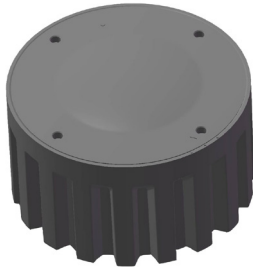


DHI-ITSJC-1102-DLB

Dual Mode LoRa Geomagnetic Detector



- Bluetooth and OTA remote update.
- Collects information on the battery level and reports on it to the platform.
- Activates and calibrates itself through the app.
- Automatically switches to geomagnetic parking detection mode when water is covering the surface of the ground.
- With its dual-casing design, maintenance and replacement are made easier without the hassle of unearthing the device.
- 38 Ah lithium battery with a standby time of 5 years.
- IP68 rated.

System Overview

Designed with cutting edge technology, Dual Mode LoRa Geomagnetic Detector uses its embedded 24 GHz microwave radar and geomagnetic sensor to detect parking spaces in real time. Built to be installed in the earth, it tracks vehicles as they enter and exit parking spaces, reporting the information to the platform through the gateway. It is ideal for use in parking guidance, counting parking spaces, and calculating parking fees. It also detects with an accuracy higher than 99%, while eliminating nearby interference.

Functions

Highly Accurate

With its 24 GHz microwave radar, geomagnetic sensor and adaptive algorithm, the device can eliminate interference caused by passing cars, subways, high-voltage lines, and water covering the surface of the ground, while maintaining an accuracy level higher than 99%.

Self-calibration

Highly intuitive, the device employs a self-calibration algorithm that allows it to self-learn and calibrate itself.

Long Lifespan

Embedded with a 38 Ah lithium battery, the device is built to last. It is also designed to reduce power consumption, entering sleep mode during periods of inactivity, and can last 5 years if it tracks 12 parking events per day.

Easy Maintenance

Maintenance is made easier through its dual casing design. Simply unscrew and lift it out of its ground-level casing to perform maintenance, without the hassle of unearthing the device.

Scene

The device is widely used in outdoor parking lots and roadside parking spaces.

Technical Specification

Basic

Detection Mode	Radar and geomagnetic parking detector
Radar Frequency	24 GHz
Detention Interval	2 s
Response Time	≤10 s
Detection Distance	0.1 m–1.2 m (0.33 ft to 3.94 ft)
Detection Accuracy	>99.9%
Communication Mode	LoRaWAN
Communication Band	433 MHz/868 MHz
Max. Transmission Power	19 ± 1 dBm
Receiver Sensitivity	-136 ± 1 dBm
Casing	Enhanced nylon material; anti-pressure and anti-UV rays
Structure	It has a dual-casing design, is anti-pressure, waterproof, and supports maintenance and replacement without the need to be unearthed.
Voltage Withstanding	Able to bear vehicles that weigh up to 30 tons moving at a speed of 30 km/h.
Electrostatic Discharge Immunity	Air discharge: ±15 kV Indirect discharge: ±10 kV

Function

Vehicle Detection	Supports real-time detection of horizontal, vertical and diagonal parking spaces
Data Reporting	Reports the status of the parking space to the gateway through LoRa, and then the gateway sends the report to the platform through the ethernet connection.
Record Storage	When the device is not connected to the network, it saves the last 8 pieces of data on vehicles that entered and exited the parking space. It also supports ANR.
Wireless Maintenance	Supports maintenance through wireless communication, offering options such as power on, restart, shut down, parameter configuration, working status monitoring, and software updates.

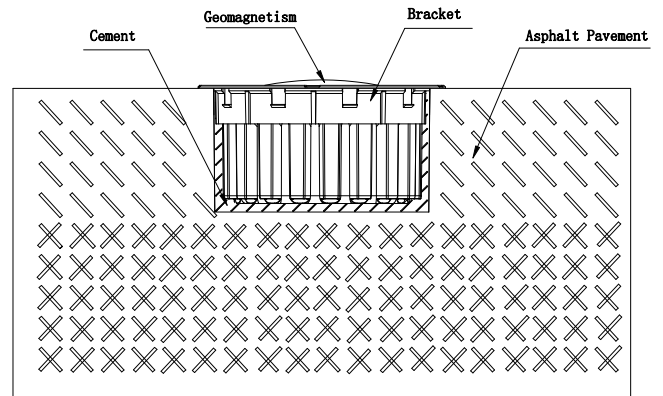
Geomagnetism Series | DHI-ITSJC-1102-DLB

Auto Temperature Compensation	Automatically compensates for deviations in the detection caused by the temperature.
Self-Diagnosis	Supports self-inspection of the battery level, sensor status, signal strength, internal temperature, and also automatically sends reports of alarm information
Water Cover	Automatically determines whether it is covered by water. When it is covered, it automatically switches to the geomagnetic mode.
Auto Calibration	Automatically senses environmental changes and supports automatic self-calibration

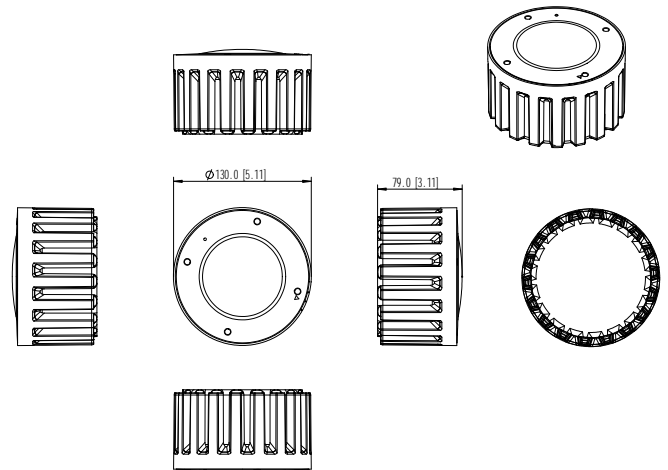
General

Power Supply	3.6 V, 38 Ah, Li/SOCl2 battery
Power Consumption	Normal current <200 mA Sleep status current <20 uA
Battery Life on a Full Charge	5 years (if it tracks 12 parking events per day)
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Product Dimensions	Φ130.0 mm × 79.0 mm (Φ5.12" × 3.11")
Net Weight	1.12 kg (2.47 lb)
Gross Weight	1.15 kg (2.54 lb)
Protection	IP68 rated
Installation	Bury

Installation



Dimensions (mm [inch])



Ordering Information

Type	Model	Description
Geomagnetism	DHI-ITSJC-1102-DLB	Dual Mode LoRa Geomagnetic Detector