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Capacitive Accelerometer

BST 55K1 Uniaxial

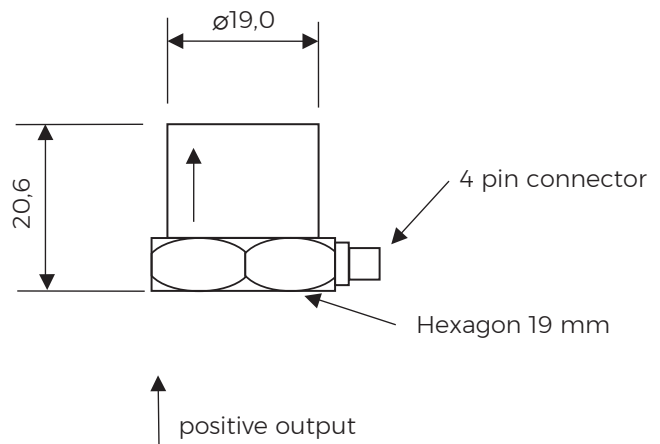
Features

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

Application

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

Dimensions



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. Due to the low noise signal it has a very high resolution. The sensor has a 2 m very high rugged and flexible cable that makes it easy to connect the sensor on data acquisition systems. It operates between 8 and 30 VDC unregulated. The sensor has a connector in the housing. This sensor is mounted with a mounting stud M5 and fixed with a hexagon 19mm.

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

A calibration for the sensor is obligatory.

Specifications

Range	from 2 g to 200 g
Sensitivity	10 mV/g up to 2000 mV/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
Frequency 5% typ	0 Hz to 1000 Hz
Shock limit	5000 g
Operation Temperature	-20° to 100° C
Dimensions	SW 19 mm, 20,6 mm high
Weight	16 grams
Case material	Aluminium, anodized
Mounting	M5 mounting stud

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 $\mu\text{g}/\sqrt{\text{Hz}}$	7	12	18	25	50	100	200

Cable Code Differential (4-wire)

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

Cable Code Single-Ended (3-wire)

Red = Excitation + Black = Excitation - Green = Signal

Order information

BST 55K1A-050-2Z
 55K1 = Model Name
 A = Aluminium
 E = Stainless Steel
 050 = Range 50 g
 2 = 2 m shielded cable
 Z = no connector