TCTEMP2000
THERMOCOUPLE TEMPERATURE RECORDER WITH LCD SCREEN

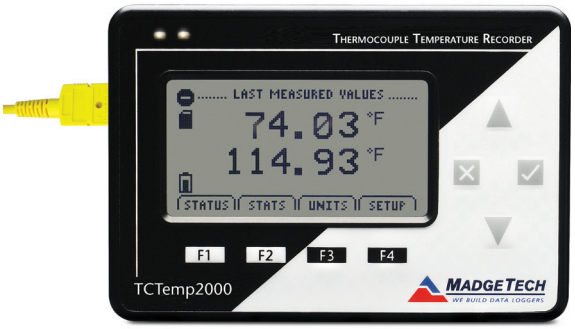
MADGETECH
WE BUILD DATA LOGGERS

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
- 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.

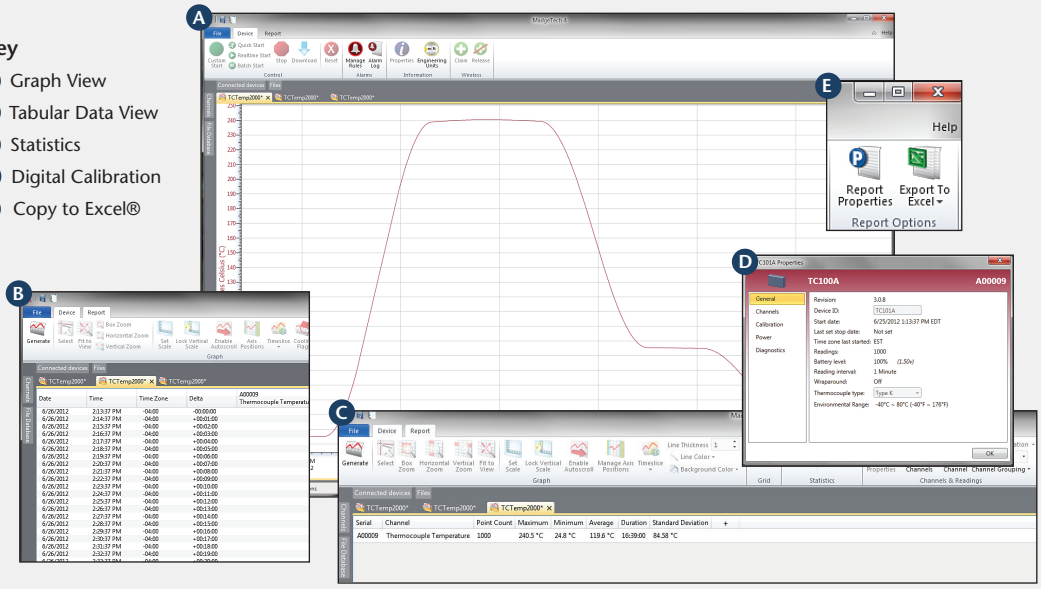
Available on-screen data includes: statistics (min, max, average); recording status (start, stop and recording rate); display options (units, text size); and calibration information (date calibrated, date for recalibration). Statistics can be cleared at any time during logging.

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

Key
- A Graph View
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®



Software Features:
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

6 Warner Road · Warner, NH 03278
Phone: (603) 456-2011 · Fax: (603) 456-2012

TCTEMP2000 SPECIFICATIONS*

Internal Channel			
Temperature Range:	-20 °C to +60 °C		
Temperature Resolution:	0.1 °C		
Calibrated Accuracy:	±0.5 °C (0 °C 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:	1000 Ω, <100 Ω recommended		
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
B	+50 to +1820	0.5 °C	±2.0 ° C
N	-270 to +1300	0.1 °C	±0.5 °C
DOT-MATRIX LCD			
Dimensions:	2.5 in x 1.375 in (63 mm x 35 mm)		
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 up to 1 reading 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 °C to 30 °C)
Computer Interface:	USB (interface cable required); 115,200 baud
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-20 °C to +60 °C, 0 %RH to 95 %RH non-condensing
Dimensions:	4.8 in x 3.3 in x 1.25 in (122 mm x 84 mm x 32 mm)
Weight:	16 oz (440 g)
Enclosure:	Black anodized aluminum
Approvals:	CE

BATTERY 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. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.*

ORDERING INFORMATION

MODEL	DESCRIPTION
TCTemp2000	Thermocouple temperature recorder w/ LCD
IFC200	Software, manual and USB interface cable
U9VL-J	Replacement battery for TCTemp2000
Calibration Certificate	Calibration Certificate available for data logger

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

MADGETECH
WE BUILD DATA LOGGERS

6 Warner Road · Warner, NH 03278
Phone: (603) 456-2011 · Fax: (603) 456-2012

Authorized Distributor in Australia
Pacific Sensor Technologies Pty Ltd
Unit 7, 14 Commercial Dr,
Pakenham VIC 3810 Australia
1300 662 720 | sales@pacificsensortech.com.au
www.pacificsensortech.com.au

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