

# THERMOVAULT1000-P

## THERMAL BARRIER SYSTEM WITH TEMP1000P

### Features

- 304 Stainless Steel Enclosure
- Small 2.6" Diameter
- Submersible
- Withstands temperatures up to 350°C for 2.5 hours continuously

### Applications

- Extreme temperature monitoring
- Food Processing
- Oven Monitoring
  - Convention Oven
  - Curing Ovens
  - Baking Ovens
  - Batch Ovens
  - Conveyor or Continuous Oven
  - Walk-in / Truck-in Ovens
- Dry Heat Sterilization
- Autoclave Validation
- Furnace/Kiln Profiling
- Geothermal down-hole temperature recording
- Chemical Processing



The ThermoVault1000-P system includes a stainless steel thermal barrier and a Temp1000P data logger. The durable enclosure can withstand temperatures up to 230°C when completely submerged and 350°C in dry heat applications (o-ring removed).

The device is easy to use, simply open the enclosure, insert the Temp1000P, thread the probe through the end cap and latch it back onto the barrier body.



The ThermoVault1000-P is built for use in applications that required extreme temperature monitoring, such as with furnace profiling, geothermal down-hole recording, and oven data logging.

### THERMAL BARRIER SPECIFICATIONS\*

**Operating Environment:** -200°C to +350°C  
(230°C with O-Ring),  
0 to 100% RH

**IP Rating:** IP68

**Insulation Type:** Dewar flask and PTFE

**Access Port Thread:** 1/4" NPT Female

**Enclosure Material:** 304 Stainless Steel

**Dimensions:** 9.3" x 2.6" dia.  
236mm x 66mm dia.

**Weight:** 3.2lb

Ambient Temperature	Time In Air To Max Internal Temp Temp1000P	Time In Liquid To Max Internal Temp Temp1000P
100 °C	600 min	130 min
150 °C	315 min	120 min
200 °C	240 min	75 min
250 °C	180 min	60 min

For extended ranges, please contact MadgeTech.

300 °C	165 min	n/a
350 °C	150 min	n/a

See page 2 for Temp1000P specifications.

## TEMP1000P SPECIFICATIONS\*

<b>Temperature Sensor:</b> 100Ω Platinum RTD	<b>Calibration:</b> Digital calibration through software
<b>Temperature Range:</b> -40 to +80°C	<b>Calibration Date:</b> Automatically recorded within device
<b>Probe Range:</b> -100 to +260°C	<b>Battery Type:</b> 3.6V lithium battery included, <b>user replaceable</b>
<b>Temperature Resolution:</b> 0.05°C	<b>Battery Life:</b> 1 year typical (1 minute reading rate at 25°C)
<b>Calibrated Accuracy:</b> ±0.5°C	<b>Data Format:</b> Date and time stamped °C, °F, K, °R
<b>Specified Accuracy Range:</b> 100°C span between calibration points	<b>Time Accuracy:</b> ±1 minute/month at 20°C (RS232 cable not in use)
<b>Start Modes:</b> Software programmable immediate start or delay start, up to six months in advance	<b>Computer Interface:</b> PC serial or USB (Interface cable required); 2,400 baud
<b>Real-Time Recording:</b> May be used with PC to monitor and record data in real time	<b>Software:</b> Windows 95/98/ME/NT/2000/XP/Vista based software
<b>Memory:</b> 32,767 readings	<b>Operating Environment:</b> -40 to +80°C, 0%RH to 100%RH, submersible to 150'
<b>Reading Rate:</b> 1 reading every 2 seconds to 1 every 12 hours	<b>Body Dimensions:</b> 4.5" x 1.0" dia. (115mm x 26mm dia.)
<b>Lethality Equations:</b> Sterilization Units and Pasteurization Units are available in software with the click of a button	<b>Probe Dimensions:</b> 6.75" x 3/16" dia. (172mm x 5 mm dia.)
	<b>Enclosure:</b> 303 stainless steel
	<b>Probe:</b> 304 stainless steel
	<b>Weight:</b> 7.3 oz (205g)
	<b>Approvals:</b> CE

**BATTERY WARNING:** RISK OF FIRE OR EXPLOSION. DO NOT RECHARGE, FORCE OPEN, HEAT OR DISPOSE OF IN FIRE.

## SOFTWARE FEATURES

<b>Multiple Graphs:</b> Simultaneously analyze data from several units or deployments; easily switch to a single data series	<b>Statistics:</b> Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
<b>Real-Time Recording:</b> Collect and display data in real-time while continuing to log	<b>Export Data:</b> Export data in a variety of common formats, or switch to Excel® with a single click
<b>Graphical Cursor:</b> One click displays readings by time, value, parameter or sample number	<b>Calibration:</b> Automatically calculate and store calibration parameters
<b>Data Table:</b> Instantly access tabular view for detailed dates, times, values, and annotations	<b>Logger Configuration:</b> Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Scaling Options:</b> Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Communications:</b> Automatically sets up communications port, or lets user select configuration
<b>Formatting Options:</b> Change colors, line styles, plotting options, show or hide channels quickly	<b>Printing:</b> Automatically print graphical or tabular data

\*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

<u>Model</u>	<u>Description</u>	<u>Price (U.S.)</u>
THERMOVAULT1000-P	Thermal Barrier System, includes enclosure and Temp1000P	\$1499.00
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
TL-2150	Replacement battery for Temp1000P	\$10.00

### 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	

