



## HOBO® RG3-M Data Logger

### Rain Gauge (Metric) Data Logger

The Data Logging Rain Gauge is a battery-powered rainfall data collection and recording system which includes a HOBO® Pendant Event data logger integrated into a tipping-bucket rain gauge. This model automatically records up to 3200 mm of rainfall data that can be used to determine rainfall rates, times and duration. Also records temperature when used with an optional solar radiation shield (RS1 Solar Radiation Shield, or M-RSA). A base station or shuttle is required.



#### Key Advantages:

- A 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-M 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:**  $\pm 1$  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)

**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%

