B06B53&B06Y51

Double Shielded Accelerometer

DETAILS

B06B53 B06Y51 industrial type sensor, shear core structure, with a wide band frequency response, high-quality piezoelectric ceramics with long-term stability of the output characteristics. Internal IEPE two-wire circuit simultaneously provides a constant current source excitation and low impedance voltage signal output signal ground and shell isolation. The housing is made of stainless steel with laser welded seals to ensure corrosion resistance and good sealing, and the industry standard MIL-C-5015 dual-core connector output.

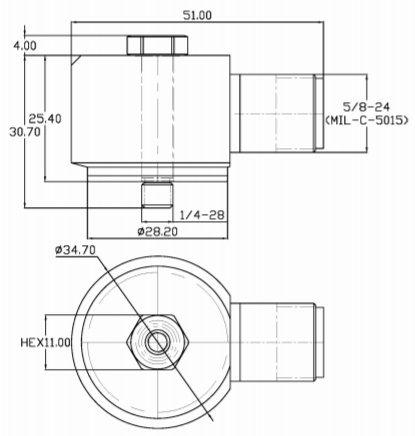
FEATURES

- Industrial acceleration
- Double layer shielding
- Shear structure
- Broadband response

TYPICAL APPLICATIONS

- Wind turbines
- Rapid transit
- Construction machinery

Fig_1 Dimensions of B06B53 B06Y51



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B06Y51

Fig_2 Typical Temperature Response

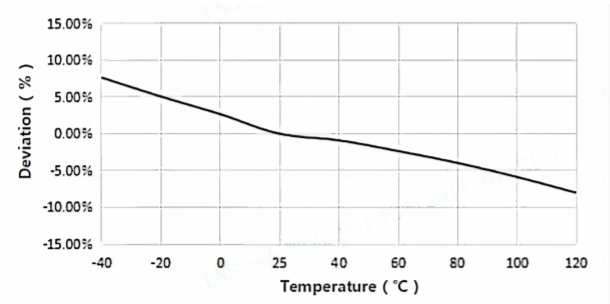
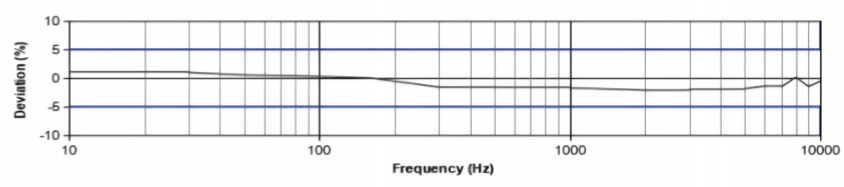


Fig_3 Typical Frequency Response



Specifications-B06B53&B06Y51

MODEL NUMBER		UNIT	B06B53	B06Y51
PERFORMANCE				
Sensitivity [1]		mV/g	100	100
		mV/(m/s²)	10	10
Measurement Range		g	±50	±50
Broadband Resolution [2]		g rms	0.0001	0.0001
Non-Linearity [3]		%	1	
Frequency Range	± 5%(Hz)	Hz	1-10k	0.5-6k
	±10%(Hz)		0.5-11k	0.3-7k
Resonance Frequency [2]		Hz	≥35k	≥30k
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	≥1×10⁸	
Spectral Noise [2]		μg/√Hz	15	6
			4	2.4
			2	1.6
ENVIRONMENTAL				
Sinusoidal Vibration Limit [4]		g	3000	3000
Shock Limit [4]		g	5000	5000
Temperature Range		℃	-40~120	
		℉	-40~248	
Temperature Response [2]		%/℃	-0.1	
PHYSICAL				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Stainless steel	
Size		mm	φ34.70×25.40	
		in	φ1.366×1	
Electrical Connector		-	MIL-C-5015 2-pin Top	
Mounting Thread		-	1/4-28	
Weight [2]		g	131	140
		oz	4.621	4.938
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

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Supplied Accessories:

- Product Verification Report
- Install Screws

COMPLIANCE WITH STANDARDS

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