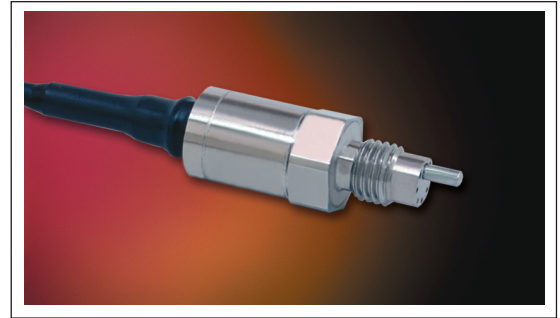




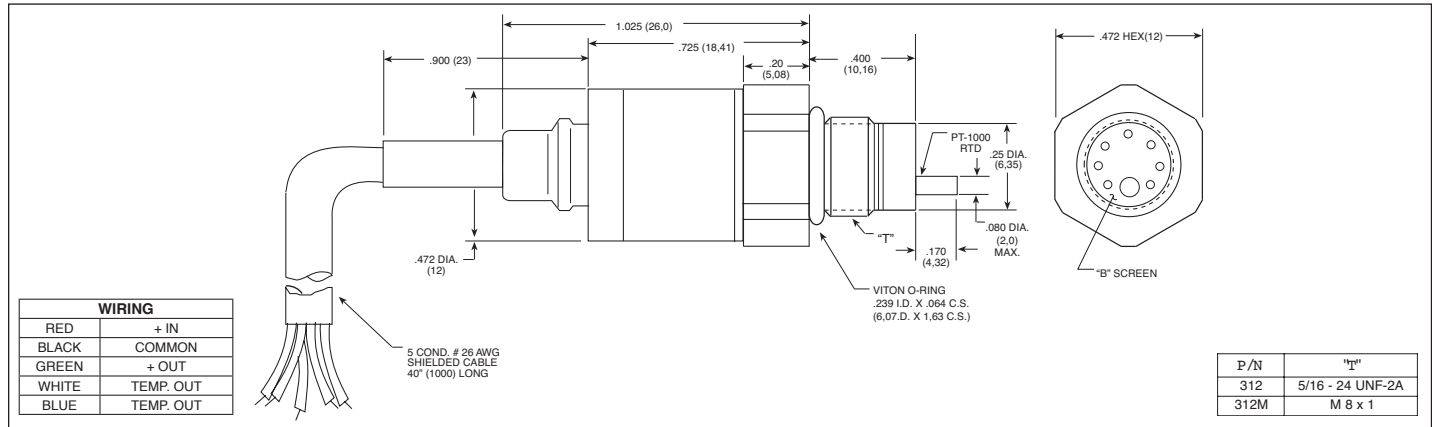
ULTRAMINIATURE 5V OUTPUT HIGH TEMPERATURE PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

ETL/T-312 (M) SERIES

- Combined Pressure and Temperature Capability
- Robust Construction
- Excellent Long Term Stability
- Patented Leadless Technology VIS®
- Designed For Industrial And Automotive Applications



The ETL/T-312 is a miniature threaded pressure transducer/platinum RTD combination. The pressure transducer utilizes a patented silicon on silicon design. The platinum RTD protrudes beside the diaphragm to sense media temperature. The pressure and temperature devices are designed to operate independently. All wetted parts of the transducer are compatible with most automotive fluids. Part performance not guaranteed if used in water.



| | | | | | | | | | | | |
|---------------|--|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|
| INPUT | Pressure Range | 0.7 10 | 1.0 15 | 1.7 25 | 3.5 50 | 7 100 | 17 250 | 35 500 | 70 1000 | 170 2500 | 350 BAR 5075 PSI |
| | Operational Mode | Absolute | | | | | | | | | |
| | Over Pressure | 2 Times Rated Pressure | | | | | | | | | 1.5 Times Rated Pressure |
| | Burst Pressure | 3 Times Rated Pressure | | | | | | | | | 2 Times Rated Pressure |
| | Pressure Media | Most Conductive Liquids and Gases - Please Consult Factory (All Media May Not Be Suitable With O-Ring Supplied) | | | | | | | | | |
| | Maximum Electrical Current | 25 mA | | | | | | | | | |
| | Rated Electrical Excitation | 12 ± 4 VDC | | | | | | | | | |
| | RTD Excitation | 0.3mA (1mA Max.) | | | | | | | | | |
| OUTPUT | Full Scale Reading | 4.5V ± 1.5% (3 Wire System Single Ended Output) | | | | | | | | | |
| | Residual Unbalance | 0.5V ± 75mV | | | | | | | | | |
| | Output Impedance | 200 Ohms (Nom.) | | | | | | | | | |
| | RTD | 1000 Ohms Platinum, DIN EN 60751 Tables, Class A (65% Response Time 3 Seconds Max.) in Liquid | | | | | | | | | |
| | Bandwidth (-3dB) | DC to 3000 Hz | | | | | | | | | |
| | Combined Non-Linearity, Hysteresis and Repeatability | ± 0.1% BFS (Typ.), ± 0.25% BFS (Max.) | | | | | | | | | |
| | Resolution | Infinitesimal | | | | | | | | | |
| | Acceleration Sensitivity % FS/g Perpendicular | 1.0x10 ⁻³ | 6.5x10 ⁻⁴ | 5.0x10 ⁻⁴ | 3.0x10 ⁻⁴ | 1.5x10 ⁻⁴ | 1.0x10 ⁻⁴ | 6.0x10 ⁻⁵ | 4.0x10 ⁻⁵ | 2.5x10 ⁻⁵ | 1.5x10 ⁻⁵ |
| ENVIRONMENTAL | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | | |
| | Operating Temperature Range | -20°F to +365°F (-29°C to +185°C) | | | | | | | | | |
| | Compensated Temperature Range | +68°F to +350°F (+20°C to +175°C) | | | | | | | | | |
| | Total Error Band (Excluding End Points) | ± 2% FS/100°C ≤ 217.5 PSI (15 BAR), ± 1% FS/100°C > 217.5 PSI (15 BAR) | | | | | | | | | |
| | Linear Vibration | 20g Peak, Sine 10 to 2000 Hz | | | | | | | | | |
| PHYSICAL | Mechanical Shock | 20g Half Sine Wave 11 msec. Duration | | | | | | | | | |
| | Electrical Connection | 5 Conductor 26 AWG Shielded Cable 40" (1000) Long | | | | | | | | | |
| | Weight | 15 Grams Excluding Cable | | | | | | | | | |
| | Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology | | | | | | | | | |
| | Mounting Torque | 50 Inch-Pounds (Max.) 6Nm | | | | | | | | | |

Note: Custom pressure ranges, accuracies, mechanical configurations and RTD resistance available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (O) 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.