Cleanroom Management International
Groupe Trescal
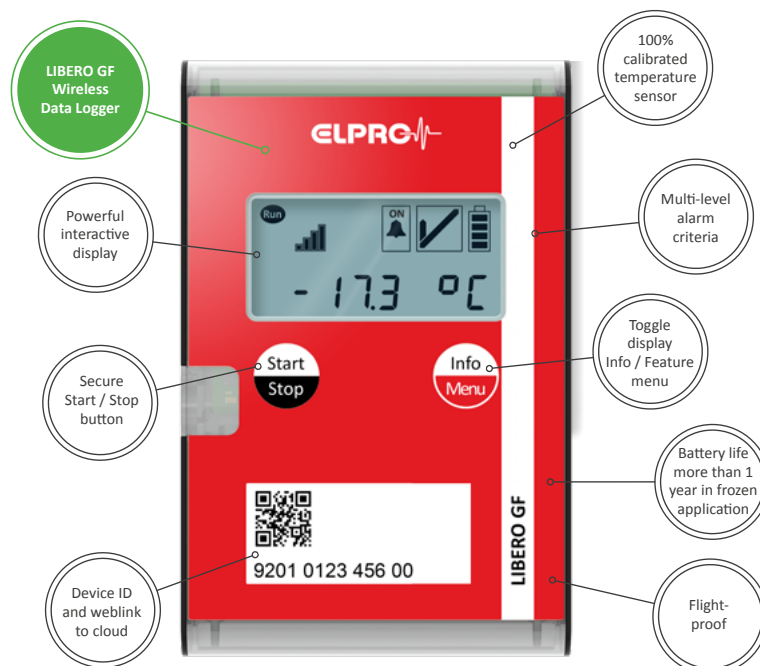
LIBERO GF

Multi Use Real-Time Temperature Data Logger

LIBERO GF is the real-time logger for the temperature monitoring of frozen shipments. The internal temperature sensor is highly accurate and comes with a 100% sensor calibration. With an ensured runtime of more than a year up to -40 °Celsius, LIBERO GF is ideal for the monitoring of your frozen temperature sensitive products. Allowing to set alarm criteria, but also does LIBERO GF monitor the location of the shipment. LIBERO GF features a powerful, interactive display to facilitate your shipment process. LIBERO GF uploads all measured data automatically to a safe cloud environment where all shipments are monitored. LIBERO GF ideally complements the existing (USB) data logger portfolio. 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.

LIBERO GF Wireless Data Logger

100% calibrated temperature sensor

Powerful interactive display

Multi-level alarm criteria

Secure Start / Stop button

Toggle display Info / Feature menu

Device ID and weblink to cloud

Battery life more than 1 year in frozen application

Flight-proof

we prove it.

✚ SWISS QUALITY

> 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 GF

Type	Wireless Data logger with internal temperature sensor
Application area	Transport Monitoring: Global distribution of temperature sensitive products, frozen applications
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: -40 °C..+70 °C
Application range	-35 °C.. +55 °C
Measurement accuracy	**Internal Sensor** ±1.0 °C for -40.0 °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	15 to 60 minutes, user configurable via elproCLOUD
Cellular network	LTE-M and NB-IoT
Communication interval	2 to 6 hours, user configurable via elproCLOUD, event-driven immediate communication (e.g. temperature excursion)
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 12 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 -35 °C. and above +55 °C will shorten battery life
Battery type	AA-Lithium-Metal batteries (non-replaceable), UN3091 (contained in equipment)
Configurable alarms	2 temperature thresholds with alarm delay
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 tracable) 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	ABS plastic material | 100 × 65 × 19 mm (3.9 × 2.5 × 0.7 in) | 109 g (3.8 oz)
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