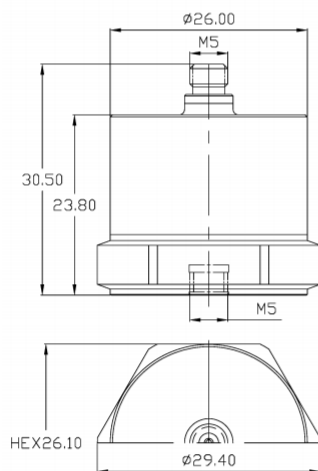


Large Sensitivity Accelerometer

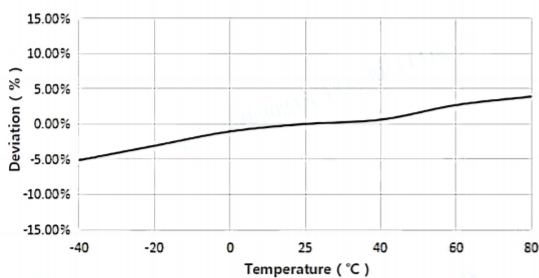
DETAILS

B1XA0X single-axis acceleration sensor, using piezoelectric ceramic shear structure, with a broadband frequency response, small size and high sensitivity, high-quality piezoelectric ceramics with long-term stability to ensure years of accurate measurement. The internal circuit is characterized by low noise and high resolution over a wide frequency band. The housing is laser welded stainless steel with high sealing grade and strength, and is equipped with M5 mounting threads at the bottom.

Fig_1 Dimensions of B1XA0X



Fig_2 Typical Temperature Response



FEATURES

- Low noise
- High sensitivity
- Small size and light weight
- Broadband response

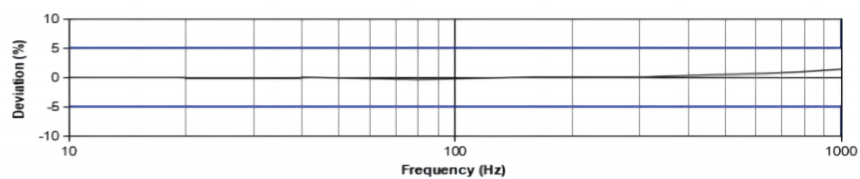
TYPICAL APPLICATIONS

- Low frequency measurement
- Structural testing of bridge buildings
-



B1XA0X

Fig_3 Typical Frequency Response



Specifications-B1XA0X

MODEL NUMBER		UNIT	B11A00	B11A03	B12A00	B13A00	B14A00
PERFORMANCE							
Sensitivity ¹		mV/g	5000	2000	10000	20000	50000
		mV/(m/s²)	500	200	1000	2000	5000
Measurement Range		g	±1	±2.5	±0.5	±0.25	±0.1
Broadband Resolution ²		g rms	0.000004	0.000002	0.000006	0.000005	0.00003
Non-Linearity ³		%	1				
Frequency Range	± 5%	Hz	0.5-1k	0.5-1k	0.5-1k	0.5-1k	0.5-1k
	±10%		0.3-1.5k	0.3-1.5k	0.3-1.5k	0.3-1.5k	0.3-1.5k
Resonance Frequency ²		Hz	≥8k	≥8k	≥8k	≥8k	≥8k
Discharge Time Constant ²		s	≥10				
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	0.6	0.5	0.16	0.45	0.9
	100Hz		0.08	0.07	0.12	0.3	0.75
	1000Hz		0.03	0.02	0.05	0.15	0.35
ENVIRONMENTAL							
Sinusoidal Vibration Limit ⁴		g rms	80	80	80	4	40
Shock Limit ⁴		g pk	200	200	200	10	100
Temperature Range		°C	-40~120	-40~80	-40~120	-40~80	
		°F	-40~248	-40~176	-40~248	-40~176	
Temperature Response ²		%/°C	0.1				
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Stainless steel				
Size	mm	HEX 26.1×32.5					
	in	HEX 1.028×1.280					
Electrical Connector		-	M5 Top (Opt. 10-32)				
Mounting Thread		-	M5 (Opt. 10-32)				
Weight ²	g		132	132	132	132	132
	oz		4.656	4.656	4.656	4.656	4.656
TEDS Optional ⁵		-	Yes				

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

B1XA0X

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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