

- > 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 ... 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<sup>-2</sup> mbar l/s (≈0,6 ml/min)

0 ... p<sub>max</sub>

**External leakage:**

< 10<sup>-2</sup> mbar l/s (≈0,6 ml/min)

p = 9,5 bar

**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

**Manifolds**

Contact your local fluid control specialist for information about our manifolding capabilities which include laminated polymer manifolds.

### Electrical details

<b>Voltage/frequency:</b>	See Technical data - Standard coils
<b>Power consumption</b>	2,5 W nominal at T=20°C
<b>Insulation class:</b>	F (155 °C)
<b>Electrical insulation:</b>	1000 V a.c.
<b>Protection degree:</b>	IP 51
<b>Duty cycle:</b>	100%
<b>Electrical connection:</b>	300 mm A WG24 flying leads

### Following options on request

Specific coils
Wider temperature range
Higher acceptable back pressure
OEM specification

### Technical data - Standard models

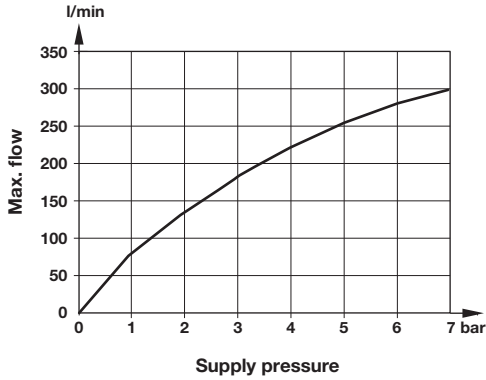
Symbol	Voltage (V d.c.)	Current (mA)	Resistance (Ω)	Body Material	Seal Material	Model
	6	417	14,4	Stainless steel/brass	FPM	12-216C-04521+EQIFIL+BEK
	9,5	264	36	Stainless steel/brass	FPM	12-216C-04521+EQIFIL+BEH
	12	211	57	Stainless steel/brass	FPM	12-216C-04521+EQIFIL+BED
	18	138	130	Stainless steel/brass	FPM	12-216C-04521+EQIFIL+BDZ
	24	104	230	Stainless steel/brass	FPM	12-216C-04521+EQIFIL+BDU
	6	417	14,4	Stainless steel/brass	NBR	12-216C-04520+EQIFIL+BEK
	9,5	264	36	Stainless steel/brass	NBR	12-216C-04520+EQIFIL+BEH
	12	211	57	Stainless steel/brass	NBR	12-216C-04520+EQIFIL+BED
	18	138	130	Stainless steel/brass	NBR	12-216C-04520+EQIFIL+BDZ
	24	104	230	Stainless steel/brass	NBR	12-216C-04520+EQIFIL+BDU

### Technical data - Standard coils

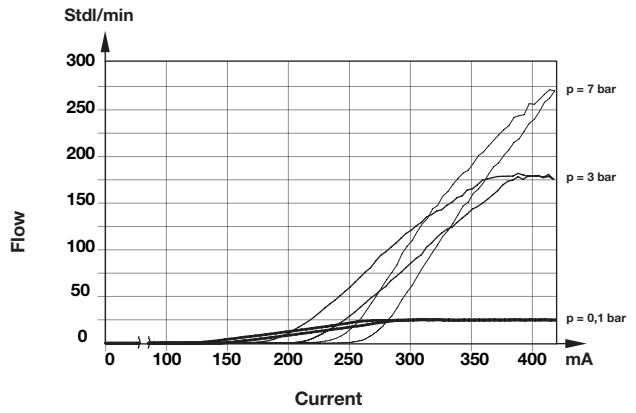
Valve orifice (mm)	Coil resistance at 20°C (+68°F) ± 3% [R20] (Ω)	Current for maximum flow [nominal] (mA)	Voltage +20°C (+68°F) [nominal] (V)	Power +20°C (+68°F) [nominal] (W)	Max. required voltage for max flow (V) *1)
4,5	14,4	417	6	2,5	9
	36	264	9,5	2,5	14
	57	211	12	2,5	18
	130	138	18	2,5	27
	230	104	24	2,5	36

\*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



**Typical Hysteresis curves**  
 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.

**Accessories**

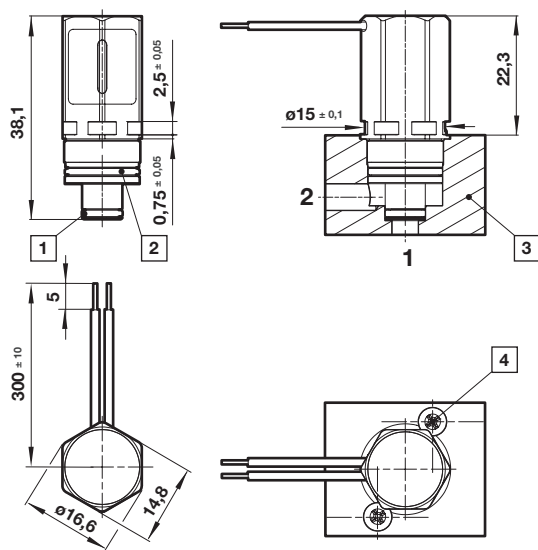
**Manifold for cartridge version with G1/4 ports in aluminium**



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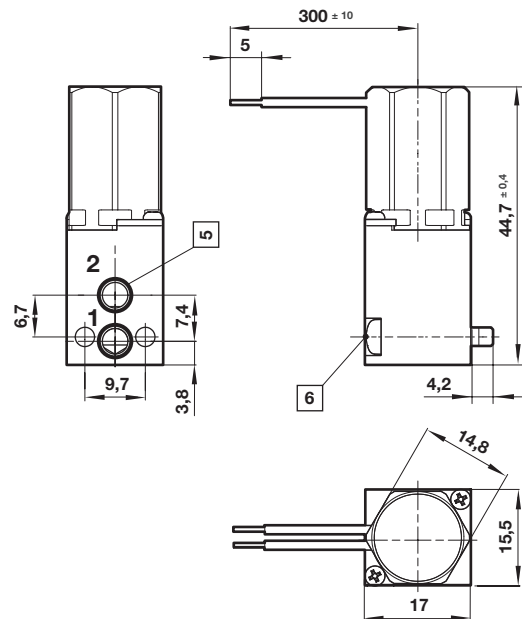
**FLATPROP EQ1 cartridge mounting**



- 1 'O' ring Ø 6 x 1
- 2 'O' ring Ø 12 x 1
- 3 Manifold, not in scope of delivery
- 4 Screws Torx M 3 x 6

**FLATPROP EQ1 with manifold on request**

Dimensions in mm  
 Projection/First angle



- 5 'O' ring Ø 4 x 1 (2x)
- 6 Screws Torx M3 x 18 (2x)

