



WRD 01

## Features

- Etched carbon electrodes
- IP67 housing
- 0-1Vdc output signal
- On/Off detection of rain
- Smooth sensing area and heating element for fast response
- Heater can be controlled from DDC-controller
- Suitable for naturally ventilated building applications

## Technical Data

<b>Supply voltage</b>	8-24Vdc
<b>Heater power supply</b>	12Vdc@120mA or 24Vdc from DDC controller auxiliary supply connected via 100ohm, 5W resistor
<b>Output</b>	0 to 1Vdc (0=no rain, >1V=rain is present)
<b>Dimensions</b>	150mm x 20mm diameter
<b>Sensing area</b>	15mm x 30mm
<b>Weight</b>	150 gram
<b>Cable length</b>	2m
<b>Operating range</b>	-25 to +55C
<b>Storage range</b>	-25 to +55C
<b>Protection rating</b>	IP67
<b>Approval</b>	The product meet the demand of CE

## Description

The WDR 01 rain detector is suitable for outdoor use.

The sensing part of the probe is an etched area which consists of three carbon electrodes separated by a waterproof resin.

The sensing area is smooth to allow water droplets to run off more easily and it should be mounted at a 30 to 40degree angle to assist this.

The unit also incorporates a heating element to dry off the surface wetness once rainfall has ceased.

The heater can be run continuously using a special power supply, or can be powered from a DDC-controller.

It can be used as part of a control strategy for window/ louvre opening in naturally ventilated buildings.

## Function

The probe is essentially On or OFF devices with virtually no graduation between the two modes.

It is difficult to define sensitivity; however, a droplet of distilled water 1mm in diameter will switch the detector OFF to ON mode, when the signal output goes from 0V to 1,4V.

Rain detector may be mounted at ground level or on the cross arm of weather station.

## Ordering Codes

**WRD 01** Rain detector

## Application

The WRD 01 Rain Detector is designed to detect rainfall. It does not measure the amount of rain, but provides an immediate indication of precipitation for control automatic windows or louvres in buildings or atria.

## Installation

The sensor should be mounted in a location providing safe access for maintenance and a suitable operating environment.

1. Fix the sensor in position
2. Wire the sensor's power supply and output
3. Connect the power to the sensor's heater supply
4. Configure controller to detect the sensor voltage change.

Fix the sensor to a permanent structure using 2 off 20mm spacer bar saddles, available from electrical wholesaler as shown below.

Note that the sensing area should be mounted at an angle of 30 to 40 degree to enable surface moisture to run off.



## Maintenance

The surface should be cleared by scrubbing with a toothbrush or similar lightly abrasive brush..

We reserve the right to make changes and improvements in our products which may effect the accuracy of the information contained in this leaflet.

## Connections

<b>Red</b>	Detector supply 8-24Vdc
<b>Blue</b>	Detector supply 0V
<b>Green</b>	Signal 0V
<b>Yellow</b>	Signal 0V - Dry / >1,4V - Wet
<b>Black</b>	Heater supply 100ohm to white
<b>White</b>	Heater supply 100ohm to black

## Note

**Do not cover, allow air circulation**