

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.

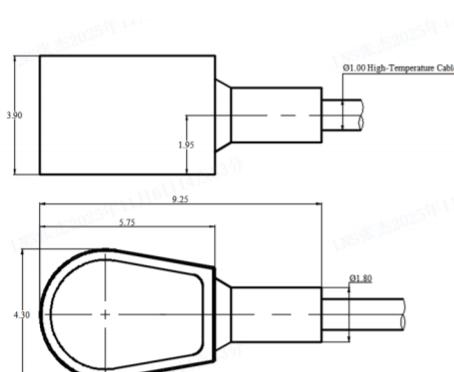
FEATURES

- 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

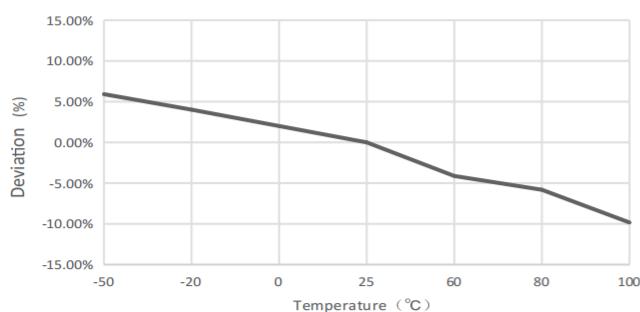
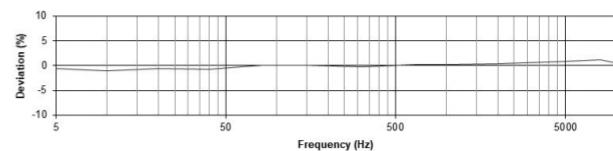


Fig. 3 Typical Frequency Response



Specifications-BXXCM5

Model Number	Unit	B01CM5	B02CM5
PERFORMANCE			
Sensitivity ¹	mV/g	5(±10%)	10(±20%)
	mV/(m/s ²)	0.5	1
Measurement Range	g	±1000	±500
Broadband Resolution ²	g rms	0.002	0.001
Non-Linearity ³	%	1	
Frequency Range	Hz	3-10k	5-10k
		2-12k	2-12k
Resonance Frequency ²	Hz	≥50k	≥50k
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
	100Hz		80
	1000Hz		40
ENVIRONMENTAL			
Sinusoidal Vibration Limit ⁴	g rms	1500	1500
Shock Limit ⁴	g pk	2000	2000
Temperature Range	°C	-50~120	-50~100
	°F	-58~248	-58~212
Temperature Response ²	-	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 ²	g	0.35	0.35
	oz	0.012	0.012
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

BXXCM5

Supplied Accessories:

- Product Verification Report
- Install Screws

COMPLIANCE WITH STANDARDS



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