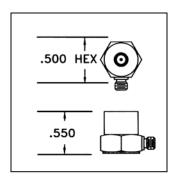
Columbia Research Laboratories, Inc.

General Purpose Accelerometers

Models 5001 & 5001-HT 5002 & 5002-HT

- ***Vibration & Shock**
- *Sensitivities 13 pC/g & 30 pC/g
- *Frequency Response to 10KHz
- *8-32 Removable Mounting Stud





Accessories Supplied:

- (1) Miniature Cable Assy., LNHT-10'
- (1) 8-32 x 0.375"L Mounting Stud, St Stl
- (1) Hardwood Storage Case
- (1) Standard Calibration Data
- (1) Certificate of Calibration Traceable to N.I.S.T.

The Models 5001 and 5002 Piezoelectric Accelerometers are smaller in size and lighter in weight than our standard size units providing higher natural frequency and shock levels. These units are offered in a choice of sensitivities for general vibration and shock work. With its high sensitivity, the Model 5001 is a good choice in applications where low levels of 1g or less may be encountered. The unique design of the piezoelectric seismic system ensures that the units have no discernible spurious response to mounting torque, body strains, cable vibration, cable whip, pressure variations and most heat transients.

The sensors' stainless steel housing provides an environmentally rugged unit, while the epoxy seal offers protection against industrial environments. Its grounded case construction provides tight mechanical coupling which yields accurate, wideband shock and vibration data. These accelerometers feature a 10-32 side connector and are provided with a 10' lownoise coaxial cable. High temperature units will operate in environments up to +500 Deg. F. Consult the factory for customized versions of these sensors.

Specifications

	5001 & 5001-HT	5002 & 5002-HT
Transfer / Electrical	0001 Q 0001-111	3002 Q 3002-111
Charge Sensitivity ¹	30 pC/g +/-10%	13 pC/g +/-10%
Capacitance	650 +/-50 pF	
Frequency Linearity ²	+/-5% Max	+/-5% Max
	2 Hz To 5,000 Hz	2 Hz To 10,000 Hz
Mounted Resonant Frequency	25 KHz, Nom.	50 KHz, Nom.
Transverse Sensitivity	5% Max	
Amplitude Linearity	+/-1.0% (BFSL) / 300g	+/-1.0% (BFSL) / 500g
Insulation Resistance	20,000 M Ohm Min, 50 VDC Test	
Isolation Resistance	0 (Case Grounded)	
Environmental		
Vibration Limit	1,000 g Max (Sine)	
Shock Limit	2,000 g Max	5,000 g Max
Temperature Range		
Models 5001 & 5002	-100 To +350 Deg F (-73 To +175 Deg C)	
Models 5001-HT & 5002-HT	-100 To +500 Deg F (-73 To +260 Deg C)	
Humidity	0 To 98% R.H. (Non-Condensing)	
Base Strain Sensitivity	0.05 g/uE Equiv, Typical	
Electromagnetic Sensitivity	0.01 g (Equiv / 100 Gauss)	
Physical		
Configuration	Single Ended Compression	
Size	0.500 In. Hex x 0.550 In. H (12.7 mm Hex x 12.7 mm H)	
Weight	0.56 Oz (16 Gm)	0.35 Oz (10 Gm)
Case Material	18-8 Stainless Steel	
Electrical Interface	Coaxial 10-32 Thread	
Mounting	8-32 Tapped Base	
NOTES:		

- ¹ At +75 Deg F, 10g Peak, 100Hz; Lower Frequency Limit is Determined by Associated Electronics
- ² Referenced to Sensitivity @ 100 Hz.
- ³ With Connector Protected or Sealed, Unit is Epoxy Sealed

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