

LOW-PROFILE INDUSTRIAL-GRADE ACCELEROMETERS

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

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 Range¹: 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 Source¹:

18 to 30 Vdc

Current Regulating Diode^{1,2}:

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 10⁻⁸ 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

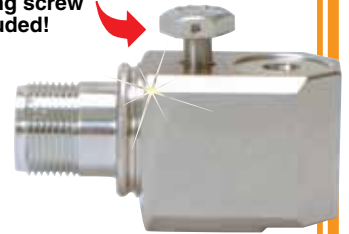
with 1.2 mm (0.046") diameter safety

wire hole

ACC787A



Mounting screw included!



Connector: 2 pin, MIL-C-5015 style

Connections:

Pin A: Power/signal

Pin B: Common

Mating Connector:

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

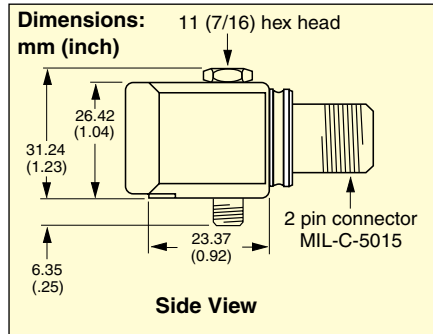
Recommended Cabling: ACC-CB7-10

NOTES: ¹ 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.

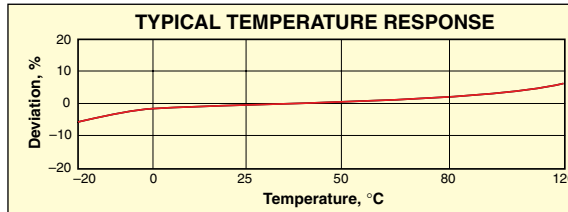
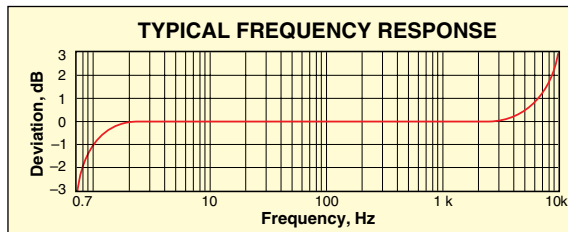
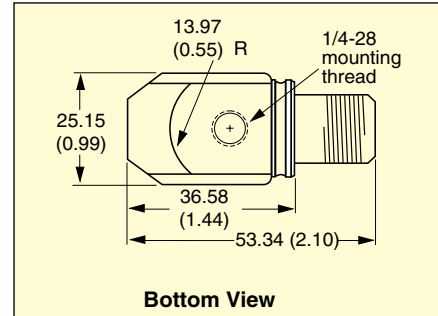
² A maximum current of 6 mA is recommended for operating temperatures above 100 °C (212°F).

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).