

IPEP High Temperature Accelerometer

DETAILS

BXXB90 series uniaxial acceleration sensor, using piezoelectric ceramic shear structure, has a wide band frequency response, low lateral sensitivity, thermal transients corresponding to low and other characteristics. Internals with high-temperature low impedance circuit, low noise, better sensitivity temperature response and other characteristics, the maximum operating temperature of +160 °C. The shell is laser welded stainless steel with high sealing level and strength, and the bottom is equipped with M5 or 10-32 mounting threads.

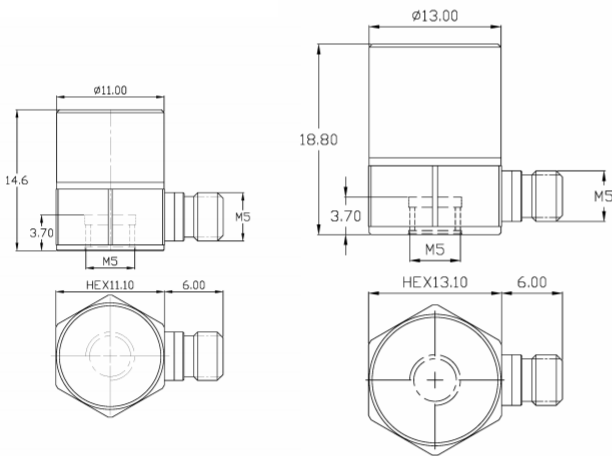
FEATURES

- Built-in high temperature circuit
- Small size and light weight
- High quality piezoelectric material, low temperature drift
- Standard Series

TYPICAL APPLICATIONS

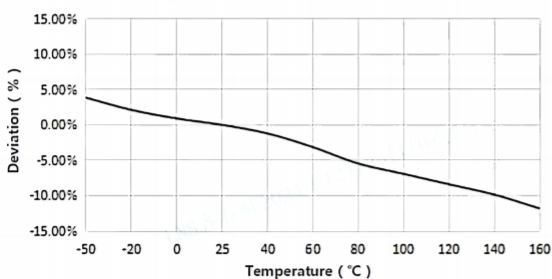
- Environmental testing
- ESS, NVH
- Vibration control

Fig_1 Dimensions of BXXB90

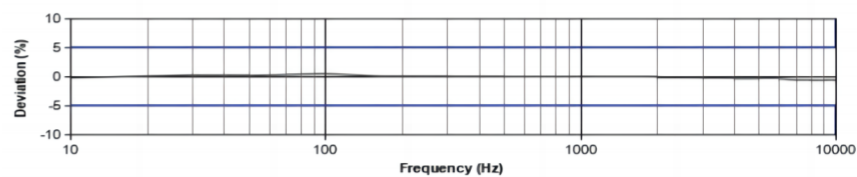


BXXB90

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXB90

MODEL NUMBER	UNIT	B02B90	B03B90	B05B90	B06B90
PERFORMANCE					
Sensitivity ¹	mV/g	10(10%)	20	50	100
	mV/(m/s ²)	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	1-10k	1-9k
	±10%(Hz)	0.5-13k	0.5-13k	0.5-13k	0.5-11k
Resonance Frequency ²	Hz	≥48k	≥50k	≥32k	≥29k
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	μg/√Hz	60	30	12	6
		24	12	4.8	2.4
		16	8	3.2	1.6
ENVIRONMENTAL					
Sinusoidal Vibration Limit ⁴	g	2200	2000	800	400
Shock Limit ⁴	g	5500	5000	2000	1000
Temperature Range	°C	-50-160			
	°F	-58-320			
Temperature Response ²	%/°C	-0.07			
PHYSICAL					
Sealing	-	Laser welding IP68			
Sensing Element	-	Piezoelectric ceramics			
Housing Material	-	Stainless steel			
Size	mm	HEX 11.10×14.60	HEX 13.10×18.80		
	in	HEX 0.437×0.575	HEX 0.516×0.740		
Electrical Connector	-	M5 Side (Opt. 10-32)			
Mounting Thread	-	M5 (Opt. 10-32)			
Weight ²	g	9	14	17	17
	oz	0.317	0.494	0.600	0.600
TEDS Optional ⁵	-	No			

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

BXXB90

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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