Helping motorcyclists change lanes

The side view assist by Bosch warns riders of other vehicles in their blind spot. The assistance system helps to improve safety, particularly in urban traffic. Its control unit is connected with CAN.

The side view assist differentiates between oncoming traffic and hazards (Photo: Bosch)

ELECTRONIC ASSISTANTS ARE BECOMING ever more widespread, and not just in cars: Bosch's side view assist is the world's first assistance system for motorcycles, according to the company. This system uses four ultrasonic sensors that monitor their surroundings to help riders change lanes. The sensors cover a distance of up to five meters in areas that are difficult or impossible to see using just the mirrors.

Whenever there is a vehicle in the rider's blind spot, the technology warns them by way of an optical signal close to the mirror, so they can for example avoid a collision when changing lanes. "We want to make motorcycling safer without sacrificing riding enjoyment," says Bosch board member Dr. Dirk Hoheisel. The control unit of the side view assist is connected with the motorcycle's CAN network.

The system uses four ultrasonic sensors that monitor their surroundings to help riders change lanes (Photo: Bosch)

The side view assist's four ultrasonic sensors are installed in pairs in the bodywork at the front and rear of the bike. The rear sensors monitor the blind spot in the neighboring lanes to the left and right. The two front sensors provide a plausibility check. If the left front sensor detects an object before the left rear sensor does, then the control unit knows that this is an oncoming vehicle on the other side of the road – and issues no warning. Vehicles that are in the process of parking are similarly recognized and do not lead to a warning. Only if one of the rear ultrasonic sensors registers an object before the front sensors do, will the system issue a warning to the rider. It does not intervene in their riding maneuvers.

The side view assist is active at speeds ranging from 25 km to 80 km per hour and supports riders whenever the difference in relative speed to other road users is small. The system helps improve safety especially in cities, where heavy traffic makes it necessary to change lanes more often.