



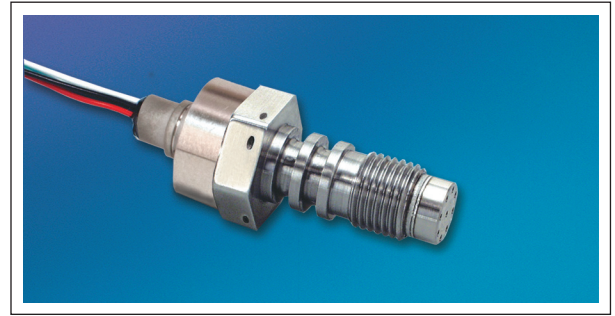


# DOWN HOLE MINIATURE PRESSURE TRANSDUCER

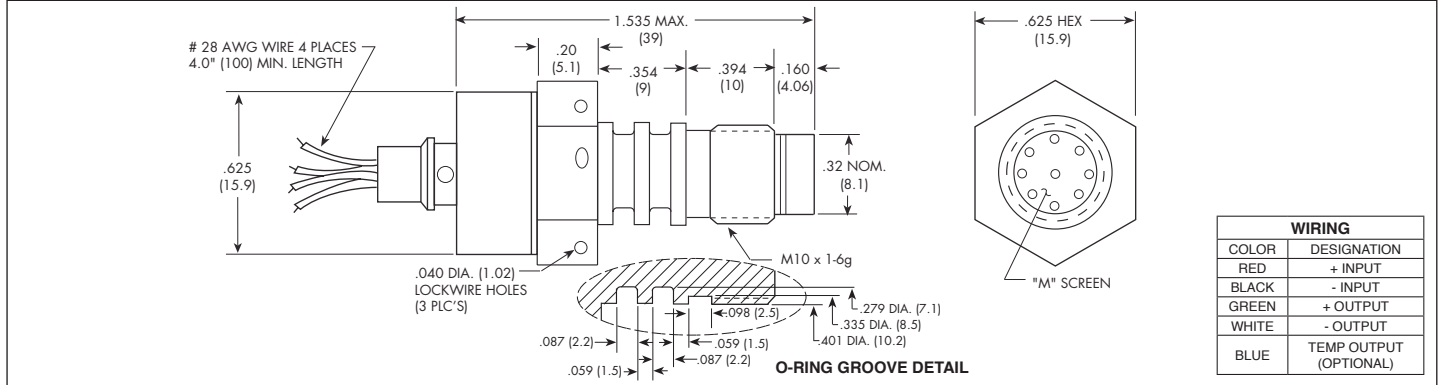
## HKM-198-375M SERIES (METRIC)

- Excellent Stability
  - Robust All Welded Construction
  - M10 X 1 Thread
  - Silicon on Silicon Integrated Sensor **VIS**<sup>®</sup>
  - High Natural Frequencies
  - High Pressure Capabilities
  - Intrinsically Safe Applications
- Available (i.e. IS-HKM-198-375M)  

This miniature high pressure pressure transducer utilizes Kulite's state of the art, Silicon on Silicon Isolated Diaphragm Sensing Technology, to provide excellent long term stability and high accuracy at temperatures to 200°C (392°F). An optional fifth wire will provide a temperature signal directly from the pressure sensing Wheatstone Bridge for the purpose of software correction of that bridge's thermal error.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the HKM-198-375 transducer.



INPUT	Pressure Range (FSP)	35 500	70 1000	207 3000	414 6000	690 10000	1034 15000	1207 17500	1379 20000	2000 BAR 29000 PSI	
	Operational Mode	Absolute									
	Over Pressure	2 Times FSP to 5000 PSI (35 BAR); 1.5 Times FSP For Higher Pressure Ranges to a Max. of 40,000 PSI (2760 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Max. of 40,000 PSI (2760 BAR)									
	Pressure Media	Any Liquid or Gas Compatible With Inconel 625 and Selected O-Ring									
	Rated Electrical Excitation	5 VDC									
	Maximum Electrical Excitation	7 VDC									
	Input Impedance	650 Ohms (Min.)									
OUTPUT	Output Impedance	1000 Ohms (Nom.)									
	Full Scale Output (FSO)	70 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.)	700 KHz									
	Insulation Resistance	100 Megohm Min. @ 50 VDC									
	ENVIRONMENTAL	Operating Temperature Range	-65°F to +392°F (-55°C to +200°C)								
Compensated Temperature Range		77°F to +392°F (25°C to +200°C) (Or Uncompensated, With a Temperature Signal For Software Compensation)									
Thermal Zero Shift		± 1% FS/100°F (± 1.8% FS/212°F (Max. )									
Thermal Sensitivity Shift		± 1% /100°F (± 1.8% /212°F (Max. )									
Linear Vibration		10-2,000 Hz Sine, 100g. (Max.)									
Mechanical Shock	20g half Sine Wave 11 msec. Duration										
PHYSICAL	Electrical Connection	4 x 28 AWG Leads 100mm (4.0") Long									
	Weight	35 Grams (Nom.)									
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon									
	Mounting Torque	80 Inch-Pounds (Max.)									

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