

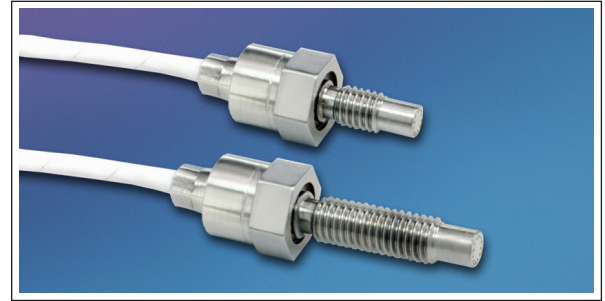


MINIATURE RUGGEDIZED PRESSURE TRANSDUCER

XTL-190 (M) SERIES

- 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 any medium compatible with 15-5 SS or SiO₂. 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.



Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the XTL-190 transducer.

OPTIONAL CONNECTOR VERSION

KEYWAY DETAIL

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

ORDER AS: XTL-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.)

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

3/8 HEX (9.5)

B SCREEN STANDARD
M SCREEN OPTIONAL

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

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.**

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 500 PSI (35 BAR), 1.5 Times Rated Pressure Above 500 PSI (35 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/AC										
	Maximum Electrical Excitation	12 VDC/AC										
	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		
ENVIRONMENTAL	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										
	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.)										
	Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)										
	PHYSICAL	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. (Q) 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.