3 Port Air Operated Valve
Series VGA342

How to Order

VGA342-04 A

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

Thread type

Passage

N.C. Normally closed (N.C.)
N.O. Normally open (N.O.)

Specifications

Operating type  Air operated type
Type of actuation  N.C./N.O. (Changeable)
Return mechanism  Air + Spring
Fluid  Air
Operating pressure range  0.2 to 0.9 MPa
Pilot pressure  Same as operating pressure
Ambient temperature and operating fluid temperature  -10 to 50°C (No freezing. Refer to page 5.)
Lubrication  Not required (Use turbine oil Class 1 ISO VG32, if lubricated)
Impact/Vibration resistance  150/50 m/s²

Note) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve, each one time when pilot signal ON and OFF.
(Value in the initial stage)
Vibration resistance: No malfunction occurs on the test with one sweep from 45 to 1000 Hz, to axis and right angle directions of main valve each time when pilot signal ON and OFF.
(Value in the initial stage)

Flow Characteristics

<table>
<thead>
<tr>
<th>Port size</th>
<th>Flow characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1→2(P→A)</td>
</tr>
<tr>
<td></td>
<td>c (min/s)</td>
</tr>
<tr>
<td>1/2</td>
<td>28</td>
</tr>
<tr>
<td>3/4</td>
<td>38</td>
</tr>
</tbody>
</table>

Dimensions

Precautions

Be sure to read this before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

Caution

1. Change of fluid passage

N.C. N.O.

Please note that the pressure in the valve should be exhausted when changing the fluid passage.
Loosen the hexagon socket head cap screw M4 x 0.7. Rotate the NC/NO switching plate and align the desired passage symbol NO/NC with the mark on the adapter plate. However, the X symbol is not applicable. For piping, refer to the table below.
Screw tightening torque M4: 1.4 N·m

Piping

<table>
<thead>
<tr>
<th>Port</th>
<th>Inlet side</th>
<th>Outlet side</th>
<th>EXH side (2 port: Plug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.O.</td>
<td>EXH side</td>
<td>Outlet side</td>
<td>Inlet side</td>
</tr>
</tbody>
</table>

Take sufficient precautions and confirm safety when changing the flow path and restarting after the changes.

2. Other

M5 size hole at the left side of the adapter plate is a breathing port for spool valve. Do not plug or tighten it.
**Series VGA342**

**Made to Order Specifications**

Please contact SMC for detailed specifications, dimensions and delivery.

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**External Pilot, Air Operated Valve**

### How to Order

**VGA342 R**

<table>
<thead>
<tr>
<th>Solenoid valve specifications</th>
<th>Thread type</th>
<th>Port size</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>External pilot</td>
<td>04 1/2</td>
</tr>
<tr>
<td>F</td>
<td>RC</td>
<td>06 3/4</td>
</tr>
<tr>
<td>N</td>
<td>NPT</td>
<td>10 1</td>
</tr>
</tbody>
</table>

**JIS Symbol**

PA

(2)A

P(1)

R(3)

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**Specifications**

- **Valve type**: External pilot, air operated valve
- **Type of actuation**: Universal porting type
- **Fluid**: Air
- **Operating pressure range**
  - Main pressure: –101.2 kPa to 0.9 MPa
  - Pilot pressure: Equivalent to main pressure (Min. 0.2 MPa or more)
  - External pilot: Equivalent to pilot pressure
- **Ambient and fluid temperature**: –10 to 50°C (No freezing. Refer to page 5.)
- **Weight**: 1.2 kg

**Dimensions**