



Suitable for general meteorology – hydrology – flood warning systems – remote and long-term logging deployments

Datasheet

RIM-7499-STD Rain Gauge

The RIMCO RIM-7499 range of siphon-controlled tipping bucket rain gauges are WMO compliant 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 3% up to rainfall rates of 250mm/hr.

The RIM-7499-STD (standard) comes with a lower specification funnel and calibration than the RIM-7499-BOM (Bureau Of Meteorology) version. The STD version is ultimately the ideal low-cost alternative to the BOM version. The lower cost RIM-7499-STD can however, be ordered with the higher specification 2% BOM calibration.

Rain falling on the 203mm collecting funnel is directed through a siphon control unit and discharges as a steady stream into a two-compartment bucket mounted in an unstable equilibrium. As each compartment fills, the bucket tilts alternately about its axis. Each tip forces a contact closure by magnetic means corresponding to 0.2, 0.25 or 0.5mm of rainfall according to bucket capacity. A calibration certificate is supplied with every RIM-7499 rain gauge.

Applications

- General meteorology
- Water resources studies
- Hydrology
- Flood warning systems
- Automatic logging systems
- Remote and long-term logging deployments

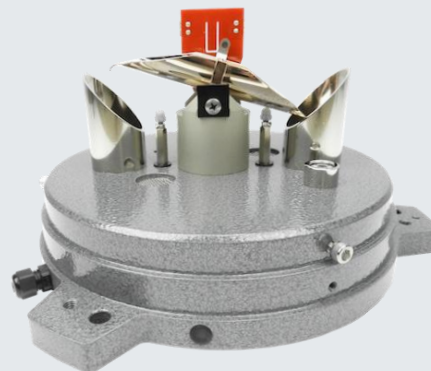
Features

- Rugged and corrosion resistant construction
- Minimal maintenance, 25 years+ deployment life
- Low friction, non-seizing bucket bearings
- Gold plated buckets for minimal retention
- Dual reed-switch output
- Stable calibration
- Built-in bubble level
- Optional heater for operations below -30°C
- Optional self-powered internal counter
- Mounting pedestal available



Specifications

| | |
|--------------------|---|
| Collector diameter | 203mm (8") $\pm 0.2\text{mm}$ |
| Resolutions | 0.2mm 0.25mm 0.5mm (0.01" & 0.02" to special order) |
| Accuracy | $\pm 3\%$ to 250mm/hr $\pm 4\%$ from 251 mm/hr to 350mm/hr |
| Contacts | Two normally open magnetically actuated reed switches Individual protection built-in |
| Reed-switch rating | 50V AC/DC @0.5A non-inductive |
| Closure timing | 50ms min 150ms max Max bounce time 0.75ms up to 500mm/hr |
| Termination | Screw termination (2.5mm ²) |
| Heating option | 12 or 24V AC/DC (48W max) operation with electronic thermostatic control (P/N 7499-TCH) Specify operating voltage at time of order |
| Data logger | Several models available depending on application requirements. Some data loggers may be installed within the body of the rain gauge. |



Dimensions

| | |
|---------------|-------|
| Height | 300mm |
| Body diameter | 230mm |
| Base diameter | 280mm |

Physical

| | |
|-----------------|---------------|
| Net weight | 5.5kg |
| Shipping weight | 7.0kg |
| Packing carton | 330x330x430mm |

Materials

| | |
|---------------|---------------------------------|
| Collector | Copper |
| Jacket | Stainless steel |
| Base | Cast marine grade Aluminium |
| Bucket | Gold plated brass |
| Bridge | Anodized marine Grade Aluminium |
| Switch holder | Delrin® |
| Fasteners | Stainless steel |

Ordering Information

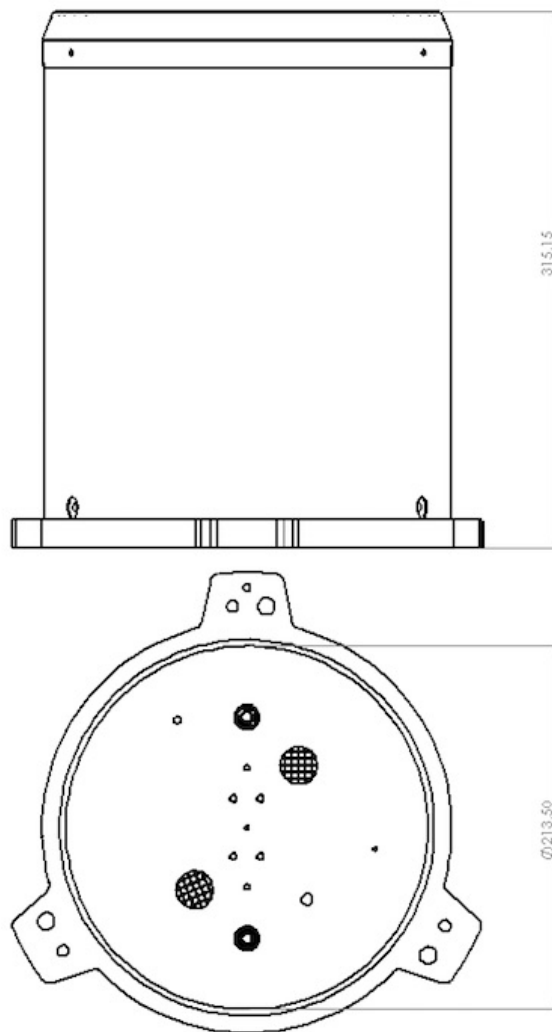
| | |
|------------------|---------------------------|
| RIM-7499-020-STD | Rain gauge 0.2mm bucket |
| RIM-7499-025-STD | Rain gauge 0.25mm bucket |
| RIM-7499-050-STD | Rain gauge 0.5mm bucket |
| | Order options as required |

Note:

- RIM-7499-BOM version is available for more accurate funnel collector specification.
- 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) and 300mm (RIM-8300).

Mounting

A rugged mounting pedestal that elevates the collection rim 1m above ground level (P/N 8000PED1).



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