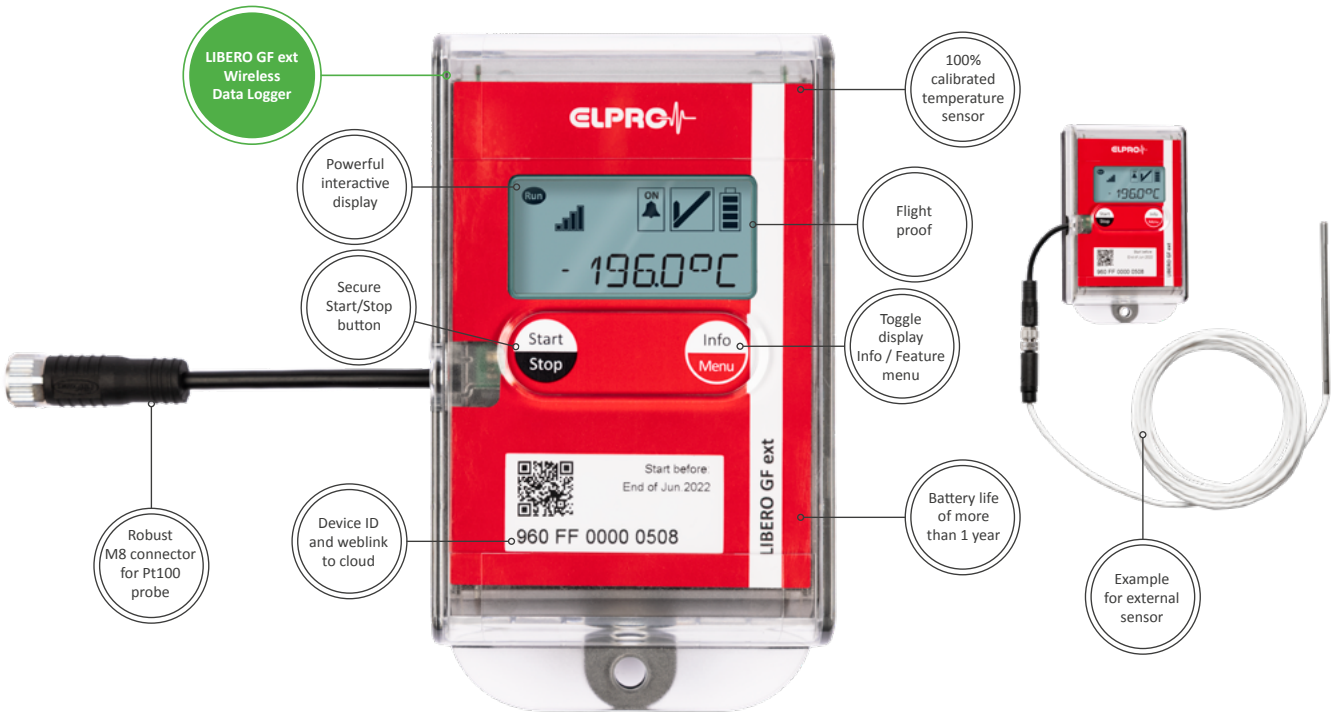
LIBERO GF ext
- 100% calibrated & compliant
- Flight-proof
- External Pt100 probe

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 16.000 temperature values can be stored on the logger to temporarily buffer measurement data. A robust, lockable bracket is available in addition. 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 cloud.



- Real-time insights of 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 Specification 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
Sensors	Temperature sensor | External probe (Pt100, requires M8 connector) | Geographical location
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 programmable
Cellular network	LTE-M and NB-IoT
Communication interval	2 to 6 hours, user programmable, event-driven immediate communication (e. g. excursion)
Measurement capacity	16’000 measurement values
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 can shorten battery life
Battery type	Lithium-Metal batteries (non-replaceable), UN3091 (contained in equipment)
Display	Multifunction LCD, size: 42 x 20 mm
Certificate	Calibration certificate (3-points)
Traceability	Unique ID number (traceable to component level)
Reporting	Real-time visibility and notification about temperature excursions via an ELPRO cloud solution
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 | ICES | RoHS | UN38.3 | WEEE
Standards	EN 12830 | RTCA DO-160 (EMC) | GAMP5