





MODEL 834M1 ACCELEROMETER

SPECIFICATIONS

- Triaxial Piezoelectric Accelerometer
- ◆ <22µA Current Consumption
- Wide Bandwidth to 6kHz
- Circuit Board Mountable

The Model 834M1 is a low cost, board mountable triaxial accelerometer designed for high amplitude embedded shock applications. The accelerometer features a maximum current consumption of 22 micro-amps and incorporates full power and signal conditioning.

The model 834M1 is available in ±2000g to ±6000g ranges and provides a flat frequency response up to greater than 6kHz. The standard model 834 offers the same envelope with a lower maximum current consumption of 4 micro-amps.

FEATURES

- ±2000g to ±6000g Dynamic Range
- Low Cost Triaxial
- Hermetically Sealed
- Piezo-ceramic Crystals
- 40° to +125°C Operating Range
- Single Axis Configurations Available

APPLICATIONS

- Asset Monitoring
- Impact Testing
- System Wake-Up Switch
- Embedded Applications
- Instrumentation

PERFORMANCE SPECIFICATIONS

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

Parameters			
DYNAMIC			Notes
Range (g)	±2000	±6000	
Sensitivity (mV/g)	0.62	0.20	±30%
Frequency Response (Hz)	2-6000	2-6000	±2dB
Natural Frequency (Hz)	>30000	>30000	
Non-Linearity (%FSO)	±2	<u>+2</u>	
Transverse Sensitivity (%)	<8	<8	
Shock Limit (g)	10000	10000	
Broadband Noise (μV)	40	30	0.1Hz-10kHz
Spectral Noise (mg/√Hz)	3.2	4.0	@ 10Hz
Spectral Noise (mg/√Hz)	0.6	1.0	@ 100Hz
Spectral Noise (mg/√Hz)	0.2	0.5	@ 1000Hz
EL ECTRICAL			
ELECTRICAL	E 1/ 11 / 0		
Bias Voltage (Vdc)	Exc Voltage / 2		
Total Supply Current (μA) ¹	<22		
Excitation Voltage (Vdc)	3.3 to 5.5		
Output Impedance (Ω)	<100		0
Insulation Resistance (MΩ)	>50		@100Vdc

Ground Isolation

ENVIRONMENTAL

Temperature Response (%) -20/+30 from -40°C to +125°C

100%

Operating Temperature (°C) -40 to +125 Storage Temperature (°C) -40 to +125

Humidity Hermetically Solder Sealed

PHYSICAL

Shielding

Sensing Element Ceramic (shear mode)

Case Material Ceramic Base, Nickel Silver Cover

Weight (grams) 2.6

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

Isolated from Mounting Surface

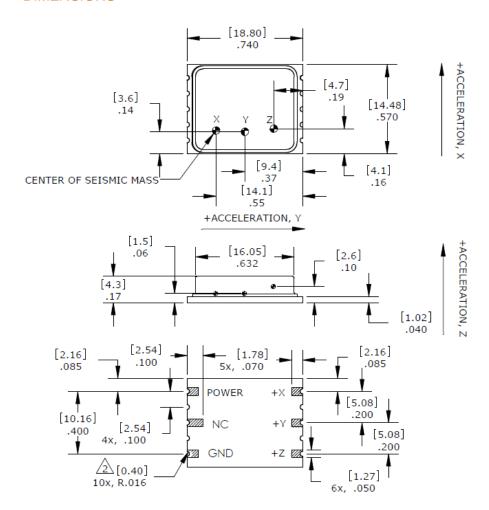
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¹ A lower current consumption of 4 micro-amps is available on model 834.

² The model 834M1 is not to be reflow soldered at high temperature, manual soldering is recommended. See operating manual.

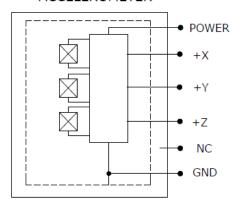
³ The model 834M1 can be operated with 2.8V excitation but the full-scale range will be limited. See operating manual for details.

DIMENSIONS



SCHEMATIC

ACCELEROMETER



ORDERING INFORMATION

834M1 GGGG

Range
2000=2000g
6000=6000g

Example; 834M1-6000 Model 834M1, 6000g range

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