



Safety light curtains
miniTwin2 as a cascaded host or guest device -
not as a cascade end unit

C2MT-02414BBC04DE0



Model Name > C2MT-02414BBC04DE0
Part No. > 1207868



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): | 47 /s |
| Maximum demand rate: | 28 /min (EN ISO 13849) ¹⁾ |
| Performance level: | PL c (EN ISO 13849), Pay attention to optical characteristics! ²⁾ |
| PFHd: | Cascaded systems: 5.2 * 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. |

¹⁾ Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out. ²⁾ 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

| | |
|---|-------------|
| 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

| | |
|--------------------------|---|
| Resolution: | 14 mm |
| Protective field height: | 240 mm |
| Scanning range: | 0 m ... 6 m |
| Typical range: | 0 m ... 8 m |
| Response time: | ≤ 14 ms ¹⁾ |
| Synchronization: | Optical, without separate synchronization |

¹⁾ Standalone devices, no cascaded systems. Other response times see operating instructions.

Mechanical data

| | |
|--|---------------------------|
| Housing cross-section (incl. system connection): | 15 mm x 32 mm |
| Housing material: | Aluminum alloy ALMGSI 0.5 |
| Weight: | 95 g |

Electrical data

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

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

Interfaces

| | |
|---------------------------------------|-----------------------------|
| Electrical connection: | Connector M12, 5-pin |
| Connection type extension connection: | Female connector M12, 5-pin |
| Cable length: | 350 mm |
| Conductor cross-section: | 0.34 mm ² |
| Permitted cable length: | ≤ 20 m ¹⁾ |
| Configuration method: | Hard wired |
| Display elements: | LEDs |

Integration via Flexi Soft safety controller:

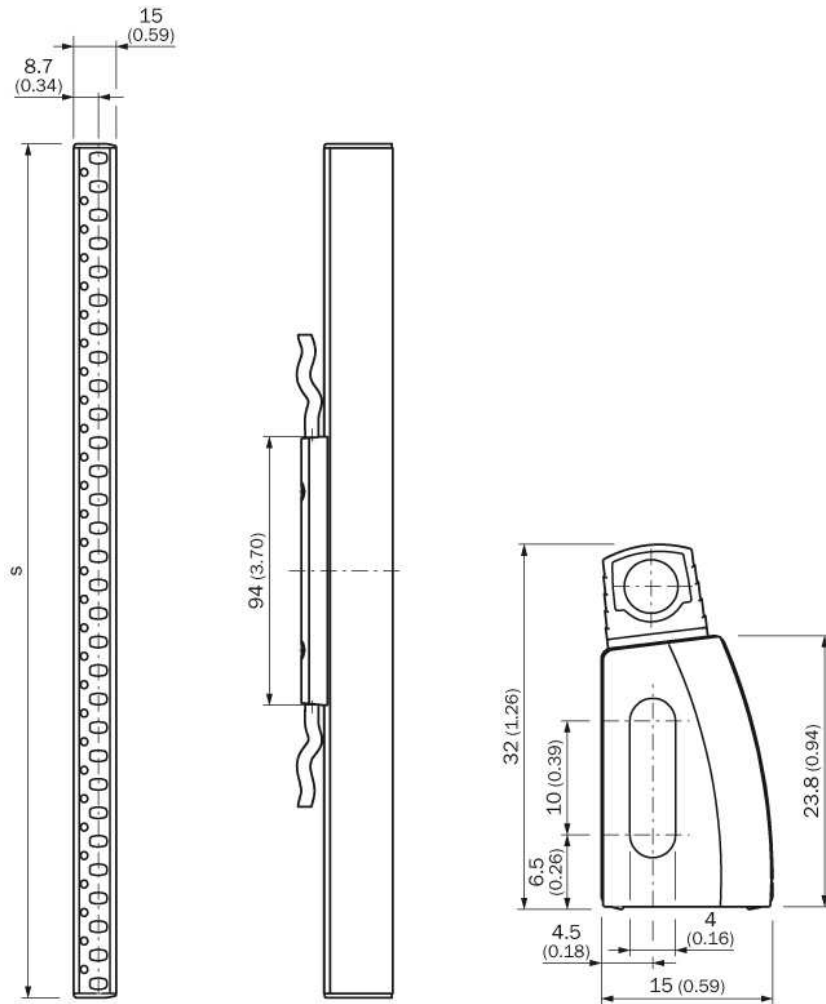
CANopenDeviceNetEtherCATEtherNet/IPModbus TCPPROFIBUS
DPPROFINET

1) 2) For further information on Flexi Soft, please see sens:Control - safe control solutions product catalog or -> 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



Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com