

BUILDING SAFETY AND SECURITY

PROTECTING ASSETS, MANAGING INFORMATION

Protection against vandalism, theft, intrusion and jailbreak

SICK
Sensor Intelligence.

TASKS IN BUILDING SAFETY AND SECURITY

Automated building safety and security solutions protect public buildings, industrial facilities, critical infrastructures, private homes or material assets from vandalism, theft, terrorism, intrusion, or where necessary, unlawful escape. Yet, the protection offered by mechanical measures and guards is often not sufficient. SICK electronic sensor-based protective devices complement these measures and are suitable for stationary, portable, or mobile applications. In order to extend response times, protection is provided in a concentric manner: from perimeter protection and monitoring of the building exterior and interior, as well as object monitoring.



Read more about sensor solutions for building safety and security:
 → www.sick.com/building_safety_and_security



Detecting

SICK sensors are perfectly suited for the presence detection of objects of all kinds. In the field of building safety and security, the main task is the detection of persons to identify unauthorized access to buildings and grounds. Various alarm systems can be easily connected to SICK sensors.



Protecting

In building safety and security, the protection of buildings, property and access areas, but also of persons and valuables, is very important. SICK sensors therefore protect buildings and property against intrusion and break-out.



Identification

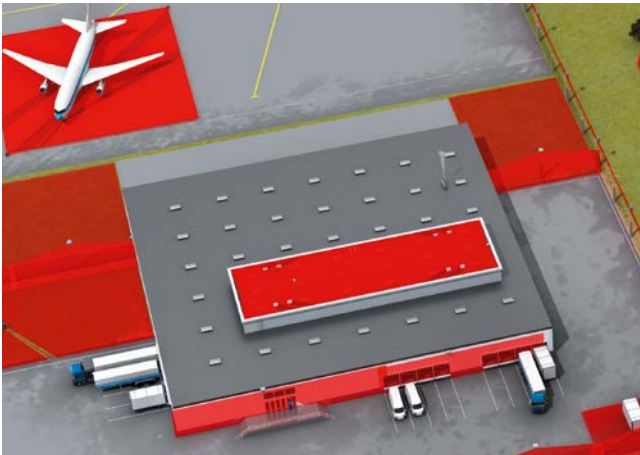
SICK bar code scanners and RFID read devices reliably read transponders for access control. This ensures that only persons or vehicles with access authorization can enter certain buildings or areas.



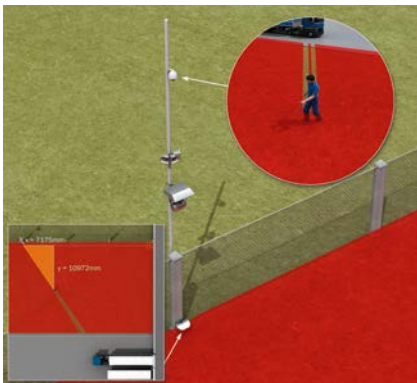
Measuring

2D laser scanner laser data can be used to detect the length of stay, direction of movement, and speed of anyone detected by the system. This data can also be used to control cameras, making it easy to tell the difference between legitimate individuals and potential thieves when looking at security screens.

PERIMETER PROTECTION



Perimeter protection via sensors starts at the barrier encircling the premises, such as a fence or wall, and ends at the building envelope. In order to keep these areas secure, software inside the sensor evaluates all monitoring fields. If someone or something intrudes into a monitoring field, an alarm is triggered. Data measured by the sensors is used to determine the position of a person on the premises, for example.



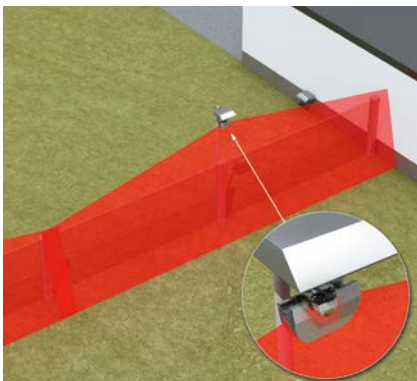
Horizontal monitoring of open spaces and object tracking using cameras

When monitoring airports and other buildings, a 2D laser scanner detects any individuals who step into the pre-defined monitored area. The position data recorded by the laser scanner is further processed by an integrated or external evaluation unit and is used to control the camera.

- LMS1xx



→ www.sick.com/LMS1xx



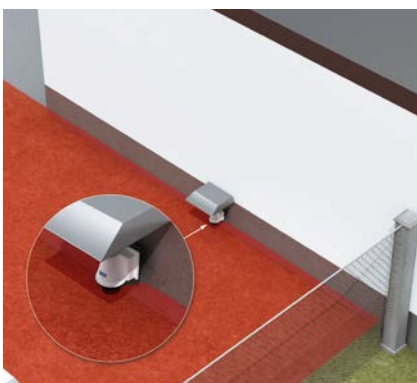
Vertical protection of a fence

A 2D laser scanner detects individuals crawling beneath or otherwise crossing the perimeter of a fence with high detection speed and unaffected by interference from the weather. The sensor generates a vertical field. If anyone penetrates this field the security scanner triggers an alarm.

- LMS5xx



→ www.sick.com/LMS5xx



Horizontal monitoring of open spaces in front of buildings

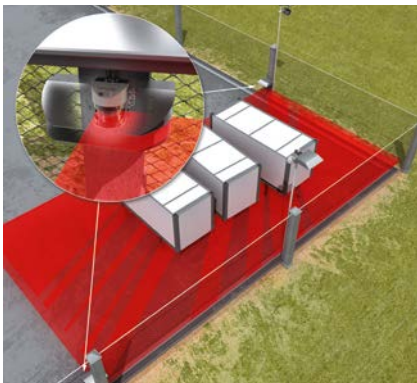
2D laser scanners monitor open spaces connected to a property horizontally. Multiple monitoring fields and selective field evaluation can be freely defined. This makes it possible to block out certain access routes and paths and to monitor anyone entering.

- LD-LRS



→ www.sick.com/LD-LRS

PERIMETER PROTECTION



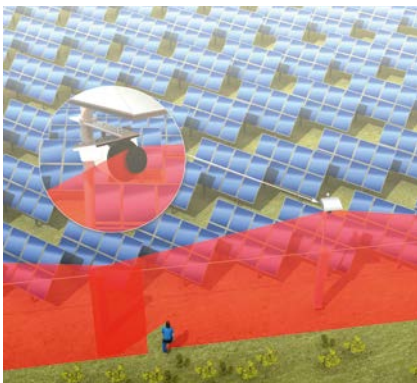
Monitoring swap trailers as an anti-theft measure

The LMS531 PRO 2D laser scanner help to prevent swap trailers from being targeted by thieves. With the Easy Teach function, monitored areas can be adjusted to the constantly changing conditions at any time.

- LMS5xx



→ www.sick.com/LMS5xx



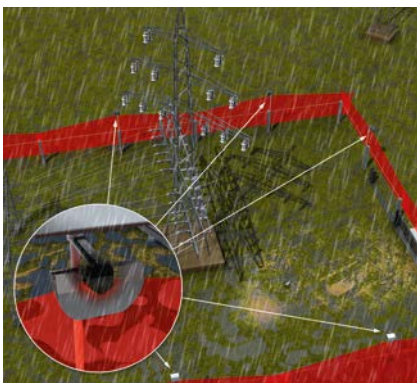
Vertical protection of solar farms

2D laser scanners fitted around a solar farm detect any people and objects that pass through the vertically protected area. The area can also be protected horizontally.

- LD-LRS



→ www.sick.com/LD-LRS



Vertical protection of transformer stations and telecommunication facilities

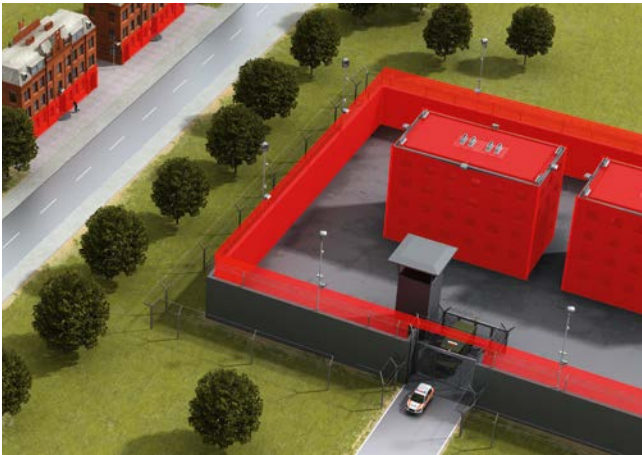
2D laser scanners protect transformer stations, telecommunication facilities, and other highly sensitive facilities from unauthorized intrusion, even in bad weather. At the same time, the sensors ignore small objects such as animals. If the field is breached, an alarm is sounded and security personnel are informed.

- LMS5xx

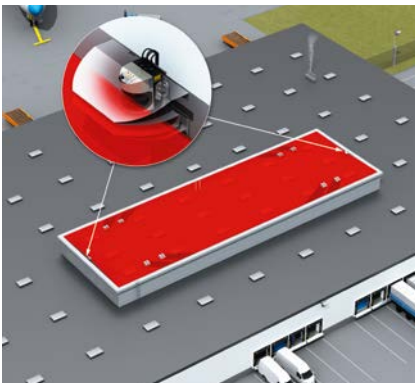


→ www.sick.com/LMS5xx

OBJECT PROTECTION



Object protection in outdoor areas includes protecting roofs, facades, doors, gates, windows, and skylights. 2D laser scanners register every movement within the protective fields. Their large scanning range combined with day and night modes make it possible to implement a flexible security concept. The chance of a false alarm caused by animals or leaves can be reduced by changing the object size detected by the device.



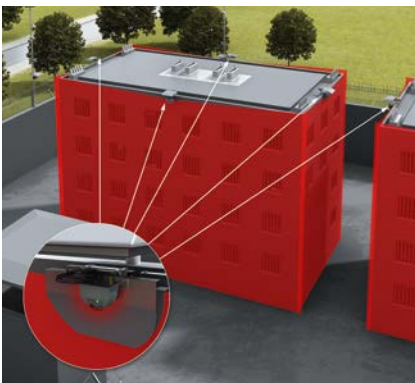
Monitoring roofs and indoor spaces

2D laser scanners reliably monitor roofs with domes or skylights. The interior protection increases security in the supply chain as it can be used to restrict access to production.

- LMS5xx



→ www.sick.com/LMS5xx



Protecting the facades of jails

Unlike other buildings, the entire facade of jails, forensic clinics and other correctional facilities must be protected in order to prevent jailbreaks, both day and night. 2D laser scanners from SICK reliably detect people even in bad weather conditions.

- LMS5xx



→ www.sick.com/LMS5xx



Protecting the facades of private houses

To protect private houses such as villas, 2D laser scanners use several defined fields to monitor windows during the day, while at night they monitor the entire facade. Due to the size of the monitoring fields and the option to choose between different monitoring scenarios, only a few sensors are needed, which saves money.

- LMS1xx

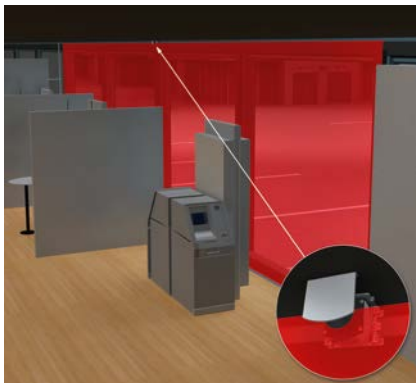


→ www.sick.com/LMS1xx

OBJECT SURVEILLANCE



Valuable objects need to be protected against vandalism and theft. In museums, protecting these objects from unauthorized contact is a particular challenge for the sensor systems because they must issue the alarm signal without compromising the other visitors' enjoyment of the exhibits. The more inconspicuous, precise, and reliable the protection is, the better this requirement can be fulfilled without being a detriment to the protection.



Monitoring windows

MLG-2 Prime or SLG light grids protect smaller areas such as individual windows from intrusion. The beams of the light grid are interrupted if a window pane is broken and someone enters the building. An intrusion detection system connected to the light grid then triggers an alarm.

- TIM3xx



→ www.sick.com/TIM3xx



Using 2D laser scanners to protect larger objects or multiple objects in a museum

Security-certified (VdS) LMC1xx 2D laser scanners have smaller fields during the day which protect several paintings at the same time. This means that visitors can examine the art work closely, and cleaning personnel can clean the floor without triggering the alarm. At night, the entire wall is protected.

- LMC1xx



→ www.sick.com/LMC1xx



Horizontal ceiling monitoring

Ceilings in warehouses, factories, exhibition halls, and many other buildings must be monitored to prevent intrusion. 2D laser scanners provide optimum protection of large areas. Light grids or one-dimensional photoelectric switches monitor individual access points.

- LMS1xx



→ www.sick.com/LMS1xx

OUR SOLUTION PORTFOLIO ¹⁾



Technical data overview						
Sensing range ²⁾ up to	8 m	18 m	18 m	30 m	40 m	110 m
Aperture angle	270°	270°	270°	270°	190°	360° / 290°
Number of fields	Up to 3	Up to 10	Up to 10	Up to 10	Up to 10	Up to 4
Switching outputs	4	3	3	3	6	4
Enclosure rating	IP 65 / IP 67	IP 65 / IP 67	IP 65 / IP 67	IP 67	IP 67	IP 67
Ambient operating temperature	-25° - + 50°C	-30° - + 50°C	-30° - + 50°C	-40° - + 60°C	-30° - + 50°C	-25° - + 50°C

¹⁾ More building safety and security solutions can be found on our website → www.sick.com/building_safety_and_security

²⁾ For object protection with an object size of 30 x 30 cm.

COMPATIBLE VIDEO MANAGEMENT SYSTEMS AND CAMERA CONTROLS

Company	Product
Axis	SICK ACAP (AXIS Camera Application Platform) plug-in
Geutebrück	Video Management System G-Core / Security Information Management G-SIM
Lase	LTS400
Milestone / LaserGuardian	Xprotect Corporate, Expert, Enterprise, Professional, Express
SARATEC	WINSUP
Schille	SiVMS
Seetec	SeeTec Cayuga
Siemens	SiNVR

SICK LifeTime Services

We recommend including the topic of external security systems in the construction planning phase. This will save you making cost-intensive retrospective improvements later on during the building stage. We can offer you assistance – with no obligations – ranging from a tender procedure with no manufacturer to project planning and an after-sales service based on our SICK product portfolio. We will accompany you, the end customer, together with operators, installers, system integrators, or other security companies right up to successful completion of your project.



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SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 7,400 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, we are always close to our customers. 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 various 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 round out 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:

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and further locations → www.sick.com