

## Universal Testing Type Accelerometer

### DETAILS

The BXXCM5 series of miniature accelerometers incorporate a built-in micro-impedance converter that transforms charge signals generated during vibration into voltage signals. These sensors exhibit exceptional long-term stability and repeatability. Their titanium alloy housings are laser-welded, resulting in compact dimensions and lightweight construction.

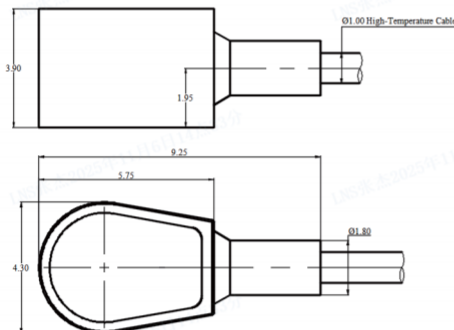
### FEATURES

- Micro-miniature built-in integrated circuit
- Compact size, lightweight
- Side-mounted integrated cable output
- Broadband response

### TYPICAL APPLICATIONS

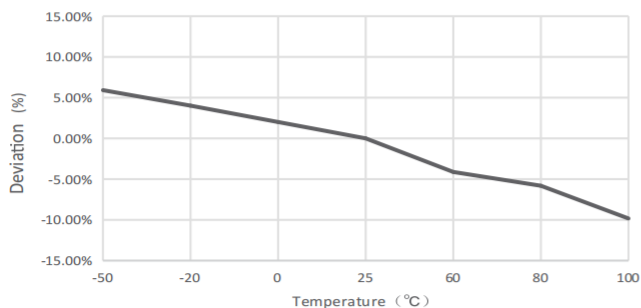
- PC board testing
- ESS
- Vibration measurement in confined spaces

**Fig\_1** Dimensions of BXXCM5

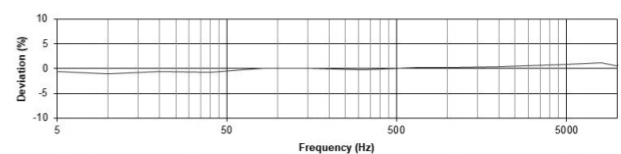


BXXCM5

**Fig\_2** Typical Temperature Response



**Fig\_3** Typical Frequency Response



## Specifications-BXXCM5

MODEL NUMBER		UNIT	B01CM5	B02CM5
PERFORMANCE				
Sensitivity <sup>1</sup>		mV/g	5(±10%)	10(±20%)
		mV/(m/s²)	0.5	1
Measurement Range		g	±1000	±500
Broadband Resolution <sup>2</sup>		g rms	0.002	0.001
Non-Linearity <sup>3</sup>		%	1	
Frequency Range	± 5%	Hz	3-10k	5-10k
	±10%		2-12k	2-12k
Resonance Frequency <sup>2</sup>		Hz	≥50k	≥50k
Discharge Time Constant <sup>2</sup>		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 <sup>2</sup>	10Hz	μg/√Hz	300	150
	100Hz		80	40
	1000Hz		40	20
ENVIRONMENTAL				
Sinusoidal Vibration Limit <sup>4</sup>		g rms	1500	1500
Shock Limit <sup>4</sup>		g pk	2000	2000
Temperature Range		°C	-50~120	-50~100
		°F	-58~248	-58~212
Temperature Response <sup>2</sup>		-	See typical curve	
PHYSICAL				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Titanium alloy	
Size	mm		4.30×3.90×5.75	
	in		0.169×0.154×0.226	
Electrical Connector		-	Connected cable side	
Mounting Thread		-	Adhesive	
Weight <sup>2</sup>	g		0.35	0.35
	oz		0.012	0.012
TEDS Optional <sup>5</sup>		-	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

### BXXCM5

Supplied Accessories:

- Product Verification Report
- Install Screws

### COMPLIANCE WITH STANDARDS



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