

Proportional-pressure control valve VPPE-3-1-1/4-2-MR-E1-F1A

Part number: 8181689

FESTO



Data sheet

Feature	Value
Nominal width pressurization	5 mm
Exhaust nominal width	2.5 mm
Actuation type	Electrical
Sealing principle	Soft
Mounting position	Any Preferably upright
Structural design	Pilot-controlled diaphragm regulator
Short-circuit protection	For all electrical connections
Setpoint input	digital
Safety instructions	VPPE safety position: if the supply cable breaks, the outlet pressure is maintained in uncontrolled form.
Reverse polarity protection	for all electrical connections
Reset method	Mechanical spring
Type of control	Piloted
Valve function	3-way proportional pressure control valve
Display type	LED indicator 3-digit
Pressure regulation range MPa	0.002 MPa...0.2 MPa
Pressure regulation range	0.02 bar...2 bar
Value range MPa	0 bit...200 bit
Value range bar	0 bit...2000 bit
Value range psi	0 bit...290 bit
Inlet pressure 1	3 bar...4 bar
Inlet pressure 1 MPa	0.3 MPa...0.4 MPa
Max. pressure hysteresis	0.002 MPa 0.02 bar 0.29 psi
Normal nominal flow rate (normalized to DIN 1343)	700 l/min
DC operating voltage range	21.6 V...26.4 V
Max. current consumption	160 mA
Duty cycle	100%
Max. electrical power consumption	4.2 W
Protocol	Modbus RTU

Feature	Value
Residual ripple	10%
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gases
Information on operating and pilot media	Operation with oil lubrication not possible
Certification	RCM compliance mark c UL us - Listed (OL)
KC characters	KC-EMV
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Certificate issuing authority	UL E322346
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Temperature of medium	10 °C...50 °C
Degree of protection	IP65
Ambient temperature	0 °C...60 °C
Product weight	390 g
Linearity	1 %FS
Hysteresis	1 %FS
Reproducibility	1 %FS
Overall accuracy	1.5 %FS
Temperature coefficient	0.04 %/K
Electrical connection	5-pin M12 Plug
Serial interface, type	RS 485-A
Type of mounting	With through-hole
Pneumatic connection 1	G1/4
Pneumatic connection 2	G1/4
Pneumatic connection 3	G1/8
Note on materials	RoHS compliant
Housing material	Aluminum, powder-coated