Duct humidistat

HD1

Description

The duct humidistat HD1 is controlling the relative humidity in pipes and air ducts, in commercial or industrial applications and can drive fans, humidifiers or dehumidifiers bringing the moisture level of the value set on his knob. It comes supplied with plastic bracket for wall mounting and gasket for mounting on air ducts.

Technical specifications

Sensible element Stabilised synthetic textile tape, tempera-

ture-compensated

Wiring terminals Screw terminals for wires up to 1,5 mm²

Electrical rating Max 5 (3) A, 250 VAC

Min 100 mA, 24 V

Setting range 15...95% RH

Working range 30...90% RH no condense

Differential 4% RH (after umidity calibration)

Accuracy ±5% RH*

Humidity calibration 55% RH at 23°C

Max. air speed 10 m/sec.

Long term stability approx. -1,5% RH/year

Time constand in moving air (0.2 m/s) approx. 3 minutes

Working temperature 0...70°C

Storage temperature -20...70°C no condense

Admissible ambient humidity 10...95% RH no condense

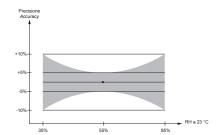
Materials Housing of flame-retardant thermoplastic

Protection type IP30
Protection class II

Standards CE-conformity, RoHS

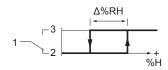
(*) The setting accuracy of the humidistat at the calibration point is \pm 5% rh at 55% rh, 23°C after initial calibration at the factory. Setting accuracy see diagram "Setting accuracy". In general, humidity sensors (humidistats) are subject to increased ageing if they are used and/or stored in very contaminated air or aggressive gases. Under these conditions, the humidistat may drift prematurely and alter the linearity.





Operation

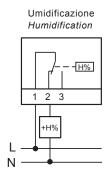
When the relative humidity rises and reaches the upper switching point, contacts 1-2 open and 1-3 close. The setpoint corresponds to the upper switching point. The contacts revert to their original position when the humidity has fallen below the upper switching point by the amount of the fixed switching difference (Δ) of 4% RH.

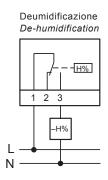


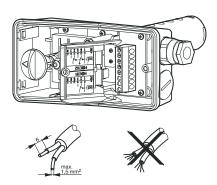


HD₁

Electrical wirings







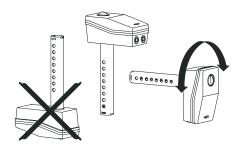
Installation

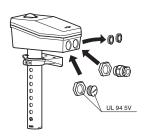
⚠ DANGER

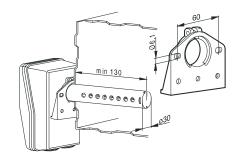
Electrical connection

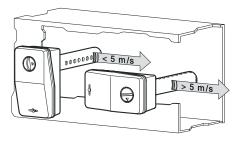
Danger of electrocution! The removal of this cover exposes parts which carry mains voltage.

- The unit should be opened only by a qualified electrician or by the manufacturer's service personnel.
- Before starting any work on the electrical connections, separate the unit from the mains power supply.
- Do not apply power to the unit until it has been completely re-assembled and the housing has been closed.
- To prevent access by unqualified persons and, in particular, children, do not leave the opened unit unattended.









Dimensions (mm)

