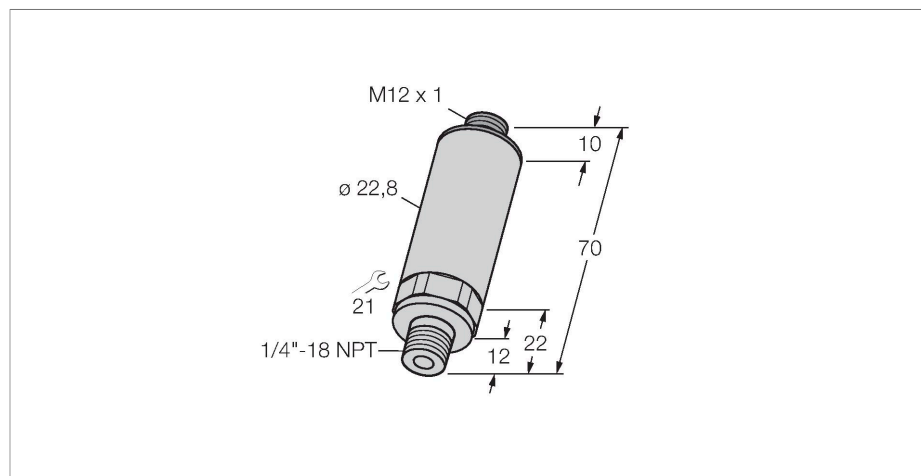


# PT500PSIG-13-LU2-H1131

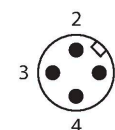
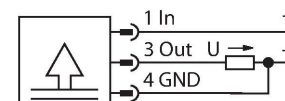
## Pressure Transmitter – With Voltage Output (3-Wire)



### Features

- Compact and robust design
- Pressure connection with integrated peak pressure aperture
- Minimum influence of temperature on accuracy within the entire temperature range of -40...+125°C
- Excellent EMC properties
- Pressure range 0...500 psi rel.

### Wiring diagram



### Technical data

Type	PT500PSIG-13-LU2-H1131
ID	6831476
Medium temperature	-40...+125 °C
<b>Pressure range</b>	
Pressure type	Relative pressure
Pressure range	0...34.47 bar
	0...500 psi
	0...3.45 MPa
Admissible overpressure	≤ 86.18 bar
Burst pressure	≥ 86.18 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	± 1 % FS, In accordance with DIN EN 60770
<b>Power supply</b>	
Operating voltage	11.4...33 VDC
Current consumption	≤ 4 mA
Protective measure	SELV according to EN 50178
Short-circuit/reverse polarity protection	yes / yes
Insulation class	III
<b>Outputs</b>	
Output 1	Analog output
<b>Analog output</b>	
Voltage output	0...10 V
Load	≥ 10 kΩ

### Functional principle

The pressure transmitters of the PT...-1 series operate with piezo-resistive ceramic measuring cells. The ceramic diaphragm is unbalanced in proportion to the pressure applied. Depending on the sensor type used, the processed signal is provided as an analog output signal 4...20mA (2-wire) or 0...10V (3-wire).

## Technical data

Resolution	<math>\pm 0.1\% \text{ FS}</math>
Accuracy LHR	$\pm 0.3\% \text{ FS BSL}$
Calibration accuracy 0-point	0.3 % FS
Calibration accuracy full scale	0.3 % FS
<b>Mechanical data</b>	
Housing material	Stainless-steel/Plastic, 1.4305 (AISI 303)
Process connection	1/4" NPT-18 male thread
Pressure connection material	Stainless steel 1.4305 (AISI 303)
Pressure transducer material	Ceramic Al <sub>2</sub> O <sub>3</sub>
Sealing material	FPM
Wrench size pressure connection / coupling nut	SW 21
Max. tightening torque of housing nut	20 Nm
Electrical connection	Connector, M12 × 1
Protection class	IP67
<b>Environmental conditions</b>	
Ambient temperature	-40...+85 °C
Storage temperature	-40...+85 °C
Shock resistance	100 g (11 ms) acc. to IEC 68-2-27
Vibration resistance	20 x g (9...2000 Hz, 2...9 Hz with an amplitude +/-15 mm), acc. to IEC 68-2-6
<b>Tests/approvals</b>	
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
<b>Temperature behaviour</b>	
Temperature coefficient range TK <sub>s</sub>	$\pm 0.15\% \text{ of full scale}/10 \text{ K}$
Temperature coefficient zero point TK <sub>0</sub>	$\pm 0.15\% \text{ of full scale}/10 \text{ K}$
MTTF	114 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Technical data</b>	
Type	PT500PSIG-13-LU2-H1131
ID	6831476
<b>Pressure range</b>	
Pressure type	Relative pressure
Pressure range	0...34.47 bar

## Technical data

	0...500 psi
	0...3.45 MPa
Admissible overpressure	≤ 86.18 bar
Burst pressure	≥ 86.18 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	1 % FS, In accordance with DIN EN 60770
<b>Power supply</b>	
Operating voltage	11.4...33 VDC
Current consumption	≤ 4 mA
Protective measure	SELV according to EN 50178
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP67 / III
Insulation voltage	500 VDC
<b>Outputs</b>	
Output 1	Analog output
<b>Analog output</b>	
Voltage output	0...10 V
Load	≥ 10 kΩ
Resolution	<± 0.1 % FS
Accuracy LHR	± 0.3 % FS BSL
Calibration accuracy 0-point	0.3 % FS
Calibration accuracy full scale	0.3 % FS
<b>Temperature behaviour</b>	
Medium temperature	-40...+125 °C
Temperature coefficient zero point TK <sub>0</sub>	± 0.15 % of full scale/10 K
Temperature coefficient range TK <sub>s</sub>	± 0.15 % of full scale/10 K
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Storage temperature	-40...+85 °C
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Sealing material	FPM
Process connection	1/4" NPT-18 male thread

## Technical data

Wrench size pressure connection / coupling nut	SW 21
Electrical connection	Connector, M12 × 1
Max. tightening torque of housing nut	20 Nm
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
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Auxiliary power	24 VDC
<b>Tests/approvals</b>	
MTTF	114 years acc. to SN 29500 (Ed. 99) 40 °C