



# HIGH TEMPERATURE PRESSURE TRANSDUCER

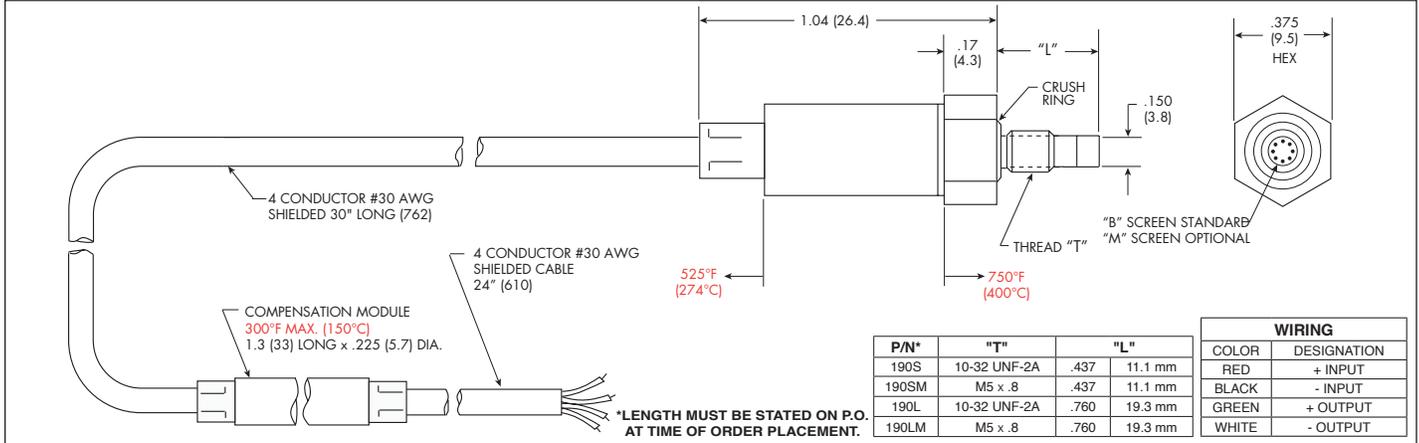
## XTEH-7L-190 (M) SERIES

- -65°F To 750°F Temperature Capability
- Patented Leadless Technology VIS®
- High Natural Frequency
- Suitable For Turbine Engine Testing

The XTEH Series pressure transducers feature a very wide operating temperature range. These characteristics make these devices ideal for Turbine engine testing. Other equally demanding applications in the industry may also benefit from the ruggedness of these devices. Part performance not guaranteed if used in water.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTEH-7L-190 transducer.



INPUT	Pressure Range	1.7 25	3.5 50	7 100	14 200	21 300	35 500	70 1000	140 2000	210 BAR 3000 PSI	
	Operational Mode	Absolute, Sealed Gage									
	Over Pressure	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR)									
	Pressure Media	Most Liquids and Gases - Please Consult Factory									
	Rated Electrical Excitation	10 VDC									
	Maximum Electrical Excitation	12 VDC									
	Input Impedance	1000 Ohms (Min.)									
OUTPUT	Output Impedance	1000 Ohms (Nom.)									
	Full Scale Output (FSO)	100 mV (Nom.)									
	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.)	240	300	380	500	575	700	1000	1400	1650	
	Acceleration Sensitivity % FS/g Perpendicular	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.1x10 <sup>-4</sup>	9.0x10 <sup>-5</sup>	6.5x10 <sup>-5</sup>	4.0x10 <sup>-5</sup>	2.5x10 <sup>-5</sup>	1.9x10 <sup>-5</sup>	
	Insulation Resistance	100 Megohm Min. @ 50 VDC									
ENVIRONMENTAL	Operating Temperature Range	-65°F to +750°F (-55°C to +400°C) - Pressure Sensing Area -65°F to +525°F (-55°C to +274°C) - Cable Area									
	Compensated Temperature Range	+80°F to +650°F (+25°C to +343°C)									
	Thermal Zero Shift	± 1.5% FS/100°F (Typ.)									
	Thermal Sensitivity Shift	± 1.5% /100°F (Typ.)									
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz									
PHYSICAL	Mechanical Shock	20g Half Sine Wave 11 msec. Duration									
	Electrical Connection	4 Conductor 30 AWG Shielded Cable (30" Before Module, 24" After Module)									
	Weight	8 Grams (Nom.) Excluding Cable									
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology									
	Mounting Torque	70 Inch-Pounds (Max.) 8 N-m									

Note: Requires external compensation module (Max. temp. 400°F) Please refer to outline drawing.

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (T) 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.