

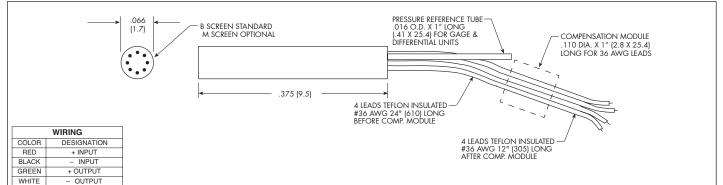
XCQ-062 SERIES

- · 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-062 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-062 transducer.





re Range ional Mode ressure Pressure	.35 5 Absolut	0.7 10 e, Gage, Diffe	1 15 rential	1.7 25 Absolute,	3.5 50	7 100	17 250	35 500	70 BAR 1000 PSI	
ressure	Absolut	e, Gage, Diffe	rential	Abcoluto						
			Absolute, Gage, Differential Absol				Abs	Absolute, Sealed Gage		
ressure	2 Times Rated Pressure									
	3 Times Rated Pressure									
re Media	All Nonconductive, Noncorrosive Liquids or Gases									
Electrical Excitation	10 VDC/AC									
um Electrical Excitation	12 VDC/AC									
npedance										
Impedance	1000 Ohms (Nom.)									
ale Output (FSO)	100 mV (Nom.)									
al Unbalance	± 5 mV (Typ.)									
ned Non-Linearity, Hysteresis epeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)									
tion	Infinitesimal									
Frequency of Sensor t Screen (KHz) (Typ.)	150	175	200	240	300	380	550	700	1000	
ration Sensitivity % FS/g dicular	1.5x10 ⁻³	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴	1.5x10-4	1.0x10 ⁻⁴	6.0x10 ⁻⁵	4.5x10 ⁻⁵	
on Resistance	100 Megohm Min. @ 50 VDC									
ing Temperature Range	-65°F to +250°F (-55°C to +120°C)									
nsated Temperature Range	80°F to +180°F (25°C to +80°C) Any 100°F Range Within The Operating Range on Request									
al Zero Shift					±	± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.)				
al Sensitivity Shift	± 2% /100°F (Typ.) (± 3% /100°F Max.)				± 1% /100°F (Typ.) (± 2% /100°F Max.)					
Acceleration	10,000g. (Max.)									
Vibration	10-2,000 Hz Sine, 100g. (Max.)									
al Connection	4 Leads 36 AWG 36" Long									
	.2 Gram (Nom.) Excluding Module and Leads									
re Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon									
n l a a n e ti t rac c ir r al a l - V - a - n	pedance mpedance le Output (FSO) Il Unbalance ed Non-Linearity, Hysteresis ppeatability on Frequency of Sensor Screen (KHz) (Typ.) ation Sensitivity % FS/g dicular on Resistance ng Temperature Range rsated Temperature Range I Zero Shift I Sensitivity Shift Acceleration fibration al Connection	pedance mpedance le Output (FSO) il Unbalance ed Non-Linearity, Hysteresis ppedance on Frequency of Sensor Screen (KHz) (Typ.) ation Sensitivity % FS/g ficular on Resistance ng Temperature Range Isated Temperature Range I Zero Shift I Sensitivity Shift Acceleration /ibration al Connection e Sensing Principle	pedance mpedance le Output (FSO) il Unbalance ed Non-Linearity, Hysteresis ppedance on Frequency of Sensor Screen (KHz) (Typ.) ation Sensitivity % FS/g ficular on Resistance ng Temperature Range nsated Temperature Range I Zero Shift I Zero Shift I Sensitivity Shift Acceleration //bration al Connection e Sensing Principle	pedance mpedance le Output (FSO) il Unbalance ed Non-Linearity, Hysteresis pedance ed Non-Linearity, Hysteresis pedatability on Frequency of Sensor Screen (KHz) (Typ.) ation Sensitivity % FS/g ficular on Resistance ng Temperature Range nsated Temperature Range I Zero Shift I Zero Shift I Sensitivity Shift Acceleration //bration //bration al Connection	pedance 11 mpedance 10 le Output (FSO) 10 il Unbalance ± 0.1% FSO BF ed Non-Linearity, Hysteresis ± 0.1% FSO BF on 50 Frequency of Sensor 150 175 200 240 Screen (KHz) (Typ.) 150 175 200 240 ation Sensitivity % FS/g 1.5x10 ⁻³ 1.0x10 ⁻³ 6.5x10 ⁻⁴ 5.0x10 ⁻⁴ icular 100 Me 100 Me 65°F to + 100 Me ng Temperature Range -65°F to + 100 Me 100 Me ng Temperature Range 80°F to +180°F (25°C to +80°C) Any 1 1 I Zero Shift ± 2% FS/100°F (Typ.) (± 3% FS/100°F (Typ.) 1 I Sensitivity Shift ± 2% /100°F (Typ.) 1 10-2,000 Acceleration 10-2,000 10-2,000 1 al Connection 4 Leaa .2 Gram (Nom. e Sensing Principle Fully Active Four Arm Wheatston	pedance1000 Ohms (Minmpedance1000 Ohms (Nonle Output (FSO)100 mV (Non.)il Unbalance $\pm 5 \text{ mV}$ (Typ.)ed Non-Linearity, Hysteresis speatability $\pm 0.1\%$ FSO BFSL (Typ.), $\pm 0.1\%$ FSO BFSL (Typ.), $\pm 0.1\%$ rso BFSL (Typ.)onInfinitesimalFrequency of Sensor Screen (KHz) (Typ.)150175200240300ation Sensitivity % FS/g ticular1.5x10-31.0x10-36.5x10-45.0x10-43.0x10-4on Resistance100 Megohm Min. @ 5ng Temperature Range -65° F to $+250^\circ$ F (-55° C treed100 Megohm Min. @ 5issted Temperature Range80°F to $+180^\circ$ F (25°C to $+80^\circ$ C) Any 100°F Range WI Zero Shift $\pm 2\%$ FS/100°F (Typ.) ($\pm 3\%$ FS/100°F (Typ.) ($\pm 3\%$ /F100°F (Typ.) ($\pm 3\%$ /F100°F (Typ.) ($\pm 3\%$ /F100°F (Typ.) ($\pm 3\%$ /F100°F (Max.) $\pm 10,000g.$ (Max.Acceleration10.000g. (Max.fibration10-2,000 Hz Sine, 100gal Connection4 Leads 36 AWG 36.2 Gram (Nom.) Excluding Mo e e Sensing PrincipleFully Active Four Arm Wheatstone Bridge Dielege	pedance 1000 Ohms (Min.) mpedance 1000 Ohms (Nom.) le Output (FSO) 100 mV (Nom.) il Unbalance ± 5 mV (Typ.) ed Non-Linearity, Hysteresis speatability ± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max on Infinitesimal Frequency of Sensor Screen (KHz) (Typ.) 150 175 200 240 300 380 ation Sensitivity % FS/g ticular 1.5x10 ³ 1.0x10 ³ 6.5x10 ⁴ 5.0x10 ⁴ 3.0x10 ⁴ 1.5x10 ⁴ on Resistance 100 Megohm Min. @ 50 VDC ng Temperature Range -65°F to +250°F (-55°C to +120°C) 12ero Shift ± 2% FS/100°F (Typ.) (± 3% FS/100°F (Typ.) ± 1% FS/100°F I Sensitivity Shift ± 2% /100°F (Typ.) (± 3% /100°F Max.) ± 1% /100°F ± 1% /100°F Acceleration 10,000g. (Max.) 10,000g. (Max.) 10,000g. (Max.) 10,000g. (Max.) 10,000g. (Max.) at Connection 4 Leads 36 AWG 36° Long 2 Gram (Nom.) Excluding Module and Lead e Sensing Principle Fully Active Four Arm Wheatstore Bridge Dielectrically Isolated	pedance 1000 Ohms (Min.) mpedance 1000 Ohms (Min.) mpedance 1000 Ohms (Nom.) le Output (FSO) 100 mV (Nom.) il Unbalance ± 5 mV (Typ.) ed Non-Linearity, Hysteresis speatability 1000 Ohms (Min.) on ± 10.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.) on Infinitesimal Frequency of Sensor Screen (KHz) (Typ.) 150 175 200 240 300 380 550 Screen (KHz) (Typ.) 150 175 200 240 300 380 550 Screen (KHz) (Typ.) 150 175 200 240 300 380 550 Screen (KHz) (Typ.) 1.5x10° ³ 1.0x10° ⁴ 1.0x10° ⁴ 1.0x10° ⁴ Infinitesimal 1000 Megohm Min. @ 50 VDC 10000 F (Typ.) <th c<="" td=""><td>pedance 1000 Ohms (Min.) mpedance 1000 Ohms (Nom.) le Output (FSO) 100 mV (Nom.) il Unbalance ± 5 mV (Typ.) ed Non-Linearity, Hysteresis speatability ± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.) on Infinitesimal Frequency of Sensor Screen (KHz) (Typ.) 150 175 200 240 300 380 555 FSO (Max.) Screen (KHz) (Typ.) 150 175 200 240 300 380 550 FSO (Max.) Screen (KHz) (Typ.) 150 150 700 ation Sensitivity % FS/g 1.5x10° 1.0x10° 6.5°F to ±250°F (-55°C to ±120°C) rg Temperature Range 80°F to ±180°F (25°C to ±80°C) Any 100°F Range Within The Operating Range on Request t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.) t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% /100°F Max.) Sensitivity Shift</td></th>	<td>pedance 1000 Ohms (Min.) mpedance 1000 Ohms (Nom.) le Output (FSO) 100 mV (Nom.) il Unbalance ± 5 mV (Typ.) ed Non-Linearity, Hysteresis speatability ± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.) on Infinitesimal Frequency of Sensor Screen (KHz) (Typ.) 150 175 200 240 300 380 555 FSO (Max.) Screen (KHz) (Typ.) 150 175 200 240 300 380 550 FSO (Max.) Screen (KHz) (Typ.) 150 150 700 ation Sensitivity % FS/g 1.5x10° 1.0x10° 6.5°F to ±250°F (-55°C to ±120°C) rg Temperature Range 80°F to ±180°F (25°C to ±80°C) Any 100°F Range Within The Operating Range on Request t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.) t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% /100°F Max.) Sensitivity Shift</td>	pedance 1000 Ohms (Min.) mpedance 1000 Ohms (Nom.) le Output (FSO) 100 mV (Nom.) il Unbalance ± 5 mV (Typ.) ed Non-Linearity, Hysteresis speatability ± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.) on Infinitesimal Frequency of Sensor Screen (KHz) (Typ.) 150 175 200 240 300 380 555 FSO (Max.) Screen (KHz) (Typ.) 150 175 200 240 300 380 550 FSO (Max.) Screen (KHz) (Typ.) 150 150 700 ation Sensitivity % FS/g 1.5x10° 1.0x10° 6.5°F to ±250°F (-55°C to ±120°C) rg Temperature Range 80°F to ±180°F (25°C to ±80°C) Any 100°F Range Within The Operating Range on Request t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.) t 2% FS/100°F (Max.) ± 1% FS/100°F (Typ.) (± 2% /100°F Max.) Sensitivity Shift

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

MINIATURE PRESSURE TRANSDUCER

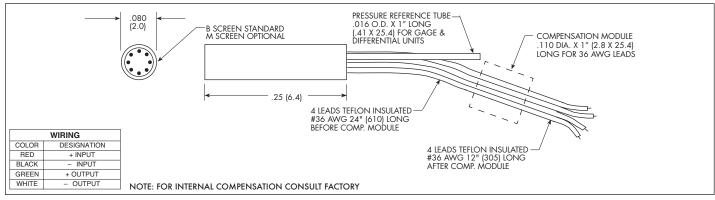
XCQ-080 SERIES

- 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-080 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-080 transducer.





INPUT	Pressure Range	0.35 5	0.7 10	1 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									
	Rated Electrical Excitation	10 VDC/AC									
	Maximum Electrical Excitation	12 VDC/AC									
	Input Impedance	1000 Ohms (Min.)									
	Output Impedance	1000 Ohms (Nom.)									
	Full Scale Output (FSO)	100 mV (Nom.)									
	Residual Unbalance	± 5 mV (Typ.)									
OUTPUT	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	1	75	200	240	300	380	550	700	1000
	Acceleration Sensitivity % FS/g Perpendicular	1.5x1	0 ⁻³ 1.0	0x10 ⁻³	6.5x10 ⁻⁴	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									
	Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)									
ITAL	Compensated Temperature Range	80°F to +180°F (25°C to +80°C) Any 100°F Range Within The Operating Range on Request									
MEN	Thermal Zero Shift	± 1% FS/100°F (Typ.)									
NO ^R	Thermal Sensitivity Shift	± 1% /100°F (Typ.)									
ENVIRONMENTAL	Steady Acceleration	10,000g. (Max.)									
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)									
AL	Electrical Connection	4 Leads 36 AWG 36" Long									
PHYSICAL	Weight	.3 Gram (Nom.) Excluding Module and Leads									
РНУ	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. (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.