



HD1-24/D is an electronic humidistat for controlling the humidity in HVAC systems. The humidistat is to be connected to a humidity transmitter with analogue output signal 0...10V.

- * Two stages in sequence or binary (3 stages)
- * For humidifying or dehumidifying applications
- * Input signal 0...10 V
- * Adjustable hysteresis and step difference
- * Compact format for mounting on DIN-rail

Function

HD2-24/D is an electronic humidistat which converts an input signal 0...10V from a connected humidity transmitter to two changeover contact functions. The humidistat has closing relay contacts and can be set for humidifying or dehumidifying.

HD2-24/D comes in standard casing for DIN-rail mounting with all controls easily accessible on the front.

Transmitters

HD1-24/D is connected to a humidity transmitter. Room transmitters, see sheet 4-210, HRT or HRT350. Duct transmitters: see sheet 4-250, HDT3200.

Control modes

The following functions can be set by means of switches 1 to 3:

- One stage humidifying and one stage dehumidifying
- Two stage humidifying
- Two stage dehumidifying
- Three stage humidifying binary
- Three stage dehumidifying binary

Indication

Diodes indicate when supply voltage is on and when the output relays are activated.

Setpoint

The setpoint is set with the setpoint knob on the front.

HD2-24/D has a standard range of 20...95%RH. The setpoint determines the humidity level at which the first step is deactivated.

The step is activated when the input signal exceeds the setpoint by the value of the set hysteresis.

Hysteresis

The difference in humidity between a relay's ON-point and OFF-points. Adjustable and the same for both relays. Adjustable 1...20%RH.

Step differential

The difference between the two relay's OFF-points. Adjustable 0...20%RH.

Typical applications

Controlling humidifiers and/or dehumidifiers. Controlling fan on/off, alarm humidistat for high/low limit.

Technical data

General

Supply voltage	24 V AC +/- 15 % 50-60 Hz
Power consumption	2 VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max 90% RH
Form of protection	IP20



This product conforms with the requirements of European EMC standards CENELEC EN 50081-1 and EN 50082-1, European LVD standards IEC 669-1 and IEC 669-2-1 and carries the CE mark

Input

Input signal	0...10 V DC
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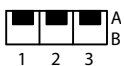
Output

Relay contact data	Two closing relays, 230 V AC 10 (2) A.
Indicators	Red LEDs indicate activated relays.

Settings

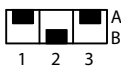
Setpoint	20...95%RH
DIFF Hysteresis	1...20%RH
SD Step differential	0...20%RH

Function switches



R1 activated on decreasing humidity (humidifying)
R2 activated on increasing humidity (dehumidifying)

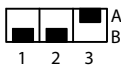
This is the factory setting.



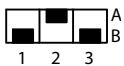
Two steps in sequence on increasing humidity (dehumidifying)
First R1, then R1 + R2



Two steps in sequence on decreasing humidity (humidifying)
First R1, then R1 + R2



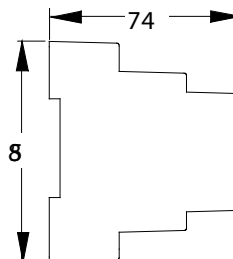
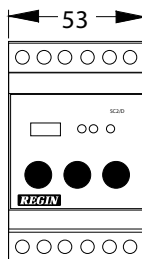
Three steps binary on increasing humidity (dehumidifying)
First R1, then R2 and then R1 + R2



Three steps binary on decreasing humidity (humidifying)
First R1, then R2 and then R1 + R2

Wiring and dimensions

1		R
2		10A 230V ~
3	Not connected	
4	Not connected	
5		R
6		10A 230V ~
7	Input signal 0-10V DC	
8	Signal neutral	
9	Not connected	
0	Not connected	
1	Sys.neutral	Supply voltage
2	24V ~in	



Sizes in mm