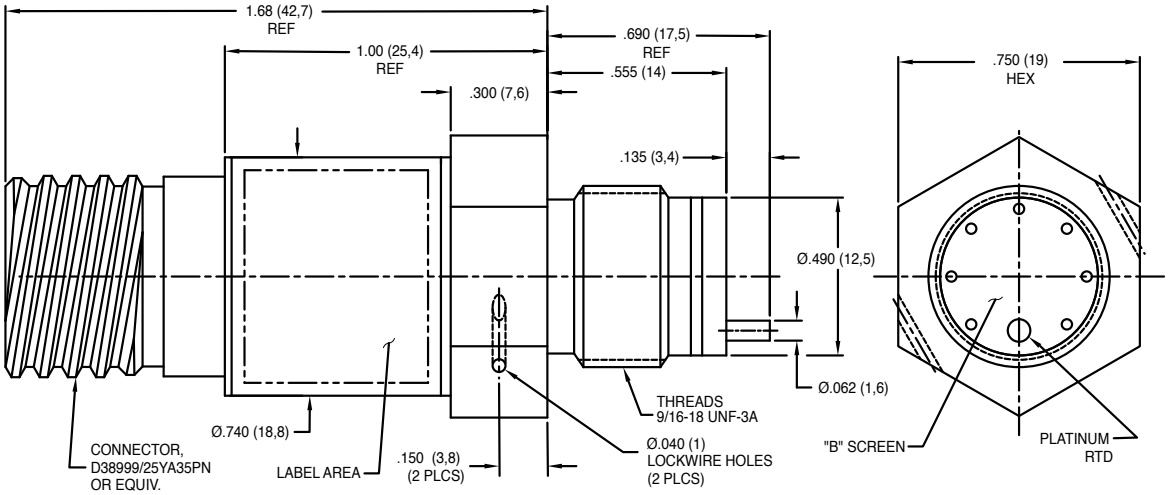
MINIATURE PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

HKM/T-519-562 (M) SERIES

- Combined Pressure and Temperature Measurement Capability
- Excellent Stability
- All Welded Construction
- Hermetic Sealed Package
- Robust Construction
- High Natural Frequencies
- Aerospace Quality Components
- Intrinsically Safe Applications Available (i.e. IS-HKM/T-519-562)

The HKM/T-519-562 is a miniature threaded pressure transducer. The hexagonal head and o-ring seal make it easy to mount and simple to apply.
The HKM/T-519-562 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. The platinum RTD protrudes beside the diaphragm to sense media temperature. The pressure and temperature devices are designed to operate independently. 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.



PIN	DESIGNATION
1	+ INPUT
2	- INPUT
3	+ OUTPUT
4	- OUTPUT
5	TEMP. OUT
6	TEMP. OUT

INPUT	Pressure Range	7 100	17 250	35 500	70 1000	140 2000	210 3000	350 BAR 5000 PSI
	Operational Mode	Absolute, Sealed Gage						
	Over Pressure	2 Times Rated Pressure to a Max. of 8000 PSI (552 BAR)						
	Burst Pressure	3 Times Rated Pressure to a Max. of 8000 PSI (552 BAR)						
	Pressure Media	Any Liquid or Gas Compatible with 15-5 PH and 316 Stainless Steel						
	Rated Electrical Excitation	10 VDC						
	Maximum Electrical Excitation	12 VDC						
	Input Impedance	1000 Ohms (Min.)						
	RTD Excitation	1mA (2mA Max.)						
OUTPUT	Output Impedance	3000 Ohms (Max.)						
	Full Scale Output	100 mV						
	RTD	1000 Ohms Platinum, DIN EN 60751 Tables, Class A (65% Response Time 3 Seconds Max. in Liquid)						
	Residual Unbalance	0 mV						
	Resolution	Infinitesimal						
	Insulation Resistance	100 Megohm Min. @ 50 VDC						
ENVIRONMENTAL	Operating Temperature Range	-65°F to +250°F (-55°C to +121°C)						
	Compensated Temperature Range	+32°F to +180°F (0°C to +85°C)						
	Total Error Band	± 2% FSO +32°F to 180°F (0°C to +85°C)						
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz						
	Altitude	Unaffected						
	Humidity	100% Relative Humidity						
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration						
PHYSICAL	Electrical Connection	D38999/25YA35PN Connector or Equivalent						
	Weight	17 Grams (Max.)						
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon						
	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. (A) Continuous development and refinement of our products may result in specification changes without notice. *Copyright © 2023 Kulite Semiconductor Products, Inc. All Rights Reserved.*

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