

SENSIT IR

wireless smart parking sensor

Key features:

- ✓ dual detection technology (infrared and magnetic)
- ✓ 5-10 years battery life
- ✓ communication via fast and reliable network
- ✓ real-time bidirectional communication
- ✓ easy data integration using the SENSIT Interface Software

The SENSIT IR sensor is a smart parking sensor that detects the occupancy of individual outdoor parking spaces in real-time, using dual detection technology (infrared and magnetic). As part of SENSIT platform, the SENSIT IR optimizes parking utilization, reduces emissions and guarantees a fast return on investment.

The SENSIT IR is installed on individual parking bays. With a battery lifetime of 5-10 years (depending on the application type), the in-ground SENSIT sensors have proven to be a reliable and durable parking detection solution.

Typical applications with the SENSIT IR sensor include on-street parking in cities, retail parking areas and other smart parking installations that require the highest possible detection accuracy.

Highly accurate detection

The weather proof SENSIT IR features earth magnetic field and infrared detection. This dual detection technology ensures highly accurate vehicle detection. A sophisticated algorithm ensures the detection is not affected by snow, dirt or leaves covering the sensor.

Fast and reliable communication

A unique feature of the sensor is its capability to communicate wireless within a self-healing mesh network. Using a fast and reliable network of repeaters (SENSIT Relay Node) and gateways (SENSIT Gateway), the SENSIT IR sends real-time parking data to the cloud server (SENSIT Interface Software). Additionally, the ability to communicate bidirectionally ensures that the SENSIT Interface Software can easily request and verify the latest sensor events and status updates.



SENSIT Interface Software

Using the SENSIT Interface Software API, occupancy data can be easily integrated into third party parking guidance systems, parking enforcement software or smartphone apps. The SENSIT Interface Software (SIS) forms the basis for additional services and functions such as data analysis, planning and management of e.g. loading/ unloading, truck and disabled parking spaces.

SENSIT platform

Nedap's wireless SENSIT IR sensors detect the occupancy of individual parking spaces in real-time. The obtained parking data enables smart parking in any Smart City, ITS (Intelligent Transportation Systems) or retail environment. The SENSIT platform is specifically designed for:

- **Guidance:** guiding cars, busses and trucks to available parking bays fast and efficiently.
- **Enforcement:** providing real-time data and alerts to monitor the (ab)use of single parking bays.
- **Retail:** improving the shopping experience by guiding customers to the nearest available parking bay.

Different types of ruggedly designed sensors are available to accommodate any installation in indoor car parks, on-street spaces and road surfaces.

Technical information	SENSIT IR
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Part number	9943374 SENSIT IR EU 9898620 SENSIT IR US 9965955 SENSIT IR AU
Dimensions	Ø 78 mm (3.07 in) and 73 mm (2.87 in)
Mounting dimensions	Above the floor: 20 mm (0.79 in) / In the floor: 53 mm (2.09 in)
Color	Black
Weight	365 gram (12,87 oz)
Protection class	IP68, completely sealed housing IK10 impact rating according to EN 60068-2-75
Material	Polyethylene (PE)
Operating temperature	-40 ... +85°C (-40...+185°F)
Storage temperature	-40 ... +85°C (-40...+185°F)
Relative humidity	100% relative humidity, non-condensing
Operating frequency	868 MHz (EU) 902 – 928 MHz (US) 915 – 928 MHz (AU)
Battery	Built in lithium battery (not replacable)
Expected battery life	5-10 years (under normal usage and normal circumstances / dependent on the environment)
Snowplough resistant	No
Load resistance	Regular traffic
Detection	Magnetic and infrared
Detection height	0 - 90 cm (0 - 35.5 in)
Communication distances	<ul style="list-style-type: none"> • Sensor to Relay Node 2G (directional) - max. 50 meters (164 ft) • Sensor to Relay Node 2G (omni-directional) - max. 35 meters (135 ft) • Sensor to Gateway - max. 25 meters (82 ft)
Required Relay Nodes	Car parks: 1 per 50 sensors / On-street parking: 1 per 25 sensors (estimated)
Standards	CE, FCC, IC, ACMA
Document version number	5.2