

# INDUSTRIAL ACCELEROMETERS FOR HARSH ENVIRONMENTS

## 100 mV/g OUTPUT

### ACC102A

ACC102A  
**\$365**



- ✓ 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  $\pm 5\%$  rated output shift)

**Amplitude Range:**  $\pm 40$  g peak w/ACC-PS1,  $\pm 75$  g peak w/ACC-PS2, ACC-PS3



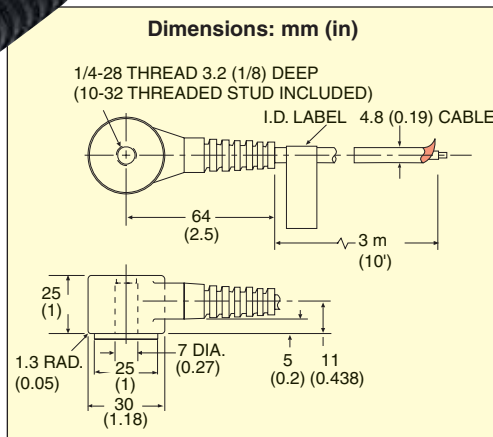
DP2000-F meter, \$310, shown smaller than actual size. See section D.



ACC-PS1 power supply, \$195, shown smaller than actual size. See page K-20.

ACC102A, \$365, shown smaller than actual size.

- 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  $\Omega$  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)

**MOST POPULAR MODELS HIGHLIGHTED!**

#### To Order (Specify Model Number)

MODEL NO.	PRICE	DESCRIPTION
ACC102A	\$365	Harsh-environment accelerometer

**Ordering Example:** ACC102A, accelerometer, ACC-CB16, coaxial cable, ACC-PS1, power supply, ACC-CB5-2, coaxial cable, \$365 + 50 + 195 + 25 = \$635.

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

#### ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
ME-1833	\$75	Reference Book: Vibration Fundamentals



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