

# LOW-PROFILE INDUSTRIAL-GRADE ACCELEROMETERS



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

ACC787A  
\$245

The OMEGAROMETER™ 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, ±10%, 25°C (77°F):**  
100 mV/g

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

**Amplitude Non-Linearity:** 1%

**Frequency Response:**

±10%: 1.0 to 5000 Hz

±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 µg

**Spectral:**

10 Hz: 10 µg/√Hz

100 Hz: 5 µg/√Hz

1000 Hz: 5 µg/√Hz

**Output Impedance, Max:** 100 Ω

**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 µg/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

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

**Connections:**

**Pin A:** Power/signal

**Pin B:** Common

**Mating Connector:**

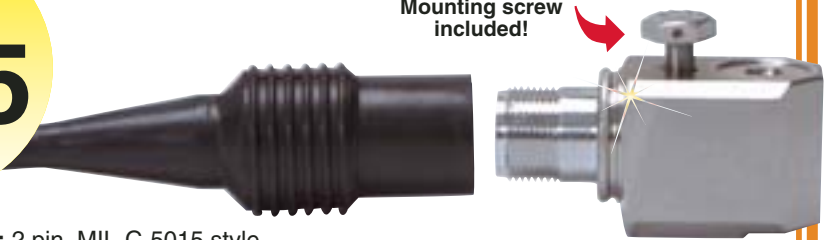
Amphenol 97-3106A-10SL-4S type

**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.

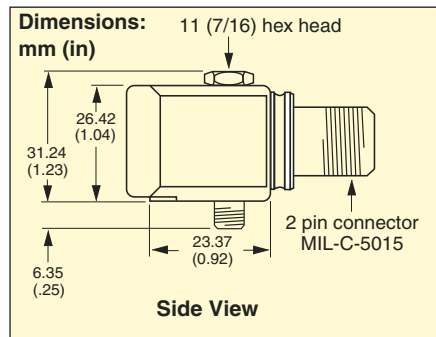
<sup>2</sup> A maximum current of 6 mA is recommended for operating temperatures above 100 °C (212°F).

Mounting screw included!

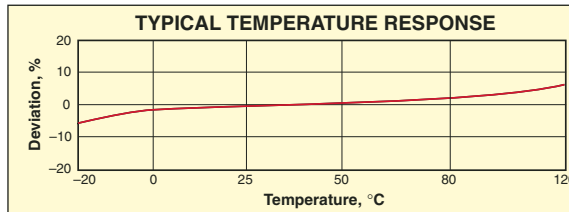
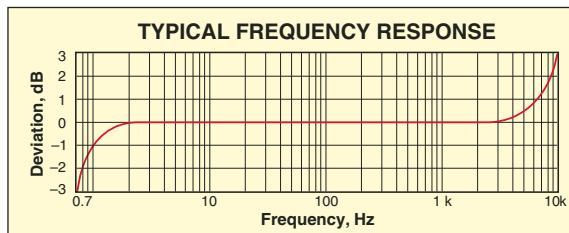
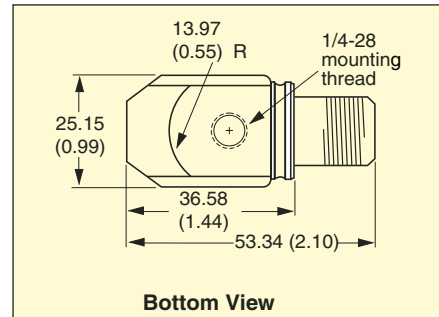


ACC787A, \$245, with ACC-CB7-10WP cable, \$90, shown smaller than actual size.

ACC787A Side View



ACC787A Bottom View



**IN STOCK FOR FAST DELIVERY!**

## To Order (Specify Model Number)

MODEL NO.	PRICE	DESCRIPTION
ACC787A	\$245	General purpose accelerometer with side exit connector

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

## ACCESSORIES—See [omega.com](http://omega.com) for Complete Details

MODEL NO.	PRICE	DESCRIPTION
ACC-CB7-10	\$60	3.05 m (10') MIL/BNC twisted-pair shielded cable
ACC-CB7-10WP	90	3.05 m (10') waterproof twisted-pair shielded cable
ACC-B3	90	Magnetic mounting base for flat surfaces, 30 lbf
ACC-B5	125	Magnetic mounting base for curved surfaces, 30 lbf
ACC-PS2	530	Rechargeable power supply with built-in amplifier
ACC-PS3*	475	115 Vac power supply

\* Add suffix "-230" for 230 Vac power supply, no extra charge.

**Note:** See pages K-20 through K-22 for details on the above power supplies and cables.

**Ordering Example:** ACC787A + ACC-CB7-10 + ACC-B3 + ACC-PS2, typical accelerometer system, \$245 + 60 + 90 + 530 = \$925.

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