Columbia Research Laboratories, Inc.

General Purpose Accelerometer

Model 3051

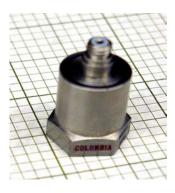
- ***Vibration & Shock**
- *Sensitivity 20 pC/g

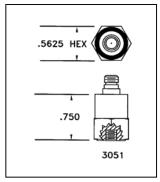
***Wide Frequency Response**

*High Temperature (+500 F)

***Electrical Isolation**

***Hermetically Sealed**





Accessories Supplied:

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

The Model 3051 Piezoelectric Accelerometer exhibits a nominal transfer sensitivity of 20 picoCoulombs/g. The moderate sensitivity, wide frequency response, and wide operating temperature range provides a device well suited to a broad range of low to medium level vibration measurement applications.

The mechanical isolation of the seismic elements from the mounting structure optimizes this unit for low frequency data measurements, while the glass-to-metal hermetic seal and the welded construction permits its use in the most adverse industrial environments. Ground is electrically isolated from the case for reduced noise pickup. The Model 3051 features a 10-32 top connector and is provided with a 10' low-noise coaxial cable. *Consult the factory for customized versions of this sensor.*

Specifications

Transfer / Electrical	3051
Charge Sensitivity ¹	20 +/-3 pC/g
Capacitance	600 +/-60 pF
Frequency Linearity ²	+/-5% Max
	2 Hz To 7,000 Hz
Mounted Resonant Frequency	35 KHz, Min.
Transverse Sensitivity	5% Max
Amplitude Linearity	+/-1.0% (BFSL) / 300 g
Insulation Resistance	20,000 M Ohm Min, 50 VDC Test
Isolation Resistance	100M Ohm Minimum
Environmental	
Vibration Limit	1,000 g Max (Sine)
Shock Limit	10,000 g Max
Temperature Range	-65 To +500 Deg F (-54 To +260 Deg C)
Humidity ³	0 To 100% R.H.
Base Strain Sensitivity	0.008 g/uE Equiv, Typical
Electromagnetic Sensitivity	0.02 g (Equiv / 100 Gauss)
Physical	
Configuration	Single-Ended Compression
Size	0.5625 In. Hex x 0.750 In. H (14.3 mm Hex x 19.0 mm H)
Weight	0.74 Oz (21 Gm)
Case Material	18-8 Stainless Steel
Electrical Interface	Coaxial 10-32 Thread
Mounting	10-32 UNF Removable Stud
NOTES:	

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 Hermetically Sealed

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