



5 VDC OUTPUT PRESSURE TRANSDUCER

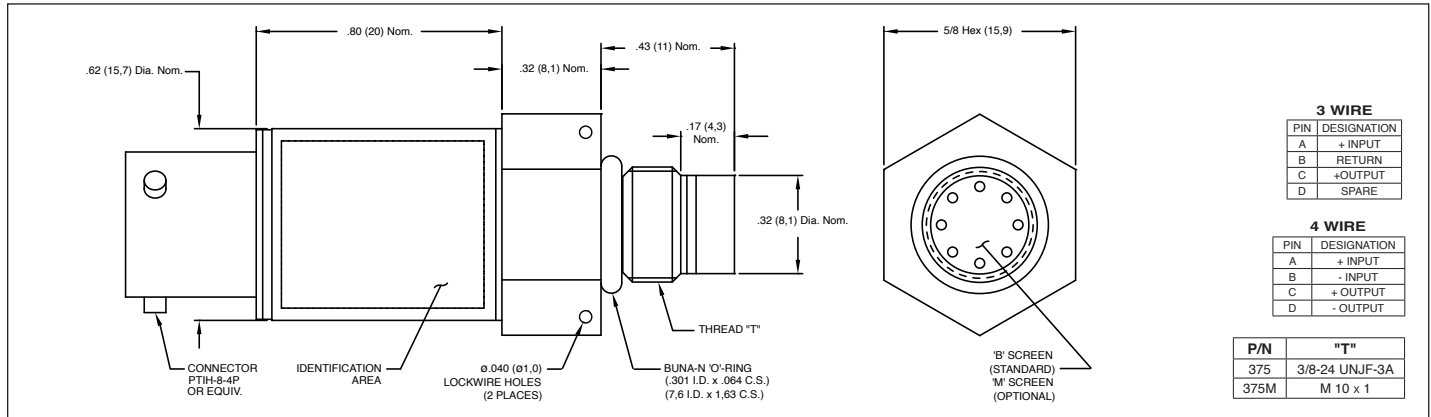
ETM-375 (M) CO SERIES

- 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
- 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(M) CO 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.



	17	35	70	170	350	700	1400 BAR
INPUT	250	500	1000	2500	5000	10000	20000 PSI
Pressure Range	Absolute, Sealed Gage						
Operational Mode	2 Times Rated Pressure to 1000 PSI (70 BAR) 1.5 Times Rated Pressure Above 1000 PSI to a Max. of 25000 PSI (1724 BAR)						
Over Pressure	3 Times Rated Pressure to a Max. of 25000 PSI (1724 BAR)						
Burst Pressure	Any Liquid or Gas Compatible With 15-5 PH and 316 Stainless Steel or Inconel 625 (All Media May Not Be Suitable With O-Ring Supplied)						
Pressure Media	25 mA						
Maximum Electrical Current	8 - 16 VDC			13 - 32 VDC			
Rated Electrical Excitation	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 of Sensor Without Screen (KHz) (Typ.)	2.2×10^{-4}	1.1×10^{-4}	6.2×10^{-5}	2.6×10^{-5}	1.5×10^{-5}	1.3×10^{-5}	8.0×10^{-6}
Acceleration Sensitivity % FS/g Perpendicular	100 Megohm Min. @ 50 VDC						
Insulation Resistance	-65°F to +250°F (-55°C to +120°C)						
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	20g Peak, Sine 10 to 2000 Hz						
Linear Vibration	20g Half Sine Wave 11 msec. Duration						
Mechanical Shock	PTIH-8-4P or Equivalent (Mating Connector Available Upon Request)						
Electrical Connection	24.5 Grams (Nom.)						
Weight	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon						
Pressure Sensing Principle	80 Inch-Pounds (Max.)						
Mounting Torque							

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (F) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2020 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.