



# KS200B

## IoT CO2 sensor with temperature & humidity

## เครื่องตรวจวัดอุณหภูมิและความชื้นในอากาศ



CO2 measurement range

**0 to 40,000 ppm**



Operating temperature range

**-40 to 70 °C**



Operating relative humidity range

**0 to 100% RH**



**802.11n, 2.4 GHz**



## TASMOTA



## Home Assistant

- Integrated WiFi SoC (NodeMCU v3) pre-flashed with Tasmota (Home Assistant ready)
- High accuracy and wide measurement range
- Dual-channel detection for superior stability
- NTP client for time synchronization
- Modular, serviceable, repairable design with separate MCU module and professional motherboard
- Free and subscription based cloud services available for project customers





## **Karrot Sensor KS200B series**

### **IoT CO2 sensor with temperature & humidity**

The KS200B is built with a factory calibrated, linearized Swiss-made precision digital NDIR CO2 sensor element using the Sensirion SCD30 series. The system is equipped with intake and exhaust fans and mesh filter to protect the sensor element. This model is suitable for indoor deployment and commonly used in indoor farming, air conditioning / ventilation and industrial environmental control applications.

### **Specification**

#### **Sensor:**

CO2

CO2 measurement range	0 – 40,000 ppm
Accuracy (range: 400 ppm – 10'000 ppm)	± (30 ppm + 3%MV)
Repeatability range: 400 ppm – 10'000 ppm)	± 10 ppm
Temperature stability	± 2.5 ppm / °C
Response time (τ63%)	20s
Accuracy drift over lifetime	± 50 ppm

#### Temperature

Typ. temperature accuracy	± (0.4°C + 0.023 × (T [°C] – 25°C))
Operating temperature range	-40 – 70°C
Response time (τ63%)	> 10s

#### Humidity

Typ. relative humidity accuracy	3%RH
Operating relative humidity range	0 – 100 %RH
Response time (τ63%)	8s
Calibration certificate	Factory calibration

#### **WiFi :**

802.11n, 2.4 GHz

#### **Power:**

Model KS200B1:

220VAC input / 5VDC output power supply 2,000mA included in the package Rechargeable Li-Ion battery type 18650 (2,200mAh)

Model KS200B2:

12VDC dual fault-tolerant power input as used for centralized DC power backup and solar.

#### **Warranty:**

1 year.

Custom builds with relay or signalling options are available on special order. Please contact [sales@allit.info](mailto:sales@allit.info) for further information.

