



WALL TYPE T&H Transmitter

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

Model No.: MTH300S



General Specifications

GS 19A16D01-01EN

TEMPERATURE HUMIDITY
HIGH QUALITY

MTH300S

Overview

MTH300S is high quality wall type temperature and humidity sensor, adopting Swiss advanced sensor module with high performance. Single chip design for indoor temperature and humidity measurement. Widely used in agriculture: greenhouse, mushroom house, seeding room, poultry house; refrigerated storage, Warehouse, cold room Medicinal, HAVC; Building Automation with high humidity environment applications.

Feature

- High Accuracy, High Stability; Anti-Interference dealing on PCB
- High sealing technology and excellent 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: $\pm 0.3^{\circ}\text{C}$, H: $\pm 3\%$; Resolution: T: 0.01, H: 0.1%RH
- Protection: Electrical housing: IP65; Probe: IP54
- Wide power supply: 12-36VDC; 15-36VDC (4-20mA only)

Size (mm)



MTH300S Wall Type
Temperature Humidity Transmitter



Xiamen Madincos Automation Co., Ltd

Add.: No. C303, 3rd Floor, Keshan Building, No.321 Torch Road,
Torch Park, Torch High-tech Zone, Xiamen, China,361006

URL: www.madincos.com

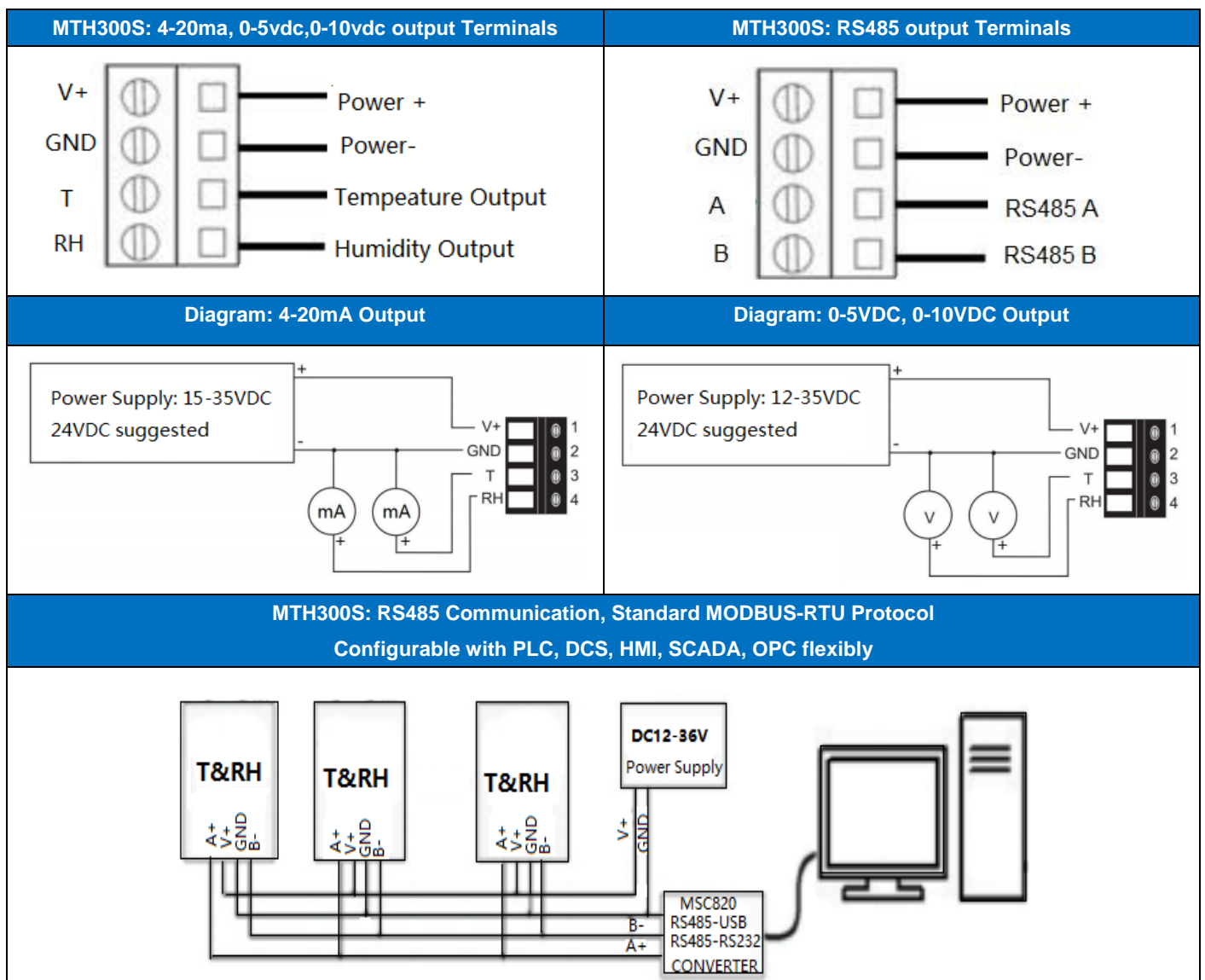
Email: info@madincos.com

Mobile: +86-17750003689

■ Specification

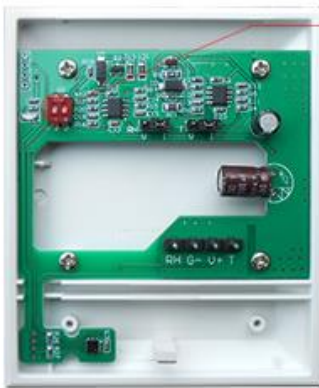
Accuracy	T: $\pm 0.3^{\circ}\text{C}$ (Full range in average);	Power Supply	15-36VDC (4-20mA Output);
	RH: 3%RH (including non-linear, repeatability, hysteresis)		12-36VDC (0-5VDC, 0-10VDC; RS485 Output)
Long Stability	T: $< 0.04^{\circ}\text{C}/\text{year}$;	Power consumption	60mA
	RH: $< 0.05\% \text{RH}/\text{year}$	Housing Material	ABS
Range	T: -20 to 80°C ; 0 to 50°C , -40 to 60°C ;	Probe Type	Dust-proof (standard); water-proof
	RH: 0-99.9%	Installation	Wall Type
Resolution	T: 0.1°C , RH: $0.1\% \text{RH}$	Case Size	80mmx65mmx38mm (LXD)
Response time	T: 6t(63%): min=5s, max=30s;	Probe Size	62mmx 16mm (LXD)
	H (90% static air): 8second	Terminals Size	1x2.5 mm ² or 2x1.5 mm ²
Load resistor	$< 500\text{ohm}$	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°C , H: 0-99.9%, no dew
Baud rate	9600; customized	Storage Temperature	10 - 50°C (0 - 125°C at peak)

■ Diagram



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

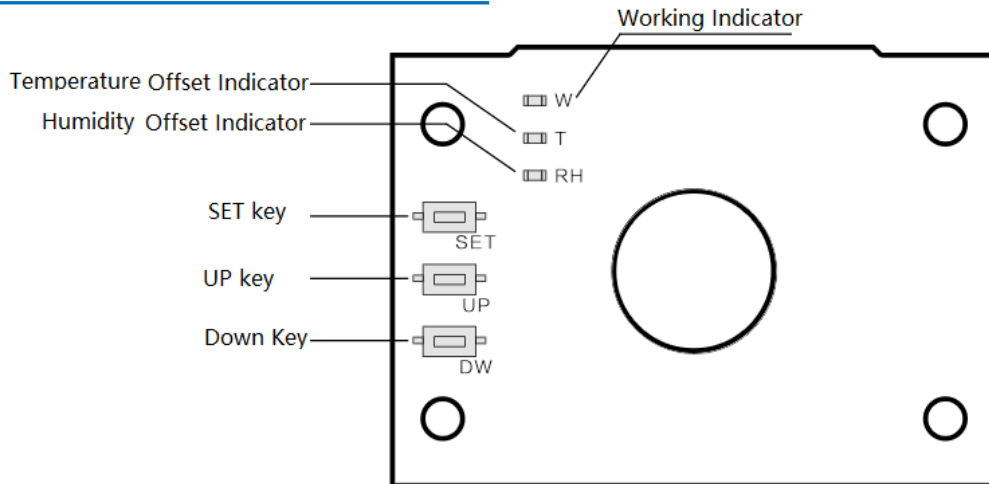
Temperature Range Setting



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

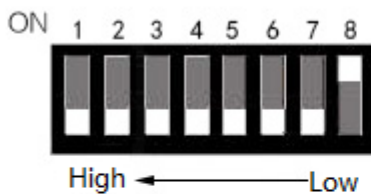
Δ Temperature Range Setting

Offset Function by Keys Setting



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

RS485 Communication Address Setting



DIN Switch on ON: 1

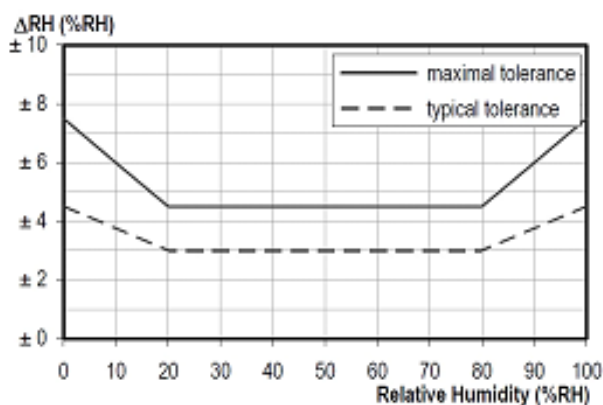
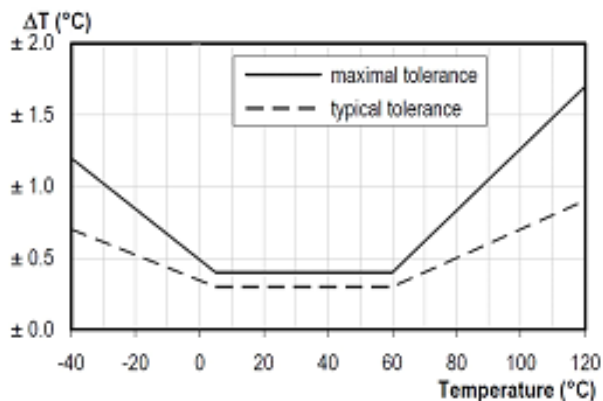
DIN Switch on OFF: 0

Address Setting as Follows

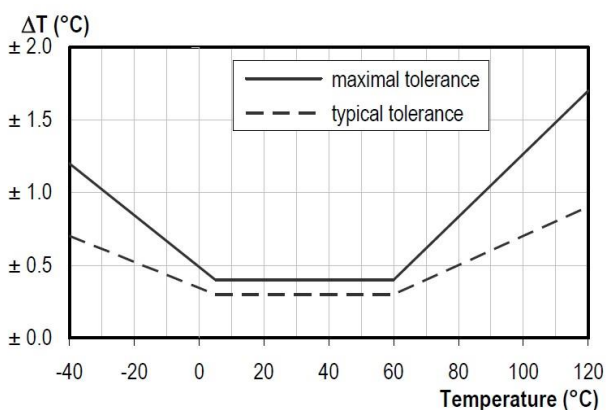
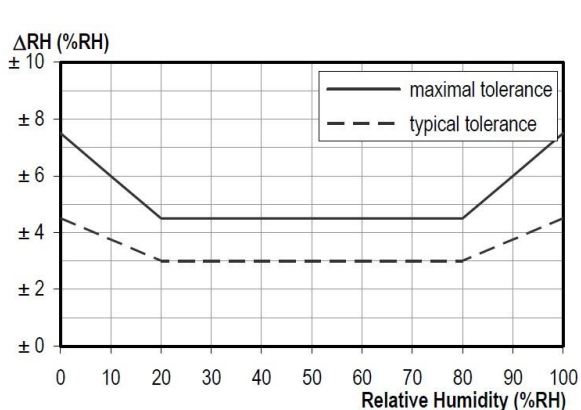
DIN Switch Address	Decimal System Address
00000001	1
00000010	2
00000011	3
00000100	4
.....
11111111	255

Accuracy

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



RS485 Output



Order Code

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)



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