

# TCTEMP1000

## RUGGED THERMOCOUPLE-BASED DATA LOGGER

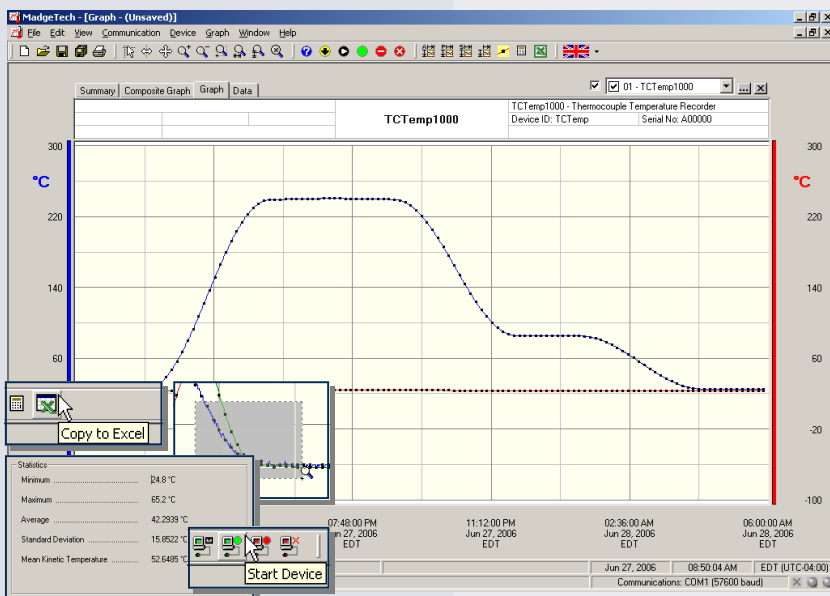
### Features

- Rugged
- Submersible
- N.I.S.T. traceable
- Real-time operation
- Low cost
- Programmable start time
- Reusable
- User-friendly
- CE Approved
- Memory wrap

### Applications

- Extreme temperature monitoring
- Warehouse monitoring
- HVAC
- Medical and Pharmaceutical
- Well monitoring
- Hostile environment monitoring
- Environmental studies
- Implement HACCP programs

The TCTemp1000 is a rugged, submersible, battery powered, thermocouple based temperature recorder. This is a stand-alone, compact, portable, easy to use device to measure and record up to 16,383 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its real time clock ensures all data is time and date stamped. Start and stop the device directly from your computer and its small size allows it to fit most anywhere. The TCTemp1000 makes data retrieval quick and easy even in harsh environments. Simply plug it into an empty COM or USB port and our user-friendly software does the rest.



### MadgeTech Data Recorder 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.

Click [MadgeTech Software](#) for more information or to download the software.

# TCTEMP1000 SPECIFICATIONS\*

**Internal Channel**  
**Temperature Range:** -40 to +80°C  
**Temperature Resolution:** 0.1°C  
**Calibrated Accuracy:** ±0.5°C (0 to +50°C)

**Remote Channel**  
**Thermocouple Types:** J, K, T, E, R, S, B, N  
**Thermocouple connection:** Female subminiature (SMP)

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

**ThermocoupleType:	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

\*\*Thermocouple accuracy is specified with a 24 AWG, 3 meter thermocouple  
 Note: Rapidly changing temperatures or temperature gradients across the device may adversely affect the cold junction compensation.

**Start Modes:** Software programmable immediate start or delay start up to six months in advance  
**Real Time Recording:** May be used with PC to monitor and record data in real time  
**Memory:** 16,383 readings per channel; 32,766 total readings; software configurable memory wrap  
**Reading Rate:** 1 reading every 2 seconds to 1 every 12 hours  
**Calibration:** Digital calibration through software  
**Calibration Date:** Automatically recorded within device  
**Battery Type:** 3.6V lithium battery included, **user replaceable**  
**Battery Life:** 1 year typical (1 minute reading rate at 25°C)  
**Data Format:** Date and time stamped °C, °F, K, °R  
**Time Accuracy:** ±1 minute/month (at 20°C, RS232 port not in use)  
**Computer Interface:** PC serial or USB (interface cable required); 2,400 baud  
**Software:** Windows 95/98/ME/NT/2000/XP/ Vista based software  
**Operating Environment:** -40 to +80°C, 0 to 100%RH; Submersible to 150 feet  
**Dimensions:** 7.4" x 1.2" dia. (188mm x 31mm dia.)  
**Weight:** 13 oz (380 g)  
**Approvals:** CE

**BATTERY WARNING:** RISK OF FIRE OR EXPLOSION. DO NOT RECHARGE, FORCE OPEN, HEAT OR DISPOSE OF IN FIRE.

## SOFTWARE FEATURES

<b>Multiple Graphs:</b>	Simultaneously analyze data from several units or deployments; easily switch to a single data series	<b>Statistics:</b>	Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
<b>Graphical Cursor:</b>	One click displays readings by time, value, parameter or sample number	<b>Export Data:</b>	Export data in a variety of common formats, or switch to Excel® with a single click
<b>Data Table:</b>	Instantly access tabular view for detailed dates, times, values, and annotations	<b>Calibration:</b>	Automatically calculate and store calibration parameters
<b>Scaling Options:</b>	Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Logger Configuration:</b>	Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Formatting Options:</b>	Change colors, line styles, plotting options, show or hide channels quickly	<b>Communications:</b>	Automatically sets up communications port, or lets user select configuration

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

## ORDERING INFORMATION

Model	Description	Price (U.S.)
TCTEMP1000	Rugged, Thermocouple-Based Recorder	\$299.00
IFC110	Software, manual and RS232 interface cable	\$99.00
IFC200	Software, manual and USB interface cable	\$119.00
NIST	N.I.S.T. Calibration Certificate	Call for Pricing
TL-2150	Replacement battery for TCTemp1000	\$10.00

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

### 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	

