iN CONNECT
M

LoRa™
GSM
4G
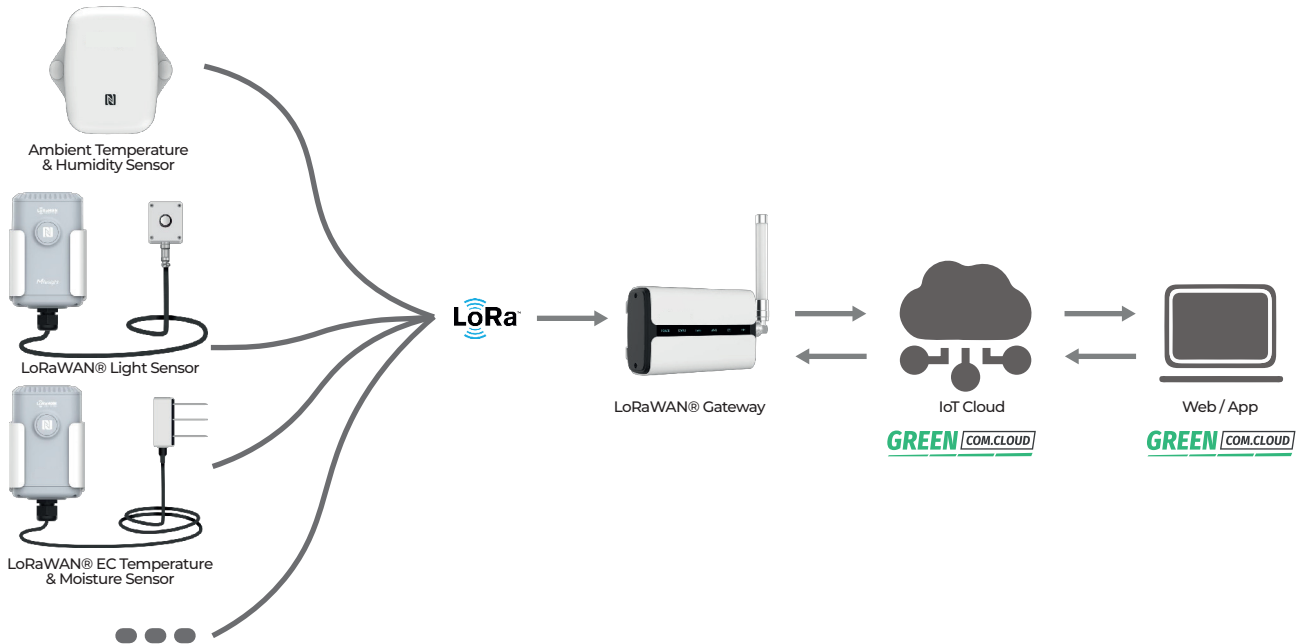
LoRaWAN®
Wi Fi™
5G

BROCHURE
IOT SENSORS AND SERVICES

www.isii-nitzan.swiss

STRUCTURE

DESCRIPTION

Isiinitzan's smart irrigation solution adopts LoRa as wireless communication technology. It features low power consumption, wide coverage and massive connection. It cuts down huge costs and makes massive IoT deployment practicable and easy. Furthermore, the solution offers real-time monitoring, accurate irrigation control and remote management and so on.

Ambient Temperature & Humidity Sensor

LoRaWAN® Light Sensor

LoRaWAN® EC Temperature & Moisture Sensor

LoRa

LoRaWAN® Gateway

IoT Cloud
GREEN COM.CLOUD

Web / App
GREEN COM.CLOUD

Smart Irrigation Management	**Reduction of Resource Waste**	**Manpower Reduction**
Crop Quality Improvement	**Productivity Enhacenment**	**Auto-coupling between devices**

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More Information:

LORAWAN® GATEWAY

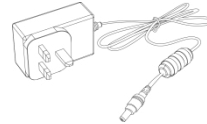## SEMI-INDUSTRIAL LORAWAN GATEWAY

FEATURES

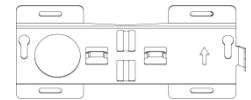| ITEM	DESCRIPTION
1	Quad-core industrial processor with big memory.
2	Equip with SX1302 chip, handling a higher amount of traffic with lower consumption
3	8 half/full-duplex channels
4	IP65 enclosure and industrial design for parts of outdoor environment applications like eaves.
5	Multi backhaul backups with Ethernet, cellular (4G/3G) and Wi-Fi.
6	DeviceHub and Isiinitzan IoT Cloud provide easy and centralized management of remote devices.
7	Enable security communication with multipleVPNs like IPsec/OpenVPN/L2TP/PPTP/DMVPN
8	Detect and analyze the noise level andprovide intuitive diagram for deployment.
9	Built-in network server and MQTT/HTTP/HTTPS API for easily integration
10	Embedded Python SDK for userssecondary development
11	Fast and user-friendly programming by Node-RED development tool

TECHNICAL SPECIFICATIONS

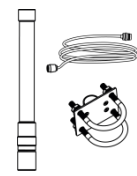| ITEM	FEARTURE	DESCRIPTION
1	LoRaWAN ANTENNA	2 × Internal Antennas (Optional: 1 × 50 Ω N-Female External Connector)
2	LoRaWAN CHANNEL	8 (Half/Full-duplex)
3	LoRaWAN PROTOCOL	V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C
4	ETHERNET PORT	1 × RJ45 (PoE PD supported)
5	ETHERNET DATA RATE	10/100/1000 Mbps (Auto-Sensing)
6	ETHERNET INTERFACE	Auto MDI/MDIX
7	ETHERNET MODE	Full or Half Duplex (Auto-Sensing)
8	NETWORK PROTOCOLS	PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, DDNS, HTTP, HTTPS, DNS, ARP, SNTP, Telnet, SSH, MQTT, etc.
9	POWER INPUT	1. 9-24VDC by DC Male Jack Connector
10	DIMENSIONS	180 x 110 x 56.5 mm

ACCESSORIES

1xDC JACK POWER ADAPTER

1xMOUNTING BRACKET

1x18cm LoRaWAN ANTENNA

1x60cm LoRaWAN FIBER-GLASS ANTENA KIT

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LoRa | GSM | 4G
LoRaWAN® | WiFi | 5G

LORAWAN GATEWAY - UG67

UG67

FEATURES

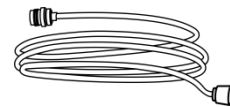| ITEM	DESCRIPTION
1	Quad-core industrial processor with big memory.
2	Equip with SX1302 chip, handling a higher amount of traffic with lower consumption
3	8 half/full-duplex channels
4	IP67 waterproof enclosure and industrial design for harsh environment applications.
5	Wall or pole mounting optional.
6	PoE or DC supply optional.
7	Capacitor for sending alarms in case of power failure.
8	Multi backhaul backups with Ethernet, cellular (4G/3G) and Wi-Fi.
9	Enable security communication with multiple VPNs like IPsec/OpenVPN/LT2P/PPTP/ DMVPN.
10	Devicehub and Isiinitzan IoT Cloud provide easy and centralized management of remotedevices.
11	Compatible with main stream network servers like The Things Industries, ChirpStack, Actility, Everynet, etc.
12	Detect and analyze the noise level and provide intuitive diagram for deployment.
13	Built-in network server and MQTT/HTTP/HTTPS API for easily integration.
14	Support BACnet/IP to integrate LoRaWAN data to BMS system easily.
15	Embedded Python SDK for users secondary development.
16	Fast and user-friendly programming by Node-RED development tool.

TECHNICAL SPECIFICATIONS

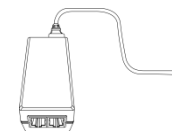| ITEM	FEARTURE	DESCRIPTION
1	LoRaWAN ANTENNA	2 × 50 Ω N-Female External Connectors
2	LoRaWAN CHANNEL	8 (Half/Full-duplex)
3	LoRaWAN PROTOCOL	V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C
4	ETHERNET PORT	1 × RJ45 (PoE PD supported)
5	ETHERNET DATA RATE	10/100/1000 Mbps (Auto-Sensing)
6	ETHERNET INTERFACE	Auto MDI/MDIX
7	ETHERNET MODE	Full or Half Duplex (Auto-Sensing)
8	NETWORK PROTOCOLS	PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, DDNS, HTTP, HTTPS, DNS, ARP, SNTP, Telnet, SSH, MQTT, BACnet/IP, etc.
9	POWER SUPPLY	1. 802.3 af PoE 2. DC Power (6~12 V) via M12 Connector
10	DIMENSIONS	240 x 164 x 90.9 mm

ACCESSORIES

1xANTENNA COAXIAL CABLE
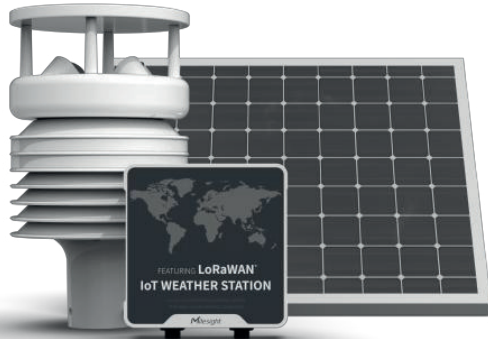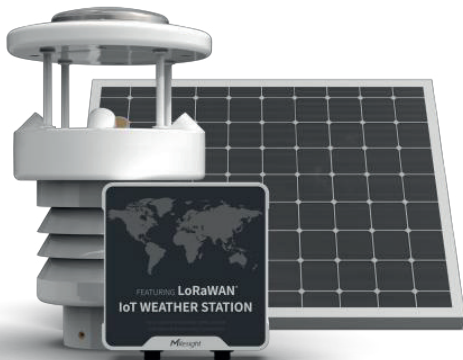

1xM12 DC POWER CABLE

2x60cm LoRaWAN ANTENNA

1 x PoE INJECTOR

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More Information:

Versión: M2024-1

iSii NITZAN

WTS305

WTS506

FEATURES

ITEM	DESCRIPTION
1	Integrated with multiple sensors like humidity, temperature, barometric pressure, wind speed, wind direction, rainfall, etc.
2	Waterproof, UV-proof and salt spray resistant enclosure for outdoor harsh environment applications.
3	High power solar powered with chargeable batteries backup.
4	Store locally more than 19, 000 historical records and support retransmission to ensure no data miss.
5	Easy to carry and install.
6	Ultra-wide-distance wireless transmission up to the line of sight of 15 km in rural areas.
7	Equipped with NFC for easy and quick configuration.
8	Compliant with standard LoRaWAN® gateways and network servers.
9	Quick and easy management with Isiinitzan IoT Cloud.

WHEATER STATION - WTS305/WTS506

TEMPERATURE SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
		WTS305	WTS506
1	OPERATING PRINCIPLE	Thermistor	
2	RANGE	-40 ºC to 85 ºC	
3	ACCURACY	± 0.3°C	
4	RESOLUTION	0.1°C	

HUMIDITY SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
1	OPERATING PRINCIPLE	Capacitive humidity sensor	
2	RANGE	0% - 100% RH	0% - 100% RH
3	ACCURACY	± 5% RH	± 3% RH
4	RESOLUTION	0.5% RH	0.5% RH

WIND DIRECTION SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
1	OPERATING PRINCIPLE	Ultrasonic	
2	RANGE	0° - 360°	0° - 360°
3	ACCURACY	± 3°	± 3°
4	RESOLUTION	1°	1°

WIND SPEED SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
1	OPERATING PRINCIPLE	Ultrasonic	
2	RANGE	0 -60 m/s	0 -60 m/s
3	ACCURACY	± (0.5 + 0.02 V) m/s, V=Speed	± 0.3 m/s or ± 3% (whichever isgreater)
4	RESOLUTION	0.1 m/s	0.1 m/s

BAROMETRIC PRESSURE SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
1	OPERATING PRINCIPLE	Piezoresistive absolute pressure sensor.	
2	RANGE	500 - 1100 hPa	500 - 1100 hPa
3	ACCURACY	±1 hPa	±0.5 hPa
4	RESOLUTION	0.1 hPa	0.1 hPa

RAINFALL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
1	OPERATING PRINCIPLE	Piezoelectric	
2	RANGE	-	0 - 1000 mm
3	ACCURACY	-	±0.5 mm (< 10 mm), ±5 %(>10mm)
4	RESOLUTION	-	0.01 mm

PHYSICAL CHARACTERISTICS

ITEM	FEARTURE	DESCRIPTION	
		WTS305	WTS506
1	MATERIAL	ABS	Aluminium Alloy
2	WEIGHT	1 kg	2.15 kg
3	DIMENSIONS	φ140 x 248 x φ50mm	φ160 x 263 x φ73mm
4	OPERATING TEMPERATURE	-40°C ~ 60°C	-40°C~ 85°C
5	RELATIVE HUMIDITY	0% - 100% (non-condensing)	
6	INGRESS PROTECTION	IP65	
7	INSTALLATION	Pole Mounting	

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More Information:

INSERTION TEMPERATURE SENSOR

TS101

FEATURES

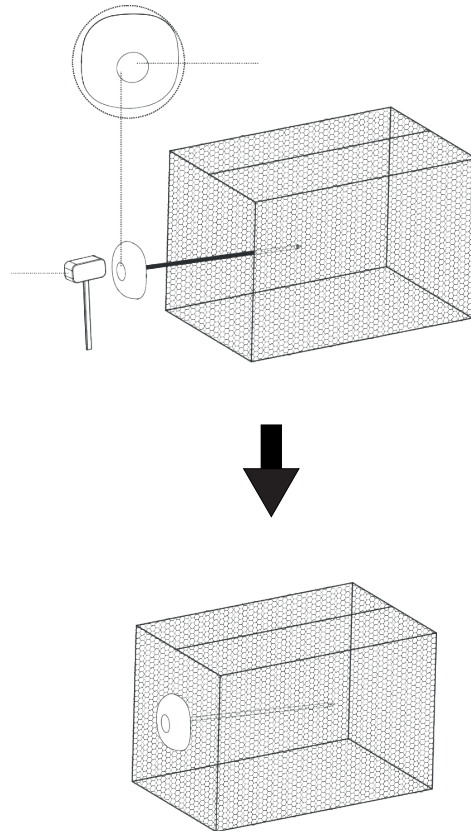| ITEM	DESCRIPTION
1	Equipped with highly accurate and stable DS18B20 temperature sensor chip with high resolution.
2	Adopt food-grade stainless-steel probe and shell material for efficient and safe detection.
3	Store up to 1200 sets of data locally and support data retrievability and retransmission.
4	IP67 and IK10 rated and phosphine corrosion-resistant for harsh environment.
5	Built-in 4000 mAh replaceable battery and works for up to 10 years without replacement.
6	Integrated and compact design for wireless deployment.
7	Built-in NFC for easy configuration.
8	Compatible with standard LoRaWAN® gateways and network servers.
9	Quick and easy management with Isiinitzan IoT Cloud solution.

INSTALLATION

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	PROTOCOL	LoRaWAN®
2	DETECTING RANGE	-30°C ~ +70°C
3	ACCURACY	± 0.5°C
4	RESOLUTION	0.1°C
5	POWER SUPPLY	1 × 4000 mAh ER18505 Li-SOCl2 Replaceable Battery
6	BATTERY LIFE	10 Years (1 Hour Report Interval, 25°C)
7	OPERATING TEMPERATURE	-30°C ~ +70°C
8	RELATIVE HUMIDITY	0 ~ 95% (Non-condensing)
9	MATERIAL & COLOR	Transceiver: ABS+PC(Food-Grade, Phosphine Corrosion resistant), White Sensor Probe: 316 Stainless Steel (Food-Grade, Phosphine CorrosionResistant) , Silver Grey
10	DIMENSIONS	Transceiver: Φ 92 × 92 × 26 mm Sensor Probe: Φ 7 × 400 mm

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More Information:

TEMPERATURE SENSOR

TEMPERATURE SENSOR - TS301/TS302

TS301

FEATURES

ITEM	DESCRIPTION
1	Provide optional three types of high-accuracy PT100 temperature probes and one magnetic contact switch sensor.
2	IP65 waterproof enclosure with dust plug, suitable for harsh environment.
3	Support automated temperature monitoring and anti-tamper recording of data in compliance with HACCP, meeting the authenticity
4	Provide simplified PDF data export for easy documentation without complex paperwork.
5	Built-in two large-capacity replaceable batteries, ensuring an extended battery life.
6	Features low-consumption LCD display, enabling intuitive data reading.
7	Store up to 10,000 historical records locally and supports retransmission to prevent dataloss.
8	Equipped with NFC and Type-C USB for quick and easy configuration.
9	Function effectively with standard LoRaWAN® gateways and network servers.

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	CONNECTOR NUMBER	TS301: 1 × Connector for PT100 Probe or Magnet Switch Sensor TS302: 2 × Connectors for two PT100 Probes or PT100 + Magnet Switch Sensor
3	POWER SUPPLY	2 × 4000 mAh ER18505 Li-SOCL2 Batteries or Type-C USB (5V/1A)
4	BATTERY LIFE	TS30x + One or Two PT100 Probes: Around 5 years
5	OPERATING TEMPERATURE	-30°C to +70°C
6	RELATIVE HUMIDITY	0% to 95% (non-condensing)
7	WEIGHT	175 g (TS301), 185 g (TS302)
8	DIMENSIONS	109.35 × 75 × 29 mm

TS302

INSTALLATION

OPTIONAL SENSORS

PT100 PROBES
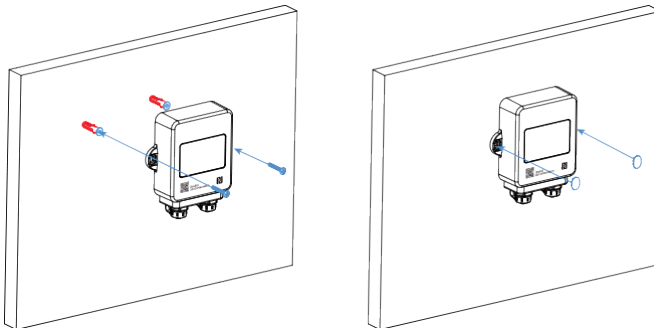
ITEM	FEARTURE	DESCRIPTION		
		B05-125-200	AF10-125-150	A05-500-150
1	MEASURING RANGE	-40 °C ~ 125 °C	-40 °C ~125 °C	-50 °C ~500°C
2	MEASURIN ACCURACY	±0.5°C(-40°C~40°C), ±1°C (40°C~125°C)	± 0.4°C	± 0.5°C
3	MEASURING RESOLUTION	0.1°C		
4	PROBE TYPE	Straight tube, 304 Stainless Steel	Needle, Food Grade 316 Stainless Steel	Straight tube, 304 Stainless Steel
5	POBRE LENGTH	Φ4*50 mm	Φ4*100 mm	Φ4*30 mm
6	CABLE LENGTH	2 m	1.5 m	1.5 m
7	CABLE MATERIAL	PVC	Food Grade Silicone	Teflon
8	CABLE OPERATING TEMP.	-30 °C~105 °C	60 °C~250 °C	-200 °C~290°C

PT100 PROBES

ITEM		
1	DETECTION DISTANCE	20-30 mm
2	CABLE LENGTH	1.5 m
3	DIMENSION	32 × 15 × 8 mm

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More Information:

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CAPACITIVE LEVEL SENSOR - EM300-CL
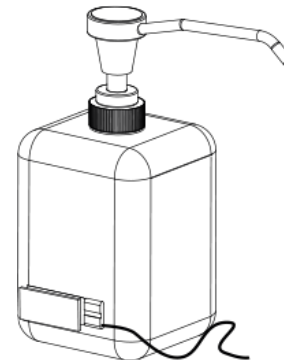
EM300-CL

FEATURES	
ITEM	DESCRIPTION
1	High sensitivity real-time liquid level status monitoring, high stability, timely alarm.
2	Strong anti-interference ability and high accuracy based on electrode pad with 2 electrode plates.
3	Non-contact liquid level detection for hygiene purposes.
4	The minimalist and lightweight electrode pad design allows for convenient installation.
5	IP67 waterproof performance for high applicability
6	A built-in 4000mAh replaceable battery and works for 10 years without replacement
7	Equipped with NFC for easily configuration
8	Ultra-wide-distance transmission up to a line of sight of 10km
9	Compliant with standard LoRaWAN® gateways and network servers

TECHNICAL SPECIFICATIONS		
ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	DETECTOR PRINCIPLE	Capacitive Level Sensor
3	DETECTOR LEAD LENGTH	1 m
4	DETECTOR COMPATIBILITY	Insulating Non-metallic Containers (Plastic, Glass, Acrylic, etc.)
5	POWER SUPPLY	1 × 4000 mAh ER18505 Li-SOCL Battery (extendable to 2 batteries)
6	BATTERY LIFE	>10 years (Trigger 3 Alarms per Day, 25)
7	OPERATING TEMPERATURE	-20°C to +60°C
8	RELATIVE HUMIDITY	0% to 95% (non-condensing)
9	MATERIAL & COLOR	Transceiver: ABS + PC, White Electrode Detection Sheet: Black
10	DIMENSIONS	Transceiver: 105.6 × 85.2 × 27 mm Electrode Detection Sheet: 55 x 50 x 0.2mm
11	WEIGHT	110g (with 1 battery)

INSTALLATION

SECURED WITH 3M STICKERS
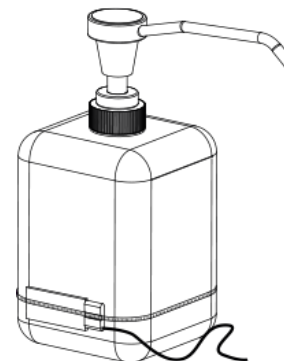
SECURED WITH PLASTIC TIES

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More Information:

Versión: M2024-1

MAGNETIC CONTACT SWITCH

MAGNETIC CONTACT SWITCH - EM300-MCS

EM300-MCS

FEATURES

ITEM	DESCRIPTION
1	High sensitivity with door and window security detection.
2	Embedded with temperature and humidity sensors for environment monitoring.
3	Ultra-wide-distance transmission up to line of sight of 10km.
4	IP67 UV-resistant and waterproof enclosure for harsh environment applications.
5	Built-in 4000 mAh replaceable battery and works for more than 5 years without replacement.
6	Store locally 3, 000 historical records and support retransmission to prevent data loss.
7	Support Isiinitzan D2D protocol to enable ultra-low latency and direct control without gateways.
8	Equipped with NFC for easily configuration.
9	Compliant with standard LoRaWAN® gateways and network servers.

INSTALLATION
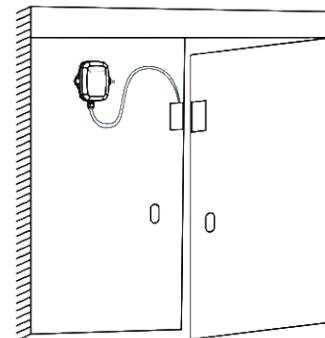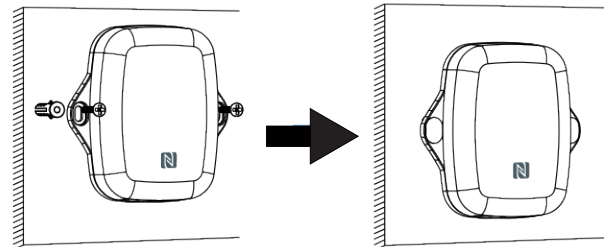
TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	DETECTION DISTANCE	20-30 mm
3	CABLE LENGTH	1.5 m
4	TEMPERATURE RANGE	-30°C to + 70°C
5	TEMPERATURE ACCURACY	0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C)
6	TEMPERATURE RESOLUTION	0.1°C
7	HUMIDITY RANGE	0% to 100% RH
8	HUMIDITY ACCURACY	10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)
9	HUMIDITU RESOLUTION	0.5% RH
10	POWER SUPPLY	1 × 4000 mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries)
11	BATTERY LIFE	10 years (10 min interval + 48 triggers per day)
12	DIMENSIONS	Transceiver: 105.6 × 85.3 × 27 mm (4.16 × 3.36 × 1.06 in) Magnet: 32 × 15 × 8 mm (1.25 × 0.59 × 0.31 in)

More Information:

Versión: M2024-1

PULSE COUNTER - EM300-DI

EM300-DI

FEATURES

ITEM	DESCRIPTION
1	Flexible counting configuration to enable, stop, clear accumulated values.
2	Support digital filtering that filters interference signals to ensure more accurate counters.
3	Support to calculate water consumption and send water flow/outage alarms.
4	Embedded with temperature and humidity sensors for environment monitoring.
5	IP67 waterproof enclosure for harsh environment applications.
6	Ultra-wide-distance transmission up to line of sight of 10km.
7	Store more than 1000 historical records and support retransmission to prevent data loss.
8	A built-in 4000 mAh replaceable battery and works for 5 years without replacement.
9	Equipped with NFC for easily configuration.
10	Compliant with standard LoRaWAN® gateways and network servers.

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	WORK MODE	Pulse Counter, Digital Input
3	MINIMUM PULSE WIDTH	250 µs
4	TEMPERATURE RANGE	-30°C to + 70°C
5	TEMPERATURE ACCURACY	0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C)
6	TEMPERATURE RESOLUTION	0.1°C
7	HUMIDITY RANGE	0% to 100% RH
8	HUMIDITY ACCURACY	10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)
9	HUMIDITU RESOLUTION	0.5% RH
10	POWER SUPPLY	1 × 4000 mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries)
11	BATTERY LIFE	5 years (10 min interval, 25°C)
12	MATERIAL & COLOR	ABS + PC, White
13	DIMENSIONS	105.6 × 85.2 × 27 mm

INSTALLATION

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More Information:

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LoRa GSM 4G
LoRaWAN® WiFi 5G
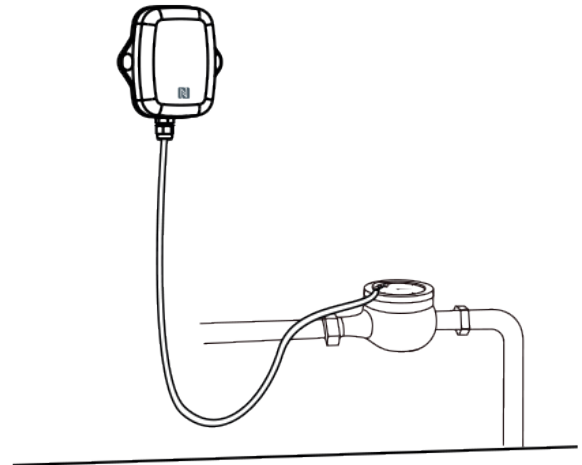
MEMBRANE LEAKAGE DETENTION SENSOR - EM300-MLD
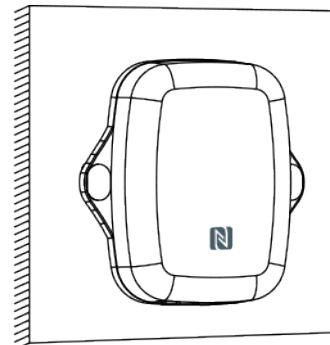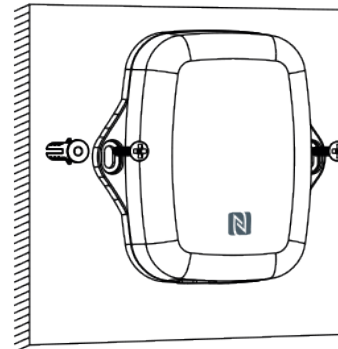
EM300-MLD
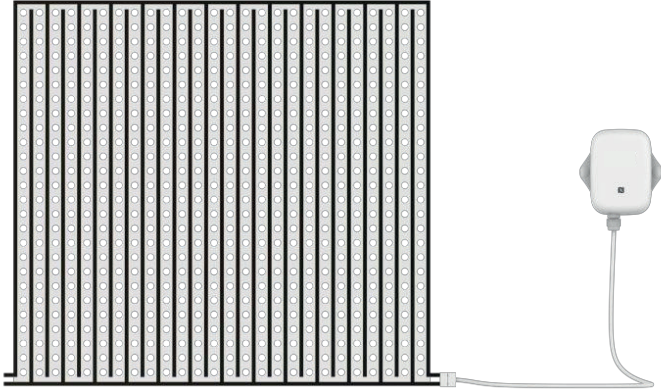
FEATURES

ITEM	DESCRIPTION
1	Detect the presence of liquids by a flexible printed membrane for covering a larger area.
2	Equip with high-quality printed membrane that can be reused and customized.
3	Adopt green material with 100% reusability and cause no dangerous emissions.
4	IP67 waterproof and UV-resistant enclosure for hars henvironment applications.
5	Built-in 4000 mAh replaceable battery and work up to 10 years without replacement.
6	Store locally 1000 historical records and support retransmission to prevent data loss.
7	Equipped with NFC for easy configuration.
8	Compliant with standard LoRaWAN® gateways and network servers.

INSTALLATION

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	LIQUID TYPE	Conductive Liquid (Water, WeakAcid, WeakBase, etc.)
3	TRIGGRT MEDIA	400×400×0.25mm Printed Leakage-Detecting Film
4	TRIGGER CONDITION	Soaking Liquid Length > 1.5cm
5	CABLE LENGTH	1000mm
6	POWER SUPPLY	1×4000mA Her18505 Li-SOCL2 Battery (Extendable to 2 Batteries)
7	BATTERY LIFE	Up to 10 Years (One hour Leakage per Day, 25°C)
8	COLOR & MATERIAL	White Flame, ABS+PC (Retardant)
9	DIMENSIONS	105.6×85.3×27mm

More Information:

Versión: M2024-1

iN CONNECT M

LoRa | GSM | 4G
LoRaWAN® | WiFi | 5G

EM300-SLD-ZLD

SPOT/ZONE LEAKAGE DETECTION SENSOR - EM300-SLD-ZLD

FEATURES

ITEM	DESCRIPTION
1	Detect the presence of liquids by a small water probe and based on the conductive principle.
2	Embedded with temperature and humidity sensors for environment monitoring.
3	Ultra-wide-distance transmission up to line of sight of 10km.
4	IP67 UV-resistant and waterproof enclosure for harsh environment applications.
5	Built-in 4000 mAh replaceable battery and work up to 5 years without replacement.
6	Store locally 3000 historical records and support retransmission to prevent data loss.
7	Equipped with NFC for easy configuration.
8	Compliant with standard LoRaWAN® gateways and network servers.

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	LIQUID TYPE	Conductive Liquid
3	TRIGGRT MEDIA	When liquid level reaches 5mm
4	TRIGGER CONDITION	1.5m (Customizable)
5	TEMPERATURE RANGE	-30°C to +70°C
6	TEMPERATURE ACCURACY	0°C to +70°C (+/-0.3°C), -30°C to 0°C (+/-0.6°C)
7	TEMPERATURE RESOLUTION	0.1°C
8	HUMIDITY RANGE	0% to 100% RH
9	HUMIDITY ACCURACY	10% to 90% RH (+/-3%), below 10% and above 90% RH (+/-5%)
10	HUMIDITY RESOLUTION	0.5% RH
11	POWER SUPPLY	1×4000mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries)
12	BATTERY LIFE	10 years (10 min interval + 24 triggers per day)
13	DIMENSION	105.6×85.3×27mm

INSTALLATION

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More Information:

Versión: M2024-1

iN CONNECT M

LoRa GSM 4G

LoRaWAN® WiFi 5G
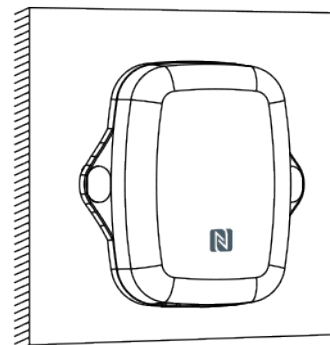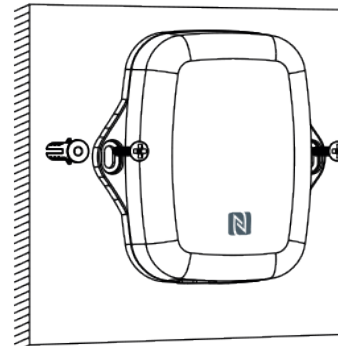
EM300-TH

TEMPERATURE & HUMIDITY SENSOR - EM300-TH
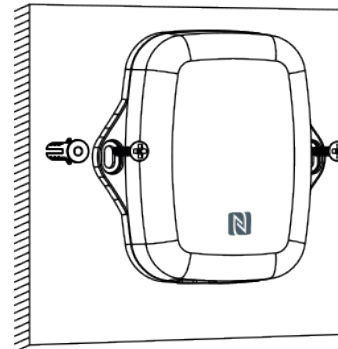
FEATURES

ITEM	DESCRIPTION
1	Embedded with Sensirion high-precision sensor chip.
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP67 UV-resistant and waterproof enclosure for harsh environment applications.
4	Built-in 4000 mAh replaceable battery and works for more than 5 years without replacement.
5	Store locally 3, 000 historical records and support retransmission to prevent data loss.
6	Equipped with NFC for easily configuration.
7	Compliant with standard LoRaWAN® gateways and network servers.

INSTALLATION

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	TEMPERATURE RANGE	-30°C to +70°C
3	TEMPERATURE ACCURACY	0°C to +70°C (+/-0.3°C), -30°C to 0°C (+/-0.6°C)
4	TEMPERATURE RESOLUTION	0.1°C
5	HUMIDITY RANGE	0% to 100% RH
6	HUMIDITY ACCURACY	1×4000mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries)
7	HUMIDITY RESOLUTION	0.5% RH
8	POWER SUPPLY	1×4000mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries)
9	BATTERY LIFE	10 years (10 min interval)
10	DIMENSION	88.5 × 85.3 × 27 mm

More Information:

Versión: M2024-1

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iN CONNECT M

LoRa · GSM · 4G · LoRaWAN® · WiFi · 5G
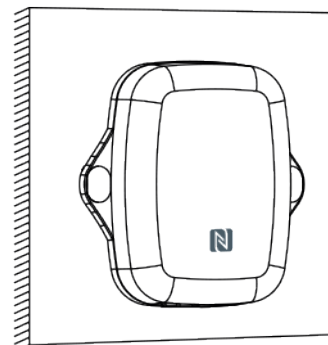
TILT SENSOR - EM300-TILT

EM300-TILT

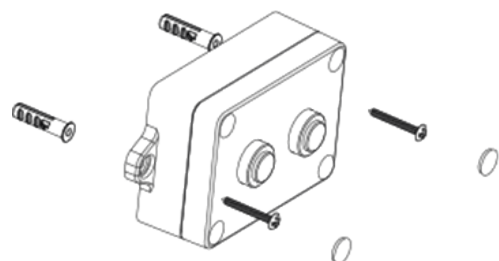| ITEM	DESCRIPTION
1	Built-in MEMS accelerometer sensor to measure the 3-axis angles of any objects.
2	Flexible threshold condition settings, suitable for different kinds of applications.
3	Easy to install, suitable for various types of objects as trees, poles, grounds, etc.
4	IP67 waterproof enclosure for outdoor applications and easy to clean.
5	Ultra-wide-distance wireless transmission up to line of sight of 15km.
6	Equipped with NFC for one touch configuration, supports card emulation mode.
7	Function well with standard LoRaWAN® gateways and network servers.

INSTALLATION

MOUNTING METHOD

TECHNICAL SPECIFICATIONS		
ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT AXIS	X, Y, Z
3	MEASUREMENT RANGE	- 90° ~ +90°
4	MEASUREMENT ACCURACY	± 1°
5	MEASUREMENT RESOLUTION	0.01°
6	POWER SUPPLY	2 × 3500 mAh ER17505 Li-SOCl2 Batteries
7	BATTERY LIFE	Over 5 years (6 triggers per hour)
8	DIMENSION	111 × 62 × 33 mm
9	MATERIAL & COLOR	ABS, Black
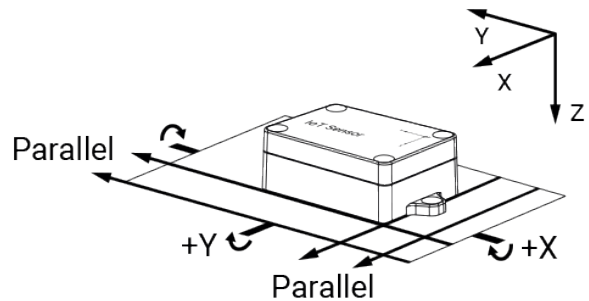
INSTALLATION REQUIREMENT

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More Information:

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iN CONNECT

LoRa GSM 4G
LoRaWAN® WiFi 5G

EM300-UDL

ULTRASONIC DISTANCE SENSOR - EM300-UDL

FEATURES

ITEM	DESCRIPTION
1	3-450 cm wide measuring range with short blind zone.
2	Easy to install, suitable for various types of waste bins or containers.
3	Built-in 3-axis accelerometer sensor to monitor device tilt status.
4	IP67 waterproof enclosure for outdoor applications and easy to clean.
5	Ultra-wide-distance wireless transmission up to line of sight of 15km.
6	Equipped with NFC for one touch configuration, supports card emulation mode.
7	Function well with standard LoRaWAN® gateways and network servers.

INSTALLATION

Ultrasonic Sensor

Mounting Holes

NFC Area

HARDWARE OVERVIEW

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	DISTANCE DETECTION RANGE	3 - 450 cm
3	DISTANCE DETECTION ACCURAC	± (1+0.3%*S) cm, S=distance
4	DISTANCE RESOLUTION	1 mm
5	DEVICE POSITION STATUS	Normal/Tilt
6	POWER SUPPLY	2 × 3500 mAh ER17505 Li-SOCl2 Batteries
7	BATTERY LIFE	≥10 years (10 min interval + 20 triggers per day)
8	DIMENSION	111 × 62 × 40 mm
9	WEIGHT	168g
10	MATERIAL & COLOR	ABS, Black

MOUNTING METHOD

More Information:

Versión: M2024-1

ISii NITZAN

EM320-TH

TEMPERATURE & HUMIDITY SENSOR - EM320-TH

FEATURES	
ITEM	DESCRIPTION
1	Uses Sensirion high-precision sensor, capable of sensing subtle changes in temperature and humidity.
2	IP67 waterproof enclosure with multi-level structure and sealing ring design enabling strong waterproof performance for harsh environments.
3	Uses FDA-approved food-grade material's enclosure, which is safe for contact with foodor medicines.
4	Ultra-low power consumption and standby with 5400 mAh built-in replaceable batteries, ensuring durable battery life.
5	Wall mounting or magnet version optional for multiple installation scenarios.
6	Anti-theft and anti-slip pad design on back cover to secure firm and sturdy installation.
7	Long range data transmission for up to 15 kilometers in rural areas.
8	Store locally 3000 historical records and support retransmission to prevent data loss.
9	Equipped with NFC for easy configuration.
10	Compliant with standard LoRaWAN® gateways and network servers.

INSTALLATION

WALL MOUNTING

MAGNETIC ADSORPTION

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	TEMPERATURE RANGE	-30°C to + 60°C
3	TEMPERATURE ACCURACY	+/- 0.2°C
4	TEMPERATURE RESOLUTION	0.1°C
5	HUMIDITY RANGE	0% to 100% RH
6	HUMIDITY ACCURACY	+/- 2%
7	HUMIDITY RESOLUTION	0.5% RH
8	POWER SUPPLY	2 × 2700 mAh ER14505 Li-SOCL2 Batteries
9	BATTERY LIFE	≥5 years (10 min interval with data retransmission disabled, 25°C)
10	MATERIAL & COLOR	PC + ABS (Food-Grade), White
11	DIMENSION	85 × 58 × 18 mm

More Information:

Versión: M2024-1

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iN CONNECT M

LoRa | GSM | 4G
LoRaWAN® | WiFi | 5G

TILT SENSOR - EM320-TILT

EM320-TILT

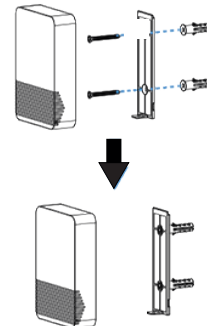| FEATURES	
ITEM	DESCRIPTION
1	Built-in MEMS accelerometer sensor to measure the 3-axis angles of any objects.
2	Flexible threshold condition settings, suitable for different kinds of applications.
3	Easy to install, suitable for various types of objects as trees, poles, grounds, etc..
4	IP67 waterproof enclosure for outdoor applications.
5	Anti-theft design on back cover to secure firm and sturdy installation.
6	Ultra-wide-distance wireless transmission up to line of sight of 15km.
7	Long range data transmission for up to 15 kilometers in rural areas.
8	Equipped with NFC for one touch configuration
9	Function well with standard LoRaWAN® gateways and network servers.
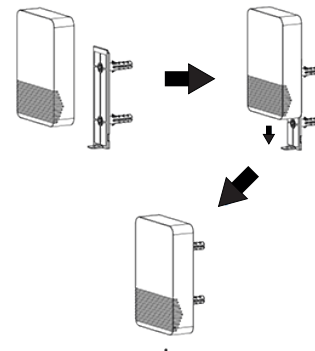
INSTALLATION

TECHNICAL SPECIFICATIONS		
ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT AXIS	X, Y, Z
3	MEASUREMENT RANGE	90° ~ +90°
4	MEASUREMENT ACCURACY	± 1°
5	MEASUREMENT RESOLUTION	0.01°
6	POWER SUPPLY	2 × 2700 mAh ER14505 Li-SOCl2 Batteries
7	BATTERY LIFE	≥3 Years (10min reporting interval, SF10)
8	DIMENSION	85 × 58 × 18 mm
9	MATERIAL & COLOR	PC + ABS, White

More Information:

Versión: M2024-1

iN CONNECT M

LoRa · GSM · 4G
LoRaWAN® · WiFi · 5G

ToF LASER DISTANCE SENSOR - EM400-TLD

EM400-TLD
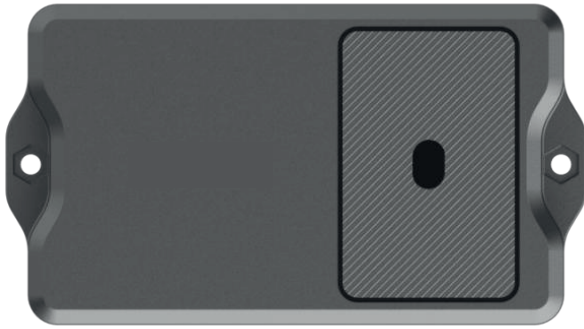
FEATURES

ITEM	DESCRIPTION
1	2-350 cm wide detection range with extremely short blind zone.
2	Easy to install, especially suitable for small-size waste bins or containers.
3	Equipped with NTC temperature sensor for the detection and alarm of trash burning.
4	Built-in 3-axis accelerometer sensor to monitor device tilt status.
5	Damp-proof coating inside and IP67 waterproof enclosure for outdoor applications.
6	Two built-in 9000 mAh replaceable batteries that work for up to 10 years without replacement.
7	Equipped with NFC for one touch configuration, support card emulation mode.
8	Ultra-wide-distance wireless transmission up to line of sight of 15km.
9	Function well with standard LoRaWAN® gateways and network servers.

INSTALLATION

108.9mm
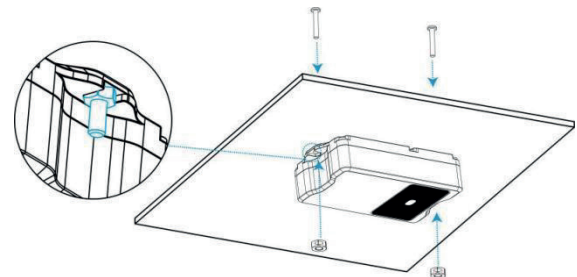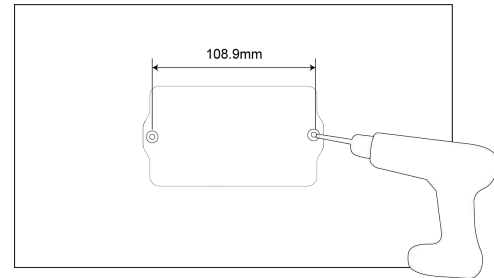
TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	ToF FoV	27°
3	DISTANCE DETECTION RANGE	2 ~ 350 cm
4	DISTANCE DETECTION ACCURAC	±2 cm (-20°C ~ 70°C)
5	DISTANCE DETECTION RESOLITION	1 mm
6	DEVICE POSITION STATUS	Normal/Tilt
7	TEMPERATURE RANGE	-40 ~ 125°C
8	TEMPERATURE RESOLUTION	0.1°C
9	GNSS POSITIONING PARAMETERS	Longitude/Latitude
10	GNSS POSITIONING RESOLUTION	0.000001
11	POWER SUPPLY	2 x 9000 mAh ER26500 Li-SOCL2 Batteries
12	BATTERY LIFE	Standard mode: Around 10 years (10 min interval, 25°C) Bin mode: Around 10 years (20 min interval, 25°C)
13	DIMENSION	118 × 65 × 30 mm
14	MATERIAL & COLOR	ABS + PC (Flame Retardant), Black gray

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More Information:

Versión: M2024-1

iN CONNECT

LoRa GSM 4G

LoRaWAN® WiFi 5G

EM400-MUD

MULTIFUNCTIONAL ULTRASONIC DISTANCE SENSOR - EM400-MUD

FEATURES

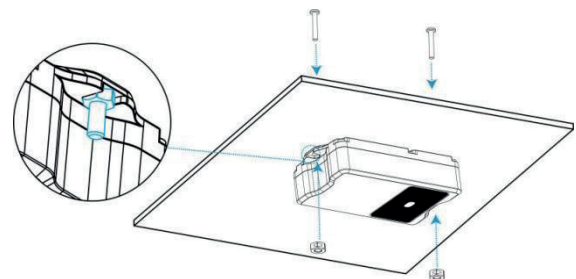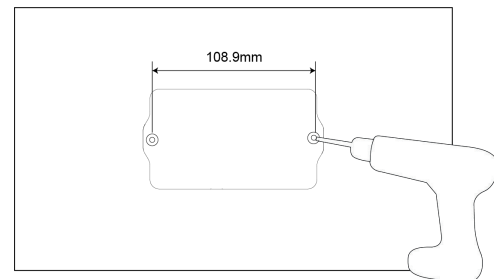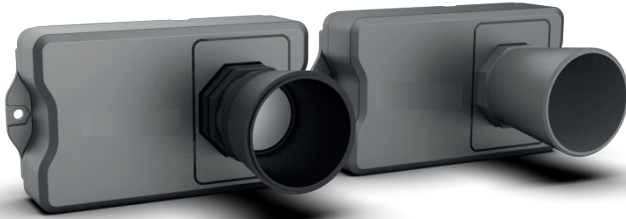| ITEM	DESCRIPTION
1	2-350 cm wide detection range with extremely short blind zone.
2	Equipped with NTC temperature sensor for the detection and alarm of trash burning.
3	Built-in 3-axis accelerometer sensor to monitor device tilt status.
4	Damp-proof coating inside and IP67 waterproof enclosure for outdoor applications.
5	Two built-in 9000 mAh replaceable batteries that work for up to 10 years without replacement.
6	Equipped with NFC for one touch configuration, support card emulation mode.
7	Equipped with three pre-set modes for different applications: standard mode, bin mode, packing lot mode.
8	Ultra-wide-distance wireless transmission up to line of sight of 15km.
9	Function well with standard LoRaWAN® gateways and network servers.

INSTALLATION

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	DISTANCE DETECTION RANGE	3 ~ 450 cm
3	DISTANCE DETECTION ACCURACY	±(1+0.3%*S)cm, S=distance (-15°C ~ 60°C)
4	DISTANCE DETECTION RESOLITION	1 mm
5	DEVICE POSITION STATUS	Normal/Tilt
6	TEMPERATURE RANGE	-40 ~ 125°C
7	TEMPERATURE RESOLUTION	0.1°C
8	GNSS POSITIONING PARAMETERS	Longitude/Latitude
9	GNSS POSITIONING RESOLUTION	0.000001
10	POWER SUPPLY	2 x 9000 mAh ER26500 Li-SOCL2 Batteries
11	BATTERY LIFE	Standard mode: > 10 years (10 min interval, 25°C) Bin mode: > 10 years (20 min interval, 25°C) Parking lot mode: 5 years (12 triggers per day, 25°C)
12	DIMENSION	118 × 65 × 32.5 mm
13	MATERIAL & COLOR	ABS + PC (Flame Retardant), Black gray

108.9mm

More Information:

Versión: M2024-1

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EM400-MUD

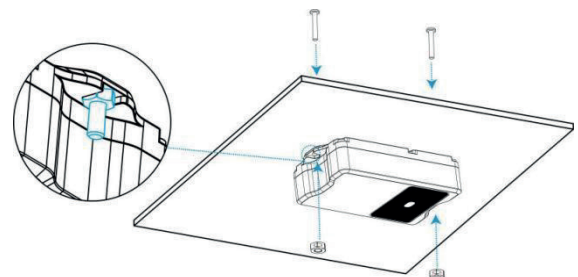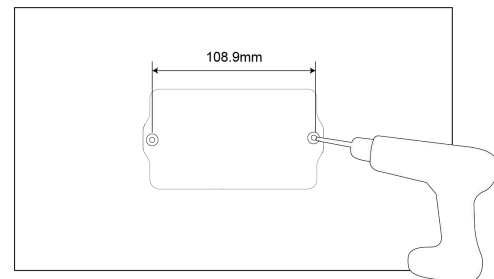## ULTRASONIC DISTANCE SENSOR - EM400-UDL

FEATURES

ITEM	DESCRIPTION
1	Selective probes vary from 25 to 1000 cm for multiple applications.
2	Two built-in 9000 mAh replaceable batteries that work for up to 10 years without replacement.
3	Equipped with NTC temperature sensor for the detection and alarm of burning.
4	Built-in 3-axis accelerometer sensor to monitor device tilt status.
5	Damp-proof coating inside and IP67 waterproof enclosure for outdoor applications.
6	Equipped with NFC for one touch configuration, support card emulation mode.
7	Ultra-wide-distance wireless transmission up to line of sight of 15km.
8	Function well with standard LoRaWAN® gateways and network servers.

INSTALLATION

108.9mm

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION	
		STANDARD VER.	PRO VERSION
1	TECHNOLOGY	LoRaWAN®	
2	DISTANT RANGE	C050: 25 ~ 500 cm C100: 25 ~ 1000 cm	W050: 30 ~ 500 cm W100: 50 ~ 1000 cm
3	DISTANCE ACCURACY	± (1+0.3%*S) cm, S=distance (- 15°C ~ 60°C)2	±1% FS (- 30°C ~ 65°C)
4	DISTANT RESOLUTION	1 mm	
5	DEVICE POSITION STATUS	Normal/Tilt	
6	TEMPERATURE RANGE	-40 ~ 125°C	
7	TEMPERATURE RESOLUTION	0.1°C	
8	GNSS POSITIONING PARAMETERS	Longitude/Latitude	
9	GNSS POSITIONING RESOLUTION	0.000001	
10	POWER SUPPLY	2 x 9000 mAh ER26500 Li-SOCL2 Batteries	
11	BATTERY LIFE	> 10 years (10-min Interval, 25°C)	
12	DIMENSION	118 × 65 × 80 mm	
13	MATERIAL & COLOR	ABS + PC (Flame Retardant), Black gray(C050/C100), Gray(W050/W100/S050)	

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More Information:

Versión: M2024-1

EM500-CO₂

CARBON DIOXIDE SENSOR- EM500-CO₂

FEATURES

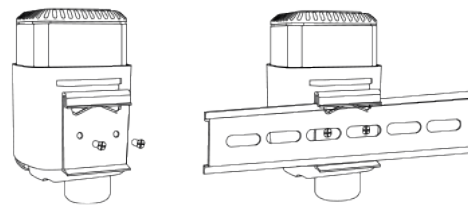| ITEM	DESCRIPTION
1	Integrated with multiple sensors like CO2, temperature, humidity, etc.
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP65 waterproof enclosure for harsh environment applications.
4	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
5	Equipped with NFC for easy configuration.
6	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

ITEM	DESCRIPTION
1	Warehouse environment monitoring.
2	Basement and underground parking monitoring.
3	Smart agriculture.
4	Forest fire detection.
5	Smart building

INSTALLATION
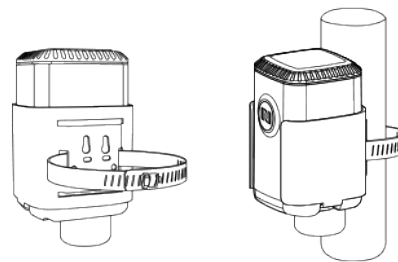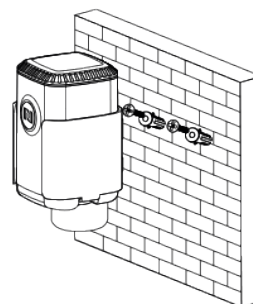
DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	CARBON DIOXIDE (CO2) - SENSOR TYPE	NDIR
3	CARBON DIOXIDE (CO2) RANGE	400 - 5000 ppm
4	CARBON DIOXIDE (CO2) ACCURACY	± (30 ppm + 3 % of reading) (0°C - 50°C, 0 - 85%RH)
5	CARBON DIOXIDE (CO2) RESOLUTION	1 ppm
6	TEMPERATURE - SENSOR TYPE	MEMS
7	TEMPERATURE RANGE	-30°C to + 70°C
8	TEMPERATURE ACCURACY	0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C)
9	TEMPERATURE RESOLUTION	0.1°C
10	HUMIDITY - SENSOR TYPE	MEMS
11	HUMIDITY RANGE	0% to 100% RH
12	HUMIDITY ACCURACY	10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)
13	HUMIDITY RESOLUTION	0.5% RH
14	POWER SUPPLY	19000 mAh Li-SOCL2 Battery (ER34615)
15	BATTERY LIFE	10 years (10 min interval)
16	DIMENSION	147.9 × 71 × 69.5 mm

More Information:

Versión: M2024-1

LIGHT SENSOR- EM500-LGT

EM500-LGT
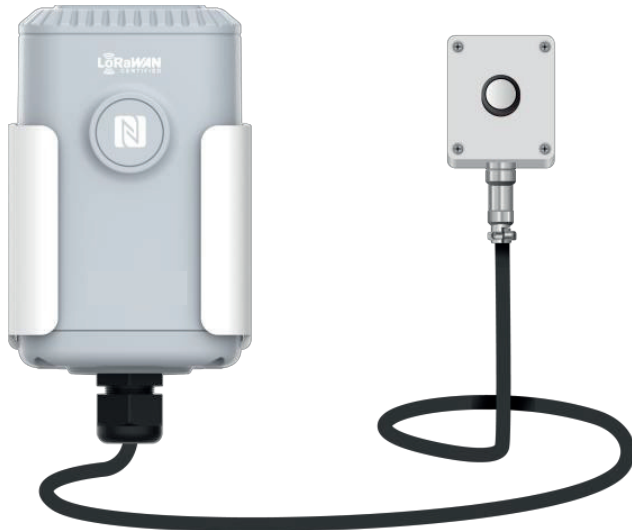
FEATURES

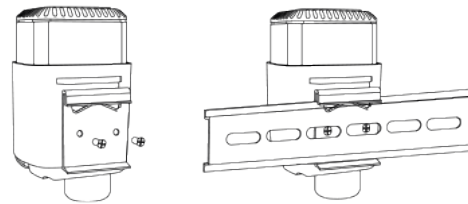| ITEM	DESCRIPTION
1	Wide measuring range and high precision.
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP67 waterproof enclosure for harsh environment applications.
4	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
5	Equipped with NFC for easy configuration.
6	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

ITEM	DESCRIPTION
1	Smart buildings.
2	Urban lighting.
3	Greenhouse control.
4	Smart agriculture.
5	Weather monitoring.

INSTALLATION
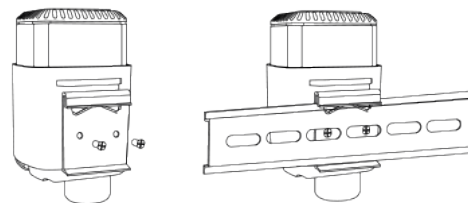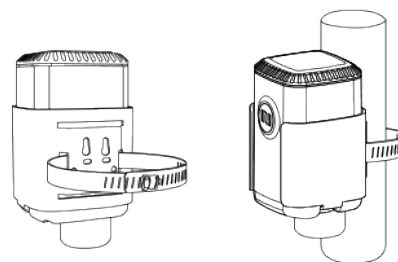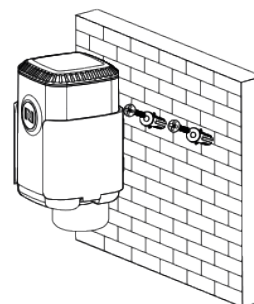
DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

| ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT RANGE	0 - 100000 lux
3	MEASUREMENT ACCURACY	±3%
4	MEASUREMENT RESOLUTION	1 lux
5	CABLE LENGTH	3 m
6	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
7	BATTERY LIFE	10 years (10 min interval)
8	DIMENSION	Transceiver: 105.4 × 71 × 69.5 mm Light Sensor: 64 × 58 × 34 mm

More Information:

Versión: M2024-1

LoRa · GSM · 4G · LoRaWAN® · WiFi · 5G

PIPE PRESSURE SENSOR

EM500-PP

PIPE PRESSURE SENSOR- EM500-PP

FEATURES

ITEM	DESCRIPTION
1	High precision and corrosion resistance.
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP67 waterproof enclosure for harsh environment applications.
4	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
5	Equipped with NFC for easy configuration.
6	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

ITEM	DESCRIPTION
1	Pipes and tanks pressure monitoring.
2	Oil & Gas monitoring.
3	Water leak detection.
4	Pump monitoring.

INSTALLATION

DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT PRESSURE TYPE	Gauge Pressure
3	MEASUREMENT RANGE	0 - 1600 kPa (16 Bar)
4	MEASUREMENT ACCURACY	± 0.5% FS
5	MEASUREMENT RESOLUTION	1 kPa (0.01 Bar)
6	MEASUREMENT OVERLOAD	150% FS
7	MEASUREMENT LONG-TERM STABILITY	± 0.3% FS/year
8	MEASUREMENT PROCESS CONNECTION	G 1/2" Male
9	CABLE LENGTH	1.5 m
10	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
11	BATTERY LIFE	10 years (10 min interval)
12	DIMENSION	Transceiver: 105.4 × 71 × 69.5 mm Pipe Sensor: 67.5 × φ27 mm

More Information:

Versión: M2024-1

iN CONNECT M
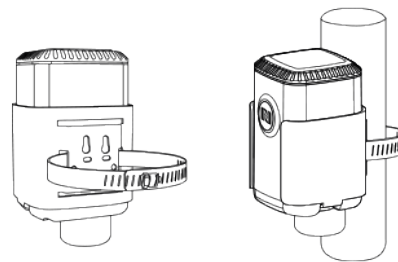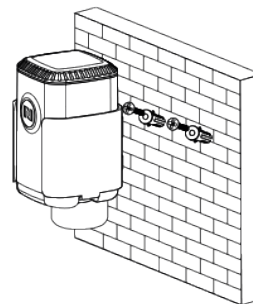
LoRa | GSM | 4G
LoRaWAN® | WiFi | 5G

EM500-PT100

INDUSTRIAL TEMPERATURE SENSOR- EM500-PT100

FEATURES

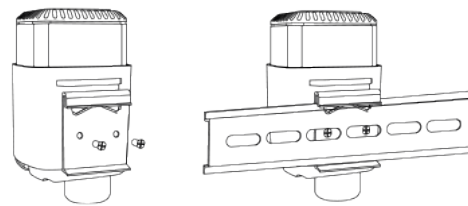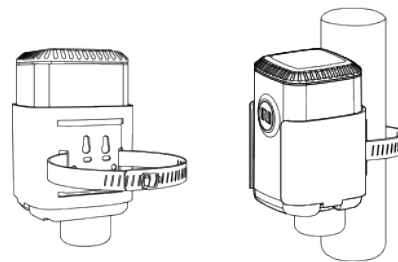| ITEM	DESCRIPTION
1	Corrosion resistance cable and multiple probe options.
2	3 wire connection for high precision.
3	Ultra-wide-distance transmission up to line of sight of 10km.
4	IP67 waterproof enclosure for harsh environment applications.
5	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
6	Equipped with NFC for easy configuration.
7	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

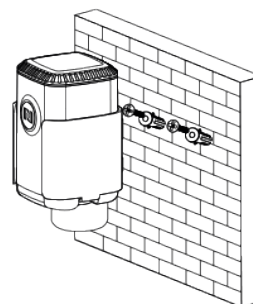| ITEM	DESCRIPTION
1	Liquid or gas monitoring.
2	Industrial machine monitoring.
3	Oven and cooking monitoring.
4	Chimney and boiler temperature monitoring.
5	Medical or laboratory use.

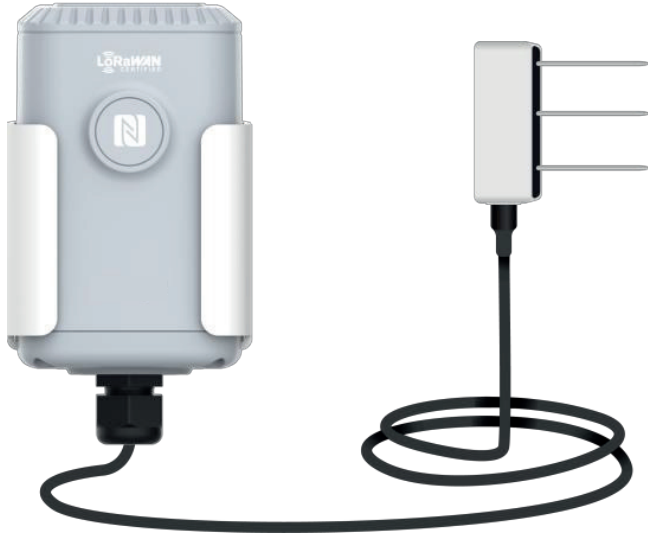### INSTALLATION

DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT CONNECTION TYPE	3-wire connection
3	MEASUREMENT RANGE	T050: -200 °C to +50 °C T200: -50 °C to +200 °C T500: -50 °C to +500 °C T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C)
4	MEASUREMENT ACCURACY	±0.5°C
5	MEASUREMENT RESOLUTION	0.1°C
6	CABLE LENGTH	1.5 m (Customizable)
7	PROBE TYPE	Straight tube (Customizable)
8	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
9	BATTERY LIFE	10 years (10 min interval)
10	DIMENSION	105.4 × 71 × 69.5 mm

More Information:

Versión: M2024-1

LoRa GSM 4G
LoRaWAN® WiFi 5G

SOIL CONDUCTIVITY SENSOR

EM500-SMTC

SOIL CONDUCTIVITY SENSOR- EM500-SMTC

FEATURES

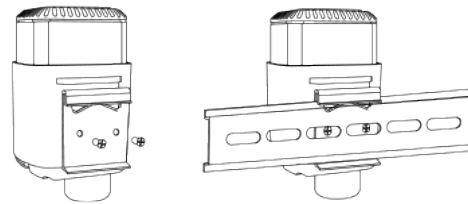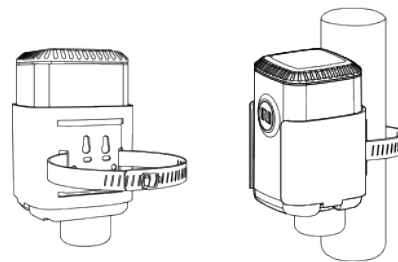| ITEM	DESCRIPTION
1	High precision for multiple kinds of soil.
2	Corrosion resistance and tough probe.
3	Ultra-wide-distance transmission up to line of sight of 10km.
4	IP67 waterproof enclosure for harsh environment applications.
5	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
6	Equipped with NFC for easy configuration.
7	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

ITEM	DESCRIPTION
1	Irrigation Control.
2	Greenhouse control.
3	Smart agriculture.
4	Smart horticulture.
5	Golf course maintenance.

INSTALLATION

DIN Rail MOUNTING
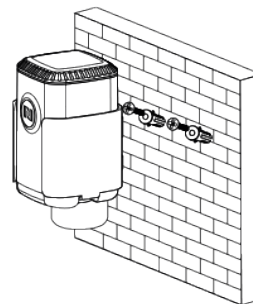
POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MOISTURE RANGE	0% ~ 100% RH
3	MOISTURE ACCURACY	±2%(0~50%), ±3%(50%~100%)
4	MOISTURE RESOLUTION	0.01%
5	TEMPERATURE RANGE	-40°C ~ 80°C
6	TEMPERATURE ACCURACY	±0.5°C
7	TEMPERATURE RESOLUTION	0.1°C
8	CONDUCTIVITY RANGE	0~20000 µs/cm
9	CONDUCTIVITY ACCURACY	±3%(0~10000 µs/cm), ±5%(10000~20000 µs/cm)
10	CONDUCTIVITY RESOLUTION	1 µs/cm
11	CABLE LENGTH	2 m
12	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
13	BATTERY LIFE	10 years (10 min interval)
14	DIMENSION	Transceiver: 105.4 × 71 × 69.5 mm Soil Sensor: 88 × 68 × 26 mm (Probe length: 50mm)

More Information:

Versión: M2024-1

iN CONNECT M

LoRa GSM 4G
LoRaWAN® WiFi 5G

EM500-SWL

SUBMERSIBLE WATER LEVEL SENSOR- EM500-SWL
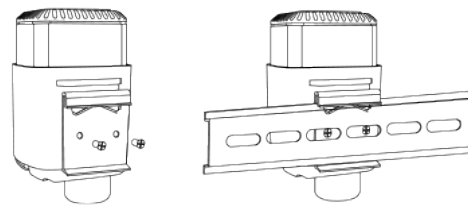
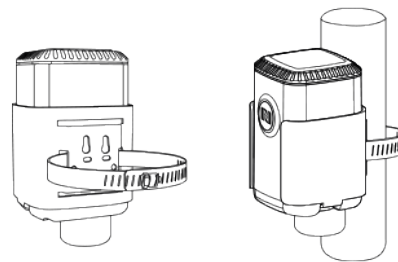| FEATURES	
ITEM	**DESCRIPTION**
1	Stainless probe with corrosion resistance
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP67 waterproof enclosure for harsh environment applications.
4	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
5	Equipped with NFC for easy configuration.
6	Compliant with standard LoRaWAN® gateways and network servers.

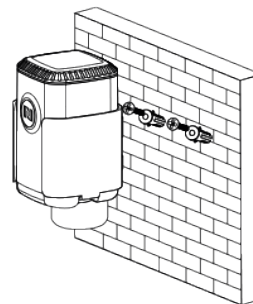| APPLICATIONS	
ITEM	**DESCRIPTION**
1	Water tank level monitoring.
2	Water resource level monitoring.
3	ISO tank level monitoring.
4	Waste water tank monitoring.
5	Oil store tank level monitoring.

INSTALLATION

DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS		
ITEM	**FEARTURE**	**DESCRIPTION**
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT PRESSURE TYPE	Gauge Pressure
3	MEASUREMENT RANGE	0 ~ 3m/5m/10m (H2O) (Customizable up to 200 m and for other liquids)
4	MEASUREMENT ACCURACY	± 0.5% FS
5	MEASUREMENT RESOLUTION	0.01 m
6	MEASUREMENT LONG-TERM STABILITY	≤ ± 0.3% FS/year
7	CABLE LENGTH	At least 1-1.5m longer than measuring range
8	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
9	BATTERY LIFE	10 years (10 min interval)
10	DIMENSION	Transceiver: 105.4 × 71 × 69.5 mm Level Sensor: 140 × φ28 mm

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More Information:

Versión: M2024-1

ISii NITZAN

EM500-UDL

ULTRASONIC DISTANCE SENSOR- EM500-UDL
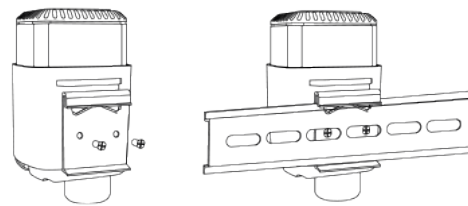
FEATURES

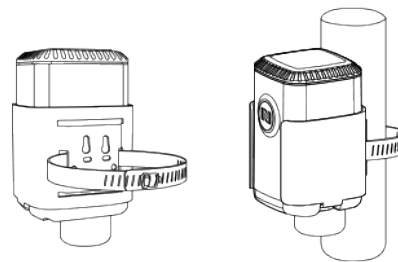| ITEM	DESCRIPTION
1	Object distance or level detection without touch.
2	Ultra-wide-distance transmission up to line of sight of 10km.
3	IP67 waterproof enclosure for harsh environment applications.
4	Built-in 19000 mAh replaceable battery and work for 10 years without replacement.
5	Equipped with NFC for easy configuration.
6	Compliant with standard LoRaWAN® gateways and network servers.

APPLICATIONS

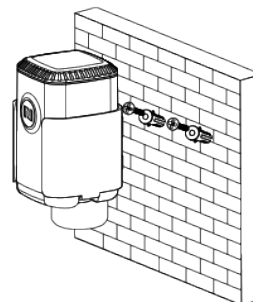| ITEM	DESCRIPTION
1	Water level monitoring.
2	Flood monitoring.
3	Level/depth monitoringintanks.
4	Snow level monitoring.
5	Smart agriculture: fill level monitoring in grain, fertilizeror pellets silos.

INSTALLATION

DIN Rail MOUNTING

POLE MOUNTING

WALL MOUNTING

TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	MEASUREMENT RANGE & ACCURACY	W050: 0.3 - 5 m, ±1% FS W100: 0.5 - 10 m, ±1% FS S050: 0.3 - 5 m (Snow Version), ±1% FS C050: 0.25 - 5 m, ± (1+0.3%*S) cm, S=distance C100: 0.25 - 8 m, ± (1+0.3%*S) cm, S=distance
3	MEASUREMENT RESOLUTION	1 mm
4	POWER SUPPLY	19000 mAh Li-SOCL2 battery (ER34615)
5	BATTERY LIFE	10 years (10 min interval)
6	DIMENSION	156.1 × 71 × 69.5 mm

More Information:

Versión: M2024-1

iN CONNECT M

LoRa | GSM | 4G
LoRaWAN® | Wi Fi | 5G

OUTDOOR ASSET TRACKER - AT101

AT101

FEATURES

ITEM	DESCRIPTION
1	Equipped with high-accurate GNSS positioning and cooperate with Wi-Fi positioning.
2	Built-in 3-axis accelerometer sensor to monitor device tilt status and movement.
3	Equipped with NTC temperature sensor enabling environmental detection.
4	Support IP67 and IK09 rating protections for harsh environment application.
5	Built-in replaceable batteries and works for up to over 15 years without replacement.
6	Provide integrated structure and anti-theft design for wireless and safe deployment.
7	Incorporate UV protection to be suitable for outdoor environments..
8	Support Geofencing for targeted messaging to secure the assets and area.
9	Multiple and switchable modes provide motion tracking, periodic tracking, and timing tracking.
10	Store locally 1000 historical records and support retransmission to prevent data loss.
11	Built-in NFC and Bluetooth for easy configuration.
12	Compliant with standard LoRaWAN® gateways and network servers.

INSTALLATION
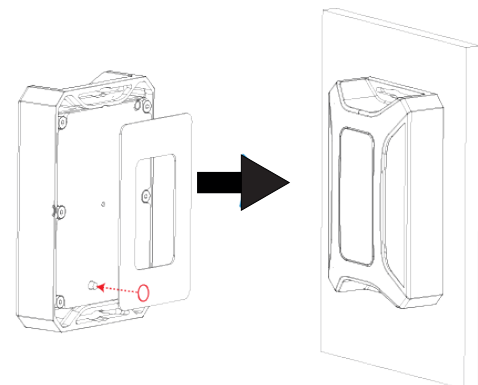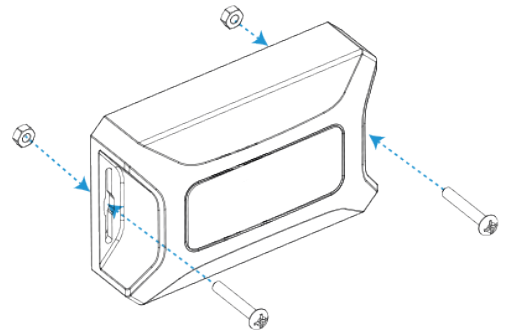
TECHNICAL SPECIFICATIONS

ITEM	FEARTURE	DESCRIPTION
1	TECHNOLOGY	LoRaWAN®
2	GNSS POSITIONING - POSITION ACCURACY (CEP)	5.0m (Direct Line of Sight)
3	GNSS POSITIONING RESOLUTION	Longitude/Latitude: 0.000001
4	GNSS POSITIONING TIME TO FIRST FIX	Cold Start: 37s Average / Hot Start: 1s Average
5	GNSS SENSITIVITY	Tracking: -167dBm / Reacquisition: -160 dBm / Cold Start: -148dBm / Hot Start: -159 dBm
6	WI-FI POSITIONING	Indoor asset location using Wi-Fi access point scanning (device doesnot connect to Wi-Fi)
7	WI-FI PARAMETERS	BSSID, RSSI
8	WI-FI STANDARD	802.11b/g/n 2.4GHz
9	DEVICE MOTION STATUS	Normal/Tilt
10	TEMPERATURE RANGE	-40 ~ 125°C
11	TEMPERATURE RESOLUTION	0.1°C
12	POWER SUPPLY	4 × 2700 mAh ER14505 Li-SOCl2 Replaceable Batteries
13	BATTERY LIFE	Twice Daily Location Updates - 15+ Years / Tenth Daily Location Updates - 8+ Years / Hourly location updates – 4+ Years
14	MATERIAL & COLOR	PC, Black
15	DIMENSION	110 × 70 × 30 mm
16	WEIGHT	202g (Batteries are Included)

More Information:

Versión: M2024-1

SMART CURRENT TRANSFORMER - CT10X

CT10X

EUI
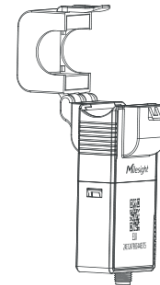24E124798C448375

FEATURES

ITEM	DESCRIPTION
1	Report the RMS current and accumulated current data by minutes.
2	High measuring accuracy with a sampling frequency of up to 3.3kHz.
3	Self-powered, free from batteries or external wires.
4	Utilize a sampling rate of up to 1s for real-time monitoring and quick alarm response.
5	Compact size allows for installation in narrow scenarios.
6	Non-invasive clamp design ensures easy and safe installation without the need for power de-energizing.
7	Equipped with LED indicator to indicate working status and alarms.
8	Compliant with standard LoRaWAN® gateways and network servers.

TECHNICAL SPECIFICATIONS

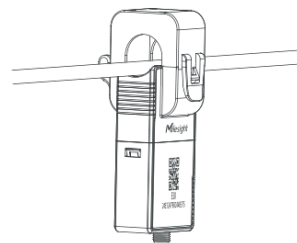| ITEM	FEARTURE	DESCRIPTION	
		CT101	CT103
1	PROTOCOL	LoRaWAN®	
2	DETECTION PARAMETER	RMS Current	
3	WORKING VOLTAGE	Typical 100~480VAC, 50~60 Hz	
4	MAXIMUM INPUT CURRENT	100 Arms	300 Arms
5	MINIMUM INPUT CURRENT	1 Arms	2 Arms
6	ACCURACY	±1 %	
7	RESOLUTIOM	1 mA	
8	POWER SUPPLY	Induced current power supply	
9	MATERIAL & COLOR	Black, Nylon PA66 (UL94 V2)	
10	DIMENSION	86.5 × 31 × 37.4 mm Wire Hole: Φ 16 mm	
11	WEIGHT	85.65g	

INSTALLATION

OPEN

INSERT

SECURE

More Information:

Versión: M2024-1