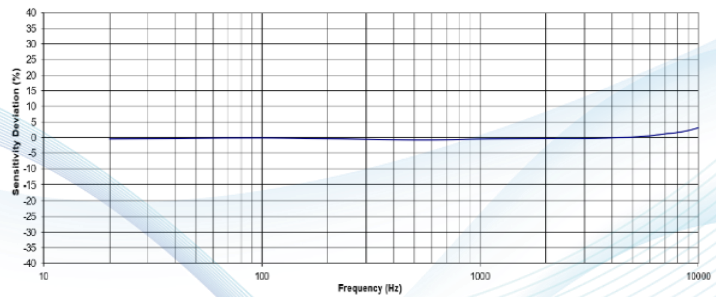




G47AS is an IEPE single axial accelerometer permitting simultaneous shock and vibration measurements. G47AS features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit with TEDS(optional) in a two-wire IEPE system which transmits its low impedance voltage output through the same cable that supplies the constant current power. Signal ground is connected to the outer case of the unit. Isolated mounting studs or housing are available. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded stainless-steel construction provides a lightweight hermetic housing. The miniature 10-32 glass insulated connector provides long-term stability over the operating temperature range. In addition to adhesive mounting, the G47AS has 10-32 threaded holes for stud mounting on the test object. The G47AS provides wide frequency response, which is ideal for dynamic vibration and shock measurement especially for lightweight structures and drop testing for the packaging industry.

## Features:

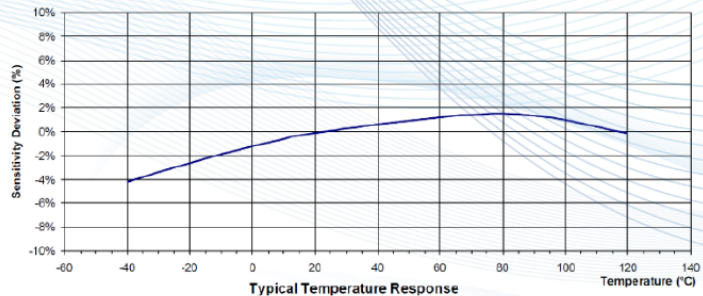
- Side connector output
- Adhesive or stud mounting
- Hermetic seal
- Annular shear mode
- Wide temperature range
- Wide frequency response



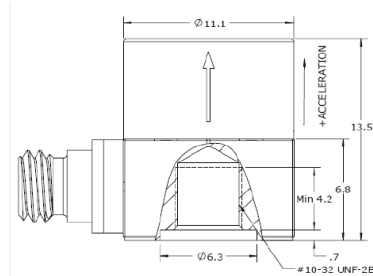
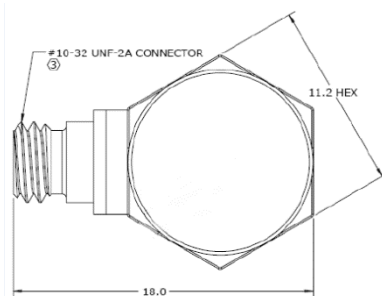
Typical Frequency Response

## Application :

- Vibration monitoring
- Shock testing
- Road testing
- Modal analysis
- Aircraft testing



Typical Temperature Response



## Specification:

Dynamic performance	Unit							
Measurement Range	g	10	50	100	250	500	1000	2000
Sensitivity $\pm 10\%$	mV/g	500	100	50	20	10	5	2.5
Frequency Range $\pm 5\%$	Hz	2 ~ 4000		1 ~ 7000				
Frequency Range $\pm 10\%$	Hz	1.5 ~ 10000			1 ~ 10000			
Frequency Range $\pm 3\text{dB}$	Hz	0.6 ~ 12000			0.5 ~ 15000			
Resonant Frequency	kHz	38						
Transverse Sensitivity	%	<5						
Non-Linearity	% FSO	$\pm 1$						
Shock Limit	g pk	$\pm 5000$						

### Environmental parameters

Temperature response -55 ~ +125°C	%/°C	0.05						
Operating and Storage Temperature	°C	-50~125						
Bias Voltage (Room Temp.)	Vdc	8 ~ 12						
Bias Voltage (-50~125) °C	Vdc	6 ~ 13						

### Electrical characteristics

Output Impedance	$\Omega$	< 100						
Full Scale Output Voltage	V	$\pm 5$						
Insulation Resistance	M $\Omega$	> 100						
Supply Voltage	Vdc	18 ~ 30						
Supply Current	mA	2 ~ 10						

### Physical properties

Weight (Excluding Cable)	Grams	9.0						
Sensing Element	Piezo Ceramic							
Sensing Geometry	Shear							
Housing Material	Stainless Steel							
Sealing	Welded Hermetic							
Grounding	Signal return connected to case							

### Random accessory

HS007	Mounting stud 10-32 to 10-32 thread	One stud included
HS008	Mounting stud 10-32 to M5 thread	

### Options

-T	T=IEPE output with TEDS
----	-------------------------

### Optional cables

1032	Single Axis Acceleration Sensor Cable, 10-32 Connectors, High Temperature Low Noise	Optional
1032RG	Single Axis Accelerometer Cable, 10-32 Connectors, Black Coaxial	Optional
1032D3	Single-axis acceleration sensor cable, 10-32 connectors, $\phi 3$ blue cord	Optional

## Ordering information:

G47AS	GGGG	ZZZ
Range 0010=10g 0050=50g 0100=100g 0250=250g 0500=500g 1000=1000g 2000=2000g		
T=IEPE output with TEDS		

E.G:

G47AS-10

Model G47AS, 0010, Connector, No Options

G47AS-10T

Model G47AS, 0010, Connector, TEDS

The data contained in this document is intended for the use of technical trainers only. The customer's technical department is responsible for assessing the suitability of the product for the intended application and the completeness of the product information given in this document in relation to such application. For further information on products, technology, terms and conditions of delivery and prices, please contact our nearest office ([www.senstechxyz.com](http://www.senstechxyz.com)).

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