



SINOCERA



Global Sensor Technology

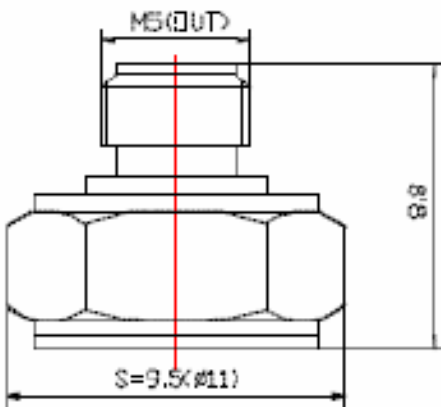
Lightweight Piezoelectric Accelerometer

Model: CA-YD-160

Description

The Sensors Model 160 is a small piezoelectric accelerometer for vibration measurement on small structures and objects. Its light weight of 2.8 grams (without the low-noise cable) effectively minimizes mass loading. The accelerometer is a self-generating device that requires no external power source for operation.

The Model 160 exhibits a broad frequency response range and a high resonance frequency. Low-noise, flexible coaxial cables are used for error-free operation.



mm

| DYNAMIC CHARACTERISTICS | | UNITS |
|-------------------------|------|----------------------------------|
| Axial Sensitivity | pC/g | 2 |
| Transverse Sensitivity | % | ≤ 5 |
| Frequency Response | Hz | See Typical Amplitude Response |
| Resonance Frequency | Hz | 21,000 |
| Amplitude Response [1] | Hz | 1 to 5000 |
| ± 5 % | Hz | 0.5 to 7000 |
| ± 1 dB | Hz | See Typical Temperature Response |
| Temperature Response | % | < 1 |
| Amplitude Linearity | % | < 1 |

| ELECTRICAL CHARACTERISTICS | |
|----------------------------|--|
| Output Polarity | Acceleration directed from the base into the transducer is defined as positive |
| Resistance | GΩ >1 |
| Capacitance | pF 300 |
| Grounding | Signal ground connected to case |

| ENVIRONMENTAL CHARACTERISTICS | |
|-------------------------------|----------------------------------|
| Temperature Range | -40°F to 302°F (-40°C to +150°C) |
| Humidity | Epoxy sealed |
| Shock Limit | 2000 g pk |
| Base Strain | equiv. g pk/μ strain 0.002 |
| Magnetic Field Sensitivity | equiv. g rms/gauss (T) 1E-5 (1) |
| Thermal Transient Sensitivity | equiv. g pk/°F (°C) 0.018 (0.01) |

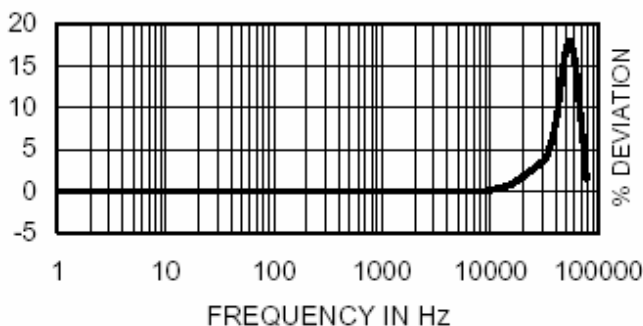
| PHYSICAL CHARACTERISTICS | |
|--------------------------|-----------------------------|
| Weight | oz (grams) 0.1 (2.8) |
| Case Material | Stainless Steel |
| Mounting | Adhesive [2] |
| Piezoelectric Material | PZT-5 |
| Structure | Annular Shear |
| Output Connector | M5 receptacle, top mounting |

ACCESSORIES

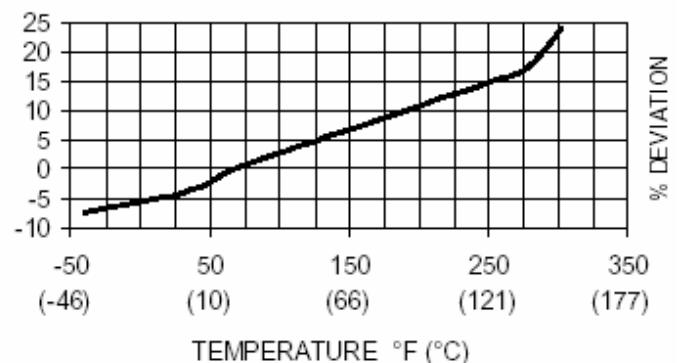
Included:
9002-120 Low Noise, Coaxial M5/10-32, 10ft (3.3 m)
Calibration Certificate

Optional:
9001-120 Low Noise, Coaxial M5/M5, 10 ft (3.3 m)

Typical Amplitude Response



Typical Temperature Response



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