Capacitive Accelerometer

BST 52K2 Uniaxial

Features

- Anodized Aluminium Housing
- DC Response
- Voltage Output
- Calibration

Description

The new model BST 52K2 is a uniaxial accelerometer based on variable capacitive technology with a good frequency response. The accelerometers are designed for relatively low amplitudes. Due to the mounting is very easy with glue. The sensor has 2m very high rugged and flexible cable this makes it easy to connect the sensor on data acquisition systems. It operates between 8 and 30 VDC unregulated.

As an option, we supply the sensor with connector, Dallas ID or TEDS module. A calibration for the sensor is obligatory.

Application

- Train
- Automotive
- Truck and Busses
- Comfort

Dimensions

![Dimensions Diagram]
### Specifications

- **Range**: from 1 g to 200 g
- **Sensitivity**: 20 mV/g up to 4000 mV/g
- **Supply voltage**: 8 to 30 VDC unregulated
- **Power Consumption**: max. 3 mA
- **Zero measurement output**: 
  - +/- 50 mV typ in Differential Mode (≥ 2 g)
  - +/- 200 mV typ in Differential Mode (1 g)
  - 2500 mV DC +/- 150 mV in Single Ended Mode
- **Frequency 5% typ**: 0 Hz to 1000 Hz
- **Shock limit**: 3000 g
- **Operation Temperature**: -20° to 80° C
- **Dimensions**: 12.0 x 12.0 x 12.0 mm (l x w x h)
- **Weight**: 3 grams
- **Case material**: anodized Aluminium
- **Mounting**: Glue

### Individual Data

<table>
<thead>
<tr>
<th>Range g</th>
<th>1</th>
<th>2</th>
<th>5</th>
<th>10</th>
<th>25</th>
<th>50</th>
<th>100</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Hz</td>
<td>0-60</td>
<td>0-90</td>
<td>0-90</td>
<td>0-500</td>
<td>0-800</td>
<td>0-1000</td>
<td>0-1000</td>
<td>0-1000</td>
</tr>
<tr>
<td>Sensitivity mV/g</td>
<td>2000</td>
<td>1000</td>
<td>400</td>
<td>200</td>
<td>67</td>
<td>40</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

### Cable Code Differential

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

### Cable Code Single ended

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

### Order information

- **BST 52K2-050-2Z**
  - 52K2 = Model Name
  - 050 = Range 50 g
  - 2 = 2 m shielded cable
  - Z = no connector