2019

THERMCO® PRODUCTS, INC

TEMPERATURE

monitoring / recording

Digital Thermometers / Data Loggers / Wireless Monitors

Dual Probe Vaccine Temperature Data Logger
w/ Software-Less Reporting

Exceeds CDC & VFC Data Logger Requirements for Vaccine Temperature Monitoring and Compliance

Thermco's new Dual Probe ACCRT8017 Data Logger is the most powerful logger to date. Designed to meet today's CDC's and VFC's requirements for vaccine storage and monitoring. Monitor both the refrigerator and freezer temperatures simultaneously or add the optional ACCRTAMB ambient temperature sensor and log the room temperature, and either a refrigerator or freezer. The ACCRT8017 can record 24 million records. Each record contains... date, time, sensor temp readings, sensor status: normal - hi alarm - low alarm – sensor failure, and battery status: charging or power level remaining. ACCRT8017 is a self-contained data logger that requires No PC Software to generate a complete Excel .CSV report. Large easy to read display for viewing both channels current-min-max temperatures plus time and battery status. Each data logger is certified, serialized and traceable to NIST from Thermco's own ISO17025 calibration laboratory, accredited by ILAC-MRA to assure accuracy and compliance with all regulatory requirements. (accreditation no. 69071)

ACCAF1 Flash-Alert SD Wi-Fi / Memory Card accessory for ACCRT8017 that will upgrade the data logger with the following functions... Wireless Email and SMS Alerts, 2 Daily Status Reports, and a Real-Time Dashboard via Web Browser.

FEATURES:

- *EXCEEDS Current CDC & VFC Requirements for Vaccine Storage And Monitoring*
- *NIST Traceable Certificate*
- *High Accuracy ±0.3°C (±0.6°F)*
- *Log 24 Million Readings on 2G Micro SD Card*
- *Data File in Excel .CSV Format*
- *Retrieve Data from Logger with Removable*
- *SD Memory Card or by USB cable to PC*
- *Logger Records Date, Time, P1 & P2 Temp, and Battery Level in .CSV file*
- *Logging Interval Selectable from 1 to 720 Minutes*
- *Detachable Shatter Proof Vaccine Size Bottle Probes*
- *Bottles Filled with Bio-Safe Glycol Buffer Medium*
- *Large LCD Display shows Current Min Max Temperature for each Sensor plus Time and Low Battery Indication*
- *User Adjustable Low and High Alarm Limits Setting for Each Sensor*
- *Audible and Flashing LED Alarm Indicators*
- *Temperatures in °C or °F*
- *Time in 12 or 24 Hour Format*
- *Flip Out Desk Stand*
- *Battery Life About 10 Months in Continuous Operation with no alarms*

CATALOG NO.	DESCRIPTION
ACCRT8017	Dual Probe Vaccine Data Logger to Monitor Refrigerator or Freezer. Includes... 2yr. NIST Traceable Certificate, 2 Vaccine Bottle Sensors, 2GB Micro SD Card, Micro SD Card Reader, MicroSD to SD card adapter, Mini USB Cable, 3 x AA batterys ,110v USB Power Adapter
ACCRTAMB	Optional: Ambient Room Temperature Sensor
ACCFA1	Optional: Flash-Alert SD Wi-Fi / Memory Card Provides SMS Alerts (Information and availability soon)

SPECIFICATIONS:

Measuring Range	External (Bottle Probe): -50 to 70°C (-58 to 158°F) Internal: 0 to 50°C (32 to 122°F)
Display Accuracy	±0.3°C (±0.6°F) Over Full Range
Display Resolution	0.1°
Display Reading Update	10 Seconds
Memory	Removable 2G Micro SD Card (Max: 4G)
Memory Capacity	24 Million Readings
Data Logging Interval	Once Per Minute to Once Per 720 Minutes User Option
Alarm Limit Setting Resolution	0.1°
Default Alarm Value	Low -10°C, High 50°C
Time Accuracy	±1 Second Per Day
Time Display Format	12/24 Hour Format User Option
Effective Calendar Period	2016 - 2099
Battery	1.5 Volt Type AAA x 3 Pieces
Battery Life	About 8000 Hours In Continuous Operation
	with No Alarm Triggered
Working Ambient Temperature	0 to 50°C (32 to 122°F)
Display Size	54(W) X 64(H) mm
External Sensor Cable Length	2000 mm
External Sensor Bottle Size	19.5 Dia. X 40mm (H) Pe Bottle
Product Size	83 (W) X 120 (H) X 26 (D) mm

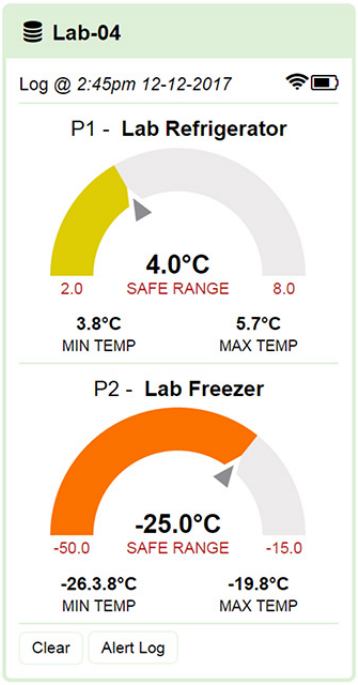
Flash-ALERT Wireless Email & SMS Alert Notifications
Upgrade Card for ACCRT8017

Catalog No. **ACCFA1**

Flash-Alert
SD Wi-Fi / Memory Card

Accessory for ACCRT8017 Data Logger
Upgrades logger with the following functions...

- **Wireless Email and SMS Alerts** temperature excursions, sensor failure, power loss, battery low, and recovery alerts
- ***No Monthly Subscription Needed !***
- **2 Daily Status Reports** current-min-max temperatures & battery level status
- **Real-Time Dashboard via Web Browser** as seen on right



Ambient Room Temperature Sensor
Accessory for ACCRT8017 Data Logger

Catalog No. **ACCRTAMB**

LogTag® Vaccine Temperature Data Logger with 30-Day Summary

Bio-Safe
Glycol / Water Bottle Medium

EXCEEDS CDC/VFC
Vaccine Monitoring Guidelines

The LogTag® TRED30-16R is a CDC / VFC compliant ISO/IEC 17025 NIST traceable temperature data logger used to monitor & record the temperatures of vaccines in refrigerators or freezers. The LogTag TRED30-16R measures and stores up to 15.9K readings over a temperature range of -40° to +99°C (-40° to +210°F) via external bottle probe. The display is designed to show "At A Glance" if temperature excursions have occurred during the current day and up to the previous 29 days. The display also shows the current temperature reading, the current time, recording status and battery status. The alarm is triggered if temperature readings are outside preset alarm limits. The status indicator changes from a ✓ to a ✕ and, if configured, the audible alarm will sound. The day marker will also appear if not already present. The alarm status indicator and audible alarm can be easily cleared, but the day marker remains to ensure a visible record of excursions is shown on the display. A simplified alarm clearance, stop & start procedure is available as an option. Details of any excursions in the preceding 30 days can be checked directly by inspecting the statistics history on the recorder's display or in more detail by downloading the logged data via a standard LogTag® Interface cradle to LogTag® Analyzer operating software.

Summary of TRED30-16R updates from previous model TRED30.

- *Built-in audible alarm.*
- *New, easy to read LCD display with 30 day summary in calendar format.*
- *Up to 15.9K recordings - Enough memory for 66 days at 6 minute logging.*
- *Auto-pause function - unplugging the external probe automatically suspends alarm & statistics processing.*

FEATURES:

- *NIST Traceable Certificate*
- *Data Logging – Records time and temperature data for later download*
- *Day alarm summary - Displays in calendar format alarms for the last 30 days*
- *Current time & temperature - Shows the current time and temperature when not in review mode*
- *Push Button Logging start with optional delayed start or specific Time & Date start*
- *Rapid Download! Takes only seconds to download recordings*
- *'Pre-Start' logging - LogTag® can be configured to record even if it has not been started*
- *High performance at low cost*
- *Thin flat case – Fits easily into packaging and thin enough to be easily mailed "letter rate"*
- *Real time clock records time & temperature simultaneously*
- *Easy to use LogTag Analyzer software that runs on any PC configures LogTag® for recording then downloads resulting data for analysis. Data can also be exported to fomats compatible with other applications such as Excel*

CATALOG NO.	DESCRIPTION
LTTRED3016R	Temperature Data Logger - 15.9K logs w/Probe and Vial Note: LTIUSB (USB Interface Cradle) required for operation
LTTRED3016RUSB	VFC Compliant Temperature Data Logger, w/Probe, Vial and USB Interface Cradle
LTISOLOGTEMP	ISO17025/IEC Accredited Temperature Calibration
LTIUSB	USB Interface Cradle
LTBRACKET	Wall Mount Bracket

SPECIFICATIONS:

Temperature Sensor Measurement Range	-40°C ~ +99°C (-40°F ~ +210°F)
Operating Temp Range	-30°C ~ +60°C (-22°F ~ +140°F)
Storage Temp Range	-10°C ~ +40°C (-14°F ~ +104°F)
Rated Temperature Reading Accuracy	±0.5°C (±0.9°F) for -20°C to +40°C (-4°F to +104°F), typically ±0.3°C (0.6°F) ±0.8°C (±1.4°F) for -40°C to -20°C (-40°F to -4°F), Typically ±0.5°C (0.9°F)
Rated Temperature Reading Resolution	0.1°C (0.2°F) for measurements -40°C to +50°C (-40°F to +122°F) Please see the Rated Native Resolution chart above. LogTag Analyzer® currently displays to one decimal place of °C or °F. The native resolution is what is stored in the LogTag®.
Recording Capacity	15.9K temperature readings. 66 days @ 6min logging. Day summary statistics memory (for display on LCD): up to 30 days of Max/Min/duration and alarm trigger statistics.
Sampling Frequency	Configurable from 30 seconds to hourly.
Sensor Reaction Time	Typically less than 2 minutes (T90) in moving air
Logging Start Options	Push button start or specific date & time. Optional start delay of up to 18 hours.
Recording Indication	State indicator REC
Download Time	Typically less than 10 seconds for full memory
Environmental	IP61 (when vertically mounted or hung).
Power Source	3V CR2032 (LiMnO2) coin cell battery, user replaceable
Battery Life	Typically 1 year of operation.
Size	93mm(H) x 54.5mm(W) x 8.6mm(T)
Weight	41 grams without External Probe
Case Material	Polycarbonate
Standard External Probe Cable Lengths	Standard: 1.5m (4'11"). Extended: 3m (9'10") (recommended maximum).
External Probe Type	PTFE (FDA food contact rated) coaxial.

Vaccine Temperature Data Logger

Software-Less Reporting Generation

Record Room Temperature and Refrigerator (or Freezer) Simultaneously

FEATURES:

- *EXCEEDS Current CDC & VFC Requirements for Vaccine Storage And Monitoring*
- *NIST Traceable Certificate*
- *High Accuracy ±0.5°C (±1.0°F)*
- *Log 24 Million Readings on 2G Micro SD Card*
- *Data File in Excel .CVS Format*
- *Retrieve Data from Logger with Removable SD Memory Card or by USB cable to PC*
- *Logger Records Int/Ext Min/Max Temps into Memory*
- *Logging Interval Selectable from 1 to 720 Minutes*
- *Detachable Shatter Proof Vaccine Size Bottle Probe Filled with BioSafe Glycol*
- *Large LCD Display shows Internal / External Current Min/Max Temps, Time and Battery Strength*
- *User Adjustable Low and High Alarm Limits Setting for Each Sensor*
- *Audible and Flashing LED Alarm Indicators*
- *Temperatures in °C or °F*
- *Time in 12 or 24 Hour Format*
- *Flip Out Desk Stand*
- *Battery Life About 10 Months in Continuous Operation with no alarm triggered*

Thermco's new ACCRT8002 Data Logger is the most powerful logger designed to meet today's CDC's and VFC's requirements for Vaccine Storage and Monitoring. The ACCRT8002 is a SELF CONTAINED DATA LOGGER that requires NO PC SOFTWARE to generate a complete Excel CVS report. Monitor both the Ambient Room and Refrigerator (or Freezer) Temperatures Simultaneously.
Large Easy to Read Display for viewing the current Room and External Bottle Probe Temperatures -- Min and Max Recorded Temperatures -- Time and Battery Strength.
Each Thermometer is Certified, Serialized and Traceable to NIST in Thermco's own ISO17025 Calibration Laboratory, accredited by ILAC-MRA to assure accuracy and compliance with all regulatory requirements. (Accreditation No. 69071)

CATALOG No.	DESCRIPTION
ACCRT8002	Ambient - Refrigerator/Freezer Vaccine Data Logger w/ Vial & Probe, Mini USB Cable, 110v USB Power Adapter Micro SD Card, USB Card Adapter

SPECIFICATIONS:

Measuring Range	External Bottle Probe: -50 to 70°C (-58 to 158°F) Internal Unit Sensor: 0 to 50°C (32 to 122°F)
Display Accuracy	±0.5°C (±0.9°F) Over Full Range
Display Resolution	0.1°
Display Reading Update	10 Seconds
Memory	Removable 2G Micro SD Card (Max: 4G)
Memory Capacity	24 Million Readings
Data Logging Interval	Once Per Minute to Once Per 720 Minutes User Option
Alarm Limit Setting Resolution	0.1°
Default Alarm Value	Low -10°C, High 50°C
Time Accuracy	±1 Second Per Day
Time Display Format	12/24 Hour Format User Option
Effective Calendar Period	2014 - 2099
Battery Life	About 8000 Hours In Continuous Operation With No Alarm Triggered
Battery	1.5 Volt Type AAA x 3 Pieces
Working Ambient Temperature	0 to 50°C (32 to 122°F)
Display Size	70(W) X 64(H) mm
External Sensor Cable Length	2000 mm
External Sensor Bottle Size	19.5 Dia. X 40mm (H) Pe Bottle
Product Size	94 (W) X 110 (H) X 25 (D) mm

Fridge-tag® 3 Wireless
Vaccine Temperature Data Logger

Receive Real-time Temperature Excursion Alerts via SMS Notifications

Software-Less PDF Generation of Temperature, Alarm Data Plus Graphs

FEATURES:

- *NIST Traceable Certificate*
- *Removable Probe*
- *True Seal Flat Ribbon Probe Cable*
- *Bio-Safe Glycol / Water Probe Medium*
- *Current Temperature Display*
- *No Software Needed for Reporting or Computer Connection*
- *30 Day Status on Screen*
- *Press for 30-Days of Min/Max History*
- *PDF report... 60 days of temperature & alarm data*
- *High/Low Alarm*
- *43,200 Temperature Observations Monthly*
- *Meets FDA 21 CFR Part 11 requirements*
- *Accuracy ±1°F (0.5°C)*
- *Weekly Graphs*
- *4 graphs – Each with 1 Week of Tempearture Data*
- *56 Days of Information*
- *Date in USA Format*
- *Date of Activation*
- *Give State Health Departments a warning when a device will be out of calibration*
- *Battery Level Indicator*
- *Showing Full, Middle and Low*

Fridge-tag® 3 is the ideal Temperature Data Logger for the continuous monitoring of sensitive Vaccines and Pharmaceuticals stored in medical refrigerators & freezers.
Real-time SMS text messaging notifications of temperature excursion are transmitted wirelessy by Celluar GSM (Global System for Mobile communication). The Fridge-tag® 3 is not dependent on Wi-Fi and local networks in order to send sms messages, and even during power outages can send critical Alerts to your Cell Phone. No software needed to generate temperature & alarm data. As soon as the Fridge-Tag® 3 is connected via USB to a PC or Mac it creates a PDF and an .CSV file. The PDF file provides a daily summary of temperature activity (selectable: 28, 56, 84 or 112 day overview) PLUS 8 weekly graphs of temperature performance. Temperature readings are recorded every 5 minutes and can be found in a table within the TXT file. Thanks to the electronic signature the raw data can be verified as compliant with FDA regulations 21 CFR Part 11. This means that each month you obtain a report and the assurance that your temperature-sensitive goods are stored in accordance with regulations. The data logger's external thermometer probe is sealed in a Bio-Safe glycol filled bottle to buffer temperature variations. Meets and exceeds the latest VFC CDC requirements published in the Guidelines for Storage and Temperature Monitoring of Refrigerated Vaccines

CATALOG No.	DESCRIPTION
BERFRIDGETAG3	Wireless Vaccine Data Logger, NIST Traceable Certificate, Vial & Probe Note: 2 year data plan required for SMS Alerts

SPECIFICATIONS:

External Dimensions	(L x W x H) 136 x 98 x 21 mm
Size of the LCD Display	95 x 27 mm
Weight	170 g
Storage Condition	(inactive) 0°C to +30°C +32°F to + 86°F
Operating Temperature	(Main housing) +5°C to +50°C* +41°F to +122°F (Display visible) -10°C to +55°C +14°F to +131°F
Alarm Temperature Range	-30 to +50°C in 0.1°C increments (-22 to +122°F)
Alarm Limits	2 individually programmable alarm limits (1 upper and 1 lower alarm limit)
Warning Limits	2 individually programmable alarm limits (1 upper and 1 lower alarm limit)
Alarm Time	1 Minute to 23h 59min
Temperature measurement interval	Every minute (Log interval programmable. Recommended 5, 10, 15 minutes)
Accuracy of temperature measurement	+/- 0.8°C from -25 to -10°C (+/-1.44°F from -13 to +14°F) +/- 0.5°C from -10 to +40°C (+/-0.9°F from +14 to +104°F) +/- 0.8°C from +40 to +55°C (+/-1.44°F from +104 to +131°F)
Measurement accuracy of the time	Daily time updates (depending on network operator) if not supported +/- 30 min / year
Calibration	Every device is calibrated / NIST / ILAC traceable
Memory Space	30 day as a display and 60 days overview in a PDF report
Date / Time programming	Date and time will be set automatically when device is activated (via GSM network)

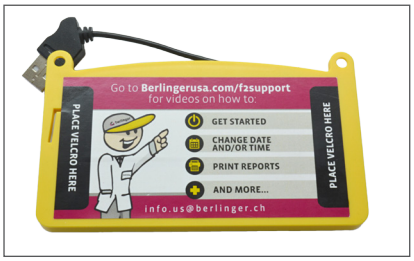
Battery	Lithium Polymer Li-ion battery - Complies with IATA DGR Packaging Instruction UN3481 PI 967 section II and is therefore not considered as dangerous good.
Protection Class	IP50 (IP64 without external sensor)
2D Code on Label	GS1 and data matrix
Operating Lifetime	Min. 3 years useful life / at least 72 hours power back up
Activation	Press SET and READ button simultaneously for more than 3 seconds
Stopping	No stop function
Configuration	Pre-set by Berlinger & Co AG or for self configuration via SMS or server
Data Communication	Optional: To be pushed on a regular interval to a predefined server
Alarm Indication	Buzzer, SMS or server
Manipulation	Fridge-tag® 3 GSM cannot be manipulated or reset without destroying it.
Format of the original document	ASCII (it can also be imported by many ERP systems) / PDF
Free software for verifying PDF and ASCII Files	JAVA™ / The software verifies the digital signature of the ASCII and PDF files. FDA regulation 21 CFR Part 11 compliant. Software is compliant with GAMP 5 requirements.
Standards	ASTM 2500, 21 CFR Part 11, 21 CFR Part 820, ICH Q8/Q9, ANSI/IEEE 829/830/1008, EN 12830, 2002/95 EC Directive (RoHS), EN/IEC 60529 IP protected classes, IATA Regulations, EN 301511, EN 301489-1/7, EN 60950-1 + A2:2013, EN 62133, FCC part 15B

Fridge-tag® 2L Vaccine Data-Logger

Software-Less PDF & Graph Report Generation

3 Year NIST Traceable Certificate & Updated Features (in red)

Fridge Model Shown w/ Yellow Label
Freezer Model Shown w/ Blue Label



Exact measurement of temperature and time

The Fridge-tag® 2L is a high-precision, electronic temperature monitor. It is 100% calibrated and has a measurement precision of ±0.5°C. Temperature measurement occurs every minute throughout the entire monitoring time. This guarantees faultless and extremely accurate measurement results. Even if an alarm limit has been exceeded and the Fridge-tag®2L alarm is displayed, it accumulates each additional temperature threshold violation. The precision time measurement is generated by a built-in quartz clock. NIST/ILAC Traceable with 3yr. Certificate.

Data read-out without software via USB

As soon as the Fridge-tag® 2L is connected via USB to a PC or Mac, it creates a PDF or an ASCII file. Thanks to the electronic signature the raw data can be verified to be in compliance with the FDA regulations 21 CFR Part 11. Any changes are immediately recognized and the document rejected. This means that each month you obtain a report and the assurance that your temperature-sensitive goods are stored and recorded in accordance with regulations.

FEATURES:

- ***NIST Traceable with 3yr, Certificate***
- ***Audible Alarm***
- ***Now with Weekly Temperature Graphs***
- ***Improved Battery Life***
- ***Battery Level Indicator***
- ***Improved LCD Contrast***
- ***Daily Verification Log w/Time-Stamp***
- ***Longer Sensor Cable 62" (optional)***
- *Removable Probe*
- *True Seal Flat Ribbon Probe Cable*
- *Bio-Safe Glycol / Water Probe Medium*
- *Current Temperature Display*
- *No Software Needed for PDF Reporting*
- *30 Day Status on Screen*
- *Press for 30-Days of Min/Max History*
- *High/Low Visual Alarm*
- *43,200 Temperature Observations Monthly*
- *Meets 21 CFR Part 11 requirements*
- *Accuracy ±0.5°C (1.0°F)*

CATALOG No.	DESCRIPTION
BERFRIDGETAG2L	Fridge - Vaccine Data Logger, Alarm Setting >8.0°C for 60min. & <2.0°C for 15 min. User configurable alarms.
BERFREEZTAG2L	Freezer - Vaccine Data Logger, Alarm Setting >-15.0°C for 60 min. Factory alarm set; non-configurable.

SPECIFICATIONS:

External dimensions (L x W x H)	128 x 75 x 14.5mm
Size of the LCD display	95 x 27mm
Weight	96g
Storage condition (inactive)	-30°C to +60°C / -22°F to +140 °F
Operating temperature (Display visible)	-30°C to +55°C / -22°F to +131 °F -10°C to +55°C / +14°F to +131 °F
Alarm temperature range	-30°C to +50°C, in 0.1°C increments / -22°F to +122°F
Alarm limits	2 individually programmable alarm limits (1 upper and 1 lower alarm limit)
Alarm time	1 Minute to 23h 59min
Temperature measurement interval	Every minute
Accuracy of temperature measurement	±0.5°C (-5°C to 30°C), ±0.6°C (beyond this range) ±1.0°F (+23°F to +86°F), ±1.1°F (beyond this range)
Accuracy of time	±30 minutes / year
Calibration	Every device is calibrated / NIST/ILAC traceable
Date/Time programming	Date and time will be set when device is activated (see operation manual)
Protection class	IP67
Operating lifetime	up to years - expiry date printed on label
Manipulation	Fridge-tag® 2 cannot be manipulated or reset without destroying it.

LogTag® Cryogenic Temperature Data Logger

FEATURES:

- *Built-in audible alarm.*
- *New, easy to read LCD display with 30 day summary in calendar format.*
- *Up to 15,900 recordings - Enough memory for 66 days at 6 minute logging.*
- *Auto-pause function - unplugging the external probe automatically suspends alarm & statistics processing.*
- *Record inspections at the push of a button.*
- *Interchangeable External Probe with high quality gold plated connector.*
- *Comprehensive customisation options including alarm settings, sample interval and trip duration*
- *NIST Traceable Certificate, not included, but available*

The LogTag® TREL30-16 cryogenic temperature data logger is excellent for monitoring & recording freezers, blood plasma, vaccines, pharmaceutical and more over a range of -80°C to +40°C (-112°F to +104°F) via external probe.

The TREL30-16 can store up to 15,900 temperature records – enough memory for 66 days at 6 minute logging.

The display is designed to show “At A Glance” if temperature excursions have occurred during the current day and up to the previous 29 days. The display also shows the current temperature reading, the current time, recording status and battery status.

The alarm is trigged if temperature readings are outside pre-set alarm limits. The status indicator changes from a □ to a X and, if configured, the audible alarm will sound. The day marker will also appear if not already present.

The alarm status indicator and audible alarm can be easily cleared, but the day marker remains to ensure a visible record of excursions is shown on the display. A simplified alarm clearance, stop & start procedure is available as an option.

Details of any excursions in the preceding 30 days can be checked directly by inspecting the statistics history on the recorder’s display or in more detail by downloading the logged data via a standard LogTag® Interface cradle to LogTag® Analyzer operating software.

CATALOG NO.	DESCRIPTION
LTTREL3016	Temperature Data Logger - 15.9K logs w/Probe Note: LTIUSB (USB Interface Cradle) required for operation

SPECIFICATIONS:

Product Model	TREL30-16 (Replaceable Battery).
External Sensor Measurement Range	-80°C to +40°C (-112°F to +104°F).
Operating Temperature Range	-20°C to +40°C (-22°F to +104°F).
Storage Temperature Range	-10°C to +55°C (14°F to +131°F).
Rated Temperature Reading Accuracy	Better than ±1.0°C for -30°C to +20°C Better than ±1.2°C for -45°C to -30°C and +20°C to +40°C. Better than ±1.7°C for -80°C to -45°C Actual performance is typically much better than the rated values. Please see the Rated Absolute Accuracy chart above. Accuracy figures can be improved by recalibration.
Rated Temperature Reading Resolution	Less than 0.1°C for -80°C to 0.0°C Less than 0.2°C for 0.0°C to +20°C Less than 0.5°C for +20°C to +40°C Please see the Rated Native Resolution chart above. LogTag Analyzer® currently displays to one decimal place of °C or °F. The native resolution is what is stored in the LogTag®.
Sampling Interval	Configurable from 30 seconds to hourly.
Logging Start Options	Push button start or specific date & time. Optional start delay of up to 18 hours.
Recording Indication	State indicator “REC".
Download Time	Typically less than 10 seconds for full memory (15,905 readings), depending on computer or readout device used.
Environmental	IP61 (when vertically mounted or hung).
Power Source	3V CR2032 (LiMnO2) coin cell battery, user replaceable.
Battery Life	Typically 1 year of operation. NOTE: Typical battery life assumes 6 minute logging, day statistics are reviewed on the display no more than once daily for no longer than 30 seconds each time. Download data monthly. NOTE: Continual activation of the audible alarm will reduce the working life of the battery. When an alarm is triggered, the alarm should be cleared and reset as soon as possible.
Real Time Clock	Built-in real time clock. Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.006ppm/°C I.e typically +/- 0.00294 seconds/day/°C).
Standard Remote Sensor Cable Length	Standard: 1.5m (4’11"). Extended: 3m (9’10") (Recommended maximum).
Remote Sensor Cable Type	PTFE (FDA food contact rated), coaxial.
Size	93mm(H) x 54.5mm(W) x 8.6mm(T).
Weight	41g without External Probe.
Case Material	Polycarbonate.

LogTag® Dry Ice Probe-Less Low Temperature Recorder

The LogTag® Dry Ice "Probe-less" Temperature Recorder operates, measures and stores up to 8000 temperature readings in temperature environments ranging from -80°C to +40°C (-112°F to +104°F)

Intended for use in transit monitoring of articles stored in packaging incorporating dry ice cooling.

Available in single trip (SRIL-8)

Using the LogTag® Interface Cradle and the freely available companion software LogTag® Analyzer, these are easily set-up for recording conditions including delayed start, sampling interval, number of readings, continuous or fixed number of readings and configuration of conditions to activate the 'ALERT' indicator.

The Red Alert indicator provides an immediate indication, without access to a PC, if any readings are outside the limits specified at the time the unit was configured.
Green OK indicator provides immediate visual confirmation, without access to a PC, that the unit is operating.

LogTag® Analyzer also provides facilities for charting, zooming, listing data statistics and allows exporting the data to other applications such as MS Excel once the data has been downloaded.

The product incorporates an external temperature sensor uniquely arranged in a recess in the case. This arrangement protects the sensor from physical damage while retaining the faster response time normally associated with remote sensors.

CATALOG NO.	DESCRIPTION
LISRIL8	Single use Dry Ice Probe-Less Low Temperature Recorder Note: LTIUSB (USB Interface Cradle) required for operation
SPECIFICATIONS:	
Recorder Operating Range	-80 ~ +40°C (-112°F ~ +104°F)
Temperature Accuracy	Better than ±1°C for -30°C~ +20°C better than ±1.2°C for -45°C~ -30°C & +20°C~+40°C better than ±1.7°C for -80°C~-45°C
Temperature Resolution	Less than 0.1°C for -80°C ~ 0.0°C less than 0.2°C for 0.0°C ~+20°C less than 0.5°C for +20°C ~+40°C
Capacity	8000 temperature readings (16Kbytes memory)
Sampling frequency	Adjustable, 1min to several hours
Download Time	Typically with full memory in less than 5 seconds depending on computer or readout device used.
Environmental	IP65
Power source	3V low temperature chemistry Lithium battery.
Battery life / Endurance	Minimum storage life of 12 months before 'start'. Single use version rated for a typical trip of 2 weeks duration at dry ice temperatures. Multi-use version is rated for up to a total accumulative exposure of 1000hrs @ -80°C across multiple trips.
Size	86mm(H)x54.5mm(W)x8.6mm(T)
Weight	35grams
Case Material	Polycarbonate
Interface & software	Operates with standard LogTag Interface cradles Requires LogTag Analyzer 2.2r20 or later.

HiTemp 135 Autoclave Temperature Data-Logger

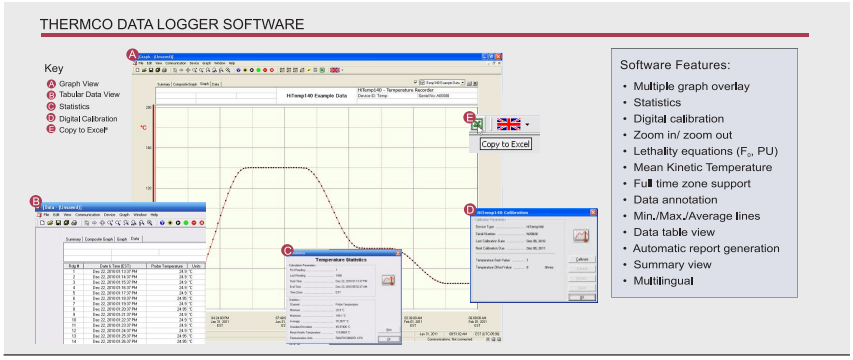
HiTemp 135 is a rugged, high precision, temperature data logger that is built for use in harsh environments.

This stainless steel device is submersible, can withstand temperatures up to 140°C (284°F) and has an accuracy of +/-0.1°C (0.18°F) over the entire operating range.

The HiTemp135 can store up to 32,700 readings, and features a 2" rigid external probe capable of measuring extended temperatures, up to 260°C (500°F).

Also the device records date and time stamped readings, and has non-volatile solid state memory that will retain data even if the battery becomes discharged.

Using the Thermco Software, starting, stopping and downloading the HiTemp135 is simple and easy. Graphical, tabular and summary data is provided for analysis and data can be viewed in °C, °F, K or °R. The data can also be automatically exported to Excel® for further calculations.



FEATURES:

- *±0.1°C (0.18°F) Accuracy*
- *Store up to 32,700 readings*
- *Operates Up To 140°C (284°F)*
- *Submersible (IP68)*
- *Rugged Stainless Steel Housing*
- *User Replaceable Battery*
- *Programmable start time*
- *Programmable stop time*
- *Engraved Label*
- *Probe Lengths Up To 7"*
- *Battery Life Indicator*
- *NIST Traceable Certificate, not included, but available*

BENEFITS:

- *Simple Setup and Installation*
- *Minimal Long-Term Maintenance*
- *Long-Term Field Deployment*

APPLICATIONS:

- *Autoclave Verification*
- *Implement HACCP Programs*
- *Food Preparation and Processing*
- *Environmental Studies*
- *Well Monitoring*
- *Dishwasher Testing*
- *Pasteurization*

CATALOG No.	DESCRIPTION
ACCHITEMP135	High Temperature Data Logger with a 2" probe
ACCHITEMP135FC	Same as above with NIST Traceable Certificate
ACCHITEMP135PT	High Temperature Data Logger with 24" Flex probe

ACCESSORIES:

ACCTIFC400	Docking station with USB cable, software and manual (required for operation)
ACCHITEMPBAT-2	Replacement battery for the ACCHITemp135
MGNIST	NIST Calibration Certificate

SPECIFICATIONS:

Temperature Sensor :	100Ω Platinum RTD
Probe Measurement Range :	-200ºC to +260ºC (-328ºF to +500ºF)
Temperature Resolution :	0.01ºC (0.02ºF)
Calibrated Accuracy :	±0.1ºC / ±0.18ºF (-20ºC to +140ºC / -4ºF to +284ºF)
Start Modes :	Software programmable immediate start Delay start up to eighteen months in advance
Stop Modes :	Manual through software Timed (specific date and time)
Real Time Recording :	May be used with PC to monitor and record data in real time
Password Protection :	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Memory :	32,700 readings
Wrap Around :	Yes
Reading Rate :	One second up to once every 24 hours
Battery Type :	3.6v high-temperature lithium battery included; user replaceable
Battery Life:	1 year typical (1 minute reading rate at 25ºC/77ºF)
Calibration :	Digital calibration through software
Calibration Date :	Automatically recorded within device
Data Format :	Date and time stamped ºC, ºF, K, ºR
Time Accuracy :	±1 minute/month at 20ºC to 30ºC (68ºF to 86ºF) (Stand alone mode)
Computer Interface :	IFC 400 USB docking station required 125,000 baud
Software ;	XP SP3/Vista/Windows 7
Operating Environment ;	-20ºC to +140ºC (-4ºF to +284ºF), 0%RH to 100%RH
Dimensions (Body) :	2.7" x 0.97" dia. (67mm x 25mm dia.)
Dimensions (Probe**) :	2" x .188" to .125" transitional dia. 50mm x 3.8mm to 3.2mm transitional dia.
Weight :	4.2 oz (120g)
Material :	316 Stainless Steel

CRYO TEMP -80 - Data Logger

Ultra Low Temperature Data Logger, records temperatures as low as – 80C. The Cryo-Temp –80 can be used in a broad line of applications such as monitoring blood plasma, vaccines , pharmaceuticals, frozen foods and shipping containers. This standalone device does not require any additional probes. The enclosure is designed with a handle for easy attachment and is IP64 splash resistant. It utilizes a USB docking station (sold separately), to communicate with a personal computer or laptop.

The Cryo-Temp –80 provides date and time stamped temperature readings and uses the Thermco Data Logging Software. The user can view the data in graphical or tabular form. High and low alarm limits and high and low warning limits can be programmed through the software. The user can set the alarm limits in the range required for the goods to be maintained. The warn limits can be set to alert the user when the temperature is nearing a high or low alarm limit, so that proper action can be taken to ensure the integrity of the goods.

The Cryo-Temp –80 is equipped with three LED's. The green LED will blink every 15 seconds while the recorder is logging data. The yellow LED will blink every 3 seconds when the temperature has breached the warning limits. The red LED will blink every 3 seconds when the temperature alarm limits have been exceeded. The Cryo-Temp –80 is the ideal temperature monitoring solution for any application involving ultra low temperature data logging.

CATALOG No.	DESCRIPTION
ACCCRY086	Cryo-Temp –80 Data Logger
MGNIST	Certificate Traceable to NIST, 1 Temperature
ACCTIFC300	Docking Station, USB Cable, Data Logger Software - XP SP3 / Vista / Windows 7, and Manual (required for operation)

SPECIFICATIONS:

Temperature Sensor:	NTC Thermistor
Temperature Range:	-86°C to +35°C recommended, may be used up to +55°C
Temperature Resolution:	0.1°C
Calibrated Accuracy:	±1.0°C
Reading Rate:	5 seconds to 30 minutes, selectable in software
Start Modes:	Software programmable immediate start, delay start up to 30 days in advance or manual start with magnetic switch
Temperature Alarm:	Software programmable high and low alarm limits, high and low warn limits each setpoint may be individually enabled or disabled
Alarm Delay:	Software programmable time delay for warn/alarm limits. Logger will not indicate out of range status until the temperature has been out of range for a for a set period of time.
Status Indicators:	Green- Blinks to indicate safe conditions during logging Yellow- Blinks to indicate warn limits have been exceeded Red- Blinks to indicate alarm criteria (limits/delay) have been exceeded
Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Battery Type:	3.6V lithium battery (LTC-7PN), factory replaceable only
Battery Life:	2 years typical @ 25°C, 1 min. reading intervals 1 year typical @ –80°C, 1 min. reading intervals
Data Format:	Date and time stamped °C, °F, K, °R
Time Accuracy:	±2 minutes/month max. at 20 to 30°C ±5 minutes/month max at –80°C
Computer Interface:	USB docking station to PC (IFC300) 38,400 baud
Software:	Vista/Win 7 8 10
Operating Environment:	-86°C to +35°C (may be used up to +55°C); 0 to 100% RH
Dimensions:	3.3" x 2.1" x 0.4" (83 mm x 54 mm x 11 mm)
Ingress Protection/IP:	IP65 (splash resistant, not submersible)
Enclosure:	ABS plastic, white, polycarbonate labeling
Weight:	1.4 oz (40 g)

LogTag® Humidity & Temperature Recorder

FEATURES:

- *Alert indicator – indicates if readings are outside of preset limits*
- *OK indicator indicates if still recording and if readings within configured limits*
- *Inspection mark in log by push button*
- *Push Button Logging start with optional delayed start or specific Time & Date start*
- *Rapid Download! Takes only seconds to download recordings*
- *Fine resolution of measurement – 0.1%RH & 0.1°C/°F*
- *'Pre-Start' logging - Logtag can be configured to record even if it has not been started.*
- *High performance at low cost*
- *Credit card sized case – thin enough to be easily mailed "letter rate".*
- *Real time clock records time & temperature simultaneously*
- *Easy to use LogTag Analyzer software that runs on any PC configures LogTag for recording then downloads resulting data for analysis. Data can also be exported to fomats compatible with other applications such as MS Excel*
- *Re-calibration to achieve higher accuracy possible*
- *Replaceable sensor air filter*
- *NIST Traceable Certificate, not included, but available*

The LogTag Humidity & Temperature Recorder measures and stores up to 8000 sets of high resolution humidity and temperature readings over 0 to 100%RH & -40°C to +85°C (-40°F to +185°F) measurement ranges. Using the LogTag Interface and LogTag's freely available companion software *LogTag Analyzer*, the LogTag is easily set-up for recording conditions including delayed start, sampling interval, number of readings, continuous or fixed number of readings and configuration of conditions to activate the *ALERT* indicator. Readings are downloaded using *LogTag Analyzer*, which provides facilities for charting, zooming, listing data statistics and allows exporting the data to other applications such as MS Excel.

CATALOG NO.	DESCRIPTION
LTHAX08	Data Logger Temperature and Humidity note: LTIUSB (USB Interface Cradle) required for operation
LTISOLOGRH	Temp Humidity Certification for LTHAX08
LTIUSB	USB Interface Cradle (required for operation)
LTBRACKET	Wall Mount Bracket

SPECIFICATIONS:

Humdity Measurement Range	0 ~ 100%RH but with limitations as detailed in Humidity Measurement Operating and Storage conditions below
Temperature Measurement Range	-40 ~ +85°C (-40 ~ +185°F)
Resolution	0.1%RH & 0.1°C/°F
Capacity	8000 pairs of humidity & temperature readings (32Kbytes memory)
Sampling frequency	adjustable, 30 sec to several hours
Logging start options	Push button start or specific date & time.
Recording indication	Flashing 'OK' indicator flashing 'Alert' indicator.
Download Time	Typically with full memory (8000 pairs of readings) in less than 10 seconds depending on computer or readout device used.
Environmental	IP61 (when hung or mounted vertically)
Power source	3V Lithium battery
Battery life	2 ~ 3 years of normal use (based on 15 minute logging, download data monthly)
Size	86mm(H) x 54.5mm(W) x 8.6mm(T)
Weight	35g
Case Material	Polycarbonate

Wall Mount Bracket
The LogTag® Wall Mount Bracket provides an easy and tidy solution to mounting a LogTag on a wall,door.

Interface Cradle
Logtag's unique interface cradle design provides rapid and reliable LogTag data transfer to Logtag Analyzer software in a matter of seconds

USB Temperature/Humidity Data Logger with Display

HICSSN-22 Data Logger is the perfect tool for stand alone or cold-chain monitoring and documentation of temperature and relative humidity conditions that are critical in laboratories, pharmaceutical, medical, storage, freezers, coolers, shipping containers, warehouses, environmental monitoring and food storage applications.

The HICSSN-22 can measures and record up to 16K temperature readings over -35 to +80°C (-31 to +176°F) and 16K relative humidity measurement from 0 to 100%RH.

The integral USB connector easily plugs into a computer for quick data analysis using the included DGraph software.

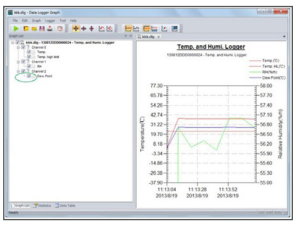
Real time monitoring of temperature and humidity values are displayed in the integrated LCD screen.

The data logger is supplied complete with a long-life lithium battery, which can allow logging for over 2 years, and configuration software, compatible with Windows XP / Vista / 7&8.

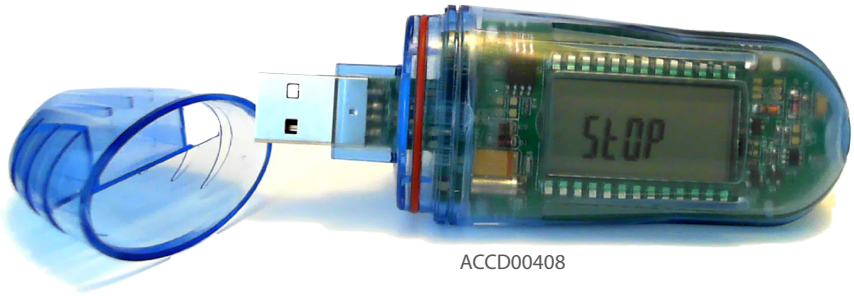
CATALOG No.	DESCRIPTION
HICSSN-22	USB Temp/Humidity Data-Logger w/Display
NIST22	NIST Certification for HICSSN-22 1 Temperature / 2 Humidity

SPECIFICATIONS:

	Relative Humidity	Temperature
Measurement range:	0~100%RH	-35~80°C (-31~176°F)
Accuracy:	±3%RH	±0.3°C (±0.5°F)
Resolution:	0.1%RH typically	0.1°C (0.2°F)
Long Term Drift:	<0.5%RH per year	Negligible
Number of Channels:	2 Channels ...humidity and temperature	
Memory Capacity:	64KBytes (total 32,000 readings for all channels)	
Sample Rate:	Can be selected from 10 seconds to 12 hours	
Operating Range:	0 to 100%RH, -35 to 80°C (-31 to 176°F)	
Alarm:	User programmable high or low alarm limit for each channel	
LEDs:	Red & Green LED: Logger Status indication.. Delay to Start, Logging, Alarm, Finished Yellow LED: Low battery indication	
PC Software:	DGraph software and USB driver Included on CD Compatible with Windows XP, Vista, 7&8 (32 bit & 64 bit)	
Power:	User replaceable 1/2AA 3.6V Lithium Battery Note: USB can supply power directly if necessary	
Battery Life:	Approx. 2 years @ 1 Minute Sample Rate Approx. 4 years @ 10 Minute Sample Rate Approx. 8 years without any sample task	
Case Material:	ABS	
Weight:	60g / 2.3oz	
Size:	12.5 * 4.3 * 2.7cm / 4.9 * 1.7 * 1.1in	

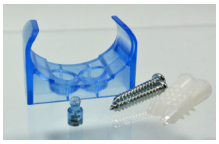


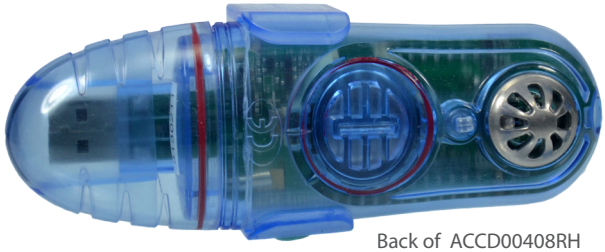
MICRO-THERM Temperature USB Data Logger



ACCD00408

Temperature & RH USB Data Logger





Back of ACCD00408RH

MICRO-THERM USB Data Loggers are small, rugged, waterproof and dust proof devices with LCD Display and built-in USB 2.0 connector for monitoring and recording temperature and/or RH. Manufactured to stringent standards, the MICRO-THERM loggers are only 4.3" long and 1" thick. The data loggers features a three digit LCD display, direct USB connection, wide temperature range, high accuracy and large 8K or 32K sampling memory. Features include analysis functionality such as Statistics Maximum, Minimum and Average, enabling a quick glance summary of the environment and historical analysis. Data can be displayed on the small numeric LCD screen or downloaded to PC via the USB 2.0 connector. To further ensure easy global usage, the battery is easily replaceable since it is a standard model used worldwide. Typical applications for this product include food, pharmaceutical, medical, storage and transportation industries.

FEATURES:

- *Range -40 to 80ºC, (-40 to 176ºF)*
- *High Resolution 16-Bit Logger*
- *High Accuracy 0.3°C*
- *High Sampling Rate of 1 per Second*
- *High functionality low cost multi-trip logger for an unbroken cold chain*
- *USB 2.0 interface for fast track communication and firmware updates*
- *Unique Boomerang feature that automatically creates and emails PDF data report when logger is connected to PC*
- *Rapid data download to Graph, Table view and Excel spreadsheet*
- *Built-in LCD with decimal point readings and LED alarm indicator*
- *High accuracy sensors with 16-bit resolution*
- *2-year battery life, using Nano Watt Technology*
- *Up to 8,000 & 32,000 sample memory accommodating long-haul transports*
- *Reed switch using magnet key to mark time stamps, activate and stop logging*
- *Built-in real-time clock and calendar*
- *Dust and water proof*
- *Cradle wall mounting for fixed monitoring*
- *Includes Mirco-Therm Lite Software and Manual*
- *NIST Traceable Certificate, not included, but available*

SPECIFICATIONS:

	CATALOG No. ACCD00408	ACCD00408RH
Range:	-40 to 80°C Temp	-40 to 80°C Temp 5 to 95 % RH
Accuracy:	0.3°C Temp	0.3°C Temp 2% RH
Resolution (16-bit):	0.1°C (Display) 0.06°C (Software)	0.04°C (Display) 0.06°C (Software) RH: 0.5%
Data Capacity:	8,000 Samples	32,000 Samples
Sampling Rate:	1 per second to 1 every 2 Hours	1 per second to 1 every 18 Hours
Boomerang Feature:	No	Yes
Alarms:	None	LED Indicator
Battery Life:	~ 1.5 Years	~ 2.0 Years
Dimensions with Cap:	11cm x 3.9cm x 2.6cm (4.3" x 1.5" x 1.0")	11cm x 3.9cm x 3.0cm (4.3" x 1.5" x 1.2")
Compliance:	IP68, EN12830, CE	IP54, EN12830, CE
Wall Mount:	No	Yes

Outputs:	USB 2.0 interface
Weight:	45.5 grams (1.6oz)
Display:	3-digit 7-segment LCD with decimal point
Indicator:	Low battery Warning
Battery:	Replaceable 3V Lithium Battery - CR2032
Software:	Micro-Therm Lite for Windows (Included)

LCD Display: When exposed to temperatures below 5°F (-15°C) Liquid Crystal Displays (LCD) lose contrast and their refresh rate slows. This may result in illegible readings shown on the display. The decline of the LCD function does not affect the sensor recording temperature and the correct values are captured.

Low Cost USB Cold Chain Data-Logger

Portable, Low Cost, Disposable

FEATURES:

- *Low cost, one-trip, disposable logger for an unbroken cold chain*
- *Internal, high accuracy temperature sensor*
- *Unique Boomerang feature that automatically creates and emails PDF data report when logger is connected to PC*
- *Direct USB interface for PC communication*
- *16,000 sample memory accommodating long-distance transports*
- *Software-enabled activation button to start logging and mark time stamps*
- *Built-in bi-color LED for logging and immediate alarm indication*
- *Supported by the complimentary DataSuite software for data analysis and alarm notification*
- *Up to 6-month battery life depending on operating conditions*
- *Water and dust resistant IP67*

NEW RELEASE

webboomerang™

The New PicoLite Cloud Solution

Sending Trip Reports Just Got Easier!

PicoLite typical operating method

1 Record data using built-in temperature sensor

2 USB data download to PDF report with automatic email

3 Data analysis using integrated DataSuite software

Effective cold chain processes require control over the quality of perishable goods and compliancy with the highest industry standards. The compact and easy-to-use disposable PicoLite USB data logger provides a simple solution for temperature monitoring, throughout mass transportation cold chain processes. Featuring a built-in temperature sensor, activation button, bi-color LED and direct USB connectivity, the PicoLite offers a plug and record solution for every application. The PicoLite is configured by using the intuitive DataSuite software, offering comprehensive data analysis features and alarm notifications. By reducing overhead related to more complex multi-trip loggers, the PicoLite meets the challenge of combining low cost with reliability for one-trip, value-for-money data logging.

CATALOG No.	DESCRIPTION
ACCDPICOLITE	PicoLite Cold Chain Data-Logger

SPECIFICATIONS :

Temperature Range	-40 ˚C to 40 ˚C
Accuracy	0.5 ˚C
LED Indicator	Bi-color LED for sampling and alarm indication
PC Communication	USB 2.0 compliant
Sample Memory	16,000 samples
Sampling Rate	Once minute to once every 18 hours
Battery Life / Type	Up to 6 months depending on operating conditions / CR2032
Dimensions	74 mm x 30 mm x 13 mm
Weight	15 g
Compliance	CE, EN12830, IP67

DataSuite Software for PicoLite

DataSuite is a modular software platform, simultaneously supporting multiple fourtec monitoring solutions:

- Software GUI based on proven fourtec platforms
- Multiple data view features
- Alarm features with 2 alarm levels, sending email and SMS notifications
- Reporting module for creating and generating reports with selected distribution
- Analysis features including histogram and statistics with export to Excel and CSV formats

Supported Operating Systems: Windows® XP SP3 / Vista / 7 (32 and 64 Bit)
Minimum Hardware Requirements: Pentium 4.2 GHz Processor or better, 512 MB RAM, 250 MB available disk space

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