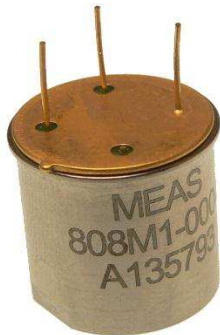


# MODEL 808M1 ACCELEROMETER

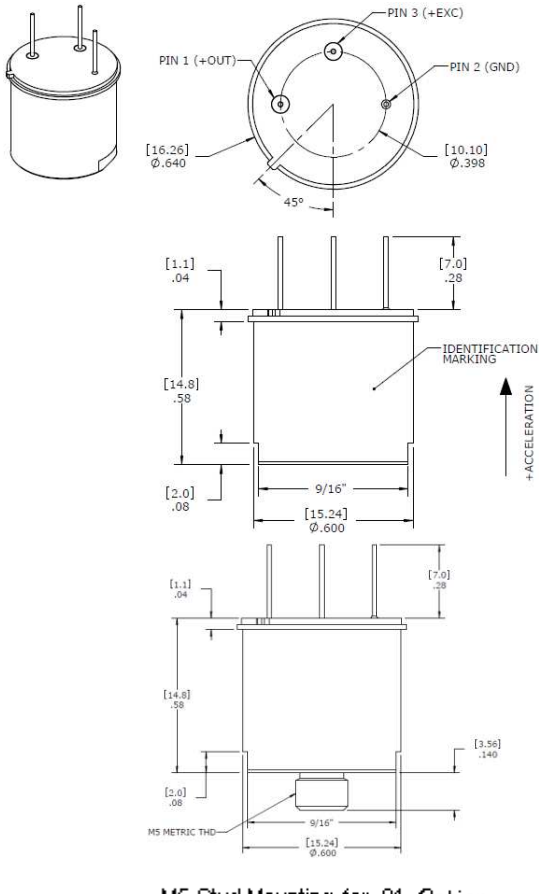


## SPECIFICATIONS

- TO-8 Series Accelerometer
- 3-Wire Voltage Output
- Low-Cost, Embedded Applications
- <math><0.80\text{mA}</math> Power Consumption

The **Model 808M1** is a miniature adhesive mount voltage output accelerometer built on a 3-pin TO-8 header. It is available in  $\pm 4g$  and  $\pm 20g$  dynamic ranges and offers a flat frequency response to 5kHz. The accelerometer features a hermetic construction in a TO-8 header configuration. The model 808M1 incorporates a stable piezo-ceramic crystal with low power electronics in a 100% shielded housing suitable for many embedded OEM applications. The accelerometer is offered in two configurations; one for adhesive mounting and one for stud mounting.

## DIMENSIONS

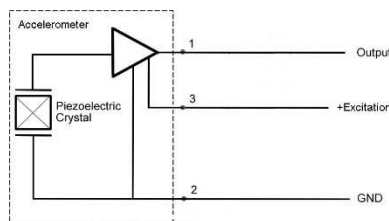


## FEATURES

- $\pm 4g$  and  $\pm 20g$  Range
- Wide bandwidth up to 5kHz
- TO-8 Configuration
- Hermetically Sealed
- $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  Operating Range
- Case Grounded Design
- 3.0-5.5 Excitation Voltage

## APPLICATIONS

- Machine Monitoring
- Low-Cost OEM Installation
- Permanent Structural Study
- Embedded Sensing Solution
- Data Loggers



**PERFORMANCE SPECIFICATIONS**

All values are typical at +24°C, 80Hz and 5Vdc 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**

			<b>Notes</b>
Range (g)	±4	±20	
Sensitivity (mV/g)	500	100	±10%
Frequency Response (Hz)	1-3000	1-3000	±1dB
Frequency Response (Hz)	0.4-5000	0.4-5000	±3dB
Natural Frequency (Hz)	18000	18000	
Non-Linearity (%FSO)	±1	±1	
Transverse Sensitivity (%)	5	5	
Shock Limit (g)	5000	5000	
Residual Noise (g RMS)	0.0006	0.0008	Broadband 1Hz to 10kHz

**ELECTRICAL**

Bias Voltage (Vdc)	Exc Voltage / 2		
Total Supply Current (mA)	<0.80		
Excitation Voltage (Vdc) <sup>1</sup>	3.0 to 5.5		
Output Impedance (Ω)	<100		
Insulation Resistance (MΩ)	>100		@50Vdc
Full Scale Output Voltage (V)	±2		
Grounding	Case grounded to mounting surface		

**ENVIRONMENTAL**

Temperature Response (%)	±10
Operating Temperature (°C)	-40 to +100
Storage Temperature (°C)	-54 to +125

**PHYSICAL**

Sensing Element	Piezo-Ceramic, Shear Mode
Case Material	Stainless Steel
Weight (grams)	20
Mounting	Adhesive or Circuit Board (M5 Stud Mounting for -01 Option)

<sup>1</sup> The model 808M1 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 80Hz

**Wiring color code:** See schematic

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**ORDERING INFORMATION**

PART NUMBERING Model Number+Range

808M1-GGGG-XX

| | | | | Optional Stud Dash Number  
| | | | | Range (0020 is 20g)

Dash Number  
-01

Stud Options  
M5 x 0.8

Example: 808M1-0020  
Model 808M1, 20g

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