

## Wireless Voltage Data Logger with Display

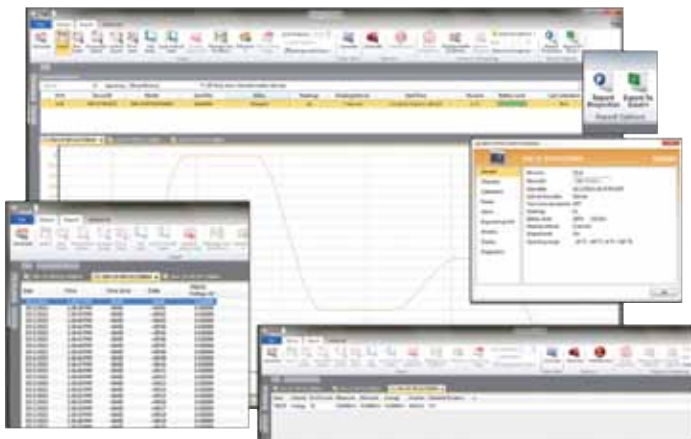
### OM-CP-RFVOLT2000A



- ✓ **Wireless Two-Way Communications**
- ✓ **2.5V, 15V, 30V or 160 mV Measurement Ranges**
- ✓ **160 mV Model Measures Differential Voltage**
- ✓ **Digital Display Provides Instant Access to Current Readings and Statistics**
- ✓ **Readings Displayed in User Selected Measurement Unit**
- ✓ **Configurable Alarms**
- ✓ **5 Year Battery Life**
- ✓ **Battery Life Indicator**

The OM-CP-RFVOLT2000A is a wireless data logger designed to measure and record DC voltage signals. The data logger can connect directly to DC voltage sources which makes it ideal for battery usage studies, solar energy monitoring and other DC voltage monitoring applications. The OM-CP-RFVOLT2000A can also be interfaced with a wide range of voltage output devices, including pressure transducers and other process sensors. The OM-CP-RFVOLT2000A is available in a 2.5V, 15V, 30V or 160 mV measurement range.

The OM-CP-RFVOLT2000A features an LCD screen which provides instant access to the current reading, minimum, maximum and average statistics. Through the software, the device can be programmed with engineering units, which convert the voltage signals into a different unit of measure such as PSI, % or PPM. The engineering unit is available for display on the LCD screen as well as in the software. The statistics can be reset through the keypad of the device, allowing customers to keep track of statistics over certain time periods. This feature does not erase the data recorded, but only resets the statistics count.



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



OM-CP-RFVOLT2000A shown smaller than actual size.

The OM-CP-RFVOLT2000A can be used as a standalone data logger, or used with the OM-CP-RFC1000-EXT wireless transceiver, to transmit data back to a central PC. The OM-CP-RFVOLT2000A transmits up to 152 m (500') line of sight to the OM-CP-RFC1000-EXT transceiver. Multiple OM-CP-RFC1000-EXT's can be used as repeaters and transmit up to 305 m (1000') line of sight to other OM-CP-RFC1000-EXT's. This allows the data to be sent over a greater distance.

The OM-CP-RFVOLT2000A-160MV model is a wireless, differential voltage data logger. The device is equipped with a three position terminal block to allow for a positive, negative and ground connection. This allows the measurement of the voltage difference between two signals tied to the same ground.

The OM-CP-RFVOLT2000A 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). 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

### INPUT RANGES

Model	OM-CP-RFVOLT2000A-2.5V	OM-CP-RFVOLT2000A-15V	OM-CP-RFVOLT2000A-30V	OM-CP-RFVOLT2000A-160MV
Range	-3 to 3 Vdc	-8 to 24 Vdc	-8 to 32 Vdc	±160 mV
Resolution	0.1 mV	0.5 mV	1.0 mV	5 µV

**Input Connection:** Removable screw terminal

**Response Time:** 150ms at sensor

### WIRELESS

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

**Band:** ISM band 2.405 to 2.475 GHz operation (channels 11 through 25) @ 250 kbps data rate

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

### 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:** 1 reading every second up to 1 reading every 24 hours

**Memory:** 32,256 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

**Battery Type:** 9V lithium battery included; user replaceable

**Battery Life:** 5 years typical at 15 minute reading rate

**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/OM-CP-RFC1000-IP69K required for wireless operation

**Software:** 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

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

**Weight:** 116 g (4.1 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



Bottom of OM-CP-RFVOLT2000A-160MV shown smaller than actual size.



Bottom of OM-CP-RFVOLT2000A-2.5V, OM-CP-RFVOLT2000A-15V and OM-CP-RFVOLT2000A-30V shown smaller than actual size.

# WIRELESS DATA ACQUISITION



OM-CP-RFVOLT2000A shown smaller than actual size.

**Note:** Because of transmission frequency regulations, OM-CP-RFVOLT2000A 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.

To Order	
Model No.	Description
OM-CP-RFVOLT2000A-2.5V	Wireless voltage data logger with LCD display, -3 to 3 Vdc range
OM-CP-RFVOLT2000A-2.5V-CERT	Wireless voltage data logger with LCD display, -3 to 3 Vdc range and NIST calibration certificate
OM-CP-RFVOLT2000A-15V	Wireless voltage data logger with LCD display, -8 to 24 Vdc range
OM-CP-RFVOLT2000A-15V-CERT	Wireless voltage data logger with LCD display, -8 to 24 Vdc range and NIST calibration certificate
OM-CP-RFVOLT2000A-30V	Wireless voltage data logger with LCD display, -8 to 32 Vdc range
OM-CP-RFVOLT2000A-30V-CERT	Wireless voltage data logger with LCD display, -8 to 32 Vdc range and NIST calibration certificate
OM-CP-RFVOLT2000A-160MV	Wireless voltage data logger with LCD display, $\pm 160$ mV range
OM-CP-RFVOLT2000A-160MV-CERT	Wireless voltage data logger with LCD display, $\pm 160$ mV range 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).

**Ordering Example:** OM-CP-RFVOLT2000A-15V wireless voltage data logger, -8 to 24 Vdc range with LCD display and OM-CP-RFC1000-EXT wireless transceiver package.