



# S32B-3011BA

S300 Mini Standard

SAFETY LASER SCANNERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
S32B-3011BA	1056430

Other models and accessories → [www.sick.com/S300\\_Mini\\_Standard](http://www.sick.com/S300_Mini_Standard)



### Detailed technical data

#### Features

<b>Protective field range</b>	3 m
<b>Warning field range</b>	8 m (at 15 % reflectivity)
<b>Distance measuring range</b>	30 m
<b>Type of field set</b>	Triple field sets
<b>Number of field sets</b>	1
<b>Number of fields</b>	3
<b>Number of monitoring cases</b>	1
<b>Scanning angle</b>	270°
<b>Resolution (can be configured)</b>	30 mm, 40 mm, 50 mm, 70 mm, 150 mm
<b>Angular resolution</b>	0.5°
<b>Response time</b>	80 ms <sup>1)</sup>
<b>Protective field supplement</b>	100 mm
<b>Number of multiple samplings</b>	2 ... 16, configurable
<b>Delay of automatic reset</b>	2 s ... 60 s, configurable

<sup>1)</sup> Depending on basic response time and multiple sampling.

#### Safety-related parameters

<b>Type</b>	Type 3 (IEC 61496)
<b>Safety integrity level</b>	SIL2 (IEC 61508) SILCL2 (EN 62061)
<b>Category</b>	Category 3 (EN ISO 13849)
<b>Performance level</b>	PL d (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	8.0 x 10 <sup>-8</sup> (EN ISO 13849)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)

<b>Safe state in the event of a fault</b>	At least one OSSD is in the OFF state.
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## Functions

<b>Restart interlock</b>	✓
<b>External device monitoring (EDM)</b>	✓
<b>Multiple sampling</b>	✓
<b>Contour as a reference</b>	✓

## Interfaces

<b>Connection type</b>	Cable, 250 mm, with male connector M12, 8-pin
<b>Universal I/Os</b>	2
<b>Inputs</b>	
External device monitoring (EDM)	1 <sup>1)</sup>
Reset/restart	1 <sup>1)</sup>
Standby	1 <sup>1)</sup>
<b>Outputs</b>	
Output signal switching devices (OSSDs)	2
Outputs for warning field	2 <sup>1)</sup>
Reset required	1 <sup>1)</sup>
<b>Configuration method</b>	PC with CDS (Configuration and Diagnostic Software)
<b>Configuration and diagnostics interface</b>	RS-232
Transmission rate	38.4 kBaud

<sup>1)</sup> Availability depends on the configuration of the universal I/Os.

## Electrical data

<b>Protection class</b>	III (EN 50178, EN 60950)
<b>Supply voltage <math>V_s</math></b>	24 V DC (16.8 V DC ... 30 V DC)
<b>Power consumption</b>	$\leq 0.25 \text{ A}$ <sup>1)</sup> $\leq 1.35 \text{ A}$ <sup>2)</sup>

<sup>1)</sup> At 24 V DC without output load.

<sup>2)</sup> At 24 V DC including maximum output load.

## Mechanical data

<b>Dimensions (W x H x D)</b>	102 mm x 116 mm x 105 mm
<b>Weight</b>	0.8 kg, without connecting cables
<b>Housing material</b>	Aluminum die cast
<b>Housing color</b>	RAL 1021 (yellow), RAL 9005 (black)
<b>Optics cover material</b>	Polycarbonate
<b>Optics cover surface finish</b>	Outside with scratch-resistant coating

## Ambient data

<b>Enclosure rating</b>	IP65 (EN 60529)
<b>Ambient operating temperature</b>	-10 °C ... +50 °C
<b>Storage temperature</b>	-25 °C ... +50 °C
<b>Vibration resistance</b>	5 g, 10 Hz ... 150 Hz (IEC 61496, IEC 61496-3)

<b>Shock resistance</b>	
Continuous shock	10 g, 16 ms (IEC 61496, IEC 61496-3)

### Other information

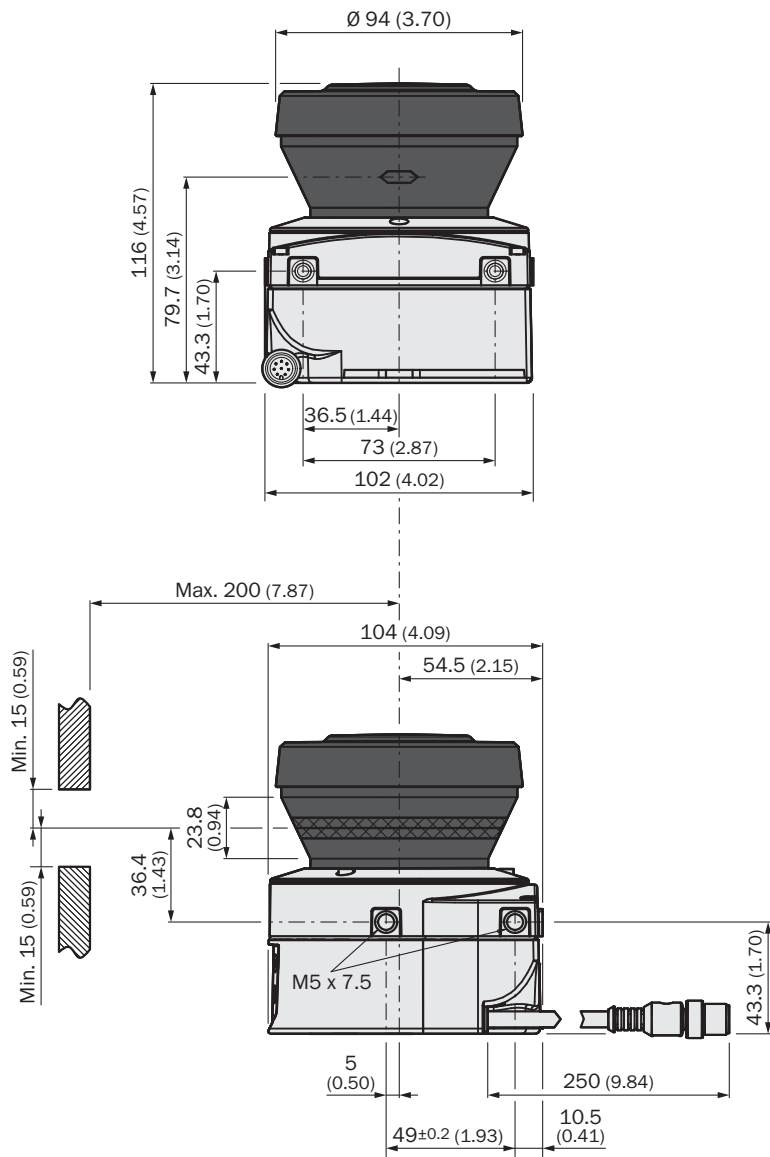
<b>Type of light</b>	Pulsed laser diode
<b>Wave length</b>	905 nm
<b>Detectable remission</b>	1.8 % ... > 1,000 %, reflectors
<b>Laser class</b>	1 (21 CFR 1040.10 and 1040.11, IEC 60825-1)

### Classifications

<b>ECl@ss 5.0</b>	27272705
<b>ECl@ss 5.1.4</b>	27272705
<b>ECl@ss 6.0</b>	27272705
<b>ECl@ss 6.2</b>	27272705
<b>ECl@ss 7.0</b>	27272705
<b>ECl@ss 8.0</b>	27272705
<b>ECl@ss 8.1</b>	27272705
<b>ECl@ss 9.0</b>	27272705
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>UNSPSC 16.0901</b>	39121528

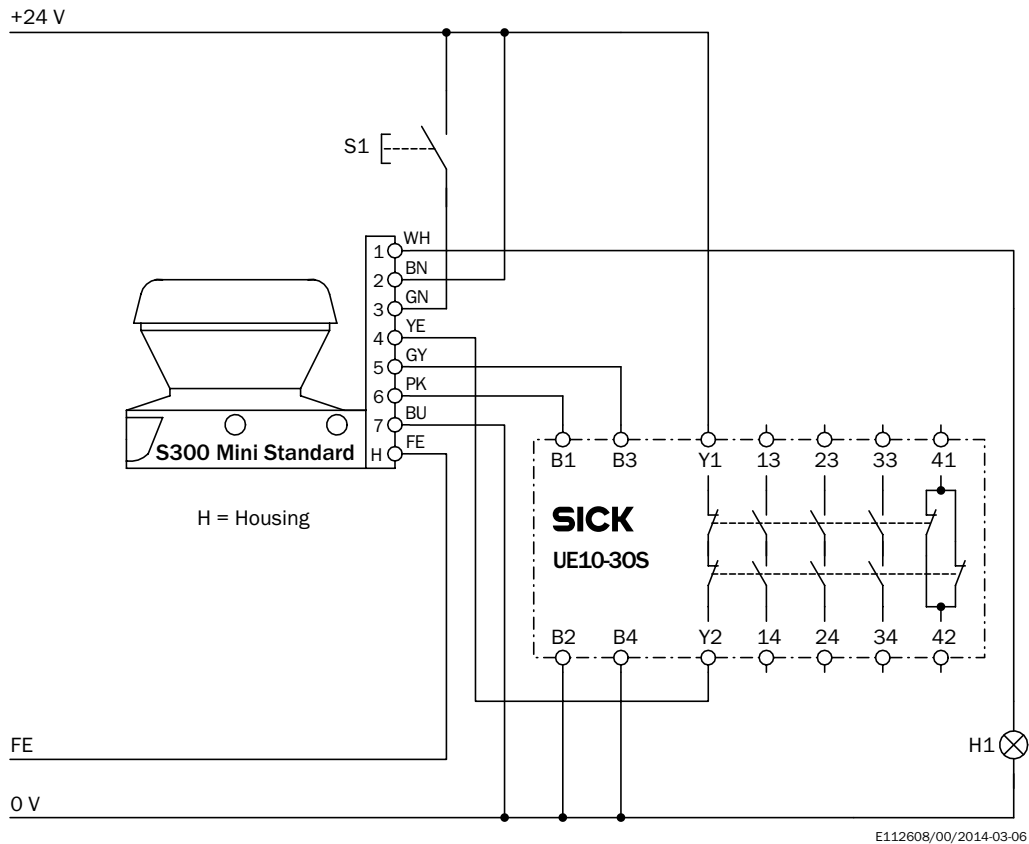
**Dimensional drawing** (Dimensions in mm (inch))

Laser scanner



### Connection diagram

S300 mini standard to UE10-30S safety relay

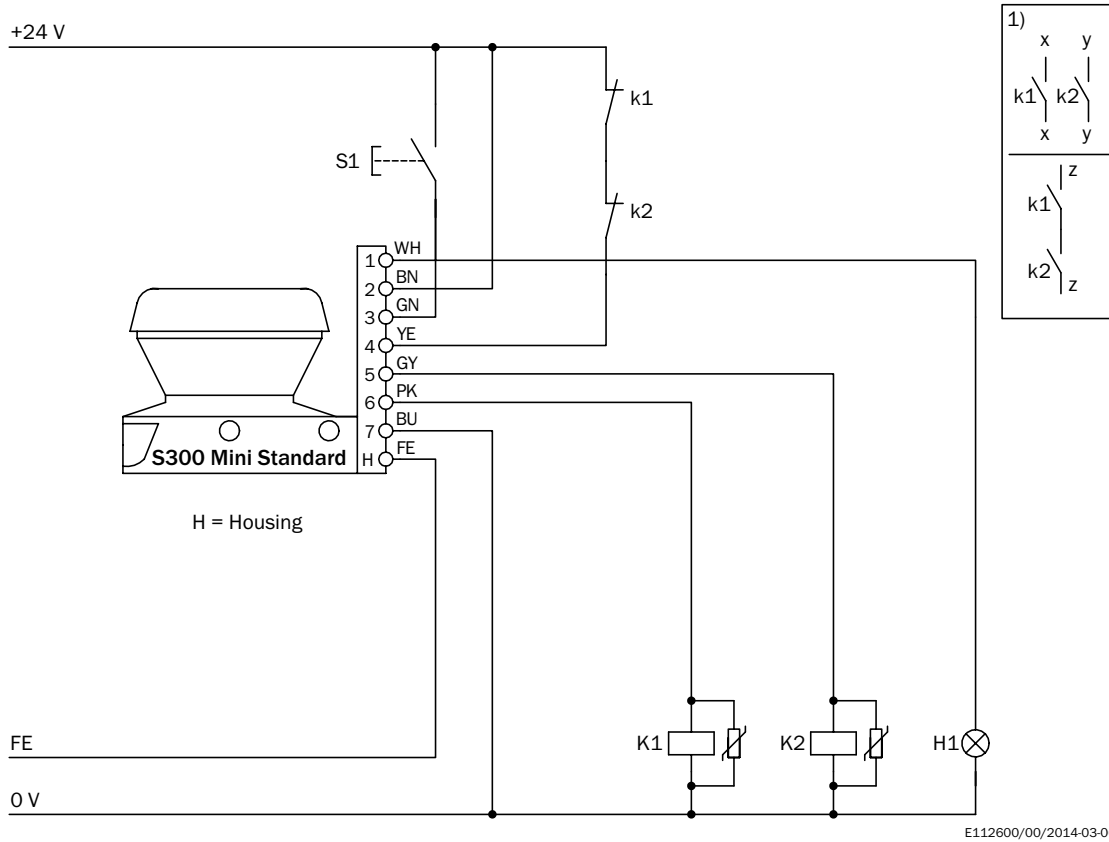


E112608/00/2014-03-06

S300 Mini Standard on UE10-30S safety relay

Operating mode: with restart interlock (universal I/O 1 must be configured as reset) and external device monitoring (universal I/O 2 must be configured as EDM)

S300 Mini Standard with restart interlock and external device monitoring



E112600/00/2014-03-06

S300 Mini Standard in conjunction with relays/contactors

Operating mode: with restart interlock (universal I/O 1 must be configured as reset) and external device monitoring (universal I/O 2 must be configured as EDM)

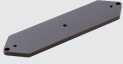




**Comments**

<sup>1)</sup> Output circuits: These contacts are to be connected to the controller such that, with the output circuit open, the dangerous state is disabled. For categories 4 and 3, this integration must be dual-channel (x/y paths). Single-channel insertion in the control (z path) is only possible with a single-channel control and by taking the risk analysis into account.

Recommended accessories

Other models and accessories → [www.sick.com/S300\\_Mini\\_Standard](http://www.sick.com/S300_Mini_Standard)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	1 piece, mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324
	1 piece, mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325
	1 piece, mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302

	Brief description	Type	Part no.
	1 piece, mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 5 m	DOL-127SG05ME25KM0	2076541
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 10 m	DOL-127SG10ME25KM0	2076543
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 15 m	DOL-127SG15ME25KM0	2076544
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 20 m	DOL-127SG20ME25KM0	2076545
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 2.5 m	DOL-127SG2M5E25KM0	2076540
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, shielded, 7.5 m	DOL-127SG7M5E25KM0	2076542
	Head A: female connector, M12, 8-pin, angled Head B: Flying leads Cable: PUR, halogen-free, shielded, 5 m	DOL-127SW05ME25KM0	2076548
	Head A: female connector, M12, 8-pin, angled Head B: Flying leads Cable: PUR, halogen-free, shielded, 10 m	DOL-127SW10ME25KM0	2076550
	Head A: female connector, M12, 8-pin, angled Head B: Flying leads Cable: PUR, halogen-free, shielded, 15 m	DOL-127SW15ME25KM0	2076551
	Head A: female connector, M12, 8-pin, angled Head B: Flying leads Cable: PUR, halogen-free, shielded, 7.5 m	DOL-127SW7M5E25KM0	2076549
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m	DSL-8U04G02M025KM1	6034574
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 10 m	DSL-8U04G10M025KM1	6034575



## 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](http://www.sick.com)