

SENOFEE

ITEM NO: QFAG



Quartz Flexible Accelerometer

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General Description

This product is a highly integrated high-precision inertial navigation accelerometer with excellent long-term stability, repeatability, start-up performance, high reliability and high integration. It can be used for both static test and dynamic test. It is a standard vibration sensor.

The product adopts a dedicated circuit design, and the output current is proportional to the input acceleration. Select a suitable sampling resistor through calculation to achieve high-precision output; a temperature sensor can be built-in according to requirements to compensate for the offset and scale factor and reduce the influence of temperature.

Technique Data

number	Parameter	QFAG
1	Range	$\pm 50g$
2	Threshold	$10\mu g$
3	Offset K0(@25°C)	$\leq \pm 5 mg$
4	Scale factor K1	$0.8\sim 1.2 mA/g$
5	Second-order nonlinear coefficient K2	$\leq \pm 20\mu g /g^2$
6	0g 4-hour short-term stability	$\leq 30 \mu g$
7	1g 4 hours short-term stability	$\leq 20 Ppm$
8	Overall repeatability of bias $\sigma K0$ (1 σ , 1 month)	$\leq 30 \mu g$
9	Comprehensive repeatability of scale factor $\sigma K1/K1$ (1 σ , 1 month)	$\leq 50Ppm$
10	Comprehensive repeatability of nonlinear coefficient K2/K1 (1 σ , 1 month)	$\leq \pm 10 \mu g /g^2$
11	Temperature coefficient of deviation (all temperature average)	$\leq \pm 30 \mu g /^{\circ}C$
12	Scale factor temperature coefficient (full temperature average)	$\leq \pm 30 Ppm /^{\circ}C$

13	Noise (sampling resistance is 840Ω)	≤8.4mv
14	Natural frequency	350~800 Hz
15	Bandwidth	800~2500 Hz
16	Random vibration	6g(20-2000Hz)
17	Impact	100g, 5ms, 1/2sin
18	Operating temperature range	-55~+85°C
19	Storage temperature range	-60~+120°C
20	Power supply	±12~±15V
21	Current consumption	≤±20mA
22	User can be customized	

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