

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.

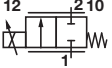
Electrical details

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) $C_v = 0.07$ kv

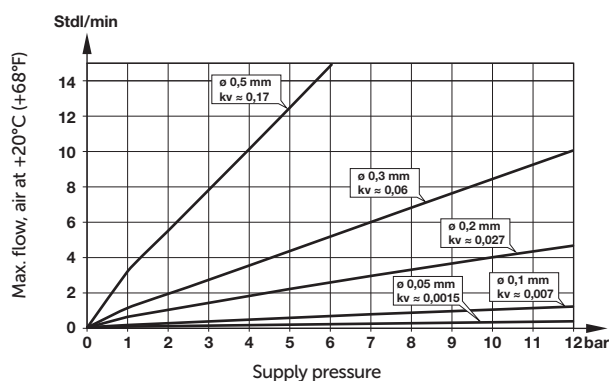
Technical data – standard coils

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	

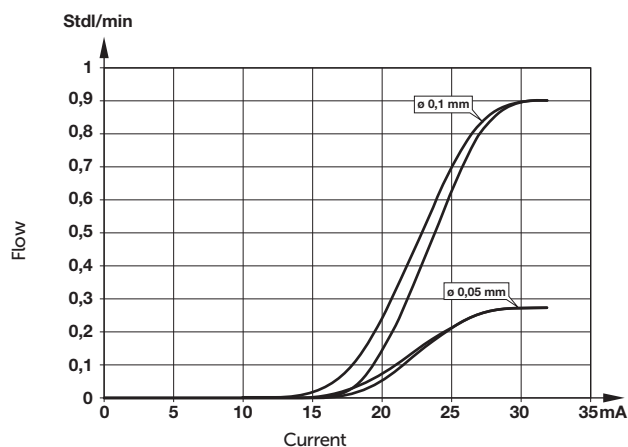
* Continuous maximum gas flow, ambient temperature +50°C

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

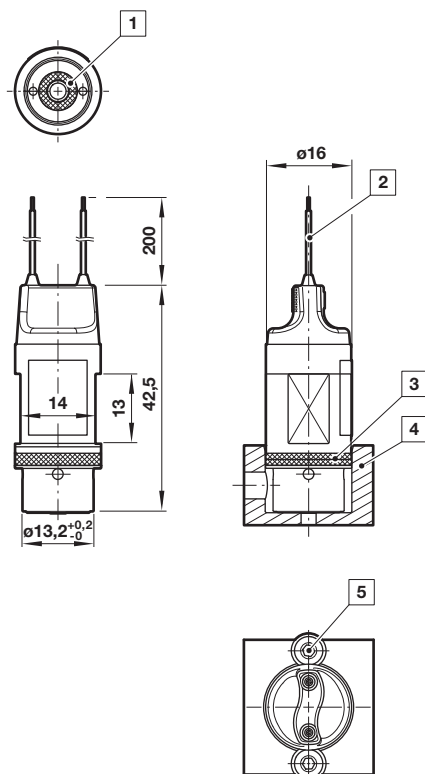
Test manifold for cartridge version
with G1/8 ports in stainless steel



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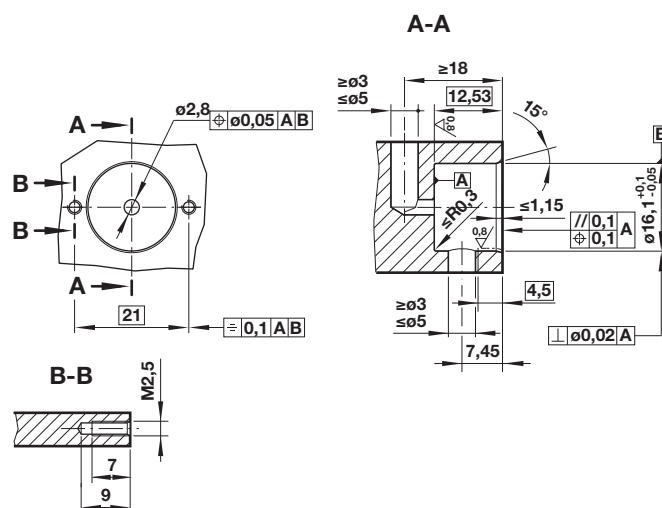
S170.0006

FASPROP cartridge mounting

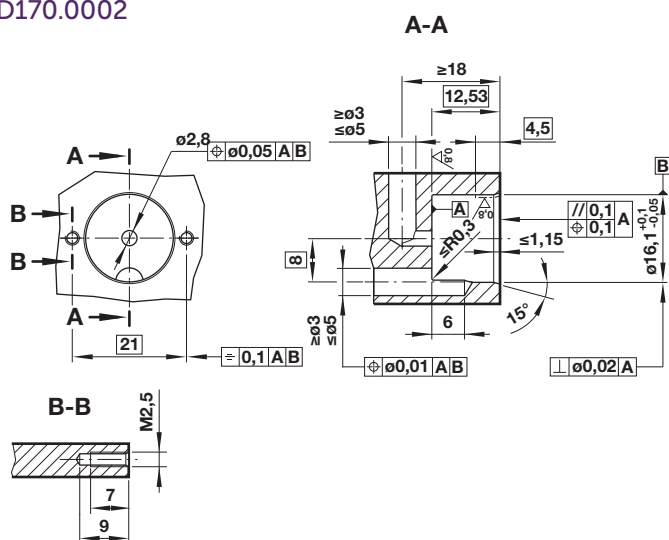


Cartridge fitting with radial connection D170.0001

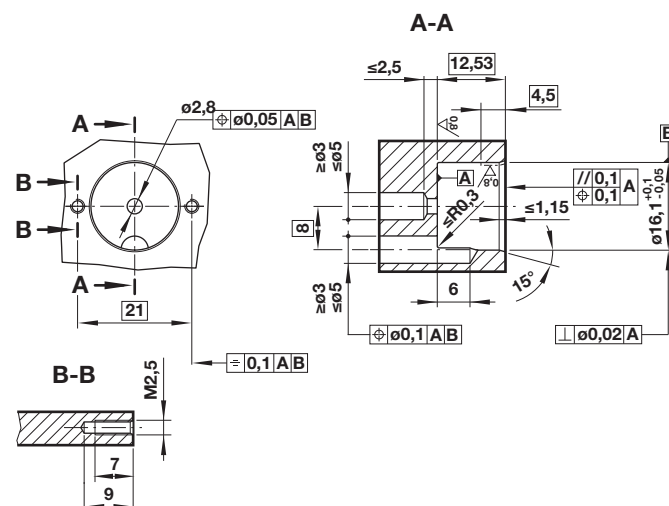
Dimensions in mm
Projection/first angle



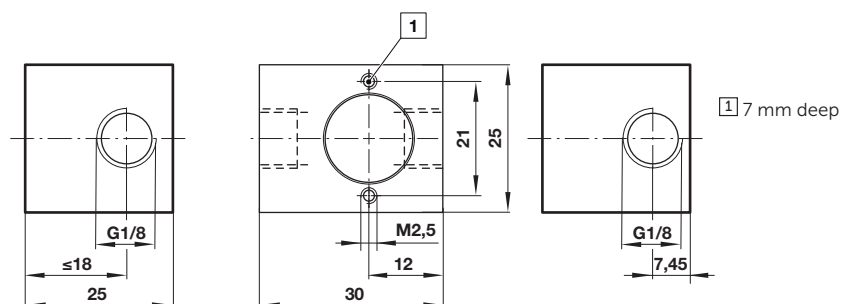
Cartridge fitting with combined connection



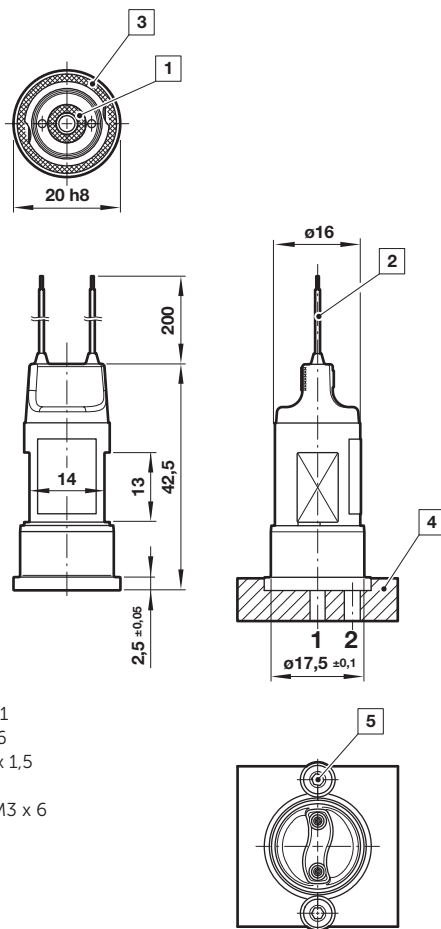
Cartridge fitting with axial connection D170.0003



Test manifold S170.0006



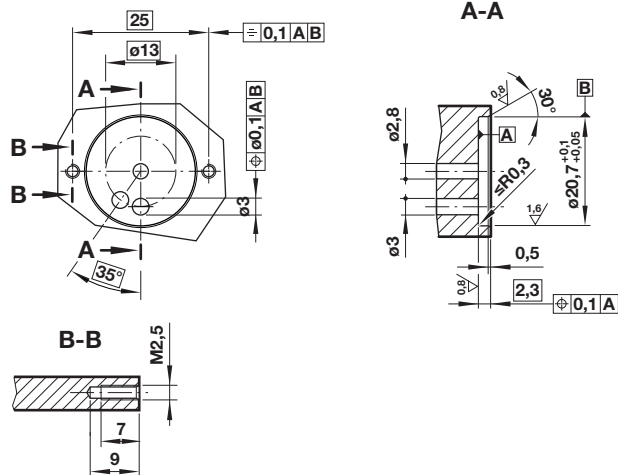
FASPROP for vertical manifold mounting
on request



- 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

Manifold fitting D170.0004

Dimensions in mm
Projection/first angle

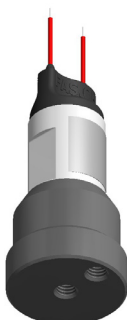


Other FASPROP valves options on request

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.