ASPION ■ G-Log

Transport monitoring of shocks and temperature

Wireless. Accurate. Long lasting.

ASPION G-Log
shock data logger
technical data

INNOVATION BW 2021

ASPiON

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.

Overview of the complete system:

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 12 and iOS from version 15

Technical data ASPION G-Log

	Description	Details
Accelerometer	3 axes: x, y and z up to ±24 g per axis Sampling rate	▪ up to ±16 g calibrated, 2.5% accuracy, extendable up to ±24 g with approx. 3.5% accuracy, verified by accredited testing lab ▪ 0.2 g resolution ▪ Adjustable threshold from 0,4 g to 12 g, special tool available for values < 2 g ▪ Adjustable between 25 Hz and 1,600 Hz
Temperature sensor	Internal, calibrated by manufacturer	▪ -30°C ... +60°C with accuracy of ± 2°C ▪ 1°C resolution ▪ Lower and upper threshold freely selectable
Memory/logging	Non-volatile memory Event triggered	▪ Capacity: 286 events in circular buffer ▪ Additionally, shock details for the first and 8 highest peak events in permanent memory
Data transfer and analysis	Wirelessly via NFC with PC software and App	▪ Data is transferred via NFC ▪ Configuration and analysis with PC software and NFC-enabled reader
Near Field Communication (NFC)	NFC tag (type 4)	▪ ISO/IEC 14443B compatible ▪ 13.56 MHz RF interface
Battery	CR2032 3V Lithium 225 mAh replaceable by manufacturer (please inquire, requires complete overhaul)	▪ 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 ▪ Battery power level at delivery: full ▪ Battery consumption when inactive: 5% per year for indicated storage conditions ▪ Data can be read out when battery is empty ▪ For transport including air freight no labeling obligation of the lithium metal button cell; IATA DGR compliant
Operating conditions	Operating temperature Storage conditions	▪ -30°C ... +60°C ▪ 5°C ... +40°C, max. 85% humidity
Housing and mounting	ABS housing, IP 50 protection Screw mounting M3 ISO 7380 FL; optional: industrial adhesive tape, magnets, cable ties	▪ Dimensions: 88 mm x 45 mm x 16 mm ▪ Weight: approx. 35 g ▪ Penetration of fluids is to be prevented (corrosion damage/short circuit) ▪ Distance of mounting holes: 80 mm ▪ Maximum tightening torque: 0.4 - 0.5 Nm
Approvals/Standards	Declarations of conformity and directives	▪ CE / ROHS / REACH / WEEE ▪ RED (EU) ▪ Not necessary: FCC / IC / SRRC ▪ DO160 (IATA) → for details see customer portal and manual
Export information	Product tariff code Country of origin Data regarding legal control	▪ 9031 8080 ▪ DE (EU) ▪ AI = no, ECCN = no

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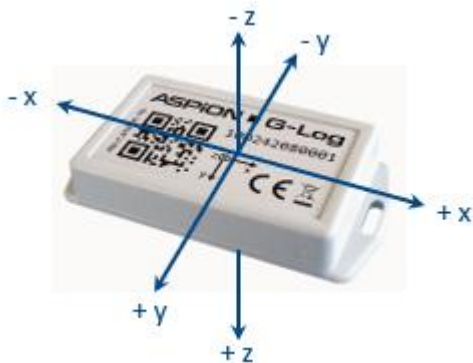
To correctly assign the axes in case of shock events, the mounting orientation is critical.

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.
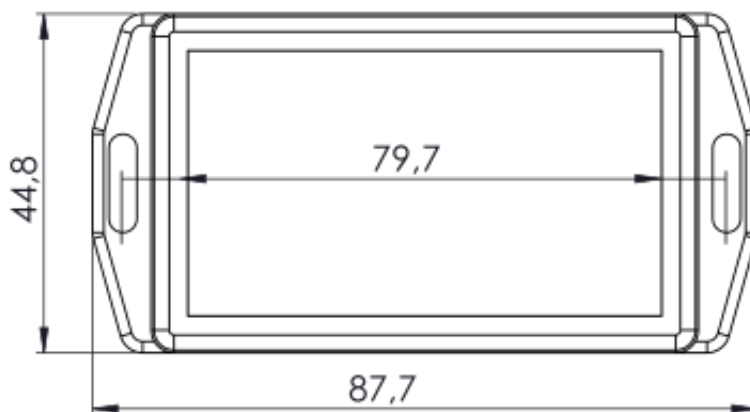
Housing dimensions and mounting template

Housing cross section

Measures in millimeters

Housing dimensions

Mounting template 1:1

Measures in millimeters

As of May 2025. Changes and/or errors excepted.