LORAWAN EX D APPROVED FLAMMABLE GAS SENSOR

ROTIOT
Connecting technologies

LoRaWAN Ex APPROVED FLAMMABLE GAS SENSOR
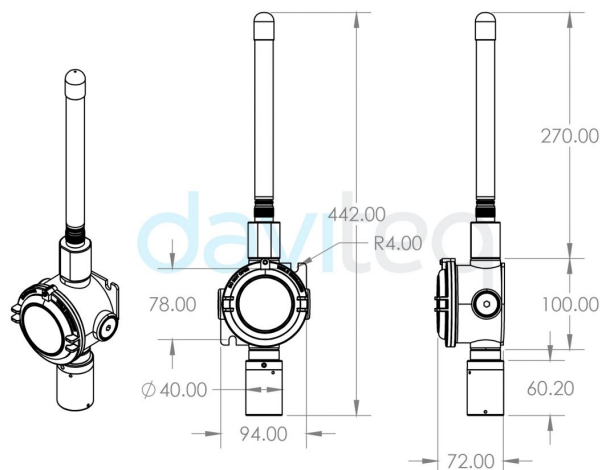WSLRWEX-GHC

LoRaWAN

10-Year

WSLRWEX-GHC-H1.JPG

WSLRWEX-GHC is a LoRaWAN sensor with Ex d explosion-proof approval and comes with a built-in high-performance NDIR technology sensor to detect the Hydrocarbon Gas concentration in the air. Ultra-low-power design and smart firmware allow the complete Wireless and Sensor package to run on a single battery type C for 5 years or more with 30 minutes update. It supports global frequency bands EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915. The sensor can work perfectly with any LoRaWAN Gateway on the market.

Typical applications: CH_4, C_3H_8, C_2H_4, C_2H_6, C_4H_{10} leakage detection for Gas distribution station, Metering skid, Pressure reducing station...

✓ **LORAWAN COMMUNICATION**
Support LoRaWAN Class A, connect to any LoRaWAN gateway on the market

✓ **DURABLE SENSOR WITH 10 YEAR LIFE SPAN**
Advanced NDIR technology sensor for continuous working for more than 10 years without intervention or replacement.

✓ **MORE THAN 5 YEARS BATTERY LIFE**
Ultra-low power sensor technology allows 5-year battery life with a single size C battery, 30 minutes update in AS923.

✓ **PLUG & PLAY**
The sensor is tested and pre-configured in factory before shipping.

DIMENSION DRAWING OF SENSOR NODE
(Unit: mm)

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SPECIFICATION

Measurement technology	high-performance NDIR, 10 years sensor life span
Measuring range	0 - 100% flammable gas LEL, equivalent to 0-5% vol. (CH4). For C3H8, C2H4, C2H6, C4H10 gas application please contact us
Resolution | Response time (T90)	0.1% LEL / < 40 seconds
Measurement variation	for CH4 it is ±0.1% vol. or ± 5% of reading (whichever is greater) in the +20...+25 °C temperature range
Temperature | Humidity | Operating pressure	-40 to 60°C / 0 - 98% RH, non-condensing / 80kPa to 120kPa
Antenna	2 dbi external antenna N-type
RF power and frequency	860..930 MHz, +14 .. +20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Protocol	LoRaWAN Class A, speed 250b/s.. 5470b/s
Data sending mode	cyclically, or when an alarm occurs or activated by a magnetic key. Suggest up to 48 messages per day.
RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
Configuration	via Downlink or via USB cable (PC software provided free of charge)
The battery	01 type C 3.6V LiSOCl2 battery (recommended SAFT LS26500)
Equipment housing	Aluminum alloy, powder coated, IP66, Wall mount installation
Certified Ex d	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X
Hazard Protection Label	ATEX II 2G Ex db IIC T5/T6 Gb and ATEX II 2D Ex tb IIIC T100/T85°C Db
Compatible	ATEX 2014/34/EU / Standard IEC-EN60079-0 IEC-EN60079-1 IEC-EN60079-31
Areas of application	Zones 1 & 2 gas hazardous areas, Zones 21 & 22 hazardous areas containing flammable dust
Size | Net weight	H220xW100xD80 (not including antenna) / ~ 1500 grams (without battery)

WHAT'S IN THE PACKAGE?

Parts kit

Main Device

Antenna

MAGNET KEY

Magnet key

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RECOMMENDED BATTERIES

LS 26500 Lithium battery

SAFT

LS 26500

3.6V

Li-SOCl2

-60°C..+85°C working temperature

Low self-discharge rate

7.7 Ah Capacity

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ORDERING INFORMATION

WSLRWEX-GHC-01	LORAWAN FLAMMABLE GAS SENSOR, 0-100% LEL, EX D APPROVED ZONES 1-2-21-22, BATTERY 3.6V, IP66, FOR EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915