



HIGH TEMPERATURE SHORT LENGTH PRESSURE TRANSDUCER

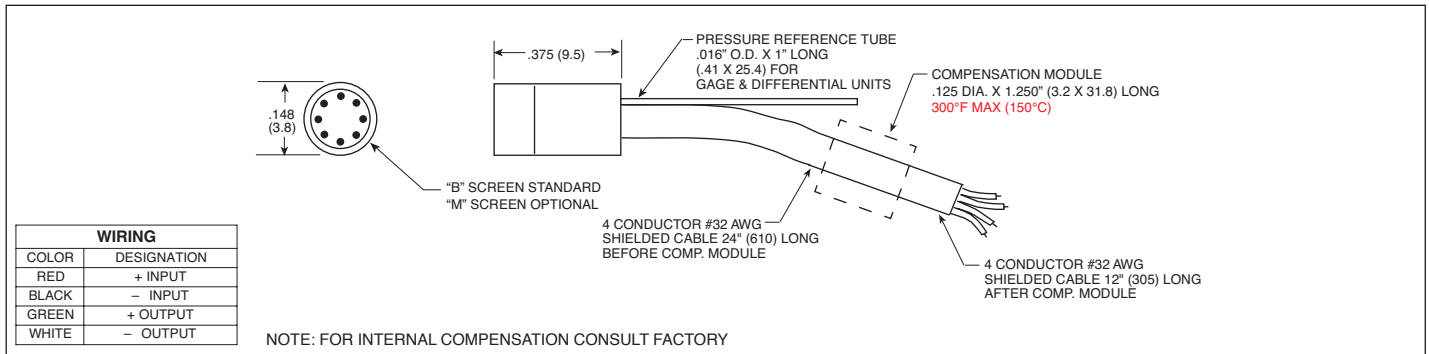
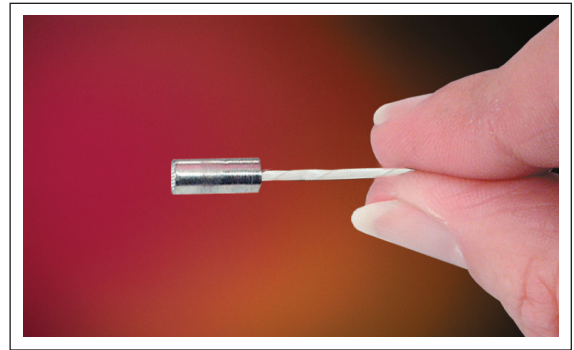
XCEL-152 SERIES

- 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**[®]
- Designed For Both Static and Dynamic Response
- Suitable For Use in Most Conductive Liquids and Gases

The XCEL-152 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-152 transducer.



INPUT	Pressure Range	0.7 10	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 BAR 1000 PSI		
	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	All Nonconductive, Noncorrosive Liquids or Gases (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	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		
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.0x10 ⁻⁵		
	Insulation Resistance	100 Megohm Min. @ 50 VDC									
	Operating Temperature Range	-65°F to +525°F (-55°C to +273°C) <i>Sensor Only</i>									
	Compensated Temperature Range	80°F to +450°F (25°C to +235°C) <i>Sensor Only</i>									
	Thermal Zero Shift	± 1% FS/100°F (Typ.)									
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)									
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration									
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz									
	PHYSICAL	Electrical Connection	4 Conductor 32 AWG Shielded Cable 36" (914) Long								
		Weight	.3 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. (K) 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.