SICK Service Manual

C4C-SA10530A10000

1. Description

SICK C4C-SA10530A10000 Safety Light Curtain, deTec4 Core, Height:1, 050mm, Male Conn M12, 5-pin, Sender

2. Specifications

Specification	Value
Features	
Application	**Normal industrial environment**
System	**part Pair**
Compatible	**sender 1211499**
Compatible	**receiver 1211500**
Resolution	**30 mm**
Scanning	**range 15 m**
Protective	**field height 1,050 mm**
Response	**time 11 ms**
No	**blind zones Yes**
Synchronization	**Optical synchronisation**
Items	**supplied Sender**
Receiver	
Test	**rod with diameter corresponding to the resolution of the safety light curtain**
Safety	**instruction**
Mounting	**instructions**
Operating	**instructions for download**
Safety-related	**parameters**
Type	**Type 4 (IEC 61496-1)**
Safety	**integrity level SIL3 (IEC 61508)**
SILCL3	**(IEC 62061)**
Category	**Category 4 (ISO 13849-1)**
Performance	**level PL e (ISO 13849-1)**
PFHD	**(mean probability of a dangerous failure per hour)**
3.7	**x 10-9**
TM	**(mission time) 20 years (ISO 13849-1)**
Safe	**state in the event of a fault At least one OSSD is in the OFF state**

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3. Product Information

SICK C4C-SA10530A10000 Safety Light Curtain, deTec4 Core, Height:1, 050mm, Male Conn M12, 5-pin, Sender

C4C-EA10530A10000

Product Attribute

Attribute Value

Alternate Mfr Part Number 1211499

Brand SICK

Connector Type M12

Dimensions 41.34 in L

Family Name deTec Family

Housing Material Aluminum extruded profile

Manufacturer Part Number C4C-SA10530A10000

Numeric ID 4079255

Promo true

Sensing Range 12 m

Series deTec4 Core Series

Shock Resistance 10 g, 16 ms (EN 60068-2-29)

Weight 970 g

Overview

deTec4 Core - Efficient integration. Quick installation. Simply safe.

The deTec4 Core safety light curtain is impressive with a new innovative system of brackets, no blind zones, and the increased height of its protective field. The effort required for commissioning and maintenance is minimized. The half-rounded contour of the rear of the housing enables the brackets to be positioned in any location on the housing. The FlexFix bracket facilitates alignment at up to +/-15°. Integrated LED displays, diagnostic functions, and automatic calibration on the protective field width help to save time and costs during commissioning. The deTec4 Core is also suitable for use in harsh ambient conditions thanks to the enclosure rating IP 65 and IP 67. With ambient operating temperatures of between -30 °C and +55 °C, the safety light curtain can also be used in low-temperature environments. The deTec4 Core provides reliable hand and finger protection at the highest PL e protection level. The available protective field heights range from 300 mm to 2,100 mm.

At a Glance

●Type 4 (IEC 61496), SIL3 (IEC 61508), PL e (EN ISO 13849)

●Absence of blind zones

●Resolution of 14 mm or 30 mm

●Protective field height of 300 mm to 2,100 mm

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●Automatic calibration on the protective field width up to 10 m range

●Ambient operating temperature of -30 °C to +55 °C

●Enclosure rating IP 65 and IP 67

●Flexi Loop-compatible M12 male connector[Opto-Electronic Protective Devices]

Detailed technical data

Features

Application Normal industrial environment

System part Pair

Compatible sender 1211499

Compatible receiver 1211500

Resolution 30 mm

Scanning range 15 m

Protective field height 1,050 mm

Response time 11 ms

No blind zones Yes

Synchronization Optical synchronisation

Items supplied Sender

Receiver

Test rod with diameter corresponding to the resolution of the safety light curtain

Safety instruction

Mounting instructions

Operating instructions for download

Safety-related parameters

Type Type 4 (IEC 61496-1)

Safety integrity level SIL3 (IEC 61508)

SILCL3 (IEC 62061)

Category Category 4 (ISO 13849-1)

Performance level PL e (ISO 13849-1)

PFHD (mean probability of a dangerous failure per hour)

3.7 x 10-9

TM (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 Male connector M12, 5-pin

Display elements LEDs

Fieldbus, industrial network

Integration via Flexi Soft safety controller CANopen

DeviceNet™

EtherCAT®

EtherNet/IP™

Modbus TCP

PROFIBUS DP

PROFINET

Electrical data

Protection class III (IEC 61140)

Supply voltage VS 24 V DC (19.2 V ... 28.8 V)

Ripple ≤ 10 %

Power consumption typical 2.11 W (DC) / 1.06 W (DC) (depending on type)

Output signal switching devices (OSSDs)

Type of output 2 PNP semiconductors, short-circuit protected, cross-circuit monitored

ON state, switching voltage HIGH 24 V DC (VS – 2.25 V DC ... VS)

OFF state, switching voltage LOW ≤ 2 V DC

Current-carrying capacity per OSSD ≤ 300 mA

1) Applies to the voltage range between –30 V and +30 V.

Mechanical data

Dimensions See dimensional drawing

Housing material Aluminum extruded profile

Bending radius

Stationary position > 12 x cable diameter

Flexible use > 15 x cable diameter

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Ambient data

Enclosure rating IP65 (IEC 60529)

IP67 (IEC 60529)

Ambient operating temperature –30 °C ... +55 °C

Storage temperature –30 °C ... +70 °C

Air humidity 15 % ... 95 %, Non-condensing

Vibration resistance 5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)

Shock resistance 10 g, 16 ms (IEC 60068-2-27)

Other information

Wave length 850 nm