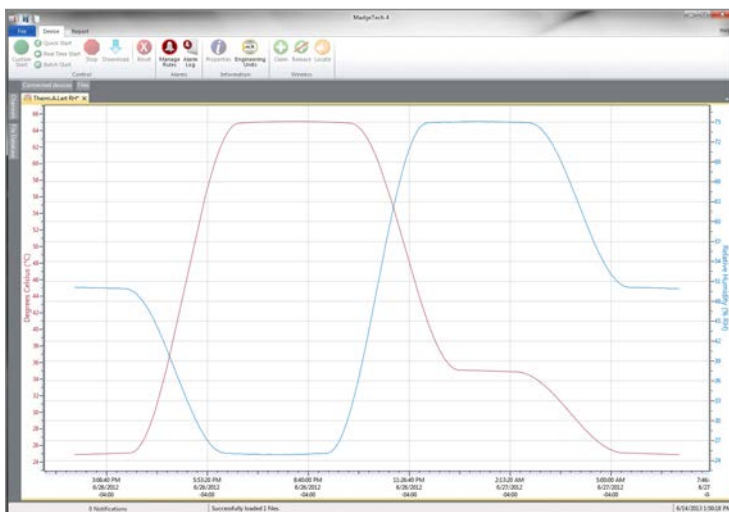# ThermAlert-RH
Wireless Humidity and Temperature Data Logger

The ThermAlert-RH is a humidity and temperature monitoring and alarming system, designed specifically for laboratories, warehouses and other environments where temperature and humidity 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 ThermAlert-RH provides real time wireless, or wired, notification of humidity and 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.
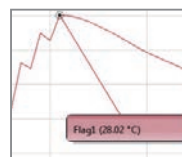
The ThermAlert-RH device is equipped with two-way wireless communication. MadgeTech wireless systems offer a flexible and robust integration for many applications. One PC can provide control and communication to all the wireless loggers within range, or the system can be divided into smaller subnets (using a different RF channel). In addition to the data being transmitted wirelessly, the ThermAlert-RH also stores each reading to non-volatile internal memory for a secure backup. Customers can also set up automatic archiving preferences, ensuring all data is saved and retained to comply with federal regulations.

Features

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

Benefits

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

Applications

- Calibration Chamber Monitoring
- Laboratory Monitoring
- Hospitals
- Blood Banks
- Warehouses
- Museums

MadgeTech 4 Software Features

Graph View

Cooling Flags

Export to Excel

Tabular Data View

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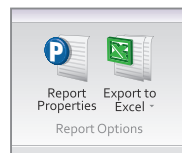
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view

SPECIFICATIONS
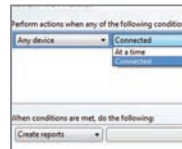
Specifications are subject to change without notice. Specific warranty remedy limitations apply.

TEMPERATURE*

Temperature Range	-20 °C to +80 °C (-4 °F to +176 °F)
Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.50 °C/± 0.9 °F (0 °C to +55 °C/32 °F to 131 °F)

HUMIDITY

Humidity Range	0 %RH to 95 %RH non-condensing
Resolution	0.1 %RH
Calibrated Accuracy	±3.0 %RH (±2 %RH typical at 25 °C/77 °F)

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)	RFC1000, RFC1000-CE & RFC1000-IP69K 2,000 ft max. outdoors - line of sight unobstructed 500 ft max. indoors - typical urban environment
Transmission Distance (to other RFC1000's)	RFC1000 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment RFC1000-CE 2,500 ft max. outdoors - line of sight unobstructed 700 ft max. indoors - typical urban environment RFC1000-IP69K 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment

GENERAL

Reading Rate	1 reading every second up to 1 reading every 24 hours
Memory	15,000 readings; software configurable memory wrap
Wrap Around	Yes
Start Modes	Immediate and delay start up to 18 months
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included; user replaceable
Battery Life	2 years typical
Data Format	Date and time stamped °C, K, °F or °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
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.03.06 or later Secure Software version 4.1.3.0 or later
Operating Environment	-20 °C to +80 °C (-4 °F to +176 °F) 0 %RH to 95 %RH non-condensing
Dimensions	2.2 in x 5.25 in x 1.3 in (55 mm x 133 mm x 33 mm)
Weight	3.7 oz (101 g)
Material	ABS Plastic
Approvals	US (FCC), CA (IC), CE
Alarm	Programmable high and low limits for temperature. Alarm is activated when temperature reaches or exceeds set limits.

*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

ThermAlert-RH	PN 901718-00	Wireless Humidity and Temperature data logger
RFC1000	PN 901383-00	Wireless RF receiver/repeater. USB to mini USB adapter & power supply included
RFC1000-CE	PN 901338-00	Wireless RF transceiver/repeater, CE approved for Europe. USB to mini USB adapter & power supply included
RFC1000-IP69K	PN 901389-00	Wireless RF transceiver/repeater, splash proof with an IP69K rating. USB to mini USB adapter included
RFC1000 Cloud Relay	PN 901900-00	MadgeTech Cloud Services Data Logging Hub
RFC1000-CE Cloud Relay	PN 901901-00	MadgeTech Cloud Services Data Logging Hub, CE approved for Europe
TL-5104	PN 901746-00	Replacement battery for ThermAlert-RH

Countries approved for use, purchase and distribution of the ThermAlert-RH: 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

MadgeTech
WE BUILD DATA LOGGERS