



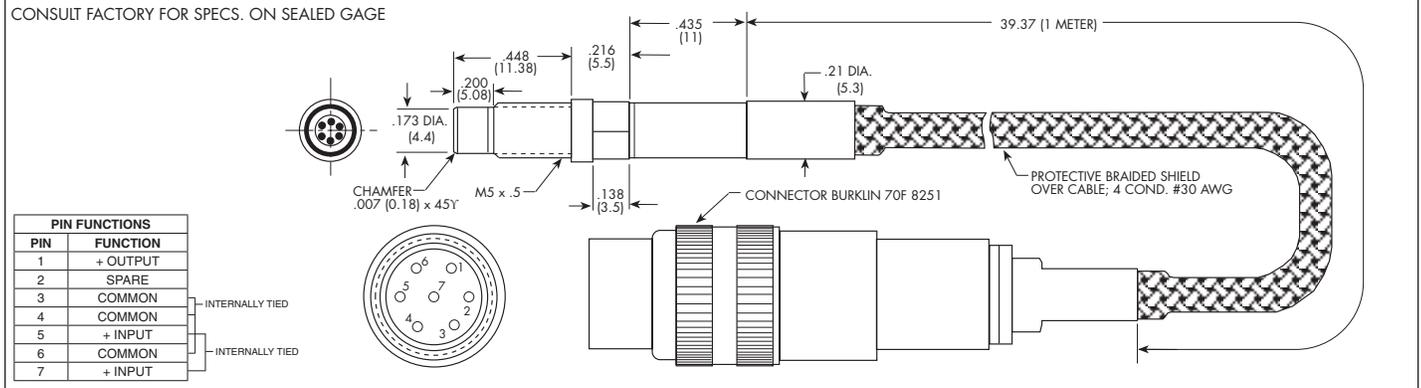
## MINIATURE RUGGEDIZED AUTOMOTIVE 5VDC OUTPUT IS® PRESSURE TRANSDUCER

### ETL-CS-190 (M) SERIES

- Robust Construction
- High Temperature
- Acceleration/Vibration Insensitive Design **VIS<sup>2</sup>**
- High Bandwidth Amplifier (150 KHz)
- Patented Leadless Technology
- In Cylinder Pressure Measurement
- Dynamic and Static Capability
- Excellent Long Term Stability
- Coupled with High Accuracy



The ETL-CS-190 is a high temperature extremely rugged transducer ideal for combustion measurement in engine environments. It uses a patented acceleration insensitive leadless sensing element that is more than 100 times less sensitive to vibration than other Kulite transducers. The front of the transducer can withstand temperatures of 900°F (482°C) while the in-line amplifier can be placed in a cooler area. The amplifier is a special high frequency amplifier that allows the transducer to be used up to 150KHz.



<b>INPUT</b> Pressure Range	150 2175	250 BAR 3625 PSI
Operational Mode	Absolute, Sealed Gage	
Over Pressure	2 Times Rated Pressure	
Burst Pressure	3 Times Rated Pressure	
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases - Please Consult Factory)	
Rated Electrical Excitation	12 ± 4 VDC or 28 ± 4 VDC	
Maximum Electrical Current	25 mA	
<b>OUTPUT</b> Output Impedance	200 Ohms (Max.)	
Full Scale Reading	5 V ± 150mV	
Bandwidth (-3dB)	DC to 150 KHz	
Residual Unbalance	500mV ± 50mV	
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)	
Resolution	Infinitesimal	
Natural Frequency (KHz) (Typ.)	Greater Than 1000 KHz	
Insulation Resistance	100 Megohm Min. @ 50 VDC	
<b>ENVIRONMENTAL</b> Operating Temperature Range	-4°F to +900°F (-20°C to +482°C) (Front End) -4°F to +185°F (-20°C to +85°C) (Connector + Compensation Module)	
Compensated Temperature Range	+68°F to +840°F (+20°C to +450°C)	
Total Error Band (Excluding End Points)	± 2% FS (Typ.)	
Linear Vibration	50g Peak, Sine 10 to 2000 Hz	
Humidity	100% Relative Humidity	
Mechanical Shock	100g half Sine Wave 11 msec. Duration	
<b>PHYSICAL</b> Electrical Connection	Burklin 70F 8251 Connector (Mating Connector Supplied)	
Weight	10 Grams (Nom.) Excluding Cable and Connector	
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: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters.

Continuous design and development for automotive applications. [www.sensor-ic.com/](http://www.sensor-ic.com/) TEL:0755-83376549 FAX:0755-83376182 E-MAIL: szss20@163.com

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