



LIBERO Ti1

Reusable Multi-Level PDF Logger

With its wide temperature measurement range, an unmatched accuracy, and a battery lasting for more than one year, the LIBERO Ti1 is a flexible option for various applications. End users can customize up to six alarm levels and add shipment- or project-specific information. After downloading the PDF report via any computer USB port, the LIBERO Ti1 can be immediately reused or reprogrammed with a completely new configuration – even a different temperature range. The multi-use capability of the LIBERO Ti1 significantly lowers cost per use, making the LIBERO Ti1 a versatile, cost-effective choice.

LIBERO Ti1 PDF report with multi level alarm criteria

Additional Information

This is an example PDF report of the LIBERO Ti1 with multiple temperature zones as alarm criteria representing stability data of the shipped product. In real shipments information for the recipient or shipment specific information e.g. Transportation Number, Country, Origin, or any other information making it easier to systematically analyze recorded data can be added here.

Device Configuration				
Type	Libero Ti1 V1.28	Inspection Range:	Last Transit to Arrived	
Logger ID:	10000008	Current Status:	Logging Arrived	
Log Interval / Duration:	3 m / 33.3 s	Remaining Battery:	228.6	
Log Mode:	Start/Stop	Report Time Base:	16.01.2013 17:01:36	
Report Time Base:	GMT +01:00	Checksum:	11111876191356	
Configured by:	C2015_ECT/Anastasia, 16.01.2013 16:41:05			
Alarm Zones				
Alarm Zones	Allowed Time	Total Time	No. of violations	Status
Z1: over 40.0 °C	0 s (0h)	0 s	0 / 0	OK
Z2: over 25.0 °C	60 s (0h)	0 s	0 / 0	OK
Z3: over 6.0 °C	24.0 h (0d)	60 m	4 / 0	OK
Z4: 2.0 to 6.0 °C	unlimited	35.5 h	0 / 0	OK
Z5: below 0.0 °C	12.0 h (0d)	0 s	0 / 0	OK
Z6: below 0.0 °C	0 s (0h)	0 s	0 / 0	OK

Logging Results

Highest Temperature:	10.7 °C, 16.01.2013 17:01:36	Transit Start at:	16.01.2013 17:01:36
Lowest Temperature:	2.5 °C, 17.01.2013 17:22:36	Arrived at:	18.01.2013 09:28:39
Average Temperature:	6.8 °C	Alarm at:	None
MKT		File created:	18.01.2013 09:48:52

Temperature graph with alarm limits

we prove it.



HIGHLIGHTS

- Simple and safe, no equipment, no software
- Used by major pharma companies and CROs worldwide
- Widest temperature measurement range of -35 °C..+70 °C
- Compatible with liberoMANAGER cold chain database
- Fully compliant with industry guidelines

Technical Specifications LIBERO Ti1

Type	PDF Logger with multiple alarm levels
Application area	Cold Chain Monitoring – applications with stability data or other allowed time / temperature excursions
Recording options and mode	Multiple use: start / stop or loop mode
Type of probe	Internal NTC probe
Measurement range	-35 °C..+70 °C
Measurement accuracy	± 0.2 °C in the range of -10 °C..+25 °C ± 0.5 °C in the range of -35 °C..-10.1 °C as well as +25.1 °C..+70 °C
Resolution	0.1 °
Measurement interval	1 to 60 minutes, user programmable
Memory capacity	16'000 measurement values
Expiry date and battery life	- 14 months shelf life - 400 days logging time
Certificate	14 month validation certificate
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
Display	Multifunction LCD, size: 23.5 x 23.5 mm, 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)
Report	Built-in PDF file generator automatically establishes an evaluation report with embedded raw 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. shipment information, instructions for recipient, etc.) - Immediate release or quarantine based on alarm status - Statistics (min/max, average, alarm) and detailed logger information (ID, configuration, etc.) - Chart visualizing the temperature curve and alarm limits
Traceability	ID number
Case dimension weight	ABS plastic material 95 x 40 x 12 mm (3.8 x 1.6 x 0.5 inch) 38 g (1.34 oz)
Accessory	LIBERO Simple Bracket
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 .