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DATA SHEET

# C2C-SB06030A10000

deTec
Safety light curtains

SICK Sensor Intelligence



Illustration may differ

## SAFETY LIGHT CURTAINS

# C2C-SB06030A10000

### ORDERING INFORMATION

| Type | part no. |
|---|---|
| C2C-SB06030A10000 | 1219513 |

Further device versions and accessories at www.sick.com/deTec

## DETAILED TECHNICAL DATA

### FEATURES

| | |
|---|---|
| Product version | deTec2 Core IP69K |
| Application | Areas with special hygiene requirements |
| System part | Sender |
| Compatible receiver | 1219514 |
| Resolution | 30 mm |
| Scanning range | 12.5 m |
| Protective field height | 600 mm |
| No blind zones | Yes |
| Synchronization | Optical synchronization |
| Items supplied | Sender in IP69K protective housing with connecting cable, 15 m |

### SAFETY-RELATED PARAMETERS

| | |
|---|---|
| Type | Type 2 (IEC 61496-1) |
| Safety integrity level | SIL 1 (IEC 61508) |
| Category | Category 2 (ISO 13849-1) |
| Performance level | PL c (ISO 13849-1) |
| $PFH_D$ (mean probability of a dangerous failure per hour) | $31 \times 10^{-9}$ |
| $T_M$ (mission time) | 20 years (ISO 13849-1) |
| Safe state in the event of a fault | At least one OSSD is in the OFF state. |

### INTERFACES

| | |
|---|---|
| System connection | Connecting cable, 15 m, flying leads, 5-wire |
| Length of cable | 15 m |
| Cable diameter | 5 mm |
| Cable material | PUR, halogen-free |
| Conductor cross section | 0.34 mm² |

| | |
|---|---|
| Display elements | LEDs |

## ELECTRONICS

| | |
|---|---|
| Protection class | III (IEC 61140) |
| Supply voltage $V_s$ | 24 V DC (19.2 V ... 28.8 V) |
| Ripple | ≤ 10 % |
| Power consumption typical | 0.91 W (DC) |

## MECHANICS

| | |
|---|---|
| Dimensions | See dimensional drawing |
| Material | |
| Protective housing | PMMA |
| End caps | Stainless steel 1.4404 |
| Cable glands | Stainless steel 1.4404 including silicone seal |
| Compensating element (membrane) | PA 6 |

## AMBIENT DATA

| | |
|---|---|
| Enclosure rating | IP65 (IEC 60529)<br>IP66 (IEC 60529)<br>IP67 (IEC 60529)<br>IP69K (ISO 20653) |
| Ambient operating temperature | –30 °C ... +55 °C |
| Storage temperature | –30 °C ... +70 °C |
| Air humidity | 15 % ... 95 %, Non-condensing |
| Vibration resistance | 5 ... 150 Hz, 3,5 mm / 1 g (EN 60068-2-6) |
| Shock resistance | 15 g / 6 ms (EN 60068-2-27) |
| Class | 3M4 (IEC TR 60721-4-3) |

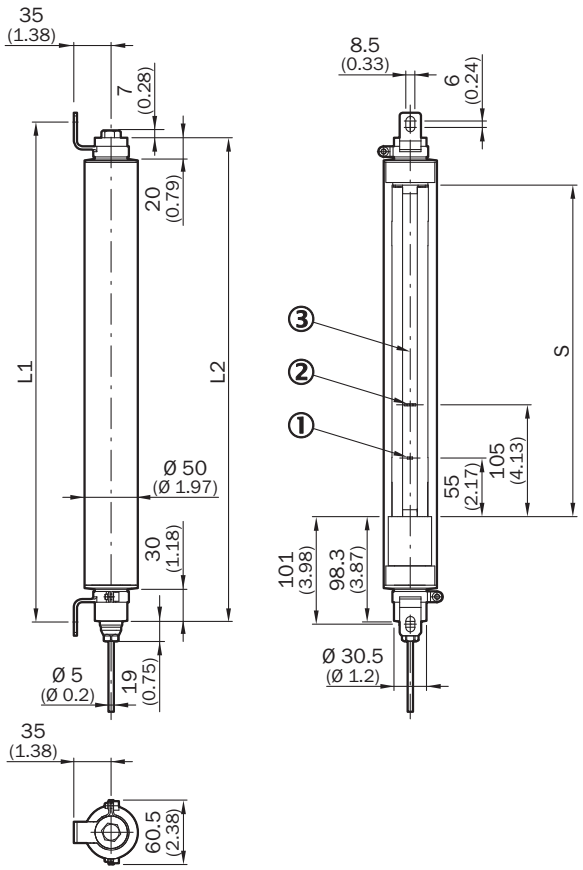
## OTHER INFORMATION

| | |
|---|---|
| Wave length | 850 nm |
| Type of light | Near-infrared (NIR), invisible |

## CERTIFICATES

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| ECOLAB certificate | ✓ |
| ULus approval | ✓ |
| cUL approval | ✓ |
| diversey certificate | ✓ |
| Taiwan OSHA certificate | ✓ |
| EC-Type-Examination approval | ✓ |
| China GB/T certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

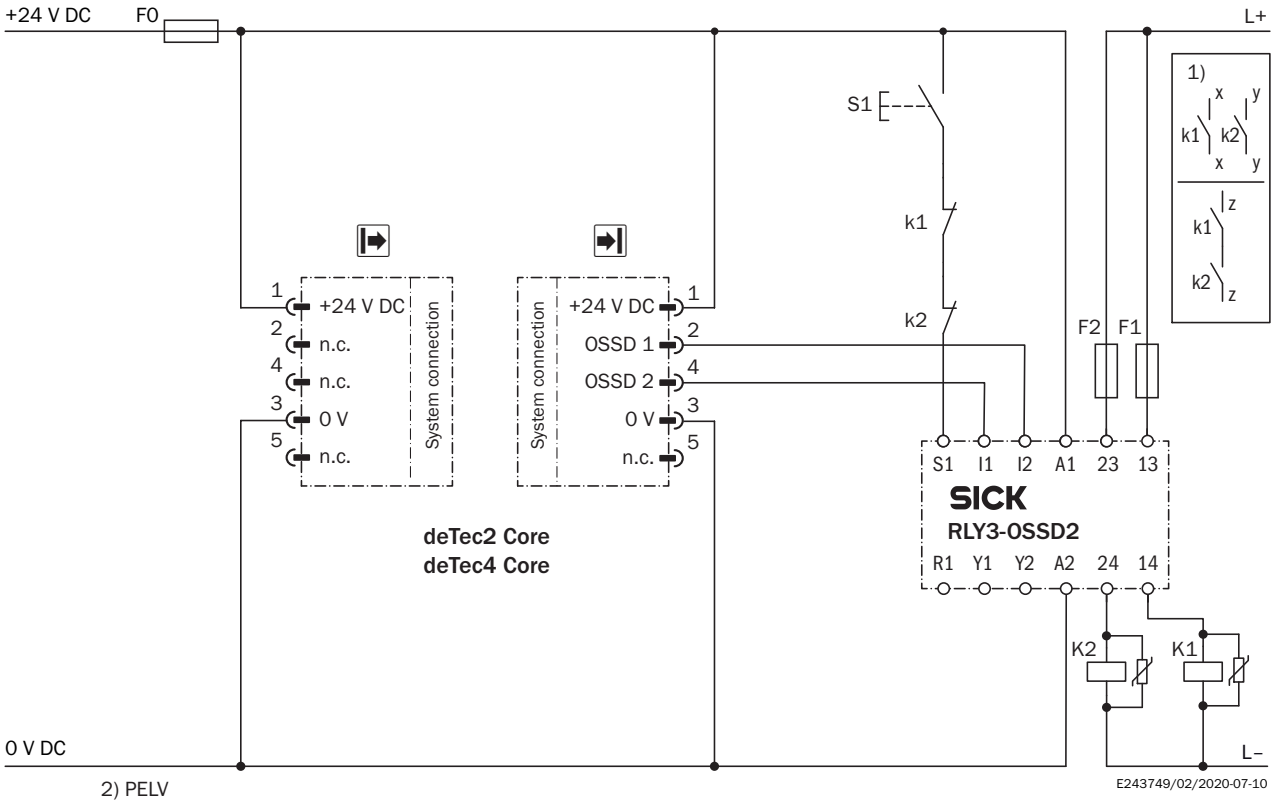
**DIMENSIONAL DRAWING**




Dimensions in mm (inch)
① Operating indicator
② Alignment indicator
③ Optical axis

| S | L1 | L2 |
|---|---|---|
| 300 | 311 | 469 | 454 |
| 450 | 461 | 619 | 604 |
| 600 | 611 | 769 | 754 |
| 750 | 761 | 919 | 904 |
| 900 | 911 | 1,069 | 1,054 |
| 1,050 | 1,061 | 1,219 | 1,204 |
| 1,200 | 1,211 | 1,369 | 1,354 |
| 1,350 | 1,361 | 1,519 | 1,504 |
| 1,500 | 1,511 | 1,669 | 1,654 |
| 1,650 | 1,661 | 1,819 | 1,804 |
| 1,800 | 1,811 | 1,969 | 1,954 |

**DETEC2 CORE IP69K SAFETY LIGHT CURTAIN TO RLY3-OSSD2 SAFETY RELAY**




**Task**

Connection of a deTec4 Core IP69K or deTec2 Core IP69K safety light curtain to RLY3-OSSD2.
Operating mode: with restart interlock and external device monitoring.

**Function**

When the protective field is clear, the OSSD1 and OSSD2 outputs carry voltage. The system can be switched on when K1 and K2 are in a fault-free de-energized position. The RLY3-OSSD2 is switched on by pressing S1 (pushbutton is pressed and released). The outputs (contacts 13-14 and 23-24) switch the K1 and K2 contactors on. When the protective field is interrupted, the OSSD1 and OSSD2 outputs switch the RLY3-OSSD2 off. Contactors K1 and K2 are switched off.

**Fault analysis**

Cross-circuits and short-circuits of the OSSDs are recognized and lead to the locking status (lock-out). A malfunction with one of the K1 or K2 contactors is detected. The switch-off function is retained. In the event of manipulation (e.g., jamming) of the S1 pushbutton, the RLY3-OSSD2 will not re-enable the output current circuits.

**Comments**

[1] Output circuits: These contacts must be incorporated into the control such that the dangerous state is brought to an end if the output circuit is open. For categories 4 and 3, they must be incorporated on dual-channels (x, y paths). Type 2 devices are suitable for use up to PL c. Single-channel incorporation into the control (z path) is only possible with a singlechannel control and taking the risk analysis into account.

[2] SELV/PELV safety extra-low voltage.

| Connection | Color-coded connecting cable | Sender | Receiver |
|---|---|---|---|
| 1 | Brown | +24 V DC | +24 V DC |
| 2 | White | Reserved | OSSD 1 |
| 3 | Blue | 0 V DC | 0 V DC |
| 4 | Black | Reserved | OSSD 2 |
| 5 | Gray | - | - |

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1219513

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