BS-AQ33 Accelerometer

BS-AQ33 series quartz flexible accelerometer 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.

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

Features:
1. Tactical navigation grade performance
2. Analog output
3. Field-adjusting range
4. Size is smaller

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Full product codes:	BS-AQ32x-50-y
BS-AQ33A-50-A	BS - Blitz Sensor
BS-AQ33A-50-B	AQ33 - Series
BS-AQ33A-50-C	x - type according to accuracy (A, B
BS-AQ33B-50-A	or C) (see page No.3)
BS-AQ33B-50-B	50 - measuring range
BS-AQ33B-50-C	y - housing type (see pages No. 2)
BS-AQ33C-50-A	
BS-AQ33C-50-B	
BS-AQ33C-50-C	
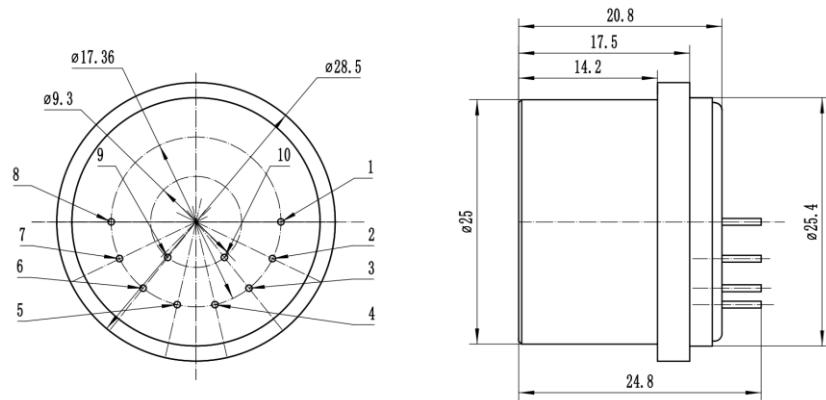
A type outline drawing
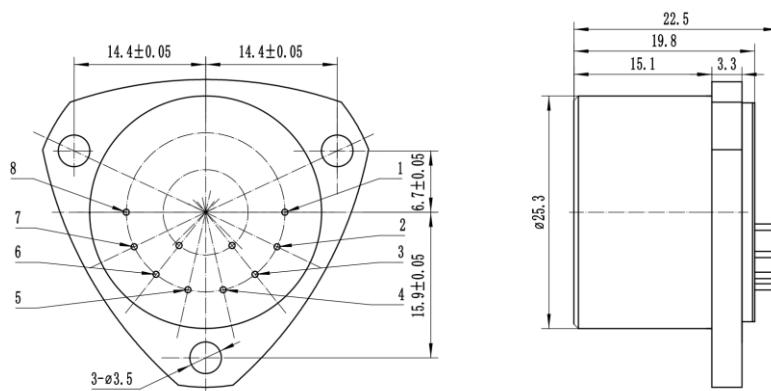
B type outline drawing
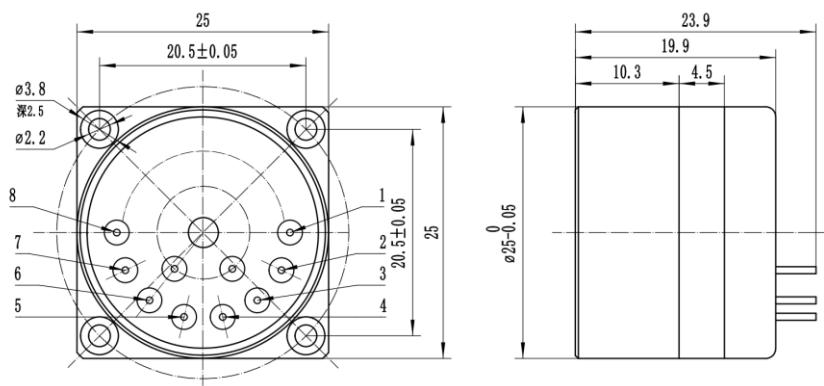
C type outline drawing

The pin name :1, signal output; 2, N; 3. -15V; 4. +15V; 5, power supply and signal ground; 6, N; 7, N; 8, N; 9, -9V output; 10. +9V output

Performance characteristics

S/No	Parameters	BS-AQ33A	BS-AQ33B	BS-AQ33C
1	Range	±50g	±50g	±50g
2	Threshold /Resolution	＜5μg	＜5μg	＜5μg
3	Bias k0/k1	＜5mg	＜7mg	＜10mg
4	Scale factor kl	1.1～1.3 mA/g	1.1～1.3 mA/g	1.1～1.3 mA/g
5	Class II nonlinearity Coefficient k2/k1	≤±20μg /g2	≤±20μg /g2	≤±20μg /g2
6	Bias drift Sigma k0(1σ，one month)	＜30μg	＜50μg	＜80μg
7	repeatability of scale factor Sigma kl/kl(1σ，one month)	＜50 ppm	＜80 ppm	＜100 ppm
8	Class II nonlinearity Coefficient repeatability k2/k1(1σ，one month)	≤±20 μg /g2	≤±20 μg /g2	≤±20 μg /g2
9	Bias thermal coefficient	＜20μg/℃	＜30μg/℃	＜40μg/℃
10	Scale factor thermal coefficient	＜40ppm	＜50ppm	＜80ppm
11	Noise (sample resistance 840Ω)	≤5mv	≤5mv	≤5mv
12	Bandwidth	＞300 Hz	＞300 Hz	＞300 Hz
13	Vibration Rectification	＜ 30μg/g2rms (50-500Hz)	＜ 30μg/g2rms (50-500Hz)	＜ 30μg/g2rms (50-500Hz)
14	Vibration	20g@20-2000Hz	20g@20-2000Hz	20g@20-2000Hz
15	Shock	250g 4.5ms	250g 4.5ms	250g 4.5ms
16	Install error	＜1500μrad	＜1500μrad	＜1500μrad
17	Temperature range(Operating)	-55～96℃	-55～96℃	-55～96℃
18	Power	±13 ~±18V	±13 ~±18V	±13 ~±18V
19	Consume current	＜20 mA	＜20 mA	＜20 mA
20	Temp. sensor	Option	Option	Option
21	Size	Φ25X25mm	Φ25.3X23mm	Φ25X24mm
22	Weight	≤55g	≤55g	≤55g