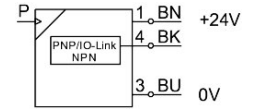


# Pressure sensor SPA-E-V1R-Q3-PNLK-2.5K

Part number: 8001442

**FESTO**



## Data sheet

| Feature                                      | Value                                                 |
|----------------------------------------------|-------------------------------------------------------|
| 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 instructions for EMC<br>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<br>0 bar<br>0 psi                               |
| Pressure measuring range end value           | -0.1 MPa<br>-1 bar<br>-14.5 psi                       |
| Overload pressure                            | 0.5 MPa<br>5 bar<br>72.5 psi                          |
| Operating medium                             | Compressed air as per ISO 8573-1:2010 [7:4:4]         |
| Information on operating and pilot media     | Lubricated operation 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                   | NC contact<br>N.O. contact<br>Switchable              |
| On time                                      | 1 ms                                                  |
| Switch-off time                              | 1 ms                                                  |

| Feature                                                   | Value                                                                                                      |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Max. output current                                       | 100 mA                                                                                                     |
| Display range start value                                 | 0 %FS                                                                                                      |
| Display range end value                                   | 99 %FS                                                                                                     |
| 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                            | 0.5 KB                                                                                                     |
| 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 indicator<br>2-digit                                                                                   |
| Displayable unit(s)                                       | % FS                                                                                                       |
| Switching status indication                               | Yellow LED                                                                                                 |
| Setting options                                           | IO-Link®<br>Teach-in<br>Via display and keys                                                               |
| 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                                                                           |