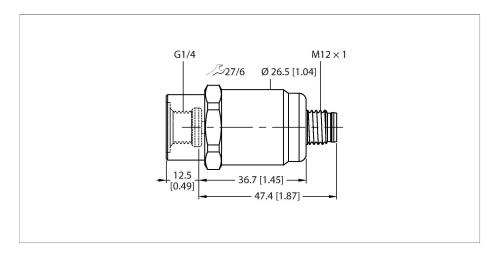


PT1R-1001-I2-H1141/X Pressure Transmitter – With Current Output (2-Wire)



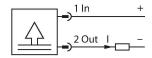
Features

- Ceramic measuring cell
- Compact and robust design
- Excellent EMC properties
- Pressure range 0...1 bar rel.
- ■Pressure tip orifice
- ■7...33 VDC
- ■Analog output 4...20 mA
- Process connection G1/4" female thread, front sealing
- Connector device, M12 × 1

Wiring diagram

Technical data

Туре	PT1R-1001-I2-H1141/X
ID	6836704
Pressure type	Relative pressure
Pressure range	01 bar
	014.5 psi
	00.1 MPa
Admissible overpressure	≤ 3 bar
Burst pressure	≥ 3 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	0.25 % FS, according to IEC EN 60770-1
Power supply	
Operating voltage U _B	733 VDC
Current consumption	≤ 23 mA
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67
Insulation class	III
Insulation voltage	750 VDC
Outputs	
Output 1	Analog output
Output function	Analog output current
Analog output	
Current output	420 mA
Load	≤ (supply voltage -7)/20 kΩ
Resolution	<± 0.1 % FS
Accuracy LHR	±0.3 % FS (typical; max. ±0.5 % FS)





Functional principle

The pressure sensors in the PT...-1000 product series operate with a ceramic measuring cell in various pressure ranges of up to -1...60 bar in 2-, 3- or even 4-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, 1... 6 V, ratiometric) or as a digital IO-Link process parameter. The IO-Link sensor variants also have two independently configurable switching outputs.

In addition to the standard variants, there are special sensors for uses such as ATEX areas or for oxygen applications.

A wide range of process connections and electrical connections offer a high degree of flexibility in a wide range of applications.



Technical data

Medium temperature -40+125 °C Temperature coefficient ± 0.2 % of full scale/10 K Environmental conditions 40+85 °C Ambient temperature -50+100 °C Vibration resistance 20 g, 152000 Hz, 1525 Hz with amplitude ± 15 mm, 1 octave/minute in 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 Mechanical data 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 Al₂O₃ Sealing material FPM spez. Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut 24 Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Temperature behaviour	
Environmental conditions Ambient temperature -30+85 °C Storage temperature -50+100 °C Vibration resistance 20 g, 152000 Hz, 1525 Hz with amplitude ± 15 mm, 1 octave/minute in 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 Mechanical data 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 Al ₂ O ₃ Sealing material FPM spez. Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals CULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Medium temperature	-40+125 °C
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Storage temperature Vibration resistance Vibration resistance Shock resistance Shock resistance Shock resistance Control (Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyarylamide 50 % GF UL 94 V-0 Pressure connection material Stainless steel 1.4404 (AISI 316L)/polyarylamide 50 % GF UL 94 V-0 Pressure transducer Sealing material FPM spez. Process connection Gone 1.4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Environmental conditions	
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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 Al₂O₃ Sealing material FPM spez. Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Shock resistance	6 directions, free fall from 1 m onto con-
Pressure connection material Material pressure transducer Sealing material Process connection Wrench size pressure connection / coupling nut Electrical connection Reference conditions acc. to IEC 61298-1 Temperature Atmospheric pressure Humidity Auxiliary power Auxiliary power Approvals UL registration number Stainless steel 1.4404 (AISI 316L) Ceramic Al ₂ O ₃ Sealing material FPM spez. FPM spez. FPM spez. Ceramic Al ₂ O ₃ FPM spez. Ceramic Al ₂ O ₃ FPM spez. FPM spez. Ceramic Al ₂ O ₃ FPM spez. Auxiliary temale thread (front sealing) 24 25 Connector, M12 × 1 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. 4575 % rel. 24 VDC Tests/approvals Approvals UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Mechanical data	
Material pressure transducer Sealing material FPM spez. Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals CULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Housing material	
Sealing material FPM spez. Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals CULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Pressure connection material	Stainless steel 1.4404 (AISI 316L)
Process connection G 1/4" female thread (front sealing) Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Material pressure transducer	Ceramic Al ₂ O₃
Wrench size pressure connection / coupling nut Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Sealing material	FPM spez.
Electrical connection Connector, M12 × 1 Max. tightening torque of housing nut 20 Nm Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Process connection	G 1/4" female thread (front sealing)
Max. tightening torque of housing nut Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals CULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C		24
Reference conditions acc. to IEC 61298-1 Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Electrical connection	Connector, M12 × 1
Temperature 15+25 °C Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Max. tightening torque of housing nut	20 Nm
Atmospheric pressure 8601060 hPa abs. Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C		
Humidity 4575 % rel. Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Temperature	15+25 °C
Auxiliary power 24 VDC Tests/approvals Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Atmospheric pressure	8601060 hPa abs.
Tests/approvals Approvals CULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Humidity	4575 % rel.
Approvals cULus UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Auxiliary power	24 VDC
UL registration number E302799 MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Tests/approvals	
MTTF 1189 years acc. to SN 29500 (Ed. 99) 40 °C	Approvals	cULus
°C ,	UL registration number	E302799
Included in delivery FKM O-ring special (1 pc)	MTTF	
	Included in delivery	FKM O-ring special (1 pc)