

# WIRELESS ULTRASONIC LEVEL SENSOR

daviteq

SKU: WS433-ULC

## WIRELESS ULTRASONIC LEVEL SENSOR WS433-ULC



WS433-ULC-H1.PNG

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 utilises 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.

- ✓ **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

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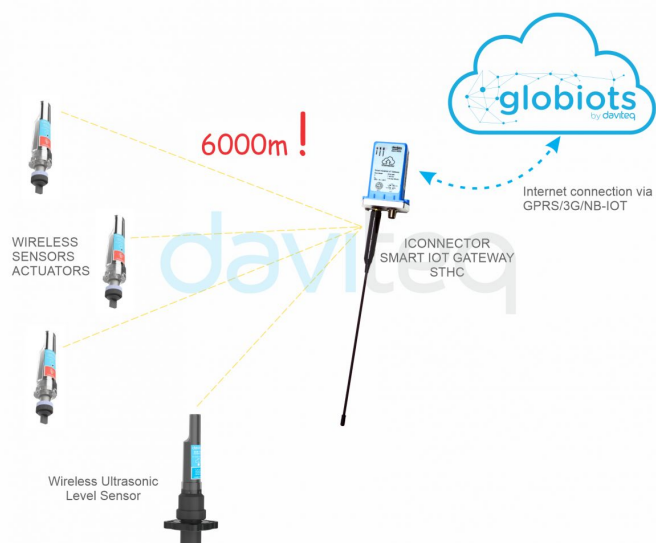
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## SPECIFICATION

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°C..+60°C (with AA L91 Energizer)
Housing	Poly-carbonate, IP67
Product dimensions & weight	160x30x30mm, < 250g (without battery)
Box dimension & gross weight	190x50x50mm, < 300g

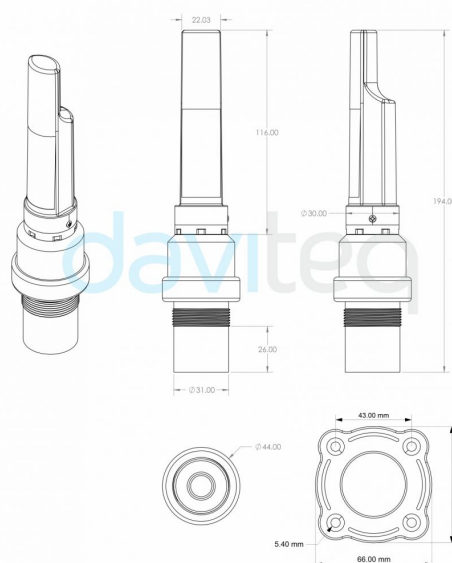
CONNECT WIRELESS SENSORS TO  
any PLC or HMICONNECT WIRELESS SENSORS TO  
any SCADA or IoT Platform

### CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



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



WS433-ULC-H6.PNG

### PACKAGE INCLUDES



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### 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

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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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