

# Model 7120A Accelerometer



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  $\pm 500g$  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  $+100^{\circ}C$ .

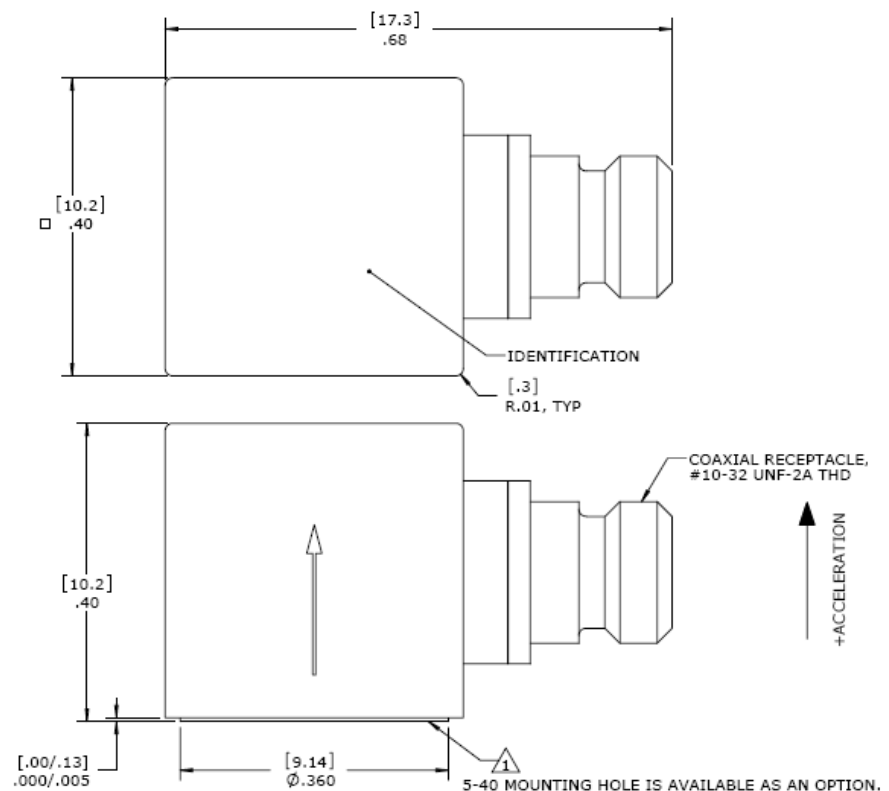
## FEATURES

- $\pm 50g$  to  $\pm 500g$  Dynamic Range
- Modal Testing
- Welded Construction, Titanium
- Hermetically Sealed
- Annular Shear Mode
- Stable Temperature Response
- TEDS Option

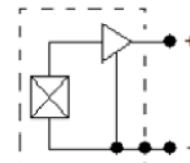
## APPLICATIONS

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

## dimensions



## ACCELEROMETER



# Model 7120A Accelerometer

## performance specifications

All values are typical at +24°C, 100Hz and 4mA excitation 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			Notes
<b>DYNAMIC</b>			
Range (g)	±50	±500	
Sensitivity (mV/g)	100	10	
Frequency Response (Hz)	0.5-4000	0.5-5000	±5%
Frequency Response (Hz)	0.3-6000	0.3-7000	±1dB
Natural Frequency (Hz)	37000	37000	
Phase Response (Hz)	1-3000	1-3000	±5%
Non-Linearity (%FSO)	±1	±1	
Transverse Sensitivity (%)	<5	<5	
Shock Limit (g)	10000	10000	
<b>ELECTRICAL</b>			
Compliance Voltage (Vdc)	18 to 30	18 to 30	
Excitation Current (mA)	2 to 10	2 to 10	
Bias Voltage (Vdc)	8 to 12	8 to 12	Room Temperature
Bias Voltage (Vdc)	6 to 13	6 to 13	-55 to +125°C
Output Impedance (Ω)	<100	<100	
Full Scale Output Voltage (V)	±5	±5	
Residual Noise (g RMS)	0.0004	0.0008	Broadband 1Hz to 10kHz
Discharge Time Constant (sec)	0.8 to 1.2		
Grounding	Case Grounded		
<b>ENVIRONMENTAL</b>			
Temperature Response (%)	See Typical Temperature Response Curve		
Operating Temperature (°C)	-55 to +100		
Storage Temperature (°C)	-55 to +100		
Humidity	Hermetically Sealed		
<b>PHYSICAL</b>			
Sensing Element	Ceramic (shear mode)		
Case Material	Titanium		
Electrical Connector	10-32 Coaxial Receptacle		
Weight (grams)	4.0		
Mounting	Adhesive		

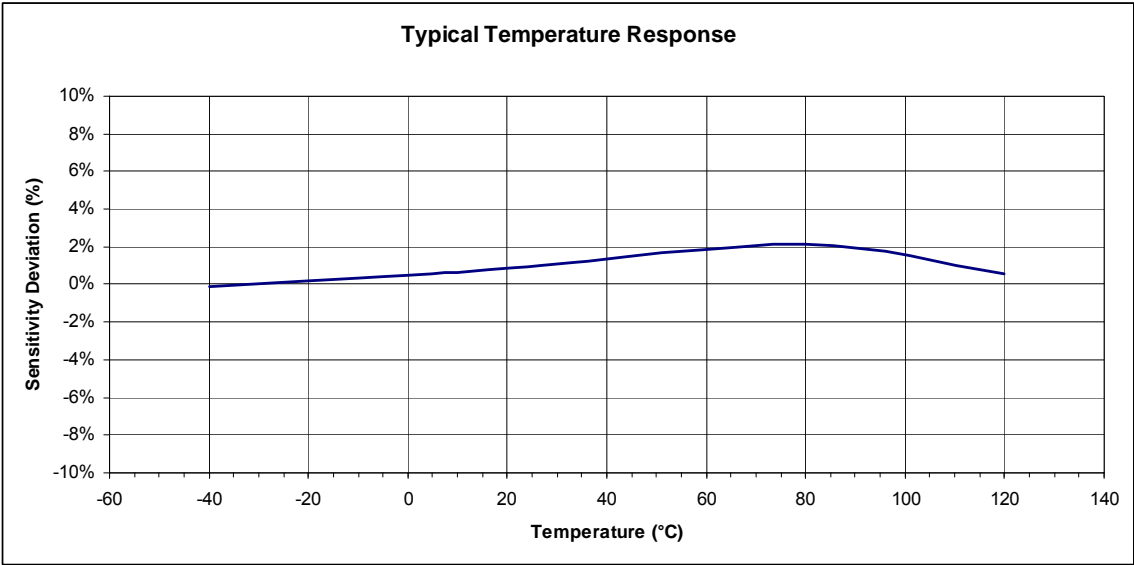
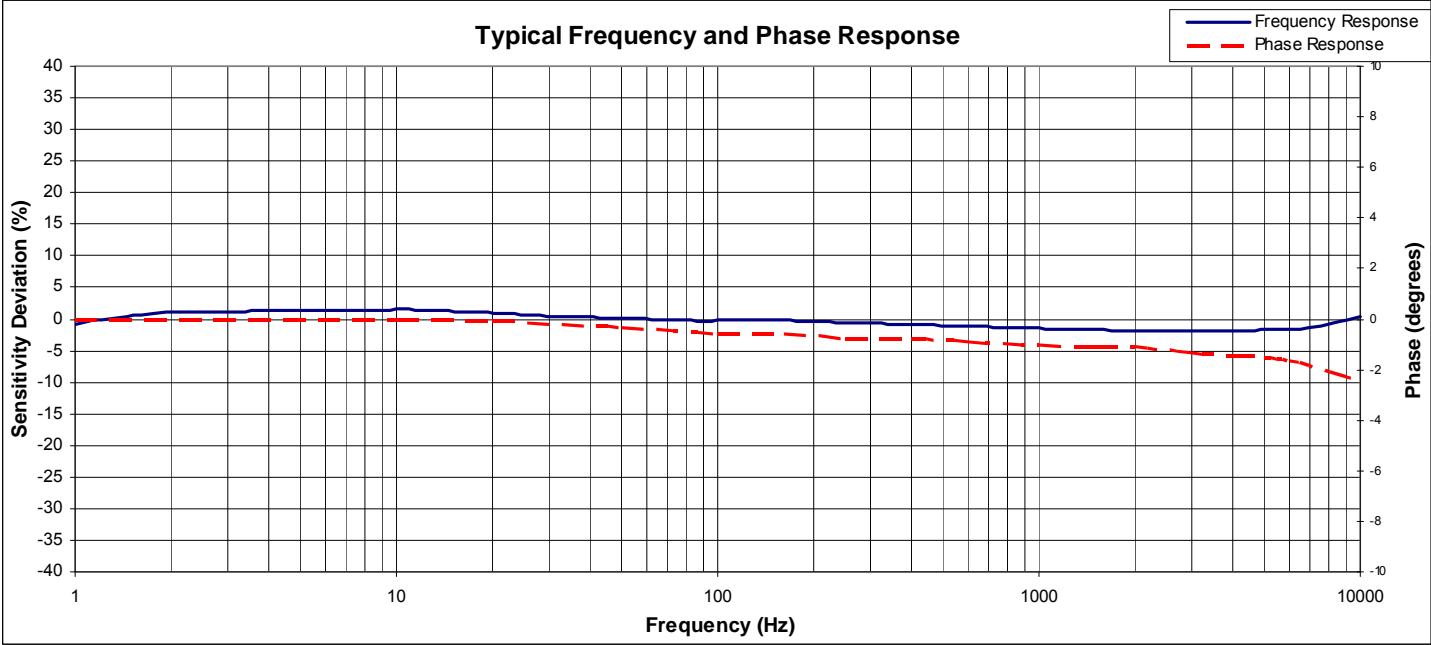
**Calibration supplied:** CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±1dB Frequency Response Limit

**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  
 161 Three Channel PE & IEPE Signal Conditioner, Bench Top

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# Model 7120A Accelerometer

## performance specifications



## ordering info

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 Thread Options  
 -01 #5-40 UNC-2B

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