

ISO 9001-2008

# New Product Catalog

## Addendum 2014



**MARATHON**  
PRODUCTS, INC.

TEMPERATURE MEASUREMENT  
& CALIBRATION SPECIALISTS

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# Marathon Products, Inc.

Since 1991, we have been designing, manufacturing and distributing reliable, precision-made temperature collecting instruments for monitoring the cold chain and laboratory sciences. Now, we offer wireless devices, CO<sub>2</sub>, relative humidity and vibration sensors to our growing line of precision data collectors.

Marathon delivers state-of-the-art data collecting solutions for applications from cryogenics to high temperatures for all of “life’s essentials.” Our continuing growth is fueled by superior product design, innovative technology, and an uncompromising commitment to customer service.

Today our valued clients include governmental laboratories, pharmaceutical and other research organizations, healthcare delivery systems, blood banks, IVF Clinics, chemical manufacturers, the aerospace and semiconductor industries, and logistic transportation entities.



Features of our new USB LCD products include:

- RoHS and Reach certified components
- CE-conformed design
- Traceable using our stringent internal standards and certified NIST instruments
- 100% tested before delivery to the customers.

Marathon is ISO 9001-2008 BSI-certified and our manufacturing partners are qualified for ISO-9001 2008 by TUV.

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

Jon Nakagawa  
President, CPA, CEO

# MARATHON PRODUCTS

## EDL-WiFi Temp/RH™

*WiFi Temperature and Humidity Monitoring for Hospitals, Laboratories and Research Organizations.*

Use our WiFi-enabled EDL-WiFi Temp/RH data loggers to enjoy real-time temperature & humidity data collection and monitoring at anytime, from anywhere in the world over a local network or via an internet connection. Leverage your existing WiFi network with the built-in WiFi 802.11 b/g/n connectivity to avoid expensive installation costs for managing temperature data. Marathon's Ethernet enabled loggers will allow you to wirelessly monitor multiple floors, buildings, rooms and locations simultaneously. Secure wireless encryption with WPA-PSK and WPA2-PSK. WiFi radio approval with FCC (USA), IC (Canada), CE/ETSI (Europe), C-TICK

(Australia) and Telec (Japan).

Our advanced software can be programmed by the user to detect high and low temperature, and high and low humidity excursions. Also, detect power outages, trigger audible and visible alarms, and send alert notifications via cell phone and/or e-mail for facilities management control.

Marathon's 21 CFR: Part 11 compliant software, with secure supervisory controls, will allow database creations for

### BENEFITS:

- Alarm notifications via email, phone, pager or SMS
- WiFi 802.11 b/g/n Connectivity
- Multiple Alarm options: local and remote
- Sensors: -40° C to +125° C, and 0% to 100% RH
- Precision temperature and RH data capture
- Powerful software with real-time display
- Audit Trails for Regulatory Control
- 32K Standard to 64K EEPROM memory options
- Power outage detection capabilities

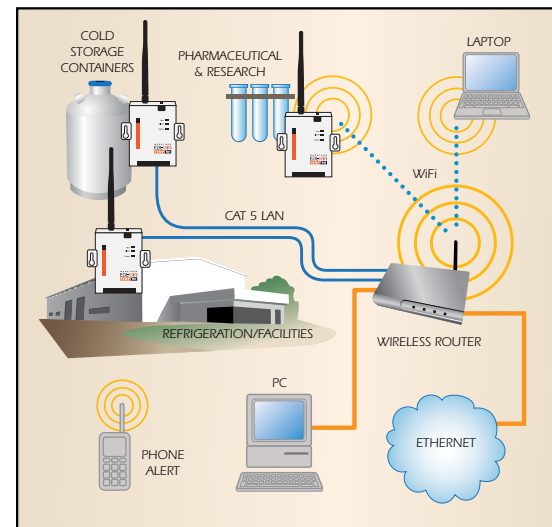


products, part numbers, dates, locations, identification numbers, statistical analysis, and more.

In the lab, our NIST-calibrated and traceable thermistor probes have been tested sterile and can be used in incubators. In hospitals, clinics, pharmacies and blood banks, the EDL-WiFi Temp/RH is perfect for quality assurance and quality control, monitoring low temperature freezers, blood storage, vaccines and biologics via state-of-the-art high-performance temperature sensors and data logging.

### EDL-WIFI SPECIFICATIONS

Temperature Range:	-40 C to 125 C / -40 F to 257 F
Temperature Accuracy:	±0.2° C
Relative Humidity Accuracy:	±1.8% rH
Measurement Intervals:	2 second increments up to 4 hours (or 365 days recording duration)
Memory EEPROM, storage:	32k Standard to 64 EEPROM memory options.
Range:	Worldwide access via the internet.
Alarm programming:	High and low alarm limits set by temperature or humidity and time.
Alarm Modes:	Continuous or cumulative with LED Indicators.
Alarm Notifications:	Alert notification to cell phone, pager and on desktop screen.
Alarm Reset:	Push button—manually or by software.
Power Source:	Requires 110 AC power. Adaptor to A/C for wireless connectivity and user replaceable internal 3V lithium battery for data logging function. Battery backup—Failsafe prevents data loss.
Accessories:	Optional flat cable probes and external audible alarm boxes.
Shelf Life - Data Logger:	3 years of continuous use data logging.
Physical properties:	
Width	3.11 inch / 79.0 mm
Height	3.60 inch / 91.4 mm
Depth	1.11 inch / 28.3 mm
Weight:	8 oz. / 230 gms
Certifications:	CE Marking



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



# MARATHON PRODUCTS

## The EDL-8 WiFi™

*New Wireless and Network enabled 8 Channel Data Logger*

The most accurate multi-sensor graphical data logger on the market. The EDL-8 WiFi has eight channels with three types of NIST-traceable interchangeable sensors. Each sensor is calibrated for both temperature and humidity by the sensor manufacturer.

- Temperature Sensor: RTD -200°C to +380°C, accuracy +/- 0.2°C
- Relative Humidity Sensor: Capacitive humidity readings 0% RH to 100% RH.
- CO2 Sensor: Designed to measure percentage of carbon dioxide up to 30%. It is useful for biological or scientific applications where high levels of CO2 must be maintained in an enclosed apparatus.

### Ethernet and WiFi capability

EDL-8 WiFi can be monitored remotely via Ethernet connectivity or via a WiFi network. The device also connects directly to the computer via a USB port.

### Statistics and mathematical functions

In addition to temperature, humidity, pH and CO2 levels, the compact state-of-the-art device calculates minimum- maximum-time over alarm conditions and much more. Simply push the mode button and the channel selection.

### Alarms and battery backup

Alarm settings can be set up quickly in the MaxiThermal WiFi software based on tem-

### HIGHLIGHTS:

- Temperature Sensor: RTD -200°C to +380°C
- Relative Humidity Sensor: 0% to 100% RH
- CO2 & pH Sensors
- 64k memory storage per channel
- Precision data capture
- Audible built-in buzzer
- Alert notifications by email, phone, pager or SMS
- Battery backup
- Custom long-range probes up to 30 meters

perature, RH, and level of CO2. Alarms can be both visual (flashing display) and audible (beeping). Likewise, alarm settings can be set up to trigger email notifications. In the event of a power outage, the internal lithium ion battery (when fully charged and when the backlight is not on) will continue to record data for approximately 24 hours.

### Large, easy-to-read display

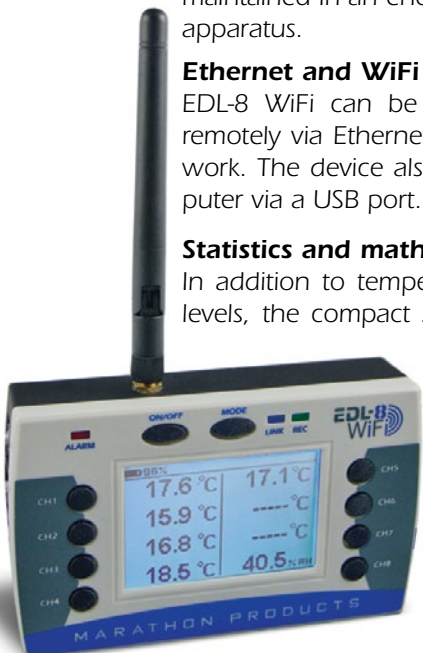
Now view data remotely for all your locations from your desk. The EDL-8 WiFi is the ideal instrument for documenting, controlling, and managing critical environmental conditions graphically, statistically and in real time. Up to sixteen different display set-ups can be stored and recalled at the touch of a single button. You can easily modify this to get exactly what you want. View high/low data and all alarm conditions in real time from the Dashboard for all your remote locations.



### EDL-8 WiFi SPECIFICATIONS

Microcontroller:	32 bit flash microcontroller cortex M3
Digital sensor options:	Temperature, Humidity, CO2, pH
	Temperature Range: -200°C to +380°C / -328°F to +716°F
	Temperature Accuracy: +/- 0.2°C at center
	Temperature Resolution: 0.1°C / .18°F
	Humidity: +/-2% to 70% RH
	CO2: up to 30%
	pH: 1.0 to 14.0
Memory:	64k per channel, 1MB flash memory for data storage
Recording Rate (sec):	Set by user
Update Data Rate (records):	Set by user
Alarm Programming:	High and low alarm limits set by temperature and time
Alarm Modes:	Visual (flashing) and audible (beeping):
Alarm Notifications:	Alert notification to e-mail, phone, pager and SMS
Interface:	RJ9 interface for 5 RTD sensors, Mini USB-B 12C interface for 3 probes
Communication:	USB 2.0 with mini USB-B connector Ethernet IEEE 1588 with protected RJ-45 WiFi ethernet (optional)
Power Source:	AC/DC power jack Li-polymer 3.6V-2Ah battery for data logging function. Battery backup—Failsafe prevents data loss.
PC software:	MaxiThermal WiFi
Accessories:	Optional flat cable probes up to 30 meters.
<b>Physical Properties</b>	
Operating range:	0°C to 50°C,
Storage range:	-20°C to +85°C
Display:	Graphic dot matrix LCD 128x86 viewing area: 60 x 40 mm
<b>Physical Properties</b>	
Width	4.9 in. / 12.5 cm
Height	2.87 in. / 7.29 cm
Depth	1.16 in. / 2.95 cm
Weight:	8 oz. / 230 grams

For FDA, GxP, JCAHO, CAP, HFAP, CARE, CHAP, ACHC, URAC, HOAA, AABB and Regulatory Compliance



# MARATHON PRODUCTS

## EDL-XYZ™ 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 Range

-29°C to 72°C  
-20°F to 160°F

### Humidity Range

0% to 100%  
3-D Accelerometer Range:  
±2G; ±4G; ±8G; ±16G  
Maximum vibration  
bandwidth: 500Hz

### Memory EEPROM, Storage

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

- 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.

### Waterproof Enclosure:

The product package is hermetically sealed to an IP66 rating.

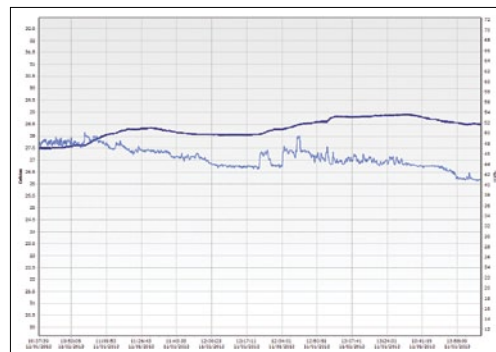
### EDL-XYZ DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage:	Temperature: 8k, Humidity: 8k, Vibration: 42k
Temperature Range:	-29° C to +72° C / -20° F to +160° F
Temperature Accuracy:	±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
Thermal Sensor:	Wired Chip in Glass Thermistor
Temperature Resolution:	0.2°C / 0.4°F
Measurement Intervals:	Programmable from 2 seconds to months.
Examples:	Temp/RH - 8K      Vibration - 42K
4 days	0 min. 43 sec.      0 min. 8 sec.
7 Days	1 min. 15 sec.      0 min. 14 sec.
16 Days	2 min. 50 sec.      0 min. 32 sec.
30 Days	5 min. 18 sec.      1 min. 0 sec.
60 Days	10 min. 36 sec.      1 min. 59 sec.
90 Days	15 min. 54sec.      2 min. 59 sec.
365 Days	1hr. 4 min. 28 sec.      12 min. 2 sec.
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 Maximum vibration bandwidth: 500Hz 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
Internal Software Provides:	Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type
Power Source:	One CR2450 Lithium Battery with a 1 year operating 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

For FDA, GxP, JCAHO, CAP, HFAP, CARE, CHAP, ACHC, URAC, HOAA, AABB and Regulatory Compliance



Optional bracket



Temperature & Humidity Recording Graph



Vibration Recording Graph

# MARATHON PRODUCTS

## The EDL-RTD2™

*Digital Dual Sensor Thermal Temperature Data Logger for industrial and remote monitoring of refrigerated, ambient and high temperature applications*

The EDL-RTD2 is a reliable and cost effective digital temperature recorder for all industrial and commercial applications requiring monitoring a wide temperature range. The EDL-RTD2 has one sensor for ambient range temperatures inside the case, and one external RTD stainless-steel probe that monitors temperatures from -29°C (-20°F) up to +380°C (+716°F) for applications such as warmers, incubators and ovens.



These high-precision laboratory-grade products will operate up to 3 years without a battery change. The LCD display provides real time viewing of ambient and remote temperature prior to downloading to a computer.

The internal software is user programmable and provides the following features: start time delay, sampling intervals, high and low alarm window values, recording status, and measurement data.

All our data loggers have 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.

In conjunction with our Maxithermal software, you can document your high-temperature uses for your GxP and FDA regulated environment. To download recorded information, simply plug the unit into a PC using

### Temperature Range

Internal Sensor:  
-29°C to 72°C

External probe:  
-29°C to 380°C

### Temperature Accuracy

(NIST traceable)  
±0.2°C at center of range  
±0.5°C at extremes

### Memory

64k

### Measurement intervals

2 seconds to months

### Number of measurements

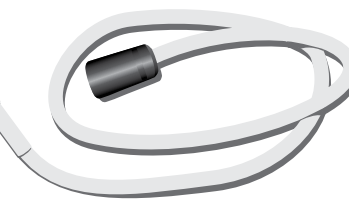
approx. 64,000 samples

a standard USB connector. The USB cable and PC software are available as accessory items.

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

Waterproof enclosure: the product package is hermetically sealed to an IP66 rating.

Calibration: EDL-RTD2 is a laboratory grade multi-use logger with internal NTC and external RTD probe for precision temperature capture. Multi point calibration certificates can be provided for additional costs.



### EDL-RTD2 SPECIFICATIONS

<b>Internal Sensor:</b>	Wired chip in glass thermistor
<b>Operating Range</b>	-29°C to +72°C / -20°F to +161°F
<b>Accuracy: (NIST traceable)</b>	±0.2°C at 2° to 10°C / ±0.5°C at extremes / 0.36°F at 32° to 50°F / .9°F at extremes
<b>External Probe:</b>	RTD Stainless Steel Tip = 12 cm / 4.72 in.; Flexible Teflon-coated Cable = 51 cm / 20 in.
<b>Operating Range:</b>	-29°C to +380°C / -20°F to +716°F
<b>Accuracy: (NIST traceable)</b>	±0.2°C at 0° to 30°C / ±1.0°C at extremes / 0.36°F at 32° to 86°F / .18°F at extremes
<b>Memory EEPROM, Storage:</b>	64k memory,
<b>No. of Measurements:</b>	Approximately 64,000.
<b>Measurement Intervals</b>	Programmable from 2 secs per reading.
<b>Examples:</b>	4 days = 0 min. 06 sec. 7 days = 0 min. 10 sec. 16 days = 0 min. 22 sec. 30 days = 0 min. 40 sec. 60 days = 1 min. 20 sec. 90 days = 1 min. 59 sec. 365 days = 8 min. 02 sec.
<b>Computer Interface:</b>	USB port
<b>Power Source:</b>	One CR2477 Lithium coin cell battery with a 3 year operating life and a 5 year shelf life.
<b>Size:</b>	Length            Width            Depth 9.0 cm (3.5 in.)    5.0 cm (2 in.)    2.8 cm (1.1 in.)
<b>Weight:</b>	95 grams / 3.3 oz.
<b>CE Certified</b>	Yes
<b>Waterproof</b>	Yes
<b>PC Software</b>	MaxiThermal Software 21CFR Part 11 Compliant Software
<b>Software Highlights:</b>	Report Summary & Statistics File Manager Note Attachment Elapsed Time or Date/Time Recorded view Celsius or Fahrenheit display
<b>Warranty</b>	3 Months
<b>Optional Accessories:</b>	Standard Probe, 3 meter cable with stainless steel tips. Custom probes available up to 10 meters. NIST Certificate + 1, 2 or 3 Point Calibration Mounting bracket

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

# MARATHON PRODUCTS

## The EDL-LN2™

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

The EDL-LN2 is a reliable and cost-effective digital temperature recorder for all industrial and commercial applications. The EDL-LN2 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), ideal for monitoring all of your cryogenic stem cells and biologic materials.



These high-precision laboratory-grade products will operate up to 3 years without a battery change. The LCD display provides real time viewing of ambient and remote temperature prior to downloading to a computer.

The internal software is user programmable and provides the following features: start time delay, sampling intervals, high and low alarm window values, recording status, and measurement data.

All our data loggers have 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.

In conjunction with our Maxithermal software, you can document your monitoring for your GxP and FDA regulated environment. To download recorded information, simply plug the unit into a PC using a standard USB connector. The USB cable and PC

### Temperature Range

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

### Temperature Accuracy

(NIST traceable)  
±0.2°C at center of range  
±0.5°C at extremes

### Memory

64k

### Measurement intervals

2 seconds to months

### Number of measurements

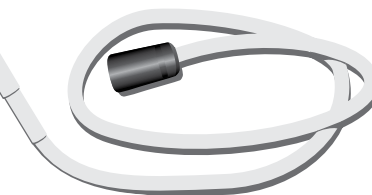
approx. 64,000 samples

software are available as accessory items.

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

Waterproof enclosure: the product package is hermetically sealed to an IP66 rating.

Calibration: EDL-LN2 is a laboratory grade multi-use logger with internal NTC and external RTD probe for precision temperature capture. Multi point calibration certificates can be provided for additional costs.



Optional bracket

### EDL-LN2 SPECIFICATIONS

<b>Internal Sensor:</b>	Wired chip in glass thermistor
<b>Operating Range</b>	-29°C to +72°C / -20°F to +161°F
<b>Accuracy: (NIST traceable)</b>	±0.2°C at 2° to 10°C / ±0.5°C at extremes / 0.36°F at 32° to 50°F / .9°F at extremes
<b>External Probe:</b>	RTD Stainless Steel Tip = 12 cm / 4.72 in.; Flexible Teflon-coated Cable = 51 cm / 20 in.
<b>Operating Range:</b>	-200°C to +72°C / -328°F to +161.6°F
<b>Accuracy: (NIST traceable)</b>	±0.2°C at 0° to 30°C / ±1.0°C at extremes / 0.36°F at 32° to 86°F / .18°F at extremes
<b>Memory EEPROM, Storage:</b>	64k memory,
<b>No. of Measurements:</b>	Approximately 64,000.
<b>Measurement Intervals</b>	Programmable from 2 secs per reading.
<b>Examples:</b>	4 days = 0 min. 06 sec. 7 days = 0 min. 10 sec. 16 days = 0 min. 22 sec. 30 days = 0 min. 40 sec. 60 days = 1 min. 20 sec. 90 days = 1 min. 59 sec. 365 days = 8 min. 02 sec.
<b>Computer Interface:</b>	USB port
<b>Power Source:</b>	One CR2477 Lithium coin cell battery with a 3 year operating life and a 5 year shelf life.
<b>Size:</b>	Length            Width            Depth 9.0 cm (3.5 in.)    5.0 cm (2 in.)    2.8 cm (1.1 in.)
<b>Weight:</b>	95 grams / 3.3 oz.
<b>CE Certified</b>	Yes
<b>Waterproof</b>	Yes
<b>PC Software</b>	MaxiThermal Software 21CFR Part 11 Compliant Software
<b>Software Highlights:</b>	Report Summary & Statistics File Manager Note Attachment Elapsed Time or Date/Time Recorded view Celsius or Fahrenheit display
<b>Warranty</b>	3 Months
<b>Optional Accessories:</b>	Standard Probe, 3 meter cable with stainless steel tips. Custom probes available up to 10 meters. NIST Certificate + 1, 2 or 3 Point Calibration Mounting bracket

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

# MARATHON PRODUCTS

## 2C\TEMP-RH™

# Data Loggers

*Get Waterproof Temperature & Humidity with Digital Display and USB Connectivity.*

The 2C\TEMP-RH 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.

The 2C\TEMP-RH is our top-of-the-line data logger with dual 8k memory banks for temperature and humidity, 0.2°C midpoint temperature accuracy and resolution, and 3% midpoint humidity accuracy. This is a must have device if you work in a laboratory or metrology department.

**Functions include:** The convenient palm-sized design has a digital display that provides real-time viewing of all temperature and humidity information including min/max temperature and current humidity values. One quick look provides instant product acceptance or “quarantine” decisions. 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:** All our data loggers have the ability to program alarm limits. Should the temperature reach levels outside these limits,



### Temperature Range

-29° C to +72° C  
-20° F to +160° F

### Temperature Accuracy

(NIST traceable)  
±0.2°C from 0° to 10°C  
±0.5°C at extremes

### Memory EEPROM, Storage

2 banks of 8k memory  
(7680 data points)

### Humidity Range

0% to 100%

### Humidity Accuracy

(NIST tracable)  
±3% from 25% to 75%  
±5% at extremes

the onboard red LED will light until reset by the user.

**Computer Ready:** Marathon’s easy-to-use MaxiThermal software is available for Microsoft Windows 2000, XP, Vista & 7. Simply plug the unit into a standard USB port on your PC. The MaxiThermal software and USB cable are available as separate accessory items.



### 2C\TEMP-RH DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage:	2 banks of 8k memory		
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		
Humidity Range:	0% to 100%		
Humidity Accuracy:	±3% from 25% to 75%, ±5% at extremes		
Temperature Resolution:	0.2°C / 0.4°F		
Measurement Intervals:	Programmable from 2 seconds to months. Examples: 4 days = 0 min. 43 sec. 7 days = 1 min. 15 sec. 16 days = 2 min. 50 sec. 30 days = 5 min. 19 sec. 60 days = 10 min. 38 sec. 90 days = 15 min. 57 sec. 365 days = 1 hr. 4 min. 39 sec.		
Temperature Sensor:	NIST-traceable Precision Thermistor		
High and Low Alarm Limits:	LED indicator and audible alarm set by temperature and time		
Internal Clock Accuracy:	Better than 2 minutes per month		
Computer Interface:	Mini USB Connector		
Internal Software Provides:	Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type		
Power Source: life and	One CR2450 Lithium Battery with a 2 year operating 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:	106 g / 3.7 oz.		
Warranty:	12 months		
CE Certified:	CE Marking File		

**For FDA, GxP, JCAHO, CAP, HFAP, CARE, CHAP, ACHC, URAC, HOAA, AABB and Regulatory Compliance**



Optional bracket



# MARATHON PRODUCTS

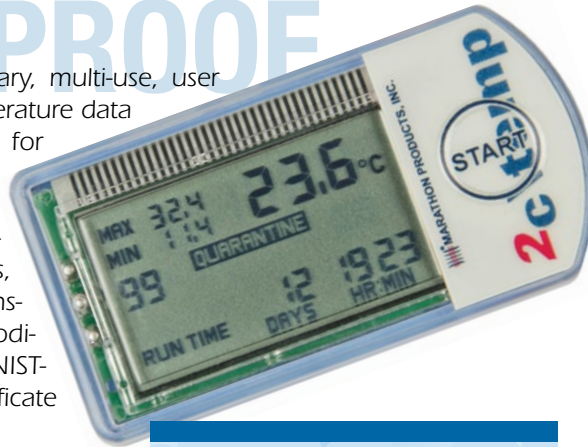
## 2c\temp-LCD™

# Data Loggers

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

# WATERPROOF

**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 NIST-Traceable 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.



### 2c\temp-USB DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage:	8k (7,680 data points)		
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 (±0.4°F at 32° to 50° F, ±1.8°F at extremes)		
Measurement Intervals:	User programmed from 2 seconds to months.		
For example:	4 days = 0 min. 43 sec. 7 days = 1 min. 15 sec. 16 days = 2 min. 50 sec. 30 days = 5 min. 19 sec. 60 days = 10 min. 38 sec. 90 days = 15 min. 57 sec. 365 days = 1 hr. 4 min. 39 sec.		
Temperature Sensor:	NIST-traceable Precision SMT Thermistor		
Indicators:	Start/Stop and Alarm		
High and low alarm limits:	LCD display. ALARM set by temperature and time.		
Computer Interface:	USB Cradle		
Internal Software Provides:	Times, Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type		
Power Source:	Lithium Battery (1 year operating, 3 year shelf life)		
Size:	Length	Width	Depth
	6.4 cm (2.5 in.)	3.3 cm (1.3 in.)	0.9 cm (0.35 in.)
Weight:	56.7 g (2.0 oz.)		
Quantity:	Minimum 20 units. Your order is shipped on the same day if the order is placed before 2 p.m. PST.		
Options:	MaxiThermal software USB cradle		
Serialization:	This recorder is programmed at the factory with a unique serial number for positive tracking.		
Waterproof Enclosure:	The product package is hermetically sealed to an IP66 rating.		
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 and Regulatory Compliance**

# MARATHON PRODUCTS

## 2c\temp-USB™ Data Loggers

*Waterproof Temperature Data logger with USB Connectivity!*

The 2c\temp-USB 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 generous 8k memory and a 3 year battery life. With increased accuracy over the 2c\temp and echo, 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 on-board 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)  
±0.2°C at zero degrees  
±2.0°C at extremes

### Measurement intervals

2 seconds to weeks

### Memory EEPROM, Storage

8k memory,

### Number of measurements

8k memory  
(7680 data points)

### Computer ready:

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



### 2c\temp-USB DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage:	8k		
Temperature Range:	-29° C to +72° C / -20° F to +160° F		
Temperature Accuracy:	0.2°C at 20°C, 0.5°C at extremes / 0.4°F at 68°F, 1.0°F at extremes		
Temperature Resolution:	0.2°C / 0.4°F		
Measurement Intervals:	Programmable from 2 seconds to weeks. Examples: 4 days = 0 min. 43 sec. 7 days = 1 min. 15 sec. 16 days = 2 min. 50 sec. 30 days = 5 min. 19 sec. 60 days = 10 min. 38 sec. 90 days = 15 min. 57 sec. 365 days = 1 hr. 4 min. 39 sec.		
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:	Mini USB Connector		
Internal Software Provides:	Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type		
Power Source:	Two 3.6 Volt Lithium Battery with a 3 year battery life and 5 year shelf life. Battery is rated at six months, if used continuously at -29C		
Size:	Length 9.0 cm (3.5 in.)	Width 5.0 cm (2 in.)	Depth 2.0 cm (0.8 in.)
Weight:	106 g / 3.7 oz.)		
Warranty:	12 months		
CE Certified:	CE Marking File		

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

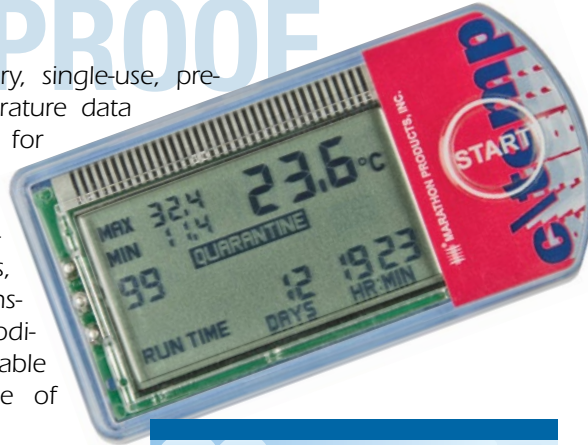
# MARATHON PRODUCTS

# c\temp-LCD™ Data Loggers

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

# WATERPROOF

c\temp-LCD is the revolutionary, single-use, pre-programmed, 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 c\temp-LCD is NIST-Traceable 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:** c\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.



## c\temp-USB DATA LOGGER SPECIFICATIONS

Memory EEPROM, Storage:	8k (7,680 data points)		
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 (±0.4°F at 32° to 50° F, ±1.8°F at extremes)		
Measurement Intervals:	Pre-programmed from 2 seconds to months.		
For example:	4 days = 0 min. 43 sec. 7 days = 1 min. 15 sec. 16 days = 2 min. 50 sec. 30 days = 5 min. 19 sec. 60 days = 10 min. 38 sec. 90 days = 15 min. 57 sec. 365 days = 1 hr. 4 min. 39 sec.		
Temperature Sensor:	NIST-traceable Precision SMT Thermistor		
Indicators:	Start/Stop and Alarm		
High and low alarm limits:	LCD display. ALARM set by temperature and time.		
Computer Interface:	USB Cradle		
Internal Software Provides:	Times, Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type		
Power Source:	Lithium Battery (1 year operating, 3 year shelf life)		
Size:	Length	Width	Depth
	6.4 cm (2.5 in.)	3.3 cm (1.3 in.)	0.9 cm (0.35 in.)
Weight:	56.7 g (2.0 oz.)		
Quantity:	Minimum 20 units. Your order is shipped on the same day if the order is placed before 2 p.m. PST.		
Options:	MaxiThermal software USB cradle		
Serialization:	This recorder is programmed at the factory with a unique serial number for positive tracking.		
Waterproof Enclosure:	The product package is hermetically sealed to an IP66 rating.		

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 and Regulatory Compliance**

# MARATHON PRODUCTS

# c\temp-USB™ Data Logger

*The Waterproof Single-use Solution with USB Connectivity.*

**c\temp-USB** 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 larger format c\temp-USB has an extended battery life, is waterproof and can endure rough handling. 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 (±0.4°F)  
from 0° to 10° C  
(30° to 50° F);  
±0.5°C (±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:** MaxiThermal software is used to read the logger. It runs on Windows 2000, XP, Vista, & 7. To download recorded information, simply plug the unit into the standard USB port of your PC. The MaxiThermal software and USB cable are available as separate accessory items.



## c\temp-USB SPECIFICATIONS

Memory EEPROM, Storage:	8k
Temperature Range:	-29°C to 72°C / -20°F to 160°F
Temperature Accuracy:	±0.2°C at 0° to 10°C, ±0.5°C at extremes (±0.4°F at 32° to 50° F, ±0.9°F at extremes)
Measurement Intervals:	Pre-programmed from 1 minute to hours depending on model type (duration) 4 days = 0 min. 43 sec. 7 days = 1 min. 15 sec. 16 days = 2 min. 50 sec. 30 days = 5 min. 19 sec. 60 days = 10 min. 38 sec. 90 days = 15 min. 57 sec. 365 days = 1 hr. 4 min. 39 sec.
Temperature Sensor:	NIST-traceable Precision Thermistor
Indicators:	Start/Stop and Alarm
Alarm Limits:	LED indicator alarm set by temperature and time.
Computer Interface:	mini USB connector
Internal Software Provides:	Times, Start time, Interval, User description, Alarm values, Recording status, Measurement data, Software version, Serial number, Model type.
Power Source:	Lithium Battery (2 Year Shelf Life)
Size:	Length                      Width                      Depth 13.0 cm (5.1 in.)    6.8 cm (2.7 in.)    2.0 cm (0.8 in.)
Weight:	71 g (2.5 oz.)
Quantity:	Minimum 20 units
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 and Regulatory Compliance**

# MARATHON PRODUCTS

# MaxiThermal™ On-Line Software

**NO LIMITS – Any File. Any Location. Any Time. Any Users.**

**CLOUD-BASED DATA LOGGER ACCESS with 21 CFR:11 Compliant Database**

MaxiThermal On-Line Enterprise SaaS is the ideal solution for managing and analyzing data from multiple data loggers with multi-user access from multiple locations, for all your clinical shipments. CLOUD-BASED ACCESS OR ON YOUR SERVER, it is easy to find and sort all your data files using our File Management Software.

## Features:

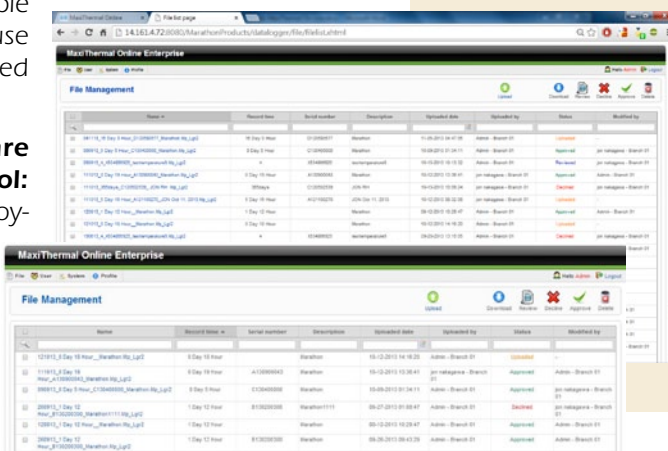
**Location Independence:** Data logger files sourced anywhere can be centrally stored, managed and monitored.

**Flexible Hosting Options:** From single Windows PC to multiple servers in multiple locations; local in-house servers to cloud-based services.

**Web-based Software with Dashboard Control:** Means hassle-free deployment for access by an unlimited number of users with a standard web browser. An intuitive and interactive



Secure Login



Dashboard Control

dashboard makes it easy to view, manage, save and retrieve multiple data files with ease.

**Concurrent & Secure Access:** Enable multiple users to simultaneously perform analytics and administration functions while constraining actions based on permissions.

**Audit Trail:** Individual actions and exceptions are logged to the database for accountability and traceability.

**Bulk Administration:** Multiple logger data files can be managed effortlessly from a single web page.

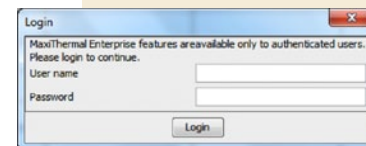
**Historical Analytics:** View aggregated logger data for any period in the past in graphical or tabular formats.

**Multiple Sensor Inputs & Attribute Filters:** Data files from different sensors are stored and managed in a central file database. Temperature, CO2, Humidity, Vibration Monitoring, (Electrical Power Consumption, N2, and O2 are Pending). A single click is all it takes to filter for specific status & conditions, e.g. Alarms.

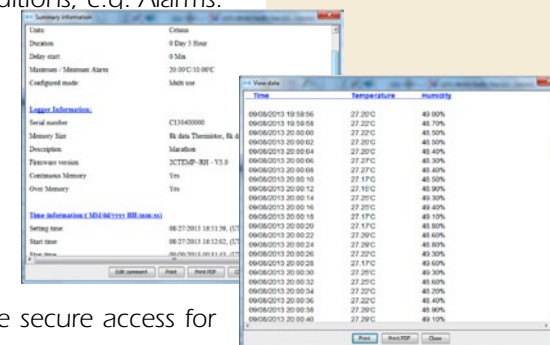
**Support for all popular browsers:** Flexible, intuitive interface ensures that MaxiThermal-Online will work the same way regardless of your business browser standard.

**Print Logger Reports & Data:** Centralized storage with remote secure access for all loggers' data files.

Marathon Products MaxiThermal-Online, a flexible, easy-to-use solution.



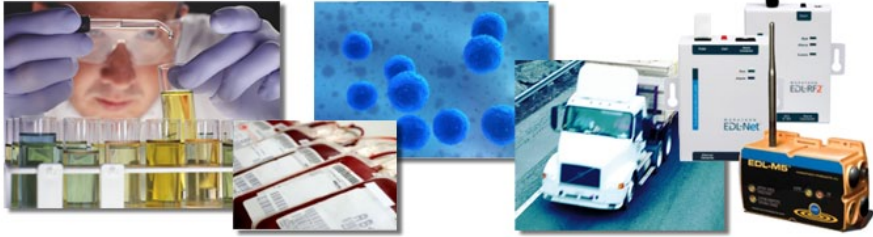
Export to Microsoft Excel for further analysis and reporting.



Print Logger Report & Data

# MARATHON PRODUCTS LoggerPulse™ Software

Any File. Any Location. Any Time. Any Users.



Our enterprise software is the ideal solution for managing and analyzing data from multiple data loggers from multiple locations.

**Location Independence:** Data loggers located anywhere can be centrally managed and monitored.

**Flexible Hosting Options:** From single Windows PC to multiple servers in multiple locations; local in-house servers to cloud-based services.

**Web-based Software:** Means hassle-free deployment for access by an unlimited number of users with a standard web browser.

**Dashboard Control:** An intuitive and interactive dashboard makes it easy to view status, manage, and program multiple loggers with ease.

## Alarm Notifications:

Highly customizable alarm notifications ensure that the right people are alerted when loggers detect a problem. Alarm notifications can be sent as a phone call to land lines and mobile phones, as email to regular email accounts or to mobile phones as text messages.

## 21CFR COMPLIANT

- Controls for closed and open systems
- Electronic audit trails for regulatory compliance.
- Electronic audit trails for regulatory compliance.

Name	Address	Last Status	Last Status Date	Notes
h8-NET 102 F 80604	20.2	4/18/2012 9:21:31 AM	30 sec Interval data 10 G	
h8-NET 103	19.7	4/18/2012 9:21:14 AM	1 min Interval	
h8-NET 104 F 80604	19.9	4/18/2012 9:20:44 AM	1 Min & Alarm	
h8-NET 105 F 80604	21.1	4/18/2012 9:21:30 AM	1 min Interval	
h8-NET 106 F 80604	21.2	4/18/2012 9:21:30 AM	1 min & Alarm	
h8-NET 107 F 80604	19.5	4/18/2012 9:20:10 AM	1 min & Alarm	
h8-NET 110	19.9	4/18/2012 9:20:44 AM	1 min & Alarm	
h8-NET 111	19.1	4/18/2012 9:18:38 AM	1 min Interval	
h8-NET 112	20.8	4/18/2012 9:19:30 AM	1 min Interval	
h8-NET 113	19.7	4/18/2012 9:18:38 AM	1 min & Alarm	
h8-NET 114	21.6	4/18/2012 9:20:12 AM	1 min Interval	
h8-NET 115	21.5	4/18/2012 9:18:38 AM	1 min Interval	
h8-NET 116	21.1	4/18/2012 9:18:38 AM	1 min Interval	
h8-NET 117	20.6	4/18/2012 9:18:38 AM	1 min Interval	
h8-NET 118	19.1	4/18/2012 9:20:44 AM	1 min & Alarm	
h8-NET 121	21.2	4/18/2012 9:20:22 AM	1 min & Alarm	
h8-NET 122	20.8	4/18/2012 9:20:10 AM	1 min & Alarm	
RF-0086	19.7	4/18/2012 9:20:10 AM	1 min Interval	
RF-0087	20.2	4/18/2012 9:21:16 AM	1 min Interval	
RF-0088	22.9	4/18/2012 11:22:15 AM	1 min Interval	
RF-0074	22.1	4/18/2012 9:18:38 AM	1 min Interval	
RF-0081	19.4	4/18/2012 9:18:38 AM	1 min	

Dashboard Control

**Real-time Analytics:** Multiple users can concurrently monitor data streamed in real-time from any number of loggers.

**Real-time Data:** Logger data can be displayed individually or aggregated.

## Bulk Administration:

Programming, starting and stopping hundreds of loggers can be done effortlessly from a single web page.

## Concurrent & Secure Access:

Enable multiple users to simultaneously perform analytics and administration functions while constraining actions based on permissions.

**Audit Trail:** Individual actions and exceptions are logged to the database for accountability and traceability. User notes are incorporated for explanation and follow up.

**Historical Analytics:** View aggregated logger data for any period in the past in graphical or tabular formats. Export to Microsoft Excel for further analysis and reporting.

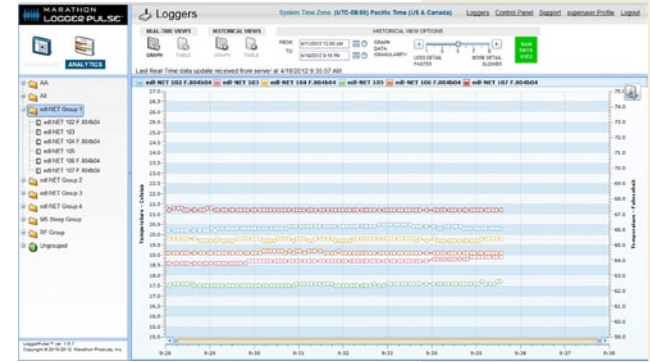
## Attribute Filters:

A single click is all it takes to filter for specific status and conditions, e.g. Alarms.

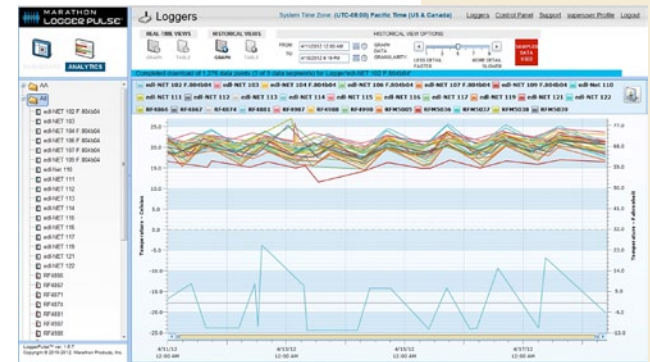
## Multi-Sensor Inputs:

Temperature, Humidity, Vibration Monitoring, Electrical Power Consumption, CO2, N2, O2 (Pending).

**Support for all popular browsers:** Flexible, intuitive interface ensures that LoggerPulse will work the same way regardless of your business browser standard.



Real-Time Analytics



Historical Analytics

*Don't ship  
without us!®*



Visit us on the Web at [www.marathonproducts.com](http://www.marathonproducts.com)  
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