

5 YEAR
WARRANTY



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OM-CP-PRHTEMP101A
Pressure, Humidity & Temperature
Data Logger

Product Overview

The OM-CP-PRHTEMP101A is a pressure, relative humidity and temperature data logger, specifically designed to be compact and portable for use in a variety of applications such as museum and archive preservation, shipping and transportation, warehouse monitoring, HVAC and more.

The OM-CP-PRHTEMP101A offers a 10 year battery life, 1 second reading rate, multiple start/stop functions, ultra-high speed download capability, optional memory wrap, battery life indicator, optional password protection, programmable high-low alarms and more.

Using the Omega Software, starting, stopping and downloading from the OM-CP-PRHTEMP101A is simple and easy for users. Graphical, tabular and summary data is provided for analysis and data can be viewed in °C, °F, °R, K, for the temperature channel, %RH, mg/mL, Dew Point, for the humidity channel and mbar, PSI, inHg, mmHg, atm, Torr, Pa, m, kPa, MPa for the pressure channel. The data can also be automatically exported to Excel® for further calculations. Units do not need to be returned to the factory for upgrades, this can be done automatically from any PC with the Omega software.

LED Indicators

- **Green LED blinks:** 10 seconds to indicate logging and 15 seconds to indicate delay start mode/standby (*waiting to start*)
- **Red LED blinks:** 10 seconds to indicate low battery and/or memory and 1 second to indicate an alarm condition met.

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

1. Once the software is installed and running, plug the interface cable into the data logger.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. The device will appear in the Connected Devices list, highlight the desired data logger.
4. 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.*)
5. The status of the device will change to "**Running**", "**Waiting to Start**" or "**Waiting to Manual Start**", depending upon your start method.
6. 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

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

Additional Features and Operation

Password Protection

An optional password may be programmed into the device to restrict access to configuration options. Data may be read without the password.

Multiple Start/Stop Mode Activation

- **To start device:** Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.
- **To stop the device:** Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.



Alarm Settings

Programmable high and low limits; alarm is activated when current reaches or exceeds set limits. (*Pressure channel only*)

Creating a Real time Alarm Rule

1. Within the Device tab in the Omega software, in the Alarms group, click **Manage Rules**, then select **New**.
2. Enter a name in the Rule name box, and select whether notifications will occur when **All** conditions are met or **Any** condition is met.
3. Select the desired conditions to have met before notifications occur, and select which notifications will occur from the drop down menus.
4. If selecting to receive notifications by email or text message, click **Email settings** and make sure the correct info has been entered. Email and text message notifications will not be received if settings are incorrect.
5. Click **OK**. The **OK** button will be disabled if the Rule name box is empty.

Changing the Alarm Settings of a Device

1. In the Connected devices panel, select the OM-CP-PRHTEMP101A device.
2. Click the **Properties** button under the device tab at the top of the software, and select the **Alarm** tab in the **Properties** window.
3. The High and Low settings indicate reading thresholds at which the alarm becomes active.
4. The Delay setting indicates how long to wait before the alarm becomes active after passing an alarm threshold.
5. The Use cumulative alarm delay checkbox indicates whether the alarm delay should reset when reading values fall back within the alarm threshold.
6. Once the alarm is configured appropriately, click **Apply** to save the settings.

Please refer to the Help file in the Omega software for more information regarding alarm settings

Product Maintenance

Battery Replacement

Materials: Small Phillips Head Screwdriver & Replacement Battery (OM-CP-BAT105)

1. Puncture the center of the back label with the screw driver and unscrew the enclosure.
2. Remove the battery by pulling it perpendicular to the circuit board.
3. Insert the new battery into the terminals and verify it is secure.
4. Screw the enclosure back together securely.

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

Recalibration

The OM-CP-PRHTEMP101A standard calibration is one point for temperature at 25°C, two points for humidity at 25%RH and 75%RH and two points for pressure at 460 mbar and 1095 mbar.

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

OM-CP-PRHTEMP101A General Specifications

Pressure Sensor	Piezoresistive
Pressure Range	250 mbar to 1300 mbar
Pressure Resolution	0.02 mbar
Pressure Calibrated Accuracy	10 mbar
Humidity Sensor	Capacitive Polymer
Humidity Range	0 to 95%RH
Humidity Resolution	0.1%RH
Humidity Calibrated Accuracy	3%RH
Temperature Sensor	RTD
Temperature Range	-40°C to +80°C (-40°F to +176°F)
Temperature Resolution	0.01°C
Temperature Calibrated Accuracy	±0.5°C
Memory	688,128 readings; software configurable memory wrap 412,876 readings; (manual or trigger mode)
Reading Rate	1 reading every second to 1 reading every 24 hours
LED Indicator	Red and green
Required Interface Package	OM-CP-IFC200
Baud Rate	115,200
Battery Type	3.6V lithium battery included; user replaceable
Typical Battery Life	10 year battery life typical, at a 15 minute reading rate
Operating Environment	-40°C to +80°C, 0 to 95%RH non-condensing 0.002 PSIA to 100 PSIA
Enclosure Material	ABS plastic
Dimensions	1.4" x 2.2" x 0.6" (36 mm x 56 mm x 16 mm)
Weight	0.9 oz (24 g)
Approvals	CE

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100°C (212°F), INCINERATE, CRUSH OR EXPOSE CONTENTS TO WATER.

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



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WARNING: These products are not designed for use in, and should not be used for, human applications.



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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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