



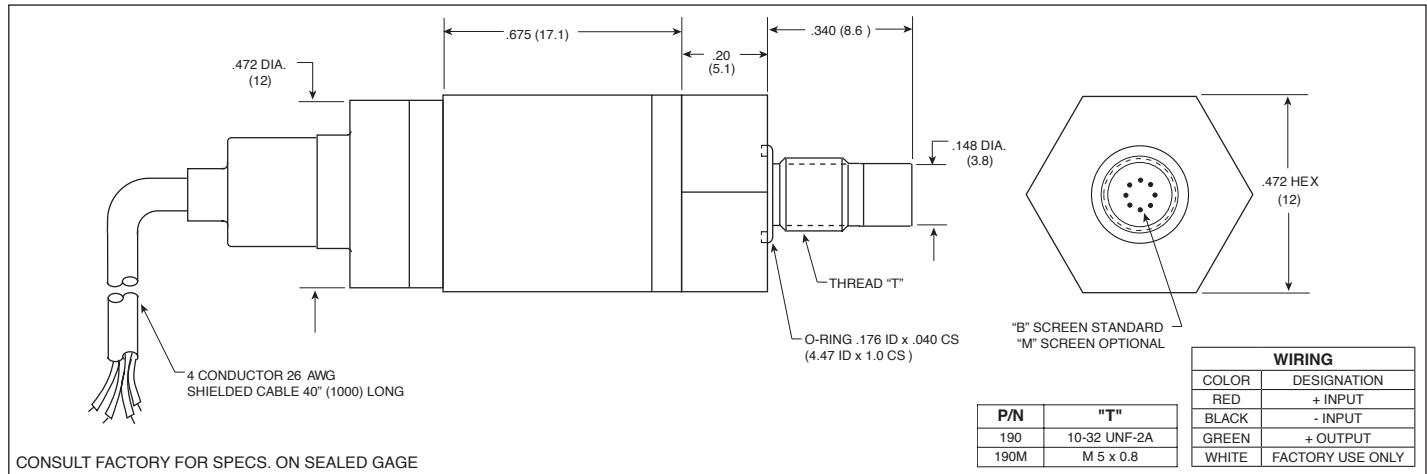
# MINIATURE 5 VOLT DIGITALLY CORRECTED PRESSURE TRANSDUCER

## ETL-76M-190 (M) SERIES

- Robust Construction
- Ultra Miniature Amplified Version
- Digitally Corrected
- High Accuracy
- Patented Leadless Technology **VIS**<sup>®</sup>

The ETL-76 Series is one of the smallest amplified transducers currently available. It incorporates the latest pressure sensing technology – Kulite's dielectrically isolated, silicon on silicon, patented leadless sensing element, which enables this device to be used in harsh environments. The ETL-76M digitally corrected transducer offers high accuracy with a total error band of  $\pm 0.25\%$  FSO, inclusive of all errors over a wide temperature range of  $-40^{\circ}\text{F}$  to  $+250^{\circ}\text{F}$ .

Part performance not guaranteed if used in water.



	0.35	1.0	1.7	3.5	7	17	35	70	140	210 BAR
<b>INPUT</b>	5	15	25	50	100	250	500	1000	2000	3000 PSI
Pressure Range										
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 6000 PSI (420 BAR)									
Burst Pressure	3 Times Rated Pressure to a Maximum of 6000 PSI (420 BAR)									
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)									
Maximum Electrical Current	25 mA (Max.)									
Rated Electrical Excitation	8 - 32 VDC									
<b>OUTPUT</b>										
Full Scale Output (FSO)	5 VDC									
Residual Unbalance	0.5V									
Output Impedance	50 Ohms (Typ.)									
Total Error Band	$\pm 0.25\%$ Typ. (End Point Settings, Combined Non-Linearity, Hysteresis, Repeatability and All Thermal Effects Included)									
Bandwidth (-3dB)	DC to 2500 Hz									
Resolution	Infinitesimal									
Acceleration Sensitivity % FS/g Perpendicular	$1.5 \times 10^{-3}$	$1.0 \times 10^{-3}$	$5.0 \times 10^{-4}$	$3.0 \times 10^{-4}$	$1.5 \times 10^{-4}$	$1.0 \times 10^{-4}$	$6.0 \times 10^{-5}$	$4.0 \times 10^{-5}$	$2.5 \times 10^{-5}$	$1.9 \times 10^{-5}$
Insulation Resistance	100 Megohm Min. @ 50 VDC									
<b>ENVIRONMENTAL</b>										
Operating Temperature Range	$-40^{\circ}\text{F}$ to $+280^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ to $+140^{\circ}\text{C}$ ) (Max.)									
Compensated Temperature Range	$-40^{\circ}\text{F}$ to $+250^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ to $+120^{\circ}\text{C}$ )									
Linear Vibration	20g Peak, Sine 10 to 2000 Hz									
Mechanical Shock	20g half Sine Wave 11 msec. Duration									
<b>PHYSICAL</b>										
Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 40" (1000) Long									
Weight	10 Grams Excluding Cable									
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology									
Mounting Torque	15 Inch-Pounds (Max.)									

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