

### Features

- Large, backlit LCD display
- Internal temperature sensor and one external input which accepts thermocouple types J, K, T, E, R, S, B, N
- Front keypad w/lock feature
- High speed download
- Real-time operation
- Min./max. & average statistics
- Programmable start/stop time
- N.I.S.T traceable calibration
- User replaceable battery and external power
- Wall mountable

### Applications

- HVAC applications
- Oven Profiling
- HACCP program implementation
- Process verification and validation
- Warehouse monitoring
- Museum and Laboratory monitoring
- Medical & pharmaceutical facility monitoring
- Environmental studies
- Food storage
- Live cargo transport
- Concrete Curing/Construction

The TCTemp2000 is a battery powered thermocouple temperature recorder with an LCD display. This data logger has an internal temperature sensor and one external input for J, K, T, E, R, S, B, and N type thermocouples.

The 8-button keypad and large LCD provide convenient access to current data and recorder setup.

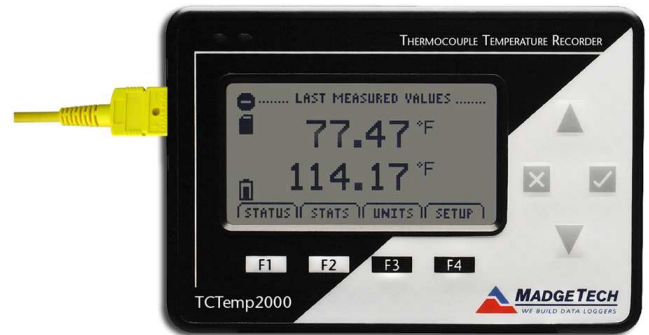
Additionally, memory and battery levels, external power status, and sampling and recording status are shown on the LCD.

Available on-screen data includes: statistics (min, max, average); recording status (start, stop and recording rate); display options (units, text size); and calibration information (date calibrated, date for recalibration). Statistics can be cleared at any time during logging.

With 131,071 readings, the TCTemp2000 has one of the largest memory capacities of any similar data recorder on the market. The non-volatile memory will retain recorded data, even if AC and battery power are lost.

The TCTemp2000 runs on a 9V battery with a typical battery life of 1 year at a 1 min reading rate with the display off. With continuous LCD and no backlight usage, the average battery life is 30 days. For power savings, both the LCD and backlight have configurable auto-off options. Those wanting to keep the LCD display and backlight continuously active need only to connect the unit to an AC power supply, keeping the 9V battery connected as a back-up.

N.I.S.T. traceable calibration is available for users needing to meet regulatory requirements. Creating permanent records, performing data calculations, and the graphing of data is quick and easy: Simply connect the interface cable to an available USB or serial port and, with a few clicks of the mouse, data is downloaded and ready for review or export to Excel®.



### 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.

# TCTEMP2000 SPECIFICATIONS\*

**Internal Channel**  
**Temperature Range:** -20 to +60°C  
**Temperature Resolution:** 0.1°C  
**Calibrated Accuracy:** ±0.5°C (0 to +50°C)

**Thermocouple Channel**  
**Thermocouple Types:** J, K, T, E, R, S, B, N  
**Thermocouple connection:** Female subminiature (SMP), fixed screw terminal, or pluggable screw terminal

**Cold Junction Compensation:** Automatic, based on internal channel  
**Maximum Thermocouple Resistance:** 1000Ω, <100Ω recommended

**\*\*Thermocouple Type:**

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

**Start/Stop Time:** Software programmable start time and date, up to six months in advance; programmable stop time

**Memory:** 131,071 readings per channel; 262,143 total readings; software configurable memory wrap

**Reading Rate:** 1 reading every 2 seconds to 1 every 24 hours

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Battery Type:** 9V lithium battery included, user replaceable; optional AC adapter

**Battery Life:** 1 year battery life at 1 min reading rate with display off. 30 days typical with continuous LCD and no backlight usage

**Data Format:** Date and time stamped °C, °F, K, °R

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

**Computer Interface:** PC serial or USB (interface cable required); 115,200 baud

**Software:** Windows 95/98/ME/NT/2000/XP/Vista based software

**Operating Environment:** -20 to +60°C, 0 to 95%RH non-condensing

**Dimensions:** 4.8" x 3.3" x 1.25" (122mm x 84mm x 32mm)

**Weight:** 16 oz (440 g)

**Enclosure:** Black anodized aluminum

**Approvals:** CE

## DOT-MATRIX LCD

**Dimensions:** 2.5" x 1.375" (63mm x 35mm)

**Text:** Configurable channel text size

**Indicators:** Power, status, memory

**Backlight:** Configurable w/auto shut-off and contrast adjustment

**BATTERY WARNING:** MAY LEAK AND/OR FLAME IF OPENED, RECHARGED, CONNECTED IMPROPERLY, OR DISPOSED 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> Automatically calculate averages, min, max, standard deviation, and mean kinetic temperature.
<b>Real-Time Recording:</b> Collect and display data in real-time while continuing to log	<b>Export Data:</b> Export data in a variety of common formats, or switch to Excel® with a single click
<b>Graphical Cursor:</b> One click displays readings by time, value, parameter or sample number	<b>Calibration:</b> Automatically calculate and store calibration parameters
<b>Data Table:</b> Instantly access tabular view for detailed dates, times, values, and annotations	<b>Logger Configuration:</b> Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Scaling Options:</b> Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Communications:</b> Automatically sets up communications port, or lets user select configuration
<b>Formatting Options:</b> Change colors, line styles, plotting options, show or hide channels quickly	<b>Printing:</b> Automatically print graphical or tabular data

\*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.)
TCTemp2000	Thermocouple temperature recorder w/LCD Display	\$499.00
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
U9VL-J	Replacement battery for TCTemp2000	\$15.00
DC9V-NA	9 Volt AC wall mounted Adapter (North American version)	\$13.00
DC9V-EU	9 Volt AC wall mounted Adapter (European version)	\$13.00

### 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	



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