BXXAM6 Series

IEPE Miniature Uniaxial Accelerometer

B02AM6 | B03AM6 | B05AM6 | B06AM6

10 – 100 mV/g · ±50 – ±500 g · 1 Hz … 12 kHz · -50 … +120 °C · 2 – 2.5 g

The BXXAM6 series consists of miniature IEPE accelerometers with a built-in miniature impedance converter that conditions the piezoelectric charge signal to a low-impedance voltage output. These sensors exhibit excellent long-term output stability and repeatability. The laser-welded titanium alloy housing is compact and lightweight.

FEATURES

- Highly integrated miniature ASIC
- Compact miniature housing with minimal mass loading on test structures

TYPICAL APPLICATIONS

- PCB vibration testing
- ESS
- Vibration measurements in confined spaces

SPECIFICATIONS

MODEL	B02AM6	B03AM6	B05AM6	B06AM6	UNIT
PERFORMANCE					
Sensitivity (±5%) [1]	10 (±10%)	20	50	100	mV/g
	1	2	5	10	mV/(m/s²)
Measurement range	±500	±250	±100	±50	g
Frequency range, ±5%	1–10k	1–12k	1–12k	1–10k	Hz
Frequency range, ±10%	0.5–11k	0.5–14k	0.5–14k	0.5–12k	Hz
Resonance frequency [2]	≥59k	≥50k	≥40k	≥38k	Hz
Broadband resolution [2]	0.001	0.0005	0.0002	0.0001	g rms
Spectral noise [2] @ 10 Hz	150	75	30	15	µg/√Hz
@ 100 Hz	40	20	8	4	µg/√Hz
@ 1 kHz	20	10	4	2	µg/√Hz
Non-linearity [3]	≤1				%
Transverse sensitivity	≤5				%
Discharge time constant [2]	1				s

Specifications continued on next page

SPECIFICATIONS (CONTINUED)

MODEL	B02AM6	B03AM6	B05AM6	B06AM6	UNIT
ENVIRONMENTAL					
Sine vibration limit [4]	2000	1200	800	400	g rms
Shock limit [4]	5000	3000	2000	1000	g pk
Temperature range		-50 ~ 120			°C
		-58 ~ 248			°F
Temperature response [2]		See typical curve			—
Sealing		Laser welded, IP68			—
ELECTRICAL					
Excitation voltage		20 – 30			VDC
Constant current excitation		2 – 20			mA
Output impedance		≤100			Ω
Output bias voltage		8 – 12			V
Electrical isolation		No			—
PHYSICAL					
Sensing element		Piezoelectric ceramic			—
Housing material		Titanium alloy			—
Size (hex × height)		HEX 8.6 × 12.2			mm
		HEX 0.339 × 0.480			in
Weight [2]	2	2	2.1	2.5	g
	0.071	0.071	0.074	0.088	oz
TEDS available [5]		No			—
Electrical connector		M5 top (opt. 10-32)			—
Mounting		Adhesive			—

1 Measured at 160 Hz, 24 VDC, 4 mA excitation.
2 Typical value.
3 Per JB/T 6822-2018 §7.12.1 vibration testing method.
4 Limit of the mechanical structure in a non-powered state, not a working limit.
5 TEDS (IEEE 1451.4) is not offered on this series.
— Not specified.

TYPICAL RESPONSE

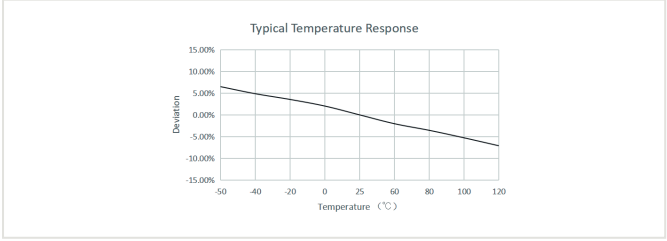

Fig. 4 — Typical temperature response

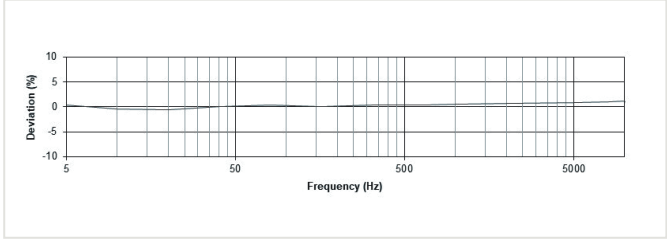

Fig. 5 — Typical frequency response

DIMENSIONS

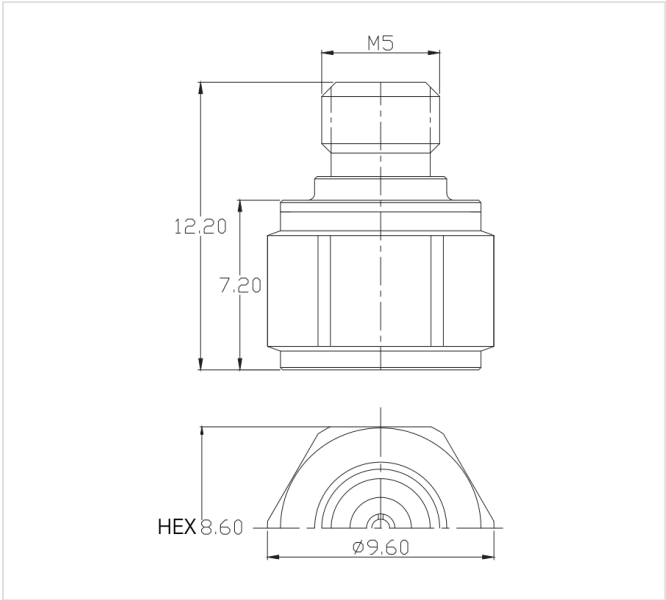

Fig. 3 — BXXAM6, mm · HEX 8.6 × 12.2

OPTIONS & ACCESSORIES

OPTIONAL VERSIONS

-A 10-32 output connector

-P Phase optimized

RECOMMENDED ACCESSORIES

Cable **K01AB02** (M5) · **K14AB02** (10-32)

ORDERING INFORMATION

ORDER	SENSITIVITY	RANGE	FREQUENCY ±5%	WEIGHT
B02AM6	10 mV/g	±500 g	1–10k Hz	2 g
B03AM6	20 mV/g	±250 g	1–12k Hz	2 g
B05AM6	50 mV/g	±100 g	1–12k Hz	2.1 g
B06AM6	100 mV/g	±50 g	1–10k Hz	2.5 g

SUPPLIED ACCESSORIES

– Product calibration certificate

CALIBRATION & COMPLIANCE

Every sensor is calibrated at 160 Hz (24 VDC, 4 mA) before shipment and ships with a product calibration certificate documenting measured sensitivity.

Vibration testing per JB/T 6822-2018. LNS Intelligent Technology is an ISO 9001:2015 certified manufacturer.

In the interest of continuous product improvement, LNS reserves the right to change specifications without notice. Values shown are typical unless stated otherwise.