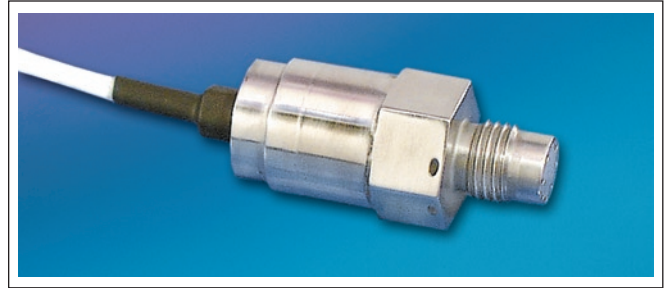




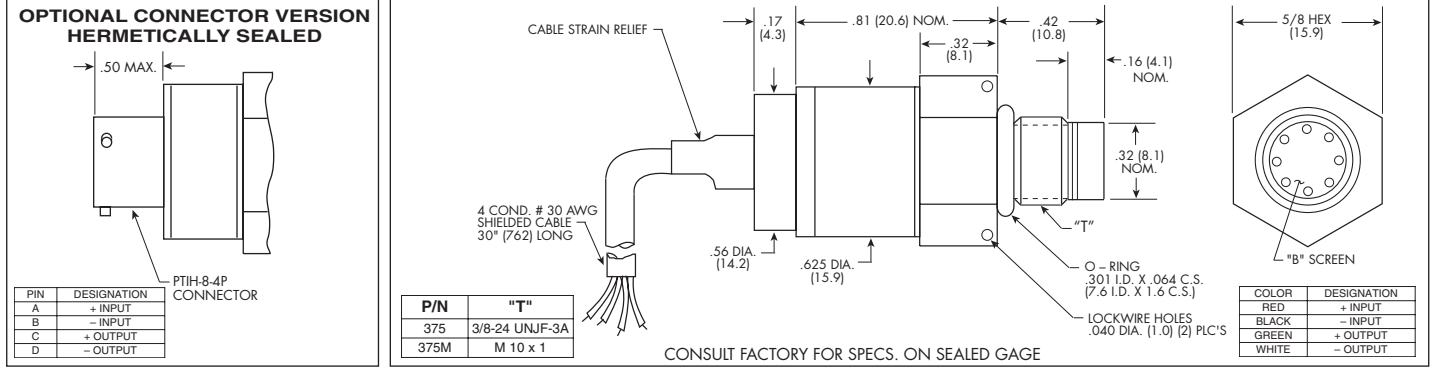
5 VDC OUTPUT IS® PRESSURE TRANSDUCER ETM-375 (M) SERIES

- 5 VDC Output
- Hybrid Microelectronic Regulator-Amplifier
- Flush Diaphragm
- All Welded Construction
- Secondary Containment On Absolute And Sealed Gage Units
- Flight Qualified
- 3/8-24 UNJF or M10 X 1 Thread
- 4 Wire (ETM-375) 3 Wire (ETM-300-375)
- Intrinsically Safe Applications Available (i.e. IS-ETM-375)



ETM-375 series transducers are miniature, threaded flush diaphragm instruments. They utilize a flush metal diaphragm as a force collector. Force is transferred to a solid state piezoresistive sensing element via a thin intervening film of non-compressible silicone oil. This sensing sub-assembly is protected from mechanical damage by a solid screen which has been shown to have minimal influence of the frequency response of

the sensor. For applications where a true flush diaphragm is needed, Kulite will supply these transducers without the screen. Incorporation of a Kulite proprietary electronics module within the main body of this product allows for operation from an unregulated power supply of 12 ± 4 VDC or 28 ± 4 VDC. Standard output is a stable, low noise 0 to 5 VDC signal.



INPUT	1.7	3.5	7	17	35	70	170	350	700	1400 BAR
Pressure Range	25	50	100	250	500	1000	2500	5000	10000	20000 PSI
Operational Mode	Absolute, Gage, Sealed Gage									
Over Pressure	2 Times Rated Pressure to a Max. of 30000 PSI (2100 BAR)									
Burst Pressure	3 Times Rated Pressure to a Max. of 35000 PSI (2400 BAR)									
Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel									
Rated Electrical Excitation	12 ± 4 VDC or 28 ± 4 VDC									
Maximum Electrical Current	25 mA									
OUTPUT										
Output Impedance	200 Ohms (Max.)									
Full Scale Reading	5 VDC ± 150mV									
Bandwidth (-3dB)	DC to 5 KHz									
Residual Unbalance	0 to 100 mV (ETL-375)					200 mV ± 50 mV (ETL-300-375)				
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)									
Resolution	Infinitesimal									
Natural Frequency (KHz) (Typ.)	Greater Than 400 KHz									
Acceleration Sensitivity % FS/g Perpendicular	1.9x10 ⁻³	1.0x10 ⁻³	5.2x10 ⁻⁴	2.2x10 ⁻⁴	1.1x10 ⁻⁴	6.2x10 ⁻⁵	2.6x10 ⁻⁵	1.5x10 ⁻⁵	1.3x10 ⁻⁵	8.0x10 ⁻⁶
Transverse	5.0x10 ⁻⁵	3.1x10 ⁻⁵	2.0x10 ⁻⁵	1.0x10 ⁻⁵	7.0x10 ⁻⁶	4.3x10 ⁻⁶	2.3x10 ⁻⁶	1.5x10 ⁻⁶	1.3x10 ⁻⁶	1.0x10 ⁻⁶
Insulation Resistance	100 Megohm Min. @ 50 VDC									
ENVIRONMENTAL										
Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)									
Compensated Temperature Range	0°F to +212°F (-18°C to +100°C) Other Ranges Quoted on Request									
Thermal Zero Shift	± 1% FS/100° F (Typ.)									
Thermal Sensitivity Shift	± 1% FS/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 1 msec. Duration									
PHYSICAL										
Electrical Connection	4 Conductor 30 AWG Shielded Cable 30" Long									
Weight	24.5 Grams (Max.) Excluding Cable									
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon									
Mounting Torque	80 Inch-Pounds (Max.)									

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