

Capacitive Accelerometer

BST 64K1 Triaxial



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FEATURES

- Aluminium Housing, Anodized
- Protection Class IP67
- Option: Stainless Steel
- High Frequency Response
- DC Response (0 Hz) to 2500 Hz
- Voltage Output
- High Shock Stabil
- Calibration

APPLICATION

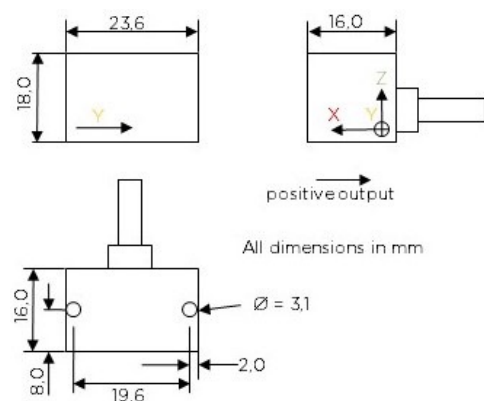
- Flight Test
- Motion
- Automotive
- Truck and Buses
- Train
- Comfort



DESCRIPTION

The model BST 64K1 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 6 m very high rugged and flexible cable. This 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 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



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
Power Consumption	10 mA max. per axe
Zero measurement output	< ± 50 mV Differential Mode for > 10g range < ± 80 mV Differential Mode for 2 g and 5 g range 2500 mV dc ± 100 mV Single Ended Mode
Isolation	sensing element

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	IP67
Housing Material	Aluminium, anodized (Option: Stainless Steel)
Mounting	2 screws M3
Dimensions	23.6 x 16.0 x 18.0 mm (l x w x h)
Weight Housing	22 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 5 WIRE

For all axis
red = Excitation +
black = Excitation –

white = Signal x

yellow = Signal y

green = Signal z

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 64K1-050-6Z
64K1 = Model Name
050 = Range 50 g
6 = 6 m Cable
Z = no connector

OPTIONAL

Additional Cable Length
Connector
TEDS
Dallas ID

Stainless Steel Housing
Calibration DAkKS DIN EN ISO/IEC 17025:2018