



THC-100D is a programmable temperature and humidity controller with dual check for both temperature and relative humidity.

Overview

The THC-100D 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. These relays are programmed to change positions when the ambient temperature is lower than the set temperature or the ambient relative humidity is higher than the set value. If there is a low temperature or high relative humidity, the heating resistance activates by the device relay. Accordingly, temperature increases, and the relative humidity decreases depending on the increasing temperature. 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.

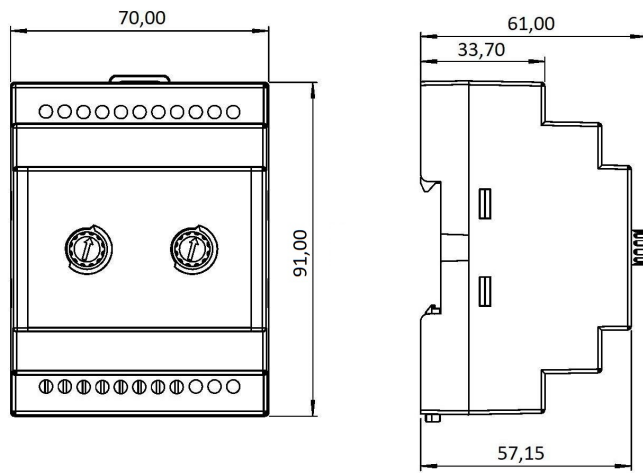
Technical Parameters

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

* Production is possible for desired values upon request.

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

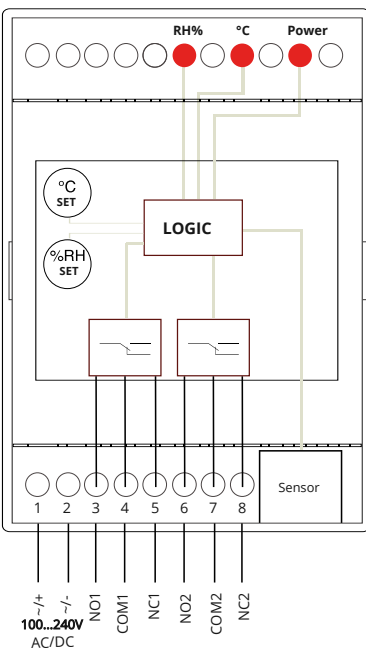
Technical Drawings



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

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

Technical Drawings

