

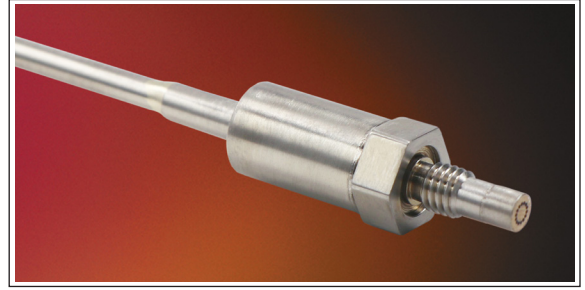


SUPER HIGH TEMPERATURE PRESSURE TRANSDUCER

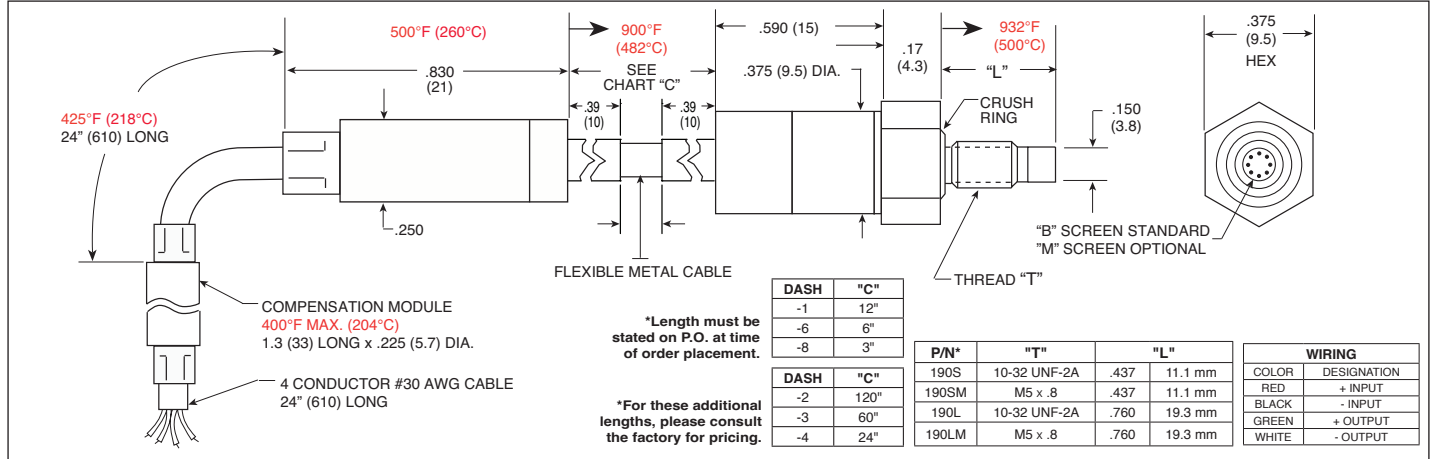
XTEH-10L-190 (M) SERIES

- -65°F To 932°F Temperature Capability*
- Patented Leadless Technology **VIS**®
- High Natural Frequency
- Suitable For Turbine Engine Testing

The XTEH Series pressure transducers feature a very wide operating temperature range. These characteristics make these devices ideal for Turbine engine testing. Other equally demanding applications in the industry may also benefit from the ruggedness of these devices. Part performance not guaranteed if used in water.



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTEH-10L-190 transducer.



| | | | | | | | | | | | |
|-----------------|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| INPUT | Pressure Range | 1.7 25 | 3.5 50 | 7 100 | 14 200 | 21 300 | 35 500 | 70 1000 | 140 2000 | 210 BAR 3000 PSI | |
| | Operational Mode | Absolute, Sealed Gage | | | | | | | | | |
| | Over Pressure | 2 Times Rated Pressure to a Maximum of 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR) | | | | | | | | | |
| | Burst Pressure | 3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR) | | | | | | | | | |
| | Pressure Media | Most Liquids and Gases - Please Consult Factory | | | | | | | | | |
| | Rated Electrical Excitation | 10 VDC | | | | | | | | | |
| | Maximum Electrical Excitation | 12 VDC | | | | | | | | | |
| OUTPUT | 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.) | 240 | 300 | 380 | 500 | 575 | 700 | 1000 | 1400 | 1650 | |
| ENVIRONMENTAL | Acceleration Sensitivity % FS/g Perpendicular | 5.0x10 ⁻⁴ | 3.0x10 ⁻⁴ | 1.5x10 ⁻⁴ | 1.1x10 ⁻⁴ | 9.0x10 ⁻⁵ | 6.5x10 ⁻⁵ | 4.0x10 ⁻⁵ | 2.5x10 ⁻⁵ | 1.9x10 ⁻⁵ | |
| | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | | |
| | Operating Temperature Range | -65°F to +932°F* (-55°C to +500°C) - (See limits above) | | | | | | | | | |
| | Compensated Temperature Range | +80°F to +850°F (+25°C to +454°C) | | | | | | | | | |
| | Thermal Zero Shift | ± 1.5% FS/100°F (Typ.) | | | | | | | | | |
| | Thermal Sensitivity Shift | ± 1.5% /100°F (Typ.) | | | | | | | | | |
| | Linear Vibration | 10-2,000 Hz Sine, 100g. (Max.) | | | | | | | | | |
| PHYSICAL | Mechanical Shock | 20g half Sine Wave 11 msec. Duration | | | | | | | | | |
| | Electrical Connection | 4 Conductor 30 AWG Shielded Cable (24" After Module) | | | | | | | | | |
| | Weight | 8 Grams (Nom.) Excluding Cable | | | | | | | | | |
| | Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology | | | | | | | | | |
| Mounting Torque | 15 Inch-Pounds (Max.) 1.7 N-m | | | | | | | | | | |

* Limited life above 850°F (454°C), dependent on operating conditions.

Note: Requires external compensation module (Max. temp. 400°F) Please refer to outline drawing.

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

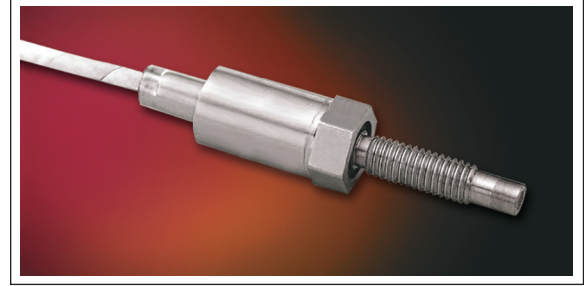


HIGH TEMPERATURE PRESSURE TRANSDUCER

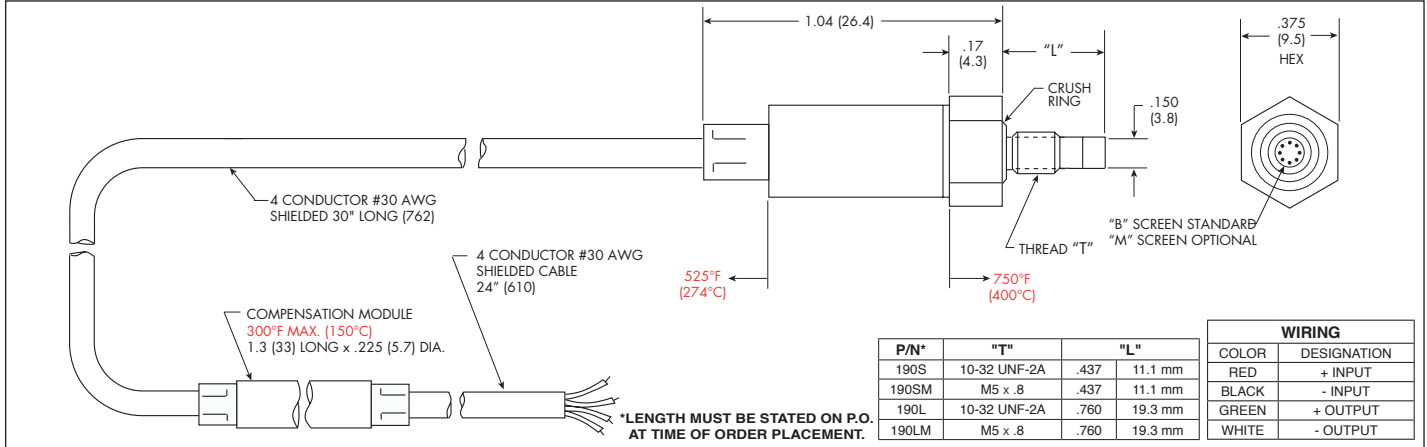
XTEH-7L-190 (M) SERIES

- -65°F To 750°F Temperature Capability
- Patented Leadless Technology VIS®
- High Natural Frequency
- Suitable For Turbine Engine Testing

The XTEH Series pressure transducers feature a very wide operating temperature range. These characteristics make these devices ideal for Turbine engine testing. Other equally demanding applications in the industry may also benefit from the ruggedness of these devices. Part performance not guaranteed if used in water.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTEH-7L-190 transducer.



| | | | | | | | | | | | |
|---------------|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| INPUT | Pressure Range | 1.7 25 | 3.5 50 | 7 100 | 14 200 | 21 300 | 35 500 | 70 1000 | 140 2000 | 210 BAR 3000 PSI | |
| | Operational Mode | Absolute, Sealed Gage | | | | | | | | | |
| | Over Pressure | 2 Times Rated Pressure to 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 BAR) | | | | | | | | | |
| | Burst Pressure | 3 Times Rated Pressure to a Maximum of 5000 PSI (350 BAR) | | | | | | | | | |
| | Pressure Media | Most Liquids and Gases - Please Consult Factory | | | | | | | | | |
| | Rated Electrical Excitation | 10 VDC | | | | | | | | | |
| | Maximum Electrical Excitation | 12 VDC | | | | | | | | | |
| | 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.) | 240 | 300 | 380 | 500 | 575 | 700 | 1000 | 1400 | 1650 | |
| | Acceleration Sensitivity % FS/g Perpendicular | 5.0x10 ⁻⁴ | 3.0x10 ⁻⁴ | 1.5x10 ⁻⁴ | 1.1x10 ⁻⁴ | 9.0x10 ⁻⁵ | 6.5x10 ⁻⁵ | 4.0x10 ⁻⁵ | 2.5x10 ⁻⁵ | 1.9x10 ⁻⁵ | |
| | Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | | | |
| ENVIRONMENTAL | Operating Temperature Range | -65°F to +750°F (-55°C to +400°C) - Pressure Sensing Area -65°F to +525°F (-55°C to +274°C) - Cable Area | | | | | | | | | |
| | Compensated Temperature Range | +80°F to +650°F (+25°C to +343°C) | | | | | | | | | |
| | Thermal Zero Shift | ± 1.5% FS/100°F (Typ.) | | | | | | | | | |
| | Thermal Sensitivity Shift | ± 1.5% /100°F (Typ.) | | | | | | | | | |
| | Linear Vibration | 10-2,000 Hz Sine, 100g. (Max.) | | | | | | | | | |
| PHYSICAL | Mechanical Shock | 20g half Sine Wave 11 msec. Duration | | | | | | | | | |
| | Electrical Connection | 4 Conductor 30 AWG Shielded Cable (30" Before Module, 24" After Module) | | | | | | | | | |
| | Weight | 8 Grams (Nom.) Excluding Cable | | | | | | | | | |
| | Pressure Sensing Principle | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology | | | | | | | | | |
| | Mounting Torque | 15 Inch-Pounds (Max.) 1.7 N-m | | | | | | | | | |

Note: Requires external compensation module (Max. temp. 400°F) Please refer to outline drawing.

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