

Datasheet - SLC 420-E/R1370-14-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/R1370-14-RFB |
| Article number | 101206841 |
| EAN Code | 4030661376097 |
| 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 | 1370 |
| Range of the protection field | 300 - 7000 |
| Reaction time | 20 |
| 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 | 136 |
| 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 |
|---------------------------------------|-----|

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 | 1455 |
| - 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 |
|-------------------------------------|--|

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

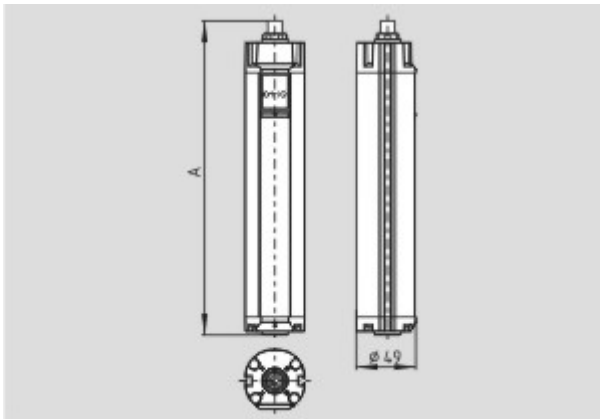
EAC certification (ru) 772 kB, 05.10.2015

Code: q_6395p17_ru

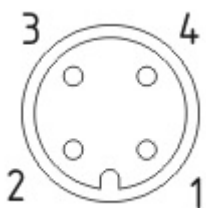
EAC certification (ru) 1 MB, 15.03.2018

Code: q_slbp01

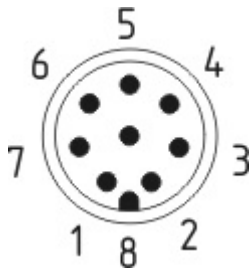
Images



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.

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