

Capacitive Accelerometer

BST 55K1

Uniaxial

Features

- Aluminium Housing
- Option: Housing with connector
- DC Response
- Voltage Output
- Calibration

Application

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

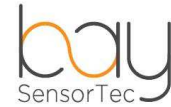
Description

The new model BST 55K1 is a uniaxial accelerometer based on variable capacitive technology with a good frequency response. The accelerometers are designed for relatively low amplitudes. Do to the low noise signal it has a very high resolution. The sensor has 2 m 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 sensor a connector in the housing. This sensor is mounting with a mounting stud M5 and fix the with a hexagon 19mm.

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. 10 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	10 mV/g up to 2000 mV/g
Frequency 5% typ	0 Hz to 1000 Hz
Shock limit	5000 g
Operation Temperature	-20° to 100° C
Weight	16 grams
Dimensions	SW 19 mm, 20.6 mm high
Case material	Aluminium, anodized
Mounting	M5 mounting stud

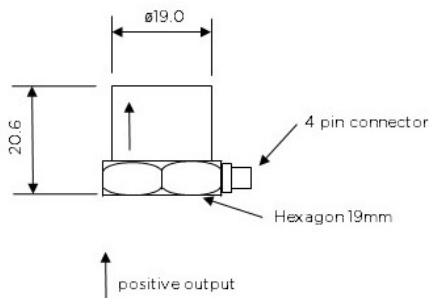


Individual Data

Range	2	5	10	25	50	100	200	(g)
Frequency	0-90	0-90	0-250	0-400	0-650	0-700	0-850	(Hz)
Sensitivity (Diff.)	2000	800	400	160	80	40	20	(mV/g)
Noise	7	12	18	25	50	100	200	($\mu\text{g}/\sqrt{\text{Hz}}$)

Single Ended Mode is half of the Sensitivity!

Dimensions



Cable Code Differential (4-wire)

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

Cable Code Single-Ended (3-wire)

Red = Excitation + Green = Signal
Black = Excitation -

Order Information

BST 55K1A-050-2Z

55K1 = Model Name
A = Aluminium
050 = Range 50 g
2 = 2 m shielded cable
Z = no connector