



**HR1 and HR2 is a series of electro-mechanical room humidistats for controlling humidifying and/or dehumidifying in HVAC systems.**

- \* 1 step or 2 steps
- \* Protection class IP21 (can be used in bathrooms)
- \* Changeover contact 250V AC 5A (HR1-DH: 10A)
- \* High level of reliability
- \* Settings can be locked

## Function

The humidistat uses human hair as the sensor medium. The hair stretches as the humidity increases and shrinks as the humidity decreases. These changes are transmitted to a micro switch (two switches).

The setpoint switch affects the position of the micro switches in relation to the hair element. The setpoint can be set at between 10% and 95% RH.

As the contacts are of the changeover type the humidistat can control both humidification and dehumidification. This tried and trusted construction with few movable parts gives a high degree of reliability and accuracy.

### 1 step humidistat for 10A

HR1-DH is specially designed to control dehumidifying units and manage rated currents up to 10A. The humidistat has a closing contact which activates when the humidity begins to increase.

### 2 step humidistat

This has two micro switches. The step differential between them can be set by means of the setting screw. As the contacts are of the changeover type the humidistat can control both humidification and dehumidification.

### Calibration

The humidistats are calibrated at the factory before delivery to the customer but should be precision calibrated after installation to ensure the best results. Subsequent annual checks and recalibration are recommended.

### Maintenance

The hair element should be dusted off with a soft brush once a year. Do not rinse the hair element in water as this changes the calibration point. For further information concerning maintenance see the instructions which are supplied on delivery.

### Typical applications


Can be used to control a humidifier or a dehumidifier or for on/off controlling of a fan. Can also be used to alarm when the humidity exceeds or falls below a pre-set level.

## Models

HR1	Room humidistat, 1 step, 5A
HR1-DH	Room humidistat, 1 step, 10 A. Only to control dehumidifying.
HR2	Room humidistat, 2 steps

## Technical data

### General

Material	Polycarbonate/ABS = Bayblend. Cover in white.
Ambient temperature	Maximum 40°C
Mounting	Wall mounting. Can be mounted in a bathroom zone 3
Weight	0.125 kg
Form of protection	IP21
	This product conforms with the requirements of European LVD standards IEC 669-1 and IEC 669-2-1 and carries the CE mark.

### Output

Relay contact data	5A, 250 VAC, changeover contact. HR-DH, 10 A, 250 VAC, closing.
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### Settings

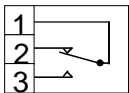
Setpoint	10...95%RH
Hysteresis	4%RH at 45%RH
Step differential (HR2)	0...30%RH

### Spare parts and accessories

1606	Hair element, length 107 mm.
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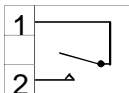
## Wiring and dimensions

### HR1



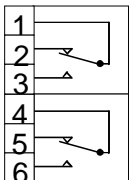
On HR1 the contact between terminals 1 and 3 closes when the humidity exceeds the setpoint value.

### HR1-DH

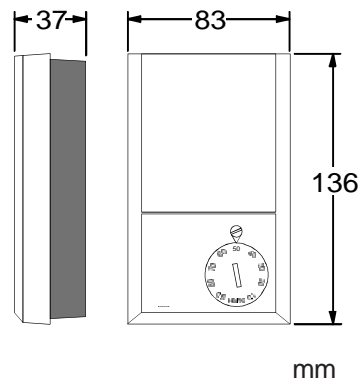


On HR1-DH the contact between terminals 1 and 2 closes when humidity exceeds the setpoint value. (Dehumidification).

### HR2



On HR2 the contact between terminals 1 and 3 closes when the humidity exceeds the setpoint value. When the humidity continues to rise and exceeds the setpoint value for step 2 the contact between terminals 4 and 6 closes.



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