



**COMET SYSTEM, s.r.o.**

1.maje 1220

756 61 Roznov pod Radhostem

CZECH REPUBLIC

Tel.: +420 571 653 990

E-mail: [info@cometsystem.com](mailto:info@cometsystem.com)

## H3021P compressed air temperature and humidity regulator



code: H3021P

Humidistat, thermostat with two relay outputs. T+RH probe from hard anodized duralumin for compressed air up to 25 bars. Outdoor, indoor use.

Humidity, temperature probe on a cable. Measured values are also converted to other humidity interpretation: dew point temperature, absolute humidity, specific humidity, mixing ratio, specific enthalpy.

The device is supplied with T+RH probe with 1m cable. Cable lengths 2m or 4m available optionally.

### **Included in delivery:**

- Traceable calibration certificate
- Quick start manual
- Free program TSensor for configuring of the transmitter is ready to [Download](#)

## Features

Humidistat is designed for two-state control of e.g. heating, ventilation, humidifier, dehumidifier, etc.

Transmitter is equipped with two relay outputs for alarm indication or control of external devices. Each relay can be assigned to any measured or computed value. For each relay setting of delay, hysteresis, audible alarm is enabled.

Measured temperature and relative humidity is recalculated to other humidity interpretations - dew point temperature, absolute humidity, specific humidity, mixing ratio or specific enthalpy.

Parameters are easy adjustable from regulator keyboard or from the computer. Large dual line LCD for simultaneous display of temperature, relative humidity or other calculated humidity interpretation is an advantage.

State-of-the-art capacitive polymer sensor ensures excellent calibration long term stability, inertia against water and condensation. Transmitter is designed for use in non-aggressive environment.

T+RH probe from hard anodized duralumin with 1m cable. Cable lengths 2m or 4m available optionally.

## HUMIDISTAT APPLICATIONS

- **temperature and humidity control**
- **monitoring of temperature, humidity:**

- building management and automation
- server rooms

- telecommunication devices
- warehouses, glasshouses
- manufacturers
- museums, archives, galleries
- air-conditioned rooms, HVAC
- weather stations **To set regulator easily by the user from the PC program buying of SP003 cable is necessary** - see Optional accessory.

Free configuration program TSensor for regulator adjustment is ready to download anytime.

It is also enabled to adjust regulator from the instrument keyboard.

If different adjustment of relay outputs is required, please specify required output values (RH, T, Tdp, ..) in the order.

Adjustment is free of charge.

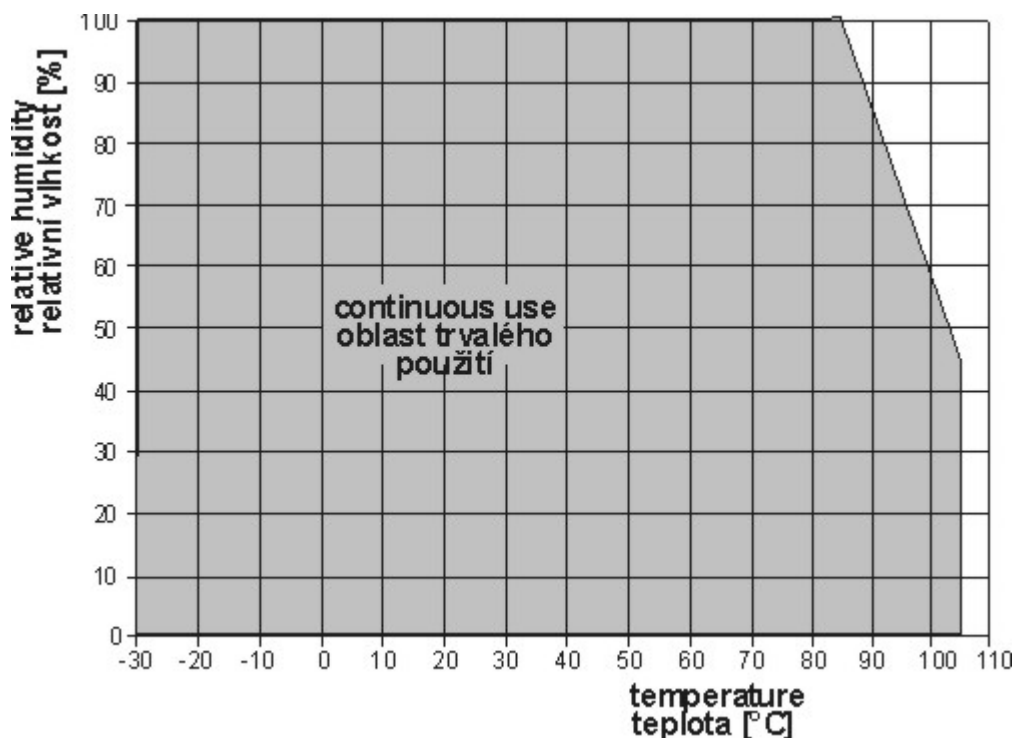


Figure: Relative humidity operating range

## Technical Data

Technical parameters	Value
Output	None
Measured Value	Temperature + Relative Humidity
Construction Type	Compressed Air Humidity up to 2.5MPa
Design	Industrial
Temperature Measuring Range	-30 to 105 °C
Relay Output	Yes
Two-State Input	No
Lcd Display	Yes
PoE	No
Maximum switching voltage, current, power of relay output	50V, 2A, 60VA
Audible alarm	from built-in beeper - switchable

Relative humidity range	0 to 100%
Accuracy of relative humidity measurement	±2.5% relative humidity from 5 to 95% at 23°C
Accuracy of temperature output	±0.4°C from -30 to +100°C ±0.4% from reading over +100°C
Available temperature units	degrees Celsius, Fahrenheit
Dew point temperature range	-60 to +80 °C
Accuracy of dew point temperature output (for more details see instruction manual)	±1.5°C for dew point temperature +10°C and higher at ambient temperature +25°C
Accuracy of dew point temperature output	±2.0°C for dew point temperature 0°C at ambient temperature +25°C
Accuracy of dew point temperature output	±3.0°C for dew point temperature -10°C at ambient temperature +25°C
Accuracy of dew point temperature output	±6.0°C for dew point temperature -20°C at ambient temperature +25°C
Accuracy and range of absolute humidity output	±1.5g/m <sup>3</sup> at ambient temperature T < 25°C range 0 to 400 g/m <sup>3</sup>
Accuracy and range of specific humidity output	±2g/kg at ambient temperature T < 35°C range 0 to 550 g/kg
Accuracy and range of mixing ratio output	±2g/kg at ambient temperature T < 35°C range 0 to 995 g/kg
Accuracy and range of specific enthalpy output	±3kJ/kg at ambient temperature T < 25°C range: 0 to 995 kJ/kg
Temperature operating range	-30 to +80°C
Temperature operating range of LCD display	readable to operating temperature +70°C, it is recommended to switch OFF the LCD over +70°C
Temperature compensation of the humidity sensor	all temperature range
Filtering ability of sensor cover	0.025mm - filter with stainless steel mesh
IP protection	IP65 electronics, IP40 sensors
Power	9-30Vdc, power consumption approximately 1W
Mechanical connection of probe	G1/2 with O-Ring
Length of the probe cable	1m, 2m or 4m optionally
Dimensions	136 x 159 x 45 mm (W x H x D), probe length 150 mm, probe diameter 18mm
Weight	approximately 450g
Warranty	3 years