



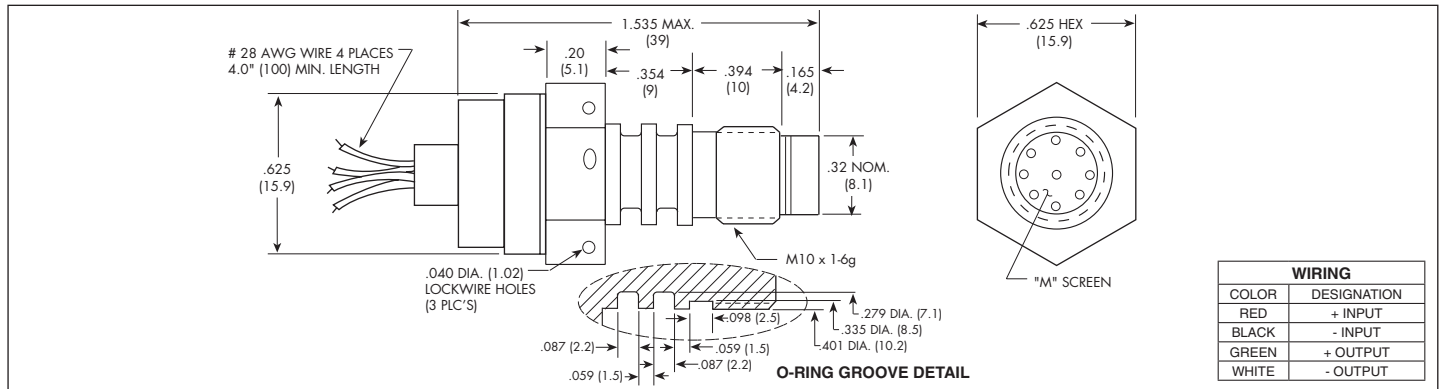
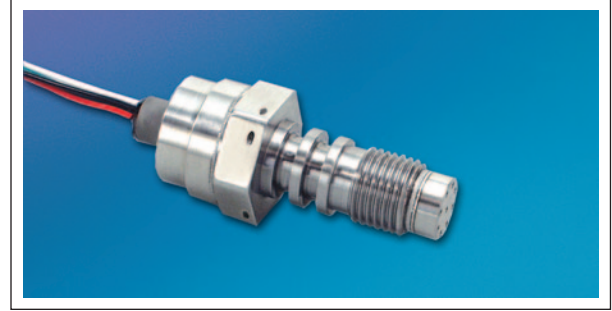


## DOWN HOLE MINIATURE PRESSURE TRANSDUCER

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

- Excellent Stability
  - Robust All Welded Construction
  - M10 X 1 Thread
  - Silicon on Silicon Integrated Sensor **VIS®**
  - 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.



INPUT	21 (3000)	42 (6000)	70 (10000)	105 MPa (15000) (PSI)
Pressure Range (FSP)				
Operational Mode	Absolute			
Over Pressure	2 Times FSP to 6000 PSI (42 MPa); 1.2 Times FSP For Higher Pressure Ranges			
Burst Pressure	3 Times Rated Pressure to a Max. of 35000 PSI (240 MPa)			
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 (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	100g Peak, Sine Up to 5000 Hz			
Humidity	100% Relative Humidity			
Mechanical Shock	20,000g, 100µ sec.			
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. Continuous development and refinement of our products may result in specification changes without notice - all dimensions nominal. (J)