

- > 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:

< 10⁻² mbar l/s (≈0,6 ml/min)

0 ... pmax

External leakage:

 $< 10^{-2}$ mbar l/s (\approx 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

Voltage/frequency:	See Technical data - Standard coils		
Power consumption	2,5 W nominal at T=20°C		
Insulation class:	F (155 °C)		
Electrical insulation:	1000 V a.c.		
Protection degree:	IP 51		
Duty cycle:	100%		
Electrical connection:	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
12 210	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
1'	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

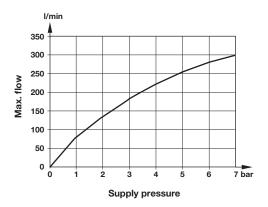
Valve orifice (mm)	Coil resistance at 20°C (+68°F) ± 3% [R20] (Ω)	Current for maximum flow [nominal] (mA)	Voltage +20°C (+68°F) [nominal] (V)	Power +20°C (+68°F) [nominal] (W)	Max. required voltage for max flow (V) *1)
4,5	14,4	417	6	2,5	9
	36	264	9,5	2,5	14
	57	211	12	2,5	18
	130	138	18	2,5	27
	230	104	24	2.5	36

^{*1)} Please refer to instruction K12M.0001 for recommendation on drive signals

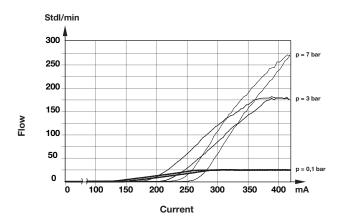




Additional information Typical flows vs. supply pressure Air, 20°C, without back pressure



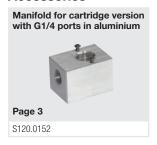
Typical Hysteresis curves Air, 20°C, without back pressure



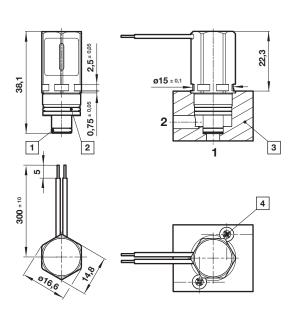
Note:

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



FLATPROP EQI cartridge mounting



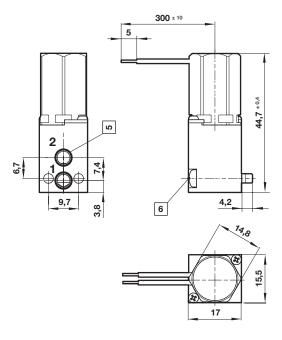
FLATPROP EQI with manifold on request

Dimensions in mm Projection/First angle





- 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



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

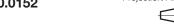


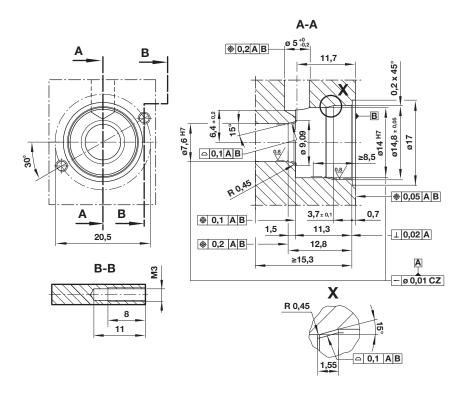
Cartridge fitting D120.0010

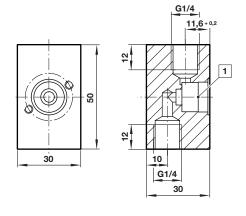
Test manifold S120.0152

Dimensions in mm Projection/First angle









1 Interface geometry see Cartridge fitting D120.0010

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.