

### Technical Data

#### Output

Current dry <5mA, wet > 12mA

VFC 24Vac/dc@1A resistive SPDT

Supply voltage 24Vdc +/-5% or 24Vac +/-10%

Supply current 20 mA max.

Response time < 5 sec.

Measur. Accu Temp 0,2%, RH 5%

Setpoint offset range +/-2C

Flying lead length Low Smoke Zero Halogen

Dimensions 73 x 48 x 30 mm

Mounting plate 1 mm thick stainless steel

Weight 80 g

Approval The products referred to in this datashet meet the requirements of EU Directive 2004/108/EC

#### Connections:

#### For current mode:

Red +24Vdc  
Blue 4-20mA output

#### For Volt-free contact:

Red +24Vac/dc  
Blue 0v  
Yellow NO  
Green Common  
White NC

### WCD

#### Features

- Screw or strap-on mounting
- Voltage Free Contact or Current Output
- Adjustable set point
- LED indication of status
- Low smoke & fume flying lead cable
- Prevents "indoor rain" condensation
- Enables optimal efficiency for chilled beam applications

#### Application

The WCD condensation prevention detector is designed to meet the requirements for to provide early warning of condensing conditions.

Application include chilled beam/ ceiling systems where control safe-guards are required to avoid "indoor rain"

This detector provides either a volt-free contact or current output and is housed in a small enclosure which can be either screwed or strapped to the surface that requires monitoring.

#### Installation

1. The WCD should only be installed by a competent suitably trained technician.
2. Ensure that all power is disconnected before carrying out any work on the WCD.
3. Choose a suitable location and mount the detector (see page 4).
4. Important!  
It is essential thar no insulating is between the detector and the mounting surface.  
The detector plate must be kept at the same temperature as the potential condensing surface.
5. The detector can be simply fixed in place on a pipe with cable-ties with with the 2 self-tapping screws provided.
6. If the detector is to be mounted onto a pipe, it is important the unit is mounted length-wise to ensure maximum thermal transfer efficiency. See,page 2.
7. Terminate the flying lead cores as required and ensure that the supply voltage is within the specification tolerances

#### Ordering Code

WCD 2 Condensation Detector 2m lead  
WCD 5 Condensation Detector 5m lead

### Operation

The WCD operates on dew point temperature rather than a fixed value of relative humidity.

The dew point is calculated from a temperature compensated RH element and a high accuracy thermistor which are thermally bonded to the metal plate of the WCD.

The switching set point is determined as 3 degree +/- the pot offset above the current dew point.

The relay is activated when the dew point temperature is below the offset set point.

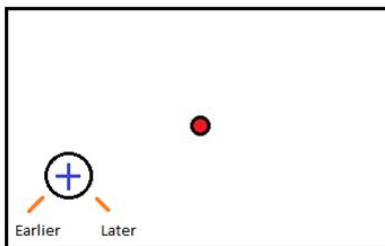
NB To obtain maximum accuracy over a narrow band of RH-values, the device will not perform valid circulations on levels of RH below 75%.

### LED Indication

The red LED, visible through the top of the housing, has 4 functions.

1. Short blink once every 15 seconds to show the device is working properly
2. Rapid continuous blinking to show the dew point switching set point is close
3. Continuously ON when the output is switched on.
4. On long flash followed by 2 short flashes to show the temperature element is faulty.

### Switching Point Adjustment



### Mounting position

