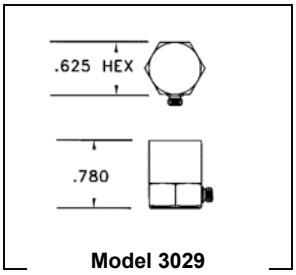
Columbia Research Laboratories, Inc.

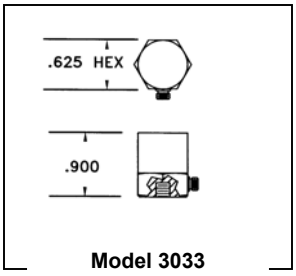
General Purpose Accelerometers

Models 3029 & 3029-HT
3033 & 3033-HT

- *Vibration & Shock
- *High Capacitance (100 pC/g)
- *Needs No Amplifier
- *Epoxy or Hermetic Seal
- *10-32 Mounting



Model 3029



Model 3033

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) Manufacturers Certificate of Compliance

The Models 3029 and 3033 piezoelectric accelerometers exhibit a nominal transfer sensitivity of 100 picoCoulombs/g and may be used without auxiliary signal conditioning to provide an economical and reliable means of vibration measurement. 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 Model 3029 is epoxy sealed, and the Model 3033 is hermetically sealed to provide maximum protection against high humidity environments. Signal ground is connected to the outer case of the unit. Both units 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

	3029 & 3029-HT	3033 & 3033-HT
Transfer / Electrical		
Charge Sensitivity[1]	100 +/-10 pC/g	
Capacitance	8500 +/-100 pF	
Frequency Linearity[2]	+/-5% Max 2 Hz To 6,000 Hz	
Mounted Resonant Frequency	30 KHz, Nom.	
Transverse Sensitivity	5% Max	
Amplitude Linearity	+/-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	1,000 g Max	
Temperature Range Models 3029 & 3033 Models 3029-HT & 3033-HT	 -100 To +350 Deg F (-73 To +175 Deg C) -100 To +500 Deg F (-73 To +260 Deg C)	
Humidity	0 To 98% R.H. (Non-Condensing)	0 To 100% R.H.
Base Strain Sensitivity	0.003 g/uE Equiv, Typical	
Electromagnetic Sensitivity	0.01 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	0.625 In. Hex x 0.900 In. H 15.9 mm Hex x 22.9 mm H
Weight	1.11 Oz (31.5 Gm)	1.13 Oz (32 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; Lower Frequency Limit is Determined by Associated Electronics
[2] Referenced to Sensitivity @ 100 Hz.

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