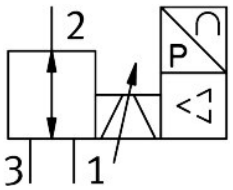
Proportional-pressure regulator
VPPI-1.8L-3-G18-0L2H-V1-S1D

Part number: 8230851





Data sheet

Feature	Value
Nominal size, supply	1.8 mm
Nominal size, exhaust	1.8 mm
Type of actuation	Electrical
Sealing principle	Soft
Total leakage	5 l/h
Flow direction	Non-reversible
Mounting position	Any
Design	Poppet valve with spring return
Short circuit current rating	For all electrical connections
Max. cable length	30 M
Setpoint value input	0 - 10 V Digital
Input resistance	100 kOhm
Safety instructions	Safety position VPPI, normally closed
Reverse polarity protection	For all electrical connections
Type of reset	Mechanical spring
Dimensions (W x L x H)	42.2 mm x 95.3 mm x 94.3 mm
Type of piloting	Direct
Valve function	3-way proportional pressure regulator
Display type	TFT colour
Display size	1.77"
Display resolution	128x160 pixels
Operating pressure	2 bar...4 bar
Pressure regulation range	0 MPa...0.2 MPa 0 bar...2 bar
Inlet pressure 1	0 bar...4 bar 0 MPa...0.4 MPa
Burst pressure	40 bar
Standard nominal flow rate (standardised to DIN 1343)	150 l/min
Standard nominal flow rate 2-3	60 l/min
Operational voltage range DC	21.6 V...27.6 V
Nominal current	0.15 A

Feature	Value
Max. current consumption	525 mA
Max. electrical power consumption	14.5 W
Nominal operating voltage DC	24 V
Switching output	Push-pull
Max. output current	25 mA
Signal range analogue output	0 - 10 V
Max. load resistance current output	500 Ohm
Min. load resistance voltage output	2000 Ohm
Accuracy analogue output in ± %FS	1 %FS
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 instructions for EMC To UK RoHS instructions
Certificate issuing authority	UL E322346
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1
Suitable for use with food	See supplementary material information
Media temperature	0 °C...50 °C
Degree of protection	IP65
Pollution degree	2
Ambient temperature	0 °C...50 °C
Storage temperature	-20 °C...70 °C
Climatic category	3K3 according to EN 60721
Relative air humidity	0 - 85% Non-condensing
Nominal altitude of use	< 3000 m NHN
Instructions on use	The product is suitable for industrial purposes only. Measures to eliminate radio interference may be required in residential areas.
Product weight	370 g
Linearity	0.5 %FS
Hysteresis	0.2 %FS
Reproducibility	0.2 %FS
Total accuracy	0.6 %FS
Temperature cooefficient	0.02 %/K
Electrical connection 1, function	Actual value output Setpoint input Power supply
Electrical connection 1, connection type	Plug
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, number of connections/cores	5
Electrical connection 1, tightening torque	1.5 Nm
Type of mounting	Via through-hole for M4 screw via DIN rail
Pneumatic connection, port 1	G1/8
Pneumatic connection, port 2	G1/8
Pneumatic connection, port 3	G1/8

Feature	Value
Max. tightening torque for fitting	8.5 Nm
Note on materials	RoHS compliant
Material housing	Reinforced PA
Material seals	HNBR PTFE