

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.

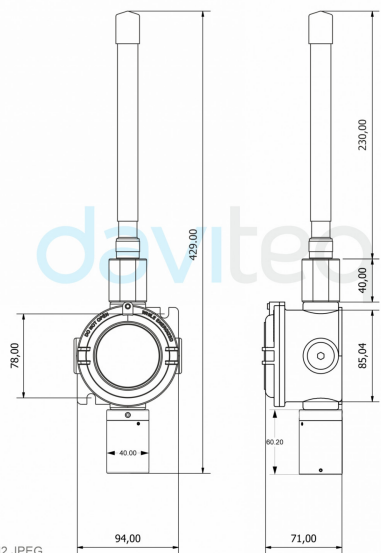
SIGFOX-READY Ex d APPROVED FLAMMABLE GAS SENSOR WSSFCEX-GHC



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) <i>* for the C3H8 gas application, please consult us before ordering</i> |
| 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 LiSOC12 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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