



- LIBERO CI**
- Multi-Level PDF Indicator
- Fully user configurable



TECHNICAL SPECIFICATIONS LIBERO CI

LIBERO CI

User configurable PDF Indicator with cold chain database in the cloud

LIBERO CI accepts any temperature profile at the time of use with up to eight alarm levels, MKT or duration as alarm criteria. No need to keep different indicators in stock, simply apply the correct temperature profile, add shipment information and send the indicator together with your product. Decide how much information should be visible for the recipient or if a simple OK or ALARM is all the recipient should see.

Follow all your shipments in the same database, both LIBERO CI Indicator and LIBERO CS and CB PDF Loggers are compatible with liberomanager, ELPRO's cold chain database.

USB Interface

Any configuration on one device

Secure Start/Stop button

Auto expiry date management

LIBERO CI PDF Indicator

OK and ALARM indicator

Shipment information

Multi-level alarm statistics

MKT and duration

LIBERO CI PDF Report

LIBERO Configuration					
Type:	LIBERO CI	Current State:	Stopped		
Device ID:	730000002	Start at:	14.Sep.2012 21:01:20		
Log Interval:	5 min	First Measurement:	14.Sep.2012 21:31:20		
Report Time Base:	UTC	Checksum:	12051687368258		
Configured by:	EOB2/ranner: 14.Sep.2012 07:43:17				
Alarm Zone					
Alarm Zone	Allowed Time	Total Time	No. of Excursions	Longest Exc.	Status
H2: over 40.0 °C	0 s (0)	0 s	0 / unlimited	0 s	OK
H1: over 30.0 °C	0 s (0)	30 min	1 / unlimited	30 min	OK
H1: over 20.0 °C	20.0 h (0)	0 s (0)	2 / unlimited	4 h	OK
0: 10.0 to 20.0 °C	unlimited	20.0 h			OK
L1: below 15.0 °C	20.0 h (0)	11.5 h	4 / unlimited	7.5 h	OK
L2: below 2.0 °C	0 s (0)	0 s	0 / unlimited	0 s	OK
MKT Limits and Maximum Duration					
Duration:	18.0 h				
MKT:	18.3 °C		none		
Logging Results					
Highest Temperature:	32.8 °C: 15.Sep.2012 04:51:20	Stop at:	17.Sep.2012 07:38:06		
Lowest Temperature:	11.6 °C: 16.Sep.2012 00:06:20	Alarm at:	none		
Average Temperature:	19.3 °C	File created:	17.Sep.2012 08:14:42		

we prove it.



- Simple and safe, no equipment, no software
- Quick implementation by any 3rd party anywhere
- Compatible with liberoMANAGER cold chain database
- 100% calibrated sensors and electronics
- Fully compliant with industry guidelines

Technical specifications LIBERO CI

Type	PDF Indicator with multiple alarm levels
Application area	Cold Chain Monitoring – applications without need for temperature graph or tabular data
Recording option	Single use
Type of probe	Internal NTC probe
Measurement range	-20 °C..+70 °C
Measurement accuracy	± 0.5 °C in the range of 0 °C..+25 °C ± 1.0 °C in the range of -10.0 °C..-0.1 °C as well as +25.1 °C..+50.0 °C ± 1.5 °C in the range of -20.0 °C..-10.1 °C as well as +50.1 °C..+70.0 °C
Resolution	0.1 °
Measurement interval & run time	1 to 60 minutes, user programmable, resulting in up to one year run time Typically 60 days with measurement interval of 10 minutes
Expiry date & battery life	<ul style="list-style-type: none"> - Auto expiry date management: After expiry, display changes status and indicator cannot be started anymore - Indicator can be started any time during shelf life of 12 months - Started indicator can perform a maximum of 8'800 measurements - Long time operating range: -10.0 °C..+50.0 °C for entire shelf life - Exposure to extreme conditions: 10 days at -20.0 °C and 10 days at +70.0 °C
Certificate	12 month certificate with reference to sensor calibration and indicator test results
Programmable alarms	<ul style="list-style-type: none"> - 8 temperature alarm levels with single or cumulative delays - 2 temperature thresholds with alarm delay - Alarm on MKT - Alarm on duration / logging time
Start-up delay	0 minutes to 24 h
Display	Multifunction LCD, size: 23.5 x 23.5 mm, with large OK and ALARM indicator
Display functionality	<ul style="list-style-type: none"> - Status: Conf, Start, Run (logging), Stop - Current temperature measurement - OK, ALARM or blank - Configuration profile identification
Report	<p>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 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) and detailed indicator information (ID, configuration, etc.) - Detailed indicator information (ID, configuration, etc.)
Traceability	ID number (traceable to component level)
Case / dimension / weight	ABS plastic material / 96 x 37 x 11 mm (3.8 x 1.5 x 0.5 inch) / 38 g (1.34 oz)
Indicator configuration	liberoCONFIG software to create, store and manage individual settings in an indicator profile as well as SmartStart, a liberoCONFIG component allowing a safe and quick application of profiles and shipment information to individual PDF Indicators is downloadable free of charge.