Columbia Research Laboratories, Inc.

General Purpose Accelerometer

Model 3051

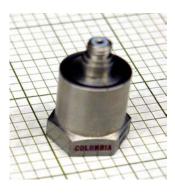
- ***Vibration & Shock**
- *Sensitivity 20 pC/g

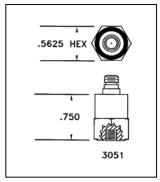
***Wide Frequency Response**

*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

Columbia Research Laboratories, Inc. 1925 Mac Dade Blvd. Woodlyn, PA 19094 Phone: 1.800.813.8471 / Fax: 610.872.3882 / email: sales@columbiaresearchlab.com