

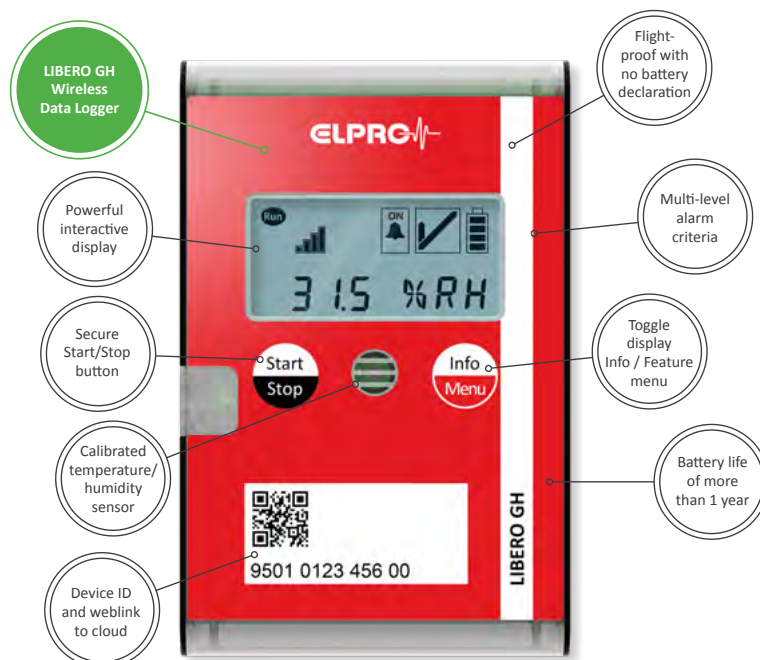


## TECHNICAL SPECIFICATIONS

# LIBERO GH

## Multi Use Real-Time Data Logger for Temperature and Humidity

LIBERO GH is the ideal real-time data logger for climate monitoring of shipments as well as for test and verification systems. LIBERO GH features a highly accurate and 100% calibrated temperature / humidity sensor, allowing to set multi-level alarm criteria, but also does LIBERO GH monitor the location of the shipment. LIBERO GH features a powerful, interactive display to facilitate your shipment process. LIBERO GH offers a runtime of more than one year. The automatic flight detection and the abandonment of lithium batteries allows the usage for airfreight without cumbersome dangerous goods declaration. LIBERO GH uploads all measured data automatically to a safe cloud environment where all shipments are monitored. Up to 31.000 temperature values can be stored on the data logger to temporarily buffer measurement data. At the end of the shipment, release products directly based on the OK or ALARM status on the display and download the PDF report from the monitoring software (elproCLOUD / liberoMANAGER). Optionally, a robust, lockable bracket is available to hold LIBERO Gx in a defined position.



we prove it.

SWISS QUALITY



- > Real-time insights into your valuable shipments on road, air and sea
- > Highly accurate and 100% calibrated temperature/humidity sensor
- > Simple and safe in use and application
- > Fully compliant with industry guidelines

## Technical Specifications LIBERO GH

<b>Type</b>	Wireless Data logger with combined internal temperature / humidity sensor	
<b>Application area</b>	Transport Monitoring: global distribution of temperature & humidity sensitive products	
<b>Recording options and mode</b>	Multiple use: start/stop, Loop mode	
<b>Sensors</b>	High accuracy digital temperature/humidity sensor   Geographical location   Light   Tilt	
<b>Measurement range</b>	Measurement range of internal sensor: -30 °C..+70 °C, 0 %RH...100 %RH (non-condensing)	
<b>Application range</b>	0 °C..+55 °C (only short term use above and below application range allowed) <sup>2</sup>	
<b>Measurement accuracy</b>	<b>Temperature</b> ±0.4 °C for -40 °C..+70 °C	<b>Humidity (RH @ 23 °C)</b> ± 2.5 % RH for 0 % RH.. 90 % RH ± 3.5 % RH for 90.1 % RH.. 100 % RH
<b>Resolution</b>	0.1 °	
<b>Measurement interval</b>	15 to 60 minutes, configurable via elproCLOUD / liberoMANAGER	
<b>Cellular network</b>	LTE-M and NB-IoT	
<b>Communication interval</b>	30 minutes to 2 hours according to communication mode (Longlife/Standard/Performance), configurable via elproCLOUD / liberoMANAGER, event-driven immediate communication (e.g. temperature excursion). No communication in frozen application (measurement data is buffered and is transmitted with next ordinary communication).	
<b>Measurement capacity</b>	31.000 measurement values (equals 322 days with 15 min measurement interval)	
<b>Expiry date and battery life</b>	Data logger can be started any time during shelf life (auto expiry data management). Started data logger runs up to 14 months. 6 months continuous operation with 15 min measurement interval and 120 min communication interval. Intensified communication behavior (e.g. bad connection or local provider settings) and application below 0° C and above +55 °C will shorten battery life.	
<b>Battery type</b>	AA-Alkaline batteries (non-replaceable), exempt from DGR declaration	
<b>Configurable alarms</b>	7 temperature thresholds with alarm delay (4 upper limits, 3 lower limits)	
<b>Start-up delay</b>	Configurable based on time, temperature or button	
<b>Display</b>	Multifunction LCD, size: 42 × 20 mm	
<b>Certificate</b>	Manufacturer validation certificate per delivery, production validation and 3-point calibration certificate (ILAC/NIST/ISO 17025 traceable) pre ID number via compliance.elpro.com, additional customer-specific calibration points optionally available.	
<b>Traceability</b>	Unique ID number (traceable to component level)	
<b>Reporting</b>	Real-time visibility and notification about temperature / humidity excursions or occurrences via elproCLOUD / liberoMANAGER	
<b>Case   dimension   weight   IP code</b>	ABS plastic material   100 × 65 × 19 mm (3.9 × 2.5 × 0.7 in)   125 g (4.4 oz)   IP54	
<b>Conformity</b>	CE   FCC   UKCA   ICES   RoHS   UN38.3   WEEE   NCC   RSM   TDRA   ENACOM   IMDA   MIC   ACMA/RCM	
<b>Standards</b>	EN 12830   RTCA DO-160 (EMC)   GAMP5	

<sup>1</sup> Reported without customer contact information according to ISO 17025 7.8.1.3 due to data protection requirements.

<sup>2</sup> No communication if the device is used in a direct environment below 0°C. For a secure communication below 0°C, use LIBERO GF.