

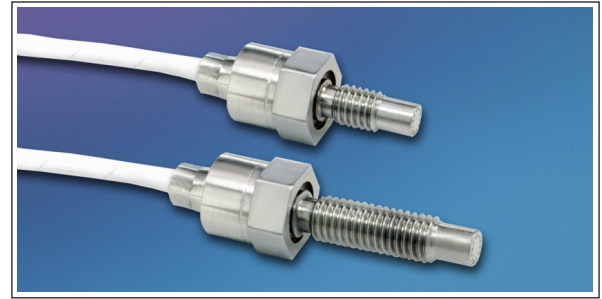


MINIATURE HIGH SENSITIVITY PRESSURE TRANSDUCER

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

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

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

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 ⁻³	1.0x10 ⁻³	7.0x10 ⁻⁴
	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 30 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 range □
 Continuous development and refl □
 Kulite miniature pressure transducers are intended for use in designed to be used in production programs, please consult the factory.

All dimensions nominal. (N)
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