

Model 7134A Accelerometer



Triaxial IEPE Accelerometer
Case Isolated, Internally Shielded
Hermetically Sealed, Titanium
±50g to ±500g Dynamic Ranges



The **Model 7134A** is a true case isolated triaxial IEPE accelerometer available in ±50g to ±500g dynamic ranges. The accelerometer features three internally shielded accelerometer assemblies for superior noise isolation. The assemblies are installed in a hermetically sealed light weight Titanium housing with a 4-pin Microtech connector interface. The model 7134A features piezo-ceramic crystals in annular shear mode which provide a flat frequency response up to >7kHz.

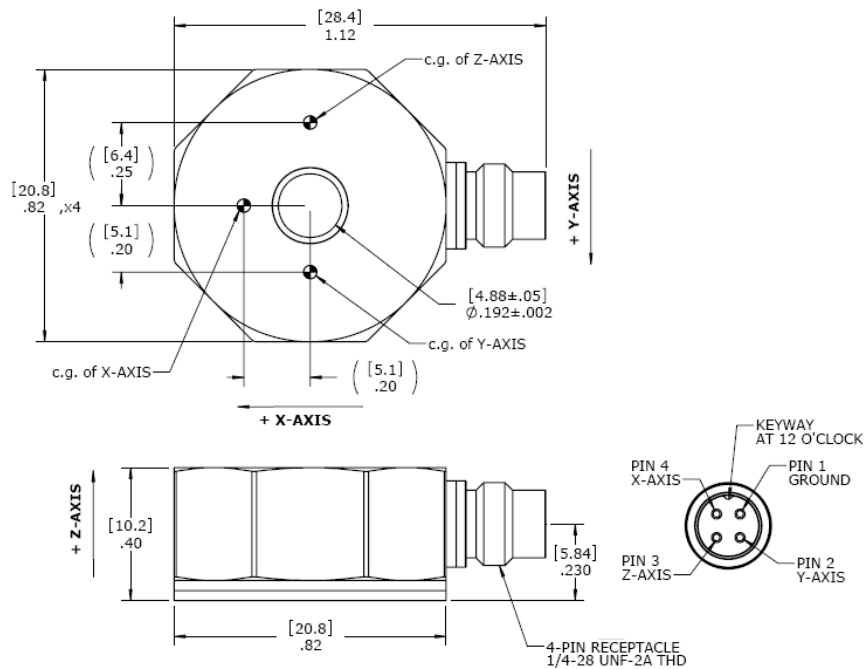
FEATURES

- 4-pin Connector Interface
- Wide bandwidth up to 7kHz
- Screw Mounting
- Titanium, Light Weight
- Annular Shear Mode Crystals
- Stable Temperature Response

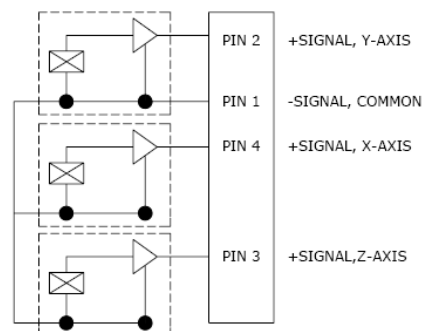
APPLICATIONS

- Vibration & Shock Monitoring
- Laboratory Testing
- Health Usage Monitoring Systems
- Flight Testing
- Harsh Environments

dimensions



ACCELEROMETER CONNECTOR



Model 7134A Accelerometer

performance specifications

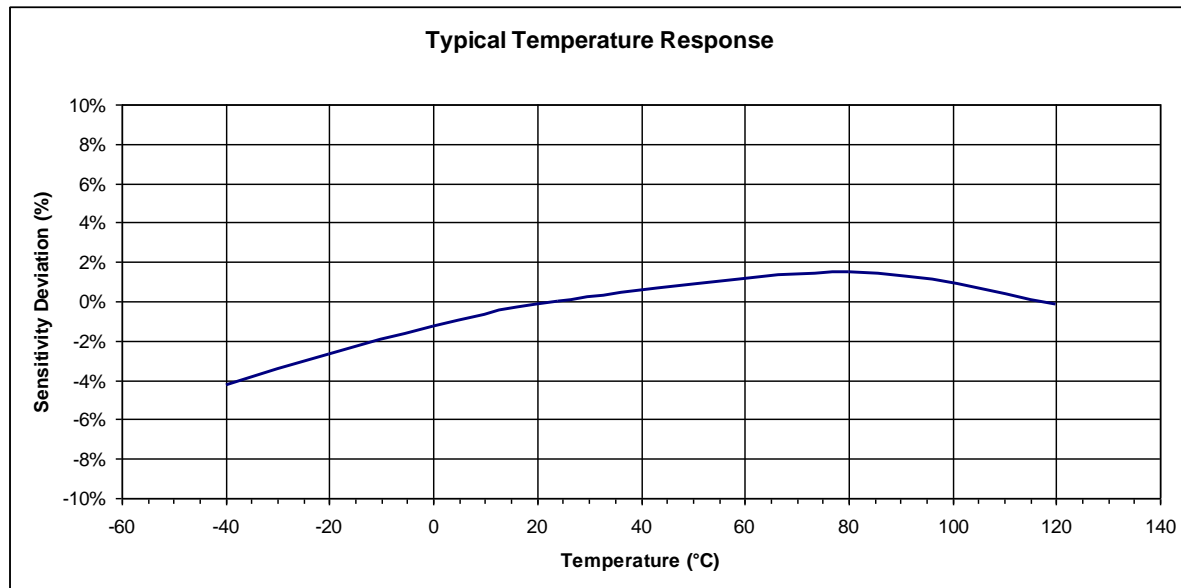
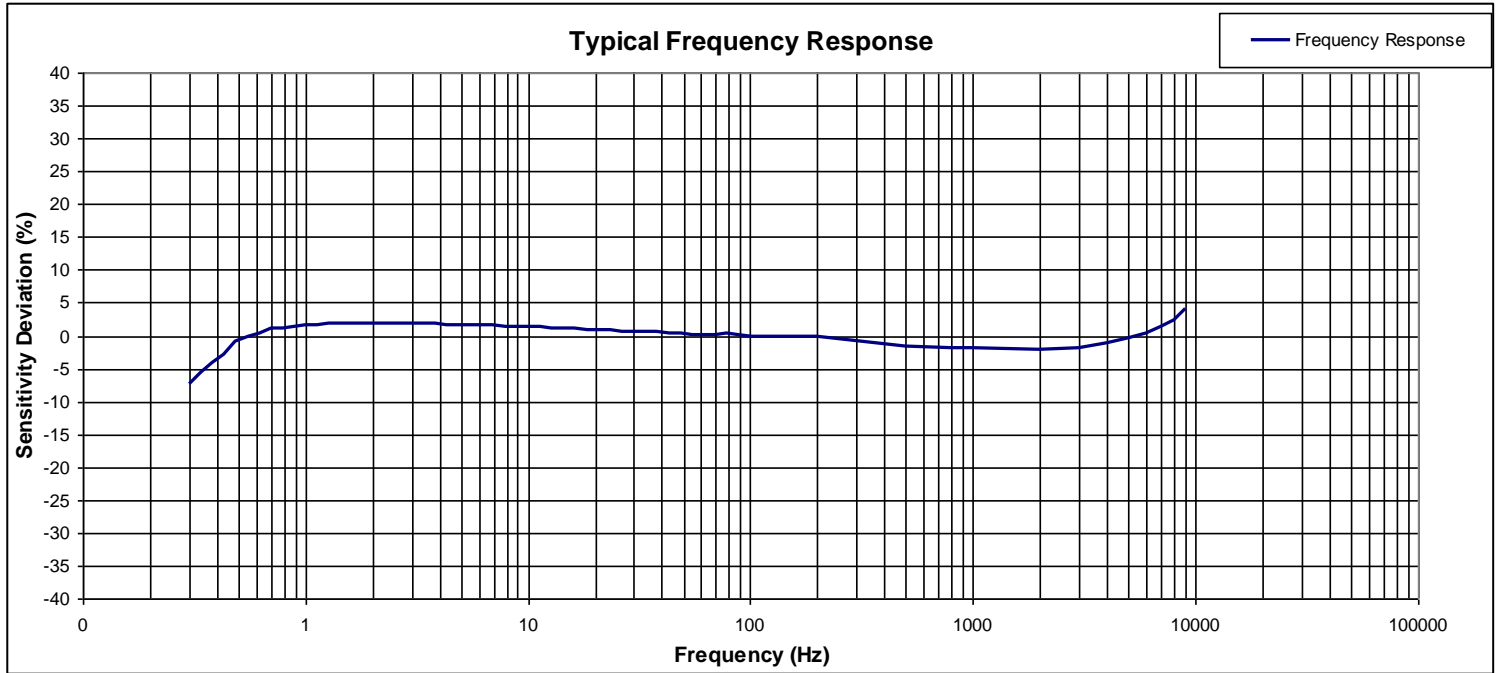
All values are typical at +24°C, 80Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1003 for Plug & Play AC Accelerometers.

| Parameters | | | | | Notes |
|-------------------------------|--|--|----------|----------|------------------------|
| DYNAMIC | | | | | |
| Range (g) | ±50 | ±100 | ±200 | ±500 | |
| Sensitivity (mV/g) | 100 | 50 | 25 | 10 | ±15% |
| Frequency Response (Hz) | 2.5-5000 | 1.5-5000 | 1.5-5000 | 1.0-5000 | ±10% |
| Frequency Response (Hz) | 1.0-6500 | 0.8-6500 | 0.8-6500 | 0.5-6500 | ±2dB |
| Natural Frequency (Hz) | 43000 | 43000 | 43000 | 43000 | |
| Non-Linearity (%FSO) | ±1 | ±1 | ±1 | ±1 | |
| Transverse Sensitivity (%) | <5 | <5 | <5 | <5 | |
| Shock Limit (g) | 5000 | 5000 | 5000 | 5000 | |
| Residual Noise (g RMS) | 0.0004 | 0.0005 | 0.0008 | 0.0012 | Broadband 1Hz to 10kHz |
| ELECTRICAL | | | | | |
| Compliance Voltage (Vdc) | 18 to 30 | | | | |
| Excitation Current (mA) | 2 to 10 | | | | |
| Bias Voltage (Vdc) | 8 to 12 | | | | Room Temperature |
| Bias Voltage (Vdc) | 6 to 13 | | | | -55 to +125°C |
| Output Impedance (Ω) | <100 | | | | |
| Full Scale Output Voltage (V) | ±5 | | | | |
| Discharge Time Constant (sec) | 0.8 to 1.2 | | | | |
| Ground Isolation | Case Isolated, Internally Shielded | | | | |
| ENVIRONMENTAL | | | | | |
| Temperature Response (%) | See Typical Temperature Response Curve | | | | |
| Operating Temperature (°C) | -55 to +125 | | | | |
| Storage Temperature (°C) | -55 to +125 | | | | |
| Humidity | Hermetically Sealed | | | | |
| PHYSICAL | | | | | |
| Sensing Element | Ceramic (shear mode) | | | | |
| Case Material | Titanium | | | | |
| Electrical Connector | 4-Pin Receptacle | | | | |
| Weight (grams) | 10 | | | | |
| Mounting | #10-32 Mounting Screw | | | | |
| Mounting Torque | 18 lb-in (2 N-m) | | | | |
| Calibration supplied: | CS-FREQ-0100 | NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit | | | |
| Optional accessories: | 317-XXX 161A | Cable Assembly, 4-pin ¼-28 to Pigtail Leads (XXX designates length in inches, 10ft standard) 4-Channel PE & IEPE Signal Conditioner | | | |

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performance specifications



ordering info

PART NUMBERING Model Number+Range

7134A-GGGG

I_____ Range (0050 is 50g)

Example: 7134A-0050

Model 7134A, 50g