

Watertight Type Accelerometer

DETAILS

B00Y54 B00Y55 B01Y53 type three-axis watertight 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, double shielding design to ensure low noise, better sensitivity temperature response and other characteristics. One-piece vulcanized cable longitudinal and transverse pressure resistance greater than 3MPa, moisture and corrosion resistance. The shell is made of titanium alloy with lower density and laser welding.

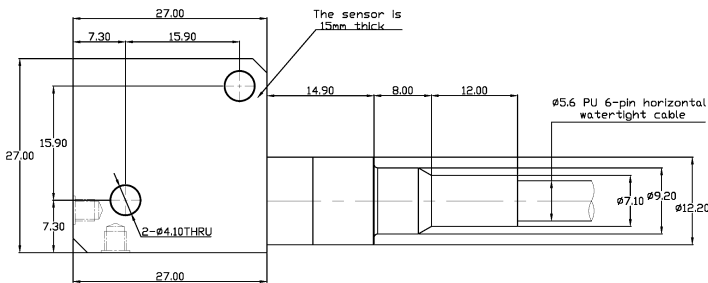
FEATURES

- Double-layer shielding structure, strong anti-interference ability
- Memory Alloy Fasteners
- Wide bandwidth response
- Vulcanized for moisture and corrosion resistance

TYPICAL APPLICATIONS

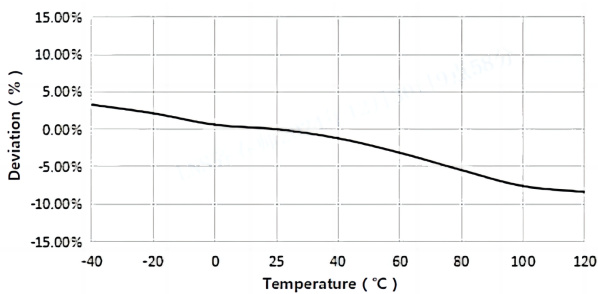
- Underwater vibration testing
- Tested under humid conditions

Fig_1 Dimensions of B00Y54 B00Y55 B01Y53

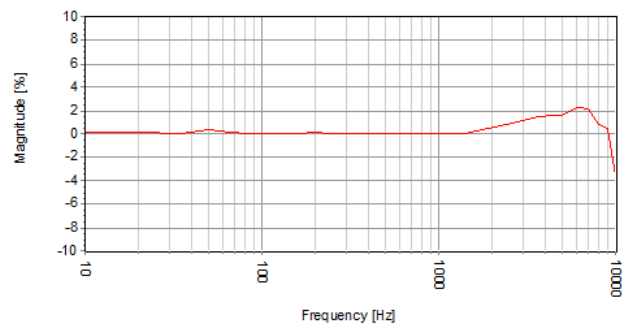


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B01Y53

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXY5X

MODEL NUMBER	UNIT	B00Y54	B00Y55	B01Y53
PERFORMANCE				
Sensitivity ¹	mV/g	1(±10%)	2.5(±10%)	5(±10%)
	mV/(m/s ²)	0.1	0.25	0.5
Measurement Range	g	±5000	±2000	±1000
Broadband Resolution ²	g rms	0.01	0.004	0.002
Non-Linearity ³	%	1		
Frequency Range	± 5%(Hz)	-	-	2-8k
	±10%(Hz)	10-10k	5-10k	1-10k
Resonance Frequency ²	Hz	≥30k	≥30k	≥50k
Discharge Time Constant ²	s	≤0.5		≤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	≥1×10 ⁸		
Spectral Noise ²	μg/√Hz	1500	600	300
		400	160	80
		100	80	40
ENVIRONMENTAL				
Sinusoidal Vibration Limit ⁴	g	6000	5000	2500
Shock Limit ⁴	g	10000	8000	6000
Temperature Range	°C	-50~120		
	°F	-122~248		
Temperature Response ²	%/°C	-0.07		
PHYSICAL				
Sealing	-	Laser welding IP68		
Sensing Element	-	Piezoelectric ceramics		
Housing Material	-	Titanium Alloy		
Size	mm	27×27×15		
	in	1.063×1.063×0.591		
Electrical Connector	-	Watertight connected cable		
Mounting Thread	-	2×M4		
Weight ²	g	60	60	60
	oz	2.116	2.116	2.116
TEDS Optional ⁵	-	Yes		

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

BXXY5X

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONALVERSIONS

-T: TEDS

COMPLIANCE WITH STANDARDS



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