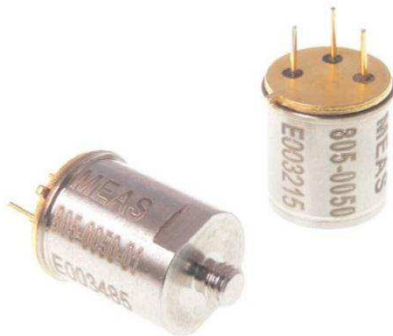


## MODEL 805M1 ACCELEROMETER



### SPECIFICATIONS

- ◆ **TO-5 Series Accelerometer**
- ◆ **3-Wire Voltage Output**
- ◆ **Low-Cost, Embedded Applications**
- ◆ **<0.80mA Power Consumption**

The Model 805M1 is a miniature adhesive mount voltage output accelerometer built on a 3-pin TO-5 header. It is available in  $\pm 20g$  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 805M1 incorporates a stable piezo-ceramic crystal with low power electronics in a 100% shielded housing suitable for many embedded OEM applications.

The model 805M1 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

- ◆  $\pm 20g$  to  $\pm 500g$  Range
- ◆ Wide bandwidth up to 12kHz
- ◆ TO-5 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
- ◆ Embedded Preventive Maintenance
- ◆ Low-Cost OEM Installation
- ◆ Permanent Structural Study
- ◆ Embedded Sensing Solution

**PERFORMANCE SPECIFICATIONS**

All values are typical at +24°C, 80Hz and 5Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

**Parameters**

**DYNAMIC**

|                            | ±20       | ±50       | ±100      | ±200      | ±500      | <b>Notes</b>           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|------------------------|
| Range (g)                  |           |           |           |           |           |                        |
| Sensitivity (mV/g)         | 100       | 40        | 20        | 10        | 4         | ±10%                   |
| Frequency Response (Hz)    | 1-8000    | 1-8000    | 1-8000    | 1-8000    | 1-8000    | ±1dB                   |
| Frequency Response (Hz)    | 0.4-10000 | 0.4-10000 | 0.4-12000 | 0.4-12000 | 0.4-12000 | ±3dB                   |
| Natural Frequency (Hz)     | 34000     | 34000     | 34000     | 34000     | 34000     |                        |
| Non-Linearity (%FSO)       | ±1        | ±1        | ±1        | ±1        | ±1        |                        |
| Transverse Sensitivity (%) | 5         | 5         | 5         | 5         | 5         |                        |
| Shock Limit (g)            | 5000      | 5000      | 5000      | 5000      | 5000      |                        |
| Residual Noise (g RMS)     | 0.001     | 0.001     | 0.003     | 0.003     | 0.005     | 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   |
| Case Material   | Stainless Steel   |
| Weight (grams)  | 5.0   |
| Mounting        | Adhesive or Circuit Board (M3 Stud Mounting for -01 Option) |

<sup>1</sup> The model 805M1 can be operated with 2.8V excitation but the full-scale range will be limited.

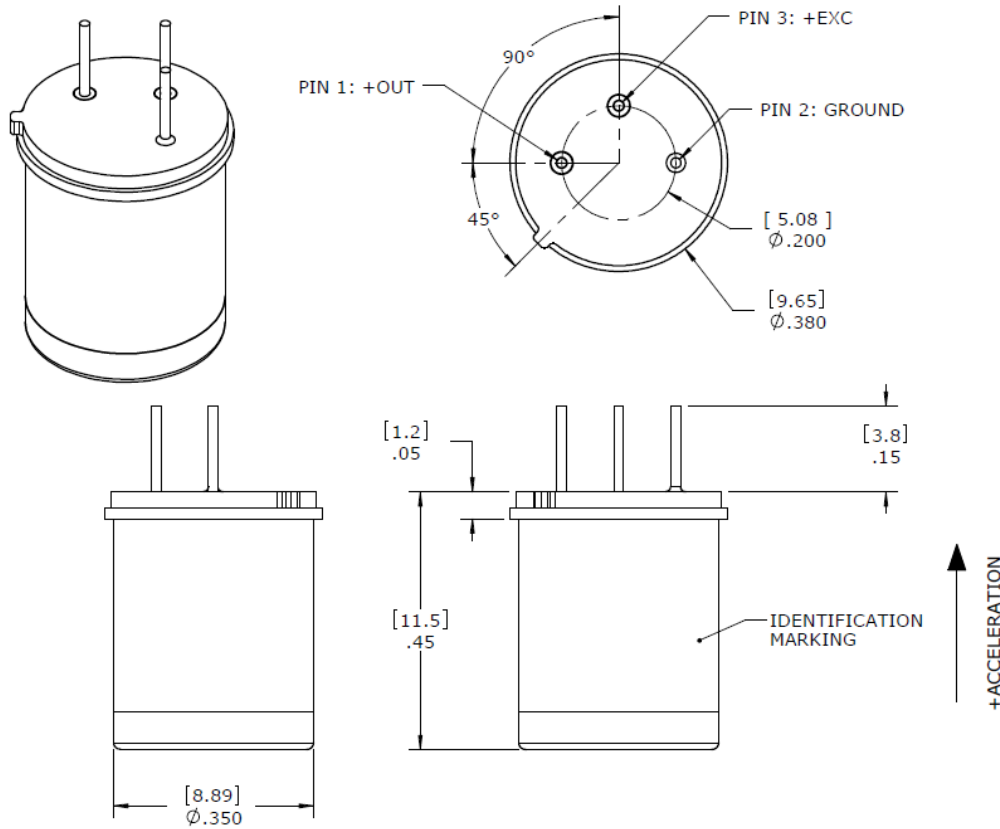
**Calibration supplied:** CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

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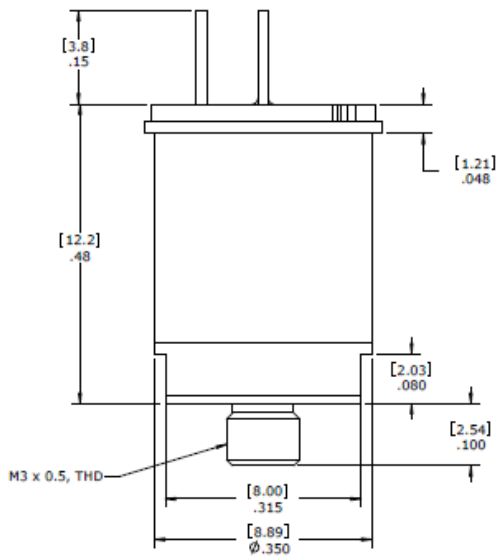
# MODEL 805M1 ACCELEROMETER

## DIMENSIONS

### Standard Model 805M1

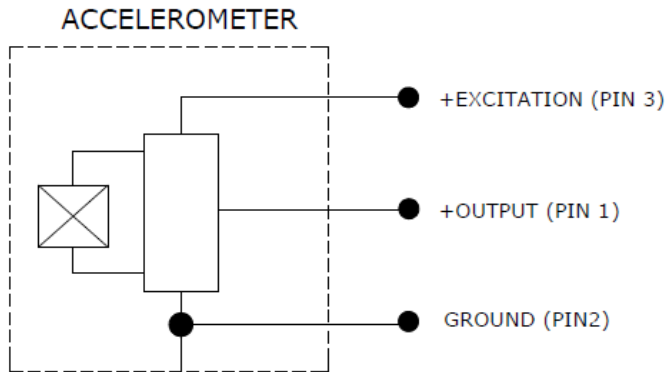


### Model 805M1 with M3 Mounting Stud Option



# MODEL 805M1 ACCELEROMETER

## SCHEMATIC



## ORDERING INFORMATION

|   |             |           |
|---|-------------|-----------|
| <b>805M1</b>  | <b>GGGG</b> | <b>XX</b> |
| <b>Range</b><br>0020=20g<br>0050=50g<br>0100=100g<br>0200=200g<br>0500=500g                                   |             |           |
| <b>Options</b><br>01=M3 x 0.5 Mounting Stud<br>02=Standard 805M1 unit with Isolating Mounting Cover Installed |             |           |



Isolating Cover Option

Examples;  
805M1-0020  
Model 805M1, 20g range

805M1-0200-01  
Model 805M1 with M3 mounting stud, 200g range

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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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