

# CASELLA



## Tipping Bucket Rain Gauge (TBRG)

The Perfect Rain Gauge for Professionals.

Casella's TBRG is designed to meet WMO requirements for precipitation measurements. Easy to deploy, it provides high precision with minimum maintenance.

[www.casellasolutions.com](http://www.casellasolutions.com)

## Overview

The Casella TBRG is a reliable and extremely robust rain gauge. The body and funnel are made from aluminium alloy with an accurately machined septum ring at the top giving an aperture of 400cm<sup>2</sup>.

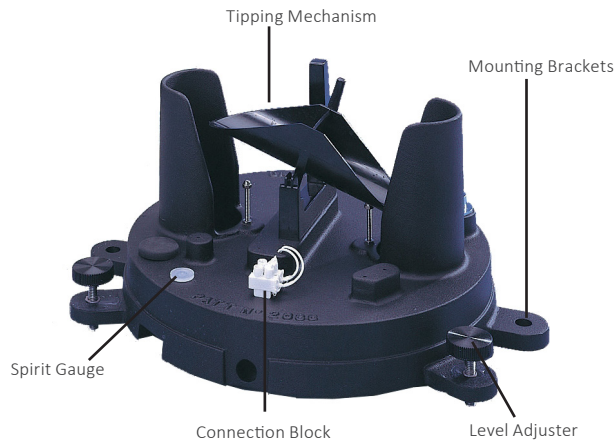
The Tipping Bucket Rain Gauge is available in two versions:

- A Standard Non-Heated version
- A Standard Heated version for more severe weather conditions

## Accurate and Precise Measurements

The TBRG mechanism is purposefully made from light weight injection moulded plastic and stainless steel pins, to reduce the likelihood of friction. This is achieved by creating a rolling motion rather than a pivoting motion when the bucket tips through the use of the stainless steel pins.

The Tipping Bucket Mechanism is mounted on a cast aluminium-alloy base, which incorporates a built-in spirit level to achieve correct and accurate positioning of the bucket.



## Assembly

The rain gauge is manufactured from entirely non-corrosive materials. The base and septum ring are cast in Aluminium Alloy LM25, heat treated and protectively coated.

The outer ring and funnel are fabricated from aluminium alloy sheet and again protectively coated. Stainless steel mesh is employed to protect the inlet and outlet ports from the ingress of foreign bodies.

The use of sealed reed switches ensures the Rain Gauge is capable of long working life with little maintenance.

## Applications

- Hydrology
- General rainfall monitoring
- Rainfall distribution and intensity
- Remote monitoring
- Leachate/run-off monitoring
- Ecological studies
- Agriculture
- Climate change studies

## Specification

### General Specifications:

Standards	BS7843-3:2012
Bucket sizes	0.1mm, 0.2mm or 0.5mm
Aperture	200 or 400cm <sup>2</sup>
Accuracy	± at 1 litre/hour
Capacity	Unlimited
Transducer	Magnetic/Reed Switch
Operating temp. range	1°C to 85°C
Output	Contact closure
Weight	2.6 kg

### Heated Version - Additional Specifications:

Heater supply voltage	24 V AC
Heater power consumption	42 Watts
Cable rating	2 A at 24 V AC, 4-core
Thermostat range	-20°C to 40°C
Operating temp. range	-20°C to 85°C

## Ordering Information

Type	Sensitivity	Output	Catalogue Reference
Standard non-heated	0.1mm	Single	102471E
	0.2mm	Single	100000E
	0.5mm	Single	100573E
Standard heated	0.1mm	Single	103590D
	0.2mm	Single	103589D
	0.5mm	Single	103591D

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