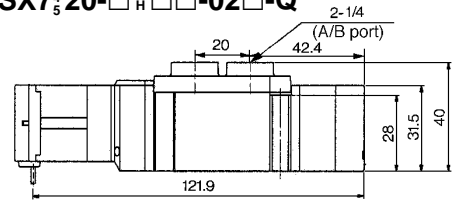


With foot bracket

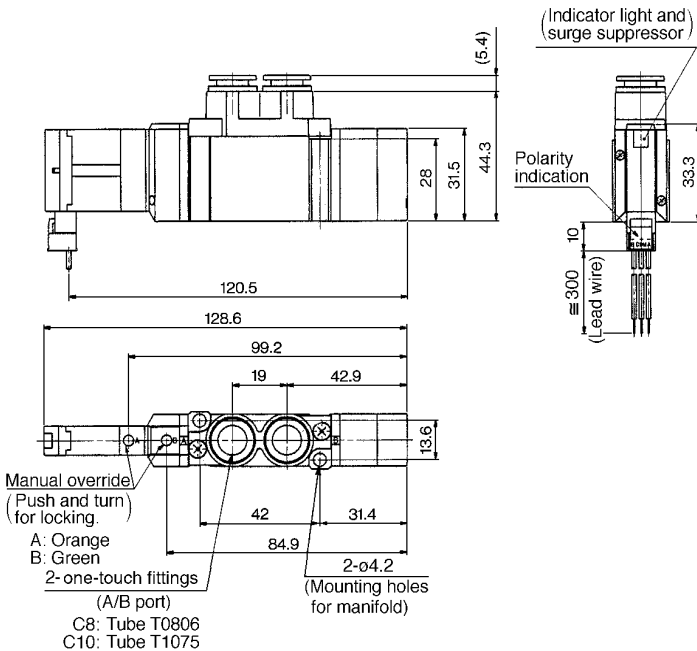
$SX7 \frac{3}{4} 20\text{-}\square \square \square \square \text{-}C8 \text{-}F1\text{-}Q$



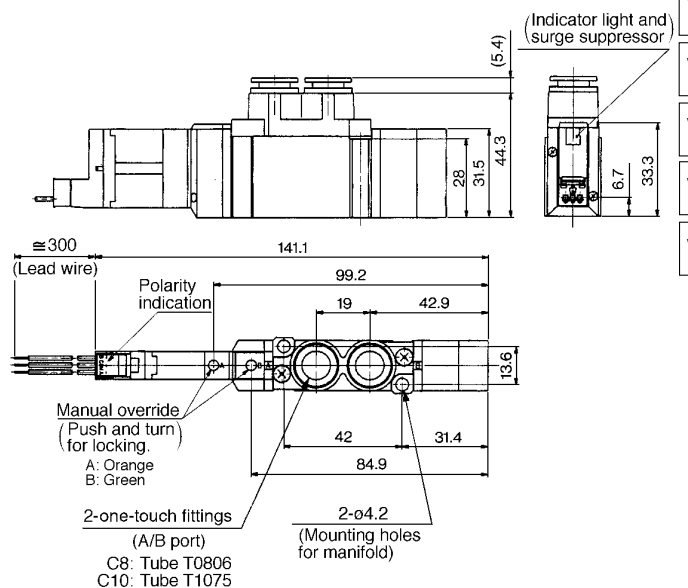
$SX7 \frac{3}{4} 20\text{-}\square \square \square \square \text{-}02\text{-}Q$



L plug connector (L): $SX7 \frac{3}{4} 20\text{-}\square \square \square \square \text{-}C8 \text{-}Q$



M plug connector (M): $SX7 \frac{3}{4} 20\text{-}\square \square \square \square \text{-}C8 \text{-}Q$



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

SX3000/5000/7000

Base Mounted Valve

How to Order

• **Thread**

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

SX 5 2 40 [] 5 N L [] [] [] -Q

• **Series**

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

• **Configuration**

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

• **Port size**

| Symbol | Port size | Series |
|--------|-------------------|------------------|
| — | Without subplate | |
| 01 | 1/8 With subplate | SX3000 |
| 02 | 1/4 With subplate | SX5000 SX7000 |
| 03 | 3/8 With subplate | SX7000 |

• **Manual override**

—: Non-locking push style

D: Push-turn-locking slotted style

• **Indicator light and surge voltage suppressor**

| | |
|---|--|
| — | Without indicator light and surge voltage suppressor |
| S | With surge voltage suppressor |
| Z | With indicator light and surge voltage suppressor |

• **Pilot**

| | |
|---|----------------|
| — | Internal pilot |
| R | External pilot |

• **Rated voltage**

| | |
|---|-------------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V | 6V DC |
| S | 5V DC |
| R | 3V DC |
| 9 | (Less than 50VDC) |

• **Common specification**

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

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

• **Electrical entry**

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

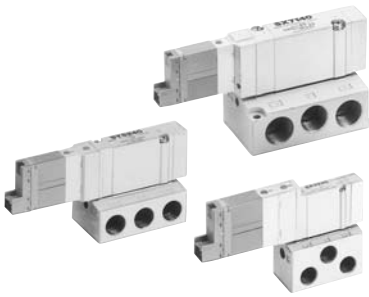
* The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.

Protective class class III (Mark:)

Contact SMC for other voltages (9)

SX3000/5000/7000 Base Mounted Valve

Specifications



P.1.4-109 to 1.4-120

| Series | | SX3000 | SX5000 | SX7000 |
|---|---------------------------|---|----------------|--------|
| Fluid | | Air | | |
| Internal pilot 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 | | |
| External pilot operating pressure range (MPa) | Operating pressure range | | -100kPa to 0.7 | |
| | Pilot pressure range | 2 position single | 0.25 to 0.7 | |
| | | 2 position double | 0.25 to 0.7 | |
| | | 3 position | 0.25 to 0.7 | |
| Ambient and fluid temperature °C | | Max. 50 | | |
| Max. operating frequency (Hz) | 2 position single, double | 10 | 5 | 5 |
| | 3 position | 3 | 3 | 3 |
| Manual override | | Non-locking push style, Push-turn-locking slotted style | | |
| Pilot exhaust | Internal pilot | Common exhaust for main and pilot valve | | |
| | External pilot | Individual exhaust for pilot valve | | |
| Lubrication | | Not required | | |
| Mounting position | | Free | | |
| Impact/Vibration resistance (m/s ²) | | 150/30 | | |
| Protection structure | | Dust proof | | |

SV
SY
SYJ
SX
VK
VZ
VF
VFR
VP7

Note) Shock 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.

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 the 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 |
| Allowable voltage | | ±10% rated voltage |
| Power consumption (W) | DC | 0.6 (With light: 0.65) |
| Surge voltage suppressor | | Diode |
| Indicator light | | LED |

VQC
SQ
VQ
VQ4
VQ5
VQZ
VQD
VFS
VS
VS7
VQ7

Response Time

Note) According to JISB8375-1981, kinetic ability test (Coil test: 20°C, at rated voltage)

SX3000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|---|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 12 or less | 15 or less |
| 2 position double | 10 or less | 13 or less |
| 3 position | 15 or less | 20 or less |

SX5000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|---|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 19 or less | 26 or less |
| 2 position double | 18 or less | 22 or less |
| 3 position | 32 or less | 38 or less |

SX7000

| Configuration | Response time (ms) (0.5MPa) | |
|-------------------|--|---|
| | Without indicator light and surge voltage suppressor | W/ indicator light and surge suppressor S, Z type |
| 2 position single | 31 or less | 38 or less |
| 2 position double | 27 or less | 30 or less |
| 3 position | 50 or less | 56 or less |

SX3000/5000/7000

Series SX3000

| Valve | Configuration | | Port size | Effective area (mm ²)(Nl/min) ⁽¹⁾ | | Weight (g) ⁽²⁾ | |
|-------------|---------------|-----------------|-----------|--|--------------|---------------------------|----------------------------------|
| | | | | P→A/B | A/B→EA/EB | Grommet | L, M plug connector |
| SX3□40-□-01 | 2 position | Single | 1/8 | 4.86 (265.01) | 5.4 (294.45) | 100 (66) | 101 (67) |
| | | Double | | 4.86 (265.01) | 5.4 (294.45) | 108 (74) | 110 (75) |
| | Closed centre | 4.68 (255.19) | | 4.86 (265.01) | 111 (76) | 112 (78) | |
| | 3 position | Exhaust centre | | 4.86 (265.01) | | | 5.94 (323.90) [3.24 (176.67)] |
| | | Pressure centre | | 6.66 (363.16) [3.24 (176.67)] | | | 5.22 (284.64) |



Note 1) []: Normal position Note 2) (): Without subplate

Series SX5000

| Valve | Configuration | | Port size | Effective area (mm ²)(Nl/min) ⁽¹⁾ | | Weight (g) ⁽²⁾ | |
|-------------|---------------|-----------------|-----------|--|---------------|---------------------------|---------------------------------|
| | | | | P→A/B | A/B→EA/EB | Grommet | L, M plug connector |
| SX5□40-□-02 | 2 position | Single | 1/4 | 12.78 (696.87) | 12.6 (687.05) | 136 (74) | 137 (75) |
| | | Double | | 12.78 (696.87) | 12.6 (687.05) | 144 (82) | 145 (83) |
| | Closed centre | 7.56 (412.23) | | 8.1 (441.68) | 149 (87) | 151 (89) | |
| | 3 position | Exhaust centre | | 7.92 (431.86) | | | 14.4 (785.20) [9.0 (490.75)] |
| | | Pressure centre | | 15.84 (863.72) [4.5 (245.38)] | | | 8.64 (471.12) |



Note 1) []: Normal position Note 2) (): Without subplate

Series SX7000

| Valve | Configuration | | Port size | Effective area (mm ²)(Nl/min) ⁽¹⁾ | | Weight (g) ⁽²⁾ | |
|-------------|---------------|-----------------|-----------|--|----------------|---------------------------|-------------------------------------|
| | | | | P→A/B | A/B→EA/EB | Grommet | L, M plug connector |
| SX7□40-□-03 | 2 position | Single | 1/4 | 23.22 (1266.14) | 21.6 (1177.80) | 222 (100) | 223 (101) |
| | | Double | | 23.22 (1266.14) | 21.6 (1177.80) | 229 (107) | 231 (109) |
| | Closed centre | 14.04 (765.57) | | 12.24 (667.42) | 238 (116) | 240 (118) | |
| | 3 position | Exhaust centre | | 14.04 (765.57) | | | 20.88 (1138.54) [12.96 (706.68)] |
| | | Pressure centre | | 24.48 (1334.84) [13.5 (736.13)] | | | 12.42 (677.24) |



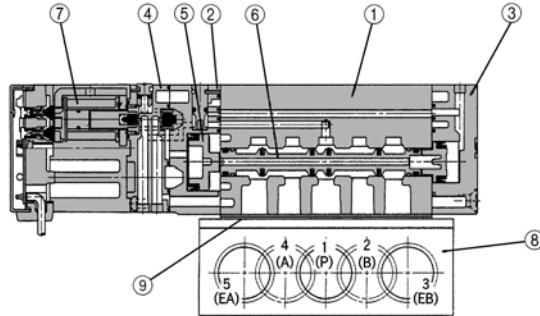
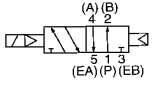
Note 1) []: Normal position Note 2) (): Without subplate

SX3000/5000/7000 Base Mounted Valve

Construction

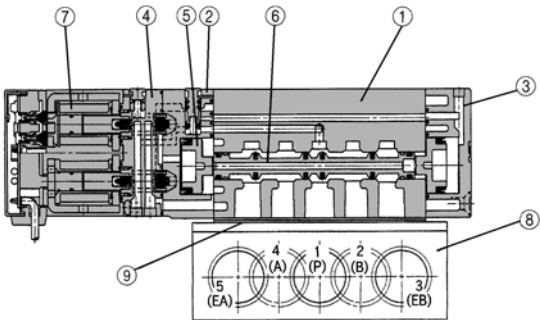
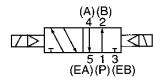
2 position single

Symbol
2 position single



2 position double

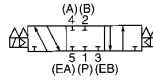
Symbol
2 position double



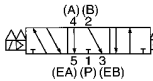
3 position closed centre/exhaust centre/pressure centre

Symbol

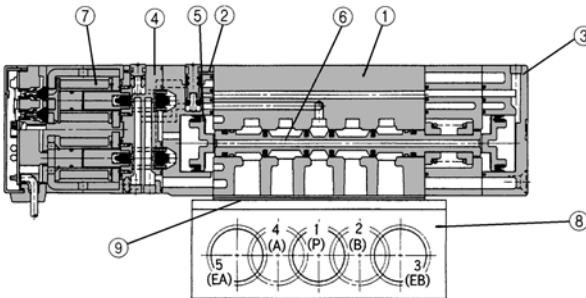
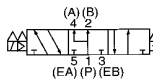
3 position closed centre



3 position exhaust centre



3 position pressure centre



(In case of closed centre)

Component Parts

| No. | Description | Material | Note |
|-----|---------------|--|-------|
| ① | Body | Aluminum die cast (SX3000: Zinc die cast) | White |
| ② | Adaptor plate | Resin | White |
| ③ | End plate | Resin | White |
| ④ | Pilot body | Resin | White |
| ⑤ | Piston | Resin | — |
| ⑥ | Spool ass'y | Aluminum/NBR | — |
| ⑦ | Mold coil | Resin | Gray |

Replacement Parts

| No. | Description | Part No. | | | Note |
|-----|---------------------|--------------------------|----------------|--|---|
| | | SX3□40 | SX5□40 | SX7□40 | |
| ⑧ | Subplate | SY3000-27-1*-Q | SY5000-27-1*-Q | 1/4 : SY7000-27-1*-Q 3/8 : SY7000-27-2*-2-Q | Aluminum die cast |
| ⑨ | Gasket | SY3000-11-14 | SY5000-11-7 | SY7000-11-5 | NBR |
| — | Phillips head screw | SX3000-22-2 (M2 X 24) | M3 X 30 | M4 X 35 | For mounting valves (Matted nickel plated) |

How to Order Connector Ass'y for L and M Plug Connector

Positive common

For single solenoid: SX100 - 40-4S-□

For double solenoid: SX100 - 40-4D-□
3 position

Negative common

For single solenoid: SX100 - 41-4S-□

For double solenoid: SX100 - 41-4D-□
3 position

Lead wire length ●

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



Refer to p.1.4-6 for further information on connector ass'y.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

⚠ Caution

Mounting screw tightening torque

M2: 0.15Nm

M3: 0.6Nm

M4: 1.4Nm

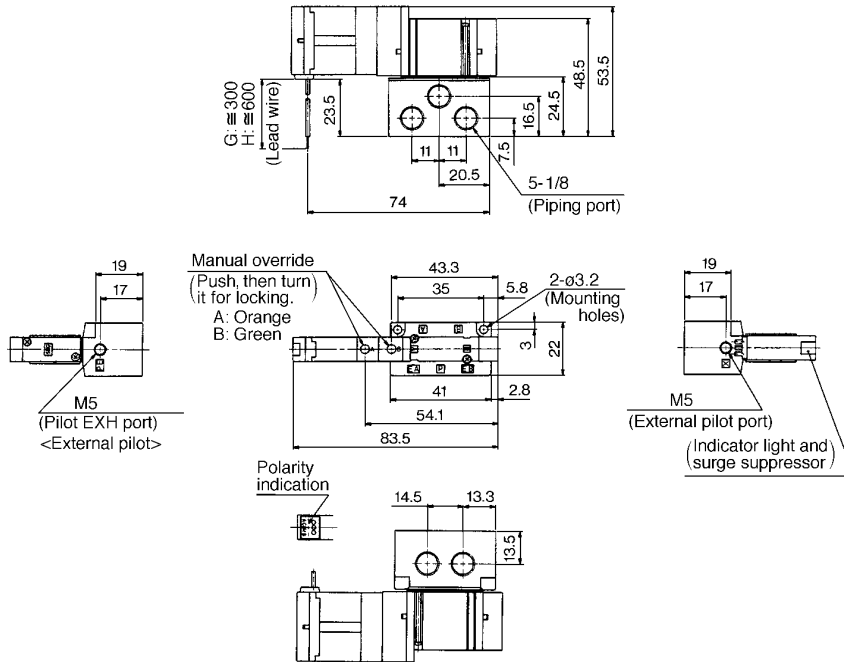
* Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

SX3000/5000/7000 Base Mounted Valve

2 position double

Grommet (G), (H): SX3240(R)-□^G□□-01□-Q



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

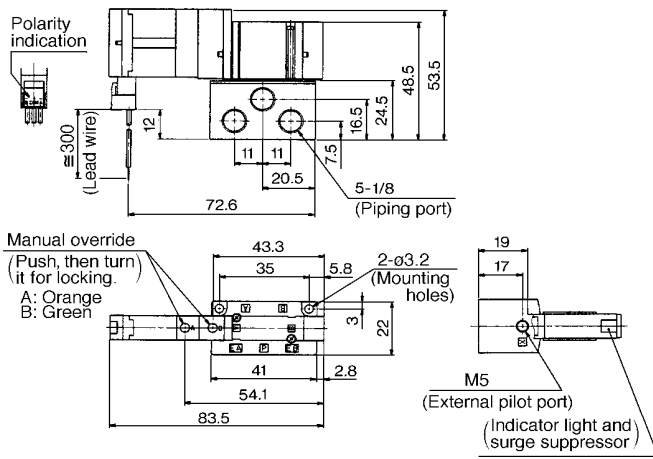
VFS

VS

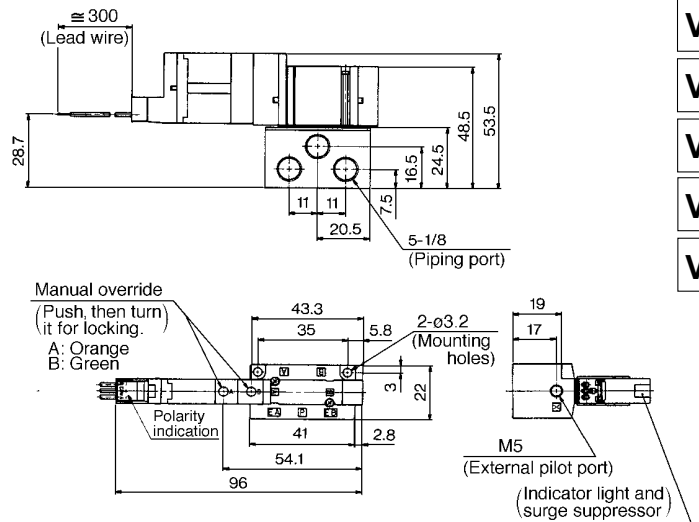
VS7

VQ7

L plug connector (L): SX3240(R)-□L□□-01□-Q



M plug connector (M): SX3240(R)-□M□□-01□-Q

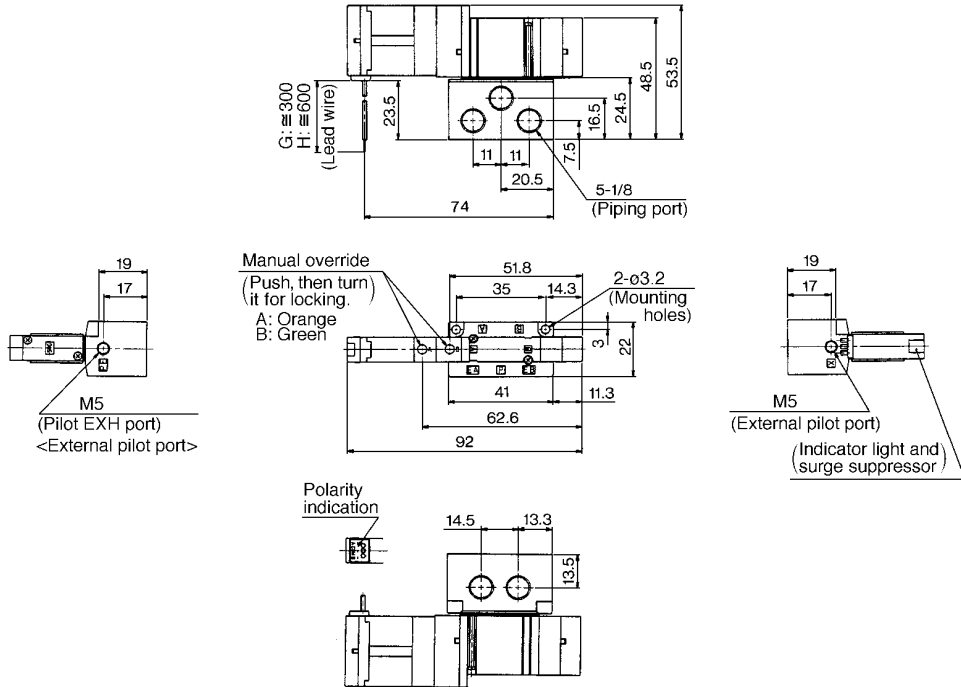


SX3000/5000/7000

Dimensions/Series SX3000

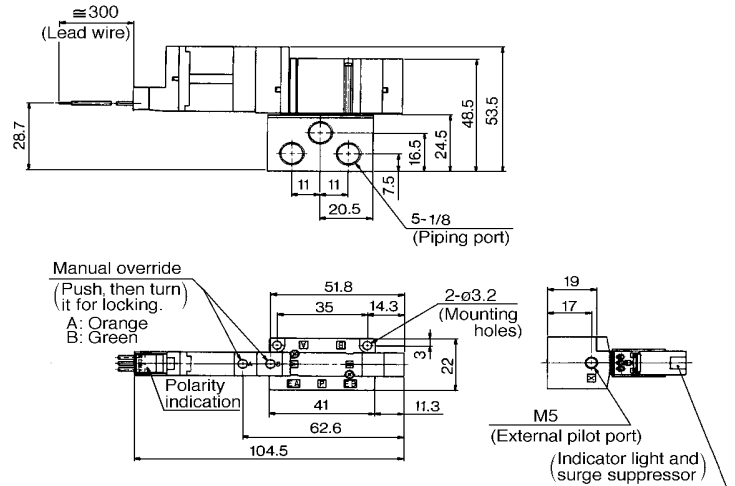
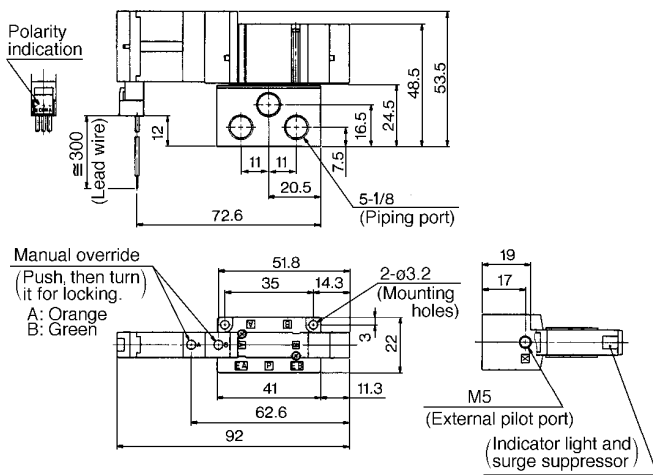
3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): SX3³/₅40(R)-□^G□□-01□-Q



L plug connector (L): SX3³/₅40(R)-□L□□-01□-Q

M plug connector (M): SX3³/₅40(R)-□M□□-01□-Q

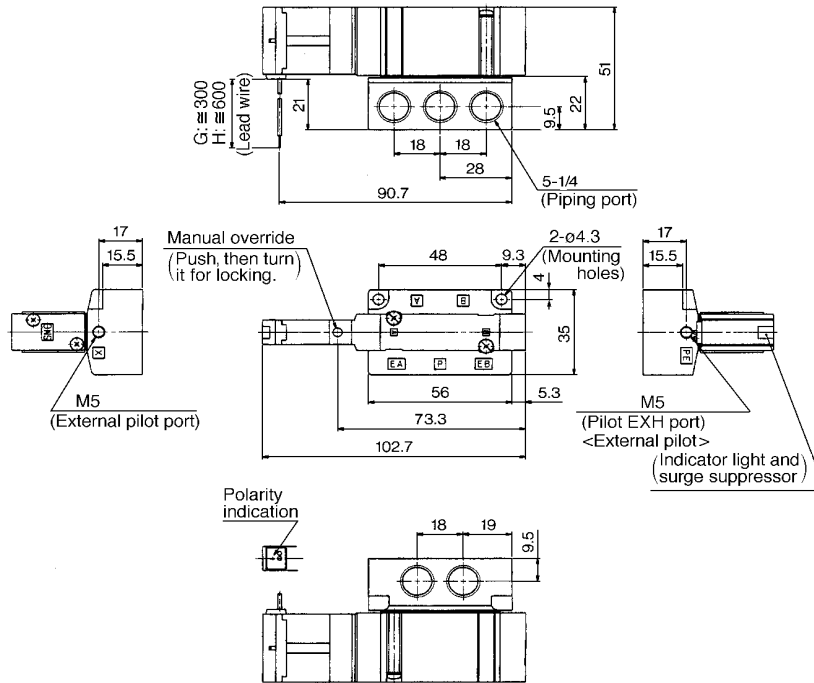


SX3000/5000/7000 Base Mounted Valve

Dimensions/Series SX5000

2 position single

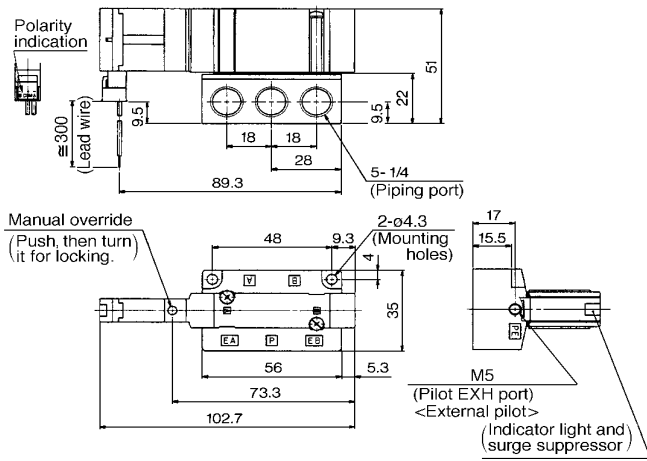
Grommet (G), (H): SX5140(R)-□^G□□-02□-Q



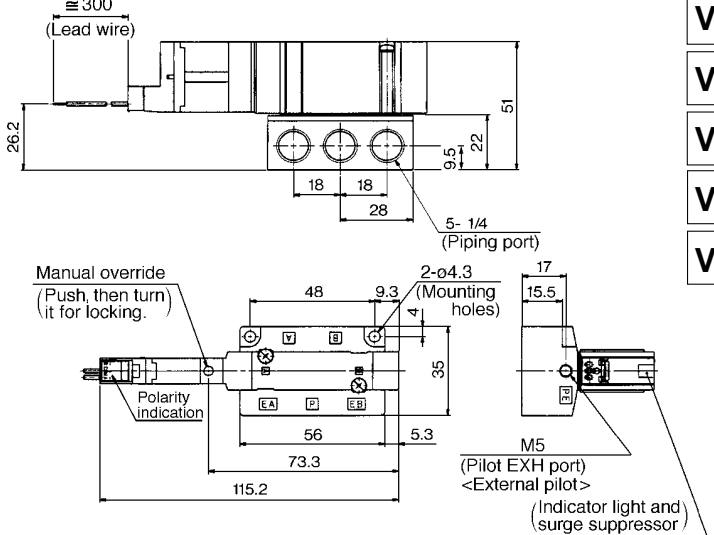
- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7

- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

L plug connector (L): SX5140(R)-□L□□-02□-Q



M plug connector (M): SX5140(R)-□M□□-02□-Q

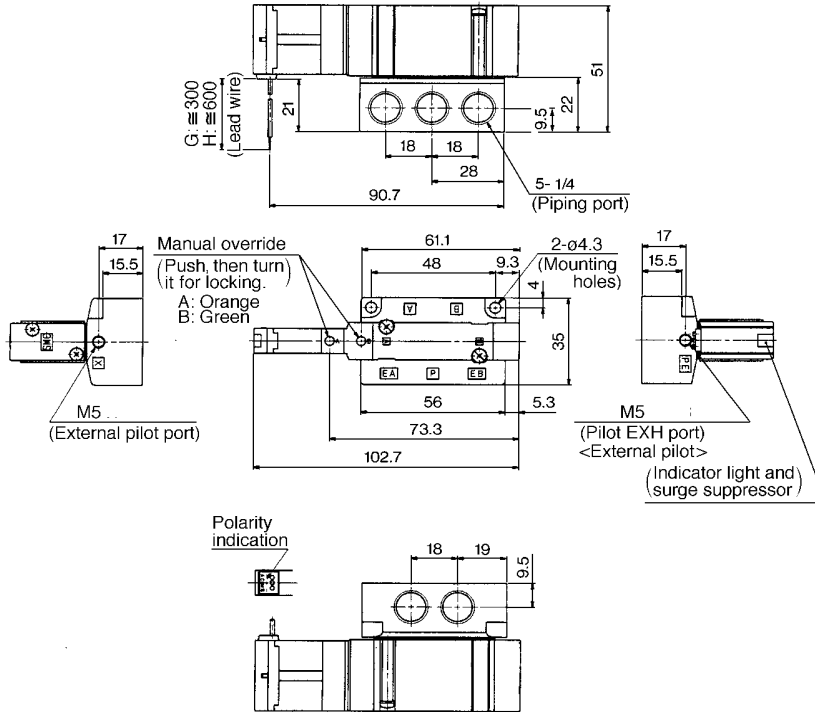


SX3000/5000/7000

Dimensions/Series SX5000

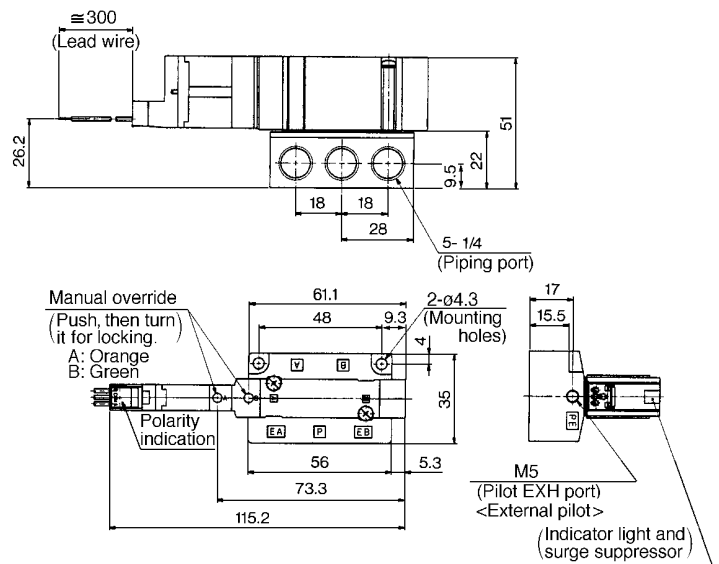
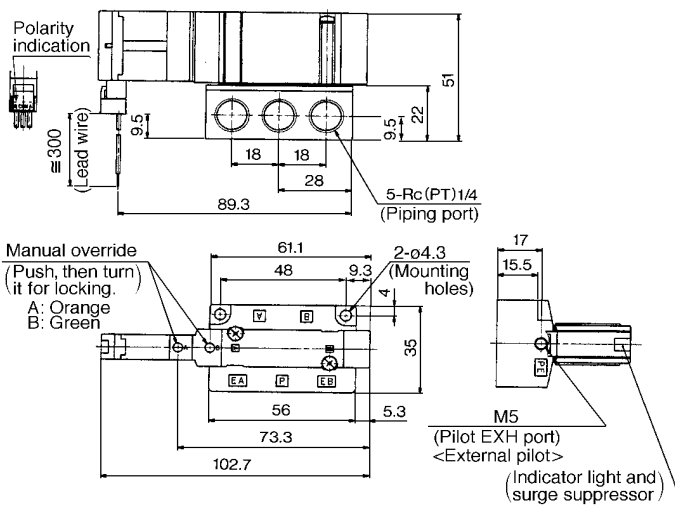
2 position double

Grommet (G), (H): SX5240(R)-□^G□□-02□-Q



L plug connector (L): SX5240(R)-□L□□-02□-Q

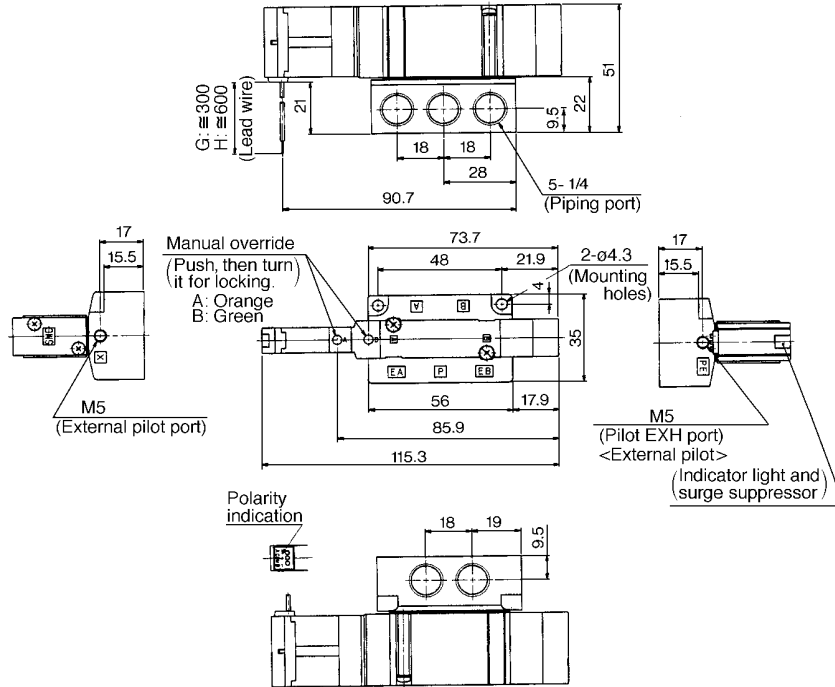
M plug connector (M): SX5240(R)-□M□□-02□-Q



SX3000/5000/7000 Base Mounted Valve

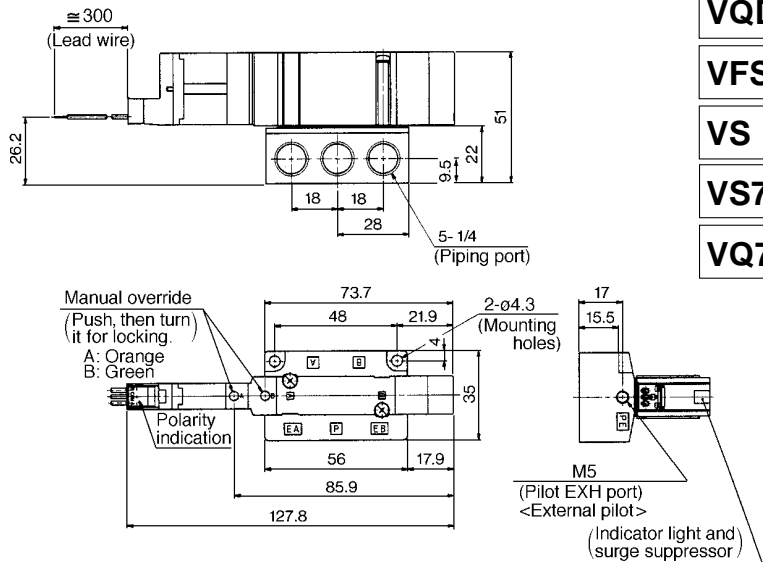
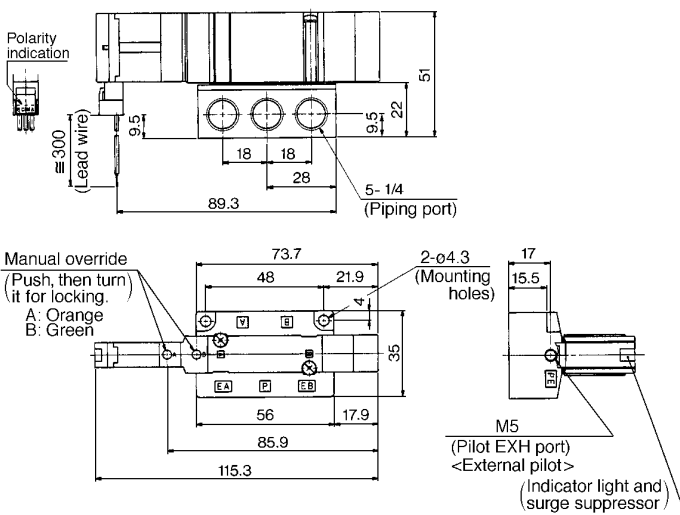
3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): $SX5\frac{3}{4}40(R)-\square\text{H}\square\square-02\square-Q$



L plug connector (L): $SX5\frac{3}{4}40(R)-\square L\square\square-02\square-Q$

M plug connector (M): $SX5\frac{3}{4}40(R)-\square M\square\square-02\square-Q$



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

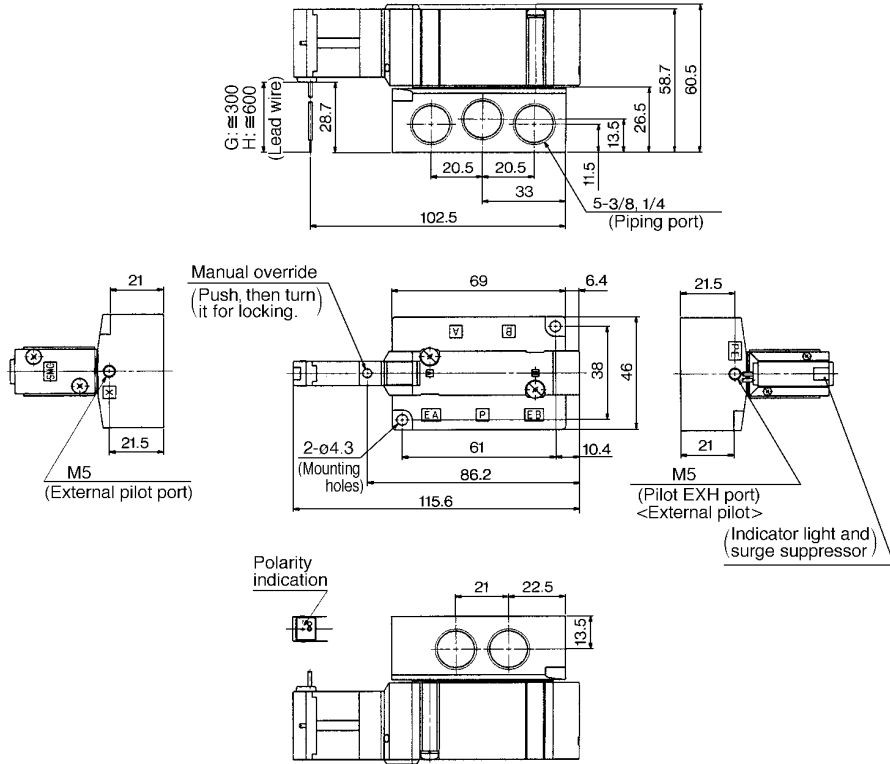
VQ7

SX3000/5000/7000

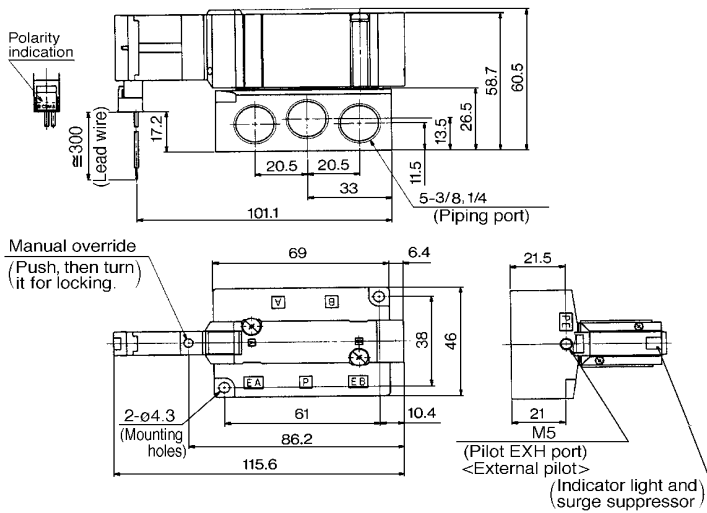
Dimensions/Series SX7000

2 position single

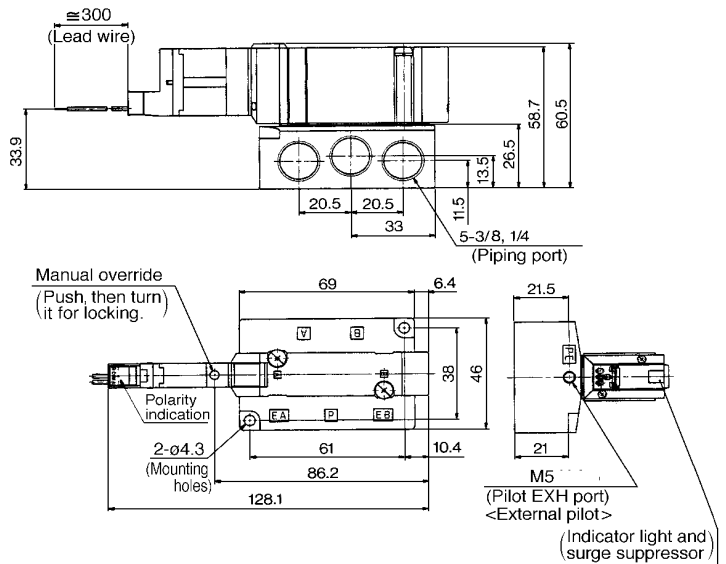
Grommet (G), (H): SX7140(R)-□^G□□⁰²□⁰³□-Q



L plug connector (L): SX7140(R)-□L□□⁰²□⁰³□-Q



M plug connector (M): SX7140(R)-□M□□⁰²□⁰³□-Q

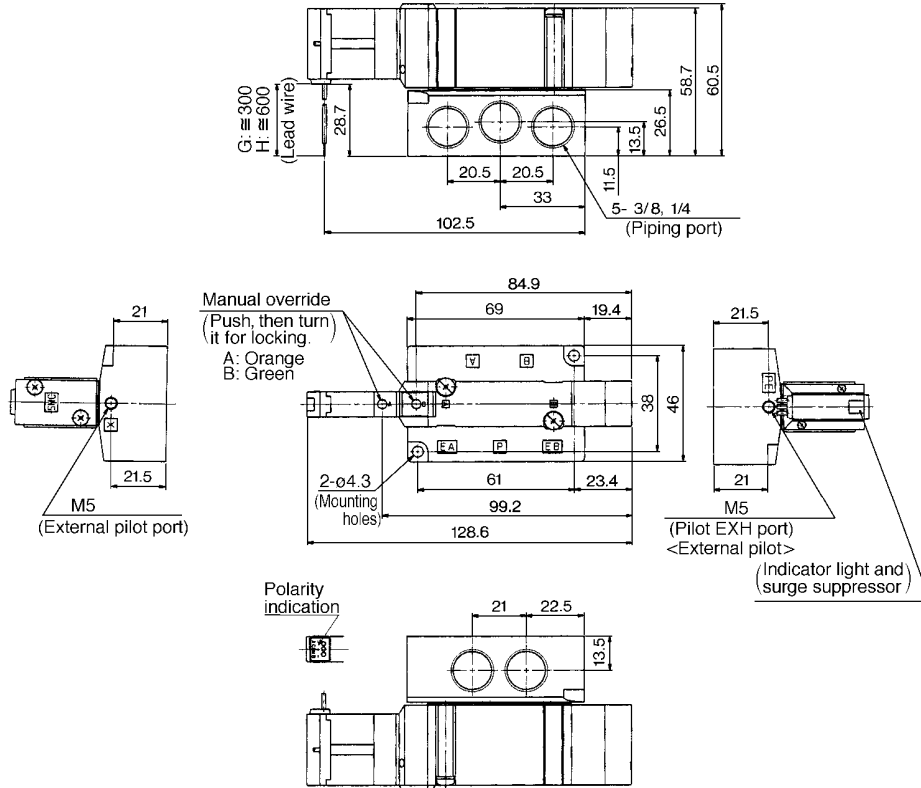


SX3000/5000/7000

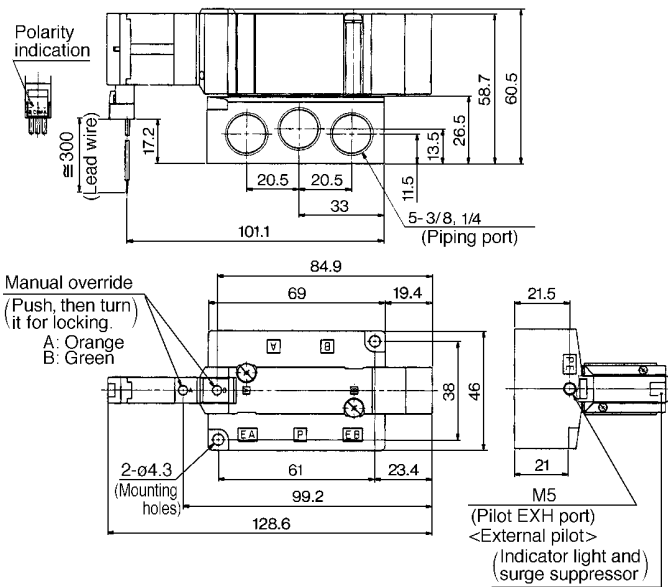
Dimensions/Series SX7000

3 position closed centre/exhaust centre/pressure centre

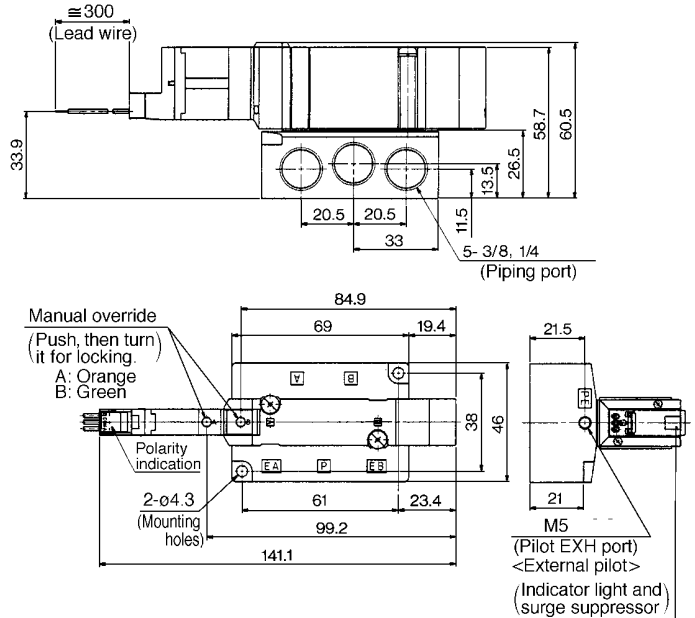
Grommet (G), (H): $SX7 \frac{3}{4} 40(R) - \square \square \square \square - \square \square \square \square - \square \square \square \square - Q$



L plug connector (L): $SX7 \frac{3}{4} 40(R) - \square L \square \square - \square \square \square \square - Q$



M plug connector (M): $SX7 \frac{3}{4} 40(R) - \square M \square \square - \square \square \square \square - Q$



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

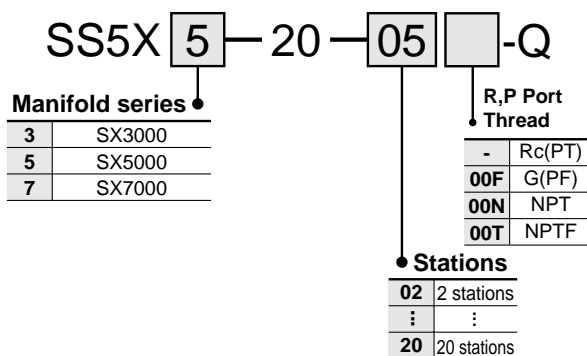
VS7

VQ7

20Type

SX3000/5000/7000 Body Ported Bar Manifold/Individual Wiring

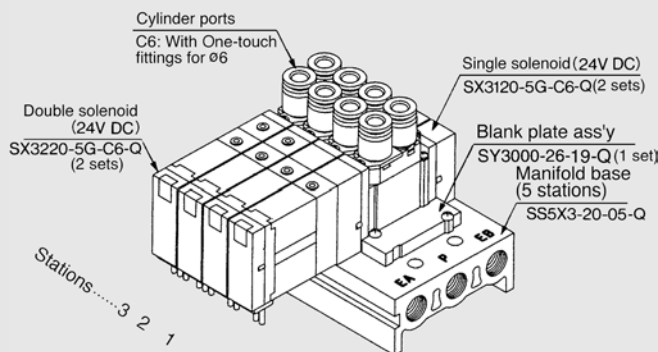
How to Order Manifold



- Connector ass'y for L and M types ····· Refer to p.1.4-6.
- Common connector ass'y for manifold · Refer to p.1.4-7.

How to Order Valve Manifold Ass'y (Example)

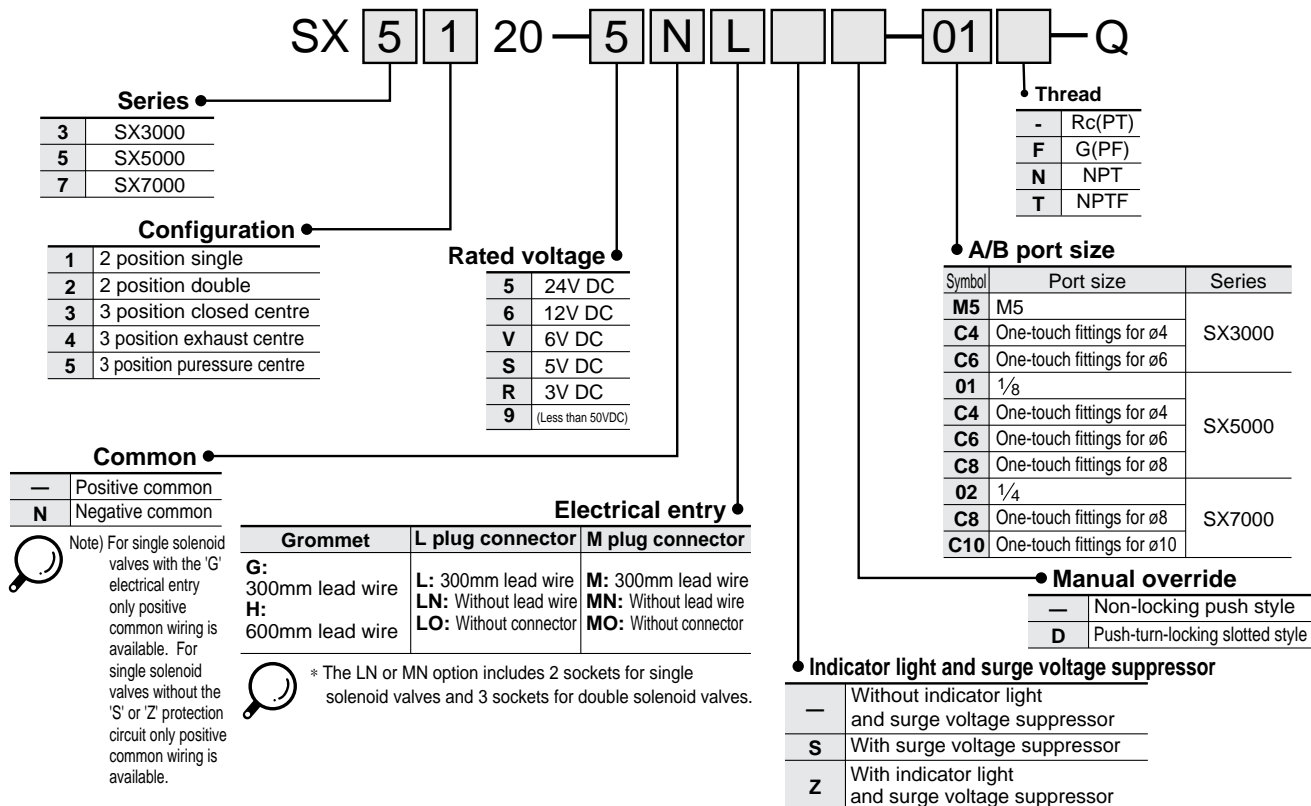
Ordering example



SS5X3-20-05-Q ····· 1set (20 type 5-station manifold base No.)
 SY3000-26-19-Q ····· 1set (Blank plate assembly No.)
 SX3120-5G-C6-Q ····· 2sets (Single solenoid No.)
 SX3220-5G-C6-Q ····· 2sets (Double solenoid No.)

Add the valve and option numbers under the manifold base number. When arrangement is complicated, specify it in the manifold specification.

How to Order Valve



⚠ Protective class class III (Mark: ⚡)

Order Made Contact SMC for other voltages (9)

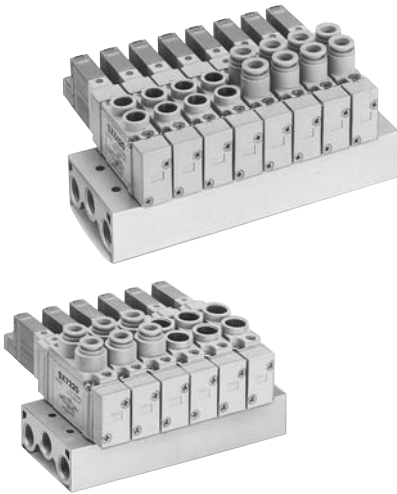
Manifold Specifications

| Model | SS5X3-20 | SS5X5-20 | SS5X7-20 |
|--|--------------------------------|--|---|
| Applicable valve | SX3□20 | SX5□20 | SX7□20 |
| Manifold style | Single base/B mount | | |
| P(SUP)/R(EXH) style | Common supply/Common exhaust | | |
| Valve stations ⁽¹⁾ | 2 to 20 stations | | |
| A/B port location | Valve | | |
| Port size | P/EA/EB port | 1/8 | 1/4 |
| | A/B port | M5 C4 (One-touch fittings for ø4) C6 (One-touch fittings for ø6) | 1/8 C4 (One-touch fittings for ø4) C6 (One-touch fittings for ø6) C8 (One-touch fittings for ø8) |
| Valve effective area ⁽²⁾ (mm ²) (Nl/min) | P→A/B | 3.6 (196.30) | 9.18 (500.57) |
| | C6: A/B→EA/EB 4.14 (225.75) | C8: A/B→EA/EB 9.9 (539.83) | C10: A/B→EA/EB 14.94 (814.65) |
| Manifold base weight W(g) n: Station | W=13n+35 | W=36n+64 | W=43n+64 |



Note 1) For more than 10 stations (more than 5 stations in case of SS5X7), supply pressure to P port on both sides and exhaust from EA and EB port on both sides.

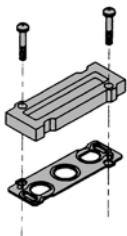
Note 2) Values for single operation of 2 position valves mounted on manifold base (5 stations).



- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

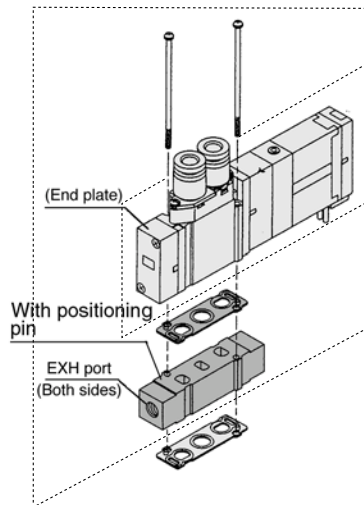
Manifold Options

Blank plate assembly



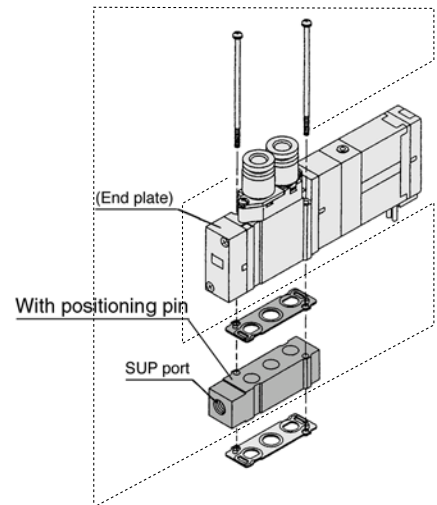
| Series | Ass'y No. |
|--------|-----------------|
| SX3000 | SY3000-26-19A-Q |
| SX5000 | SY5000-26-1A-Q |
| SX7000 | SY7000-26-1A-Q |

Individual EXH spacer ass'y



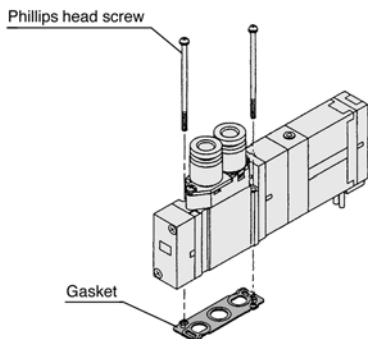
| Series | Ass'y No. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-39-20A-Q | M5 X 0.8 |
| SX5000 | SX5000-39-1*A-Q | 1/8 |
| SX7000 | SX7000-39-1*A-Q | 1/4 |

Individual SUP spacer ass'y



| Series | Ass'y No. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-38-20A-Q | M5 X 0.8 |
| SX5000 | SX5000-38-1*A-Q | 1/8 |
| SX7000 | SX7000-38-1*A-Q | 1/4 |

Bolt and Gasket



| Series | Phillips head screw | Gasket |
|--------|----------------------------------|--------------|
| SX3000 | SX3000-22-2 (M2 X 24) | SY3000-11-24 |
| SX5000 | M3 X 30 (Matte nickel plated) | SY5000-11-10 |
| SX7000 | M4 X 35 (Matte nickel plated) | SY7000-11-9 |

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

KQ2P-⁰⁴₀₆⁰⁸₁₀ - 00

* Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

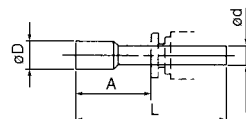
Caution

Mounting screw tightening torque

M2: 0.15Nm

M3: 0.6Nm

M4: 1.4Nm

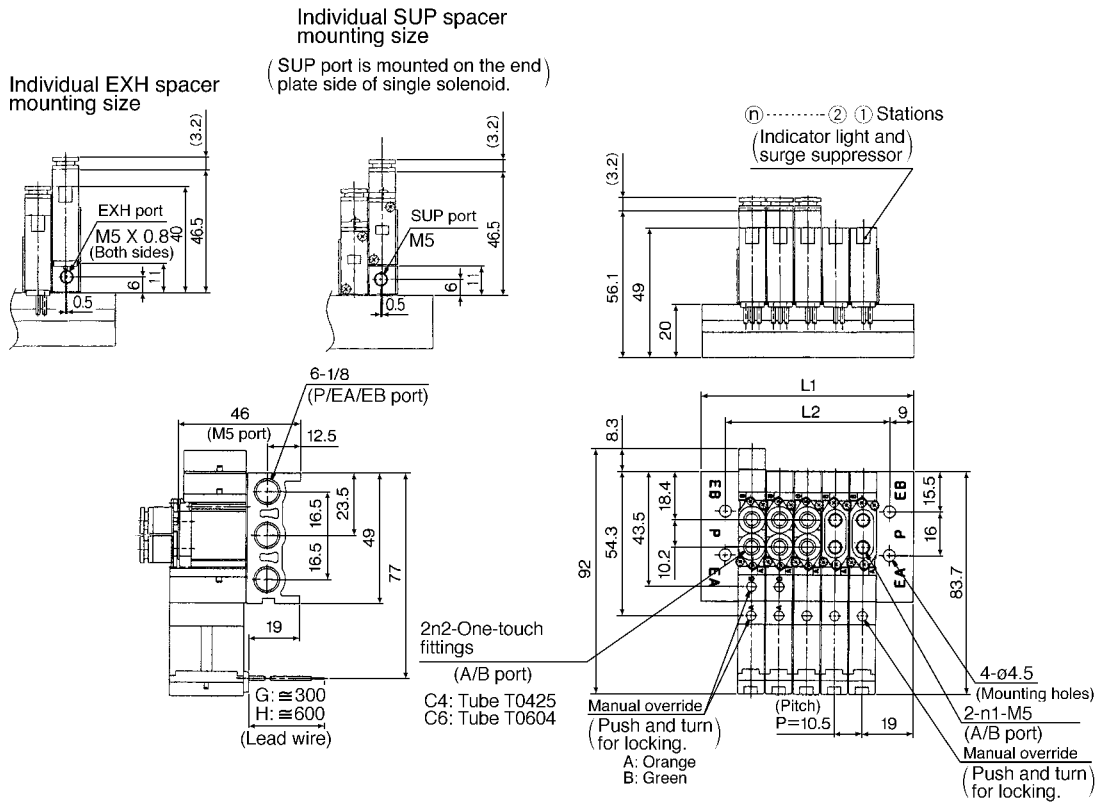


Dimensions

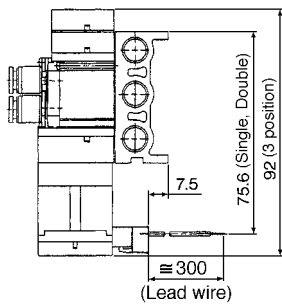
| Applicable fittings size ød | Model | A | L | D |
|-----------------------------|------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

SX3000: SS5X3-20- Stations -Q

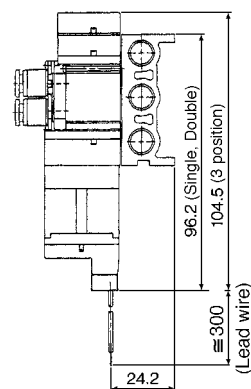
Grommet (G)



L plug connector (L)



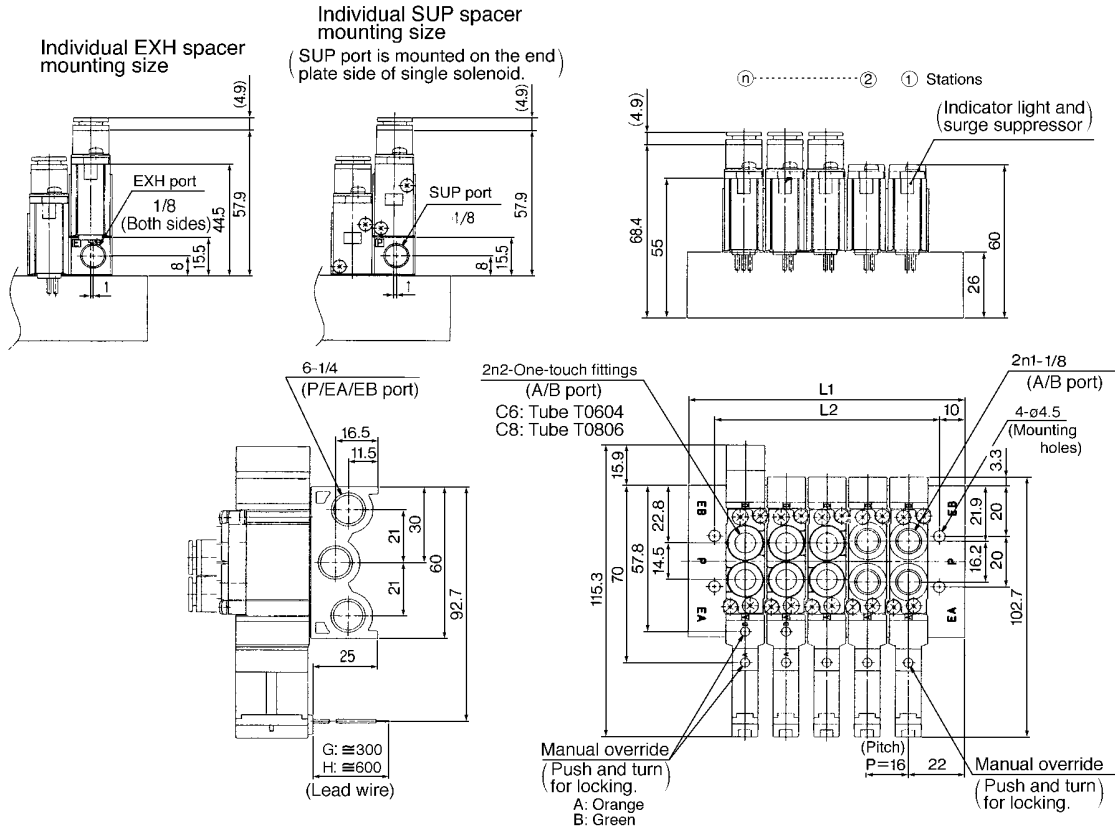
M plug connector (M)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|----|------|----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| L1 | 48.5 | 59 | 69.5 | 80 | 90.5 | 101 | 111.5 | 122 | 132.5 | 143 | 153.5 | 164 | 174.5 | 185 | 195.5 | 206 | 216.5 | 227 | 237.5 |
| L2 | 30.5 | 41 | 51.5 | 62 | 72.5 | 83 | 93.5 | 104 | 114.5 | 125 | 135.5 | 146 | 156.5 | 167 | 177.5 | 188 | 198.5 | 209 | 219.5 |

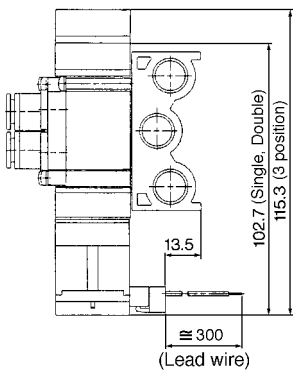
SX5000: SS5X5-20- Stations -Q

Grommet (G)

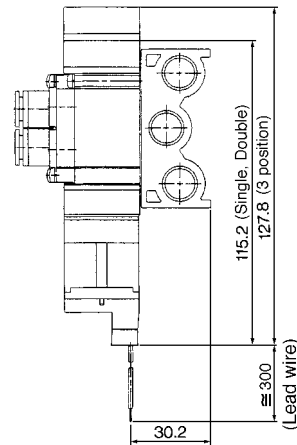


- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

L plug connector (L)



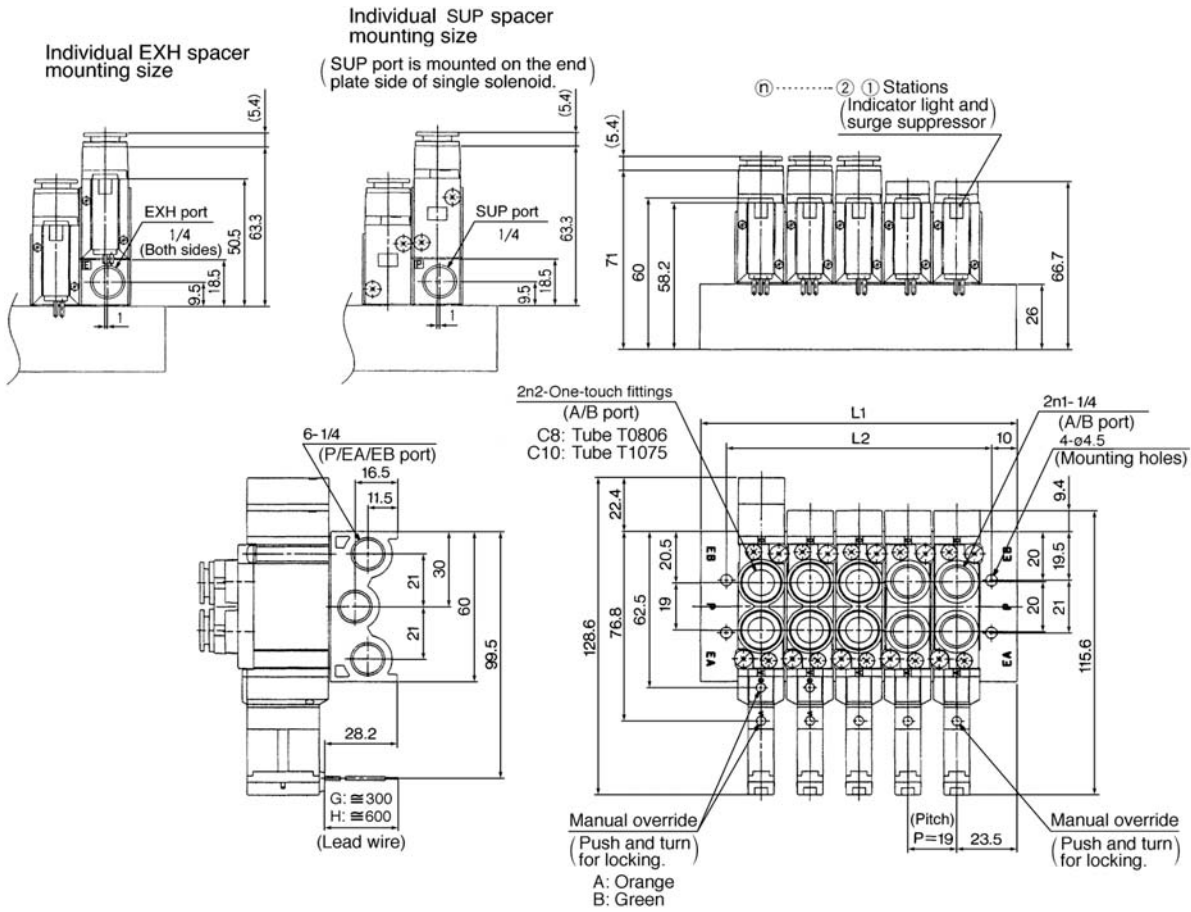
M plug connector (M)



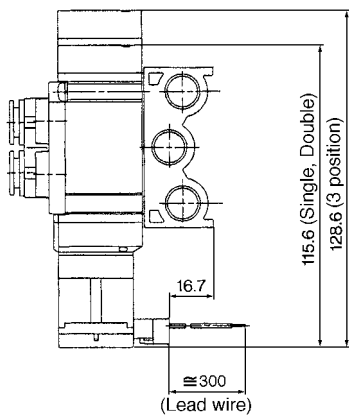
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L1 | 60 | 76 | 92 | 108 | 124 | 140 | 156 | 172 | 188 | 204 | 220 | 236 | 252 | 268 | 284 | 300 | 316 | 332 | 348 |
| L2 | 40 | 56 | 72 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | 216 | 232 | 248 | 264 | 280 | 296 | 312 | 328 |

SX7000: SS5X7-20- Stations -Q

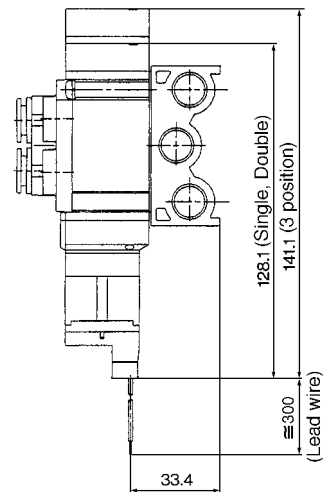
Grommet (G)



L plug connector (L)



M plug connector (M)



| Stations | 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 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

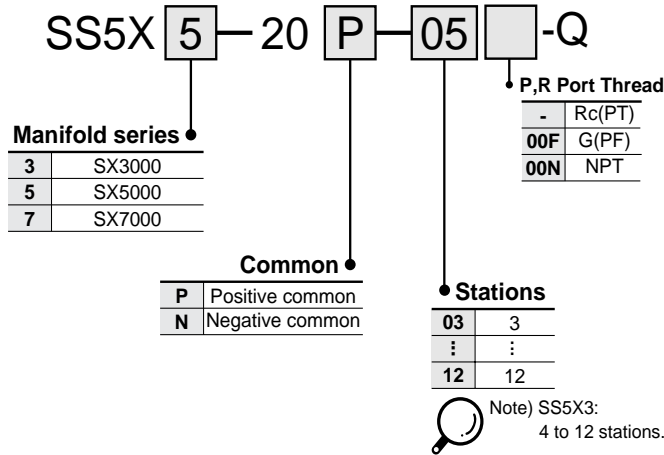
VS7

VQ7

20^P
NType

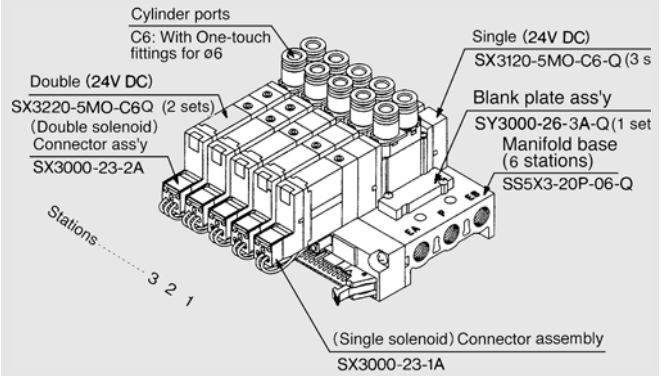
SX3000/5000/7000 Body Ported Bar Manifold/Flat Cable

How to Order Manifold



How to Order Valve Manifold Ass'y (Example)

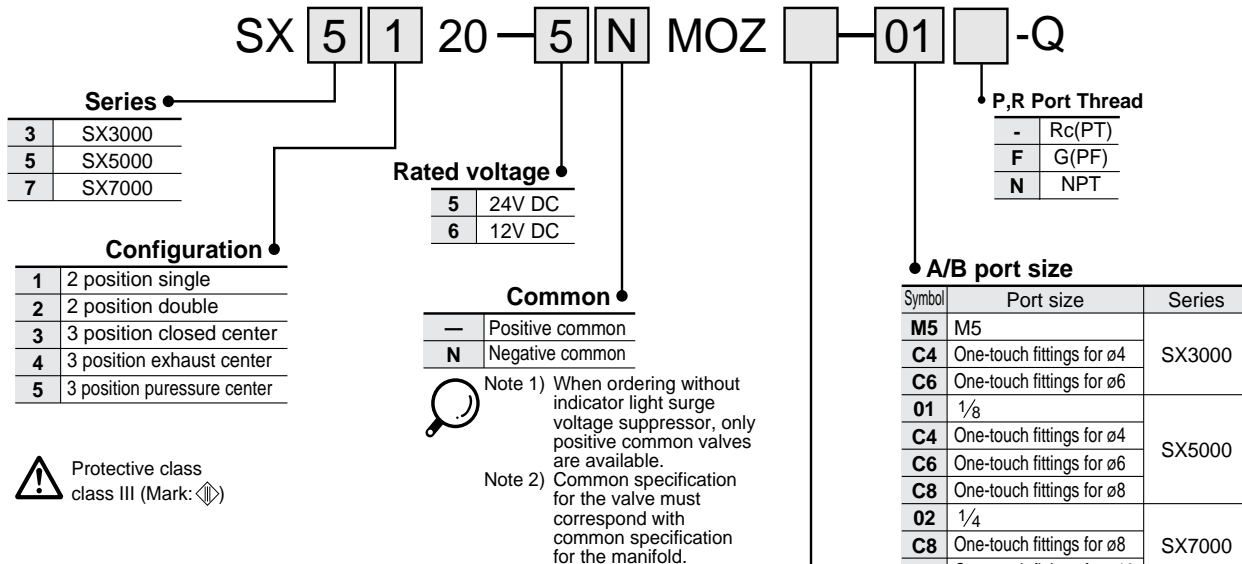
Ordering example



SS5X3-20P-06-Q ····· 1set (20P type 6-station manifold No.)
 SY3000-26-10A-Q ····· 1set (Blank plate ass'y No.)
 SX3120-5MO-C6-Q ··· 3sets (Single solenoid No.)
 SX3220-5MO-C6-Q ··· 2sets (Double solenoid No.)
 SX3000-23-1A ····· 3sets (Connector ass'y No.)
 SX3000-23-2A ····· 2sets (Connector ass'y No.)

List valve and option part numbers to be mounted under the manifold base part number in order from the first station. For more complicated assemblies, refer to the manifold specifications.

How to Order Valve



Protective class class III (Mark: ⚡)

How to Order Connector Ass'y

- Positive common specification
 For single solenoid: SX3000-23-1A
 For double solenoid, 3 position: SX3000-23-2A
- Negative common specification
 For single solenoid: SX3000-24-1A
 For double solenoid, 3 position: SX3000-24-2A

Refer to p.1.4-7 for further information on connector ass'y.

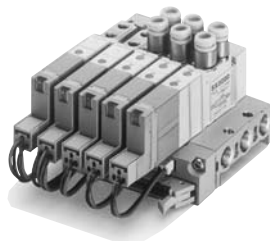
Manual override

| | |
|---|---------------------------------|
| - | Non-locking push style |
| D | Push-turn-locking slotted style |

- 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 flat cable connects the entire manifold to your power source. This greatly reduces installation time.



Manifold Specifications

| Model | SS5X3-20 ^P _N | SS5X5-20 ^P _N | SS5X7-20 ^P _N | |
|--|--|--|---|---|
| Applicable valve | SX3□20 | SX5□20 | SX7□20 | |
| Manifold style | Single base/B mount | | | |
| P(SUP)/R(EXH) style | Common supply/Common exhaust | | | |
| Valve stations ⁽¹⁾ | 4 to 12 | 3 to 12 | | |
| A/B porting location | Valve | | | |
| Port size | P/EA/EB port | 1/8 | 1/4 | 1/4 |
| | A/B port | M5 C4 (One-touch fittings for ø4) C6 (One-touch fittings for ø6) | 1/8 C4 (One-touch fittings for ø4) C6 (One-touch fittings for ø6) C8 (One-touch fittings for ø8) | 1/4 C8 (One-touch fittings for ø8) C10 (One-touch fittings for ø10) |
| Valve effective area ⁽²⁾ (mm ²) (Nl/min) | P→A/B 3.6 (196.30) C6: A/B→EA/EB 4.14 (225.75) | P→A/B 9.18 (500.57) C8: A/B→EA/EB 9.9 (539.83) | P→A/B 15.84 (863.72) C10: A/B→EA/EB 14.94 (814.65) | |
| Manifold base weight W(g) n: Station | W=19n+45 | W=43n+77 | W=51n+81 | |
| Connector | Socket: 26 poles MIL with strain relief; conforms to MIL-C-83503 | | | |
| Internal wiring ⁽³⁾ | Both for +COM (20P type) and -COM (20N type) | | | |
| Voltage | 12, 24V DC | | | |

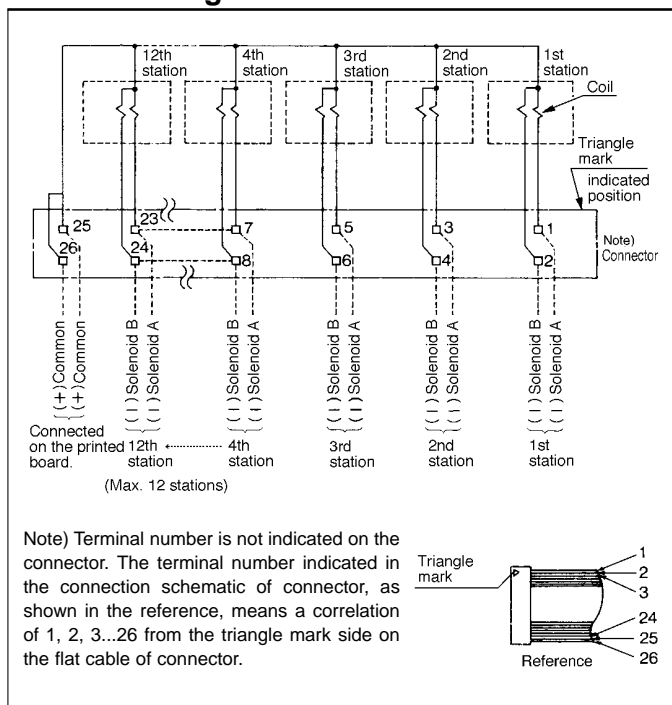


Note 1) For more than 10 stations (more than 5 stations in case of SS5X7), supply pressure to P port on both sides and exhaust from EA and EB port on both sides.

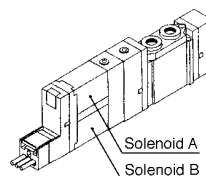
Note 2) Values for single operation of 2 position valve mounted on manifold base (5 stations).

Note 3) The withstand voltage specification for the wiring unit section is JIS C0704, Grade 1 or its equivalent.

Internal Wiring of Manifold



- For more than 9 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid A side.
- The maximum number of stations is 12. If more than 12 stations are required, consult SMC.
- -COM and +COM specifications are available. (Diagram above is for +COM specifications.)



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

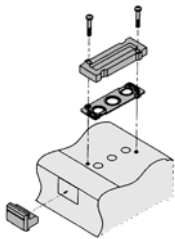
VS

VS7

VQ7

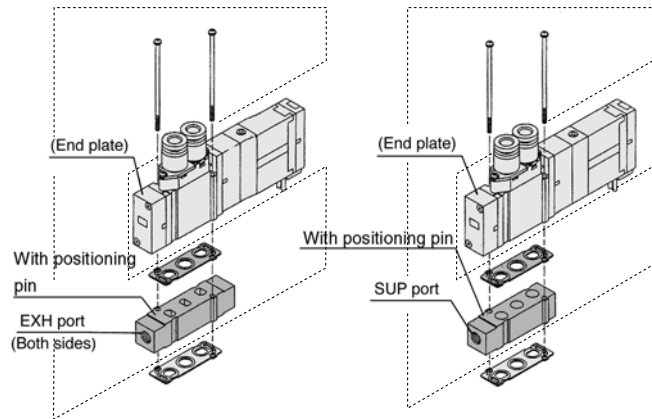
Manifold Options

Blank plate assembly



| Series | Ass'y No. |
|---------------|-----------------|
| SX3000 | SY3000-26-20A-Q |
| SX5000 | SY5000-26-3A-Q |
| SX7000 | SY7000-26-3A-Q |

Individual EXH spacer ass'y ■ Individual SUP spacer ass'y



| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-39-20A-Q | M5 X 0.8 |
| SX5000 | SX5000-39-1*A-Q | 1/8 |
| SX7000 | SX7000-39-1*A-Q | 1/4 |

Note) For protection of the wiring unit section from drain, piped at the EA port shall be so arranged that it will not be directly exposed to exhaust from the valve.

| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-38-20A-Q | M5 X 0.8 |
| SX5000 | SX5000-38-1*A-Q | 1/8 |
| SX7000 | SX7000-38-1*A-Q | 1/4 |

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.)

Caution

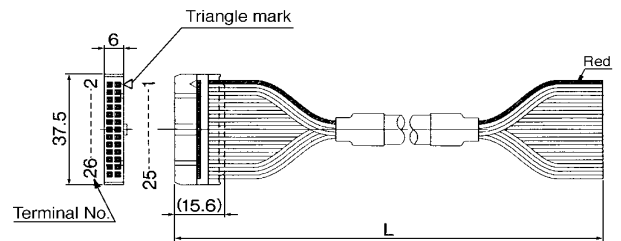
Mounting screw tightening torque

M2: 0.15Nm
M3: 0.6Nm
M4: 1.4Nm

* Thread

| | |
|----------|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

Cable assembly AXT100-FC26-1 to 3



Connector assembly for flat cables

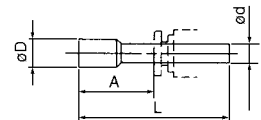
| Cable length (L) | Ass'y No. | Note |
|------------------|---------------|---------------------------|
| 1.5m | AXT100-FC26-1 | Cable 26 poles X 28AWG |
| 3m | AXT100-FC26-2 | |
| 5m | AXT100-FC26-3 | |

* For other commercial connectors, use 26-pole type with strain relief made in conformity with MIL-C-83503.

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

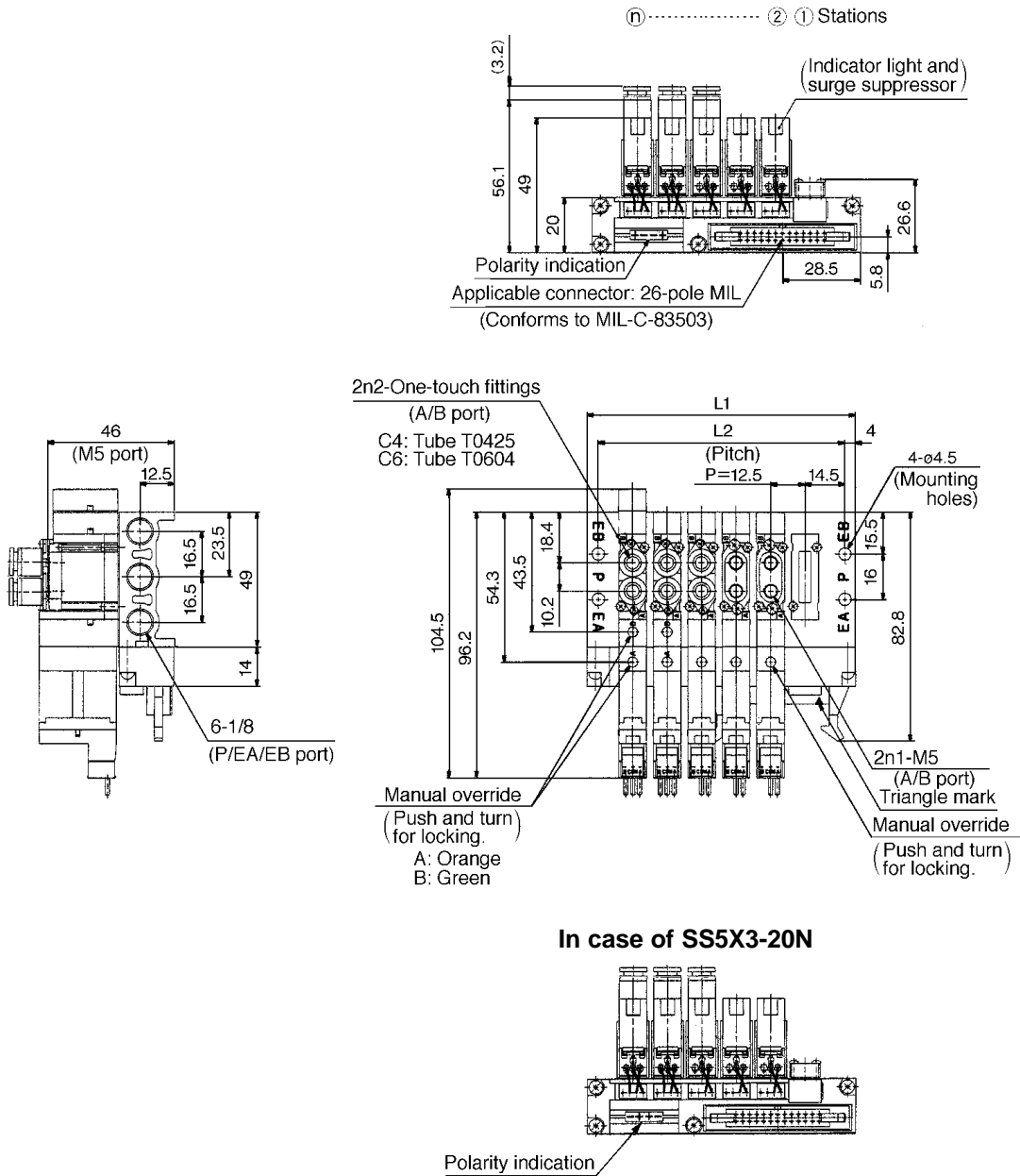
KQ2P - ⁰⁴/₀₆/₀₈/₁₀ - 00



Dimensions

| Applicable fittings size ød | Model | A | L | D |
|-----------------------------|-------------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

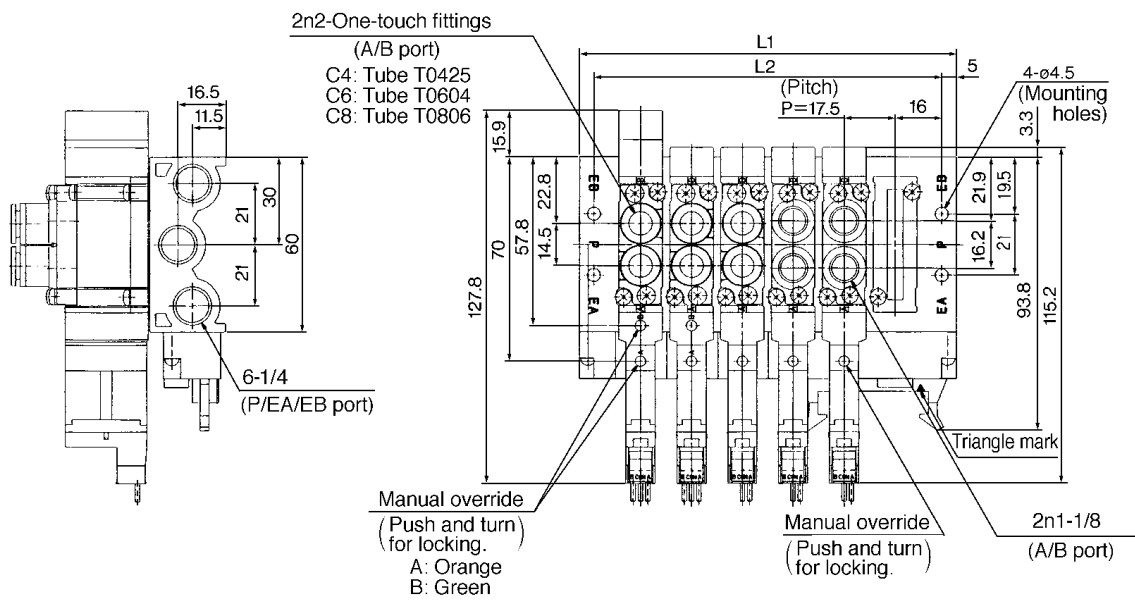
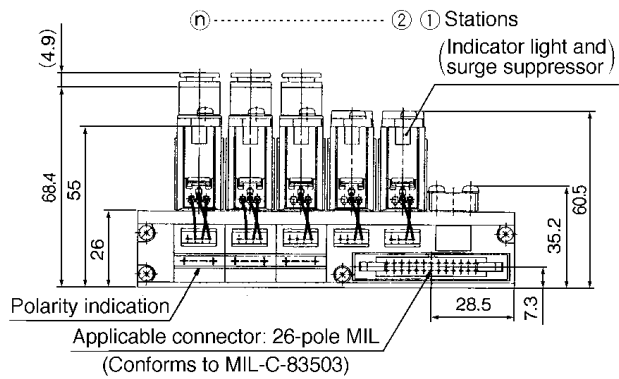
SX3000: SS5X3-20P- Stations -Q



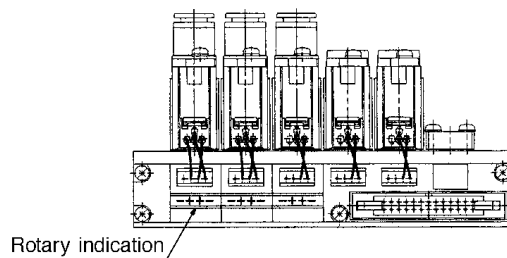
- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

| 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 |

SX5000: SS5X5-20P- Stations -Q



In case of SS5X5-20N



| 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 | 67 | 84.5 | 102 | 119.5 | 137 | 154.5 | 172 | 189.5 | 207 | 224.5 |

41 Type

42 Type

SX3000/5000/7000 Base Mounted Bar Manifold/Individual Wiring

How to Order Manifold

41 Type/Compact

SS5X **5** - 41 - **05** - **C8** - **Q**

Manifold series

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

Stations

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

P,R Port Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |

A/B port size

| Symbol | Port size | Series |
|--------|---------------------------|--------|
| M5 | M5 | |
| C4 | One-touch fittings for ø4 | SX3000 |
| C6 | One-touch fittings for ø6 | |
| 01 | 1/8 | |
| C6 | One-touch fittings for ø6 | SX5000 |
| C8 | One-touch fittings for ø8 | |

42 Type/Common external pilot

SS5X **5** - 42 - **05** - **C8** - **Q**

Manifold series

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

Stations

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

P,R Port Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |

A/B port size

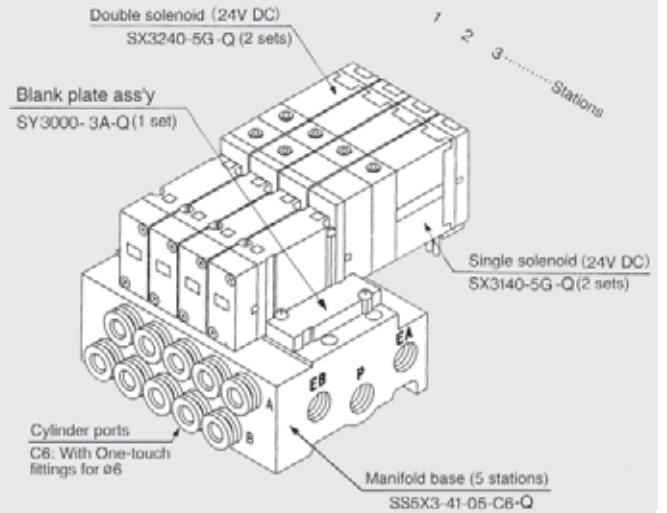
| Symbol | Port size | Series |
|--------|----------------------------|--------|
| 01 | 1/8 | |
| C4 | One-touch fittings for ø4 | SX3000 |
| C6 | One-touch fittings for ø6 | |
| 02 | 1/4 | |
| C6 | One-touch fittings for ø6 | SX5000 |
| C8 | One-touch fittings for ø8 | |
| 02 | 1/4 | |
| C10 | One-touch fittings for ø10 | SX7000 |



- Connector ass'y for L and M type Refer to p.1.4-6.
- Common connector ass'y for manifold Refer to p.1.4-7.

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-41P-05-C6-Q 1set (41 type 5-station manifold base No.)
 SX3240-5G-Q 2sets (Double solenoid No.)
 SX3140-5G-Q 2sets (Single solenoid No.)
 SY3000-26-9A-Q 1sets (Blank plate assembly No.)

Add the valve and option numbers under the manifold base number. When arrangement is complicated, specify it in the manifold specifications.

How to Order Valve

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

Series

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

Configuration

| | |
|---|--|
| 1 | 2 position single (A)(B) 4 2 (EA)(P)(EB) |
| 2 | 2 position double (A)(B) 4 2 (EA)(P)(EB) |
| 3 | 3 position closed centre (A)(B) 4 2 (EA)(P)(EB) |
| 4 | 3 position exhaust centre (A)(B) 4 2 (EA)(P)(EB) |
| 5 | 3 position pressure centre (A)(B) 4 2 (EA)(P)(EB) |

Pilot

| | |
|---|----------------|
| — | Internal pilot |
| R | External pilot |

Rated voltage

| | |
|---|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V | 6V DC |
| S | 5V DC |
| R | 3V DC |
| 9 | (Less than 50) |

Common specification

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

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



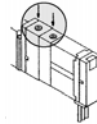
Contact SMC for other voltages (9)



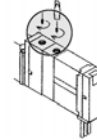
Protective class class III (Mark: ⚡)

Manual

—: Non-locking push style



D: Push-turn-locking slotted style



Indicator light and surge voltage suppressor

| | |
|---|--|
| — | Without indicator light and surge voltage suppressor |
| S | With surge voltage suppressor |
| Z | With indicator light and surge voltage suppressor |

Thread

| | |
|---|---------|
| — | Rc (PT) |
| F | G (PF) |
| N | NPT |

Subplate/Port size

| Symbol | Port size | Series |
|--------|----------------------|------------------|
| — | Without subplate | |
| 01 | 1/8 With subplate | SX3000 |
| 02 | 1/4 With subplate | SX5000 SX7000 |
| 03 | 3/8 With subplate | SX7000 |

Electrical entry

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

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7



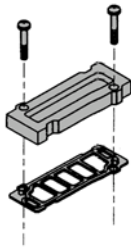
Manifold Specifications

| 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 style | Single base/B mount | | | | |
| P(SUP)/R(EXH) style | Common supply/Common exhaust | | | | |
| Valve stations ⁽¹⁾ | 2 to 20 stations | | | | |
| A/B porting spec. | Base | | | | |
| Location | Side | | | | |
| Direction | Side | | | | |
| Port size | P/EA/EB port | 1/8 | | 1/4 | |
| | A/B port | M5 | 1/8 | 1/8 | 1/4 |
| Valve effective area ⁽²⁾ (mm ²) (Nl/min) | C4 (One-touch for ø4) | C4 (One-touch for ø4) | C6 (One-touch for ø6) | C6 (One-touch for ø6) | C10 (One-touch for ø10) |
| | C6 (One-touch for ø6) | C6 (One-touch for ø6) | C8 (One-touch for ø8) | C8 (One-touch for ø8) | C10 (One-touch for ø10) |
| Manifold base weight W(g) n: Stations | P→A/B 3.96 (215.93) C6: A/B→EA/EB 4.14 (225.75) | | P→A/B 9.54 (520.20) C8: A/B→EA/EB 9.0 (490.75) | | P→A/B 16.2 (883.35) C10: A/B→EA/EB 16.2 (883.35) |
| | W=30n+50 | W=37n+63 | W=61n+101 | W=79n+127 | W=100n+151 |

Note 1) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA and EB port on both sides.
 Note 2) Valve for single operation of 2 position valve mounted on manifold base (5 stations).

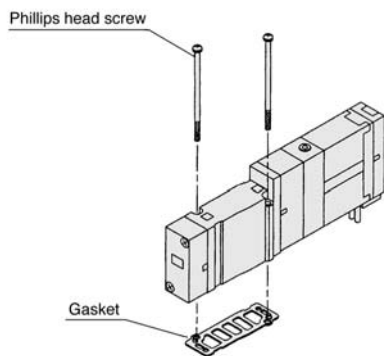
Manifold Options

Blank plate assembly



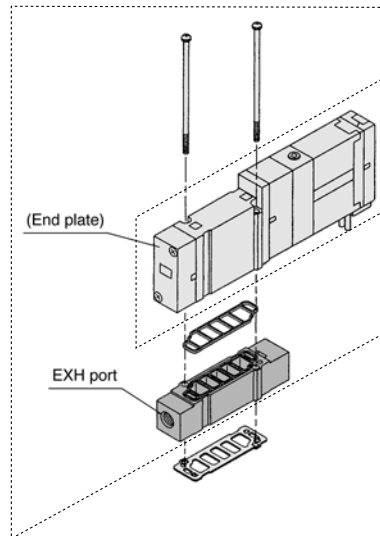
| Series | Ass'y No. |
|--------|----------------|
| SX3000 | SY3000-26-9A-Q |
| SX5000 | SY5000-26-2A-Q |
| SX7000 | SY7000-26-2A-Q |

Bolt and Gasket



| Series | Phillips head screw | Gasket |
|--------|--------------------------------|--------------|
| SX3000 | SX3000-22-2 (M2 X 24) | SY3000-11-14 |
| SX5000 | M3 X 30 (Matted nickel plated) | SY5000-11-7 |
| SX7000 | M4 X 35 (Matted nickel plated) | SY7000-11-5 |

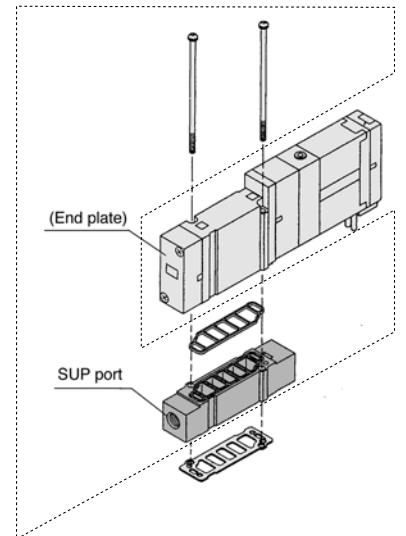
Individual EXH spacer ass'y



| Series | Ass'y no. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-39-2A-Q | M5 |
| SX5000 | SX5000-39-2*A-Q | 1/8 |
| SX7000 | SX7000-39-2*A-Q | 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.)

Individual SUP spacer ass'y



| Series | Ass'y no. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-38-2A-Q | M5 |
| SX5000 | SX5000-38-2*A-Q | 1/8 |
| SX7000 | SX7000-38-2*A-Q | 1/4 |

Note) The SUP 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.)

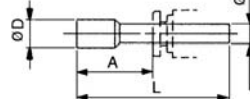
*Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

KQ2P-⁰⁴₀₆⁰⁸₁₀-00



Dimensions

| Fitting size ød | Model | A | L | D |
|-----------------|------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

Caution

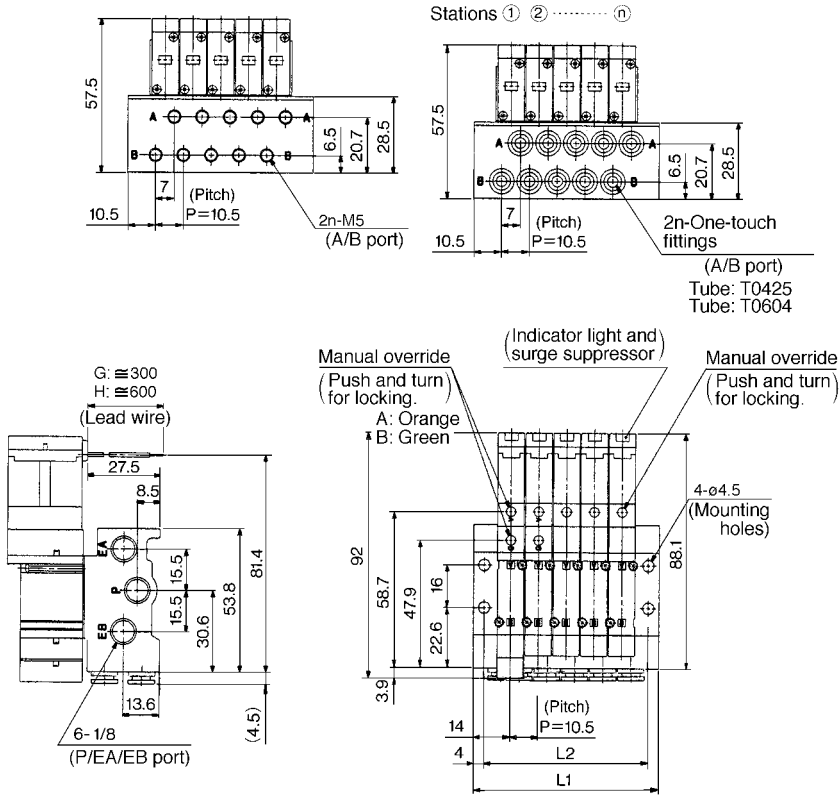
Mounting screw tightening torque

M2: 0.15Nm
 M3: 0.6Nm
 M4: 1.4Nm

SX3000: SS5X3-41- Stations -M5/C4/C6-Q

Grommet (G)

In case of M5



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

- VQC
- SQ

- VQ

- VQ4

- VQ5

- VQZ

- VQD

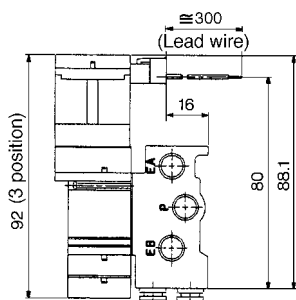
- VFS

- VS

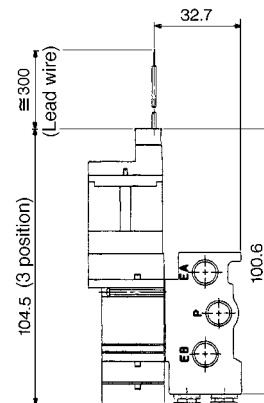
- VS7

- VQ7

L plug connector (L)



M plug connector (M)

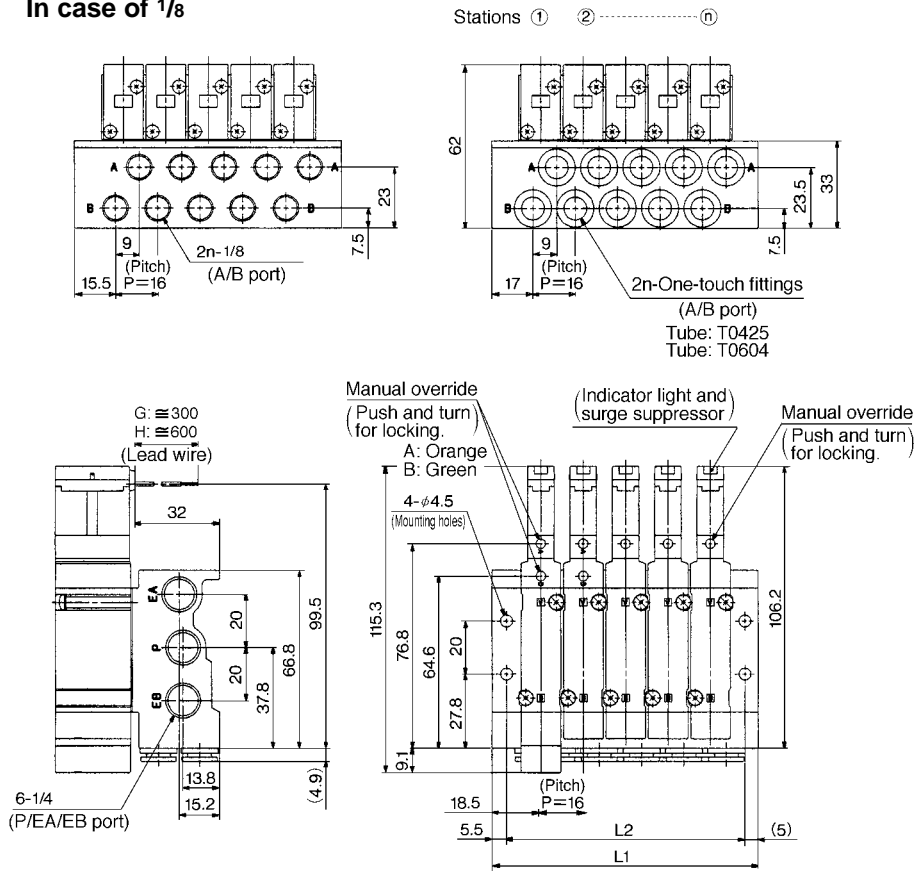


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|----|------|----|------|----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| L1 | 38.5 | 49 | 59.5 | 70 | 80.5 | 91 | 101.5 | 112 | 122.5 | 133 | 143.5 | 154 | 164.5 | 175 | 185.5 | 196 | 206.5 | 217 | 227.5 |
| L2 | 30.5 | 41 | 51.5 | 62 | 72.5 | 83 | 93.5 | 104 | 114.5 | 125 | 135.5 | 146 | 156.5 | 167 | 177.5 | 188 | 198.5 | 209 | 219.5 |

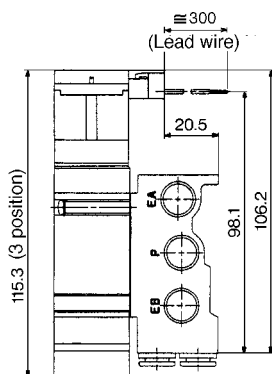
SX5000: SS5X5-41- Stations -01/C6/C8-Q

Grommet (G)

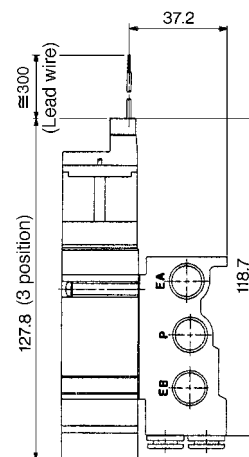
In case of 1/8



L plug connector (L)



M plug connector (M)

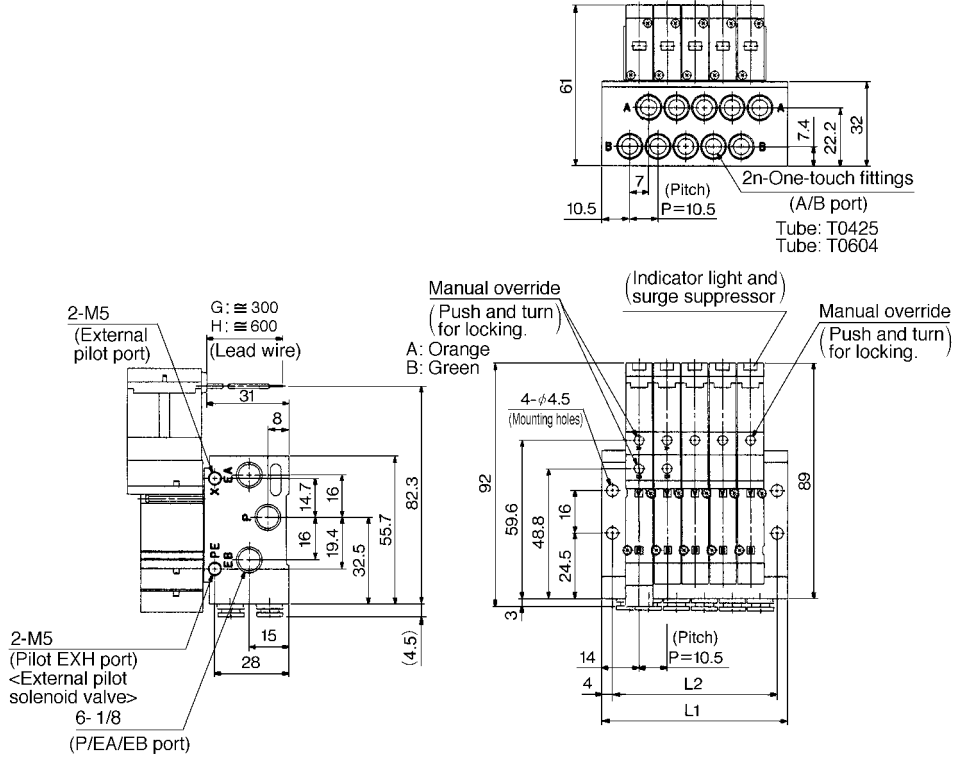


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 52.5 | 68.5 | 84.5 | 100.5 | 116.5 | 132.5 | 148.5 | 164.5 | 180.5 | 196.5 | 212.5 | 228.5 | 244.5 | 260.5 | 276.5 | 292.5 | 308.5 | 324.5 | 340.5 |
| L2 | 42 | 58 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 | 202 | 218 | 234 | 250 | 266 | 282 | 298 | 314 | 330 |

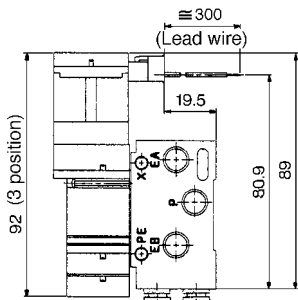
SX3000: SS5X3-42- Stations -C4/C6-Q

Grommet (G)

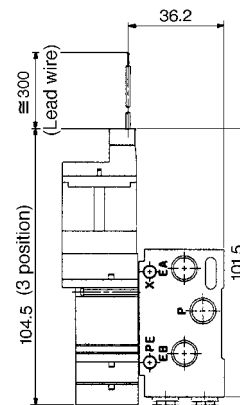
Stations ① ② ④



L plug connector (L)



M plug connector (M)

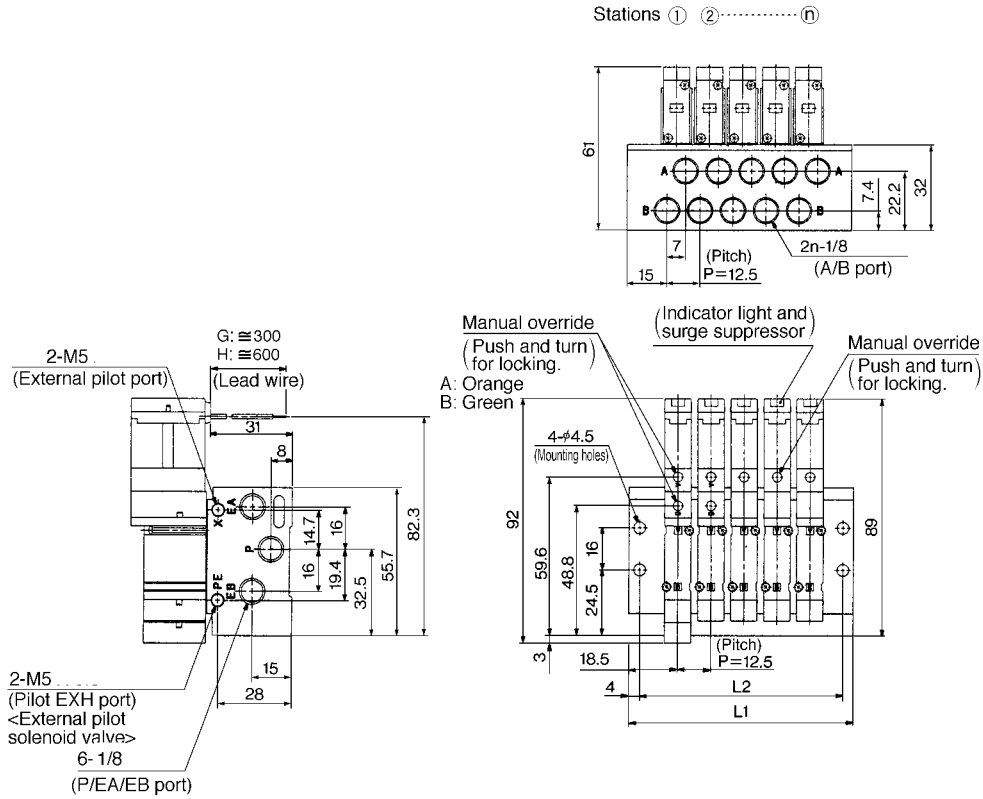


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|----|------|----|------|----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| L1 | 38.5 | 49 | 59.5 | 70 | 80.5 | 91 | 101.5 | 112 | 122.5 | 133 | 143.5 | 154 | 164.5 | 175 | 185.5 | 196 | 206.5 | 217 | 227.5 |
| L2 | 30.5 | 41 | 51.5 | 62 | 72.5 | 83 | 93.5 | 104 | 114.5 | 125 | 135.5 | 146 | 156.5 | 167 | 177.5 | 188 | 198.5 | 209 | 219.5 |

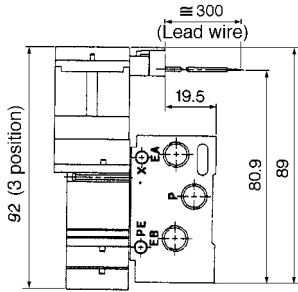
- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX3000: SS5X3-42- Stations -01 □ -Q

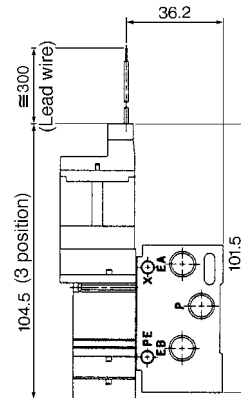
Grommet (G)



L plug connector (L)



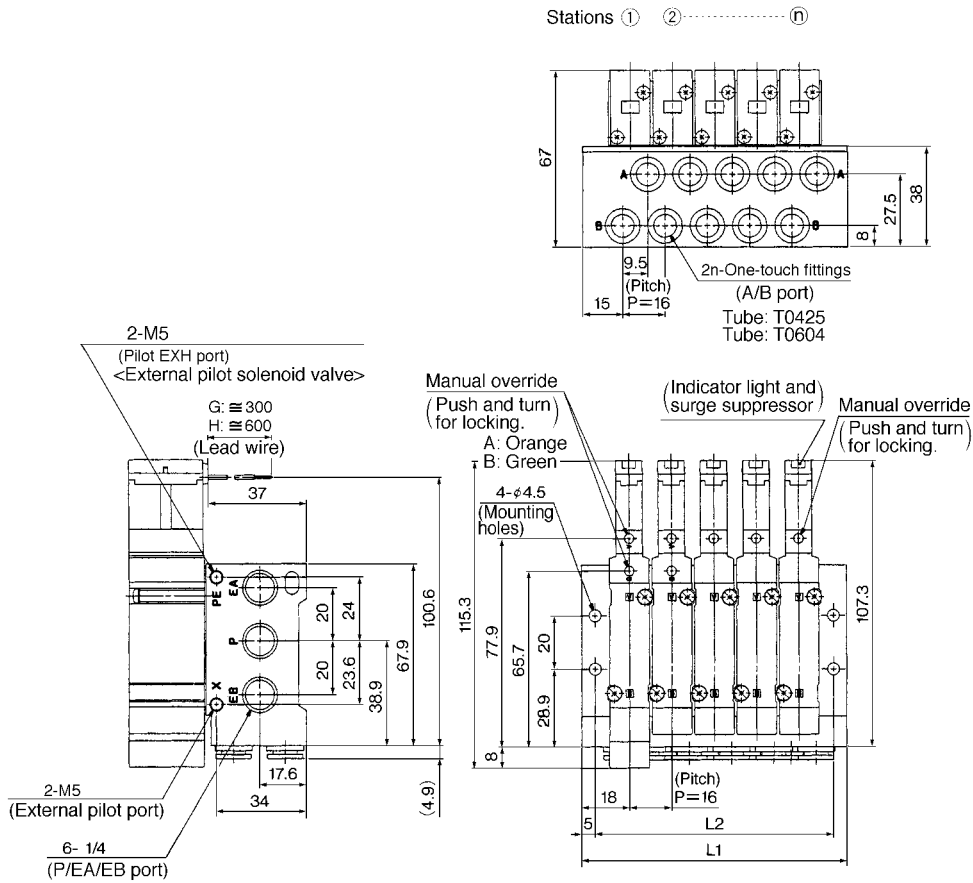
M plug connector (M)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|----|------|----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| L1 | 47.5 | 60 | 72.5 | 85 | 97.5 | 110 | 122.5 | 135 | 147.5 | 160 | 172.5 | 185 | 197.5 | 210 | 222.5 | 235 | 247.5 | 260 | 272.5 |
| L2 | 39.5 | 52 | 64.5 | 77 | 89.5 | 102 | 114.5 | 127 | 139.5 | 152 | 164.5 | 177 | 189.5 | 202 | 214.5 | 227 | 239.5 | 252 | 264.5 |

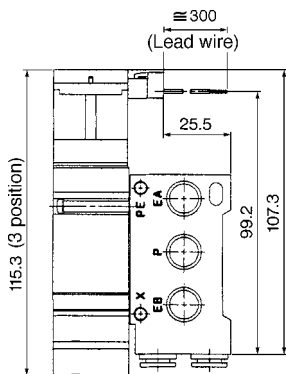
SX5000: SS5X5-42- Stations -C6/C8-Q

Grommet (G)

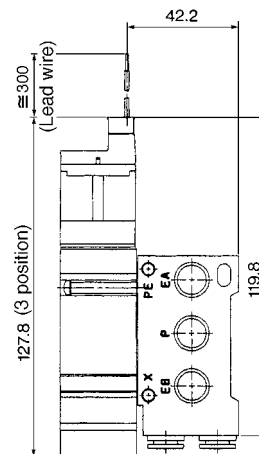


- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

L plug connector (L)



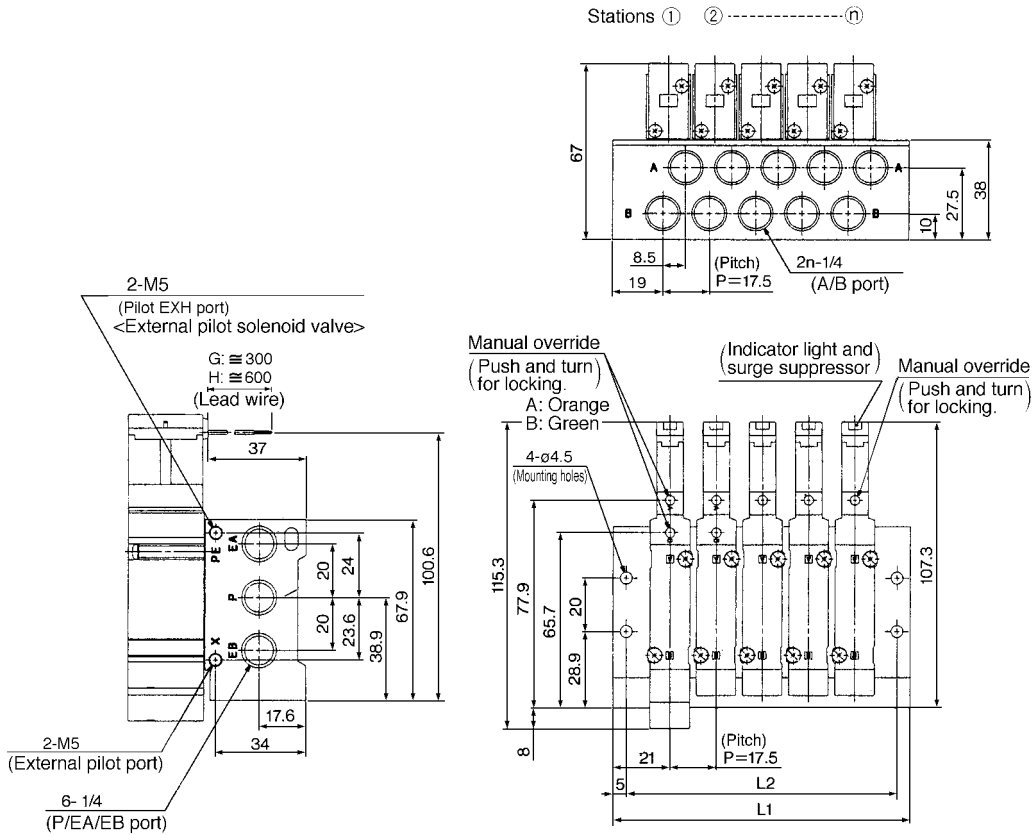
M plug connector (M)



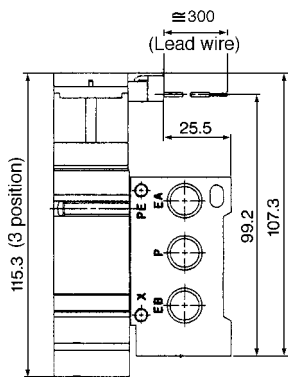
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L1 | 52 | 68 | 84 | 100 | 116 | 132 | 148 | 164 | 180 | 196 | 212 | 228 | 244 | 260 | 276 | 292 | 308 | 324 | 340 |
| L2 | 42 | 58 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 | 202 | 218 | 234 | 250 | 266 | 282 | 298 | 314 | 330 |

SX5000: SS5X5-42- Stations -02□ -Q

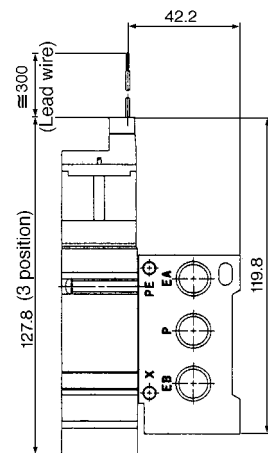
Grommet (G)



L plug connector (L)



M plug connector (M)

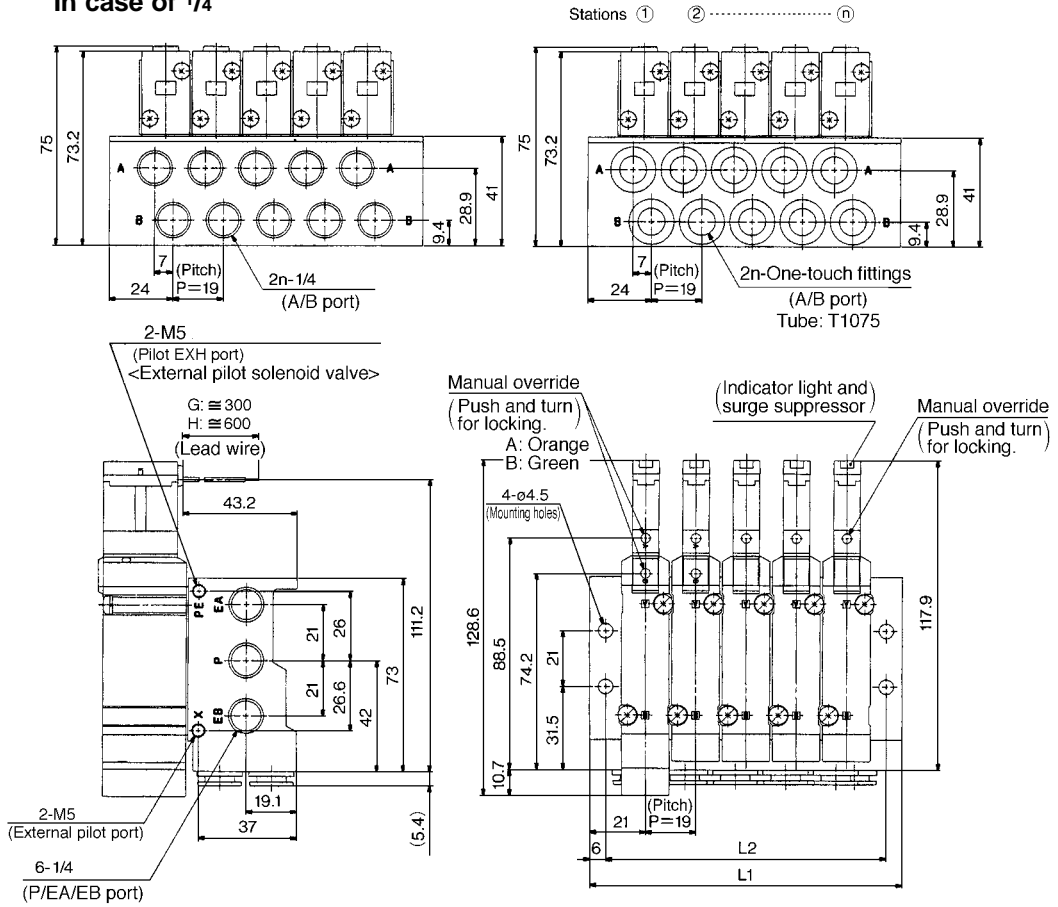


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|------|----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| L1 | 59.5 | 77 | 94.5 | 112 | 129.5 | 147 | 164.5 | 182 | 199.5 | 217 | 234.5 | 252 | 269.5 | 287 | 304.5 | 322 | 339.5 | 357 | 374.5 |
| L2 | 49.5 | 67 | 84.5 | 102 | 119.5 | 137 | 154.5 | 172 | 189.5 | 207 | 224.5 | 242 | 259.5 | 277 | 294.5 | 312 | 329.5 | 347 | 364.5 |

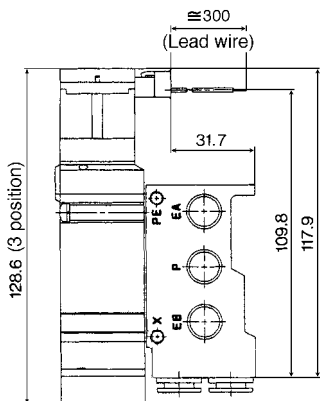
SX7000: SS5X7-42- Stations -02/C10-Q

Grommet (G)

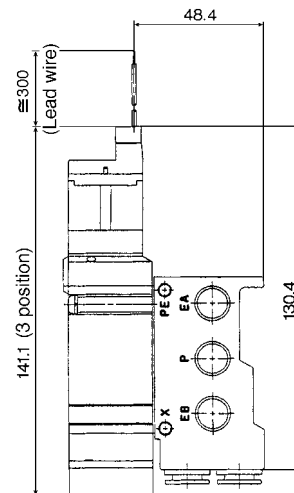
In case of 1/4



L plug connector (L)



M plug connector (M)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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 |

- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

41^P_NType
42^P_NType

SX3000/5000/7000 Base Mounted Manifold Flat Cable

How to Order Manifold

41^P_NType/Compact

SS5X **5** - 41 **P** - **05** - **C8** - **Q**

| Manifold series | |
|-----------------|--------|
| 3 | SX3000 |
| 5 | SX5000 |

| Stations | |
|----------|-------------|
| 03 | 3 stations |
| ⋮ | ⋮ |
| 12 | 12 stations |

| Common | |
|--------|-----------------|
| P | Positive common |
| N | Negative common |

Note) SS5X3 has 4 to 12 stations.

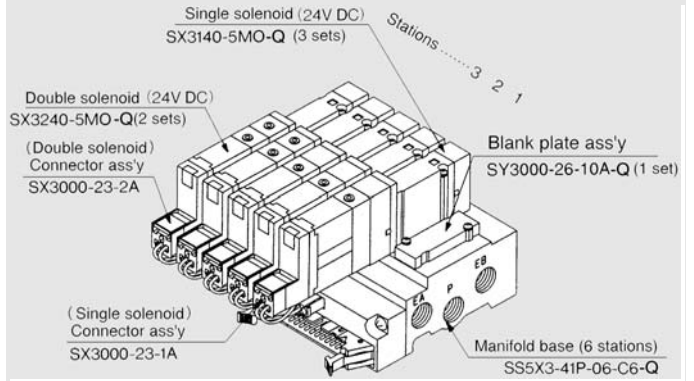
| P,R Port Thread | |
|-----------------|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |

A/B port size

| Symbol | Port size | Series |
|--------|---------------------------|--------|
| M5 | M5 | |
| C4 | One-touch fittings for ø4 | SX3000 |
| C6 | One-touch fittings for ø6 | |
| 01 | 1/8 | |
| C6 | One-touch fittings for ø6 | SX5000 |
| C8 | One-touch fittings for ø8 | |

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-41P-06-C6-Q ····· 1set (41P type 6-station manifold base No.)
 SY3000-26-10A-Q ····· 1set (Blank plate assembly No.)
 SX3140-5MO-Q ····· 3sets (Single solenoid No.)
 SX3240-5MO-Q ····· 2sets (Double solenoid No.)
 SX3000-23-1A ····· 3sets (Connector assembly No.)
 SX3000-23-2A ····· 2sets (Connector assembly No.)

Add the valve and option numbers under the manifold base number. When arrangement is complicated, specify it in the manifold specifications.

41^P_NType/Common external pilot

SS5X **5** - 42 **P** - **05** - **C8** - **Q**

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

| Stations | |
|----------|-------------|
| 03 | 3 stations |
| ⋮ | ⋮ |
| 12 | 12 stations |

| Common | |
|--------|-----------------|
| P | Positive common |
| N | Negative common |

Note) SS5X3 has 4 to 12 stations.

| P,R Port Thread | |
|-----------------|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |

A/B port size

| Symbol | Port size | Series |
|--------|----------------------------|--------|
| 01 | 1/8 | |
| C4 | One-touch fittings for ø4 | SX3000 |
| C6 | One-touch fittings for ø6 | |
| 02 | 1/4 | |
| C6 | One-touch fittings for ø6 | SX5000 |
| C8 | One-touch fittings for ø8 | |
| 02 | 1/4 | SX7000 |
| C10 | One-touch fittings for ø10 | |

Protective class class III (Mark: ⚡)

How to Order Valve

SX 5 1 40 5 N MOZ Q

Series

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

Configuration

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

Pilot

| | |
|---|----------------|
| — | Internal pilot |
| R | External pilot |

Rated voltage

| | |
|---|--------|
| 5 | 24V DC |
| 6 | 12V DC |

Protective class class III (Mark:)

Manual override

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

Note 1) When ordering without indicator light and surge voltage suppressor, only positive common valves are available.
Note 2) Common specification ok for the valve must correspond with common specification

How to Order Connector Ass'y

- Positive common specification
For single solenoid: SX3000-23-1A
For double solenoid, 3 position: SX3000-23-2A
- Negative common specification
For single solenoid: SX3000-24-1A
For double solenoid, 3 position: SX3000-24-2A

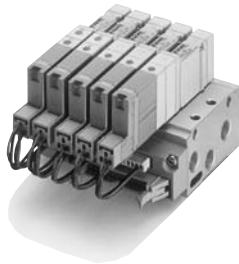
Refer to p.1.4-7 for further information on connector ass'y.

- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

- 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 flat cable connects the entire manifold to your power source. This greatly reduces installation time.

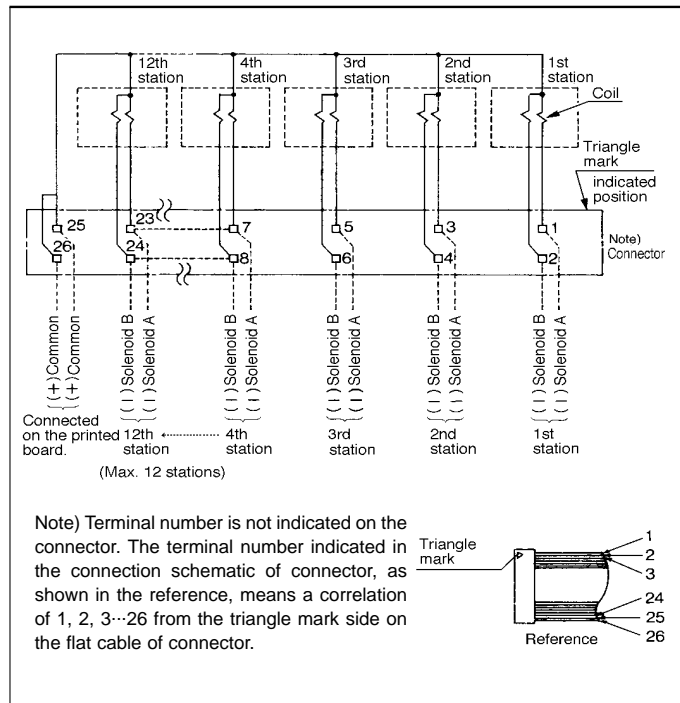


Flat Cable Manifold Specifications

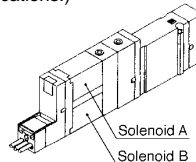
| Model | SS5X3-41 ^P _N | SS5X3-42 ^P _N | SS5X5-41 ^P _N | SS5X5-42 ^P _N | SS5X7-42 ^P _N |
|--|--|------------------------------------|---|------------------------------------|---|
| Applicable valve | SX3□40 | SX3□40(R) | SX5□40 | SX5□40(R) | SX7□40(R) |
| Manifold style | Single base/B mount | | | | |
| P(SUP)/R(EXH) | Common supply/Common exhaust | | | | |
| Valve stations ⁽¹⁾ | 4 to 12 stations | | 3 to 12 stations | | |
| A/B port | Location | | | | |
| | Base | | | | |
| Port size | Direction | | | | |
| | Side | | | | |
| P/EA/EB port | 1/8 | | 1/4 | | 1/4 |
| | M5 | | 1/8 | | 1/4 |
| A/B port | C4 (One-touch for ø4) | | C6 (One-touch for ø6) | | C10 (One-touch for ø10) |
| | C6 (One-touch for ø6) | | C8 (One-touch for ø8) | | C8 (One-touch for ø8) |
| Valve effective area ⁽²⁾ (mm) ² (N/min) | P→A/B 3.96 (215.93) C6: A/B→EA/EB 4.14 (225.75) | | P→A/B 9.54 (520.20) C8: A/B→EA/EB 9.0 (490.75) | | C10: P→A/B 16.2 (883.35) A/B→EA/EB 16.2 (883.35) |
| Manifold base weight W(g) n: Stations | W=39n+83 | W=48n+99 | W=67n+118 | W=88n+151 | W=109n+174 |
| Connector | Socket: 26 poles MIL with strain relief; conforms to MIL-C-83503 | | | | |
| Internal wiring ⁽³⁾ | Both for +COM (41P, 42P type) and -COM (41N, 42N type) | | | | |
| Rated voltage | 12, 24V DC | | | | |

- Note 1) For more than 10 stations, supply pressure to P port on both sides and exhaust from EA and EB port on both sides.
- Note 2) Values for single operation of 2 position valve mounted on manifold base (5 stations).
- Note 3) The withstand voltage specification for the wiring unit section is JISC0704, Class 1 or its equivalent.

Internal Wiring of Manifold

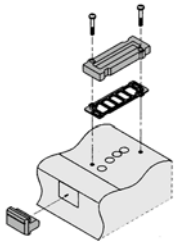


- For more than 9 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid A side.
- The maximum number of stations is 12. If more than 12 stations are required, consult SMC.
- COM and +COM specifications are available. (Above diagram is for +COM specifications.)



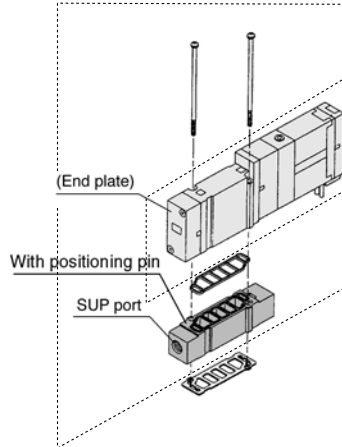
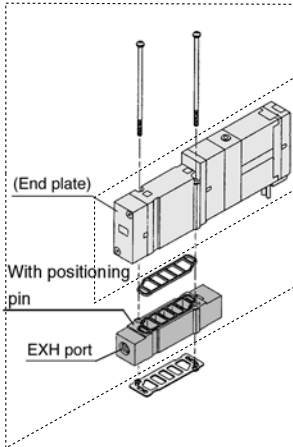
Manifold Options

Blank plate assembly



| Series | Ass'y No. |
|---------------|-----------------|
| SX3000 | SY3000-26-10A-Q |
| SX5000 | SY5000-26-4A-Q |
| SX7000 | SY7000-26-4A-Q |

Individual EXH spacer ass'y Individual SUP spacer ass'y



| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-39-2A-Q | M5 |
| SX5000 | SX5000-39-2*A-Q | 1/8 |
| SX7000 | SX7000-39-2*A-Q | 1/4 |

Note) For protection of the wiring unit section, the EXH port is on the end plate side.

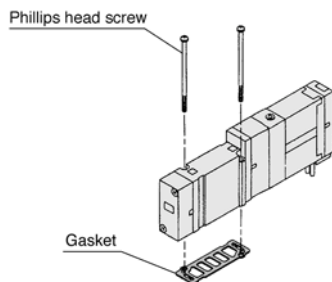
| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-38-2A-Q | M5 |
| SX5000 | SX5000-38-2*A-Q | 1/8 |
| SX7000 | SX7000-38-2*A-Q | 1/4 |

Note) The SUP port may be either on the lead wire side or on the end plate side, an ass'y is shipped on the end plate side when it is attached onto manifold base.

* Thread

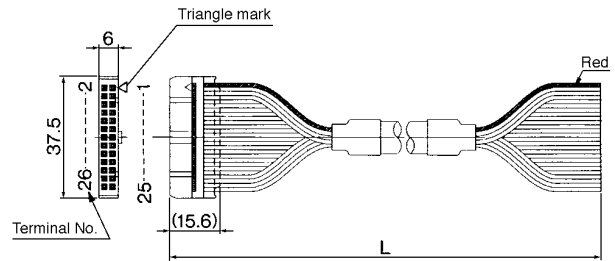
| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

Bolt and Gasket



| Series | Phillips head screw | Gasket |
|---------------|--------------------------------|--------------|
| SX3000 | SX3000-22-2 (M2 X 24) | SY3000-11-14 |
| SX5000 | M3 X 30 (Matted nickel plated) | SY5000-11-7 |
| SX7000 | M4 X 35 (Matted nickel plated) | SY7000-11-5 |

Cable assembly AXT100-FC26-1 to 3



Connector assembly for flat cables

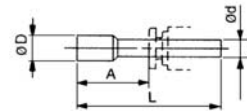
| Cable length (L) | Assembly No. | Note |
|------------------|---------------|-------------------------|
| 1.5m | AXT100-FC26-1 | Cable 26-pole X28AWG |
| 3m | AXT100-FC26-2 | |
| 5m | AXT100-FC26-3 | |

* For other commercial connectors, use 26-pole type with strain relief made in conformity with MIL-C-83503.

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

KQ2P-04-00
04
06
08
10



Dimensions

| Fittings size ød | Model | A | L | D |
|------------------|-------------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

Caution

Mounting screw tightening torque

M2: 0.15Nm
M3: 0.6Nm
M4: 1.4Nm

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

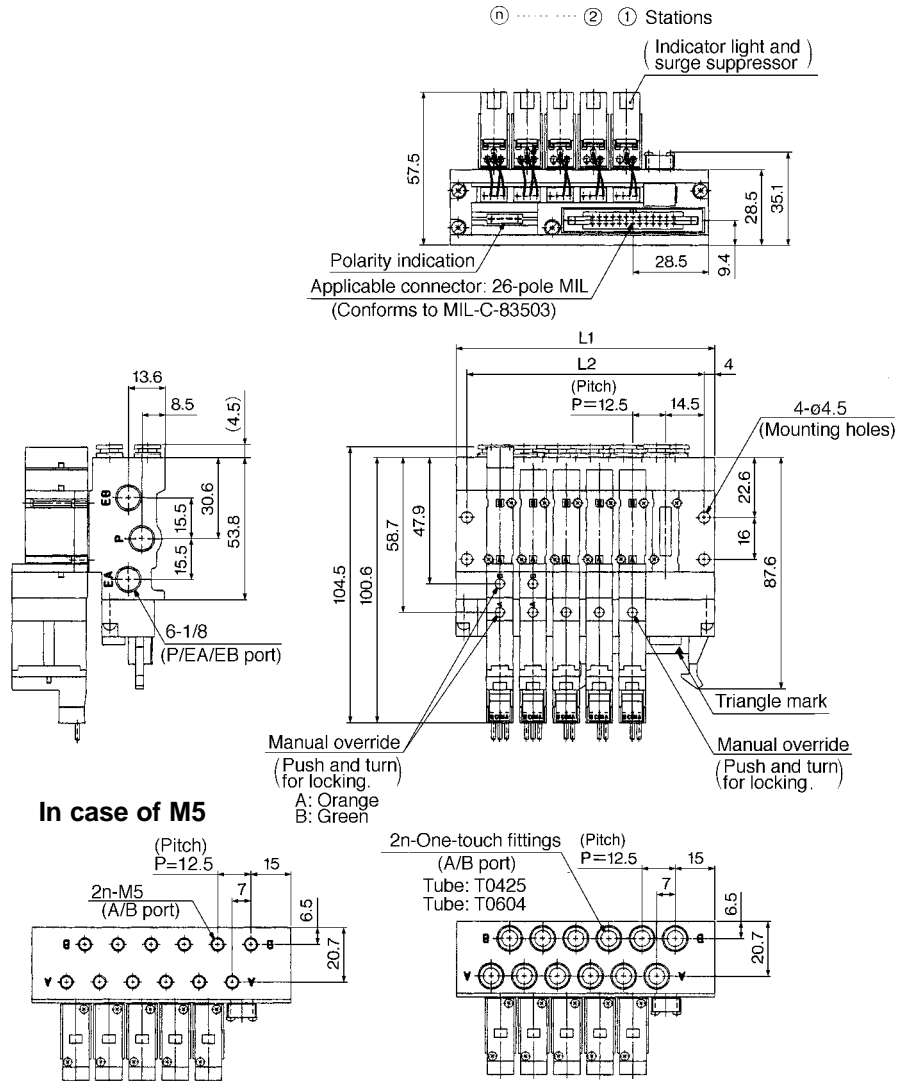
VFS

VS

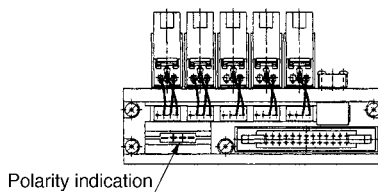
VS7

VQ7

SX3000: SS5X3-41P- Stations -M5/C4/C6-Q

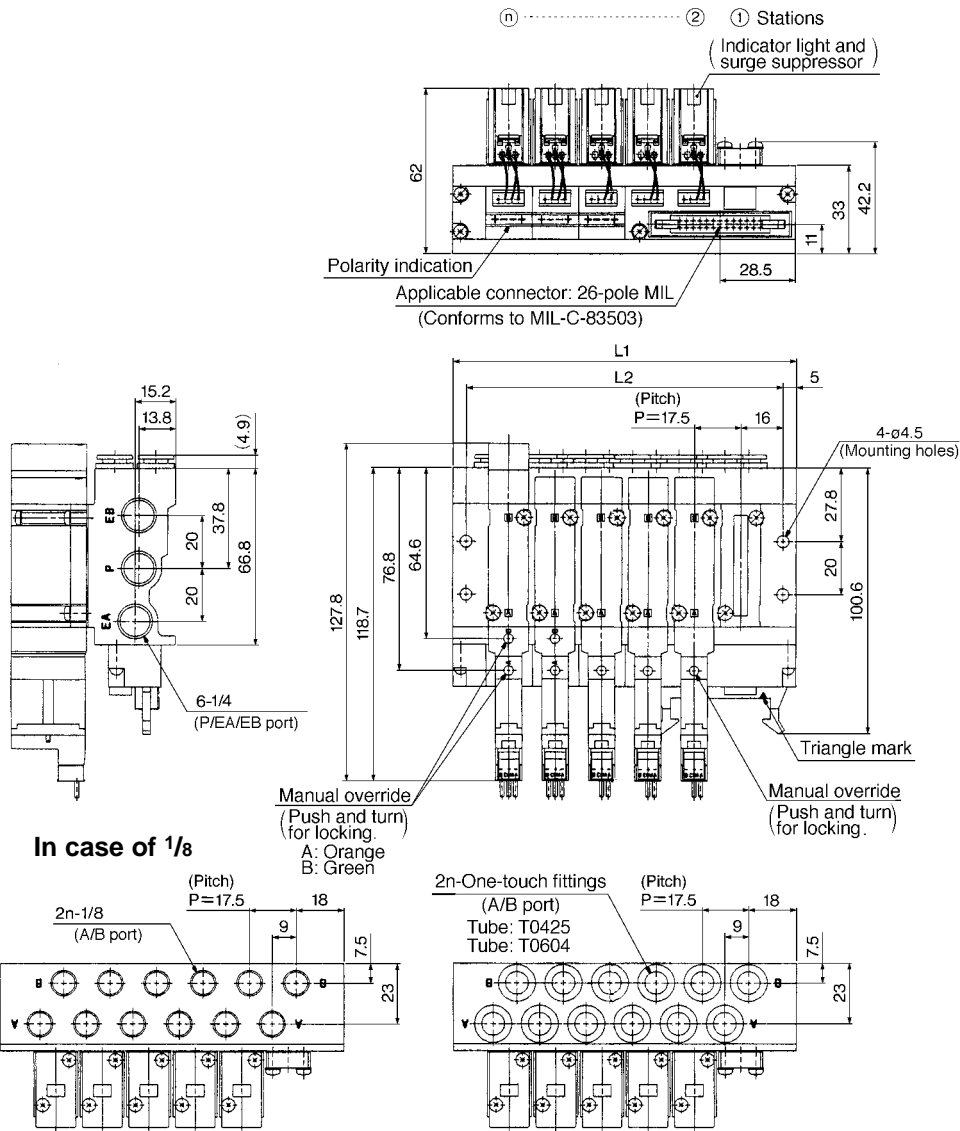


In case of SS5X3-41N

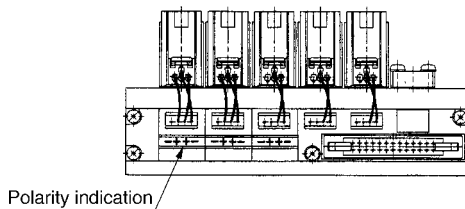


| Stations | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------|------|----|------|-----|-------|-----|-------|-----|-------|
| L1 | 72.5 | 85 | 97.5 | 110 | 122.5 | 135 | 147.5 | 160 | 172.5 |
| L2 | 64.5 | 77 | 89.5 | 102 | 114.5 | 127 | 139.5 | 152 | 164.5 |

SX5000: SS5X5-41P- Stations -01/C6/C8-Q



In case of SS5X5-41N



| 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 | 67 | 84.5 | 102 | 119.5 | 137 | 154.5 | 172 | 189.5 | 207 | 224.5 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

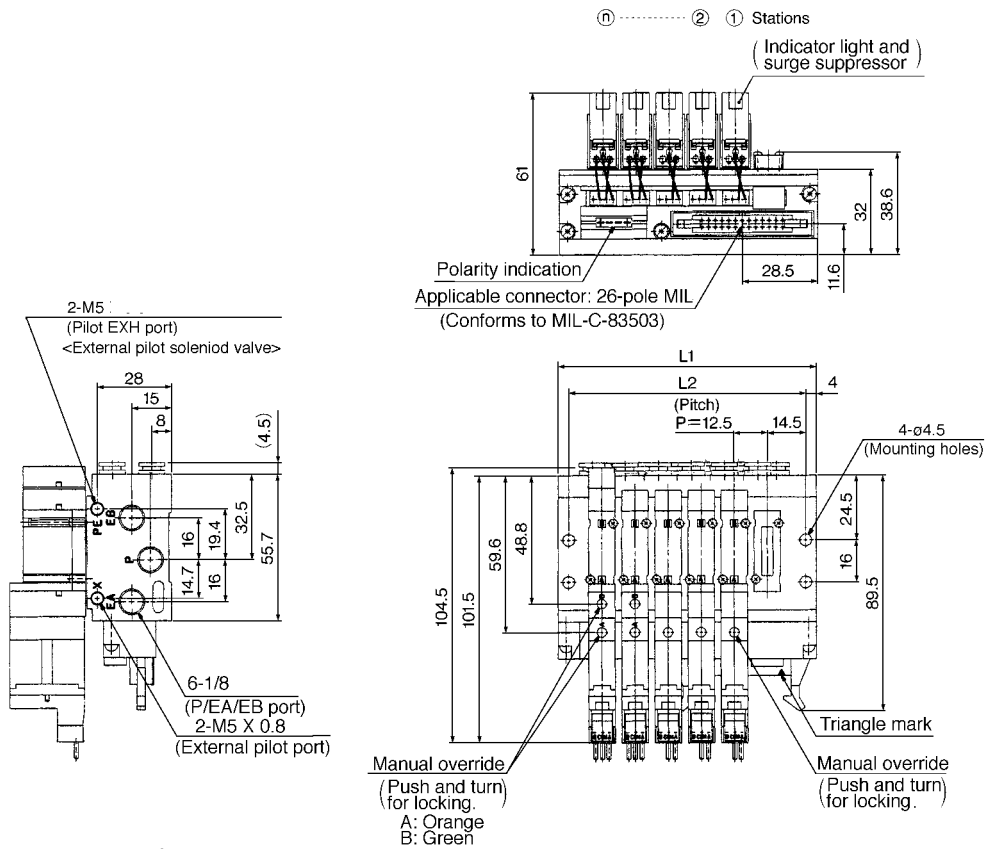
VFS

VS

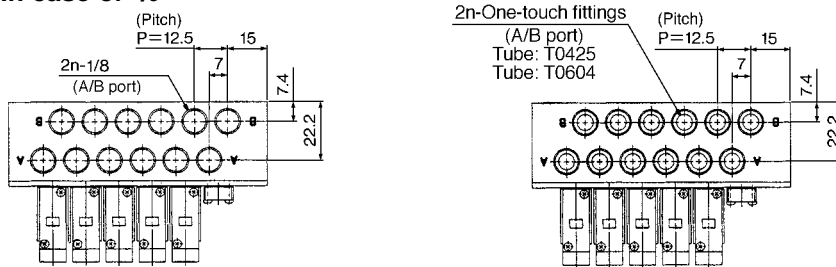
VS7

VQ7

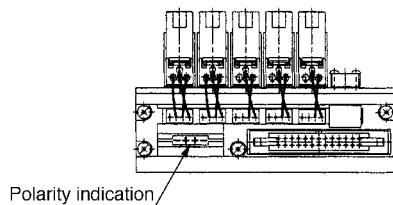
SX3000: SS5X3-42P- Stations -01/C4/C6-Q



In case of 1/8

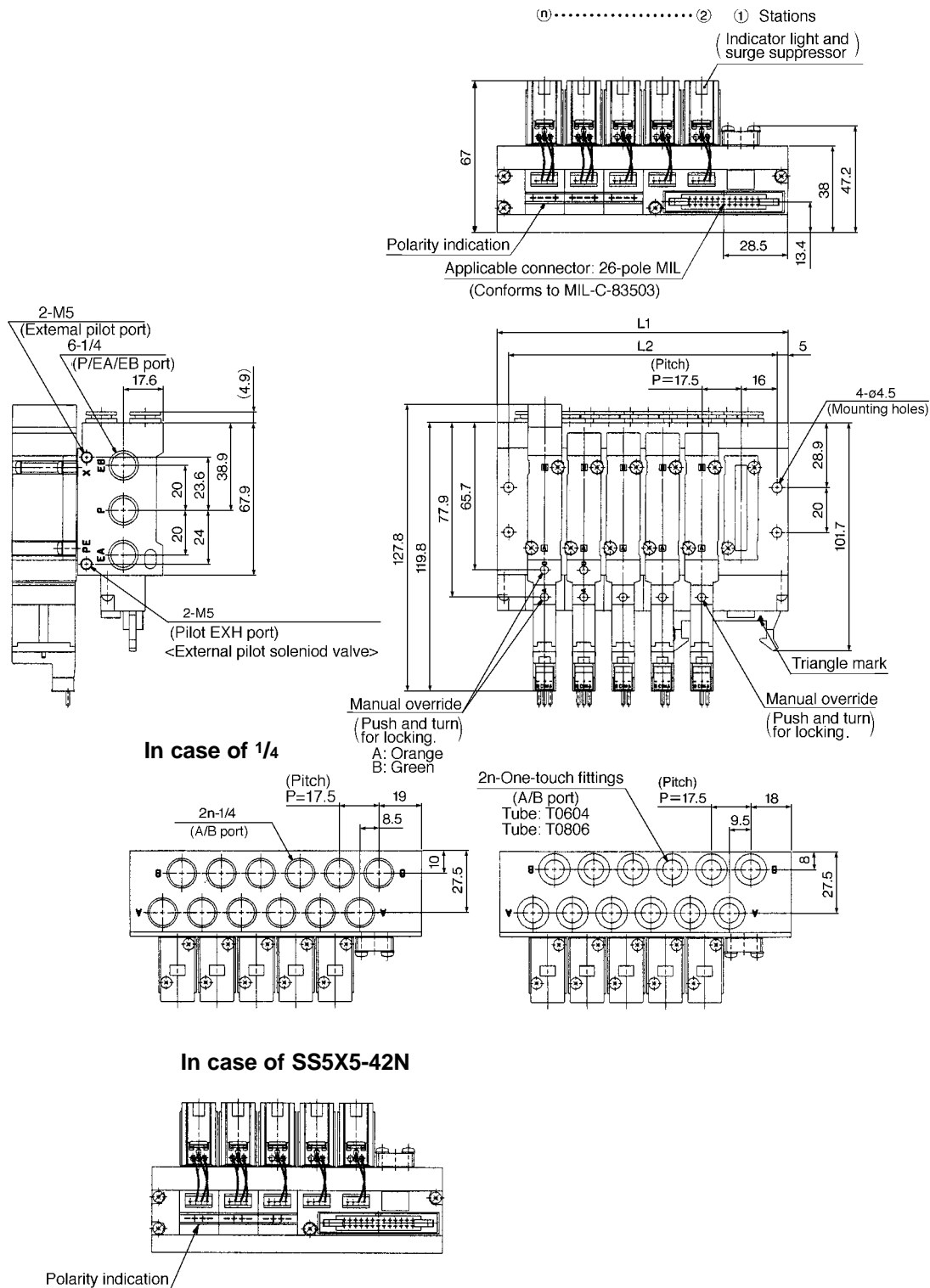


In case of SS5X3-42N



| 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 |

SX5000: SS5X5-42P- Stations -02/C6/C8-Q



| 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 | 67 | 84.5 | 102 | 119.5 | 137 | 154.5 | 172 | 189.5 | 207 | 224.5 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

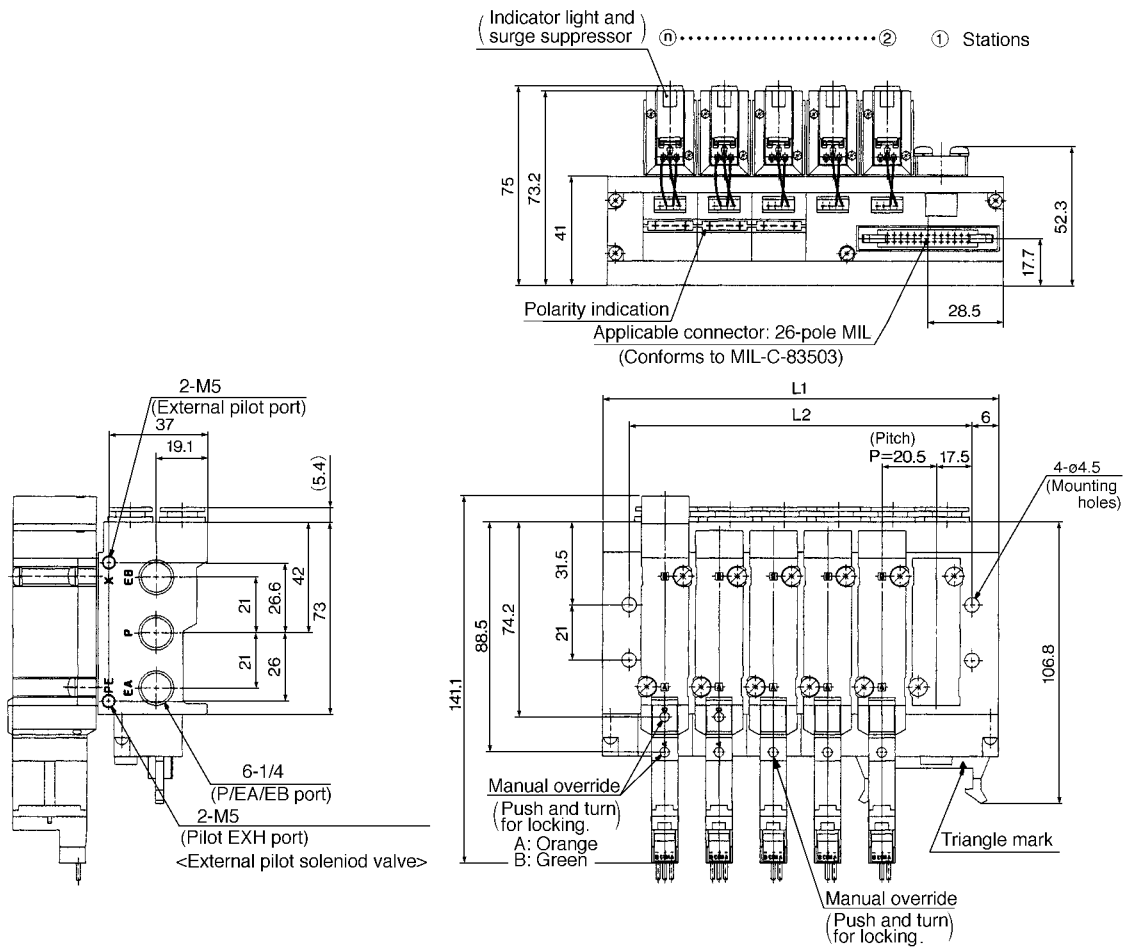
VFS

VS

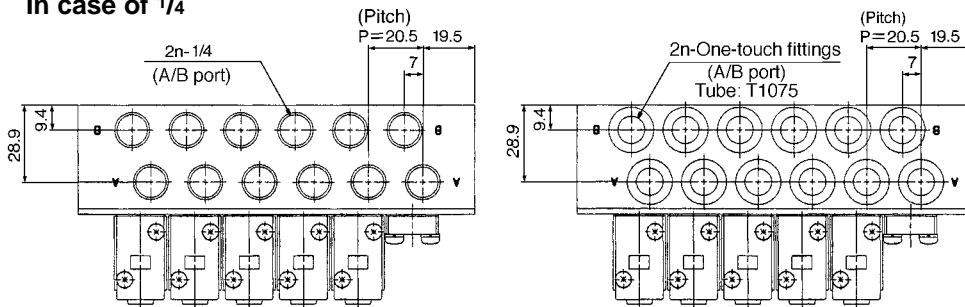
VS7

VQ7

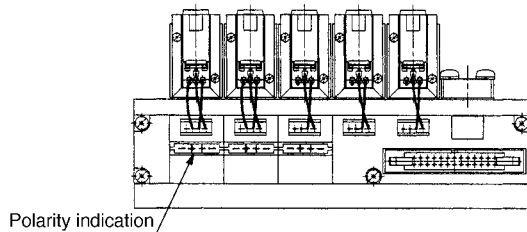
SX7000: SS5X7-42P- Stations -02/C10-Q



In case of 1/4



In case of SS5X7-42N



| Stations | 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 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

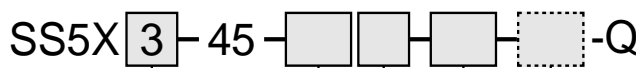
VS7

VQ7

45_{Type}

SX3000/5000 Base Mounted Stacking Manifold/DIN Rail Mounted Individual Wiring

How to Order Manifold



Manifold series

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

Stations

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

Supply/Exhaust block ass'y mounting position

| Symbol | Mounting position | Applicable series |
|--------|-----------------------|-------------------|
| U | U-side | 2 to 10 stations |
| D | D-side | |
| B | Both sides | 2 to 20 stations |
| M* | Special specification | |

* Special specification available by special order.

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

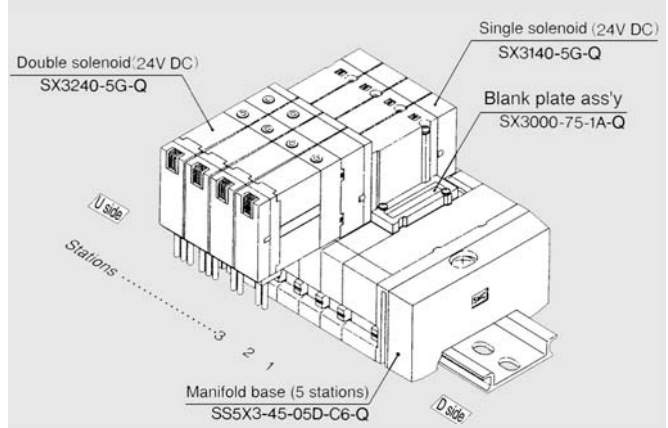
* Mixed porting available by special order.

Option

If a longer DIN rail than the one with designated station is required, specify the required station number. (Maximum: 20 stations)

How to Order Valve Manifold Ass'y (Example)

Ordering example



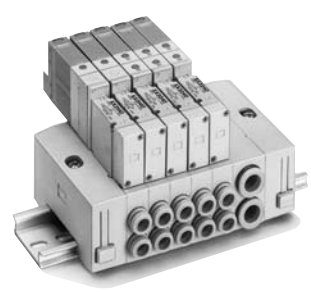
SS5X3-45-05D-C6-Q ···· 1set (45 type 5-station manifold base No.)
 SX3000-75-1A-Q ···· 1set (Blank plate assembly No.)
 SX3140-5G-Q ···· 2sets (Single solenoid No.)
 SX3240-5G-Q ···· 2sets (Double solenoid No.)

They are assembled in the order listed starting at the first station at the D side even if the air supply/exhaust block assembly is located at either end. For more complicated assemblies, refer to the manifold specifications.



- Connector assembly for L and M type ····Refer to p.1.4-6.
- Common connector ass'y for manifold ····Refer to p.1.4-7.

45_{Type}



Manifold Specifications

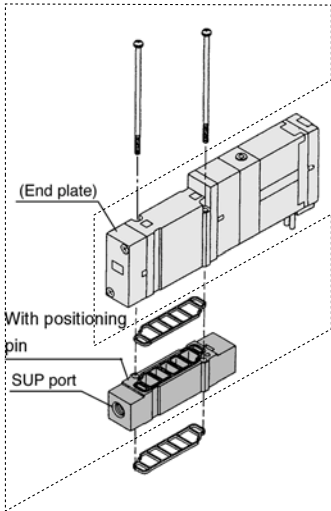
| Model | SS5X3-45 | SS5X5-45 |
|-------------------------------|---|--|
| Applicable valve | SX3□40 | SX5□40 |
| Manifold style | Stacking DIN rail mounted | |
| P(SUP)/R(EXH) style | Common supply/Common exhaust | |
| Valve stations ⁽¹⁾ | 2 to 20 stations | |
| A/B porting specifications | Location | Base |
| | Direction | Side |
| | P/R port | C8 (One-touch fittings for ø8) C10 (One-touch fittings for ø10) |
| Port size | A/B port | C4 (One-touch fittings for ø4) C6 (One-touch fittings for ø6) C8 (One-touch fittings for ø8) |
| | Valve effective area ⁽²⁾ (mm ²) (Nl/min) | C6: P→A/B 4.68 (255.19) A/B→R 4.68 (255.19) C8: P→A/B 12.6 (687.05) A/B→R 12.6 (687.05) |
| Manifold base weight W(g) | 2 to 10 stations: W=22n+118 11 to 20 stations: W=22n+140 | 2 to 10 stations: W=47n+156 11 to 20 stations: W=47n+190 |

Note 1) For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.
 Note 2) Valve for single operation of 2 position valve mounted on manifold base (5 stations).



Manifold Options

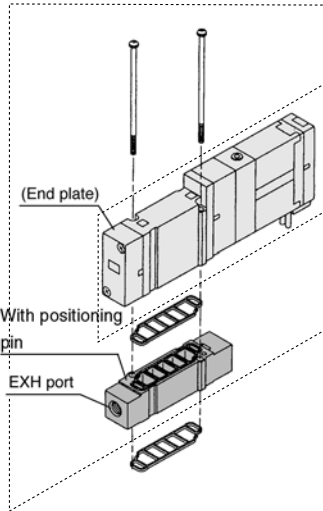
Individual SUP spacer ass'y



| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-38-2A-Q | M5 |
| SX5000 | SX5000-38-2*A-Q | 1/8 |

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

Individual EXH spacer ass'y



| Series | Ass'y No. | Port size |
|---------------|-----------------|-----------|
| SX3000 | SX3000-39-2A-Q | M5 |
| SX5000 | SX5000-39-2*A-Q | 1/8 |

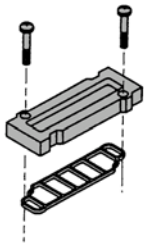
Note) The EXH port may be either on the lead wire side or on the end plate side.

* Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

| Series | Ass'y No. |
|---------------|----------------|
| SX3000 | SX3000-75-1A-Q |
| SX5000 | SX5000-76-1A-Q |

Blank plate assembly

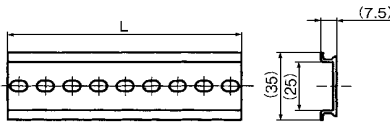


Dimensions/DIN rail

VZ1000-11-1-□

See L dimensions

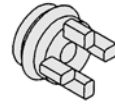
* Fill in □ with an appropriate no. listed on the table of DIN rail dimensions shown below.



| | | | | | | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| L | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 |
| No. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| L | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 | 360.5 |
| No. | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| L | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 |
| No. | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 |
| L | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 | 623 | 635.5 |
| No. | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| L | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 |
| No. | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| L | 785.5 | 798 | 810.5 | 823 | 835.5 | 848 | 860.5 | 873 | 885.5 | 898 | 910.5 |
| No. | 66 | 67 | 68 | 69 | 70 | 71 | | | | | |
| L | 923 | 935.5 | 948 | 960.5 | 973 | 985.5 | | | | | |

SUP block disc

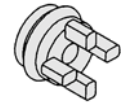
Different pressures can be supplied into one manifold by attaching supply block disks to pressure supply groove.



| Series | Part No. |
|---------------|--------------|
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

EXH block disc

Exhausted air from valves can be divided in order not to affect other valves by attaching exhaust block disks to pressure exhaust groove.



| Series | Part No. |
|---------------|--------------|
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

Block disc indication label

These labels are stuck on the block with SUP and EXH block discs inside for confirmation from outside. (3 sheets respectively)

VZ3000-123-1A

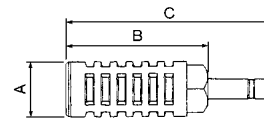
Label for SUP block disc Label for EXH block disc Label for SUP, EXH block disc



Note) When ordering block disc installed at the factory, labels will be attached to the manifold showing the locations.

Silencer for One-touch fittings

The silencer plugs directly into the One-touch fittings of the manifold.

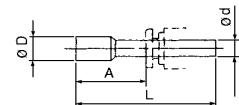


| Series | Model | Effective area | A | B | C |
|---------------------|------------|-------------------|-----|------|------|
| SX3000 (ø8) | AN203-KM8 | 14mm ² | ø16 | 26 | 51 |
| SX5000 (ø10) | AN200-KM10 | 26mm ² | ø22 | 53.8 | 80.8 |
| | AN300-KM10 | 30mm ² | ø25 | 70 | 97 |

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

KQ2P - ⁰⁴/₀₆/₀₈/₁₀ - 00



Dimensions

| Fittings size ød | Model | A | L | D |
|------------------|-------------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

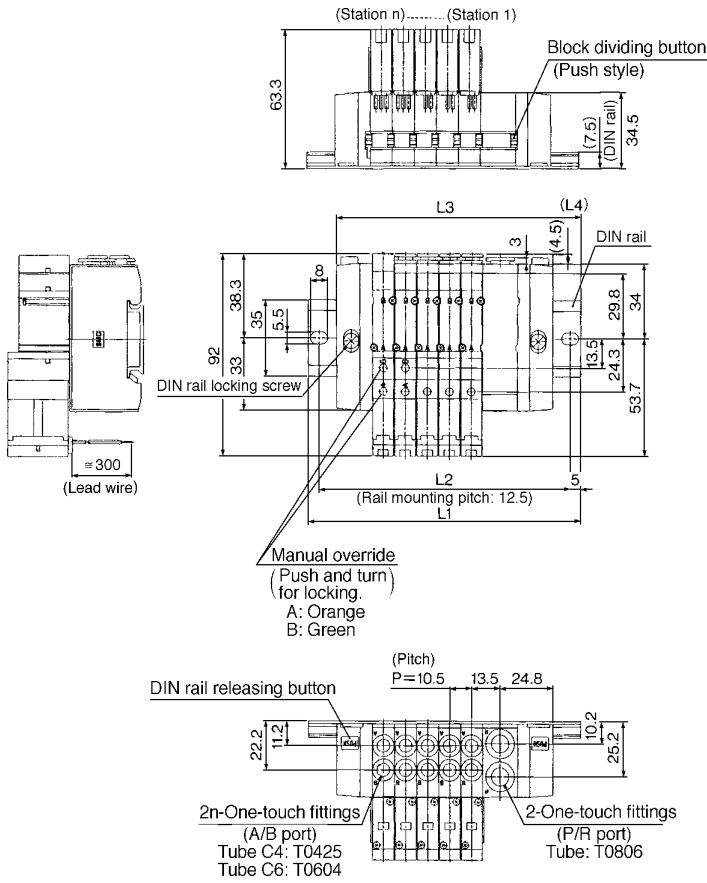
Caution

Mounting screw tightening torque

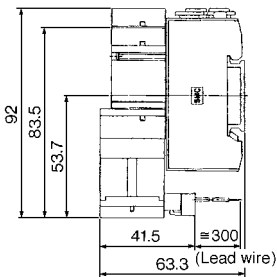
M2: 0.15Nm
M3: 0.6Nm
M4: 1.4Nm

Dimensions/Series SX3000

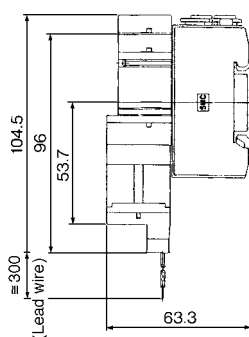
SS5X3-45-Stations D-C₆⁴-Q



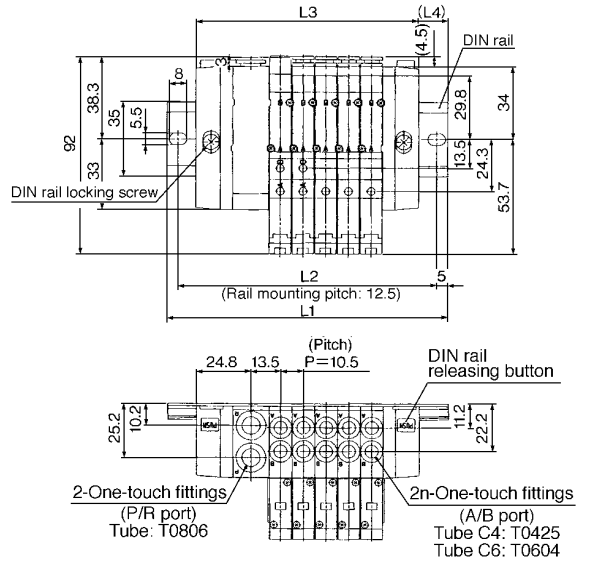
L plug connector



M plug connector

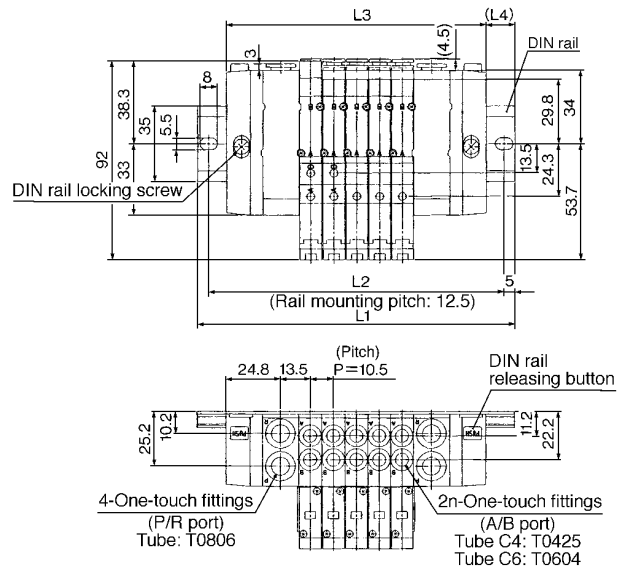


SS5X3-45-Stations U-C₆⁴-Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 98 | 110.5 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 |
| L2 | 87.5 | 100 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 |
| L3 | 70.5 | 81 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

SS5X3-45-Stations B-C₆⁴-Q



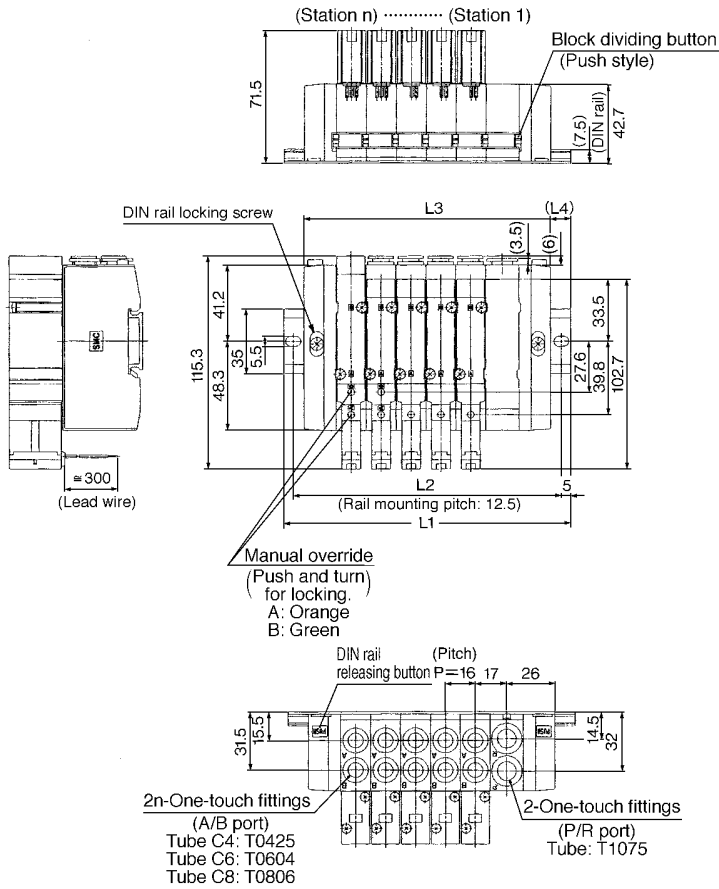
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 |
| L2 | 100 | 112.5 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 |
| L3 | 87 | 97.5 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 |
| L4 | 11.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 210.5 | 223 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 |
| L2 | 200 | 212.5 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 |
| L3 | 181.5 | 192 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 |
| L4 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 |

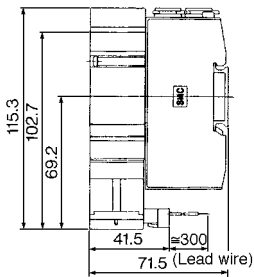
- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Dimensions/Series SX5000

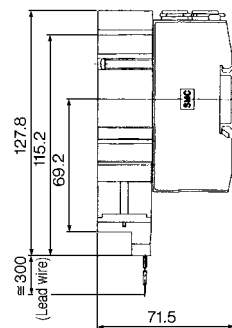
SS5X5-45-Stations D-C₄-C₆-C₈-Q



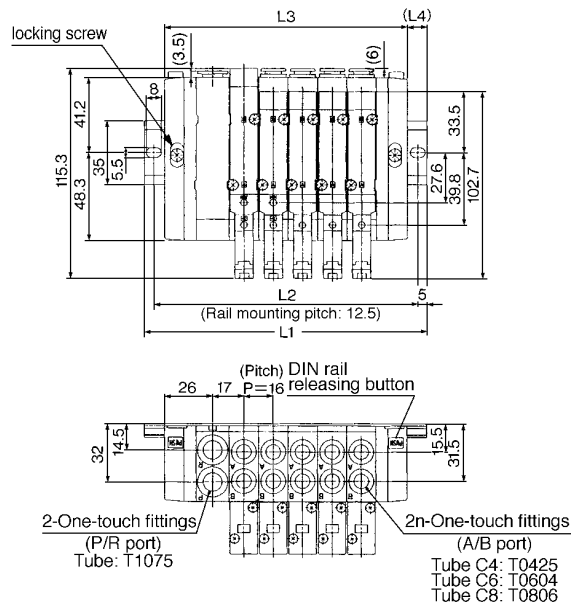
L plug connector



M plug connector

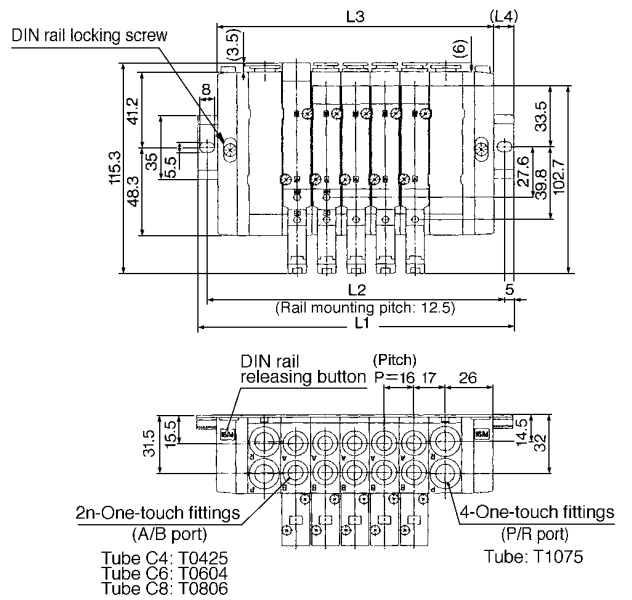


SS5X5-45-Stations U-C₄-C₆-C₈-Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 110.5 | 135.5 | 148 | 160.5 | 173 | 198 | 210.5 | 223 | 235.5 |
| L2 | 100 | 125 | 137.5 | 150 | 162.5 | 187.5 | 200 | 212.5 | 225 |
| L3 | 84 | 100 | 116 | 132 | 148 | 164 | 180 | 196 | 212 |
| L4 | 13 | 17.5 | 16 | 14 | 12.5 | 17 | 15 | 13.5 | 11.5 |

SS5X5-45-Stations B-C₄-C₆-C₈-Q

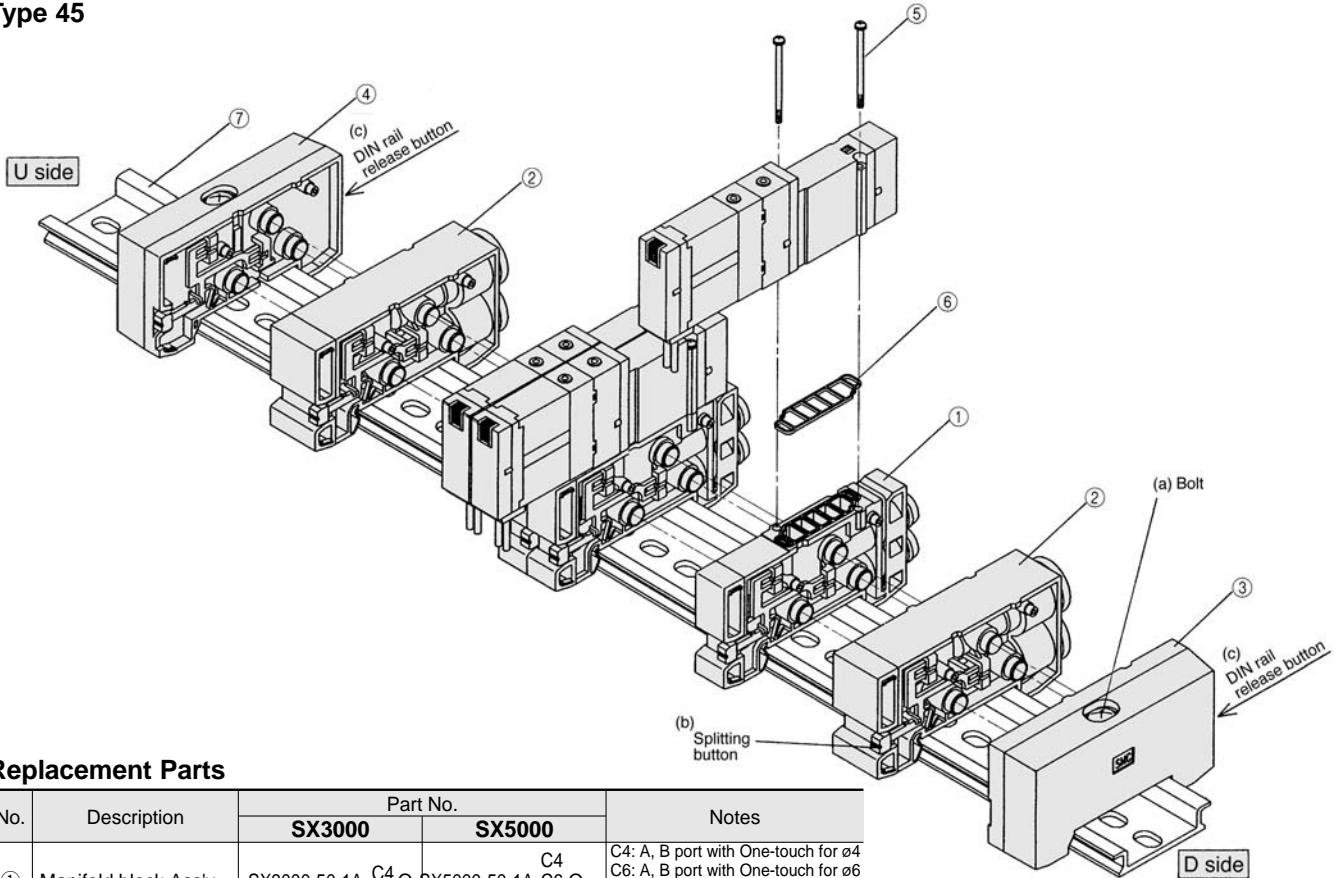


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 223 | 248 | 260.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 212.5 | 237.5 | 250 |
| L3 | 102 | 118 | 134 | 150 | 166 | 182 | 198 | 214 | 230 |
| L4 | 16.5 | 15 | 13 | 17.5 | 16 | 14 | 12.5 | 17 | 15 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 273 | 285.5 | 310.5 | 323 | 335.5 | 360.5 | 373 | 385.5 | 398 | 423 |
| L2 | 262.5 | 275 | 300 | 312.5 | 325 | 350 | 362.5 | 375 | 387.5 | 412.5 |
| L3 | 246 | 262 | 278 | 294 | 310 | 326 | 342 | 358 | 374 | 390 |
| L4 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 | 15.5 | 13.5 | 12 | 16.5 |

Exploded View/DIN Rail Manifold

Type 45



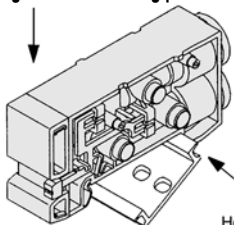
Replacement Parts

| No. | Description | Part No. | | Notes |
|-----|----------------------|--------------------------|-------------------------------------|---|
| | | SX3000 | SX5000 | |
| ① | Manifold block Ass'y | SX3000-50-1A-C4-C6 | SX5000-50-1A-C6-Q C4 C6 C8 | C4: A, B port with One-touch for ø4 C6: A, B port with One-touch for ø6 C8: A, B port with One-touch for ø8 (Gasket ⑥ is an accessory) |
| ② | SUP/EXH block Ass'y | SX3000-51-1A | SX5000-51-1A | P, R port SX3000 with One-touch for ø8 P, R port SX5000 with One-touch for ø10 |
| ③ | End block Ass'y R | SX3000-52-1A-Q | SX5000-52-1A-Q | For D side |
| ④ | End block Ass'y L | SX3000-53-1A-Q | SX5000-53-1A-Q | For U side |
| ⑤ | Phillips head screw | SX3000-22-2 (M2 X 24) | M3 X 30 (Matted nickel plated) | |
| ⑥ | Gasket | SX3000-57-4 | SX5000-57-1 | |
| ⑦ | DIN rail | VZ1000-11-1-□ | | Refer to p.1.4-73 |

How to increase manifold bases (Manifold bases can be added at any location.)

- Cut off the air supply to confirm that no air is left in the manifold before starting operation. Remaining air or inappropriate installation may cause an accident.
- Loosen bolt (a) fixing the manifold base until it begins to turn idly. (While pressing DIN rail release buttons (c) at two locations, separate the manifold base from the DIN rail.)
 - Press manifold block ass'y splitting button (b), that are at the location where manifold bases are to be added, until button (b) locks, and then separate the block assemblies.
 - Mount additional manifold block assemblies on the DIN rail as shown in the figure.
 - Press block assemblies until a click sound is produced, and tighten bolt (a) to fix them to the DIN rail. (Torque: 1 Nm) (While lightly holding the blocks with hands after fixing an end block on one side, tighten the other end block for better sealing.)

Fig.1 Block mounting procedure

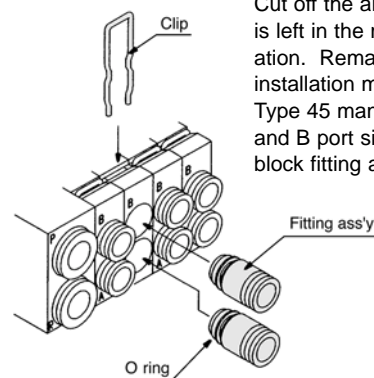


Hook this part on the DIN rail and then press in the direction of the arrow until a click sound is produced.

Caution

- When adding manifold bases to use more than 10 stations, add SUP/EXH block ass'ys, as well.
- When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.

How to change fitting assembly



Cut off the air supply to confirm that no air is left in the manifold before starting operation. Remaining air or inappropriate installation may cause an accident. Type 45 manifold permits change in the A and B port sizes by changing the manifold block fitting assembly. After removing the valve, remove the clip with a screwdriver, etc. For mounting a new fitting ass'y, insert it and then insert a clip until it will not come out of the manifold block.

Fitting ass'y

| Port size | SX3000 | SX5000 |
|---------------------------|----------------|----------------|
| One-touch fittings for ø4 | VVQ1000-50A-C4 | VVQ1000-51A-C4 |
| One-touch fittings for ø6 | VVQ1000-50A-C6 | VVQ1000-51A-C6 |
| One-touch fittings for ø8 | — | VVQ1000-51A-C8 |

- Note 1) P and R ports cannot be changed.
Note 2) Protect O rings from scratches and dust to prevent air leakage.

SV
SY
SYJ
SX
VK
VZ
VF
VFR
VP7

VQC
SQ
VQ
VQ4
VQ5
VQZ
VQD
VFS
VS
VS7
VQ7

SX3000/5000 Base Mounted Stacking Manifold/DIN Rail Mounted Plug-in

45□ Type

How to Order Manifold

45F type (D-sub Connector/25 pin)

SS5X 3-45 □ F D-05 U-C4 □ □ -Q

Manifold series ●

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

Common ●

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

Connector box mounting position ●

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations ●

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 10 | 10 | |
| 11 | 11 | Applicable up to 20 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 20 | 20 | |

The number of blank plates ass'y is included.

SUP/EXH block ass'y mounting position ●

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U side | 2 to 10 |
| D | D side | 2 to 10 |
| B | Both side | 2 to 20 |
| M* | Special specification | |

* Special specification is available by special order.

A/B port size ●

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting available by special order.

Voltage ●

| | |
|-----|--------|
| — | 24V DC |
| 12V | 12V DC |



Contact SMC for other voltages (9)



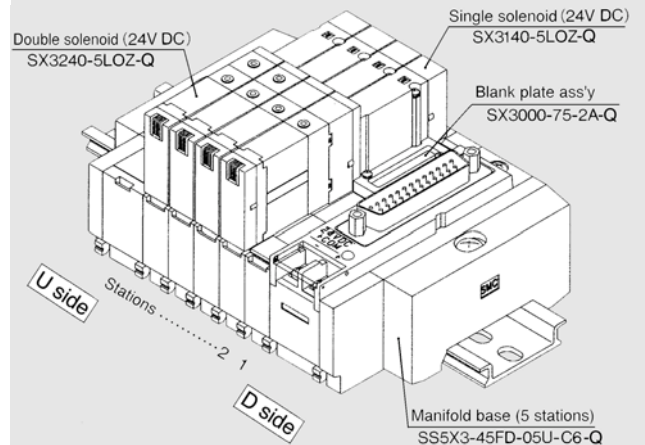
Protective class class III (Mark: ⚡)

Option ●

If a longer than standard DIN rail is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

How to Order Valve Manifold Ass'y (Example)

Ordering example (45F type/D-sub connector (25 pin))



SS5X3-45FD-05U-C6-Q · 1set (45F type D-sub connector 5-station manifold base No.)
 SX3000-75-2A-Q ······ 1set (Blank plate assembly number.)
 SX3140-5LOZ-Q ······ 2sets (Single solenoid number.)
 SX3240-5LOZ-Q ······ 2sets (Double solenoid number.)

- All manifold stations are wired for double solenoid valves. Valves are mounted in the order listed starting at the 1st station of D side of the manifold regardless of the location of the electrical entry.
- When special wiring is required, use the manifold specification form.

How to Order Valve

(Types 45F, 45P□, 45T, 45T1)

SX 3 2 40-5 □ LOZ □ -Q

Series ●

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

Configuration ●

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

Rated voltage ●

| | |
|----|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V* | 6V DC |
| S* | 5V DC |
| R* | 3V DC |
| 9 | (Less than 50) |

Common ●

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

* Correspond with common specification for manifold.

* Only 45T and 45T1 are available.

Manual override ●

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

How to Order Manifold

45P□type (Flat cable)

SS5X **3** - 45 **□** P **□** **D** - 05 **U** - **C4** - **□** - **□** - **□** - **Q**

Manifold series

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

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

Connector poles

| Symbol | Poles | Applicable stations |
|--------|-------|---------------------|
| — | 26 | 2 to 20 stations |
| G | 20 | 2 to 16 stations |
| H | 10 | 2 to 8 stations |

Connector mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting available by special order.

SUP/EXH block assembly mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U side | 2 to 10 |
| D | D side | 2 to 10 |
| B | Both side | 2 to 20 |
| M* | Special specification | |

* Special specification available by special order.

Voltage

| | |
|-----|--------|
| — | 24V DC |
| 12V | 12V DC |

Valve stations (Blank plate ass'ys are included.)

26 pin (P) connector

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 10 | 10 | Applicable up to 20 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 20 | 20 | |

20 pin (PG) connector

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 08 | 8 | Applicable up to 16 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 16 | 16 | |

10 pin (PH) connector

| Symbol | Stations | Note |
|--------|----------|--|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 04 | 4 | Applicable up to 8 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 08 | 8 | |

45T type (9 pin terminal block)

SS5X **3** - 45T **D** - 05 **U** - **C4** - **□** - **□** - **□** - **Q**

Series

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

Terminal block mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations

| Symbol | Stations | Note |
|--------|----------|--|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 04 | 4 | Applicable up to 8 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 08 | 8 | |

The number of blank plate ass'ys is included.

SUP/EXH block ass'y mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U side | 2 to 8 |
| D | D side | 2 to 8 |
| B | Both side | 2 to 8 |
| M* | Special specification | |

* Indicate special locations in the manifold specification form.

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting is available by special order.

45T1 type (18 pin terminal block)

SS5X **3** - 45T1 **D** - 05 **U** - **C4** - **□** - **□** - **□** - **Q**

Series

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

Terminal block mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 08 | 8 | Applicable up to 17 solenoids. Use manifold specification form to specify wiring. |
| ⋮ | ⋮ | |
| 17 | 17 | |

The number of blank plate ass'ys is included.

SUP/EXH block ass'y mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U side | 2 to 10 |
| D | D side | 2 to 10 |
| B | Both side | 2 to 17 |
| M* | Special specification | |

* Special specification available by special order.

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

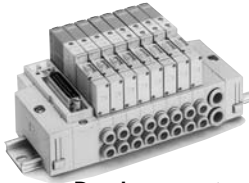
| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting is available by special order.

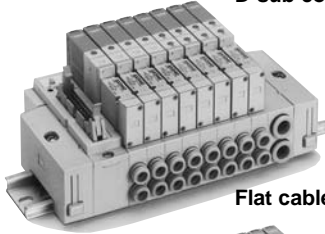
Note) The terminal block (45T□type) manifold has no common polarity. It can be used for both positive and negative common.

SV
SY
SYJ
SX
VK
VZ
VF
VFR
VP7

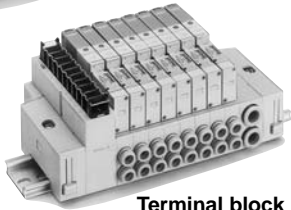
VQC
SQ
VQ
VQ4
VQ5
VQZ
VQD
VFS
VS
VS7
VQ7



D-sub connector style



Flat cable style



Terminal block style

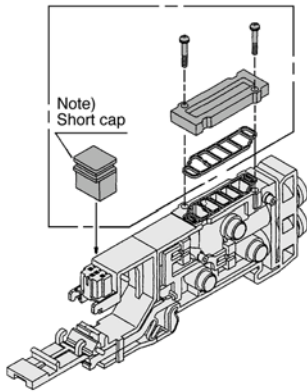
Manifold Specifications

| Type | D-sub connector 45F | Flat cable 45P□ | | | Terminal block | |
|---|---|--|--|---|---|---------------------------|
| | | 45P | 45PG | 45PH | 45T | 45T1 |
| Manifold style | Plug-in | | | | | |
| P(SUP)/R(EXH) style | Common supply/Common exhaust | | | | | |
| Valve stations ⁽¹⁾ | 2 to 20 | 2 to 16 | 2 to 8 | 2 to 17 | | |
| A/B port specifications | Location | Base | | | | |
| | Direction | Side | | | | |
| Port size | P/R port | SX3000 | C8 (One-touch fittings for ø8) | | | |
| | | SX5000 | C10 (One-touch fittings for ø10) | | | |
| | A/B port | SX3000 | C4 (One-touch fittings for ø4)/C6 (One-touch fittings for ø6) | | | |
| | | SX5000 | C4 (One-touch fittings for ø4)/C6 (One-touch fittings for ø6)/C8 (One-touch fittings for ø8) | | | |
| Valve effective area ⁽²⁾ (mm ²) (Nl/min) | SX3000 | C6: P→A/B 4.68 (255.19) A/B→R 4.68 (255.19) | | | | |
| | | SX5000 | C8: P→A/B 12.6 (687.05) A/B→R 12.6 (687.05) | | | |
| Connector | D-sub connector: conforms to MIL-C-24308 and JIS-X-5101 | | Flat cable connector socket: 26 pin MIL with strain relief; conforms to MIL-C-83503 | Flat cable connector socket: 20 pin MIL with strain relief; conforms to MIL-C-83503 | Flat cable connector socket: 10 pin MIL with strain relief; conforms to MIL-C-83503 | 9 pin terminal block (M3) |
| Internal wiring | +COM (45□type), -COM (45N□type) | | | | Both for +COM and -COM | |
| Manifold base weight W (g) n: Stations (D-sub connector) | SX3000 | 2 to 10 stations : W=26n+172 11 to 20 stations: W=26n+199 | | | | |
| | SX5000 | 2 to 10 stations : W=54n+227 11 to 20 stations: W=54n+264 | | | | |

Note 1) There is limit to the number of stations available depending on the number of solenoids required. Please refer to the "How to Order". For more than 10 stations, supply pressure through the 'P' ports at both ends of the manifold exhaust through both ends as well.
Note 2) Valve for single operation of 2 position valve mounted on manifold base (5 stations).

Manifold Options

Blank plate assembly



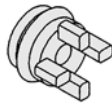
Note) Short cap

| Series | Ass'y No. |
|--------|----------------|
| SX3000 | SX3000-75-2A-Q |
| SX5000 | SX5000-76-2A-Q |

Note) When mounting a blank plate, be sure to mount a short cap.

SUP block disc

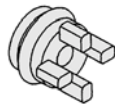
Different pressures can be supplied into one manifold by inserting supply block discs between stations.



| Series | Part No. |
|--------|--------------|
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

EXH block disc

Exhausted air from valves can be divided in order not to affect other valves by inserting exhaust block discs between stations.



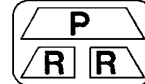
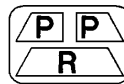
| Series | Part No. |
|--------|--------------|
| SX3000 | SX3000-77-1A |
| SX5000 | SX5000-77-1A |

Block disc indication label

These labels are stuck on the block with SUP and EXH block discs inside for confirmation from outside. (3 sheets respectively)

VZ3000-123-1A (Both for SX3000, 5000)

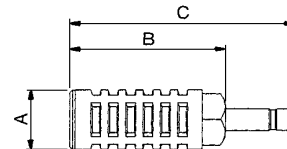
Label for SUP block disc Label for EXH block disc Label for SUP, EXH block disc



Note) When ordering block disc installed at the factory, labels are attached to the manifold showing the locations.

Silencer for One-touch fittings

The silencer plugs directly into the One-touch fittings of the manifold.

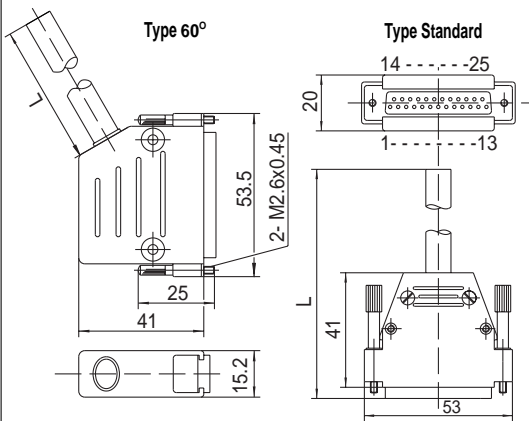


| Series | Model | Effective area | A | B | C |
|--------------|------------|-------------------|-----|------|------|
| SX3000 (ø8) | AN203-KM8 | 14mm ² | ø16 | 26 | 51 |
| | AN200-KM10 | 26mm ² | ø22 | 53.8 | 80.8 |
| SX5000 (ø10) | AN300-KM10 | 30mm ² | ø25 | 70 | 97 |

Manifold Options

GVVZS3000-21A-¹/₂/₃/₄/₅^S/₆₀

(The D-sub connector cable ass'y can be ordered individually or included in a specific manifold model no. Refer to "How to Order Manifold".)



D-sub connector cable ass'y

| Cable length (L) | Ass'y No. |
|------------------|------------------|
| 1m | GVVZS3000-21A-1□ |
| 3m | GVVZS3000-21A-2□ |
| 5m | GVVZS3000-21A-3□ |
| 8m | GVVZS3000-21A-4□ |
| 20m | GVVZS3000-21A-5S |

| Model | |
|----------|----|
| Standard | S |
| 60° | 60 |

Electric characteristics

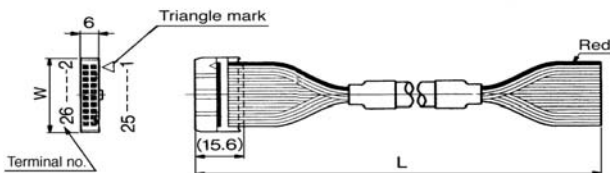
| Item | Characteristics |
|---------------------------------|-----------------|
| Conductor resistance Ω/km, 20°C | 57 or less |
| Voltage limit V, 5min, AC | 1500 |
| Insulation resistance MΩ/km | 20 |

Wire color table by terminal number of D-sub connector cable assembly

| Terminal No. | Lead wire color | Dot marking |
|--------------|-----------------|-------------|
| 1 | White | - |
| 2 | Brown | - |
| 3 | Green | - |
| 4 | Yellow | - |
| 5 | Grey | - |
| 6 | Pink | - |
| 7 | Blue | - |
| 8 | Red | - |
| 9 | Black | - |
| 10 | Violet | - |
| 11 | Grey | Pink |
| 12 | Red | Blue |
| 13 | White | Green |
| 14 | Brown | Green |
| 15 | White | Yellow |
| 16 | Yellow | Brown |
| 17 | White | Grey |
| 18 | Grey | Brown |
| 19 | White | Pink |
| 20 | Pink | Brown |
| 21 | White | Blue |
| 22 | Brown | Blue |
| 23 | White | Red |
| 24 | Brown | Red |
| 25 | White | Black |

* Connector made in conformity with DIN47100.

Flat Cable Connector/Cable assembly AXT100-FC□-1 to 3



Flat Cable connector assembly

| Cable length (L) | 10 pin | 20 pin | 26 pin |
|---------------------|---------------|---------------|---------------|
| 1.5m | AXT100-FC10-1 | AXT100-FC20-1 | AXT100-FC26-1 |
| 3m | AXT100-FC10-2 | AXT100-FC20-2 | AXT100-FC26-2 |
| 5m | AXT100-FC10-3 | AXT100-FC20-3 | AXT100-FC26-3 |
| Connector width (W) | 17.2 | 30 | 37.5 |

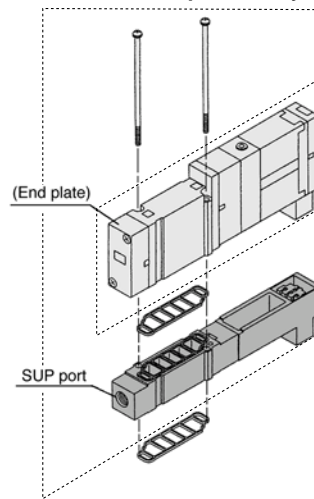
* For other commercial connectors, use strain relief made in conformity with MIL-C-83503.

Caution

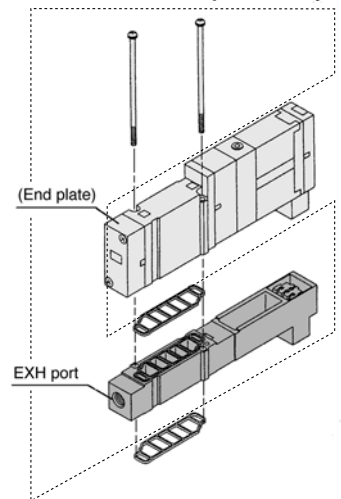
Mounting screw tightening torque

- M2: 0.15Nm
- M3: 0.6Nm
- M4: 1.4Nm

Individual SUP spacer ass'y



Individual EXH spacer ass'y



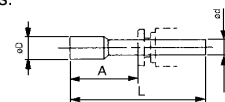
| Series | Ass'y No. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-38-3A-Q | M5 X 0.8 |
| SX5000 | SX5000-38-3*A-Q | 1/8 |

| Series | Ass'y No. | Port size |
|--------|-----------------|-----------|
| SX3000 | SX3000-39-3A-Q | M5 |
| SX5000 | SX5000-39-3*A-Q | 1/8 |

Plug

Inserted into an unused cylinder port and SUP/EXH ports. The minimum order quantity is 10 pcs.

KQ2P-⁰⁴/₀₆/₀₈/₁₀-00



* Thread

| | |
|---|--------|
| - | Rc(PT) |
| F | G(PF) |
| N | NPT |
| T | NPTF |

Dimensions

| Fittings size ød | Model | A | L | D |
|------------------|------------|------|----|----|
| 4 | KQ2P-04-00 | 16 | 32 | 6 |
| 6 | KQ2P-06-00 | 18 | 35 | 8 |
| 8 | KQ2P-08-00 | 20.5 | 39 | 10 |
| 10 | KQ2P-10-00 | 22 | 43 | 12 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

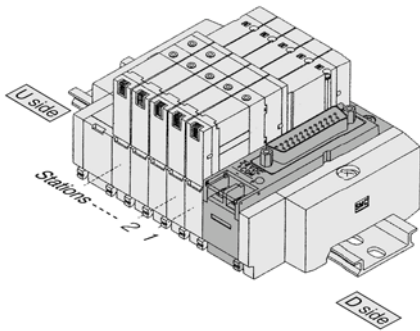
VS7

VQ7

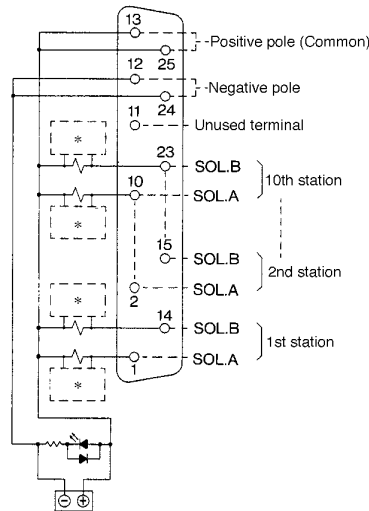
Manifold Internal Wiring

45(N)F/D-sub Connector Style

A D-sub connector used for electric wiring reduces labour during wiring operation. Connectors conforming to MIL are used for interchangeability.



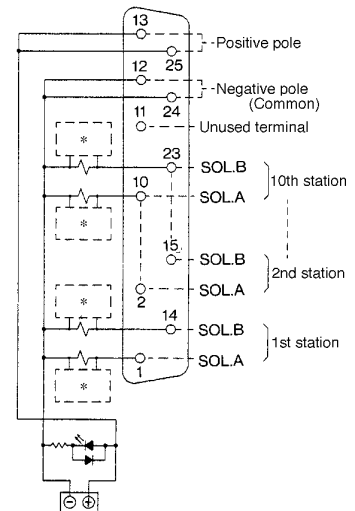
<Positive COM (45F)>



Power source terminal

* Indicator light and surge voltage suppressor

<Negative COM (45NF)>

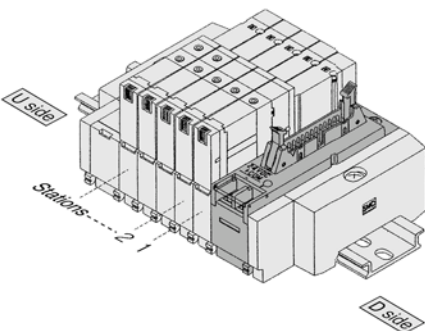


Power source terminal

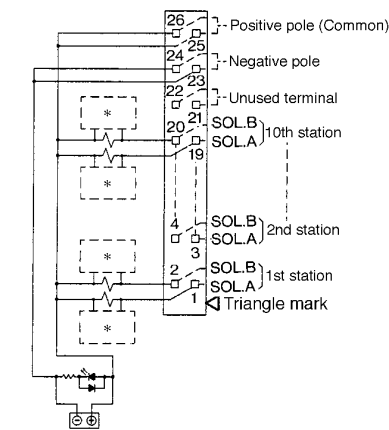
- The power source terminal is used for connecting to an external power source.
- The above diagram is for a 10 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid valve, connect wire to SOL. A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

45(N)P/Flat Cable Style (26 pin)

A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.



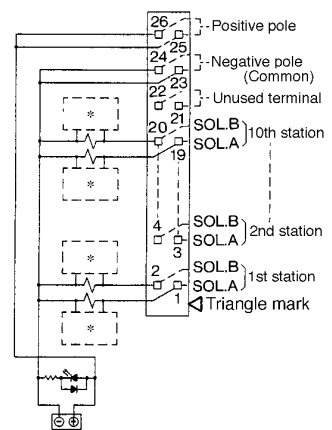
<Positive COM (45P)>



Power source terminal

* Indicator light and surge voltage suppressor

<Negative COM (45NP)>



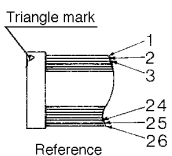
Power source terminal

* Indicator light and surge voltage suppressor



Note) Terminal number is not indicated on the connector.

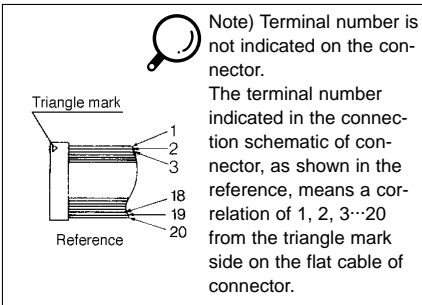
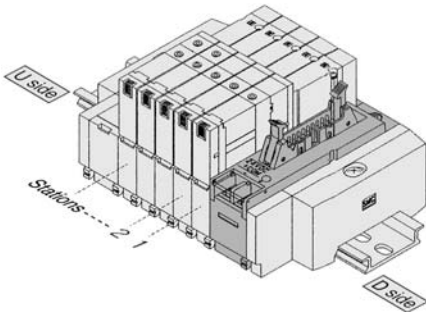
The terminal number indicated in the connection schematic of connector as shown in the reference, means a correlation of 1, 2, 3...26 from the triangle mark side on the flat cable of connector.



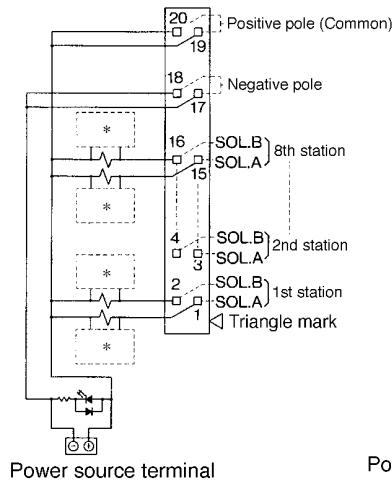
- The power source terminal is used for connecting to an external power source.
- The above diagram is for a 10 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid valve, connect wire to SOL. A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- Regardless of the connector mounting position, stations are counted from the D side.

45(N)PG/Flat Cable Style (20 pin)

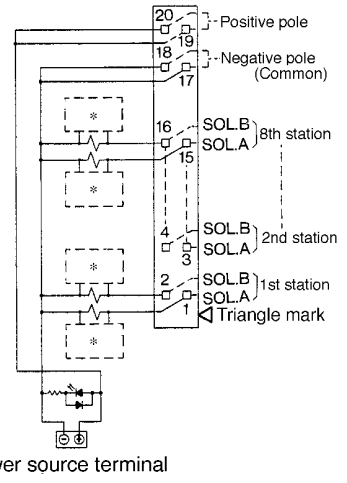
A flat cable connector used for electric wiring reduces labour during wiring operation. Connectors conforming to MIL are used for wide interchangeability.



<Positive COM (45PG)>



<Negative COM (45NPG)>

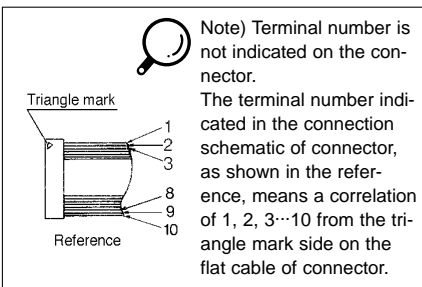
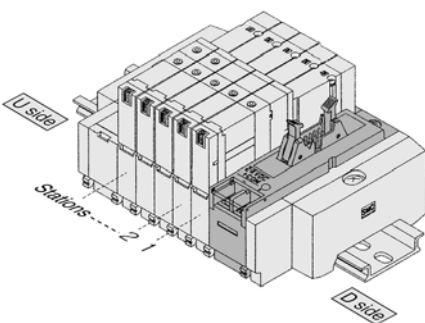


* Indicator light and surge voltage suppressor

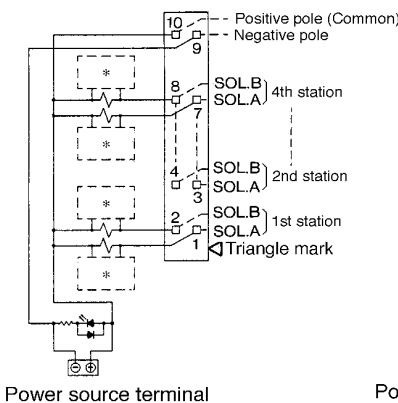
- The power source terminal is used for connecting to an external power source.
- The above diagram is for a 8 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid valve, connect wire to SOL. A.
- The maximum number of stations is 16 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

45(N)PH/Flat Cable Style (10 pin)

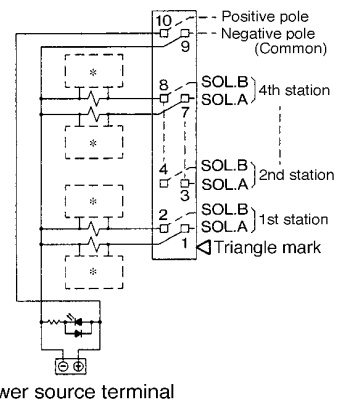
A flat cable connector used for electric wiring reduces labour during wiring operation. Connectors conforming to MIL are used for wide interchangeability.



<Positive COM (45PH)>



<Negative COM (45NPH)>



* Indicator light and surge voltage suppressor

- The power source terminal is used for connecting to an external power source.
- The above diagram is for a 4 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid valve, connect wire to SOL. A.
- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

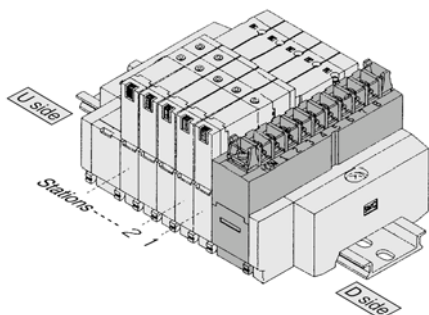
VS7

VQ7

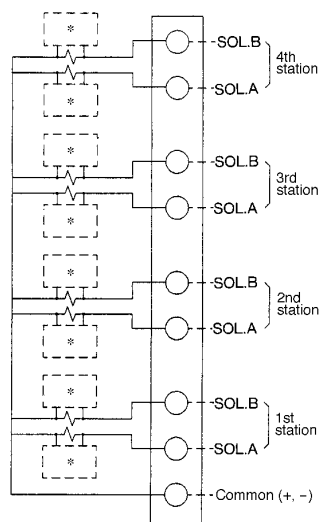
Manifold Internal Wiring

45T/Terminal Block Style

A terminal block type permits direct cable connection without treatment of lead wires.



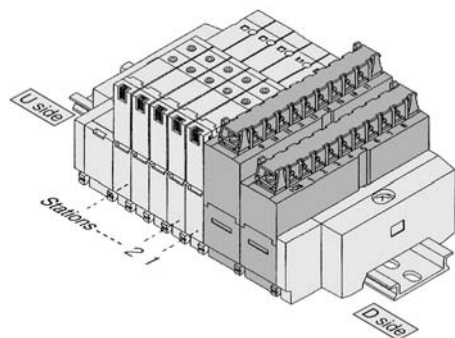
<45T>



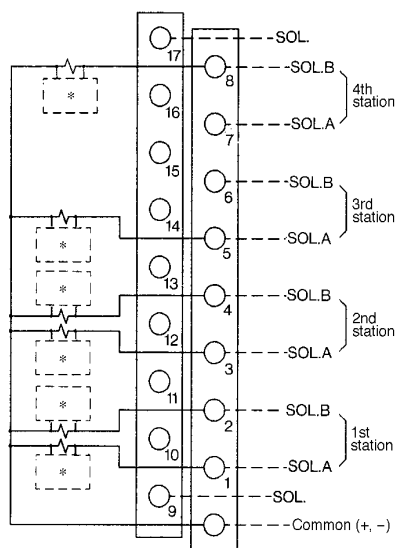
* Indicator light and surge voltage suppressor

- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- The above diagram is for a 4 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid valve, connect wire to SOL. A.
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM specification and negative power for -COM specification.

45T1/Terminal Block Style



<45T1>



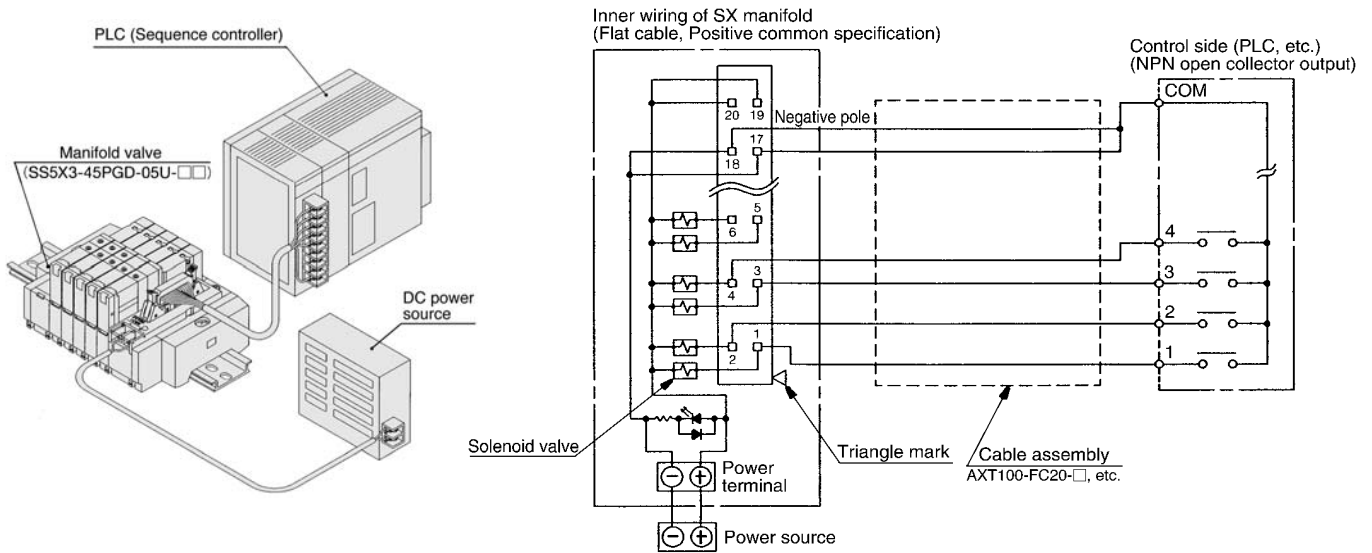
* Indicator light and surge voltage suppressor

- The maximum number of stations is 17 in terms of manifold bases, as well as solenoids. (Contact SMC for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM specification and negative power for -COM specification.

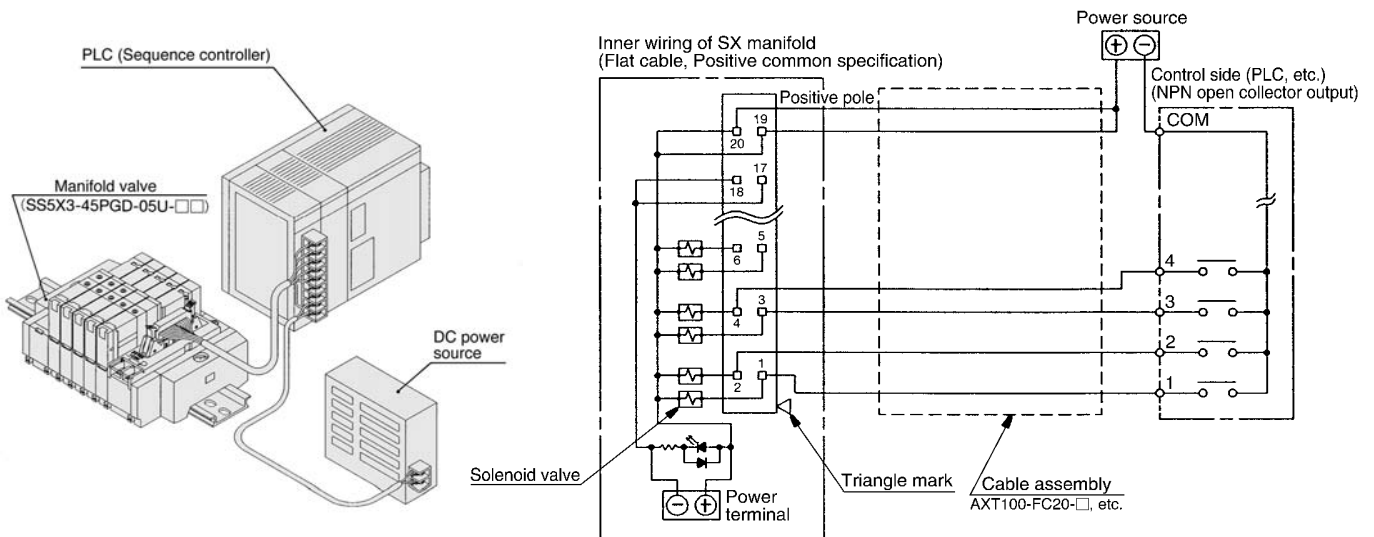
SS5X□-45□ Wiring of Plug-in Style

Power terminal is installed in the plug-in manifold series SX as standard. It enables power for driving the valves to be supplied from both the control side and manifold side.

1. Wiring example when the power terminal of the manifold is used



2. Wiring example when the power terminal of the manifold is not used



⚠ Precaution

For connecting the valves with PLC (sequence controller) and the like, signal wire, COM (common) positions, etc., are different depending on the manufacturers. Make sure that the electrical circuits are suitable for each other by referring to information within the catalogs before connecting them. If wiring is incorrect, not only the manifold and the valves but also the PLC (on the control side) and the power source may be damaged.

| |
|-----------|
| SV |
| SY |
| SYJ |
| SX |
| VK |
| VZ |
| VF |
| VFR |
| VP7 |

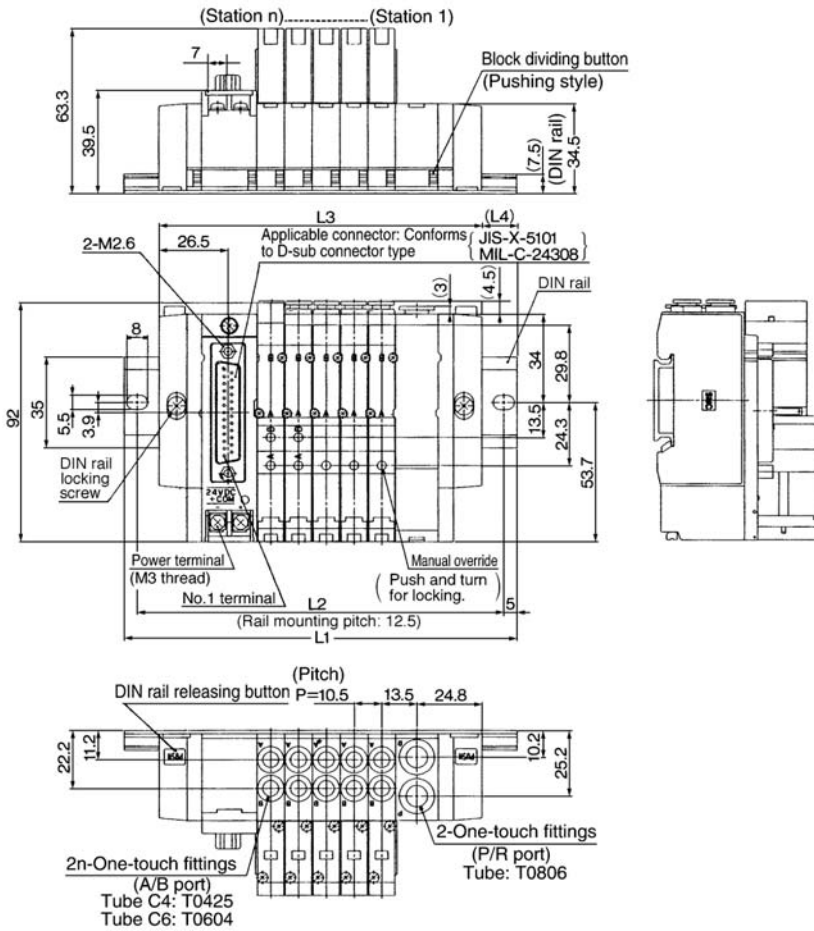
| |
|-----|
| VQC |
| SQ |
| VQ |
| VQ4 |
| VQ5 |
| VQZ |
| VQD |
| VFS |
| VS |
| VS7 |
| VQ7 |

SX3000: D-sub Connector/Plug-in

SS5X3-45FU- Stations D-C₆⁴ -Q

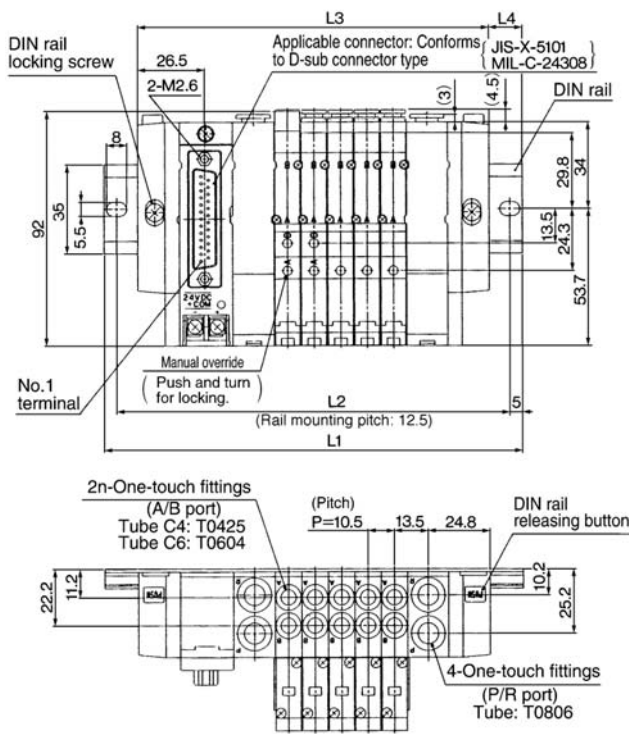


Note) The L1 to L4 dimensions of **SS5X3-45FU- Stations U-□-Q** are identical to those of **SS5X3-45FU- Stations D-□-Q**.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

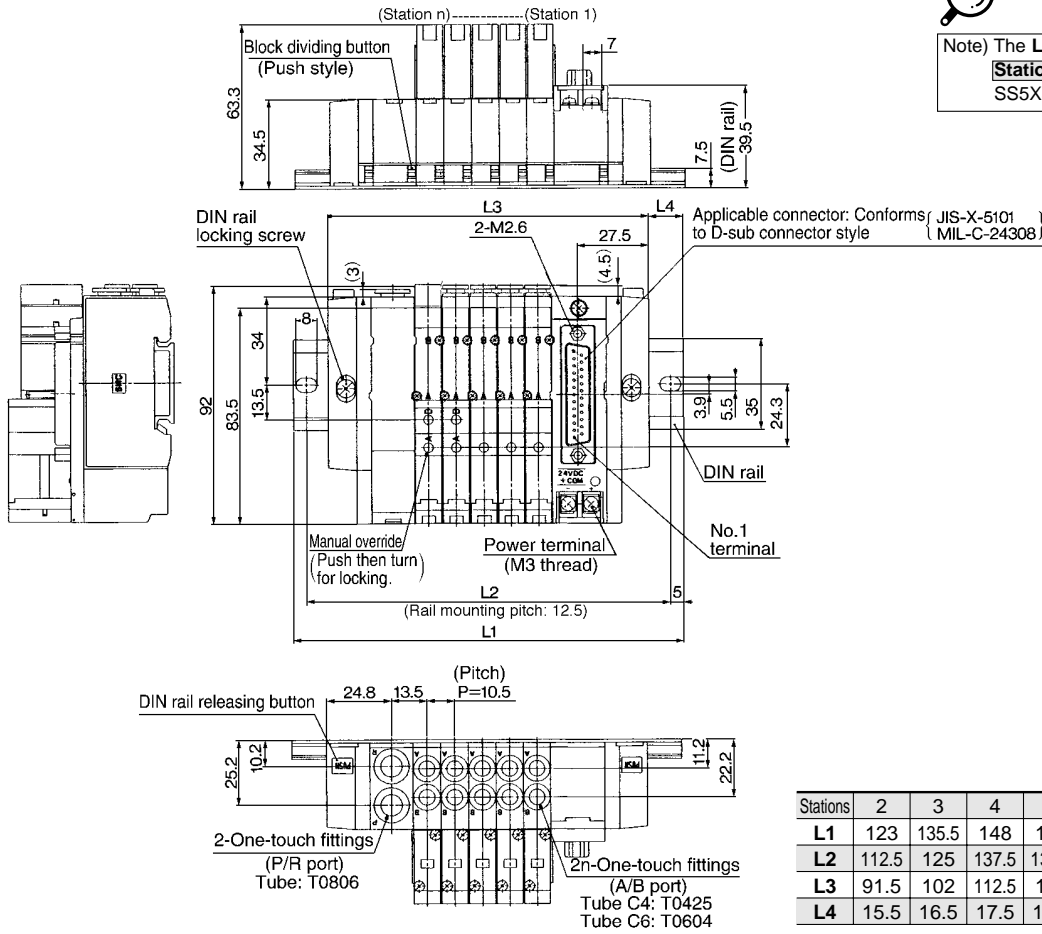
SS5X3-45FU- Stations B-C₆⁴ -Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

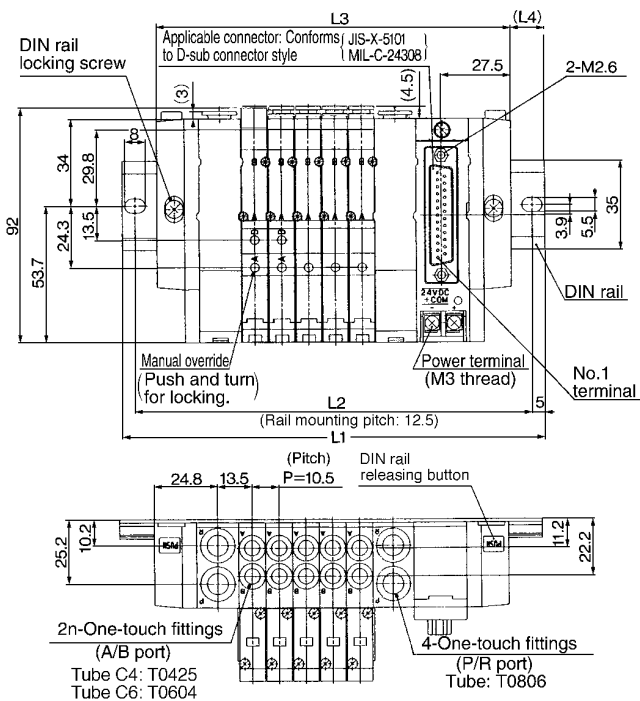
SS5X3-45FD- Stations U-C₆⁴-Q



(Note) The L1 to L4 dimensions of SS5X3-45FD- Stations D-□-Q are identical to those of SS5X3-45FD- Stations U-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

SS5X3-45FD- Stations B-C₆⁴-Q



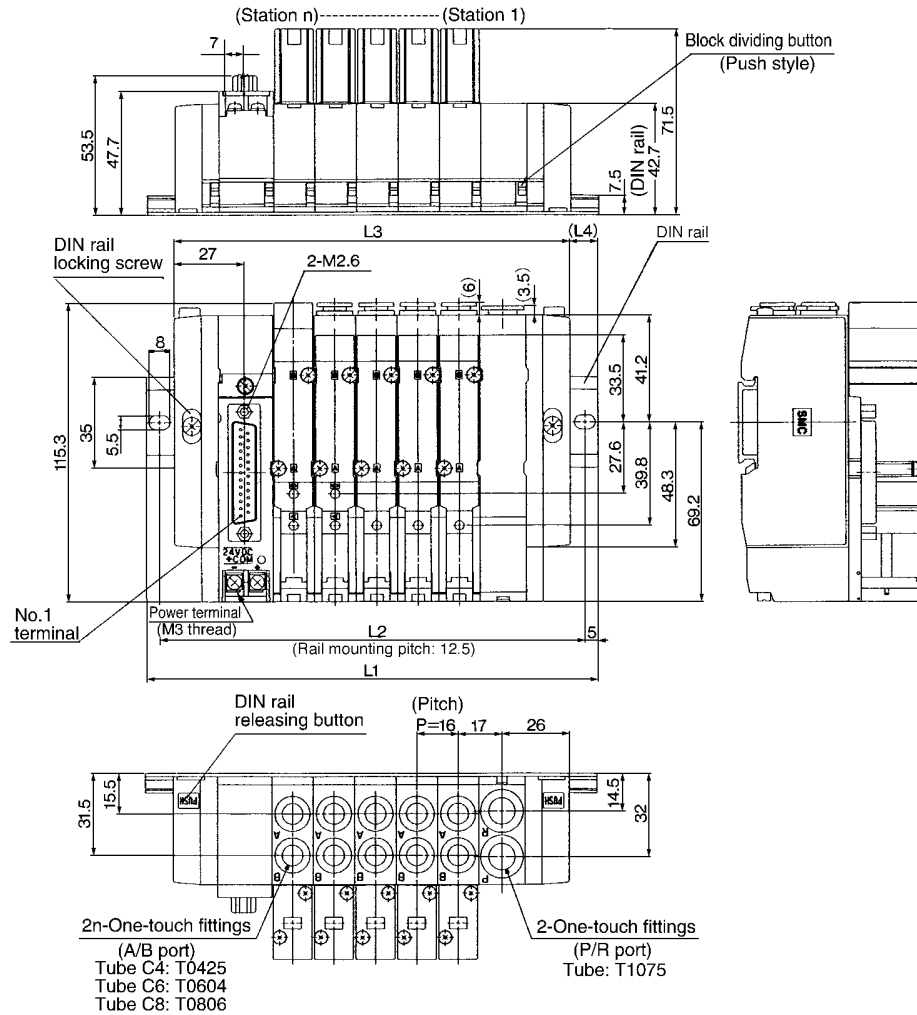
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX5000: D-sub Connector/Plug-in

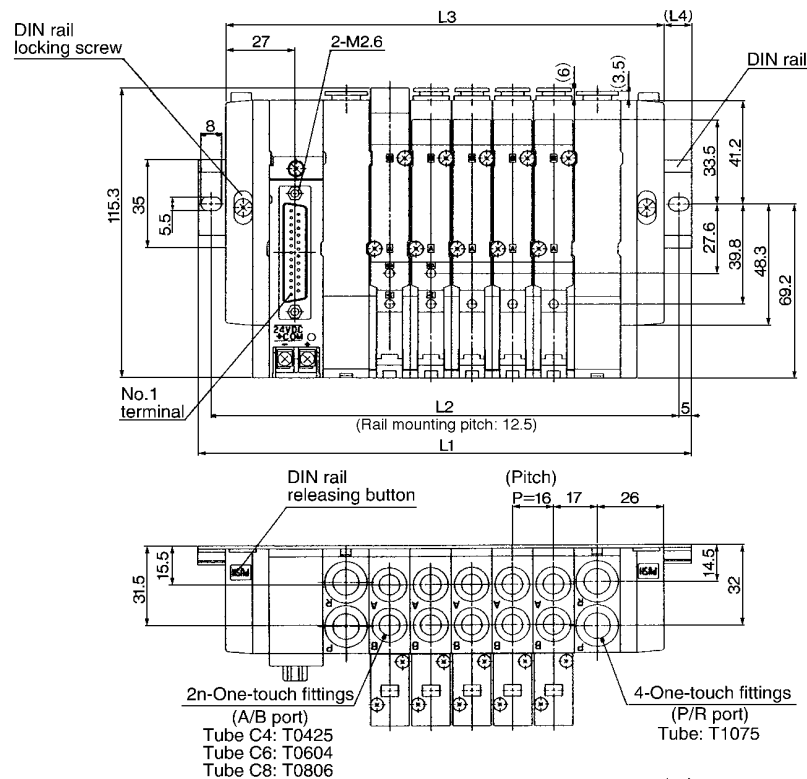
SS5X5-45FU- Stations D-^{C4}_{C6}^{C8}-Q



(Note) The L1 to L4 dimensions of SS5X5-45FU- Stations U-□-Q are identical to those of SS5X5-45FU- Stations D-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 225 | 237.5 | 250 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 | 15.5 | 13.5 |

SS5X5-45FU- Stations B-^{C4}_{C6}^{C8}-Q



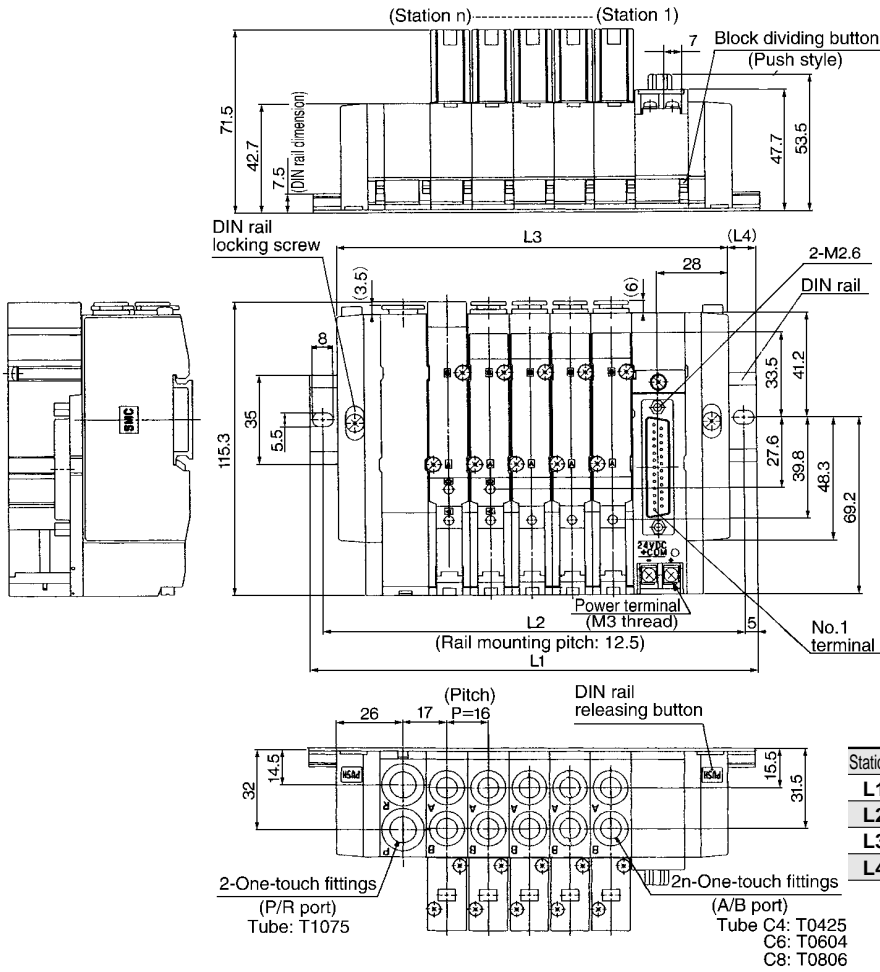
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 |
| L2 | 137.5 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 12.5 | 17 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 |
| L2 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 | 400 | 412.5 | 425 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 | 363 | 379 | 395 | 411 |
| L4 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

SS5X5-45FD- Stations U-C4, C6, C8 -Q



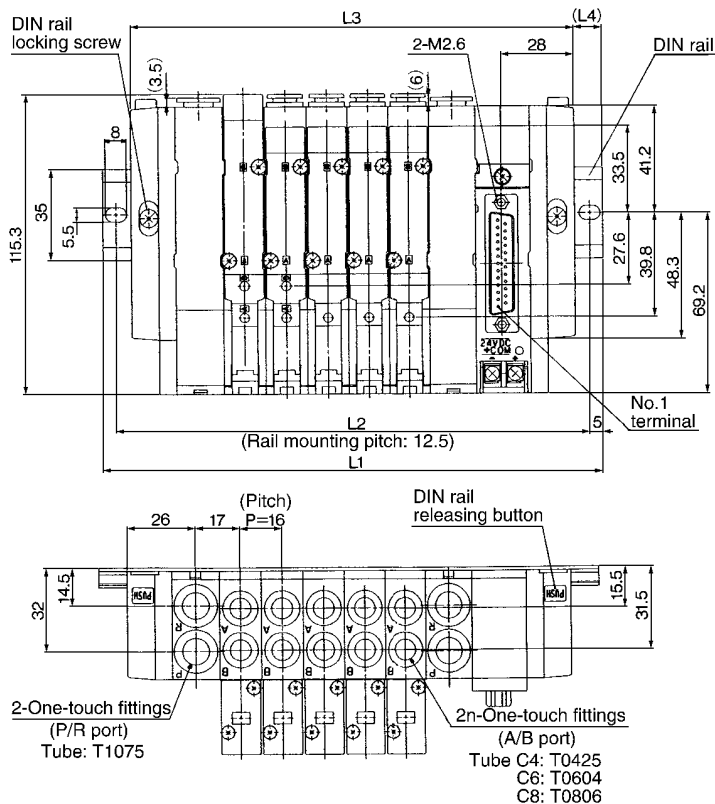
Note) The L1 to L4 dimensions of SS5X5-45FD- Stations D-□-Q are identical to those of SS5X5-45FD- Stations U-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 225 | 237.5 | 250 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 | 15.5 | 13.5 |

Tube C4: T0425
C6: T0604
C8: T0806

SS5X5-45FD- Stations B-C4, C6, C8 -Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 |
| L2 | 137.5 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 12.5 | 17 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 |
| L2 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 | 400 | 412.5 | 425 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 | 363 | 379 | 395 | 411 |
| L4 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

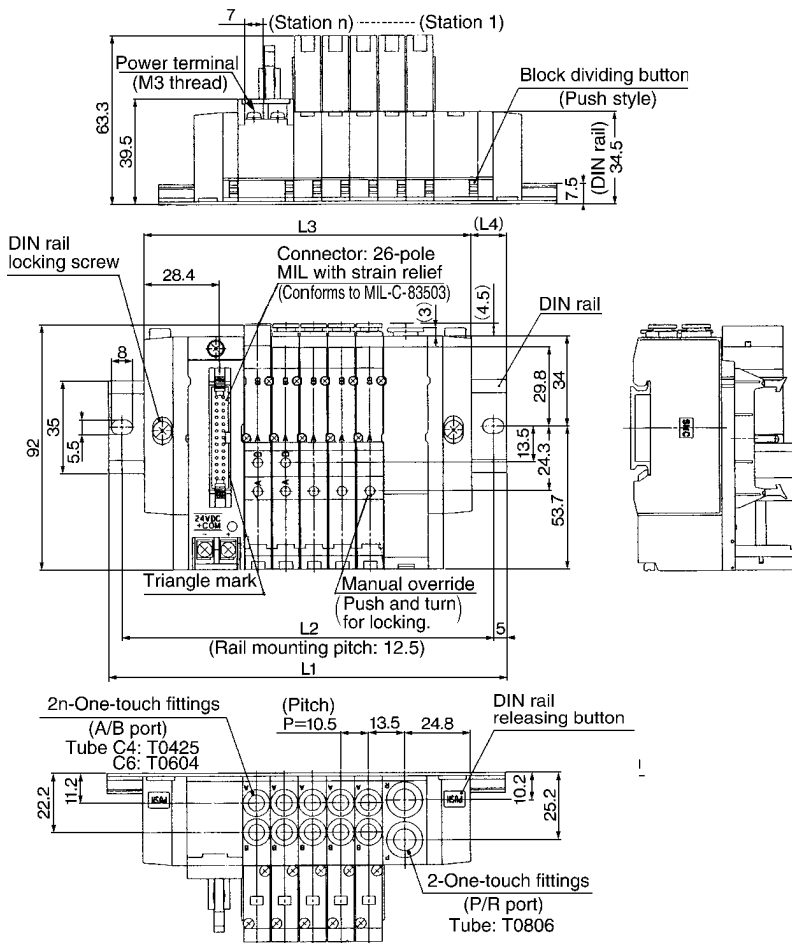
Tube C4: T0425
C6: T0604
C8: T0806

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

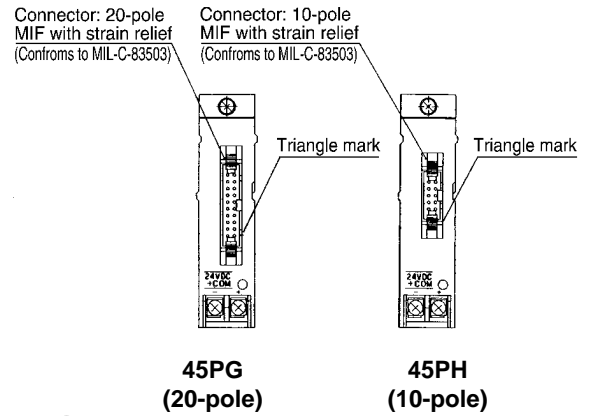
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX3000: Flat Cable/Plug-in

SS5X3-45PU- Stations D -C₄ -Q(26-pole)



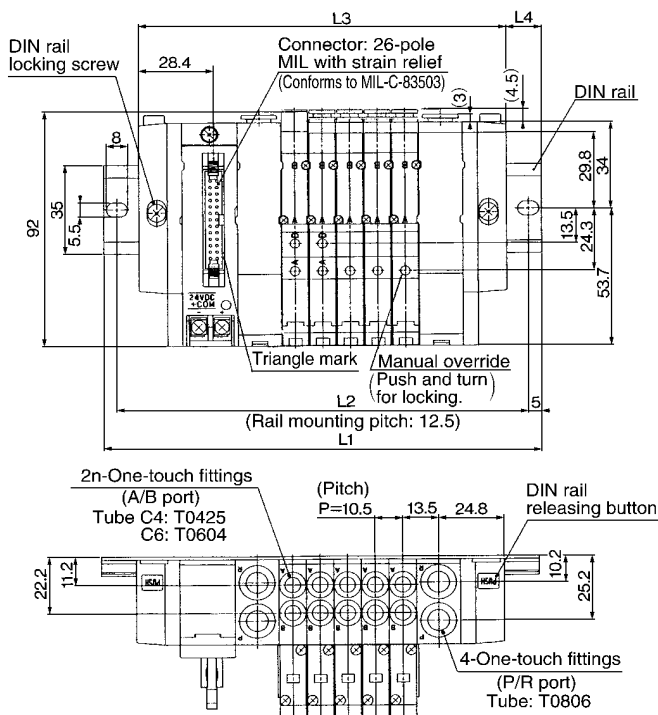
Note) The L1 to L4 dimensions of SS5X3-45P□U- Stations U-□-Q are identical to those of SS5X3-45PU- Stations D-□-Q.



Note) The only difference between 45PG and 45PH is the connector. The L1-L4 dimensions are the same as those of 45P.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

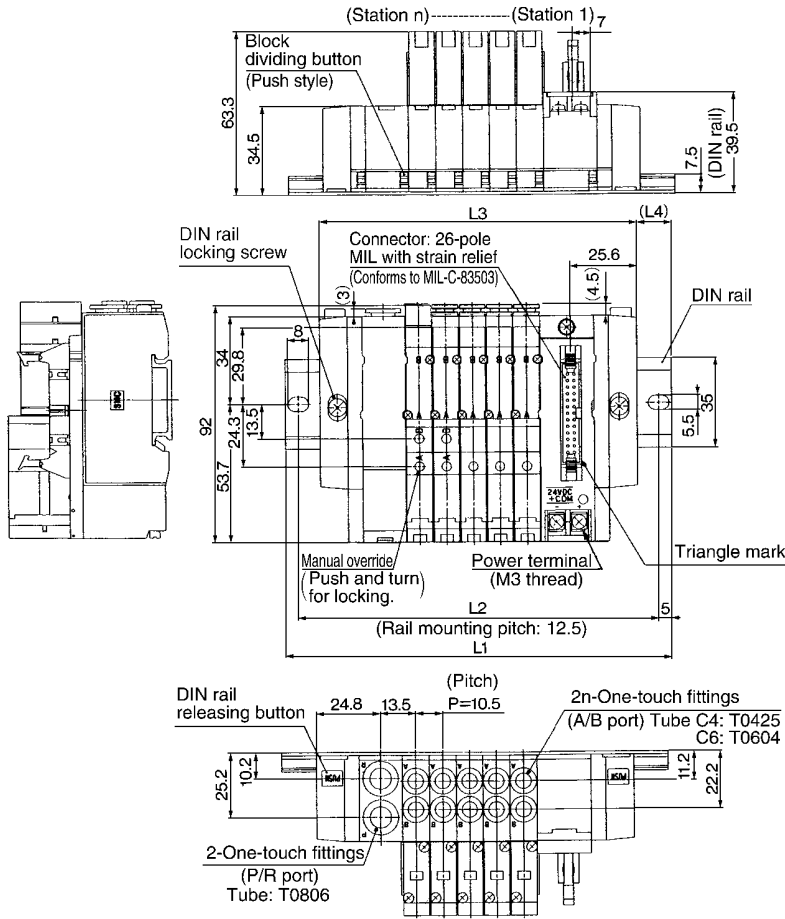
SS5X3-45PU- Stations B -C₄ -Q(26-pole)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

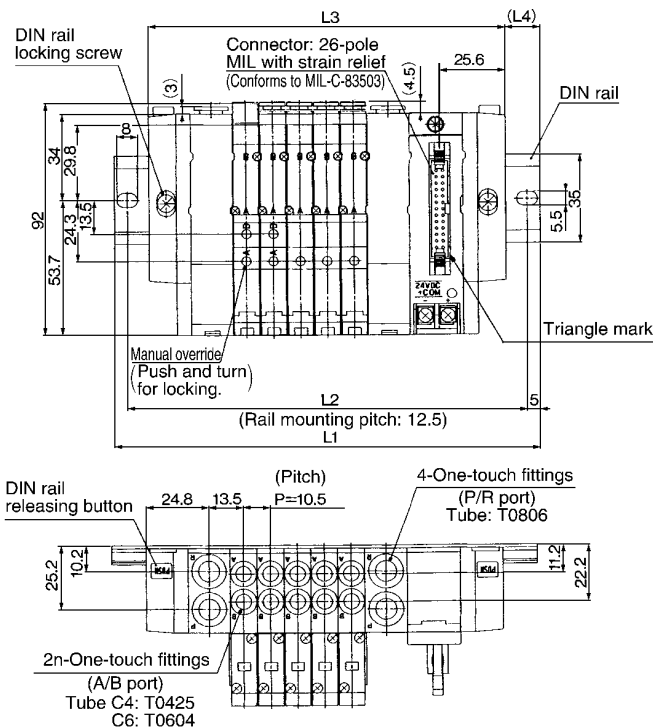
SS5X3-45PD- Stations U-C₆⁴-Q(26-pole)



Note) The L1 to L4 dimensions of SS5X3-45P□D- Stations D-□-Q are identical to those of SS5X3-45PD- Stations U-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |

SS5X3-45PD- Stations B-C₆⁴-Q(26-pole)



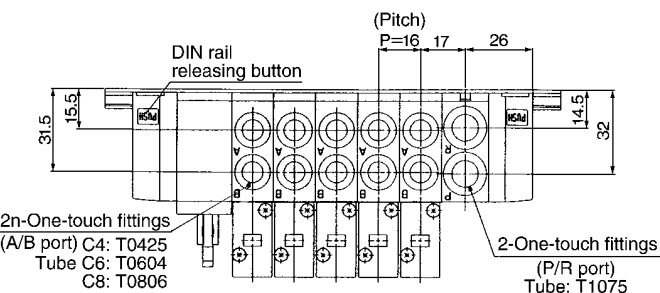
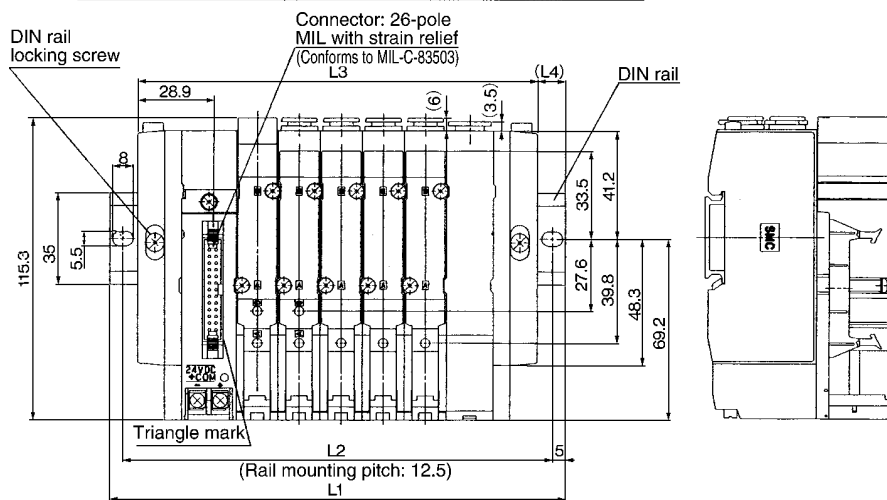
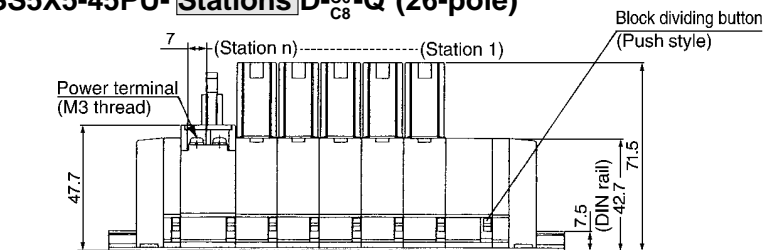
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 235.5 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 | 323 |
| L2 | 225 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 | 297 |
| L4 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

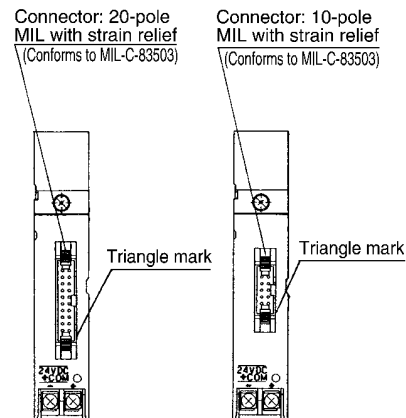
- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX5000: Flat Cable/Plug-in

SS5X5-45PU- Stations D-C6-Q (26-pole)



Note) The L1 to L4 dimensions of SS5X5-45P□U- Stations U-□-Q are identical to those of SS5X5-45PU- Stations D-□-Q.



45PG
(20-pole)

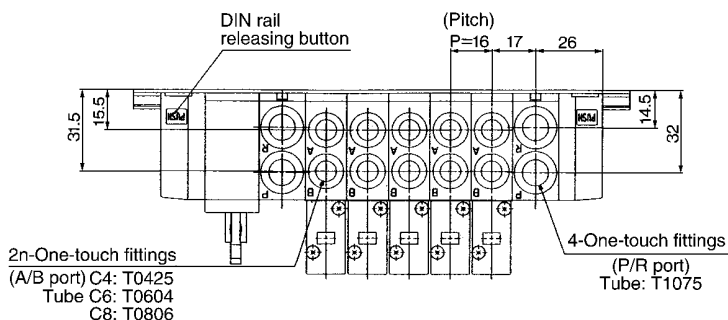
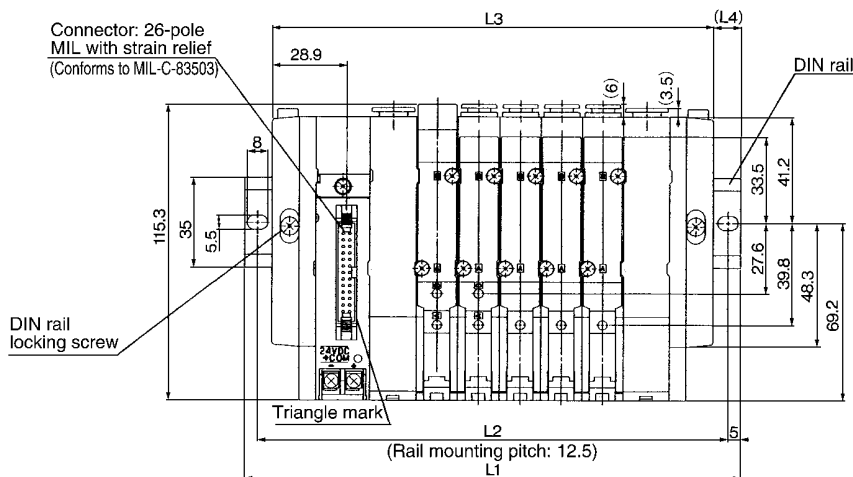
45PH
(10-pole)



Note) The only difference between 45PG and 45PH is the connector. The L1-L4 dimensions are the same as those of 45P.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 225 | 237.5 | 250 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 | 15.5 | 13.5 |

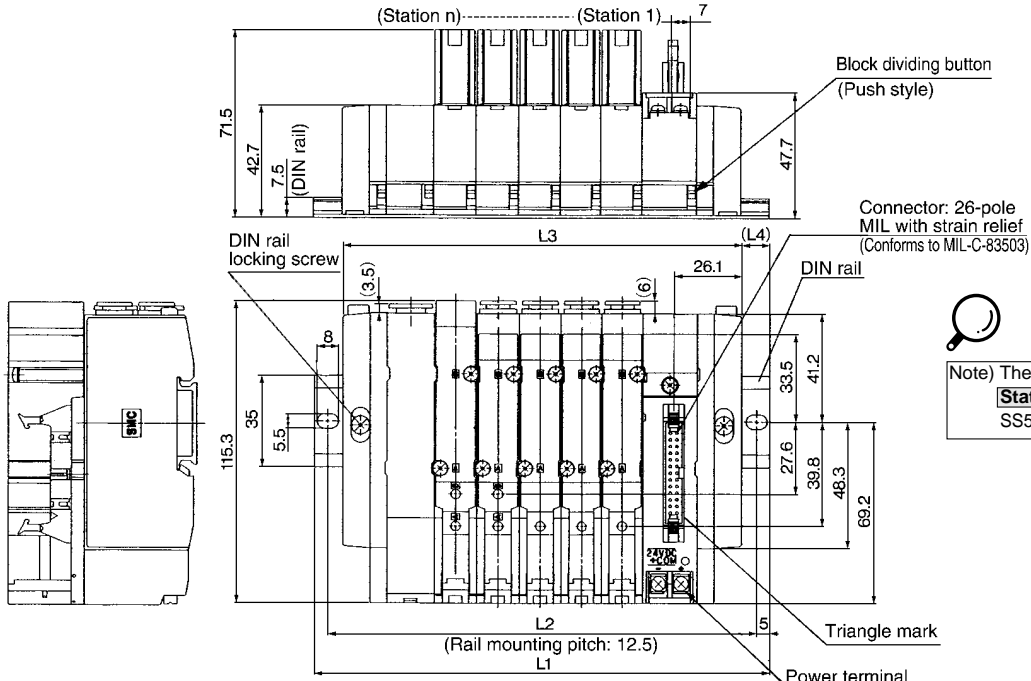
SS5X5-45PU- Stations B-C6-Q (26-pole)



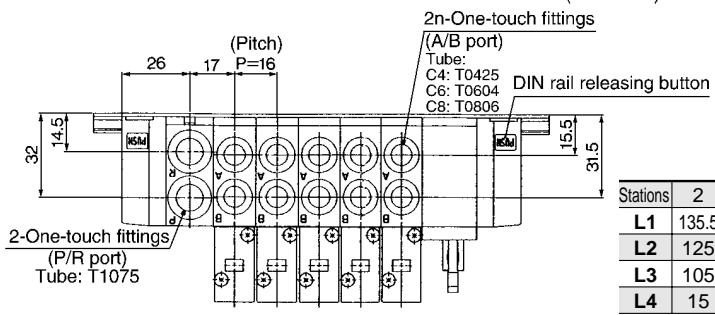
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 |
| L2 | 137.5 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 12.5 | 17 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 |
| L2 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 | 400 | 412.5 | 425 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 | 363 | 379 | 395 | 411 |
| L4 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

SS5X5-45PD- Stations U-C₄-C₆-C₈ -Q(26-pole)

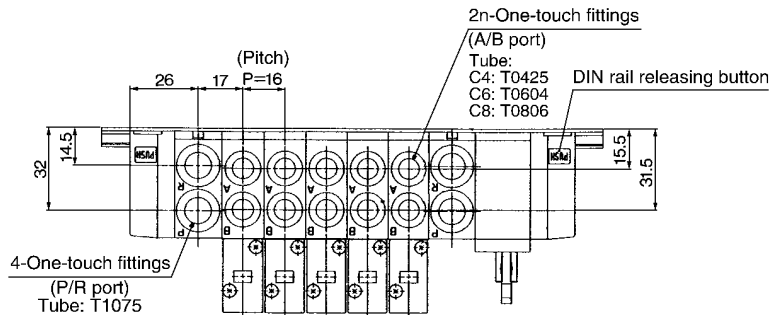
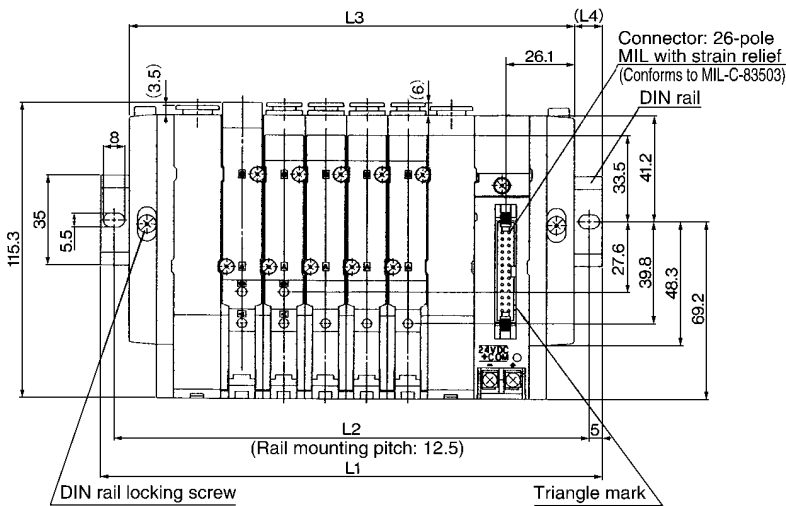


Note) The L1 to L4 dimensions of SS5X5-45P□D- Stations D-□-Q are identical to those of SS5X5-45PD- Stations U-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 225 | 237.5 | 250 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 | 15.5 | 13.5 |

SS5X5-45PD- Stations B-C₄-C₆-C₈ -Q(26-pole)



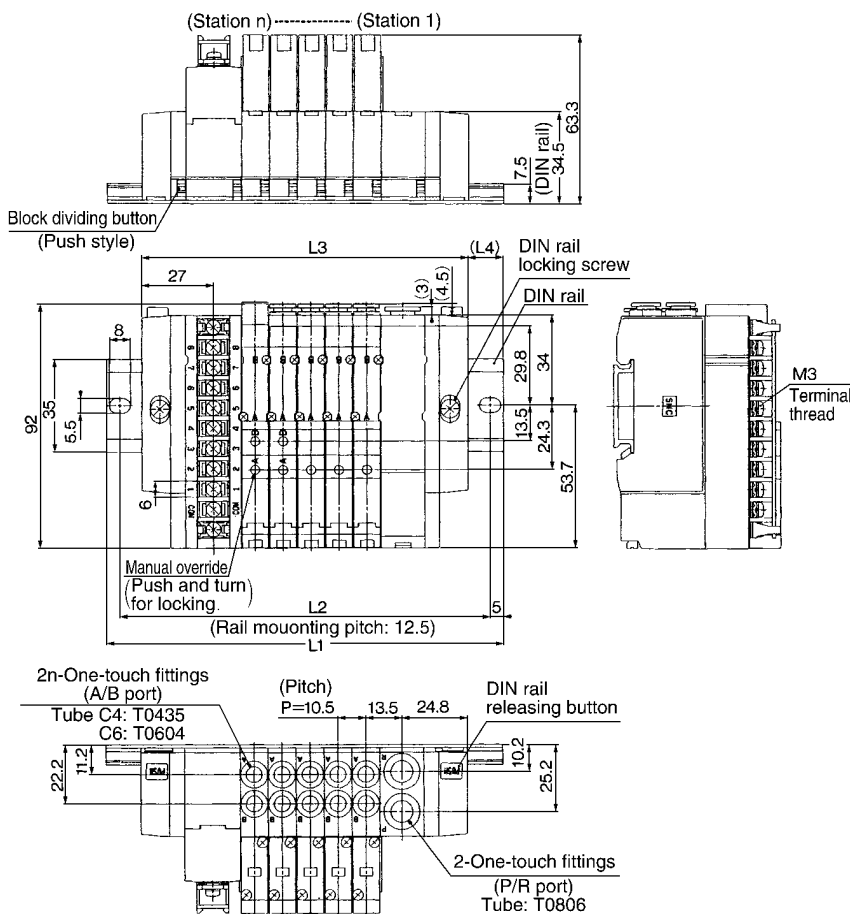
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 |
| L2 | 137.5 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 12.5 | 17 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 310.5 | 323 | 348 | 360.5 | 373 | 398 | 410.5 | 423 | 435.5 |
| L2 | 287.5 | 300 | 312.5 | 337.5 | 350 | 362.5 | 387.5 | 400 | 412.5 | 425 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 | 363 | 379 | 395 | 411 |
| L4 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX3000: 9 pole Terminal Block/Plug-in

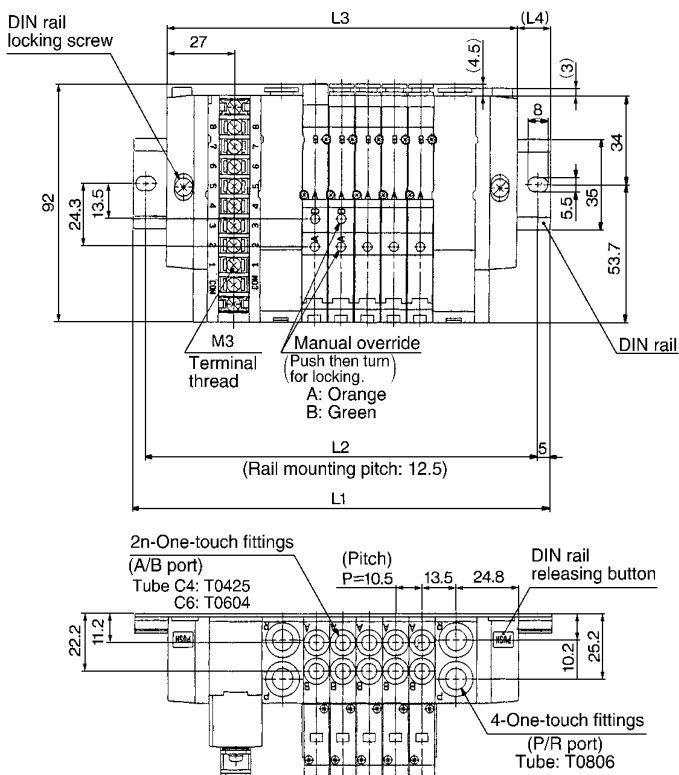
SS5X3-45TU- Stations D-C₆⁴ -Q



Note) The L1 to L4 dimensions of **SS5X3-45TU- Stations U-□-Q**, **SS5X3-45TD- Stations U-□-Q**, **SS5X3-45TD- Stations D-□-Q**, are identical to those of SS5X3-45TU- Stations D-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 123 | 135.5 | 148 | 148 | 160.5 | 173 | 185.5 |
| L2 | 112.5 | 125 | 137.5 | 137.5 | 150 | 162.5 | 175 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 |

SS5X3-45TU- Stations B-C₆⁴ -Q

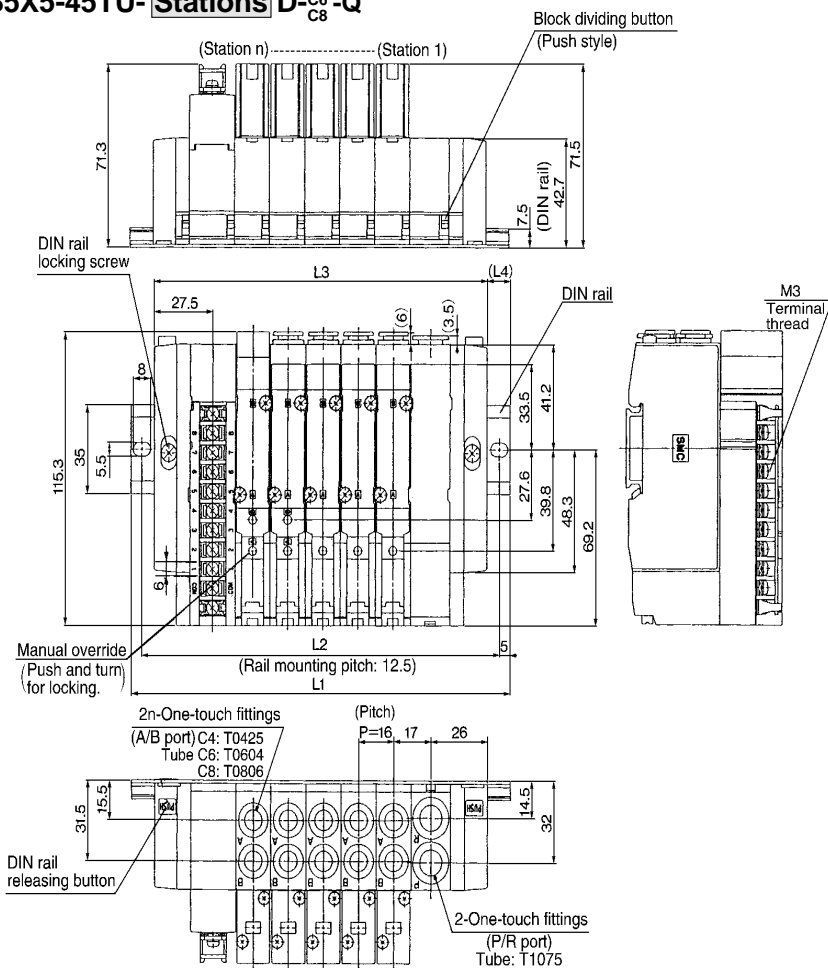


Note) The L1 to L4 dimensions of **SS5X3-45TD- Stations B-□-Q** are identical to those of SS5X3-45TU- Stations B-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 |
| L2 | 125 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 |
| L4 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 |

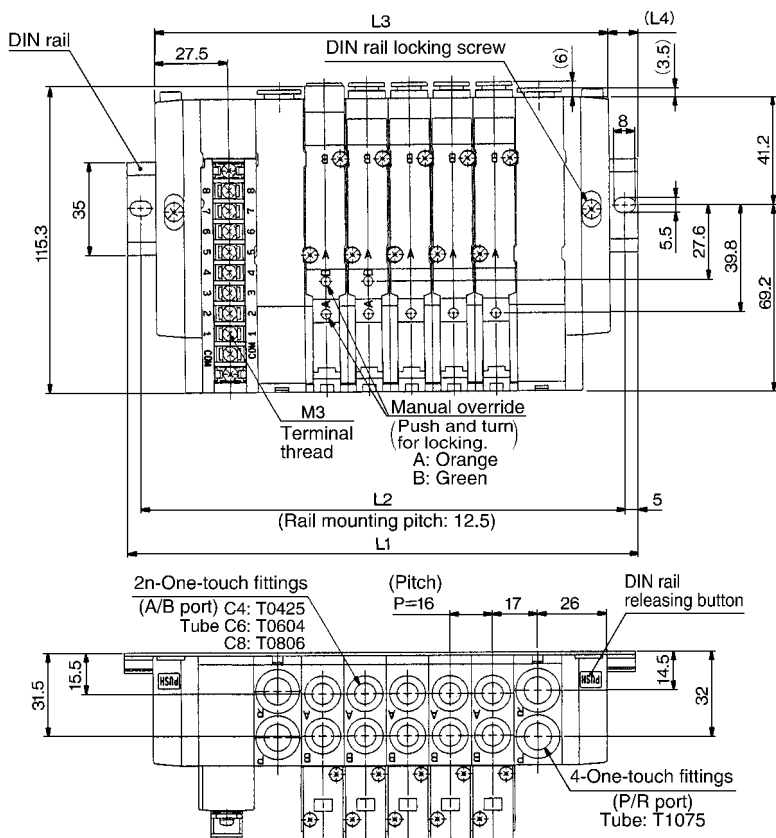
SX5000: 9 pole Terminal Block/Plug-in

SS5X5-45TU- Stations D-□-Q



Note) The L1 to L4 dimensions of SS5X5-45TU- Stations U-□-Q, SS5X5-45TD- Stations U-□-Q, SS5X5-45TD- Stations D-□-Q, are identical to those of SS5X5-45TU- Stations D-□-Q.

SS5X5-45TU- Stations B-□-Q



Note) The L1 to L4 dimensions of SS5X5-45TD- Stations B-□-Q are identical to those of SS5X5-45TU- Stations B-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 135.5 | 148 | 160.5 | 185.5 | 198 | 210.5 | 235.5 |
| L2 | 125 | 137.5 | 150 | 175 | 187.5 | 200 | 225 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 |
| L4 | 15 | 13.5 | 11.5 | 16 | 14.5 | 12.5 | 17 |

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 |
| L2 | 137.5 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 |
| L4 | 12.5 | 17 | 15 | 13.5 | 11.5 | 16 | 14.5 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

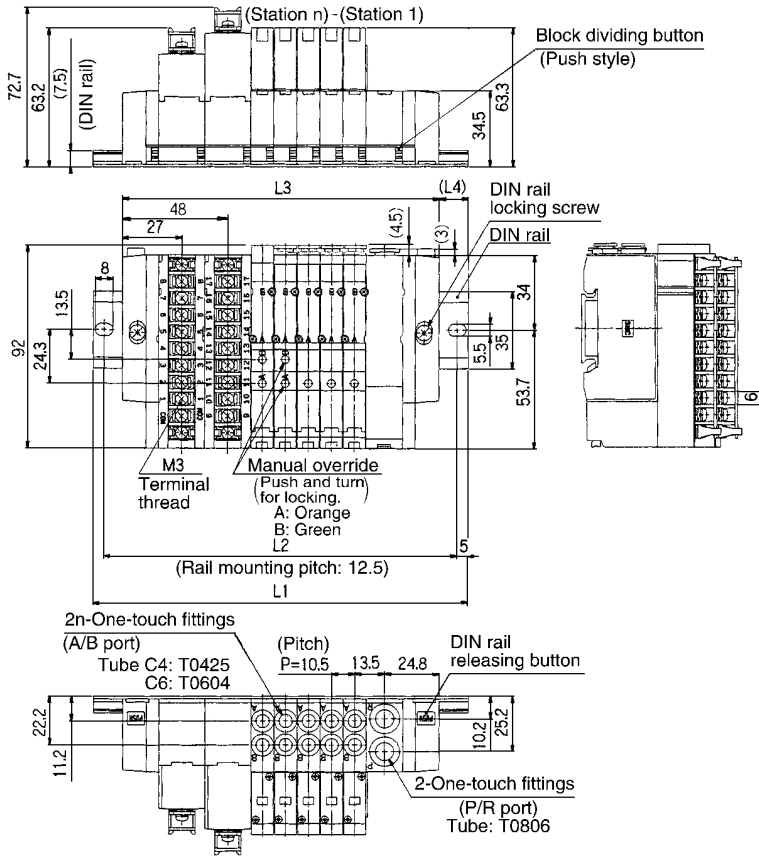
VS

VS7

VQ7

SX3000: 18 pole Terminal Block/Plug-in

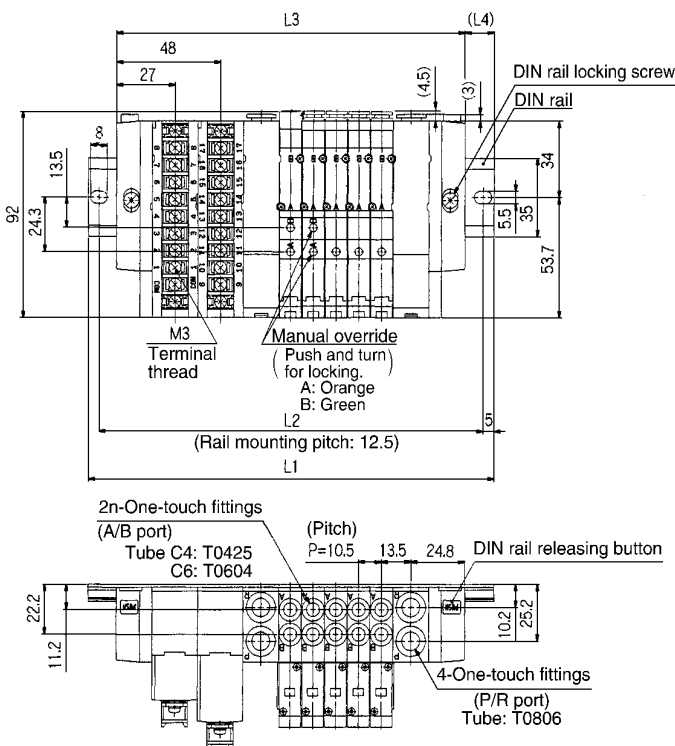
SS5X3-45T1U- Stations D-C₆⁴-Q (18-pole)



(Note) The L1 to L4 dimensions of SS5X3-45T1U- Stations U-□-Q are identical to those of SS5X3-45T1U- Stations D-□-Q.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 |
| L2 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 |
| L3 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 | 186 | 196.5 |
| L4 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 |

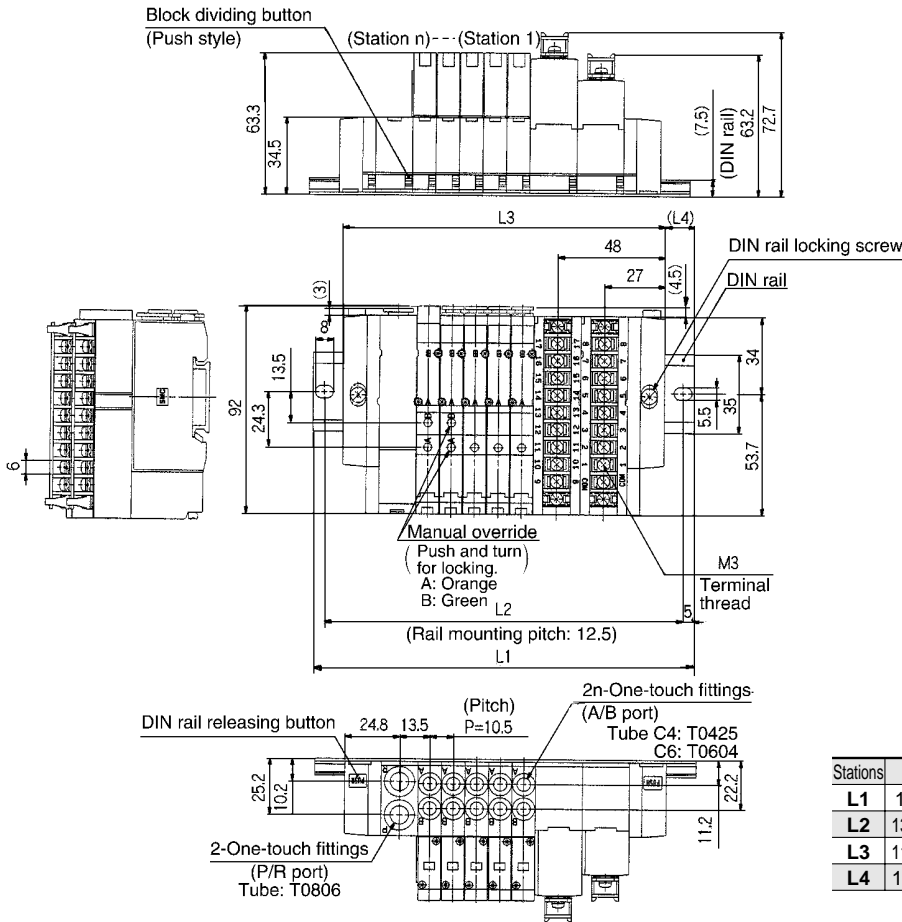
SS5X3-45T1U- Stations B-C₆⁴-Q(18-pole)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 | 202.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 |

| Stations | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 |
| L2 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 |
| L3 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 |
| L4 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 |

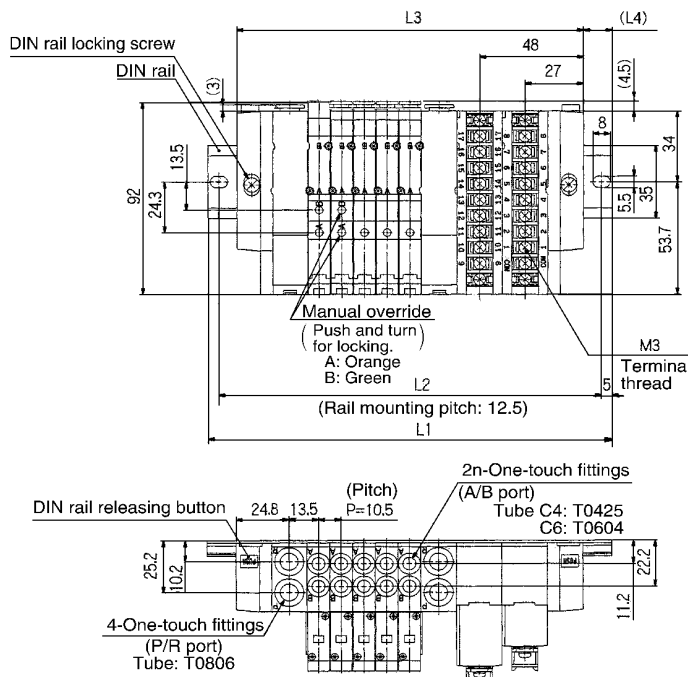
SS5X3-45T1D- Stations U-C₆⁴-Q(18-pole)



(Note) The L1 to L4 dimensions of **SS5X3-45T1D- Stations D-□-Q** are identical to those of **SS5X3-45T1D- Stations U-□-Q**.

| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 210.5 | 223 |
| L2 | 137.5 | 137.5 | 150 | 162.5 | 175 | 187.5 | 200 | 200 | 212.5 |
| L3 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 | 186 | 196.5 |
| L4 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 |

SS5X3-45T1D- Stations B-C₆⁴-Q(18-pole)



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 | 202.5 |
| L4 | 15.5 | 16.5 | 17.5 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 |

| Stations | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 248 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 310.5 |
| L2 | 237.5 | 237.5 | 250 | 262.5 | 275 | 287.5 | 300 | 300 |
| L3 | 213 | 223.5 | 234 | 244.5 | 255 | 265.5 | 276 | 286.5 |
| L4 | 17.5 | 12 | 13 | 14 | 15 | 16 | 17 | 12 |

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

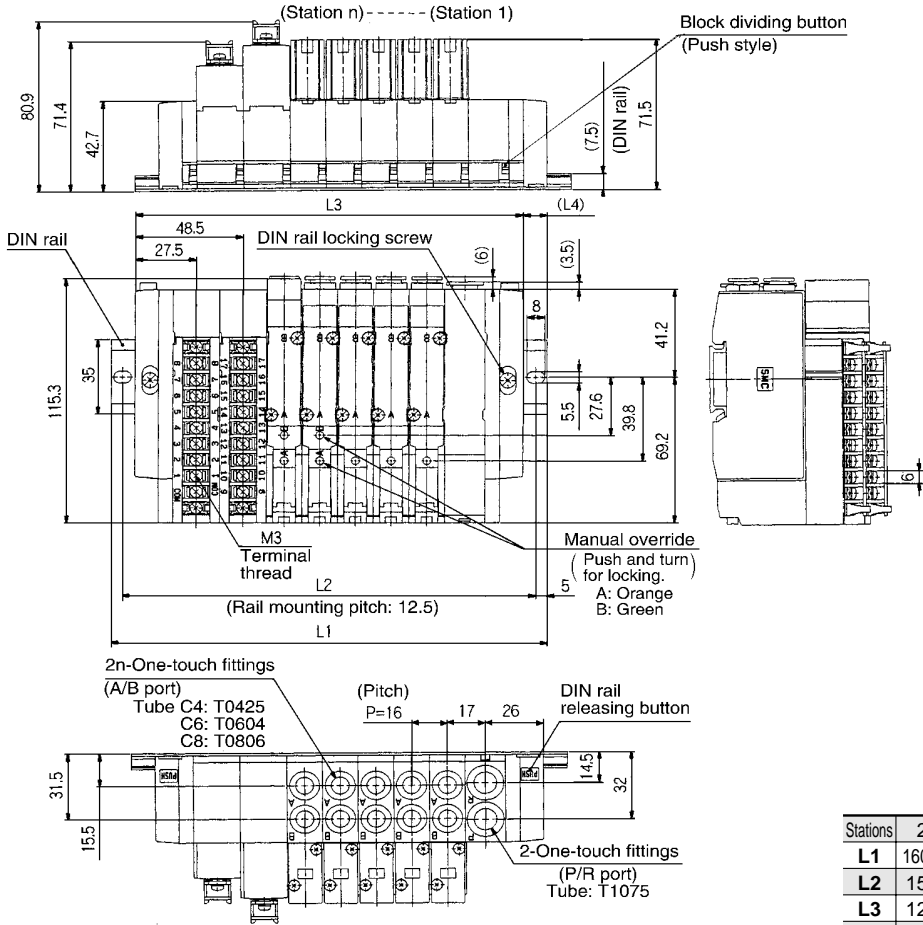
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX5000: 18 pole Terminal Block/Plug-in

SS5X5-45T1U- Stations ^{C4}D-^{C6}_{C8}-Q(18-pole)

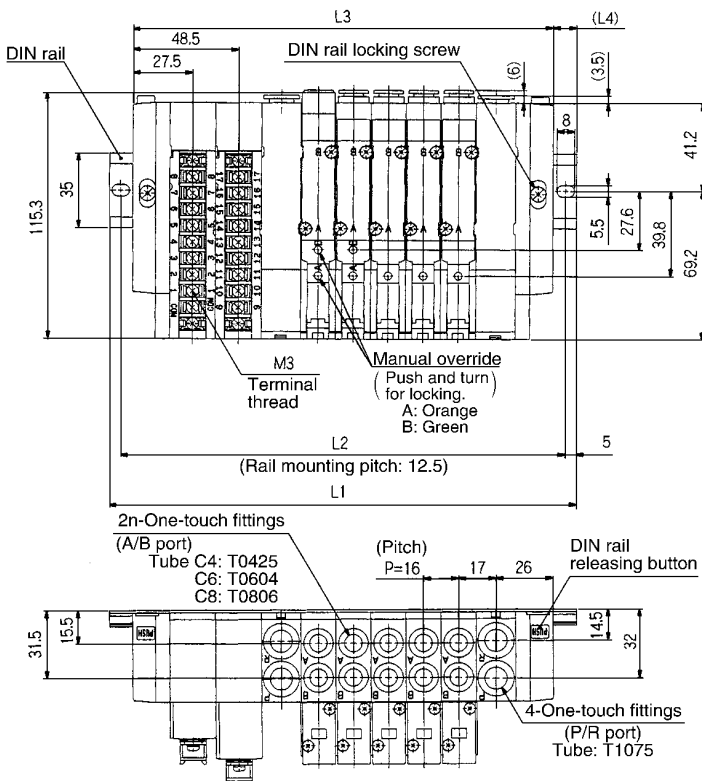


(Note) The L1 to L4 dimensions of **SS5X5-45T1U- Stations U-□-Q** are identical to those of SS5X5-45T1U- Stations D-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 198 | 223 | 235.5 | 248 | 273 | 285.5 |
| L2 | 150 | 162.5 | 175 | 187.5 | 212.5 | 225 | 237.5 | 262.5 | 275 |
| L3 | 126 | 142 | 158 | 174 | 190 | 206 | 222 | 238 | 254 |
| L4 | 17 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 |

SS5X5-45T1U- Stations ^{C4}B-^{C6}_{C8}-Q(18-pole)

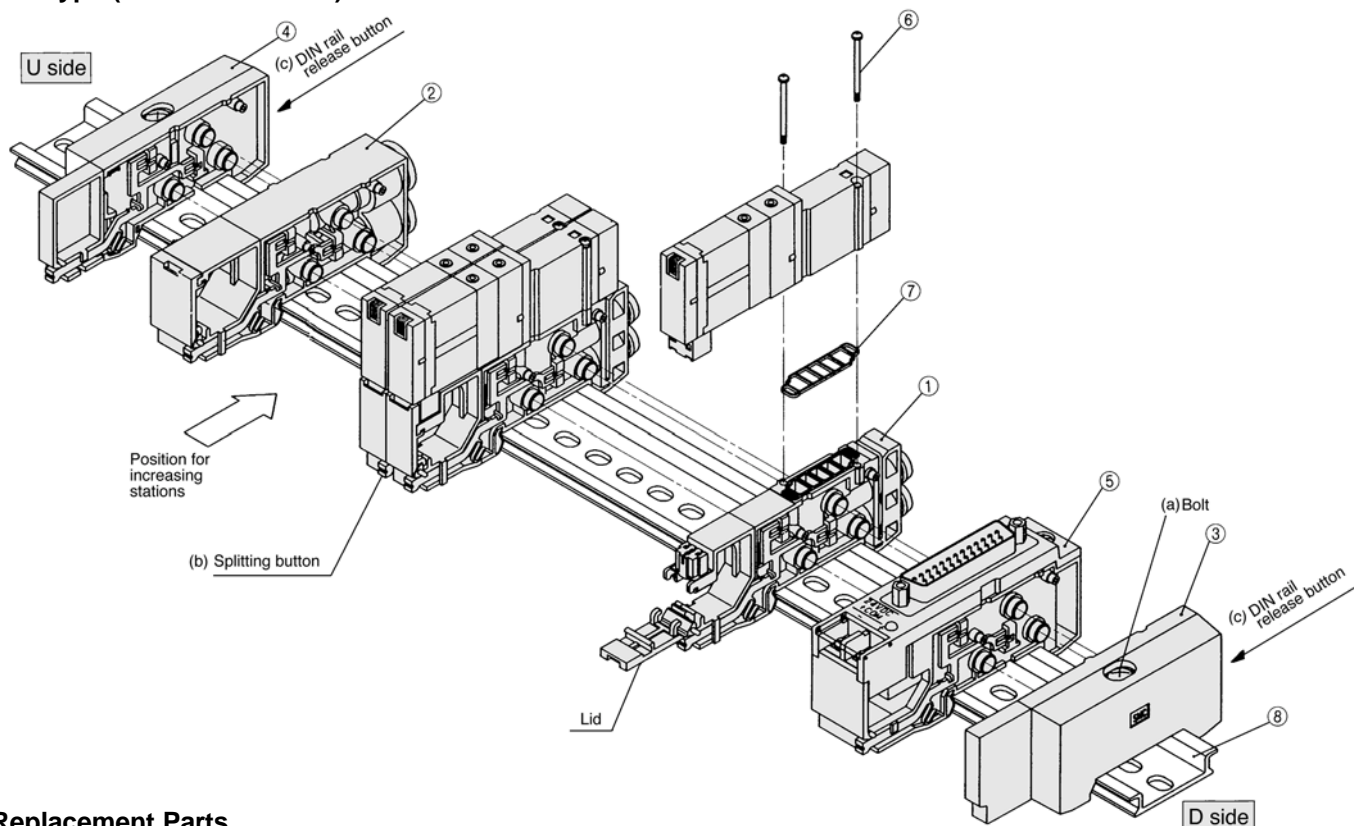


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 210.5 | 223 | 235.5 | 248 | 273 | 285.5 |
| L2 | 162.5 | 175 | 200 | 212.5 | 225 | 237.5 | 262.5 | 275 |
| L3 | 144 | 160 | 176 | 192 | 208 | 224 | 240 | 256 |
| L4 | 14.5 | 12.5 | 17 | 15.5 | 13.5 | 12 | 16.5 | 14.5 |

| Stations | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 323 | 335.5 | 348 | 360.5 | 385.5 | 398 | 410.5 |
| L2 | 287.5 | 312.5 | 325 | 337.5 | 350 | 375 | 387.5 | 400 |
| L3 | 272 | 288 | 304 | 320 | 336 | 352 | 368 | 384 |
| L4 | 13 | 17.5 | 15.5 | 14 | 12 | 16.5 | 15 | 13 |

Exploded View/DIN Rail Manifold

45F Type (D-sub Connector) Manifold



Replacement Parts

| No. | Description | Part No. | | Notes |
|-----|--|--|---|---|
| | | SX3000 | SX5000 | |
| ① | Manifold block Ass'y | The manifold block assembly no. differs according to an attached lead wire assembly based on the connector specification (single, double) Select an appropriate no. from among the manifold block assembly nos. shown below. | | |
| ② | SUP/EXH block Ass'y | SX3000-51-2A | SX5000-51-2A | SX3000: P/R port with ø8 One-touch fittings SX5000: P/R port with ø10 One-touch fittings |
| ③ | End block Ass'y R | SX3000-52-2A-Q | SX5000-52-2A-Q | For D side |
| ④ | End block Ass'y L | SX3000-53-2A-Q | SX5000-53-2A-Q | For U side |
| ⑤-1 | Connector block Ass'y (for D-sub connector) | SX3000-64- ^{1A} _{1NA} | SX5000-64- ^{1A} _{1NA} | -1A: +COM. -1NA: -COM. |
| ⑤-2 | Connector block Ass'y (for 26 pin flat cable) | SX3000-64- ^{2A} _{2NA} -26 | SX5000-64- ^{2A} _{2NA} -26 | Note) 24V DC specification |
| ⑤-3 | Connector block Ass'y (for 20 pin flat cable) | SX3000-64- ^{2A} _{2NA} -20 | SX5000-64- ^{2A} _{2NA} -20 | |
| ⑤-4 | Connector block Ass'y (for 10 pin flat cable) | SX3000-64- ^{2A} _{2NA} -10 | SX5000-64- ^{2A} _{2NA} -10 | |
| ⑤-5 | Connector block Ass'y (for 2- to 8-station (T, T1) terminal block) | SX3000-64-3A | SX5000-64-3A | Both for +COM and -COM |
| ⑤-6 | Connector block Ass'y (for 9- to 17-station (T1) terminal block) | SX3000-64-8A | SX5000-64-8A | |
| ⑥ | Phillips head screw | SX3000-22-2 (M2 X 24) | M3 X 30 (Matted nickel plated) | |
| ⑦ | Gasket | SX3000-57-4 | SX5000-57-1 | |
| ⑧ | DIN rail | VZ1000-11-1-□ | | Refer to p.1.4-73 |

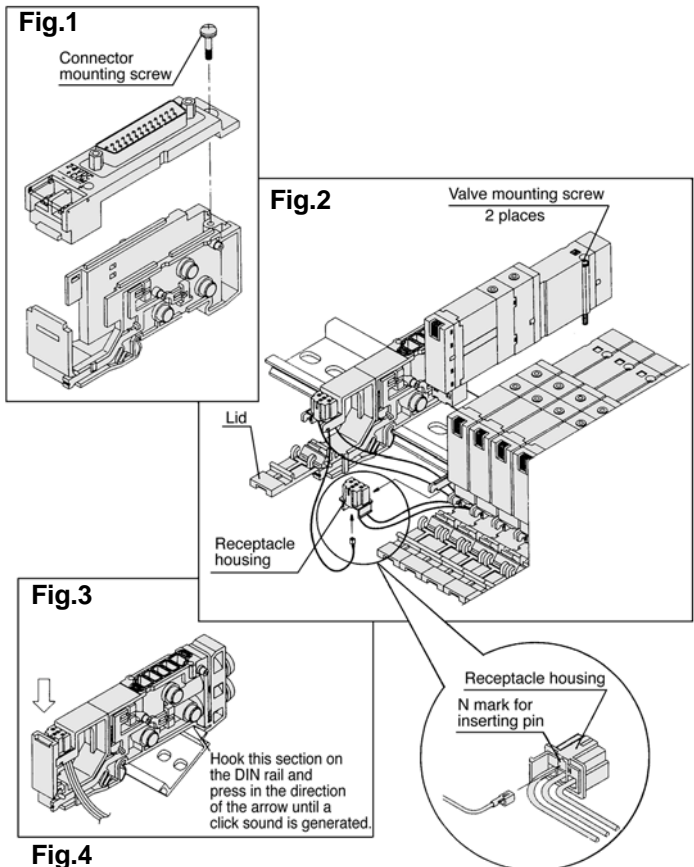
Note) The numbers ⑤-1 to -4 are for 24 V DC. For 12 V DC, suffix -12V to the parts No. (Example) SX3000-64-1A-12V

Manifold Block Assembly Part No.

| Style of manifold | Wiring | Manifold block Ass'y No. | Notes |
|--|--------|--------------------------------|--|
| For 45(N)F (D-sub connector) | Double | SX ₃ 000-50-2A-□□-Q | □□: -SX3000 C4: With One-touch for ø4 C6: With One-touch for ø6 -SX5000 |
| | Single | SX ₃ 000-50-3A-□□-Q | |
| For 45(N) _{PG} _{PH} (Flat cable) | Double | SX ₃ 000-50-4A-□□-Q | C4: With One-touch for ø4 C6: With One-touch for ø6 C8: With One-touch for ø8 (Gasket ⑦ is supplied as an accessory.) |
| | Single | SX ₃ 000-50-5A-□□-Q | |
| For 45 T ₁ (Terminal block) | Double | SX ₃ 000-50-6A-□□-Q | |
| | Single | SX ₃ 000-50-7A-□□-Q | |

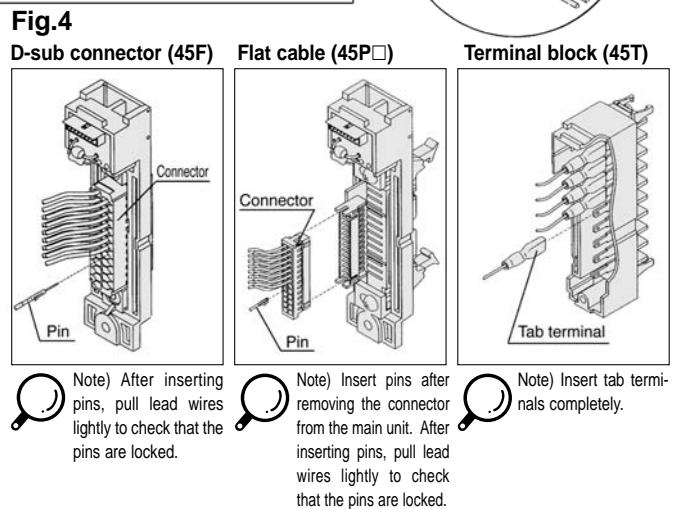
How to Increase Manifold Bases

- 1 Loosen bolt (a) fixing the manifold base until it begins to turn idly. (While pressing DIN rail release button (c), separate the manifold base from the DIN rail.)
- 2 Additional bases are to be added to the U side. Press splitting button (b) of the manifold block assembly on the U side until button (b) locks, and then separate the block assemblies.
- 3 Separate the connector block assembly in the same manner as 2, and remove the connector mounting screw shown in Fig.1.
- 4 Loosen the valve mounting screw on the U side, remove the valve, and take out the receptacle housing. (See Fig.2.)
- 5 Insert the common wire (red) of the manifold block assembly to be added into the pin insertion section (N mark) of the receptacle housing that was taken out in 4, mount it on the manifold block, and mount the removed valve.
- 6 As shown in Fig.3, mount the additional manifold block assembly on the DIN rail on the U side. Refer to the circuit diagram, and insert the lead wire (SOL.A:Black, SOL.B: White) as shown in Fig.4.
- 7 Press the blocks against each other until a click sound is produced, place the lead wire in the manifold block, and close the lid without pinching the lead wire.
- 8 Hold blocks tightly so that there will be no gap between them, and tighten the bolt (a) to fix them to the DIN rail. (Torque: 1Nm)



⚠ Cautions

1. Depending on the connector, there is a limit to the number of solenoids. When all manifold stations are wired for double solenoid valves, expansion of the manifold may not be possible. Please consult SMC for more information.
2. The manifold block assembly mounting position for additional manifold bases is always on the U side, because wires are connected to respective connectors sequentially from the D side.
3. When bolt (a) for the end block is not sufficiently tightened during reassembly, air leakage may result. Before supplying air, check that there is no gap between blocks and that the manifold block is firmly fixed to the DIN rail in order to ensure air supply without leakage.



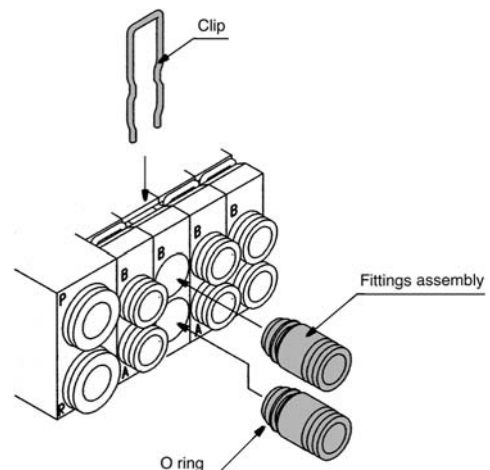
How to change fitting assembly

Type 45 manifold permits change in the A and B port sizes by changing the manifold block fitting assembly. After removing the valve, remove the clip with a screwdriver. To mount a new fitting assembly insert it and then insert a clip so it does not come out of the manifold block.

Fitting assembly No.

| Port size | SX3000 | SX5000 |
|---------------------------------|----------------|----------------|
| One-touch fittings for $\phi 4$ | VVQ1000-50A-C4 | VVQ1000-51A-C4 |
| One-touch fittings for $\phi 6$ | VVQ1000-50A-C6 | VVQ1000-51A-C6 |
| One-touch fittings for $\phi 8$ | | VVQ1000-51A-C8 |

- Note 1) P and R ports cannot be changed.
 Note 2) O rings must be free from scratches and dust. Otherwise, air leakage may result.



- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

45S □ Type

SX3000/5000 Base Mounted Stacking Manifold/DIN Rail Mounted Integral Serial Interface Unit

How to Order Manifold

SS5X **3** - 45S **B** - **05** **U** - **05** □ - **Q**

Manifold series ●

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

Models ●

| Symbol | Specifications |
|--------|--|
| O | Without SI unit |
| A | General type: EX300 |
| B | Mitsubishi Electric MELSECNET/mini-S3 data link system |
| C | OMRON SYSBUS wire system |
| N | Profibus DP |
| P | Interbus |
| Q | Device Net and Compubus/D (OMRON) |
| Y | Can open |
| T2 | ASI (yellow+black wires) Max.8 stations |
| T4 | ASI (yellow+black wires) Max.4 stations |
| T5 | ASI (yellow wires) Max.4 stations |

- Transmission unit is required on CPU side for general style.
- Length of DIN rail without SI unit is long enough for future mounting expectancy if SI unit with shorter DIN rail (same as 45□) is required, put "0" in the option space.

Stations ●

| Symbol | Stations | Note |
|--------|----------|---------------------------------|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 08 | 8 | |
| 09 | 9 | Applicable up to 16 solenoids. |
| ⋮ | ⋮ | Use manifold specification from |
| 16 | 16 | to specify wiring. |

- The number of blank plate assemblies is included.
- When special wiring is required on manifold with 2-8, stations, please use the manifold specification form.

SUP/EXH block ass'y mounting position ●

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U-side | 2 to 10 |
| D | D-side | 2 to 10 |
| B | Both sides | 2 to 16 |
| M | Special specification | |

* Special specification is available by special order.

A/B port size ●

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting available by special order.

* For other models see "Serial Transmission Units" catalogue



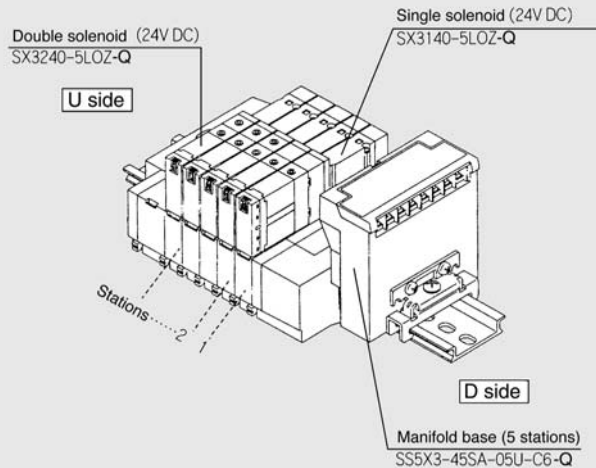
Contact SMC for other voltages (9)



Protective class class III (Mark: ⚡)

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-45SA-05U-C6-Q ···· 1 set (45S with serial 5-station manifold base No.)
SX3140-5LOZ-Q ······ 2 sets (Single solenoid No.)
SX3240-5LOZ-Q ······ 3 sets (Double solenoid No.)

- All manifold stations are wired for double solenoid valves. Valves are mounted in the order listed starting at the 1st station of D side of the manifold regardless of the mounting position of the SI unit.
- For manifolds with more than 8 stations (9-16), special wiring is required. Please use the manifold specification form.
- Serial unit is available for only D side mounting style.

How to Order Valve

SX **3** **2** 40 - **5** LOZ □ - **Q**

Series ●

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

Configuration ●

| | |
|---|----------------------------|
| 1 | 2 position single |
| 2 | 2 position double |
| 3 | 3 position closed centre |
| 4 | 3 position exhaust centre |
| 5 | 3 position pressure centre |
| 9 | (Less than 50) |

Rated voltage ●

| | |
|---|--------|
| 5 | 24V DC |
|---|--------|

Manual override ●

| | |
|---|---------------------------------|
| - | Non-locking push style |
| D | Push-turn-locking slotted style |

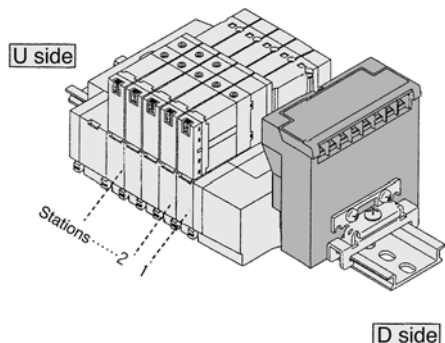
Option

When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

Parts Number System of SI Units

| Symbol | Specification | For SS5X□-45S | Symbol | Specification | For SS5X□-45S |
|--------|--|---------------|--------|--|---------------|
| B | Mitsubishi Electric MELSECNET/mini-S3 data link system | EX122-SMB1 | T2 | ASI (yellow+black wires) Max. 8 stations | EX122-SAS2 |
| C | OMRON SYSBUS wire system | EX122-STA1 | T4 | ASI (yellow+black wires) Max. 4 stations | EX122-SAS4 |
| N | Profibus DP | EX122-SPR1 | T5 | ASI (yellow wires) Max. 4 stations | EX122-SAS5 |
| P | Interbus | EX122-SIB1 | | | |
| Q | Device Net and OMRON CompoBus/D | EX122-SDN1 | | | |
| Y | Can Open | EX122-SCA1 | | | |

- The serial transmission system minimizes wire mass and wire connection labor and promotes space savings.
- 16 stations max. (Specify a model with more than 8 stations by using manifold specification form.)



- Stations are sequentially numbered from the D side.
- Maximum station: Up to 16 solenoids (16 single solenoids).

| Item | Specifications |
|-------------------------------------|--|
| External power supply | 24V DC±10% |
| Current consumption (Internal unit) | 0.1A SA, SB, SD, SE, SF1, SG, SJ1, SJ2, SK, SR1, SR2 |
| | 0.3A SC, SQ |

SB type
applicable to Mitsubishi Electric model
MELSECNET/MINI-S3 data link system

Name of terminal block (LED)

| LED name | Details |
|----------|---|
| POWER | Lighting when power is turned ON |
| RUN | Lighting when data with master is normal |
| RD | Lighting during data reception |
| SD | Lighting during data transmission |
| ERR. | Lighting when error occurs, off when corrected. |

Note

- MELSECNET/MINI-S3 data link system
Master unit: AJ71PT32-S3
AJ71T32-S3
A1SJ71PT32-S3
- Output points: 16, Occupation stations: 2

Twisted pair cable wiring

SI Manifold Solenoid Valve

* The shielding of the shielded wire should be one-point grounded on the reception or transmission side.

- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SC type
applicable to Omron models
Applicable to SYSBUS wire system

Name of terminal block (LED)

| LED name | Details |
|----------|---|
| RUN | It lights when transmission is normal and PLC is in the operation mode. |
| T/R | It blinks when transmission is normal. |
| ERR | It lights when transmission is abnormal. |

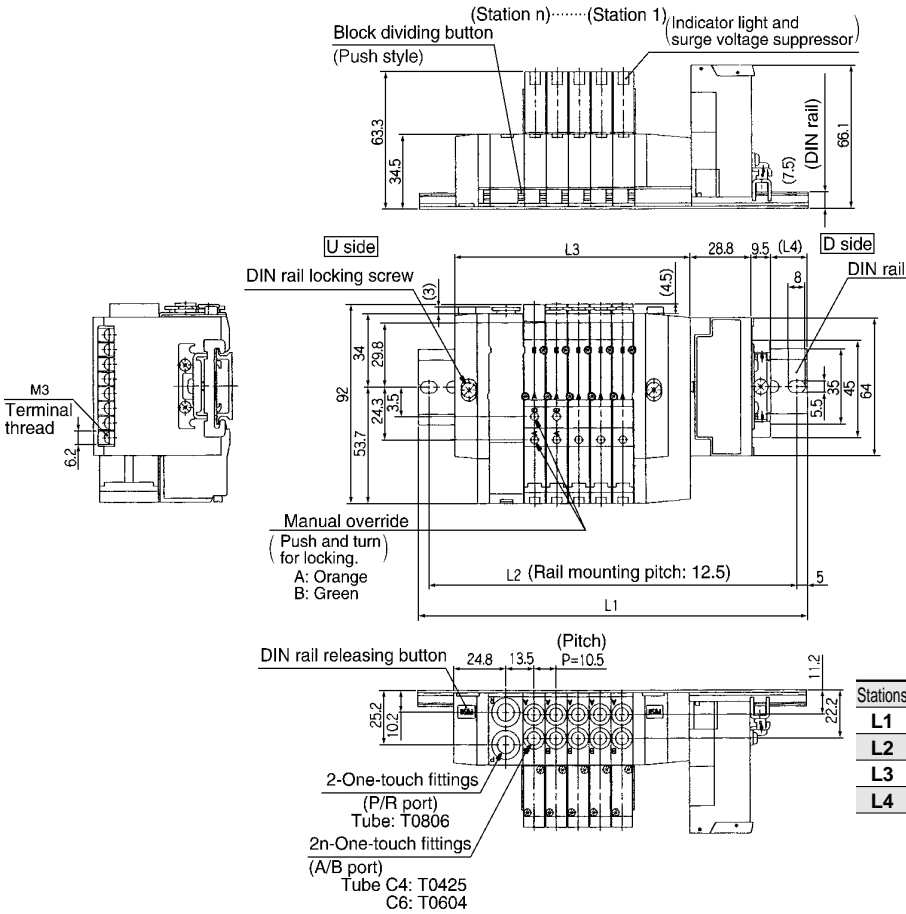
Note

- SYSBUS wire system
Master Station unit: C500-RM201
C200H-RH201
- Output points: 16

Twisted pair cable wiring

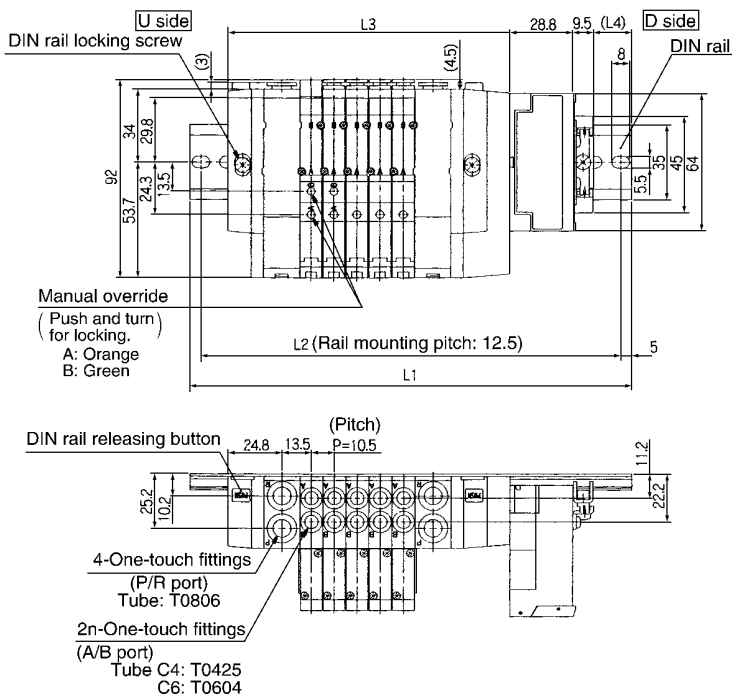
SX3000: Serial Interface Unit/Plug-in Style

SS5X3-45S □ - Stations D-C₄ 6 -Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 148 | 160.5 | 173 | 185.5 | 185.5 | 198 | 210.5 | 223 | 235.5 |
| L2 | 137.5 | 150 | 162.5 | 175 | 175 | 187.5 | 200 | 212.5 | 225 |
| L3 | 81 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 |
| L4 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 | 15 | 16 |

SS5X3-45S □ - Stations B-C₅ 5 -Q

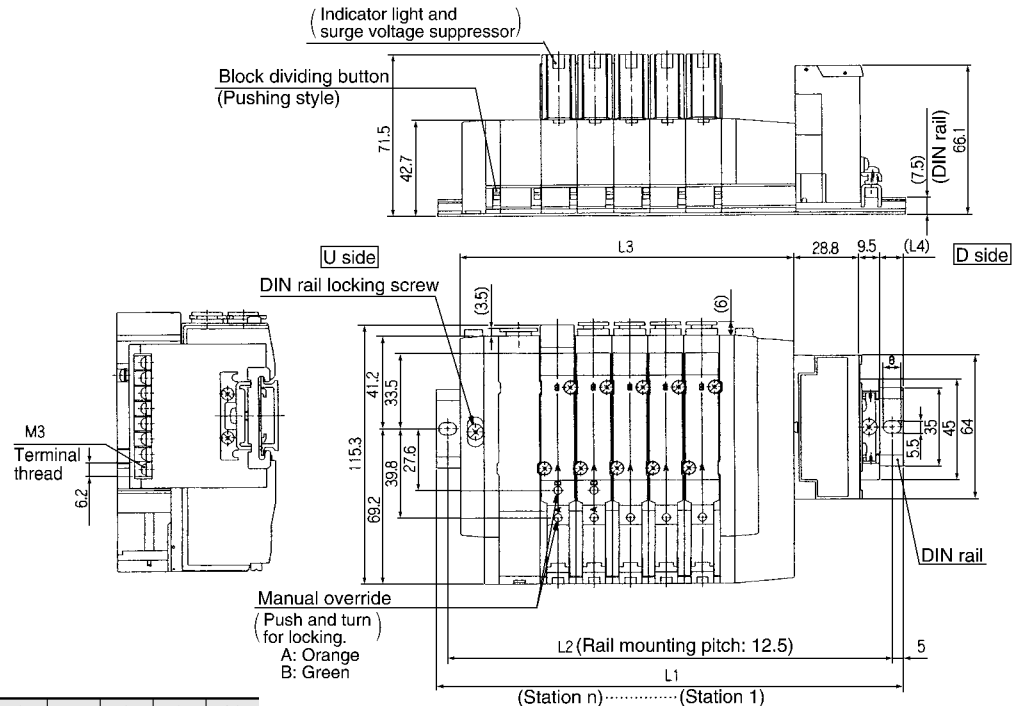


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 200 | 212.5 | 212.5 | 225 | 237.5 |
| L3 | 97.5 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 |
| L4 | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 | 12 | 13 | 14 |

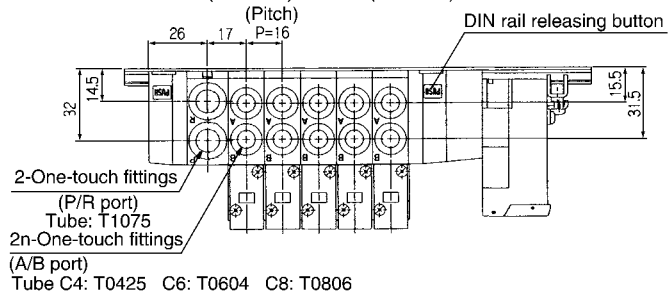
| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|-----------|-------|-------|-------|-------|-------|-------|
| L1 | 260.5 | 273 | 285.5 | 285.5 | 298 | 310.5 |
| L2 | 250 | 262.5 | 275 | 275 | 287.5 | 300 |
| L3 | 192 | 202.5 | 213 | 223.5 | 234 | 244.5 |
| L4 | 15 | 16 | 17 | 12 | 13 | 14 |

SX5000: Serial Interface Unit/Plug-in Style

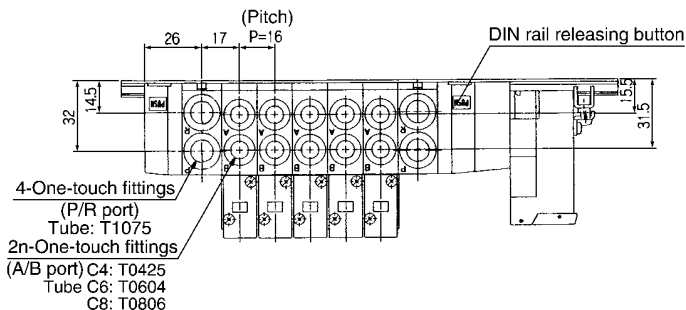
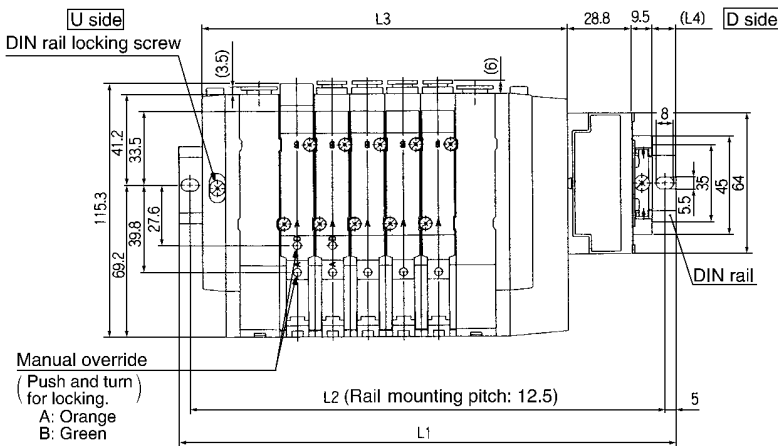
SS5X5-45S□ - Stations ^{C4} U-C6 -Q _{C8}



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 198 | 210.5 | 235.5 | 248 | 260.5 | 285.5 | 298 |
| L2 | 162.5 | 175 | 187.5 | 200 | 225 | 237.5 | 250 | 275 | 287.5 |
| L3 | 100 | 116 | 132 | 148 | 164 | 180 | 196 | 212 | 228 |
| L4 | 17.5 | 15.5 | 14 | 12 | 16.5 | 15 | 13 | 17.5 | 16 |



SS5X5-45S□ - Stations ^{C4} B-C6 -Q _{C8}



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 185.5 | 198 | 223 | 235.5 | 248 | 260.5 | 285.5 | 298 | 310.5 |
| L2 | 175 | 187.5 | 212.5 | 225 | 237.5 | 275 | 275 | 287.5 | 300 |
| L3 | 118 | 134 | 150 | 166 | 182 | 214 | 214 | 230 | 246 |
| L4 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 | 16.5 | 15 | 13 |

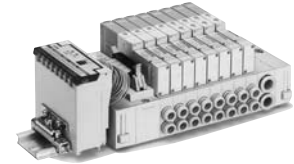
| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|
| L1 | 335.5 | 348 | 360.5 | 373 | 398 | 410.5 |
| L2 | 325 | 337.5 | 350 | 362.5 | 387.5 | 400 |
| L3 | 262 | 278 | 294 | 310 | 326 | 342 |
| L4 | 17.5 | 16 | 14 | 12.5 | 17 | 15 |

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

- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

45S1 □ Type

SX3000/5000 Base Mounted Stacking Manifold/DIN Rail Mounted Serial Interface (Separate Style)



How to Order Manifold

SS5X **3** - 45S1 **B D** - **05 U** - **C4** - □ - **Q**

Manifold series

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

Models

| Symbol | Specifications |
|--------|--|
| O | Without SI unit |
| A | General type: EX300 |
| B | Mitsubishi Electric MELSECNET/mini-S3 data link system |
| C | OMRON SYSBUS wire system |
| N | Profibus DP |
| P | Interbus |
| Q | Device Net and Compobus/D (OMRON) |
| Y | Can open |
| T2 | ASI (yellow+black wires) Max.8 stations |
| T4 | ASI (yellow+black wires) Max.4 stations |
| T5 | ASI (yellow wires) Max.4 stations |

- Transmission unit is required on CPU side for general style.
- Length of DIN rail without SI unit is long enough for future mounting expectancy if SI unit with shorter DIN rail (same as 45□) is required, put "0" in the option space.

SI unit mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 08 | 8 | Applicable up to 16 solenoids. Use manifold specification from to specify wiring. |
| 09 | 9 | |
| ⋮ | ⋮ | |
| 16 | 16 | |

- The number of blanking plate assemblies are included.
- When special wiring is required on manifold with 2-8 stations, please use the manifold

SUP/EXH block ass'y mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U-side | 2 to 10 |
| D | D-side | 2 to 10 |
| B | Both sides | 2 to 16 |
| M | Special specification | |

* Special specification is available by special order.

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M | Mixed |

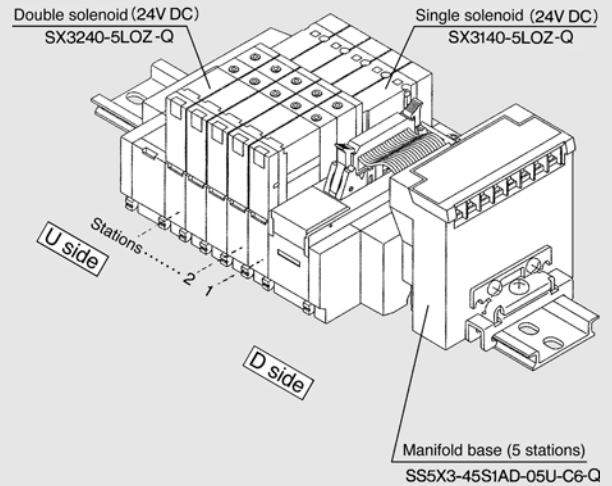
SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M | Mixed |

* Mixed porting available by special order.

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-45S1AD-05U-C6-Q 1 set (45S1 with serial 5-station manifold base No.)
 SX3140-5LOZ-Q 2 sets (Single solenoid No.)
 SX3240-5LOZ-Q 3 sets (Double solenoid No.)

- All manifold stations are wired for double solenoid valves. Valves are mounted in the order listed starting at the 1st station of D side of the manifold regardless of the mounting position of the SI unit.
- For manifolds with more than 8 stations (9-16), special wiring is required. Please use the manifold specification form.

How to Order Valve

SX **3** **2** **40** - **5** **LOZ** - □ - **Q**

Series

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

Configuration

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

Rated voltage

| | |
|---|--------|
| 5 | 24V DC |
|---|--------|

Manual override

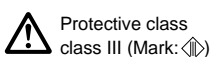
| | |
|---|---------------------------------|
| - | Non-locking push style |
| D | Push-turn-locking slotted style |

Option

When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

Part Number System of SI Units

| Symbol | Specification | For SS5X□-45S | Symbol | Specification | For SS5X□-45S |
|--------|--|---------------|--------|--|---------------|
| B | Mitsubishi Electric MELSECNET/mini-S3 data link system | EX122-SMB1 | T2 | ASI (yellow+black wires) Max. 8 stations | EX122-SAS2 |
| C | OMRON SYSBUS wire system | EX122-STA1 | T4 | ASI (yellow+black wires) Max. 4 stations | EX122-SAS4 |
| N | Profibus DP | EX122-SPR1 | T5 | ASI (yellow wires) Max. 4 stations | EX122-SAS5 |
| P | Interbus | EX122-SIB1 | | | |
| Q | Device Net and OMRON CompoBus/D | EX122-SDN1 | | | |
| Y | Can Open | EX122-SCA1 | | | |

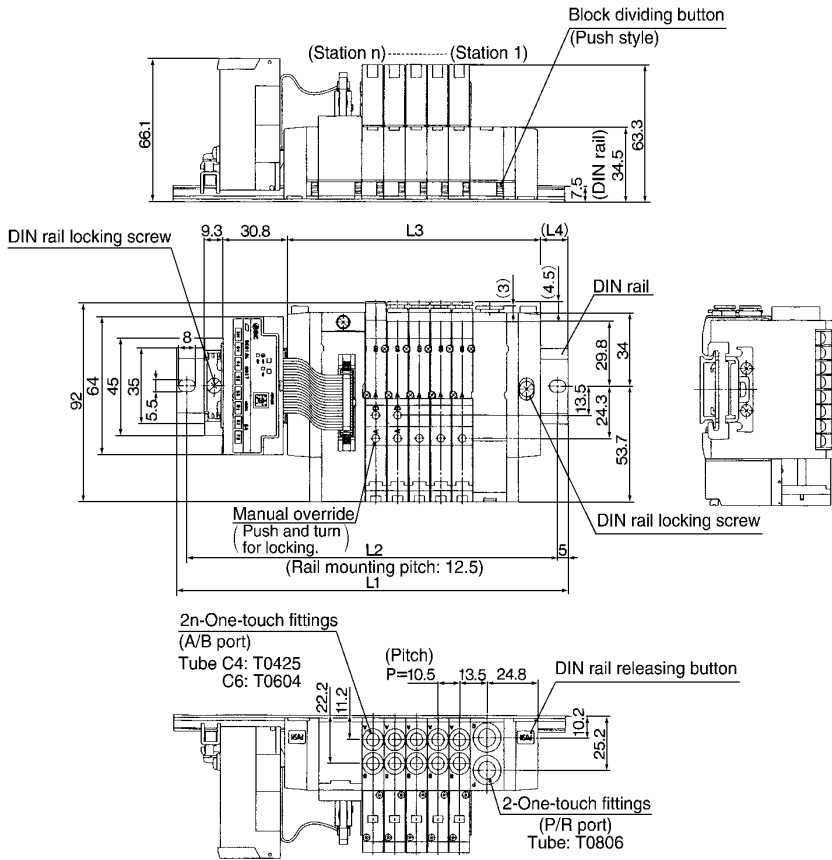


SX3000: Serial Interface Unit/Plug-in Style

SS5X3-45S1□U- Stations D-C₆⁴ -Q

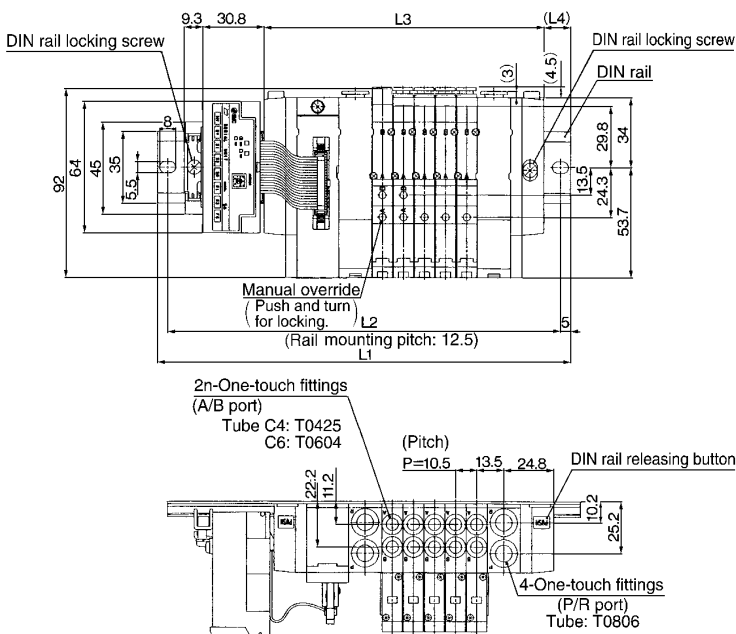


(Note) The L1 to L4 dimensions of SS5X3-45S1□U- Stations U-□-Q are identical to those of SS5X3-45S1□U- Stations D-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 198 | 198 | 210.5 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 187.5 | 200 | 212.5 | 225 | 237.5 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 14 | 15 | 16 | 17 | 12 | 13 | 14 | 15 | 16 |

SS5X3-45S1□U- Stations B-C₆⁴ -Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 |
| L2 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 | 14 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|
| L1 | 273 | 285.5 | 298 | 298 | 310.5 | 323 |
| L2 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |
| L4 | 15 | 16 | 17 | 11.5 | 12.5 | 13.5 |

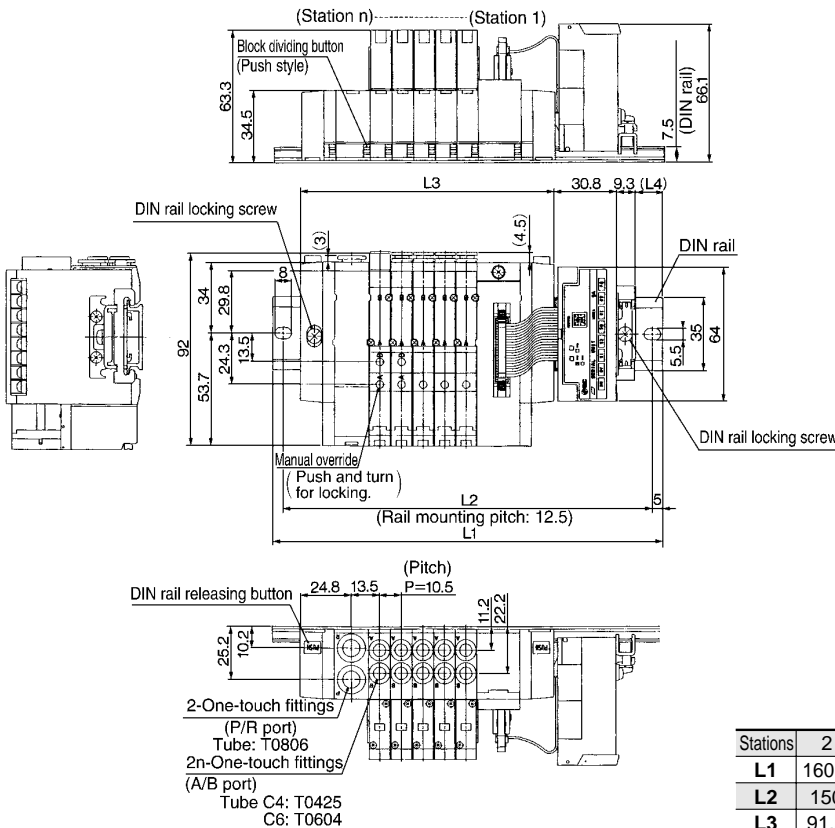
- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

SX3000: Serial Interface Unit/Plug - in Style

SS5X3-45S1 □ D- Stations U-_{C6}^{C4} -Q

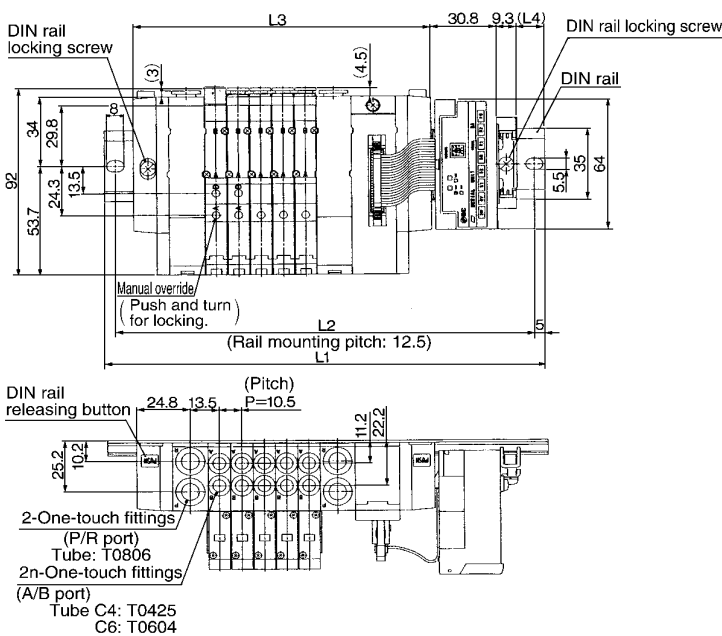


Note) The L1 to L4 dimensions of SS5X3-45S1 □ D- Stations D-□-Q are identical to those of SS5X3-45S1 □ D- Stations U-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 185.5 | 198 | 198 | 210.5 | 223 | 235.5 | 248 |
| L2 | 150 | 162.5 | 175 | 187.5 | 187.5 | 200 | 212.5 | 225 | 237.5 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 14 | 15 | 16 | 17 | 12 | 13 | 14 | 15 | 16 |

SS5X3-45S1 □ D- Stations B-_{C6}^{C4} -Q

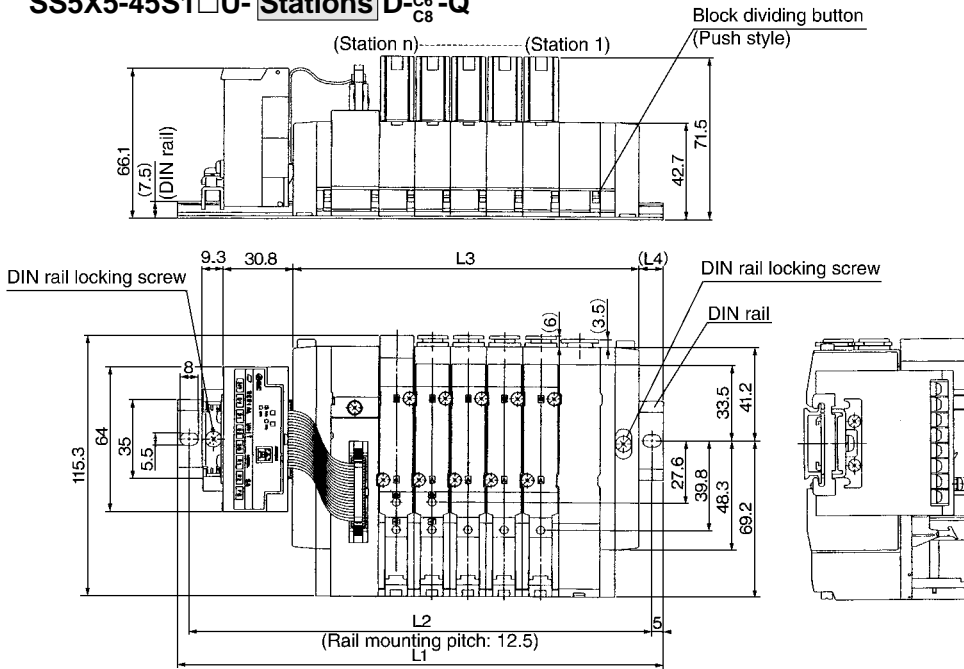


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 |
| L2 | 162.5 | 175 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 | 192 |
| L4 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 | 14 |

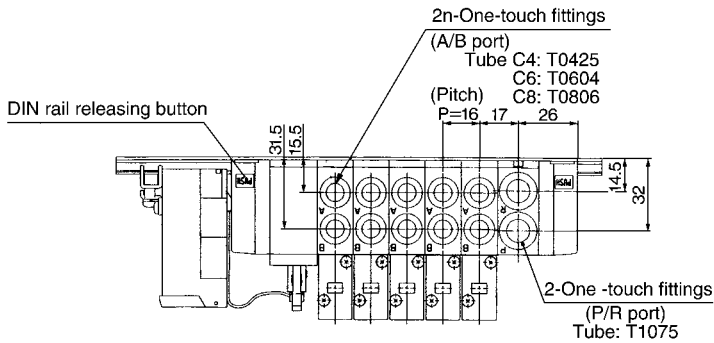
| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|
| L1 | 273 | 285.5 | 298 | 298 | 310.5 | 323 |
| L2 | 262.5 | 275 | 287.5 | 287.5 | 300 | 312.5 |
| L3 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |
| L4 | 15 | 16 | 17 | 11.5 | 12.5 | 13.5 |

SX5000: Serial Transmission Unit/Plug-in Style

SS5X5-45S1□U- Stations D-C₄-C₆-C₈-Q

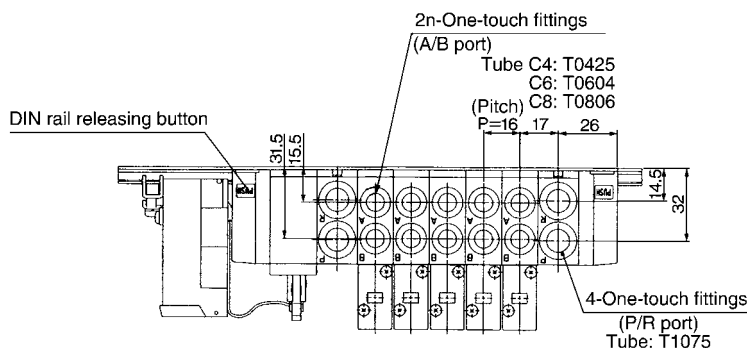
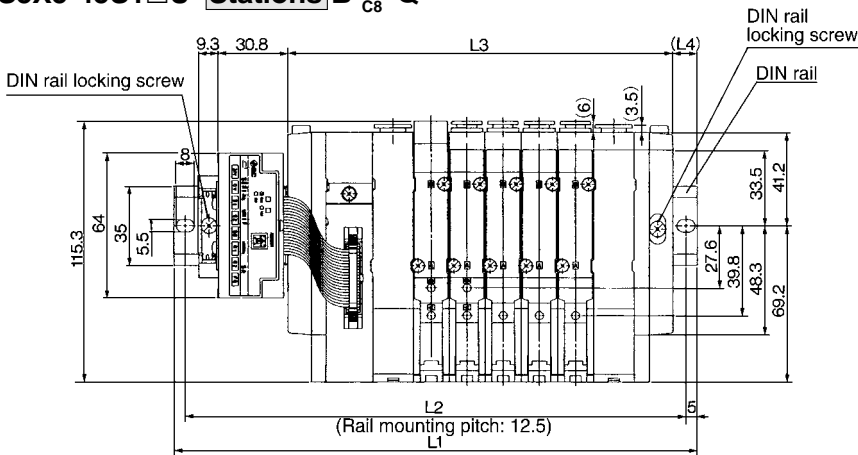


Note) The L1 to L4 dimensions of SS5X5-45S1□U- Stations U-□-Q are identical to those of SS5X5-45S1□U- Stations D-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 298 |
| L2 | 162.5 | 175 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 287.5 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

SS5X5-45S1□U- Stations B-C₄-C₆-C₈-Q



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 198 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 |
| L2 | 187.5 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 300 | 312.5 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 17 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|
| L1 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 |
| L2 | 325 | 337.5 | 362.5 | 375 | 387.5 | 400 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 |
| L4 | 14 | 12 | 16.5 | 15 | 13 | 11.5 |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

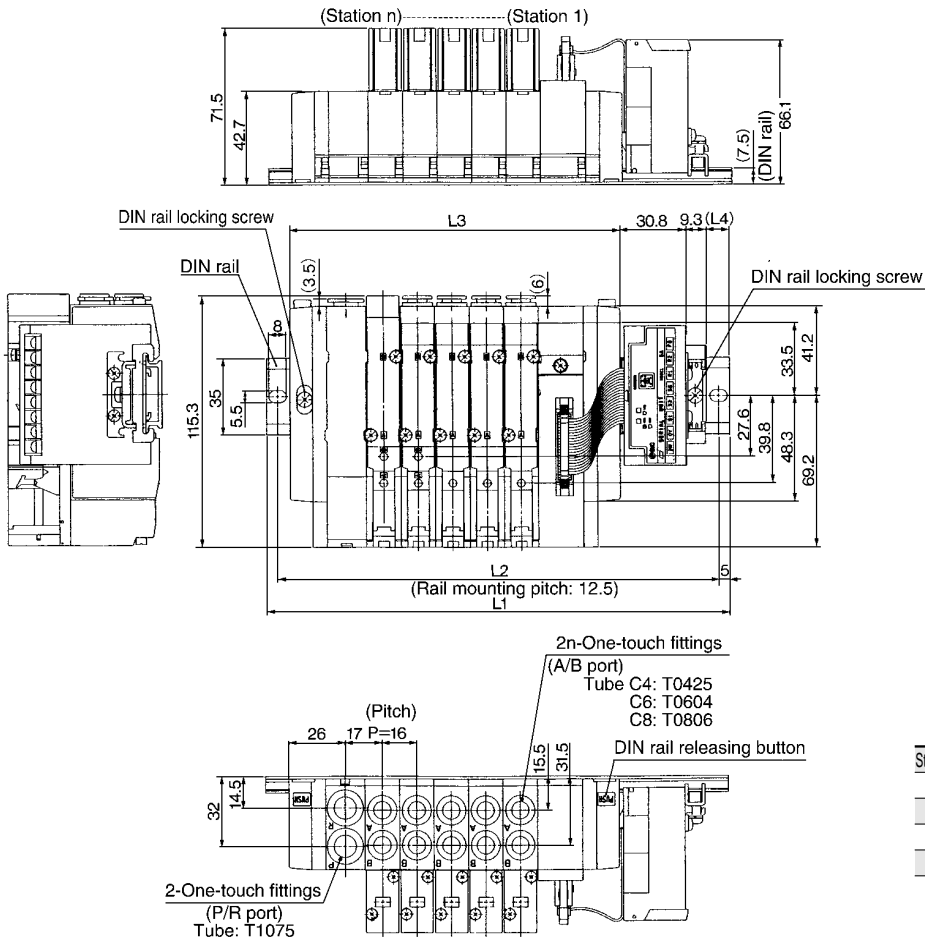
VQ7

SX5000: Serial transmission Unit/Plug-in Style

SS5X5-45S1 □ D- Stations U-□-Q ^{C4}_{C6}_{C8}

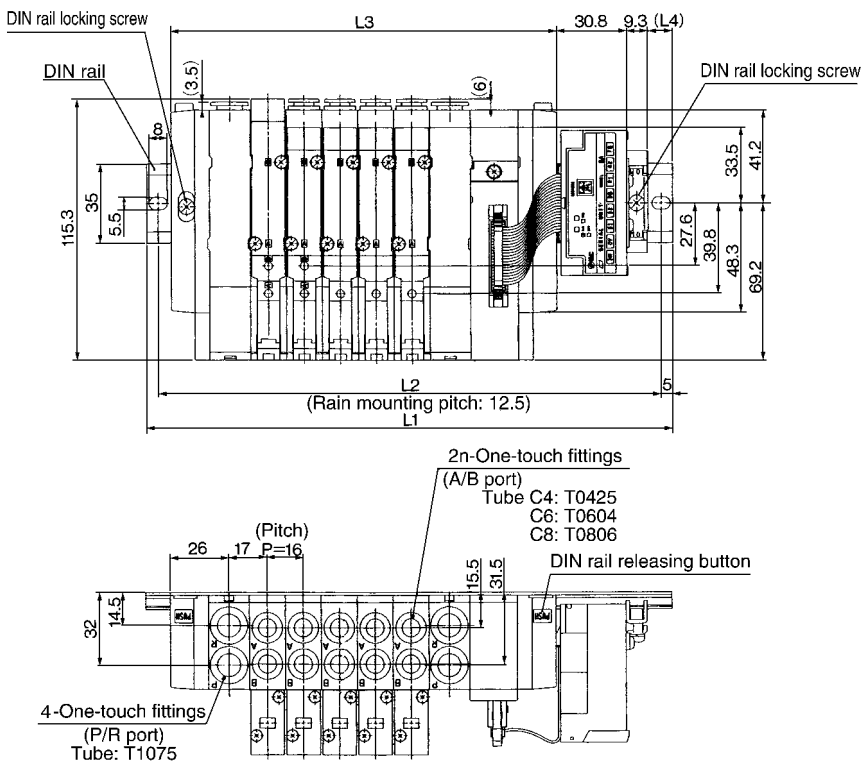


Note) The L1 to L4 dimensions of SS5X5-45S1 □ D- Stations U-□-Q are identical to those of SS5X5-45S1 □ D- Stations U-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 173 | 185.5 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 298 |
| L2 | 162.5 | 175 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 287.5 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |

SS5X5-45S1 □ D- Stations B-□-Q ^{C4}_{C6}_{C8}

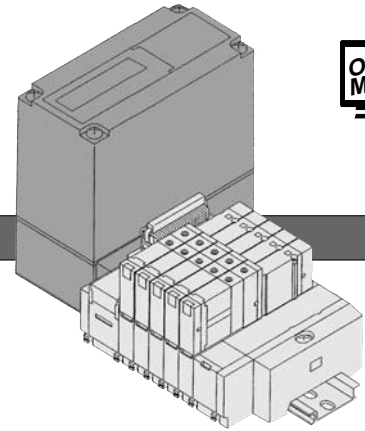


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 198 | 210.5 | 223 | 235.5 | 260.5 | 273 | 285.5 | 310.5 | 323 |
| L2 | 187.5 | 200 | 212.5 | 225 | 250 | 262.5 | 275 | 300 | 312.5 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 | 251 |
| L4 | 17 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 |

| Stations | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|
| L1 | 335.5 | 348 | 373 | 385.5 | 398 | 410.5 |
| L2 | 325 | 337.5 | 362.5 | 375 | 387.5 | 400 |
| L3 | 267 | 283 | 299 | 315 | 331 | 347 |
| L4 | 14 | 12 | 16.5 | 15 | 13 | 11.5 |

45S2 Type

Made to Order Specifications SX3000/5000 Serial Interface Unit IN313



Serial Interface manifold equipped with IN313

How to Order Manifold

45S2 (Serial interface unit IN313)

SS5X **3** - 45S2 **U** - **06** **D** - **C4** - **□** - **Q**

Manifold series ●

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

SI unit mounting position ●

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations ●

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Double wiring specification |
| ⋮ | ⋮ | |
| 08 | 8 | Applicable up to 16 solenoids. Use manifold specification from to specify wiring. |
| 09 | 9 | |
| ⋮ | ⋮ | |
| 16 | 16 | |

The number of blank plate ass'y is included.

SUP/EXH block ass'y mounting position ●

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U-side | 2 to 10 |
| D | D-side | 2 to 10 |
| B | Both sides | 2 to 16 |
| M | Special specification | |

* Special specification is available by special order.

A/B port size ●

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M | Mixed |

* Mixed porting available by special order.

Option ●

When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

How to Order Applicable SI Unit

IN313 - **MB1**

Applicable makers

| | |
|-----|-------------------------|
| MB1 | For Mitsubishi Electric |
| TA1 | For OMRON |

How to Order Valve

SX **3** **2** 40 - **5** LOZ **□** - **Q**

Series ●

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

Configuration ●

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

Rated voltage ●

| | |
|---|--------|
| 5 | 24V DC |
|---|--------|

Manual override ●

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

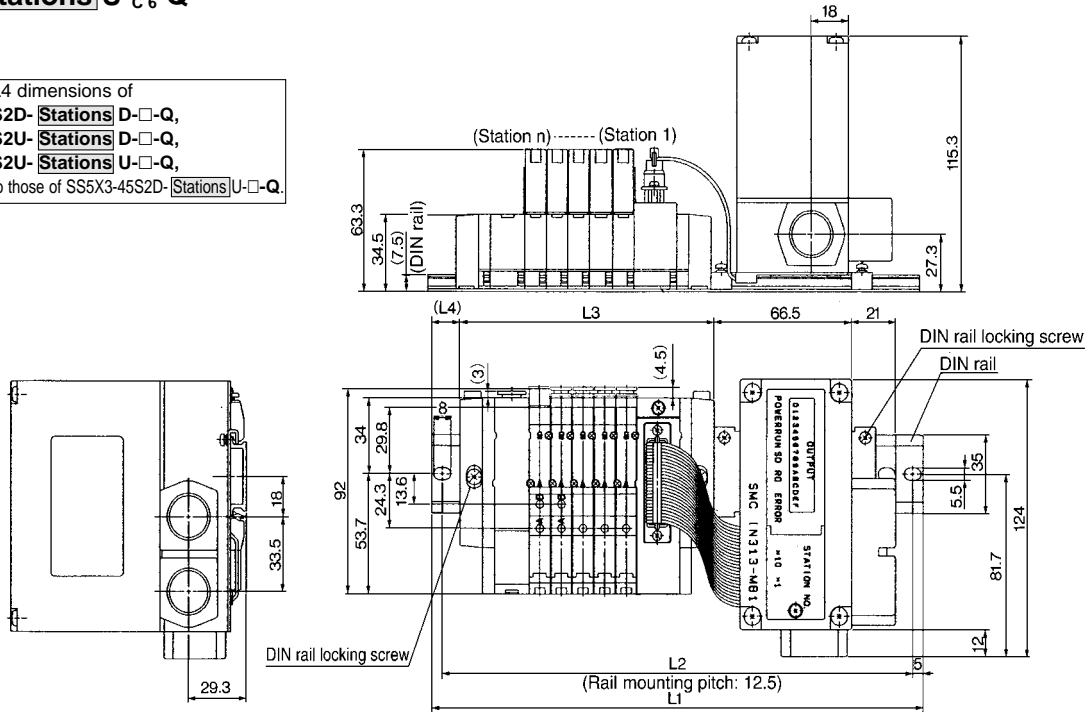
VS7

VQ7

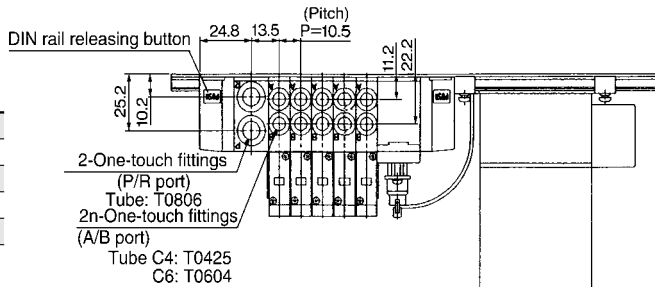
45S2 Type SX3000: Serial Interface Unit/Plug-in Style

SS5X3-45S2D- Stations U-C⁴₆-Q

Note) The L1 to L4 dimensions of
SS5X3-45S2D- Stations D-□-Q,
SS5X3-45S2U- Stations D-□-Q,
SS5X3-45S2U- Stations U-□-Q,
 are identical to those of SS5X3-45S2D- Stations U-□-Q.

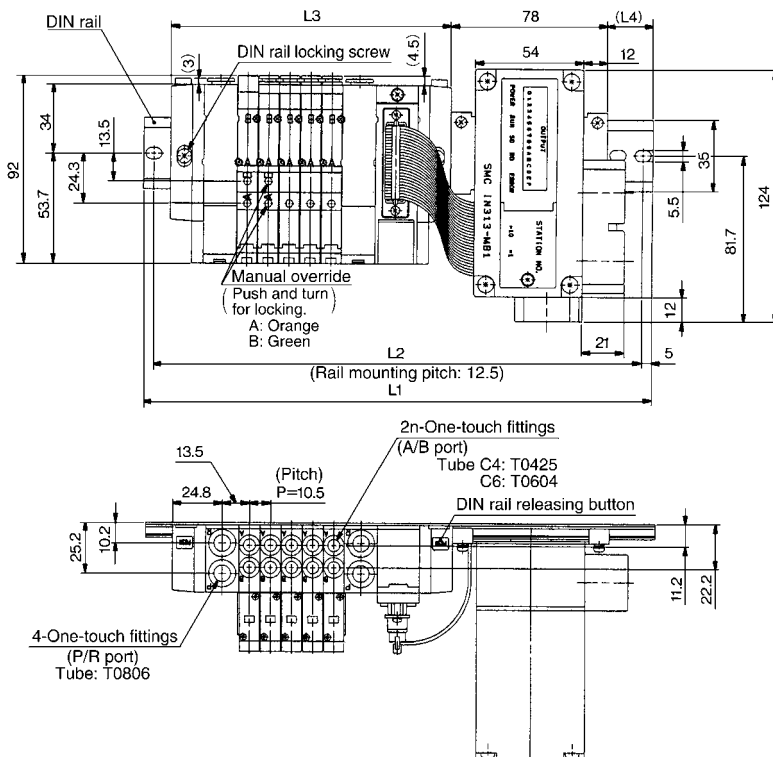


| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 198 | 210.5 | 223 | 235.5 | 235.5 | 248 | 260.5 | 273 | 285.5 |
| L2 | 187.5 | 200 | 212.5 | 225 | 225 | 237.5 | 250 | 262.5 | 275 |
| L3 | 91.5 | 102 | 112.5 | 123 | 133.5 | 144 | 154.5 | 165 | 175.5 |
| L4 | 14 | 15 | 16 | 17 | 12 | 13 | 14 | 15 | 16 |



SS5X3-45S2D- Stations B-C⁴₆-Q

Note) The L1 to L4 dimensions of **SS5X3-45S2U- Stations B-□-Q** are identical to those of SS5X3-45S2D- Stations B-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 210.5 | 223 | 235.5 | 248 | 260.5 | 273 | 273 | 285.5 |
| L2 | 200 | 212.5 | 225 | 237.5 | 250 | 262.5 | 262.5 | 275 |
| L3 | 108 | 118.5 | 129 | 139.5 | 150 | 160.5 | 171 | 181.5 |
| L4 | 12 | 13 | 14 | 15 | 16 | 17 | 12 | 13 |

| Stations | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 298 | 310.5 | 323 | 335.5 | 335.5 | 348 | 360.5 |
| L2 | 287.5 | 300 | 312.5 | 325 | 325 | 337.5 | 350 |
| L3 | 192 | 202.5 | 213 | 223.5 | 234 | 244.5 | 255 |
| L4 | 14 | 15 | 16 | 17 | 11.5 | 12.5 | 13.5 |

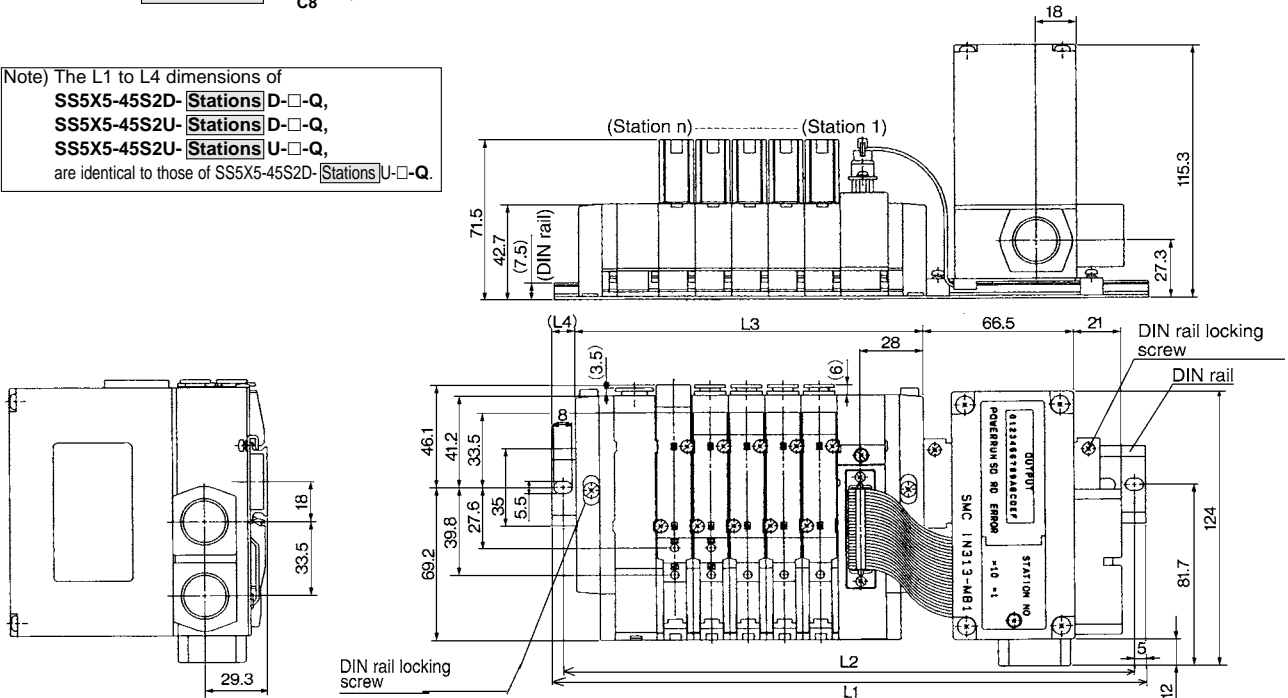
SX3000/5000 Made to Order Specifications

45S2 Type SX5000: Serial Interface Unit/Plug-in Style

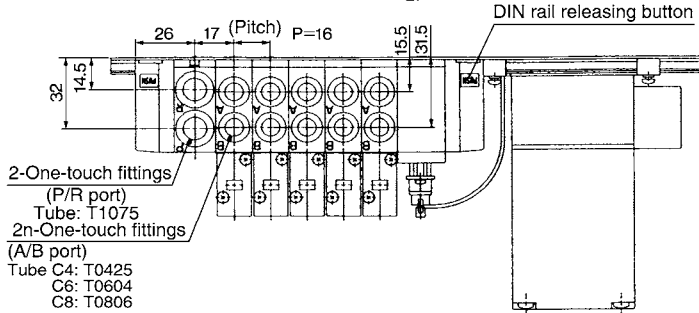
SS5X5-45S2D- Stations U-C4-C6-C8-Q



Note) The L1 to L4 dimensions of SS5X5-45S2D- Stations D-□-Q, SS5X5-45S2U- Stations D-□-Q, SS5X5-45S2U- Stations U-□-Q, are identical to those of SS5X5-45S2D- Stations U-□-Q.



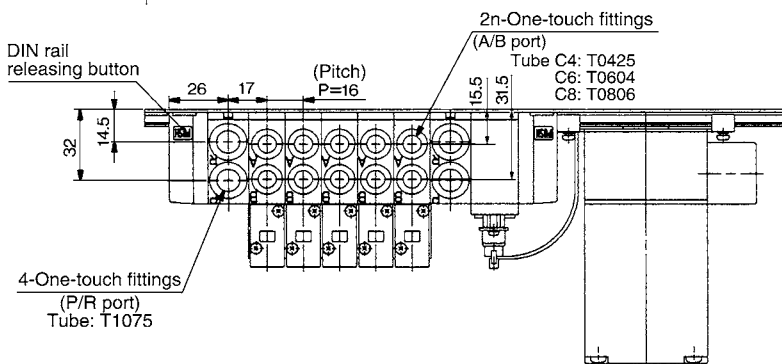
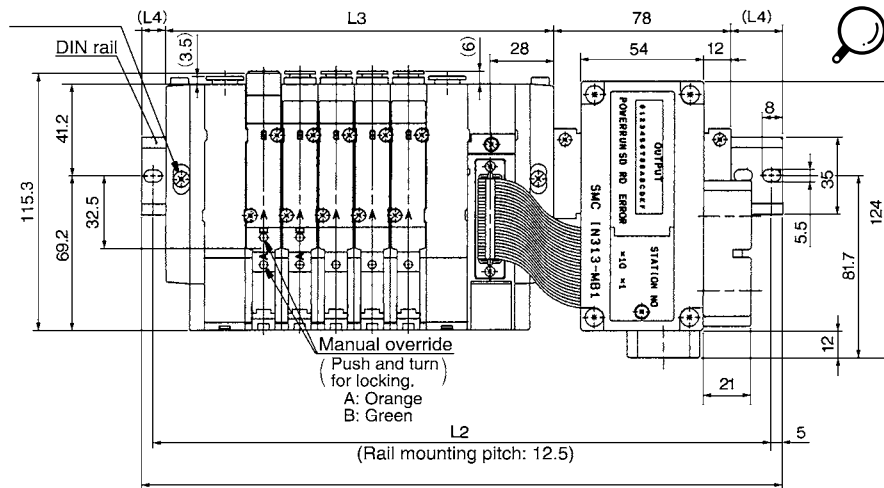
| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 210.5 | 223 | 248 | 260.5 | 273 | 298 | 310.5 | 323 | 335.5 |
| L2 | 200 | 212.5 | 237.5 | 250 | 262.5 | 287.5 | 300 | 312.5 | 325 |
| L3 | 105 | 121 | 137 | 153 | 169 | 185 | 201 | 217 | 233 |
| L4 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 | 15.5 | 14 | 12 |



SS5X5-45S2D- Stations B-C4-C6-C8-Q



Note) The L1 to L4 dimensions of SS5X5-45S2U- Stations B-□-Q are identical to those of SS5X5-45S2D- Stations B-□-Q.



| Stations | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 235.5 | 248 | 260.5 | 273 | 298 | 310.5 | 323 | 348 |
| L2 | 225 | 237.5 | 250 | 262.5 | 287.5 | 300 | 312.5 | 337.5 |
| L3 | 123 | 139 | 155 | 171 | 187 | 203 | 219 | 235 |
| L4 | 17 | 15.5 | 13.5 | 12 | 16.5 | 14.5 | 13 | 17.5 |

| Stations | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 360.5 | 373 | 385.5 | 410.5 | 423 | 435.5 | 460.5 |
| L2 | 350 | 362.5 | 375 | 400 | 412.5 | 425 | 450 |
| L3 | 251 | 267 | 283 | 299 | 315 | 331 | 347 |
| L4 | 15.5 | 14 | 12 | 16.5 | 15 | 13 | 17.5 |

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

- VQC
- SQ
- VQ
- VQ4

- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Made to Order SX3000/5000 External Pilot with Built-in Silencer

External pilot manifold bases for low-pressure/vacuum use are added to split-type/DIN rail manifold. The built-in silencer has a clean-cut appearance.



45 Type

Individual wiring

How to Order Manifold

45 type

SS5X³/₅ - 45 - 05 U R - C6 - [] - Q

Series

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

Stations

| Symbol | Stations | SUP/EXH block ass'y mounting position |
|--------|----------|---------------------------------------|
| 02 | 2 | |
| : | : | |
| 20 | 20 | |

The number of blank plate ass'y is included.

* Special specification is available by special order.

SUP/EXH block ass'y specifications

| Symbol | Specifications |
|--------|--|
| R | External pilot specification |
| S | Internal pilot specification/with silencer |
| RS | External pilot specification/with silencer |

A/B port size

SX3000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| M* | Mixed |

SX5000

| Symbol | Port size |
|--------|---------------------------|
| C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 |
| C8 | One-touch fittings for ø8 |
| M* | Mixed |

* Mixed porting available by special order.

Option

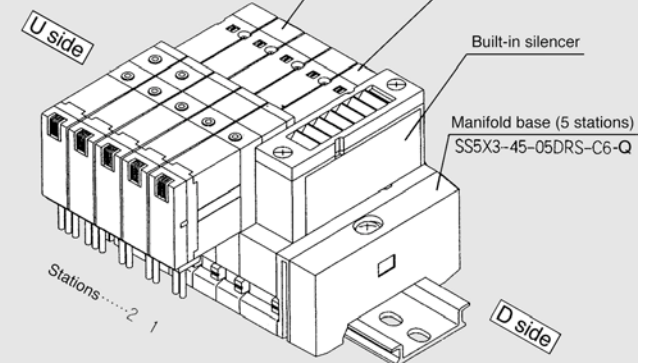
When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

How to Order Valve Manifold Ass'y (Example)

Ordering example

Single solenoid (External pilot specification)
SX3140R-5G-Q (3 sets)

Double solenoid (External pilot specification)
SX3240R-5G-Q (2 sets)



SS5X3-45-05DRS-C6-Q ··· 1 set (External pilot with built-in silencer No.)
SX3140R-5G-Q ····· 3 sets (Single solenoid No.)
SX3240R-5G-Q ····· 2 sets (Double solenoid No.)

They will be assembled in the order listed starting at the first station at the D side even if supply/exhaust block ass'y is located at either end.
For more complicated assemblies.
For manifolds with supply/exhaust block at each end of the manifold, external pilot ports and silencers will also be located at each end of the manifold.
To order the supply/exhaust block ass'y (SX3/5000-51-1A) mounted at a location other than the ends of manifold.

How to Order Valve

SX 5 2 40 [] - 5 N L [] [] - Q

Series

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

Configuration

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

Pilot

| | |
|---|----------------|
| — | Internal pilot |
| R | External pilot |

Rated voltage

| | |
|---|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V | 6V DC |
| S | 5V DC |
| R | 3V DC |
| 9 | (Less than 50) |

Manual override

| | |
|---|----------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style. |

Indicator light and surge voltage suppressor

| | |
|---|---|
| — | W/o indicator light and surge suppressor |
| S | With surge suppressor |
| Z | With indicator light and surge suppressor |

Electrical entry

| | Grommet | L plug connector | M plug connector |
|----|-----------------|-----------------------|-----------------------|
| G: | 300mm lead wire | L: 300mm lead wire | M: 300mm lead wire |
| H: | 600mm lead wire | LN: Without lead wire | MN: Without lead wire |
| | | LO: Without connector | MO: Without connector |

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

(Note) For single solenoid valves with the 'G' electrical entry, only positive common wiring is available. For single solenoid valves without the 'S' or 'Z' protection circuit, only positive common wiring is available.

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

Contact SMC for other voltages (9)

Protective class class III (Mark: ⚡)

45□ Type

Plug-in style

How to Order Manifold

45□ type

SS5X₃⁵-45□ F U 05 U R C4 □ □ □ □ Q

Series

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

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

No symbol is used for T, T1, S□ types.

Connector type

| Symbol | Mounting position |
|--------|--------------------------|
| F | D-sub connector |
| P | Flat cable 26-pole |
| PG | Flat cable 20-pole |
| PH | Flat cable 10-pole |
| T | Terminal block 9-pole |
| T1 | Terminal block 18-pole |
| S□ | Serial transmission unit |

See p.1.4-78 for details.

Connector mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Single wiring specification (Limit for station number differs depending on connectors. Refer to p.1.4-78 for further information.) |
| ⋮ | ⋮ | |
| 20 | 20 | |

The number of blank plate ass'y is included.

SUP/EXH block ass'y mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U-side | 2 to 10 |
| D | D-side | 2 to 10 |
| B | Both sides | 2 to 20 |
| M | Special specification | |

* Special specification is available by special order.

SUP/EXH block ass'y specifications

| Symbol | Specifications |
|--------|--|
| R | External pilot specification |
| S | Internal pilot specification/with silencer |
| RS | External pilot specification/with silencer |

A/B port size

| SX3000 | | SX5000 | |
|--------|---------------------------|--------|---------------------------|
| Symbol | Port size | Symbol | Port size |
| C4 | One-touch fittings for ø4 | C4 | One-touch fittings for ø4 |
| C6 | One-touch fittings for ø6 | C6 | One-touch fittings for ø6 |
| M* | Mixed | C8 | One-touch fittings for ø8 |
| | | M* | Mixed |

* Mixed porting is available by special order.

Voltage

| | |
|-----|--------|
| — | 24V DC |
| 12V | 12V DC |

Option

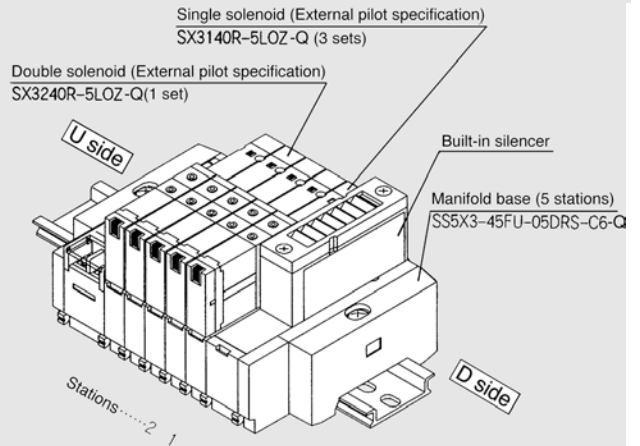
When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

Contact SMC for other voltages (9)

Protective class class III (Mark: ⚡)

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-45FU-05DRS-C6-Q 1 set (External pilot specification/with silencer No.)
SX3140R-5LOZ-Q 3 sets (Single solenoid No.)
SX3240R-5LOZ-Q 1 set (Double solenoid No.)

They will be assembled in the order listed starting at the first station at the D side even if supply/exhaust block ass'y is located at either end.

For more complicated assemblies.

For manifolds with supply/exhaust block at each end of the manifold, external pilot ports and silencers will also be located at each end of the manifold.

To order the supply/exhaust block ass'y (SX3/5000-51-2A) mounted at a location other than the ends of manifold.

When ordering double solenoid valves, please keep in mind that they require two manifold stations.

How to Order Valve

SX 3 2 40 □ 5 □ LOZ □ Q

Series

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

Configuration

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

Pilot

| | |
|---|----------------|
| — | Internal pilot |
| R | External pilot |

Rated voltage

| | |
|----|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V* | 6V DC |
| S* | 5V DC |
| R* | 3V DC |
| 9 | (Less than 50) |

*mark: 45T and T1 only
S□ type: 24V DC only

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

* Common specification for the valve must correspond with common specification for the manifold.

Manual override

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

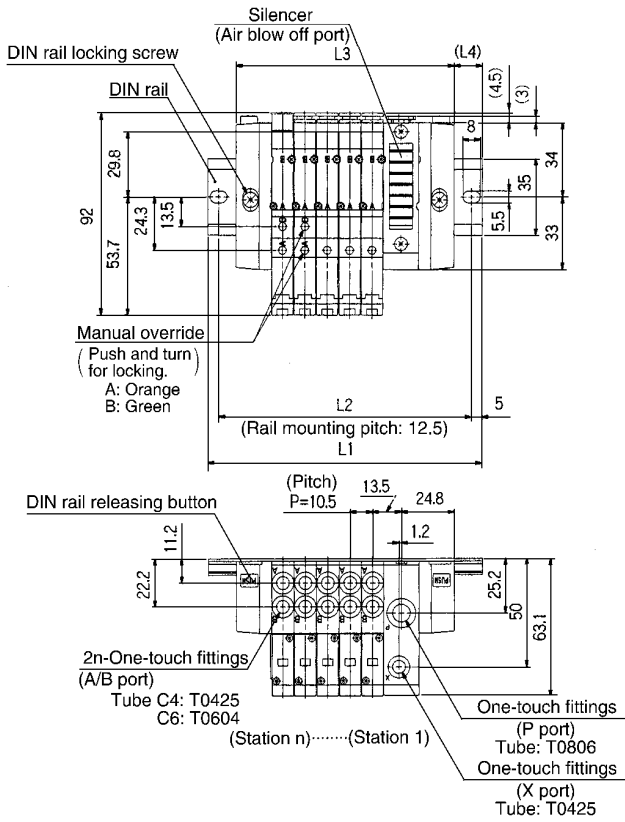
VS7

VQ7

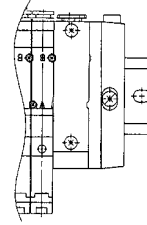
SX3000/5000

45_{Type} External pilot/Built-in Silencer

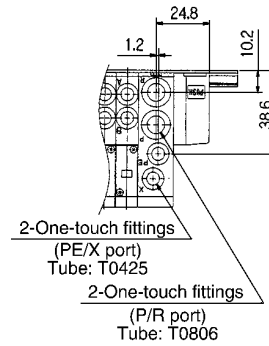
SX3000: SS5X3-45- Stations DRS-^{C4}_{C6}-Q



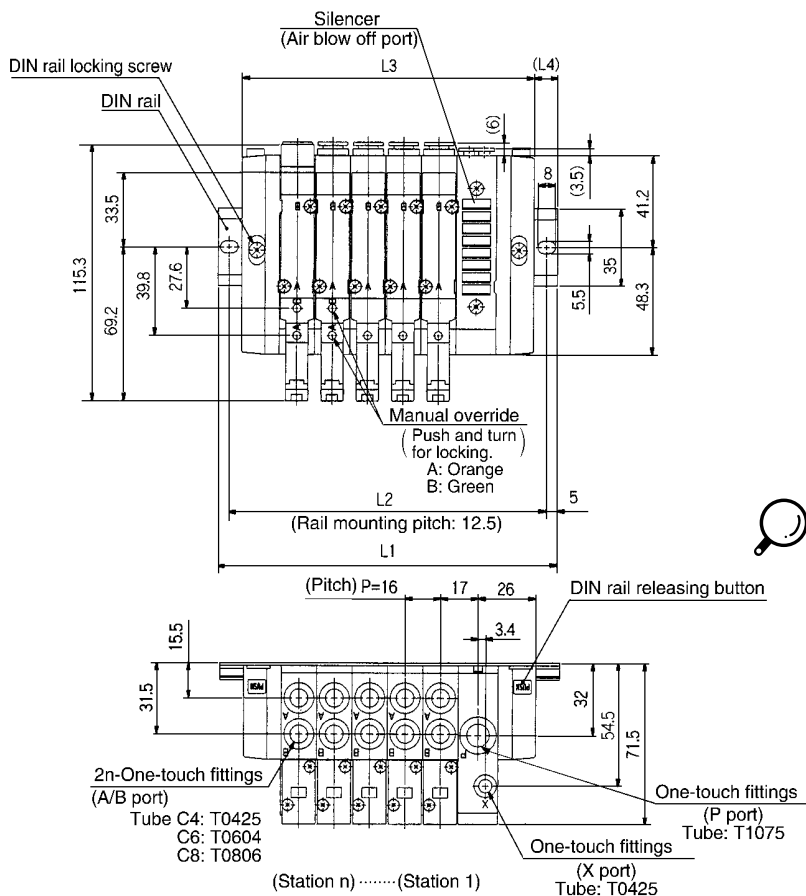
SS5X3-45- Stations DR-^{C4}_{C6}-Q



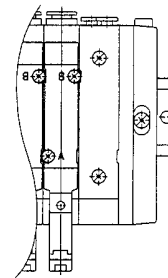
* The dimensions L1 to L4 are identical to SS5X3-45- Stations ^U_D-^{C4}_{C6}-Q(P.1.4-74)



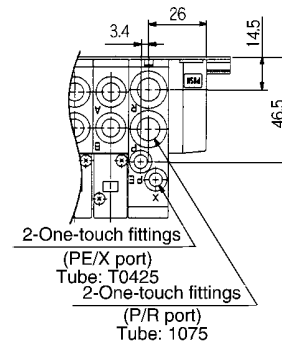
SX5000: SS5X5-45- Stations DRS-^{C4}_{C6}^{C8}-Q



SS5X5-45- Stations DR-^{C4}_{C6}^{C8}-Q



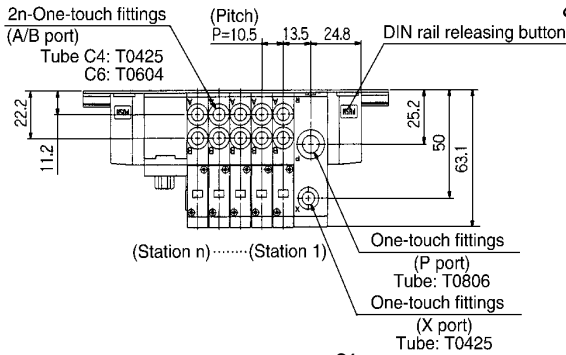
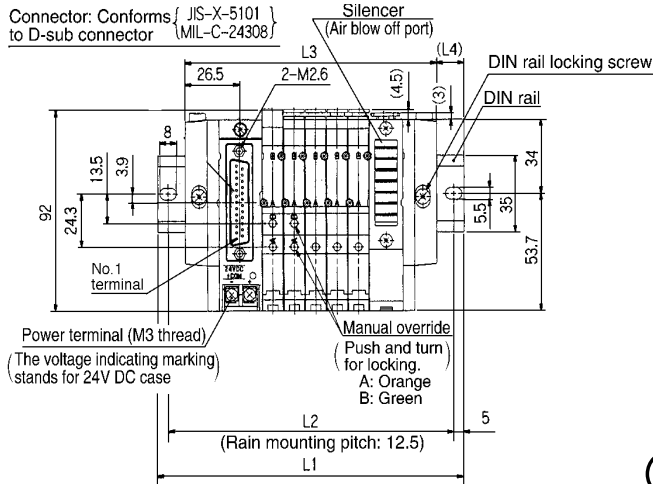
* The dimensions L1 to L4 are identical to SS5X5-45- Stations ^U_D-^{C4}_{C6}^{C8}-Q(P.1.4-75)



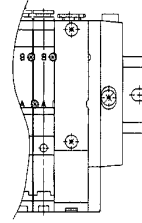
SX3000/5000 Made to Order Specifications

45□ Type External Pilot/Built-in Silencer

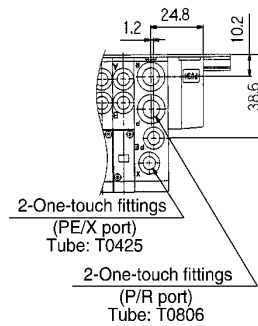
SX3000: SS5X3-45FU- Stations DRS-C₄-C₆-Q



SS5X3-45FU- Stations DR- C₄-C₆-Q

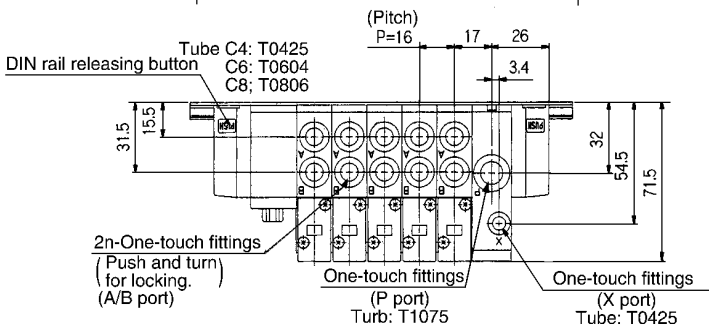
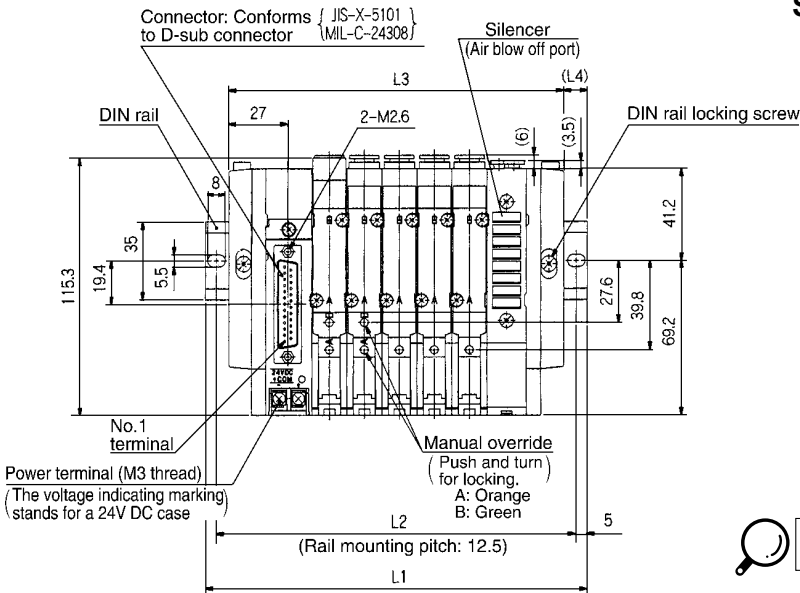


* The dimensions L1 to L4 are identical to SS5X3-45FU- Stations DR- C₄-C₆-Q (P.1.4-88)

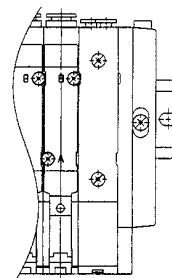


SX5000: SS5X5-45FU- Stations DRS-C₄-C₆-C₈-Q

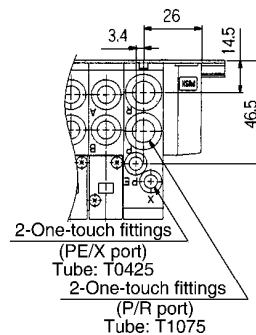
(Station n)----- (Station 1)



SS5X5-45FU- Stations DR- C₄-C₆-C₈-Q



* The dimensions L1 to L4 are identical to SS5X3-45FU- Stations DR- C₄-C₆-Q (P.1.4-88)



- SV
- SY
- SYJ
- SX**
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Made to Order SX3000/5000 Mixed Mounting



M45
Type

Non plug-in

This manifold makes it possible to mount SX3000 onto base of SX5000.

How to Order Manifold

M45 type (Mixed mounting style)

SS5X5-M45-05U-C86-Q

Mixed mounting style

Stations

| Symbol | Stations | SUP/EXH block ass'y mounting position |
|--------|----------|---------------------------------------|
| 02 | 2 | U |
| ⋮ | ⋮ | ⋮ |
| 20 | 20 | D |
| | | B |
| | | M* |

The number of blank plate ass'y is included.

* Special specification is available by special order.

SUP/EXH block ass'y specifications

| Symbol | Specifications |
|--------|---------------------------------------|
| — | Standard/Internal pilot specification |
| S | With silencer |

* External pilot specification is unavailable for mixed mounting style.

Option

When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

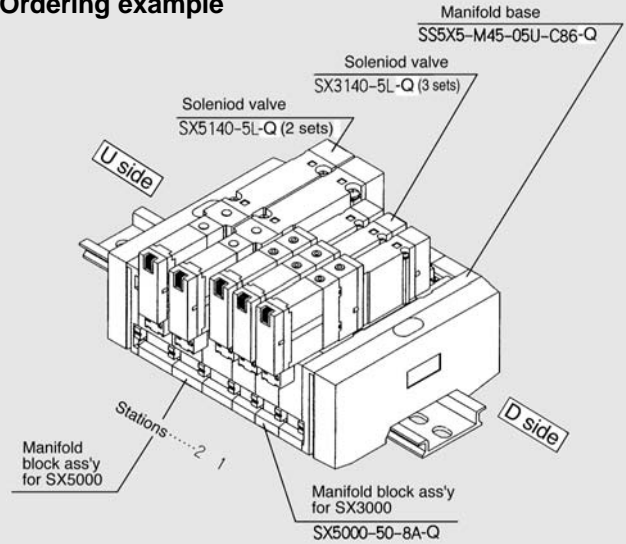
A/B port size

| Symbol | Port size | Symbol | Port size |
|--------|--|--------|--|
| C44 | SX5000: One-touch fittings for ø4 SX3000: One-touch fittings for ø4 | C66 | SX5000: One-touch fittings for ø6 SX3000: One-touch fittings for ø6 |
| C46 | SX5000: One-touch fittings for ø4 SX3000: One-touch fittings for ø6 | C84 | SX5000: One-touch fittings for ø8 SX3000: One-touch fittings for ø4 |
| C64 | SX5000: One-touch fittings for ø6 SX3000: One-touch fittings for ø4 | C86 | SX5000: One-touch fittings for ø8 SX3000: One-touch fittings for ø6 |
| | | M* | Mixed |

* Mixed porting available by special order.

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X5-M45-05U-C86-Q ··· 1set (M45 manifold base No.)
SX3140-5G-Q ······ 3sets (Single solenoid No.)
SX3240-5G-Q ······ 2sets (Double solenoid No.)

They will be assembled in the order listed starting at the first station at the D side even if supply/exhaust block assembly is located at either end.
For more complicated assemblies, order with a manifold specifying form.

How to Order Valve

SX 5 2 40-5 N L - Q

Series

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

Configuration

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

Manual override

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

Indicator light and surge voltage suppressor

| | |
|---|---|
| — | W/o indicator light and surge suppressor |
| S | With surge suppressor |
| Z | With indicator light and surge suppressor |

Electrical entry

| Grommet | L plug connector | M plug connector |
|-----------------------|--|--|
| G: 300mm lead wire | L: 300mm lead wire | M: 300mm lead wire |
| H: 600mm lead wire | LN: Without lead wire LO: Without connector | MN: Without lead wire MO: Without connector |

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

Rated voltage

| | |
|---|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V | 6V DC |
| S | 5V DC |
| R | 3V DC |
| 9 | (Less than 50) |

Note) For single solenoid valves with the 'G' electrical entry, only positive common wiring is available. For single solenoid valves without the 'S' or 'Z' protection circuit, only positive common wiring is available.

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



Contact SMC for other voltages (9)



Protective class class III (Mark: ⚡)

SX3000/5000 Made to Order Specifications

M45 □ Type

Plug-in

This manifold makes it possible to mount SX3000 onto SX5000 base.

How to Order Manifold

M45 (Mixed mounting style)

SS5X5-M45 □ F □ □ □ □ □ C44 □ □ □ □ Q

Mixed mounting style

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

As T, T1 and S □ types have no polarity, only positive common is available.

Connector type

| Symbol | Mounting position |
|--------|--------------------------|
| F | D-sub connector |
| P | Flat cable 26-pole |
| PG | Flat cable 20-pole |
| PH | Flat cable 10-pole |
| T | Terminal block 9-pole |
| T1 | Terminal block 18-pole |
| S □ | Serial transmission unit |

Refer to p.1.4-78 for further information

Connector mounting position

| Symbol | Mounting position |
|--------|-------------------|
| U | U side |
| D | D side |

Stations

| Symbol | Stations | Note |
|--------|----------|---|
| 02 | 2 | Single wiring specification |
| ⋮ | ⋮ | (There is limit on station number depending on connectors.) |
| 20 | 20 | Refer to p.1.4-78 for further information. |

The number of blank plate ass'y is included.

SUP/EXH block ass'y mounting position

| Symbol | Mounting position | Stations |
|--------|-----------------------|----------|
| U | U-side | 2 to 10 |
| D | D-side | 2 to 10 |
| B | Both sides | 2 to 20 |
| M* | Special specification | |

* Special specification is available by special order.

SUP/EXH block ass'y specifications

| Symbol | Specifications |
|--------|---------------------------------------|
| — | Standard/Internal pilot specification |
| S | With silencer |

A/B port size

| Symbol | Port size |
|--------|--|
| C44 | SX5000: One-touch for ø4 SX3000: One-touch for ø4 |
| C46 | SX5000: One-touch for ø4 SX3000: One-touch for ø6 |
| C64 | SX5000: One-touch for ø6 SX3000: One-touch for ø4 |
| C66 | SX5000: One-touch for ø6 SX3000: One-touch for ø6 |
| C84 | SX5000: One-touch for ø8 SX3000: One-touch for ø4 |
| C86 | SX5000: One-touch for ø8 SX3000: One-touch for ø6 |
| M* | Mixed |

* Mixed porting available by special order.

Voltage

| | |
|-----|--------|
| — | 24V DC |
| 12V | 12V DC |

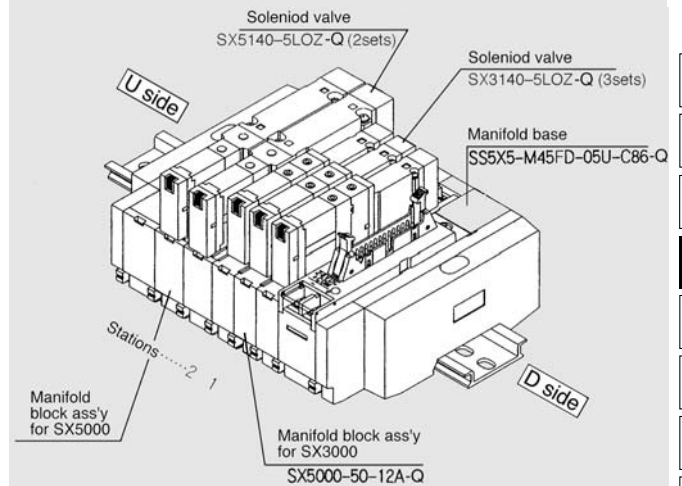
No symbol is used for T, T1, S □ types. See p.1.4-78 for details.

Option

When a DIN rail longer than standard is required, enter the number of manifold stations that corresponds with the length of DIN rail needed. (20 stations max.)

How to Order Valve Manifold Ass'y (Example)

Ordering example



SS5X3-M45FD-05U-C86-Q 1 set (M45 type manifold base no.)
SX3140-5LOZ-Q ······ 3 sets (Single solenoid no.)
SX3240-5LOZ-Q ······ 2 sets (Double solenoid no.)

They will be assembled in the order listed starting at the first station at the D side even if supply/exhaust block assembly is located at either end.
For more complicated assemblies, order with a manifold specification form.

How to Order Valve

SX 3 2 40-5 □ LOZ □ Q

Series

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

Configuration

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

Rated voltage

| | |
|----|----------------|
| 5 | 24V DC |
| 6 | 12V DC |
| V* | 6V DC |
| S* | 5V DC |
| R* | 3V DC |
| 9 | (Less than 50) |

*mark: 45T and T1 only
S □ type: 24V DC only

Common

| | |
|---|-----------------|
| — | Positive common |
| N | Negative common |

* Common specification for the valve must correspond with common specification for the manifold.

Manual override

| | |
|---|---------------------------------|
| — | Non-locking push style |
| D | Push-turn-locking slotted style |

Contact SMC for other voltages (9)

Protective class class III (Mark: ⚡)

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

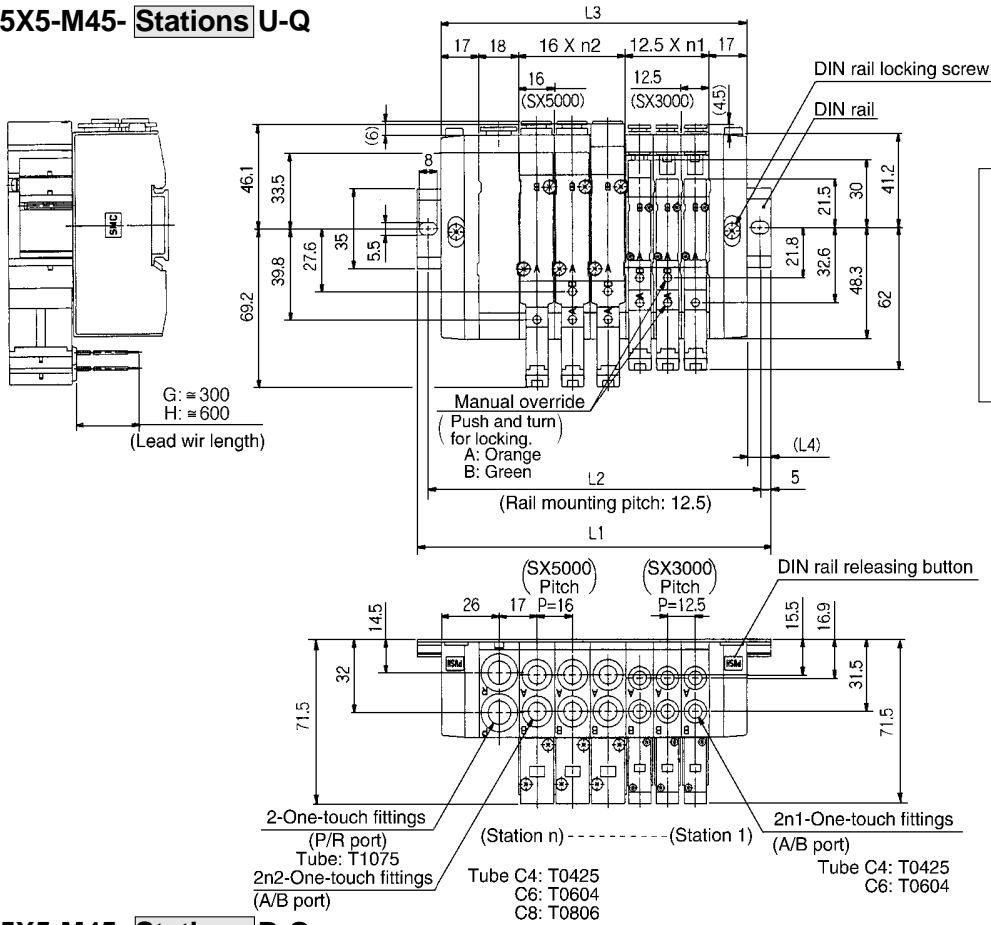
VS7

VQ7

SX3000/5000

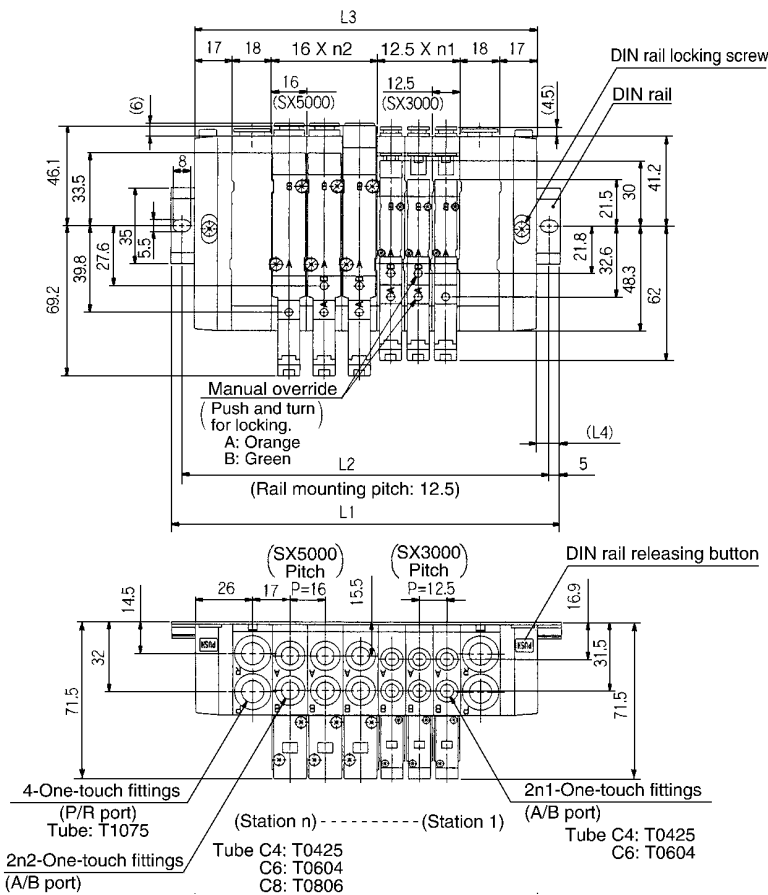
M45_{Type} (Non plug-in) Dimensions/Mixed mounting

SS5X5-M45- Stations U-Q



L size: Equations for L1 to L4
 $L3 = 12.5 \times n1 + 16 \times n2 + 52$
 $M = \left(\frac{L3}{12.5} + 1 \right)$ Omit decimals
 $L1 = 12.5 \times M + 23$
 $L2 = L1 - 10.5$
 $L4 = (L1 - L3) / 2$
 n1: Number of SX3000's stations
 n2: Number of SX5000's stations

SS5X5-M45- Stations B-Q

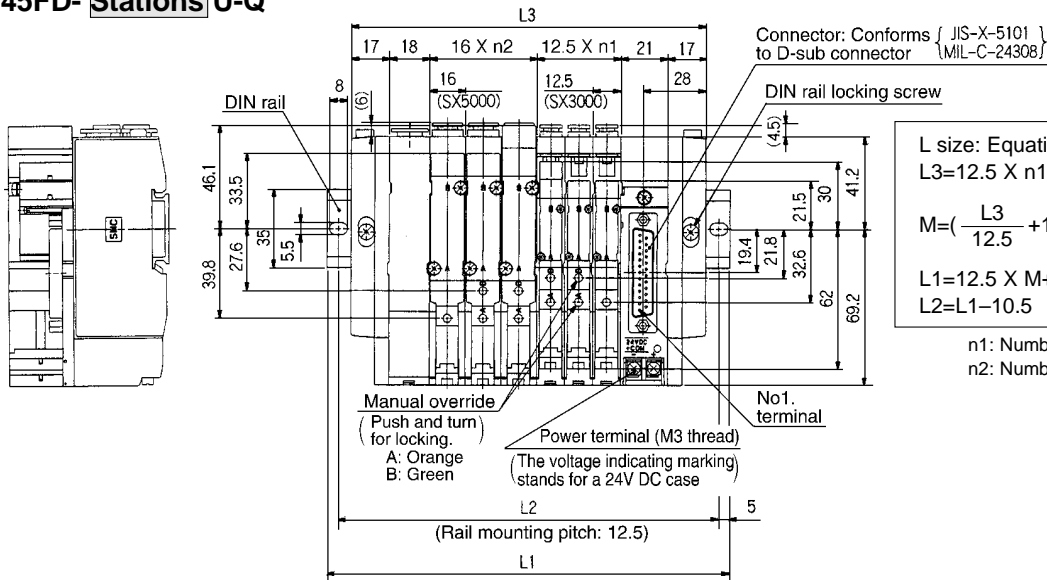


L size: Equations for L1 to L4
 $L3 = 12.5 \times n1 + 16 \times n2 + 70$
 $M = \left(\frac{L3}{12.5} + 1 \right)$ Omit decimals
 $L1 = 12.5 \times M + 23$
 $L2 = L1 - 10.5$
 $L4 = (L1 - L3) / 2$
 n1: Number of SX3000's stations
 n2: Number of SX5000's stations

SX3000/5000 Made to Order Specifications

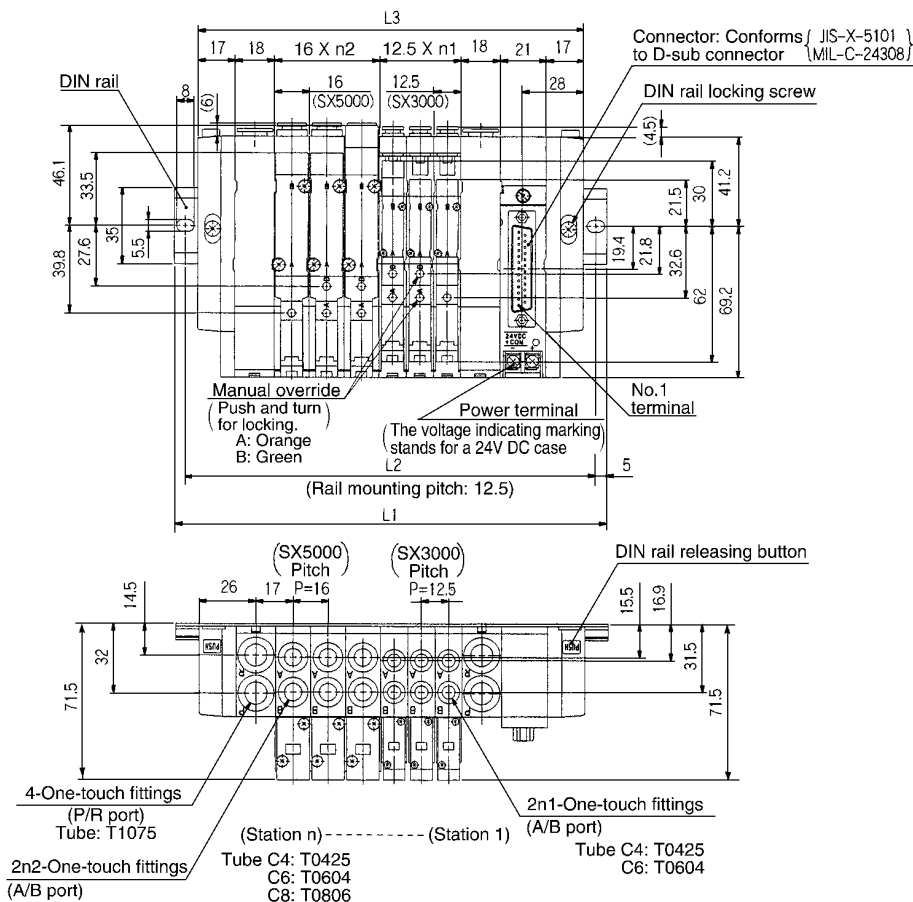
M45 Type (Plug-in) Dimensions/Mixed mounting

SS5X5-M45FD- Stations U-Q



L size: Equations for L1, L3
 $L3=12.5 \times n1+16 \times n2+73$
 $M=(\frac{L3}{12.5} + 1)$ Omit decimals
 $L1=12.5 \times M+23$
 $L2=L1-10.5$
 n1: Number of SX3000's stations
 n2: Number of SX5000's stations

SS5X5-M45FD- Stations B-Q



L size: Equations for L1 to L4
 $L3=12.5 \times n1+16 \times n2+91$
 $M=(\frac{L3}{12.5} + 1)$ Omit decimals
 $L1=12.5 \times M+23$
 $L2=L1-10.5$
 $L4=(L1-L3)/2$
 n1: Number of SX3000's stations
 n2: Number of SX5000's stations

- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Made to Order Specifications

SX3000/5000/7000

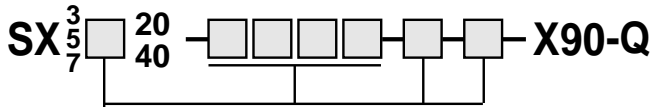


Fluoro Rubber for Main Valve –X90

The rubber section of the main valve is made of fluoro rubber, so these models are applicable to the following:

1. When malfunction occurs or is expected to occur due to swelling of the spool valve packing when oil other than the recommended turbine oil is used.
2. When ozone enters the air source or is generated in the air source.

Applicable solenoid valves: Series SX3□□0, SX5□□0, and SX7□□0



- Enter in the same way as standard models.

The specifications and performance are the same as standard models.



Note) With the “-X90” option, the spool seals are made of fluoro rubber. The valve, however is not rated for high temperature applications.