

WEATHER

Rain Gauge/Pluviometer

RGTE Rain Gauges



Overview

RGTE Tipping Bucket Rain Gauges are freestanding receptacles for measuring precipitation. The open top allows precipitation to fall into the upper portion, called the collector. The collector funnel is made of gold-anodized aluminum. The water collected is funneled to a tipping bucket, which fills up and causes a momentary closure of a magnetic switch once the tipping bucket fills to the point where it tips over. This empties the bucket in preparation for additional measurements. The discharged water passes out of the rain gauge with no need for emptying.

The rain gauge may be connected to an event counter on a data logger or to a display such as offered by an AWOS to show and log accumulated precipitation.

The aluminum housing is finished with a white powder-coat to withstand years of exposure to the environment.

Features

- Interfaces to virtually all data acquisition systems
- Knife-edge collector optimizes rainfall catch
- Splash-out protection and screen reduce wind errors
- Easy installation and maintenance
- Integrated bubble level
- Lightweight aluminum exterior with anodized aluminum collector for weather resistance
- Unheated Model 6012 available for use in areas without snow or freezing rain
- Siphon option allows for extended accuracy and repeatability by controlling the flow rate during periods of extremely heavy precipitation

Electrically Heated Rain & Snow Gauges

Electrically heated rain gauges facilitate their use in areas where snow or freezing rain may occur. These models allow the water equivalent of all types of precipitation, including snow and freezing rain, to be measured and logged. Two low-power heating elements are controlled thermostatically with an additional thermal overload. The heaters allow the rain gauge to be used year-round while at the same time minimizing the amount of evaporation.

Ordering Information

Model (without siphon)	Measurement per Tip	Heater Voltage	Model (with siphon)
RGTEMUH-1mm	0.1 mm	—	RGTEMUH-1mmS
RGTEMUH-2mm	0.2 mm	—	RGTEMUH-2mmS
RGTEM110H-1mm	0.1 mm	110 VAC	RGTEM110H-1mmS
RGTEM110H-2mm	0.2 mm	110 VAC	RGTEM110H-2mmS
RGTEM220H-1mm	0.1 mm	220 VAC*	RGTEM220H-1mmS
RGTEM220H-2mm	0.2 mm	220 VAC*	RGTEM220H-2mmS

* Includes transformer



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Specifications

Parameter	Model				
	RGTEMUH-1mm	RGTEMH-1mm	RGTEMUH-2mm	RGTEMH-2mm	
Sensor Type	Tipping Bucket				
Switch	Potted magnetic momentary-contact reed switch				
Output	135 ms switch closure				
Sensitivity	1 tip per 0.1 mm		1 tip per 0.2 mm		
Resolution	0.1 mm		0.2 mm		
Calibrated Accuracy	±1% (0–50 mm/h)				
Precipitation Measurement Rate	0–700 mm/h (0–27"/h)				
Collector Orifice Diameter	24.5 cm (9.66")				
Collector Measurement Area	471 cm ² (73.3 in ²)				
Heaters	Collector	—	71 W	—	71 W
	Housing	—	127 W	—	127 W
Thermostat Set Point	—	7°C (45°F)	—	7°C (45°F)	
Heater Power	—	110/220 VAC, 200 W	—	110/220 VAC, 200 W	
Environmental					
Operating Temperature	0 to +70°C (0 to +158°F)	-40 to +70°C (-40 to +158°F)	0 to +70°C (0 to +158°F)	-40 to +70°C (-40 to +158°F)	
Storage Temperature	-54 to +85°C (-65 to +185°F)				
Relative Humidity	0–100%, noncondensing				
Dimensions (without feet or pole mounting arm)					
Rain Gauge	30.5 cm × 24.5 cm (12" H × 9.66"D)				
Heater	6.3 cm × 6.3 cm × 5.5 cm (2.5" W × 2.5"H × 2.2"D)				