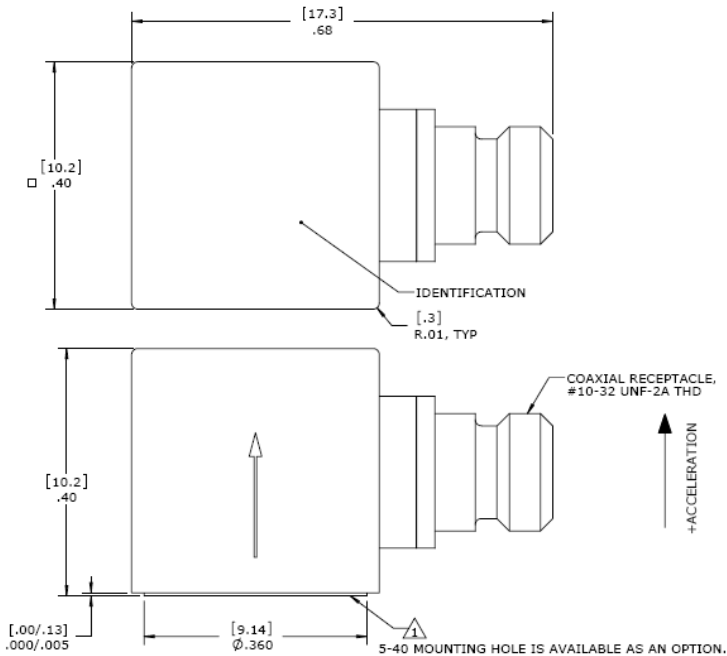


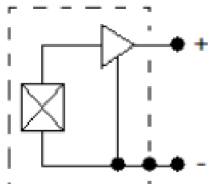
MODEL 7120A ACCELEROMETER



DIMENSIONS



ACCELEROMETER



SPECIFICATIONS

- ◆ IEPE Modal Accelerometer
- ◆ Wide Bandwidth to 10kHz
- ◆ 10-32 Side Connector
- ◆ Miniature Cube

The Model 7120A is a high performance IEPE accelerometer designed for modal applications. The accelerometer is available in $\pm 50g$ to $\pm 1000g$ dynamic ranges and offers a flat frequency response to $>6kHz$. The model 7120A is designed for adhesive mounting and features a hermetic welded Titanium construction with a side mount connector. The standard operating temperature range extends from $-55^{\circ}C$ to $+100^{\circ}C$.

FEATURES

- ◆ $\pm 50g$ to $\pm 1000g$ Dynamic Range
- ◆ Modal Testing
- ◆ Welded Construction, Titanium
- ◆ Hermetically Sealed
- ◆ Annular Shear Mode
- ◆ Stable Temperature Response
- ◆ TEDS Option

APPLICATIONS

- ◆ Modal Testing
- ◆ Vibration & Shock Monitoring
- ◆ Laboratory Testing
- ◆ General Purpose Usage

MODEL 7120A ACCELEROMETER

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

| | | | | Notes |
|----------------------------|----------|----------|----------|-------|
| Range (g) | ±50 | ±500 | ±1000 | |
| Sensitivity (mV/g) | 100 | 10 | 5 | |
| Frequency Response (Hz) | 0.5-4000 | 0.5-5000 | 0.5-6000 | ±5% |
| Frequency Response (Hz) | 0.3-6000 | 0.3-7000 | 0.3-8000 | ±1dB |
| Natural Frequency (Hz) | 37000 | 37000 | 42000 | |
| Phase Response (Hz) | 1-3000 | 1-3000 | 1-3000 | ±5% |
| Non-Linearity (%FSO) | ±1 | ±1 | ±1 | |
| Transverse Sensitivity (%) | <5 | <5 | <5 | |
| Shock Limit (g) | 10000 | 10000 | 10000 | |

ELECTRICAL

| | | | | |
|-------------------------------|---------------|----------|----------|------------------------|
| Compliance Voltage (Vdc) | 18 to 30 | 18 to 30 | 18 to 30 | |
| Excitation Current (mA) | 2 to 10 | 2 to 10 | 2 to 10 | |
| Bias Voltage (Vdc) | 8 to 12 | 8 to 12 | 8 to 12 | Room Temperature |
| Bias Voltage (Vdc) | 6 to 13 | 6 to 13 | 6 to 13 | -55 to +125°C |
| Output Impedance (Ω) | <100 | <100 | <100 | |
| Full Scale Output Voltage (V) | ±5 | ±5 | ±5 | |
| Residual Noise (g RMS) | 0.0004 | 0.0008 | 0.0012 | Broadband 1Hz to 10kHz |
| Discharge Time Constant (sec) | 0.8 to 1.2 | | | |
| Grounding | Case Grounded | | | |

ENVIRONMENTAL

| | |
|----------------------------|--|
| Temperature Response (%) | See Typical Temperature Response Curve |
| Operating Temperature (°C) | -55 to +100 |
| Storage Temperature (°C) | -55 to +100 |
| Humidity | Hermetically Sealed |

PHYSICAL

| | |
|----------------------|--------------------------|
| Sensing Element | Ceramic (shear mode) |
| Case Material | Titanium |
| Electrical Connector | 10-32 Coaxial Receptacle |
| Weight (grams) | 4.0 |
| Mounting | Adhesive |

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±1dB Frequency Response Limit

Optional accessories: 310-XXX Cable Assembly, 10-32 to 10-32 (XXX designates length in inches, 10ft standard)
314-XXX Cable Assembly, 10-32 to BNC (XXX designates length in inches, 10ft standard)
116 16 Channel IEPE Signal Conditioner, Rack Mount
161A 4-Channel PE & IEPE Signal Conditioner, Bench Top

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

