



# C4MT-01814ABB03BB0

miniTwin

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

miniTwin4 as a standalone device

System connection	Resolution	Length of cable	Protective field height	Type	Part no.
Male connector M12, 5-pin	14 mm	160 mm	180 mm	C4MT-01814AB-B03BB0	1206945

This article includes 1 twin stick. Please order 2 for a functioning miniTwin4 system.

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

### Detailed technical data

#### Features

<b>System part</b>	1 Twin-Stick
<b>Usage</b>	miniTwin4 as a standalone device
<b>Mounting system type</b>	O-fix bracket
<b>Resolution</b>	14 mm
<b>Scanning range</b>	Minimum 0 m ... 4 m Typical 0 m ... 5 m
<b>Protective field height</b>	180 mm
<b>Response time</b>	≤ 14 ms <sup>1)</sup>
<b>Synchronization</b>	Optical, without separate synchronization
<b>Items supplied</b>	Twin stick System plug O-Fix bracket, 2 pieces Test rod with diameter corresponding to the resolution of the safety light curtain Safety instruction Mounting instructions Operating instructions for download

<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 4 (IEC 61496-1)
<b>Safety integrity level</b>	SIL3 (IEC 61508)
<b>Category</b>	Category 4 (EN ISO 13849)
<b>Performance level</b>	PL e (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	Standalone system: 4.3 x 10 <sup>-9</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.

## Functions

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

## Interfaces

System connection	Male connector M12, 5-pin
Length of cable	160 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

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

## Electrical data

Protection class	III (EN 61140)
Supply voltage $V_S$	24 V DC (19.2 V DC ... 28.8 V DC)
Ripple	≤ 10 % <sup>1)</sup>
Power consumption	≤ 3 A <sup>2)</sup>
Output signal switching devices (OSSDs)	
Type of output	PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
ON state, switching voltage HIGH	24 V DC ( $V_S - 2.25$ V DC ... $V_S$ )
OFF state, switching voltage LOW	≤ 2 V DC
Current-carrying capacity per OSSD	≤ 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.

## Mechanical data

Housing cross-section (incl. system connection)	15 mm x 32 mm
Housing material	Aluminum alloy ALMGSI 0.5
Weight	75 g

## Ambient data

Enclosure rating	IP65 (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)

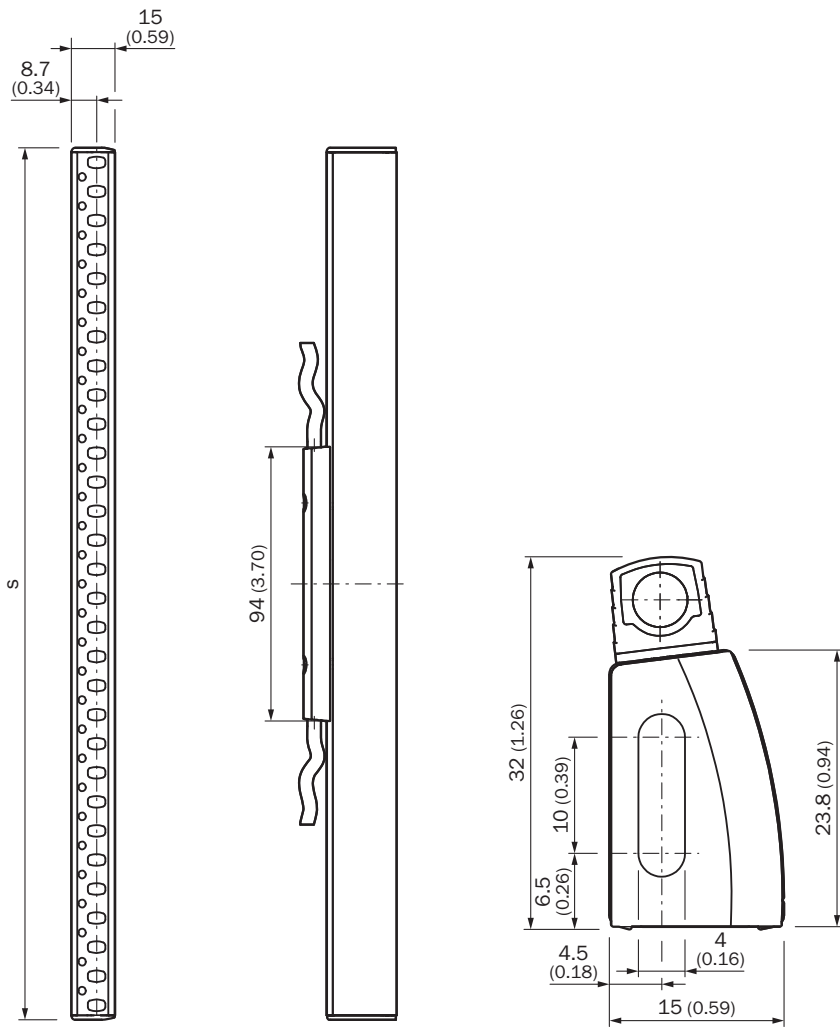
## Other information

Wave length	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>eCl@ss 10.0</b>	27272704
<b>eCl@ss 11.0</b>	27272704
<b>eCl@ss 12.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>ETIM 7.0</b>	EC002549
<b>ETIM 8.0</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/miniTwin](http://www.sick.com/miniTwin)

	Brief description	Type	Part no.
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!, 19 mm x 67.3 mm x 66.9 mm	AR60	1015741
	Adapter AR60 for miniTwin4 and miniTwin2	AR60 adapter, miniTwin	4064710

	Brief description	Type	Part no.
<b>Test and monitoring tools</b>			
	14 mm diameter	Test rod 14 mm	2022599
<b>Mounting brackets and plates</b>			
	2 pieces, Bracket for miniTwin, for all protective field heights, scope of delivery: 2 C-Fix brackets and 2 L-Fix brackets (suitable for 2 miniTwin devices)	BEF-3AAA0MKU2S04	2045843
	2 pieces, O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	BEF-3SHAEMKU2	2045835
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A15-100VB5XLEAX	2096241
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YF2A15-150VB5XLEAX	2096242
	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, 160 mm	Cascade system plug	2046452
	Cable: unshielded, 350 mm	Cascade system plug	2046454
	Cable: unshielded, 700 mm	Cascade system plug	2046456
	Cable: unshielded, 10 m	Stand-alone system plug	2051290

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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)