



Capacitive Accelerometer

BST 53K1

Uniaxial

Features

- Anodized Aluminium Housing
- Option: Stainless Steel
- DC Response (0 Hz)
- Voltage Output
- Calibration

Application

- Truck and Busses
- Train
- Motion
- Automotive
- Comfort

Description

The new model BST 53K1 is a small uniaxial accelerometer based on variable capacitive technology with a very good Signal-to-Noise Ratio. The accelerometers are designed for relatively low amplitudes. Do 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.

Specifications

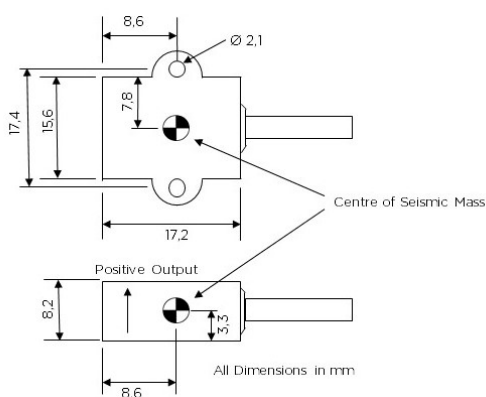
Range	from 2 g to 200 g
Supply voltage	8 to 30 VDC unregulated
Power Consumption	max. 8 mA
Zero measurement output	+/- 80 mV typ in Differential Mode (> 10 g) +/- 150 mV typ in Differential Mode (2 and 5 g) 2500 mV DC +/- 150 mV in (Single Ended Mode)
Sensitivity	20 mV/g up to 2000 mV/g
Frequency typ	0 Hz to 1000 Hz
Shock limit	2000 g (2 g and 5 g); 4000 g (>10 g)
Operation Temperature	-40° to 100° C
Mounting	2 Screws M2
Weight	7 grams
Dimensions	24,4 x 17.2 x 8.2 mm (l x w x h)
Case material	anodized Aluminium Option: Stainless Steel

Individual Data

Range g	2	5	10	25	50	100	200
Frequency +/-5% typ	0-90	0-90	0-250	0-400	0-650	0-700	0-1000
Sensitivity mV/g (Diff. Mode)	2000	800	400	160	80	40	20
Noise µg/root Hz	7	12	18	25	50	100	200

(Sensitivity in Single Ended Mode half of Differential Mode)

Dimensions



Cable Code Differential

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

Cable Code Single Ended Mode

Red = Excitation + Green = Signal
Black = Excitation -

Order Information **BST 53K1A-050-6Z**

53K1 = Model Name
A = Aluminium
S = Stainless Steel
050 = Range 50g
6 = 6m shielded cable
Z = no connector