

INDUSTRIAL ACCELEROMETERS FOR HARSH ENVIRONMENTS

100 mV/g OUTPUT

ACC102A

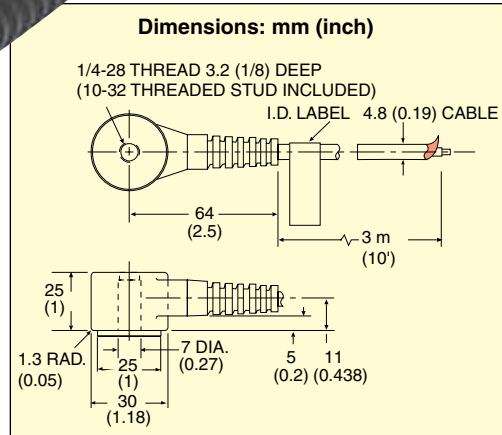


ACC-PS1 power supply, shown smaller than actual size. Visit us online.

- ✓ Ideal for Harsh Environments
- ✓ Hermetically Sealed
- ✓ Superior Low-Noise Floor for High Resolution
- ✓ Rugged Strain Relief on Integral Cable
- ✓ Fast Turn-On Time (1 s)
- ✓ High EMI Noise Rejection

DP2000-F meter, shown smaller than actual size. Visit us online.

ACC102A, shown smaller than actual size.



The ACC102A accelerometer uses a shear mode design for high performance. It has a rugged, stainless steel inner structure covered by a molded polymer. This construction makes the ACC102 impervious to harsh environments, such as alkaline coolants, hot oil, and water sprays, resulting in long, reliable service. Additional features include high shock protection (to protect from dropping or mishandling), cross wire protection (protects against miswiring), and up to 1000-volt static discharge protection. The ACC102 has a high 100 mV/g output and measures across wide frequency and acceleration ranges. A low-impedance cable allows for runs up to 1000'. The ACC102 exhibits the low-noise floor and high-amplitude linearity one would expect in more expensive units.

SPECIFICATIONS

Excitation: 2 mA @ 24 to 30 Vdc, constant current (18 V supply can be used but will limit amplitude range)

Rated Output: 100 mV/g nominal at 100 Hz

Frequency Range: 3 Hz to 5 kHz (up to $\pm 5\%$ rated output shift)

Amplitude Range: ± 40 g peak w/ACC-PS1, ± 75 g peak w/ACC-PS2, ACC-PS3

Amplitude Linearity: 1% up to 65 g peak
Temperature Range: -40 to 82°C (-40 to 180°F)
Temperature Sensitivity Effect: -54 to 38°C (-65 to 100°F) $\leq 5\%$ FS; 38 to 121°C (100 to 250°F) $\leq 8\%$ FS

Thermal Shock: 1.2 g/°C
Transverse Sensitivity: 7% of axial max

Maximum g Without Damage: 5000 g peak

Maximum g Without Clipping: 75 g peak

Mounted Resonance Frequency: >23 kHz nominal

Output Impedance: 200 Ω nominal

Bias Voltage: 13 V nominal

Base Strain: 0.04 g/microstrain nominal

Noise Floor (Wideband): 0.0003 g (rms)

Weight: 50 g (1.8 oz) nominal (without cable)

Material:

Inner Housing: 303 SS
Outer Jacket: Non-conductive composite polymer

Dimensions: 2.16 H x 2.54 cm D (0.85 x 1.00")

Connector: 2.5 m (10') integral coaxial cable to BNCM

Mounting: 10-32 removable stud

Mounting Torque Max: 22 cm-kg (20 in-lb)

To Order

MODEL NO.	DESCRIPTION
ACC102A	Harsh-environment accelerometer

Ordering Example: ACC102A, accelerometer, ACC-CB16, coaxial cable, ACC-PS1, power supply, ACC-CB5-2, coaxial cable.

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