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Capacitive Accelerometer

BST 53K1E Uniaxial

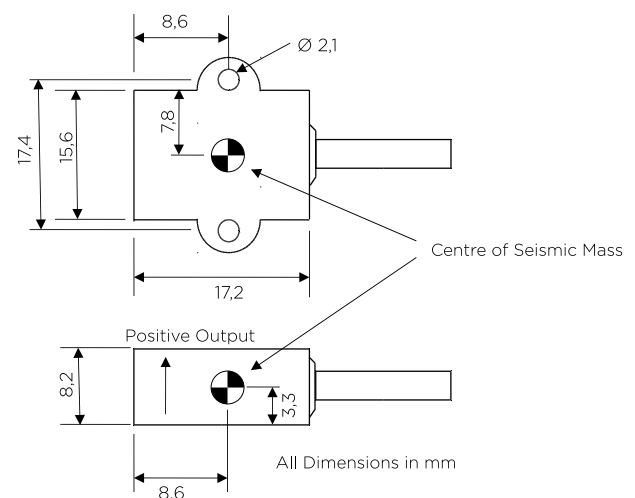
Features

- Stainless Steel Housing
- DC Response
- Voltage Output
- Calibration

Application

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

Dimensions



Description

The new model BST 53K1E is a uniaxial accelerometer based on variable capacitive technology with a very good Signal-to-Noise Ratio. The accelerometer is designed for relatively low amplitudes. Due to the mounting with two screws. The sensor has 6 m very high rugged and flexible PUR-cable this makes it easy to connect the sensor on data acquisition systems. It operates between 8 and 30 VDC unregulated. The housing is Stainless Steel.

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

A calibration for the sensor is included.

Specifications

Range	from 2 g to 200 g
Sensitivity	20 mV/g up to 2000 mV/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
Frequency 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
Dimensions	24,2 x 17,2 x 8,3 mm (l x w x h)
Weight	25 grams without cable
Case material	Stainless Steel

Individual Data

Range g	2	5	10	25	50	100	200
Frequency Hz	0-90	0-90	0-250	0-400	0-650	0-700	0-850
Sensitivity mV/g	2000	800	400	160	80	40	20
Noise µg/root Hz	7	12	18	25	50	100	200

Cable Code Differential

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

Cable Code Single ended (Half of the Differential Signal)

Red = Excitation + Black = Excitation - Green = Signal

Order information

BST 53K1E-050-6Z
53K1 = Model Name
E = Stainless Steel
050 = Range 50 g
6 = 6 m shielded cable
Z = no connector