Model 7530A Accelerometer

Triaxial Charge Output Accelerometer
+200°C Temperature Range
Hermetically Sealed
5.6pC/g Charge Output

The Model 7530A is a triaxial piezoelectric charge mode accelerometer designed for high frequency vibration and shock measurements. The accelerometer incorporates three independent annular shear mode crystal assemblies installed with a compression ring that eliminates the usage of epoxies that can affect long term stability at elevated temperatures. The annular shear crystals also provide a stable thermal response up to +200°C and a nominal charge output of 5.6pC/g which offers optimum signal to noise ratio.

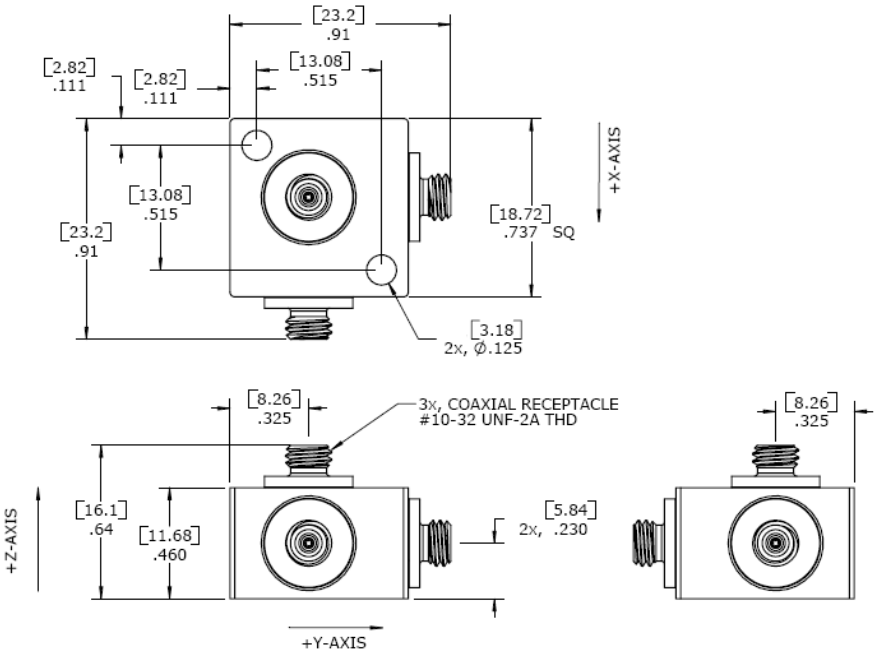
FEATURES

- -73°C to +200°C Operating Range
- Wide bandwidth up to 6kHz
- Isolated Aluminum Housing
- Annular Shear Mode Crystals
- Independent Channels
- Stable Temperature Response

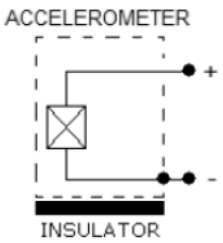
APPLICATIONS

- Vibration & Shock Monitoring
- High Temp Applications
- Triaxial Applications
- High Frequency Monitoring
- General Purpose Usage

dimensions



SCHEMATIC (EACH CHANNEL)



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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		**Notes**
Sensitivity (pC/g)	5.6	Typical
Sensitivity (pC/g)	4.0	Minimum
Frequency Response (Hz) [2]	1-4000	±10%
Frequency Response (Hz) [2]	0.3-6000	±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 by Aluminum Case	
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	Hard Anodized Aluminum	
Electrical Connector	10-32 Coaxial Receptacle	
Weight (grams)	15	
Mounting	2x #4 or M3 Screws	
Mounting Torque	6 lb-in (0.7 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:	2x #4-40 (5/8 length) Socket Head Cap Screw and Washer	
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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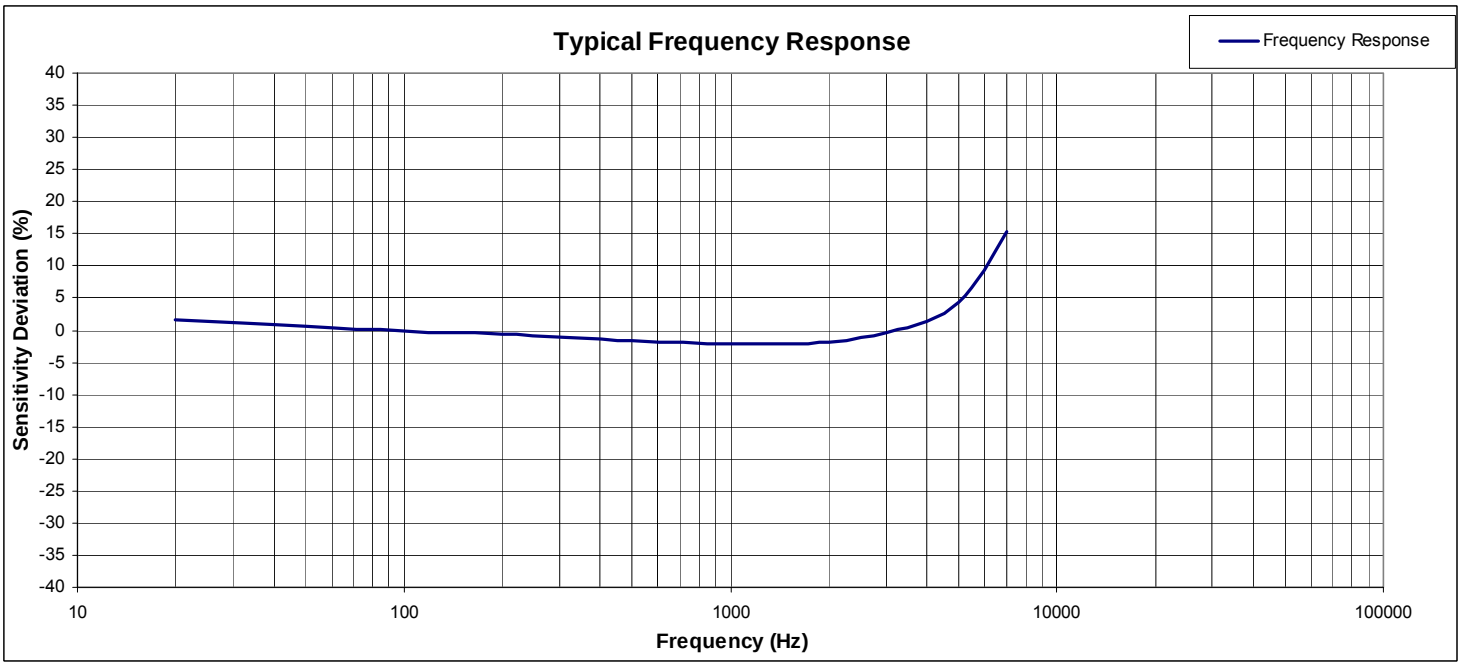

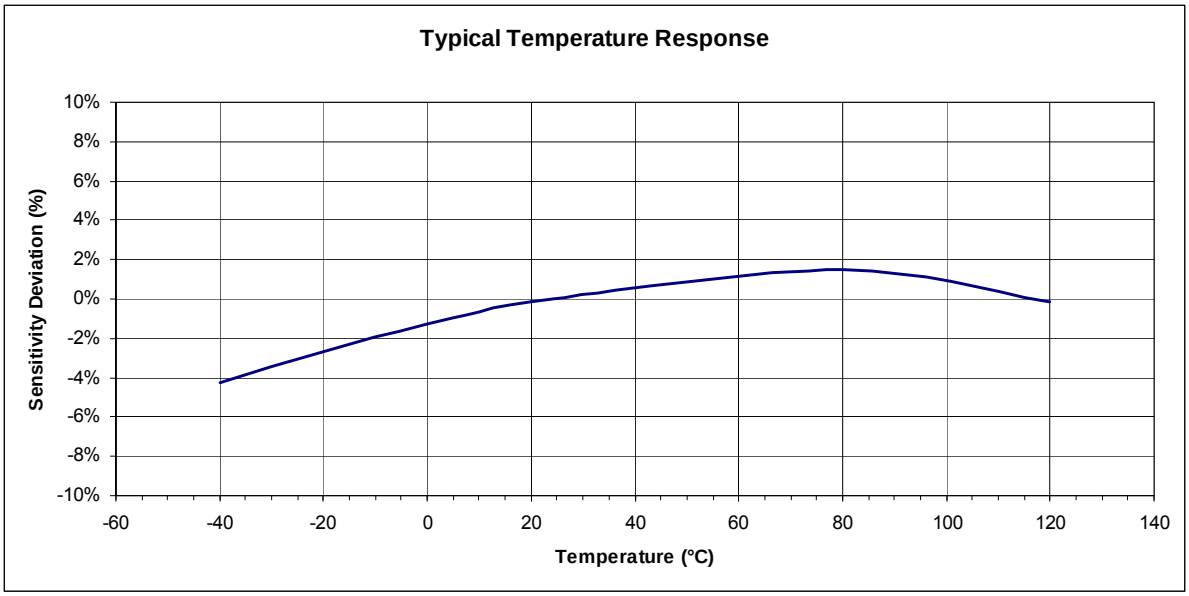

ordering info

PART NUMBERING Model Number

7530A

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