

# Proportional pressure control valve VPPM-6F-L-1-F-0L10H-A4N-S1

Part number: 542244

**FESTO**



## Data sheet

| Feature                                           | Value                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Nominal width pressurization                      | 6 mm                                                                                                      |
| Exhaust nominal width                             | 4.5 mm                                                                                                    |
| Actuation type                                    | Electrical                                                                                                |
| Sealing principle                                 | Soft                                                                                                      |
| Mounting position                                 | Any                                                                                                       |
| Structural design                                 | Pilot-controlled diaphragm regulator                                                                      |
| Short-circuit protection                          | For all electrical connections                                                                            |
| Safety instructions                               | VPPM safety position: if the supply cable breaks, the outlet pressure is maintained in uncontrolled form. |
| 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                                                                                                       |
| Pressure regulation range MPa                     | 0.01 MPa...1 MPa                                                                                          |
| Pressure regulation range                         | 0.1 bar...10 bar                                                                                          |
| Inlet pressure 1                                  | 0 bar...11 bar                                                                                            |
| Inlet pressure 1 MPa                              | 0 MPa...1.1 MPa                                                                                           |
| Max. pressure hysteresis                          | 0.05 bar                                                                                                  |
| Normal nominal flow rate (normalized to DIN 1343) | 1400 l/min                                                                                                |
| DC operating voltage range                        | 21.6 V...26.4 V                                                                                           |
| Max. current consumption                          | 300 mA                                                                                                    |
| Duty cycle                                        | 100%                                                                                                      |
| Max. electrical power consumption                 | 7 W                                                                                                       |
| Residual ripple                                   | 10%                                                                                                       |
| Switching output                                  | NPN                                                                                                       |
| Analog output signal range                        | 4 - 20 mA                                                                                                 |
| Precision analog output in ± %FS                  | 2 %FS                                                                                                     |
| Analog input signal range                         | 4 - 20 mA                                                                                                 |
| 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 instructions for EMC<br>To UK RoHS instructions   |
| Certificate issuing authority                | UL E322346                                              |
| Corrosion resistance class (CRC)             | 2 - Moderate corrosion stress                           |
| LABS (PWIS) conformity                       | VDMA24364-B1/B2-L                                       |
| Temperature of medium                        | 10 °C...50 °C                                           |
| Degree of protection                         | IP65                                                    |
| Ambient temperature                          | 0 °C...60 °C                                            |
| Product weight                               | 400 g                                                   |
| Linearity                                    | 1 %FS                                                   |
| Hysteresis                                   | 0.5 %FS                                                 |
| Reproducibility                              | 0.5 %FS                                                 |
| Overall accuracy                             | 1.25 %FS                                                |
| Temperature coefficient                      | 0.04 %/K                                                |
| Repetition accuracy FS                       | 0.5 %                                                   |
| Electrical connection                        | 8-pin<br>M12<br>Plug                                    |
| Type of mounting                             | Alternatively:<br>With through-hole<br>With accessories |
| Pneumatic connection 1                       | Sub-base                                                |
| Pneumatic connection 2                       | Sub-base                                                |
| Pneumatic connection 3                       | Sub-base                                                |
| Note on materials                            | RoHS compliant                                          |
| Housing material                             | Wrought aluminum alloy<br>Anodized                      |