ADS RAINALERT III™
Rainfall Monitor

The ADS RainAlert III provides rainfall data acquisition and intelligent alarming to support wastewater capital improvement, operations and maintenance, and regulatory programs. Applications include infiltration and inflow studies, hydraulic modeling, and overflow response and reporting.

The ADS RainAlert III is a low-cost, wireless rainfall monitor that alerts operators via text or email messages when rainfall intensity exceeds a critical threshold. RainAlert III technology is designed for ultra low power consumption, yielding up to a five-year battery life depending on modem and data delivery rate configuration.

* Reliable data delivery through established 3G/4G or 4G LTE-M mobile communications

* Rainfall intensity alarming for faster response to wet weather overflows

* Rugged design for easy installation and low maintenance

* Compatible with a range of tipping bucket rain gauges to match accuracy levels with local rainfall characteristics and design storms of interest

Features

- Priced for deployment as a stand-alone unit or part of a comprehensive flow and rain monitoring network
- Designed for ground-level, pole-mount, and rooftop installations
- Connects to ADS or customer-supplied tipping bucket
- Equipped with multi-carrier cellular 3G/4G UMTS/HSPA+ or Verizon 4G LTE-M wireless communications (U.S.A. only); USB communications also available
- Generates immediate cryouts of alarms and allows instant delivery of logged rain and alarm data
- Logs and time-stamps rainfall totals at user-specified intervals down to one minute
- Notifies via SMS text message and/or email whenever a user-defined rainfall threshold is exceeded
- Powered by long-life, replaceable, internal alkaline battery pack (or via an optional external 6 to 24-V DC, 1-A power supply)
- Uses internal cellular antenna or optional external antenna
- Easily configured and managed using ADS Q*start*™ software
- Provides 100% compatibility with ADS FlowView™ software for accessing and managing all alarm events, alarm history, and stored rain data over the Internet
- Automatically generates maintenance alarms for low battery conditions
- Two-year warranty

Mounting Options
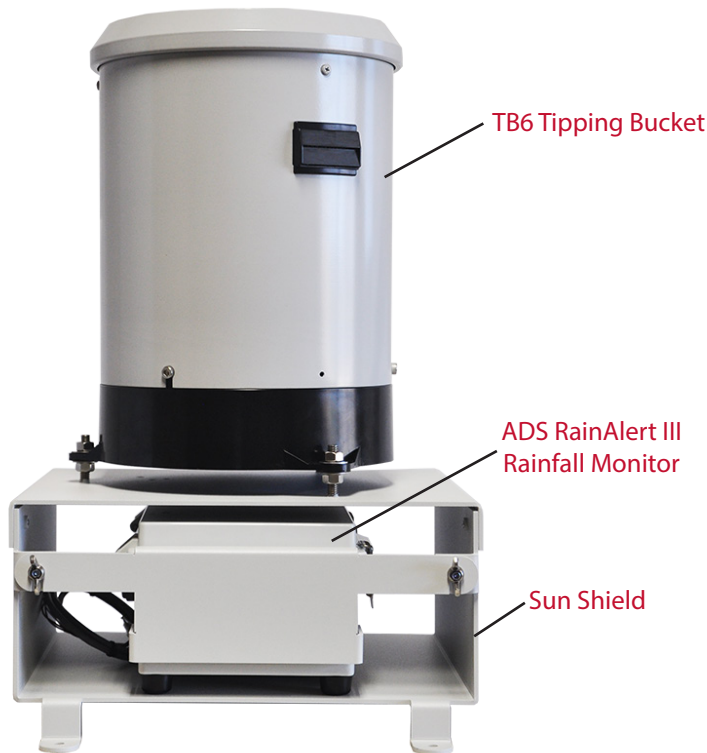
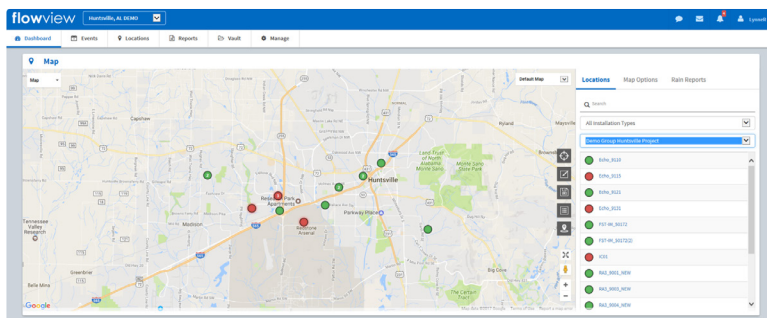Ground-Level

Pole-Mount

Rooftop

ADS RainAlert III Rain Gauge

The ADS RainAlert III Rainfall Monitor with tipping bucket and sun shield, provides automated remote rainfall measurement and alarming.

TB6 Tipping Bucket

ADS RainAlert III Rainfall Monitor

Sun Shield

Specifications

Enclosure
Polycarbonate enclosure reinforced with 10% glass fiber resin. NEMA Type 4X, IP67, and UL Rated. Access cover includes stainless steel latches and a continuous gasket.

Weight (including battery)
10 pounds (4.54 kg)

Dimensions
10.63 inches (270 mm) high x 7.09 inches (180 mm) wide x 4.53 inches (115 mm) deep

Operating Temperature
-4 to 140 degrees F (-20 to 60 degrees C)

Mounting
Optional sun shield designed for rooftop, ground, or pole-mount installation

Measurement Detail
0.01 inch/tip (United States)
0.1 mm/tip, 0.2 mm/tip, 0.5 mm/tip, 1.0 mm/tip (International)

Processor
Ultralow power ARM Cortex M4 microprocessor

Memory
1MB program memory, 256 KB RAM
8MB NV flash memory, 32KB NV FRAM

Data Storage
At a 5-minute Sample Rate:
3,784,704 bytes, 630,784 storage locations
Approximately 728 days for two stored entities (Rain and Rain Intensity)

Clock
Battery-backed real-time clock module

Firmware Upgrades
Remotely via wireless connection or locally via USB connection

Power
Replaceable 9V 60Ah alkaline battery pack or user-provided external power supply (6 to 24V DC, 1A)

Tipping Bucket Connection
2-Conductor 22 AWG wire provided for connection to tipping bucket rain gauge

Diagnostics
Wireless communication or USB connection to the unit through ADS Qstart software for reading the latest monitor status and performing diagnostics to resolve problems

Antenna
Delivered with an internal ultra-wide band I-BAR type antenna. An SMA connector on the board is available for applications requiring an external antenna.

Cellular Modem
Third-party, FCC/IC/EC- and carrier-approved.
Option 1: Global coverage, commercial UMTS/HSPA+/GSM modem. FCC ID: R17HE910.
Option 2: Domestic coverage, Verizon 4G LTE-M modem. FCC ID: R17ME910C1NV.
Local: On-Site, local wireless connection (Bluetooth)

Applications

The ADS RainAlert III rainfall monitor is used to collect and alarm on precipitation data for use in many applications, including the following:

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

FlowView Software Interface
The intuitive, graphical interface replicates client system maps for quick identification of system assets and provides drill-down functionality.

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