



## Overview

Sonoff TH10/TH16 is a wireless temperature and humidity monitoring switch which can remotely monitor and set temperature and humidity range to turn on/off connected appliances through the iOS/Android APP eWeLink. Just as the name indicates, the Sonoff TH temperature and humidity monitor device supports two maximum current supply specifications: 10A or 16A.

Sonoff TH10/ TH16 remote temperature monitor and wireless humidity monitor WiFi switch supports presetting the range for temperature or humidity. When the temperature or humidity of the environment falls within the range, it will automatically turn on or off the connected devices.

Sonoff TH10/ TH16 supports four kinds of temperature monitor and humidity monitor sensors, mentioned below:

- Si7021, AM2301, DS18B20, DHT11

Compare with other sensors, Si7021([wiki](#)) is more accurate. It's highly recommended!

**Note:** the sensors are not in the package of Sonoff TH10 /TH16, you have to enter the number you want to order in the corresponding field.

With the latest eWeLink app, users can create a series of simple conditional statement (Smart Scene) to trigger on/off other smart devices. This means users can use Sonoff TH10 or Sonoff TH16 with Si7021, AM2301, DS18B20 or DHT11 sensor to collect temperature/humidity data, which can be used to as a condition to trigger on/off other devices, such as Sonoff, Sonoff RF, Sonoff SV, S20 smart socket (see below pic). This device works perfectly with electric fan, air conditioner, humidifier, smart fish tank, watering system, etc.



## Add new scene

example

When it meets:



Sonoff TH10

Temperature  $\geq 27$



Execute:



OpenSonoff



SAVE

DELETE

## Sonoff Si7021 Temperature and Humidity Sensor



Precision Relative Humidity Sensor  
 $\pm 3\%$  RH (max), 0-80% RH  
High Accuracy Temperature Sensor  
 $\pm 0.4^{\circ}\text{C}$  (max),  $-10$  to  $85^{\circ}\text{C}$   
0 to 100% RH operating range

Up to  $-40$  to  $+85^{\circ}\text{C}$  operating range  
Wide operating voltage (2.2 to 3.6 V)  
Low Power Consumption  
Factory-calibrated, digital output  
Excellent long term stability

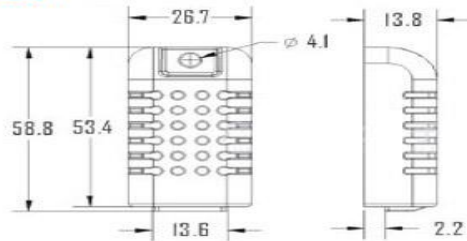
## Remotely monitor Temp. & Hum



AM2301 high accuracy  
temperature&humidity  
sensor



Dimension(unit:mm)



### Characteristics Parameter


#### Measuring range:

Temperature:-40°C~+80°C  
Humidity:0~99.9%RH  
Accuracy:(in 25°C)  
Temperature:±0.5°C  
Humidity:±3%RH(10...90%RH)

#### Sensor type:

Temperature: resistive sensor  
Humidity:capacitive sensors  
Operating temp. range:40°C~+80°C  
Power supply: 3.3-5.2V  
DC(5V recommended )  
Weight:14g

## Waterproof DS18B20 Temperature Sensor



Stainless steel temperature probe  
3.0-5.5V power supply  
Measuring range:-55°C~+125°C

## Features

- Supports tracking device status
- Supports remote turn on/off connected appliance
- Supports presetting temperature and humidity to turn on/off
- Supports 8 enabled countdown/single/repeat timing tasks
- Support checking real-time temperature and humidity
- Support setting smart scene to trigger on/off other smart devices
- Works with Amazon Echo, Echo Dot, Amazon Tap
- Works with Google Home
- Works with Google Nest

## Specification

- Input voltage: 90~ 250V AC
- Input current: Max 10A /16A
- Max. Power: 2200W(10A) /3500W(16A)
- Humidity: 5%-90%RH, Non-condensing
- Operating Temperature: 0°C-40°C(32°F-104°F)
- Wireless Standard: 802.11 b/g/n
- Security Mechanism: WPA-PSK/WPA2-PSK
- Enclosure Material: Fire-retardant ABS V0
- Dimension: 114\*51\*32 (mm)
- Supports 4 temperature, humidity sensors: Si7021, AM2301, DS18B20, DHT11
- Gang: 1
- Certification: CE, RoHS, FCC

### *Si7021 Sensor*

- Temperature Measuring Range: -40°C~+85°C
- Humidity Measuring Range: 0~100%RH
- Storage Temp.: -65°C~+150°C
- Operating Voltage: 2.2-3.6V
- Weight: 26g
- Length: 0.5m

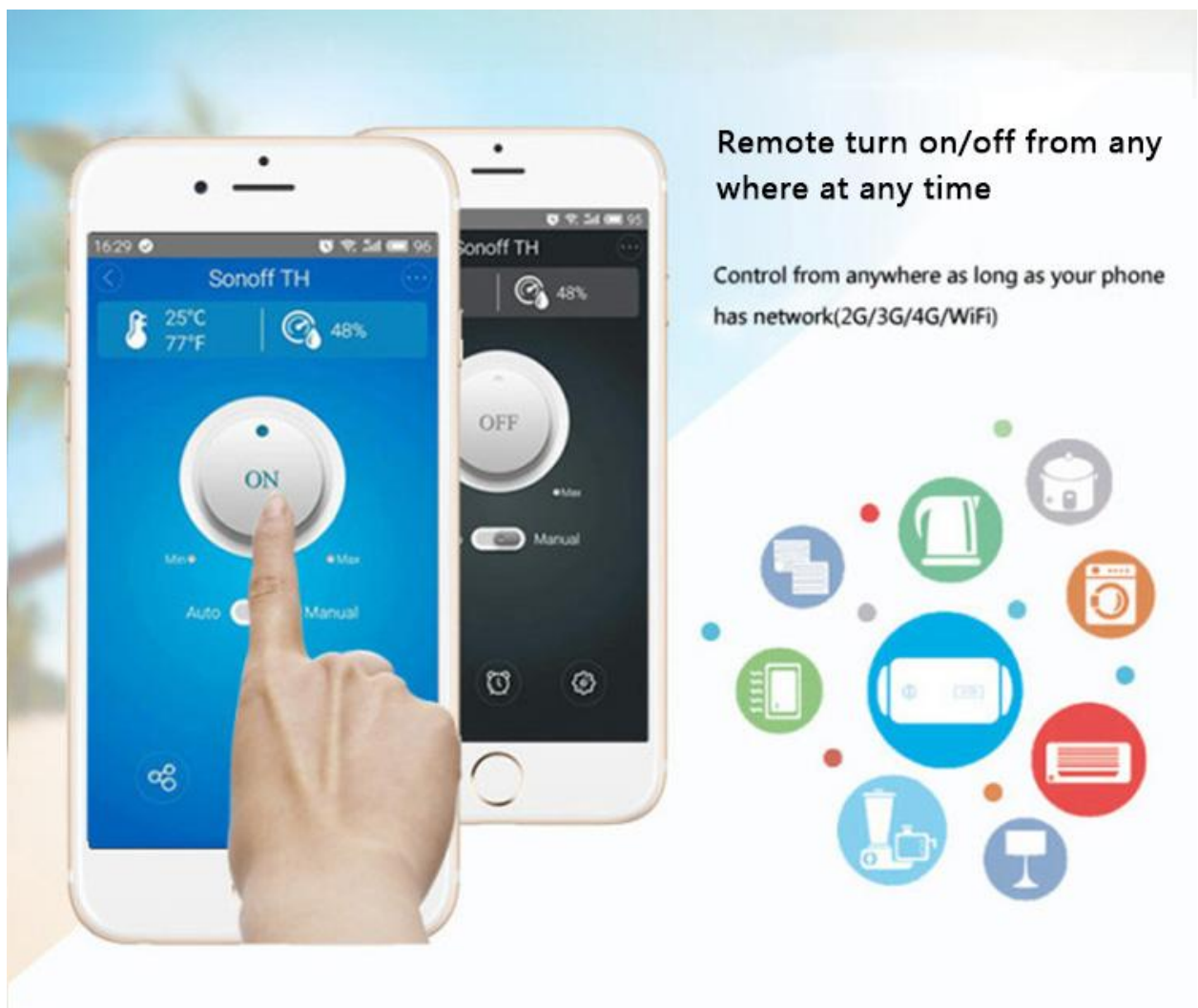
### *AM2301 Sensor*

- Temperature Measuring Range: -40°C~+80°C
- Humidity Measuring Range: 0~99.9%RH
- Power Supply: 3.3-5.2V DC (5V recommended)
- Temperature Sensor Type: Resistive

- Humidity Sensor type: Capacitive
- Weight: 22g
- Length: 0.5m

#### *DS18B20 Sensor*

- Type: Waterproof temperature sensor
- Probe: Stainless steel temperature probe
- Temperature Measuring Range: -55°C~+125°C
- Power Supply: 3.0-5.5V
- Weight: 26g
- Length: 1m

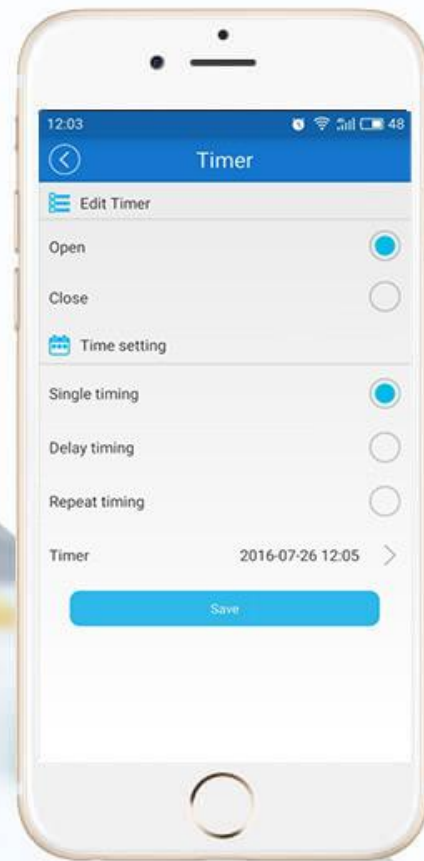


## Timing Schedules

Supports single/repeat timing tasks

Supports countdown timer

Executes even when network is off





# Wiring diagram

