

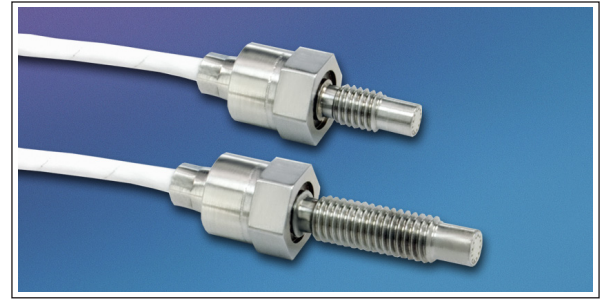


MINIATURE HIGH SENSITIVITY PRESSURE TRANSDUCER

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 Series** of signal conditioners to maximize the measurement capability of the XCS-190 transducer.

OPTIONAL CONNECTOR VERSION

KEYWAY DETAIL

CONNECTOR, CMR-S1-E-04P OR EQUIVALENT

ORDER AS: XCS-100-190(M)

NOT AVAILABLE ON GAGE OR DIFFERENTIAL UNIT

CABLE STRAIN RELIEF

PRESSURE REFERENCE TUBE .032 X 1" LONG (.8 X 25.4) FOR GAGE & DIFFERENTIAL UNITS

.190 (4.8)

.40 (10.2)

.17 (4.3)

"L"

.15 (3.8)

.148 DIA. (3.8)

THREAD "T"

SILICONE O-RING .176 I.D. X .040 C.S. (4.5 I.D. X 1.0 C.S.)

3/8 HEX (9.5)

B SCREEN STANDARD
M SCREEN OPTIONAL

4 COND. # 30 AWG SHIELDED CABLE 36" (914) LONG

P/N*	"T"	"L"	
190S	10-32 UNF-2A	.437	11.1 mm
190S(M)	M5 x .8	.437	11.1 mm
190L	10-32 UNF-2A	.760	19.3 mm
190L(M)	M5 x .8	.760	19.3 mm

FUNCTION		
WIRING COLOR		CONNECTOR PIN
RED	+ INPUT	1
WHITE	- OUTPUT	2
BLACK	- INPUT	3
GREEN	+ OUTPUT	4

***LENGTH MUST BE STATED ON P.O. AT TIME OF ORDER PLACEMENT.**

	0.35 5	0.7 10	1.0 BAR 15 PSI	
INPUT	Pressure Range	Absolute, Gage, Differential		
	Operational Mode	2 Times Rated Pressure		
	Over Pressure	3 Times Rated Pressure		
	Burst Pressure	All Nonconductive, Noncorrosive Liquids or Gases (All Media May Not Be Suitable With O-Ring Supplied)		
	Pressure Media	10 VDC/AC		
	Rated Electrical Excitation	12 VDC/AC		
	Maximum Electrical Excitation	1000 Ohms (Min.)		
	Input Impedance	1000 Ohms (Nom.)		
OUTPUT	Output Impedance	150 mV (Nom.)	150 mV (Nom.)	200 mV (Nom.)
	Full Scale Output (FSO)	± 5 mV (Typ.)		
	Residual Unbalance	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)		
	Combined Non-Linearity, Hysteresis and Repeatability	Infinitesimal		
	Resolution	150	175	200
	Natural Frequency of Sensor Without Screen (KHz) (Typ.)	1.5x10 ⁻³	1.0x10 ⁻³	7.0x10 ⁻⁴
	Acceleration Sensitivity % FS/g Perpendicular	100 Megohm Min. @ 50 VDC		
	Insulation Resistance	-65°F to +350°F (-55°C to +175°C)		
ENVIRONMENTAL	Operating Temperature Range	80°F to +180°F (25°C to +80°C) Any 100°F Range Within The Operating Range on Request		
	Compensated Temperature Range	± 1% FS/100°F (Typ.)		
	Thermal Zero Shift	± 1% /100°F (Typ.)		
	Thermal Sensitivity Shift	10,000g. (Max.)		
	Steady Acceleration	10-2,000 Hz Sine, 100g. (Max.)		
PHYSICAL	Linear Vibration	4 Conductor 30 AWG Shielded Cable 36" Long		
	Electrical Connection	4 Grams (Nom.) Excluding Cable		
	Weight	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon		
	Pressure Sensing Principle	15 Inch-Pounds (Max.) 1.7 Nm		
Mounting Torque				

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