

16 mm FLATPROP EQIMAX

Ultra high flow pressure compensated proportional valve

- 2/2 NC pressure compensated proportional valve
- Ultra high flow, high precision
- > 450 l/min flow with boosting PWM
- Low power consumption of 2,5 W
- Frictionless design enables high resolution and long lifetime
- Optimized performance for medical ventilators
> 220 l/min @ 2 bar and
> 260 l/min @ 3 bar



Technical features

Medium:
Oxygen, neutral gases

Operation:
2/2 NC proportional,
Pressure compensated

Orifice size:
5,1 mm

Operating pressure:
0 ... 7 bar (0 ... 101 psi)

Back pressure:
< 10% of inlet pressure

Mounting:
Cartridge

Size:
16 mm

Fixing:
M 3x6 mm (tightening torque
0,45 Nm)

Airflow characteristics:
> 220 l/min @ 2.0 barg
> 260 l/min @ 3.0 barg
> 300 l/min @ 4.0 barg

Kv:
> 5,0 l/min

Life expectancy:
≥ 100 Mio. cycles (with triangular
signal)

Internal leakage:
< 0,6 ml/min @ 7.0 barg
> 2,0 ml/min @ 7.0 barg (with
plasma treated gasket)

External leakage:
< 0,6 ml/min at P= 9,5 barg

Weight:
36 ± 4 g (0,08 lbs)

Ambient/media temperature:
+5 ... +50°C (41 ... +122°F)

Material:
Body material in contact with
media: Stainless steel
Seal material in contact with
media: Fluoroprene XP and FKM

Assembled without oil or grease

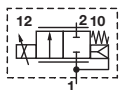
Electrical details

Voltage/frequency	6/12/24 V d.c.
Resistance	14,4/57/230 Ω ±3%
Power consumption	2,5 W
Electrical insulation	500 V a.c.
Insulation class	F (155°C)
Max. coil temperature	< 120°C valve flowing
Protection class acc. to EN60529	IP51
Duty cycle	100%
Electrical connection	300 mm AWG24 flying leads

Following options on request

NBR, EPDM, FKM seals
264 mA/9,5 V d.c. or 500 mA/5 V coils
Gasket with plasma treatment
Extension of ambient range temperature
Electrical insulation up to 1000 V d.c.
Insulation class H 180°C

Technical data – standard models

Symbol	Current (mA)	Resistance (Ω)	Body Material	Seal Material	Model
	104	230	Stainless steel	Fluoropren XP	12-216C-0514F+EQIMAX+BDU
	211	57	Stainless steel	Fluoropren XP	12-216C-0514F+EQIMAX+BED
	417	14,4	Stainless steel	Fluoropren XP	12-216C-0514F+EQIMAX+BEK

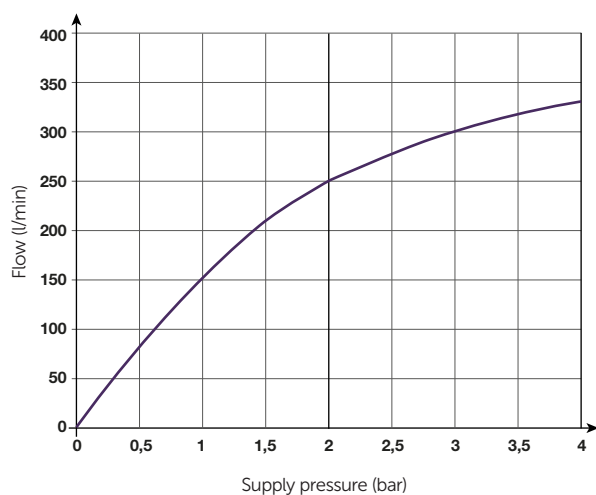
Technical data – standard coils

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 *1) (V)
5,10	14,4	417	6	2,5	9
	57	211	12	2,5	18
	230	104	24	2,5	36

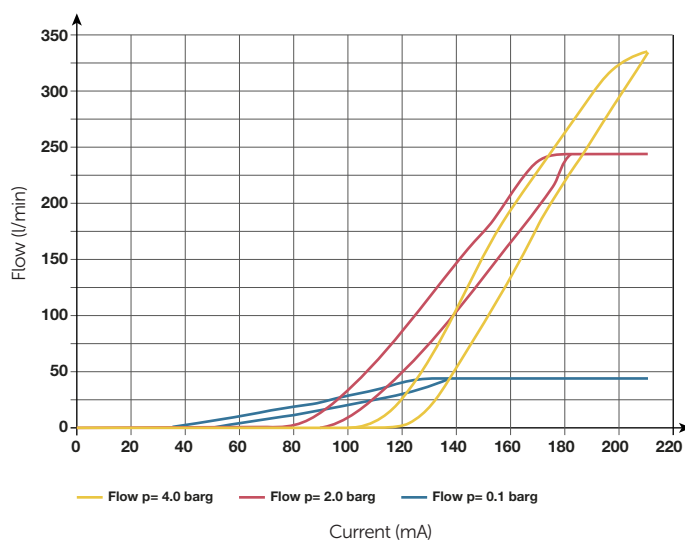
*1) Please refer to instruction K12M.0001 for recommendation on drive signals

Additional information

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



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



Accessories

Manifold for cartridge version with G1/4 ports in aluminium



S120.0152

