Gunnebo SoloTek

Detecting pass-throughs for effective control over sensitive areas

GUNNEBO®



SoloTek is a single-person detection system which can be used to strengthen access control and ensure that only one person tries to pass through a door, airlock or corridor at a time.

In all banking and high-risk sectors, such as nuclear sites, airports, refineries and cash centres, securing entry points does not only involve authorising access or identifying people. For the sensitive zones of these buildings, the access control systems need to be bolstered in order to count the number of people passing between non-secure areas and secure areas.

SoloTek is a passage-detection solution ideally suited to managing people's access to sensitive or strategic areas.

Designed to increase the security provided by access control systems, SoloTek can be surface-mounted onto doors or airlocks and provides security between zones, preventing two people or more from simultaneously accessing them via a third-party system.

Thanks to a new type of technology that features infrared cells installed vertically, the SoloTek system can detect a person on their own as they pass through and can count the number of individuals crossing the infrared barrier.

Advantages

1. Plug and play system, easy to install, no civil engineering work required
2. Can be surface-mounted on all doors
3. Immediate and accurate authentication and single-passage recognition
4. Compatible with all intrusion detection systems, so that information can be shared in real time
5. Option to authorise access with two-wheeled trolleys (cabin suitcase type)
6. Counting function for an additional level of security
7. User comfort provided by visual and/or audio indicators.

Main features

The SoloTek detection system features a set of infrared sensors incorporated into an anodised aluminium section that is surface-mounted directly onto the door frame or brickwork. The infrared sensors are hidden by black polycarbonate, rendering them invisible.

On internal installations, they are protected against vandalism and sheltered from the elements.

The reliability of this new high-precision telemetry sensor technology increases the efficiency of checks on pass-throughs in a relaxed way – people can pass through without constraints and the number of false alarms is kept to a minimum.

SoloTek can be used in a range of different usage configurations: inside or outside opening, with a single door or a double-leaf, with a sliding door or as part of an installation in a corridor.

SoloTek is compatible with a wide range of access control and intrusion detection systems and is preconfigured so it can be connected up to the SecurWave system. It also incorporates a counting function for effective global security management.

Technical Characteristics

Can be mounted on:
– The door frame
– Directly onto brickwork

Available in:
– Single-passage mode through a door
– Single-passage mode with continuous flow

Installation:
– Deployment 5 cm above the floor
– Mounted using 3 x M4 screws (supplied)

Dimensions:
– Height: 1840 mm
– Width: 60 mm
– Depth: 60 mm
– Maximum passage width: 3000 mm

Power supply:
– 10Vdc at 30Vdc Max.

Operation

Single-passage mode through a door

A set of infrared sensors is used for detection, measuring the user's profile at three different heights. The door must be fitted with a door contact (to be provided if necessary) that indicates whether it is open or closed.

The SoloTek system is activated once the door has been opened (pass-through authorised by the access control system) and its integrated electronics analyse the data from the sensors in real time.

If the user passes through on their own, the system indicates that the door has been passed through correctly. If several users try to pass through at once, a contact is issued which can be used – for example – to trigger video, an alarm on a CCTV system PC or to lock a second door. If this happens, the users are asked to exit and then re-enter one at a time.

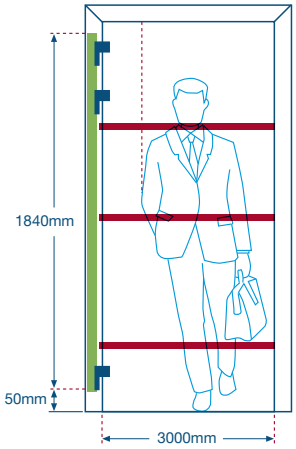
Whether or not users are granted entry is also communicated to them via an LED or an audio signal (buzzer or vocal synthesizer message).

A time-stamped log of the last 100 pass-throughs is stored on an SD card.

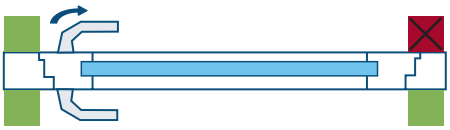
As well as detecting non-authorised entry attempts, SoloTek can detect tailgating and piggybacking.

When used in airlock configuration, the system checks that only one person is inside it before opening the second door and allowing access.

SoloTek used in conjunction with a door:



Possible SoloTek location:



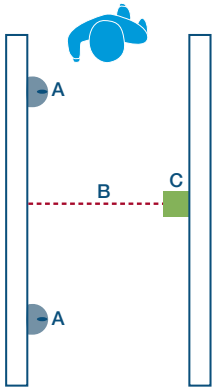
The height and angle of SoloTek's infrared sensors can be adjusted in order to adapt it to its environment. Furthermore, the infrared sensors' sensitivity levels can be adjusted for customised single-passage detection – ranging from the lowest to the highest.

Single passage mode with continuous flow

The SoloTek system can also be installed in a corridor (in open pass-through mode) in order to ensure single passage in continuous flow mode. It sends real-time information to the access control system about the result of the single passage check each time someone passes through: in compliance or not in compliance.

Contrary to single-passage mode with a door, pass-throughs are punctuated by users having to swipe their cards on the access reader so they can pass through continuously without the door closing after each one has gone through.

All the information communicated by SoloTek is recorded and then processed by the access control system so that the accessibility of the various zones requiring protection can be effectively managed.



A=Access Control. B=Infrared barrier. C=SoloTek

Counting function

Counting works alongside the single passage detection function: the access control system is told every time somebody enters or exits – regardless of whether or not they do so in compliance with requirements – so as to provide an estimate of the number of people who have passed through the infrared barrier.

SoloTek in brief

Challenges

- Ensure that users pass through one at a time
- Bolster the access control system's security
- Manage people flow
- Prevent hostage situations

Options

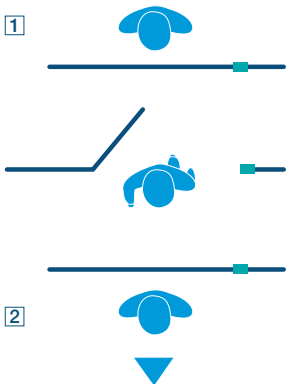
- Bidirectional counting
- Synthesised voice messaging
- 12 VDC power supply

Applications

- Banks
- Company headquarters
- Administrative and government buildings
- Nuclear and high-risk sites
- Laboratories
- Refineries
- R&D offices
- Data centres
- etc.

The right way to pass through

1=Outside. 2=Inside.



Single passage mode on a door

- Door closed and SoloTek in idle state
- Open the door
- Pass through SoloTek, walking normally and without swinging your arms too much
- Keep any large objects (handbag, etc.) close to you
- Allow the door-closer to close the door behind you

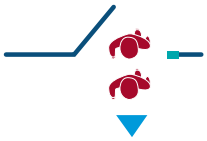
Single passage mode with continuous flow (without using the doors)

- Authentication with access control
- Pass through SoloTek, walking normally and without swinging your arms too much
- Keep any large objects (handbag, etc.) close to you

Product references

Product Version	Item Code
SoloTek	A18496
SoloTek with vocal synthesis	A18498
SoloTek with counting function	A18499
SoloTek with counting function and vocal synthesis	A18502

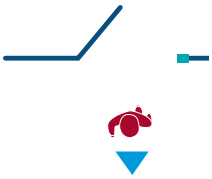
The wrong way to pass through



Pass through one in front of the other

Pass through two abreast

Pass through too slowly



Leave the door open (door mode only)

Allow a large object to jut out

Limitations of use

It is not possible to guarantee that a system is completely tamper-proof. The system must be used in a monitored environment.

Gunnebo SoloTek

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