



TB4MM

Metric Rain Gage with 8 in. Orifice



Overview

The TB4MM, manufactured by HS Hyquest Solutions, is a high-end tipping bucket rain gage that monitors rainfall in metric rather than US units. It has a 20.3 cm orifice and measures rainfall in 0.2 mm increments. The TB4MM is ideal for locations

where intense rainfall events may occur. This tipping bucket is compatible with all Campbell Scientific data loggers, and it is used in environmental monitoring applications.

Benefits and Features

- › More accurate measurement of high-intensity precipitation
- › High precision—tips at 0.2-mm increments
- › Compatible with most Campbell Scientific data loggers
- › Compatible with the CWS900-series interfaces, allowing it to be used in a wireless sensor network

Detailed Description

The TB4MM funnels precipitation into a bucket mechanism that tips when filled to its calibrated level. Each tip is marked by a dual reed switch closure that is recorded by a data logger pulse count channel. After measurement, the water drains through two orifices (accepts 12 mm tubing) in the base, allowing the measured water to be collected in a separate container.

The TB4MM contains an internal siphon mechanism that causes rain to flow at a steady rate to the tipping bucket mechanism (regardless of intensity). The siphon allows the sensor to make accurate measurements over a range of 0 to 50 cm per hour.

Specifications

Sensor Type	Tipping bucket with siphon and dual reed switch
Rainfall per Tip	0.2 mm (0.008 in.)

Measurement Range	0 to 700 mm/h (0 to 27.6 in./h)
Measurement Uncertainty	› $\pm 2\%$ @ < 250 mm/h (9.8 in./h) › $\pm 3\%$ @ 250 to 500 mm/h (9.8 to 19.7 in./h)



Measurement Uncertainty	700 mm/h (27.6 in./h) maximum rate per hour
Operating Temperature Range	0° to 70°C
Humidity Range	0 to 100%
Cable Type	Two-conductor shielded

Drain Tube Size	Both filters accept 12 mm (0.47 in.) ID tubing.
Orifice Diameter	20 cm (7.9 in.)
Height	33 cm (13 in.)
Weight	2 kg (4.4 lb) with 7.62 m (25 ft) signal cable

