

## Condensation Detector

### Features

- Screw or strap-on mounting
- VFC or current output
- Low smoke & fume flying lead cable



### Specification

#### Output:

Current mode dry <3mA, wet >12mA

VFC mode 24Vac/dc @ 500mA resistive SPDT

Supply voltage 24Vdc  $\pm$ 5% or 24Vac  $\pm$ 10%

Supply current 12mA max.

Response time <1 sec. for RH >85%

Flying lead low, smoke & fume

Dimensions 53 x 41 x 25mm

Mounting plate 1mm thick stainless steel

Country of origin UK

### Product Codes

#### **WD-CBS**

Chilled beam condensation detector (1 meter lead)

#### **WD-CBS-5M**

Chilled beam condensation detector (5 meter lead)

## Technical Overview

The WD-CBS chilled beam sensor is designed to meet the requirements for a low cost device to provide early warning of condensing conditions. Applications include chilled beam/ceiling systems where control safeguards are required to avoid 'indoor rain'.

The sensor 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 WD-CBS should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc)
2. Ensure that all power is disconnected before carrying out any work on the WD-CBS.
3. Choose a suitable location and mount the detector. The unit should be mounted as close as possible to the chilled water inlet, or the coldest part of the system to be measured.
4. The detector can be screwed or bolted directly onto a flat surface with the mounting bar provided, or simply fixed in place on a pipe with the cable-tie.
5. If the detector is to be mounted onto a pipe, it is important the unit is mounted length wise. This is to ensure maximum thermal transfer efficiency. It is also important that no insulating material is used between the detector and the pipe or mounting surface.
6. Terminate the flying lead as required and ensure that the voltage is within the specified tolerances.

## Connections

### Current mode

Red +24Vdc  
Blue mA output

### VFC mode

Red +24Vac/dc  
Blue 0V  
Yellow Common  
Green N/C  
White N/O

## Trend Scaling

Current mode;

Type 5 "Characterise" scaling

Upper	20
Lower	4
Exponent	2
Points	2
I1	4
O1	4
I2	20
O2	20

Using a Trend hysteresis module when the value of the input exceeds 8mA, call it TRUE, values less than 8mA call it FALSE.

Alternatively you could use a comparator module.