### Specifications

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating pressure range (MPa)</td>
<td>2 position single 0.15 to 0.7 2 position double 0.1 to 0.7 3 position 0.2 to 0.7</td>
</tr>
<tr>
<td>Ambient and fluid temperature (°C)</td>
<td>–10 to 50 (No freezing. Refer to page 1-7-4.)</td>
</tr>
<tr>
<td>Response time (ms) (at 0.5 MPa)</td>
<td>2 position single, double 15 or less 3 position 30 or less</td>
</tr>
<tr>
<td>Max. operating frequency (Hz)</td>
<td>2 position single, double 10 3 position 3</td>
</tr>
<tr>
<td>Manual override (Manual operation)</td>
<td>Non-locking push type, push-turn locking slotted type, push-turn locking lever type</td>
</tr>
<tr>
<td>Pilot exhaust method</td>
<td>Individual exhaust for the pilot valve, common exhaust for the pilot and main valve</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required</td>
</tr>
<tr>
<td>Mounting orientation</td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Shock/Vibration resistance (m/s²)</td>
<td>No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Value in the initial state)</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dustproof (+ M8 connector conforms to IP65.)</td>
</tr>
</tbody>
</table>

* Based on IEC529
Note 1) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage)
Note 2) Impact resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve when pilot signal is ON and OFF. (Value in the initial state)

### Solenoid Specifications

<table>
<thead>
<tr>
<th>Electrical entry</th>
<th>DC 24, 12, 6, 5, 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil rated voltage (V)</td>
<td>AC 50/60 Hz 100 V 110 V 200 V 220 V</td>
</tr>
<tr>
<td>Allowable voltage fluctuation</td>
<td>±10% of rated voltage</td>
</tr>
<tr>
<td>Power consumption (W)</td>
<td>DC 0.35 (With indicator light: 0.4) 0.1 (With indicator light only)</td>
</tr>
<tr>
<td>Apparent power VA*</td>
<td>AC 1.6 (With indicator light: 1.7) 1.7 (With indicator light: 1.8)</td>
</tr>
<tr>
<td>Surge voltage suppressor</td>
<td>Diode (Non-polarity type: valistor)</td>
</tr>
</tbody>
</table>

* In common between 110 VAC and 115 VAC, and between 220 VAC and 230 VAC.
* For 115 VDC and 230 VDC, allowing voltage is –15% to +5% of rated voltage.

### Bracket Mounting

1. Insert the lower hook of the mounting bracket into the groove on the bottom of the valve as shown.
2. Press the valve and mounting bracket together until the upper hook of the bracket snaps into place in the groove on top of the valve.

For details about certified products conforming to international standards, visit us at www.smcworld.com.
### Flow Characteristics/Weight

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Bore size</th>
<th>Port size</th>
<th>Effective area (mm²)</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYJ314-1</td>
<td>Single</td>
<td>M5 x 0.8</td>
<td>62 (36)</td>
<td>63 (37)</td>
<td>67 (41)</td>
</tr>
<tr>
<td>SYJ324-2</td>
<td>Double</td>
<td>M5 x 0.8</td>
<td>79 (53)</td>
<td>81 (55)</td>
<td>89 (63)</td>
</tr>
<tr>
<td>SYJ334-3</td>
<td>Closed center</td>
<td>M5 x 0.8</td>
<td>82 (56)</td>
<td>84 (58)</td>
<td>92 (66)</td>
</tr>
<tr>
<td>SYJ344-4</td>
<td>Exhaust center</td>
<td>M5 x 0.8</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SYJ354-5</td>
<td>Pressure center</td>
<td>M5 x 0.8</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

### Cylinder Speed Chart

#### Body ported

<table>
<thead>
<tr>
<th>Series</th>
<th>Average speed (mm/s)</th>
<th>Bore size</th>
<th>Cylinder is in extending. Speed controller is meter-out, which is directly connected with cylinder and its needle is fully opened.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYJ3120-M3</td>
<td>800</td>
<td>M5 x 0.8</td>
<td>Ø6</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>700</td>
<td>M5 x 0.8</td>
<td>Ø10</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>600</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>500</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>400</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>300</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>200</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3120-M3</td>
<td>100</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
</tbody>
</table>

#### Base mounted

<table>
<thead>
<tr>
<th>Series</th>
<th>Average speed (mm/s)</th>
<th>Bore size</th>
<th>Cylinder is in extending. Speed controller is meter-out, which is directly connected with cylinder and its needle is fully opened.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYJ3140-M5</td>
<td>800</td>
<td>M5 x 0.8</td>
<td>Ø6</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>700</td>
<td>M5 x 0.8</td>
<td>Ø10</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>600</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>500</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>400</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>300</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>200</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>100</td>
<td>M5 x 0.8</td>
<td>Ø16</td>
</tr>
</tbody>
</table>

### Conditions

<table>
<thead>
<tr>
<th>Body ported</th>
<th>Series CJ2</th>
<th>Series CM2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYJ3120-M3</td>
<td>Tubing bore x Length</td>
<td>Ø4 x 1 m</td>
</tr>
<tr>
<td>Speed controller</td>
<td>AS1301F-04</td>
<td></td>
</tr>
<tr>
<td>Silencer</td>
<td>AN120-M5</td>
<td></td>
</tr>
<tr>
<td>Base mounted</td>
<td>Series CJ2</td>
<td>Series CM2</td>
</tr>
<tr>
<td>SYJ3140-M5</td>
<td>Tubing bore x Length</td>
<td>Ø6 x 1 m</td>
</tr>
<tr>
<td>Speed controller</td>
<td>AS2001F-06</td>
<td>AS2301F-06</td>
</tr>
<tr>
<td>Silencer</td>
<td>AN120-M5</td>
<td></td>
</tr>
</tbody>
</table>
Series SYJ3000

How to Order

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

**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)

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

**Rated voltage**
- DC
  - 5: 24 VDC
  - 6: 12 VDC
  - V: 6 VDC
  - S: 5 VDC
  - R: 3 VDC
- AC (50/60 Hz)
  - 1: 100 VAC
  - 2: 200 VAC
  - 3: 110 VAC [115 VAC]
  - 4: 220 VAC [230 VAC]

- Note: For type "W"..., DC voltage is only available.

**Body option**
0: Pilot valve individual exhaust for the pilot valve
3: Common exhaust type for main and pilot valve

**Manual override**
- Nil: Non-locking push type
- F: With bracket

**Bracket**
- Nil: Without bracket
- F: With bracket

- Single
- Double

**Body ported**
SYJ3 1 2 0 5 M M3

**Base mounted (4 port)**
SYJ3 2 3 0 5 M
(Manifold use only)

**Base mounted (5 port)**
SYJ3 2 4 0 5 M

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

- Note: Power saving circuit is not available in the case of "W..." type.

**Port size**
- Nil: Without sub-plate
- F: With M5 port sub-plate

(E) Push-turn locking type

**Electrical entry**
- 24, 12, 6, 5, 3 VDC
- 100, 110, 200, 220 VAC

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

- H: Lead wire length 60 mm
- LN: Without lead wire
- LO: Without connector
- MO: Without connector

- "LN", "MN" type: with 2 sockets.
- For connector cable of M8 connector, refer to page 1-5-78.

**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 1-5-18 on catalog.)
4/5 Port Solenoid Valve
Rubber Seal Series SYJ3000

Construction

2 position single

2 position double

3 position closed center/exhaust center/pressure center

Component Parts

No. | Description | Material | Note
---|---|---|---
1 | Body | Zinc die-casted | White
2 | Piston plate | Resin | White
3 | End cover | Resin | White
4 | Piston | | 
5 | Spool valve assembly | Aluminum, HNBR | 

How to Order Pilot Valve Assembly

V111 - 5 G

Coil specifications

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

Rated voltage

- 5: 24 VDC
- 6: 12 VDC
- V: 6 VDC
- S: 5 VDC
- R: 3 VDC
- 1: 100 VAC 50/60 Hz
- 2: 200 VAC 50/60 Hz
- 3: 110 VAC 50/60 Hz (115 VAC 50/60 Hz)
- 4: 220 VAC 50/60 Hz (230 VAC 50/60 Hz)

Light/Surge voltage suppressor

- Nil: Without light/surge voltage suppressor
- S: With surge voltage suppressor
- Z: With light/surge voltage suppressor (Non-polar type)
- 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 type “R” and “U”, DC voltage is only available.
- Power saving circuit is only available in the “Z” type.

Electrical entry

- L: Grommet, 300 mm lead wire
- LM: Grommet, 600 mm lead wire
- M: M plug connector
- MN: M plug connector
- W: Without lead wire
- L0: Without lead wire
- M0: Without connector
- W0: Without connector

Replacement Parts

No. | Description | Part no. | Note
---|---|---|---
6 | Sub-plate | SYJ3000-22-1 | Zinc die-casted
7 | Pilot valve | V111 (T) | 

How to Order Connector Assembly for L/M Plug Connector

For DC: SY100-30-4A-
For 100 VAC: SY100-30-1A-
For 200 VAC: SY100-30-2A-
For other voltages of AC: SY100-30-3A-

Without lead wire: SY100-30-A

Lead wire length

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

How to Order M8 Connector Cable

V100-49-1-

Cable length

- 1: 300 mm
- 2: 500 mm
- 3: 1000 mm
- 4: 2000 mm
- 7: 5000 mm
**Series SYJ3000**

2 Position Single

Grommet (G), (H): SYJ3120-□□□□-M3

With bracket: SYJ3120-□□□□-M3-F

L plug connector (L): SYJ3120-□□L□□M3 (-F)

M plug connector (M): SYJ3120-□□M□□M3 (-F)

M8 connector (WO): SYJ3120-□□WO□□-M3 (-F)

Refer to page 1-5-79 for dimensions with connector cable.
2 Position Double

Grommet (G), (H): SYJ3220-□□□□-M3 (-F)

L plug connector (L): SYJ3220-□□□-M3 (-F)

M plug connector (M): SYJ3220-□□□-M3 (-F)

M8 connector (WO): SYJ3220-□□□□-M3 (-F)

Refer to page 1-5-79 for dimensions with connector cable.
Series SYJ3000

3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ3 3\(\frac{1}{2}\)20-□□□□□□□M3 (-F)

L plug connector (L): SYJ3 3\(\frac{1}{2}\)20-L□□□□□□□M3 (-F)
M plug connector (M): SYJ3 3\(\frac{1}{2}\)20-M□□□□□□□M3 (-F)
M8 connector (WO): SYJ3 3\(\frac{1}{2}\)20-WO□□□□□□□M3 (-F)

Refer to page 1-5-79 for dimensions with connector cable.
2 Position Single

Grommet (G), (H): SYJ3140-□□□□-M5

<table>
<thead>
<tr>
<th>Width</th>
<th>Length</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>32.2</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

L plug connector (L):
SYJ3140-□□□□-M5

M plug connector (M):
SYJ3140-□□□□-M5

M8 connector (WO):
SYJ3140-□□□□-M5

Refer to page 1-5-79 for dimensions with connector cable.

SV
SZ
SY
SYJ
SX
**Series SYJ3000**

2 Position Double

Grommet (G), (H): SYJ3240-□□□□-M5

---

**L plug connector (L):**
SYJ3240-□□□□-M5

**M plug connector (M):**
SYJ3240-□□□□-M5

**M8 connector (WO):**
SYJ3240-□□□□-M5

---

Refer to page 1-5-79 for dimensions with connector cable.
3 Position Closed Center/Exhaust Center/Pressure Center

Grommet (G), (H): SYJ3\(\frac{3}{5}\)40-□G□H□-M5

L plug connector (L):
SYJ3\(\frac{3}{5}\)40-□L□□-M5

M plug connector (M):
SYJ3\(\frac{3}{5}\)40-□M□□-M5

M8 connector (WO):
SYJ3\(\frac{3}{5}\)40(R)-□WO□□-M5

(Light/Surge voltage suppressor)

Refer to page 1-5-79 for dimensions with connector cable.
# Series SYJ3000
## Manifold Specifications

### Manifold Standard

### Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Type 20</th>
<th>Type 31, S31</th>
<th>Type 32, S32</th>
<th>Type 41, S41</th>
<th>Type 46, S46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold type</td>
<td>Single base/B mount</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P (SUP), R (EXH)</td>
<td>Common SUP/Common EXH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve stations</td>
<td>Location: Top</td>
<td>Base: Side</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Porting specifications</td>
<td>A, B port: P, R port</td>
<td>M5 x 0.8</td>
<td>1/8</td>
<td>P: 1/8</td>
<td>R: M5 x 0.8</td>
</tr>
<tr>
<td>Port size</td>
<td>M5 x 0.8</td>
<td>M5 x 0.8, C4 (One-touch fitting for ø4)</td>
<td>M3 x 0.5</td>
<td>M5 x 0.8, C4 (One-touch fitting for ø4)</td>
<td></td>
</tr>
</tbody>
</table>

### Flow Characteristics

| Manifold | Port size | Flow characteristics
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SYJ3-20</td>
<td></td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-31</td>
<td></td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-32-M5</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-32-C4</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-41-M5</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-41-C4</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-41-M5</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-41-C4</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-46-M5</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-46-C4</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-46-M5</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
<tr>
<td>SYJ3-46-C4</td>
<td>M5 x 0.8</td>
<td>1/4 (P, A) 2/4 (A, B)</td>
</tr>
</tbody>
</table>

How to Order Manifold (Example)

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

Example:

- **SYJ3-20** - 1 set (Manifold base)
- **SYJ3-31** - 1 set (Manifold base)
- **SYJ3-32-M5** - 2 sets (Valve)
- **SYJ3-32-C4** - 2 sets (Valve)
- **SYJ3-41-M5** - 1 set (Blanking plate assembly)
- **SYJ3-41-C4** - 1 set (Blanking plate assembly)

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

* Use manifold specification sheet.

Note: Value at manifold base mounted, 2 position single operating.
Flat Ribbon Cable Manifold

- 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.

**Type 21P**

---

**Flat Ribbon Cable Manifold Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type 21P</th>
<th>Type 32P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold type</td>
<td>Single base/B mount</td>
<td>Common SUP, Common EXH</td>
</tr>
<tr>
<td>P (SUP), R (EXH)</td>
<td>Common SUP, Common EXH</td>
<td></td>
</tr>
<tr>
<td>Valve stations</td>
<td>4 to 12 stations</td>
<td></td>
</tr>
<tr>
<td>A, B port Porting specifications</td>
<td>Location</td>
<td>Valve Base</td>
</tr>
<tr>
<td>Direction</td>
<td>Top</td>
<td>Side</td>
</tr>
<tr>
<td>Port size</td>
<td>P, R port</td>
<td>1/8</td>
</tr>
<tr>
<td>A, B port</td>
<td>M3 x 0.5</td>
<td>M5 x 0.8, C4 (One-touch fitting for Ø4)</td>
</tr>
<tr>
<td>Applicable flat ribbon cable connector</td>
<td>Socket: 26 pins MIL type with strain relief (MIL-C-83503)</td>
<td></td>
</tr>
<tr>
<td>Internal wiring</td>
<td>In common between +COM and –COM (Z type: +COM only)</td>
<td></td>
</tr>
<tr>
<td>Port size</td>
<td>1/8</td>
<td></td>
</tr>
<tr>
<td>Flow characteristics</td>
<td>Port size</td>
<td>Flow characteristics</td>
</tr>
<tr>
<td>Port size</td>
<td>1(P, 33</td>
<td>R) port</td>
</tr>
<tr>
<td>Body ported for internal pilot</td>
<td>SSYSYJ3-21P</td>
<td>SYJ3:23</td>
</tr>
<tr>
<td>Base mounted for internal pilot</td>
<td>SSYSYJ3-32P-M5</td>
<td>SYJ3:33</td>
</tr>
</tbody>
</table>

---

**Flow Characteristics**

- **For DC:**
  - SYJ3: 12 VDC
  - SYJ3000-21-4A: 1 pc. (Manifold base)
  - SYJ3000-37-28A: 3 pcs. (Connector assembly)

- **For AC:**
  - SYJ3: 110 VAC
  - SYJ3000-37-29A: 3 pcs. (Connector assembly)

- **Note:** Use manifold specification sheet.

---

**How to Order Connectors**

- **12, 24 VDC**
  - Single solenoid: SY3000-37-28A
  - Double solenoid, 3 position type: SY3000-37-29A

- **100 VAC**
  - Single solenoid: SY3000-37-46A
  - Double solenoid, 3 position type: SY3000-37-47A

- **110 VAC (115 VAC)**
  - Single solenoid: SY3000-37-54A
  - Double solenoid, 3 position type: SY3000-37-55A

---

**How to Order Valves**

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

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

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

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

---

**How to Order Manifold**

- **SYJ3-21P:**
  - SYJ3133-5LU: 3 pcs. (Valve)
  - SYJ3233-5LU: 3 pcs. (Valve)
  - SYJ3000-21-4A: 1 pc. (Blanking plate assembly)

- **SYJ3-32P:**
  - SYJ3133-5LU: 3 pcs. (Valve)
  - SYJ3233-5LU: 3 pcs. (Valve)
  - SY3000-37-28A: 3 pcs. (Connector assembly)
  - SY3000-37-29A: 3 pcs. (Connector assembly)

Note: The withstand voltage specification for the wiring unit section conforms to JIS C 0704, Grade 1 or its equivalent.

---

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

- In the case of a flat cable type, “U” type is for DC specifications and “Z” type is for AC specifications. For the opposite specification, please contact SMC.
### Series SYJ3000

**Common SUP/Common EXH**

#### Type 20 (5 Port/Body ported)

**How to Order**

SS5YJ3–20–05

**Number of stations**

- 2 stations
- 20 stations

**Applicable solenoid valve**

SYJ3000-20-05-M3
SYJ3000-20-05-C4

**Applicable blanking plate assembly**

SYJ3000-21-1A

----------

#### Type 31 (4 Port/Base mounted)

**How to Order**

SS5YJ3–31–05–M3

**Valve mounting direction**

- Single solenoid coil is on the same side as the A, B port.
- Single solenoid coil is on the opposite side as the A, B port.

**Stations**

- 2 stations
- 20 stations

**Applicable solenoid valve**

SYJ3000-30-05-M3
SYJ3000-30-05-C4

**Applicable blanking plate assembly**

SYJ3000-21-2A

----------

#### Type 32 (4 Port/Base mounted)

**How to Order**

SS5YJ3–32–05–M5

**Valve mounting direction**

- Single solenoid coil is on the same side as the A, B port.
- Single solenoid coil is on the opposite side as the A, B port.

**Stations**

- 2 stations
- 20 stations

**Applicable solenoid valve**

SYJ3000-31-05-M5
SYJ3000-31-05-C4

**Applicable blanking plate assembly**

SYJ3000-21-2A

----------

#### Type 41 (5 Port/Base mounted)

**How to Order**

SS5YJ3–41–05–C4

**Valve mounting direction**

- Single solenoid coil is on the same side as the A, B port.
- Single solenoid coil is on the opposite side as the A, B port.

**Stations**

- 2 stations
- 20 stations

**Applicable solenoid valve**

SYJ3000-40-05-M3
SYJ3000-40-05-C4

**Applicable blanking plate assembly**

SYJ3000-21-2A

----------

**Note** For more than 10 stations, supply air to both sides of P port and exhaust air from both sides of R port.

#### Type 46 (5 Port/Base mounted)

**How to Order**

SS5YJ3–46–05–M5

**Valve mounting direction**

- Single solenoid coil is on the same side as the A, B port.
- Single solenoid coil is on the opposite side as the A, B port.

**Stations**

- 2 stations
- 20 stations

**Applicable solenoid valve**

SYJ3000-40-05-M3
SYJ3000-40-05-C4

**Applicable blanking plate assembly**

SYJ3000-21-2A

**P port thread type**

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

**One-touch fitting**

- ø4
- ø5/32"
Flat Ribbon Cable Manifold

Common SUP/Common EXH

How to Order

**Type 21P**

- A, B port
- M3 x 0.5

**Type 32P**

- A, B port
- M5 x 0.8, C4

Note) For more than 10 stations, supply air to both sides of P port and exhaust air from both sides of R port.

Mixed Installation of the SYJ300 and the SYJ3000 Valves on the Same Manifold

Series SYJ300 valves can be mounted on the manifolds for Series SYJ3000.

1. **SSSYJ3-20, SSSYJ3-21P**
   - The 3 port valve can be used by simply sealing off the unused “R” port with rubber plug VJ3000-33-1.
   - Applicable solenoid valves: Series SYJ312, SYJ312M, SYJ322, SYJ322M

2. **SSSYJ3-31/-S31, SSSYJ3-32/-S32, SSSYJ3-46/-S46, SSSYJ3-32P**
   - The 3 port valve can be used without modification. The A port of the valve will flow out of the B port of the manifold.
   - Applicable solenoid valves: Series SYJ314, SYJ314M, SYJ324, SYJ324M

3. **SSSYJ3-41/-S41**
   - The 3 port valve can be used on the 4 port manifold by simply sealing off the unused “R” port with rubber plug VJ3000-33-1. The A port of the valve will flow out of the B port of the manifold.
   - Applicable solenoid valves: Series SYJ314, SYJ314M, SYJ324, SYJ324M

**Caution**

- Mounting screw tightening torques
  - M1.7: 0.12 N·m
- Use caution to the assembly orientation for solenoid valves, gasket, and optional parts.
**Combinations of Solenoid Valve, Manifold Gasket and Manifold Base**

### 5 port body ported
*(Type SYJ3□2 Ⅲ)*

- **Applicable manifold base**
  - Type SSYSYJ3-20
  - Type SSYSYJ3-21P

- **Manifold base**
  - SYJ3000-14-7

### 4 port base mounted
*(Type SYJ3□3 Ⅲ)*

- **Applicable manifold base**
  - Type SSYSYJ3-31
  - Type SSYSYJ3-S31
  - Type SSYSYJ3-32
  - Type SSYSYJ3-S32

- **Manifold base**
  - SYJ3000-14-6

### 5 port base mounted
*(Type SYJ3□4 Ⅲ)*

- **Applicable manifold base**
  - Type SSYSYJ3-41
  - Type SSYSYJ3-S41
  - Type SSYSYJ3-46
  - Type SSYSYJ3-S46
  - Type SSYSYJ3-32P

- **Manifold base**
  - SYJ3000-14-2

---

**Combination of Blanking Plate Assembly and Manifold Base**

### Blanking plate assembly
SYJ3000-21-1A

- **Blanking plate assembly**
  - SYJ3000-21-1A

- **Applicable manifold base**
  - Type SSSYJ3-20 Manifold base

### Blanking plate assembly
SYJ3000-21-2A

- **Blanking plate assembly**
  - SYJ3000-21-2A

- **Applicable manifold base**
  - Type SSSYJ3-41 Manifold base

Note: Manifold gasket “SYJ3000-14-2” can be used with the following manifold bases.

- Type SSYSYJ3-31
- Type SSYSYJ3-S31
- Type SSYSYJ3-32
- Type SSYSYJ3-S32

**Blanking plate assembly**
SYJ3000-21-3A

- **Blanking plate assembly**
  - SYJ3000-21-3A

- **Applicable manifold base**
  - Type SSYSYJ3-32P Manifold base

- **Manifold base**
  - SYJ3000-14-6

**Blanking plate assembly**
SYJ3000-21-4A

- **Blanking plate assembly**
  - SYJ3000-21-4A

- **Applicable manifold base**
  - Type SSYSYJ3-21P Manifold base

**Manifold base**
SYJ3000-14-7

---

**Difference between SYJ3□3 Ⅲ and SYJ3□4 Ⅲ**

### SYJ3□30, 3□33
*(4 port)*

- **Applicable manifold base**
  - Type SSYSYJ3-31
  - Type SSYSYJ3-S31

### SYJ3□40, 3□43
*(5 port)*

- **Applicable manifold base**
  - Type SSYSYJ3-41
  - Type SSYSYJ3-S41

- **Manifold base**
  - SYJ3000-14-2

- **Steel ball is driven in.**

- **Configuration of surface is different.**

---

**Caution**

- **Mounting screw tightening torques**
  - M1.7: 0.12 N·m

Use caution to the assembly orientation for solenoid valves, gasket, and optional parts.
Type 20 Manifold: Top Ported/SS5YJ3-20- Stations

Grommet (G)

Approx. 300

(Pitch)

P = 10.5

Manual override

(Right/Surge voltage suppressor)

Approx. 300

(Light wire length)

L plug connector (L)

Approx. 300

(Lead wire length)

M plug connector (M)

M8 connector (WO)

Refer to page 1-5-79 for dimensions with connector cable.

<table>
<thead>
<tr>
<th>Station</th>
<th>Station 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>Station 20</th>
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<td>56.5</td>
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<td>98.5</td>
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<td>140.5</td>
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<td>161.5</td>
<td>172</td>
<td>182.5</td>
<td>193</td>
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<tr>
<td>L2</td>
<td>28.5</td>
<td>39</td>
<td>49.5</td>
<td>60</td>
<td>70.5</td>
<td>61</td>
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<td>186</td>
<td>196.5</td>
<td>207</td>
<td>217.5</td>
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</tr>
</tbody>
</table>
Series SYJ3000

Type 31 Manifold: Side Ported/SS5YJ3-31- Stations-M3

Grommet (G)

L plug connector (L)

M plug connector (M)

M8 connector (WO)

<table>
<thead>
<tr>
<th>Station</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>35.5</td>
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<td>56.5</td>
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<td>186</td>
<td>196.5</td>
<td>207</td>
</tr>
</tbody>
</table>

Refer to page 1-5-79 for dimensions with connector cable.
Type 32 Manifold: Side Ported/SS5YJ3-32- Stations-M5, C4

Grommet (G)  
For M5

L plug connector (L)  
M plug connector (M)  
M8 connector (WO)

Refer to page 1-5-79 for dimensions with connector cable.

Type S32 Manifold: Side Ported/SS5YJ3-S32- Stations-M5, C4

For M5  
For C4 (Built-in One-touch fitting)
Series SYJ3000

Type 41 Manifold: Side Ported/SS5YJ3-41- Stations -M5, C4 N3 □

Grommet (G) For M5

Station 2

<table>
<thead>
<tr>
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<th>31.5</th>
</tr>
</thead>
</table>

For C4 N3 □ (Built-in One-touch fitting)

Station 2

<table>
<thead>
<tr>
<th>39.5</th>
<th>31.5</th>
</tr>
</thead>
</table>

For C4 N3 □ (Built-in One-touch fitting)

Type S41 Manifold: Side Ported /SS5YJ3-S41- Stations -M5, C4 N3 □

For M5

Station n-→(Station 1)

<table>
<thead>
<tr>
<th>39.5</th>
<th>31.5</th>
</tr>
</thead>
</table>

For C4 N3 □ (Built-in One-touch fitting)

Station n-→(Station 1)

<table>
<thead>
<tr>
<th>39.5</th>
<th>31.5</th>
</tr>
</thead>
</table>
Type 46 Manifold: Side Ported

Grommet (G)
For M5

For C4_N3 (Built-in One-touch fitting)

L plug connector (L)

M plug connector (M)

M8 connector (WO)

For M5

For C4_N3 (Built-in One-touch fitting)

Type S46 Manifold: Side Ported

Refer to page 1-5-79 for dimensions with connector cable.

Refer to page 1-5-79 for dimensions with connector cable.
Series SYJ3000

Flat Ribbon Cable Manifold

SS5YJ3-21P- Stations-00

<table>
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<tr>
<th>Station n</th>
<th>Station 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
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<tr>
<td>L2</td>
<td>64.5</td>
</tr>
</tbody>
</table>

For C4 N3 (Built-in One-touch fitting)

<table>
<thead>
<tr>
<th>Station n</th>
<th>Station 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>72.5</td>
</tr>
<tr>
<td>L2</td>
<td>64.5</td>
</tr>
</tbody>
</table>

Manual override

(Light/Surge voltage suppressor)

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