

Tipping Bucket Rain Gauge Sensor



Features

- FRP barrel
- Easy barrel removal
- Easy to clean
- Siphon-action delivery mechanism

Applications

- Rainfall distribution and intensity
- Catchment monitoring
- Soil conservation
- Flood mitigation programs
- Hydrology

The Tipping Bucket Rain Gauge is sturdily constructed from FRP base and receiver funnel. The Filters in the receiver and both outlets prevent debris (e.g. leaves, dirt & insects) from entering the working parts of the instrument. The gauge is also fitted with a siphon to control and maintain a constant flow-rate into the bucket mechanism. This ensures reliable rainfall recording in even the highest rainfall intensities. The tipping mechanism is manufactured from Acrylic plastic and is ensuring that tips are accurate and consistent in volume. As algae and dirt will collect in this mechanism, as with any tipping bucket rain gauge it is essential that cleaning becomes an integral part of the maintenance program. Reed Contact Model is supplied with a single Reed Contact as a detector. This requires no power and is a simple two wire connection. This is usually the easiest to connect to PLCs and other Data Loggers. Addition of a series resistor provides protection against excessive currents. This means an indefinite life and includes standard pulse stretching. There is no 'debouncing' required as there is no 'bounce' effect with the electronic detector.

The TBRG Sensor is developed as per India Meteorological Department's requirement and to match with World Meteorological Observation Standards. This product is approved & is tested as per IMD standards

Specifications & Dimensions:

Sensing Type	: Tipping Bucket mechanism
Measurement Units	: Millimeters (mm)
Operating Range	: Up to 450 mm/hr
Accuracy	: ± 1 tip or ± 2 % of reading whichever is the greater, at low rainfall rates. ± 5 % at rainfall rates above 300 mm/hr.
Resolution	: 0.2 mm per tip.
Calibration	: Initially calibrated for individual tips of the bucket. The result is confirmed by measuring the number of tips for 0.5 liters of water.
Reliability	: Typically up to five (5) years' operation before overhaul.
Housing	: Fiber Reinforced Plastic Shell.
Receiver funnel	: Gunmetal rim Diameter: 203mm.
Detector system	: Single Reed switch
Supply Voltage	: Not required (Potential Free Contact)
Shipping Weight	: 2.5 kg

<i>Configurations</i>	
Tip Size (mm)	0.2 mm
Bucket Type	Acrylic plastic
Detection System	Reed Contact with 470 Ohm in series
Output (Pulse) Voltage	TTL pulse 0 to Supply voltage (5V)
Debouncing	No
Pulse Stretching	No
Power Consumption	Not Applicable
Accuracy	+/- 2%
Cable Type	2 core shielded
Cable Length	8m