BXXY39

IEPE Triaxial Accelerometer

DETAILS

Model B01Y39 B02Y39 B03Y39 B05Y39 B06Y39 triaxial 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 less density, laser welding, glass sintered 8-36 four-core connector output. Each of the three axial directions is equipped with calibration holes for easy calibration and installation, and an insulated mounting kit is standard.

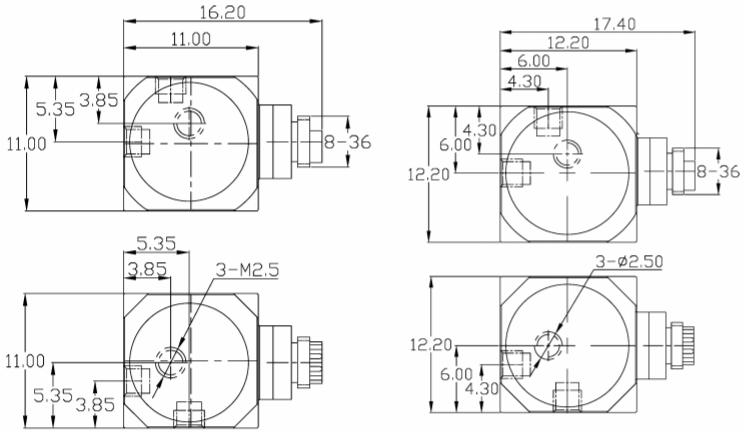
FEATURES

- 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 BXXY39



BXXY39

Fig_2 Typical Temperature Response

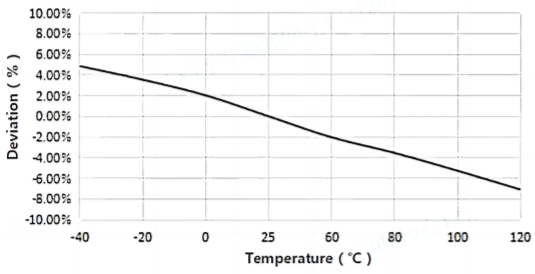
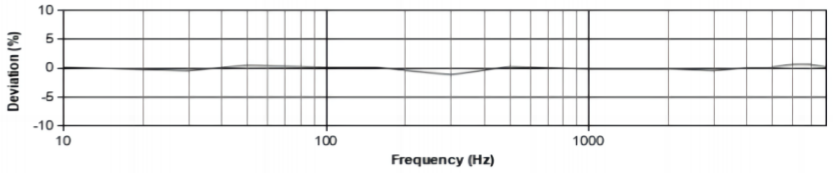


Fig_3 Typical Frequency Response



Specifications-BXXY39

MODEL NUMBER		UNIT	B01Y39	B02Y39	B03Y39	B05Y39	B06Y39
PERFORMANCE							
Sensitivity(±5%) [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	1-9k	1-8k	1-8k	1-7k	1-7k
	±10%		0.5-10k	0.5-10k	0.5-10k	0.5-9k	0.5-9k
Resonance Frequency [2]		Hz	≥70k	≥40k	≥70k	≥39k	≥35k
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]		μg/√Hz	300	150	75	30	15
			80	40	20	8	4
			40	20	10	4	2
ENVIRONMENTAL							
Sinusoidal Vibration Limit [4]		g	2500	2000	1200	800	400
Shock Limit [4]		g	8000	5000	3000	2000	1000
Temperature Range		°C	-40~120				
		°F	-40~248				
Temperature Response [2]		%/°C	-0.1				
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Titanium Alloy				
Size		mm	11.00 Cube			12.20 Cube	
		in	0.433 Cube			0.480 Cube	
Electrical Connector		-	8-36 4-pin Side				
Mounting Thread		-	M2.5				
Weight [2]		g	3.6	4	4.2	6	7
		oz	0.127	0.141	0.148	0.212	0.247
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

BXXY39

Supplied Accessories:

- Product Verification Report
- Install Screws

COMPLIANCE WITH STANDARDS

LNS Intelligent Technology Co., Ltd
NO.3 Building
Qilu High-Tech District, Qihe,Dezhou
Shandong Province, China 251100
+86-534-2150417

International:
9620 NE Tanasbourne Dr Ste 300
Hillsboro, OR, USA 97124
+1-503-208-5512
info@lnsdynamics.com