

PE Accelerometer

BST 901 Uniaxial

FEATURES

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

APPLICATION

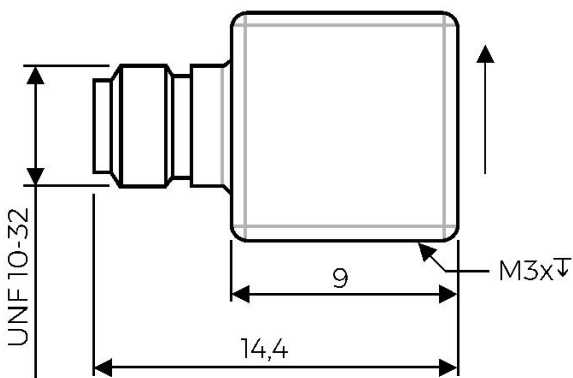
- Modal and Structure analysis
- Train
- Motion
- Automotive
- Comfort



DESCRIPTION

The model BST 901 is a small uniaxial accelerometer based on IEPE Shear design with a very good Signal-to-Noise Ratio. The accelerometers are designed for relatively low amplitudes. It can be mounted with two screws. The sensor has a 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 (g)	8,000

MECHANICAL DATA

Operation Temperature	- 40 °C to + 120 °C
Protection Class	IP64
Mounting	Mounting-Bolt M3
Weight	2.4 g for 550 g range 3.2 g for 55 g range
Dimensions	9 x 9 x 9 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 (5 %)	0.45 – 6.0	0.6 – 10.5
(10 %)	0.3 – 7.5	0.4 – 12
(3dB Hz)	0.15 – 13	0.2 – 18
Resonance Frequency +25dB (kHz)	> 25	> 46
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	200
1.0 Hz	8	80
10 Hz	3	30
100 Hz	0.8	8
Temperature Coefficient (%/K)		
(- 40 – +/- 0°C)	- 0.03	- 0.03
(+/- 0 – + 40°C)	- 0.06	+/- 0
(+ 40 – 80°C)	- 0.08	- 0.04
(+ 80 – 120°C)	- 0.11	- 0.08
Temperature Sensitivity (ms ² /K)	0.3	1.5

ORDER INFORMATION

BST 901S-010
901 = Model name
S = Side connector
T = Top connector
010 = Sensitivity 10mV/g

OPTIONAL

Additional Cable Length
Connector
TEDS