# THP/TH9-Hygro

## **High Accuracy Humidity/Temperature Controller**

**Wall Mounting and Duct Mounting** 

**CE-Approval** 





THP-Hygro Wall mounting humidity controller



TH9-Hygro Duct type humidity controller

### **Features**

- ♦ Designed for detection ambiance relative humidity and temperature with high accuracy
- External sensors design let the measurements more accurate, no influence from components heating
- ◆ Two accuracy versions selectable, normal version and high version
- Combined both humidity and temperature sensors seamlessly with the digital auto compensation
- Special white backlit LCD can be selected with displaying both actual humidity and temperature
- Smart structure for easy mounting and disassembly
- Attractive appearance for different application places
- ◆ THP-Hygro controller in wall mounting and TH9-Hygro controller in duct mounting
- Very easy mounting and maintenance, two lengths selectable for the probe into the air duct
- ◆ Outside sensing probe with more accuracy and convenient usage
- ◆ Provide two dry contact outputs for humidity and temperature control with each 5amp
- ◆ Convenient three small buttons for setup and operation
- ◆ Modbus RS485 communication
- ◆ CE-Approval

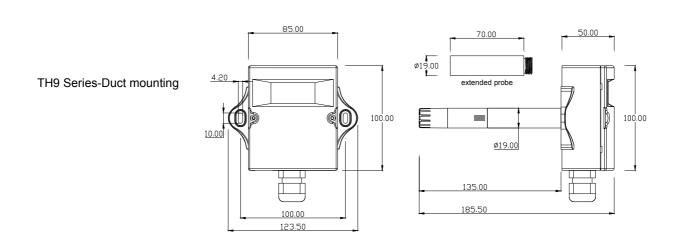
### **Typical Applications**

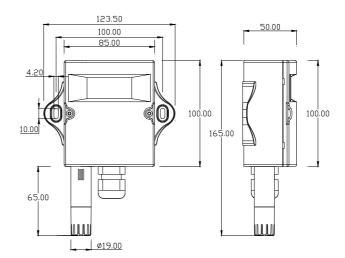
- ♦ High end HVAC systems
- Communication centers
- Stocks
- Libraries and laboratories
- ◆ Other places where need to control a humidifier or a dehumidifier

## **Specifications**

	Temperature	Relative Humidity	
Accuracy	±0.4℃ (0℃~50℃)	±3%RH (20%-80%RH)	
Measuring range	0℃~50℃(32°F~122°F) (default)	0 -100%RH	
Display resolution	0.1℃	0.1%RH	
Stability	±0.1℃	±1%RH per year	
Longtime storage environment	10℃-60℃, 20%RH~60%RH		
Output	2X0~10VDC(default) or 2X 4~20mA (selectable by jumpers) 2X 0~5VDC (selected at place the order)		
RS485 interface(optional)	Modbus RS485 interface		
Power supply	24 VDC/24V AC ±20%		
Power cost	≤1.6W		
Permissible load	Max. 500Ω (4~20mA)		
Connection	Screw terminals/ wire diameter:1.5mm <sup>2</sup>		
Housing/ Protection class	PC/ABS fireproof material / IP54		
Dimension	THP Series: 85(W)X100(H)X50(D)mm+65mm(external probe)XØ19.0mm TH9 Duct Series: 85(W)X100(H)X50(D)mm +135mm(duct probe) XØ19.0mm		
Net weight	THP Series: 280g TH9 Duct Series: 290g		

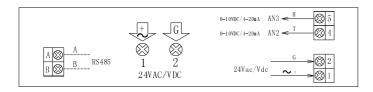
# **Dimensions & Mounting**





THP Series-Wall mounting

# **Wiring Diagrams**



### **Model Information**

Product Type	Model Name	Description
Wall Mounting (with adown external sensor probe) No LCD	THP111/121/131	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. No LCD display.
	THP101	Modbus RS485 protocol for temperature and humidity measurements.  No LCD display.
Wall Mounting (with adown external sensor probe) LCD Display	THP201	Modbus RS485 protocol for temperature and humidity measurements.  LCD display temperature & humidity.
	THP210/220/230	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. LCD display temperature & humidity.
	THP211/221/231	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. LCD display temperature & humidity.
Duct Probe Type No LCD	TH9111/121/131	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. No LCD display.
	TH9101	Duct type type with Modbus RS485 interface.
<b>Duct Mounting</b> With LCD	TH9201	Duct probe type with a Modbus RS485 interface.  LCD display temperature & humidity
	TH9210/220/230	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements.  LCD display temperature & humidity
	TH9211/221/231	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface.LCD display temperature & humidity

### Postfix 1: temperature scaling

**T05**:  $0^{\circ}$ C $\sim$ 50 $^{\circ}$ C $(32^{\circ}$ F $\sim$ 122 $^{\circ}$ F) default (without the postfix indicates the default)

**T06**: 0°C~60°C(32°F~140°F) **T26**: -20°C~60°C(-4°F~140°F)

No the postfix 1 indicates the default (0~50°C)

### Postfix 2: extended probe of TH9

1: the probe length is added to 135+70mm

2: the probe length is added to 135+140mm

No the postfix 2 indicates the probe length is 135mm

For example: **THP201-T0050** indicates the wall mounting transmitter with Modbus RS485 interface for temperature and humidity measurements. LCD display temperature & humidity. The temperature range is  $0^{\circ}$ ~50°C.

**TH9211-1** indicates the duct type transmitter with Modbus RS485 interface. LCD display temperature & humidity. The temperature scaling is -20~60°C. The duct probe length is extended to 135+70mm

### **Shipping Information**

### **THP Series-Wall Mounting Type**

Indiv. Ctn. Dim	180mm×130mm×60mm
Master Ctn. Qty	36
Master Ctn. Dim	51cm(L) X39cm (W) X37cm (H)
Master Ctn. Wt.	13KG

### **TH9 Series-Duct Type**

Indiv. Ctn. Dim	255mm×130mm×110mm
Master Ctn. Qty	12
Master Ctn. Dim	44cm(L) X32cm (W) X32cm (H)
Master Ctn. Wt.	6.5KG



## Joo Young Control & System

Addr: #804 Byuksan Digital Valley 6-cha, 481-4 Gasan-dong, Geumcheon-gu, Seoul Korea

Tel: 82-2-2627-3161 Fax: 82-2-2627-3160 Homepage: http://www.totalgauge.co.kr/