



C40S-S129

C4000 Entry/Exit ATEX II 3G/3D

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Ordering information

| Resolution | Scanning range | Protective field height | System part | Type | Part no. |
|------------|----------------|-------------------------|-------------|-----------|----------|
| 20 mm | 21 m | 900 mm | Sender | C40S-S129 | 1053721 |

Other models and accessories → www.sick.com/C4000_Entry_Exit_ATEX_II_3G_3D

Illustration may differ



Detailed technical data

Features

| | |
|--------------------------------|---------------------------------------------|
| Application | Explosive areas |
| Ex-approvals | ATEX for gas: II 3G Ex nA op is IIC T4 Gc X |
| System part | Sender |
| Resolution | 20 mm |
| Protective field height | 900 mm |
| Scanning range | 21 m |
| 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 x 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 | ✓ | |

| | Functions | Delivery status |
|-------------------------------------------------|-----------|-----------------|
| Dynamic blanking for object pattern recognition | ✓ | |
| Safe SICK device communication via EFI | ✓ | |

Functions in combination with UE402

| | |
|--------------------------|---|
| Bypass | ✓ |
| Operating mode switching | ✓ |

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⁾ |
| Configuration connection | Female connector M8, 4-pin |
| Configuration method | PC with CDS (Configuration and Diagnostic Software) |
| 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 |

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 |
| Type of light | Near-infrared (NIR), invisible |

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 (Dimensions in mm (inch))

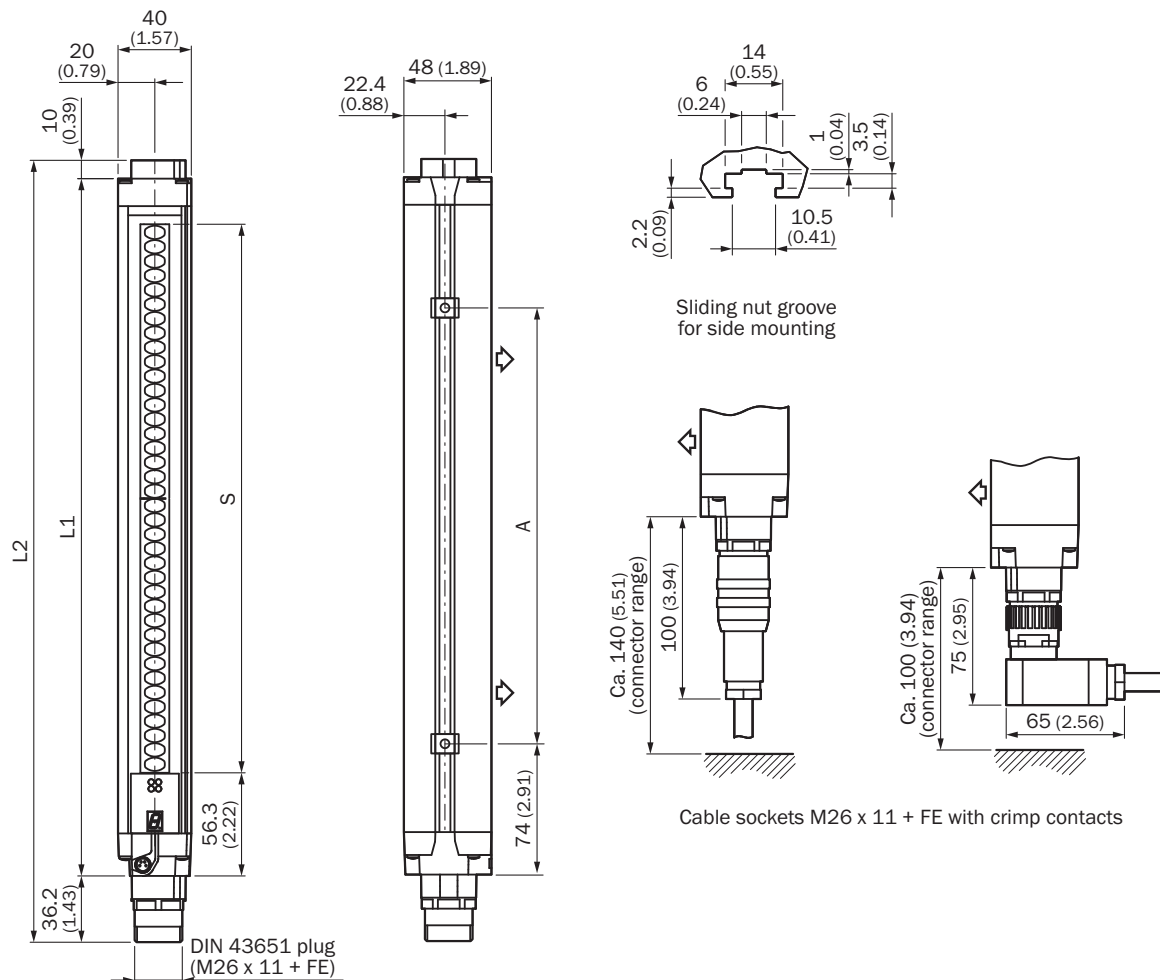









Illustration sender (receiver mirror image)

| | 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 |


Recommended accessories

Other models and accessories → www.sick.com/C4000_Entry_Exit_ATEX_II_3G_3D

| | Brief description | Type | Part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| EFI gateways | | | |
|  | PROFINET PROFIsafe | UE4740-22H0000 | 1046978 |
| 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 |
|  | Adapter AR60 for housing cross-section 48 mm x 40 mm | AR60 adapter, 48x40 | 4032461 |
|  | Adapter AR60 for housing cross-section 48 mm x 40 mm in PU3H device column | AR60 adapter, 48x40, PU3H | 4056731 |
| Optics cloths | | | |
|  | Cloth for cleaning optical surfaces | Lens cloth | 4003353 |
| Test and monitoring tools | | | |
|  | 20 mm diameter, 250 mm length | Test rod 20 mm | 2022600 |
| Mounting brackets and plates | | | |
|  | 4 pieces, Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers | BEF-3WNGBAST4 | 7021352 |

| | Brief description | Type | Part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| Other mounting accessories | | | |
|  | 4 pieces, Sliding nut set, M5, 4x, Included in delivery | Sliding nuts | 2017550 |
| Plug connectors and cables | | | |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, straight Description: Unshielded Connection systems: Crimp contacts Permitted cross-section: 0.5 mm² ... 1.5 mm² Note: 12 crimping contacts enclosed | DOS-0612G000GA3KM0 | 6020757 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, angled Description: Unshielded Connection systems: Crimp contacts Permitted cross-section: 0.5 mm² ... 1.5 mm² Note: 12 crimping contacts enclosed | DOS-0612W000GA3KM0 | 6020758 |
| Terminal and alignment brackets | | | |
|  | 4 pieces, Mounting kit 6, side bracket, rotatable, zinc diecast | BEF-1SHABAZN4 | 2019506 |
|  | 4 pieces, Mounting kit 3, rotatable, with shock-absorber | BEF-1SHADAAL4 | 2017752 |
|  | 4 pieces, Omega bracket, rotatable, fixable with only one screw, for mounting on the swivel mount | BEF-2SMMEAAL4 | 2044847 |
|  | 4 pieces, Mounting kit 2, rotatable, swivel mount, Polyamide PA6 | BEF-2SMMEA KU4 | 2019659 |
|  | 4 pieces, Reinforced stainless steel bracket, rotatable, stainless steel 1.4350, stainless steel 1.4301 | BEF-2SMMVAES4 | 2026850 |
|  | <ul style="list-style-type: none"> 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, Configuration cable with integrated RS-232 transducer on USB for connecting a sensor configuration connection (M8, 4-pin) to the USB interface of a PC | DSL-8U04G02M025KM1 | 6034574 |
|  | <ul style="list-style-type: none"> 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, Configuration cable with integrated RS-232 transducer on USB for connecting a sensor configuration connection (M8, 4-pin) to the USB interface of a PC | DSL-8U04G10M025KM1 | 6034575 |
|  | <ul style="list-style-type: none"> 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 |
|  | <ul style="list-style-type: none"> 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 |

| | Brief description | Type | Part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
|  | <ul style="list-style-type: none"> 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 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2.5 m, 12-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads | DOL-0612G2M5075KM0 | 2022544 |
|  | <ul style="list-style-type: none"> 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 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 30 m, 12-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads | DOL-0612G30M075KM0 | 2022550 |
|  | <ul style="list-style-type: none"> 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-0612G50M075KM0 | 2033548 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 7.5 m, 12-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads | DOL-0612G7M5075KM0 | 2022546 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M26, 12-pin, straight Connection type head B: Flying leads Cable: 20 m, PVC Description: Unshielded Connection systems: Flying leads Note: Without EFI: Pin 9 and 10 not connected | DOL-0610G20M075KM1 | 2046890 |
|  | <ul style="list-style-type: none"> 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-0610G05M075KM1 | 2046888 |
|  | <ul style="list-style-type: none"> 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-0610G10M075KM1 | 2046889 |
|  | <ul style="list-style-type: none"> Connection type head A: Flying leads Connection type head B: Flying leads Cable: 12-wire, PVC Description: Unshielded Note: max. 100 m, fitting for EFI connections Items supplied: By the meter | Connecting cable | 6021437 |

| | Brief description | Type | Part no. |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|
| Switching amplifiers | | | |
|  | <ul style="list-style-type: none">• Applications: Functionality upgrade• Compatible sensor types: C4000 safety light curtains• 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. | 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.”

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