

Piezoresistive Accelerometer

Model BST 27C

triaxial

Features

- Anodized Aluminium Housing
- DC Response
- Damping selectable
- High frequency response

Application

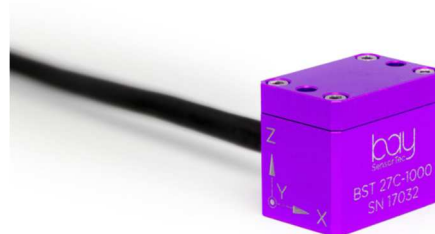
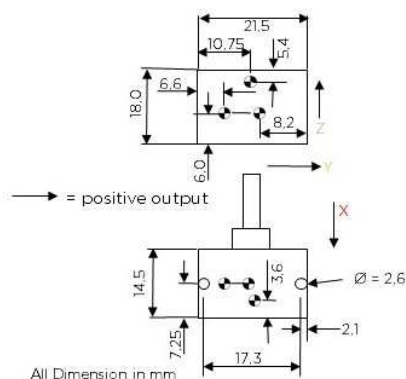
- Crash Tests
- Shock Tests

Description

The new model BST 27C is a triaxial accelerometer based on piezo resistive technology. With a four-active arm Wheatstone-Bridge (4 wire system) configuration and a selectable damping ratio helps to connect the sensor on all data acquisition systems. The light weight and small size of the sensor makes it easy to mount it on difficult places at the car for a crash test or flutter test application.

Do to the anodized aluminium housing the mounting is easy with a glue. The sensor has 6m very high rugged and flexible 4-wire per axe cable this makes it easy to place it on difficult places it is fixing with two bolts M2,5. As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector if it possible. A calibration for the sensor is obligatory.

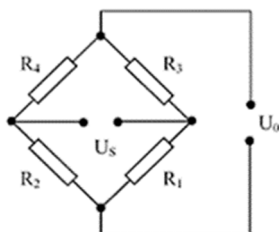
Dimensions



Specifications

Range (g)	500	1000	2000
Sensitivity typ. (mV/V/g)	0,035	0,018	0,016
Frequency 5% (Hz)	2000	2750	3000
Damping ratio	0,7	0,7	0,7
Resonance frequency (kHz)	>13	>18	>20
Shock limit (g)	6000	8000	8000
Supply voltage	3 to 10 VDC constant		
Zero measurement output	+/- 50 mV		
Thermal Shift Zero	< +/- 0.04 % FSO	(0° to 50° C)	
Thermal Shift Span	- 0.2 % /°C +/- 0.05	(0° to 50° C)	
Non-Linearity	< 1% of FSO		
Transverse sensitivity	2% typ (3% max.)		
Bridge Resistance	1500 to 2000 Ohm		
Operation Temperature	-20° to 80° C		
Storage Temperature	-25° to 100° C		
Material	Aluminium, anodized		
Dimensions	21.5 x 14.5 x 18.0 mm		
Weight Housing	15 grams without cable		
Weight Cable	30 grams per meter		
Cable	6m, 12wire, shielded PUR, AWG 30		

Diagram



Cable Code

x-axis

red / violet = Excitation +
black / violet = Excitation -

green / violet = Signal +
white / violet = Signal -

y-axis

red / grey = Excitation +
black / violet = Excitation -

green / grey = Signal +
white / grey = Signal -

z-axis

Red = Excitation +
Black = Excitation -

Green = Signal +
white = Signal -

Order information

BST 27C-1000-6Z

27C = model name
1000 = Range 1000g
6 = 6m Cable
Z = no connector