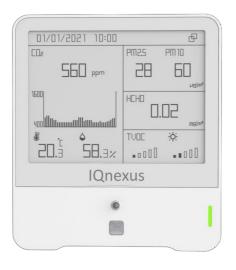


Indoor Ambience Monitoring Sensor

Featuring LoRaWAN®

NB300 Series



♦ Introduction

NB300 series is a compact indoor ambience monitoring sensor for measurement of temperature, humidity, light, CO_2 concentration, $HCHO/O_3$ level, TVOC, barometric pressure, PM2.5, PM10 and motion. The data will be shown on the E-ink screen in real-time, which helps to measure the indoor environment and comfort. NB300 series is widely used for offices, stores, classrooms, hospitals, etc.

Sensor data is transmitted using LoRaWAN® technology. Combining IQnexus LoRaWAN® gateway and the NBnano or IQnexus platform, users can manage all sensor data remotely and visually

Features

- Integrated with multiple sensors like humidity, temperature, CO2, light, barometric pressure, PM2.5, PM10, etc.
- Multiple display modes and clear emoticon to easily understand the comfort levels via screen
- Support batteries or DC power supply
- > Equipped with traffic LED and buzzer to indicate device status and threshold alarms
- Support more than 20,000 data records store locally
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with IQnexus IoT Platform

◆ Specifications

Model	NB307	NB319	
Wireless Transmission			
Technology	LoRaWAN®		
Frequency	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923		
Tx Power	16dBm(868MHz)/22dBm(915MHz)/19dBm(470MHz)		
Sensitivity	-137dBm @300bps		
Work Mode	NB307: Class A		
	NB319: Class C		
Sensors			
Temperature			
Range	-40°C-85°C		
Accuracy	±1°C		
Resolution	0.1°C		
Humidity			
Range	0% - 100% RH		
Accuracy	± 3%		
Resolution	0.5% RH		
PIR			
Detection Area	80 °Horizontal, 55 °Vertical		
Detection Range	5 m		
Status	Vacant/Occupied		
Light			
Range	0-60000 Lux (display as 6 levels, 0-5)		
TVOC			
Range	0-500 (IAQ Index)		
Accuracy	±15%		
Barometric Pressure			
Range	300 - 1100 hPa (-40°C - 85°C)		
Accuracy	±0.6 hPa		
Resolution	0.1 hPa		
CarbonDioxide(CO ₂)			
Range	400 - 5000 ppm	400 - 2000 ppm	
Accuracy	± 30 ppm or ± 3 % of reading	±50 ppm or ±5 % of reading	

Resolution	1 ppm	1 ppm	
PM2.5 & PM10			
Range	-	0 - 1000 μg/m³	
Accuracy		0-100(±10µg/m³), 100-1000(±10 %)	
Resolution		$1 \mu g/m^3$	
Formaldehyde (HCHO)1		
Range		0 - 6 mg/m ³	
Accuracy		±10%	
Resolution		0.01 mg/m ³	
Ozone $(O_3)^2$			
Range		0 - 10 ppm	
Accuracy		±5 % FS	
Resolution		0.01 ppm	
Display & Configuratio	n		
Display	4.2-inch Black & White E-Ink Screen		
Button	1 × Power Button + 1 × Reset Button		
LED & Buzzer	1 × Traffic Light Status Indicator + 1 × Buzzer		
Configuration	1. Mobile App via NFC		
	2. PC software via NFC or USB Type-C port		
Physical Characterist	tics		
Power Supply	4 × 2700 mAh ER14505	5V/1A by Type-C Port	
	Li-SOCl₂ battery		
Operating Temperature	-20°C - 60°C (E-Ink Screen: 0°C - 40°C)		
Relative Humidity	10% - 90% (non-condensing)		
Ingress Protection	IP30		
Dimension	100.8 × 114 × 22 mm (3.97 × 4.49 × 0.87 in)		
	Wall Mounting		

¹ This function is valid in the measurement of either HCHO or O₃.



 $^{^2}$ O $_3$ electrochemical sensor working life is 2 years.