



MINIATURE HIGH PRESSURE PRESSURE TRANSDUCER

HKM-375 (M) CO SERIES

- Excellent Stability
- All Welded Construction
- Silicon on Silicon Integrated Sensor **VIS**[®]
- Robust Construction
- High Natural Frequencies
- 3/8-24 UNJF or M10 X 1 Thread
- Intrinsically Safe Applications Available (i.e. IS-HKM-375)



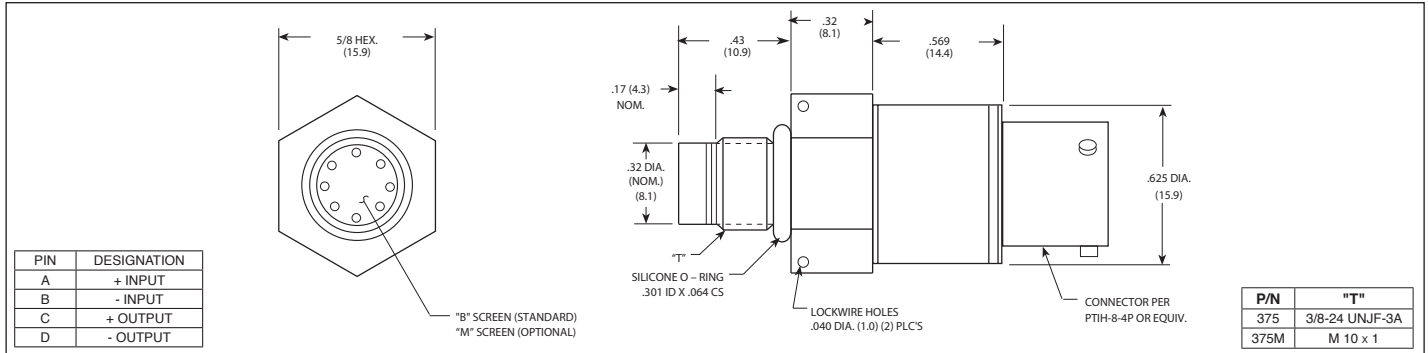
The HKM-375 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.

The HKM-375 utilizes a flush metal diaphragm as a force collector. A solid state piezoresistive sensing element is located immediately behind this metal diaphragm which is protected by a metal screen. Force transfer is accomplished via non-compressible silicone oil. This sensing sub assembly is welded to a stainless steel body.

This advanced construction results in a highly stable, reliable and rugged instrument with all the advantages of significant miniaturization, excellent repeatability, low power consumption, etc. The miniaturization process also yields a marked increase in the natural frequencies of the transducers, making them suitable for use even in shock pressure measurements.



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



	17 250	35 500	70 1000	170 2500	350 5000	700 10000	1400 20000 PSI
INPUT							
Pressure Range	Absolute, Sealed Gage						
Operational Mode	2 Times Rated Pressure to 1000 PSI (70 BAR) 1.5 Times Rated Pressure Above 1000 PSI to a Max. of 30000 PSI (2100 BAR)						
Over Pressure	3 Times Rated Pressure to a Max. of 35000 PSI (2400 BAR)						
Burst Pressure	Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel (All Media May Not Be Suitable With O-Ring Supplied)						
Pressure Media	10 VDC/AC						
Rated Electrical Excitation	12 VDC/AC						
Maximum Electrical Excitation	1000 Ohms (Min.)						
Input Impedance	1000 Ohms (Nom.)						
Output Impedance	100mV (Nom.)						
Full Scale Output (FSO)	± 5 mV (Typ.)						
Residual Unbalance	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)						
Combined Non-Linearity, Hysteresis and Repeatability	Infinitesimal						
Resolution	Greater Than 400 KHz						
Natural Frequency of Sensor Without Screen (KHz) (Typ.)	2.2x10 ⁻⁴	1.1x10 ⁻⁴	6.2x10 ⁻⁵	2.6x10 ⁻⁵	1.5x10 ⁻⁵	1.3x10 ⁻⁵	8.0x10 ⁻⁶
Acceleration Sensitivity % FS/g Perpendicular	100 Megohm Min. @ 50 VDC						
Insulation Resistance	-65°F to +250°F (-55°C to +120°C)						
Operating Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request						
Compensated Temperature Range	± 1% FS/100° F (Typ.)						
Thermal Zero Shift	± 1% /100° F (Typ.)						
Thermal Sensitivity Shift	10-2,000 Hz Sine, 100g. (Max.)						
Linear Vibration	100% Relative Humidity						
Humidity	20g half Sine Wave 11 msec. Duration						
Mechanical Shock	PTIH-8-4P Connector or Equivalent						
Electrical Connection	17 Grams (Max.)						
Weight	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon						
Pressure Sensing Principle	80 Inch-Pounds (Max.) 9 Nm						
Mounting Torque							

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 © 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.