3 Port Solenoid Valve

**V100 Series**

Rubber Seal

---

**Power consumption 0.1 W** (with power saving circuit)

- **Coil temperature rises:** 1°C (with power saving circuit)
- **Sonic conductance:** C: 0.037 (Standard)/C: 0.076 (Large flow capacity)

<table>
<thead>
<tr>
<th>Series</th>
<th>Flow rate characteristics</th>
<th>Power consumption (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C[dm^3/(s-bar)]</td>
<td>b</td>
</tr>
<tr>
<td>Standard</td>
<td>V1□4</td>
<td>0.037</td>
</tr>
<tr>
<td>Large flow capacity</td>
<td>V1□4A</td>
<td>0.076</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Operating pressure range (MPa)</th>
<th>Power consumption (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Standard</td>
</tr>
<tr>
<td>Standard</td>
<td>V114</td>
<td>N.C.</td>
</tr>
<tr>
<td></td>
<td>V124</td>
<td>N.O.</td>
</tr>
<tr>
<td>Large flow capacity</td>
<td>V114A</td>
<td>N.C.</td>
</tr>
<tr>
<td></td>
<td>V124A</td>
<td>N.O.</td>
</tr>
</tbody>
</table>

Note) Refer to page 1367 for details.
3 Port Solenoid Valve/Direct Operated

V100 Series
Rubber Seal

Specifications

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient and fluid temperature (°C)</td>
<td>–10 to 50 (No freezing)</td>
</tr>
<tr>
<td>Response time (DC) (ms) Note 1</td>
<td>ON: 5 or less  OFF: 4 or less</td>
</tr>
<tr>
<td>Max. operating frequency (Hz)</td>
<td>20</td>
</tr>
<tr>
<td>Manual override</td>
<td>Non-locking push, Locking slotted</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required</td>
</tr>
<tr>
<td>Mounting position</td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Impact/Vibration resistance (m/s²) Note 2</td>
<td>150/30</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dust proof</td>
</tr>
</tbody>
</table>

Note 1) Based on dynamic performance test JIS B8419: 2010 (standard type: at coil temperature of 20°C, with rated voltage, without surge voltage suppressor)
Note 2) Impact resistance: No malfunction resulted in an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)
Vibration resistance: No malfunction resulted in 45 to 2000 Hz, a one-sweep test performed in the axial and right angle directions of the main valve and armature for both energized and de-energized states. (Value in the initial stage)

Solenoid Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>V114/V124</th>
<th>V114A/V124A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical entry</td>
<td>Grommet (G)/(H), L plug connector(L) M plug connector (M)</td>
<td></td>
</tr>
<tr>
<td>Coil rated voltage (V) DC</td>
<td>24, 12, 6, 5, 3</td>
<td></td>
</tr>
<tr>
<td>AC %/Hz</td>
<td>100, 110, 200, 220</td>
<td>—</td>
</tr>
<tr>
<td>Allowable voltage fluctuation</td>
<td>–10 to 10% *</td>
<td></td>
</tr>
<tr>
<td>Power consumption (W) DC</td>
<td>Standard: 0.35 (with light: 0.4) With power saving circuit 0.1 Note [Starting 0.4, Holding 0.1]</td>
<td></td>
</tr>
<tr>
<td>Apparent power (VA) AC</td>
<td>100 V: 0.78 (with light: 0.81)</td>
<td></td>
</tr>
<tr>
<td>110 V [115 V]</td>
<td>0.86 (with light: 0.89) [0.94 (with light: 0.97)]</td>
<td></td>
</tr>
<tr>
<td>200 V</td>
<td>1.18 (with light: 1.22)</td>
<td></td>
</tr>
<tr>
<td>220 V [230 V]</td>
<td>1.30 (with light: 1.34) [1.42 (with light: 1.46)]</td>
<td></td>
</tr>
<tr>
<td>Surge voltage suppressor</td>
<td>Refer to page 1367.</td>
<td></td>
</tr>
<tr>
<td>Indicator light</td>
<td>LED</td>
<td></td>
</tr>
</tbody>
</table>

* Can be used for 110 VAC and 115 VAC, 220 VAC and 230 VAC in common.
* For 115 VAC and 230 VAC, the allowable voltage fluctuation will be –15% to 5% of the coil rated voltage.
* The voltage drop will occur due to the internal circuit of S, Z and T types (with energy saving circuits). Allowable voltage fluctuations should be within the range below.
  - S and Z types 24 VDC: –7% to +10%
  - 12 VDC: –4% to +10%
  - T type 24 VDC: –8% to +10%
  - 12 VDC: –6% to +10%
* Select the DC standard type or the power saving circuit type when the valve is continuously energized for long periods of time.
Note) Refer to page 1367 for details.
Specifications

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Type of actuation</th>
<th>Model</th>
<th>Operating pressure range (MPa)</th>
<th>Vacuum specification (MPa) Note 4</th>
<th>Port size</th>
<th>Weight (g) Note 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>V114</td>
<td>N.C. Standard</td>
<td>0 to 0.7</td>
<td>0 to 0.7</td>
<td>Port 1: 100 kPa to 0.6, Port 3: 100 kPa to 0</td>
<td>Port 1: M5 x 0.8, Port 3: M5 x 0.8</td>
<td>Port 1, 3: M5 x 0.8, Port 2: M5 x 0.8</td>
</tr>
<tr>
<td>V114A</td>
<td>N.C. Large flow capacity</td>
<td>0 to 0.7</td>
<td>0 to 0.7</td>
<td>Vac. specification: Port 1: 100 kPa, Port 3: 100 kPa to 0.6</td>
<td>Grommet: V1□4:13(27), Plug connector: V1□4:12(26)</td>
<td></td>
</tr>
<tr>
<td>V124</td>
<td>N.O. Standard</td>
<td>0 to 0.7</td>
<td>0 to 0.7</td>
<td>Port 1: 100 kPa to 0.6, Port 3: 100 kPa to 0.6</td>
<td>Port 1: M5 x 0.8, Port 3: M5 x 0.8</td>
<td></td>
</tr>
<tr>
<td>V124A</td>
<td>N.O. Large flow capacity</td>
<td>0 to 0.7</td>
<td>0 to 0.7</td>
<td>Port 1: 100 kPa to 0.6, Port 3: 100 kPa to 0.6</td>
<td>Grommet: V1□4A:16(30), Plug connector: V1□4A:15(29)</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) For both V124 and V124A, pressure from port 3 and exhaust from port 1.
Note 2) The values shown in ( ) are for values with sub-plate.
Note 3) For 10-V124(A)
Note 4) Note that, if the difference between the inlet side and the outlet side is extremely low (0.001 MPa or less as a guide), air may not be output or the flow rate may deteriorate excessively due to the quality of the lubricant and air in the solenoid valve (mixing in of the drain, etc.).

Construction

Component Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Resin</td>
</tr>
<tr>
<td>2</td>
<td>Cover</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>3</td>
<td>Push rod</td>
<td>Resin</td>
</tr>
<tr>
<td>4</td>
<td>Armature assembly</td>
<td>Stainless steel, Resin</td>
</tr>
<tr>
<td>5</td>
<td>Poppet</td>
<td>FKM</td>
</tr>
<tr>
<td>6</td>
<td>Return spring</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>7</td>
<td>Poppet spring</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>8</td>
<td>Coil assembly</td>
<td>—</td>
</tr>
<tr>
<td>9</td>
<td>Manual override</td>
<td>Resin</td>
</tr>
</tbody>
</table>

Replacement Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Part no.</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Gasket assembly</td>
<td>V100-31-1A</td>
<td>FKM, Steel</td>
<td>Gasket, 2 screws</td>
</tr>
<tr>
<td>11</td>
<td>Sub-plate</td>
<td>V100-74-1</td>
<td>Aluminum die-cast</td>
<td>—</td>
</tr>
</tbody>
</table>

How to Order Connector Assembly

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: (with connector and 2 sockets) SY100 – 30 – A
V100 Series

How to Order

Standard type

Base mounted

V1  1  4  5  M

Type of actuation

1  Normally closed
2  Normally open

Coil specification

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>0.35 W</td>
</tr>
<tr>
<td>T</td>
<td>0.1 W (with power saving circuit) (24 VDC, 12 VDC only)</td>
</tr>
</tbody>
</table>

- All the types with power saving circuit are with light and surge voltage suppressor “Z”.

Rated voltage

For DC

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
<tr>
<td>V</td>
<td>6 VDC</td>
</tr>
<tr>
<td>S</td>
<td>5 VDC</td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
</tr>
</tbody>
</table>

For AC (50/60 Hz)

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 VAC</td>
</tr>
<tr>
<td>2</td>
<td>200 VAC</td>
</tr>
<tr>
<td>3</td>
<td>110 VAC (115 VAC)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC (230 VAC)</td>
</tr>
</tbody>
</table>

Electrical entry

<table>
<thead>
<tr>
<th>Grommet</th>
<th>L plug connector</th>
<th>M plug connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>300 mm lead wire</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>600 mm lead wire</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>With 300 mm lead wire</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>With 300 mm lead wire</td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>Without lead wire</td>
<td></td>
</tr>
</tbody>
</table>

- LN and MN types are with 2 sockets.
- Refer to page 1366 for the different lead wire lengths of L and M plug connectors.

- Refer to page 1367 for the connector assembly with a dustproof cover for L and M plug connectors.

Light/Surge voltage suppressor

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Without light/surge voltage suppressor</td>
</tr>
<tr>
<td>S</td>
<td>With surge voltage suppressor</td>
</tr>
<tr>
<td>Z</td>
<td>With light/surge voltage suppressor (Non-polar)</td>
</tr>
<tr>
<td>R</td>
<td>With surge voltage suppressor (Non-polar)</td>
</tr>
<tr>
<td>U</td>
<td>With light/surge voltage suppressor (Non-polar)</td>
</tr>
</tbody>
</table>

- Only “Z” is available for the types with power saving circuit.
3 Port Solenoid Valve  V100 Series

How to Order

Large flow type

Base mounted

3 port

Type of actuation

1. Normally closed
2. Normally open

Large flow capacity

Port size

Nil: Without sub-plate
MS: With sub-plate
(With gasket and screws)

Manual override

Nil: Non-locking push
B: Locking slotted

Light/Surge voltage suppressor

Nil: Without light/surge voltage suppressor
R: With surge voltage suppressor
U: With light/surge voltage suppressor

Electrical entry

Rated voltage

For DC

<table>
<thead>
<tr>
<th>S</th>
<th>24 VDC</th>
<th>CE-compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>12 VDC</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>9 VDC</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>5 VDC</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>3 VDC</td>
<td></td>
</tr>
</tbody>
</table>

For DC

| VV061 | VV100 | VQD | VQD-V | VK | VT |

How to Order

3 Port Solenoid Valve  V100 Series

V1 1 4 A 5 M

24 V, 12 V, 6 V, 5 V, 3 VDC

Grommet | L plug connector | M plug connector
---|---|---
G: 300 mm lead wire | L: With 300 mm lead wire | M: With 300 mm lead wire
H: 600 mm lead wire | LN: Without lead wire | MN: Without lead wire

LN and MN types are with 2 sockets.
Refer to page 1366 for the different lead wire lengths of L and M plug connectors.
Refer to page 1367 for the connector assembly with a dustproof cover for L and M plug connectors.
V100 Series

Base Mounted (With sub-plate)

Grommet (G), (H): V1 1/4(A)-□G□□□-M5

(Light/Surge voltage suppressor)

13.1
5
13
15.5

2 x ø2.6
(Mounting hole)

28.5 [35.5]
(32.4)

L plug connector (L): V1 1/4(A)-□L□□□-M5

(Mounting hole)

M5 x 0.8
(Piping port)

5.7
11.4

5.7
7

9.5
19

M plug connector (M): V1 1/4(A)-□M□□□-M5

(Light/Surge voltage suppressor)

Approx. 300
(Lead wire length)

43.5
39.6 [46.6]

30.9 [33.1]
25.9

Note) [ ]: AC
( ): values for the large flow type (A)

* Other dimensions are same as the grommet type.

Other dimensions are same as the grommet type.
3 Port Solenoid Valve
V100 Series
Manifold Specifications

Manifold Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Type S41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold</td>
<td>Single base type/B mount</td>
</tr>
<tr>
<td>P (SUP)/R (EXH) type</td>
<td>Common SUP/Common EXH</td>
</tr>
<tr>
<td>Valve stations</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

Output port porting specifications

<table>
<thead>
<tr>
<th>Location</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Side</td>
</tr>
</tbody>
</table>

Port size

| Port 1, 2, 3 | M5 x 0.8 |

Note 1) V114(A) and V124(A) cannot be mounted to the same manifold.
Note 2) For V124(A), pressure from port 3 and exhaust from port 1.

Flow Rate Characteristics Note 1)

<table>
<thead>
<tr>
<th>Manifold</th>
<th>Port size</th>
<th>Flow rate characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1→2 [3→2 Note 2]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C[dm³/(s·bar)]</td>
</tr>
<tr>
<td>Type VV100-S41</td>
<td>M5 x 0.8</td>
<td>0.032</td>
</tr>
<tr>
<td>V114</td>
<td></td>
<td>0.070</td>
</tr>
<tr>
<td>V114A</td>
<td></td>
<td>0.050</td>
</tr>
<tr>
<td>V124</td>
<td></td>
<td>0.085</td>
</tr>
</tbody>
</table>

How to Order Valve Manifold Assembly (Example)

Ordering example

Valve (N.C.)
V114-5GZ

Manifold base (5 stations)
VV100-S41-05-M5

Blanking plate assembly
V100-77-1A

VV100-S41-05-M5 ----- 1 set (Type S41, 5 station manifold base part no.)
*V100-77-1A ---------- 1 set (Blanking plate assembly part no.)
*V114-5GZ ------------ 4 sets (Valve)

The asterisk (*) is used when referring to assembly.
Enter the asterisk at the beginning of individual component part numbers.

Beneath the manifold base part number, enter the valve and option part numbers to be mounted.
**Common SUP/Common EXH**

**Type S41**

How to Order

\[
\text{VV100 – S41 – [05] – M5}
\]

Applicable solenoid valve (Note)
- V114-
- V114A-
- V124-
- V124A-

Applicable blanking plate assembly
- V100-77-1A

Note) V114(A) and V124(A) cannot be mounted to the same manifold.

Gasket Assembly

Part No. V100-31-1A

- Round head combination screw
- Gasket

Applicable base
- Sub-plate
- Type VV100-S41 manifold base

Caution

Mounting screw tightening torques M2: 0.12 N-m

Blanking Plate Assembly

Part No. V100-77-1A

- Place the notch mark on a blanking plate to the port 2 side when assembling.
- Round head combination screw
- Notch mark
- Blanking plate

Applicable base
- Sub-plate
- Type VV100-S41 manifold base
3 Port Solenoid Valve V100 Series

Type S41 Manifold: Side Ported/VV100-S41-\textsuperscript{Stations-M5}

Grommet (G), (H)

(Indicator light and surge voltage suppressor)

\[\text{(Pitch)}\]
\[P=10.5\]
\[11.5\]

(Lead wire length)
\[G: \text{Approx. 300}\]
\[H: \text{Approx. 600}\]

(n station) \begin{center} \rule{0pt}{0pt} \end{center} (1 station)

\textbf{L plug connector (L)}

\textbf{M plug connector (M)}

* Other dimensions are same as the grommet type.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline
Station & 2 stations & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 & 17 & 18 & 19 & 20 stations \\
\hline
L1 & 33.5 & 44 & 54.5 & 65 & 75.5 & 86 & 96.5 & 107 & 117.5 & 128 & 138.5 & 149 & 159.5 & 170 & 180.5 & 191 & 201.5 & 212 & 222.5 \\
\hline
L2 & 27.5 & 38 & 48.5 & 59 & 69.5 & 80 & 90.5 & 101 & 111.5 & 122 & 132.5 & 143 & 153.5 & 164 & 174.5 & 185 & 195.5 & 206 & 216.5 \\
\hline
\end{tabular}

\begin{enumerate}
\item Note) [ ]: AC
\item ( ): values for the large flow type (A)
\end{enumerate}

\[2 \times \phi 3.5\]
(Mounting hole)

\[27\text{[34]}\]

\[11.6\]

\[42.3\text{[44.5]}\]

\[32.5\text{[34.7]}\]

\[28.1\text{[45.1]}\]

\[27.5\]
**Warning**

Manual Override Operation

Since connected equipment will be actuated when the manual override is operated, first confirm that conditions are safe.

- **Non-locking push type**
  - Standard type
  - Press in the direction of the arrow
- **Locking slotted type**
  - B type
  - Turn in the direction of arrow.

**Caution**

When operating with a screwdriver, turn it gently using a watchmakers’ screwdriver. (Torque: less than 0.1Nm)

---

**Caution**

How to Use a Plug Connector

3. Attaching and detaching lead wires with sockets

- **Attaching**
  - Insert the sockets into the square holes of the connector ( indication), and continue to push the sockets all the way in until they lock by hooking into the seats in the connector. (When they are pushed in, their hooks open and they are locked automatically.) Then confirm that they are locked by pulling lightly on the lead wires.

- **Detaching**
  - To detach a socket from a connector, pull out the lead wire while pressing the socket’s hook with a stick having a thin tip (about 1 mm). If the socket will be used again, first spread the hook outward.

---

**How to Order Connector Assembly**

- 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

---

**Plug Connector Lead Wire Length**

Standard length is 300 mm, but the following length is also available.

<table>
<thead>
<tr>
<th>Lead wire length</th>
<th>NMl</th>
<th>300 mm</th>
<th>600 mm</th>
<th>1000 mm</th>
<th>1500 mm</th>
<th>2000 mm</th>
<th>2500 mm</th>
<th>3000 mm</th>
<th>5000 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>For DC</td>
<td>SY100-30-4A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For 100 VAC</td>
<td>SY100-30-1A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For 200 VAC</td>
<td>SY100-30-2A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For other voltages of AC</td>
<td>SY100-30-3A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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**SMC’s Lead Wire Specifications**

- Cover diameter: 1.55 mm
- Conductor area: 0.3 mm² (AWG22 equivalent)
V100 Series
Specific Product Precautions 2

Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions and pages 3 to 9 for 3/4/5 Port Solenoid Valve Precautions.

Surge Voltage Suppressor

<For DC>
Grommet, L and M Plug Connector

- Standard type (with polarity)
  With surge voltage suppressor (S)

  [Diagram of a circuit with red (+) and black (−) connections, a polarity protection diode, and a coil.]

- Non-polar type
  With surge voltage suppressor (R)

  [Diagram of a circuit with red (+) and black (−) connections, and a varistor coil.]

- With power saving circuit

  Power consumption is reduced by approximately 75% compared with the standard product by eliminating the need for electrical current for holding. (Effective after more than 62 ms energized and 24 VDC rated voltage applied.)

Operating Principle

The electrical circuit as shown above allows reduced holding current consumption and measures power saving. Refer to the electric waveform on the right.

- Please be careful not to reverse the polarity, since a diode to prevent reverse current is not provided for the power saving circuit.

<For AC>
Grommet, L and M Plug Connector

- With light (Z)

  [Diagram of a circuit with red (+) and black (−) connections, a varistor coil, and a light.]

Caution

In the case of varistor surge voltage suppressor, note the surge voltage to be suppressed at controller side as there will be a residual voltage according to the protective element and rated voltage.

Moreover, the residual voltage of the diode is approximately 1 V.

Connector Assembly with Cover

Connector assembly with protective cover enhances dust protection

- Effective in preventing possible short circuit problems due to contaminants in contact with connector section.
- Chloroprene rubber for electrical use, which provides outstanding weather resistance and electrical insulation, is used for the cover material. However, be careful not to allow contact with cutting oil, etc.
- Round cord provides neat appearance.

How to Order

SY100 – 68 – A –

- Lead wire length (L)
  - Nil
  - 6
  - 10
  - 15
  - 20
  - 25
  - 30
  - 50
  - 300 mm
  - 600 mm
  - 1000 mm
  - 1500 mm
  - 2000 mm
  - 2500 mm
  - 3000 mm
  - 5000 mm

Connector Assembly with Cover/Dimensions

- Symbol for a connector assembly with protective cover

With power saving circuit

The electrical circuit as shown above allows reduced holding current consumption and measures power saving. Refer to the electric waveform on the right.

- Please be careful not to reverse the polarity, since a diode to prevent reverse current is not provided for the power saving circuit.

- Please connect correctly the lead wires to + (positive) and − (negative) indications on the connector.

- For DC voltages other than 12, 24 VDC, incorrect wiring will cause damage to the surge voltage suppressor circuit since a diode to prevent reverse current is not provided. (Wrong polarity will cause trouble.)

- Solenoids, whose lead wires have been pre-wired: positive side red and negative side black.

Operating Principle

The electrical circuit as shown above allows reduced holding current consumption and measures power saving. Refer to the electric waveform on the right.

<Electric waveform in power saving, in the case of V1<14T>

Applied voltage

0 V
0.4 W
0.1 W
0 W

62 ms

Symbol for a connector assembly with cover

* No need to indicate the part number for a connector assembly with cover in this case.

How to Order

Indicate part number of connector assembly with cover in addition to the solenoid valve part number without connector of the plug connector.

- <Example 1> Lead wire length: 2000 mm
  V114-SLOZ-M5
  SY100-68-A-20

- <Example 2> Lead wire length: 300 mm (Standard)
  V114-SLPZ-M5

Symbol for a connector assembly with cover

* No need to indicate the part number for a connector assembly with cover in this case.