

## fastprk<sup>w</sup> DUO

Fastprk Duo sensors are advanced magnetic and infrared sensors for on-street and off-street parking spaces. They can be easily flush-mounted in a parking space. The LPWA wireless design and battery operation ensure a quick and cost-effective installation and flexible operation. Fastprk sensors feature reliable detection based on remote automatic vehicle recognition and can be calibrated in the cloud or with on-premise servers.

### KEY FEATURES

DUAL DETECTION: INFRARED AND MAGNETIC

ACCURATE DETECTION EVEN WITH MAGNETIC NOISE

NO REPEATERS NEEDED

BATTERY LIFE OF UP TO 7 YEARS

EASY TO INSTALL & USE AND MAINTAIN

FLUSH-MOUNTED

AUTOMATIC CALIBRATION

### FEATURES

→ The Fastprk system is built to perform in magnetically challenging environments thanks to its dual detection and advanced and proprietary computing algorithms implemented in the sensors and the server.

→ Worldensing's advanced signal processing algorithms along with deep learning methodologies can filter out environmental magnetic fields which results in a more precise detection.

→ Fastprk sensors are capable to detect occupation and dynamically adjust its calibration values and vehicle detection thresholds even when the infrared is completely cover by dirt or snow.

→ Fastprk's communication protocol is based on standard and certified technologies. Sensors communicate with their gateways wirelessly in a single hop.

→ Gateways can be located within a radius of up to 500m (line of sight).

→ Gateways forward all data to the database servers. This approach offers significant savings as there is no need for spending associated costs on either repeaters or a mesh network.

→ The Fastprk casing is IP67-compliant and with a double encapsulation sensor design that allows easy replacement hence lower maintenance costs.

### APPLICATIONS

Fastprk sensors are part of the Worldensing parking management system. They provide accurate measurements of the occupancy status of on-street and off-street parking spaces, helping drivers find a parking space more quickly and allowing cities to manage their parking resources more effectively.

By reducing the time it takes to find a parking space, Fastprk contributes to the reduction of carbon emissions and plays a major role in creating a better urban environment.



# THE LEADING OUTDOOR PARKING MANAGEMENT SYSTEM

Fastprk is one of the world's most advanced smart parking systems. It tells drivers where to find vacant parking spaces via their smartphones or electronic dynamic message signs (DMS).

Fastprk also allows cities to monitor and manage parking bays 24/7, obtaining real-time occupancy information and correlating it with payment information. By taking advantage of this, a city can generate significant extra revenues.

## MAIN SPECIFICATIONS

### DETECTION

Infrared and Magnetic detection

Detection time: 10 seconds

High reliability: minimum of 95% and up to 98%

*\*Under normal usage and environmental conditions*

### COMMUNICATION

LPWA: LORA® or NB-IoT

Operating frequency bands: 868MHz (EU) / 902 MHz to 928 MHz to 928 MHz US), 920 MHz (Singapore).

No repeaters needed

Communication area (1 km<sup>2</sup>) up to 500 meters from sensor to gateway

### BATTERY LIFE ESTIMATION

Flush: Seven years of operation with built-in lithium-ion batteries

*\*Under normal usage and environmental conditions*

## MECHANICAL

IMPACT RESISTANCE: IK10 – Vandal proof design

SIZE: Flush: Ø 120 x 71 mm (Outer case)

WEIGHT: Flush: 435g

DOUBLE ENCAPSULATION CASING MATERIAL: PA

OPERATING TEMPERATURE: -30°C to +70°C

STORAGE TEMPERATURE: -30°C to +70°C

HUMIDITY: 0% to 100%

IP67: Compliant – Resistant to all kinds of weather conditions

## STANDARDS COMPLIANCE: CE-FCC-IC-IDA

ELECTROMAGNETIC COMPATIBILITY: EN 300-220

EFFICIENT USE OF THE RADIO FREQUENCY SPECTRUM: EN 55022, EN 55024 and EN 61000

SAFETY: EN 60950

FCC PART 15: FCC ID 2AHN4FPGFLL

## DEPLOYMENT TOOLS

To improve operations, each sensor contains a passive RFID tag. All configurations are selected from the calibration app which interacts directly with the sensor via a RFID transceiver.

The sensor ID is capable of being read even without sensor battery or when sensors are broken.

The commissioning app allows operators to follow a pre-configured route (i.e. an ordered sequence of parking bays) and to manually introduce the occupation status of each parking bay.

The application automatically retrieves the real occupation information of a sensor from the system servers. This ensures agile and accurate inspections while also minimizing the likelihood of human errors.

