Columbia Research Laboratories, Inc.

Integrated Accelerometer

Model 966

***Vibration & Shock**

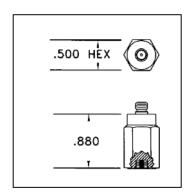
*Low Impedance Output

*Sensitivity 10 mV/g

*Low Base Strain Sensitivity

- ***Electrical Isolation**
- ***Hermetically Sealed**





Accessories Supplied:

- (1) Miniature Cable Assembly, LNHT-3 Ft.
- (1) 10-32 x 0.380"L Mounting Stud, St. Stl.
- (1) Hardwood Storage Case
- (1) Standard Calibration Data
- (1) Certificate of Calibration Traceable to N.I.S.T.

The Model 966 Piezoelectric Accelerometer is designed for the measurement of high frequency, moderate to high-level shock and vibration. It incorporates a hybrid electronic assembly within a rugged, welded, double-wall stainless steel body to enhance its operation in humid and dirty environments.

The sensor's double-wall, electrically isolated construction provides additional isolation from metallic structures, which aids in acquiring accurate, wideband shock and vibration data uncorrupted by electrical ground loop currents. The sensor module is bonded into the outer stainless steel body with a high temperature, glass-filled polymer insulator. Low impedance output of 100 ohms or less allows operation directly into standard readout equipment without auxiliary signal conditioning, and is capable of driving up to 500 feet of shielded cable. *Consult the factory for customized versions of this sensor.*

Specifications

Transfer / Electrical	966
Voltage Sensitivity ¹	10 mv/g +/-5%
Range	+/-500 g Peak
Frequency Linearity ²	+/-5% Max, 2 Hz To 10,000 Hz
	+/-3% Max, 5 Hz To 7,500 Hz
Mounted Resonant Frequency	40KHz, Min.
Transverse Sensitivity	3% Max, Typical
Amplitude Linearity	+/-1.0% (BFSL) / 250 g
Electrical Noise	0.04 g Equiv., Nom.
Avg Temp Coeff of Sensitivity	0.03% / Deg F
Output Bias Voltage	10.25 +/-1 VDC
Output Impedance	100 Ohms Max.
Isolation Resistance	100 M Ohm Min., 50 VDC
Power Requirements	2 To 10 mA DC Constant Current with 18 To 30 VDC Min Compliance
Environmental	
Vibration Limit	1,000 g Max (Sine)
Shock Limit	2,000 g Max., 50 uSec
Temperature Range	-40 To +250 Deg F (-40 To +121 Deg C)
Humidity ³	0 To 100% R.H.
Base Strain Sensitivity	0.02 g/uE Equiv, Typical
Electromagnetic Sensitivity	0.01 g (Equiv / 100 Gauss)
Acoustic Sensitivity	0.05 g RMS (Equiv @ 124 dB SPL)
Physical	
Configuration	Shear Crystal Mass Assembly
Size	0.500 In. Hex. x 0.880 In. H (12.7 mm Hex x 22.4 mm H)
Weight	0.6 Oz (17 Gm)
Case Material	18-8 Stainless Steel
Electrical Interface	Coaxial 10-32 Thread
Mounting	10-32 Tapped Base
NOTES:	

¹ At +75 Deg F, 10g Peak, 100Hz; Power Supply 2 To 10 mA DC Constant Current with 18 To 30 VDC Min. Compliance ² Referenced to Sensitivity @ 100 Hz.

³ Unit is Hermetic Sealed.

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