

# Model 7502A Accelerometer



+260°C Charge Output Accelerometer  
1.8pC/g output, 14kHz Bandwidth  
Hermetically Sealed  
Miniature, Lightweight (0.8gm)



The **Model 7502A** is a miniature piezoelectric charge mode accelerometer designed for high frequency vibration and shock measurements. The accelerometer incorporates an annular shear mode crystal that provides stable thermal response up to +260°C. The model 7502A is hermetically sealed and features a nominal charge output of 1.8pC/g. The miniature and light weight Titanium package renders the accelerometer ideal for applications requiring minimal mass loading.

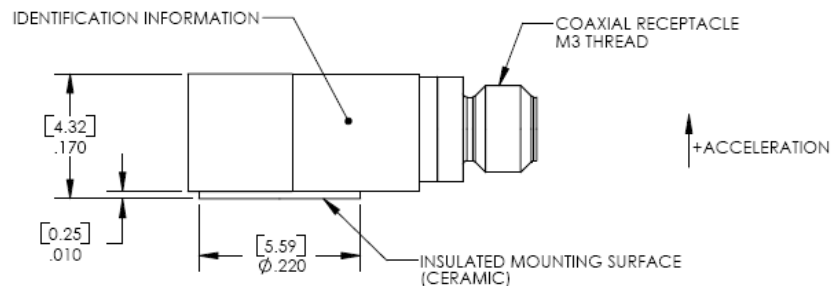
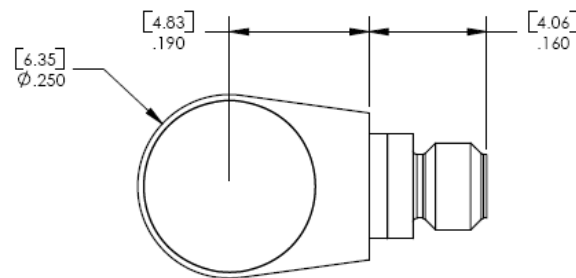
## FEATURES

- ±5000g Dynamic Range
- Wide bandwidth up to 14kHz
- -73°C to +260°C Operating Range
- Adhesive Mount
- Titanium Housing
- Annular Shear Mode
- Isolated Mounting Surface

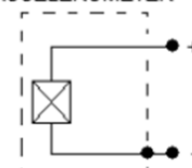
## APPLICATIONS

- 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

<b>DYNAMIC</b>		<b>Notes</b>
Sensitivity (pC/g)	1.8	Typical
Sensitivity (pC/g)	1.0	Minimum
Frequency Response (Hz) <sup>2</sup>	1-10000	±10%
Frequency Response (Hz) <sup>2</sup>	0.1-14000	±2dB
Natural Frequency (Hz)	48000	
Non-Linearity (%FSO)	±1/1000g	
Transverse Sensitivity (%)	<5	
Dynamic Range (g) <sup>1</sup>	±5000	
Shock Limit (g)	10000	

### **ELECTRICAL**

Capacitance (pF)	240	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 +260
Storage Temperature (°C)	-73 to +260
Humidity	Hermetically Sealed

### **PHYSICAL**

Sensing Element	Ceramic (shear mode)
Case Material	Titanium
Electrical Connector	M3 Coaxial Receptacle
Weight (grams)	0.8
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.

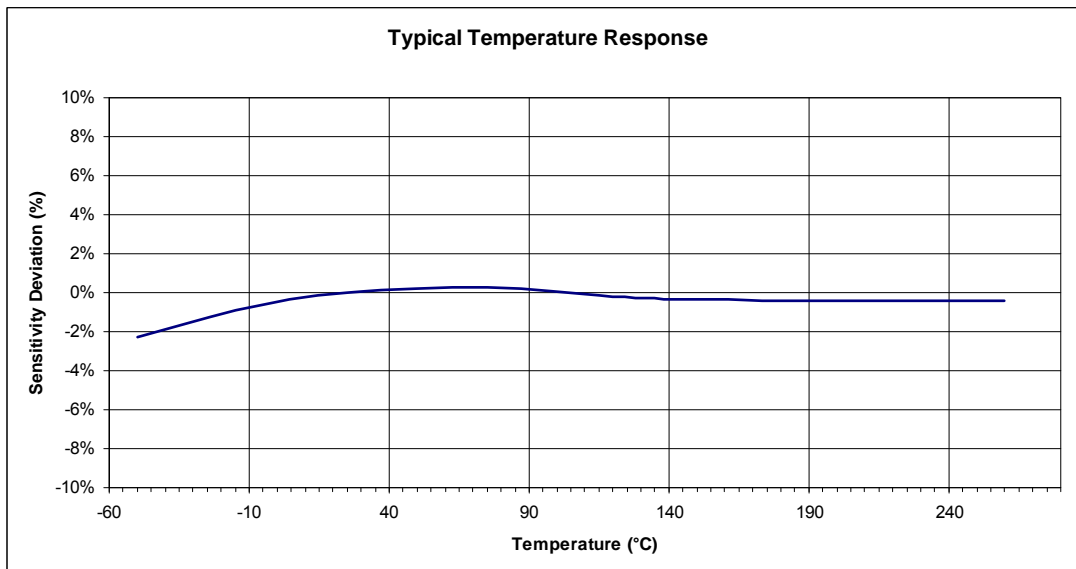
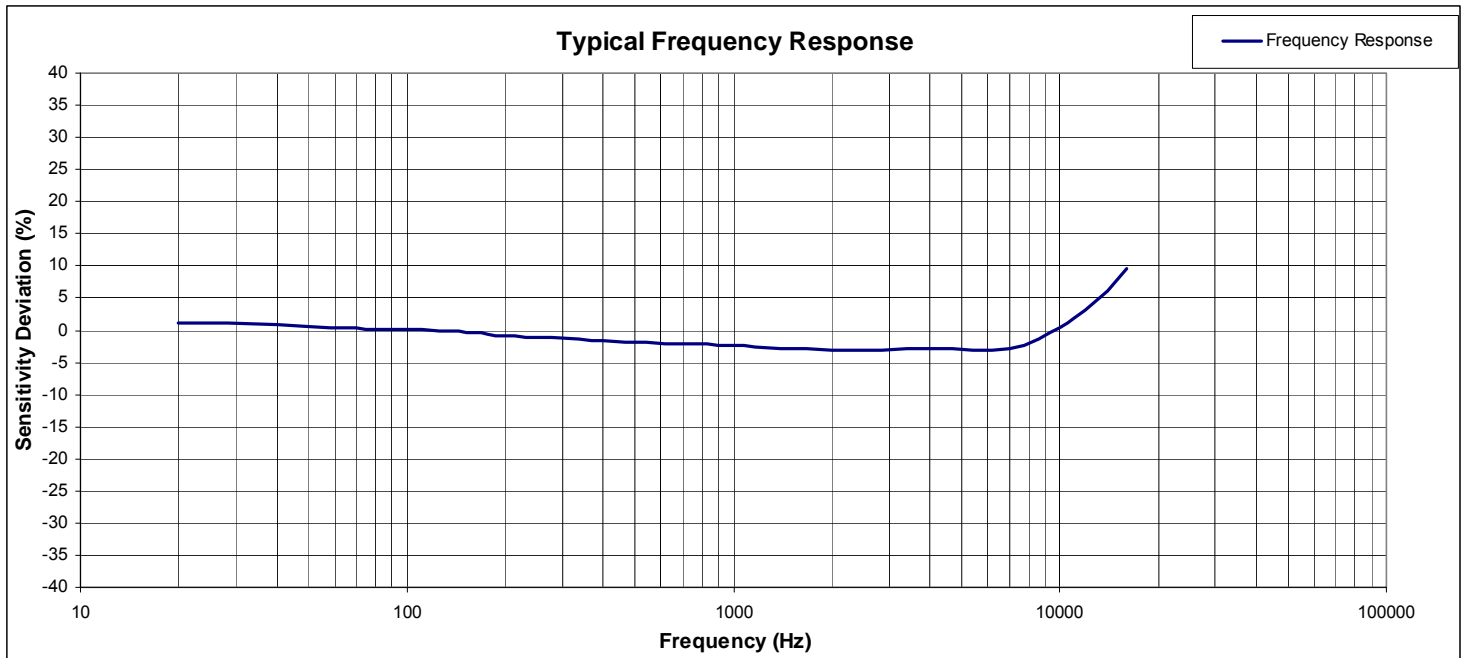
**Calibration supplied:** CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit

**Optional accessories:** 321-XXX Low Noise Cable Assembly, M3 to 10-32 (XXX designates length in inches, 10ft standard)  
130 In-Line Charge Converter  
161 4-Channel PE & IEPE Signal Conditioner

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## performance specifications



## ordering info

PART NUMBERING    Model Number

7502A