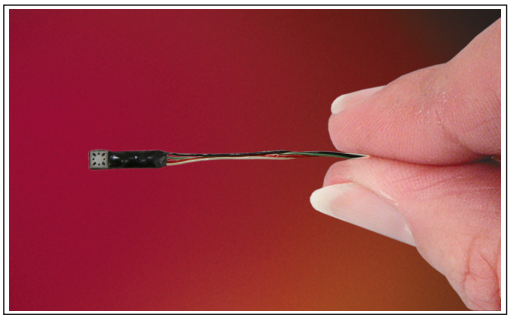
HIGH TEMPERATURE THIN LINE PRESSURE TRANSDUCER

LPS-HT-072 SERIES

- High Natural Frequency
- Excellent Stability
- Ideal For Flight Test & Wind Tunnel Applications
- High Temperature Capabilities -65°F To +450°F
- Silicon on Silicon Integrated Sensor **VIS**®

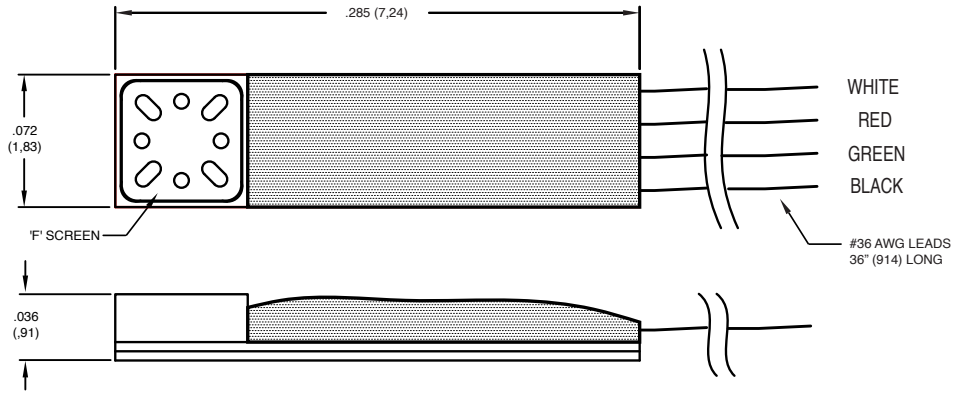


The LPS-HT-072 Series demonstrates Kulite's ability to provide pressure transducers suited for adaptation into custom packages. These devices can be integrated into various test articles such as fan blades, engine nozzles of various types, etc. The features of these transducers include small foot print, high natural frequency, extreme resistance to vibration and shock, and wide temperature range.

Kulite recommends the KSC Series of signal conditioners to maximize the measurement capability of the LPS-HT-072 transducer.

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

Optional External Compensation Module may be needed for some modes and pressure ranges.



INPUT	Pressure Range	0.35 5	0.7 10	1 15	1.7 25	3.5 50	7 100	17 250	35 BAR 500 PSI
	Operational Mode	Absolute				Absolute, Sealed Gage			
	Over Pressure	2 Times Rated Pressure							
	Burst Pressure	3 Times Rated Pressure							
	Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases							
	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	300	380	550	700
	Acceleration Sensitivity % FS/g Perpendicular	$1.5x10^{-3}$	$1.0x10^{-3}$	$6.5x10^{-4}$	$5.0x10^{-4}$	$3.0x10^{-4}$	$1.5x10^{-4}$	$1.0x10^{-4}$	$6.0x10^{-5}$
	Insulation Resistance	100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Operating Temperature Range	-65°F to +450°F (-55°C to +235°C)							
	Compensated Temperature Range	+80°F to +450°F (+25°C to +235°C) Alternative Compensation Ranges are Available Upon Request							
	Thermal Zero Shift	± 3% FS/100°F (Typ.) (± 4% FS/100°F Max.)		± 2% FS/100°F (Typ.) (± 3% FS/100°F Max.)		± 1% FS/100°F (Typ.) (± 2% FS/100°F Max.)			
	Thermal Sensitivity Shift	± 3% /100°F (Typ.) (± 4% /100°F Max.)		± 2% /100°F (Typ.) (± 3% /100°F Max.)		± 1% /100°F (Typ.) (± 2% /100°F Max.)			
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz							
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration							
PHYSICAL	Electrical Connection	4 Leads 36 AWG 36" (914) Long							
	Weight	.2 Gram (Nom.) Excluding Module and Leads							
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon							

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. *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.*

KULITE SEMICONDUCTOR PRODUCTS, INC. • One Willow Tree Road • Leonia, New Jersey 07605 • Tel: 201 461-0900 • Fax: 201 461-0990 • www.kulite.com