



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)



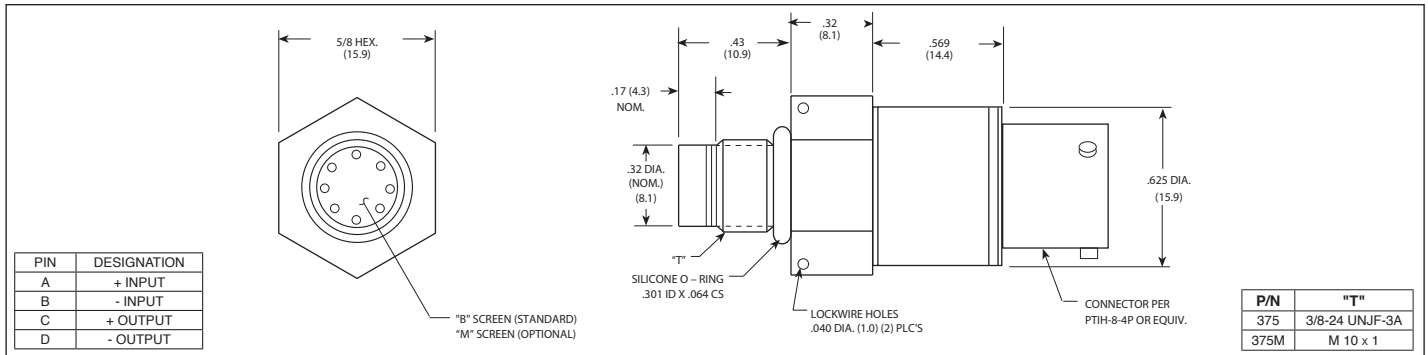
The HKM-375 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.

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							
Operational Mode	Absolute, Sealed Gage						
Over Pressure	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)						
Burst Pressure	3 Times Rated Pressure to a Max. of 35000 PSI (2400 BAR)						
Pressure Media	Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel (All Media May Not Be Suitable With O-Ring Supplied)						
Rated Electrical Excitation	10 VDC/AC						
Maximum Electrical Excitation	12 VDC/AC						
Input Impedance	1000 Ohms (Min.)						
OUTPUT							
Output Impedance	1000 Ohms (Nom.)						
Full Scale Output (FSO)	100mV (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.)	Greater Than 400 KHz						
Acceleration Sensitivity % FS/g Perpendicular	2.2x10 ⁻⁴	1.1x10 ⁻⁴	6.2x10 ⁻⁵	2.6x10 ⁻⁵	1.5x10 ⁻⁵	1.3x10 ⁻⁵	8.0x10 ⁻⁶
Insulation Resistance	100 Megohm Min. @ 50 VDC						
ENVIRONMENTAL							
Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)						
Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C) Any 100°F Range Within The Operating Range on Request						
Thermal Zero Shift	± 1% FS/100° F (Typ.)						
Thermal Sensitivity Shift	± 1% /100° F (Typ.)						
Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)						
Humidity	100% Relative Humidity						
Mechanical Shock	20g half Sine Wave 11 msec. Duration						
PHYSICAL							
Electrical Connection	PTIH-8-4P Connector or Equivalent						
Weight	17 Grams (Max.)						
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon						
Mounting Torque	80 Inch-Pounds (Max.) 9 Nm						

