

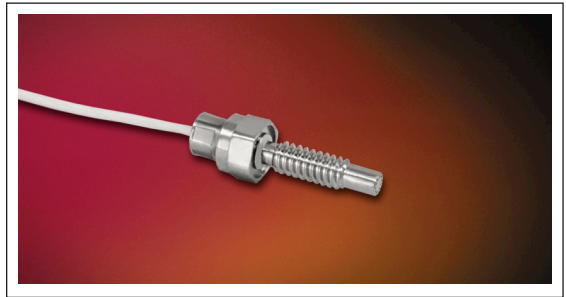


SUBMINIATURE HIGH TEMPERATURE PRESSURE TRANSDUCER

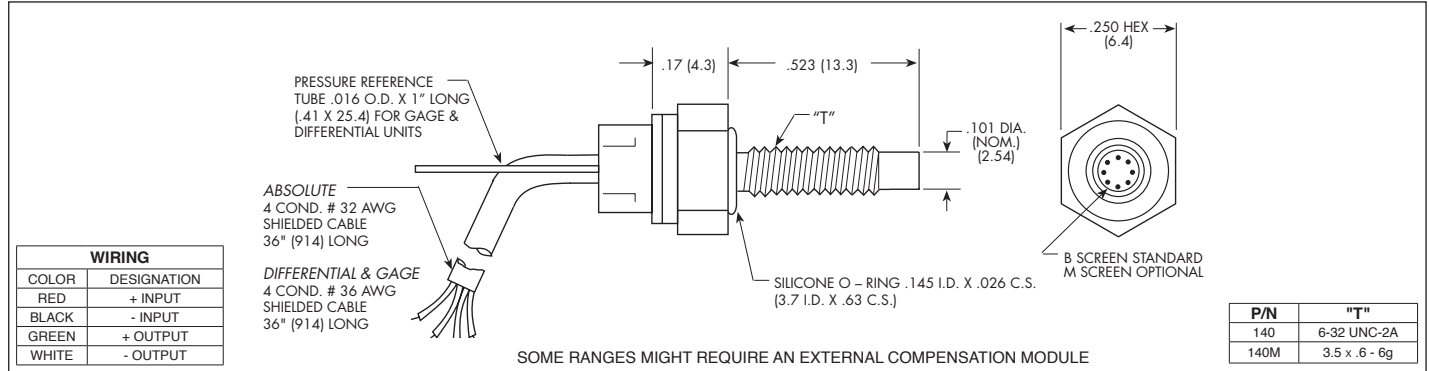
XTEL-140 (M) SERIES

- Wide Temperature Capability -65°F To 450°F
- Easy Installation
- Smallest Threaded Device Available
- Patented Leadless Technology **VIS**[®]
- High Natural Frequency
- Suitable For Use in Most Conductive Liquids and Gases

The XTEL Series utilizes Kulite's Patented Leadless Technology to obtain extremely high natural frequencies in the smallest thread mount available. This transducer is well suited for both dynamic and static pressure measurements in benign or harsh environments. Its wide operating range (-65°F to +450°F) makes it ideal for numerous applications in Aerospace and other areas of industry. Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTEL-140 transducer.



	0.7 10	1.0 15	1.7 25	3.5 50	7 100	17 250	35 BAR 500 PSI
INPUT	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential			Absolute, Sealed Gage	
Pressure Range							
Operational Mode							
Over Pressure	2 Times Rated Pressure						
Burst Pressure	3 Times Rated Pressure						
Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied)						
Rated Electrical Excitation	10 VDC						
Maximum Electrical Excitation	12 VDC						
Input Impedance	1000 Ohms (Min.)						
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.)	175	200	240	300	380	550	700
Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵
Insulation Resistance	100 Megohm Min. @ 50 VDC						
ENVIRONMENTAL							
Operating Temperature Range	-65°F to +450°F (-55°C to +232°C)						
Compensated Temperature Range	+80°F to +450°F (+25°C to +232°C)						
Thermal Zero Shift	± 2% FS/100°F (Typ.) (± 3% FS/100°F Max.)			± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.)			
Thermal Sensitivity Shift	± 2% /100°F (Typ.) (± 3% /100°F Max.)			± 1% /100°F (Typ.) (± 2% /100°F Max.)			
Mechanical Shock	20g Half Sine Wave 11 msec. Duration						
Linear Vibration	20g Peak, Sine 10 to 2000 Hz						
PHYSICAL							
Electrical Connection	4 Conductor 32 AWG Cable 36" Long						
Weight	3 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 (Max.) 1.7 Nm						

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