

# Model 7550A Accelerometer



High Temperature PE Accelerometer  
20pC/g and 50pC/g Sensitivity  
+300°C Operating Range  
Exceptional Thermal Performance



**The Model 7550A** is a high temperature piezoelectric charge mode accelerometer designed for long term health usage monitoring on turbine engines. The accelerometer incorporates an annular shear mode crystal that provides stable thermal response up to +300°C with output sensitivity options of 20pC/g & 50pC/g. The model 7550A is hermetically sealed and features the ARINC three hole mounting configuration.

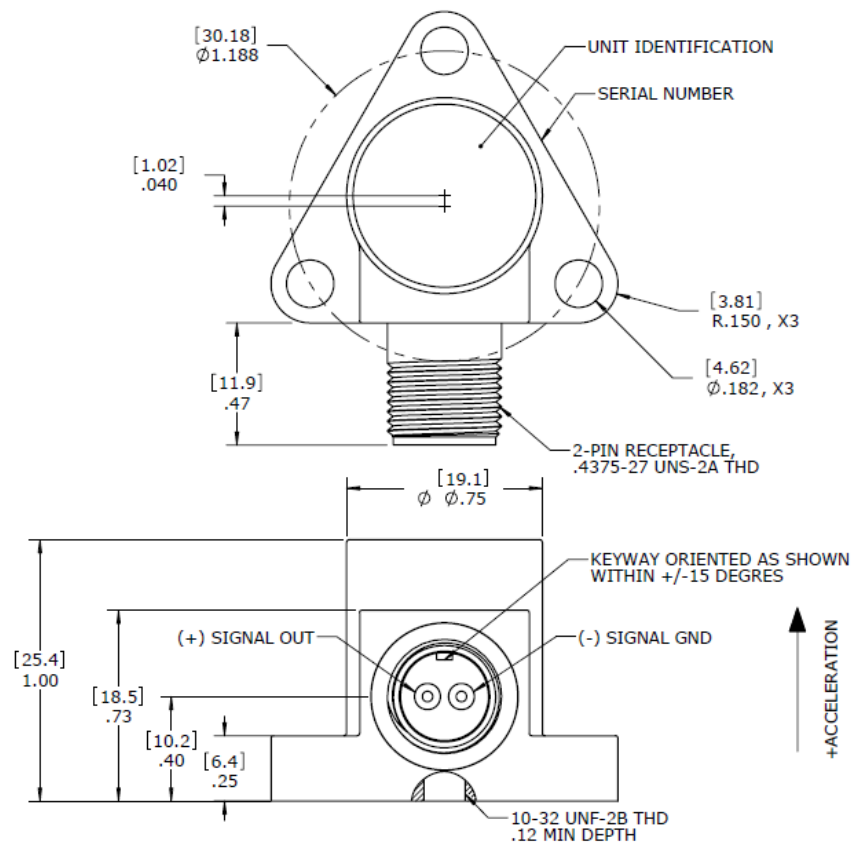
## FEATURES

- 20pC/g to 50pC/g Sensitivity
- Wide bandwidth up to 12kHz
- Case Isolated, Internally Shielded
- Annular Shear Mode
- ARINC Three Hole Mount
- Hermetically Sealed

## APPLICATIONS

- Land Gas Turbines
- Power Plants
- Aircraft Engines
- Industrial Applications
- High Temperature Testing

## dimensions



# Model 7550A Accelerometer

## 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. Standard product parameters are described in PSC-1003 for Plug & Play AC Accelerometers.

Parameters			Notes
<b>DYNAMIC</b>			
Dash Number	-50	-20	
Sensitivity (pC/g)	50	20	Typical
Sensitivity (pC/g)	40	14.5	Minimum
Frequency Response (Hz) <sup>2</sup>	0.5-6000	0.5-9000	±10%
Frequency Response (Hz) <sup>2</sup>	0.1-9000	0.1-12000	±2dB
Natural Frequency (Hz)	26000	30000	
Non-Linearity (%FSO)	±1/1000g	±1/1000g	
Transverse Sensitivity (%)	<5	<5	
Dynamic Range (g) <sup>1</sup>	±500	±1250	
Shock Limit (g)	5000	5000	
<b>ELECTRICAL</b>			
Capacitance (pF)	1050		Nominal
Insulation Resistance (MΩ)	>100		@100Vdc
Grounding	Case Isolated, Internally Shielded		
<b>ENVIRONMENTAL</b>			
Temperature Response (%)	See Typical Temperature Response Curve		
Operating Temperature (°C)	-54 to +300		
Storage Temperature (°C)	-54 to +300		
Humidity	Hermetically Sealed, IP67		
<b>PHYSICAL</b>			
Sensing Element	Ceramic (shear mode)		
Case Material	Stainless Steel		
Electrical Connector	2-Pin Receptacle, 7/16-27 UNS Thread		
Weight (grams)	72		
Mounting	3x #8-32 Socket Head Cap Screw		
Mounting Torque	18 lb-in (2.0 N-m)		

<sup>1</sup> Operating range over which the accelerometer meets the linearity specifications

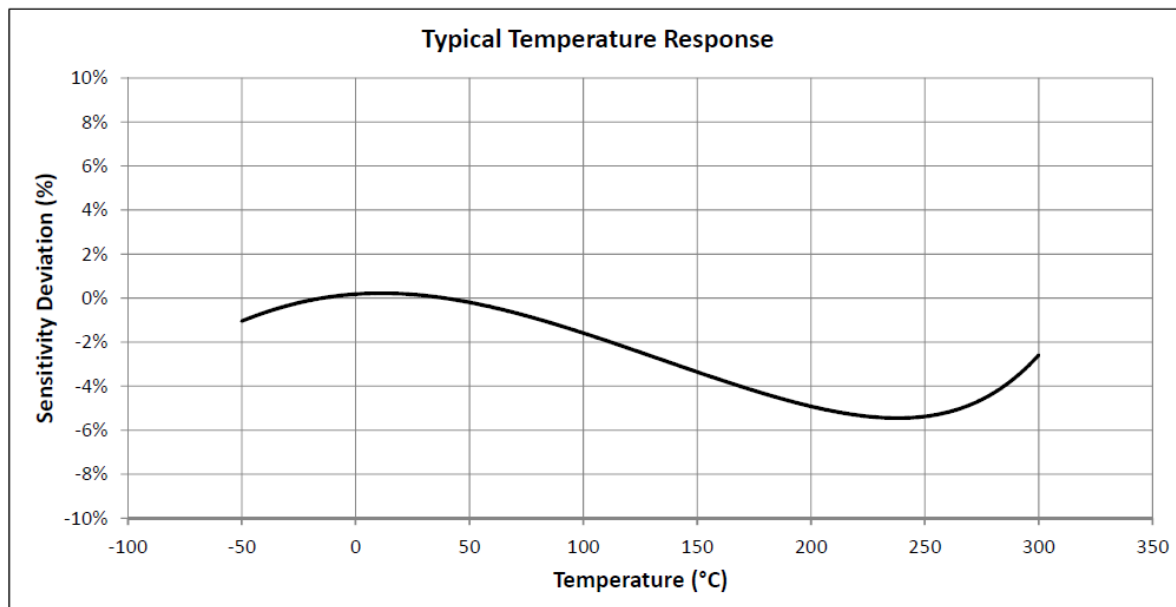
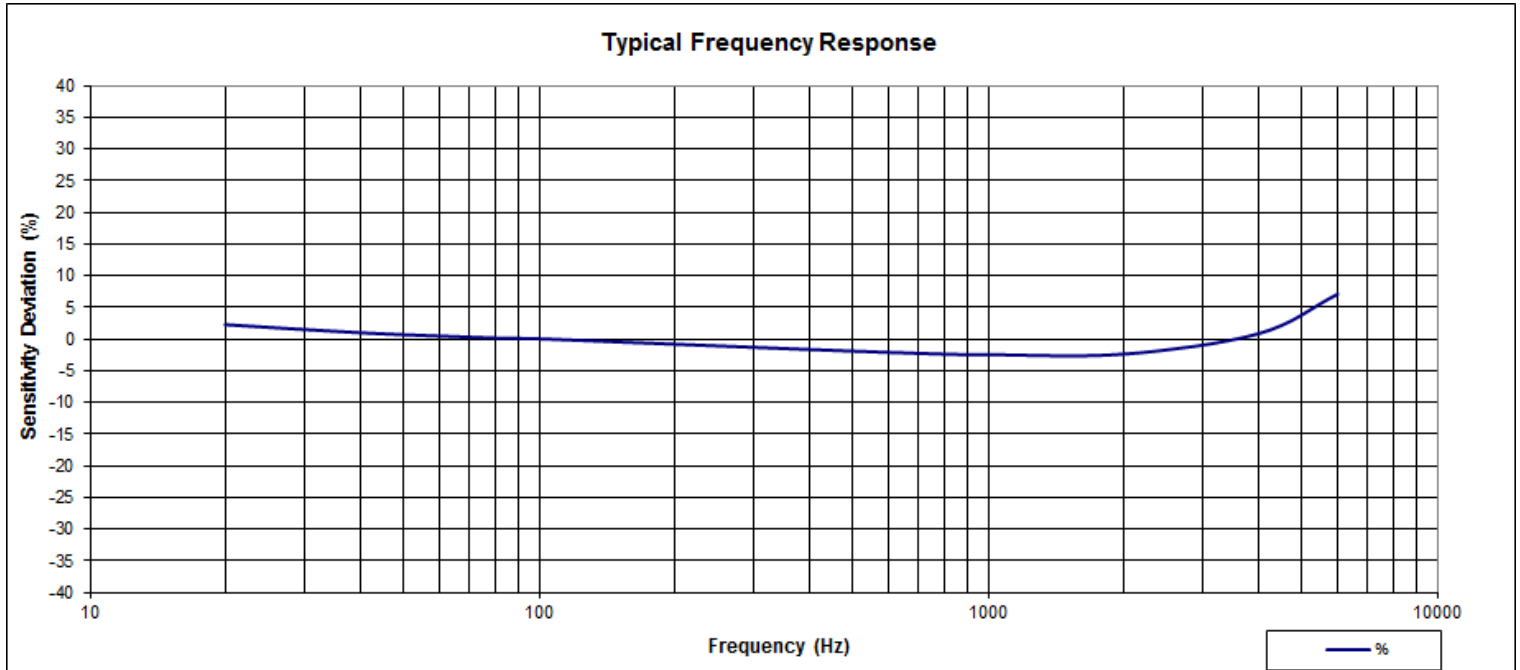
<sup>2</sup> Low-end response of the accelerometer is a function of its associated electronics.

<b>Calibration supplied:</b>	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±2dB Frequency Response Limit
<b>Supplied accessories:</b>	AC-A05080	3x #8-32 (1/2" length) Socket Head Cap Screw
<b>Optional accessories:</b>	326-XXX 161A	Mating Cable Assembly (XXX designates length in inches, 10ft standard), Rated to +260°C 4-Channel PE & IEPE Signal Conditioner

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# Model 7550A Accelerometer

## performance specifications



## ordering info

PART NUMBERING Model Number+Sensitivity

7550A-GG

|  
| \_\_\_\_\_ Sensitivity (50 is 50pC/g)

Example: 7550A-50  
Model 7550A, 50pC/g