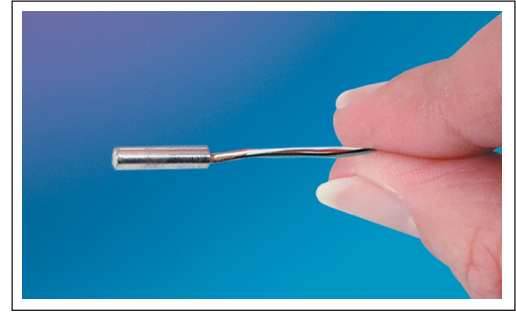




STANDARD VERSION MINIATURE PRESSURE TRANSDUCER

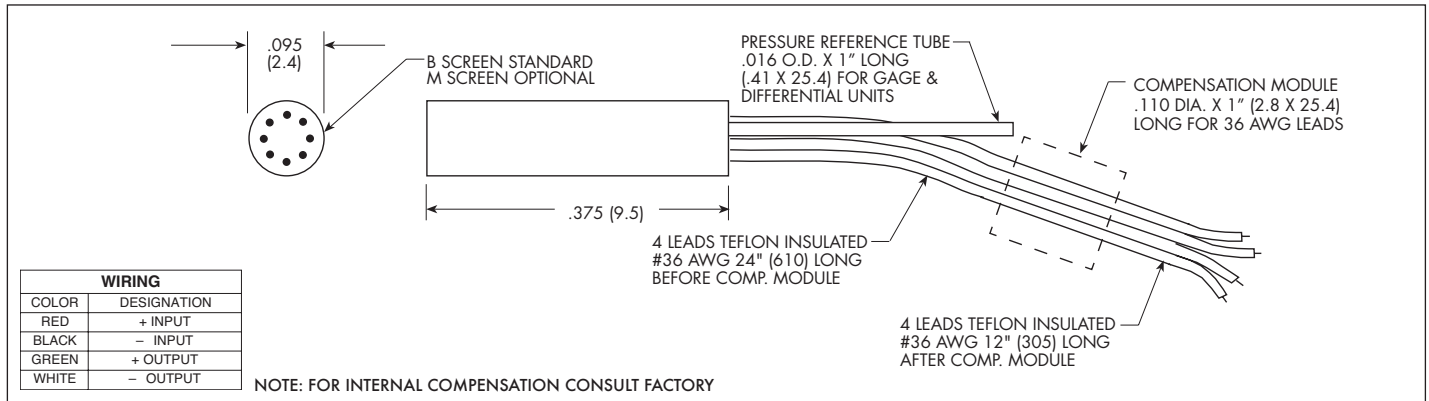
XCQ-093 SERIES

- 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 XCQ-093 Series 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.

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



	0.35 5	0.7 10	1.7 25	3.5 50	7 100	17 250	35 500	70 BAR 1000 PSI	
INPUT	Pressure Range	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential		Absolute, Sealed Gage			
	Operational Mode	2 Times Rated Pressure		3 Times Rated Pressure					
	Over Pressure	All Nonconductive, Noncorrosive Liquids or Gases							
	Burst Pressure	10 VDC/AC							
	Pressure Media	12 VDC/AC							
	Rated Electrical Excitation	1000 Ohms (Min.)							
	Maximum Electrical Excitation	1000 Ohms (Nom.)							
	Input Impedance	100 mV (Nom.)							
OUTPUT	Output Impedance	± 5 mV (Typ.)							
	Full Scale Output (FSO)	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)							
	Residual Unbalance	Infinitesimal							
	Combined Non-Linearity, Hysteresis and Repeatability	150	175	240	300	380	550	700	1000
	Resolution	1.5x10 ⁻³	1.0x10 ⁻³	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10 ⁻⁴	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵
	Natural Frequency of Sensor Without Screen (KHz) (Typ.)	100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Acceleration Sensitivity % FS/g Perpendicular	-65°F to +250°F (-55°C to +120°C)							
	Insulation Resistance	80°F to +180°F (25°C to +80°C) Any 100°F Range Within The Operating Range on Request							
	Operating Temperature Range	± 1% FS/100°F (Typ.)							
	Compensated Temperature Range	± 1% /100°F (Typ.)							
	Thermal Zero Shift	10,000g. (Max.)							
	Thermal Sensitivity Shift	10-2,000 Hz Sine, 100g. (Max.)							
PHYSICAL	Steady Acceleration	4 Leads 36 AWG 36" Long							
	Linear Vibration	.4 Gram (Nom.) Excluding Module and Leads							
	Electrical Connection	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon							
Weight									
Pressure Sensing Principle									

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