

# Pressure sensor SPA-E-V1R-Q3-PNLK-2.5K

Part number: 8001442

FESTO



[General operating condition](#)

## Data sheet

| Feature                                      | Value   |
|--|---|
| Symbol                                       | 00995430  |
| Certification                                | RCM compliance mark<br>c UL us - Recognized (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 with display         |
| 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           | -0.1 MPa  |
| Pressure measuring range end value           | -1 bar  |
| Pressure measuring range end value           | -14.5 psi   |
| Overload pressure                            | 0.5 MPa   |
| Overload pressure                            | 5 bar   |
| Overload pressure                            | 72.5 psi  |
| Operating medium                             | Compressed air as per ISO 8573-1:2010 [7:4:4]       |
| Information on operating and pilot media     | Operation with oil lubrication possible             |
| Temperature of medium                        | 0 °C ... 50 °C                                      |
| Ambient temperature                          | 0 °C ... 50 °C                                      |
| ADC resolution                               | 10 bit  |
| 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                             | PNP/NPN switchable                                  |
| Switching function                           | Freely programmable                                 |
| Switching element function                   | Switchable  |
| 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 protection                     | 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 kBd)  |
| IO-Link®, SIO mode support                                | Yes  |
| IO-Link®, port class                                      | A  |
| IO-Link®, process data width OUT                          | 0 Byte   |
| 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                                | 18 V ... 30 V  |
| Reverse polarity protection                               | for all electrical connections   |
| Electrical connection                                     | 3-wire<br>Cable<br>Open end  |
| Cable length  | 2.5 m  |
| Type of mounting  | With accessories   |
| Mounting position   | Any  |
| Pneumatic connection                                      | QS-3   |
| Product weight  | 40 g   |
| Housing material  | PA-reinforced  |
| Sealing ring material                                     | FPM<br>NBR   |
| Display type  | LED display<br>2-digit   |
| Displayable unit(s)                                       | %FS  |
| Switching status indication                               | LED yellow   |
| Setting options   | IO-Link®<br>Teach-in<br>Via display and pushbuttons  |
| 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   |