

Proportional pressure control valve VPPI-5L-3-G18-0L10H-V1-S1BT

FESTO

Part number: 8153297



General operating condition

Data sheet

Feature	Value
Nominal width pressurization	5 mm
Exhaust nominal width	5 mm
Actuation type	Electrical
Sealing principle	Soft
Total leakage	5 l/h
Flow direction	Non-reversible
Mounting position	Any
Structural design	Poppet valve with return spring
Short-circuit protection	For all electrical connections
Max. cable length	30 m
Setpoint input	0 - 10 V PWM
Input resistance	100 kOhm
Safety instructions	Safety position VPPI, normally closed
Symbol	00997299
Reverse polarity protection	for all electrical connections
Reset method	Mechanical spring
Dimensions W x L x H	42.2 mm x 95.3 mm x 94.3 mm
Type of control	Direct
Valve function	3-way proportional pressure control valve
Display type	LED
Operating pressure	10 bar ... 12 bar
Pressure regulation range MPa	0 MPa ... 1 MPa
Pressure regulation range	0 bar ... 10 bar
Inlet pressure 1	0 bar ... 13 bar
Inlet pressure 1 MPa	0 MPa ... 1.3 MPa
Burst pressure	40 bar
Normal nominal flow rate (normalized to DIN 1343)	1400 l/min
Standard nominal flow rate 2-3	750 l/min
DC operating voltage range	21.6 V ... 27.6 V
Nominal current	0.15 A
Max. current consumption	525 mA
Max. electrical power consumption	14.5 W
Nominal operating voltage DC	24 V

Feature	Value
Analog output signal range	0 - 10 V
Min. load resistance of voltage output	2 kOhm
Precision analog output in ± %FS	1 %FS
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas
Information on operating and pilot media	Operation with oil lubrication not possible
Certification	FCC MIC c UL us - Listed (OL)
CE marking (see declaration of conformity)	As per EU EMC directive According to EU radio equipment directive (RED) As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Certificate issuing authority	UL E322346
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 as per 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
For use in the food industry	See supplementary material information
Temperature of medium	0 °C ... 50 °C
Degree of protection	IP65
Contamination level	2
Ambient temperature	0 °C ... 50 °C
Storage temperature	-20 °C ... 70 °C
Climatic category	3K3 as per EN 60721
Relative air humidity	Non-condensing
Nominal altitude of use above sea level	< 3000 m NHN
Application note	The product is suitable for industrial purposes only. Radio interference suppression measures may be required in residential areas.
Sound power level	62.5 dB(A)
Sound power level at a distance of 1 m	51.9 dB(A)
Product weight	365 g
Linearity	0.9 %FS
Hysteresis	0.4 %FS
Reproducibility	0.4 %FS
Overall accuracy	1.1 %FS
Temperature coefficient	0.02 %/K
Electrical connection 1, function	Actual value output Setpoint input Power supply
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	M12x1 A-coded as per EN 61076-2-101
Electrical connection 1, number of pins/wires	5
Electrical connection for input 1, connection pattern	00995383
Electrical connection 1, tightening torque	1.5 Nm
Type of mounting	With through-hole for M4 screw With H-rail
Additional functions	Bluetooth (version 4.2)
Pneumatic connection 1	G1/8
Pneumatic connection 2	G1/8
Pneumatic connection 3	G1/8
Max. tightening torque of pneumatic fitting	8.5 Nm
Note on materials	RoHS-compliant
Housing material	PA-reinforced

Feature	Value
Seals material	HNBR PTFE