Piezo resistive Accelerometer
BST 24C triaxial

Features

- Anodized Aluminium Housing
- DC Response
- Damped
- SAE J211 conform
- Low Mass

Application

- Crash test
- Shock test

Description

The new model BST 24C is a triaxial accelerometer based on piezo resistive technology. With a four-active arm Wheatstone-Bridge (4 wire system) configuration and a damping ratio 0.7 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. The sensor is useable for crash test and flatter test.

Do to the anodized aluminium housing the mounting is easy with a glue. The sensor has 6 m very high rugged and flexible 4-wire per axe cable.

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

Dimensions

[Diagram showing the dimensions in mm]
Specifications

<table>
<thead>
<tr>
<th></th>
<th>100</th>
<th>200</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (g)</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Sensitivity (mV/V/g)</td>
<td>0.1</td>
<td>0.06</td>
<td>0.035</td>
<td>0.018</td>
<td>0.016</td>
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<tr>
<td>Frequency 5% (Hz)</td>
<td>1100</td>
<td>1400</td>
<td>2000</td>
<td>2750</td>
<td>3000</td>
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<tr>
<td>Resonance Frequency (kHz)</td>
<td>&gt;6</td>
<td>&gt;8</td>
<td>&gt;13</td>
<td>&gt;18</td>
<td>&gt;20</td>
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<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>
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</tbody>
</table>

Supply voltage: 3 to 10 VDC constant
Zero measurement output: +/- 50 mV
Thermal Shift Zero: < +/- 0.04 % 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
Storage Temperature: -25° to 100° C
Material: Aluminium, anodized
Dimensions: 17.0 x 17.0 x 13.0 mm
Weight Housing: 17 gram without cable
Weight Cable: 30 gram per meter
Cable: 6 m, 12 wire, shielded PUR, AWG 30

Diagram

Cable Code

<table>
<thead>
<tr>
<th></th>
<th>x-axis</th>
<th>y-axis</th>
<th>z-axis</th>
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<tr>
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<td>Excitation +</td>
<td>green / violet</td>
<td>Signal +</td>
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<td>black / violet</td>
<td>Excitation -</td>
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<td>Signal -</td>
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<tr>
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<td>Excitation +</td>
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<tr>
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</tr>
<tr>
<td>black</td>
<td>Excitation -</td>
<td>white</td>
<td>Signal -</td>
</tr>
</tbody>
</table>

Order Information

BST 24C-1000-6Z
24C = model name
1000 = Range 1000 g
6 = 6 m Cable
Z = no connector