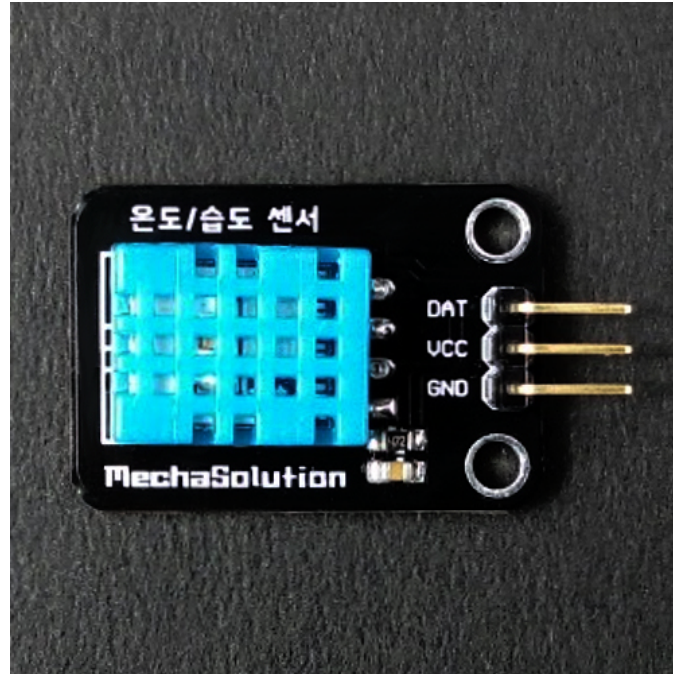


# Temperature/Humidity Sensor DHT11



## 1. Product Overview

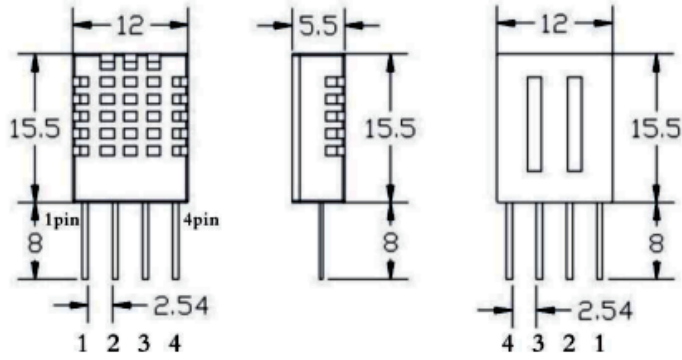
DHT11 digital temperature and humidity sensor is a composite Sensor contains a calibrated digital signal output of the temperature and humidity. Application of a dedicated digital modules collection technology and the temperature and humidity sensing technology, to ensure that the product has high reliability and excellent long-term stability. The sensor includes a resistive sense of wet components and an NTC temperature measurement devices, and connected with a high-performance 8-bit microcontroller.

## 2. Features

Low cost, long-term stability, relative humidity and temperature measurement, excellent quality, fast response, strong anti-interference ability, long distance signal transmission, digital signal output, and precise calibration.

## 3. Dimensions (unit: mm)

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#### 4. Product parameters

Relative humidity  
 Resolution: 16Bit  
 Repeatability:  $\pm 1\%$  RH  
 Accuracy: At 25°C  $\pm 5\%$  RH  
 Interchangeability: fully interchangeable  
 Response time: 1 / e (63%) of 25°C 6s  
 1m / s air 6s  
 Hysteresis:  $< \pm 0.3\%$  RH  
 Long-term stability:  $< \pm 0.5\%$  RH / yr in

Temperature  
 Resolution: 16Bit  
 Repeatability:  $\pm 0.2^\circ\text{C}$   
 Range: At 25°C  $\pm 2^\circ\text{C}$   
 Response time: 1 / e (63%) 10S

Electrical Characteristics  
 Power supply: DC 3.5 ~ 5.5V  
 Supply Current: measurement 0.3mA standby 60 $\mu$  A  
 Sampling period: more than 2 seconds

Pin Description  
 1, the VDD power supply 3.5 ~ 5.5V DC  
 2 DATA serial data, a single bus  
 3, NC, empty pin  
 4, GND ground, the negative power

#### 5. Electrical Characteristics:

Item	Condition	Min	Typical	Max	Unit
Power supply	DC	3	5	5.5	V
Current supply	Measuring	0.5		2.5	mA
	Stand-by	100	Null	150	uA
	Average	0.2	Null	1	mA