



Tipping Bucket Rain Gauge (RG12RM Series)

Features

- Rugged Accurate & Reliable
- Minimal maintenance, 25 years+ deployment life
- Low friction, non-seizing bucket bearings
- Gold plated buckets for minimal retention
- Very stable calibration
- Built-in bubble level

Applications

- Rainfall distribution and intensity
- Workflow planning
- Safety and automation
- Flood mitigation programs
- Hydrology
- PLC, RTU & SCADA connectivity

The Envirodata RG12RM range of siphon controlled tipping bucket rain gauges are professional instruments designed and constructed for long-term operation with minimal maintenance under all climatic conditions.

All materials are corrosion resistant. These proven instruments are accurate to within 1% for rainfall rates up to 200mm/hr and 3% up to 380mm/hr. The maximum rain rate is 700mm/hr

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. This signal



is robust, relatively immune to electrical noise and able to travel long distances with no signal loss.

Mounting Options

The RG12RM series has optional mounting posts with levelling bracket, designed to place the rim at either 500mm or 1000mm above ground level to meet BoM guidelines. Brackets for rail mounting and for mounting off a vertical surface or post are also available.

Bird Protection

The BS34 is a ring of stainless steel bird deterrant spikes designed to prevent birds landing on the rim and fouling the collection funnel.

RG12R Reed Contact Model

The RG12RM can optionally be supplied supplied with a Dual Reed switch output to provide you with dual contact closure outputs. <Special Order - part # RG12R2>

Envirodata Weather Stations Pty Ltd

P.O. Box 395, WARWICK, Queensland, 4370, Australia

Phone: (07) 4661 4699

Int. Phone: + 61 7 4661 4699

Fax: (07) 4661 2485

Int. Fax: +61 7 4661 2485

ABN: 77 131 757 125

Proudly Australian Owned

<http://www.envirodata.com.au>

e-mail: sales@envirodata.com.au

Version 170105



Rain Gauge Signal Converter Options

Envirodata has developed a dedicated rain gauge convertor (RGC12) to connect your RG12RM high quality rain gauge to your PLC, SCADA, RTU or logger.

We have provided sinking or sourcing outputs, with either low going high or high going low pulses, at system voltage (7 to 28 VDC). We also provide two isolated voltage free contact outputs.

No matter your interface requirements, the RGC12 has the easily selected answer.

Specifications

Mechanism:	Tipping Bucket
Measurement Units:	Millimetres (mm)
Operating Range:	Up to 700 mm/hr
Accuracy:	± 1% to 200mm/hr ± 3% to 380mm/hr
Resolution:	0.2mm per tip
Materials:	
Collector:	Copper
Jacket:	Stainless Steel
Base:	Cast Marine Grade Aluminium
Bucket:	Gold Plated Brass
Bridge:	Anodized Marine Grade Aluminium
Fasteners:	Stainless Steel

Configurations:

Model:	RG12RM
Detection System:	Hall Effect (electronic) 3-wire connection
Output Pulse Voltage:	5V
Debouncing:	Automatic
Pulse Stretching:	Yes, 250ms, square wave form
Power Consumption:	<1.5mA
Cable Type: (UV stable)	8m 3-Core with 2 x IP66 connectors

Dimensions:

- Funnel Diameter: 203mm
- Height: 300mm
- Base Diameter: 285mm

Supply Voltage:

- 6 to 28 Volts DC Nominal

Recalibration Interval:

Field Calibration recommended every 12 months
Factory Calibration recommended every ten years

