

## **miniTwin – new technology and new cost effectiveness for safety light curtains**

**Waldkirch, Innovation No. 13, 2009 – SICK is ringing in a new era of safety light curtains with the miniTwin. For the first time, transmitter and receiver elements are combined in a miniature housing stick. The fact that the stand-alone and host/guest versions are identical is also new. In construction terms, the miniTwin allows monitoring with minimum safety distances and no blind zones – even when systems are cascaded in corner mounting.**

The miniTwin safety light curtain has been designed for tasks in which a machine's risk analysis demands the greatest possible level of protection, i.e. Performance Level pl "e" according to EN ISO 13849-1, or alternatively SIL3 in compliance with IEC 61508 or the sector standard EN 62061. It offers resolutions of 14 mm, 24 mm and 34 mm – also in corner applications. The high resolution and rapid response times of the miniTwin permit short safety distances, when necessary, for optimised work ergonomics – even with the maximum combination of three cascaded systems. The protective field heights that can be achieved with the miniTwin lie between 120 mm and 1,200 mm. The housing size increments of 60 mm offer optimum adaptation of the protective fields to the particular machine conditions. The device has a range of 0 - 4 m.

## **A world first: maximum standardisation thanks to the miniTwin's combined stick concept**

While invisible from the outside, the sensor design of the miniTwin is completely new. One seeks a separate transmitter and receiver in vain – the new light curtain from SICK contains the transmitter and receiver elements in identical twin-sticks: symmetrically arranged in one housing half each and separated by a central synchronisation beam. The industry-oriented, symmetrically designed device connection is screwed onto the back of the miniTwin. Connection to the controller takes place via the 5-pin M12 plug. The uniformity of the miniTwin is not merely the result of the transmitter/receiver concept, but also due to the cascading of several devices. Which miniTwin acts as the host and which as the guest is defined via the particular connection plug variant with one or two exiting cables. The identical nature of the transmitter and receiver, as well as of the host and guest devices, offers machine constructors a high level of standardisation. The number of material numbers to be administrated organisationally, and the corresponding costs in equipment, storage and service logistics, are thus considerably reduced compared with other system alternatives.

## **Plug & play through mounting solutions and automatic configuration**

No other safety light curtain currently achieves the plug & play level of the miniTwin. This has been made possible by the application-oriented mounting solution. Electrical connection takes place via a standard connection cable and 5-pin M12 system connector, and offers the full functionality of external device monitoring (EDM) and Reset. Their optional configuration takes place during the power-up cycle, following electrical con

nection – automatically in the case of EDM, and by pressing a button for Reset. The continuous row of LED indicators along the entire length of the device is a further special feature. It serves as an alignment aid, status indicator and diagnostic tool, and provides visual user-friendly delineation of the protective field on both sides of the sensor pair.



For decades, SICK has been one of the world's most innovative companies in the sensor sector. The latest technological knowledge and processes are implemented in innovative products and system solutions. They position SICK as a technology and market leader in the customer segments of factory, logistics and process automation.

More than 50 innovations in sensor and control solutions are planned for 2009. SICK will launch a new product each week as part of its "SICK Innovation Marathon 2009". All innovations – from No. 1 to No. 52 – are more than just products: they solve tasks intelligently, efficiently and precisely. And create unbeatable customer advantages.