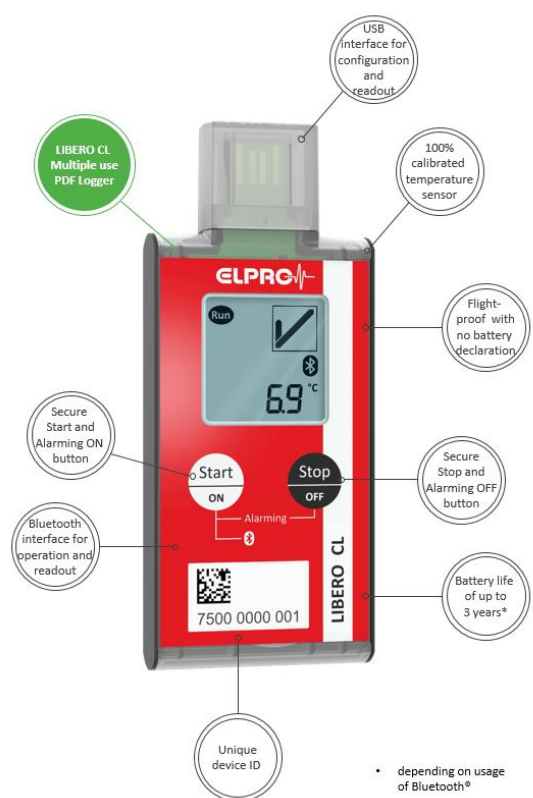# LIBERO CL

Multi-Level and Multi-Use PDF Logger with USB and Bluetooth® Interface with Internal Temperature Sensor

LIBERO CL is a highly versatile multi-use PDF-logger for shipment monitoring as well as monitoring of site and storage conditions. The internal temperature sensor is highly accurate and comes with a 100% sensor calibration. Supporting up to eight temperature alarm zones, MKT and duration as alarm criteria – LIBERO CL allows you to create temperature profiles for individual products. In addition, you have the option to switch the alarming function off and on again if alarming criteria is required. This can be useful in cases where for example a transportation box or refrigerator has to be cleaned.

LIBERO CL can store up to 75'500 temperature values and has a battery lifetime of up to 3 years (depending on usage of Bluetooth® interface). It can be ordered with an optional stainless steel bracket for easy mounting on your equipment. Release products with confidence based on the OK or ALARM status on the display and download the PDF report via the convenient USB interface without any additional software being required. Or use the logger's Bluetooth® interface to download the PDF to your smart device via LIBERO Cx BLE app available for iOS and Android, which you can also use to start or stop the logger without having to remove it from your equipment or consignment.

we prove it.

✚ SWISS QUALITY

> Monitors your valuable goods during transport or storage
> Highly accurate and 100% calibrated temperature sensor
> Simple and safe in use
> Compatible with ELPRO's liberoMANAGER cold chain database
> Alarming on and alarming off

Technical Specifications LIBERO CL

Type	PDF Logger with USB and Bluetooth® Low Energy (BLE) interface with internal temperature probe
Application area	Shipment container monitoring; round trip shipment monitoring; monitoring for rooms, refrigerators, freezers
Recording options and mode	Multiple use: start/stop or loop mode
Type of probe	Internal temperature probe
Measurement range	-30 °C..+70 °C
Measurement accuracy	±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..+70.0 °C
Measurement resolution	0.1 °C
Measurement interval	1 to 60 minutes, user configurable
Measurement capacity	75'500 measurement values (equals logging duration of 17 months at 10 minute logging interval)
Battery life	14 months to 3 years (depending on usage of Bluetooth® interface and ambient temperature below 0 °C)
Battery type	Button cell contained in equipment UN3091, exempt from DGR declaration Non-replaceable battery
Configurable alarms	8 temperature alarm zones with single or cumulative delays, Alarm on MKT, Alarm on duration/run time
Start-up delay	User configurable based on time or temperature
Display	Multifunction LCD, size: 22 × 22 mm (0.87 x 0.87 inch), with OK and Alarm indicator
Certificate	Validation and calibration certificate (3-points) available via compliance.elpro.com, optionally according to ISO 17025
Traceability	Unique ID number (traceable to component level)
Report	Built-in PDF file generator automatically establishes an evaluation report with embedded data upon connection to a USB port or when triggered in the LIBERO Cx BLE app connected via Bluetooth®. Complies with the ISO standard 19005-1 Document Management for the long-term preservation of electronic documents (PDF/A) and FDA 21 CFR Part 11. - Customizable report title and filename - Text area for additional information (e.g. shipment information, instructions for recipient, etc.) - Statistics (min/max, average, alarm, alarming on/off) and detailed logger information (ID, configuration, etc.) - Chart visualizing the temperature curve and alarm limits
Case | dimension | weight | IP code	ABS/PC plastic material | 95 × 41 × 11 mm (3.74 x 1.61 x 0.43 inch) | 39 g (0.1 lb) | IP54
Certifications | conformity	CE | FCC | ICES | RoHS | Safe Transport of Chemical Goods | WEEE
Standards and Guidelines	GAMP5 | RTCA DO-160 | EN12830
App for Smart Device	iOS and Android
Wireless connection to the App	Bluetooth® Low Energy (BLE)
Data logger configuration and additional analysis software	liberoCONFIG software to create, store and manage individual settings in a logger profile as well as SmartStart, a liberoCONFIG component allowing a safe and quick application of profiles and additional information to PDF Logger. elproVIEWER software to access and export embedded data of PDF report, for data analysis and comprehensive report features. Both software products can be downloaded at elpro.com/software-downloads. Fully compatible with liberoMANAGER database.

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