

Detailed Specifications RG3, RG3-M Rain Gauge Data Logger



For Outdoor Environments

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)

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%