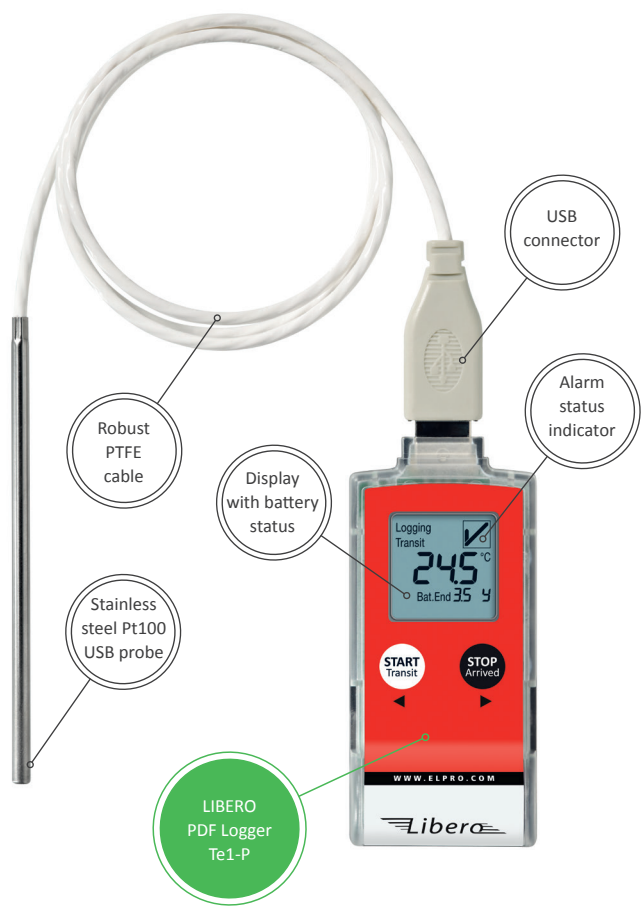- External probe
- Automatic PDF report

LIBERO Te1-P

ELPRO

LIBERO Te1-P

PDF Logger for External Pt100 Temperature Probe

LIBERO PDF Logger Te1-P covers a wide measurement range from -200 °C..+200 °C and allows monitoring of ultra-low freezers and cryo containers. Measure temperature close to the product with the external probe and see results and alarm status on the data logger display outside the monitoring area. No software is needed for data download; LIBERO Te1-P automatically generates a PDF report as soon as it is plugged into the USB port of any computer. The LIBERO PDF Logger is available in three versions: multiple use during two years (Te1-P); 400 days (Te1-PY); or single use (Te1-PS).

USB connector

OK and ALARM indicator

Additional information

Alarm status indicator

Multi-level alarm statistics

Robust PTFE cable

Display with battery status

Logging results and statistics

Stainless steel Pt100 USB probe

Temperature graph with alarm limits

LIBERO PDF Logger Te1-P

LIBERO Te1-P PDF Report

we prove it.

- **Monitors your valuable goods in ultra-low freezers and during transport in cryo containers**
- **Simple and safe, no software required for data download**
- **Compatible with liberoMANAGER cold chain database**
- **Observes compliance with GLP / GMP guidelines**

Technical Specifications LIBERO Te1-Px

Type	PDF Logger for external Pt100 temperature probe (probe not included)
Application area	Site Monitoring Systems, Container Monitoring Systems
Recording options and mode	**Multiple use:** start / stop or loop mode | **Single use:** start / stop mode
Type of probe	Any Pt100 probe, standard class A (IEC751), max. cable length 3 m (118.1 inch), requires USB or M8 connector
Measurement range	Measurement range of probe: -200 °C..+200 °C Operating range of data logger: -35 °C..+70 °C
Measurement accuracy	**Device:** ± 0.3 °C in the range of -10.0 °C..+25.0 °C ± 0.5 °C in the range of -200.0 °C..-10.1 °C as well as +25.1 °C..+200.0 °C **System accuracy** with a Pt100 class A probe: ± 0.4 °C in the range of -10.0 °C..+25.0 °C
Measurement interval	**Te1-P:** 5 to 60 minutes | **Te1-PY:** 2 to 60 minutes | **Te1-PS:** 1 to 60 minutes, user programmable
Memory capacity	16'000 measurement values
Battery life	**Te1-P:** 2 years by 6 min measuring interval | **Te1-PY:** 400 days by 2 min measuring interval **Te1-PS:** 100 days Non-replaceable battery | Use below 0 °C and above +40 °C can limit battery life
Programmable alarms	- 6 temperature alarm levels with single or cumulative delays - 2 temperature thresholds with alarm delay
Start-up delay	0 minutes to 24 h, user programmable
Display	Multifunction LCD, size: 23.5 x 23.5 mm (0.93 x 0.93 inch), with OK and ALARM indicator
Display functionality	- Status: Conf, Start, Logging, Stop - Current temperature measurement - Configuration profile identification - Remaining battery life in days - Statistical data (min, max, average) - Start and end marking functionality with START and STOP buttons
Report	Built-in PDF file generator automatically establishes an evaluation report with embedded data upon connection to an USB port. 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. equipment name, location, etc.) - Statistics (min / max, average, alarm) and detailed logger information (ID, configuration, etc.) - Chart visualizing the temperature curve and alarm limits
Case | dimension | weight	ABS plastic material | 102 x 40 x 19 mm (4.0 x 1.6 x 0.8 inch) | 45 g (1.59 oz) without probe
Accessories	LIBERO Stainless steel bracket, LIBERO Simple bracket, LIBERO Alarm bracket Variety of Pt100 temperature probes
Alarm output to Alarm bracket	Full functionality for audible and visual alarms (LED, buzzer) incl. internal relay for passing the alarm to an external system as GSM interface or telephone dialing unit.
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 to PDF Logger. elproVIEWER software to access and export embedded data of PDF report, for data analysis and comprehensive report features. Both software products are downloadable at www.elpro.com/downloads.

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