

Piezo resistive Accelerometer

BST 11CF Uniaxial



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FEATURES

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

APPLICATION

- Crash Tests
- Test-Bed Applications



DESCRIPTION

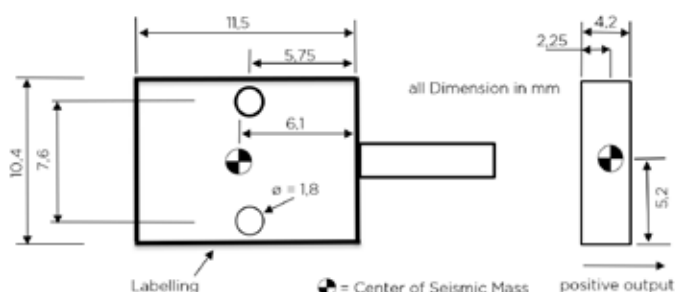
The model BST 11CF is a uniaxial accelerometer based on piezo resistive technology. The fully Wheatstone-Bridge (4 wire system) configuration helps to connect the sensor on any data acquisition systems. The very light weight and small size of the sensor makes it easy to mount it on difficult positions 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 flexible 4-wire cable the connectors are easily mountable. As an

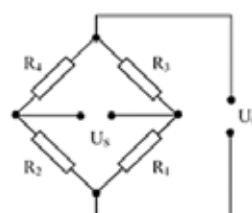
option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector.

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)	2,750	3,500	4,000
Resonance Frequency (kHz)	>13	>20	>23
Shock limit (g)	6,000	8,000	10,000

ELECTRICAL PERFORMANCES

Supply voltage	3 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
Isolation	Isolated from Housing

ENVIRONMENTAL PERFORMANCES

Thermal Shift Zero	< ±0.05 % 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
Damping	Gas Damping
Damping ratio	0.7 typ.
Non-Linearity	< 1 %
Transverse sensitivity	2 % typ. (3 % max.)
Housing Material	Aluminium, anodized
Mounting	2 screws, 0 – 80 UNF or M 1.6
Dimensions	11.5 x 10.4 x 4.2 mm (l x w x h)
Weight Housing	2 grams, without cable
Cable	integrated, 4 wire, shielded, AWG 32
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	6 grams per meter, Ø 2.2 mm

CABLE CODE

red = Excitation +
black = Excitation –

green = Signal +
white = Signal –

ORDER INFORMATION

BST 11CF-2000-6Z
11CF = model name
2000 = Range 2000 g
6 = 6 m Cable
Z = no connector

OPTIONAL

Additional Cable Length
Connector
Dallas ID
Shunt Resistor
Calibration DAkKS DIN EN ISO/IEC 17025:2018