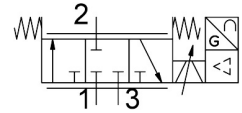


Proportional directional control valve VPWI-5-L-3-G18-12-A4-D

Part number: 8167814

FESTO



[PDF](#) General operating condition

Data sheet

| Feature | Value |
|---|--|
| Type of actuation | Electric |
| Sealing principle | Soft |
| Mounting position | optional |
| Design | Poppet valve with spring return |
| Type of reset | Mechanical spring |
| Dimensions (W x L x H) | 42.2 x 95.3 x 94.3 mm |
| Safety instructions | Fail-safe position VPWI, normally closed |
| Type of piloting | Direct |
| Flow direction | Non-reversible |
| Nominal size, supply | 5 mm |
| Nominal size, exhaust | 5 mm |
| Total leakage | 5 l/h |
| Symbol | 00997519 |
| Display type | TFT colour |
| 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 current rating | For all electrical connections |
| Max. cable length | 30 m |
| Setpoint value input | 4 - 20 mA |
| Input resistance | 0.3 kOhm |
| Signal range analogue output | 4 - 20 mA |
| Max. load resistance current output | 500 Ohm |
| Accuracy analogue output in ± %FS | 1 %FS |
| Operating pressure | 1.2 MPa ... 1.3 MPa |
| Operating pressure | 12 bar ... 13 bar |
| Inlet pressure 1 | 0 MPa ... 1.3 MPa |
| Inlet pressure 1 | 0 bar ... 13 bar |
| Inlet pressure 1 | 0 psi ... 188.5 psi |
| Burst pressure | 4 MPa |
| Burst pressure | 40 bar |
| Burst pressure | 580 psi |
| C value | 2.1 l/sbar |
| Standard nominal flow rate (standardised to DIN 1343) | 490 l/min |
| Standard nominal flow rate 2-3 | 340 l/min |

| Feature | Value |
|--|--|
| Limit frequency | 125 Hz |
| Switching time on | 8 ms |
| Switching time off | 8 ms |
| Hysteresis | 0.3 %FS |
| Temperature coefficient | 0.02 %/K |
| Nominal operating voltage DC | 24 V |
| Operational voltage range DC | 21.6 V ... 27.6 V |
| Nominal current | 0.17 A |
| Max. current consumption | 525 mA |
| Max. electrical power consumption | 14.5 W |
| Approval | RCM trademark c UL us listed (OL) |
| 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 |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases |
| Note on operating and pilot medium | Lubricated operation not possible |
| 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 |
| 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 as per EN 60721 |
| Relative air humidity | 0 - 85% Non-condensing |
| Nominal altitude of use | < 3000 m NHN |
| Sound power level | 62.5 dB(A) |
| Sound power level at a distance of 1 m | 51.9 dB(A) |
| 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 |
| Repetition accuracy FS | 0.3 % |
| Electrical connection 1, function | Actual value output Setpoint input Power supply |
| Electrical connection 1, connection type | Plugs |
| Electrical connection 1, connector system | M12x1, A-coded to EN 61076-2-101 |
| Electrical connection 1, number of connections/cores | 5 |
| Electrical connection 1, connection pattern | 00994083 |
| Electrical connection 1, tightening torque | 1.5 Nm |
| Type of mounting | Via through-hole for M4 screw With H-rail |
| Pneumatic connection, port 1 | G1/8 |
| Pneumatic connection, port 2 | G1/8 |
| Pneumatic connection, port 3 | G1/8 |
| Max. tightening torque for fitting | 8.5 Nm |
| Suitable for use with food | See supplementary material information |
| Note on materials | RoHS-compliant |

| Feature | Value |
|------------------|---------------|
| Material cover | PA-reinforced |
| Material seals | HNBR PTFE |
| Material housing | PA-reinforced |