

Universal Testing Type Accelerometer

DETAILS

BXXBG2 single-axis acceleration sensor, using piezoelectric ceramic shear structure, with a wide band frequency response, high-quality piezoelectric ceramics with long-term stability can ensure years of accurate measurement. Internal low impedance circuit, low noise, better sensitivity temperature response and other characteristics. Insulation design to ground, the bottom is equipped with an insulated base. The housing is laser welded with titanium alloy for high sealing grade and strength.

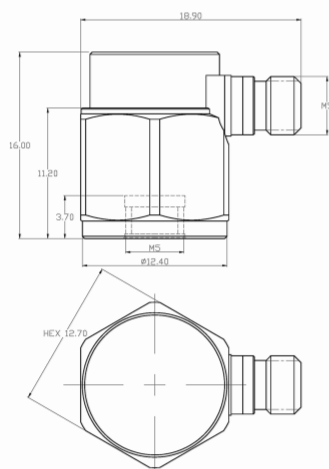
FEATURES

- Ground insulation design
- Small size and light weight
- Shear structure, stable and reliable
- Multiple outputs and mounting options

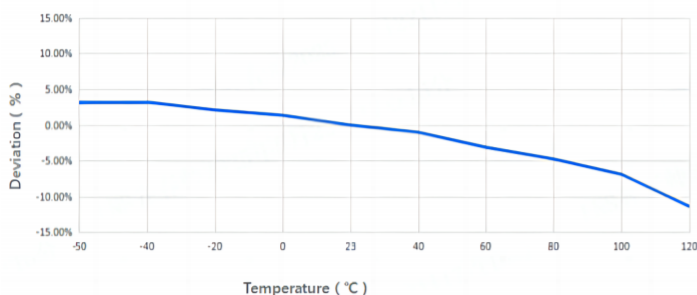
TYPICAL APPLICATIONS

- Modal structure and analysis
- General vibration monitoring

Fig_1 Dimensions of BXXBG2



Fig_2 Typical Temperature Response



BXXBG2

Fig_3 Typical Frequency Response



Specifications-BXXBG2

MODEL NUMBER		UNIT	B01BG2	B02BG2	B03BG2	B05BG2	B06BG2
PERFORMANCE							
Sensitivity(±5%) ¹		mV/g	5(±10%)	10(±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	1-9k	1-8k	1-8k	1-7k	1-7k
	±10%		0.5-10k	0.5-10k	0.5-10k	0.5-10k	0.5-10k
Resonance Frequency ²		Hz	≥40k	≥40k	≥40k	≥39k	≥35k
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	≥1×10 ⁸				
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	8000	5000	3000	2000	1000
Temperature Range		°C	-50-120				
		°F	-58-248				
Temperature Response ²		%/°C	-0.1				
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Titanium alloy				
Size	mm	HEX 12.70×16.00					
	in	HEX 0.500×0.630					
Electrical Connector		-	M5 Side (Opt. 10-32)				
Mounting Thread		-	M5 (Opt. 10-32)				
Weight ²	g		7.5	7.5	7.5	7.5	7.8
	oz		0.265	0.265	0.265	0.265	0.275
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

BXXBG2

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

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

COMPLIANCE WITH STANDARDS



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