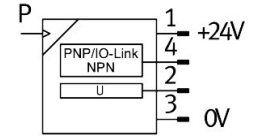


Pressure sensor SPAF-B11R-G18M-L-PNLK-VB-M8

Part number: 8181229

FESTO



[General operating condition](#)

Data sheet

| Feature | Value |
|--|--|
| Symbol | 00997545 |
| Approval | RCM trademark |
| CE mark (see declaration of conformity) | To EU EMC Directive In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK RoHS instructions |
| Note on materials | RoHS-compliant |
| Measured variable | Relative pressure |
| Measurement method | Piezoresistive pressure sensor |
| Start value for pressure measuring range | -0.1 MPa |
| Start value for pressure measuring range | -1 bar |
| Start value for pressure measuring range | -14.5 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] Inert gases |
| Note on operating and pilot medium | Ester oil < 0.1mg/m ³ , according to ISO 8573-1:2010 [-:~:2] Lubricated operation possible |
| Media temperature | 0 °C ... 50 °C |
| Ambient temperature | 0 °C ... 50 °C |
| 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 | Window comparator Threshold value comparator Threshold value with variable hysteresis |
| Switching element function | N/C or N/O contact, switchable |
| Switch-on time | 3 ms |
| Switch-off time | 3 ms |
| Max. output current | 100 mA |
| Voltage drop | 1.6 V |
| Analogue output | 0 - 10 V 1 - 5 V |

| Feature | Value |
|--|--|
| Output characteristic curve start value | 0 V |
| Output characteristic curve end value | 10 V |
| Accuracy analogue output in ± %FS | 1.5 %FS |
| Linearity error in ± %FS | 0.3 %FS |
| Rise time | 6 ms |
| Min. load resistance voltage output | 20 kOhm |
| Display range start value | 0 %FS |
| Display range end value | 100 %FS |
| Short circuit current rating | yes |
| Overload protection | Available |
| Protocol | IO-Link® |
| IO-Link, revision ID | V1.1 |
| IO-Link, device profile | Firmware update Function locator Function Product URI Function Quantity detection Smart sensor - SSP 4.1.1 |
| IO-Link, transmission rate | COM3 |
| IO-Link, SIO-Mode support | Yes |
| IO-Link, port type | Class A |
| IO-Link, process data length output | 0 bit |
| IO-Link, process data length input | 32 bit |
| IO-Link, Process data content IN | Pressure measured value 16 bit MDC Pressure monitoring 2 bit SSC |
| IO-Link, Service data IN | Temperature 16 bit |
| IO-Link, minimum cycle time | 0.9 ms |
| IO-Link, Data storage required | 500 Byte |
| Operational voltage range DC | 15 V ... 30 V |
| Reverse polarity protection | For all electrical connections |
| Electrical connection 1, connection type | Plugs |
| Electrical connection 1, connector system | M8x1, A-coded, to EN 61076-2-104 |
| Electrical connection 1, number of connections/cores | 4 |
| Electrical connection 1, type of mounting | Snap-locking Screw-type lock Not rotatable |
| Electrical connection 1, compatible type of mounting | Compatible with latching lock Compatible with rotatable screw-type lock |
| Electrical connection 1, connection pattern | 00991171 |
| Material connector housing | Nickel-plated brass |
| Type of mounting | Via male thread |
| Mounting position | optional |
| Pneumatic connection | Male thread G1/8 |
| Product weight | 45 g |
| Material housing | PA-reinforced |
| Material in contact with the medium | Stainless steel NBR PA-reinforced |
| Display type | Illuminated LCD blue |
| Displayable units | MPa bar kPa psi |
| Ready status indication | Through backlighting |
| Setting options | IO-Link® Teach-in Via display and keys |

| Feature | Value |
|---|---|
| Protection against tampering | IO-Link PIN code |
| Setting range threshold value | 0 % ... 100 % |
| Setting range hysteresis | 0 % ... 90 % |
| Degree of protection | IP65 |
| Corrosion resistance class CRC | 2 - Moderate corrosion stress |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |
| Suitability for the production of Li-ion batteries | Metals with more than 1% by mass of copper are excluded from use. Exceptions are printed circuit boards, cables, electrical plug connectors and coils. |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1 |