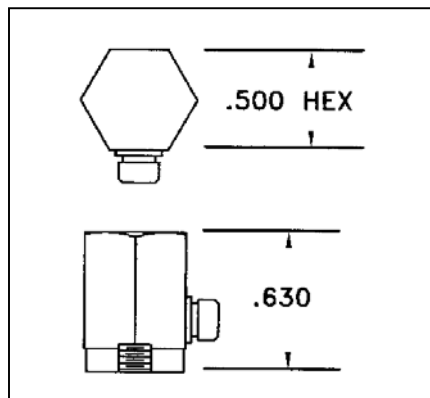


- *Vibration & Shock**
- *Low Impedance Output**
- *Sensitivity 10 mV/g**
- *High Frequency to 15KHz**
- *Case Grounded**

The Model 8412 Piezoelectric Accelerometer is a completely self-contained vibration measuring system having a built-in amplifier within the housing and offers wide frequency response. It is designed for the measurement of medium level, broadband frequency vibrations.

The Model 8412 incorporates a hybrid electronic assembly within a rugged, stainless steel body to enhance its operation in humid and dirty environments. Internal electrical damping limits the resonant Q to less than 30 dB. Signal ground is connected to the outer case of the unit. 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 1,000 feet of shielded cable. *Consult the factory for customized versions of this sensor.*



Specifications

Transfer / Electrical	8412
Voltage Sensitivity ¹	10 mv/g +/-5%
Range	+/-250 g Peak
Frequency Linearity ²	+/-5% Max, 5 Hz To 15,000 Hz
Mounted Resonant Frequency	55KHz, Nom.
Resonance Amplitude (Q)	30 dB, Max.
Transverse Sensitivity	5% Max, Typical
Amplitude Linearity	+/-1.0% (BFSL) / 250 g
Electrical Noise	5 x 10 ⁻³ g Equiv., Nom.
Avg Temp Coeff of Sensitivity	0.05% / Deg F
Output Bias Voltage	5.0 +/-1.25 VDC
Output Impedance	100 Ohms Max.
Isolation Resistance	0 (Case Grounded)
Power Requirements	2 To 10 mA DC Constant Current with 12 To 30 VDC Compliance

Environmental

Vibration Limit	1,000 g Max. (Sine)
Shock Limit	10,000 g Max., 0.01 mSec
Temperature Range	-40 To +250 Deg F (-40 To +121 Deg C)
Humidity ³	0 To 98% R.H. (Non-Condensing)
Base Strain Sensitivity	0.08 g/uE Equiv, Typical
Electromagnetic Sensitivity	0.001 g (Equiv / 100 Gauss)
Acoustic Sensitivity	0.001 g RMS (Equiv @ 150 dB SPL)

Physical

Configuration	Single-Ended Compression
Size	0.500 In. Hex. x 0.630 In. H (12.7 mm Hex x 16 mm H)
Weight	0.5 Oz (14 Gm)
Case Material	18-8 Stainless Steel
Electrical Interface	Coaxial 10-32 Thread
Mounting	10-32 Tapped Base

Accessories Supplied:

- (1) Low Noise Cable Assembly, LNHT-10 Ft.
- (1) #10-32 x 0.5"L Mounting Stud, 18-8 St. Stl.
- (1) Hardwood Storage Case
- (1) Standard Calibration Data
- (1) Certificate of Calibration Traceable to N.I.S.T.

NOTES:

¹ At +75 Deg F, 10g Peak, 100Hz; Power Supply 2 To 10 mA DC Constant Current with 12 To 30 VDC Compliance

² Referenced to Sensitivity @ 100 Hz.

³ With Connector Protected or Sealed, Unit is Epoxy Sealed.