BXXA54T

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.

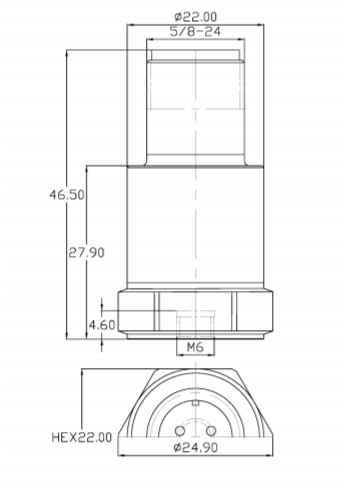
FEATURES

- 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

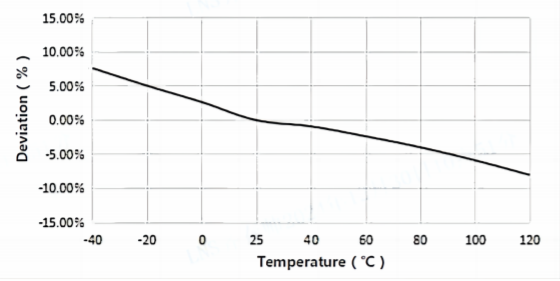
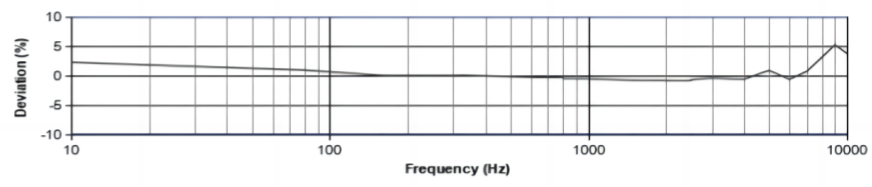


Fig_3 Typical Frequency Response



Specifications-BXXA54T

MODEL NUMBER		UNIT	B06A54T	B09A54T
PERFORMANCE				
Sensitivity [1]		mV/g	100	500
		mV/(m/s²)	10	50
Measurement Range		g	±50	±10
Broadband Resolution [2]		g rms	0.0001	0.00002
Non-Linearity [3]		%	1	
Frequency Range	± 5%	Hz	1-8k	0.5-4k
	±10%		0.5-10k	0.2-5k
Resonance Frequency [2]		Hz	≥27k	≥27k
Discharge Time Constant [2]		s	≤1	
Transverse Sensitivity		%	≤5	
ELECTRICAL				
Excitation Voltage		VDC	20-30	
Constant Current Excitation		mA	2-20	
Output Impedance		Ω	≤100	
Output Bias Voltage		V	10-14	
Electrical Isolation		Ω	≥1×10⁸	
Spectral Noise [2]	10Hz	μg/√Hz	6	1.2
	100Hz		2.4	0.48
	1000Hz		1.6	0.32
ENVIRONMENTAL				
Sinusoidal Vibration Limit [4]		g rms	400	400
Shock Limit [4]		g pk	1000	1000
Temperature Range		℃	-40~120	
		℉	-40~248	
Temperature Response [2]		%/℃	-0.1	
PHYSICAL				
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 [2]		g	66	66
		oz	2.328	2.328
TEDS Optional [5]		-	Yes	

Additional Information

Note:

1. @ 160Hz, 24VDC, 4mA conditions
2. Typical values
3. JBT 6822-2018 7.12.1 Vibration Testing Method
4. References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state
5. Some products may have changes in size after adding TEDS

BXXA54T

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONALVERSIONS

-A: 10-32 Output Connector
-E: 10-32 Mounting Threads

COMPLIANCE WITH STANDARDS

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