

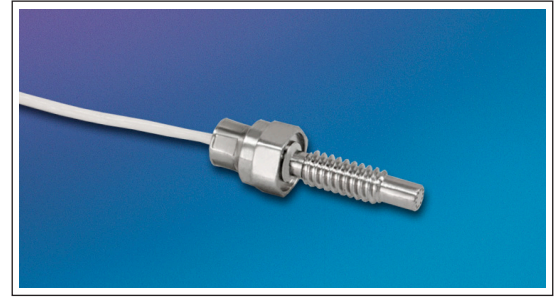


# SUBMINIATURE PRESSURE TRANSDUCER

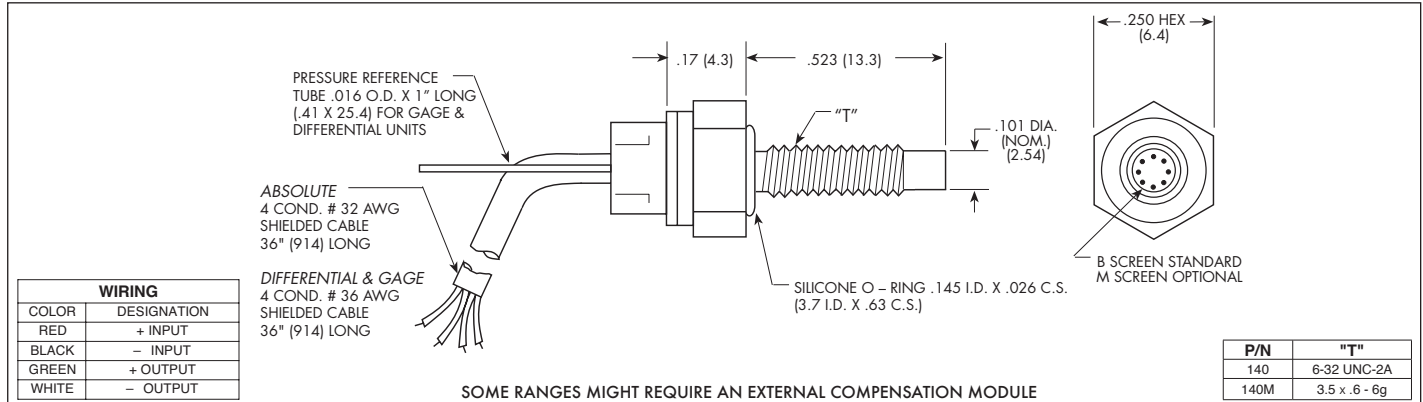
## XT-140 (M) SERIES

- Easy Installation
- Smallest Threaded Device Available
- Patented Silicon on Silicon Integrated Sensor **VIS®**
- High Natural Frequency

The XT-140 Series uses a standard miniature silicon diaphragm to obtain extremely high natural frequencies in the smallest thread mount available.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XT-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/AC			
	Maximum Electrical Excitation	12 VDC/AC			
	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
	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			
ENVIRONMENTAL	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.) (± 3% FS/100°F Max)			
	Thermal Sensitivity Shift	± 2% /100°F (Typ.) (± 3% /100°F Max)			
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration			
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz			
PHYSICAL	Electrical Connection	For Differential & Gage 4 Conductor 36 AWG Shielded Cable 36" (914) Long		For Absolute & Sealed Gage 4 Conductor 32 AWG Shielded Cable 36" (914) 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. (Q) 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.