# Safety in the time of Industry 4.0

Robot protection with laser scanners

Waldkirch/Hanover, April 2015 – At the Hannover Messe Industrie (HMI) trade fair, SICK AG will be using the example of a safety laser scanner with dynamic protective field switching to demonstrate the sensor intelligence of the future. This is the prerequisite for safe interactions between humans and machines in the time of Industry 4.0.

Safety laser scanners from SICK reliably monitor the hazardous area of stationary or mobile machines and systems such as welding robots or automated guided systems. The protection of personnel is the top priority: If a person enters the area, the dangerous movement must be stopped safely. In the established systems, this means that the person is protected but production stops.

Safety technology of the future

In the future, SICK will be able to use intelligent sensor technology within the context of Industry 4.0 to not only ensure the safety of personnel, but to meet ever-increasing production requirements as well. SICK already offers up to four simultaneous protective fields, resulting in a significant improvement in the ergonomics and efficiency of complex machines; for example, in the case of tire curing presses.

The digital protective fields used today are being replaced by flexible ones. Flexible protective fields are calculated automatically for highly dynamic movements and are adjusted according to the hazardous areas of the robot. Intelligent sensor technology also makes commissioning much easier and quicker. An optimal interaction between intelligent sensor technology and modern machine concepts boosts the productivity of the machine and ensures the safety of employees at all times.

With its extensive portfolio of safety laser scanners, SICK has the right solution to suit any requirement – mobile or stationary, for area protection or access monitoring. The compact systems scan their environment in two dimensions using an integrated rotating mirror like an optical radar, and measure distances using the principle of time-of-flight measurement. This produces freely definable protection areas.

Image: Safety.jpg

Safety in the time of Industry 4.0: Safety laser scanner with dynamic protective field switching

SICK is one of the world's leading manufacturers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. h. c. Erwin Sick, the company with headquarters in Waldkirch im Breisgau near Freiburg ranks among the technological market leaders. With more than 50 subsidiaries and equity investments as well as numerous representative offices, SICK maintains a presence all around the globe. In the 2013 fiscal year, SICK had more than 6,500 employees worldwide and achieved Group sales of EUR 1,009.5 million.

Additional information about SICK is available on the Internet at http://www.sick.com or by phone at +49 7681 202-4183.