

+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.

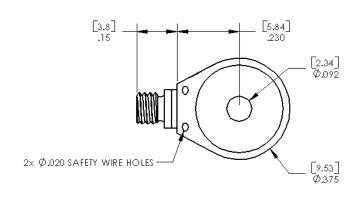
#### **FEATURES**

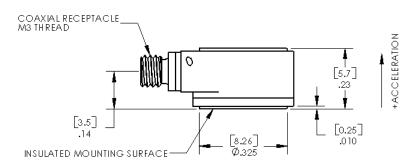
- -73°C to +260°C Operating Range
- Wide bandwidth up to >10kHz
- Titanium Housing
- Annular Shear Mode
- Isolated Mounting Surface
- Through Hole Mount

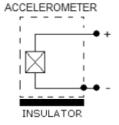
#### **APPLICATIONS**

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

#### dimensions







### **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 Notes** Sensitivity (pC/g) 5.6 Typical Sensitivity (pC/g) Minimum 4.0 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) ±4000 Shock Limit (g) 10000

**ELECTRICAL** 

Capacitance (pF) 560 Nominal Insulation Resistance (MΩ) >100 @100Vdc

Ground Isolation Isolated from Mounting Surface

**ENVIRONMENTAL** 

See Typical Temperature Response Curve Temperature Response (%)

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)

Mounting Through Hole (#2 insulated cap screw)

Mounting Torque 5 lb-in (0.6 N-m)

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

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

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

1x #2-56 Insulated Mounting Screw Assembly (3/8 inch length) Supplied accessories: AC-A03230

Optional accessories: 321-XXX Low Noise Cable Assembly, M3 to 10-32 (XXX designates length in inches, 10ft standard)

In-Line Charge Converter 130

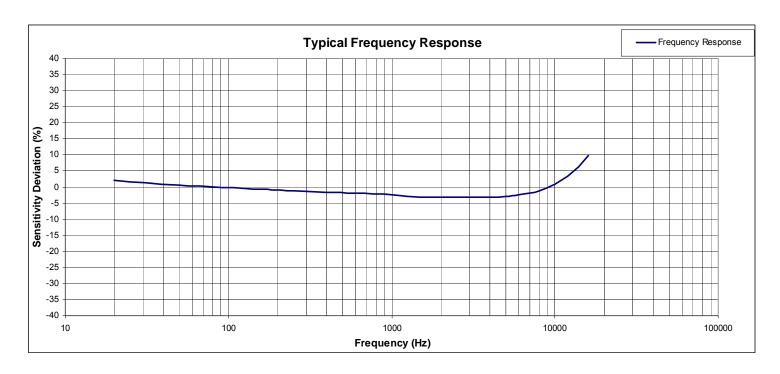
161A 4-Channel PE & IEPE Signal Conditioner

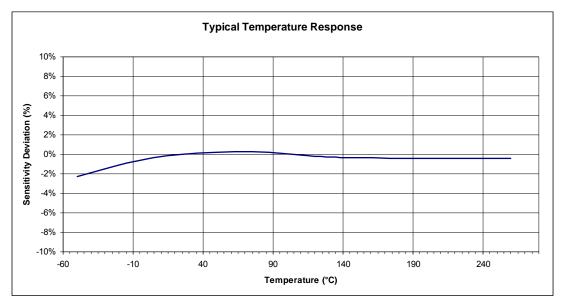
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# **Model 7501A Accelerometer**



## performance specifications





#### ordering info

PART NUMBERING Model Number

7501A