



RATIOMETRIC OUTPUT PRESSURE TRANSDUCER

ETM-435-375(M) SERIES ETM-435-375(M) CO SERIES

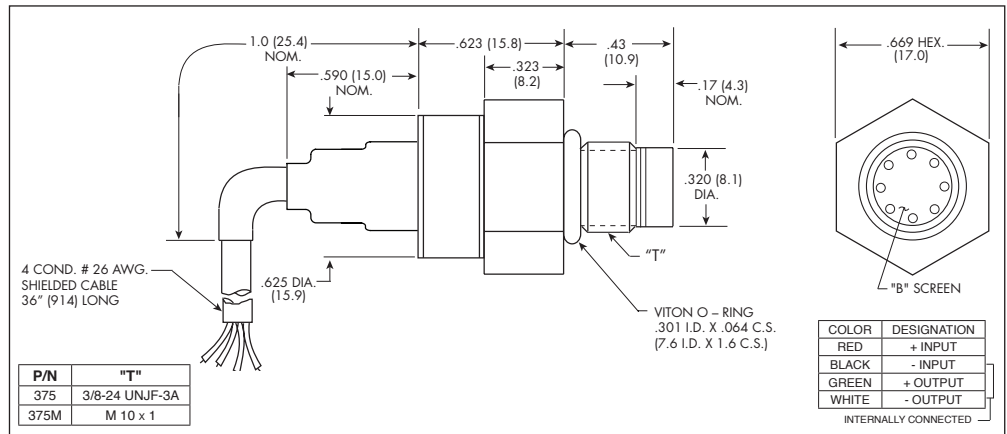
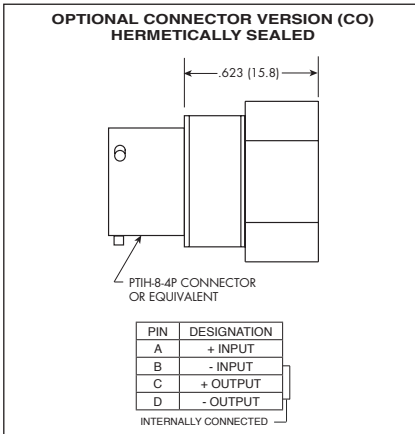
- Ratiometric Amplified Output
- Hybrid Microelectronic Amplifier
- Flush Diaphragm
- All Welded Construction
- Secondary Containment On Absolute And Sealed Gage Units
- 3/8-24 UNJF or M10 X 1 Thread
- Designed For Industrial and Automotive Applications
- Intrinsically Safe Applications Available (i.e. IS-ETM-435(X)-375)



The ETM-435-375 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.

The ETM-435-375 utilizes a flush metal diaphragm as a force collector. A solid state piezoresistive sensing element is located immediately behind this metal diaphragm which is protected by a metal screen. Force transfer is accomplished via non-compressible silicone oil. This sensing sub assembly is welded to a stainless steel body.

Incorporation of a Kulite proprietary electronics module within the main body of this product allows for operation from a ratiometric power supply of 5 VDC. Standard output is a stable, low noise 0.5 to 4.5 VDC signal.



| | | | | | | | | | | | | |
|---------------|--|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| INPUT | Pressure Range | 3.5 50 | 7 100 | 10 145 | 17 350 | 35 500 | 50 725 | 70 1000 | 170 2500 | 350 5000 | 700 BAR 10000 PSI | |
| | Operational Mode | Absolute, Sealed Gage | | | | | | | | | | |
| | Over Pressure | 2 Times Rated Pressure | | | | | | | | | | |
| | Burst Pressure | 3 Times Rated Pressure | | | | | | | | | | |
| | Pressure Media | Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel (All Media May Not Be Suitable With O-Ring Supplied) | | | | | | | | | | |
| | Maximum Electrical Current | 20 mA | | | | | | | | | | |
| OUTPUT | Rated Electrical Excitation | 5 VDC ± 0.25 VDC | | | | | | | | | | |
| | Output | 0.5 to 4.5 VDC Ratiometric | | | | | | | | | | |
| | Output Impedance | 200 Ohms (Max.) | | | | | | | | | | |
| | Bandwidth (-3dB) | DC to 3 KHz | | | | | | | | | | |
| | Accuracy (Total Error Band) Combined Non-Linearity & Hysteresis & Temperature & End Point Settings | ± 2.7% | | | | | | | | | | |
| ENVIRONMENTAL | Resolution | Infinitesimal | | | | | | | | | | |
| | Acceleration Sensitivity % FS/g Perpendicular | 3.0x10 ⁻⁴ | 1.5x10 ⁻⁴ | 2.8x10 ⁻⁴ | 2.2x10 ⁻⁴ | 1.1x10 ⁻⁴ | 8.0x10 ⁻⁵ | 6.2x10 ⁻⁵ | 2.6x10 ⁻⁵ | 1.5x10 ⁻⁵ | 1.3x10 ⁻⁵ | |
| | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | | | |
| PHYSICAL | Operating Temperature Range | -40°F to +275°F (-40°C to +135°C) | | | | | | | | | | |
| | Compensated Temperature Range | -13°F to +275°F (-25°C to +135°C) Other Ranges Quoted on Request | | | | | | | | | | |
| | Linear Vibration | 100g Peak, Sine up to 5000 Hz | | | | | | | | | | |
| PHYSICAL | Mechanical Shock | 20g half Sine Wave 11 msec. Duration | | | | | | | | | | |
| | Electrical Connection | 4 Conductor 26 AWG Shielded Cable, 36" Long CONNECTOR OPTION: PTIH-8-4P Connector or Equivalent | | | | | | | | | | |
| | Weight | 24.5 Grams (Max.) Excluding Cable | | | | | | | | | | |
| | Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon | | | | | | | | | | |
| PHYSICAL | Mounting Torque | 80 Inch-Pounds (Max.) 9 Nm | | | | | | | | | | |

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (E) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 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.