

Wireless Pressure, Humidity and Temperature Data Logger with Display

OM-CP-RFPRHTEMP2000A



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

The OM-CP-RFPRHTEMP2000A is a wireless data logger that measures and records ambient pressure, humidity and temperature. This dynamic data logger is ideal for monitoring weather data, measuring barometric pressure in high-rise buildings or monitoring storage or warehouse environments that contain sensitive material. Clinical laboratories and clean rooms can utilize the OM-CP-RFPRHTEMP2000A to measure and maintain critical pressure, humidity or temperature levels, all with one device.

The OM-CP-RFPRHTEMP2000A features an LCD screen which provides instant access to the current reading, minimum, maximum and average statistics. Statistics can be reset directly on the keypad of the device, allowing you to keep track of statistics over certain time periods. This feature does not erase the data recorded, and resets the statistics count. Other features include configurable alarms, battery life indicator and wall or surface mounting options.

This data logger allows users to select the desired units in which the data is displayed. The OM-CP-RFPRHTEMP2000A has a wide range of units available for each channel: °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 unit is available for display on the LCD screen as well as in the software.

The OM-CP-RFPRHTEMP2000A can be used as a stand-alone data logger, or used with the OM-CP-RFC1000-EXT wireless transceiver to transmit data back to a central PC. The OM-CP-RFPRHTEMP2000A transmits up to 500' line of sight to the OM-CP-RFC1000-EXT transceiver. Multiple OM-CP-RFC1000-EXTs can be used as repeaters and transmit up to 1000' line of sight to other OM-CP-RFC1000-EXTs. This allows the data to be sent over a greater distance.

The OM-CP-RFPRHTEMP2000A can be used as a single wireless data logging system, or can be expanded to a large scale system, which can include hundreds of data loggers measuring different parameters such as temperature, humidity and more (additional wireless data loggers and transceivers may be required).



OM-CP-RFPRHTEMP2000A
shown smaller than actual size.

The OM-CP-RFPRHTEMP2000A utilizes the latest software. 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, digital calibration and more.

SPECIFICATIONS

TEMPERATURE

Range: -20 to 60°C (-4 to 140°F)

Resolution: 0.01°C (0.02°F)

Calibrated Accuracy: ±0.5°C (±0.9°F) 0 to 50°C (32 to 122°F)

HUMIDITY

Range: 0 to 95% RH

Resolution: 0.1% RH

Calibrated Accuracy: ±3% RH

PRESSURE

Range: 250 to 1300 mbar

Resolution: 0.02 mbar

Calibrated Accuracy: ±10 mbar

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 to 2.48 GHz (channels 11 through 25) @ 250 kbps data rate

Output Power: +0dBm typical

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



Transmission Distance

(to other OM-CP-RFC1000-EXTs):

OM-CP-RFC1000-EXT: 1220 m (4000') max outdoors (line of sight unobstructed); 305 m (1000') max indoors (typical urban environment)

OM-CP-RFC1000-EXT-EUR: 762 m (2500') max outdoors (line of sight unobstructed); 213 m (700') max indoors (typical urban environment)

OM-CP-RFC1000-IP69K: 1220 m (4000') max outdoors (line of sight unobstructed); 305 m (1000') max indoors (typical urban environment)

Transmission Distance (to Data Loggers):

OM-CP-RFC1000-EXT, OM-CP-RFC1000-EXT-EUR, OM-CP-RFC1000-IP69K: 610 m (2000') max outdoors (line of sight unobstructed); 152 m (500') max indoors (typical urban environment)

GENERAL

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

Memory: 10,752 readings 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 and delayed start

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

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

Battery Life: 5 years typical at 15 minute reading rate



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

Data Format (Display and Software): Date and time stamped °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.

Time Accuracy: ±1 minute/month

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

Software: Windows XP SP3/Vista/7 and 8 (32 and 64-bit)

Operating Environment: -20 to 60°C (-4 to 140°F), 0 to 95% RH non-condensing, 0.002 to 100 psia

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

Weight: 139 g (4.9 oz)

Enclosure Material: ABS plastic

Alarm: User configurable audible, on-screen, email and text (SMS) alarms.

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

To Order	
Model No.	Description
OM-CP-RFPRHTEMP2000A	Wireless pressure, humidity and temperature data logger
OM-CP-RFPRHTEMP2000A-CERT	Wireless pressure, humidity and temperature data logger 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 RF transceiver package includes RF transceiver, USB cable, Windows software and operator's manual (not CE approved)
OM-CP-BAT103	Replacement 9V lithium battery

Comes complete with 9V lithium battery. 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).

Because of transmission frequency regulations, OM-CP-RFPRHTEMP2000A 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, 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-RFPRHTEMP2000A wireless pressure, humidity and temperature data logger with LCD display and OM-CP-RFC1000-EXT wireless transceiver package.