

JB3 Quartz Accelerometer



JB3 Series quartz flexibility Accelerometer is a compact, high-accuracy, large-scale Accelerometer with excellent long-term stability, repeatability, start-up performance, environmental adaptability and reliability, making it a cost-effective military inertia grade quartz flexible Accelerometer.

The Accelerometer output current and the force received are linear output, and the user can select the appropriate sampling resistor to achieve the highest accuracy output. At the same time, the Temperature Sensor is built in, and the output current changes linearly with temperature. The user compensates the Deviation value and Scale factor to reduce the temperature effect (optional). The product can be used for both static and dynamic testing and is a standard vibration sensor.

Application measuring range: inertial measure and precision instrumentation of military inertial navigation systems in the fields of aerospace, aviation, ships, weapons, etc.

	Parameter	JB3-01	JB3-02	JB3-03
1	measuring range	±60g	±60g	±60g
2	Threshold value	10μg	10μg	10μg
3	Deviation value k0/k1	≤(±10 mg)	≤(±10 mg)	≤(±10 mg)
4	Scale factor k1	1.2±0.2 mA/g	1.2±0.2 mA/g	0.5~0.7mA/g
5	Second-order nonlinear coefficient k2	≤±20μg /g ²	≤±30μg /g ²	≤±20μg /g ²
6	0g 4 h short-term stability	≤20 μg	≤30 μg	≤20 μg
7	1g 4 h short-term stability	≤20 ppm	≤30 ppm	≤20 ppm
8	Deviation value Comprehensive repeatability σk0 (1σ, 1 month)	≤40 μg	≤80 μg	≤40 μg
9	Scale factor Comprehensive repeatability σk1/k1 (1σ, 1 month)	≤50ppm	≤100 ppm	≤50ppm
10	Nonlinear coefficient Comprehensive repeatability k2/k1(1σ, 1 month)	≤±20 μg /g ²	≤±30 μg /g ²	≤±20 μg /g ²
11	Deviation value Temperature Coefficient	≤±30 μg /°C	≤±50 μg /°C	≤±30 μg /°C
12	Scale factor Temperature Coefficient	≤±50 ppm /°C	≤±100 ppm /°C	≤±50 ppm /°C
13	noise (Sampling resistance is 840Ω)	≤4mv	≤8.4mv	≤4mv
14	Natural frequency	350~800 Hz	350~800 Hz	350~800 Hz
15	bandwidth	800~2500 Hz	800~2500 Hz	800~2500 Hz
16	vibration	5g(20-2000Hz)	5g(20-2000Hz)	5g(20-2000Hz)
17	Shock (0.5ms, 1/2sin)	150g	150g	150g
18	Operating temperature measuring range	-40~+85°C	-40~+85°C	-40~+85°C
19	storage temperature measuring range	-60~+120°C	-60~+120°C	-60~+120°C
20	powered	±12~±15V	±12~±15V	±12~±15V
21	Current consumption	£±20mA	£±20mA	£±20mA
22	size	Φ18.2X23mm	Φ18.2X23mm	Φ18.2X23mm
23	weight	£30gram	£30gram	£30gram