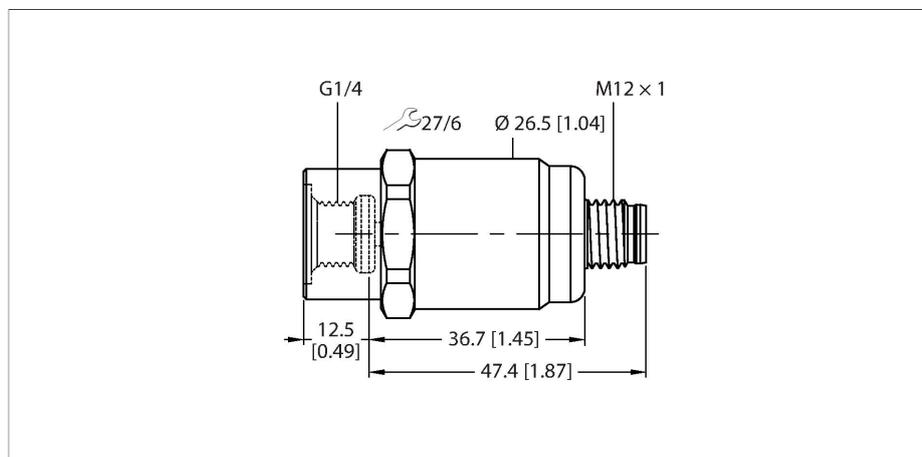


# PT0.25R-1501-I2-H1143/D840

## Pressure Transmitter – With Current Output (2-Wire)



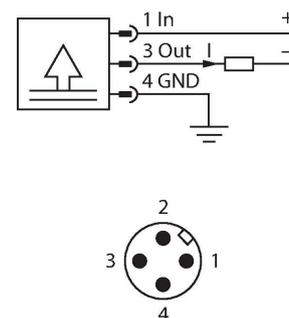
### Technical data

Type	PT0.25R-1501-I2-H1143/D840
ID	100004275
Special version	D840 Corresponds to:FPM seal
Pressure type	Relative pressure
Pressure range	0...0.25 bar 0...3.63 psi 0...0.025 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 IEC EN 60770-1
<b>Power supply</b>	
Operating voltage $U_s$	10...30 VDC
Current consumption	≤ 23 mA
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67
Insulation class	III
Insulation voltage	500 VDC
<b>Outputs</b>	
Output 1	Analog output
<b>Analog output</b>	
Current output	4...20 mA

### Features

- Ceramic measuring cell
- Extremely high measuring accuracy
- Compact and robust design
- Excellent temperature behavior
- Pressure range 0...250 mbar rel.
- 10...30 VDC
- Analog output 4...20 mA
- Process connection G1/4" female thread, front sealing
- Connector 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 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

Load	$\leq (\text{supply voltage} - 10) / 20 \text{ k}\Omega$
Resolution	$< \pm 0.1 \text{ \% FS}$
Accuracy LHR	$\pm 0.35 \text{ \% FS (FS} < 100 \text{ mbar } \pm 0.7 \text{ \% FS)}$
<b>Temperature behaviour</b>	
Medium temperature	$-15 \dots +85 \text{ }^\circ\text{C}$
Temperature coefficient span TkS	$\pm 0.07 \text{ \% FS/10 K}$
<b>Environmental conditions</b>	
Ambient temperature	$-25 \dots +85 \text{ }^\circ\text{C}$
Storage temperature	$-40 \dots +85 \text{ }^\circ\text{C}$
Vibration resistance	20 g, 15...2000 Hz, 15...25 Hz with amplitude $\pm 15 \text{ mm}$ , 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
<b>Mechanical data</b>	
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyarylamide 50 % GF UL 94 V-0
Pressure connection material	Stainless steel 1.4404 (AISI 316L)
Material pressure transducer	Ceramic $\text{Al}_2\text{O}_3$
Sealing material	FPM
Process connection	G 1/4" female thread (front sealing)
Wrench size pressure connection / coupling nut	27
Electrical connection	Connector, M12 $\times$ 1
Max. tightening torque of housing nut	27 Nm
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	$15 \dots +25 \text{ }^\circ\text{C}$
Atmospheric pressure	800...1060 hPa abs.
Humidity	45 % rel.
Auxiliary power	24 VDC
<b>Tests/approvals</b>	
Approvals	cULus
UL registration number	E302799
MTTF	965 years acc. to SN 29500 (Ed. 99) 40 $^\circ\text{C}$
Included in delivery	FKM O-ring special (1 pc)