

Model 7134A Accelerometer



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



The **Model 7134A** is a true case isolated triaxial IEPE accelerometer available in $\pm 50g$ to $\pm 500g$ 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 $>9kHz$.

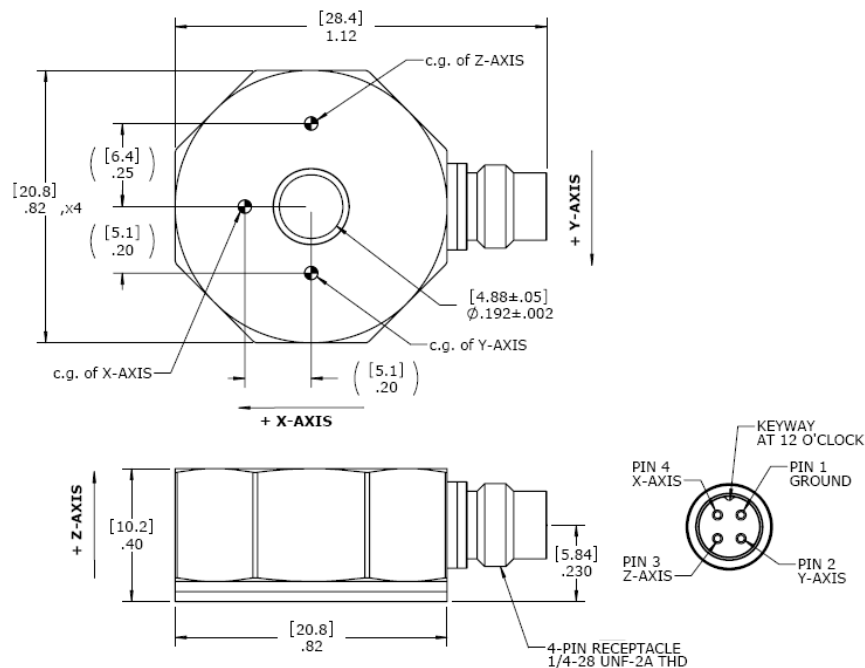
FEATURES

- 4-pin Connector Interface
- Wide bandwidth up to 9kHz
- Screw Mounting
- Titanium, Light Weight
- Annular Shear Mode Crystals
- Stable Temperature Response

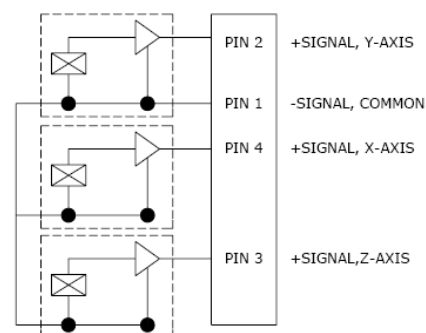
APPLICATIONS

- 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, 100Hz 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

	±50	±100	±200	±500	Notes
DYNAMIC					
Range (g)	±50	±100	±200	±500	
Sensitivity (mV/g)	100	50	25	10	±15%
Frequency Response (Hz)	2.5-7000	1.5-7000	1.5-7000	1.0-8000	±10%
Frequency Response (Hz)	1.0-9000	0.8-9000	0.8-9000	0.5-9000	±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)

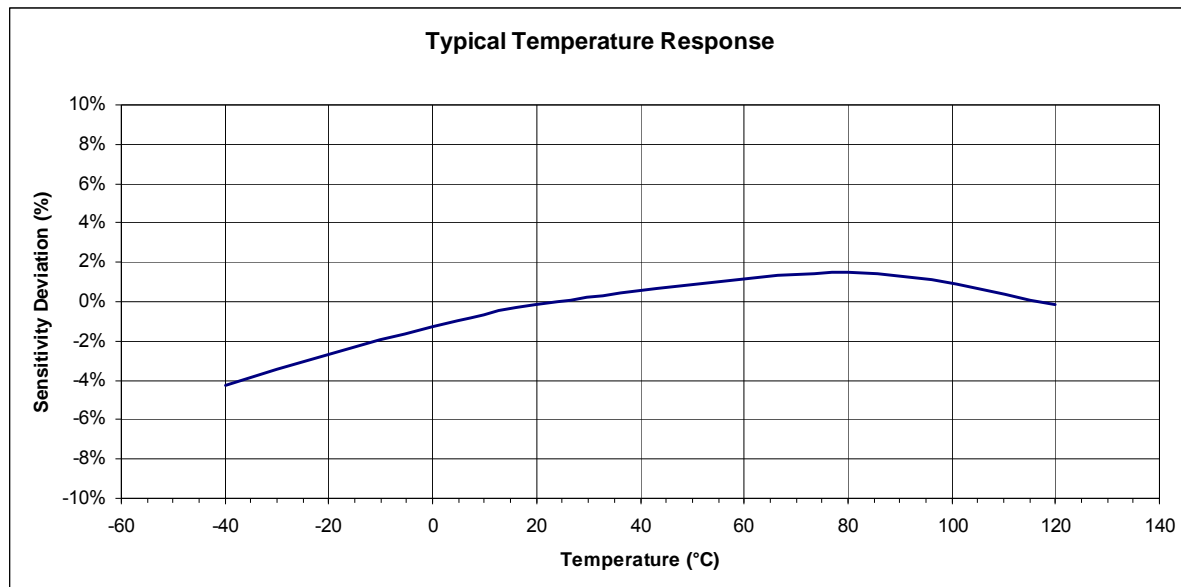
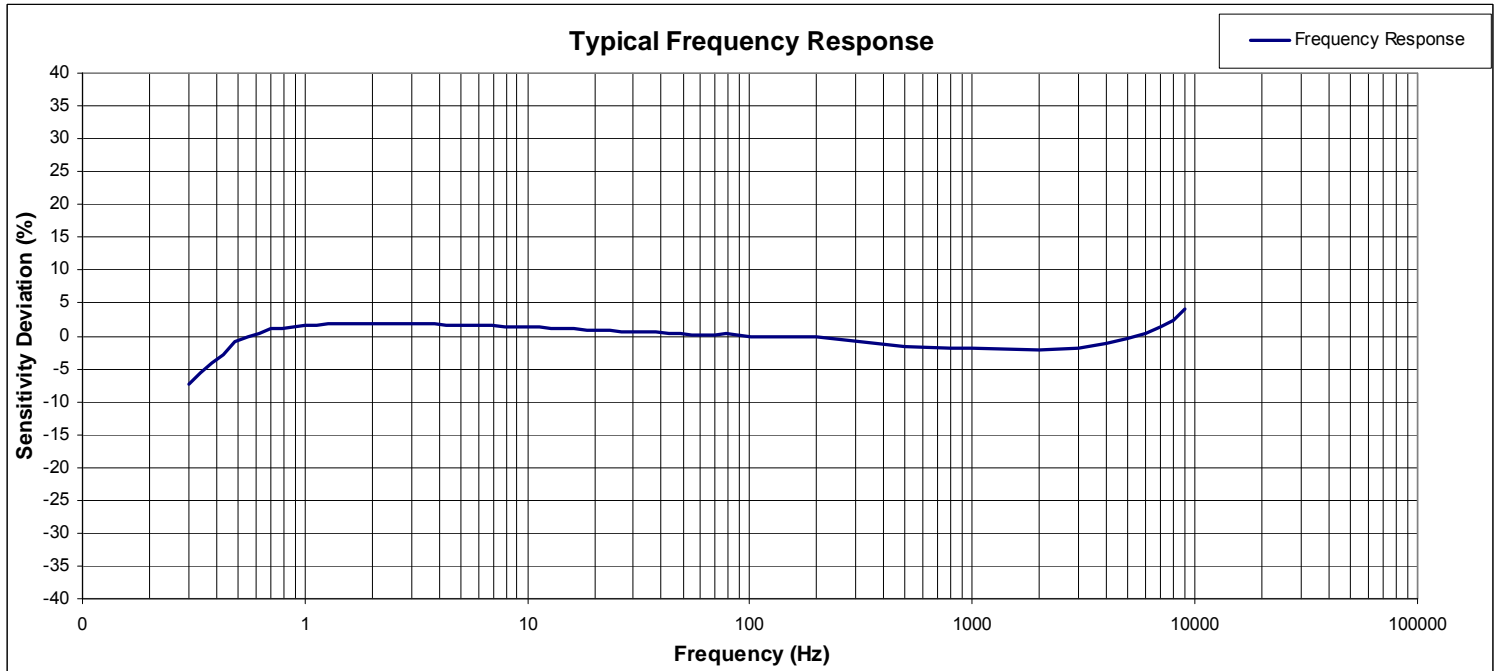
Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit

Optional accessories: 317-XXX Cable Assembly, 4-pin ¼-28 to Pigtail Leads (XXX designates length in inches, 10ft standard)
161A 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