

LoRaWAN Indoor Carbon Dioxide Sensor



Smart Agriculture, Smart Building, Smart Facility, Smart Factory, Smart Retail, Smart Transportation

SKU: WSLRW-I-CO2

LoRaWAN INDOOR CO2 SENSOR WSLRW-I-CO2



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WSLRW-I-CO2 is a LoRaWAN sensor utilizes CMOSens® Technology for IR detection enables Carbon Dioxide measurements of the highest accuracy at a competitive price. Along with the NDIR measurement technology for detecting CO₂ comes a best-in-class humidity and temperature sensor integrated on the same sensor module. Ambient humidity and temperature can be measured by special algorithm expertise through modelling and compensating of external heat sources without the need of any additional components. With Ultra-low Power design and smart firmware allow the sensor can last up to 10 years with 02 x AA-type battery (depends on configuration). The sensor will transmit data in kilo-meters distance to LoRaWAN gateway, any brand on the market. Typical Applications: Indoor Air Quality monitoring, HVAC Control, Green house, Smart Home...

Applications

Indoor Air Quality Monitor, Warehouse Monitoring

Notes For Applications

- LoRaWAN communication**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market
- 5-10 years battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 5 years with 02 x AA batteries
- High Accuracy & Stable**
Advanced ultrasonic sensor with NDIR CO₂ sensor technology processing to deliver high accuracy and stable measurement
- Measure other parameters**
Integrated temperature and humidity sensor to monitor the ambient environment



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Specification

CO ₂ Sensor technology	Advanced NDIR sensor
CO ₂ range/ resolution/ accuracy	0~5000ppm or 10000/ 1ppm/ ($\pm 30\text{ppm} + 3\%$ reading)
Repeatability	$\pm 30\text{ppm} + 3\%$ reading (in 0~50°C, after zeroing at 25°C)
Temperature range/ resolution/ accuracy	-40~80°C/ 0.1°C/ $\pm 0.3^\circ\text{C}$ in range 0-50°C
Humidity range/ resolution/ accuracy	0-100% RH/ 0.1% RH/ $\pm 1.5\%$ RH (in range 0-80% RH)
COMMUNICATION	
SF Factor	SF7~SF12
Antenna	Internal Antenna 2.0 dBi
Battery	02 x AA size 1.5VDC, battery not included
RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN, class A
Data sending modes	Interval time and when alarm occurred
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Vietnam Type Approval	TBA soon
Working temperature	-40~60°C (with AA L91 Energizer®)
Housing/ Protection	Flame Retardant - UL94 V-0 ABS Plastic/ IP20
Dimension	Diameter 95mm x Height 40mm
Net weight	< 250g

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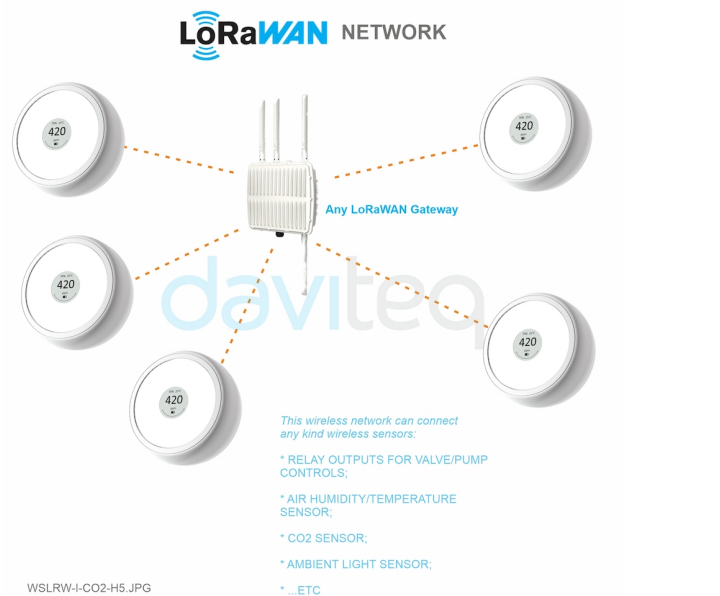
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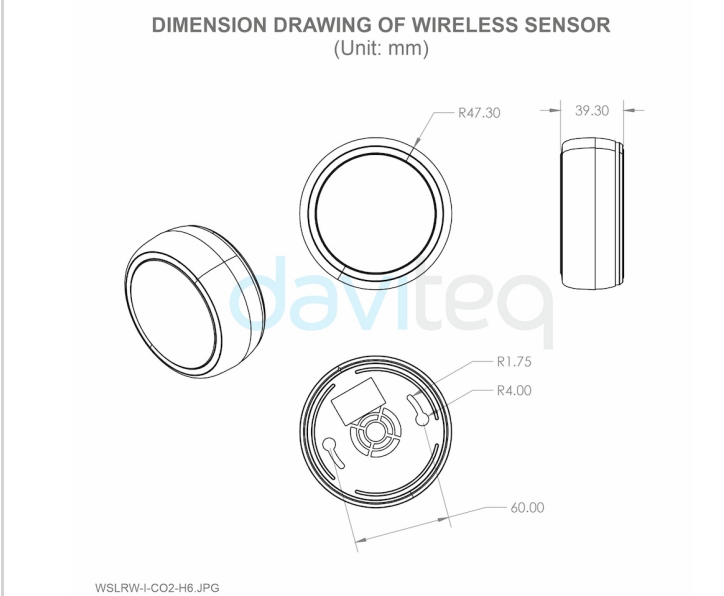
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RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

E91 AA Alkaline battery



-18 .. + 60 oC working temperature
10-year shelf life
3000 mAH Capacity
Price: 1X

L91 AA Lithium battery



-40 .. + 60 oC working temperature
20-year shelf life
3500 mAH Capacity
Price: 3.5X

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-I-CO2-5000-ATH	Indoor LoRaWAN Carbon Dioxide CO ₂ Sensor, 0-5000ppm, with ambient temperature and humidity sensors, Internal antenna, Type AA battery 1.5VDC, IP67, 860-930MHz, No display
WSLRW-I-CO2-5000-ATH-D1	Indoor LoRaWAN Carbon Dioxide CO ₂ Sensor, 0-5000ppm, with ambient temperature and humidity sensors, Internal antenna, Type AA battery 1.5VDC, IP67, 860-930MHz, with display

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