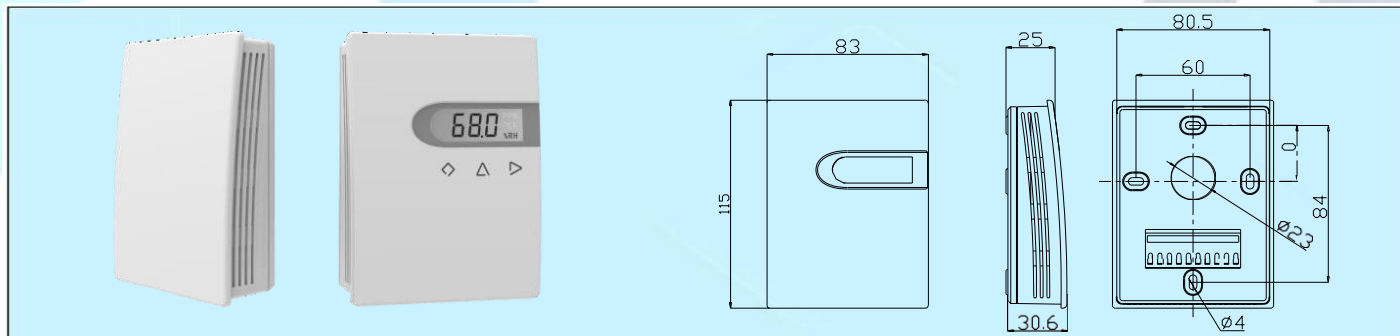


RSA-TU1A Wall Mount Temperature & Humidity Transmitter



Applications & Features

- RSA-TU1A is designed for indoor air temperature and humidity measurement
- High performance digital sensors & circuits, ensure accurate measurement & temp. compensation
- Good long term stability and reliability,
- 100% changeable sensors without re-calibration
- Fast response
- State of art housing design, easy installation & wiring
- All electrical terminals are on the inside bottom, avoid any possible destroy to PCB when wiring
- Digital technology applied, multiple output optional, over voltage and reverse polarity protection, high reliability and anti-interference capability
- LCD display temperature and humidity alternatively
- LCD & function keys can set parameters and calibrate output, so the product can be a stand alone controller

Specifications

Relative Humidity

Sensor: Digital polymer

Range: 0~100%RH

Output: 4~20mA(2 wires),
0~10VDC(3 wires),
RS485/Modbus

Accuracy: 2, 3%RH (25°C, 20~80%RH)

Hysteresis: <±1%RH

Response time: <10s (25°C, in slow air)

Drift: <±0.5%RH/year

Temperature

Sensor: Digital, RTD or thermistor, see models

Range: 0~50°C

Output: 4~20mA(2wires), 0~10VDC(3wires),
RS485/Modbus, or RTD/thermistor

Accuracy: transmitter: <±0.4°C(0.3°C) @5~60°C
RTD or thermistor: typical 0.2~0.4°C @ 25°C,
see models

Power: Current: 18.5~35VDC ($R_{load}=500\Omega$)
8.5~35VDC ($R_{load}=0\Omega$)

Voltage: 16~28VAC/ 16~35VDC

Output Load: ≤500Ω (current), ≥2KΩ (voltage)

Relay output: 2×SPST, 3A/30VDC, 3A/250VAC

Display and Keys: 4 digits LCD, with unit indication, backlight (4~20mA N/A), 3 touch keys, see details on LCD & Keys operation

Display Resolution: 0.1°C, 0.1%RH

Temp. Limit: -20~70°C, 5~95%RH (Non condensing)

Storage Temperature: -20~80°C

Housing: ABS+PC

Protection: IP30

Approval: CE

Models

Model	RSA-TU1A					Wall mount Temp./RH transmitter
RH Accuracy		2				±2%RH(0.3°C) ±3%RH(0.4°C)
RH Output (0-100%RH)			1			0-10VDC(3 wires)
			2			4-20mA(2 wires)
			8			RS485/Modbus
Temp. Output				0		No
				1		0-10VDC(3 wires)
				2		4-20mA(2 wires)
				3		PT1000, ±0.2°C@25°C
				4		PT100, ±0.2°C@25°C
				5		NTC20K, ±0.4°C@25°C
				6		Ni 1000, ±0.4°C@25°C
				7		NTC10K-II, 0.4°C@25°C
				8		RS485/Modbus
				9		NTC10K-III, 0.4°C@25°C
				A		NTC10K-A, 0.4°C@25°C
Temp. Range					0	No
					1	0-50°C
					7	others
Relay						No
					1	2 × SPST(4-20mA N/A)
LCD& Keys						No
					1	LCD
					2	LCD & KEYS

series current products are powered on RH circuit, so the RH

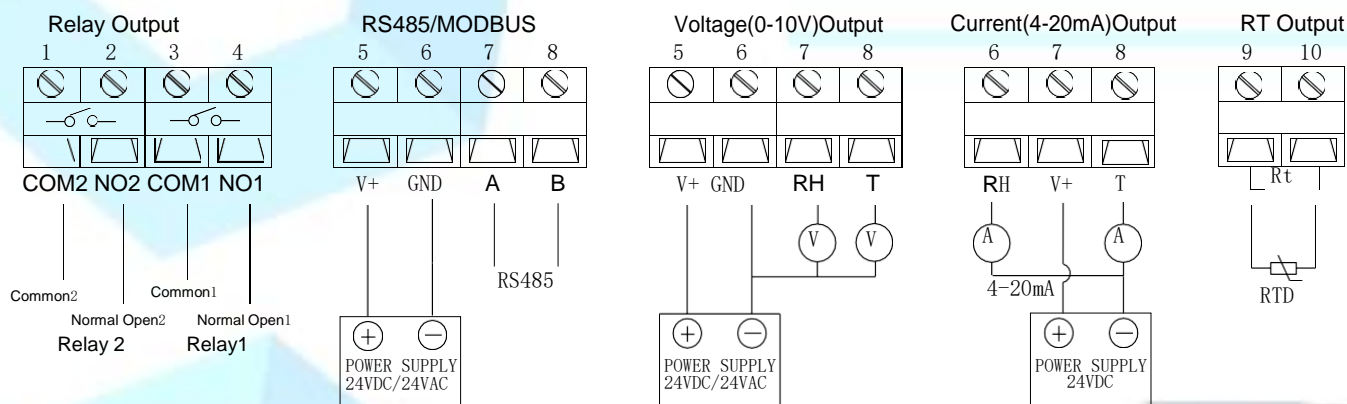
circuit must be powered. Otherwise it could not work.

*2. Only when the temperature output is 1 or 2, the temperature range 1-7 is applicable. Otherwise, always use 0 as temperature range selection.

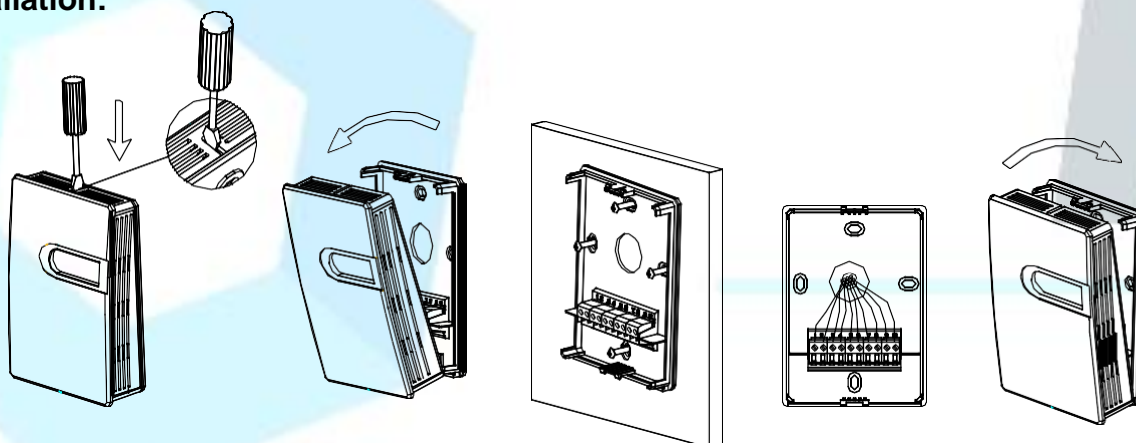
*3. See resistance table on page 1 of this catalog.

Connection:

Different models have different electrical terminals. Please wire specific model according to the wiring diagram inside the front cover.



*Current 4-20mA Output: terminal RH loop should be connected, otherwise the transmitter can not work.

Installation:

- It should be installed vertically on the wall. The installation site should be far away from heater, cooler, fan, humidifier, dehumidifier, and other heat/cool/humidity sources.
- Use a screwdriver, insert into the snap at the upper side of the housing, and push down a little, then open the front cover.
- Feed the cable into the housing before installing the base on the wall according to the diagram.
- Finish electrical connection according to the wiring diagram.
- Restore the front cover, and finish the installation.

Attention:

It should be power OFF during installing and wiring. When using 24VAC, it is strongly recommended to power the unit with independent transformer. If sharing a 24VAC transformer with other equipments such as controllers, transmitters or actuators, please make sure the terminals 24V and GND are connected correctly. Otherwise, it will perhaps reduce serious damages.

Warranty :

- It has limited warranty for eighteen (18) months after the production date.
- It does not extend to any unit that has been subjected to misuse or accident.
- It is, in any event, strictly limited to the replacement or repair of the product itself.



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Sensors

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