



# C2MT-04834BBC03DE0

miniTwin2

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
C2MT-04834BBC03DE0	1207853

1.) Concerns installation as a replacement part for previous type 2 device in machine: Regarding Machinery Directive 2006/42/EC, Article 1, Paragraph (2a) this type 2 device may only be used as a replacement part for identical PL d / SIL2 devices within the EU if the machine was put into circulation before 2015-05-10. Keep this note with your machine documentation. If the machine is sold on, this note and the information it contains must be passed on to every subsequent buyer. 2.) Concerns installation on new machines: Due to the amendment to the EN/IEC 61496-1 standard, this type 2 device may only be installed on new machines up to PL c / SIL1 as of 2015-05-10.

Other models and accessories → [www.sick.com/miniTwin2](http://www.sick.com/miniTwin2)



### Detailed technical data

#### Features

<b>Usage</b>	miniTwin2 as a standalone device or cascade end unit				
<b>Mounting system type</b>	C-fix or L-fix bracket				
<b>Resolution</b>	34 mm				
<b>Protective field height</b>	480 mm				
<b>Scanning range</b>	<table border="0"> <tr> <td>Minimum</td> <td>0 m ... 6 m</td> </tr> <tr> <td>Typical</td> <td>0 m ... 8 m</td> </tr> </table>	Minimum	0 m ... 6 m	Typical	0 m ... 8 m
Minimum	0 m ... 6 m				
Typical	0 m ... 8 m				
<b>Response time</b>	≤ 13 ms <sup>1)</sup>				
<b>Synchronization</b>	Optical, without separate synchronization				

<sup>1)</sup> Standalone devices, no cascaded systems. Other response times can be found in the operating instructions.

#### Safety-related parameters

<b>Type</b>	Type 2 (IEC 61496)
<b>Safety integrity level</b>	SIL1 (IEC 61508) SILCL1 (EN 62061)
<b>Category</b>	Category 2 (EN ISO 13849)
<b>Test rate (internal test)</b>	58 /s
<b>Maximum demand rate</b>	≤ 34 min <sup>-1</sup> (EN ISO 13849) <sup>1)</sup>
<b>Performance level</b>	PL c (EN ISO 13849), Pay attention to optical characteristics! <sup>2)</sup>
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	Standalone system: 2.4 x 10 <sup>-8</sup> (EN ISO 13849)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Safe state in the event of a fault</b>	At least one OSSD is in the OFF state.

<sup>1)</sup> Between two requirements 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 include any specific requirements regarding aspects such as optical performance features. For more information, see page xx.

## Functions

	Functions	Delivery status
<b>Restart interlock</b>	✓	Deactivated
<b>External device monitoring (EDM)</b>	✓	Deactivated
<b>Beam coding</b>	Automatic	

## Interfaces

<b>System connection</b>		
Connection type	Male connector M12, 5-pin	
Cable length	350 mm	
Permitted cable length	≤ 20 m <sup>1)</sup>	
Conductor cross-section	0.34 mm <sup>2</sup>	
<b>Extension connection</b>		
Cable length	350 mm	
<b>Configuration method</b>	Hard wired	
<b>Display elements</b>	LEDs	
<b>Fieldbus, industrial network</b>		
Integration via Flexi Soft safety controller	CANopen, DeviceNet™, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET <sup>2)</sup>	

<sup>1)</sup> Depending on load, power supply and wire cross-section. The technical specifications must be observed.

<sup>2)</sup> For additional information on Flexi Soft -> [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft).

## Electrical data

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

<sup>1)</sup> Within the limits of V<sub>S</sub>.

<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.

## Mechanical data

<b>Housing cross-section (incl. system connection)</b>	15 mm x 32 mm
<b>Housing material</b>	Aluminum alloy ALMGSI 0.5
<b>Weight</b>	175 g

## Ambient data

<b>Enclosure rating</b>	IP65 (EN 60529)
<b>Ambient operating temperature</b>	-20 °C ... +55 °C
<b>Storage temperature</b>	-25 °C ... +70 °C

<b>Air humidity</b>	15 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (EN 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (EN 60068-2-27)

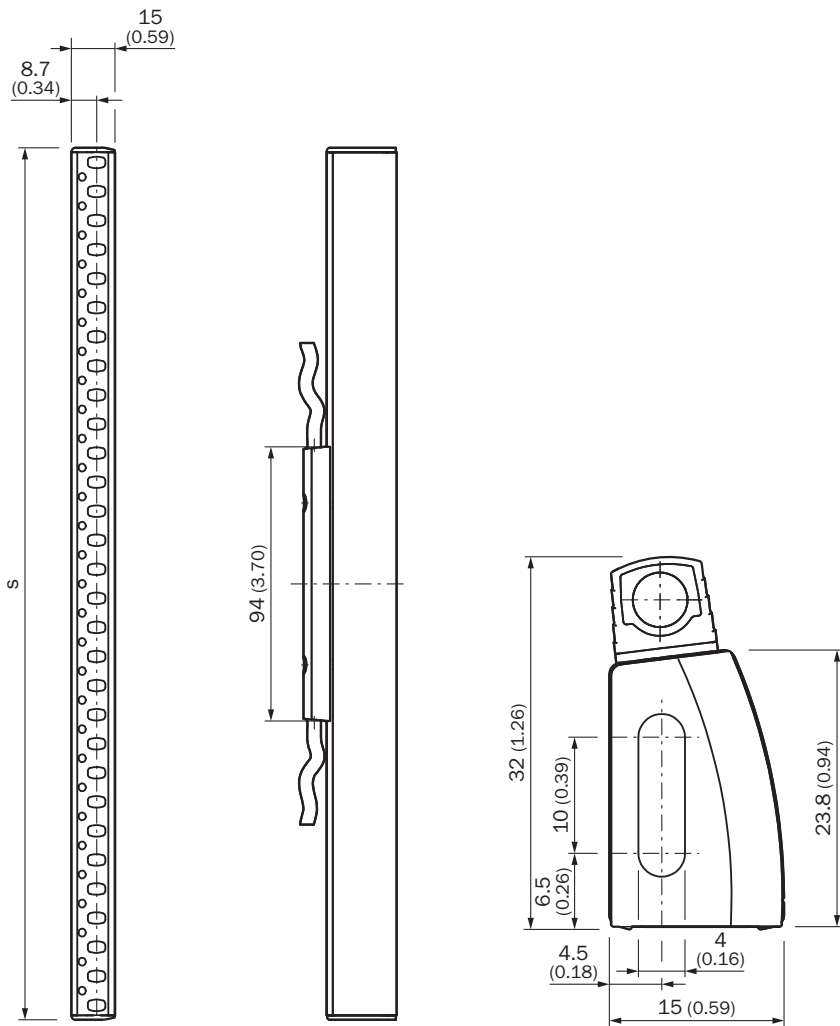
## Other information

<b>Wave length</b>	850 nm
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## Classifications

<b>ECl@ss 5.0</b>	27272704
<b>ECl@ss 5.1.4</b>	27272704
<b>ECl@ss 6.0</b>	27272704
<b>ECl@ss 6.2</b>	27272704
<b>ECl@ss 7.0</b>	27272704
<b>ECl@ss 8.0</b>	27272704
<b>ECl@ss 8.1</b>	27272704
<b>ECl@ss 9.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>UNSPSC 16.0901</b>	46171620



Dimensional drawing (Dimensions in mm (inch))




S = protective field height = housing length

Recommended accessories

Other models and accessories → [www.sick.com/miniTwin2](http://www.sick.com/miniTwin2)

	Brief description	Type	Part no.
Device protection (mechanical)			
	Front screen protection set (protects sensors from damage by flying sparks and welding beads)	Additional front screen	2058487
Mounting brackets and plates			
	2 pieces, C-Fix-Flex bracket, adjustable +4°/-4°, metal version, for flat and connector side assembly/assembling/construction/mounting, for all protective field heights, die-cast aluminum GD-AISi12(CU)	BEF-1SHABMAL2	2056598
	2 pieces, Combination C-Fix bracket with L-Fix bracket, 2 pieces each, for all sizes, for all protective field heights	BEF-3AAA0MKU2S04	2045843

	Brief description	Type	Part no.
	2 pieces, O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	BEF-3SHAEMKU2	2045835
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A15-100VB5XLEAX	2096241
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YF2A15-150VB5XLEAX	2096242
	Head A: female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.16 m Connector for cascaded Mini Twin, with 2 cables and 1 male and 1 female connector M12, 5-pin	Cascade system plug	2046452
	Head A: female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.35 m Connector for cascaded Mini Twin, with 2 cables and 1 male and 1 female connector M12, 5-pin	Cascade system plug	2046454
	Head A: female connector, M12, 5-pin, straight Head B: male connector, M12, 5-pin, straight Cable: unshielded, 0.7 m Connector for cascaded Mini Twin, with 2 cables and 1 male and 1 female connector M12, 5-pin	Cascade system plug	2046456
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 1 m	YF2A15-010UB5M2A15	2096007
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5M2A15	2096009
	Head A: female connector, M12, 5-pin, straight Cable: unshielded	DOS-1205-G	6009719
	Head A: female connector, M12, 5-pin, straight Cable: unshielded Test voltage 1.0 kV eff/60 s, insulation group C to VDE 0110	DOS-1205-GX	6047950
	Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology	STE-1205-G	6022083
	Cable: unshielded, 10 m, For stand-alone miniTwin	Stand-alone system plug	2051290
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
	Adapter AR60 for miniTwin4 and miniTwin2	AR60 adapter, miniTwin	4064710

	Brief description	Type	Part no.
Test and monitoring tools			
	34 mm diameter	Test rod 34 mm	2045593

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)