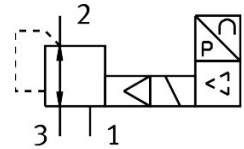


# Proportional pressure control valve VPPE-3-1-1/8-6-005-E1-F1A

FESTO

Part number: 8156421



 General operating condition

## Data sheet

| Feature   | Value   |
|---|---|
| Nominal width pressurization                      | 5 mm  |
| Exhaust nominal width                             | 2.5 mm  |
| Actuation type                                    | Electrical  |
| Sealing principle                                 | Soft  |
| Mounting position                                 | Any<br>Preferably upright   |
| Structural design                                 | Pilot-controlled diaphragm regulator  |
| Short-circuit protection                          | For all electrical connections  |
| Safety instructions                               | VPPE safety position: if the supply cable breaks, the outlet pressure is maintained in uncontrolled form. |
| Symbol  | 00995303  |
| Reverse polarity protection                       | for all electrical connections  |
| Reset method                                      | Mechanical spring   |
| Type of control                                   | Piloted   |
| Valve function                                    | 3-way proportional pressure control valve   |
| Display type                                      | LED indicator<br>3-digit  |
| Pressure regulation range MPa                     | 0.006 MPa ... 0.6 MPa   |
| Pressure regulation range                         | 0.06 bar ... 6 bar  |
| Inlet pressure 1                                  | 6 bar ... 8 bar   |
| Inlet pressure 1 MPa                              | 0.6 MPa ... 0.8 MPa   |
| Max. pressure hysteresis                          | 0.003 MPa   |
| Max. pressure hysteresis                          | 0.03 bar  |
| Max. pressure hysteresis                          | 0.435 psi   |
| Normal nominal flow rate (normalized to DIN 1343) | 800 l/min   |
| DC operating voltage range                        | 21.6 V ... 26.4 V   |
| Max. current consumption                          | 160 mA  |
| Duty cycle  | 100%  |
| Max. electrical power consumption                 | 4.2 W   |
| Residual ripple                                   | 10%   |
| Switching output                                  | PNP   |
| Analog output signal range                        | 1 - 5 V   |
| Analog input signal range                         | 0 - 5 V   |
| Operating medium                                  | Compressed air as per ISO 8573-1:2010 [7:4:4]<br>Inert gases  |
| Information on operating and pilot media          | Operation with oil lubrication not possible   |

| Feature   | Value  |
|---|--|
| Certification   | RCM compliance mark<br>c UL us - Listed (OL)                       |
| KC characters   | KC-EMV   |
| CE marking (see declaration of conformity)                | As per EU EMC directive<br>As per EU RoHS directive                |
| UKCA marking (see declaration of conformity)              | To UK RoHS instructions  |
| Certificate issuing authority                             | UL E322346   |
| Corrosion resistance class (CRC)                          | 2 - Moderate corrosion stress                                      |
| LABS (PWIS) conformity                                    | VDMA24364-B2-L   |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1                                   |
| Temperature of medium                                     | 10 °C ... 50 °C  |
| Degree of protection                                      | IP65   |
| Ambient temperature                                       | 0 °C ... 60 °C   |
| Product weight  | 390 g  |
| Linearity   | 1 %FS  |
| Hysteresis  | 0.5 %FS  |
| Reproducibility   | 0.5 %FS  |
| Overall accuracy  | 1.25 %FS   |
| Temperature coefficient                                   | 0.04 %/K   |
| Electrical connection                                     | M12<br>Plug  |
| Type of mounting  | With through-hole  |
| Pneumatic connection 1                                    | G1/8   |
| Pneumatic connection 2                                    | G1/8   |
| Pneumatic connection 3                                    | G1/8   |
| Note on materials   | RoHS compliant   |
| Housing material  | Aluminum, powder-coated  |