Capacitive Accelerometer
BST 63K1 Triaxial

Features
- Fully Temperature Compensated
- Anodized Aluminium Housing
- DC Response
- Voltage Output
- 5-, 8- and 12 wire system

Application
- Comfort
- Automotive
- Truck and Busses
- Train

Description
The new model BST 63K1 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.

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

A calibration for the sensor is obligatory.

Dimensions

![BST 63K1 Dimensions](image)
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

Individual Data

Range g
Frequency Hz
Sensitivity mV/g
Noise µg/√Hz

<table>
<thead>
<tr>
<th></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>0-90</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 +
white = signal x
yellow = signal y
green = signal z
black = Excitation -

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

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

Order information

BST 63K1A-050-6Z
63K1 = Model Name
A = Aluminium
050 = Range 50 g
6 = 6 m shielded cable
Z = no connector