MODEL 7500A ACCELEROMETER

SPECIFICATIONS

- **+260°C Charge Output Accelerometer**
- **20pC/g output, 15kHz Bandwidth**
- **Hermetically Sealed**
- **Through Hole Mount**

The Model 7500A is a piezoelectric charge mode accelerometer designed for high frequency vibration and shock measurements. The accelerometer incorporates an annular shear mode crystal that provides stable thermal response up to +260°C. The model 7500A is hermetically sealed and features the popular through hole mount installation for use with standard mounting screws.

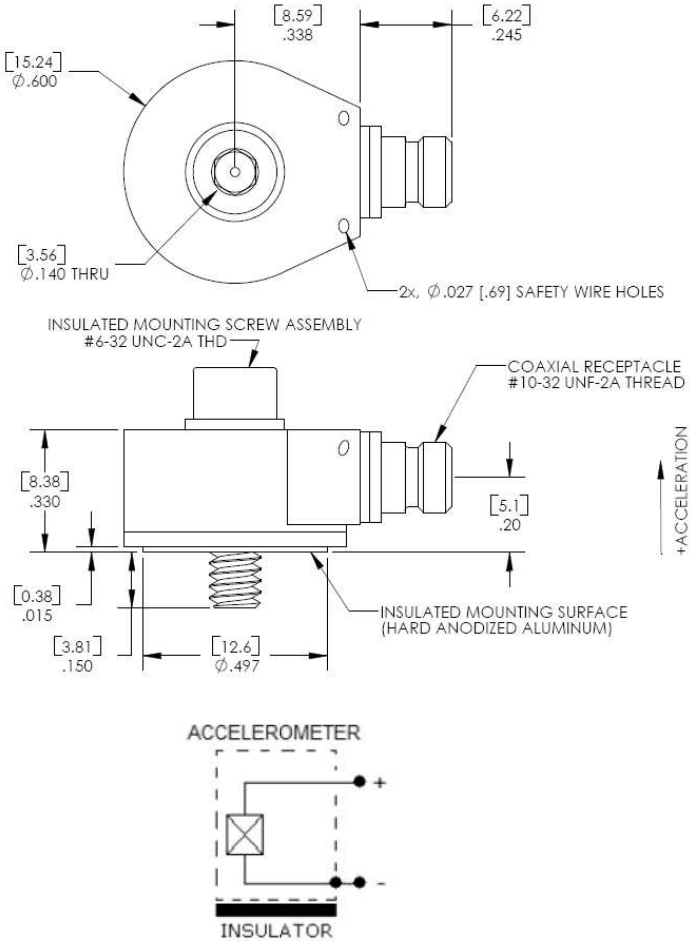
FEATURES

- 7pC/g to 20pC/g Sensitivity
- Wide bandwidth up to >15kHz
- -73°C to +260°C Operating Range
- Hermetically Sealed
- Annular Shear Mode
- Isolated Mounting Surface
- Stable Temperature Response

APPLICATIONS

- Vibration & Shock Monitoring
- High Temperature Applications
- Flight Testing
- Gearbox Vibration Monitoring
- High Frequency Applications

DIMENSIONS



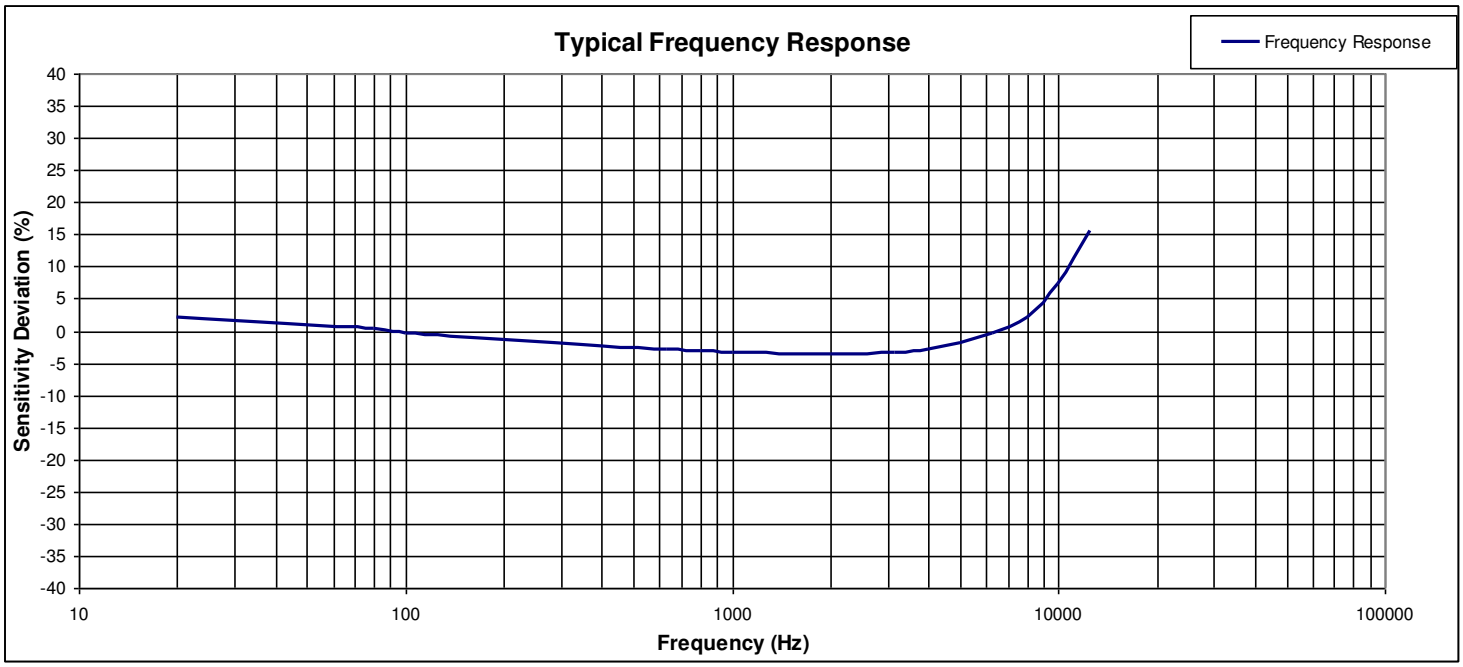
PERFORMANCE SPECIFICATIONS

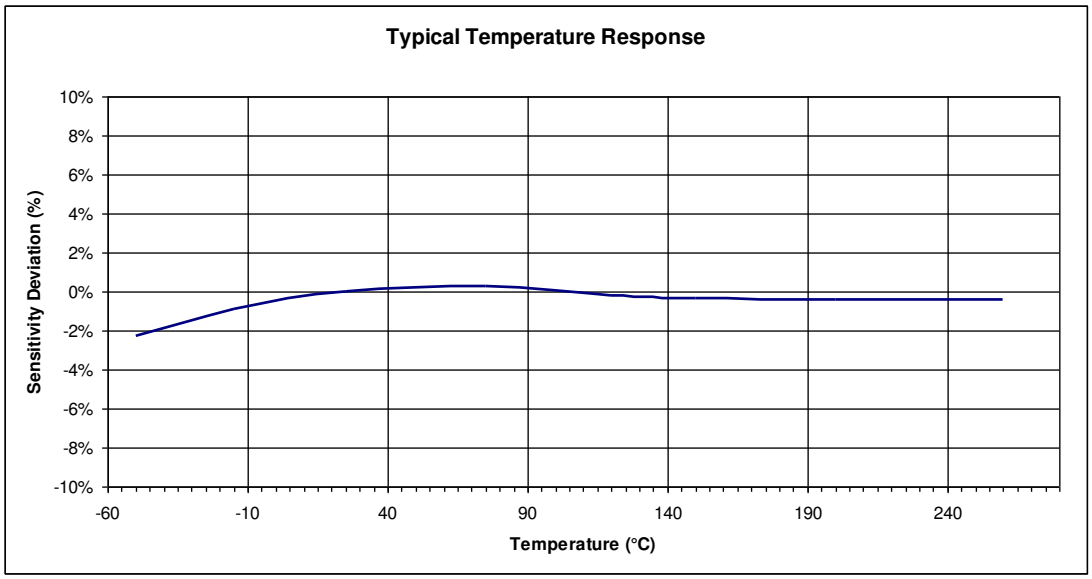
All values are typical at +24°C, 80Hz unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters				
DYNAMIC				**Notes**
Dash Number	-20	-13	-7	
Sensitivity (pC/g)	20	13	7.0	Typical
Sensitivity (pC/g)	14.5	9.0	5.0	Minimum
Frequency Response (Hz) [2]	1-6000	1-10000	1-12000	±10%
Frequency Response (Hz) [2]	0.1-10000	0.1-12000	0.1-15000	±2dB
Natural Frequency (Hz)	30000	33000	43000	
Non-Linearity (%FSO)	±1/1000g	±1/1000g	±1/1000g	
Transverse Sensitivity (%)	<5	<5	<5	
Dynamic Range (g) [1]	±1250	±2000	±3500	
Shock Limit (g)	10000	10000	10000	
ELECTRICAL				
Capacitance (pF)	1050	1050	1050	Nominal
Insulation Resistance (MΩ)	>100	>100	>100	@50Vdc
Ground Isolation	Isolated from Mounting Surface			
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)	10			
Mounting	Through Hole (#6 insulated cap screw)			
Mounting Torque	8 lb-in (1.0 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-A03381	1x #6-32 Insulated Mounting Screw Assembly (1/2 inch length)
Optional accessories:	320-XXX	Low Noise Cable Assembly, 10-32 to 10-32 (XXX designates length in inches, 10ft standard)
	324-XXX	Low Noise 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-A03389	Triaxial Mounting Block
	AC-A03388	Adhesive Mounting Adaptor
	AC-A03472	Magnetic Mounting Adaptor


Typical Frequency Response
Frequency Response
Sensitivity Deviation (%)
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
10
100
1000
10000
100000
Frequency (Hz)


Typical Temperature Response
Sensitivity Deviation (%)
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%
-60
-10
40
90
140
190
240
Temperature (°C)

ORDERING INFORMATION

PART NUMBERING Model Number+Sensitivity

7500A-GG
I
I_____ (20 is 20pC/g)

Example: 7500A-20
Model 7500A, 20pC/g

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