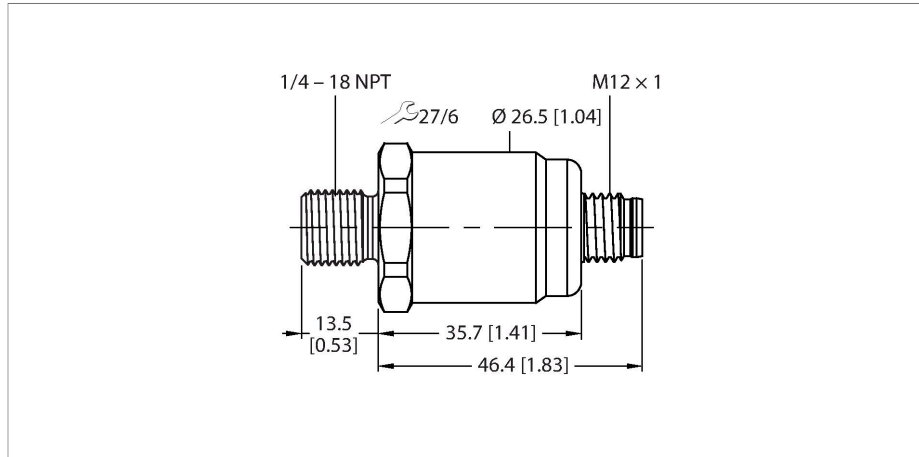


# PT0.05V-1503-I2-H1143/D840

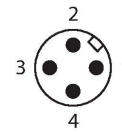
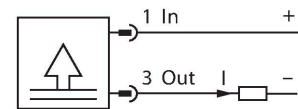
## Pressure Transmitter – With Current Output (2-Wire)



### Features

- Ceramic measuring cell
- Extremely high measuring accuracy
- Compact and robust design
- Excellent temperature behavior
- Pressure range -50...50 mbar rel.
- 10...30 VDC
- Analog output 4...20 mA
- Process connection 1/4"-18 NPT male thread
- Plug-in device, M12 x 1

### Wiring diagram



### Technical data

Type	PT0.05V-1503-I2-H1143/D840
Ident. no.	100004659
<b>Pressure range</b>	
Relative pressure	-0.05...0.05 bar rel.
	-0.725...0.725 psi
	-0.005...0.005 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
<b>Power supply</b>	
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
<b>Outputs</b>	
Output 1	Analog output

### Functional principle

The pressure sensors of the PT ...-1500 series operate with a ceramic measuring cell. Depending on the sensor type used, the processed signal is provided as analog output of either 4...20 mA (2-wire) or 0...10 V/0...5 V (3-wire).

## Technical data

<b>Analog output</b>	
Current output	4...20 mA
Load	$\leq (\text{Supply voltage} - 10)/20 \text{ k}\Omega$
Resolution	< 0.1 % FS
Genauigkeit LHR	$\pm 0.7 \text{ % FS BSL}$
<b>Temperature behaviour</b>	
Medium temperature	-25...+85 °C
Temperature coefficient span Tks	$\pm 0.07 \text{ % FS/10 K}$
<b>Ambient conditions</b>	
Ambient temperature	-25...+85 °C
Storage temperature	-40...+85 °C
Vibration resistance	20 g, 15...2000 Hz, 15...25 Hz with amplitude $\mu$ 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
<b>Housing</b>	
Housing material	Stainless-steel/Plastic, 1.4404 (316L)/Polyarylamide 50 % GF UL 94 V-0
Pressure connection material	Stainless steel 1.4404 (AISI 316L)
Pressure transducer material	Ceramics Al <sub>2</sub> O <sub>3</sub>
Sealing material	FPM
Process connection	NPT 1/4"-18 male thread
Wrench size pressure connection / coupling nut	27
Electrical connection	Connector, M12 x 1
Max. tightening torque housing nut	27 Nm
<b>Reference conditions acc. to IEC 61298-1</b>	
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