

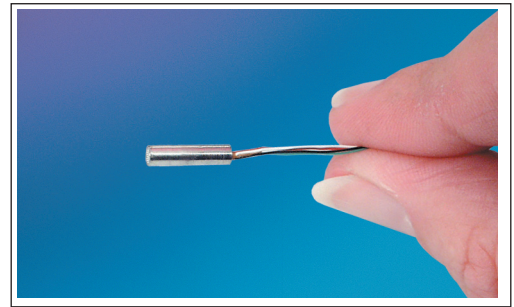


# MINIATURE LEADLESS PRESSURE TRANSDUCER WITH INTERNAL COMPENSATION

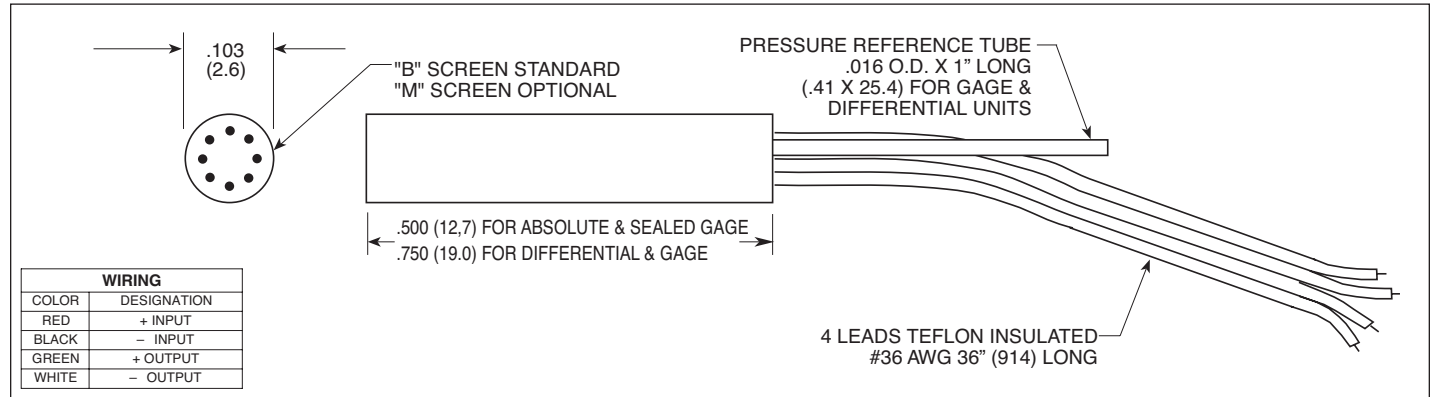
## XCL-IC-100 SERIES

- Designed For Harsh Environments
- Ideal For Turbine Engine Probes and Wind Tunnel Applications
- Patented Leadless Technology **VIS**<sup>®</sup>
- Designed For Both Static and Dynamic Response
- Suitable For Use in Most Conductive Liquids and Gases

The XCL-IC-100 Series design features Kulite's patented leadless technology. This allows for a very rugged package suited for probes, pressure rakes and other similar test set ups. This transducer is well suited for both dynamic and static pressure measurements in benign or harsh environments. Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XCL-IC-100 transducer.



	1.0 15	1.7 25	3.5 50	7 100	14 200	21 300	35 500	70 BAR 1000 PSI	
<b>INPUT</b>	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential		Absolute, Sealed Gage				
Pressure Range									
Operational Mode									
Over Pressure	2 Times Rated Pressure								
Burst Pressure	3 Times Rated Pressure								
Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory								
Rated Electrical Excitation	10 VDC/AC								
Maximum Electrical Excitation	12 VDC/AC								
Input Impedance	1000 Ohms (Min.)								
Output Impedance	1000 Ohms (Nom.)								
Full Scale Output (FSO)	100 mV (Nom.)								
Residual Unbalance	± 5 mV (Typ.)								
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)								
Resolution	Infinitesimal								
Natural Frequency of Sensor Without Screen (KHz) (Typ.)	175	200	240	300	380	550	575	700	1000
Acceleration Sensitivity % FS/g Perpendicular	1.0x10 <sup>-3</sup>	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.1x10 <sup>-4</sup>	9.0x10 <sup>-5</sup>	6.0x10 <sup>-5</sup>	4.0x10 <sup>-5</sup>
Insulation Resistance	100 Megohm Min. @ 50 VDC								
<b>ENVIRONMENTAL</b>									
Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)								
Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request								
Thermal Zero Shift	± 2% FS/100°F (Typ.) (± 3% FS/100°F Max.)				± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.)				
Thermal Sensitivity Shift	± 2% /100°F (Typ.) (± 3% /100°F Max.)				± 1% /100°F (Typ.) (± 2% /100°F Max.)				
Mechanical Shock	20g Half Sine Wave 11 msec. Duration								
Linear Vibration	20g Peak, Sine 10 to 2000 Hz								
<b>PHYSICAL</b>									
Electrical Connection	4 Leads 36 AWG 36" (914) Long (36 AWG Shielded Teflon Cable Optional)								
Weight	.4 Gram (Nom.) Excluding Module and Leads								
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (D) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2020 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.