



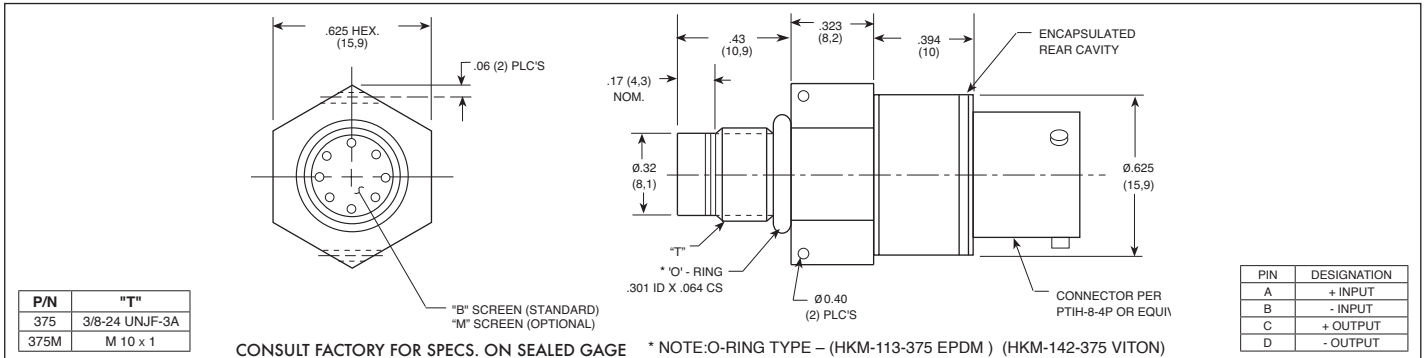
**METAL DIAPHRAGM
AUTOMOTIVE PRESSURE TRANSDUCERS**

**HKM-113-375 (M) (Braking Systems)
HKM-142-375 (M) (MAP Systems)**

- Easy Installation
- High Natural Frequency
- Silicon on Silicon Integrated Sensor **VIS®**
- 3/8-24 UNJF 3A or M 10 x 1 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- Intrinsically Safe Applications Available
(i.e. IS-HKM-113-375 or IS-HKM-142-375)



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the HKM-113-375 and HKM-142-375 transducers.



| | HKM-113-375 | | HKM-142-375 | | | | | | |
|---|---|----------------------|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Pressure Range | 3.5 50 | 7 100 | 17 250 | 35 500 | 70 1000 | 210 3000 | 350 5000 | 700 10000 |
| Operational Mode | Absolute, Sealed Gage | | | | | | | | |
| Over Pressure | 2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (BAR) to a Max of 25000 PSI (1724 BAR) | | | | | | | | |
| Burst Pressure | 3 Times Rated Pressure to a Max. of 25000 PSI (1724 BAR) | | | | | | | | |
| Pressure Media | Any Liquid or Gas Compatible With 15-5 PH and 316 SS or Inconel 625 (All Media May Not Be Suitable With O-Ring Supplied) | | | | | | | | |
| Rated Electrical Excitation | 10 VDC | | | | | | | | |
| Maximum Electrical Excitation | 12 VDC | | | | | | | | |
| Input Impedance | 1000 Ohms (Min.) | | | | | | | | |
| Output Impedance | 1000 Ohms (Nom.) | | | | | | | | |
| Full Scale Output (FSO) | 100 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.) | Greater Than 175 KHz | | | | | | | | |
| Acceleration Sensitivity % FS/g Perpendicular | 3.0x10 ⁻⁴ | 2.0x10 ⁻⁴ | 1.0x10 ⁻⁴ | 6.0x10 ⁻⁵ | 4.0x10 ⁻⁵ | 2.0x10 ⁻⁵ | 1.5x10 ⁻⁵ | 1.3x10 ⁻⁵ | 8.0x10 ⁻⁶ |
| Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | |
| Operating Temperature Range | -65°F to +380°F (-55°C to +193°C) | | | | | | | | |
| Compensated Temperature Range | -40°F to +350°F (-40°C to +175°C) | | -40°F to +250°F (-40°C to +120°C) | | | | | | |
| Thermal Zero Shift | ± 1% FS/100°F (Typ.) | | | | | | | | |
| Thermal Sensitivity Shift | ± 1% /100°F (Typ.) | | | | | | | | |
| Steady Acceleration and Linear Vibration | 20g Peak, Sine 10 to 2000 Hz | | | | | | | | |
| Humidity | 100% Relative Humidity | | | | | | | | |
| Mechanical Shock | 20g Half Sine Wave 11 msec. Duration | | | | | | | | |
| Electrical Connection | PTIH-8-4P Connector or Equivalent (Mating Connector Available Upon Request) | | | | | | | | |
| Weight | 21 Grams (Nom.) | | | | | | | | |
| Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon | | | | | | | | |
| Mounting Torque | 80 Inch-Pounds | | | | | | | | |

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