

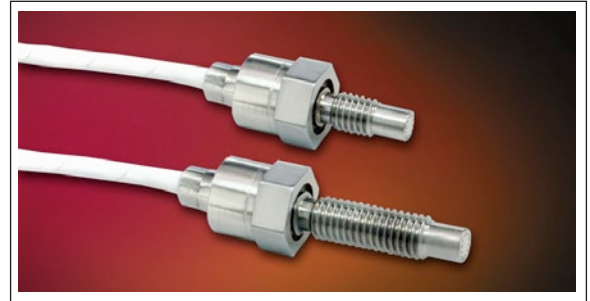


MINIATURE RUGGEDIZED HIGH TEMPERATURE PRESSURE TRANSDUCER

XTEL-190 (M) SERIES

- Wide Temperature Capability -65°F To 525°F
- Easy Installation
- Patented Leadless Technology VIS®
- High Natural Frequency

The ruggedness of this sensor has not compromised its performance. It was designed for ease of installation and will operate properly in most conductive liquids and gases. Coupled with high temperature, its Patented Leadless Construction makes it possible for the sensing unit to be installed in such a way that will not compromise its high natural frequency. Its wide operating range (-65°F to +525°F) makes it ideal for numerous applications in Aerospace and other areas of industry.



Kulite recommends the [KSC-2](#) signal conditioner to maximize the measurement capability of the XTEL-190 transducer.

OPTIONAL CONNECTOR VERSION

KEYWAY DETAIL

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

ORDER AS: XTEL-100-190(M)

NOT AVAILABLE ON GAGE OR DIFFERENTIAL UNIT

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

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

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

THREAD "T"

3/8 HEX (9.5)

B SCREEN STANDARD
M SCREEN OPTIONAL

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	0.7 10	1.0 15	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	140 BAR 2000 PSI	
	Operational Mode	Absolute, Gage, Differential		Absolute, Gage, Sealed Gage, Differential			Absolute, Sealed Gage				
	Over Pressure	2 Times Rated Pressure to a Maximum of 3000 PSI (210 BAR)									
	Burst Pressure	3 Times Rated Pressure to a Maximum of 5000 PSI (350 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	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.)	175	200	240	300	380	550	700	1000	1400	
	Acceleration Sensitivity % FS/g Perpendicular	1.0x10 ⁻³	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 +525°F (-55°C to +273°C)									
	Compensated Temperature Range	+80°F to +450°F (+25°C to +232°C)									
	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 Patented Leadless Technology									
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. 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 or used in production applications. For products designed to be used in production programs, please consult the factory.