

Proportional pressure control valve VPPI-5L-3-G18-1V1H-V1-S1D

FESTO

Part number: 8104673



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 Digital |
| 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 | Color TFT |
| Display size | 1.77" |
| Display resolution | 128x160 pixels |
| Operating pressure | 1 bar ... 2 bar |
| Pressure regulation range MPa | -0.1 MPa ... 0.1 MPa |
| Pressure regulation range | -1 bar ... 1 bar |
| Inlet pressure 1 | 0 bar ... 6 bar |
| Inlet pressure 1 MPa | 0 MPa ... 0.6 MPa |
| Inlet pressure 3 | -0.1 MPa ... 0 MPa |
| Inlet pressure 3 | -1 bar ... 0 bar |
| Burst pressure | 40 bar |
| Normal nominal flow rate (normalized to DIN 1343) | 150 l/min |
| Standard nominal flow rate 2-3 | 20 l/min |
| DC operating voltage range | 21.6 V ... 27.6 V |

| Feature | Value |
|---|---|
| Nominal current | 0.15 A |
| 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 |
| Analog output signal range | 0 - 10 V |
| Min. load resistance of voltage output | 2 kOhm |
| Precision analog output in \pm %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 | RCM compliance mark c UL us - Listed (OL) |
| KC characters | KC EMC |
| CE marking (see declaration of conformity) | As per EU EMC directive 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 | 370 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 |
| Pneumatic connection 1 | G1/8 |

| Feature | Value |
|---|----------------|
| 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 |
| Seals material | HNBR PTFE |