

Double Shielded Accelerometer

DETAILS

BXXC51 industrial type sensor, shear core structure, with a wide bandwidth frequency response, high-quality piezoelectric ceramics with long-term stability of the output characteristics. Internal IEPE two-wire circuitry to provide constant current source excitation and low impedance voltage signal output signal ground and shell isolation. The shell is made of titanium alloy with laser welding sealing to ensure corrosion resistance and good sealing, waterproof design, oil-resistant dual-core cable output.

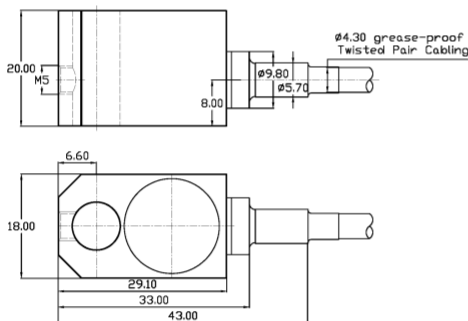
FEATURES

- Shear structure
- Double layer shielding
- Water and oil resistant
- 360° mounting

TYPICAL APPLICATIONS

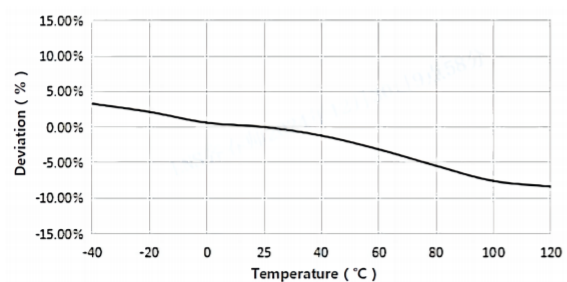
- Lathe monitoring
- Bearing gearbox monitoring
- Equipment monitoring

Fig_1 Dimensions of BXXC51

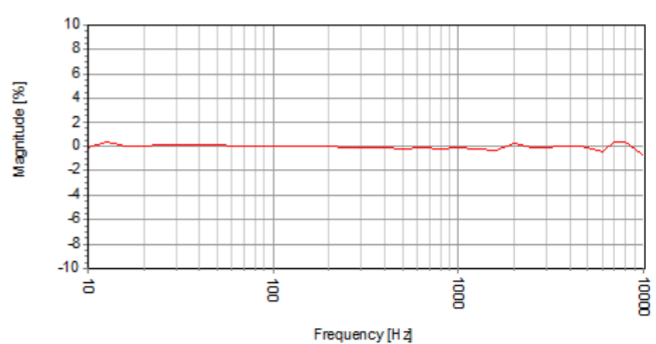


BXXC51

Fig_2 Typical Temperature Response



Fig_3 Typical Frequency Response



Specifications-BXXC51

MODEL NUMBER		UNIT	B05C51	B06C51
PERFORMANCE				
Sensitivity ¹		mV/g	50	100
		mV/(m/s²)	5	10
Measurement Range		g	±100	±50
Broadband Resolution ²		g rms	0.0002	0.0001
Non-Linearity ³		%	1	
Frequency Range	± 5%	Hz	2-8k	2-8k
	±10%		1-10k	1-10k
Resonance Frequency ²		Hz	≥25k	≥25k
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	10-14	
Electrical Isolation		Ω	≥1×10 ⁸	
Spectral Noise ²	10Hz	μg/√Hz	12	6
	100Hz		4.8	2.4
	1000Hz		3.2	1.6
ENVIRONMENTAL				
Sinusoidal Vibration Limit ⁴		g rms	3000	2500
Shock Limit ⁴		g pk	5000	4000
Temperature Range		°C	-40~120	
		°F	-40~248	
Temperature Response ²		%/°C	-0.1	
PHYSICAL				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Titanium Alloy	
Size	mm		18×20×29.10	
	in		0.709×0.787×1.146	
Electrical Connector		-	Connected cable Side	
Mounting Thread		-	M8	
Weight ²	g		36	37
	oz		1.270	1.305
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

BXXC51

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONALVERSIONS

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

COMPLIANCE WITH STANDARDS



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