



## ULTRA HIGH TEMPERATURE AMPLIFIED MINIATURE IS® PRESSURE TRANSDUCER

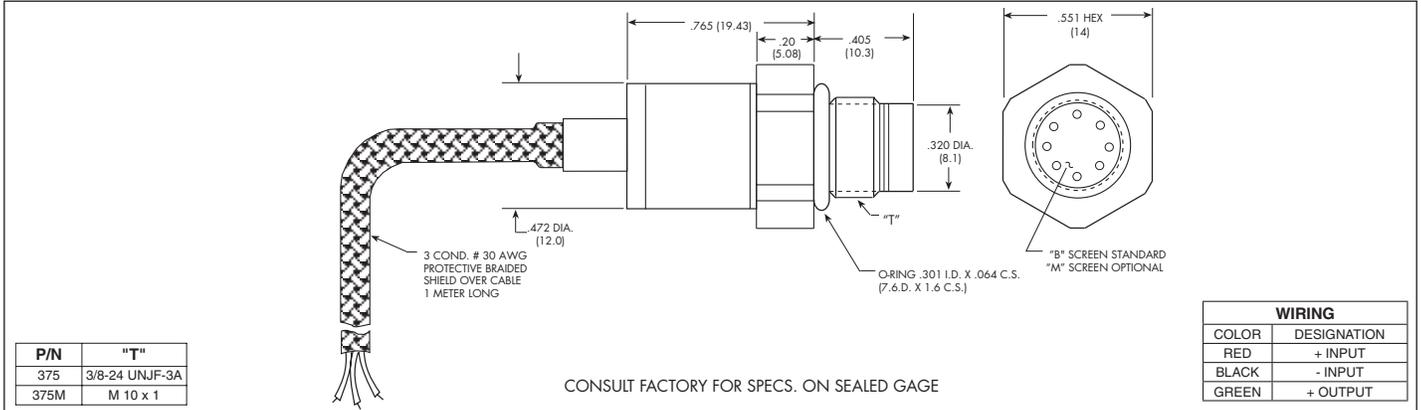
### ETM-UHT-375(M)

- Smallest High Performance Amplified Transducer Worldwide
- Highest Temperature Electronics 500°F (437°F continuous)
- Rugged Design Provides Compatibility With Most Corrosive and Conductive Media
- High Over Pressure Capability
- High Bandwidth
- Aerospace and Downhole Quality Components
- Designed and Engineered For Severe Environmental Conditions

The ETM-UHT-375M is one of the newest generation of Kulite standard, smallest ultra high temperature miniature amplified transducer currently available. The device incorporates Silicon on Insulator (SOI) Sensor and Electronics, thus enabling operation up to 500°F (437°F continuous). The metal flush daphragm 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 500°F (437°F continuous) electronics within the main body allows for operation from an unregulated power supply of 10 to 36 VDC.



<b>INPUT</b> Pressure Range	70 to 1400 BAR 1000 to 20000 PSI
Operational Mode	Absolute, Sealed Gage
Over Pressure	1.5 Times Rated Pressure
Burst Pressure	2 Times Rated Pressure
Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 SS
Rated Electrical Excitation	10 - 18 or 18 - 36 VDC
Maximum Electrical Current	10 mA (Max.)
<b>OUTPUT</b> Output Impedance	15 Ohms (Typ.)
Output	.5 to 4.5 V ± 1.5% (Other Ranges Available)
Bandwidth (-3dB)	DC to 15 KHz
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.25% FSO (Max.)
Resolution	Infinitesimal
Acceleration Sensitivity % FS/g Perpendicular Transverse	< 3.0x10 <sup>-5</sup> < 4.0x10 <sup>-6</sup>
Insulation Resistance	> 100 Megohm Min. @ 50 VDC
<b>ENVIRONMENTAL</b> Operating Temperature Range	-65°F to +437°F (-55°C to +225°C) Continuous -65°F to +500°F (-55°C to +260°C) Short Duration
Compensated Temperature Range	+75°F to +437°F (+24°C to +225°C) Other Ranges Quoted on Request
Thermal Zero Shift	± 1% FS/100° F (Typ.)
Thermal Sensitivity Shift	± 1% /100° F (Typ.)
Linear Vibration	100g Peak, Sine up to 5000 Hz
Altitude	-150 ft. to +70,000 ft. Will Not Damage Sensor
Humidity	100% Relative Humidity
Mechanical Shock	100g half Sine Wave 11 msec. Duration
<b>PHYSICAL</b> Electrical Connection	3 Conductor 30 AWG High Temperature Protective Braided Shield Over Cable 1 Meter 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.) 8.5 N-m