BXXBMX

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.

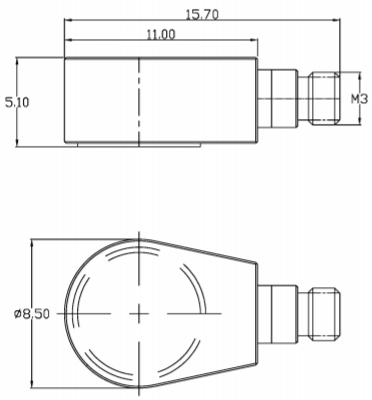
FEATURES

- 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



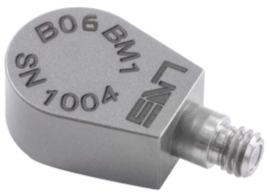


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Fig_2 Typical Temperature Response

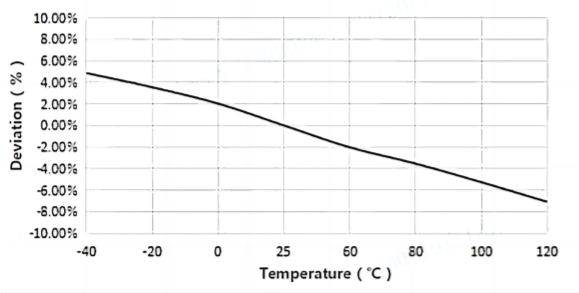
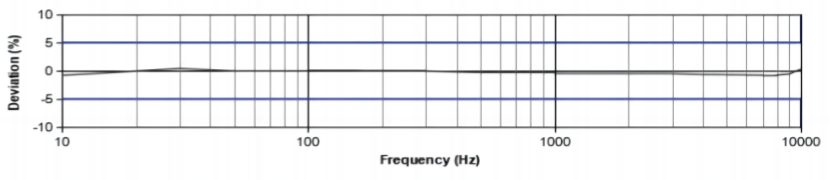


Fig_3 Typical Frequency Response



Specifications-BXXBMX

MODEL NUMBER		UNIT	B01BM1	B05BM1	B06BM1
PERFORMANCE					
Sensitivity [1]		mV/g	5	50	100
		mV/(m/s²)	0.5	5	10
Measurement Range		g	±1000	±100	±50
Broadband Resolution [2]		g rms	0.002	0.0002	0.0001
Non-Linearity [3]		%	1		
Frequency Range	± 5%(Hz)	Hz	3-10k	1-10k	1-10k
	±10%(Hz)		2-12k	0.5-11k	0.5-11k
Resonance Frequency [2]		Hz	≥65k	≥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]		μg/√Hz	300	30	15
			80	8	4
			40	4	2
ENVIRONMENTAL					
Sinusoidal Vibration Limit [4]		g	2500	800	400
Shock Limit [4]		g	6000	2000	1000
Temperature Range		℃	-50~120		
		℉	-58~248		
Temperature Response [2]		%/℃	-0.07		-0.1
PHYSICAL					
Sealing		-	Laser welding IP68		
Sensing Element		-	Piezoelectric ceramics		
Housing Material		-	Titanium Alloy		
Size		mm	15.7×8.5×5.1		
		in	0.618×0.335×0.201		
Electrical Connector		-	M3 Side		
Mounting Thread		-	Adhesive		
Weight [2]		g	1	1.5	2.1
		oz	0.035	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

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