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Piezo resistive Accelerometer

BST 15CB Uniaxial

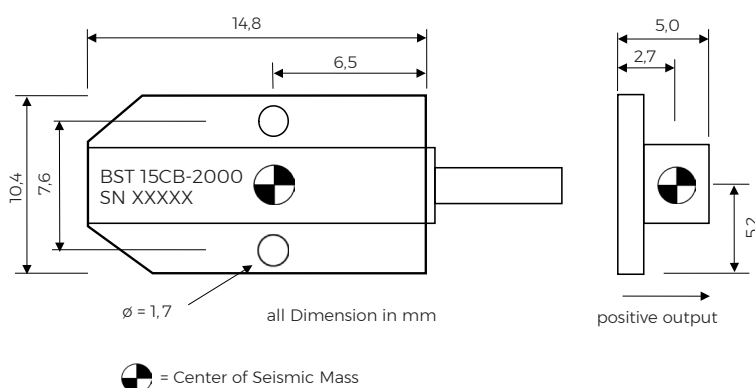
Features

- Meets SEA J211 spec
- Very small size and rugged
- Anodized Aluminium Housing
- undamped

Application

- Crash test
- Shock test

Dimensions

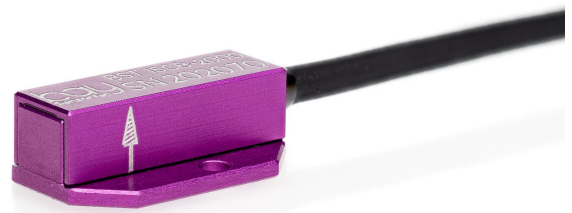


Description

The new model BST 15CB is a uniaxial accelerometer based on piezo resistive technology. This accelerometer meets SAE J211 specifications for instrumentation for impact testing. With the fully Wheatstone-Bridge (4 wire system) configuration helps to connect the sensor on all data acquisition systems. The very light weight and small size of the sensor makes it easy to mount it on difficult positions at the car for a crash test or for shock test application.

Do to the anodized aluminium housing and the position of the seismic mass makes it possible to use it for crash test. With a 6m, very rugged, shielded and flexible 4-wire cable are all common connectors are mountable. As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector.

A calibration for the sensor is obligatory.



Specifications

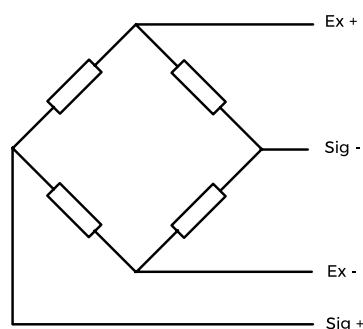
All Data at 24°C, 80 Hz and 10 V dc Excitation

	500 g	1000 g	2000 g
Range	500 g	1000 g	2000 g
Sensitivity typ.	0,4 mV/g	0,18 mV/g	0,016 mV/g
Frequency	1000 Hz	1800 Hz	2000 Hz
	2500 Hz	3000 Hz	3500 Hz

Resonance Frequency	> 14 kHz	> 21 kHz
Shock limit	5000 g	8000 g
Supply voltage	3 to 10 V dc constant	
Zero measurement output	+/- 25 mV typ.	(Option +/- 10 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	
Bridge Resistance	1800 to 2200 Ohm	
Isolation	Sensing Element is isolated from housing	
Transverse sensitivity	2% typ. (3% max.)	
Damping ratio	0.05 typ.	
Warm-up time		
Temperature	Operation	-20° to 70° C
	Storage	-50° to 100° C

Material	Aluminium, anodized
Dimensions	14.8 x 5.0 x 5.0 mm
Mounting	2 x 0-80, 3/16 length or 2x M1,6 x 5 mm
Weight	1.5 gram without cable
Cable	6m, 4 wires, shielded PUR, AWG 32
Weight	12 grams/meter

Diagram



Cable Code

Red = Excitation + Green = Signal +
 Black = Excitation - White = Signal -

Order information

BST 15C-B-2000-6Z
 15C-B = Model Name
 2000 = Range 2000g
 6 = 6m cable
 Z = no connector