

Triaxial Charge Output Accelerometer

+200°C Temperature Range

Hermetically Sealed

5.6pC/g Charge Output



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

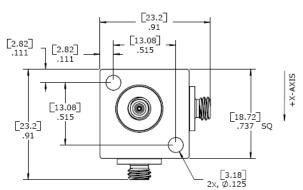
- -73°C to +200°C Operating Range
- Wide bandwidth up to 6kHz
- Isolated Aluminum Housing
- Annular Shear Mode Crystals
- Independent Channels
- Stable Temperature Response

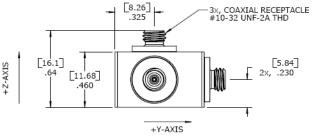
APPLICATIONS

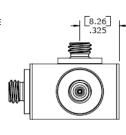
- Vibration & Shock Monitoring
- High Temp Applications
- Triaxial Applications
- High Frequency Monitoring
- General Purpose Usage



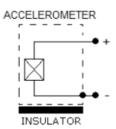
dimensions







SCHEMATIC (EACH CHANNEL)



Model 7530A 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

DYNAMICNotesSensitivity (pC/g)5.6TypicalSensitivity (pC/g)4.0MinimumFrequency Response (Hz) 21-4000±10%Frequency Response (Hz) 20.3-6000±2dB

 Natural Frequency (Hz)
 32000

 Non-Linearity (%FSO)
 ±1/1000g

 Transverse Sensitivity (%)
 <5</td>

 Dynamic Range (g) 1
 ±4000

 Shock Limit (g)
 10000

ELECTRICAL

Capacitance (pF) 560 Nominal Insulation Resistance (M Ω) >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)

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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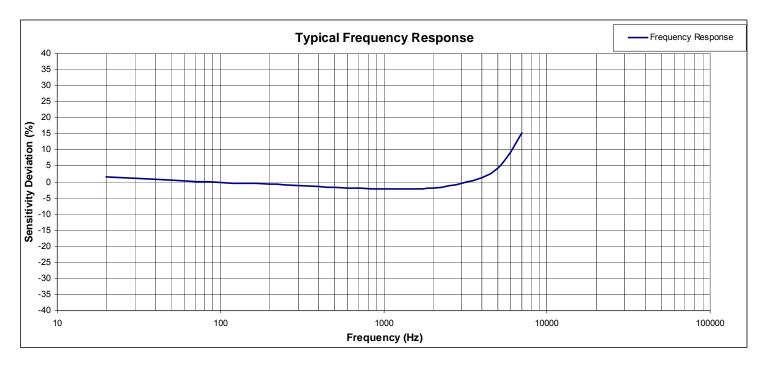
Operating range over which the accelerometer meets the linearity specifications

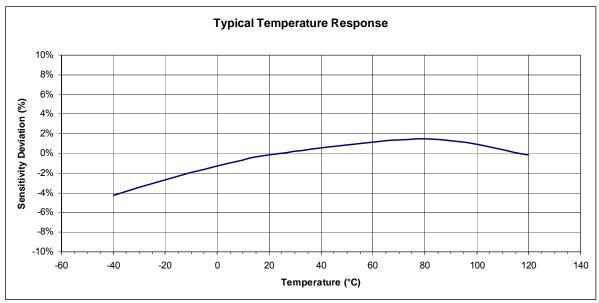
² Low-end response of the accelerometer is a function of its associated electronics.

Model 7530A Accelerometer



performance specifications





ordering info

PART NUMBERING Model Number

7530A