



OM-CP-TEMP1000IS-A

Intrinsically Safe Temperature Data Logger with Stainless Steel Enclosure

INSTRUCTION
SHEET

MQS5096/1216

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Product Overview

The OM-CP-TEMP1000IS-A temperature data logger is a rugged, battery powered, stand alone device which can be used to automatically record temperatures between -40°C and 80°C (-40°F to +176°F). This all in one compact, portable, easy to use device is able to measure and record data for up to 32,767 temperature readings.

Intrinsically Safety Approval

The OM-CP-TEMP1000IS-A has been certified by FM Approvals as Intrinsically Safe (IS) for use in Class I, Division 1, groups A, B, C, D, and Non-incendive (NI) for use in Class I, Division 2, groups A, B, C, D indoor and outdoor, Hazardous (Classified) Locations. The rating is listed as follows in the Factory Mutual approval guide:

- OM-CP-TEMP1000IS-A. Temperature Data Logger.
IS / I / 1 / ABCD T4A Ta=80°C; NI / I / 2 / ABCD / T4A Ta=80°C

These are the only safety ratings relevant to the use of this product. Use of this product in hazardous environments not specifically covered by this rating is prohibited, unless the user takes the appropriate steps to ensure the safety of the product and assumes full responsibility for its safe use.

Installation Guide

Installing the Software

Insert the Omega Software Flash Drive 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 Installation Wizard.

Installing the Interface Cable

- OM-CP-IFC400 or OM-CP-IFC406

Refer to the "Quick Start Guide" included in the package.

Device Operation

Connecting and Starting the Data Logger

- Once the software is installed and running, plug the interface cable into the docking station.
- Connect the USB end of the interface cable into an open USB port on the computer.
- Place the data logger into the docking station.
- The data logger will automatically appear under Connected Devices within the software.
- 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 docking station 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, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.

Stopping and Downloading Data from the Data Logger

- Connect the data logger via the OM-CP-IFC400 or OM-CP-IFC406 docking station.
- 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.

Troubleshooting Tips

Why is the data logger not appearing in the software?

If the OM-CP-TEMP1000IS-A doesn't appear in the Connected Devices panel, or an error message is received while using either, try the following:

- Check that the OM-CP-IFC400 is properly connected. For more information, see Troubleshooting Interface Cable problems (below).
- Ensure that the battery is not discharged. For best voltage accuracy, use a voltage meter connected to the battery of the device. If possible, try switching the battery with a new OM-CP-BAT102.
- Ensure that no other Omega software is running in the background.
- Ensure that **Omega Software** is being used.
- Ensure that the **Connected Devices** panel is large enough to display devices. This can be verified by positioning the cursor on the edge of the Connected Devices panel until the resize cursor appears, then dragging the edge of the panel to resize it. The screen layout may also be reset in the options menu by selecting **File, Options**, and scrolling to the bottom.

Troubleshooting Interface Cable problems

Check that the software properly recognizes the connected OM-CP-IFC400 interface cable.

If the data logger is not appearing in the **Connected Devices** list, it may be that the OM-CP-IFC400 is not properly connected.

1. In the software, click the **File** button, then click **Options**.
2. In the **Options** window, click **Communications**.
3. The **Detected Interfaces** box will list all of the available communication interfaces. If the OM-CP-IFC400 is listed here, then the software has correctly recognized and is ready to use it.

Check that Windows recognizes the connected OM-CP-IFC400 interface cable.

If the software does not recognize the OM-CP-IFC400, there may be a problem with Windows or the USB drivers.

1. In Windows, click **Start**, right-click **Computer** and choose **Properties** or press **Windows+Break** as a keyboard shortcut.
2. Click **Device Manager** in the left hand column.
3. Double click **Universal Serial Bus Controllers**.
4. Look for an entry for **Data logger Interface**.
5. If the entry is present, and there are no warning messages or icons, then windows has correctly recognized the connected OM-CP-IFC400.
6. If the entry is not present, or has an exclamation point icon next to it, the USB drivers may need to be installed. These are available on the software flash drive included with the OM-CP-IFC400.

Ensure that the USB end of the OM-CP-IFC400 is securely connected to the computer.

1. Locate the USB-A plug of the OM-CP-IFC400.
2. If the interface cable is connected to the PC, unplug it. Wait ten seconds.
3. Reconnect the cable to the PC.
4. Check to make sure that the red LED is lit, indicating a successful connection.

Product Maintenance

Battery Replacement

Materials: Replacement Battery (OM-CP-BAT102)

- Carefully unscrew the data logger encasement to separate the top from the bottom of the device.
- The battery is the purple cylinder inside the data logger.
- Gently slip out the old battery.
- Insert the new battery.
- Reassemble the data logger encasement by screwing the sections back together, ensuring that the fit is tightly sealed.

O-Rings

O-Ring maintenance is a key factor when properly caring for the OM-CP-TEMP1000IS-A. The O-Rings ensure a tight seal and prevent liquid from entering the inside of the device.

Note: For more information refer to the OM-CP-TEMP1000IS-A Intrinsic Safety user notice.

Recalibration

Standard recalibration for the OM-CP-TEMP1000IS-A is one point, 25°C.

Recalibration is recommended annually for any Omega data logger; a reminder is automatically displayed in the software when the device is due.

OM-CP-TEMP1000IS-A General Specifications

Temperature Sensor	Resistance Temperature Detector (RTD)
Temperature Range	-40°C to +80°C (-40°F to +176°F)
Temperature Resolution	0.01°C
Calibrated Accuracy	±0.5°C (0 to ±50°C)
Memory	32,767
Start Modes	Software programmable immediate or delay start, up to 2 years in advance
Real Time Recording	May be used with PC to monitor and record data in real time (PC interface not IS rated)
Reading Rate	1 reading every 2 seconds up to 1 reading every 12 hours
Lethality Equations	Sterilization Units and Pasteurization Units are available within software with a click of a button.
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device and displayed in software
Battery Type	3.6V lithium battery included, user replaceable
Battery Life	2 years typical at 15 minute reading rate
Data Format	Date and time stamped °C, °F, K, °R
Time Accuracy	±1 minute/month at +20°C
Required Interface Package	OM-CP-IFC400 or OM-CP-IFC406
Software	XP SP3/Vista/Windows 7/Windows 8 (Omega 4 software only)
Operating Environment	-40°C to +80°C (-40°F to +176°F), 0%RH to 95%RH (case properly sealed)
Dimensions	2.65" x .97" dia. (67.3mm x 24.6mm dia.)
Weight	3oz (85g)
Materials	316 Stainless Steel
IP Rating	Not Rated - Caution: Do not submerge this product to retain IS rating
Approvals	IS, CE

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 80°C (176°F).

*Specifications subject to change.
See Omega's terms and conditions at www.omega.com*



Compliance Information

- “This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.”
- “To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.”
- “This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes: (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.”

- “Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d’Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d’un type et d’un gain maximal (ou inférieur) approuvé pour l’émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l’intention des autres utilisateurs, il faut choisir le type d’antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l’intensité nécessaire à l’établissement d’une communication satisfaisante.”



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WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product. If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

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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