

HIGH-PERFORMANCE TRIAXIAL ACCELEROMETERS

10 mV/g OUTPUT PER AXIS

ACC301A

- ✓ Ideal Vibration Monitoring in 3 (X-Y-Z) Axis
- ✓ Small Size and Lightweight
- ✓ For Use in Vehicles, Laboratories, Industrial Applications

OMEGA's ACC301A triaxial accelerometer is ideal for lightweight single-point monitoring in 3 (X-Y-Z) planes. This accelerometer has a very low noise floor and a wide frequency range of up to 10 kHz. The ACC301A weighs only 13.6 g (0.48 oz), yet its titanium construction makes it very rugged.

SPECIFICATIONS

Excitation: 2 mA nominal @ 15 to 30 Vdc, 1 to 6 mA maximum constant current

Sensitivity @ 100 Hz, ±5%:
10 mV/g - 1.02 mV/(m/s²)

Frequency Range:
±5%: 3 Hz to 7 kHz
±10%: 2 Hz to 8 kHz
±3db: 1 Hz to 10 kHz

Turn on Time (2% of Final Bias):
<5 seconds

Amplitude Range @22°C (72°F): ±500 g

Mounted Resonance: >25 kHz

Transverse Sensitivity: <5%

Temperature Range:
-40 to 121°C (-40 to 250°F)

Base Strain: 0.0005 g peak/μstrain

Shock Limit: 5000 g

Noise Broadband 2.5 Hz to 25 kHz:
1500 μ (rms)

Noise Spectral:
10 Hz: 100 μg/sqrt Hz (rms)
100 Hz: 25 μg/sqrt Hz (rms)
1000 Hz: 10 μg/sqrt Hz (rms)

Output Impedance: 1000 Ω

Isolation: Isolated, >100 Meg Ω

Noise Rejection (EMI/RFI): >52 db

Bias Voltage: 7 Vdc

Weight: 13.6 g (0.48 oz) nominal (without cable)

Case Material: Titanium

Design: Isolated compression

Environmental Seal: Splashproof epoxy

Dimensions: 21 H x 21 W x 28 mm D (0.85 x 0.85 x 1.1")

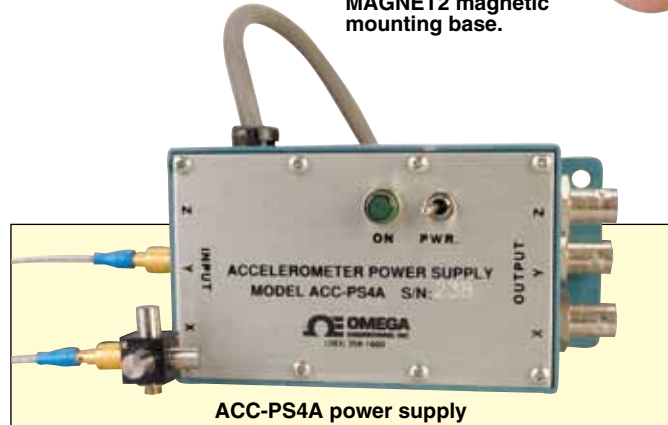
Connector: Side 4-pin, 1/4-28 female termination, cable sold separately (order Model No. ACC-CB3-6)

Mounting: 10-32 removable stud

Mounting Torque Maximum: 2.2 N-m (20 in-lb)



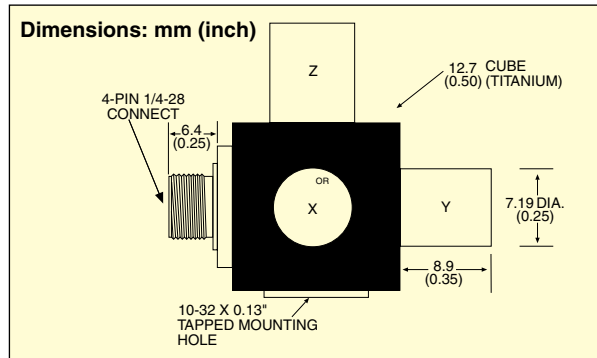
ACC301A shown with ACC-CB3-6 cable, and MAGNET2 magnetic mounting base.



ACC-PS4A power supply



Actual size.



To Order

MODEL NO.	DESCRIPTION
ACC301A	Triaxial accelerometer
ACC-CB3-6	1.8 m (6') 4-conductor cable (male/male) required

Comes complete with operator's manual.

Note: The compatible meters are for single input only. For multichannel instrumentation, consult the Omega Pressure Department.

ACCESSORIES

MODEL NO.	DESCRIPTION
MAGNET2	Magnetic mounting base (10 lb holding force) 19.1 Dia. x 19.1 mm high (0.75 x 0.75")
POWER SUPPLIES	
ACC-PS4A	Triaxial accelerometer power supply/amplifier
Interface cables used between power supply and instrumentation	
ACC-CB4-15	4.6 m (15') coaxial cable (BNCM/BNCM)
ACC-CB5-2	0.6 m (2') coaxial cable (BNCM/banana plug)
ACC-CB6	178 mm (7") coaxial cable (BNCM/pigtail)
ACC-CB3-A	4-pin female/female adaptor

Visit us online for details on the above accessories.

Ordering Example: ACC301A, accelerometer, ACC-CB3-6, coaxial cable, ACC-PS4A, power supply, (3) ACC-CB6, coaxial cables.