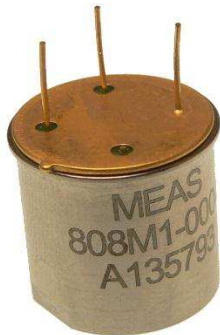


MODEL 808 ACCELEROMETER



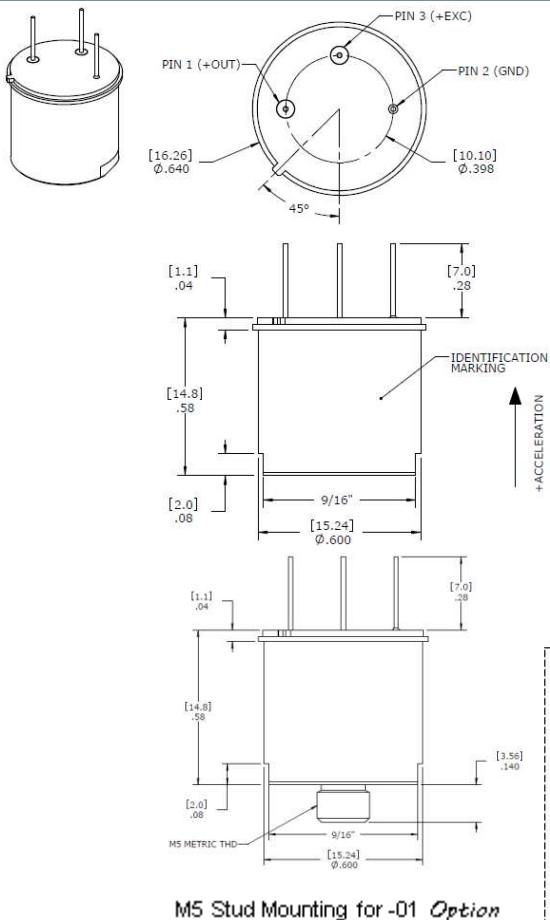
SPECIFICATIONS

- ◆ TO-8 Series Accelerometer
- ◆ 2-Wire IEPE Interface
- ◆ Low-Cost, Embedded Applications
- ◆ Wide Bandwidth to 6kHz

The **Model 808** is a miniature adhesive mount IEPE accelerometer built on a 3-pin TO-8 header. It is available in $\pm 10g$ and $\pm 50g$ dynamic ranges and offers a flat frequency response to 6kHz. The accelerometer features a hermetic construction in a TO-8 header configuration.

The **model 808** incorporates a stable piezoceramic crystal and an integrated charge converter amplifier 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

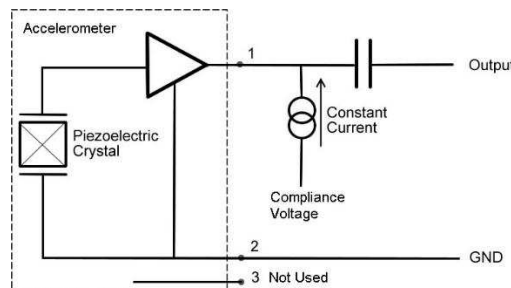


FEATURES

- ◆ $\pm 10g$ and $\pm 50g$ Range
- ◆ Wide bandwidth up to 6kHz
- ◆ TO-8 Configuration
- ◆ Hermetically Sealed
- ◆ -40°C to $+100^\circ\text{C}$ Operating Range
- ◆ Case Grounded Design

APPLICATIONS

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



PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 4mA 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) | ±10 | ±50 | Notes ±10% (see Note 1 for ±5% option) ±1dB ±3dB Broadband 1Hz to 10kHz |
| Sensitivity (mV/g) | 500 | 100 | |
| Frequency Response (Hz) | 1-3000 | 2-4000 | |
| Frequency Response (Hz) | 0.3-5000 | 0.3-6000 | |
| Natural Frequency (Hz) | 18000 | 24000 | |
| Non-Linearity (%FSO) | ±1 | ±1 | |
| Transverse Sensitivity (%) | 5 | 5 | |
| Shock Limit (g) | 5000 | 5000 | |
| Residual Noise (g RMS) | 0.0008 | 0.001 | |

ELECTRICAL

| | | |
|-------------------------------|-----------------------------------|---|
| Compliance Voltage (Vdc) | 18 to 30 | Notes Room Temperature -40 to +100°C |
| Excitation Current (mA) | 2 to 10 | |
| Bias Voltage (Vdc) | 8 to 12 | |
| Bias Voltage (Vdc) | 6 to 13 | |
| Output Impedance (Ω) | <100 | |
| Full Scale Output Voltage (V) | ±5 | |
| Grounding | Case grounded to mounting surface | |

ENVIRONMENTAL

| | | |
|----------------------------|-------------|---|
| Temperature Response (%) | ±10 | Notes +125°C option, see Note 2 |
| 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 (for 10g range), 16 (for 50g range) |
| Mounting | Adhesive or Circuit Board (M5 Stud Mounting for -01 Option) |

¹ Contact factory for model number to order with ±5% sensitivity tolerance

² Contact factory for model number to order with +125°C operating temperature

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

Wiring color code: See schematic

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