TB4 Series II

Tipping Bucket Rain Gauge

Meteorology

General Description

KISTERS' TB4 Series II is a **high-quality tipping bucket rain gauge** for measuring rainfall in urban and rural locations. Due to the integrated syphon, the gauge delivers **high levels of accuracy across a broad range of rainfall intensities**.

The tried and proven design of the TB4 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, a teflon bucket, and stainless steel fasteners and finger filter.

TB4 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 TB4 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

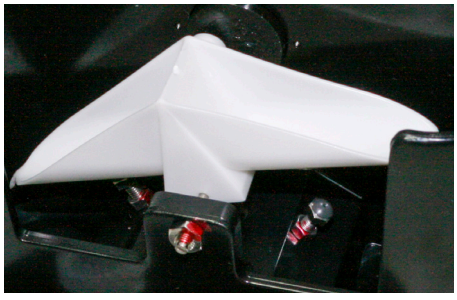
TB4 Series II includes a **dual output 24 V DC reed switch** allowing for output redundancy or the addition of a second data logger. The second output could also be used for connecting KISTERS' Bluetooth pulse counter CMCbt paired with the free FCD application that allow for easy and accurate field calibration even in noisy (urban) environments. The reed switch incorporates **varistor protection against surges** that may be induced on long, inappropriately shielded signal cables.

Applications

- Classical Meteorology and Climatology
- Hydrometeorology
- Environmental, Hydrological and Air Quality Monitoring
- Road Traffic Infrastructure
- Water Treatment Plants, Dams, Reservoirs
- Agrometeorology
- Airports and Airfields
- Water Resources Management

Main Features

- Long-term stable calibration
- Accuracy not affected by rainfall intensity
- 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)



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Technical Specifications

Resolution	0.1 mm (0.004 inch)	0.2 mm (0.008 inch)	0.5 mm (0.02 inch)	0.254 mm (0.01 inch)	1.0 mm (0.04 inch)
Catch diameter	282.84 mm (11.14 inch)	200 mm (7.9 inch)			
Bucket	Teflon-impregnated ASA plastic UV-stabilized or synthetic ceramic-coated brass				Synthetic ceramic-coated brass
Pivot/Bucket Mechanism	Machined, robust stainless steel axle resting on corrosion-free sapphire pivots				
Enclosure	Anodized, powder-coated aluminium				
Base	UV-resistant ASA polymer				
Accuracy	– 0-250 mm per hour (0 to 9.8 inch per hour): +/-2 % – 250-500 mm per hour (9.8 to 19.7 inch per hour): +/-3 %				
Range	0-700 mm/h (0 to 27.6 inch per hour) (maximum intensity 700 mm/h / 27.6 inch per hour)				
Operating Temperature Ranges	– Measuring: 0 to 70 °C (32 to 158 °F) (without ice accretion or snow cumulation) – Deployment: -20 to 70 °C (-4 to 158 °F)				
Operating Humidity	0 to 100 %				
Dimensions and Mass	Ø 282.84 mm x H 410 mm (Ø 11.14 x H 16.14 inch) 2.7 kg (6 lbs)	Ø 200 mm x H 330 mm (Ø 7.9 x H 13 inch) 2.2 kg (4.9 lbs)			

Accessories

Autonomous System RainTrak Undercover: TB4 Series II 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 bluetooth pulse counter that provides an interface between the TBRG's reed switch output and the FCD-App calibration software used in conjunction with KISTERS' Field Calibration Device FCD.

Please ask for details.

Reseller

KISTERS Australia I sales@kisters.com.au I kisters.com.au
KISTERS Europe I hydromet.sales@kisters.eu I kisters.eu
KISTERS New Zealand I sales@kisters.co.nz I kisters.co.nz
KISTERS North America I kna@kisters.net I kisters.net

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