Environdata
WEATHER STATION SPECIALISTS

Tipping Bucket Rain Gauge
(RG12 Series)

Features

- Stainless steel barrel and chassis
- Robust, Accurate and Reliable
- Syphon-action delivery mechanism

Applications

- Rainfall distribution and intensity
- Catchment monitoring
- Flood mitigation programs
- Hydrology

The Environdata 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, designed to place the top of the rim at either 1000mm above ground level, to meet BOM reccomendations, or 2m in dense vegetation.

Mounting the RG12 above vegetation growth levels ensures accurate measurements for long periods of time with no impact from vegetation.

The integrated level adjustment bolts ensure the RG12 is horizontal for maximum accuracy.

Bird Protection

The BS10 is a ring of stainless steel bird deterrant spikes designed to stop birds landing on the rim.

RG12U[2] Reed Contact Model

The RG12U is supplied with a single Reed contact as a detector. This is a simple two wire connection. A series resistor provides protection against excessive currents.

RG12H Hall Effect Model

The RG12H is supplied with an electronic (Hall Effect) detector. This means an indefinite life and includes standard pulse stretching. There is no 'debouncing' required as there is no 'bounce' effect with the electronic detector. Each tip provides a very clean signal; a single pulse 50ms in duration, square wave, and 5V in amplitude.

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AUSTRALIAN MADE

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RG12S Hall Effect with Signal Conditioning

The RG12S converts the low voltage sensor output into a higher voltage open collector output. The output signal is an open collector pull down, current limited to 100mA and transient protected to 30V DC.

Specifications

Mechanism:

- Tipping Bucket

Measurement Units:

- Millimetres (mm)

Operating Range:

- Up to 450 mm/hr

Accuracy:

- ±2% at low rainfall rates.
- ± 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.

Configurations:

Dimensions:

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

Detector system:

- 1 or 2 Reed switch(es) or
- Hall Effect sensor

Supply Voltage:

- 6 to 24 Volts DC Nominal

Ordering Information:

- RG12U for single Reed Contact model
- RG12U2 for dual Reed Contact model
- RG12H for Hall Effect model
- RG12S For Hall Effect model with Signal Conditioning

Model:	RG12U	RG12H	RG12S
Detection System:	Reed Contact with 470 Ohm in series	Hall Effect (electronic) 3-wire connection	Hall Effect (electronic) 3-wire connection
Output Pulse Voltage:	0 to supply voltage (6 to 28V DC)	0 to 5V	Pull down from supply voltage (6 to 28V DC)
Debouncing:	No*	Automatic	Automatic
Pulse Stretching:	No*	Yes, 50ms	Yes, 50ms
Power Consumption:	N/A	<1.5mA	<3.0mA
Cable Type:	6m 2-Core UV stable	8m 3-Core UV stable	8m 3-Core UV stable

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

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