ABOUT THE 3D ACCELEROMETER

The module contains a three axis MEMS accelerometer.

The intended use of the 3D accelerometer is to measure acceleration (i.e. changes in velocity of movement of the sensor) and/or orientation towards gravity. The module is not intended for diagnostic purposes.

The module contains an EPROM memory with model, serial number, and first order calibration data, which may be used by the user software (PolyBench, MatLab, etc.) to enhance measurements. The calibration data is also made available in print accompanying this datasheet.

This datasheet is valid for devices with REF 95-0560-7015-0-X, with X representing the product revision consisting of one or two digits.

Notes

- The accelerometer chip measures acceleration in the unit g (gravity)
- Gravity is dependent on geographic location.
  The device is calibrated where local gravity is 9.81 m/s^2.

Maintenance

The product requires no maintenance. It may be cleaned, if deemed necessary, as follows:

- Before cleaning make sure the product is turned off and not in contact with a patient.
- Only use tap water, if necessary, with a mild detergent, applied through a soft damp cloth.
- Never use aggressive chemicals for cleaning.
- Do not sterilize the product.

Contact Information TMSi

TMSi Support can be reached via email (support@tmsi.com) or by phone during office hours (CET). When you send us an email, please provide as much information as possible, including REF-codes and serial numbers of the used products. You may find the REF code and/or serial number on the device but also always on the package label. The REF code starts with 95 followed by two groups of four digits to identify the product type, it ends with two groups of one- or two digits identifying variant and revision of the product. The serial number always has ten digits.
This will help us to support you in the best way possible.

Contact Information
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Technical Specifications

Physical Data	
Size Sensor	13 mm x 10 mm x 5 mm
Weight Sensor	2 g
Length cable	1.5 m
Total weight	15 g
Sensor outer material	POM (Epoxy on bottom)
Cable outer material	PVC
Colour	Black

Sensor properties uncalibrated	
Measurement range	± 3.6 g typical, ± 3 g minimal
Nonlinearity	± 0.3 % of full scale
Cross Axis Sensitivity	± 1 %
Output at X_{out}, Y_{out}, Z_{out}	300 mV/g ±10 %
0 g Voltage at X_{out}, Y_{out}, Z_{out}	1.5 V ± 0.3 V
0 g temperature drift	± 1 mg / °C
Supply current	370 µA (typical)
Frequency bandwidth X_{out}, Y_{out}	1600 Hz
Frequency bandwidth Z_{out}	550 Hz
Operating temperature range	(-25 to 70) °C

Sensor properties when used with calibration data	
Acceleration output (X, Y, Z)	g (9.8 m/s^2)
Accuracy	± 1 % of full scale (typical)