



DATA SHEET

# M2C-SA0340LA10

deTem  
Safety multibeam sensors

**SICK** Sensor Intelligence

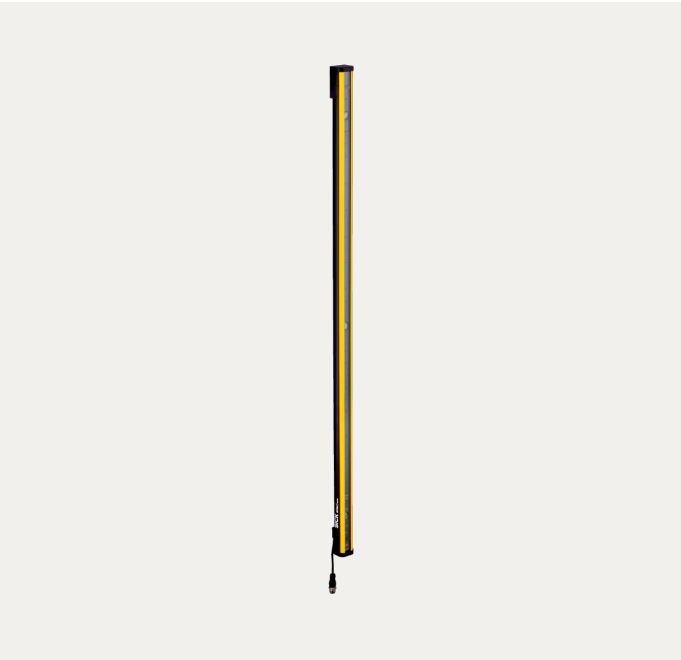


Illustration may differ

SAFETY MULTIBEAM SENSORS

M2C-SA0340LA10

ORDERING INFORMATION

| Type           | part no. |
|----------------|----------|
| M2C-SA0340LA10 | 1085565  |

Further device versions and accessories at [www.sick.com/deTem](http://www.sick.com/deTem)



DETAILED TECHNICAL DATA

FEATURES

|                             |                               |                |
|-----------------------------|-------------------------------|----------------|
| Product version             | deTem2 Core                   |                |
| Application                 | Normal industrial environment |                |
| Functional principle        | Sender/receiver               |                |
| System part                 | Sender                        |                |
| Scanning range              | 17 m                          |                |
| Dimension of the light path | Minimum                       | 0.5 m ... 15 m |
|                             | Typical                       | 0.5 m ... 17 m |
| Number of beams             | 3                             |                |
| Beam separation             | 400 mm                        |                |
| Synchronization             | Optical synchronization       |                |
| Items supplied              | Sender                        |                |

SAFETY-RELATED PARAMETERS

|                                                                     |                                        |
|---------------------------------------------------------------------|----------------------------------------|
| Type                                                                | Type 2 (IEC 61496-1)                   |
| Safety integrity level                                              | SIL 1 (IEC 61508)                      |
| Category                                                            | Category 2 (ISO 13849-1)               |
| Performance level                                                   | PL c (ISO 13849-1)                     |
| PFH <sub>d</sub> (mean probability of a dangerous failure per hour) | 3 x 10 <sup>-9</sup>                   |
| T <sub>m</sub> (mission time)                                       | 20 years (ISO 13849-1)                 |
| Safe state in the event of a fault                                  | At least one OSSD is in the OFF state. |

INTERFACES

|                                          |                  |
|------------------------------------------|------------------|
| System connection                        | Plug, M12, 5-pin |
| Flexi Loop compatible M12 male connector | ✓                |

|                        |      |
|------------------------|------|
| Permitted cable length | 50 m |
| Display elements       | LEDs |

## ELECTRONICS

|                      |                                                 |
|----------------------|-------------------------------------------------|
| Protection class     | III (IEC 61140) <sup>1)</sup>                   |
| Supply voltage $V_s$ | 24 V DC (19.2 V DC ... 28.8 V DC) <sup>2)</sup> |
| Residual ripple      | $\leq 10\%$ <sup>3)</sup>                       |
| Power consumption    | $\leq 50$ mA                                    |
| Power consumption    | $\leq 1.44$ W (DC)                              |

<sup>1)</sup> SELV/PELV safety/protective extra-low voltage.

<sup>2)</sup> The external voltage supply must be capable of buffering brief mains voltage failures of 20 ms as specified in EN 60204-1. Suitable power supplies are available as accessories from SICK.

<sup>3)</sup> Within the limits of  $V_s$ .

## MECHANICS

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| Dimensions            | See dimensional drawing                               |
| Housing cross-section | 31 mm x 34 mm                                         |
| Material              |                                                       |
|                       | Housing Aluminum extruded profile                     |
|                       | Front screen Polycarbonate, scratch-resistant coating |
| Weight                | 800 g ( $\pm 50$ g)                                   |
| Cable bend radius     |                                                       |
|                       | Stationary position $> 12 \times$ cable diameter      |
|                       | Flexible use $> 15 \times$ cable diameter             |

## AMBIENT DATA

|                               |                                                                 |
|-------------------------------|-----------------------------------------------------------------|
| Enclosure rating              | IP65 (IEC 60529)<br>IP67 (IEC 60529)                            |
| Ambient operating temperature | $-30\text{ }^{\circ}\text{C} \dots +55\text{ }^{\circ}\text{C}$ |
| Storage temperature           | $-30\text{ }^{\circ}\text{C} \dots +70\text{ }^{\circ}\text{C}$ |
| 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

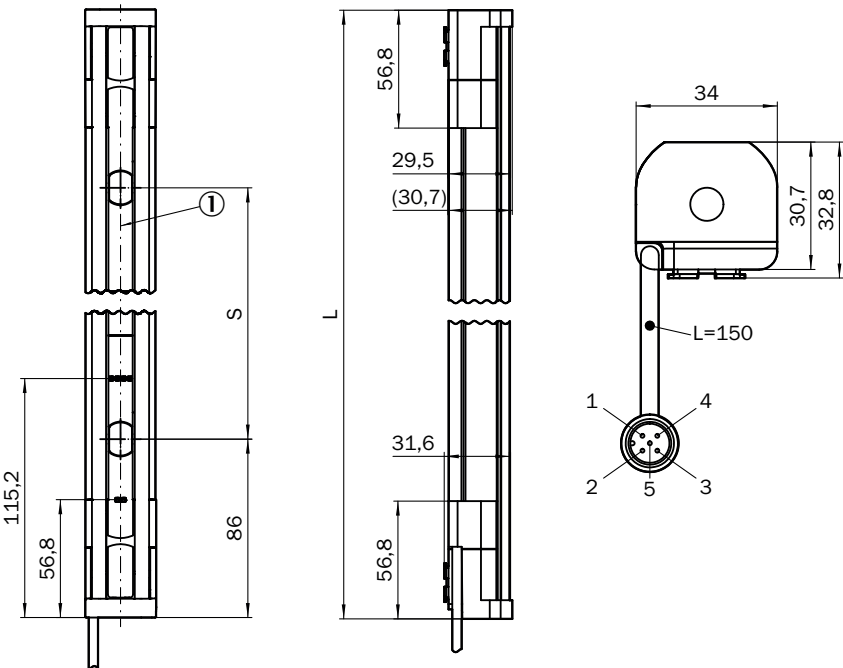
|               |                                |
|---------------|--------------------------------|
| Type of light | Near-infrared (NIR), invisible |
|---------------|--------------------------------|

## 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)  
① Optical axis

| Number of beams | Beam separation S | Length L     |
|-----------------|-------------------|--------------|
| 2               | 500 (19.69)       | 672 (26.46)  |
| 3               | 400 (15.75)       | 972 (38.27)  |
| 4               | 300 (11.81)       | 1,072 (42.2) |

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/1085565](http://www.sick.com/1085565)



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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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