



# RFTC4000A

## THERMOCOUPLE DATA LOGGER & WIRELESS TRANSMITTER

### Features

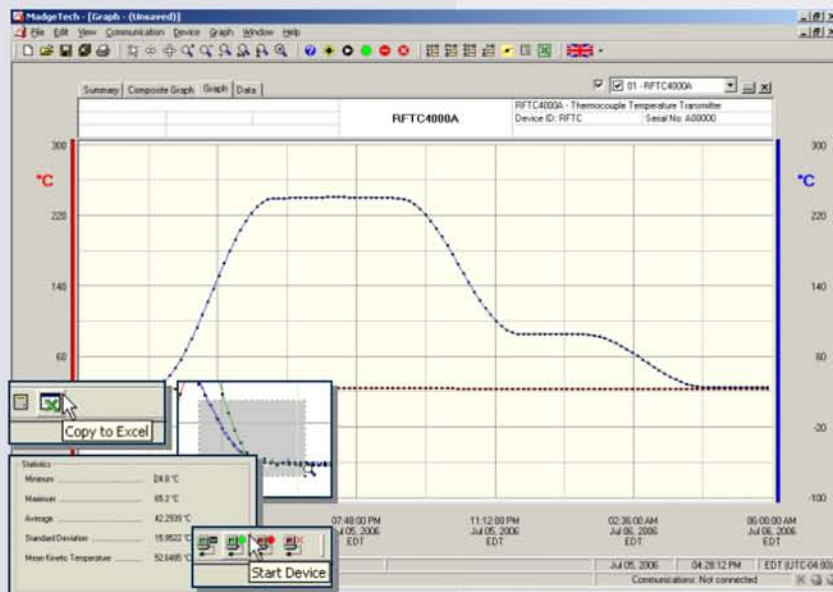
- Multiple transmitter configurations
- Memory wrap around
- Software configurable
- Real-time operation
- Programmable start time
- Miniature size
- User-friendly
- N.I.S.T. traceable

### Applications

- Extreme temperature monitoring
- Oven profiling
- Warehouse monitoring
- HVAC
- Medical and Pharmaceutical
- Museum monitoring
- Environmental studies
- Implement HACCP programs

The RFTC4000A is a battery powered thermocouple temperature recorder and wireless transmitter. This is an all-in-one compact, portable, easy to use device that will measure and record up to 4,095 measurements per channel. The RFTC4000A combines the features from the standard product line and adds the convenience of a wireless transmitter. When enabled, the wireless transmitter will transmit readings back to the host computer where the data can be analyzed in real time. These readings are also logged to the device's memory for added data security. The convenient slide switch allows the transmitter to be turned on or off without affecting the operation of the device.

The device can be started, stopped and configured directly from your computer. Its small size allows it to fit almost anywhere. In addition to the wireless communications, the RFTC4000A makes data retrieval quick and easy. Simply plug the device into an empty COM port and our user-friendly software will handle the rest.



### DATA LOGGER SOFTWARE

displays temperature data in an easy to use graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

# RFTC4000A SPECIFICATIONS\*

**Internal Channel**  
**Temperature Range:** -30 to +70°C

**Remote Channel**  
**Thermocouple Types:** J, K, T, E, R, S, B, N  
**Temperature Resolution:** 0.1°C  
**Calibrated Accuracy:** ±0.5°C (0 to +50°C)

**Thermocouple connection:** Female subminiature (SMP)

**Cold Junction Compensation:** Automatic, based on internal channel

Thermocouple	Range (°C)	Resolution	Accuracy
J	-210 to +760	0.1 °C	±0.5 °C
K	-260 to +1370	0.1 °C	±0.5 °C
T	-260 to +400	0.1 °C	±0.5 °C
E	-260 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
B	+60 to +1820	0.5 °C	±2.0 °C
N	-260 to +1300	0.1 °C	±0.5 °C

**Memory:** 4,095 readings per channel; 8,190 total readings; software configurable memory wrap

**Reading Rate:** 1 reading every 30 seconds to 1 every 12 hours

**Calibration:** Digital calibration through software

**Data Format:** Date and time stamped °C, °F, K, °R; V, mV, µV

**Time Accuracy:** ±1 minute/month (at 20 to 30°C)

**Computer Interface :** PC serial or RS232C COM (interface cable required); 57,600 baud

**RF Carrier Frequency:** 418 ± 0.075MHz

**RF Baud Rate:** 4,800 baud

**Maximum Output Power:** <0dBm typical (<1mW)

**Receiver Sensitivity (RFC101A):** -90dBm typical

**Range:** Line-of-sight: up to 120 ft., Urban: up to 40 ft.

**Approvals:** US (FCC), CA (IC)

**Battery Type:** 3.6V lithium battery included; **user replaceable**

**Battery Life:** 1 year typical (1 min reading rate @ 25°C)

**Software:** XP SP3/Vista/Windows 7

**Operating Environment:** -30 to +70°C, 0 to 95%RH non-condensing

**Dimensions:** 1.7" x 2.3" x 0.8" + 2.0" antenna (44mm x 59mm x 21mm + 51mm)

**Weight:** 2 oz (60 g)

**Enclosure:** ABS plastic

**BATTERY WARNING:** FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212°F, INCINERATE OR EXPOSE CONTENTS TO WATER.

## SOFTWARE FEATURES

**Multiple Graphs:** Simultaneously analyze data from several units or deployments; easily switch to a single data series

**Graphical Cursor:** One click displays readings by time, value, parameter or sample number

**Data Table:** Instantly access tabular view for detailed dates, times, values, and annotations

**Scaling Options:** Autoscale function fits data to the screen, or allows user to manually enter their own values

**Formatting Options:** Change colors, line styles, plotting options, show or hide channels quickly

**Statistics:** Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

**Export Data:** Export data in a variety of common formats, or switch to Excel® with a single click

**Calibration:** Automatically calculate and store calibration parameters

**Logger Configuration:** Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

**Communications:** Automatically sets up communications port, or lets user select configuration

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

## ORDERING INFORMATION

Model	Description
RFTC4000A	Thermocouple Recorder and Wireless Transmitter
RFC101A	Software, manual, wireless receiver, power supply and RS232 interface cable
RFC200A	Software, manual, wireless receiver, power supply and USB interface cable
NIST	N.I.S.T. Calibration Certificate

### ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration
LCD Display	

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