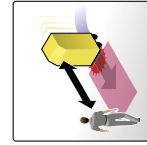


Mobile hazardous area protection

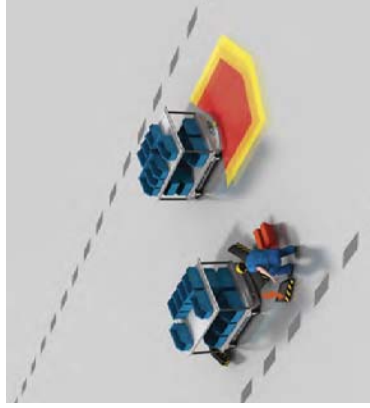
Automated guided carts



Automated guided carts (AGCs) are becoming increasingly important. Safety remains the primary focus for compact flexible systems. Due to their compact dimensions, the S300 and S300 Mini can be easily integrated in small vehicles. While the S300 Mini Standard focuses on the basics, the S300 Mini Remote – combined with the Flexi Soft safety controller – offers an impressive range of features using minimal space. The S300 offers a complete range of scanning functions directly in the device, which provides increased safety and productivity.

Automated guided carts

Mobile hazardous area protection



Non-contact protection

- Scanners detect persons and objects that are in the path of an automated guided cart without contact
- Damaged bumpers and broken safety edges are a thing of the past
- The protective fields of the scanner can be configured flexibly

+ High reliability with low wear to the vehicle

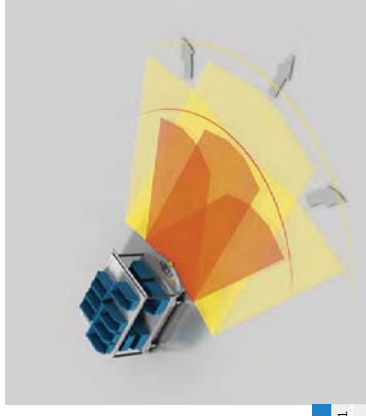
Recommended product
S300 Mini Standard → page 46

Optimal protection when turning

- Automated guided carts turn and change direction to follow the route
- 16 different field sets can be configured for the S300 Mini Remote, i. e., 16 different placements of one protective field and two warning fields each. Depending on the current travel situation, it is possible to switch between them to the appropriate protective fields and warning fields.

+ Increased performance due to application flexibility

Recommended product
S300 Mini Remote + Flexi Soft
S300 Expert → page 46 + 51
→ page 46



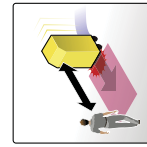
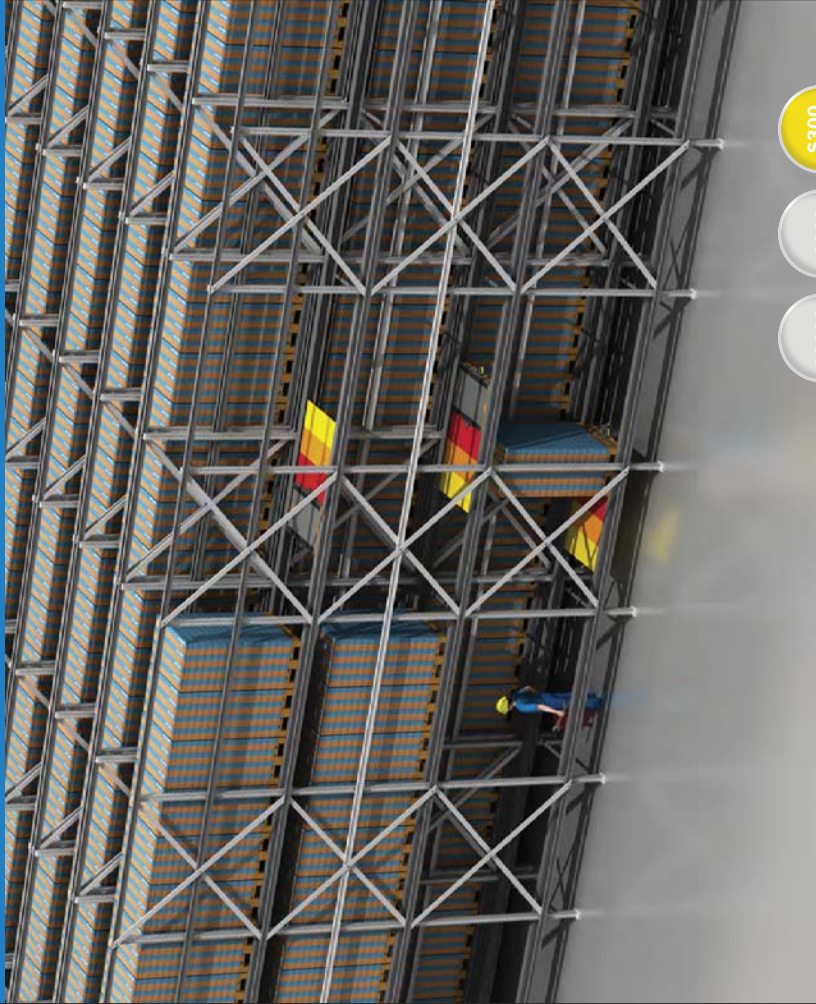
Quick commissioning, maintenance and diagnostics

- A central interface on the Flexi Soft safety controller allows the complete system to be configured and diagnosed
- Reduced workload and time savings

+ Quick commissioning = quick production start
Low service times = high productivity

Recommended product
S300 Mini Remote + Flexi Soft → page 46 + 51





Pallet shuttle systems are used in channel storage facilities to move pallets forward and backward automatically. Persons in the storage rack (e. g., for maintenance purposes) are in danger of being run over by the shuttle. With the S300 Mini, SICK offers a compact protection solution that is easy to integrate into small vehicles while preventing harm to persons and damage to material.



Simple and safe integration in small vehicles

- Mobile protection solutions on the vehicle itself have clear advantages over stationary access protection at shelf openings
 - In PL d per EN ISO 13849-1, the S300 Mini fulfills the required safety standards for mobile protection solutions and can be easily integrated in the application
- + High safety performance and easy integration**

Recommended product

S300 Mini Standard	→ page 46
S300 Mini Remote + Flexi Soft	→ page 46 + 51

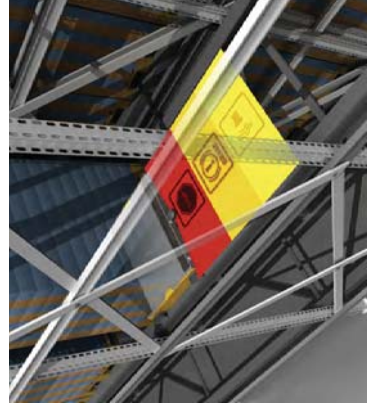
Small, smaller, smallest

- Small vehicles need small, easy-to-integrate protective devices
 - The minimal dimensions of the S300 Mini, at just 102 mm x 116 mm x 104 mm (W x H x D), make it the most compact SICK safety laser scanner
- + Fits absolutely anywhere**



Recommended product

S300 Mini Standard	→ page 46
S300 Mini Remote + Flexi Soft	→ page 46 + 51

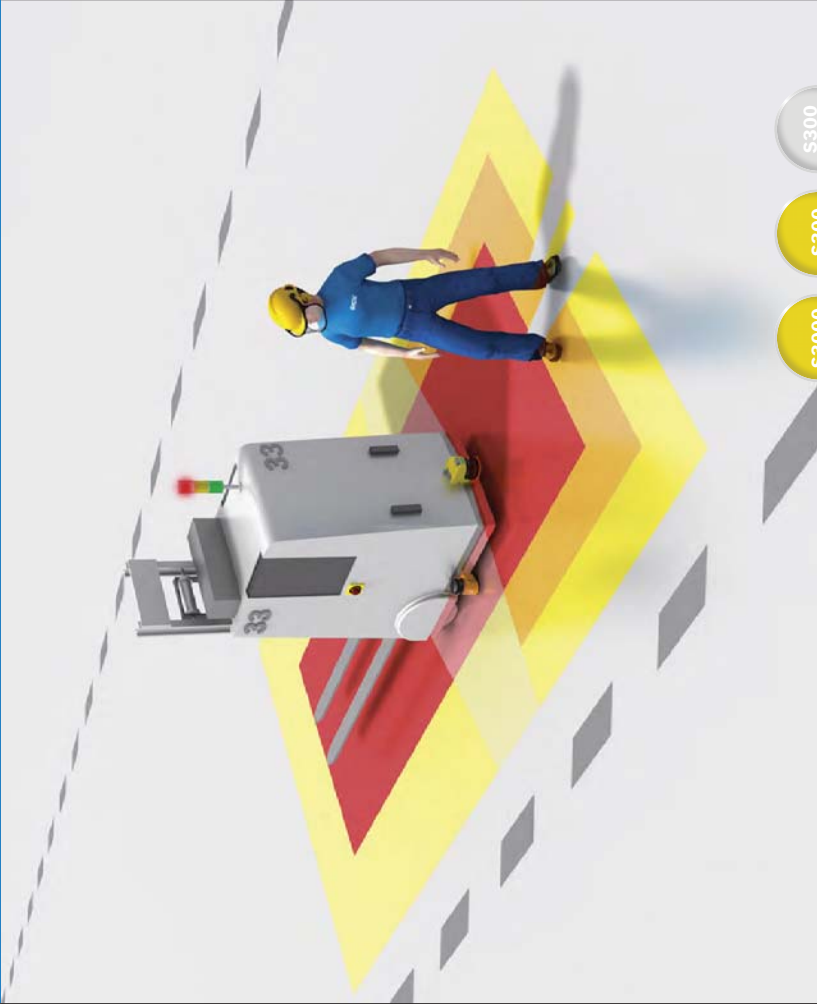


Advance braking, not emergency braking

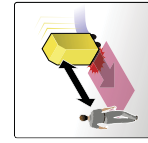
- Every emergency stop places great stress on the vehicle's brake system
 - The triple field function (2 warning fields and 1 protective field) prevents unnecessary emergency stopping:
 - Warning field 1 (yellow) = e. g., triggering a warning signal
 - Warning field 2 (orange) = e. g., reducing the speed of the vehicle
 - Protective field (red) = vehicle stop
- + Less wear and maintenance and fewer vehicle repair costs**

Recommended product

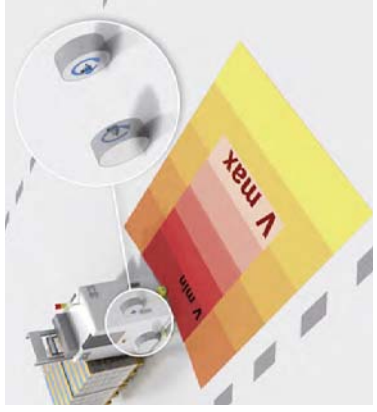
S300 Mini Standard	→ page 46
S300 Mini Remote + Flexi Soft	→ page 46 + 51



- S3000
- S300
- S3000 I/Mini



Automated guided vehicles (AGVs) are available in a wide range of types. SICK offers the right protection solution for all types of automated guided vehicles. The features of SICK safety laser scanners ensure the safety of the AGV, and also increase productivity. Plus, large vehicles with high loads and speeds can be protected efficiently. In addition to protection, many additional tasks can be performed with SICK sensors.

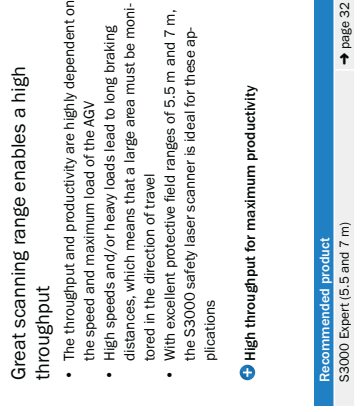


Always the right protective field

- Dynamic inputs allow safety laser scanners to be supplied with current speed information by encoders
- Changes in speed result in changes to the hazardous area in front of the vehicle. The right protective field is activated accordingly.
- Appropriate protective fields help to ensure vehicle safety and prevent unintentional stops

+ No unnecessary downtime

Recommended product
S3000 Professional and Expert → page 32
S300 Professional and Expert → page 40

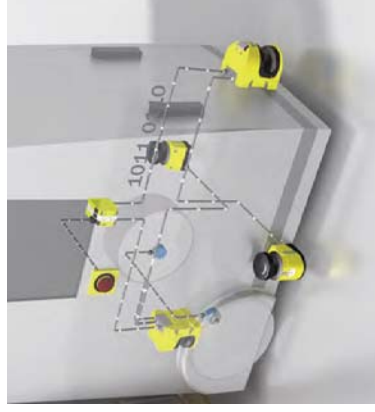


Great scanning range enables a high throughput

- The throughput and productivity are highly dependent on the speed and maximum load of the AGV
- High speeds and/or heavy loads lead to long braking distances, which means that a large area must be monitored in the direction of travel
- With excellent protective field ranges of 5.5 m and 7 m, the S3000 safety laser scanner is ideal for these applications

+ High throughput for maximum productivity

Recommended product
S3000 Expert (5.5 and 7 m) → page 32

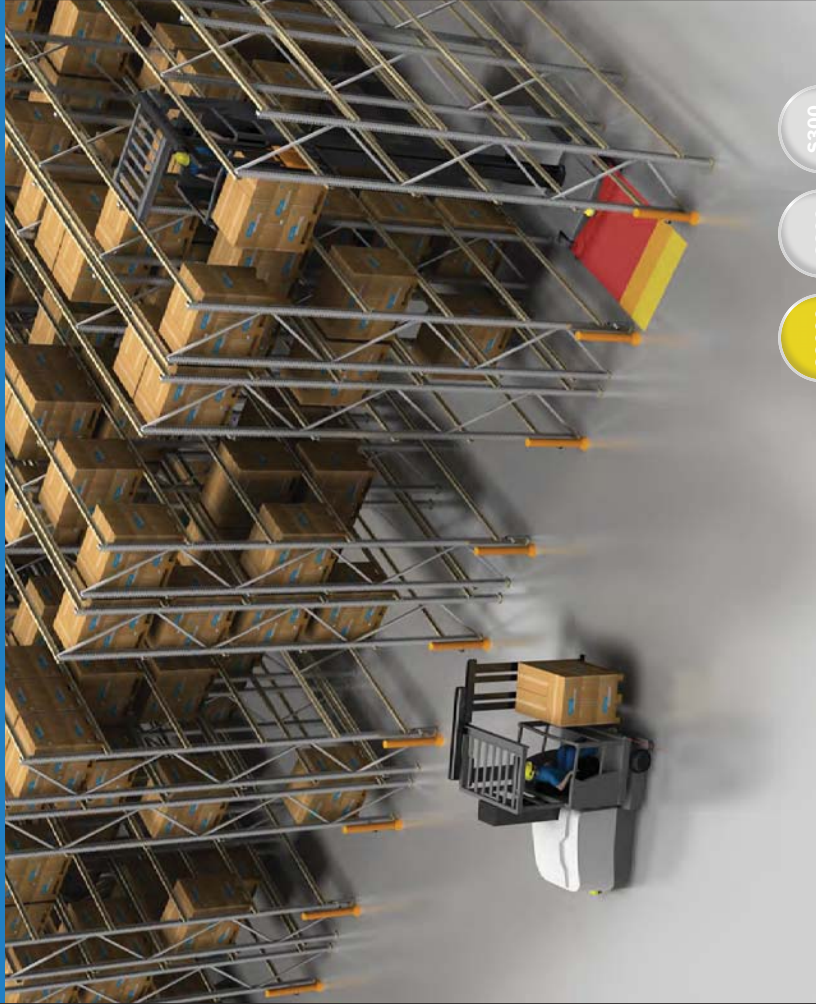


Complete solution

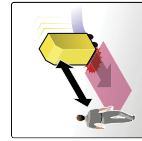
- Multiple components are required to protect AGVs
- In addition to the safety solution, SICK offers many automation solutions for navigation, positioning, presence checking, etc.
- SICK offers comprehensive services for sensors and applications

+ The full range of services allows optimal integration of all components

Recommended product
Overall portfolio
SICK SafetyPLUS® → page 4



In addition to AGVs, SICK safety laser scanners can be used to protect persons and prevent vehicle collisions, e. g., narrow aisle stackers, transfer vehicles or storage and retrieval systems.
As protection is implemented on the vehicle itself, no additional access protection and monitoring are required, reducing the application complexity and increasing flexibility.



Great protective field range

- High speeds are essential for a high throughput in narrow aisle warehouses. This entails longer braking distances and large hazardous areas in the direction of travel.
 - With an excellent protective field range of 7 m, people obstructing the path of the vehicle are quickly detected, even when the vehicle is traveling at high speeds
- **High safety without compromising productivity**

Recommended product
S3000 (7 m) → page 32

Forward and backward protection

- Safety must be ensured when traveling forward and backward
 - That can be implemented via a host-guest combination using the S3000 Professional and S3000 Remote. The host device then controls the guest.
 - This simplifies the system architecture, speeds up commissioning and saves costs
- **Perfectly matched**

Recommended product
S3000 Remote → page 32



Anticipatory personal protection

- A safety device is required whenever a storage and retrieval system is used in areas where people may also be present
 - With a protective field range of 7 m, the S3000 has a large scanning range even at high speeds
- **Safe personal protection in automatic processes**

Recommended product
S3000 → page 32



Sensor Intelligence is a promise

At SICK, sensor solutions are developed for industrial automation with commitment and experience. From development to product support, every employee is completely committed to ensuring that sensors and application solutions from SICK optimally fulfill their versatile functions.

+ SICK invented it

Safety laser scanners based on time-of-flight measurements were invented by SICK engineers. Continuous development in response to customer requirements combined with the latest technology opens the door to new and increasingly innovative products.

20 years of experience
 + Tens of thousands of solutions on the market
 = **Thousands of satisfied customers**

+ Free choice

Choose the ideal safety laser scanner for your application based on costs and functionality: S3000, S300 and S300 Mini.

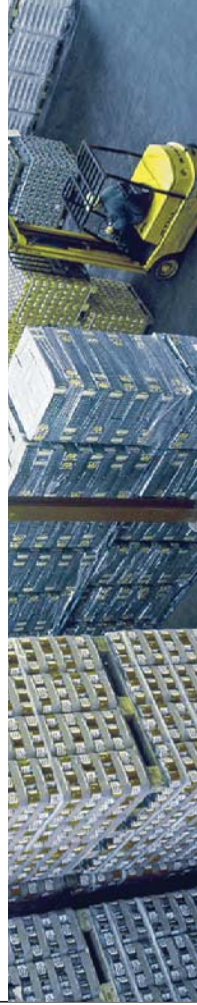
The following solutions are available:

- The ultra-compact **S300 Mini**
- The compact **S300**,
- The safety laser scanner with the unbeatable protective field range of 7 m – **S3000**
- The only safety laser scanner that can be integrated directly and safely in PROFINET PROFIsafe – **S3000 PROFINET IO**
- The "coolest" safety laser scanner, which even performs reliably at -30°C – **S3000 Cold Store**

→ Your proven and reliable partner

+ SICK offers thousands of applications in which safety laser scanners ensure the safety of your employees and colleagues while maintaining maximum machine productivity

→ The right scanner for your requirements every time



+ Stacks of arguments

Starting on page 30, we will show you the excellent features of SICK's safety laser scanner product families.

Key features of our scanners:

- **Rugged design** that withstands dust and vibrations and, as a result, reliable operation even in difficult ambient conditions
- **Safe networking options** from scanner to scanner, scanner to controller, and scanner to network
- **Simple and quick configuration** even for multiple scanners
- **Top diagnostic reports** for quick and easy troubleshooting

+ Thinking beyond the product

SICK continues to support you after you buy a safety laser scanner. We provide you with additional services to help you integrate and operate your purchased product easily.

Wide variety of accessories

- Mounting brackets, connecting cables, system plugs, etc.

Info service

- Multi-language operating instructions, dimensional drawings and CAD models, connection diagrams, sample applications, animations, tutorials and quick starts are included
- After-Sales support, e.g., for subsequent system expansions

www.sick.com/service

→ Great performance for high productivity

→ Service and support for smooth operation

