

JB3 Accelerometer



KT-JB3 series quartz flexible accelerometer is a miniaturized, high-precision inertial navigation class accelerometer for a large number of military applications. The product has excellent long-term stability, repeatability, start-up performance, environmental adaptability and high reliability, which can be used for static and dynamic testing. It is also a standard vibration sensor and inclination sensor.

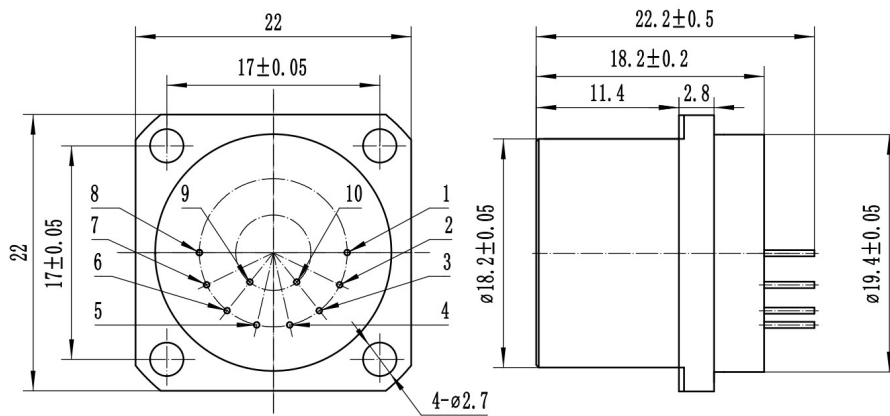
The product adopts a unique miniaturized design and packaging process, the output current and the force or acceleration is linear relationship, users can calculate and select the appropriate sampling resistance, to achieve high precision output. And according to user needs built-in temperature sensor, used to offset value and scale factor compensation, reduce the impact of environmental temperature.

Applications: inertial measurement of military inertial navigation system in aerospace, aviation, ships, weapons and other fields and precision instrument equipment vibration isolation test and inclination test.

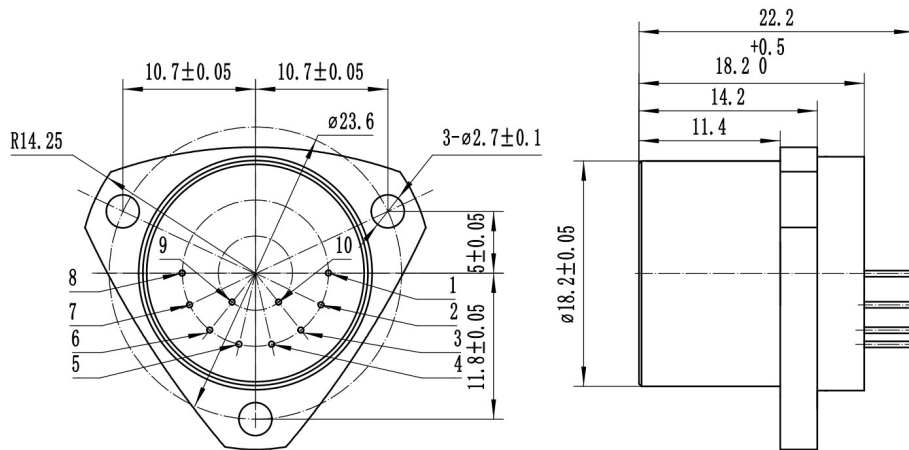
Features

1. Excellent turn-on repeatability performance
2. Environmentally rugged
3. Analog output
4. Field adjustable range
5. Smaller outline size ($\leq 30\text{gram}$)

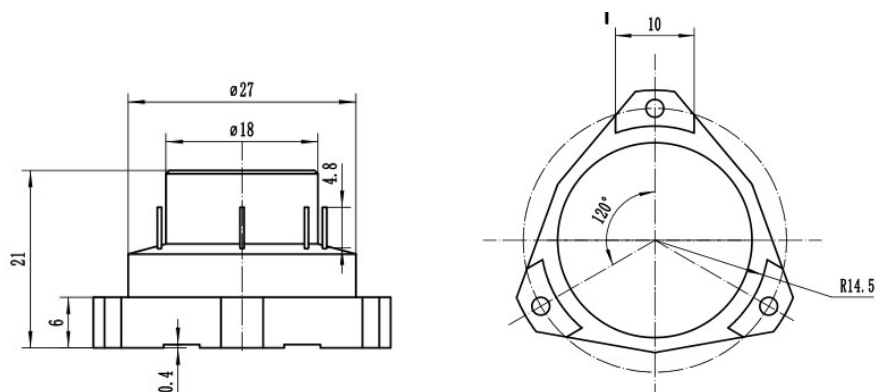
Configuration Drawing and interface



Outline 1 for square



Outline 2 for triangle



Outline3 for inverted triangle

Performance characteristics

S/No	Parameters	JB3-01	JB3-02	JB3-03
1	Range	±60g	±60g	±60g
2	Threshold /Resolution	5μg	5μg	5μg
3	Bias k0/k1	≤(±5 mg)	≤(±5 mg)	≤(±5 mg)
4	Scale factor k1	1.0±0.2 mA/g	1.0±0.2 mA/g	0.6±0.2mA/g
5	Class II nonlinearity coefficient k2/k1	≤±20μg /g ²	≤±30μg /g ²	≤±20μg /g ²
6	0g 4 hours short time stability	≤10 μg	≤20 μg	≤20 μg
7	1g 4 hours short time stability	≤10 ppm	≤20 ppm	≤20 ppm
8	Bias drift Sigma k0(1σ, one month)	≤15 μg	≤50 μg	≤50 μg
9	Repeatability of scale factor Sigma k1/k1(1σ, one month)	≤15ppm	≤50 ppm	≤50ppm
10	Class II non-linearity Coefficient repeatability k2/k1(1σ, one month)	≤±20 μg /g ²	≤±30 μg /g ²	≤±30 μg /g ²
11	Bias thermal coefficient	≤±15 μg /°C	≤±50 μg /°C	≤±50 μg /°C
12	Scale factor thermal coefficient	≤±15 ppm /°C	≤±80 ppm /°C	≤±50 ppm /°C
13	Noise (sample resistance 840Ω)	≤5mv	≤8.4mv	≤8.4mv
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	10g(20-2000Hz)	10g(20-2000Hz)	10g(20-2000Hz)
17	Shock	150g,4.5ms, 1/2sin	150g,4.5ms, 1/2sin	150g,0.5ms, 1/2sin
18	Temperature range(Operating)	-55-+85°C	-55-+85°C	-55-+85°C
19	Temperature range(saved)	-60-+120°C	-60-+120°C	-60-+120°C
20	Power	±12~±15V	±12~±15V	±12~±15V
21	Consume current	≤±20mA	≤±20mA	≤±20mA
22	Temperature sensor	Option	Option	Option
23	Size	Φ18.2X23mm	Φ18.2X23mm	Φ18.2X23mm
24	Weight	≤30gram	≤30gram	≤30gram

DISCLAIMER: Specifications are subject to change without notice. kaituo reserves the right to make changes to any product or technology herein to improve reliability, function or design.

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