AXXD02/AXXE02

Universal Testing Type Accelerometer

DETAILS

The single-axis capacitive acceleration sensor type AXXD02/AXXE02 utilizes a variable capacitive MEMS sensitive element. 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 components 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. Equipped with two through-hole mounting for a more secure and reliable installation.

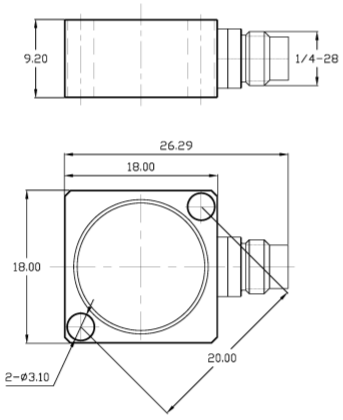
FEATURES

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

TYPICAL APPLICATIONS

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

Fig_1 Dimensions of AXXD02/AXXE02



AXXD02/AXXE02

Fig_2 Typical Temperature Response

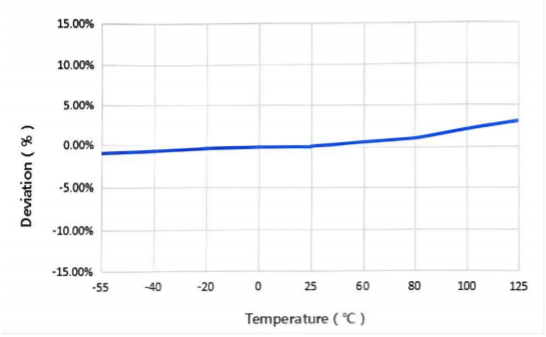
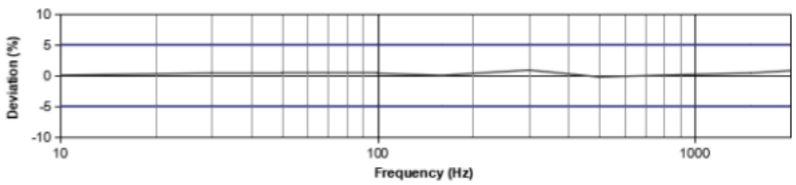


Fig_3 Typical Frequency Response



Specifications-AXXD02/AXXE02

MODEL NUMBER		UNIT	A03D02/ A03E02	A05D02/ A05E02	A06D02/ A06E02	A07D02/ A07E02	A09D02/ A09E02	A10D02/ A10E02	A11D02/ A11E02
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	18.00×18.00×9.20						
		in	0.709×0.709×0.362						
Electrical Connector		-	1/4-28 4-pin Side						
Mounting Thread		-	M3 Through Hole						
Weight [3]		g	8.7						
		oz	0.307						

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

AXXD02/AXXE02

Supplied Accessories:

- Product Verification Report
- Install screws

COMPLIANCE WITH STANDARDS

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