

### Features

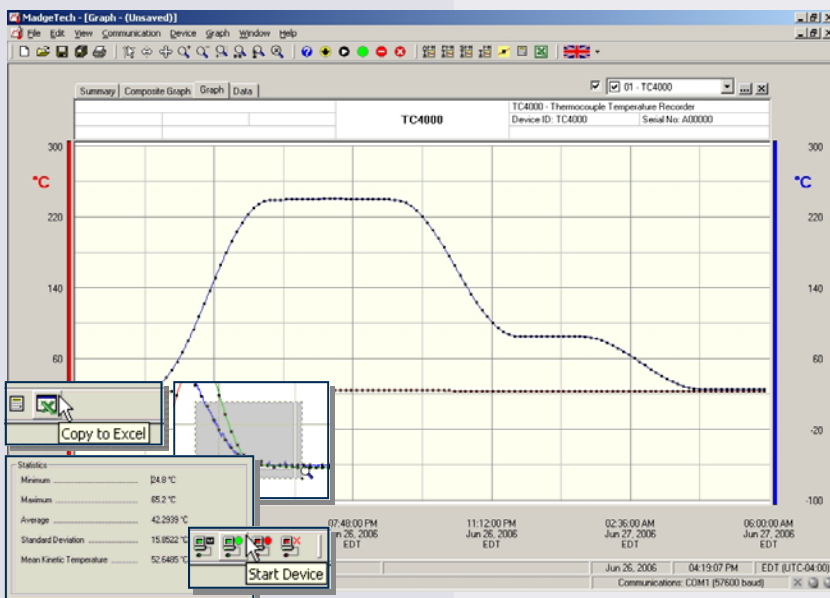
- N.I.S.T. traceable
- Real-time operation
- Low cost
- Programmable start time
- Reusable
- Miniature size
- User-friendly
- Automatic cold junction compensation
- Automatic thermocouple linearization
- CE compliant



### Applications

- Extreme temperature monitoring
- Oven profiling
- Powder coating cure ovens
- Wet coating cure ovens
- Batch ovens
- Conveyor ovens
- Implement HACCP programs
- Food processing
- Process Verification and Validation

The ThermoVault is a thermally insulated, battery powered, stand alone, thermocouple based temperature recorder used for thermal profiling of ovens. The device records temperature data inside an oven to be later downloaded from to the user's PC. 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 ThermoVault can withstand an oven temperature of up to 572°F for up to 15 minutes when properly sealed. The device's real time clock ensures that all data is time and date stamped. 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 ThermoVault makes data retrieval quick and easy. Simply plug it into an empty COM or USB port and our user-friendly software does the rest.



### 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.

# THERMOVAULT SPECIFICATIONS\*

**Temperature Resolution:** 0.1°C  
**Calibrated Accuracy:** ±0.5°C(0 to +50°C)

**Thermocouple Types:** J, K, T, E, R, S, B, N

**Thermocouple connection:** Fixed 2 position screw terminal

**Cold Junction Compensation:** Automatic, based on internal channel

Maximum Exposure Time (based on initial temperature of 25°C)	
Ambient Temperature	Maximum Duration in Minutes
100°C (212°F)	52
150°C (302°F)	30
200°C (392°F)	22
250°C (482°F)	17
260°C (500°F)	16
300°C (572°F)	15
350°C (662°F)	12
400°C (752°F)	10

**Start Modes:** Software programmable immediate start or delay start up to 6 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; software configurable memory wrap

**Reading Interval:** 1 reading every 2 seconds to 1 every 12 hours

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

**Battery Type:** 3.6V lithium battery included, **user replaceable**

**Battery Life:** 1 year typical (1 minute reading rate at 25°C)

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

**Time Accuracy:** ±1 minute/month (at 20 °C, RS232 port not in use)

**Computer Interface:** PC serial or USB (interface cable required); 2,400 baud

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

**Operating Environment for**

**Internal TC4000 DL:** -40 to +80°C, 0 to 95%RH non-condensing

**ThermoVault System:** -40 to +400°C, 0 to 95%RH non-condensing

**Dimensions:** 4.8" x 4.8" x 2.5" (122mm x 122mm x 65mm)

**Weight:** 32 oz (910 g)

**Approvals:** CE

**BATTERY WARNING:** FIRE, EXPLOSION, AND SEVERE BURN HAZARD.  
DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212°F,  
INCINERATE OR EXPOSE CONTENTS TO WATER.

## SOFTWARE FEATURES

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

**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 quickly

**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:** Automatically calculate and store calibration parameters

**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 select configuration

\*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.)
THERMOVAULT	Oven Temperature Profiler	\$999.00
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
LTC-7PN	Replacement battery for ThermoVault	\$ 10.00

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

### 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	

