



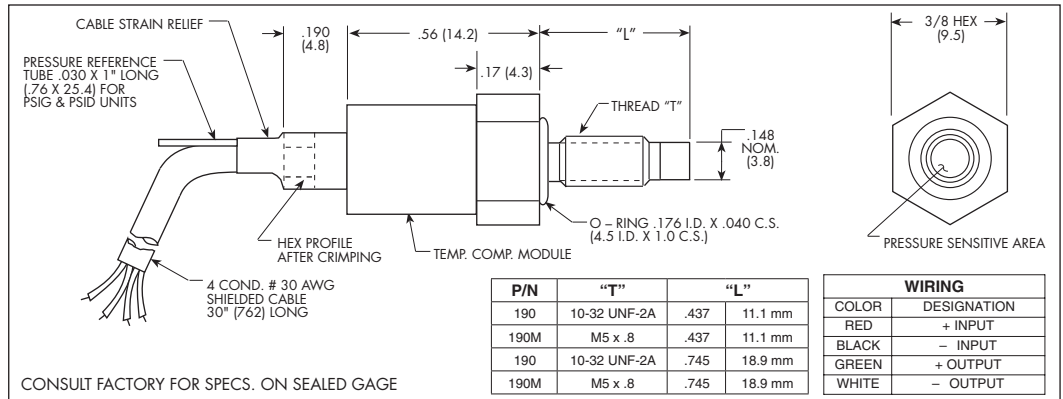
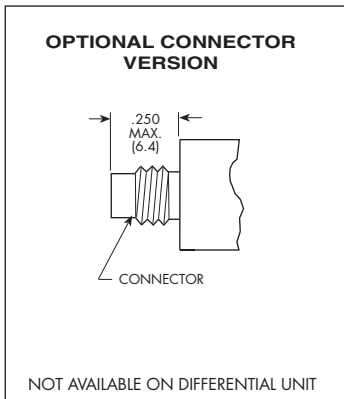
## MINIATURE RUGGEDIZED IS® PRESSURE TRANSDUCER

### XTM-190 (M) SERIES

- Excellent Stability
- High Natural Frequency
- Inorganically Bonded Sensor
- Robust Construction
- Intrinsically Safe Applications Available (i.e. IS-XTM-190)



The XTM-190 miniature pressure transducer utilizes a metal diaphragm as a force collector with a Piezoresistive Sensor as its sensing element. With the threaded body, hexagonal head and o-ring seal, the XTM-190 is easy to mount and simple to apply. The small size and flush diaphragm permit direct installation of the transducer in the wall of pressure containers, tubes, pipes, etc., eliminating the need for costly, space consuming hardware. The standard XTM-190 transducer is designated as a gage instrument. Pressure ranges of 250 psig and below are supplied with a venting tube. Differential versions of all ranges up to 1000 psi are available. The reference pressure source should be dry, noncorrosive gas. Absolute and sealed versions of the XTM-190 have a reference vacuum sealed in the transducer.



<b>INPUT</b> Pressure Range	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	170 2500	350 BAR 5000 PSI
Operational Mode	Absolute, Gage, Sealed Gage, Differential							
Over Pressure	3.5 50	7 100	14 200	35 500	70 1000	140 2000	210 3000	420 BAR 6000 PSI
Burst Pressure	3 Times Rated Pressure to a Maximum of 6500 PSI (450 BAR)							
Pressure Media	Any Liquid or Gas Compatible With 17-4 PH or 316 Stainless Steel							
Rated Electrical Excitation	10 VDC							
Maximum Electrical Excitation	15 VDC							
Input Impedance	650 Ohms (Min.)							
<b>OUTPUT</b> Output Impedance	1000 Ohms (Nom.)							
Full Scale Output (FSO)	75 mV (Nom.)							
Residual Unbalance	± 5 mV (Typ.)							
Combined Non-Linearity, Hysteresis and Repeatability	±1% FSO BFSL (Typ.)							
Resolution	Infinitesimal							
Natural Frequency (KHz) (Typ.)	120	210	285	425	550	720	910	1120
Acceleration Sensitivity % FS/g Perpendicular	1.9x10 <sup>-3</sup>	1.0x10 <sup>-3</sup>	5.2x10 <sup>-4</sup>	2.2x10 <sup>-4</sup>	1.1x10 <sup>-4</sup>	6.2x10 <sup>-5</sup>	2.6x10 <sup>-5</sup>	1.5x10 <sup>-5</sup>
Transverse	5.0x10 <sup>-5</sup>	3.1x10 <sup>-5</sup>	2.0x10 <sup>-5</sup>	1.0x10 <sup>-5</sup>	7.0x10 <sup>-6</sup>	4.3x10 <sup>-6</sup>	2.3x10 <sup>-6</sup>	1.5x10 <sup>-6</sup>
Insulation Resistance	100 Megohm Min. @ 50 VDC							
<b>ENVIRONMENTAL</b> Operating Temperature Range	-65°F to +350°F (-55°C to +175°C)							
Compensated Temperature Range	80°F to 180°F (25°C to 80°C) Any 100°F Range Within The Operating Range on Request							
Thermal Zero Shift	± 2% FS/100°F (Typ.)							
Thermal Sensitivity Shift	± 2% 100°F (Typ.)							
Linear Vibration	100g Peak, Sine Up to 5000 Hz							
Humidity	100% Relative Humidity							
<b>PHYSICAL</b> Electrical Connection	4 Conductor 30 AWG Shielded Cable 30" Long							
Weight	8 Grams (Nom.) Excluding Cable							
Pressure Sensing Principle	Inorganically Bonded Piezoresistive Sensor							
Mounting Torque	15 Inch-Pounds (Max.)							

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters.

Continuous development of our products can result in specific performance improvements on request.