



Tipping Bucket Rain Gauge (RG12 Series)

Features

- Stainless steel barrel and chassis
- Robust, Accurate and Reliable

Applications

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

The Envirodata RG12 Series tipping bucket rain gauges are constructed from stainless steel with a powder coated aluminium base and funnel.

The tipping mechanism is manufactured from stainless steel, ensuring that tips are accurate and consistent in volume.

The gauge is fitted with a syphon to control and maintain a constant flow-rate. This ensures reliable rainfall recording at very high rainfall intensities.

Mounting Options

The RG12 series has an optional mounting post with levelling bracket, designed to place the top of the rim at either 1000mm above ground level to meet BOM recommendations, or 2m in dense vegetation.

Mounting the RG12 above vegetation growth levels ensures accurate measurements for long periods with no impact from vegetation or fauna ingress.

The levelling bracket is also available separately for rail mounting, and a side arm is available for mounting off a vertical surface or post.



Bird Protection

The BS30 is a ring of stainless steel bird deterrant spikes designed to prevent birds landing on the rim and fouling the collection funnel.

RG12U Reed Contact Model

The RG12U is supplied with a single Reed switch to provide you with a raw 2 wire contact as a signal.

RG12H Hall Effect Models

The RG12H models are supplied with an electronic (Hall Effect) detector, to provide an extremely high level of reliability. The hall effect sensor life is expected to exceed 100 years, and tens of millions of tips.

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Version 110314



The RG12H provides a very clean signal each tip of the bucket; a single 5V pulse 250ms in duration, square wave. This signal is robust, relatively immune to electrical noise and able to travel long distances with no signal degradation. This is Envirodata's standard sensor for use with our systems.

Specifications

Mechanism:

- Tipping Bucket

Measurement Units:

- Millimetres (mm)

Operating Range:

- Up to 450 mm/hr

Accuracy:

- $\pm 2\%$ at low rainfall rates.
- $\pm 5\%$ at rainfall rates above 300 mm/hr.

Resolution:

- 0.2mm per tip.

Reliability:

Typically a minimum of five (5) years' operation before factory re-calibration is recommended.

Housing:

Stainless steel barrel and chassis, powder coated aluminium base and funnel.

Dimensions:

- Funnel Diameter: 203mm
- Height: 315mm
- Base Diameter: 250mm

Supply Voltage:

- 6 to 28 Volts DC Nominal

Ordering Information:

- RG12U for Reed Contact model
- RG12H for Hall Effect 5V Pulse

Rain Gauge Signal Options

Envirodata has developed a dedicated rain gauge convertor (RGC12) to connect your RG12H 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.

Configurations:

Model:	RG12U	RG12H
Detection System:	Reed Contact with 470 Ohm in series	Hall Effect (electronic) 3-wire connection
Output Pulse Voltage:	0 to supply (6 to 28V DC)	0 to 5V
Debouncing:	No*	Automatic
Pulse Stretching:	No*	Yes, 250ms
Power Consumption:	N/A	<1.5mA
Cable Type: (UV stable)	6m 2-Core	8m 3-Core

*Debouncing & Pulse Stretching must be done by the input device circuitry to maintain quoted accuracy

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