

Model 7108A Accelerometer



IEPE Accelerometer
Wide Bandwidth to 10kHz
10-32 Top Connector
Miniature, Adhesive Mount



The **Model 7108A** is a miniature adhesive mount IEPE accelerometer available in $\pm 50g$ to $\pm 500g$ dynamic ranges. The accelerometer features a welded hermetic stainless steel construction with a 10-32 top connector. The model 7108A incorporates a stable piezo-ceramic crystal in annular shear mode, installed with a compression ring that eliminates the usage of epoxies that can affect long term stability. The accelerometer has an operating range of -55°C to $+125^{\circ}\text{C}$ and a flat frequency response to 10kHz.

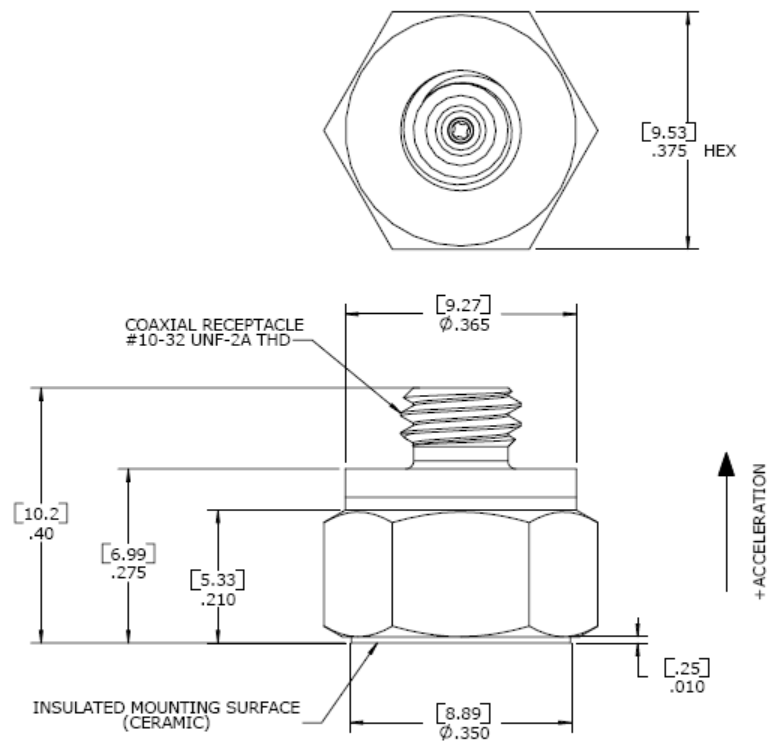
FEATURES

- $\pm 50g$ to $\pm 500g$ Dynamic Range
- Wide bandwidth up to 10kHz
- Welded Stainless Steel
- Hermetically Sealed
- -55°C to $+125^{\circ}\text{C}$ Operating Range
- Annular Shear Mode
- Isolated from Mounting Surface

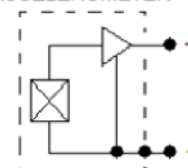
APPLICATIONS

- Vibration & Shock Monitoring
- Laboratory Testing
- Modal Applications
- High Frequency Applications

dimensions



ACCELEROMETER



Model 7108A 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

DYNAMIC

Range (g)	±50	±500
Sensitivity (mV/g)	100	10
Frequency Response (Hz)	1-8000	1-8000
Frequency Response (Hz)	0.5-10000	0.5-10000
Natural Frequency (Hz)	32000	32000
Non-Linearity (%FSO)	±1	±1
Transverse Sensitivity (%)	<5	<5
Shock Limit (g)	5000	5000

Notes

±10%
±10%
±2dB

ELECTRICAL

Compliance Voltage (Vdc)	18 to 30	18 to 30
Excitation Current (mA)	2 to 10	2 to 10
Bias Voltage (Vdc)	8 to 12	8 to 12
Bias Voltage (Vdc)	6 to 14	6 to 14
Output Impedance (Ω)	<100	<100
Full Scale Output Voltage (V)	±5	±5
Residual Noise (g RMS)	0.0004	0.0008
Discharge Time Constant (sec)	0.8 to 1.2	
Ground Isolation	Isolated from Mounting Surface	

Room Temperature
-55 to +125°C

Broadband 1Hz to 10kHz

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	Stainless Steel
Electrical Connector	10-32 Coaxial Receptacle
Weight (grams)	3.6
Mounting	Adhesive

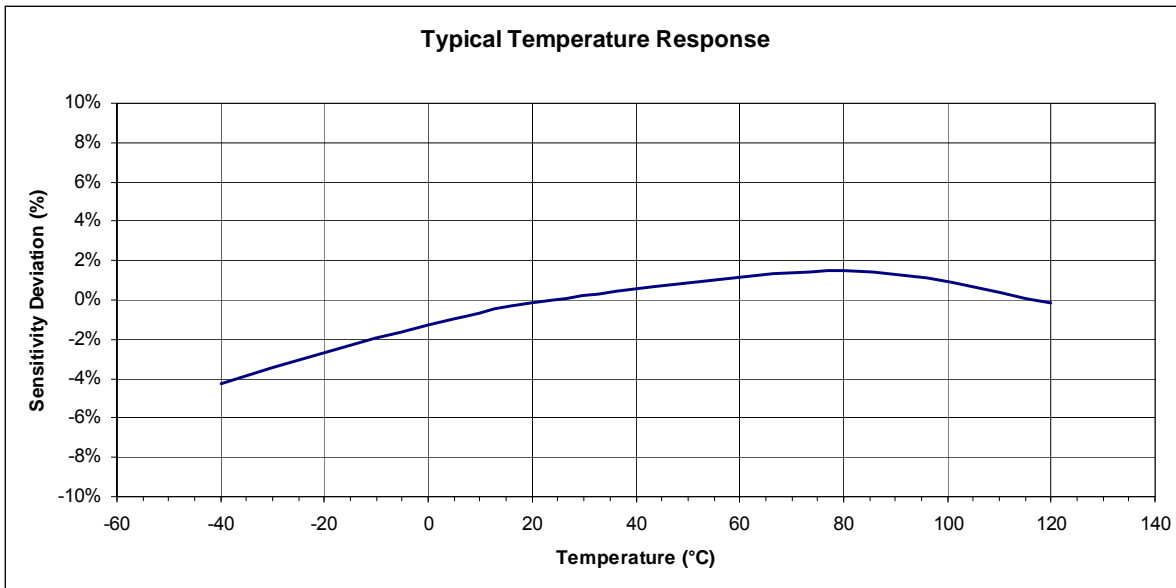
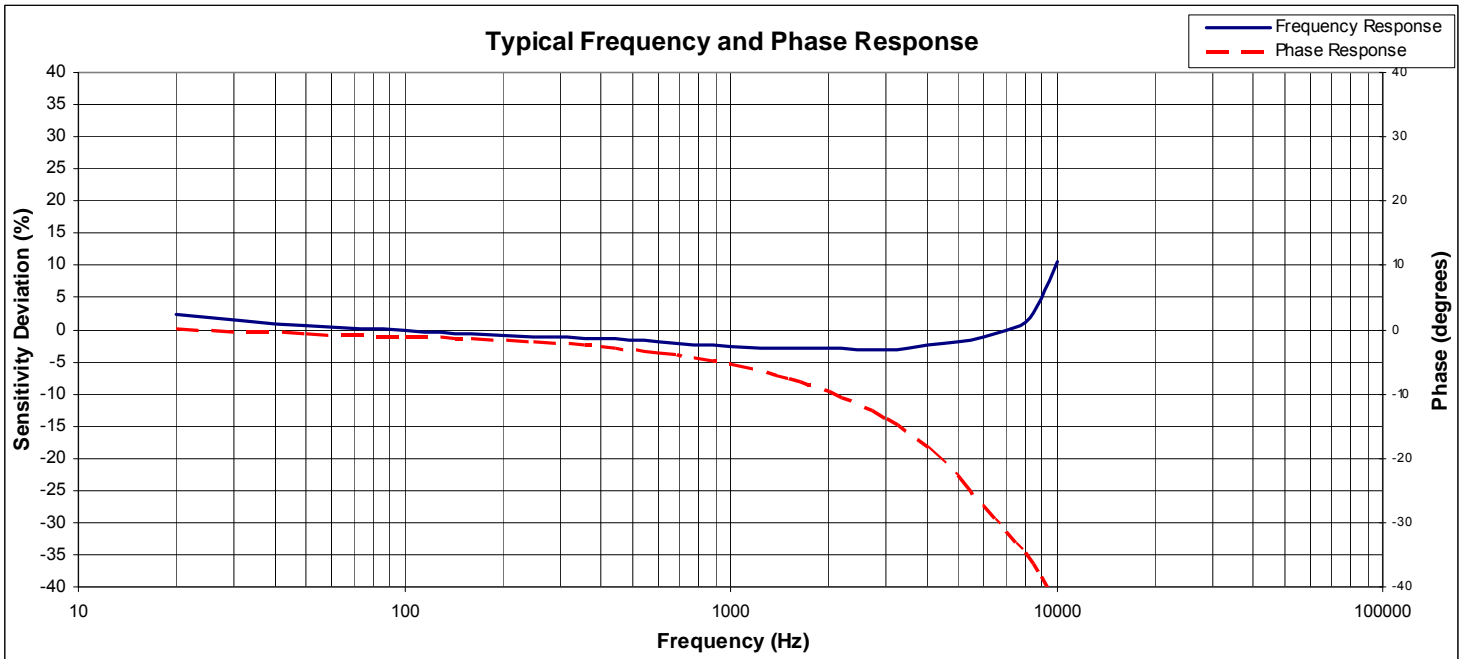
Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit

Optional accessories: 310-XXX Cable Assembly, 10-32 to 10-32 (XXX designates length in inches, 10ft standard)
314-XXX Cable Assembly, 10-32 to BNC (XXX designates length in inches, 10ft standard)

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Model 7108A Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number+Range

7108A-GGGG

|
| _____ Range (0050 is 50g)

Example: 7108A-0050
Model 7108A, 50g