Piezo resistive Accelerometer
BST 27C Triaxial

Features
- Anodized Aluminium Housing
- DC Response
- High frequency response
- Low Mass
- Meets SAE J-211

Application
- Crash test
- Shock test

Dimensions

Description
The new model BST 27C is a triaxial accelerometer based on piezo resistive technology. With a four-active arm Wheatstone-Bridge (4 wire system) configuration and a selectable damping ratio helps to connect the sensor on all data acquisition systems. The light weight and small size of the sensor makes it easy to mount it on difficult places at the car for a crash test or flatter test application.

Do to the anodized aluminium housing the mounting is easy with a glue. The sensor has 6m very high rugged and flexible 4-wire per axe cable this makes it easy to place it on difficult places it is fixing with two bolts M2.5.

As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector if it possible.

A calibration for the sensor is obligatory.
Specifications

<table>
<thead>
<tr>
<th>Range (g)</th>
<th>100</th>
<th>200</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (mV/V/g)</td>
<td>0.1</td>
<td>0.06</td>
<td>0.04</td>
<td>0.018</td>
<td>0.016</td>
</tr>
<tr>
<td>Frequency 5% (Hz)</td>
<td>1100</td>
<td>1400</td>
<td>2000</td>
<td>2750</td>
<td>3000</td>
</tr>
<tr>
<td>Resonance Frequency (kHz)</td>
<td>&gt;6</td>
<td>&gt;8</td>
<td>&gt;13</td>
<td>&gt;13</td>
<td>&gt;20</td>
</tr>
<tr>
<td>Damping ratio</td>
<td>0.4</td>
<td>0.4</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Shock limit (g)</td>
<td>4000</td>
<td>4000</td>
<td>6000</td>
<td>8000</td>
<td>8000</td>
</tr>
</tbody>
</table>

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
Transverse sensitivity 3% max.
Non-Linearity < 1%
Housing Material Aluminium, anodized
Mounting with 2 screw M2.5
Dimensions 21.5 x 14.5 x 18.0 mm
Weight Housing 15 grams without cable
Weight Cable 30 grams per meter
Cable 6 m, 12 wire, shielded PUR, AWG 30

Diagram

Cable Code

**x-axis**
red / violet = Excitation +
black / violet = Excitation -
green / violet = Signal +
white / violet = Signal -

**y-axis**
red / grey = Excitation +
black / grey = Excitation -
green / grey = Signal +
white / grey = Signal -

**z-axis**
red = Excitation +
black = Excitation -
green = Signal +
white = Signal -

Order information

**BST 27C-1000-6Z**
27C = Model Name
1000 = Range 1000 g
6 = 6 m cable
Z = no connector