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Piezo resistive Accelerometer

BST 27C Triaxial

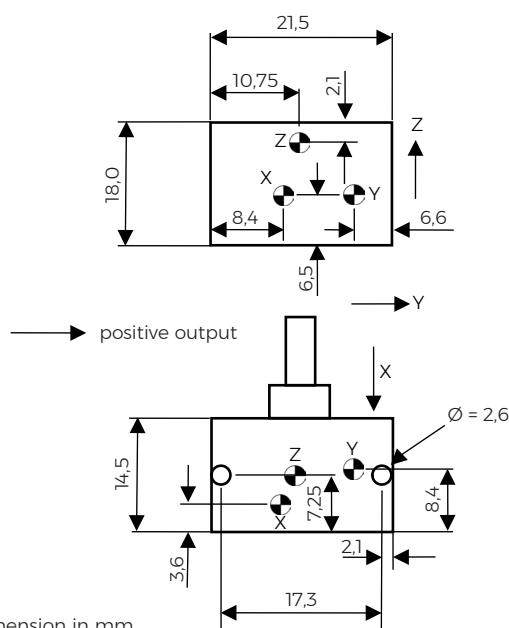
Features

- Anodized Aluminium Housing
- DC Response
- High frequency response
- Low Mass
- Meets SAE J-211

Application

- Crash test
- Shock test

Dimensions



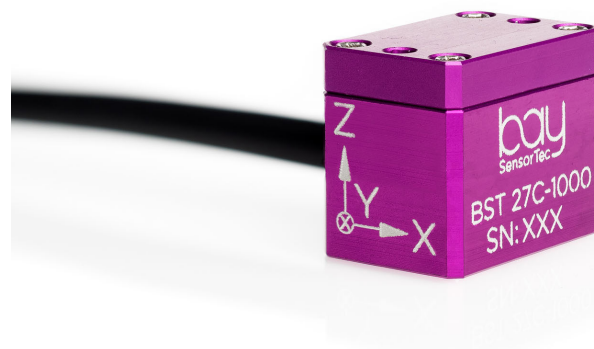
Description

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.

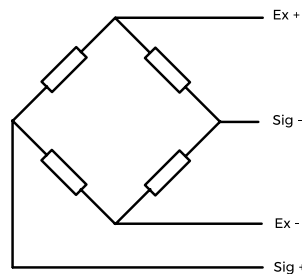


Specifications

Range (g)	100	200	500	1000	2000
Sensitivity (mV/V/g)	0,1	0,06	0,04	0,018	0,016
Frequency 5% (Hz)	1100	1400	2000	2750	3000
Resonance Frequency (kHz)	>6	>8	>13	>18	> 20
Damping ratio	0,4	0,4	0,7	0,7	0,7
Shock limit (g)	4000	4000	6000	8000	8000

Supply voltage	3 to 10 VDC constant	
Zero measurement output	+/- 50 mV	
Thermal Shift Zero	< +/- 0.05 % FSO	(0° to 50° C)
Thermal Shift Span	- 0.2 % /°C +/- 0.05	(0° to 50° C)
Operation Temperature	-20° to 80° C	
Transverse sensitivity	3% max.	
Non-Linearity	< 1%	
Housing Material	Aluminium, anodized	
Mounting	with 2 screw M2,5	
Dimensions	21.5 x 14.5 x 18.0 mm	
Weight Housing	15 grams without cable	
Weight Cable	30 grams per meter	
Cable	6 m, 12 wire, 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 / grey = 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 1000 g
6 = 6 m cable
Z = no connector