

# Tipping Bucket Rain Gauge

METEOROLOGY

## General Description

HyQuest Solutions' TB6 Series II is a **high-quality tipping bucket rain gauge** for measuring rainfall in urban and rural locations. The TB6 is the device of choice for **accurately measuring low rainfall events** and still provides good accuracy measuring heavier rain events.

The tried and proven design of the TB6 Series II ensures **long-term, accurate and repeatable results**. It is manufactured from high quality, **durable materials ensuring long-term stability in the harshest of environments**. It consists of a robust powder-coated aluminium enclosure, a UV-resistant ASA polymer base, and stainless steel fasteners and finger filter.

TB6 Series II provides a **finger filter** that ensures the collector catch area remains unblocked when leaves, bird droppings and other debris find their way into the catch.

The base incorporates **two water outlets at the bottom** allowing for water collection and data verification.

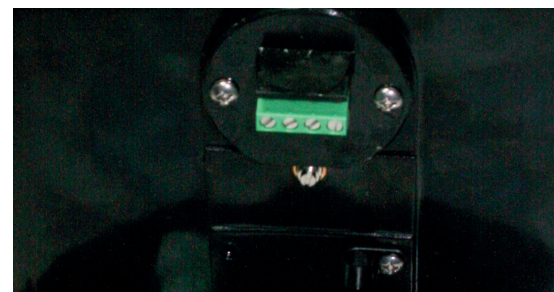
**Maintenance of the TB6 Series II is easy**, because removal of the outer enclosure and access to the tipping bucket mechanism and finger filter assembly is made easy with quick release fasteners. The new more spacious enclosure makes maintenance even easier.

### Output options

TB6 Series II includes a **dual output 24 V DC reed switch** allowing for output redundancy or the addition of a second data logger. The second output could also be used for connecting HyQuest Solutions' Bluetooth pulse counter CMCbt paired with the free FCD application that allow for easy and accurate field calibration even in noisy (urban) environments. The reed switch incorporates **varistor protection against surges** that may be induced on long, inappropriately shielded signal cables.

## Main Features

- Long term stable calibration
- Minimal maintenance required
- Robust design for all environments
- Expandability: Optional **autonomous real-time rain monitoring and reporting system** RainTrak Undercover with in-built telemetry and logging (see flip side)



### Alternative Models TB3 and TB4 Series II

Industry-grade HS tipping buckets TB3 and TB4 Series II are equipped with an integrated syphon mechanism which delivers high levels of accuracy across a broad range of rainfall intensities.

## Technical Specifications

<b>Resolution</b>	0.1 mm, 0.2 mm, 0.5 mm and 0.01 inches
<b>Accuracy</b>	<ul style="list-style-type: none"> <li>■ 0-50 mm per hour: better than +/- 1 %</li> <li>■ 100-150 mm per hour: better than -5 %</li> <li>■ 200-300 mm per hour: better than -10 %</li> <li>■ Optional factory calibration: Accuracies for higher rainfall intensities can be improved upon request at time of order.</li> </ul> <ul style="list-style-type: none"> <li>■ 50-100 mm per hour: better than -3 %</li> <li>■ 150-200 mm per hour: better than -7 %</li> </ul>
<b>Range</b>	700 mm per hour
<b>Material</b>	<ul style="list-style-type: none"> <li>■ Enclosure: powder-coated aluminium</li> <li>■ Base: UV-resistant ASA</li> <li>■ Bucket: chrome-plated ASA</li> </ul>
<b>Pivots</b>	Field-proven high-quality sapphire pivots: long-life, free from corrosion
<b>Height &amp; Mass</b>	Height 330 mm; weight 2.1 kg
<b>Environmental Conditions</b>	Operating temperature range: +4 °C to +70 °C; humidity: 0 - 100 %

## Accessories & Additional Options



### Autonomous System

**RainTrak Undercover:** TB6 can be used as a component of the RainTrak to provide a reliable and autonomous real-time rain monitoring and reporting system. Features:

turnkey operation, battery operated with solar panel, integrated undercover IP-capable data logger, periodic or event-driven data communication, wireless communication, incl. antenna, custom designed for harsh environments.



### Pole Mount Bracket:

Pole mount bracket with stainless steel bolts, nuts and washers to suit TB3, TB4 Series

II, TB6 Series II or TB7 tipping bucket rain gauge base. Suits 50 mm NB galvanised pipe with 2" BSP thread.



**Bird Guard:** The bird guard prevents wild or feral birds from perching or roosting and thus increases accuracy by stopping bird feces from dropping inside the gauge funnel.



**Portable Field Calibration Device (FCD):** The FCD effectively enables field technicians to run functional tests and calibrations of any given

rain gauge in the field avoiding dismantling of TBRG's, reducing TBRG downtime and thereby saving time and money.



### iRIS dataloggers and data modems:

- Robust housing
- IP over one or two channels of your choice: 4G with 3G fallback / GPRS, satellite, IoT

- I/O: analog, digital, SDI-12, Modbus
- iLink software
- Telemetry or cloud app



### Pulse Counter CMcbt:

The CMcbt is a blue-tooth pulse counter that provides an interface between the TBRG's reed switch output and

the FCD-App calibration software used in conjunction with HyQuest Solutions' Field Calibration Device FCD.

Please ask for details.

## Reseller

## Contact Us

### HyQuest Solutions Australia

+61 2 9601 2022  
[sales@hyquestsolutions.com.au](mailto:sales@hyquestsolutions.com.au)  
[www.hyquestsolutions.com](http://www.hyquestsolutions.com)

### HyQuest Solutions Europe

Pascalstr. 8+10 | 52076 Aachen - Germany  
 +49 2408 9385 0  
[info@hyquestsolutions.eu](mailto:info@hyquestsolutions.eu)  
[www.hyquestsolutions.eu](http://www.hyquestsolutions.eu)

### HyQuest Solutions New Zealand

+64 (0)7 857 0810  
[sales@hyquestsolutions.co.nz](mailto:sales@hyquestsolutions.co.nz)  
[www.hyquestsolutions.com](http://www.hyquestsolutions.com)

