



M4C-SA0340LA10, M4C-EA03400A10

deTem4 Core

MULTIPLE LIGHT BEAM SAFETY DEVICES

SICK
Sensor Intelligence.



Ordering information

| System part | Type | Part no. |
|-------------|----------------|----------|
| Sender | M4C-SA0340LA10 | 1082687 |
| Receiver | M4C-EA03400A10 | 1082689 |

Other models and accessories → www.sick.com/deTem4_Core



Detailed technical data

Features

| | |
|------------------------------------|-------------------------|
| 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 |
| Response time | 20 ms |
| Synchronization | Optical synchronisation |

Safety-related parameters

| | |
|---|--|
| Type | Type 4 (IEC 61496) |
| Safety integrity level | SIL3 (IEC 61508) SILCL3 (IEC 62061) |
| Category | Category 4 (ISO 13849) |
| Performance level | PL e (ISO 13849) |
| PFH_D (mean probability of a dangerous failure per hour) | $3 * 10^{-9}$ |
| T_M (mission time) | 20 years (ISO 13849) |
| Safe state in the event of a fault | At least one OSSD is in the OFF state. |

Interfaces

| | |
|--|---|
| Connection type | Male connector M12, 5-pin |
| Permitted cable length | ≤ 50 m |
| Flexi Loop compatible M12 male connector | ✓ |
| Status display | LEDs |
| Fieldbus, industrial network | |
| Integration via Flexi Soft safety controller | CANopen, DeviceNet™, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET ¹⁾ |

¹⁾ For additional information on Flexi Soft -> www.sick.com/Flexi_Soft.

Electrical data

| | |
|--|--|
| Protection class | III (IEC 61140) ¹⁾ |
| Supply voltage V_S | 24 V DC (19.2 V DC ... 28.8 V DC) ²⁾ |
| Residual ripple | $\leq 10\%$ ³⁾ |
| Power consumption | 50 mA / 150 mA (depending on type) |
| Power consumption | 1.44 W (DC) / 4.32 W (DC) (depending on type) |
| Safety outputs (OSSD) | |
| Type of output | 2 PNP semiconductors, short-circuit protected, cross-circuit monitored ⁴⁾ |
| Switching voltage HIGH | 24 V DC ($V_S - 2.25$ V DC ... V_S) |
| Switching voltage LOW | ≤ 2 V DC |
| Switching current | ≤ 300 mA |

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

²⁾ 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.

³⁾ Within the limits of V_S .

⁴⁾ Applies to the voltage range between -30 V and +30 V.

Mechanical data

| | |
|------------------------------|--|
| Housing cross-section | 31 mm x 34 mm |
| Housing material | Aluminum extruded profile |
| Front screen material | Polycarbonate, scratch-resistant coating |
| Weight | 800 g (± 50 g) |

Ambient data

| | |
|--------------------------------------|--------------------------------------|
| Enclosure rating | IP65 (IEC 60529) IP67 (IEC 60529) |
| Ambient operating temperature | -30 °C ... +55 °C |
| Storage temperature | -30 °C ... +70 °C |
| Air humidity | 15 % ... 95 %, Non-condensing |
| Vibration resistance | 5 g, 10 Hz ... 55 Hz (IEC 60068-2-6) |
| Shock resistance | 10 g, 16 ms (IEC 60068-2-27) |

Other information

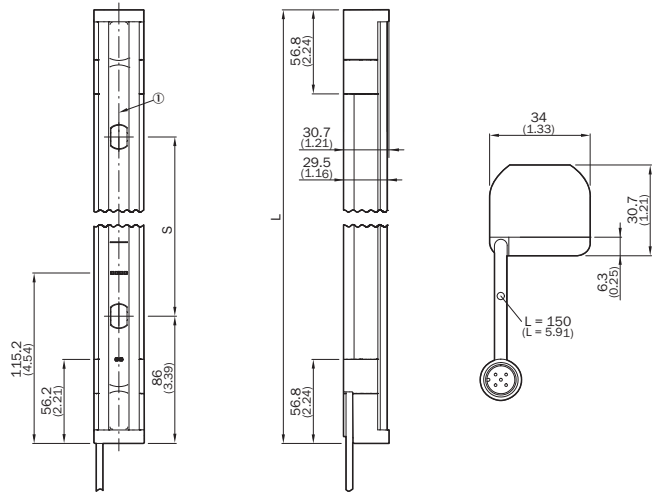
| | |
|--------------------|--------------------------------|
| Wave length | Near-infrared (NIR), invisible |
|--------------------|--------------------------------|

Classifications

| | |
|---------------------|----------|
| ECl@ss 5.0 | 27272703 |
| ECl@ss 5.1.4 | 27272703 |
| ECl@ss 6.0 | 27272703 |
| ECl@ss 6.2 | 27272703 |
| ECl@ss 7.0 | 27272703 |
| ECl@ss 8.0 | 27272703 |
| ECl@ss 8.1 | 27272703 |
| ECl@ss 9.0 | 27272703 |
| ETIM 5.0 | EC001832 |

| | |
|-----------------------|----------|
| ETIM 6.0 | EC001832 |
| UNSPSC 16.0901 | 46171620 |

Dimensional drawing (Dimensions in mm (inch))



| | S () | L () |
|---|--------------|--------------|
| 2 | 500 | 672 |
| 3 | 400 | 972 |
| 4 | 300 | 1,072 |

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.”

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