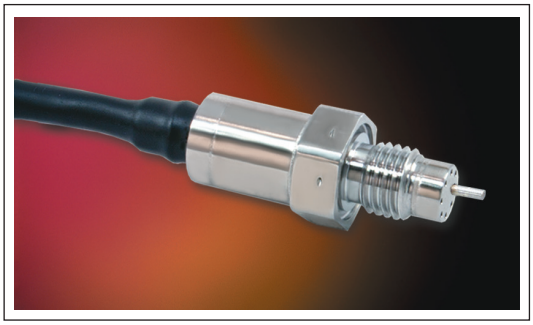
ULTRAMINIATURE 5V OUTPUT HIGH TEMPERATURE PRESSURE TRANSDUCER WITH INTEGRATED TEMPERATURE SENSOR

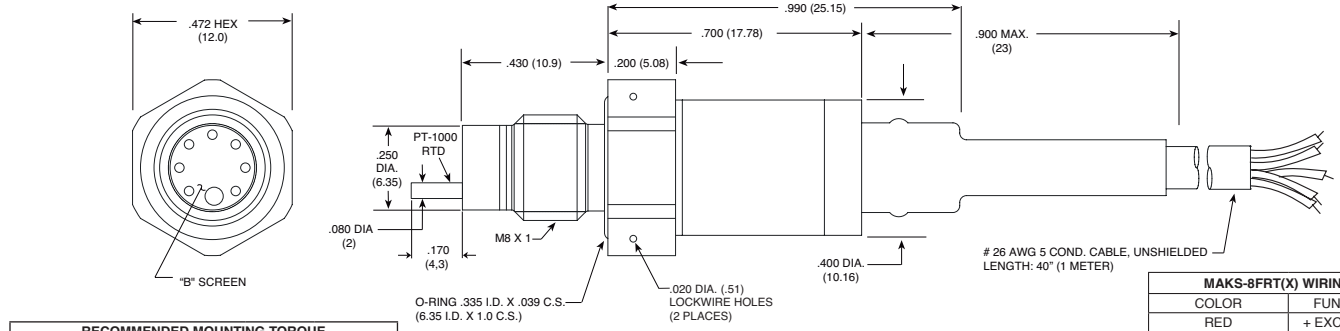
MAKS-8FRT(X)



- Smallest High Performance Amplified Transducer Worldwide
- High Temperature Electronics 392°F (200°C)
- Rugged Design Provides Compatibility With Most Conductive Media
- Patented Leadless Technology **VIS**®
- High Over Pressure Capability
- Adaptable For A Wide Variety Of Applications
- Designed and Engineered For Severe Environmental Conditions

The MAKS-8FRT(X) is one of the newest generation of Kulite's smallest miniature amplified transducers currently available. The sensing sub-assembly is protected from mechanical damage by a protective screen, which has been shown to have minimal influence on the frequency response of the sensor.

Incorporation of Kulite proprietary high temperature 392°F (200°C) electronics within the main body allows for operation from an unregulated power supply of 8 to 16VDC.



RECOMMENDED MOUNTING TORQUE		
PRESSURE	CALIBRATED TORQUE	
≤ 100 mBar (1.45 PSI)	4 Nm	35.40 in-lb
101 mBar to 12 Bar (1.46 to 174 PSI)	4 Nm	35.40 in-lb
12.1 Bar to 70 Bar (175 to 1000 PSI)	6 Nm	53.10 in-lb

(X) Denotes FSR and Residual Unbalance Options (A), (B), (C), (D) or (E).

MAKS-8FRT(X) WIRING	
COLOR	FUNCTION
RED	+ EXCITATION
BLACK	- EXCITATION
GREEN	+ SIGNAL
YELLOW OR WHITE	TEMP. OUT
BLUE	TEMP. OUT

INPUT	Pressure Range	1 15	5 73	10 145	15 218	70 BAR 1000 PSI
	Operational Mode	Absolute, Sealed Gage				
	Over Pressure	2 Times Rated Pressure < 35 BAR (508 PSI), 1.5 Times Rated Pressure ≥ 35 BAR (508 PSI)				
	Burst Pressure	3 Times Rated Pressure				
	Pressure Media	Most Conductive Liquids and Gases. Please Consult Factory (All Media May Not Be Suitable with O-Ring Supplied)				
	Rated Electrical Excitation	8 - 16 VDC				
	Maximum Electrical Current	10 mA (Max.)				
	RTD Excitation	0.3mA (1mA Max.)				
OUTPUT	RTD	1000 Ohms Platinum, DIN EN 60751 Tables, Class A (65% Response Time 3 Seconds Max.) in Liquid				
	Output Impedance	5 Ohms (Typ.)				
	Full Scale Reading (X)	4.5V ± 50 mV (A)	4.9V ± 50 mV (B)	4.9V ± 50 mV (C)	4.5V ± 50 mV (D)	4.75V ± 50 mV (E)
	Bandwidth (-3dB)	DC to 5 kHz				
	Residual Unbalance (X)	500 ± 50 mV (A)	350 ± 50 mV (B)	300 ± 50 mV (C)	150 ± 50 mV (D)	300 ± 50 mV (E)
	Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.25% FSO (Max.)				
	Resolution	Infinitesimal				
	Acceleration Sensitivity % FS/g Perpendicular	$6.5x10^{-4}$	$2.3x10^{-4}$	$1.4x10^{-4}$	$1.1x10^{-4}$	$3.6x10^{-5}$
	Insulation Resistance	> 100 Megohm Min. @ 50 VDC				
ENVIRONMENTAL	Operating Temperature Range	-4°F to +392°F (-20°C to +200°C)				
	Compensated Temperature Range	+68°F to +392°F (+20°C to +200°C)				
	Total Error Band (Excluding End Points)	± 1.5% FS/100°F ≤ 217.5 PSI (15 BAR), ± .75% FS/100°F ≥ 217.5 PSI (15 BAR)				
	Linear Vibration	20g Peak, Sine 10 to 2000 Hz				
	Mechanical Shock	20g Half Sine Wave 11 msec. Duration				
PHYSICAL	Electrical Connection	5 Conductor 26 AWG Cable 40" (1 Meter) Long				
	Weight	10 Grams (Max.) Excluding Cable				
	Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon Patented Leadless Technology				
	Mounting Torque	See Table				

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. Continuous (B) 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.*

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