

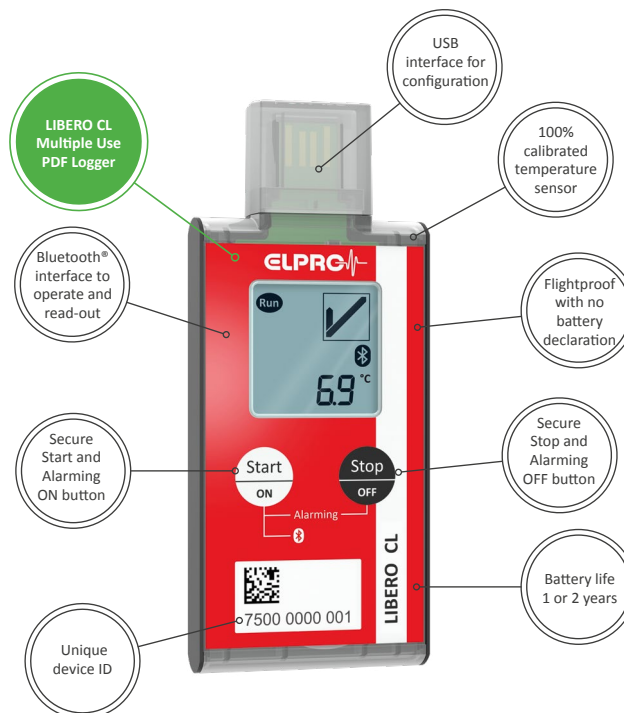


TECHNICAL SPECIFICATIONS

LIBERO CL

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

LIBERO CL is a highly versatile multi-use PDF data 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 a transportation container or refrigerator has to be cleaned. LIBERO CL can store up to 75,500 temperature values and has a battery life of 1 or 2 years. 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 Data 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	High-accuracy digital temperature sensor	
Measurement range	-30 °C.. +70 °C	
Measurement accuracy	typ. ±0.5 °C / max. ±1.0 °C for -30.0 °C..-20.1 °C typ. ±0.2 °C / max. ±0.5 °C for for -20.0 °C..-0.1 °C typ. ±0.2 °C / max. ±0.4 °C for 0.0 °C..+65.0 °C typ. ±0.2 °C / max. ±0.5 °C for +65.1 °C..+70.0 °C	Typical values of accuracy are relevant for >97% of all LIBERO CL.
Measurement resolution	0.1 °C	
Measurement interval	1 to 60 minutes, user configurable	
Memory capacity	75,500 measurement values (equals logging duration of 17 months at 10 minute logging interval)	
Battery life	LIBERO CL 2 years (in core range of 0 °C..25 °C, 14 months over full measurement range) LIBERO CL-Y 1 year	
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 × 0.87 inch), with OK and ALARM indicator	
Certificate	Manufacturer validation certificate per delivery, production validation and 3-point calibration certificate (ILAC/NIST/ISO 17025 traceable, as manufacturer or ISO 17025 edition ¹⁾) per ID number via compliance.elpro.com , additional customer-specific calibration points optionally available (also according to ISO 17025 standard)	
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®. Compliant to standards ISO 19005-1 (document management, file format for long-term preservation, PDF/A) and FDA 21 CFR Part 11. - Customizable text areas (report title, filename, shipment information, instructions for recipient, etc.) - Extended statistics and logger information, chart visualizing the temperature curve and alarm limits	
Case dimension weight IP Code	ABS/PC plastic material 95 × 41 × 11 mm (3.74 × 1.61 × 0.43 inch) 39 g (0.1 lb) IP54	
Certifications conformity	CE UKCA FCC ICES RoHS Safe Transport of Chemical Goods WEEE	
Standards and Guidelines	GAMP® 5 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, including SmartStart, allowing a safe and quick application of profiles. elproVIEWER software to access and export embedded data of PDF report, for data analysis. Both software products can be downloaded at elpro.com/software-downloads . Fully compatible with liberoMANAGER database.	

¹⁾ Reported without customer contact information according to ISO 17025 7.8.1.3 due to data protection requirements.