

FEATURES

- ❖ 10 year battery life
- ❖ High speed download
- ❖ N.I.S.T. traceable
- ❖ Real-time operation
- ❖ Low cost
- ❖ Programmable start time
- ❖ Reusable
- ❖ Miniature size
- ❖ User-friendly

APPLICATIONS

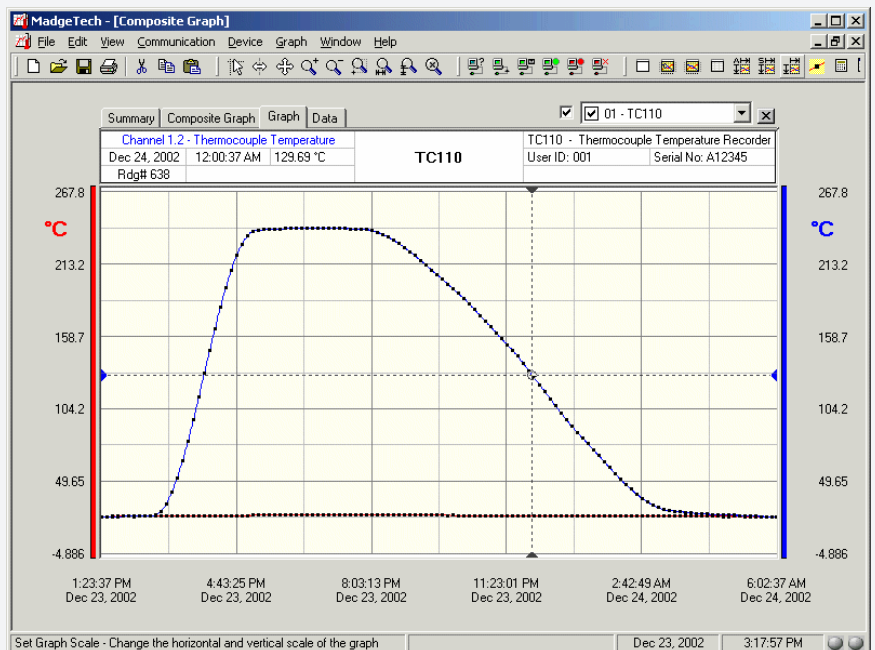
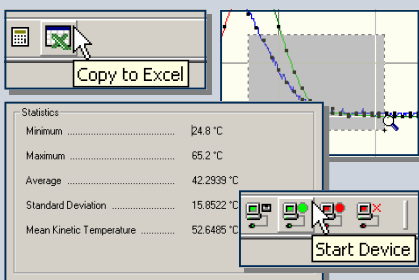
- ❖ Extreme temperature monitoring
- ❖ Oven profiling
- ❖ Warehouse monitoring
- ❖ HVAC
- ❖ Medical/Pharmaceutical
- ❖ Museum monitoring
- ❖ Environmental studies
- ❖ Replace costly strip chart recorders
- ❖ Implement HACCP programs



The TC110 is a miniature, battery powered, stand alone, thermocouple based temperature recorder. The TC110 features a real-time clock module that extends the battery life to > 10 years* and allows for high speed downloads. This is an all-in-one compact, portable, easy to use device that will 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. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The TC110 makes data retrieval quick and easy. Simply plug it into an empty com port and our user-friendly software does the rest.

SOFTWARE

MadgeTech's Data Recorder Software is an easy to use Windows-based software package that 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



Demo our software at www.madgetech.com

Internal Channel
Temperature Range: -40 °C 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: Removable screw terminal

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

Start Time: Software programmable Start time and date. 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
Reading Interval: 1 reading every 2 seconds to 1 every 12 hours

Calibration: Digital Calibration through software
Calibration Date: Automatically recorded within device

Power: 3.6V lithium battery included

***User Replaceable Battery:** 10 years (15 minute reading rate at 25 °C)

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

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

Computer Interface: PC serial or RS232C COM (Interface cable required); 57,600 baud

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

Operating Environment: -40 °C to +80 °C, 0 to 95 %RH non-condensing

Dimensions: 0.8" x 1.7" x 2.7" (20 mm x 42 mm x 68 mm)

Weight: 2 oz (60 g)

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series

Real-Time Recording: Collect and display data in real-time while continuing to log

Graphical Cursor: One click displays readings by time, value, parameter or sample number

Data Table: Instantly access tabular view for detailed dates, times, values, and annotations

Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values

Formatting Options: Change colors, line styles, plotting options, show or hide channels in an instant

Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

Export Data: Export data in a variety of common formats, or switch to Excel with a single click

Calibration: Fully digital calibration function automatically stores parameters in device

Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

Communications: Automatically sets up communications port, or lets user set configuration

Printing: Automatically print graphical or tabular data

**As part of our commitment to continuous product improvement, MadgeTech reserves the right to change product specifications without notice

ORDERING INFORMATION

Model	Description
TC110	Thermocouple Temperature Recorder
IFC110	Software, manual and 9-pin computer interface cable
N.I.S.T. Cert	N.I.S.T. Calibration Certificate

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	pH
Humidity	Level
Pressure	Shock/Vibration
Bridge/Strain	Submersible
Current	Intrinsically Safe
Pulse/Event	RF Transmitters
Voltage	Multi-parameter