MODEL 7501A ACCELEROMETER

SPECIFICATIONS
- +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

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## 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.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Dynamic Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (pC/g)</td>
<td>5.6 Typical</td>
</tr>
<tr>
<td>Sensitivity (pC/g)</td>
<td>4.0 Minimum</td>
</tr>
<tr>
<td>Frequency Response (Hz)</td>
<td>1-8000 ±10%</td>
</tr>
<tr>
<td>Frequency Response (Hz)</td>
<td>0.5-10000 ±2dB</td>
</tr>
<tr>
<td>Natural Frequency (Hz)</td>
<td>46000</td>
</tr>
<tr>
<td>Non-linearity (%FSO)</td>
<td>±1/1000g</td>
</tr>
<tr>
<td>Transverse Sensitivity (%)</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Dynamic Range (g)</td>
<td>±4000</td>
</tr>
<tr>
<td>Shock Limit (g)</td>
<td>10000</td>
</tr>
</tbody>
</table>

### 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
- AC-A04018 Triaxial Mounting Block

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Typical Frequency Response

Typical Temperature Response
ORDERING INFORMATION

PART NUMBERING    Model Number

7501A