

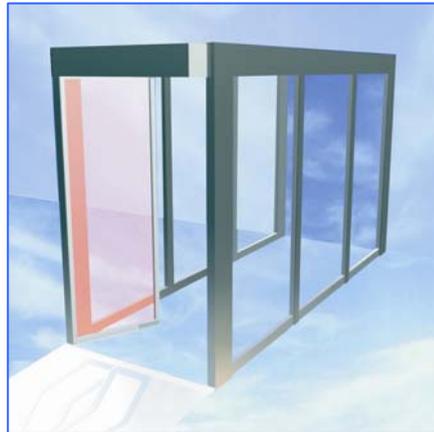


FlipFlow SINGLE

System Description



The cost-effective pedestrian flow control



Brief description

Principle of operation

The FlipFlow SINGLE is used for *controlling the flow of persons* in airports and other sensitive areas in various buildings. This Monoblock is usually passed through one after the other, and only in one direction of travel. It makes the uncontrolled access of a person from a public to a secured zone more difficult. Attempts to pass through the FlipFlow TWIN in the non-allowed direction of travel will be detected by an *intelligent sensor system* and a corresponding alarm will be triggered.

Applications

- In airports between public and security zones
- For the protection of other sensitive areas in seaports and railway stations
- Access to public or industrial buildings
- Monitored side entrances in supermarkets

The FlipFlow SINGLE is used for passageways that are located in the immediate vicinity of the security staff.

Construction

- Self-supporting aluminium construction. A **record DDF** swing door operator designed for a long service life. In the basic model, the door is fitted with a robust, electro-magnetic locking device.
- The master control unit, coupled with an intelligent, modular extendable sensor package monitor the flow of persons.
- Transparent side screens made from laminated safety glass facilitate supervision.
- Interior lighting through 6 spotlights
- Display of the operational status using a red/green signal system at the entrance door.

Surface treatment *Glass specifications*

Aluminium construction

- Powder coated – standard RAL/NCS colours

Glazing

- Door leaf and side screens: Laminated safety glass 44/2
- Narrow protective screen: Hardened safety glass

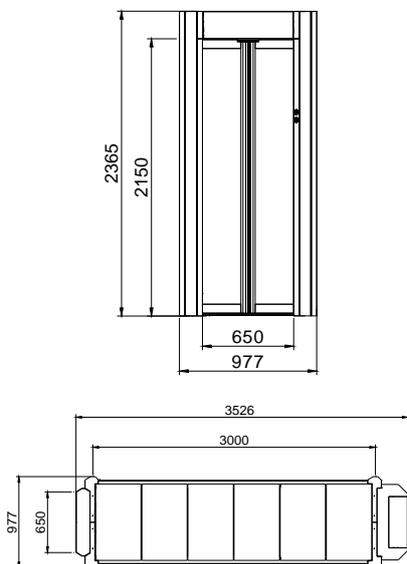


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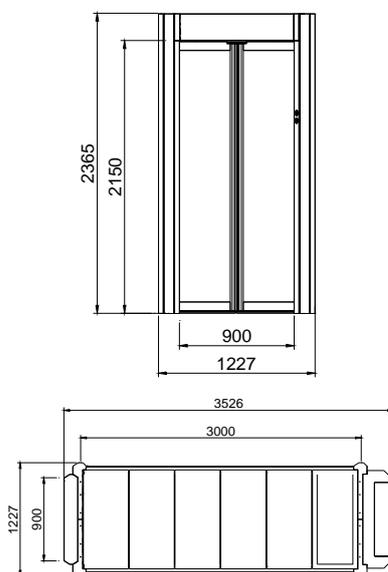


Model range

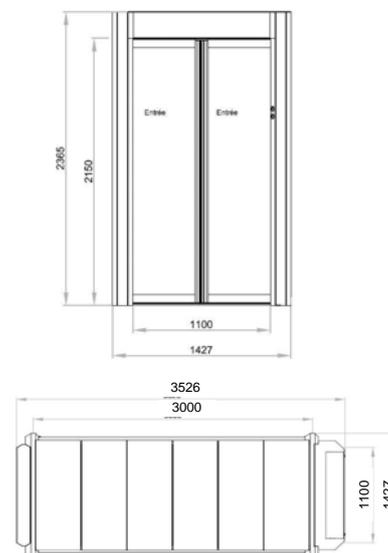
SINGLE 650



SINGLE 900



SINGLE 1100

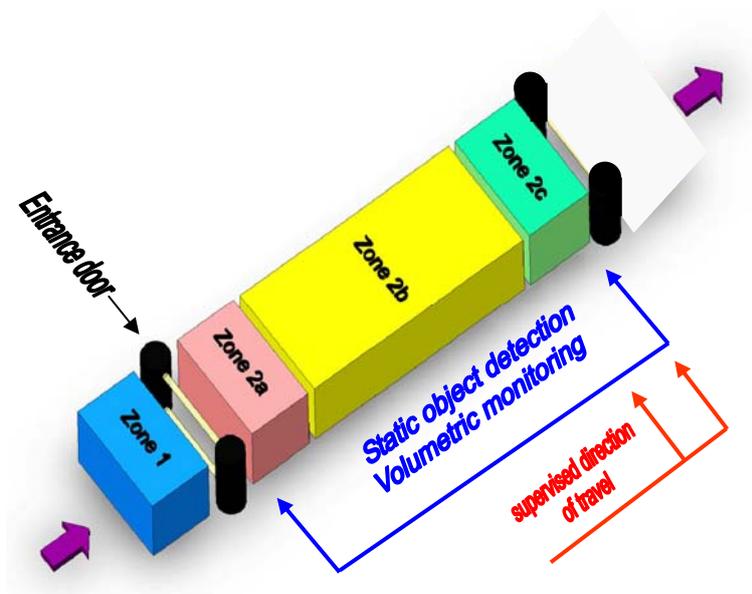


- Dimensions for the FlipFlow SINGLE 1200 available on request

Basic equipment

- Basic sensor / signalisation elements
- Mode select switch operated with a key:

Detection zones



Max. capacity

- 1,500 – 2,000 persons / h
These values can vary strongly depending on the use of the tunnel.

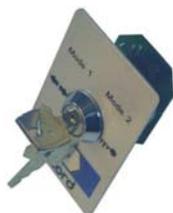


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Operating modes



FLOW mode

- Opening of the "Entrance door" through the sensor (Zone 1)
- The user enters the FlipFlow SINGLE
- The "Entrance door" closes if no movement is detected in Zone 1, or if the passage is free and no objects are detected in the swing range of the door. (Zone 2a)
- The user passes through Zone 2b
- The FlipFlow SINGLE can be exited freely without any hindrance
- Signalisation of flow of persons in the permitted direction of travel „green“
- Lighting switched on

OPEN mode

- Automatic door is open
- The FlipFlow can be passed through freely without any hindrance
- The monitoring sensor system is inactive
(option: *active alarm* – incorrect direction of travel)
- Signalisation of flow of persons in the permitted direction of travel „green“
- Lighting switched on

LOCKED mode

- The door is closed and locked
- Passing through the FlipFlow not possible
- Signalisation of flow of persons „red“ / Lighting switched off

Maintenance and cleaning

Additional switch for maintenance work (optional)

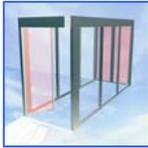
Integrated switch, accessible through the service flap.

- Alarm messages will be suppressed after the operation of this switch
- The Service technician can service the FlipFlow, and adjust and test it
- A local alarm is triggered if the switch is not reset after a pre-defined time (can be set in the parameters)
- Signalisation of the status through a potential-free contact for transmission to a monitoring office

Additional switch for the cleaning of the system

Functional extension for the connection of a (customer-supplied) switch for cleaning work. Can be connected „airside“ and/or „landside“.

- The automatic door closes and locks
- Alarms are suppressed
- Signalisation of the status through a potential-free contact for transmission to a monitoring office
- This mode will be exited after the expiry of a predefined time (can be set in the parameters).



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Incorrect behaviour and alarm messages

If one of the alarm messages listed below occurs, a local buzzer will be switched on. For the differentiation of the alarms, individual messages can be output to contacts, for example, for integration into a building management system.

Wrong walking direction and intrusions

- If a person attempts to pass through the tunnel in the opposite direction or turns back in Zone 2c, an alarm will be triggered. A different message will be triggered depending on the status of the entrance door:
 - With the entrance door closed → „Wrong walking direction“ alarm
 - With the entrance door open → „Intrusion“ alarm
- In both situations, the automatic door will be closed and locked, insofar as it has not been deliberately prevented from closing.
- A user can, however, turn back without hindrance in Zones 2a and 2b without triggering an alarm.

Disturbance of people flow

The „Disturbance of people flow“ alarm is triggered if the proper functioning of the FlipFlow is no longer guaranteed due to external influences, such as:

- A person or an object has remained in the door opening and has thereby blocked the flow of persons.
- If a person or an object is detected in the inner area of the FlipFlow (optionally required sensor system)

Technical disturbance

If a fault occurs in one of the drive systems or if a sensor / camera etc. is defective, a „technical disturbance“ will be triggered.

Remote operation of the system

Remote control

The following commands can be triggered by a master system, for example by a building management system. *The operating modes selected on the control unit will be overridden.*

- Total opening of the automatic door
- Emergency closing and locking of the automatic door

Connection of flashing lights

A special contact (24 VDC / max. 25W) is available for the connection of a locally supplied flashing light.



This contact is activated by the **Intrusion** alarm, and makes possible a fast and direct intervention by a security officer.



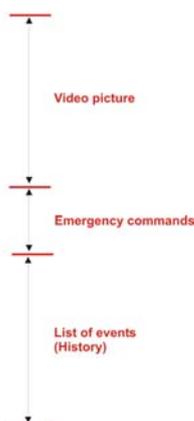
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Remote operation and remote monitoring – optional expansion modules

record ADM^{pro} *Advanced Door Management*

The **record ADM^{pro}** offers convenient, central monitoring and operation of the FlipFlow TWIN. Alarm messages will be immediately forwarded to different recipients by E-mail. An installed video camera facilitates the remote control and gives information about the situation on-site.



record ADM^{pro} user-friendly graphic interface

record LON-16 *Interface*

Integration in building management systems

The **record LON-16** interface required for the integration is LONMark certified and can be integrated into any open LON-based building management system.

For integration into existing control systems, the FlipFlow can be extended with relay output and digital input modules. Preconfigured outputs provide useful and detailed information about the alarm messages that are present, the currently selected operating mode and the door status.

Integration into PC networks (LAN)

For integration into an existing PC network (LAN), useful information, such as alarm messages that are present and information about the current status of the door, is made available via a standardised interface.

The integration and the visualisation is carried out by a local system integrator determined by the customer. (Availability on request)



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Options

Inside monitoring

The interior of the FlipFlow can be monitored by various sensors. The possibilities listed below can be used individually, or in combination with each other:

- Detection of static objects on the **floor**
- Detection of static objects on the **fixed walls**
- Detection of static objects on the **ceiling**
- Volumetric inside monitoring
Persons who stay in the FlipFlow in an irregular manner will be detected (recommended combination with the detection of static objects **on the floor**)

Integration of access control systems

A special operating mode is available in the „closed/locked“ position

- The once-only passage in the „landside“ direction is permitted to the holder of a valid access pass
- Once the passage has taken place, the system is locked again.

Control unit for EURO cylinders

Selector switch for operating modes with EURO cylinder
Customer delivery of the definitive EURO cylinder.



Emergency operation

The automatic door is fitted with a „Battery-Pack“. In the case of a loss of power, the doors carry out a final emergency movement (e.g. the door is closed and locked). The FlipFlow can be exited in the direction of the public zone.

Service Display

The „Service Display“ is intended for the technical operating personnel and offers the possibility of

- Changing and/or resetting parameters
- Adapting the timer to the individual needs of the customer
- Status list of the digital inputs / relay outputs
- Presenting the error messages in plain text
- Password-protected access levels



Depending on customer requirements, this useful tool is offered in two variants:

- Securely mounted under the casing of any FlipFlow
- as a portable service tool that can be used with all FlipFlows of the latest generation

Additional displays Operating status

An additional display of the operational status (signalisation red / green) can also be attached to the left side of the door as an option.