



**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
- \* Available with concealed settings

## 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.

### Concealed settings

The humidistats are supplied with a transparent sliding disc over the setpoint knob. If concealed setting knob is required a covering plate can be supplied matching the colour of the humidistat.

### 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   |
| <b>CE</b>           | 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.

**Settings**

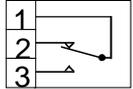
|                         |               |
|-------------------------|---------------|
| Setpoint                | 10...95%RH    |
| Hysteresis              | 4%RH at 45%RH |
| Step differential (HR2) | 0...30%RH     |

**Spare parts and accessories**

|                |   |
|----------------|---|
| 1606           | Hair element, length 107 mm.  |
| Covering plate | Conceals the setpoint knob and is of the same colour as the humidistat. |

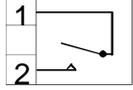
**Wiring and dimensions**

**HR1**



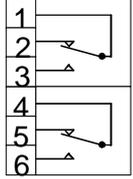
On HR1 the contact between terminals 1 and 3 closes when the humidity exceeds the setpoint value.

**HR1-DH**

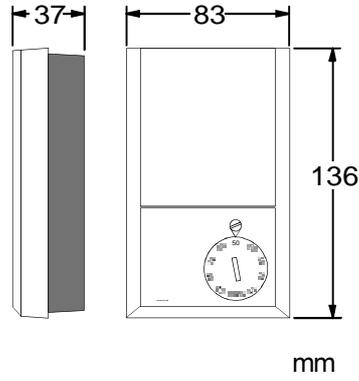


On HR1-DH the contact between terminals 1 and 2 closes when humidity exceeds the setpoint value. (Dehumidification).

**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.



FOR INDOOR CLIMATE WITH OPTIMUM CONTROL