

Wireless Current Data Logger with Display

OM-CP-RFCURRENT2000A



- ✓ Wireless Two-Way Communications
- ✓ 20 mA, 160 mA, or 3 A Measurement Ranges
- ✓ Digital Display Provides Instant Access to Current Readings and Statistics
- ✓ Readings Displayed in User Selected Measurement Unit
- ✓ Configurable Alarms
- ✓ 4 Year Battery Life at 15 Minute Reading Rate
- ✓ Battery Life Indicator

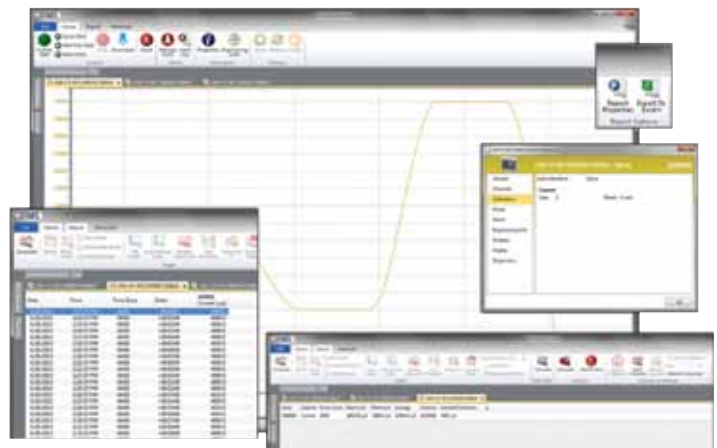
The OM-CP-RFCURRENT2000A is a wireless data logger with a digital display, designed to measure and record DC current signals. This data logger can connect directly to low-level DC current sources which make it ideal for battery usage studies, energy monitoring studies and other DC current monitoring applications. The OM-CP-RFCURRENT2000A can also be interfaced with a wide range of current output sensors such as flow meters, pH transmitters and more. Through the software, the device can be programmed with engineering units, which convert the current readings into a different unit of measure such as flow rate. The engineering unit is available for display on the LCD screen as well as in the software. The OM-CP-RFCURRENT2000A is available in 20 mA, 160 mA or 3 A measurement ranges.

The OM-CP-RFCURRENT2000A features an LCD screen which provides instant access to the current reading, minimum, maximum and average statistics. 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. The OM-CP-RFCURRENT2000A 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-RFCURRENT2000A 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.



OM-CP-RFCURRENT2000A shown smaller than actual size.



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

The OM-CP-RFCURRENT2000A 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). The OM-CP-RFCURRENT2000A 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

INPUT RANGES			
Nominal Range	20 mA	160 mA	3A
Measurement Range	-2 to 30 mA	±160 mA	±3 A
Maximum Voltage Between Inputs to Ground	2.5V	2.5V	2.5V
Measurement Resolution	0.0005 mA	0.01 mA	0.0001A
Calibrated Accuracy	±0.0025 mA	±0.01 mA	±0.0001A
Input Impedance	10 Ω	1 Ω	0.02 Ω
Absolute Maximum Current	±232 mA for 2 seconds	±707 mA for 2 seconds	±5A for 2 seconds
Sensor Type	Current sensing circuitry		
Input Connection	Terminal ports: one positive, one negative and a ground terminal port		
Analog Conversion Time	150 mS		
Frequency Rejection	50 + 60 Hz		
Temperature Coefficient	< ± 50 ppm/°C typical		
Response Time	0.15 seconds at sensor		

WIRELESS

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

Band: ISM band 2.405-2.475 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

Memory Wrap Around: Yes

Start Modes: Immediate start and delayed start

Stop Modes:

Manual through software

Delayed Stop

Timed (specific date and time)

Real Time Recording: The device may be used with PC to monitor and record data in real-time

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

LED Functionality:

Green LED: blinks every 10 seconds to indicate unit is logging

Blue LED: blinks every 30 seconds to indicate unit is in wireless mode

Red LED: blinks every 1 second to indicate alarm condition

Password Protection: An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.

Engineering Units: Native measurement units can be scaled to display measurement of units of another type. This is useful when monitoring current outputs from different types sensors such as temperature, flow rate and more.

Calibration: Digital calibration through software.

Calibration Date: Automatically recorded through the device

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

Battery Life: 4 years typical at 15 minute reading rate

Data Format: μA, mA, A

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-bit 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 (3.3 x 3.5 x 0.95") data logger only

Weight: 116 g (4.1 oz)

Enclosure Material: ABS plastic



OM-CP-RFCURRENT2000A shown smaller than actual size.

To Order

Model No.	Description
OM-CP-RFCURRENT2000A-20MA	Wireless current data logger with LCD display, -2 to 30 mA range
OM-CP-RFCURRENT2000A-20MA-CERT	Wireless current data logger with LCD display, -2 to 30 mA range and NIST calibration certificate
OM-CP-RFCURRENT2000A-160MA	Wireless current data logger with LCD display, ± 160 mA range
OM-CP-RFCURRENT2000A-160MA-CERT	Wireless current data logger with LCD display, ± 160 mA range and NIST calibration certificate
OM-CP-RFCURRENT2000A-3A	Wireless current data logger with LCD display, ± 3 A range
OM-CP-RFCURRENT2000A-3A-CERT	Wireless current data logger with LCD display, ± 3 A 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).

Note: Because of transmission frequency regulations, OM-CP-RFCURRENT2000A 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-RFCURRENT2000A-20MA wireless current data logger, -2 to 30 mA range with LCD display and OM-CP-RFC1000-EXT wireless transceiver package.