

Model 7501A Accelerometer



+260°C Charge Output Accelerometer
5.6pC/g output, 15kHz Bandwidth
Hermetically Sealed
Miniature, Lightweight (2.1gm)



The Model 7501A is a miniature piezoelectric charge mode accelerometer with an operating temperature range to +260°C. The accelerometer is designed for high frequency vibration and shock measurements and offers a wide bandwidth to >10kHz with 5.6pC/g nominal output. The model 7501A features a hermetically sealed titanium housing and the popular through hole mount configuration.

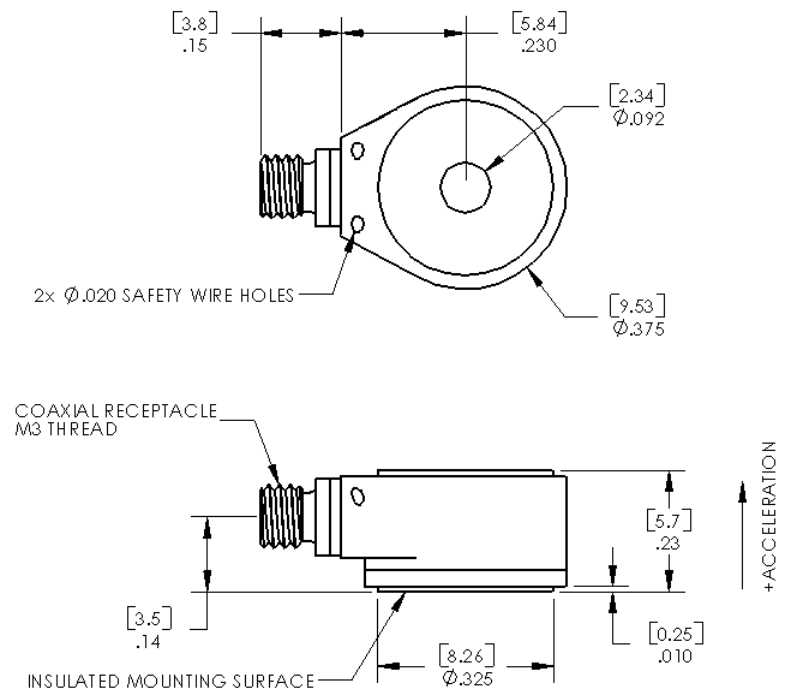
FEATURES

- -73°C to +260°C Operating Range
- Wide bandwidth up to >10kHz
- Titanium Housing
- Annular Shear Mode
- Isolated Mounting Surface
- Through Hole Mount

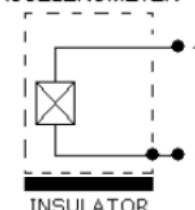
APPLICATIONS

- Vibration & Shock Monitoring
- High Temp Applications
- Flight Testing
- High Frequency Applications
- Gearbox Vibration Monitoring

dimensions



ACCELEROMETER



Model 7501A 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	1-8000	±10%
Frequency Response (Hz) ²	0.5-10000	±2dB
Natural Frequency (Hz)	46000	
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 +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)	2.1
Mounting	Through Hole (#2 insulated cap screw)
Mounting Torque	5 lb-in (0.6 N-m)

¹ Operating range over which the accelerometer meets the linearity specifications

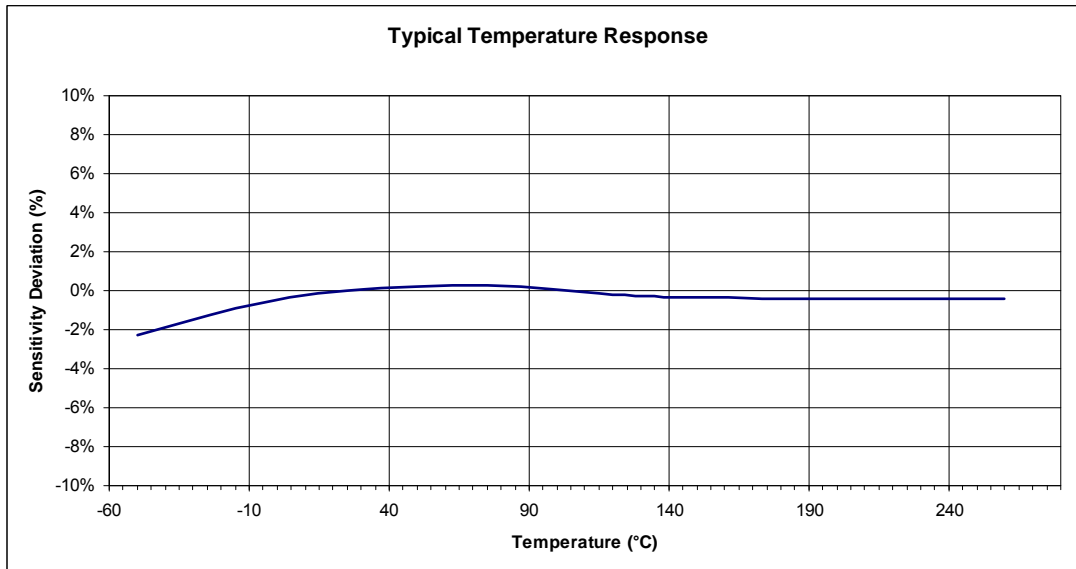
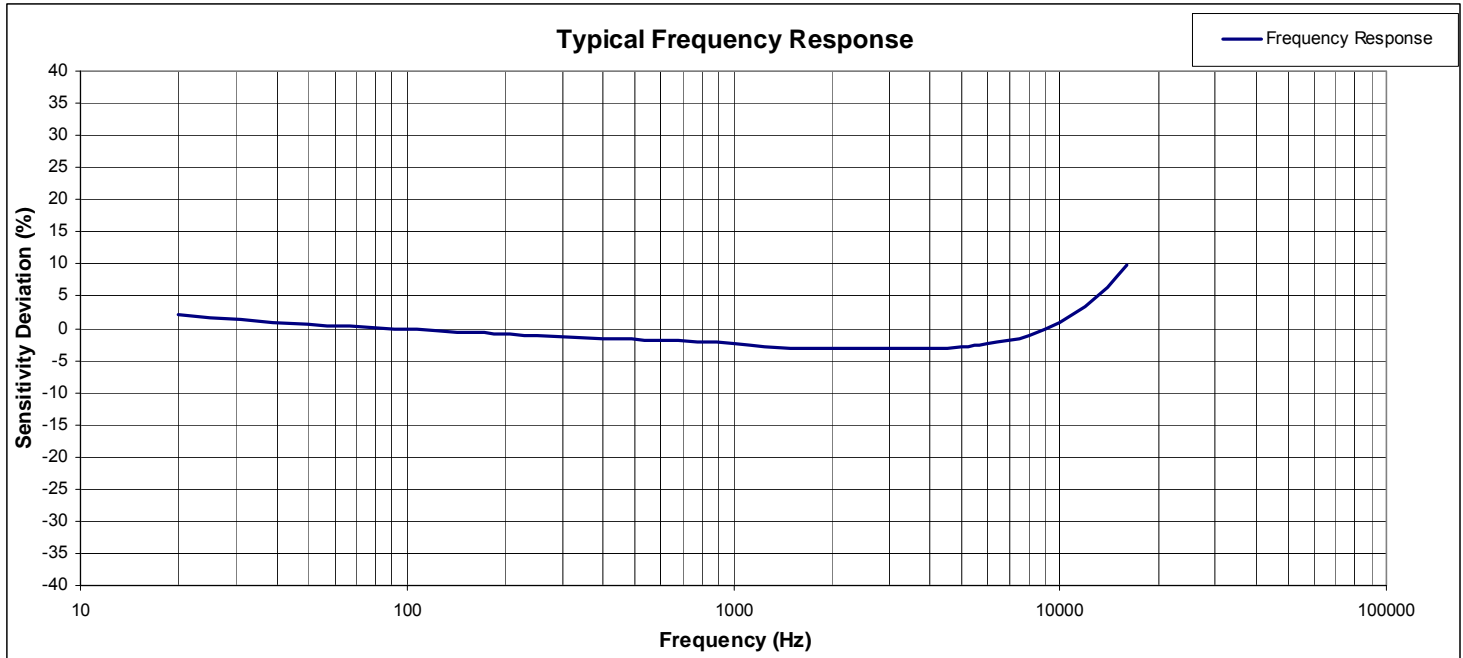
² Low-end response of the accelerometer is a function of its associated electronics.

Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit
Supplied accessories:	AC-A03230	1x #2-56 Insulated Mounting Screw Assembly (3/8 inch length)
Optional accessories:	321-XXX	Low Noise Cable Assembly, M3 to 10-32 (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

7501A