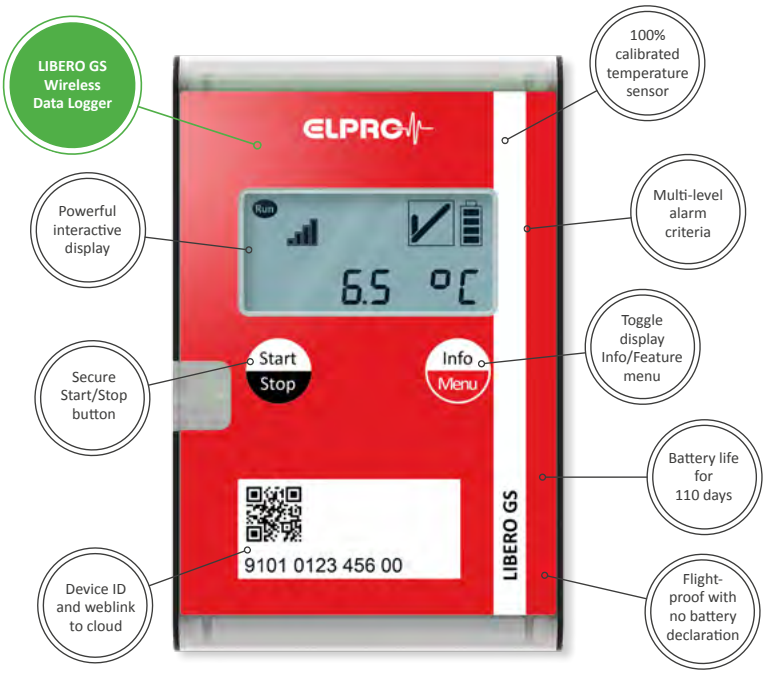
LIBERO GS

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 the monitoring software (elproCLOUD / liberoMANAGER).



- 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

Type	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 °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
Resolution	0.1 °
Measurement interval	5 to 60 minutes, configurable via elproCLOUD / liberoMANAGER
Cellular network	LTE-M and NB-IoT
Communication interval	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).
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	Configurable based on time, temperature 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 / liberoMANAGER
Case | 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/RCM
Standards	EN 12830 | RTCA DO-160 (EMC) | GAMP5