

Piezo resistive Accelerometer

BST 23C Triaxial



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FEATURES

- Meets SAE J211 spec.
- DC MEMS PR Accelerometer
- High Shock
- $\pm 500g$ to $\pm 2000g$
- Aluminium Housing, anodized
- Small Size, Adhesive Mount

APPLICATION

- Crash Test
- Automotive Safety Applicator
- Test-Bed Applications



DESCRIPTION

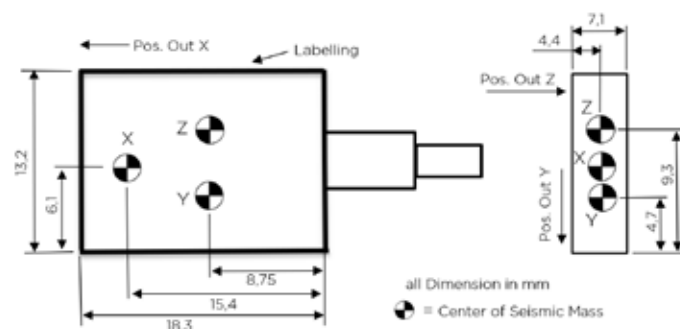
The new model BST 23C is a triaxial accelerometer based on piezo resistive technology. The fully Wheatstone-Bridge (4 wire system) configuration helps to connect the sensor on any data acquisition systems. The very light weight and small size of the sensor makes it easy to mount on difficult positions at the car for a crash test or for Test-Bed application.

Due to the anodized aluminium housing, it is easy to mount it with glue on difficult positions. With the 6m, rugged, shielded and very flexible 12-wire cable the connectors are easily mountable.

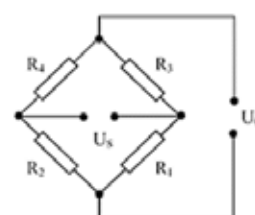
As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector.

A calibration for the sensor is obligatory.

DIMENSIONS



DIAGRAM



SPECIFICATION ACCELEROMETER

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

Range (g)	500	1,000	2,000
Sensitivity typ. (mV/g)	0.035	0.018	0.016
Frequency response (Hz) 5% max	2,750	3,500	4,000
Resonance Frequency (kHz)	>13	>18	>22
Shock limit (g)	6,000	8,000	10,000

ELECTRICAL PERFORMANCES

Supply voltage	2 to 10 VDC constant
Zero measurement output	<± 50 mV (Option <± 25 mV)
Input Bridge Resistance	1,600 to 2,000 Ω
Output Bridge Resistance	1,600 to 2,000 Ω

ENVIRONMENTAL PERFORMANCES

Thermal Shift Zero	± 0.04 % FSO (0 °C to 50 °C)
Thermal Shift Span	- 0.2 % / °C +/- 0.05 (0 °C to 50 °C)
Operation Temperature	- 40 °C to + 85 °C
Storage Temperature	- 55 °C to + 100 °C
Protection Class	IP67
Non-Linearity	±1
Transverse sensitivity	< 3
Damping	Gas damping
Damping ratio	0.7 typ.
Housing Material	Aluminium, anodized
Mounting	Glue
Dimensions	18.3 x 13.2 x 7,1 mm (l x w x h)
Weight Housing	3.8 grams
Cable	integrated, 12-wire, shielded AWG 32
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	13 grams per meter, Ø 3.0 mm

CABLE CODE

x-axis orange = Excitation + violet = Excitation -	blue = Signal + pink = Signal -
y-axis yellow = Excitation + brown = Excitation -	mint = Signal + grey = Signal -
z-axis red = Excitation + black = Excitation -	green = Signal + white = Signal -

ORDER INFORMATION

BST 23C-2000-6Z
23C = Model name
2000 = Range 2000 g
6 = 6 m Cable
Z = no connector

OPTIONAL

Additional Cable Length
Connector
Shunt
Dallas ID
Offset <± 25 mV
Calibration DAkkS DIN EN ISO/IEC 17025:2018