

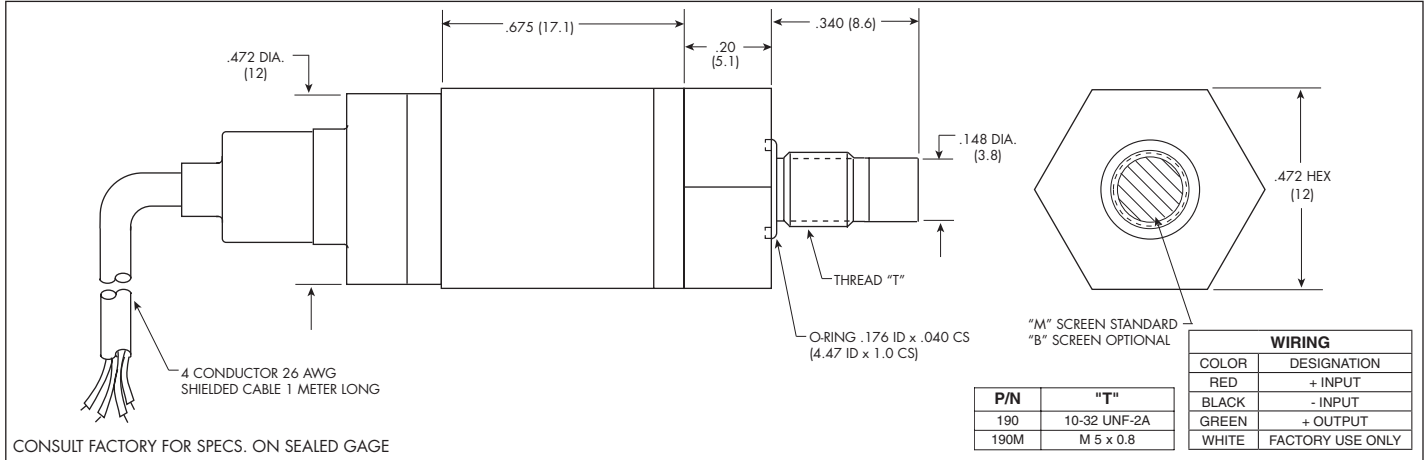


# MINIATURE 5 VOLT DIGITALLY CORRECTED PRESSURE TRANSDUCER

## 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  $+250^{\circ}\text{F}$ .



INPUT	Pressure Range	0.35 5	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	140 2000	210 BAR 3000 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 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.)										
OUTPUT	Rated Electrical Excitation	8 - 32 VDC										
	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										
	ENVIRONMENTAL	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		50g Peak, Sine 10 to 2000 Hz										
Mechanical Shock		100g half Sine Wave 11 msec. Duration										
PHYSICAL	Electrical Connection	4 Conductor 26 AWG Shielded Viton Cable 1 Meter 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. (S) 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.