

BUILDING MANAGEMENT

SENSOR SOLUTIONS FOR ELEVATORS AND ESCALATORS

Ensuring comfort and security

SICKSensor Intelligence.



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SERVICES FOR MACHINES AND SYSTEMS: SICK LifeTime Services

Our comprehensive and versatile LifeTime Services are the perfect addition to the comprehensive range of products from SICK. The services range from product-independent consulting to traditional product services.





Consulting and design Safe and professional



Product and system support Reliable, fast and on-site



Verification and optimization Safe and regularly inspected



Upgrade and retrofits
Easy, safe and economical



Training and education
Practical, focused and professional

CHALLENGES IN BUILDING MANAGEMENT

Every building and every application places individual requirements on the sensors it uses. Thanks to its comprehensive industry knowledge and a wide range of individual sensors, complete systems and services, SICK is an expert in building management:

Encoders accurately position revolving doors and elevators and precisely monitor the speed of escalators and moving sidewalks. Photoelectric sensors monitor gates and are used for person singulation in security door systems. RFID technology with long scanning ranges opens doors without making contact and enables fast and automatic management of vehicles in parking facilities.



Read more about sensor solutions for building management:

www.sick.com/building_management



Detecting

Sensors from SICK are ideal for application monitoring of persons and objects. The large selection of photoelectric sensors, light grids and 2D LiDAR sensors offers the right sensor for every task.



Protecting

In the area of safety, sensors and systems from SICK ensure that safety requirements are met in compliance with applicable laws and standards. They efficiently protect hazardous areas and enable the highest plant availability at the same time.



Identification

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



Position determination

Sensors from SICK ensure maximum positioning accuracy, reproducibility, speed and optimal cycle times. Its comprehensive portfolio of distance sensors, encoders and vision sensors allow optimal adaptation to the requirements of the respective applications.

ELEVATORS



Door leaf detection on elevator doors

IQB inductive proximity sensors can be integrated into the door drive due to their compact size and reliably detect the door leaf in the end positions. High switching accuracy and resistance to shock and vibrations ensure a long service life.

• Inductive proximity sensor IQB





Bed detection in hospital elevators

An RFID read/write device in a hospital elevator detects the transponder mounted on the bed and triggers a preferential journey This ensures quick arrival at the destination floor without intermediate stops, giving the patient the desired discretion at the same time.

• RFID read/write device RFU62x



→ www.sick.com/RFU62x



Presence detection in elevator cars

If the elevator is requested for a penthouse apartment, no undesired guests can be in the elevator car. The TiM1xx 2D LiDAR sensor reliably monitors the car and ensures that only an empty elevator arrives at the destination.

• 2D LiDAR sensor TiM1xx



→ www.sick.com/TiM1xx



Protecting gaps between elevator shafts and cars

The deTec2 Core safety light curtain reliably monitors the gap between the elevator shaft and car which exists for maintenance and cleaning work. As soon as the sensor detects a person, it prevents the elevator from starting thereby protecting the service staff.

Safety light curtain deTec2 Core



→ www.sick.com/deTec2_Core

ELEVATORS



Jerk-free acceleration and deceleration of elevator cars

SRS/SRM50 motor feedback systems position the elevator car with optimum precision along with maximum reproducibility. In addition, they provide optimal support for jerk-free acceleration and deceleration, whereby the HIPERFACE® interface ensures fast data transmission.

 Motor feedback system with HIPERFACE® interface SRS/SRM50



→ www.sick.com/SRS_SRM50



Speed measurement on the elevator engine

DBS60 incremental encoders are mounted directly on the elevator engine and deliver precise speed measurement data to the elevator control. Diverse installation options due to different flange and shaft versions make mounting easy.

• Incremental encoder DBS60 Core



→ www.sick.com/DBS60_Core



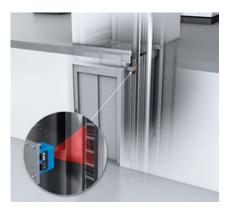
Speed and position monitoring of elevator cars with absolute encoders

AFM60 absolute encoders offer a large selection of mechanical interfaces and electrical contacting options. Mounted on a measuring wheel, the encoder transmits absolute position information to the elevator control, which monitors the speed and can precisely position the elevator car.

• Absolute encoder AFS/AFM60 SSI



→ www.sick.com/AFS_AFM60_SSI



Speed and position monitoring of elevator cars with linear measurement sensors

The OLM100 linear measurement sensor is a highly-precise and contact-free bar code positioning system. In the elevator shaft, the sensor not only determines the absolute position of the elevator car, it also monitors the speed. Thanks to the camera technology, the sensor is wear- and maintenance-free.

• Linear measurement sensor OLM100



→ www.sick.com/OLM100

ELEVATORS



Zone detection in elevator shafts

MM12 magnetic proximity sensors detect different zones in the elevator shaft when arriving and departing and when stopping at the individual floors. High scanning ranges enable reliable detection and flexible mounting options.

• Magnetic proximity sensor MM





Safety end switches in elevator shafts

When driving through the upper and lower end positions in elevator shafts, the i110R electromechanical safety switch reliably stops the elevator drive. The safety switch is very well suited for harsh environments due to its rugged metal housing.

Electro-mechanical safety switch i110R



→ www.sick.com/i110R



Protection of car roofs and shaft pits

If the protective areas required above or below the elevator car cannot be upheld, appropriate protective devices for the service staff must be implemented in place of these areas. The mac4 safety light curtain combined with the UE48-20S safety relay offers optimal protection and can be flexibly integrated into the elevator control.

- Safety light curtain mac4
- Safety relay UE48-20S







Pressure monitoring for hydraulic elevators

The PBT pressure sensor reliably monitors the hydraulic pressure of hydraulic elevators. Due to its compact and rugged design, it can be installed easily and at low cost. The sensor has no mechanically moving parts and is therefore wearfree, stress-free, and maintenance-free.

Pressure sensor PBT



→ www.sick.com/PBT

ESCALATORS



Activating escalators

WTE280-2 compact photoelectric proximity sensors detect approaching persons and activate escalators in stand-by mode. This reduces energy costs and ensures optimal availability. Thanks to the high operating reserve, the sensors are resistant to contamination.

• Photoelectric proximity sensor WTE280-2



→ www.sick.com/W280-2



Speed monitoring in escalators with incremental encoders

The DBS60 Core incremental encoders monitor the movement of escalators and control the speed. The sensors have many installation options thanks to the various flange and shaft types as well as the universal cable connections.

Incremental encoder DBS60 Core



→ www.sick.com/DBS60_Core



Speed monitoring in escalators with inductive proximity sensors

IME inductive proximity sensors detect the speed of escalator handrails. If the drive wheel rotates, the sensor generates a signal at every cross brace. The escalator control converts the pulses received into a speed value.

• Inductive proximity sensor IME



→ www.sick.com/IME



Presence monitoring of moving sidewalks

TiM361 2D LiDAR sensors detect persons on moving sidewalks. This can ensure that a sidewalk starting up again after an emergency stop is only possible if no one is on the sidewalk.

• 2D LiDAR sensor TiM361



→ www.sick.com/TiM3xx

SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 8,000 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:

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Detailed addresses and further locations → www.sick.com

