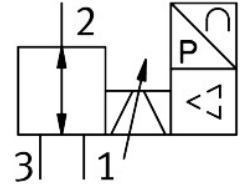


# Proportional pressure regulator VPPI-5L-3-G18-0L10H-V1-S1BT

Part number: 8153297

**FESTO**



 General operating condition

## Data sheet

| Feature                                               | Value                                 |
|-------------------------------------------------------|---------------------------------------|
| Nominal size, supply                                  | 5 mm                                  |
| Nominal size, exhaust                                 | 5 mm                                  |
| Type of actuation                                     | Electric                              |
| Sealing principle                                     | Soft                                  |
| Total leakage                                         | 5 l/h                                 |
| Flow direction                                        | Non-reversible                        |
| Mounting position                                     | optional                              |
| 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<br>PWM                       |
| Input resistance                                      | 100 kOhm                              |
| Safety instructions                                   | Safety position VPPI, normally closed |
| Symbol                                                | 00997299                              |
| Reverse polarity protection                           | For all electrical connections        |
| Type of reset                                         | Mechanical spring                     |
| Dimensions (W x L x H)                                | 42.2 x 95.3 x 94.3 mm                 |
| Type of piloting                                      | Direct                                |
| Valve function                                        | 3-way proportional pressure regulator |
| Display type                                          | LED                                   |
| Operating pressure                                    | 10 bar ... 12 bar                     |
| Pressure regulation range                             | 0 MPa ... 1 MPa                       |
| Pressure regulation range                             | 0 bar ... 10 bar                      |
| Inlet pressure 1                                      | 0 bar ... 13 bar                      |
| Inlet pressure 1                                      | 0 MPa ... 1.3 MPa                     |
| Burst pressure                                        | 40 bar                                |
| Standard nominal flow rate (standardised to DIN 1343) | 1400 l/min                            |
| Standard nominal flow rate 2-3                        | 750 l/min                             |
| Operational voltage range DC                          | 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                                                                                                                                |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Signal range analogue output                         | 0 - 10 V                                                                                                                             |
| Min. load resistance voltage output                  | 2 kOhm                                                                                                                               |
| Accuracy analogue output in $\pm$ %FS                | 1 %FS                                                                                                                                |
| Operating medium                                     | Compressed air to ISO 8573-1:2010 [7:4:4]<br>Inert gases                                                                             |
| Note on operating and pilot medium                   | Lubricated operation not possible                                                                                                    |
| Approval                                             | FCC<br>MIC<br>c UL us listed (OL)                                                                                                    |
| CE mark (see declaration of conformity)              | To EU EMC Directive<br>EU-radio equipment-directive (RED)<br>In accordance with EU RoHS Directive                                    |
| UKCA marking (see declaration of conformity)         | To UK instructions for EMC<br>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 class                                      | 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 as per EN 60721                                                                                                                  |
| Relative air humidity                                | 0 - 85%<br>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. |
| 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                                                                                                                              |
| Total accuracy                                       | 1.1%FS                                                                                                                               |
| Temperature coefficient                              | 0.02 %/K                                                                                                                             |
| Electrical connection 1, function                    | Actual value output<br>Setpoint input<br>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<br>With H-rail                                                                                         |
| Additional functions                                 | Bluetooth (version 4.2)                                                                                                              |
| 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                                                                                                                               |

| Feature           | Value          |
|-------------------|----------------|
| Note on materials | RoHS-compliant |
| Material housing  | PA-reinforced  |
| Material seals    | HNBR<br>PTFE   |