# Sigfox-Ready Ex d approved Ambient Humidity and Temperature sensor

Smart Facility

daviteq

SKU: WSSFCEX-ATH

○ Safe Zone          ✓ Hazardous Zones

### SIGFOX-READY Ex d AMBIENT HUMIDITY AND TEMPERATURE SENSOR WSSFCEX-ATH

sigfox

10-Year

IP67 WEATHERPROOF

WSSFCEX-ATH-H1.JPEG

CE  FC  ARIB

WSSFCEX-ATH is a Sigfox-ready sensor with Ex d explosion-proof approval, comes with a built-in high-performance ambient humidity and temperature sensor. With Ultra-low-power design and smart firmware allow the complete Wireless and Sensor package to run on a single battery 3.6V for 5 years or more with 15 minutes update. It supports all Sigfox zones like RC1-RC2-RC3-RC4-RC5-RC6-RC7.

Typical applications: Ambient humidity and temperature monitoring for warehouse or area with flammable gases or dust.

## Applications
Automatic Ventilation System, Facility Monitoring, Indoor Air Quality Monitor, Warehouse Monitoring, Temperature Monitoring

## Notes For Applications

- Accuracy: Determine the required accuracy level.
- Operating Temperature Range: Ensure within your application's temperature range.
- Response Time: Select a sensor with an appropriate response time.
- Size and Power Consumption: Opt for small form factors and low power consumption for portable or battery powered applications.
- Environmental Compatibility: Assess compatibility with the operating environment, including exposure to chemicals and contaminants.
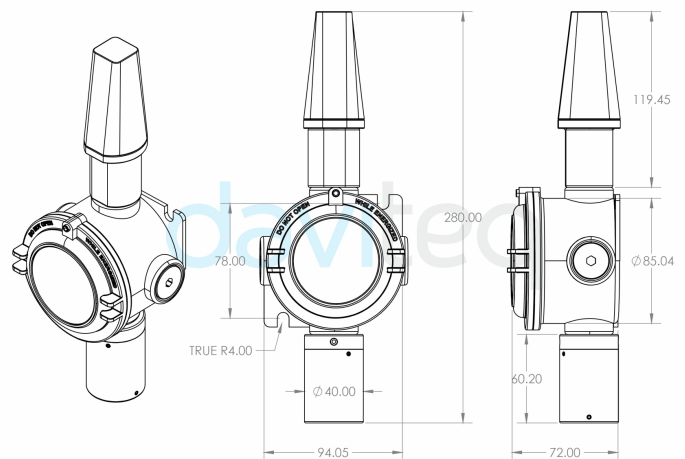
✓ **Sigfox Ready**
Support RC1-RC2-RC3-RC4-RC5-RC6-RC7.

✓ **High performance Sensor**
High accuracy 1.5%RH and 0.1℃

✓ **More than 5 years Battery life**
Ultra low power sensor technology allow 5-year battery life with a single battery 3.6V

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

### DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)

119.45

280.00

78.00

Ø 85.04

TRUE R4.00

Ø 40.00

60.20

94.05

72.00

WSSFCEX-ATH-H2.JPEG

## DAVITEQ TECHNOLOGIES INC
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## Specification

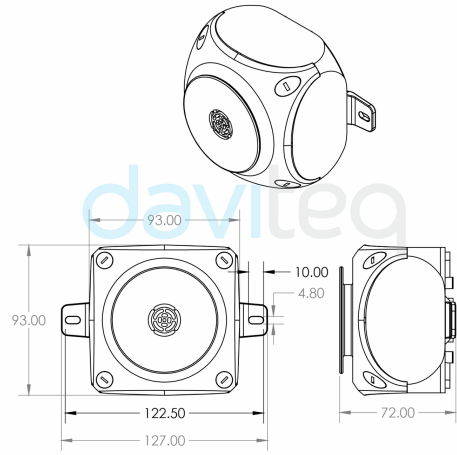| | |
|---|---|
| Sensor | Digital type, factory calibrated, output both Humidity & Temperature values |
| Humidity measuring range & accuracy | 0~100 %RH, ±1.5% highest |
| Humidity resolution | 0.1% |
| Temperature measuring range & accuracy | -40~85℃, ±0.1℃ highest |
| Temperature resolution | 0.1℃ |
| Sigfox zones | select RC2-RC3-RC4-RC5 or RC1-RC6-RC7 |
| Antenna | N-male type external Antenna |
| Battery | LiSOCl2 3.6V, working time up to 10 years (depends on configuration) |
| 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 T4 Gb and ATEX II 2D Ex tb IIIC T135°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) |
| Ambient working temperature | -40~85℃ |
| Housing | Cast aluminium, powder coated, IP66 |
| 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 |

## WIRELESS GAS SENSOR MOUNTING ON THE CEILING



WSSFC-G4H-H3.PNG

## DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)



WSSFC-G4H-H4.PNG

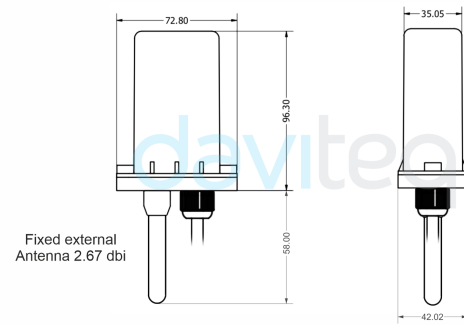## RECOMMENDED BATTERY

**Saft LS33600 D Type 3.6V Li-SOCl2 battery**



-60°C/+85°C (-76°F/+185°F) Working Temperature

61.200 mWh Capacity

WSSFC-G4H-H5.PNG

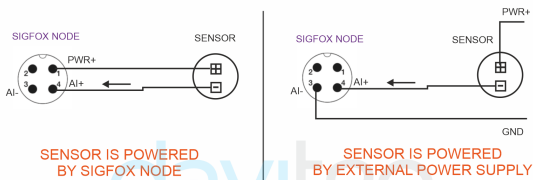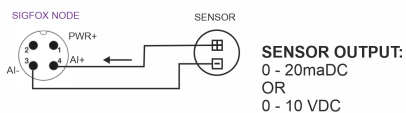## DIMENSION DRAWINGS FOR SIGFOX SENSOR WITH ANALOG INPUT



Fixed external Antenna 2.67 dbi

UNIT: mm

WSSFC-AI-H6.PNG

## WIRING FOR SIGFOX SENSOR WITH ANALOG INPUT

**CASE 1 - WORK WITH LOOP POWERED SENSOR**



SENSOR IS POWERED BY SIGFOX NODE

SENSOR IS POWERED BY EXTERNAL POWER SUPPLY

**CASE 2 - WORK WITH NON - LOOP POWERED SENSOR**



SENSOR OUTPUT:
0 - 20maDC
OR
0 - 10 VDC

WSSFC-AI-H7.PNG

## RECOMMENDED BATTERIES FOR SIGFOX SENSOR

**E93 C type Alkaline battery 1.5VDC**

**Ls26500 C type Li-SOCl2 battery 3.6VDC**



-18 .. + 55 oC working temperature

10-year shelf life

12.000 mWh Capacity

Price: 1X

-60 .. + 85 oC working temperature

20-year shelf life

27.700 mWh Capacity

Price: 8X

WSSFC-AI-H8.PNG

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## Ordering Information

| ITEM CODES | DESCRIPTIONS |
| --- | --- |
| WSSFCEX-ATH-15 | SIGFOX-READY AMBIENT HUMIDITY AND TEMPERATURE SENSOR, EX D APPROVAL, ZONE 1/2/21/22, IP66, 3.6V BATTERY, RC1-RC2-RC4 ZONES |