Sigfox Ex d Approved Flammable Gas Sensor WSSFCEX-GHC

SKU: WSSFCEX-GHC

Doc No: WSSFCEX-GHC-DS-EN-10

Introduction

WSSFCEX-GHC is a Sigfox sensor with explosion-proof approval, comes with a built-in high-performance NDIR technology sensor to detect the Hydrocarbon Gas concentration in the air. With Ultra-low-power design and smart firmware allow the complete Wireless and Sensor package to run on a single battery type D for 5 years or more with 15 minutes update. It can support the following regions RC1, RC2, RC3c, and RC4.

- Ex d approved;
- High-performance NDIR technology;
- Resistance to corrosion;
- Immunity from ‘poisoning’;
- Sensor life more than 10 years;
- Low maintenance;
- Sigfox Ready for RC1-RC2-RC3c-RC4;
- 5 years battery life with 15 minutes updates;
- Plug & Play.

Typical Applications

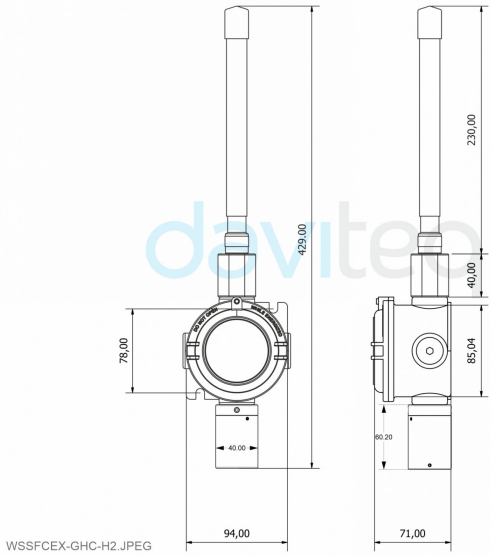
- Monitor the hydrocarbon gas concentration in ambient air.

SIGFOX-READY Ex d APPROVED FLAMMABLE GAS SENSOR WSSFCEX-GHC



WSSFCEX-GHC-H1.JPEG

DIMENSION DRAWING FOR Ex d GAS SENSOR
(Unit: mm)



WSSFCEX-GHC-H2.JPEG

Specification

SENSOR SPECIFICATION	
Measurement technology	High-performance NDIR

Measurement Range	0 - 100% LEL Flammable Gas, equivalent to 0-5% Vol of Methane (CH4) ** for the C3H8 gas application, please consult us before ordering*
Maximum response time (T90)	< 40s
Resolution	500 ppm (at 5% Vol) The resolution will vary with gas concentration due to the non-linear response to the target gas, therefore the best resolution will be at the low concentrations and will get worse as the concentration increases.
Maximum deviation from linearity	± 0.1% vol
Maximum variation of zero from −20 to +55°C	±30 ppm/°C
Maximum non-reproducibility of zero at 20 °C	±500 ppm
Maximum non-reproducibility of sensitivity at 20 °C	<± 1000 ppm
Long-term zero drift/month	±500 ppm
Response to 0-90% change in RH at 20 °C (in target gas)	+0.1% Vol (at 5% Vol)
MTBF (lamp dependent only)	>10 years
Vibration	Complies with EN 60079-29-1
Sensor Operating Temperature Range	-20 to 60 °C
Operating Pressure	700kPa to 1300kPa
Operating Humidity Range	0 - 95% RH, non-condensing
SIGFOX SPECIFICATION	
Sigfox zones	select RC1-RC2-RC3c-RC4
Antenna	External Antenna
Configuration	via Downlink or offline USB cable (PC software is supplied for free)
Battery	01 x D type LiSOCl2 3.6V battery
RF Module complies to	CE, FCC, ARIB
Electronics Working temperature	-40°C..+85°C
Housing	Cast aluminum, powder-coated, IP66
ATEX Certificates	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X
Marking	ATEX II 2G Ex db IIC T5/T6 Gb and ATEX II 2D Ex tb IIIC T100/T85°C Db
Directive	ATEX 2014/34/EU
Standards	IEC-EN60079-0 IEC-EN60079-1 IEC-EN60079-31
Applicable zones	Zone 1 - 21 (gas) and Zone 2 - 22 (dust)
Mounting	wall mounting holes
Product dimensions	H100xW100xD80 (excluded antenna)
Net weight	1.5 kgs
Packaging dimension	W160 x D150 x H250 mm
Gross weight	< 1.6 kgs

Ordering Code

Item code	Descriptions
WSSFCEX-GHC-01	SIGFOX-READY FLAMMABLE GAS SENSOR, 0-100% LEL, EX APPROVED ZONES 1-2-21-22, BATTERY 3.6V, IP66, FOR RC1-RC2-RC3c-RC4 ZONES, IR SENSOR, CH4, 0-100% LEL

⚠ Link for full datasheet:

⚠ Link for manual:

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