

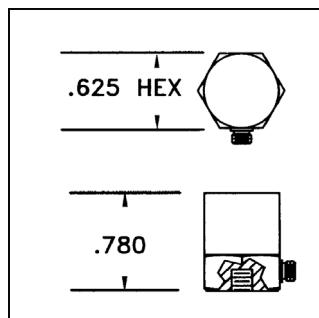
Columbia Research Laboratories, Inc. **General Purpose Accelerometers**

**Models 3021 & 3021-HT
3022 & 3022-HT
3023 & 3023-HT**

- *Vibration & Shock
- *Choice of Sensitivities
- *Side Connector
- *Case Grounded
- *10-32 Mounting Stud

The Models 3021, 3022 and 3023 Piezoelectric Accelerometers are offered in a choice of sensitivities for general vibration and shock work. The internal construction 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 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' low-noise coaxial cable. High temperature units will operate in environments up to +500 Deg. F. *Consult the factory for customized versions of these sensors.*



Specifications

Transfer / Electrical	3021 & 3021HT	3022 & 3022HT	3023 & 3023HT
Charge Sensitivity ¹	60 +/-10 pC/g	35 +/-5 pC/g	15 +/-3 pC/g
Capacitance	725 +/-60 pF	650 +/-60 pF	650 +/-60 pF
Frequency Linearity ²	+/-5% Max 1 Hz To 5,000 Hz	+/-5% Max 1 Hz To 7,000 Hz	+/-5% Max 1 Hz To 10,000 Hz
Mounted Resonant Frequency	25 KHz, Min.	35 KHz, Min.	50 KHz, Min.
Transverse Sensitivity	5% Max		
Amplitude Linearity	+/-1.0% (BFSL) / 300g	+/-1.0% (BFSL) / 1,000g	
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	10,000 g Max
Temperature Range	-100 To +350 Deg F (-73 To +175 Deg C)		
Models 3021, 3022, 3023	-100 To +350 Deg F (-73 To +175 Deg C)		
Models 3021HT 3022HT 3023HT	-100 To +500 Deg F (-73 To +260 Deg C)		
Humidity ³	0 To 95% R.H. (Non-Condensing)		
Base Strain Sensitivity	0.008 g/uE Equiv, Typical		
Electromagnetic Sensitivity	0.02 g (Equiv / 100 Gauss)		
Physical			
Configuration	Single Ended Compression		
Size	0.625 In. Hex. x 0.780 In. H (15.9 mm Hex x 19.8 mm H)		
Weight	1.1 Oz (30 Gm)	0.8 Oz (23 Gm)	0.7 Oz (21 Gm)
Case Material	18-8 Stainless Steel		
Electrical Interface	Coaxial 10-32 Thread		
Mounting	10-32 Tapped Base		

Accessories Supplied:

- (1) Miniature Cable Assy, LNHT-10'
- (1) 10-32 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.

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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