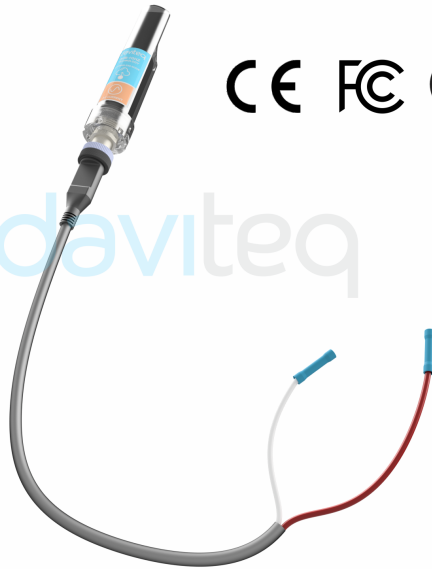# Wireless Sensor AC Current Input

Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WS433-AC

**daviteq**

⊘ Safe Zone          ◯ Hazardous Zones

## 5A-AC CURRENT INPUT WIRELESS SENSOR WS433-AC



1000m LOS

10-Year

IP67 WEATHERPROOF

CE   FC   ARIB

WS433-AC-H1.PNG

Wireless sensor with 1-channel AC current input 5A to measure the AC current load of your motors, machines... to count the energy consumption, OVER-load or NO-load detection, run hour counting…It is configured the operation parameters like data sending interval, health check cycle... remotely from Globiots platform or via ModbusRTU software. The wireless module can last up to 10 years with a single AA battery.

### Applications
Condition Based Monitoring, Machine Health Monitoring, Safety Monitoring, Energy Monitoring, Production Monitoring

### Notes For Applications

⊘ **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 fromTexas Instruments allow the sensor can last up to 10 years with a single battery AA.

⊘ **Work with common Current Transformers**
Allows to setup the ratio of current transformer

⊘ **Long range Transmission**
Narrow Band techniques & Sub-Ghz technology allow long distance transmisison at lowest energy consumption

## WIRELESS SENSOR AC CURRENT INPUT CONNECT WITH CURRENT TRANSFORMER



LOAD

S1(K)

S2(L)

S1      S2
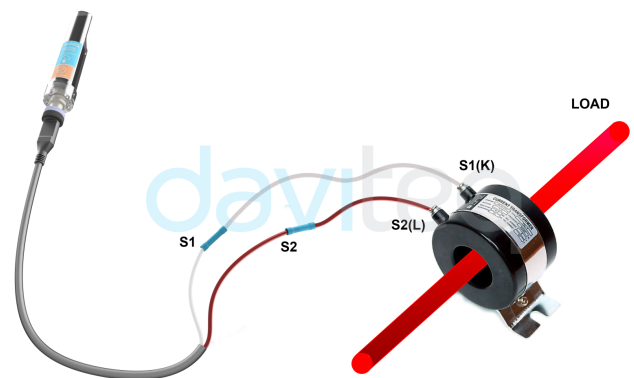
WS433-AC-H2.PNG

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**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**          Created date: Dec-21-2022          Updated date: Aug-28-2024
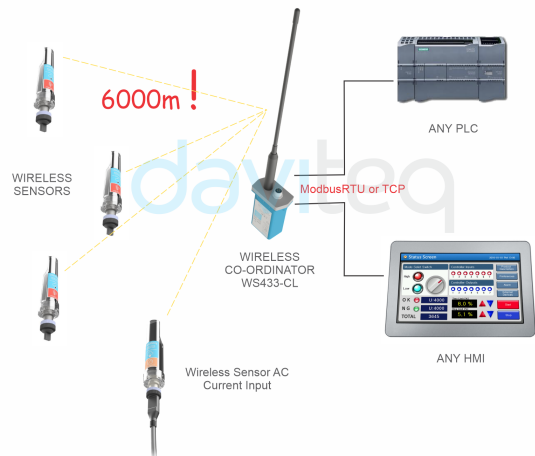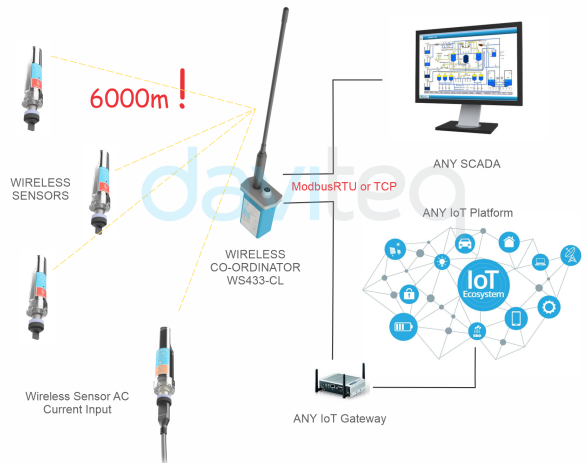
## Specification

| | |
|---|---|
| Measuring range | 0~5A AC |
| Accuracy | 1.0% |
| Resolution | 10 -bit |
| Temperature Drift | < 100 ppm |
| Electrical connection | cable 0.5m length with PG9 cable gland and wire crimping connectors for SAFETY |
| Optional accessories | 304SS Adapter PG9/male 1/2""NPT or PG13.5 or M20 to allow direct mounting on Process instruments or electrical panel |
| Data speed | Up to 50kbps |
| Tranmission distance, LOS | 500m |
| Antenna | Internal Antenna, 3 dbi |
| Battery | 01 x AA 1.5VDC, up to 10-year operation, depends on configuration |
| Frequency Band | ISM 433MHz, Sub-GHz technology from Texas Instrument, USA |
| Receiving Sensitivity | -110dBm at 50kbps |
| International Compliance | ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan) |
| Security Standard | AES-128 |
| Operating temperature of PCB | -40~60℃ (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 | 125x30x30mm |
| Net weight (without battery) | < 100g |
| Box dimension | 190x50x50mm |
| Gross weight | 140g |

## CONNECT WIRELESS SENSORS TO any PLC or HMI



6000m !

WIRELESS SENSORS

ModbusRTU or TCP

ANY PLC

WIRELESS CO-ORDINATOR WS433-CL

ANY HMI

Wireless Sensor AC Current Input

WS433-AC-H3.PNG

## CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform



6000m !

WIRELESS SENSORS

ModbusRTU or TCP

ANY SCADA

ANY IoT Platform

WIRELESS CO-ORDINATOR WS433-CL

IoT Ecosystem

Wireless Sensor AC Current Input

ANY IoT Gateway

WS433-AC-H4.PNG

## CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



6000m !

globiots
by daviteq

WIRELESS SENSORS

Internet connection via GPRS/3G/NB-IOT

ICONNECTOR SMART IOT GATEWAY STHC

Wireless Sensor AC Current Input
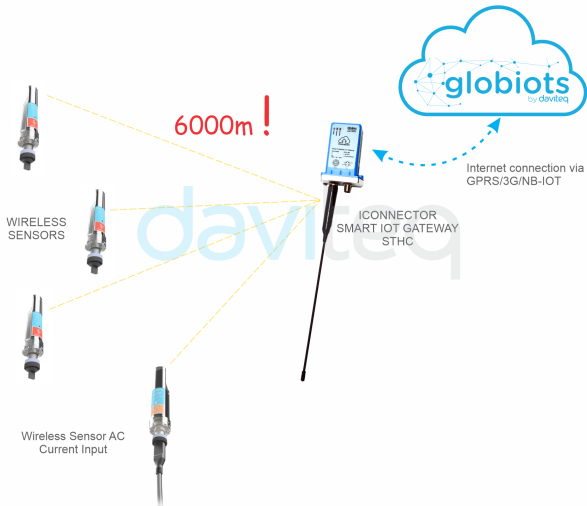
WS433-AC-H5.PNG

## DIMENSION DRAWINGS OF WS433 SENSOR WITH CABLE OUTPUT



22.43

17.77

178.27

60.77

116.00

31.50

30.00

34.00
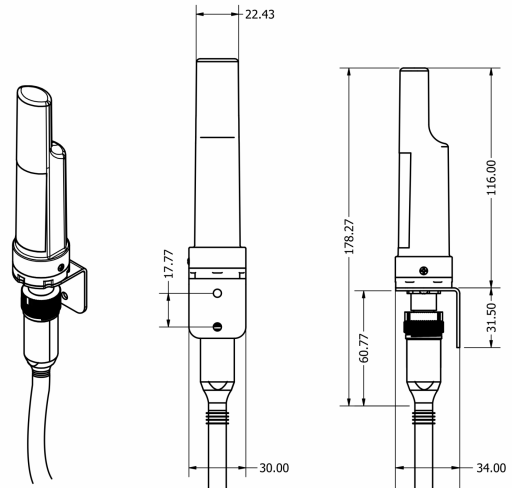
WS433-AC-H6.PNG

## CARTON BOX OF WIRELESS SENSOR



SIZE: 50x50X190MM

WS433-AC-H7.PNG

## RECOMMENDED BATTERIES FOR WIRELESS SENSOR WS433

**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

WS433-AC-H8.PNG

## SOIL MOISTURE SENSOR INSTALLATION



Soil Moisture Sensor

WS433-SMT-H2.PNG

## INSTALLATION FOR MULTI-LAYER MEASUREMENT



Soil Moisture Sensor

WS433-SMT-H3.PNG

## 40 WIRELESS SENSORS CONNECT TO ONE CO-ORDINATOR



1000m !

RS485 / Modbus RTU

**Any PLC or Controler**

Wireless Co-ordinator

**Any HMI support Modbus RTU**

*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

WS433-SMT-H4.PNG

## CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



globiots
by daviteq

Wireless Sensors

Internet connection via GPRS/3G/NB-IOT

ICONNECTOR SMART IOT GATEWAY STHC

Wireless Soil Moisture Sensor

WS433-SMT-H5.PNG

## DIMENSION DRAWINGS OF SENSOR
(Unit: mm)



45

16

73

55

WS433-SMT-H6.PNG
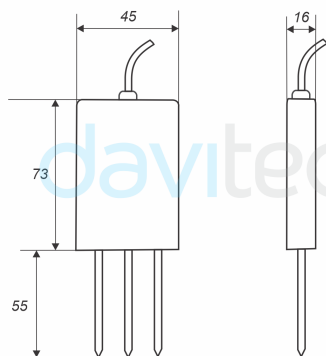
## DIMENSION DRAWINGS OF WIRELESS SENSOR
(Unit: mm)
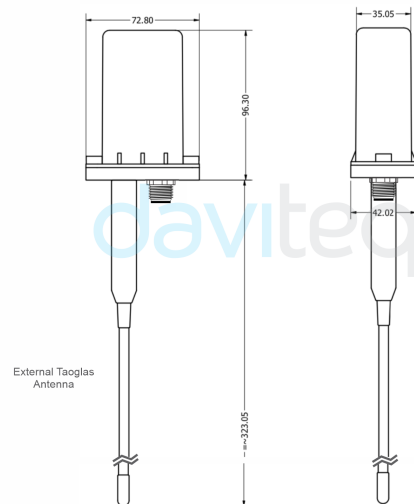


72.80

35.05

96.30

42.02

323.05

External Taoglas Antenna

WS433-SMT-H7.PNG

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info@daviteq.com     **www.iot.daviteq.com**     Created date: Dec-21-2022     |     Updated date: Aug-28-2024

# Ordering Information

| ITEM CODE | DESCRIPTIONS |
|---|---|
| WS433-AC-11 | Wireless sensor 1-channel AC current input max 5A, IP67, battery AA 1.5VDC, cable 0.5m length with PG9 cable gland and wire crimpping connectors for SAFETY |