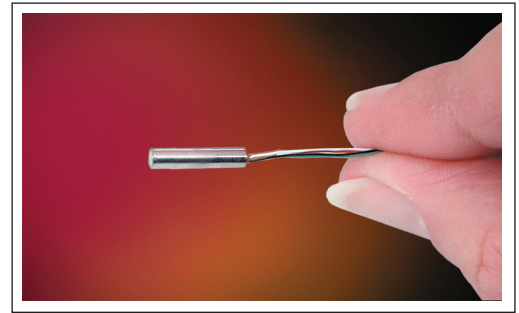




# HIGH TEMPERATURE MINIATURE PRESSURE TRANSDUCER WITH INTERNAL COMPENSATION

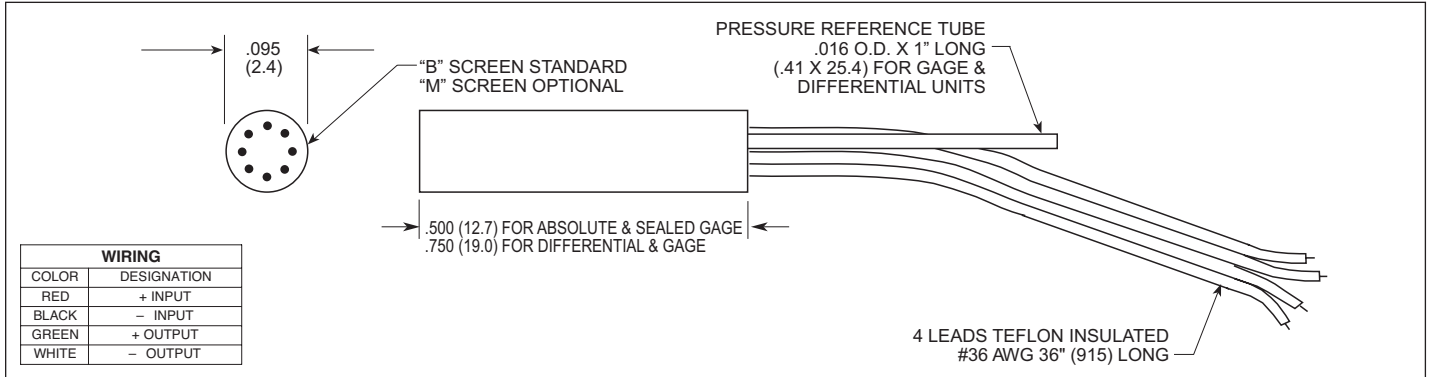
## XCE-IC-093 SERIES

- Wide Temperature Capability -65°F To 525°F
- Ideal For Turbine Engine Probes and Wind Tunnel Applications
- 50 Year History Of Successful Applications In Wind Tunnel And Flight Test Programs
- Patented Silicon on Silicon Integrated Sensor **VIS®**
- Size And Shape Ideal For Incorporation In User Designed Probes
- Excellent Static And Dynamic Performance



The XCE-IC-093 Series allow 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. Its wide operating temperature range (-65°F to +525°F) makes it ideal for numerous applications in Aerospace and other areas of industry. Internal compensation allows for ease of installation by eliminating the external compensation module.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XCE-IC-093 transducer.



Pressure Range	0.35 5	0.7 10	1 15	1.7 25	3.5 50	7 100	17 250	35 500	70 BAR 1000 PSI
Operational Mode	Gage, Differential		Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential		Absolute, Sealed Gage		
Over Pressure	2 Times Rated Pressure With No Change In Calibration								
Burst Pressure	3 Times Rated Pressure								
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases								
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.)	150	175	200	240	300	380	550	700	1000
Acceleration Sensitivity % FS/g Perpendicular	1.5x10 <sup>-3</sup>	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>	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	4.5x10 <sup>-5</sup>
Insulation Resistance	100 Megohm Min. @ 50 VDC								
Operating Temperature Range	-65°F to +525°F (-55°C to +273°C)								
Compensated Temperature Range	80°F to +450°F (25°C to +235°C)								
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.)				± 2% /100°F (Typ.) (± 3% /100°F Max.)				
Steady Acceleration	10,000g. (Max.)								
Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)								
Electrical Connection	4 Leads 36 AWG 36" Long								
Weight	.4 Gram (Nom.) Excluding Module and Leads								
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon								

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