

## Single axial shock IEPE accelerometer



### Features

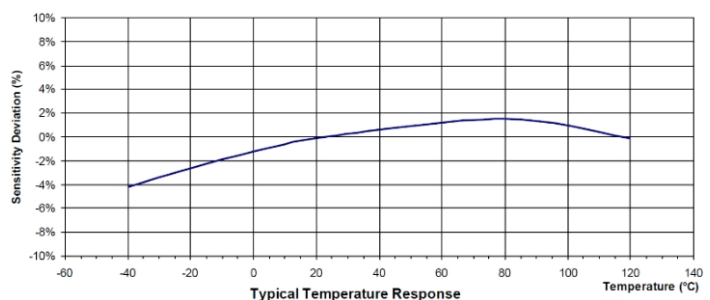
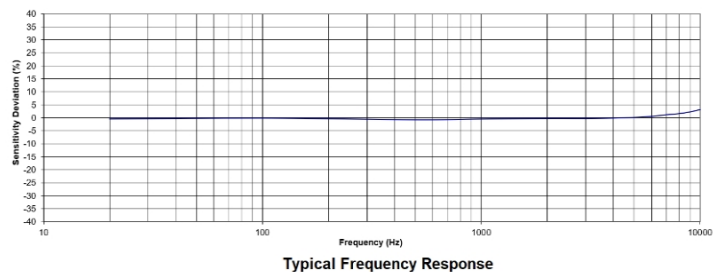
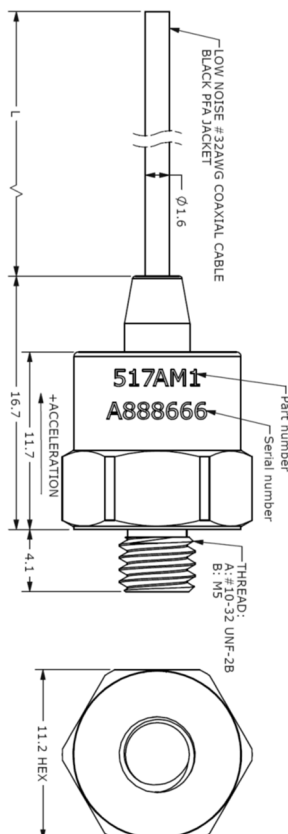
- Miniature Size
- Integrated cable
- Hermetic seal
- Annular shear mode
- Wide temperature range
- Wide frequency response

### Application

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

### Description

Model 517AM1 is an IEPE single axial accelerometer permitting simultaneous shock and vibration measurements. 517AM1 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 adaptors 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. Integrated cable transfer the reliability signal during shock/impact testing. 517AM1 offer integrated 10-32(or M5) thread screw for mounting on the test object. The 517AM1 provides wide frequency response, which is ideal for shock measurement especially for lightweight structures and drop testing for the packaging industry. Different output connections are available for mating with applied instruments.



## Specification

Typical at +24°C (+75°F), 24Vdc, 4 mA and 100Hz, unless otherwise stated.

Part Number	-5K	-10K	-20K	
Measurement Range	5000	10000	20000	g
Sensitivity ±10%	1	0.5	0.25	mV/g
Frequency Range ±5%	1-9000	1-9000	1-9000	Hz
Frequency Range ±10%	1-12000	1-12000	1-12000	Hz
Frequency Range ±3dB	0.5-15000	0.5-15000	0.5-15000	Hz
Resonant Frequency	50	50	50	kHz
Transverse Sensitivity	<5	<5	<5	%
Temperature response, -55 to +125°C	±10	±10	±10	% max.
Broadband Resolution	0.01	0.012	0.02	Equiv. g RMS
Non-Linearity	±1	±1	±2	% FSO
Shock Limit	±20000	±20000	±25000	g pk
Weight (Excluding Cable)	7.0	7.0	7.0	Grams

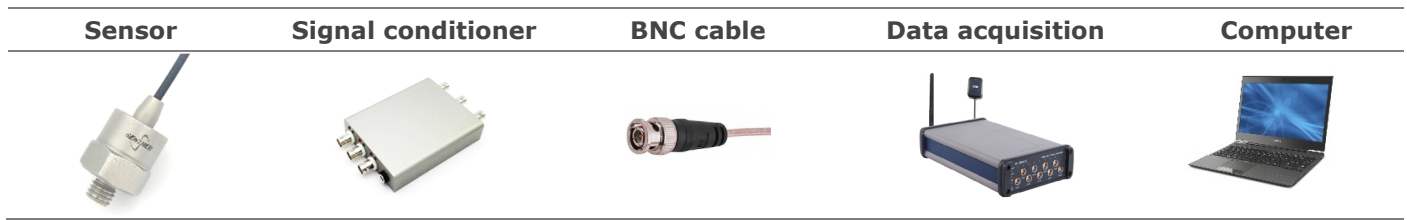
PARAMETERS	VALUE	UNITS
Bias Voltage (Room Temp.)	8-12	Vdc
Bias Voltage (-50~125) °C	6-13	Vdc
Output Impedance	<100	Ω
Full Scale Output Voltage	±5	V
Insulation Resistance	>100	MΩ
Supply Voltage	18-30	VDC
Supply Current	2 to 10	mA
Operating and Storage Temperature	-50~+125	°C
Sensing Element	Piezo Ceramic	
Sensing Geometry	Shear	
Housing Material	Stainless Steel	
Sealing	Welded Hermetic	
Grounding	Signal return connected to case	

## Accessories

Calibration certificate included.

Part Number	Description	Availability
MB0012	Magnet mounting adapter	Optional
PM0276	Adhesive mounting adapter	Optional
IN-03	3 channels IEPE signal conditioner	Optional
IN-91	Portable vibration analyzer	Optional
IN-3062	8 channels data acquisition system	Optional

## Measurement configuration



## Ordering information

517	AM1	- 10K	- A	- 5	C1
<b>Model</b>	Output signal	- Range	- Mounting thread	- Cable length	Output connection
<b>517</b>	A=IEPE output M1=Integrated cable	- 5K=5000g 10K=10000g 20K=20000g	- A= 10-32 B= M5	- 5=5 meters	C1= BNC connector C2= 10-32 connector Blank= Pig tail



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