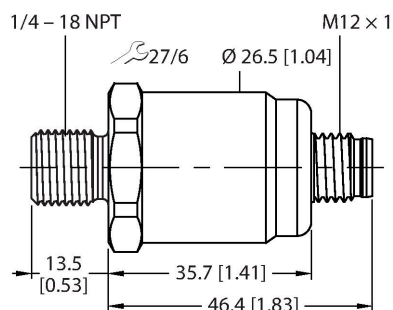


PT2PSIG-1503-I2-H1143/D840

Pressure Transmitter – With Current Output (2-Wire)



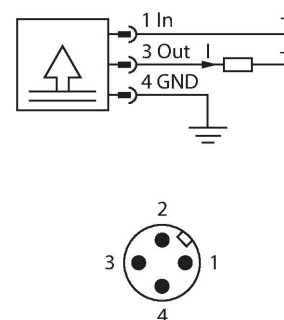
Technical data

| | |
|---|---|
| Type | PT2PSIG-1503-I2-H1143/D840 |
| ID no. | 100004643 |
| Special version | D840 corresponds to: FPM seal |
| Medium temperature | -15...+85 °C |
| Pressure range | |
| Relative pressure bar | 0...0.138 bar rel. |
| | 0...2 psi |
| | 0...0.0138 MPa |
| Admissible overpressure | ≤ 2 bar |
| Permissible vacuum | - 0.3 bar |
| Burst pressure | ≥ 2 bar |
| Response time | < 150 ms |
| Adjustment position | Vertical, pressure connection at bottom |
| Vertical position error, pressure connection at top | + 0.2 mbar |
| Horizontal position error | + 0.1 mbar |
| Long-term stability | ± 0.25 % FS, , acc. to EN 60770-1 |
| Power supply | |
| Operating voltage | 10...30 VDC |
| Current consumption | ≤ 23 mA |
| Short-circuit/reverse polarity protection | yes / yes |
| Insulation class | III |
| Output 1 | Analog output |

Features

- Ceramic measuring cell
- Extremely high measuring accuracy
- Compact and robust design
- Excellent temperature behavior
- Pressure range 0...2 psi rel.
- 10...30 VDC
- Analog output 4...20 mA
- Process connection 1/4"-18 NPT male thread
- Plug-in device, M12 × 1

Wiring diagram



Functional principle

The pressure sensors in the PT...-1500 product series operate with a ceramic measuring cell in various micropressure ranges of up to -100...600 mbar in 2- or 3-wire technology. Depending on the sensor variant, the processed signal is available as an analog

Technical data

| Analog output | |
|--|---|
| Current output | 4...20 mA |
| Load | $\leq (\text{Supply voltage} - 10)/20 \text{ k}\Omega$ |
| Resolution | $\leq \pm 0.1 \text{ \% FS}$ |
| Accuracy LHR | $\pm 0.35 \text{ \% FS BSL}$ |
| Housing material | Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyacrylamide 50 % GF UL 94 V-0 |
| Process connection | 1/4" NPT-18 male thread |
| Pressure connection material | Stainless steel 1.4404 (AISI 316L) |
| Pressure transducer material | Ceramics Al_2O_3 |
| Sealing material | FPM |
| Wrench size pressure connection / coupling nut | 27 |
| Max. tightening torque of housing nut | 27 Nm |
| Electrical connection | Connector, M12 × 1 |
| Protection class | IP67 |
| Ambient temperature | -25...+85 °C |
| Storage temperature | -40...+85 °C |
| Shock resistance | 50 g, 6 ms, half sinusoidal curve, all 6 directions, free fall from 1 m onto concrete (6x) , acc. to IEC 68-2-27 |
| Vibration resistance | 20 g, 15...2000 Hz, 15...25 Hz with amplitude $\mu 15 \text{ mm}$, 1 octave/minute in all 3 directions, 50 continuous loads, according to IEC 68-2-6 |
| Reference conditions acc. to IEC 61298-1 | |
| Temperature | 15...+25 °C |
| Atmospheric pressure | 800...1060 hPa abs. |
| Humidity | 45 % rel. |
| Auxiliary power | 24 VDC |
| Temperature behaviour | |
| Temperature coefficient span TkS | $\pm 0.07 \text{ \% FS/10 K}$ |
| MTTF | 965 years acc. to SN 29500 (Ed. 99) 40 °C |
| Technical data | |
| Type | PT2PSIG-1503-I2-H1143/D840 |
| ID no. | 100004643 |
| Special version | D840 corresponds to: FPM seal |

output signal (4...20 mA, 0...10 V, 0...5 V, ratiometric).

In addition to the standard variants, there are special sensors for uses such as ATEX areas. A wide range of process connections and electrical connections offer a high degree of flexibility in a wide range of applications.

Technical data

| | |
|---|--|
| Pressure range | |
| Relative pressure bar | 0...0.138 bar rel. |
| | 0...2 psi |
| | 0...0.0138 MPa |
| Admissible overpressure | ≤ 2 bar |
| Permissible vacuum | - 0.3 bar |
| Burst pressure | ≥ 2 bar |
| Response time | < 150 ms |
| Adjustment position | Vertical, pressure connection at bottom |
| Vertical position error, pressure connection at top | + 0.2 mbar |
| Horizontal position error | + 0.1 mbar |
| Long-term stability | 0.25 % FS, , acc. to EN 60770-1 |
| Power supply | |
| Operating voltage | 10...30 VDC |
| Current consumption | ≤ 23 mA |
| Short-circuit/reverse polarity protection | yes / yes |
| Protection type and class | IP67 / III |
| Insulation voltage | 500 VDC |
| Outputs | |
| Output 1 | Analog output |
| Analog output | |
| Current output | 4...20 mA |
| Load | ≤ (Supply voltage -10)/20 kΩ |
| Resolution | <± 0.1 % FS |
| Accuracy LHR | ± 0.35 % FS BSL |
| Temperature behaviour | |
| Medium temperature | -15...+85 °C |
| Temperature coefficient span TkS | ± 0.07 % FS/10 K |
| Ambient conditions | |
| Ambient temperature | -25...+85 °C |
| Storage temperature | -40...+85 °C |
| Vibration resistance | 20 g, 15...2000 Hz, 15...25 Hz with amplitude μ 15 mm, 1 octave/minute in all 3 directions, 50 continuous loads, according to IEC 68-2-6 |
| Shock resistance | 50 g, 6 ms, half sinusoidal curve, all 6 directions, free fall from 1 m onto concrete (6x) , acc. to IEC 68-2-27 |

Technical data

| 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 | Ceramics Al ₂ O ₃ |
| Sealing material | FPM |
| Process connection | 1/4" NPT-18 male thread |
| Wrench size pressure connection / coupling nut | 27 |
| Electrical connection | Connector, M12 × 1 |
| Max. tightening torque of housing nut | 27 Nm |
| Reference conditions acc. to IEC 61298-1 | |
| Temperature | 15...+25 °C |
| Atmospheric pressure | 800...1060 hPa abs. |
| Humidity | 45 % rel. |
| Auxiliary power | 24 VDC |
| MTTF | 965 years acc. to SN 29500 (Ed. 99) 40 °C |