4 Port Solenoid Valve Cassette Type Connector Type Manifold

Series SJ2000/3000

Can be mounted together.

One-touch fitting connection is possible.
Power consumption
0.15 W (SJ3000 with power saving circuit)
0.23 W (SJ2000 with power saving circuit)

Service life of 50 million cycles or more
(Based on SMC life test conditions)

Connector type (Card edge type)
• Can easily increase or decrease stations and replace valves.
• 34 pin connector allows up to 16 stations with double solenoids, 32 stations with single solenoids.

For D-sub connector/Flat ribbon cable
Manifold uses a halogen-free lead wire.

Piping variations
<table>
<thead>
<tr>
<th>Thread type</th>
<th>1(P), 3/5(E) port</th>
<th>4(A), 2(B) port</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ2000</td>
<td>●●●●●●●●</td>
<td>●</td>
</tr>
<tr>
<td>SJ3000</td>
<td>●●●●○</td>
<td>●●○</td>
</tr>
</tbody>
</table>

Thread type is not available for 1(P), 3/5(E) port.

Features 1
EX180 serial wiring
- CC-Link (32 outputs), DeviceNet (32, 16 outputs)
- Easy attaching/detaching of the SI unit and wiring by connectors.
  - Separated valve power unit and transmission power unit / Ensuring safety at maintenance.
  - Selectable between T-branch and straight type of communication connector.

4 position dual 3 port valve
- 3 port valves integrated into a single valve.
- Possible to control 4(A), 2(B) ports individually.
- Can be mounted on the same manifold with a 4-port valve.
- 3 types of combinations are prepared.
- Label with the same colours of the manual override is attached to show the functions of A side and B side.

<table>
<thead>
<tr>
<th>A side</th>
<th>B side</th>
<th>JIS symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. valve</td>
<td>N.C. valve</td>
<td>4(A) 2(B)</td>
</tr>
<tr>
<td>N.O. valve</td>
<td>N.O. valve</td>
<td>4(A) 2(B)</td>
</tr>
<tr>
<td>N.C. valve</td>
<td>N.O. valve</td>
<td>4(A) 2(B)</td>
</tr>
</tbody>
</table>

Wiring variations
- D-sub connector: (25 pins) (26 pins, 25 pins, 10 pins)
- Flat ribbon cable
- Individual wiring
- With switch: Possible to shut the signal of each individual valve.

The valve coil is kept in a de-energised state even when there is an electric signal from the manifold side connector.
Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>D-sub connector Type 60F</th>
<th>Flat ribbon cable Type 60PC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type 60P</td>
<td>Type 60PG</td>
</tr>
</tbody>
</table>

Manifold type | Connector type |
---|---|
1(P: SUP), 3/5(E: EXH) | Common SUP/EXH |

Valve stations | 2 to 24 stations | 2 to 18 stations | 2 to 8 stations |

Applicable connector
- D-sub connector Conforming to MIL-C-24308 JIS-X-5101
- Flat ribbon cable connector Socket: 26 pins MIL type with strain relief Conforming to MIL-C-83503
- Flat ribbon cable connector Socket: 20 pins MIL type with strain relief Conforming to MIL-C-83503
- Flat ribbon cable connector Socket: 10 pins MIL type with strain relief Conforming to MIL-C-83503

Internal wiring | Non-polar, +COM |

4(A), 2(B) port piping spec.
- Location: Valve
- Direction: Horizontal, Upward, Downward (with elbow fittings when using upward or downward)

Port size
- 1(P), 3/5(E) port: C6, C8
- 4(A), 2(B) port: C2, C4, C6, M3
- SJ2000: C2, C4, C6, M5
- SJ3000: C2, C4, C6, M5

Weight W (g) = 51n + m + 133
- n: Number of SUP/EXH blocks
- m: Weight of DIN rail

Note 1) When many valves are operated simultaneously, use B type (SUP/EXH both sides), applying pressure to the 1(P) ports on both sides and exhaust from the 3/5(E) ports on both sides.

Note 2) The weight W is the value for the D-sub connector manifold only with internal pilot, SUP/EXH block straight fittings specifications. To obtain the weight with solenoid valves attached, add the solenoid valve weights given on page 2 for the appropriate number of stations. Refer to page 35 for the weight of DIN rail. (Please contact SMC for the weight of external pilot specifications, elbow fittings.)

Flow Characteristics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1(P) 3/5(E)</td>
<td>4, 2 (A, B)</td>
<td>C [dm³/s/bar]</td>
<td>b</td>
</tr>
<tr>
<td>C6</td>
<td>C2</td>
<td>0.13</td>
<td>0.55</td>
</tr>
<tr>
<td>C4</td>
<td>0.33</td>
<td>0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>M3</td>
<td>0.18</td>
<td>0.52</td>
<td>0.06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series 3000</th>
<th>Port size</th>
<th>1—2/4 (P→A/B)</th>
<th>4/2—3/5 (A/B→E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(P) 3/5(E)</td>
<td>4, 2 (A, B)</td>
<td>C [dm³/s/bar]</td>
<td>b</td>
</tr>
<tr>
<td>C6</td>
<td>C2</td>
<td>0.13</td>
<td>0.56</td>
</tr>
<tr>
<td>C4</td>
<td>0.42</td>
<td>0.17</td>
<td>0.11</td>
</tr>
<tr>
<td>C6</td>
<td>0.55</td>
<td>0.10</td>
<td>0.12</td>
</tr>
<tr>
<td>M5</td>
<td>0.40</td>
<td>0.28</td>
<td>0.11</td>
</tr>
</tbody>
</table>

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

Please contact SMC for 4 position dual 3 port valves.
## Solenoid Valve Specifications

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal pilot pressure range (MPa)</td>
<td>0.15 to 0.7</td>
</tr>
<tr>
<td>2 position single</td>
<td>0.15 to 0.7</td>
</tr>
<tr>
<td>4 position dual 3 port valve</td>
<td>0.25 to 0.7</td>
</tr>
<tr>
<td>2 position double</td>
<td>0.25 to 0.7</td>
</tr>
<tr>
<td>3 position</td>
<td>0.25 to 0.7</td>
</tr>
</tbody>
</table>

### External pilot pressure range (MPa)

<table>
<thead>
<tr>
<th>Operating pressure range</th>
<th>–100 kPa to 0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>–100 kPa to 0.7</td>
</tr>
<tr>
<td>4 position dual 3 port valve</td>
<td>–100 kPa to 0.7</td>
</tr>
<tr>
<td>2 position double</td>
<td>–100 kPa to 0.7</td>
</tr>
<tr>
<td>3 position</td>
<td>–100 kPa to 0.7</td>
</tr>
</tbody>
</table>

### Weight

#### Model/Series SJ2000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ2000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>43</td>
</tr>
<tr>
<td>SJ2000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>46</td>
</tr>
<tr>
<td>SJ2000</td>
<td>3 position</td>
<td>C2</td>
<td>50</td>
</tr>
<tr>
<td>SJ2000</td>
<td>4 position dual 3 port valve</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>SJ2000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>41</td>
</tr>
<tr>
<td>SJ2000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>44</td>
</tr>
<tr>
<td>SJ2000</td>
<td>3 position</td>
<td>C4</td>
<td>48</td>
</tr>
<tr>
<td>SJ2000</td>
<td>4 position dual 3 port valve</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>SJ2000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>39</td>
</tr>
<tr>
<td>SJ2000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>42</td>
</tr>
<tr>
<td>SJ2000</td>
<td>3 position</td>
<td>M3</td>
<td>46</td>
</tr>
<tr>
<td>SJ2000</td>
<td>4 position dual 3 port valve</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

#### Model/Series SJ3000

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Port size</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ3000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>63</td>
</tr>
<tr>
<td>SJ3000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>71</td>
</tr>
<tr>
<td>SJ3000</td>
<td>3 position</td>
<td>C2</td>
<td>75</td>
</tr>
<tr>
<td>SJ3000</td>
<td>4 position dual 3 port valve</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>SJ3000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>65</td>
</tr>
<tr>
<td>SJ3000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>73</td>
</tr>
<tr>
<td>SJ3000</td>
<td>3 position</td>
<td>C4</td>
<td>77</td>
</tr>
<tr>
<td>SJ3000</td>
<td>4 position dual 3 port valve</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>SJ3000</td>
<td>2 position single</td>
<td>4(A), 2(B)</td>
<td>61</td>
</tr>
<tr>
<td>SJ3000</td>
<td>2 position double</td>
<td>4(A), 2(B)</td>
<td>69</td>
</tr>
<tr>
<td>SJ3000</td>
<td>3 position</td>
<td>C6</td>
<td>73</td>
</tr>
<tr>
<td>SJ3000</td>
<td>4 position dual 3 port valve</td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Please contact SMC for the weight of elbow fittings.

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**Solenoid Specifications**

<table>
<thead>
<tr>
<th>Coil rated voltage</th>
<th>24 V DC, 12 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowable voltage fluctuation</td>
<td>±10% of rated voltage¹</td>
</tr>
<tr>
<td>Power consumption (W)</td>
<td>Standard SJ2000: 0.55, SJ3000: 0.4, SJ2000: 0.23, SJ3000: 0.15</td>
</tr>
<tr>
<td>Surge voltage suppressor</td>
<td>Diode</td>
</tr>
<tr>
<td>Indicator light</td>
<td>LED</td>
</tr>
</tbody>
</table>

**Note:** For the allowable voltage fluctuation for T type (with power saving circuit), please observe the following range because they have voltage drop due to internal circuit.

²4 V DC: –5 to +10%, 12 V DC: –6 to +10%

¹Maximum operating frequency (Hz) 4 position: 39, 3 position: 46, 2 position: 42

**Response Time**

**Response time ms (at 0.5 MPa)**

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>SJ2000</th>
<th>SJ3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 position single</td>
<td>0.15</td>
<td>0.23</td>
</tr>
<tr>
<td>2 position double</td>
<td>0.25</td>
<td>0.4</td>
</tr>
<tr>
<td>3 position</td>
<td>0.35</td>
<td>0.55</td>
</tr>
</tbody>
</table>

**Weight**

**Model/Series SJ2000**

- **Valve model**
- **Type of actuation**
- **Port size**
- **Weight (g)**

**Model/Series SJ3000**

- **Valve model**
- **Type of actuation**
- **Port size**
- **Weight (g)**

**Note:** Please contact SMC for the weight of elbow fittings.
For both serial and parallel wiring, additional valves are sequentially assigned pins on the connector. This makes it completely unnecessary to disassemble the connector unit.

- **Single solenoid and double solenoid**

- **Single solenoid with double wiring spec.**

- **Mounting a valve with individual wiring**
Construction: SJ2000

JIS symbol

2 position single

2 position single with back pressure check valve

2 position double

2 position double with back pressure check valve

3 position closed centre

3 position exhaust centre

3 position pressure centre

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>Spool valve assembly</td>
<td>Resin/H-NBR (2/post solenoid valve) (Aluminum/H-NBR)</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>Body</td>
<td>Zinc die-cast</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>Adaptor plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>4</td>
<td>Pilot adaptor</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>5</td>
<td>Pilot valve assembly</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6</td>
<td>Body cover</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>7</td>
<td>Port block</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>8</td>
<td>Bottom cover</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>9</td>
<td>Light cover</td>
<td>Resin</td>
<td>Light blue</td>
</tr>
</tbody>
</table>

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>One-touch fitting</td>
<td>Refer to the one-touch fitting part no. on back page 4.</td>
</tr>
<tr>
<td>11</td>
<td>Clip</td>
<td>SJ2000-CL-1 (10 pcs.)</td>
</tr>
</tbody>
</table>
Series SJ2000/3000

Construction: SJ2000

JIS symbol
4 position dual 3 port valve
SJ2A60 [N.C. valve x 2]

SJ2A60K with back pressure check valve

SJ2B60 [N.O. valve x 2]

SJ2B60K with back pressure check valve

SJ2C60 [N.C., N.O. valve x 1 (each)]

SJ2C60K with back pressure check valve

SJ2A60K with back pressure check valve

Component Parts

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<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spool valve assembly</td>
<td>Resin/H-NBR</td>
<td>N.C. (Normally closed)</td>
</tr>
<tr>
<td>2</td>
<td>Spool valve assembly</td>
<td>Resin/H-NBR</td>
<td>N.O. (Normally open)</td>
</tr>
<tr>
<td>3</td>
<td>Body</td>
<td>Zinc die-cast</td>
<td>—</td>
</tr>
<tr>
<td>4</td>
<td>Adaptor plate</td>
<td>Resin</td>
<td>White</td>
</tr>
<tr>
<td>5</td>
<td>Pilot adaptor</td>
<td>Resin</td>
<td>White</td>
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<td>—</td>
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<tr>
<td>12</td>
<td>Clip</td>
<td>SJ2000-CL-1 (10 pcs.)</td>
</tr>
</tbody>
</table>
Construction: SJ3000

JIS symbol
2 position single

(A) (B)
42
513
(EA) (P) (EB)

2 position single with back pressure check valve

(A) (B)
42
513
(EA) (P) (EB)

2 position double

(A) (B)
42
513
(EA) (P) (EB)

2 position double with back pressure check valve

(A) (B)
42
513
(EA) (P) (EB)

3 position closed centre

(A) (B)
42
513
(EA) (P) (EB)

3 position exhaust centre

(A) (B)
42
513
(EA) (P) (EB)

3 position pressure centre

(A) (B)
42
513
(EA) (P) (EB)

Component Parts

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<tbody>
<tr>
<td>1</td>
<td>Spool valve assembly</td>
<td>Resin/H-NBR (3 position solenoid valve) (Aluminum/H-NBR)</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>Body</td>
<td>Zinc die-cast</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>Adaptor plate</td>
<td>Resin</td>
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<td>4</td>
<td>Pilot adaptor</td>
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<td>11</td>
<td>Clip</td>
<td>SJ3000-CL-1 (10 pcs.)</td>
</tr>
</tbody>
</table>
Series SJ2000/3000

Construction: SJ3000

JIS symbol
4 position dual 3 port valve SJ3A60 [N.C. valve x 2] SJ3A60K with back pressure check valve

SJ3A60 [N.C. valve x 2]

SJ3B60 [N.O. valve x 2]

SJ3B60K with back pressure check valve

SJ3C60 [N.C., N.O. valve x 1(each)]

SJ3C60K with back pressure check valve

Component Parts

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<td>10</td>
<td>Light cover</td>
<td>Resin</td>
<td>Light blue</td>
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Replacement Parts

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<th>No.</th>
<th>Description</th>
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<tr>
<td>11</td>
<td>One-touch fitting</td>
<td>Refer to the one-touch fitting part no. on back page 4.</td>
</tr>
<tr>
<td>12</td>
<td>Clip</td>
<td>SJ3000-CL-1(10 pcs.)</td>
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</tbody>
</table>

SMC
For D-sub Connector / Flat Ribbon Cable

D-sub connector

Series SJ2000/3000
Connector: 25 pins

Flat ribbon cable

Series SJ2000/3000
Connector: 10, 20, 26 pins
For D-sub Connector / Flat Ribbon Cable
Series SJ2000/3000

How to Order

**Connector type manifold**

<table>
<thead>
<tr>
<th>SS5J 3</th>
<th>60 F D 1 05 U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td></td>
</tr>
</tbody>
</table>

**Mixed mounting type**

- Standard
- Mixed mounting

**Connector entry direction**

- Symbol: D
- Mounting position: D side

**DIN rail length specified**

- Standard length: 3 stations
- Specify a longer rail than the standard length:
  - 24 stations

**SUP/EXH block fitting spec.**

- Straight fitting (With external pilot spec.
  - X, PE port)
- Elbow fitting (Upward) (With external pilot spec.
  - X, PE port)
- Elbow fitting (Downward) (With external pilot spec.
  - X, PE port)

**How to Order Valve Manifold Assembly**

**Ordering example (SJ3000)**

- Double solenoid, individual wiring/lead wire length 300 mm (24 V DC)
  - SJ3260-5CU-C6 (2sets)
  - Double solenoid, with switch (24 V DC)
  - SJ3260-SCU-C6 (2sets)
  - Single solenoid (24 V DC)
  - SJ3160-SCU-C6 (2sets)

**Pilot spec.**

- Internal pilot
- Internal pilot / Built-in silencer
- External pilot
- External pilot / Built-in silencer

**SUP/EXH block mounting position**

- U side (2 to 10 stations)
- D side (2 to 10 stations)
- B Both sides (2 to 24 stations)
- M Special specification

**Valve stations**

- F: D-sub connector (25 pins)
- P: Flat ribbon cable (26 pins)
- PG: Flat ribbon cable (20 pins)
- PH: Flat ribbon cable (10 pins)

- The number of blanking block assembly is also included. Since single and double wiring are available with the blanking block assembly, select a model compatible with the valve wiring spec. planned for the future. (Refer to page 35)

* The asterisk denotes the symbol for assembly.
* Prefix to the part no. of the solenoid valve, etc.

- The valve arrangement is numbered as the 1st station from D side.
- Indicate the valves to be attached below the manifold part number, in order starting from station 1 as shown in the drawing.
- In the case of complex arrangement, specify it on a manifold specification sheet.
How to Order Solenoid Valves

Standard (Non-polar) type

- SJ 3 1 60
- 5 C U
- C6

With power saving circuit (with polarity) [Continuous duty type] (Note)

- SJ 3 1 60
- T 5 C Z
- C6

With switch (with polarity)

- SJ 3 1 60
- 5 C Z J
- C6

Individual wiring (with polarity)

- SJ 3 1 60
- 5 M Z
- C6

Note) Be sure to select “with power saving circuit” when the solenoid valve will be energised continuously for long periods.

Individual wiring (with polarity)

- SJ 3 1 60
- 5 M Z
- C6

Type of actuation

1: 2 position single solenoid
2: 2 position double solenoid
3: 3 position closed centre
4: 3 position exhaust centre
5: 3 position pressure centre
A: Dual 3 port valve: N.C./N.C.
B: Dual 3 port valve: N.O./N.O.
C: Dual 3 port valve: N.C./N.O.

Connector entry

C: Dedicated for centralised wiring
M: Individual wiring, Lead wire length 300 mm
MN: Individual wiring, Without lead wire
MO: Individual wiring, Without connector

Pilot spec.

- Internal pilot
- External pilot

Rated voltage

- 5 24 V DC
- 6 12 V DC

Back pressure check valve

- Without
- Built-in

Light/surge voltage suppressor

U: With light/surge voltage suppresser Standard (non-polar) only
Z: With light/surge voltage suppresser, with power saving, with switch and individual wiring

Manual override

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

Series

2: SJ2000
3: SJ3000

With switch

- Single wiring
- Double wiring

Single solenoid wiring spec.

- There is no need to enter anything for 2 position double, 3 position and 4 position type solenoid valves.

A, B port size

Straight
C2: ø2 one-touch fitting
C4: ø4 one-touch fitting
C6: ø6 one-touch fitting

Elbow fitting assembly (Upward entry)
L2: ø2 elbow fitting assembly
L4: ø4 elbow fitting assembly
L6: ø6 elbow fitting assembly

Elbow fitting assembly (Downward entry)
B2: ø2 elbow fitting assembly
B4: ø4 elbow fitting assembly
B6: ø6 elbow fitting assembly

Connector entries with the symbol “MN” can not use the switch signal from the common wiring on the manifold.

The electrical connection to the manifold will be +COM. spec. when a valve with power saving circuit or switch is selected.
Series SJ2000/3000

Manifold Electrical Wiring (Non-polar type)

**Type 60F: D-sub connector (25 pins)**

- Station 12: SOL.B (–) (+), SOLA (–) (+)
- Station 11: SOL.B (–) (+), SOLA (–) (+)
- Station 2: SOL.B (–) (+), SOLA (–) (+)
- Station 1: SOL.B (–) (+), SOLA (–) (+)

Note) This circuit is for the specifications with up to 12 stations of 2 position double, 3 position and 4 position dual 3 port type solenoid valves. They should be wired in order 1—14—2—15 without skipping or leaving any connectors remaining.

**Type 60P: Flat ribbon cable (26 pins)**

- Station 12: SOL.B (–) (+), SOLA (–) (+)
- Station 11: SOL.B (–) (+), SOLA (–) (+)
- Station 2: SOL.B (–) (+), SOLA (–) (+)
- Station 1: SOL.B (–) (+), SOLA (–) (+)

Note) This circuit is for the specifications with up to 12 stations of 2 position double, 3 position and 4 position dual 3 port type solenoid valves. They should be wired in order 1—2—3—4 without skipping or leaving any connectors remaining.

**Type 60PH: Flat ribbon cable (10 pins)**

- Station 10: SOL.B (–) (+), SOLA (–) (+)
- Station 9: SOL.B (–) (+), SOLA (–) (+)
- Station 8: SOL.B (–) (+), SOLA (–) (+)
- Station 4: SOL.B (–) (+), SOLA (–) (+)
- Station 2: SOL.B (–) (+), SOLA (–) (+)
- Station 1: SOL.B (–) (+), SOLA (–) (+)

Note) This circuit is for the specifications with up to 4 stations of 2 position double, 3 position and 4 position dual 3 port type solenoid valves. They should be wired in order 1—2—3—4 without skipping or leaving any connectors remaining.

**Caution**

When the non-polar U type valves are used, either negative COM or positive COM wiring of the manifold is possible. However, the valve does not switch with negative COM if a Z type is used. Be sure to use positive COM.
For D-sub Connector / Flat Ribbon Cable Series SJ2000/3000

Dimensions: Series SJ2000 for D-sub Connector

SS5J2-60FD1 - Stations U (S, R, RS)

L: Dimensions

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<th>n: Stations</th>
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Note: For manifold dimensions with elbow fitting, refer to page 22.
Series SJ2000/3000

Dimensions: Series SJ2000 for D-sub Connector

SS5J2-60FD  -       B (S, R, RS)Stations

L: Dimensions

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</table>

Note: For manifold dimensions with elbow fitting, refer to page 22.
For D-sub Connector / Flat Ribbon Cable Series SJ2000/3000

Dimensions: Series SJ3000 for D-sub Connector

SS5J3-60FD\(n\) -- Stations\(U\) (S, R, RS)

![Diagram](image)

**Note:** For manifold dimensions with elbow fitting, refer to page 23.

### Dimensions: Series SJ3000 for D-sub Connector

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<th>L</th>
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For D-sub Connector / Flat Ribbon Cable Series SJ2000/3000

Dimensions: Series SJ3000 for D-sub Connector

SS5J3-60FD\(n\) -- Stations\(U\) (S, R, RS)

![Diagram](image)

**Note:** For manifold dimensions with elbow fitting, refer to page 23.

### Dimensions: Series SJ3000 for D-sub Connector

<table>
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For D-sub Connector / Flat Ribbon Cable Series SJ2000/3000

Dimensions: Series SJ3000 for D-sub Connector

SS5J3-60FD\(n\) -- Stations\(U\) (S, R, RS)

![Diagram](image)

**Note:** For manifold dimensions with elbow fitting, refer to page 23.

### Dimensions: Series SJ3000 for D-sub Connector

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</table>
**Series SJ2000/3000**

**Dimensions: Series SJ3000 for D-sub Connector**

SS5J3-60FD - Stations B (S, R, RS)

L: Dimensions

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</table>

Note: For manifold dimensions with elbow fitting, refer to page 23.
Dimensions: SJ2000/3000 Mixed Manifold

SS5J3-M60FD1 – [Stations]U (S, R, RS)

Applicable connector:
D-sub (JIS-X-5101, MIL-C-24308) equivalent

Terminal no. 1
(Connector entry direction upward)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 57.8
M = (L3 + 9.9)/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 – 10.5
L4 = (L1 – L3)/2 + 1

n1: Piece of the SJ2000
n2: Piece of the SJ3000

* The dimensions of L1 to L4 for SS5J3-M60FD1/2 [Stations] D are the same as those of SS5J3-M60FD1/2 [Stations] U.

SS5J3-M60FD1 – [Stations]B (S, R, RS)

Applicable connector:
D-sub (JIS-X-5101, MIL-C-24308) equivalent

Terminal no. 1
(Connector entry direction upward)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 73.3
M = (L3 + 9.9)/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 – 10.5
L4 = (L1 – L3)/2 + 1

n1: Piece of the SJ2000
n2: Piece of the SJ3000

For D-sub Connector / Flat Ribbon Cable Series SJ2000/3000
### Dimensions: Series SJ2000 for Flat Ribbon Cable

**Series SJ2000/3000**

#### SS5J2-60PD: Stations U (S, R, RS)

**Applicable connector:** 20 pin MIL type with strain relief (MIL-C-83503 compliant)
**Applicable connector:** 10 pin MIL type with strain relief (MIL-C-83503 compliant)

**Triangle mark location:**
- In case of 60PG (20 pins)
- In case of 60PH (10 pins)

**One-touch fitting**
- (PE: Pilot EXH port)
- Applicable tubing O.D: ø4
- (X: External pilot port)
- Applicable tubing O.D: ø4

**Connector entry direction upward**
- Applicable connector: 26 pin MIL type with strain relief (MIL-C-83503 compliant)

**[External pilot spec.]**
- Built-in silencer spec.
- DIN rail holding screw
- Valve lock switch
- Manual override switch
- Built-in silencer

**L1**

<table>
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</tbody>
</table>

**Notes:**
1) Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.
2) For manifold dimensions with elbow fitting, refer to page 22.
Dimensions: Series SJ2000 for Flat Ribbon Cable

Applicable connector: 20 pin MIL type with strain relief (MIL-C-83503 compliant)

Applicable connector: 10 pin MIL type with strain relief (MIL-C-83503 compliant)

Triangle mark location

In case of 60PG (20 pins)
In case of 60PH (10 pins)

(External pilot spec.)
(There is a piping of X, PE port in the both sides.)

Note 1) Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

Note 2) For manifold dimensions with elbow fitting, refer to page 22.
Series SJ2000/3000

Dimensions: Series SJ3000 for Flat Ribbon Cable

SS5J3-60PD – Stations U (S, R, RS)

L: Dimensions

<table>
<thead>
<tr>
<th>L</th>
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</table>

Note 1) Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

Note 2) For manifold dimensions with elbow fitting, refer to page 23.
**Dimensions: Series SJ3000 for Flat Ribbon Cable**

**SSSJ3-60PD**  
- **B (S, R, RS)**

In case of 60PG (20 pins)  
In case of 60PH (10 pins)

**[External pilot spec.]**  
(There is a piping of X, PE port in the both sides.)

(Applicable connector: 20 pin MIL type with strain relief (MIL-C-83503 compliant))

- **Applicable connector: 26 pin MIL type with strain relief (MIL-C-83503 compliant)**

**L1**  
(Applicable tubing O.D: ø4)

**L2**

**L3**

**L4**

**Notes:**
1) Type 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.
2) For manifold dimensions with elbow fitting, refer to page 23.
Series SJ2000/3000

Dimensions: SJ2000/3000 Mixed Manifold

SS5J3-M60PD  – Stations U (S, R, RS)

Applicable connector: 26 pin MIL type with strain relief (MIL-C-83503)

Triangle mark location

Connector entry direction upward)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 57.8
M = [L3 + 10.6]/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 – 10.5
L4 = (L1 – L3)/2 + 1.3

n1: Piece of the SJ2000
n2: Piece of the SJ3000

* The dimensions of L1 to L4 for SS5J3-M60PD1/2- Stations D are the same as those of SS5J3-M60PD1/2- Stations U.

SS5J3-M60PD  – Stations B (S, R, RS)

Applicable connector: 26 pin MIL type with strain relief (MIL-C-83503)

Triangle mark location

Connector entry direction upward)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 73.3
M = [L3 + 10.6]/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 – 10.5
L4 = (L1 – L3)/2 + 1.3

n1: Piece of the SJ2000
n2: Piece of the SJ3000
Dimensions: Series SJ2000 with Elbow Fittings

SS5J2-60FD

Downward (B type)

[U side]

[Valve]

[1(P), 3/5(E) port]

One-touch fitting

Applicable tubing O.D: ø8

3/5(E) port

1(P) port

4(A) port

2(B) port

One-touch fitting

(Pitch)

P=7.5

(U side)

[External pilot spec.]

[D side]

[Sup/Exh block (External pilot spec.)]

[Sup/Exh block (External pilot spec.)]
For D-sub Connector / Flat Ribbon Cable **Series SJ2000/3000**

**Manifold Exploded View**

**Type 60P (Flat ribbon cable type) manifold**

**Type 60S (Plug-in, EX180 serial wiring type) manifold**

---

### Component 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><strong>SUP/EXH block assembly</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal pilot</td>
<td>SJ3000-50-1A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal pilot / Built-in silencer</td>
<td>SJ3000-50-1AS</td>
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<tr>
<td></td>
<td>External pilot</td>
<td>SJ3000-50-1AR</td>
<td>C6: With ø6 one-touch fitting (straight)</td>
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<tr>
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<td>(X, P,E port: ø4)</td>
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<td></td>
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<tr>
<td></td>
<td>External pilot / Built-in silencer</td>
<td>SJ3000-50-1ARS</td>
<td>C8: With ø8 one-touch fitting (straight)</td>
</tr>
<tr>
<td></td>
<td>(X port: ø4)</td>
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<td></td>
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<tr>
<td></td>
<td>For different pressure, internal pilot</td>
<td>SJ3000-50-3A</td>
<td>L6: With ø6 one-touch fitting (elbow upward entry)</td>
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<tr>
<td></td>
<td>Internal pilot / Built-in silencer</td>
<td>SJ3000-50-3AS</td>
<td>L8: With ø8 one-touch fitting (elbow upward entry)</td>
</tr>
<tr>
<td></td>
<td>For different pressure</td>
<td>SJ3000-50-3AS</td>
<td>B6: With ø6 one-touch fitting (elbow downward entry)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B8: With ø8 one-touch fitting (elbow downward entry)</td>
</tr>
</tbody>
</table>

| 2   | **End block assembly**                   | SJ3000-53-1A     |                                                                      |
| 3   | **DIN rail**                             | VZ1000-11-1      | Refer to page 35.                                                   |
| 4   | **Connector block assembly**             | SJ3000-42-3A     | Refer to the connector block assembly part no. shown below.         |
| 5   | **SI unit**                              | EX180-           | Refer to the SI unit part numbers on page 27.                       |

---

### Connector Block Assembly Part No.

<table>
<thead>
<tr>
<th>Connector specifications</th>
<th>Mounting position</th>
<th>Part no.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>For D-sub connector</td>
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<td>SJ3000-42-1A</td>
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<tr>
<td>For flat ribbon cable 26 pins</td>
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<td>SJ3000-42-2A</td>
<td>: 1 (connector upward)</td>
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<tr>
<td>For flat ribbon cable 20 pins</td>
<td></td>
<td>SJ3000-42-3A</td>
<td>: 2 (connector lateral)</td>
</tr>
<tr>
<td>For flat ribbon cable 10 pins</td>
<td></td>
<td>SJ3000-42-4A</td>
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<tr>
<td>For serial wiring</td>
<td></td>
<td>SJ3000-42-5A</td>
<td></td>
</tr>
</tbody>
</table>

---

* Refer to page 34 about the SUP/EXH block disk assembly and the method for handling parts at different pressures.
How to Add Manifold Stations

1. Loosen the screws (a), which are fixed to the DIN rail (two locations on one side).

2. In the direction of the coil, slide the valve lock switch on each block where the additional valve station is desired to be added.

   If blocks are removed without completely releasing the valve lock switch, the connection hook of that switch could be damaged or deformed.

3. Install an additional valve or an SUP/EXH assembly on the DIN rail.

   A manifold equipped with a valve or a block assembly can be mounted on the DIN rail. However, a serial connector block assembly cannot be mounted on the DIN rail when it is connected with another block; the serial connector block must be mounted separately.

4. Press the valves and block assemblies to each other for connection. Press the valve lock switch in the cylinder port direction until it does not go any further. Fasten threads (a) onto the DIN rail.

   After fixing the connector block assembly, fasten the screws on the end block assembly while holding it lightly by hand. This is necessary to improve sealing.

**Caution**

- D-sub, Connector block assembly for flat ribbon cable, End block assembly M3: 0.6 N•m
- Connector block assembly for serial wiring M4: 1.4 N•m

**Caution**

1. When increasing the number of stations from 10 or below to 11 or above, increase the number of SUP/EXH assemblies as well.

2. Be sure to turn off the power and stop supply of air before disassembly. Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work.

3. After assembly and disassembly, air leakage could occur if the blocks are not well connected or if a thread is not tightly fastened onto the end block assembly. Before supplying air, make sure that no gaps exist in between blocks and that the valve and block are tightly fastened onto the DIN rail. Also, make sure that air is not leaking before use.
Series EX180

Series SJ2000/3000
CC-Link compliant (32 points)
DeviceNet compliant (32, 16 points)
EX180 Serial Wiring
Series SJ2000/3000

How to Order Valve Manifold Assembly

Ordering example (SJ3000)
Double solenoid, individual wiring/lead wire length 300 mm (24 V DC)
SJ3260-5CU-C6 (2sets)
* The number of blanking block assembly is also included. Since single and double wiring are available with the blanking block assembly, select a model compatible with the valve wiring spec. planned for the future. (Refer to page 35)

SUP/EXH block mounting position
U: U side (2 to 10 stations)
D: D side (2 to 10 stations)
B: Both sides (2 to 32 stations)
M: Special specification

* There is no need to enter anything when the SUP/EXH block mounting position “M” is selected.

Valve stations
Symbol
02  32
2 Stations 32 Stations
Note
Up to 32 solenoids possible.

SI Unit Part No.
Symbol
V VA QA Q1 Q1A
Component module/Communication connector specifications
V Mitsubishi Electric Corp., CC-Link compliant, T-branch type For SJ2000/3000
VA Mitsubishi Electric Corp., CC-Link compliant, Straight type EX180-SM1J1
QA DeviceNet compliant (32 points), Straight type EX180-SDN1A
Q1 DeviceNet compliant (16 points), Straight type EX180-SDN2
Q1A DeviceNet compliant (16 points), Straight type EX180-SDN2A

Specifications
Power source
Non-polar for driving valve
With energy saving circuit (Continuous duty)

Notes:
1. The valve arrangement is numbered as the 1st station from the D side.
2. Indicate the valves to be attached below the manifold part number, in order starting from station 1 as shown in the drawing.
3. In the case of complex arrangement, specify it on a manifold specification sheet.

How to Order

Component module
- Without SI unit
- Mitsubishi Electric Corporation: CC-Link compliant (32 points)
- DeviceNet compliant (32 points)
- DeviceNet compliant (16 points)
- Please contact SMC for a specification of the SI unit.

Communication connector spec.
- A: Straight type
- T-branch type

Mixed mounting type
- Standard
- Mixed mounting

SUP/EXH block fitting spec.
- Straight fitting
- Elbow fitting (Upward)
- Elbow fitting (Downward)

- There is no need to enter anything when the SUP/EXH block mounting position “M” is selected.

Pilot spec.
- Internal pilot
- Internal pilot / Built-in silencer
- External pilot
- External pilot / Built-in silencer

SECURITY

Type 60S
## How to Order Solenoid Valves

### Standard (Non-polar) Type
- **SJ** followed by a 3-digit number and a letter:
  - **3160**
  - **3160**
  - **3160**

### With Power Saving Circuit (with Polarity)
- **SJ** followed by a 3-digit number and a letter:
  - **3160**
  - **3160**
  - **3160**

### With Switch (with Polarity)
- **SJ** followed by a 3-digit number and a letter:
  - **3160**
  - **3160**
  - **3160**

### Individual Wiring (with Polarity)
- **SJ** followed by a 3-digit number and a letter:
  - **3160**
  - **3160**
  - **3160**

---

### Type of Actuation
- **1**: 2 position single solenoid
- **2**: 2 position double solenoid
- **3**: 3 position closed centre
- **4**: 3 position exhaust centre
- **5**: 3 position pressure centre

### Dual 3 Port Valve
- **N.C./N.C.**
- **N.O./N.O.**
- **N.C./N.O.**

### Pilot Specifications
- **U**: Internal pilot
- **R**: External pilot

### Back Pressure Check Valve
- **Without**
- **Built-in**

### Light/Surge Voltage Suppressor
- **U**: With light/surge voltage suppressor
- **Z**: With light/surge voltage suppressor, with power saving

### Connector Entry
- **C**: Dedicated for centralised wiring
- **M**: Individual wiring, Lead wire length 300 mm
- **MN**: Individual wiring, Without lead wire
- **MO**: Individual wiring, Without connector

---

### Other Specifications
- **Rated Voltage**: 24 V DC
- **Connector entries with the symbol “M” can not use the switch signal from the common wiring on the manifold.”
- **Elbow fitting assembly (Upward entry)**
  - **L2**: ø2 elbow fitting assembly
  - **L4**: ø4 elbow fitting assembly
  - **L6**: ø6 elbow fitting assembly (SJ3000 only)
- **Elbow fitting assembly (Downward entry)**
  - **B2**: ø2 elbow fitting assembly
  - **B4**: ø4 elbow fitting assembly
  - **B6**: ø6 elbow fitting assembly (SJ3000 only)
### Dimensions: Series SJ2000 for EX180 Serial Wiring

**SS5J2-60S□□- Stations U (S, R, RS)**

#### L: Dimensions

<table>
<thead>
<tr>
<th>L</th>
<th>2</th>
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<th>4</th>
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<tr>
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<td>17.5</td>
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</tbody>
</table>

Note 1) For manifold dimensions with elbow fitting, refer to page 22.

Note 2) Please contact SMC regarding to the SI unit.

---

**Diagram:**

- **Light/surge voltage suppressor**
  - SOL:a: Orange
  - SOL:b: Green
- **Switch**
  - (When equipped with switch)
- **DIN rail**
  - DIN rail holding screw 2 locations (M3)
  - DIN rail holding screw 2 locations (M4)
- **Power source connector**
  - (shipped together with manifold)
- **Ground terminal**
  - M3
- **Communication connector**
  - (shipped together with manifold)
- **One-touch fitting**
  - (PE: Pilot EXH port)
  - Applicable tubing O.D: ø4
- **One-touch fitting**
  - (X: External pilot port)
  - Applicable tubing O.D: ø4
- **Silencer (Air discharge port)**
  - Straight type: (35.9)
  - PE
  - X
- **Valve lock switch**
  - (Locking type: Press, then rotate.)
  - 4(A) port side: Blue
  - 2(B) port side: Yellow
- **Manual override switch**
- **Manual override switch**
  - (When equipped with switch)
  - 4(A) port side: Blue
  - 2(B) port side: Yellow
- **Built-in silencer spec.**
- **Lighting switch**
  - Power source connector
  - Ground terminal

---

**Table:**

<table>
<thead>
<tr>
<th>L</th>
<th>2</th>
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<td>17.5</td>
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</tbody>
</table>
Dimensions: Series SJ2000 for EX180 Serial Wiring

SS5J2-60S□□□ (Stations B, S, R, RS)

(Station n) --- (Station 1)

[External pilot spec.]
(There is a piping of X, PE port in the both sides.)

Light/surge voltage suppressor
SOL:a: Orange
SOL:b: Green

Switch
(When equipped with switch)

[Note] For manifold dimensions with elbow fitting, refer to page 22. Please contact SMC regarding the SI unit.
Series SJ2000/3000

Dimensions: Series SJ3000 for EX180 Serial Wiring

SS5J3-60S□□ [Stations] U (S, R, RS)

Light/surge voltage suppressor
SOL-a: Orange
SOL-b: Green

Switch (When equipped with switch)

One-touch fitting
(PE: Pilot EXH port)
Applicable tubing O.D: ø4

One-touch fitting
(X: External pilot port)
Applicable tubing O.D: ø4

Valve lock switch
(When equipped with switch)

Manual override switch

DIN rail holding screw 2 locations
(M3)

Manual override

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

One-touch fitting
[External pilot spec.]
Applicable tubing O.D: ø4

Note) For manifold dimensions with elbow fitting, refer to page 23. Please contact SMC regarding the SI unit.

L: Dimensions

<table>
<thead>
<tr>
<th>L</th>
<th>0</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>14</td>
<td>15.5</td>
<td>16.5</td>
<td></td>
</tr>
</tbody>
</table>

SOL.a: Orange
SOL.b: Green

Approx. 300 [Lead wire length]
Dimensions: Series SJ3000 for EX180 Serial Wiring

SS5J3-60S□□ □ □ □ B (S, R, RS) (Station n) ———— (Station 1)

Light/surge voltage suppressor
SOL a: Orange
SOL b: Green

Switch
(When equipped with switch)

[External pilot spec.]

One-touch fitting
PE: Pilot EXH port
Applicable tubing O.D: ø4

(X: External pilot port)
Applicable tubing O.D: ø4

[External pilot spec.]

One-touch fitting
1(F), 3/5(E) port
Applicable tubing O.D: ø8

Note) For manifold dimensions with elbow fitting, refer to page 23.
Please contact SMC regarding the SI unit.

L: Dimensions

<table>
<thead>
<tr>
<th>L</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>
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<th>15</th>
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<th>17</th>
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<tbody>
<tr>
<td>L1</td>
<td>148</td>
<td>160.5</td>
<td>173</td>
<td>185.5</td>
<td>198</td>
<td>210.5</td>
<td>210.5</td>
<td>223</td>
<td>235.5</td>
<td>248</td>
<td>260.5</td>
<td>260.5</td>
<td>273</td>
<td>285.5</td>
<td>298</td>
<td>310.5</td>
</tr>
<tr>
<td>L2</td>
<td>137.5</td>
<td>150</td>
<td>162.5</td>
<td>175</td>
<td>187.5</td>
<td>200</td>
<td>208</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
<td>250</td>
<td>262.5</td>
<td>275</td>
<td>287.5</td>
<td>300</td>
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<tr>
<td>L3</td>
<td>123.7</td>
<td>133.7</td>
<td>143.7</td>
<td>153.7</td>
<td>163.7</td>
<td>173.7</td>
<td>183.7</td>
<td>193.7</td>
<td>203.7</td>
<td>213.7</td>
<td>223.7</td>
<td>233.7</td>
<td>243.7</td>
<td>253.7</td>
<td>263.7</td>
<td>273.7</td>
</tr>
<tr>
<td>L4</td>
<td>12</td>
<td>13</td>
<td>14.5</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
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<td>15</td>
<td>16</td>
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<td>12</td>
<td>13.5</td>
<td>14.5</td>
<td>15.5</td>
<td>16.5</td>
</tr>
</tbody>
</table>

| n: Stations |
|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|
| 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| L1 | 310.5| 323| 335.5| 348| 360.5| 373| 373| 385.5| 398| 410.5| 423| 423| 435.5| 448| 460.5|
| L2 | 300| 312.5| 325| 337.5| 350| 362.5| 362.5| 375| 387.5| 400| 412.5| 412.5| 425| 425| 437.5| 450 |
| L3 | 283.7| 292.7| 303.7| 313.7| 323.7| 333.7| 343.7| 353.7| 363.7| 373.7| 383.7| 393.7| 403.7| 413.7| 423.7|
| L4 | 11.5| 13 | 14 | 15 | 16 | 17 | 15.5| 15.5| 15 | 17| 12 | 13 | 14 | 15 | 15 | 15 |
Dimensions: SJ2000/3000 Mixed Manifold

SS5J3-M60S - Stations U (S, R, RS)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 88.2
M = (L3 + 4)/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 - 10.5
L4 = (L1 - L3)/2 - 2

n1: Piece of the SJ2000
n2: Piece of the SJ3000

The dimensions of L1 to L4 for SS5J3-M60S - Stations B are the same as those of SS5J3-M60S - Stations U.

SS5J3-M60S - Stations B (S, R, RS)

L dimension: Formula, L1 to L4
L3 = 7.5 x n1 + 10 x n2 + 103.7
M = (L3 + 4)/12.5 + 1
Remove all numbers after the decimal.
L1 = M x 12.5 + 23
L2 = L1 - 10.5
L4 = (L1 - L3)/2 - 2

n1: Piece of the SJ2000
n2: Piece of the SJ3000

Manual override DIN rail holding screw 2 locations
(M3)
DIN rail holding screw 2 locations
(M4)
DIN rail
L1
L2
L3
L4
4(A) port side: Blue
2(B) port side: Yellow
(DIN rail mounting hole pitch: 12.5)
5

One-touch fitting
[1(P), 3/5(E) port]
Applicable tubing O.D: ø8
2n2-One-touch fitting
[4(A), 2(B) port]
Applicable tubing O.D: ø2
ø4
ø6

2n1-One-touch fitting
[4(A), 2(B) port]
Applicable tubing O.D: ø2
ø4
ø6

Manual override
4(A) port side: Blue
2(B) port side: Yellow
(DIN rail mounting hole pitch: 12.5)
5

SI unit
**Manifold Options**

**SUP/EXH block disk assembly**

By placing a SUP block disk in the manifold valve's pressure supply passage, two different high and low pressures can be supplied to one manifold. When supplying different pressures when using the manifold with an internal pilot, place an order by filling out a manifold specification sheet with a SUP/EXH block assembly for internal pilot specifications and SUP/EXH block assembly for different-pressure internal pilot specifications (Refer to Circuit Diagram 1).

![Label for block disk](image)

**EXH block disk**

By installing an EXH block disk in a manifold valve's exhaust passage, the valve's exhaust can be separated so that it will not affect other valves.

**Label for block disk**

These labels are attached to manifolds in which SUP and EXH block disks have been installed, in order to identify the installed locations. (Three sheets each included.)

**Different pressure pneumatic circuit diagram**

1. Different-pressure spec. using the internal pilot

![Diagram 1](image)

2. Different-pressure spec. using the external pilot

(When using the SUP/EXH block assembly for external pilot spec.)

![Diagram 2](image)

3. Different-pressure spec. using the external pilot

(When using the SUP/EXH block assembly for different-pressure internal pilot spec.)

![Diagram 3](image)

**Note**

When operating under the different-pressure spec., supply the higher pressure to the pilot passage.
Series **SJ2000/3000**

**Manifold Options**

- **Blanking block assembly**
  These are mounted when later addition of valves is planned, etc.

- **Silencer with one-touch fitting**
  This silencer can be mounted on the manifolds’ 3/5 port (E: Exhaust) with a single touch.

- **Plug (White)**
  These are inserted in unused cylinder ports and P, E ports.

---

### Table: Series Part no. Note Width

<table>
<thead>
<tr>
<th>Series</th>
<th>Part no.</th>
<th>Note</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ2000</td>
<td>SJ3000-49-1A</td>
<td>Single wiring</td>
<td>7.5 mm</td>
</tr>
<tr>
<td>SJ3000</td>
<td>SJ3000-49-2A</td>
<td>Double wiring</td>
<td></td>
</tr>
</tbody>
</table>

---

### TABLE: L dimensions

<table>
<thead>
<tr>
<th>No.</th>
<th>L dimension (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>98</td>
<td>17.6</td>
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<tr>
<td>1</td>
<td>110.5</td>
<td>19.9</td>
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<tr>
<td>2</td>
<td>123</td>
<td>22.1</td>
</tr>
<tr>
<td>3</td>
<td>135.5</td>
<td>24.4</td>
</tr>
<tr>
<td>4</td>
<td>148</td>
<td>26.6</td>
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<tr>
<td>5</td>
<td>160.5</td>
<td>28.9</td>
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<tr>
<td>6</td>
<td>173</td>
<td>31.1</td>
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<tr>
<td>7</td>
<td>185.5</td>
<td>33.4</td>
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<td>9</td>
<td>210.5</td>
<td>37.9</td>
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</table>

### Table: L dimensions

<table>
<thead>
<tr>
<th>No.</th>
<th>L dimension (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>223</td>
<td>40.1</td>
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<td>11</td>
<td>235.5</td>
<td>42.4</td>
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<tr>
<td>12</td>
<td>248</td>
<td>44.8</td>
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<tr>
<td>13</td>
<td>260.5</td>
<td>46.9</td>
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<tr>
<td>14</td>
<td>273</td>
<td>49.1</td>
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<tr>
<td>15</td>
<td>285.5</td>
<td>51.4</td>
</tr>
<tr>
<td>16</td>
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<td>53.6</td>
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<tr>
<td>17</td>
<td>310.5</td>
<td>55.9</td>
</tr>
<tr>
<td>18</td>
<td>323</td>
<td>58.1</td>
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<tr>
<td>19</td>
<td>335.5</td>
<td>60.4</td>
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### Table: L dimensions

<table>
<thead>
<tr>
<th>No.</th>
<th>L dimension (mm)</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>348</td>
<td>62.6</td>
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<td>21</td>
<td>360.5</td>
<td>64.9</td>
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<tr>
<td>22</td>
<td>373</td>
<td>67.1</td>
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<td>23</td>
<td>385.5</td>
<td>69.4</td>
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<tr>
<td>24</td>
<td>398</td>
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<td>73.9</td>
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<td>26</td>
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<td>28</td>
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<td>29</td>
<td>460.5</td>
<td>82.9</td>
</tr>
</tbody>
</table>

---

### Diagram: Silencer with one-touch fitting

---

### Diagram: Plug (White)

---

### Flat ribbon cable assembly

#### Cable length (L) 10 pins 20 pins 26 pins

<table>
<thead>
<tr>
<th></th>
<th>AXT100-FC10-1</th>
<th>AXT100-FC20-1</th>
<th>AXT100-FC26-1</th>
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</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:**
- Hirose Electric Co., Ltd
- Sumitomo 3M Limited
- Fujitsu Limited
- Japan Aviation Electronics Industry, Ltd
- J.S.T. Mfg. Co., Ltd.
Manifold Options

- D-sub connector (25 pins)/Cable assembly
  GVVZS3000-21A-\textsuperscript{1}\textsuperscript{-5}

<table>
<thead>
<tr>
<th>Cable length (L)</th>
<th>Ass'y No.</th>
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</thead>
<tbody>
<tr>
<td>1m\textsuperscript{*}</td>
<td>GVVZS3000-21A-11</td>
</tr>
<tr>
<td>3m</td>
<td>GVVZS3000-21A-21</td>
</tr>
<tr>
<td>5m</td>
<td>GVVZS3000-21A-31</td>
</tr>
<tr>
<td>8m</td>
<td>GVVZS3000-21A-41</td>
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<tr>
<td>20m</td>
<td>GVVZS3000-21A-51</td>
</tr>
</tbody>
</table>

\textsuperscript{*} Standard type is not available for the cable length of 1m.

D-sub connector cable ass'y

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

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Ass'y No.</th>
<th>Dot marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>Brown</td>
<td>–</td>
</tr>
<tr>
<td>3</td>
<td>Green</td>
<td>–</td>
</tr>
<tr>
<td>4</td>
<td>Yellow</td>
<td>–</td>
</tr>
<tr>
<td>5</td>
<td>Grey</td>
<td>–</td>
</tr>
<tr>
<td>6</td>
<td>Pink</td>
<td>–</td>
</tr>
<tr>
<td>7</td>
<td>Blue</td>
<td>–</td>
</tr>
<tr>
<td>8</td>
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<td>9</td>
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<td>17</td>
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<td>18</td>
<td>Grey</td>
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<td>19</td>
<td>White</td>
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<td>Pink</td>
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<td>21</td>
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<td>Blue</td>
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<td>22</td>
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<td>Red</td>
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<td>25</td>
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</tr>
</tbody>
</table>

\textsuperscript{*} Connector made in conformity with DIN47100.

Electric characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor resistance</td>
<td>57 or less ( \Omega/\text{km} ), 20 (^\circ)C</td>
</tr>
<tr>
<td>Voltage limit</td>
<td>1500 ( \text{V, 5min, AC} )</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>20 ( \Omega/\text{km} )</td>
</tr>
</tbody>
</table>
**Series SJ2000/3000**

**Made to Order**

For detailed specifications, delivery and pricing, please contact SMC.

1. **Main Valve Fluoro Rubber Specifications**

Fluoro rubber is used for the rubber parts of the main valve to allow use in applications such as the following.

1. When using a lubricant other than the recommended turbine oil, and there is a possibility of malfunction due to swelling of the spool valve seals.
2. When ozone enters or is generated in the air supply.

**Part no.** SJ2

**Symbol** -X90

Entry is the same as standard products.

*Note:* Because in series -X90 fluoro rubber is only used for the rubber parts of the main valve application/usage in conditions requiring heat resistance should be avoided.
These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by labels of “Caution”, “Warning” or “Danger”. To ensure safety, be sure to observe ISO 4414¹, JIS B 8370² and other safety practices.

### Explanation of the Labels

<table>
<thead>
<tr>
<th>Label</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger</td>
<td>In extreme conditions, there is a possible result of serious injury or loss of life.</td>
</tr>
<tr>
<td>Warning</td>
<td>Operator error could result in serious injury or loss of life.</td>
</tr>
<tr>
<td>Caution</td>
<td>Operator error could result in injury Note 3) or equipment damage Note 4).</td>
</tr>
</tbody>
</table>

Note 1) ISO 4414: Pneumatic fluid power – General rules relating to systems.
Note 2) JIS B 8370: General Rules for Pneumatic Equipment
Note 3) Injury indicates light wounds, burns and electrical shocks that do not require hospitalisation or hospital visits for long-term medical treatment.
Note 4) Equipment damage refers to extensive damage to the equipment and surrounding devices.

### Selection/Handling/Applications

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.
   Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or post analysis and/or tests to meet your specific requirements. The expected performance and safety assurance are the responsibility of the person who has determined the compatibility of the system. This person should continuously review the suitability of all item specified, referring to the latest catalogue information with a view to giving due consideration to any possibility of equipment failure when configuring a system.

2. Only trained personnel should operate pneumatically operated machinery and equipment. Compressed air can be dangerous if handled incorrectly. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators. (Understanding JIS B 8370 General Rules for Pneumatic Equipment, and other safety rules are included.)

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.
   1. Inspection and maintenance of machinery/equipment should only be performed once measures to prevent falling or runaway of the driven objects have been confirmed.
   2. When equipment is removed, confirm the safety process as mentioned above. Turn off the supply pressure for this equipment, exhaust all residual compressed air in the system, and release all energy (liquid pressure, spring, condenser and gravity).
   3. Before machinery/equipment is restarted, take measures to prevent quick extension of a cylinder piston rod, etc.

4. If the equipment will be used in the following conditions or environment, please contact SMC first and be sure to take all necessary safety precautions.
   1. Conditions and environments beyond the given specifications, or if product is used outdoors or with direct sun lights.
   2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, clutch and brake circuits in press applications, or safety equipment.
   3. An application which has the possibility of having negative effects on people, property, requiring special safety analysis.
   4. If the products are used in an interlock circuit, prepare a double interlock style circuit with a mechanical protection function for the prevention of a breakdown. And, examine the devices periodically if they function normally or not.

### Exemption from Liability

1. SMC, its officers and employees shall be exempted from liability for any loss or damage arising out of earthquake or fire, action by a third person, accidents, customer error with or without intention, product misuse, and any other damages caused by abnormal operating conditions.
2. SMC, its officers, and its employees shall be exempted from liability for any incidental damage that is caused by the use or the inability to use this product (loss of business interests, business interruptions, etc.).
3. SMC is exempted from liability for any damages caused by operations not contained in the catalogues and/or instruction manuals, and operations outside of the specification range.
4. SMC is exempted from liability for any loss or damage whatsoever caused by malfunctions of its products when combined with other devices or software.
Series SJ2000/3000
Specific Product Precautions 1

Be sure to read this before handling. Please refer to “Precautions for Handling Pneumatic Devices” (M-03-E3A) for Safety Instructions and 3/4/5 Port Solenoid Valves Precautions.

**Manual Override Switch Operation**

⚠️ **Warning**

For manual override operation, move the manual override switch to a position where letters A and B can be seen. [Manual override switch release status (refer to the figure below)] Operation with the manual override switch in a locked status can cause damage to the manual override and air leakage, so be sure to release the manual override switch before use. After manual override operation, lock the manual override switch for use (when the manual override of the push-turn locking slotted type is locked, the manual override switch cannot be locked).

**Manual Override Operation**

⚠️ **Warning**

When the manual override is operated, connected equipment will be actuated. Confirm safety before operating.

- **Non-locking push type**
  Press in the direction of the arrow.

- **Push-turn locking slotted type**
  While pressing, turn in the direction of the arrow (90° clockwise).

**Caution**

When you operate the D type with a screwdriver, turn it gently using a watchmaker’s screwdriver. [Torque: under 0.05 N·m]

When you lock the manual override of the D type, be sure to push it before turning. [Load: 10 N or less] Turning without pushing can cause damage to the manual override and trouble such as air leakage, etc.

**Valve with Switch**

⚠️ **Warning**

When using a 4 port valve as a 3 port valve

The SJ2000/3000 series can be used as normally closed (N.C.) or normally open (N.O.) 3 port valves by plugging one of the cylinder ports 4(A) or 2(B). However, exhaust ports should be left open. It is also convenient when a double solenoid 3 port valve is required.

**Caution**

The pitch of each SJ series piping port (A, B, etc.) is determined based on the assumption that the KJ series one-touch fittings will be used.

If other fittings are used for the M3 or M5 port block assembly, the fittings might interfere with each other depending on their size and type. Refer to the fitting’s catalog to check their dimensions.

**Exhaust Restriction**

Since the SJ series is a type in which the pilot valve exhaust joins the main valve exhaust inside the valve, use caution, so that the piping from the exhaust port is not restricted.

**When Using a 4 Port Valve as a 3 Port Valve**

**Caution**

The SJ2000/3000 series can be used as normally closed (N.C.) or normally open (N.O.) 3 port valves by plugging one of the cylinder ports 4(A) or 2(B). However, exhaust ports should be left open. It is also convenient when a double solenoid 3 port valve is required.

<table>
<thead>
<tr>
<th>Plug position</th>
<th>2(B) port</th>
<th>4(A) port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of actuation</td>
<td>N.C.</td>
<td>N.O.</td>
</tr>
<tr>
<td>Single</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>Double</td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Be sure to read this before handling. Please refer to “Precautions for Handling Pneumatic Devices” (M-03-E3A) for Safety Instructions and 3/4/5 Port Solenoid Valves Precautions.

**Back page 2**
Non-polar type
Solenoid valves have no polarity.

With power saving circuit
Compared to the standard products, power consumption is reduced down to approx. 1/3 (In case of SJ3-60T) by cutting the unnecessary wattage required to hold the valve in an energised state. (Effective energising time is over 67 ms at 24 V DC.)

Electric circuit diagram (with power saving circuit)
In case of single solenoid

Changing the Connector Entry Direction
To change the connector’s entry direction, slide the switch on the top of the connector block to the FREE position, then turn the connector. Make sure to slide the switch back to the LOCK position before connecting the connector. (When the switch is difficult to slide, move the connector a little so that it will slide easier.)

If excessive force is applied on the connector in the LOCK position, the connector block may be damaged. Also, using in such a way that the connector floats in the FREE position, may cause the lead wire, etc. to break. Thus, refrain from using in these ways.

Manifold Mounting
When attaching a manifold to a mounting surface, etc., with bolts, if the entire bottom surface of the DIN rail contacts the mounting surface in a horizontal mounting, it can be used by simply securing both ends of the DIN rail. However, for any other mounting method or for side facing and rear facing, etc., secure the DIN rail with bolts at uniform intervals using the following as a guide: 2 to 5 stations at 2 locations, 6 to 10 stations at 3 locations, 11 to 15 stations at 4 locations, 16 to 20 stations at 5 locations, 21 to 25 stations at 6 locations, 26 to 30 stations at 7 locations and more than 30 stations at 8 locations. In addition, even in the case of a horizontal mounting, if the mounting surface is subject to vibration, etc., take the same measures indicated above. If secured at fewer than the specified number of locations, warping or twisting may occur in the DIN rail and manifold, causing trouble such as air leakage.
Series SJ2000/3000
Specific Product Precautions 3

Be sure to read this before handling. Please refer to “Precautions for Handling Pneumatic Devices” (M-03-E3A) for Safety Instructions and 3/4/5 Port Solenoid Valves Precautions.

Caution

By replacing a valve’s fitting assembly, it is possible to change the port size of the 4(A), 2(B), 1(P), and 3/5(E) ports. When replacing the fitting assembly, pull it out the fitting assembly after removing the clip with a flat head screwdriver, etc. To mount a new fitting assembly, insert it into place and then fully reinsert the clip.

Port | Port size | Part no. |
--- | --- | --- |
SJ2000 4(A) | e2 one-touch fitting assembly (Straight) | KJH02-C1 |
SJ2000 4(A) | e4 one-touch fitting assembly (Straight) | KJH04-C1 |
SJ2000 4(A) | e2 one-touch fitting assembly (Elbow type) | KJL02-C1 |
SJ2000 4(A) | e4 one-touch fitting assembly (Elbow type) | KJL04-C1-N |
SJ3000 4(A) | e2 one-touch fitting assembly (Long elbow type) | KJW02-C1 |
SJ3000 4(A) | e4 one-touch fitting assembly (Long elbow type) | KJW04-C1-N |
M3 port block assembly | SJ2000-56-1A |

Caution

1. Tube attachment/detachment for one-touch fittings

1) Attaching of tubing
   (1) Take a tube having no flaws on its periphery and cut it off at a right angle. When cutting the tube, use tube cutters TK-1, 2, or 3. Do not use pinchers, nippers or scissors, etc. If cutting is done with tools other than tube cutters, there is the danger that the tube may be cut diagonally or become flattened, etc., making a secure installation impossible, and causing problems such as the tube pulling out after installation or air leakage. Also allow some extra length in the tube.
   (2) Grasp the tube and push it in slowly, inserting it securely all the way into the fitting.
   (3) After inserting the tube, pull on it lightly to confirm that it will not come out. If it is not installed securely all the way into the fitting, this can cause problems such as air leakage or the tube pulling out.

2) Detaching of tubing
   (1) Push in the release button sufficiently, and push the collar evenly at the same time.
   (2) Pull out the tube while holding down the release button so that it does not come out. If the release button is not pressed down sufficiently, there will be increased bite on the tube and it will become more difficult to pull it out.
   (3) When the removed tube is to be used again, cut off the portion which has been chewed before reusing it. If the chewed portion of the tube is used as is, this can cause trouble such as air leakage or difficulty in removing the tube.

Other Tubing Brands

1. When using tube other than SMC brand, confirm the following specifications are satisfied with respect to the outside diameter tolerance of the tube.

   1) Nylon tubing | within ± 0.1 mm |
   2) Soft nylon tubing | within ± 0.1 mm |
   3) Polyurethane tubing | within +0.15 mm |
   | within –0.2 mm |

Do not use tubing which does not meet these outside diameter tolerances. It may not be possible to connect them, or they may cause other troubles, such as air leakage or the tube pulling out after connection.

Built-in Back Pressure Check Valve Type

Caution

Valves with built-in back pressure check valve is to protect the back pressure inside a valve. For this reason, use caution the valves with external pilot specification cannot be pressurised from exhaust port [3/5(E)]. As compared with the types which do not integrate the back pressure check valve, C value of the flow characteristics goes down. For details, please contact SMC.
**Series SJ2000/3000**

**Specific Product Precautions 4**

Be sure to read this before handling. Please refer to “Precautions for Handling Pneumatic Devices” (M-03-E3A) for Safety Instructions and 3/4/5 Port Solenoid Valves Precautions.

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**How to Use Plug Connector**

**Caution**
When attaching and detaching a connector, first shut off the electric power and the air supply. Also, crimp the lead wires and sockets securely.

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

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

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

---

**Plug Connector Lead Wire Length**

**Caution**
Plug connector lead wires have a standard length of 300 mm, however, the following lengths are also available.

<table>
<thead>
<tr>
<th>Connector Assembly Part No.</th>
<th>Lead wire length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ3000-46-S-N</td>
<td>300 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-N</td>
<td>600 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-20</td>
<td>1000 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-25</td>
<td>1500 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-30</td>
<td>2000 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-25</td>
<td>2500 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-30</td>
<td>3000 mm</td>
</tr>
<tr>
<td>SJ3000-46-D-50</td>
<td>5000 mm</td>
</tr>
</tbody>
</table>

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**How to Order**
Include the connector assembly part number together with the part number for the plug connector’s solenoid valve without connector.

**Example**
Lead wire length 2000 mm
SJ3160-5MOZ-C6
SJ3000-46-S-20

---

**Core wire crimping area**

- **Insulation**
- **Hook**
- **Crimping area**
- **Core wire**
- **Lead wire**
- **Socket**
- **Lever**
- **Cover**

**Max. cover diameter: ø1.7 mm**

**0.2 to 0.33 mm²**

---

**Single solenoid**

- **A: –**
- **B: –**
- **C: +**
- **N: Unused terminal**

**Double solenoid**

- Insert into these square holes