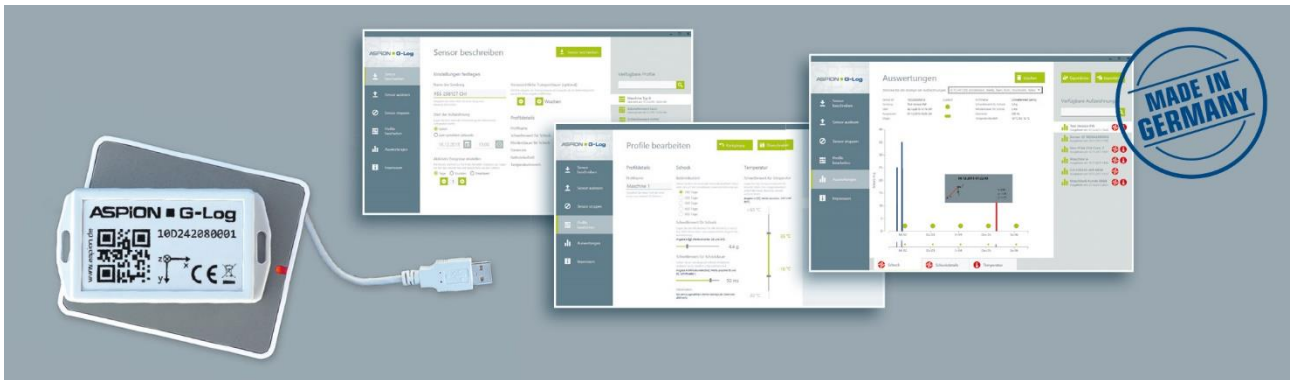


Recording of shocks during transport

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 (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.

### 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



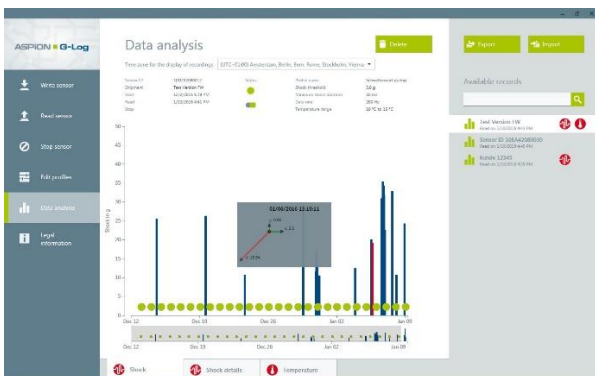
ASPION G-Log shock sensor



USB card reader



ASPION G-Log Manager PC software on USB stick



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

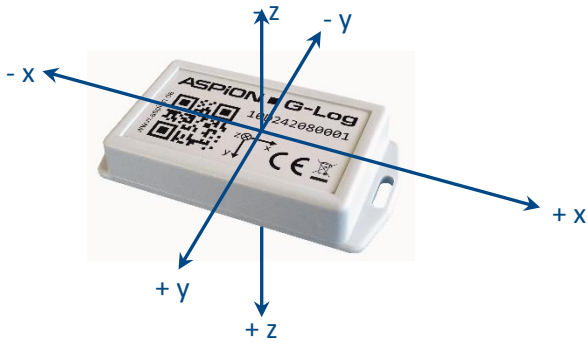


App for smartphones for Android Version 4.1 and later

**Technical data**

	Description	Details
<b>Accelerometer</b>	3 axes: x, y and z	<ul style="list-style-type: none"> <li>Up to ±16 g, extendable up to ±24 g (not calibrated for values betw. ±16 g and ±24 g)</li> <li>Accuracy: 2.5%</li> <li>Shock values verified by an accredited testing facility</li> <li>Adjustable threshold from 2 g to 12 g</li> <li>Between 25 Hz and 400 Hz</li> </ul>
<b>Temperature sensor</b>	Internal	<ul style="list-style-type: none"> <li>-30°C ... +60°C with accuracy of ± 2°C</li> <li>1°C resolution</li> <li>Lower and upper threshold freely definable</li> </ul>
<b>Memory/logging</b>	Non-volatile memory Event triggered	<ul style="list-style-type: none"> <li>Capacity: 286 events in circular buffers</li> <li>Saves first and 8 highest peak events with details permanently</li> <li>Data logging if values are above or below the threshold</li> </ul>
<b>Data transfer and analysis</b>	Wireless via NFC with PC software and App	<ul style="list-style-type: none"> <li>Data is transferred to sensor via NFC and can then be analyzed</li> <li>Configuration and analysis with PC software and NFC-enabled reading devices</li> </ul>
<b>Near Field Communication (NFC)</b>	NFC Tag (Type 4)	<ul style="list-style-type: none"> <li>ISO/IEC 14443B compatible</li> <li>13.56 MHz RF interface</li> </ul>
<b>Battery</b>	CR2032 3V Lithium 225 mAh battery exchange by manufacturer (only for standard, not valid for Waterproof version)	<ul style="list-style-type: none"> <li>Battery life depends on data rate; up to 1.5 years; e.g. 1 year/100 Hz or 450 days/50 Hz</li> <li>Battery power level at delivery: full</li> <li>Battery consumption at delivery condition: 5% per year for indicated storage conditions</li> </ul>
<b>Temperature ranges/Storage</b>	Operating temperature Storage temperature	<ul style="list-style-type: none"> <li>-30°C ... +60°C</li> <li>5°C ... +40°C</li> <li>Humidity: max. 85%</li> </ul>
<b>Housing + Mounting</b>	ABS housing; screw mounting M3 ISO 7380 FL; optional fixing with industrial adhesive tape	<ul style="list-style-type: none"> <li>Dimensions: 88 mm x 45 mm x 16 mm</li> <li>Distance of mounting holes: 80 mm</li> <li>Maximum tightening torque: 0,4 - 0,5 Nm</li> <li>Penetration of fluids is to be prevented (Corrosion damage/short circuit)</li> </ul>
<b>Versions</b>	Standard, enclosure type of protection IP 50  Waterproof, enclosure type of protection IP 65	<ul style="list-style-type: none"> <li>Weight: approx. 35 g</li> <li>Penetration of fluids is to be prevented (Corrosion damage/short circuit)</li> <li>Weight: approx. 50 g, dust- and waterproof</li> </ul>
<b>Approvals/Standards</b>	EC Declaration of Conformity	<ul style="list-style-type: none"> <li>R&amp;TTE Directive 1999/5/EG</li> <li>ROHS Directive 2011/65/EU and WEEE</li> </ul>

**Mounting orientation**



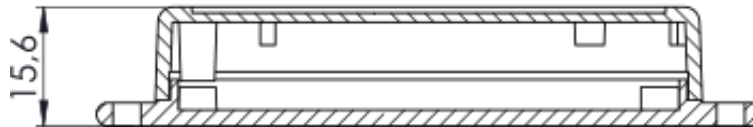
To correctly assign the axes in case of shock events, the mounting orientation is critical.

**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**

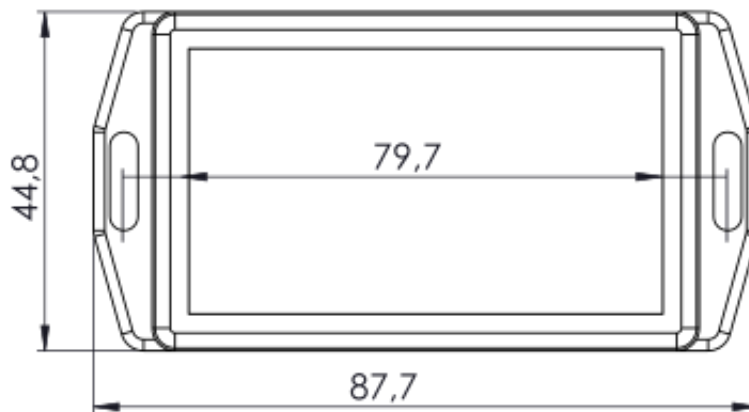
**Housing cross section**



Measures in millimeters

**Housing dimensions**

Mounting template 1:1



Measures in millimeters

**Declaration of Conformity****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  $\pm 16$  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