

LOGGING RAIN GAUGE (Tipping Bucket)

(LRG70)

Features:

- Rugged, accurate and reliable
- High Quality Single Channel Data Logger
- Time Series Data
- Multiple Memories & Rainfall Intensity logging
- Typical storage of 5+ years of data
- Industrial Cellular Modem (4G) Built-in
- Connect to WeatherMation LIVE for live data
- Rainfall warnings by SMS and Email
- Australian Made & Supported
- The RG50 TBRG features:
 - BoM specification mechanics
 - Minimal maintenance, 25 years+ deployment life
 - Low friction, non-seizing bucket bearings
 - Gold plated buckets for minimal moisture retention
 - Very stable calibration
 - Built-in bubble level

Applications

- Rainfall distribution and intensity
- Workflow Planning & Project Management
- Safety and automation
- Flood mitigation programs
- Hydrology
- Remote Rainfall alerting
- Ideal where a full Weather Station is not warranted, while Rainfall remains critical to monitor.

The Envirodata LRG70 combines our world class RG50 Tipping Bucket Rain Gauge, with our tried and tested Weather Maestro Data Logger. The system is a complete solution with Mounting posts, solar panel and Industrial Cellular Modem, included.



Connected to Envirodata's WeatherMation LIVE service the LRG70 can provide many years' worth of built in rainfall data storage, as well as live data updates.

Once the data is in your WeatherMation LIVE site, you can automatically trigger alerts based on rainfall rates or rainfall totals, to be sent via SMS or Email to your nominated users.

Method of Operation

Rain falling on the 203mm copper collecting funnel is directed through a siphon control unit which discharges as a steady stream into a two compartment bucket mounted in unstable equilibrium.

As each compartment fills, the bucket tilts alternately about its axis. Each tip causes the magnet to trigger the Hall Effect circuit in Envirodata's sensing electronics. This produces a 250ms square wave pulse corresponding to 0.2mm of rainfall, which is recorded by the single channel Weather Maestro data logger.

LOGGING RAIN GAUGE (Tipping Bucket) SPECIFICATIONS

Mounting

The LRG70 package includes a mounting post with levelling bracket, designed to place the rim at 1500mm above ground level. The levelling bracket includes the solar panel bracket and the Weather Maestro Data Logger is mounted on a Sun Shade on the same post.

All fittings are provided, in stainless steel, with captive nuts incorporated into the mounting post, the post is 65mm SHS Aluminium with a 3mm wall.

Rain Gauge Specifications

Mechanism	Tipping Bucket
Measurement Units	Millimetres (mm)
Operating Range	Up to 700 mm/hr
Accuracy	$\pm 1\%$ to 200mm/hr $\pm 3\%$ to 380mm/hr
Resolution	0.2mm per tip
Detection System	Hall Effect (electronic) 3-wire connection
Output Pulse Voltage	5V
Debouncing	Automatic
Pulse Stretching	Yes, 250ms, square wave form

Materials

Collector	Copper
Jacket	Stainless Steel
Base	Cast Marine Grade Aluminium
Bucket	Gold Plated Brass

Dimensions

Funnel Diameter	203mm
Height	300mm
Base Diameter	285mm



Rain Gauge
Last 24 Hours - 5 Min Data

Values in this chart represent 5 Minute summaries from 27/05/2025 11:05 to 28/05/2025 11:00

TOTAL Rain: 59.2 mm



Data Logger Specifications

Built-in Memory

8 Mb on-board flash (non-volatile) memory stores up to a typical total of 4,000,000 value sets (rainfall data plus time & date stamp records). Equivalent to 72 months of 10 minute, hourly and daily data, plus Rainfall Intensity concurrently.

System Indicators

LED indicators, provided for simple identification of operating status and mode.

Battery & Solar Panel

Battery:

- 12 volt 18.0Ah rechargeable gel cell SLA

Solar panel:

- 30 Watt solar panel included with the LRG70.

Power Consumption

- 75mA typical

Recalibration Interval

Field calibration recommended every 12 months

Options

- 12 volt 20.0Ah rechargeable lithium LiFePO₄
- Lockable Housing Upgrade (LH35)
- TBRG & Solar Panel Bird Spikes (BS34 / BS32)