

# THERM•A•LERT-P

## TEMPERATURE MONITORING AND ALARMING SYSTEM WITH WIRELESS TWO-WAY COMMUNICATION



**MADGETECH**  
WE BUILD DATA LOGGERS

### Features

- Wireless Two-Way Communication
- Precision RTD Sensing Element
- View Data in Real Time
- 2 Year Battery Life
- Battery Life Indicator
- NIST Traceable
- Field Upgradeable

### Benefits

- Fast Installation
- Minimal Long-Term Maintenance
- Full Communication From One PC

### Applications

- Refrigerator/Freezer Monitoring
- Calibration chamber monitoring
- Laboratory monitoring
- Hospitals
- Blood Banks
- HVAC

The MadgeTech Therm•A•Lert-P is a temperature monitoring and alarming system, designed specifically for laboratories, warehouses and other environments where temperature monitoring is critical. The system can be used to monitor a single location, or expanded to monitor hundreds of locations over a broad area (additional MadgeTech wireless loggers and transceivers may be required).

The Therm•A•Lert-P provides real time wireless, or wired, notification of temperature. The data logger features user programmable alarms that can be configured to send a message via text message (standard SMS rates apply), on-screen alarm and/or via e-mail if an alarm condition is met. The standard Therm•A•Lert-P includes an RTD probe with a 9 ft lead wire and a 4.5 in probe sheath.

The Therm•A•Lert-P device is equipped with two-way wireless communication. MadgeTech wireless systems offer a flexible and robust integration for many applications. One PC can provide control and communication to all the wireless loggers within range, or the system can be divided into smaller subnets (using a different RF channel). In addition to the data being transmitted wirelessly, the Therm•A•Lert-P also stores each reading to non-volatile internal memory for a secure backup. Customers can set up automatic archiving preferences, ensuring all data is saved and retained to comply with federal regulations.

The Therm•A•Lert-P probe can be mounted inside an ethylene glycol bottle. When placed in a chamber, the temperature of the ethylene glycol is measured rather than air temperature. This more accurately represents the temperature of the contents inside the chamber, and prevents false alarm triggers when the chamber door is opened and closed. The glycol bottles are available in 30 ml, 60 ml and 250 ml sizes.

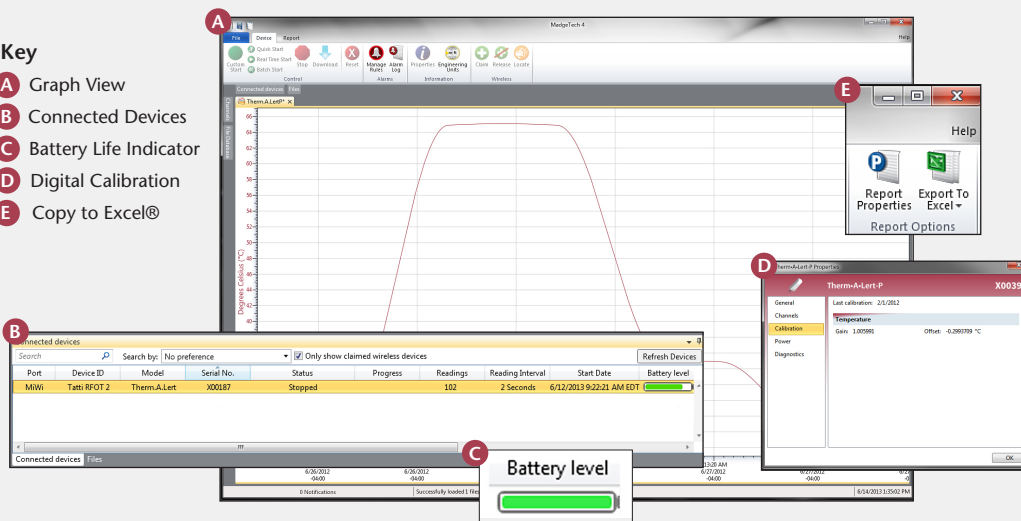


Ethylene glycol bottle (optional)

## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Connected Devices
- C** Battery Life Indicator
- D** Digital Calibration
- E** Copy to Excel®



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# THERM•A•LERT-P SPECIFICATIONS\*

## Temperature\*\*

Probe Temperature Range:	-200 °C to +260 °C (-328 °F to +500 °F)
Lead Wire Range:	-200 °C to +200 °C (-328 °F to +392 °F)
Glycol Bottle (optional) Range:	-50 °C to +80 °C (-58 °F to +176 °F)
Resolution:	0.01 °C (0.018 °F)
Probe Calibrated Accuracy:	±0.1 °C/±0.18 °F (-20 °C to +80 °C/-4 °F to +176 °F) ±0.5 °C/±0.9 °F (outside of specified range)

## Wireless

RF Frequency:	2.45 GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication
Band:	ISM band 2.405-2.48 GHz
Maximum Output Power:	+0 dBm typical
Receiver Sensitivity (RFC1000):	-95 dBm typical
Transmission Distance (to data loggers)	<ul style="list-style-type: none"> <li>• <b>RFC1000, RFC1000-CE &amp; RFC1000-IP69K</b> 2,000 ft max. outdoors - line of sight unobstructed 500 ft max. indoors - typical urban environment</li> </ul>
Transmission Distance (to other RFC1000's)	<ul style="list-style-type: none"> <li>• <b>RFC1000</b> 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment</li> <li>• <b>RFC1000-CE</b> 2,500 ft max. outdoors - line of sight unobstructed 700 ft max. indoors - typical urban environment</li> <li>• <b>RFC1000-IP69K</b> 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment</li> </ul>

## General

Reading Rate:	1 reading every 2 seconds up to 1 reading every 24 hours
Memory:	30,000 readings; software configurable memory wrap
Wrap Around:	Yes
Start Modes:	Immediate start
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Battery Type:	3.6V lithium battery included; <b>user replaceable</b>
Battery Life:	2 years typical
Data Format:	Date and time stamped °C, °F, K, °R
Time Accuracy:	±1 minute / month (at 25 °C)
Computer Interface:	USB to mini USB, 250,000 baud for standalone operation or RFC1000 required for wireless operation
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-20 °C to +80 °C (-4 °F to +176 °F), 0 %RH to 95 %RH non-condensing
Dimensions:	<ul style="list-style-type: none"> <li>• Data Logger: 2.2 in x 5.0 in x 1.3 in (55 mm x 127 mm x 33 mm)</li> <li>• Wire: 9 ft</li> <li>• Probe: 3/16 in dia x 4.5 in</li> </ul> Glycol bottle: <ul style="list-style-type: none"> <li>• <b>30 ml:</b> 2.5 in x 1.5 in x 1.5 in (63 mm x 38 mm x 38 mm)</li> <li>• <b>60 ml:</b> 3.3 in x 1.6 in x 1.6 in (84 mm x 41 mm x 41 mm)</li> <li>• <b>250 ml:</b> 5.7 in x 2.3 in x 2.3 in (145 mm x 58 mm x 58 mm)</li> </ul>
Enclosure Material:	ABS Plastic
Approvals:	US (FCC), CA (IC), CE

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. GO TO [WWW.MADGETECH.CO.NZ](http://WWW.MADGETECH.CO.NZ) FOR DETAILS.

\*\*Temperature specifications based on ideal 100 Ω Pt RTD compliant with IEC 751 (1983) and ITS-90, 5000 Ω.

**BATTERY WARNING:** Do not recharge, disassemble, heat above 100 °C (212 °F), incinerate or expose contents to water. Vent, rupture or explosion may result and cause severe burns.

## ORDERING INFORMATION

MODEL	DESCRIPTION
THERM•A•LERT-P	Temperature data logger with wireless transceiver equipped with precision RTD probe
THERM•A•LERT-P-30	Temperature data logger with wireless transceiver equipped with RTD probe and 30 ml glycol bottle.
THERM•A•LERT-P-60	Temperature data logger with wireless transceiver equipped with RTD probe and 60 ml glycol bottle.
THERM•A•LERT-P-250	Temperature data logger with wireless transceiver equipped with RTD probe and 250 ml glycol bottle.
RFC1000	Wireless RF transceiver/repeater. USB to mini USB adapter & power supply included.
RFC1000-CE	Wireless RF transceiver/repeater, CE approved for Europe. USB to mini USB adapter & power supply included.
RFC1000-IP69K	Wireless RF transceiver/repeater, splash proof with an IP69K rating. USB to mini USB adapter included.
*NIST	NIST Calibration Certificate
TL-5104	Replacement battery for Therm•A•Lert-P

## Countries approved for use, purchase and distribution of the Therm•A•Lert-P:

Australia, Austria, Belgium, Bulgaria, Canada, Chile, Columbia, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Honduras, Hungary, Iceland, Ireland, Israel, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Mexico, New Zealand, Norway, Peru, Poland, Portugal, Romania, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Thailand, The Netherlands, Turkey, United Kingdom, United States, Venezuela, Vietnam