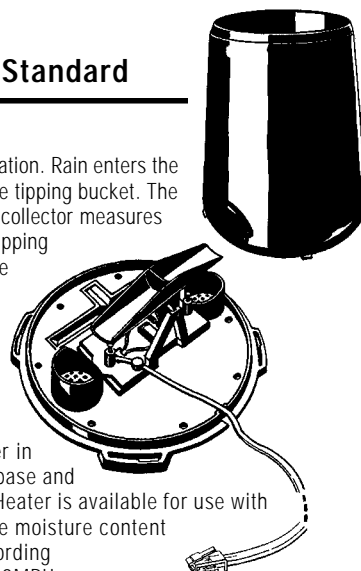# RAIN COLLECTOR, 0.01" (or 0.2 mm) Increments, Standard

7852(M)

SENSORS

The Rain Collector is designed to meet the guidelines of the World Meteorological Organization. Rain enters the collector cone, passes through a debris-filtering screen, and collects in one chamber of the tipping bucket. The bucket tips when it has collected an amount of water equal to the increment in which the collector measures (0.01" or 0.2 mm). As the bucket tips, it causes a switch closure and brings the second tipping bucket chamber into position. The rain water drains out through the screened drains in the base of the collector.

The collector is designed for years of accurate, trouble-free service. The body and base of the collector are constructed of tough, UV resistant plastic; the tipping bucket pivots on bearings that minimize friction and wear. Stainless steel adjustment screws under each chamber of the tipping bucket allow you to fine-tune the calibration of the Rain Collector.

Two types of collector are available; one measures in 0.01″ increments and the other in 0.2 mm increments. Both rain collectors come with mounting holes pre-drilled in the base and a built-in leveling trough to aid you in installing the rain collector. The Rain Collector Heater is available for use with either of the Rain Collector units. This heater allows the Rain Collector to measure the moisture content of snowfall and protects the internal components from freezing rain. If mounted according to instructions, the Rain Collector is wind tunnel tested to be stable in winds up to 140MPH (224 Km/Hr).

SPECIFICATIONS

General

Sensor Type	Tipping bucket with magnetic reed switch
Output	Contact closure
Attached Cable Length	40′ (12 m)
Cable Type	4-conductor, 26 AWG
Connector	Modular connector (RJ-11)
Recommended Maximum Cable Length	900′ (270 m)
Housing Material	UV-stabilized ABS plastic

Dimensions

Rain Collector	8.75" diameter x 9.5" high (16.5 cm diameter x 24 cm high)
Collection Area	31 in^2 (200 cm^2)
Weight	2 lbs. 3 oz. (1 kg)

Console Data (These specifications apply to sensor output as converted by Davis Instruments weather station consoles.)

Weather Monitor/Wizard Range

Daily Rainfall	0.00″ to 99.99″ (0.0 mm to 999.8 mm)
Total Rainfall	0.00″ to 99.99″ (0.0 mm to 9999 mm)

GroWeather/EnviroMonitor Range

Daily Rainfall	0.00″ to 40.95″ (0.0 mm to 819 mm)
Total Rainfall	0.00″ to 99.99″ (0.0 mm to 9999 mm)
Rate of Rainfall	0.00″ to 72.0″ per hour (0 to 999 mm per hour)

Accuracy

Rainfall	±4%, ±1 rainfall count between 0.01" and 2.00" per hour (0.2 mm and 50.0 mm per hour); ±5%, ±1 rainfall count between 2.00" and 4.00" per hour (50.0 mm and 100.0 mm per hour)
Resolution	0.01″ (0.2 mm)
Sample and Display Update Interval	16 seconds (max)

WeatherLink® Data (These specifications apply to sensor output as logged and displayed by the WeatherLink.)

Daily Rainfall	Total during archive interval
Total Rainfall	Total during archive interval
Rate of Rainfall	Maximum value during archive interval (GroWeatherLink, Energy WeatherLink, and Health WeatherLink)

Input/Output Connections

Black & Red	Switch terminal
Green & Yellow	Switch terminal

INSTALLATION OPTIONS

**Rain Collector (on
Rain Collector Shelf)**