

## AC-7: HIGH PRECISION QUARTZ ACCELEROMETER

### ■ PRODUCT DESCRIPTION

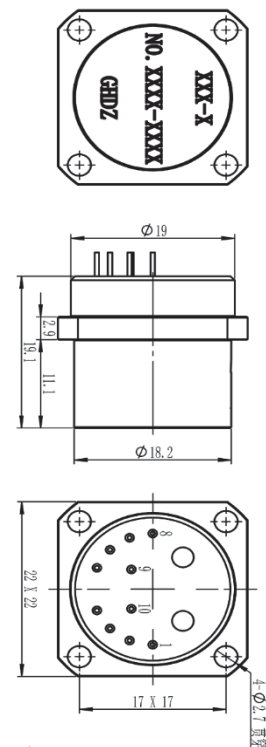
AC-7 quartz flexible accelerometer series is a small, high temperature resistant seismic type accelerometer. The product has excellent repeatability, starting performance, high temperature seismic resistance and high reliability characteristics, which can be used for both static testing and dynamic testing, and is also a standard vibration sensor. The product adopts unique miniaturization, high temperature resistant seismic design, advanced packaging process and special circuit, the output current of the product is proportional to the input acceleration, the user can select the appropriate sampling resistance through calculation, to achieve high precision output. And according to the user requirements of the built-in temperature sensor, can be used to compensate for the partial value and scale factor, to reduce the impact of environmental temperature.



### ■ PRODUCT MAIN SPECIFICATION

Parameters	AC-7A	AC-7B	AC-7C	Unit
Range	±60	±60	±60	g
Threshold value	10	10	10	μg
Deviation k0/k1	≤±10	≤±10	≤±10	mg
Scale factor k1	1.2±0.2	1.2±0.25	1.2±0.25	mA/g
Class II nonlinearity coefficient k2	≤±20	≤±20	≤±20	μg /g <sup>2</sup>
0g 4 hours short time stability	≤20			μg
1g 4 hours short time stability	≤20			ppm
Deviation value comprehensive repeatability σk0 (1σ, one month)	≤40	≤40	≤40	μg
Repeatability of scale factor σk1/k1 (1σ, one month)	≤50	≤50	≤50	ppm
Nonlinearity coefficient comprehensive repeatability k2/k1 (1σ, one month)	≤±20	≤±20	≤±20	μg /g <sup>2</sup>
Deviation value temperature coefficient	≤±30	≤±30	≤±30	μg /°C
Scale factor temperature coefficient	≤±50	≤±50	≤±50	ppm /°C
Noise (sample resistance 840Ω)	≤4	≤5	≤5	mv
Natural frequency	350~800			Hz
Bandwidth	800~2500	≥350	≥350	Hz
Vibration	5g	5g	5g	20~2000Hz
Shock	150g (0.5ms)	150g (5ms)	150g (5ms)	1/2sin
Temperature range (Operating)	-40~+85	-40~+85	-40~+85	°C
Temperature range (saved)	-60~+120	-60~+120	-60~+120	°C
Power supply	±12~±15	±15(±0.5)	±12~±18	V
Consume current (under static condition)	≤±20	≤±100	≤±16	mA
Size	Φ18.2X23	Φ18.2X23	Φ18.2X20.6	mm
Weight	≤30	≤30	≤30	g

### ■ PRODUCT DIMENSION



Outline for AC-7 Series

### ■ PRODUCT APPLICATION

- oil and gas drilling, earth exploration