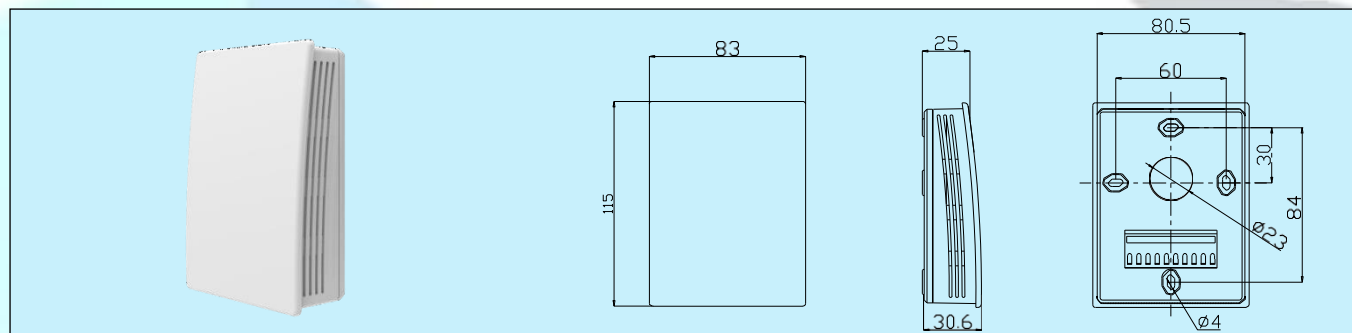


## RSA-STA / RSA-TT1A Wall Mount Temperature Sensor/Transmitter



### Applications & Features

- Apply for indoor environment temperature measurement
- High performance thermistor & RTD, ensure accurate temperature measurement
- Multiple output optional, Light and state of arhousing, easy installation
- Over voltage and reverse polarity protection, high reliability and anti-interference capability
- Wide temperature range and fast response
- All electrical terminals are on the inside bottom, avoid any possible damage to PCB when wiring

### Specifications

#### RSA-STA series temperature sensor

**Sensor:** High accuracy thermistor or RTD, see models

**Output:** thermistor or RTD, see models and resistance table

**Accuracy:** typical 0.2~0.4°C @ 25°C, see models

**Wiring:** 2 wires or 3 wires (RTD)

(3 wires connection could obtain better accuracy)

**Work Temp.:** -30~70°C, 0~95%RH(Non condensing)

#### RSA-TT1A series temperature

**transmitter Sensor:** PT1000, Class A

**Range:** see models

**Output:** 4~20mA (2 wires) or 0-10VDC

**Output Load:** ≤500Ω (current), ≥3KΩ (voltage)

**Accuracy:** < ±0.5°C @ 0~50°C, see accuracy curve

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

Voltage 16~35VDC, 16~28VAC

**Work Temp.:** 0~70°C, 0~95%RH (Non cond.)

**Storage Temperature:** -30~70°C

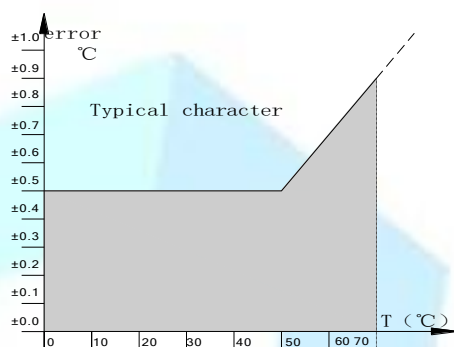
**Housing:** ABS+PC

**Protection:** IP30

**Weight:** TT1N:96g; TT1N:116g

**Approval:** CE

#### RSA-TT1A accuracy curve:



### Resistance table:

T (°C)	3	4	5	6	7	9	A
	PT1000	PT100	NTC20K	Ni1000	NTC10K-II	NTC10K-III	NTC10K-A
-40	842.71	84.27	806,400	830.84	348,400	215,971	206,100
-35	862.46	86.25	572,574	851.15	249,091	163,030	164,400
-30	882.22	88.22	411,157	871.69	180,486	125,166	118,400
-25	901.91	90.19	298,444	892.47	132,380	97,072	91,000
-20	921.6	92.16	218,874	913.48	98,190	75,735	70,580
-15	941.23	94.12	162,111	934.74	73,594	59,311	55,240
-10	960.86	96.09	121,208	956.24	55,699	46,585	43,560
-5	980.43	98.04	91,451	977.99	42,544	36,704	34,580
0	1,000.00	100.00	69,600	1,000.00	32,780	28,591	27,630
5	1,019.51	101.95	53,413	1,022.26	25,466	22,878	22,170
10	1,039.03	103.90	41,318	1,044.79	19,940	18,368	17,970
15	1,058.48	105.85	32,208	1,067.59	15,730	14,910	14,690
20	1,077.94	107.79	25,291	1,090.65	12,499	12,169	12,080
25	1,097.33	109.73	20,000	1,113.99	10,000	10,000	10,000
30	1,116.73	111.67	15,923	1,137.62	8,053.48	8,327.70	8,319.00
35	1,136.07	113.61	12,759	1,161.52	6,526.99	6,894.80	6,952.00
40	1,155.41	115.54	10,288	1,185.71	5,322.03	5,711.90	5,834.00
45	1,174.69	117.47	8,345.11	1,210.20	4,364.90	4,740.90	4,917.00
50	1,193.97	119.40	6,808.00	1,234.98	3,600.00	3,924.90	4,160.00
55	1,213.20	121.32	5,584.67	1,260.06	2,985.16	3,289.00	3,533.00
60	1,232.42	123.24	4,605.46	1,285.44	2,488.17	2,765.10	3,013.00
65	1,251.59	125.16	3,817.30	1,311.14	2,027.67	2,330.30	2,579.00
70	1,270.75	127.08	3,179.52	1,337.14	1,703.79	1,967.40	2,217.00
75	1,289.86	128.99	2,660.78	1,363.47	1,438.30	1,676.30	1,914.00
80	1,308.97	130.90	2,236.75	1,390.12	1,219.62	1,424.40	1,659.00
85	1,328.02	132.80	1,888.50	1,417.09	1,038.63	1,216.00	1,451.00
90	1,347.07	134.71	1,601.16	1,444.39	888.16	1,043.30	1,265.00
95	1,366.06	136.61	1,363.02	1,472.03	762.51	899.90	1,111.00
100	1,385.06	138.51	1,164.82	1,500.00	657.14	774.90	978.80

### Models

#### RSA-STA series wall mount temp. sensor

Model	RSA-STA	Temp. sensor
Thermistor or RTD*	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
	9	NTC10K-III, ±0.4°C @ 25°C
	A	NTC10K-A, ±0.4°C @ 25°C

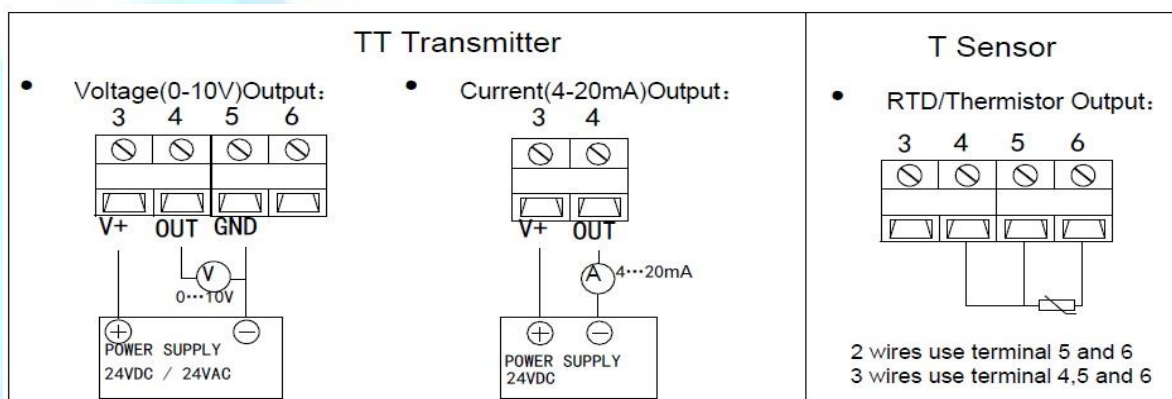
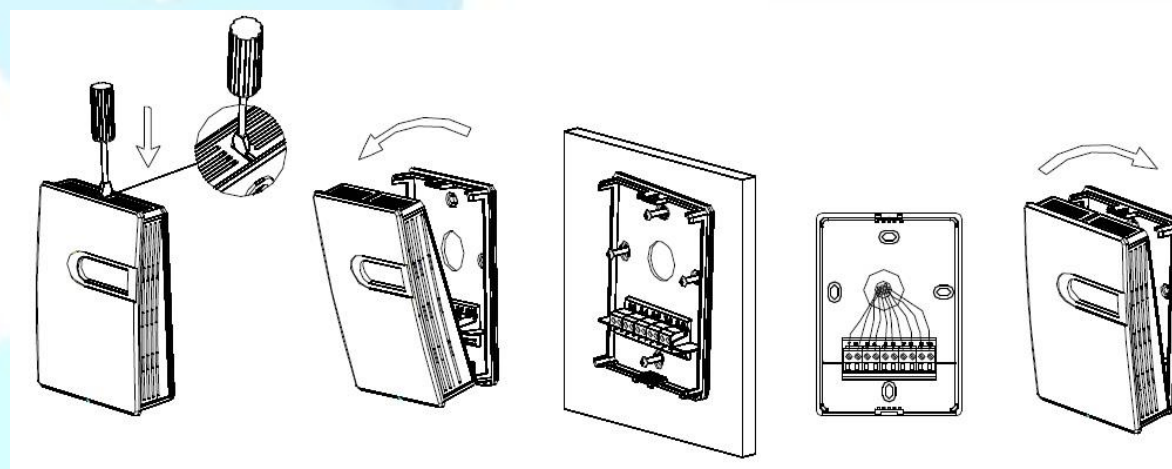
\* See resistance table.

#### RSA-TT1A series wall mount temp. transmitter

Model	RSA-TT1A	Temp. transmitter
Output		1 0-10VDC
		2 4-20mA (2 wires)
Range		1 0-50°C
		2 0-100°C

**Connection**

Different models have different electrical terminals. Please wire according to the wiring diagram on specific product.

**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. The temperature sensor (RSA-STA) can only be powered less than 100mW@25°C. If exceed, the thermistor/RTD will be damaged.

**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.



**Sensors**

RSA SENSORES - ATENDIMENTO



[www.rsa-sensors.com.br](http://www.rsa-sensors.com.br)  
RSA SENSORES, CONTROLES,  
VALVULAS, ATUADORES E  
EQUIPAMENTOS

ESCANEAR O QR CODE COM CAMERA DO  
CELULAR, PARA CHAMAR NO WHATS APP  
**SAC: (11)979936574**