

# Pressure sensor SPAN-P10R-G18F-PNLK-PNVBA-L1

Part number: 8134897

FESTO



General operating condition

## Data sheet

| Feature                                      | Value   |
|--|---|
| Symbol                                       | 00995685  |
| Certification                                | RCM compliance mark<br>c UL us - Listed (OL)                                  |
| 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  |
| Note on materials                            | RoHS compliant  |
| Measured variable                            | Relative pressure   |
| Method of measurement                        | Piezoresistive pressure sensor  |
| Pressure measuring range initial value       | 0 MPa   |
| Pressure measuring range initial value       | 0 bar   |
| Pressure measuring range initial value       | 0 psi   |
| Pressure measuring range end value           | 1 MPa   |
| Pressure measuring range end value           | 10 bar  |
| Pressure measuring range end value           | 145 psi   |
| Max. overload pressure                       | 15 bar  |
| Overload pressure                            | 1.5 MPa   |
| Overload pressure                            | 15 bar  |
| Overload pressure                            | 217.5 psi   |
| Operating medium                             | Compressed air as per ISO 8573-1:2010 [7:4:4]<br>Inert gases                  |
| Information on operating and pilot media     | Lubricated operation possible   |
| Temperature of medium                        | 0 °C ... 50 °C  |
| Ambient temperature                          | 0 °C ... 50 °C  |
| Accuracy in ± % FS                           | 1.5 %FS   |
| Repetition accuracy in ± %FS                 | 0.3 %FS   |
| Temperature co-efficient in ± %FS/K          | 0.05 %FS/K  |
| Switching output                             | 2 x PNP or 2 x NPN switchable   |
| Switching function                           | Window comparator<br>Threshold value comparator<br>Auto difference monitoring |
| Switching element function                   | N/C contact/N/O contact, switchable   |
| Max. output current                          | 100 mA  |
| Analog output                                | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V  |

| Feature   | Value  |
|---|--|
| Max. load resistance of current output                    | 500 Ohm  |
| Min. load resistance of voltage output                    | 20 kOhm  |
| Short-circuit protection                                  | 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 kBd)  |
| IO-Link®, SIO mode support                                | Yes  |
| IO-Link®, port class                                      | A  |
| IO-Link®, process data width OUT                          | 0 bytes  |
| IO-Link®, process data width IN                           | 2 Byte   |
| IO-Link®, process data content IN                         | 14 bit PDV (pressure measurement)<br>2 bit BDC (pressure monitoring)                                       |
| IO-Link®, minimum cycle time                              | 3 ms   |
| IO-Link®, data memory required                            | 500 byte   |
| DC operating voltage range                                | 15 V ... 30 V  |
| Reverse polarity protection                               | for all electrical connections   |
| Electrical connection 1, connection type                  | Plug   |
| Electrical connection 1, connection technology            | Connection pattern L1J   |
| Electrical connection 1, number of pins/wires             | 4  |
| Electrical connection for input 1, connection pattern     | 00995428   |
| Type of mounting  | Front panel mounting<br>With thread<br>With wall/surface bracket   |
| Mounting position   | Any  |
| Pneumatic connection                                      | Internal thread G1/8   |
| Product weight  | 34 g   |
| Housing material  | PA-reinforced  |
| Materials in contact with the media                       | FPM<br>high-alloy stainless steel  |
| Display type  | Illuminated LCD  |
| Displayable unit(s)                                       | MPa<br>bar<br>In H2O<br>In Hg<br>KPa<br>kgf/cm <sup>2</sup><br>mbar<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                                      | IP40   |
| Corrosion resistance class (CRC)                          | 2 - Moderate corrosion stress  |
| LABS (PWIS) conformity                                    | VDMA24364-B1/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   |