



## Product Overview


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

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

## Products Features

- One or two steps
- Change-over contact, 250VAC 10 A
- Proportional output 148 or 1000 Ohms.
- Excellent accuracy and reliability
- For duct or wall mounting
- Protection class IP54

## Product Specifications

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 aluminium (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
Protection Class	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 (AX-HMH2)	0...25%RH at 45%RH
Proportional Band (AX-HPH148, AX-HPH1000)	7%RH

## Product Order Codes

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

### 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 AX-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

AX-HPH148 and AX-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.

### Mounting

AX-HMH/AX-HMH2/AX-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

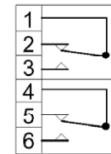
Can be used to control a humidifier or a dehumidifier or for on/off controlling of a fan. Can also be used to alarm when the humidity exceeds or falls below a pre-set level.

AX-HMH



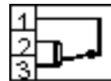
The contact between terminals 1 and 2 closes when the humidity exceeds the setpoint value.

AX-HMH2

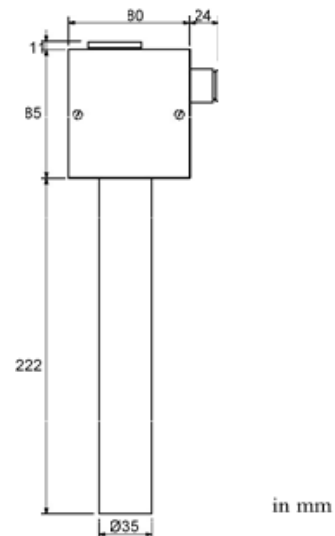


On the AX-HMH2, the contact between terminals 1 and 3 closes when the humidity exceeds the setpoint value. When humidity continues to rise and exceeds the setpoint value for step 2, the contact will close between terminals 4 and 6.

AX-HPH148  
AX-HPH1000



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



### Datasheet Contents

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