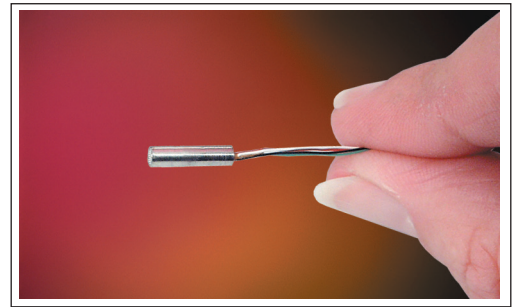




# HIGH TEMPERATURE MINIATURE PRESSURE TRANSDUCER WITH INTERNAL COMPENSATION

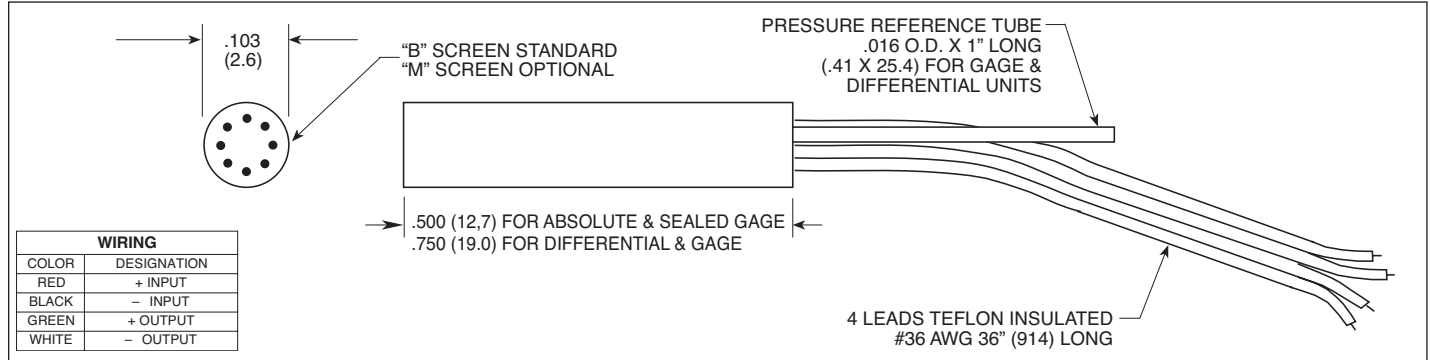
## XCEL-IC-100 SERIES

- Wide Temperature Capability -65°F To 525°F
- 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 XCEL-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. Its wide operating temperature range (-65°F to +525°F) makes it ideal for numerous applications in Aerospace and other areas of Industry. Part performance not guaranteed if used in water.

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



	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 BAR 1000 PSI	
<b>INPUT</b>								
Pressure Range								
Operational Mode	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential			Absolute, Sealed Gage		
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							
Maximum Electrical Excitation	12 VDC							
Input Impedance	1000 Ohms (Min.)							
<b>OUTPUT</b>								
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	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>	1.0x10 <sup>-4</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 +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.)			± 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. (E) 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.