

Proportional directional control valve VPWI-

Part number: 8167808

FESTO



Data sheet

Feature	Value
Actuation type	Electrical
Sealing principle	Soft
Mounting position	Any
Structural design	Poppet valve with return spring
Reset method	Mechanical spring
Dimensions W x L x H	42.2 mm x 95.3 mm x 94.3 mm
Safety instructions	Safety position VPWI, normally closed
Type of control	Direct
Flow direction	Non-reversible
Nominal width pressurization	5 mm
Exhaust nominal width	5 mm
Total leakage	5 l/h
Display type	Color TFT
Display size	1.77"
Display resolution	128x160 pixels
Valve function	3-way proportional directional control valve
Reverse polarity protection	for all electrical connections
Short-circuit protection	For all electrical connections
Max. cable length	30 m
Setpoint input	0 - 10 V 4 - 20 mA
Input resistance	0.3 kOhm...100 kOhm
Switching output	Push-pull
Max. output current	25 mA
Analog output signal range	0 - 10 V 4 - 20 mA
Max. load resistance of current output	500 Ohm
Min. load resistance of voltage output	2 kOhm
Precision analog output in $\pm$ %FS	1 %FS
Operating pressure	0 MPa...1.3 MPa 0 bar...13 bar
Inlet pressure 1 MPa	0 MPa...1.3 MPa

Feature	Value
Inlet pressure 1	0 bar...13 bar
Inlet pressure 1 psi	0 psi...188.5 psi
Inlet pressure 3	-0.1 MPa...0 MPa -1 bar...0 bar -14.5 psi...0 psi
Burst pressure	4 MPa 40 bar 580 psi
C value	2.1 l/sbar
Standard nominal flow rate	490 l/min
Standard nominal flow rate 2-3	340 l/min
Cut-off frequency	125 Hz
On switching time	8 ms
Switching time off	8 ms
Hysteresis	0.3 %FS
Temperature coefficient	0.02 %/K
Nominal operating voltage DC	24 V
DC operating voltage range	21.6 V...27.6 V
Nominal current	0.17 A
Max. current consumption	525 mA
Max. electrical power consumption	14.5 W
Certification	RCM compliance mark c UL us - Listed (OL)
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
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
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
Temperature of medium	0 °C...50 °C
Degree of protection	IP65
Ambient temperature	0 °C...50 °C
Storage temperature	-20 °C...70 °C
Climatic category	3K3 as per EN 60721
Relative air humidity	0 - 85 % Non-condensing
Nominal altitude of use above sea level	< 3000 m NHN
Sound power level	62.5 dB(A)
Sound power level at a distance of 1 m	51.9 dB(A)
Application note	The product is suitable for industrial purposes only. Radio interference suppression measures may be required in residential areas.
Product weight	370 g
Repetition accuracy FS	0.3 %
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 1, tightening torque	1.5 Nm

Feature	Value
Type of mounting	With through-hole for M4 screw With H-rail
Pneumatic connection 1	G1/8
Pneumatic connection 2	G1/8
Pneumatic connection 3	G1/8
Max. tightening torque of pneumatic fitting	8.5 Nm
For use in the food industry	See supplementary material information
Note on materials	RoHS-compliant
Cover material	PA-reinforced
Seals material	HNBR PTFE
Housing material	PA-reinforced