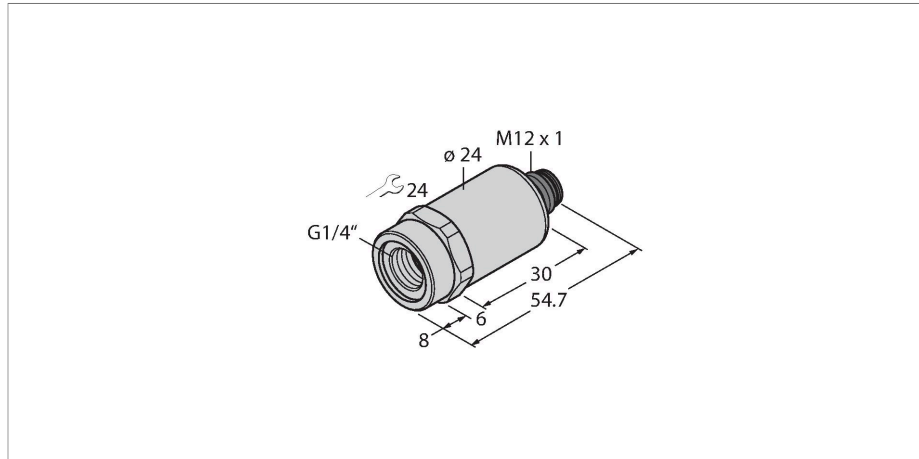


PT250R-2001-IOL-H1141

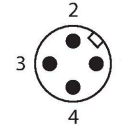
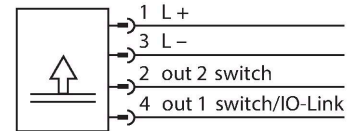
Pressure Transmitter – With Switching Output/IO-Link



Features

- Fully welded metal measuring cell
- Pressure range 0...250 bar rel.
- 11...33 VDC
- NO/NC contact, 2× PNP/NPN outputs, IO-Link
- Process connection G1/4" female thread
- Plug-in device, M12 × 1

Wiring diagram



Technical data

| | |
|---|--|
| Type | PT250R-2001-IOL-H1141 |
| Ident. no. | 100022476 |
| Pressure range | |
| Relative pressure | 0...250 bar rel. |
| | 0...3626 psi |
| | 0...25 MPa |
| Admissible overpressure | ≤ 750 bar |
| Burst pressure | ≥ 1500 bar |
| Response time | < 2 ms, typ. 1 ms |
| Long-term stability | 0.25 % FS, according to IEC EN 60770-1 |
| Power supply | |
| Operating voltage | 11...33 VDC |
| Short-circuit/reverse polarity protection | yes / yes |
| Protection type and class | IP67 / III |
| Insulation voltage | 750 VDC |
| Outputs | |
| Output 1 | Switching output or IO-Link mode |
| Output 2 | switching output |
| Switching output | |
| Communication protocol | IO-Link |
| Output function | NO/NC, PNP/NPN |
| Switching current | ≤ 100 mA |
| Switching frequency | ≤ 100 Hz |

Functional principle

The pressure sensors of the PT...-2000 series operate with a fully welded metal measuring cell. Depending on the sensor variant, the processed signal is available as an analog output signal via 4...20 mA (2-wire), 0...10 V, 0...5 V and 1...6 V (3-wire) or as an IO-Link process parameter. The IO-Link sensor versions also have two independently configurable switching outputs.

Technical data

| | |
|--|--|
| Switching cycles | ≥ 100 mil. |
| Switch point SP1 | Factory setting: 25 % of measuring range end value |
| Release point rP1 | Factory setting: 23 % of measuring range end value |
| Switching point SP2 | Factory setting: 75 % of measuring range end value |
| Release point rP2 | Factory setting: 73 % of measuring range end value |
| Resolution | <± 0.1 % FS |
| Accuracy LHR | ± 0.3 % FS BSL |
| IO-Link | |
| IO-Link specification | V 1.1 |
| Programming | FDT/DTM |
| Transmission physics | corresponds to 3-wire physics (PHY2) |
| Transmission rate | COM 2/38.4 kbps |
| Frame type | 2.2 |
| Temperature behaviour | |
| Medium temperature | -40...+135 °C |
| Temperature coefficient | ± 0.2 % of full scale/10 K |
| Ambient conditions | |
| Ambient temperature | -30...+85 °C |
| Storage temperature | -50...+100 °C |
| Vibration resistance | 20 g, 15...2000 Hz, 15...25 Hz with amplitude +/- 15 mm, 1 octave/minute all 3 directions, 50 continuous loads, acc. to IEC 68-2-6 |
| Shock resistance | 100 g, 11 ms, half sinusoidal curve, all 6 directions, free fall from 1 m onto concrete (6x) , acc. to IEC 68-2-27 |
| Housing | |
| Housing material | Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyacrylamide 50 % GF UL 94 V-0 |
| Pressure connection material | Stainless steel 1.4404 (AISI 316L) |
| Pressure transducer material | Stainless steel 1.4435 (AISI 316L) |
| Process connection | G 1/4" female thread |
| Wrench size pressure connection / coupling nut | 24 |
| Electrical connection | Connector, M12 × 1 |
| Max. tightening torque housing nut | 20 Nm |

Technical data

Reference conditions acc. to IEC
61298-1

| | |
|----------------------|--|
| Temperature | 15...+25 °C |
| Atmospheric pressure | 860...1060 hPa abs. |
| Humidity | 45...75 % rel. |
| Auxiliary power | 24 VDC |
| MTTF | 1200 years acc. to SN 29500 (Ed. 99) 40 °C |