



OM-CP-QUADTHERMOVAULT 4-Channel Oven Temperature Data Logger

OM-CP-OCTTHERMOVAULT 8-Channel Oven Temperature Data Logger

INSTRUCTION
SHEET

MQS5771/1216

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Product Overview

The OM-CP-QUADTHERMOVAULT-A is an oven temperature recorder that consists of a OM-CP-QUADTEMP-A inside a thermal enclosure. The OM-CP-QUADTEMP-A is a four channel thermocouple temperature data logger with a reading rate of up to 4Hz. It can measure and record data for up to 500,000 readings per channel. The thermal enclosure acts as a buffer and allows the device to be placed in higher operating environments for certain durations of time. The chart outlines the maximum temperature and time duration to which the device can be exposed.



Product Overview

The OM-CP-OCTTHERMOVAULT-A is an oven temperature recorder that consists of a OM-CP-OCTTEMP-A inside a thermal enclosure. The OM-CP-OCTTEMP-A is an eight channel thermocouple temperature data logger with a reading rate of up to 4Hz. It can measure and record data for up to 500,000 readings per channel. The thermal enclosure acts as a buffer and allows the device to be placed in higher operating environments for certain durations of time. The chart outlines the maximum temperature and time duration to which the device can be exposed.



Installation Guide

Installing the Interface cable

- OM-CP-IFC200: Insert the device into a USB port. The drivers will install automatically.

Installing the software

Insert the Software USB Stick in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on Autorun.exe. Follow the instructions provided in the Wizard.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the **Connected Devices list**, highlight the desired data logger.
- For most applications, select **"Custom Start"** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **"Start"**. (**"Quick Start"** applies the most recent custom start options, **"Batch Start"** is used for managing multiple loggers at once, **"Real Time Start"** stores the dataset as it records while connected to the logger.)
- The status of the device will change to **"Running"**, **"Waiting to Start"** or **"Waiting to Manual Start"**, depending upon your start method.
- Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

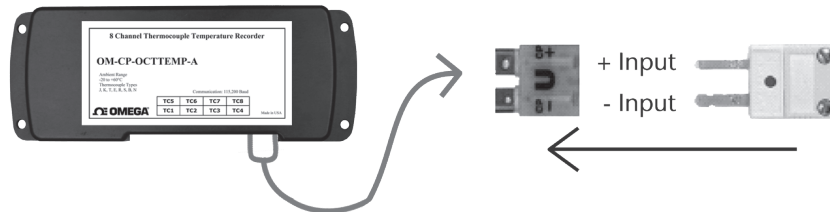
- Connect the logger to the interface cable.
- Highlight the data logger in the Connected Devices list. Click **"Stop"** on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click **"Download"**. You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

Wiring the Data Logger

Wiring Options

The OM-CP-QUADTEMP-A has four SMP connections and the OM-CP-OCTTEMP-A has eight. These connections allow the user to insert subminiature thermocouple plugs into the connectors on the device. The diagram below shows how to connect the individual thermocouples for each of the devices.

Warning: Note the polarity instructions. Do not attach wires to the wrong terminals.



Additional Features and Operation

Manual Start

Within the software click the **Custom Start** button on the **Device panel**, or right-click on the device and hover on the start selection, then choose custom start. Apply the options desired and select Start to arm the device.

Once the device is armed, activate the **Manual Start** by holding down the white recessed push button on the top of the device for 10 seconds. The green LED will begin to blink rapidly for 10 seconds, which signifies the push-button start has been activated. The green LED will continue to blink every 5 seconds. To see the change in the status, click **Refresh Devices** within the software.

Enable/Disable Channels

By default, all channels are enabled.

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. Toggle the Enable Data Recording options for the thermocouple channels as desired.
4. Apply these changes, there will be a prompt to reset the device, select yes.

Note: When the checkmark is empty, the channel is disabled and will not record data or appear in the downloaded datasets. When the checkmark is clearly checked, it will be visible and record data.

Thermocouple Type

To change the thermocouple type:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General Tab**, change the Thermocouple type in the drop down menu.
4. Apply these changes, there will be a prompt to reset the device, select yes.

LEDs

Once started, the green LED will flash at 5 second intervals to indicate that the device is running.

OM-CP-QUADTHERMOVAULT & OM-CP-OCTTHERMOVAULT

Set Password

To password protect the device so that others cannot start, stop or reset the device;

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General Tab**, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

To Change the Password

To change the password on the device so others can not stop, start or reset the device;

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General Tab**, click **Change Password**.
4. Enter the old and new passwords in the box that appears, then select **OK**.

To Clear the Password of a Device

To completely clear the password on a device so others can stop, start or reset the device;

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General Tab**, click **Clear Password**.
4. Enter the password in the box that appears, then select **OK**.

Channel Naming

Up to a 10-character channel name can be programmed into the data logger for each channel. This ability helps to rename a channel in a report to distinguish it from other similarly named channels.

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device Tab**, in the **Information Group**, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. In the **Channels panel**, find the channel desired, then select **"Use custom name."**
4. This will prompt a space to type in a name.
5. Select **OK**, then there will be a prompt to reset the device, select yes.

Product Maintenance

Battery Replacement

Materials:

3/32" HEX Driver (Allen Key)

Replacement Battery (OM-CP-BAT103)

1. Remove the cover from the device by unscrewing the two screws.
2. Remove the battery from its compartment and unsnap it from the connector.
3. Snap the new battery into the terminals and verify it is secure.
4. Replace the cover taking care not to pinch the wires. Screw the enclosure back together securely.

Note: Be sure not to over tighten the screws or strip the threads.

Recalibration

The OM-CP-QUADTEMP-A or OM-CP-OCTTEMP-A standard calibration is one point at 25°C for the internal temperature sensor and 0mVs for the thermocouple channels. Recalibration is recommended annually for any Omega data logger; a reminder is automatically displayed in the software when the device is due.

OM-CP-QUADTHERMOVAULT General Specifications

Description	OM-CP-QUADTHERMOVAULT
Internal Channel Temperature Sensor	Semiconductor
Internal Channel Temperature Resolution	0.05°C
Internal Channel Accuracy	±0.5°C
Remote Channel Temperature Sensor Range, Resolution & Accuracy	*See Table for Details
Cold Jct. Compensation	Automatic
Channels	4 internal & 4 remote
Memory	500,000/channel
Sample Rate	4 Hz up to 24 hours
LED Indicator	Green, Red, Blue
Required Interface Package	OM-CP-IFC200
Baud Rate	115,200
Battery Type	9 Volt lithium or alkaline battery included, user replaceable
Typical Battery Life	18 months typical
Operating Environment	**See Table for Details
Dimensions	12.3 in x 6.65 in x 2.45 in (312 mm x 168 mm x 62 mm) [Includes handles, brackets and front enclosure latches] 9.1 in x 5.9 in x 2.45 in (231 mm x 149 mm x 62 mm) [Enclosure case only. Excludes handles, brackets and latches]
Material	304 stainless steel w/ PTFE insulation
Weight	8.85 lb (4.01 kg)
Approvals	CE

* Remote Channel Range, Resolution & Accuracy

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

**Operating Environment: Maximum Exposure Time

Ambient Temperature	Quad/Oct Channel
100 °C (212 °F)	110 min
150 °C (302 °F)	62 min
200 °C (392 °F)	45 min
250 °C (482 °F)	35 min
260 °C (500 °F)	33 min
300 °C (572 °F)	30 min
350 °C (662 °F)	25 min

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 60°C (140°F).

OM-CP-OCTTHERMOVAULT General Specifications

Description	OM-CP-OCTTHERMOVAULT
Internal Channel Temperature Sensor	Semiconductor
Internal Channel Temperature Resolution	0.05°C
Internal Channel Accuracy	±0.5°C
Remote Channel Temperature Sensor Range, Resolution & Accuracy	*See Table for Details
Cold Jct. Compensation	Automatic
Channels	8 internal & 8 remote
Memory	500,000/channel
Sample Rate	4 Hz up to 24 hours
LED Indicator	Green, Red, Blue
Required Interface Package	OM-CP-IFC200
Baud Rate	115,200
Battery Type	9 Volt lithium or alkaline battery included, user replaceable
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Material	304 stainless steel w/ PTFE insulation
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Approvals	CE

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2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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