

OM-CP-RFRHTEMP2000A

Wireless Temperature and Humidity Data Logger with Display

- Wireless 2-Way Communication
- View Data in Real-Time
- 3 Year Battery Life
- Battery Life Indicator
- Field Upgradeable
- Audible and LED alarm Indicators
- Cumulative Alarm Delay

The OM-CP-RFRHTEMP2000A is a wireless temperature and humidity data logger with digital display.

The OM-CP-RFRHTEMP2000A is ideal for both industrial or laboratory applications including supply chain storage facilities, incubator monitoring and HVAC studies. Designed with external humidity and RTD based temperature sensors, the device provides a fast response time for both parameters.

For customer convenience, functions include starting, stopping and downloading from the device wirelessly using the OM-CP-RFC1000-EXT wireless transceiver. This allows customers to quickly access data and spend less time maintaining the device. Data can be provided in real time back to a central PC, or the device may be downloaded at periodic intervals.

The digital display provides the current reading for both the humidity and temperature channels with minimum, maximum and average statistics accessible for a quick snapshot of the logged data.

The OM-CP-RFRHTEMP2000A features user programmable alarm settings for both temperature and humidity parameters. An audible buzzer and LED alarm indicator notifies users when the temperature or humidity is above or below the threshold set in the alarm. Email and text alarms can also be configured and sent from within the software, allowing users to be notified almost anywhere.

The OM-CP-RFRHTEMP2000A can be used as a single, wireless data logging system, or it can be expanded to a large scale system, which can include hundreds of data loggers measuring a number of areas (additional wireless data loggers and transceivers may be required).

Data retrieval is simple. Plug the device into an available USB port and our easy-to-use software does the rest. The software converts a PC into a real-time strip chart recorder.

The data logger software is a powerful, analytic tool. Data can be viewed in graphical or tabular formats and summary and statistics views are available for further analysis.

The software features export to Excel®, data annotation and more.

Specifications

Temperature

Internal Channel Temperature Range: -20 °C to 60 °C (-4 °F to 140 °F)

Temperature Resolution: 0.01 °C (0.02 °F)

Calibrated Accuracy: ± 0.5 °C (±0.9 °F)
0 °C to 55 °C (32 °F to 131 °F)

Response Time: 10 minutes free air



OM-CP-RFRHTEMP2000A
with mounting bracket,
shown in actual size

Humidity

Range: 0 % to 95 % RH

Resolution: 0.1 % RH

Calibrated Accuracy: ±3.0 % RH, ±2.0 % RH typical at 25 °C (77 °F); [10 % to 90 % RH; 5 °C to 55 °C (41 °F to 131 °F)]

Response Time: 2 minutes to 63 % of change

Wireless

RF Frequency: 2.45 GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication

Band: ISM band 2.405 GHz to 2.48 GHz

Output Power: +0 dBm typical

Receiver Sensitivity (OM-CP-RFC1000-EXT): -95 dBm typical

Range: 610 m (2000 ft) maximum outdoors (line of sight unobstructed); 152 m (500 ft) maximum indoors (typical urban)

General

Reading Rate: One reading every second up to one every 24 hours

Memory: 16,128 per channel

LED Functionality:

- Green LED blinks every 5 seconds to indicate unit is logging
- Blue LED blinks every 15 seconds to indicate unit is in wireless mode
- Red LED blinks every 1 second to indicate alarm condition

Memory Wrap Around: Yes

Start Modes: Immediate start

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

Battery Type: 9 V lithium battery (included); user replaceable

Battery Life: 3 years typical at 1 minute reading rate

Data Format:

For Display: °C or °F, %RH

For Software: Date and time stamped °C, K, °F, or °R,

%RH, mg/mL, dew point, °C/K/°F/°R

Time Accuracy: ±1 minute/month

Computer Interface: USB to mini USB, 250,000 baud for standalone operation or OM-CP-RFC1000-EXT required for wireless operation

Software: Windows 10 and 11

Operating Environment: -20 °C to 60 °C (-4 °F to 140 °F), 0 % to 95 % RH non-condensing

Dimensions (H x W x D): 76.2 mm x 88.9 mm x 24.1 mm (3.0 in x 3.5 in x 0.95 in) data logger only

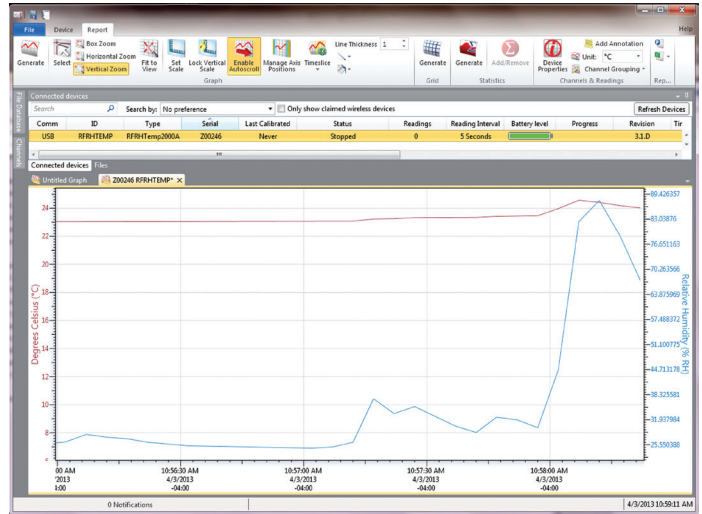
Weight: 116 g (4.1 oz)

Enclosure Material: ABS plastic

Alarm: Programmable high and low limits for temperature and humidity. Alarm is activated when temperature or humidity reaches or exceeds set limits

Alarm Delay: A cumulative alarm delay may be set in which the device will activate the alarm (via LED) only when the device has recorded a user specified time duration of data

Audible Alarm Functionality: 1 beep per second for reading alarm above/below threshold



OM-CP-RFC1000-EXT, Windows® software displays data in graphical or tabular format, sold separately.

Ordering Guide

Model Number	Description
OM-CP-RFRHTEMP2000A	Wireless temperature and humidity data logger with LCD display
OM-CP-RFRHTEMP2000A-CERT	Wireless temperature and humidity data logger with LCD display and NIST calibration certificate
OM-CP-RFC1000-EXT	Wireless transceiver package includes RF transceiver, USB cable, Windows software and operator's manual (not CE approved)
OM-CP-RFC1000-EXT-EUR	Wireless transceiver package includes RF transceiver, USB cable, Windows software and operator's manual (CE approved)
OM-CP-RFC1000-IP69K	Splash proof (IP69K) wireless transceiver package includes RF transceiver, USB cable, Windows software and operator's manual (not CE approved).
OM-CP-BAT103	Replacement 9 V lithium battery

Comes complete with 9 V lithium battery and mounting bracket. Operator's manual, Windows software and USB interface cable are included with the **OM-CP-RFC1000-EXT** wireless transceiver package (required to operate the data logger, sold separately).

Note: Because of transmission frequency regulations, OM-CP-RFRHTEMP2000A wireless data loggers are only approved for use in the following countries: Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Columbia, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Honduras, Hungary, Iceland, Ireland, Israel, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malaysia, Malta, Mexico, New Zealand, Norway, Peru, Poland, Portugal, Romania, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, The Netherlands, Turkey, United Kingdom, United States, Venezuela, Vietnam.

Ordering Example: **OM-CP-RFRHTEMP2000A** wireless temperature and humidity data logger with LCD display and **OM-CP-RFC1000-EXT** wireless transceiver package.

