

Triaxial Shock Accelerometer

DETAILS

B00Y4X series three-axis impact acceleration sensor, the core adopts a unique shear structure, with a wide-band frequency response, high resonant frequency, effectively reducing the zero drift phenomenon. 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 direction is equipped with calibration holes for easy calibration and installation, the series of products have a center through-hole can be installed 360°, standard with insulation mounting components.

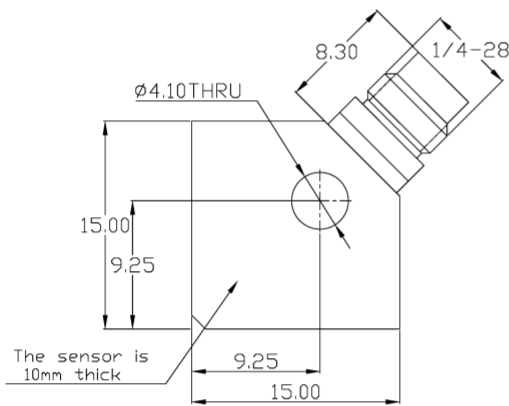
FEATURES

- Shear structure, stable and reliable
- Standard series with multiple range options
- Through-hole installation is easy and quick

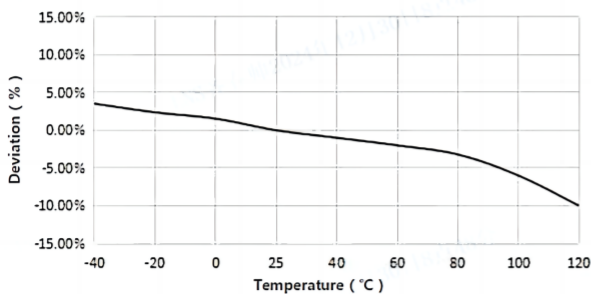
TYPICAL APPLICATIONS

- Lightweight shock table
- Middleweight shock table
- Bursting test

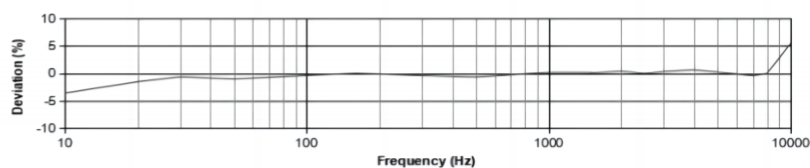
Fig_1 Dimensions of B00Y4X



Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-B00Y4X

MODEL NUMBER	UNIT	B00Y44	B00Y43	B00Y47
PERFORMANCE				
Sensitivity ¹	mV/g	0.5	1	2
	mV/(m/s ²)	0.05	0.1	0.2
Measurement Range	g	±10000	±5000	±2500
Broadband Resolution ²	g rms	0.02	0.01	0.005
Non-Linearity ³	%	3	1	
Frequency Range	± 5%(Hz)	-	-	-
	±10%(Hz)	10-10k	10-10k	5-10k
Resonance Frequency ²	Hz	≥70k	≥70k	≥70k
Discharge Time Constant ²	s	≤0.5		
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	3000	1500	750
		800	400	200
		400	100	100
ENVIRONMENTAL				
Sinusoidal Vibration Limit ⁴	g	-	6000	4000
Shock Limit ⁴	g	12000	10000	8000
Temperature Range	°C	-50~120		
	°F	-58~248		
Temperature Response ²	%/°C	-0.07		
PHYSICAL				
Sealing	-	Laser welding IP68		
Sensing Element	-	Piezoelectric ceramics		
Housing Material	-	Titanium Alloy		
Size	mm	15×15×10		
	in	0.591×0.591×0.394		
Electrical Connector	-	1/4-28 4-pin Side		
Mounting Thread	-	φ4.1 THRU		
Weight ²	g	7.8	7.8	7.8
	oz	0.275	0.275	0.275
TEDS Optional ⁵	-	Nb		

Additional Information

Note:

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

B00Y4X

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