How to Order Manifold

**Ordering example**

<table>
<thead>
<tr>
<th>SS5Y</th>
<th>20P</th>
<th>05</th>
</tr>
</thead>
</table>

**Manifold series**

- 3: SY3000
- 5: SY5000
- 7: SY7000

**Thread type**

- Nil
- 00F
- 00N
- 00T
- Rc
- G
- NPT
- NPTF

**Stations**

- 03: 3 stations
- 12: 12 stations

Note: SS5Y3 has 4 to 12 stations.

How to Order Valve Manifold Assembly

Ordering example

- SS5Y3-20P-06 1 set (Type 20P, 6 stations manifold part no.)
- SX3000-26-10A 1 set (Blanking plate assembly part no)
- SY3120-5LOU-C6 2 sets (Double solenoid part no.)
- SY3000-37-3A 3 sets (Connector assembly part no.)
- SY3000-37-4A 2 sets (Connector assembly part no.)

- The asterisk denotes the symbol for assembly.

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

For DC: SY 5 1 20 – 5 LOZ 01
For AC: SY 5 1 20 – 1 LOZ 01

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)

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

Series
- 3: SY3000
- 5: SY5000
- 7: SY7000

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

A, B port size

Thread piping

One-touch fitting (Metric size)

One-touch fitting (Inch size)

Thread type
- Nil: Rc.
- F: G
- N: NPT
- T: NPTF

Manual override

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

Note) In the case of flat cable type, “U” and “Z” types are for DC specifications and “Z” type is for AC specifications. “Z” for DC is positive common specifications only. For the other combination, please contact SMC.

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 page 1-4-61.)
Multiple valve wiring is simplified through the use of the flat cable connector.

Clean appearance

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

### How to Order Connector Assembly

<table>
<thead>
<tr>
<th>For 12, 24 VDC</th>
<th>For SY3000</th>
<th>For SY5000/7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>For single solenoid</td>
<td>SY3000-37-3A</td>
<td>SY5000-37-3A</td>
</tr>
<tr>
<td>Double solenoid, 3 position type</td>
<td>SY3000-37-4A</td>
<td>SY5000-37-4A</td>
</tr>
<tr>
<td>Single with spacer assembly</td>
<td>SY5000-37-3A</td>
<td>SY5000-37-6A</td>
</tr>
<tr>
<td>Double, 3 position with spacer assembly</td>
<td>SY3000-37-6A</td>
<td>SY5000-37-6A</td>
</tr>
</tbody>
</table>

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<tr>
<td>Double solenoid, 3 position type</td>
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<td>SY5000-37-3A</td>
</tr>
<tr>
<td>Single with spacer assembly</td>
<td>SY5000-37-15A</td>
<td>SY5000-37-16A</td>
</tr>
<tr>
<td>Double, 3 position with spacer assembly</td>
<td>SY5000-37-34A</td>
<td>SY5000-37-38A</td>
</tr>
</tbody>
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<tr>
<td>Double solenoid, 3 position type</td>
<td>SY3000-37-3A</td>
<td>SY5000-37-3A</td>
</tr>
<tr>
<td>Single with spacer assembly</td>
<td>SY5000-37-19A</td>
<td>SY5000-37-21A</td>
</tr>
<tr>
<td>Double, 3 position with spacer assembly</td>
<td>SY3000-37-27A</td>
<td>SY5000-37-22A</td>
</tr>
</tbody>
</table>

**Caution**

- For non-polar (U) valves, the electrical DC connections can be used with either positive and negative COM. For type (2), only use with positive COM as the valve does not operate correctly when used with negative COM.

### Flow Characteristics

**Model**

- SS5Y3-20P
- SS5Y5-20P
- SS5Y7-20P

<table>
<thead>
<tr>
<th>Port size</th>
<th>Flow characteristics</th>
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</thead>
<tbody>
<tr>
<td>P, EA, EB port</td>
<td>1/6 M5 x 0.8, 0.6 (One-touch fitting for 04)</td>
</tr>
<tr>
<td>A, B port</td>
<td>C4 (One-touch fitting for 04)</td>
</tr>
<tr>
<td>Valve stations</td>
<td>1/4 C6 (One-touch fitting for 06)</td>
</tr>
</tbody>
</table>

### Internal Wiring of Manifold (Non-polar Type)

**Model**

- SS5Y3-20P
- SS5Y5-20P
- SS5Y7-20P

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</tr>
<tr>
<td>Valve stations</td>
<td>1/4 C6 (One-touch fitting for 06)</td>
</tr>
</tbody>
</table>

**Note**

- For more than 10 stations, both poles of the common should be wired.
- For single solenoid, connect to the solenoid A side.
- The maximum number of stations that can be accommodated is 12. For more stations, please contact SMC.


**SY5000: SS5Y5-20P - Stations**

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

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

**One-touch fitting**

**Manual override**

<table>
<thead>
<tr>
<th>(P, EA, EB port)</th>
<th>1/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>P=17.5</td>
<td></td>
</tr>
</tbody>
</table>

**Light/Surge voltage suppressor**

**Applicable connector:** 26 pins MIL type with strain relief

*(Conforming to MIL-C-83503)*

*(Station n) - (Station 1)*

*(For mounting)*

4-ø4.5

*(Series SY3000/5000/7000/9000 Type 20P)*