

IEPE Triaxial Accelerometer

DETAILS

BXXY32 series three-axis acceleration sensor, using piezoelectric ceramic shear structure, with a wide band frequency response, high-quality piezoelectric ceramic with long-term stability can ensure years of accurate measurement. Built-in low impedance circuit, low noise, better sensitivity temperature response and other characteristics. The shell is made of titanium alloy with lower density and laser welding. Each of the three axial directions is equipped with calibration holes for easy calibration and mounting, and an insulated mounting kit is standard.

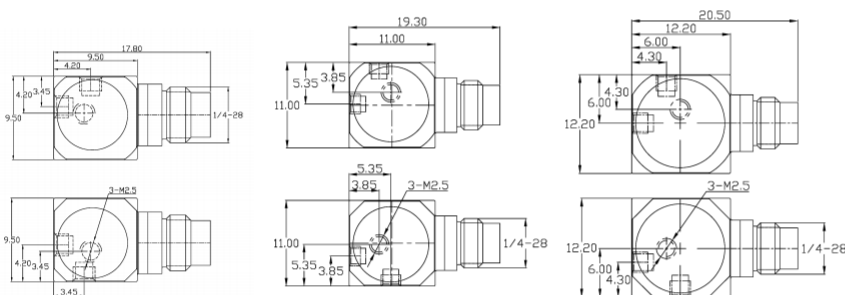
FEATURES

- Integrated Microminiature Built-in
- One-point multi-axial measurement
- Shear structure, stable and reliable
- Insulated mounting base as standard

TYPICAL APPLICATIONS

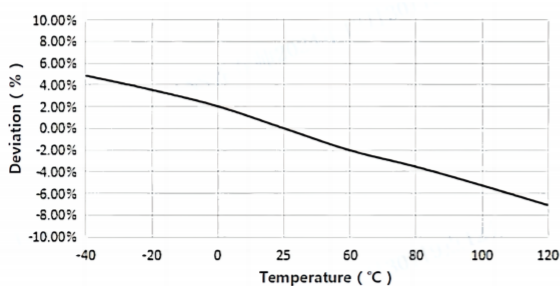
- Powertrain NVH
- HASS/HALT
- Modal structure and analysis

Fig_1 Dimensions of BXXY32

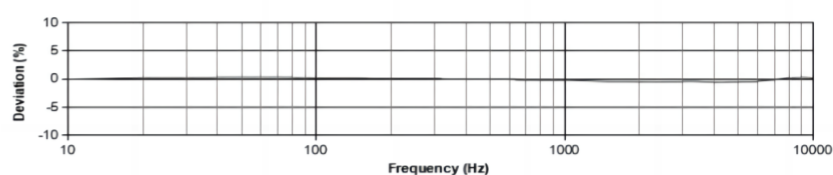


BXXY32

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXY32

MODEL NUMBER		UNIT	B01Y32	B02Y32	B03Y32	B05Y32	B06Y32
PERFORMANCE							
Sensitivity ¹		mV/g	5(±10%)	10(±10%)	20	50	100
		mV/(m/s²)	0.5	1	2	5	10
Measurement Range		g	±1000	±500	±250	±100	±50
Broadband Resolution ²		g rms	0.002	0.001	0.0005	0.0002	0.0001
Non-Linearity ³		%	1				
Frequency Range	± 5%	Hz	1-10k	1-10k	1-10k	1-8k	1-8k
	±10%		0.5-11k	0.5-11k	0.5-11k	0.5-10k	0.5-10k
Resonance Frequency ²		Hz	≥70k	≥70k	≥52k	≥45k	≥38k
Discharge Time Constant ²		s	≤1				
Transverse Sensitivity		%	≤5				
ELECTRICAL							
Excitation Voltage		VDC	20-30				
Constant Current Excitation		mA	2-20				
Output Impedance		Ω	≤100				
Output Bias Voltage		V	8-12				
Electrical Isolation		Ω	-				
Spectral Noise ²	10Hz	μg/√Hz	300	150	75	30	15
	100Hz		80	40	20	8	4
	1000Hz		40	20	10	4	2
ENVIRONMENTAL							
Sinusoidal Vibration Limit ⁴		g rms	2500	2000	120.0	800	400
Shock Limit ⁴		g pk	6000	5000	3000	2000	1000
Temperature Range		°C	-50-120				
		°F	-58-248				
Temperature Response ²		%/°C	-0.05			-0.07	
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Titanium Alloy				
Size	mm	9.50 Cube				11.00 Cube	12.20 Cube
	in	0.374 Cube				0.433 Cube	0.480 Cube
Electrical Connector		-	1/4-28 4-pin Side				
Mounting Thread		-	M2.5/Adhesive				
Weight ²	g	3.3	3.4	3.5	5	7.5	
	oz	0.116	0.120	0.123	0.176	0.265	
TEDS Optional ⁵		-	Yes				

Additional Information

Note:

1. @ 160Hz, 24VDC, 4mA conditions
2. Typical values
3. JBT 6822-2018 7.12.1 Vibration Testing Method
4. References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state
5. Some products may have changes in size after adding TEDS

BXXY32

Supplied Accessories:

- Product Verification Report
- Install Screws

COMPLIANCE WITH STANDARDS



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