

## MODEL 832M1 ACCELEROMETER



### SPECIFICATIONS

- ◆ Triaxial Piezoelectric Accelerometer
- ◆ <math><22\mu\text{A}</math> Current Consumption
- ◆ Wide Bandwidth to 6kHz
- ◆ Circuit Board Mountable

The **Model 832M1** 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 22 micro-amps. The **model 832M1** is available in  $\pm 25\text{g}$  to  $\pm 500\text{g}$  ranges and provides a flat frequency response up to greater than 6kHz. The standard model 832 offers the same envelope with a lower maximum current consumption of 4 micro-amps.

### FEATURES

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

### APPLICATIONS

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

**PERFORMANCE SPECIFICATIONS**

All values are typical at +24°C, 80Hz and 3.3Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

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)	2-6000	2-6000	2-6000	2-6000	2-6000	±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	
Broadband Noise (µV)	110	90	50	40	50	2Hz-10kHz
Spectral Noise (µg/√Hz)	120	160	160	160	600	@ 10Hz
Spectral Noise (µg/√Hz)	40	40	40	40	160	@ 100Hz
Spectral Noise (µg/√Hz)	20	16	16	16	80	@ 1000Hz
<b>ELECTRICAL</b>						
Bias Voltage (Vdc)	Exc Voltage / 2					
Total Supply Current (µA) <sup>1</sup>	<22					
Excitation Voltage (Vdc) <sup>3</sup>	3.3 to 5.5					
Output Impedance (Ω)	<100					
Insulation Resistance (MΩ)	>50					@100Vdc
Warm-Up Time (msec)	30					
Shielding	100%					
Ground Isolation	Isolated from Mounting Surface					
<b>ENVIRONMENTAL</b>						
Temperature Response (%)	-20/+30 from -40°C to +125°C					
Operating Temperature (°C)	-40 to +125					
Storage Temperature (°C)	-40 to +125					
<b>PHYSICAL</b>						
Sensing Element	Ceramic (shear mode)					
Case Material	Ceramic Base, Nickel Silver Cover					
Weight (grams)	3.0					

<sup>1</sup> A lower current consumption of 4 micro-amperes is available on model 832.

<sup>2</sup> The model 832M1 is not to be reflow soldered at high temperature, manual soldering is recommended. See operating manual.

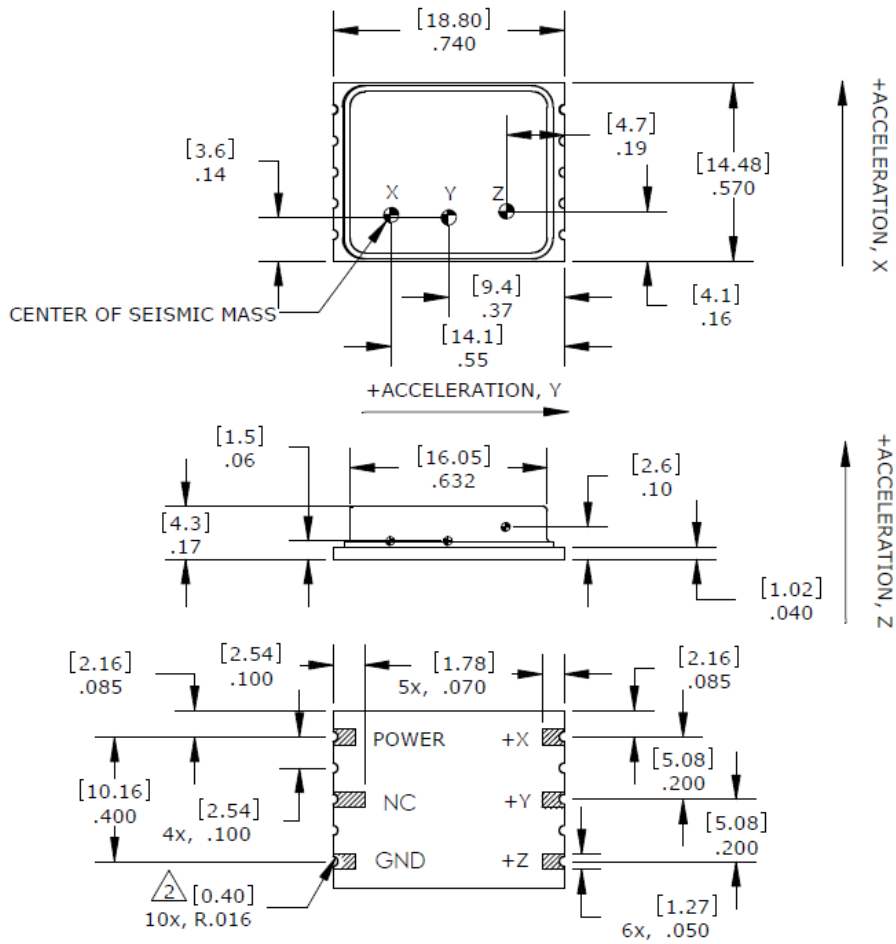
<sup>3</sup> The model 832M1 can be operated with 2.8V excitation but the full-scale range will be limited. See operating manual for details.

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

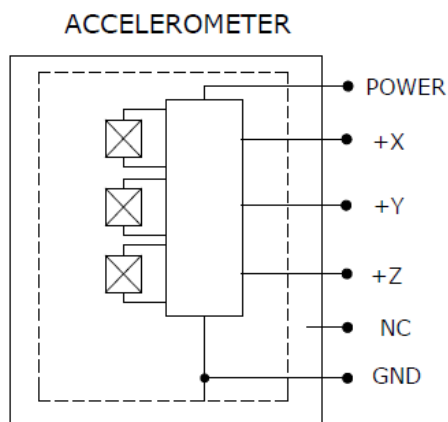
The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. TE Connectivity reserves the right to make changes without further notice to any product herein. TE Connectivity makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does TE Connectivity assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. TE Connectivity does not convey any license under its patent rights nor the rights of others.

# MODEL 832M1 ACCELEROMETER

## DIMENSIONS



## SCHEMATIC



## ORDERING INFORMATION

832M1

GGGG

**Range**

0025=25g

0050=50g

0100=100g

0200=200g

0500=500g

Example;

832M1-0500

Model 832M1, 500g range

### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: 800-522-6752  
[customercare.hmp@te.com](mailto:customercare.hmp@te.com)

### EUROPE

MEAS France SAS  
a TE Connectivity Company  
Tel: +31 73 624 6999  
[customercare.lcsb@te.com](mailto:customercare.lcsb@te.com)

### ASIA

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Tel: 0400-820-6015  
[customercare.shzn@te.com](mailto:customercare.shzn@te.com)

### [TE.com/sensorsolutions](http://TE.com/sensorsolutions)

MEAS France SAS and Measurement Specialties (China), Inc., are TE Connectivity companies.

TE Connectivity, TE, TE connectivity (logo) are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2017 TE Connectivity Ltd. All Rights Reserved.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Accelerometers](#) category:*

*Click to view products by [TE Connectivity](#) manufacturer:*

Other Similar products are found below :

[AD22372Z-RL7](#) [ADXL313WACPZ-RL](#) [805M1-0050-01](#) [MXC6655XA](#) [MMA7455LT](#) [805M1-0200-01](#) [810M1-0025X](#) [832M1-0200](#)  
[AIS328DQTR](#) [832M1-0050](#) [805-0050](#) [AD22301](#) [BMA253](#) [ADXL354BEZ](#) [SCA620-EF8H1A-1](#) [MC3413](#) [MXC6244AU](#) [3038-0500](#) [ACH-](#)  
[01-04/10](#) [4692](#) [ADXL372BCCZ-RL7](#) [735T](#) [787-500](#) [787AM8](#) [793-6](#) [793L](#) [997-M4](#) [HV101](#) [HV102](#) [HV200](#) [PC420AR-10](#) [PC420VP-50](#)  
[PC420VR-10](#) [786A](#) [786A-IS](#) [787A](#) [787A-IS](#) [HT786A](#) [HT787A](#) [PC420VP-10](#) [ADCMXL1021-1BMLZ](#) [ADIS16003CCCZ](#)  
[ADIS16006CCCZ](#) [ADIS16228CMLZ](#) [ADXL700WBRWZ-RL](#) [ADXL1003BCPZ](#) [ADXL103CE-REEL](#) [ADXL203CE-REEL](#) [ADXL206HDZ](#)  
[ADXL213AE](#)