

MODEL 7120A 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

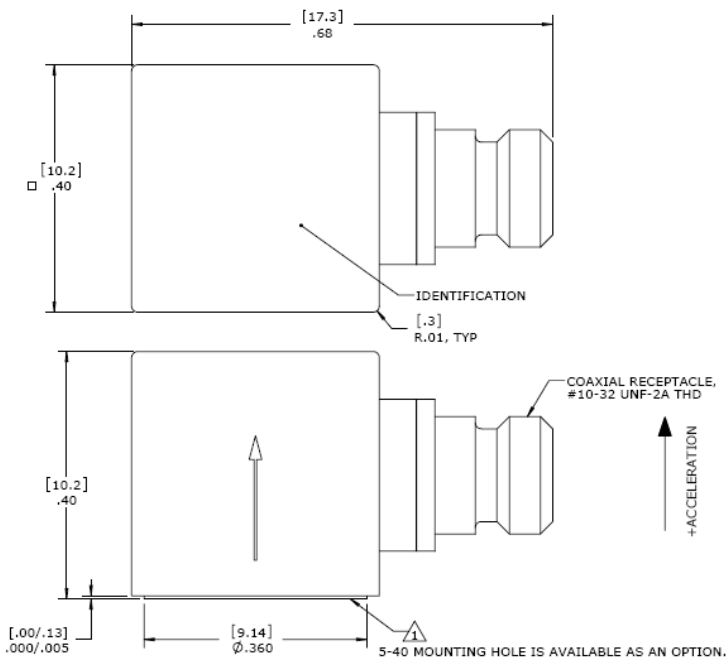
- $\pm 50g$ to $\pm 1000g$ Dynamic Range
- Modal Testing
- Welded Construction, Titanium
- Hermetically Sealed
- Annular Shear Mode
- Stable Temperature Response
- TEDS Option

APPLICATIONS

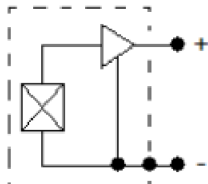
- Modal Testing
- Vibration & Shock Monitoring
- Laboratory Testing
- General Purpose Usage



DIMENSIONS



ACCELEROMETER



PERFORMANCE SPECIFICATIONS

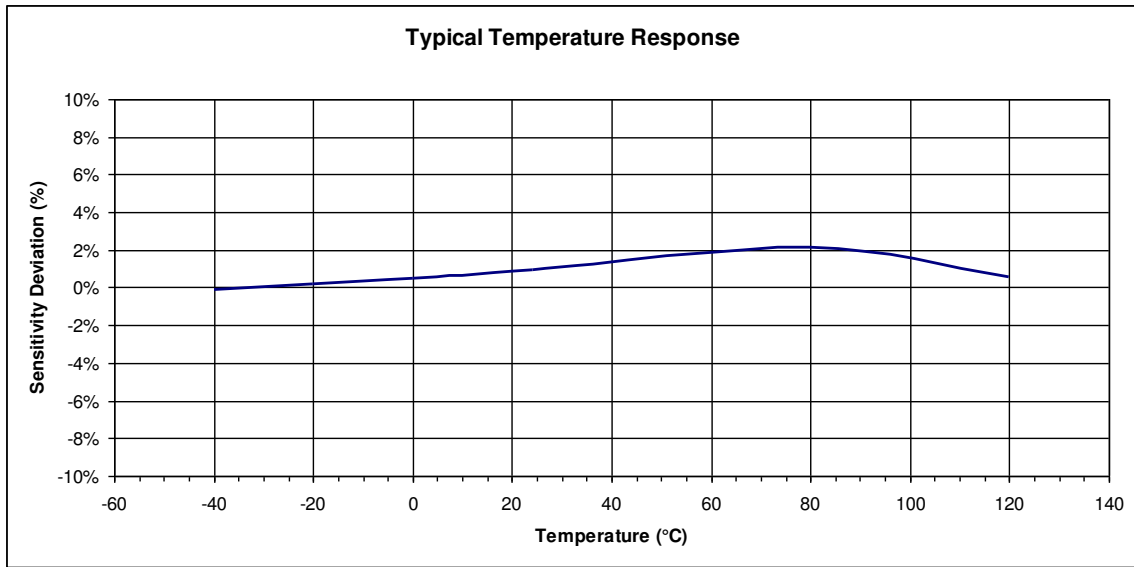
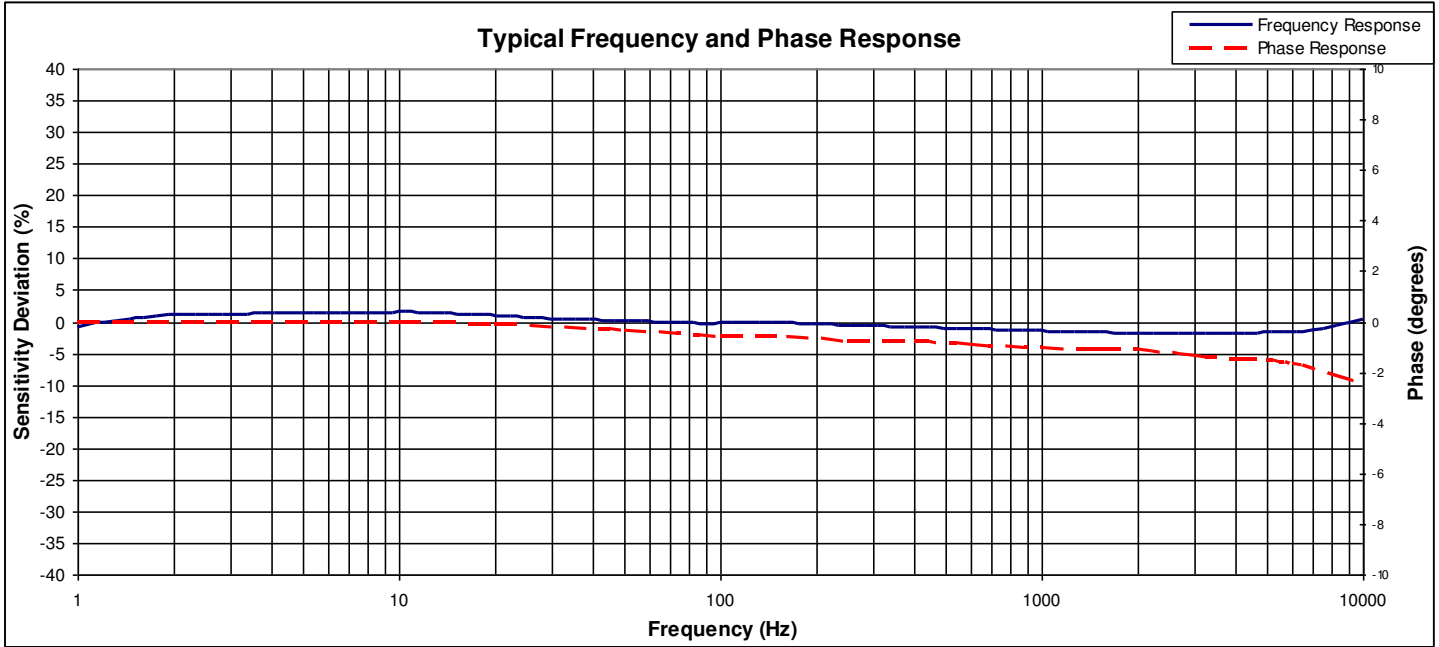
All values are typical at +24°C, 80Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters				Notes
DYNAMIC				
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

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ORDERING INFORMATION

PART NUMBERING Model Number+Range

7120AT-GGGG-XX

| | | | Optional Thread Dash Number

| | | | Range (0050 is 50g)

| | | | TEDS compliant to IEEE 1451.4 when 'T' option is included

Dash Number

-01

Thread Options

#5-40 UNC-2B

Example: 7120A-0050
Model 7120A, 50g

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