

# XPM10-Vi SERIES

# High Performance Pressure Transducer



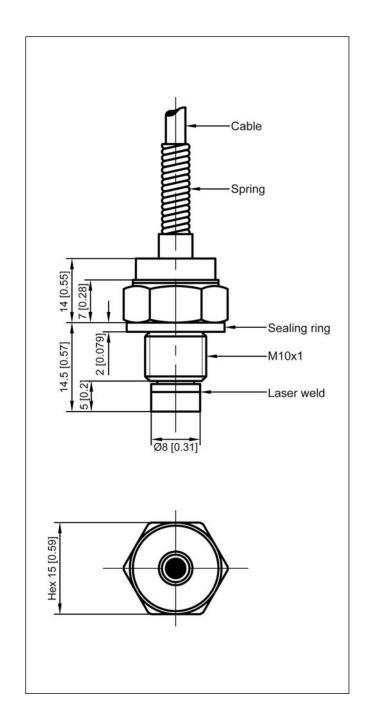
- High Accuracy and Stability
- Temperature Range -40 to 120 °C [-40 to 248 °F]
- High Level Analogue Output
- Full Scale Range: from 0-1 to 0-350 bar [0-15 to 0-5,000 psi]
- Flush Diaphragm
- For Static and Dynamic Applications
- Low Installation Torque Sensitivity
- M10 Threading

The **XPM10-**\$\alpha\$ represents a new series of pressure transducers combining piezoresistive sensor technology and digital temperature compensation, providing superior performance and excellent long-term stability over a temperature range of -40 to 248 °F.

The sensor is designed to measure pressure in standard ranges from 15 psi up to 5,000 psi. With its all stainless steel or titanium construction, the XPM10- $\forall i$  adapts to a wide variety of conditions, including hostile environments.

Incorporating FGP Sensors  $\mathcal{V}i$  technology, the sensor features high level analogue signal output and offers a cost-effective solution for the most demanding applications.

Consult FGP's Engineering Department if the standard options do not meet your needs or should your application require a more comprehensive measurement system.



Performance specifications subject to change without notice. September 19, 2006

#### **Technical Specifications**

#### Range (F. S.)

0-1 0-2 0-5 0-10 0-20 0-35 0-50 0-100 0-200 0-350 bar in gauge, sealed gauge 0-15 0-30 0-75 0-150 0-300 0-500 0-750 0-1500 0-3000 0-5000 psi or absolute reference

#### **Performance Characteristics**

Combined Non-Linearity & Hysteresis: <±0.25% F.S. (<±0.35% for 15 psi model)

Repeatability: ±0.2% F.S.

Zero Shift in CTR: <0.5% F.S. / 60 °C [108 °F]

Sensitivity Shift in CTR: <2% of reading / 60 °C [108 °F]

Operating Temperature Range (OTR): -40 to 125 °C [-40 to 257 °F] Compensated Temperature Range (CTR): -40 to 120 °C [-40 to 248 °F]

Save Overload : 2 x F.S. Ultimate Pressure : 5 x F.S. Bandwidth ±1% : 100 Hz

#### **Electrical Characteristics**

Supply Voltage 8 to 16 Vdc (polarity inversion protection)

F.S. Output  $4 \text{ V} \pm 2\% \text{ F.S}$ Zero Offset  $0.5 \text{ V} \pm 2\% \text{ F.S.}$ Consumption <20 mAOutput Impedance  $<10 \Omega$ Insulation under 50 Vdc  $\geq 100 \text{ M}\Omega$ 

#### **Electrical Termination**

Shielded cable, 3 Teflon wires (AWG30), standard length 2.0 m [6.6 ft] with strain relief spring

#### **Tightening Torque**

Nominal: 5 N.m [44 lb-in] for ≤75 psi models, 10 N.m [88 lb-in] for other ranges (zero and sensitivity shift <1%)

Maximal: 10 N.m [88 lb-in] for ≤75 psi models, 15 N.m [132 lb-in] for other ranges

### **Mechanical Characteristics**

Material: Body and flush diaphragm in stainless steel or titanium, laser welded

Pressure Port : M10 threading Self centered sealing ring Protection Index : IP 50

## **Product References**

**High Level Output Transducer** 

Model

Full Scale Range (F.S.)

In psi G (gauge), S (sealed gauge), A (absolute)

Option(s)

TT : Titanium version
P5 : IP65 protection
P7 : IP67 protection

LC"X": Additional Cable length in ft

XPM10-*Vi* 300G LC

"X" = Custom value

