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Piezoresistive Accelerometer

BST 16C

Uniaxial

Features

- Damping 0.7
- Very small size and rugged
- Anodized Aluminium Housing

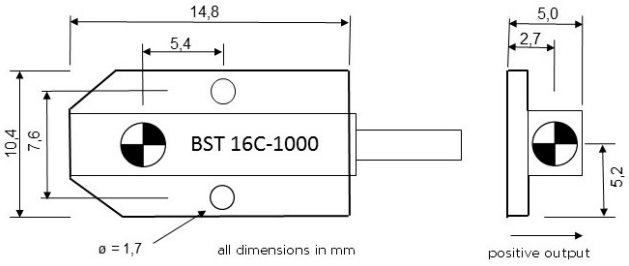
Application

- Crash test
- Shock test

Description

The new model **BST 16C** is a uniaxial accelerometer based on piezo resistive technology. This accelerometer is designed 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



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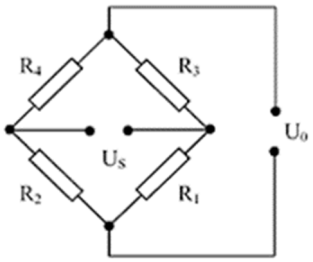
Specifications

Range	500 g	1000 g	2000 g
Sensitivity typ.	0,04 mV/V/g	0,018 mV/V/g	0,016 mV/V/g
Frequency 2% max.	1000 Hz	1800 Hz	2000 Hz
5% typ.	2500 Hz	3000 Hz	3500 Hz
Supply voltage	3 to 10 VDC constant		
Zero measurement output	+/-50 mV typ		
Thermal Shift Zero	< +/- 0.04 % FSO (0° to 50° C)		
Thermal Shift Span	- 0.2 % /°C +/- 0.05 (0° to 50° C)		
Damping ratio	0.7 typ		
Resonance Frequency	+/- 18 kHz		
Non-Linearity	< 1% of FSO		
Transverse sensitivity	2% typ (3% max.)		
Shock limit	8000 g		
Operation Temperature	-20° to 70° C		
Material	Aluminium, anodized		
Dimensions	14,8 x 10.4 x 5.0 mm		
Weight	1.5 gram without cable		
Bridge Resistance	1800 to 2200 Ohm		
Cable	6 m, 4 wire, shielded PUR, AWG 32		

Diagram



Cable Code

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

Order information

BST 16C-1000-6Z
16C = Model name
1000 = Range 1000 g
6 = 6 m Cable,
Z = no connector