3 Port Solenoid Valve
Pilot Operated Poppet Type
Series VG342
Rubber Seal

Low power consumption
4.8 W DC (Standard type)
2 W DC (Energy-saving type)

No lubrication required
Possible to use in vacuum
or under low pressures
External pilot
Vacuum: Up to –101.2 kPa
Low pressure: 0 to 0.2 MPa

Changeable actuation:
N.C., N.O., or external pilot
Can be used as a selector
or divider valve (External pilot)

How to Order

Valve option
Nil Internal pilot
R External pilot

Rated voltage
1 100 VAC, 50/60 Hz
2 200 VAC, 50/60 Hz
3* 110 VAC, 50/60 Hz
4* 220 VAC, 50/60 Hz
5 24 VDC
6* 12 VDC
7* 240 VAC, 50/60 Hz
9* Other

CE-compliant
Nil —
Q CE-compliant*
* Electrical entry: D only

Pilot valve option
Nil Standard type
Y* Energy-saving type (DC only)
E Continuous duty type

Passage symbol
Nil External pilot
A N.C. (Normally closed)
B N.O. (Normally open)

Thread type
Nil Rc
F G
N NPT
T NPTF

How to Order Pilot Valve Assembly

Valve option
Nil Standard type
Y* Energy-saving type
E Continuous duty type

Rated voltage
1 100 VAC, 50/60 Hz
2 200 VAC, 50/60 Hz
3* 110 VAC, 50/60 Hz
4* 220 VAC, 50/60 Hz
5 24 VDC
6* 12 VDC
7* 240 VAC, 50/60 Hz
9* Other

Pilot valve assembly for VG342
Nil
S With surge voltage suppressor
(Only grommet type is only available.)
Z With light/surge voltage suppressor
(Except grommet type)

Electrical entry
G Grommet
D DIN terminal
E Grommet terminal
T Conduit terminal

Port size
04 1/2
06 3/4
10 1

JIS Symbol
N.C.
N.O.

Electrical entry
G Grommet
D DIN terminal
E Grommet terminal
T Conduit terminal

Low power consumption
4.8 W DC (Standard type)
2 W DC (Energy-saving type)

No lubrication required
Possible to use in vacuum
or under low pressures
External pilot
Vacuum: Up to –101.2 kPa
Low pressure: 0 to 0.2 MPa

Changeable actuation:
N.C., N.O., or external pilot
Can be used as a selector
or divider valve (External pilot)
Series VG342

**Caution**

Light/Surge Voltage Suppressor

AC, 100 VDC or more

When the changeover plate, confirm that pressure has been removed from the main valve.

Unscrew the M4 x 0.7 hexagon socket head cap screw in the changeover plate and match the mark on the adapter plate with the character on the changeover plate. Piping is as follows.

Mounting Screw Tightening Torques

<table>
<thead>
<tr>
<th>N.C.</th>
<th>N.O.</th>
<th>External pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>M4 x 0.7</td>
<td>M4 x 0.7</td>
<td>M4 x 0.7</td>
</tr>
</tbody>
</table>

Warning: Do not install the switch on the piping when the pressure is in X port.

Flow Characteristics

<table>
<thead>
<tr>
<th>Port size</th>
<th>Effective area (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>210</td>
</tr>
<tr>
<td>2</td>
<td>235</td>
</tr>
</tbody>
</table>

Specifications different from standard are as follows.

- **Energy-saving type:** VG342-□-□-□-□-□-□-□-□ (Q)
  - Use "Energy-saving type" if low power consumption is required for electronic control.
  - Specifications different from standard are as follows.
    - Apparent power VA (Hz) Note)
      - AC Inrush: 7.9 (50), 6.2 (60)
      - DC Holding: 5.8 (50), 3.5 (60)
    - Power consumption (Note) DC
      - 2 W, 2.2 W (With indicator light)

- **Continuous duty type:** VG342-□-□-□-□-□-□-□-□ (Q)
  - Use “Continuous duty type” if energizing the valve for a long time.
  - Specifications different from standard are as follows.
    - Apparent power VA (Hz) Note)
      - AC Inrush: 10.1 (50), 8.7 (60)
      - DC Holding: 8.8 (50), 5.2 (60)
    - Power consumption (Note) DC
      - 2 W, 2.2 W (With indicator light)
3 Port Solenoid Valve
Pilot Operated Poppet Type Series VG342

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 alloy</td>
<td>Color: Platinum silver</td>
</tr>
<tr>
<td>2</td>
<td>Adapter plate</td>
<td>Aluminum alloy</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>End plate</td>
<td>Brass</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Retainer</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Spool valve</td>
<td>Aluminum alloy/NBR</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Piston</td>
<td>Resin</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Spring</td>
<td>Stainless steel</td>
<td></td>
</tr>
</tbody>
</table>

Precautions

1. Since PE port is the exhaust port of the pilot valve, do not attach a plug or reduce the port diameter.
2. X port is the pressure supply port of the pilot valve and PE port is the exhaust port of the pilot valve. Avoid mismatching when piping.
3. The manual portion contains a breather hole for the core. Take proper measures to prevent dust or foreign matter from accumulating in this area.

Continuous Duty

If energizing the valve for a long time, use "VG342-L50132-L50132-L50132-L50132-X84" (Pilot valve assembly: "VO307E-L50132-L50132-L50132-L50132-X84(Q)†").

Caution

1. Disassembly
   1) After loosening the screw (1), then if the housing (2) is pulled in the direction of the screw, the connector will be removed from the body of the equipment (solenoid, etc.).
   2) Pull the screw (1) out of the housing (2).
   3) On the bottom part of the terminal block (3), there’s a cut-off part (9). If a small flat head screwdriver is inserted between the opening in the bottom, terminal block (3) will be removed from the cover (2). (Refer to Figure (1).)
   4) Remove the cable gland (4) and plain washer (5) and rubber seal (6).

2. Wiring
   1) Pass them through the cable (7) in the order of cable ground (4), washer (5), rubber seal (6), and then insert into the housing (2).
   2) From the terminal block (3), loosen the screw (11), then pass the lead wire (10) through, then again tighten the screw (11).

3. Assembly
   1) Passing through the cable (7), the cable gland (4), plain washer (5), and rubber seal (6), housing (2) in this order, and then connect with the terminal block (3). After that, the terminal block (3) on the housing (2). (Push it down until you hear the click sound.)
   2) Putting rubber seal (6), plain washer (5), in this order into the cable introducing slit on the housing (2), then further tighten the cable gland (4) securely.
   3) Insert the gasket (8) or between the bottom part of terminal block (3) and a plug attached to equipment, and then screw (1) from the top of the housing (2) to tighten it.

How to Use DIN Terminal

For obtaining the flow rate, refer to front matters 44 to 47.

How to Calculate the Flow Rate

For obtaining the flow rate, refer to front matters 44 to 47.
**Series VG342**

**Dimensions**

**Grommet (G)**

---

**Grommet terminal (E)**

---

(&): With light/surge voltage suppressor
3 Port Solenoid Valve
Pilot Operated Poppet Type Series VG342

Dimensions

Conduit terminal (T)

DIN terminal (D)

(Surge voltage suppressor)

(Pilot exhaust)

(Light)

Manual override
(Non-locking)

Switching plate

Applicable cable O.D.
ø4.5 to ø7

2 x ø8.4
(Mounting hole)

(External pilot port)

(Port)

(Port)

(Port)

1/8"
(Pilot exhaust port)

(Light)

(Surge voltage suppressor)

Manual override
(Non-locking)

Switching plate

Applicable cable O.D.
ø6 to ø8

2 x ø8.4
(Mounting hole)

1/8"
(External pilot port)

1, 3/4, 1/2"
(A port)

1, 3/4, 1/2"
(R port)

1, 3/4, 1/2"
(P port)

1, 3/4, 1/2"
(Mounting hole)

1, 3/4, 1/2"
(Mounting hole)

1, 3/4, 1/2"
(Mounting hole)

1, 3/4, 1/2"
(Mounting hole)

1, 3/4, 1/2"
(Mounting hole)