

Sigfox Ex d NDIR Flammable Gas Sensor



Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Factory, Smart Farm

SKU: WSSFCEX-GHC

SIGFOX Ex Approved Flammable Gas Sensor WSSFCEX-GHC



sigfox



10-Year



IP67
WEATHERPROOF



WSSFCEX-GHC-H1.JPEG



Safe Zone

Hazardous Zones

WSSFCEX-GHC is a Sigfox-ready sensor with Ex d explosion-proof approval. It has a built-in high-performance NDIR technology sensor to detect the flammable Hydrocarbon Gas concentration in the air. Ultra-low-power design and smart firmware allow the Wireless Sensor to run on a single battery for 5 years or more with 30 minutes update. It supports Sigfox zones RC1, RC2, RC3c, RC4, RC5, and RC6.

Typical applications: CH₄, C₂H₄, C₂H₆, C₃H₈, C₄H₁₀ leakage detection for Gas distribution station, Metering skid, Pressure reducing station...

Applications

Ambient Air Quality Monitor, Gas Leakage Detection, Safety Monitoring

Notes For Applications

- Diffusion holes of the sensor should be protected against the ingress of sprayed liquid or waterdrops.
- The sensor is not intended to measure the target gas concentration contained in fluids.
- Correct measurement is provided when the ambient temperature changes not faster than 0.6°C/ min.

Sigfox-Ready

Support Sigfox Network zones RC1, RC2, RC3c, RC4, RC5, and RC6

Sensor with 10 year life span

Advanced NDIR technology sensor for continuous working for more than 10 years without intervention or replacement.

5-Year battery

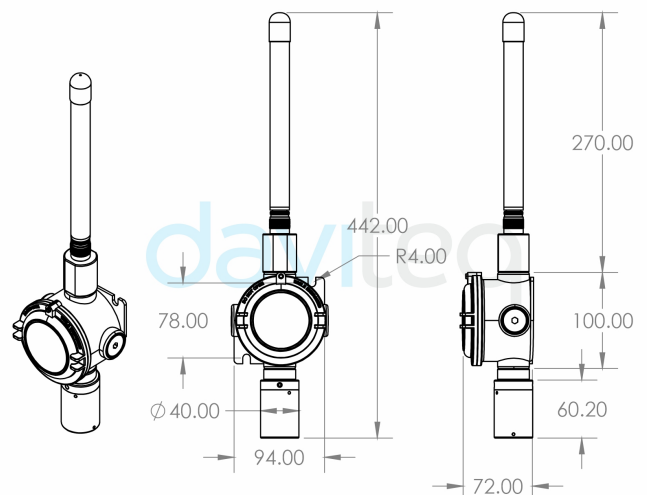
Ultra-low power sensor technology allows 5-year battery life with a single battery, 30 minutes update in RC4.

Ex d Zones 1-2-21-22

Ex d approved design for Hazardous Zones 1-2-21-22

DIMENSION DRAWING OF SENSOR NODE

(Unit: mm)



WSSFCEX-GHC-H2.JPEG

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Created date: Dec-09-2022

Updated date: Aug-28-2024

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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. (CH ₄). For C ₃ H ₈ , C ₂ H ₄ , C ₂ H ₆ , C ₄ H ₁₀ gas application please contact us
Resolution Response time (T90)	0.1% LEL/ < 40 seconds
Measurement variation	for CH ₄ it is ±0.1% vol. or ±5% of reading (whichever is greater) in the 20~25°C temperature range
Temperature Humidity Operating pressure	-40~60°C/ 0~98% RH, non-condensing/ 80kPa~120kPa
Antenna	2 dBi N-type antenna
COMMUNICATION	
Sigfox Zones	RC1~RC7
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 LiSOCl ₂ 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)/ ≈1500g (without battery)

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WHAT'S IN THE PACKAGE?



WSSFCEX-GHC-H3.JPEG

RECOMMENDED BATTERIES

LS 26500 Lithium battery



-60°C..+85°C working temperature

Low self-discharge rate

7.7 Ah Capacity

WSSFCEX-GHC-H4.JPEG

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Ordering Information

ITEM CODES	DESCRIPTIONS
WSSFCEX-GHC-01	SIGFOX-READY NDIR FLAMMABLE GAS SENSOR, 0-100% LEL, EX D APPROVED ZONES 1-2-21-22, BATTERY 3.6V, IP66, FOR RC1, RC2, RC3c, RC4, RC5, and RC6

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