

# TCTEMP2000

## THERMOCOUPLE TEMPERATURE RECORDER WITH LCD SCREEN



### Features

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

### Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

### Applications

- HVAC applications
- Oven profiling
- HACCP program implementation
- Process verification and validation
- Warehouse monitoring
- Museum and laboratory monitoring
- Medical/Pharmaceutical
- Environmental studies
- Food storage
- Live cargo transport
- Concrete Curing/Construction

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



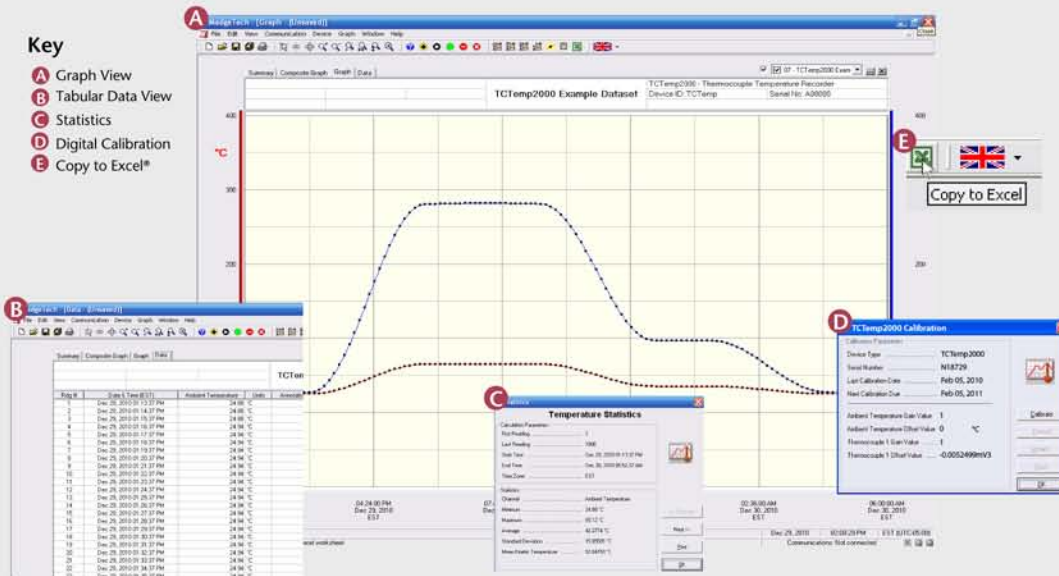
The 8-button keypad and large LCD provide convenient access to current data and recorder setup. Additionally, memory and battery levels, external power status, and sampling and recording status are shown on the LCD.

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 and backlight continuously active need only to connect the unit to an AC power supply, keeping the 9V battery connected as a back up.

## MADGETECH DATA LOGGER SOFTWARE



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F<sub>0</sub>, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# TCTEMP2000 SPECIFICATIONS\*

## Internal Channel

Temperature Range: -20 to +60°C

Temperature Resolution: 0.1°C

Calibrated Accuracy: ±1.0°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	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

## 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

**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:** USB (interface cable required); 115,200 baud

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

**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

**BATTERY WARNING:** WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, CRUSH, PENETRATE, OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80°C (176°F).

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

## ORDERING INFORMATION

MODEL	DESCRIPTION
TCTemp2000	Thermocouple temperature recorder w/ LCD
IFC200	Software, manual and USB interface cable
	N.I.S.T. Traceable Calibration Certificate

PTC Metrology™ is accredited by A2LA to ISO/IEC 17025 and ANSI/NCSL Z5401 N.I.S.T. traceable certificate available. For information go to [www.ptcmetrology.com](http://www.ptcmetrology.com)  
To order by phone, call toll free 1+ 877.782.2329 or email: [sales@ptc1.com](mailto:sales@ptc1.com)  
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ASK ABOUT  
OUR OTHER  
DATA  
LOGGERS

Temperature  
Humidity  
Pressure  
pH  
Level  
Shock  
LCD Display  
Pulse/Event/State  
Current  
Voltage  
Wireless  
Intrinsically Safe  
Spectral Vibration  
Motion