

# WALL TYPE T&H Transmitter

4-20mA, 0-5VDC, 0-10VDC, RS485 OUTPUT

Model No.: MTH300



# General Specifications

GS 19A16D01-01EN

TEMPERATURE HUMIDITY  
HIGH QUALITY

MTH300S

## Overview

MTH300 is wall type temperature and humidity sensor, adopting Switzerland single chip designed for temperature humidity measurement indoor room, widely used in Used in building automation, hotel, library, room, clean room, dust-free workshop or plant, medical, warehouse, super-market etc environment air measurement.

## Feature

- High Accuracy, High Stability; **With LCD indicator or not**
- High sealing technology and excellent coating protection
- Range: **T: -20 to 80°C, 0-50°C, -40 to 60°C; H: 0-100%**
- **Output: 4-20mA,0-5VDC,0-10VDC, RS485 output**
- Accuracy: T:  $\pm 0.3^{\circ}\text{C}$ , H:  $\pm 3\%$ ;
- Resolution: T:  $0.1^{\circ}\text{C}$ , H:  $0.1\% \text{RH}$
- Long-term stability: T:  $< 0.04/\text{year}$ , H:  $< 0.5\% \text{RH}/\text{year}$
- Response time: T<sub>6t</sub> (63%): max=3s; H((90%): 5s
- Temperature Range can be set by DIN switch
- With indicator or not, optional
- Wide power supply: 12-36VDC; 15-36VDC (4-20mA)

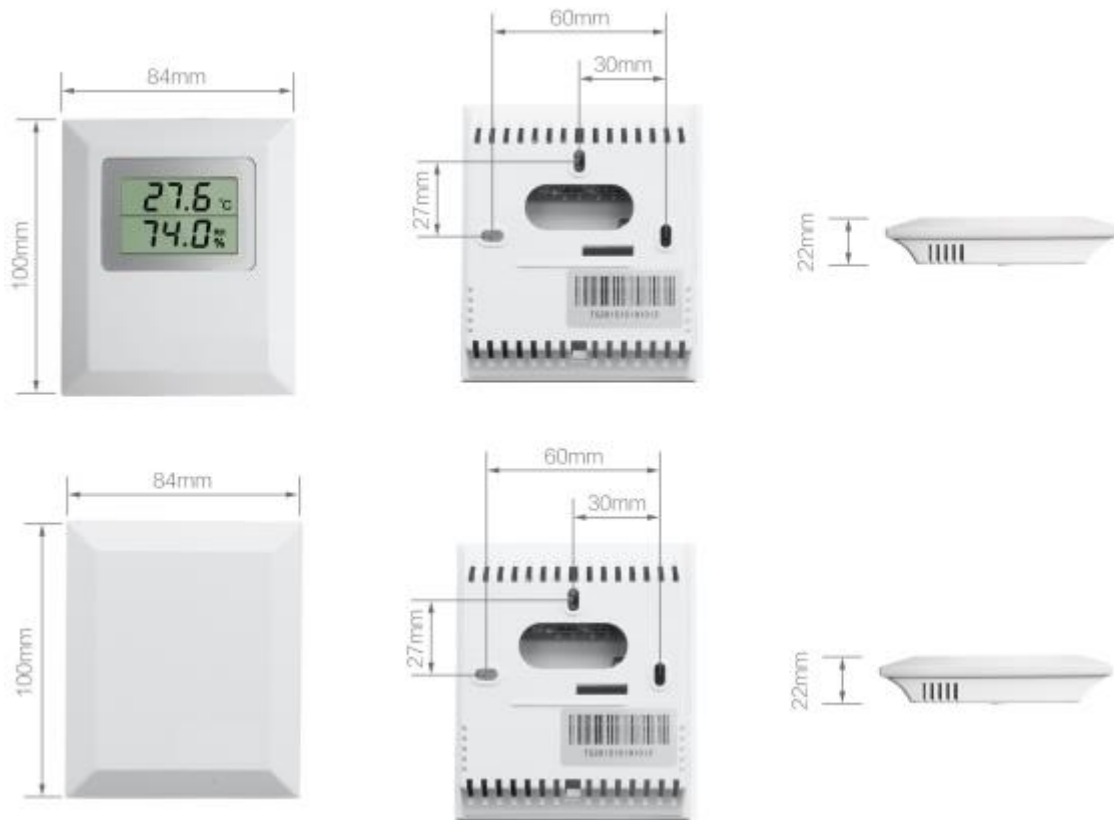


**MTH300 Wall Type  
Temperature Humidity Transmitter  
With Indicator, Optional**

## Specification

<b>Accuracy</b>	T: $\pm 0.3^{\circ}\text{C}$ (Full range in average);	<b>Power Supply</b>	15-36VDC (4-20mA Output);
	RH: 3%RH (including non-linear, repeatability, hysteresis)		12-36VDC (0-5VDC, 0-10VDC; RS485 Output)
<b>Long Stability</b>	T: $< 0.04^{\circ}\text{C}/\text{year}$ ; RH: $< 0.05\% \text{RH}/\text{year}$	<b>Power consumption</b>	15mA/30mA
<b>Range</b>	T: -20 to 80°C; 0 to 50°C, , -40 to 60°C;	<b>Housing Material</b>	ABS
	RH: 0-99.9%	<b>Installation</b>	Wall Type
<b>Resolution</b>	T: $0.1^{\circ}\text{C}$ , RH: $0.1\% \text{RH}$	<b>Case Size</b>	80mmx100mmx24mm (LxWXH)
<b>Response time</b>	T: 6t(63%): 3seconds	<b>Terminals Size</b>	1x2.5 mm <sup>2</sup> or 2x1.5 mm <sup>2</sup>
	H (90% static air): 5 seconds	<b>Entry connector</b>	M16x1.5mm
<b>Output</b>	4-20ma, 0-5VDC, 1-5VDC; RS485 output	<b>Protection</b>	Electrical Case: IP54
		<b>Working Ambient</b>	T: -40 to 80°C, H: 0-99.9%, no dew
<b>RS485 Protocol</b>	Standard MODBUS-RTU protocol	<b>Storage Temperature</b>	10-50°C (0-125°C at peak)
<b>Baud rate</b>	9600; customized		

## Size (mm)



## Diagram

MTH300S: 4-20ma, 0-5vdc,0-10vdc output Terminals

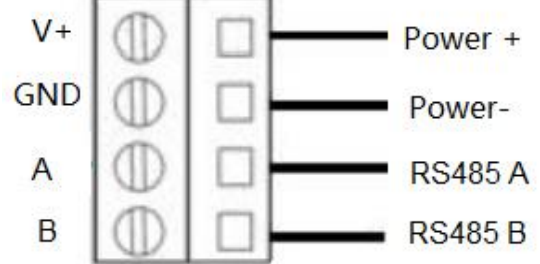
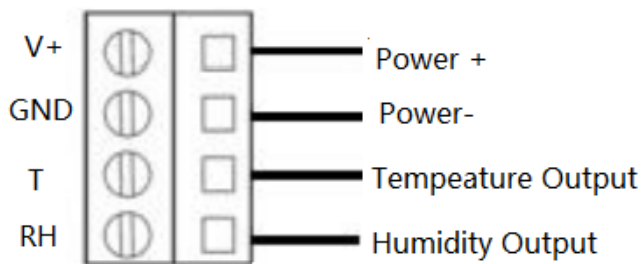
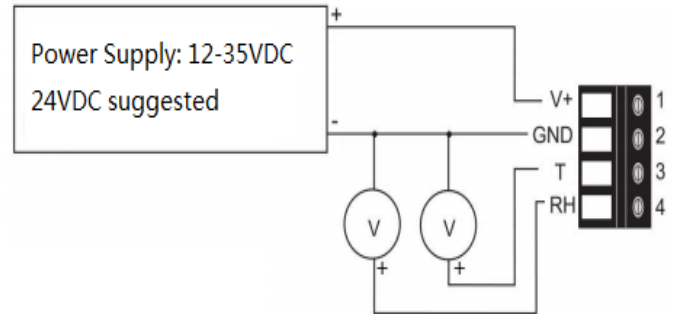
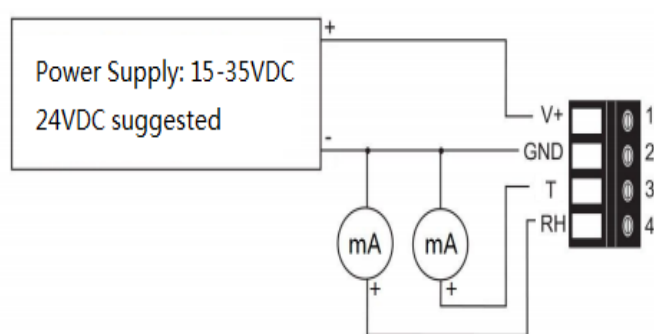
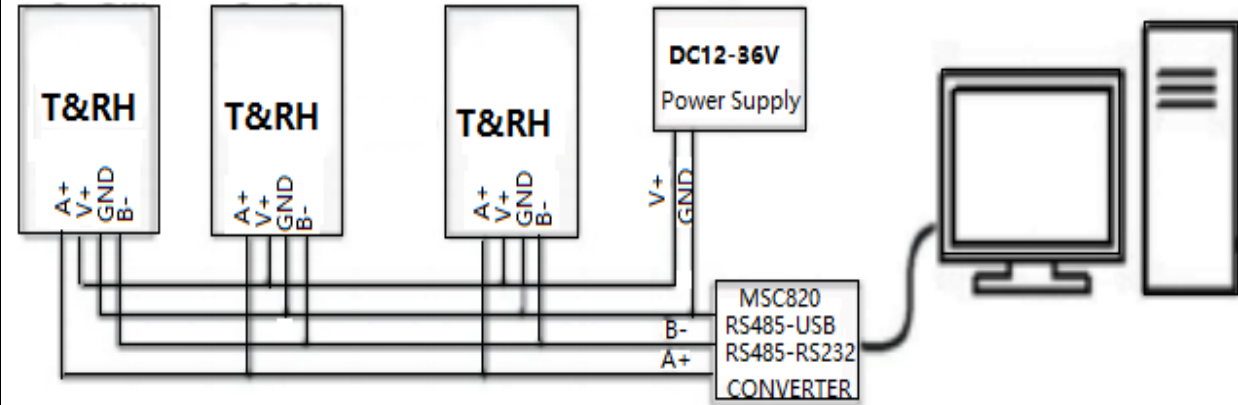


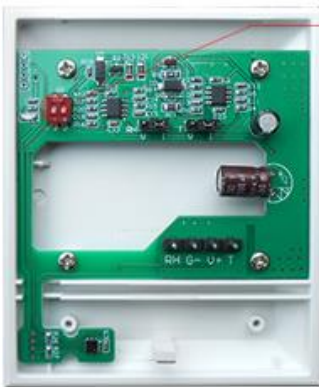
Diagram: 4-20mA,0-5VDC, 0-10VDC Terminals





### ■ Temperature Range Setting (4-20mA, 0-5VDC, 0-10VDC)

#### Temperature Range Setting

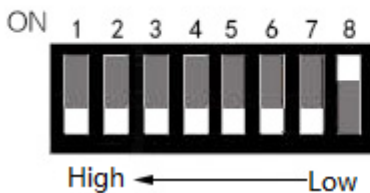


DIN Switch <sup>ρ</sup>	P1	P2	P3	P4 <sup>ρ</sup>
Range <sup>ρ</sup>	0 to 50°C <sup>ρ</sup>	-20 to 80°C <sup>ρ</sup>	-40 to 60°C <sup>ρ</sup>	Reserved <sup>ρ</sup>

△ Temperature Range Setting

### ■ RS485 Address Setting (RS485 Output: -20 to 80°C)

#### RS485 Communication Address Setting



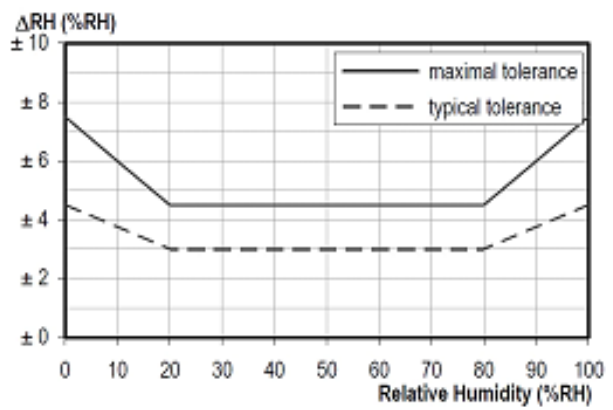
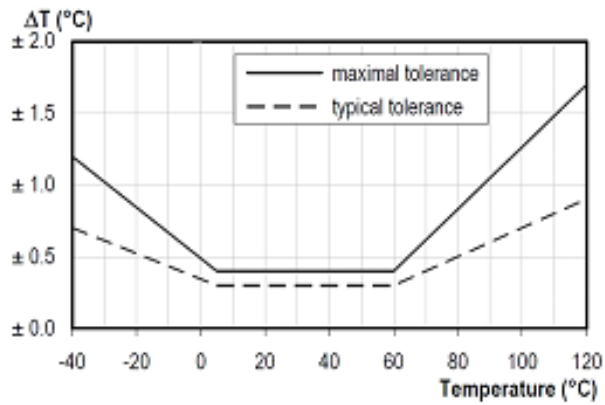
DIN Switch on ON: 1  
DIN Switch on OFF: 0

#### Address Setting as Follows

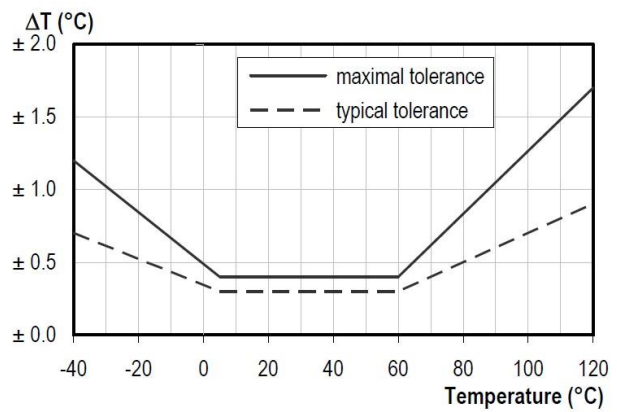
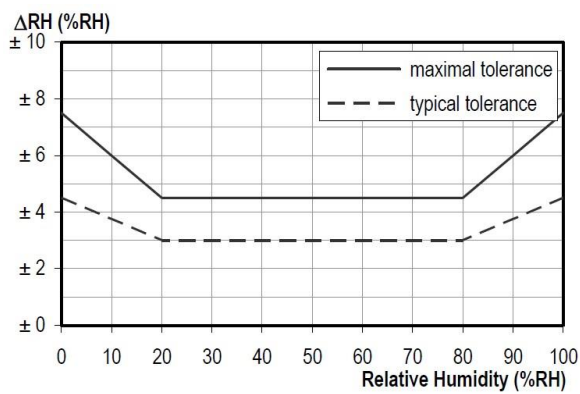
DIN Switch Address	Decimal System Address
00000001	1
00000010	2
00000011	3
00000100	4
.....	.....
11111111	255

## Accuracy

Analog Output: 4-20mA, 0-5VDC, 0-10VDC



RS485 Output



## Order Code

MTH300 temperature and humidity sensor			
Order Code: MTH300-AN		Description	
MTH300	-X	X	MTH300 Wall Type temperature and humidity sensor
Indicator	-N		None
	-D		Yes, with indicator
Output Type		A	4-20mA
		V	0-5VDC
		V2	0-10VDC
		R	RS485 output