



## RAIN-VUE10

# RAIN GAUGE

## DIGITAL OUTPUT

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### Product Description

The Rain-VUE10 is ideal for many hydrological or meteorological applications such as weather stations and flood warning systems. The Rain-VUE10 is an SDI-12 tipping bucket rain gage in the Rain-VUE10 family of products. Advanced algorithms and digital processing within the sensor compensate for errors

caused by high-intensity rain and provide accurate precipitation and intensity measurements. Constructed of an aerodynamic plastic funnel, the Rain-VUE10 is cost effective and minimizes the amount of liquid precipitation that is lost due to the effects of wind. This rain gage offers the user flexibility with the option to select from a series of set cable lengths or a user-defined cable length.

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### Benefits and Features:

- Durable ASA plastic construction providing UV stability and exceptional strength for all environments
- Digital processing to correct for high-intensity precipitation errors up to 500 mm/h (20 in./h)
- Precipitation intensity measurements up to 1000 mm/h
- Meets WMO recommendations for funnel

area

- Tilt, internal temperature, & voltage measurement for remote diagnostics on the sensor
- Built-in bubble level for easy leveling
- Adjustable mounting feet to simplify leveling
- Unique aerodynamic shape to increase accuracy by minimizing effects of wind
- Built-in data recording and battery backup to prevent data loss from power or communications disruptions.

## RAIN-VUE10

## Technical Specifications

<b>Sensor Type</b>	Tipping bucket with magnetic reed switch
<b>Material</b>	Injection-molded, highly robust, UV-stabilized plastic (ASA LI-911)
<b>Output</b>	SDI-12 version 1.4
<b>Sensor Configuration</b>	SDI-12 or USB
<b>Operating Temperature Range</b>	-40 to +70°C (including melting snow) 1 to 70°C (liquid precipitation only)
<b>Power Requirements</b>	6 to 18 Vdc
<b>Current Drain</b>	1 mA (active)    0.07 mA (quiescent)
<b>Internal Battery</b>	240 mAh lithium battery (provides up to 15 days of continual operation after power loss; battery will last longer under ideal conditions)
<b>Response Time</b>	1 s (for M1! command)    0 s (for M0! command)
<b>Measurement Uncertainty</b>	1° (tilt)    0.25°C (temperature)    0.5 V (supply voltage) Note: Accuracy over the rain intensity range requires a mechanical calibration that is within 1% at a 1 in./h intensity. Rain-VUE10 sensors are calibrated at the factory to meet this specification but should be verified prior to deployment.
<b>Orifice Diameter</b>	20.0 cm
<b>Collecting Area</b>	314.16 cm <sup>2</sup>
<b>Height</b>	43.5 to 46.5 cm with feet adjustment
<b>Weight</b>	2 kg
<b>0.01 INCH OPTION</b>	
<b>Measurement Range</b>	0 to 1200 mm/h
<b>Precipitation Amount Resolution</b>	0.254 mm
<b>Precipitation Amount Measurement Uncertainty</b>	1% at 0 to 1200 mm/h intensity
<b>Precipitation Intensity Range</b>	0 to 1200 mm/h
<b>WMO Compliant</b>	No
<b>0.1 MILLIMETER OPTION</b>	
<b>Measurement Range</b>	0 to 500 mm/h
<b>Precipitation Amount Resolution</b>	0.1 mm
<b>Precipitation Amount Measurement Uncertainty</b>	The larger of 0.1 mm or 4% error at 0 to 500 mm/h intensity
<b>Precipitation Intensity Range</b>	0 to 500 mm/h
<b>Precipitation Intensity Measurement Uncertainty</b>	≤ 3.5% at 0 to 300 mm/h    ≤ 5% at 0 to 500 mm/h
<b>WMO Compliant</b>	Yes
<b>0.2 MILLIMETER OPTION</b>	
<b>Measurement Range</b>	0 to 1000 mm/h
<b>Precipitation Amount Resolution</b>	0.2 mm
<b>Precipitation Amount Measurement Uncertainty</b>	< 4% at 0 to 1000 mm/h intensity
<b>Precipitation Intensity Range</b>	0 to 500 mm/h
<b>Precipitation Intensity Measurement Uncertainty</b>	4% at 0 to 1000 mm/h
<b>WMO Compliant</b>	No