

# Wireless Ultrasonic Level Sensor ULC



Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Farm, Smart Factory, Smart Transportation, Smart Utilities

SKU: WS433-ULC

## WIRELESS ULTRASONIC LEVEL SENSOR WS433-ULC



WS433-ULC-H1.PNG

Safe Zone

Hazardous Zones

Wireless Ultrasonic Level Sensor is a combination of wireless sensor transmitter WS433-M12F and Ultrasonic level sensor, measure the level of liquid surface of water, oil... This level sensor utilizes the ultrasonic technology to measure the surface of liquid or solid, the principle is to measure the time of flight of the ultrasound pulse in the air environment. 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 50 kbps, can be switched to 625 bps to increase the communication range. It can last up to 10 years with a single AA battery. There are many applications such as monitoring of river water levels, water tanks, etc.

### Applications

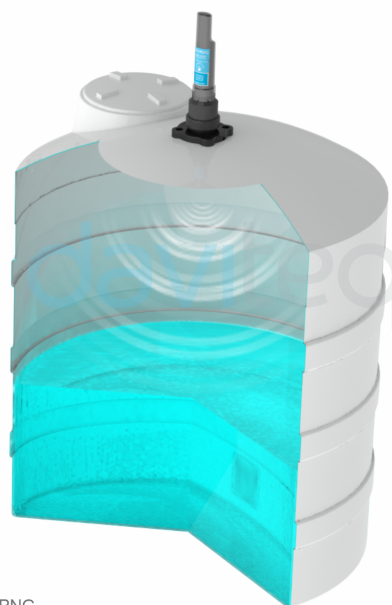
Flood Monitoring, Level Monitoring, Process Monitoring, Safety Monitoring, Smart Irrigation, Infrastructure Monitoring

### Notes For Applications

- Non-Contact Measurement: Reduce wear and maintenance
- Wide Range of Applications: Suitable for fluids, pastes, sludge, and bulk materials in harsh environment.
- Density and Humidity Insensitivity: Don't affect by humidity and density
- Versatility: Used in oil and gas, chemical processing, water

- 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 & Stable**  
Advanced ultrasonic sensor with digital signal processing to deliver high accuracy and stable measurement of level or distance for liquid
- Outdoor & Easy cleaning**  
IP67 design for both Indoor and Outdoor applications and easy cleaning

### WIRELESS LEVEL SENSOR INSTALLED ON WATER TANK



WS433-ULC-H2.PNG

## DAVITEQ TECHNOLOGIES INC

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Created date: Dec-21-2022

Updated date: Aug-28-2024

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## Specification

SENSORS SPECIFICATION	
Sensor	Ultrasonic sensor
Measurement range	280~6300 mm
Resolution	±5.0mm
Accuracy	±10 mm + S*0.3% (with S is the measured value)
Sensor sampling rate	configurable from 10s up to 3600s
Alarm setting	setting the alarm threshold for calculated value
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	-15~60°C (with AA L91 Energizer®)
Housing	Poly-carbonate, IP67
Product dimensions & weight	160x30x30mm, < 250g (without battery)
Box dimension & gross weight	190x50x50mm, < 300g

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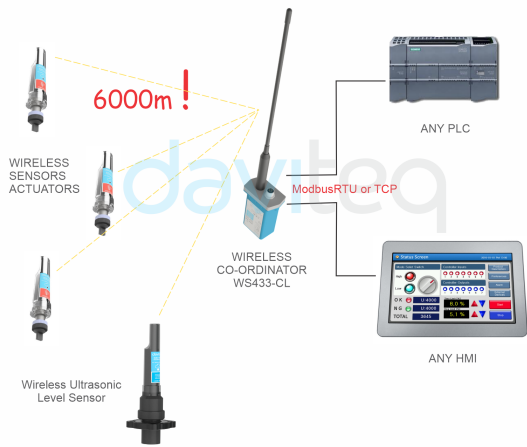
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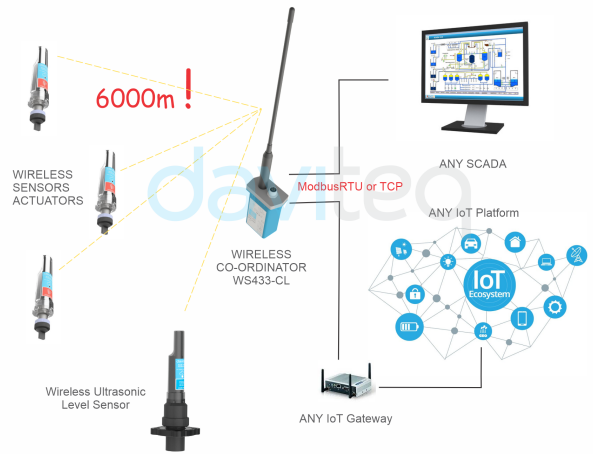
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CONNECT WIRELESS SENSORS TO any PLC or HMI



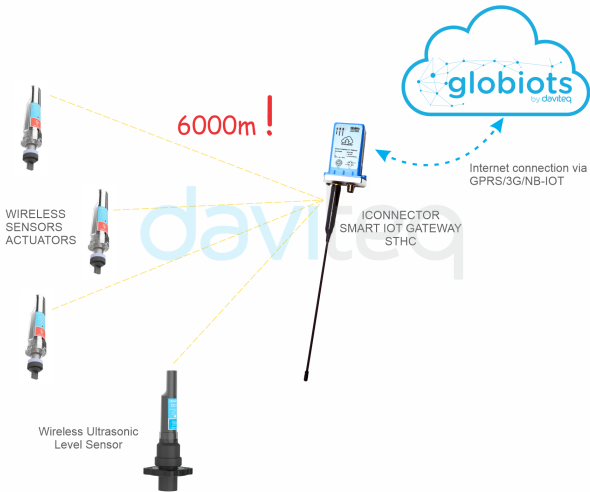
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CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform



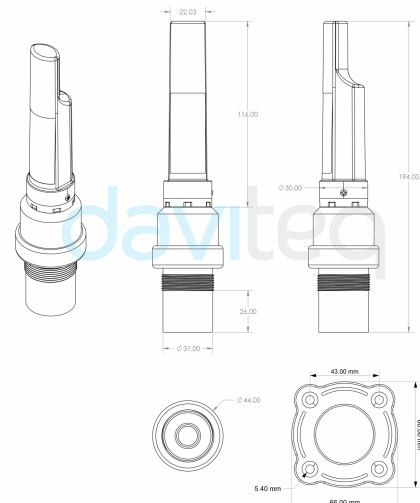
WS433-ULC-H4.PNG

CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



WS433-ULC-H5.PNG

DIMENSION DRAWINGS OF WIRELESS SENSOR (Unit: mm)



WS433-ULC-H6.PNG

PACKAGE INCLUDES



WS433-ULC-H7.PNG

RECOMMENDED BATTERIES FOR WIRELESS SENSOR WS433

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

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## Ordering Information

ITEM CODE	DESCRIPTIONS
WS433-ULC-01	Wireless Ultrasonic Level Sensor Sensor 433MHz, 28-750cm range, type AA 1.5VDC battery, IP67

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