

## Industrial Accelerometer

### DETAILS

BXXA57 series industrial-type sensors, shear core structure, with a wide-band frequency response, high-quality piezoelectric ceramic with long-term output stability characteristics. Internal IEPE two-wire circuitry at the same time to provide a constant-current source of excitation and low-impedance voltage signal output signal ground and shell isolation. The housing is made of stainless steel with laser welded seals to ensure corrosion resistance and good sealing, and the industry standard MIL-C-5015 dual-core connector output.

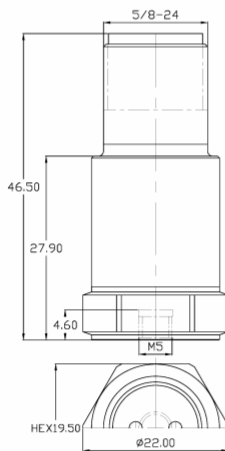
### FEATURES

- Industrial Accelerometer
- Double layer shielding
- Shear structure
- Broadband response

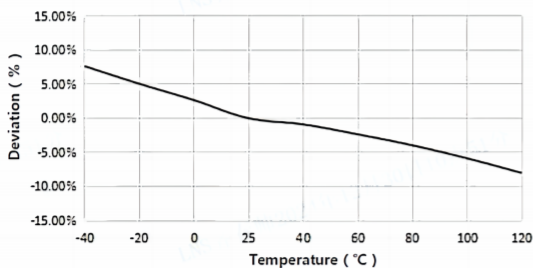
### TYPICAL APPLICATIONS

- Wind turbines
- Rapid transit
- Construction machinery

**Fig\_1** Dimensions of BXXA57

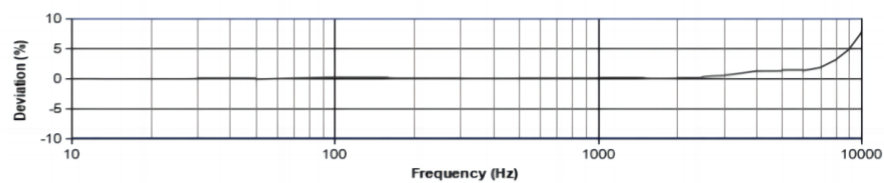


**Fig\_2** Typical Temperature Response



BXXA57

**Fig\_3** Typical Frequency Response



## Specifications-BXXA57

MODEL NUMBER	UNIT	B06A57	B07A57	B09A57	B10A57
<b>PERFORMANCE</b>					
Sensitivity <sup>1</sup>	mV/g	100	250	500	1000
	mV/(m/s <sup>2</sup> )	10	25	50	100
Measurement Range	g	±50	±20	±10	±5
Broadband Resolution <sup>2</sup>	g rms	0.0001	0.00004	0.00002	0.00001
Non-Linearity <sup>3</sup>	%	1			
Frequency Range	± 5%(Hz)	1-8k	1-8k	0.5-5k	0.5-4k
	±10%(Hz)	0.5-10k	0.5-10k	0.2-6k	0.2-5k
Resonance Frequency <sup>2</sup>	Hz	≥27k	≥27k	≥27k	≥27k
Discharge Time Constant <sup>2</sup>	s	≤1			
Transverse Sensitivity	%	≤5			
<b>ELECTRICAL</b>					
Excitation Voltage	VDC	20-30			
Constant Current Excitation	mA	2-20			
Output Impedance	Ω	≤100			
Output Bias Voltage	V	10-14			
Electrical Isolation	Ω	≥1×10 <sup>8</sup>			
Spectral Noise <sup>2</sup>	μg/√Hz	6	3	1.2	0.6
		2.4	1.2	0.48	0.24
		1.6	0.8	0.32	0.16
<b>ENVIRONMENTAL</b>					
Sinusoidal Vibration Limit <sup>4</sup>	g	400	400	400	400
Shock Limit <sup>4</sup>	g	1000	1000	1000	1000
Temperature Range	°C	-40-120			
	°F	-40-248			
Temperature Response <sup>2</sup>	%/°C	-0.1			
<b>PHYSICAL</b>					
Sealing	-	Laser welding IP68			
Sensing Element	-	Piezoelectric ceramics			
Housing Material	-	Stainless steel			
Size	mm	HEX 19.50×46.50			
	in	HEX 0.768×1.831			
Electrical Connector	-	MIL-C-5015 2-pin Top			
Mounting Thread	-	M5 (Opt. 10-32)			
Weight <sup>2</sup>	g	58.5	58.5	58.5	58.5
	oz	2.064	2.064	2.064	2.064
TEDS Optional <sup>5</sup>	-	Yes			

## Additional Information

### Note:

- @ 160Hz, 24VDC, 4mA conditions
- Typical values
- JBT 6822-2018 7.12.1 Vibration Testing Method
- References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state
- Some products may have changes in size after adding TEDS

### BXXA57

Supplied Accessories:

- Product Verification Report
- Install Screws

### OPTIONALVERSIONS

-E: 10-32 Mounting Threads

### COMPLIANCE WITH STANDARDS



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