

# RFPULSE2000A

## WIRELESS PULSE DATA LOGGER



### Features

- Wireless Two-Way Communication
- Battery Life Indicator
- Digital Display
- 3 year battery life at 15 Minute Reading Rate
- Direct USB Interface
- Configurable Alarms

### Benefits

- Digital Display Provides Instant Access to Current Reading
- Minimal Long-Term Maintenance
- Readings displayed in users choice of measurement unit
- Time and Money Saving with Battery Management

### Applications

- Wind Speed Monitoring
- Energy Monitoring
- Flow Rate Monitoring

The RFPulse2000A is a wireless data logger that records pulse output signals from various sensors such as flow meters and anemometers. When started, the data logger samples at 100Hz and at the user specified reading rate, recording the total number of pulses from the sample to memory.

The RFPulse2000A 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 to convert the pulse output into a different unit of measure such as gallons per minute or miles per hour. This information can be viewed on the LCD screen of the data logger as well as in the software.

The RFPulse2000A is unique in that it not only calculates pulse count, but it also calculates pulse rate. Engineering units can be programmed into the device as a rate, which allows the device to calculate the measurement unit in rates per second, minute, hour or per day. This provides more useful statistics to the user when data logging over long periods of time.

The RFPulse2000A can be used as a standalone data logger, or used with the RFC1000 wireless transceiver, to wirelessly transmit data back to a central PC. The RFPulse2000A transmits up to 500 ft line of sight to the RFC1000 transceiver. Multiple RFC1000's can be used as repeaters and transmit up to 1000 ft line of sight to other RFC1000's. This allows the data to be sent back over a greater distance.

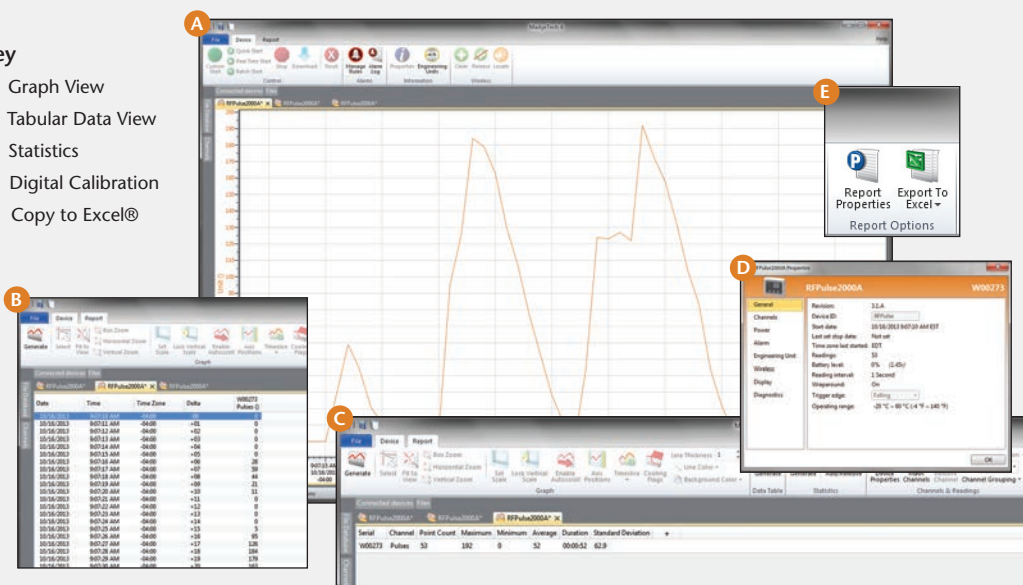
The RFPulse2000A can be used as a single, wireless data logging system, or can be expanded to a large scale system, which can include hundreds of data loggers measuring a number of areas (additional MadgeTech wireless loggers and transceivers may be required). The RFPulse2000A utilizes the new MadgeTech 4 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, and more.



## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# RFPULSE2000A SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY.

## General

<b>Reading Rate:</b>	1 reading every second up to 1 reading every 24 hours
<b>Memory:</b>	16,128 readings
<b>LED Functionality:</b>	<ul style="list-style-type: none"> <li>Green LED blinks every 5 seconds to indicate unit is logging</li> <li>Blue LED blinks every 15 seconds to indicate unit is in wireless mode</li> <li>Red LED blinks every 1 second to indicate alarm condition</li> </ul>
<b>Wrap Around:</b>	Yes
<b>Start Modes:</b>	Immediate Start & Delayed Start
<b>Battery Type:</b>	Ultralife 9 V Lithium included; <b>user replaceable</b>
<b>Battery Life:</b>	5 years typical at 10 minute reading rate
<b>Display Details:</b>	Displays Pulse/Interval Count & Total Count
<b>Approvals:</b>	US (FCC), CA (IC), CE, South Korea (KCC), China (CMIIT), Japan (LCIE)
<b>Time Accuracy:</b>	± 1 minute/month

<b>Computer Interface:</b>	USB to mini USB, 250,000 baud for standalone operation or RFC1000/RFC1000-CE/RFC1000-IP69K required for wireless operation
<b>Software:</b>	XP SP3/Vista/Windows 7/Windows 8 (MadgeTech 4 only)
<b>Operating Environment:</b>	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing
<b>Dimensions:</b>	3.5 in x 3.0 in x 0.95 in (88.9 mm x 76.2 mm x 24.1 mm) - Data logger only
<b>Weight:</b>	4.1 oz (0.2563 lbs)
<b>Enclosure Material:</b>	ABS Plastic
<b>Alarm:</b>	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.
<b>Audible Alarm Functionality:</b>	1 Beep per second for reading alarm above/below threshold

## Measurement

<b>Measurement Range:</b>	Input Low <720 mV, Input High >1.070 V
<b>Measurement Resolution:</b>	<= 10 microseconds
<b>Response Time:</b>	10 microseconds

**BATTERY WARNING:** Battery may leak, flame or explode if disassembled, shorted, charged, connected together, mixed with used or other batteries, exposed to fire or high temperature. Discard used battery promptly. Keep out of reach of children.

## Wireless

<b>RF Frequency:</b>	2.45 GHz IEEE 802.15.4 ultra-low power wireless transceiver with fully bi-directional communication
<b>Band:</b>	ISM band 2.405-2.475 GHz Operation (channels 11 through 25) @ 250 kbps data rate
<b>Transceiver Sensitivity (RFC1000):</b>	-95 dBm typical
<b>Transmission Distance (to data loggers)</b>	<ul style="list-style-type: none"> <li><b>RFC1000, RFC1000-CE &amp; RFC1000-IP69K</b> 2,000 ft max. outdoors - line of sight unobstructed 500 ft max. indoors - typical urban environment</li> </ul>
<b>Transmission Distance (to other RFC1000's)</b>	<ul style="list-style-type: none"> <li><b>RFC1000</b> 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment</li> <li><b>RFC1000-CE</b> 2,500 ft max. outdoors - line of sight unobstructed 700 ft max. indoors - typical urban environment</li> <li><b>RFC1000-IP69K</b> 4,000 ft max. outdoors - line of sight unobstructed 1,000 ft max. indoors - typical urban environment</li> </ul>

## ORDERING INFORMATION

MODEL	DESCRIPTION
RFPulse2000A	Wireless Pulse Data Logger.
RFC1000	Wireless RF transceiver/repeater. USB to mini USB adapter & power supply included.
RFC1000-CE	Wireless RF transceiver/repeater, CE approved for Europe. USB to mini USB adapter & power supply included.
RFC1000-IP69K	Wireless RF transceiver/repeater, splash proof with an IP69K rating. USB to mini USB adapter included.
U9VL-J	Replacement battery for RFPulse2000A.

### Countries approved for use, purchase and distribution of the RFPulse2000A:

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



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