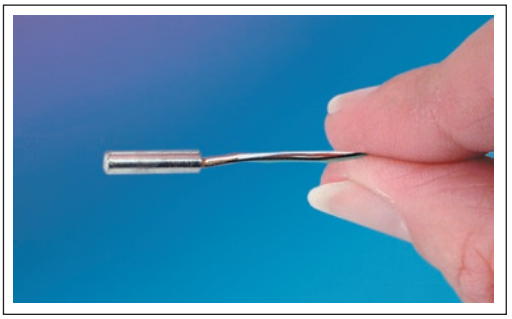
HIGH SENSITIVITY MINIATURE PRESSURE TRANSDUCER

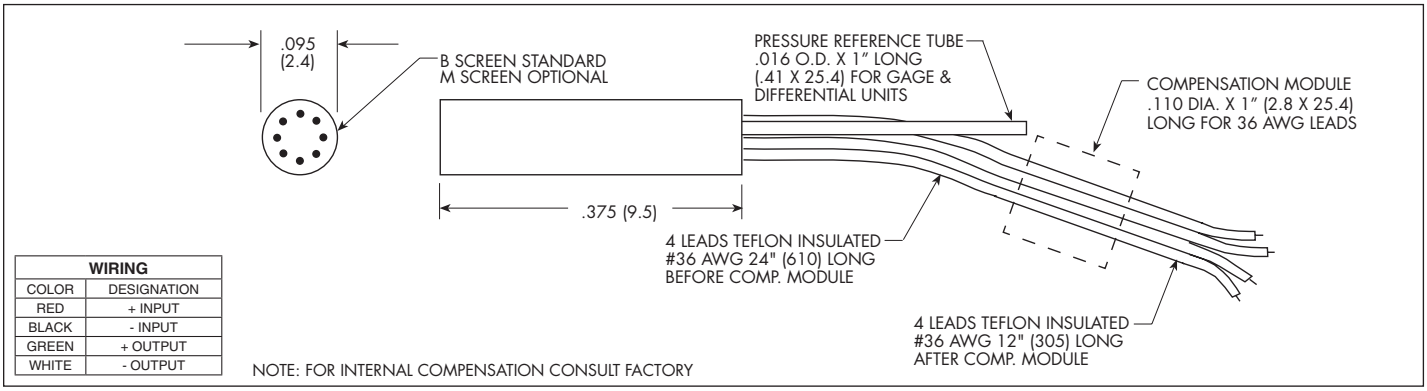
XCS-093 SERIES

- High Sensitivity
- Patented Silicon on Silicon Integrated Sensor **VIS**®
- Superior Signal To Noise Ratio
- Static And Dynamic Capability



The XCS Series uses a diaphragm of advanced design which gives a substantially higher basic output allowing for high mV/psi sensitivities and improved signal to noise ratio.

Kulite recommends the KSC-2 signal conditioner to maximize the measurement capability of the XCS-093 transducer.



WIRING	
COLOR	DESIGNATION
RED	+ INPUT
BLACK	- INPUT
GREEN	+ OUTPUT
WHITE	- OUTPUT

INPUT	Pressure Range	0.35 5	1.0 15	1.7 25	3.5 BAR 50 PSI
	Operational Mode	Absolute, Gage, Differential			
	Over Pressure	2 Times Rated Pressure			
	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	Output Impedance	1000 Ohms (Nom.)			
	Full Scale Output (FSO)	150 mV (Nom.)	200 mV (Nom.)	200 mV (Nom.)	200 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	200	240	300
	Acceleration Sensitivity % FS/g Perpendicular	$1.5x10^{-3}$	$6.5x10^{-4}$	$5.0x10^{-4}$	$3.0x10^{-4}$
	Insulation Resistance	100 Megohm Min. @ 50 VDC			
ENVIRONMENTAL	Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)			
	Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request			
	Thermal Zero Shift	± 1% FS/100°F (Typ.)			
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)			
	Steady Acceleration	10,000g. (Max.)			
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)			
PHYSICAL	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. (N) Continuous development and refinement of our products may result in specification changes without notice.
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.

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