WALL TYPE

T&H Transmitter

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

Model No.: MTH300S

General Specifications

GS 19A16D01-01EN

TEMPERATURE HUMDITY

HIGH QUALITY

MTH300S

■ Overview

MTH300S is high quality wall type temperature and humidity sensor, adopting Switzerland advanced sensor module and high performance single chip designed for temperature humidity measurement indoor room, widely used in agriculture: greenhouse, mushroom house, farm, seeding room, poultry house; refrigerated storage, Warehouse, cold room Medicinal, HAVC; Building Automation **high humidity environment application.** High Humidity Environment:

MTH300S Wall Type
Temperature Humidity Transmitter
With Indicator, Optional

■ Feature

- High Accuracy, High Stability; Anti-Interference dealing on PCB
- High sealing technology and excellent three-proof coating protection
- **Range: T: -20 to 80°C, 0-50°C, -40 to 60°C; H: 0-100%**
- **Temperature range can be set by inner DIN switch**
- **With offset function by built-in keys**
- **Output: 4-20mA,0-5VDC,0-10VDC, RS485 output**
- Probe can be with dust-proof, water-proof type, optional
- **Accuracy: T:±0.3°C, H:±3%;** Resolution: T:0.01, H:0.1%RH
- Protection: Electrical housing: IIP65; Probe: IP54
- Wide power supply: 12-36VDC; 15-36VDC (4-20mA only)

● Size （mm）

Specification

Accuracy	T:±0.3℃ (Full range in average);	**Power Supply**	15-36VDC (4-20mA Output);
	RH: 3%RH (including non-linear, repeatability, hysteresis)		12-36VDC (0-5VDC, 0-10VDC; RS485 Output)
Long Stability	T: ＜0.04℃/year;	**Power consumption**	60mA
	RH: ＜0.05%RH/year	**Housing Material**	ABS
Range	T: -20 to 80℃; 0 to 50℃, , -40 to 60℃;	**Probe Type**	Dust-proof (standard); water-proof
	RH:0-99.9%	**Installation**	Wall Type
Resolution	T: 0.1℃, RH:0.1%RH	**Case Size**	80mmx65mmx38mm (LXD)
Response time	T: 6t(63%): min=5s, max=30s;	**Probe Size**	42mmx 16mm (LXD)
	H (90% static air): 8second	**Terminals Size**	1x2.5 mm² or 2x1.5 mm²
Load resistor	＜500ohm	**Entry connector**	M16x1.5mm
Output	4-20ma, 0-5VDC, 1-5VDC; RS485 output	**Protection**	Electrical Case: IP65; Probe: IP54
RS485 Protocol	Standard MODBUS-RTU protocol	**Working Ambient**	T:-40 to 80℃, H:0-99.9%, no dew
Baud rate	9600; customized	**Storage Temperature**	10-50℃ (0-125℃ at peak)

Diagram

MTH300S: 4-20ma(standard), 0-5vdc,1-5vdc output Terminals

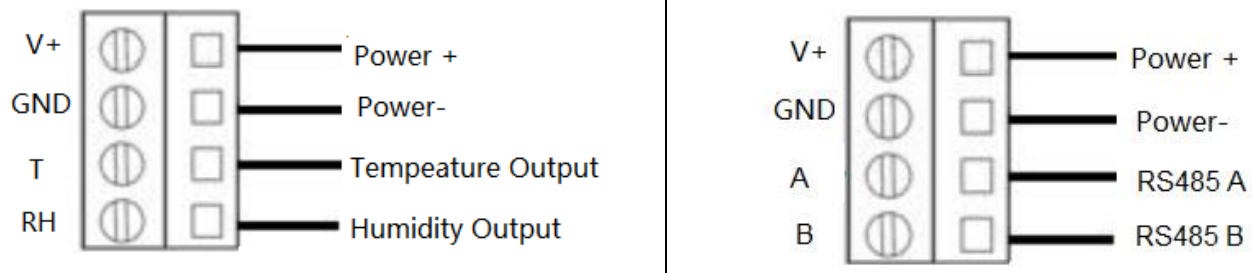
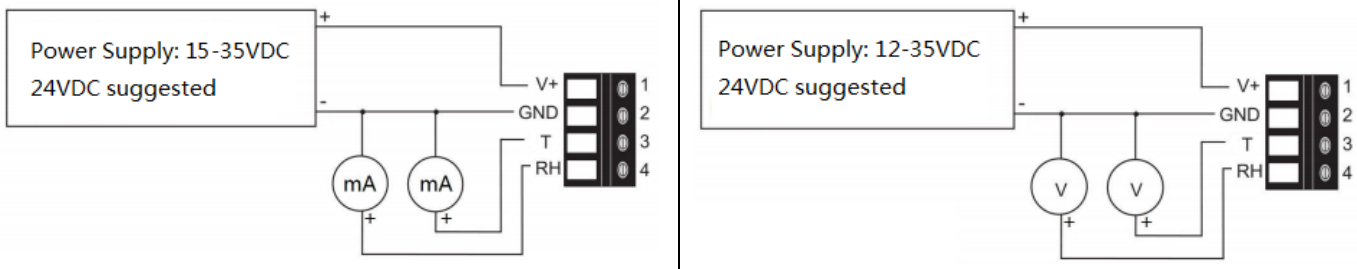
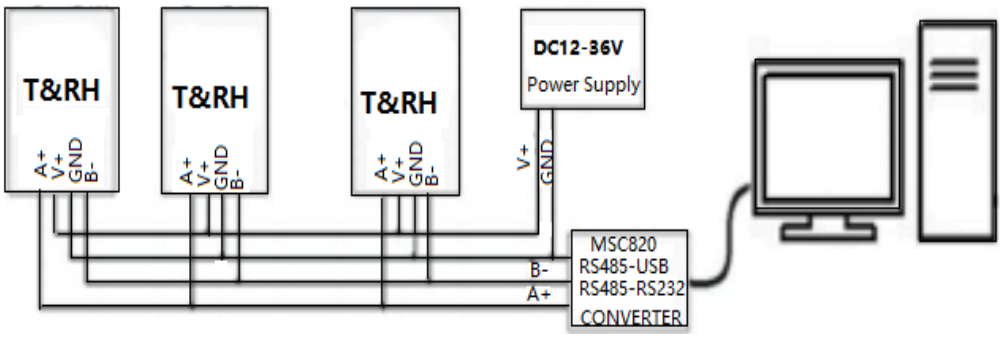


Diagram: 4-20mA,0-5VDC, 0-10VDC Terminals

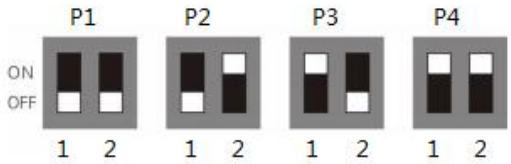


MTH300S: RS485 Communication, Standard MODBUS-RTU Protocol
Configurable with PLC, DCS, HMI, SCADA, OPC flexibly



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

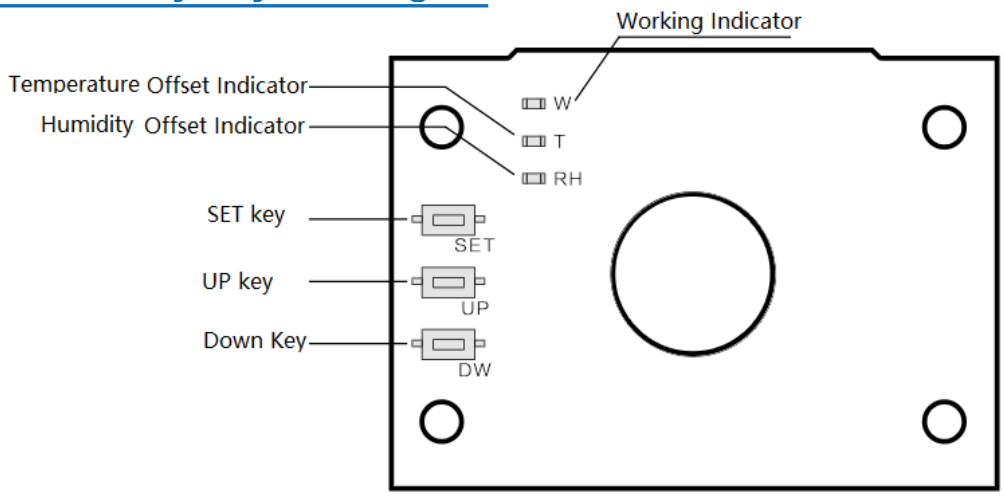
Temperature Range Setting



DIN Switch	P1	P2	P3	P4
Range	0 to 50℃	-20 to 80℃	-40 to 60℃	Reserved

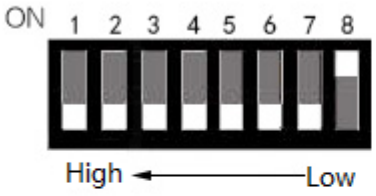
△ Temperature Range Setting

■ Offset Function by Keys Setting



■ RS485 Address Setting (RS485 Output: -20 to 80℃)

RS485 Communication Address Setting



DIN Switch on ON: 1

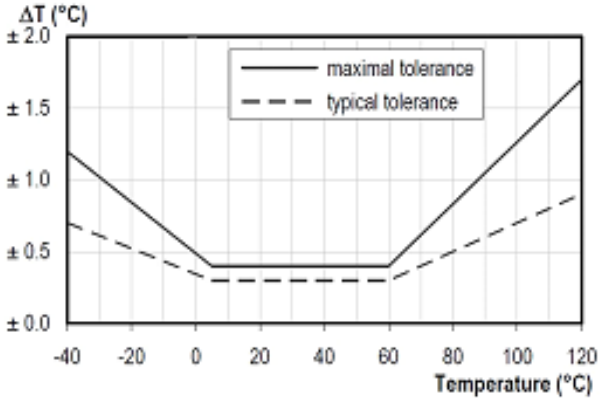
DIN Switch on OFF: 0

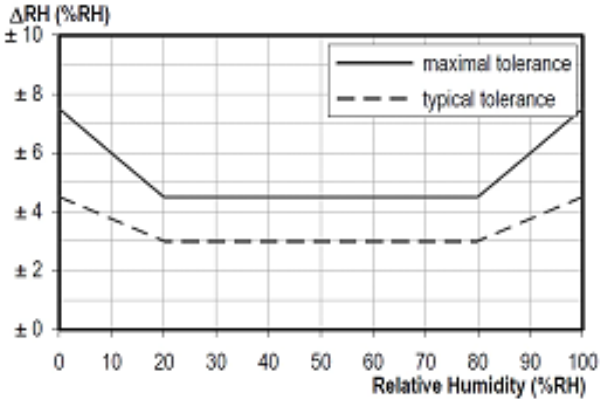
Address Setting as Follows

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

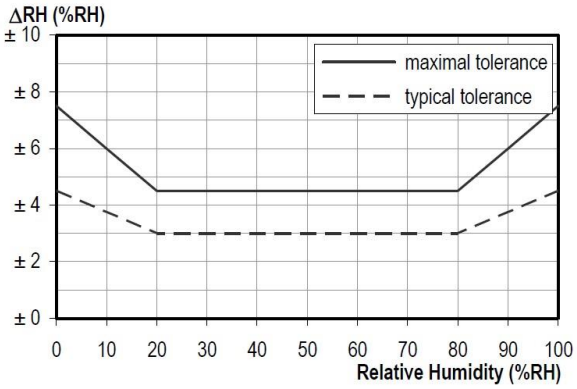
Accuracy

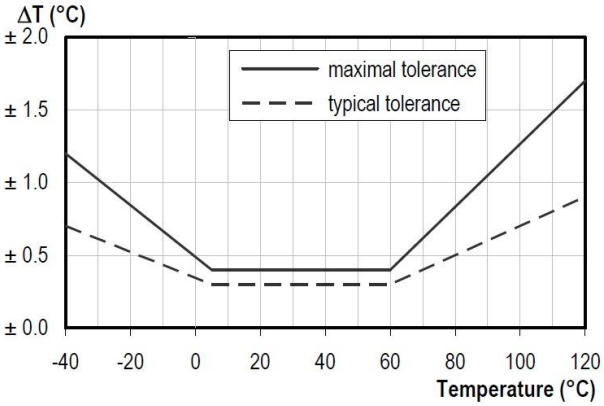
Analog Output: 4-20mA, 0-5VDC, 0-10VDC





RS485 Output





Order Code

MTH300S temperature and humidity sensor				
Order Code: MTH300S-NAN				**Description**
MTH300S	-X	X	X	**MTH300S Wall Type temperature and humidity sensor**
Indicator	-N			None
	-D			Yes, with indicator
Output Type		A		4-20mA (standard)
		A2		4-20mA (2 wire, special), when temperature measured, humidity should be measured
		V		0-5VDC
		V2		0-10VDC
		R		RS485 output
Probe Type			N	Standard type, dust-proof
			W	Water-proof (special)