Online data sheet



C4C-SA06010A10000

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
C4C-SA06010A10000	1211471

Other models and accessories ➜ www.sick.com/deTec

Detailed technical data

Features

Items supplied	Sender
Compatible receiver	1211472
Application	Normal industrial environment
Resolution	14 mm
Protective field height	600 mm
Scanning range	10 m
No blind zones	Yes
Synchronization	Optical synchronisation

Safety-related parameters

Type	Type 4 (IEC 61496-1)
Safety integrity level	SIL3 (IEC 61508) SILCL3 (IEC 62061)
Category	Category 4 (ISO 13849-1)
Performance level	PL e (ISO 13849-1)
PFH_D (mean probability of a dangerous failure per hour)	$3,7 \times 10^{-9}$
T_M (mission time)	20 years (ISO 13849-1)
Safe state in the event of a fault	At least one OSSD is in the OFF state.

Functions

Protective operation	✓
Automatic calibration of the protective field width	✓

Interfaces

System connection	Cable (0.15 m) with M12 male connector, 5-pin
Configuration method	None
Display elements	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)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V)
Ripple	≤ 10 %

Mechanical data

Dimensions	See dimensional drawing
Housing material	Aluminum extruded profile

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)

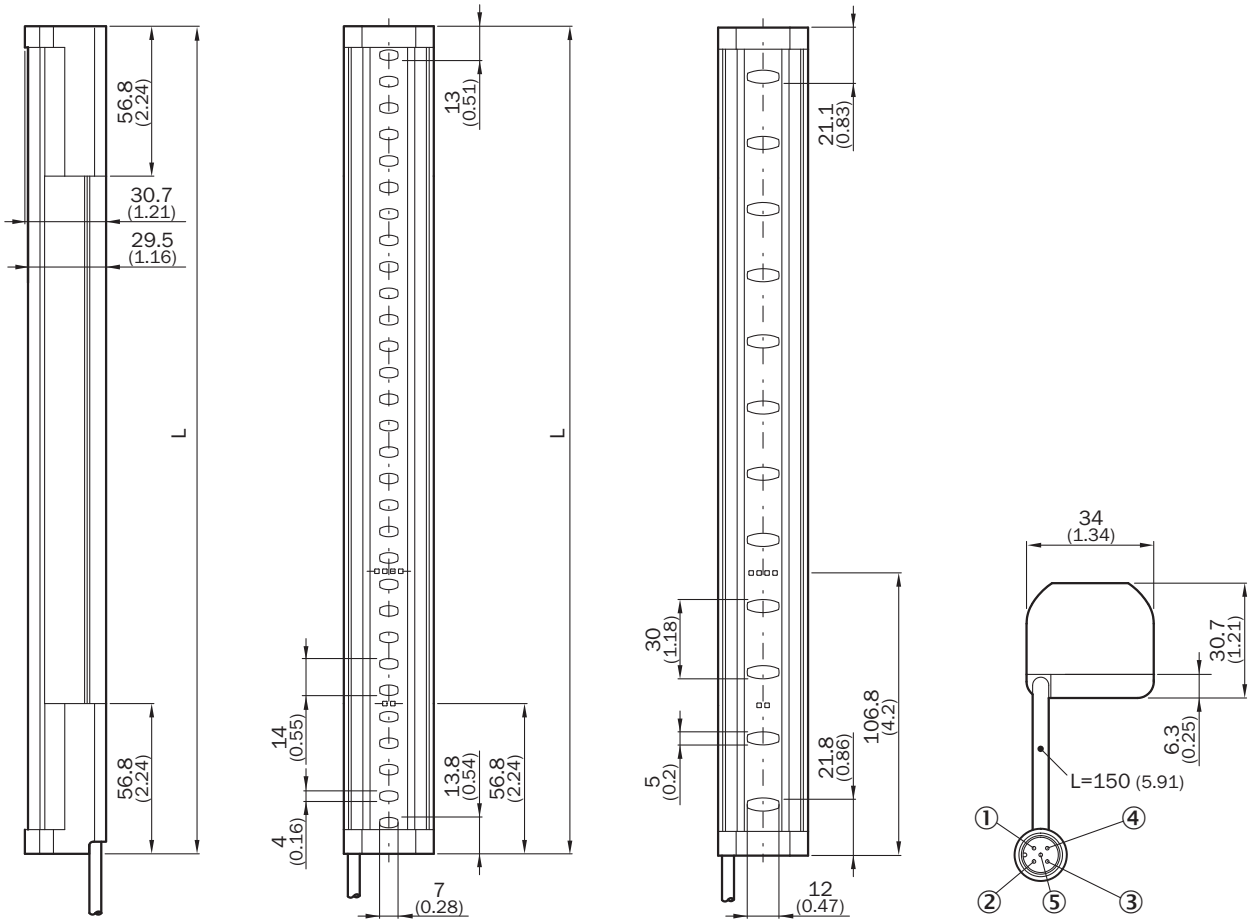
Other information

Wave length	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
ETIM 5.0	EC002549
ETIM 6.0	EC002549
UNSPSC 16.0901	46171620

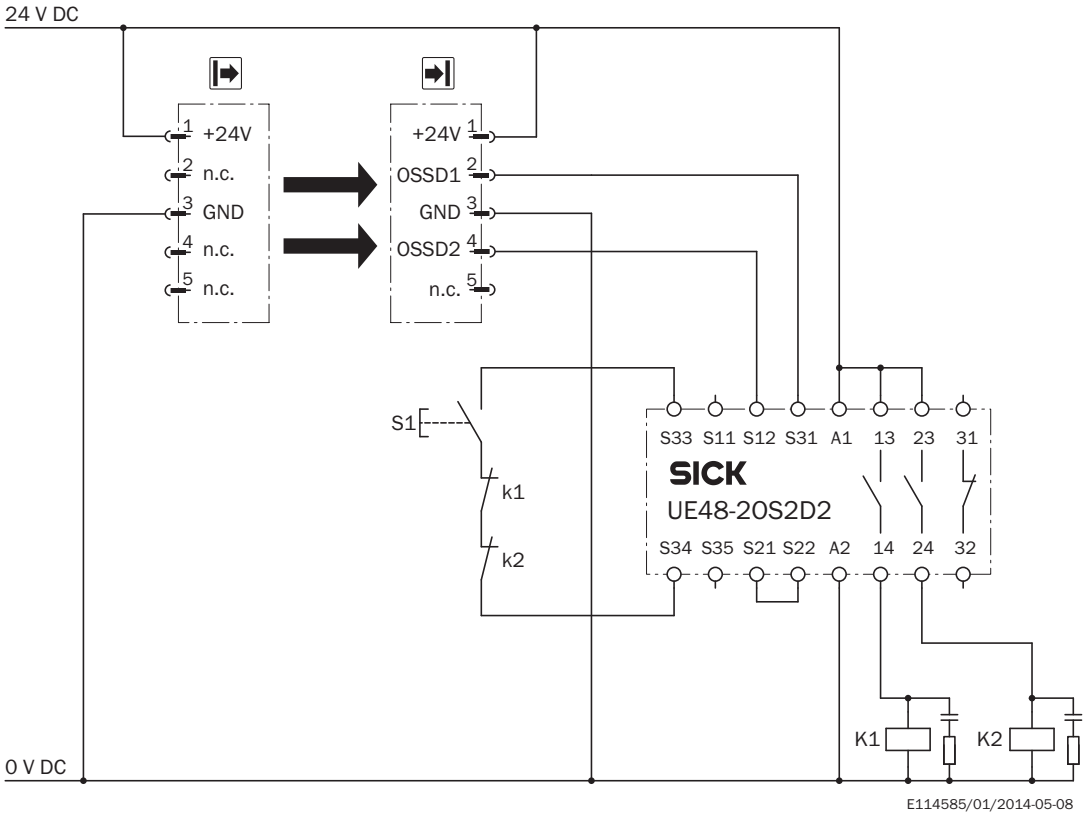
Dimensional drawing (Dimensions in mm (inch))



	L
300	313
450	463
600	613
750	763
900	913
1,050	1,063
1,200	1,213
1,350	1,362
1,500	1,512
1,650	1,662
1,800	1,812
1,950	1,962
2,100	2112

Connection diagram

deTec4 Core safety light curtain to UE48-2OS safety relay



Task

Connection of a deTec4 Core safety light curtain to a UE48-2OS.
Operating mode: With restart interlock and external device monitoring

Mode of operation

When the light path is clear, the OSSD1 and OSSD2 outputs carry voltage. When K1 and K2 are in a fault-free de-energized position, the system can be switched on and waits for an input signal/switch-on signal. The UE48-2OS is switched on by pressing and then releasing the S1 pushbutton. The outputs (contacts 13 - 14 and 23 - 24) switch the K1 and K2 contactors on. When one or more light beams are interrupted, the OSSD1 and OSSD2 outputs switch off the UE48-2OS. Contactors K1 and K2 are switched off.

Fault analysis

Cross-circuits and short-circuits of the OSSDs are recognized and lead to the locking state (lock-out). A malfunction with one of the K1 or K2 contactors is detected. The shut-down function is retained. In the event of manipulation (e.g., jamming) of the S1 pushbutton, the UE48-2OS will not re-enable the output current circuits.

Comments

[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 two 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.

Recommended accessories

Other models and accessories ➜ www.sick.com/deTec

	Brief description	Type	Part no.
Adapters and distributors			
	T-piece for simultaneous connection to sender and receiver, splits the cable from the control cabinet to the sender and receiver	DSC-1205T000025KM0	6030664
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5XLEAX	2095617
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A15-050UB5XLEAX	2095618
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A15-100UB5XLEAX	2095619
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YF2A15-200UB5XLEAX	2095614
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 30 m	YF2A15-300UB5XLEAX	2095621
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A15-020UB5XLEAX	2095772
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A15-050UB5XLEAX	2095773
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A15-100UB5XLEAX	2095774
	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, 5 m	YF2A15-050UB5M2A15	2096010
	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, 10 m	YF2A15-100UB5M2A15	2096011
	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, 15 m	YF2A15-150UB5M2A15	2096171
Test and monitoring tools			
	14 mm diameter	Test rod 14 mm	2022599

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:

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