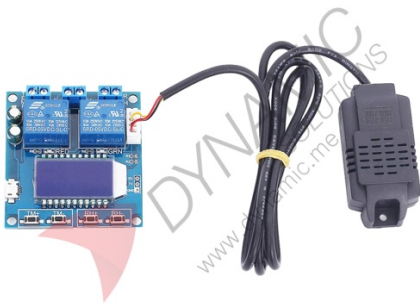


# XY-TR01 Temperature Humidity Controller Incubator Hygrometer



## **Features:**

The XY-TR01 is a versatile environmental controller designed for precision incubation and humidity regulation. It supports automatic recognition of modes (heating/cooling, humidification/dehumidification), relay control with visual LED indicators, parameter calibration, and UART communication for real-time monitoring and configuration. Ideal for incubators, greenhouses, storage rooms, and DIY automation systems.

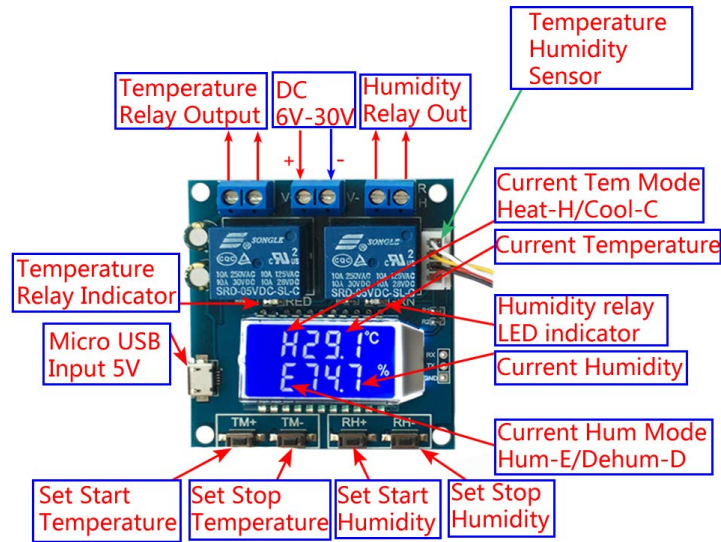
## Specifications

<b>Operating Modes</b>	Heating/Cooling, Humidification/Dehumidification
<b>Temperature Range</b>	-20.0 ~ 60.0 °C
<b>Humidity Range</b>	0.0 ~ 100% RH
<b>Temperature Accuracy</b>	±0.5 °C (typical)
<b>Humidity Accuracy</b>	±3% RH (typical)
<b>Temperature Calibration</b>	±10.0 °C
<b>Humidity Calibration</b>	±10.0 % RH
<b>Power Supply</b>	DC 5V
<b>Interface</b>	UART (9600bps, 8N1 TTL level)
<b>Relay Output</b>	Supports heating/cooling/humidification/dehumidification loads
<b>Indicators</b>	Red LED (temp relay), Green LED (humidity relay)
<b>Real-time Data</b>	Temperature & Humidity reporting every 1s
<b>EEPROM</b>	Stores configuration data with backup battery

## **Pinouts:**

Pin Name	Type	Description
<b>TEMP</b>	Output	Temperature relay output
<b>V+</b>	Power	DC 6–30V positive input
<b>V-</b>	Power	DC 6–30V negative input (GND)
<b>RH</b>	Output	Humidity relay output
<b>TM+</b>	Button	Increase / Set / Enter temp start setting
<b>TM-</b>	Button	Decrease / Enter temp stop setting
<b>RH+</b>	Button	Increase / Set / Enter humidity start setting
<b>RH-</b>	Button	Decrease / Enter humidity stop setting
<b>GND</b>	Power	UART ground reference

<b>RX</b>	Input	UART receive (TTL, 9600bps)
<b>TX</b>	Output	UART transmit (TTL, 9600bps)



**Product Pictures:**

