

Watertight Type Accelerometer

DETAILS

BXXA71 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.

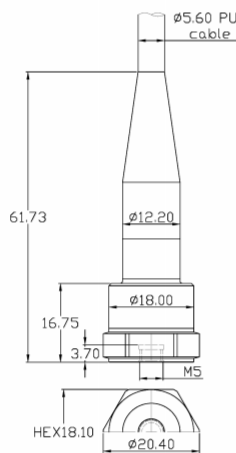
FEATURES

- Built-in micro integrated circuits
- Vulcanized for moisture and corrosion resistance
- Pressure resistance greater than 5MPa

TYPICAL APPLICATIONS

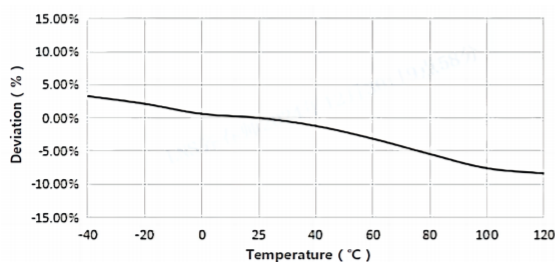
- Underwater Vibration Test

Fig_1 Dimensions of BXXA71

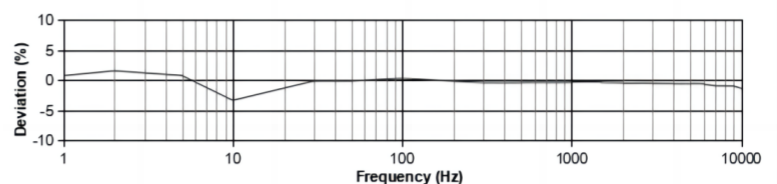


BXXA71

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXA71

MODEL NUMBER		UNIT	B02A71	B03A71	B05A71	B06A71
PERFORMANCE						
Sensitivity ¹		mV/g	10(±10%)	20	50	100
		mV/(m/s²)	1	2	5	10
Measurement Range		g	±500	±250	±100	±50
Broadband Resolution ²		g rms	0.001	0.0005	0.0002	0.0001
Non-Linearity ³		%	1			
Frequency Range	± 5%	Hz	1-10k	1-10k	1-8k	1-7k
	±10%		0.5-11k	0.5-11k	0.5-10k	0.5-8k
Resonance Frequency ²		Hz	≥50k	≥50k	≥50k	≥35k
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	60	30	12	6
	100Hz		24	12	4.8	2.4
	1000Hz		16	8	3.2	1.6
ENVIRONMENTAL						
Sinusoidal Vibration Limit ⁴		g rms	3000	2000	1000	400
Shock Limit ⁴		g pk	8000	5000	4000	3000
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	HEX 18.10×61.73				
	in	HEX 0.713×2.430				
Electrical Connector		-	Top Connected cable			
Mounting Thread		-	M5 (Opt. 10-32)			
Weight ²	g	15	15	15	25	
	oz	0.529	0.529	0.529	0.882	
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

BXXA71

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

-E: 10-32 Mounting Threads

COMPLIANCE WITH STANDARDS



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