# Human-robot collaboration

Safety in the time of Industry 4.0

Waldkirch/Hanover, Germany, April 2016 – Peoples' safety is the focus of an exhibit devoted to the topic of “human-robot collaboration”. SICK AG is presenting an innovative and flexible concept for making robots safe which also takes productivity and efficiency into account.

This demonstration incorporates key elements of the human-robot collaborations of the future. Thanks to adaptive protective field monitoring with the microScan3 safety laser scanner, the robot senses when a person is approaching. It either abandons its task or works more slowly, depending on where the person is.

In the world of Industry 4.0, the number of robots capable of autonomous operation will increase significantly. These more flexible production methods of the future require safety solutions that are optimized for these methods and that can respond in a flexible way. At the same time, the high efficiency of the machine must also be taken into account. Yet, increased productivity and system effectiveness apart, the safety technology of the future should make the way we work easier and safer, while also considering workplace ergonomics and safety in equal measure. The central questions here are what role people are to play in production of the future and how sensors can support and keep them safe in that role.

## microScan3 safety laser scanner

The microScan3 safety laser scanner provides reliable protection for hazardous areas. The innovative safeHDDM™ scan technology combines a compact design and a wide sensing range in one device. Even in dusty environments and with ambient light, it is extremely reliable. Thanks to standardized interfaces, its smart connectivity saves costs during cabling. Using the Safety Designer software, the microScan3 can be intuitively configured and is convenient to commission. It also indicates its operational status clearly via the multicolored display.

Image: microScan3\_IM0061228.jpg  
microScan3 provides reliable protection for hazardous areas.

SICK is one of the world’s leading producers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. h. c. Erwin Sick, the company with headquarters in Waldkirch/Germany ranks among the technological market leaders. With more than 50 subsidiaries and equity investments as well as numerous agencies, SICK maintains a presence all around the globe. In the fiscal year 2015, SICK had more than 7,400 employees worldwide and achieved Group sales of just under EUR 1.3 billion.