



SolidSense

Safety sensor for swing doors with reliable closing edge protection

Easy-to-install sensor for maximum protection of automatic doors, meeting the requirements of EN 16005.

**Smart
Sensing
Solutions**

Smart and safe

SolidSense is a sensor that reliably protects people from injury. It combines maximum safety for automatic doors in demanding situations with perfect architectural integration into modern access solutions, meeting requirements for accessibility and comfort while also simplifying mounting and commissioning for installers.

SolidSense set, black
Consisting of two sensors (left and right)
for installation on both sides of the door leaf.
Article no. 481221



SolidSense black left



SolidSense black right



Your benefits

Automated swing doors offer maximum accessibility, comfort, access control and energy efficiency in daycares, public facilities and office buildings. Ensuring complete protection for people, especially children and the older aged, against potential sources of danger such as crushing, shearing and impact points is critical.

1

Outstanding safety

SolidSense offers extensive coverage of the entire door leaf, ensuring safety at both the main and secondary closing edge.

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Easy setup

A reduced number of parameters and intuitive gestures make complete and safe commissioning particularly easy for installers.

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Reliable operation

Suitable for all types of flooring, regardless of ambient light and reflections. The function is in no way impaired by environmental influences.

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Aesthetic integration

The simple housing design blends perfectly into a wide range of door design concepts and is available in three different colors.

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1. Outstanding safety

SolidSense reliably minimizes the risk of injury by protecting all potential hazardous areas on the entire door leaf, including the secondary closing edge.

It ensures maximum safety for swing doors in accordance with EN 16005: The main closing edge is protected at all times, and the optimized beam path bypasses bars and door handles.



Complete safety – everywhere

People need to pass through doors comfortably and safely, without giving thought to unintentional contact or injuries.

SolidSense offers complete protection against sliding, crushing and shearing at all hazardous areas and minimizes the risk of personal injury.

The innovative, freely customizable beam path with individual beams aligned to the door leaf, main and secondary closing edge guarantees smooth operation – for optimized protection.



Complete protection

Detection down to the millimeter thanks to time-of-flight technology.



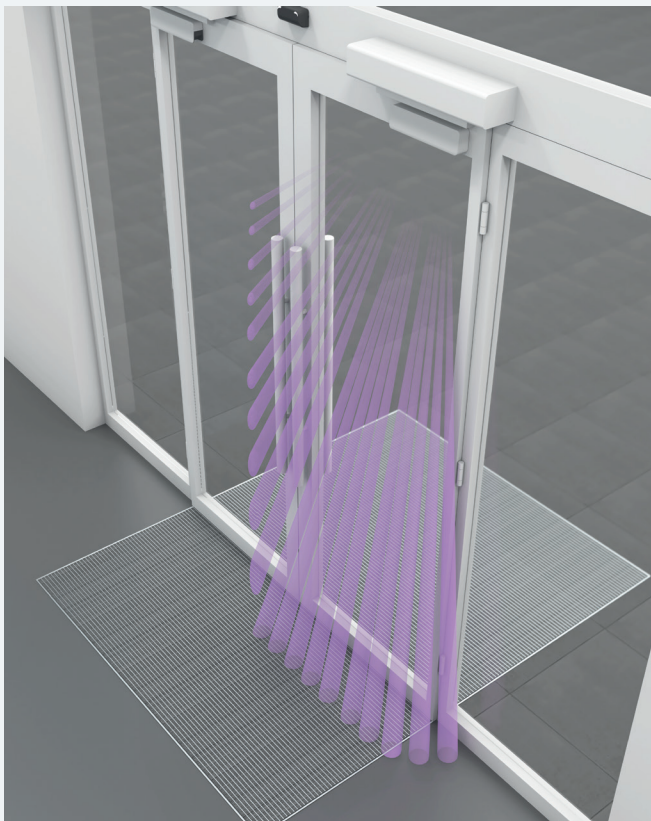
Non-contact

Protection of vulnerable groups of people.



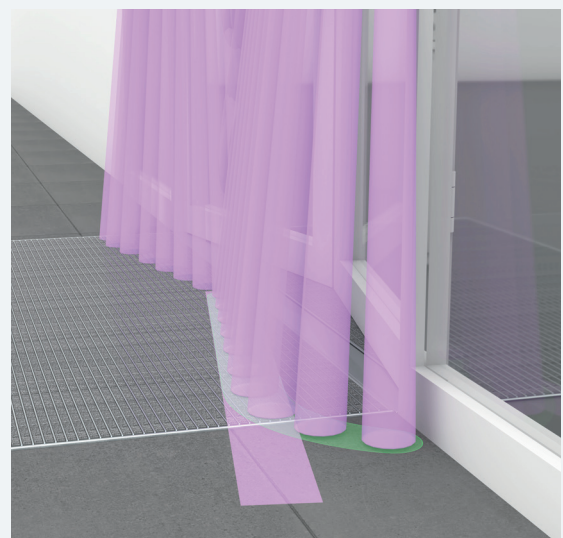
Crush protection

Optimally protects against potential hazards.



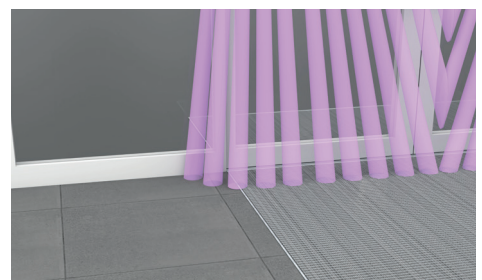
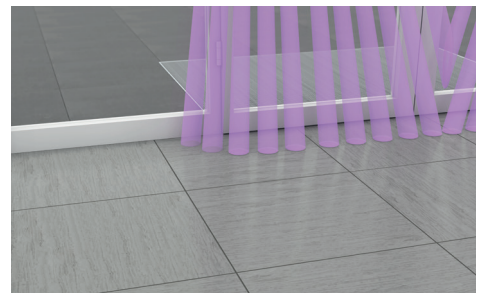
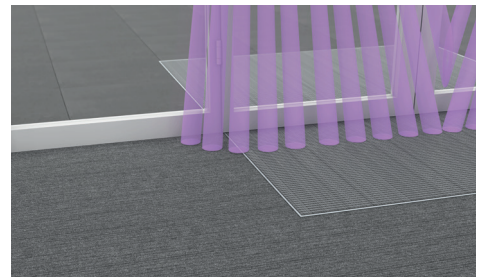
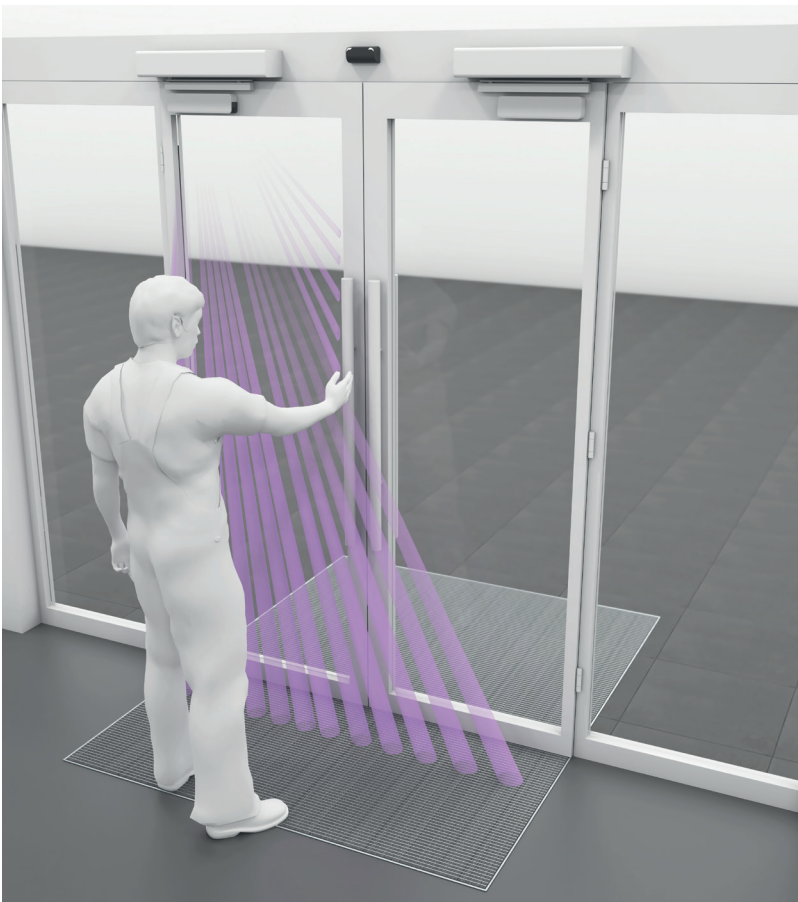
Best anti-trap protection available

Unlike other sensor solutions, the curved beam path around the secondary closing edge optimally protects the space between door frame and door hinge from unintentional contact.



2. Easy setup

Each door is unique – this requires flexible sensors. Different mounting heights, door sizes and movement speeds place specific demands on installation. Finding the right position is often a challenge, as frame dimensions, designs, and floor and lighting conditions vary. Yet safety is still the top priority, for reliable protection no matter the situation.



Intuitive and error-free setup

Automatic swing doors are individually tailored to the needs of your building. The design, material and size of the door as well as safety requirements and the required adaptability to changes in the environment are taken into account.

SolidSense simplifies work for installers significantly: With gesture control, the detection area can be adapted to the respective door width quickly and easily, also thanks to flexible mounting positions. The door handles do not require any special considerations. Plus, there are no dead zones.



Automatic

SolidSense automatically adjusts to the mounting height.



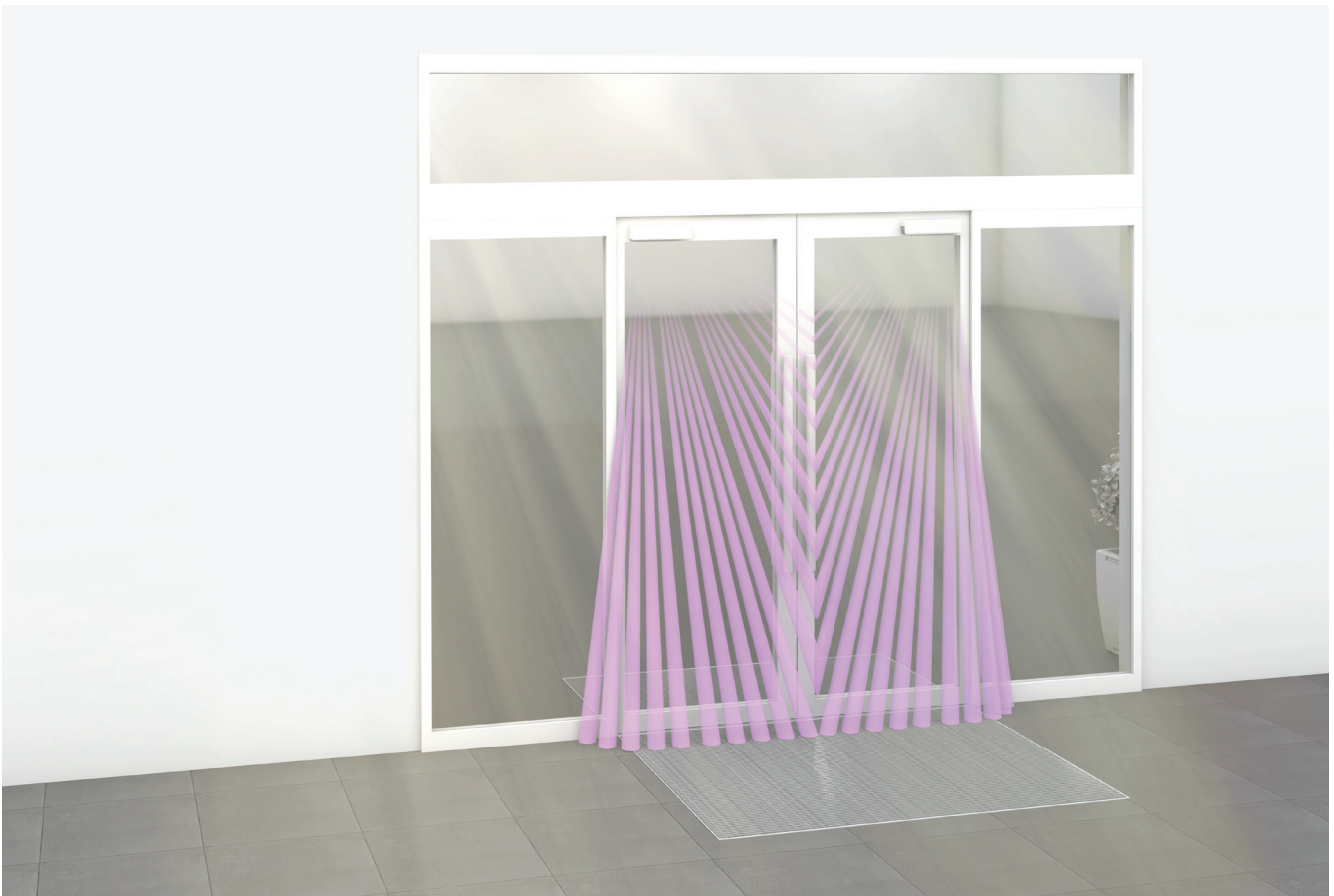
Comfortable

Door width set via hand gesture.



Varied applications

Compatible with almost any door.



3. Reliable operation

SolidSense provides smooth and silent operation in any environment, unaffected by ground surface, ambient light or reflections. Proven time-of-flight technology with reliable, ultra-precise measurements ensures reliable operation.

Dynamic adjustment to changing environments

To prevent possible contact between the door and people, sensors must continuously monitor the environment. The challenge is that nearby objects such as parts of the building, walls or moving objects such as plants or furniture must not obstruct door opening or be touched by the door itself.

Automatic fading of the background behind the door ensures smooth operation. When the door is opened, the individual beams of the protected field are faded out one after the other until the maximum door opening angle is reached. Changes behind the door are ignored.



Fading of the background areas

Changes behind the maximally opened door are ignored.



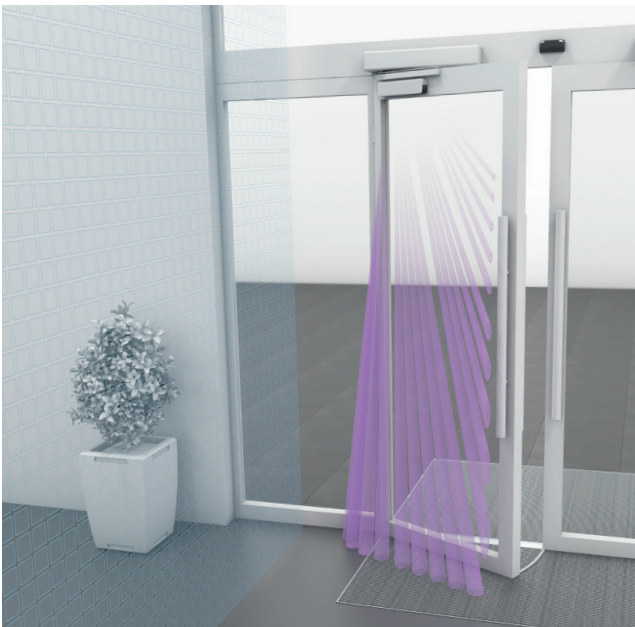
Energy-efficient

Accurate and reliable detection can minimize unintentional opening.



Intelligent recognition

Unaffected by ground surface, ambient light and reflections.



4. Aesthetic integration

The architectural demands on buildings are growing. Access points are no exception and always have to blend into the architecture or set accents. The discreet design of the SolidSense perfectly meets this demand – compact, clean, professional.

Seamless integration with modern buildings

The aesthetic demands are many: While colors, materials and dimensions are obvious, coherent proportions, surface properties and rounding angles are noticeable and crucial details. Though sensors are crucial for the function of automatic doors, they should be integrated and invisible when possible. Ideally, they should form the perfect complement to the design language of modern access points.

SolidSense has a flat housing designed specifically for corner mounting. It is slim and compact, which makes it easy to install in any door frame. The elegant, color-coordinated housing also blends into any door design harmoniously, ensuring an attractive appearance.



Integration

Thanks to the simple design, the sensor blends perfectly into the environment in a wide range of applications.



Compact and robust

The robust, flat housing is perfect for corner mounting and meets protection class IP65.



Customization

The housings are available in elegant silver, white and black. The white housing can be individually painted.



SolidSense

Data sheet

Mechanical data

Housing material	Polycarbonate (PC)
Housing colors	black, white, silver
Dimensions (L × W × D)	61 × 255 × 38.7 mm
Weight (set)	approx. 500 g

Technical data

Technology	Solid-state scanner with time-of-flight technology
Light transmitter	IRED 850 nm

Electrical data

Supply	
Voltage	24 V DC ±20%
No-load current	max. 200 mA per sensor
Test input	High at U = 15 V DC to 30 V DC Low at U = < 2 V DC
Response time	≤ 50 ms with mounting height ≤ 2500 mm ≤ 80 ms with mounting height > 2500 mm
Signal output	Semiconductor relay, short-circuit-proof max. 30 V DC, max. 60 mA
Connection type	2.5 m cable, 8-core

Ambient conditions

Mounting height	min. 1.8 m/max. 3 m
Operating temperature	min. -30 °C, max. +60 °C
Protection class	IP65 (EN 60529)
Humidity	max. 95 % relative, non-condensing

Compliance

Product complies with	RED2014/53/EU, RoHS2011/65/EU, MD2006/42/EC: EN 16005, DIN 18650, EN 12978, ISO 13849-1, EN 61508 1-4
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TÜV type-approved



SolidSense covers bk right and left black
Article no. 486341



SolidSense covers wt right and left white
Article no. 481222



SolidSense covers si right and left silver
Article no. 481223

For more details, see manual

SolidSense

Ordering information

Article no.	Designation	
481221	SolidSense 3M set bk (Set consisting of two sensors for both sides of the door leaf)	●
486341	SolidSense covers* bk	●
481222	SolidSense covers* wt	○
481223	SolidSense covers* si	●

*(Set consisting of two covers for left and right sensor)

- black
- white
- silver

Article no.	Designation
486342	SolidSense glass door mounting set
486343	SolidSense spacer plate
486344	SolidSense spacer wedge
486345	SolidSense IO module
486362	SolidSense cable adapter SSR/NPN
486363	SolidSense cable adapter SSR/PNP
486348	SolidSense connection cable (primary sensor and secondary sensor)
486361	SolidSense connection cable 2.5 m (transfer loop)
486349	SolidSense door cable
486360	SolidSense door cable (halogen-free)

Matching accessories & spare parts



Glass door mounting set

Adapter for easy installation on glass doors including cables

Article no. 486342



Spacer plate

Spacer plate between door leaf and sensor

Article no. 486343



Connection cable

Flexible connection cable for door control, standard 2.5 m, including corrugated hose and holder

Article no. 486361



Connection cable (halogen-free)

Halogen-free connection cable for door control

Article no. 486360



We will find the right solution for your specific application and will help you ensure that your automatic access systems operate in a way that is energy efficient, secure and convenient.

Find out more about us: bircher.com