



M2C-SA0340LA10, M2C-EA03400A10

deTem2 Core

MULTIPLE LIGHT BEAM SAFETY DEVICES

SICK
Sensor Intelligence.



Ordering information

System part	Type	Part no.
Sender	M2C-SA0340LA10	1085565
Receiver	M2C-EA03400A10	1085567

Other models and accessories → www.sick.com/deTem2_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 2 (IEC 61496)
Safety integrity level	SIL1 (IEC 61508) SILCL1 (IEC 62061)
Category	Category 2 (ISO 13849)
Performance level	PL c (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 ($V_S - 2.25\text{ V DC} \dots V_S$)
Switching voltage LOW	$\leq 2\text{ V DC}$
Switching current	$\leq 300\text{ mA}$

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 ($\pm 50\text{ g}$)

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

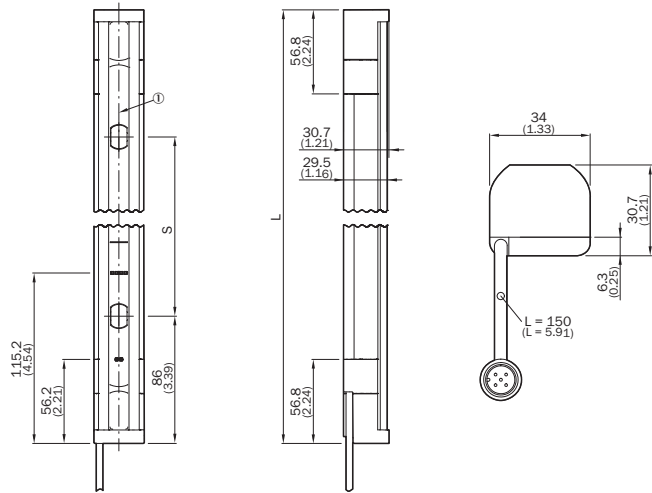
Wave length	Near-infrared (NIR), invisible
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Classifications

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com