



C40S-1001CA010

C4000 Advanced

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
C40S-1001CA010	1018599

Other models and accessories → www.sick.com/C4000_Advanced

Detailed technical data

Features

Application	Normal industrial environment
System part	Sender
Resolution	14 mm
Scanning range	10 m
Protective field height	1,050 mm
Synchronization	Optical synchronisation

Safety-related parameters

Type	Type 4 (IEC 61496-1)
Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
PFH _D (mean probability of a dangerous failure per hour)	15 * 10 ⁻⁹ (EN ISO 13849) 43 * 10 ⁻⁹ (EN ISO 13849) 63 * 10 ⁻⁹ (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.

Functions

	Functions	Delivery status
Protective operation	✓	
Restart interlock	✓	
External device monitoring (EDM)	✓	Deactivated
Beam coding	✓	Uncoded

Configurable scanning range	✓	0 m ... 2.5 m
Fixed blanking	✓	Deactivated
Floating blanking	✓	Deactivated
Safe SICK device communication via EFI	✓	

Functions in combination with UE402

Bypass	✓
Operating mode switching	✓
PSDI mode	✓

Interfaces

System connection	Hirschmann male connector M26, 12-pin
Direction of cable connection	Straight
Conductor cross section	0.75 mm ²
Permitted cable length	50 m ¹⁾
Display elements	7-segment display

¹⁾ Depending on load, power supply and wire cross-section. The technical specifications must be observed.

Electrical data

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V) ¹⁾
Residual ripple	≤ 10 % ²⁾

¹⁾ 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.

²⁾ Within the limits of V_S .

Mechanical data

Dimensions	See dimensional drawing
Housing cross-section	48 mm x 40 mm
Housing material	Aluminum extruded profile
Weight	2,250 g

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 (EN 60068-2-6)
Shock resistance	10 g, 16 ms (EN 60068-2-27)

Other information

Wave length	850 nm
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Certificates

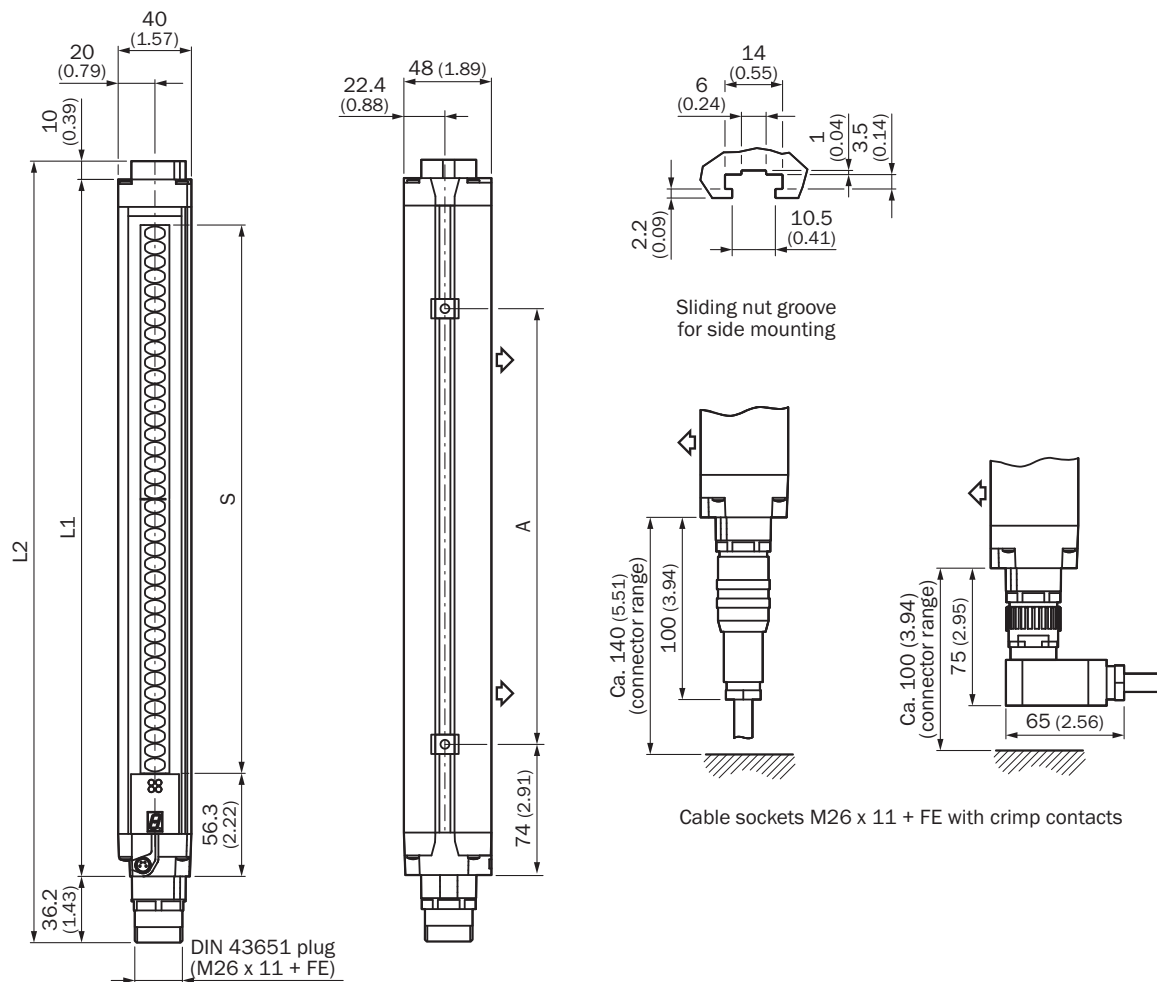
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

Moroccan declaration of conformity	✓
China RoHS	✓
ULus approval	✓
cUL approval	✓
Taiwan OSHA certificate	✓
EC-Type-Examination approval	✓
China GB certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

Classifications

ECLASS 5.0	27272704
ECLASS 5.1.4	27272704
ECLASS 6.0	27272704
ECLASS 6.2	27272704
ECLASS 7.0	27272704
ECLASS 8.0	27272704
ECLASS 8.1	27272704
ECLASS 9.0	27272704
ECLASS 10.0	27272704
ECLASS 11.0	27272704
ECLASS 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



	L1	L2	A
300	381	427	224
450	532	578	374
600	682	728	524
750	833	879	674
900	984	1.030	824
1.050	1.134	1.180	974
1.200	1.283	1.329	1.124
1.350	1.435	1.481	1.274
1.500	1.586	1.632	1.424
1.650	1.736	1.782	1.574
1.800	1.887	1.933	1.724

The diagram illustrates the wiring for a SICK UE10-30S photo eye. It shows two sensor models, C4000S and C4000R, connected to a common power supply (+24 V and 0 V) and a switch (S1). The C4000S sensor has 8 pins: 1 (+24V), 3 (Test), 4 (n.c.), 5 (n.c.), 6 (n.c.), 7 (n.c.), 8 (n.c.), 2 (GND), and FE. The C4000R sensor has 8 pins: 1 (+24V), 5 (RES), 6 (EDM), 3 (OSSD1), 4 (OSSD2), 7 (ADO), 8 (RR), 2 (GND), and FE. The SICK UE10-30S sensor has 14 pins: B1, B3, Y1, 13, 23, 33, 41, B2, B4, Y2, 14, 24, 34, 42. The wiring connections are as follows: +24 V to pin 1 of both sensors; 0 V to pin 2 of both sensors; pin 3 of C4000R to pin 13 of UE10-30S; pin 4 of C4000R to pin 14 of UE10-30S; pin 7 of C4000R to pin 23 of UE10-30S; pin 8 of C4000R to pin 24 of UE10-30S; pin 2 of C4000R to pin 33 of UE10-30S; pin FE of C4000R to pin 41 of UE10-30S; pin 1 of C4000S to pin 13 of UE10-30S; pin 2 of C4000S to pin 14 of UE10-30S; pin 3 of C4000S to pin 23 of UE10-30S; pin 4 of C4000S to pin 24 of UE10-30S; pin 5 of C4000S to pin 33 of UE10-30S; pin 6 of C4000S to pin 41 of UE10-30S; pin 7 of C4000S to pin 1 of UE10-30S; pin 8 of C4000S to pin 2 of UE10-30S; pin 9 of C4000S to pin 3 of UE10-30S; pin 10 of C4000S to pin 4 of UE10-30S; pin 11 of C4000S to pin 5 of UE10-30S; pin 12 of C4000S to pin 6 of UE10-30S; pin 13 of C4000S to pin 7 of UE10-30S; pin 14 of C4000S to pin 8 of UE10-30S; pin 15 of C4000S to pin 9 of UE10-30S; pin 16 of C4000S to pin 10 of UE10-30S; pin 17 of C4000S to pin 11 of UE10-30S; pin 18 of C4000S to pin 12 of UE10-30S; pin 19 of C4000S to pin 13 of UE10-30S; pin 20 of C4000S to pin 14 of UE10-30S; pin 21 of C4000S to pin 15 of UE10-30S; pin 22 of C4000S to pin 16 of UE10-30S; pin 23 of C4000S to pin 17 of UE10-30S; pin 24 of C4000S to pin 18 of UE10-30S; pin 25 of C4000S to pin 19 of UE10-30S; pin 26 of C4000S to pin 20 of UE10-30S; pin 27 of C4000S to pin 21 of UE10-30S; pin 28 of C4000S to pin 22 of UE10-30S; pin 29 of C4000S to pin 23 of UE10-30S; pin 30 of C4000S to pin 24 of UE10-30S; pin 31 of C4000S to pin 25 of UE10-30S; pin 32 of C4000S to pin 26 of UE10-30S; pin 33 of C4000S to pin 27 of UE10-30S; pin 34 of C4000S to pin 28 of UE10-30S; pin 35 of C4000S to pin 29 of UE10-30S; pin 36 of C4000S to pin 30 of UE10-30S; pin 37 of C4000S to pin 31 of UE10-30S; pin 38 of C4000S to pin 32 of UE10-30S; pin 39 of C4000S to pin 33 of UE10-30S; pin 40 of C4000S to pin 34 of UE10-30S; pin 41 of C4000S to pin 35 of UE10-30S; pin 42 of C4000S to pin 36 of UE10-30S; pin 43 of C4000S to pin 37 of UE10-30S; pin 44 of C4000S to pin 38 of UE10-30S; pin 45 of C4000S to pin 39 of UE10-30S; pin 46 of C4000S to pin 40 of UE10-30S; pin 47 of C4000S to pin 41 of UE10-30S; pin 48 of C4000S to pin 42 of UE10-30S; pin 49 of C4000S to pin 43 of UE10-30S; pin 50 of C4000S to pin 44 of UE10-30S; pin 51 of C4000S to pin 45 of UE10-30S; pin 52 of C4000S to pin 46 of UE10-30S; pin 53 of C4000S to pin 47 of UE10-30S; pin 54 of C4000S to pin 48 of UE10-30S; pin 55 of C4000S to pin 49 of UE10-30S; pin 56 of C4000S to pin 50 of UE10-30S; pin 57 of C4000S to pin 51 of UE10-30S; pin 58 of C4000S to pin 52 of UE10-30S; pin 59 of C4000S to pin 53 of UE10-30S; pin 60 of C4000S to pin 54 of UE10-30S; pin 61 of C4000S to pin 55 of UE10-30S; pin 62 of C4000S to pin 56 of UE10-30S; pin 63 of C4000S to pin 57 of UE10-30S; pin 64 of C4000S to pin 58 of UE10-30S; pin 65 of C4000S to pin 59 of UE10-30S; pin 66 of C4000S to pin 60 of UE10-30S; pin 67 of C4000S to pin 61 of UE10-30S; pin 68 of C4000S to pin 62 of UE10-30S; pin 69 of C4000S to pin 63 of UE10-30S; pin 70 of C4000S to pin 64 of UE10-30S; pin 71 of C4000S to pin 65 of UE10-30S; pin 72 of C4000S to pin 66 of UE10-30S; pin 73 of C4000S to pin 67 of UE10-30S; pin 74 of C4000S to pin 68 of UE10-30S; pin 75 of C4000S to pin 69 of UE10-30S; pin 76 of C4000S to pin 70 of UE10-30S; pin 77 of C4000S to pin 71 of UE10-30S; pin 78 of C4000S to pin 72 of UE10-30S; pin 79 of C4000S to pin 73 of UE10-30S; pin 80 of C4000S to pin 74 of UE10-30S; pin 81 of C4000S to pin 75 of UE10-30S; pin 82 of C4000S to pin 76 of UE10-30S; pin 83 of C4000S to pin 77 of UE10-30S; pin 84 of C4000S to pin 78 of UE10-30S; pin 85 of C4000S to pin 79 of UE10-30S; pin 86 of C4000S to pin 80 of UE10-30S; pin 87 of C4000S to pin 81 of UE10-30S; pin 88 of C4000S to pin 82 of UE10-30S; pin 89 of C4000S to pin 83 of UE10-30S; pin 90 of C4000S to pin 84 of UE10-30S; pin 91 of C4000S to pin 85 of UE10-30S; pin 92 of C4000S to pin 86 of UE10-30S; pin 93 of C4000S to pin 87 of UE10-30S; pin 94 of C4000S to pin 88 of UE10-30S; pin 95 of C4000S to pin 89 of UE10-30S; pin 96 of C4000S to pin 90 of UE10-30S; pin 97 of C4000S to pin 91 of UE10-30S; pin 98 of C4000S to pin 92 of UE10-30S; pin 99 of C4000S to pin 93 of UE10-30S; pin 100 of C4000S to pin 94 of UE10-30S; pin 101 of C4000S to pin 95 of UE10-30S; pin 102 of C4000S to pin 96 of UE10-30S; pin 103 of C4000S to pin 97 of UE10-30S; pin 104 of C4000S to pin 98 of UE10-30S; pin 105 of C4000S to pin 99 of UE10-30S; pin 106 of C4000S to pin 100 of UE10-30S; pin 107 of C4000S to pin 101 of UE10-30S; pin 108 of C4000S to pin 102 of UE10-30S; pin 109 of C4000S to pin 103 of UE10-30S; pin 110 of C4000S to pin 104 of UE10-30S; pin 111 of C4000S to pin 105 of UE10-30S; pin 112 of C4000S to pin 106 of UE10-30S; pin 113 of C4000S to pin 107 of UE10-30S; pin 114 of C4000S to pin 108 of UE10-30S; pin 115 of C4000S to pin 109 of UE10-30S; pin 116 of C4000S to pin 110 of UE10-30S; pin 117 of C4000S to pin 111 of UE10-30S; pin 118 of C4000S to pin 112 of UE10-30S; pin 119 of C4000S to pin 113 of UE10-30S; pin 120 of C4000S to pin 114 of UE10-30S; pin 121 of C4000S to pin 115 of UE10-30S; pin 122 of C4000S to pin 116 of UE10-30S; pin 123 of C4000S to pin 117 of UE10-30S; pin 124 of C4000S to pin 118 of UE10-30S; pin 125 of C4000S to pin 119 of UE10-30S; pin 126 of C4000S to pin 120 of UE10-30S; pin 127 of C4000S to pin 121 of UE10-30S; pin 128 of C4000S to pin 122 of UE10-30S; pin 129 of C4000S to pin 123 of UE10-30S; pin 130 of C4000S to pin 124 of UE10-30S; pin 131 of C4000S to pin 125 of UE10-30S; pin 132 of C4000S to pin 126 of UE10-30S; pin 133 of C4000S to pin 127 of UE10-30S; pin 134 of C4000S to pin 128 of UE10-30S; pin 135 of C4000S to pin 129 of UE10-30S; pin 136 of C4000S to pin 130 of UE10-30S; pin 137 of C4000S to pin 131 of UE10-30S; pin 138 of C4000S to pin 132 of UE10-30S; pin 139 of C4000S to pin 133 of UE10-30S; pin 140 of C4000S to pin 134 of UE10-30S; pin 141 of C4000S to pin 135 of UE10-30S; pin 142 of C4000S to pin 136 of UE10-30S; pin 143 of C4000S to pin 1

The related operating instructions for the integrated devices must be observed.

Recommended accessories

Other models and accessories → www.sick.com/C4000_Advanced

	Brief description	Type	part no.
device protection and care			
	Product family: Cleaning agents Description: Cloth for cleaning optical surfaces	Lens cloth	4003353
Mounting systems			
	Description: Mounting kit 6, side bracket, rotatable Material: Zinc diecast Details: Zinc diecast Packing unit: 4 pieces Suitable for: All protective field heights	BEF-1SHABAZN4	2019506
	Description: Mounting kit 2, rotatable, swivel mount Material: Plastic Details: Polyamide PA6 Packing unit: 4 pieces Suitable for: All protective field heights	BEF-2SMMEAKU4	2019659
	Description: Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers Packing unit: 4 pieces Suitable for: All protective field heights	BEF-3WNGBAST4	7021352
	Description: Stainless steel bracket, rotatable Material: Stainless steel Details: Stainless steel 1.4350, stainless steel 1.4301 Packing unit: 4 pieces	BEF-2SMMEAES4	2023708
	Description: Omega bracket, rotatable, fixable with only one screw, for mounting on the swivel mount Packing unit: 4 pieces Suitable for: All protective field heights in large housing	BEF-2SMMEAAL4	2044847
Commissioning aids and test equipment			
	Product: Alignment aids Dimensions (W x H x L): 19 mm 67.3 mm 66.9 mm Description: Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
	Product: Alignment aids Description: Adapter AR60 for housing cross-section 48 mm x 40 mm	AR60 adapter, 48x40	4032461
	Product: Alignment aids Description: Adapter AR60 for housing cross-section 48 mm x 40 mm in PU3H device column	AR60 adapter, 48x40, PU3H	4056731

	Brief description	Type	part no.
connectors and cables			
	• Connection type head A: Male connector, M8, 4-pin, straight • Connection type head B: Male connector, USB-A, straight • Cable: 2 m, 4-wire, PVC • Description: Unshielded	DSL-8U04G02M025KM0	6034574
	• Connection type head A: Male connector, M8, 4-pin, straight • Connection type head B: Male connector, USB-A, straight • Cable: 10 m, 4-wire, PVC • Description: Unshielded	DSL-8U04G10M025KM0	6034575
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 12-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads	DOL-0612G05M075KM0	2022545
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 12-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads	DOL-0612G10M075KM0	2022547
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 15 m, 12-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads	DOL-0612G15M075KM0	2022548
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 20 m, 12-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads	DOL-0612G20M075KM0	2022549
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Cable: 5 m, PVC • Description: Unshielded • Connection systems: Flying leads • Note: Without EFI: Pin 9 and 10 not connected	DOL-0610G05M075KM0	2046888
	• Connection type head A: Female connector, M26, 12-pin, straight • Connection type head B: Flying leads • Cable: 10 m, PVC • Description: Unshielded • Connection systems: Flying leads • Note: Without EFI: Pin 9 and 10 not connected	DOL-0610G10M075KM0	2046889
	• Connection type head A: Female connector, M26, 12-pin, straight, A-coded • Description: Unshielded • Connection systems: Crimp contacts • Permitted cross-section: 0.5 mm² ... 1.5 mm² • Note: 12 crimping contacts enclosed	DOS-0612G000GA3KM0	6020757
	• Connection type head A: Female connector, M26, 12-pin, angled, A-coded • Description: Unshielded • Connection systems: Crimp contacts • Permitted cross-section: 0.5 mm² ... 1.5 mm² • Note: 12 crimping contacts enclosed	DOS-0612W000GA3KM0	6020758
	• Connection type head A: Male connector, M26, 12-pin, straight, A-coded • Description: Unshielded • Connection systems: Crimp contacts • Permitted cross-section: 0.5 mm² ... 1.5 mm² • Note: 12 crimping contacts enclosed	STE-0612G000GA3KM0	6021191
	• Connection type head A: Male connector, M26, 12-pin, angled, A-coded • Description: Unshielded • Connection systems: Crimp contacts • Permitted cross-section: 0.5 mm² ... 1.5 mm² • Note: 12 crimping contacts enclosed	STE-0612W000GA3KM0	6021192

	Brief description	Type	part no.
system plugs and extension modules			
	• Applications: Functionality upgrade • Description: Upgrades the C4000 Standard, Advanced, Palletizer, Entry/Exit, and Fusion to include the functions defined in the technical specifications, e.g., bypass, operating mode switching, and PSDI in the case of C4000 Standard, Advanced. • Compatible sensor types: C4000 safety light curtains	UE402	1023577

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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