



B06A04 · B10A01 · B10A06

IEPE Low-Frequency Uniaxial Accelerometer



- B06A04
- B10A01
- B10A06

100 / 1000 mV/g · ±50 / ±5 g · 0.06 Hz ... 10 kHz · 24 - 60 g · M5 top connector · M5 stud

The B06A04, B10A01 and B10A06 are low-frequency uniaxial IEPE accelerometers with a piezoelectric ceramic shear sensing element and wide-bandwidth frequency response. High-grade piezoelectric ceramics deliver long-term output stability. A dedicated ultra-low-frequency, low-impedance circuit provides low output noise and stable sensitivity over temperature. The laser-welded housing provides high sealing integrity and mechanical strength, with an M5 or 10-32 threaded stud on the base.

FEATURES

- Dedicated ultra-low-frequency IEPE circuit
- Shear sensing element with low base-strain sensitivity
- M5 or 10-32 base mounting thread
- Laser-welded housing

TYPICAL APPLICATIONS

- Low-frequency vibration measurements
- Bridge, building and civil structural measurements

SPECIFICATIONS

MODEL	B06A04	B10A01	B10A06	UNIT
PERFORMANCE				
Sensitivity (±5%) ¹	100	1000	1000	mV/g
	10	100	100	mV/(m/s ²)
Measurement range	±50	±5	±5	g
Frequency range, ±5%	0.1-6k	0.06-2k	2-10k	Hz
Frequency range, ±10%	0.05-7k	0.04-3k	1-12k	Hz
Resonance frequency ²	≥25k	≥13k	≥35k	Hz
Broadband resolution ²	0.0001	0.00001	0.00001	g rms
Spectral noise ² @ 10 Hz	6	0.6	3.8	µg/√Hz
	@ 100 Hz	0.24	1.4	µg/√Hz
	@ 1 kHz	0.16	1.1	µg/√Hz
Non-linearity ³		≤1		%
Transverse sensitivity		≤5		%
Discharge time constant ²	≥10	≥10	1	s

Specifications continued on next page

SPECIFICATIONS (CONTINUED)

MODEL	B06A04	B10A01	B10A06	UNIT
ENVIRONMENTAL				
Sine vibration limit ⁴	400	40	1000	g rms
Shock limit ⁴	1000	100	3000	g pk
Temperature range	-40 ~ 120	-40 ~ 80	-40 ~ 120	°C
	-40 ~ 248	-40 ~ 176	-40 ~ 248	°F
Temperature response ²	See Fig. 4			—
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	≥1 × 10 ⁸			Ω
PHYSICAL				
Sensing element	Piezoelectric ceramic, shear			—
Housing material	Titanium alloy			—
Size (hex × height)	HEX 16.1 × 26.1	HEX 19.1 × 34.3	HEX 16.1 × 26.1	mm
	HEX 0.634 × 1.028	HEX 0.752 × 1.350	HEX 0.634 × 1.028	in
Weight ²	24	60	25	g
	0.847	2.116	0.882	oz
Electrical connector	M5 top (opt. 10-32)			—
Mounting thread	M5 × 3.7	M5 × 5.1	M5 × 3.7	—
Mounting torque	3.0			N·m
TEDS model number ⁵	20604A	21001A	21006A	—

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 Dimensions may change slightly with the TEDS option.

— Not specified.

TYPICAL RESPONSE

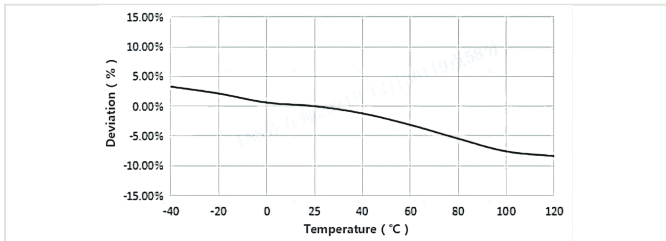


Fig. 4 – Typical temperature response

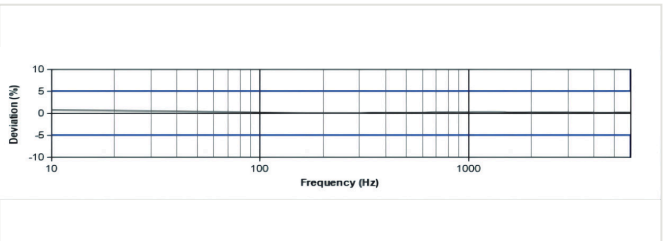


Fig. 5 – Typical frequency response

DIMENSIONS

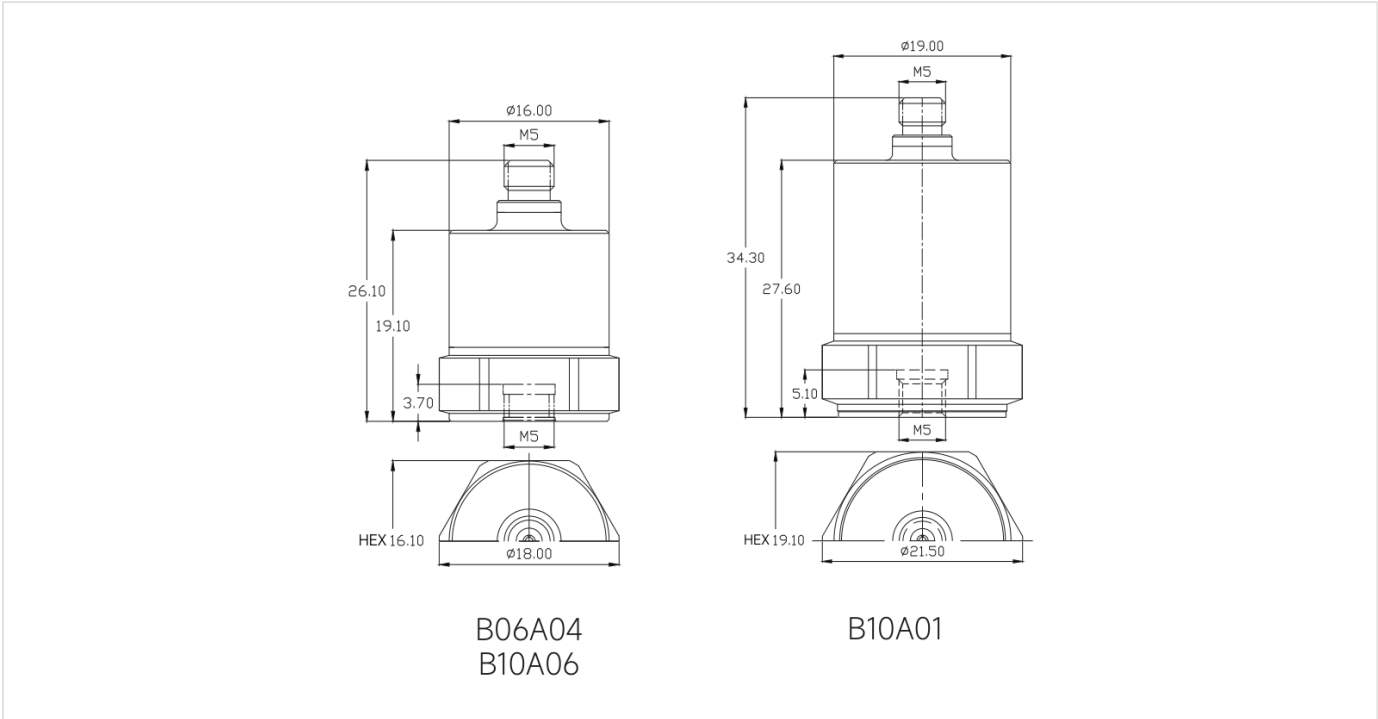


Fig. 3 – Dimensions, mm – B06A04 · B10A06 (HEX 16.1 × 26.1); B10A01 (HEX 19.1 × 34.3)

OPTIONS & ACCESSORIES

OPTIONAL VERSIONS

- A 10-32 output connector
- E 10-32 mounting thread

RECOMMENDED ACCESSORIES

- Cable **K14AB02** (10-32) · **K01AB02** (M5)
- Mounting base, B06A04 · B10A06 **H02B02** (M5) · **H02B36** (10-32)
- Mounting base, B10A01 **H02B03** (M5) · **H02B25** (10-32)

ORDERING INFORMATION

ORDER	SENSITIVITY	RANGE	FREQUENCY ±5%	SHOCK LIMIT
B06A04	100 mV/g	±50 g	0.1–6k Hz	1000 g pk
B10A01	1000 mV/g	±5 g	0.06–2k Hz	100 g pk
B10A06	1000 mV/g	±5 g	2–10k Hz	3000 g pk

SUPPLIED ACCESSORIES

- Product calibration certificate
- Mounting screw

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.

