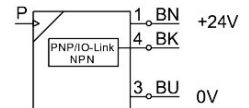


# Pressure sensor SPAE-P10R-F-PNLK-2.5K

Part number: 8001449

FESTO



[General operating condition](#)

## Data sheet

| Feature                                      | Value   |
|--|---|
| Symbol                                       | 00995430  |
| Approval                                     | RCM<br>c UL us - Recognised (Oil)                           |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>In accordance with 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   |
| Measurement method                           | Piezoresistive pressure sensor with display                 |
| Start value for pressure measuring range     | 0 MPa   |
| Start value for pressure measuring range     | 0 bar   |
| Start value for pressure measuring range     | 0 psi   |
| End value for pressure measuring range       | 1 MPa   |
| End value for pressure measuring range       | 10 bar  |
| End value for pressure measuring range       | 145 psi   |
| Overload pressure                            | 1.5 MPa   |
| Overload pressure                            | 15 bar  |
| Overload pressure                            | 217.5 psi   |
| Operating medium                             | Compressed air to ISO 8573-1:2010 [7:4:4]                   |
| Note on operating and pilot medium           | Lubricated operation possible                               |
| Media temperature                            | 0 °C ... 50 °C  |
| Ambient temperature                          | 0 °C ... 50 °C  |
| Resolution ADC                               | 10 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                             | PNP/NPN, switchable   |
| Switching function                           | Freely programmable   |
| Switching element function                   | Switchable  |
| Switch-on time                               | 1 ms  |
| Switch-off time                              | 1 ms  |
| Max. output current                          | 100 mA  |
| Display range start value                    | 0 %FS   |
| Display range end value                      | 99 %FS  |
| Short circuit current rating                 | Yes   |

| Feature   | Value  |
|---|--|
| 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                            | 500 Byte   |
| Operational voltage range DC                              | 18 V ... 30 V  |
| Reverse polarity protection                               | For all electrical connections   |
| Electrical connection                                     | 3-core<br>Cable<br>Open end  |
| Cable length  | 2.5 m  |
| Type of mounting  | Via through-hole and screw   |
| Mounting position   | Any  |
| Pneumatic connection                                      | Flange   |
| Product weight  | 40 g   |
| Material housing  | Reinforced PA  |
| Material sealing ring                                     | Fluoro rubber  |
| Display type  | LED indicator<br>2 digits  |
| Displayable units   | %FS  |
| Switching status indication                               | Yellow LED   |
| Setting options   | IO-Link®<br>Teach-in<br>Via display and buttons  |
| Protection against tampering                              | PIN code   |
| Setting range threshold value                             | 1 % ... 98 %   |
| Degree of protection                                      | IP40   |
| Corrosion resistance class CRC                            | 2 - Moderate corrosion stress  |
| LABS (PWIS) conformity                                    | VDMA24364-B2-L   |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1   |