# STAY CONNECTED!

2019 **NEW PRODUCT** 





MARATHON

RODUCTS, INC.

TEMPERATURE MEASUREMENT & CALIBRATION SPECIALISTS



**BLUETOOTH** 





**WIRELESS** 





**ETHERNET** 



**SERIAL** 

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## Don't ship without us!®



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## Marathon Products, Inc.

arathon Products is a leading designer and manufacturer of precision temperature sensors. Our digital data capture devices encompass a wide spectrum of shipping, storage and stationary applications. For nearly 30 years we have helped Fortune 500 companies safeguard the cold chain by furnishing precise, reliable, cost-effective, multi- and single-use monitors tailored to our clients needs. Our state-of-the-art data loggers can measure/document real-time temperature, humidity, CO<sub>2</sub> and vibration via local stand-alone and multiple wirelessly connected (remote) monitoring locations.

Our innovative data collecting instruments cover cryogenic to high-temperature applications. The EDL-CO<sub>2</sub> Dry ice data loggers are used by leading research and semiconductor manufacturers around the world.

Current valued clients include research organizations, government laboratories, blood banks, IVF clinics, chemical, semiconductor manufacturers, pharmacies, food and logistic companies. Blood banks and vaccine companies routinely rely on our precision sensors due to their proven reliability, ease-of-use and optional availability of FDA 21 CFR compliant software. Marathon data loggers are often the last critical QC gate before a product is accepted, administered or consumed in the manufacturing process.

Please visit our website to see the new line of longrange Bluetooth data loggers that allow users to instantly connect to Android smart phones and transmit PDF data files. Our NFC data loggers can be easily programmed and interrogated using Android phones.

Features of our USB LCD devices include:

- Precision data capture analog/digital sensors
- RoHS and REACH certified components
- CE- conformed designs
- Traceability using our stringent internal standards and NIST certified instruments
- Marathon is ISO 9001-2015 BSI certified and our manufacturing partners TUV-qualified.

Thank you for your continued trust and confidence in our products and services.

Sincerely, Jon Nakagawa, CPA, CEO

## 2c\temp-Gen2™ Data Loggers

Temperature Data logger with USB Connectivity!

The 2c\temp-Gen2 multi-use data logger is a cost-effective solution for temperature monitoring of refrigerated vaccines, biological material, chemicals, pharmaceuticals and documenting the transportation of fruits and vegetables. Its convenient palm-sized design lets it fit into tight quarters.

It is a mid-range data logger with a 8k memory and a 3 year battery life. This is an excellent general purpose data logger.

Functions include: The internal thermistor accurately records time and temperatures for user-selectable readings in Celsius or Fahrenheit. The internal software is user programmable and provides the following features: start time delay, sampling intervals, high and low alarm values, recording status, and measurement data.

Visual alarms: It features the ability to program alarm limits. Should the temperature reach levels outside these limits, the onboard red LED will light until reset by the user. Operation is as easy as pressing the START button on the recorder.



## **Temperature Range**

-29° C to +72° C -20° F to +160° F

## **Temperature Accuracy**

(NIST-traceable) ±0.5°C at 20° ±1.0°C at extremes

#### Measurement intervals

2 seconds to weeks

### Memory EEPROM, Storage

8k memory, (8,000 data points)

#### Computer ready:

MDAS is used to read the logger. It runs on Windows 2000, XP. Vista, 7 & 10. To download recorded information, simply plug the unit into the standard USB port of your PC. The software is available as a separate accessory item.

#### SKU# 8006 2c\temp-Gen2 DATA LOGGER SPECIFICATIONS

Memory: EEPROM, 8k Storage (8,000 data points) -29° C to +72° C / -20° F to +160° F Temperature Range: Temperature Accuracy: ±0.5°C at 20°C / ±1.0°C at extremes ±0.9°F at 68°F / ±1.8°F at extremes

0.1°C / 0.2°F Temperature Resolution:

Measurement Intervals: Programmable from 2 seconds to weeks. Examples:

Temperature Sensor: NIST-traceable Precision Thermistor

High and Low Alarm Limits: LED indicator alarm set by temperature and time

Internal Clock Accuracy: Better than 2 minutes per month Computer Interface: USB Type A

Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data,

Firmware version, Serial number, Model type.

Software Required: MDAS Pro

**Power Source:** CR2032 lithium battery with

1 year operating life, 3 years shelf life.)

8.8 cm(l) x 3.49 cm(w) x 1.58 cm (h) / Size:

3.5 in.(l) x 1.38 in (w) x .0.62 in.(h)

Weight: 85 grams / 3.0 oz. 12 months Warranty: **CE Certified: CE Marking File** 



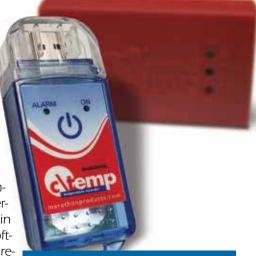
## c\temp-Gen2™ Data Logger

The Single-use Solution with USB Connectivity.

**c\temp-Gen2** is the revolutionary single-use pre-programmed electronic temperature recorder developed by Marathon Products. It is specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and documenting the transportation of fruits and vegetables.

**Functions include:** The internal thermistor accurately records time and temperatures for user selectable readings in Celsius or Fahrenheit. The internal software records the following: time measurements, start time, intervals, end description for special instructions, alarm values, recording status, measurement data, software version, serial and tracking number, model type and after the fact report generation options.

**Visual alarms:** All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these limits, the onboard red LED will light until reset by the user. To start the recorder, simply press the START button!



## **Temperature Range**

-29°C to 72°C / -20°F to 160°F

## **Temperature Accuracy**

±0.2°C from 0° to 10° C ±0.5°C at extremes

±0.4°F from 32° to 50° F

±0.9°F at extremes

#### **Measurement Intervals**

Pre-programmed from 1 minute to hours depending on model type (duration).

#### **Number of Measurements**

8K memory (7680 data pts.)

## Computer ready:

MDAS is used to read the logger. It runs on Windows 2000, XP, Vista, 7 & 10.

To download recorded information, simply plug the unit into the standard USB port of your PC. The software is available as a separate accessory item.



#### SKU# 8017 c\temp-Gen2 SPECIFICATIONS

Memory: EEPROM, 8k Storage (7,680 data points)

Temperature Range: -29°C to 72°C / -20°F to 160°F

±0.2°C at 20°C / ±0.9°C at extremes ±0.36°F at 32° to 50° F / ±1.8°F at extremes

Temperature Resolution: 0.1°C / 0.2°F

Temperature Accuracy:

Measurement Intervals: Pre-programmed from 1 minute to hours
Temperature Sensor: NIST-traceable Precision Thermistor

Indicators: Start/Stop and Alarm

Alarm Limits: LED indicator alarm set by temperature and time.

Computer Interface: USB Type A

Firmware Provides: Internal Clock, Start time, Interval, User description,
Alarm values, Recording status, Measurement data,

Firmware version, Serial number, Model type.

Software Required: MDAS

Power Source: CR2032 lithium battery with

1 year operating life, 3 years shelf life.)

Size: 8.8 cm(l) x 3.49 cm(w) x 1.58 cm (h) /

3.5 in.(l) x 1.38 in (w) x .0.62 in.(h)

Weight: 85 grams / 3.0 oz.

Quantity: Minimum 20 units. Your order is shipped on the

same day if the order is placed before 2 p.m. PST.

Recyclable: c\temp-USB recorders are designed for single use, and we encourage recycling. Please call Marathon Products for complete disposal or recycling instructions.

## c\temp-Gen2 -80C™ Data Loggers

The Single-use Solution with USB Connectivity.

Our new compact c\temp-Gen2 -80C dry ice data logger now comes with USB built-in so that downloading data is fast! Connect directly to your USB port and obtain real time and or stored -80°C readings immediately. Our time-tested dry ice loggers, used by Fortune 500 Companies globally, for dry ice shipments NOW comes with USB connectivity. Now connect immediately to your PC without having to worry about bringing the data logger to room temperatures. You asked and we delivered! This new product is IP66 rated for moisture prevention commonly associated with dry ice shipments.

Designed for measuring temperatures during the transportation of biologics, vaccines, chemicals, pharmaceuticals and ultra frozen products—this new product will surely satisfy your critical dry ice shipments.

The internal software provides the following features: time mechanism, start time, intervals, end descriptions details for special instructions, alarm values, recording status, measurement data, software version, serial numbers, model type and after the fact report generation options.



#### **Temperature Range**

-80°C to +30°C (-113°F to +86°F)

#### **Temperature Accuracy**

±0.2°C (±0.4°F) at 0° to 10°C (32 to 50°F); ±2.0°C (±1.8°F) at extremes

#### **Measurement Intervals**

Pre-programmed from 2 seconds.

## **EEPROM Memory**

8k

MDAS Software includes language conversion on the fly from English to: Spanish, German, Portuguese, Japanese, and French.

To Start the recorder, simply press the START Button!

#### SKU# 7045 c\temp-Gen2 -80C DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage: 8k, approximately 8,000 measurements
Temperature Range: -80C to +30C (-113F to +86F)

Temperature Accuracy: ±0.2°C at 20°C, ±0.9°C at extremes

±0.4°F at 68°F, ±1.8°F at extremes

Temperature Resolution 0.1°C (0.2°F)

Measurement Intervals: Programmable from 2 seconds per reading.

Temperature Sensor: NIST-tracable precision thermistor

Indicators: Start/Stop and Alarm

High and low alarm limits: LED indicator alarm set by temperature and time

Computer Interface: USB Type A

Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

Software Required: MDAS

Power Source: ER2450 lithium battery with

1 year operating life, 3 years shelf life.)

Size: 8.8 cm(l) x 3.49 cm(w) x 1.58 cm (h) / 3.5 in.(l) x 1.38 in (w) x .0.62 in.(h)

Weight: 85 g / 3.0 oz.

Probes No

Accessories: NIST Certificate = no charge

Optional NIST Certificate + 1, 2 or 3 Point

Calibration Available

Warranty 12 Months





MaxiLog-RH™

Single use device for all your pharmaceutical and biologic shipments. Don't Ship Without Us!

Now enjoy direct USB connectivity with **MaxiLog-RH**, our single-use, compact, temperature and humidity data logger! These devices are designed to measure critical temperature and RH profiles during shipment and storage. They are compact LCD devices, NIST-traceable and come with a certificate of conformance.

#### **Functions include:**

- Internal digital thermistor and RH sensor for user selectable readings in Fahrenheit or Celsius.
- LCD display for current temperature, RH and Run Times, and Over Alarm conditions.
- Alarm Values: All of our devices can be pre-programmed with delayed start and high/low alarm values.

This small compact USB temperature and RH logger is the ideal companion for all

your critical pharmaceutical and regulatory shipments. Its small compact size and precision sensors are ideal capture devices to ensure product specifications have been maintained during all your shipments.

The LCD will show current temperature and relative humidity as well as Run Time and Time over Alarm conditions.

## **Temperature Range**

-29° C to +72° C -20° F to +160° F

## **Temperature Accuracy**

(NIST-traceable) ±0.2°C from 0° to 10°C ±1.0°C at extremes

## Memory EEPROM, Storage

8k per sensor

When attached to our 21 CFR compliant software customers will find it ideal for all regulatory shipments needing precise environmental tracing for both temperature and humidity while in shipment or during stationary applications.

Time stamped data is easily viewed for both temperature and relative humidity.

Our specially prepared software will allow the logger to be automatically read once our free software is downloaded from our website. PDF files can then be easily created and e-mailed globally to all parties of interest.

#### SKU #7070: MaxiLog-RH SPECIFICATIONS

Memory EEPROM, Storage: 16k

Temperature Range: -20° C to +70° C / -4° F to +158° F

Temperature Accuracy: ±0.2° C from 0° C to 10° C, ±0.6° C at extremes ±0.36° F from 32° F to 50° F, ±1.1° F at extremes

Temperature resolution 0.1° C / 0.18° F

Temperature Sensor: Wired chip in glass thermistor

Humidity range 0 to 100%

Humidity accuracy +/- 2%, +/- 4% at extremes
Humidity and Temperature sensor Sensirion SHT-30

Measurement Intervals: User programmable from 2 seconds to months.

High and low alarm limits: LED indicator Computer Interface: USB 2.0

Internal Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

Power Source: Lithium Battery CR2032

Battery Life: 1 year operating, 3 years shelf life

Warranty: 12 months

Size: Length Width Depth

8.8 cm (3.5 in.) 3.5 cm (1.4 in.) 1.5 cm (0.6 in.)

Weight: 32 g (1.13 oz.)
Options: MaxiThermal2 software

USB Cable



## **3C\TEMP-ULTRA™**

Laboratory grade, high accuracy, multi-use temperature logger with real-time LCD display for instant acceptance or quarantine decisions.

**3C\TEMP-ULTRA** is a revolutionary, multi-use, user programmable, electronic temperature data recorder specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and for documenting the transportation of perishable commodities. It is NIST-Traceable and comes with Certificates of Conformance



#### Functions include:

- Internal Thermistor: accurately records time and temperatures for user selectable readings in Celsius or Fahrenheit.
- LCD display: Real-time viewing of Current temperature, Max/Min Temperature, Run Time, Alarm Status, and Recording.
- NFC-enabled

**Small Form Factor:** These units have an

extended battery life and can endure rough handling. The internal software records the following: time mechanism, start time, sampling intervals, end description for special instructions, alarm values, recording status, measurement data, software version, serial and tracking number, model type and after the fact report generation options.

**Visual Alarms:** All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these

## **Temperature Range**

-29° C to +72° C -20° F to +160° F

## **Temperature Accuracy**

(NIST-traceable) ±0.2°C from 0° to 10°C +1 0°C at extremes

## Memory EEPROM, Storage

8k per sensor

limits, the LDC will display "ALARM." To start the recorder, simply press the start button!

### **Computer Ready:**

Marathon's easy-to-use MaxiThermal2 software is available for Microsoft Windows 7. 8, 8.1 & 10. Simply plug the unit into a standard USB port on your PC. The Maxi-Thermal2 software and USB cable are available separately. Data can also be accessed using Marathon's Maxi-Thermal NFC Android App.

#### SKU #7048: 3C\TEMP-ULTRA SPECIFICATIONS

Memory EEPROM, Storage: 8k Temperature

Temperature Range: -29° C to +72° C / -20° F to +160° F

±0.2° C from 0° C to 10° C, ±1.0° C at extremes Temperature Accuracy: ±0.36° F from 32° F to 50° F. ±1.8° F at extremes

Temperature resolution 0.1° C / 0.18° F

Wired chip in glass thermistor **Temperature Sensor:** 

Measurement Intervals: User programmable from 2 seconds to months.

High and low alarm limits: LED indicator

Computer Interface: Mini USB connector, and NFC

Internal Firmware Provides: Internal Clock, Start time, Interval, User description.

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

6.5 cm (2.5 in.) 3.4 cm (1.3 in.) 0.9 cm (0.35 in.)

CR2450 Battery Power Source:

**Battery Life:** 18 month operating life, 3 year shelf life

Size: Lenath

Weight: 33 a (1.16 oz.)

Options: MaxiThermal2 software

**USB Cable** 

NFC protocol--Android App

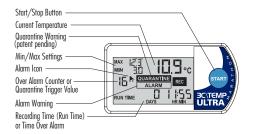
Water-resistant/Splash proof:The product package is hermetically sealed to an

IP66 rating.

Warranty: 12 months

Ask about our single-use versions.





## 3C\TEMP-USB -200C™

Digital Dual Sensor Thermal Temperature Data Logger for cryogenic industrial and remote monitoring applications.

The 3C\TEMP-USB -200C is a reliable and cost-effective digital temperature recorder for all industrial and commercial applications. It has one sensor for ambient range temperatures inside the case, and one external RTD stainless-steel probe that monitors temperatures from -200°C (-328°F) up to +72°C (+161.6°F). It is ideal for monitoring all of your cryogenic stem cells and biologic materials. NFC capable model also available.

These high-precision laboratory-grade products will operate up to 18 months without a battery change. The LCD display provides real time viewing of ambient and remote temperature prior to downloading to a computer.

**Small Form Factor:** The internal firmware is user programmable and provides the following features: start time delay, sampling intervals, high and low alarm window values, recording status, and measurement data

#### **Temperature Range**

Internal Sensor: -29°C to +72°C External probe: -200°C to +72°C

## **Temperature Accuracy**

(NIST traceable) ±0.5°C at center of range ±1.0°C at extremes

### Memory EEPROM, Storage

8k per sensor

**Visual Alarms:** All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these limits, the LDC will display "ALARM." To start the recorder, simply press the start button!

#### **Computer Ready:**

Marathon's easy-to-use MaxiThermal2 software is available for Microsoft Windows 7, 8, 8.1 & 10. Simply plug the unit into a standard USB port on your PC. The MaxiThermal2 software and USB cable are available separately. NFC enabled version available

#### SKU #7065: 3C\TEMP-USB -200C SPECIFICATIONS

Memory EEPROM, Storage: 8k Temperature

Internal Sensor: Wired chip in glass thermistor
Operating Range -29°C to +72°C / -20°F to +161°F

Accuracy:  $\pm 0.2^{\circ}$ C from 0° to  $\pm 10^{\circ}$ C /  $\pm 1.0^{\circ}$ C at extremes (NIST-traceable)  $\pm 0.4^{\circ}$ F from 32° to  $\pm 50^{\circ}$ F /  $\pm 1.8^{\circ}$ F at extremes

External Probe: RTD Stainless Steel Tip =12 cm / 4.75 in.; Flexible Teflon-coated Cable = 61 cm / 24 in.

Operating Range: -200°C to +72°C / -328°F to +161.6°F

Accuracy: ±0.5°C at 0° to +30°C / ±1.0°C at extremes

±1.0°F at +32° to +86°F / ±1.8°F at extremes

Weasurement Intervals: User programmable from 2 seconds to months.

High and low alarm limits: LED indicator

Computer Interface: Mini USB connector

Internal Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

Firmware version, Serial number, Model type.

Power Source: CR2450 Battery

Battery Life: 18 month operating life, 3 year shelf life
Size: Length Width Depth

6.5 cm (2.5 in.) 3.4 cm (1.3 in.) 0.9 cm (0.35 in.)

Weight: 33 g (1.16 oz.)

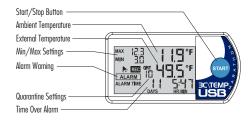
Required Accessories: MaxiThermal2 software Standard A to Mini B USB cable

Water-resistant/Splash proof: The product package is hermetically sealed to an

IP66 rating.

Warranty: 12 months





MaxiLog-PDF™

Single-use Cold Chain PDF Temperature Data Logger

The Maxilog-PDF logger is now available for use in cold chain applications to escort critical temperature shipments of pharmaceuticals, seafood, product, dairy, meat, and other refrigerated products. The logger is programmed to operate for 90 days of continuous temperature recording. This logger is completely pre-programmed with start delay of 30 minutes to allow the logger to adjust to the internal temperatures of the cargo being shipped. Choose from 2 battery sizes.



Both units are compact, lightweight and ideal for small packages. No special software or drivers are required for set-up, or to download the temperature time-stamped data. When plugged into a USB port, the logger will automatically download the data to a Graph, Summary information and Tabular Results file.



The logger is a mass storage device with memory storage of 12,900, and measurement interval of 10 minutes. Monitor all your shipments with plug and play technology.

| STATUS    | OPERATION                       | LED INDICATOR   | RESULT  |  |
|-----------|---------------------------------|---|---|--|
|           | Short press                     | RED and GREEN indicators flash 1 time                   | Battery working                                 |  |
|           | Press button for 5 seconds      | RED and GREEN indicators Flash 5 times                  | Start Recording                                 |  |
|           | Short Press                     | GREEN indicator flashes 1 time                          | Delay Start                                     |  |
| Recording | Short Press                     | RED indicator flashes 1 time                            | Alarm   |  |
|           |                                 | GREEN indicator flashes 1 time                          | No Alarm  |  |
|           | Press Button 2 Seconds          | Alternating flashes of RED and GREEN indicators 2 times | Place Bookmark failures<br>(more than 10 times) |  |
|           |                                 | RED and GREEN indicators flash 2 times                  | Place Bookmark 0K                               |  |
|           | Press STOP button for 5 seconds | RED indicator flashes 5 times                           | Stop Recording                                  |  |
|           |                                 | RED indicator flashes 1 time                            | Alarm   |  |
| Stop      | Short Press                     | GREEN indicator flashes 1 time                          | No Alarm  |  |

### Sample PDF Report:

Graph, Summary Information and Tabular Results.





#### MaxiLog-PDF DATA LOGGER SPECIFICATIONS

Memory Size: 12.900

Temperature Range: -20° C to +70° C / -5° F to +158° F

Temperature Accuracy: ±0.5°C (-20°C to +40°C), 1.0°C at extremes

 $\pm 0.9$ °F (-4°C to +104°C), 2.0°F at extremes)

**Factory Programmed:** Measurement Intervals: 10 minutes

**Delayed Start:** 30 minutes once activated before first measurement

is taken

Temperature Sensor: **NIST-traceable Precision Thermistor** 

Green and Red LED Display:

**USB 2.0** Computer Interface:

**System Requirements:** Windows XP, 7, 8, 10. Adobe Reader software

Water-Resistant:

Shelf life:

Box

Carton

Certification: CE, NIST-traceable, Rohs compliant

> SKU#7049 SKU#7052

CR2032 lithium coin cell CR2045 lithium coin cell Power Source:

> 18 months 30 months

Size: Length: 5.37 cm (2.12 in.) 5.6 cm (2.2 in.) 2.99 cm (1.18 in.) Width: 3.65 cm (1.44 in.) 6.9 mm (0.236 in.) 6.9 mm (0.236 in.) Depth:

Weight: 10.4 q (0.367 oz.) 16.6 q (0.367 oz.) 20 pcs. 320 g (.7 lb.) 20 pcs. 538 g (1.18 lb.)

420 pcs. 9 kg (19.84 lb.) 360 pcs. 10.2 kg (22.5 lb.)





## EDL-BT055™

Our Multi-use Temperature Logger with Long Range Bluetooth Connectivity.

THE EDL-BT55 is a long-range Bluetooth temperature data logger using a power saving Nordic N51822 chip.

With a range of 55 meters, you can enjoy the convenience of capturing and viewing all of your critical refrigerator monitoring, in real time right from your smartphone. Then, e-mail files immediately with full graphs, and time-stamped data,

This logger comes with a one-meter external probe, and can store up to 12K data points. Its small size, light weight, and high-accuracy thermistor make it an ideal data logger for your refrigerators, pharmacies, warehouse or totes.

With the mobile phone APP, the user can configure programming durations, and see detailed time-stamped data in either Fahrenheit or Celsius..

### **Applications**

- Refrigerated storage and transportation,
- Archives,
- Experimental (test) rooms,
- Workshops,
- Museums,
- Pharmaceutical environments,
- Fresh transport.

#### **Product Features**

- Real-time display of parameters,
- High precision and high stability,

## Temperature Range

-40° C to +80° C -40° F to +176° F

## **Temperature Accuracy**

bluetooth

±0.5°C

Software Highlights: Temperature Data Logger is a free mobile application provided to connect to the EDL-BT04 using Bluetooth technology. With the mobile phone APP, the user can wirelessly download the data through the GPRS network, and use configuration tools to achieve a full-stage realtime temperature and humidity recording. Options include changing settings, data transmission, recording, synchronization, and uploading to a server. Works with Android, IOS, and Windows 10.

- Bluetooth 4.0.
- Long-distance wireless communication,
- Built-in high-sensitivity temperature sensor.
- Can store 12,000 temperature data points,
- Alarm temperature limits set by user,
- Temperature graphs can be automatically generated using the APP

SKU #7067: EDL-BT55 DATA LOGGER SPECIFICATIONS

Memory: 256k Temperature

Storage: Up to 12,000 data points

Temperature Range: -40°C to +80°C / -40°F to +176°F

Temperature Accuracy: ±0.5°C from -20°C to +40°C, ±1.0°C at extremes

±0.9°F from -4°F to +104°F. ±1.8°F at extremes

Signal Frequency Trans.: 2.400 - 2.4835 GHz
Protocol: Bluetooth 4.0
Modulation Mode: GFSK

Transmission Interval: 2S
Communication Rate: 1Mbps

Receiving Sensitivity: 1Mbps@-93bm

Max. Transmission Distance: 55 meters, adjustable

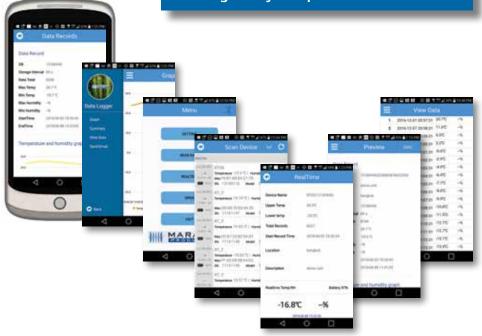
Internal Battery: CR2450

Battery Life: 1 year. (Depends on mode of operation.

Replaceable battery)

Net Weight: 25g / .88 oz.

Dimension: 50mm x 35mm x 15mm / 1.96 in. x 1.38 in. x .59 in.



## EDL-BT04<sup>™</sup>

Our Multi-use Temperature and Humidity Logger with Bluetooth connectivity.

The EDL-BT04 is a power saving wireless temperature and RH data logger, using the latest Bluetooth 4.0 technology. This device uses a state-of-the-art Nordic N51822 chip design. Now collect temperature and RH measurement values on your Android or iOS phone and e-mail data files anywhere in the world. Up to 15,000 data points can be captured, stored and analyzed.



With our mobile phone APP, the user can wirelessly download the data through the GPRS network and use configuration tools to download a full-stage real-time temperature and humidity graph. The small footprint, and light weight makes it ideal for temperature testing and mapping environmental conditions.



#### **Applications**

- Cold chain logistics,
- Museums.
- Refrigerators biologics,
- Food service HACCP.
- Medical and warehousing operations,
- Pharmacy cold room,

#### **Product Features**

- Real-time display of data,
- High precision and high stability,
- Bluetooth 4.0.
- Long-distance wireless communication, 25 meter maximum.

## Temperature Range

-40° C to +125° C

-40° F to +257° F

## **Humidity Range**

0% to 100%

**Software Highlights:** Temperature Data Logger is a free mobile application provided to connect to the EDL-BT04 using Bluetooth technology. With the mobile phone APP, the user can wirelessly download the data through the GPRS network, and use configuration tools to achieve a full-stage realtime temperature and humidity recording. Options include changing settings, data transmission, recording, synchronization, and uploading to a server. Works with Android, IOS, and Windows 10.

- Built-in high-sensitivity temperature and humidity sensors,
- Can store 15.000 temperature and humidity data points,
- Alarm temperature and humidity limits set by user,
- Temperature and humidity intervals are set by user,
- Import data into other apps including Excel.
- Temperature graphs can be automatically generated using the APP

www. marathonproducts.com

#### SKU #8023: EDL-BT04 DATA LOGGER SPECIFICATIONS

Memory: 256k Temperature & RH Storage: Up to 15,000 data points

-40° C to +125° C / -40° F to +257° F Temperature Range:

Temperature Accuracy: ±0.3° C 0% to 100% RH **Humidity Detection Range:** 

±3.0% RH **Humidity Detection Accuracy:** Signal Frequency Transmission: 2.400 - 2.4835 GHz Protocol: Bluetooth 4.0

Modulation Mode: **GFSK** 

Transmission Interval: 10S-24H Continuous setting

Communication Rate: 1Mbps

Receiving Sensitivity: 1Mbps@-93bm **Maximum Transmission Distance:** 25 meters, adjustable

Internal Battery: 600mAh /3V

**Battery Life:** Replaceable battery)

Net Weight: 30g / 1.05 oz.

Dimension: 50mm x 50mm x 20mm / 1.96 in. x 1.96 in. x .79 in.

For FDA, GxP, JCAHO, CAP, HFAP, CARF, CHAP, ACHC, URAC, HQAA, AABB, HACCP and Regulatory Compliance

1 year. (Depends on mode of operation.



MARATHON PRODUCTS, INC.

## **EDL-4S™**

## For All Your Laboratory, Cold Room and **Environmental Monitoring.**

Now obtain Temperature, RH, CO<sub>2</sub> and Vibration profiles in a compact low-cost 4-channel LCD data logger! Use either as a stand-alone device, or as a Wireless Data logger when connected to our separate WiFi Reader Station. The Reader Station may be battery powered or AC powered, your choice. This device is perfect for mapping your warehouse, refrigerators or monitoring industrial machinery during shipment or stationary applications.

- Temperature Sensor: RTD -200°C to +380°C, accuracy ±0.2°C
- Relative Humidity Sensor: Capacitive humidity readings 0% RH to 100% RH.
- CO<sub>2</sub> Sensor: Infrared 0 to 30,000 PPM accuracy ± 30 PPM ±5%

Vibration sensor:

3-D Accelerometer

HIGHLIGHTS

- Temperature sensors: RTD -200° C to +380° C
- Relative Humidity Sensor: 0% to 100 % RH
- CO<sub>2</sub> Sensor: Infrared 0 to 30.000 PPM
- Vibration sensors: Mems sampling rate 1 to 400 Hz
- 32 K memory storage per channel for single data sensor probe on 4 channels.
- Precision data capture
- Alert notifications by e-mail or SMS
- Custom 1 meter probes standard
- Sensor recalibration firmware

with a sampling rate of 1 to 400 Hz.

## WiFi and 4G Capability

The EDL-4S can be remotely monitored via a WiFi when attached to the separate WiFi Cellular Reader Station. The device also connects directly to the computer via a USB port for settings.

#### Statistics and mathematical functions

In addition to temperature and humidity, this compact 4

channel LCD data logger calculates min/max. over alarm conditions and much more.

#### Alarms and battery backup

Alarm settings can be set up quickly in the MaxiThermal WiFi software based on temperature and RH. Likewise, alarm settings can be set up to trigger e-mail notifications. This device contains one AA lithium battery for ample power. The WiFi reader is powered by four AA batteries or with an AC/DC adapter.

#### Large, easy-to-read display

The EDL-4S is the ideal instrument for documenting, controlling, and managing critical environmental conditions graphically, statistically and in real time. View high/low data and all alarm conditions in real time on the LCD display.

SKU #7050: EDL-4S DATA LOGGER SPECIFICATIONS

Memory: 128k data memory for 4 sensors,

Automatic data memory size adjustment

4 Digital sensor options: RTD, Humidity, CO2, Vibration

**Temperature Range:** -200°C to +380°C / -328°F to +716°F **Temperature Accuracy:** ±0.2°C at room, 1.5°C at extremes / ±.36°F at room, 2.7°F at extremes

Temperature Resolution: 0.1°C / .18°F

**Humidity:** 0% to 100% RH

CO<sub>2</sub> Sensor: Infrared 0 to 30,000 PPM. Accuracy ± 30 PPM ±5 %

Vibration: Up to 16G and 400 hertz sampling

Recording Rate (sec.): Set by user

Alarm Programming: High and low alarm limits set by

temperature, humidity, and time

Time Over Alarm (TOA) displays for each **Alarm Modes:** channel

**Alarm Notifications:** Alert notification to e-mail, phone,

pager and SMS

Interface: **RJ11 interface for 4 sensors** 

Communication: USB 2.0 with mini B connector Optional WiFi via Reader Station

**Power Source:** 1- LiSoCl2 3.6V 1.2 Ah for logger 4- LiSoCI2 3.6V 2.4Ah or

1120V/220V AC adaptor for WiFi Reader

MaxiThermal-X: SKU #7070 Required Accessories:

**Optional Accessories:** Cable probes up to 30 meters for RTD

**Physical Properties** 

0°C to 50°C / 32°F to 122°F Operating range: -20°C to +85°C / -4°F to 185°F Storage Range: Display: **FSTN** segment LCD

Viewing Area: 60 x 40 mm / 2.36 in. x 1.57 in.

Width: 5.0 cm / 1.96 in. Height: 10.5 cm / 4.13 in. Depth: 2.5 cm / .98 in. Weight: 300 grams / 10.58 oz.



## **EDL-XYZ**<sup>™</sup> **Data**

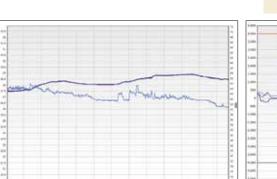
Loggers

Digital Temperature, RH and Vibration Recorder with Large, Easy-to-Read Display

The EDL-XYZ multi-use data logger can be used to monitor fragile goods during shipment. It contains a temperature sensor, a high accuracy humidity sensor and a 3-D accelerometer. The latter controls the motion and vibration of a truck during shipment. It can also be used for monitoring machinery wear, vibration, impact and shock for all applications.

#### **FEATURES**

- High accuracy thermistor for temperature measurement.
- High accuracy humidity sensor.
- 3-D accelerometer for motion and vibration detection.
- Alarm for out of limits operation for all sensors.
- Recording time updated on LCD display.



Temperature & Humidity Recording Graph



#### **Temperature Range**

-29°C to 72°C -20°F to 160°F

## **Humidity Range**

0% to 100%

## **3-D Accelerometer Range**

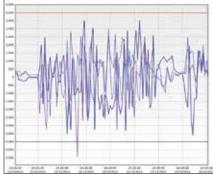
±2G; ±4G; ±8G; ±16G Sampling rate: 10 to 50 Hz

## Memory EEPROM, Storage

Temperature: 8k Humidity: 8k Vibration: 42k

## **Optional Accessories**

20" external probe



**Vibration Recording Graph** 

## Flexible recording interval time for temperature and humidity.

- Recording time automatically fixed by firmware for motion and vibration.
- Non-volatile memory for data saving
- Trigger threshold set by user for vibration data saving.
- MaxiThermal vibration software for logger parameters setting and monitoring results.
- LCD display for temperature, humidity, and 3 axis vibration.

## **Applications**

- Vibration, shock, impact monitoring and data logging.
- Monitoring the transport conditions for fragile goods.
- Monitoring machinery wear.

#### SKU #7015: EDL-XYZ DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage: Temperature: 8k, Humidity: 8k, Vibration: 42k

Temperature Range: -29°C to +72°C / -20°F to +160°F

Temperature Accuracy:  $\pm 0.2^{\circ}\text{C}$  from 10° to 30°C /  $\pm 0.5^{\circ}\text{C}$  at extremes  $\pm 0.4^{\circ}\text{F}$  from 50° to 86°F /  $\pm 0.9^{\circ}\text{F}$  at extremes

Thermal Sensor: Wired Chip in Glass Thermistor

Temperature Resolution: 0.2° C at center / 0.4° at center F

Measurement Intervals: Programmable from 2 seconds to months.

Humidity Range: 0% to 100%

Humidity Accuracy: ±3% RH from 25% to 75%, ±5% RH at extremes

Humidity Sensor: Capacitive Cell

3-D Accelerometer Range: ±2G; ±4G; ±8G; ±16G Sampling rate: 10 to 50 Hz

> Accuracy: ±0.05G for 0 to 16G Resolution: ±0.01G for 0 to 16G

High and Low Alarm Limits: LED display set for temperature, humidity and vibration

Computer Interface: Mini USB Connector

Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

Required Accessories: MaxiThermal Software: SKU #7002

USB Standard A to Mini B Cable: SKU #9046
Optional Accessories: 20" external probe: SKU #7033

Mounting bracket: SKU #7003

Power Source: One CR2477 Lithium Battery with a 1 year operating

life and a 5 year shelf life.

Size: Length Width Depth 9.0 cm / 3.5 in. 5 cm / 1.96 in. 2.8 cm / 1.1 in.

Weight: 90 g / 2.6 oz.
Warranty: 12 months
CE Certified: CE Marking File



## EDL-M5<sup>™</sup>

Rugged Remote Temperature Management for Facilities, Warehouses, Trucking, and Exterior Sites "Wireless Sensor Connectivity"

The EDL-M5 has a powerful 2-way 900MHz radio for long range wireless connectivity and is ideal for remotely monitoring multiple buildings, trucks, warehouses and sites simultaneously. With expanded individual sensor memory and back-up batteries the EDL-M5 protects against any data loss caused by a network interruption, computer malfunction or other system failure. This makes the EDL-M5 the most durable, reliable, and robust wireless temperature logger on the market today. With 256-bit AES Encryption the

EDL-M5 can be securely accessed at anytime from anywhere over a local network or via the internet.

In the lab, our NIST-calibrated and traceable thermistor probes have been tested sterile and can be used in most clean environments. EDL-M5 is perfect for quality assurance and quality control, for monitoring low tempera-

ture facilities, storage, warehouses, and trucking via state-of-the-art high performance temperature sensors and data logging.

EDL-M5

**BENEFITS** 

- Alarm notifications via cell e-mail, phone, SMS or pager
- Multiple Alarm options: local and remote
- Interchangeable sensors: -80°C to 72°C
- Precision temperature data capture
- Powerful software with real time display
- Audit Trails for Regulatory Control
- 8K to 64K EEPROM memory options
- Power outage detection and backup capabilities

The EDL-M5 is an ideal tool for reliably collecting, recording and storing temperature measurement data in real time, documenting standards compliance, and as proof for certification.

SAFE STORAGE

#### SKU #8081: EDL-M5 DATA LOGGER SPECIFICATIONS

Temperature Range: -40°C to 72°C / -40°F to 160°F

-80 C to 30 C / -112°F to 86°F

Temperature Accuracy:

0.2°C at center, 0.5°C at extremes

NIST-traceable precision thermistor

Temperature Sensor: Indicators:

Battery Check, System Connected, Alarm, On

Range:

Up to 2000' indoor/urban range Outdoor RF line of sight range with high gain antenna 20 miles

Start: Alarm: Push button and remote start via software High/low alarm limits set by temperature

and time limits

Alarm Modes:

Continuous or cumulative with LED indicators

User notifications: Alarm conditions on screen via e-mail

and cell phone

Power Source:

Four D cells alkaline.

Battery backup—Fail-safe prevents data loss.

Required Accessories: MDASOptional Accessories: • Optio

MDAS-Pro: SKU #8027

Optional probes

External battery connectors to outside power supply.

Adaptor to AC outlets

· External relays for greater distance,

Ethernet connectors.

Physical properties

Width: 16.05 cm / 6.32 in. Height: 12.40 cm / 4.88 in. Depth: 7.34 cm / 2.89 in.

Weight: 1.27 kilograms / 2 lbs 8.6 oz.

(with 4 D cells)

ETHERNET

RF BASE STATION

NETWORKED PC

LAPTOP

PHONE

ALERT

DOOR-TO-DOOR ELECTRONIC RECORD KEEPING

## MaxiLog™

Our Multi-use Temperature Logger with Real-Time LCD Display for Instant TOA (Time Over Alarm) Conditions.

**MaxiLog** is the revolutionary, multi-use, user programmable, electronic temperature data recorder specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and for documenting the transportation of perishable commodities. The real-time LCD screen provides instant TOA (Time Over Alarm) notification.

The MaxiLog is NIST-traceable and available with Certificates of Temperature Conformance. The MaxiLog is also available in a pre-programmed single-use model.

#### **Functions include**

- Internal Thermistor: accurately records time and temperatures for user selectable readings in Celsius or Fahrenheit.
- LCD display: Shows High and Low Alarm Limits, Current Temperature, Run Time and TOA (Time Over Alarm) in Days, Hours and Minutes.

The internal software records the following: time mechanism, start time, sampling intervals, end description for special instruc-

tions, alarm values, recording status, measurement data, software version, serial and tracking number, model type, and after-the-fact report generation options.

**Visual Alarms:** All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these limits, the LCD will display an alarm icon. To start the recorder, simply press the start button!

## **Temperature Range**

■ -35°C to +50°C (-31°F to +122°F)

## **Temperature Accuracy**

 ±0.2°C (±0.4°F) from 0° to 10° C (30° to 50° F); ±1.0°C (±1.8°F) at extremes

#### **Measurement Intervals**

2 seconds to months

#### **Number of Measurements**

8K memory (7,680 data pts.)

download recorded information, simply plug the USB Cradle into the standard USB port of your PC.

## Computer Ready:

MaxiThermal software is used to read the logger. It runs on Windows 2000, XP, Vista, 7 and 8. The MaxiThermal software and USB Cradle are available as separate accessory items.

**Serialization:** This recorder is programmed at the factory with a unique serial number for positive tracking.

Recyclable: Single-Use MaxiLog units are designed for single use, and we encourage recycling. Please call Marathon Products for complete disposal or recycling instructions.

Minimum Order Quantity: Single-Use MaxiLog units are sold in minimum lot quantities of 25 units. Your order is shipped on the same day if the order is placed before 2 p.m. PST.

#### SKU #7026/7029: MAXILOG DATA LOGGER SPECIFICATIONS

Memory: EEPROM, 8k Storage
Temperature Range: -35°C to +50°C / -31°F to +122°F

Temperature Accuracy: ±0.2°C at 0° to 10°C, ±1.0°C at extremes / ±0.36°F at 32° to 50° F, ±1.8°F at extremes

Measurement Intervals: Pre-programmed from 1 minute to hours depending

on model type (duration).

Temperature Sensor: NIST-traceable Precision SMT Thermistor Indicators: LCD Display. Start/Stop and Alarm High and low alarm limits: Alarm set by temperature and time

Computer Interface: Optional USB Cradle

Water-resistant: The product package is hermetically sealed to

an IP66 rating.

Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type.

Required Accessories: MaxiThermal Software: SKU #7002 Cradle/Reader Station: SKU #7027

Power Source: Lithium Battery (2 year operating, 3 year shelf life)

Size: Length Width Depth 5.5 cm (2.2 in.) 2.7 cm (1.0 in.) 1.4 cm (0.55 in.)

Weight: 19 g (2.0 oz.)





## **2c\temp-LCD**™ Data Loggers

Our Multi-use Temperature Logger with Real-Time LCD Display for Instant Acceptance or Quarantine Decisions.

**2c\temp-LCD** is the revolutionary, multi-use, user programmable, electronic temperature data recorder specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and for documenting the transportation of perishable commodities. The 2c\temp-LCD is NISTtraceable and comes with a Certificate of Conformance.

#### **Functions include**

- Internal Thermistor: accurately records time and temperatures for user selectable readings in Celsius or Fahrenheit.
- LCD display: Shows Current temperature, Max Temperature, Minimum Temperature, Run Time, Alarm Status, and Recording.

Small Form Factor: 2c\temp-LCD has an extended battery life and can endure rough handling. The internal software records the following: time mechanism, start time, sampling intervals, end description for special instructions, alarm values, recording status, measurement data, software version, serial and tracking number, model type and after the fact report generation options.

## Cloud Computing

Temperature Logger Management TRACEABILITY, HACCP **COMPLIANCE** 

Marathon's Temperature data logger customers can share data and access their temperature and RH files remotely, anywhere, at anytime via the Internet.

Our cloud-based software provides compliance with HACCP rules and regulations for all of your perishable shipments.

Visual Alarms: All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these limits. the LDC will display "ALARM." To start the recorder, simply press the start button!

**USB** Interface: To download recorded information, simply plug the optional USB Cradle into the standard USB port of your PC.

#### SKU #7004: 2c\temp-LCD DATA LOGGER SPECIFICATIONS

Memory: EEPROM, 8k Storage

-35°C to +50°C / -31°F to +122°F Temperature Range:

Temperature Accuracy: ±0.2°C at 0° to 10°C / ±1.0°C at extremes

±0.36°F at 32° to 50° F / ±1.8°F at extremes

Measurement Intervals: User programmed from 2 seconds to months. Temperature Sensor: NIST-traceable Precision SMT Thermistor

Indicators: Start/Stop and Alarm

LCD display. ALARM set by temperature and time. High and low alarm limits:

Computer Interface: Optional USB Cradle

Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type,

MaxiThermal Software Required:

Lithium Battery (1 year operating, 3 year shelf life) **Power Source:** 

Size: Depth

6.5 cm / 2.56 in. 3.4 cm / 1.3 in. 0.9 cm / 0.35 in.

Weight: 56.7 q / 2.0 oz.

**Required Accessories:** MaxiThermal Software: SKU #7002

USB Reader Station: SKU #7005

USB Standard A to Mini B Cable: SKU #9046

Serialization: This recorder is programmed at the factory with a unique

serial number for positive tracking.

Water-resistant: The product package is hermetically sealed to

an IP66 rating.



CHAP, ACHC, URAC, HQAA, AABB, HACCP and Regulatory Compliance



3C\TEMP-USB™ & 3C\TEMP-RH™

**Our Multi-use** Temperature and **Humidity Logger with** Real-Time LCD Display for Instant Acceptance or Quarantine Decisions.

3C\TEMP-USB & 3C\TEMP-RH are revolutionary, multi-use, user programmable, electronic temperature data recorders specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and for documenting the trans-

**Functions include:** 

• Internal Thermistor: accurately records time and temperatures for user selectable readings in Celsius or Fahrenheit.

NIST-traceable and come with Certificates of Conformance

- LCD display: Real-time viewing of Current temperature, Max /Min Temperature, Run Time, Alarm Status, and Recording.
- The C\TEMP-RH also records relative humidity values.

portation of perishable commodities. They are

**Small Form Factor:** These units have an extended battery life and can endure rough handling. The internal software records the following: time mechanism, start time, sampling intervals, end description for special instructions, alarm values, recording status, measurement data, software version, serial and tracking number, model type and after the fact report generation options.

**Visual Alarms:** All our data loggers can be programmed with alarm limits. Should the temperature reach levels outside these limits, the LCD (change to LCD) will display "ALARM." To start

the recorder, simply press the start button!

### **Computer Ready:**

Marathon's easy-to-use MaxiThermal2 software is available for Microsoft Windows XP 7, 8, 8.1 & 10. Simply plug the unit into a standard USB port on your PC. The Maxi-Thermal2 software and USB cable are available separately.

SKU #7060: 3C\TEMP-USB & SKU #7061: 3C\TEMP-RH SPECIFICATIONS

Memory EEPROM, Storage: 3C\TEMP-USB: 8k Temperature

3C\TEMP-RH: 8k Temperature, 8K RH Temperature Range: -29° C to +72° C / -20° F to +160° F

**Temperature Accuracy:** ±0.5° C from 0° C to 10° C. ±1° C at extremes ±1.0° F from 32° F to 50° F, ±1.8° F at extremes

**Temperature Resolution** 0.1° C / 0.18° F

Temperature Sensor: 3C\TEMP-USB: Wired chip in glass thermistor

3C\TEMP-RH: MEMS

Humidity - 3C\TEMP-RH only:

**Humidity sensor** CAPACITIVE MEMS **Humidity range** 

**Humidity accuracy** ±3% from 0 to 80%, ±5% from 80 to 100%

Humidity resolution

Measurement Intervals: User programmable from 2 seconds to months.

High and low alarm limits: LED indicator Computer Interface: Mini USB connector

Internal Firmware Provides: Internal Clock, Start time, Interval, User description,

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type,

CR2450 Battery Power Source:

**Battery Life:** 2 year operating, 3 year shelf life.

Warranty: 12 months

Depth

6.5 cm / 2.5 in. 3.4 cm / 1.3 in. 0.9 cm / 0.35 in.

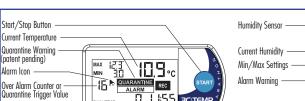
33 g / 1.16 oz. Weight:

**Required Accessories:** MaxiThermal2 Software: SKU #7008 **Optional Accessories:** USB Standard A to Mini B Cable: SKU #9046 Water-resistant: The 3C\TEMP-USB is hermetically sealed

to an IP66 rating.



For FDA, GxP, JCAHO, CAP, HFAP, CARF, CHAP, ACHC, URAC, HQAA, AABB, HACCP and Regulatory Compliance



Quarantine Settinas

Recording Time (Run Time)

Time Over Alarn

c\temp-LCD NFC™ Data Loggers

Our Single-use NFC capable. Temperature Logger with Real-Time LCD Display.

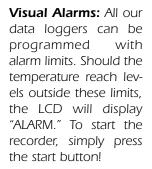
c\temp-LCD NFC is a singleuse, pre-programmed, electronic temperature data recorder with NFC capability. By holding the Android smart-Send Result phone directly over the LCD display, customers can instantly interrogate the data logger and create a PDF file of the recorded temperatures, then e-mail them anywhere in the world.

The c\temp-LCD NFC is specifically designed for measuring temperatures during the transportation of refrigerated vaccines, biological material, chemicals, pharmaceuticals, and for documenting the transportation of perishable commodities. It is NIST-traceable and comes with a Certificate of Conformance.

#### **Functions include**

- Internal Thermistor: accurately records time and temperatures for readings in Celsius or Fahrenheit.
- LCD display: Shows Current temperature, Max Temperature, Minimum Temperature, Run Time, Alarm Status, and Recording.

Small Form Factor: c\temp-LCD NFC has an extended battery life and can endure rough handling. The internal software records the following: time mechanism, start time, sampling intervals, end description for special instructions, alarm values, recording status, measurement data, software version, serial and tracking number, model type and after-the-fact report generation options.



**USB** Interface: To download recorded information, simply plug the USB reader station and cable into the standard USB port of your PC. MaxiThermal software, reader station and cable are sold separately.



#### SKU# 7036: c\temp-LCD NFC DATA LOGGER SPECIFICATIONS

Memory: EEPROM, 8k Storage (approx. 8,000 data points)

-35°C to +50°C / -31°F to +122°F Temperature Range:

Temperature Accuracy: ±0.2°C at 0° to 10°C, ±1.0°C at extremes /

±0.36°F at 32° to 50° F, ±1.8°F at extremes

Measurement Intervals: 60 day run program: May be pre-programmed from

1 minute to 11 minutes.

Temperature Sensor: NIST-traceable Precision SMT Thermistor LCD Display. Start/Stop and Alarm Indicators: High and low alarm limits: ALARM set by temperature and time.

Computer Interface: **USB Reader Station and Cable** 

Firmware Provides: Internal clock, Start time, Interval, User description.

Alarm values, Recording status, Measurement data, Firmware version, Serial number, Model type

Lithium Battery (1 year operating, 3 year shelf life) Power Source:

Size: 0.9 cm / 0.35 in. 6.5 cm / 2.56 in. 3.4 cm / 1.3 in.

Weight: 57.7 a / 2.0 oz.

Water-resistant Enclosure: The product package is hermetically sealed to an

IP66 rating.

Warranty

Quantity: Minimum 20 units. Your order is shipped on the same

day if the order is placed before 2 p.m. PST.

Serialization: This recorder is programmed at the factory with a unique

serial number for positive tracking.

Required Accessories: MaxiThermal Software: SKU#7002

USB Reader Station: SKU# 7005

USB Standard A to Mini B Cable: SKU#9046

Recyclable: c\temp-LCD recorders are designed for single use, and we encourage recycling. Please call Marathon Products for complete disposal or recycling instructions.

For FDA, GxP, JCAHO, CAP, HFAP, CARF, CHAP, ACHC, URAC, HQAA, AABB, HACCP and Regulatory Compliance





Create and send PDF file

Config Receiver Email

Send File

## microDL™

## For all your FDA shipments

The microDL is a revolutionary multi-use programmable data logger for displaying and recording temperatures for shipping and storage applications. Now all of your critical biologics, cancer drugs and vaccines can be immediately temperature qualified with our display technologies. Small, yet so powerful, this

investigative temperature-collecting device is your answer for regulatory compliance.

With optional memory sizes of 4K, 8K, 32K and 64K, and accuracy and resolution of 0.1°C, our digital display technology gives you onthe-spot verification that the internal temperatures of your packaged contents meets specifications prior to shipment. Research laboratories and physicians can now immediately validate temperature information for clinical studies and patient Increased memory from 32k to administration.

#### Red micro-DL™

Plastic or 404 Stainless Steel back. Memory capacity from 4k to 8k



Alarm conditions can be programmed for start/delay, high/low, continuous or cumulative time over alarm conditions. Push the

For FDA, GxP, JCAHO, CAP, HFAP, CARF, CHAP, ACHC, URAC, HQAA, **AABB** and Regulatory Compliance

start button to view critical temperature information upon arrival.

Pressing the start button will display the following information: current temperature, elapsed time in days, MKT (mean kinetic temperature), high temperature, low temperature, alarm time over high temperature, alarm time below low temperature and alarm conditions.

The microDL is a state-of-the-art. water-resistant data logger with non-volatile memory for data retention. For a complete analytical solution, simply download all of its data to your PC with the proprietary microDL USB Reader MDAS-Pro software. Marathon's easy-to-use software is available for PCs running Microsoft Windows 2000, XP, Vista, 7 & 10. 21CFR compliant software is available with full database capabilities

#### microDL SPECIFICATIONS

Measurement Intervals User programmable from 2 seconds

Power Source Two 3 volt lithium coin cells.

3 year shelf life with approx.

1 year continuous operating mode.

High & Low Alarms set by temperature

and time

Size: Diameter: 1.25 in. / 25.20 cm Height: 0.75 in. / 1.25 cm

Water Resistant - Splash Proof

Reader Station USB 1.1 Port Interface

Software Required:

MDAS

Flat Flex

**Alarm Limits** 

Lenath 20 in. / 50.6 cm, or custom lengths

0.3 in. / 0.76 cm





## Polyester Film-Flat Flex Probe

| Model number          | Red<br>mdl4<br>SKU# 8040 | Red<br>mdl8<br>SKU# 8057 | Silver<br>mdl32<br>SKU# 8033 | Silver<br>mdl64<br>SKU# 8049 | Silver<br>mdl3280fp<br>SKU# 8035 |  |  |
|-----------------------|--------------------------|--------------------------|------------------------------|------------------------------|----------------------------------|--|--|
| EEPROM Memory         | 4K                       | 8K                       | 32K                          | 64K (var.)                   | 32K (var.)                       |  |  |
| Temperature Range     |                          |                          |                              |                              |                                  |  |  |
| Low to High (C)       | -10°C to 72°C            | -30°C to 72°C            | -40°C to 72°C                | -40°C to 72°C                | -80°C to 30°C                    |  |  |
| Low to High (F)       | 14°F to 161°F            | -22°F to 161°F           | -40°F to 161°F               | -40°F to 161°F               | -112°F to 86°F                   |  |  |
| Temperature Accuracy  |                          |                          |                              |                              |                                  |  |  |
| At zero               | 0.5°C / 1.0°F            | 0.2°C / 0.4°F            | 0.2°C / 0.4°F                | 0.2°C / 0.4°F                | 0.5°C / 1.0°F                    |  |  |
| Extremes              | 1.0°C / 2.0°F            | 0.5°C / 1.0°F            | 0.5°C / 1.0°F                | 0.5°C / 1.0°F                | 1.0°C / 2.0°F                    |  |  |
| Features              |                          |                          |                              |                              |                                  |  |  |
| Stainless steel backs | No                       | Yes                      | Yes                          | Yes                          | Yes                              |  |  |
| Variable memory       | No                       | No                       | No                           | Yes                          | Yes                              |  |  |
| Continuous memory     | No                       | No                       | Yes                          | Yes                          | Yes                              |  |  |
| Weight                | 8 g / 0.3 oz.            | 17 g / 0.6 oz.           | 17 g / 0.6 oz.               | 17 g / 0.6 oz.               | 17 g / 0.6 oz.                   |  |  |
| Mean Kinetic Temp.    | No                       | No                       | Yes                          | Yes                          | Yes                              |  |  |
| Warranty              | 60 days                  | 12 months                | 12 months                    | 24 months                    | 24 months                        |  |  |

# Temperature & Humidity Mapping **Services**

## The Key Element in Risk Management

Temperature mapping is used to generate a temperature profile for a facility. This includes warehouses, cold rooms, refrigerators, or vessels in order to ensure it maintains the temperature range required by specific temperature sensitive products. Mapping ensures that adequate systems are in place by identifying potential environmental control problems before products become ineffective or spoiled.

Mapping is an essential exercise to determine locations of real-time monitoring sensors so that critical thermal environments can be time stamped and assessed.

#### Marathon can offer

- Solutions for every budget
- Access to experts with years of experience

## Our Data logging solutions offer:

- Continuous Monitoring
- Alerts and Notifications
- Temperature & humidity mapping with start to stop analysis comparisons for multiple sensors by simultaneous DATE and time stamping. For instance, hundreds of loggers can be started and stopped simultaneously so all loggers can be temperature profiled at the precise date and time, mapping exercises begun and stopped!

NOW Begin your temperature mapping strategies with exact START and STOP time options.



**REFERRALS:** Access to experts with years of experience

### LOGGERS WITH THE FUNCTIONS YOU NEED:

Data Capacity:

Sample Rate

Accuracy

Size

Monitoring Range

Networking

Power Requirements
 Environmental Sensors

**CALIBRATIONS:** Marathon Products is ISO 9001-2015 Certified and all of our products are NIST-traceable.

**SOFTWARE:** Marathon Products has easy to use software with 21 CFR Part 11 compliant versions.

## Don't ship without us!®



temperature



humidity







Visit us on the Web at www.marathonproducts.com Call us +1 800-858-6872

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