Piezo resistive Accelerometer

BST 13C 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 13C 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  0.035  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)  
Operation Temperature  -20° to 80° C  
Housing Material  Aluminium, anodized  
Dimensions  15.6 (24.4) x 17.2 x 8.2 mm  
Weight  4 gram 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 13C-1000-6Z  
13C = Model Name  
1000 = Range 1000g  
6 = 6m cable  
Z = no connector