



DATA SHEET

C4C-EX09030A10000

deTec  
Safety light curtains

**SICK** Sensor Intelligence

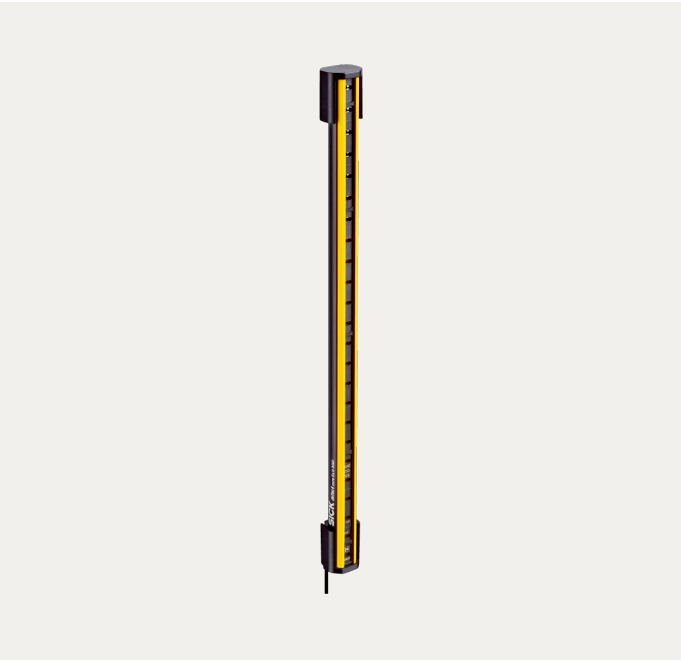


Illustration may differ

# SAFETY LIGHT CURTAINS

## C4C-EX09030A10000

### ORDERING INFORMATION

| Type              | part no. |
|-------------------|----------|
| C4C-EX09030A10000 | 1220356  |

Further device versions and accessories at [www.sick.com/deTec](http://www.sick.com/deTec)



### DETAILED TECHNICAL DATA

#### FEATURES

|                         |                                                                                                                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product version         | deTec4 Core Ex II 3GD                                                                                                                                                                                                             |
| Application             | Explosive areas                                                                                                                                                                                                                   |
| Ex-approvals            | ATEX for gas: II 3G Ex ec op is IIC T4 Gc<br>ATEX for dust: II 3D Ex tc IIIC T135°C Dc                                                                                                                                            |
| System part             | Receiver                                                                                                                                                                                                                          |
| Compatible sender       | 1220343                                                                                                                                                                                                                           |
| Resolution              | 30 mm                                                                                                                                                                                                                             |
| Scanning range          | 15 m                                                                                                                                                                                                                              |
| Protective field height | 900 mm                                                                                                                                                                                                                            |
| Response time           | 11 ms                                                                                                                                                                                                                             |
| No blind zones          | Yes                                                                                                                                                                                                                               |
| Synchronization         | Optical synchronization                                                                                                                                                                                                           |
| Items supplied          | Receiver<br>Test rod with diameter corresponding to the resolution of the safety light curtain<br>“Notes for explosion protection” label(s)<br>Safety instruction<br>Mounting instructions<br>Operating instructions for download |

#### SAFETY-RELATED PARAMETERS

|                                                                     |                                        |
|---------------------------------------------------------------------|----------------------------------------|
| Type                                                                | Type 4 (IEC 61496-1)                   |
| Safety integrity level                                              | SIL 3 (IEC 61508)                      |
| Category                                                            | Category 4 (ISO 13849-1)               |
| Performance level                                                   | PL e (ISO 13849-1)                     |
| PFH <sub>d</sub> (mean probability of a dangerous failure per hour) | 3.7 x 10 <sup>-9</sup>                 |
| T <sub>m</sub> (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 |                     | Plug, M12, 5-pin      |
|                   | Length of cable     | 150 mm                |
|                   | Cable diameter      | 4.3 mm                |
| Cable bend radius | Stationary position | > 12 x cable diameter |
|                   | Flexible use        | > 15 x cable diameter |
| Display elements  |                     | LEDs                  |

**ELECTRONICS**

|                                         |                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------|
| Protection class                        | III (IEC 61140)                                                                      |
| Supply voltage $V_s$                    | 24 V DC (19.2 V ... 28.8 V)                                                          |
| Ripple                                  | $\leq 10 \%$                                                                         |
| Power consumption typical               | 2.02 W (DC)                                                                          |
| Output signal switching devices (OSSDs) |                                                                                      |
| Type of output                          | 2 PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>1)</sup> |
| ON state, switching voltage HIGH        | 24 V DC ( $V_s - 2.25 \text{ V DC} \dots V_s$ )                                      |
| OFF state, switching voltage LOW        | $\leq 2 \text{ V DC}$                                                                |
| Current-carrying capacity per OSSD      | $\leq 300 \text{ mA}$                                                                |

<sup>1)</sup> Applies to the voltage range between -30 V and +30 V.

**MECHANICS**

|                  |                           |
|------------------|---------------------------|
| Dimensions       | See dimensional drawing   |
| Housing material | Aluminum extruded profile |

**AMBIENT DATA**

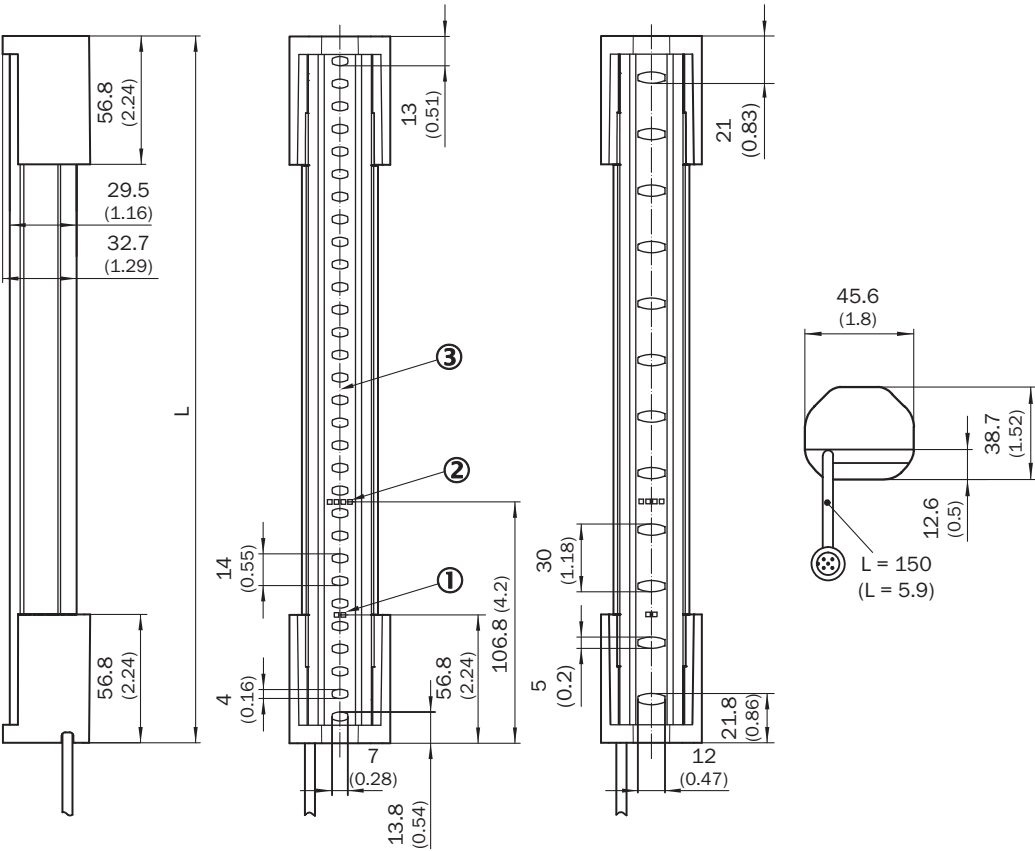
|                               |                                           |
|-------------------------------|-------------------------------------------|
| Enclosure rating              | IP65 (IEC 60529)<br>IP67 (IEC 60529)      |
| Ambient operating temperature | 0 °C ... +55 °C                           |
| 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)                    |

**CERTIFICATES**

|                                    |   |
|------------------------------------|---|
| EU declaration of conformity       | ✓ |
| UK declaration of conformity       | ✓ |
| ACMA declaration of conformity     | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS                         | ✓ |
| CCC certificate                    | ✓ |
| IECEX certificate                  | ✓ |
| ULus approval                      | ✓ |
| cUL approval                       | ✓ |
| Taiwan OSHA certificate            | ✓ |
| Japan Press Safety certificate     | ✓ |

|                                                                       |   |
|-----------------------------------------------------------------------|---|
| EC-Type-Examination approval                                          | ✓ |
| China EX Type-Examination certificate                                 | ✓ |
| 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

| L     |       |
|-------|-------|
| 300   | 313   |
| 450   | 463   |
| 600   | 613   |
| 750   | 763   |
| 900   | 913   |
| 1,050 | 1,063 |
| 1,200 | 1,213 |
| 1,350 | 1,362 |
| 1,500 | 1,512 |
| 1,650 | 1,662 |
| 1,800 | 1,812 |
| 1,950 | 1,962 |
| 2,100 | 2,112 |

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/1220356](http://www.sick.com/1220356)



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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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