



Slave module for master slave mode

- Sensing range up to 5 m
- Resolution 14 mm (finger protection)
- Protection field height up to 750 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Master/Slave detection, Plug and Play
- Start/Restart disable
- Degree of protection IP67
- Integrated function display
- Pre-fault indication
- Safety outputs OSSD in potential-separated semiconductor design or with monitored, compelled connection NC-contacts
- Optional with ATEX certificates for zone 2 and 22 and degree of protection IP66 (Option 133)

laser alignment aid for safety light
cuttrains series SLC

Technical drawing of the M12x1.5mm threaded part of the sensor. The drawing shows two views: a side view and a front view. The side view shows a cylindrical body with a diameter of 19 mm and a length of 107 mm. The front view shows the threaded part with a diameter of 28 mm and a length of 64 mm. The total length of the assembly is indicated as L + 540 mm. The drawing also shows the connection to the sensor body, which has a diameter of 28 mm.

The diagram illustrates the removal of the cap and the jumper from the Slave and Master modules. It shows the Slave and Master modules connected by a cable. A callout indicates to 'Remove cap' from the Slave module. Another callout indicates to 'Remove jumper' from the Master module.

Technical data**System components**

Emitter	SLC14-450-T-S
Receiver	SLC14-450-R-S

General specifications

Effective detection range	0.2 ... 5 m
Light source	IRED
Light type	modulated infrared light
LED risk group labelling	exempt group
Tests	IEC/EN 61496
Safety type according to IEC/EN 61496	4
Width of protected area	0.2 ... 5 m
Protection field height	450 mm
Number of beams	48
Operating mode	in the master
Optical resolution	14 mm
Angle of divergence	< 5 °

Functional safety related parameters

Safety Integrity Level (SIL)	SIL 3
Performance level (PL)	PL e
Category	Cat. 4
Mission Time (T _M)	20 a
PFH _d	2.42 E-8
Type	4

Indicators/operating means

Operation indicator	in the master
Diagnostics indicator	in the master
Function indicator	in the master
Pre-fault indicator	in the master
Control elements	in the master

Electrical specifications

Operating voltage	U _B	from master
No-load supply current	I ₀	from master
Protection class		III

Input

Test input	in the master
Function input	in the master

Output

Safety output	in the master
Signal output	in the master
Response time	depends on height of protective field

Conformity

Functional safety	ISO 13849-1
Product standard	EN 61496-1 ; IEC 61496-2

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-25 ... 70 °C (-13 ... 158 °F)
Relative humidity	max. 95 %, not condensing

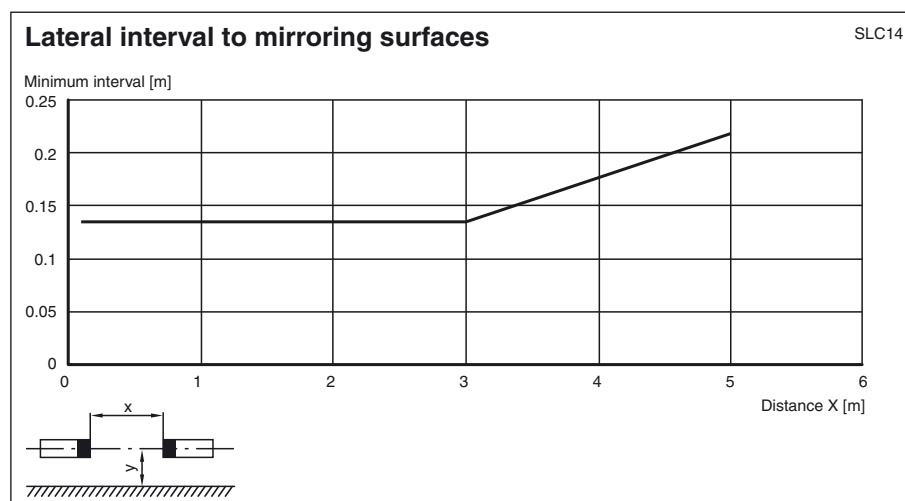
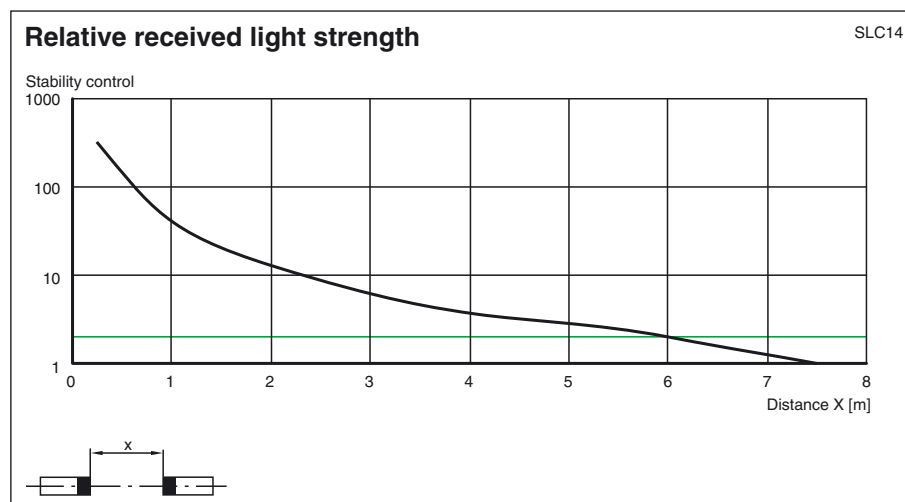
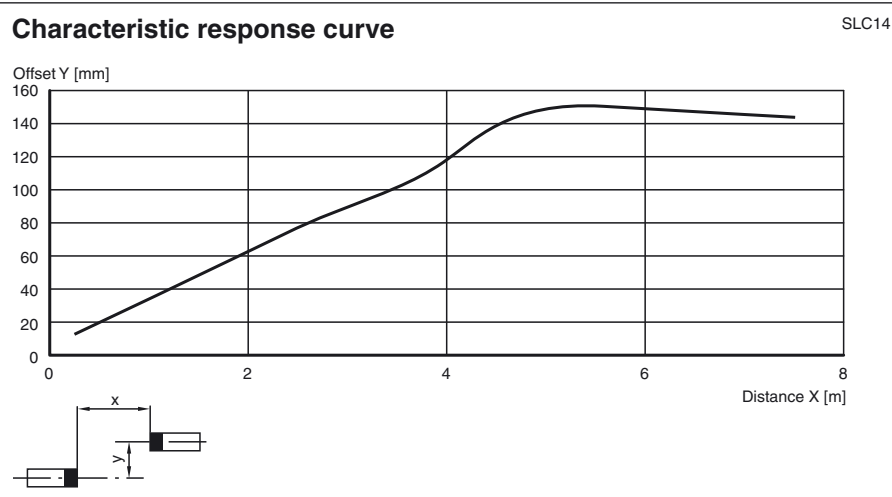
Mechanical specifications

Housing length L	560 mm
Degree of protection	IP67
Connection	M20 cable gland , terminal compartment with screw terminals, lead cross-section max. 1.5 mm ²
Material	
Housing	extruded aluminum profile, RAL 1021 (yellow) coated
Optical face	Plastic pane
Mass	Per 1650 g

Approvals and certificates

CE conformity	CE
UL approval	cULus Listed
CCC approval	CCC approval / marking not required for products rated ≤36 V
TÜV approval	TÜV

Curves/Diagrams



Notes

Response times of cascading units

If cascading units are set up, the response time of the entire SLC, consisting of a master and a slave, must be determined. The overall number of beams for master and slave can be determined from technical data sheets. Depending on the type of output, the resulting response time can be read from the table.

Number of beams	Response time in milliseconds	
	Semiconductor output	Relay output
8	10	30
16	10	30
24	12	32
32	14	34
40	16	36
48	18	38
56	20	40
64	22	42
72	24	44
80	26	46
88	28	48
96	30	50

Example: Master: SLC14-300/31 32 beams
Slave: SLC60-90-S+ 24 beams
56 beams

56 beams, OSSD relay --> response time = 40 ms.

Notes

Master slave mode

Master: SLC...-... (semiconductor)
or
SLC...-.../31 (relay)
Slave: SLC...-...-S

Using slaves makes it possible to lengthen protective fields or to form protective fields that lie in more than just one level. When you select slaves that can be connected, you should take into consideration that the maximum number of 96 light rays must not be exceeded.

There are slaves for transmitters and receivers. These may simply be connected to the master light curtain. As many as 2 slaves may be connected respectively to the transmitter and receiver unit.

Installation:

- 1 The end cap should be screwed off for the light curtain (without cable gland).
- 2 The plug-in jumper on the connectors of the printed circuit board, which is now visible, should be removed.
- 3 The slave is designed so that the cap located on the cable connector can be plugged directly onto the open end of the light curtain with the printed circuit board.
- 4 After you have screwed on the connection cap, the system is complete.

System accessories

- Mounting set SLC
- Test rods SLC14/SLC30/SLC60
- Protective glass pieces for SLC (to protect the optically functional surface)
- Lateral screwed connection SLC
- Profile alignment aid
- Laser alignment aid SLC
- Mirror for SLC (for securing hazardous areas on multiple sides)
- Ground pillar UC SLP/SLC
- Housing for pillar
Enclosure UC SLP/SLC
- Collision protector
Damping UC SLP/SLC