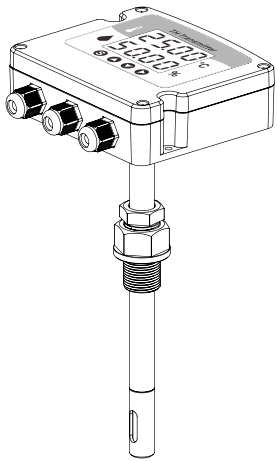
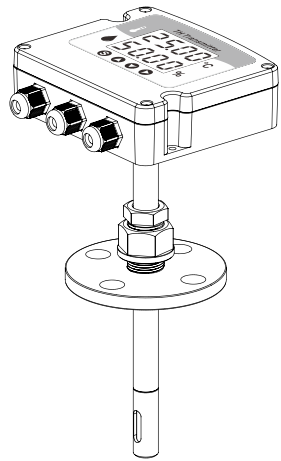
Temperature & Humidity Transmitter





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This product is an industrial pipeline temperature and humidity transmitter, which monitors environmental temperature and humidity parameters, and converts it into current or voltage output and digital output using RS485 communication interface, and can be equipped with real-time digital display (with keys) and 2-way alarm relay output.

Technical Data

[T Range] -40 to 120ºC

[T Accuracy] ±0.3ºC (0 to 80ºC) , ±0.4ºC (-20 to 0ºC / 80 to 100ºC)

±0.5ºC (-40 to -20ºC / 100 to 120ºC)

[H Range] 0-100%RH

[H Accuracy] ±3%(10 to 90%) ,±4%(0 to 10% / 90 to 100%)

[Output] Current 4-20mA, Accuracy 1‰, load 500 Ohms(24VDC), load 200 Ohms(12VDC), load 100 Ohms(9VDC), Voltage 1V/5V/10V, Accuracy 1‰, Input impedance ≥10k Ohms; Temperature Coefficient : 100PPM/℃

[RS485] Standard MODBUS RTU

[Power] Current output 9-30VDC, 4W； Voltage output 12-30VDC, 3W

[Dimension] Host Device 120×104×36mm

[Response Time] T_{63} 8 Secs

[Protection] IP65

[Sealed Pressure Resistant] 1MPa

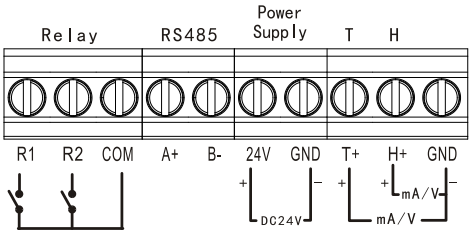
[Alarm]Up to 2 normally open relays, 250VAC 3A, 30VDC 3A (resistive load)

[EMC] Burst of pulses 2000V B level; Surges 500V

[ESD] Contact 4000V, Gap 8000V

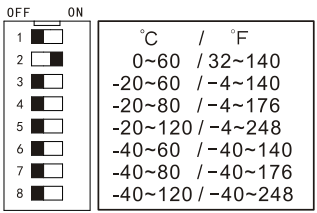
[Condition] Host -40 to 60 ºC(With Display-20 to 60 ºC)

Electrical Connection



Note: Wire diameter 4-7mm.

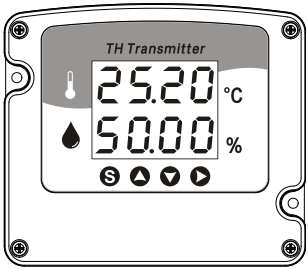
Output Range Setting



1# switch is used to set the temperature unit, which is℃ on the left and ℉ on the right. #2-8 switches set the transmission range, turns it to the ON position on the right, and selects the corresponding output range, then the output current and voltage are transmitted according to the set range.

If need to set other ranges through communication or key board, all switches should be turned to the left OFF position. When any one of the transmission range switches is on, the transmission range can't be set by key board or communication; When all switches are OFF, it can be set through key board or communication.

Operating Instructions



Long press ▶ to cancel the alarm and the relay contact open. Long press S to enter parameter settings. Click ▶ to switch parameter categories. Click S to enter sub menu. Click ▲ or ▼ to modify the data, and long press to accelerate. Click S to save and return to the superior; Long press S to save and exit.

Type	Character	Content
01 SYS	BL	0~3
	TH5MV###	Software version
02 SIG	T-DC	-99.9~99.9
	H-DC	-99.9~99.9
03 ALM	T-L	-40.0~120.0
	T-LR	OFF/R1/R2
	T-H	-40.0~120.0
	T-HR	OFF/R1/R2
	T-BD	0.0~20.0
	H-L	0.0~100.0
	H-LR	OFF/R1/R2
	H-H	0.0~100.0
	H-HR	OFF/R1/R2

	H-BD	0.0~20.0
04 COMM	ADDR	1~247
	BAUD	0~4 (9600/19200/38400/57600/115200)
	PRTY	NONE/ODD/EVEN
	STOP	1bit/2bit
05 AO	T-OL	-40.0~120.0
	T-OH	-40.0~120.0
	H-OL	0.0~100.0
	H-OH	0.0~100.0

Communication Protocol

Parameter	Reg Offset	Data Type	Authority
Temperature	40001	short, 2 decimal	RO
Humidity	40002	short, 2 decimal	RO
Dew point	40003	short, 2 decimal	RO
T Adjust	40257	short, 1 decimal	RW
H Adjust	40258	short, 1 decimal	RW
T Low Alarm	40289	short, 1 decimal	RW
T Low Relay	40290	short, range:0~2	RW
T Hi Alarm	40291	short, 1 decimal	RW
T Hi Relay	40292	short, range:0~2	RW
T Hysteresis	40293	short, 1 decimal	RW

H Low Alarm	40294	short, 1 decimal	RW
H Low Relay	40295	short, range:0~2	RW
H Hi Alarm	40296	short, 1 decimal	RW
H Hi Relay	40297	short, range:0~2	RW
H Hysteresis	40298	short, 1 decimal	RW
Address	40321	short, range:1~247	RW
Baudrate	40322	short, range:0~4	RW
Parity	40323	short, range:0~2	RW
Stopbits	40324	short, range:0~1	RW
T AO Low	40353	short, 1 decimal	RW
T AO Hi	40354	short, 1 decimal	RW
H AO Low	40355	short, 1 decimal	RW
H AO Hi	40356	short, 1 decimal	RW

Example.: Read data（25.0 ℃，40.0%）

Query: 01 03 00 00 00 02 C4 0B

Response: 01 03 04 09 C4 0F A0 BD DA

Dimension

Unit:mm