# Focusing on the blind spot

Collision awareness for mobile automation systems with 3D snapshot

Waldkirch, November 2017 – The Visionary-B active driver assistance system from SICK consists of a 3D vision sensor suitable for outdoor use which identifies people and objects in the driver’s blind spot and issues a warning. It is designed as an active system, which means that as soon as an object appears within one of the defined detection zones, the system issues an audible and a visual signal. In contrast to passive monitoring solutions, drivers do not need to look constantly at the monitor. Instead they can concentrate on driving the vehicle, safe in the knowledge that the system will warn them in good time if a potentially critical situation occurs.

The role of the Visionary-B intelligent driver assistance system is to minimize the risk of collisions when mobile machines are pulling away, maneuvering, and turning, by monitoring the driver’s blind spot. The system consists of at least one sensor head, an evaluation unit, a 2D monitor, and a complete mechanical and electrical installation kit. It is also a two-in-one solution, because it combines an active 3D sensor for collision awareness with an integral 2D live camera.

This means that the driver can also see a 2D live image and access recordings of the machine’s previous few hours of operation. When the system is installed at a height of between one and 2.4 meters, the detection angle of 105° x 90° enables it to cover a blind spot behind the vehicle that is six meters long and four meters wide. The evaluation unit processes the 3D image data, assigns the objects to different classes on the basis of the measured values, saves the recordings of the most recent period of operation, and uses intelligent algorithms that enable it to ignore objects which are not likely to cause a collision. At the same time, it transmits the live image and the alarm signals to the monitor in the machine’s cab, which issues collision warnings in the form of both audible and visual signals.

There are many other possible applications for this advanced driver assistance system. Visionary-B can be installed at any time in existing vehicle models. All the variants can be fitted by manufacturers in new vehicles, but they are also available as complete solutions for retrofitting or as dealer accessories that can easily be configured.

Image: IM0059554\_Visionary-B.jpg  
3D snapshot – Visionary-B from SICK is an effective outdoor solution based on the stereoscopic principle.

SICK is one of the world’s leading producers of sensors and sensor solutions for industrial applications. The company, which was founded in 1946 by Dr Erwin Sick and has its headquarters in Waldkirch im Breisgau near Freiburg in Germany, is among the technology market leaders. With more than 50 subsidiaries and equity investments as well as many agencies, SICK has a presence all over the world. In the 2016 fiscal year, SICK had more than 8,000 employees worldwide and a group revenue of just under EUR 1.4 billion.  
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