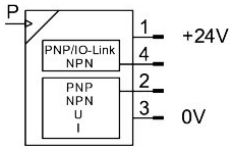
# Pressure sensor
# SPAU-B2R-T-R18M-L-PNLK-PNVBA-M8D

Part number: 8001207






## Data sheet

| Feature | Value |
|---|---|
| Certification | RCM compliance mark<br>c UL us - Listed (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 |
| KC characters | KC-EMV |
| Note on materials | RoHS compliant |
| Measured variable | Relative pressure |
| Method of measurement | Piezoresistive pressure sensor |
| Pressure measuring range initial value | -0.1 MPa<br>-1 bar<br>-14.5 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]<br>Inert gases |
| Information on operating and pilot media | Lubricated operation possible |
| Temperature of medium | 0 °C...50 °C |
| Ambient temperature | 0 °C...50 °C |
| ADC resolution | 12 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 | 2 x PNP or 2 x NPN switchable |
| Switching function | Freely programmable |
| Switching element function | N/C contact/N/O contact, switchable |
| Max. output current | 100 mA |
| Analog output | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V |

| Feature | Value |
|---|---|
| Rise time | 3 ms |
| Max. load resistance of current output | 500 Ohm |
| Min. load resistance of voltage output | 10 kOhm |
| Short-circuit protection | Yes |
| Overload 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 | 20 V...30 V |
| Reverse polarity protection | for all electrical connections |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connection technology | M8x1 A-coded as per EN 61076-2-104 |
| Electrical connection 1, number of pins/wires | 4 |
| Electrical connection 1, type of mounting | not rotatable<br>Compatible with snap-locking<br>Compatible with rotatable screw-type lock |
| Type of mounting | With thread |
| Mounting position | Any |
| Pneumatic connection | R1/8 |
| Product weight | 70 g |
| Materials in contact with the media | FPM<br>PA-reinforced<br>high-alloy stainless steel |
| Display type | Illuminated LCD |
| Displayable unit(s) | MPa<br>bar<br>In H2O<br>In Hg<br>KPa<br>kgf/cm²<br>mmHg<br>psi |
| Setting options | IO-Link®<br>Teach-in<br>Via display and keys |
| Protection against tampering | IO-Link®<br>PIN code |
| Setting range threshold value | 0 %...100 % |
| Setting range hysteresis | 0 %...90 % |
| Degree of protection | IP65<br>IP67 |
| Corrosion resistance class (CRC) | 2 - Moderate corrosion stress |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |