SCHMERSAL Tech Briefs:
SLC445 Multifunctional Safety Light Curtain
with muting, multi-scan, and cyclic functions

Accessories

Reflective muting sensor

Muting sensor connection unit

Muting sensor mounting sets

KA-0976 pushbutton

Status LED endcap

Overview

Schmersal's SLC445 Series are Type 4 Safety Light Curtains that incorporate a full range of common and unique application functions which are completely configurable without the need of a special tool or software.

The SLC/ SLG 445 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, beam coding, partial and full muting function, cyclic function, and multiple scan function. Set up is simplified as selection and 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.

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. Once both are situated properly, the display can be changed over to show signal strength, to allow for fine tuning the alignment.

Operating status is clear and can be seen from a distance. The end cap of the receiver unit is molded from a semitransparent plastic that is illuminated by LED. It shows green for proper operation, solid amber for reset status, and red for a fault. Additionally, ease of alignment is provided by flashing amber on the end cap at different pulse frequency. Amber LED cap provides muting status while the light curtain is in the muting cycle. Also, the 7-segment display which was so helpful in set up, now displays error codes and flashing signals to report specific faults and problems.

The SLC445 series features a one-piece extruded reinforced housing 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.

Safety light curtains SLC445 are used for the protection of hazardous areas, and are available with resolutions of 14 or 30 mm and protection field heights between 170 and 1770 mm. The series is suited for use in safety circuits up to PLe (EN 13849) or SIL3 (IEC 61508).

Muting Function

If goods or objects must be transported in or out of the hazardous area without stopping the machine, the safety light curtain must be automatically and temporarily suspended.

To this end, two or four muting sensors are used to detect whether a person is approaching the hazardous area or a transport system enters or leaves the hazardous area.

Applications

- Power-driven machines
- Power presses for the metal and plastics industry
- Folding or brake presses
- Filter presses
- Punching machines
- Robot cells
- Welding booths
- Printing machines
- Injection molding
- Palletizers
- Packaging equipment

Available Literature

Optoelectronic Devices Catalog

Ordering Details

SLC445-E/R①-②-01

① Protection Height: (mm)

0170	0250	0330	0410
0490	0570	0650	0730
0810	0890	0970	1050
1130	1210	1290	1370
1450	1530*	1610*	1690*
1770*			

*only for 30 mm resolution

② Resolution: (mm)

- 14   with range: 0.3 m to 7 m
- 30   with range: 0.3 m to 10 m

Mounting hardware included

Accessories

Connector cables
KA-0804   5 m cable for emitter
KA-0805   10 m cable for emitter
KA-0980   5 m cable for receiver
KA-0981   10 m cable for receiver

Programming cable
KA-0976   with pushbutton

Muting accessories
FR-20-PSM4   Muting sensor
RD 83   Reflector, D = 83 mm
MCU-02   Muting connection unit
MK6   Muting Lamp

KA-0904   5 m cable for receiver
KA-0905   10 m cable for receiver

KA-0846   2 m cable-muting sensor
KA-0847   5 m cable-muting sensor
KA-0845   Connector cable from Emitter unit to MCU-02
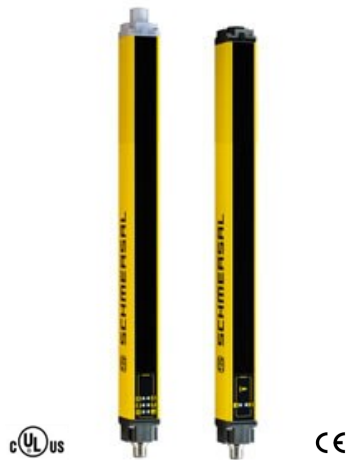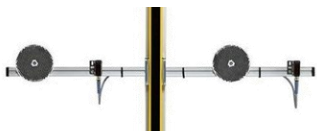
Complete Muting Sensor Kits
L-Version, 1 arm / 2 sensor sets
MUT-SET-L-01   stand mount *
MUT-SET-L-02   sensor mount
T-Version, 2 arms / 4 sensor sets
MUT-SET-T-01   stand mount*
MUT-SET-T-02   sensor mount
T-Version, 2 arms / 2 sensor sets
MUT-SET-T-03   sensor mount
MUT-SET-T-04   stand mount*
*does not include the MST mounting stand

Compatible Safety Controllers

SRB-E-201LC	**SRB-E-322ST**
SRB-E-201ST	**SRB-E-402ST**
SRB-E-301ST	**SRB-301MC**
SRB-E-212ST	**SRB-E-204ST**

Contact

Schmersal Nordiska AB
Västra Frölunda
Tel: +46 31 338 35 00
E-mail: info-se@schmersal.com

Schmersal Norge
Drammen
Tel: +47 22 06 00 70
E-Mail: info-no@schmersal.com

Schmersal Danmark AS
Hvidovre
Tel: +45 70 20 90 27
E-Mail: info-dk@schmersal.com