2/2 Directional Valve, Manually Operated, Poppet Type, Blocking, Direct Acting

ROR3-062
M22x1.5 • \( Q_{\text{max}} \) 35 l/min (9 GPM) • \( p_{\text{max}} \) 320 bar (4600 PSI)

Technical Description

A manually operated 2-way blocking and push-to-open directional valve in the form of a screw-in cartridge. The preferential flow is from 2 to 1. Possibility to throttle the flow. The model with a hand lever and microswitch has 3 positions. In position 0 - middle position - the valve is closed. Position I opens the valve against the return spring. Position II actuates a contact (only the model with microswitch).

Technical Features

› Hardened precision parts
› High flow capacity and leak-free closing
› Wide range of actuation alternatives, available with microswitch option
› Standard version zinc-coated with surface protection acc. to ISO 9227 (240 h salt spray)

Model Code

<table>
<thead>
<tr>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
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Technical Data

<table>
<thead>
<tr>
<th>Valve size / Cartridge cavity</th>
<th>M22x1.5 / QG2</th>
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</thead>
<tbody>
<tr>
<td>Max. flow l/min (GPM)</td>
<td>35 (9.2)</td>
</tr>
<tr>
<td>Max. operating pressure bar (PSI)</td>
<td>320 (4640)</td>
</tr>
<tr>
<td>Max. operating force N (lbf)</td>
<td>see characteristics</td>
</tr>
<tr>
<td>Fluid temperature range (NBR) °C (°F)</td>
<td>-30 ... +100 (-22 ... +176)</td>
</tr>
<tr>
<td>Fluid temperature range (FPM) °C (°F)</td>
<td>-20 ... +120 (-4 ... +248)</td>
</tr>
<tr>
<td>Service life cycles</td>
<td>10^6</td>
</tr>
<tr>
<td>Microswitch</td>
<td>D2SW-3D</td>
</tr>
<tr>
<td>Mass model kg (Ibs)</td>
<td>0.15 (0.33)</td>
</tr>
<tr>
<td>Mass model kg (Ibs)</td>
<td>0.25 (0.55)</td>
</tr>
<tr>
<td>Mass model kg (Ibs)</td>
<td>0.66 (1.46)</td>
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<tr>
<td>Mass model kg (Ibs)</td>
<td>0.77 (1.7)</td>
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</table>

Datasheet

<table>
<thead>
<tr>
<th>Type</th>
<th>General information</th>
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<tbody>
<tr>
<td>GI_0060</td>
<td>Products and operating conditions</td>
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<tr>
<td>SB_0018</td>
<td>SB-QG2*</td>
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<td>SB-406(0) 0028</td>
<td>SB-<em>QG2</em></td>
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<td>SMT_0019</td>
<td>SMT-QG2*</td>
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<td>SP_8010</td>
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</tr>
</tbody>
</table>

Characteristics measured at \( v = 32 \, \text{mm}^3/\text{s} \) (156 SUS)

Operating limits

Pressure drop related to flow rate

[Graphs and diagrams showing operating force vs. input pressure and pressure drop vs. flow rate]
### Dimensions in millimeters (inches)

#### Model 1

- 25+2 Nm (18.4+1.5 lbf.ft)
- 10 (0.39)
- 11.5 (0.45)
- 7.5 (0.3)
- 5.5 (0.22)
- 27.1 (1.08)
- 27.1 (1.08)
- 53 (2.09)
- 7 (0.28)

#### Model 2

- 25+2 Nm (18.4+1.5 lbf.ft)
- 11 (0.43)
- 25 (0.98)
- 6 (0.24)
- 96 (3.78)
- 27 (1.06)
- 40 (1.58)
- 2,5 (0.1)

### Ordering Code

**ROR3-062**

2/2 directional valve, manually operated, poppet type, blocking, direct acting

- **M22x1.5**

**Flow restrictor**

- without flow restrictor: 00
- with flow restrictor: 01

### Electric Circuit

1. **Hand lever**
   - Position 0: middle position with detent
   - Position I: first position - opens the valve
   - Position II: second position - closes the contact of the microswitch
2. **Section of the hand lever**
3. **Microswitch** - only with SD1M-QG2/L2S5-4
4. **SD1M-QG2**

### Surface Treatment

- A. zinc-coated (ZnCr-3), ISO 9227 (240 h)
- B. zinc-coated (ZnNi), ISO 9227 (520 h)

### Seals

- No designation: V
- NBR
- FPM (Viton)

### Actuation

- 1. Plunger
- 2. Hand push knob
- 3. Hand lever without microswitch
- 4. Hand lever with microswitch