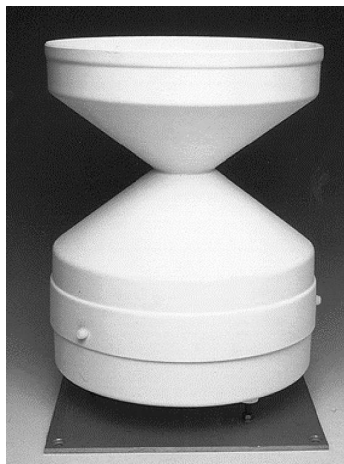


CHAPTER 4

PRECIPITATION SENSORS

4.1 QMR102 Rain Gauge



Rain Gauge QMR102

An aerodynamically shaped rain gauge, precipitation sensor QMR102 is designed to minimize the wind-originated airflow reducing the catch. Manufactured from UV radiation resistant plastic, it is a very rugged instrument.

The collected rain is measured in a well-proven tipping bucket mechanism of 0.2 millimeters. QMR102 can be installed on a stand with a total height of 1.5 m with the sensor, or alternatively directly on the ground using stainless steel base plate. QMR102 has a 10-meter cable and a connector.

QMR102 Specifications

Property	Description/Value
Sensor/transducer type	Tipping bucket/reed switch
Funnel diameter	254 mm (10 in.)
Orifice (opening area)	500 cm ² (77.5 in. ²)
Sensitivity	0.2 mm (1/128 in.)
Capacity	120 mm/h (4.7 in./h)
Accuracy	
<24 mm/h	< ± 1% (weather-dependent)
<120 mm/h	< ± 5%
Material	UV-stabilized plastic
Cable	6 m (19.7 ft.)
Weight (w/o installation plate)	1000 g (2.2 lb.)

The instrument is supplied calibrated to indicate 0.2 mm of rainfall with each bucket tip.

QMR102 has a mesh screen in collecting hole preventing access of any dirt to tipping bucket mechanism.

Specifications of QMR102 are not directly compliant with original tender specifications (i.e. dimensions). Nevertheless, QMR102 is field proven, high quality sensor that has been used widely with national meteorological institutes and research organizations throughout the world for precipitation measurement. Accuracy, performance and reliability of QMR102 are proven to fulfill requirements of even most demanding customers.