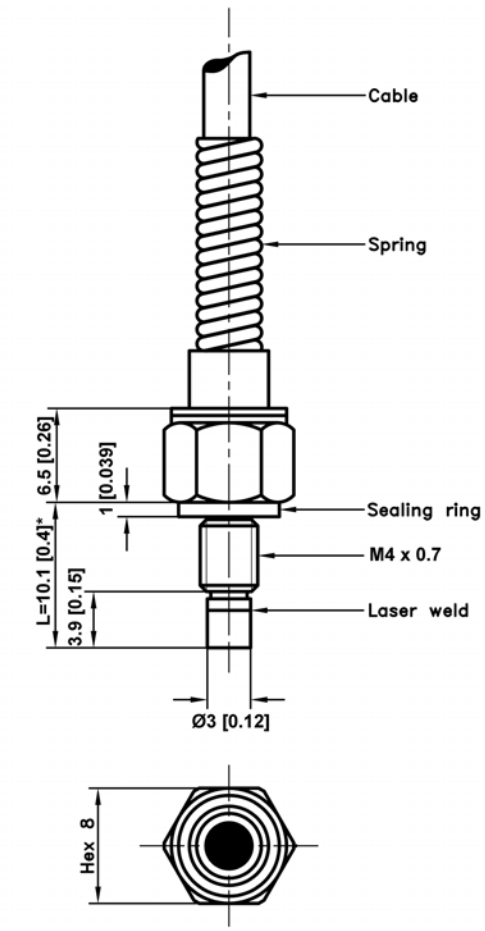
XPM4 SERIES

Miniature Pressure Transducer

- **Flush Diaphragm, All-Titanium Construction**
- **Full Scale Range :**
  from 0-5 to 0-200 bar [0-75 to 0-3000 psi]
- **For Static and Dynamic Applications**
- **Low Installation Torque Sensitivity**
- **Ideally Suited for Hostile Environments**
- **M4 Threading**



Custom length **L** = 9 to 20 mm [0.35" to 0.79"] on request.

The XPM4 is a miniature transducer designed to measure static and dynamic pressure under a wide variety of conditions, including hostile environments. The all-titanium construction and flush diaphragm protect the sensor against most corrosive environments.

The XPM4 incorporates FGP Sensors' cutting-edge SanShift™ technology, which virtually eliminates zero shifts caused by installation torque.

The XPM4's sensing element is a fully temperature compensated Wheatstone bridge configuration made with high stability micro-machined silicon strain gauges which optimize performance, especially at low ranges and high frequencies. All models come with a cable output strengthened by a strain relief spring or with an electrical connector (optional).

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.

Performance specifications subject to change without notice. June 5, 2006

Technical Specifications

Range (F. S.)

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

Over-range

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

Accuracy

Linearity : ±0.35% F.S. (±0,5% for 75 psi model)
Hysteresis : ±0.25% F.S.
Repeatability : ±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 : <2.5% F.S. / 108 °F (<7% for 75 psi model) (1)
Sensitivity Shift in CTR : <2% 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	<±10 mV
Input Impedance	1500 Ω
Output Impedance	800 Ω
Insulation under 50 Vdc	≥100 MΩ

Electrical Termination

Shielded Ø3 mm Silastene cable with 4 Teflon wires (AWG30), standard length 2.0 m [6.6 ft] with strain relief spring

Tightening Torque

Nominal : 5 N.m [44 lb-in] (zero and sensitivity shift <1%)
Maximal : 10 N.m [88 lb-in]

Mechanical Characteristics

Material : Body and flush diaphragm in titanium, laser welded
Resonance Frequency : 200 kHz to 750 kHz
Self centered sealing ring
Protection Index : IP 50

Product References

Transducer

Model

Full Scale Range (F.S.)
In psi G (gauge), S (sealed gauge), A (absolute)

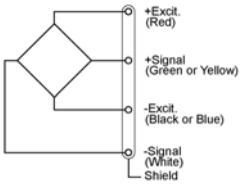
Option(s)
HA : Accuracy (CNL&H) ≤±0.35% F.S. (≤±0.5% for 75 psi model)
SI : Sensitivity shift in CTR ≤1% of reading / 108 °F (except 75 psi model) (1)
ZI : Zero shift in CTR ≤1.5% F.S. / 108 °F (except 75 psi model) (1)
ET1 : CTR -20 to 100 °C [-4 to 212 °F]
ET3 : CTR -40 to 150 °C [-40 to 302 °F] OTR=CTR
SC : Connector output, prewired, cable length 2 m [6.6 ft]
P5 : IP65 protection
P7 : IP67 protection
LC"X" : Additional Cable length in ft

XPM4	300G	ET1

CE

"X" = Custom value

Wiring Schematic



(1) at stabilized temperature

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