

# LOW-PROFILE INDUSTRIAL-GRADE ACCELEROMETERS

- ✓ Corrosion Resistant
- ✓ Reverse Wiring Protection
- ✓ Ground Isolated
- ✓ ESD Protection

The TRODEXROMETER™ Series accelerometers are designed for industrial vibration measurements. They feature a hermetically sealed 316L SS case suitable for harsh environments. The ACC787A is a general purpose model with a side cable exit.

## SPECIFICATIONS

### DYNAMIC

**Sensitivity,  $\pm 10\%$ , 25°C (77°F):**  
100 mV/g

**Acceleration Range<sup>1</sup>:** 80 g peak

**Amplitude Non-Linearity:** 1%

**Frequency Response:**

$\pm 10\%$ : 1.0 to 5000 Hz

$\pm 3$  dB: 0.7 to 10,000 Hz

**Resonance Frequency:**  
22 kHz

**Transverse Sensitivity, Max:** 5% of axial

**Temperature Response:**  
See graph

### ELECTRICAL

**Power Requirement:**

**Voltage Source<sup>1</sup>:**

18 to 30 Vdc

**Current Regulating Diode<sup>1,2</sup>:**

2 to 10 mA

**Electrical Noise, Equiv. g Nominal:**

**Broadband:** 2.5 Hz to 25 kHz: 700  $\mu$ g

**Spectral:**

10 Hz: 10  $\mu$ g/ $\sqrt{\text{Hz}}$

100 Hz: 5  $\mu$ g/ $\sqrt{\text{Hz}}$

1000 Hz: 5  $\mu$ g/ $\sqrt{\text{Hz}}$

**Output Impedance, Max:** 100  $\Omega$

**Bias Output Voltage, Nominal:** 12 Vdc

**Grounding:** Isolated case, internally shielded

### ENVIRONMENTAL

**Temperature Range:** -50 to 120°C (-58 to 248°F)

**Vibration Limit:** 500 g peak

**Shock Limit:** 5000 g peak

**Electromagnetic Sensitivity, Equiv. g, Max:** 70  $\mu$ g/gauss

**Sealing:** Hermetic to 10<sup>-8</sup> cc/s

**Base Strain Sensitivity, Max:** 0.002 g/microstrain

### PHYSICAL

**Weight:** 145 g (5.1 oz)

**Case Material:** 316L SS

**Mounting:** ¼-28 captive hex head screw with 1.2 mm (0.046") diameter safety wire hole

## ACC787A



**Connector:** 2 pin, MIL-C-5015 style

**Connections:**

**Pin A:** Power/signal

**Pin B:** Common

**Mating Connector:**

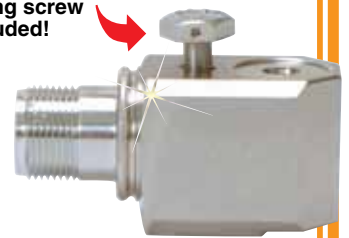
Amphenol 97-3106A-10SL-4S type

**Recommended Cabling:** ACC-CB7-10

**NOTES:** <sup>1</sup> To minimize signal distortion when driving long cables or high-vibration signals, 24 to 30 Vdc powering is recommended. The higher-level constant current source should be used when driving long cables.

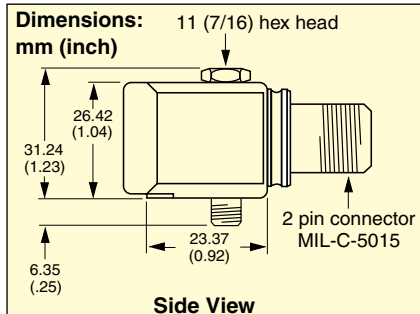
<sup>2</sup> A maximum current of 6 mA is recommended for operating temperatures above 100 °C (212°F).

Mounting screw included!

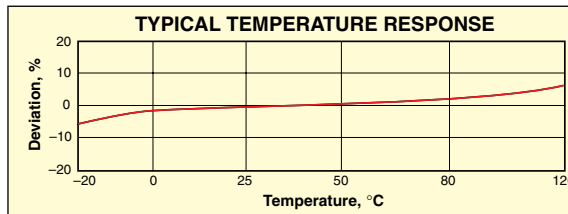
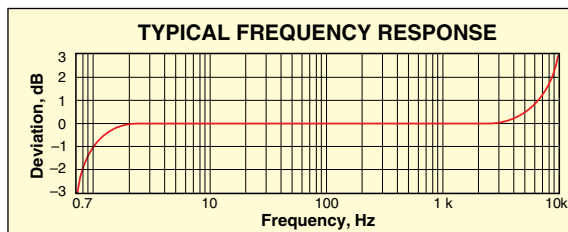
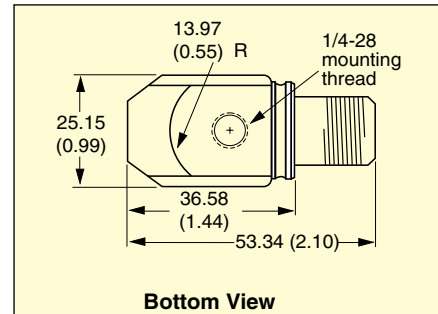


ACC787A, with ACC-CB7-10WP cable, shown smaller than actual size.

### ACC787A Side View



### ACC787A Bottom View



## To Order

MODEL NO.	DESCRIPTION
ACC787A	General purpose accelerometer with side exit connector

ACC787A includes captive mounting screw and calibration data. Specify cable separately; see Accessories.

## ACCESSORIES

MODEL NO.	DESCRIPTION
ACC-CB7-10	3.05 m (10') MIL/BNC twisted-pair shielded cable
ACC-CB7-10WP	3.05 m (10') waterproof twisted-pair shielded cable
ACC-B3-1	Magnetic mounting base for flat surfaces, 40 lbf
ACC-B5	Magnetic mounting base for curved surfaces, 30 lbf
ACC-PS2	Rechargeable power supply with built-in amplifier
ACC-PS3	115 Vac power supply

**Note:** Visit us online for details on the above power supplies and cables.

**Ordering Example:** ACC787A, accelerometer, ACC-CB7-10, cable, ACC-B3-1, mounting base, and ACC-PS2, power supply (typical system).