

# 12-inch Tipping Bucket Rain Gauge

## Model 2400 SERIES



Mounting options include standpipe, pole, telemetry cabinet, and roof mounting plate.



1 millimeter mechanism



## Description

The **2400 Series Tipping Bucket Rain Gauge** provides state-of-the-art technology for flood warning and rain monitoring applications. It consists of an aluminum 12-inch diameter powder-coated housing, and a tipping bucket mechanism. The tipping bucket mechanism is available in 1 mm or 0.01 inch tip increments (specify at time of order). Also included is the base section with 1½-inch access tube, leveling base plate and 25 ft. (7.6 m) signal cable with an MS Connector.

Water is directed into the tipping bucket mechanism which is adjusted to tip when 1 mm or 0.01 inch of rain is collected. As the bucket tips, it causes a magnet to pass over the sealed reed switch, closing the switch momentarily. The contact closure is then counted by the circuitry in your data collection equipment.

Water is discharged through drain holes at the base of the rain gauge housing. These holes are protected by screens to prevent insect entry.

An optional Tip Rate Compensator can be added to provide a typical accuracy specification of 0.5% over any range of rain rates. The compensator mounts directly on the rain gauge's input connector when used in conjunction with High Sierra Electronics's transmitter.

## Key features:

- Set-and-forget operation
- One-piece machined aluminum bucket
- Measures in 1.0 millimeter or 0.01 inch increments
- Accuracy of + 1.5% for 0 to 3.6 inches per hour

## BENEFITS



Enables your system to meet the U.S. National Weather Service standards.



Record rainfall fluctuations from year-to-year to make better water management decisions.



Provide more specific and timely information on the potential for flooded roads.



Use as an effective tool for Stormwater Management to determine possible sewer overflows.

# Specifications 12-inch Tipping Bucket Rain Gauge

COMPONENT	SPECIFICATION
Event resolution	1 millimeter or optional 0.01 inch
Accuracy (1 mm only)	± 1.5% for 0 to 3.6 inches per hour, ± 3% for 3.6 to 6 inches per hour
Sensor type	Form A 2 wire switch
Sensor element	Magnetically operated reed switch
Output	Pulse count
Signal output	Normally open - momentary contact closure
Output connector	5 Pin MS connector
Operating temperature	32° to 140° F (0° to 60° C)
Storage temperature	-58° to 158° F (-50° to 70° C)
Mounting	Standpipe, pole, telemetry cabinet, and roof mounting plate optional
Materials	
Funnel	Spun aluminum
Sensor housing	Aluminum clinder
Catch bucket	Machined aluminum
Base	Spun aluminum
Cable	Shielded 3-conductor 24 AWG
Cable length	25 ft. (7.6 m)
Orifice diameter	12 in. (30.5 cm), 2.5 in. (6.4 cm) lip above screen
Dimensions	12 x 22.5 in. (30.5 x 57.2 cm) (Dia x H)
Weight	11 lbs (5 kg)
Shipping weight	13 lbs (5.9 kg)

## ORDERING GUIDE

Model 2400-15	Rain Gauge, 12-inch (Cal: 1 mm/Tip), includes: Tip Bucket mechanism, Slotted Standpipe Mount Top Section with 25 ft. (7.6 m) Cable
Model 2400-28	Rain Gauge, 12-inch (Cal: 1 mm/Tip), includes: Tip Bucket Mechanism, Slotted Roof Mount Top Section with 25 ft. (7.6 m) Cable
Model 2400-30	Rain Gauge, 12 inch (Cal: 1 mm/Tip), includes: Tip Bucket Mechanism, Slotted Pole (2 in.) Mount Top Section with 25 ft. (7.6 m) Cable
Model 2400-45	Rain Gauge, 12-inch (Cal: 0.01 inch/Tip), includes: Tip Bucket Mechanism, Slotted Standpipe Mount Top Section with 25 ft. Cable

## OPTIONS / SPARE PARTS

Model 2400-03	Tipping Bucket Mechanism; (1 mm/Tip), includes: 25 ft. (7.6 m) Signal Cable
Model 2400-10	Tipping Bucket Mechanism; (0.01 inch/Tip), includes: 25 ft. (7.6 m) Signal Cable
Model 10-12363-01	Precipitation Cable, includes: 25 ft. (7.62 m) Signal Cable with MS and Molex Connectors
Model 5101-00	*Extra Signal Cable, 3-Conductor, 24 AWG

\*Note: If cable runs are longer than 250 ft. (76.2 m), an in-line lightning protection device is recommended.