

Transport monitoring of shocks and temperature

Wireless. Accurate. Long lasting.



ASPiON G-Log  
shock data logger  
technical data



# ASPION G-Log shock data logger

## General product description

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

Using the ASPION PC software, you can define thresholds and apply them to the ASPION G-Log shock data logger. When reading out data from the data logger, the software displays the measured values. Data is transferred wirelessly to and from the data logger with Near Field Communication (NFC) and with a card reader which is connected to the PC via USB interface.

To easily read out or stop a data logger you can use the ASPION App for smartphones. For this purpose, data is transferred via NFC. Recorded events are displayed or hidden with PIN protection. Data can be sent from the app to the PC software via e-mail or automatically transferred via cloud-transfer (ASPION Premium service). The ASPION PC software then quickly analyses and further processes your data.

Each data logger has a unique ID which is indicated on the housing and in the QR code.

### The shock data logger 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 65/67; battery not replaceable



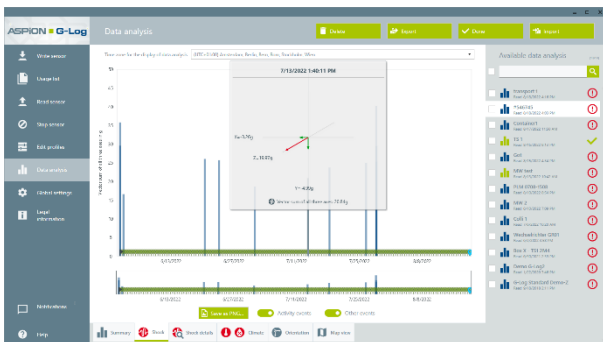
ASPION G-Log shock data logger for mounting on goods to be transported



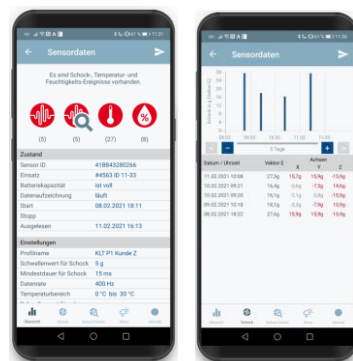
USB card reader for activation and reading out data



ASPION PC software on USB stick or for download in the customer portal



ASPION PC software for Windows for activation, control and analysis of evaluations

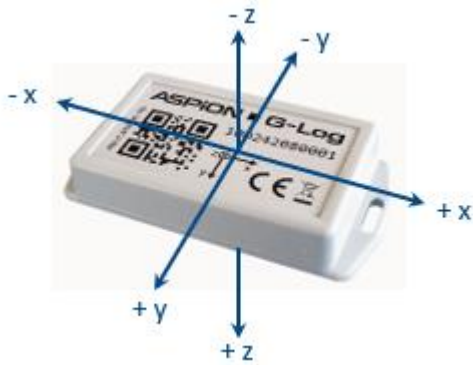


smartphone app for readout via NFC for Android from version 5.0 and iOS from version 11

**Technical data ASPION G-Log**

	Description	Details
<b>Accelerometer</b>	3 axes: x, y and z up to ±24 g per axis	<ul style="list-style-type: none"> <li>up to ±16 g calibrated, 2.5% accuracy, extendable up to ±24 g with approx. 3.5% accuracy, verified by accredited testing lab</li> <li>0.2 g resolution</li> <li>Adjustable threshold from 0,2 g to 12 g, special tool available for values &lt; 2 g</li> <li>Adjustable between 25 Hz and 1,600 Hz</li> </ul>
	Measuring frequency	<ul style="list-style-type: none"> <li>Adjustable between 25 Hz and 1,600 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 selectable</li> </ul>
<b>Memory/logging</b>	Non-volatile memory Event triggered	<ul style="list-style-type: none"> <li>Capacity: 286 events in circular buffer</li> <li>Additionally, shock details for the first and 8 highest peak events in permanent memory</li> </ul>
<b>Data transfer and analysis</b>	Wirelessly via NFC with PC software and App	<ul style="list-style-type: none"> <li>Data is transferred via NFC</li> <li>Configuration and analysis with PC software and NFC-enabled reader</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 replaceable by manufacturer (does not apply to Waterproof version)	<ul style="list-style-type: none"> <li>Battery life depends on data rate; up to 1.5 years; e.g. 1 year for 100 Hz; battery life may be shorter at lower temperatures</li> <li>Battery power level at delivery: full</li> <li>Battery consumption when inactive: 5% per year for indicated storage conditions</li> <li>Data can be read out when battery is empty</li> <li>For transport including air freight no labeling obligation of the lithium metal button cell; IATA DGR compliant</li> </ul>
<b>Operating conditions</b>	Operating temperature Storage conditions	<ul style="list-style-type: none"> <li>-30°C ... +60°C</li> <li>5°C ... +40°C, max. 85% humidity</li> </ul>
<b>Housing and mounting</b>	ABS housing; Screw mounting M3 ISO 7380 FL; optional: industrial adhesive tape, magnets, cable ties	<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> </ul>
<b>Product variants</b>	Standard, IP 50 protection	<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> </ul>
	Waterproof, IP 65/67 prot.	<ul style="list-style-type: none"> <li>Weight: approx. 50 g, dustproof/waterproof</li> </ul>
<b>Approvals/Standards</b>	Declarations of conformity and directives	<ul style="list-style-type: none"> <li>CE / ROHS / REACH / WEEE</li> <li>RED (EU)</li> <li>Not necessary: FCC / IC / SRRC</li> <li>DO160 (IATA)</li> <li>→ for details see customer portal and manual</li> </ul>
<b>Export information</b>	Product tariff code	<ul style="list-style-type: none"> <li>9031 8080</li> </ul>
	Country of origin	<ul style="list-style-type: none"> <li>DE (EU)</li> </ul>
	Data regarding legal control	<ul style="list-style-type: none"> <li>AI = no, ECCN = no</li> </ul>

**Mounting orientation**



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

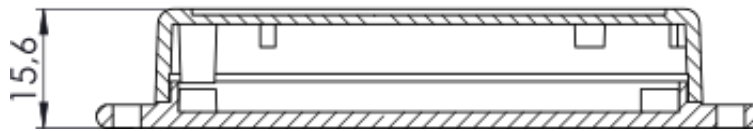
**Recommended mounting**

- 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

Alternatively fasten with industrial adhesive tape (e.g., 3M), magnets or cable ties.

**Housing dimensions and mounting template**

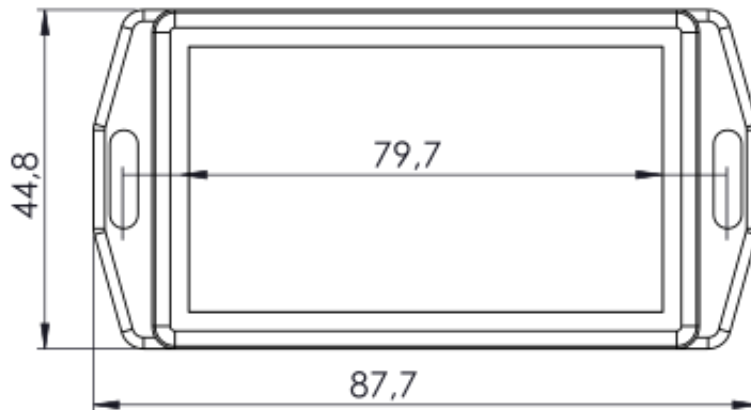
**Housing cross section**



Measures in millimeters

**Housing dimensions**

Mounting template 1:1



Measures in millimeters

As of October 2022. Changes and/or errors excepted.