Wireless CO₂, Humidity and Temperature Data Logger with Display

NEW

OM-CP-RFCO2RHTEMP2000A

5 YEAR WARRANTY | NIST Optional | CE | RoHS

CO₂, Humidity and Temperature
- Status
- Wireless
- Alarm

22.42°C
38.00%RH
1030ppm

Scroll | Units | Wireless

ΩE OMEGA   Wireless Data Logger
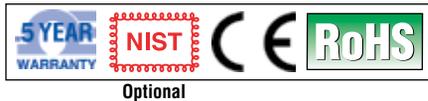
OM-CP-RFCO2RHTEMP2000A data logger and CO₂ sensor (included). Shown smaller than actual size.

ΩE OMEGA CO₂ Sensor

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

The OM-CP-RFCO2RHTEMP2000A is a wireless data logger that measures and records carbon dioxide, humidity, and temperature levels in a variety of applications. This data logger is ideal for use in air quality studies including HVAC applications and much more.

The OM-CP-RFCO2RHTEMP2000A data logger comes with a 4.9 m (16') cable connected to the CO₂ sensor, making it ideal for placement within enclosed environments such as an incubator to ensure optimum levels. The data logger features an LCD screen which provides instant access to current readings, as well as minimum, maximum, and average statistics. The device also features configurable alarms, battery life indicator, and the ability to reset statistics without impacting the data collection. The logger features a convenient wall mount, while the CO₂ sensor is equipped with dual lock for easy and secure placement and effortless mobility.

Temperature recorded on the OM-CP-RFCO2RHTEMP2000A can be expressed in °C, °F, °R, or K while humidity can be shown in %RH, mg/ml, and Dew Point. Carbon dioxide can be expressed as either ppm or as a percentage. All units can be viewed on both the LCD screen as well as in the software.

The device can be used to determine ventilation efficiency in a variety of environments including buildings, offices, hospitals, schools, and laboratories. By determining the levels of carbon dioxide, improvements can be made to the ventilation systems and energy saving opportunities become more easily identified.

The OM-CP-RFCO2RHTEMP2000A 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 (additional wireless data loggers and transceivers may be required). The OM-CP-RFCO2RHTEMP2000A 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: 0 to 55°C (32 to 131°F)
Resolution: 0.08°C (0.14°F)
Calibrated Accuracy: ±1.0°C (±1.8°F)

HUMIDITY
Range: 0 to 95% RH
Resolution: 0.08% RH
Calibrated Accuracy: ±3% RH from 25 to 75% RH @ 25°C, ±7% RH otherwise

CARBON DIOXIDE (CO₂)
Range: 0 to 200,000 ppm
Resolution: 10 ppm
Calibrated Accuracy: ±70 ppm
Sensor Warm-Up Time: 30 seconds

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

OM-CP-RFC1000-EXT software shows data in graphical or tabular format.

**TRANSMISSION DISTANCE
(TO OTHER OM-CP-RFC1000-EXT'S)**
  • **OM-CP-RFC1000-EXT, OM-CP-RFC1000-IP69K:**
  Maximum Outdoors: 1220 m (4000')
  (line of sight unobstructed)
  Maximum Indoors: 305 m (1000')
  (typical urban environment)
  • **OM-CP-RFC1000-EXT-EUR:**
  Maximum Outdoors: 762 m (2500')
  (line of sight unobstructed)
  Maximum Indoors: 213 m (700')
  (typical urban environment)

TRANSMISSION DISTANCE (TO DATA LOGGERS)
  **OM-CP-RFC1000-EXT, OM-CP-RFC1000-EXT-EUR,
  OM-CP-RFC1000-IP69K**
  Maximum Outdoors: 610 m (2000')
  (line of sight unobstructed)
  Maximum Indoors: 152 m (500')
  (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: 16 months (approx.) at 10 minute reading rate
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 ppm or percentage for the carbon dioxide channel
Time Accuracy: ±1 minute/month @ 25°C
Computer Interface: USB to mini USB, 250,000 baud for standalone operation or OM-CP-RFC1000-EXT required for wireless operation
Software: XP SP3/Vista/7/8 (32-bit and 64-bit)
Operating Environment: 0 to 55°C (32 to 131°F), 0 to 95% RH non-condensing, 0.002 to 100 psia
DIMENSIONS
  Data Logger: 76.2 H x 88.9 W x 24.1 mm D (3.0 x 3.5 x 0.95")
  Sensor: 50.3 dia x 29.2 mm H (1.98 x 1.15")
  Cable Length: 4.9 m (16')
Weight: 140 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-RFCO2RHTEMP2000A	Wireless CO_2, humidity and temperature data logger
OM-CP-RFCO2RHTEMP2000A-CERT	Wireless CO_2, 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-SVP-SYSTEM	FDA 21 CFR Part 11 compliant IQ/OQ/PQ secure software validation workbook and software package (unlimited users, license per computer)
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-RFCO2RHTEMP2000A 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-RFCO2RHTEMP2000A** wireless CO_2, humidity and temperature data logger, with LCD display and **OM-CP-RFC1000-EXT** wireless transceiver package.*