



**LIBERO CH**

- > Multi-Use PDF Logger
- > Temperature and humidity
- > USB and Bluetooth Interface



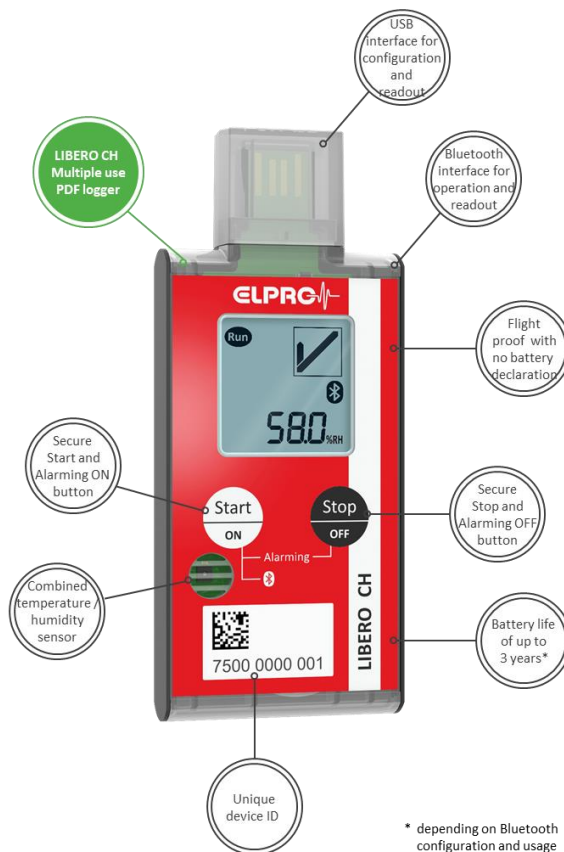
PRELIMINARY TECHNICAL SPECIFICATIONS

# LIBERO CH

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

LIBERO CH is a highly versatile multi-use data logger for shipment monitoring as well as monitoring of site and storage conditions. The internal combined temperature and relative humidity sensor comes with a 100% sensor calibration<sup>1</sup>. Supporting up to eight temperature alarm zones, 2 humidity thresholds, MKT and duration as alarm criteria – LIBERO CH allows you to create temperature/humidity 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 storage container has to be cleaned.

LIBERO CH can store up to 75'500 measurement values, 37'750 temperature and 37'750 humidity values, and has a battery lifetime of up to 3 years (depending on configuration and usage of the 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 via an 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**

\* depending on Bluetooth configuration and usage



- > Monitors your valuable goods during transport or storage
- > 100% calibrated temperature and humidity sensor<sup>1</sup>
- > Simple and safe in use and application
- > Compatible with ELPRO's liberoMANAGER cold chain database
- > Alarming on and alarming off

## Technical Specification LIBERO CH

<b>Type</b>	PDF Logger with USB and Bluetooth Low Energy (BLE) interface with internal temperature probe	
<b>Application area</b>	Site Monitoring, Container Monitoring, Round Trip Monitoring, Storage	
<b>Recording options and mode</b>	Multiple use: start/stop or loop mode	
<b>Type of probe</b>	Combined internal T/RH probe	
<b>Measurement range</b>	-30.0 °C..+70.0 °C, 0 %RH..100 %RH	
<b>Measurement accuracy</b>	<b>Temperature:</b> ±1.0 °C for -30.0 °C..-10.1 °C ±0.5 °C for -10.0 °C..-0.1 °C ±0.4 °C for 0.0 °C..+25.0 °C ±0.5 °C for +25.1 °C..+50.0 °C ±1.0 °C for +50.1 °C..+70.0 °C	<b>Relative humidity:</b> ±2.5 %RH for 0 %RH..90 %RH ±3.5 %RH for 90 %RH..100 % RH
<b>Measurement resolution</b>	0.1 °C, 0.1 %RH	
<b>Measurement interval</b>	1 to 60 minutes, user configurable	
<b>Measurement capacity</b>	37'750 temperature and 37'750 relative humidity values (equals logging duration of 8.5 months at 10 minute logging interval)	
<b>Battery life</b>	14 months to 3 years (depending on usage of Bluetooth interface)	
<b>Battery type</b>	Button cell contained in equipment UN3091, exempt from DGR declaration; non-replaceable battery	
<b>Configurable alarms</b>	8 temperature alarm zones with single or cumulative delays, 2 humidity thresholds with alarm delay, MKT alarm	
<b>Start-up delay</b>	User configurable based on time or temperature	
<b>Display</b>	Multifunction LCD, size: 22 × 22 mm (0.87 x 0.87 inch), with OK and Alarm indicator	
<b>Certificate</b>	Validation and calibration certificate available via compliance.elpro.com, optionally according to ISO 17025 <sup>1</sup>	
<b>Traceability</b>	Unique ID number (traceable to component level)	
<b>Report</b>	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 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	
<b>Case   dimension   weight   IP code</b>	ABS plastic material   95 × 41 × 11 mm (3.74 x 1.61 x 0.43 inch)   44 g (0.1 lb)   IP54	
<b>Certifications   conformity</b>	CE   FCC   ICES   RoHS   Safe Transport of Chemical Goods   WEEE   Technical Conformity Mark	
<b>Standards and Guidelines</b>	EN12830*   RTCA DO-160   GAMP5	
<b>App for Smart Device</b>	iOS and Android	
<b>Wireless connection to the App</b>	Bluetooth Low Energy	
<b>Data logger configuration and additional analysis software</b>	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 <a href="http://www.elpro.com/downloads">www.elpro.com/downloads</a> . Fully compatible with liberoMANAGER database.	

\* For details see: [Link](#)

<sup>1</sup> Available end of Q1/2021; until then only a validation certificate will be issued by default; customer-specific calibration (optionally according to ISO 17025) is available at extra costs.