

# SENOFEE

ITEM NO: QFAC



## Quartz Flexible Accelerometer

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## General Description

QFAC series This product is a miniaturized, high-precision, large-range inertial navigation accelerometer. The product has excellent long-term stability, repeatability, start-up performance, environmental adaptability and high reliability. It can be used for static testing or For dynamic testing, it is a standard vibration sensor.

## Technique Data

number	Parameter	QFAC-01	QFAC-02	QFAC-03
1	Range	$\pm 60g$	$\pm 60g$	$\pm 60g$
2	Threshold	$5\mu g$	$5\mu g$	$5\mu g$
3	Offset K0(@25°C)	$\leq \pm 5 \text{ mg}$	$\leq \pm 5 \text{ mg}$	$\leq \pm 5 \text{ mg}$
4	Scale factor K1	$1.0 \pm 0.2 \text{ mA/g}$	$1.0 \pm 0.2 \text{ mA/g}$	$0.6 \pm 0.2 \text{ mA/g}$
5	Second-order nonlinear coefficient K2	$\leq \pm 20\mu g / g^2$	$\leq \pm 30\mu g / g^2$	$\leq \pm 20\mu g / g^2$
6	0g 4-hour short-term stability	$\leq 10 \mu g$	$\leq 20 \mu g$	$\leq 20 \mu g$
7	1g 4 hours short-term stability	$\leq 10 \text{ Ppm}$	$\leq 20 \text{ Ppm}$	$\leq 20 \text{ Ppm}$
8	Overall repeatability of bias $\sigma K0$ (1 $\sigma$ , 1 month)	$\leq 15\mu g$	$\leq 50 \mu g$	$\leq 50 \mu g$
9	Comprehensive repeatability of scale factor $\sigma K1/K1$ (1 $\sigma$ , 1 month)	$\leq 15\text{Ppm}$	$\leq 50\text{Ppm}$	$\leq 50\text{Ppm}$
10	Comprehensive repeatability of nonlinear coefficient K2/K1 (1 $\sigma$ , 1 month)	$\leq \pm 20 \mu g / g^2$	$\leq \pm 30 \mu g / g^2$	$\leq \pm 30 \mu g / g^2$
11	Temperature coefficient of deviation (all temperature average)	$\leq \pm 15 \mu g / ^\circ C$	$\leq \pm 50 \mu g / ^\circ C$	$\leq \pm 50 \mu g / ^\circ C$
12	Scale factor temperature coefficient (full temperature average)	$\leq \pm 15 \text{ Ppm} / ^\circ C$	$\leq \pm 80 \text{ Ppm} / ^\circ C$	$\leq \pm 50 \text{ Ppm} / ^\circ C$

13	Noise (sampling resistance is 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	Random vibration	10g(20-2000Hz)	10g(20-2000Hz)	10g(20-2000Hz)
17	Impact	150g, 5ms, 1/2sin	150g, 5ms, 1/2sin	150g, 5ms, 1/2sin
18	Operating temperature range	-55~+85℃	-55~+85℃	-55~+85℃
19	Storage temperature range	-60~+120℃	-60~+120℃	-60~+120℃
20	Power supply	±12~±15V	±12~±15V	±12~±15V
21	Current consumption	≤±20mA	≤±20mA	≤±20mA
22	User can be customized			

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