



S30A-7011BA

S3000 Standard

SAFETY LASER SCANNERS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|-------------|----------|
| S30A-7011BA | 1023890 |

Other models and accessories → www.sick.com/S3000_Standard

Detailed technical data

Features

| | |
|---|--|
| Model | Sensor without system plug |
| Application | Indoor |
| Protective field range | 7 m |
| Warning field range | 49 m (20 m at 20 % reflectivity) |
| Distance measuring range | 49 m |
| Number of simultaneously monitored protective fields | ≤ 4 ¹⁾ |
| Type of field set | Triple field sets, dual field sets |
| Number of field sets | 1 |
| Number of fields | 4 ²⁾ |
| Number of monitoring cases | 1 |
| Scanning angle | 190 ° |
| Resolution (can be configured) | 30 mm, 40 mm, 50 mm, 70 mm, 150 mm |
| Angular resolution | 0.5 °, 0.25 °, depending on range and resolution |
| Response time | 60 ms ³⁾ |
| Protective field supplement | 100 mm |
| Number of multiple samplings | 2 ... 16, configurable |
| Delay of automatic reset | 2 s ... 60 s, configurable |

¹⁾ If several protective fields are monitored simultaneously, the shut-off signals must be connected to safe outputs on a Flexi Soft safety controller or routed via a safe EFI gateway.

²⁾ Two simultaneous field sets with two fields each, output to Flexi Soft via EFI.

³⁾ Depending on basic response time and multiple sampling.

Safety-related parameters

| | |
|---|--|
| Type | Type 3 (IEC 61496) |
| Safety integrity level | SIL 2 (IEC 61508) |
| Category | Category 3 (EN ISO 13849) |
| Performance level | PL d (EN ISO 13849) |
| PFH_D (mean probability of a dangerous failure per hour) | 8.0×10^{-8} |
| 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

| | |
|---|------------|
| Restart interlock | ✓ |
| External device monitoring (EDM) | ✓ |
| Multiple sampling | ✓ |
| Simultaneous monitoring | ✓ |
| Contour as a reference | ✓ |
| Integrated configuration memory | ✓ |
| Measured data output | Via RS-422 |
| Safe SICK device communication via EFI | ✓ |

Electronics

| | |
|---|--|
| Protection class | II (EN 50178) |
| Supply voltage V_s | 24 V DC (16.8 V DC ... 28.8 V DC) |
| Power consumption | 0.8 A ¹⁾ 2.3 A ²⁾ |
| Outputs | |
| Output signal switching devices (OSSDs) | 2 x 500 mA |
| Application diagnostic outputs | 3 x 100 mA ³⁾ |

¹⁾ At 24 V DC without output load.

²⁾ At 24 V DC including maximum output load.

³⁾ Freely programmable, e.g. warning field, contamination, reset required.

Mechanics

| | |
|------------------------------------|--|
| Dimensions (W x H x D) | 155 mm x 185 mm x 160 mm |
| Weight | 3.3 kg |
| Housing material | Aluminum die cast |
| Housing color | RAL 1021 (yellow) |
| Front screen material | Polycarbonate |
| Front screen surface finish | Outside with scratch-resistant coating |

Ambient data

| | |
|--------------------------------------|---|
| Enclosure rating | IP65 (EN 60529) |
| Ambient operating temperature | -10 °C ... +50 °C |
| Storage temperature | -25 °C ... +50 °C |
| Vibration resistance | IEC 60068-2-6, IEC 60068-2-64, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3 |

| | | |
|------------------|------------------|--|
| | Class | 5M1 (IEC 60721-3-5) |
| Shock resistance | | IEC 60068-2-27, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3 |
| | Class | 5M1 (IEC 60721-3-5) |
| | Continuous shock | 50 m/s², 11 ms |
| | | 100 m/s², 16 ms |

Other information

| | |
|-----------------------------|---|
| Type of light | Pulsed laser diode |
| Wave length | 905 nm |
| Detectable remission factor | 1.8 % ... > 1,000 %, reflectors |
| Laser class | 1 (21 CFR 1040.10 and 1040.11, IEC 60825-1) |

Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| China RoHS | ✓ |
| cULus certificate | ✓ |
| EC-Type-Examination approval | ✓ |
| China GB certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

Classifications

| | |
|----------------|----------|
| ECLASS 5.0 | 27272705 |
| ECLASS 5.1.4 | 27272705 |
| ECLASS 6.0 | 27272705 |
| ECLASS 6.2 | 27272705 |
| ECLASS 7.0 | 27272705 |
| ECLASS 8.0 | 27272705 |
| ECLASS 8.1 | 27272705 |
| ECLASS 9.0 | 27272705 |
| ECLASS 10.0 | 27272705 |
| ECLASS 11.0 | 27272705 |
| ECLASS 12.0 | 27272705 |
| ETIM 5.0 | EC002550 |
| ETIM 6.0 | EC002550 |
| ETIM 7.0 | EC002550 |
| ETIM 8.0 | EC002550 |
| UNSPSC 16.0901 | 39121528 |

Technical drawings of the SICK PWS 3010 scanner showing dimensions in mm and inches.

Front View:

- Overall width: 147 (5.79)
- Overall height: 211 (8.31)
- Mounting holes: M6 x 8
- Reference points for mounting
- Area to be kept clear during installation of the scanner

Side View:

- Overall width: 136.8 (5.39)
- Overall height: 185 (7.28)
- Mounting holes: M8 x 9, M13.5
- Beam diameter Receiver = 44 (1.73)
- Beam diameter Sender = 15 (0.59)

Top View:

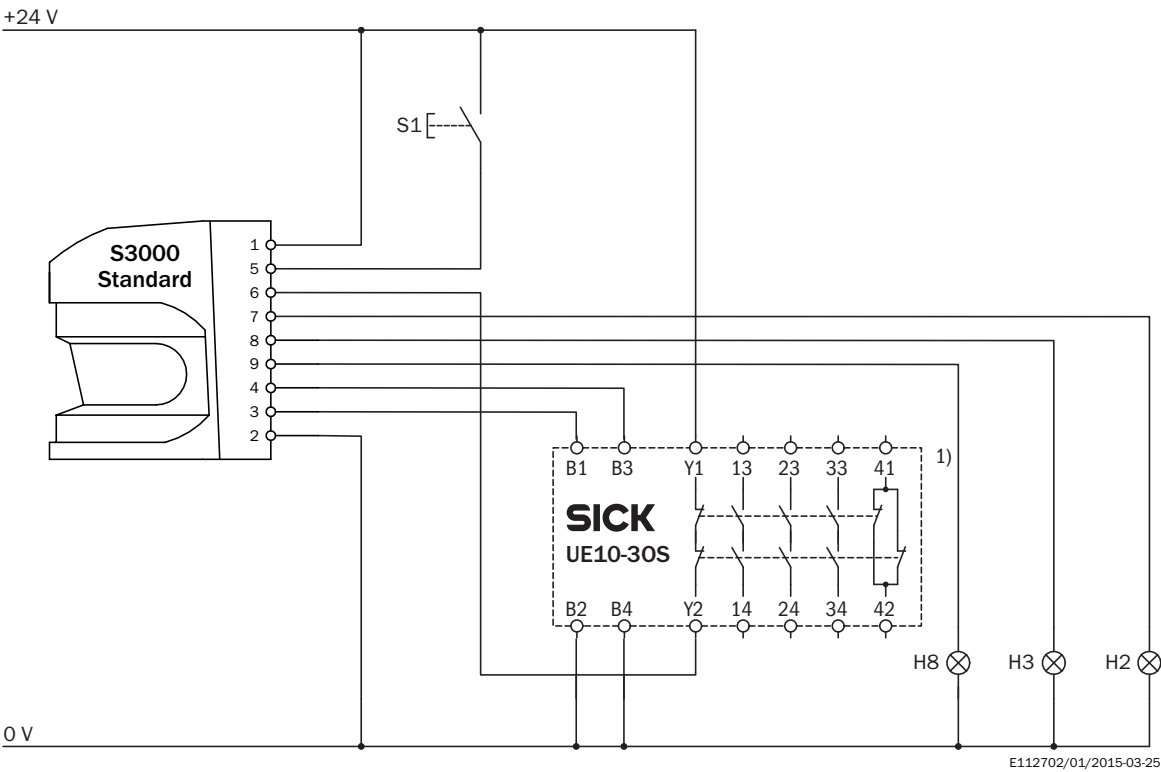
- Overall width: 155 (6.10)
- Overall height: 92.5 (3.64)
- Beam diameter Receiver = 44 (1.73)
- Beam diameter Sender = 15 (0.59)

Isometric View:

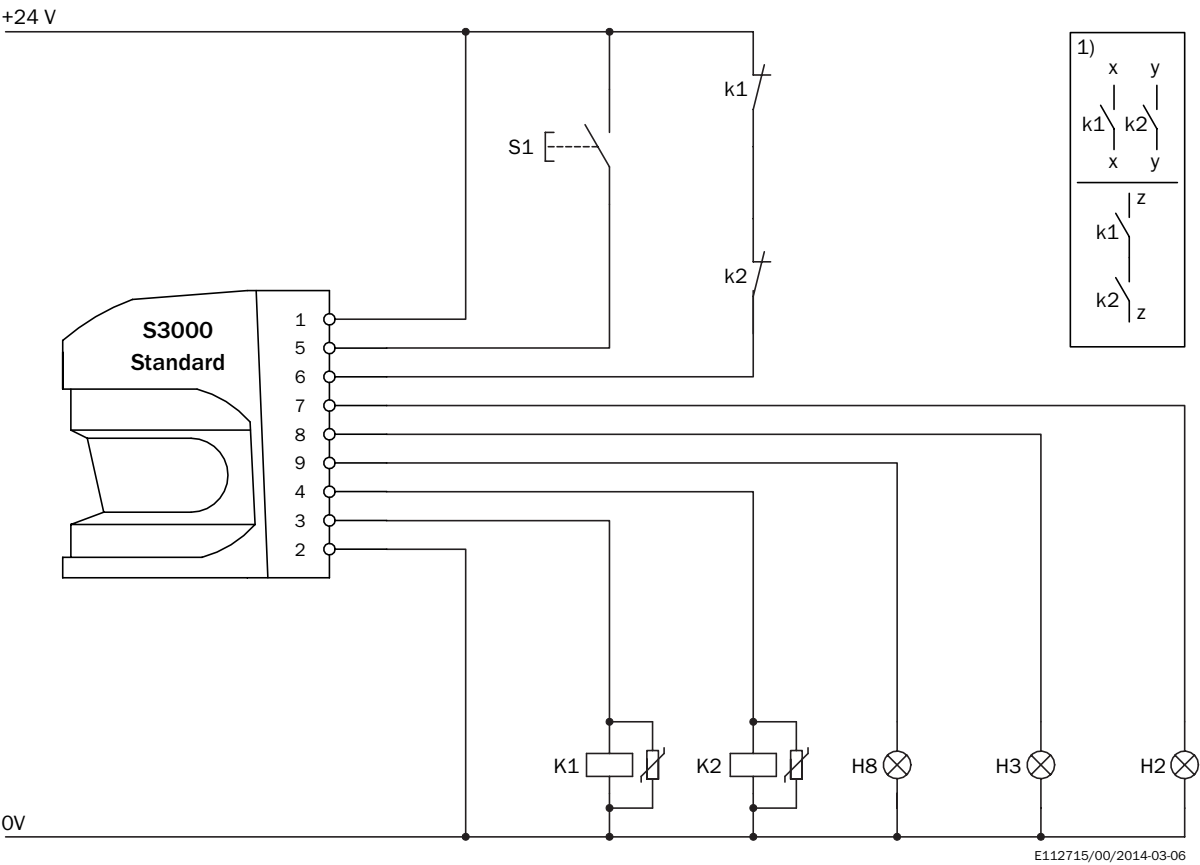
- Overall width: 155 (6.10)
- Overall height: 211 (8.31)
- Overall depth: 185 (7.28)
- Mounting holes: M6 x 8
- Reference points for mounting
- Area to be kept clear during installation of the scanner

2025-11-16 04:01:52 | Data sheet
Subject to change without notice

Connection diagram





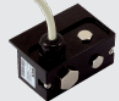


Connection diagram



Recommended accessories

Other models and accessories → www.sick.com/S3000_Standard

| | Brief description | Type | part no. |
|---|--|-------------------------|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none"> Description: Visor for heavy duty mounting kit (2080350) Material: Steel Details: Steel, painted (RAL 1021) Packing unit: 1 piece | Heavy duty sight | 2083733 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket, heavy-duty version, with protection cover, for floor mounting, adjustable longitudinal and lateral axes via alignment plate, height adjustment possible. Tilt angle $\pm 5^\circ$. Additional mounting brackets are not required. Material: Steel Details: Steel, painted (RAL 1021) Color: RAL 1021 (yellow) Packing unit: 1 piece | Heavy-duty mounting kit | 2080350 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for direct mounting, from the rear, on wall or machine, not adjustable Material: Aluminum Details: Aluminum Packing unit: 1 piece | Mounting kit 1 | 2015623 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for rear mounting on wall or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) Material: Aluminum Details: Aluminum Packing unit: 1 piece | Mounting kit 2 | 2015624 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket for rear mounting on wall, floor, or machine, adjustable longitudinal and lateral axes, only in conjunction with mounting kit 1 (2015623) and 2 (2015624) Material: Aluminum Details: Aluminum Packing unit: 1 piece | Mounting kit 3 | 2015625 |
| connectors and cables | | | |
|  | <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 | DSL-8U04G10M025KM: | 6034575 |
|  | <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 | DSL-8U04G02M025KM: | 6034574 |
|  | <ul style="list-style-type: none"> Connection type head A: Flying leads Connection type head B: Flying leads Items supplied: By the meter Cable: 2-wire, twisted pair, 120 Ohm, PVC Description: Shielded Note: Fitting for EFI connections | EFI connecting cable | 6029448 |
|  | <ul style="list-style-type: none"> Connection type head A: Flying leads Connection type head B: Flying leads Items supplied: By the meter Cable: 9-wire, AWG20, PVC Description: Unshielded | Connecting cable | 6022651 |

| | Brief description | Type | part no. |
|---|--|-------------|----------|
| system plugs and extension modules | | | |
|  | <ul style="list-style-type: none"> • Description: Without cable, For S3000 Standard, Advanced, Remote, Professional and ExpertNot for use of incremental encoders, integrated configuration storage | SX0A-A0000B | 2023797 |
|  | <ul style="list-style-type: none"> • Cable: 5 m, 9-wire, PVC • Description: Pre-assembled, unshielded, For S3000 Standard and RemoteNot for use of incremental encoders, integrated configuration storage • Connection systems: Flying leads | SX0A-B0905B | 2027170 |
|  | <ul style="list-style-type: none"> • Cable: 5 m, 9-wire, PVC • Description: Pre-assembled, cable connection at the rear, unshielded, For S3000 Standard and RemoteNot for use of incremental encoders, integrated configuration storage • Connection systems: Flying leads | SX0A-B0905G | 2049222 |
|  | <ul style="list-style-type: none"> • Cable: 10 m, 9-wire, PVC • Description: Pre-assembled, unshielded, For S3000 Standard and RemoteNot for use of incremental encoders, integrated configuration storage • Connection systems: Flying leads | SX0A-B0910B | 2027171 |
|  | <ul style="list-style-type: none"> • Cable: 20 m, 9-wire, PVC • Description: Pre-assembled, unshielded, For S3000 Standard and RemoteNot for use of incremental encoders, integrated configuration storage • Connection systems: Flying leads | SX0A-B0920B | 2027814 |

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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