

Watertight Type Accelerometer

DETAILS

BXXB72 series watertight acceleration sensor built-in micro-small impedance converter, can be vibration process charge signal into voltage signal. One-piece waterproof polyurethane cable, unique waterproof technology multi-layer protection measures to withstand pressure up to 2MPa, the shell of stainless steel laser welding, can be achieved in small size and light weight and other characteristics.

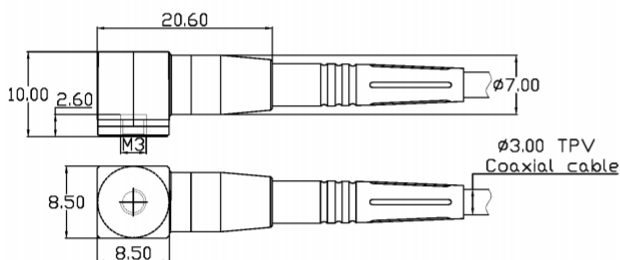
FEATURES

- Built-in integrated circuit IEPE type
- Memory Alloy Fasteners
- Special watertight construction
- Resistant to water pressure up to 2MPa

TYPICAL APPLICATIONS

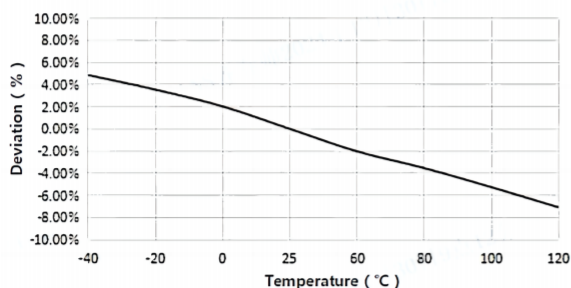
- Underwater vibration testing

Fig_1 Dimensions of BXXB72

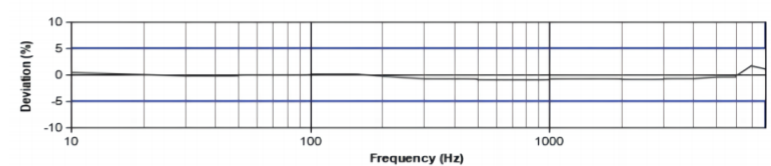


BXXB72

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXB72

MODEL NUMBER		UNIT	B00B72	B02B72	B05B72	B06B72
PERFORMANCE						
Sensitivity ¹		mV/g	2(±10%)	10(±10%)	50	100
		mV/(m/s²)	0.2	1	5	10
Measurement Range		g	±2500	±500	±100	±50
Broadband Resolution ²		g rms	0.005	0.001	0.0002	0.0001
Non-Linearity ³		%	1			
Frequency Range	± 5%	Hz	10-8k	1-8k	1-8k	1-8k
	±10%		5-10k	0.5-10k	0.5-10k	0.5-10k
Resonance Frequency ²		Hz	≥80k	≥50k	≥50k	≥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	-			
Spectral Noise ²	10Hz	μg/√Hz	750	150	30	15
	100Hz		200	40	8	4
	1000Hz		100	20	4	2
ENVIRONMENTAL						
Sinusoidal Vibration Limit ⁴		g rms	3000	2200	800	400
Shock Limit ⁴		g pk	7000	5500	2000	1000
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		-	Stainless steel			
Size	mm	8.5×8.5×10				
	in	0.335×0.335×0.394				
Electrical Connector		-	Watertight connected cable			
Mounting Thread		-	M3			
Weight ²	g	9	9	9	9	9
	oz	0.317	0.317	0.317	0.317	0.317
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

BXXB72

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

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

COMPLIANCE WITH STANDARDS



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