



HOBO® RG3 Data Logger

Rain Gauge Data Logger

Record up to 160 in. of rainfall at rates up to 12.7 cm (5 in.) per hour. The Data Logging Rain Gauge system is battery powered and includes a HOBO® Pendant Event data logger with a tipping-bucket rain gauge. Easily collect rainfall, time, and duration data, as well as temperature when used with an optional solar radiation shield (RS1 Solar Radiation Shield, or M-RSA). Base station or shuttle is required.



Key Advantages:

- High quality tipping-bucket rain gauge includes a HOBO Pendant Event data logger. Base station or shuttle is required.
- Time and date stamp is stored for each tip - provides detail needed to determine rainfall rates and duration.
- Reliable, field-proven rain gauge.
- Compatible with HOBOWare and HOBOWare Pro software for logger setup, graphing and analysis.
- Also records temperature when used with an optional solar radiation shield.

HOBO RG3 Data Logger Specifications

Rain Gauge

Maximum rainfall rate: 12.7 cm (5 in.) per hour

Calibration accuracy: $\pm 1.0\%$ (up to 1 in./hour for the RG3 or 20 mm/hour for the RG3-M)

Resolution: 0.01 in. (RG3) or 0.2 mm (RG3-M)

Calibration: Requires annual calibration: can be field calibrated or returned to the factory for re-calibration

Operating temperature range: 0° to +50°C (+32° to +122°F)

Storage temperature range: -20° to +70°C (-4° to +158°F)

Environmental rating: Weatherproof

Housing: 15.24cm (6-in.) aluminum bucket

Tipping bucket mechanism: Stainless steel shaft with brass bearings

Dimensions: 25.72 cm height x 15.24 cm diameter (10.125 x 6 in.); 15.39 cm (6.06 in.) receiving orifice

Weight: 1.2 Kg (2.5 lbs)

Part numbers: RG3 (0.01 in. per tip) ; RG3-M (0.2 mm per tip)

The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

Logger

Time stamp: Resolution 1.0 second

Time accuracy: ± 1 minute per month at 25°C (77°F), see Plot B on page 10.

Operating range: -20° to 70°C (-4° to 158°F)

Environmental rating (for logger used outside of rain gauge): Tested to NEMA 6 and IP67; suitable for deployment outdoors

NIST traceable certification: Available for temperature only at additional charge; temperature range -20° to 70°C (-4° to 158°F)

Battery: CR-2032 3V lithium battery; 1 year typical use

Memory: 64K bytes – 16K to 23K tips when recording rain only; 25K to 30K data points when recording rain and temperature

Materials: Polypropylene case; stainless steel screws; Buna-N o-ring; PVC cable insulation

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Temperature Measurement

Measurement range: -20° to 70°C (-4° to 158°F)

Accuracy: $\pm 0.47^\circ\text{C}$ at 25°C ($\pm 0.85^\circ\text{F}$ at 77°F). A solar radiation shield is required for accurate temperature measurements in sunlight.

Resolution: 0.10°C at 25°C (0.18°F at 77°F), see Plot A on page 10.

Drift: Less than 0.1°C/year (0.2°F/year)

Response time: Airflow of 1 m/s (2.2 mph): 10 minutes, typical to 90%

