

# WIRELESS DATA ACQUISITION

## Wireless RTD Temperature Data Logger with Display

### OM-CP-RFRTDTEMP2000A



- ✓ Wireless Two Way Communication
- ✓ 100Ω Pt RTD Input
- ✓ 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-RFRTDTEMP2000A is an RTD-based, wireless precision temperature data logger with display. This data logger is ideal for applications that require high accuracy temperature monitoring such as within laboratories, pharmaceutical and biotech industries.

The OM-CP-RFRTDTEMP2000A accepts 2, 3 or 4-wire 100Ω platinum RTD's and features a device accuracy of  $\pm 0.05^{\circ}\text{C}$ . Starting, stopping and downloading from the device are all performed wirelessly using the OM-CP-RFC1000-EXT wireless transceiver, allowing the user to spend less time maintaining the data logger. Data can be provided in real time back to a central PC, or the device may be downloaded at periodic intervals.

The convenient digital display provides the current reading as well as minimum, maximum and average statistics for a convenient snap shot of the logged data. For instant, out of range notification, an audible buzzer as well as LED alarm indicator notifies users when the temperature is above or below the user specified alarm setting. Through the software, email and text message alarms can also be sent.

The OM-CP-RFRTDTEMP2000A can be used as a single, wireless data logging system, yet can be expanded to a large scale system, which can include hundreds of data loggers measuring a number of areas (additional wireless 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, digital calibration and more.

## SPECIFICATIONS

### TEMPERATURE

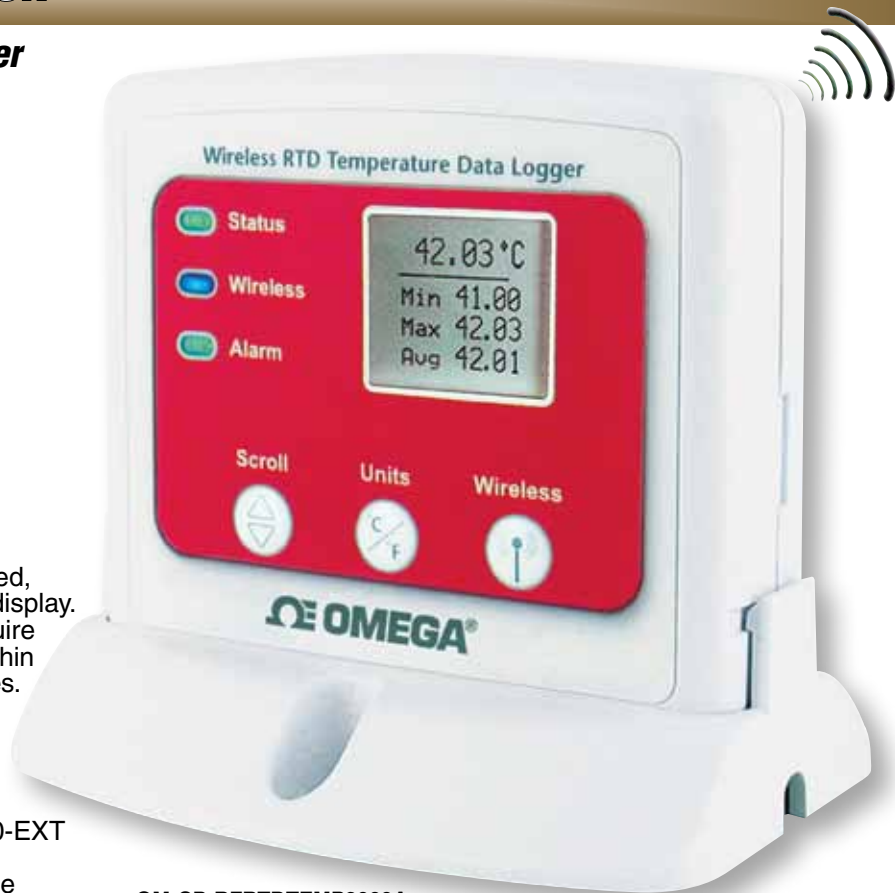
**Input Type:** 2, 3 or 4-wire 100Ω Pt RTD,  $\alpha = 0.00385$

**Temperature Range:** -200 to 850°C (-392 to 1562°F)

**Temperature Resolution:** 0.001°C (0.0018°F)

**Calibrated Accuracy:**  $\pm 0.05^{\circ}\text{C}$  ( $\pm 0.9^{\circ}\text{F}$ ),  $\pm 0.01\Omega$

**Response Time:** 10 minutes free air



OM-CP-RFRTDTEMP2000A shown actual size.

### 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

**Maximum Output Power:** +0dBm typical

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

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

### GENERAL

**Reading Rate:** 1 reading every second up to 1 reading every 24 hours

**Memory:** 21,504 readings

### 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, 4 years typical at 1 minute reading rate

# WIRELESS DATA ACQUISITION

## Data Format:

- **For Display:** °C, °F or Ohms
- **For Software:** Date and time stamped °C, K, °F, °R or Ω

**Time Accuracy:** ±1 minute/month

**Computer Interface:** USB to mini USB, 250,000 baud for standalone operation or OM-CP-RFC1000-EXT, OM-CP-RFC1000-EXT-EUR or OM-CP-RFC1000-IP69K required for wireless operation

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

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

**Dimensions:** 82.6 H x 88.9 W x 24.1 mm D (3.25 x 3.5 x 0.95") data logger only

**Weight:** 116g (4.1 oz)

**Enclosure Material:** ABS Plastic

**Alarm:** Programmable high and low limits; alarm is activated when temperature 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.



OM-CP-RFRTDTEMP2000A shown smaller than actual size.

## To Order

Model No.	Description
OM-CP-RFRTDTEMP2000A	Wireless RTD temperature data logger with LCD display
OM-CP-RFRTDTEMP2000A-CERT	Wireless RTD temperature 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 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, OM-CP-RFC1000-EXT-EUR or OM-CP-RFC1000-IP69K wireless transceiver package (required to operate the data logger, sold separately).

**Note:** Because of transmission frequency regulations, OM-CP-RFRTDTEMP2000A 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-RFRTDTEMP2000A wireless RTD temperature data logger with LCD display, and OM-CP-RFC1000-EXT wireless transceiver package.