## **EXAMPLE** LOW PRESSURE RUGGEDIZED DYNAMIC RESPONSE PRESSURE TRANSDUCER

## HKS-11LP-375 (M) SERIES

- Low Impedance High Output
- Very High Natural Frequency
- Excellent Signal To Noise Ratio
- Silicon on Silicon Integrated Sensor VIS<sup>®</sup>
- Designed For Shock Pressure Applications

Designed for low pressure, high shock environments, this range of transducers is widely used in shock pressure applications.

Kulite recommends the KSC Series of signal conditioners to maximize the measurement capability of the HKS-11LP-375 transducer.

.437 HEX (11.1) .556 (14.1) .330 165 (4.2) ABLATIVE COATING .320 (8.1) DIA .500 (12.7) DIA WIRING ABLATIVE COATING COLOR DESIGNATION COPPER WASHER RED + INPUT P/N BLACK - INPUT 375 3/8-24 UNF-3A GREEN + OUTPUT WHITE 375M M 10 x 1 - OUTPU 1.7 3.5 7 21 28 BAR 14 Pressure Range 25 50 100 200 300 400 PSI Sealed Gage **Operational Mode Over Pressure** 2 Times Rated Pressure INPUT **Burst Pressure** 3 Times Rated Pressure Any Liquid or Gas Compatible With 15-5 PH, 316 Stainless Steel and Silicone RTV and Copper Crush Ring Pressure Media Rated Electrical Excitation 10 VDC/AC 12 VDC/AC Maximum Electrical Excitation Input Impedance 1000 Ohms (Min.) **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.) OUTPUT Resolution Infinitesimal Natural Frequency of Sensor Without RTV (KHz) (Typ.) 190 250 310 400 475 540 Acceleration Sensitivity % FS/g Perpendicular 1.25x10-3 6.5x10<sup>-4</sup> 3.5x10-4 1.8x10-4 1.2x10<sup>-4</sup> 9.3x10<sup>-5</sup> Insulation Resistance 100 Megohm Min. @ 50 VDC -65°F to +300°F (-55°C to +150°C) **Operating Temperature Range** ENVIRONMENTA Compensated Temperature Range 80°F to +180°F (25°C to +80°C) Any 100°F Range Within The Operating Range on Request 2% FS/100°F (Typ.) Thermal Zero Shift Thermal Sensitivity Shift 2% /100°F (Typ.) Linear Vibration 10-2,000 Hz Sine, 100g. (Max.) Mechanical Shock 20g half Sine Wave 11 msec. Duration Electrical Connection 4 Conductor 30 AWG Shielded Cable 36" Long Weight 10 Grams (Nom.) Excluding Cable and Amplifier PHYSICAL Pressure Sensing Principle Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Mounting Torque 80-120 Inch-Pounds (Max.) **Diaphragm Coating** Ablative Coating Standard

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (D) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2016 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.

