



HIGH SENSITIVITY ULTRAMINIATURE PRESSURE TRANSDUCER

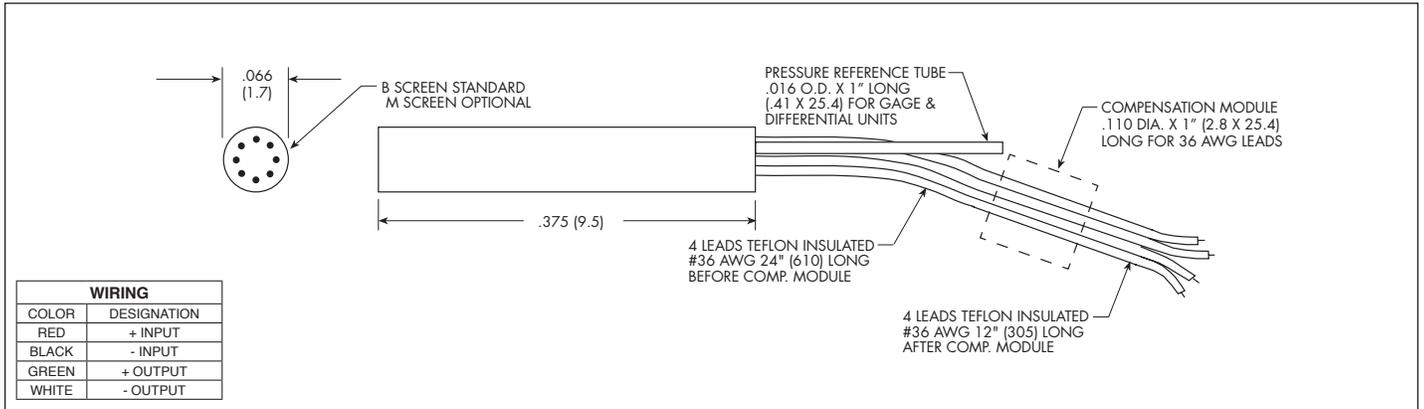
XCS-062 SERIES

- 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 Series** of signal conditioners to maximize the measurement capability of the XCS-062 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	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)	125 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	175	200	240	300
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	7.0x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC				
	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.) (± 2% FS/100°F Max.)				
	Thermal Sensitivity Shift	± 1% /100°F (Typ.) (± 2% /100°F Max.)				
	Steady Acceleration	10,000g. (Max.)				
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)				
	Electrical Connection	4 Leads 36 AWG 36" Long				
	Weight	.2 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. (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.



HIGH SENSITIVITY MINIATURE PRESSURE TRANSDUCER

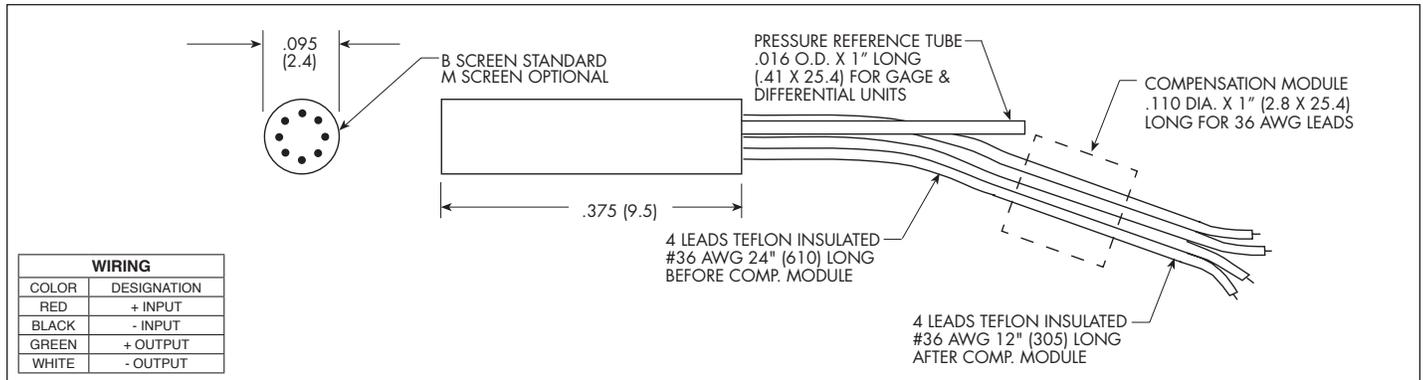
XCS-093 SERIES

- 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 Series](#) of signal conditioners to maximize the measurement capability of the XCS-093 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	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.)		
	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	200	240	300
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC				
	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.) (± 2% FS/100°F Max)				
	Thermal Sensitivity Shift	± 1% /100°F (Typ.) (± 2% /100°F Max)				
	Steady Acceleration	10,000g. (Max.)				
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)				
	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				

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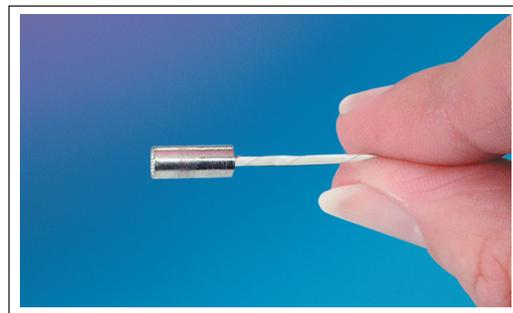


HIGH SENSITIVITY MINIATURE SHORT LENGTH PRESSURE TRANSDUCER

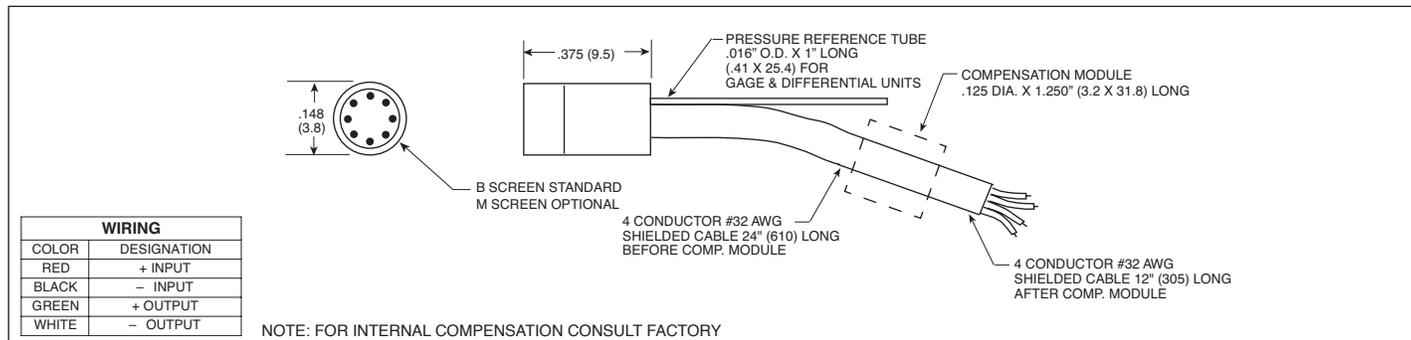
XCS-152 SERIES

- 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 Series](#) of signal conditioners to maximize the measurement capability of the XCS-152 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	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.)		
	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	200	240	300
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴	3x10 ⁻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 Conductor 32 AWG Cable 36" Long				
	Weight	.3 Gram (Nom.) Excluding Module and Cable				
	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. (P) 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.

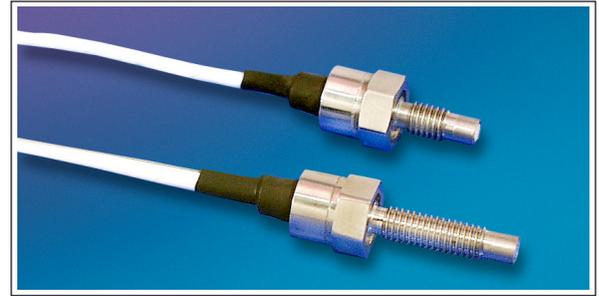


MINIATURE HIGH SENSITIVITY PRESSURE TRANSDUCER

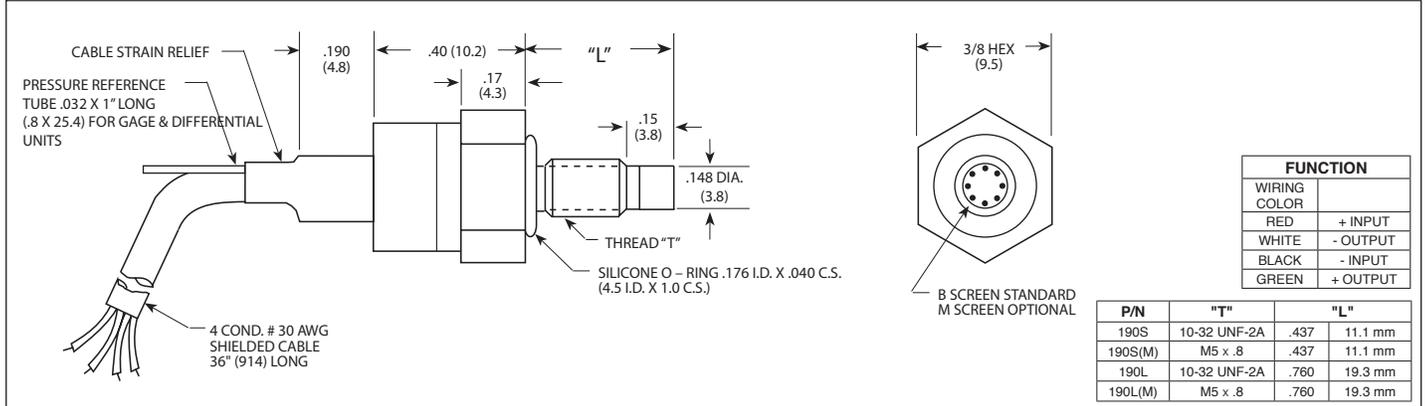
XCS-190 (M) SERIES

- High Output
- Silicon on Silicon Integrated Sensor **VIS®**
- High Natural Frequency

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 Series** of signal conditioners to maximize the measurement capability of the XCS-190 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	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 (All Media May Not Be Suitable With O-Ring Supplied)				
	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.)		
	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	200	240	300
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	7.0x10 ⁻⁴	5.0x10 ⁻⁴	3.0x10 ⁻⁴
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC				
	Operating Temperature Range	-65°F to +350°F (-55°C to +175°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.)				
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)				
	Electrical Connection	4 Conductor 30 AWG Shielded Cable 36" Long				
	Weight	4 Grams (Nom.) Excluding Cable				
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon				
Mounting Torque	15 Inch-Pounds (Max.) 1.7 Nm					

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