

C20S-135104A12

C2000 Standard

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.

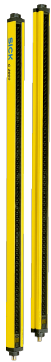


Illustration may differ



Ordering information

Housing cross-section	Protective field height	System part	Type	Part no.
48 mm x 40 mm	1,350 mm	Sender	C20S-135104A12	1016603

Important notes: 1.) Concerns installation as a spare part: This type 2 device may be used as per section 1, paragraph (2a) of Machinery Directive 2006/42/EC within the EU as a spare part for identical PL d/SIL2 devices only if the machine was put on the market before 10/5/2015. Keep this note with your machine documentation. If the machine is resold, this note must be passed on to the next buyer. 2.) Concerns installation in new machines: Due to the amendment to the EN/IEC 61496-1 standard, this type 2 device may only be installed on new machines up to PLc/SIL1 as of 5/10/2015.

Other models and accessories → www.sick.com/C2000_Standard

Detailed technical data

Features

Resolution	40 mm
Protective field height	1,350 mm
Scanning range	0 m ... 6 m
Synchronization	Optical synchronisation

Safety-related parameters

Type	Type 2 (IEC 61496-1)
Safety integrity level	SIL1 (IEC 61508)
Category	Category 2 (EN ISO 13849)
Test rate (internal test)	13 /s (EN ISO 13849) ¹⁾
Maximum demand rate	≤ 8 min ⁻¹ (EN ISO 13849) ²⁾
Performance level	PL c (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	2.2 x 10 ⁻⁸ (EN ISO 13849)
T_M (mission time)	20 years (EN ISO 13849)
Safe state in the event of a fault	At least one OSSD is in the OFF state.

¹⁾ Internal test. The test rate may not be exceeded if an external test is performed.

²⁾ Between two requirements on a safety-related response of the device, at least 100 internal or external tests must be carried out.

Functions

	Functions	Delivery status
Beam coding	✓	Uncoded

Interfaces

System connection	Male connector M12, 8-pin
Conductor cross section	0.25 mm ²
Permitted cable length	≤ 15 m ¹⁾

¹⁾ The length of the connecting cable is limited, because wire resistance max. 4 Ohm.

Configuration method	Hard wired
Display elements	7-segment display
Status display	LEDs

¹⁾ The length of the connecting cable is limited, because wire resistance max. 4 Ohm.

Electrical data

Protection class	III (EN 50178)
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Mechanical data

Housing cross-section	48 mm x 40 mm
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Ambient data

Enclosure rating	IP65 (EN 60529)
Ambient operating temperature	0 °C ... +55 °C
Storage temperature	-25 °C ... +70 °C
Air humidity	15 % ... 95 %, Non-condensing
Vibration resistance	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock resistance	10 g, 16 ms (EN 60068-2-29)

Other information

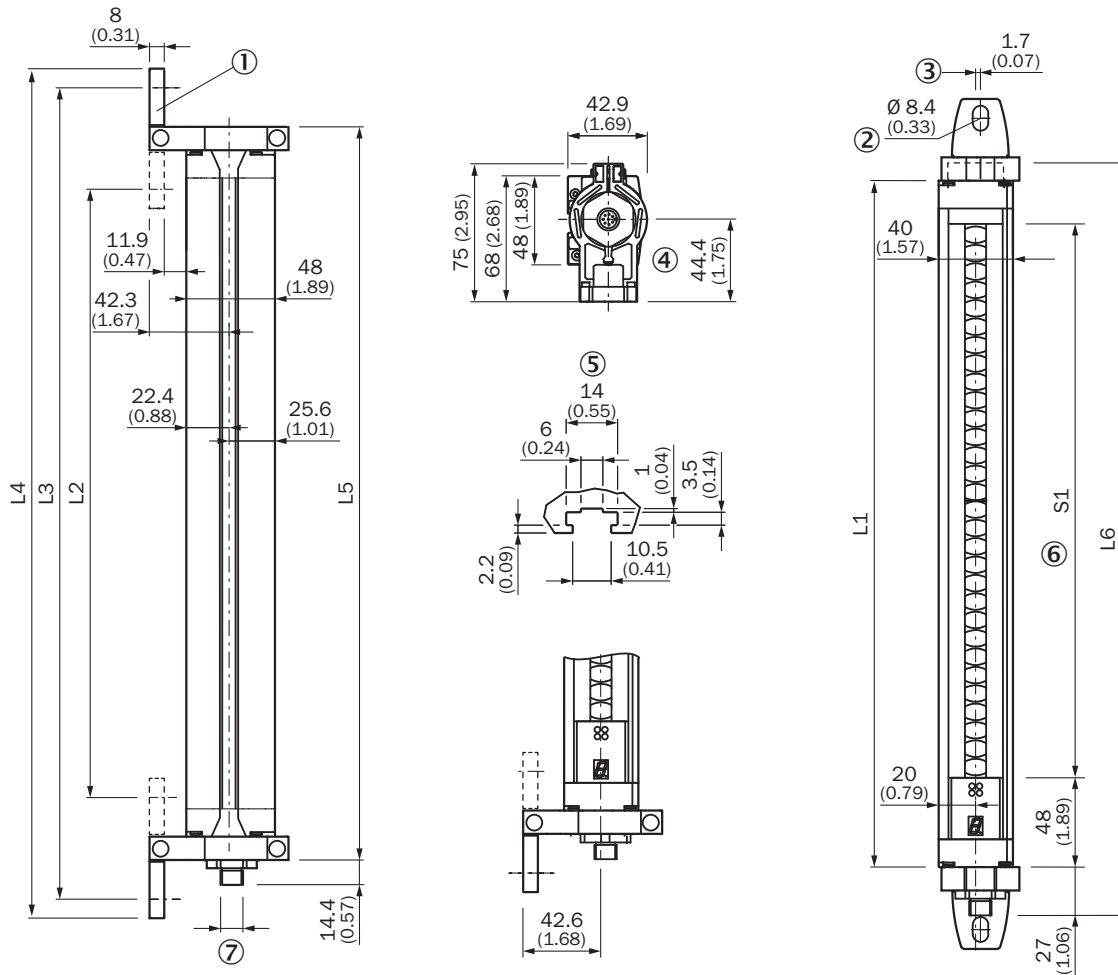
Wave length	950 nm
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Classifications

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
eCl@ss 12.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	46171620

Dimensional drawing (Dimensions in mm (inch))

Protective field heights 1350 mm to 1800 mm



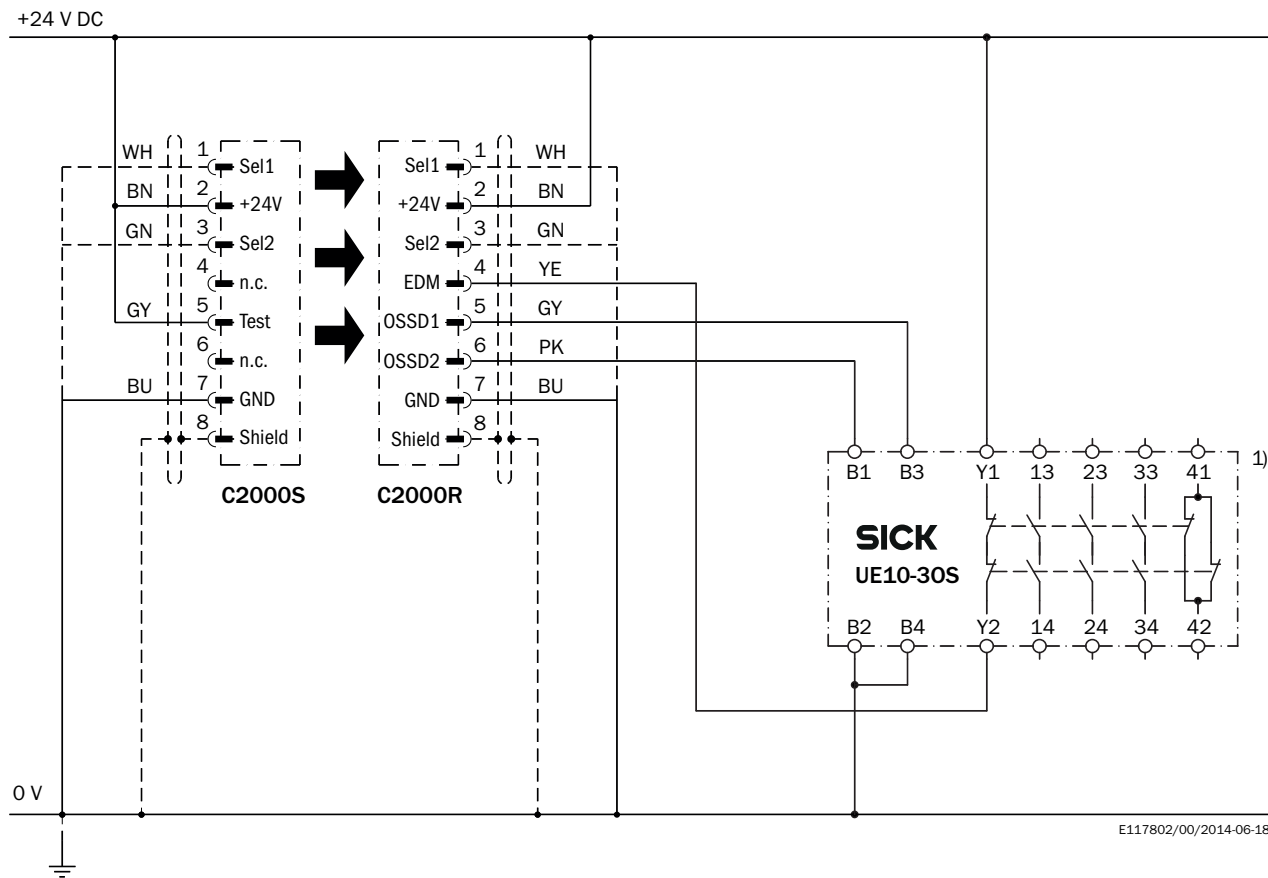
Sender with swivel mount, large housing (receiver mirror image)

- ① Mounting clamp
- ② M8 hexagon screw, DIN 933 with DIN 9021 washer (not included with delivery)
- ③ Center of light beam offset
- ④ Adjustment
- ⑤ Sliding nut groove for side mounting
- ⑥ Protective field height
- ⑦ Male connector M12, 8-pin

S1	L1	L2	L3	L4	L5	L6
1,350	1,426	1,384	1,494	1,514	1,452	1,463
1,500	1,577	1,535	1,644	1,665	1,602	1,614
1,650	1,727	1,685	1,795	1,815	1,752	1,764
1,800	1,878	1,836	1,945	1,966	1,903	1,915

Connection diagram




C2000 Standard to UE10-30S safety relay






E117802/00/2014-06-18

Recommended accessories

Other models and accessories → www.sick.com/C2000_Standard

	Brief description	Type	Part no.
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!, 19 mm x 67.3 mm x 66.9 mm	AR60	1015741
Plug connectors and cables			
	Head A: female connector, M12, 8-pin, straight Cable: unshielded	DOS-1208-G	6028422
Terminal and alignment brackets			
	4 pieces, Mounting kit 6, side bracket, rotatable, zinc diecast	BEF-1SHABAZN4	2019506

	Brief description	Type	Part no.
	4 pieces, Mounting kit 2, rotatable, swivel mount, Polyamide PA6	BEF-2SMMEAKU4	2019659
Others			
	USB programming unit, for programmable SICK encoders AFS60, AFM60, DFS60, VFS60, DFV60 and wire draw encoders with programmable encoders		On request
	Programming unit display for programmable SICK DFS60, DFV60, AFS/AFM60, AHS/AHM36 encoders, and wire draw encoder with DFS60, AFS/AFM60 and AHS/AHM36. Compact dimensions, low weight, and intuitive operation.		On request

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