



MINIATURE HIGH PRESSURE PRESSURE TRANSDUCER

HKM/HKL-233(X)-375 (M) SERIES

- Excellent Stability
- All Welded Construction
- Hermetic Sealed Package
- Robust Construction
- High Natural Frequencies
- Aerospace Quality Components
- "X" Identifies Electrical Connection Option
- Patented Leadless Technology VIS® (HKL Series)
- Thermorad Jacket Compatible With Most Aircraft Fluids
- Intrinsically Safe Applications Available (i.e. IS-HKM-233(X)-375)



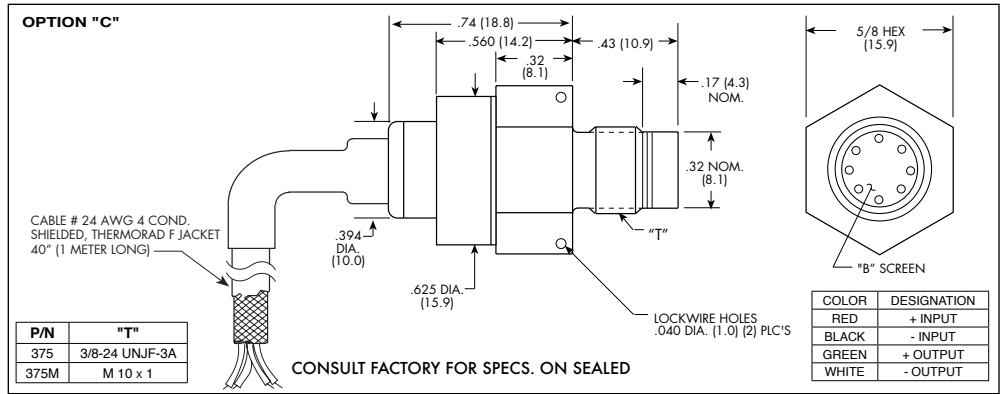
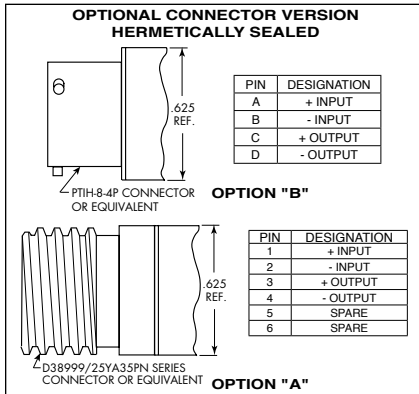
The HKM/HKL-233(X)-375 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.

The HKM-233(X)-375 utilizes a flush metal diaphragm as a force collector. A solid state piezoresistive sensing element is located immediately behind this metal diaphragm which is protected by a metal screen. Force transfer is accomplished via an intervening film of non-compressible silicone oil. This sensing sub assembly is welded to a stainless steel body.

The HKL-233(X)-375 utilizes Kulite's Patented Leadless Technology. A solid state piezoresistive sensing element is protected by a metal screen. This sensing sub assembly is welded to a stainless steel body.

This advanced construction results in a highly stable, reliable and rugged instrument with all the advantages of microcircuitry: significant miniaturization, excellent repeatability, low power consumption, etc. The miniaturization process also yields a marked increase in the natural frequencies of the transducers, making them suitable for use even in shock pressure measurements.

Kulite recommends the **KSC Series** of signal conditioners to maximize the measurement capability of the HKM/HKL-233-375 transducers.



	HKL					HKM				
	1.7 25	3.5 50	7 100	17 BAR 250 PSI	35 500	70 1000	140 2000	210 3000	350 BAR 5000 PSI	
INPUT	Operational Mode		Absolute Absolute, Sealed Gage							
	Over Pressure		2 Times Rated Pressure to a Max. of 30000 PSI (2100 BAR)							
	Burst Pressure		3 Times Rated Pressure to a Max. of 35000 PSI (2400 BAR)							
	Pressure Media		All Nonconductive, Noncorrosive Liquids or Gases (Most Conductive Liquids and Gases-Consult Factory)				Any Liquid or Gas Compatible With 15-5 PH or 316 Stainless Steel			
	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.)							
	Resolution		Infinitesimal							
	Insulation Resistance		100 Megohm Min. @ 50 VDC							
ENVIRONMENTAL	Operating Temperature Range		-65°F to +350°F (-55°C to +175°C)							
	Compensated Temperature Range		-65°F to +300°F (-55°C to +150°C)							
	Total Error Band		± 2% FSO +32°F to 180°F (0°C to +85°C) Increasing to ± 3% At All Other Temperatures Within The Compensated Range							
	Linear Vibration		50g Peak, Sine up to 2000 Hz							
	Altitude		-150 ft. to +70,000 ft. Will Not Damage Sensor							
	Humidity		100% Relative Humidity							
	Mechanical Shock		100g half Sine Wave 11 msec. Duration							
PHYSICAL	Electrical Connection		OPTION A: D38999/25YA35PN Connector or Equivalent, OPTION B: PTIH-8-4P Connector or Equivalent, OPTION C: 4 Conductor 24 AWG Shielded, Thermorad F Jacketed Cable, 40" (1 Meter)							
	Weight		17 Grams (Max.) Excluding Cable							
	Pressure Sensing Principle		Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon (Patented Leadless Technology HKL Series)							
	Mounting Torque		80 Inch-Pounds (Max.)							

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 © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved.