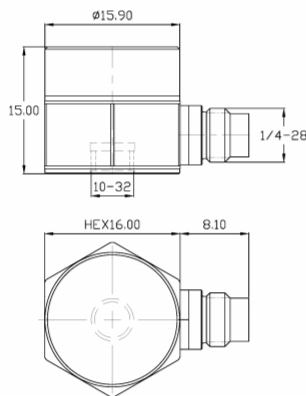


Universal Testing Type Accelerometer

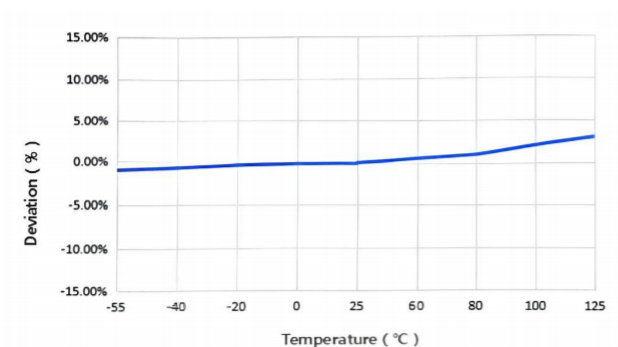
DETAILS

The single-axis capacitive accelerometer sensor, type AXXD01/AXXE01, 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. The sensitive element and circuitry are encapsulated within a titanium alloy housing with a 1/4-28 four-prong connector output and signal ground isolated from the housing.

Fig_1 Dimensions of AXXD01/AXXE01



Fig_2 Typical Temperature Response



FEATURES

- Zero frequency voltage output type
- Low power consumption, low noise, high resolution
- Broadband response
- Customizable connected cable output

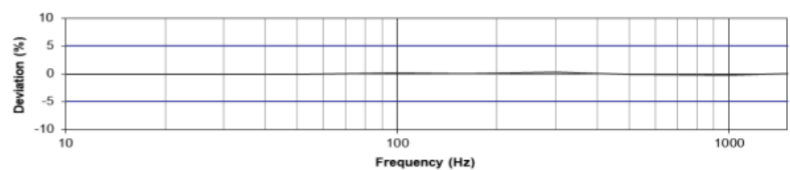
TYPICAL APPLICATIONS

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



AXXD01/AXXE01

Fig_3 Typical Frequency Response



Specifications-AXXD01/AXXE01

MODEL NUMBER		UNIT	A03D01/ A03E01	A05D01/ A05E01	A06D01/ A06E01	A07D01/ A07E01	A09D01/ A09E01	A10D01/ A10E01	A11D01/ A11E01
PERFORMANCE									
Sensitivity ¹		mV/g	20	40	80	135	400	800	2000
		mV/(m/s²)	2	4	8	13.5	40	80	200
Range		g	±200	±100	±50	±30	±10	±5	±2
Non-Linearity (typ) ²		%	0.1						
Non-Linearity (max) ²		%	0.3						
Frequency Range	± 5%	Hz	0-2k	0-1.5k	0-1.5k	0-1.5k	0-1k	0-0.7k	0-0.5k
	±10%		-	-	-	-	-	-	-
Resonance Frequency ³		Hz	11k	8.5k	5.8k	4.2k	3.2k	1.9k	1.2k
Transverse Sensitivity		%	≤0.2						
Output Mode		-	Single-ended/Differential						
ELECTRICAL									
Excitation Voltage		V DC	6-30						
Full Range Voltage		V	±4						
Output Impedance		Ω	≤90						
ENVIRONMENTAL									
Sinusoidal Vibration Limit ⁴		g rms	5000	5000	5000	5000	5000	2000	2000
Shock Limit ⁴		g pk	5000	5000	5000	5000	5000	2000	2000
Temperature Range		°C	-55-125						
		°F	-67-257						
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 ⁵	g	10							
	oz	0.353							

Additional Information

Note:

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

AXXD01/AXXE01

Supplied Accessories:

- Product Verification Report
- Install screws

COMPLIANCE WITH STANDARDS



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