LIBERO GL

Multi Use Real-Time Temperature Data Logger

With its unbeatable runtime of more than one year, LIBERO GL is the flexible and compliant data logger for various applications. The internal temperature sensor is highly accurate and comes with a 100% sensor calibration. In addition to temperature, LIBERO GL monitors the location of the shipment. LIBERO GL features a powerful, interactive display to facilitate your shipment process. LIBERO GL uploads all measured data automatically to a safe cloud environment where all shipments are monitored. 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. Optionally, a robust, lockable bracket is available to hold LIBERO Gx in a defined position. The multi use capability of the LIBERO GL significantly lowers cost per use, making the LIBERO GL a versatile, cost effective choice.

- 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 GL

Type	Wireless Data logger with internal temperature sensor
Application area	Transport Monitoring: global distribution of temperature sensitive products
Recording options and mode	Multiple use: start / stop, Loop 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) [1]
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, 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 configurable 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 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
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
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

[1] No communication if the device is used in a direct environment below 0°C. For a secure communication below 0°C, use LIBERO GF.