

LIBERO Ti1

- Multi-Level PDF Logger
- User configurable
- Reusable



TECHNICAL SPECIFICATIONS LIBERO Ti1

LIBERO Ti1

Reusable Multi-Level PDF Logger

LIBERO Ti1 is the most versatile reusable PDF Logger for any temperature monitoring application. With its wide temperature measurement range, an unmatched accuracy and a battery lasting for more than one year, the LIBERO Ti1 is the perfect reusable data logger. Supporting up to six alarm levels and the possibility to add shipment-specific information it allows for individual configuration by the user. After its monitoring task is completed, download the PDF report and easily reconfigure the logger with the same or a completely new configuration - LIBERO Ti1 is ready for its next monitoring task.

LIBERO Ti1 PDF report with multi level alarm criteria

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, Counter, 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:	10059189	Current Date:	Logging Arrived
Log Interval / Duration:	3 m / 33.3 s	Remaining Battery:	239 %
Log Mode:	Start/Stop	Start Date:	16.01.2013 17:01:36
Report Time Base:	GMT+01:00	Checksum:	111 / 1976.911.368
Configured by:	CS03, ECF/Carrollier, 16.01.2013 16:41:05		

Alarm Zones	Allowed Time	Total Time	No. of violations	Status
Z1: over 40.0 °C	0 s (0%)	0 s	0 / unlimited	OK
Z2: over 20.0 °C	60 h (sum)	0 s	0 / 0	OK
Z3: over 8.0 °C	24.0 h (sum)	60 m	4 / unlimited	OK
Z4: 2.0 to 8.0 °C	unlimited	35.5 h	0 / 0	OK
Z5: below 2.0 °C	12.0 h (sum)	0 s	0 / 0	OK
Z6: below 0.0 °C	0 s (0%)	0 s	0 / unlimited	OK

Logging Results			
Highest Temperature:	10.7 °C	16.01.2013 17:01:36	Transit Start at:
Lowest Temperature:	2.5 °C	17.01.2013 17:22:36	Arrived at:
Average Temperature:	4.8 °C		Alarm at:
Min:	5.0 °C		File created:
			16.01.2013 08:48:02

Temperature graph with alarm limits

we prove it.



- 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 (run time)	16'000 measuring data points	
Expiry date & 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	<ul style="list-style-type: none"> - Status: Conf, Start, Transit, Arrived - OK, ALARM or blank - Current temperature measurement - Configuration profile identification 	<ul style="list-style-type: none"> - Remaining battery life in days - Statistical data (min, max, average) - Start & end marking functionality with TRANSIT & ARRIVED buttons
Report	<p>Built-in PDF file generator automatically establishes an evaluation report with embedded raw data upon connection to a USB port. Complies with the ISO standard 19005-1 Document Management for the long-term preservation of electronic documents (PDF/A) and 21 CFR Part 11.</p> <ul style="list-style-type: none"> - 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) & 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	Simple bracket	
Data logger configuration	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 shipment information to PDF Loggers is downloadable free of charge.	