

PE Accelerometer

BST 903 Triaxial



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

FEATURES

- Cubic form
- Side Connector
- Small Size
- TEDS
- Calibration

APPLICATION

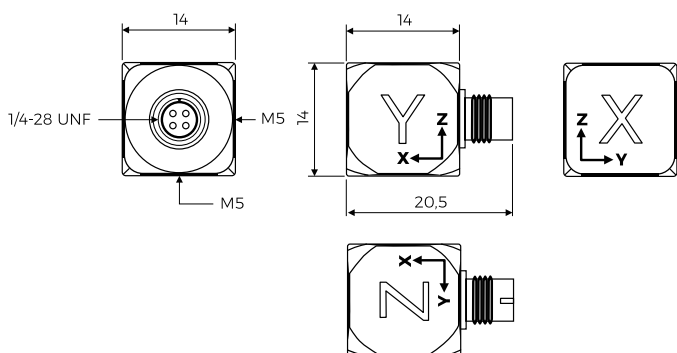
- Modal and Structure analysis
- Train
- Motion
- Automotive
- Comfort



DESCRIPTION

The model BST 903 is a small triaxial accelerometer based on IEPE Shear design with a very good Signal-to-Noise Ratio. The accelerometers are designed for relatively low amplitudes. The housing is mountable with a bolt on two sides. 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 2 and 20 mA constant current. The housing is in Aluminium.

DIMENSIONS



SPECIFICATION ACCELEROMETER

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

Range (g)	55 and 550
Supply constant current	2 to 20 mA
DC Output BIAS Voltage	12 – 14.5 V @ 25 °C (+/- 10 %)
Shock limit (3000 g)	55
(7000 g)	3000

MECHANICAL DATA

Operation Temperature	- 30 °C to + 100 °C
Protection Class	IP64
Mounting	Mounting-Bolt M5, on two sides
Weight	6 g for 500 g range 9 g for 60 g range
Dimensions	14 x 14 x 14 mm (l x w x h)
Case material	Aluminium
Transverse Sensitivity	< 5 %
Non-Linearity FSO	2 %
Output Impedance	<100 Ω (I const = 4 mA)
Cable-Connector	UNF 10-32

INDIVIDUAL DATA

Range (g)	55	550
(m/s ²)	490	4,900
Frequency (3dB (kHz) (X/Y/Z))	0.15 – 7 / 10 / 12	0.15 – 10 / 22 / 26
(10% (kHz) (X/Y/Z))	0.25 – 4 / 6 / 7	0.25 – 6 / 12 / 16
Resonance Frequency (kHz)		
(X)	> 11	> 30
(Y)	> 13	> 50
(Z)	> 17	> 50
Sensitivity (mV/g)	100	10
(mV/m/s ²)	10.2	1.02
Phase Response (kHz +/- 5°)	1.8 – 3.3	1.4 – 3.3
Noise (µg/√Hz)		
0.1 Hz	30	300
1.0 Hz	8	80
10 Hz	3	30
100 Hz	0.8	8
Temperature Coefficient (%/K)		
(- 30 – +/- 0°C)	- 0.04	+/- 0.01
(+/- 0 – + 40°C)	- 0.02	- 0.01
(+ 40 – 80°C)	+/- 0.01	- 0.03
(+ 80 – 120°C)	- 0.02	- 0.04
Temperature Sensitivity (ms ² /K)	0.13	2

ORDER INFORMATION

BST 903-010
903 = Model name
010 = Sensitivity 10mV/g

OPTIONAL

Additional Cable Length
Connector
TEDS