

# 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.

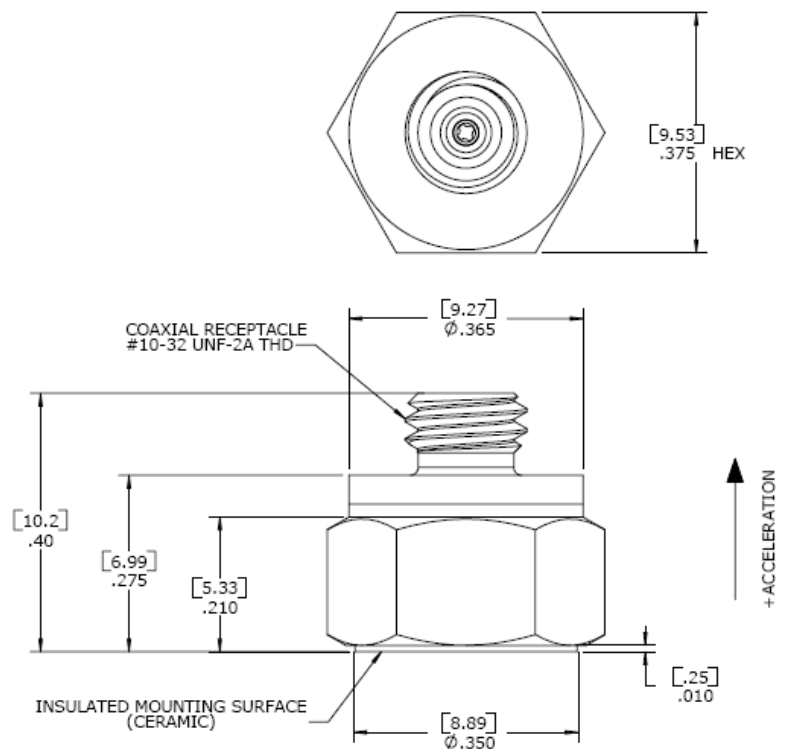
## FEATURES

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

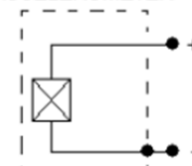
## APPLICATIONS

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

## dimensions



## ACCELEROMETER



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## 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) <sup>2</sup>	1-5000	±10%
Frequency Response (Hz) <sup>2</sup>	0.3-7000	±2dB
Natural Frequency (Hz)	32000	
Non-Linearity (%FSO)	±1/1000g	
Transverse Sensitivity (%)	<5	
Dynamic Range (g) <sup>1</sup>	±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

<sup>1</sup> Operating range over which the accelerometer meets the linearity specifications

<sup>2</sup> 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

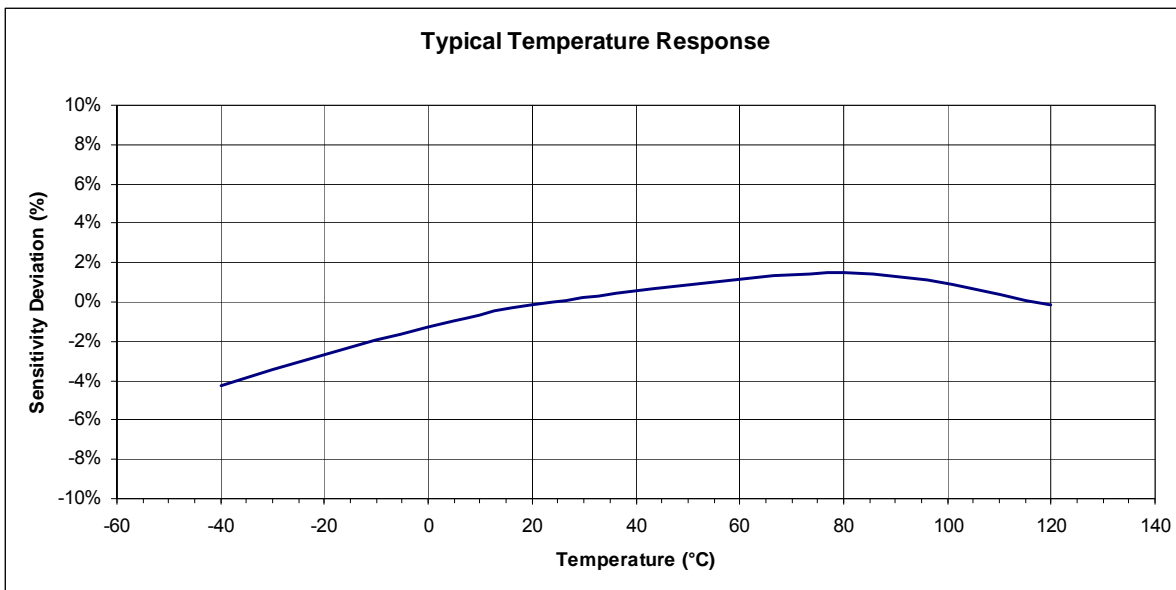
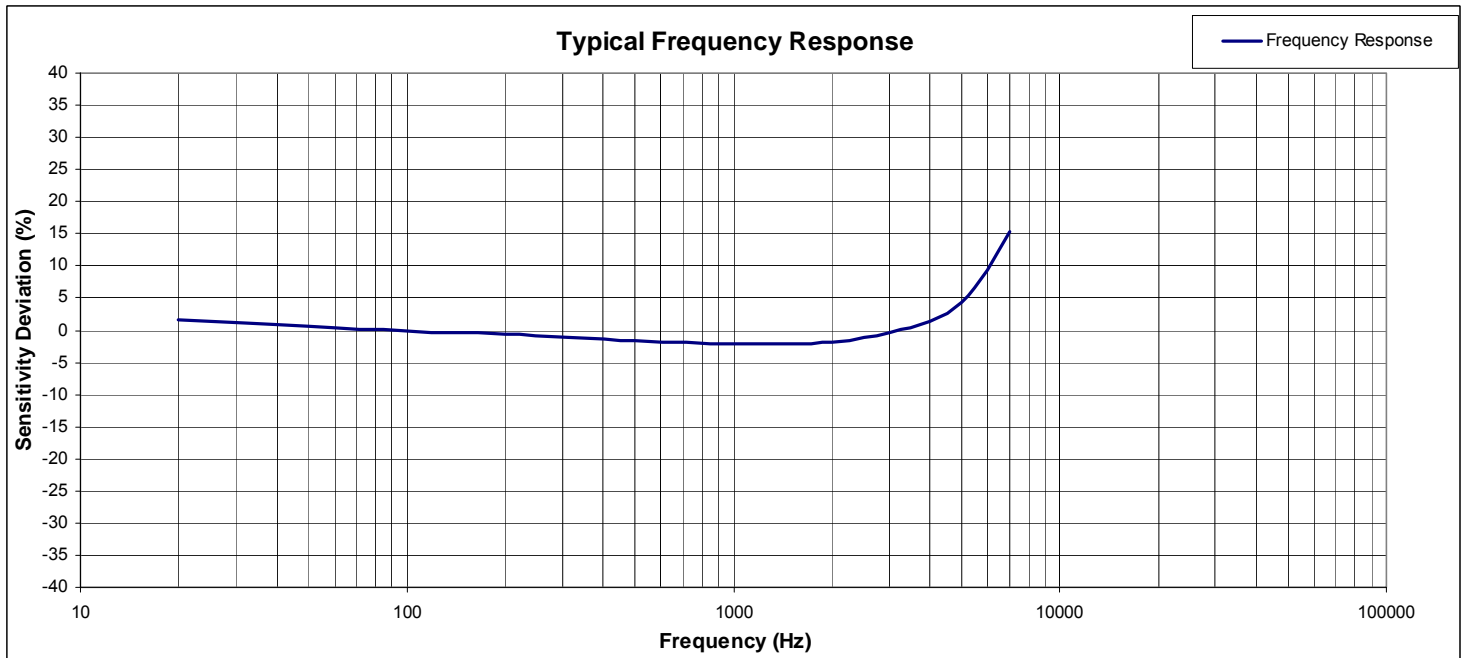
**Optional accessories:**

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