BXXB10

Modal Test Type Accelerometer

DETAILS

BXXB10 series micro-miniature acceleration sensor built-in micro-miniature impedance converter, can be vibration process charge signal into a voltage signal, the model has excellent long-term stability and repeatability. The casing is laser welded with titanium alloy, small size and light weight, etc. This series of products have a center through-hole for 360° mounting.

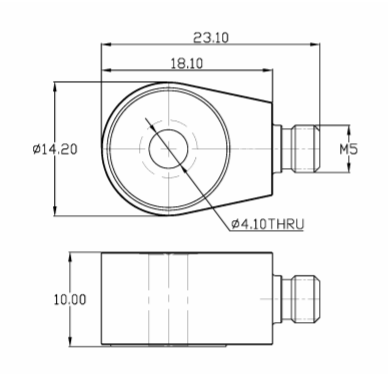
FEATURES

- High frequency response characteristics
- Small size and light weight
- 360° mounting

TYPICAL APPLICATIONS

- Modal analysis
- Vibration control
- Generalized vibration measurement

Fig_1 Dimensions of BXXB10



BXXB10

Fig_2 Typical Temperature Response

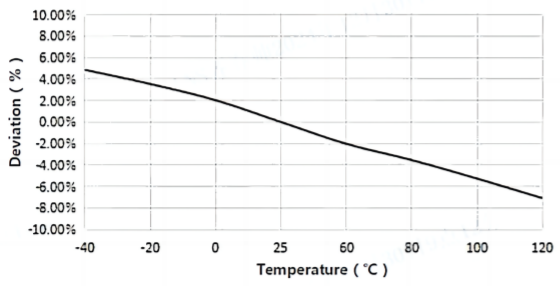
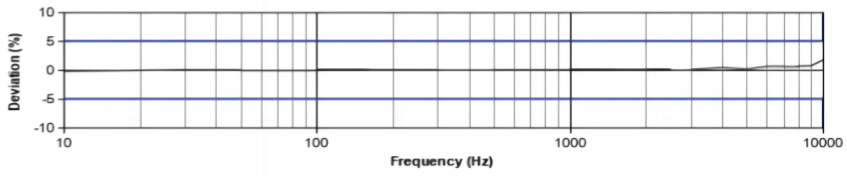


Fig_3 Typical Frequency Response



Specifications-BXXB10

MODEL NUMBER		UNIT	B02B10	B03B10	B05B10	B06B10
PERFORMANCE						
Sensitivity [1]		mV/g	10(±10%)	20	50	100
		mV/(m/s²)	1	2	5	10
Measurement Range		g	±500	±250	±100	±50
Broadband Resolution [2]		g rms	0.001	0.0005	0.0002	0.0001
Non-Linearity [3]		%	1			
Frequency Range	± 5%	Hz	1-10k	1-10k	1-10k	1-7k
	±10%		0.5-12k	0.5-12k	0.5-12k	0.5-10k
Resonance Frequency [2]		Hz	≥40k	≥40	≥40	≥38
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	150	75	30	15
	100Hz		40	20	8	4
	1000Hz		20	10	4	2
ENVIRONMENTAL						
Sinusoidal Vibration Limit [4]		g rms	2200	2000	800	400
Shock Limit [4]		g pk	5500	5000	2000	1000
Temperature Range		°C	-50~120			
		°F	-58~248			
Temperature Response [2]		%/°C	-0.07			
PHYSICAL						
Sealing		-	Laser welding IP68			
Sensing Element		-	Piezoelectric ceramics			
Housing Material		-	Titanium Alloy			
Size		mm	18.10×14.20×10.00			
		in	0.713×0.559×0.394			
Electrical Connector		-	M5 Side			
Mounting Thread		-	φ4.1 THRU			
Weight [2]		g	6	6	6.5	8
		oz	0.212	0.212	0.229	0.282
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

OPTIONAL VERSIONS

-A: 10-32 Output Connector

COMPLIANCE WITH STANDARDS

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