



MINIATURE RUGGEDIZED PRESSURE TRANSDUCER XT-190 (M) SERIES

- Easy Installation
- Silicon on Silicon Integrated Sensor VIS®
- High Natural Frequency

The ruggedness of this sensor has not compromised its performance. It was designed for ease of installation.



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

OPTIONAL CONNECTOR VERSION

KEYWAY DETAIL

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

ORDER AS: XT-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

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.

INPUT	Pressure Range	0.35 5	0.7 10	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	All Nonconductive, Noncorrosive Liquids or Gases (All Media May Not Be Suitable With O-Ring Supplied)									
	Rated Electrical Excitation	10 VDC/AC									
OUTPUT	Maximum Electrical Excitation	12 VDC/AC									
	Input Impedance	1000 Ohms (Min.)									
	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.)	150	175	240	300	380	550	700	1000	1400	
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	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 +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 (Standard)	4 Conductor 30 AWG Shielded Cable 36" Long									
	Electrical Connection (XT-100)	Mating Connector Supplied with 40" Long 4 Conductor 30AWG Shielded Teflon Cable									
	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. (O) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2017 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.