

## Industrial Accelerometer

### DETAILS

BXXA54T series industrial type sensors, using piezoelectric ceramic shear structure, has a wide band frequency response, high quality piezoelectric ceramics with long-term stability can ensure years of accurate measurement. Internal IEPE two-wire circuitry provides both constant current source excitation and low impedance voltage signal output, signal ground and housing 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.

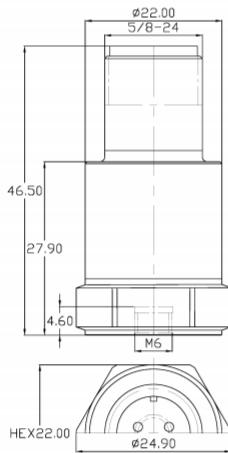
### FEATURES

- Temperature and Vibration Measurement
- Double layer shielding
- Shear structure
- Broadband response

### TYPICAL APPLICATIONS

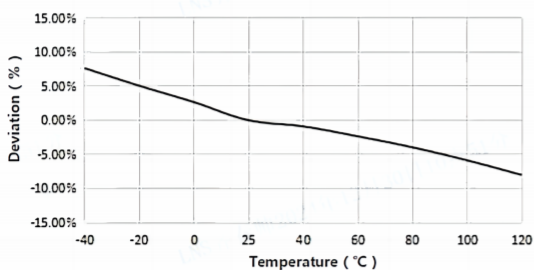
- Wind turbines
- Rapid transit
- Construction machinery

**Fig\_1** Dimensions of BXXA54T

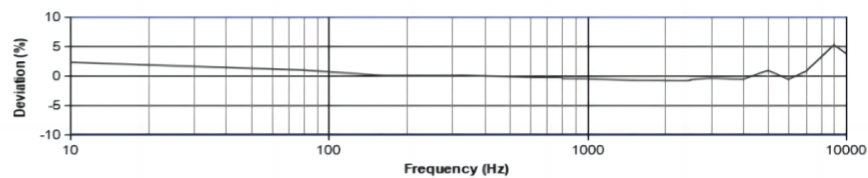


BXXA54T

**Fig\_2** Typical Temperature Response



**Fig\_3** Typical Frequency Response



## Specifications-BXXA54T

MODEL NUMBER		UNIT	B06A54T	B09A54T
<b>PERFORMANCE</b>				
Sensitivity <sup>1</sup>		mV/g	100	500
		mV/(m/s <sup>2</sup> )	10	50
Measurement Range		g	±50	±10
Broadband Resolution <sup>2</sup>		g rms	0.0001	0.00002
Non-Linearity <sup>3</sup>		%	1	
Frequency Range	± 5%(Hz)	Hz	1-8k	0.5-4k
	±10%(Hz)		0.5-10k	0.2-5k
Resonance Frequency <sup>2</sup>		Hz	≥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	1.2
			2.4	0.48
			1.6	0.32
<b>ENVIRONMENTAL</b>				
Sinusoidal Vibration Limit <sup>4</sup>		g	400	400
Shock Limit <sup>4</sup>		g	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 22.00×46.50	
		in	HEX 0.866×1.831	
Electrical Connector		-	MIL-C-5015 3-pin Top	
Mounting Thread		-	M6	
Weight <sup>2</sup>		g	66	66
		oz	2.328	2.328
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

### BXXA54T

Supplied Accessories:

- Product Verification Report
- Install Screws

### COMPLIANCE WITH STANDARDS



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