How to Order Manifold

SS5Y 3 45 05 U C6

Series
Valve stations
3 SY3000
5 SY5000

SUP/EXH block assembly
mounting position
Symbol  Mounting position  Applicable no. of stations
U  U side  2 to 10 stations
D  D side  2 to 20 stations
B  (Both sides)  2 to 20 stations
M  Special specifications

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

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>SY3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td>SY5000</td>
</tr>
<tr>
<td>C8</td>
<td>One-touch fitting for ø8</td>
<td>SY3000</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 1/4&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for 1/2&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td>SY5000</td>
</tr>
<tr>
<td>N9</td>
<td>One-touch fitting for 5/8&quot;</td>
<td>SY5000</td>
</tr>
</tbody>
</table>

* In the case of mixed specifications (M), 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 at maximum)

For external pilot specifications and built-in silencer, refer to catalog on page 1-4-194.

How to Order Valve Manifold Assembly

Ordering example

Double solenoid (24 VDC)
SY3240-5G (2 sets)

Single solenoid (24 VDC)
SY3140-5G (2 sets)
Blanking plate assembly
SX3000-75-1A
Cylinder port size
C6 With One-touch fitting for ø6
Manifold base (5 stations)
SSSY3-45-05D-C6

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

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

Type of actuation

| 3 | SY3000 |
| 5 | SY5000 |

Electrical entry for G, H, L, M, W

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor
- R: With surge voltage suppressor (Non-polar type)
- U: With light/surge voltage suppressor (Non-polar type)

Electrical entry for D

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor (Non-polar type)

- For AC voltage valves there is no “S” option. It is already built-in to the rectifier circuit.
- For “R” and “U”, DC voltage is only available.
- Power saving circuit is only available in the “Z” type.

Coil specifications

- Nil: Standard
- T: With power saving circuit (24, 12 VDC only)

- Power saving circuit is not available in the case of “D”, “DO” or “W” type.

Rated voltage

<table>
<thead>
<tr>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>V</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>R</td>
</tr>
</tbody>
</table>

AC (Hz)%

| 1 | 100 VAC |
| 2 | 200 VAC |
| 3 | 110 VAC [115 VAC] |
| 4 | 220 VAC [230 VAC] |

- DC specifications of type “D” and “DO” is only available with 12 and 24 VDC.
- For type “W”, DC voltage is only available.
- “D” and “DO” only available for SY5000.

- For AC voltage valves there is no “S” option. It is already built-in to the rectifier circuit.

Manual override

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

Light/Surge voltage suppressor

- Electrical entry for G, H, L, M, W
  - Nil: Without light/surge voltage suppressor
  - S: With surge voltage suppressor
  - Z: With light/surge voltage suppressor
  - R: With surge voltage suppressor (Non-polar type)
  - U: With light/surge voltage suppressor (Non-polar type)

- For AC voltage valves there is no “S” option. It is already built-in to the rectifier circuit.
- For “R” and “U”, DC voltage is only available.
- Power saving circuit is only available in the “Z” type.

Electrical entry for D

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor (Non-polar type)
- For AC voltage valves there is no “S” option. It is already built-in to the rectifier circuit.

Electrical entry

<table>
<thead>
<tr>
<th>24, 12 VDC/100, 110, 200, 220 VAC</th>
<th>24, 12 VDC/100, 110, 200, 220 VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G: Lead wire length 300 mm</td>
<td>L: With lead wire (Length 300 mm)</td>
</tr>
<tr>
<td>H: Lead wire length 600 mm</td>
<td>LO: Without connector</td>
</tr>
<tr>
<td>M: With lead wire (Length 300 mm)</td>
<td>MN: Without lead wire</td>
</tr>
<tr>
<td>LN: Without lead wire</td>
<td>MO: Without connector</td>
</tr>
</tbody>
</table>

- Without connector cable
- “G” and “H” type: with 2 sockets.
- “LN”, “MN” type: with 2 sockets.
- D and DO only available for SY5000.
## Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>SS5Y3-45</th>
<th>SS5Y5-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable valve</td>
<td>SY3L40</td>
<td>SY5L40</td>
</tr>
<tr>
<td>Manifold type</td>
<td>Stacking type/DIN rail mounted</td>
<td></td>
</tr>
<tr>
<td>P (SUP)/R (EXH)</td>
<td>Common SUP, Common EXH</td>
<td></td>
</tr>
<tr>
<td>Valve stations</td>
<td>2 to 20 stations Note 1)</td>
<td></td>
</tr>
<tr>
<td>A, B port</td>
<td>Location</td>
<td>Base</td>
</tr>
<tr>
<td>Porting specifications</td>
<td>Direction</td>
<td>Side</td>
</tr>
<tr>
<td>P, R port</td>
<td>C8 (One-touch fitting for ø8)</td>
<td>C10 (One-touch fitting for ø10)</td>
</tr>
<tr>
<td>A, B port</td>
<td>C4 (One-touch fitting for ø4)</td>
<td>C4 (One-touch fitting for ø4)</td>
</tr>
<tr>
<td></td>
<td>C6 (One-touch fitting for ø6)</td>
<td>C6 (One-touch fitting for ø6)</td>
</tr>
<tr>
<td></td>
<td>C8 (One-touch fitting for ø8)</td>
<td>C8 (One-touch fitting for ø8)</td>
</tr>
<tr>
<td>Manifold base weight</td>
<td>2 to 10 stations: W = 22n + 118</td>
<td>2 to 10 stations: W = 22n + 140</td>
</tr>
<tr>
<td></td>
<td>11 to 20 stations: W = 47n + 156</td>
<td>11 to 20 stations: W = 47n + 190</td>
</tr>
</tbody>
</table>

*Note 1*) For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.

## Flow Characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Port size</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1, 5, 3 (P, EA, EB)</td>
<td>4, 2 (A, B)</td>
</tr>
<tr>
<td></td>
<td>C8</td>
<td>C6</td>
</tr>
<tr>
<td>SS5Y3-45</td>
<td>C10</td>
<td>C8</td>
</tr>
</tbody>
</table>

*Note*) 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**

**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**
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.)

**L 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)

**Silencer with One-touch fitting**
The silencer plugs directly into the One-touch fittings of the manifold.

**Dimensions/DIN rail**

**VZ1000-11-1**
*Refer to L dimensions*

**Note**
The SUP port may be either on the lead wire side or on the end plate side.

**Blanking plate assembly**

**Caution**

Mounting screw tightening torques

**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.

**L Plug (white)**
These are inserted in unused cylinder ports and SUP, EXH ports. Purchasing order is available in units of 10 pieces.

**Dimensions**

<table>
<thead>
<tr>
<th>Applicable fittings size</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>1/4&quot;</td>
<td>KQ2P-01</td>
<td>16</td>
<td>31.5</td>
<td>5</td>
</tr>
<tr>
<td>5/16&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8.5</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
</tbody>
</table>

*Refer to L1 dimension on pages starting with page 1-4-126 for lengths that correspond to the number of manifold stations.
Manifold Option

- How to Order Interface Regulator (SY3000/5000 only)

Series SY3000

**ARBY3000**

- **05**
- **P**
- **2**

**Regulating port**
- P port
- A1: A port (P controlled type, A port regulation)
- B1: B port (P controlled type, B port regulation)

**Pressure gauge connection port**
- 05: Pressure gauge (G15-10-01) [for odd number station]
- 06: Pressure gauge (G15-10-01) [for even number station]
- M1: Plug (M-SP)

- In the case of Series ARBY3000 with a pressure gauge when mounting on the manifold, use caution that the part numbers are different between the odd no. stations and the even no.

Series SY5000

**ARBY5000**

- **00**
- **P**
- **2**

**Regulating port**
- P port
- A1: A port (P controlled type, A port regulation)
- B1: B port (P controlled type, B port regulation)

**Pressure gauge connection port**
- 00: Pressure gauge (G15-10-01)
- M1: Plug (M-SP)

Accessory

<table>
<thead>
<tr>
<th>Series</th>
<th>Round head combination screw</th>
<th>Gasket</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBY3000</td>
<td>SY3000-23-10 (M23x38)</td>
<td>SX3000-57-4</td>
</tr>
<tr>
<td>ARBY5000</td>
<td>M3 x 48.5, Matt nickel plated</td>
<td>SX5000-57-6</td>
</tr>
</tbody>
</table>

**Caution**

Mounting screw tightening torques
- M2: 0.17 N·m
- M3: 0.8 N·m
Dimensions: Series SY5000

SS5Y5-45 - Stations D  C4, N3  C6, N7  C8, N9

SS5Y5-45 - Stations U  C4, N3  C6, N7  C8, N9

With interface regulator (with gauge)
DIN Rail Manifold Exploded View

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>SY5000-50-1A</td>
</tr>
<tr>
<td>②</td>
<td>SUP/EXH block assembly</td>
<td>SX3000-51-1A</td>
<td>SY5000-51-1A</td>
</tr>
<tr>
<td></td>
<td>(Metric size)</td>
<td>SX3000-51-15A</td>
<td>SY5000-51-15A</td>
</tr>
<tr>
<td></td>
<td>(Inch size)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>③</td>
<td>End block assembly R</td>
<td>SX3000-52-1A</td>
<td>SX5000-52-1A</td>
</tr>
<tr>
<td>④</td>
<td>End block assembly R</td>
<td>SX3000-53-1A</td>
<td>SX5000-53-1A</td>
</tr>
<tr>
<td>⑤</td>
<td>Round head combination screw</td>
<td>SY3000-23-4</td>
<td>M3 x 26 (Matt nickel plated)</td>
</tr>
<tr>
<td>⑥</td>
<td>Gasket</td>
<td>SX3000-57-4</td>
<td>SX5000-57-6</td>
</tr>
<tr>
<td>⑦</td>
<td>DIN rail</td>
<td>VZ1000-11-1</td>
<td>Refer to page 1-4-123.</td>
</tr>
</tbody>
</table>

Refer to page 1-4-123.

SY3000/5000 Series

Base Mounted
How to Increase Manifold Base

1. Loosen bolt (①) fixing the manifold base until it begins to turn idly. (While pressing DIN rail releasing buttons ② at two locations, separate the manifold base from the DIN rail.)
2. Press manifold block assembly dividing button ⑤, that are at the location where manifold bases are to be added, until button ⑥ locks, and then separate the block assemblies.
3. Mount additional manifold block assembly on the DIN rail as shown in the Fig. (1).
4. Press the block assemblies until a click sound is produced, and tighten the bolts ⑦ 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, etc. For mounting a new fitting assembly, insert it and then insert a clip until it will not come out of the manifold block.

Fitting Assembly Part No.

<table>
<thead>
<tr>
<th>Metric size</th>
<th>SY3000</th>
<th>SY5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY3000</td>
<td>SY5000</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø4</td>
<td>SY3000</td>
<td>SY5000</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>VVQ1000-50A-C4</td>
<td>VVQ1000-50A-C6</td>
</tr>
<tr>
<td>One-touch fitting for ø8</td>
<td>VVQ1000-50A-C7</td>
<td>VVQ1000-50A-C8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inch size</th>
<th>SY3000</th>
<th>SY5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY3000</td>
<td>SY5000</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø5/32&quot;</td>
<td>VVQ1000-50A-N3</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø1/4&quot;</td>
<td>VVQ1000-50A-N7</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø3/16&quot;</td>
<td>VVQ1000-51A-N3</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø1/2&quot;</td>
<td>VVQ1000-51A-N7</td>
<td></td>
</tr>
<tr>
<td>One-touch fitting for ø9/16&quot;</td>
<td>VVQ1000-51A-N9</td>
<td></td>
</tr>
</tbody>
</table>

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

Fig. (1) Block mounting procedure

Hook the DIN rail here and press down in the direction of the arrow until a click sound is heard.
### How to Order Manifold

**Series** SY3000/5000  
**Base Mounted Manifold**  
**Stacking Type/DIN Rail Mounted**  
**Connector Box**

#### How to Order Manifold

**SS5Y**

- **3** SY3000
- **5** SY5000

**Specifications**

- **A** With connector box (+COM spec.)
- **NA** With connector box (-COM spec.)

The style of attached lead wire assembly is different.

**Connector box 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**

- **Symbol**
  - 02: 2 stations
  - 1: 1
  - 16: 16 stations

**SUP/EXH block assembly mounting position**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
<th>Applicable 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 16 stations</td>
</tr>
</tbody>
</table>

**Option**

- **Mixed**

**Supplementary**

- **Symbol**
  - C4: One-touch fitting for ø4
  - C6: One-touch fitting for ø6
  - M: Mixed

- **Applicable port size**
  - SY3000
  - SY5000

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

- **Symbol**
  - C4: One-touch fitting for ø4
  - C6: One-touch fitting for ø6
  - M: Mixed

**Rated voltage**

- **5** 24VDC

---

**How to Order Valve Manifold Assembly**

**Ordering example (SY3000, +COM, U side)**

- Double solenoid (24 VDC)
- SY3240-SLOU (2 sets)
- Single solenoid (24 VDC)
- SY3140-5LOU (2 sets)
- Cylinder port size
- CE With One-touch fitting for ø6
- Manifold base
- SS5Y3-45-AU-05D-C6

**Blanking plate assembly**

- SX3000-75-1A

**The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of connector box. 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. SS5Y3-45-AU-05D-C6 is assembled with solenoid valve and lead wire assembly when shipping. When ordering manifold only (without valves/wires/options), refer to how to order on page 1-4-120 and list the connector box (VZ3000-106-1A) and the rail stopper (TXE1-SMC) below the manifold to allow for the connector box mounting at U side. (Be sure to order DIN rail 3 station longer than number of the manifold stations.) In this case, please note that dimensions, L1 and L2 on pages 1-4-136 and 1-4-137 may vary slightly.) For other components, refer to page 1-4-138.

**Blanking plate assembly**

- SX3000-75-1A

**Double solenoid (24 VDC)**

- SY3240-SLOU (2 sets)

**Single solenoid (24 VDC)**

- SY3140-5LOU (2 sets)

**Cylinder port size**

**Manual override**

- **Nil** Non-locking push type
- **D** Push-turn locking slotted type
- **E** Push-turn locking lever type

**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
**Manifold Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>SS5Y3-45-4</th>
<th>SS5Y5-45-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold type</td>
<td>Stacking type/DIN rail mounted</td>
<td>Common SUP, Common EXH</td>
</tr>
<tr>
<td>A, B port</td>
<td>Location</td>
<td>Direction</td>
</tr>
<tr>
<td>P, R port</td>
<td>C8 (One-touch fitting for ø8)</td>
<td>C10 (One-touch fitting for ø10)</td>
</tr>
<tr>
<td>A, B port</td>
<td>C4 (One-touch fitting for ø4)</td>
<td>C4 (One-touch fitting for ø4)</td>
</tr>
<tr>
<td>C6 (One-touch fitting for ø6)</td>
<td>C6 (One-touch fitting for ø6)</td>
<td></td>
</tr>
<tr>
<td>Manifold base weight W (g)</td>
<td>n: Stations</td>
<td>Base</td>
</tr>
<tr>
<td>2 to 10 stations: W = 26n + 207</td>
<td>11 to 20 stations: W = 26n + 229</td>
<td></td>
</tr>
<tr>
<td>11 to 16 stations: W = 52n + 245</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applicable flat ribbon cable connector</td>
<td>Flat ribbon cable connector Socket: 20 pins MIL type with strain relief conforming to MIL-C-83503</td>
<td></td>
</tr>
<tr>
<td>Wiring specifications</td>
<td>+COM specifications (Type 45-A), –COM specifications (Type 45-NA)</td>
<td></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></td>
<td>1, 5, 3 (P, EA, EB)</td>
<td>4, 2 (A, B)</td>
</tr>
<tr>
<td>SS5Y3-45-4</td>
<td>C8</td>
<td>C6</td>
</tr>
<tr>
<td>SS5Y5-45-4</td>
<td>C10</td>
<td>C8</td>
</tr>
</tbody>
</table>

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

**Manifold Wiring Diagram (Circuit diagram for the reference layout)**

- Connector box for +COM allows transmission until G71-OD16, manufactured by OMRON Corp., to be connected directly for serial transmission. Additionally, it can also be used for the PC wiring system.
- When an external power source must be supplied to the manifold, correct polarity must be observed, otherwise damage to PLC is possible.
- The wiring of solenoid valves, corresponds with the labeled connector box 0 to 15 from D side.
- If valves other than non-polar type are used, this may cause malfunction.
Manifold Option

### Individual SUP spacer assembly  Individual EXH spacer assembly

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.

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.)

### Blanking plate assembly

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

- **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.

### Cable assembly

**AXT100-FC20-1**

- **Connect an AXT100-FC20-1 cable**

  - **Cable length (L)**
  - **Assembly part no.**
  - **Note**
  - **Cable 20 core x 22 AWG**

  - 1.5 m: AXT100-FC20-1
  - 3 m: AXT100-FC20-2
  - 5 m: AXT100-FC20-3

- **For other commercial connectors, use a 20 pins with strain relief conforming to MIL-C-83503.**

### Connector Assembly for Flat Ribbon Cable

- **Model**
- **Effective area**
- **For SY3000**
  - ø16: AN200-KM10 26 mm² ø22 53.8 80.8
  - ø20: AN300-KM10 30 mm² ø25 60 97

### 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, and then mount it.
How to Order Interface regulator (SY3000, 5000 only)

**Series SY3000**

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBY3000</td>
<td>05</td>
<td>P 2</td>
</tr>
<tr>
<td>ARBY3000</td>
<td>06</td>
<td>Pressure gauge (G15-10-01) for even number station</td>
</tr>
<tr>
<td>ARBY3000</td>
<td>M1</td>
<td>Plug (M-5P)</td>
</tr>
</tbody>
</table>

**Series SY5000**

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBY5000</td>
<td>00</td>
<td>P 2</td>
</tr>
<tr>
<td>ARBY5000</td>
<td>M1</td>
<td>Pressure gauge (G15-10-01)</td>
</tr>
</tbody>
</table>

- **Regulating port**
  - P: P port
  - A1: A port (P controlled type, A port regulation)
  - B1: B port (P controlled type, B port regulation)

- **Pressure gauge connection port**
  - 05: Pressure gauge (G15-10-01) for odd number station
  - 06: Pressure gauge (G15-10-01) for even number station
  - M1: Plug (M-5P)

- In the case of Series ARBY3000 with a pressure gauge when mounting on the manifold, use caution that the part numbers are different between the odd no. stations and the even no. stations to avoid gauges from interfering from each others.

**Accessory**

<table>
<thead>
<tr>
<th>Series</th>
<th>Round head combination screw</th>
<th>Gasket</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBY3000</td>
<td>SY3000-23-10 (M2 x 36)</td>
<td>SX3000-57-4</td>
</tr>
<tr>
<td></td>
<td>M3 x 48.5</td>
<td>SX3000-57-6</td>
</tr>
<tr>
<td>ARBY5000</td>
<td>SX5000-57-4</td>
<td>SX5000-57-8</td>
</tr>
</tbody>
</table>

**Caution**

Mounting screw tightening torques
- M2: 0.16 N·m
- M3: 0.8 N·m
DIN Rail Manifold Exploded View

45-A Type

**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>SX5000-50-1A-□</td>
</tr>
<tr>
<td>②</td>
<td>SUP/EXH block assembly</td>
<td>SX3000-51-1A (Inch size)</td>
<td>SX5000-51-1A (Inch size)</td>
</tr>
<tr>
<td>③</td>
<td>End block assembly R</td>
<td>SX3000-52-1A</td>
<td>SX5000-52-1A</td>
</tr>
<tr>
<td>④</td>
<td>End block assembly L</td>
<td>SX3000-53-1A</td>
<td>SX5000-53-1A</td>
</tr>
<tr>
<td>⑤</td>
<td>Connector box</td>
<td>VZ3000-106-1A</td>
<td>VZ3000-106-1A</td>
</tr>
<tr>
<td>⑥</td>
<td>Rail stopper</td>
<td>TXE1-SMC</td>
<td>Made by Kasuga Electric Works, Ltd.</td>
</tr>
<tr>
<td>⑦</td>
<td>Connector assembly</td>
<td>SY3000-43-1A-□</td>
<td>SY3000-43-1A-□</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SY3000-43-2A-□</td>
<td>SY3000-43-2A-□</td>
</tr>
<tr>
<td>⑧</td>
<td>Dust cap</td>
<td>SY3000-43-1NA-□</td>
<td>SY3000-43-1NA-□</td>
</tr>
<tr>
<td>⑨</td>
<td>Round head combination screw</td>
<td>SY3000-23-4</td>
<td>M3 x 26. Matt nickel plated</td>
</tr>
<tr>
<td>⑩</td>
<td>Gasket</td>
<td>SX3000-57-4</td>
<td>SX5000-57-6</td>
</tr>
<tr>
<td>⑪</td>
<td>DIN rail</td>
<td>VZ1000-11-1-□</td>
<td>Refer to page 1-4-123.</td>
</tr>
</tbody>
</table>
How to Increase Manifold Base

1. Loosen bolt ③ fixing the manifold base until it begins to turn idly. (While pressing DIN rail releasing buttons ②, at two locations, separate the manifold base from the DIN rail.)

2. Press manifold block assembly dividing button ⑤, that are at the location where manifold bases are to be added, until button ④ locks, and then separate the block assemblies.

3. Mount additional manifold block assembly on the DIN rail as shown in the Fig. (1).

4. Press the block assemblies until a click sound is produced, and tighten the bolts ③ 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.)

5. Untighten the rail stopper bolt ② to demount the connector box from the DIN rail, and when remounting it, tighten the bolt while pressing it against the rail.

Caution
Note 1) When there are 10 or fewer manifold block assemblies, and more are added to make a total of 11 or more, a supply/exhaust block assembly must also be added.

Note 2) When disassembly and assembly are performed, air leakage may result if connections between blocks and tightening of the end block's holding screw, is inadequate. Before supplying air, confirm that there are no gaps, etc. between blocks, and that manifold blocks are securely fastened to the DIN rail. Then supply air and confirm that there is no air leakage before operating.

Note 3) One connector assembly is necessary for one solenoid. When a number is necessary for the connector assembly mark tube, suffix the number to the part no. (0 to 15 are provided as mark tube numbers.)
Ex) +COM spec.: D type for 2 to 8 stations: No. 10 SY3000-43-1A-10

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, etc. For mounting a new fitting assembly, insert it and then insert a clip until it will not come out of the manifold block.

Fitting Assembly Part No.

**Metric size**

<table>
<thead>
<tr>
<th>SY3000</th>
<th>One-touch fitting for ø4</th>
<th>VVQ1000-50A-C4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY3000</td>
<td>One-touch fitting for ø6</td>
<td>VVQ1000-50A-C6</td>
</tr>
<tr>
<td>SY5000</td>
<td>One-touch fitting for ø4</td>
<td>VVQ1000-51A-C4</td>
</tr>
<tr>
<td>SY5000</td>
<td>One-touch fitting for ø8</td>
<td>VVQ1000-51A-C8</td>
</tr>
</tbody>
</table>

**Inch size**

<table>
<thead>
<tr>
<th>SY3000</th>
<th>One-touch fitting for ø5/8&quot;</th>
<th>VVQ1000-50A-N3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY3000</td>
<td>One-touch fitting for ø3/4&quot;</td>
<td>VVQ1000-50A-N7</td>
</tr>
<tr>
<td>SY5000</td>
<td>One-touch fitting for ø3/4&quot;</td>
<td>VVQ1000-51A-N3</td>
</tr>
<tr>
<td>SY5000</td>
<td>One-touch fitting for ø1/2&quot;</td>
<td>VVQ1000-51A-N7</td>
</tr>
<tr>
<td>SY5000</td>
<td>One-touch fitting for ø3/16&quot;</td>
<td>VVQ1000-51A-N9</td>
</tr>
</tbody>
</table>

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

**Type 45F (D-sub connector, 25 pins)**

<table>
<thead>
<tr>
<th>Series</th>
<th>SS5Y3-45FD-05U-C4</th>
</tr>
</thead>
</table>

**Common specifications**

- Nil: Positive common
- N: Negative common

**Connector 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>Single wiring spec. (Applicable up to 20 solenoid valves.)</td>
</tr>
<tr>
<td>20</td>
<td>20 stations</td>
<td>- This also includes the number of blanking plate assemblies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Two stations are necessary for the double, 3 position (Dual body type).</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 20 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 10 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

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

---

**How to Order Valve Manifold Assembly**

**Example (Type 45F/D-sub connector (25 pins))**

- Double solenoid (24 VDC)
  - SY3245-5FU (1 set)
- Single solenoid (24 VDC)
  - SY3140-5FU (2 sets)
- Blanking plate assembly
  - SX3000-75-2A (1 set)

**Manifold base (5 stations)**

SS5Y3-45FD-05U-C6

**How to Order Valves**

**Type 45F, 45F1, 45T, 45T1**

**2 position single**

<table>
<thead>
<tr>
<th>Series</th>
<th>SY 3 1 4 0 - 5 FU</th>
</tr>
</thead>
</table>

**Double, 3 position**

<table>
<thead>
<tr>
<th>Series</th>
<th>SY 3 2 4 5 - 5 FU</th>
</tr>
</thead>
</table>

**Type of actuation**

- Dual body type (Double, 3 position)
  - 2 position double
  - 3 position closed center
  - 4 position exhaust center
  - 5 position pressure center

**Rated voltage**

- S: 24 VDC
- E: 12 VDC

**Manual override**

- N: Non-locking push type
- D: Push-turn locking slotted type
- E: Push-turn locking lever type

---

**Option**

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

- For external pilot and built-in silencer, refer to page 1-4-197.
How to Order Manifold

**Type 45P (Flat ribbon cable)**

**SS5Y 3-45 P D-05 U C4**

**Common specifications**

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

**Connector poles**

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

**Connector 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 (Blanking plate assemblies are included)**

- **26 pins (P) connector**
  - Symbol: 02, 20
  - Note: Single wiring spec. (Applicable up to 20 solenoid valves.)
- **20 pins (PG) connector**
  - Symbol: 02, 16
  - Note: Single wiring spec. (Applicable up to 16 solenoid valves.)
- **10 pins (PH) connector**
  - Symbol: 02, 08
  - Note: Single wiring spec. (Applicable up to 8 solenoid valves.)

**Option**

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

**Voltage**

- Nil: 24 VDC
- 12V: 24 VDC

**Terminal block 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**

- **Type 45T (9 pins terminal block)**
  - Symbol: 02, 08
  - Note: Single wiring spec. (Applicable up to 8 solenoid valves.)
- **Type 45T1 (18 pins terminal block)**
  - Symbol: 02, 17
  - Note: Single wiring spec. (Applicable up to 17 solenoid valves.)

**Option**

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

**Voltage**

- Nil: 24 VDC
- 12V: 24 VDC

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

**SS5Y 3-45T D-05 U C4**

**Terminal block 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**

- **Type 45T1 (18 pins terminal block)**
  - Symbol: 02, 17
  - Note: Single wiring spec. (Applicable up to 17 solenoid valves.)

**Option**

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

**Voltage**

- Nil: 24 VDC
- 12V: 24 VDC

**Note**

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

Type 45G (Flat cable, PC wiring system compatible)

**SS5Y 3-45G D-05 U-C4**

**Series**
- 3: SY3000
- 5: SY5000

**Connector mounting position**
- Symbol: U, D
- Mounting position: U side, D side

**Valve stations**
- Symbol: 02, 16
- Stations: 2, 16
- Note: Single wining spec. (Applicable up to 16 solenoid valves.)

- Two stations are necessary for the double, 3 position (Dual body type).
- This also includes the number of blanking plate assemblies.

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

**A, B port 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>SY3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>One-touch fitting for ø4</td>
<td>SY3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>One-touch fitting for ø8</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Internal pilot</td>
</tr>
<tr>
<td>R</td>
<td>External pilot</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>

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

<table>
<thead>
<tr>
<th>Model</th>
<th>0-sub connector Type 4SP</th>
<th>Flat ribbon cable Type 4SP</th>
<th>Terminal block</th>
<th>Flat ribbon cable Type 4SP</th>
<th>Plug-in</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>0-sub connector Type 4PF</th>
<th>Flat ribbon cable Type 4PF</th>
<th>Terminal block</th>
<th>Flat ribbon cable Type 4PF</th>
<th>Plug-in</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P (SUP)/R (EXH)</th>
<th>Common SUP, Common EXH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve stations</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>2 to 16 stations</td>
<td>2 to 8 stations</td>
</tr>
<tr>
<td>2 to 17 stations</td>
<td>2 to 16 stations</td>
</tr>
</tbody>
</table>

#### Manifold Option

- **Blanking plate assembly**
  - When mounting blanking plate, be sure to mount a short cap.
  - Two stations are necessary for the double, 3 position (Dual body type).

- **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)

- **Silencer with One-touch fitting**
  - The silencer plugs directly into the One-touch fittings of the manifold.

- **Plug (white)**
  - These are inserted in unused cylinder ports and SUP, EXH ports. Purchasing order is available in units of 10 pieces.

#### Flow Characteristics

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

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

#### Note

1. For more than 11 stations, supply pressure to P port on both sides and exhaust from R port on both sides.
2. There is a limit depending on the number of solenoids. Refer to “How to Order”.

#### 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>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>1/4&quot;</td>
<td>KQ2P-01</td>
<td>16</td>
<td>31.5</td>
<td>5</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-03</td>
<td>16</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>1/8&quot;</td>
<td>KQ2P-07</td>
<td>18</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>5/32&quot;</td>
<td>KQ2P-09</td>
<td>20.5</td>
<td>39</td>
<td>10</td>
</tr>
</tbody>
</table>

---

**D-sub connector**

**Flat ribbon cable**

**Terminal block**
**Manifold Option**

- **D-sub connector (25 pins)/Cable assembly**
  - AXT100-DS25-015
  - AXT100-DS25-030
  - AXT100-DS25-050

**D-sub Connector 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-DS25-015</td>
<td>Cable 25 core x 24 AWG</td>
</tr>
<tr>
<td>3 m</td>
<td>AXT100-DS25-030</td>
<td></td>
</tr>
<tr>
<td>5 m</td>
<td>AXT100-DS25-050</td>
<td></td>
</tr>
</tbody>
</table>

- **Electric Characteristics**
  - **Item**: Conductor resistance
  - **Characteristics**: 12/km, 20°C
  - **Value**: 65 or less

- **Item**: Voltage limit
  - **Characteristics**: V, 1 min, AC 1000

- **Item**: Insulation resistance
  - **Characteristics**: MΩ/km, 20°C
  - **Value**: 5 or more

**Flat Ribbon Cable Assembly**

<table>
<thead>
<tr>
<th>Cable length (L)</th>
<th>10 pins</th>
<th>20 pins</th>
<th>26 pins</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 m</td>
<td>AXT100-FC10-1</td>
<td>AXT100-FC20-1</td>
<td>AXT100-FC26-1</td>
</tr>
<tr>
<td>3 m</td>
<td>AXT100-FC10-2</td>
<td>AXT100-FC20-2</td>
<td>AXT100-FC26-2</td>
</tr>
<tr>
<td>5 m</td>
<td>AXT100-FC10-3</td>
<td>AXT100-FC20-3</td>
<td>AXT100-FC26-3</td>
</tr>
</tbody>
</table>

**Connector manufacturers’ example**
- Hirose Electric Co., Ltd.
- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.

**Flat Ribbon Cable Connector/Cable assembly**

<table>
<thead>
<tr>
<th>Terminal no.</th>
<th>Lead wire color</th>
<th>Dot marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Black</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Brown</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Red</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>Orange</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Yellow</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>Pink</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>Blue</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>Purple</td>
<td>White</td>
</tr>
<tr>
<td>9</td>
<td>Gray</td>
<td>Black</td>
</tr>
<tr>
<td>10</td>
<td>White</td>
<td>Red</td>
</tr>
<tr>
<td>11</td>
<td>Yellow</td>
<td>Black</td>
</tr>
<tr>
<td>12</td>
<td>Orange</td>
<td>Red</td>
</tr>
<tr>
<td>13</td>
<td>Orange</td>
<td>Black</td>
</tr>
<tr>
<td>14</td>
<td>Orange</td>
<td>Black</td>
</tr>
<tr>
<td>15</td>
<td>Pink</td>
<td>White</td>
</tr>
<tr>
<td>16</td>
<td>Blue</td>
<td>White</td>
</tr>
<tr>
<td>17</td>
<td>Purple</td>
<td>None</td>
</tr>
<tr>
<td>18</td>
<td>Gray</td>
<td>None</td>
</tr>
<tr>
<td>19</td>
<td>Orange</td>
<td>Black</td>
</tr>
<tr>
<td>20</td>
<td>White</td>
<td>Red</td>
</tr>
<tr>
<td>21</td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>22</td>
<td>Pink</td>
<td>Red</td>
</tr>
<tr>
<td>23</td>
<td>Gray</td>
<td>Red</td>
</tr>
<tr>
<td>24</td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>25</td>
<td>White</td>
<td>None</td>
</tr>
</tbody>
</table>

**D-sub Connector Cable Assembly Terminal No.**

- **Terminal no.**: 1
  - **Lead wire color**: Black
  - **Dot marking**: None

- **Terminal no.**: 2
  - **Lead wire color**: Brown
  - **Dot marking**: None

- **Terminal no.**: 3
  - **Lead wire color**: Red
  - **Dot marking**: None

- **Terminal no.**: 4
  - **Lead wire color**: Orange
  - **Dot marking**: None

- **Terminal no.**: 5
  - **Lead wire color**: Yellow
  - **Dot marking**: None

- **Terminal no.**: 6
  - **Lead wire color**: Pink
  - **Dot marking**: None

- **Terminal no.**: 7
  - **Lead wire color**: Blue
  - **Dot marking**: None

- **Terminal no.**: 8
  - **Lead wire color**: Purple
  - **Dot marking**: White

- **Terminal no.**: 9
  - **Lead wire color**: Gray
  - **Dot marking**: Black

- **Terminal no.**: 10
  - **Lead wire color**: White
  - **Dot marking**: Red

- **Terminal no.**: 11
  - **Lead wire color**: Yellow
  - **Dot marking**: Black

- **Terminal no.**: 12
  - **Lead wire color**: Orange
  - **Dot marking**: Red

- **Terminal no.**: 13
  - **Lead wire color**: Orange
  - **Dot marking**: Black

- **Terminal no.**: 14
  - **Lead wire color**: Pink
  - **Dot marking**: White

- **Terminal no.**: 15
  - **Lead wire color**: Blue
  - **Dot marking**: White

- **Terminal no.**: 16
  - **Lead wire color**: Purple
  - **Dot marking**: None

- **Terminal no.**: 17
  - **Lead wire color**: Gray
  - **Dot marking**: None

- **Terminal no.**: 18
  - **Lead wire color**: Orange
  - **Dot marking**: Black

- **Terminal no.**: 19
  - **Lead wire color**: Red
  - **Dot marking**: White

- **Terminal no.**: 20
  - **Lead wire color**: Brown
  - **Dot marking**: White

- **Terminal no.**: 21
  - **Lead wire color**: Pink
  - **Dot marking**: Red

- **Terminal no.**: 22
  - **Lead wire color**: Gray
  - **Dot marking**: Red

- **Terminal no.**: 23
  - **Lead wire color**: Black
  - **Dot marking**: None

- **Terminal no.**: 24
  - **Lead wire color**: White
  - **Dot marking**: None

- **Terminal no.**: 25
  - **Lead wire color**: None
  - **Dot marking**: None

**Item Characteristics**

- **Conductor resistance**: Ω/km, 20°C
  - **Value**: 65 or less

- **Voltage limit**: V, 1 min, AC
  - **Value**: 1000

- **Insulation resistance**: MΩ/km, 20°C
  - **Value**: 5 or more

**Note**: The min. bending radius of D-sub cable assembly is 20 mm.

**Dimensions/DIN rail**

**VZ1000-11-1**

Refer to L dimensions

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

**Dimensions/DIN rail**

<table>
<thead>
<tr>
<th>No.</th>
<th>0</th>
<th>1</th>
<th>2</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>
</tr>
</thead>
<tbody>
<tr>
<td>Ldim</td>
<td>88</td>
<td>110.5</td>
<td>123</td>
<td>135.5</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>
</tr>
<tr>
<td>Ldim</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Ldim</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
<td>273</td>
<td>285.5</td>
<td>298</td>
<td>310.5</td>
<td>323</td>
<td>335.5</td>
<td>348</td>
<td>362.5</td>
</tr>
<tr>
<td>Ldim</td>
<td>373</td>
<td>385.5</td>
<td>398</td>
<td>410.5</td>
<td>423</td>
<td>435.5</td>
<td>448</td>
<td>460.5</td>
<td>473</td>
<td>485.5</td>
<td>498</td>
</tr>
<tr>
<td>Ldim</td>
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<td>523</td>
<td>535.5</td>
<td>548</td>
<td>560.5</td>
<td>573</td>
<td>585.5</td>
<td>598</td>
<td>610.5</td>
<td>623</td>
<td>635.5</td>
</tr>
<tr>
<td>Ldim</td>
<td>648</td>
<td>660.5</td>
<td>673</td>
<td>685.5</td>
<td>698</td>
<td>710.5</td>
<td>723</td>
<td>735.5</td>
<td>748</td>
<td>760.5</td>
<td>773</td>
</tr>
<tr>
<td>Ldim</td>
<td>785.5</td>
<td>798</td>
<td>810.5</td>
<td>823</td>
<td>835.5</td>
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<td>860.5</td>
<td>873</td>
<td>885.5</td>
<td>898</td>
<td>910.5</td>
</tr>
<tr>
<td>Ldim</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>

- **For other commercial connectors, use a type with strain relief that conform to MIL-C-83503.**

**Connector manufacturers’ example**
- Hirose Electric Co., Ltd.
- Sumitomo 3M Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.
**Manifold Internal Wiring**

**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 pole (common)
- Negative pole
- Not use
- Station 20
- Station 5 SOL B
- Station 4 SOL A (Double solenoid Dual body type)
- Station 3 (Single solenoid)
- Station 2 (Single solenoid)
- Station 1 (Single solenoid)

**<For negative common (45NF)>**
- Positive pole
- Negative pole (common)
- Not use
- Station 20
- Station 5 SOL B
- Station 4 SOL A (Double solenoid Dual body type)
- Station 3 (Single solenoid)
- Station 2 (Single solenoid)
- Station 1 (Single solenoid)

- The power source terminal is used for connecting to an external power source.
- The maximum number of stations that can be accommodated is 20 manifold stations, with up to 22 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.

**<For positive common (45P)>**
- Positive pole (common)
- Negative pole
- Not use
- Station 20
- Station 5 SOL B
- Station 4 SOL A (Double solenoid Dual body type)
- Station 3 (Single solenoid)
- Station 2 (Single solenoid)
- Station 1 (Single solenoid)

**<For negative common (45NP)>**
- Positive pole
- Negative pole (common)
- Not use
- Station 20
- Station 5 SOL B
- Station 4 SOL A (Double solenoid Dual body type)
- Station 3 (Single solenoid)
- Station 2 (Single solenoid)
- Station 1 (Single solenoid)

- The power source terminal is used for connecting to an external power source.
- The maximum number of stations that can be accommodated is 20 manifold stations, with up to 20 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.

---

**Note:** 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.

---

**Reference figure**

1-4-145
Manifold Internal Wiring

**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.

**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.

- The power source terminal is used for connecting to an external power source.
- The maximum number of stations that can be accommodated is 16 manifold stations, with up to 16 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.

**Note)**
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, 20 from the triangle mark side on the flat ribbon cable of connector.
**Type 45T: Terminal Block**

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

- The maximum number of stations that can be accommodated is 8 manifold stations, with up to 8 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.
- 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 that can be accommodated is 17 manifold stations, with up to 17 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.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for –COM spec.
Manifold Internal Wiring

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

It's 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 that can be accommodated is 16 manifold stations, with up to 16 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.

For details about the PC wiring system, refer to catalog CAT.ES02-20 separately.
How to Connect SS5Y□-45□ (Plug-in)

Power terminal is equipped with plug-in manifold of Series SY 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

2. Wiring example when not using manifold power supply terminals (Power is supplied to the controller side or along the wiring, etc.)

⚠️ 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.
SY5000: D-sub Connector/Plug-in

SS5Y5-45FU-Stations (D, C4, N3, C8, N9)

One-touch fitting (A, B port)
Applicable tubing O.D.: ø4, ø5/32", ø6, ø1/4", ø8, ø5/16"*

Button for DIN rail release
(Pitch) P = 16
17, 26

Manual override
(Depress and turn to operate and lock override.)
A side: Orange
B side: Green

Equivalent to the applicable D-sub connector (JIS-X-5101, MIL-C-24308)

SS5Y5-45FU-Stations (B, C4, N3, C8, N9)

One-touch fitting (P, R port)
Applicable tubing O.D.: ø10, ø3/8"

Button for DIN rail release
(Pitch) P = 16
17, 26

Manual override
(Press and turn to operate and lock override.)
A side: Orange
B side: Green

Equivalent to the applicable D-sub connector (JIS-X-5101, MIL-C-24308)
SY5000: D-sub Connector/Plug-in

SSSY5-45FD-Stations U

C4, N3
C6, N7
C8, N9

Button for DIN rail release

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

DIN rail holding screw

Manual override
(Press and turn to operate and lock override.
A side: Orange
B side: Green)

 kisses

SSSY5-45FD-Stations B

C4, N3
C6, N7
C8, N9

Button for DIN rail release

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

Note)
The L1 to L4 dimensions of SSSY5-45FD-Stations D are identical to those of SSSY5-45FD-Stations U, and are equivalent to the applicable D-sub connector (JIS-X-5101, MIL-C-24308).

Equivalent to the applicable D-sub connector (JIS-X-5101, MIL-C-24308)

Applicable tubing O.D.: ø4, ø5/32" ø6, ø1/4" ø8, ø5/16"

Manual override
(Press and turn to operate and lock override.
A side: Orange
B side: Green)

Series SY3000/5000 Base Mounted

SV
SZ
SY
SYJ
SX

Terminal no. 1
(Rail mounting hole pitch: 12.5)

1-4-153
**SY5000: Flat Ribbon Cable/Plug-in**

**SS5Y5-45PU- Stations U-**

- 26 pins
- C4, N3, C8, N9

**SS5Y5-45PU- Stations B-**

- 26 pins
- C4, N3, C8, N9

---

**Base Mounted**

**Series SY3000/5000 type 45**

**Applicable tubing O.D.: ø4, ø5/32"**

- ø6, ø1/4"
- ø8, ø5/16"

**One-touch fitting**

- (A, B port)

**Applicable connector:** 26 pins MIL type

- (Conforming to MIL-C-83503)

**With strain releaf**

- (Conforming to MIL-C-83503)

**Applicable connector:** 20 pins MIL type

- (Conforming to MIL-C-83503)

**Applicable connector:** 10 pins MIL type

- (Conforming to MIL-C-83503)

---

**Power supply terminals**

- The voltage indication marking is for 24 VDC.

---

**DIN rail holding screw**

- D side

---

**Block separation button**

- (Push type)

---

**One-touch fitting**

- (A, B port)

**Applicable tubing O.D.: ø10, ø3/8"**

- ø8, ø5/16" 
- ø6, ø1/4" 

---

**Manual override**

- Depress and turn to operate

- A side: Orange

- B side: Green

---

**Manual override**

- Press and turn to operate

- A side: Orange

- B side: Green

---

**Triangle mark position**

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

---

**DIN rail**

- (Rail mounting hole pitch: 12.5)

---

**Note:** The L1 to L4 dimensions of SS5Y5-45P- U- Stations U- are identical to those of SS5Y5-45P- U- Stations D-.

---

**Base Mounted**

**Series SY3000/5000 type 45**

---

**1-4-156**

---

**SMC**
**SY5000: Flat Ribbon Cable/Plug-in**

**SSSY5-45PD- Stations U-C4, N3, N7 (26 pins)**

- One-touch fitting (P, R port)
  - Applicable tubing O.D.: ø10, ø3/8"

- Button for DIN rail release

**SSSY5-45PD- Stations B-C6, N8, N9 (26 pins)**

- One-touch fitting (A, B port)
  - Applicable tubing O.D.: ø4, ø5/32" ø6, ø1/4" ø8, ø5/16"

**Power supply terminals**

- The voltage indication marking is for 24 VDC.

**Manual override**

- Press and turn to operate and lock override.

**Applicable connector:** 26 pins MIL type

**With strain releaf**

- (Conforming to MIL-C-83503)

---

<table>
<thead>
<tr>
<th>Stations</th>
<th>1</th>
<th>2</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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<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>
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<td>250</td>
<td>275</td>
<td>285.5</td>
</tr>
<tr>
<td>L2</td>
<td>125</td>
<td>137.5</td>
<td>150</td>
<td>157.5</td>
<td>200</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
<td>275</td>
<td>285.5</td>
</tr>
<tr>
<td>L3</td>
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<td>121</td>
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<td>153</td>
<td>169</td>
<td>185</td>
<td>201</td>
<td>217</td>
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<td>250</td>
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<td>16</td>
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<td>12.5</td>
<td>17</td>
<td>15.5</td>
<td>13.5</td>
<td>12</td>
</tr>
</tbody>
</table>

---

**Applicable connector:** 26 pins MIL type

- With strain releaf

- (Conforming to MIL-C-83503)

---

**Series SY3000/5000 45**

**SV**

**SZ**

**SY**

**SYJ**

**SX**

Base Mounted

---

**Note:** The L1 to L4 dimensions of SSSY5-45PD- Stations U-C4, N3, N7 are identical to those of SSSY3-45PD- Stations C6, N8, N9.
SY5000: 18 Pins Terminal Block/Plug-in

**SS5Y5-45T1U- Stations D-C, N3, N7 (18 pins)**

- **Applicable tubing O.D.:** ø4, ø5/32", ø6, ø1/4", ø8, ø5/16"

- **SY5000:** 18 Pins Terminal Block/Plug-in

- **SS5Y5-45T1U- Stations D-C, N3, N7 (18 pins)**

- **SS5Y5-45T1U- Stations B-C, N3, N7 (18 pins)**

- **Note:** The L1 to L4 dimensions of SS5Y5-45T1U- Stations L1 to L4 are identical to those of SS5Y5-45T1U- Stations L1 to L4.

- **Button for DIN rail release**

- **DIN rail holding screw**

- **Manual override**
  - Press and turn to operate and lock override.
  - A side: Orange
  - B side: Green

- **One-touch fitting**
  - (Pitch): P=16
  - Applicable tubing O.D.: ø10, ø3/8"

- **Block separation button**
  - (Push type)

- **Series SY3000/5000**

- **Base Mounted**
SY5000: 18 Pins Terminal Block/Plug-in

SSS5Y5-45T1D- Stations U- C4, N3, C8, N9 (18 pins)

DIN rail holding screw

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

DIN rail holding screw

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32", ø6, ø1/4", ø8, ø5/16"

Button for DIN rail release

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Terminal screw

Block separation button
(Push type)

(Light/ Surge voltage suppressor)

SSS5Y5-45T1D- Stations B- C4, N3, C8, N9 (18 pins)

DIN rail holding screw

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32", ø6, ø1/4", ø8, ø5/16"

DIN rail holding screw

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

Button for DIN rail release

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Note) The L1 to L4 dimensions of SSSYS-45TID- Stations U- C4, N3, C8, N9 are identical to those of SSSYS-45TID- Stations B- C4, N3, C8, N9.
SY5000: PC Wiring System Compatible (Flat ribbon cable/Plug-in)

SS5Y5-45GU- Stations

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32
ø6, ø1/4*
ø8, ø5/16*

Note) The L1 to L4 dimensions of SS5Y5-45GU- Stations U, C are identical to those of
SS5Y5-45GU- Stations D, C, N, C8, N9.

Power supply terminals
The voltage indication marking is for 24 VDC.

Applicable connector: 20 pins MIL type
With strain releaf
Conforming to MIL-C-33503

Triangle mark position
(Pitch)
P = 16 17 26

Button for DIN rail release

DIN rail holding screw

DIN rail

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Applicable connector: 20 pins MIL type
With strain releaf
Conforming to MIL-C-83503

Block separation button
(Push type)
P = 16 17 26

Button for DIN rail release

DIN rail holding screw

DIN rail

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Dimensions:

<table>
<thead>
<tr>
<th>Station</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>U side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>115.9</td>
<td>148</td>
</tr>
<tr>
<td>L2</td>
<td>125</td>
<td>150</td>
</tr>
<tr>
<td>L3</td>
<td>105</td>
<td>131</td>
</tr>
<tr>
<td>L4</td>
<td>15</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Dimensions in millimeters.
SY5000: PC Wiring System Compatible (Flat ribbon cable/Plug-in)

SSS5Y5-45GD- Stations 

Note) The L1 to L4 dimensions of SSS5Y5-45GD- Stations D- are identical to those of SSS5Y5-45GD- Stations U-.

DIN rail holding screw

Manual override

Press and turn to operate and lock override.
A side: Orange
B side: Green

Triangle mark position

Applicable connector: 20 pins MIL type
With strain releaf

(Pitch) P = 16 (4.9)

L1

L2

(Rail mounting hole pitch: 12.5)

DIN rail

Block separation button

(Push type)

Applicable tubing O.D.: ø4, ø5/32", ø6, ø1/4", ø8, ø5/16"

One-touch fitting

(P: A port)

Applicable tubing O.D.: ø10, ø3/8"

One-touch fitting

(A, B port)

Applicable tubing O.D.: ø4, ø5/32"
ø6, ø1/4"
ø8, ø5/16"

Button for DIN rail release

DIN rail holding screw

Power supply terminals

The voltage indication marking is for 24 VDC.

(Applying to MIL-C-83503)

One-touch fitting

(P, R port)

Applicable tubing O.D.: ø10, ø3/8"
DIN Rail Manifold Exploded View

Type 45F (D-sub Connector) Manifold

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</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SUP/EXH block assembly</td>
<td>SX3000-51-2A</td>
<td>SX3000-51-16A</td>
</tr>
<tr>
<td></td>
<td>(Metric size)</td>
<td>Metric size</td>
<td>Inch size</td>
</tr>
<tr>
<td></td>
<td>(Inch size)</td>
<td>SX3000-51-16A</td>
<td>SX5000-51-16A</td>
</tr>
<tr>
<td>3</td>
<td>End block assembly</td>
<td>SX3000-52-2A</td>
<td>SX5000-52-2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-52-2A-3</td>
<td>SX5000-52-2A-3</td>
</tr>
<tr>
<td>4</td>
<td>End block assembly</td>
<td>SX3000-53-2A</td>
<td>SX5000-53-2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-53-2A-3</td>
<td>SX5000-53-2A-3</td>
</tr>
<tr>
<td>5-1</td>
<td>Connector block assembly (for D-sub connector)</td>
<td>SX3000-64-1A</td>
<td>SX5000-64-1A-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX5000-64-1NA</td>
<td>SX5000-64-1NA-12</td>
</tr>
<tr>
<td>5-2</td>
<td>Connector block assembly (for 26 pins flat cable)</td>
<td>SX3000-64-2A</td>
<td>SX5000-64-2A-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SX3000-64-2A-26</td>
<td>SX5000-64-2A-26</td>
</tr>
<tr>
<td>5-3</td>
<td>Connector block assembly (for 20 pins flat cable)</td>
<td>SX3000-64-2A-20</td>
<td>SX5000-64-2A-20</td>
</tr>
<tr>
<td>5-4</td>
<td>Connector block assembly (for 10 pins flat cable)</td>
<td>SX3000-64-2A-10</td>
<td>SX5000-64-2A-10</td>
</tr>
<tr>
<td>5-5</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>
</tr>
<tr>
<td>5-6</td>
<td>Connector block assembly (for 9 to 17 stations (T1) terminal block)</td>
<td>SX3000-64-8A</td>
<td>SX5000-64-8A</td>
</tr>
<tr>
<td>6</td>
<td>Round head combination screw</td>
<td>SY3000-23-4</td>
<td>M3 x 26, Matt nickel plated</td>
</tr>
<tr>
<td>7</td>
<td>Gasket</td>
<td>SX3000-57-4</td>
<td>SX5000-57-6</td>
</tr>
<tr>
<td>8</td>
<td>DIN rail release button</td>
<td>VZ1000-11</td>
<td>Refer to page 1-4-123.</td>
</tr>
</tbody>
</table>

Note 1) The numbers 5-1 to 4 are for 24 VDC. For 12 VDC, suffix "-12V" to the end of parts number. (Example) SX3000-64-1A-12 V

Note 2) Two manifold block assemblies are necessary for the double, 3 position (Dual body type).

Style of manifold | Manifold block assembly part no. | Note |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For 45(N)/F (D-sub connector)</td>
<td>SX3000-50-3A</td>
<td></td>
</tr>
<tr>
<td>For 45(N)/G (Flat ribbon cable)</td>
<td>SX3000-50-5A</td>
<td>A, B port SY5000 (metric size)</td>
</tr>
<tr>
<td>For 45G PC Wiring System compatible</td>
<td>SX3000-50-7A</td>
<td></td>
</tr>
</tbody>
</table>

For D side

For U side

For 45, (Terminal block)
How to Increase Manifold Base

1. Loosen bolt \( \oplus \) fixing the manifold base until it begins to turn idly. (While pressing DIN rail releasing buttons \( \oplus \) at two locations, separate the manifold base from the DIN rail.)

2. Additional bases are to be added to the U side. Press splitting button \( \oplus \) of the manifold block assembly on the U side until button \( \oplus \) locks, and then separate the block assemblies.

3. Separate the connector block assembly in the same manner as \( \oplus \) 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 \( \oplus \) 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 (black) 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 \( \oplus \). (Tightening torque: 1.4 N·m)

⚠️ Caution

1. Depending on the connector, there is a limit to the number of solenoids that can be used. Manifold bases that can be added cannot exceed the number of usable solenoids.

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 \( \oplus \) 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.

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, etc. For mounting a new fitting assembly, insert it and then insert a clip until it will not come out of the manifold block.

Fitting Assembly Part No.

<table>
<thead>
<tr>
<th>Metric size</th>
<th>SY3000</th>
<th>SY5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for ø4</td>
<td>VVO1000-50A-C4</td>
<td>VVO1000-50A-C8</td>
</tr>
<tr>
<td>One-touch fitting for ø6</td>
<td>VVO1000-50A-C6</td>
<td>VVO1000-50A-C9</td>
</tr>
<tr>
<td>One-touch fitting for ø8</td>
<td>VVO1000-50A-N3</td>
<td>VVO1000-50A-N7</td>
</tr>
<tr>
<td>One-touch fitting for ø10</td>
<td>VVO1000-50A-N9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inch size</th>
<th>SY3000</th>
<th>SY5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-touch fitting for 1/8&quot;</td>
<td>VVO1000-50A-C4</td>
<td>VVO1000-50A-C8</td>
</tr>
<tr>
<td>One-touch fitting for 3/16&quot;</td>
<td>VVO1000-50A-C6</td>
<td>VVO1000-50A-C9</td>
</tr>
<tr>
<td>One-touch fitting for 1/4&quot;</td>
<td>VVO1000-50A-N3</td>
<td>VVO1000-50A-N7</td>
</tr>
<tr>
<td>One-touch fitting for 5/16&quot;</td>
<td>VVO1000-50A-N9</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) P and R ports cannot be changed.

Note 2) Use caution that O-rings must be free from scratches and dust. Otherwise, air leakage may result.
### How to Order Valve Manifold Assembly

**Ordering example**

<table>
<thead>
<tr>
<th>Double solenoid (24 VDC)</th>
<th>Single solenoid (24 VDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS5Y3-45SA-SUH1-05U-C6</td>
<td>SY3245-5FU</td>
</tr>
</tbody>
</table>

#### Valve specifications

- **SY3000**
- **SY5000**

#### Note

- The asterisk denotes the symbol for assembly.
- Prefix it to the part nos. of the solenoid valve, etc.
- Serial unit is available only for the D-side mounting type.

#### Type of actuation

- **2 position double**
- **3 position closed center**
- **4 position exhaust center**
- **5 position pressure center**
- **Manually override**

#### Rated voltage

- **5 V 24 VDC**

#### Dual body type (Double, 3 position)

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

---

### How to Order Manifold

**SS5Y**

<table>
<thead>
<tr>
<th>3</th>
<th>45S</th>
<th>A</th>
<th>05</th>
<th>U</th>
<th>C6</th>
</tr>
</thead>
</table>

#### Specifications

- **Symbol**: SS5Y
- **Model**: 3-45S-A-05-U-C6

#### 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>Single wiring spec. (Applicable to 16 solenoid valves.)</td>
</tr>
<tr>
<td>16</td>
<td>16 stations</td>
<td>This also includes the number of blanking plate assemblies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two stations are necessary for the double, 3 position (Dual body type).</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>

#### SI Unit Part No.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>For SS5Y-45S</th>
<th>Symbol</th>
<th>Specifications</th>
<th>For SS5Y-45S</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>With general type SI unit (Series EX3000)</td>
<td>EX322-5001</td>
<td>J1</td>
<td>SUNX Corp.: S-LINK System (16 output points)</td>
<td>EX122-SSL1</td>
</tr>
<tr>
<td>B</td>
<td>Mitsubishi Electric Corp.: MESENET/MINI-S3 Data Link System</td>
<td>EX122-5MB1</td>
<td>J2</td>
<td>SUNX Corp.: S-LINK System (8 output points)</td>
<td>EX122-SSL2</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSBUS Wire System</td>
<td>EX122-STA1</td>
<td>K</td>
<td>Fuji Electric Co.: T-LINK Mini System</td>
<td>EX122-SFU1</td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
<td>EX122-SSH1</td>
<td>Q</td>
<td>Device Net: CompoBus/D (OMRON Corp.)</td>
<td>EX122-SDN1</td>
</tr>
<tr>
<td>E</td>
<td>Matsushita Electric Works: MEWNET-F System</td>
<td>EX122-SPA1</td>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S (16 output points)</td>
<td>EX122-SCS1</td>
</tr>
<tr>
<td>F</td>
<td>NKE Corp.: Uniwire (16 output points)</td>
<td>EX122-SUW1</td>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S (8 output points)</td>
<td>EX122-SCS2</td>
</tr>
<tr>
<td>G</td>
<td>Rockwell Automation: Allen Bradley Remote I/O (RIO) System</td>
<td>EX122-SAB1</td>
<td>U</td>
<td>JEMANET (JPCN-1)</td>
<td>EX122-SJN1</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Uniwire H System</td>
<td>EX122-SUH1</td>
<td>V</td>
<td>Mitsubishi Electric Corp.: CC-LINK System</td>
<td>EX122-SMU1</td>
</tr>
</tbody>
</table>

---

### Ordering example

**SS5Y3-45SA-SUH1-05U-C6**

- Single solenoid (24 VDC)
  - SY3245-5FU
- Double solenoid (24 VDC)
  - SY3140-5FU
  - SY3245-5FU

**Notes**

- The valve arrangement is numbered as the 1st. station from D side.
- When ordering double solenoid valves/3 position (Dual body type), please keep in mind that they require two manifold stations.
- Serial unit is available only for the D-side mounting type.

---

### How to Order Valves

#### Double solenoid

<table>
<thead>
<tr>
<th>2 position single</th>
<th>3 position double</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY 3 1 4 0 5 FU</td>
<td>SY 3 2 4 5 5 FU</td>
</tr>
</tbody>
</table>

#### Series

- **SY 3**
- **SY 5**

---

### Symbol Explanation

- **Symbol**: SS5Y
- **Model**: 3-45S-A-05-U-C6

#### SS Symbol

- **Type**: SS5Y
- **3-45S**: Manifold base (5 stations)
- **A-05**: (8 output points)
- **U-C6**: (16 output points)
The serial transmission system reduces wiring work, while minimizing wiring and saving space.

16 stations max. (Specify a model with more than 8 stations by using a manifold specification sheet.)

<table>
<thead>
<tr>
<th>Type SA</th>
<th>Type SB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicable to Series EX300</strong></td>
<td><strong>Mitsubishi Electric Corporation</strong> MELSECNET/mini-S3 Data Link System</td>
</tr>
<tr>
<td><strong>Name of terminal block, LED</strong></td>
<td><strong>Name of terminal block, LED</strong></td>
</tr>
<tr>
<td>LED</td>
<td>Description</td>
</tr>
<tr>
<td>TRD</td>
<td>Lights up when receiving data.</td>
</tr>
<tr>
<td>RUN</td>
<td>Flashes when received data is normal; lights up when abnormal.</td>
</tr>
</tbody>
</table>

**Description**
- **POWER**: Lights up when power supply is ON.
- **RUN**: Lights up when receiving data.
- **RD**: Lights up when receiving data.
- **SD**: Lights up when sending data.
- **ERR**: Lights up when data reception error occurs; goes off when the error is corrected.

**Note**
- Connection to T unit PLC manufacturer's I/O card enables serial transmission.
  - EX300-TMB1 For models of Mitsubishi Electric Corporation
  - EX300-TTA1 For models of OMRON Corporation
  - EX300-TFU1 For models of Fuji Electric Co., Ltd.
  - EX300-T001 For general models
  - Up to 32 points per unit.
  - No. of output points: 16 points

**Cable wiring**
- **T unit OB unit SI unit SI unit Master unit Remote I/O unit Remote I/O unit**
- **Ground either the reception side or the transmission side of the shielding wire shield.**

**Item Specifications**
- **External power supply**: 24 VDC +10%/–5%
- **Current consumption**
  - Internal unit: 0.1A, 0.3A
  - SC, SQ: 3A

**Extension**
- **Type SC** OMRON Corporation SYSBUS Wiring System
- **Type SD** SHARP Corporation Satellite I/O Link System
- **Type SE** Matsushita Electric Works, Ltd. MEWNET-F System

<table>
<thead>
<tr>
<th>Type SC</th>
<th>Type SD</th>
<th>Type SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OMRON Corporation SYSBUS Wiring System</strong></td>
<td><strong>SHARP Corporation Satellite I/O Link System</strong></td>
<td><strong>Matsushita Electric Works, Ltd. MEWNET-F System</strong></td>
</tr>
<tr>
<td><strong>LED</strong></td>
<td><strong>Description</strong></td>
<td><strong>LED</strong></td>
</tr>
<tr>
<td>RUN</td>
<td>Lights up when transmission is normal and PLC is in operation mode.</td>
<td><strong>POWER</strong></td>
</tr>
<tr>
<td>TRD</td>
<td>Flashes when transmission is normal, lights up when it is abnormal.</td>
<td><strong>RUN</strong></td>
</tr>
<tr>
<td>ERR</td>
<td>Flashes when transmission is normal; lights up when it is abnormal.</td>
<td><strong>ERROR</strong></td>
</tr>
</tbody>
</table>

**Note**
- **SYSBUS Wire System**
  - Master unit: *Type C500-RM201*
  - *Type C200H-RM201*
- **Satellite I/O Link System**
  - Master unit: *Type ZW-31LM*
  - *Type JW-31LM*
- **MEWNET-F System**
  - Master unit: *Type AFP3740*
  - *Type AFP5740*

**Cable wiring**
- **Master station SI unit SI unit SI unit Remote I/O unit Remote I/O unit**
  - **With shield**
    - Twister pair wire

**Additional Information**
- Total number of stations is tabulated starting from station one on the D side.
- Maximum station: Up to 16 solenoids (16 single solenoids).
**Type SF1**
NKE Corporation
Uni-wire System

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Lights up when power supply is ON.</td>
</tr>
<tr>
<td>SEND</td>
<td>Flashes when normal; goes out or lights up when abnormal.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Lights up when power supply is ON.</td>
</tr>
<tr>
<td>COM</td>
<td>Flashes when communication is initialized. Goes out for abnormal communication.</td>
</tr>
<tr>
<td>ERROR</td>
<td>Lights up for abnormal communication.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Lights up when power supply is ON.</td>
</tr>
<tr>
<td>SEND</td>
<td>Transmission indicator: Flashes when normal, flashes slowly when abnormal.</td>
</tr>
</tbody>
</table>

**Note**
- Uni-wire System
  - Send unit: SD-120
  - No. of output points: 16 points
- Remote I/O (RIO) System
  - No. of output points: 16 points
- 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

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Lights up when power supply is ON.</td>
</tr>
<tr>
<td>SEND</td>
<td>Lights up for abnormal transmission or power off at the processor side.</td>
</tr>
</tbody>
</table>

**Type SDQ**
DeviceNet

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Green light is ON when the circuit is powered.</td>
</tr>
<tr>
<td>MOD/NET</td>
<td>Goes out when SI unit is not online or the circuit is not powered.</td>
</tr>
<tr>
<td>ERR</td>
<td>Light flashes for connection timeout (major communication error) or online impossibility.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LED</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Lights up when transmission is ON, goes out when not powered.</td>
</tr>
<tr>
<td>COMM</td>
<td>Lights up for normal communication; goes out for normal communication or waiting.</td>
</tr>
<tr>
<td>ERR</td>
<td>Lights up for abnormal communication; goes out for normal communication or waiting.</td>
</tr>
</tbody>
</table>

**Note**
- T Link Mini System
  - Master unit: FTM100B
  - Converter: FRC100A-G02
  - Repeater: FRC200A-C10
  - No. of output points: 16 points
- DeviceNet
  - OMRON Corporation: CompoBus/D System
    - Master station unit: C200HW-DSM21
    - No. of output points: 16 points
- CompoBus/S System
  - Master unit: C200HW-SRM21
  - Master unit: COM1-SRM21
  - No. of output points: 16 points (Type SR1)
  - No. of output points: 8 points (Type SR2)
## Name of terminal block, LED

| Type SH
| NKE Corporation
| Uni-wire H System |
|---|---|---|
| LED | Description |
| POWER | Lights up when power supply is ON. (Lights on when normal; flickers when voltage drops. |
| SEND | Transmission indicator: flashes when normal; goes out or lights up when abnormal. |

| Type SU
| JEMANET (JPCN-1) |
|---|---|
| LED | Description |
| POWER | Lights up when SI unit power supply is ON. |
| COMM | Lights up for normal communication. |
| ALARM | Lights up for abnormal communication. |

| Type SV
| Mitsubishi Electric Corporation
| CC-LINK System |
|---|---|---|
| LED | Description |
| PWR | Lights up when transmission power; goes out when not powered. |
| L RUN | Lights up when receiving normal data. |
| SD | Lights up when sending data. |
| RD | Lights up when receiving data. |
| L ERR. | Lights up for transmission error and setting error; flashes when station or transmission speed settings are changed during operation. |

## Note
- Uni-wire H System
  - Send unit: SD-H2
  - No. of output points: 16 points
- JEMA Net (JPCN-1)
  - (Reference)
  - AJ71J92-S3 (Mitsubishi Electric Corporation)
  - A1SJ71J92-S3 (Mitsubishi Electric Corporation)
  - 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
  - Master unit: A1SJ61BT11
  - Master unit: AJ61QBT11
  - Master unit: A1SJ61QBT11
  - No. of output points: 16 points

## Cable wiring

### a) 2-wire type

#### Transmission line

<table>
<thead>
<tr>
<th>Power supply</th>
<th>24V</th>
<th>0V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>24V</td>
<td>0V</td>
</tr>
</tbody>
</table>

#### 3-wire type

<table>
<thead>
<tr>
<th>Power supply</th>
<th>24V</th>
<th>0V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>24V</td>
<td>0V</td>
</tr>
</tbody>
</table>
Series SY5000: Serial Transmission Unit/Plug-in

SS5Y5-45S Stations

- Stations U-C4, N3, C6, N7, C8, N9
- Stations B-C4, N3, C6, N7, C8, N9

One-touch fitting (P, R port)
- Applicable tubing O.D.: ø10, ø3/8"

Applicable tubing O.D.: ø4, ø5/32", ø6, ø1/4"

Manual override
- Press and turn to operate and lock override.
  - A side: Orange
  - B side: Green

Push type Block separation button

DIN rail holding screw

Series SY3000/5000 Base Mounted

SV
SZ
SY
SYJ
SX

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 SY3000/5000
Base Mounted Monifold
Stacking Type/DIN Rail Mounted
Serial Transmission (Separated)

How to Order Manifold

**Series**

<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.: MELSENET/ MINI-SI Data Link System</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSBUS 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 (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>
</tbody>
</table>

**Model**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</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>

**Option**

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

**A, B port 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>SY3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></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>

**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>Single wiring spec. (Applicable up to 16 solenoid valves.)</td>
</tr>
<tr>
<td>16</td>
<td>16 stations</td>
<td></td>
</tr>
</tbody>
</table>

**SI 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>

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

### SI Unit Part No.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>For SSYSY-45S1</th>
<th>Symbol</th>
<th>Specifications</th>
<th>For SSYSY-45S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>With general type SI unit (Series EX3000)</td>
<td>EX321-S001</td>
<td>J1</td>
<td>SUNX Corp.: S-LINK System (16 output points)</td>
<td>EX121-SSL1</td>
</tr>
<tr>
<td>B</td>
<td>Mitsubishi Electric Corp.: MELSENET/ MINI-SI Data Link System</td>
<td>EX121-SMB1</td>
<td>J2</td>
<td>SUNX Corp.: S-LINK System (8 output points)</td>
<td>EX121-SSL2</td>
</tr>
<tr>
<td>C</td>
<td>OMRON Corp.: SYSBUS Wire System</td>
<td>EX121-STA1</td>
<td>K</td>
<td>Fuji Electric Co.: T-LINK Mini System</td>
<td>EX121-SFU1</td>
</tr>
<tr>
<td>D</td>
<td>SHARP Corp.: Satellite I/O Link System</td>
<td>EX121-SSH1</td>
<td>Q</td>
<td>DeviceNet, CompoBus/D (OMRON Corp.)</td>
<td>EX121-SDN1</td>
</tr>
<tr>
<td>E</td>
<td>Mitsubishi Electric Works: MEWNET-F System</td>
<td>EX121-SPA1</td>
<td>R1</td>
<td>OMRON Corp.: CompoBus/S System (16 output points)</td>
<td>EX121-SCS1</td>
</tr>
<tr>
<td>F1</td>
<td>NKE Corp.: Uni-wire System (16 output points)</td>
<td>EX121-SUW1</td>
<td>R2</td>
<td>OMRON Corp.: CompoBus/S System (8 output points)</td>
<td>EX121-SCS2</td>
</tr>
<tr>
<td>G</td>
<td>Rockwell Automation: Allen Bradley Remote I/O (RIO) System</td>
<td>EX121-SAB1</td>
<td>U</td>
<td>JEMANET (JPCN-1)</td>
<td>EX121-SJN1</td>
</tr>
<tr>
<td>H</td>
<td>NKE Corp.: Uni-wire H System</td>
<td>EX121-SUH1</td>
<td>V</td>
<td>Mitsubishi Electric Corp.: CC-LINK System</td>
<td>EX121-SMJ1</td>
</tr>
</tbody>
</table>

*For terminal LED descriptions and cable wiring, etc. for each SI unit, refer to pages 1-4-171 to 1-4-173.

*For external pilot specifications and built-in silencer, refer to catalog on page 1-4-196.
How to Order Valve Manifold Assembly

**Ordering example**

Double solenoid (24 VDC)  
SY3245-5 FU  
**U side**  

Single solenoid (24 VDC)  
SY3140-5 FU  
**D side**  

Manifold base (5 stations)  
SSY3-45S1AD-05U-C6

- The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SI unit.  
- When ordering double solenoid valves/3 position (Dual body type), please keep in mind that they require two manifold stations.

How to Order Valves

2 position single  
**SY 3 1 4 0 — 5 FU**  

Double, 3 position  
**SY 3 2 4 5 — 5 FU**

**Series**

<table>
<thead>
<tr>
<th>3</th>
<th>SY3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SY5000</td>
</tr>
</tbody>
</table>

**Type of actuation**

<table>
<thead>
<tr>
<th>2</th>
<th>2 position double</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3 position closed center</td>
</tr>
<tr>
<td>4</td>
<td>3 position exhaust center</td>
</tr>
<tr>
<td>5</td>
<td>3 position pressure center</td>
</tr>
</tbody>
</table>

**Dual body type (Double, 3 position)**

**Rated voltage**

| S | 24 VDC |

**Manual override**

<table>
<thead>
<tr>
<th>Nil</th>
<th>Non-locking push type</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Push-turn locking slotted type</td>
</tr>
<tr>
<td>E</td>
<td>Push-turn locking lever type</td>
</tr>
</tbody>
</table>
SY5000: Serial Transmission Unit/Plug-in

SS5Y5-45S1 U-[Stations] D-C4, N3, C6, N7, C8, N9

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32"
ø6, ø1/4"
ø8, ø5/16"

(Pitch)
P=16

17 26

4.5

32

Button for DIN rail release

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

(Note) The L1 to L4 dimensions of SS5Y5-45S1 U-[Stations] D-C4, N3, C6, N7, C8, N9 are identical to those of SS5Y5-45S1 U-[Stations] B-C6, N7, C8, N9.

SS5Y5-45S1 U-[Stations] B-C6, N7, C8, N9

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32"
ø6, ø1/4"
ø8, ø5/16"

(Pitch)
P=16

17 26

4.5

32

Button for DIN rail release

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

(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.
SSY5000: Serial Transmission Unit/Plug-in

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.
3 Port Valve
Series SY300/500
Mixed Mounting Type on 5 Port Valve Manifold

3 port valve can be mounted on manifold for 5 port valve.

Application

Possible to be mounted on all kinds of manifolds for Series SY3000/5000.
Refer to “How to Order Manifold” for details.

How to Order Valve Manifold Assembly

Ordering example

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSY3-20-05</td>
<td>1 set (Type 20, 5 station manifold base part no.)</td>
</tr>
<tr>
<td>- SY313-5G-C6</td>
<td>2 sets (3 port valve, type NC part no.)</td>
</tr>
<tr>
<td>- SY3120-5G-C6</td>
<td>1 set (5 port valve, single solenoid part no.)</td>
</tr>
<tr>
<td>- SY3220-5G-C6</td>
<td>2 sets (5 port valve, double solenoid part no.)</td>
</tr>
</tbody>
</table>

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.
Body Ported/How to Order Valves

Individual Wiring: For SS5Y  3-20

<table>
<thead>
<tr>
<th>Series</th>
<th>Type of actuation</th>
<th>Solenoid type</th>
<th>Coil specifications</th>
<th>Electrical entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY 5</td>
<td>1</td>
<td>Nil</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>SY 3</td>
<td>Normally closed (N.C.)</td>
<td>Single solenoid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SY 5</td>
<td>2</td>
<td>Nil</td>
<td>DC specifications of type “D” and “DO” is only available with 12 and 24 VDC.</td>
<td></td>
</tr>
<tr>
<td>SY 5</td>
<td>Normally open</td>
<td>D Double solenoid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Power saving circuit is not available in the case of “D”, “DO” or “W/L” type.

Symbol Port size Applicable series

- For connector cable of M8 connector, refer to page 1-4-209.
- For DIN terminal type “Y” conforming to DIN 43650C is also available. For details, refer to page 1-4-201.
- “LN”, “MN” type: with 2 sockets.
- For DIN terminal of SY300 series, refer to page 1-4-207.

Note) When placing an order for body ported solenoid valve as a single unit, mounting bolt for manifold and gasket are not attached. Order them separately, if necessary. (For details, refer to catalog on page 1-4-61.)
Flat ribbon cable:
Connector box type: For SS5Y 3⁄4-41P/42P/45-A

41P/42P 45-A
For DC: SY 5 1 5
For AC: SY 5 1 5

Series
3 SY300
5 SY500

Type of actuation
1 Normally closed (N.C.)
2 Normally open (N.C.)

Solenoid type
Nil Single solenoid
D Double solenoid

Rated voltage
5 24 VDC
6 12 VDC

Light/Surge voltage suppressor
Z With light/surge voltage suppressor
U With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.

Manual override
Nil Non-locking push type
D Push-turn locking slotted type
E Push-turn locking lever type

Pilot type
Nil Internal pilot
R External pilot

External pilot is not available for Type 41P manifold.

Rated voltage
1 100 VAC
3 110 VAC (115 VAC)

Single solenoid SY 5 1 5
Double solenoid SY 5 1 5C

Series
3 SY300
5 SY500

Type of actuation
1 Normally closed (N.C.)
2 Normally open (N.C.)

Dual body type
When ordering double solenoid valves (Dual body type), please keep in mind that they require two manifold stations.
Construction

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>(SY3000: 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>Piston</td>
<td>Resin</td>
<td>—</td>
</tr>
<tr>
<td>⑤</td>
<td>Spool valve assembly</td>
<td>Aluminum, HNBR</td>
<td>—</td>
</tr>
</tbody>
</table>

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>⑥</td>
<td>Pilot valve assembly</td>
<td>Refer to “How to Order Pilot Valve Assembly” on page 1-4-10.</td>
</tr>
<tr>
<td>⑦</td>
<td>M5 port block assembly</td>
<td>Refer to “How to Order Port Block Assembly” below.</td>
</tr>
</tbody>
</table>

How to Order M5 Port Block Assembly

SY 00 — 2A —

A, B port size

- Series
  - 3 Series SY300
  - 5 Series SY500

Thread piping

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5</td>
<td>M5 x 0.8</td>
<td>SY300</td>
</tr>
<tr>
<td>01</td>
<td>1/4</td>
<td>SY500</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>SY300</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø6</td>
<td>SY500</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 5/32&quot;</td>
<td>SY300</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for 5/16&quot;</td>
<td>SY500</td>
</tr>
</tbody>
</table>

Caution

Mounting screw tightening torques

SY300 (M2) : 0.12 N-m
SY500 (M3) : 0.6 N-m
Specifications

Dimensions, specifications, solenoid specifications, response time and effective area are the same as 5 port valve.

Weight

### Series SY300

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY3-3-□-□-M5</td>
<td>Single</td>
<td>51, 53</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>68, 74</td>
</tr>
<tr>
<td>SY3-3-□-□-C4</td>
<td>Single</td>
<td>56, 59</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>74, 79</td>
</tr>
<tr>
<td>SY3-3-□-□-C6</td>
<td>Single</td>
<td>54, 57</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>72, 77</td>
</tr>
<tr>
<td>SY3-5-□-□</td>
<td>Single</td>
<td>47, 50</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>65, 70</td>
</tr>
</tbody>
</table>

### Series SY500

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY5-3-□-□-01</td>
<td>Single</td>
<td>69, 72, 93</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>87, 93, 135</td>
</tr>
<tr>
<td>SY5-3-□-□-C4</td>
<td>Single</td>
<td>82, 82, 103</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>100, 102, 144</td>
</tr>
<tr>
<td>SY5-3-□-□-C6</td>
<td>Single</td>
<td>79, 77, 98</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>97, 98, 140</td>
</tr>
<tr>
<td>SY5-3-□-□-C8</td>
<td>Single</td>
<td>75, 84, 105</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>93, 105, 147</td>
</tr>
<tr>
<td>SY5-5-□-□</td>
<td>Single</td>
<td>55, 58, 79</td>
</tr>
<tr>
<td></td>
<td>Double</td>
<td>73, 78, 120</td>
</tr>
</tbody>
</table>

C4 N3 C6 N7 C8 N9
Made to Order Specifications:
Series SX3000/5000 Serial Transmission Type
With SMC’s IN313

Serial Transmission Manifold Equipped with SMC’s IN313

How to Order Manifold

**Type 45S2 (Serial type with IN313)**

**SSSY 3**

- **Series**
  - 3: SY3000
  - 5: SY5000

- **Si unit mounting position**
  - Symbol: D
  - U side

- **Valve stations**
  - Symbol: D
  - U side
  - Serial Transmission Manifold Equipped with SMC’s IN313
  - 2 to 16 stations

- **Mounting position**
  - **U** side
  - **D** side

- **Note**
  - This also includes the number of blanking plate assemblies.
  - Two stations are necessary for the double, 3 position (Dual body type).

- **SUP/EXH block assembly mounting position**
  - **U** side
  - **D** side

- **A, B port size**
  - One-touch fitting (Metric size)
    - Symbol: C
    - Port size: One-touch fitting for ø4
    - Applicable series: SY3000
  - One-touch fitting for ø6
  - Mixed
  - Port size: One-touch fitting for ø8
  - Mixed

- One-touch fitting (Inch size)
  - Symbol: N
  - Port size: One-touch fitting for ø3/8
  - Applicable series: SY3000
  - Mixed
  - Port size: One-touch fitting for ø5/8
  - Mixed

- **Option**
  - **U** side
  - **D** side
  - **M** Special specifications

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

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.
  - PT2: For Matsushita Electric Works Ltd.
  - HT1: For Hitachi, Ltd.
  - AB1: For Rockwell Automation, Inc.
  - TS1: For TOSHIBA Corporation

How to Order Valves

**2 position single SY3 1 4 0 — 5 FU**

- **Series**
  - 3: SY3000
  - 5: SY5000

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

- **Dual body type (Double, 3 position)**
  - **Rated voltage**
    - 5: 24 VDC

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

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

For external pilot specifications and built-in silencers, refer to page 1-4-196.
SS5Y3-45S2D Stations
- Stations U-

C4, N3
C6, N7
C8, N9

(DIN rail release)
(Pitch) = 16

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32"
ø6, ø1/4"
ø8, ø5/16"

SS5Y5-45S2U Stations
- Stations B-

C4, N3
C6, N7
C8, N9

(DIN rail release)
(Pitch) = 16

One-touch fitting
(P, R port)
Applicable tubing O.D.: ø10, ø3/8"

One-touch fitting
(A, B port)
Applicable tubing O.D.: ø4, ø5/32"
ø6, ø1/4"
ø8, ø5/16"

Note) The L1 to L4 dimensions of SS5Y3-45S2D-

Stations U- are identical to those of SS5Y3-45S2D-

Stations U-.

Note) The L1 to L4 dimensions of SS5Y5-45S2U-

Stations B- are identical to those of SS5Y5-45S2D-

Stations B-.

C4, N3
C6, N7
C8, N9

(Rail mounting hole pitch: 12.5)

DIN rail holding screw
Manual override
Press and turn to operate
and lock override.
A side: Orange
B side: Green

DIN rail holding screw
Manual override
Press and turn to operate
and lock override.
A side: Orange
B side: Green

Press and turn to operate
and lock override.  

(Station 1) (Light/Surge voltage suppressor)

Block separation button
(Push type)

G1/2

Signal, power supply output port

Note) The L1 to L4 dimensions of SS5Y5-45S2U-

Stations B- are identical to those of SS5Y5-45S2D-

Stations B-.

Stations
3 4 5 6 7 8 9 10
L1 210.5 223 248 260.5 273 296 310.5 323 335.5
L2 200 212.5 237.5 250 262.5 275 287.5 300 312.5 325
L3 105 121 137 153 169 185 201 217 233
L4 13.5 12 16.5 14.5 13 17.5 15.5 14 12

Series SY3000/5000
Made to Order Specifications:
Series SX3000/5000 Serial Transmission Type
With OMRON Corp’s G71-OD16

Serial Transmission Manifold Equipped with OMRON Corp’s Transmission Unit G71-OD16

How to Order Manifold
Type 45S3 (Serial type with transmission unit)

SS5Y 45S3

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
</tr>
</tbody>
</table>

Specifications

- With transmission unit
- 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 45L), suffix “0” in the optional blank at the end of part number.

Valve stations

- Single wiring spec.
- (Applicable up to 16 solenoid valves.)

- This also includes the number of blanking plate assemblies.
- Two stations are necessary for the double, 3 position (Dual body type).

SUP/EXH block assembly mounting position

- Symbol
- Mounting position
- U: U side
- D: D side

- Note

Internal Wiring of Manifold

Serial Type 45S3 (Example of arrangement)

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>SY3000</td>
</tr>
<tr>
<td>C5</td>
<td>One-touch fitting for ø5</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td>SY3000</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 5/16&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for 7/32&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td>SY3000</td>
</tr>
</tbody>
</table>

- In the case of mixed 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 at maximum)

For external pilot specifications and built-in silencer, refer to page 1-4-196.

Caution

- The wiring specifications for SSYSY303 are different from those for SSYSY3030.
Made to Order Specifications:
Series SY3000/5000
External Pilot/Built-in Silencer

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

Individual Wiring/Connector Box Type

How to Order Manifold

**Type 45**

SS5Y\(^3\) 45(-A) 05 U R C6

**Series**
3 SY3000
5 SY5000

**Valve stations**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>SUP/EXH block assembly</th>
<th>mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>2 to 10 stations</td>
<td>U, D side</td>
<td>2 to 10 stations</td>
</tr>
<tr>
<td>B</td>
<td>Both sides</td>
<td>U, D side</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td>U, D side</td>
<td>—</td>
</tr>
</tbody>
</table>

The number of blanking plate assembly is included.

**SUP/EXH block assembly specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>External pilot</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>

**Option**

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

**A, B port size**

<table>
<thead>
<tr>
<th>Port size</th>
<th>Applicable series</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>SY3000</td>
</tr>
<tr>
<td>C5</td>
<td>SY3000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
</tr>
<tr>
<td>C4</td>
<td>SY5000</td>
</tr>
<tr>
<td>C6</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

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

**Symbol Port size Applicable series**

<table>
<thead>
<tr>
<th>Port size</th>
<th>SY3000</th>
<th>SY5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>N2</td>
<td>N3</td>
</tr>
<tr>
<td>C5</td>
<td>N7</td>
<td>N3</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>C4</td>
<td>N2</td>
<td>N3</td>
</tr>
<tr>
<td>C6</td>
<td>N7</td>
<td>N3</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
</tbody>
</table>

**How to Order Valve Manifold Assembly**

**Ordering example**

Single solenoid (external pilot specifications)
SY3140R-5G (5 sets)

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.

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

The SUP/EXH block assembly (SX3/5000-51-1A), for special usage, as shown on page 1-4-130, can also be mounted. Please specify the mounting position, by correctly filling in the blank space on the manifold specification sheet.
**How to Order Valves**

### Made to Order Specifications  Series SY3000/5000  Type 45

**Series**
- SY5 2 40
- SY3000 5 L

**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

**Coil specifications**
- Nil With power saving circuit (24 VDC, 12 VDC only)

**Rated voltage**

<table>
<thead>
<tr>
<th>DC</th>
<th>AC (%)/Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
<tr>
<td>V</td>
<td>6 VDC</td>
</tr>
<tr>
<td>S</td>
<td>5 VDC</td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
</tr>
<tr>
<td>1</td>
<td>100 VAC</td>
</tr>
<tr>
<td>2</td>
<td>200 VAC</td>
</tr>
<tr>
<td>3</td>
<td>110 VAC (115 VAC)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC (230 VAC)</td>
</tr>
</tbody>
</table>

**Light/Surge voltage suppressor**
- Nil Without light/surge voltage suppressor
- S With surge voltage suppressor
- Z With light/surge voltage suppressor
- R With surge voltage suppressor (Non-polar type)
- U With light/surge voltage suppressor (Non-polar type)

**Electrical entry for G, H, L, M, W**
- Nil Without light/surge voltage suppressor
- S With surge voltage suppressor
- Z With light/surge voltage suppressor
- R With surge voltage suppressor (Non-polar type)
- U With light/surge voltage suppressor (Non-polar type)

**Electrical entry for D (SY5000 only)**
- Nil Without light/surge voltage suppressor
- S With surge voltage suppressor (Non-polar type)
- Z With light/surge voltage suppressor (Non-polar type)

**Rated voltage**

<table>
<thead>
<tr>
<th>24, 12 VDC/100, 200, 220 VAC</th>
<th>24, 12 VDC/100, 200, 220 VAC</th>
<th>24, 12, 6, 5, 3 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G: 300 mm</td>
<td>L: With lead wire (300 mm)</td>
<td>M: With lead wire (300 mm)</td>
</tr>
<tr>
<td>H: 600 mm</td>
<td>LN: Without lead wire</td>
<td>MN: Without lead wire</td>
</tr>
<tr>
<td></td>
<td>LO: Without connector</td>
<td>MO: Without connector</td>
</tr>
</tbody>
</table>

**Grommet**
- G: Lead wire length 300 mm
- H: Lead wire length 600 mm

**L plug connector**
- D: With connector
- DO: Without connector cable

**M plug connector**
- M: With lead wire (300 mm)
- MN: Without lead wire

**DIN terminal**
- SY5000 only

**M8 connector**
- WO: Without connector cable

**Coil specifications**
- LN, MN type: with 2 sockets.
- "D" and "DO" only available for SY5000.
- DIN terminal type "Y" conforming to DIN43650C standard is also available. For details, refer to page 1-4-201.
- Setting "-5LOU" is available only for connector box type.
- For connector cable of M8 connector, refer to pages 1-4-209 to 210.

**Notes**
- For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
- For type "W"/L50132", DC voltage is only available.
- "D" and "DO" only available for SY5000.
- DIN terminal type "Y" conforming to DIN43650C standard is also available. For details, refer to page 1-4-201.
**Plug-in**

### How to Order Manifold

**Type 45**

**SS5Y3-45FU-05UR**

**Series**

<table>
<thead>
<tr>
<th>3</th>
<th>SY3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SY5000</td>
</tr>
</tbody>
</table>

**Common specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Mounting position</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>U side</td>
<td>Single wiring specification</td>
</tr>
<tr>
<td>D</td>
<td>D side</td>
<td>For special specifications, indicate separately on the manifold specification sheet.</td>
</tr>
<tr>
<td>B</td>
<td>(Both sides)</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td></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>10 stations</td>
</tr>
<tr>
<td>B</td>
<td>(Both sides)</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>M</td>
<td>Special specifications</td>
<td></td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specfications</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>External pilot</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>

**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 ø5 16&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>C6</td>
<td>One-touch fitting for ø3 32&quot;</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></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 ø1⁄8&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>N7</td>
<td>One-touch fitting for ø1⁄4&quot;</td>
<td>SY3000</td>
</tr>
<tr>
<td>N9</td>
<td>One-touch fitting for ø3⁄16&quot;</td>
<td>SY5000</td>
</tr>
<tr>
<td>N8</td>
<td>One-touch fitting for ø5⁄32&quot;</td>
<td>SY5000</td>
</tr>
<tr>
<td>M</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

**Voltage**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24 VDC</th>
<th>12 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 VDC</td>
<td>5 VDC</td>
<td>5 VDC</td>
</tr>
<tr>
<td>6 VDC</td>
<td>6 VDC</td>
<td>6 VDC</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)

**Manual override**

<table>
<thead>
<tr>
<th>Type</th>
<th>45T and T1 only</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Push-turn locking slotted type</td>
</tr>
<tr>
<td>E</td>
<td>Push-turn locking lever type</td>
</tr>
</tbody>
</table>

### How to Order Valve Manifold Assembly

**Ordering example**

- Single solenoid (external pilot specifications)
  - SY3140R-SFU 3 sets (Single solenoid part no.)
  - SY3245R-SFU 1 set (Double solenoid part no.)

- Double solenoid (external pilot specifications)
  - SY3140R-SFU 3 sets (Single solenoid part no.)
  - SY3245R-SFU 1 set (Double solenoid part no.)

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.

For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will also be located at each end of the manifold. The SUP/EXH block assembly (SX3/5000-51-1A), for special usage, as shown on page 1-4-130, can also be mounted. Please specify the mounting position, by correctly filling in the blank space on the manifold specification sheet.

Two stations of the manifold base are necessary for the double, 3 position (Dual body type). Use caution when specifying the number of stations required for the manifold base.

**SY 3 1 4 5 FU**

**Series**

<table>
<thead>
<tr>
<th>3</th>
<th>SY3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SY5000</td>
</tr>
</tbody>
</table>

**Type of actuation**

<table>
<thead>
<tr>
<th>1</th>
<th>2 position single</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2 position double</td>
</tr>
<tr>
<td>3</td>
<td>3 position closed center</td>
</tr>
<tr>
<td>4</td>
<td>3 position exhaust center</td>
</tr>
<tr>
<td>5</td>
<td>3 position pressure center</td>
</tr>
</tbody>
</table>

**Body Option**

<table>
<thead>
<tr>
<th>0</th>
<th>Standard (Single only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Dual body type (Double, 3 position)</td>
</tr>
</tbody>
</table>

**Pilot type**

<table>
<thead>
<tr>
<th>N</th>
<th>Internal pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>External pilot</td>
</tr>
</tbody>
</table>

**Rated voltage**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>24 VDC</th>
<th>12 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 VDC</td>
<td>5 VDC</td>
<td>5 VDC</td>
</tr>
<tr>
<td>6 VDC</td>
<td>6 VDC</td>
<td>6 VDC</td>
</tr>
</tbody>
</table>

**Manual override**

<table>
<thead>
<tr>
<th>Type</th>
<th>45T and T1 only</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Push-turn locking slotted type</td>
</tr>
<tr>
<td>E</td>
<td>Push-turn locking lever type</td>
</tr>
</tbody>
</table>
External Pilot/Built-in Silencer

SY3000: SS5Y3-45- Stations

<table>
<thead>
<tr>
<th>Light/Surge voltage suppressor</th>
<th>(Station n)</th>
<th>(Station 1)</th>
<th>1.2</th>
<th>1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>U side</td>
<td>D side</td>
<td>U side</td>
<td>D side</td>
<td>U side</td>
</tr>
<tr>
<td>Silencer (Air discharge port)</td>
<td>(P port) One-touch fitting</td>
<td>Silencer (Air discharge port)</td>
<td>(P port) One-touch fitting</td>
<td>Silencer (Air discharge port)</td>
</tr>
</tbody>
</table>

SY5000: SS5Y5-45- Stations

<table>
<thead>
<tr>
<th>Light/Surge voltage suppressor</th>
<th>(Station n)</th>
<th>(Station 1)</th>
<th>1.2</th>
<th>1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>U side</td>
<td>D side</td>
<td>U side</td>
<td>D side</td>
<td>U side</td>
</tr>
<tr>
<td>Silencer (Air discharge port)</td>
<td>(P port) One-touch fitting</td>
<td>Silencer (Air discharge port)</td>
<td>(P port) One-touch fitting</td>
<td>Silencer (Air discharge port)</td>
</tr>
</tbody>
</table>

* The dimensions L1 to L4 are identical to those of SS5Y3-45- Stations DRS-C4, N3, C6, N7.

* The dimensions of SS5Y2-45- Stations URS are identical to those of SS5Y2-45F- Stations URS.
External Pilot/Built-in Silencer

SY3000: SS5Y-45FU- Stations DRS - C4, N3 C6, N7

One-touch fitting
A, B port
Applicable tubing O.D.: ø4, ø5/32”, ø6, ø1/4”

(Pitch)
P = 10.5
13.5 24.8

Button for DIN rail release

L1
L2
L3
L4

DIN rail holding screw

DIN rail

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Equivalent to the applicable
D-sub connector [JIS-X-5101, MIL-C-24308]

U side
D side

DIN rail

Silencer
(Air discharge port)

Press and turn to operate and lock override.
A side: Orange
B side: Green

Equivalent to the applicable
D-sub connector [JIS-X-5101, MIL-C-24308]

SS5Y-45FU- Stations DR - C4, N3 C6, N7

One-touch fitting
P port
Applicable tubing O.D.: ø8, ø5/16”

One-touch fitting
X port
Applicable tubing O.D.: ø4, ø5/32”

One-touch fitting
PE, X port
Applicable tubing O.D.: ø4, ø5/32”

The dimensions L1 to L4 are identical to those of
SS5Y-45FU- Stations DR - C4, N3 C6, N7

SY5000: SS5Y5-45FU- Stations DRS - C4, N3 C6, N7 C8, N9

One-touch fitting
A, B port
Applicable tubing O.D.: ø4, ø5/32”, ø6, ø1/4”
ø8, ø5/16”

(Pitch)
P = 16
17 26

Button for DIN rail release

L1
L2
L3
L4

DIN rail holding screw

DIN rail

Manual override
Press and turn to operate and lock override.
A side: Orange
B side: Green

Equivalent to the applicable
D-sub connector [JIS-X-5101, MIL-C-24308]

U side
D side

DIN rail

Silencer
(Air discharge port)

Press and turn to operate and lock override.
A side: Orange
B side: Green

Equivalent to the applicable
D-sub connector [JIS-X-5101, MIL-C-24308]
**Made to Order Specifications: Series SY3000/5000**

**Mixed Mounting**

**Type M45**

**Non plug-in**

Use SY3000 together with SY5000, which has a large Cv and is mounted only in a place where it is needed, permits a selection of economic manifold bases.

**How to Order Manifold**

**Type M45 (Mixed mounting type)**

**SS5Y5-M45-05U-C86**

**Valve stations**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Stations</th>
<th>SUP/EXH block assembly mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>2 station</td>
<td>U side</td>
</tr>
<tr>
<td>20</td>
<td>2 station</td>
<td>B Both sides</td>
</tr>
</tbody>
</table>

**SUP/EXH block assembly specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard/Internal pilot</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Built-in silencer</td>
<td>External pilot is unavailable for mixed mounting style.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>C44</td>
<td>SY5000</td>
<td>One-touch fitting for ø4</td>
</tr>
<tr>
<td>C46</td>
<td>SY5000</td>
<td>One-touch fitting for ø4</td>
</tr>
<tr>
<td>C64</td>
<td>SY5000</td>
<td>One-touch fitting for ø6</td>
</tr>
<tr>
<td>C66</td>
<td>SY5000</td>
<td>One-touch fitting for ø6</td>
</tr>
<tr>
<td>C84</td>
<td>SY5000</td>
<td>One-touch fitting for ø8</td>
</tr>
<tr>
<td>C86</td>
<td>SY5000</td>
<td>One-touch fitting for ø8</td>
</tr>
</tbody>
</table>

**Option**

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

**How to Order Valve Manifold Assembly**

**Ordering example**

- Single solenoid valve SY3140-5G (3 sets) (Type M45, manifold base part no.)
- SY3140-5G (2 sets) (Single solenoid part no.)
- SS5Y5-M45-05U-C86 1 set (Type M45, manifold base part no.)
- SX5000-50-1A Manifold block assembly for SY3000
- SX5000-50-8A Manifold block assembly for SY5000

**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

**Coil specifications**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard</td>
<td>Power saving circuit is not available in the case of &quot;D&quot;, &quot;DO&quot; or &quot;WC&quot; type.</td>
</tr>
<tr>
<td>T</td>
<td>With power saving circuit (24 VDC, 12 VDC only)</td>
<td>Power saving circuit is only available in the &quot;Z&quot; type.</td>
</tr>
</tbody>
</table>

**How to Order Valves**

| SY | 5 | 2 | 40 | 5 | L |

**Series**

3 SY3000
5 SY5000

**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**

<table>
<thead>
<tr>
<th>DC</th>
<th>24 VDC</th>
<th>AC (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>5 VDC</td>
<td>100 VAC</td>
<td>100 Hz</td>
</tr>
<tr>
<td>V</td>
<td>6 VDC</td>
<td>200 VAC</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Manual override**

**Electrical entry**

- Without light/surge voltage suppressor
- With surge voltage suppressor
- With light/surge voltage suppressor
- With surge voltage suppressor (non-polar type)
- With light/surge voltage suppressor (non-polar type)

- For AC voltage valves there is no "S" option.
- It is already built-in to the rectifier circuit.
- For "R" and "U", DC voltage is only available.
- Power saving circuit is only available in the "Z" type.

**Electrical entry**

<table>
<thead>
<tr>
<th>24, 12, 6, 5, 3 VDC</th>
<th>24, 12, 6, 5, 3 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G:</td>
<td>L:</td>
</tr>
<tr>
<td>M:</td>
<td>M:</td>
</tr>
<tr>
<td>WO:</td>
<td>Without connector</td>
</tr>
</tbody>
</table>

**Connector**

- "LN", "MN" type: with 2 sockets.
- For connector cable of M8 connector, refer to page 1-4-209.
Note) The L1 to L4 dimensions of SS5Y5-M45- Stations U are identical to those of SS5Y5-M45- Stations D.

SS5Y5-M45- Stations U

Button for DIN rail release

L dimension: Formulae for L1, L4
L3 = 12.5 x n1 + 16 x n2 + 52
M = \( \frac{L3}{12.5} + 1 \) Omit decimals
L1 = 12.5 x M + 23
L2 = L1 – 10.5
L4 = (L1 – L3) / 2

n1 = Number of SY3000
n2 = Number of SY5000

Applicable tubing O.D.: ø 4, ø 5/32”
ø 6, ø 1/4”
ø 8, ø 5/16”

A, B port
One-touch fitting

A, B port
Applicable tubing O.D.: ø 4, ø 5/32”
ø 6, ø 1/4”
ø 8, ø 5/16”

L1
L2
L3
L4

Manual override

(Light/Surge voltage suppressor)

SS5Y5-M45- Stations B

Button for DIN rail release

L dimension: Formulae for L1, L4
L3 = 12.5 x n1 + 16 x n2 + 70
M = \( \frac{L3}{12.5} + 1 \) Omit decimals
L1 = 12.5 x M + 23
L2 = L1 – 10.5
L4 = (L1 – L3) / 2

n1 = Number of SY3000
n2 = Number of SY5000

Applicable tubing O.D.: ø 4, ø 5/32”
ø 6, ø 1/4”
ø 8, ø 5/16”

A, B port
One-touch fitting

A, B port
Applicable tubing O.D.: ø 4, ø 5/32”
ø 6, ø 1/4”
ø 8, ø 5/16”

L1
L2
L3
L4

Manual override

(Light/Surge voltage suppressor)