Capacitive Accelerometer
BST 55K1 Uniaxial

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

Application
- Truck and Busses
- Train
- Motion
- Automotive
- 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. Due to the low noise signal it has a very high resolution. The sensor has 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 mounting with a mounting stud M5 and fixed 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.

Dimensions
- 4 pin connector
- Hexagon 19 mm
- positive output
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

Individul 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/√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