

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 mounting threads at the bottom.

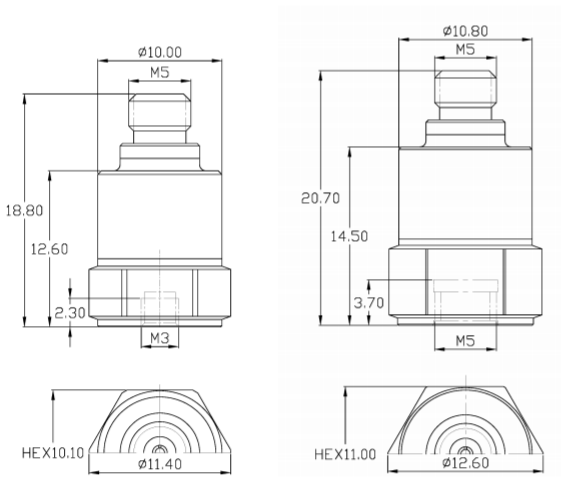
FEATURES

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

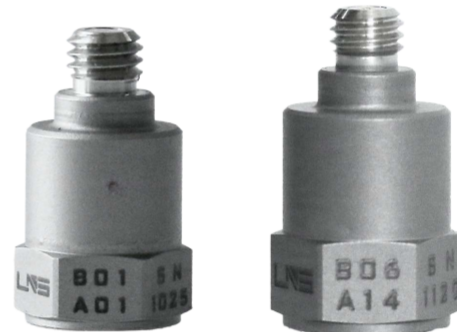
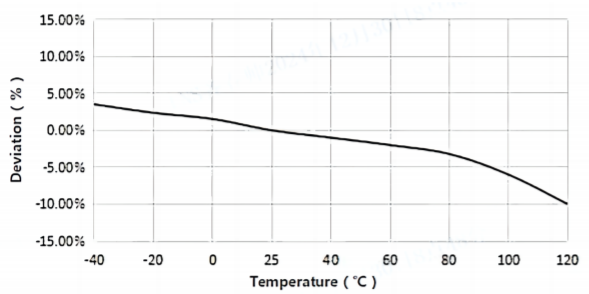
TYPICAL APPLICATIONS

- Modal analysis
- Vibration control
- Universal vibration monitoring

Fig_1 Dimensions of B01A01 B02A01 B03A03 B05A06 B06A14

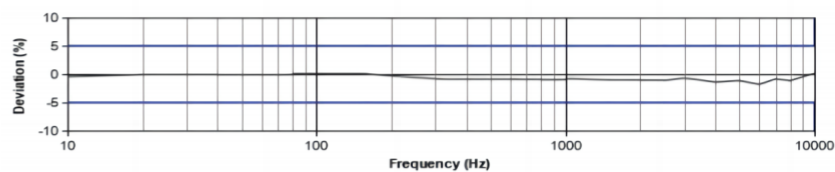


Fig_2 Typical Temperature Response



B01A01
B02A01
B03A03
B05A06
B06A14

Fig_3 Typical Frequency Response



Specifications-BXXAXX

MODEL NUMBER	UNIT	B01A01	B02A01	B03A02	B05A06	B06A14
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%	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	μg/√Hz	300	150	75	30	15
		80	40	20	8	4
		40	20	10	4	2
ENVIRONMENTAL						
Sinusoidal Vibration Limit ⁴	g	4000	3000	2000	800	400
Shock Limit ⁴	g	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 10.10×18.80			HEX 11.00×20.70	
	in	HEX 0.398×0.740			HEX 0.433×0.815	
Electrical Connector	-	M5 Top (Opt. 10-32)				
Mounting Thread	-	M3			M5 (Opt. 10-32)	
Weight ²	g	6/4.5	6/4.5	6/4.5	8.5/5	5.3
	oz	0.217/0.159	0.217/0.159	0.217/0.159	0.300/0.176	0.187
TEDS Optional ⁵	-	Yes				

Additional Information

Note:

- @ 160Hz, 24VDC, 4mA conditions
- Typical values
- JBT 6822-2018 7.12.1 Vibration Testing Method
- References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state
- Some products may have changes in size after adding TEDS

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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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