

Wireless Ambient Light Sensor



Smart Agriculture, Smart Building, Smart City, Smart Farm, Smart Factory

SKU: WS433-AL

WIRELESS AMBIENT LIGHT SENSOR WS433-AL



WS433-AL-H1.PNG

Safe Zone

Hazardous Zones

WS433-AL is a wireless ambient light sensor, using the most advanced digital technology to bring 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 coordinator 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. The sensor can last up to 10 years with a single AA battery. And it has many applications such as continuous measurement of ambient brightness to monitor the premises or control lighting in factories, greenhouses, etc.

Applications

Facility Monitoring, Safety Monitoring

Notes For Applications

- Light Intensity Range: Choose a sensor with an intensity range suitable for the application.
- Power Consumption: Evaluate the power requirements of the sensor.
- Mounting Options: Consider the physical form factor and mounting options.
- Integration: Look for sensors that integrate well with your system.

- 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.
- Pre-calibrated**
Sensors are pre-calibrated at factory to deliver high accuracy and quick installation
- IP67**
For both indoor and outdoor applications

WIRELESS AMBIENT LIGHT SENSOR FOR LIGHTING CONTROLS IN SMART FACTORY



WS433-AL-H2.PNG

DAVITEQ TECHNOLOGIES INC

Ho Chi Minh City, VN | Koblenz, DE | Melbourne, AU | Zurich, CH

+84.28.6268.2523 / 6268.2524

info@daviteq.com

www.iot.daviteq.com

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Specification

SENSOR SPECIFICATION :	
Ambient light intensity measurement feature:	
Unit	Lux
Measurement range	0~83865.6
Linearity	5% when the light is less than 40 lux
Temperature drift	0.01%/°C when light intensity is about 2000 lux
WIRELESS TRANSMITTER SPECIFICATION :	
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 & weight	160x30x30mm, < 60g (without battery)
Box dimension & gross weight	190x50x50mm, < 90g

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WIRELESS AMBIENT LIGHT SENSOR FOR LIGHTING CONTROLS IN SMART FARM



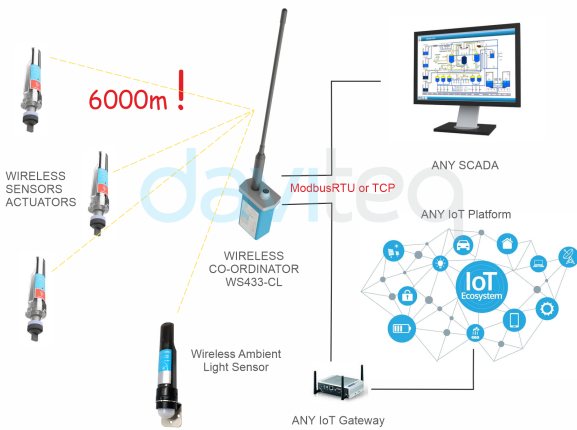
WS433-AL-H3.PNG

CONNECT WIRELESS SENSORS TO any PLC or HMI



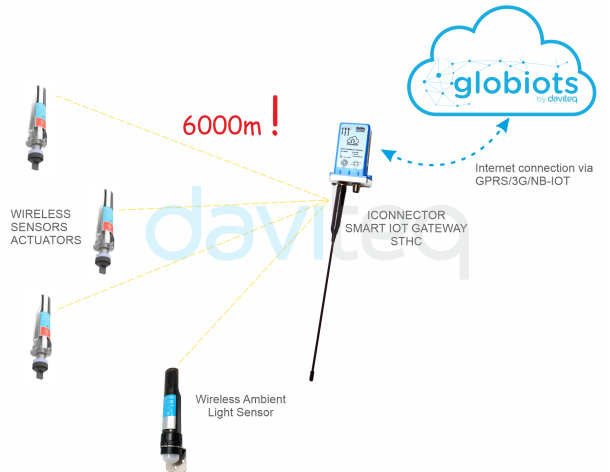
WS433-AL-H4.PNG

CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform



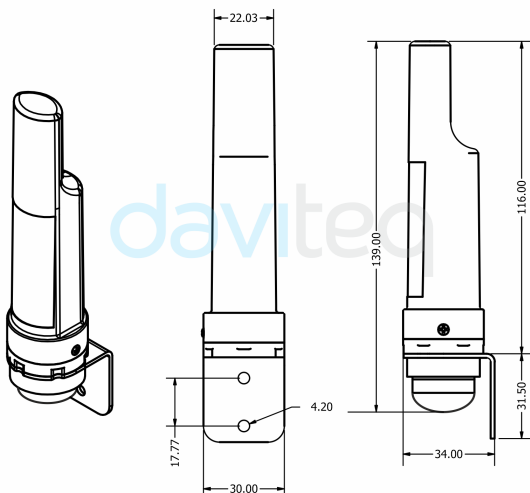
WS433-AL-H5.PNG

CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



WS433-AL-H6.PNG

DIMENSIONS (Unit: mm)



WS433-AL-H7.PNG

RECOMMENDED BATTERIES FOR WIRELESS SENSOR WS433

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

WS433-AL-H8.PNG

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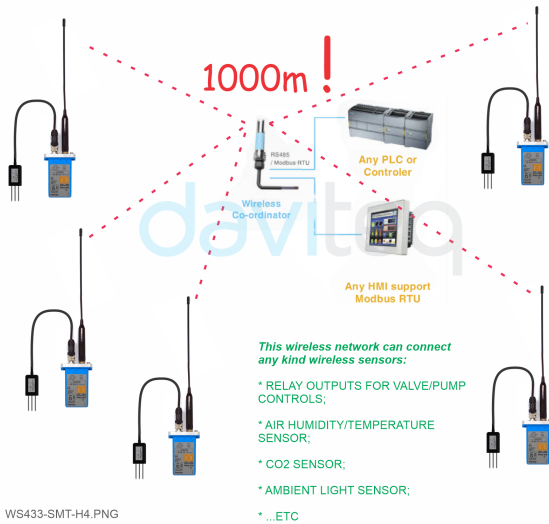
SOIL MOISTURE SENSOR INSTALLATION



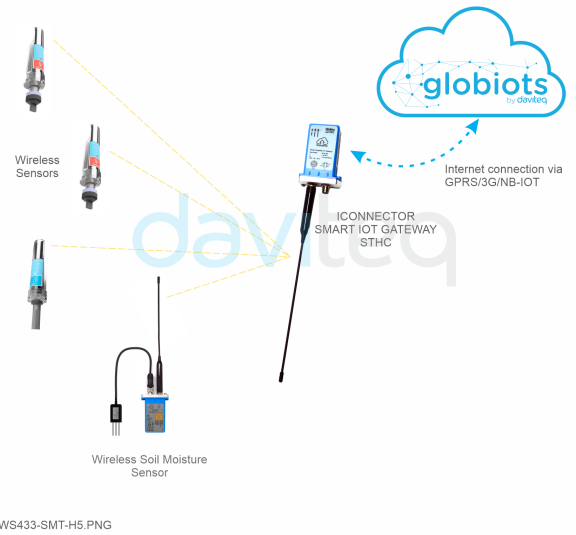
INSTALLATION FOR MULTI-LAYER MEASUREMENT



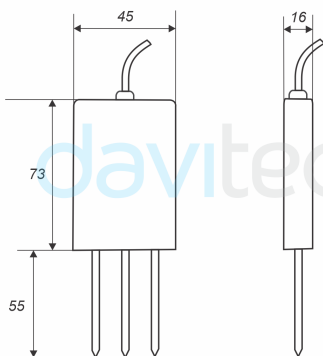
40 WIRELESS SENSORS CONNECT TO ONE CO-ORDINATOR



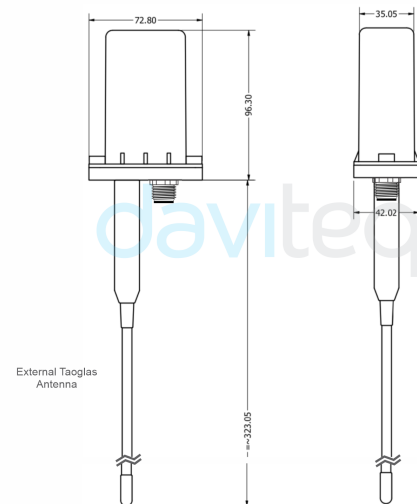
CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



DIMENSION DRAWINGS OF SENSOR (Unit: mm)



DIMENSION DRAWINGS OF WIRELESS SENSOR (Unit: mm)



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Ordering Information

ITEM CODE	DESCRIPTIONS
WS433-AL-01	Wireless ambient light sensor 433MHz, AA 1.5 - 3.6VDC battery, IP67

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