

The GATEKEEPER

SCHMERSAL
TURNING WORKPLACES INTO SAFEPLACES

October 2012

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SCHEDULE



October 28-31, 2012
McCormick Place
Chicago, Illinois USA

Visit us in booth 2647

REFERENCE



Optoelectronics Catalog

The guide to our single beam light barriers, multiple beam light grids, and light curtains. 48 pages.

View the catalog online:
www.schmersalusa.com

Free Webinar:

General Machine Guarding

October 18, 2 PM EDT



[Click for details](#)



Light Curtains Initiate Machine Cycles

A Safety Light Curtain is a Presence Sensing Device (PSD) and generally consists of a two part system; an emitter (also called transmitter) and a receiver. The emitter sends an array of infra-red beams to the receiver which is monitored to assure that a defined field is uninterrupted. A defined field of arrays can represent the monitoring of the opening for a walkway, a point of operation, or an area around a machine, for example. In a typical application, if the field or beams are broken a stop function is initiated in the machine and it is put into an interlock state removing any hazardous situations.

Light curtains can perform perimeter guarding, preventing access to a hazardous area, or point-of-operation guarding, which helps protect against hazards such as nips, shearing, or crushing.

For many years OSHA had only viewed light curtains as a safety device to initiate a stop signal. The Machine Industry, the Power Press segment mainly, saw another use for these safety devices.

For more of this article, see the Technical Article section of our website, [here](#).

Product Spotlight: SLC440

Schmersal's SLC440 Series Safety Light Curtains and Safety Light Grids incorporate a full range of functions, highly visible signaling, and an alignment aid in a rugged housing.

Multiple functions

The SLC/ SLG 440 series offers numerous functions as standard features: fixed blanking, floating blanking, fixed blanking with movable edge region, double reset, contactor control (EDM), automatic mode, re-start mode, and beam coding.



Ease of Setup

Set up is simplified as selection and



MRL News

This book provides background information on the subject of machine safety. Available in print only: Hardcover. 200 Pages.

Order a complimentary copy of this book [here](#).

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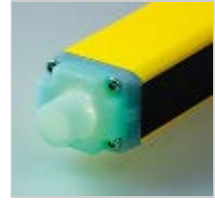
www.schmersalcanada.com

configuration of these functions are made via a single push-button and the 7-segment display. After completion, the selections are stored in the system. This user-friendly method does not require separate software or costly set-up devices.



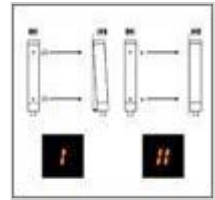
Signaling

Operating status can be seen from a distance: The end cap of the receiver unit is molded from a semitransparent plastic that is illuminated by LED. Also, the 7-segment display displays error codes and flashing signals to report specific faults and problems.



Alignment aid

Installation of the emitter and receiver units is made easier with the integrated alignment aid. This function tests the first and last beams for alignment and displays the results on the 7-segment display. The display can be switched to show signal strength, to allow for fine tuning the alignment.



Housing

Like our other Type 4 safety light curtains, our SLC440 series features a one-piece extruded reinforced housing - this time in a compact 28 mm x 33 mm rectangular profile. This housing profile has proven to be less susceptible to mechanical damage and misalignment from torsion or bending.



For more information see our online product catalog, [here](#).

Ask The Expert:

*Devin Murray,
TUV Functional Safety Engineer
ID-No. 4274/11*



What is the difference between a Type 2 and Type 4 light curtain?

The Type designation of an Active Optical Protective Device, such as a light curtain, is derived from IEC 61496 and is used to describe the safety capabilities of these devices. Type 4 devices will have a smaller effective optical angle which will reduce the chances of interferences from reflective surfaces. This is one reason why Type 4 devices have the ability to monitor a smaller resolution. The Types also differ by their internal test functions. Type 4 will have a higher test frequency to quickly identify any faults within itself or on any external device being monitored such as a safety contactor. These are a few reasons why Type 2 can only achieve up to SIL2/PLd while Type 4 can be used in SIL3/PLE applications.

