

Wireless Integrated Humidity Sensor



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

SKU: WS433-ATH

WIRELESS INTEGRATED HUMIDITY SENSOR



WS433-ATH-H1.PNG



Safe Zone



Hazardous Zones

WS433-ATH is the Wireless Integrated Ambient Humidity & Temperature Sensor, it utilises Digital capacitance humidity sensor to deliver high accuracy and stable measurement. The wireless portion is Sub-GHz technology from Texas Instruments allows long range transmission at ultra-low power consumption. It will connect 2-way wirelessly to the wireless co-ordinator WS433-CL to send data and receiving the configuration. It can be configured the operation parameters like data sending interval, health check cycle... remotely from Globiots platform or via ModbusRTU software (thru the WS433-CL). Its default data rate is 50kbps, can be switched to 625bps to increase the communication range. It can last up to 10 years with a single AA battery. There are a lot of applications as 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

CONNECT WIRELESS SENSORS TO any PLC or HMI



WS433-ATH-H2.PNG



Reliable & Secured Wireless Connection

Sub-Ghz technology from Texas Instruments allows reliable wireless connection and secured data by AES-128



10-year with a single battery

Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology from Texas Instruments allow the sensor can last up to 10 years with a single battery AA.



High accuracy

Digital sensor with factory-calibration



Sintered Filter

Alloy sintered filter to protect sensor in hash environment

DAVITEQ TECHNOLOGIES INC

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Created date: Dec-21-2022


Updated date: Aug-28-2024


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Specification

Sensor	Digital type, factory calibrated, output both Humidity and Temperature values
Humidity measuring range and accuracy	0~100% RH, $\pm 3.0\%$ RH ($\pm 1.5\%$ RH for ATH-15 version)
Humidity resolution	0.1%
Temperature measuring range and accuracy	-40~85°C, $\pm 0.5^\circ\text{C}$ ($\pm 0.1^\circ\text{C}$ for ATH-15 version)
Temperature resolution	0.1°C
Sensor Filter	20 μm Alloy sintered filter
Data speed	Up to 50kbps
Transmission distance, LOS	1000m
Antenna	Internal Antenna
Battery	01 x AA 1.5-3.6VDC, up to 10-year operation, depends on configuration
Frequency Band	ISM 433MHz, Sub-GHz technology from Texas Instrument, USA
International Compliance	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Vietnam Type Approval Certification	QCVN 73:2013/BTTTT, QCVN 96:2015/BTTTT (DAVITEQ B00122019)
Security Standard	AES-128
Operating temperature of PCB	-40~60°C (with AA L91 Energizer®)
Housing	Poly-carbonate, IP67
Installation method	L-type bracket SUS304 , by M4 screws or double-sided 3M tape (included)
Product dimensions and weight	160x30x30mm, < 50g (without battery)
Box dimension and gross weight	190x50x50mm, < 90g

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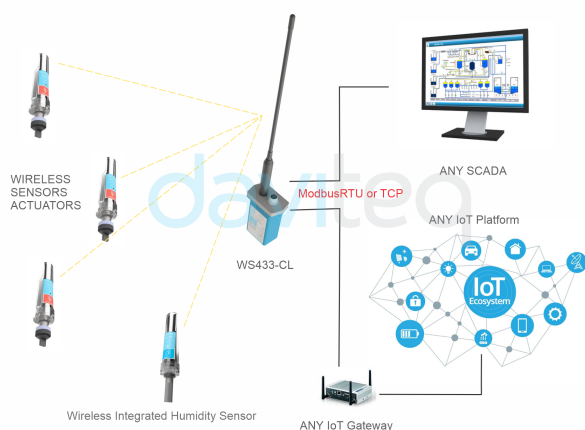
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CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform



WS433-ATH-H3.PNG

CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



WS433-ATH-H4.PNG

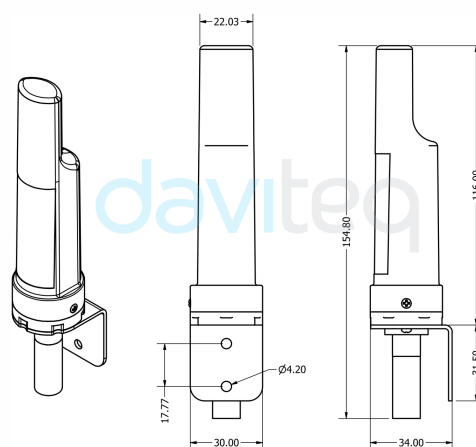
CARTON BOX OF WIRELESS SENSOR



SIZE: 50x50X190MM

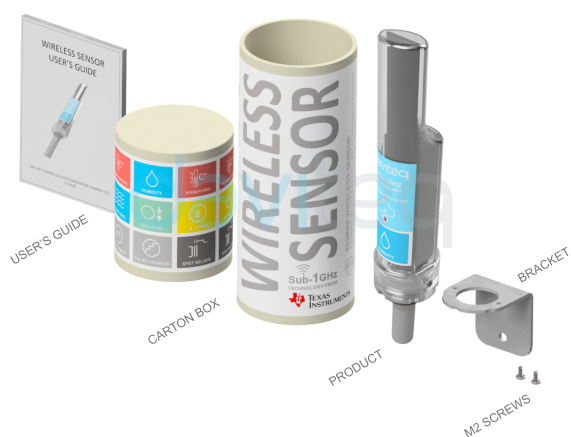
WS433-ATH-H5.PNG

DIMENSION DRAWING OF WIRELESS INTEGRATED HUMIDITY SENSOR



WS433-ATH-H6.PNG

PRODUCT PACKAGE INCLUDES



WS433-ATH-H7.PNG

RECOMMENDED BATTERIES

E91 AA Alkaline battery

L91 AA Lithium battery



-18 .. + 60 oC working temperature

-40 .. + 60 oC working temperature

10-year shelf life

20-year shelf life

3000 mAh Capacity

3500 mAh Capacity

Price: 1X

Price: 3.5X

WS433-ATH-H8.PNG

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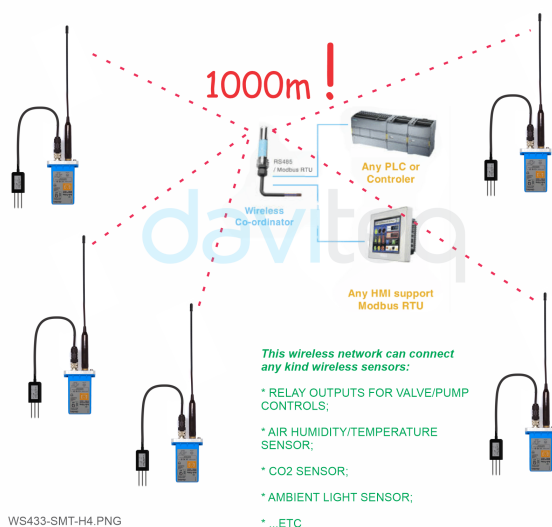
SOIL MOISTURE SENSOR INSTALLATION



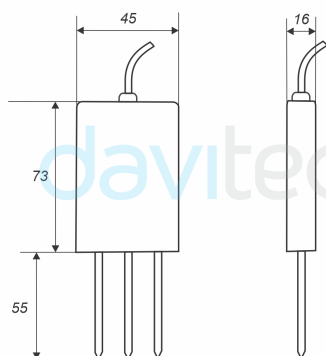
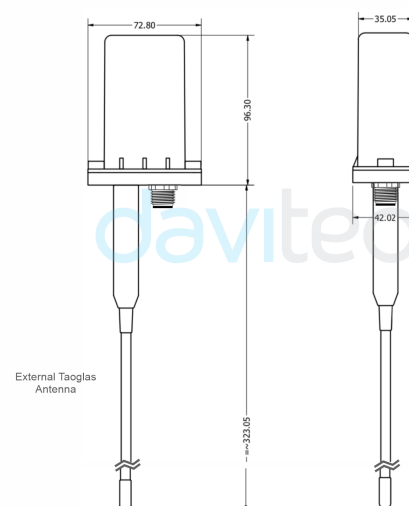
INSTALLATION FOR MULTI-LAYER MEASUREMENT



40 WIRELESS SENSORS CONNECT TO ONE CO-ORDINATOR



CONNECT WIRELESS SENSORS TO GLOBIOTS Platform

DIMENSION DRAWINGS OF SENSOR
(Unit: mm)DIMENSION DRAWINGS OF WIRELESS SENSOR
(Unit: mm)

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Ordering Information

ITEM CODE	DESCRIPTIONS
WS433-ATH-11	Wireless Sub-GHz integrated ambient humidity and temperature sensor, Standard compact sensor, 3% RH acc.
WS433-ATH-15	Wireless Sub-GHz integrated ambient humidity and temperature sensor, Advanced compact sensor, 1.5% RH acc.