

LORAWAN AMMONIA NH3 GAS SENSOR

SKU: WSLRW-NH3

LoRaWAN AMMONIA GAS SENSOR
WSLRW-NH3

LoRaWAN



WSLRW-NH3-H1.JPG

WSLRW-NH3 is a LoRaWAN electrochemical-type gas sensor that has a high sensitivity to low concentrations of ammonia gas, high selectivity, and a stable baseline. With Ultra-low Power design and smart firmware allow the sensor can last up to 10 years with a 02 x AA-type battery (depends on configuration). The sensor will transmit data in a kilometers distance to the LoRaWAN gateway, any brand on the market.

Typical Applications: Monitor leakage of Ammonia gas for Refrigerator, Chiller...



LORAWAN COMMUNICATION

LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market



ULTRA-LOW POWER WITH 5 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 electrochemical-type gas sensor technology processing to deliver high accuracy and stable measurement

LoRaWAN AMMONIA GAS SENSOR
WSLRW-NH3

LoRaWAN



WSLRW-NH3-H2.JPG

DAVITEQ TECHNOLOGIES INC

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SPECIFICATION

SENSOR SPECIFICATION	
NH3 sensor	electrochemical-type gas sensor
Measuring range for NH3	0..100 ppm
Max detecting concentration	200 ppm
Repeatability / Resolution / Stability per month	< 10% of Reading value / 0.1 ppm / < 2% of Reading value
Zero stability	+/- 1.0 ppm
Working atmospheric pressure	101.3 Kpa +/- 10%
Working temperature and humidity	-40 .. + 50°C, 15 .. 90% RH
Sensor life	2 years in pure air
Sensor housing / Rating	SS316/SS304 housing with 316SS sintered filter / for Indoor use
LoRaWAN SPECIFICATION	
Data rate	625bps .. 50kbps (with internal Antenna 2.67 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)
Working temperature	-40oC..+60oC (with AA L91 Energizer)
Housing/Protection	Aluminum + Polycarbonate / IP67
Dimension / Net weight	H180xW73xD42 / < 400 grams

Detect Ammonia Gas in Process Plant



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Monitoring Ammonia and H2S in private or public toilets



WSLRW-NH3-H4.JPG

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INTERFERENCE GASES

Gas	Concentration	Equivalent Output
CO	200ppm	<-6ppm
H2S	50ppm	<25ppm
CL2	10ppm	<-7ppm
C2H4	100ppm	0 ppm
H2	10000ppm	<14ppm
C2H5OH	1000ppm	<20ppm
SO2	20ppm	<9ppm
PH3	20ppm	<18ppm
CH2O	10ppm	<38ppm
C6H6	100ppm	<0.7ppm
CH3OH	200ppm	<4ppm

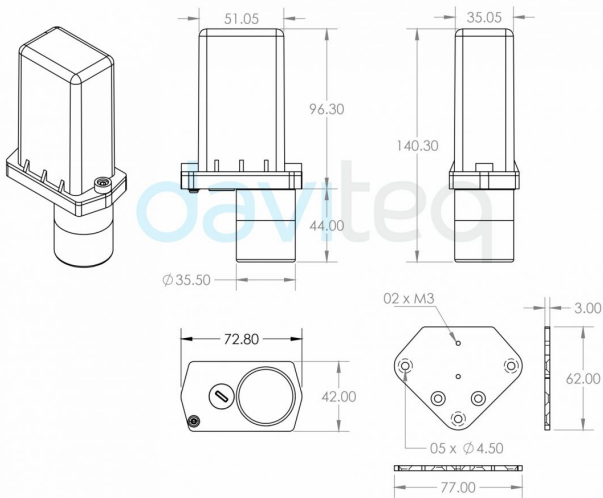
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LoRaWAN NETWORK



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DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)



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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-NH3-9-11	Wireless LoRaWAN Ammonia Gas Sensor, Internal antenna, Type AA battery 1.5VDC, IP67, 900-930 Mhz for KR920, AS923, AU915, US915
WSLRW-NH3-8-11	Wireless LoRaWAN Ammonia Gas Sensor, Internal antenna, Type AA battery 1.5VDC, IP67, 860-870 Mhz for EU868, IN865, RU864

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