

OM-CP-THERMOVAULTX SERIES 4 & 8-Channel Thermocouple Data Loggers



- Programmable start time
- Reusable
- Convenient size
- User-friendly
- Automatic cold junction compensation
- Automatic thermocouple linearization
- Type K thermocouples and power supply included



Oven temperature profiling can help ensure that a quality product is consistently produced. Profiling enables users to optimize their process, prove process control and make corrections to a process when required. The OM-CP-THERMOVAULTX Series is a thermally insulated, battery powered, oven temperature recorder able to withstand extreme temperatures. It can withstand oven temperatures of up to 662 °F for up to 25 minutes when properly sealed. Its stainless steel enclosure and thermal properties lend itself to be the ideal temperature recording device for applications such as powder coating cure ovens, wet coating cure ovens, batch ovens and conveyor ovens. The external thermocouple probes provide accurate temperature measurements, with fast response times.

Our user-friendly software easily downloads the data to a computer, where the readings may be displayed in degrees Celsius, degrees Fahrenheit, Kelvin or Rankine. The software allows the user to view all data points or a range of data points and a summary of the data being viewed for calculations such as Mean Kinetic Temperature (MKT). If additional analysis of the data needs to be performed, the data can be easily exported to Excel® by simply clicking a button.

Specifications

INTERNAL CHANNELS	
Temperature Range	-20 °C to +60 °C (-4 °F to +140 °F)
Temperature Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.5 °C (0 °C to 50 °C)
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

Specifications

REMOTE CHANNELS			
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 is specified with a 24 AWG.

MAXIMUM EXPOSURE TIME	
Ambient Temperature	Maximum Duration in Minutes
100 °C (212 °F)	110
150 °C (302 °F)	62
200 °C (392 °F)	45
250 °C (482 °F)	35
260 °C (500 °F)	33
300 °C (572 °F)	30
350 °C (662 °F)	25

BATTERY WARNING: BATTERY MAY LEAK, FLAME OR EXPLODE IF DISASSEMBLED, SHORTED, CHARGED, CONNECTED TOGETHER, MIXED WITH USED OR OTHER BATTERIES, EXPOSED TO FIRE OR HIGH TEMPERATURE. DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN.

GENERAL	
Memory (All channels enabled)	4-channel: 524,032 readings per channel 8-channel: 262,016 readings per channel
Start Modes	Software programmable immediate start or delay start, up to 6 months in advance
LEDs	1 per channel and 2 status LEDs
Reading Rate	4 Hz up to 1 reading every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	9 V lithium included, user replaceable
Battery Life	18 months typical
Data Format	Date and time stamped °C, °F, K, °R, mV, V
Time Accuracy	±1 minute/month
Computer Interface	USB-A to micro USB cable (included); 460,800 baud
Operating System Compatibility	Windows XP SP3/7/8/10
Software Compatibility	Standard Software version 4.2.17.0 or later Secure Software version 4.2.16.0 or later
Operating Environment	See table for temperature 0 %RH to 95 %RH non-condensing
Internal OM-CP-QUADTCTEMP-A2	-20 °C to +60 °C 0 %RH to 95 %RH non-condensing
OM-CP-THERMOVAULTX SYSTEM	-20 °C to +350 °C 0 %RH to 95 %RH non-condensing
Dimensions	12.3 in x 6.65 in x 2.45 in (723 mm x 168 mm x 62 mm) <i>[Includes handles, brackets and front enclosure latches]</i> 9.1 in x 5.9 in x 2.45 in (231 mm x 149 mm x 62 mm) <i>[Enclosure case only. Excludes handles, brackets and latches]</i>
Weight	4-channel: 8.85 lb (4.01 kg) 8-channel: 8.98 lb (4.07 kg)

To Order

P/N	Description
OM-CP-QUADTHERMOVAULT-A2	4-Channel Oven Temperature Data Logger, 72 inch type K thermocouples, USB-A to micro USB cable, universal power adapter
OM-CP-OCTTHERMOVAULT-A2	8-Channel Oven Temperature Data Logger, 72 inch type K thermocouples, USB-A to micro USB cable, universal power adapter
OM-CP-BAT103	Replacement 9V lithium battery