

# WIRELESS ULTRASONIC LEVEL SENSOR FOR TRASH BIN

SKU: WS433-ULA

## WIRELESS ULTRASONIC LEVEL SENSOR FOR TRASH BIN WS433-ULA



The WS433-ULA is a Sub-GHz wireless sensor that uses ultrasonic technology to measure trash bin levels. With advanced digital signal processing technology, the sensor can eliminate unwanted reflected ultrasonic waves. The sensor can be used for trash cans with openable lids where the measured value is not affected during the opening and closing. The sensor is designed for IP68 Standard, which can be used both indoors and outdoors. With a smart design, the sensor can work for more than 5 years with only 2 AA batteries. The sensor will connect to the Sub-GHz receiver at a distance of up to 400-500m in an obstacle-free environment. The WS433-ULA sensor is used to monitor the level of garbage in the trash cans in Office buildings, Hospitals, Schools, Factories... and also for public trash cans of Smart City.

WS433-ULA-H1.JPG

- ✓ **HIGH ACCURACY & STABLE**  
Advanced digital signal processing technique to provide high accuracy and reliable signal
- ✓ **RELIABLE & SECURED WIRELESS CONNECTION**  
Sub-GHz technology from Texas Instruments allows reliable wireless connection in industrial applications
- ✓ **ULTRA-LOW POWER WITH 5 YEARS BATTERY**  
Ultra-low-power sensing technology from Daviteq allows the sensor can last up to 5 years
- ✓ **FOR BOTH INDOOR AND OUTDOOR APPLICATIONS**  
With IP68 design and Poly-carbonate material, the sensor can be used for outdoor

## LEVEL SENSOR INSTALLED IN THE TRASH BIN



### DAVITEQ TECHNOLOGIES INC

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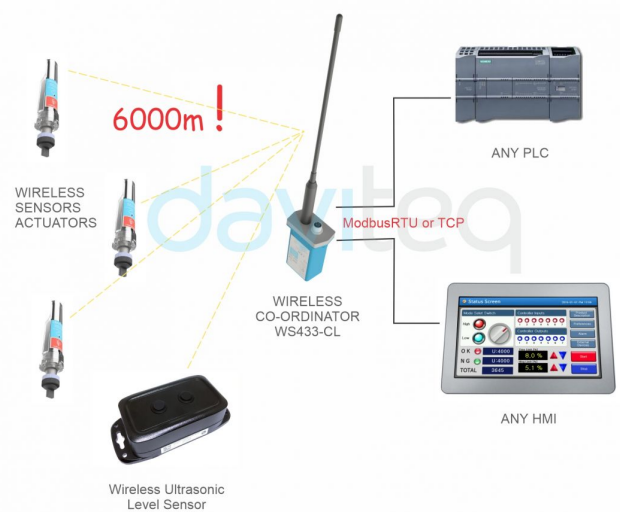
## SPECIFICATION

SENSOR SPECIFICATION	
Measurement technology	Dual ultrasonic sensor
Measuring range	30 .. 4500 mm
Resolution & Accuracy	1.0mm, +/- 10mm
Sampling and transmission rates	Configurable from 30 seconds to 3600 seconds
Working temperature	-15 .. +60°C
Working humidity	0 .. 95% RH, non condensing
WIRELESS SPECIFICATION	
Data speed	Up to 50kbps
Transmission distance, LOS	LOS 500m
Antenna	Internal Antenna
Battery	02 x AA 1.5VDC, up to 5 years operation, depends on the 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°C..+60°C (with AA L91 Energizer)
Housing/Protection	Poly-carbonate, IP68
Mounting method	Mounting directly on flat surface
Dimension	154x68x43mm
Net weight	< 200g (batteries are not included)

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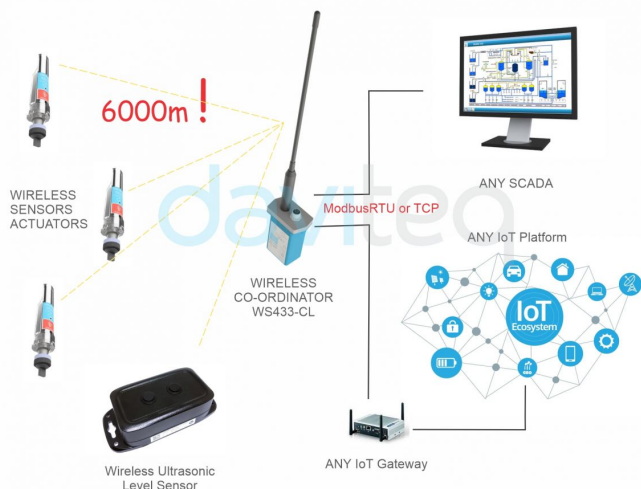


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CONNECT WIRELESS SENSORS TO  
any PLC or HMI

WS433-ULA-H4.JPG

**CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform**



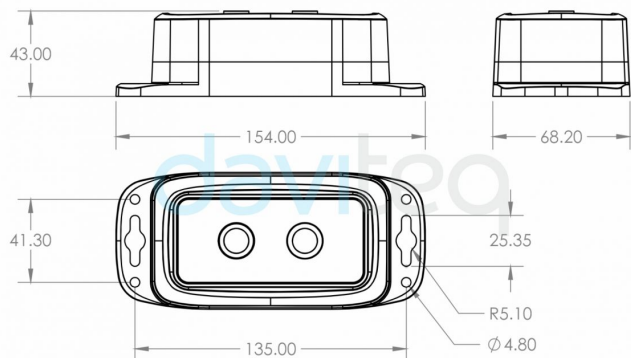
WS433-ULA-H5.JPG

**CONNECT WIRELESS SENSORS TO GLOBIOTS Platform**



WS433-ULA-H6.JPG

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



WS433-ULA-H7.JPG

**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-ULA-H8.JPG


**ORDERING INFORMATION**


WS433-ULA-01

Wireless ultrasonic level sensor for trash bin, measuring range 30-4500mm, AA batteries, IP68

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