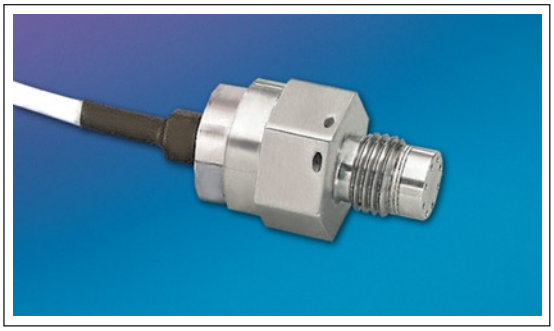
MINIATURE HIGH PRESSURE IS® PRESSURE TRANSDUCER

HKM-375 (M) SERIES

- Excellent Stability
- All Welded Construction
- Robust Construction
- High Natural Frequencies
- 3/8-24 UNJF or M10 X 1 Thread
- Intrinsically Safe Applications Available (i.e. IS-HKM-375)

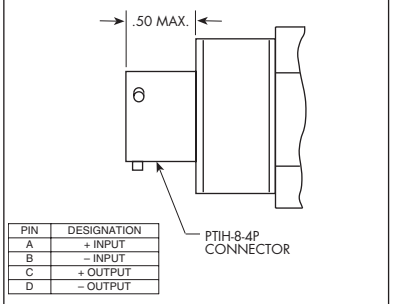


The HKM-375 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.

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 an intervening film of non-compressible silicone oil. This sensing sub assembly is welded to a stainless steel body.

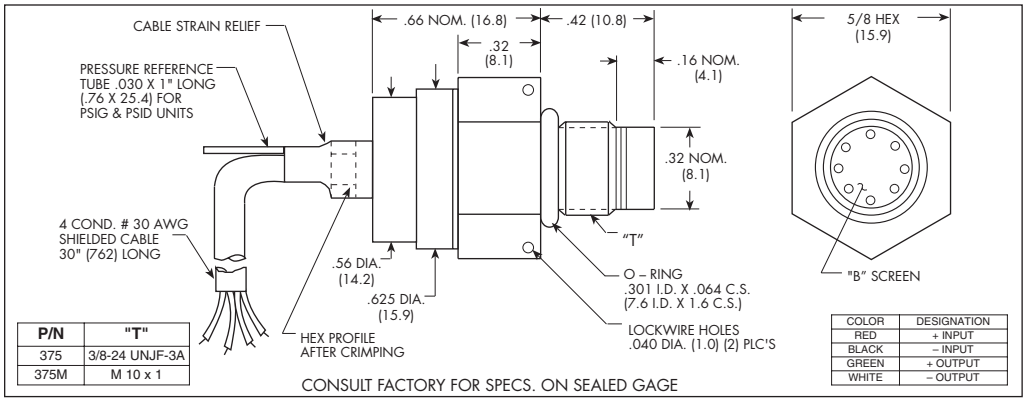
This advanced construction results in a highly stable, reliable and rugged instrument with all the advantages of microcircuitry: significant miniaturization, excellent repeatability, low power consumption, etc. The miniaturization process also yields a marked increase in the natural frequencies of the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

OPTIONAL CONNECTOR VERSION HERMETICALLY SEALED



PIN	DESIGNATION
A	+ INPUT
B	– INPUT
C	+ OUTPUT
D	– OUTPUT

NOT AVAILABLE ON DIFFERENTIAL UNIT



P/N	"T"
375	3/8-24 UNJF-3A
375M	M 10 x 1

COLOR	DESIGNATION
RED	+ INPUT
BLACK	– INPUT
GREEN	+ OUTPUT
WHITE	– OUTPUT

CONSULT FACTORY FOR SPECS. ON SEALED GAGE

INPUT Pressure Range	17 250	35 500	70 1000	170 2500	350 5000	700 10000	1400 BAR 20000 PSI
Operational Mode	Absolute, Sealed Gage						
Over Pressure	2 Times Rated Pressure 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 Stainlesss Steel						
Rated Electrical Excitation	10 VDC						
Maximum Electrical Excitation	15 VDC						
Input Impedance	1000 Ohms (Min.)						
OUTPUT Output Impedance	1000 Ohms (Nom.)						
Full Scale Output (FSO)	100mV						
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.)	Greater Than 400 KHz						
Acceleration Sensitivity % FS/g Perpendicular Transverse	 $2.2x10^{-4}$ $1.0x10^{-5}$	 $1.1x10^{-4}$ $7.0x10^{-6}$	 $6.2x10^{-5}$ $4.3x10^{-6}$	 $2.6x10^{-5}$ $2.3x10^{-6}$	 $1.5x10^{-5}$ $1.5x10^{-6}$	 $1.3x10^{-5}$ $1.3x10^{-6}$	 $8.0x10^{-6}$ $1.0x10^{-6}$
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	100g Peak, Sine up to 5000 Hz						
Humidity	100% Relative Humidity						
Mechanical Shock	20,000g, 100µ sec.						
PHYSICAL Electrical Connection	4 Conductor 30 AWG Shielded Cable 30" Long						
Weight	17 Grams (Max.) Excluding Cable						
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. (D)

KULITE SEMICONDUCTOR PRODUCTS, INC. • One Willow Tree Road • Leonia, New Jersey 07605 • Tel: 201 461-0900 • Fax: 201 461-0990 • http://www.kulite.com