Capacitive Accelerometer

BST 64K1 Triaxial

Features

- Fully Temperature Compensated
- Anodized Aluminium Housing
- Option: Stainless Steel
- IP 67
- DC Response
- Voltage Output
- 5-, 8- and 12 wire system

Description

The new model BST 64K1 is a triaxial accelerometer based on variable capacitive technology with a very good Signal-to-Noise Ratio. The accelerometers are designed for relatively low amplitudes. Due to the mounting with two screws. The sensor has 6m 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. The housing is available in Aluminium and Stainless Steel.

As an option, we supply the sensor with connector, Dallas ID or TEDS module.

A calibration for the sensor is obligatory.

Dimensions
Specifications

Range: from 2 g to 200 g
Supply voltage: 8 to 30 VDC unregulated
Power Consumption: max. 8 mA per axe
Zero measurement output: +/- 80 mV typ in Differential Mode (> 10 g)
+/- 150 mV typ in Differential Mode (2 and 5 g)
2500 mV DC +/- 150 mV in Single Ended Mode

Sensitivity:
20 mV/g up to 2000 mV/g
Frequency 5% typ: 0 Hz to 850 Hz
Shock limit: 2000 g (2 g and 5 g); 4000 g (>10 g)
Operation Temperature: -25° to 100° C
Weight: 20 grams
Dimensions: 23.6 x 16.0 x 18.0 mm (l x w x h)
Case material: anodized Aluminium Option: Stainless Steel

Individual Data

<table>
<thead>
<tr>
<th>Range g</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>Supply voltage Hz</td>
<td>0-90</td>
<td>0-90</td>
<td>0-250</td>
<td>0-400</td>
<td>0-650</td>
<td>0-700</td>
<td>0-850</td>
</tr>
<tr>
<td>Sensitivity mV/g</td>
<td>2000</td>
<td>800</td>
<td>400</td>
<td>160</td>
<td>80</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Noise µg/√Hz</td>
<td>7</td>
<td>12</td>
<td>18</td>
<td>25</td>
<td>50</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

Cable Code

5 wire:
- red = Excitation +
- black = Excitation -
- white = signal x
- yellow = signal y
- green = signal z

8 wire:
- x-axis:
  - red = Excitation +
  - black = Excitation -
- y-axis:
  - green / violet = Signal +
  - white / grey = Signal -
- z-axis:
  - green / grey = Signal +
  - white = Signal -

12 wire:
- x-axis:
  - red / violet = Excitation +
  - black / violet = Excitation -
- y-axis:
  - red / grey = Excitation +
  - black / grey = Excitation -
- z-axis:
  - green = Signal +
  - white = Signal -

Order information

BST 64K1A-050-6Z
64K1 = Model Name
A = Aluminium
E = Stainless Steel
050 = Range 50 g
6 = 6 m shielded cable
Z = no connector