

Datasheet - SLC 420-E/R0250-14-RFB

Safety light curtains, Safety light grids / Safety light curtains / SLC 420



(Minor differences between the printed image and the original product may exist!)

- Protection class IP67
- Safety type 4 in accordance with IEC 61496-1
- Resolution 14, 30 and 50 mm
- Protection field height from 170 mm ... 1770 mm

Ordering details

Product type description	SLC 420-E/R0250-14-RFB
Article number	101206827
EAN Code	4030661375946
eCl@ss	27-27-27-04

Approval


Approval



Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up e
Control category	up 4
PFH value	7.42×10^{-9} /h
SIL	up 3
Mission time	20 Years

Global Properties

Permanent light	SLC 420 Sicherheits-Lichtvorhang
Standards	IEC/EN 61496-1/-2
Compliance with the Directives (Y/N) 	Yes
Operating resource protection class	Protection class 3
Safety type in accordance with IEC 61496-1	4
Materials	
- Material of the housings	Aluminium
Weight	
Beam coding (Y/N)	Yes
Protection field height	250
Range of the protection field	300 - 7000
Reaction time	10
Wave length of the sensors	880
Fade-out is possible (Y/N)	Yes
Override possible (Y/N)	No
reduced resolution (Y/N)	No
Clock control possible (Y/N)	No
Muting possible (Y/N)	No
Restart block (Y/N)	Yes
Master/slave function	No
Cascadable (Y/N)	No
Monitoring function of downstream devices (Y/N)	Yes
Recommended safety-monitoring module	SRB301ST SCR 211

Mechanical data

Detection ability for test bodies	14
Number of beams	24
Design of electrical connection	Connector
- Wiring of the transmitter	connector plug M12, 4-pole
- Wiring of the receiver	connector plug M12, 8-pole
Cable length	100

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+50
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+70
Protection class	IP67 to IEC/EN 60529

Electrical data

Design of output switching element OSSD	PNP
Power consumption	
- Power consumption Transmitter	4
- Power consumption Receiver	8
Voltage type	DC
Switching voltage of the OSSD in high state	24 V ± 20%

Outputs

Max. output current at secured output	500
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Electrical data - Safety outputs

Number of secure semi-conductor outputs	2
Number of secure outputs with contact	0

LED switching conditions display

LED switching conditions display (Y/N)	Yes
- Status and diagnostics	Yes
- 7-segment display	

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor	
- Height of sensor	335
- Diameter of sensor	49

notice

In case of failure (interruption of the 0 V supply) the maximum leakage current is 1 mA.

Included in delivery

Delivery scope of disposable system	Transmitter + receiver, Mounting angle
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Indication legend

A: total length (Protection field height + 84.5 mm)

Ordering code

SLC 420-E/R(1)-(2)-RFB-(3)(4)

(1)

0170	Protection field height 170 mm
0250	Protection field height 250 mm
0330	Protection field height 330 mm
0410	Protection field height 410 mm
0490	Protection field height 490 mm
0570	Protection field height 570 mm
0650	Protection field height 650 mm
0730	Protection field height 730 mm
0810	Protection field height 810 mm
0890	Protection field height 890 mm
0970	Protection field height 970 mm

1050	Protection field height 1050 mm
1130	Protection field height 1130 mm
1210	Protection field height 1210 mm
1290	Protection field height 1290 mm
1370	Protection field height 1370 mm
1450	Protection field height 1450 mm
1530	Protection field height 1530 mm <i>(Only for Resolution 30 mm, 50 mm)</i>
1610	Protection field height 1610 mm <i>(Only for Resolution 30 mm, 50 mm)</i>
1690	Protection field height 1690 mm <i>(Only for Resolution 30 mm, 50 mm)</i>
1770	Protection field height 1770 mm <i>(Only for Resolution 30 mm, 50 mm)</i>
(2)	
14	Resolution 14 mm
30	Resolution 30 mm
50	Resolution 50 mm
(3)	
<i>without</i>	Included in standard version
M	master
S	slave <i>(Only for Protection field height from 170 mm up 650 mm)</i>
(4)	
<i>without</i>	Range 0,3 m ... 7 m <i>(Only for Resolution 14 mm)</i>
<i>without</i>	Range 0,3 m ... 10 m <i>(Only for Resolution 30 mm, 50 mm)</i>
H	Range 0,3 m ... 18 m <i>(Only for Resolution 30 mm)</i>

Documents

Operating instructions and Declaration of conformity (es) 530 kB, 12.12.2016

Code: mrl_slc420slg420_es

Operating instructions and Declaration of conformity (nl) 573 kB, 31.07.2018

Code: mrl_slc420slg420_nl

Operating instructions and Declaration of conformity (br) 524 kB, 18.12.2018

Code: ACE_mrl_slc420slg420_br

Operating instructions and Declaration of conformity (fr) 533 kB, 03.01.2017

Code: mrl_slc420slg420_fr

Operating instructions and Declaration of conformity (pt) 528 kB, 09.03.2017

Code: mrl_slc420slg420_pt

Operating instructions and Declaration of conformity (it) 525 kB, 12.06.2017

Code: mrl_slc420slg420_it

Operating instructions and Declaration of conformity (en) 676 kB, 27.09.2016

Code: mrl_slc420slg420_en

Operating instructions and Declaration of conformity (pl) 554 kB, 02.02.2017

Code: mrl_slc420slg420_pl

Operating instructions and Declaration of conformity (de) 676 kB, 27.09.2016

Code: mrl_slc420slg420_de

BG-test certificate (de, en) 474 kB, 29.10.2015

Code: z_slcp01

Brochure (it) 2 MB, 01.03.2018

Code: b_optoshort_it

Brochure (pt) 2 MB, 26.10.2018

Code: b_optoshort_pt

Brochure (es) 2 MB, 23.10.2018

Code: b_optoshort_es

Brochure (fr) 2 MB, 20.11.2018

Code: b_optoshort_fr

Brochure (en) 2 MB, 23.10.2018

Code: b_optoshort_en

Brochure (pl) 2 MB, 03.08.2018

Code: b_optoshort_pl

Brochure (de) 2 MB, 22.10.2018

Code: b_optoshort_de

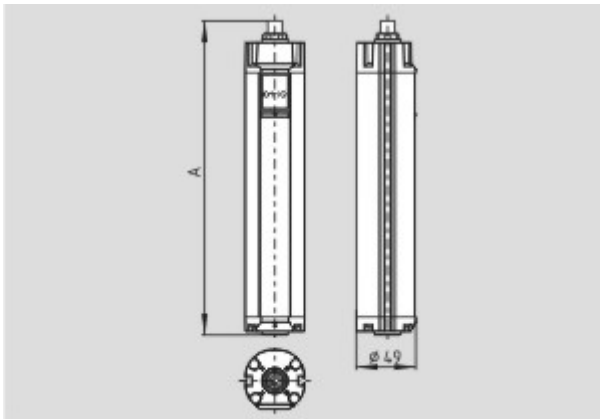
EAC certification (ru) 772 kB, 05.10.2015

Code: q_6395p17_ru

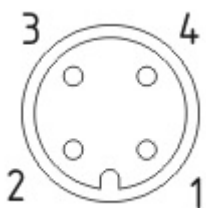
EAC certification (ru) 1 MB, 15.03.2018

Code: q_slbp01

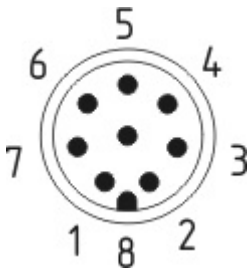
Images



Dimensional drawing (basic component)



Contact arrangement



Contact arrangement

System components

Safety control modules



SRB301ST

- Suitable for signal processing of potential-free outputs, e.g. emergency stop command devices, position switches and solenoid interlocks
- Suitable for signal processing of outputs connected to potentials (AOPDs), e.g. safety light grids/curtains
- Fit for signal evaluation of outputs of safety magnetic switches
- 3 safety contacts, STOP 0
- 1 Signalling output



SRB 301LC/B

- Fit for signal evaluation of outputs of safety magnetic switches (to this end, integrated current and voltage limiters)
- Suitable for signal processing of potential-free outputs, e.g. emergency stop command devices, position switches and solenoid interlocks
- Suitable for signal processing of outputs connected to potentials (AOPDs), e.g. safety light grids/curtains
- 3 safety contacts, STOP 0
- 1 Signalling output

Connector



KA-08

- for Transmitter
- Pre-wired cable
- 4-pole
- for SLC/SLG



KA-09

- Pre-wired cable
- 8-pole
- for SLC/SLG

Configuration software



103010773 - SLC4V430

- Configuration software

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

The data and values have been checked thoroughly. Technical modifications and errors excepted.

Generiert am 13.02.2019 - 14:16:57h Kasbase 3.3.0.F.64l