# ULTRAMINIATURE 5V DUAL OUTPUT PRESSURE TRANSDUCER

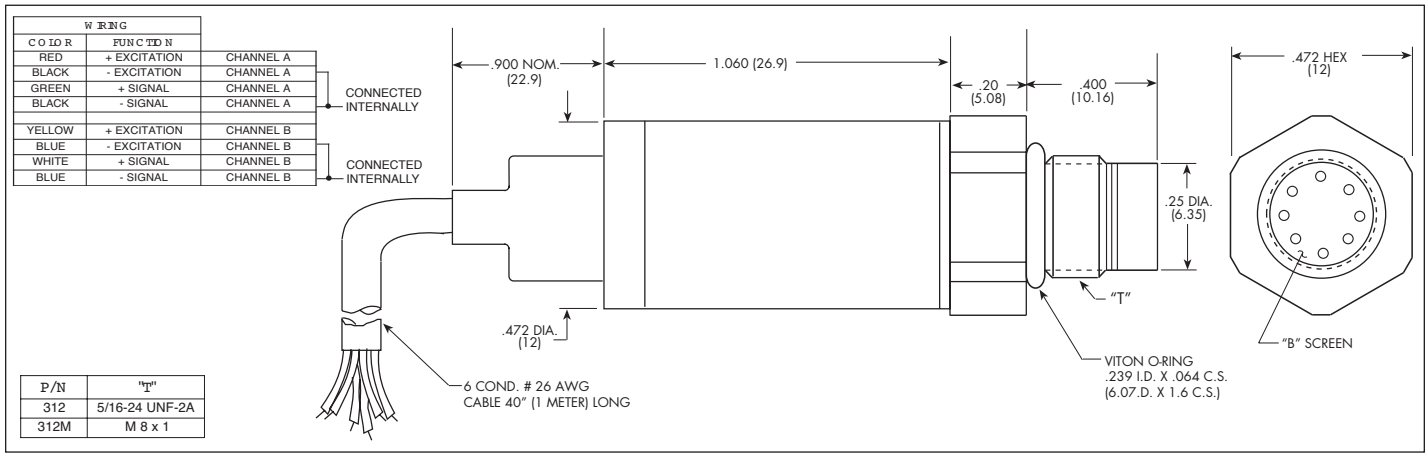
## ETLR-634(X)-312 (M) SERIES

- Two Independent Sensing Elements In One Housing
- Dual Separate Output Signal
- Robust Construction
- Designed For Industrial and Automotive Applications
- Patented Leadless Technology **VIS**®

The ETLR-634-312 (M) is an ultraminiature threaded redundant pressure transducer. The two sensing elements utilize a patented leadless technology, dual independent signal output combined in the same housing. The two sensing elements are designed to operate independently. All wetted parts of the transducer are compatible with most industrial and automotive fluids.

Part performance not guaranteed if used in water.

| WIRING | | |
|---|---|---|
| COLOR | FUNCTION | |
| RED | + EXCITATION | CHANNEL A |
| BLACK | - EXCITATION | CHANNEL A |
| GREEN | + SIGNAL | CHANNEL A |
| BLACK | - SIGNAL | CHANNEL A |
| | | |
| YELLOW | + EXCITATION | CHANNEL B |
| BLUE | - EXCITATION | CHANNEL B |
| WHITE | + SIGNAL | CHANNEL B |
| BLUE | - SIGNAL | CHANNEL B |




| P/N | "T" |
|---|---|
| 312 | 5/16-24 UNF-2A |
| 312M | M 8 x 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INPUT | Pressure Range | 1.7<br>25 | 3.5<br>50 | 7<br>100 | 17<br>250 | 35<br>500 | 70<br>1000 | 170<br>2500 | 250 BAR<br>3600 PSI |
| | Operational Mode | Absolute, 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 5000 PSI (350 BAR) | | | | | | | |
| | Burst Pressure | 3 Times Rated Pressure to a Max. of 5000 PSI (350 BAR) | | | | | | | |
| | 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 | | | | | | | |
| OUTPUT | Full Scale Reading (X) | 4.9V ± 2% (A) | 4.5V ± 1.5% (B) | 4.5V ± 1% (C) | 4.9V ± 1.5% (D) | 4.75V ± 1% (E) | 4.7V ± 1% (F) | | |
| | Output Impedance | 200 Ohms (Nom.) | | | | | | | |
| | Bandwidth (-3dB) | DC to 3000 Hz | | | | | | | |
| | Residual Unbalance (X) | 350 ± 50 mV (A) | 500 ± 75 mV (B) | 300 ± 45 mV (C) | 300 ± 75 mV (D) | 300 ± 50 mV (E) | 300 ± 50 mV (F) | | |
| | Combined Non-Linearity, Hysteresis and Repeatability | ± 0.1% BFSL (Typ.), ± 0.25% BFSL (Max.) | | | | | | | |
| | Resolution | Infinitesimal | | | | | | | |
| | Acceleration Sensitivity % FS/g Perpendicular | $5.0x10^{-4}$ | $3.0x10^{-4}$ | $1.5x10^{-4}$ | $1.0x10^{-4}$ | $6.0x10^{-5}$ | $4.0x10^{-5}$ | $2.5x10^{-5}$ | $1.7x10^{-5}$ |
| | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | |
| ENVIRONMENTAL | Operating Temperature Range | -65°F to +365°F (-55°C to +185°C) | | | | | | | |
| | Compensated Temperature Range | +68°F to +350°F (+20°C to +175°C) | | | | | | | |
| | Total Error Band (Excluding End Point) | ± 2% FS/180°F (100°C) ≤ 217.5 PSI (15 BAR), ± 1% FS/180°F (100°C) ≥ 217.5 PSI (15 BAR) | | | | | | | |
| | Linear Vibration | 20g Peak, Sine 10 to 2000 Hz | | | | | | | |
| | Mechanical Shock | 20g Half Sine Wave 11 msec. Duration | | | | | | | |
| PHYSICAL | Electrical Connection | 6 Conductor 26 AWG Cable 40" (1 Meter) Long | | | | | | | |
| | Weight | 15 Grams (Nom.) Excluding Cable | | | | | | | |
| | Pressure Sensing Principle | Two Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology | | | | | | | |
| | Mounting Torque | 50 Inch-Pounds (Max.) 6Nm | | | | | | | |

*(X) Denotes FSR and Residual Unbalance Options (A), (B), (C), (D), (E) or (F).*

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

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