

Model 7514A Accelerometer



+260°C Charge Output Accelerometer
50pC/g output, 14kHz Bandwidth
Hermetically Sealed
Stud Mount, Side Connector



The **Model 7514A** 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 >14kHz with a nominal charge output of 50pC/g. The model 7514A features a hermetically sealed stainless steel housing and a #10-32 stud mount configuration.

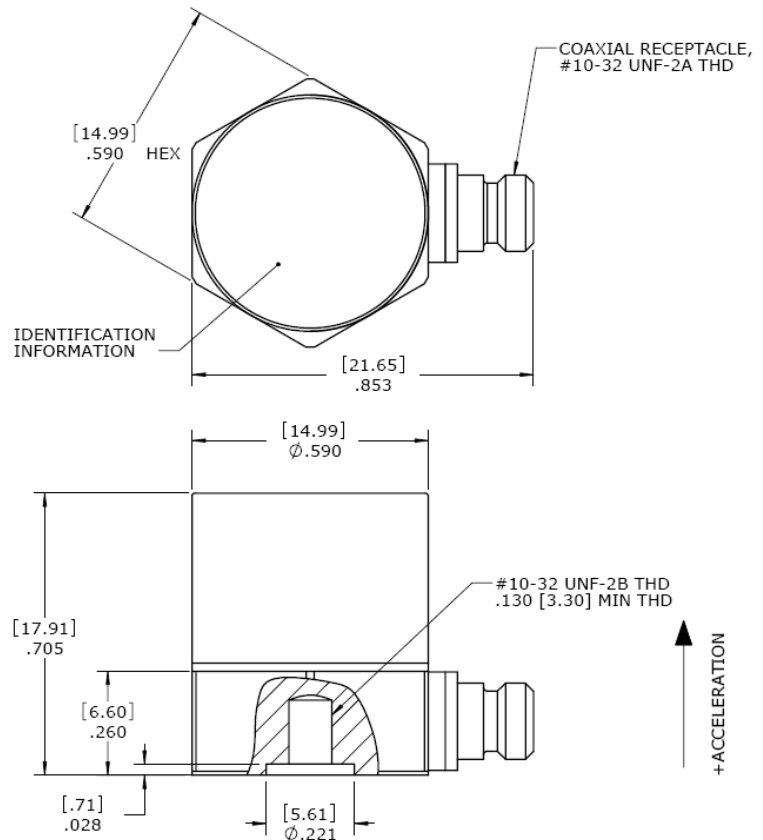
FEATURES

- 13pC/g to 50pC/g Sensitivity
- Wide bandwidth up to >14kHz
- Stud Mounted
- Hermetically Sealed
- Annular Shear Mode
- -73°C to +260°C Operating Range
- Stable Temperature Response

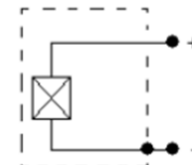
APPLICATIONS

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

dimensions



ACCELEROMETER



Model 7514A Accelerometer

performance specifications

All values are typical at +24°C, 100Hz 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
DYNAMIC					
Dash Number	-50	-30	-20	-13	
Sensitivity (pC/g)	50	30	20	13	Typical
Sensitivity (pC/g)	40	24	14.5	9.0	Minimum
Frequency Response (Hz) ²	0.5-6000	0.5-7000	0.5-9000	0.5-11000	±10%
Frequency Response (Hz) ²	0.1-9000	0.1-10000	0.1-12000	0.1-14000	±2dB
Natural Frequency (Hz)	26000	28000	30000	33000	
Non-Linearity (%FSO)	±1/1000g	±1/1000g	±1/1000g	±1/1000g	
Transverse Sensitivity (%)	<5	<5	<5	<5	
Dynamic Range (g) ¹	±500	±800	±1250	±2000	
Shock Limit (g)	10000	10000	10000	10000	
ELECTRICAL					
Capacitance (pF)	1050	1050	1050	1050	Nominal
Insulation Resistance (MΩ)	>100	>100	>100	>100	@100Vdc
Grounding	Case Grounded				
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	Stainless Steel				
Electrical Connector	10-32 Coaxial Receptacle				
Weight (grams)	19				
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

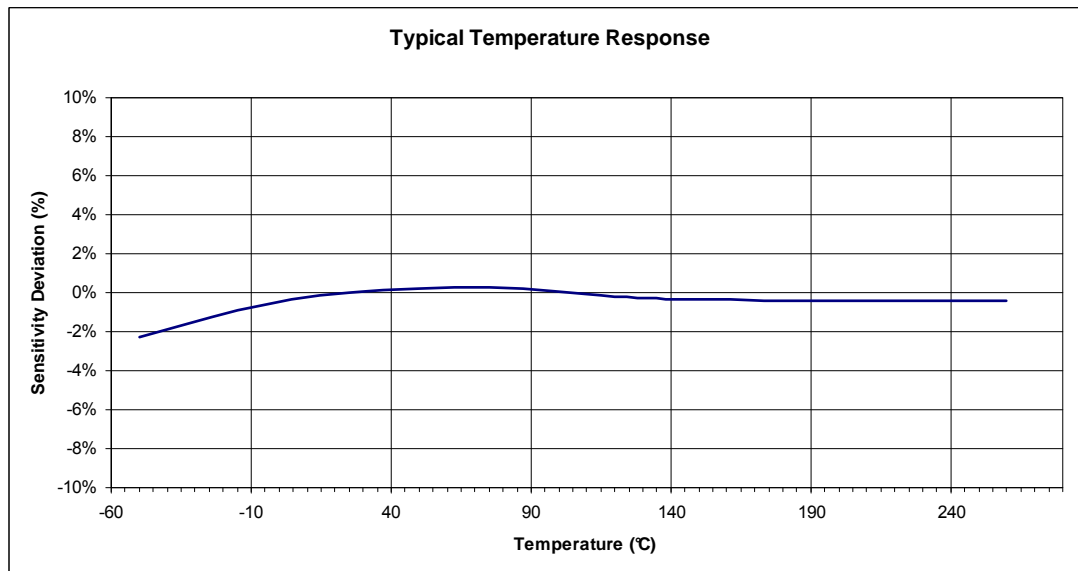
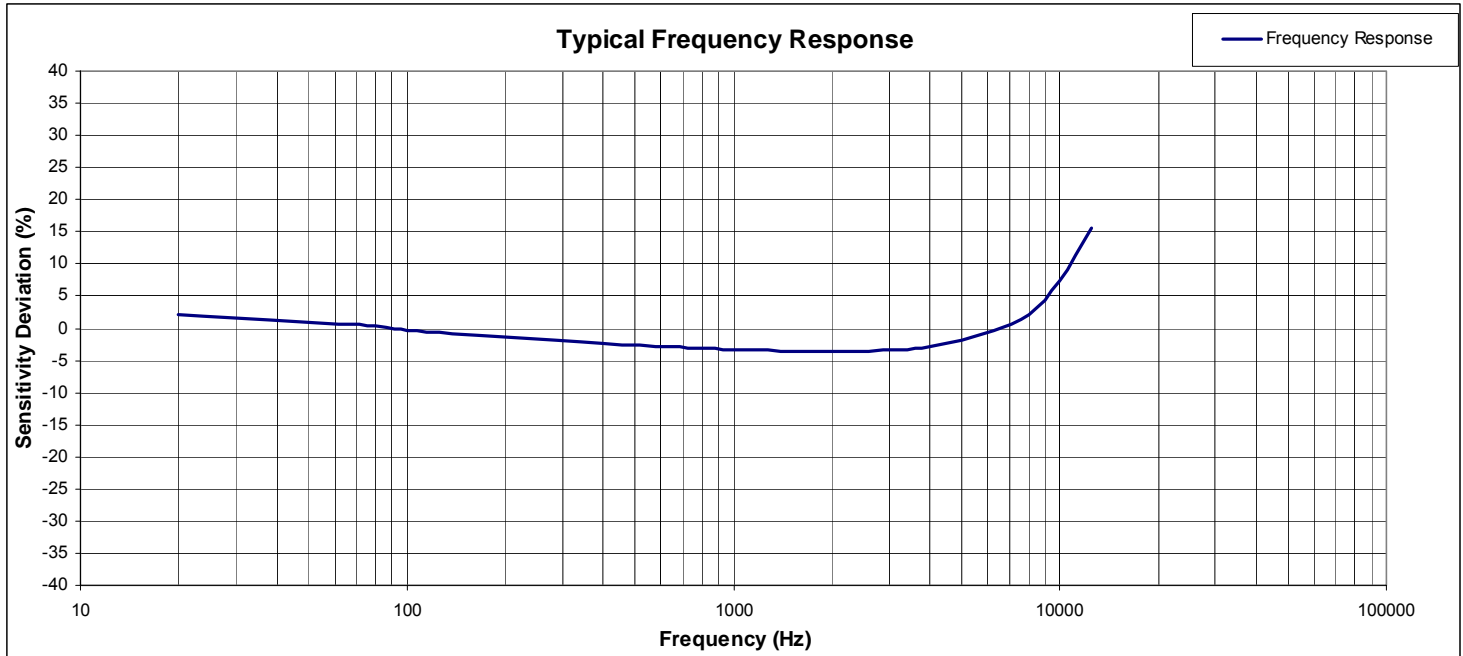
² Low-end response of the accelerometer is a function of its associated electronics.

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)
	324-XXX	Cable Assembly, 10-32 to BNC (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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Model 7514A Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number+Sensitivity

7514A-GG

|
| _____ (50 is 50pC/g)

Example: 7514A-50
Model 7514A, 50pC/g