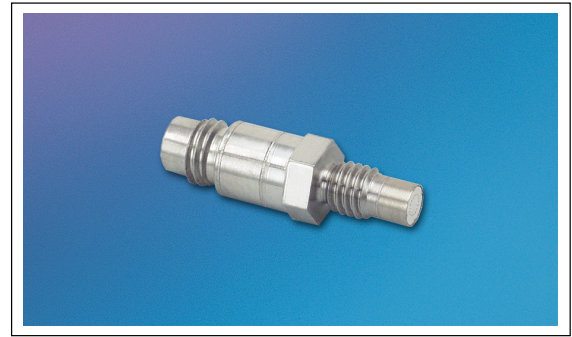




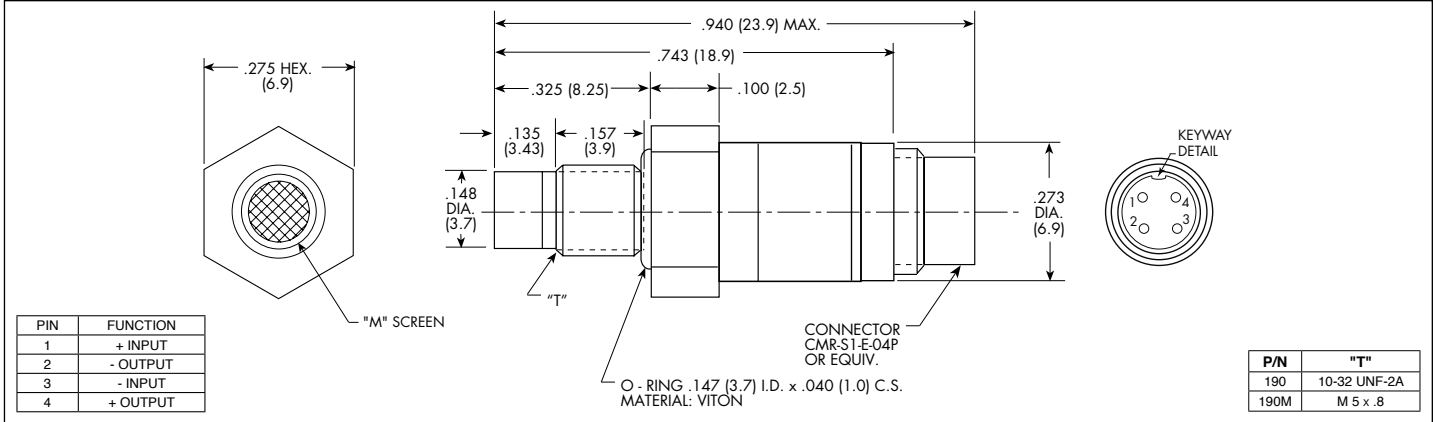
RUGGEDIZED AUTOMOTIVE PRESSURE TRANSDUCERS

XTL-163-190 (M) SERIES

- Easy Installation With Integral Connector
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With Most Automotive Fluids
- Patented Leadless Technology **VIS**[®]



Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the XTL-163-190 transducer.



| | 1.0 15 | 1.7 25 | 3.5 50 | 7 100 | 17 250 | 35 500 | 70 1000 | 210 BAR 3000 PSI |
|---|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| INPUT | | | | | | | | |
| Pressure Range | | | | | | | | |
| Operational Mode | Absolute, Sealed Gage | | | | | | | |
| Over Pressure | 2 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR) | | | | | | | |
| Burst Pressure | 3 Times Rated Pressure to a Maximum of 4500 PSI (315 BAR) | | | | | | | |
| Pressure Media | Most Conductive Liquids and Gases - Please Consult Factory (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 | 6.5x10 ⁻⁴ | 5.0x10 ⁻⁴ | 3.0x10 ⁻⁴ | 1.5x10 ⁻⁴ | 1.0x10 ⁻⁴ | 6.0x10 ⁻⁵ | 4.5x10 ⁻⁵ | 2.0x10 ⁻⁵ |
| Insulation Resistance | 100 Megohm Min. @ 50 VDC | | | | | | | |
| ENVIRONMENTAL | | | | | | | | |
| Operating Temperature Range | -65°F to +400°F (-55°C to +204°C) | | | | | | | |
| Compensated Temperature Range | -40°F to +350°F (-40°C to +175°C) | | | | | | | |
| Thermal Zero Shift | ± 1% FS/100°F (Typ.) | | | | | | | |
| Thermal Sensitivity Shift | ± 1% /100°F (Typ.) | | | | | | | |
| Steady Acceleration | 10,000 g. (Max.) | | | | | | | |
| Linear Vibration | 10-2,000 Hz Sine, 100g. (Max.) | | | | | | | |
| PHYSICAL | | | | | | | | |
| Electrical Connection | CMR-S1-E-04P Connector or Equivalent (Mating Connector Available Upon Request) | | | | | | | |
| Weight | 5 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 | | | | | | | |

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. 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.