

Small Type Accelerometer

DETAILS

Small type acceleration sensor, using piezoelectric ceramic shear structure, with a broadband 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. The housing is laser welded with optional stainless steel or titanium alloy, with high sealing grade and strength, and equipped with M3 or M5 mounting threads at the bottom.

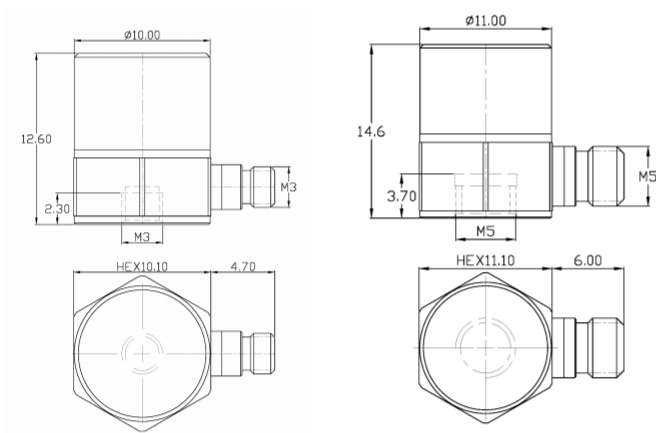
FEATURES

- Integrated Microminiature Circuits
- Small size and light weight
- Memory alloy fastener, shear structure, stable and reliable

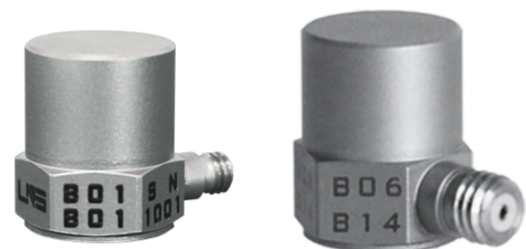
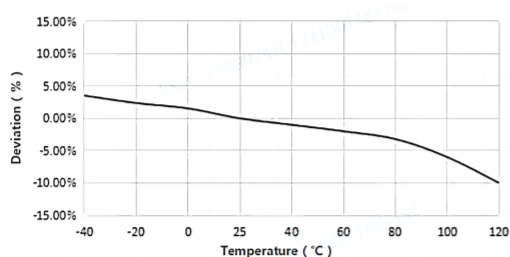
TYPICAL APPLICATIONS

- Modal analysis
- Vibration control
- Universal vibration monitoring

Fig_1 Dimensions of B01B01 B02B01 B03B03 B05B06 B06B14

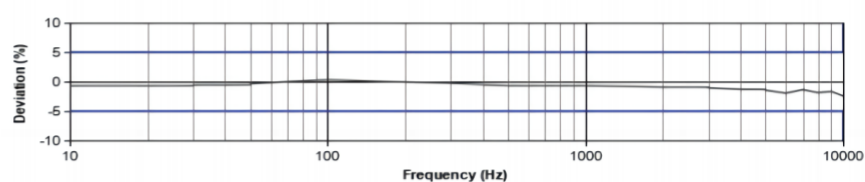


Fig_2 Typical Temperature Response



B01B01
B02B01
B03B03
B05B06
B06B14

Fig_3 Typical Frequency Response



Specifications-BXXBXX

MODEL NUMBER		UNIT	B01B01	B02B01	B03B03	B05B06	B06B14
PERFORMANCE							
Sensitivity ¹		mV/g	5(±10%)	10(±10%)	20	50	100
		mV/(m/s ²)	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	1-10k	1-10k	1-10k	1-10k	1-10k
	±10%		0.5-12k	0.5-12k	0.5-12k	0.5-12k	0.5-12k
Resonance Frequency ²		Hz	≥90k	≥65k	≥60k	≥44k	≥37k
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	150	75	30	15
	100Hz		80	40	20	8	4
	1000Hz		40	20	10	4	2
ENVIRONMENTAL							
Sinusoidal Vibration Limit ⁴		g rms	4000	3000	2000	800	400
Shock Limit ⁴		g pk	8000	8000	5000	2000	1000
Temperature Range		°C	-40-120				
		°F	-40-248				
Temperature Response ²		%/°C	-0.1				
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Stainless steel/Titanium Alloy				Titanium Alloy
Size	mm	HEX 10.10×12.60				HEX 11.10×14.60	
	in	HEX 0.398×0.496				HEX 0.437×0.575	
Electrical Connector		-	M3 Side				M5 Side (Opt. 10-32)
Mounting Thread		-	M3				M5 (Opt. 10-32)
Weight ²	g	4.5/4	4.5/4	4.5/4	8.5/5	5.3	
	oz	0.159/0.141	0.159/0.141	0.159/0.141	0.300/0.176	0.187	
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

BXXBXX

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

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

COMPLIANCE WITH STANDARDS



LNS Intelligent Technology Co., Ltd
NO.3 Building
Qilu High-Tech District, Qihe,Dezhou
Shandong Province, China 251100
+86-534-2150417

International:
9620 NE Tanasbourne Dr Ste 300
Hillsboro, OR, USA 97124
+1-503-208-5512
info@lnsdynamics.com