

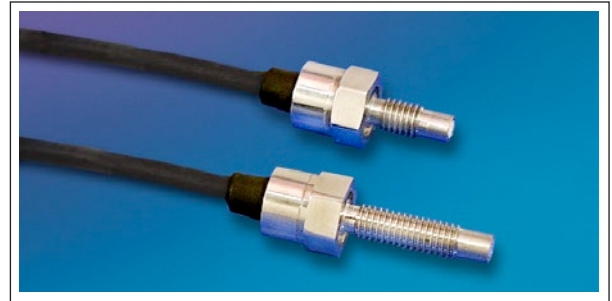


# MINIATURE HIGH SENSITIVITY PRESSURE TRANSDUCER

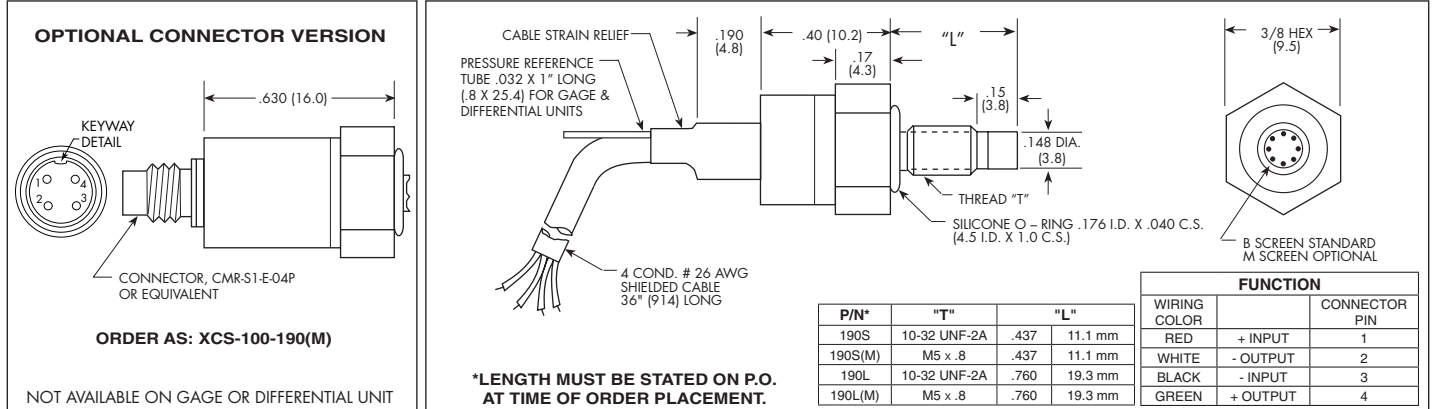
## XCS-190 (M) SERIES

- High Output
- Silicon on Silicon Integrated Sensor **VIS®**
- High Natural Frequency

The XCS Series uses a diaphragm of advanced design which gives a substantially higher basic output allowing for high mV/psi sensitivities and improved signal to noise ratio.



Kulite recommends the **KSC-2** signal conditioner to maximize the measurement capability of the XCS-190 transducer.



INPUT	Pressure Range	0.35 5	0.7 10	1.0 BAR 15 PSI
	Operational Mode	Absolute, Gage, Differential		
	Over Pressure	2 Times Rated Pressure		
	Burst Pressure	3 Times Rated Pressure		
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases (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	Output Impedance	1000 Ohms (Nom.)		
	Full Scale Output (FSO)	150 mV (Nom.)	150 mV (Nom.)	200 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
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 <sup>-3</sup>	1.0x10 <sup>-3</sup>	7.0x10 <sup>-4</sup>
	Insulation Resistance	100 Megohm Min. @ 50 VDC		
ENVIRONMENTAL	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.)		
	Steady Acceleration	10,000g. (Max.)		
PHYSICAL	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)		
	Electrical Connection	4 Conductor 26 AWG Shielded Cable 36" Long		
	Weight	4 Grams (Nom.) Excluding Cable		
	Pressure 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. (L) 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.