g-log s1

Data logger for shock

Shock measurement on all 3 axes

Detailed shock curve with time stamp

Integrated temperature sensor

Battery life > 12 months

Tamper-proof - password protected

Stabile aluminum housing - easy mounting

Extremely simple evaluation with software provided

solve g-log s1 data loggers

The g-log s1 series meets all requirements: large memory capacity, alarm messages, long battery life, simple operation and evaluation.

Features

The g-log s1 is the basic model of the g-log series. With the g-log s1 accelerations (impacts, jolts) can be recorded over long periods. The progress over time of the accelerations is recorded on all three axes for all events. This makes the g-log s1 the ideal tool for detailed transport monitoring and packing checks.
The related LogView PC software for programming, graphic and numerical display of the measured values and print-outs enables easy measurement series analysis and datalogger programming.
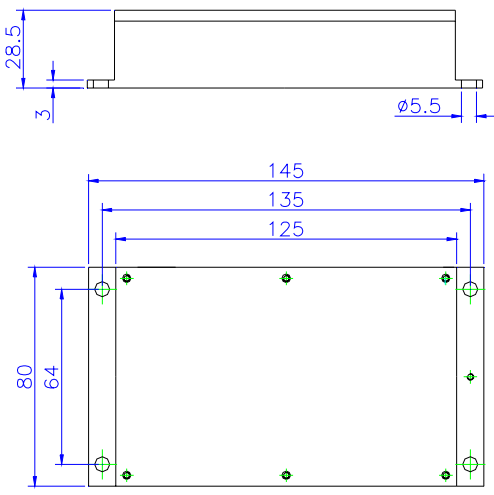
Security

All data are stored in the logger in a non-volatile memory. This means the measured values are retained even in the case of a battery failure.
Any access to the programming of the unit requires a password, and all changes are logged. This ensures that measurements cannot be tampered with and any tampering attempts are detected immediately.

Housing

The g-log series was developed for use under difficult conditions. The measuring electronics are protected with a sturdy, splash-water resistant aluminum housing.

Mounting

Mounting Guidelines

The datalogger must be rigidly connected to the object to be monitored (screw connection with M5 bolts.

When positioning the unit it should be ensured that no damping material is located between the object to be monitored and the datalogger, as otherwise the measurements will be falsified.

An inadequate mounting of the unit can cause excessively high measured values if vibrations result between the goods to be monitored and the datalogger.

Technical Data

General Information	3-axis curve recorder for acceleration
Housing	Aluminum anodized, splash-water protected IP 65
Dimensions	145x80x29 mm
Weight	approx. 470g
Battery	2x UM3 lithium thyonilchloride 3.6 V
Current consumption in Standby mode	approx. 50µA
Current consumption during measurement	50mA max.
Battery life	> 10'000 hr
Memory	Non-volatile, SRAM with buffer battery
Memory capacity	1 Mbyte, approx. 3,000 shock events (2 or 3 Mbyte optional)
Memory mode	When memory is full, smallest values are overwritten
Internal sensors	Shock (acceleration), temperature
External sensors	none
Digital IO	none
Programming/evaluation	with LogView PC software
Measurement start/end	Programmable or with start/stop button
Connection to PC	RS-232, 57600 kBaud
Operating range	-30°C to 85°C

Acceleration sensor	
Unit of measure	g
Measuring sensor	Internal micro-mechanical sensor, static acceleration measurement
Measuring range	-50 g to 50 g (other measuring ranges on request)
Measuring interval	Continuously ready for measurement, adjustable trigger threshold
Wake-up time	Typ. 1 ms, max. 2 ms (from reaching of trigger threshold to recording)
Trigger threshold	1g to 20g, adjustable
Accuracy	0.2g
Measuring axes	Triaxial (X, Y, Z)
Event length	automatic
Sampling rate	1 kHz (scan rate = 1ms)
Frequency range	Adjustable (programmable filter)

Temperature sensor	
Unit of measure	Degrees Centigrade
Measuring sensor	Internal temperature sensor
Measuring range	-40°C to 85°C
Measuring interval	Temperature measurement during shock event
Accuracy	2°C
Sensor positioning	Internal

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EMC Compliance

The device is conform to all requirements of the following standards:
- EN 50081-1:1992 + 50082-1:1997
- EN 50081-2:1993 + 50082-2:1995 + EN 61000-6-2

Calibration and certification

All units of the g-log series are shipped with a calibration record.

The manufacturer recommends an annual inspection of the unit, whereby an electrical test is conducted and the sensors recalibrated.

Ordering Information

Designation	Order No.
Data logger	
g-log s1-25, 1MByte	1121
g-log s1-50, 1MByte	1151
Additional acceleration ranges or memory versions on request	
Software	
LogView software	1010
Accessories	
PC data cable	1020
Services	
Basic check, battery replacement	9901
Calibration of shock sensors	9902

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