

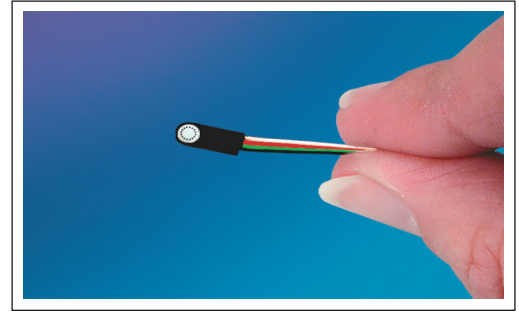


# THIN LINE PRESSURE TRANSDUCER

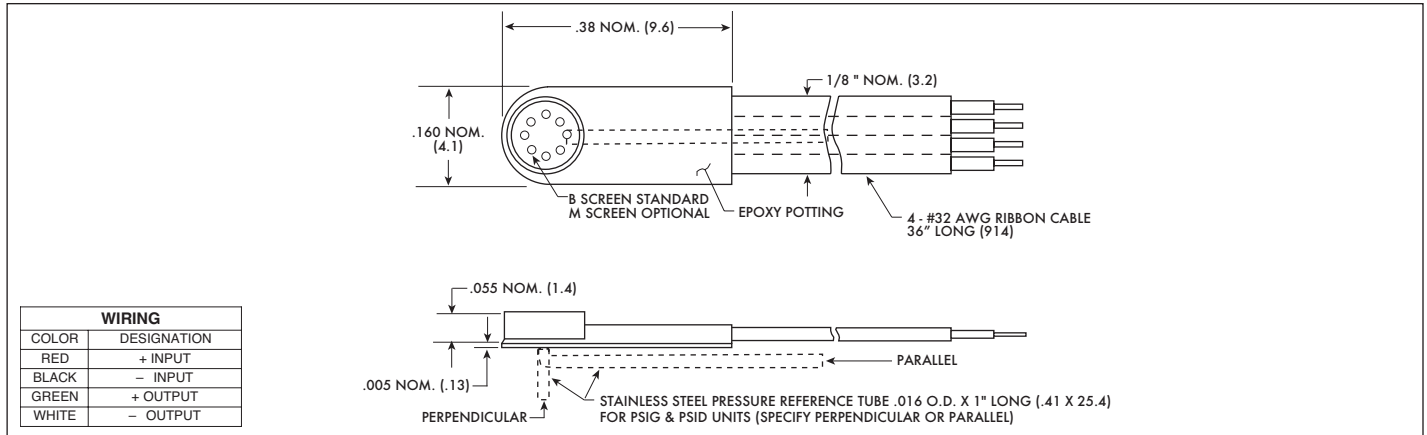
## LL-080 SERIES LL-125 SERIES

- Patented Leadless Technology **VIS**<sup>®</sup>
- High Natural Frequency
- Ideal For Flight Test & Wind Tunnel Applications
- Excellent Stability

The LL Series features Kulite's Patented Leadless Technology and demonstrates Kulite's ability to provide pressure transducers suited for adaptation into custom packages. These devices can be integrated into various test articles such as fan blades, engine nozzles of various types, etc. The features of these transducers include small foot print, high natural frequency, extreme resistance to vibration and shock, and wide temperature range. Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the LL-080 and LL-125 transducers.



INPUT	Pressure Range	0.35 5	0.7 10	1 15	1.7 25	3.5 50	7 100	17 250	35 BAR 500 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 Conductive Liquids and Gases (Please Consult Factory)								
	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	200	240	300	380	550	700	
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 <sup>-3</sup>	1.0x10 <sup>-3</sup>	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	
	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	± 3% FS/100°F (Typ.) (± 4% FS/100°F Max.)				± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.)				
	Thermal Sensitivity Shift	± 3% /100°F (Typ.) (± 4% /100°F Max.)				± 1% /100°F (Typ.) (± 2% /100°F Max.)				
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)								
PHYSICAL	Mechanical Shock	20g half Sine Wave 11 msec. Duration								
	Electrical Connection	4 Conductor 32 AWG Ribbon Cable 36" Long								
	Weight	.2 Gram (Nom.) Excluding Module and Leads								
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								

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



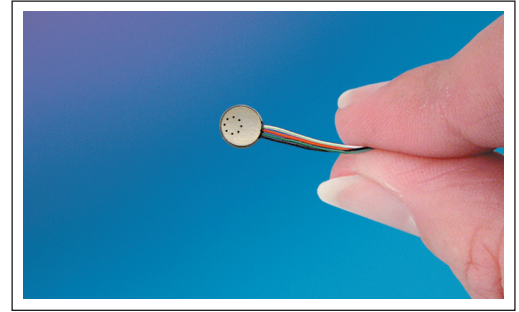
# THIN LINE PRESSURE TRANSDUCER

## LL-250A SERIES

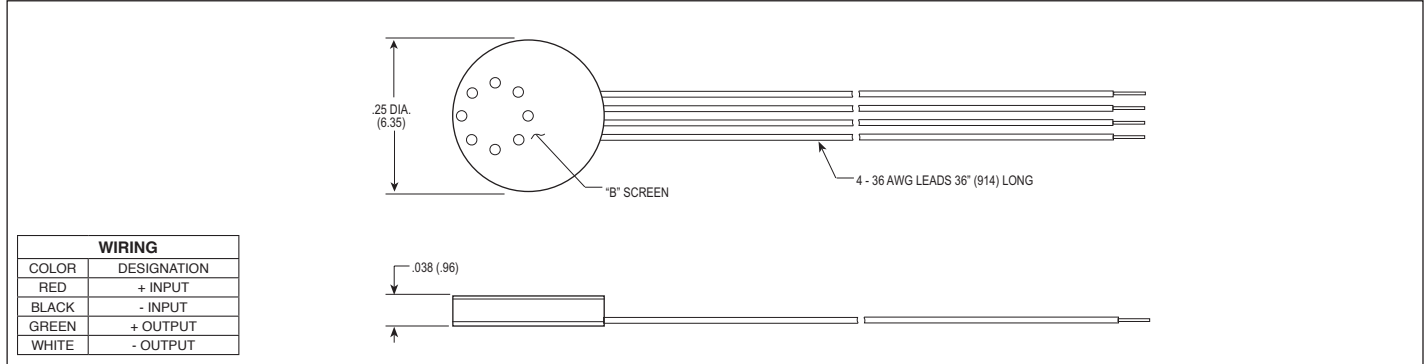
- Patented Leadless Technology **VIS**<sup>®</sup>
- High Natural Frequency
- Excellent Stability
- Excellent Static & Dynamic Performance
- Ideal For Flight Test & Wind Tunnel Applications

The LL Series features Kulite's Patented Leadless Technology and demonstrates Kulite's ability to provide pressure transducers suited for adaptation into custom packages. These devices can be integrated into various test articles such as fan blades, engine nozzles of various types, etc. The features of these transducers include small foot print, high natural frequency, extreme resistance to vibration and shock, and wide temperature range.

Part performance not guaranteed if used in water.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the LL-250 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	1 15	1.7 25	3.5 50	7 100	17 250	35 BAR 500 PSI	
	Operational Mode	Absolute			Absolute, Sealed Gage					
	Over Pressure	2 Times Rated Pressure								
	Burst Pressure	3 Times Rated Pressure								
	Pressure Media	Most Conductive Liquids and Gases - Please Consult Factory								
	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	200	240	300	380	550	700	
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 <sup>-3</sup>	1.0x10 <sup>-3</sup>	6.5x10 <sup>-4</sup>	5.0x10 <sup>-4</sup>	3.0x10 <sup>-4</sup>	1.5x10 <sup>-4</sup>	1.0x10 <sup>-4</sup>	6.0x10 <sup>-5</sup>	
	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.)								
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)								
	Mechanical Shock	20g half Sine Wave 11 msec. Duration								
PHYSICAL	Electrical Connection	4 - 36 AWG Leads 36" Long								
	Weight	.2 Gram (Nom.) Excluding Module and Leads								
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								

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. 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.