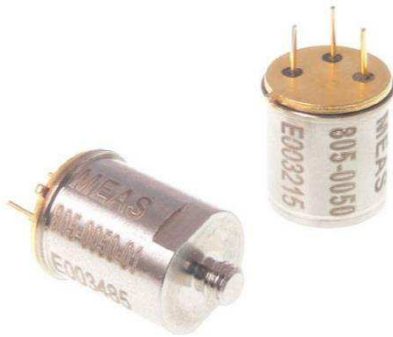


MODEL 805 ACCELEROMETER



SPECIFICATIONS

- **TO-5 Series Accelerometer**
- **2-Wire IEPE Interface**
- **Low-Cost, Embedded Applications**
- **Wide Bandwidth to 12kHz**

The **Model 805** is a miniature adhesive mount IEPE accelerometer built on a 3-pin TO-5 header. It is available in $\pm 50g$ to $\pm 500g$ dynamic ranges and offers a flat frequency response to 12kHz. The accelerometer features a hermetic construction in a TO-5 header configuration. The model 805 incorporates a stable piezo-ceramic crystal and an integrated charge converter amplifier in a 100% shielded housing suitable for many embedded OEM applications.

The model 805 accelerometer is offered in two configurations; one for adhesive mounting and one for stud mounting. An isolating cover option is also included for the standard model.

FEATURES

- $\pm 50g$ to $\pm 500g$ Range
- Wide bandwidth up to 12kHz
- TO-5 Configuration
- Hermetically Sealed
- -40°C to $+100^{\circ}\text{C}$ Operating Range
- Case Grounded Design

APPLICATIONS

- Machine Monitoring
- Embedded Preventive Maintenance
- 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. TE Connectivity reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

| | | | | |
|----------------------------|-----------|-----------|-----------|----------------------------------|
| | | | | Notes |
| Range (g) | ±50 | ±100 | ±500 | |
| Sensitivity (mV/g) | 100 | 50 | 10 | ±10% (see Note 1 for ±5% option) |
| Frequency Response (Hz) | 1-8000 | 1-8000 | 1-8000 | ±1dB |
| Frequency Response (Hz) | 0.3-10000 | 0.3-10000 | 0.3-12000 | ±3dB |
| Natural Frequency (Hz) | 34000 | 34000 | 34000 | |
| Non-Linearity (%FSO) | ±1 | ±1 | ±1 | |
| Transverse Sensitivity (%) | 5 | 5 | 5 | |
| Shock Limit (g) | 5000 | 5000 | 5000 | |
| Residual Noise (g RMS) | 0.0004 | 0.0005 | 0.0009 | Broadband 1Hz to 10kHz |

ELECTRICAL

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

ENVIRONMENTAL

| | | | | |
|----------------------------|-------------|--|--|---------------------------|
| Temperature Response (%) | ±10 | | | |
| Operating Temperature (°C) | -40 to +100 | | | +120°C option, see Note 2 |
| Storage Temperature (°C) | -54 to +125 | | | |

PHYSICAL

| | |
|-----------------|---|
| Sensing Element | Piezo-Ceramic |
| Case Material | Stainless Steel |
| Weight (grams) | 5.0 |
| Mounting | Adhesive or Circuit Board (M3 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 +120°C operating temperature

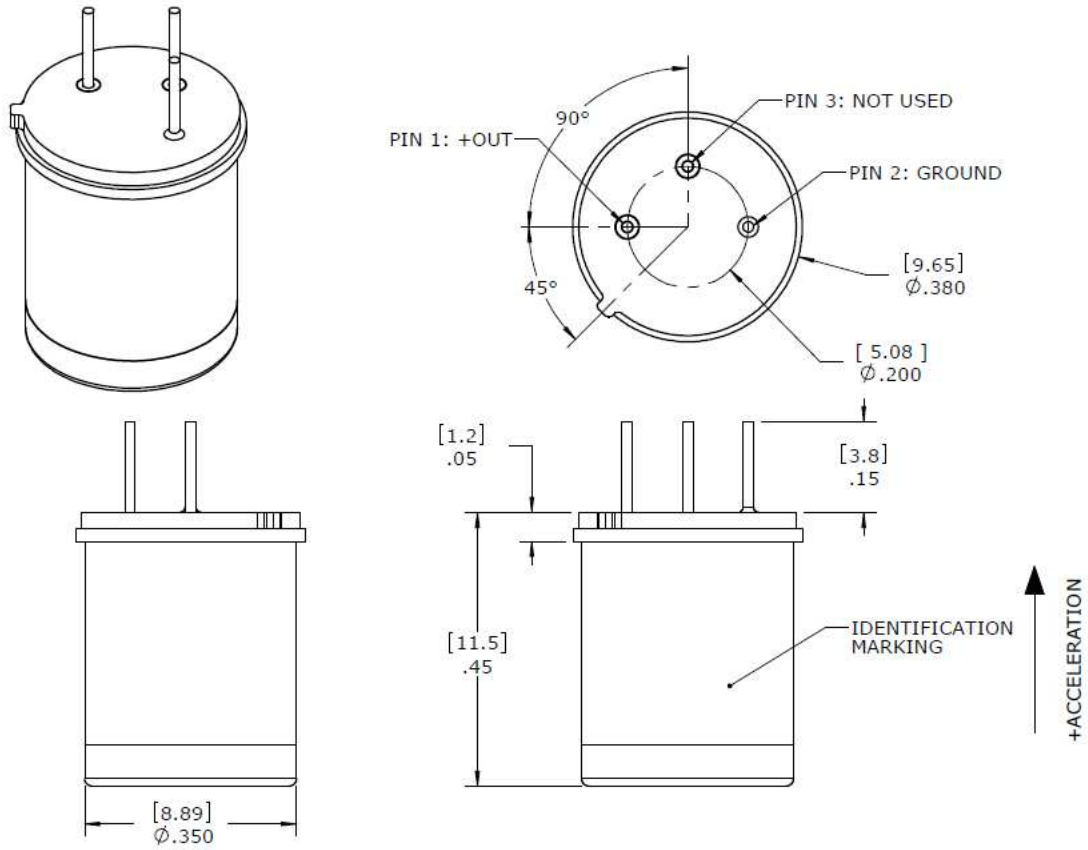
Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

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MODEL 805 ACCELEROMETER

DIMENSIONS

Standard Model 805



Model 805 with M3 Mounting Stud Option



MODEL 805 ACCELEROMETER

SCHEMATIC



ORDERING INFORMATION

| | | |
|---|-------------|-----------|
| 805 | GGGG | XX |
| Range 0050=50g 0100=100g 0500=500g | | |
| Options 01=M3 x 0.5 Mounting Stud 02=Standard 805 unit with Isolating Mounting Cover Installed | | |



Isolating Cover Option

Examples;
805-0050
Model 805, 50g range

805-0100-01
Model 805 with M3 mounting stud, 100g range

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