



# C4MT-09024ABB03FE0

miniTwin4

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
C4MT-09024ABB03FE0	1207236



### Detailed technical data

#### Features

<b>Usage</b>	miniTwin4 as a standalone device or cascade end unit				
<b>Mounting system type</b>	C-fix or L-fix bracket				
<b>Resolution</b>	24 mm				
<b>Protective field height</b>	900 mm				
<b>Scanning range</b>	<table border="0"> <tr> <td>Minimum</td> <td>0 m ... 4 m</td> </tr> <tr> <td>Typical</td> <td>0 m ... 5 m</td> </tr> </table>	Minimum	0 m ... 4 m	Typical	0 m ... 5 m
Minimum	0 m ... 4 m				
Typical	0 m ... 5 m				
<b>Response time</b>	$\leq 13 \text{ ms}^{1)}$				
<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)
<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: $4.3 \times 10^{-9}$ (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
<b>Beam coding</b>	Automatic	

## Interfaces

<b>System connection</b>	
Connection type	Male connector M12, 5-pin
Cable length	700 mm
Permitted cable length	$\leq 20 \text{ m}^{1)}$
Conductor cross-section	0.34 mm <sup>2</sup>
<b>Extension connection</b>	
Cable length	700 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 <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>Safety outputs (OSSD)</b>	
Type of output	PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
Switching voltage HIGH	24 V DC ( $V_S - 2.25 \text{ V DC} \dots V_S$ )
Switching voltage LOW	$\leq 2 \text{ V DC}$
Switching current	$\leq 300 \text{ mA}$

<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>	320 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)

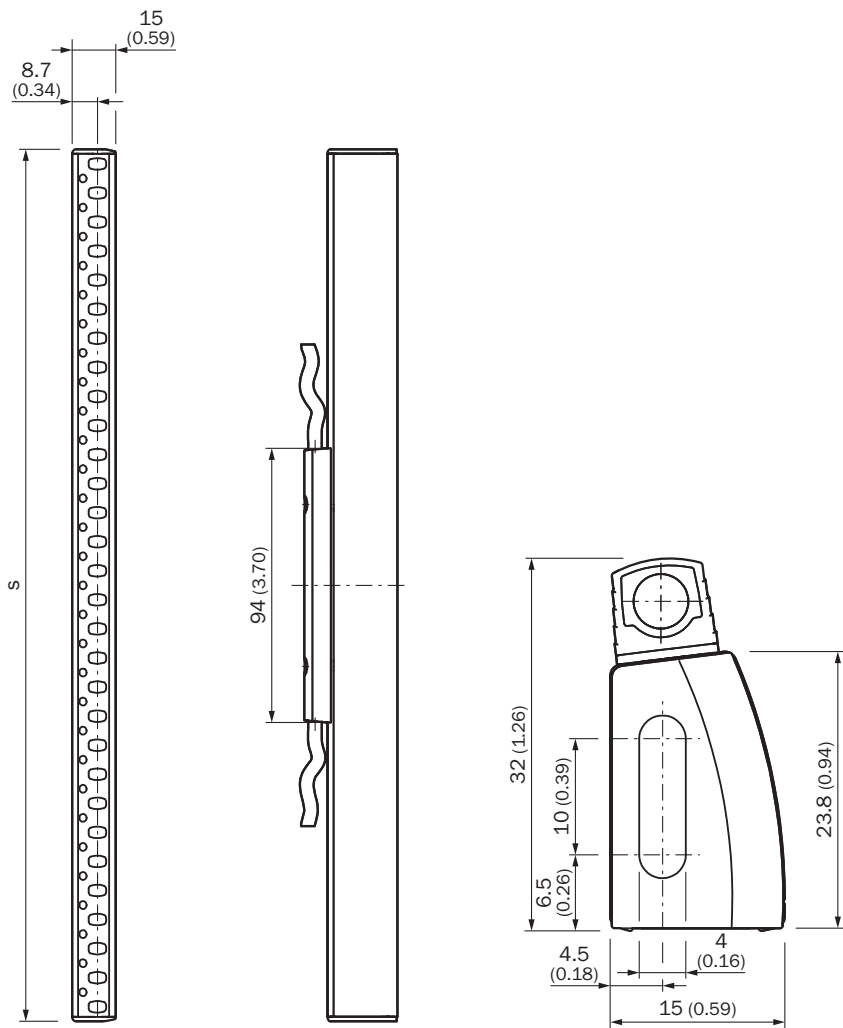
## Other information

<b>Wave length</b>	850 nm
--------------------	--------

### 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/miniTwin4](http://www.sick.com/miniTwin4)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight Head B: open cable ends Cable: PVC, unshielded, 5 m	DOL-1205-G05M	6009868
	Head A: female connector, M12, 5-pin, straight Head B: open cable ends Cable: PVC, unshielded, 10 m	DOL-1205-G10M	6010544
	Head A: female connector, M12, 5-pin, straight Head B: open cable ends Cable: PVC, unshielded, 15 m	DOL-1205-G15M	6029215
	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: digital I/Os, drag chain use, PUR, halogen-free, unshielded, 1 m	DSL-1205-G01MC	6029280
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: digital I/Os, drag chain use, PUR, halogen-free, unshielded, 2 m	DSL-1205-G02MC	6025931
	Head A: female connector, M12, 5-pin, straight Cable: unshielded	DOS-1205-G	6009719
	Head A: female connector, M12, 5-pin, straight Head B: - Cable: unshielded Test voltage 1.0 kV eff/60 s, insulation group C to VDE 0110	DOS-1205-GX	6047950

	Brief description	Type	Part no.
	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
<b>Alignment aids</b>			
	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
<b>Test and monitoring tools</b>			
	24 mm diameter	Test rod 24 mm	2045592

## 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.”**