

Piezo resistive Accelerometer

BST 12C Uniaxial



CONTACT
+49 89 189 41 49-11
info@bay-sensortec.com

FEATURES

- Meets SAE J211 spec.
- DC Response
- High Shock
- Calibration
- Aluminium Housing
- Small Size

APPLICATION

- Crash Tests
- Flatter Test

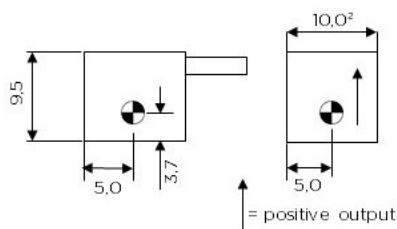


DESCRIPTION

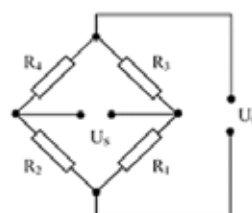
The model BST 12C is a uniaxial accelerometer based on piezo resistive technology. The fully Wheatstone-Bridge (4 wire system) configuration helps to connect the sensor on all data acquisition systems. The light weight and small size of the sensor makes it easy to mount it on difficult positions at the car for a crash test or for flatter test application.

Due to the anodized aluminium housing in Cube form it can be mounted with glue on difficult positions. With the 6 m, very rugged, shielded and flexible 4-wire cable all common connectors are 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)	0.04	0.018	0.016
Frequency response (Hz)	2,000	2,750	3,000
Resonance Frequency (kHz)	>13	>20	>23
Shock limit (g)	6,000	8,000	8,000

ELECTRICAL PERFORMANCES

Supply voltage	3 to 10 VDC constant
Zero measurement output	+/- 25 mV, max. +/- 50 mV
Input Bridge Resistance	1,600 to 2,000 Ω
Output Bridge Resistance	1,600 to 2,000 Ω
Isolation	sensing element 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	-20 °C to 80 °C
Storage Temperature	-20 °C to 100 °C
Protection Class	IP67
Non-Linearity	< 1 %
Transverse sensitivity	2 % typ. (3 % max.)
Damping ratio	0.7 typ.
Housing Material	Aluminium, anodized
Mounting	Glue
Dimensions	10.0 x 10.0 x 9.5 mm (l x w x h)
Weight Housing	3 grams, without cable
Cable	integrated, 4 wire, shielded, AWG 30
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	12 grams per meter, Ø 3.0 mm

CABLE CODE

red = Excitation +
black = Excitation -

green = Signal +
white = Signal -

ORDER INFORMATION

BST 12C-2000-6Z
12C = 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