

All-in-One Rain Gauging and Reporting Station

METEOROLOGY | PLUVIOMETRY | HYDROMETEOROLOGY

General Description

HyQuest Solutions RainTrak is a proven product line offering a **fully autonomous and integrated All-In-One Rain Gauging and Reporting Station**. The complete package is delivered with all elements needed for easy and fast installation and **ready to operate within minutes** from deployment on any given site. Simply add a valid SIM card to enable network connection and off you go!

Data processing

RainTrak sends collected data periodically or event-driven in **real-time** either to a user-operated FTP server or to a secure KISTERS/HyQuest Solutions web data centre (optionally). Authorized users can access **data views (graphs, tables), data management and data download functionalities through any web browser on desktop or mobile devices**. The browser application handles individual RainTraks or entire RainTrak monitoring networks. Additionally, data from other stations equipped with HyQuest Solutions iRIS data loggers and - optionally - 3rd-party data loggers can be managed and processed in the same cloud environment.

Rain alerts

The real-time IP data transmission allows for rain alerts and provides fast access to current data collected at remote sites. Alerts will be sent whenever the rainfall exceeds user-defined thresholds. SMS alerting is available as an option.

Applications

Applications include fixed rain reporting stations, semi-mobile stations quickly installed during major flood events, small-scale automatic weather stations, etc.

- Urban Meteorology / City Weather
- Internet of Things
- Agricultural Rainfall Monitoring
- Road Traffic Safety / Signaling
- Hydrometeorology
- Stormwater Monitoring
- Water Resources Management

Main Features

- Easy deployment
- Professional grade tipping buckets
- Real-time rainfall data reporting
- Continuous access to rainfall data
- Long-term stable calibration
- Built for harsh environmental conditions
- Robustness and longevity
- Minimal maintenance effort

Tailored Solutions

Are you looking for a tailor-made, ready-to-use solution? Our experienced engineers develop individual solutions on the basis of your requirements. Please contact us.



Technical Specifications

RainTrak Components

- Your choice of a HyQuest Solutions Tipping Bucket Rain Gauge (TB3, TB4, TB7)
- iRIS 'Undercover' IP data logger/modem
- Battery, external antenna, external 12V:5W solar panel

Operating Temperature Range

Data logger: -40 °F to +158 °F

Tipping bucket rain gauge:

- Measuring: 32 °F to 158 °F (without ice accretion or snow cumulation)
- Deployment: -4 °F to 158 °F

Data Logger / Modem

- Periodic logging or event-triggered logging (rainfall data, further sensors, self-diagnostics)
- Logger configuration/data downloads
 - Local: with free-of-charge iLink software (Windows, Android) over WiFi
 - Remote: optional HydroTel telemetry software
- Memory: 16 MB flash memory
- I/O: 2 debounced pulse inputs, 2 analogue 16 bit inputs (0/4-20 mA, 0-5/30 V, 0-100 mV)
- Cellular data transmission: 3G; optional LTE/4G (more options to come)

Gauge Accuracy

Highly accurate TBRG; accuracy depending on gauge model. Ask for details.

Power Supply

- Continuous operation: 12 V/2.8 Ah SLA battery and 12V:5W solar panel c/w mounting bracket, solar charger included
- Discrete low-power operation: Alkaline AA batteries, data transmitted once a day

Mounting Bracket

Mounting bracket TB334 to suit TB3/TB4/TB7 c/w stainless steel bolts, nuts and washers; suits 50 mm NB galvanised threaded (2" BSP) pipe (pipe NOT included in system)

Accessories



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



Portable Field Calibration Device (FCD): enables field technicians to run functional tests and calibrations of any given rain gauge in the field avoiding dismantling of Tipping Bucket Rain Gauges, reducing downtime and thereby saving time and money.



Pulse Counter CMcbt: Bluetooth pulse counter providing 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.

Contact us

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