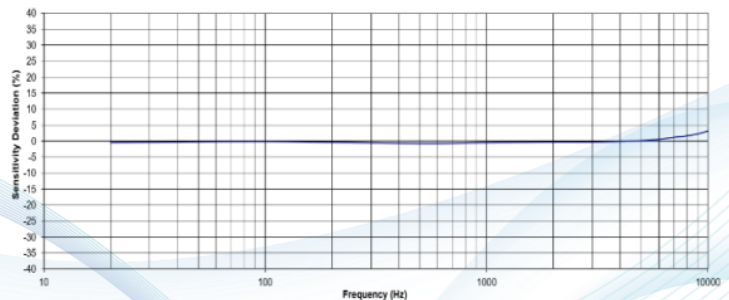




M70AS is a miniature IEPE single axial accelerometer permitting simultaneous shock and vibration measurements. M70AS features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit in a two wire IEPE system which transmits 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 adapter is available. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded titanium construction provides a lightweight hermetic housing. The miniature M3 glass insulated connector provides long-term stability over the operating temperature range. The M70AS provides wide frequency response, which is ideal for dynamic vibration and shock measurement especially for lightweight structures and drop testing for the packaging industry. Model 12 is a M3 to BNC breakout cable for the sensor.

Features :

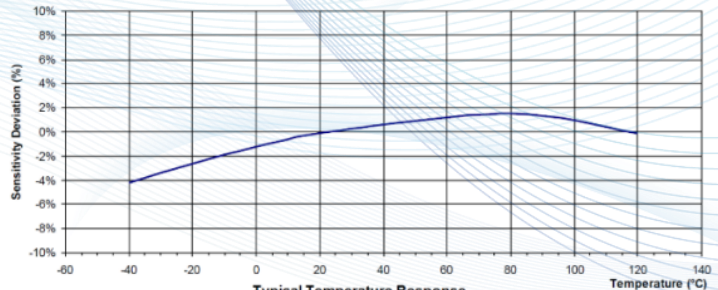
- Miniature Size
- Adhesive mounting
- Hermetic seal
- Annular shear mode
- Wide frequency response
- Shock duration



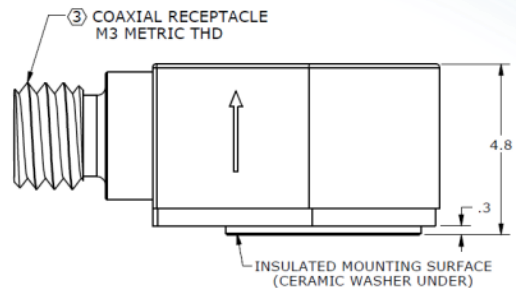
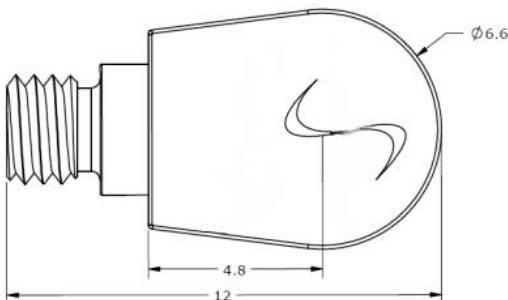
Typical Frequency Response

Application :

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



Typical Temperature Response



Specification:

Dynamic performance	Unit						
Measurement Range	g	50	100	250	500	1000	2000
Sensitivity $\pm 15\%$	mV/g	100	50	25	-	-	-
Sensitivity $\pm 10\%$	mV/g	-	-	-	10	5	2.5
Frequency Range $\pm 5\%$	Hz	1 ~ 10000	0.5~1000 0	2~10000	1 ~ 10000	1 ~ 10000	1 ~ 10000
Frequency Range $\pm 3\text{dB}$	Hz	0.5 ~ 15000	0.3~1500 0	1~15000	0.5 ~ 15000	0.5~15000	0.5 ~ 15000
Resonant Frequency	kHz	48					
Transverse Sensitivity	%	<5					
Non-Linearity	% FSO	± 1					
Shock Limit	g pk	± 5000					

Environmental parameters

Temperature response -55 ~ +125°C	%/°C	± 10					
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	Ω	< 100					
Full Scale Output Voltage	V	± 5					
Insulation Resistance	M Ω	> 100					
Supply Voltage	Vdc	18 ~ 30					
Supply Current	mA	2 ~ 10					

Physical properties

Weight (Excluding Cable)	Grams	0.9					
Sensing Element	Piezo Ceramic						
Housing Material	Titanium Alloy						
Sealing	Welded Hermetic						
Grounding	Signal return connected to case						
Output Methods	IEPE output						

Options

Part Number	Description	Availability
AM003	3 channels IEPE signal conditioner	Optional
AM004	Portable vibration analyzer	Optional
AM005	8 channels data acquisition system	Optional

Optional cables

12 cable	Single Axis Accelerometer Cable, M3 to BNC, Low Noise	Optional
14 cable	Single Axis Accelerometer Cable, M3 to 10-32 Header, Low Noise	Optional

Ordering information:

M70AS	GGGG	ZZZ
Range 0050=50g 0100=100g 0250=250g 0500=500g 1000=1000g 2000=2000g		
A=IEPE output		

E.G:

M70AS-50

Model M70AS, 0050, Connector, No Options

M70AS-50A

Model M70AS, 0050, Connector, IEPE

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).

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