

XPM6 Miniature pressure sensor



- Sealed and gauge ranges
100 to 1000 bars [1500 to 150 000 psi]
- Stainless steel housing
- High level output in option
- For static and dynamic applications
- Linearity $\pm 0.25\%$ F.S.

DESCRIPTION

The XPM6 is a miniature transducer designed to measure static and dynamic pressure under a wide variety of conditions, including hostile environments. It is made of stainless steel and is available in ranges from 0-100 to 0-1000 bar [1500 to 15 000 psi]. Option "MH" provides extra protection against temperature flashes up to 1000 ° C [1832 ° F].

The XPM6 incorporates Measurement Specialties' cutting edge SanShift™ technology, which virtually eliminates zero shifts caused by installation torque.

The XPM6's sensing element is a fully temperature compensated Wheatstone bridge made with high stability micro-machined silicon strain gauges.

With many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. has the expertise to customize and/or design sensors for specific uses and testing environments. To meet your needs we also offer complete turnkey systems. Our conditioning electronics can power the sensor, amplify the electronic signal, and display the data digitally. A turnkey measurement system arrives with matched components, formatted, calibrated and ready for your immediate use.

FEATURES

- M6 thread
- Flush Diaphragm
- For Static and Dynamic Applications
- High Level Tension Output Available
- Low Installation Torque Sensitivity

APPLICATIONS

- Explosion test benches
- Extreme Miniature Devices
- Robotics and actuators
- Breaking system pressure
- Laboratory and research

STANDARD RANGES

Range in bar	0-100	0-200	0-500	0-1000
Range in psi	0-1500	0-3k	0-7500	0-15000

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CHARACTERISTICS

Ambient Temperature: 20±1°C (unless otherwise specified)

Parameters	
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% F.S./60 ° C [/108 ° F] - <7% for 2bar [30psi] model
Sensitivity Shift in CTR	<2% of reading /60 ° C [/108 ° F]
Range (F.S.)	See standard ranges table
Tightening Torque	
Nominal (zero and sensitivity shift <1%)	5 N.m [44 Lbf.in]
Maximal	10 N.m [88 Lbf.in]
Over-Range	
Without Damage	2x F.S
Without Destruction	3xF.S.
Accuracy	
Linearity	±0.25% F.S.
Hysteresis	±0.25% F.S
Repeatability	±0.2% F.S

Electrical Characteristics

Model	XPM6
Power Supply	10 Vdc
F.S. Output	100 mV typical
Zero Offset	<±10 mV
Input Impedance	1500 Ω
Output Impedance	800 Ω
Insulation under 50Vdc	≥100 MΩ

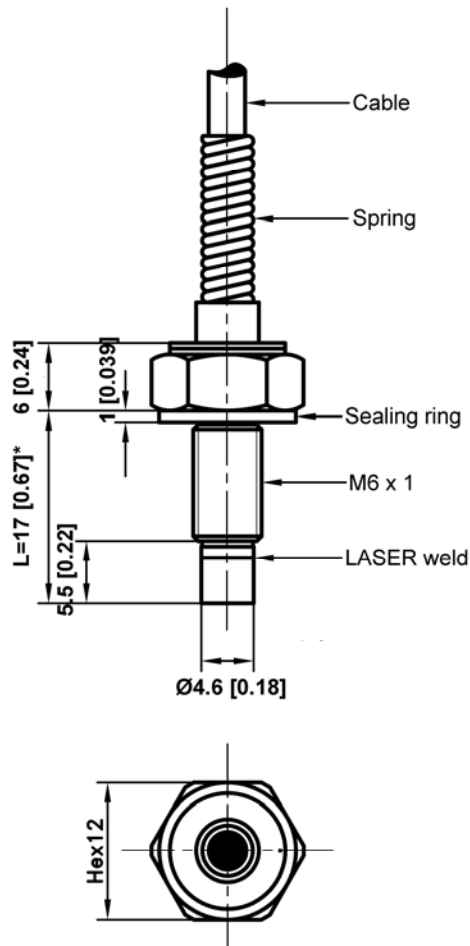
Notes

1. Electrical Termination: Shielded Ø3 mm Silastene cable with 4 Teflon wires (AWG30), standard length 2.0 m [6.6 ft] with strain relief spring
2. Material: Body and flush diaphragm in stainless steel; laser welded
3. Protection Index: IP50
4. Resonance Frequency: 200-750kHz depending on range
5. Self-centered, sealing ring

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DIMENSION & WIRING SCHEMATIC (IN METER AND IMPERIAL)

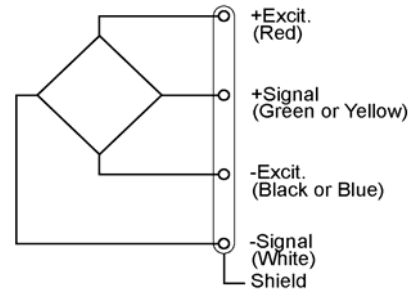
XPM6



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

Wiring Schematic

XPM6

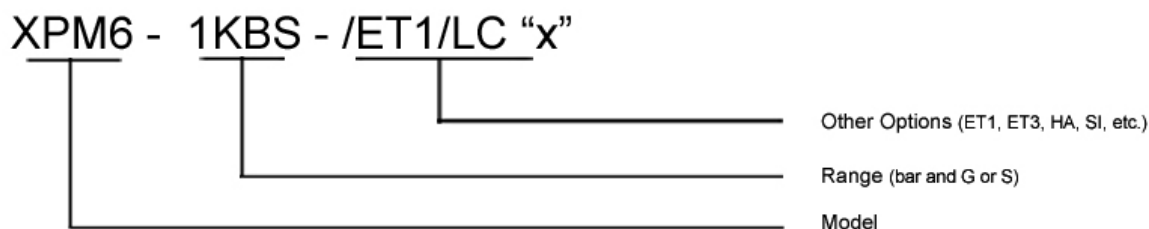


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OPTIONS

G : Gauge
S : Sealed Gauge
HA : Accuracy (CNL&H) $\leq \pm 0.25\%$ F.S.
SI : Sensitivity shift in CTR $\leq 1\%$ of reading / 60°C [108°F]
ZI : Zero shift in CTR $\leq 1.5\%$ F.S. / 60°C [108°F]
ET1 : CTR -20 to 100°C [-4 to 212°F]
ET3 : CTR -40 to 150°C [-40 to 302°F] OTR=CTR
LC"x" : Additional Cable length in meter ("x" = custom value)

ORDERING INFORMATION



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