BXXBG3

Single Axis Modal Testing Type Accelerometer

DETAILS

The BXXBG3 series of micro-miniature accelerometers have built-in impedance converters that can convert charge signals during vibration into voltage signals. These sensors have excellent long-term stabilty and repeatability. The casing is made of titanium alloy and laser welded, and is small and lightweight. This series of products has a central through-hole that can be installed at 360°, and the bottom is equipped with an integrated insulation structure that can be insulated from the ground through included installation accessories.

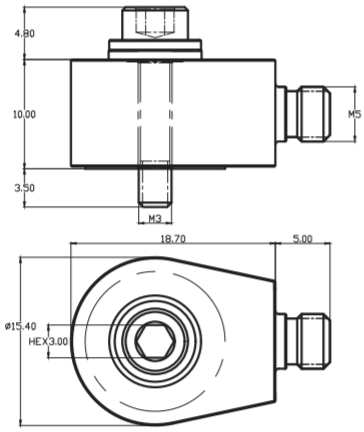
FEATURES

- IEPE Universal Acceleration Sensor
- Standard series with multiple range options
- Shear structure
- Broadband response

TYPICAL APPLICATIONS

- Modal analysis
- Vibration control
- General purpose NVH

Fig_1 Dimensions of BXXBG3



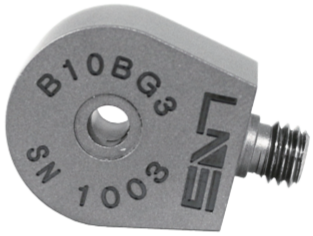


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Fig_2 Typical Temperature Response

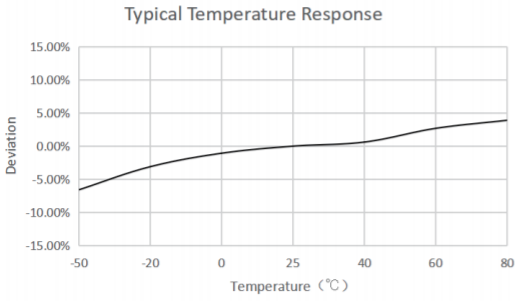
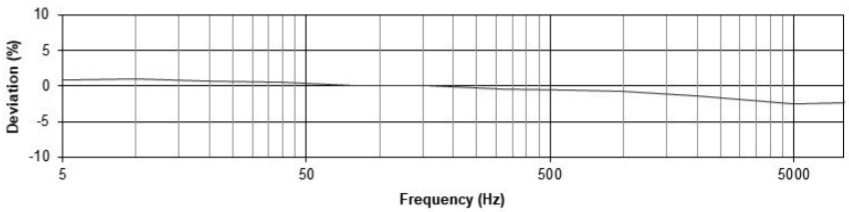


Fig_3 Typical Frequency Response



Specifications-BXXBG3

MODEL NUMBER		UNIT	B06BG3	B10BG3
PERFORMANCE				
Sensitivity [1]		mV/g	50	1000
		mV/(m/s²)	5	100
Measurement Range		g	±50	±5
Broadband Resolution [2]		g rms	0.0001	0.00001
Non-Linearity [3]		%	1	
Frequency Range	± 5%	Hz	1-7k	1-8k
	±10%		0.5-10k	0.5-10k
Resonance Frequency [2]		Hz	≥40k	≥40k
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	8-12	
Electrical Isolation		Ω	$\geq 1\times10^8$	
Spectral Noise [2]	10Hz	μg/√Hz	25	5
	100Hz		7	1.6
	1000Hz		5	1.2
ENVIRONMENTAL				
Sinusoidal Vibration Limit [4]		g rms	400	3000
Shock Limit [4]		g pk	1000	5000
Temperature Range		°C	-50~120	-50~80
		°F	-58~248	-58~176
Temperature Response [2]		-	See typical curve	
PHYSICAL				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Titanium Alloy	
Size		mm	23.7×15.4×10	
		in	0.933×0.606×0.394	
Electrical Connector		-	M5 Side (Opt. 10-32)	
Mounting Thread		-	Φ3.1 Through Hole / M3	
Weight [2]		g	10	11
		oz	0.353	0.388
TEDS Optional [5]		-	No	

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

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Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONALVERSIONS

-A: 10-32 Output Connector

COMPLIANCE WITH STANDARDS

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