

Hands Free Access Sensor from Schaeffler: An innovative sensor solution for convenient vehicle access

- Sensor module enables convenient, contactless access to the trunk or sliding doors and is suitable for various vehicle architectures
- Radar-based 24 GHz sensor, integrated into the bumper or directly onto the chassis, is activated by targeted hand or foot movements
- Volume production already underway for several major European automotive manufacturers

Bühl, Germany | August 1, 2025 | You want to open the trunk after shopping with no free hand – a situation many people are familiar with. Thanks to Schaeffler's Hands Free Access Sensor, the trunk can be conveniently opened using a foot motion beneath the rear of the vehicle. Based on Doppler radar technology, this innovation from Schaeffler enables keyless, hands-free opening and closing of vehicle doors such as the trunk lid and sliding doors.

"With the expanded portfolio of the Powertrain & Chassis Division, Schaeffler is positioning itself as a new provider of innovative sensor solutions for body applications," says Matthias Zink, CEO Powertrain & Chassis at Schaeffler AG. "The Hands Free Access Sensor is an example of Schaeffler's growing, complementary product range following the merger with Vitesco Technologies – and marks another step toward our goal of becoming the world's leading Motion Technology Company."

New and comprehensive sensor expertise at Schaeffler

Schaeffler's Hands Free Access Sensor offers drivers convenient access to their vehicle – entirely contact-free. By simply entering the radar field, the sensor is activated, and everyday tasks become noticeably easier. "Schaeffler's Hands Free Access Sensor is a key component in the vehicle for intuitive access and also highlights our expanded sensor expertise in the market," explains Leif Reinhold, Head of the Powertrain Solutions Business Division at Schaeffler, responsible for the company's sensor portfolio. "We have been producing the Hands Free Access Sensor in volume since the end of 2024 – in Europe, for major European automotive manufacturers," says Reinhold. "We also see additional growth potential in North America and China."

Sensor enables contactless vehicle access

The Hands Free Access Sensor enables the contactless opening and closing of the trunk and vehicle doors. It is activated by a targeted foot movement – with no button press or remote control required. The sensor analyzes both the speed and direction of the movement and ensures reliable detection within a 60-centimeter range. By incorporating artificial intelligence into the sensor calibration process – adapting the system to customer vehicle models – Schaeffler ensures exceptional precision and reliability. This results in a high detection rate and optimized resistance to external interference – for maximum everyday reliability and safety. The sensor system ensures that the vehicle does not open inadvertently when pedestrians or objects are in the detection area.

Radar-based technology for optimal performance

By using a 24 GHz frequency, the Hands Free Access Sensor offers a high degree of robustness and consistent performance – even in demanding external conditions such as rain, snow, or extreme temperatures. The sensor is designed to operate in a temperature range from –40 to 105 degrees Celsius. The 24 GHz sensor is globally recognized as a short-range radar for external vehicle use and can be integrated into the vehicle architecture via the LIN interface.

Suitable for a wide range of vehicle applications

Whether SUV, minivan, or sedan – the sensor's sophisticated design allows for easy installation and seamless adaptation to different vehicle models and platforms, while maintaining consistent performance. It can be integrated flexibly either in the bumper or directly onto the chassis – compatible with or without a trailer hitch. Installation requires only a single screw-in component – with no additional clips or brackets – and eliminates the need for long antenna runs through the bumper.

Schaeffler sensors at IAA Mobility 2025

The Hands Free Access Sensor is part of Schaeffler's Control Motion product family and will be showcased at the Schaeffler stand at IAA MOBILITY 2025 in Munich. Under the banner "The Motion Technology Company", Schaeffler will present its expanded and innovative product range for software, electrification, drivetrain, chassis, and body applications at the IAA Summit from September 9 to 12 in Hall B3, Stand B40.

For more information on the trade fair, please visit our [website](#).



Enables opening and closing of sliding doors and trunks even with no free hand: The Hands Free Access Sensor by Schaeffler is activated by a foot movement – no button press or remote needed.



The Hands Free Access Sensor from Schaeffler: The radar sensor module enables contactless vehicle access.



Schaeffler's chassis portfolio is evolving from individual components to complete systems and now also offers bodywork solutions with the Hands Free Access Sensor.

Photos: Schaeffler

Schaeffler Group – We pioneer motion

The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for over 75 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions, and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. Schaeffler describes its comprehensive range of products and services by means of eight product families: from bearing solutions and all types of linear guidance systems through to repair and monitoring services. With around 120,000 employees and more than 250 locations in 55 countries, Schaeffler is one of the world's largest family-owned companies and ranks among Germany's most innovative companies.

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