

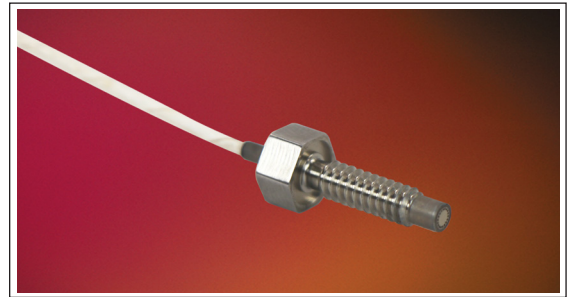


# SUBMINIATURE HIGH TEMPERATURE PRESSURE TRANSDUCER

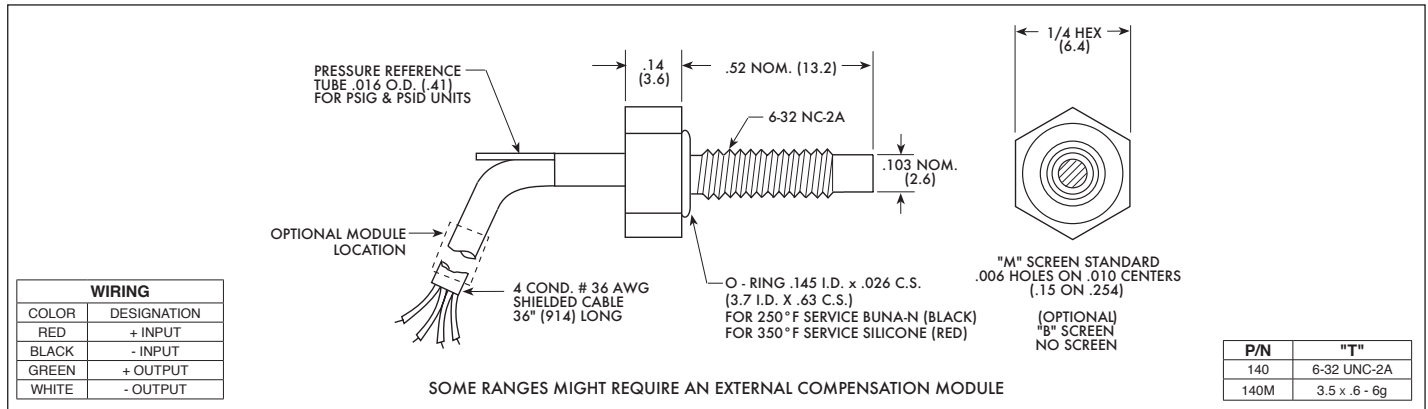
## XTE-140 (M) SERIES

- Wide Temperature Capability -65°F To 525°F
- Easy Installation
- Smallest Threaded Device Available
- Silicon on Silicon Integrated Sensor **VIS**<sup>®</sup>
- High Natural Frequency

The XTE-140 Series uses a standard miniature silicon diaphragm 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 +525°F) makes it ideal for numerous applications in Aerospace and other areas of industry.



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



INPUT	Pressure Range	.35 5	0.7 10	1.0 15	1.7 BAR 25 PSI	
	Operational Mode	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential		
	Over Pressure	2 Times Rated Pressure				
	Burst Pressure	3 Times Rated Pressure				
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (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	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.)	150	175	200	240	
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 <sup>-3</sup>	1.0x10 <sup>-3</sup>	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	
	Insulation Resistance	100 Megohm Min. @ 50 VDC				
	Operating Temperature Range	-65°F to +525°F (-55°C to +273°C)				
	Compensated Temperature Range	+80°F to +450°F (+25°C to +232°C)				
	Thermal Zero Shift	± 1% FS/100°F (Typ.)				
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)				
	Steady Acceleration	10,000 g. (Max.)				
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)				
	PHYSICAL	Electrical Connection	4 Conductor 36 AWG Cable 36" Long			
		Weight	3 Grams (Nom.) Excluding Cable			
Pressure Sensing Principle		Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon				
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. (I) 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.