Wireless Ultrasonic Level Sensor for Small trash bin WS433-ULA

SKU: WS433-ULA

Doc No: WS433-ULA-DS-EN-10

Introduction

WS433-ULA is a Sub-GHz wireless ultrasonic level sensor to measure solid surface level in the trash bin for waste management systems ... This level sensor uses ultrasonic technology to measure the solid surface of waste, the principle is to measure the time of flight of the ultrasound pulse in the air environment. The ultrasound pulse will be ejected from the ultrasonic transducer, go thru the air and reach the solid surface of the waste, then reflected back to the ultrasonic transducer, the measuring circuit will measure the flight time of the pulse then calculate the distance from the transducer to the surface. The ultra-low power design and smart firmware allow the sensor to last for up to 10 years with just 2 x AA batteries (depending on configuration). The sensor will connect wirelessly to a Wireless Coordinator WS433-CL then export the data to RS485 / Modbus RTU and from there easily connect to any monitoring and control system. LOS distance from the sensor to the receiver is 1000m and can be extended by Extender.

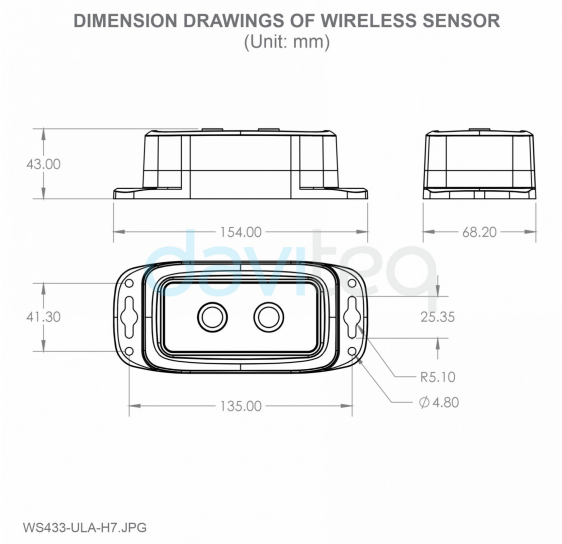
Highlight Features

- High stability;
- Sub-GHz Wireless Technology;
- Ultra-low-power consumption;
- Plug & Play.

WS433-ULA-H1.JPG

WS433-ULA-H2.JPG

WS433-ULA-H3.JPG



WS433-ULA-H7.JPG

Specification

SENSOR SPECIFICATION	
Sensor	Ultrasonic sensor, dual transducer
Measurement range	30 .. 1500 mm
Resolution & accuracy	1.0mm, +/- 10 mm
Sensor sampling rate	configurable from 10s up to 3600s
Working temperature	-15 .. + 50 oC
Working humidity	0 .. 95% RH, non condensation
WIRELESS SPECIFICATION	
Data speed	50kbps (default), 625 bps
Transmission distance, LOS	400m (2m height from ground)
Antenna	Internal Antenna
Battery	02 x AA 1.5VDC
Frequency Band	ISM 433.92 Mhz, 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
Dimensions (mm)	100x56x46.5
Net-weight	< 200 grams
Housing	POM
Mounting Method	Top mount

Ordering Code

WS433-ULA-01	WIRELESS 433MHZ ULTRASONIC LEVEL SENSOR FOR SMALL TRASH BIN, 30-1500MM RANGE, BATTERY 1.5V, TOP MOUNT

⚠ Link for full datasheet: https://filerun.daviteq.com/wl/?id=xiZPeaSW3mCNq7NuFpoqEGgS4gypvxXq

⚠ Link for manual:

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