

AC-5: HIGH PRECISION QUARTZ ACCELEROMETER



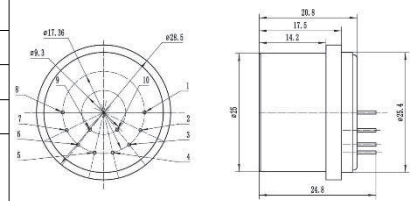
PRODUCT DESCRIPTION

AC-5 quartz flexible accelerometer series is a middle grade precision accelerometer with unique structural size (short) design. The product has excellent long-term stability, repeatability, dynamic response performance, good vibration and impact resistance and high reliability. It can be used for static and dynamic testing, and is also a standard vibration sensor and inclination sensor. The product adopts a unique structural design and special circuit, the product output current and the force or acceleration is linear relationship, users can choose 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.

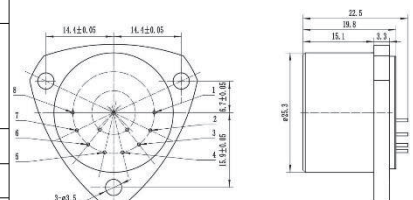
PRODUCT MAIN SPECIFICATION

Parameters	AC-5A	AC-5B	AC-5C	Unit
Range	±50			g
Threshold /Resolution	<5	<5	<5	μg
Bias k0/k1	<5	<7	<10	mg
Scale factor k1	1.1~1.3			mA/g
Class II nonlinearity coefficient k2/k1	≤±20	≤±20	≤±20	μg /g ²
Bias drift Sigma k0 (1σ, one month)	≤30	≤50	≤80	μg
Repeatability of scale factor Sigma k1/k1 (1σ, one month)	≤50	≤80	≤100	ppm
Class II nonlinearity Coefficient repeatability k2/k1 (1σ, one month)	≤±20	≤±20	≤±20	μg /g ²
Bias thermal coefficient	<±20	<±30	<±40	μg /°C
Scale factor thermal coefficient	<40	<50	<80	ppm /°C
Noise (sample resistance 840Ω)	≤5	≤5	≤5	mv
Bandwidth	>300			Hz
Vibration rectification (@50~500Hz)	<30			μg/g _{2rms}
Vibration (@20~2000Hz)	20			g
Shock	250g			4.5ms, 1/2s in
Install error	<1500			μrad
Temperature range (Operating)	-55~+96			°C
Power	±13~±18			V
Consume current	<20			mA
Temp. sensor	Optional			
Size	Φ25X25	Φ25.3X23	Φ25X24	mm
Weight	≤55			g

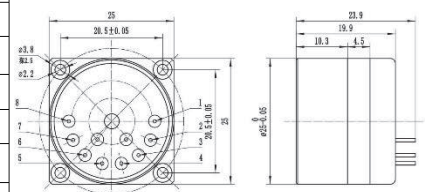
PRODUCT DIMENSION



Outline for AC-5A



Outline for AC-5B



Outline for AC-5C

PRODUCT APPLICATION

- bridge, dam, oil well, coal mine dip test, high-speed railway control, ship stability control