



XPR30 SERIES

Ultraminiature Pressure Transducer



- **Flush Diaphragm, All-Titanium Construction**
- **Full Scale Range :**
from 0-5 to 0-100 bar [0-75 to 0-1500 psi]
- **Low Profile, Diameter 0.12", Length 0.35"**
- **Low Installation Torque Sensitivity**
- **Ideally Suited for Hostile Environments**
- **High Bandwidth**

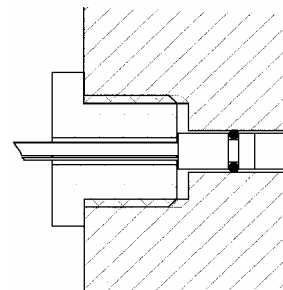
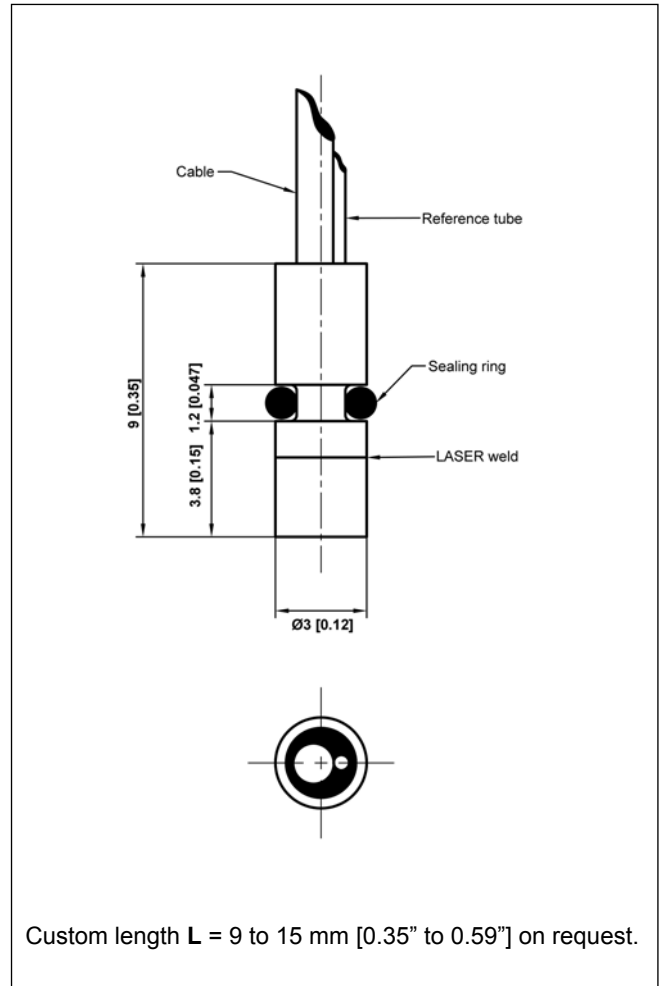
The XPR30 is an ultraminiature pressure transducer with a temperature compensation module integrated into the output cable. The diameter is only 0.12" and the length 0.35".

The all-titanium construction and flush diaphragm allow the XPR30 to withstand most corrosive liquids.

The XPR30's sensing element is a fully temperature compensated Wheatstone bridge made with high stability micro-machined silicon strain gauges which optimize performance, especially at low ranges and frequencies.

With many years of experience as a designer and manufacturer of sensors, FGP Sensors often works with customers to design or customize sensors for specific uses and testing environments.

To meet your needs we also offer complete turnkey systems. The matched components (sensor, power, amplifier and digital display) are formatted, calibrated and ready for immediate use.



Mounting example

Thermal and mechanical strains are not transmitted to the diaphragm. This results in a highly stable zero.
Recommended bore hole diameter : $\text{Ø}3$ [0.12] +0.15 +0.05

Technical Specifications

Range (F. S.)

0-5	0-10	0-20	0-35	0-50	0-100 bar	in gauge reference
0-75	0-150	0-300	0-500	0-750	0-1500 psi	

Over-range

Without Damage : 2 x F.S.
Without Destruction : 5 x F.S.

Accuracy

Linearity : $\pm 0.35\%$ F.S. ($\pm 0.5\%$ for 75 psi model)
Hysteresis : $\pm 0.25\%$ F.S.
Repeatability : $\pm 0.2\%$ F.S.

Temperature Range

Operating Temperature Range (OTR) : -40 to 120 °C [-40 to 248°F]
Compensated Temperature Range (CTR) : 0 to 60 °C [32 to 140 °F]
Zero Shift in CTR : $< 3.5\%$ F.S. / 108 °F ($< 7\%$ for 75 psi model) ⁽¹⁾
Sensitivity Shift in CTR : $< 2.5\%$ of reading / 108 °F ⁽¹⁾

Electrical Characteristics

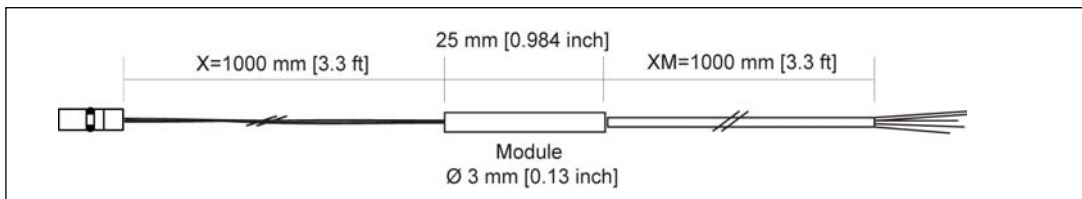
Supply Voltage	10 Vdc
F.S. Output 75 psi model	30 mV
F.S. Output >75 psi model	100 mV
Zero Offset	$< \pm 15$ mV
Input Impedance	1500 Ω
Output Impedance	500 to 800 Ω
Insulation under 50 Vdc	≥ 100 M Ω

Electrical Termination

Teflon wires (AWG36), standard length 1 m [3.3 ft] with compensation module at the end
Shielded $\varnothing 1.2$ mm Teflon cable, 4 wires (AWG36), standard length 1m [3.3 ft] behind compensation module

Mechanical Characteristics

Material : Body and flush diaphragm in titanium, laser welded
Resonance Frequency : 200 kHz to 500 kHz
Sealing ring : Nitrile, other material possible
Protection Index : IP 50



Product References

Transducer

Model

XPR30

Full Scale Range (F.S.)

In psi

300

Option(s)

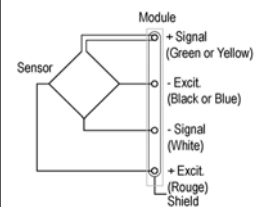
ET1 : CTR -20 to 100 °C [-4 to 212 °F]
LC"X" : Additional wire length in ft (unit to module)
LC"XM" : Additional cable length in ft (exiting module)

ET1

"X" = Custom value



Wiring Schematic



⁽¹⁾ at stabilized temperature