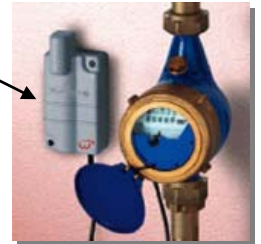




# waveflow™

Wireless Meter Monitors

Communication skills for ultra low powered objects



## WIRELESS AUTOMATIC METER READING IN BUSINESS AND RESIDENTIAL INSTALLATIONS

**Waveflow™ offers the latest in low-cost and ultra low-power meter monitoring, plus optimized wireless network functionality for building large-scale metering networks.**

Based on Coronis Systems Wavenis™ technology, Waveflow meter monitors offer significant advantages to providers and customers alike, including fast access to current consumption data, and automatic warnings about leaks, tampering, consumption profiles, low batteries, and more. With near real-time meter reading, extremely long battery life, and unique wireless networking features, Waveflow offers a secure and reliable means for implementing AMR networks in mobile- and fixed-network reading.

Compatible Wavenis-based repeaters, concentrators, and Internet/GSM gateways can extend Waveflow networks to meet any topology requirements, from sprawling rural areas to extremely dense city dwellings and industrial installations.

- Fast wireless access with battery life up to 15 years
- Programmable events, thresholds, and profiles
- Records meter index and event dates
- Automatically transmits critical alerts
- Compatible with a wide range of meters
- Long range and resistance to obstacles for use in hard-to-reach places
- 2-way end-to-end communication for full remote system administration
- Cost effective solution for very high volume deployment



*An ideal wireless AMR solution  
for meter groups in any location*

## WAVEFLOW EVALUATION KIT: SEE FOR YOURSELF

Try our fully functional product evaluation kit to see how Waveflow can help your AMR project. You'll get everything you need to build a simple test network in a single package.



*Contact us for your  
evaluation kit today!*

**coronis**  
SYSTEMS

Le Millénaire - 290, rue Alfred Nobel, 34000 Montpellier - France  
Tel.: +33 (0)4 67 22 66 70 - Fax: +33 (0)4 67 22 66 71  
Ultra Low Power wireless networks are on [www.coronis-systems.com](http://www.coronis-systems.com)



# Waveflow Specifications

## GENERAL FEATURES

- Intervention-free operation up to 15 years (daily recording, with average of one transmission per week)
- Inputs for up to 4 meters
- Backflow management (on meters with 2 pulse inputs)
- Digital debounce input filtering
- Programmable input frequency: from 2Hz with debouncing up to 8Hz without debouncing
- Programmable internal data logging, measurement period, and threshold alarms
- 2-way communications
  - Transmission on request by mobile or fixed hardware (handheld PC, PDA, server, PC)
  - Automatically transmits critical alerts: cable damage, tampering, backflow, leaks, and low batteries
- Date and time management with day and night configuration
- Easy plug and play installation with Coronis software suite
- Power consumption optimized by sophisticated sleep mode management
  - 15  $\mu$ A average operating current with fast 1 second access time
- Functional temperature range -4° to 158° F (-20°C to +70°C)
- IP65 or IP68 casing
- Dimensions: 4.7 x 1.6 x 1.2 in. (12 x 4 x 3 cm)
- Weight: 4 to 5.6 oz (110 to 160 g)

## WIRELESS FEATURES

- Optimized Wavenis wireless technology for applications requiring ultra low-power consumption, long range, and reliability in hard-to-reach places
- Radio range up to 1 km in line of sight outdoors, up to 200 meters indoors
- Resistant to RF interference – sophisticated FHSS, data interleaving, BCH(31,21) mechanisms
- Build flexible wireless mesh networks of unlimited in size
- 2-way links with mobile and fixed network control points
- Programming via direct wireless or remote network connection
- Peer-to-peer, broadcast, polling, repeater modes
- Tree, star, and mesh network topologies
- 433/868/915 MHz ISM Bands
- EN300-220-1, FCC15-249, & FCC15-247 compliant
- EMC compliant with EN 300-683

## COMPATIBLE CORONIS PRODUCTS

Waveflow modules are fully compatible with all Coronis Wavenis-based products:

- Wavenis Compact Flash and Wavecard OEM wireless cards for mobile metering with handheld computers and tablet PCs
- Wavecell Cellular/Wavenis gateway
- Wavetalk repeater (range extender)
- Wavehub concentrator
- Waveport wireless modem (serial, USB)
- Wavenis gateways make Waveflow a natural member of Bluetooth or Wi-Fi networks (Bluetooth / Wavenis Beltbox)

Training, support, and product customization are available from Coronis Systems. Please check with us directly for details.

Write to:  
info@coronis-systems.com

### Ordering information

Waveflow products are available with various configurations according to your needs. Reference numbers are based on the following options (i.e. WAVEFLOW-2-868-U-68).

Product	Inputs	Carrier frequency band	Power class	Protection class
WAVEFLOW	1, 2, 3, or 4	868=868 MHz band 915=915 MHz band (on request)	U = Ultra Low Power 25mW L = Long Range 500mW	65 = IP65 68 = IP68