

SENSEBOX[®] 7011 / 12 / 13

MEMS ACCELEROMETER

"Excellent measurements with smallest size"

SENSEBOX-701x is an accelerometer based on high-end MEMS technology. This sensor is best suited for tests and applications with relatively large vibrations. SENSEBOX701x offers a good noise level accompanied by high stability, low-power and miniature size.

This accelerometer is quite suitable for Shake-Table Tests and provides the best price-performance ratio.

24-Bit, high dynamic range digitizer should be selected along with this analogue-output sensor to convert the data into digital. TESTBOX2010 Digitizer is fully compatible with this sensor.

This sensor is also suitable for tilt measurements. TDG MONSTER software allows the user to record high frequency vibration data and low frequency tilt data simultaneously.



"High-End MEMS"

Features

- High-End MEMS Technology
- Low Cost / High-Performance
- Low-Noise / Low-Power
- Long-Term Durability
- Miniature Size
- Acceleration & Tilt Measurement

Fields Of Application

- EXPERIMENTAL MODAL ANALYSIS
- FORCED-VIBRATION TESTS
- SHAKE-TABLE TESTS
- UNIVERSITY LABORATORIES
- GRADUATE / UNDERGRADUATE EDUCATION
- ROBOTICS

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Technical Specifications

NUMBER OF AXES / SUB MODELS

SENSEBOX7011	Uniaxial
SENSEBOX7012	Biaxial
SENSEBOX7013	Triaxial

MEASUREMENT

Measurement Range	±3 g
Dynamic Range	>80 dB @ 1 Hz
Sensitivity	0.3 V/g
Frequency Bandwidth	DC-500 Hz
Non-Linearity	0.3 %
Cross-Axis Rejection	±1%
Tilt Meas. Range	±90 °
Offset Temp. Drift	± 1 mg (0.06 deg) / °C

POWER/ELECTRICAL

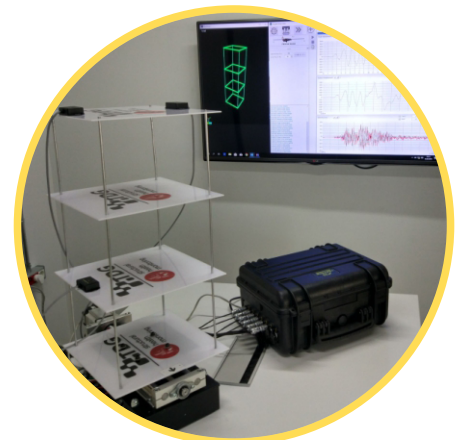
Excitation Voltage	5 V DC
Output Type	Single-Ended Voltage Output
Power Consumption	< 200 µA @ 5 V DC

PHYSICAL & ENVIRONMENTAL

Dimensions	35 x 65 x 15 mm (IP54 Plastic Standard) 85 x 50 x 40 mm (IP67 Plastic Optional)
Connector Interface	Cable Bushing Output
Operating Temperature	-40 °C ... +60 °C
Storage Temperature	40 °C ... +70 °C
Enclosure	IP54 Plastic (Standard) IP67 Plastic (Optional)

CERTIFICATION

CE	LVD (2014/35/EU) EMC (2014/30/EU)
Calibration	TDG Calibration Lab.



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