

Piezoresistive Accelerometer

BST 17C

Uniaxial

Features

- Meets SAE-J211
- Damping 0.7
- Small size and rugged Cable
- Aluminium Housing
- DC Response

Application

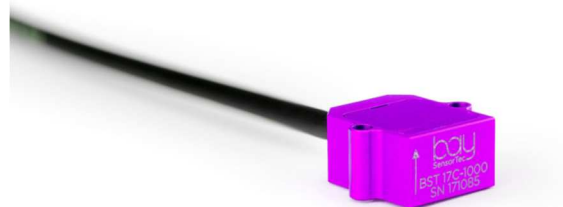
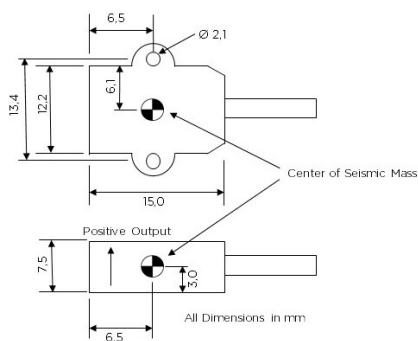
- Crash test
- Shock test

Description

The new model **BST 17C** 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 6 m, 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

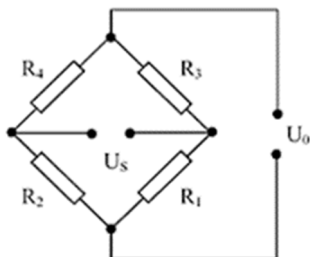


Specifications

| | | | | | |
|---------------------------|------|------|------|-------|-------|
| Range (g) | 100 | 200 | 500 | 1000 | 2000 |
| Sensitivity (mV/V/g) | 0,1 | 0,06 | 0,03 | 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) |
| Non-Linearity | < 1% of FSO | |
| Transverse sensitivity | 2% typ (3% max.) | |
| Operation Temperature | -20° to 80° C | |
| Material | Aluminium, anodized | |
| Dimensions | 16.4 x 15.0 x 7.5 mm | |
| Weight | 3 grams without cable | |
| Bridge Resistance | 1500 to 2000 Ohm | |
| Cable | 6m, 4wire, shielded PUR, AWG 30 | |

Diagram



Cable Code

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

Order information

BST 17C-1000-6Z
17C = Model Name
1000 = Range 1000g
6 = 6m cable
Z = no connector