MODEL 7505A ACCELEROMETER

SPECIFICATIONS
- +260°C Charge Output Accelerometer
- 5.6pC/g output, 10kHz Bandwidth
- Hermetically Sealed
- Stud Mount, Top Connector

The Model 7505A is a stud mounted 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 and a nominal charge output of 5.6pC/g. The model 7505A features a hermetically sealed stainless steel housing and a #10-32 stud mount configuration.

FEATURES
- -73°C to +260°C Operating Range
- Wide bandwidth up to >10kHz
- Stainless Steel Housing
- Annular Shear Mode
- Case Grounded
- 10-32 Top Connector

APPLICATIONS
- Vibration & Shock Monitoring
- High Temp Applications
- Laboratory Testing
- High Frequency Applications
- Gearbox Vibration Monitoring
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

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Dynamic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (pC/g)</td>
<td>5.6</td>
<td>Typical</td>
</tr>
<tr>
<td>Sensitivity (pC/g)</td>
<td>4.0</td>
<td>Minimum</td>
</tr>
<tr>
<td>Frequency Response (Hz) ^2</td>
<td>1-10000</td>
<td>±10%</td>
</tr>
<tr>
<td>Frequency Response (Hz) ^2</td>
<td>0.3-15000</td>
<td>±2dB</td>
</tr>
<tr>
<td>Natural Frequency (Hz)</td>
<td>47000</td>
<td></td>
</tr>
<tr>
<td>Non-Linearity (%FSO)</td>
<td>±1/1000g</td>
<td></td>
</tr>
<tr>
<td>Transverse Sensitivity (%)</td>
<td>&lt;5</td>
<td></td>
</tr>
<tr>
<td>Dynamic Range (g) ^2</td>
<td>±4000</td>
<td></td>
</tr>
<tr>
<td>Shock Limit (g)</td>
<td>10000</td>
<td></td>
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**ELECTRICAL**
- Capacitance (pF) 560 Nominal
- Insulation Resistance (MΩ) >100 @100Vdc
- Grounding Case Grounded

**ENVIRONMENTAL**
- Operating Temperature (°C) -73 to +260
- Storage Temperature (°C) -73 to +260
- Humidity Hermetically Sealed

**PHYSICAL**
- Sensing Element Ceramic (shear mode)
- Case Material Stainless Steel
- Weight (grams) 7.3
- Mounting #10-32 to #10-32 Mounting Stud (included)
- Mounting Torque 18 lb-in (2.0 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-D02298 10-32 to 10-32 mounting stud

**Optional accessories:** 320-XXX Cable Assembly, 10-32 to 10-32 (XXX designates length in inches, 10ft standard) 130 In-Line Charge Converter 161A 4-Channel PE & IEPE Signal Conditioner AC-D03105 Adhesive Mounting Adaptor AC-D03106 Magnetic Mounting Adaptor

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Typical Frequency Response

Frequency (Hz)

Sensitivity Deviation (%)

Typical Temperature Response

Temperature (°C)

Sensitivity Deviation (%)

-60 -10 40 90 140 190 240

-10% -8% -6% -4% -2% 0% 2% 4% 6% 8% 10%

Frequency Response

Germany/Austria/Switzerland
info@althen.de

Benelux
sales@althen.nl

France
info@althensensors.fr

Sweden
info@althensensors.se

USA/Canada
info@althensensors.com

Other countries
info@althensensors.com
ORDERING INFORMATION

PART NUMBERING  Model Number

7505A