

## AC-3: HIGH PRECISION QUARTZ ACCELEROMETER

### ■ PRODUCT DESCRIPTION

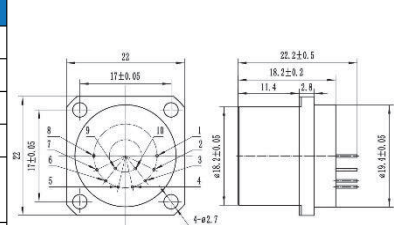


AC-3 quartz flexible accelerometer series is a high-precision military inertial navigation class accelerometer with excellent long-term stability, repeatability, start-up performance, environmental adaptability and high reliability. It can be used for both static and dynamic testing, and it is also a standard vibration sensor and inclination sensor. The output current of the product has a linear relationship with the force or acceleration received. Users can select the appropriate sampling resistance through calculation 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.

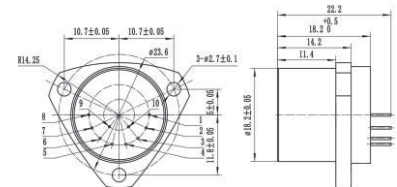
### ■ PRODUCT MAIN SPECIFICATION

Parameters	AC-3A	AC-3B	AC-3C	Unit
Range	±60			g
Threshold /Resolution	5	5	5	μg
Bias k0/k1	≤±5	≤±5	≤±5	mg
Scale factor k1	1.0±0.2	1.0±0.2	0.6±0.2	mA/g
Class II nonlinearity coefficient k2/k1	≤±10	≤±15	≤±20	μg /g <sup>2</sup>
0g 4 hours short time stability	≤10	≤20	≤20	μg
1g 4 hours short time stability	≤10	≤20	≤20	ppm
Bias drift				
Sigma k0(1σ, one month)	≤15	≤50	≤50	μg
Repeatability of scale factor Sigma k1/k1(1σ, one month)	≤15	≤50	≤50	ppm
Class II nonlinearity Coefficient repeatability k2/k1(1σ, one month)	≤±20	≤±30	≤±30	μg /g <sup>2</sup>
Bias thermal coefficient	≤±15	≤±50	≤±50	μg /°C
Scale factor thermal coefficient	≤±15	≤±80	≤±50	ppm /°C
Noise (sample resistance 840Ω)	≤5	≤8.4	≤8.4	mv
Natural Frequency	350~800			Hz
Bandwidth	800~2500			Hz
Vibration	10g			20~2000Hz
Shock	150g,4.5ms	150g,4.5ms	150g,0.5ms	1/2sin
Temperature range (Operating)	-55~+85			°C
Temperature range (saved)	-60~+120			°C
Power	±12~±15			V
Consume current	≤±20			mA
Temp. sensor	Optional			
Size	Φ18.2X23			mm
Weight	≤30			g

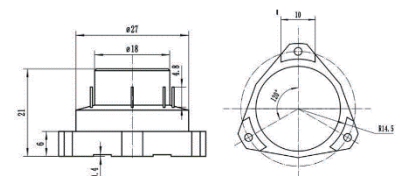
### ■ PRODUCT DIMENSION



Outline 1 for square



Outline 2 for triangle



Outline 3 for inverted triangle

### ■ PRODUCT APPLICATION

- Inertial measurement of military high-precision inertial navigation system and vibration isolation test of precision instruments and equipment in aerospace, aviation, ships, weapons and other fields