

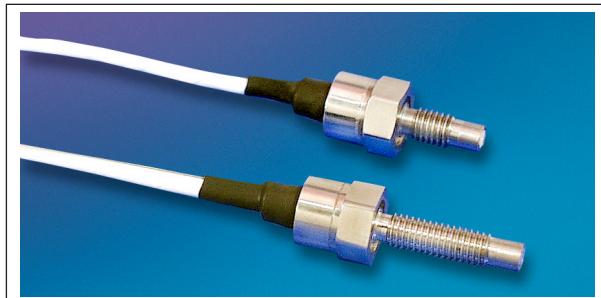


## MINIATURE LOW PRESSURE HIGH OVERLOAD PRESSURE TRANSDUCER

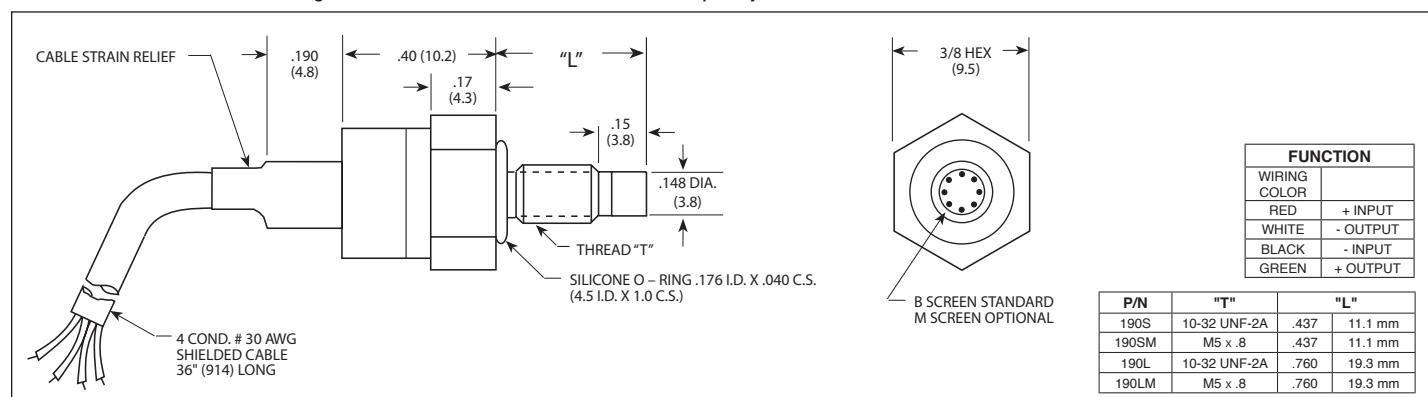
### XST-190(S/L)(M) SERIES

- High Overpressure Capability Without Damage
- Easy Installation
- High Natural Frequency
- Silicon on Silicon Integrated Sensor VIS®

The ruggedness of this sensor has not compromised its performance.  
It was designed for ease of installation.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XST-190 transducer.



|               |   |  |                      |                      |                      |                      |
|---------------|---|--|----------------------|----------------------|----------------------|----------------------|
| INPUT         | Pressure Range  | 0.35   | 1.7                  | 3.5                  | 7                    | 17 BAR               |
|               | Operational Mode  | 5  | 25                   | 50                   | 100                  | 250 PSI              |
|               | Over Pressure   | 14   | 35                   | 70                   | 70                   | 140 BAR              |
|               | Burst Pressure  | 200  | 500                  | 1000                 | 1000                 | 2000 PSI             |
|               | Pressure Media  | All Nonconductive, Noncorrosive Liquids or Gases<br>(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 Impedance  | 1000 Ohms (Nom.)   |                      |                      |                      |                      |
|               | Full Scale Output (FSO)                                 | 75 mV (Nom.)   |                      |                      |                      |                      |
| OUTPUT        | 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  | 240                  | 300                  | 380                  | 550                  |
|               | Acceleration Sensitivity % FS/g Perpendicular           | 1.5x10 <sup>-3</sup>   | 5.0x10 <sup>-4</sup> | 3.0x10 <sup>-4</sup> | 1.5x10 <sup>-4</sup> | 1.0x10 <sup>-4</sup> |
| ENVIRONMENTAL | Insulation Resistance                                   | 100 Megohm Min. @ 50 VDC   |                      |                      |                      |                      |
|               | Operating Temperature Range                             | -65°F to +350°F (-55°C to +175°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.)   |                      |                      |                      |                      |
| PHYSICAL      | Mechanical Shock  | 20g Half Sine Wave 11 msec. Duration   |                      |                      |                      |                      |
|               | Linear Vibration  | 20g Peak, Sine 10 to 2000 Hz   |                      |                      |                      |                      |
|               | Electrical Connection                                   | 4 Conductor 30 AWG Shielded Cable 36" Long   |                      |                      |                      |                      |
|               | Weight  | 4 Grams (Nom.) Excluding Cable   |                      |                      |                      |                      |
|               | Sensing Principle                                       | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon                       |                      |                      |                      |                      |
|               | Mounting Torque   | 15 Inch-Pounds (Max.) 1.7 Nm   |                      |                      |                      |                      |

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (M) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved.

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