

# RFTEMP2000A

## WIRELESS TEMPERATURE DATA LOGGER



### Features

- Wireless Two-Way Communication
- Ambient Temperature Monitoring
- View Data in Real Time
- 5 Year Battery Life
- Battery Life Indicator
- Field Upgradeable
- Audible and LED Alarm Indicators
- Cumulative Alarm Delay

### Benefits

- Fast Installation
- Minimal Long-Term Maintenance
- Full Communication From One PC
- Time and Money Saving with Battery Management
- Easily Isolate Critical Data
- Reduction of False Alarms

### Applications

- Clean Rooms
- Laboratories and Hospitals
- Medical and Pharmaceutical
- Warehouse mapping
- Storage of Perishable Goods
- Chemical Storage
- Incubator Monitoring

The RFTemp2000A is a wireless data logger featuring a digital display. The device measures ambient temperatures, making it ideal for monitoring perishable goods, chemicals and more. Starting, stopping and downloading from the device are all performed wirelessly using the RFC1000 wireless transceiver, allowing the user to spend less time maintaining the data logger. Data can be provided in real time back to a central PC, or the device may be downloaded at periodic intervals.

The convenient digital display provides the current reading as well as minimum, maximum and average statistics for a convenient snap shot of the logged data.

For instant, out of range notification, an audible buzzer as well as LED alarm indicator notifies users when the temperature is above or below the user specified alarm setting. Through the software, email and text message alarms can also be sent.

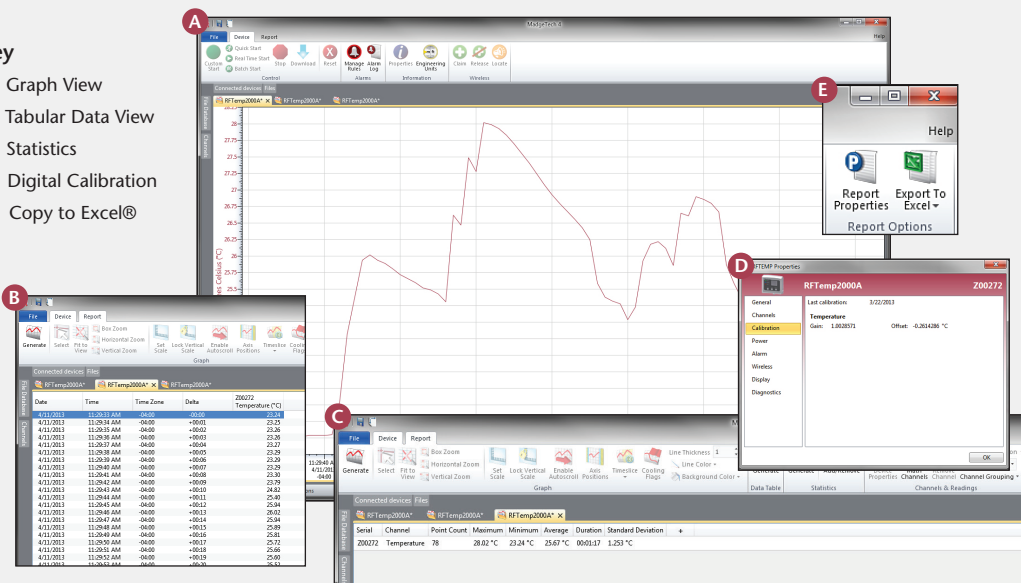
The RFTemp2000A can be used as a single, wireless data logging system, yet can be expanded to a large scale system, which can include hundreds of data loggers measuring a number of areas (additional MadgeTech wireless loggers and transceivers may be required). The RFTemp2000A utilizes the new MadgeTech 4 Software. Data can be viewed in graphical or tabular formats and summary and statistics views are available for further analysis. The software features export to Excel®, data annotation, digital calibration and more.



## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- 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

# RFTEMP2000A SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## General

|                           |  |
|---------------------------|--|
| <b>Reading Rate:</b>      | 1 reading every second up to 1 reading every 24 hours  |
| <b>Memory:</b>            | 32,256 readings  |
| <b>LED Functionality:</b> | <ul style="list-style-type: none"> <li>Green LED blinks every 5 seconds to indicate unit is logging</li> <li>Blue LED blinks every 15 seconds to indicate unit is in wireless mode</li> <li>Red LED blinks every 1 second to indicate alarm condition</li> </ul> |
| <b>Wrap Around:</b>       | Yes  |
| <b>Start Modes:</b>       | Immediate Start  |
| <b>Calibration:</b>       | Digital calibration through software   |
| <b>Calibration Date:</b>  | Automatically recorded within device   |
| <b>Battery Type:</b>      | 9V lithium battery included; <b>user replaceable</b>   |
| <b>Battery Life:</b>      | 5 years typical at 1 minute reading rate   |
| <b>Data Format:</b>       | <ul style="list-style-type: none"> <li>For Display: °C or °F</li> <li>For Software: Date and time stamped °C, K, °F, or °R</li> </ul>  |

|                                     |   |
|-------------------------------------|---|
| <b>Time Accuracy:</b>               | ± 1 minute/month  |
| <b>Computer Interface:</b>          | USB to mini USB, 250,000 baud for standalone operation or RFC1000 required for wireless operation   |
| <b>Software:</b>                    | XP SP3/Vista/Windows 7/Windows 8 (MadgeTech 4 only)   |
| <b>Operating Environment:</b>       | -20 °C to +60 °C (-4 °F to +140 °F)<br>0 %RH to 95 %RH non-condensing   |
| <b>Dimensions:</b>                  | 3.5 in x 3.25 in x 0.95 in<br>(88.9 mm x 82.6 mm x 24.1 mm) - <i>Data logger only</i>   |
| <b>Enclosure Material:</b>          | ABS Plastic   |
| <b>Alarm:</b>                       | <p>Programmable high and low limits; alarm is activated when temperature reaches or exceeds set limits.</p> <p>Alarm Delay: A cumulative alarm delay may be set in which the device will activate the alarm (via LED) only when the device has recorded a user specified time duration of data.</p> |
| <b>Audible Alarm Functionality:</b> | 1 Beep per second for reading alarm above/below threshold   |
| <b>Approvals:</b>                   | US (FCC), CA (IC), CE, South Korea (KCC), China (CMIIT), Japan (LCIE)   |

## Temperature

|  |   |
|--|---|
| <b>Internal Channel Temperature Range:</b> | -20 °C to +60 °C (-4 °F to +140 °F)                   |
| <b>Temperature Resolution:</b>             | 0.01 °C (0.018 °F)                                    |
| <b>Calibrated Accuracy:</b>                | ±0.50 °C/± 0.9 °F<br>(0 °C to +55 °C/32 °F to 131 °F) |
| <b>Response Time:</b>                      | 10 minutes free air                                   |

**BATTERY WARNING:** Battery may leak, flame or explode if disassembled, shorted, charged, connected together, mixed with used or other batteries, exposed to fire or high temperature. Discard used battery promptly. Keep out of reach of children.

## Wireless

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

## ORDERING INFORMATION

| MODEL                   | DESCRIPTION  |
|-------------------------|--|
| RFTEMP2000A             | Wireless temperature data logger with LCD.   |
| RFC1000                 | Wireless RF receiver/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.     |
| Calibration Certificate | Calibration Certificate available for data logger  |
| U9VL-J                  | Replacement battery for RFTemp2000A.   |

For Quantity Discounts call 603-456-2011 or email [sales@madgetech.com](mailto:sales@madgetech.com)

### Countries approved for use, purchase and distribution of the RFTemp2000A:

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