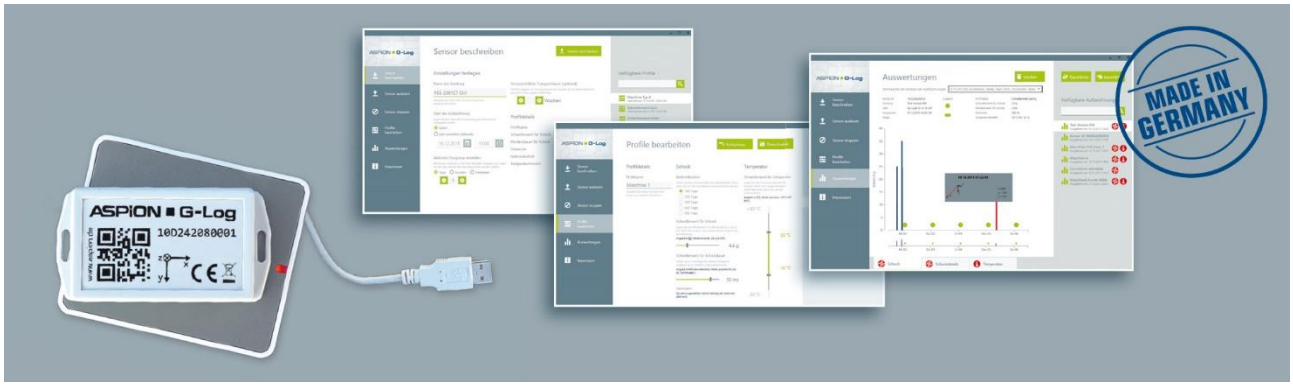
ASPiON ■ G-Log

Recording of shocks during transport

Wireless, inexpensive, long lasting



Technical data
Version 2.1

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ASPiON
ACTIVE SENSORS & POSITIONING

ASPION G-Log shock sensor

General product description

With the ASPION G-Log shock sensor, you can record shocks, vibrations and temperature data. It offers a 3-axes accelerometor and an integrated temperature sensor. The sensor only saves measured values above or below a defined threshold. You can reuse the sensor a number of times and for different transports.

Using the ASPION G-Log Manager computer software, you can define thresholds and transfer them to the ASPION G-Log shock sensor. When reading out data from the sensor, the software displays the measured values. Data is transferred wirelessly to and from the sensor with Near Field Communication (NFC) and a card reader which is connected via a USB interface to the computer. To easily read out or stop a sensor you can download the ASPION G-Log App for smartphones (Android Version 4.1 and later) from the Google Play Store. Data is easily send from the app to your software via e-mail. The ASPION G-Log Manager computer software then quickly analyses and further processes your data.

Each sensor has a unique ID which is indicated on the housing and in the barcode.

ASPION G-Log shock sensor

USB card reader

ASPION G-Log Manager
PC software on USB stick

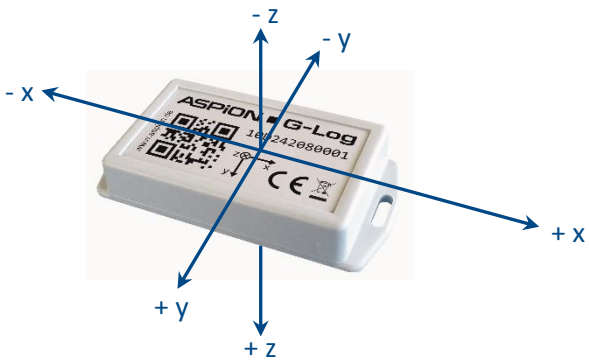
PC software ASPION G-Log Manager for Windows Version 7 and later

App for smartphones for Android Version 4.1 and later

Technical data

	Description	Details
Accelerometer	3 axes: x, y and z	▪ Up to ±16 g, extendable up to ±24 g (not calibrated for values betw. ±16 g and ±24 g) ▪ Accuracy: 2.5% ▪ Shock values verified by an accredited testing facility ▪ Adjustable threshold from 2 g to 12 g ▪ Between 25 Hz and 400 Hz
Temperature sensor	Internal	▪ -30°C ... +60°C with accuracy of ± 2°C ▪ 1°C resolution ▪ Lower and upper threshold freely definable
Memory/logging	Non-volatile memory Event triggered	▪ Capacity: 286 events in circular buffers ▪ Saves first and 8 highest peak events with details permanently ▪ Data logging if values are above or below the threshold
Data transfer and analysis	Wireless via NFC with PC software and App	▪ Data is transferred to sensor via NFC and can then be analyzed ▪ Configuration and analysis with PC software and NFC-enabled reading devices
Near Field Communication (NFC)	NFC Tag (Type 4)	▪ ISO/IEC 14443B compatible ▪ 13.56 MHz RF interface
Battery	CR2032 3V Lithium 225 mAh battery exchange by manufacturer	▪ Battery life depends on data rate; up to 1.5 years; e.g. 1 year for 100 Hz or 450 days for 50 Hz ▪ Battery power level at delivery: full ▪ Battery consumption at delivery condition: 5% per year for indicated storage conditions
Temperature ranges/ Storage	Operating temperature Storage temperature	▪ -30°C ... +60°C ▪ 5°C … +40°C ▪ Humidity: max. 85%
Housing	ABS with IP 50 protection (DIN EN 60529)	▪ Dimensions: 88 mm x 45 mm x 16 mm ▪ Distance of mounting holes: 80 mm ▪ Weight: approx. 35 g ▪ Penetration of fluids is to be prevented (Corrosion damage/short circuit)
Mounting	Screw mounting M3 ISO 7380 FL	▪ Maximum tightening torque: 0,4 - 0,5 Nm
Approvals/Standards	EC Declaration of Conformity	▪ R&TTE Directive 1999/5/EG ▪ ROHS Directive 2011/65/EU and WEEE

Mounting orientation



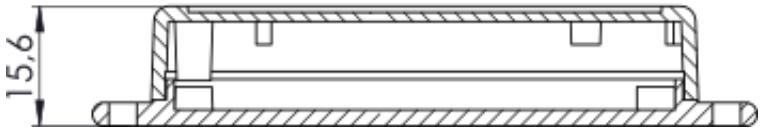
To correctly assign the axes in case of shock events, the mounting orientation is critical.

Recommended mounting

- on steel: M3 ISO 7380 FL
- on wood/sheet metal: flathead screws with a maximum thread diameter of 3.5 mm (e.g. DIN 7981)
- Maximum tightening torque 0.4 – 0.5 Nm

Housing dimensions and mounting template

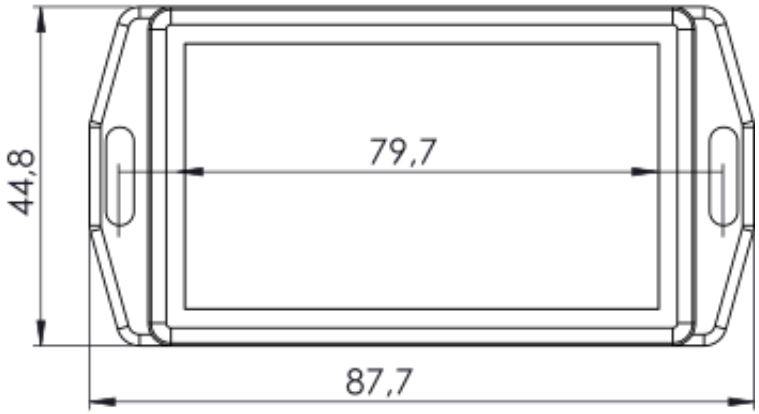
Housing cross section



Measures in millimeters

Housing dimensions

Mounting template 1:1



Measures in millimeters

Declaration of Conformity

CE

ASPION
ACTIVE SENSORS & POSITIONING

EC Declaration of Conformity

In accordance with the R&TTE Directive 1999/5/EG
and the ROHS Directive 2011/65/EU

We,

ASPION GmbH
Abraham-Lincoln-Allee 12
D-76149 Karlsruhe (Germany)

declare under our sole responsibility that the product

Product name:	ASPION G-Log
Description:	Digital shock sensor to log acceleration values up to ±16 g via three axes and to record of temperatures values

is in conformity with the directives mentioned above, including any amendments valid at the time of this declaration.

The following EU directives were applied:

R&TTE Directive 1999/5/EG
ROHS Directive 2011/65/EU

The following harmonized standards were applied:

EN 301489-1 V 1.9.2 Electromagnetic Compatibility (EMC)
EN 301489-3 V 1.6.1 Electromagnetic Compatibility (EMC)
EN 302291-2 V 1.1.1 Radio and Telecommunications Terminal Equipment (R&TTE)
IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 Information technology equipment- Safety

Karlsruhe, December 18, 2015

Michael Wöhr
CEO