Humidistat sensor

USER MANUAL

Translation of the original instructions

Version: **1.0**

Date: **11/04/2024**

Contents

VERSION	DATE	CHANGES
1.0	11/04/2024	-

Any information inside this manual can be changed without advice.

This handbook can be download freely from the website:
www.eelectron.com

Exclusion of liability:
Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this.
Any necessary corrections will be incorporated into newer versions of this manual.

Symbol for relevant information

Symbol for warning

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1. Humidistat

The functionalities associated to humidistat are available only in devices with embedded humidistat; no external sensor can be connected. Please note that dew point function is not available for all devices.

Communication objects involved:

<Humidistat> Enable Input	1 bit	CW
<Humidistat> Humidity	2 bytes	CRT
<Humidistat> Upper Threshold Output	1 bit	CRT
<Humidistat> Lower Threshold Output	1 bit	CRT
<Humidistat> Regulation Temperature	2 bytes	CW
<Humidistat> Dew Point Temperature	2 bytes	CRT
<Humidistat> Dew Point Command	1 bit	CRT
<Humidistat> Dew Point Value %	1 byte	CRT

ETS page "Humidistat"

KNX PARAMETER	SETTINGS
Humidistat type	disabled threshold events
This parameter defines the humidistat control function.	
Enable activation telegram	telegram "0" telegram "1"
This parameter defines the telegram that must be written in the object <Humidistat> Enable Input" to activate the humidistat control.	
Enable state after download	disabled enabled
This parameter defines if, after a download of the application, the humidistat control is enabled.	
Send on variation	never 1%, 2%, 5%
This parameter defines the value to send on the BUS the object <Humidistat> Humidity" when its value differs from previous one more than the percentage set.	
Periodic send	no periodic send 1, 2, 5, 10, 30 minutes 1, 2 hours
This parameter defines the time interval to send cyclically on the BUS the object "<Humidistat> Humidity".	
Hysteresis type	symmetric / asymmetric
This parameter defines wether the absolute limit values of hysteresis are the same for both thresholds (symmetric) or they can be set indipendently (asymmetric).	
Hysteresis	0.5%, 1.0%, 2.0%, 5.0%
This parameter defines the value of the hysteresis which is added to the value of the thresholds.	
Sensor adjustment	+1%, +2%, +3%, +4%, +5%, +7%, +10% none -1%, -2%, -3%, -4%, -5%, -7%, -10%, -15%
This parameter defines the offset to the value measured by internal sensor; the offset is applied to object "<Humidistat> Humidity".	
Upper threshold [%]	40 .. 90
This parameter defines the value of the upper threshold.	

Lower threshold [%]	10 .. 60
This parameter defines the value of the lower threshold.	
Telegram when value is above threshold	nothing off on
This parameter defines the telegram which is sent on the BUS if the value of object "<Humidistat> Humidity" is higher than the sum of threshold and hysteresis.	
Telegram when value is below threshold	nothing off on
This parameter defines the telegram which is sent on the BUS if the value of object "<Humidistat> Humidity" is lower than the difference between threshold and hysteresis.	
Telegram when humidistat is disabled	nothing off on
This parameter defines the telegram which is sent on the BUS if the humidistat control is disabled.	

Dew point function

Dew point function is available only if device has function thermostat enabled.

Dew point control	
Temperature source	temperature 1 temperature 2
It defines the reference temperature for dew point.	
Initial regulation temperature	0°C .. 31.5°C
This parameter defines the regulation temperature set for object "<Humidistat> Regulation Temperature" after download.	
Regulation temperature adjustment	-7.5°C .. +7.5°C
This parameter defines the offset to the value set by object "<Humidistat> Regulation Temperature".	
Bandgap [0.1°C]	-128 .. 127
This parameter defines the offset to be added to the dew point temperature for the algorithm controls.	
Altitude (tens of meters above sea level)	0 .. 255
This parameter defines the altitude of the system.	
Output type	off/on value 0-100%
This parameter defines if the object "<Humidistat> Dew Point Command" is 1 bit off/on or 1 byte 0-100%.	
Sending interval	no cyclic sending 1, 2, 5, 10, 15, 30, 45 minutes 1, 2, 3, 4, 5, 6, 8, 12 hours
This parameter defines the time interval to send cyclically on the BUS the object "<Humidistat> Dew Point Command" (if output 1 bit) or "<Humidistat> Dew Point Value %" (if output 1 byte).	
Hysteresis	0.6°C .. 3.6°C
Available only if "Output type" is set to "off/on". This parameter defines the value of the hysteresis which is added/subtracted to the dew point temperature.	

Sending on variation	minimal 1%, 2%, 3%, 4%, 5%, 6%, 7%
Available only if "Output type" is set to "value 0-100%". This parameter defines the value to send on the BUS the object "<Humidistat> Dew Point Value %" when its value differs from previous one more than the percentage set.	
Proportional band [Bp] [0.1°C]	0 .. 255
Available only if "Output type" is set to "value 0-100%". This parameter defines the value of the proportional band. The limits of the band are: • sum of dew point temperature and bandgap • sum of dew point temperature, bandgap and proportional band. If the value of the object "<Humidistat> Regulation Temperature" is included between the limits, a percentage control from 0% to 100% is set on object "<Humidistat> Dew Point Value %".	
Inverted control	no yes
This parameter allows to invert the limit values of the proportional band (off-on or on-off if output 1 bit / 0%-100% or 100%-0% if output 1 byte).	
Dew point temperature	
Sending interval	no cyclic sending 1, 2, 5, 10, 15, 30, 45 minutes 1, 2, 3, 4, 5, 6, 8, 12 hours
This parameter defines the time interval to send cyclically on the BUS the object "<Humidistat> Dew Point Temperature".	
Sending on variation	never 0.1°C .. 1.5°C
This parameter defines the value to send on the BUS the object "<Humidistat> Dew Point Temperature" when its value differs from previous one more than the value set.	