

# 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 ... 10 bar (0 ... 145 psi)

**Mounting:**  
Cartridge

**Size:**  
16 mm

**Orifice:**  
0,05 ... 1,2 mm

**Life expectancy:**  
≥ 100 Mio. cycles

**Internal & external leakage:**  
10-3 mbar x l/s

**Protection class:**  
IPX1

**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	0,5 W
Electrical connection	200 mm AWG26 flying leads
Electrical insulation	1250 V a.c.
Insulation class	F (155°C)

### Following options on request

Mounting
Seal in contact with media
Operating pressure
Media
Flow rate range
Internal & external leakage
Electrical connection

### Technical data – standard models

Symbol	Orifice (mm)	kv factor *1)	Flow range (Stdl/min)	Voltage +20°C (+68°F) (V)	Power consumption (W)	Seal Material	Model
	0,05	0,001	0 ... 0,20	12,1	0,5	FPM	17-216C-M0541+D3WFIL+BDO
	0,1	0,006	0 ... 0,85	12,1	0,5	FPM	17-216C-00141+D3WFIL+BDO
	0,2	0,026	0 ... 3,8	12,1	0,5	FPM	17-216C-00241+D3WFIL+BDO
	0,3	0,05	0 ... 7,5	12,1	0,5	FPM	17-216C-00341+D3WFIL+BDO
	0,5	0,13	0 ... 23,0	12,1	0,5	FPM	17-216C-00-41+D3WFIL+BDO
	1,2	0,62	0 ... 85	12,1	0,5	FPM	17-216C-02-41+D3WFIL+BIH

\*1) Cv = 0.07 kv

### Technical data – standard coils

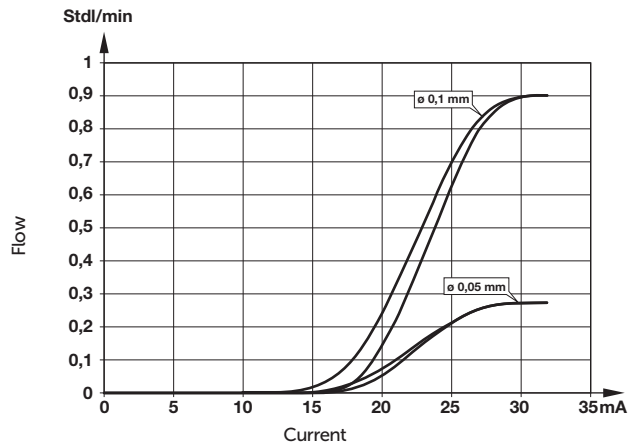
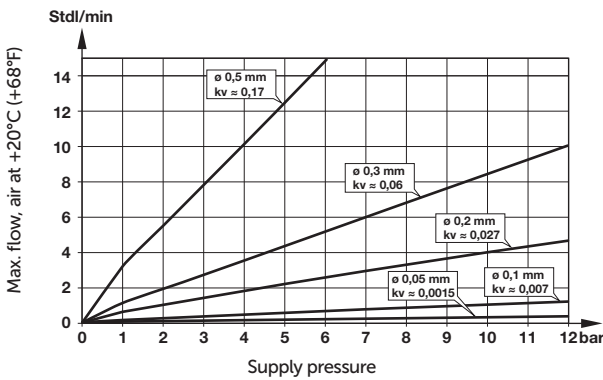
Valve orifice (mm)	Coil resistance at 20°C (+68°F) ± 3% [R20] (Ω)	Current for maximum flow [nominal] (mA)	Voltage +20°C (+68°F) [nominal] (V)	Power +20°C (+68°F) [nominal] (W)
0,05 ... 0,5	72	83	6	0,5
	288	42	12,1	
	1152	21	24,2	

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

### Additional information

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

Typical hysteresis at 10 bar (145 psi)  
Orifice sizes: 0,05 and 0,1 mm



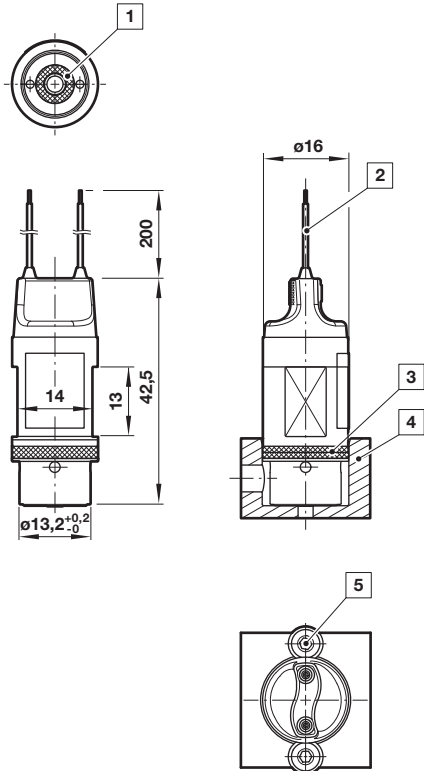
### Accessories

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

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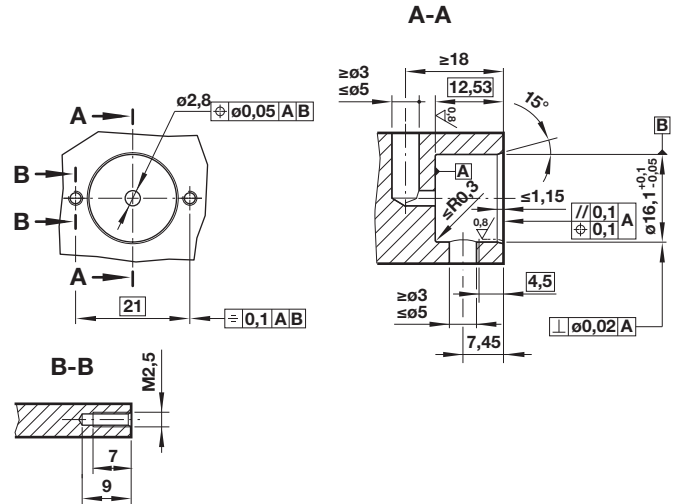
S170.0006

### FASPROP cartridge mounting



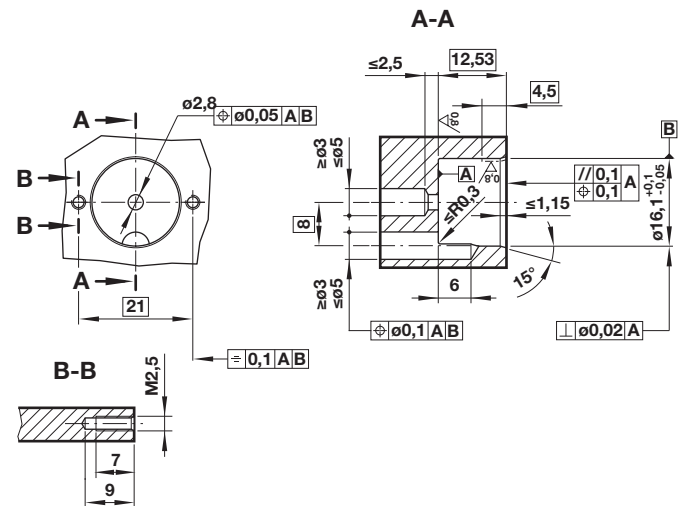
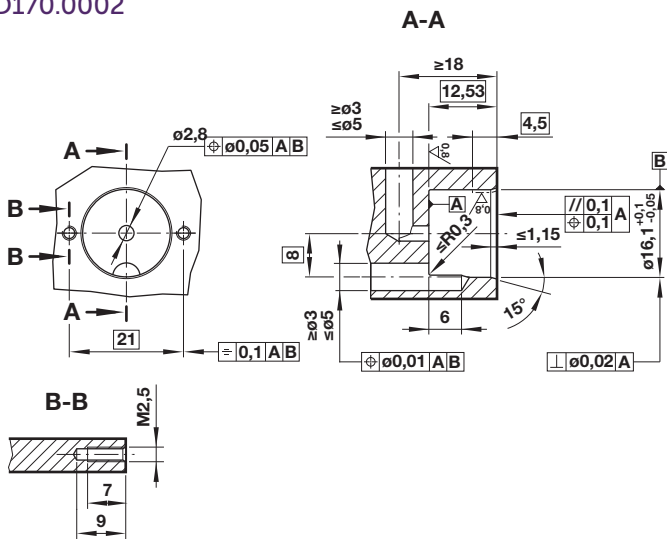
### Cartridge fitting with radial connection D170.0001

Dimensions in mm  
Projection/first angle

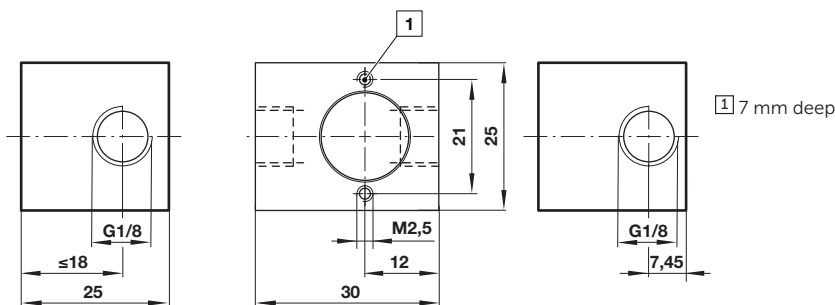


### Cartridge fitting with combined connection D170.0002

### Cartridge fitting with axial connection D170.0003



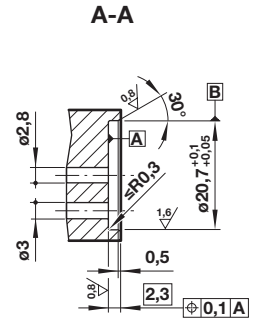
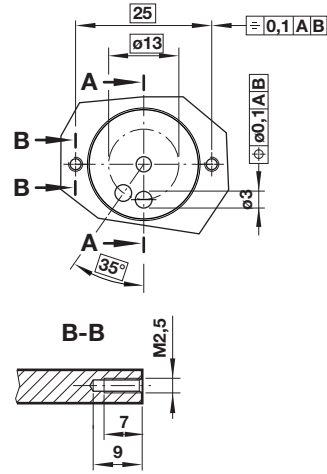
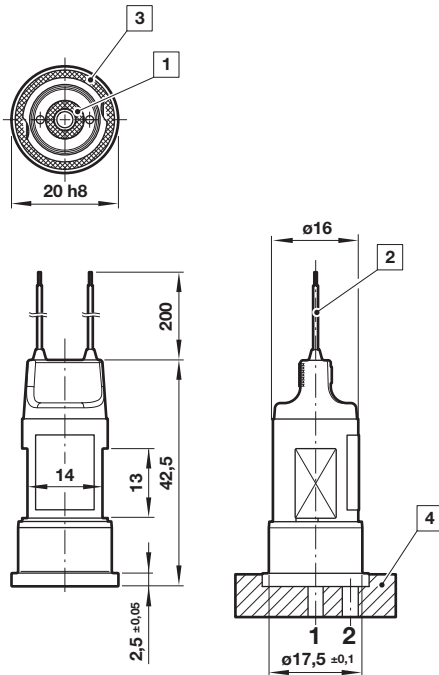
### Test manifold S170.0006



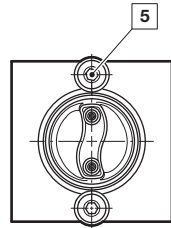
FASPROP for vertical manifold mounting on request

Manifold fitting D170.0004

Dimensions in mm  
Projection/first angle



- 1 'O' ring Ø 5 x 1
- 2 Cable AWG 26
- 3 'O' ring Ø 16 x 1,5
- 4 Sub-base
- 5 Screws Torx M3 x 6



Other FASPROP valves options on request

Horizontal manifold

M5 manifold



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/data«.

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 Plc., FAS MEDIC SA.

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.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.