16 mm FLATPROP EQIMAX
High flow proportional valve

- 2/2 NC pressure compensated proportional valve
- Optimized performance for ventilation with > 220 l/min at 2 barg
- Ultra-fast response
- Consistent performance across valves, throughout their lifetime
- Frictionless design enables high resolution and long life
- Low power consumption of 2,5 W
- Enables more versatile ventilation thanks to lower inlet pressure requirements

Technical features

Medium:
Air, Oxygen, neutral gases

Operation:
2/2 NC proportional, Pressure compensated

Orifice size:
5,1 mm

Airflow characteristics:
> 220 l/min at 2,0 barg

Kv:
> 5,0 l/min

Operating pressure:
0 ... 7 barg (0 ... 101 psi)
More on demand

Back pressure:
< 20% of inlet pressure

Mounting:
Cartridge

Size:
16 mm

Fixing:
2 screws M3x6 mm (tightening torque 0,45 Nm)

Life expectancy:
> 100 Mio. cycles
More on demand

Internal leakage:
< 0,6 ml/min at P= 7,0 barg

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

Weight:
36 ± 4 g (0,08 lbs)

Ambient/media temperature:
Standard: +5 ... +65°C
(41 ... +149°F)
On demand: −20 ... +80°C
(−4 ... +176°F)

Material:
Stainless steel, FPM

Assembled without oil or grease

Compliance with:
MDR, Prop 65, TSCA, REACH, RoHS

PFAS: Material selection reviewed in line with latest PFAS regulatory and industry developments

Electrical details

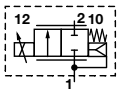
Voltage/frequency	6/12/24 V d.c.
Resistance	14,4/57/230 Ω ±3%
Nominal power consumption	2,5 W
Max. power consumption (max. pressure, max. temperature)	3,8 W
Electrical insulation	500 V a.c.
Insulation class	H (180°C)
Max. coil temperature	< 120°C @ T=50°C ambient temp. valve flowing
Protection class acc. to EN60529	IP51
Duty cycle	100%
Electrical connection	300 mm AWG24 flying leads

Following options on request

NBR, EPDM, USP class VI elastomers
Custom coils: 264 mA/9,5 V d.c. or 500 mA/5 V
Gasket with treatment for lower response time & overshoot
Extension of ambient range temperature
Electrical insulation up to 1000 V a.c.
Custom electrical connections
Manifold mounting (subbase)

File code: LS_DS_FLATPROP-EQIMAX_en/01/26

Technical data – standard models

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

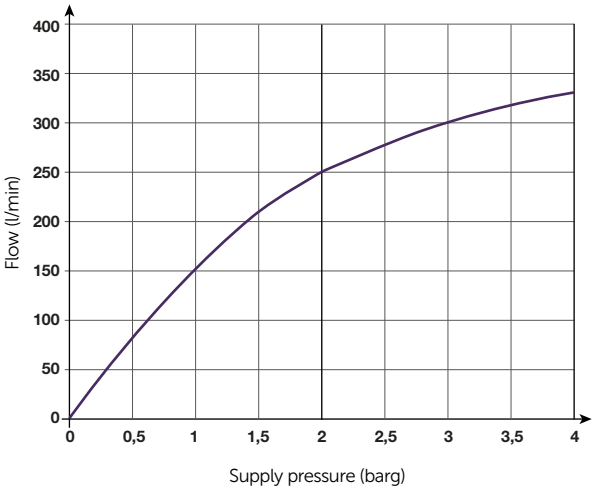
Technical data – standard coils

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

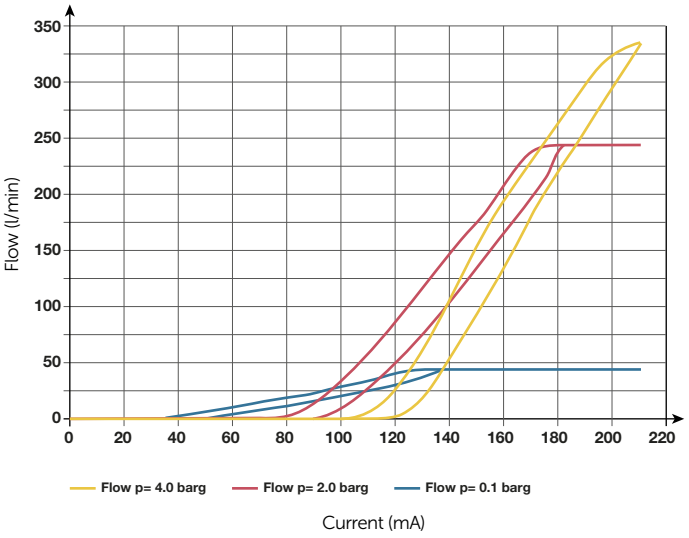
*1) Please refer to instruction K12M.0001 for recommendation on drive signals

Additional information

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



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



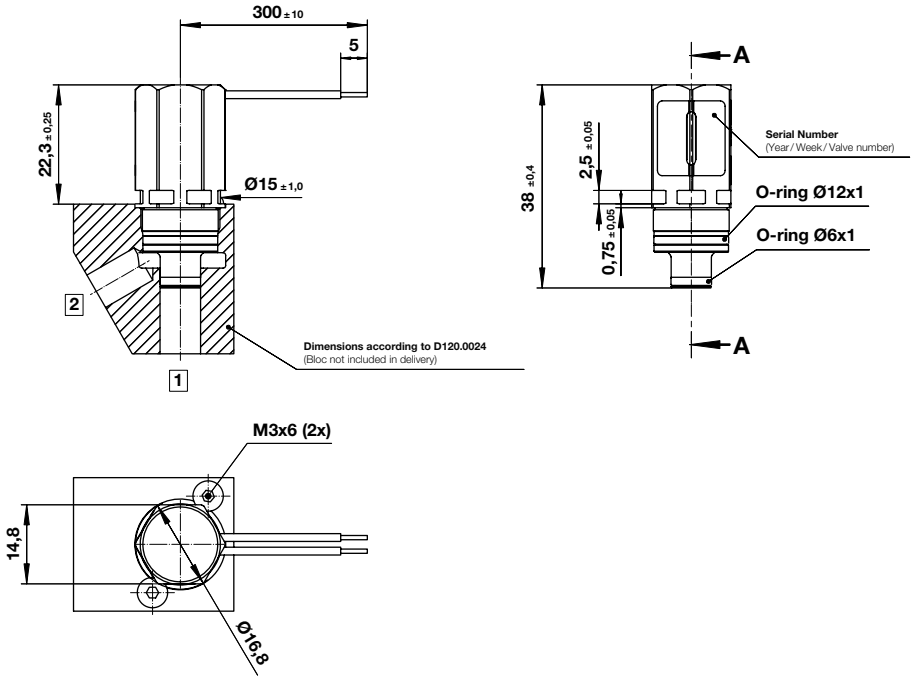
Accessories

Manifold for cartridge version with G1/4 ports in aluminium

S120.0152

Dimensions

Dimensions in mm
Projection/first angle

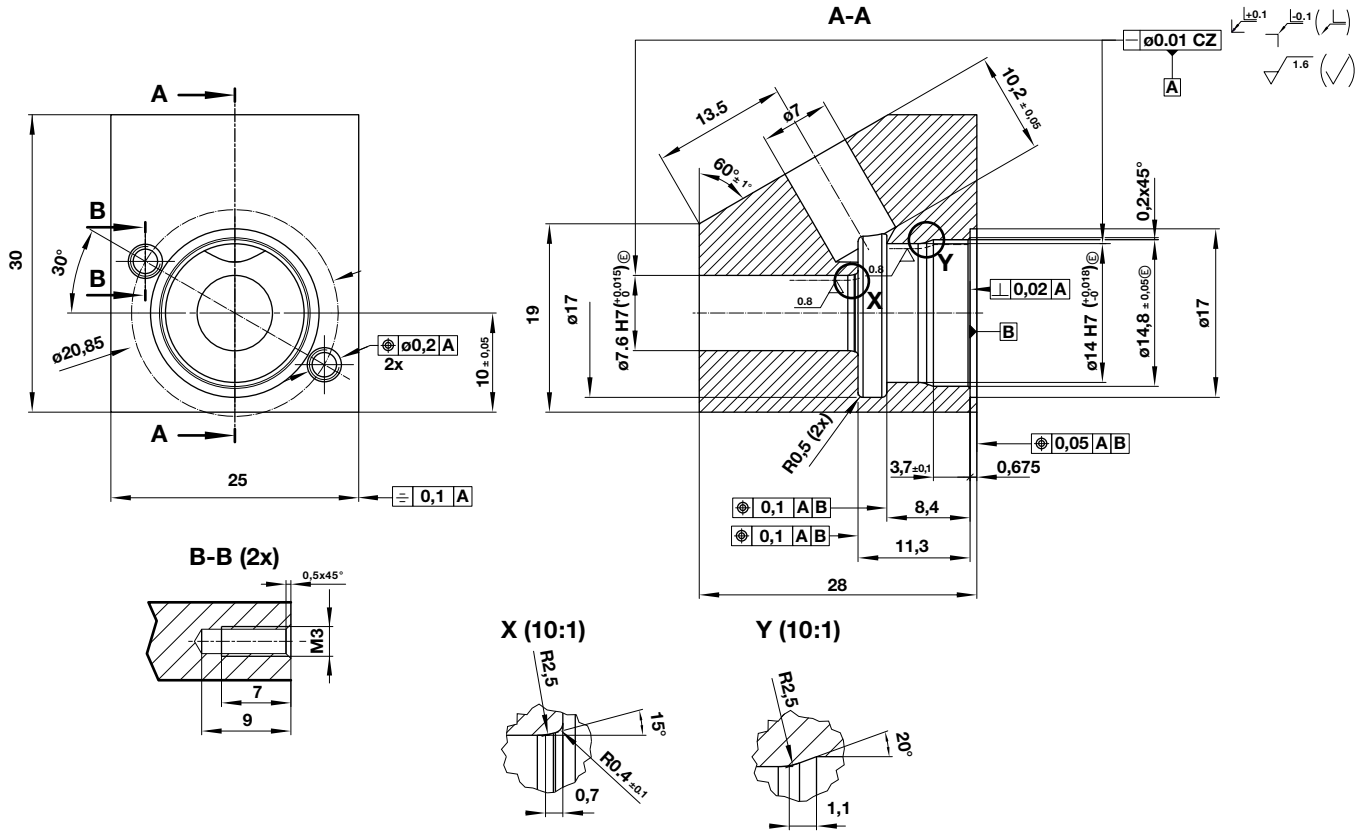


Dimensions

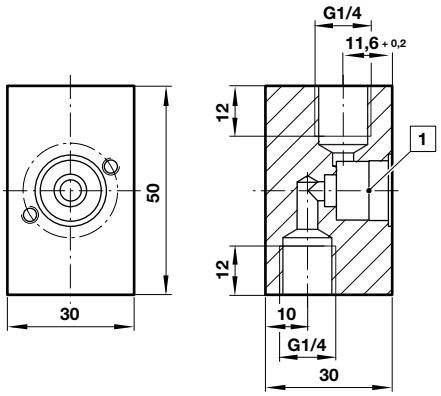
Dimensions in mm
Projection/first angle

Manifold cavity – recommended geometry (D120.0024)

Drop in compatible with standard FLATPROP manifolds – verify that existing porting/cross holes do not restrict the valve's higher flow.



Test manifold S120.0152



1 Interface geometry see Cartridge fitting D120.0024

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 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.