Zensol

Accelerometers

Ref: ACC-10g / ACC-50g / ACC-500g

General Description

The Zensol ACC series accelerometers are high-precision, general-purpose Integrated Electronics Piezo-Electric (IEPE) sensors, fully compatible with industry-standard constant-current signal conditioning. Designed for demanding industrial environments and vibroacoustic diagnostics, they feature a lightweight, robust, hermetically sealed housing with an electrically insulated base to prevent ground loops. Each unit includes a top-mounted coaxial connector.

1. Available Models

Zensol Ref.	Measurement Range	Sensitivity	Smart Sensor Technology
ACC-10g	± 10 g peak	500 mV/g	TEDS Included
ACC-50g	± 50 g peak	100 mV/g	TEDS Included
ACC-500g	± 500 g peak	10 mV/g	Standard IEPE

2. Common Technical Specifications

- **Frequency Range:** 0.2 to 12,800 Hz
- **Resonance Frequency:** ≥ 38 kHz
- **Operating Temperature:** -55°C to +125°C (-67°F to +257°F)
- **Residual Noise (Spec Freq Range):** ± 500 µg rms
- **Maximum Operational Level:** 700 g peak
- **Maximum Shock Limit:** 1000 g peak
- **Output Type:** IEPE (Constant Current)
- **TEDS (Smart Sensor):** Yes (IEEE 1451.4 compliant)
- **Accredited Calibration:** Yes, included

3. Mechanical Characteristics & Accessories

- **Weight:** ~ 7.5 to 9.5 grams (depending on model)
- **Mounting / Thread:**
  - ACC-10g: 5-40 female threaded hole (5-40 mounting stud included)
  - ACC-50g & ACC-500g: 10-32 UNF female threaded hole (10-32 UNF mounting stud included)
- **Electrical Connector:** 10-32 UNF (top-mounted coaxial)
- **Recommended Cable (Ref: C-BNC-03):** Accelerometer cable, 10-32 to BNC, 3 feet (1 m).

4. Standards & Industry Compliance

These accelerometers are designed and calibrated to meet stringent international standards, ensuring reliability and traceability for critical power utility applications:

- **IEEE 1451.4 (TEDS):** Transducer Electronic Data Sheet protocol for smart sensor auto-identification and self-description.
- **ISO/IEC 17025:** Accredited calibration provided with each sensor, offering full traceability to NIST or PTB.
- **EN 61326-1 / IEC 61326-1:** Electromagnetic Compatibility (EMC) standards for electrical equipment for measurement.
- **ASME B1.1:** Unified Thread Standard compliance for the mounting and connector threads.
- **RoHS & CE Directives:** Fully compliant with environmental safety and European conformity requirements.

2281, rue Guénette H4R 2E9 **Montréal, Québec, Canada**
Tel. : +1 (514) 333-3488 **info.support@zensol.com** **www.zensol.com**