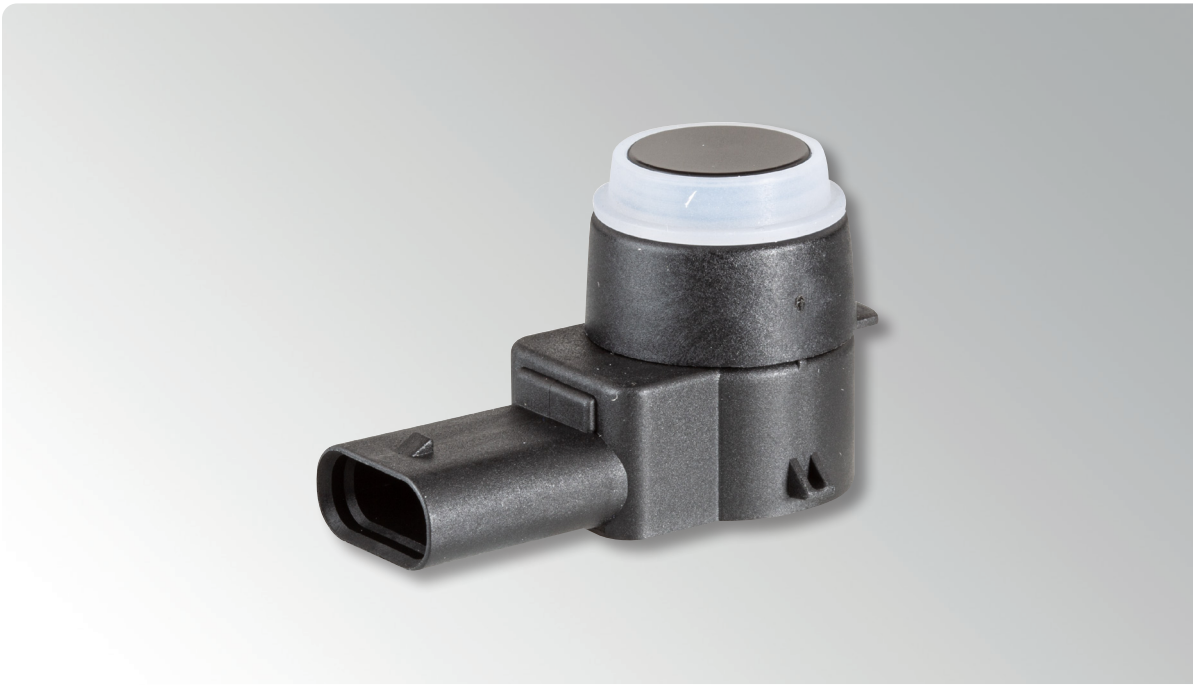


BRIEF INFORMATION

Ultrasonic sensor for parking assistant

→ Powerful sensors with increased range
→ High quality standards
→ Primer colour allows individual colour matching
→ Excellent technical support

PRODUCT FEATURES

Application

The parking assistant is a driver assistance system that supports drivers during manoeuvring and parking and warns them of obstacles in the immediate vicinity of the vehicle. The classic parking assistant operates on the basis of ultrasound that is emitted using several sensors. If an obstacle is detected, the driver is informed of this either visually or acoustically.

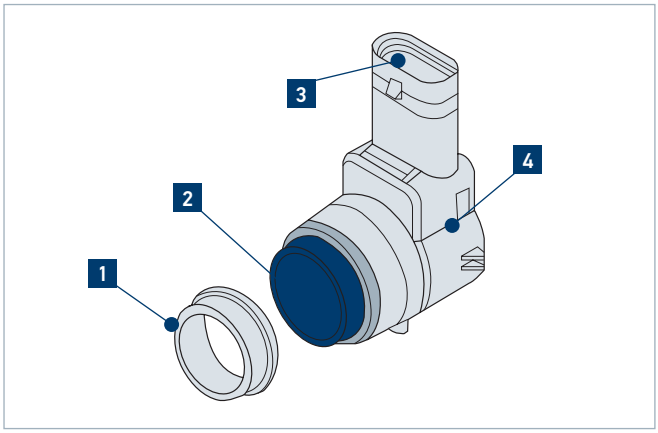
The more ultrasonic sensors that are installed and spread out across the width of the vehicle, the more accurate the measurement result will be. Depending on the vehicle or on the system, LED displays, graphic representations on the screen or purely acoustic signalling devices can be installed to provide the necessary information.

PRODUCT FEATURES

Design and function
The parking assistant is activated as soon as the reverse gear is engaged. The ultrasonic sensors mounted in the bumper emit a package of ultrasonic pulses in a combined transmit and receive mode. The signals reflected by an obstacle (echo) are picked up again by the ultrasonic sensors, amplified and then transmitted as digital information to the control unit. An algorithm in the control unit calculates the distance to the obstacle based on the transit-time difference of the signals.

When in receive mode, an ultrasonic sensor also receives signals from adjacent ultrasonic sensors. The control unit can thus evaluate the signals from several sensors and consequently calculate the minimum distance. The acoustic safety distance warning system kicks in at a distance of 160 cm. The frequency of the sound signal, i.e. the beeping, changes with decreasing distance to the obstacle. If the distance is less than 20 cm, a continuous tone sounds. By disengaging reverse gear or when exceeding a speed of 15 km/h, the parking assistant is switched off.

Flush mounting
When installing the ultrasonic sensor, make sure that the decoupling element is correctly seated. Incorrect installation can impair transmission and reception.



Structure/design of the ultrasonic sensor

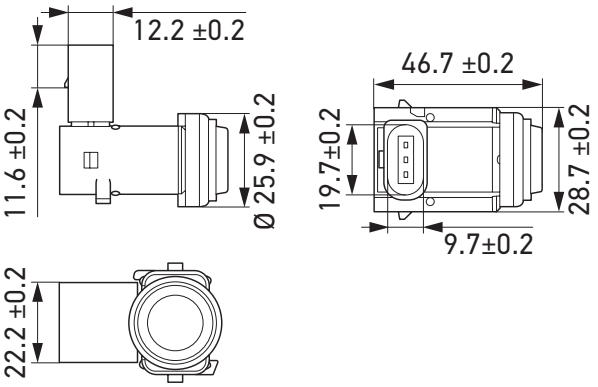
1. Decoupling element
2. Membrane
3. Electrical connection
4. Sensor housing

APPLICATION EXAMPLE

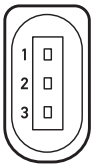
TECHNICAL DETAILS*

Technical data	
Supply voltage	9 – 16 V
Ultrasonic frequency	50 – 60 kHz
Angle of detection:	vertical / horizontal 60° ± 10
Range	250 cm
Temperature range	- 40° C to + 85° C

Dimensional sketch



Pin assignment



1 Power
2 Data
3 GND

ULTRASONIC SENSOR FOR PARKING ASSISTANT

Product features, specifications and availability are subject to change without notice.

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