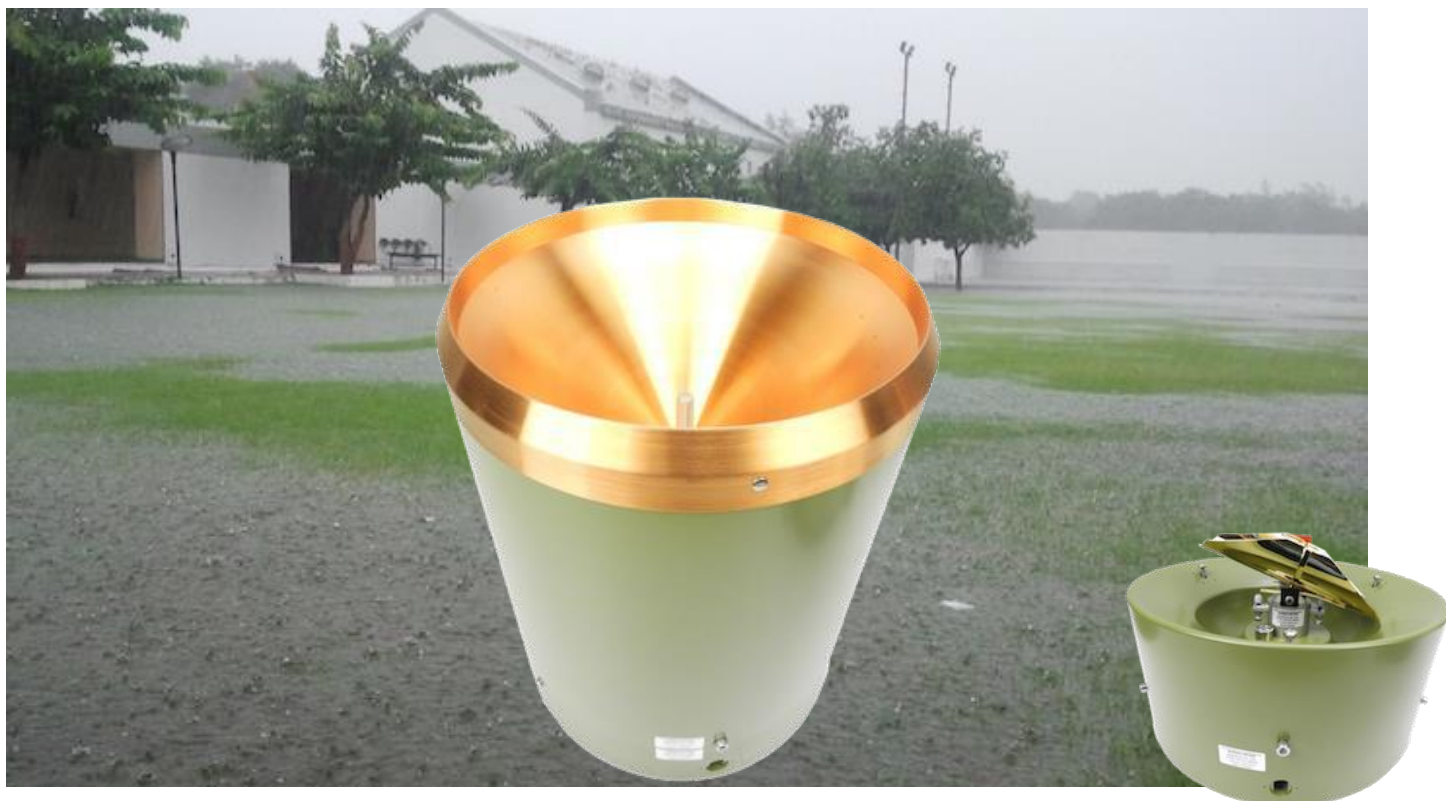




Suitable for general meteorology – water resource studies – hydrology – flood warning systems – automatic logging systems

Datasheet

RIM-8300 Rain Gauge

The RIMCO RIM-8300 series of tipping bucket rain gauges offers a standard 300mm (12") diameter collection funnel and utilizes the tipping bucket and siphon designs of the RIM-7499 series to ensure consistent accuracy and a long stable service life.

All materials used in the RIMCO RIM-8300 rain gauges are corrosion resistant and designed for almost all environmental conditions.

The RIM-8300 is accurate to within 7% up to 250mm/hr. The 0.5mm and 1.0mm versions comply with the Australian Bureau of Meteorology's requirement for flood monitoring systems.

Rain falling on the 300mm diameter collecting funnel is directed through a flow through siphon where it discharges as a steady stream into a precise two compartment gold plated bucket mounted in unstable equilibrium. As each compartment fills, the bucket tilts alternately about its axis. Each tilt produces a momentary contact closure as a result of a magnet sweeping past a reed switch. Each contact closure corresponds to 0.2mm, 0.5mm or 1mm depending on the bucket capacity installed.

An individual calibration certificate is supplied with every RIM-8300 rain gauge.

Applications

- General meteorology
- Water resources studies
- Hydrology
- Flood warning systems
- Automatic logging systems

Features

- Low cost, excellent quality
- Rugged and corrosion resistant construction
- Minimal maintenance, 25 years+ deployment life
- Low friction, non-seizing bucket bearings
- Gold plated buckets for complete drainage
- Dual reed-switch output
- Stable calibration
- Built-in bubble level
- Optional heater for operation below -30°C
- Optional self-powered internal counter



Specifications

Collector diameter	300mm (12" nom.) $\pm 1\text{mm}$
Resolutions	0.2mm 0.5mm 1mm
Accuracy	$\pm 7\%$ to 250mm/hr
Contacts	Two normally open magnetically actuated reed-switches Individual protection built-in
Reed-switch rating	30V AC/DC @0.5A non-inductive, series resistance 24 ohms
Closure timing	50ms min 150ms max Max bounce time 0.75ms
Termination	Screw termination (2.5mm ²) on switch holder
Heating option	12 or 24V AC/DC (factory set) with electronic control factory set to 5°C . Power consumption dependent on ambient temperature. Above 5°C it is nominally 50mW. Peak heater power is 48W. Duty cycle at -30°C ambient is approx. 50% with average power consumption approximately 24W. At 0°C average power consumption is nominally 5W.



Dimensions

Height	360mm
Body diameter	330mm
Mounting flange diameter	380mm

Physical

Net weight	6.0kg
Shipping weight	7.5kg
Packing carton	450x450x500mm nominal

Materials

Collector	Copper
Jacket	Stainless steel base Cast marine grade Aluminium
Bucket	Gold plated brass
Bridge	Anodized marine grade Aluminium
Switch holder	Delrin® or similar
Fasteners	Stainless steel

Ordering information

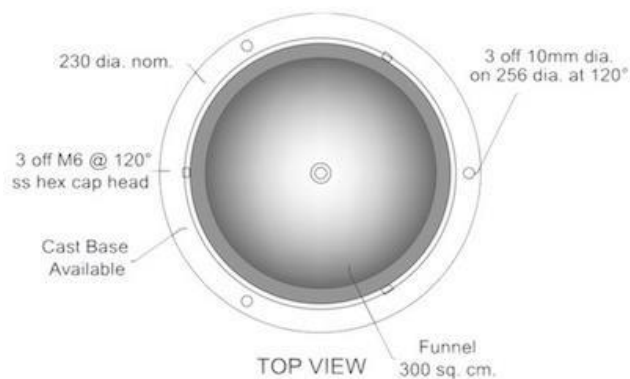
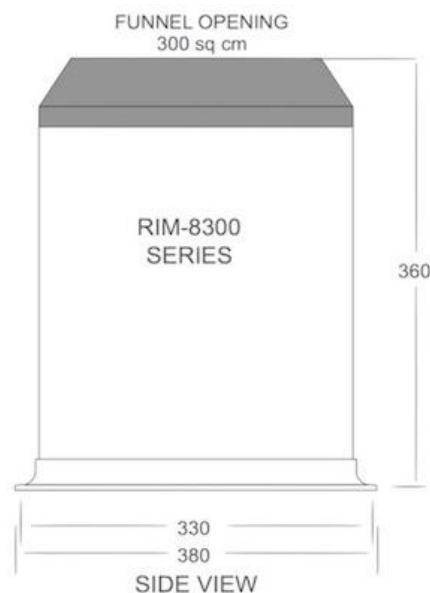
RIM-8300-02	Rain gauge 0.2mm bucket
RIM-8300-05	Rain gauge 0.5mm bucket
RIM-8300-10	Rain gauge 1.0mm bucket
	Order options as required

Note:

- Heater option (RIM-83HOPT), 12V or 24V AC/DC, 50W max.
- Non-siphon and imperial resolution versions are also available with differing accuracy specification.
- Other RIMCO rain gauge models are also available with 200cm² (RIM-8500).

Mounting

Three 8.5mm holes at 120° pitch on the mounting flange with a 350mm diameter.



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