

# proportional pressure regulator

## VPPE-3-1-1/8-10-005-E1-F1A

Part number: 8156422

FESTO



### Data sheet

| Feature                                      | Value  |
|--|--|
| Nominal diameter, pressurisation             | 5 mm   |
| Nominal diameter, exhaust                    | 2.5 mm   |
| Variants                                     | Recommended for production facilities for the manufacture of lithium-ion batteries                         |
| Type of actuation                            | electrical   |
| Sealing principle                            | soft   |
| Assembly position                            | Any<br>Preferably upright  |
| Design structure                             | Pilot actuated diaphragm regulator   |
| Short circuit strength                       | for all electrical connections   |
| Safety instructions                          | VPPE safety position: If the power supply cable is interrupted, output pressure is maintained unregulated. |
| Polarity protected                           | for all electrical connections   |
| Type of reset                                | mechanical spring  |
| Type of piloting                             | Piloted  |
| Valve function                               | 3-way proportional-pressure regulator  |
| Type of display                              | LED display<br>3-digit   |
| Pressure regulation range MPa                | 0.01 ... 1 MPa   |
| Pressure regulation range                    | 0.1 ... 10 bar   |
| Inlet pressure 1                             | 6 ... 11 bar   |
| Supply pressure 1 MPa                        | 0.6 ... 1.1 MPa  |
| Max. pressure hysteresis (MPa)               | 0.005 MPa  |
| Max. pressure hysteresis                     | 0.05 bar<br>0.725 psi  |
| Standard nominal flow rate                   | 1,250 l/min  |
| Operating voltage range DC                   | 21.6 ... 26.4 V  |
| Max. current consumption                     | 160 mA   |
| Duty cycle                                   | 100 %  |
| Max. electrical power consumption            | 4.2 W  |
| Residual ripple                              | 10 %   |
| Switch output                                | PNP  |
| Signal range, analogue output                | 1 - 5 V  |
| Signal range, analogue input                 | 0 - 5 V  |
| Operating medium                             | Compressed air in accordance with ISO8573-1:2010 [7:4:4]<br>Inert gases                                    |
| Note on operating and pilot medium           | Lubricated operation not possible  |
| Authorisation                                | RCM Mark<br>c UL us - Listed (OL)  |
| KC mark                                      | KC-EMV   |
| CE mark (see declaration of conformity)      | to EU directive for EMC<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 department               | UL E322346   |
| Corrosion resistance classification CRC      | 2 - Moderate corrosion stress  |

| Feature                        | Value                    |
|--------------------------------|--------------------------|
| PWIS conformity                | VDMA24364-B2-L           |
| RSBP classification to CD-0033 | F1a                      |
| Cleanroom class                | ISO class 4              |
| Medium temperature             | 10 ... 50 °C             |
| Protection class               | IP65                     |
| Ambient temperature            | 0 ... 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          | 5-pin<br>M12<br>Plug     |
| Mounting type                  | with through hole        |
| Pneumatic connection, port 1   | G1/8                     |
| Pneumatic connection, port 2   | G1/8                     |
| Pneumatic connection, port 3   | G1/8                     |
| Materials note                 | Conforms to RoHS         |
| Material housing               | Aluminium, powder-coated |