



MINIATURE 5VDC OUTPUT PRESSURE TRANSDUCER

ETM-634(X)-375(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)-375(M))

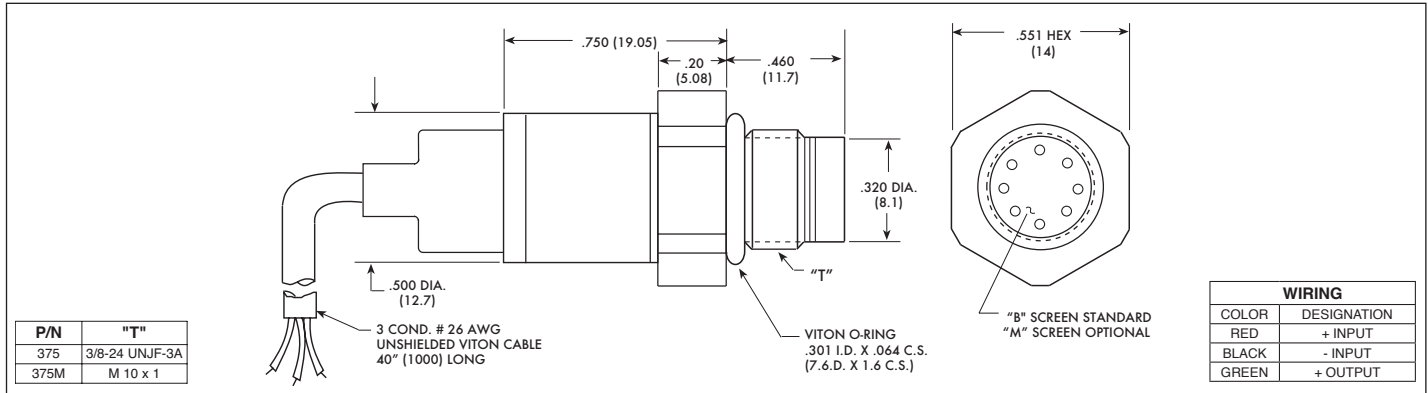


The ETM-634(X)-375(M) is one of the newest generation of Kulite standard, smallest miniature amplified transducer currently available. The metal flush diaphragm is used as a force collector. Force is transferred to a solid-state piezoresistive sensing element via thin intervening film of non-compressible



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 1160	140 2030	210 3045	275 BAR 3988 PSI	
	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)				
	Rated Electrical Excitation	12 ± 4 VDC				
OUTPUT	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	
ENVIRONMENTAL	Insulation Resistance	> 100 Megohm Min. @ 50 VDC				
	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	20g Peak, Sine 10 to 2000 Hz				
PHYSICAL	Mechanical Shock	20g Half Sine Wave 11 msec. Duration				
	Electrical Connection	3 Conductor 26 AWG Unshielded Cable 40" (1000) Long				
	Weight	17 Grams (Max.) Excluding Cable				
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon				
Mounting Torque	75 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. (P) 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.