

Universal Testing Type Accelerometer

DETAILS

The BXXBMX series of microminiature acceleration sensors have a built-in microminiature impedance converter that converts the charge signal during vibration into a voltage signal, and this model has excellent long-term stability and repeatability. The casing is laser welded with titanium alloy, characterized by small size and light weight.

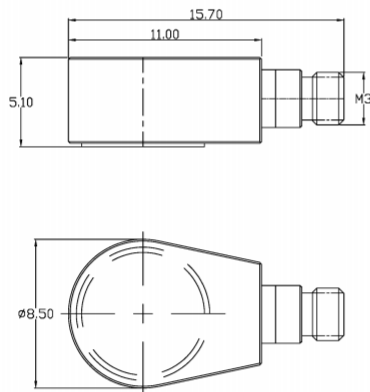
FEATURES

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

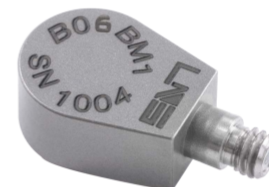
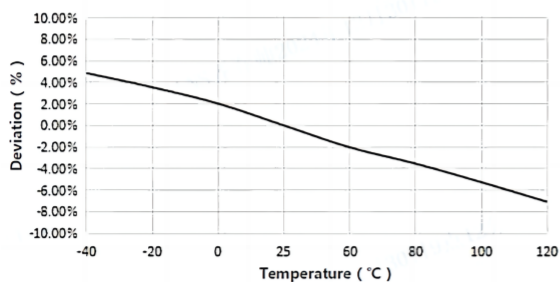
TYPICAL APPLICATIONS

- PC board testing
- ESS
- Space-constrained vibration measurements

Fig_1 Dimensions of BXXBMX

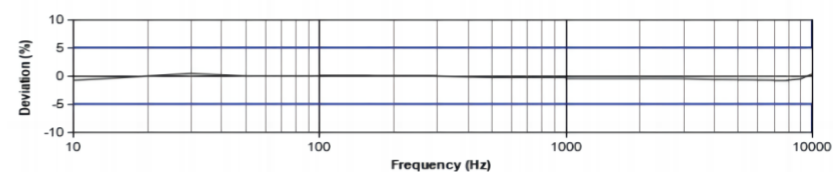


Fig_2 Typical Temperature Response



BXXBMX

Fig_3 Typical Frequency Response



Specifications-BXXBMX

MODEL NUMBER		UNIT	B01BM1	B02BM1	B03BM1	B05BM1	B06BM1
PERFORMANCE							
Sensitivity ¹		mV/g	5	10	20	50	100
		mV/(m/s²)	0.5	1	2	5	10
Measurement Range		g	±1000	±500	±250	±100	±50
Broadband Resolution ²		g rms	0.002	0.001	0.0005	0.0002	0.0001
Non-Linearity ³		%	1				
Frequency Range	± 5%(Hz)	Hz	3-10k	1-10k	1-10k	1-10k	1-10k
	±10%(Hz)		2-12k	0.5-11k	0.5-11k	0.5-11k	0.5-11k
Resonance Frequency ²		Hz	≥65k	≥59k	≥38k	≥38k	≥37k
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	-				
Spectral Noise ²	10Hz	μg/√Hz	300	150	75	30	15
	100Hz		80	40	20	8	4
	1000Hz		40	20	10	4	2
ENVIRONMENTAL							
Sinusoidal Vibration Limit ⁴		g	2500	2000	1200	800	400
Shock Limit ⁴		g	6000	5000	3000	2000	1000
Temperature Range		°C	-50-120				
		°F	-58-248				
Temperature Response ²		%/°C	-0.07				-0.1
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Titanium Alloy				
Size	mm	15.7x8.5x5.1					
	in	0.618x0.335x0.201					
Electrical Connector		-	M3 Side				
Mounting		-	Adhesive				
Weight ²	g	1	1.3	1.4	1.5	2.1	
	oz	0.035	0.046	0.04	0.053	0.074	
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

BXXBMX

Supplied Accessories:

- Product Verification Report
- Install Screws

COMPLIANCE WITH STANDARDS



LNS Intelligent Technology Co., Ltd

N0.3 Incubator Building
Qilu High-Tech District, Qihe,Dezhou
Shandong Province, China 251100
+86-534-2150417

International:

9620 NE Tanasbourne Dr Ste 300
Hillsboro, OR, USA 97124
+1-503-208-5512
info@lnsdynamics.com