

# packetSENSE

## Ultrasonic Proximity Level Sensor 4M



**packetSENSE Ultrasonic Proximity Level Sensor 4m** is a high quality LoRaWAN® device integrated with an ultrasonic proximity sensor. It is non-contact, highly reliable, cost-effective, easy to install, and maintains a distance measurement instrument. It is used to measure objects from 20cm-400cm. It allows users to remotely monitor the level, distance, volume, and height of objects. It has a backup battery that provides an emergency voltage source in the event of power loss. The device will provide notification to its users when it gets disconnected and will store the status of the device before it turns off. It is designed to operate for indoor and outdoor installations.

**packetSENSE Ultrasonic Proximity Level Sensor 4m** has a wide range of applications. They are most commonly used on cars to sense nearby cars or objects to avoid collision. It also finds applications in the retail industry they can detect motion and the correlation between the customer and product they might be interested in. A user is immediately notified of discounts and special offers of nearby products. They are also used for parking availability in places such as malls, stadiums or airports. Other use cases are assembly lines of different industries like food, chemical, machine tools and many others.

### Features

- LoRaWAN® compatible Level Monitor Optimized as IoT end-node
- Sensors Integrated
- Precision Weather Resistant, Ultrasonic Range Detector
- Notification when unit gets disconnected to power source
- Battery backup – LiFePO<sub>4</sub>
- Fit for outdoor installation

### Applications

- Water Level Measurement
- Proximity Zone Detection
- People Detection
- Long Range Object Detection
- Height Monitors
- Auto Sizing
- Automated Factory Systems
- Flood Monitoring

### Technical Specification

#### Data Communication Supported

Technology	LoRaWAN®
Frequency	EU868/AS923-3
Tx Power	25dBm

#### Electricals

Input Voltage Rating	5.0V, 24VDC for the 20m product
Operating Current	50mA (max)
Operating Voltage	3.3V – On-board Electronics
Power Source	5.0V DC input, USB Adapter and Internal Battery
Battery Type	LiFePO <sub>4</sub>
Battery Capacity	1500mAh/configurable

#### Sensor Specification

JSN-SR04T V2.0	Operating Temperature Range   -20°C to +70°C
	Operating Voltage   DC 3.0-5.5V
	Operating Current   8mA
	Measurement Range   20-400cm
HRXL-MaxSonar	Accuracy   ±1cm
	Operating Temperature Range   -40°C to +65°C
	Operating Voltage   2.7V to 5.5V
	Operating Current   2.3mA at 3.3V, and 3.1mA at 5V
Suzhou. Gerr	Measurement Range   50cm to 10m
	Accuracy   ±1mm
	Ingress Protection   P67 compatible
	Operating Temperature Range   -20°C to +60°C
	Operating Voltage   DC 24V
	Operating Current   20mA
	Analog Output   4-20mA
	Measurement Range   0.65cm to 20m
	Accuracy   ±1mm
	Ingress Protection   IP65 compatible

#### Mechanical

Dimension	62.08mm x 111.00mm-(4m/10m product) and Mounting Bracket for 20m product
Mounting	Two Mounting Holes/Mounting Bracket for 20m product
	Outdoor Installation: Aluminum Shroud attachment