



# C4MT-04214ABB03DE0

miniTwin4

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

miniTwin4 as a standalone device, miniTwin4 as last guest for 2- or 3-device cascade

System connection	Resolution	Length of cable	Protective field height	Type	Part no.
Male connector M12, 5-pin	14 mm	350 mm	420 mm	C4MT-04214AB-B03DE0	1207101

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

Other models and accessories → [www.sick.com/miniTwin4](http://www.sick.com/miniTwin4)

### Detailed technical data

#### Features

<b>System part</b>	1 Twin-Stick
<b>Usage</b>	miniTwin4 as a standalone device miniTwin4 as last guest for 2- or 3-device cascade
<b>Mounting system type</b>	C-fix or L-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>	420 mm
<b>Response time</b>	≤ 14 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 4 (IEC 61496-1)
<b>Safety integrity level</b>	SIL3 (IEC 61508) SILCL3 (EN 62061)
<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
<b>Restart interlock</b>	✓	Deactivated
<b>External device monitoring (EDM)</b>	✓	Deactivated

	Functions	Delivery status
<b>Beam coding</b>	Automatic	

## Interfaces

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

<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 <math>V_S</math></b>	24 V DC (19.2 V DC ... 28.8 V DC)
<b>Ripple</b>	$\leq 10 \%^1$
<b>Power consumption</b>	$\leq 3 \text{ A}^2$
<b>Output signal switching devices (OSSDs)</b>	
Type of output	PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
ON state, switching voltage HIGH	24 V DC ( $V_S - 2.25 \text{ V DC} \dots V_S$ )
OFF state, switching voltage LOW	$\leq 2 \text{ V DC}$
Current-carrying capacity per OSSD	$\leq 300 \text{ mA}$

<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

<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>	155 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>	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>ECl@ss 10.0</b>	27272704
<b>ECl@ss 11.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>ETIM 7.0</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/miniTwin4](http://www.sick.com/miniTwin4)

	Brief description	Type	Part no.
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
	2 pieces, O-Fix bracket, 2 pieces, for all sizes, for all protective field heights	BEF-3SHAEMKU2	2045835

Brief description	Type	Part no.
<b>Plug connectors and cables</b>		
 <p>Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m</p>	YF2A15-050VB5XLEAX	2096240
<p>Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m</p>	YF2A15-100VB5XLEAX	2096241
<p>Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m</p>	YF2A15-150VB5XLEAX	2096242
 <p>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</p>	YF2A15-010UB5M2A15	2096007
<p>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</p>	YF2A15-020UB5M2A15	2096009
 <p>Head A: female connector, M12, 5-pin, straight Cable: unshielded</p>	DOS-1205-G	6009719
<p>Head A: female connector, M12, 5-pin, straight Cable: unshielded Test voltage 1.0 kV eff/60 s, insulation group C to VDE 0110</p>	DOS-1205-GX	6047950
 <p>Head A: male connector, M12, 5-pin, straight Cable: unshielded For field bus technology</p>	STE-1205-G	6022083
 <p>Cable: unshielded, 160 mm</p>	Cascade system plug	2046452
 <p>Cable: unshielded, 350 mm</p>	Cascade system plug	2046454
 <p>Cable: unshielded, 700 mm</p>	Cascade system plug	2046456
 <p>Cable: unshielded, 10 m</p>	Stand-alone system plug	2051290
<b>Alignment aids</b>		
 <p>Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!</p>	AR60	1015741
 <p>Adapter AR60 for miniTwin4 and miniTwin2</p>	AR60 adapter, miniTwin	4064710
<b>Test and monitoring tools</b>		
 <p>14 mm diameter</p>	Test rod 14 mm	2022599

## 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)