2/2 NC pressure compensated proportional valve

High precision

Increased flow - 120 l/min of Air at 2 bar

Flat plunger and spring for frictionless operation

Highly repeatable with over 100 million cycles

**Technical features**

**Medium:**
Air, oxygen or neutral gases

**Orifice:**
4,5 mm

**Filtration:**
A filtration of 20 micrometer is required before the inlet

**Operation:**
2-way valve Normally closed

**Hysteresis:**
See diagrams on page 2

**Operating pressure:**
0 to 7 bar (0 ... 101 psi)

**Back pressure:**
Maximum 10% of inlet pressure

**Mounting:**
Cartridge, manifold

**Size:**
16 mm

**Life expectancy:**
≥ 100 Mio. cycles (with triangular signal)

**Internal leakage:**
< 10^-2 mbar l/s (≈0,6 ml/min)

**External leakage:**
< 10^-2 mbar l/s (≈0,6 ml/min)

**Weight:**
< 50 g (0.11 lbs)

**Ambient/media temperature:**
+10 ... +50 °C (+50 ... +122°F)

**Materials:**
Body: Stainless steel only or stainless steel/brass
PEEK (only when mounted on sub base)
Seal: FPM, NBR, EPDM

**Orifice:**
4,5 mm

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A filtration of 20 micrometer is required before the inlet

**Operation:**
2-way valve Normally closed

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See diagrams on page 2

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Seal: FPM, NBR, EPDM

**Technical data - Standard models**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Voltage (V d.c.)</th>
<th>Current (mA)</th>
<th>Resistance (Ω)</th>
<th>Body Material</th>
<th>Seal Material</th>
<th>Model</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>417</td>
<td>14,4</td>
<td>Stainless steel/brass</td>
<td>FPM</td>
<td>12-216C-04521+EQIFIL+BEK</td>
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<tr>
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<td>264</td>
<td>36</td>
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<td>FPM</td>
<td>12-216C-04521+EQIFIL+BEH</td>
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<tr>
<td>12</td>
<td>211</td>
<td>57</td>
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<tr>
<td>18</td>
<td>136</td>
<td>130</td>
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<tr>
<td>24</td>
<td>104</td>
<td>230</td>
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</tbody>
</table>

**Symbol Coil resistance at 20°C (+68°F) ± 3% [R20] (Ω)**

- 4,5: 14,4
- 36: 264
- 57: 211
- 130: 138
- 230: 104

**Current for maximum flow (nominal) [mA]**

- 4,5: 6
- 36: 9,5
- 57: 12
- 130: 18
- 230: 24

**Voltage +20°C (+68°F) [V]**

- 4,5: 2,5
- 36: 2,5
- 57: 2,5
- 130: 2,5
- 230: 2,5

**Power +20°C (+68°F) [W]**

- 4,5: 9
- 36: 14
- 57: 18
- 130: 27
- 230: 36

**Max. required voltage for max flow (V) *1)**

- 4,5: 2,5
- 36: 2,5
- 57: 2,5
- 130: 2,5
- 230: 2,5

*1) Please refer to instruction K12M.0001 for recommendation on drive signals
Additional information

Typical flows vs. supply pressure
Air, 20°C, without back pressure

Note:
Flow vs. supply pressure curves are for informative purposes only and shall be used only for the pre-selection of the orifice size. Preliminary testing is recommended to take into account all application specific requirements and to select the most adequate orifice. For further information contact your local fluidic specialist.

Typical Hysteresis curves
Air, 20°C, without back pressure

Accessories

Manifold for cartridge version with G1/4 ports in aluminium

FLATPROP EQI cartridge mounting

FLATPROP EQI with manifold on request

Note:
Flow vs. supply pressure curves are for informative purposes only and shall be used only for the pre-selection of the orifice size. Preliminary testing is recommended to take into account all application specific requirements and to select the most adequate orifice. For further information contact your local fluidic specialist.

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Accessories

Manifold for cartridge version with G1/4 ports in aluminium
Warning

These products are intended for use in air, oxygen and neutral gas systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult IMI Precision Engineering, Fluid Automation Systems s.a.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.