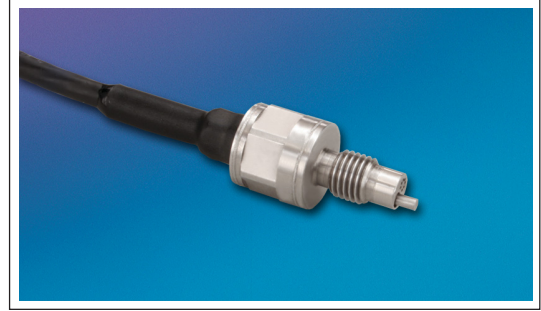




# MINIATURE HIGH PRESSURE PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

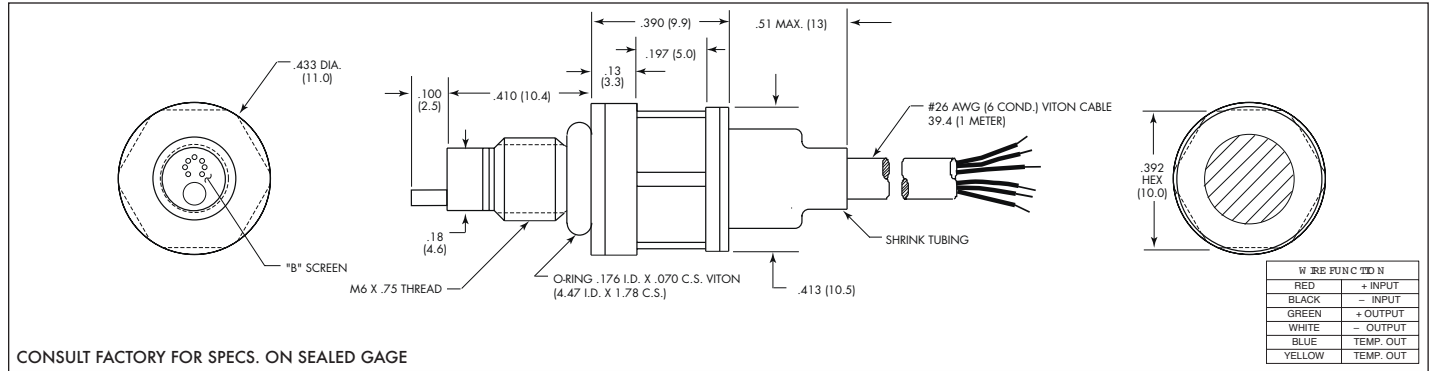
## HKL/T-1-235M SERIES

- World's Smallest Pressure and Temperature Sensor at 6mm
- Combined Pressure and Temperature Capability
- Robust Construction
- Patented Leadless Technology VIS®
- Excellent Long Term Stability



The HKL/T-1-235M is a miniature threaded high pressure transducer/platinum RTD combination. The pressure transducer utilizes a patented silicon on silicon design. The platinum RTD protrudes beside the diaphragm to sense media temperature. The pressure and temperature devices are designed to operate independently. All wetted parts of the transducer are compatible with all common aircraft and automotive fluids.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the HKL/T-1-235M transducer.



INPUT	Pressure Range	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	170 2500	250 BAR 3600 PSI	
	Operational Mode	Absolute, Sealed Gage								
	Over Pressure	2 Times Rated Pressure								
	Burst Pressure	3 Times Rated Pressure								
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)								
	Rated Electrical Excitation	10 VDC								
	Maximum Electrical Excitation	12 VDC								
	RTD Excitation	0.3mA (1mA Max.)								
	Input Impedance	1000 Ohms (Min.)								
	Output Impedance	1000 Ohms (Nom.)								
OUTPUT	Full Scale Output (FSO)	100 mV (Nom.)								
	RTD	1000 Ohms Platinum, DIN EN 60751 Tables, Class A (65% Response Time 3 Seconds Max.)								
	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.)	240	300	380	550	7000	1000	1500	2000	
	Acceleration Sensitivity % FS/g Perpendicular	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>	4.0x10 <sup>-5</sup>	2.2x10 <sup>-5</sup>	1.4x10 <sup>-5</sup>	
Insulation Resistance	100 Megohm Min. @ 50 VDC									
ENVIRONMENTAL	Operating Temperature Range	-65°F to +400°F (-55°C to +204°C)								
	Compensated Temperature Range	-40°F to +392°F (-40°C to +200°C)								
	Thermal Zero Shift	± 1% FS/100°F (Typ.) (± 2% FS/100°F For 25 PSI Range)								
	Thermal Sensitivity Shift	± 1% /100°F (Typ.) (± 2% /100°F For 25 PSI Range)								
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)								
Mechanical Shock	20g half Sine Wave 11 msec. Duration									
PHYSICAL	Electrical Connection	6 Conductor 26 AWG Viton Cable Without Shielding 1 Meter Long								
	Weight	15 Grams (Max.) Excluding Cable								
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology								
	Mounting Torque	50 Inch-Pounds (Max.) 6Nm								

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