3 Port Solenoid Valve
Metal Seal / Rubber Seal

Power consumption: 0.35 W / 0.9 W

Compact, High Flow

<table>
<thead>
<tr>
<th>Series</th>
<th>Valve width (mm)</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Metal seal</td>
</tr>
<tr>
<td>VQZ100</td>
<td>10</td>
<td>—</td>
</tr>
<tr>
<td>VQZ200</td>
<td>15</td>
<td>1.3</td>
</tr>
<tr>
<td>VQZ300</td>
<td>18</td>
<td>2.4</td>
</tr>
<tr>
<td>VQZ100</td>
<td>10</td>
<td>—</td>
</tr>
<tr>
<td>VQZ200</td>
<td>15</td>
<td>2.0</td>
</tr>
<tr>
<td>VQZ300</td>
<td>18</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Body mounted
Base mounted
CAT.ES11-91B

Series VQZ
### Solenoid Valve Variations

<table>
<thead>
<tr>
<th>Body mounted</th>
<th>VQZ100</th>
<th>VQZ200</th>
<th>VQZ300</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 port</td>
<td>Metal</td>
<td>Rubber</td>
<td>Metal</td>
</tr>
<tr>
<td>P.1</td>
<td>1.0</td>
<td>1.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P.17</th>
<th>Metal</th>
<th>Rubber</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.17</td>
<td>1.0</td>
<td>1.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of actuation</th>
<th>Voltage</th>
<th>Electrical entry</th>
<th>Light/surge voltage suppressor</th>
<th>Manual override</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Poppet)</td>
<td>12 VDC</td>
<td>(Standard)</td>
<td>With light/surge voltage suppressor</td>
<td>Non-locking push type (Tool required)</td>
</tr>
<tr>
<td>N.O.</td>
<td>24 VDC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Except VQZ100)</td>
<td>(Option)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.C.</td>
<td>100 VAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>200 VAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>110 VAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>220 VAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Sonic conductance**: [dm³/(s·bar)]
- **Type of actuation**: (Poppet), N.O., N.C.
- **Voltage**: 12 VDC, 24 VDC, 100 VAC, 200 VAC, 110 VAC, 220 VAC
- **Electrical entry**: Grommet (G), L-type plug connector (L), M-type plug connector (M), DIN terminal (YZ)
- **Light/surge voltage suppressor**: With light/surge voltage suppressor
- **Manual override**: Non-locking push type (Tool required), Locking type (Tool required)
### Series VQZ100/200/300

#### Manifold Options

**Base Mounted**

- **Blanking plate assembly**
  - VQZ100-10A-5 (for VQZ100)
  - VQZ200-10A-2 (for VQZ200)
  - VQZ300-10A-2 (for VQZ300)
  - VQZ100-5 (for VQZ100)
  - VQZ200-5 (for VQZ200)
  - VQZ300-5 (for VQZ300)

- **Blanking plug**
  - KQ2P-23
  - KQ2P-04
  - KQ2P-06
  - KQ2P-08
  - KQ2P-10

- **Silencer (for EXH port)**

- **Port plug**
  - VQQ100-CP (for VQQ100)

#### Base Mounted

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VVQZ15-□□□</td>
<td>Top Rc 1/8 C3 (for ø3.2)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VVQZ20-□□□</td>
<td>Top Rc 1/8 C4 (for ø4)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VVQZ30-□□□</td>
<td>Top Rc 1/4 C6 (for ø6)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VVQZ15-□□□</td>
<td>Side Rc 1/8 C3 (for ø3.2)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VVQZ20-□□□</td>
<td>Side Rc 1/4 C6 (for ø6)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VVQZ30-□□□</td>
<td>Side Rc 3/8 C6 (for ø6)</td>
<td>VQZ15</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

#### Manifold

**Base Ported**

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VVQZ100-□□□</td>
<td>Top Rc 1/8 C3 (for ø3.2)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VVQZ200-□□□</td>
<td>Top Rc 1/8 C4 (for ø4)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VVQZ300-□□□</td>
<td>Top Rc 1/4 C6 (for ø6)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VVQZ100-□□□</td>
<td>Side Rc 1/8 C3 (for ø3.2)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VVQZ200-□□□</td>
<td>Side Rc 1/4 C6 (for ø6)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VVQZ300-□□□</td>
<td>Side Rc 3/8 C6 (for ø6)</td>
<td>VQZ100</td>
<td>2 to 20 stations</td>
</tr>
</tbody>
</table>
3 Port Solenoid Valve
Series VQZ100/200/300
Single Unit

VQZ100 / How to Order Valve

VQZ 1 1 5 □ 5 M □ 1 □ C6 □ PR □

Type of actuation
Series □
VQZ100 body width 10 mm

Body type
N.C.

Function
Port size [2(A) port]

Symbol | Specifications | DC | AC
---|---|---|---
Nil | Standard | ○ | ○
K (Note 1) | High pressure type | ○ | —
R (Note 1, 2) | External pilot type | ○ | ○
KR (Note 1, 2) | High pressure/External pilot type | ○ | —

Note 1) Option
Note 2) For details on external pilot type, refer to page 15.
Note 3) For AC specification power consumption, refer to page 3.

Caution
Use standard (DC) specification for continuous duty.

Coil voltage

| 1 | 100 VAC (50/60 Hz) |
| 2 | 200 VAC (50/60 Hz) |
| 3 | 110 VAC [115 VAC] (50/60 Hz) |
| 4 | 220 VAC [230 VAC] (50/60 Hz) |
| 5 | 24 VDC |
| 6 | 12 VDC |

Manual override
Nil: Non-locking push type
B: Locking type (Tool required)

Electrical entry

<table>
<thead>
<tr>
<th>G</th>
<th>L</th>
<th>LO</th>
<th>M</th>
<th>MO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grommet (DC specification)</td>
<td>L-type plug connector</td>
<td>L-type plug connector without lead wire</td>
<td>M-type plug connector</td>
<td>M-type plug connector without lead wire</td>
</tr>
<tr>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td></td>
</tr>
</tbody>
</table>

CE compliant
Nil —
O CE marked

Note) For CE compliant models, DC-type only.

Option
Nil: None
F: With bracket

Bracket

Port size [2(A) port]

C3 ø3.2 one-touch fitting
C4 ø4 one-touch fitting
C6 ø6 one-touch fitting
M5 M5 thread (Replaceable type)

Note) For inch size one-touch fittings, refer to page 15.

Note) For applicable one-touch fitting and silencer models for this valve series, refer to back page 4.
Body Ported  Series VQZ100/200/300

VQZ200/300 / How to Order Valve

Made to Order
(For details, refer to page 3 and 34.)

VQZ 2 1 2 □ 5 M□ 1 – C6 – □

Type of actuation

<table>
<thead>
<tr>
<th>N.C.</th>
<th>N.O.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>(B)</td>
</tr>
</tbody>
</table>

Metal seal

Rubber seal

Body type: 2 Body ported

Function

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>High speed response type</td>
<td>(0.3 W)</td>
<td>—</td>
</tr>
<tr>
<td>K</td>
<td>High pressure type (Metal seal type only)</td>
<td>(0.3 W)</td>
<td>—</td>
</tr>
<tr>
<td>R</td>
<td>External pilot type</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>BR</td>
<td>High speed response/External pilot type</td>
<td>(0.3 W)</td>
<td>—</td>
</tr>
<tr>
<td>KR</td>
<td>High pressure/External pilot type (Metal seal type only)</td>
<td>(0.3 W)</td>
<td>—</td>
</tr>
</tbody>
</table>

Note 1) For details on external pilot type, refer to page 15.
Note 2) For AC specification power consumption, refer to page 3.

Caution

Use standard (DC) specification for continuous duty.

Coil voltage

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>2</td>
<td>200 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>3</td>
<td>110 VAC (115 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC (230 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
</tbody>
</table>

Note 1) Standard lead wire length: 300 mm
Note 2) For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Option

Nil: None
F: With bracket

Port size [2(A) port]

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>VQZ200</th>
<th>VQZ300</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4</td>
<td>ø4 one-touch fitting</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>C6</td>
<td>ø6 one-touch fitting</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>C8</td>
<td>ø8 one-touch fitting</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>C10</td>
<td>ø10 one-touch fitting</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>M5</td>
<td>M5 thread</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>02</td>
<td>Rc 1/4</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Note) For inch size one-touch fittings and option thread type, refer to page 15.

Manual override

Nil: Non-locking push type (Tool required)
B: Locking type (Tool required)

Electrical entry

<table>
<thead>
<tr>
<th>G: Grommet (DC specification)</th>
<th>L: L-type plug connector with lead wire</th>
<th>LO: L-type plug connector without connector</th>
<th>M: M-type plug connector with lead wire</th>
<th>MO: M-type plug connector without connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
<td>With light/surge voltage suppressor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Y: DIN terminal</th>
<th>YO: DIN terminal without connector</th>
<th>YZ: DIN terminal</th>
<th>YOS: DIN terminal without connector (DC specification)</th>
<th>YS: DIN terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>With light/surge voltage suppressor</td>
<td>With surge voltage suppressor</td>
<td>With surge voltage suppressor</td>
<td>With surge voltage suppressor</td>
<td>With surge voltage suppressor</td>
</tr>
</tbody>
</table>

Note: VQZ200/300 DIN terminal rubber seal only (except external pilot). For details on IP65 enclosure, refer to page 15.

IP65 compliant

Note) VQZ200/300 DIN terminal rubber seal only (except external pilot). For details on IP65 enclosure, refer to page 15.
CE compliant

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

Note 1) For applicable one-touch fitting and silencer models for this valve series, refer to back page 4.
**Series VQZ100/200/300**

### Specifications

<table>
<thead>
<tr>
<th>Valve construction</th>
<th>Metal seal</th>
<th>Rubber seal</th>
<th>VQZ100 (Poppet seal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>Air, Inert gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. operating pressure (MPa)</td>
<td>0.7 [High pressure type: 1.0]</td>
<td>0.7</td>
<td>0.7 [High pressure type: 1.0]</td>
</tr>
<tr>
<td>Min. operating pressure (MPa)</td>
<td>0.1</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>Ambient and fluid temperature (°C)</td>
<td>–10 to 50 [No freezing]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. operating frequency (Hz)</td>
<td>20</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Pilot exhaust method</td>
<td>Individual exhaust</td>
<td></td>
<td>Common exhaust</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Not required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual override</td>
<td>Push type, Locking type [Tool required]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mounting orientation</td>
<td>Free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact/Vibration resistance [ms] Note 1)</td>
<td>150/30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>Dustproof (DIN terminal: IP65 Note 2))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Based on JIS B 8375-1981 (Supply pressure: 0.5 MPa; with light/surge voltage suppressor: clean air)

Note 2) Response time values will change depending on pressure and air quality.

### Options

- High speed response type
- High pressure type (Metal seal type only)
- External pilot type*  
  * For details on external pilot type, refer to page 15.

### Made to Order

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X30</td>
<td>Pilot valve common exhaust</td>
</tr>
<tr>
<td>X90</td>
<td>Main valve fluoro-rubber</td>
</tr>
<tr>
<td>X113</td>
<td>All fluoro-rubber</td>
</tr>
</tbody>
</table>

* In common between 110 VAC and 115 VAC, and between 220 VAC and 230 VAC.

### Electrical entry

<table>
<thead>
<tr>
<th>Coil rated voltage (V)</th>
<th>DC</th>
<th>AC 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>24, 12</td>
<td></td>
<td>100, 110, 200, 220*</td>
</tr>
</tbody>
</table>

### Solenoid Specifications

<table>
<thead>
<tr>
<th>Power consumption (W)</th>
<th>DC</th>
<th>High speed, high pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.35 [(With light: 0.4) (DIN terminal with light: 0.45)]</td>
<td></td>
<td>0.9 [(With light: 0.95) (DIN terminal with light: 1.0)]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Apparent power (VA)*</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 V [110 V]</td>
<td></td>
</tr>
<tr>
<td>1.88 (With light: 0.81)</td>
<td>1.78 (With light: 0.87)</td>
</tr>
<tr>
<td>0.86 (With light: 0.89)</td>
<td>0.86 (With light: 0.87)</td>
</tr>
<tr>
<td>0.94 (With light: 0.97)</td>
<td>0.94 (With light: 1.07)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surge voltage suppressor</th>
<th>Varistor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator light</td>
<td>LED (Neon light when AC with DIN terminal)</td>
</tr>
</tbody>
</table>

### Flow Characteristics

<table>
<thead>
<tr>
<th>Series</th>
<th>Valve construction</th>
<th>Model</th>
<th>Flow characteristics</th>
<th>Response time (ms) Note 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1→2 (P→A)</td>
<td>2→3 (A→R)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C [dm³/(s·bar)] b</td>
<td>C [dm³/(s·bar)] b</td>
</tr>
<tr>
<td>VQZ100</td>
<td>N.C. valve</td>
<td>Poppet</td>
<td>VQZ115</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>N.C. valve</td>
<td>Metal seal</td>
<td>VQZ212</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>VQZ232</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>VQZ222</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>VQZ242</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>N.C. valve</td>
<td>Metal seal</td>
<td>VQZ312</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>VQZ332</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Rubber seal</td>
<td>VQZ342</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>N.O. valve</td>
<td>Rubber seal</td>
<td>VQZ342</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Note 1) Based on JIS B 8375-1981 (Supply pressure: 0.5 MPa; with light/surge voltage suppressor: clean air)

Note 2) Weight for threaded connection
**Construction**

**VQZ100**
Poppet type

**VQZ200/300**
Metal seal type

**Rubber seal type**

---

**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>Resin</td>
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</tr>
<tr>
<td>2</td>
<td>Spool valve</td>
<td>Aluminum/HNBR</td>
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<tr>
<td>3</td>
<td>Pilot valve assembly</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>P, R port</td>
<td>Resin/Aluminum</td>
<td>VQZ100-12A (Standard)</td>
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<tr>
<td></td>
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<td></td>
<td>VQZ100-12B (External pilot type)</td>
</tr>
</tbody>
</table>

Note: For "How to Order Pilot Valve Assembly", refer to page 16.
Dimensions: VQZ100

Single Unit

Grommet (G): VQZ115□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ consonant.
Body Ported Series VQZ100/200/300

Dimensions: VQZ200

Single Unit

Grommet (G): VQZ200-G-□-□-□-□

One-touch fitting

M3 x 0.5 (External pilot port) → For external pilot

2 x ø2.7 (For manifold mounting)

Manual override

Approx. 300 (Lead wire length)

2 x ø3.2 (For mounting)

Thread length 4

2 x ø2.7 die-cast hole → For manifold gasket positioning

2 x ø2.2 die-cast hole → For manifold gasket positioning

1/8 [P] port

G1/16 [R] port

ø2.6 (Reverse-mounting-prevention hole) → CE compliant models only

Note) For one-touch fittings for P/R port and silencer part no., refer to back page 4.

L-type plug connector (L): VQZ200-L-□-□-□-□-□

Approx. 300 (Lead wire length)

Max. 10

86.4

45.5

Applicable cable O.D.

ø3.5 to ø7

M5 x 0.8 [2(A) port]

DIN terminal (Y): VQZ200-Y-□-□-□-□-□

Approx. 300 (Lead wire length)

Max. 10

86.4

45.5

Applicable cable O.D.

ø3.5 to ø7

M5 x 0.8 [2(A) port]

Note) Unless otherwise indicated, dimensions are the same as Grommet (G).
Series VQZ100/200/300

Dimensions: VQZ300

Single Unit

Grommet (G): VQZ3□2□-□G□1-C6, C8, C10

Approx. 300

(Lead wire length)

One-touch fitting

2 x Ø4.5
(For mounting)

Thread length 6

2 x Ø2.5 x 0.45

CE compliant models only

M5 x 0.8
(External pilot port)

(For manifold mounting)

Manual override

Note) For bracket assembly part no., refer to page 16.

With bracket

VQZ3□2□-□G□1-02

L-type plug connector (L): VQZ3□2□-□L□1-C6, C8, C10

Approx. 300

(Lead wire length)

DIN terminal (Y): VQZ3□2□-□Y□1-C6, C8, C10

Max. 10

Applicable cable O.D.

ø3.5 to ø7

Unless otherwise indicated, dimensions are the same as Grommet (G).

M-type plug connector (M): VQZ3□2□-□M□1-C6, C8, C10

Unless otherwise indicated, dimensions are the same as Grommet (G).
3 Port Solenoid Valve
Series VQZ100/200/300
Manifold Connector Kit

VQZ100 / How to Order Manifold

**Series**
- VQZ100

**Manifold type**
- Body ported

**Stations**
- 2 stations

**Kit type**
- Connector

**Option**
- None
- DIN rail mounting (With standard DIN rail length)
- DIN rail mounting (Without DIN rail)
- External pilot type

**Note**
1) Order DIN rail separately. For DIN rail part no., refer to page 14.
2) When two or more symbols are specified, indicate them alphabetically.

**VQZ100 / How to Order Valve**

**Series**
- VQZ100 body width 10 mm

**Type of actuation**
- N.C.

**Body type**

**Function**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>High pressure type</td>
<td>(0.2 W)</td>
<td>—</td>
</tr>
<tr>
<td>R</td>
<td>External pilot type</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>KR</td>
<td>High pressure/External pilot type</td>
<td>(0.2 W)</td>
<td>—</td>
</tr>
</tbody>
</table>

**Note**
1) Option
2) For details on external pilot type, refer to page 15.
3) For AC specification power consumption, refer to page 3.

**Caution**
Use standard (DC) specification for continuous duty.

**Manual override**
- Non-locking push type
- Locking type (Tool required)

**Electrical entry**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Electrical entry</th>
<th>With light/surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Grommet (DC specification)</td>
<td>None</td>
</tr>
<tr>
<td>L</td>
<td>L-type plug connector with lead wire</td>
<td>Yes</td>
</tr>
<tr>
<td>LO</td>
<td>L-type plug connector without connector</td>
<td>—</td>
</tr>
<tr>
<td>M</td>
<td>M-type plug connector with lead wire</td>
<td>—</td>
</tr>
<tr>
<td>MO</td>
<td>M-type plug connector without connector</td>
<td>—</td>
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**Coil voltage**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Specified Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>2</td>
<td>200 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>3</td>
<td>110 VAC (115 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC [230 VAC] (50/60 Hz)</td>
</tr>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
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</tbody>
</table>

**Coil voltage (AC)**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Specified Voltage</th>
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<tbody>
<tr>
<td>1</td>
<td>100 VAC (50/60 Hz)</td>
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<tr>
<td>2</td>
<td>200 VAC (50/60 Hz)</td>
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<tr>
<td>3</td>
<td>110 VAC (115 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC [230 VAC] (50/60 Hz)</td>
</tr>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
</tbody>
</table>

**Port size [2(A) port]**
- C3 ø3.2 one-touch fitting
- C4 ø4 one-touch fitting
- C6 ø6 one-touch fitting
- M5 M5 thread (Replaceable type)

**Note**
- For inch size one-touch fittings, refer to page 15.
- For CE compliant models, DC-type only.
- For CE compliant models, DC-type only.
### Series VQZ100/200/300

#### VQZ200/300 / How to Order Manifold

**Manifold type**  
- **Body ported**

**Stations**  
- 02: 2 stations
- 20: 20 stations

**Kit type**  
- **Connector**

**Option**  
- **Nil**
- **Q** CE marked

**CE compliant**  
- Nil
- Q CE marked

**Plug Type**  
- **Nil**

**Type of actuation**  
- **N.C.**
- **N.O.**
- **Metal seal**
- **Rubber seal**

**Manual override**  
- **B** Non-locking push type (Tool required)
- **R** Locking type (Tool required)

**Electrical entry**  
- **C** DIN terminal
- **L** L-type plug connector with lead wire
- **LO** L-type plug connector without connector
- **M** M-type plug connector with lead wire

**Coil voltage**  
- **1** 100 VAC (50/60 Hz)
- **2** 200 VAC (50/60 Hz)
- **3** 110 VAC (115 VAC) (50/60 Hz)
- **4** 220 VAC (230 VAC) (50/60 Hz)
- **5** 24 VDC
- **6** 12 VDC

---

#### VQZ200/300 / How to Order Valve

**Series**  
- **VQZ200 body width 15 mm**
- **VQZ300 body width 18 mm**

**Type of actuation**  
- **N.C.**
- **N.O.**
- **Metal seal**
- **Rubber seal**

**Manual override**  
- **B** Non-locking push type (Tool required)
- **R** Locking type (Tool required)

**Electrical entry**  
- **C** DIN terminal
- **L** L-type plug connector with lead wire
- **LO** L-type plug connector without connector
- **M** M-type plug connector with lead wire

**Coil voltage**  
- **1** 100 VAC (50/60 Hz)
- **2** 200 VAC (50/60 Hz)
- **3** 110 VAC (115 VAC) (50/60 Hz)
- **4** 220 VAC (230 VAC) (50/60 Hz)
- **5** 24 VDC
- **6** 12 VDC

---

**Caution**  
Use standard (DC) specification for continuous duty.
## Manifold Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
<th>Manifold base weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VV3QZ12-□□□</td>
<td>Top Rc 1/8</td>
<td>C2 (for ø3.2)</td>
<td>2 to 20 stations</td>
<td>2 stations: 19</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>C4 (for ø4)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>C6 (for ø6)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M5 (M5 thread)</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>VQZ115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VQZ200</td>
<td>VV3QZ22-□□□</td>
<td>Top Rc 1/8</td>
<td>C4 (for ø4)</td>
<td>2 to 20 stations</td>
<td>2 stations: 20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C6 (for ø6)</td>
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<td>M5 (M5 thread)</td>
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<td>VQZ2□□2</td>
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<tr>
<td>VQZ300</td>
<td>VV3QZ32-□□□</td>
<td>Top Rc 1/4</td>
<td>C6 (for ø6)</td>
<td>2 to 20 stations</td>
<td>2 stations: 37</td>
</tr>
<tr>
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<td></td>
<td>C8 (for ø8)</td>
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<td></td>
<td></td>
<td>C10 (for ø10)</td>
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<td>Rc 1/4</td>
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<td></td>
<td>VQZ3□□2</td>
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<td></td>
</tr>
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</table>

### How to Order Manifold Assembly (Example)

Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet.

- VV3QZ22-05C  ······· 1 set (C kit 5-station manifold base part no.)
- VVQZ200-10A-2 ····· 1 set (Blanking plate assembly part no.)
- VQZ212-5M1-C6  ······· 4 sets (N.C. type part no.)

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

Enter in order starting from the first station on the D side.
**Series VQZ100/200/300**

### Dimensions: VQZ100

**VV3QZ12- Stations C**

1. **Grommet (G)**
   - L-side
   - D-side

2. **One-touch fitting**
   - [2(A) port]
   - Applicable tubing O.D.: ø3.2, ø1/8”, ø4, ø5/32”, ø6, ø1/4”
   - 2 x ø4.3
   - (For mounting)

3. **L-wire length**
   - Approx. 300

4. **Station (1) - Station (n)**

5. **Approx. 300**
   - (Lead wire length)

6. **Manual override**
   - P = 10.5

7. **Approx. 300**
   - (Lead wire length)

8. **Manual override**
   - P = 10.5

9. **X: External pilot port**
   - (For external pilot)

10. **PE: Pilot EXH port**

11. **L5 = 10.5n + 9.5**

12. **L3 = 10.5n + 22.5**

13. **L2 = 10.5n + 35.5**

14. **L1 = 10.5n + 48.5**

15. **Approx. 300**
   - (Lead wire length)

16. **Manual override**

17. **Manual override**

18. **Manual override**

19. **Manual override**

20. **Manual override**

#### Dimensions

<table>
<thead>
<tr>
<th>Stations</th>
<th>2</th>
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<th>4</th>
<th>5</th>
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</tbody>
</table>

**Note:**
- The dashed lines indicate the DIN rail mounting [-D].
- Unless otherwise indicated, dimensions are the same as Grommet (G).
- [ ]: AC

---

**M5**

- L5 = 10.5n + 9.5
- L3 = 10.5n + 22.5
- n: Stations (Max. 20 stations)

---

**L-type plug connector (L)**

- Approx. 300
  - (Lead wire length)

**M-type plug connector (M)**

- Approx. 300
  - (Lead wire length)

---

**VQZ100/200/300**

- Dimensions
- One-touch fitting
- Applicable tubing O.D.
- Manul override
- Dimensions
- L5 = 10.5n + 9.5
- L3 = 10.5n + 22.5
- n: Stations (Max. 20 stations)
Dimensions: VQZ200

VV3Q22- Stations C

Grommet (G)

One-touch fitting
[2(A) port]
Applicable tubing O.D.: ø4, ø5/32, ø6, ø1/4"
(Pitch)
P = 16
19
(Rail mounting hole pitch: 12.5)

M3 x 0.5
(External pilot port)
<For external pilot>

Manual override

(DIN rail)
(DIN rail clamp thread)

L1

L2

L3

L4

L5

PE port

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

The dashed lines indicate the DIN rail mounting [−D].

Dimensions: VQZ200

L-type plug connector (L)

M-type plug connector (M)

DIN terminal (Y)

Dimensions

Formulas: L5 = 16n + 11   L3 = 16n + 22   n: Stations (Max. 20 stations)

<table>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</table>

Unless otherwise indicated, dimensions are the same as Grommet (G).

AC

Unless otherwise indicated, dimensions are the same as Grommet (G).

AC

Unless otherwise indicated, dimensions are the same as Grommet (G).

AC

AC
### Dimensions: VQZ300

**VV3QZ32-** Stations C

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</tbody>
</table>

**Dimensions:**

- **L1**:
  - Station 1: 6341
  - Station 2: 75.1
- **L2**:
  - Station 1: 75.1
  - Station 2: 64.1
- **L3**:
  - Station 1: 110.5
- **L4**:
  - Station 1: 251
  - Station 2: 270
  - Station 3: 296
- **L5**:
  - Station 1: 198
  - Station 2: 220

**Formulas:**

- L5 = 19n + 11
- L3 = 19n + 23
- n: Stations (Max. 20 stations)

**Notes:**

- Dimensions: L-type plug connector (L), M-type plug connector (M), DIN terminal (Y)
- Unless otherwise indicated, dimensions are the same as Grommet (G).
- AC: Dimensions unless otherwise indicated are the same as Grommet (G).
Manifold Options

Blanking plate assembly
VVQZ100-10A-5 (for VQZ100)
VVQZ200-10A-2 (for VQZ200)
VVQZ300-10A-2 (for VQZ300)

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Blanking plug
KQ2P-23
KQ2P-04
KQ2P-06
KQ2P-08
KQ2P-10

Each manifold can be mounted on a DIN rail. Insert “D” at the end of the manifold part number. The DIN rail is approximately 30 mm longer than the length of manifold.

DIN rail
AXT100-DR-

As for □, enter the number from the DIN rail dimensions table. For L dimension, refer to the dimensions of each kit.

Silencer
(for manifold EXH port)

Silencer is installed in the manifold EXH port.

For a silencer to be mounted in a single valve unit, refer to back page 4.
External Pilot Specification

The external pilot specification is used when the operating pressure is below the minimum operating pressure 0.1 to 0.15 MPa or when valve is used for a vacuum application. Order a valve by adding the external pilot specification [R] to the part number.

Valve Part No.

VQZ 2R

Entry is the same as standard products.

Pressure Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>VQZ100 (Note 2)</th>
<th>VQZ200/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>External pilot pressure range</td>
<td>Metal seal: —</td>
<td>0.1 to 0.7 MPa</td>
</tr>
<tr>
<td>Rubber seal (VQZ100: poppet)</td>
<td>0.2 to 0.7 MPa</td>
<td>0.15 to 0.7 MPa</td>
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<tr>
<td>Operating pressure range (Note 1)</td>
<td>—100 kPa to 0.7 MPa</td>
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</table>

(Note 1) In case of the high pressure type, upper limit of max. operating pressure and external pilot pressure range is 1 MPa.

(Note 2) Pump down from 1(P) port when VQZ100 series vacuum type is specified. Apply pressure from 3(R) port to relieve vacuum pressure. Set the release pressure at 50% of external pilot pressure or less.

Inch Size One-touch Fittings and Optional Threads

Inch size one-touch fittings and NPT, NPTF and G thread are available.

Valve Part No.

VQZ 25

Entry is the same as standard products.

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<tr>
<th>Symbol</th>
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<th>N3</th>
<th>N7</th>
<th>N9</th>
<th>N11</th>
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</thead>
<tbody>
<tr>
<td>Applicable tubing O.D. (Inch)</td>
<td>e1/8”</td>
<td>e5/32”</td>
<td>e1/4”</td>
<td>e5/16”</td>
<td>e3/8”</td>
<td>M5 thread</td>
<td>1/4 thread</td>
</tr>
<tr>
<td>2(A) port</td>
<td>VQZ100</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>—</td>
<td>●</td>
</tr>
<tr>
<td>VQZ200</td>
<td>—</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>—</td>
<td>●</td>
<td>—</td>
</tr>
<tr>
<td>VQZ300</td>
<td>—</td>
<td>—</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>●</td>
</tr>
</tbody>
</table>

(Cylinder port and 1(P), 3(R) ports)

(Cylinder port and 1(P), 3(R) ports)

Thread type

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

Note 1) 3(R) port of the VQZ200 is only G1/16.
Note 2) Except VQZ100

Manifold Part No.

VV3QZ 2CD00T

Entry is the same as standard products.

Thread type (1(P), 3(R) ports)

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

(IP65 Enclosure (Based on IEC529))

DIN terminal is available with IP65 enclosure.

Valve Part No.

VQZ 23YW1

Entry is the same as standard products.

Note) The pilot exhaust IP65 valves is common with main valve exhaust. (The standard valve has an individual exhaust for the pilot valve.)
**Series VQZ**

**Body Ported**

**Replacement Parts**

### One-touch Fitting Assembly (for Cylinder port)

<table>
<thead>
<tr>
<th>Model</th>
<th>Fitting size</th>
<th>C3</th>
<th>C4</th>
<th>C6</th>
<th>C8</th>
<th>C10</th>
<th>M5 (VQZ100 only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100/200</td>
<td>VVO1000-50A-C3</td>
<td>VVO1000-50A-C4</td>
<td>VVO1000-50A-C6</td>
<td>—</td>
<td>—</td>
<td>VVO1000-50A-M5</td>
<td></td>
</tr>
<tr>
<td>VQZ300</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>VVO1000-51A-C6</td>
<td>VVO1000-51A-C8</td>
<td>VVO1000-51A-C10</td>
<td></td>
</tr>
</tbody>
</table>

Note: Purchasing order is available in units of 10 pieces.

### <Plug connector assembly>

- **DC**: SY100-30-4A-
- **100 VAC**: SY100-30-1A-
- **200 VAC**: SY100-30-2A-

### <Gasket and screw assembly>

- **Without lead wire**: SY100-30-A (with connector and 2 sockets only)

### <Bracket assembly>

<table>
<thead>
<tr>
<th>Model</th>
<th>Part no.</th>
<th>Tightening torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VQZ100-FB</td>
<td>0.45 to 0.55</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VQZ200-FB</td>
<td>0.25 to 0.35</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VQZ300-FB</td>
<td>0.25 to 0.35</td>
</tr>
</tbody>
</table>

Note: Tightening torque when mounting a bracket on the valve.

### <Pilot valve assembly>

- **Symbol**: V111
- **Function**: 5 G

### <DIN terminal type (Applicable to the VQZ200/300)>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>B (Note)</td>
<td>High speed response type</td>
<td>(0.3 W)</td>
<td>○</td>
</tr>
<tr>
<td>K (Note)</td>
<td>High pressure type (Metal seal type only)</td>
<td>(0.9 W)</td>
<td>○</td>
</tr>
</tbody>
</table>

Note: Option

### <Manual override>

- **Symbol**: Nil
- **Function**: 5 M

### Electrical entry

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Electrical entry</th>
<th>Light/urge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>DIN terminal</td>
<td>None</td>
</tr>
<tr>
<td>YO</td>
<td>DIN terminal without connector</td>
<td>Yes</td>
</tr>
<tr>
<td>YZ</td>
<td>DIN terminal with light/urge voltage suppressor</td>
<td>Yes</td>
</tr>
<tr>
<td>YS</td>
<td>DIN terminal with surge voltage suppressor (DC specification)</td>
<td>Yes</td>
</tr>
<tr>
<td>YS (Note)</td>
<td>DIN terminal with surge voltage suppressor, without connector (DC specification)</td>
<td>Yes (Without light)</td>
</tr>
</tbody>
</table>

Note: For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

**Caution**

When replacing only the pilot valve assembly, use caution because it is not possible to convert to a V115 (DIN terminal) from a V111 (Grommet, L-type, M-type), or vice versa.
3 Port Solenoid Valve
Series VQZ100/200/300
Single Unit

VQZ100 / How to Order Valve

VQZ 1 1 5 □ 5 M □ 1 0 1 □

Series ●
1 VQZ100 body width 10 mm

Type of actuation ●
1 N.C.

Body type ●
5 Base mounted

Function ●
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>Standard</td>
<td>0.35 W</td>
<td>—</td>
</tr>
<tr>
<td>K (Note 1)</td>
<td>High pressure</td>
<td>0.3 W</td>
<td>—</td>
</tr>
<tr>
<td>R (Note 1, 2)</td>
<td>External pilot type</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>KR (Note 1, 2)</td>
<td>High pressure/External pilot type</td>
<td>0.3 W</td>
<td>—</td>
</tr>
</tbody>
</table>

Caution
Use standard (DC) specification for continuous duty.

Electrical entry ●

Coil voltage ●
1 100 VAC (50/60 Hz)
2 200 VAC (50/60 Hz)
3 110 VAC [115 VAC] (50/60 Hz)
4 220 VAC [230 VAC] (50/60 Hz)
5 24 VDC
6 12 VDC

Note) Standard lead wire length: 300 mm

Note) For optional thread type, refer to page 32.

Note) For AC specification power consumption, refer to page 19.

CE compliant ●
Nil —
Q CE marked

Port size [2(A) port]
CP Without sub-plate 01 Rc 1/8

Manual override ●
Nil: Non-locking push type
B: Locking type (Tool required)

Note 1) Option
Note 2) For details on external pilot type, refer to page 32.
Note 3) For CE compliant models, DC-type only.

Note) For CE compliant models, DC-type only.

Note) For sub-plate part no., refer to page 33.
**Base Mounted Series VQZ100/200/300**

**VQZ200/300 / How to Order Valve**

*Made to Order*  
(For details, refer to page 19 and 34.)

### VQZ200/300

**Type of actuation**
- Series VQZ
  - 2 VQZ200 body width 15 mm
  - 3 VQZ300 body width 18 mm

**Body type**
- 5 Body mounted

**Electrical entry**
- G: Grommet (DC specification)
- L: L-type plug connector with lead wire
- LO: L-type plug connector without lead wire
- M: M-type plug connector with lead wire
- MO: M-type plug connector without lead wire

**Function**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>N00</td>
<td>Standard</td>
<td>0.3(W)</td>
<td></td>
</tr>
<tr>
<td>B Note 1)</td>
<td>High speed response type</td>
<td>0.3(W)</td>
<td>—</td>
</tr>
<tr>
<td>K Note 1)</td>
<td>High pressure type (Metal seal type only)</td>
<td>0.3(W)</td>
<td>—</td>
</tr>
<tr>
<td>R Note 1, 2)</td>
<td>External pilot type</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>BR Note 1, 2)</td>
<td>High speed response/External pilot type</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>KR Note 1, 2)</td>
<td>High pressure/External pilot type (Metal seal type only)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Notes**
- Note 1) For details on external pilot type, refer to page 32.
- Note 2) For AC specification power consumption, refer to page 19.

**Caution**
Use standard (DC) specification for continuous duty.

**Coil voltage**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>2</td>
<td>200 VAC (50/60 Hz)</td>
</tr>
<tr>
<td>3</td>
<td>110 VAC (115 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>4</td>
<td>220 VAC (230 VAC) (50/60 Hz)</td>
</tr>
<tr>
<td>5</td>
<td>24 VDC</td>
</tr>
<tr>
<td>6</td>
<td>12 VDC</td>
</tr>
</tbody>
</table>

**Notes**
- Note 1) Standard lead wire length: 300 mm
- Note 2) For AC voltage valves there is no “S” option. It is already built-in to the rectifier circuit.
### Specifications

**Valve construction**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Max. operating pressure (MPa)</th>
<th>Min. operating pressure (MPa)</th>
<th>Ambient and fluid temperature (°C)</th>
<th>Max. operating frequency (Hz)</th>
<th>Pilot exhaust method</th>
<th>Lubrication</th>
<th>Manual override</th>
<th>Mounting orientation</th>
<th>Impact/Vibration resistance (m/s²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air, Inert gas</td>
<td>0.7 (High pressure type: 1.0)</td>
<td>0.1</td>
<td>~10 to 50 (No freezing)</td>
<td>20</td>
<td>Individual exhaust</td>
<td>Not required</td>
<td>Push type, Locking type</td>
<td>Free</td>
<td>150/30</td>
</tr>
</tbody>
</table>

**Enclosure**

- Metal seal: 20
- Rubber seal: 5
- Not required: 1
- Push type, Locking type (Tool required): 5
- Free: 150/30
- Dustproof (DIN terminal: IP65 Note 2))

**Flow Characteristics**

<table>
<thead>
<tr>
<th>Series</th>
<th>Valve construction</th>
<th>Model</th>
<th>1→2 (P→A)</th>
<th>C [dm³/(s·bar)]</th>
<th>b</th>
<th>C [dm³/(s·bar)]</th>
<th>b</th>
<th>Cv</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>N.C. valve</td>
<td>Poppet</td>
<td>0.87</td>
<td>0.46</td>
<td>0.23</td>
<td>1.0</td>
<td>0.35</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 or less</td>
<td>13 or less</td>
<td>22 or less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VQZ200</td>
<td>N.C. valve</td>
<td>Metal seal</td>
<td>1.7</td>
<td>0.17</td>
<td>0.38</td>
<td>2.0</td>
<td>0.20</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rubber seal</td>
<td>2.3</td>
<td>0.46</td>
<td>0.65</td>
<td>3.0</td>
<td>0.40</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>1.7</td>
<td>0.18</td>
<td>0.38</td>
<td>1.8</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rubber seal</td>
<td>2.5</td>
<td>0.43</td>
<td>0.67</td>
<td>3.0</td>
<td>0.30</td>
<td>0.74</td>
</tr>
<tr>
<td>VQZ300</td>
<td>N.C. valve</td>
<td>Metal seal</td>
<td>3.0</td>
<td>0.21</td>
<td>0.70</td>
<td>3.2</td>
<td>0.27</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rubber seal</td>
<td>4.5</td>
<td>0.42</td>
<td>1.3</td>
<td>4.1</td>
<td>0.36</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N.O. valve</td>
<td>Metal seal</td>
<td>2.9</td>
<td>0.21</td>
<td>0.72</td>
<td>2.9</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rubber seal</td>
<td>4.4</td>
<td>0.45</td>
<td>1.2</td>
<td>4.5</td>
<td>0.38</td>
<td>1.2</td>
</tr>
</tbody>
</table>

**Solenoid Specifications**

- **Electrical entry**
  - G, L, M
  - Y
- **Allowable voltage fluctuation**
  - ±10% of rated voltage
- **Power consumption (W)**
  - DC: 0.35 (With light: 0.4 (DIN terminal with light: 0.45))
  - High speed response, high pressure: 0.9 (With light: 0.95 (DIN terminal with light: 1.0))
- **Apparent power (VA)**
  - AC 100 V: 0.78 (With light: 0.81)
  - 110 V [115 V]: 0.86 (With light: 0.89) [0.94 (With light: 0.97)]
  - 200 V: 1.18 (With light: 1.22)
  - 220 V [230 V]: 1.30 (With light: 1.34) [1.42 (With light: 1.46)]
- **Surge voltage suppressor**
  - Varistor
- **Indicator light**
  - LED (Neon light when AC with DIN terminal)

**Options**

- High speed response type
- High pressure type (Metal seal type only)
- External pilot type

**Made to Order**

- (For details, refer to page 34.)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X30</td>
<td>Pilot valve common exhaust</td>
</tr>
<tr>
<td>X90</td>
<td>Main valve fluoro-rubber</td>
</tr>
<tr>
<td>X113</td>
<td>All fluoro-rubber</td>
</tr>
</tbody>
</table>
Construction

VQZ100
Poppet type

VQZ200/300
Metal seal type

Rubber seal type

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>Resin</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Spool valve</td>
<td>Aluminum/HNBR</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pilot valve assembly</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Port plug</td>
<td>Resin/HNBR</td>
<td>VVQZ100-CP</td>
</tr>
</tbody>
</table>

Note: For “How to Order Pilot Valve Assembly”, refer to page 33.
Series VQZ100/200/300

Dimensions: VQZ100

Single Unit

Grommet (G): VQZ115□-□G□1-01

L-type plug connector (L): VQZ115□-□L□1-01

M-type plug connector (M): VQZ115□-□M□1-01

Unless otherwise indicated, dimensions are the same as Grommet (G).
Series VQZ100/200/300

Dimensions: VQZ300

Single Unit

Grommet (G): VQZ3□5□-□G□1-□

M5 x 0.8 (External pilot port) □

Approx. 300 (Lead wire length)

1/4, 3/8 [2(A) port]

2 x ø4.5
(For mounting)

Manual override

Approx. 300 (Lead wire length)

PE port

Manual override

Manual override

M5 x 0.8
(External pilot port)

Unless otherwise indicated, dimensions are the same as Grommet (G).

L-type plug connector (L): VQZ3□5□-□L□1-□

DIN terminal (Y): VQZ3□5□-□Y□1-□

M-type plug connector (M): VQZ3□5□-□M□1-□

Unless otherwise indicated, dimensions are the same as Grommet (G).
### 3 Port Solenoid Valve

**Series VQZ100/200/300**

**Manifold Connector Kit**

#### VQZ100 / How to Order Manifold

**Series VV3QZ 1 5 08 C6**

- **Manifold type**
  - Base mounted

- **Stations**
  - 02: 2 stations
  - 20: 20 stations

- **Port size [2(A) port]**
  - C3: ø3.2 one-touch fitting
  - C4: ø4 one-touch fitting
  - C6: ø6 one-touch fitting
  - M5: M5 thread (Replaceable type)

- **Connector**
  - C: With port plug
  - CM: Mixed port sizes

#### VQZ100 / How to Order Valve

**Series VQZ 1 1 5 5 M 1 C4**

- **Type of actuation**
  - N.C.

- **Body type**
  - Base mounted

#### CE compliant

- Nil
- CE marked

#### Manual override

- Nil
- Non-locking push type (Tool required)
- Locking type (Tool required)

#### Port size

- CP: With port plug
- C4: ø6 one-touch fitting
- M5: M5 thread

#### Coil voltage

1. 100 VAC (50/60 Hz)
2. 200 VAC (50/60 Hz)
3. 110 VAC [115 VAC] (50/60 Hz)
4. 220 VAC [230 VAC] (50/60 Hz)
5. 24 VDC
6. 12 VDC

#### Electrical entry

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Electrical entry</th>
<th>Light/surge voltage suppressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Grommet (DC specification)</td>
<td>None</td>
</tr>
<tr>
<td>L</td>
<td>L-plug plug connector with lead wire</td>
<td>Yes</td>
</tr>
<tr>
<td>LO</td>
<td>L-plug plug connector without connector</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>M-plug plug connector with lead wire</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>M-plug plug connector without connector</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- For CE compliant models, DC type only.
- Use standard (DC) specification for continuous duty.
- For inch size one-touch fittings, refer to page 32.

---

See page 24 for more details.
Series VQZ100/200/300

VQZ200/300 / How to Order Manifold

- **Series**: VQZ200 / VQZ300
- **Manifold type**: Base mounted
- **Stations**: 2 stations
- **Port size [2(A) port]**
  - Symbol C4, C6, C8, C10
- **CE compliant**: Nil → CE marked

- **Option**
  - D: DIN rail mounting (With standard DIN rail length)
  - D0: DIN rail mounting (Without DIN rail)
  - R: External pilot type
- **Kit type**: Connector

- **Port size [2(A) port]**
  - Symbol: C4, C6, C8, C10
  - Port mixture:
    - ø4 one-touch fitting
    - ø6 one-touch fitting
    - ø8 one-touch fitting
    - ø10 one-touch fitting
    - Rc 1/8
    - Rc 1/4
    - Mixed port sizes

- **Note 1)** Specify port mixture/with port plug by means of the manifold specification sheet. Port mixture and port plug are available only for one-touch fitting type.

- **Note 2)** For inch size one-touch fittings, refer to page 32.

VQZ200/300 / How to Order Valve

- **Series**: VQZ200 body width 15 mm / VQZ300 body width 18 mm
- **Type of actuation**: N.C. / Metal seal / N.O. / Metal seal / N.C. / Rubber seal / N.O. / Rubber seal
- **Body type**: Base mounted

- **Manual override**: Non-locking push type (Tool required) / Locking type (Tool required)
- **CE compliant**: Nil → CE marked
- **IP65 compliant**: Nil → Compliant

- **Electrical entry**
  - Symbol: G, L, LO, M, MO, Y, YO, YZ, YS, YOS
  - Specifications:
    - Grommet (DC specification)
    - L-type plug connector with lead wire
    - L-type plug connector without connector
    - M-type plug connector with lead wire
    - M-type plug connector without connector
    - DIN terminal
    - DIN terminal without connector
    - DIN terminal (DC specification)
  - Light/surge voltage suppressor:
    - None
    - Yes (Without light)

- **Note 1)** Standard lead wire length: 300 mm
- **Note 2)** For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

- **Coil voltage**
  - Symbol: G, L, LO, M, MO, Y, YO, YZ, YS, YOS
  - Specifications:
    - 100 VAC (50/60 Hz)
    - 200 VAC (50/60 Hz)
    - 110 VAC (115 VAC) (50/60 Hz)
    - 220 VAC (230 VAC) (50/60 Hz)
    - 24 VDC
    - 12 VDC
## Manifold Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Base model</th>
<th>Piping specifications</th>
<th>Applicable solenoid valve</th>
<th>Applicable stations</th>
<th>Manifold base weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VV3QZ15-□□□</td>
<td>Side/Top Rc 1/8 C3 (for ø3.2) C4 (for ø4) C6 (for ø6) M5 (M5 thread)</td>
<td>VOZ115</td>
<td>2 to 20 stations</td>
<td>83 Addition per station: 19</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VV3QZ25-□□□</td>
<td>Side Rc 1/4 C4 (for ø4) C6 (for ø6) C8 (for ø8) Rc 1/8</td>
<td>VOZ2□□5</td>
<td>2 to 20 stations</td>
<td>126 Addition per station: 38</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VV3QZ35-□□□</td>
<td>Side 1(P) port Rc 3/8 3(R) port Rc 1/4 C6 (for ø6) C8 (for ø8) C10 (for ø10) Rc 1/4</td>
<td>VOZ3□□5</td>
<td>2 to 20 stations</td>
<td>209 Addition per station: 60</td>
</tr>
</tbody>
</table>

**Note:** Weight for threaded connection.

## How to Order Manifold Assembly (Example)

![Manifold Assembly Diagram]

- **VQ3QZ25-05C6C** ... 1 set (C kit 5-station manifold base part no.)
- **VVQZ200-10A-5** ... 1 set (Blanking plate assembly part no.)
- **VQQ215-5L1** ...... 4 sets (N.C. type part no.)

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

Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet.
Series VQZ100/200/300

Dimensions: VQZ100: Top Ported
VV3QZ15-

Grommet (G)

L1  L2  L3  L4  L5

(Rail mounting hole pitch: 12.5)
(Pitch)  P = 10.5

Manual override

2 x ø4.3  (For mounting)
M5 x 0.8  [2(A) port]

M5 x 0.8  (PE: Pilot EXH port)

(Approx. 300)

(Lead wire length)

(DIN rail)

44.9

(DIN rail clamp thread)

One-touch fitting

2(A) port

Applicable tubing O.D.: ø3.2, ø1/8", ø4, ø5/32"
ø6, ø1/4"

The dashed lines indicate the DIN rail mounting [-D].

Dimensions

<table>
<thead>
<tr>
<th>Stations</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
</tr>
</tbody>
</table>

M5

Approx. 300

(Lead wire length)

ML5 = 10.5n + 9.5  L3 = 10.5n + 22.5  n: Stations (Max. 20 stations)

<table>
<thead>
<tr>
<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>85.5</td>
<td>85.5</td>
<td>98</td>
<td>110.5</td>
<td>123</td>
<td>135.5</td>
<td>148</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>273</td>
</tr>
<tr>
<td>L2</td>
<td>75</td>
<td>75</td>
<td>87.5</td>
<td>100</td>
<td>112.5</td>
<td>125</td>
<td>137.5</td>
<td>137.5</td>
<td>150</td>
<td>162.5</td>
<td>175</td>
<td>187.5</td>
<td>200</td>
<td>200</td>
<td>212.5</td>
<td>225</td>
<td>237.5</td>
<td>250</td>
<td>262.5</td>
</tr>
<tr>
<td>L3</td>
<td>43.5</td>
<td>54</td>
<td>64.5</td>
<td>75</td>
<td>85.5</td>
<td>96</td>
<td>106.5</td>
<td>117</td>
<td>127.5</td>
<td>138</td>
<td>148.5</td>
<td>159</td>
<td>169.5</td>
<td>180</td>
<td>190.5</td>
<td>201</td>
<td>211.5</td>
<td>222</td>
<td>232.5</td>
</tr>
<tr>
<td>L4</td>
<td>21</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
<td>20.5</td>
<td>15.5</td>
<td>16.5</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
<td>20.5</td>
</tr>
<tr>
<td>L5</td>
<td>30.5</td>
<td>41</td>
<td>51.5</td>
<td>62</td>
<td>72.5</td>
<td>83</td>
<td>93.5</td>
<td>104</td>
<td>114.5</td>
<td>125</td>
<td>135.5</td>
<td>146</td>
<td>156.5</td>
<td>167</td>
<td>177.5</td>
<td>188</td>
<td>198.5</td>
<td>209</td>
<td>219.5</td>
</tr>
</tbody>
</table>
Base Mounted Series VQZ100/200/300

Dimensions: VQZ100: Side Ported

### VV3QZ15-

<table>
<thead>
<tr>
<th>Stations</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>D side</td>
<td>U side</td>
</tr>
</tbody>
</table>

**Grommet (G)**

- M5 x 0.8 (X: External pilot port)
- Pitch: \( P = 10.5 \)
- (Rail mounting hole pitch: 12.5)
- Manual override
- (DIN rail clamp thread)
- Approx. 300 (Lead wire length)
- (Lead wire length)
- 59.3 [66.3] 54.7 [56.9]
- M5 x 0.8 (DIN rail)
- PE: Pilot EXH port

**One-touch fitting**

- Applicable tubing O.D.: \( \phi3.2, \phi1/8", \phi4, \phi5/32", \phi6, \phi1/4" \)

**L-type plug connector (L)**

- Dimensions: VQZ100: Side Ported
- Formula: \( L5 = 10.5n + 9.5 \)
- \( L3 = 10.5n + 22.5 \) \( n: \) Stations (Max. 20 stations)

**M-type plug connector (M)**

- Dimensions: VQZ100: Side Ported
- Formula: \( L5 = 10.5n + 9.5 \)
- \( L3 = 10.5n + 22.5 \) \( n: \) Stations (Max. 20 stations)

**Dimensions**

<table>
<thead>
<tr>
<th></th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>85.5</td>
<td>85.5</td>
<td>98</td>
<td>110.5</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>75</td>
<td>87.5</td>
<td>100</td>
<td>112.5</td>
</tr>
<tr>
<td></td>
<td>43.5</td>
<td>54</td>
<td>64.5</td>
<td>75</td>
<td>85.5</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>30.5</td>
<td>41</td>
<td>51.5</td>
<td>62</td>
<td>72.5</td>
</tr>
</tbody>
</table>
Series VQZ100/200/300

Dimensions: VQZ200

VV3QZ25-

Stations  Port size C

Grommet (G)

Dimensions

<table>
<thead>
<tr>
<th>Station</th>
<th>Port size</th>
<th>X (External pilot port)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station 1</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Station n</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

Formula: \( L5 = 16n + 10 \)  \( L3 = 16n + 20 \)  \( n: \) Stations (Max. 20 stations)

Unless otherwise indicated, dimensions are the same as Grommet (G).

The dashed lines indicate the DIN rail mounting [-D].

L-type plug connector (L)

M-type plug connector (M)

DIN terminal (Y)

Unless otherwise indicated, dimensions are the same as Grommet (G).
**Dimensions: VQZ300**

**VV3QZ35-**

<table>
<thead>
<tr>
<th>Stations</th>
<th>Port size</th>
<th>C</th>
</tr>
</thead>
</table>

**Grommet (G)**

<table>
<thead>
<tr>
<th>U side</th>
<th>L side</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**One-touch fitting**

- [2(A) port]
- Applicable tubing O.D.: ø6, ø1/4”, ø8, ø5/16”, ø10, ø3/8”

**Dimensions**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>VQZ100</th>
<th>VQZ200</th>
<th>VQZ300</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>98</td>
<td>123</td>
<td>148</td>
</tr>
<tr>
<td>L2</td>
<td>87.5</td>
<td>112.5</td>
<td>137.5</td>
</tr>
<tr>
<td>L3</td>
<td>66</td>
<td>86</td>
<td>106</td>
</tr>
<tr>
<td>L4</td>
<td>16</td>
<td>18.5</td>
<td>21</td>
</tr>
<tr>
<td>L5</td>
<td>48</td>
<td>68</td>
<td>88</td>
</tr>
</tbody>
</table>

**L-type plug connector (L)**

- Approx. 300 (Lead wire length)
- 64.5 (71.5)

**M-type plug connector (M)**

- Approx. 300 (Lead wire length)
- 75.8 (82.8)

**DIN terminal (Y)**

- Applicable cable O.D.: ø3.5 to ø7
- 93.8

**Formula:**

\[ L5 = 20n + 8 \]

\[ L3 = 20n + 26 \]

n: Stations (Max. 20 stations)

**The dashed lines indicate the DIN rail mounting [-D].**
Manifold Options

Blanking plate assembly
VQZ100-10A-5 (for VQZ100)
VQZ200-10A-5 (for VQZ200)
VQZ300-10A-5 (for VQZ300)

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

Blanking plug
KQ2P-23
KQ2P-04
KQ2P-06
KQ2P-08
KQ2P-10

Silencer
(for manifold EXH port)
Silencer is installed in the manifold EXH port.

DIN rail
AXT100-DR-

* As for □, enter the number from the DIN rail dimensions table. For L dimension, refer to the dimensions of each kit.

Each manifold can be mounted on a DIN rail. Insert “D” at the end of the manifold part number. The DIN rail is approximately 30 mm longer than the length of manifold.

Port plug
VQZ100-CP (for VQZ100)
This is used when changing piping location. (Side or Top)
Series VQZ Base Mounted Options

External Pilot Specification

The external pilot specification is used when the operating pressure is below the minimum operating pressure 0.1 to 0.15 MPa or when valve is used for a vacuum application. Order a valve by adding the external pilot specification [R] to the part number.

Valve Part No.

VQZ 5R

- Entry is the same as standard products.

Manifold Part No.

VV3QZ 5

- Entry is the same as standard products.

Inch Size One-touch Fittings and Optional Threads

Inch size one-touch fittings and NPT, NPTF and G thread are available.

Manifold Part No.

VV3QZ 5

- Entry is the same as standard products.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>N1</th>
<th>N3</th>
<th>N7</th>
<th>N9</th>
<th>N11</th>
<th>Mixed</th>
<th>M5</th>
<th>01</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ø1/8&quot;</td>
<td>ø5/32&quot;</td>
<td>ø1/4&quot;</td>
<td>ø5/16&quot;</td>
<td>ø3/8&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylinder port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VQZ100</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>—</td>
<td>Mixed</td>
<td>●</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>VQZ200</td>
<td>—</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>●</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>VQZ300</td>
<td>—</td>
<td>—</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>—</td>
<td>—</td>
<td>●</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Except VQZ100, mixing one-touch fittings and thread types is impossible.
Note 2) Metric size one-touch fittings (C) are also available.

Optional Threads Other than Rc

Rc specifications are standard for all ports, however, NPT, NPTF and G are available for overseas markets. Add the appropriate symbol following the port size in the standard part number.

Valve Part No.

VQZ 5

- Entry is the same as standard products.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Nil</th>
<th>Rc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>N</td>
<td>NPT</td>
</tr>
<tr>
<td>T</td>
<td>NPTF</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

External Pilot Port

Note) The pilot exhaust IP65 valves is common with main valve exhaust. (The standard valve has an individual exhaust for the pilot valve.)

Pressure Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>VQZ100</th>
<th>VQZ200/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note 1) Metal seal</td>
<td>—</td>
<td>0.1 to 0.7 MPa</td>
</tr>
<tr>
<td>Rubber seal (VQZ100: poppet)</td>
<td>0.2 to 0.7 MPa</td>
<td>0.15 to 0.7 MPa</td>
</tr>
<tr>
<td>Operating pressure range Note 1)</td>
<td>~100 kPa to 0.7 MPa</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) In case of the high pressure type, upper limit of max. operating pressure and external pilot pressure range is 1 MPa.
Note 2) When using the VQZ100 series for a vacuum application, vacuum air through its 1(P) port. When supplying vacuum-release air, supply it through its 3(R) port. But do not supply vacuum-release air exceeding 50% for the external pilot pressure.

IP65 Enclosure (Based on IEC529)

DIN terminal is available with IP65 enclosure.

Valve Part No.

(VQZ200/300 rubber seal with the exception of the external pilot type)

VQZ 5

- Entry is the same as standard products.

Note) The pilot exhaust IP65 valves is common with main valve exhaust. (The standard valve has an individual exhaust for the pilot valve.)
### One-touch Fitting Assembly (for Cylinder port)

<table>
<thead>
<tr>
<th>Model</th>
<th>Fitting size</th>
<th>C3</th>
<th>C4</th>
<th>C6</th>
<th>C8</th>
<th>C10</th>
<th>M5 (VQZ100 only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VQ1000-50A-C3</td>
<td>VQ1000-50A-C4</td>
<td>VQ1000-50A-C6</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>VQ1000-50A-M5</td>
</tr>
<tr>
<td>VQZ200</td>
<td>—</td>
<td>VQ1000-51A-C4</td>
<td>VQ1000-51A-C6</td>
<td>VQ1000-51A-C8</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

Note) Purchasing order is available in units of 10 pieces.

#### Plug connector assembly

- DC: SY100-30-4A-
- 100 VAC: SY100-30-1A-
- 200 VAC: SY100-30-2A-

Other AC voltages: SY100-30-3A-

Without lead wire: SY100-30-A

(with connector and 2 sockets only)

#### Gasket and screw assembly

<table>
<thead>
<tr>
<th>Model</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VQ1000-50A-C3</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VQ1000-51A-C4</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VQ1000-51A-C6</td>
</tr>
</tbody>
</table>

Note) Above part number consists of 10 units. Each unit has one gasket and two screws. Purchasing order is available in units of 10 pieces.

#### Pilot valve assembly

- VQZ100: VQ1000-50A-C3
- VQZ200: VQ1000-51A-C4
- VQZ300: VQ2000-50A-C6

#### Manual override

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>High response type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>High pressure type (Metal seal type only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note) Option

### DIN terminal type (Applicable to the VQZ200/300)

<table>
<thead>
<tr>
<th>Model</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VQ1000-50A-C3</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VQ1000-51A-C4</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VQ1000-51A-C6</td>
</tr>
</tbody>
</table>

#### Sub-plate

<table>
<thead>
<tr>
<th>Model</th>
<th>Sub-plate part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>VQ1000-50A-C3</td>
</tr>
<tr>
<td>VQZ200</td>
<td>VQ1000-51A-C4</td>
</tr>
<tr>
<td>VQZ300</td>
<td>VQ1000-51A-C6</td>
</tr>
</tbody>
</table>

Note) R indicates external pilot type. Except VQZ100, external pilot type and internal pilot type are common.

---

### Electrical entry

#### Coil voltage

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
<th>Electrical entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>High response type</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>High pressure type (Metal seal type only)</td>
<td></td>
</tr>
</tbody>
</table>

Note) Option

### Caution

When replacing only the pilot valve assembly, use caution because it is not possible to convert to a V115 (DIN terminal) from a V111 (Grommet, L-type, M-type), or vice versa.
1 Pilot Valve Common Exhaust Specification

Pilot exhaust is exhausted through the main R port.
* Not designed to prevent leakage to outside.
* A combination of external pilots is not available.
* "How to Order Manifold" is the same as standard products. Please specify this to “How to Order Valve.”

Applicable solenoid valve series: VQZ200/300

How to Order

VQZ X30

● Entry is the same as standard products.

2 Main Valve Fluoro-rubber Specification

The seal material, the part of the main valve in contact with fluid, is made of fluoro-rubber.
* "How to Order Manifold" is the same as standard products. Please specify this to “How to Order Valve.”

Applicable solenoid valve series: VQZ200/300

How to Order

VQZ X90

● Made to Order

Seal type
3 N.C. Rubber seal
4 N.O. Rubber seal

● Entry is the same as standard products.

3 All Fluoro-rubber Specification

The rubber material of the part in contact with fluid, is made of fluoro-rubber.
* "How to Order Manifold" is the same as standard products. Please specify this to “How to Order Valve.”

Applicable solenoid valve series: VQZ200/300

How to Order

VQZ X113

● Made to Order

● Entry is the same as standard products.
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 4414 Note 1), JIS B 8370 Note 2) and other safety practices.

<table>
<thead>
<tr>
<th>Labels</th>
<th>Explanation of the labels</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 hospitalization 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 the 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 the 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 items specified, referring to the latest catalog 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 the systems using pneumatic equipment 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 and exhaust all residual compressed air in the system, and release all the energy (liquid pressure, spring, condenser, 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.
   
   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 earthquakes 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 employees shall be exempted from liability for any direct or indirect loss or damage, including consequential loss or damage, loss of profits, or loss of chance, claims, demands, proceedings, costs, expenses, awards, judgments and any other liability whatsoever including legal costs and expenses, which may be suffered or incurred, whether in tort (including negligence), contract, breach of statutory duty, equity or otherwise.**

3. **SMC is exempted from liability for any damages caused by operations not contained in the catalogs 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.**
Caution
Without an electric signal for the solenoid valve the manual override is used for switching the main valve. Push type is standard. Locking type (Tool required) is available as an option.

1. VQZ100
   Push type
   Press in the direction of the arrow.
   Locking type (Tool required)
   Turn 90° in the direction of arrow.

2. VQZ200/300
   Push type (Tool required)
   Push down on the manual override button with a small screwdriver until it stops. Release the screwdriver and the manual override will return.
   Locking type (Tool required)
   Push down completely on the manual override button with a small screwdriver. While down, turn clockwise 90° to lock it. Turn it counterclockwise to release it.

Locked position

Precautions
When operating with a screwdriver, turn it gently using a watchmaker’s screwdriver. (Torque: less than 0.1 N•m)
Press and rotate to lock the manual operation of VQZ200/300. If rotate without pressing, manual breakage and air leakage could be occurred.

Caution
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 and remove the pawl from the groove by pushing the lever downward with your thumb, and pull the connector straight out.

Caution/Surge Voltage Suppressor
1. L/M-type plug connector
   <DC>
   <AC>

2. DIN terminal
   With surge voltage suppressor (YS, YOS)

   Light/surge voltage suppressor (YZ)

   <AC>
   With light (YZ)

Note) Surge voltage suppressor of varistor has residual voltage corresponding to the protective element and rated voltage; therefore, protect the controller side from the surge.
### Circuit example

![Circuit example diagram]

1. Surge voltage countermeasures
   - **When shutting off the DC power supply using an emergency circuit breaker, the valve may operate incorrectly due to surge voltage generated by other electric parts (e.g., the solenoid).** To ensure that surge does not affect the valve, take anti-surge measures (diode for surge protection, etc.) or use a valve with diode to prevent reverse current. (Contact SMC for model numbers.)

2. Attaching and detaching sockets with lead wires
   - **Attaching**
     - Insert the sockets into the square holes of the connector ( présence 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 (approx. 1 mm). If the socket will be used again, first spread the hook outward.

### Lead Wire Connection

1. Crimping of lead wires and sockets
   - **Not necessary if ordering the lead wire pre-connected model.** Strip 3.2 to 3.7 mm at the end of the lead wires, insert the ends of the core wires evenly into the sockets, and then crimp with a crimping tool. When this is done, take care that the coverings of the lead wires do not enter the core wire crimping area.

   ![Crimp tool image]

   **Crimping tool part no. DXT170-75-1**

   **Core wire crimping area**

   **Crimping area**

   **Core wire**

   **Leads wire**

   **Insulation**

### Pilot Valve Replacement

1. When replacing a conventional type valve with a new type for maintenance or other reasons, a “conversion connector assembly” is necessary to convert the connector from 3 terminals to 2 terminals and must be ordered separately. (When ordering, refer to the below part nos.)

   - **For pilot valves, there is no compatibility between the conventional type and new type.** When replacing a pilot valve, be sure to confirm whether it is the new type or the conventional type.

   ![Pilot valve image]

   **Manual override (Orange)**

   **Pilot valve (VQ111)**

   **Adapter plate**

   **Conversion connector assembly**

   **VQZ1000V-85-A**

   **Coil voltage**

   1. 24/12 VDC
   2. 100 VAC
   3. 200 VAC
   4. Other AC voltages
How to Use DIN Terminal

1. EN-175301-803C (Former DIN 43650C)
The DIN terminal type with an IP65 enclosure is protected against dust and water, however, it must not be used in water.

2. Connection
1) Loosen the holding screw and pull the connector out of the solenoid valve terminal block.
2) After removing the holding screw, insert a flat head screwdriver, etc. into the notch on the bottom of the terminal block and pry it open, separating the terminal block and the housing.
3) Loosen the terminal screws (slotted screws) on the terminal block, insert the cores of the lead wires into the terminals according to the connection method, and fasten them securely with the terminal screws.
4) Secure the cord by fastening the ground nut.

3. Changing the entry direction
After separating the terminal block and housing, the cord entry can be changed by attaching the housing in the desired direction (4 directions at 90° intervals).
* When equipped with a light, be careful not to damage the light with the cord’s lead wires.

4. Precautions
Plug in and pull out the connector vertically without tilting to one side.

5. Compatible cable
Cable O.D.: ø3.5 to ø7
(Reference) 0.5 mm², 2-core or 3-core, equivalent to JIS C 3306

DIN Connector Part No.

<table>
<thead>
<tr>
<th>Without light</th>
<th>With light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>Voltage symbol</td>
</tr>
<tr>
<td>All voltages</td>
<td>None</td>
</tr>
<tr>
<td>24 VDC</td>
<td>24 V</td>
</tr>
<tr>
<td>12 VDC</td>
<td>12 V</td>
</tr>
<tr>
<td>100 VAC</td>
<td>100 V</td>
</tr>
<tr>
<td>200 VAC</td>
<td>200 V</td>
</tr>
<tr>
<td>110 VAC (115 VAC)</td>
<td>110 V</td>
</tr>
<tr>
<td>220 VAC (230 VAC)</td>
<td>220 V</td>
</tr>
</tbody>
</table>

Circuit diagram with light

AC circuit

| NL: Neon light | R: Resistor |

DC circuit

| LED: Light emitting diode | R: Resistor |

Fitting and Silencer Part No. for P, R Ports
When Using Valve as an Individual Unit

Part no. for one-touch fitting for 1(P) port and silencer/one-touch fitting for 3(R) port

<table>
<thead>
<tr>
<th>Series</th>
<th>(1) One-touch fitting for 1 (P) port</th>
<th>(2) For 3 (R) port</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>KG2H06-M5</td>
<td>AN120-M5</td>
</tr>
<tr>
<td>VQZ200</td>
<td>KG2S06-01S</td>
<td>IN-A25-46</td>
</tr>
<tr>
<td>VQZ300</td>
<td>KG2H08-02S</td>
<td>AN101-01</td>
</tr>
</tbody>
</table>

The diameter of the above fitting and silencer is the maximum diameter to the EXH port.
Series VQZ
Specific Product Precautions 4

Be sure to read this before handling. For Safety Instructions and 3 Port Solenoid Valve Precautions, refer to “Precautions for Handling Pneumatic Devices” (M-03-E3A).

One-touch Fittings Replacement

⚠️ Caution
The built-in fittings on the manifold can be changed easily. Simply remove the corresponding valve and take out the fitting clip underneath.

Take out the clip with a screwdriver, etc., then replace the fittings. About mounting the fittings, after inserting the fitting until it stops, then put the clip into the prescribed position.

VQZ200: Horizontally clipped to the valve body
VQZ100/300: Vertically clipped to the valve body

Precautions
When pulling the fitting assembly away from the valve base, remove the clip, then connect a tube or plug (KQ2P-L50132/L50132) with the one-touch fitting and pull it out holding the tube or plug. Do not hold the release bushing to avoid damage.

Valve Mounting

⚠️ Caution
1. After confirming the gasket is correctly placed under the valve, securely tighten the bolts with the proper torque shown in the table below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Proper tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>VQZ100</td>
<td>0.13 to 0.19 N·m</td>
</tr>
<tr>
<td>VQZ200</td>
<td>0.25 to 0.35 N·m</td>
</tr>
<tr>
<td>VQZ300</td>
<td>0.5 to 0.7 N·m</td>
</tr>
</tbody>
</table>

VQZ100 Piping Direction Replacement

⚠️ Caution
1. How to replace the port direction
Fitting and port plug are modules. After removing the clip with a flat head screwdriver, take out the fitting and port plug. The piping direction (side or top) can be altered by exchanging the fitting and port plug. During exchange, insert the fitting and the port plug until they contact the wall, then, insert the clip to specified position.

Precautions
The clip length for the valve and the base are different. Fitting may detach if the incorrect clip is used.

2. Valve piped on top can be operated independently by using PR plate.
(Refer to the below part numbers when placing an order.)

- VQZ100-12A (Standard)
- VQZ100-12B (External pilot type)

* 2 set screws are included.
Safety Instructions

Be sure to read “Precautions for Handling Pneumatic Devices” (M-03-E3A) before using.