

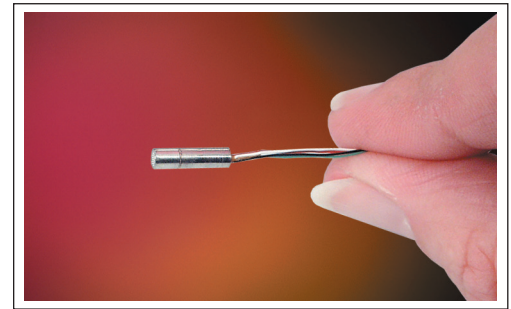


# HIGH TEMPERATURE MINIATURE PRESSURE TRANSDUCER

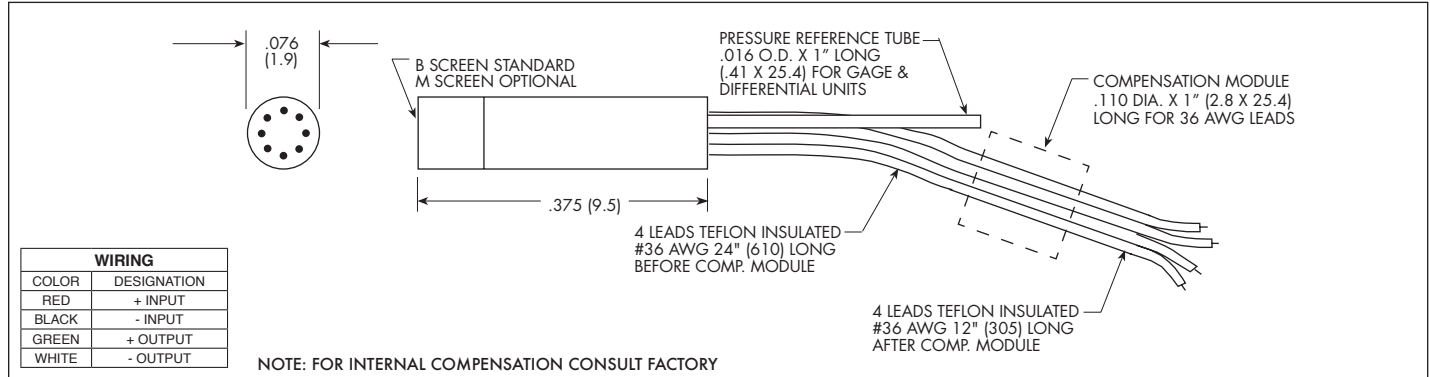
## XCEL-072 SERIES

- 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-072 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.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XCEL-072 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				
Over Pressure	2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR)								
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.)								
<b>OUTPUT</b>	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 +525°F (-55°C to +273°C)								
	Compensated Temperature Range								
	+80°F to +450°F (+25°C to +235°C)								
	Thermal Zero Shift								
	± 1% FS/100°F (Typ.)								
	Thermal Sensitivity Shift								
	± 1% /100°F (Typ.)								
	Steady Acceleration								
	10,000g. (Max.)								
	Linear Vibration								
	10-2000 Hz Sine, 100g. (Max.)								
<b>PHYSICAL</b>	Electrical Connection								
	4 Leads 36 AWG 36" Long								
	Weight								
	.2 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. (T) 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.