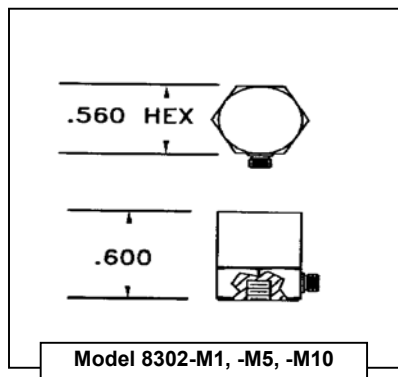
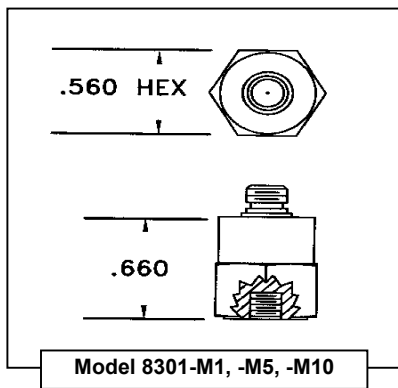


**Models 8301-M1, -M5, -M10
8302-M1, -M5, -M10**

- *Vibration & Shock
- *Low Impedance Output
- *Choice of Sensitivities
- *Low Base Strain Sensitivity
- *Top or Side Connector

The Models 8301 and 8302 Piezoelectric Accelerometers are completely self-contained vibration measuring systems having a built-in amplifier within the housing. These units are offered in a range of sensitivities for the measurement of low to medium level broadband frequency vibrations.

The Models 8301 and 8302 incorporate a ring-shear crystal mass assembly within a rugged, stainless steel body to provide an extremely reliable sensor that is virtually insensitive to environmental inputs such as base bending and thermal transients. Internal electrical damping limits the resonant Q to less than 30 dB. Signal ground is connected to the outer case of the units. Low impedance output of 100 ohms or less allows operation directly into standard readout equipment without auxiliary signal conditioning. *Consult the factory for customized versions of these sensors.*



Accessories Supplied:

- (1) Miniature 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.

Specifications

	8301-M1 8302-M1	8301-M5 8302-M5	8301-M10 8302-M10
Transfer / Electrical			
Voltage Sensitivity ¹	1 mv/g +/-5%	5 mv/g +/-5%	10 mv/g +/-5%
Range	+/-1,000 g Peak		+/-500 g Peak
Frequency Linearity ²	+/-5% Max, 2 Hz To 7,000 Hz		
Mounted Resonant Frequency	40KHz, Nom.		
Resonance Amplitude (Q)	30 dB, Max.		
Transverse Sensitivity	5% Max, Typical		
Amplitude Linearity	+/-1.0% (BFSL) / 250 g		
Electrical Noise	10 ⁻³ g Equiv., Nom.		
Avg Temp Coeff of Sensitivity	0.05% / Deg F		
Output Bias Voltage	10.0 +/-1.5 VDC		
Output Impedance	100 Ohms Max.		
Isolation Resistance	0 (Case Grounded)		
Power Requirements	3.0 mA DC Constant Current with 20 To 30 VDC Compliance		

Environmental

Vibration Limit	1,000 g Max. (Sine)
Shock Limit	5,000 g Max., 0.1 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	0.008 g/uE Equiv., Typical
Electromagnetic Sensitivity	0.001 g (Equiv / 100 Gauss)
Acoustic Sensitivity	0.001 g RMS (Equiv @ 150 dB SPL)

Physical

Configuration	Ring Shear
Size	
Model 8301-M1, -M5, -M10	0.560 In. Hex x 0.660 In. H (14.2 mm Hex x 16.8 mm H)
Model 8302-M1, -M5, -M10	0.560 In. Hex x 0.600 In. H (14.2 mm Hex x 15.2 mm H)
Weight	0.55 Oz (15.5 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 3.0 mA DC Constant Current with 20 To 30 VDC Compliance
- ² Referenced to Sensitivity @ 100 Hz.
- ³ With Connector Protected or Sealed, Unit is Epoxy Sealed.