

# LoRaWAN Gas Detecting Sensor



Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Factory, Smart Farm, Smart Healthcare, Smart Retail, Smart Transportation

SKU: WSLRW-G4

LoRaWAN GAS SENSOR  
WSLRW-G4



WSLRW-G4-H1.JPG



WSLRW-G4 is a LoRaWAN electrochemical-type gas sensor with a high sensitivity to low concentrations of detected gas, high selectivity, and a stable baseline. The device supports different types of gas such as CO, NO, NO<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, O<sub>2</sub>, O<sub>3</sub>, SO<sub>2</sub>, Cl<sub>2</sub>, HCHO... Ultra-low Power design and smart firmware allow the sensor to last up to 5-10 years with a 02 x AA-type battery (depends on configuration). The sensor will transmit data at a kilo-meters distance to the LoRaWAN gateway, any brand on the market. Typical Applications are Gas, toxic gas detecting, air quality monitoring for facility, building, pump station, HVAC...

## Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring, Gas Leakage Detection

## Notes For Applications

- Select the suitable sensor range to get highest accuracy v.s sensor life.
- Have life time is 1-2 years, depends on sensor type and actual operating conditions;
- Need to be calibrated regularly (6-12 months), depends on actual operating conditions;
- Check carefully the working temperature and humidity of the application;
- Use the Rain-guard of Splash-guard for outdoor installation or where water jet exist.

## 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 5-10 years with 02 x AA batteries

## High Accuracy & Stable

Advanced electrochemical-type gas sensor technology processing to deliver high accuracy and stable measurement

## Multiple choices of gas

Select CO, NO, NO<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, O<sub>2</sub>, O<sub>3</sub>, SO<sub>2</sub>, Cl<sub>2</sub>, HCHO...

LoRaWAN GAS SENSOR  
WSLRW-G4



WSLRW-G4-H2.JPG

## DAVITEQ TECHNOLOGIES INC

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## Specification

Select gas sensor	CO, NO, NO <sub>2</sub> , H <sub>2</sub> S, NH <sub>3</sub> , O <sub>2</sub> , O <sub>3</sub> , SO <sub>2</sub> , Cl <sub>2</sub> , HCHO etc.
Gas sensor type and specification	<a href="#">List of compatible gas sensors and specification</a>
Sensor housing/ Rating	SS316/SS304 housing with 316SS sintered filter/ for Indoor use (buy the optional accessory rain-guard for outdoor installation)
COMMUNICATION	
SF Factors	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
Configuration	via Downlink or Offline cable (software is free)
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Working temperature	-40~60°C (with AA L91 Energizer®)
Housing/Protection	Aluminum + Polycarbonate/ IP67
Dimension/ Net weight	H180xW73xD42/ < 400g

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Detect Gas in Process Plant



WSLRW-G4-H3.JPG

GAS SENSOR WITH RAIN GUARD FOR OUTDOOR INSTALLATION



WSLRW-G4-H4.JPG

LoRaWAN NETWORK



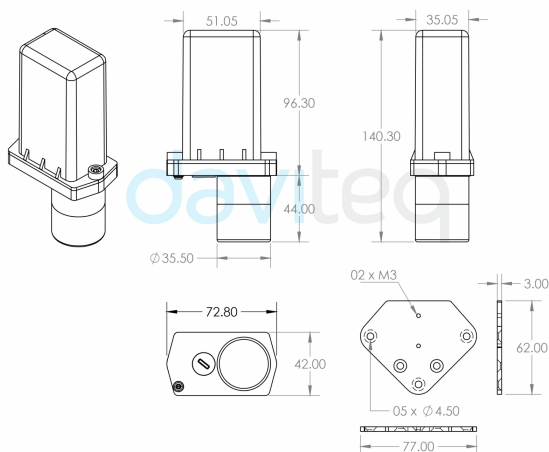
WSLRW-G4-H5.JPG

WHAT'S IN THE PACKAGE?



WSLRW-G4-H6.JPG

DIMENSION DRAWING OF WIRELESS SENSOR (Unit: mm)



WSLRW-G4-H7.JPG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

E91 AA Alkaline battery

L91 AA Lithium battery



-18 .. + 60 oC working temperature

-40 .. + 60 oC working temperature

10-year shelf life

20-year shelf life

3000 mAh Capacity

3500 mAh Capacity

Price: 1X

Price: 3.5X

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## Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-G4-CO-200-01	LoRaWAN Gas Detecting Sensor, Carbon Monoxide Gas CO, 0-200ppm
WSLRW-G4-H2S-50-01	LoRaWAN Gas Detecting Sensor, Hydrogen Sulfide Gas H <sub>2</sub> S, 0-50ppm
WSLRW-G4-NH3-100-01	LoRaWAN Gas Detecting Sensor, Ammonia Gas NH <sub>3</sub> , 0-100ppm
WSLRW-G4-Cl2-20-01	LoRaWAN Gas Detecting Sensor, Chlorine Gas Cl <sub>2</sub> , 0-20ppm
Accessories and optional items	
ACC-G4-RAINGUARD-01	Rain guard for G4 Gas Sensor
ACC0G4-SG-01	Splash guard for G4 Gas Sensor
CALGAS-CL2-02	02-point Calibration Services for Chlorine Gas Cl <sub>2</sub>
CALGAS-CO-02	02-point Calibration Services for Carbon Monoxide Gas CO
CALGAS-H2S-02	02-point Calibration Services for Hydrogen Sulfide Gas H <sub>2</sub> S
CALGAS-NH3-02	02-point Calibration Services for Ammonia Gas NH <sub>3</sub>

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