



## MINIATURE PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

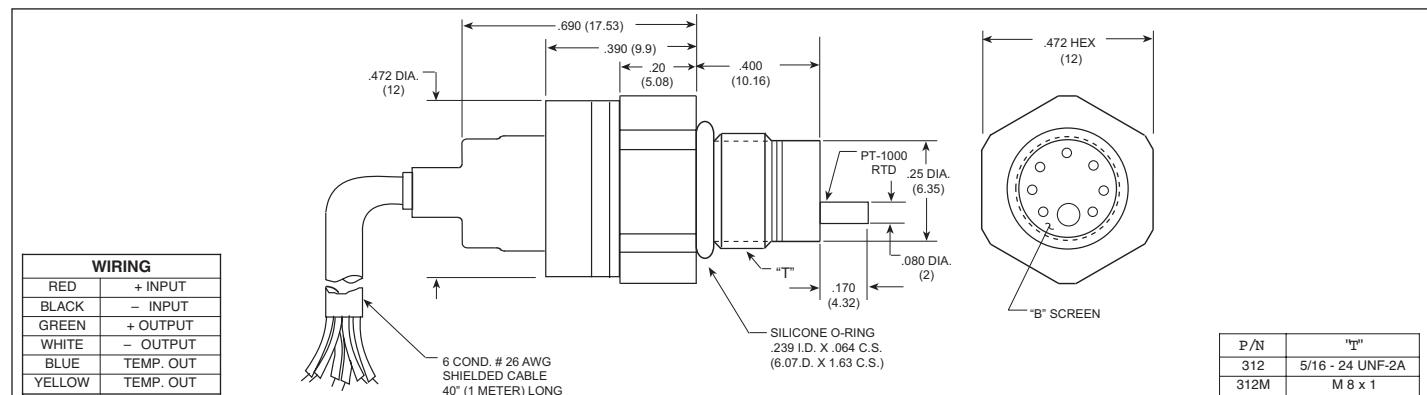
### HKL/T-312 (M) SERIES

- Combined Pressure and Temperature Measurement Capability
- Robust Construction
- Patented Leadless Technology VIS®
- Designed For Industrial and Automotive Applications

The HKL/T-312 (M) is a miniature threaded 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 industrial and automotive fluids. Part performance not guaranteed if used in water.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the HKL/T-312 transducer.



<b>INPUT</b>	Pressure Range	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	170 BAR 2500 PSI
	Operational Mode	Absolute, Sealed Gage						
	Over Pressure	3.5 50	7 100	14 200	35 500	52 750	105 1500	210 BAR 3000 PSI
	Burst Pressure	3 Times Rated Pressure						
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory) (All Media May Not Be Suitable With O-Ring Supplied)						
	Rated Electrical Excitation	10 VDC						
	Maximum Electrical Excitation	12 VDC						
	RTD Excitation	1mA (2mA Max.)						
	Input Impedance	1000 Ohms (Min.)						
<b>OUTPUT</b>	Output Impedance	1000 Ohms (Nom.)						
	Full Scale Output (FSO)	100 mV (Nom.)						
	RTD	1000 Ohms Platinum, DIN EN 60751 Tables, Class A (65% Response Time 3 Seconds Max.) In Liquid						
	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	700	1000	1400
	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>	2.5x10 <sup>-5</sup>
	Insulation Resistance	100 Megohm Min. @ 50 VDC						
<b>ENVIRONMENTAL</b>	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 Within The Operating Range on Request						
	Thermal Zero Shift	± 1% FS/100°F (Typ.)						
	Thermal Sensitivity Shift	± 1% /100°F (Typ.)						
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz						
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration						
	Electrical Connection	6 Conductor 26 AWG Shielded Cable 40" (1 Meter) Long						
	Weight	10 Grams Excluding Cable						
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology						
<b>PHYSICAL</b>	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. (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.