

LoRaWAN Ex d Ambient Humidity & Temperature Sensor



Smart Facility

SKU: WSLRWEX-ATH

☐ Safe Zone

☒ Hazardous Zones

LORAWAN EXD AMBIENT HUMIDITY AND TEMPERATURE SENSOR WSLRWEX-ATH



WSLRWEX-ATH is a LoRaWAN sensor with Ex d explosion-proof components design, 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 frequency zones.

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.

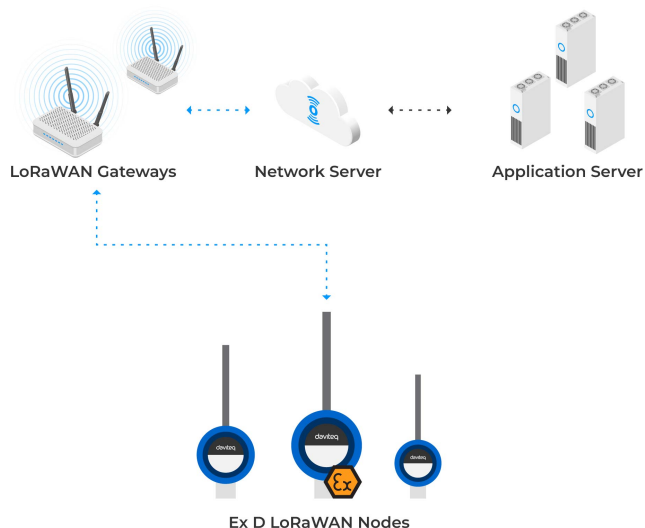
☒ **LoRaWAN communication**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market

☒ **5-10 Years battery**
Daviteq's ultra-low power sensing technology and wireless technology allow the sensor can last up to 5-10 years with a single battery

☒ **High Accuracy & Stable**
Digital sensor with factory-calibration

☒ **Optional Rain Guard and Splash Guard**
For outdoor installation or place with water jets

SYSTEM ARCHITECTURE LoRaWAN



DAVITEQ TECHNOLOGIES INC

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Created date: Oct-02-2023

Updated date: May-14-2026

Specification

Sensor	Digital type, factory calibrated, output both Humidity & Temperature values
Sensor Type	Integral or Remote type with cable
Humidity measuring range & accuracy	0~100% RH, $\pm 2.0\%$
Humidity resolution	0.1%
Temperature measuring range & accuracy	-40~85°C, $\pm 0.2^\circ\text{C}$
Temperature resolution	0.1°C
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	External Antenna 2.0 dbi
Battery	01 x C size 3.6VDC, battery not included
RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN®, class A
Data sending modes	Interval time, magnetic key initiation and alarm event
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Certified Ex d	FTZU 03 ATEX 0207U, TÜV CY 18 ATEX 0206158 X and IECEx FTZU 12.0017U, IECEx MSC 19.0001X
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
Ambient working temperature	-40~85°C
Housing	Cast aluminium, powder coated, IP66
Mounting	wall mounting holes
Product dimensions	H163 × W94 × D72 (excluded antenna)
Net weight	1.5 kg (without battery)

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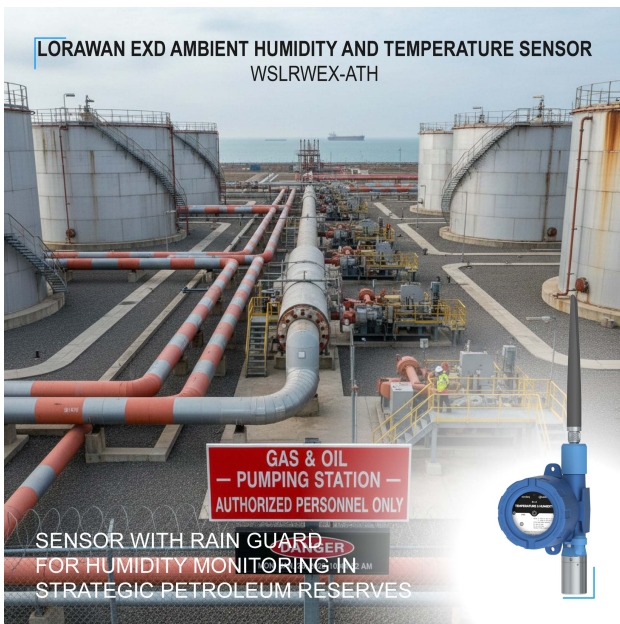
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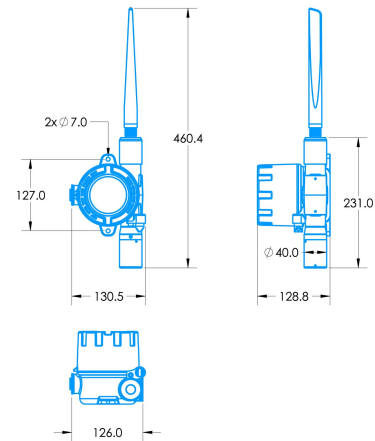
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WSLRWEX-ATH



DIMENSION DRAWING OF
WIRELESS NODE (Unit: mm)

RECOMMENDED BATTERIES



LS 33600
Lithium battery

-60~85°C working temperature
Low self-discharge rate
17000 mAh capacity

POWERED BY PRIMARY BATTERY

LORAWAN EXD AMBIENT HUMIDITY AND TEMPERATURE SENSOR
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STANDARD PRODUCT PACKAGE

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRWEX-ATH-11	LORAWAN AMBIENT HUMIDITY AND TEMPERATURE SENSOR, EX D APPROVAL, ZONE 1/2/21/22, IP66, 3.6V BATTERY, 860-930MHz

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