5 Port Solenoid Valve
Direct Operated Poppet Type
VK3000 Series
Rubber Seal

Specifications

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Direct operated type 2 position single solenoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>Air</td>
</tr>
<tr>
<td>Ambient and fluid temperature</td>
<td>-10 to 50°C (No freezing)</td>
</tr>
<tr>
<td>Response time (at the pressure of 0.5 MPa) (1)</td>
<td>10 ms or less (Standard), 15 ms or less (Low wattage type)</td>
</tr>
<tr>
<td>Manual override</td>
<td>Non-locking push type</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)</td>
</tr>
<tr>
<td>Mounting orientation</td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Impact/Vibration resistance (2)</td>
<td>300/50 m/s²</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dust proof</td>
</tr>
</tbody>
</table>

Note 1) Based on dynamic performance test, JIS B 8419: 2010. (Coil temperature: 20°C, at rated voltage, without surge suppressor)

Note 2) Impact resistance: 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. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

Electrical entry

<table>
<thead>
<tr>
<th>Rated voltage (V)</th>
<th>Grommet (G), DIN terminal (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>100, 110, 200, 220, 240</td>
</tr>
<tr>
<td>DC</td>
<td>12, 24</td>
</tr>
</tbody>
</table>

Allowable voltage fluctuation

<table>
<thead>
<tr>
<th>Port size</th>
<th>±10% of rated voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Apparent power (AC) *

<table>
<thead>
<tr>
<th>Port size</th>
<th>Inrush</th>
<th>Holding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.5 VA/50 Hz, 8 VA/60 Hz</td>
<td></td>
</tr>
</tbody>
</table>

Physical characteristics

<table>
<thead>
<tr>
<th>Power consumption (DC)</th>
<th>W/o indicator light</th>
<th>W/ indicator light</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>4 W (Standard), 2 W (Low wattage)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.3 W (Standard), 2.3 W (Low wattage)</td>
<td></td>
</tr>
</tbody>
</table>

Mounting with VK300

The VK300 series can be mounted on the same manifold base VV5K3 of VK3000 series. For details, refer to the page 1422.

Used as a 3 Port Valve

The VK3000 series can be used as 3 port valve, as a N.C. or N.O. type, by plugging either “A” or “B” cylinder Port. Make sure not to plug the exhaust port “R”.

Flow Rate Characteristics/Weight

<table>
<thead>
<tr>
<th>Valve model</th>
<th>Operating pressure range (MPa)</th>
<th>Port size</th>
<th>Flow rate characteristics</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C [dm³/(s·bar)]</td>
<td>b</td>
<td>Cv</td>
<td>C [dm³/(s·bar)]</td>
</tr>
</tbody>
</table>

- VK3120
  - M5 x 0.8
    - 0 to 0.7
      - 0.45
      - 0.37
      - 0.12
      - 0.43
      - 0.37
      - 0.12

- VK3126
  - M5 x 0.8
    - 1/4
      - 0.46
      - 0.40
      - 0.11
      - 0.35
      - 0.36
      - 0.10

- VK3140
  - M5 x 0.8
    - 1/8
      - 0.63
      - 0.10
      - 0.14
      - 0.54
      - 0.12
      - 0.12

- VK3140Y
  - M5 x 0.8
    - 1/4
      - 0.50
      - 0.12
      - 0.11
      - 0.48
      - 0.19
      - 0.12

Note: (1) Based on dynamic performance test, JIS B 8419: 2010. (Coi temperature: 20°C, at rated voltage, without surge suppressor)

Note: (2) Impact resistance: 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. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)
VK3000 Series

How to Order

Note) AC-type models that are CE-compliant have DIN terminals only.

<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>Valve option</th>
<th>Y</th>
<th>Nil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 100 VAC, 50/60 Hz</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2 200 VAC, 50/60 Hz</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3 110 VAC, 50/60 Hz</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4 220 VAC, 50/60 Hz</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5 24 VDC</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>6 12 VDC</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7 240 VAC, 50/60 Hz</td>
<td>Nil</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Note 1) AC-type models that are CE-compliant have DIN terminals only.
Note 2) For other rated voltages, please consult with SMC.

Body ported

VK3120

- 1 G - M5

Base mounted

VK3140

- 1 G - 01

Valve option

Niil

Standard

Y**

For low wattage
(2 W DC)

* Applicable voltage: 12 and 24 VDC

Light/Surge voltage suppressor

Nil

None

S

With surge voltage suppressor

Z

With light/surge voltage suppressor (Type D only)

CE-compliant

Port size (P, A and B port)

Grommet

(Lead wire length: 300 mm)

Nil

None

S

With surge voltage suppressor

Z

With light/surge voltage suppressor (Type D only)

Thread type

Nil

Rc

F

G

N

NPT

T

NPTF

Construction

Component Parts

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Aluminum die-casted</td>
<td>Platinum silver</td>
</tr>
<tr>
<td>2</td>
<td>Cover</td>
<td>Resin</td>
<td>Black</td>
</tr>
<tr>
<td>3</td>
<td>End cover</td>
<td>Resin</td>
<td>Black</td>
</tr>
<tr>
<td>4</td>
<td>Spool valve assembly</td>
<td>Aluminum, NBR</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Return spring</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Molded coil</td>
<td>Resin</td>
<td>Black</td>
</tr>
</tbody>
</table>
### VK3000 Series

#### Manifold Specifications

**Specifications**

<table>
<thead>
<tr>
<th>Valve stations</th>
<th>1 to 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piping method</td>
<td>Common SUP, Common EXH</td>
</tr>
<tr>
<td></td>
<td>Common SUP, Individual EXH</td>
</tr>
</tbody>
</table>

*Note) For 9 stations or more, supply air both sides of P port. The common exhaust type should exhaust from both of the R port.*

<table>
<thead>
<tr>
<th>Type 20: Body ported (A, B port top ported)</th>
<th>Type 21: Body ported (A, B port top ported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A port: Rc 1/8, M5 x 0.8</td>
<td>A, B port: Rc 1/8, M5 x 0.8</td>
</tr>
<tr>
<td>R port: M5 x 0.8</td>
<td>R1 port: M5 x 0.8, R2 port: M5 x 0.8</td>
</tr>
<tr>
<td>Note) CE-compliant: For DIN terminal only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How to Order</th>
<th>Valve stations: 01: 1 station, 20: 20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type VK3000-7-1A</td>
<td></td>
</tr>
<tr>
<td>Applicable solenoid valve</td>
<td>VK3120, VK3140(-Q), VK332, VK334, VK332(-Q)</td>
</tr>
<tr>
<td>Applicable blanking plate assembly</td>
<td>VK3000-7-1A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common SUP/Common EXH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Type 21: Body ported (A, B port top ported)</th>
<th>Type 21: Body ported (A, B port top ported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A port: Rc 1/8, M5 x 0.8</td>
<td>A, B port: Rc 1/8, M5 x 0.8</td>
</tr>
<tr>
<td>R port: M5 x 0.8</td>
<td>R1 port: M5 x 0.8, R2 port: M5 x 0.8</td>
</tr>
<tr>
<td>Note) CE-compliant: For DIN terminal only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How to Order</th>
<th>Valve stations: 01: 1 station, 20: 20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type VK3000-7-1A</td>
<td></td>
</tr>
<tr>
<td>Applicable solenoid valve</td>
<td>VK3120, VK3140(-Q), VK332, VK334, VK332(-Q)</td>
</tr>
<tr>
<td>Applicable blanking plate assembly</td>
<td>VK3000-7-1A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type 20: Body ported (A, B port top ported)</th>
<th>Type 21: Body ported (A, B port top ported)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A port: Rc 1/8, M5 x 0.8</td>
<td>A, B port: Rc 1/8, M5 x 0.8</td>
</tr>
<tr>
<td>R port: M5 x 0.8</td>
<td>R1 port: M5 x 0.8, R2 port: M5 x 0.8</td>
</tr>
<tr>
<td>Note) CE-compliant: For DIN terminal only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How to Order</th>
<th>Valve stations: 01: 1 station, 20: 20 stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type VK3000-7-1A</td>
<td></td>
</tr>
<tr>
<td>Applicable solenoid valve</td>
<td>VK3120, VK3140(-Q), VK332, VK334, VK332(-Q)</td>
</tr>
<tr>
<td>Applicable blanking plate assembly</td>
<td>VK3000-7-1A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common SUP/Common EXH</th>
</tr>
</thead>
</table>
### Combinations of Solenoid Valve, Manifold Gasket and Manifold Base

<table>
<thead>
<tr>
<th>Body ported</th>
<th>Base mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold gasket</td>
<td>VK3000-6-1A</td>
</tr>
<tr>
<td>Screw assembly</td>
<td>VK3000-6-2A</td>
</tr>
</tbody>
</table>

**Caution**

Mounting Screw Tightening Torques

M3: 0.6 N·m

---

### Mixed Mounting of VK300 and Manifold Base of VK3000 Series

#### Type VV5K3-20

- **Plug**
- **Corresponding mark**

#### Type VV5K3-40

- **Plug**
- **Corresponding mark**

**Caution**

Mounting Screw Tightening Torques

M3: 0.6 N·m

---

1. **In the case of VV5K3-20/40**
   
   When installing the 3 port valve on the manifold base, plug the “R” port at the corresponding mark side with the rubber plug (VK3000-8-1) as shown in the figures on the right.

2. **Other manifold**

   3 port valve can be mounted without any work.

   **Note 1)** Remove the plug if changing the 3 port valve to a 5 port valve.

   **Note 2)** In case a 3 port valve VK300 is mounted on the manifold base for a 5 port valve VK3000, switching type is normally closed (N.C.). If requiring a normally open type (N.O.), plug the “A” port on the 5 port valve.

   **Note 3)** “A” port of a 3 port valve for base mounted type becomes “A” port of a 5 port valve. Plug that “A” port to avoid mistaking “B” port for the “A” port.

---

**Note**

Mounting direction is not flexible. Make sure to mount them in the right direction.
5 Port Solenoid Valve
Direct Operated Poppet Type VK3000 Series

Dimensions: Body Ported

Grommet: VK3120-G-M5
Port size: M5

Refer to grommet type for other dimensions.

DIN terminal: VK3120-D-M5

Grommet: VK3120-G-01
Port size: Rc 1/8

Refer to grommet type for other dimensions.

DIN terminal: VK3120-D-01

Applicable cable O.D.: ø3.5 to ø7

Manifold mounting hole:

Piping port:

Mounting screw:

Non-locking:

Bleathing hole:

R1, R2 port:

P, A, B port:

Manual override:

Piping port:

Mounting screw:

Applicable cable O.D.: ø3.5 to ø7

Mounting screw:

Bleathing hole:

R1, R2 port:

P, A, B port:

Manual override:

Piping port:

Mounting screw:

Applicable cable O.D.: ø3.5 to ø7

Mounting screw:

Bleathing hole:

R1, R2 port:

P, A, B port:

Manual override:

Piping port:

Mounting screw:

Applicable cable O.D.: ø3.5 to ø7

Mounting screw:

Bleathing hole:

R1, R2 port:

P, A, B port:

Manual override:

Piping port:
**Dimensions: Base Mounted**

**Grommet: VK3140-□G-01**

![Diagram of grommet: VK3140-□G-01]

- **2 x ø4.3** (Mounting hole)
- **Manual override** (Non-locking)
- **4 x Rc1/8** (Piping port)
- **Applicable cable Ø:** ø3.5 to ø7

**DIN terminal: VK3140-□D-01**

![Diagram of DIN terminal: VK3140-□D-01]

- **2 x ø4.3** (Mounting hole)
- **4 x Rc1/8** (Piping port)
- **Applicable cable Ø:** ø3.5 to ø7

Refer to grommet type for other dimensions.
Type 20 Manifold/Body ported (Top ported)

**VV5K3-20- Station**

**Grommet: G**

**DIN terminal: D**

Applicable cable O.D.: ø3.5 to ø7

Type 21 Manifold/Body ported (Top ported)

**VV5K3-21- Station**

**Grommet: G**

**DIN terminal: D**

Applicable cable O.D.: ø3.5 to ø7

<table>
<thead>
<tr>
<th>Stations</th>
<th>L Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L₁</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
</tr>
</tbody>
</table>

n₁ = Number of VK3000
n₂ = Number of VK300
**VK3000 Series**

**Type 40 Manifold/Base mounted (Bottom ported)**

**VV5K3-40-Station-M5**

Grommet: G  
DIN terminal: D

![Diagram of VK3000 Series Type 40 Manifold/Base mounted (Bottom ported)](image)

**Applicable cable O.D.: ø3.5 to ø7**

<table>
<thead>
<tr>
<th>L Dimension</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<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>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>L₁</td>
<td>50</td>
<td>69</td>
<td>88</td>
<td>107</td>
<td>126</td>
<td>145</td>
<td>164</td>
<td>183</td>
<td>202</td>
<td>221</td>
<td>240</td>
<td>259</td>
<td>278</td>
<td>297</td>
<td>316</td>
<td>335</td>
<td>354</td>
<td>373</td>
<td>392</td>
<td>411</td>
</tr>
<tr>
<td>L₂</td>
<td>27</td>
<td>46</td>
<td>65</td>
<td>84</td>
<td>103</td>
<td>122</td>
<td>141</td>
<td>160</td>
<td>179</td>
<td>198</td>
<td>217</td>
<td>236</td>
<td>255</td>
<td>274</td>
<td>293</td>
<td>312</td>
<td>331</td>
<td>350</td>
<td>369</td>
<td>388</td>
</tr>
</tbody>
</table>
Type 41 Manifold/Base mounted (Side ported)

**VV5K3-41-[Station]-M5**

- **Manual override**
  - (Non-locking)
  - Dimensions:
    - 2 x ø4.5 (Mounting hole)
    - 2n x M5 x 0.8 (A, B port)
    - Approximately 300 (Lead wire length)

- **Grommet:** G
- **DIN terminal:** D
  - Applicable cable O.D.: ø3.5 to ø7
  - Dimensions:
    - Max. 10
    - 4 x Rc1/8 (P, R port)

**Built-in One-touch fitting:** VV5K3-41-[Station]-C4

- **Manual override**
  - (Non-locking)
- **Dimensions**:
  - 2 x ø4.5 (Mounting hole)
  - 2n x One-touch fittings
  - Applicable tube T0425 (A, B port)

**Solenoid is at the same side as A port:**

- **VV5K3-S41-[Station]**
- **Dimensions**:
  - 2 x ø4.5 (Mounting hole)
  - Manual override
  - (Non-locking)

Refer to the above drawing for other dimensions.

---

Manual override
(Non-locking)

Approximately 300
(Lead wire length)

2n x One-touch fittings
Applicable tube T0425
(A, B port)

Refer to the above drawing for DIN terminal dimensions.
VK3000 Series

Type 42 Manifold/Base mounted (Side ported)

**VV5K3-42-Station-01**

- Manual override (Non-locking)
- 2 x ø4.5 (Mounting hole)
- 4 x Rc1/8 (P,R port)
- Grommet: G
- DIN terminal: D

- Applicable cable O.D.: ø3.5 to ø7
- Max.10
- Pg7

**Solenoid is at the same side as A port:**

**VV5K3-S42-Station-C6**

- Manual override (Non-locking)
- 2 x ø4.5 (Mounting hole)
- 4 x Rc1/8 (P,R port)

**Built-in One-touch fitting: VV5K3-42-Station-C6**

- 2 x ø4.5 (Mounting hole)
- 4 x Rc1/8 (P,R port)

**Refer to the above drawing for DIN terminal dimensions.**

**Refer to the above drawing for other dimensions.**

---

**Table:**

<table>
<thead>
<tr>
<th>Station</th>
<th>Station 1</th>
<th>Station n</th>
<th>Station 1</th>
<th>Station n</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>50</td>
<td>69</td>
<td>88</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>126</td>
<td>145</td>
<td>164</td>
<td>183</td>
</tr>
<tr>
<td>L2</td>
<td>202</td>
<td>221</td>
<td>240</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>278</td>
<td>297</td>
<td>316</td>
<td>335</td>
</tr>
<tr>
<td></td>
<td>354</td>
<td>373</td>
<td>392</td>
<td>411</td>
</tr>
<tr>
<td></td>
<td>392</td>
<td>411</td>
<td>392</td>
<td>411</td>
</tr>
</tbody>
</table>

---

**Diagram:**

- Refer to the above drawing for DIN terminal dimensions.
- Refer to the above drawing for other dimensions.
How to Wire DIN Terminal

**Caution**

- **Connection**
  1. Loosen the set screw and pull out the connector from the terminal block of the solenoid.
  2. Remove screw and insert screwdriver into the slit area near the bottom of terminal block to separate block and housing.
  3. Loosen the terminal screws (slotted screws) on the terminal block, insert the core of the lead wire into the terminal, and attach securely with the terminal screws.
  4. Tighten the ground nut to secure the cable.

- **Precautions**
  - Change of electrical entry (Orientation)
    After separating terminal block and housing, the cable entry direction can be changed by attaching the housing in the desired direction (4 directions in 90 increments).
  - In the case of w/indicator light, avoid damaging the light with lead wire.

- **Applicable cable**
  - O.D. ø3.5 to ø7
  - (Reference) 0.5 mm² 2 core and 3 core wires equivalent to JIS C 3306

- **Connector part no.:** VK300-82-1

- **Part no. of connector with light**
<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>Voltage symbol</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 VAC</td>
<td>100V</td>
<td>VK300-82-2-01</td>
</tr>
<tr>
<td>110 VAC</td>
<td>110V</td>
<td>VK300-82-2-03</td>
</tr>
<tr>
<td>200 VAC</td>
<td>200V</td>
<td>VK300-82-2-02</td>
</tr>
<tr>
<td>220 VAC</td>
<td>220V</td>
<td>VK300-82-2-04</td>
</tr>
<tr>
<td>240 VAC</td>
<td>240V</td>
<td>VK300-82-2-07</td>
</tr>
<tr>
<td>6 VDC</td>
<td>6V</td>
<td>VK300-82-4-51</td>
</tr>
<tr>
<td>12 VDC</td>
<td>12V</td>
<td>VK300-82-4-06</td>
</tr>
<tr>
<td>24 VDC</td>
<td>24VD</td>
<td>VK300-82-3-05</td>
</tr>
<tr>
<td>48 VDC</td>
<td>48VD</td>
<td>VK300-82-3-53</td>
</tr>
</tbody>
</table>

- **Circuit with light**
<table>
<thead>
<tr>
<th>AC Circuit diagram</th>
<th>12 VDC or less Circuit diagram</th>
<th>24 VDC or more Circuit diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>R NL</td>
<td>LED: Emitting diode R NL</td>
<td>D: Protective diode LED: Emitting diode R NL</td>
</tr>
</tbody>
</table>

**Caution**

**Light/Surge Voltage Supressor**

<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>Grommet type (G)</th>
<th>DIN terminal (D)</th>
<th>Part no. symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>None</td>
<td>No.1</td>
<td>S</td>
</tr>
<tr>
<td>No.1</td>
<td>Red (+)</td>
<td>No.1</td>
<td>Z</td>
</tr>
<tr>
<td>No.2</td>
<td>Black (–)</td>
<td>No.2</td>
<td></td>
</tr>
</tbody>
</table>

- **24 V DC**
  - With indicator light (no.1 terminal)
  - No.1 Red (+)
  - No.2 Black (–)

- **48 V DC**
  - With indicator light (no.1 terminal)
  - No.1 Red (+)
  - No.2 Black (–)

- **6 V DC**
  - With indicator light (no.1 terminal)
  - No.1 Red (+)
  - No.2 Black (–)

- **12 V DC**
  - With indicator light (no.1 terminal)
  - No.1 Red (+)
  - No.2 Black (–)

**Warning**

- **Valve Mounting Direction**
  When mounting a valve or spacer on the manifold base or sub-plate, etc., those mounting directions are determined. If mounted in the wrong direction, the equipment to be connected may cause malfunction. Refer to external dimensions in pages 1423 to 1428, and then mount it.

**Precautions on connection for 24 VDC or more**

Grommet type should be connected as following; Red lead wire for (+) side, Black lead wire for (–) side respectively.

With the DIN terminal, connect the positive (+) side to the connector’s no. 1 terminal, and the negative (–) side to the no. 2 terminal. [Refer to the marks on the terminal board.]

- For 12 VDC or below, there is no positive (+) or negative (–) directionality.

**Connector type**

- For AC, 12 VDC or less
- For 24 VDC or more

- **DIN terminal**
  - Marking:
  - Light (Built-in connector)
  - Surge voltage supressor
  - *Markings:
  - For AC, 12 VDC or less
  - For 24 VDC or more