

RAINALERT II™

Rainfall Gauge

The ADS® RainAlert II™ provides intelligent alarming and data acquisition for use in precipitation analysis, flow monitoring programs, overflow prevention programs, sewer capacity studies, master plan studies and more.

The ADS RainAlert II is a low-cost wireless rain gauge that alerts operators via text or email messages when rainfall intensity exceeds a critical threshold. RainAlert II technology is designed for ultra low power consumption yielding a two year battery life on a 15 minute sampling interval.

RainAlert II Features

- Priced for deployment as a stand-alone unit or part of a comprehensive flow and rain monitoring network
- Enclosure suitable for wall or “lay down” roof installation under sun shield
- Connects to ADS or customer supplied tipping bucket
- All units are equipped with internal global (quad-band) GSM/GPRS modem for wireless data communication (optionally uses land-line communication)
- Wireless modem is “always-on” and ready for immediate cryout of alarms (also allows instant access for retrieval of logged rain and alarm data)
- Rainfall totals are time stamped and stored at one-minute or greater, user specified intervals
- Automatically notifies up to 3 different addresses via SMS text message and/or email when ever user defined rainfall threshold is exceeded
- Unit is powered by long-life replaceable internal alkaline battery pack (or via optional external DC power supply)
- Uses internal GSM/GPRS antenna or optional external whip antenna
- Easy to configure and manage using ADS Profile® software
- RainAlerts are 100% compatible with ADS IntelliServe® - all alarm events, alarm history, and logged rain data can be accessed and managed via the Web
- Alarm system readiness is provided via daily check-in calls, and automatically generated maintenance alarms for low battery conditions

Applications

The ADS RainAlert II rainfall gauge is used to collect and alarm on precipitation data for use in many applications, including:

- Precipitation analysis
- CSO and SSO monitoring
- Rehabilitation effectiveness monitoring
- Early warning notification based on rain intensity
- Infiltration/Inflow programs
- Sewer capacity studies/trending
- Sewer master plan studies



The ADS RainAlert II Rainfall Gauge with tipping bucket provides automated remote rainfall gauging and alarming.

About ADS

ADS Environmental Services, a division of ADS LLC, pioneered the industry’s first wastewater flow monitoring hardware and software products 35 years ago, and today continues to provide the highest quality flow monitoring technologies and services. Monitors manufactured by ADS measure over 4 billion gallons of flow daily across the globe.

www.adsenv.com

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RainAlert II Communications

Serial (local) - This connection is supplied to support local RS232 communication between the RainAlert and a PC for configuration and diagnostics.

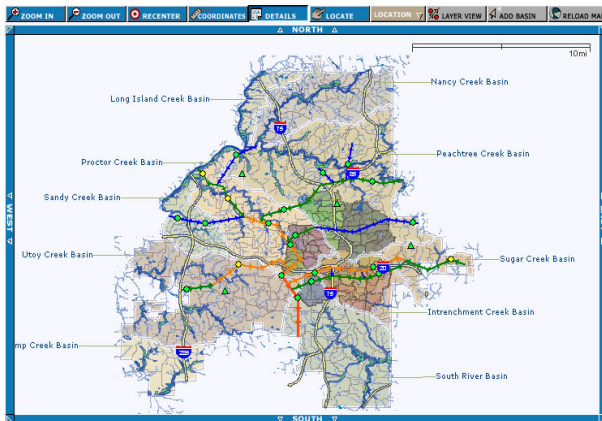
Wireless (remote) - All units are fitted with a low-power internal Enfora quad-band GSM/GPRS wireless data modem. This modem has an internal TCP/IP stack and supports Class 10 GPRS communication and SMS traffic.

SIM Card - ADS supplies their AT&T fixed IP address SIM cards with all wireless RainAlert units. Consult ADS sales for low monthly prices for these services.

Low Cost Event Notification System

The ADS Rain Alert II can be combined with the ADS FlowAlert™ and IntelliServe® for low cost event notification, a system that includes wet and dry weather alarming.

IntelliServe's alarm management is designed to inform clients about the occurrence of rain events, flow performance abnormalities, and data anomalies at the flow monitoring locations. Monitors and rain gauges send alerts into the hosted IntelliServe system, which identifies rain, flow, and depth patterns that are outside each location's preconfigured thresholds, and registers these anomalies as alarms. IntelliServe then initiates a client-customized alarm notification sequence. Rain data are combined with high depth identification to produce wet and dry-weather-induced overflow alarm notification where needed.



IntelliServe Intuitive Interface

The graphical interface replicates client system maps for quick identification of system assets and allows staff to drill down.



FlowAlert

An economical depth-based overflow alarm system with Low, High, and High High alarming and optional Pressure Depth Sensor.

Product Specifications

Enclosure

Nema Type 4X, 6P fiberglass reinforced polyester watertight enclosure with stainless steel hardware. Unit can be locked via padlock on sealing hasp.

Connectors

U.S. MIL-C-26482 Series 1 Type hard anodized aluminum with interfacial seals

Weight (monitor and battery) 22 lbs (10.0kg)

Dimensions

11.8"H (30cm) x 9.8"W (24.9cm) x 4.9"D (12.4 cm)

Operating Temperature

32 to 140 degrees F (0 to 60 degrees C)

Mounting

Enclosure has integral mounting flange with four 5/16" (7.94mm) holes for attaching to wall. Optional heavy-weight mounting plate and sun-shield are available for placement of enclosure directly on roof.

Measurement Detail

Minimum resolution - .01" (.2mm) per tip

Maximum tips per second - 10

Minimum alarm threshold - .01" (.2mm) per 5 minutes

Processor

Texas instruments VC33DSP (Digital Signal Processor)

Memory

2 MB non-volatile (program, configuration and data storage), 128k program RAM and 230k runtime system RAM

Data Storage

Over 300 days when storing 12 sensor readings /hour

Clock

Battery backed real-time clock module

Firmware Upgrades

All upgrades can be done remotely, either via wireless connection of land-line. Updates can also be done locally using the serial connection.

Power

The unit operates on replaceable 7.5 - volt alkaline battery pack and consumes less than 6mA while in wireless standby mode. Optional external DC power supply available.

Tipping Bucket Connection

For ADS supplied tipping buckets, a 5 pin connector is provided for connection of the bucket cable to the RainAlert enclosure. For customer supplied units, a connector is available for attachment to the tipping bucket.

Diagnostics

There are two main ways to monitor and act on diagnostic information:

- Daily Check-In messages (these are automatically delivered to the user via SMS and/or email) and provide battery status and other hardware alerts.
- Direct Call to the unit (using Profile, the user can read the latest monitor status and perform diagnostics to try to resolve the problem.

Antenna

All RainAlert units are delivered with an internal quad-band slot type antenna. A TNC connector can be supplied if the user anticipates using an external antenna.



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