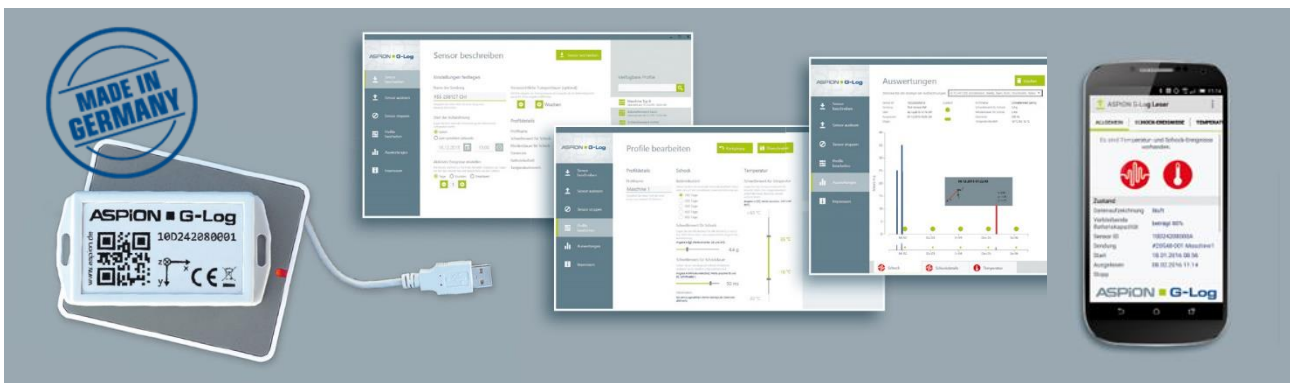


Recording shocks and temperature during transport

Wireless, inexpensive, long lasting



Technical data Version 2.1



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 accelerometer 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. 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.

The shock sensor is available in two versions:

ASPION G-Log: housing with protection type IP 50; battery can be replaced by the manufacturer

ASPION G-Log Waterproof: waterproof version with encapsulation for outdoor use – housing with protection type IP 65; battery not replaceable



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

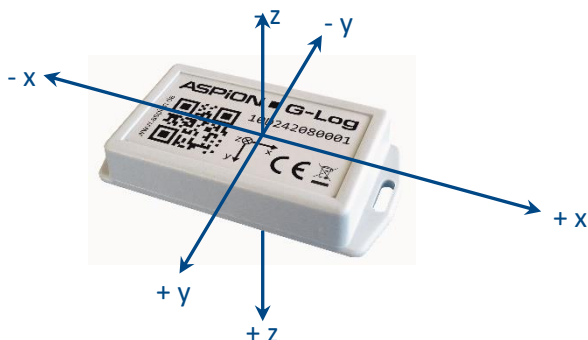


App for smartphones for Android version 4.1 and later
and iPhone 7, 7+ / 8, 8+ / X iOS version 11 and later

Technical data

	Description	Details
Accelerometer	3 axes: x, y and z	<ul style="list-style-type: none"> 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
	Measuring frequency	<ul style="list-style-type: none"> Adjustable threshold from 2 g to 12 g Between 25 Hz and 400 Hz
Temperature sensor	Internal	<ul style="list-style-type: none"> -30°C ... +60°C with accuracy of $\pm 2^\circ\text{C}$ 1°C resolution Lower and upper threshold freely definable
Memory/logging	Non-volatile memory Event triggered	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> ISO/IEC 14443B compatible 13.56 MHz RF interface
Battery	CR2032 3V Lithium 225 mAh battery exchange by manufacturer (only for standard, not valid for Waterproof version)	<ul style="list-style-type: none"> Battery life depends on data rate; up to 1.5 years; e.g. 1 year/100 Hz or 450 days/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	<ul style="list-style-type: none"> -30°C ... +60°C 5°C ... +40°C Humidity: max. 85%
Housing + Mounting	ABS housing; screw mounting M3 ISO 7380 FL; optional fixing with industrial adhesive tape	<ul style="list-style-type: none"> Dimensions: 88 mm x 45 mm x 16 mm Distance of mounting holes: 80 mm Maximum tightening torque: 0,4 - 0,5 Nm Penetration of fluids is to be prevented (Corrosion damage/short circuit)
Versions	Standard, enclosure type of protection IP 50	<ul style="list-style-type: none"> Weight: approx. 35 g Penetration of fluids is to be prevented (Corrosion damage/short circuit)
	Waterproof, enclosure type of protection IP 65	<ul style="list-style-type: none"> Weight: approx. 50 g, dust- and waterproof
Approvals/Standards	EC Declaration of Conformity	<ul style="list-style-type: none"> 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

Alternatively fasten with industrial adhesive tape (e.g. 3M)

Housing dimensions and mounting template

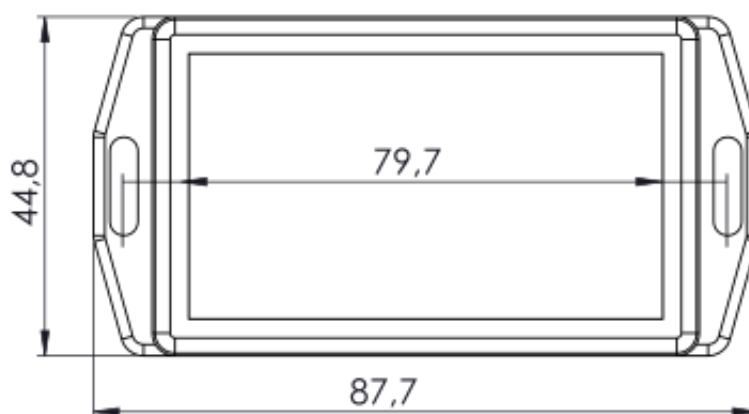
Housing cross section



Measures in millimeters

Housing dimensions

Mounting template 1:1



Measures in millimeters

Declaration of Conformity



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