



TECHNICAL SPECIFICATIONS

LIBERO GF ext

Wireless data logger with internal sensor and external Pt100 probe

LIBERO GF ext is the real-time logger that takes your cold chain monitoring to the next level. LIBERO GF ext covers all kind of applications for transport monitoring and simplifies the shipment process for products with known stability data. The internal temperature sensor is highly accurate and comes as world's first wireless data logger with a 100% sensor calibration. Having an external probe (Pt100 probe with M8 connector for safe temperature data transfer), LIBERO GF ext covers a wide measurement range from -200 °C..+400 °C and allows monitoring of ultra-low freezers and cryo containers. LIBERO GF ext is re-configurable and re-usable with a battery life of more than a year. In addition to temperature, LIBERO GF ext monitors light, movement/tilt and location of the shipment. LIBERO GF ext uploads all measured data automatically to a safe cloud environment where all shipments are monitored. The automatic flight detection allows the usage for airfreight. Having a display, LIBERO GF ext provides full transparency to the user at any time. Up to 31.000 temperature values can be stored on the data logger to temporarily buffer measurement data. A robust, lockable bracket is available to hold LIBERO Gx in a defined position. 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.

SWISS QUALITY



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

Technical Specifications LIBERO GF ext.

Type	Wireless Data logger with internal sensor and external Pt100 temperature probe (probe not included)	
Application area	Transport Monitoring, frozen applications, (Cryo / Dry-ice) Container Monitoring	
Recording options and mode	Multiple use: start / stop , Loop mode	
Sensors	High accuracy digital temperature sensor External probe (Pt100, requires M8 connector) Geographical location Light Tilt	
Measurement range	Measurement range (depending on probe): -200 °C..+400 °C Measurement range of internal sensor: -40 °C..+70 °C	
Application range	On probe: -200 °C..+400 °C / internal sensor: -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	External Probe (System accuracy*) ± 1.4 °C in the range of -200.0 °C..-100.1 °C (Class B) ± 1.0 °C in the range of -100.0 °C..-50.1 °C (Class B) ± 0.4 °C in the range of -50.0 °C..-10.1 °C (Class A) ± 0.3 °C in the range of -10.0 °C..+25.0 °C (Class A) ± 0.5 °C in the range of +25.1 °C..+100.0 °C (Class A) ± 0.7 °C in the range of +100.1 °C..+200.0 °C (Class A) ± 1.1 °C in the range of +200.1 °C..+400.0 °C (Class A) *Includes data logger and external Pt100 probe of stated class
Measurement 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. 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 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)	
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 via elproCLOUD	
Case dimension weight	ABS plastic material 100 × 65 × 19 mm (3.9 × 2.5 × 0.7 in) / Cable tail incl. M8 connector 85 mm 116 g (4.1 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	