

# Piezo resistive Accelerometer

**BST 15CB** Uniaxial



**CONTACT**  
+49 89 189 41 49-11  
info@bay-sensortec.com

## FEATURES

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

## APPLICATION

- Crash Test
- Shock Test



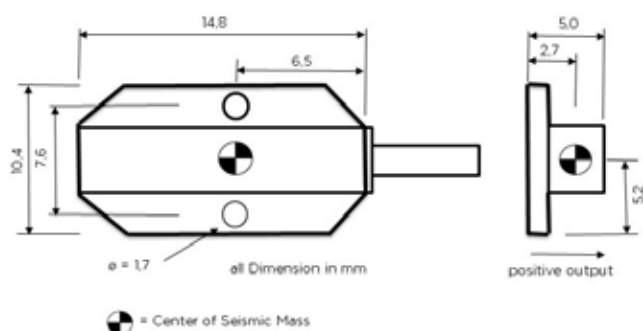
## DESCRIPTION

The model BST 15CB is a uniaxial accelerometer based on piezo resistive technology. This accelerometer meets SAE J211 specifications for instrumentation for impact testing. 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.

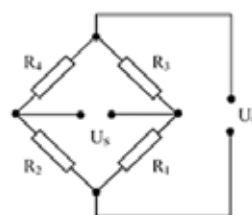
Due to the anodized aluminium housing and the position of the seismic mass it is possible to use it for crash test. With a 6m, very rugged, shielded and flexible 4-wire cable are all common connectors are mountable. As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector.

A calibration for the sensor is obligatory.

## DIMENSIONS



## DIAGRAM



## SPECIFICATION ACCELEROMETER

All data are typical at 23 °C AND 10 VDC SUPPLY.

Range (g)	500	1,000	2,000
Sensitivity typ. (mV/g)	0.4	0.18	0.016
Frequency response (Hz) 2 % max	1,000	1,800	2,000
Frequency response (Hz) 5 % max	2,500	3,000	3,500
Resonance Frequency (kHz)	>14	>21	>23
Shock limit (g)	5,000	8,000	8,000

## ELECTRICAL PERFORMANCES

Supply voltage	3 to 10 VDC constant
Zero measurement output	+/- 25 mV typ. (Option +/- 10 mV)
Input Bridge Resistance	1,800 to 2,200 Ω
Output Bridge Resistance	1,800 to 2,200 Ω
Isolation	sensing element isolated from housing

## ENVIRONMENTAL PERFORMANCES

Thermal Shift Zero	< +/- 0.04 % FSO (0 °C to 50 °C)
Thermal Shift Span	- 0.2 % / °C +/- 0.05 (0 °C to 50 °C)
Operation Temperature	- 20 °C to 70 °C
Storage Temperature	- 50 °C to 100 °C
Protection Class	IP64
Non-Linearity	+/- 1 % of FSO
Transverse sensitivity	2 % typ. (3 % max.)
Damping	Gas Damping
Damping ratio	0.05 typ.
Housing Material	Aluminium, anodized
Mounting	2 x 0-80, 3/16 length or 2x M1,6 x 5 mm
Dimensions	14.8 x 5.0 x 5.0 mm (l x w x h)
Weight Housing	1.5 grams without cable
Cable	integrated, 4 wire, shielded PUR, AWG 32
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	6 grams per meter, Ø 2.2 mm

## CABLE CODE

red = Excitation +  
black = Excitation -

green = Signal +  
white = Signal -

## ORDER INFORMATION

BST 15CB-2000-6Z
15CB = Model name
2000 = Range 2000 g
6 = 6 m Cable
Z = no connector

## OPTIONAL

Additional Cable Length
Connector
Dallas ID
Shunt Resistor
Calibration DAkkS DIN EN ISO/IEC 17025:2018