BXXYG4

Universal Testing Type Accelerometer

DETAILS

B02YG4 B03YG4 B04YG4 type three-axis acceleration sensor, using piezoelectric ceramic shear structure, with a wide-band frequency response, high-quality piezoelectric ceramics with long-term stability can ensure years of accurate measurement. Built-in low impedance circuit, low noise, better sensitivity temperature response and other characteristics. Internal insulation treatment, signal ground and shell isolation. The shell is made of less dense titanium alloy and laser welded.

FEATURES

- IEPE Universal Acceleration Sensor
- Standard series with multiple range options
- Shear structure
- Broadband response

TYPICAL APPLICATIONS

- HASS/HALT
- Automotive NVH testing
- General-purpose vibration monitoring
- General-purpose triaxial vibration measurement

Fig_1 Dimensions of B02YG4 B03YG4 B04YG4

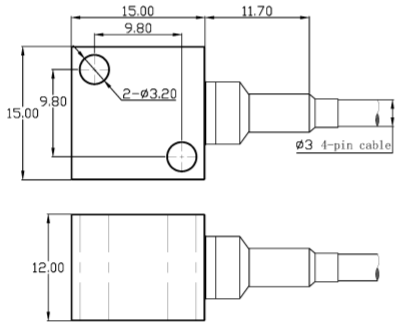

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Fig_2 Typical Temperature Response

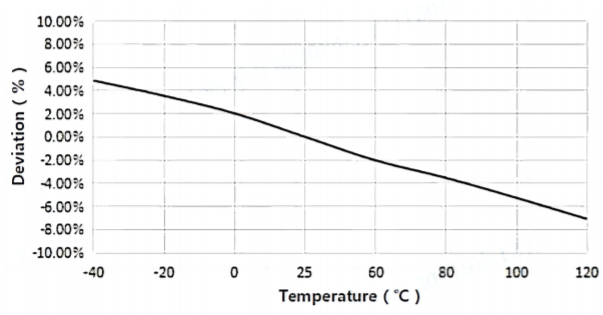
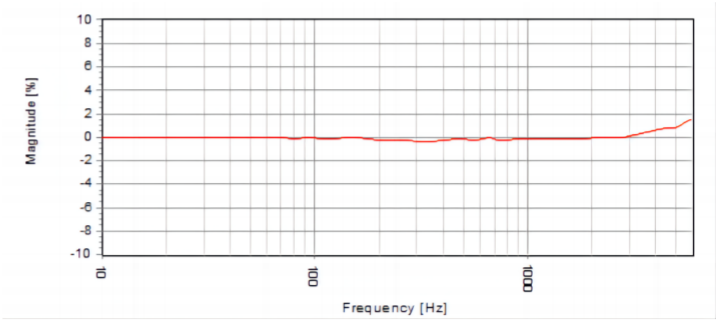


Fig_3 Typical Frequency Response



Specifications-BXXYG4

MODEL NUMBER		UNIT	B02YG4	B03YG4	B04YG4
PERFORMANCE					
Sensitivity [1]		mV/g	10(±10%)	20	35
		mV/(m/s²)	1	2	3.5
Measurement Range		g	±500	±250	±140
Broadband Resolution [2]		g rms	0.001	0.0005	0.0003
Non-Linearity [3]		%	1		
Frequency Range	± 5%	Hz	1-6k	1-6k	1-7k
	±10%		0.5-8k	0.5-8k	0.5-9k
Resonance Frequency [2]		Hz	≥30k	≥30k	≥50k
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	≥1×10⁸		
Spectral Noise [2]	10Hz	μg/√Hz	150	75	43
	100Hz		40	20	12
	1000Hz		20	10	6
ENVIRONMENTAL					
Sinusoidal Vibration Limit [4]		g rms	2000	2000	1500
Shock Limit [4]		g pk	5000	5000	5000
Temperature Range		℃	-40~120		
		℉	-40~248		
Temperature Response [2]		%/℃	-0.1		
PHYSICAL					
Sealing		-	Laser welding IP68		
Sensing Element		-	Piezoelectric ceramics		
Housing Material		-	Titanium Alloy		
Size		mm	15×15×12		
		in	0.591×0.591×0.472		
Electrical Connector		-	Connected cable 4-pin		
Mounting Thread		-	4.1THRU/M3		
Weight [2]		g	10	10	12
		oz	0.353	0.353	0.423
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

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Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

-A: 10-32 Output Connector
-E: 10-32 Mounting Threads

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