Product data sheet

C2C-SB07530A10000

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

deTec2 Core IP69K

Resolution	Scanning range	Protective field height	System part	Type	Part no.
30 mm	12.5 m	750 mm	Sender	C2C-SB07530A10000	1219515

Completely pre-installed including connecting cable, 15 m, flying lead, 5-wire

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

Detailed technical data

Features

Application	Areas with high pressure cleaning (hygiene, food)
System part	Sender
Compatible receiver	1219516
Resolution	30 mm
Scanning range	12.5 m
Protective field height	750 mm
No blind zones	Yes
Synchronization	Optical synchronisation
Items supplied	Sender in IP69K protective housing with connecting cable, 15 m

Safety-related parameters

Type	Type 2 (IEC 61496-1)
Safety integrity level	SIL1 (IEC 61508) SILCL1 (IEC 62061)
Category	Category 2 (ISO 13849-1)
Performance level	PL c (ISO 13849-1)
PFH_D (mean probability of a dangerous failure per hour)	31×10^{-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	Connecting cable, 15 m, flying lead, 5-wire
Display elements	LEDs
Fieldbus, industrial network	
Integration via Flexi Soft safety controller	CANopen [1)] DeviceNet™ EtherCAT® EtherNet/IP™ Modbus TCP PROFIBUS DP PROFINET

[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 %
Power consumption typical	0.96 W (DC)

Mechanical data

Dimensions	See dimensional drawing
Material	
Protective housing	Acrylic glass (PMMA)
End caps	Stainless steel 1.4404
Cable glands	Stainless steel 1.4404 including silicone seal
Compensating element (membrane)	PA 6

Ambient data

Enclosure rating	IP65 (IEC 60529) IP66 (IEC 60529) IP67 (IEC 60529) IP69K (ISO 20653)
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

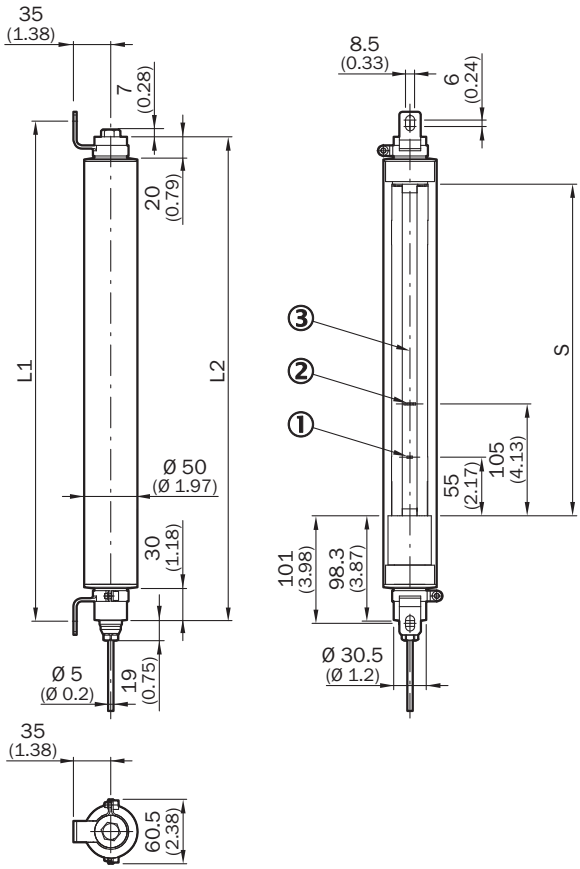
Wave length	850 nm
Type of light	Near-infrared (NIR), invisible

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
ECl@ss 10.0	27272704
ECl@ss 11.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))



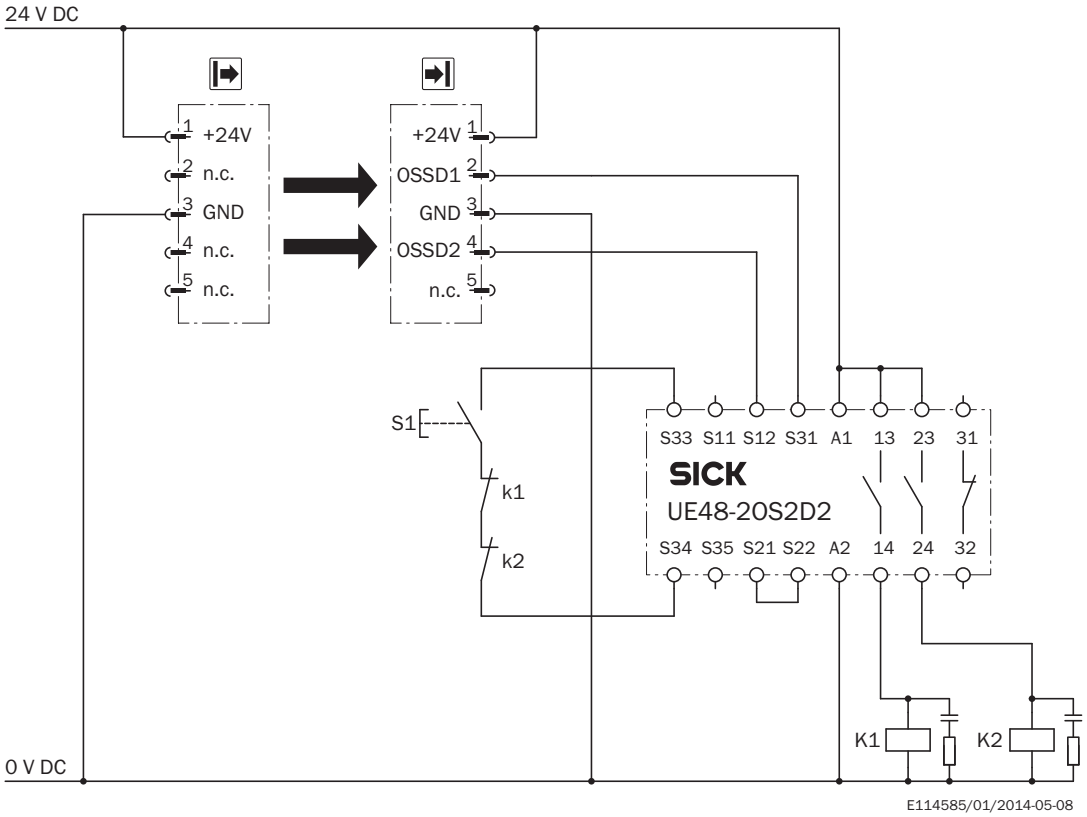
① Operating indicator
② Alignment indicator
③ Optical axis

	S	L1	L2
300	311	469	454
450	461	619	604
600	611	769	754
750	761	919	904
900	911	1,069	1,054
1,050	1,061	1,219	1,204
1,200	1,211	1,369	1,354

	S	L1	L2
1,350	1,361	1,519	1,504
1,500	1,511	1,669	1,654
1,650	1,661	1,819	1,804
1,800	1,811	1,969	1,954

Connection diagram

deTec2 Core IP69K safety light curtain to UE48-20S safety relay



Task

Connection of a deTec4 Core IP69K or deTec2 Core IP69K safety light curtain to a UE48-20S.
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 UE48-20S 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 UE48-20S. 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 UE48-20S 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.
Terminal and alignment brackets			
	2 pieces, Stainless steel support bracket, stainless steel 1.4350	BEF-2AAAADES2	2026849
	4 pieces, Stainless steel bracket, rotatable, stainless steel 1.4350, stainless steel 1.4301	BEF-2SMMEAES4	2023708
	4 pieces, Reinforced stainless steel bracket, rotatable, stainless steel 1.4350, stainless steel 1.4301	BEF-2SMMVAES4	2026850

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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