



MINIATURE 5VDC OUTPUT PRESSURE TRANSDUCER

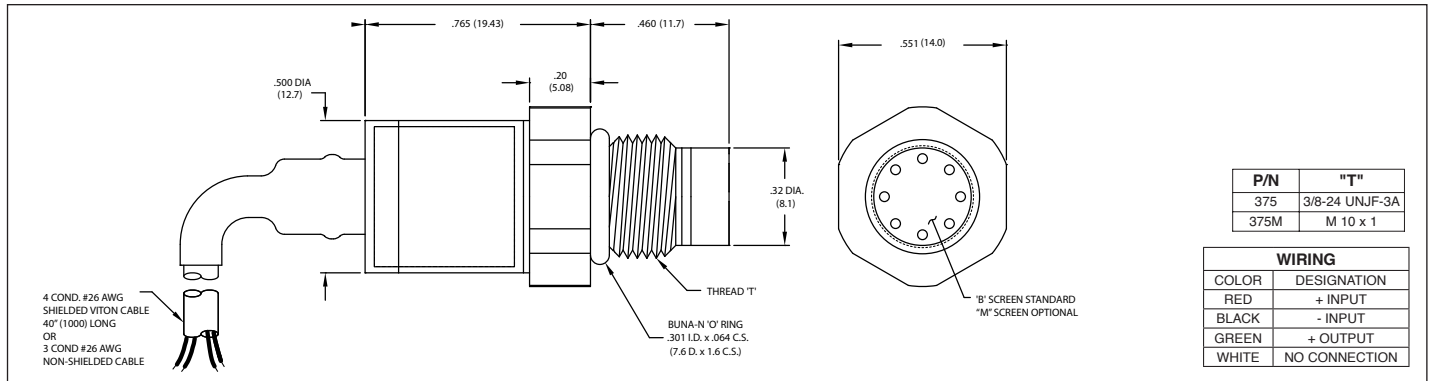
ETM-500-375(M)

- Smallest High Performance Amplified Transducer Worldwide
- Rugged Design Provides Compatibility With Most Corrosive and Conductive Media
- High Over Pressure Capability
- Designed and Engineered For Severe Environmental Conditions
- Silicon on Silicon Integrated Sensor **VIS**[®]



The ETM-500-375M 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 silicon 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 a Kulite proprietary electronics module within the main body of this product allows for operation from an unregulated power supply ranging from 8 to 16 VDC.



INPUT	Pressure Range	10 145	15 218	80 1160	140 2031	210 3046	275 BAR 3989 PSI
	Operational Mode	Absolute, Sealed Gage					
	Over Pressure	2 Times Rated Pressure (<500 PSI) (35 BAR) 1.5 x Rated Pressure ≥ 500 PSI (35 BAR)					
	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	12 ± 4 VDC					
	Maximum Electrical Current	25 mA (Max.)					
OUTPUT	Output Impedance	< 25 Ohms (Typ.)					
	Full Scale Reading	4.5V ± 75 mV					
	Bandwidth (-3dB)	DC to 5 KHz					
	Residual Unbalance	500 mV ± 75 mV					
	Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.25% FSO (Max.)					
	Resolution	Infinitesimal					
	Acceleration Sensitivity % FS/g Perpendicular	1.4x10 ⁻⁴	1.1x10 ⁻⁴	3.4x10 ⁻⁵	2.2x10 ⁻⁵	1.5x10 ⁻⁵	1.3x10 ⁻⁵
ENVIRONMENTAL	Insulation Resistance	> 100 Megohm Min. @ 50 VDC					
	Operating Temperature Range	-40°F to 302°F (-40°C to 150°C)					
	Compensated Temperature Range	68°F to 257°F (20°C to 125°C)					
	Zero Shift	± 1.4% FSO / 100°F (± 2.5% FSO / 100°C) (Typ.)					
	Sensitivity Shift	± 1.4% / 100°F (± 2.5% / 100°C) (Typ.)					
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz					
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration					
PHYSICAL	Electrical Connection	3 Cond #26 AWG Non-Shielded Cable or 4 Cond #26 AWG Shielded Cable 40" (1000) Long					
	Weight	18 Grams (Max.) Excluding Cable					
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology					
Mounting Torque	70 Inch-Pounds (Max.) 8Nm						

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (E) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2019 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.