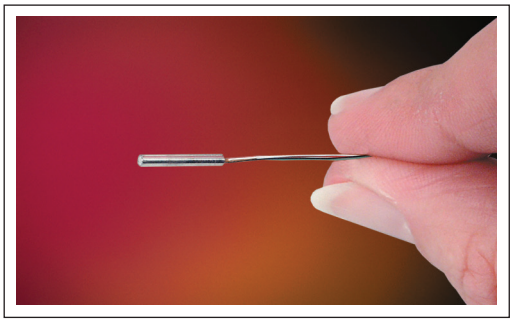
# HIGH TEMPERATURE ULTRAMINIATURE PRESSURE TRANSDUCER WITH INTERNAL COMPENSATION

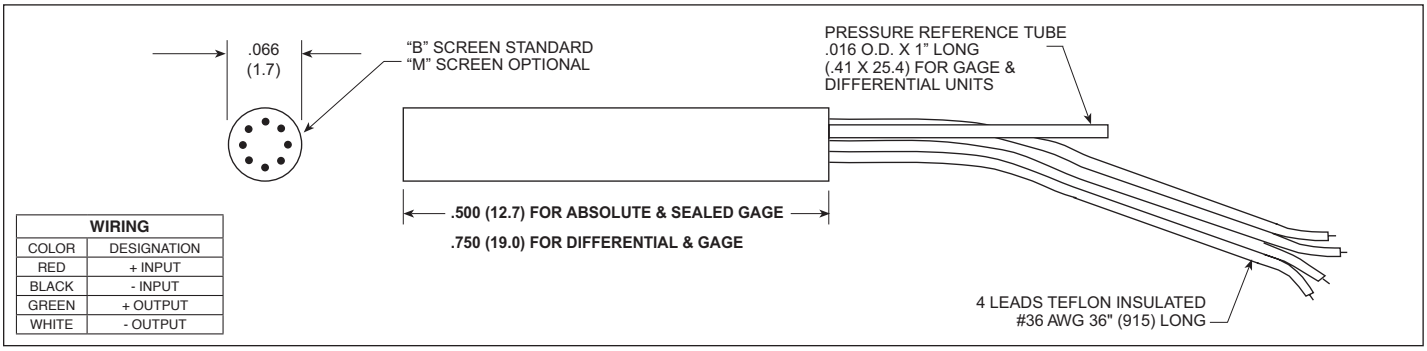


## XCE-IC-062 SERIES

- Wide Temperature Capability -65°F To 525°F
- Ideal For Turbine Engine Probes and Wind Tunnel Applications
- 50 Year History Of Successful Applications In Wind Tunnel And Flight Test Programs
- Patented Silicon on Silicon Integrated Sensor **VIS**®
- Size And Shape Ideal For Incorporation In User Designed Probes
- Excellent Static And Dynamic Performance

The XCE-IC-062 Series allow for a very rugged package suited for probes, pressure rakes and other similar test set ups. This transducer is well suited for both dynamic and static pressure measurements in benign or harsh environments. Its wide operating temperature range (-65°F to +525°F) makes it ideal for numerous applications in Aerospace and other areas of industry. Internal compensation allows for ease of installation by eliminating the external compensation module.

**Kulite recommends the KSC Series of signal conditioners to maximize the measurement capability of the XCE-IC-062 transducer.**




| WIRING | |
|---|---|
| COLOR | DESIGNATION |
| RED | + INPUT |
| BLACK | - INPUT |
| GREEN | + OUTPUT |
| WHITE | - OUTPUT |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | Pressure Range | 0.35<br>5 | 0.7<br>10 | 1<br>15 | 1.7<br>25 | 3.5<br>50 | 7<br>100 | 17<br>250 | 35<br>500 | 70 BAR<br>1000 PSI |
| | Operational Mode | Gage, Differential | | Absolute, Gage, Differential | | Absolute, Gage, Sealed Gage, Differential | | Absolute, Sealed Gage | | |
| | Over Pressure | 2 Times Rated Pressure | | | | | | | | |
| | Burst Pressure | 3 Times Rated Pressure | | | | | | | | |
| | Pressure Media | All Nonconductive, Noncorrosive Liquids or Gases | | | | | | | | |
| | 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) | 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.) | 150 | 175 | 200 | 240 | 300 | 380 | 550 | 700 | 1000 |
| | Acceleration Sensitivity % FS/g Perpendicular | $1.5x10^{-3}$ | $1.0x10^{-3}$ | $6.5x10^{-4}$ | $5.0x10^{-4}$ | $3.0x10^{-4}$ | $1.5x10^{-4}$ | $1.0x10^{-4}$ | $6.0x10^{-5}$ | $4.5x10^{-5}$ |
| | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | |
| ENVIRONMENTAL | Operating Temperature Range | -65°F to +525°F (-55°C to +273°C) | | | | | | | | |
| | Compensated Temperature Range | 80°F to +450°F (25°C to +235°C) | | | | | | | | |
| | Thermal Zero Shift | ± 2% FS/100°F (Typ.) (± 3% FS/100°F Max.) | | | | ± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.) | | | | |
| | Thermal Sensitivity Shift | ± 2% /100°F (Typ.) (± 3% /100°F Max.) | | | | ± 1% /100°F (Typ.) (± 2% /100°F Max.) | | | | |
| | Mechanical Shock | 20g Half Sine Wave 11 msec. Duration | | | | | | | | |
| | Linear Vibration | 20g Peak, Sine 10 to 2000 Hz | | | | | | | | |
| PHYSICAL | Electrical Connection | 4 Leads 36 AWG 36" Long | | | | | | | | |
| | Weight | .2 Gram (Nom.) Excluding Leads | | | | | | | | |
| | Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon | | | | | | | | |

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

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