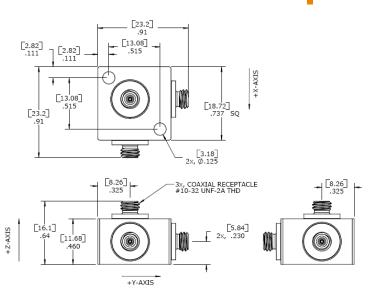


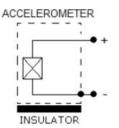




## **DIMENSIONS**



SCHEMATIC (EACH CHANNEL)



# **MODEL 7530A ACCELEROMETER**

#### **SPECIFICATIONS**

- 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

#### PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

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 (M $\Omega$ ) >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)

Mounting 2x #4 or M3 Screws Mounting Torque 6 lb-in (0.7 N-m)

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

15

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)

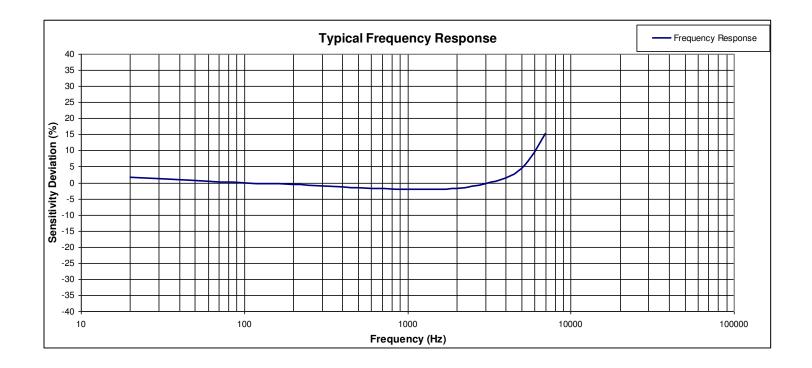
324-XXX Low Noise Cable Assembly, 10-32 to BNC (XXX designates length in inches, 10ft standard)

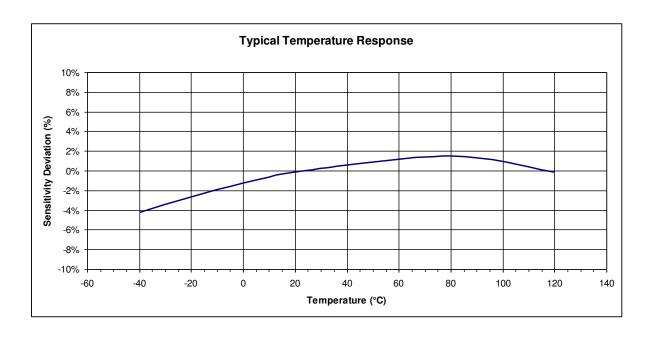
130 In-Line Charge Converter

161A 4-Channel PE & IEPE Signal Conditioner

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<sup>&</sup>lt;sup>2</sup> Low-end response of the accelerometer is a function of its associated electronics.





## **ORDERING INFORMATION**

PART NUMBERING Model Number

7530A

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