

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.

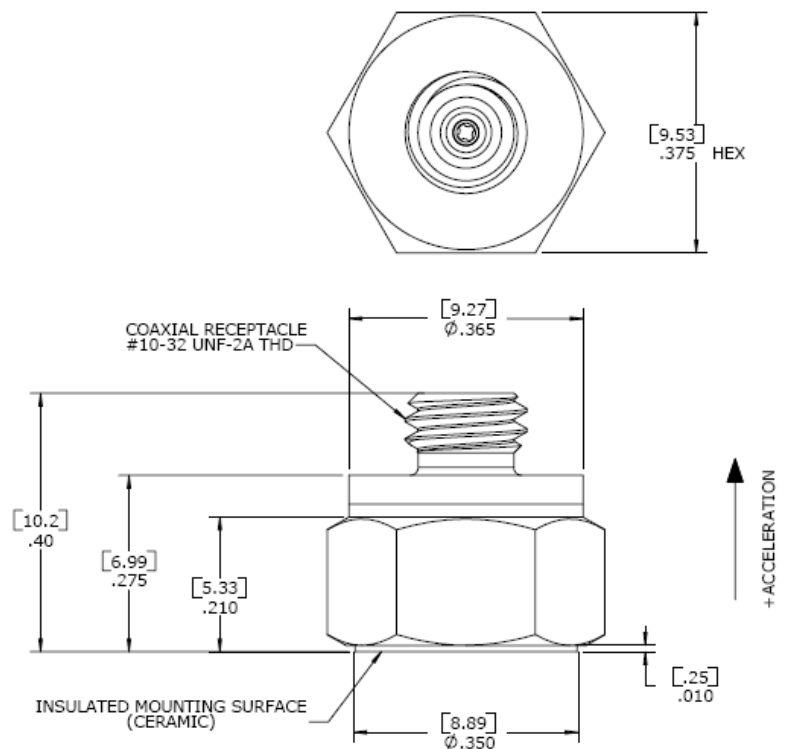
FEATURES

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

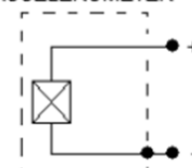
APPLICATIONS

- 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

Parameters		Notes
Sensitivity (pC/g)	5.6	Typical
Sensitivity (pC/g)	4.0	Minimum
Frequency Response (Hz) ²	1-5000	±10%
Frequency Response (Hz) ²	0.3-7000	±2dB
Natural Frequency (Hz)	32000	
Non-Linearity (%FSO)	±1/1000g	
Transverse Sensitivity (%)	<5	
Dynamic Range (g) ¹	±4000	
Shock Limit (g)	10000	

ELECTRICAL

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

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

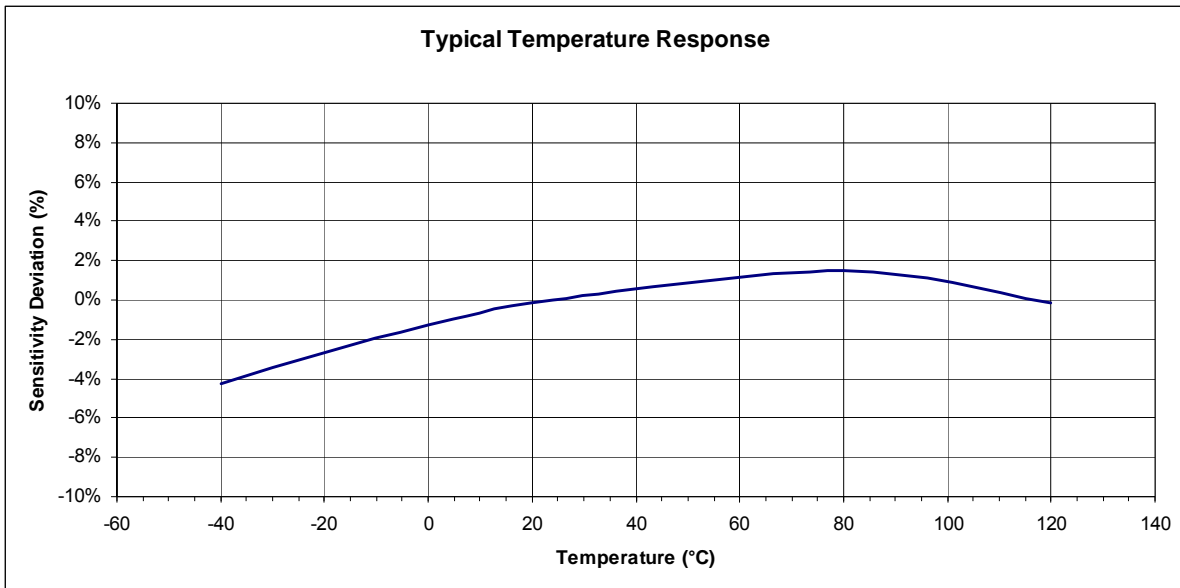
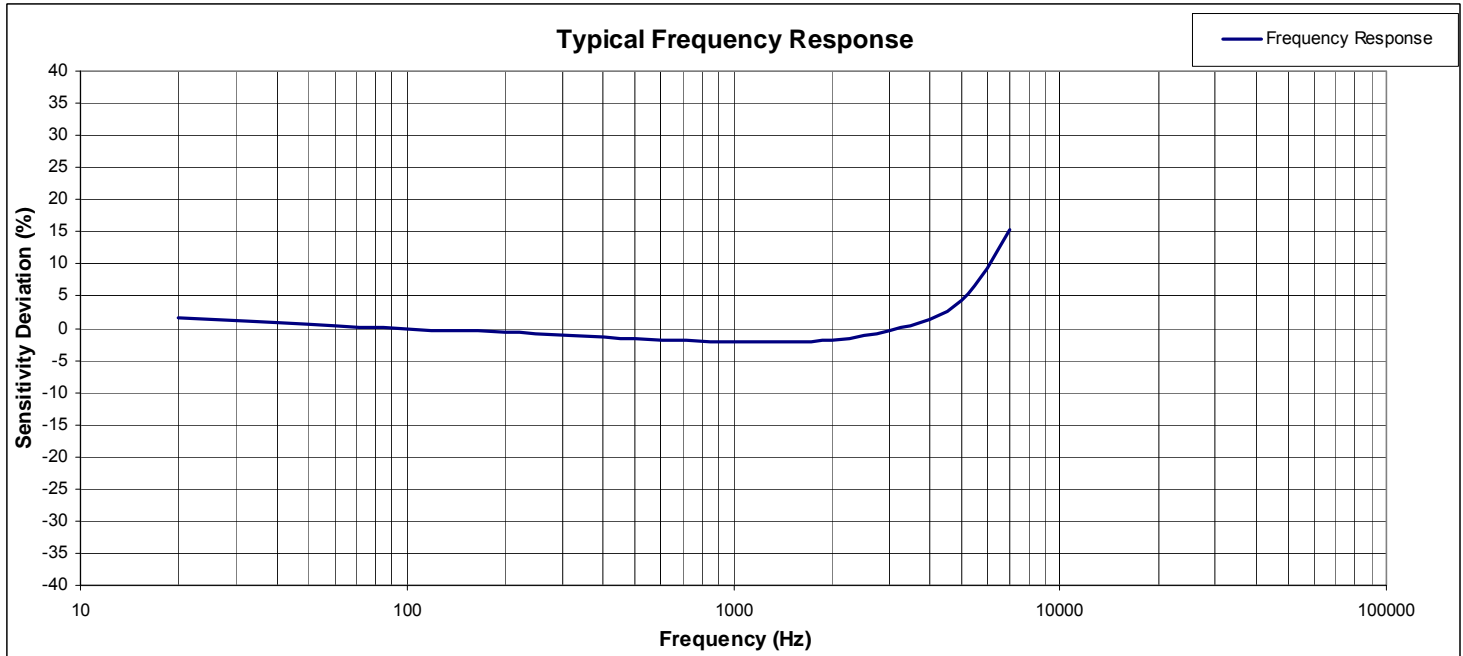
Optional accessories:

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

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

Model 7508A Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number

7508A