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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Model 832 Accelerometer



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



**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  $\pm 25g$  to  $\pm 500g$  ranges and provides a flat frequency response up to 2kHz. The model 832M1 provides an extended frequency range to 6kHz.

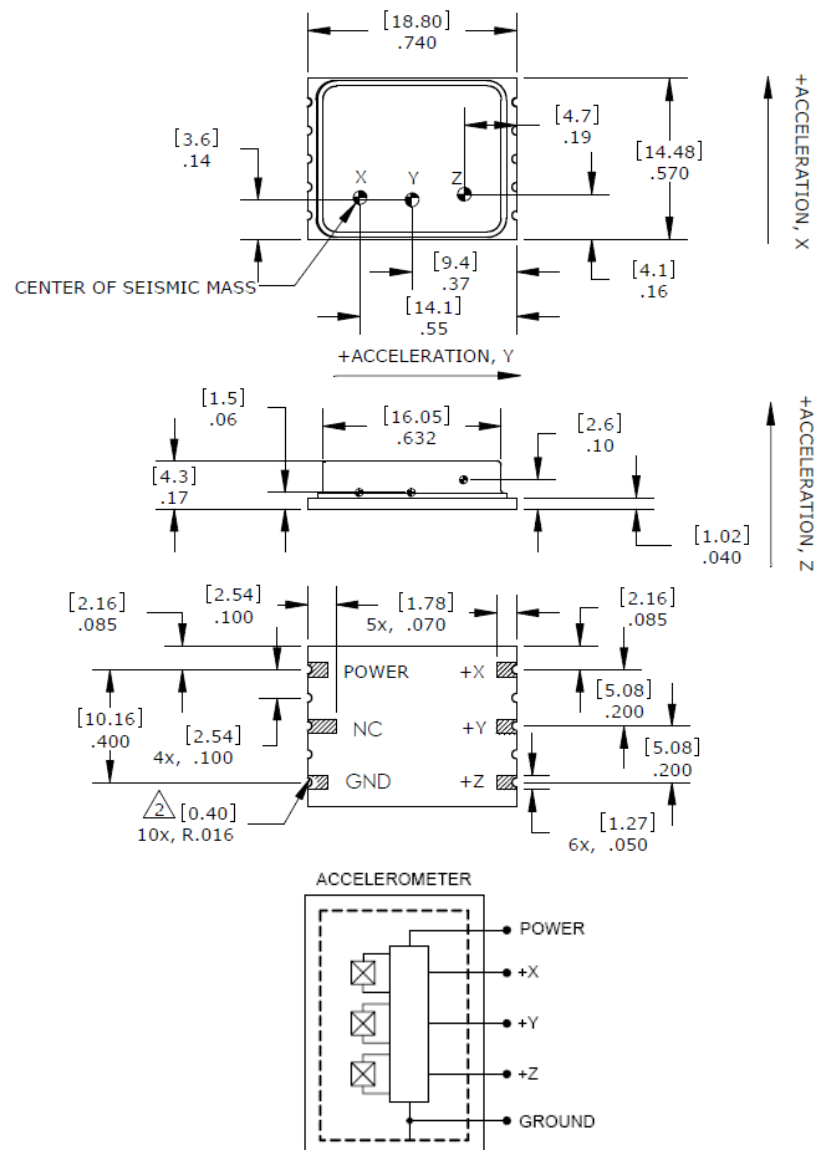
## FEATURES

- $\pm 25g$  to  $\pm 500g$  Dynamic Range
- Low Cost Triaxial
- Hermetically Sealed
- Piezo-ceramic Crystals
- $-20^{\circ}$  to  $+80^{\circ}\text{C}$  Operating Range
- $-40^{\circ}$  to  $+125^{\circ}\text{C}$  Available on 832M1
- Single Axis Configurations Available

## APPLICATIONS

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

## dimensions



# 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						Notes
<b>DYNAMIC</b>						
Range (g)	±25	±50	±100	±200	±500	
Sensitivity (mV/g)	50.0	25.0	12.5	6.25	2.5	±30%
Frequency Response (Hz) <sup>1</sup>	2-2000	2-2000	2-2000	2-2000	2-2000	±2dB
Natural Frequency (Hz)	>10000	>10000	>10000	>10000	>10000	
Non-Linearity (%FSO)	±2	±2	±2	±2	±2	
Transverse Sensitivity (%)	<10	<10	<10	<10	<10	
Shock Limit (g)	5000	5000	5000	5000	5000	
<b>ELECTRICAL</b>						
Bias Voltage (Vdc)	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	Exc Voltage / 2	
Total Supply Current (µA)	<4	<4	<4	<4	<4	
Excitation Voltage (Vdc) <sup>3</sup>	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	3.3 to 5.5	
Output Impedance (Ω)	<100	<100	<100	<100	<100	
Insulation Resistance (MΩ)	>100	>100	>100	>100	>100	@100Vdc
Broadband Noise (µV)	300	210	160	150	160	2Hz-10kHz
Spectral Noise (µg/√Hz)	120	120	120	120	400	@ 10Hz
Spectral Noise (µg/√Hz)	80	80	80	80	320	@ 100Hz
Spectral Noise (µg/√Hz)	40	40	40	40	160	@ 1000Hz
Warm-Up Time (msec)	30					
Shielding	100%					
Ground Isolation	Isolated from Mounting Surface					
<b>ENVIRONMENTAL</b>						
Temperature Response (%)	-10/+20 from -20°C to +80°C					
Operating Temperature (°C)	-20 to +80					
Storage Temperature (°C)	-20 to +80					
<b>PHYSICAL</b>						
Sensing Element	Ceramic (shear mode)					
Case Material	Ceramic Base, Nickel Silver Cover					
Weight (grams)	3.6					

<sup>1</sup> A wider frequency response of 2-6000Hz is available on model 832M1

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

<sup>3</sup> 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  
|  
| \_\_\_\_\_ Range (0200 is 200g)

Example: 832-0200  
Model 832, 200g