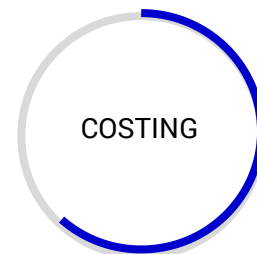
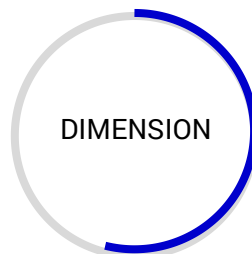
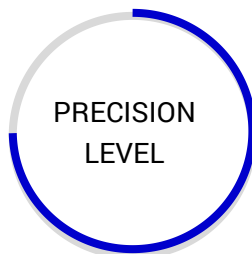




## SNQ1 QUARTZ FLEXIBLE ACCELEROMETER

SINGLE AXIS | ANALOG OUTPUT

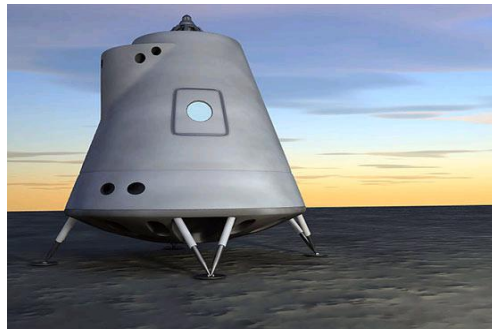


SNQ1 navigation grade quartz accelerometer with high range and high accuracy, long term repeatability and excellent reliability. It is cost-effective inertial grade accelerometer, widely used by global customers.

Its output current and force are linearly outputted. Users can calculate, select the appropriate sampling resistance, and achieve the highest precision output. At the same time, the temperature sensor is built in, users can compensate Bias and Scale factor, reduce the effect from temperature.

## Application field:

It is mainly used in inertial navigation systems, in the fields of aviation, aerospace, ships, military, etc. It can be used for both static and dynamic testing, also it is a standard vibration sensor.



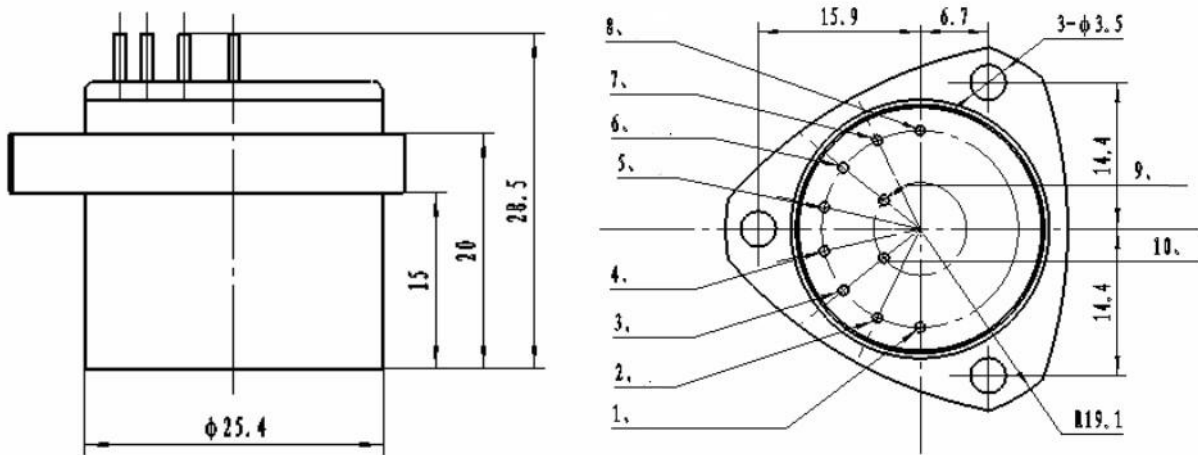
## Features:

- Excellent starting repeatability
- Good environmental performance
- Analog output
- Adjustable output range
- Built-in temperature sensor, output current linearly transformed with temperature (optional)

## 1. Specifications:

No.	Parameters	SNQ1-01	SNQ1-02	SNQ1-03	SNQ1-04
1	Range(g)	±50			±50
2	Threshold /Resolution(μg)	5			5
3	Bias k0/k1 (mg)	≤±3	≤±5	≤±7	≤±8
4	Scale factor k1(mA/g)	1.3±0.2			0.1~1.33
5	Class II nonlinearity Coefficient k2/k1(μg /g <sup>2</sup> )	≤±20	≤±30	≤±30	≤±20
6	0g 4 hours short time stability(μg)	≤10	≤20	≤30	-
7	1g 4 hours short time stability(ppm)	≤10	≤20	≤30	-
8	Bias drift repeatability σ k0( 1σ, one month)(μg)	≤10	≤30	≤50	≤50
9	Scale factor repeatability σ k1/k1(1σ, one month)(ppm)	≤15	≤30	≤50	≤50
10	Class II nonlinearity Coefficient repeatability σ k2/k1(1σ, one month)(μg /g <sup>2</sup> )	≤±10	≤±20	≤±30	-
11	Bias thermal coefficient(μg /°C)	≤±10	≤±30	≤±50	≤±60
12	Scale factor thermal coefficient(ppm/°C)	≤±20	≤±30	≤±50	≤±60
13	Noise (sample resistance 840Ω)(mv)	≤5	≤8.4	≤8.4	≤6
14	Natural Frequency(Hz)	400~800			-
15	Bandwidth(Hz)	800~2500			> 300
16	Vibration	6g(20-2000Hz)			7.8g(20-2000Hz)
17	Shock	100g,5ms,1/2sin			250g,4ms,1/2sin
18	Operating temperature range (°C)	-40~+85			-40~+95
19	Storage temperature range (°C)	-60~+120			-45~+100
20	Voltage(V)	±12~±15			±12~±15
21	Consume current(mA)	≤±20			±20
22	Temperature sensor	Yes or No			Yes or No
		2			2
23	Size(mm)	Φ25.4X30			Φ25.4X26
24	Weight(gram)	≤80			≤50

## 2. Dimension and Pin definition:



1. Signal output
2. Torque +
3. -15V DC Power Supply input
4. +15V DC Power Supply input
5. GND
6. Self-test
7. Capacitance -
8. Capacitance +
9. AD590 low end or -9V
10. AD590 high end or +9v

Mark:

The temperature sensor is AD590, Pin 10 is the power high-end. The Pin 9 is the power low-end. Pin9 and GND is connected by 1K $\Omega$  platinum resistance. The platinum resistance thermal coefficient is required less than 5ppm.