FAS 16 mm FASPROP
Low flow proportional valve

- 2/2 NC - Cartridge mounting
- High controllability in dosing gases in ml range
- High stability in closed loop control systems
- Cleaned for analytical applications
- Repeatable proportional characteristic over the lifetime

Technical features
Medium: Compressed air, neutral gases
Filtration:
- Orifice sizes 0,05 ... 0,3 mm: 5 µm filter already integrated
- Orifice sizes 0,5 mm: 5 µm filters can be integrated on request or to be placed before the valve
Operation: Direct acting 2-way valve Normally closed
Operating pressure: 0 ... 12 bar (0 ... 174 psi)
Mounting: Cartridge
Size: 16 mm
Orifice: 0,05 ... 0,5 mm
Life expectancy: ≥ 100 Mio. cycles
Internal & external leakage: 10-3 mbar x l/s
Protection class (acc. to EN60529): IP51
Weight: 40 g (0.09 lbs)
Ambient/media temperature: 0 ... +50 °C (32 ... 122°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2 °C (35°F).
Materials:
- Body: Stainless steel
- Internal parts in contact with media: Stainless steel
- Seals in contact with media: FPM, FFPM
Manifolds
Contact your local fluid control specialist for information about our manifolding capabilities which include laminated polymer manifolds.

Electrical details
Voltage: See table below
Rating: 100 % E.D.
Power consumption:
- 0,3 W (orifices 0,05 and 0,1 mm)
- 0,5 W (orifices 0,2, 0,3 and 0,5 mm)
Electrical connection: 200 mm AWG26 flying leads
Electrical insulation: 1250 V a.c.
Insulation class: F (155°C)

Technical data - Standard models

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Orifice (mm)</th>
<th>kv factor *1)</th>
<th>Flow range (Stdl/min)</th>
<th>Voltage +20°C (+68°F) (V)</th>
<th>Power consumption (W)</th>
<th>Seal Material</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>0,05</td>
<td>0,001</td>
<td>0 ... 0,20</td>
<td>9,2</td>
<td>0,3</td>
<td>FPM</td>
<td>17-216C-M0541+D3WFIL+BFZ</td>
</tr>
<tr>
<td></td>
<td>0,1</td>
<td>0,006</td>
<td>0 ... 0,85</td>
<td>9,2</td>
<td>0,3</td>
<td>FPM</td>
<td>17-216C-00141+D3WFIL+BFZ</td>
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<tr>
<td></td>
<td>0,2</td>
<td>0,026</td>
<td>0 ... 3,8</td>
<td>12,1</td>
<td>0,5</td>
<td>FPM</td>
<td>17-216C-00241+D3WFIL+BD0</td>
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<tr>
<td></td>
<td>0,3</td>
<td>0,05</td>
<td>0 ... 7,5</td>
<td>12,1</td>
<td>0,5</td>
<td>FPM</td>
<td>17-216C-00341+D3WFIL+BD0</td>
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<tr>
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<td>0,5</td>
<td>0,13</td>
<td>0 ... 23,0</td>
<td>12,1</td>
<td>0,5</td>
<td>FPM</td>
<td>17-216C-00-41+D3WFIL+BD0</td>
</tr>
</tbody>
</table>

*1) Cv = 0.07 kv

Technical data - Standard models

<table>
<thead>
<tr>
<th>Valve orifice (mm)</th>
<th>Coil resistance at 20°C (+68°F) ± 3% [R20] (Ω)</th>
<th>Current for maximum flow (nominal) (mA)</th>
<th>Voltage +20°C (+68°F) (V)</th>
<th>Power consumption +20°C (+68°F) (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,05 ... 0,1</td>
<td>162</td>
<td>1770</td>
<td>7</td>
<td>9,2</td>
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<tr>
<td></td>
<td>43</td>
<td>13</td>
<td>7</td>
<td>0,3</td>
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<tr>
<td></td>
<td>288</td>
<td>13</td>
<td>23</td>
<td></td>
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<tr>
<td></td>
<td>6</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>0,2 ... 0,5</td>
<td>72</td>
<td>288</td>
<td>6</td>
<td>12,1</td>
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<tr>
<td></td>
<td>83</td>
<td>42</td>
<td>6</td>
<td>0,5</td>
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<tr>
<td></td>
<td>1152</td>
<td>21</td>
<td>24,2</td>
<td></td>
</tr>
</tbody>
</table>

* Continuous maximum gas flow, ambient temperature +50°C
Additional information

Typical flows vs. supply pressure
Under the seat and zero back pressure

Accessories

Test manifold for cartridge version with G1/8 ports in stainless steel

Page 3
S170.0006
Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. (2014 - 6010b) © 2015 Fluid Automation Systems s.a.

FASPROP cartridge mounting

Cartridge fitting with radial connection D170.0001

Cartridge fitting with combined connection D170.0002

Cartridge fitting with axial connection D170.0003

Test manifold S170.0006

Dimensions in mm
Projection/First angle

1 O' ring Ø4 x 1
2 Cable AWG 26
3 O' ring Ø16 x 1,5
4 Sub-base
5 Screw Torx M 2,5 x 6

1 7 mm deep
**FASPROP for vertical manifold mounting on request**

1. O ring Ø4 x 1
2. Cable AWG 26
3. O ring Ø16 x 1,5
4. Sub-base
5. Screw Torx M 2.5 x 6

**Other FASPROP valves options on request**

**Horizontal manifold**  
**M5 manifold**

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**Warning**

These products are intended for use in industrial compressed air 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 FAS.

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.