Capacitive Accelerometer
BST 52K1 Uniaxial

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

Description
The new model BST 52K1 is a uniaxial accelerometer based on variable capacitive technology with a good frequency response. The accelerometers are designed for relatively low amplitudes. Do 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

= positive output
Specifications

Range: from 2 g to 200 g
Sensitivity: 20 mV/g up to 4000 mV/g
Supply voltage: 8 to 30 VDC unregulated
Power Consumption: max. 7 mA
Zero measurement output:
- +/- 80 mV typ in Differential Mode (≥ 10 g)
- +/- 200 mV typ in Differential Mode (2 and 5 g)
- 2500 mV DC +/- 150 mV in Single Ended Mode
Frequency 5% typ: 0 Hz to 1000 Hz
Shock limit: 5000 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>Frequency Hz</th>
<th>Sensitivity mV/g</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0-90</td>
<td>2000</td>
</tr>
<tr>
<td>5</td>
<td>0-90</td>
<td>800</td>
</tr>
<tr>
<td>10</td>
<td>0-500</td>
<td>400</td>
</tr>
<tr>
<td>25</td>
<td>0-800</td>
<td>160</td>
</tr>
<tr>
<td>50</td>
<td>0-1000</td>
<td>80</td>
</tr>
<tr>
<td>100</td>
<td>0-1000</td>
<td>40</td>
</tr>
<tr>
<td>200</td>
<td>0-1000</td>
<td>20</td>
</tr>
</tbody>
</table>

Cable Code Differential

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

Cable Code Single ended

Red = Excitation +  Black = Excitation –  Green = Signal

Order information

BST 52K1-050-2Z
52K1 = Model Name
050 = Range 50 g
2 = 2 m shielded cable
Z = no connector