Pilot valves are concentrated on one-side, realizing wiring into a bundle and unencumbered appearance, too.

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

Compact design with large flow

<table>
<thead>
<tr>
<th>Body width [mm]</th>
<th>Sonic conductance: C [dm³/(s·bar)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1.1</td>
</tr>
<tr>
<td>15</td>
<td>2.8</td>
</tr>
<tr>
<td>18</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Response time 10 ms (Representative value)
(SX3000 double, 0.5 MPa, 20°C)

High reliability and long service life exceeding 50 million cycles or more
(The valve may differ from a life under actual operating conditions. It is derived from our life test data.)

Improved drainage resistance

Suitable for copper-free applications

No exhaust mist, no exhaust noise of pilot valve
<Common exhaust type for main and pilot valve>

Indicator light and manual override are concentrated.

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.

Same manifold base as Series SY

The characteristic values shown in the catalog are representative values, not warranting the performance.
### Cylinder Speed Chart

**Body Ported**

<table>
<thead>
<tr>
<th>Series</th>
<th>Average speed (mm/s)</th>
<th>Bore size</th>
<th>Series CJ2 Pressure 0.5 MPa Load factor 50% Stroke 60 mm</th>
<th>Series CM2 Pressure 0.5 MPa Load factor 50% Stroke 300 mm</th>
<th>Series MB/CA1 Pressure 0.5 MPa Load factor 50% Stroke 500 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3120-C6</td>
<td>800</td>
<td>ø6 ø10 ø16 ø20 ø25 ø32 ø40 ø40 ø50 ø63 ø80 ø100</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
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<tr>
<td></td>
<td>700</td>
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<tr>
<td>SX5120-01</td>
<td>800</td>
<td>ø6 ø10 ø16 ø20 ø25 ø32 ø40 ø40 ø50 ø63 ø80 ø100</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
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<tr>
<td>SX7120-02</td>
<td>800</td>
<td>ø6 ø10 ø16 ø20 ø25 ø32 ø40 ø40 ø50 ø63 ø80 ø100</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
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</tbody>
</table>

* It is when the cylinder is extending that is meter-out controlled by speed controller which is directly connected with cylinder, and its needle valve with being fully open.
* The average velocity of the cylinder is what the stroke is divided by the total stroke time.
* Load factor: ((Load weight x 9.8)/Theoretical force) x 100%

### Base Mounted (With sub-plate)

<table>
<thead>
<tr>
<th>Series</th>
<th>Average speed (mm/s)</th>
<th>Bore size</th>
<th>Series CJ2 Pressure 0.5 MPa Load factor 50% Stroke 60 mm</th>
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<tbody>
<tr>
<td>SX3140-01</td>
<td>900</td>
<td>ø6 ø10 ø16 ø20 ø25 ø32 ø40 ø40 ø50 ø63 ø80 ø100</td>
<td>Perpendicular, upward actuation</td>
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<td>SX5140-02</td>
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<tr>
<td>SX7140-03</td>
<td>900</td>
<td>ø6 ø10 ø16 ø20 ø25 ø32 ø40 ø40 ø50 ø63 ø80 ø100</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
<td>Perpendicular, upward actuation</td>
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## Cylinder Speed Chart

### Conditions

<table>
<thead>
<tr>
<th>Body mounted</th>
<th>Tube x Length</th>
<th>Speed controller</th>
<th>Silencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3120-C6</td>
<td>T0604 x 1 m</td>
<td>AS2051F-06</td>
<td>AN120-M5</td>
</tr>
<tr>
<td>SX5120-01</td>
<td>T0604 x 1 m</td>
<td>AS3001F-06</td>
<td>AN101-01</td>
</tr>
<tr>
<td>SX7120-02</td>
<td>T0604 x 1 m</td>
<td>AS3001F-06</td>
<td>AN110-01</td>
</tr>
</tbody>
</table>

### Conditions [When using SGP (Steel pipe)]

<table>
<thead>
<tr>
<th>Base mounted</th>
<th>Tube x Length</th>
<th>Speed controller</th>
<th>Silencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX7140-03</td>
<td>SGP10A x 1 m</td>
<td>AS420-03</td>
<td>AN300-03</td>
</tr>
</tbody>
</table>

### Conditions

<table>
<thead>
<tr>
<th>Base mounted</th>
<th>Tube x Length</th>
<th>Speed controller</th>
<th>Silencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3140-01</td>
<td>T0604 x 1 m</td>
<td>AS3001F-06</td>
<td>AN110-01</td>
</tr>
<tr>
<td>SX5140-02</td>
<td>T0604 x 1 m</td>
<td>AS3001F-06</td>
<td>AN101-01</td>
</tr>
<tr>
<td>SX7140-03</td>
<td>T0604 x 1 m</td>
<td>AS3001F-06</td>
<td>AS200-02</td>
</tr>
</tbody>
</table>

### Conditions [When using SGP (Steel pipe)]

<table>
<thead>
<tr>
<th>Base mounted</th>
<th>Tube x Length</th>
<th>Speed controller</th>
<th>Silencer</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX7140-03</td>
<td>T1075 x 1 m</td>
<td>AS4001F-10</td>
<td>AN120-M5</td>
</tr>
</tbody>
</table>

### Conditions

1. SV
2. SZ
3. SY
4. SYJ
5. SX
## Variations

<table>
<thead>
<tr>
<th>Series</th>
<th>Body Ported</th>
<th>P, EA, EB port size</th>
<th>A, B port size</th>
<th>Valve option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P, 1-6-12</td>
<td>SX3□20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SX3□20</td>
<td>M5 1/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SX5□20</td>
<td>M5 1/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SX7□20</td>
<td>M5 1/8</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>SX3□40</td>
<td>M5 1/8</td>
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<td>SX5□40</td>
<td>M5 1/8</td>
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<td>SX7□40</td>
<td>M5 1/8</td>
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<td>SX3□40</td>
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<td>SX5□40</td>
<td>M5 1/8</td>
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<tr>
<td></td>
<td>SX7□40</td>
<td>M5 1/8</td>
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</tr>
</tbody>
</table>

### P, EA, EB port size

- P, 1-6-12
- SX3□20
- SX5□20
- SX7□20
- SX3□40
- SX5□40
- SX7□40

### A, B port size

- Body Ported
- SX3□20
- SX5□20
- SX7□20
- SX3□40
- SX5□40
- SX7□40

### Valve option

- One-touch fitting
- Electrical entry
- Manual override
- Anti-ozone, Oil resistant (Other than designated turbine oil)
- Low pressure specifications
- External pilot
- Exhaust throttle

---

### Electrical entry

- DC 24 V
- DC 12 V
- DC 6 V
- DC 5 V
- DC 3 V

### Manual override

- Push-turn-locking slotted type
- Non-locking push type
- Vacuum specifications

### External Pilot

- External pilot
- External pilot
- External pilot
- Sub-plate
## Manifold Variations

<table>
<thead>
<tr>
<th>Manifold variations</th>
<th>Valve series</th>
<th>Connection</th>
<th>Common specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Ported</strong></td>
<td></td>
<td>Individual wiring</td>
<td>Flat ribbon cable (26 pins)</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX3 □ 20</td>
<td>1-6-42</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX5 □ 20</td>
<td>1-6-48</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX7 □ 20</td>
<td>1-6-74</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX3 □ 20</td>
<td>1-6-82</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX5 □ 20</td>
<td>1-6-82</td>
</tr>
<tr>
<td>Bar stock type</td>
<td></td>
<td>SX7 □ 20</td>
<td>1-6-82</td>
</tr>
</tbody>
</table>

### Bar stock type
- **Individual wiring**
- Direct piping to the main unit of a valve. Combinations of different fittings are possible.

### Compact bar stock type
- **Flat ribbon cable**
- A 26 pins MIL connector permits one-hand wiring of external cables in a bundle.

### Compact bar stock type
- **Individual wiring**
- The base mounting facilitates maintenance after valves are changed.

### Bar stock type/Common External EXH
- **Flat ribbon cable**
- The base mounting facilitates maintenance after valves are changed. Vacuum-low pressure combination system is possible.

### Bar stock type/Common External EXH
- **Flat ribbon cable**
- Flat ribbon cable permits one-hand wiring of external cables in a bundle. Vacuum-low pressure combination system is possible.

### Stacking type/DIN rail mounted
- **Individual wiring**
- Stations can be increased on the DIN rail. Integral mounting of other electric parts is possible, too.

### Stacking type/DIN rail mounted
- **Plug-in**
- Stations can be increased on the DIN rail. A wide variety of centralized wiring methods is available.

- Standard  • Option  ▲ Made-to-order
<table>
<thead>
<tr>
<th>Manifold option</th>
<th>A, B port size</th>
<th>Valve option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blanking plate</td>
<td>M5 1/8 1/4</td>
<td>1-6-7</td>
</tr>
<tr>
<td>Individual SUP spacer</td>
<td>C4  C6  C8  C10  N3  N7  N9  N11</td>
<td>SX3000 SX5000</td>
</tr>
<tr>
<td>Individual EXH spacer</td>
<td></td>
<td></td>
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<tr>
<td>SUP block disk</td>
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<tr>
<td>External pilot</td>
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<tr>
<td>SX</td>
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</tbody>
</table>
**Precautions**

- Be sure to read before handling. For Safety Instructions and Solenoid Valve Precautions, refer to page 1-7-2.

### Manual Override Operation

#### Warning
- Non-locking push type

![Diagram of Non-locking Push Type](image)

- Push-turn locking slotted type (Type D)

![Diagram of Push-turn Locking Slotted Type](image)

#### Caution

- When looking the manual override on the push-turn locking slotted type, be sure to push it down before turning. Turning without first pushing it down can cause damage to the manual override and other trouble such as air leakage, etc.

### How to Use Plug Connector

#### Caution

1. Attaching and detaching connectors
   - To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever’s pawl is pushed into the groove and locks.
   - To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb, and pull the connector straight out.

![Diagram of Attaching and Detaching Connectors](image)

2. Crimping the lead wire and socket
   - Peel 3.2 to 3.7 mm of the tip of lead wire, enter the core wires neatly into a socket and crimp it with a special crimp tool. Be careful so that the cover of lead wire does not enter into the crimping part.
   - (Crimping tool: Model no. DXT170-75-1)

![Diagram of Crimping Lead Wire and Socket](image)

3. Attaching and detaching lead wires with sockets
   - Attaching
     - Insert the sockets into the square holes of the connector (with + and – indication) and continue to push the sockets all the way in until the lock by hooking into the seats in the connector. (When they are pushed in, their hooks open and they are locked automatically.) Then confirm that they are locked by pulling lightly on the lead wires.
   - Detaching
     - To detach a socket from a connector, pull out the lead wire while pressing the socket’s hook with a stick having a thin tip (approx. 1 mm).
     - If the socket is used again, spread the hook outward.

### Exhaust Restriction

#### Caution

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.

### Usage of SX3000/5000/7000 as a 3 Way Valve

#### Caution

In the 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.

<table>
<thead>
<tr>
<th>Plug position</th>
<th>B port</th>
<th>A port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuation</td>
<td>N.C.</td>
<td>N.O.</td>
</tr>
<tr>
<td>Single</td>
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</tr>
<tr>
<td>Double</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of solenoids</th>
<th>Plug position</th>
<th>Lead wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>Plug (A)</td>
<td>Nill 300 mm</td>
</tr>
<tr>
<td>Double</td>
<td>Plug (A)</td>
<td>Nill 300 mm</td>
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<tr>
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<td>Plug (B)</td>
<td>Nill 300 mm</td>
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<td>Plug (B)</td>
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<td>Plug (B)</td>
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<td>Plug (A)</td>
<td>25 2500 mm</td>
</tr>
<tr>
<td></td>
<td>Plug (B)</td>
<td>30 3000 mm</td>
</tr>
<tr>
<td></td>
<td>Plug (A)</td>
<td>50 5000 mm</td>
</tr>
</tbody>
</table>

For single solenoid: SX100 – 40 – 4S
For double solenoid: SX100 – 40 – 4D
For 3 position

**Example:**
- Lead wire length 2000 mm
  - SX3120-SLO-M5
  - SX100-40-4S-20

### Precautions

**Caution**

- When operating the lock with the driver, use a watchmaker’s screwdriver and turn lightly. (Torque: 0.1 N·m or less)

**Caution**

- When attaching and detaching connectors with plunger type, be sure to push the plunger completely in.

**Notice**

- When attaching and detaching connectors with plunger type, be sure to push the plunger completely in.
Common Connector Assembly for Manifold

⚠️ Caution
With the common connector assembly all of the common lead wires are tied together and this reduces wiring time.

Common connector assembly part numbers

Positive common specifications
For single solenoid
SX100-42-4S

Negative common specifications
For single solenoid
SX100-43-4S

For double solenoid, 3 position type
SX100-42-4D

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

With common lead wire for double solenoid, 3 position type
SX100-40-4D

How to Order

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

Note1) Applications like connectors not wired to a valve or when there is a blank station between valves is not possible.

Note2) Designate “Without connector” of plug connector style for solenoid valve. Grommet style is not applicable.

Note3) Connector assembly with lead wire for place where the signals are transmitted to the common wiring. (Only the valves of first station and/or last station of manifold are compatible to connector with lead wire for common.)

Common Connector Assembly Wiring

When only common connector assembly is ordered, wiring should be done as shown in How to Order Common Connector Assembly the illustration to the right. Refer to “How to Use Plug Connector” on page 1-6-8 for further information on socket mounting.

Flat ribbon cable/Connector assembly no. for 20P, 41P, 42P

SX3000/5000/7000

- Positive common specifications
  For single solenoid: SX3000-23-1A
  For double solenoid, 3 position type: SX3000-23-2A

- Negative common specifications
  For single solenoid: SX3000-24-1A
  For double solenoid, 3 position type: SX3000-24-2A

The pitch of each piping port (P, A, B, etc.) for Series SX is based on the assumption that Series KJ One-touch fittings will be used. For this reason, when other fittings are used, they may interfere with one another depending on their types and sizes. Therefore, the dimensions of the fittings to be used should first be confirmed in their respective catalogs.

⚠️ Caution

One-touch Fittings

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

Be sure to read before handling. For Safety Instructions and Solenoid Valve Precautions, refer to page 1-7-2.

Light/Surge Voltage Suppressor

Caution

Pos. common specifications
Single solenoid
Light/Surge voltage suppressor

Red (+) | LED (Orange)
----|----
Black (-) | Surge voltage suppressor

Diode to prevent reverse current
(Rerer to the precautions)

Neg. common specifications
Single solenoid
Light/Surge voltage suppressor

Yellow (-) | Black (+)
----|----
Black (-) | Surge voltage suppressor

Diode to prevent reverse current
(Rerer to the precautions)

Light Indication

Caution

When equipped with indicator light and surge voltage suppressor, the light window turns orange when solenoid A is energized, and it turns green when solenoid B is energized.

Fixed DIN Rail Manifold

Caution

Fixed “45”, “45E” 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 If fixed at lesser points than specified and use it, there could be a warp or torsion in the DIN rail and the manifold and lead to bring some troubles such as air leakage.

Solenoid Valve Mounting

Caution

Mount it so that there is no slippage or deformation in gaskets, and tighten with the tightening torque as shown below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Thread size</th>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3000</td>
<td>M2</td>
<td>0.17 N·m</td>
</tr>
<tr>
<td>SX5000</td>
<td>M3</td>
<td>0.8 N·m</td>
</tr>
<tr>
<td>SX7000</td>
<td>M4</td>
<td>1.4 N·m</td>
</tr>
</tbody>
</table>

How to Calculate the Flow Rate

Caution

For obtaining the flow rate, refer to page 1-1-12.
Series SX3000/5000/7000
Body Ported
Valve Single Unit

How to Order

<table>
<thead>
<tr>
<th>SX</th>
<th>5</th>
<th>1</th>
<th>20</th>
<th>5</th>
<th>N</th>
<th>L</th>
<th>01</th>
</tr>
</thead>
</table>

**Type of actuation**

1. 2 position single
   - (A)(B)
   - 2-2
   - (EA)(P)(EB)

2. 2 position double
   - (A)(B)
   - 2-2
   - (EA)(P)(EB)

3. 3 position closed center
   - (A)(B)
   - 2-2
   - (EA)(P)(EB)

4. 3 position exhaust center
   - (A)(B)
   - 2-2
   - (EA)(P)(EB)

5. 3 position pressure center
   - (A)(B)
   - 2-2
   - (EA)(P)(EB)

**Series**

- 3: SX3000
- 5: SX5000
- 7: SX7000

**Rated voltage**

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

**Grommet**

- G: Lead wire length 300 mm
- L: With lead wire (Length 300 mm)
- M: With lead wire (Length 300 mm)
- MN: Without lead wire

**Light/Surge voltage suppressor**

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

**Manual override**

- D: Push-turn locking slotted type
- F1: With foot bracket
- F2: With side bracket

**Thread type**

- Nil: Without bracket
- G: With foot bracket
- N: Side bracket
- T: NPT

**Electrical entry**

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

**Bracket**

- F1: With foot bracket
- F2: With side bracket

**Thread piping**

- M5: M5 x 0.8
- G: SX3000
- NPT: SX5000
- NPTF: SX7000

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

- C4: One-touch fittings for ø4
- C6: One-touch fittings for ø6
- C8: One-touch fittings for ø8
- C10: One-touch fittings for ø10

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

- N3: One-touch fitting for ø5/32"
- N7: One-touch fitting for ø1/4"
- N9: One-touch fitting for ø5/16"
- N11: One-touch fitting for ø3/8"

**Common specifications**

- Nil: Positive common
- N: Negative common

**Note**

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

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

\[\text{For details about certified products conforming to international standards, visit us at www.smcworld.com.}\]
## Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal pilot</td>
<td>2 position single</td>
<td>0.15 to 0.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 position double</td>
<td>0.1 to 0.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 position</td>
<td>0.2 to 0.7</td>
<td></td>
</tr>
<tr>
<td>Operating pressure range (MPa)</td>
<td>2 position single</td>
<td>0.15 to 0.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 position double</td>
<td>0.1 to 0.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 position</td>
<td>0.2 to 0.7</td>
<td></td>
</tr>
<tr>
<td>Ambient and fluid temperature (°C)</td>
<td>Max. 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. operating frequency (Hz)</td>
<td>2 position single, double</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3 position</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Manual override</td>
<td>Non-locking push type, Push-turn locking slotted type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot exhaust method</td>
<td>Common exhaust type for main and pilot valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounting orientation</td>
<td>Unrestricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact/Vibration resistance (m/s²)max</td>
<td>150/30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dusttight</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Made to Order Specifications
(Made to Order Specifications (For details, refer to pages 1-6-124 to 1-6-138.)

## 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 fluctuation
- ±10% of rated voltage

### Power consumption (W)
- DC
- 0.6 (With indicator light: 0.65)

### Surge voltage suppressor
- Diode

### Indicator light
- LED

## Response Time

### Note
- Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage)

### SX3000

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>With light/surge voltage suppressor</th>
<th>Without light/surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>12 or less</td>
<td>15 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>10 or less</td>
<td>13 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>15 or less</td>
<td>20 or less</td>
</tr>
</tbody>
</table>

### SX5000

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>With light/surge voltage suppressor</th>
<th>Without light/surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>19 or less</td>
<td>26 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>18 or less</td>
<td>22 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>32 or less</td>
<td>38 or less</td>
</tr>
</tbody>
</table>

### SX7000

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>With light/surge voltage suppressor</th>
<th>Without light/surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>31 or less</td>
<td>38 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>27 or less</td>
<td>30 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>30 or less</td>
<td>56 or less</td>
</tr>
</tbody>
</table>
### Flow Characteristics/Weight

#### Model/Series SX3000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>1, 5, 3 (P, EA, EB)</th>
<th>4, 2 (A, B)</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3□20□-05</td>
<td>2 position</td>
<td>Single</td>
<td>C5 x 0.8</td>
<td>0.61</td>
<td>0.44</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>0.48</td>
<td>0.46</td>
<td>0.13</td>
</tr>
<tr>
<td>SX3□20□-C4</td>
<td>2 position</td>
<td>Single</td>
<td>C4</td>
<td>0.72</td>
<td>0.29</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>0.76</td>
<td>0.42</td>
<td>0.21</td>
</tr>
<tr>
<td>SX3□20□-C6</td>
<td>2 position</td>
<td>Single</td>
<td>C4</td>
<td>0.76</td>
<td>0.30</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>0.65</td>
<td>0.32</td>
<td>0.16</td>
</tr>
</tbody>
</table>

**Note:** [ ] Denotes normal position.

### Model/Series SX5000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>1, 5, 3 (P, EA, EB)</th>
<th>4, 2 (A, B)</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX5□20□-01</td>
<td>2 position</td>
<td>Single</td>
<td>Rc 1/6</td>
<td>1.9</td>
<td>0.35</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>1.7</td>
<td>0.43</td>
<td>0.45</td>
</tr>
<tr>
<td>SX5□20□-C4</td>
<td>2 position</td>
<td>Single</td>
<td>C4</td>
<td>0.74</td>
<td>0.40</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>0.75</td>
<td>0.36</td>
<td>0.20</td>
</tr>
<tr>
<td>SX5□20□-C6</td>
<td>2 position</td>
<td>Single</td>
<td>C6</td>
<td>1.5</td>
<td>0.33</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>1.3</td>
<td>0.31</td>
<td>0.33</td>
</tr>
<tr>
<td>SX5□20□-C8</td>
<td>2 position</td>
<td>Single</td>
<td>C8</td>
<td>1.9</td>
<td>0.21</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double</td>
<td></td>
<td>1.4</td>
<td>0.29</td>
<td>0.39</td>
</tr>
</tbody>
</table>
## Model/Series SX7000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX7○20○-02</td>
<td>Single 2 position</td>
<td>C8</td>
<td>1 → 4/2 (P → A/B)</td>
<td>Grommet</td>
</tr>
<tr>
<td></td>
<td>Double 2 position</td>
<td>C8</td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center 3 position</td>
<td>RC1/4</td>
<td></td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Pressure center 3 position</td>
<td></td>
<td></td>
<td>116</td>
</tr>
<tr>
<td>SX7○20○-C8</td>
<td>Single 2 position</td>
<td>C8</td>
<td>1 → 4/2 (P → A/B)</td>
<td>Grommet</td>
</tr>
<tr>
<td></td>
<td>Double 2 position</td>
<td>C8</td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center 3 position</td>
<td>RC1/4</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>Pressure center 3 position</td>
<td></td>
<td></td>
<td>131</td>
</tr>
<tr>
<td>SX7○20○-C10</td>
<td>Single 2 position</td>
<td>C10</td>
<td>1 → 4/2 (P → A/B)</td>
<td>Grommet</td>
</tr>
<tr>
<td></td>
<td>Double 2 position</td>
<td>C10</td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center 3 position</td>
<td>RC1/4</td>
<td></td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>Pressure center 3 position</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Flow characteristics**

- **C** [dm³/(s·bar)]
- **b**
- **Cv** [dm³/(s·bar)]

### Note

[]: Denotes normal position.
Series SX

JIS Symbol
2 position single

2 position single

JIS Symbol
2 position double

2 position double

3 position closed center/exhaust center/pressure center

3 position closed center/exhaust center/pressure center

Component Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Aluminum die-casted</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[SX3000, Zinc die-casted]</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Adapter plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>3</td>
<td>End plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>4</td>
<td>Pilot body</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>5</td>
<td>Piston</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Spool valve assembly</td>
<td>Aluminum, HNBR</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Molded coil</td>
<td>Resin</td>
<td>Gray</td>
</tr>
</tbody>
</table>

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Port block assembly</td>
<td>See “How to Order Port Block Assembly” on page 1-6-7.</td>
</tr>
</tbody>
</table>

Bracket Assembly No.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket (For F1)</td>
<td>SX [000-16-1A (With mounting screw)</td>
</tr>
<tr>
<td>Bracket (For F2)</td>
<td>SX [000-16-2A (With mounting screw)</td>
</tr>
</tbody>
</table>

How to Order Connector Assembly for L/M Plug Connector

Positive common specifications
For single solenoid: SX100-40-4S
For double solenoid, 3 position: SX100-40-4D

Negative common specifications
For single solenoid: SX100-41-4S
For double solenoid, 3 position: SX100-41-4D

Lead wire length

<table>
<thead>
<tr>
<th>Nil</th>
<th>300 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>600 mm</td>
</tr>
<tr>
<td>10</td>
<td>1000 mm</td>
</tr>
<tr>
<td>15</td>
<td>1500 mm</td>
</tr>
<tr>
<td>20</td>
<td>2000 mm</td>
</tr>
<tr>
<td>25</td>
<td>2500 mm</td>
</tr>
<tr>
<td>30</td>
<td>3000 mm</td>
</tr>
<tr>
<td>50</td>
<td>5000 mm</td>
</tr>
</tbody>
</table>

For detailed information on connector assembly, refer to page 1-6-8.
How to Order Port Block Assembly

The cylinder port block assembly can easily be changed. When changing block assembly, 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.

● For SX5000

For SX5000

Refer to “How to Order Port Block Assembly” below for parts no.

Symbol Series
3 SX3000
5 SX5000
7 SX7000

A, B port size

Thread piping

Symbol Port size Applicable series
M5 M5 x 0.8 SX3000
01 ½" SX5000
02 ¼" SX7000

One-touch fitting (Metric size)

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

One-touch fitting (Inch size)

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

Caution

Mounting screw tightening torques
SX3000(M2): 0.17 N·m SX5000(M3): 0.8 N·m

* Refer to “How to Order Port Block Assembly” below for parts no.
Dimensions: Series SX3000

2 position single
Grommet (G), (H): SX3120-□□□□-□ (-F2)

2-M3 x 0.5 thread depth 3.5
(For mounting bracket)

Manual override
(Press and turn for the locking type.)

Foot bracket
SX3120-□□□□-□ -F1

2-Ø3.2
(Mounting hole)

(2-Ø3.2 mounting hole)

(Light/Surge voltage suppressor)

3-M5 x 0.8
(P, EA, EB port)

G: ≅ 300
H: ≅ 600

Polarity indication
(Lead wire length)

Applicable tubing O.D.: ø4 ø6

2-One-touch fittings
(A, B port)

2-Ø2.2
(Mounting hole for manifold)

(2-Ø2.2 mounting hole)

2-Ø1.5 die-cast hole
(For manifold gasket positioning)

L plug connector (L): SX3120-□□□□-□

M plug connector (M): SX3120-□□□□-□

Body Ported
Series SX3000/5000/7000

G:

H:

Approx. 300

Approx. 600

Polarity indication
(Lead wire length)

Applicable tubing O.D.: ø4 ø6

2-One-touch fittings
(A, B port)

2-Ø2.2
(Mounting hole for manifold)

(2-Ø2.2 mounting hole)

2-Ø1.5 die-cast hole
(For manifold gasket positioning)
2 position double
Grommet (G), (H): SX3220-□□-□□-□□

Foot bracket
SX3220-□□-□□-□□-□□-□□

L plug connector (L): SX3220-□□-□□-□□

M plug connector (M): SX3220-□□-□□-□□
3 position closed center/exhaust center/pressure center
Grommet (G), (H): SX3 \( \frac{3}{2} \)-L50132/L50132/L50132-M5

Dimensions: Series SX3000

Foot bracket
SX3 \( \frac{3}{2} \)-20-□-□-□-□-□-F1

L plug connector (L): SX3 \( \frac{3}{2} \)-20-L□□-□□-□

M plug connector (M): SX3 \( \frac{3}{2} \)-20-M□□-□□-□

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Polarity indication)
(Light/Surge voltage suppressor)

Applicable tubing O.D.: ø4 ø6

2-One-touch fittings
(A, B port)

Applicable tubing O.D.: ø4 ø6

2-ø2.2
(Mounting hole for manifold)

2-ø1.5 die-cast hole
(For manifold gasket positioning)

3-M5 x 0.8
(P, EA, EB port)

2-M5 x 0.8
(A, B port)

2-One-touch fittings
(A, B port)

2-One-touch fittings
(A, B port)

G: ≅300
H: 600
(Lead wire length)

G: ≅300
H: 600
(Lead wire length)

A: Orange
B: Green

(Polarity indication)
(Light/Surge voltage suppressor)
Dimensions: Series SX5000

2 position single
Grommet (G), (H): SX5120-L50132/L50132/L50132-F2

Foot bracket
SX5120-L50132/L50132/L50132-F1

L plug connector (L): SX5120-L50132/L50132/L50132-F2

M plug connector (M): SX5120-M50132/M50132/M50132-F1
Dimensions: Series SX5000

2 position double
Grommet (G), (H): SX5220-□□□-□□□

Foot bracket
SX5220-□□□-□□□-F1

L plug connector (L): SX5220-□□□-□□□

M plug connector (M): SX5220-□□□-□□□
3 position closed center/exhaust center/pressure center
Grommet (G), (H): SX5 20-L50132/L50132/L50132-F1

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Light/Surge voltage suppressor)

Polarity indication
(P, EA, EB port)

Applicable tubing O.D.: ø4, ø6, ø8

M plug connector (M): SX5 20-M50132/L50132-F1

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Light/Surge voltage suppressor)
Dimensions: Series SX7000

2 position single
Grommet (G), (H): SX7120-L50132/L50132/L50132/-F2

Foot bracket
SX7120-L50132/L50132/L50132/-F1

L plug connector (L): SX7120-L50132/L50132/L50132/-F2

M plug connector (M): SX7120-M50132/M50132/M50132/-F1

Series SX3000/5000/7000

Body Ported

Polarity indication

Foot bracket

Series SX7120-L50132/L50132/L50132/-F2

Foot bracket
SX7120-L50132/L50132/L50132/-F1

L plug connector (L): SX7120-L50132/L50132/L50132/-F2

M plug connector (M): SX7120-M50132/M50132/M50132/-F1

Series SX3000/5000/7000

Body Ported
2 position double
Grommet (G), (H): SX7220-□□□□[-F2]

Foot bracket
SX7220-□□□□[-F1]

L plug connector (L): SX7220-□□□□[-F2]

M plug connector (M): SX7220-□□□□[-F1]

115.6
86.2
19
29.9
42
18.4
71.9

2-One-touch fittings
Applicable tubing O.D.: ø8 ø10
(Mounting hole for manifold)

(Right/Surge voltage suppressor)

Rc 1/4
(Port)

2-ø 2.2 die-cast hole
(Press and turn for the locking type.)

110.6
108.9
31.5
48.6
57
31.5
5.5

2-Rc 1/8
(EA, EB port)

2-One-touch fittings
Applicable tubing O.D.: ø8 ø10
(Mounting hole for manifold)

33.3
6.7
28
31.5
33.3
86.2
108.9
128.1

≠300
(Lead wire length)

Manual override
(Press and turn for the locking type.)

(Polarity indication)

(Light/Surge voltage suppressor)

Applicable tubing O.D.: ø8 ø10

Manual override
(Press and turn for the locking type.)

Polarity indication

Series SX3000/5000/7000

Series SX3000/5000/7000

Foot bracket
SX7220-□□□□[-F1]

M plug connector (M): SX7220-□□□□[-F1]

L plug connector (L): SX7220-□□□□[-F2]

2 position double
Grommet (G), (H): SX7220-□□□□[-F2]
**Dimensions: Series SX7000**

3 position closed center/exhaust center/pressure center

Grommet (G), (H): SX7 ½ 20-□□□-□□□ (-F2)

- Manual override
  (Push and turn for locking)
  A: Orange
  B: Green

- Polarity indication

- 2-One-touch fittings
  (A, B port)
  Applicable tubing O.D.: ø8 ø10

- 2-ø4.2
  (Mounting hole for manifold)

- 2-Rc 1/8
  (EA, EB port)

- 2-ø2.2
die-cast holes
  For manifold gasket positioning

- Applicable tubing O.D.: ø8 ø10

- 2-One-touch fittings

**Foot bracket**

SX7 ½ 20-□□□-□□□-02

- 2-Rc 1/4
  (A, B port)

**L plug connector (L): SX7 ½ 20-□□□-□□□**

- Manual override
  (Push and turn for locking type)
  A: Orange
  B: Green

- 2-One-touch fittings
  (A, B port)
  Applicable tubing O.D.: ø8 ø10

- 2-ø4.2
  (Mounting hole for manifold)

- (Light/Surge voltage suppressor)

**M plug connector (M): SX7 ½ 20-□□□-□□□**

- Manual override
  (Press and turn for the locking type)
  A: Orange
  B: Green

- 2-One-touch fittings
  (A, B port)
  Applicable tubing O.D.: ø8 ø10

- 2-ø4.2
  (Mounting hole for manifold)

- (Light/Surge voltage suppressor)
**Series SX3000/5000/7000**  
Base Mounted  
Valve Single Unit

### How to Order

<table>
<thead>
<tr>
<th>SX</th>
<th>5</th>
<th>2</th>
<th>40</th>
<th>5</th>
<th>N</th>
<th>L</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>SX3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SX5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>SX7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Type of actuation

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

#### Rated voltage

| Nil | 5 VDC |
| R   | 3 VDC |

#### Port size

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Without sub-plate</td>
<td>SX3000</td>
</tr>
<tr>
<td>01</td>
<td>1/4</td>
<td>SX3000</td>
</tr>
<tr>
<td>02</td>
<td>1/4</td>
<td>SX5000, SX7000</td>
</tr>
<tr>
<td>03</td>
<td>3/8</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

#### Thread type

| Nil | Rc |
| G   | NPT |
| T   | NPTF |

#### Manual override

- **Nil**: Non-locking push type
- **D**: Push-turn locking slotted type

#### Electrical entry

<table>
<thead>
<tr>
<th>Grommet</th>
<th>L plug connector</th>
<th>M plug connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Lead wire length 300 mm</td>
<td>With lead wire (Length 300 mm)</td>
</tr>
<tr>
<td>H</td>
<td>Lead wire length 600 mm</td>
<td>Without lead wire</td>
</tr>
<tr>
<td>LN</td>
<td>LN: Without lead wire</td>
<td>LO: Without connector</td>
</tr>
<tr>
<td>MO</td>
<td>MO: Without lead wire</td>
<td></td>
</tr>
</tbody>
</table>

#### Pilot type

- **Nil**: Internal pilot
- **R**: External pilot

#### Light/Surge voltage suppressor

- **Nil**: Without light/surge voltage suppressor
- **S**: With surge voltage suppressor
- **Z**: With light/surge voltage suppressor

#### Note

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

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

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Specifications

<table>
<thead>
<tr>
<th>Fluid</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Fluid</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>2 position single</td>
<td>0.15 to 0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air</td>
<td>2 position double</td>
<td>0.1 to 0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air</td>
<td>3 position</td>
<td>0.2 to 0.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External pilot</th>
<th>Internal pilot</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating pressure range (MPa)</td>
<td>Operating pressure range (MPa)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 position single</td>
<td>0.25 to 0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 position double</td>
<td>0.25 to 0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 position</td>
<td>0.25 to 0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambient and fluid temperature (°C)</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. 50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Max. operating frequency (Hz)</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single, double</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3 position</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pilot exhaust method</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal pilot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External pilot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pigtail individual exhaust</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lubrication</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not required</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mounting orientation</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enclosure</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Tight</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note** Impulse resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)

**Vibration resistance:** No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Solenoid Specifications

<table>
<thead>
<tr>
<th>Electrical entry</th>
<th>SX3000</th>
<th>SX5000</th>
<th>SX7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil rated voltage (V)</td>
<td>DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allowable voltage fluctuation</td>
<td>±10% of rated voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power consumption (W)</td>
<td>DC</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Surge voltage suppressor</td>
<td>Diode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator light</td>
<td>LED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Response Time

**Note** Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage)

**SX3000**

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Response time (ms) (at the pressure of 0.5 MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>12 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>10 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>13 or less</td>
</tr>
</tbody>
</table>

**SX5000**

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Response time (ms) (at the pressure of 0.5 MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>19 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>18 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>32 or less</td>
</tr>
</tbody>
</table>

**SX7000**

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Response time (ms) (at the pressure of 0.5 MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>31 or less</td>
</tr>
<tr>
<td>2 position double</td>
<td>27 or less</td>
</tr>
<tr>
<td>3 position</td>
<td>50 or less</td>
</tr>
</tbody>
</table>
# Flow Characteristics/Weight

## Model/Series SX3000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX340-01</td>
<td>Single</td>
<td>Rc 1/8</td>
<td>1 → 4/2 (P → A/B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td></td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SX340-02</td>
<td>Single</td>
<td>Rc 1/4</td>
<td>1 → 4/2 (P → A/B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td></td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure center</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Notes

1) [ ] Denotes the normal position.
2) ( ) Without sub-plate.

## Model/Series SX5000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX540-02</td>
<td>Single</td>
<td>Rc 1/4</td>
<td>1 → 4/2 (P → A/B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td></td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure center</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Notes

1) [ ] Denotes the normal position.
2) ( ) Without sub-plate.

## Model/Series SX7000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Flow characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX740-02</td>
<td>Single</td>
<td>Rc 1/4</td>
<td>1 → 4/2 (P → A/B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td></td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SX740-03</td>
<td>Single</td>
<td>Rc 3/8</td>
<td>1 → 4/2 (P → A/B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td></td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaust center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure center</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Notes

1) [ ] Denotes the normal position.
2) ( ) Without sub-plate.
### Construction

#### Series SX

**JIS Symbol**
- 2 position single

![Diagram of 2 position single](image)

- 2 position double

![Diagram of 2 position double](image)

- 3 position closed center/exhaust center/pressure center

![Diagram of 3 position closed center/exhaust center/pressure center](image)

(This figure shows a closed center type.)

#### Component Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>Body</td>
<td>Aluminum die-cast (SX3000: Zinc die-cast)</td>
<td>White</td>
</tr>
<tr>
<td>②</td>
<td>Adapter plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>③</td>
<td>End plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>④</td>
<td>Pilot body</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>⑤</td>
<td>Piston</td>
<td>Resin</td>
<td>—</td>
</tr>
<tr>
<td>⑥</td>
<td>Spool valve assembly</td>
<td>Aluminum, HNBR</td>
<td>—</td>
</tr>
<tr>
<td>⑦</td>
<td>Molded coil</td>
<td>Resin</td>
<td>Gray</td>
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</tbody>
</table>

#### Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
<th>SX3000/5000/7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>⑧</td>
<td>Sub-plate</td>
<td>SY3000-27-1</td>
<td>SX5000-27-1</td>
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<tr>
<td></td>
<td></td>
<td>SY5000-27-1</td>
<td>SX7000-27-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/2 Rc: SY7000-27-1</td>
<td>1/2 Rc: SY7000-27-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum die-cast</td>
<td></td>
</tr>
<tr>
<td>⑨</td>
<td>Gasket</td>
<td>SY3000-11-25</td>
<td>SY5000-11-15</td>
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<tr>
<td></td>
<td></td>
<td>SY7000-11-11</td>
<td>HNBR</td>
</tr>
<tr>
<td></td>
<td>Round head combination screw</td>
<td>SX3000-22-2 (M2 x 24)</td>
<td>M3 x 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M4 x 35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For valve mounting (Matt nickel plated)</td>
</tr>
</tbody>
</table>
**Dimensions: Series SX3000**

2 position single
Grommet (G), (H): SX3140(R)L50132/L50132/L50132-01

---

**L plug connector (L): SX3140(R)-□□□-01**

Manual override (Press and turn for the locking type.)

M5 x 0.8 (External pilot port)
(Light/Surge voltage suppressor)

M5 x 0.8 (Pilot EXH port)
<In the case of external pilot type>

Polarity indication

---

**M plug connector (M): SX3140(R)-□□□-01**

Manual override (Press and turn for the locking type.)

M5 x 0.8 (External pilot port)
(Light/Surge voltage suppressor)

Polarity indication

---

Series SX3000/5000/7000
2 position double
Grommet (G), (H): SX3240(R)-□□-01

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

M plug connector (M): SX3240(R)-□M□-01
Base Mounted

**Series SX3000/5000/7000**

**Dimensions: Series SX3000**

3 position closed center/exhaust center/pressure center

Grommet (G), (H): SX3 40(R)-L50132/L50132/L50132-01

**Grommet Dimensions**

**Manual override**
(Press and turn for the locking type.)
A: Orange
B: Green

**Polarity indication**

(Piping port)

External pilot port

Light/Surge voltage suppressor

---

**M5 x 0.8**
(External pilot port)

(Light/Surge voltage suppressor)

**Manual override**
(Press and turn for the locking type.)
A: Orange
B: Green

---

**Polarity indication**

(Piping port)

**L plug connector (L): SX3 1/40(R)-□□□□□-01**

**M plug connector (M): SX3 1/40(R)-□□□□□-01**

**Mounting hole**

**Lead wire length**

**5-Rc 1/8**
(Piping port)

---

**Series SX3000/5000/7000**

1-6-34
Dimensions: Series SX5000

2 position single
Grommet (G), (H): SX5140(R)-□□-02

Manual override
(Press and turn for the locking type.)

Polarity indication

M5 x 0.8
(Pilot EXH port)
<In the case of external pilot type>
(Light/Surge voltage suppressor)

G:\n= 300

H:\n= 600

Lead wire length
\( \approx 300 \)

5-Rc 1/4
(Piping port)

\( \approx 300 \)

M5 x 0.8
(Pilot EXH port)
<In the case of external pilot type>
(Light/Surge voltage suppressor)

\( \approx 300 \)

M5 x 0.8
(Pilot EXH port)
<In the case of external pilot type>
(Light/Surge voltage suppressor)

5-Rc 1/4
(Piping port)
Dimensions: Series SX5000

2 position double
Grommet (G, H): SX5240(R)-□□□02

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

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

Polarity indication

Manual override (Press and turn for the locking type.)
A: Orange
B: Green

M5 x 0.8
(Pilot EXH port)
<In the case of external pilot type>
(Light/Surge voltage suppressor)

M5 x 0.8
(Mounting hole)

M5 x 0.8
(External pilot port)

Polarity indication

Lead wire length

≈300

≈300

≈300

≈300

SMC
3 position closed center/exhaust center/pressure center
Grommet (G), (H): SX5\(\frac{3}{4}\) 40(R)-□□□□-02

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

M plug connector (M): SX5\(\frac{3}{4}\) 40(R)-□M □□□-02
2 position single
Grommet (G), (H): SX7140(R) - L50132/L50132

Dimensions: Series SX7000

L plug connector (L): SX7140(R)-□L□□-□□
M plug connector (M): SX7140(R)-□M□□-□□
2 position double
Grommet (G), (H): SX7240(R)\-□□□□□□□□

Polarity indication

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

M5 x 0.8
(Pilot EXH port)
<In the case of external pilot type>
(Light/Surge voltage suppressor)

L plug connector (L): SX7240(R)\-L□□□□□□□□

M plug connector (M): SX7240(R)\-M□□□□□□□□

5-Rc 3/8, 1/4
(Piping port)

5-Rc 3/8, 1/4
(Piping port)

A: Orange
B: Green

A: Orange
B: Green

5-Rc 3/8, 1/4
(Piping port)

A: Orange
B: Green

5-Rc 3/8, 1/4
(Piping port)

5-Rc 3/8, 1/4
(Piping port)

<In the case of external pilot type>
(Light/Surge voltage suppressor)
Dimensions: Series SX7000

3 position closed center/exhaust center/pressure center
Grommet (G), (H): SX7 40(R)-L50132-L50132-L50132-

Polarity indication

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Piping port)

(Pilot EXH port)

<In the case of external pilot type>

(Pilot EXH port)

(Mounting hole)

(Mounting hole)

(Lead wire length)

≅ 300

(M5 x 0.8)

5-Rc 3/8, 1/4

(Piping port)

(Piping port)

Series SX3000/5000/7000

L plug connector (L): SX7 40(R)-L-

M plug connector (M): SX7 40(R)-M-

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Polarity indication)

(Mounting hole)

(Mounting hole)

(Lead wire length)

≅ 300

(Piping port)

(Piping port)

(M5 x 0.8)

5-Rc 3/8, 1/4

(Piping port)
### How to Order Valve Manifold Assembly

**Ordering example**

- **Cylinder port size**
  - C6: With One-touch fittings for ø6

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

- **Blanking plate assembly**
  - SY3000-26-9A (1 set) (Manifold base (5 stations) / SX3020-5G-05

- **Manifold base**
  - SS5X3-20-05 (1 set (Type 20, 5-station manifold base part no.)

- **Single solenoid** (24 VDC)
  - SX3120-5G-C6 (2 set) (Double solenoid part no.)

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

- **Add the valve and option part number under the manifold base part number.**

- **In the case of complex arrangement, specify them on the manifold specification sheet.**

### How to Order Valve Manifold

**SS5X**

- **Series**
  - 3: SX3000
  - 5: SX5000
  - 7: SX7000

- **Stations**
  - 02: 2 stations

- **P. R ports**
  - N0F: Rc
  - N0N: NPT
  - N0T: NPTF

### How to Order Valves

**SX**

- **Series**
  - 3: SX3000
  - 5: SX5000
  - 7: SX7000

- **Type of actuation**
  - 1: 2 position single
  - 2: 2 position double
  - 3: 3 position closed center
  - 4: 3 position exhaust center
  - 5: 3 position pressure center

- **Rated voltage**
  - S: 24 VDC
  - V: 6 VDC
  - S: 5 VDC
  - R: 3 VDC

- **Electrical entry**
  - A: Positive common
  - B: Negative common

- **Thread type**
  - C: M5 x 0.8
  - D: One-touch fitting for ø4
  - E: One-touch fitting for ø6
  - F: 1/6
  - G: One-touch fitting for ø8
  - H: One-touch fitting for ø10

- **Manual override**
  - D: Non-locking push type
  - D: Push-turn locking slotted type

### Notes

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

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

- **Note:** Put nothing for single grommet style and single without indicator light and surge voltage suppressor.
Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>SX3X-20</th>
<th>SX5X-20</th>
<th>SX7X-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable valve</td>
<td>SX3-20</td>
<td>SX5-20</td>
<td>SX7-20</td>
</tr>
<tr>
<td>Manifold type</td>
<td>Single base/B mount</td>
<td>Common SUP/Common EXH</td>
<td></td>
</tr>
<tr>
<td>Valve stations</td>
<td>2 to 20 stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A, B port location</td>
<td>Valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port size</td>
<td>P, EA, EB port</td>
<td>A, B port</td>
<td>Port size</td>
</tr>
<tr>
<td></td>
<td>P, EA, EB port</td>
<td>A, B port</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rc 1/8</td>
<td>Rc 1/4</td>
<td>Rc 1/4</td>
</tr>
<tr>
<td>Note)</td>
<td>For more than 10 stations, supply pressure to P port on both sides and exhaust from EA and EB port on both sides.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manifold base weight W (g)</td>
<td>n: Stations W = 19n + 45</td>
<td>W = 43n + 77</td>
<td>W = 51n + 81</td>
</tr>
<tr>
<td>Note)</td>
<td>The value is for manifold base with 5 stations and individually operated 2 position type.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Characteristics</td>
<td>Model</td>
<td>Port size</td>
<td>Flow characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>port size</td>
<td></td>
</tr>
<tr>
<td>SSSX3-20</td>
<td>Rc 1/8</td>
<td>C6</td>
<td>0.72</td>
</tr>
<tr>
<td>SSSX5-20</td>
<td>Rc 1/4</td>
<td>C8</td>
<td>1.9</td>
</tr>
<tr>
<td>SSSX7-20</td>
<td>Rc 1/4</td>
<td>C10</td>
<td>3.6</td>
</tr>
<tr>
<td>Note)</td>
<td>The value is for manifold base with 5 stations and individually operated 2 position type.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Manifold Option

- Blanking plate assembly
- Individual EXH spacer assembly
- Individual SUP spacer assembly
- Bolt and gasket part no.
- Plug

Dimensions

<table>
<thead>
<tr>
<th>Applicable fitting</th>
<th>Model</th>
<th>A</th>
<th>L</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>KQ2P-04</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>KQ2P-06</td>
<td>18</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>KQ2P-08</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>KQ2P-10</td>
<td>22</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8.5</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>KQ2P-11</td>
<td>22</td>
<td>43</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Warning

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-44 to 1-6-46, and then mount it.
SX3000: SSX3-20- Stations

Grommet (G)

<table>
<thead>
<tr>
<th>Stations n</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 stations</td>
<td>48.5</td>
<td>122</td>
</tr>
<tr>
<td>3-4 stations</td>
<td>59</td>
<td>111.5</td>
</tr>
<tr>
<td>5-6 stations</td>
<td>69.5</td>
<td>101</td>
</tr>
<tr>
<td>7-8 stations</td>
<td>80</td>
<td>90.5</td>
</tr>
<tr>
<td>9-10 stations</td>
<td>90.5</td>
<td>111.5</td>
</tr>
<tr>
<td>11-12 stations</td>
<td>101</td>
<td>122</td>
</tr>
<tr>
<td>13-14 stations</td>
<td>111.5</td>
<td>132.5</td>
</tr>
<tr>
<td>15-16 stations</td>
<td>122</td>
<td>143</td>
</tr>
<tr>
<td>17-18 stations</td>
<td>132.5</td>
<td>153.5</td>
</tr>
<tr>
<td>19-20 stations</td>
<td>143</td>
<td>164</td>
</tr>
<tr>
<td>21-22 stations</td>
<td>153.5</td>
<td>174.5</td>
</tr>
<tr>
<td>23-24 stations</td>
<td>164</td>
<td>185</td>
</tr>
<tr>
<td>25-26 stations</td>
<td>174.5</td>
<td>195.5</td>
</tr>
<tr>
<td>27-28 stations</td>
<td>185</td>
<td>206</td>
</tr>
<tr>
<td>29-30 stations</td>
<td>195.5</td>
<td>216.5</td>
</tr>
<tr>
<td>31-32 stations</td>
<td>206</td>
<td>227</td>
</tr>
<tr>
<td>33-34 stations</td>
<td>216.5</td>
<td>237.5</td>
</tr>
</tbody>
</table>

L plug connector (L)

M plug connector (M)
### SX5000: SS5X5-20 - Stations

#### Grommet (G)

- 2-One-touch fittings
  - (A, B port)
  - Applicable tubing O.D.: ø6 - ø8

- Manual override
  - (Press and turn for the locking type.)
  - A: Orange
  - B: Green

#### L plug connector (L)

#### M plug connector (M)

#### Stations

<table>
<thead>
<tr>
<th>Stations n</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>76</td>
<td>56</td>
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<tr>
<td>5</td>
<td>92</td>
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<td>6</td>
<td>108</td>
<td>88</td>
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<tr>
<td>7</td>
<td>124</td>
<td>104</td>
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<tr>
<td>8</td>
<td>140</td>
<td>120</td>
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<tr>
<td>9</td>
<td>156</td>
<td>136</td>
</tr>
<tr>
<td>10</td>
<td>172</td>
<td>152</td>
</tr>
<tr>
<td>11</td>
<td>188</td>
<td>168</td>
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<tr>
<td>12</td>
<td>204</td>
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<td>13</td>
<td>220</td>
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<td>264</td>
</tr>
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<td>18</td>
<td>300</td>
<td>280</td>
</tr>
<tr>
<td>19</td>
<td>316</td>
<td>296</td>
</tr>
<tr>
<td>20</td>
<td>332</td>
<td>312</td>
</tr>
<tr>
<td>21</td>
<td>348</td>
<td>328</td>
</tr>
</tbody>
</table>

### Series SX3000/5000/7000 Type 20

- Body Ported
- Stations
- Grommet (G)
- L plug connector (L)
- M plug connector (M)

### Manual override

- (Press and turn for the locking type.)
- A: Orange
- B: Green

### Individual SUP spacer mounting size

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

### Individual EXH spacer mounting size

- (EXH port)
- (SUP port)

### Specifications

- Applicable tubing O.D.: ø6 - ø8
- Light/Surge voltage suppressor

### EXH port

- SUP port

### Body Ported

- SV
- SZ
- SY
- SYJ
- SX

---

1-6-45
**SX7000: SS5X7-20- Stations**

**Grommet (G)**

2n2-One-touch fittings (A, B port)
Applicable tubing O.D.: ø8 ø10

2n1-Rc 1/4 (A, B port)
(P, EA, EB port)

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

**L plug connector (L)**

**M plug connector (M)**

Individual EXH spacer mounting size
(SUP port is mounted on the end plate side of single solenoid.)

Individual SUP spacer mounting size
(SUP port is mounted on the end plate side of single solenoid.)

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

Grommet (G)

- Manual override
  - (Pitch) F = 19

- Light/Surge voltage suppressor

- Suppose port
  - Both sides

- EXH port
  - RC 1/4

<table>
<thead>
<tr>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>120.6</td>
<td>62.5</td>
</tr>
<tr>
<td>19</td>
<td>20.5</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>62.5</td>
<td>62.5</td>
</tr>
<tr>
<td>19</td>
<td>20.5</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

L1: 128.6
L2: 76.8

 sistemas n: Stations (n1 + n2)
Series SX3000/5000/7000
Body Ported Manifold
Bar Stock Type
Flat Ribbon Cable

How to Order Manifold

SS5X 5 20 P 05

Series
3  SX3000
5  SX5000
7  SX7000

Stations
03  3 stations
12  12 stations

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

P  Positive common
N  Negative common

Common specifications

How to Order Valve Manifold Assembly

Ordering example

Cylinder port size
C6 With One-touch fittings for ø6

Double solenoid (24 VDC)
SX320-5MOZ-C6 3 sets (Double solenoid part no.)

Blanking plate assembly
SY3000-26-10A (1 set)

Connector assembly
SX3000-23-2A

Manifold base (6 stations)
SSS3X-20P-06

How to Order Valves

SX 5 1 20 5 N MOZ 01

Series
3  SX3000
5  SX5000
7  SX7000

Rated voltage
5  24 VDC
6  12 VDC

Type of actuation
1  2 position single
2  2 position double
3  3 position closed center
4  3 position exhaust center
5  3 position pressure center

Common specifications

Nil  Positive common
N  Negative common

How to Order Connector Assembly

• Positive common specifications
  For single solenoid:
  For double solenoid, 3 position:
  Negative common specifications
  For single solenoid:
  For double solenoid, 3 position:

For detailed information on connector assembly, refer to page 1-6-9.

A/B port size

Symbol  Port size  Applicable series
M5  M5 x 0.8  SX3000
01  1/4  SX5000
02  1/4  SX7000

One-touch fitting (Metric size)

Symbol  Port size  Applicable series
C4  One-touch fitting for ø4  SX3000
C6  One-touch fitting for ø6  SX5000
C8  One-touch fitting for ø8  SX7000
C10 One-touch fitting for ø10  SX1000

One-touch fitting (Inch size)

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

Manual override

Nil  Non-locking push type
D  Push-turn locking slotted type
• Multiple valve wiring is simplified through the use of the flat cable connector.
• Clean appearance

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

### Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>SSSX3-20P</th>
<th>SSSX5-20P</th>
<th>SSSX7-20P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable valve</td>
<td>SX3.20</td>
<td>SX5.20</td>
<td>SX7.20</td>
</tr>
<tr>
<td>P (SUP), R (EXH)</td>
<td>Single base/B mount</td>
<td>Common SUP/Common EXH</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve stations Note (1)</th>
<th>A, B port location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 to 12 stations</td>
<td>P, EA, EB port</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Port size</th>
<th>Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B port</td>
<td>P, EA, EB port</td>
</tr>
<tr>
<td></td>
<td>½</td>
</tr>
<tr>
<td></td>
<td>¼</td>
</tr>
<tr>
<td></td>
<td>¼</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manifold base weight W (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n: Stations</td>
</tr>
<tr>
<td>W = 19n + 45</td>
</tr>
<tr>
<td>W = 43n + 77</td>
</tr>
<tr>
<td>W = 51n + 81</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicable flat ribbon cable connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket: 26 pins MIL with strain relief (Conforming to MIL-C-83503)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12, 24 VDC</td>
</tr>
</tbody>
</table>

### Flow Characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 → 4/2 (P → A/B)</td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
</tr>
<tr>
<td>C [dm³/(s·bar)]</td>
<td>b</td>
<td>Cv</td>
</tr>
<tr>
<td>C [dm³/(s·bar)]</td>
<td>b</td>
<td>Cv</td>
</tr>
<tr>
<td>C [dm³/(s·bar)]</td>
<td>b</td>
<td>Cv</td>
</tr>
</tbody>
</table>

#### 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, please consult with SMC.
- +COM and –COM specifications are available. (Diagram above is for +COM specifications.)
Manifold Option

**Blanking plate assembly**

**Individual EXH spacer assembly**

**Individual SUP spacer assembly**

**Connector Assembly for Flat Ribbon Cable**

<table>
<thead>
<tr>
<th>Cable length (L)</th>
<th>Assembly part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 m</td>
<td>AXT100-FC26-1</td>
<td></td>
</tr>
<tr>
<td>3 m</td>
<td>AXT100-FC26-2</td>
<td>Cable 26 cores x 28AWG</td>
</tr>
<tr>
<td>5 m</td>
<td>AXT100-FC26-3</td>
<td></td>
</tr>
</tbody>
</table>

*For other commercial connectors, use a 26 pins type with strain relief conforming to MIL-C-83503.

**Connector manufacturers’ example**

- Hirose Electric Co., Ltd.
- Japan Aviation Electronics Industry, Ltd.
- Sumitomo 3M Limited
- J.S.T. Mfg. Co., Ltd.
- Fujitsu Limited

**Plug**

These are inserted in cylinder ports or SUP/EXH ports which are not being used.
Purchasing order is available in units of 10 pieces.

**Dimensions**

<table>
<thead>
<tr>
<th>Applicable fittings fitting de</th>
<th>Model</th>
<th>A</th>
<th>L</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>KQ2P-04</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>KQ2P-06</td>
<td>18</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>KQ2P-08</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>KQ2P-10</td>
<td>22</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8.5</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>KQ2P-11</td>
<td>22</td>
<td>43</td>
<td>11.5</td>
</tr>
</tbody>
</table>

**Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-51 to 1-6-53, and then mount it.

**Caution**

Mounting screw tightening torques

M2: 0.17 N·m
M3: 0.8 N·m
M4: 1.4 N·m

* Thread type

<table>
<thead>
<tr>
<th>Nil</th>
<th>Rc</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>N</td>
<td>NPT</td>
</tr>
<tr>
<td>T</td>
<td>NPTF</td>
</tr>
</tbody>
</table>

**Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-51 to 1-6-53, and then mount it.
**SX3000: SS5X3-20P- Stations**

- **2 one-touch fittings**
  - (A, B port)
  - Applicable tubing O.D.: ø4 ø6

- **SX3000: SS5X3-20N (A, B port)**

- **Manual override**
  - (Press and turn for the locking type.)
  - A: Orange
  - B: Green

- **Applicable connector: 26 pins MIL**
  - (Conforming to MIL-C-83503)

- **Connector polarity indication**

- **Series SX3000/5000/7000**
  - Body: Ported
  - SV
  - SZ
  - SY
  - SYJ
  - SX

---

<table>
<thead>
<tr>
<th>Stations n</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>72.5</td>
<td>85</td>
<td>97.5</td>
<td>110</td>
<td>122.5</td>
<td>135</td>
<td>147.5</td>
<td>160</td>
<td>172.5</td>
</tr>
<tr>
<td>L2</td>
<td>64.5</td>
<td>77</td>
<td>89.5</td>
<td>102</td>
<td>114.5</td>
<td>127</td>
<td>139.5</td>
<td>152</td>
<td>164.5</td>
</tr>
</tbody>
</table>
SX5000: SS5X5-20P- Stations

2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4 ø6

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

Applicable connector: 26 pins MIL
(Conforming to MIL-C-83503)

SS5X5-20N

n: Stations (n1 + n2)

<table>
<thead>
<tr>
<th>Stations n</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>77</td>
<td>94.5</td>
<td>112</td>
<td>129.5</td>
<td>147</td>
<td>164.5</td>
<td>182</td>
<td>199.5</td>
<td>217</td>
<td>234.5</td>
</tr>
<tr>
<td>L2</td>
<td>67</td>
<td>84.5</td>
<td>102</td>
<td>119.5</td>
<td>137</td>
<td>154.5</td>
<td>172</td>
<td>189.5</td>
<td>207</td>
<td>224.5</td>
</tr>
</tbody>
</table>
SS5X7-20N

<table>
<thead>
<tr>
<th>Stations n</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>88</td>
<td>106.5</td>
<td>129</td>
<td>149.5</td>
<td>170</td>
<td>190.5</td>
<td>211</td>
<td>231.5</td>
<td>252</td>
<td>272.5</td>
</tr>
<tr>
<td>L2</td>
<td>68</td>
<td>86.5</td>
<td>109</td>
<td>129.5</td>
<td>150</td>
<td>170.5</td>
<td>191</td>
<td>211.5</td>
<td>232</td>
<td>262.5</td>
</tr>
</tbody>
</table>

Manual override (Press and turn for the locking type.)

Manual override (Press and turn for the locking type.)

Connector polarity indication

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

(Light/Surge voltage suppressor)

2x2-One-touch fitting (A, B port)

Applicable tubing O.D.: ø8 ø10

(Pitch) \( P = 20.5, 13.5 \) (Mounting hole)

4-ø4.5

Series SX3000/5000/7000

Body Ported

Type 20R

SX7000: SS5X7-20P- Stations
Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

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

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

How to Order Manifold

Type 41 (Compact type)

**SS5X 5 41 05 C8**

<table>
<thead>
<tr>
<th>A/B port size</th>
<th>Thread piping</th>
<th>Thread type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Port size</td>
<td>Applicable series</td>
</tr>
<tr>
<td>M5</td>
<td>M5 x 0.8</td>
<td>SX3000</td>
</tr>
<tr>
<td>01</td>
<td>1/4</td>
<td>SX5000</td>
</tr>
</tbody>
</table>

One-touch fitting (Metric size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SX3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SX5000</td>
</tr>
<tr>
<td>C8</td>
<td>One-touch fitting for ø8</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

One-touch fitting (Inch size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>One-touch fitting for ø5/32”</td>
<td>SX3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4”</td>
<td>SX5000</td>
</tr>
<tr>
<td>N9</td>
<td>One-touch fitting for ø5/16”</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

Type 42 (Common external pilot type)

**SS5X 5 42 05 C8**

<table>
<thead>
<tr>
<th>A/B port size</th>
<th>Thread piping</th>
<th>Thread type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Port size</td>
<td>Applicable series</td>
</tr>
<tr>
<td>01</td>
<td>1/4</td>
<td>SX3000</td>
</tr>
<tr>
<td>02</td>
<td>1/4</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

One-touch fitting (Metric size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SX3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SX5000</td>
</tr>
<tr>
<td>C8</td>
<td>One-touch fitting for ø8</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

One-touch fitting (Inch size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>One-touch fitting for ø5/32”</td>
<td>SX3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4”</td>
<td>SX5000</td>
</tr>
<tr>
<td>N9</td>
<td>One-touch fitting for ø5/16”</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

How to Order Valve Manifold Assembly

Ordering example

- Double solenoid (24 VDC) SX3240-5G (2 set)
- Blanking plate assembly SY3000-26-2A (1 set)
- Single solenoid (24 VDC) SX3140-5G (2 set)
- SY3000-26-9A 1 set (Blanking plate assembly part no.)

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

* Connector assembly for L and M types Refer to page 1-6-8.
* Common connector ass’y for manifold Refer to page 1-6-9
### How to Order Valves

<table>
<thead>
<tr>
<th>SX</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SX3000</td>
</tr>
<tr>
<td>2</td>
<td>SX5000</td>
</tr>
<tr>
<td>40</td>
<td>SX7000</td>
</tr>
</tbody>
</table>

#### Series
- 3: SX3000
- 5: SX5000
- 7: SX7000

#### Type of actuation
- 1: 2 position single
- 2: 2 position double
- 3: 3 position closed center
- 4: 3 position exhaust center
- 5: 3 position pressure center

#### Pilot type
- Nil: Internal pilot
- R: External pilot

#### Rated voltage
- 5: 24 VDC
- 6: 12 VDC
- V: 6 VDC
- S: 5 VDC
- R: 3 VDC

#### Electrical entry
- G: Lead wire length 300 mm
- H: Lead wire length 600 mm
- L: With lead wire (Length 300 mm)
- M: With lead wire (Length 300 mm)
- Nil: Positive common
- N: Negative common

#### Common specifications
- Note: Put nothing for single grommet style and single without indicator light and surge voltage suppressor.

#### Manual override
- Nil: Non-locking push type
- D: Push-turn locking slotted type

#### Light/Surge voltage suppressor
- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor

#### Manual override
- Nil: Non-locking push type
- D: Push-turn locking slotted type

#### Light/Surge voltage suppressor
- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor

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

<table>
<thead>
<tr>
<th>Model</th>
<th>SS5X3-41</th>
<th>SS5X3-42</th>
<th>SS5X5-41</th>
<th>SS5X5-42</th>
<th>SS5X7-42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold type</td>
<td>Single base/B mount</td>
<td>Common SUP/Common EXH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve stations</td>
<td>2 to 20 stations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A, B Porting specifications</td>
<td>Location</td>
<td>Base</td>
<td>Direction</td>
<td>Side</td>
<td></td>
</tr>
<tr>
<td>Port size A, B port</td>
<td>Rc 1/8</td>
<td>Rc 1/8</td>
<td>Rc 1/4</td>
<td>Rc 1/4</td>
<td></td>
</tr>
<tr>
<td>Manifold base weight</td>
<td>W = 30n + 50</td>
<td>W = 37n + 63</td>
<td>W = 61n + 101</td>
<td>W = 79n + 127</td>
<td>W = 100n + 151</td>
</tr>
</tbody>
</table>

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

Flow Characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>Flow characteristics in (m³/(s·bar))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1, 2</td>
<td>4, 2</td>
</tr>
<tr>
<td></td>
<td>A, B</td>
<td>P, EA, EB</td>
</tr>
<tr>
<td>RC</td>
<td>B1, 5, 3</td>
<td>(P, EA, EB)</td>
</tr>
<tr>
<td>C6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Manifold Option

- **Blanking plate assembly**

- **Individual EXH spacer assembly**

- **Individual SUP spacer assembly**

- **Bolt and gasket part no.**

- **Plug**

- **Applicable fittings**

- **Dimensions**

- **Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-57 to 1-6-63, and then mount it.
SX3000: SS5X3-41- Stations-M5/C4/C6

Grommet (G)

Manual override (Press and turn for the locking type.)
A: Orange
B: Green

(Light/Surge voltage suppressor)

Manual override (Press and turn for the locking type.)

4- Ø4.5 (Mounting hole)

G: ≅300
H: ≅600

(Lead wire length)

2-One-touch fittings (A, B port)

Applicable tubing O.D.: ø4
 ø6

(Lead wire length)

92 (3 position)

104.5 (3 position)

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

L plug connector (L)

M plug connector (M)
Grommet (G)

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Light/ Surge voltage suppressor)

Rc 1/8

L plug connector (L)

M plug connector (M)

<table>
<thead>
<tr>
<th>Stations n</th>
<th>2 stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>52.5</td>
<td>66.5</td>
<td>84.5</td>
<td>100.5</td>
<td>116.5</td>
<td>132.5</td>
<td>148.5</td>
<td>164.5</td>
<td>180.5</td>
<td>196.5</td>
<td>212.5</td>
<td>228.5</td>
<td>244.5</td>
<td>260.5</td>
<td>276.5</td>
<td>292.5</td>
<td>308.5</td>
<td>324.5</td>
<td>340.5</td>
</tr>
<tr>
<td>L2</td>
<td>42</td>
<td>58</td>
<td>74</td>
<td>90</td>
<td>106</td>
<td>122</td>
<td>138</td>
<td>154</td>
<td>170</td>
<td>186</td>
<td>202</td>
<td>218</td>
<td>234</td>
<td>250</td>
<td>266</td>
<td>282</td>
<td>298</td>
<td>314</td>
<td>330</td>
</tr>
</tbody>
</table>
**SX3000: SS5X3-42- Stations -C4/C6**

**Grommet (G)**

- **Stations (1) (2) ·············· (n)**
- **Manual override (Press and turn for the locking type.)**
  - A: Orange
  - B: Green

**Light/ Surge voltage suppressor**

**2-M5X0.8**
- (External pilot port)
- Lead wire length: ≈300

**2-M5X0.8**
- (Pilot EXH port)
- In the case of external pilot type:
  - Press and turn for the locking type.

- **Pilot EXH port**
  (P, EA, EB port)

- Applicable tubing O.D.: ø4 ø6

- **Manual override**
  (Press and turn for the locking type.)

**L plug connector (L)**

**M plug connector (M)**

---

**Stations n**

<table>
<thead>
<tr>
<th>Stations n</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
</tr>
<tr>
<td>L2</td>
</tr>
</tbody>
</table>

| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 stations |
|------------|
| 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 |
**Grommet (G)**

- Manual override (Press and turn for the locking type.)
  - A: Orange
  - B: Green

- (Light/Surge voltage suppressor)

- 2-M5 x 0.8 (External pilot port)

- ±300
  - H: ±600

### L plug connector (L)

- 4-0.45 (Mounting hole)
- 2-M5 x 0.8 (Pilot EXH port)

- 2n-Rc 1/8
  - P=12.5

- Press and turn for the locking type.

### M plug connector (M)

- ±300
- (Lead wire length)

- 104.5 (3 position)

---

**Stations n**

<table>
<thead>
<tr>
<th>Stations n</th>
<th>2 stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
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<td>60</td>
<td>72.5</td>
<td>85</td>
<td>97.5</td>
<td>110</td>
<td>122.5</td>
<td>135</td>
<td>147.5</td>
<td>160</td>
<td>172.5</td>
<td>185</td>
<td>197.5</td>
<td>210</td>
<td>222.5</td>
<td>235</td>
<td>247.5</td>
<td>260</td>
<td>272.5</td>
</tr>
<tr>
<td>L2</td>
<td>39.5</td>
<td>52</td>
<td>64.5</td>
<td>77</td>
<td>89.5</td>
<td>102</td>
<td>114.5</td>
<td>127</td>
<td>139.5</td>
<td>152</td>
<td>164.5</td>
<td>177</td>
<td>189.5</td>
<td>202</td>
<td>214.5</td>
<td>227</td>
<td>239.5</td>
<td>252</td>
<td>264.5</td>
</tr>
</tbody>
</table>
Grommet (G)

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

L plug connector (L)

M plug connector (M)

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 stations</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>68</td>
<td>58</td>
</tr>
<tr>
<td>4</td>
<td>84</td>
<td>74</td>
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<tr>
<td>5</td>
<td>100</td>
<td>90</td>
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<tr>
<td>6</td>
<td>116</td>
<td>106</td>
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<tr>
<td>7</td>
<td>132</td>
<td>122</td>
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<tr>
<td>8</td>
<td>148</td>
<td>138</td>
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<tr>
<td>9</td>
<td>164</td>
<td>154</td>
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<tr>
<td>10</td>
<td>180</td>
<td>170</td>
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<tr>
<td>11</td>
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<tr>
<td>12</td>
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<td>202</td>
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<td>13</td>
<td>228</td>
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<td>14</td>
<td>244</td>
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<td>15</td>
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<tr>
<td>16</td>
<td>276</td>
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<td>17</td>
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<td>276</td>
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<td>18</td>
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<td>292</td>
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<tr>
<td>19</td>
<td>314</td>
<td>308</td>
</tr>
<tr>
<td>20 stations</td>
<td>340</td>
<td>330</td>
</tr>
</tbody>
</table>

Series SX3000/5000/7000 Type 42
**SX5000: SS5X5-42- Stations-02**

### Grommet (G)

- **Manual override** (Press and turn for the locking type.)
- **(Light/Surge voltage suppressor)**
- **Manual override** (Press and turn for the locking type.)

### L plug connector (L)

- A: Orange
- B: Green
- **4-Ø4.5 (Mounting hole)**
- **(Pitch) P=17.5**
- **Light/Surge voltage suppressor**

### M plug connector (M)

- **G: ≤300**
- **H: ≤600**
- **(Lead wire length)**

### Table

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

---

**Notes:**
- `1-M5 x 0.8 (External pilot port)`
- `<In the case of external pilot type>`
- `2-M5 x 0.8 (Pilot EXH port)`
- `6-Øc1/4 (P, EA, EB port)`
- `Press and turn for the locking type.`
- `A: Orange`  
  - `B: Green`  
  - `G: ≅300`  
  - `H: ≅600`  
  - `(Lead wire length)`

---

**Reference:**
- **SX5000: SS5X5-42**
- **Stations-02**
- **Grommet (G)**
- **L plug connector (L)**
- **M plug connector (M)**
- **Table**
**Grommet (G)**

- **L plug connector (L)**
  - (Light/Surge voltage suppressor)
  - Manual override (Press and turn for the locking type, A: Orange, B: Green)
  - 2Rc 1/4
  - 2n One-touch fittings (A, B port)
  - Applicable tubing O.D.: ø10

- **M plug connector (M)**
  - 2n One-touch fittings (A, B port)
  - Applicable tubing O.D.: ø10

---

**Stations**

<table>
<thead>
<tr>
<th>Stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>61</td>
<td>80</td>
<td>99</td>
<td>118</td>
<td>137</td>
<td>156</td>
<td>175</td>
<td>194</td>
<td>213</td>
<td>232</td>
<td>251</td>
<td>270</td>
<td>289</td>
<td>308</td>
<td>327</td>
<td>346</td>
<td>365</td>
<td>384</td>
</tr>
<tr>
<td>L2</td>
<td>49</td>
<td>68</td>
<td>87</td>
<td>106</td>
<td>125</td>
<td>144</td>
<td>163</td>
<td>182</td>
<td>201</td>
<td>220</td>
<td>239</td>
<td>258</td>
<td>277</td>
<td>296</td>
<td>315</td>
<td>334</td>
<td>353</td>
<td>372</td>
</tr>
</tbody>
</table>
Series SX3000/5000/7000

Base Mounted Manifold
Bar Stock Type
Flat Ribbon Cable

How to Order Manifold

Type 41 PN (Compact type)

SS5X 5 41 P 05 C8

Series

3 SX3000
5 SX5000
7 SX7000

Common specifications

P Positive common
N Negative common

Stations

03 3 stations
12 12 stations

Note) For SSX3: 4 to 12 stations.

A/B port size

Thread piping

Symbol Port size Applicable series
M5 M5 x 0.8 SX3000
C4 One-touch fitting for ø4 SX3000
C6 One-touch fitting for ø6 SX5000
C8 One-touch fitting for ø8 SX7000

One-touch fitting (Metric size)

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

One-touch fitting (Inch size)

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

Thread type

Nil Rc
F G
N NPT
T NPTF

How to Order Valve Manifold Assembly

Ordering example

Single solenoid (24 VDC)
SX3140-5MOZ (3 set)

Double solenoid (24 VDC)
SX3240-5MOZ (2 set) (For double solenoid)

Connector assembly
SX3000-23-2A

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

Series SX3000/5000/7000

Bar Stock Type

Flat Ribbon Cable

(type 41P, 6-station manifold base part no.)
+SY3000-26-10A ----- 1 set (Blanking plate assembly part no.)
+SX3140-5MOZ ------- 3 sets (Single solenoid part no.)
+SX3240-5MOZ ------- 2 sets (Double solenoid part no.)
+SX3000-23-1A ------- 3 sets (Connector assembly no.)
+SX3000-23-2A ------- 2 sets (Connector assembly no.)

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

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

Type 42 PN (Common external pilot type)

SS5X 5 42 P 05 C8

Series

3 SX3000
5 SX5000
7 SX7000

Common specifications

P Positive common
N Negative common

Stations

03 3 stations
12 12 stations

Note) For SSX3: 4 to 12 stations.

A/B port size

Thread piping

Symbol Port size Applicable series
01 1/8 SX3000
02 1/4 SX5000
03 3/8 SX7000

One-touch fitting (Metric size)

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

One-touch fitting (Inch size)

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

Thread type

Nil Rc
F G
N NPT
T NPTF
How to Order Valves

** SX 5 1 40 - 5 N MOZ **

- **Series**
  - 3: SX3000
  - 5: SX5000
  - 7: SX7000

- **Type of actuation**
  - 1: 2 position single
  - 2: 2 position double
  - 3: 3 position closed center
  - 4: 3 position exhaust center
  - 5: 3 position pressure center

- **Pilot type**
  - Nil: Internal pilot
  - R: External pilot

- **Rated voltage**
  - 5: 24 VDC
  - 6: 12 VDC

- **Common specifications**
  - Nil: Positive common
  - N: Negative common

- **Manual override**
  - Nil: Non-locking push type
  - D: Push-turn locking slotted type

**How to Order Connector Assembly**

- **Positive common specifications**
  - For single solenoid: SX3000-23-1A
  - For double solenoid, 3 position: SX3000-23-2A

- **Negative common specifications**
  - For single solenoid: SX3000-24-1A
  - For double solenoid, 3 position: SX3000-24-2A

For detailed information on connector assembly, refer to page 1-6-9.
• Multiple valve wiring is simplified through the use of the flat cable connector.
• Clean appearance

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

### Flat Ribbon Cable Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>SS5X3-41a</th>
<th>SS5X3-42a</th>
<th>SS5X5-41a</th>
<th>SS5X5-42a</th>
<th>SS5X7-42a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable valve</td>
<td>SX3-40</td>
<td>SX3-40(R)</td>
<td>SX5-40</td>
<td>SX5-40(R)</td>
<td>SX7-40(R)</td>
</tr>
<tr>
<td>Manifold type</td>
<td>Single base/B mount</td>
<td>Common SUP/Common EXH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P (SUP)/R (EXH)</td>
<td>4 to 12 stations</td>
<td>3 to 12 stations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve stations (A, B port)</td>
<td>Location</td>
<td>Base</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port size</td>
<td>A, B port</td>
<td>P, EA, EB port</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port size</td>
<td>M5 x 0.8</td>
<td>Rc 1/8</td>
<td>Rc 1/2</td>
<td>Rc 1/4</td>
<td></td>
</tr>
<tr>
<td>Manifold base weight</td>
<td>W (g)</td>
<td>n: Stations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W = 39n + 83</td>
<td>W = 48n + 99</td>
<td>W = 67n + 118</td>
<td>W = 88n + 151</td>
<td>W = 109n + 174</td>
<td></td>
</tr>
<tr>
<td>Applicable flat ribbon cable connector</td>
<td>Socket: 26 pins MIL with strain relief (Conforming to MIL-C-83503)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal wiring (Rated voltage)</td>
<td>+COM (Type 41P, 42P), -COM (Type 41N, 42N)</td>
<td>12, 24 VDC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow characteristics</td>
<td>1 → 4/2 (P → A/B)</td>
<td>4/2 → 5/3 (A/B → EA/EB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>Port size</td>
<td>Flow characteristics</td>
<td>C [dm³/(s·bar)]</td>
<td>b</td>
<td>Cv</td>
</tr>
<tr>
<td>SS5X3-41a</td>
<td>Rc 1/8</td>
<td>C6</td>
<td>0.75</td>
<td>0.19</td>
<td>0.18</td>
</tr>
<tr>
<td>SS5X3-42a</td>
<td>Rc 1/8</td>
<td>C6</td>
<td>0.75</td>
<td>0.20</td>
<td>0.18</td>
</tr>
<tr>
<td>SS5X5-41a</td>
<td>Rc 1/4</td>
<td>C8</td>
<td>1.8</td>
<td>0.23</td>
<td>0.44</td>
</tr>
<tr>
<td>SS5X5-42a</td>
<td>Rc 1/4</td>
<td>C8</td>
<td>1.9</td>
<td>0.20</td>
<td>0.46</td>
</tr>
<tr>
<td>SS5X7-42a</td>
<td>Rc 1/4</td>
<td>C10</td>
<td>3.0</td>
<td>0.25</td>
<td>0.75</td>
</tr>
</tbody>
</table>

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

### Flow Characteristics

#### Flow Characteristics

**Note:**
- 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, please consult with SMC.
- -COM and +COM specifications are available. (Diagram above is for +COM specifications.)

#### Internal Wiring of Manifold

- Terminal no. is not indicated on the connector. The terminal no. 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 ribbon cable of connector.
Manifold Option

**Blanking plate assembly**

**Individual EXH spacer assembly**

**Individual SUP spacer assembly**

**Connector Assembly for Flat Ribbon Cable**

<table>
<thead>
<tr>
<th>Cable length (L)</th>
<th>Assembly part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 m</td>
<td>AXT100-FC26-1</td>
<td></td>
</tr>
<tr>
<td>3 m</td>
<td>AXT100-FC26-2</td>
<td></td>
</tr>
<tr>
<td>5 m</td>
<td>AXT100-FC26-3</td>
<td></td>
</tr>
</tbody>
</table>

*For other commercial connectors, use a 26 pins type with strain relief conforming to MIL-C-83503.

**Connector manufacturers’ example**

- Hirose Electric Co., Ltd.
- Japan Aviation Electronics Industry, Ltd.
- Sumitomo 3M Limited
- J.S.T. Mfg. Co., Ltd.
- Fujitsu Limited

**Plug**

These are inserted in cylinder ports or SUP/EXH ports which are not being used.

**Dimensions**

<table>
<thead>
<tr>
<th>Applicable fittings size ad</th>
<th>Model</th>
<th>A</th>
<th>L</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>KO2P-04</td>
<td>16</td>
<td>32</td>
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<tr>
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<td>10</td>
<td>KO2P-10</td>
<td>22</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KO2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
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<tr>
<td>1/4&quot;</td>
<td>KO2P-07</td>
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<tr>
<td>5/16&quot;</td>
<td>KO2P-09</td>
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<tr>
<td>3/8&quot;</td>
<td>KO2P-11</td>
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<td>43</td>
<td>11.5</td>
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</table>

<table>
<thead>
<tr>
<th>Thread type</th>
<th>Nil</th>
<th>Rc</th>
<th>F</th>
<th>G</th>
<th>N</th>
<th>NPT</th>
<th>T</th>
<th>NPTF</th>
</tr>
</thead>
</table>

**Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-68 to 1-6-72, and then mount it.
**SX3000: SS5X3-41P- Stations-M5/C4/C6**

**M5**

- 2n-One-touch fittings (Pitch) P = 12.5
- Applicable tubing O.D.: ø4, ø6
- Manual override

**L1**

- (Pitch) P = 12.5
- Manual override

**L2**

- 4-Ø4.5
- (Mounting hole)

**SS5X3-41N**

- Connector polarity indication
- Applicable connector: 26 pins MIL
  - (Conforming to MIL-C-83503)

**Manual override**

- (Press and turn for the locking type.)
  - A: Orange
  - B: Green

**Connector polarity indication**

**Table:**

<table>
<thead>
<tr>
<th>Stations</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>9</th>
<th>10</th>
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<tr>
<td>L1</td>
<td>72.5</td>
<td>85</td>
<td>97.5</td>
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<td>135</td>
<td>147.5</td>
<td>160</td>
<td>172.5</td>
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<tr>
<td>L2</td>
<td>64.5</td>
<td>77</td>
<td>89.5</td>
<td>102</td>
<td>114.5</td>
<td>127</td>
<td>139.5</td>
<td>152</td>
<td>164.5</td>
</tr>
</tbody>
</table>
SS5000: SS5X5-41P- Stations-01/C6/C8

Series SX3000/5000/7000

Base Mounted

Type 41PN

Applicable connector: 26 pins MIL (Conforming to MIL-C-83503)

Connector polarity indication

(Light/Surge voltage suppressor)

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4 ø6

(Pitch)
P = 17.5

2n-Rc 1/8
(A, B port)

(Pitch)
P = 17.5

Manual override
(Press and turn for the locking type.)

Triangle mark

Series SX3000/5000/7000

Base Mounted

SV
SZ
SY
SYJ
SX

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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
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<tbody>
<tr>
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<td>94.5</td>
<td>112</td>
<td>129.5</td>
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<td>217</td>
<td>234.5</td>
</tr>
<tr>
<td>L2</td>
<td>67</td>
<td>84.5</td>
<td>102</td>
<td>119.5</td>
<td>137</td>
<td>154.5</td>
<td>172</td>
<td>189.5</td>
<td>207</td>
<td>224.5</td>
</tr>
</tbody>
</table>
SX3000: SS5X3-42P- Stations-01/C4/C6

2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4 ø6

(Pitch)
P = 12.5
15
7
7.4
22.2

4-
0.45
(Mounting hole)

A: Orange
B: Green

Manual override
(Press and turn for the locking type.)

Light/Surge voltage suppressor

Pilot EXH port

P, EA, EB port

Connector polarity indication
(Conforming to MIL-C-83503)
Applicable connector: 26 pins MIL

SS5X3-42N

Connector polarity indication

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

Rc 1/8

(Pitch)
P = 12.5
15
7
7.4
22.2

2n-Rc1/8
(A, B port)

6-Rc1/8
(P, EA, EB port)

2-M5X0.8
(External pilot port)
Series SX3000/5000/7000 Type 42P

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

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4 ø6

Rc 1/4
(Pitch)
P = 17.5

2n-Rc 1/4
(A, B port)

(Pitch)
P = 17.5

2-M5x0.8
(Pitch)
P = 17.5

4 - ø4.5
(Mounting hole)

SS5X5-42N

Applicable connector: 26 pins MIL
(Conforming to MIL-C-83503)

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

(Light/ Surge voltage suppressor)

Manual override
(Press and turn for the locking type.)

Applicable connector: 26 pins MIL
(Conforming to MIL-C-83503)

Connector polarity indication

Connector polarity indication

<table>
<thead>
<tr>
<th>Stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
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<td>94.5</td>
<td>112</td>
<td>129.5</td>
<td>147</td>
<td>164.5</td>
<td>182</td>
<td>199.5</td>
<td>217</td>
<td>234.5</td>
</tr>
<tr>
<td>L2</td>
<td>67</td>
<td>84.5</td>
<td>102</td>
<td>119.5</td>
<td>137</td>
<td>154.5</td>
<td>172</td>
<td>189.5</td>
<td>207</td>
<td>224.5</td>
</tr>
</tbody>
</table>
**SX7000: SS5X7-42P- Stations-02/C10**

**Rc 1/4**

- 2n-One-touch fittings (A, B port)
- 2n-Rc 1/4 (A, B port)
- 2-M5 x 0.8 (P, EA, EB port)
- 2-M5 x 0.8 (Pilot EXH port)<br>&lt;in the case of external pilot type&gt;

**Applicable connector: 26 pins MIL**

- Conforming to MIL-C-83503
- 2n-One-touch fittings
- Applicable tubing O.D.: ø10

**Manual override**

- (Press and turn for the locking type.)
- A: Orange
- B: Green

**Connector polarity indication**

- (P, EA, EB port)
- (Light/Surge voltage suppressor)

**SS5X7-42N**

- Connector polarity indication
- Applicable connector 26 pins MIL
- (Conforming to MIL-C-83503)

<table>
<thead>
<tr>
<th>Stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>88</td>
<td>108.5</td>
<td>129</td>
<td>149.5</td>
<td>170</td>
<td>190.5</td>
<td>211</td>
<td>231.5</td>
<td>252</td>
<td>272.5</td>
</tr>
<tr>
<td>L2</td>
<td>76</td>
<td>96.5</td>
<td>117</td>
<td>137.5</td>
<td>158</td>
<td>178.5</td>
<td>199</td>
<td>219.5</td>
<td>240</td>
<td>260.5</td>
</tr>
</tbody>
</table>
**How to Order Manifold**

**SS5X 3-45**

- **Series**
  - 3: SX3000
  - 5: SX5000

- **Valve stations**
  - 3: 20 stations
  - 5: 20 stations

- **SUP/EXH block assembly mounting position**
  - **Symbol**
    - U: U side
    - D: D side
    - B: Both sides
    - M: Special specifications
  - **Applicable stations**
    - U: 2 to 10 stations
    - D: 2 to 20 stations
    - B: 2 to 20 stations
    - M: Special specifications

- **A, B port size**
  - **(Metric size)**
    - Symbol: C4, C6, M
    - **Port size**:
      - C4: One-touch fitting for ø4
      - C6: One-touch fitting for ø6
      - M: Mixed
    - **Applicable series**: SX3000, SX5000
  - **(Inch size)**
    - Symbol: N3, N7
    - **Port size**:
      - N3: One-touch fitting for ø5/32
      - N7: One-touch fitting for a 1/4
    - **Applicable series**: SX3000, SX5000
    - **M**: Mixed
  - **Option**
    - When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

**How to Order Valve Manifold Assembly**

- **Ordering example**
  - **Single solenoid** (24 VDC)
    - SX3140-5G
  - **Blanking plate assembly**
    - SX3000-75-1A

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

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the Manifold Specification Sheet to instruct us.
How to Order Valves

**Series**

- 3: SX3000
- 5: SX5000

**Type of actuation**

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

**Rated voltage**

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

**Common specifications**

- Nil: Positive common
- N: Negative common

Note: Use nothing for single grommet style and single without indicator light and surge voltage suppressor.

**Manual override**

- Nil: Non-locking push type
- D: Push-turn locking slotted type

**Light/Surge voltage suppressor**

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

**Electrical entry**

<table>
<thead>
<tr>
<th>Grommet</th>
<th>L plug connector</th>
<th>M plug connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>G: Lead wire length 300 mm</td>
<td>L: With lead wire (Length 300 mm)</td>
<td>M: With lead wire (Length 300 mm)</td>
</tr>
<tr>
<td>H: Lead wire length 600 mm</td>
<td>LN: Without lead wire</td>
<td>MN: Without lead wire</td>
</tr>
<tr>
<td>LO: Without connector</td>
<td>MO: Without connector</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Model</th>
<th>SS5X3-45</th>
<th>SS5X5-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable valve</td>
<td>SX3/L50132</td>
<td>SX5/L50132</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manifold type</th>
<th>Stacking type/DIN rail mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve stations</td>
<td>Common SUP/Common EXH</td>
</tr>
<tr>
<td>Valve stations (max)</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A, B port specifications</th>
<th>Location</th>
<th>Direction</th>
<th>Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B port</td>
<td>P, R port</td>
<td>C8</td>
<td>C10 (One-touch fitting for ø6)</td>
</tr>
<tr>
<td></td>
<td>A, B port</td>
<td>C4 (One-touch fitting for ø4)</td>
<td>C6 (One-touch fitting for ø6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C6</td>
<td>C8 (One-touch fitting for ø8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Port size</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 \rightarrow 4/2 (P \rightarrow A/B)</td>
</tr>
<tr>
<td></td>
<td>C [dm³/(s·bar)]</td>
</tr>
<tr>
<td>SS5X3-45</td>
<td>C8</td>
</tr>
<tr>
<td>SS5X5-45</td>
<td>C10</td>
</tr>
</tbody>
</table>

**Note:**
- For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.
- The value is for manifold base with 5 stations and individually operated 2 position type.
Manifold Option

- **Individual SUP spacer assembly**

- **Individual EXH spacer assembly**

- **Blanking plate assembly**

- **Dimensions/DIN rail**

  \* Refer to L dimensions

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

<table>
<thead>
<tr>
<th>No.</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
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<td>110.5</td>
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</tr>
<tr>
<td>Dimension</td>
<td>765</td>
<td>786</td>
<td>801.5</td>
<td>823</td>
<td>835.5</td>
<td>848</td>
<td>860.5</td>
<td>873</td>
<td>885.5</td>
<td>898</td>
<td>910.5</td>
</tr>
<tr>
<td>No.</td>
<td>66</td>
<td>67</td>
<td>68</td>
<td>69</td>
<td>70</td>
<td>71</td>
<td>72</td>
<td>73</td>
<td>74</td>
<td>75</td>
<td>76</td>
</tr>
<tr>
<td>Dimension</td>
<td>923</td>
<td>935.5</td>
<td>948</td>
<td>960.5</td>
<td>973</td>
<td>985.5</td>
<td>998</td>
<td>1010.5</td>
<td>1023</td>
<td>1035.5</td>
<td>1048</td>
</tr>
</tbody>
</table>

- **SUP block disk**

  By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.

- **EXH block disk**

  By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve’s exhaust so that it does not affect another valve. (Two block disks are needed to divide both exhausts.)

- **Label for block disk**

  The labels shown below are used on manifold stations containing SUP/EXH block disk(s) to show their location. (3 pcs. each)

<table>
<thead>
<tr>
<th>Series</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3000</td>
<td>SX3000-77-1A</td>
</tr>
<tr>
<td>SX5000</td>
<td>SX5000-77-1A</td>
</tr>
</tbody>
</table>

- **Lable for block disk**

  Note) When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

- **Silencer with One-touch fitting**

  This silencer can be mounted on the manifold’s port R (exhaust) with a single touch.

<table>
<thead>
<tr>
<th>Series</th>
<th>Model</th>
<th>Effective area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3000</td>
<td>AN202-KM8</td>
<td>14 mm²</td>
<td>16</td>
<td>26</td>
<td>51</td>
</tr>
<tr>
<td>SX5000</td>
<td>AN200-KM10</td>
<td>26 mm²</td>
<td>32</td>
<td>53.8</td>
<td>80.8</td>
</tr>
</tbody>
</table>

- **Plug**

  These are inserted in cylinder ports or SUP/EXH ports which are not being used. Purchasing order is available in units of 10 pieces.

**Dimensions**

<table>
<thead>
<tr>
<th>Applicable fittings ed</th>
<th>Model</th>
<th>A</th>
<th>L</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>KQ2P-04</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>KQ2P-06</td>
<td>16</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>KQ2P-08</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>KQ2P-10</td>
<td>22</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8.5</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>KQ2P-11</td>
<td>22</td>
<td>43</td>
<td>11.5</td>
</tr>
</tbody>
</table>

**Caution**

Mounting screw tightening torques

- M2: 0.17 N·m
- M3: 0.8 N·m
- M4: 1.4 N·m

**Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-78 to 1-6-79, and then mount it.
**Dimensions: Series SX3000**

**SS5X3-45- Stations D-C4 C6**

- DIN rail release button
- 2n-One-touch fittings (A, B port)
- Applicable tubing O.D.: ø4 ø6
- DIN rail holding screw
- Manual override
  (Press and turn for the locking type.)
  A: Orange
  B: Green
- Block separation lever
  (Push type)
- Rail mounting hole pitch 12.5

**L plug connector**

**M plug connector**

**SS5X3-45- Stations U-C6**

- DIN rail release button
- 2-One-touch fittings (P, R port)
- Applicable tubing O.D.: ø8
- DIN rail holding screw
- (Rail mounting hole pitch 12.5)

**Stations**

<table>
<thead>
<tr>
<th>Stations</th>
<th>2 stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>110.5</td>
<td>123</td>
<td>135.5</td>
<td>148</td>
<td>148</td>
<td>160.5</td>
<td>173</td>
<td>185.5</td>
<td>198</td>
</tr>
<tr>
<td>L2</td>
<td>100.5</td>
<td>112.5</td>
<td>125</td>
<td>137.5</td>
<td>137.5</td>
<td>150</td>
<td>162.5</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>L3</td>
<td>70</td>
<td>81</td>
<td>91.5</td>
<td>102</td>
<td>123</td>
<td>133.5</td>
<td>144</td>
<td>154.5</td>
<td></td>
</tr>
<tr>
<td>L4</td>
<td>13</td>
<td>14.5</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>12.5</td>
<td>13.5</td>
<td>14.5</td>
<td>15.5</td>
</tr>
</tbody>
</table>

**SS5X3-45- Stations B-C4 C6**

- DIN rail release button
- 4-One-touch fittings (P, R port)
- Applicable tubing O.D.: ø4 ø6

**L plug connector**

**M plug connector**

**Stations**

<table>
<thead>
<tr>
<th>Stations</th>
<th>2 stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
<td>248</td>
<td>248</td>
<td>260.5</td>
<td>273</td>
<td>285.5</td>
<td>298</td>
</tr>
<tr>
<td>L2</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
<td>237.5</td>
<td>250</td>
<td>262.5</td>
<td>275</td>
<td>287.5</td>
</tr>
<tr>
<td>L3</td>
<td>181.5</td>
<td>192</td>
<td>202.5</td>
<td>213</td>
<td>223.5</td>
<td>234</td>
<td>244.5</td>
<td>255</td>
<td>265.5</td>
</tr>
<tr>
<td>L4</td>
<td>14</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>
Dimensions: Series SX5000

SS5X5-45- Stations D- C4 C6 C8

[Diagram of SS5X5-45- Stations D- C4 C6 C8]

SS5X5-45- Stations U- C4 C6 C8

[Diagram of SS5X5-45- Stations U- C4 C6 C8]

SS5X5-45- Stations B- C4 C6 C8

[Diagram of SS5X5-45- Stations B- C4 C6 C8]

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4 ø6 ø8

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

DIN rail release button
(Pitch) P = 16

Block separation lever
(Push type)

Manual override
(Station n) (Station 1)
(Lead wire length)

DIN rail holding screw
(Pitch) P = 16

L plug connector
M plug connector
Exploded View/DIN Rail Manifold

**Type 45**

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manifold block assembly</td>
<td>SX3000-50-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000-50-1A-C6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-50-1C6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000-50-1C6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000-50-2A-C6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SUP/EXH block assembly</td>
<td>SX3000-51-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-15A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-15A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-15A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-51-15A</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>End block assembly R</td>
<td>SX3000-52-1A</td>
<td>For D side</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-52-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-52-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-52-1A</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>End block assembly L</td>
<td>SX3000-53-1A</td>
<td>For U side</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-53-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-53-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-53-1A</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Round head combination screw</td>
<td>SX3000-22-2</td>
<td>(Matt nickel plated)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M3 x 30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-22-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>M3 x 30</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Gasket</td>
<td>SX3000-57-4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000-57-6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>DIN rail</td>
<td>VZ1000-11-1-</td>
<td>Refer to page 1-6-77.</td>
</tr>
</tbody>
</table>

**How to Increase Manifold Bases**

Station expansion is possible at any position.

1. 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.)
2. Press manifold block assembly 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.
3. Mount additional manifold block assembly on the DIN rail as shown in the figure.
4. Press the block assembly until a click sound is produced, and tighten the bolts (a) to fix them to the DIN rail. **Caution** (Tightening torque: 1.4 N·m) (While lightly holding the blocks after fixing an end block on one side, tighten the other end block for better sealing.)

**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 Part No.**

<table>
<thead>
<tr>
<th>Metric size</th>
<th>SX3000</th>
<th>SX5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for ø4</td>
<td>VVQ1000-50A-C4</td>
<td>VVQ1000-50A-C4</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>VVQ1000-50A-C6</td>
<td>VVQ1000-50A-C6</td>
</tr>
<tr>
<td>One-touch fitting for ø4</td>
<td>VVQ1000-51A-C4</td>
<td>VVQ1000-51A-C4</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>VVQ1000-51A-C6</td>
<td>VVQ1000-51A-C6</td>
</tr>
</tbody>
</table>

**Inch size**

<table>
<thead>
<tr>
<th>Metric size</th>
<th>SX3000</th>
<th>SX5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for ø5/32&quot;</td>
<td>VVQ1000-50A-N3</td>
<td>VVQ1000-50A-N3</td>
</tr>
<tr>
<td>One-touch fitting for ø1/4&quot;</td>
<td>VVQ1000-50A-N7</td>
<td>VVQ1000-50A-N7</td>
</tr>
<tr>
<td>One-touch fitting for ø5/32&quot;</td>
<td>VVQ1000-51A-N3</td>
<td>VVQ1000-51A-N3</td>
</tr>
<tr>
<td>One-touch fitting for ø1/4&quot;</td>
<td>VVQ1000-51A-N7</td>
<td>VVQ1000-51A-N7</td>
</tr>
</tbody>
</table>

**Notes**

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

**Caution**

1. When adding manifold bases to use more than 10 stations, add SUP/EXH block assembly, as well.
2. 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.

Hook this section on the DIN rail and press in the direction of the arrow until a click sound is generated.

---

1-6-80
Series SX3000/5000
Base Mounted Manifold
Stacking Type DIN Rail Mounted
Plug-in

How to Order Manifold
Type 45F (D-sub connector, 25 pins type)

SS5X [3-45] F D-05 U C4

How to Order Valve Manifold Assembly
(Ordering example
(Type 45F/D-sub connector (25 pins type))

Double solenoid
(24 VDC)

SX3240-5LOZ

Blanking plate assembly
SX3000-75-2A

How to Order Valves
(Type 45F, 45F[L50132], 45T, 45T1)

SX 3 2 40 5 LOZ

Type of actuation

Series

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

Rated voltage

5 24 VDC
6 12 VDC
8 5 VDC
R 3 VDC

Common specifications
Nil Positive common
N Negative common

Manual override
Nil Non-locking push type
D Push-tum locking slotted type

Option

When a longer DIN rail is desired than the
specified stations, specify the
station number to be required.
(20 stations at maximum)

Voltage

When a longer DIN rail is desired than the
specified stations, specify the
station number to be required.
(20 stations at maximum)
### How to Order Manifold

#### Type 45P (Flat ribbon cable type)

**SS5X**

<table>
<thead>
<tr>
<th>Series</th>
<th>3</th>
<th>45</th>
<th>P</th>
<th>D</th>
<th>05</th>
<th>U</th>
<th>C4</th>
</tr>
</thead>
</table>

**Common specifications**

- **N**: Positive common
- **U**: Negative common

**Connector poles**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Poles</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>26</td>
<td>2 to 20  stations</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>20</td>
<td>2 to 16 stations</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td>10</td>
<td>2 to 8</td>
</tr>
</tbody>
</table>

**Connector mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U</strong></td>
<td>U side</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>D side</td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly mounting position**

- **U** side:
  - U side: 2 to 10 stations
- D side: 2 to 10 stations
- Both sides: 2 to 20 stations

**Special specifications**

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

**Option**

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)

**Valve stations** (Blanking plate assemblies are included.)

- **26 pins (P) connector**
  - 02 stations:
    - 2 stations: Double wiring specifications
  - 10 stations:
    - 10 stations: Double wiring specifications
- **20 pins (PG) connector**
  - 02 stations:
    - 2 stations: Double wiring specifications
  - 08 stations:
    - 8 stations: Double wiring specifications
  - 20 stations:
    - 20 stations: Double wiring specifications

**20 pins (PH) connector**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C4</strong></td>
<td>One-touch fitting for ø4</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>C6</strong></td>
<td>One-touch fitting for ø6</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

**Type 45T (9 pins terminal block type)**

**SS5X**

<table>
<thead>
<tr>
<th>Series</th>
<th>3</th>
<th>45T</th>
<th>D</th>
<th>05</th>
<th>U</th>
<th>C4</th>
</tr>
</thead>
</table>

**Terminal block mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U</strong></td>
<td>U side</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>D side</td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly mounting position**

- **U** side:
  - U side: 2 to 10 stations
- D side: 2 to 10 stations
- Both sides: 2 to 20 stations

**Special specifications**

- For special specifications, indicate separately on the manifold specification sheet.

**Option**

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)

**Valve stations**

- **Series**
  - 3: SX3000
  - 5: SX5000

**20 pins (PH) connector**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N3</strong></td>
<td>One-touch fitting for ø3/8&quot;</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>N7</strong></td>
<td>One-touch fitting for ø1/4&quot;</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

**Type 45T1 (18 pins terminal block type)**

**SS5X**

<table>
<thead>
<tr>
<th>Series</th>
<th>3</th>
<th>45T1</th>
<th>D</th>
<th>05</th>
<th>U</th>
<th>C4</th>
</tr>
</thead>
</table>

**Terminal block mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U</strong></td>
<td>U side</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>D side</td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly mounting position**

- **U** side:
  - U side: 2 to 10 stations
- D side: 2 to 10 stations
- Both sides: 2 to 17 stations

**Special specifications**

- For special specifications, indicate separately on the manifold specification sheet.

**Option**

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)

**Valve stations**

- **Series**
  - 3: SX3000
  - 5: SX5000

**20 pins (PH) connector**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N3</strong></td>
<td>One-touch fitting for ø3/8&quot;</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>N7</strong></td>
<td>One-touch fitting for ø1/4&quot;</td>
<td>Applicable up to 16 stations</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Double wiring specifications: Single, double and 3 position solenoid valves can be used on all manifold stations.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

Note 3) The terminal block (45T...) manifold has no common polarity. It can be used for both positive and negative common.
How to Order Manifold

Type 45□P (Flat ribbon cable type (PC wiring system compatible))

SS5X 3-45G D-05 U-C4

Series

Symbol Stations Applicable series
3 SX3000
5 SX5000

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

Mounting position

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

Valve stations

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>2 stations</td>
<td>Double wiring specifications</td>
</tr>
<tr>
<td>06</td>
<td>6 stations</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>2 stations</td>
<td>Applicable up to 16 solenoids.</td>
</tr>
<tr>
<td>16</td>
<td>16 stations</td>
<td></td>
</tr>
</tbody>
</table>

Note

1) Double wiring specifications: Single, double and 3 position solenoid valves can be used on all manifold stations.

2) Specified layout: Indicate wiring specifications on a manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

A, B port size

(Metric size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SX3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SX5000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

(Inch size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>One-touch fitting for ø5/32&quot;</td>
<td>SX3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>N3</td>
<td>One-touch fitting for ø5/32&quot;</td>
<td>SX5000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

SUP/EXH block assembly mounting position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Position</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>B</td>
<td>Both sides</td>
<td>2 to 16 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td></td>
</tr>
</tbody>
</table>

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

SUP/EXH block assembly specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Internal pilot specifications</td>
</tr>
<tr>
<td>R</td>
<td>External pilot specifications</td>
</tr>
<tr>
<td>S</td>
<td>Internal pilot/Built-in silencer</td>
</tr>
<tr>
<td>RS</td>
<td>External pilot/Built-in silencer</td>
</tr>
</tbody>
</table>
**Manifold Option**

### Blanking plate assembly

**SUP block disk**

By installing a SUP block disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold.

![SUP block disk](image)

**EXH block disk**

By installing an EXH block disk in the exhaust passage of a manifold valve, it is possible to divide the valve’s exhaust so that it does not affect another valve. (Two block disks are needed to divide both exhausts.)

![EXH block disk](image)

### Label for block disk

The labels shown below are used on manifold stations containing SUP/EXH block disk(s) to show their location. (3 pcs. each)

**VZ3000-123-1A** (In common between SX3000 and 5000)

Label for SUP block disk | Label for EXH block disk | Label for SUP/EXH block disk
--- | --- | ---
\(P\) | \(P\) | \(P\)
\(R\) | \(R\) | \(R\)

**Note:** When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.

### Silencer with One-touch fitting

This silencer can be mounted on the manifold’s port R (exhaust) with a single touch.

![Silencer with One-touch fitting](image)

### Flow Characteristics

**Model**

<table>
<thead>
<tr>
<th>Port size</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3</td>
<td>(A, B)</td>
</tr>
<tr>
<td>SX3000-77-1A</td>
<td>EXH block disk</td>
</tr>
<tr>
<td>SX5000-77-1A</td>
<td>SUP block disk</td>
</tr>
</tbody>
</table>

**Effective area**

<table>
<thead>
<tr>
<th>Model</th>
<th>Effective area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX3000</td>
<td>14 (\text{mm}^2)</td>
<td>16</td>
<td>26</td>
<td>51</td>
</tr>
<tr>
<td>SX5000</td>
<td>14 (\text{mm}^2)</td>
<td>16</td>
<td>26</td>
<td>51</td>
</tr>
<tr>
<td>SX3000</td>
<td>26 (\text{mm}^2)</td>
<td>22</td>
<td>53.8</td>
<td>80.8</td>
</tr>
<tr>
<td>SX5000</td>
<td>30 (\text{mm}^2)</td>
<td>25</td>
<td>70</td>
<td>97</td>
</tr>
</tbody>
</table>
**Manifold Option**

### D-sub connector (25 pins)/Cable assembly

**AXT100-DS25-**

1. **015**
   - **Cable length (L):** 1.5 m
   - **Assembly part no.:** AXT100-DS25-015
   - **Note:** Cable 25 cores x 24AWG

2. **030**
   - **Cable length (L):** 3 m
   - **Assembly part no.:** AXT100-DS25-030

3. **050**
   - **Cable length (L):** 5 m
   - **Assembly part no.:** AXT100-DS25-050

### Electric Characteristics

- **Conductor resistance (Ω/km, 20°C):** 65 or less
- **Voltage limit (VAC, 1 min.):** 1000
- **Insulation resistance (MΩ/km, 20°C):** 5 or less

### Flat ribbon cable connector/Cable assembly

**AXT100-FC**

### Flat Ribbon Cable Assembly

<table>
<thead>
<tr>
<th>Cable length (L)</th>
<th>Assembly part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 m</td>
<td>AXT100-FC10-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC20-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC26-1</td>
<td></td>
</tr>
<tr>
<td>3 m</td>
<td>AXT100-FC10-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC20-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC26-2</td>
<td></td>
</tr>
<tr>
<td>5 m</td>
<td>AXT100-FC10-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC20-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AXT100-FC26-3</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Applicable fittings size x d</th>
<th>Model</th>
<th>A</th>
<th>L</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>KQ2P-04</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>KQ2P-06</td>
<td>18</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>KQ2P-08</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>KQ2P-10</td>
<td>22</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8.5</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>KQ2P-11</td>
<td>22</td>
<td>43</td>
<td>11.5</td>
</tr>
</tbody>
</table>

---

**Warning**

When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1-6-92 to 1-6-109, and then mount it.
Internal Wiring of Manifold

**Type 45(N)F: D-sub Connector**
A D-sub connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.

---

**Type 45(N)P: Flat Ribbon Cable (26 pins)**
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.

---

**For positive common (45F)**
- Positive pin (Common)
- Negative pin
- Unused terminal

**For negative common (45NF)**
- Positive pin
- Negative pin (Common)
- Unused terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- 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. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

---

**For positive common (45P)**
- Positive pin (Common)
- Negative pin
- Unused terminal

**For negative common (45NP)**
- Positive pin
- Negative pin
- Unused terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 10 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- 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. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
Type 45(N)PG: Flat Ribbon Cable (20 pins)
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.

<For positive common (45PG)>
- Positive pin (Common)
- Negative pin
- SOLB, SOLA
- Station 8
- Triangle mark

Power supply terminal

<For negative common (45NPG)>
- Positive pin
- Negative pin (Common)
- SOLB, SOLA
- Station 8
- Triangle mark

Power supply terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 8 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- The maximum number of stations is 16 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

Type 45(N)PH: Flat Ribbon Cable (10 pins)
A flat cable connector used for electric wiring reduces labor during wiring operation. Connectors conforming to MIL are used for interchangeability.

<For positive common (45PH)>
- Positive pin (Common)
- Negative pin
- SOLB, SOLA
- Station 4
- Triangle mark

Power supply terminal

<For negative common (45NPH)>
- Positive pin (Common)
- Negative pin
- SOLB, SOLA
- Station 4
- Triangle mark

Power supply terminal

- The power source terminal is used for connecting to an external power source.
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOLA.
- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
Internal Wiring of Manifold

**Type 45T: Terminal Block**

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

- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Please consult with SMC for more stations.)
- The above diagram is the double wiring specifications for up to 4 stations. When the wiring specifications are specified on the manifold specification sheet, the valve assignment for the connector number will differ from the above diagram. For more information, please contact SMC.
- When using a single solenoid valve, connect wire to SOL.A.
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for –COM spec.

**Type 45T1: Terminal Block**

- The maximum number of stations is 17 in terms of manifold bases, as well as solenoids.
- Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for –COM spec.
Internal Wiring of Manifold

Type 45G: Flat Ribbon Cable
(PC Wiring System compatible)

It is the manifold for 20 pins flat ribbon cable connector which is compliant for PC wiring system.

Electric circuit diagram (Below wiring is the case of all double solenoid connections.)

• The maximum number of stations is 16 in terms of manifold bases, as well as solenoids.
  (For more stations, please contact SMC.)
• Regardless of the connector mounting position, stations are to be counted from D side as the 1st one.

Refer to the separate catalog CAT.S02-20 for the details of PC Wiring System.
SS5X□-45□ Wiring of Plug-in Type

Power terminal is equipped with plug-in manifold of Series SX as standard.
Power terminal enables the power supply to valve from either of manifold or controller side.

1. Wiring example when using manifold power supply terminals

```
PLC (Programmable Logic Controller)
Manifold valve
(SS5X3-45PGD-06U-□□)
DC power supply
Solenoid valve
Inner wiring of SX manifold
(Flat ribbon cable, Positive common specification)
Power supply terminal
Power supply
```

2. Wiring example when the power terminal of the manifold is not used
(Power supplied at controller or in wiring)

```
PLC (Programmable Logic Controller)
Manifold valve
(SS5X3-45PGD-06U-□□)
DC power supply
Solenoid valve
Inner wiring of SX manifold
(Flat ribbon cable, Positive common specification)
Power supply terminal
Power supply
```

⚠️ Caution

- Single wire, COM position, etc. of PLC are different from each manufacturer. When connecting with PLC, read the specifications carefully and understand the electrical circuit. Poor wiring could cause damage to PLC, power source, etc. as well as manifold and valve.
SX3000: D-sub Connector/Plug-in

SS5X3-45FU- Stations D- C6

Note: The L1 to L4 dimensions of SS5X3-45FU- Stations U- C6 are identical to those of SS5X3-45FU- Stations D- C6.

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>D- C6</td>
<td>123</td>
<td>112.5</td>
<td>91.5</td>
<td>15.5</td>
</tr>
<tr>
<td>D- C6</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>D- C6</td>
<td>185.5</td>
<td>175</td>
<td>165</td>
<td>17.5</td>
</tr>
</tbody>
</table>

SS5X3-45FU- Stations B- C4 C8

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>B- C4 C8</td>
<td>123</td>
<td>112.5</td>
<td>91.5</td>
<td>15.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>185.5</td>
<td>175</td>
<td>165</td>
<td>17.5</td>
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</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>B- C4 C8</td>
<td>123</td>
<td>112.5</td>
<td>91.5</td>
<td>15.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>185.5</td>
<td>175</td>
<td>165</td>
<td>17.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>B- C4 C8</td>
<td>123</td>
<td>112.5</td>
<td>91.5</td>
<td>15.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>185.5</td>
<td>175</td>
<td>165</td>
<td>17.5</td>
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<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
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<tbody>
<tr>
<td>B- C4 C8</td>
<td>123</td>
<td>112.5</td>
<td>91.5</td>
<td>15.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>B- C4 C8</td>
<td>185.5</td>
<td>175</td>
<td>165</td>
<td>17.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(mm)</th>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
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<tbody>
<tr>
<td>L1</td>
<td>123</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>L2</td>
<td>123</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>L3</td>
<td>123</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
</tr>
<tr>
<td>L4</td>
<td>123</td>
<td>130.5</td>
<td>125</td>
<td>110</td>
<td>17.5</td>
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<table>
<thead>
<tr>
<th>(mm)</th>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
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<td>129</td>
<td>150</td>
<td>171</td>
</tr>
<tr>
<td>L2</td>
<td>125</td>
<td>137.5</td>
<td>150</td>
<td>175</td>
<td>187.5</td>
</tr>
<tr>
<td>L3</td>
<td>110</td>
<td>137.5</td>
<td>150</td>
<td>187.5</td>
<td>200</td>
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<tr>
<td>L4</td>
<td>15.5</td>
<td>16.5</td>
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<td>18.5</td>
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<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
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<tr>
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<td>135.5</td>
<td>150</td>
<td>129</td>
<td>150</td>
<td>171</td>
</tr>
<tr>
<td>L2</td>
<td>125</td>
<td>137.5</td>
<td>150</td>
<td>175</td>
<td>187.5</td>
</tr>
<tr>
<td>L3</td>
<td>110</td>
<td>137.5</td>
<td>150</td>
<td>187.5</td>
<td>200</td>
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<tr>
<td>L4</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>18.5</td>
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### SSX3-45FD- Stations U

**DIN rail release button**

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<tr>
<td>L2</td>
<td>125</td>
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<tr>
<td>L3</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>133</td>
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**Manual override** (Push type)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations B

**DIN rail release button**

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<th>Dimension</th>
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<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
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</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations D

**DIN rail release button**

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<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
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<tr>
<td>L3</td>
<td>P = 10.5</td>
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<tr>
<td>L4</td>
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**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations C

**DIN rail release button**

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</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
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<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
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<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
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**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations A

**DIN rail release button**

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<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
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<tr>
<td>L3</td>
<td>P = 10.5</td>
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<tr>
<td>L4</td>
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<td>133</td>
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**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations G

**DIN rail release button**

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</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
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<td>133</td>
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</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations H

**DIN rail release button**

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<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
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<td>133</td>
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**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations I

**DIN rail release button**

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<tbody>
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<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
</tbody>
</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations J

**DIN rail release button**

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<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
</tbody>
</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations K

**DIN rail release button**

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<th>(mm)</th>
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<tbody>
<tr>
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<td>P = 10.5</td>
<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
</tbody>
</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations L

**DIN rail release button**

<table>
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<tr>
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<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
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</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations M

**DIN rail release button**

<table>
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<tr>
<th>Dimension</th>
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<th>(mm)</th>
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<tbody>
<tr>
<td>L1</td>
<td>P = 10.5</td>
<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
</tr>
<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
</tbody>
</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8

---

### SSX3-45FD- Stations N

**DIN rail release button**

<table>
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<th>(Pitch)</th>
<th>(mm)</th>
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<tbody>
<tr>
<td>L1</td>
<td>P = 10.5</td>
<td>123</td>
</tr>
<tr>
<td>L2</td>
<td>P = 10.5</td>
<td>125</td>
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<tr>
<td>L3</td>
<td>P = 10.5</td>
<td>129</td>
</tr>
<tr>
<td>L4</td>
<td>P = 10.5</td>
<td>133</td>
</tr>
</tbody>
</table>

**Manual override** (Press and turn for the locking type.)

Power supply terminal (M3 thread)

Applicable tubing O.D.: ø8
SS5X5-45FU- Stations

Note) The L1 to L4 dimensions of SS5X5-45FU- Stations U- are identical to those of SS5X5-45FU- Stations P-.

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Stations</th>
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<tbody>
<tr>
<td>L1</td>
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<td>148</td>
<td>160.5</td>
<td>165.5</td>
<td>198</td>
<td>210.5</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
</tr>
<tr>
<td>L2</td>
<td>125</td>
<td>137.5</td>
<td>150</td>
<td>175</td>
<td>187.5</td>
<td>200</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
</tr>
<tr>
<td>L3</td>
<td>105</td>
<td>121</td>
<td>137</td>
<td>153</td>
<td>169</td>
<td>185</td>
<td>201</td>
<td>217</td>
<td>233</td>
</tr>
<tr>
<td>L4</td>
<td>15</td>
<td>13.5</td>
<td>11.5</td>
<td>16</td>
<td>14.5</td>
<td>12.5</td>
<td>17</td>
<td>15.5</td>
<td>13.5</td>
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SS5X5-45FU- Stations

<table>
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<th>Stations</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<th>Stations</th>
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</thead>
<tbody>
<tr>
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<td>173</td>
<td>165.5</td>
<td>198</td>
<td>210.5</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
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<tr>
<td>L2</td>
<td>137.5</td>
<td>162.5</td>
<td>175</td>
<td>187.5</td>
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<td>225</td>
<td>237.5</td>
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<td>171</td>
<td>187</td>
<td>203</td>
<td>219</td>
<td>235</td>
<td>251</td>
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<tr>
<td>L4</td>
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<td>17</td>
<td>15</td>
<td>13.5</td>
<td>11.5</td>
<td>16</td>
<td>14.5</td>
<td>12.5</td>
<td>17</td>
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</table>

Note) The L1 to L4 dimensions of SS5X5-45FU- Stations U- are identical to those of SS5X5-45FU- Stations P-.
Note) The L1 to L4 dimensions of SS5X5-45FD- Stations D- are identical to those of SS5X5-45FD- Stations L-.

SS5X5-45FD- Stations U- C₄ C₆ C₈

SS5X5-45FD- Stations B- C₄ C₆ C₈

<table>
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<tr>
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<th>10</th>
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<tbody>
<tr>
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<td>135.5 148 160.5 185.5 198 210.5 235.5 248 260.5</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>125 137.5 150 175 187.5 200 225 237.5 250</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>L3</td>
<td>105 121 137 153 169 185 201 217 233</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>L4</td>
<td>15 13.5 11.5 16 14.5 12.5 17 15.5 13.5</td>
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<th>10</th>
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<tbody>
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<td>148 173 165.5 198 210.5 235.5 248 260.5 285.5</td>
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<td></td>
<td></td>
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<tr>
<td>L2</td>
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</tr>
<tr>
<td>L3</td>
<td>123 139 155 171 187 203 219 235 251</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>L4</td>
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</tbody>
</table>

(DIN rail dimension)

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

2-One-touch fittings (A, B port)
Applicable tubing O.D.: ø4, ø6, ø8
### SX3000: Flat Ribbon Cable Type/Plug-in

#### SSX3-45PU- Stations D-C (26 pins)

<table>
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<th>L4</th>
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<td>160.5</td>
<td>150</td>
<td>133.5</td>
<td>18.5</td>
<td></td>
</tr>
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<tr>
<td>185.5</td>
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#### SSX3-45PU- Stations B-C (26 pins)

<table>
<thead>
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<th>L4</th>
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<tbody>
<tr>
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<tr>
<td>248</td>
<td>237.5</td>
<td>225</td>
<td>16.5</td>
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<tr>
<td>260.5</td>
<td>250</td>
<td>233.5</td>
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<td>262.5</td>
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Note: The L1 to L4 dimensions of SSX3-45PU are identical to those of SSX3-45PU- Stations D-C.

Note: Types 45PG and 45PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 45P.
### SSX3-45PD- Stations U- Co (26 pins)

<table>
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### SSX3-45PD- Stations B- Co (26 pins)

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Note: The L1 to L4 dimensions of SSX3-45PD- Stations D- are identical to those of SSX3-45PD- Stations U-.
SX5000: Flat Ribbon Cable Type/Plug-in

SS5X5-45PU- Stations D- C2/C6 (26 pins)

Note) The L1 to L4 dimensions of SS5X5-45PU/L50132 stations U- are identical to those of SS5X5-45PU-L50132 stations D-.

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SS5X5-45PU- Stations B- C2/C6 (26 pins)

Note) Types 45PG and 45PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 45P.

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</table>
SS5X5-45PD- Stations U- C4 C6 (26 pins)

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

DIN rail holding screw

2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8
DIN rail release button

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

2n-One-touch fittings
Applicable tubing O.D.: ø4, ø6, ø8

SS5X5-45PD- Stations B- C4 C6 (26 pins)

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

DIN rail holding screw

2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8
DIN rail release button

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

2n-One-touch fittings
Applicable tubing O.D.: ø4, ø6, ø8

---

Note) The L1 to L4 dimensions of SS5X5-45PD- Stations U- are identical to those of SS5X5-45PD- Stations B-.
SX3000: 9 Pins Terminal Block/Plug-in

SS5X3-45TU- Stations D- C₄ C₀₈

SS5X3-45TU- Stations B- C₄ C₀₈

Note) The L1 to L4 dimensions of SS5X3-45TU- Stations D- are identical to those of SS5X3-45TU- Stations B-.

Note) The L1 to L4 dimensions of SS5X3-45TD- Stations D- are identical to those of SS5X3-45TU- Stations D-.

Note) The L1 to L4 dimensions of SS5X3-45TD- Stations B- are identical to those of SS5X3-45TU- Stations B-.
SX3000: 18 Pins Terminal Block/Plug-in

SS5X3-45T1U- Stations D- C4 C6 (18 pins)

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

SS5X3-45T1U- Stations B- C4 C6 (18 pins)

(DIN rail dimension)

(DIN rail holding screw)

(DIN rail)

(M3)

(Terminal screw)

(Pitch)

(M3)

(Terminal screw)

(Pitch)

(Manual override)

(Press and turn for the locking type.)

(A: Orange B: Green)

(Pitch)

(A: Orange B: Green)

(Pitch)

(A: Orange B: Green)

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SS5X3-45T1D- Stations U- (18 pins)

- 2-One-touch fittings
  - (P, R port)
  - Applicable tubing O.D.: ø8

2n-One-touch fittings

(Station n) ···· (Station 1)

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

SS5X3-45T1D- Stations B- (18 pins)

- 4-One-touch fittings
  - (P, R port)
  - Applicable tubing O.D.: ø8

- (Rail mounting hole pitch 12.5)

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</table>

- Manual override
  - (Press and turn for the locking type.)
  - A: Orange
  - B: Green

- DIN rail holding screw

- Manual override
  - (Press and turn for the locking type.)
  - A: Orange
  - B: Green
### SX5000: 18 Pins Terminal Block/Plug-in

#### SS5X5-45T1U- Stations D- (18 pins)

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#### SS5X5-45T1U- Stations B- (18 pins)

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Note: The L1 to L4 dimensions of SS5X5-45T1U- Stations D- are identical to those of SS5X5-45T1U- Stations B-.
**SS5X5-45T1D- Stations U- (18 pins)**

- DIN rail release button
- 2-One-touch fittings (P, R port) Applicable tubing O.D.: ø4, ø6, ø8

**SS5X5-45T1D- Stations B- (18 pins)**

- DIN rail release button
- 2-One-touch fittings (A, B port) Applicable tubing O.D.: ø4, ø6, ø8

---

**Note:** The L1 to L4 dimensions of SS5X5-45T1D- Stations U- are identical to those of SS5X5-45T1D- Stations B-.
SX3000: PC Wiring System Compatible (Flat ribbon cable type/Plug-in)

SSX3-45GU Stations D-C4

SSX3-45GU Stations B-C4

Note: The L1 to L4 dimensions of SSX3-45GU Stations D-C4 are identical to those of SSX3-45GU Stations P-C4.
SX5000: PC Wiring System Compatible (Flat ribbon cable type/Plug-in)

Stations  L1  L2  L3  L4

2 stations
135.5  125  105  15
148  137.5  121  13.5
160.5  150  137  11.5
185.5  175  153  12.5
210.5  200  187  14.5
235.5  225  203  16

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

SS5X5-45GU- Stations D

SS5X5-45GU- Stations B
Note) The L1 to L4 dimensions of SS5X5-45GD-Stations U- are identical to those of SS5X5-45GD-Stations U-.
Exploded View: DIN Rail Manifold

Type 45F (D-sub connector type) Manifold

Replacement Parts

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<th>No.</th>
<th>Description</th>
<th>Part no. SX3000</th>
<th>Part no. SX5000</th>
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<td>SUP/EXH block assembly (For D-sub connector)</td>
<td>SX3000-64-1A</td>
<td>SX5000-64-1A</td>
<td>-2 A: +COM</td>
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<td>③</td>
<td>End block assembly</td>
<td>SX3000-52-2A</td>
<td>SX5000-52-2A</td>
<td>For D side</td>
</tr>
<tr>
<td>④</td>
<td>End block assembly</td>
<td>SX3000-53-2A</td>
<td>SX5000-53-2A</td>
<td>For U side</td>
</tr>
<tr>
<td>⑤</td>
<td>Connector block assembly (For 26 pins flat cable)</td>
<td>SX3000-64-2A</td>
<td>SX5000-64-2A</td>
<td>-2 A: +COM</td>
</tr>
<tr>
<td>⑥</td>
<td>Connector block assembly (For 10 pins flat cable)</td>
<td>SX3000-64-3A</td>
<td>SX5000-64-3A</td>
<td>In common between +COM and –COM.</td>
</tr>
<tr>
<td>⑦</td>
<td>Connector block assembly (For 2 to 8 stations [T, T1] terminal block)</td>
<td>SX3000-64-3A</td>
<td>SX5000-64-3A</td>
<td></td>
</tr>
<tr>
<td>⑧</td>
<td>Connector block assembly (For 9 to 17 stations [T, T1] terminal block)</td>
<td>SX3000-64-4A</td>
<td>SX5000-64-4A</td>
<td></td>
</tr>
<tr>
<td>⑨</td>
<td>Round head combination screw</td>
<td>SX3000-22-2</td>
<td>M3 x 30 (Matt nickel plated)</td>
<td></td>
</tr>
<tr>
<td>⑩</td>
<td>Gasket</td>
<td>SX3000-57-4</td>
<td>SX5000-57-6</td>
<td></td>
</tr>
<tr>
<td>⑪</td>
<td>DIN rail</td>
<td>VZ1000-11-1.</td>
<td>Refer to page 1-6-77.</td>
<td></td>
</tr>
</tbody>
</table>

Manifold Block Assembly Part No.

<table>
<thead>
<tr>
<th>Style of manifold</th>
<th>Wiring specifications</th>
<th>Manifold block assembly part no. SX3000</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>(D-sub connector)</td>
<td>SX000-50-2A</td>
<td>For 45(N)F</td>
</tr>
<tr>
<td>②</td>
<td>Single</td>
<td>SX000-50-3A</td>
<td>For 45(N)F</td>
</tr>
<tr>
<td>③</td>
<td>Double</td>
<td>SX000-50-4A</td>
<td>For 45(N)G</td>
</tr>
<tr>
<td>④</td>
<td>Single</td>
<td>SX000-50-5A</td>
<td>For 45(N)G</td>
</tr>
<tr>
<td>⑤</td>
<td>Double</td>
<td>SX000-50-6A</td>
<td>For 45(T)</td>
</tr>
<tr>
<td>⑥</td>
<td>Single</td>
<td>SX000-50-7A</td>
<td>For 45(T)</td>
</tr>
</tbody>
</table>

Note) The numbers ⑤–④ are for 24 VDC. For 12 VDC, suffix -12V to the parts no. (Example) SX3000-64-1A-12V
### 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. (Refer to 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. While lightly holding the blocks together so that there are no gaps between them, secure them to the DIN rail by tightening the screws A. (Tightening torque: 1.4 N-m)

### Caution

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 with 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 Part No.

**Metric size**

<table>
<thead>
<tr>
<th>SX3000</th>
<th>SX5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for ø4</td>
<td>One-touch fitting for ø4</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>One-touch fitting for ø6</td>
</tr>
<tr>
<td>One-touch fitting for ø4</td>
<td>One-touch fitting for ø4</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>One-touch fitting for ø6</td>
</tr>
<tr>
<td>One-touch fitting for ø5</td>
<td>One-touch fitting for ø5</td>
</tr>
<tr>
<td>One-touch fitting for ø5</td>
<td>One-touch fitting for ø5</td>
</tr>
<tr>
<td>VVQ1000-50A-C4</td>
<td>VVQ1000-50A-C4</td>
</tr>
<tr>
<td>VVQ1000-50A-C6</td>
<td>VVQ1000-50A-C6</td>
</tr>
<tr>
<td>VVQ1000-51A-C4</td>
<td>VVQ1000-51A-C4</td>
</tr>
<tr>
<td>VVQ1000-51A-C6</td>
<td>VVQ1000-51A-C6</td>
</tr>
</tbody>
</table>

**Inch size**

<table>
<thead>
<tr>
<th>SX3000</th>
<th>SX5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for ø5/32&quot;</td>
<td>One-touch fitting for ø5/32&quot;</td>
</tr>
<tr>
<td>One-touch fitting for ø1/4&quot;</td>
<td>One-touch fitting for ø1/4&quot;</td>
</tr>
<tr>
<td>One-touch fitting for ø5/32&quot;</td>
<td>One-touch fitting for ø5/32&quot;</td>
</tr>
<tr>
<td>One-touch fitting for ø1/4&quot;</td>
<td>One-touch fitting for ø1/4&quot;</td>
</tr>
<tr>
<td>VVQ1000-50A-N3</td>
<td>VVQ1000-50A-N3</td>
</tr>
<tr>
<td>VVQ1000-50A-N7</td>
<td>VVQ1000-50A-N7</td>
</tr>
<tr>
<td>VVQ1000-51A-N3</td>
<td>VVQ1000-51A-N3</td>
</tr>
<tr>
<td>VVQ1000-51A-N7</td>
<td>VVQ1000-51A-N7</td>
</tr>
</tbody>
</table>

### Note

1) P and R ports cannot be changed.

2) Use caution that O-rings must be free from scratches and dust. Otherwise, air leakage may result.
**Type 45S**

**Series SX3000/5000**

Base Mounted Manifold
Stacking Type DIN Rail Mounted

**Serial Transmission Type (Integrated)**

---

### How to Order Manifold

**SS5X**

**Series 45S**

**A - 05**

**U - 05**

![Manifold Symbol](Image)

**Symbol**

- **Q**: Without SI unit
- **A**: With general type SI unit (Series EX3000)
- **B**: Mitsubishi Electric Corp.: MELSECNET/mini-S3 Data Link System
- **C**: OMRON Corp.: SYSSBUS Wire System
- **D**: SHARP Corp.: Satellite I/O Link System
- **E**: Mitsubishi Electric Works: MEWNET-F System
- **F1**: NKE Corp.: Uni-wire System: EX122-SMJ1
- **G**: Rockwell Automation: Allen Bradley Remote I/O (RIO) System
- **H**: NKE Corp.: Uni-wire H System
- **I**: SUNX Corp.: S-LINK System
- **J1**: NKE Corp.: Uni-wire System: EX122-SMB1
- **J2**: NKE Corp.: Uni-wire System: EX122-SHA1
- **J3**: NKE Corp.: Uni-wire System: EX122-SPA1
- **J4**: NKE Corp.: Uni-wire System: EX122-STA1
- **J5**: NKE Corp.: Uni-wire System: EX122-SPT1
- **K**: Fuji Electric Co.: T-LINK Mini System
- **Q**: DeviceNet, CompoBus/D (OMRON Corp.)
- **R1**: OMRON Corp.: CompoBus/S System (16 output points)
- **R2**: OMRON Corp.: CompoBus/S System (8 output points)
- **S**: SUNX Corp.: S-LINK System
- **T**: SUNX Corp.: S-LINK System (16 output points)
- **U**: JEMANET (JPCN-1)
- **V**: Mitsubishi Electric Corp.: CC-LINK System
- **W**: Matsushita Electric Works: MEWNET-F System
- **X**: SHARP Corp.: Satellite I/O Link System
- **Y**: OMRON Corp.: SYSBUS Wire System
- **Z**: B: A

**Specifications**

- **Symbol**
- **Stations**
- **Note**

*With general type SI unit, (Series EX3000)*

*When special wiring is required on manifold with 2 to 8 stations, please use the manifold specification sheet.*

### How to Order Valve Manifold Assembly

**Ordering example**

Double solenoid (24 VDC)

<table>
<thead>
<tr>
<th>SX3240-5LOZ</th>
<th>SX3140-5LOZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single solenoid (24 VDC)</td>
<td>Single solenoid (24 VDC)</td>
</tr>
</tbody>
</table>

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

*They will be assembled in the order listed starting at the first station at the D side whether the connector box is located at either end.*

When ordering with the double wiring specification, specify it in order, beginning with the 1 station on the D side.

*For manifolds with more than 8 stations (9 to 16), special wiring is required. Please use the manifold specification sheet.*

*Serial unit can be mounted on D side only.*

---

**How to Order Valves**

<table>
<thead>
<tr>
<th>SX 3 2 40 5 LOZ</th>
<th>SX 3 2 40 5 LOZ</th>
</tr>
</thead>
</table>

**Series**

- **A1**: SX3000
- **A2**: SX5000

**Type of actuation**

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

**Rated voltage**

- **5**: 24 VDC

**Manual override**

- **D**: Push-turn locking slotted type

---

**SI Unit Part No.**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>With general type SI unit (Series EX3000)</td>
</tr>
<tr>
<td>B</td>
<td>Mitsubishi Electric Corp.: MELSECNET/mini-S3 Data Link System</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSSBUS Wire System</td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
</tr>
<tr>
<td>E</td>
<td>Mitsubishi Electric Works: MEWNET-F System</td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Uni-wire System: EX122-SMJ1</td>
</tr>
<tr>
<td>G</td>
<td>Rockwell Automation: Allen Bradley Remote I/O (RIO) System</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Uni-wire H System</td>
</tr>
</tbody>
</table>

---

1-6-112
The serial transmission system reduces wiring work, while minimizing wiring and saving space.

Maximum 16 stations (Specify a model with more than 9 stations by means of the manifold specification sheet.)

- Stations are counted from station 1 on the D side.
- Maximum station: Up to 16 solenoids (16 single solenoids).

### Type SA
Series EX300

- **LED**
  - RUN: Lighting during data reception
  - ERR: Blinking when received data is normal; Lighting when data reception

### Type SB
Mitsubishi Electric Corporation
MELSECNET/MINI-S3
Data Link System

- **LED**
  - POWER: Lighting when power is turned ON
  - RUN: Lighting when data transmission with the master station is normal
  - RD: Lighting during data reception
  - SD: Lighting during data reception
  - ERR: Lighting when reception data error occurs

### Note
- Serial transmission is possible by connecting with I/O card of T unit PLC manufacturer.
  - EX300-TMB1······for Mitsubishi Electric Corporation
  - EX300-TTA1······for OMRON Corporation
  - EX300-TFU1······for Fuji Electric Co., Ltd.
  - EX300-T001······General purpose

- Each T unit has 32 control points.
- No. of output point, 16 points

### Item Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>External power supply</td>
<td>24 VDC ±10%/~5%</td>
</tr>
<tr>
<td>Current consumption</td>
<td></td>
</tr>
<tr>
<td>(Internal unit)</td>
<td>0.1 A 0.3 A SC, SQ</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cable wiring

- Ground either the reception side or the transmission side of the shielding wire shield.

### Type SC
OMRON Corporation
SYSBUS Wire System

- **LED**
  - RUN: ON when transmission is normal and PLC is in operation mode.
  - T/R: Blinks during data transmission/reception
  - ERR: ON when transmission is abnormal

### Type SD
SHARP Corporation
Satellite I/O Link System

- **LED**
  - POWER: ON when power supply is ON
  - RUN: ON when power is ON and slave unit operates normally
  - ERROR: ON for abnormal slave unit switch setting, abnormal communication, master unit PLC stopped and defective slave unit
  - R.SET HOLD: ON for master unit control input

### Type SE
Matsushita Electric Works, Ltd.
MEWNET-F System

- **LED**
  - POWER: ON when power supply is ON
  - COMM: Blinks when transmission is normal
  - ALARM: ON for unit abnormality, blinks for station no. setting error

### Note
- SYBSBUS Wire System
  - Master unit: Type C500-RM201
  - C200H-RH401
  - No. of output points, 16 points

- Satellite I/O Link System
  - Master unit: JW-31LM
  - JW-23LM
  - No. of output points, 16 points

- MEWNET-F System
  - Master unit: AFP3740
  - AFP5740
  - No. of output points, 16 points

### Cable wiring

- Ground either the reception side or the transmission side of the shielding wire shield.

---

**Series SX3000/5000**

**Type 45S**

**Base Mounted**

**SV**  **SZ**  **SY**  **SYJ**  **SX**
### Type SF1
NKE Corporation
Uni-wire System

- **LED**
  - **POWER**
    - Lighting when power is turned ON
  
  - **SEND**
    - ON when communication power is supplied, OFF when power is OFF

- **Description**
  - ON when communication is normal
  - Blinks when communication is initialized
  - OFF for abnormal communication

- **Note**
  - Wiring Simplifying System
  - Send unit: SD-120
  - No. of output points, 16 points

### Type SG
Rockwell Automation, Inc.
Allen Bradley Remote I/O (RIO) System

- **LED**
  - **POWER**
    - ON when power supply is ON
  
  - **COM.**
    - On when communication is normal
  
  - **ERROR**
    - ON for abnormal communication

- **Description**
  - On when communication is normal
  - Blinks when communication is initialized
  - OFF for abnormal communication

- **Note**
  - Remote I/O (RIO) System
  - No. of output points, 16 points

### Type SJ1, SJ2
SUNX Corporation
S-LINK System

- **LED**
  - **POWER**
    - Lighting when power is turned ON
  
  - **SEND**
    - Transmission indication: Blinks when normal, Blinks slowly when abnormal

- **Description**
  - S-LINK System
  - S-LINK Controller: SL-CU1
  - No. of output points, 16 points (Type SJ1)
  - No. of output points, 8 points (Type SJ2)

### Type SK
Fuji Electric Co. Ltd.
T-LINK Mini System

- **LED**
  - **POWER**
    - Lighting when power is turned ON
  
  - **SEND**
    - ON when communication power is supplied, OFF when power is OFF

- **Note**
  - T-LINK Mini System
  - Master unit: FTM100B
  - Converter: FRC200A-G02
  - Repeater: FRC200A-C10
  - No. of output points, 16 points

### Type SQ
DeviceNet

- **LED**
  - **POWER**
    - Green light ON with circuit power input
  
  - **COMM**
    - ON for normal communication, OFF for abnormal communication or waiting

- **Description**
  - On for normal communication
  - OFF for abnormal communication or waiting

- **Note**
  - DeviceNet
  - OMRON Corp’s CompoBus/D System
  - Master station unit: C200HW-DNM21
  - No. of output points, 8 points (Type SK1)
  - No. of output points, 16 points (Type SK2)

### Type SR1, SR2
OMRON Corporation
CompoBus/S System

- **LED**
  - **POWER**
    - Light ON with transmission power input, light Off without it
  
  - **COMM**
    - ON for normal communication, OFF for abnormal communication or waiting

- **Description**
  - On for normal communication
  - OFF for abnormal communication or waiting

- **Note**
  - CompoBus/S System
  - Master station unit: C200HW-SRM21
  - Master station unit: CQM1-SRM21
  - No. of output points, 16 points (Type SR1)
  - No. of output points, 8 points (Type SR2)

---

### Cable wiring

- **Type SF1**
  - Connect the shielding wire to the SD terminal. If the shielding wire is not connected to the SD terminal, normal transmission will be impossible even for short distances. Furthermore, do not ground the shielding wire (SD).

- **Type SK**
  - Connect the shielding wire to the SD terminal. If the shielding wire is not connected to the SD terminal, normal transmission will be impossible even for short distances. Furthermore, do not ground the shielding wire (SD).

- **Type SG**
  - Connect the shielding wire to the SD terminal. If the shielding wire is not connected to the SD terminal, normal transmission will be impossible even for short distances. Furthermore, do not ground the shielding wire (SD).
<table>
<thead>
<tr>
<th>Name of terminal block, LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED</td>
<td>Lighting when power is turned ON (ON when normal, flickers when voltage drops)</td>
</tr>
<tr>
<td>POWER</td>
<td>Transmission indication: Blinks when normal, Transmission indication: OFF or ON when abnormal</td>
</tr>
</tbody>
</table>

**Note**
- Uni-wire H System
  - Send unit: SD-H2
  - No. of output points, 16 points
- JEMANET (JPCN-1)
  - (Reference)
  - AJ7J19J2-S3 (Mitsubishi Electric Corporation)
  - A1SJ71J92-S3 (Mitsubishi Electric Corporation)
  - Type C200HW-JRM21 (OMRON Corporation)
  - NJ-JPCN-1 (Fuji Electric Co., Ltd.)
  - NP1L-JP1 (Fuji Electric Co., Ltd.)
  - No. of output points, 16 points
- CC-LINK System
  - Master unit: AJ61BT11
  - A1SJ61BT11
  - AJ61QBT11
  - A1SJ61QBT11
  - No. of output points, 16 points

**Cable wiring**

**Transmission line**

- a) 2-wire type
- b) 3-wire type

**Diagram**

- Master station
- Slave unit
- Twisted pair wire with shielding

**Specifications**

- Power supply: 24 V, 0 V
- Terminal resistor
- Type 3 ground
- Type 4 ground

---

**Series SX3000/5000 Base Mounted**

**Type SH**
- NKE Corporation
- Uni-wire H System

**Type SU**
- JEMANET (JPCN-1)

**Type SV**
- Mitsubishi Electric Corporation
- CC-LINK System
SX3000: Serial Transmission Unit/Plug-in

**SS5X3-45S- Stations U-**

- **U side**
  - DIN rail holding screw
  - Manual override
    - (Press and turn for the locking type)
      - A: Orange
      - B: Green
  - Block separation lever
    - (Push type)
  - Light/Surge voltage suppressor
  - 2-One-touch fittings
    - (P, R port)
    - Applicable tubing O.D.: ø8
  - 2-One-touch fittings
    - (A, B port)
    - Applicable tubing O.D.: ø4, ø6

<table>
<thead>
<tr>
<th>Stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>U stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>148</td>
<td>160.5</td>
<td>173</td>
<td>185.5</td>
<td>198</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
</tr>
<tr>
<td>L2</td>
<td>137.5</td>
<td>150</td>
<td>162.5</td>
<td>175</td>
<td>187.5</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
</tr>
<tr>
<td>L3</td>
<td>81</td>
<td>91.5</td>
<td>102</td>
<td>112.5</td>
<td>123</td>
<td>133.5</td>
<td>144</td>
<td>154.5</td>
</tr>
<tr>
<td>L4</td>
<td>14.5</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

**SS5X3-45S- Stations B-**

- **U side**
  - DIN rail holding screw
  - Manual override
    - (Press and turn for the locking type)
      - A: Orange
      - B: Green
  - DIN rail release button
- **D side**
  - DIN rail release button
  - 4-One-touch fittings
    - (P, R port)
    - Applicable tubing O.D.: ø8
  - 2-One-touch fittings
    - (A, B port)
    - Applicable tubing O.D.: ø4, ø6

<table>
<thead>
<tr>
<th>Stations</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>D stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>160.5</td>
<td>173</td>
<td>185.5</td>
<td>198</td>
<td>210.5</td>
<td>223</td>
<td>223</td>
<td>235.5</td>
</tr>
<tr>
<td>L2</td>
<td>150</td>
<td>162.5</td>
<td>175</td>
<td>187.5</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
</tr>
<tr>
<td>L3</td>
<td>97.5</td>
<td>108</td>
<td>118.5</td>
<td>129</td>
<td>139.5</td>
<td>150</td>
<td>160.5</td>
<td>171</td>
</tr>
<tr>
<td>L4</td>
<td>12.5</td>
<td>13.5</td>
<td>14.5</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.
SX5000: Serial Transmission Unit/Plug-in

SSS5X5-45S□- Stations U

- 2-One-touch fittings
  (P, R port)
  Applicable tubing O.D.: ø10
- 2-One-touch fittings
  (A, B port)
  Applicable tubing O.D.: ø4, ø6, ø8

26 17
P = 16

DIN rail release button

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10
2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.

C4 C6 C8

Block separation lever
(Push type)

Light/Surge voltage suppressor

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

DIN rail holding screw

DIN rail

4-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø8
2-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.
**Series SX3000/5000**

**Stacking Type DIN Rail Mounted**

**Serial Transmission Type (Separated)**

---

### How to Order Valve Manifold Assembly

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Without SI unit</td>
</tr>
<tr>
<td>A</td>
<td>Mitsubishi Electric Corp.: MELSECNET/MN-S3 Data Link System</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSSBUS Wire System</td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
</tr>
<tr>
<td>E</td>
<td>Matsushita Electric Works: MEWNET-F System</td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Uni-wire System (16 output points)</td>
</tr>
<tr>
<td>G</td>
<td>Rockwell Automation: Allen Bradley Remote I/O (RIO) System</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Uni-wire H System</td>
</tr>
<tr>
<td>J</td>
<td>SUNX Corp.: S-LINK System (16 output points)</td>
</tr>
<tr>
<td>J2</td>
<td>SUNX Corp.: S-LINK System (8 output points)</td>
</tr>
<tr>
<td>K</td>
<td>Fuji Electric Co.: T-LINK Mini System</td>
</tr>
<tr>
<td>Q</td>
<td>DeviceNet, CompoBus/D (OMRON Corp.)</td>
</tr>
<tr>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S System (16 output points)</td>
</tr>
<tr>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S System (8 output points)</td>
</tr>
<tr>
<td>U</td>
<td>JEMANET (JPCN-1)</td>
</tr>
<tr>
<td>V</td>
<td>Mitsubishi Electric Corp.: CC-LINK System</td>
</tr>
</tbody>
</table>

- For the general purpose type, a transmission unit is required on the CPU side.
- Even though when it is not equipped with SI unit, DIN rail length is long enough for future expectancy of mounting SI unit.

---

### How to Order Valve Manifold Assembly

#### Ordering example

- **Double solenoid (24 VDC)**
  - SX3240-SLOZ
  - SX3400-5LOZ
  - SX5000-5LOZ

- **Single solenoid (24 VDC)**
  - SX3400-SLOZ

- The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.
- They will be assembled in the order listed starting at the first station at the D side whether the connector box is located at either end.
- When ordering with the double wiring specification, specify it in order, beginning with the 1 station on the D side.
- For manifolds with more than 8 stations (9 to 16), special wiring is required. Please use the manifold specification sheet.

---

### How to Order Valves

<table>
<thead>
<tr>
<th>Series</th>
<th>SX3 2 40 — 5 LOZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Specifications</td>
</tr>
<tr>
<td>A</td>
<td>With general type SI unit (Series EX300)</td>
</tr>
<tr>
<td>B</td>
<td>Mitsubishi Electric Corp.: MELSECNET/MN-S3 Data Link System</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSSBUS Wire System</td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
</tr>
<tr>
<td>E</td>
<td>Matsushita Electric Works: MEWNET-F System</td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Uni-wire System (16 output points)</td>
</tr>
<tr>
<td>G</td>
<td>Rockwell Automation: Allen Bradley Remote I/O (RIO) System</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Uni-wire H System</td>
</tr>
<tr>
<td>J</td>
<td>SUNX Corp.: S-LINK System (16 output points)</td>
</tr>
<tr>
<td>J2</td>
<td>SUNX Corp.: S-LINK System (8 output points)</td>
</tr>
<tr>
<td>K</td>
<td>Fuji Electric Co.: T-LINK Mini System</td>
</tr>
<tr>
<td>Q</td>
<td>DeviceNet, CompoBus/D (OMRON Corp.)</td>
</tr>
<tr>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S System (16 output points)</td>
</tr>
<tr>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S System (8 output points)</td>
</tr>
<tr>
<td>U</td>
<td>JEMANET (JPCN-1)</td>
</tr>
<tr>
<td>V</td>
<td>Mitsubishi Electric Corp.: CC-LINK System</td>
</tr>
</tbody>
</table>

#### Rated voltage

- **24 V DC**

#### Manual override

- **D** Non-locking push type
- **D** Push-turn locking slotted type

---

### How to Order Valves

#### Option

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

<table>
<thead>
<tr>
<th>(20 stations maximum)</th>
</tr>
</thead>
</table>

#### SI Unit Part No.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>For SX3000/45S</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>With general type SI unit (Series EX300)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Mitsubishi Electric Corp.: MELSECNET/MN-S3 Data Link System</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSSBUS Wire System</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Matsushita Electric Works: MEWNET-F System</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Uni-wire System (16 output points)</td>
<td></td>
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<td>H</td>
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<tr>
<td>J</td>
<td>SUNX Corp.: S-LINK System (16 output points)</td>
<td></td>
</tr>
<tr>
<td>J2</td>
<td>SUNX Corp.: S-LINK System (8 output points)</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Fuji Electric Co.: T-LINK Mini System</td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>DeviceNet, CompoBus/D (OMRON Corp.)</td>
<td></td>
</tr>
<tr>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S System (16 output points)</td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S System (8 output points)</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>JEMANET (JPCN-1)</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Mitsubishi Electric Corp.: CC-LINK System</td>
<td></td>
</tr>
</tbody>
</table>

---

### How to Order Manifold

#### SS5X 45S1 AD 05 U C4

- **Series**
  - SX3000
  - SX5000

- **SI unit**
  - D
  - U
  - C

- **Valve stations**
  - Symbol
    - O: Without SI unit
    - A: Mitsubishi Electric Corp.: MELSECNET/MN-S3 Data Link System
    - C: OMRON Corp.: SYSSBUS Wire System
    - D: SHARP Corp.: Satellite I/O Link System
    - E: Matsushita Electric Works: MEWNET-F System
    - F1: NKE Corp.: Uni-wire System (16 output points)
    - G: Rockwell Automation: Allen Bradley Remote I/O (RIO) System
    - H: NKE Corp.: Uni-wire H System
    - J: SUNX Corp.: S-LINK System (16 output points)
    - J2: SUNX Corp.: S-LINK System (8 output points)
    - K: Fuji Electric Co.: T-LINK Mini System
    - Q: DeviceNet, CompoBus/D (OMRON Corp.)
    - R1: OMRON Corp.: CompoBus/S System (16 output points)
    - R2: OMRON Corp.: CompoBus/S System (8 output points)
    - U: JEMANET (JPCN-1)
    - V: Mitsubishi Electric Corp.: CC-LINK System

- **SI unit mounting position**
  - U side
  - D side

- **A, B port size (Metric size)**
  - Symbol
    - C: One-touch fitting for ø5/32" (12 mm)
    - C6: One-touch fitting for ø5/32" (12 mm)
    - C4: One-touch fitting for ø5/32" (12 mm)
    - C6: One-touch fitting for ø5/32" (12 mm)
    - C8: One-touch fitting for ø5/32" (12 mm)
  - Symbol
    - M: Mixed

- **(Inch size)**
  - Symbol
    - N3: One-touch fitting for ø5/32" (12 mm)
    - N7: One-touch fitting for ø5/32" (12 mm)
    - N3: One-touch fitting for ø5/32" (12 mm)
    - N7: One-touch fitting for ø5/32" (12 mm)
    - N9: One-touch fitting for ø5/32" (12 mm)
    - M: Mixed

- **SUP/EXH block assembly mounting position**
  - Symbol
    - U: U side
    - D: D side

- **Manual override**
  - **D** Non-locking push type
  - **D** Push-turn locking slotted type

---

### How to Order Valves

- **Series**
  - SX 32 40 — 5 LOZ

- **Type of actuation**
  - 1: 2 position single
  - 2: 2 position double
  - 3: 3 position closed center
  - 4: 3 position exhaust center
  - 5: 3 position pressure center

- **rated voltage**
  - **24 V DC**

---

**Note**

- In the case of mixed specifications (M), indicate separately on the manifold specification sheet.
SX3000: Serial Transmission Unit/Plug-in

SS5X3-45S1-U- Stations D-

SS5X3-45S1-U- Stations B-

Note) The L1 to L4 dimensions of SSX5X3-45S1-U- Stations U- are identical to those of SSX5X3-45S1-U- Stations D-.

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.
Note) The L1 to L4 dimensions of SSX3-45S1 □D- Stations □□ are identical to those of SSX3-45ST □D- Stations □□.

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.

SSX3-45S1 □D- Stations U-□□

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.

SSX3-45S1 □D- Stations B-□□
SX5000: Serial Transmission Unit/Plug-in

SS5X5-45S1 □ U- Stations D-C4 C6 C8

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

2-One-touch fittings
(R, P port)
Applicable tubing O.D.: ø8

DIN rail release button

DIN rail holding screw

DIN rail

L3

L4

2-Station n

173

162.5

105

13.5

185.5

175

121

12

210.5

200

137

16.5

223

212.5

153

14.5

235.5

225

169

13

260.5

250

185

17.5

273

262.5

203

15.5

285.5

275

219

14.5

310.5

300

235

13

Note) Width of SI unit applicable to "E": Matsushita Electric Works, Ltd. and "G": Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.
SS5X5-45S1 □-D- Stations U-C8

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

DIN rail holding screw

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

DIN rail

30.8

53 (L4)

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.

SS5X5-45S1 □-D- Stations B-C8

2n-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

4-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

DIN rail holding screw

DIN rail release button

1-6-123

Series SX3000/5000

Base Mounted

SV

SZ

SY

SYJ

SX

Note) The L1 to L4 dimensions of SS5X5-45S1 □-D- Stations □-D- are identical to those of SS5X-45S1 □-D- Stations U-□.

Note) Width of SI unit applicable to “E”: Matsushita Electric Works, Ltd. and “G”: Rockwell Automation, Inc. widens to 24.3 mm. For further information, please consult with SMC.
How to Order Manifold

Type 45S2 (Serial type with IN313)

SS5X 3-45S2 U-06 D-C4

How to Order Applicable SI Unit

IN313—MB1

Applicable makers
- MB1 For Mitsubishi Electric Corporation
- TA1 For OMRON Corporation
- FU1 For Fuji Electric Co., Ltd.
- SH1 For SHARP Corporation
- TY1 For Toyoda Machine Works, Ltd.
- TY2 For Matsushita Electric Works, Ltd.
- HT1 For Hitachi, Ltd.
- AB1 For Rockwell Automation, Inc. (Former Allen Bradley)
- TS1 For TOSHIBA Corporation

How to Order Valves

SX3000/5000 Serial Transmission Type

Type of actuation
- Manual override
  - Nil Non-locking push type
  - D Push-turn locking slotted type

Rated voltage
- 5 24 VDC

Series
- 3 SX3000
- 5 SX5000

Option
- When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)
SS5X3-45S2D- Stations U- C4 C6

SS5X3-45S2D- Stations B- C4 C6

Note) The L1 to L4 dimensions of SS5X3-45S2D- Stations D- C4 C6 SS5X3-45S2U- Stations D- C4 C6 are identical to those of SS5X3-45S2D- Stations U- C4 C6.

Note) The L1 to L4 dimensions of SS5X3-45S2U- Stations B- C4 C6 are identical to those of SS5X3-45S2D- Stations B- C4 C6.

 SX3000: Serial Transmission Unit/Plug-in

SX3000/5000 Type 45S2

Stations n

2 stations

L1

L2

L3

L4

198

210.5

200

192

187.5

200

1102

1102

91.5

102

223

112.5

108

118.5

123

133.5

14

12

14

16

15

16

15

17

17

16

15

15

17

16

15

14

14

13

15

13

18

17

16

15

13

15

14

13

12

13

12

12

11

14

13

12

12

11

11

11

10

9

8

8

7

7

6

6

5

5

4

4

3

3

2

2

1

1

0

0

*(mm)
SSX5000: Serial Transmission Unit/Plug-in

SSX5X-45S2D- Stations U-

DIN rail holding screw

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10
2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

Note) The L1 to L4 dimensions of SSX5X-45S2D-
Stations D-, SSX5X-45S2U-
Stations D- are identical to those of SSX5X-45S2D-
Stations U-.

SSX5X-45S2D- Stations B-

DIN rail release button

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10
2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6, ø8

Note) The L1 to L4 dimensions of SSX5X-45S2U-
Stations B- are identical to those of SSX5X-45S2D-
Stations B-.

DIN rail holding screw

4-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

DIN rail

(Rail mounting hole pitch 12.5)
Made to Order Specifications:
Series SX3000/5000 Serial Transmission Type
With OMRON Corp’s G71-OD16

How to Order Manifold

Type 45S3 (Serial type with transmission unit)

SS5X 3 45S3 U 06 D C4

Specifications

Symbol Specifications
Nil With transmission unit
O Without transmission unit

Note Even though when it is not equipped with transmission unit, DIN rail length is long enough for future expectancy of mounting transmission unit. When a shorter rail is required (same as type 45C), suffix “O” in the optional blank at the end of part number.

Transmission unit mounting position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

Valve stations

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>2 stations</td>
<td>Double wiring specifications</td>
</tr>
<tr>
<td>08</td>
<td>8 stations</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>9 stations</td>
<td>Applicable up to 16 solenoids. Use the manifold specification sheet to specify the wiring specifications.</td>
</tr>
<tr>
<td>16</td>
<td>16 stations</td>
<td>This also includes the number of blanking plate assemblies. When special wiring is required on manifold with 2 to 8 stations, please use the manifold specification sheet.</td>
</tr>
</tbody>
</table>

SUP/EXH block assembly mounting position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>B</td>
<td>Both sides</td>
<td>2 to 16 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td></td>
</tr>
</tbody>
</table>

A, B port size

(Metric size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SX3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SX5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>One-touch fitting for ø3/32&quot;</td>
<td>SX3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4&quot;</td>
<td>SX5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

(Inch size)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3</td>
<td>One-touch fitting for ø3/32&quot;</td>
<td>SX3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1/4&quot;</td>
<td>SX5000</td>
</tr>
<tr>
<td>N9</td>
<td>One-touch fitting for ø1/8&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

How to Order Valves

SX 3 2 40 — 5 LOZ

Series

| 3 | SX3000 |
| 5 | SX5000 |

Type of actuation

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

Rated voltage

| 5 | 24 VDC |

Manual override

| Nil | Non-locking push type |
| D  | Push-turn locking slotted type |

Internal Wiring of Manifold

Serial type 45S3

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

Caution

The wiring specifications for SS5X 45S30 are different from those for SS5X 45PG.
SX3000: Serial Transmission Unit/Plug-in

**SS5X3-45S3D- Stations U**

- DIN rail release button
- 2-One-touch fittings (P, R port)
- Applicable tubing O.D.: ø8
- 2n-One-touch fittings (A, B port)
- Applicable tubing O.D.: ø4, ø6

<table>
<thead>
<tr>
<th>Station (L)</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>198</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
</tr>
<tr>
<td>L2</td>
<td>187.5</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
</tr>
<tr>
<td>L3</td>
<td>91.5</td>
<td>102</td>
<td>112.5</td>
<td>123</td>
</tr>
<tr>
<td>L4</td>
<td>17</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station (mm)</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
<td>280.5</td>
<td>273</td>
</tr>
<tr>
<td>L2</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
<td>262.5</td>
<td>275</td>
</tr>
<tr>
<td>L3</td>
<td>108</td>
<td>118.5</td>
<td>129</td>
<td>140.5</td>
<td>150</td>
<td>160.5</td>
<td>171</td>
</tr>
<tr>
<td>L4</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
</tbody>
</table>

**SS5X3-45S3D- Stations B**

- DIN rail release button
- 4-One-touch fittings (P, R port)
- Applicable tubing O.D.: ø8

<table>
<thead>
<tr>
<th>Station (mm)</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
<td>280.5</td>
<td>273</td>
</tr>
<tr>
<td>L2</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
<td>262.5</td>
<td>275</td>
</tr>
<tr>
<td>L3</td>
<td>108</td>
<td>118.5</td>
<td>129</td>
<td>140.5</td>
<td>150</td>
<td>160.5</td>
<td>171</td>
</tr>
<tr>
<td>L4</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
</tbody>
</table>

Note: The L1 to L4 dimensions of SS5X3-45S3D- Stations B are identical to those of SS5X3-45S3D- Stations U.

Note: The L1 to L4 dimensions of SS5X3-45S3U- Stations B are identical to those of SS5X3-45S3D- Stations U.
SS5X-45S3D- Stations U-

SS5X-45S3D- Stations B-

Note) The L1 to L4 dimensions of SS5X3-45S3D- Stations D-, SS5X5-45S3U- Stations D- are identical to those of SS5X5-45S3D- Stations D-.

Note) The L1 to L4 dimensions of SS5X5-45S3U- Stations B- are identical to those of SS5X5-45S3D- Stations B-.

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>5 stations</th>
<th>6 stations</th>
<th>7 stations</th>
<th>8 stations</th>
<th>9 stations</th>
<th>10 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>210</td>
<td>223</td>
<td>225</td>
<td>250</td>
<td>260.5</td>
<td>260.5</td>
<td>260.5</td>
<td>273</td>
<td>285.5</td>
<td>300</td>
</tr>
<tr>
<td>L2</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>250</td>
<td>262.5</td>
<td>275</td>
<td>287.5</td>
<td>312.5</td>
<td>325</td>
<td>335.5</td>
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<td>121</td>
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<td>153</td>
<td>169</td>
<td>189</td>
<td>201</td>
<td>217</td>
<td>235</td>
<td>255</td>
</tr>
<tr>
<td>L4</td>
<td>16.5</td>
<td>15</td>
<td>13</td>
<td>17</td>
<td>16</td>
<td>14</td>
<td>12.5</td>
<td>17</td>
<td>15</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>11 stations</th>
<th>12 stations</th>
<th>13 stations</th>
<th>14 stations</th>
<th>15 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>348</td>
<td>373</td>
<td>385.5</td>
<td>398</td>
<td>410.5</td>
<td>435.5</td>
<td>448</td>
<td>437.5</td>
<td>437.5</td>
</tr>
<tr>
<td>L2</td>
<td>337.5</td>
<td>362.5</td>
<td>375</td>
<td>387.5</td>
<td>400</td>
<td>425</td>
<td>437.5</td>
<td>437.5</td>
<td>448</td>
</tr>
<tr>
<td>L3</td>
<td>251</td>
<td>267</td>
<td>283</td>
<td>299</td>
<td>315</td>
<td>331</td>
<td>347</td>
<td>347</td>
<td>347</td>
</tr>
<tr>
<td>L4</td>
<td>12.5</td>
<td>17</td>
<td>13</td>
<td>11.5</td>
<td>16</td>
<td>16</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>
* The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

They will be assembled in the order listed starting at the first station at the D side even if SUP/EXH block assembly is located at either end. Besides, when the arrangement will be complicated, fill out the Manifold specification sheet to instruct us. For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold. To order the SUP/EXH block assembly (SX3500-51-1A) mounted at a location other than the ends of manifold, refer to the manifold specification sheet along with assembly part no.

**How to Order Valve Manifold Assembly**

**Ordering example**

- Double solenoid (External pilot specifications) SX3140R-SG (3 sets)
- Double solenoid (External pilot specifications) SX3240R-SG (3 sets)

**Manifold base (5 stations)**

SSX3-45-05DRS-C6

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

They will be assembled in the order listed starting at the first station at the D side even if SUP/EXH block assembly is located at either end. Besides, when the arrangement will be complicated, fill out the Manifold specification sheet to instruct us. For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold. To order the SUP/EXH block assembly (SX3500-51-1A) mounted at a location other than the ends of manifold, refer to the manifold specification sheet along with assembly part no.

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**Plug-in Type**

### How to Order Manifold

**Type 45**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

### SUP/EXH block assembly specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>External pilot specifications</td>
</tr>
<tr>
<td>D</td>
<td>Internal pilot/Built-in silencer</td>
</tr>
<tr>
<td>RS</td>
<td>External pilot/Built-in silencer</td>
</tr>
</tbody>
</table>

**Common specifications**

- **Series**
  - 3 SX3000
  - 5 SX5000

- **Connector type**
  - D-sub connector
  - Flat ribbon cable 26 pins
  - Flat ribbon cable 20 pins
  - Flat ribbon cable 10 pins
  - Terminal block 9 pins
  - Terminal block 18 pins
  - Flat ribbon cable (PC wiring system compatible)

- **Connector mounting position**
  - U side
  - D side

- **Valve stations**
  - **A, B port size** (Metric size)
    - Symbol: Port size
    - C4: One-touch fitting for ø4
    - C6: One-touch fitting for ø6
    - M: Mixed
  - Symbol: Voltage
    - C6: 12 V
    - SX3000: 24 VDC
  - Symbol: Type of actuation
    - N3: 2 position single
    - N7: 3 position closed center
    - M: Mixed
  - Symbol: Rated voltage
    - M: 24 VDC

- **Option**
  - When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

### How to Order Valve Manifold Assembly

**Ordering example**

- Single solenoid (External pilot specifications)
  - SX3140R-SLOZ (3 sets)

- Double solenoid (External pilot specifications)
  - SX3240R-SLOZ (1 set)

**Made to Order Specifications Series SX3000/5000 Type 45**
External Pilot/Built-in Silencer

SX3000: SS5X3-45- Stations C4 C6

SS5X3-45- Stations C4 C6

SX5000: SS5X5-45- Stations C4 C6

SS5X5-45- Stations C4 C6

Note) The dimensions L1 to L4 are identical to SS5X3-45 - Station (P. 1-6-78).

Note) The dimensions L1 to L4 are identical to SS5X5-45 - Station (P. 1-6-79).
External Pilot/Built-in Silencer

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

SX5000: SS5X5-45FU- Stations DRS-C4, C6

SS5X3-45FU- Stations DR-C4, C6

SS5X5-45FU- Stations DR-C4, C6

Note: The dimensions L1 to L4 are identical to SS5X3-45FU Station 1 (P. 1-6-92).

Note: The dimensions L1 to L4 are identical to SS5X5-45FU Station 1 (P. 1-6-94).

Power supply terminal (M3 thread)
(The voltage indication marking is for 24 VDC.)

2n-One-touch fittings
(A, B port)
Applicable tubing O.D.: ø4, ø6

DIN rail release button

DIN rail holding screw

Silencer
(Air discharge port)
Equivalent to applicable D-sub connector JIS-X-5101 MIL-C-24308

Manual override
(Press and turn for the locking type.)
A: Orange
B: Green

Equivalent to applicable D-sub connector JIS-X-5101 MIL-C-24308

No. 1 terminal
(Pitch)
P = 10.5

2-One-touch fittings
(PE, X port)
Applicable tubing O.D.: ø4

2-One-touch fittings
(P, R port)
Applicable tubing O.D.: ø10

Applicable tubing O.D.: ø8

Applicable tubing O.D.: ø4, ø6, ø8

Applicable tubing O.D.: ø10

Applicable tubing O.D.: ø4

32.4
56.8
61.2
66.0
76.3
115.3
10.4
16.4
27.6
36.8
41.2
27.0
34.5
27.0
34.5
27.0
34.5
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27.0
34.5
27.0
34.5
27.0
34.5
Non plug-in type

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

How to Order Manifold

Type M45 (Mixed mounting type)

SS5X5-M45-05U-C86

Mixed mounting style

Valve stations

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>2 stations</td>
</tr>
<tr>
<td>20</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

SUP/EXH block assembly mounting position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
<tr>
<td>B</td>
<td>Both sides</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
</tr>
</tbody>
</table>

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

Sup/EXH block assembly specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard/Internal pilot specifications</td>
</tr>
<tr>
<td>S</td>
<td>Built-in silencer</td>
</tr>
</tbody>
</table>

Symbol specifications

A, B port size (Inch size)

<table>
<thead>
<tr>
<th>Series</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Mixed mounting style

Type M45 (Mixed mounting type)

SS5X5-M45-05U-C86

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations maximum)

SUP/EXH block assembly specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard/Internal pilot specifications</td>
</tr>
<tr>
<td>S</td>
<td>Built-in silencer</td>
</tr>
</tbody>
</table>

External pilot specifications are unavailable for mixed mounting style.

Symbol specifications

A, B port size (Inch size)

<table>
<thead>
<tr>
<th>Series</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>C4</td>
<td>SX5000: One-touch fitting for ø4</td>
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<tr>
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<tr>
<td>C4</td>
<td>SX3000: One-touch fitting for ø4</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Mixed mounting style

Type M45 (Mixed mounting type)

SS5X5-M45-05U-C86

How to Order Valves

SX 5 2 40 - 5 N L

Series

3 SX3000
5 SX5000

Type of actuation

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

Rated voltage

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

Common specifications

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Positive common</th>
<th>Negative common</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Positive common</td>
<td>Negative common</td>
</tr>
</tbody>
</table>

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

Manual override

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Non-locking push type</td>
</tr>
<tr>
<td>D</td>
<td>Push-turn locking slotted type</td>
</tr>
</tbody>
</table>

Light/Surge voltage suppressor

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Without light/surge voltage suppressor</td>
</tr>
<tr>
<td>S</td>
<td>With surge voltage suppressor</td>
</tr>
<tr>
<td>Z</td>
<td>With light/surge voltage suppressor</td>
</tr>
</tbody>
</table>

Grommet

<table>
<thead>
<tr>
<th>Series</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>300 mm</td>
</tr>
<tr>
<td>H</td>
<td>600 mm</td>
</tr>
</tbody>
</table>

L plug connector

<table>
<thead>
<tr>
<th>Series</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>300 mm</td>
</tr>
<tr>
<td>L</td>
<td>600 mm</td>
</tr>
</tbody>
</table>

M plug connector

<table>
<thead>
<tr>
<th>Series</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>300 mm</td>
</tr>
<tr>
<td>MN</td>
<td>600 mm</td>
</tr>
<tr>
<td>MO</td>
<td>600 mm</td>
</tr>
</tbody>
</table>

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

1-6-134
Common specifications

How to Order Manifold

Mixed mounting style
Type M45 (Mixed mounting type)

SS5X5-M45

Mixed mounting style

Common specifications

Nil Positive common
N Negative common

No symbol is used for Type M45 (Mixed mounting type)

Plug-in type

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

How to Order Manifold

Series 2 40 5 LOZ

Type of actuation
1 2 position single
2 2 position double
3 3 position closed center
4 3 position exhaust center
5 3 position pressure center

Voltage

24 VDC
12 VDC

Rated voltage

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

Option

No symbol is used for T, T1, S types. For details, refer to pages 1-6-82 to 85, 112, 119, 124, and 127.

Manual override

Nil Non-locking push type
D Push-turn locking slotted type

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

Made to Order Specifications Series SX3000/5000

How to Order Valve Manifold Assembly

Ordering example

Solenoid valve SX5140-5LOZ (2 sets)
Solenoid valve SX3140-5LOZ (3 sets)

Manifold block assembly for SX5000

Manifold block assembly for SX3000

SYJ
SY
SZ
SX

SY

SY

SY

SY
SS5X5-M45- Stations U

Dimensions: Mixed Mounting

L dimension: Formulae for L1 to L4
L3 = 12.5 x n1 + 16 x n2 + 52
M = (L3 / 12.5 - 1) Omit decimals
L1 = 12.5 x 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

L dimension: Formulae for L1 to L4
L3 = 12.5 x n1 + 16 x n2 + 70
M = (L3 / 12.5 - 1) Omit decimals
L1 = 12.5 x M + 23
L2 = L1 - 10.5
L4 = (L1 - L3) / 2

n1: Number of SX3000’s stations
n2: Number of SX5000’s stations
Dimensions: Mixed Mounting

SS5X5-M45FD- Stations U

SS5X5-M45FD- Stations B

L dimension: Formulae for L1 to L4
L3 = 12.5 x n1 + 16 x n2 + 91
M = \( \frac{L3}{\text{Omit decimals}} \)
L1 = 12.5 x M + 23
L2 = L1 – 10.5
L4 = (L1 – L3)/2

n1: Number of SX3000's stations
n2: Number of SX5000's stations
Main Valve Fluoro Rubber Specifications  -X90

Fluoro rubber is used for rubber parts of the main valve to allow use in applications such as the following.

1. When using a lubricant other than the recommended turbine oil, and there is a possibility of malfunction due to swelling of the spool valve seals.
2. When ozone enters or is generated in the air supply.

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

Model no. SX□□□ □□□□□ -X90

- Entry is the same as standard products.

Note) Because in series -X90 fluoro rubber is used for only main valve, the rubber parts of the application/usage in conditions requiring heat resistance should be avoided.