# Tipping Bucket Rain Gauge

**METEOROLOGY** 

# General Description

HyQuest Solutions' TB7 is a new generation high-quality tipping bucket rain gauge for measuring rainfall and precipitation in remote and unattended locations when used in conjuction with HyQuest Solutions' Undercover data logger (see flip side) or a smart communication module. TB7 is a reliable 'low cost' device with a very good accuracy across a broad range of rainfall intensities.

The TB7's tried and proven design ensures long-term, accurate and repeatable results. It is manufactured from high quality, durable materials ensuring long-term stability in the harshest of environments. Enclosure and base consists of robust UV-resistant ASA polymer, and fasteners and filter are made of stainless steel.

TB7 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 TB7's base incorporates **two water outlets at the bottom** allowing for water collection and data verification.

Maintenance of the TB7 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.

#### **Output options**

TB7 includes a **dual output 24 V DC reed switch** allowing for output redundancy or the addition of a second data logger. The reed switch incorporates **varistor protection against surges** that may be induced on long, inappropriately shielded signal cables.

# **Applications**

- Classical Meteorology and Climatology
- Hydrometeorology
- Environmental, hydrological and air quality monitoring
- Water treatment plants, dams, reservoirs
- Agriculture, agrometeorology
- Water resources management
- Research, citizen scientists

#### Features

- Type: non-syphoning
- In-built bird guard
- Individually buretted and batch calibrated
- Long term stablility
- 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)









# Technical Specifications

**Resolution** 0.2 mm, 0.5 mm, 0.01"

Range 700 mm per hour

Accuracy Resolution

0.2 mm
0.01"
0.5 mm

Flow rate 0-200 mm/hr
+/-5 %
+/-5 %

Flow rate 200-500 mm/hr

Alternatively: Individual accuracy +/-2 % at any set intensity specified by the user, calibration required (Please note: additional costs for individually calibrated units)

NA

better than -8 %

NA

**Enclosure and Base**UV-resistant ASA

**Pivots** Ground sapphire pivots

**Bucket** Teflon impregnated injection moulded

**Dimensions** ■ Height: 310 mm (H)

Catch: 200 mm diameter

Mass 2.1 kg

# Accessories



**Pole Mount Bracket:** Pole mount bracket with stainless steel bolts, nuts and washers. Suits 50 mm NB galvanised pipe with 2" BSP thread.



# 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 TBRGs, reducing TBRG downtime and thereby saving time and money.



#### iRIS Undercover datalogger

The compact unit facilitates installation within HyQuest Solutions' raingauge enclosures.

The single communication slot supports either a wireless 3G or 4G modem (SDI-12 optional). The iRIS Undercover provides a Wi-Fi hotspot that enables access to the device wirelessly using HyQuest Solution's free-of-charge iLink software.



#### Autonomous System RainTrak Undercover:

TB7 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.

Please ask for details.

### Reseller

#### Contact Us

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