Sigfox Gas Sensor with Siren for Industrial Safety
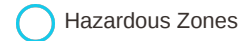
Smart Building, Smart Facility, Smart Factory, Smart Transportation

SKU: WSSFC-GCB

daviteq

SIGFOX-READY GAS SENSOR WITH SIREN
WSSFC-GCB

sigfox ready

10-Year

WSSFC-GCB-H1.JPG

✓ Safe Zone   ○ Hazardous Zones

WSSFC-GCB is a Sigfox-ready sensor designed to measure flammable or toxic gas concentrations. It features high-performance, ultra-low-power gas sensing technology to accurately detect specific gas concentrations in the air. Additionally, the sensor includes a built-in siren for local alarm notifications and a button for local alarm acknowledgment. Its ultra-low-power design and smart firmware enable the sensor to operate on a single battery for 5-10 years. It supports Sigfox zones RC1, RC2, RC3c, RC4, RC5, RC6, and RC7, making it versatile for global use. The sensor is ideal for monitoring gas concentrations in industrial or commercial buildings in the areas of kitchens, parking garages, boiler rooms, laboratories, basements, HVAC rooms, utility rooms, industrial workspaces and more.

Applications

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. Please consult our engineers;
- Life time are 1-2 years for Electro-chemical sensors and >7 years for NDIR sensors , depends on sensor type and actual operating conditions;
- Calibration cycle are 6-12 months for Electro-chemical sensors and about 30 months for NDIR sensor, depends on actual operating conditions;
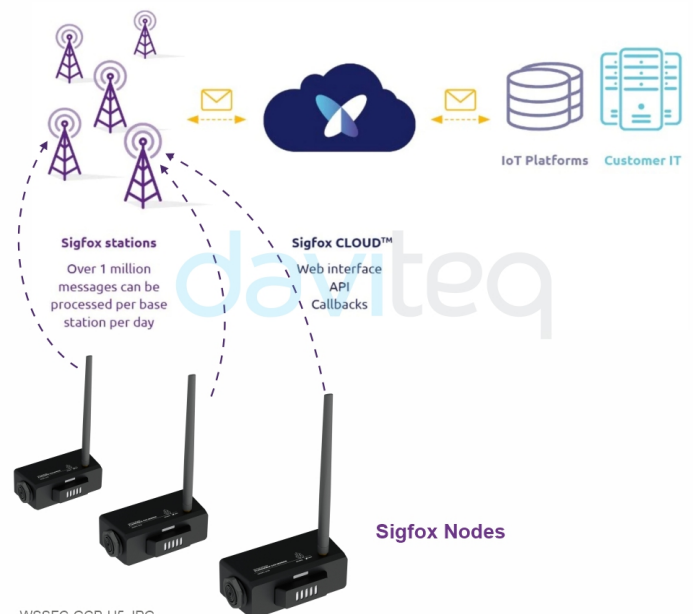- Check carefully the working temperature and humidity of the application;

SYSTEM ARCHITECTURE

Sigfox stations
Over 1 million messages can be processed per base station per day

Sigfox CLOUD™
Web interface
API
Callbacks

IoT Platforms   Customer IT

Sigfox Nodes

WSSFC-GCB-H5.JPG

✓ **Sigfox-Ready**
Support Sigfox Zones RC1-RC7

✓ **5-10 years battery**
Daviteq's ultra-low power sensing and wireless technology, smart firmware allow the sensor can last up to 5-10 years with 01 battery

✓ **High Accuracy & Stable**
Advanced Electrochemical-type and Non-Dispersive Infrared gas sensor technology processing to deliver high accuracy and stable measurement

✓ **Local alarm**
Local alarm sound & light notification and local alarm acknowledgement

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Specification

Type of measuring gas	Choose 1 of CH_4, C_3H_8, CO, Cl_2, H_2S, H_2, NH_3 gases
Measurement technology	High performance Non-Dispersive Infrared (NDIR) sensor or high performance Electro-Chemical sensor
Measuring range	CH_4 0-100% LEL, C_3H_8 0-100% LEL, CO 0-500ppm, H_2S 0-100ppm, H_2 0-1000ppm, NH_3 0-100ppm, Cl_2 0-20 ppm
Resolution	0.1% or 0.1ppm, 0.01ppm
Reading stability	For C_3H_8 and CH_4, refer Daviteq's NIDR gas sensor link:
	For CO, Cl_2, H_2S, H_2, NH_3, refer Daviteq's Electro-Chemical gas sensor link:
Sensor working temperature	-20~60°C
Sensor Working humidity	15-90% RH, non-condensing
Operating pressure	80kPa to 120kPa
Local functions	Alarm sound and alarm acknowledgement
Sigfox regions supported	RC1~RC7
Antenna	External antenna
Data sending mode	Cycle, alarm and magnet key.
RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
Configuration	Via downlink (only for some configurations) or USB cable (PC software provided free of charge)
Battery	01 x $LiSOCl_2$ 3.6V battery
Housing	ABS, IP40
Dimensions	H80xW150xD50 (without battery)
Net weight	< 300 grams (without battery)
Installation	Wall mounting with screws

CO GAS SENSOR MONITORING IN WINE CELLAR

1.6 m

WSSFC-GCB-H3.JPG

SIGFOX-READY FLAMMABLE GAS SENSOR FOR COMMERCIAL KITCHENS

30-40mm
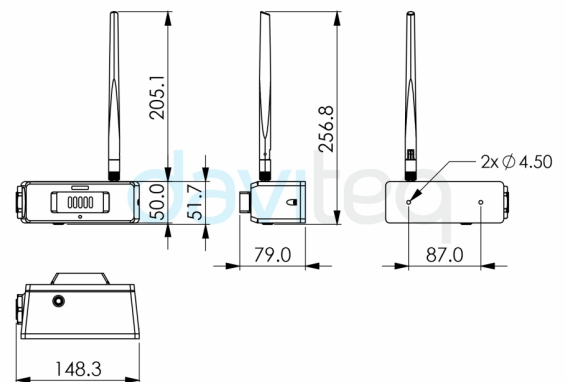
WSSFC-GCB-H2.JPG

INSTALL ON WALL 30-40MM ABOVE GROUND

WSSFC-GCB-H4.JPG

DIMENSION DRAWING OF WIRELESS NODE
(Unit: mm)

205.1

256.8

50.0

51.7

79.0

2x ⌀ 4.50

87.0

148.3

WSSFC-GCB-H6.JPG

RECOMMENDED BATTERIES FOR SENSOR NODE

LS 33600 Lithium battery

SAFT
LS 33600
Ⓡ RU
3.6V
Li-SOCl₂

-60°C..+85°C working temperature

Low self-discharge rate

17.0 Ah Capacity

WSSFC-GCB-H7.JPG

PRODUCT PACKAGE

WSSFC-GCB-H8.JPG

Ordering Information

ITEM CODES	DESCRIPTIONS
WSSFC-GCB-CH4-01	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, CH_4, 0-100% LEL, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-C3H8-01	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, C_3H_8, 0-100% LEL, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-CO-500	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, CO, 0-500 PPM, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-H2S-100	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, H_2S, 0-100 PPM, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-H2-1K	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, H_2, 0-1000 PPM, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-NH3-100	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, NH_3, 0-100 PPM, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7
WSSFC-GCB-CL2-20	SIGFOX-READY GAS SENSOR WITH SIREN FOR INDUSTRIAL SAFETY, CL_2, 0-20 PPM, 3.6V BATTERY, IP40, LOCAL ALARM SOUND & ACKNOWLEDMENT, RC1-RC7