

## 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
- $-40^{\circ}\text{C}$  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

	±50	±100	±500	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)

<sup>1</sup> Contact factory for model number to order with ±5% sensitivity tolerance

<sup>2</sup> Contact factory for model number to order with +120°C operating temperature

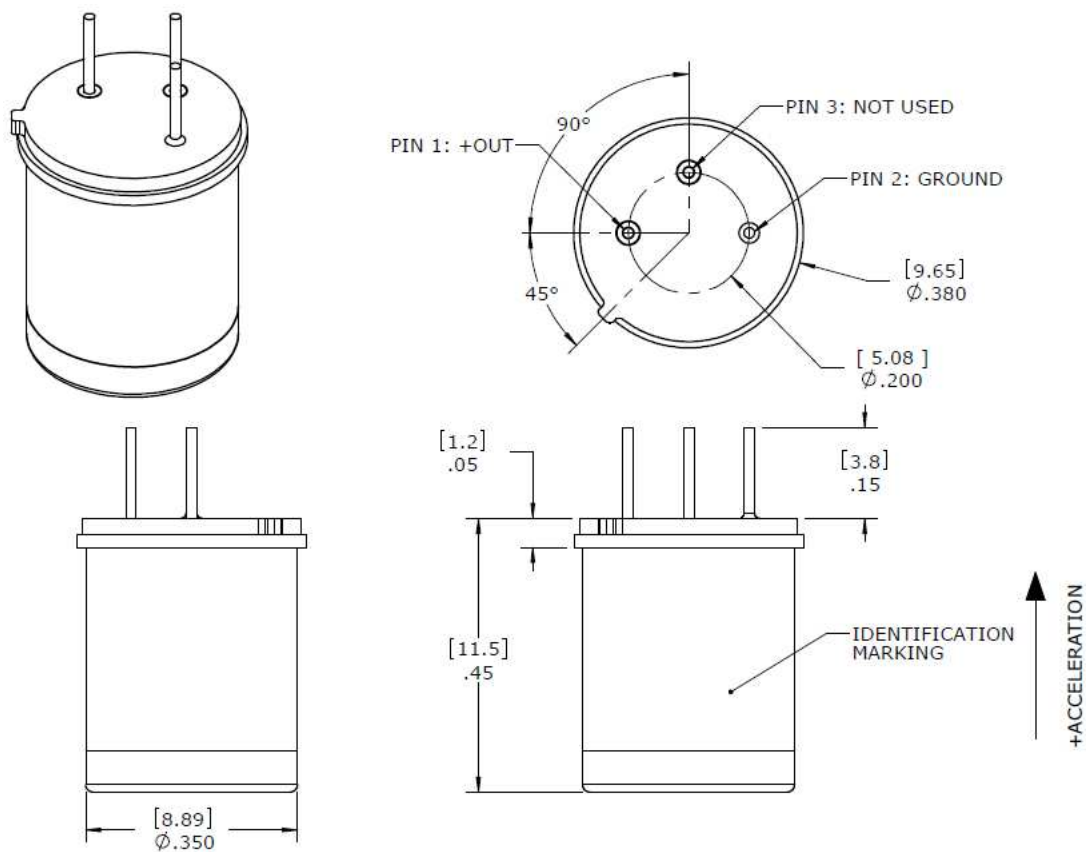
**Calibration supplied:** CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

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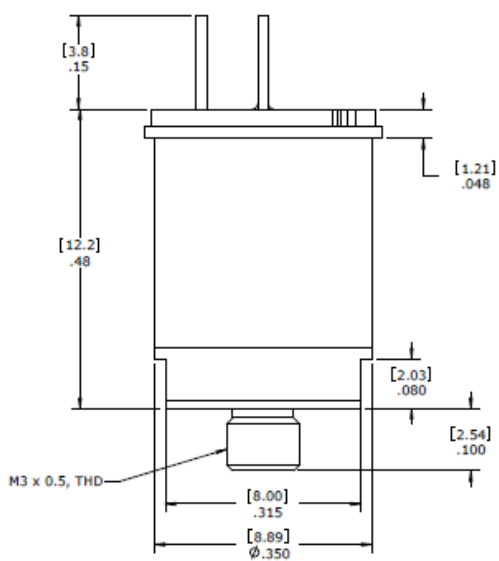
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### DIMENSIONS

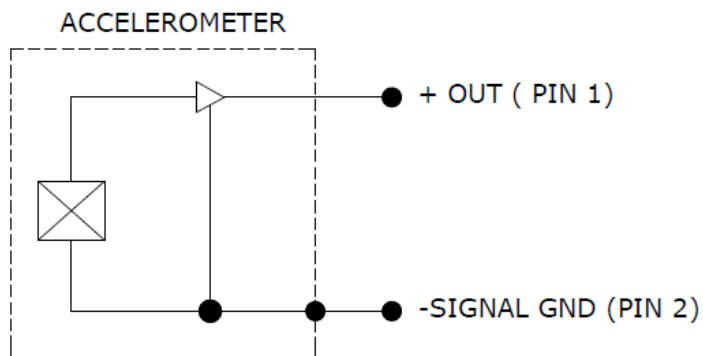
#### Standard Model 805



#### Model 805 with M3 Mounting Stud Option



## SCHEMATIC



## ORDERING INFORMATION

805	GGGG	XX
<b>Range</b> 0050=50g 0100=100g 0500=500g		
<b>Options</b> 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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