

RFTCTemp2000A

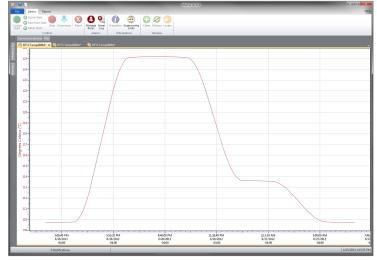
Wireless Thermocouple Temperature Data Logger

The RFTCTemp2000A is a wireless thermocouple based data logger with digital display. The device measures ambient temperature, as well as remote temperature via a thermocouple (sold separately), making it ideal for monitoring perishable goods, vaccine storage, chemicals and more. Starting, stopping and downloading from the device are all performed wirelessly using the RFC1000 wireless transceiver, allowing users 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 period intervals.

The convenient digital display provides the current reading for both channels. Minimum, maximum and average statistics are also provided for a convenient snap shot of the logged data. Software notifications, an audible buzzer as well as an LED alarm indicator notify users when the temperature is above or below the user specified alarm thresholds. Through the software, email and text message alarms can also be sent.

The RFRTCTemp2000A can be used as a single, wireless data logging system, or it can be expanded to a large scale system, which can include hundreds of data loggers measuring a number of areas (additional MadgeTech wireless data loggers and transceivers may be required). The RFTCTemp2000A is compatible with the latest MadgeTech 4 Software and can be used with MadgeTech Cloud Services.

MadgeTech 4 Software Features



Graph View

Mean Kinetic TemperatureFull time zone support

• Min./Max./Average lines

Data annotation

Summary view

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/zoom out
- Lethality equations (F0, PU)

Flag1 (28.02 °C)

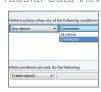
Cooling Flags



Export to Excel



Tabular Data View



Automation



Probe Sold Separately

Features

- Wireless Two-Way Communication
- Ambient and Thermocouple Temperature Monitoring
- · View Data in Real Time
- 3 Year Battery Life
- Battery Life Indicator
- Field Upgradeable
- Audible and LED Alarm Indicators
- Trigger Settings
- 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
- Oven Temperature Monitoring
- Laboratories and Hospitals
- Medical and Pharmaceutical
- · Warehouse Mapping
- Storage of Perishable Goods
- Chemical Storage
- · Incubator Monitoring
- Refrigerators and Freezers

RFTCTemp2000A

SPECIFICATIONS

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

TEMPERATURE	
Internal Channel Temperature Range	-20 °C to +60 °C (-4 °F to +140 °F)
Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.5 °C (±0.9 °F) Range: 0 °C to 50 °C (32 °F to 122 °F)
Response Time	16 minutes free air

REMOTE CHANNEL				
Thermocouple Connection	Female subminiature (SMP) (MP model) Pluggable screw terminal (TB model)			
Cold Junction Compensation	Automatic, based on internal channel			
Max. Thermocouple Resistance	100 Ω			
Thermocouple	Range (°C)	Resolution	Accuracy*	
J	-210 to +760	0.1 °C	±0.5 °C	
K	-270 to +1370	0.1 °C	±0.5 °C	
T	-270 to +400	0.1 °C	±0.5 °C	
E	-270 to +980	0.1 °C	±0.5 °C	
R	-50 to +1760	0.5 °C	±2.0 °C	
S	-50 to +1760	0.5 °C	±2.0 °C	
В	+50 to +1820	0.5 °C	±2.0 °C	
N	-270 to +1300	0.1 °C	±0.5 °C	

^{*}Thermocouple accuracy specified with 24 AWG diameter thermocouple wires.

GENERAL		
Reading Rate	1 reading every second up to 1 reading every 24 hours	
Memory	16,128 per channel	
LED Functionality	Green LED blinks every 5 seconds to indicate unit is logging Blue LED blinks every 15 seconds to indicate unit is in wireless mode Red LED blinks every 1 second to indicate alarm condition	
Wrap Around	Yes	
Start Modes	Immediate and delay start	
Calibration	Digital calibration through software	
Calibration Date	Automatically recorded within device	
Battery Type	9 V lithium or alkaline battery included; user replaceable with any 9 V battery	

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.

Battery Life	3 years typical at 1 minute reading rate	
Data Format	For Display: °C or °F For Software: Date and time stamped °C, °F, °R, K, mV, V	
Time Accuracy	± 1 minute/month	
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 4.1.0.0 or later Secure Software version 4.1.3.0 or later	
Operating Environment	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing	
Dimensions	3.0 in x 3.5 in x 0.95 in (76.2 mm x 88.9 mm x 24.1 mm) Data logger only	
Material	ABS Plastic	
Weight	4.1 oz (0.2563 lbs)	
Approvals	US (FCC), CA (IC), CE, South Korea (KCC), China (CMIIT), Japan (LCIE)	
	User configurable high and low audible, on-screen, email and text (SMS) alarms.	
Alarm	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.	
Audible Alarm Functionality	1 Beep per second for reading alarm above/below threshold	

WIRELESS		
RF Frequency	2.45 GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication	
Band	ISM band 2.405-2.475 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	

Ordering Information

RFTCTEMP2000A-MP	PN 901434-00	Wireless thermocouple based data logger with LCD, standard mini plugs
RFTCTEMP2000A-TB	PN 901440-00	Wireless thermocouple based data logger with LCD, pluggable screw terminals
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
Power Adapter	PN 901839-00	Replacement USB universal power adapter
U9VL-J	PN 901804-00	Replacement battery for RFTCTemp2000A

Countries approved for use, purchase and distribution of the RFTCTemp2000A: Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Colombia, 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