HR1/HR2

Room humidistat, 1 or 2 steps

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

- One or two steps
- Protection class IP21 (can be used in bathrooms)
- Changeover contact 250V AC 5A (HR1-DH: 10A)

**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 model has two micro switches. The step differential between them can be set by means of an adjustment screw.
As the contacts are of the change-over type, the humidistat can control both humidification and dehumidification.

- High level of reliability
- Settings can be locked

**Calibration**
The humidistsats are calibrated at the factory before delivery to the customer, but should be precision calibrated after installation to ensure optimal results. After this, annual checks and re-calibration 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 instructions 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**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Material</td>
<td>Polycarbonate/ABS = Bayblend. Cover in white.</td>
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<tr>
<td>Ambient temperature</td>
<td>-20...+40°C</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall mounting. Can be mounted in a bathroom zone 3</td>
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<tr>
<td>Weight</td>
<td>0.125 kg</td>
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<tr>
<td>Protection class</td>
<td>IP21</td>
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</tbody>
</table>

**Low Voltage Directive (LVD) standards:** This product conforms with the requirements of European LVD standards IEC 669-1 and IEC 669-2-1 and carries the CE mark.

**RoHS:** This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

**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.

**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.