



Solutions for Industrial  
and Residential Doors





# SOLUTIONS FOR INDUSTRIAL AND RESIDENTIAL DOORS

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## INTRODUCTION

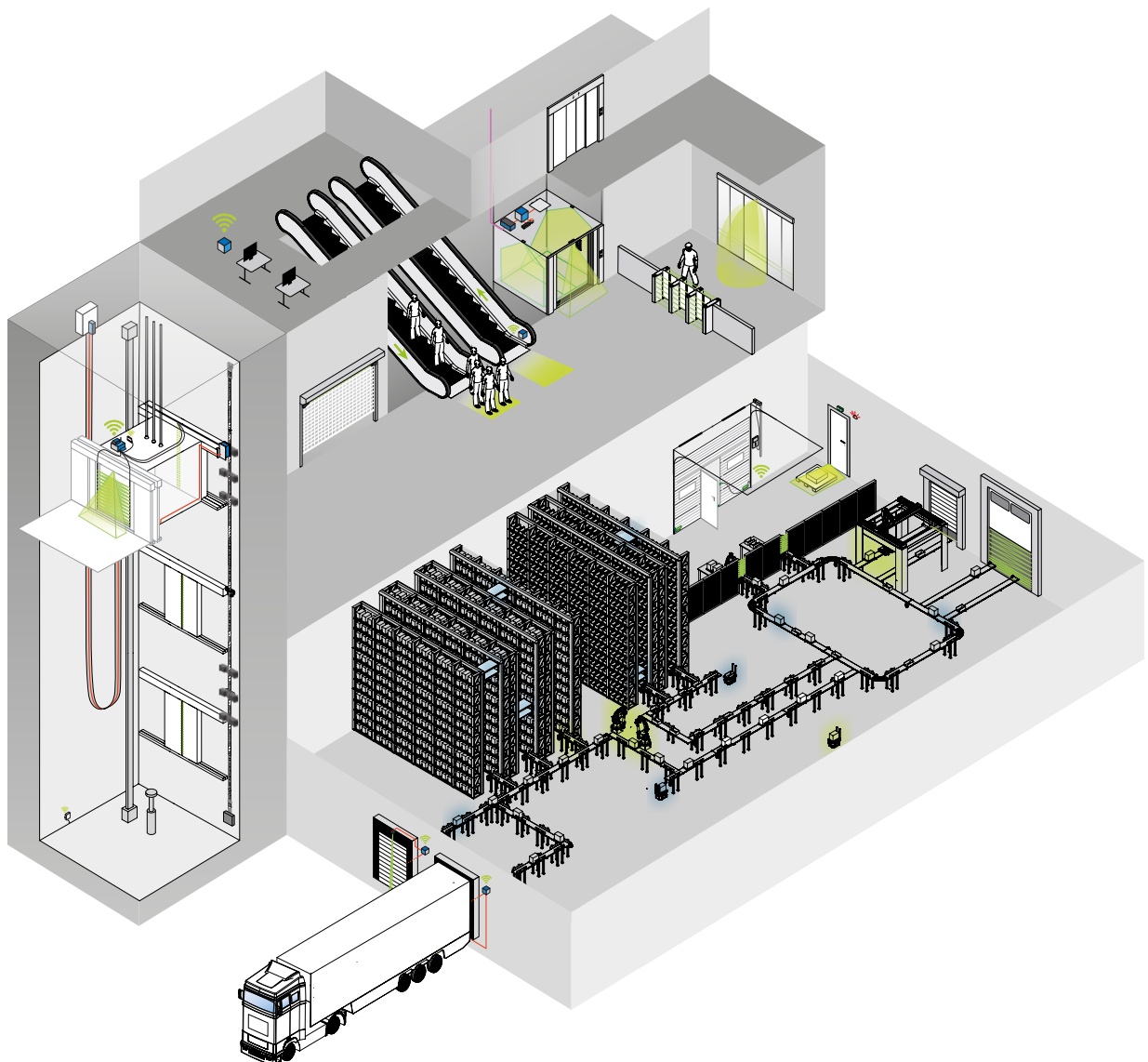
# YOUR PARTNER OF CHOICE - TODAY AND TOMORROW

The CEDES Group offers its innovative solutions for elevators, escalators, industrial and residential doors, and warehouse management systems in more than 60 countries. We develop intelligent and safe sensing, control and communication systems that provide actionable data streams for higher operational and maintenance efficiency. Our product portfolio ranges from simple optical sensors, through highly complex 3D camera systems in cutting-edge ToF (Time-of-Flight) technology, to smart IoT-enabling devices.

With our deep domain expertise and tireless curiosity, we aim to predict the future needs of our customers and strive to find practical solutions that others haven't considered. This has led to significant innovations in the elevator industry, and the nomination for R+T Innovation Award 2024 demonstrates that we are on the right track in the door industry as well.



This is the first step in our IoT journey, and we will continue to broaden our offering. We aim to radically simplify the elevator hoistway and connect its components, as well as to provide full transparency about the activities in and around the elevator cabin with our Smart Cabin concept. We see elevators as an integral part of a connected smart building ecosystem.

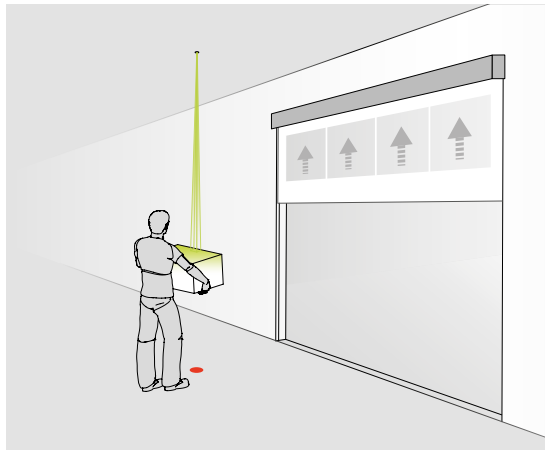


## CREATE SOLUTIONS FOR ALL SAFEGUARDING & MONITORING APPLICATIONS IN THE FIELD OF ENTRANCE AUTOMATION

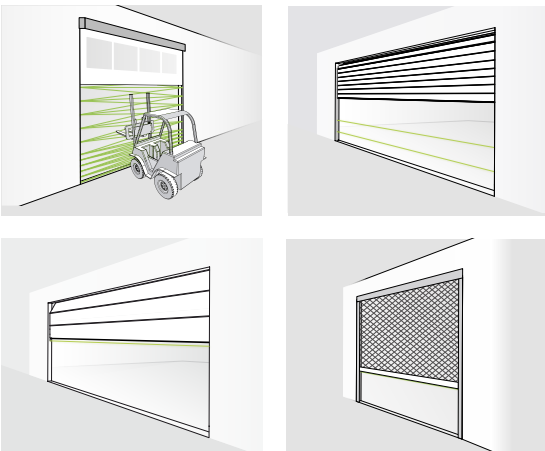
- ▶ Realize the roadmaps of the Business Unit Entrance Automation and create a path for intelligent safety sensors
- ▶ Unlock the potential of sensors through IoT
- ▶ Partner with leading innovators to enable advancement for the overall door systems and create added value while using our sensor systems for OEMs



Loading dock  
presence detection



Intelligent door opening

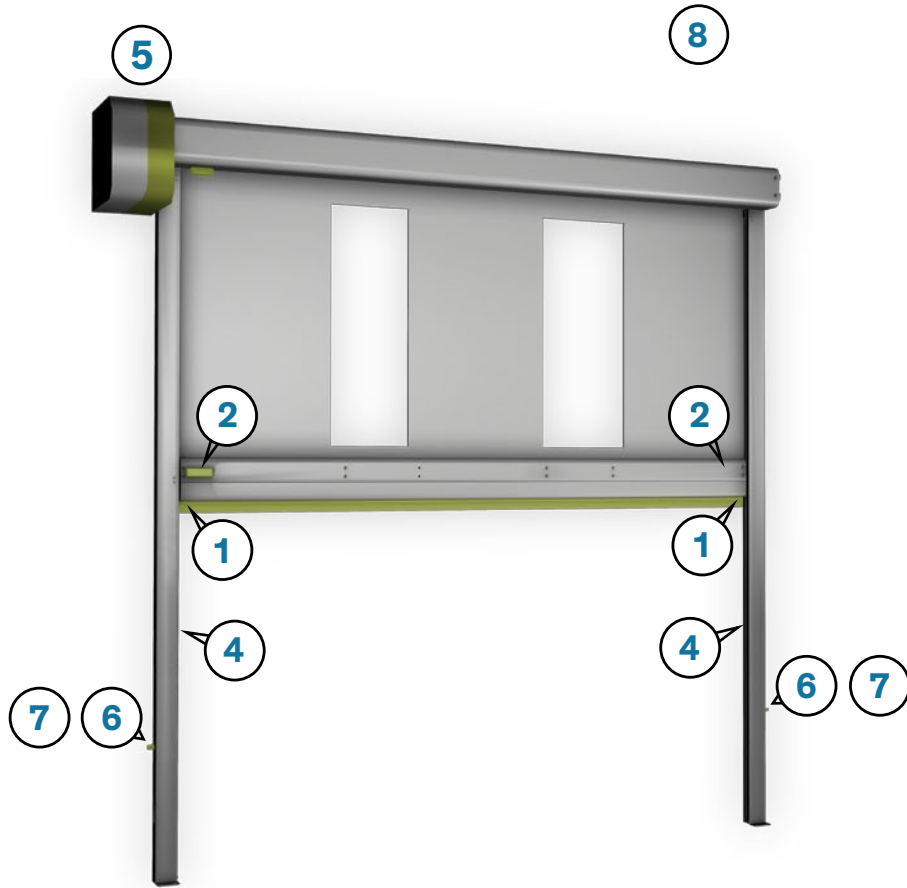


Safeguarding of the main  
closing edge

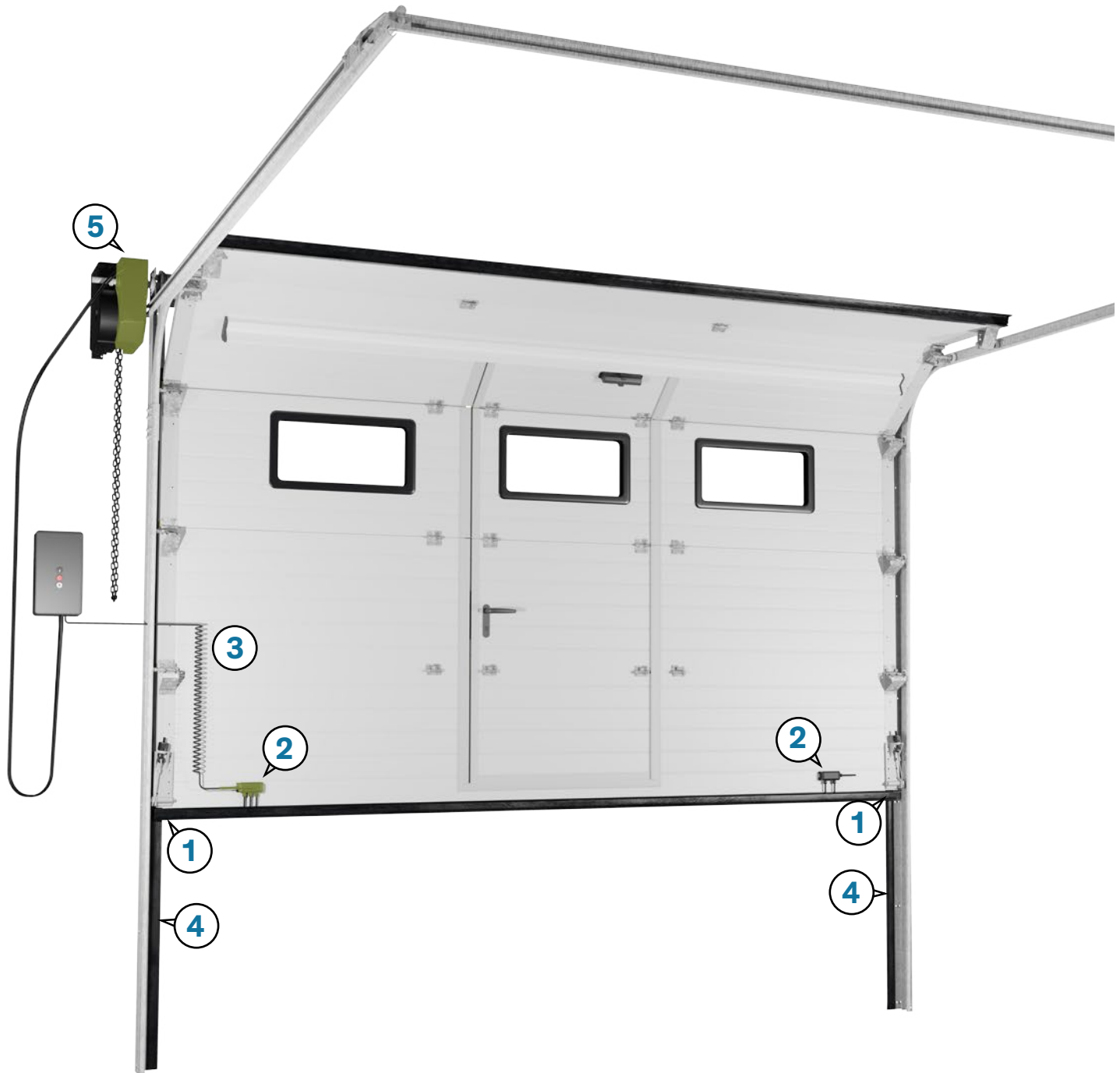


Position monitoring

# APPLICATION OVERVIEW

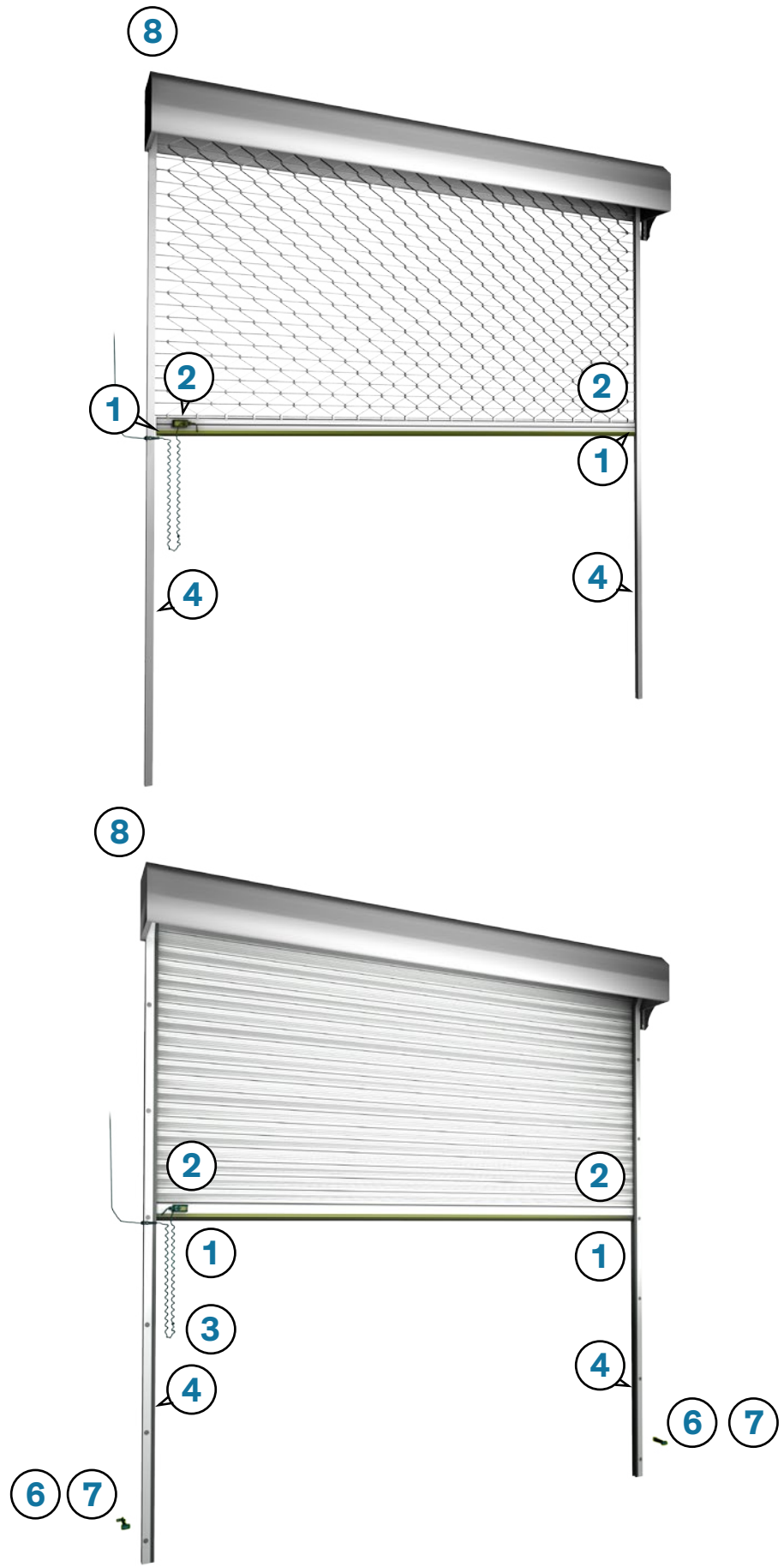


## APPLICATION OVERVIEW



- 1 Sensing edge
  - 1.1 Optical sensing edge
  - 1.2 Airwave switch
- 2 Junction box
- 3 Coil cord
- 4 Light curtain
- 5 Encoder
- 6 Light barrier
- 7 Reflective light barriers
- 8 Door opening / Presence detection

# APPLICATION OVERVIEW





# INDUSTRIAL DOORS

## SAFEGUARDING



### SAFEGUARDING OF THE MAIN CLOSING EDGE

CEDES offers a wide range of door safeguarding methods that help prevent injuries and damage to doors. They include stationary safeguarding with single or reflective light barriers, as well as physical safeguarding of the main closing edge with optical safety edges.

## PHYSICAL SAFEGUARDING OF THE CLOSING EDGE

### OPTICAL SENSING EDGE

#### OSE (UL)



Safety edges are used wherever moving edges pose a hazard to people. The hazardous areas are protected by hollow rubber profiles. As soon as a person or object touches them, the sensing profile is deformed, and the potentially hazardous movement stops.

#### FEATURES

- ▷ Various versions available
- ▷ Two wires interface
- ▷ Easy installation
- ▷ High safety and flexibility
- ▷ Infrared sensors

#### OSE ADVANTAGES

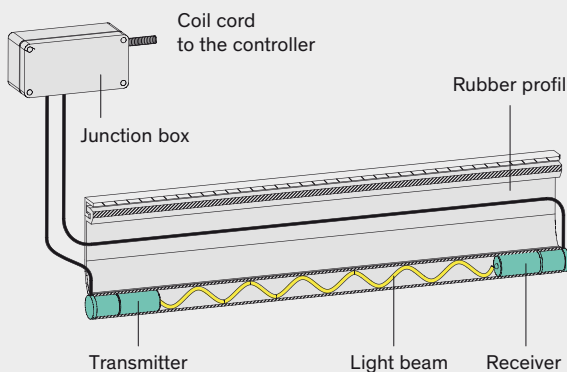
- ▷ The advanced OSE technology offers the following advantages:
- ▷ Easy assembly
- ▷ High level of safety
- ▷ High environmental resistance
- ▷ High flexibility
- ▷ This results in reduced costs, as well as a higher level of safety and availability of the sensing edge.

#### THE INTELLIGENCE OF OSE IS IN ITS TRANSMITTER AND RECEIVER:

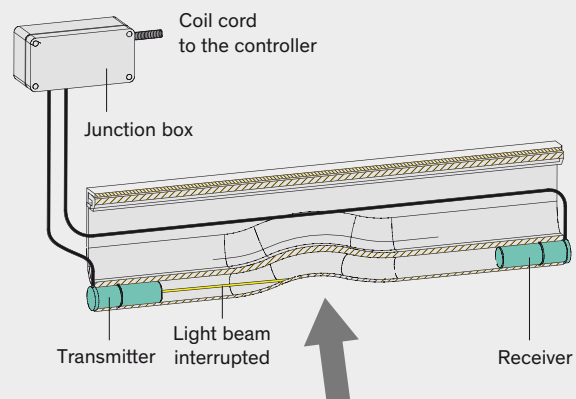
- ▷ Simple interface to the control units, easy to integrate into the door controller
- ▷ Automatic adjustment of the signal strength to the length of the sensing edge
- ▷ Compensation for the possible ageing of rubber profiles
- ▷ Partial compensation for humidity and dirt in the edge
- ▷ High immunity to ambient light
- ▷ No sensitive connections to the controller, which means no EMC problems
- ▷ Leads to the sensors with max. length of 200 m possible

#### OPERATING PRINCIPLE

Optical sensing edge not activated



Optical sensing edge activated



## ADDITIONAL STATIONARY SAFEGUARDING

### REFLECTIVE PHOTO EYE

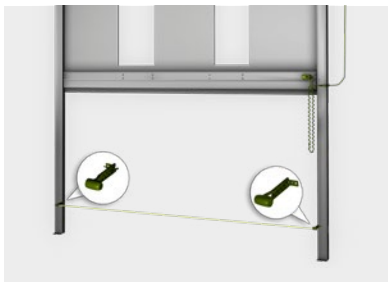
#### OPTOEYE



The OPTOEYE consists of two infrared sensors inserted into flexible rubber brackets, which are mounted next to the door opening. Installation is very easy since the LEDs indicate alignment and power.

The OPTOEYE is specifically designed to withstand rough commercial and industrial environments. Its flexible design makes it highly resistant to impacts and mechanical shocks; its NEMA4X rating proves its resistance against any kind of moisture.

The photo eyes have been certified as Type 4X by Underwriters Laboratory, as tested to the UL50 standard. This certification comes in addition to the UL325 recognition, which has qualified the OPTOEYE as an entrapment protection sensor on doors and gates.



#### FEATURES

- ▷ UL325:2010 recognized
- ▷ NEMA 4X rated
- ▷ Optimal for commercial & industrial settings
- ▷ Withstands collisions and impacts due to flexible design
- ▷ Easy installation
- ▷ Adjustable with supplied wing nuts

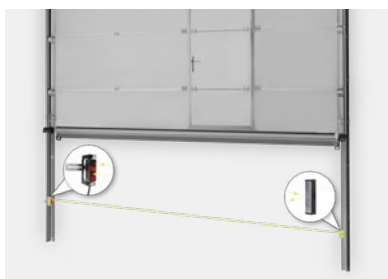
### REFLECTIVE PHOTO EYE

#### RAY-RT



With its adaptable design, RAY-RT can be installed in the most challenging locations of door construction. It is designed for securing various points of the door and due to its compact size, it can even be integrated in the guide rail.

Thanks to the 360° rotatable fixing clamps and the compact design, RAY-RT can be installed in the door frame. An integrated function display and adjustment aid enable easy installation. Various interfaces facilitate integration into the door control system and retrofitting to existing doors. RAY-RT is available in three different housing versions (standard, industrial and heavy duty) for optimum application.



#### FEATURES

- ▷ Available with either a standard or long-range reflector
- ▷ Resistant to ambient light through red light technology
- ▷ Close range detection
- ▷ Available output versions: relay, pulsed 2-wire
- ▷ IP65
- ▷ LED indicator
- ▷ Conform to UL325

## ADDITIONAL STATIONARY SAFEGUARDING

### LIGHT BARRIER

#### RAY-N



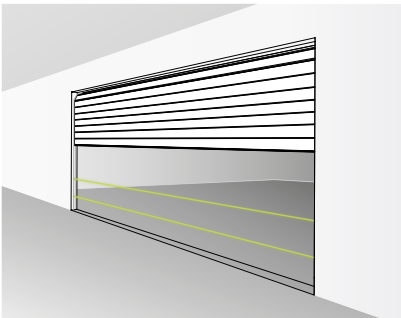
RAY-N photo eyes are monitored sensors, using the same proven technology as the OPTOEYE. When the signal between emitter and receiver is interrupted, the sensor sends a signal to the operator to stop and reverse the door.

#### FEATURES

- ▷ UL325 recognized photo eye
- ▷ NEMA 1 rated
- ▷ Proven technology
- ▷ High range
- ▷ Versatile mounting options
- ▷ Economical design

### LIGHT BARRIER

#### ELS 500



The ELS 500 light barrier has a very robust design and due to the M12 housing it is easy to mount. The emitter has an adjustable emitting strength to configure the system for the used application.

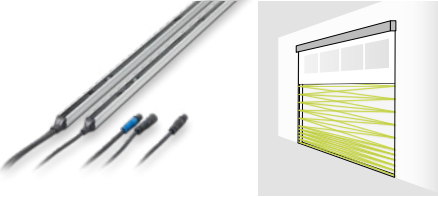
#### FEATURES

- ▷ Easy mounting concept without expensive kits
- ▷ Operating range up to 20 m
- ▷ PNP or NPN output, light or dark switching available
- ▷ Emitting power adjustment

## CONTACTLESS SAFEGUARDING OF THE CLOSING EDGE

### LICHT CURTAIN

#### GridScan/Pro



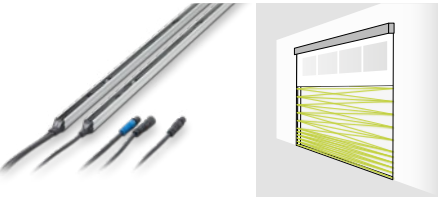
GridScan/Pro is a highly reliable SIL 2-certified safety light curtain for industrial doors. Equipped with EC type examination certification, it can be used at any door. Thanks to its multi-output design and the changeable operating mode (from blanking to static), the GridScan/Pro can be integrated in all types of door control systems.

#### FEATURES

- ▷ TÜV – EC Type examination certified
- ▷ SIL2-certified
- ▷ Direct integration into the door edge due to door blanking
- ▷ Combined output with PNP/NPN (push-pull) and FSS (OSE)
- ▷ Changeable operation between blanking and static mode
- ▷ Easiest alignment
- ▷ 2nd output for additional information
- ▷ Ideal for modernization projects due to FSS control unit
- ▷ Door closing speed up to 1.6 m/s
- ▷ Fulfils SIL2 without testing if FSS output selected

### LICHT CURTAIN

#### GridScan/Pro SI



GridScan/Pro SI is a highly reliable SIL 2-certified safety light curtain with a serial interface for industrial doors. Certified with an EC-type examination, it can be used in any door. The serial interface allows for the integration of additional functions such as soft stop, increasing the door's service life.

#### FEATURES

- ▷ TÜV-EC Type examination certified
- ▷ SIL2-certified
- ▷ Direct integration into the door edge possible (door blanking)
- ▷ Serial interface RS485
- ▷ Single beam information
- ▷ Easiest alignment
- ▷ Standby mode
- ▷ Maintenance information
- ▷ Door closing speed up to 1.6 m/s
- ▷ Cross-section of only 12 mm × 14.5 mm

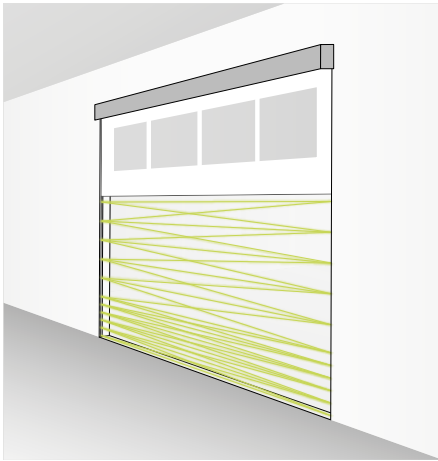
#### ADVANTAGES

- ▷ Higher safety level thanks to plausibility check of the door position
- ▷ Reduced mechanical wear due to the soft stop function
- ▷ Energy saving thanks to the standby mode and high door closing speed
- ▷ Reduced service costs based on the available maintenance information
- ▷ Reliable functioning in humid environments and in all weathers

## CONTACTLESS SAFEGUARDING OF THE CLOSING EDGE

### LIGHT CURTAIN

#### GridScan/Mini



The GridScan/Mini is an extremely compact SIL 2-certified safety light curtain. Its door blanking function allows it to be integrated into the door design. The system with an FSS output fulfills EN 13849-1 Cat. 2 without testing.

#### FEATURES

- ▷ Criss-cross beams
- ▷ SIL2-certified
- ▷ FSS version fulfills SIL2 without testing
- ▷ Direct integration into the door edge (SB and DB types)
- ▷ TÜV-approved
- ▷ For door speeds up to 1.6 m/s
- ▷ Waterproof housing (IP67) and very high light reserve make the GridScan/Mini insensitive to dust, dirt and water
- ▷ Electrical synchronization for increased light and strobe immunity
- ▷ Short-circuit proof semiconductor output PNP/NPN (push-pull) or FSS output
- ▷ Cross-section only 12 mm × 16 mm

## CONTACTLESS SAFEGUARDING OF THE CLOSING EDGE

### MICRO MF

#### Micro MF



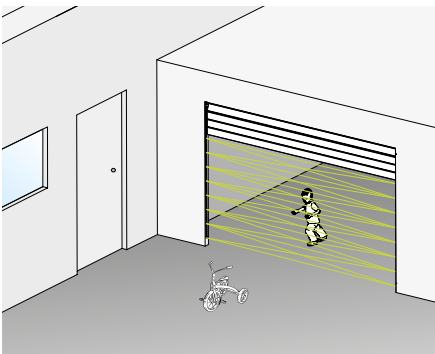
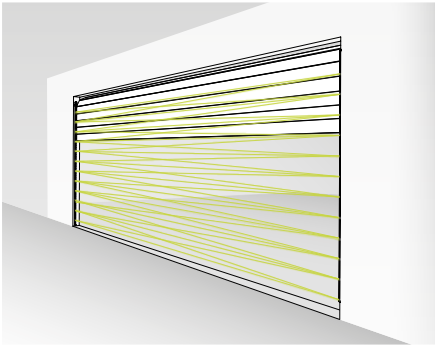
The Micro MF UL325 version is designed to monitor door opening and provide UL325-compliant protection. It offers a two-wire monitored output, making it ideal for integration with all common door operators in the U.S. market. Due to its certification, it can also be used as a stand-alone UL325 door safeguarding solution.

#### FEATURES

- ▷ UL325 certified device
- ▷ 2-wire monitored output
- ▷ For all kinds of industrial doors applications
- ▷ Simple and quick to install thanks to the universal mounting kit
- ▷ Plug-and-play system
- ▷ Optical synchronization between emitter and receiver
- ▷ High EMC immunity
- ▷ Criss-cross beams

#### APPLICATIONS

- ▷ Garage and industrial doors



## PHYSICAL SAFEGUARDING OF THE CLOSING EDGE

### PNEUMATIC SENSING EDGE

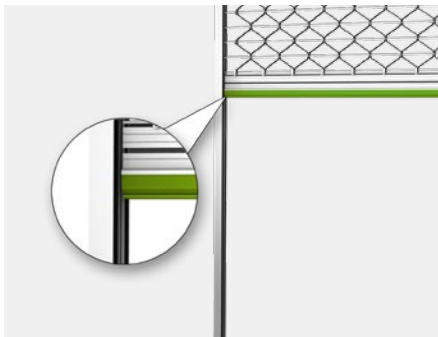
#### Airwave switch / Radioswitch + Accessories



Airwave switches are actuated by pressure waves created by any kind of pressure source. A rubber tube inside the weather seal of the door is used to create a pressure wave. When the pneumatic edge hits an obstacle, a pressure wave is created inside of the tube and this wave is recognized by the switch.

Airwave switches are a cost-efficient way to safeguard doors and gates against entrapment. These pneumatic switches can be installed without any special tools directly on site. Installation is as easy as measuring and cutting the weather seal extrusion and connecting the switch to a tube in the weather seal.

Radioswitch is a pneumatic switch that sends a radio signal to the receiving unit upon activation. The small radio transmitter unit and the pneumatic switch, as well as the receiver unit are packaged within a waterproof housing. To ensure easy connection to a control unit, the receiver is equipped with a relay output.



#### FEATURES

- ▷ Works with positive or negative pressure
- ▷ Different signal generators possible
- ▷ Easy assembly on site without adhesive
- ▷ Resistant to environmental influences
- ▷ Easy installation
- ▷ High flexibility
- ▷ Adjustable sensitivity
- ▷ Maintenance-free

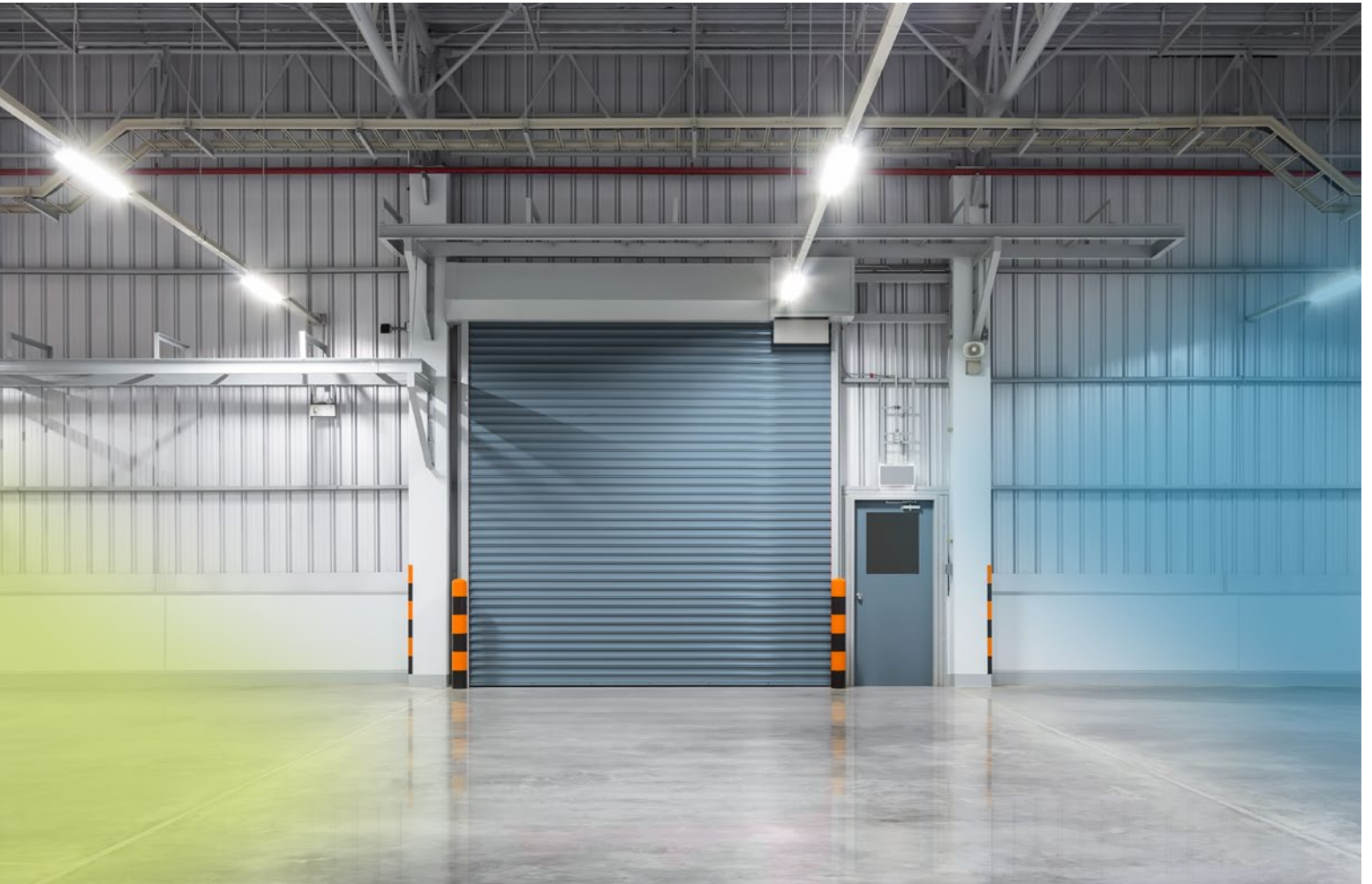
#### ACCESSORIES

- ▷ Silicone hoses
- ▷ Angled plugs
- ▷ Connectors



# INDUSTRIAL DOORS

## OPENING



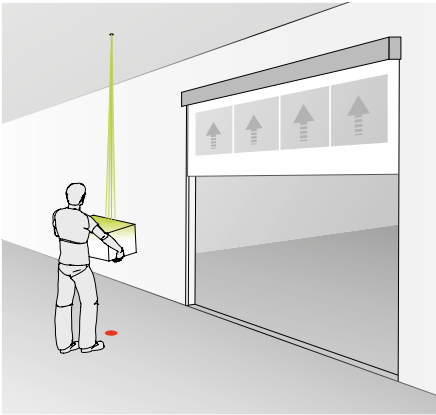
## OPENING

Practical and hygienic: CEDES sensors serve as door openers, offering a contactless pull-string alternative. The 3D camera sensor TOF/Spot contributes to the smooth flow of people and vehicles and prevents unnecessary door opening thanks to its small detection area.

## OPENING

### PULL-STRING REPLACEMENT

## TOF/Spot



The TOF/Spot is a compact yet powerful measuring system with the widest range of application possibilities. It offers ultra-reliable detection and exact detection range setting.

### FEATURES

- ▷ Time-of-Flight (TOF) Sensor
- ▷ Exact distance setting, independent from background
- ▷ Excellent detection capability
- ▷ Small and sleek design
- ▷ Operating range from 0.2 m up to 6 m
- ▷ Easy mounting
- ▷ Insensitive to ambient light up to 100,000 lux

# INDUSTRIAL DOORS

## MONITORING



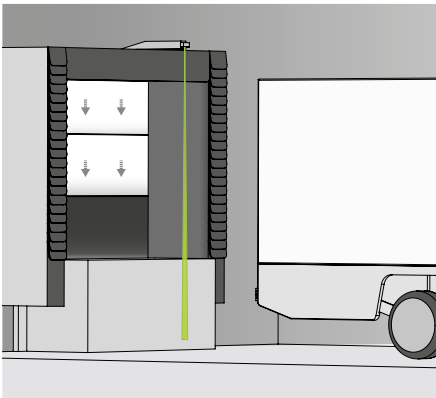
## MONITORING

Our door monitoring solutions are designed to provide more safety and higher operational efficiency. The truck presence detection functionality is a good example of these advantages. This application is also based on our 3D ToF sensors – TOF/Spot can determine if a truck is parked at the loading dock and control door opening and closing accordingly. It prevents unnecessary door opening, which results in increased energy efficiency of the building. For this reason, the solution is particularly useful for cold storage facilities.

## MONITORING

### TRUCK PRESENCE DETECTION

#### TOF/Spot



TOF/Spot can be applied to determine the presence of a truck at a loading dock, preventing unnecessary opening of the automatic door. This solution increases the overall energy efficiency of the building.

#### FEATURES

- ▷ Prevents door opening when there is no truck at the loading dock
- ▷ Exact distance setting, independent from background
- ▷ Compact and sleek design
- ▷ Operating range from 0.2 m up to 6 m

#### ADVANTAGES

- ▷ Saves energy
- ▷ Flexible mounting in or outside of the dock thanks to outdoor housing
- ▷ Prevents door closing when a truck is at the dock

### POSITION MONITORING

#### Encoder (DMC)



DMC is a universal limit switch for all door types. A setup of two magnetic encoders determines the exact door position without batteries. The redundant non-contact sensor principle is unaffected by humidity or harsh environment. Selectable protocols allow communication with all major RS485 door control interfaces and can be chosen on site by a hidden switch.

#### FEATURES

- ▷ Magnetic encoder technology
- ▷ Up to 4 revolutions
- ▷ Interface and mechanical compatibility with current design
- ▷ Internal memory to store door information
- ▷ Cat. 2 / PL "c" acc. to EN ISO 13849-1

# INDUSTRIAL DOORS

## ACCESSORIES



## ACCESSORIES

You don't need to look for another supplier for cables, junction boxes and mounting brackets. CEDES offers complete solutions, incl. appropriate accessories. The one-stop-shop principle saves you time and simplifies the ordering and logistics process in a significant way.

## ACCESSORIES

### OSE CABLE SETS

#### Cable sets (CS)



OSE cable sets contain a junction box, a spiral cable and cable gland accessories, and hence everything required to connect OSE sensors to a control device. Cable sets are provided with junction boxes and spiral cables in three sizes, each designed for different door types.

Cable sets CS 200X and CS 300X are available in standard and advanced versions which contain a diagnostic PCB instead of a luster terminal and an additional mounting bracket for better handling of the spiral cable.

#### FEATURES

- ▷ Required accessories for the connection of safety edge:
- ▷ Junction boxes in 3 sizes for all applications
- ▷ Including cable glands and coil cords
- ▷ Optional: PCB with diagnostic function
- ▷ Optional: Mounting bracket

### JUNCTION BOXES

#### Junction boxes (JB)

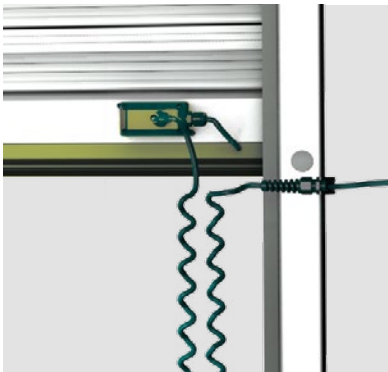


The junction boxes are available in different sizes (small, medium, large), depending on the desired application. The housing can be opaque or transparent – e.g. the status LED of the safety edge is visible through the translucent lid.

The pre-embossed cable glands in the housing ensure easy handling without tools. PCBs with diagnostic function and mounting brackets can be ordered optionally.

#### FEATURES

- ▷ Junction boxes in 3 sizes for all applications
- ▷ Including cable glands
- ▷ PCB with diagnostic function optionally available



## ACCESSORIES

### CONTROL UNITS

#### OSE-C



For retrofitting older door systems, or for door controls without an integrated "OSE" interface, control units are required for evaluating the signal. All safety light barriers with an OSE signal can be connected to the evaluation units.

The signal is evaluated and provides a switching function in the form of potential-free contacts.

Various control units are available for retrofitting (safety categories, with/without housing).

#### FEATURES

- ▷ Wide variety of control units
- ▷ Safety categories 1 to 4, EN 13849-1, UL 325
- ▷ Different mounting options

### RUBBER PROFILES

#### OSE-P



The hollow rubber profiles enclose the OSE safety light barrier. When the hollow rubber profile is deformed, the optical channel is interrupted, causing a dynamic safety signal to fail. This is detected by the control unit which interrupts the enable circuit. The potentially hazardous movement is halted.

#### FEATURES

- ▷ Wide range of different rubber profiles
- ▷ Profile heights 30 mm to 90 mm
- ▷ Profile widths 14 mm to 45 mm
- ▷ Available with and without sealing lip in EPDM and NBR
- ▷ Customized profiles available
- ▷ End caps for optical termination (TPE)

### MOUNTING BRACKET

#### Offset bracket (AC)



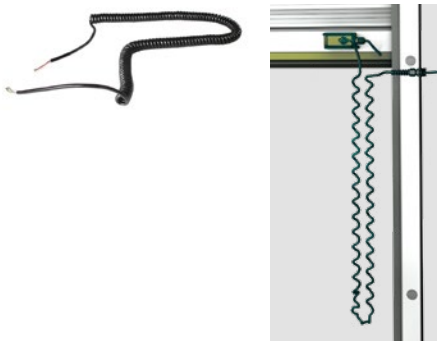
The mounting bracket is installed at half of the total height of the door, then wired up to the operator. This allows the coil cord to stretch only half the length.

#### FEATURES

- ▷ Fixes the coil cord to the guide rail
- ▷ Helps prevent coil cord damage
- ▷ Material: Galvanized steel
- ▷ M16 flexing bend protection

## ACCESSORIES

### COIL CORDS



Coil cords are commonly used to wire the sensing edge from the moving door panel to the stationary door control unit. This solution is cost efficient and proven to work reliably. The wiring connection from the sensing edge to the coil cord is usually done within the protected environment of a junction box.

#### FEATURES

- ▷ 3 - 5 leads
- ▷ Max. extension 3 m
- ▷ Spiral length 750 mm

### BUMPERS

#### OSE-B



Bumpers are used for long-term protection of horizontally mounted safety contact edges. In a closed state the door leaf sits on the bumpers. These protect the rubber profile and/or the inner optical closing edge device from damage.

The installation height is selected to ensure that the hollow chamber containing the closing edge sensor is not deformed, but that the sealing flanges or the sealing chamber make tight contact with the floor.

#### FEATURES

- ▷ Simple to attach
- ▷ Available for rolling doors or sectional doors
- ▷ Modular bumper for custom thickness / height

# SPECIAL APPLICATIONS

## PEDESTRIAN DOORS



### SAFEGUARDING AND OPENING

CEDES sensors are much more than practical, contactless door openers. For instance, TOFniva monitors a surface of 2 square meters and can be applied at emergency exits – it triggers an alarm, if an object is blocking the exit.

TOF/Start-EA detects and ignores cross-traffic in order to prevent unnecessary door opening and save energy.

## PEDESTRIAN DOORS

### SAFEGUARDING

#### ELS 263



The ELS 263 light barrier has a very compact design and is easily built into door frames or indeed anywhere where space is limited. Fully potted, it is also ideal for outdoor safeguarding applications.

#### FEATURES

- ▷ Compact dimensions
- ▷ Simplest assembly (snap-in)
- ▷ Reliable for outside applications
- ▷ Integrated controller
- ▷ PNP or NPN output, light or dark switching available
- ▷ Multiple ELS 263 units connectable in a network with Y-switch

#### APPLICATIONS

- ▷ Automatic sliding doors
- ▷ Elevator doors
- ▷ Vertically closing gates
- ▷ Escalators and travelators
- ▷ Personnel sluices

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### SAFEGUARDING

#### ELS 300



The ELS 300 light barrier is certified under EN-13849, Category 2, Performance Level C. Its compact design allows it to be easily integrated into the safeguarding application.

#### FEATURES

- ▷ Type 2 light barrier suitable for Cat. 2 applications
- ▷ Compact dimensions
- ▷ Excellent detection capability even in harsh environmental conditions
- ▷ Very resistant to ambient light
- ▷ Integrated controller
- ▷ PNP or NPN output, light or dark switching available
- ▷ Various operating ranges available
- ▷ Multiple ELS 300 units connectable in a network with Y-switch

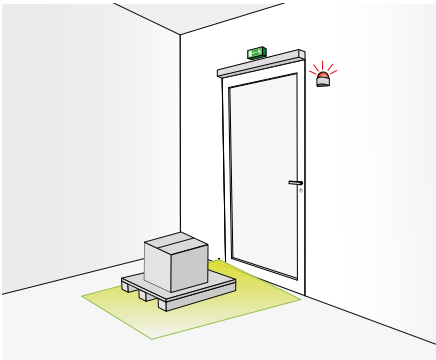
#### APPLICATIONS

- ▷ Automatic sliding doors
- ▷ Elevator doors
- ▷ Vertically closing gates
- ▷ Escalators and travelators
- ▷ Personnel sluices

## PEDESTRIAN DOORS

### MONITORING

#### TOFniva



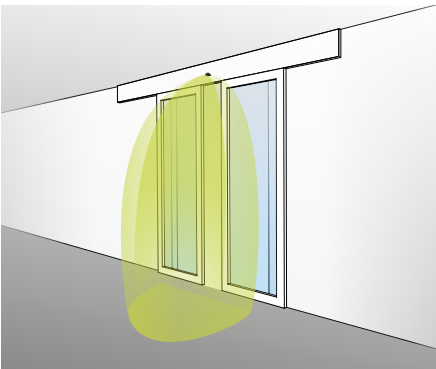
The TOFniva monitors a area of up to 2 m x 2 m, detecting when people or objects enter it. The detection area can be set to meet specific application needs and works with all backgrounds.

#### FEATURES

- ▷ Excellent detection capability, independent of reflectance
- ▷ Individual setting of the detection area
- ▷ Detection area operates with all types of background
- ▷ Insensitive to ambient light

### DOOR OPENING

#### RDS 100



The RDS 100 radar sensor provides very reliable door activation. The sensor can be used for all automatic doors, thanks to his large detection area of 4 x 2 m at a mounting height of 2.2 m.

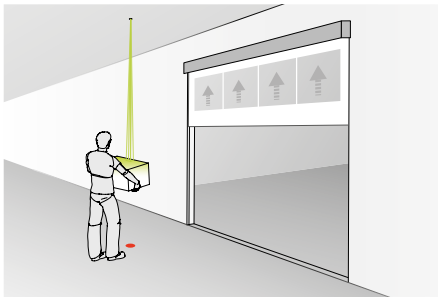
#### FEATURES

- ▷ Easy mounting concept without expensive kits
- ▷ Adjustable detection angle
- ▷ Wide detection area
- ▷ Very compact sensor

## PEDESTRIAN DOORS

### DOOR OPENING

#### TOF/Spot



The TOF/Spot is a compact yet powerful measuring system with the widest range of application possibilities. It offers ultra-reliable detection and exact detection range setting.

#### FEATURES

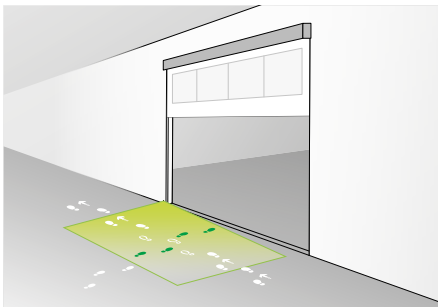
- ▷ Time-of-Flight (TOF) sensor
- ▷ Exact distance setting, independent from background
- ▷ Excellent detection capability
- ▷ Small and sleek design
- ▷ Operating range from 0.2 m up to 6 m
- ▷ Easy mounting
- ▷ Insensitive to ambient light up to 100,000 lux

#### APPLICATIONS

- ▷ Presence detection of trucks
- ▷ Presence and movement detection, e.g. at car park barriers
- ▷ Opening pulse generator of industrial doors
- ▷ Replaces pull-string door opening

### DOOR OPENING

#### TOF/Start-EA



The TOF/Start-EA is the ideal door-opening sensor for pedestrian and industrial doors. Cross-traffic is ignored, ensuring energy-efficient usage and reducing mechanical wear.

#### FEATURES

- ▷ Ignores cross-traffic via intelligent direction recognition
- ▷ Excellent detection capability, independent of reflectance
- ▷ Individual setting of the detection area
- ▷ Detection area operates with all types of background
- ▷ Insensitive to ambient light



## STANDARDS & GUIDELINES

### THE MOST IMPORTANT DOOR STANDARDS

Door and gate systems must be designed in accordance with ANSI/CAN/UL325. Not only manufacturers, but also maintenance companies are obliged to comply with the normative regulations.

Our products that are applied as safety devices on door systems, e.g. devices for closing edge safeguarding or pull-in protection, light curtains and pre-travelling light barriers, must comply with ANSI/CAN/UL 325.

#### ANSI/CAN/UL 325

UL 325 is a standard for safety that addresses the automatic operation of garage doors, vehicular gates, louvers, and windows. This standard is concerned with protecting people regarding the operators and systems.

#### ASTM F2200

ASTM F2200 is the standard for automated vehicular gate construction. This standard is concerned with protecting people regarding the gate construction and fabrication when intending to automate.

### TRADE ASSOCIATIONS

Together with other experts around the world, we contribute our experience and knowledge to advance the door industry.



#### DASMA

DASMA is the largest and most important association of the door industry in the USA.



#### IDA

L'IDA est une association professionnelle de premier plan représentant l'industrie des portes et des systèmes d'accès, en offrant défense des intérêts, formation et collaboration.



#### BVT - VERBAND TORE

The BVT is a German association of door manufacturers and door component suppliers.



#### BAS.T

BAS.T associates leading manufacturers of door drives, wireless systems, safety devices and controllers.



#### IG TAT

A Swiss association for companies in the door, gate and drive technology sector for the purpose of promoting vocational training.

## SUSTAINABILITY

Sustainability is at the root of everything that we do. The technologies our partners invest in today - which are the technologies CEDES is at the forefront of developing - will have a lasting impact on the future of our planet and the communities we serve.



### CO<sup>2</sup> NEUTRAL BY THE END OF 2024

We cover 20% of our energy consumption with the photovoltaic system installed on the roof, and 80% with CO<sup>2</sup>-neutral power purchased from REPOWER AG. We are also planning to connect to district heating from the GEVAG waste incineration plant.



### SOLAR ENERGY

1,750 square meters – that's the total surface of solar panels installed on the roof of our Science Park building in Landquart. The photovoltaic system will provide around 360'000 kWh electricity per year and reduce our CO<sub>2</sub> emissions by 65 tons per year!



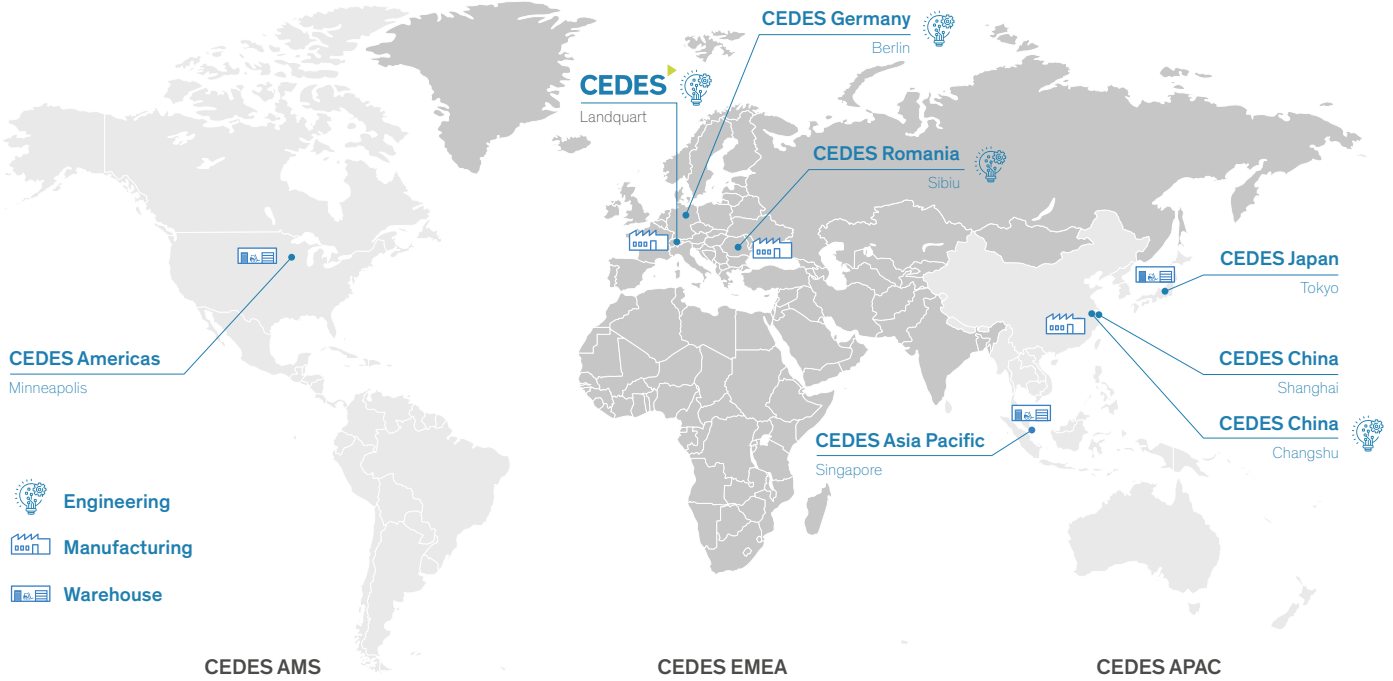
### E-MOBILITY

E-cars, e-bikes, e-scooters: more and more CEDES employees use electrically powered vehicles to commute to work. Specially designated parking spaces and PLUG'N'ROLL charging stations are at their disposal in the Science Park. On top of that, we are planning to replace our current company cars with e-cars.



## LOCATIONS

We are your **local** and **global** partner.



## NOTES

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Predict. Protect. Perform.