



## Safety light curtains miniTwin2 as a standalone device

C2MT-04224BBC03DB0



**Model Name** > [C2MT-04224BBC03DB0](#)  
**Part No.** > [1207947](#)



**At a glance**

- Type 2 (IEC 61496), SIL1 (IEC 61508), PL c (EN ISO 13849)
- Compact cross section (15 mm x 32 mm) with no dead zones
- Cascadable twin stick design - sender and receiver in a single housing
- Customized protective field heights in 60-mm increments from 120 mm to 1,200 mm
- Typical scanning ranges 0 m ... 8 m
- Intelligent, software-free configuration of external device monitoring (EDM) and reset function (RES)
- M12, 5-pin device connection

**Your benefits**

- Cost-effective machine integration: its small design, cascadable features and incremental protective field heights enable a flexible adjustment to the machine design
- Standardization saves time and resources because of more straightforward logistics, order entry and service
- Simplified handling and setup: Software-free, almost fully automatic commissioning and intuitive operation with sustainable optics
- Bright LED display provides fast alignment, easy start up and clear protective field visualization ensure quick diagnostics
- End-to-end coverage in cascadable applications eliminates dead zones and shortens the safety distance, increasing productivity
- Application-specific brackets provide increased flexibility and reduce installation time



**Safety-related parameters**

Type:	Type 2 (IEC 61496)
Safety integrity level:	SIL1 (IEC 61508) SILCL1 (EN 62061)
Category:	category 2 (EN ISO 13849)
Test rate (internal test):	58 /s
Maximum demand rate:	34 /min (EN ISO 13849) <sup>1)</sup>
Performance level:	PL c (EN ISO 13849), Pay attention to optical characteristics! <sup>2)</sup>
PFHd:	Standalone system: 2.4 * 1E-08 (EN ISO 13849)
TM (mission time):	20 a (EN ISO 13849)
Safe state in the event of a fault:	At least one OSSD is in the OFF state.

<sup>1)</sup> Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out. <sup>2)</sup> The performance level does not contain any specific requirements on aspects such as the optical characteristics. For more detailed information on this topic, see page xx.

## Functions

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Restart interlock:	✓
Restart interlock (delivery status):	Deactivated
External device monitoring (EDM):	✓
External device monitoring (delivery status):	Deactivated
Beam coding:	✓
Automatic beam coding:	✓
Cascaded:	-
Safe SICK device communication via EFI/SDL:	-

## Features

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Resolution:	24 mm
Protective field height:	420 mm
Scanning range:	0 m ... 6 m
Typical range:	0 m ... 8 m
Response time:	≤ 13 ms <sup>1)</sup>
Synchronization:	Optical, without separate synchronization

<sup>1)</sup> Standalone devices, no cascaded systems. Other response times see operating instructions.

## Mechanical data

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Housing cross-section (incl. system connection):	15 mm x 32 mm
Housing material:	Aluminum alloy ALMGSI 0.5
Weight:	155 g

## Electrical data

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Protection class:	III (EN 61140)
Supply voltage:	24 V DC (19.2 V DC ... 28.8 V DC)
Residual ripple:	≤ 10 % <sup>1)</sup>
Power consumption:	≤ 3 A <sup>2)</sup>
Type of output:	PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
Switching voltage HIGH:	24 V DC (VS - 2.25 V DC ... VS)
Switching voltage LOW:	2 V DC
Switching current:	300 mA

<sup>1)</sup> Within the limits of  $V_S$  <sup>2)</sup> Maximum power consumption of a host/guest/guest system with 1,200 mm protective field height and a resolution of 14 mm <sup>3)</sup> Applies to the voltage range between -30 V and +30 V

## Interfaces

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Electrical connection:	Connector M12, 5-pin
Cable length:	350 mm
Conductor cross-section:	0.34 mm <sup>2</sup>
Permitted cable length:	≤ 20 m <sup>1)</sup>
Configuration method:	Hard wired
Display elements:	LEDs
Integration via Flexi Soft safety controller:	CANopenDeviceNetEtherCATEtherNet/IPModbus TCP PROFIBUS DP PROFINET <sup>2)</sup>

1) 2) For further information on Flexi Soft, please see sens:Control - safe control solutions product catalog or -> [www.sick.com/FlexiSoft](http://www.sick.com/FlexiSoft)

### Ambient data

Enclosure rating:	IP 65 (EN 60529)
Ambient operating temperature:	-20 °C ... +55 °C
Storage temperature:	-25 °C ... +70 °C
Air humidity:	15 % ... 95 %, non-condensing
Vibration resistance:	5 g, 10 Hz ... 55 Hz (EN 60068-2-6)
Shock resistance:	10 g, 16 ms (EN 60068-2-27)

### Dimensional drawing



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