



**THC-101 is a programmable temperature and humidity controller with dual check for both temperature and relative humidity.**

## Overview

THC-101 is designed to control temperature and relative humidity levels. The device is equipped with one sensor input, two relay outputs and two analog inputs for setting threshold values. Relay-2 changes position when the ambient temperature is lower than the set temperature. In cases where the ambient relative humidity is higher than the set value, Relay-1 is programmed to change position. LED indicators are placed on the top of the device to show the auxiliary voltage, temperature and relative humidity status. In case the sensor is not connected to the device or there is a connection error, the LED indicators flash periodically.

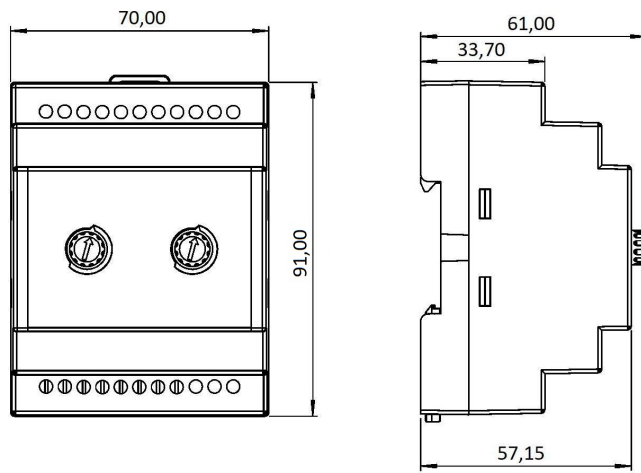
## Technical Parameters

<b>Auxiliary Power</b> 100-240V <sub>AC</sub> 50/60 Hz	<b>Sensor Cable Length</b> 3 - 9m **
<b>Power Consumption</b> max. 2W	<b>Response Time</b> 15s
<b>Switching Capacity</b> 7A / 240V <sub>AC</sub>	<b>Operating Temperature/Humidity</b> -25°C – +65°C / 10-90%RH (No Condensing)
<b>Setting Method</b> Analog	<b>Storage Temperature / Humidity</b> -40°C – +85°C / 5-95%RH
<b>Setting Range</b> 0-60°C 10-80%RH	<b>Hysteresis</b> 5 %RH, 5°C *
<b>Default Set Values</b> 0°C / 10%RH *	<b>Tolerance</b> ±5%RH, ±4°C
<b>Weight</b> 120gr	<b>Protection Class</b> IP20
<b>Connection Screw</b> Screw, 15 to 12 (AWG) wire	<b>Dimensions</b> 70 x 91 x 61mm
<b>Sensor Connection</b> RJ12 Socket	<b>Installation</b> 35mm DIN ray EN50022

\* Further values available upon request.

\*\* The external sensor cable is 3m as standard. Production is possible for desired values upon request.

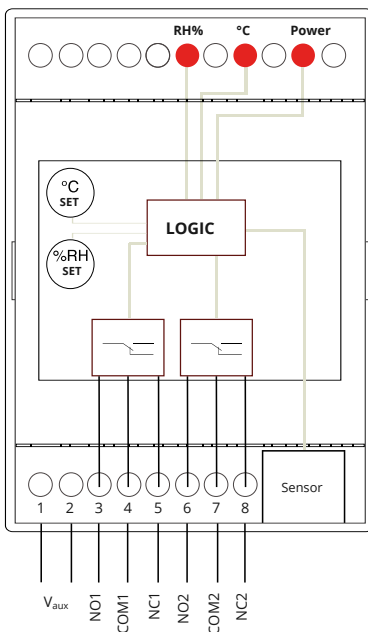
## Technical Drawings



## Relay Status

Auxiliary Power	Temperature	Relative Humidity	Relay-1	Relay-2
No	X	X		
Yes	Ambient Temperature < Set Value	Ambient Relative Humidity < Set Value		
Yes	Ambient Temperature < Set Value	Ambient Relative Humidity > Set Value		
Yes	Ambient Temperature > Set Value	Ambient Relative Humidity < Set Value		
Yes	Ambient Temperature > Set Value	Ambient Relative Humidity > Set Value		

## Connection Diagram



## Hysteresis

In order to prevent frequent changes on relay status with small fluctuations, a hysteresis is defined for both temperature and relative humidity settings. As the main purpose of the device is to prevent low temperatures and high humidity, the hysteresis for the temperature is positive where it is negative for relative humidity. For example, if the temperature is set for 30°C and the ambient is less than this, the relay output will stay on until the temperature reaches 35°C. Also, if the relative humidity is set for %60 and the ambient humidity is higher, the relay will stay on until relative humidity decreases %55.

## Required data for order

- ✓ Sensor Cable Length



**THC External Sensor Module** is used to measure Humidity and Temperature in the THC Product Line.

## Technical Parameters

<b>Humidity Tolerance</b> ±5%RH	<b>Nominal Humidity Measurement Value</b> 10%RH - 90%RH
<b>Temperature Tolerance</b> ±2°C	<b>Maximum Humidity Measurement Value</b> 0%RH - 100%RH
<b>Nominal Temperature Measurement Value</b> 0°C - +65°C	<b>Sensor Connection</b> RJ12 Socket
<b>Maximum Temperature Measurement Value</b> -40°C - +120°C	<b>Weight</b> 13gr
<b>Communication Protocol</b> I <sup>2</sup> C	<b>Dimensions</b> 19 x 71 x 16mm

## Technical Drawings

