Capacitive Accelerometer

BST 63K1 Triaxial

FEATURES

- Anodized Aluminium Housing
- DC Response (0Hz) to 2500 Hz
- High Frequency Response
- Voltage Output
- High Shock stabile
- Calibration

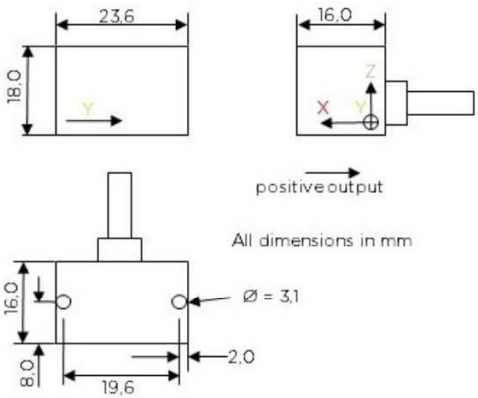
APPLICATION

- Test Flight
- Comfort
- Automotive
- Truck and Buses
- Train
- Wind Energy

DESCRIPTION

The model BST 63K1 is a triaxial accelerometer based on variable capacitive technology with a very good Signal-to-Noise Ratio. The accelerometers are designed for relatively low amplitudes. It can be easily mounted with two screws. The sensor has 6m very high rugged and flexible cable which makes it easy to connect the sensor on data acquisition systems. It operates between 5 and 28 VDC unregulated. The housing is available in Aluminium. As an option, we supply the sensor with connector, Dallas ID or TEDS module. A calibration for the sensor is obligatory.

DIMENSIONS



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SPECIFICATION ACCELEROMETER

All data are typical at 23 °C AND 10 VDC SUPPLY.

Range (g)	2	5	10	25	50	100	200
Frequency (Hz)	0–250	0–300	0–450	0–1,000	0–1,500	0–2,000	0–2,500
Sensitivity (mV/g) (Differential)	2000	800	400	160	80	40	20
Noise (µg/root Hz)	7	12	18	25	50	100	200

Single Ended Mode (3-wire) is half of the Sensitivity from differential Signal.

ELECTRICAL PERFORMANCES

Supply voltage	5 to 28 VDC unregulated
Signal Spann	+/- 4000 mV dc
Power Consumption	10 mA max. per axe
Zero measurement output	< ± 50 mV Differential Mode for > 10 g range < ± 80 mV Differential Mode for 2 g and 5 g range
Isolation	sensing element isolated from housing

ENVIRONMENTAL PERFORMANCES

Thermal Shift Zero	± 200 ppm/°C FSO
Thermal Shift Span	± 200 ppm/°C
Shock limit	5000 g
Operation Temperature	- 50 °C to + 120 °C
Storage Temperature	- 55 °C to + 125 °C
Protection Class	IP64
Housing Material	Aluminium, anodized
Mounting	2 screws M3
Dimensions	23.6 x 16.0 x 18.0 mm (l x w x h)
Weight Housing	20 grams, without cable
Cable	3 x 4-wire, shielded, AWG 30 (12-wire)
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	30 g per meter, Ø 4.4 mm

CABLE CODE 8 WIRE

For all axis
red = Excitation +
black = Excitation –

x-axis
green / violet = Signal +
white / violet = Signal –

y-axis
green / grey = Signal +
white / grey = Signal –

z-axis
green = Signal +
white = Signal –

CABLE CODE 12 WIRE

x-axes
red / violet = Excitation +
black / violet = Excitation –
green / violet = Signal +
white / violet = Signal –

y-axes
red / grey = Excitation +
black / grey = Excitation –
green / grey = Signal +
white / grey = Signal –

z-axes
red = Excitation +
black = Excitation –
green = Signal +
white = Signal –

ORDER INFORMATION

BST 63K1-050-6Z
63K1 = Model Name
050 = Range 50 g
6 = 6 m Cable
Z = no connector

OPTIONAL

Additional Cable Length
Connector
TEDS
Dallas ID
Calibration DAkkS DIN EN ISO/IEC 17025:2018

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