



OM-CP-RHTEMP1000IS-A2

Intrinsically Safe Temperature and Humidity
Data Logger with Stainless Steel Enclosure

INSTRUCTION
SHEET

MQS5095/0820

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Product Notes

The OM-CP-RHTemp1000IS-A2 carries hazardous location, intrinsically safe certification in accordance with the latest issue of:

FM3600, FM3610, CAN/CSA-C22.2 No. 60079-0:15, CAN/CSA-C22.2 No. 60079-11:14

Certified Intrinsically Safe for:

- Class 1 Division 1 Group ABCD
- Class 1 Division 2 Group ABCD
- Temperature Class: T4A

Operational Warnings

- When used in hazardous locations, the OM-CP-RHTEMP1000IS-A2 is to be *installed prior* to the location becoming hazardous and removed only after the area is no longer hazardous.
- The maximum allowed ambient temperature for the OM-CP-RHTEMP1000IS-A2 (under any circumstances) is 80 °C. The minimum rated operating temperature is -40 °C.
- The OM-CP-RHTEMP1000IS-A2 is approved for use only with the Tadiran TL-2150 battery. Replacement with any other battery will void the safety rating.
- Batteries are user replaceable, but are to be removed or replaced only in locations known to be non-hazardous.
- Tampering or replacement of non-factory components may adversely affect the safe use of the product, and prohibited. Except for replacement of the battery, the user may not service the OM-CP-RHTEMP1000IS-A2. Omega or an authorized representative must perform all other service to the product.

Installation Guide

Installing the Software

Install Omega 4 software (see specifications for compatible versions) and USB Drivers onto a Windows PC (Windows XP SP3 or later). Follow the instructions provided in the Installation Wizard.

Installing the Interface Cable

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

Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers.

Device Operation

Connecting and Starting the Data Logger

- Once the software is installed and running, plug the interface cable into the docking station (OM-CP-IFC400 or OM-CP-IFC406).
- 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

- Place the logger into the docking station (OM-CP-IFC400 or OM-CP-IFC406).
- 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.

Communication

To ensure desired operation of the OM-CP-RHTEMP1000IS-A2, **please keep the surface clear of any foreign objects or substances**. The OM-CP-RHTEMP1000IS-A2’s data is downloaded through **external contact** with the OM-CP-IFC400 or OM-CP-IFC406 docking station. Covering the surface with foreign objects (i.e. **Calibration Labels**) can prevent the communication and/or downloading process.

Product Maintenance

Battery Replacement

Materials: Replacement Battery Tadiran TL-2150 (OM-CP-BAT113)

- Observe Operational Warnings when removing and replacing the battery.
- Unscrew the bottom of the logger and remove the battery.
- Place the new battery into the logger. *Caution: Observe correct battery polarity when installing.*
- Screw the cover back onto the logger.

O-Rings

O-Ring maintenance is a key factor when properly caring for the OM-CP-RHTEMP1000IS-A2. The O-Rings ensure a tight seal and prevent liquid from entering the inside of the device.

Recalibration

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

OM-CP-RHTEMP1000IS-A2 General Specifications

Description	OM-CP-RHTEMP1000IS-A2
Temperature Sensor	Resistance Temperature Detector (RTD)
Temperature Range	-40 °C to +80 °C (-40 °F to +176 °F)
Temperature Resolution	0.01°C (0.018 °F)
Calibrated Accuracy	±0.5 °C (0 °C to ±50 °C), ±0.9 °F (32 °F to 122 °F)
Humidity Sensor	Capacitive Polymer
Humidity Range	0 %RH to 100 %RH (non-condensing)
Humidity Resolution	0.1 %RH
Calibrated Accuracy	±3.0 %RH maximum
Specified Accuracy Range	25 %RH to 75 %RH, +20 °C to +40 °C (68 °F to 104 °F) Hysteresis Error 1 % Typical, 3 % Maximum
Memory	32,768 Readings
Start Modes	Software programmable immediate or delay start, up to 24 months in advance
Real Time Recording	May be used with PC to monitor and record data in real time
Reading Rate	1 reading every second up to 1 reading every 24 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
Time Accuracy	16 seconds / month -40 °C to 80 °C
Data Format	Date and time stamped °C, °F, K, °R; %RH, mg/mL, Dew Point
Required Interface Package	OM-CP-IFC400 or OM-CP-IFC406
Battery Type	Tadiran TL-2150 (OM-CP-BAT113) 3.6 V lithium battery included, user replaceable in a non-hazardous location
Baud Rate	125,000 baud
Typical Battery Life	2 years typical at 15 minute reading rate
Operating System Compatibility	Windows XP SP3 7/8/10 or later
Omega Software Compatibility	Standard Software version 4.2.19.1 or later Secure Software version 4.2.18.0 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F), 0 %RH to 100 %RH (case properly sealed)
Material	316 Stainless Steel/Radel
IP Rating	Not Rated - Caution: Do not submerge this product to retain IS rating
Dimensions	1.67 in x 0.97 in dia. (42.3 mm x 24.6 mm dia.)
Weight	2.4 oz (68 g)
Approvals	CE FM Class 3600, Rev. Jan 2018 FM Class 3610, Rev. Jan 2018 CAN/CSA-C22.2 No. 60079-0:15 CAN/CSA-C22.2 No. 60079-11:14

BATTERY 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



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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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