

# Press release

## Bosch Connected Devices and Solutions



**BOSCH**

### Better parking thanks to parking space sensors

#### Efficient parking space management in smart cities

July, 2019

PI 10957 KPW

- ▶ Reliable city planning due to precise traffic infrastructure data
- ▶ Parking space management in real time with parking guidance systems
- ▶ Reduction of pollutant emissions caused by the search for a parking space

Reutlingen - Traffic that is looking for parking and the associated emissions, parking violators and unevenly utilized parking lots presents countless challenges for cities. The new Bosch Parking Lot Sensor solves these issues and makes it possible for cities to efficiently manage parking spaces and therefore improves the quality of life in cities.

#### Free or taken?

Parking sensor solutions are based on a concept that is as simple as it is ingenious: each individual parking space is equipped with a sensor that checks in real time whether a space is free or taken. Therefore, they open up huge potential for improving the quality of life in cities. The newly developed Parking Lot Sensor from Bosch bundles all of the necessary functions into a compact housing. Bosch has demonstrated an accuracy of more than 95% in numerous field tests with over 50 vehicle types, more than 2000 sensors and thousands of parking maneuvers. Parking sensors are no longer a dream of the future – Bosch has proved this in the successful pilot projects in 25 European cities.

#### Integrated communication

Many cities have or are planning smart city infrastructure with a comprehensive wireless network. The Parking Lot Sensor from Bosch uses this infrastructure for wireless communication between the sensor and the central platform. This uses the discretionary, manufacturer-independent LoRaWAN (Long Range Wide Area Network) protocol. While other providers rely in part on closed systems, Bosch follows an open approach. This allows the parking lot sensors to be flexibly integrated into the Smart-City project in accordance with the city's specific requirements.

## Various areas of application

Parking sensors are used in countless application scenarios like intelligent parking guidance systems, which are able to significantly reduce the traffic searching for parking spaces and thus also noise and exhaust emissions. At peak times, up to a third of traffic is looking for a parking space. As a result, even systems just applied at downtown hotspots are able to significantly relieve the traffic situation. In addition, the Parking Lot Sensor can be employed in a more targeted way against parking in blocked spaces, such as fire access lanes, thus facilitating the deployment of rescue personnel in case of an emergency. A further field of application is the monitoring of parking spaces of electric vehicle charging stations. The Parking Lot Sensor supports in this case in two different ways. For one, they determine available charging stations that can be displayed in an app. For another, they uncover improper use, such as if the charging station is used for parking or the permitted utilization time is exceeded. In addition, parking sensors also support city development. Statistical data about the actual utilization of parking spaces through the entire city allows for reliable planning. This is not least because the digitalization of cities also offers many opportunities for innovative service programs - such as through mobile apps or concepts like temporary renting of private car spaces.

**Press photos:** #1960299, #1960300, #1960301

## Contact:

Klaus Peter Wagner,

Telefon: +49 160 7023676

*Bosch Connected Devices and Solutions GmbH was founded in 2013 and is a fully owned subsidiary of Robert Bosch GmbH. The company was set up to design, develop and market innovative connected devices and tailor-made solutions for the Internet of Things. Our competency in electronics, sensor technology and software enable new business models for global markets. Bosch Connected Devices and Solutions is headquartered in Reutlingen, Germany. In 2015 Bosch Connected Devices and Solutions opened offices in Chicago, USA and Shanghai, China.*

For more information, go to [www.bosch-connectivity.com](http://www.bosch-connectivity.com)

*The Bosch Group is a leading global supplier of technology and services. It employs roughly 410,000 associates worldwide (as of December 31, 2018). The company generated sales of 78.5 billion euros in 2018. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 460 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At nearly 130*

locations across the globe, Bosch employs some 68,700 associates in research and development.

*The company was set up in Stuttgart in 1886 by Robert Bosch (1861-1942) as “Workshop for Precision Mechanics and Electrical Engineering.” The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant upfront investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.*

Additional information is available online at [www.bosch.com](http://www.bosch.com), [www.iot.bosch.com](http://www.iot.bosch.com), [www.bosch-press.com](http://www.bosch-press.com), [www.twitter.com/BoschPress](https://twitter.com/BoschPress).