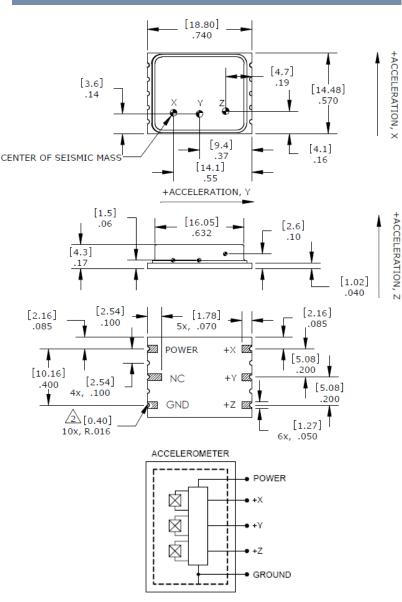
Triaxial Piezoelectric Accelerometer <4µA Current Consumption Full Signal and Power Conditioning Circuit Board Mountable



measurem

The Model 832 is a low cost, board mountable triaxial accelerometer. Featuring stable piezo-ceramic crystals, the accelerometer incorporates full power and signal conditioning with a maximum current consumption of 4 micro-amps. The model 832 is available in ±25g to ±500g ranges and provides a flat frequency response up to 2kHz. The model 832M1 provides an extended frequency range to 6kHz.

dimensions



FEATURES

- ±25g to ±500g Dynamic Range
- Low Cost Triaxial
- Hermetically Sealed
- Piezo-ceramic Crystals
- -20° to +80°C Operating Range
- -40° to +125°C Available on 832M1
- Single Axis Configurations Available

APPLICATIONS

- Asset Monitoring
- Data Loggers
- Impact Monitoring
- Machine Health Monitoring
- System Wake-Up Switch
- Embedded Applications



Model 832 Accelerometer

performance specifications

All values are typical at +24°C, 100Hz and 3.3Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1001 for Embedded AC Accelerometers.

Parameters DYNAMIC Range (g) Sensitivity (mV/g) Frequency Response (Hz) ¹ Natural Frequency (Hz) Non-Linearity (%FSO) Transverse Sensitivity (%) Shock Limit (g)	±25 50.0 2-2000 >10000 ±2 <10 5000	±50 25.0 2-2000 >10000 ±2 <10 5000	±100 12.5 2-2000 >10000 ±2 <10 5000	±200 6.25 2-2000 >10000 ±2 <10 5000	±500 2.5 2-2000 >10000 ±2 <10 5000	Notes ±30% ±2dB
ELECTRICAL Bias Voltage (Vdc) Total Supply Current (μ A) Excitation Voltage (Vdc) ³ Output Impedance (Ω) Insulation Resistance ($M\Omega$) Broadband Noise (μ V) Spectral Noise (μ g/ \sqrt{Hz}) Spectral Noise (μ g/ \sqrt{Hz}) Spectral Noise (μ g/ \sqrt{Hz}) Warm-Up Time (msec) Shielding Ground Isolation	Exc Voltage / 2 <4 3.3 to 5.5 <100 >100 300 120 80 40 30 100% Isolated from Mo	Exc Voltage / 2 <4 3.3 to 5.5 <100 >100 210 120 80 40	Exc Voltage / 2 <4 3.3 to 5.5 <100 >100 160 120 80 40	Exc Voltage / 2 <4 3.3 to 5.5 <100 >100 150 120 80 40	Exc Voltage / 2 <4 3.3 to 5.5 <100 >100 160 400 320 160	@100Vdc 2Hz-10kHz @ 10Hz @ 100Hz @ 1000Hz
ENVIRONMENTAL Temperature Response (%) Operating Temperature (°C) Storage Temperature (°C)	-10/+20 from -20°C to +80°C -20 to +80 -20 to +80					
PHYSICAL Sensing Element Case Material Weight (grams)	Ceramic (shear mode) Ceramic Base, Nickel Silver Cover 3.6					
¹ A wider frequency response of 2-6000Hz is available on model 832M1 ² The model 832 is not to be reflow soldered at high temperature, manual soldering is recommended. See application note.						

² The model 832 is not to be reflow soldered at high temperature, manual soldering is recommended. See application note.

³ The model 832 can be operated with 2.8V excitation but the full-scale range will be limited.

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 100Hz

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ordering info

PART NUMBERING Model Number+Range

832-GGGG

. I_____ Range (0200 is 200g)

Example: 832-0200 Model 832, 200g