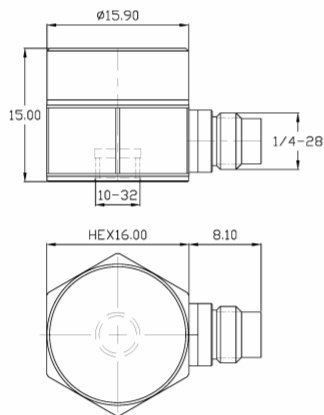


## Universal Testing Type Accelerometer

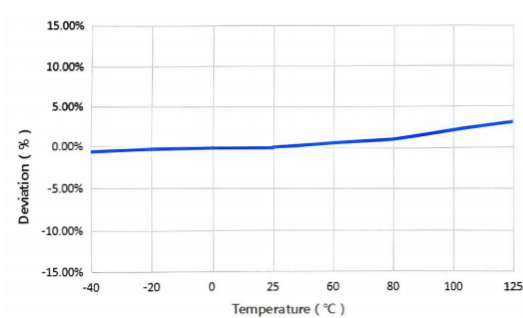
### DETAILS

The single-axis capacitive acceleration sensor type AXXD06 utilizes a variable capacitive MEMS sensitive element. The sensitive element consists of a very small inertial mass and a flexure element. The mass is deflected under acceleration and the capacitance changes. The AC excitation and modulation-demodulation circuitry contained within the internal internal circuitry of the sensor outputs an analog output voltage signal proportional to the acceleration. Sensitive components and circuitry are encapsulated within a titanium alloy housing, 1/4-28 four-prong connector output, and signal ground is isolated from the housing. Withstands 10,000g shock.

**Fig\_1** Dimensions of AXXD06



**Fig\_2** Typical Temperature Response



### FEATURES

- Zero frequency voltage output type
- Large range, wide frequency response, high shock resistance
- Low power consumption, low noise, high resolution
- Broadband response

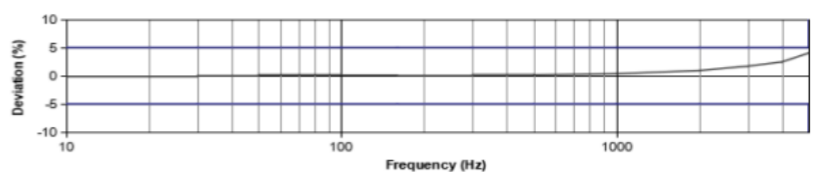
### TYPICAL APPLICATIONS

- Road spectrum testing
- Overload testing
- Foundation building structure testing
- Low frequency testing



AXXD06

**Fig\_3** Typical Frequency Response



## Specifications-AXXD06

| MODEL NUMBER                            |      | UNIT      | A01D06             | A02D06 | A03D06 | A05D06 |
|-----------------------------------------|------|-----------|--------------------|--------|--------|--------|
| PERFORMANCE                             |      |           |                    |        |        |        |
| Sensitivity <sup>1</sup>                |      | mV/g      | 4                  | 10     | 20     | 40     |
|                                         |      | mV/(m/s²) | 0.4                | 1      | 2      | 4      |
| Range                                   |      | g         | ±500               | ±200   | ±100   | ±50    |
| Non-Linearity (typ) <sup>2</sup>        |      | %         | 0.25               |        | 0.1    |        |
| Non-Linearity (max) <sup>2</sup>        |      | %         | 0.3                |        |        |        |
| Frequency Range                         | ± 5% | Hz        | 0-5k               | 0-5k   | 0-4k   | 0-4k   |
|                                         | ±10% |           | 0-8k               | 0-6k   | 0-5k   | 0-5k   |
| Resonance Frequency <sup>3</sup>        |      | Hz        | 41k                | 24k    | 21k    | 21k    |
| Transverse Sensitivity                  |      | %         | ≤1.5               |        |        |        |
| Output Mode                             |      | -         | Single-ended       |        |        |        |
| ELECTRICAL                              |      |           |                    |        |        |        |
| Excitation Voltage                      |      | V DC      | 6-30               |        |        |        |
| Full Range Voltage                      |      | V         | ±4                 |        |        |        |
| Output Impedance                        |      | Ω         | ≤90                |        |        |        |
| ENVIRONMENTAL                           |      |           |                    |        |        |        |
| Sinusoidal Vibration Limit <sup>4</sup> |      | g rms     | 10000              | 10000  | 10000  | 10000  |
| Shock Limit <sup>4</sup>                |      | g pk      | 10000              | 10000  | 10000  | 10000  |
| Temperature Range                       |      | °C        | -40-125            |        |        |        |
|                                         |      | °F        | -40-257            |        |        |        |
| PHYSICAL                                |      |           |                    |        |        |        |
| Sealing                                 |      | -         | Laser welding IP68 |        |        |        |
| Sensing Element                         |      | -         | MEMS Chip          |        |        |        |
| Housing Material                        |      | -         | Titanium alloy     |        |        |        |
| Size                                    |      | mm        | HEX 16.00×15.00    |        |        |        |
|                                         |      | in        | HEX 0.630×0.591    |        |        |        |
| Electrical Connector                    |      | -         | 1/4-28 4-pin Side  |        |        |        |
| Mounting Thread                         |      | -         | M5                 |        |        |        |
| Weight <sup>3</sup>                     |      | g         | 10.2               |        |        |        |
|                                         |      | oz        | 0.360              |        |        |        |

## Additional Information

### Note:

1. @ 160Hz, under the condition of 23 °C± 5 °C
2. JBT 6822-2018 7.12.1 Vibration Testing Method
3. Typical values
4. It refers to the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state

## AXXD06

Supplied Accessories:

- Product Verification Report
- Install screws

### COMPLIANCE WITH STANDARDS



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