

# LoRaWAN Ex d Ambient Humidity & Temperature Sensor



Smart Facility

SKU: WSLRWEX-ATH

## LoRaWAN Ex d AMBIENT HUMIDITY AND TEMPERATURE SENSOR WSLRWEX-ATH

LoRaWAN



WSLRWEX-ATH-H1.JPG

Safe Zone

Hazardous Zones

WSLRWEX-ATH is a LoRaWAN 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 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**  
Ultra-low power sensing technology from Daviteq with Ultra-low power 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

## HUMIDITY MONITORING IN MINES



WSLRWEX-ATH-H2.JPG

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Created date: Oct-02-2023

Updated date: Aug-28-2024

1/4

## 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 and when alarm occurred
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
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°C
Housing	Cast aluminium, powder coated, IP66
Mounting	wall mounting holes
Product dimensions	H100 × W100 × D80 (excluded antenna)
Net weight	1.5 kg
Packaging dimension	W160 × D150 × H250 mm
Gross weight	<1.6kg

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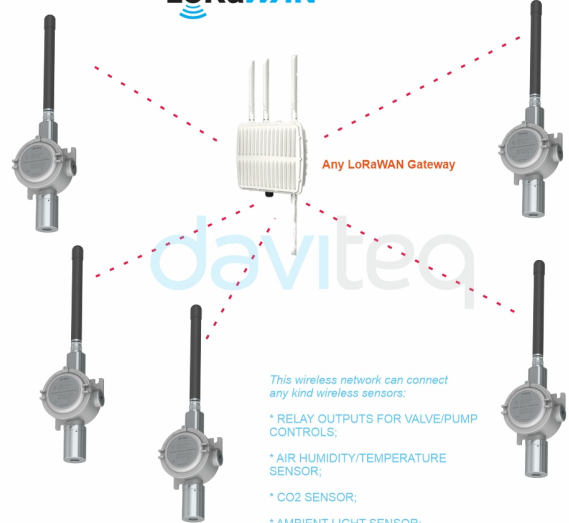
2/4

MONITOR HUMIDITY IN CHEMICAL WAREHOUSES



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LoRaWAN NETWORK

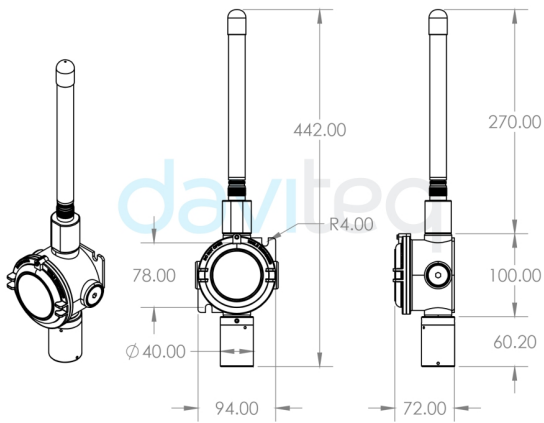


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*This wireless network can connect any kind wireless sensors:*

- \* RELAY OUTPUTS FOR VALVE/PUMP CONTROLS;
- \* AIR HUMIDITY/TEMPERATURE SENSOR;
- \* CO2 SENSOR;
- \* AMBIENT LIGHT SENSOR;
- \* ...ETC

DIMENSION DRAWING OF SENSOR NODE  
(Unit: mm)



WSLRWEX-ATH-H5.JPG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

LS 26500 Lithium battery



- 60°C..+85°C working temperature
- Low self-discharge rate
- 7.7 Ah Capacity

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## Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRWEX-ATH-15	LORAWAN AMBIENT HUMIDITY AND TEMPERATURE SENSOR, EX D APPROVAL, ZONE 1/2/21/22, IP66, 3.6V BATTERY

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4/4