

# Model 805 Accelerometer



## TO-5 Series Accelerometer 2-Wire IEPE Interface Low-Cost, Embedded Applications Wide Bandwidth to 15kHz



**The Model 805** is a miniature adhesive mount IEPE accelerometer built on a 3-pin TO-5 header. It is available in  $\pm 50g$  and  $\pm 500g$  dynamic ranges and offers a flat frequency response to 15kHz. 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 accelerometer is offered in two configurations; one for adhesive mounting and one for stud mounting.

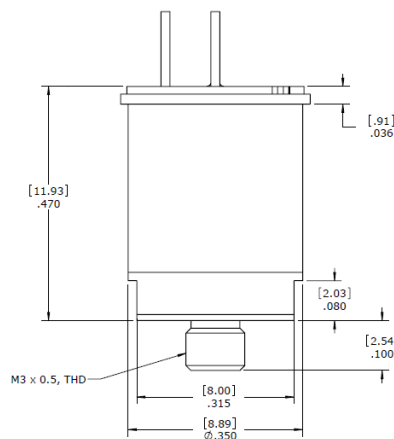
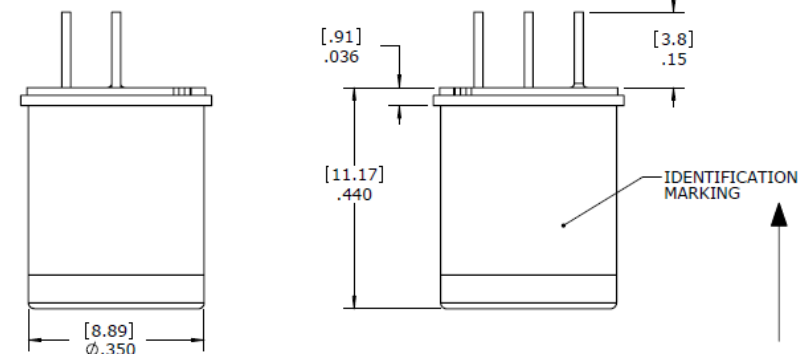
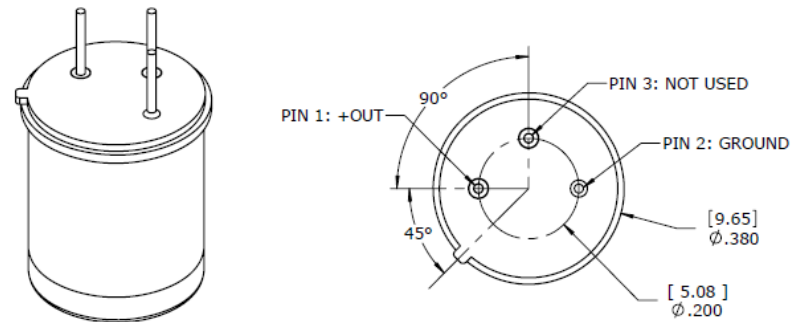
### FEATURES

- $\pm 50g$  and  $\pm 500g$  Range
- Wide bandwidth up to 15kHz
- TO-5 Configuration
- Hermetically Sealed
- $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  Operating Range
- Case Grounded Design

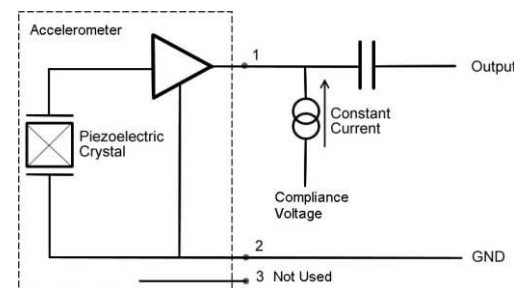
### APPLICATIONS

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

### dimensions



M3 Stud Mounting for -01



# Model 805 Accelerometer

## performance specifications

All values are typical at +24°C, 100Hz 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			Notes
<b>DYNAMIC</b>			
Range (g)	±50	±500	
Sensitivity (mV/g)	100	10	±10% (see Note 1 for ±5% option)
Frequency Response (Hz)	1-8000	1-8000	±1dB
Frequency Response (Hz)	0.3-10000	0.3-12000	±3dB
Natural Frequency (Hz)	34000	34000	
Non-Linearity (%FSO)	±1	±1	
Transverse Sensitivity (%)	5	5	
Shock Limit (g)	5000	5000	
Residual Noise (g RMS)	0.0004	0.0009	Broadband 1Hz to 10kHz
<b>ELECTRICAL</b>			
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		
<b>ENVIRONMENTAL</b>			
Temperature Response (%)	±10		
Operating Temperature (°C)	-40 to +100		+120°C option, see Note 2
Storage Temperature (°C)	-54 to +125		
<b>PHYSICAL</b>			
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 100Hz

**Wiring color code:** See schematic

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## ordering info

PART NUMBERING Model Number+Range

805-GGGG-XX

I    I    Optional Stud Dash Number  
I    Range (0050 is 50g)

Dash Number    Stud Options  
-01    M3 x 0.5 6g

Example: 805-0050  
Model 805, 50g