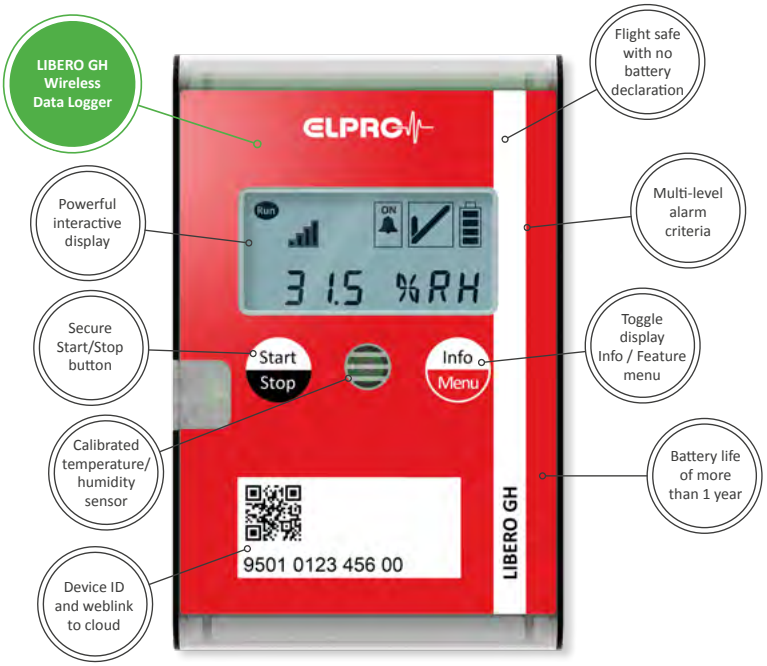
TECHNICAL SPECIFICATIONS

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 save cloud environment where all shipments are monitored. Up to 16.000 temperature values can be stored on the 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 cloud. Optionally, a robust, lockable bracket is available.



- Real-time insights of 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 Specification LIBERO GH

Type	Wireless Data logger with internal temperature/humidity sensor
Application area	Transport Monitoring, Test and Verification Systems
Recording options and mode	Multiple use: start/stop
Sensors	Combined Temperature/Relative Humidity sensor | Geographical location
Measurement range	Measurement range of internal sensor: -30 °C..+70 °C, 0 %RH..100 %RH
Application range	0 °C..+55 °C (only short term use above and below application range allowed)
Measurement accuracy	**Temperature** ±1.0 °C for -30.0 °C..-20.1 °C ±0.5 °C for -20.0 °C..-0.1 °C ±0.4 °C for 0.0 °C..+65.0 °C ±0.5 °C for +65.1 °C..+70 °C **Humidity (RH @ 23 °C)** ±2.5 % RH for 0 % RH..90 % RH ±3.5 % RH for 90.1 % RH..100 % RH
Resolution	0.1 °
Measurement interval	15 to 60 minutes, user programmable
Cellular network	LTE-M and NB-IoT
Communication interval	2 to 6 hours hours, user programmable, event-driven immediate communication (e.g. excursion, last will)
Measurement capacity	16.000 measurement values
Battery life	Up to 14 months (+ 12 months shelf life) Intensified communication behavior (e.g. bad connection or local provider settings) can shorten battery life
Battery type	Alkaline batteries (non-replaceable), exempt from DGR declaration
Configurable alarms	Upper and lower thresholds (with delay) for temperature and/or humidity
Start-up delay	User configurable based on time, or button
Display	Multifunction LCD, size: 42 × 20 mm
Certificate	Calibration certificate (3-points); additional calibration points or ISO 17025 certification[1] available Validation Certificate
Traceability	Unique ID number (traceable to component level)
Reporting	Real-time visibility and notification about temperature excursions or occurrences via an ELPRO cloud solution
Case | dimension | weight	ABS plastic material | 100 × 65 × 19 mm (3.9 x 2.5 x 0.7 in) | 126 g (4.4 oz)
Conformity	CE | FCC | ICES | RoHS | UN38.3 | WEEE
Standards	EN 12830 | RTCA DO-160 (EMC) | GAMP5

[1] Reported without customer contact information according to ISO 17025 7.8.1.3 due to data protection requirements.