



C4MT-12014ABB04FE0

miniTwin

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

miniTwin4 as host for 2- or 3-device cascade, miniTwin4 as middle guest for 3-device cascade

| System connection | Extension connection | Resolution | Length of cable | Protective field height | Type | Part no. |
|------------------------------|--------------------------------|------------|-----------------|-------------------------|---------------------|----------|
| Male connector M12, 5-pin | Female connector M12, 5-pin | 14 mm | 700 mm | 1,200 mm | C4MT-12014AB-B04FE0 | 1207133 |

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

Other models and accessories → www.sick.com/miniTwin

Detailed technical data

Features

| | |
|--------------------------------|---|
| System part | 1 Twin-Stick |
| Usage | miniTwin4 as host for 2- or 3-device cascade miniTwin4 as middle guest for 3-device cascade |
| Mounting system type | C-fix or L-fix bracket |
| Resolution | 14 mm |
| Scanning range | Minimum 0 m ... 4 m Typical 0 m ... 5 m |
| Protective field height | 1,200 mm |
| Response time | ≤ 17 ms ¹⁾ |
| Synchronization | Optical, without separate synchronization |
| Items supplied | Twin stick System plug C-Fix bracket and L-Fix bracket, 2 pieces each Test rod with diameter corresponding to the resolution of the safety light curtain Safety instruction Mounting instructions Operating instructions for download |

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

Safety-related parameters

| | |
|---|---|
| Type | Type 4 (IEC 61496-1) |
| Safety integrity level | SIL3 (IEC 61508) |
| Category | Category 4 (EN ISO 13849) |
| Performance level | PL e (EN ISO 13849) |
| PFH_D (mean probability of a dangerous failure per hour) | Cascaded systems: 1.3×10^{-8} (EN ISO 13849) |
| T_M (mission time) | 20 years (EN ISO 13849) |
| Safe state in the event of a fault | 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 | 700 mm |
| Conductor cross section | 0.34 mm ² |
| Permitted cable length | ≤ 20 m ¹⁾ |
| Extension connection | Female connector M12, 5-pin |
| Length of cable | 700 mm |
| Configuration method | Hard wired |
| Display elements | LEDs |

¹⁾ 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 % ¹⁾ |
| Power consumption | ≤ 3 A ²⁾ |
| Output signal switching devices (OSSDs) | |
| Type of output | PNP semiconductors, short-circuit protected, cross-circuit monitored ³⁾ |
| 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 |

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.

Mechanical data

| | |
|--|---------------------------|
| Housing cross-section (incl. system connection) | 15 mm x 32 mm |
| Housing material | Aluminum alloy ALMGSI 0.5 |
| Weight | 420 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) |

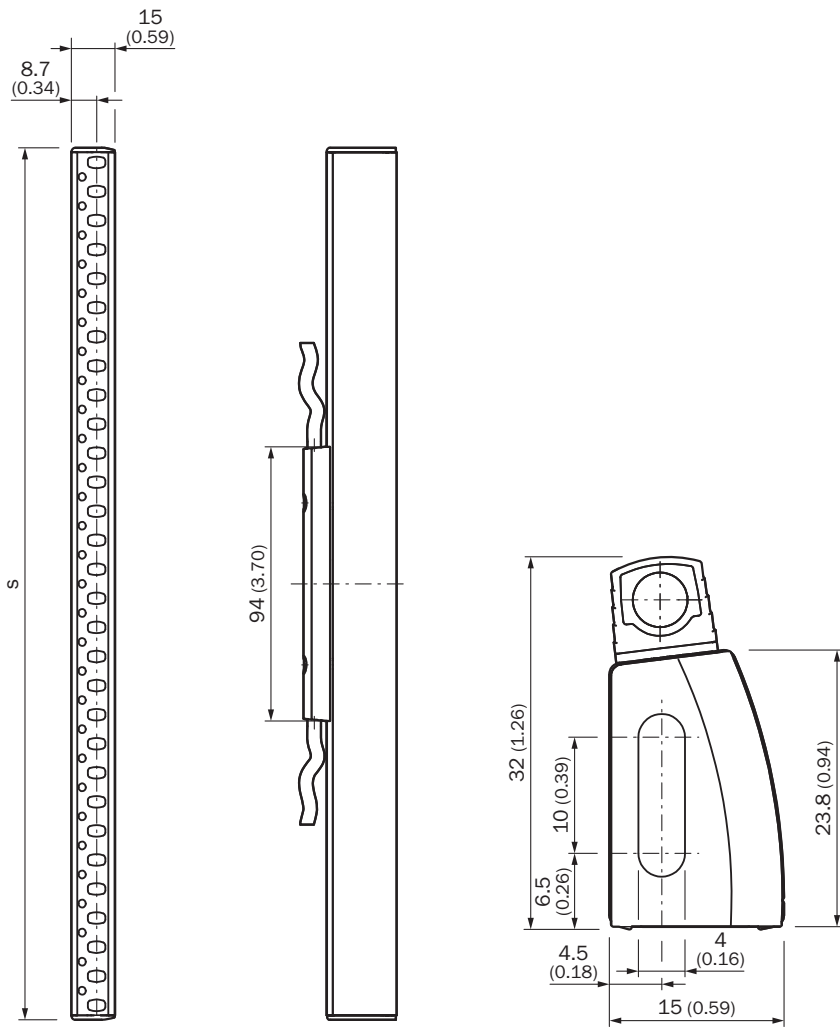
Other information

| | |
|--------------------|--------|
| Wave length | 850 nm |
|--------------------|--------|

Classifications

| | |
|-----------------------|----------|
| eCl@ss 5.0 | 27272704 |
| eCl@ss 5.1.4 | 27272704 |
| eCl@ss 6.0 | 27272704 |
| eCl@ss 6.2 | 27272704 |
| eCl@ss 7.0 | 27272704 |
| eCl@ss 8.0 | 27272704 |
| eCl@ss 8.1 | 27272704 |
| eCl@ss 9.0 | 27272704 |
| eCl@ss 10.0 | 27272704 |
| eCl@ss 11.0 | 27272704 |
| eCl@ss 12.0 | 27272704 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |
| UNSPSC 16.0901 | 46171620 |



Dimensional drawing (Dimensions in mm (inch))












S = protective field height = housing length

Recommended accessories

Other models and accessories → 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. |
|---|--|-------------------------|----------|
| Test and monitoring tools | | | |
|  | 14 mm diameter | Test rod 14 mm | 2022599 |
| Mounting brackets and plates | | | |
|  | 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 |
| Plug connectors and cables | | | |
|  | 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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