

Model 7508A Accelerometer



+200°C Charge Output Accelerometer
5.6pC/g Output, 7kHz Bandwidth
Hermetically Sealed
Miniature, Adhesive Mount



The Model 7508A is a miniature piezoelectric charge mode accelerometer designed for high frequency vibration and shock measurements at temperatures up to +200°C. The accelerometer incorporates an annular shear mode crystal installed with a compression ring that eliminates the usage of epoxies that can affect long term stability at elevated temperatures. Featuring a nominal charge output of 5.6pC/g, the model 7508A offers a high signal to noise ratio in a miniature adhesive mount package.

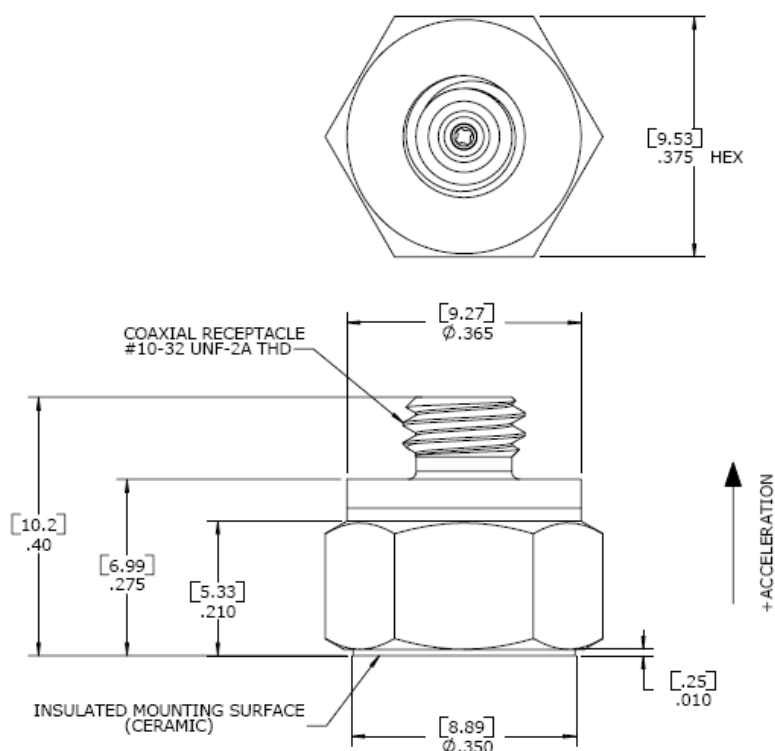
FEATURES

- Wide bandwidth up to 7kHz
- -73°C to +200°C Operating Range
- Stainless Steel Housing
- Annular Shear Mode
- Adhesive Mounting
- Isolated from Mounting Surface

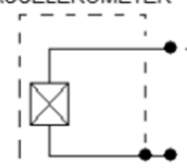
APPLICATIONS

- Vibration & Shock Monitoring
- High Temp Applications
- Flight Testing
- High Frequency Applications
- Small Structures Monitoring

dimensions



ACCELEROMETER



Model 7508A Accelerometer

performance specifications

All values are typical at +24°C, 100Hz 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

Sensitivity (pC/g)	5.6
Sensitivity (pC/g)	4.0
Frequency Response (Hz) ²	1-5000
Frequency Response (Hz) ²	0.3-7000
Natural Frequency (Hz)	32000
Non-Linearity (%FSO)	±1/1000g
Transverse Sensitivity (%)	<5
Dynamic Range (g) ¹	±4000
Shock Limit (g)	10000

Notes

Typical
Minimum
±10%
±2dB

ELECTRICAL

Capacitance (pF)	560
Insulation Resistance (MΩ)	>100
Ground Isolation	Isolated from Mounting Surface

Nominal
@100Vdc

ENVIRONMENTAL

Temperature Response (%)	See Typical Temperature Response Curve
Operating Temperature (°C)	-73 to +200
Storage Temperature (°C)	-73 to +200
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

¹ Operating range over which the accelerometer meets the linearity specifications

² Low-end response of the accelerometer is a function of its associated electronics.

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

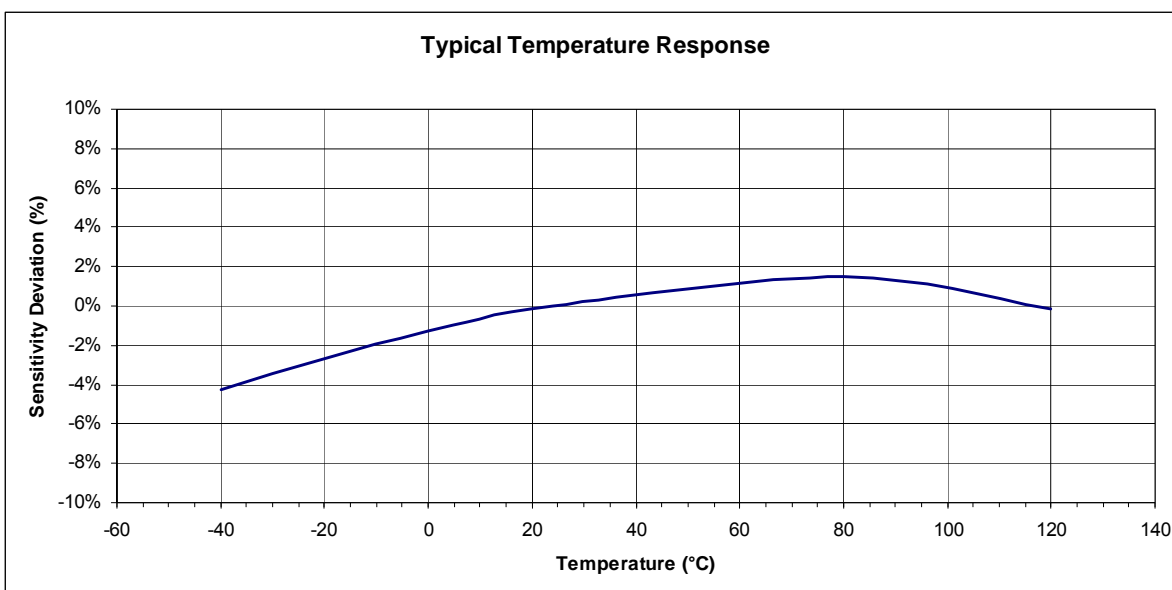
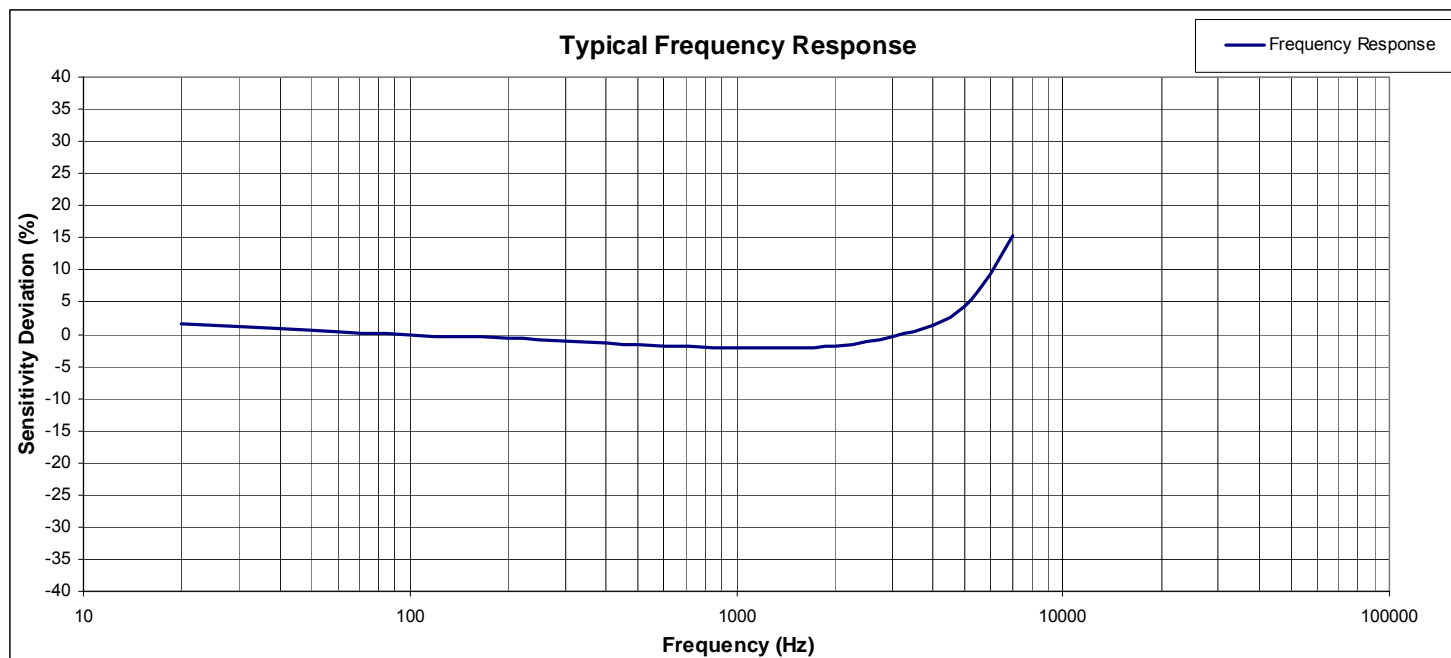
Optional accessories:

320-XXX	Low Noise Cable Assembly, 10-32 to 10-32 (XXX designates length in inches, 10ft standard)
324-XXX	Low Noise Cable Assembly, 10-32 to BNC (XXX designates length in inches, 10ft standard)
130	In-Line Charge Converter
161A	4-Channel PE & IEPE Signal Conditioner

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performance specifications



ordering info

PART NUMBERING Model Number

7508A