



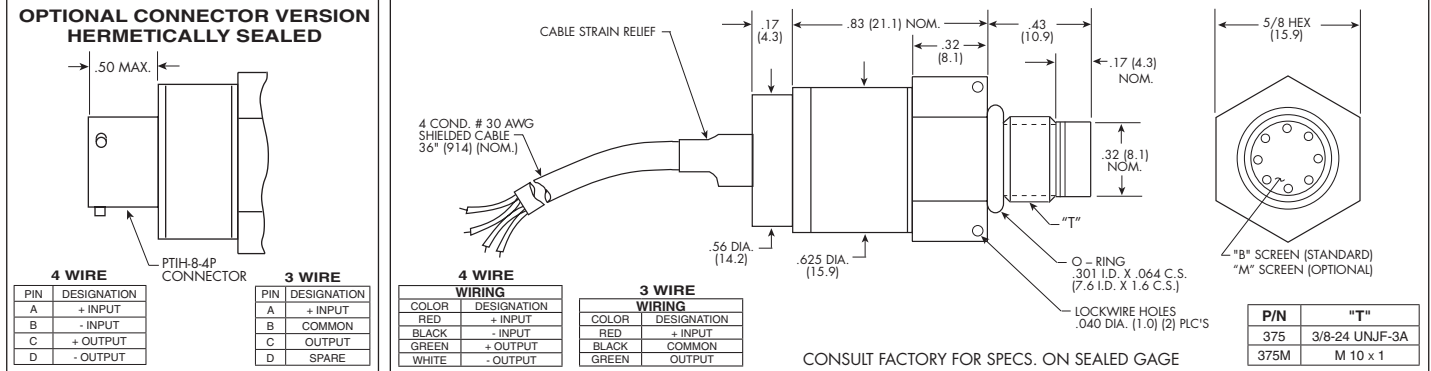
5 VDC OUTPUT IS® PRESSURE TRANSDUCER ETM-375 (M) SERIES

- 5 VDC Output
- Hybrid Microelectronic Regulator-Amplifier
- Silicon on Silicon Integrated Sensor VIS®
- Flush Diaphragm
- All Welded Construction
- Secondary Containment On Absolute And Sealed Gage Units
- Aerospace Quality Components
- 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	17	35	70	170	350	700	1400 BAR
Pressure Range	250	500	1000	2500	5000	10000	20000 PSI
Operational Mode	Absolute, Gage, Sealed Gage						
Over Pressure	2 Times Rated Pressure to 1000 PSI (70 BAR) 1.5 Times Rated Pressure Above 1000 PSI 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						
Maximum Electrical Current	25 mA						
Rated Electrical Excitation	8 - 16 VDC			13 - 32 VDC			
OUTPUT	5 VDC \pm 150 mV			5 VDC \pm 150 mV or 10 VDC \pm 300 mV			
Full Scale Reading	200 Ohms (Max.)						
Output Impedance	DC to 5 KHz						
Bandwidth (-3dB)	0 to 100 mV (ETM-375)			200 mV \pm 50 mV (ETM-300-375)			
Residual Unbalance	\pm 0.1% FSO BFSL (Typ.), \pm 0.5% FSO (Max.)						
Combined Non-Linearity, Hysteresis and Repeatability	Infinitesimal						
Resolution	Greater Than 400 KHz						
Natural Frequency (KHz) (Typ.)	2.2x10 ⁻⁴	1.1x10 ⁻⁴	6.2x10 ⁻⁵	2.6x10 ⁻⁵	1.5x10 ⁻⁵	1.3x10 ⁻⁵	8.0x10 ⁻⁶
Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻⁵	7.0x10 ⁻⁶	4.3x10 ⁻⁶	2.3x10 ⁻⁶	1.5x10 ⁻⁶	1.3x10 ⁻⁶	1.0x10 ⁻⁶
Transverse	100 Megohm Min. @ 50 VDC						
Insulation Resistance	-65°F to +250°F (-55°C to +120°C)						
ENVIRONMENTAL	Operating Temperature Range						
Operating Temperature Range	0°F to +212°F (-18°C to +100°C) Other Ranges Quoted on Request						
Compensated Temperature Range	\pm 1% FS/100° F (Typ.)						
Thermal Zero Shift	\pm 1%/100° F (Typ.)						
Thermal Sensitivity Shift	100g Peak, Sine up to 5000 Hz						
Linear Vibration	-150 ft. to +70,000 ft. Will Not Damage Sensor						
Altitude	100% Relative Humidity						
Humidity	100g half Sine Wave 11 msec. Duration						
Mechanical Shock	4 Conductor 30 AWG Shielded Cable 36" Long						
PHYSICAL	Electrical Connection						
Electrical Connection	24.5 Grams (Max.) Excluding Cable						
Weight	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon						
Pressure Sensing Principle	80 Inch-Pounds (Max.)						
Mounting Torque							