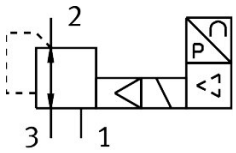
Proportional-pressure regulator
VPPE-3-1-1/4-2-420-E1-F1A

Part number: 8181686





Data sheet

Feature	Value
Nominal size, supply	5 mm
Nominal size, exhaust	2.5 mm
Type of actuation	Electrical
Sealing principle	Soft
Mounting position	Any Preferably upright
Design	Piloted diaphragm regulator
Short circuit current rating	For all electrical connections
Safety instructions	Safety position VPPE: if the power supply cable is interrupted, output pressure is maintained unregulated.
Reverse polarity protection	For all electrical connections
Type of reset	Mechanical spring
Type of piloting	Piloted
Valve function	3-way proportional pressure regulator
Display type	LED indicator 3 digits
Pressure regulation range	0.002 MPa...0.2 MPa 0.02 bar...2 bar
Inlet pressure 1	3 bar...4 bar 0.3 MPa...0.4 MPa
Max. pressure hysteresis	0.002 MPa 0.02 bar 0.29 psi
Standard nominal flow rate (standardised to DIN 1343)	700 l/min
Operational voltage range DC	21.6 V...26.4 V
Max. current consumption	160 mA
Duty cycle	100%
Max. electrical power consumption	4.2 W
Residual ripple	10%
Switching output	PNP
Signal range analogue output	4 - 20 mA
Signal range analogue input	4 - 20 mA
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gas

Feature	Value
Note on operating and pilot medium	Lubricated operation not possible
Approval	RCM c UL us - Listed (Oil)
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with 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)
Media temperature	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	1.5 %FS
Total accuracy	1.25 %FS
Temperature cooefficient	0.04 %/K
Electrical connection	5-pin M12 Plug
Type of mounting	With through-hole
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	G1/4
Pneumatic connection, port 3	G1/8
Note on materials	RoHS compliant
Material housing	Aluminium, powder-coated