

S300 Safety Laser Scanner

Compact. Flexible. Intelligent.

A new class from SICK: S300 - High-end safety in a compact size.

Smaller, but better. These features are key to SICK's latest addition to an already extensive family of safety laser scanners. The S300 series offers outstanding safety features in an incredibly small size and now enables you to get high performance in space-constrained applications. No other laser scanner offers so much power and user-friendliness and requires so little space. With SICK you can update all your machines, systems, and vehicles to state-of-the-art technology.



SURPRISINGLY SMALL

The S300 is the smallest safety laser scanner in the world. SICK has packed a surprising amount of features into only 102 x 152 x 105 mm (W x H x D). Accept no less than the complete range of functions of a “full size” scanner system — such as freely configureable protective field shapes with adjustable object resolutions and a “contour as reference” function. The S300 can be integrated into nearly all automation environments. Its standardized SICK Configuration & Diagnostic Software (CDS) makes it perfect for a new safety system architecture or for upgrading an existing solution.



SURPRISINGLY LIGHT

Its compact format and light weight greatly simplify installation. Moreover, the system plug is integrated into the housing, can be completely removed, and serves as a configuration back-up of the S300 program. The data interface for programming and diagnosing the scanner is easily accessible at the front of the device even after installation. The same applies to the integrated status and 7-segment displays.

CONVINCINGLY POWERFUL

An 8 m warning field and 2 m protective field are freely programmable for mobile, stationary, horizontal or vertical protection. The compact S300 laser scanner offers an enormous performance range. The device has been approved as a hazardous area, hazardous point, and access protection system, and provides effective protection for your personnel while also reducing operating costs. The S300 ensures fast, long-term and low-cost protection of personnel for first time installations or for retro-fitting machines, plants or vehicles.

SUPERIOR SCANNING ANGLE

The S300 is extremely compact yet achieves an impressive scanning angle. The 270° scanning angle of the S300 enables a number of new applications. For example, if two scanners are mounted at opposite corners of an automated guided vehicle, protection all around the AGV can be implemented without the usual addition of safety devices for side protection. The S300 not only impresses with its unique features, but also with its safety rating. IEC/EN 61496-3, Type 3 as well as IEC/EN 61508 and SIL2 approvals make the S300 perfectly suited for use in industrial environments.

S300 from SICK: Change to performance

One of the keys to the success of SICK laser systems is their enormous range of applications. In any industry.

You want to remove barriers in a production area, improve utilization of storage areas? You need fast switching between protective fields for greater machine efficiency? You want improved transport performance for your mobile service robots? Or do you want to generally increase the level of protection of personnel in your organization? Forget large, wear-prone contact only vehicle and system protection devices.

With the S300 you can easily and economically modernize the safety solutions in your organization. The S300 adapts to the situation on site. Irrespective of the type of protection you are planning, the S300 provides a new level of flexibility. This aspect applies not only for use on automated guided vehicles, but also stationary applications. Whether horizontal, as hazardous area protection, or vertical

as hazardous point or access protection, the S300 will cover all your requirements. You will also not need to go without proven features, e.g. integrated inputs for external device monitoring (EDM) and resetting/restarting. The Intelliface family also provides access to many safe bus systems using the integrated safe communication interface EFI.

S300 STANDARD

The low-cost solution for applications in which only one protective/warning field is required.

Features

- 1 protective and warning field
- 270° scanning angle
- Configuration memory in the system plug
- Adjustable object resolution
- External device monitoring (EDM) input
- Input for stand-by mode

S300 ADVANCED

With 2 switchable protective/warning fields, it is the system of choice particularly for applications with changing processing positions, e.g. insertion stations, robots, moving workbenches.

Features

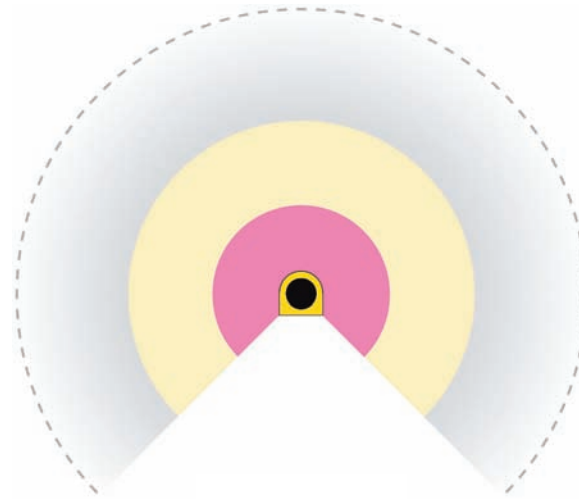
- Same as S300 Standard plus:
- 2 switchable protective/warning fields
 - EFI – safe SICK device communication

S300 PROFESSIONAL




Optimal protection, e.g. for small, freely moving transport systems and service robots on which the protective fields must be adjusted to suit varying speeds, with 4 protective fields and warning fields, incremental encoder inputs and RS-422 data interface.

Features

- Same as S300 Standard plus:
- 4 switchable protective/warning fields
 - EFI – safe SICK device communication
 - Input for connecting incremental encoder
 - RS-422 data interface



270° Scanning angle

	Protective field S300	2 m
	Protective field S200	1.5 m
	Warning field	up to 8 m
	Measuring range	up to 30 m

S200

The cost-effective, state-of-the-art solution for Safety Category 2 applications. Impressively compact, flexible, and easy to integrate. Can be used horizontally and vertically, with adjustable object resolution. Unlike the S300, the S200 is not UL or CSA listed.

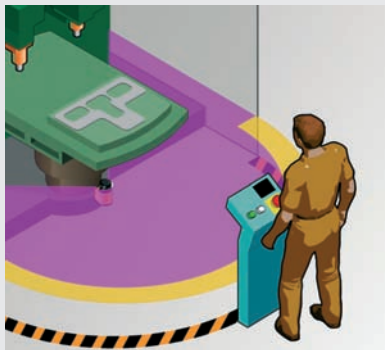
Features

- 1 protective and warning field
- 270° scanning angle
- Adjustable object resolution
- External device monitoring (EDM)
- RS-232 data interface

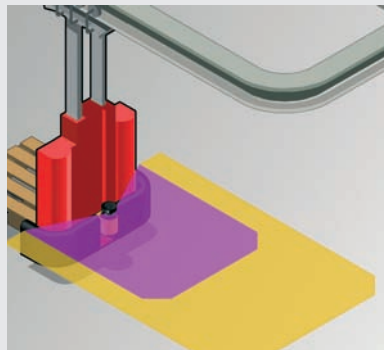


S300 system variants: Highly accurate safety.

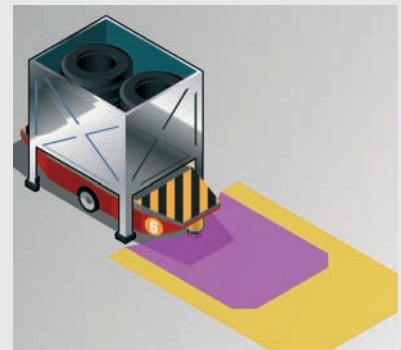
The flexibility and range of variants of the S300 form the basis for a large number of intelligent, easy-to-install and easy-to-control safety solutions. The S300 system variants allow selection of the best solution for a wide range for stationary and mobile applications.



Optimized machine and system safety with just one scanner – the phenomenal 270° scanning angle on the S300 makes it possible, and very cost-effective.



Small size, flexible switched warning fields and protective fields – the S300 makes overhead conveyor operation possible with dense grouping and at the same time provides reliable protection for people and machines.

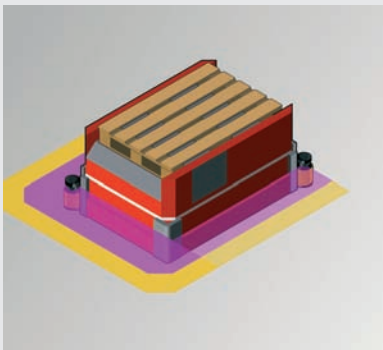
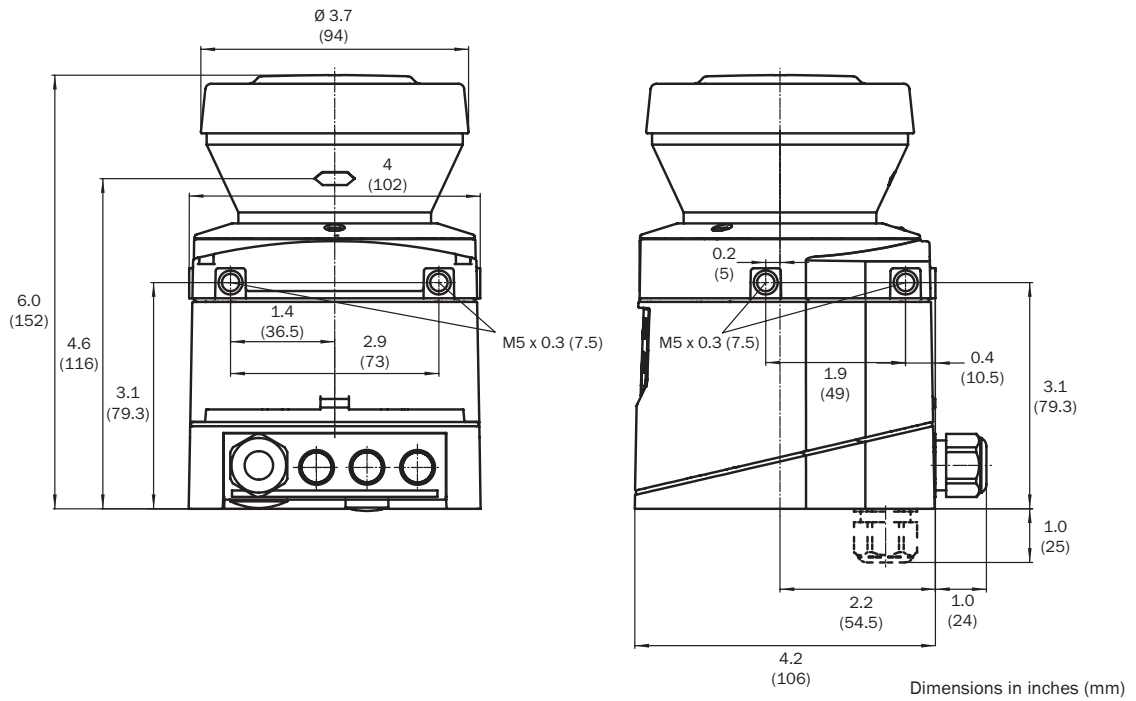


Automated guided systems in highly automated environments – the S300 is a reliable personnel protection device in the direction of travel.

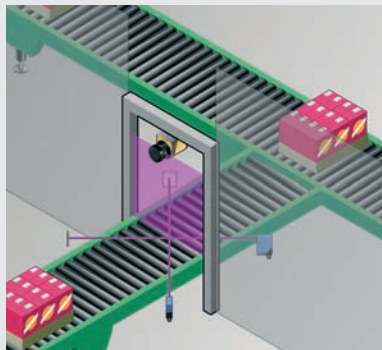


Housing:

- Extremely compact design
- Only 1.2 kg weight
- Device connection either on rear or underside
- Integrated configuration memory
- Convenient indicators for information on device status at a glance
- Easy to access interface for programming/diagnostics
- Suitable mounting kits available



Just two compact S300 series scanners are sufficient to ensure reliable all-round protection – the unbeatable solution for small vehicles.







Superior vertical access control with “contour as reference.” For the protection of an access with differentiation between person and goods. Benefit: the protective function of the scanner is always retained (no muting).




Product Overview



Compact laser scanners from SICK:
Different variants for seamless protection.

	S300 STANDARD	S300 ADVANCED
Application		
Hazardous area protection (horizontally)	•	•
Access protection (vertically)	•	•
Hazardous point protection (vertically)	•	•
Protective field range (m)	2.0	2.0
Warning field range (m)	8.0	8.0
Number of protective/warning fields	1	2
Scanning angle	270°	270°
Response time (ms)	80	80
Resolution (mm)	30, 40, 50, 70	30, 40, 50, 70
Static inputs for protective field switching	-	•
Incremental encoder connections for speed-dependent protective field switching	-	-
Integrated external device monitoring (EDM)	•	•
Data interface		
RS-232	•	•
RS-422	-	-
EFI interface for the bus interface and for linking two S300	-	•
Plug and Play on device replacement (integrated configuration memory in the system plug)	•	•
7-segment display for easy on-site diagnostics	•	•
Supply voltage, DC (V)	16.8...30.0	16.8...30.0
Power consumption (in W, without ext. load)	8	8
Weight (kg)	1.2	1.2
Dimensions (W x H x D) (mm)	102 x 152 x 105	102 x 152 x 105
Category according to EN 954-1	Type 3, IEC/EN 61496-3, IEC 61508 SIL2	Type 3, IEC/EN 61496-3, IEC 61508 SIL2
Approvals	 	 



S300 PROFESSIONAL	S200
•	•
•	•
•	•
2.0	1.5
8.0	8.0
4	1
270°	270°
80	80
30, 40, 50, 70	30, 40, 50, 70
•	-
•	-
•	•
•	•
•	-
•	-
•	-
•	-
•	•
16.8...30.0	16.8...30.0
8	8
1.2	1.2
102 x 152 x 105	102 x 152 x 105
Type 3, IEC/EN 61496-3, IEC 61508 SIL2	Type 2, IEC/EN 61496-1
 	



**S3000
SAFETY LASER
SCANNER**

The S3000 product series with expanded features is available for more complex applications (compatible with S300 laser scanners).

Compact. Flexible. Intelligent.

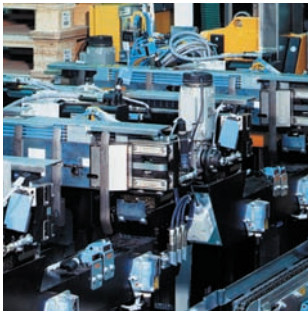




RANGE OF EXPERTISE

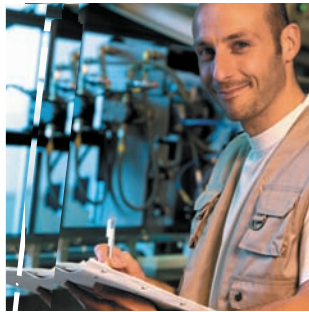
INDUSTRIAL SENSORS

SICK is one of the world's leading manufacturers of sensors, safety systems, and automatic identification products for industrial applications. SICK holds more than 450 patents for its innovative products. Through its Industrial Sensors, Safety Systems, Automatic Identification, and Environmental and Process Analysis divisions, the company has operations in 65 countries. SICK North America is headquartered in Minneapolis, MN.



SAFETY SYSTEMS

Products from SICK provide comprehensive safeguarding of both workers and machinery. As experts in sensor technology, SICK develops and manufactures pioneering products that provide protection in hazardous zones, dangerous locations and for safeguarding access points. By providing services, which encompass all aspects of machine safety and security, SICK is setting new standards in safety technology.



AUTOMATIC IDENTIFICATION

Our wide range of sensors provides solutions to suit any application in the field of automation. Even under rugged ambient conditions, objects are reliably detected, counted and positioned regardless of their form, location and surface finish.



ANALYZERS AND PROCESS INSTRUMENTATION

Whether the tasks involve identification, handling, classification or volume measurement, innovative automatic identification systems and laser measurement systems from SICK function reliably, even under rapid cycle times. Products from SICK conform to the latest standards and can be easily integrated in all industrial environments and external applications.



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