VAISALA

Vaisala Rain Gauge RG13, RG13H



Features/Benefits

- Designed to measure rainfall and precipitation in remote and unattended locations
- Provides accurate measurements with long term performance
- Requires no regular maintenance
- Economical and proven in operation

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 cm². 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 body in order to melt snow. The heater switches on at temperatures below +4 °C.

Technical Data

Diameter of aperture	225 mm
Area of aperture	$400~\mathrm{cm}^2$
Rainfall capacity	unlimited
Sensitivity (rainfall per pulse)	0.2 mm

Dimensions

 $\begin{array}{cc} \mbox{Height} & 390 \mbox{ mm} \\ \mbox{Diameter} & 300 \mbox{ mm} \\ \mbox{Weight} & 2.5 \mbox{ kg} \end{array}$

Operating temp.range $40 \dots +60 \,^{\circ}\mathrm{C}$ Heating connection/disconnection at $+4 \,^{\circ}\mathrm{C}$ Heating power $40 \,\mathrm{W} \, (1 \,\mathrm{A} \,/\, 40 \,\mathrm{VDC})$ Accuracy $1 \,^{\circ}\mathrm{M} \, (at \, 25 \, mm/h)$ Resolution $0.2 \, mm$ (also $0.1 \, mm$ and $0.5 \, mm$ available)

