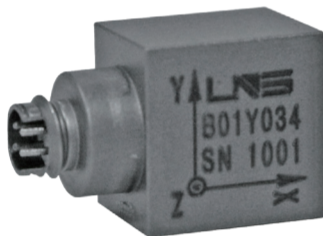


IEPE Miniature Three-axis Accelerometer

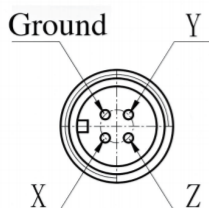
DETAILS

The BXXY034 series is a three-axis IEPE accelerometer built around a piezoelectric ceramic shear structure, delivering wide-band frequency response and one-point multi-axial measurement. The high-quality piezoelectric ceramic element provides exceptional long-term stability, ensuring accurate, repeatable measurements over many years of service. A built-in low-impedance circuit delivers low-noise output and minimizes sensitivity to temperature variations. The housing is machined from lightweight titanium alloy and hermetically sealed by laser welding for reliable performance in demanding environments.

Fig_1 Picture of BXXY034



Fig_2 Product wiring definition diagram



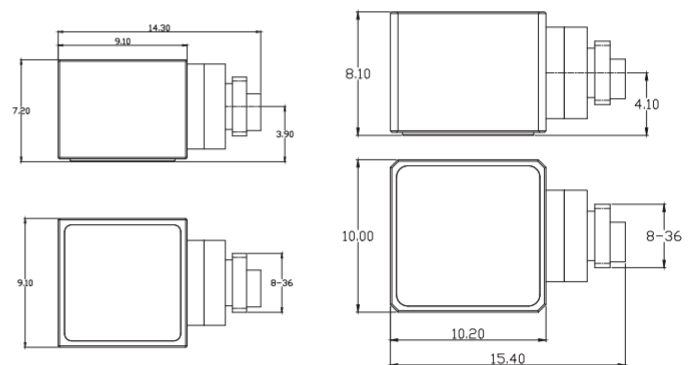
FEATURES

- Integrated microminiature circuit
- Multi-axial measurement
- Shear structure, stable and reliable

TYPICAL APPLICATIONS

- HASS/HALT
- Automotive NVH testing
- Modal structure and analysis
- General vibration monitoring
- Triaxial vibration measurements

Fig_3 Dimensions of BXXY034



B01Y034
B02Y034

B03Y034
B05Y034
B06Y034

Specifications-BXXY034

MODEL NUMBER		UNIT	B01Y034	B02Y034	B03Y034	B05Y034	B06Y034
PERFORMANCE							
Sensitivity ¹		mV/g	5(±10%)	10(±10%)	20	50	100
		mV/(m/s²)	0.5	1	2	5	10
Measurement Range		g	±1000	±500	±250	±100	±50
Broadband Resolution ²		g rms	0.02	0.01	0.005	0.002	0.001
Non-Linearity ³		%	1				
Frequency Range	± 5%	Hz	1-5k	1-5k	1.2-6k	1.2-6k	1.2-6k
	±10%		0.5-7k	0.5-7k	1-10k	1-10k	1-10k
Resonance Frequency ²		Hz	≥20k	≥20k	≥20k	≥20k	≥20k
Discharge Time Constant ²		s	≤2				
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	300	150	75	30	15
	100Hz		80	40	20	8	4
	1000Hz		40	20	10	4	2
ENVIRONMENTAL							
Sinusoidal Vibration Limit ⁴		g rms	1000	1000	400	400	400
Shock Limit ⁴		g pk	3000	3000	1000	1000	1000
Temperature Range		°C	-40~80				
		°F	-40~176				
Temperature Response ²		%	±15				
PHYSICAL							
Sealing		-	Laser welding IP68				
Sensing Element		-	Piezoelectric ceramics				
Housing Material		-	Titanium Alloy				
Size	mm	9.1*9.1*7.2			10.2*10*8.1		
	in	0.358*0.358*0.283			0.402*0.394*0.319		
Electrical Connector		-	8-36 4-pin				
Mounting Thread		-	Adhesive				
Weight ²	g	3.5	3.5	4	4	4	
	oz	0.123	0.123	0.141	0.141	0.141	
Mounting Torque		-	-				
Recommended Accessories	Cable	-	K67BB72				
	Mounting Base	-	-				

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

BXXY034

Supplied Accessories:

- Product Verification Report

COMPLIANCE WITH STANDARDS

