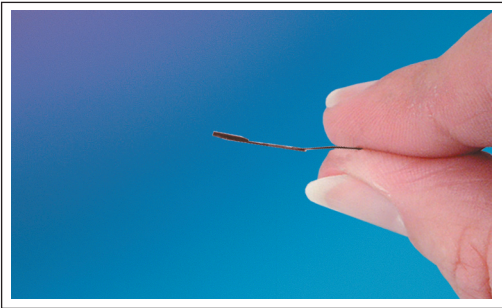




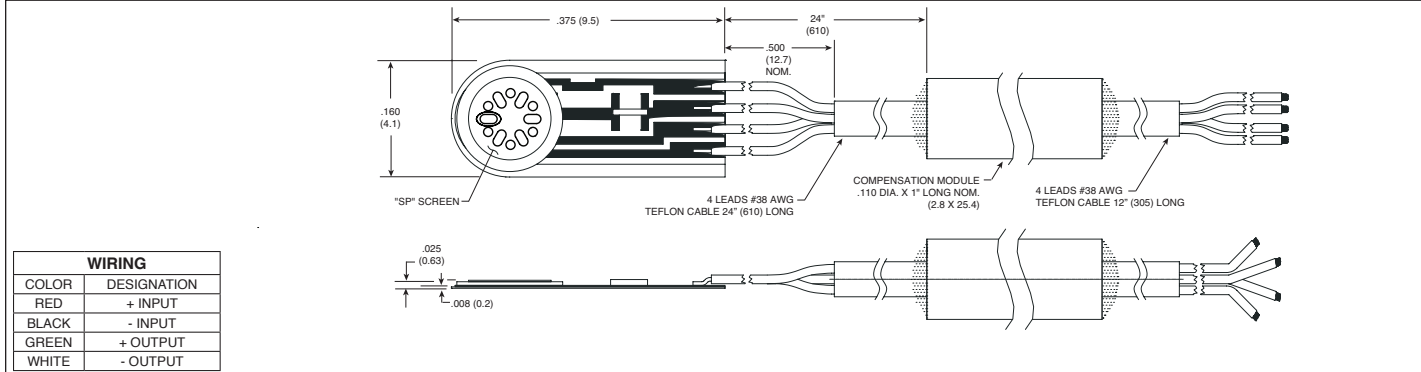
**MICROLINE STRESS ISOLATED SURFACE MOUNT  
PRESSURE TRANSDUCER**  
LQ-160 SERIES LE-160 SERIES

- Designed For Direct Blade Surface Mounting
- Silicon on Silicon Integrated Sensor **VIS**<sup>®</sup>
- High G Loading
- Low Base Strain Sensitivity
- High Natural Frequency
- High Temperature Operation Up To 450°F (LE Series)

The LQ/LE-160 Series microline pressure transducer represents the latest build standard in a long line of sensors designed and developed for direct mounting onto engine blades. Using a unique isolation technique to reduce base strain sensitivity effects, the LQ/LE-160 Series are the smallest, lightest units yet developed. With a maximum height of less than 0.025 inch, these units may be mounted in locations on the blade previously inaccessible with a packing density previously impossible.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the LQ-160 and LE-160 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			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								
	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>	
	Base Strain Sensitivity	Less Than 5% FSO for 1000 Microstrain								
ENVIRONMENTAL	Insulation Resistance	100 Megohm Min. @ 50 VDC								
	Operating Temperature Range	LQ SERIES -65°F to +250°F (-55°C to +120°C) LE SERIES -65°F to +450°F (-55°C to +235°C) Sensor Only								
	Compensated Temperature Range	LQ SERIES +80°F to +180°F (+25°C to +80°C) LE SERIES +80°F to +450°F (+25°C to +235°C) Sensor Only								
	Thermal Zero Shift	± 2.0% FS/100°F (Typ.)								
	Thermal Sensitivity Shift	± 2.0% /100°F (Typ.)								
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz								
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration								
	PHYSICAL	Electrical Connection	4 Conductor # 38 AWG Shielded Teflon Cable 24" to Module, 12" After							
Weight		.1 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. (E) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2015 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.