



**MINIATURE 5VDC OUTPUT
PRESSURE TRANSDUCER
ETM-634(X)-312(M)**

- Smallest High Performance Amplified Transducer Worldwide
- High Temperature Electronics 365°F (185°C)
- Rugged Design Provides Compatibility With Most Corrosive and Conductive Media
- Silicon on Silicon Integrated Sensor **VIS®**
- High Over Pressure Capability
- Designed and Engineered For Severe Environmental Conditions
- Intrinsically Safe Applications Available (i.e. IS-ETM-634(X)-312(M))

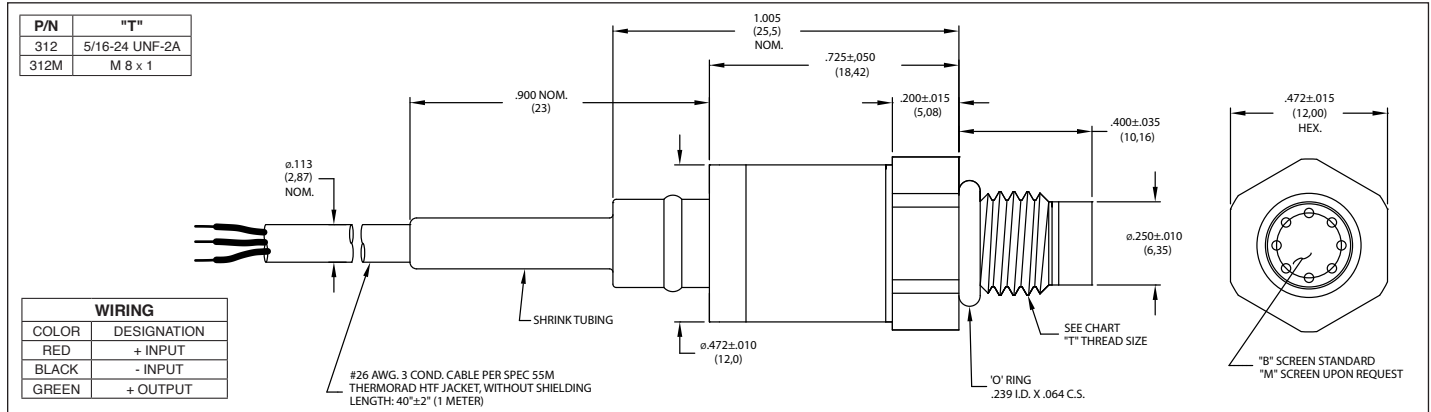


The ETM-634(X)-312(M) is one of the newest generation of Kulite standard, smallest miniature amplified transducer currently available. The metal flush diaphragm is used as a force collector. Force is transferred to a solid-state



piezoresistive sensing element via thin intervening film of non-compressible silicone oil. This sensing sub-assembly is protected from mechanical damage by a protective screen, which has been shown to have minimal influence of the frequency response of the sensor.

Incorporation of Kulite proprietary high temperature 365°F (185°C) electronics within the main body allows for operation from an unregulated power supply of 8 to 16VDC.



INPUT	Pressure Range	80	140	210	275 BAR		
	Operational Mode	Absolute, Sealed Gage					
	Over Pressure	1.5 Times Rated Pressure					
	Burst Pressure	3 Times Rated Pressure					
	Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel (All Media May Not Be Suitable With O-Ring Supplied)					
OUTPUT	Rated Electrical Excitation	12 ± 4 VDC					
	Maximum Electrical Current	25 mA (Max.)					
	Output Impedance	200 Ohms (Typ.)					
	Full Scale Reading (X)	4.9V ± 2% (A)	4.5V ± 1.5% (B)	4.5V ± 1% (C)	4.9V ± 1.5% (D)	4.75V ± 1% (E)	4.7V ± 1% (F)
	Bandwidth (-3dB)	DC to 5 KHz					
	Residual Unbalance (X)	350 ± 50 mV (A)	500 ± 75 mV (B)	300 ± 45 mV (C)	300 ± 75 mV (D)	300 ± 50 mV (E)	300 ± 50 mV (F)
	Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.25% FSO (Max.)					
	Resolution	Infinitesimal					
	Acceleration Sensitivity % FS/g Perpendicular	3.6x10 ⁻⁵	2.5x10 ⁻⁵	1.9x10 ⁻⁵	1.6x10 ⁻⁵		
	Insulation Resistance	> 100 Megohm Min. @ 50 VDC					
ENVIRONMENTAL	Operating Temperature Range	-65°F to +365°F (-55°C to +185°C)					
	Compensated Temperature Range	+68°F to +350°F (+20°C to +175°C) Other Ranges Quoted on Request					
	Total Error Band (Excluding End Points)	± 2% FS/100°C ≤ 217.5 PSI (15 BAR), ± 1% FS/100°C ≥ 217.5 PSI (15 BAR)					
	Linear Vibration	100g Peak, Sine up to 5000 Hz					
PHYSICAL	Mechanical Shock	100g half Sine Wave 11 msec. Duration					
	Electrical Connection	3 Conductor 26 AWG Unshielded Cable 1 Meter Long					
	Weight	15 Grams (Max.) Excluding Cable					
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon					
	Mounting Torque	50 Inch-Pounds (Max.) 6Nm					

(X) Denotes FSR and Residual Unbalance Options (A), (B), (C), (D), (E) or (F).
 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.