

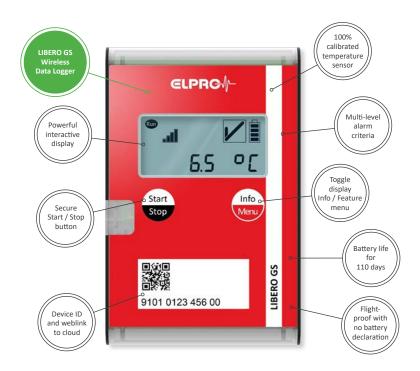
**TECHNICAL SPECIFICATIONS** 

## **LIBERO GS**

## Single Use Real-Time Temperature Data Logger



LIBERO GS is the real-time logger that simplifies the temperature monitoring of your shipments. The internal temperature sensor is highly accurate and comes with a 100% sensor calibration. With an ensured runtime of 110 days, LIBERO GS is ideal for the global distribution of temperature sensitive products. In addition to temperature, LIBERO GS monitors the location of the shipment. LIBERO GS features a powerful, interactive display to facilitate your shipment process. LIBERO GS uploads all measured data automatically to a safe cloud environment where all shipments are monitored. LIBERO GS ideally complements the existing (USB) data logger portfolio. The automatic flight detection and the abandonment of lithium batteries allows the usage for airfreight without cumbersome dangerous goods declaration. 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 elproCLOUD.



we prove it.



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

## Technical Specifications LIBERO GS

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Туре	Wireless Data logger with internal temperature sensor
Application area	Transport Monitoring: Global distribution of temperature sensitive products
Recording options and mode	Single use: start / stop mode
Sensors	High accuracy digital temperature sensor   Geographical location   Light   Tilt
Measurement range	Measurement range of internal sensor: -30 °C+70 °C
Application range	0 °C + 55 °C (only short term use above and below application range allowed)
Measurement accuracy	Internal Sensor ±1.0 °C for -30.0 °C20.1 °C ±0.5 °C for -20.0 °C0.1 °C ±0.4 °C for 0.0 °C+65.0 °C ±0.5 °C for +65.1 °C+70 °C
Resolution	0.1°
Measurement interval	5 to 60 minutes, user configurable via elproCLOUD
Cellular network	LTE-M and NB-IoT
Communication interval	30 minutes to 2 hours according to communication mode (Longlife/Standard/Performance), user configurab via elproCLOUD, event-driven immediate communication (e.g. temperature excursion). No communication in frozen application (measurement data is buffered and is transmitted with next ordinary communication).
Measurement capacity	31.000 measurement values (equals 322 days with 15 min measurement interval)
Expiry date and battery life	Data logger can be started any time during shelf life (auto expiry data management) Started data logger runs until logger is stopped (max. 110 days) Intensified communication behavior (e.g. bad connection or local provider settings) will shorten battery life
Battery type	AA-Alkaline batteries (non-replaceable), exempt from DGR declaration
Configurable alarms	7 temperature thresholds with alarm delay (4 upper limits, 3 lower limits)
Start-up delay	User configurable based on time, or button
Display	Multifunction LCD, size: 42 × 20 mm
Certificate	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.
Traceability	Unique ID number (traceable to component level)
Reporting	Real-time visibility and notification about temperature excursions or occurrences via elproCLOUD
e   dimension   weight   IP code	ABS plastic material   100 × 65 × 19 mm (3.9 × 2.5 × 0.7 in)   125 g (4.4 oz)   IP54
Conformity	CE   FCC   UKCA   ICES   ROHS   UN38.3   WEEE   NCC   RSM   TDRA   ENACOM   IMDA   MIC   ACMA/RCN
Standards	EN 12830   RTCA DO-160 (EMC)   GAMP5