

Proportional-pressure regulator VPPE-3-1-1/4-10-MR-E1-F1A

FESTO

Part number: 8181691



General operating condition

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
Setpoint value input	Digital
Safety instructions	Safety position VPPE: if the power supply cable is interrupted, output pressure is maintained unregulated.
Symbol	00995303
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	0.01 MPa ... 1 MPa
Pressure regulation range	0.1 bar ... 10 bar
Value range MPa	0 bit ... 1000 bit
Value range bar	0 bit ... 10000 bit
Value range psi	0 bit ... 1450 bit
Inlet pressure 1	6 bar ... 11 bar
Inlet pressure 1	0.6 MPa ... 1.1 MPa
Max. pressure hysteresis	0.005 MPa
Max. pressure hysteresis	0.05 bar
Max. pressure hysteresis	0.725 psi
Standard nominal flow rate (standardised to DIN 1343)	2300 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
Protocol	Modbus® RTU
Residual ripple	10%

Feature	Value
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gas
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 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	0.7 %FS
Reproducibility	0.5 %FS
Total accuracy	1.25 %FS
Temperature coefficient	0.04 %/K
Electrical connection	5-pin M12 Plug
Type of serial interface	RS 485-A
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