B00Y4X

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.

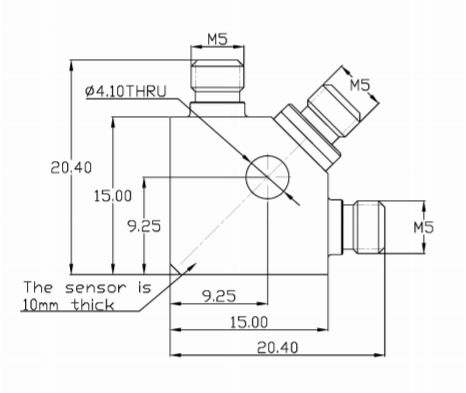
FEATURES

- 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



B00YAX

Fig_2 Typical Temperature Response

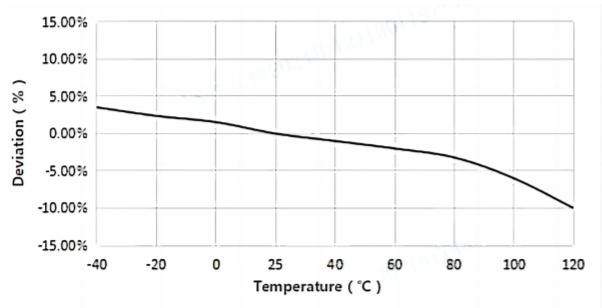
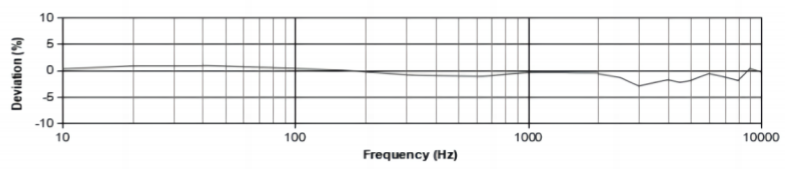


Fig_3 Typical Frequency Response



Specifications-B00Y4X

MODEL NUMBER		UNIT	B00Y46	B00Y40	B00Y48
PERFORMANCE					
Sensitivity [1]		mV/g	0.25	0.5	1
		mV/(m/s²)	0.025	0.05	0.1
Measurement Range		g	±20000	±10000	±5000
Broadband Resolution [2]		g rms	0.04	0.02	0.01
Non-Linearity [3]		%	per10000g 3%	3	1
Frequency Range	± 5%(Hz)	Hz	-	-	-
	±10%(Hz)		10-11k	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	6000	3000	1500
			1600	800	400
			800	400	100
ENVIRONMENTAL					
Sinusoidal Vibration Limit [4]		g	-	-	6000
Shock Limit [4]		g	24000	12000	10000
Temperature Range		℃	-50~120		
		℉	-58~248		
Temperature Response [2]		%/℃	-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		-	M5×3 (Opt. 10-32)		
Mounting Thread		-	φ4.1 THRU		
Weight [2]		g	8.5	8.5	8.5
		oz	0.300	0.300	0.300
TEDS Optional [5]		-	No		

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

B00Y4X

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

-A: 10-32 Output Connector

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