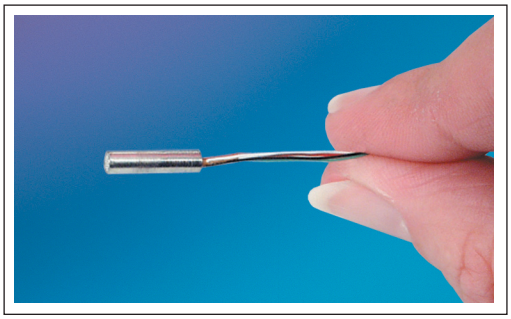
CRYOGENIC STANDARD VERSION MINIATURE PRESSURE TRANSDUCER

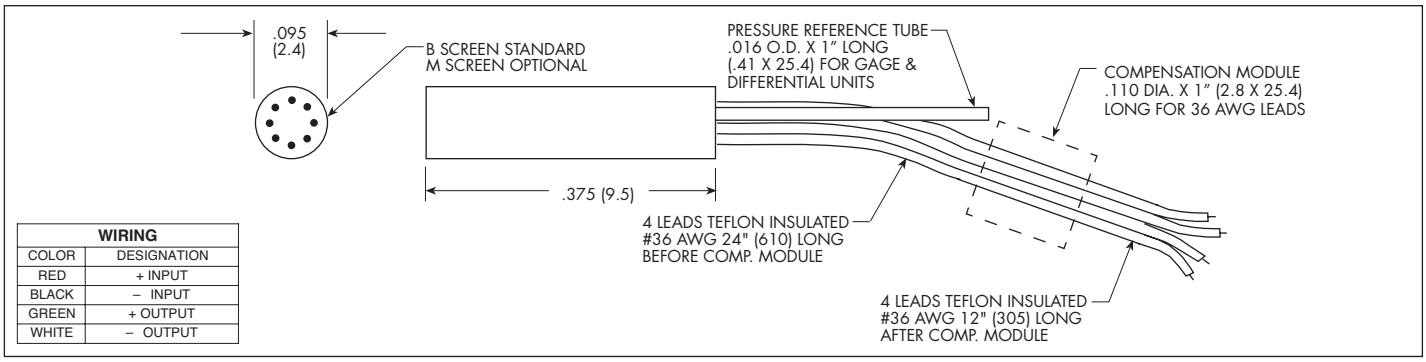
CCQ-093 SERIES

- Cryogenic Operation -320°F to +250°F (-195.5°C to +120°C)
- 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



Similar in design to the XCQ-093 Series, these sensors are specifically intended for use in cryogenic wind tunnels. The extremely good low temperature stability of Kulite Sensors make them ideally suited for this application.

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



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

INPUT	Pressure Range	0.35 5	0.7 10	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	Most Nonconductive, Noncorrosive Liquids or Gases							
	Rated Electrical Excitation	10 VDC							
	Maximum Electrical Excitation	12 VDC							
	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.)	150	175	240	300	380	550	700	1000
	Acceleration Sensitivity % FS/g Perpendicular	$1.5x10^{-3}$	$1.0x10^{-3}$	$5.0x10^{-4}$	$3.0x10^{-4}$	$1.5x10^{-4}$	$1.0x10^{-4}$	$6.0x10^{-5}$	$4.5x10^{-5}$
	Insulation Resistance	100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Operating Temperature Range	-320°F to +250°F (-195.5°C to +120°C)							
	Compensated Temperature Range	-300°F to +100°F (-184.4°C to +37.5°C)							
	Thermal Zero Shift	± 1% FS/100°F (Typ.)							
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)							
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)							
	Mechanical Shock	20g half Sine Wave 11 msec. Duration							
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. (H) 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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