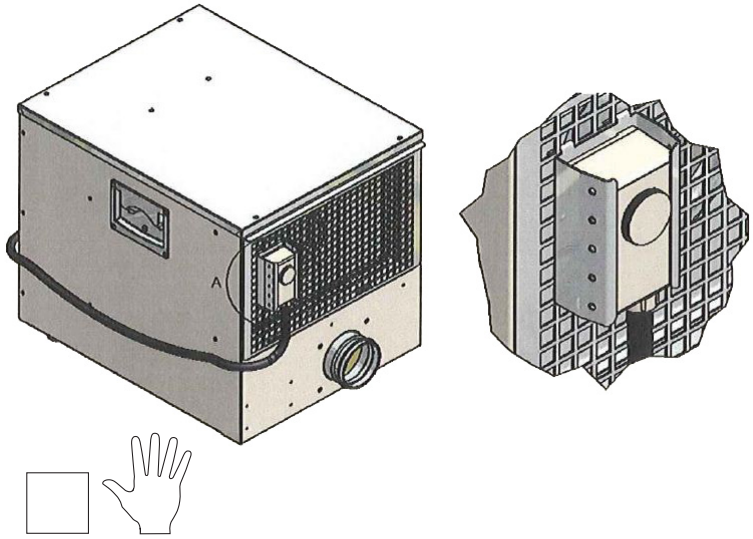

It's in the air ...

... quality does indeed make a difference!

References
Dry air storage
Water damage, flood
Corrosion protection

DR10
HYGROSTAT

Description
The DR10 hygrostat is a unit in which specially prepared fibres act as the sensing element.

Air from the surrounding space enters the hygrostat through openings in the plastic case, and comes into contact with the sensing element. When exposed to changes in relative humidity, the hygroscopic properties of these special fibres result in a proportional change in the length of this sensing element.

A precision mechanism then transmits any change in the length of the element to a microswitch that is sensitive to extremely small movements. This then turns the dehumidifier on or off.

The relative humidity settings that activate the microswitch are determined by turning the setting knob on the front of the casing.

Applications
The DR10 hygrostat is a mechanical hygrostat specially configured for use as an on/off switch for Cotes dehumidification units.

The hygrostat turns the dehumidifier on and off when required, in order to maintain a pre-determined relative humidity (level of moisture in the air) in the room, structure or installation in which the dehumidifier and hygrostat are mounted.

Mounting
The DR10 hygrostat is available for mounting in a duct or on a wall.

The bracket-mounted duct version is made of ABS plastic and is fitted with a stainless steel shaft.

The compact, wall-mounted version is made of light grey high-impact plastic.

AC rail mounting is also available (type 90-256-F07).

Installation
The DR10 hygrostat is available for mounting in a duct or on a wall. It can be used at ambient temperatures from -20°C to +60°C, and with air velocities of up to 15 metres per second.

There are no restrictions regarding the position in which the DR10 hygrostat can be mounted. However, it will work best if the ventilation slots are at right angles to the flow of air.

COTES

Maj '11 - 1725

Technical data

Weight: Approx. 300 grams

Sensing element: Plastic, hygrometric

Range (scale): 30–100% relative humidity

Working range (adjustment scale):
35–100% relative humidity

Accuracy:
±3.5% above 50% relative humidity at 23°C
±4.0% below 50% relative humidity at 23°C

Medium being measured:
Air at atmospheric pressure, not corrosive

50% response time:
Approx. 90 seconds at v = 2 metres/second

Switching differential:
(Microswitch) 3–6% relative humidity
Contact spacing with two switches 3–18% relative humidity

Switch rating:
Resistive load 10A at 230 volt AC
Resistive load 0.2A at 230 volt AC
(p.f. = 0.8 minutes)

Switching voltage:
Up to 80% relative humidity 250 volt AC (maximum)
Up to 100% relative humidity 24 volt DC (maximum)

Protection: IP20

Electromagnetic compatibility:
Interference immunity EN 50 082-2
Interference emission EN 50 081-2

NB: Cleaning and adjustment of the sensing element inside the hygrostat casing can only be carried out at the factory.

Measurements

L mm	W mm	D mm
85	55	36

Connections
Fx relative humidity of air (actual value)
Fw humidity as set by the setting knob (set point)
If the relative humidity Fx drops below the set point Fw, contact 1–4 (7–5) opens and contact 1–2 (7–6) closes.

WARNING
250 volt current can only be used if it can be ensured that there is no condensation present inside the hygrostat head. If not, short circuits must be expected.

DR10
HYGROSTAT

Dry Air Makers

COTES

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