

# WET ONLY COLLECTOR

## ECOTECH MODEL WDC-1000

### BACKGROUND

Sampler have two contains for collecting wet and dry deposition respectively. A cover lid slides between the two containers automatically and controlled by a microprocessor depending upon the weather conditions controlled through a rain fall sensor .

During a precipitation event(rain) the lid is moved from wet only collector to dry deposition collector container.Thus in wet only collector rain water is collected untill the rain is sensed by rain sensor.

On stopping rain (there is no rain for 5 minuts continuously) lid is slided automatically by the microprocessor as per program fed in datalogger of wet only collector. Dry deposition container get exposed to atmoshphere for dry dust collection and vice-versa.



The Operation is microprocessor cantrolled through a sensitive rain sensor which generate signal on falling rain drops on the sensor. Size of sensor is 50 mm dia and only two drops of rain on sensor are enough to auto-mate the operation. Operation is fully controlled by micro processor unit as per program. Control unit display the current status and logg average values in the memory at user defined intervals. Big size of sensor increase reliability of operation by better signal strength for starting and stopping of the actuator motor to shift the lid between two container .

Instrument including actuation motor and spindle, micro processor unit with display is operated on 12 V DC . RTC clock of logger is backed up by a long life dry cell to keep track of day and time in event when power is off to the logger.

Logger has algorithm to display value of the rainfall for designed wet only collector and depend upon dia of the contains.Rain fall value with resolution 0.01mm are tracked with time and displayed and average value are recorded in logger memory for defined interval Data logging interval can be selected by user.

For remote operation solar based power supply can be integrated with system to trickle charge the battery and run the system stand alone in field without power connection for long durations upto a month (optional).

In present configuration Power Supply is integral part of the wet only collector where 220V  $\pm 10\%V$  get converted to 12 V DC for opration of the unit.

A two meter high stand is provided with grouting provision in legs to mount unit on the ground for collecting of samples from one weak to 1month duration.

Containers are fitted with HDPE funnel of dia 225 mm to collect and guide rain water sample to the 1 liter container placed at the bottom of the wet only container. A modular design of container has been adopted so that collection of sample and reloading of the empty container is hassle free .

Sensor mounting need to be done in shadow free area on the mounting arm of the unit for quick response during rain and during no rain.

- Sample collecting container are wide mouth so that cleaning is easy
- Needed Accessories are provided to facilitate sample collection of dry and wet samples.

Sl no	Parameter	Value
1	Height of containers	330 mm -2 Nos
2	Diameter of container	230 mm
3	Stand height	2000 mm
4	Rain fall Resolution	0.01mm
5	Sensor	Piezoelectric

## **WARRANTY**

**ALL ECOTECH PRODUCTS CARRY ONE YEAR WARRANTY**



For pricing information and queries contact:

## **ECOTECH INSTRUMENTS**

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