

WASTE OVERFLOW DETECTION SENSOR

The measurement range of PLH-SG01: 25 to 200cm

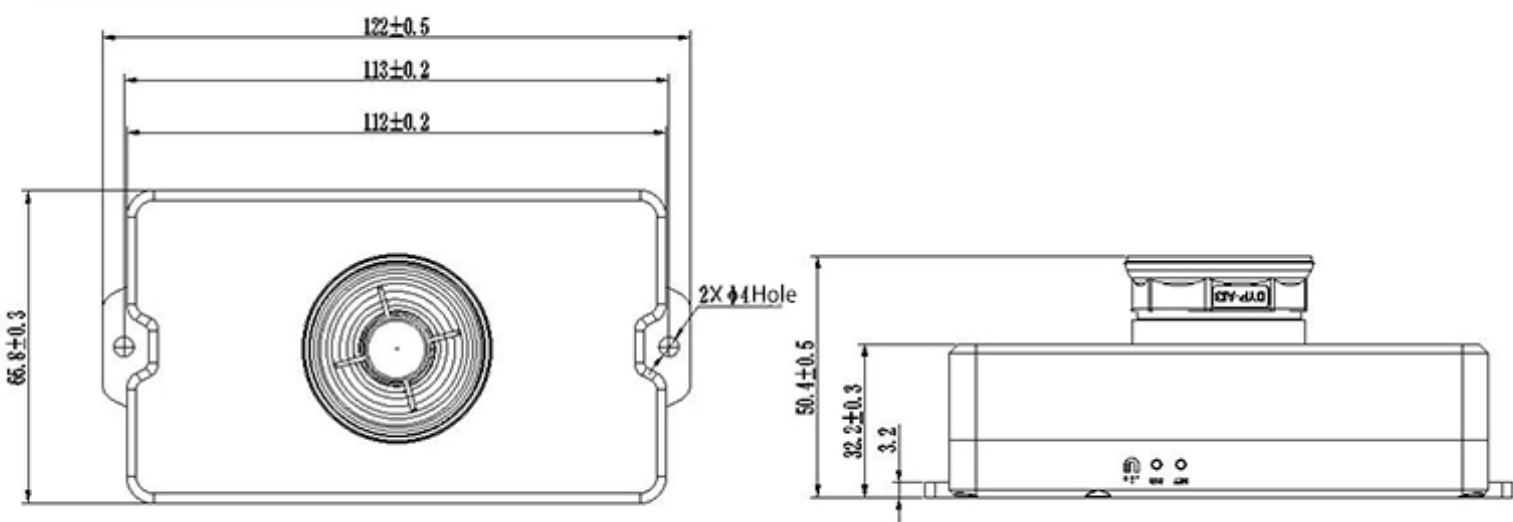
- Heartbeat & Event Triggers
- Desktop-based Remote Monitoring and Real-time Reporting
- Battery life $\geq$ 3 years



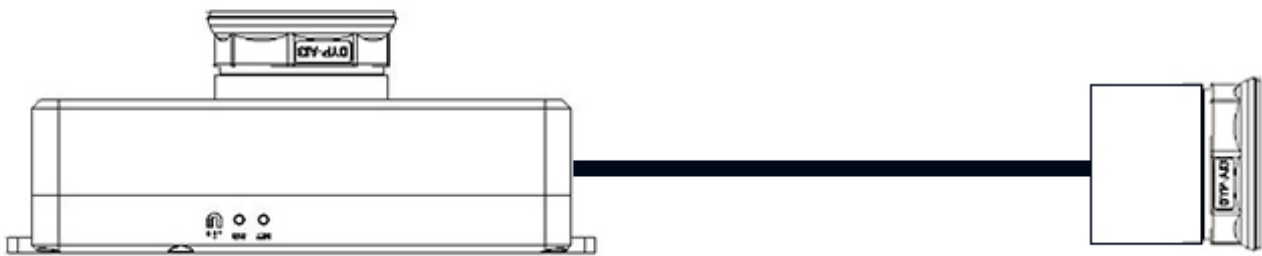
PRODUCT TECHNICAL PARAMETERS

Note: The Company reserves the right to update product features without prior notice. Please contact Customer Service for the latest specifications.

Regular Model.



Supports Adding Additional Sensors.



Parameter Item	PLH-SG01
Module application functions	Scenarios such as overflowing waste bins and liquid level detection; furthermore, it automatically connects to the network to report data.
Power Supply Method	Two ER26500 Li/SOCl ₂ batteries connected in parallel (9000 mAh each)
Operating Voltage	2.8~3.8 V
Standby Current	≤10 uA
Average Operating Current	≤650 uA
Battery Life	≥3 years
Blind Zone	≤25 cm
Measurement Range	25-200cm (Customization is supported)
Ranging Accuracy	±(1+S*0.5%) cm "S" represents the measurement distance
Beam Angle	≈20°
Tilt detection range	0~180 °
Work Cycle	Data Collection: Configurable (Default Interval: 1 hour) Data Upload: Configurable (Default Interval: 6 hours)
Configuration Method	Bluetooth LE 5.0
Wireless Network Standards	4G CAT-1(bis)
Wireless Band	LTE-FD:B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71#LTE-TDD:B34/B38/B39/B40/B41
Network Protocols	MQTT
Positioning Satellite	GPS/GLONASS/Galileo/BD
Positioning Accuracy	≤5 m
Base Station Positioning	≤550 m (Automatically activates this positioning function when GNSS positioning fails)
Waterproof Rating	IP67
Operating Temperature	-20~60 °C
Housing Material and Color	ABS+PC (flame-retardant material) & black
Installation Method	Install it from above the waste bins facing down

EQUIPMENT WORKFLOW

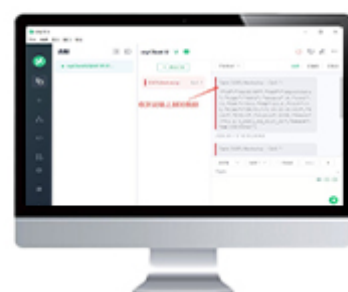
Easy to install and commission; features 4G wireless communication and supports remote monitoring via PC.



The device



IoT Platform



MQTT Client Port

MULTI-SCENARIO APPLICATIONS

Various types of waste bins and transfer stations (overflow monitoring), wireless liquid-level detection, smart city applications, scenic area sanitation, etc.



Garbage Bin Overflow Detection



Trash Can Overflow Detection



Wireless Liquid-level Detection



Transfer Stations (overflow monitoring)



Smart City Applications



Wireless Position Of Object Monitoring



Scenic Area Sanitation



Smart Industrial Park Applications



Municipal Engineering Applications

MULTI-FUNCTION INTEGRATION

- Wireless Communication Function
- Heartbeat & Event Triggers
- Positioning Function
- OTA Remote Upgrade Function



01. Wireless Communication Function

Real-time data reporting, real-time remote monitoring on the computer side.

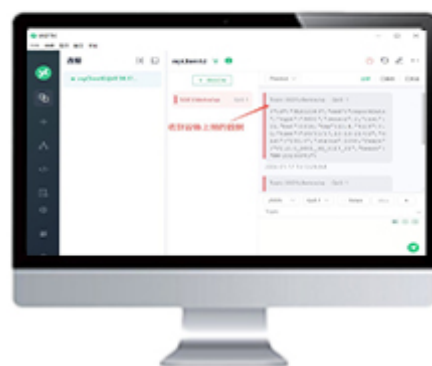
Supports 4G wireless communication, and is compatible with the networks of major operators in Europe and North America.



02. Heartbeat & Event Triggers

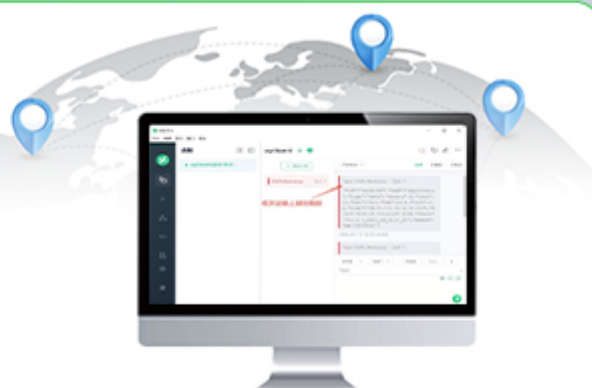
The warning thresholds can be customized.

- ① Fire alarm warning
- ② Garbage overflow warning
- ③ Garbage emptying warning
- ④ Low battery warning
- ⑤ Product posture tilt warning
- ⑥ Probe abnormality warning
- ⑦ RSSI warning
- ⑧ GNSS satellite number warning



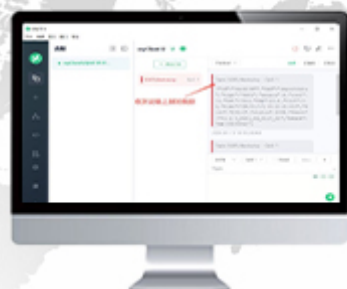
03. Positioning Function

Supports GPS/GLONASS/Galileo/BD, with a positioning accuracy of <5 meters. It can effectively prevent loss, facilitate searching and management, making usage more worry-free and management more efficient.



04. OTA Remote Upgrade Function

After use, the performance can be remotely upgraded and optimized, which can significantly reduce on-site maintenance costs, ensure the long-term stable operation of the equipment and the continuous iteration of functions.



STRONG ENVIRONMENTAL ADAPTABILITY, DURABLE AND MORE HASSLE-FREE



High temperature resistance, moisture resistance, IP67 water-proof, free from interference of mosquitoes, dust, wind and rain.



IP67 Waterproof Rating, Strong Anti-interference Performance

IP67 dust and water resistance, free from the interference of mosquitoes, dust, wind and rain.



Suitable for Most Environmental Temperatures

With an operating temperature range of -20°C to +60°C, heat and moisture resistant.



Low power consumption and long battery life, reducing maintenance costs.

Powered by battery, with a service life of over 3 years and standby current $\leq 10 \mu\text{A}$.



SIMPLE INSTALLATION & DEBUGGING.

Magnet trigger for on/off, supports two connection configuration modes: APP and PC terminal. Fixed installation via adhesive or drilling, ready to use right after installation.



1. The on/off function is triggered by a magnet, offering better waterproof protection

The device turns on when triggered by a magnet, and its operating status is visible. It is equipped with a dual-LED indicator to show the system operation and network status.



2. Set up via the APP and PC.

Method 1: Bluetooth connection.

The APP can obtain and set up information such as the device ID, server IP and port, and early warning threshold.



Method 2: Connect via the computer (4G connection)

to obtain data reports, and access and set information such as device ID, server IP and port, and early warning thresholds.

