

## Vaisala Rain Gauge RG13, RG13H



### Features/Benefits

- Designed to measure rainfall / liquid precipitation
- Suitable for remote and unattended locations
- Provides accurate measurements
- Economical and proven in operation
- Robust system component

The Vaisala Rain Gauge RG13, RG13H uses a tipping-bucket mechanism to produce a contact closure every time it receives a predetermined small quantity of rainfall (0.2 mm).

The body and funnel of the gauge are of aluminium alloy. An accurately machined septum-ring at the top gives an aperture of exactly 400 cm<sup>2</sup>. The tipping-bucket mechanism is mounted inside the body on a cast aluminium-alloy base equipped with fixing slots, three levelling screws and a spirit level.

The mechanism consists of a divided bucket pivoted at its centre. Rain collects in the upper half. When this is full, the mechanism tilts and discharges the collected water, allowing the other half of the bucket to begin filling.

A siphon device is fitted to the base of the funnel to control the rate of flow into the buckets. By ensuring a constant flow rate into the tipping bucket, calibration is made easier and accuracy improved. The alternate filling and discharging continue as long as rain is falling, and at each tilt, a magnet momentarily closes the contacts of a reed switch.

In the rain gauge of type RG13H, a heater element is provided inside the sensor body. The heater switches on at temperatures below +4 °C.

# Technical Data

## Measurement

Precipitation	Liquid
Rainfall capacity	unlimited
Accuracy	2 % (at 1 litre/hour)
Sensitivity (rainfall per pulse)	0.2 mm
Resolution	
Standard	0.2 mm
(Optional tipping mechanism)	0.1 mm)
(Optional tipping mechanism)	0.5 mm)
Diameter of aperture	225 mm
Area of aperture	400 cm <sup>2</sup>

## Output

Circuit	Contact closure
Connection	Screw terminal

## Temperature Range

Material temp. range	-40 ... +85 °C
Operating temp. range (non-heated)	1 ... +85 °C

## Heating

Heating connection/disconnection at	+4 °C
Heating power	RG13H = 33W / 48VDC RG13J = 33W / 24VDC

## Mechanical

Height	390 mm
Diameter	300 mm
Weight	2.6 kg
Material	
Base, septum ring	Aluminum alloy LM25
Outer ring, funnel	Aluminum alloy sheet
Inlet/outlet ports, pins	Stainless steel
Tipping mechanism	Injection moulded plastic
Transducer	Reed switch

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