INDUSTRIAL ACCELEROMETERS FOR HARSH ENVIRONMENTS
100 mV/g OUTPUT

ACC102A

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

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 ±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) ±5% FS; 38 to 121°C (100 to 250°F) ±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.