

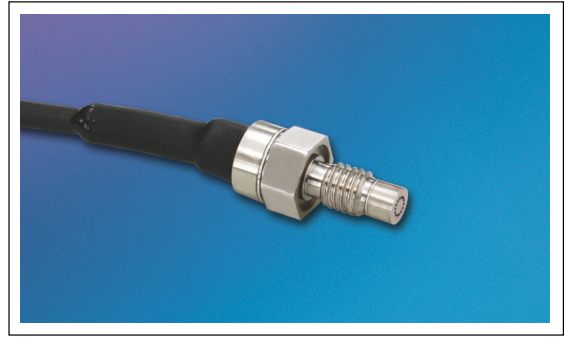


**RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS**

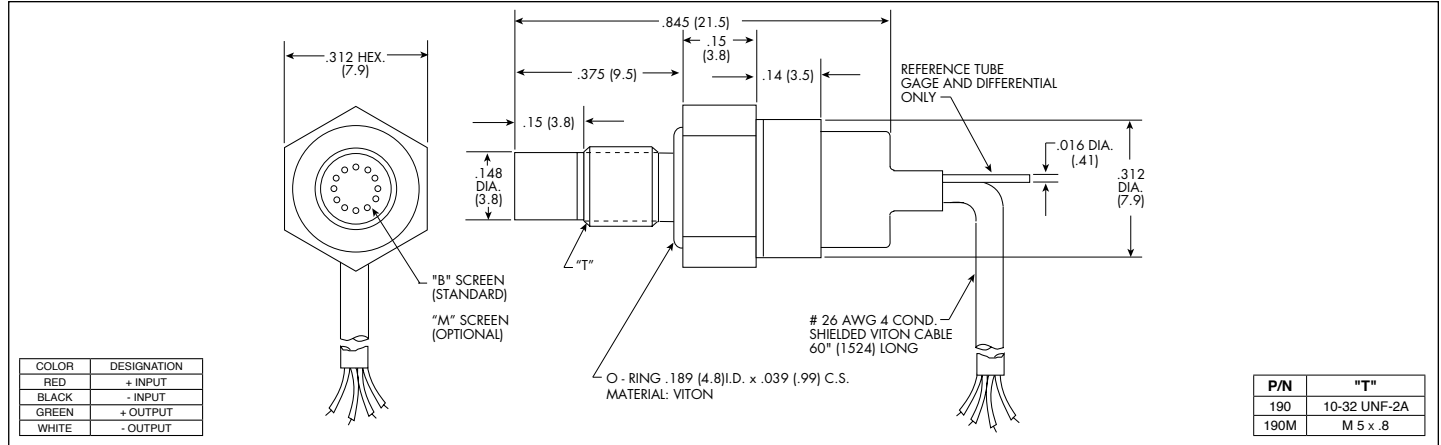
**XTL-HA-123B-190 (M) SERIES**

- Easy Installation
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- High Accuracy
- Patented Leadless Technology **VIS®**

**HIGH ACCURACY**



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-HA-123B-190 transducer.



	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	210 BAR 3000 PSI
<b>INPUT</b>								
Pressure Range								
Operational Mode	Absolute, Gage, Differential	Absolute, Sealed Gage, Gage, Differential				Absolute, Sealed Gage		
Over Pressure	2 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)							
Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)							
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)							
Rated Electrical Excitation	10 VDC							
Maximum Electrical Excitation	12 VDC							
Input Impedance	1000 Ohms (Min.), 5000 Ohms (Max.)							
Output Impedance	2000 Ohms (Max.)							
Full Scale Output (FSO)	100 mV ± 10 mV							
Residual Unbalance	± 5 mV (Typ.)							
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)							
Resolution	Infinitesimal							
Natural Frequency of Sensor Without Screen (KHz) (Typ.)	Greater Than 175 KHz							
Acceleration Sensitivity % FS/g Perpendicular	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	4.5x10 <sup>-5</sup>	2.0x10 <sup>-5</sup>
Insulation Resistance	100 Megohm Min. @ 50 VDC							
<b>ENVIRONMENTAL</b>								
Operating Temperature Range	-40°F to +350°F (-40°C to +175°C)							
Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)							
Total Error Band Over Compensated Temperature Range	± 2% FS BFSL, Includes Thermal Sensitivity Shift, Thermal Zero Shift And Static Error Band Over Compensated Temperature Range (Typ.)							
Linear Vibration	100g Peak, Sine Up to 5000 Hz							
Mechanical Shock	100g half Sine Wave 11 msec. Duration							
<b>PHYSICAL</b>								
Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 60" Long							
Weight	5 Grams (Nom.) Excluding Cable							
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology							
Mounting Torque	15 Inch-Pounds							

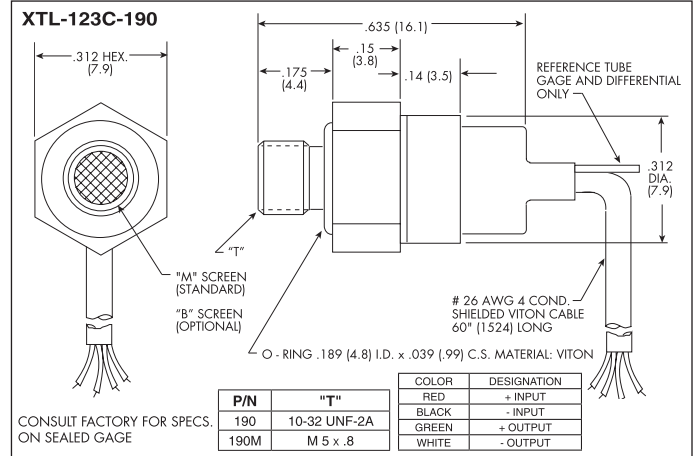
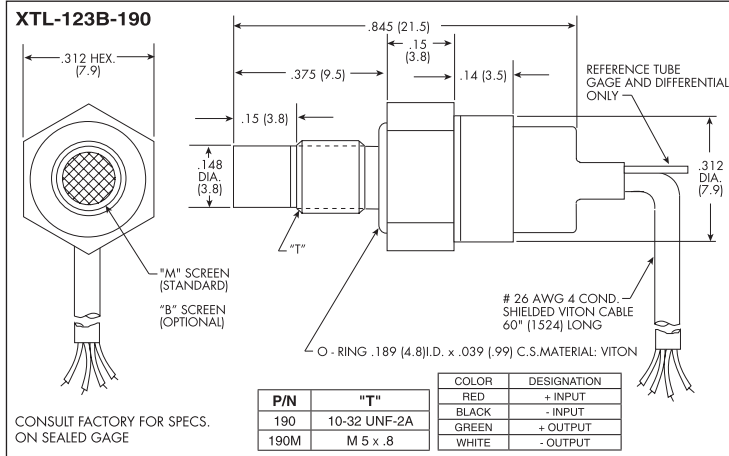
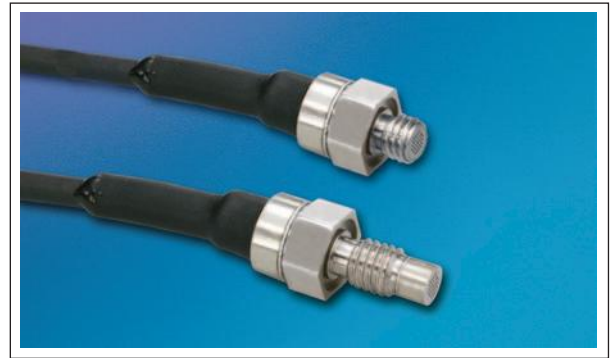
Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (Y) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.



**RUGGEDIZED AUTOMOTIVE IS®  
PRESSURE TRANSDUCERS**

**XTL-123B-190 (M) SERIES XTL-123C-190 (M) SERIES**

- Easy Installation
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With All Automotive Fluids
- Patented Leadless Technology VIS®



<b>INPUT</b> Pressure Range	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	100 1500	210 BAR 3000 PSI
Operational Mode	Absolute, Sealed Gage, Gage, Differential					Absolute, Sealed Gage			
Over Pressure	2 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)								
Burst Pressure	3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR)								
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)								
Rated Electrical Excitation	10 VDC								
Maximum Electrical Excitation	15 VDC								
Input Impedance	1000 Ohms (Min.), 5000 Ohms (Max.)								
<b>OUTPUT</b> Output Impedance	2000 Ohms (Max.)								
Full Scale Output (FSO)	100 mV ± 10 mV								
Residual Unbalance	± 5mV (Typ.)								
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)								
Resolution	Infinitesimal								
Natural Frequency (KHz) (Typ.)	Greater Than 175 KHz								
Acceleration Sensitivity % FS/g Perpendicular	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	4.5x10 <sup>-5</sup>	3.5x10 <sup>-5</sup>	2.0x10 <sup>-5</sup>
Transverse	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	4.0x10 <sup>-5</sup>	2.0x10 <sup>-5</sup>	9.0x10 <sup>-6</sup>	6.0x10 <sup>-6</sup>	3.0x10 <sup>-6</sup>	2.7x10 <sup>-6</sup>	2.0x10 <sup>-6</sup>
Insulation Resistance	100 Megohm Min. @ 50 VDC								
<b>ENVIRONMENTAL</b> Operating Temperature Range	-65°F to +400°F (-55°C to +204°C)								
Compensated Temperature Range	-40°F to +350°F (-40°C to +175°C)								
Thermal Zero Shift	± 1% FS/100°F (Typ.)								
Thermal Sensitivity Shift	± 1% /100°F (Typ.)								
Linear Vibration	100g Peak, Sine Up to 5000 Hz								
Humidity	100% Relative Humidity								
Mechanical Shock	100g half Sine Wave 11 msec. Duration								
<b>PHYSICAL</b> Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 60" Long								
Weight	5 Grams (Nom.) Excluding Cable								
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								
Mounting Torque	15 Inch-Pounds								

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal. (R)