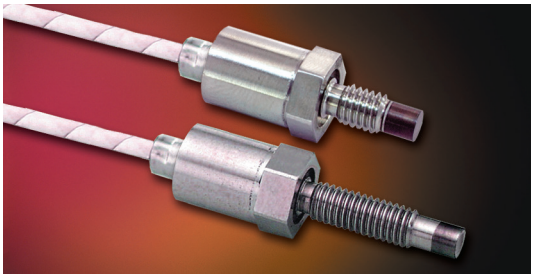
MINIATURE RUGGEDIZED HIGH TEMPERATURE PRESSURE TRANSDUCER

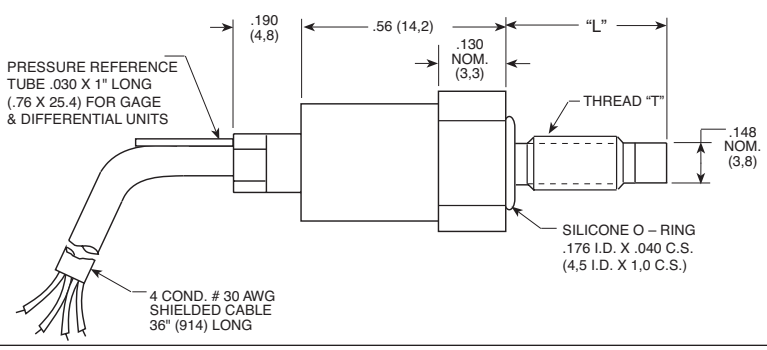
XTME-190(S/L)(M) SERIES

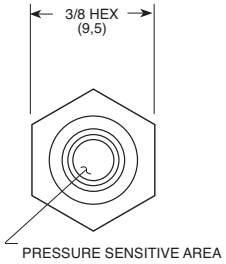
- Wide Temperature Capability -20°F To 450°F
- Excellent Stability
- High Natural Frequency
- Inorganically Bonded Sensor
- Robust Construction



The XTME-190 miniature pressure transducer utilizes a metal diaphragm as a force collector with a Piezoresistive Sensor as its sensing element. With the threaded body, hexagonal head and o-ring seal, the XTME-190 is easy to mount and simple to apply. The small size and flush diaphragm permit direct installation of the transducer in the wall of pressure containers, tubes, pipes, etc., eliminating the need for costly, space consuming hardware. Differential versions of all ranges up to 500 psi are available. The reference pressure source should be dry, noncorrosive gas. Absolute and sealed versions of the XTME-190 have a reference vacuum sealed in the transducer. High temperature material and assembly processes allow continuous use at maximum operating temperatures of +450°F (+232°C).

Kulite recommends the KSC Series of signal conditioners to maximize the measurement capability of the XTME-190 transducer.





FUNCTION	
WIRING COLOR	
RED	+ INPUT
WHITE	- OUTPUT
BLACK	- INPUT
GREEN	+ OUTPUT

P/N	"T"
190S	10-32 UNF-2A
190SM	M5 x .8
190L	10-32 UNF-2A
190LM	M5 x .8

INPUT	Pressure Range	1.7 25	3.5 50	7 100	17 250	35 500	70 1000	170 2500	350 BAR 5000 PSI
	"L" Length 190S(M) ±.005" (± 0,127)	.430" (10,92)	.4305" (10,93)	.4314" (10,96)	.4335" (11,01)	.4356" (11,06)	.4387" (11,14)	.446" (11,33)	.452" (11,48)
	"L" Length 190L(M) ±.005" (± 0,127)	.722" (18,34)	.7225" (18,35)	.7234" (18,37)	.7255" (18,43)	.7276" (18,48)	.7307" (18,56)	.738" (18,74)	.744" (18,90)
	Operational Mode	Absolute, Gage, Differential	Absolute, Gage, Sealed Gage, Differential			Absolute, Sealed Gage			
	Over Pressure	2 Times Rated Pressure				1.5 Times Rated Pressure			
	Burst Pressure	3 Times Rated Pressure to a Maximum of 6000 PSI (420 BAR)							
	Pressure Media	Any Liquid or Gas Compatible With 17-4 PH or 15-5 Stainless Steel (All Media May Not Be Suitable With O-Ring Supplied)							
	Rated Electrical Excitation	10 VDC							
	Maximum Electrical Excitation	12 VDC							
	Input Impedance	650 Ohms (Min.)							
OUTPUT	Output Impedance	1000 Ohms (Nom.)							
	Full Scale Output (FSO)	75 mV (Nom.)							
	Residual Unbalance	± 5 mV (Typ.)							
	Combined Non-Linearity, Hysteresis and Repeatability	±1% FSO BFSL (Typ.)							
	Resolution	Infinitesimal							
	Natural Frequency (KHz) (Typ.)	75	95	125	210	290	410	560	930
	Acceleration Sensitivity % FS/g Perpendicular	$2.3x10^{-3}$	$1.4x10^{-3}$	$9.6x10^{-4}$	$6.2x10^{-4}$	$4.3x10^{-4}$	$3.0x10^{-4}$	$2.1x10^{-4}$	$1.3x10^{-4}$
	Insulation Resistance	100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Operating Temperature Range	-20°F to +450°F (-29°C to +232°C)							
	Compensated Temperature Range	+80°F to +450°F (+25°C to +232°C)							
	Thermal Zero Shift	± 3% FS/100°F (Typ.), ± 4% FS/100°F Max				± 2% FS/100°F (Typ.), ± 3% FS/100°F Max			
	Thermal Sensitivity Shift	± 3% /100°F (Typ.), ± 4% /100°F Max				± 2% /100°F (Typ.), ± 3% /100°F Max			
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz							
PHYSICAL	Electrical Connection	4 Conductor 30 AWG Shielded Cable 36" Long							
	Weight	8 Grams (Nom.) Excluding Cable							
	Pressure Sensing Principle	Inorganically Bonded Piezoresistive Sensor							
	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. (U)

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.

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