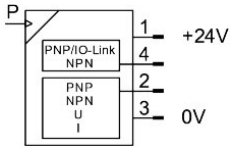
# Pressure sensor
# SPAU-P10R-H-Q4D-L-PNLK-PNVBA-M12D

Part number: 8001212




## Data sheet

| Feature | Value |
|---|---|
| Approval | RCM<br>c UL us - Listed (Oil) |
| CE mark (see declaration of conformity) | To EU EMC Directive<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions |
| KC mark | KC-EMV |
| Note on materials | RoHS compliant |
| Measured variable | Relative pressure |
| Measurement method | Piezoresistive pressure sensor |
| Start value for pressure measuring range | 0 MPa<br>0 bar<br>0 psi |
| End value for pressure measuring range | 1 MPa<br>10 bar<br>145 psi |
| Overload pressure | 1.5 MPa<br>15 bar<br>217.5 psi |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4]<br>Inert gas |
| Note on operating and pilot medium | Lubricated operation possible |
| Media temperature | 0 °C...50 °C |
| Ambient temperature | 0 °C...50 °C |
| Resolution ADC | 12 bit |
| Accuracy in ± % FS | 1.5 %FS |
| Repetition accuracy in ± %FS | 0.3 %FS |
| Temperature coefficient in ± %FS/K | 0.05 %FS/K |
| Switching output | 2 x PNP or 2 x NPN, switchable |
| Switching function | Freely programmable |
| Switching element function | NC or NO, switchable |
| Max. output current | 100 mA |
| Analogue output | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V |

| Feature | Value |
|---|---|
| Rise time | 3 ms |
| Max. load resistance current output | 500 Ohm |
| Min. load resistance voltage output | 10 kOhm |
| Short circuit current rating | 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 kBaud) |
| IO-Link, SIO-Mode support | Yes |
| IO-Link, Port class | A |
| IO-Link, Process data length OUT | 0 bytes |
| IO-Link, Process data length IN | 2 bytes |
| IO-Link, Process data content IN | 14 bit PDV (pressure measurement value)<br>2 bit BDC (pressure monitoring) |
| IO-Link, Min. cycle time | 3 ms |
| IO-Link, Data storage required | 0.5 KB |
| Operational voltage range DC | 20 V...30 V |
| Reverse polarity protection | For all electrical connections |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connector system | M12x1, A-coded to EN 61076-2-101 |
| Electrical connection 1, number of connections/cores | 4 |
| Electrical connection 1, type of mounting | Not rotatable |
| Electrical connection 1, compatible type of mounting | Compatible with rotatable screw-type lock |
| Type of mounting | via DIN rail |
| Mounting position | Any |
| Pneumatic connection | QS-4 |
| Product weight | 50 g |
| Material in contact with the medium | Fluoro rubber<br>Brass, nickel-plated<br>NBR<br>Reinforced PA |
| Display type | Illuminated LCD |
| Displayable units | MPa<br>bar<br>inH2O<br>inHg<br>kPa<br>kgf/cm²<br>mmHg<br>psi |
| Setting options | IO-Link®<br>Teach-in<br>Via display and buttons |
| 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 |