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DATA SHEET

# C4MT-01834ABB03BE0

miniTwin
Safety light curtains

SICK Sensor Intelligence

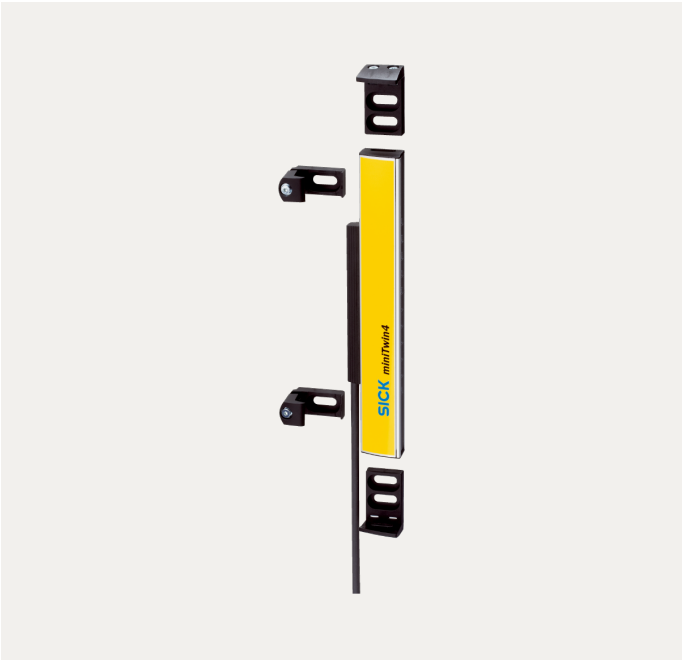



Illustration may differ

## SAFETY LIGHT CURTAINS

# C4MT-01834ABB03BE0

### ORDERING INFORMATION

| Type | part no. |
|---|---|
| C4MT-01834ABB03BE0 | 1207243 |

Further device versions and accessories at www.sick.com/miniTwin

## DETAILED TECHNICAL DATA

### FEATURES

| | |
|---|---|
| Usage | miniTwin4 as a standalone device<br>miniTwin4 as last guest for 2- or 3-device cascade |
| Mounting system type | C-fix or L-fix bracket |
| Resolution | 34 mm |
| Scanning range | |
| Minimum | 0 m ... 4 m |
| Typical | 0 m ... 5 m |
| Protective field height | 180 mm |
| Response time | ≤ 13 ms [1] |
| Synchronization | Optical, without separate synchronization |
| Items supplied | Twin stick<br>System plug<br>C-Fix and L-Fix bracket, 2 pieces each<br>Test rod with diameter corresponding to the resolution of the safety light curtain<br>Safety instruction<br>Mounting instructions<br>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 | SIL 3 (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) | Standalone system: $4.3 \times 10^{-9}$ (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 | Plug, M12, 5-pin |
| Length of cable | 160 mm |
| Conductor cross section | 0.34 mm² |
| Permitted cable length | ≤ 20 m [1] |
| Configuration method | Hard wired |
| Display elements | LEDs |

[1] Depending on load, power supply and wire cross-section. The technical specifications must be observed.

## ELECTRONICS

| | |
|---|---|
| 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.

## MECHANICS

| | |
|---|---|
| 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 ... 150 Hz, 3,5 mm / 1 g (EN 60068-2-6) |
| Shock resistance | 15 g / 6 ms (EN 60068-2-27) |
| Class | 3M4 (IEC TR 60721-4-3) |

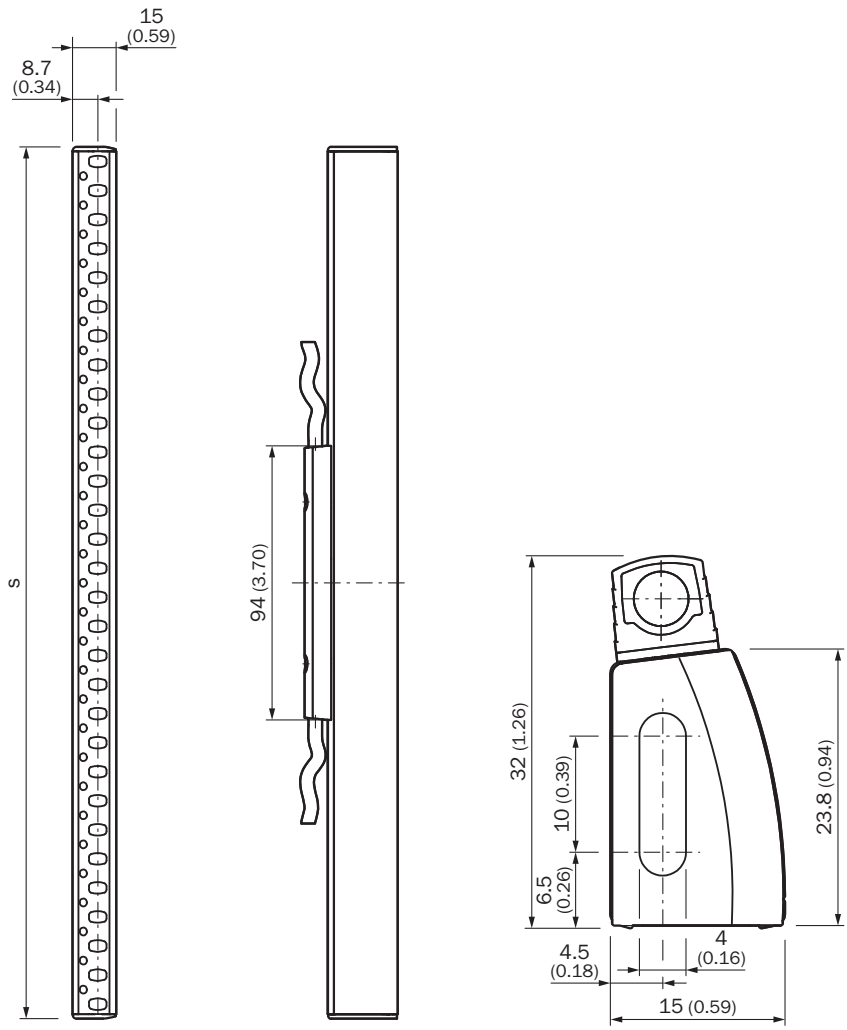
## OTHER INFORMATION

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

## CERTIFICATES

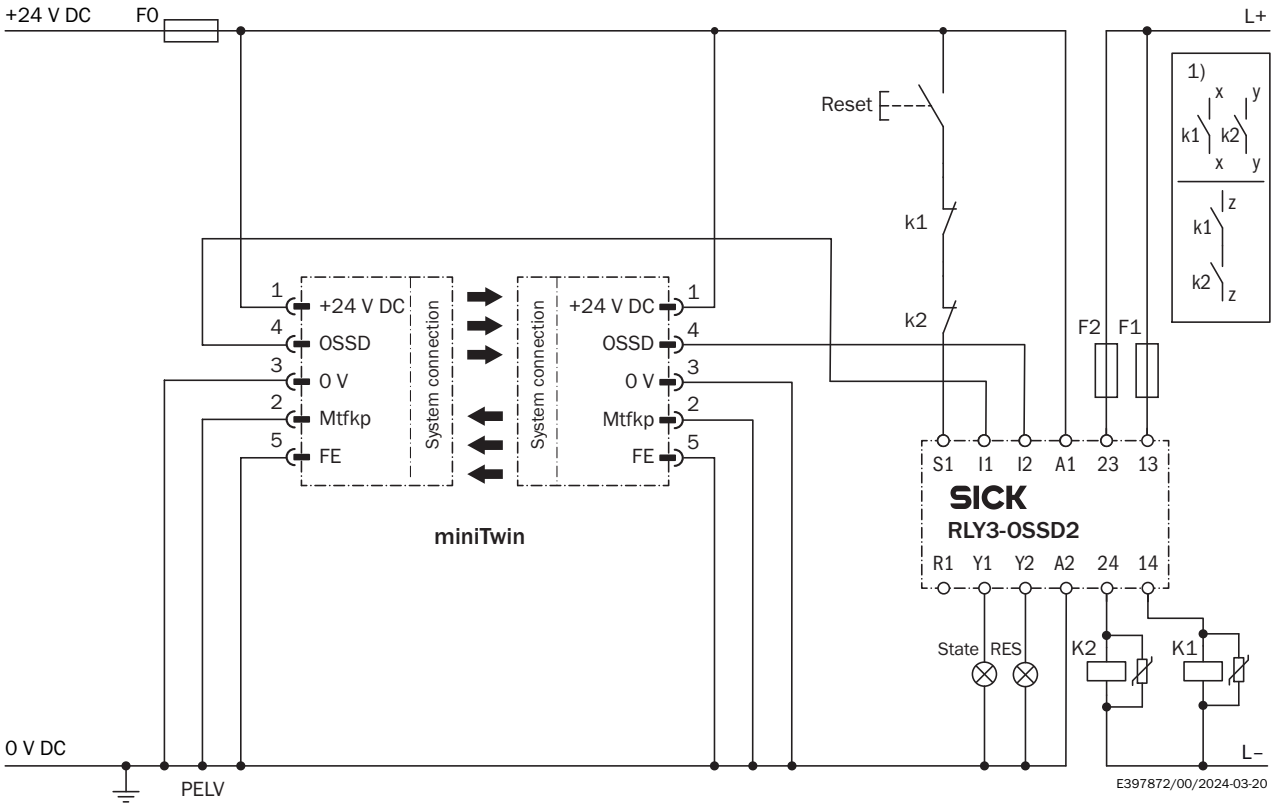
| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| UK-Type-Examination approval | ✓ |
| ULus approval | ✓ |
| cUL approval | ✓ |
| EC-Type-Examination approval | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

## DIMENSIONAL DRAWING



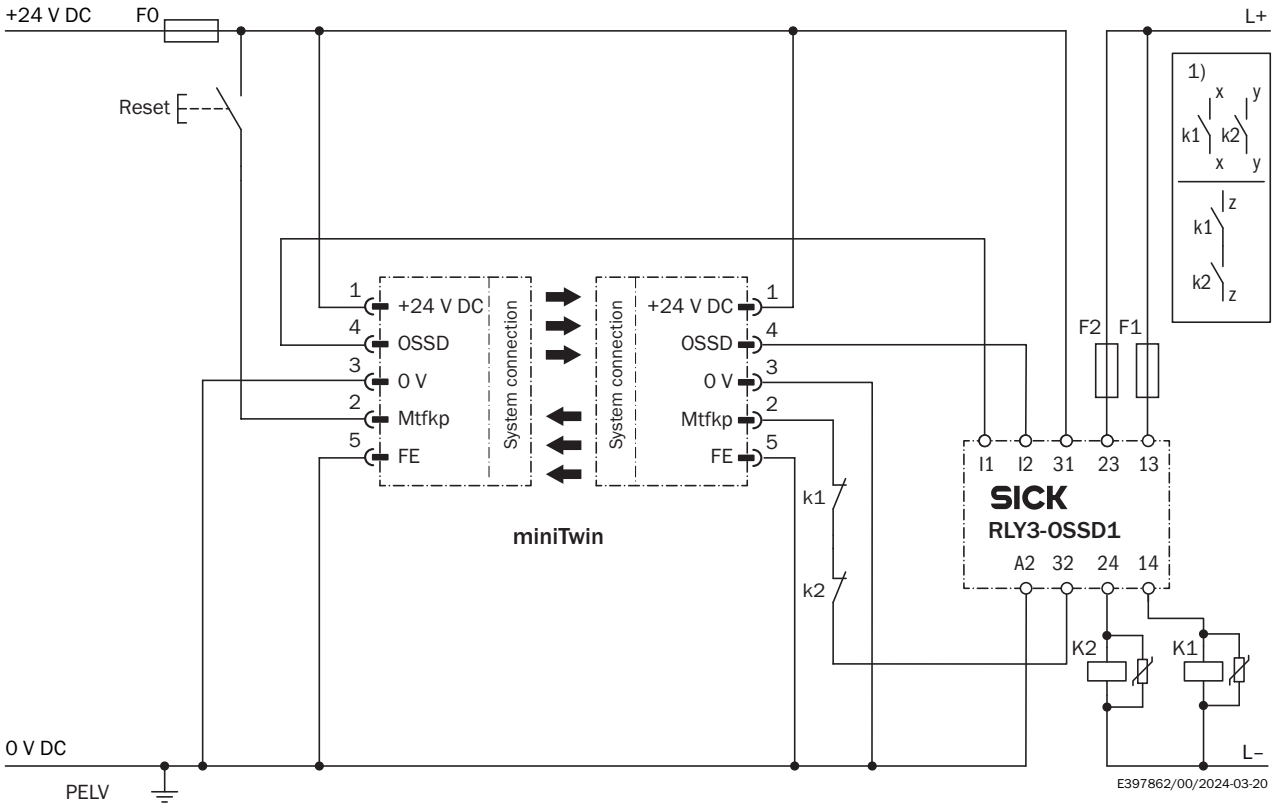

Dimensions in mm (inch)
S = protective field height = housing length

**CONNECTION DIAGRAM MINITWIN SAFETY LIGHT CURTAIN TO RLY3-OSSD2 SAFETY RELAY WITH RESTART INTERLOCK AND EXTERNAL DEVICE MONITORING**




① Output circuits: These contacts must be incorporated into the control such that the dangerous state is brought to an end if the output circuit is open. For categories 4 and 3, they must be incorporated on dual-channels (x, y paths). Single-channel incorporation into the control (z path) is only possible with a single-channel control and taking the risk analysis into account.

**CONNECTION DIAGRAM MINITWIN SAFETY LIGHT CURTAIN TO RLY3-OSSD1 SAFETY RELAY WITH RESTART INTERLOCK AND EXTERNAL DEVICE MONITORING**




① Output circuits: These contacts must be incorporated into the control such that the dangerous state is brought to an end if the output circuit is open. For categories 4 and 3, they must be incorporated on dual-channels (x, y paths). Single-channel incorporation into the control (z path) is only possible with a single-channel control and taking the risk analysis into account.

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1207243

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