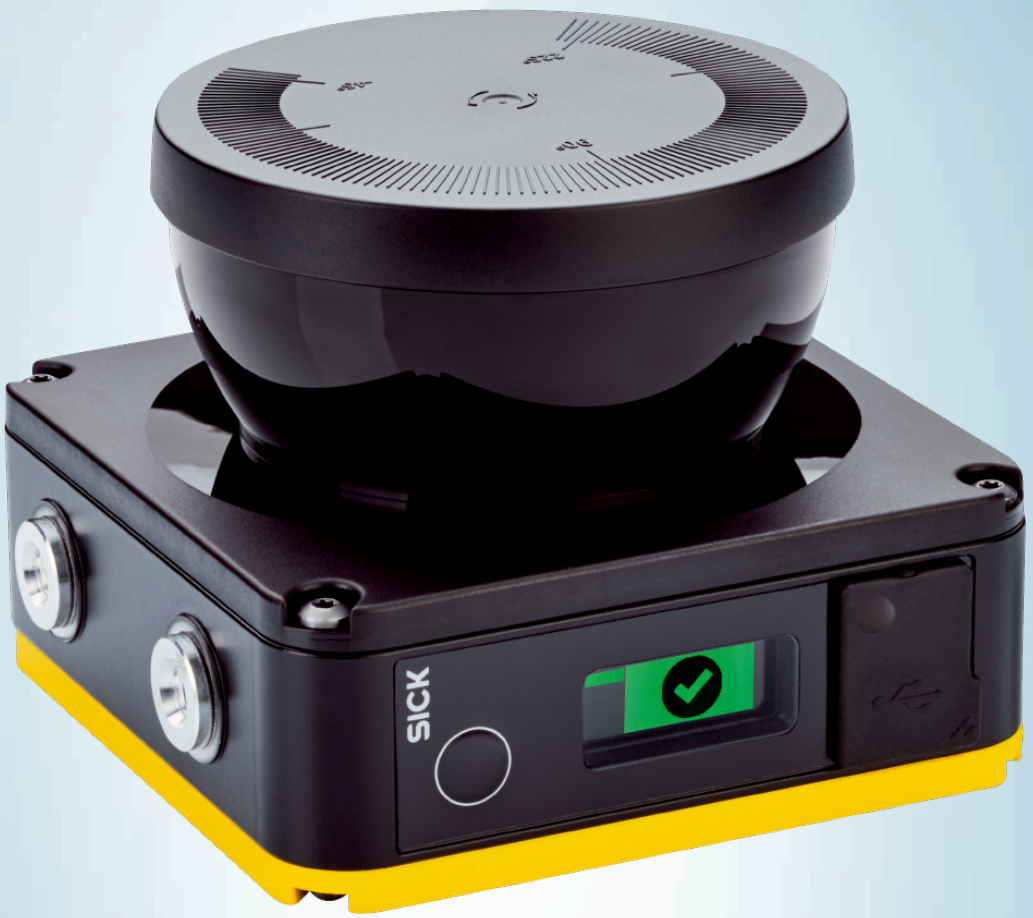
Product family overview

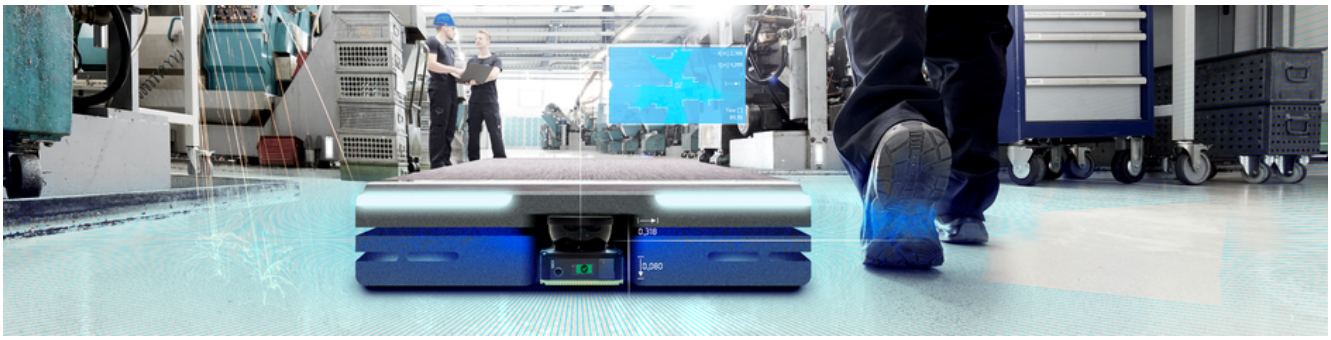


nanoScan3

The smallest safety laser scanner from SICK – extremely rugged and highly precise

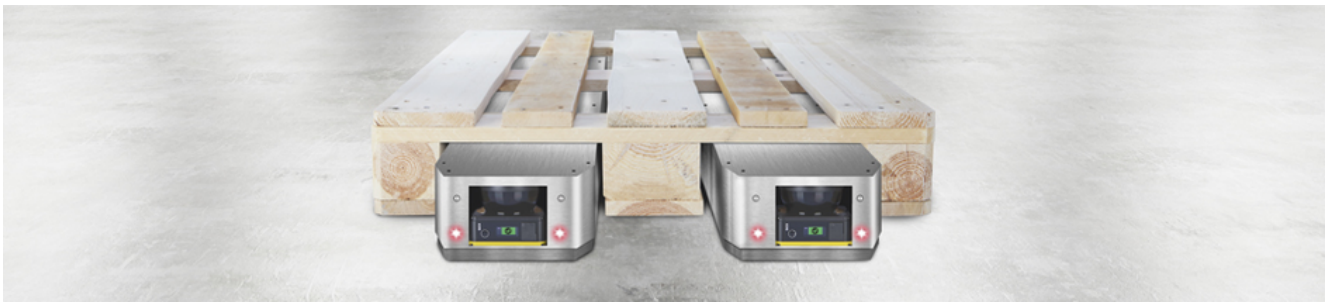
SICK
Sensor Intelligence.

Advantages



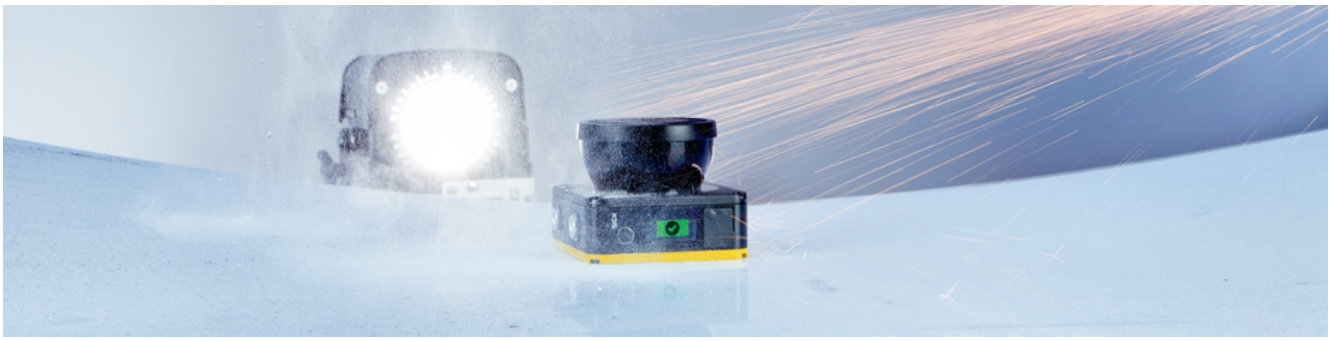
The smallest safety laser scanner from SICK – extremely rugged and highly precise

The nanoScan3 advances the miniaturization of high-precision and extremely rugged safety laser scanners. Thanks to the low height of 80 mm, even small automated guided vehicles (AGVs) can be very well equipped – and production and logistics can be automated in more versatile ways.



Low space requirements: The nanoScan3 was specially developed for small automated guided vehicles.

Space-saving safety solution for AGVs and AGCs



Reliable accuracy thanks to safeHDDM® scanning technology

Dirt, dust, and ambient light are all par for the course in rough industrial environments. With this in mind, it is reassuring to know that the nanoScan3 can withstand these ambient conditions. This is partly thanks to the patented scanning technology safeHDDM®. It uses numerous laser pulses to accurately detect its environment – with a scanning angle of 275°.

Find out more

safeHDDM® makes safety laser scanners such as the nanoScan3 from SICK very resistant and reliable.

Remains undisturbed while at work: the nanoScan3 is resistant to dirt, dust and ambient light.

The precise measurement data of the nanoScan3 is very well suited for vehicle localization.

safeHDDM® ensures high machine productivity

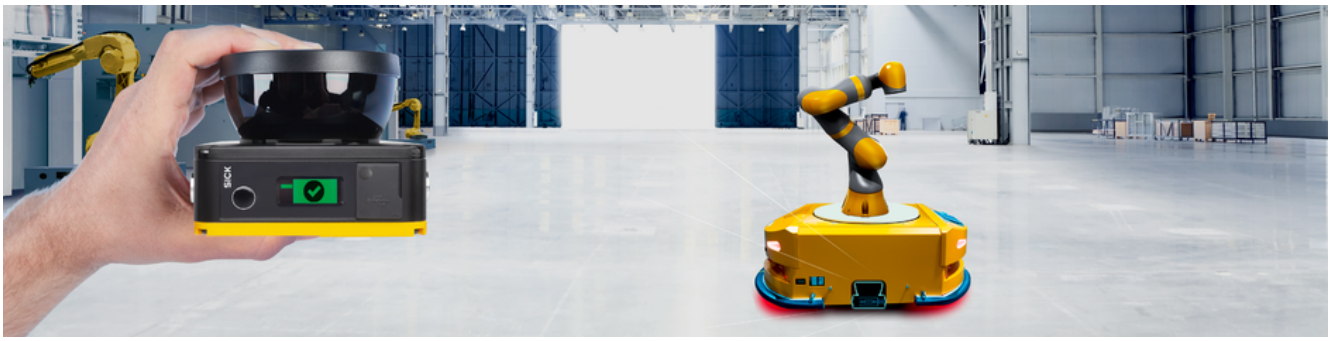
Intuitive configuration, commissioning and diagnostics with Safety Designer

With the versatile Safety Designer software, configuration and commissioning of the nanoScan3 is quick and easy. You can easily implement and use safety functions in the safety laser scanner. Detailed diagnostic information about the device can also be easily retrieved.

128 monitoring cases can be implemented according to the application and enable fluid movements and flexible routes from mobile platforms.

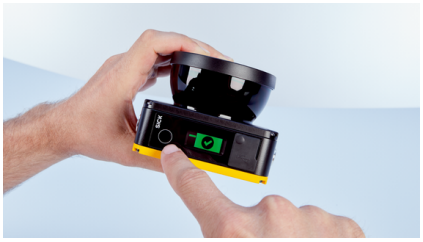
Individual field settings enable the adjustment of vehicle movements to the current hazard level.

Save resources and prevent unplanned machine downtime

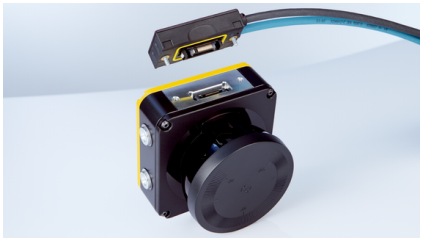


Smart integration via standard interfaces

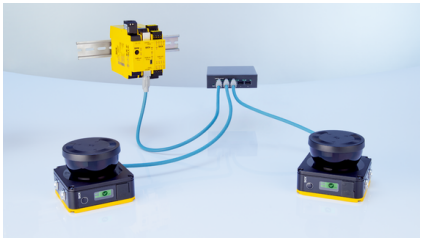
Thanks to standardized interfaces, cabling costs for the safety laser scanner are low. And it can be easily integrated into machines with its inputs and outputs. In addition, a configuration memory integrated in the system plug enables quick device replacement.



Important diagnostic data can be viewed using the display and highly-visible LEDs or read out using the Safety Designer software.



Quick device replacement without new cabling and configuration thanks to the removable system plug with integrated configuration memory.



High productivity thanks to central diagnostics via Safety Designer and safe integration into industrial networks, e.g. EtherNet/IP™ CIP Safety™, I/O or the intelligent Safe EFI-pro system.

Simple machine integration and quick device replacement

Technical data overview

Application	Indoor
Protective field range	3 m
Warning field range	10 m
Scanning angle	275°
Number of fields	8 / 128 (depending on type)
Number of monitoring cases	2 / 128 (depending on type)
Response time	≥ 70 ms (depending on type)
OSSD pairs	1 2 [1)] 0
Integration in the control system	Local inputs and outputs (I/O) EFI-pro CIP Safety™ over EtherNet/IP™ (depending on type)
Safety level	PL d, SIL 2, Type 3

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

Product description

The nanoScan3 is the smallest safety laser scanner from SICK. It is well suited for the protection and localization of mobile platforms. Thanks to the reliable safeHDDM® scanning technology, it delivers high-precision measurement data and is extremely resistant to light, dust or dirt. The easy operation of the Safety Designer configuration software and the clever integration options of the nanoScan3 ensure flexibility in applications and also save time. The nanoScan3 therefore offers a high level of performance and availability in a compact housing, thereby securing system productivity.

At a glance

- Only 80 mm high
- Extremely resistant to light, dust and dirt thanks to the safeHDDM® scanning technology
- High-precision measurement data via Ethernet interface
- Protective field range: 3 m, scanning angle: 275°
- Up to 128 freely configurable fields
- Standardized communication interfaces
- System plug with configuration memory

Your benefits

- Smallest safety laser scanner from SICK for simple and space-saving design-in for mobile platforms
- High availability for the prevention of downtime
- 2-In-1: Reliable safety and precise localization
- Saves time during configuration and diagnostics thanks to user-friendly Safety Designer software
- Very high level of flexibility when adjusting the vehicle speed and direction
- Simple integration into different control systems via EtherNet/IP™ CIP Safety™, I/O and EFI-pro
- Quick device exchange without rewiring or reconfiguration

Fields of application

- Safety and localization for mobile platforms, small automated guided vehicles (carts) and mobile robots
- Hazardous area, hazardous point and access protection of stationary applications

Ordering information

Other models and accessories ➜ www.sick.com/nanoScan3

Integration in the control system	Sub product family	Protective field range	Number of fields	Number of monitoring cases	Type	Part no.
Local inputs and outputs (I/O)	nanoScan3 Core I/O	3 m	8	2	NANS3-AAAZ30AN1	1100333
	nanoScan3 Pro I/O	3 m	128	128	NANS3-CAAZ30AN1	1100334
Local inputs and outputs (I/O), EFI-pro	nanoScan3 Pro I/O - EFI-pro	3 m	128	128	NANS3-CAAZ30AA1	1126792
EFI-pro	nanoScan3 Pro - EFI-pro	3 m	128	128	NANS3-CAAZ30ZA1	1126793
CIP Safety™ over EtherNet/IP™	nanoScan3 Pro - EtherNet/IP	3 m	128	128	NANS3-CAAZ30IZ1	1126794

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