



MINIATURE RUGGEDIZED HIGH TEMPERATURE

PRESSURE TRANSDUCER

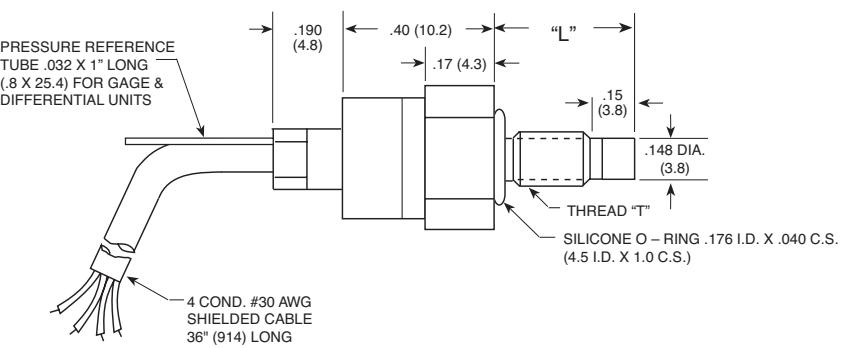
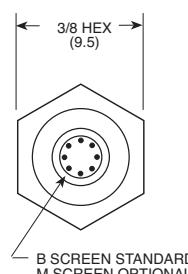
XTE-190(S/L)(M) SERIES

- Wide Temperature Capability -65°F To 525°F
- 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 and will operate in temperatures up to 525°F (273°C). 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 Series](#) of signal conditioners to maximize the measurement capability of the XTE-190 transducer.

			WIRING <table border="1"> <thead> <tr> <th>COLOR</th><th>DESIGNATION</th></tr> </thead> <tbody> <tr> <td>RED</td><td>+ INPUT</td></tr> <tr> <td>BLACK</td><td>- INPUT</td></tr> <tr> <td>GREEN</td><td>+ OUTPUT</td></tr> <tr> <td>WHITE</td><td>- OUTPUT</td></tr> </tbody> </table>	COLOR	DESIGNATION	RED	+ INPUT	BLACK	- INPUT	GREEN	+ OUTPUT	WHITE	- OUTPUT								
COLOR	DESIGNATION																				
RED	+ INPUT																				
BLACK	- INPUT																				
GREEN	+ OUTPUT																				
WHITE	- OUTPUT																				
		<table border="1"> <thead> <tr> <th>P/N</th><th>"T"</th><th>"L"</th></tr> </thead> <tbody> <tr> <td>190S</td><td>10-32 UNF-2A</td><td>.437</td><td>11.1 mm</td></tr> <tr> <td>190SM</td><td>M5 x .8</td><td>.437</td><td>11.1 mm</td></tr> <tr> <td>190L</td><td>10-32 UNF-2A</td><td>.760</td><td>19.3 mm</td></tr> <tr> <td>190LM</td><td>M5 x .8</td><td>.760</td><td>19.3 mm</td></tr> </tbody> </table>	P/N	"T"	"L"	190S	10-32 UNF-2A	.437	11.1 mm	190SM	M5 x .8	.437	11.1 mm	190L	10-32 UNF-2A	.760	19.3 mm	190LM	M5 x .8	.760	19.3 mm
P/N	"T"	"L"																			
190S	10-32 UNF-2A	.437	11.1 mm																		
190SM	M5 x .8	.437	11.1 mm																		
190L	10-32 UNF-2A	.760	19.3 mm																		
190LM	M5 x .8	.760	19.3 mm																		

INPUT	Pressure Range	0.35 5	0.7 10	1.0 15	1.7 BAR 25 PSI		
	Operational Mode	Absolute, Gage, Differential		Absolute, Gage, Sealed 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					
	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.)	150	175	200	240		
	Acceleration Sensitivity % FS/g Perpendicular	1.5x10 ⁻³	1.0x10 ⁻³	6.5x10 ⁻⁴	5.0x10 ⁻⁴		
	Insulation Resistance	100 Megohm Min. @ 50 VDC					
ENVIRONMENTAL	Operating Temperature Range	-65°F to +525°F (-55°C to +273°C) (Media) -65°F to +450°F (-55°C to +232°C) (Ambient)					
	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.)					
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration					
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz					
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					
	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.