DUETTO
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STEFAN ROMAN MÜLLER

MEASURING SOLUTIONS

bay
SensorTec

Piezoresistive Accelerometer

BST 15C-B
uniaxial

Features

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

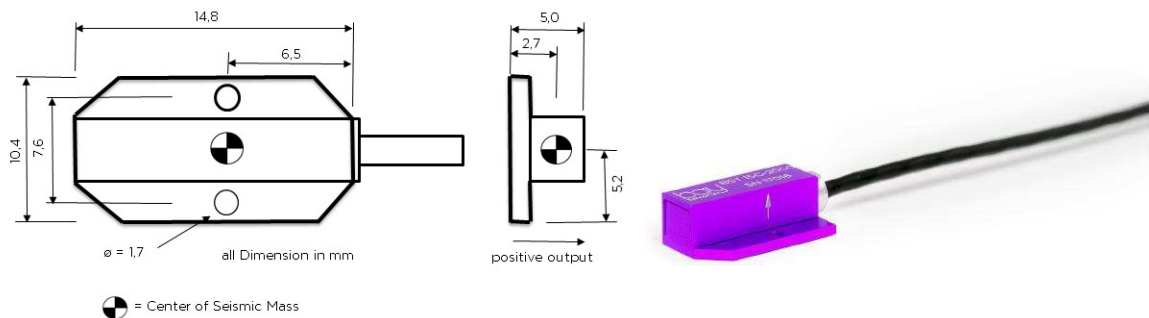### Application

- Crash test
- Shock test

Description

The new model BST 15C-B 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.

Dimensions

14,8
6,5
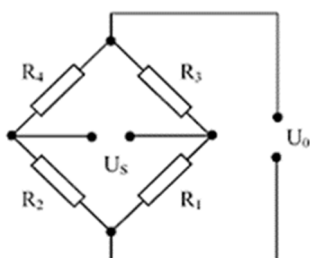10,4
7,6
ø = 1,7
all Dimension in mm
= Center of Seismic Mass

5,0
2,7
5,2
positive output

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Specifications

Range	500g	1000 g	2000 g
Sensitivity typ.	0,04mV/V/g	0,018 mV/V/g	0,016 mV/V/g
Supply voltage	3 to 10 VDC 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)	
Frequency 2% max.	1000 Hz	1800 Hz	2000 Hz
5% typ.	2500 Hz	3000 Hz	3500 Hz

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	
Resonance Frequency	> 14 kHz	> 21 kHz
Shock limit	5000g	8000 g
Temperature Operation	-20° to 70° C	
Storage	-50° to 100° C	
Material	Aluminium, anodized	
Dimensions	14.8 x 10.4 x 5.0 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 2000 g
6	= 6 m Cable
Z	= no connector

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