



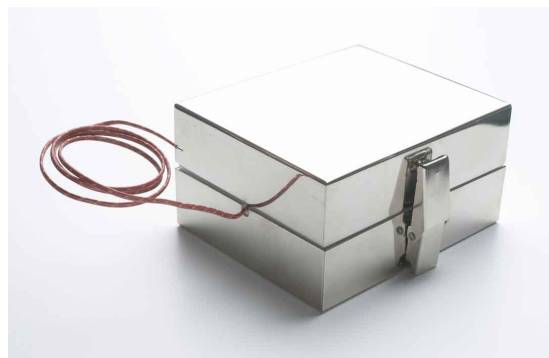
# THERMOVAULT Oven Temperature Recorder

## 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

## APPLICATIONS

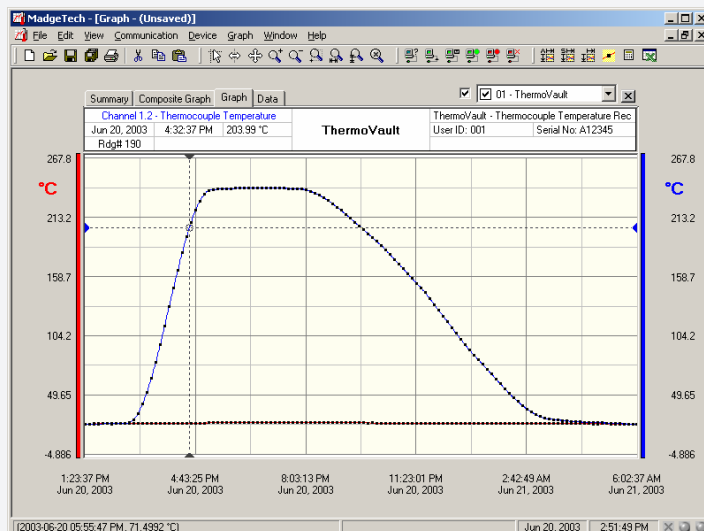
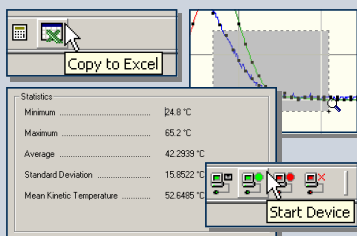
- ❖ Extreme temperature monitoring
- ❖ Oven profiling
- ❖ Environmental studies
- ❖ Replace costly strip chart recorders
- ❖ Implement HACCP programs



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 devices 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 port and our user-friendly software does the rest.

## SOFTWARE

PTC'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 a click of the mouse.



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## THERMOVAULT SPECIFICATIONS

**Internal Channel**  
**Temperature Range:** -40 °C to +80 °C  
**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:** Female subminiature (SMP)

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

Maximum Exposure Time	
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 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:** 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 RS232C COM (Interface cable required); 2,400 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:** 6.0" x 4.0" x 3.0" (152mm x 102mm x 76mm)  
**Weight:** 32 oz (910 g)

## THERMOVAULT 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

### ORDERING INFORMATION

Model	Description
THERMOVAULT	Oven Temperature Recorder
SP100	Software, manual and 9-pin computer interface cable
CERT and CERTTEMP	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

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