



C40E-0302FY010

C4000 Fusion

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
C40E-0302FY010	1043225

Other models and accessories → www.sick.com/C4000_Fusion

Detailed technical data

Features

Application	Normal industrial environment
System part	Receiver
Resolution	20 mm
Scanning range	21 m
Protective field height	300 mm
Synchronization	Optical synchronization

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)	$15 \cdot 10^{-9}$ (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	✓	Internal
External device monitoring (EDM)	✓	Deactivated
Beam coding	✓	Code 1
Configurable scanning range	✓	
Reduced resolution	✓	Deactivated
Fixed blanking	✓ ¹⁾	

¹⁾ Only in combination with a Flexi Soft safety controller via EFI.

Dynamic blanking for object pattern recognition	✓	
Self-teaching dynamic blanking for goods detection	✓	
Self-teaching dynamic blanking for pallet detection	✓	
Multiple sampling	✓	2x evaluation
Direction monitoring	✓	
Sensor gap monitoring	✓	
Sequence monitoring	✓	
Object entry monitoring	✓	
Detection of geometrically even objects	✓	
Safe SICK device communication via EFI	✓	

¹⁾ Only in combination with a Flexi Soft safety controller via EFI.

Interfaces

System connection	
Conductor cross section	0.75 mm ²
Permitted cable length	50 m
Configuration connection	Female connector M8, 4-pin
Configuration method	PC with CDS (Configuration and Diagnostic Software)
Display elements	7-segment display

Electronics

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V ... 28.8 V) ¹⁾
Residual ripple	≤ 10 % ²⁾
Output signal switching devices (OSSDs)	
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored
ON state, switching voltage HIGH	24 V DC ($V_S - 2.25$ V DC ... V_S)
OFF state, switching voltage LOW	2 V DC
Current-carrying capacity per OSSD	≤ 500 mA

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 .

Mechanics

Dimensions	See dimensional drawing
Housing cross-section	48 mm x 40 mm
Housing material	Aluminum extruded profile
Weight	850 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	✓
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

Technical drawing of a DIN 43651 plug (M26 x 11 + FE) showing two views: a side view and a front view.

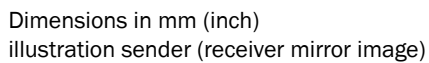
Side View Dimensions:

- Total length: 36.2 (1.43)
- Threaded section length: 10 (0.39)
- Outer diameter: 40 (1.57)
- Inner diameter: 20 (0.79)
- Length of the main body: 56.3 (2.22)
- Total length (including mounting): L2

Front View Dimensions:

- Total length: 74 (2.91)
- Outer diameter: 48 (1.89)
- Inner diameter: 22.4 (0.88)
- Length of the main body: L1

Label: DIN 43651 plug (M26 x 11 + FE)



	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

Wiring diagram for the SICK UE10-30S sensor. The diagram shows the connection of the sensor's 8-pin connector to a power supply and a control unit. The power supply is +24V and 0V. The control unit is a SICK UE10-30S sensor. The sensor's pins are: 1 (+24V), 2 (GND), 3 (IOSSD1), 4 (IOSSD2), 5 (RES), 6 (EDM), 7 (ADO), 8 (RR). The sensor is connected to a control unit (SICK UE10-30S) which has pins: B1, B2, B3, B4, Y1, Y2, 13, 14, 23, 24, 33, 34, 41, 42. The sensor is also connected to a switch S1 and two lamps H2 and H3. The diagram includes a legend for the symbols used.

Legend:

- 1) 2) PELV
- 3) 4) n.c.
- 5) 6) n.c.
- 7) 8) n.c.
- 9) 10) n.c.
- 11) 12) n.c.
- 13) 14) n.c.
- 15) 16) n.c.
- 17) 18) n.c.
- 19) 20) n.c.
- 21) 22) n.c.
- 23) 24) n.c.
- 25) 26) n.c.
- 27) 28) n.c.
- 29) 30) n.c.
- 31) 32) n.c.
- 33) 34) n.c.
- 35) 36) n.c.
- 37) 38) n.c.
- 39) 40) n.c.
- 41) 42) n.c.
- 43) 44) n.c.
- 45) 46) n.c.
- 47) 48) n.c.
- 49) 50) n.c.
- 51) 52) n.c.
- 53) 54) n.c.
- 55) 56) n.c.
- 57) 58) n.c.
- 59) 60) n.c.
- 61) 62) n.c.
- 63) 64) n.c.
- 65) 66) n.c.
- 67) 68) n.c.
- 69) 70) n.c.
- 71) 72) n.c.
- 73) 74) n.c.
- 75) 76) n.c.
- 77) 78) n.c.
- 79) 80) n.c.
- 81) 82) n.c.
- 83) 84) n.c.
- 85) 86) n.c.
- 87) 88) n.c.
- 89) 90) n.c.
- 91) 92) n.c.
- 93) 94) n.c.
- 95) 96) n.c.
- 97) 98) n.c.
- 99) 100) n.c.

Recommended accessories

Other models and accessories → www.sick.com/C4000_Fusion

	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: Floor stands for the horizontal mounting of the safety light curtains C4000 Fusion, Entry/Exit, Palletizer, as well as the multi-beam safety light curtain M4000 Area, for mounting heights of between 70 mm and 780 mm. Packing unit: 2 pieces Items supplied: Includes mounting bracket	BEF-3HHOCAST2	2041661
	Description: Reinforced stainless steel bracket, rotatable Material: Stainless steel Details: Stainless steel 1.4350, stainless steel 1.4301 Packing unit: 4 pieces	BEF-2SMMVAES4	2026850
	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
	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: Reinforced stainless steel bracket, rotatable Material: Stainless steel Details: Stainless steel 1.4350, stainless steel 1.4301 Packing unit: 2 pieces	BEF-2SMMVAES2	2048373

	Brief description	Type	part no.
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
	• Product: Test equipment • Description: 20 mm diameter, 250 mm length	Test rod 20 mm	2022600

	Brief description	Type	part no.
connectors and cables			
	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-0612W000GA3KMC	6021192
	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-0612G000GA3KMC	6021191
	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-0612G05M075KMC	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-0612G10M075KMC	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-0612G15M075KMC	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-0612G20M075KMC	2022549
	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-8U04G10M025KMC	6034575
	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-0612G000GA3KMC	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-0612W000GA3KMC	6020758
	Connection type head A: Female connector, M26, 12-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 50 m, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads	DOL-0612G50M075KMC	2033548
	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-8U04G02M025KMC	6034574
	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	DOL-0610G05M075KMC	2046888

	Brief description	Type	part no.
	• Note: Without EFI: Pin 9 and 10 not connected • 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-0610G10M075KM:	2046889
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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