



MINIATURE 5 VDC OUTPUT IS® PRESSURE TRANSDUCER

ETQ-12-375(M) SERIES

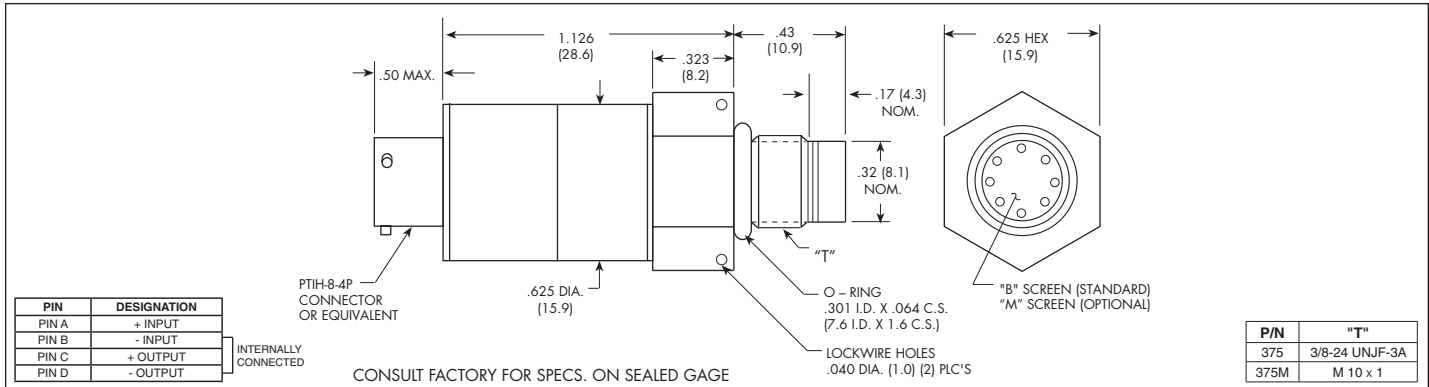
- 5 VDC Output
- Hybrid Microelectronic Regulator-Amplifier
- Flush Diaphragm
- Hermetically Sealed All Welded Construction
- Silicon on Silicon Integrated Sensor **VIS®**
- Secondary Containment
- Single Ended Amplifier
- 3 Wire
- Intrinsically Safe Applications Available

(i.e. IS-ETQ-12-375)



The ETQ-12-375 Series of miniature pressure transducers are flush diaphragm units utilizing a Kulite Piezoresistive Sensor as the sensing element.

Mounted within the body of the transducer is a 3 wire system hybrid regulator-amplifier which provides a stable, low noise 5VDC output, with a 12 ± 4 VDC unregulated input. The flush diaphragm is protected against mechanical damage by a screen which is standard.



INPUT	50	100	250	500	1000	2000	3000	5000
Pressure Range								
Operational Mode	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 30,000 PSI							
Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 SS							
Maximum Electrical Current	25 ma (Max.)							
Rated Electrical Excitation	8 - 16 VDC							
OUTPUT								
Full Scale Reading	5 V \pm 150mV (3 Wire System)							
Output Impedance	200 Ohms (Typ.)							
Bandwidth (Flat \pm 1dB)	DC to 3 KHz							
Residual Unbalance	200 mV \pm 100 mV							
Combined Non-Linearity, Hysteresis and Repeatability	\pm 0.1% FSO BFSL (Typ.) \pm 0.5% FSO (Max.)							
Resolution	Infinitesimal							
Natural Frequency	Greater Than 400 KHz							
Acceleration Sensitivity % FS/g Perpendicular Transverse	1.0x10 ⁻³ 3.1x10 ⁻⁵	5.2x10 ⁻⁴ 2.0x10 ⁻⁵	2.2x10 ⁻⁴ 1.0x10 ⁻⁵	1.1x10 ⁻⁴ 7.0x10 ⁻⁶	6.2x10 ⁻⁵ 4.3x10 ⁻⁶	3.5x10 ⁻⁵ 3.0x10 ⁻⁶	2.2x10 ⁻⁵ 2.0x10 ⁻⁶	1.5x10 ⁻⁵ 1.5x10 ⁻⁶
Insulation Resistance	100 Megohm Min. at 50 VDC							
ENVIRONMENTAL								
Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)							
Compensated Temperature Range	-40°F to +250°F (-40°C to +120°C)							
Thermal Zero Shift	\pm 2% FSO/100°F (Max.)							
Thermal Sensitivity Shift	\pm 2% /100°F (Max.)							
Vibration	200g Sine up to 10,000 Hz							
Altitude	Unaffected							
Humidity	100% Relative Humidity							
Mechanical Shock	100g 11 msec.; 5000g 100 usec							
PHYSICAL								
Electrical Connection	PTIH-8-4P or Equivalent							
Weight	35 Grams Approx.							
Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon							
Torque	80-120 Inch-Pounds							

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. (H)