



# HMH/HPH

Humidistat, 1, 2 step or proportional, for duct or wall mounting

HMH / HPH is a series of electromechanical humidistats for control of humidifying and/or dehumidifying in HVAC systems.

- One or two steps
- Change-over contact, 250 V AC 10 A
- Proportional output 148 or 1000 Ohms.

## Construction

The humidistat utilises human hair as its sensor medium. The hair stretches as the humidity increases and shrinks as the humidity decreases. These changes are then transmitted to a micro switch (or, optionally, to two switches). In case of the HPH, the changes are transmitted to a pin on a potentiometer.

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 100% RH.

As the contacts are of the change-over type, the humidistat can control both humidification and dehumidification. This tried and tested construction, employing only a few movable parts, offers a high degree of reliability and accuracy.

## 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.

## Proportional humidistat

HPH148 and HPH1000 are humidistats with proportional resistance output.

Depending on the setpoint chosen and the current humidity, these give output signals of 0 to 148 Ohms and 0 to 1000 Ohms for control of installations intended for this type of signal.

- Excellent accuracy and reliability
- For duct or wall mounting
- Protection class IP54

## Mounting

HMH/HMH2/HPH can be mounted in a ventilation duct or on a wall. The humidistat comes supplied with a flange which makes it suitable for both positions.

## Calibration

The humidistats 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

HMH	1 step, change-over contact
HMH2	2 step, change-over contacts
HPH148	Proportional, 0-148 Ohm
HPH1000	Proportional, 0-1000 Ohm

## Technical data

Relay contact data	10 A, 250 VAC resistive at 25°C ambient 8 A, 250 VAC resistive at 60°C ambient Not suitable for DC circuits
Material	Housing: Extruded aluminum (brown) Plastic components: Self-extinguishing Macrolon (white).
Ambient temperature	Sensor -20...70°C Housing -20...60°C
Mounting	Via universal bracket, for both wall or duct mounting
Cable gland	PG11
Weight	0.6 kg
Form of protection	IP54



**Low Voltage Directive (LVD) standards:** This product conforms to the requirements of the European Low Voltage Directive (LVD) 2006/95/EC through product standards EN 60730-1 and EN 60730-2-13.

**EMC emissions & immunity standards:** This product conforms to the requirements of the EMC Directive 2004/108/EC through product standards EN 61000-6-3.

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

Setpoint	10...100%RH
Hysteresis	3%RH at 45%RH
Step differential (HMH2)	0...25%RH at 45%RH
Proportional band (HPH148, HPH1000)	7%RH

## Spare parts and accessories

1608	Hair element, length 182 mm
1609	Micro switch
375	Protection tube. Used when humidistat is placed in ducts where air flow exceeds 10 m/s

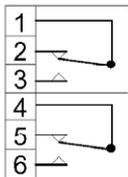
## Wiring and dimensions

### HMH



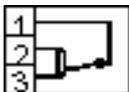
The contact between terminals 1 and 2 closes when the humidity exceeds the setpoint value.

### HMH2

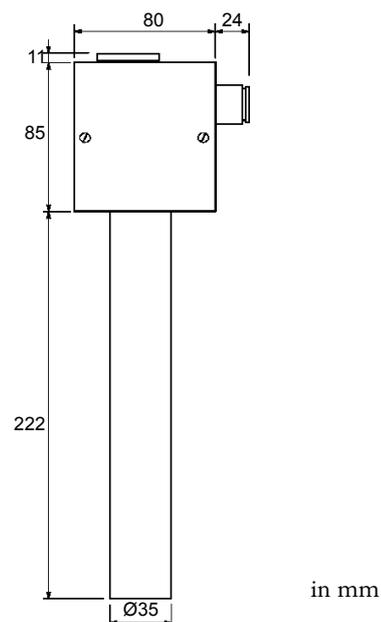


On the HMH2, the contact between terminals 1 and 3 closes when the humidity exceeds the setpoint value. When humidity continues to rise and exceeds the setpoint value for step 2, the contact will close between terminals 4 and 6.

### HPH148 HPH1000



As the humidity increases, resistance between terminals 1 and 3 will increase as resistance between terminals 1 and 2 will decrease.



in mm