

# TCTemp1000

## Thermocouple-Based Temperature Data Logger



The TCTemp1000 is a rugged, submersible, battery powered, thermocouple-based temperature data logger. 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. The TCTemp1000 makes data retrieval quick and easy even in harsh environments.

With the user friendly MadgeTech Data Logger Software, the TCTemp1000 is easily connected to a PC to download the collected data. The MadgeTech Software is capable of presenting the data in graphic, tabular, and summary formats for reporting. Data can also be exported easily to Excel® for further analysis and calculations.

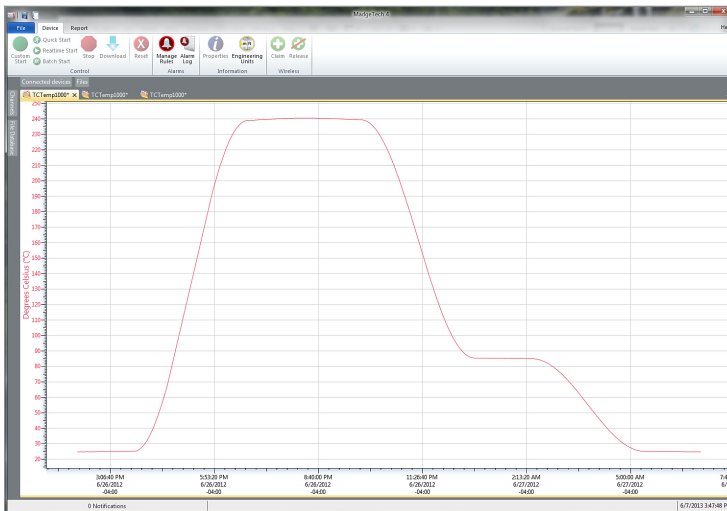
### Features

- Rugged
- Submersible
- Real time Operation
- Low Cost
- Programmable Start Time
- Reusable
- User-friendly
- Memory Wrap

### Benefits

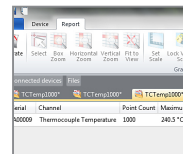
- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

## MadgeTech 4 Software Features

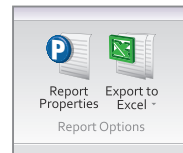


Graph View

- 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
- Summary view



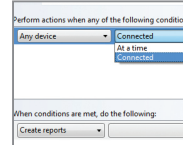
Statistics



Export to Excel

Time	Time Zone	Delta
1:13:37 PM	-0400	-00:00:00
1:14:37 PM	-0400	-00:01:00
1:15:37 PM	-0400	-00:02:00
1:16:37 PM	-0400	-00:03:00
1:17:37 PM	-0400	-00:04:00
1:18:37 PM	-0400	-00:05:00
1:19:37 PM	-0400	-00:06:00
1:20:37 PM	-0400	-00:07:00
1:21:37 PM	-0400	-00:08:00
1:22:37 PM	-0400	-00:09:00
1:23:37 PM	-0400	-00:10:00
1:24:37 PM	-0400	-00:11:00
1:25:37 PM	-0400	-00:12:00
1:26:37 PM	-0400	-00:13:00
1:27:37 PM	-0400	-00:14:00
1:28:37 PM	-0400	-00:15:00

Tabular Data View



Automation

### Applications

- Extreme Temperature Monitoring
- Warehouse Monitoring
- HVAC
- Medical and Pharmaceutical
- Well Monitoring
- Hostile Environment Monitoring
- Environmental Studies
- Implement HACCP Programs

## SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call (603) 456-2011 or go to [madgetech.com](http://madgetech.com) for details.

INTERNAL CHANNEL	
Temperature Range	-40 °C to +80 °C (-40 °F to +176 °F)
Temperature Resolution	0.1 °C (0.18 °F)
Calibrated Accuracy	±0.5 °C (±0.9 °F)
Calibrated Accuracy Range	0 °C to 50 °C (32 °F to 122 °F)

REMOTE CHANNELS			
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		
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

\*Thermocouple accuracy 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

GENERAL	
Start Modes	Immediate start Delay start up to 6 months
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
Wrap Around	Yes
Reading Rate	1 reading every 2 seconds up to 1 reading every 12 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included; user replaceable
Battery Life	1 year typical 1 minute reading rate at +25 °C (+77 °F)
Data Format	Date and time stamped °C, °F, °R, K
Time Accuracy	±1 minute/month at +20 °C (+68 °F) (RS232 port not in use)
Computer Interface	USB (interface cable required); 2,400 baud
Operating System Compatibility	Windows XP SP3 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F) 0 %RH to 100 %RH non-condensing Submersible to 150 ft
IP Rating	IP68
Dimensions	7.4 in x 1.2 in dia. (188 mm x 31 mm dia.)
Weight	13 oz (369 g)
Material	303 Stainless Steel

**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).

## Ordering Information

TCTemp1000	PN 901620-00	Thermocouple-Based Temperature Data Logger
IFC200	PN 900298-00	USB interface cable
TLH-5902	PN 901747-00	Replacement battery for the TCTemp1000

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