

LoRaWAN Humidity & Temperature Sensor



Smart Agriculture, Smart Building, Smart Facility, Smart Farm, Smart Healthcare, Smart Retail, Smart Transportation

SKU: WSLRW-ATH

LoRaWAN INTERGRATED HUMIDITY & TEMPERATURE SENSOR WSLRW-ATH



WSLRW-ATH-H1.PNG

- ✓ **LoRaWAN communication**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market
- ✓ **10-Year battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 10 years with 02 x AA batteries
- ✓ **High Accuracy & Stable**
Digital sensor with factory-calibration
- ✓ **Optional Rain Guard and Splash Guard**
For outdoor installation or place with water jets



WSLRW-ATH is the LoRaWAN Integrated Ambient Humidity & Temperature Sensor, it utilises Digital capacitance humidity sensor to deliver high accuracy and stable measurement. The sensor probe comes with Integral type for the most applications, while the Remote type sensor with cable allows customer to install the sensor in applications where the sensor probe and wireless transmitter part need to be separated. With Ultra-low Power design and smart firmware allow the sensor can last up to 10 years with 02 x AA-type battery (depends on configuration). The sensor will transmit data in kilo-meters distance to LoRaWAN gateway, any brand on the market. Some typical applications are environment monitoring for office, warehouse, data-center, hospital, agriculture...

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

LoRaWAN Wireless Sensor for Monitoring Humidity and Temperature in Datacenter



WSLRW-ATH-H2.PNG

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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
Sensor Filter	20 μm Alloy sintered filter
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	Internal Antenna 2.0 dBi
Battery	02 x AA size 1.5VDC, 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)
Vietnam Type Approval	TBA soon
Working temperature	-40~60°C (with AA L91 Energizer®)
Dimensions	H137xW73xD42
Net-weight	250g
Housing	Polycarbonate & POM plastic, IP67

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LoRaWAN Wireless Sensor for Monitoring Humidity and Temperature in Greenhouse



WSLRW-ATH-H3.PNG

LoRaWAN Wireless Sensor for Monitoring Humidity and Temperature in Warehouse



WSLRW-ATH-H4.PNG

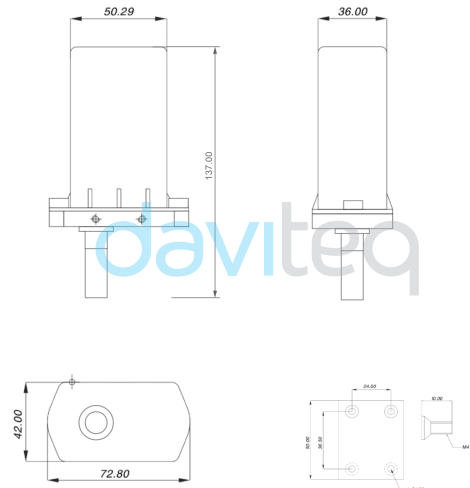
LoRaWAN NETWORK



- 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

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DIMENSION DRAWING OF WIRELESS SENSOR



WSLRW-ATH-H6.PNG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

E91 AA Alkaline battery



- 18 .. + 60 oC working temperature
- 10-year shelf life
- 3000 mAH Capacity
- Price: 1X

L91 AA Lithium battery



- 40 .. + 60 oC working temperature
- 20-year shelf life
- 3500 mAH Capacity
- Price: 3.5X

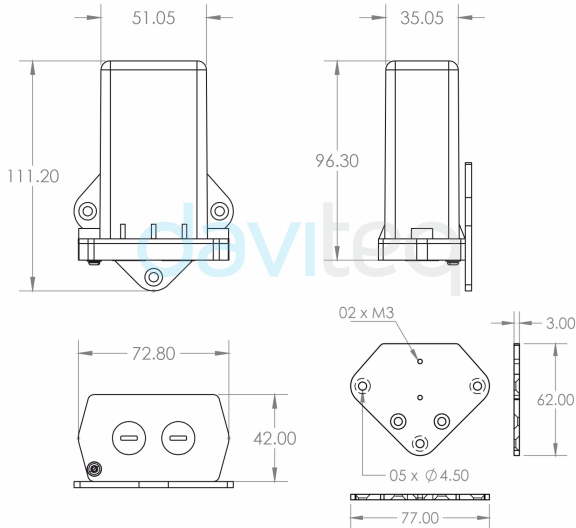
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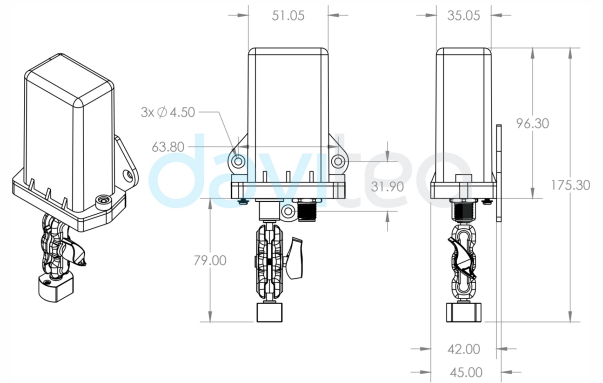
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DIMENSION DRAWING OF WIRELESS SENSOR



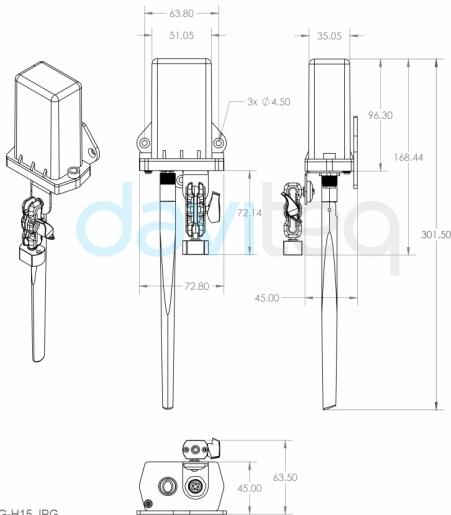
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DIMENSION DRAWINGS FOR WIRELESS SENSOR WITH SOLAR BRACKET



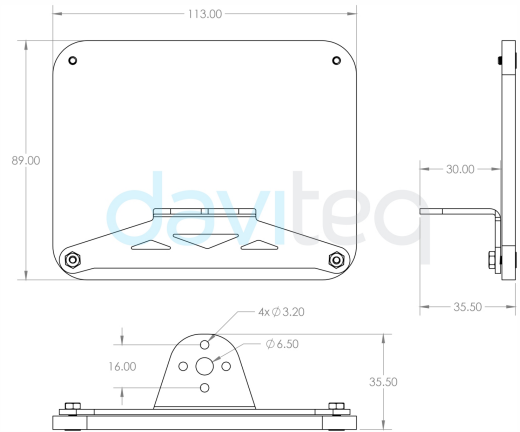
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DRAWING FOR TILT SENSOR WITH EXTERNAL ANTENNA AND SOLAR BRACKET



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DIMENSION DRAWINGS FOR SOLAR PANEL



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RECOMMENDED BATTERIES FOR LoRaWAN SENSOR POWERED BY PRIMARY BATTERY

E91 AA Alkaline battery

L91 AA Lithium battery



-18 .. + 60 oC working temperature
10-year shelf life
3000 mAH Capacity
Price: 1X

-40 .. + 60 oC working temperature
20-year shelf life
3500 mAH Capacity
Price: 3.5X

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RECOMMENDED BATTERIES FOR LoRaWAN SENSOR POWERED BY SOLAR PANEL

AA RH6 Rechargeable Battery

AA NIMH Rechargeable Battery



-20 .. +50°C working temperature
2000 mAH Capacity

-20 .. +50°C working temperature
2000 mAH Capacity

WSLRW-AG-H11.JPG

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-ATH-11	Wireless LoRaWAN Integral Humidity & temperature sensor with sintered metal protection filter, Internal antenna, Type AA battery 1.5VDC, IP67, 860-930MHz
WSLRW-ATH-12-300	Wireless LoRaWAN Humidity & temperature sensor with sintered metal protection filter, Remote type 300mm cable, Internal antenna, Type AA battery 1.5VDC, IP67, 860-930MHz

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