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Capacitive Accelerometer

BST 54K1 Uniaxial

Features

- Fully Temperature Compensated
- Anodized Aluminium Housing
- Option: Stainless Steel
- DC Response
- Voltage Output
- Calibration

Application

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

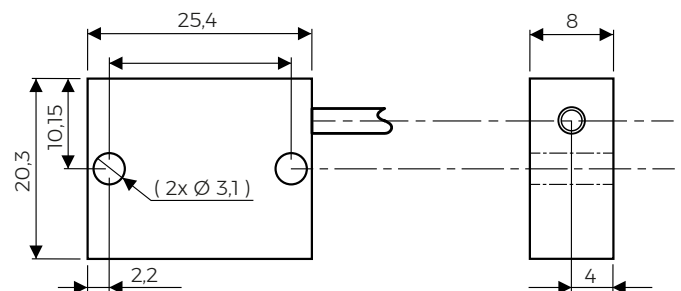
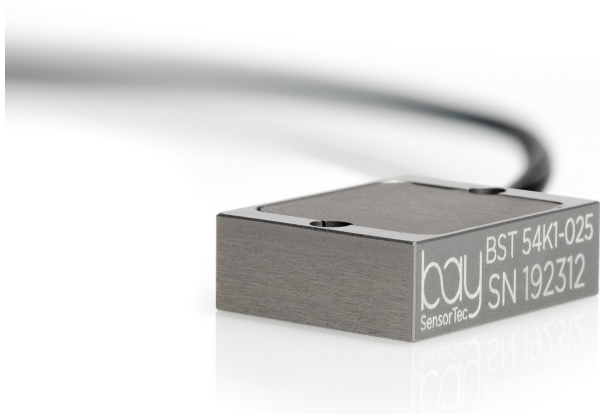
Description

The new model **BST 54K1** is a 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.

Dimensions



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 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
Dimensions	25,1 x 20,3 x 8.0 mm (l x w x h)
Weight	20 grams
Case material	anodized Aluminium Option: Stainless Steel

Individual Data

Range g	2	5	10	25	50	100	200
Frequency Hz	0-90	0-150	0-250	0-400	0-650	0-700	0-850
Sensitivity mV/g	2000	800	400	160	50	40	20
Noise $\mu\text{g}/\text{root Hz}$	7	12	18	25	50	100	200

Cable Code Differential

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

Cable Code Single ended

Red = Excitation + Black = Excitation - Green = Signal

Order information

BST 54K1A-050-6Z
54K1 = Model Name
A = Aluminium
E = Stainless Steel
050 = Range 50 g
6 = 6 m shielded cable
Z = no connector