## Pressure sensor SPAE-V1R-Q3-PNLK-2.5K Part number: 8001442



## **Data sheet**

PNP/IO-Link 4 BK +24V Pr 3\_BU OV

## General operating condition

| 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 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   |
| 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                   | N/C contact<br>N/O contact<br>Switchable              |
| On time                                      | 1 ms  |
| Switch-off time                              | 1 ms  |
| Max. output current                          | 100 mA  |
| Display range start value                    | 0 %FS   |

| Feature                           | Value  |
|-----------------------------------|--|
| 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              | А  |
| 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 class                   | Class 4 according to ISO 14644-1   |