

# Pressure sensor SPAU-B11R-H-G18FD-L-PNLK-PNVBA-M8U

Part number: 8200257

**FESTO**



## Data sheet

| Feature                                    | Value   |
|--|---|
| Approval                                   | RCM trademark<br>c UL us listed (OL)                        |
| CE mark (see declaration of conformity)    | To EU EMC Directive<br>In accordance with EU RoHS Directive |
| CE marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions       |
| KC mark                                    | KC-EMV  |
| Note on materials                          | RoHS-compliant  |
| Measured variable                          | Relative pressure   |
| Measurement method                         | Piezoresistive pressure sensor                              |
| Start value for pressure measuring range   | -0.1 MPa<br>-1 bar<br>-14.5 psi                             |
| End value for pressure measuring range     | 1 MPa<br>10 bar<br>145 psi                                  |
| Overload pressure                          | 1.5 MPa<br>15 bar<br>217.5 psi                              |
| Operating medium                           | Compressed air to ISO 8573-1:2010 [7:4:4]<br>Inert gases    |
| Note on operating and pilot medium         | Lubricated operation possible                               |
| Media temperature                          | 0 °C...50 °C  |
| Ambient temperature                        | 0 °C...50 °C  |
| Resolution ADC                             | 12 bit  |
| Accuracy in ± % FS                         | 1.5 %FS   |
| Repetition accuracy in ± %FS               | 0.3 %FS   |
| Temperature coefficient in ± %FS/K         | 0.05 %FS/K  |
| Switching output                           | 2 x PNP or 2 x NPN, switchable<br>2xPNP                     |
| Switching function                         | Freely programmable   |
| Switching element function                 | N/C or N/O contact, switchable                              |
| Max. output current                        | 100 mA  |

| Feature  | Value  |
|--|--|
| Analogue output                                      | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V   |
| Rise time  | 3 ms   |
| Max. load resistance current output                  | 500 Ohm  |
| Min. load resistance voltage output                  | 10 kOhm  |
| Short circuit current rating                         | yes  |
| Protocol   | IO-Link®   |
| IO-Link, Protocol version                            | Device V 1.1   |
| IO-Link, Profile                                     | Smart sensor profile   |
| IO-Link, Function classes                            | Binary data channel (BDC)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel |
| IO-Link, communication mode                          | COM2 (38.4 kBaud)  |
| IO-Link, SIO-Mode support                            | Yes  |
| IO-Link, Port class                                  | A  |
| IO-Link, Process data length OUT                     | 0 bytes  |
| IO-Link, Process data length IN                      | 2 bytes  |
| IO-Link, Process data content IN                     | 14 bit PDV (pressure measurement value)<br>2 bit BDC (pressure monitoring)                                 |
| IO-Link, Min. cycle time                             | 3 ms   |
| IO-Link, Data storage required                       | 0.5 KB   |
| Operational voltage range DC                         | 20 V...30 V  |
| Reverse polarity protection                          | For all electrical connections   |
| Electrical connection 1, connection type             | Plugs  |
| Electrical connection 1, connector system            | M8x1, A-coded, to EN 61076-2-104   |
| Electrical connection 1, number of connections/cores | 4  |
| Electrical connection 1, type of mounting            | Not rotatable  |
| Electrical connection 1, compatible type of mounting | Compatible with latching lock<br>Compatible with rotatable screw-type lock                                 |
| Type of mounting                                     | With H-rail  |
| Mounting position                                    | optional   |
| Pneumatic connection                                 | G1/8   |
| Product weight                                       | 70 g   |
| Material in contact with the medium                  | FPM<br>PA-reinforced<br>High-alloy stainless steel   |
| Display type   | Illuminated LCD<br>LED   |
| Displayable units                                    | MPa<br>bar<br>inH2O<br>inHg<br>kPa<br>kgf/cm <sup>2</sup><br>mmHg<br>psi                                   |
| Setting options                                      | IO-Link®<br>Teach-in<br>Via display and keys   |
| Protection against tampering                         | IO-Link<br>PIN code  |
| Setting range threshold value                        | 0 %...100 %  |
| Setting range hysteresis                             | 0 %...90 %   |
| Degree of protection                                 | IP65<br>IP67   |
| Corrosion resistance class CRC                       | 2 - Moderate corrosion stress  |

| Feature                | Value             |
|------------------------|-------------------|
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |