Online data sheet



S32B-2011BA

S300 Mini Standard

SAFETY LASER SCANNERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
S32B-2011BA	1050932

Other models and accessories ➜ www.sick.com/S300_Mini_Standard

Detailed technical data

Features

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

[1)] Depending on basic response time and multiple sampling.

Safety-related parameters

Type	Type 3 (IEC 61496)
Safety integrity level	SIL2 (IEC 61508) SILCL2 (EN 62061)
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} (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

Restart interlock	✓
External device monitoring (EDM)	✓
Multiple sampling	✓
Contour as a reference	✓

Interfaces

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

[1)] Availability depends on the configuration of the universal I/Os.

Electrical data

Protection class	III (EN 50178, EN 60950)
Supply voltage V_s	24 V DC (16.8 V DC ... 30 V DC)
Power consumption	≤ 0.2 A [1)] ≤ 1.35 A [2)]

[1)] At 24 V DC without output load.
[2)] At 24 V DC including maximum output load.

Mechanical data

Dimensions (W x H x D)	102 mm x 116 mm x 105 mm
Weight	0.8 kg, without connecting cables
Housing material	Aluminum die cast
Housing color	RAL 1021 (yellow), RAL 9005 (black)
Optics cover material	Polycarbonate
Optics cover 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	5 g, 10 Hz ... 150 Hz (IEC 61496, IEC 61496-3)

Shock resistance	
Continuous shock	10 g, 16 ms (IEC 61496, IEC 61496-3)

Other information

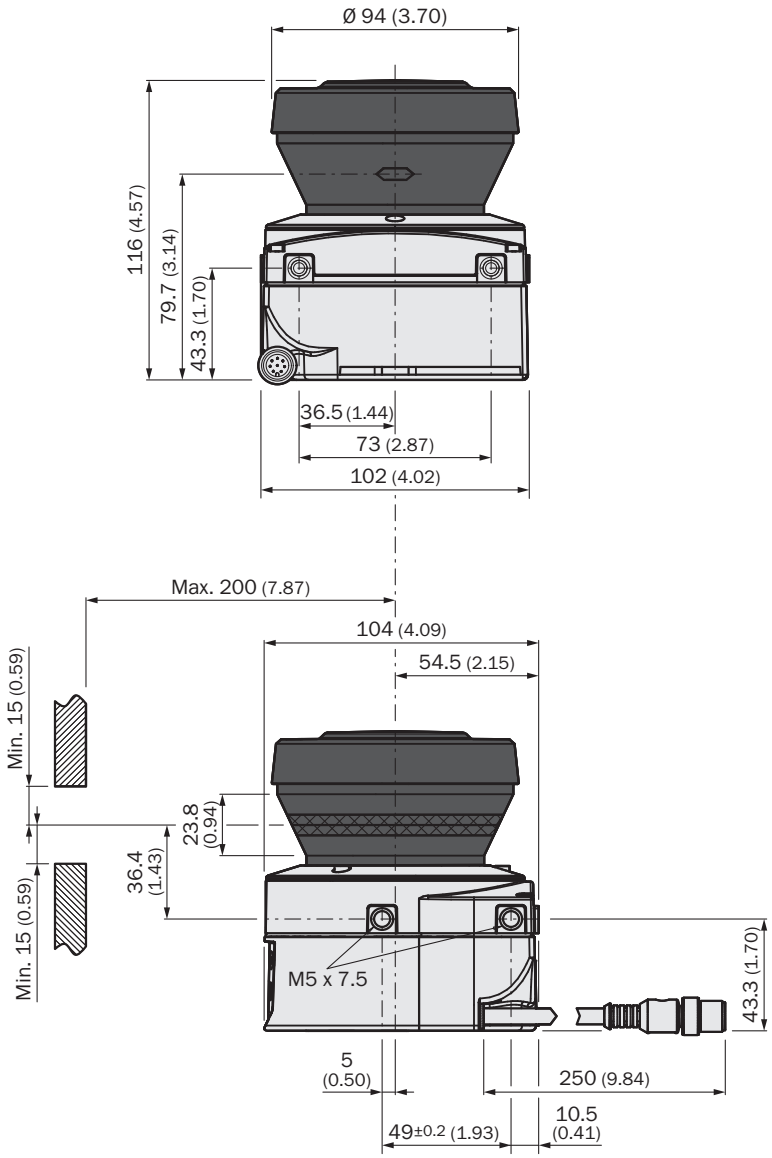
Type of light	Pulsed laser diode
Wave length	905 nm
Detectable remission	1.8 % ... > 1,000 %, reflectors
Laser class	1 (21 CFR 1040.10 and 1040.11, IEC 60825-1)

Classifications

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

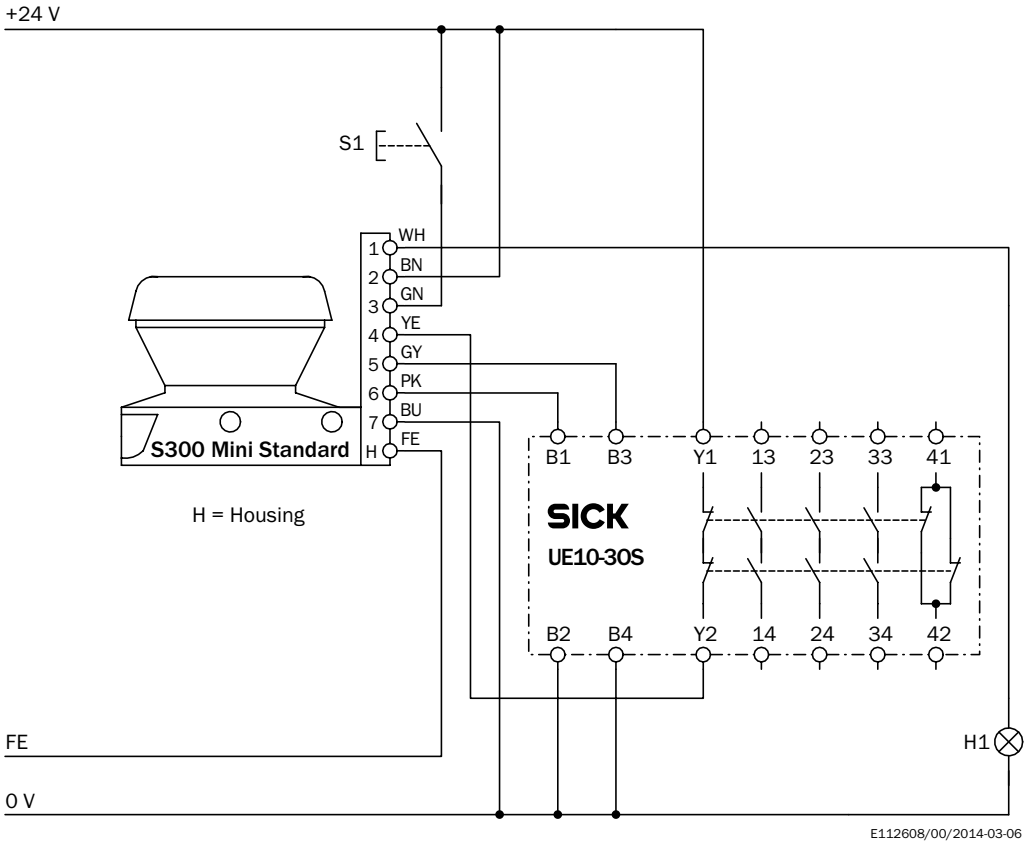
Dimensional drawing (Dimensions in mm (inch))

Laser scanner



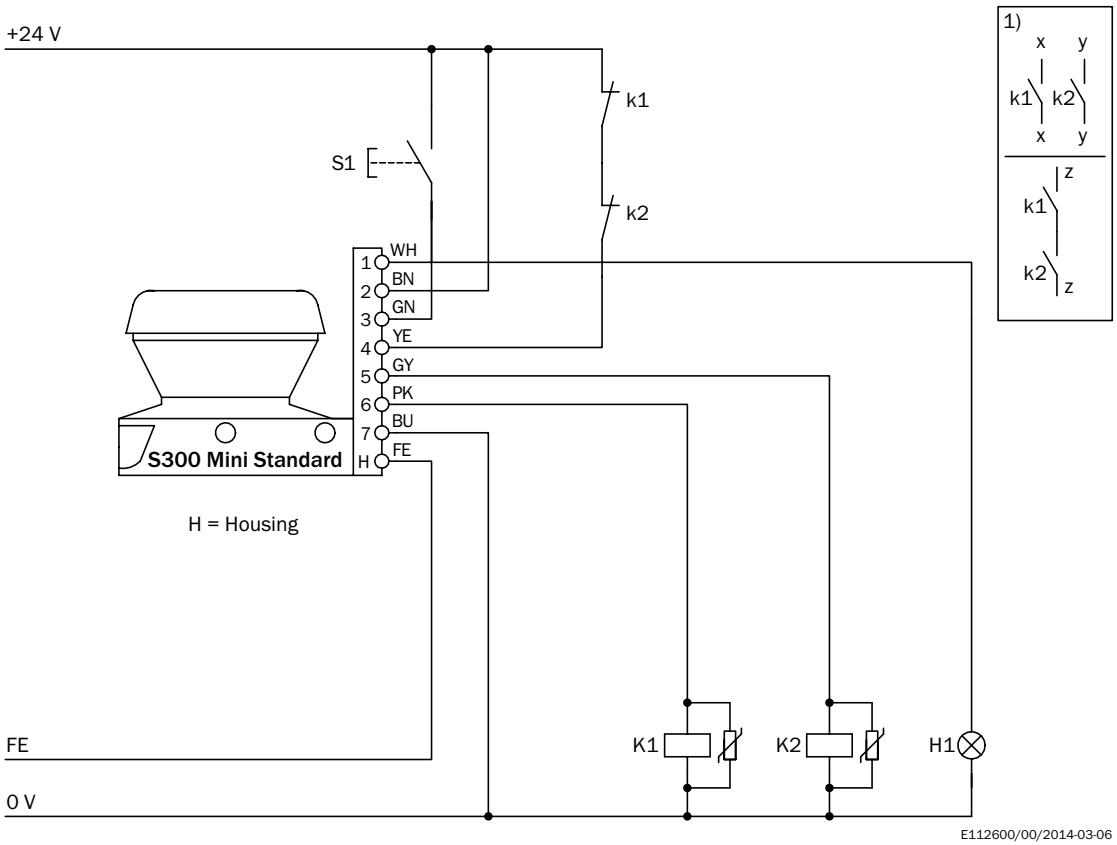
Connection diagram

S300 mini standard to UE10-3OS safety relay



S300 Mini Standard on UE10-3OS 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



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)

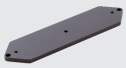
Comments

[1] 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

	Brief description	Type	Part no.
Mounting brackets and plates			
	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
Plug connectors and cables			
	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: 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

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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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