



MacSync-LU4 Overview

MacSync-LU4 is a rugged ultrasonic level sensor for precise, non-contact measurement of liquid or solid levels in tanks, silos, and open areas. Using LoRaWAN® connectivity, it transmits real-time data for remote monitoring and threshold-based alerts.

Perfect for applications like water level monitoring, flood detection, smart waste bins, and tank management, MacSync-LU4 integrates seamlessly with Macnman LoRaWAN® gateways and platforms for easy data access and automation.

Sensors

Ultrasonic Sensor

Sub 4 Meter

Wireless
Technology



Features

High-Precision Ultrasonic Sensing

High Accuracy, Low Interference

LoRaWAN® Class A & C communication

Communication for flexible uplink strategies

IP66-Rated Enclosure (Sensor)

Designed for industrial & outdoor environments

Supports periodic, threshold-based, & event-driven uplinks

Smaller Blind Zone

Smaller Blind Zone, Stronger Sensing

Strong Resistance

Rugged, Precise, and Reliable

Supports Macnman Beam Protocol

Direct control, & local device-to-device actions

Secure onboarding with pre-flashed DevEUI / AppEUI / AppKey

High Antistatic Performance

Anti-static and Weatherproof Design

Compatible with all LoRaWAN® network servers & gateways

 Specifications

Measurement

Ranging Range	3 – 450 cm
Blind Zone Distance	3 cm
Response Time (Sensor)	100 ms
Resolution	0.1°C
Center Frequency	40 kHz ± 1 kHz
Sensing Angle	60°
Protection Rating (Sensor)	IP67

Wireless Transmission

Technology	LoRaWAN® (v1.0.4), Macnman Beam Protocol
Antenna	Internal high-efficiency antenna
Supported Bands	IN865 / RU864 / EU868 / US915 / AU915 / KR920 / AS923-1/2/3/4
Tx Power	16 dBm @ 868 MHz 20 dBm @ 915 MHz 19 dBm @ 470 MHz
Sensitivity	-137 dBm @ 300 bps
Activation	OTAA / ABP
LoRaWAN® Class	Class A (default), Configurable to Class C via Maya

Led Status

LED Type	1 Internal Multi-Color LED
Solid Blue	Device is connected with Maya App
Flashing Blue	OTA (Over-the-Air) update in progress
Slow Blinking Green	Attempting to connect to the LoRaWAN® network
Single Red Blink	A confirmed parameter of MacSync is being modified

Configuration

Configuration	Via Macnman Maya Android App
Maya Fatures	Threshold / Trigger / Sample based alarm triggers
Stored Records	30,000 Records (accessible via Maya)
Remote Configuration	Yes - JSON format Data

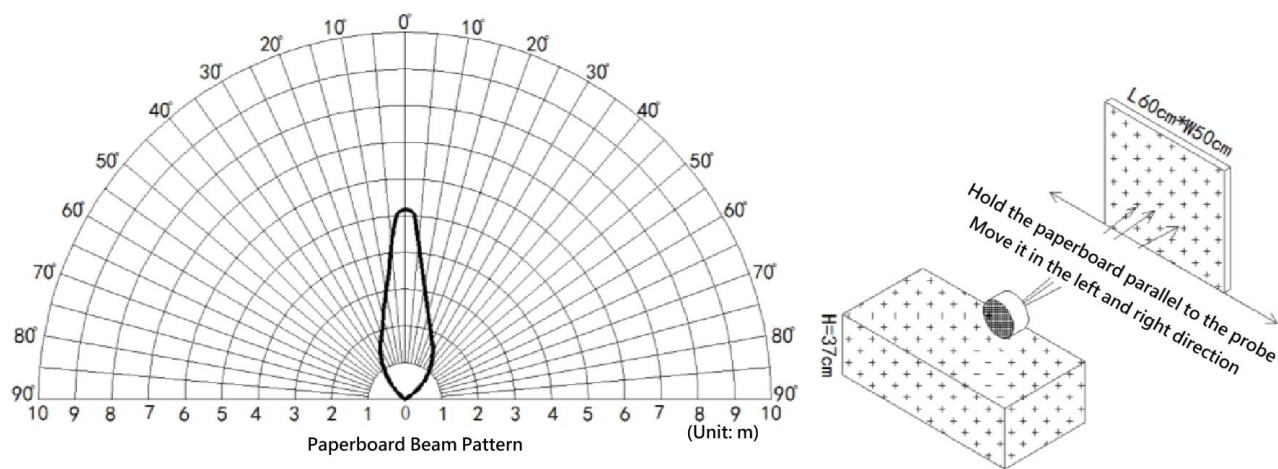
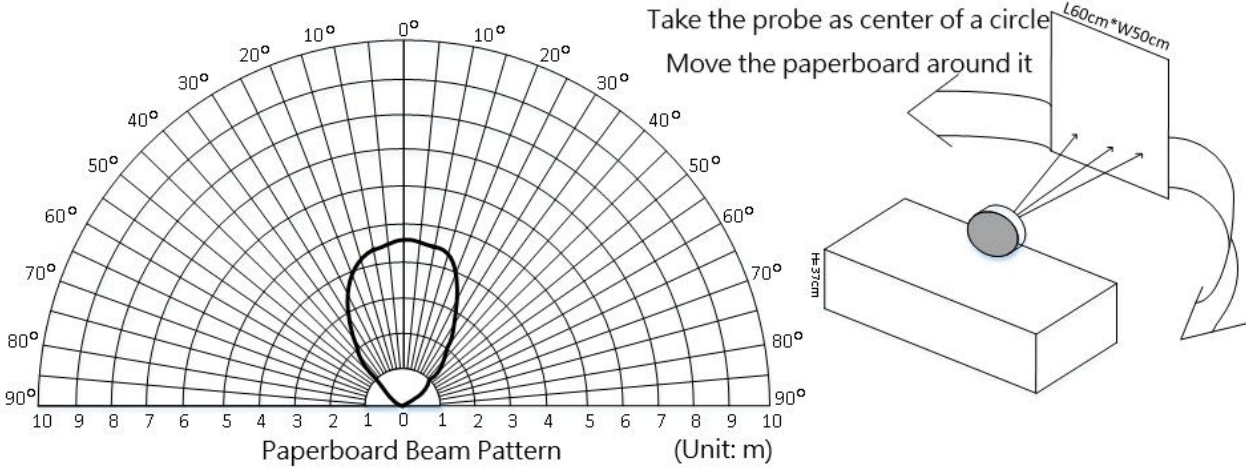
Physical Characteristics

Power Supply	Inbuilt Battery - 19,000 mAh / Optional Solar
Operating Temp	-40°C to +80°C
Humidity Range	0% to 100% RH (non-condensing)
Ingress Protection	IP65 standard (IP67 optional variant)
Housing Material	Made of durable ABS plastic for long-lasting field use
Color	Matte Black (Sensor)
Weight	~240g (with 19 Ah battery)
Dimensions	Approx. 152 mm X 43 mm X 63 mm (customizable branding available)
Mounting Options	Wall Mounting / Pole Mounting

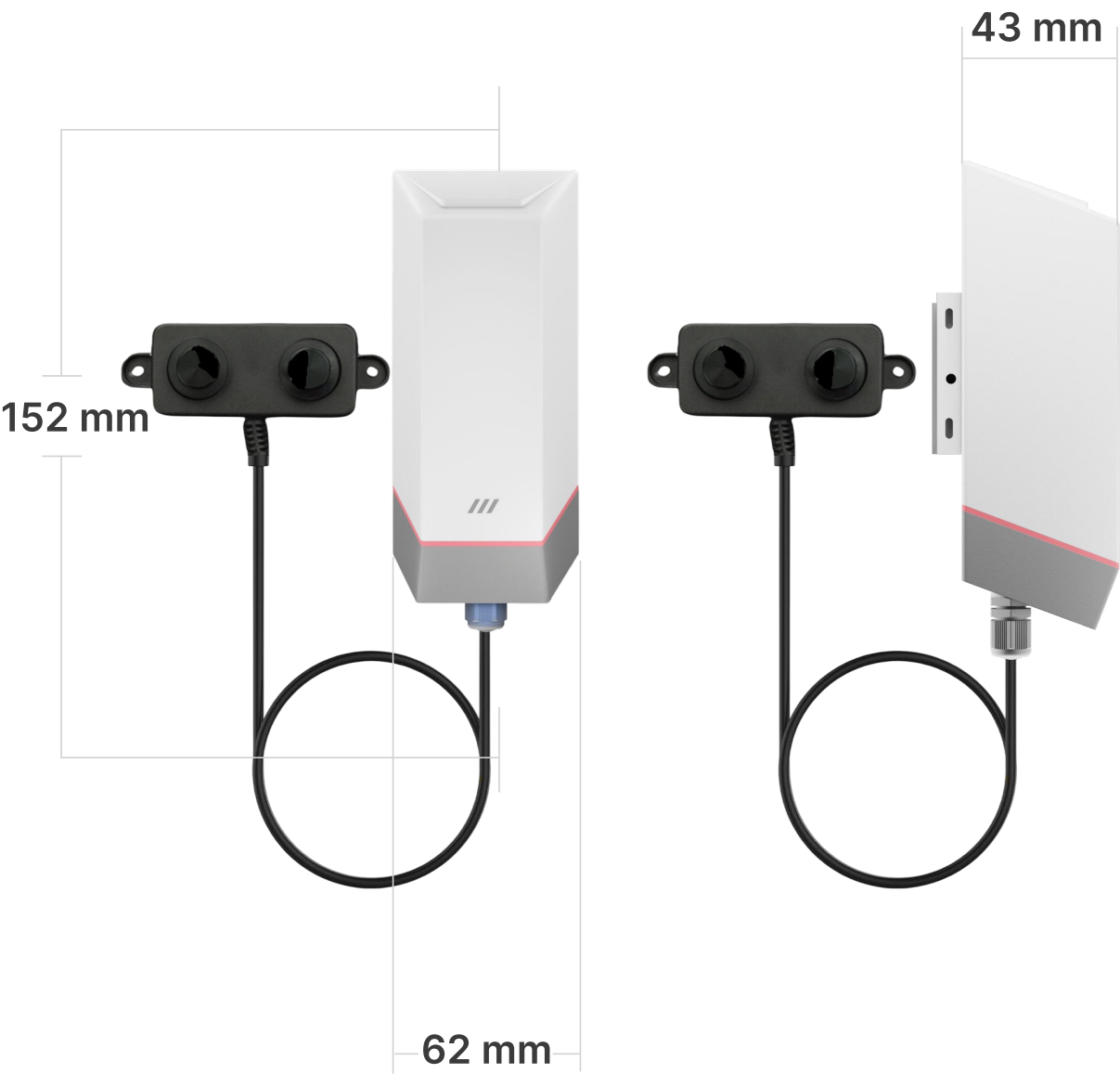
Certifications

Regulatory	WPC
Environmental	RoHS compliant

Beam Pattern



Product Dimension



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के अवसर के लिए धन्यवाद भवतः सेवायाः अवसरस्य कृते धन्यवादः તમારી સેવા કરવાની

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