DESIGNING AND INSTALLING ACCESS CONTROL SOLUTIONS

Practical guide & applications | Standalone & centralised solutions
A practical guide for professionals

Installer
You want to offer your customers simple access control solutions, suitable for their professional or private requirements.
You want to support your proposals with examples connected with their areas of business or similar uses, and you also want to have technical and practical information for carrying out the installation.

Design consultant
You are a designer and specifier of solutions for public or private establishments, and you receive requests regarding the management of flows of people and ensuring the security of access to several areas.
You are looking for simple, one-off application solutions, and also the ability to manage complex scenarios.

This guide will help you select or combine standalone and centralised solutions
You will learn how to select and install these devices
You will find practical applications in this guide

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Why access control?

The access control system is used to manage flows of people connected with:

A **site**: a piece of land, enclosed area, etc.

A **building**: businesses, offices, warehouses or storage areas, public buildings (hospitals, hotels, courts, schools, museums, exhibition halls, conference centres or cinemas/theatres, etc.).

A **closed room or area**: entrance hall, car park, office, stockroom, double-entrance security doors, equipment room, computer room or clean room, laboratory, cellar, etc.

A **tool**: workstation, cabinet, computer, computer rack, etc.

To be appropriate for each situation, the access control system must answer 5 questions

**where?**
For what place?
What type of access (isolated, internal or external, room, building, floor, etc.), for how many doors?

**why?**
For what function, for whom?
Management of visitors, groups, staff and events.

**when?**
At what time?
At what times is access permitted or refused?
And for how long?

**how many?**
How many people are concerned?
How many sections or departments? How many people are there in the groups? Which visitors are authorised, and which are not?

**how?**
Which readers to choose?
What wiring infrastructure to use?

The key is the first and simplest access solution. But it quickly proves to be inadequate for managing a number of accesses, copying a lost key or providing temporary access to one or more people. This is why electronic access management should be adopted.
Key features of the Legrand offer

Fingerprint reader  
Badge reader  
Coded keypad

The three main current technologies are used on their own or in combination.

Attractive appearance

Internal range:  
MOSAIC and ARTEOR (White & Black Mirror)

External range:  
SOLIROC

The Legrand access control offer comprises several wiring accessory ranges: your customers can choose the design and finish most suitable for their requirements or preferences.

Technology

Fingerprint reader  
Badge reader  
Coded keypad  

The three main current technologies are used on their own or in combination.
Key features of the Legrand offer

- Fingerprint reader
- Badge reader
- Coded keypad

The three main current technologies are used on their own or in combination.

You have a single offer comprising both standalone and centralised solutions.

The door controller uses the IP network infrastructure (Legrand Cabling System LCS²).

The supervision software is user-friendly and very easy to use.

The Legrand access control offer is easy to install and use.

Simplicity

You have a single offer comprising both standalone and centralised solutions.

The door controller uses the IP network infrastructure (Legrand Cabling System LCS²).

The supervision software is user-friendly and very easy to use.

The Legrand access control offer is easy to install and use.

Adaptability

The system you install can be adapted without changing the readers.

The centralised readers you have installed will be able to take other controllers on the market (26-bit Wiegand).

With Legrand solutions you can propose open, durable systems.
## Table showing all solutions

<table>
<thead>
<tr>
<th>where? in what place?</th>
<th>1 isolated door or up to 256 doors with encoder Internal or external</th>
</tr>
</thead>
<tbody>
<tr>
<td>when? at what time?</td>
<td>Opening times of the access [for example: unrestricted access periods]</td>
</tr>
<tr>
<td>how many? what volume?</td>
<td>Up to 500 users 32 groups with encoder</td>
</tr>
<tr>
<td>how? what configuration?</td>
<td>Readers</td>
</tr>
</tbody>
</table>

### the four levels of management

<table>
<thead>
<tr>
<th>Level 1/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standalone solution No management required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standalone solution with encoder Remote management of badge loss/theft</td>
</tr>
<tr>
<td>Internal or external</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Management of visitors</td>
</tr>
<tr>
<td>Management of groups</td>
</tr>
<tr>
<td>Management of loss/theft of badges</td>
</tr>
<tr>
<td>Lifts</td>
</tr>
<tr>
<td>Access opening times</td>
</tr>
<tr>
<td>Access times for groups/individuals</td>
</tr>
<tr>
<td>Management of automatic control devices</td>
</tr>
<tr>
<td>Alarm activation times</td>
</tr>
<tr>
<td>Periods - dates of validity of access</td>
</tr>
</tbody>
</table>

| Management of events (traceability of entries, refusals, unauthorised entries, etc.) | |
| Supervision on drawing (in real time if in online mode) | |
| Lifts | |
| Management of events (traceability of entries, refusals, unauthorised entries, etc.) | |
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| Lifts | |

| Management of events (traceability of entries, refusals, unauthorised entries, etc.) | |
| Supervision on drawing (in real time if in online mode) | |
| Lifts | |

| Readers* | |
| Readers* | |
| Readers* | |

**CENTRALISED**

* Non-exhaustive list: you can find all the Legrand products on pages 30 to 36 of this guide
Standalone access control solutions are designed to manage and ensure the security of the flows of people in simple or small areas (meeting room, individual office, equipment room). The implementation of standalone solutions is also suitable for larger sized buildings for which no management of events or supervision is required (e.g., hotels).

Locations concerned:
- Isolated entrance door
- Storeroom
- Computer room
- Meeting room
- Access to hotel rooms
Standalone access control solutions are designed to manage and ensure the security of the flows of people in simple or small areas (meeting room, individual office, equipment room). The implementation of standalone solutions is also suitable for larger sized buildings for which no management of events or supervision is required (eg: hotels).

**Locations concerned**
- Isolated entrance door
- Storeroom
- Computer room
- Meeting room
- Access to hotel rooms

**Advantages**
- Easy to install
- Optimised wiring
- Very simple programming

**Level 1/4**
Standalone solution
No management required

**Level 2/4**
Standalone solution with encoder
Remote management of loss or theft of badges
Operation & installation

How does it work?
A reader is defined as being standalone when it manages the information incorporated inside (stored code for example or fingerprint) and/or configured in a badge:
- IDs (code, badge or fingerprint) are read directly on the reader
- The ID memory is integrated in the reader
- The door is controlled directly from the reader

How is the device installed?
- The power supply is connected directly to the reader
- This reader is itself connected to the closing system (door release, electromagnetic lock, bolt, etc.) and to the pushbutton that is located inside the protected area (to enable the user, who has been allowed to enter, to leave)

**TIP**
It is important to pay particular attention to the power supplies of access control solutions: where they are installed (internal or external), their operation (whether or not they are protected), etc.
Legrand Access System – Badge Manager

Capacity
The encoder, linked to the badge management software, has a flow management capacity of up to 500 users for a set of 100 to 256 doors, depending on the circumstances*.

Functions
The software can be used to manage several groups of users, any losses of user badges, as well as for remote modification of the access data.

Advantages:
- No physical connection between the reader and the computer (savings on wiring)
- Your customers can manage the accesses and flows of several remote locations without having to move from their desks.

*Access control management combined with a booking system requires the installation of a centralised system.

Legrand support and services for professionals.
Advice and services are available to help you guide your customers towards customised solutions:

- On-site software training
- Pre-encoding of readers and badges
- Customisation of badges:
  - Personal identity: first name, surname, position, photo, etc.
  - Graphics and marketing: in line with the corporate identity and service offering of your customers

TIP
The standalone coded keypad enables temporary codes to be created and allocated very easily for external companies or temporary staff. This function avoids having to disclose the codes of permanent staff.
## Selecting the right reader

### Type of peripheral

<table>
<thead>
<tr>
<th></th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>coded keypads</td>
<td>badge readers</td>
</tr>
<tr>
<td></td>
<td>767 00</td>
<td>572 250 / 572 750 / 767 01</td>
</tr>
<tr>
<td>Surface mounting</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Flush mounting</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IK</td>
<td>07 04 04 04 04 04 10 10 10 10 04</td>
<td>07 04 04 07 04</td>
</tr>
<tr>
<td>IP</td>
<td>54 40</td>
<td>40 40</td>
</tr>
<tr>
<td>Backlit</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Door status buzzer + LEDs</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Power supply/Consumption (mA)</td>
<td>12 V = (special power supply, supplied with reader) 100 mA</td>
<td>12 V = 47 mA</td>
</tr>
<tr>
<td>Reading distance</td>
<td>5 cm</td>
<td>13.56 MHz Mifare badge</td>
</tr>
<tr>
<td>No. of relays</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>No. of users</td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td>Operation</td>
<td>4 to 8 digit code</td>
<td>4 to 8 digit code</td>
</tr>
</tbody>
</table>

**Notes:**
1. Cat. Nos. 572 252, 572 251 and 572 250: ARTEOR white
2. Cat. Nos. 572 752, 572 751 and 572 750: ARTEOR black mirror
## Selecting the right reader

### INTERNAL EXTERNAL

<table>
<thead>
<tr>
<th>Type of peripheral</th>
<th>coded keypads</th>
<th>badge readers</th>
<th>biometric readers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface mounting</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Flush mounting</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IK</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>IP</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Backlit</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Door status buzzer</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Power supply/Consumption</td>
<td>(mA)</td>
<td>12 V</td>
<td>= 100 mA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>12 V = 47 mA</td>
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<td></td>
<td></td>
<td></td>
<td>12 V = 118 mA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>12 V = 300 mA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>12 V = 80 mA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12 V = 40 mA</td>
</tr>
<tr>
<td>Reading distance</td>
<td>5 cm</td>
<td>3 cm</td>
<td>3 cm</td>
</tr>
<tr>
<td>No. of relays</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>No. of users</td>
<td>500</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>Operation</td>
<td>4 to 8 digit code</td>
<td>4 to 8 digit code</td>
<td>13.56 MHz Mifare badge</td>
</tr>
</tbody>
</table>

### External

- Cat. Nos. 572 252, 572 251 and 572 250: ARTEOR white
- Cat. Nos. 572 752, 572 751 and 572 750: ARTEOR black mirror

<table>
<thead>
<tr>
<th>readers</th>
<th>coded keypads</th>
<th>badge readers</th>
<th>biometric readers</th>
</tr>
</thead>
<tbody>
<tr>
<td>767 30</td>
<td>778 74</td>
<td>778 77</td>
<td>778 72</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>04</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>43</td>
<td>55</td>
<td>55</td>
<td>55</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>12 V =</td>
<td>300 mA</td>
<td>12 V = 80 mA</td>
<td>12 V = 80 mA</td>
</tr>
<tr>
<td>12 V =</td>
<td>80 mA</td>
<td>24 V = 40 mA</td>
<td>24 V = 40 mA</td>
</tr>
<tr>
<td>24 V =</td>
<td>40 mA</td>
<td>12 V = 118 mA</td>
<td>12 V = 40 mA</td>
</tr>
<tr>
<td>3 cm</td>
<td>3 cm</td>
<td>3 cm</td>
<td></td>
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<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>999</td>
<td>999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vein pattern</td>
<td>4 to 8 digit code</td>
<td>13.56 MHz Mifare badge</td>
<td>13.56 MHz Mifare badge</td>
</tr>
</tbody>
</table>
Centralised access control solutions are designed for organisations or companies which need to manage office buildings or healthcare or educational establishments from one or more control stations. This range meets the requirements for management of the flows of people both internally and externally. The ability to supervise events on drawings and obtain an overview of all the flows in real time. The wide variety of scenarios available (e.g., creation of automatic control devices) access to interoperability with other systems such as video surveillance.

Advantages

Centralised access control solutions
Centralised access control solutions

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Advantages

- The ability to supervise events on drawings and obtain an overview of all the flows in real time
- The wide variety of scenarios available (e.g., creation of automatic control devices)
- Access to interoperability with other systems such as video surveillance

Level 3/4
- Time management, event log, intruder alarm, etc.

Level 4/4
- Multi-site management, integration of drawing, etc.
Operation & installation

How does it work?
Centralised access control always consists of a door controller used with several peripherals.
The IDs that are read (code, badge, or fingerprint) are transmitted to the controller.
- The memory of the IDs is stored in the controllers
- The door is controlled from the controller
- The controller is configured from software

How is the device installed?
- A door controller is configured with the same overall information as a standalone system.
  It also has its own user interface.
On the door, all the component parts of the device (power supply, reader, closing system) are wired on the controller.
- All the controllers are linked to software installed on a computer terminal (PC or server via the network).
Within the installation, the controllers use the structured cabling.

where?
Up to 256 internal or external doors.

why?
Management of visitors, groups, management and traceability of events, overall real-time supervision.

when?
Ability to manage access times or periods, management of automatic control devices and access validity periods.

how many?
Up to 10,000 users and 64 groups.

how?
See the selection chart on page 16 and the catalogue pages from p. 30 on.

TIP
Numerous examples are provided from page 18 of this guide.
Centralised management software

Legrand Access System – Software
For linking and controlling the door controllers distributed throughout the installation using 2 controllers.

Functions:
- Multi-reader teaching (Wiegand universal protocol)
- Management of the loss or theft of badges
- Time management of accesses
- Management of events
- Management of the encoder
- Management of 10,000 users
- Storage of the 10,000 most recent events
- Real-time supervision (in online mode)
- Supervision on one or more drawings of the installation

Each door controller has its own pre-installed on-board software. When used on its own, the software can be used to programme scenarios for the two doors connected to it, thus providing simplified, standalone management, if required.

Legrand support and services for professionals.
Advice and services are available to help you guide your customers towards customised solutions:

- On-site software training
- Pre-encoding of readers and badges
- Customisation of badges
  - Personal identity: first name, surname, position, photo, etc.
  - Graphics and marketing: in line with the corporate identity and service offering of your customers
Our centralised solutions are based on the network infrastructure of your project. Legrand has a dedicated range of structured cabling—LCS². Contact your Legrand sales office for further information.

## Selecting the right reader

### Internal

<table>
<thead>
<tr>
<th>Type of peripheral</th>
<th>coded keypads</th>
<th>badge readers</th>
<th>biometric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface mounting</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IK</td>
<td>07</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>IP</td>
<td>54</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Backlit</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Door status buzzer + LEDs</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Power supply/Consumption</td>
<td>12 V = (special power supply, supplied with reader) 100 mA</td>
<td>12 V = 47 mA</td>
<td>12 V = 118 mA</td>
</tr>
<tr>
<td>Reading distance</td>
<td>5 cm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wiegand technology</td>
<td>26-bit Wiegand</td>
<td>26, 30 and 34-bit Wiegand</td>
<td>26, 30 and 34-bit Wiegand</td>
</tr>
<tr>
<td>Operation</td>
<td>4 to 8 digit code</td>
<td>4 to 8 digit code</td>
<td>13.56 MHz Mifare badge</td>
</tr>
</tbody>
</table>

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(1) Cat. Nos. 572 252, 572 251 and 572 250: ARTEOR white
(2) Cat. Nos. 572 752, 572 751 and 572 750: ARTEOR black mirror
<table>
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<tr>
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<th>badge readers</th>
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</tr>
</thead>
<tbody>
<tr>
<td>767 31</td>
<td>767 17</td>
<td>778 77</td>
<td>767 32</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>44</td>
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<tr>
<td>X</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>12 V = 300 mA</td>
<td>12 V = 80 mA</td>
<td>12 V = 118 mA</td>
<td>12 V = 350 mA</td>
</tr>
<tr>
<td>5 cm</td>
<td>3 cm</td>
<td>70 cm</td>
<td>3 cm</td>
</tr>
<tr>
<td>26-bit Wiegand</td>
<td>26-bit Wiegand</td>
<td>26, 30 and 34-bit Wiegand</td>
<td>26-bit Wiegand</td>
</tr>
<tr>
<td>2 recognition levels: 1/ Reading of fingerprint stored in the badge 2/ Comparison with fingerprint placed on sensor Mifare badge 13.56 MHz</td>
<td>4 to 8 digit code</td>
<td>2 recognition levels: 1/ Reading of code stored in the badge 2/ Comparison with code entered on keypad Mifare badge 13.56 MHz</td>
<td>2 recognition levels: 1/ Reading of fingerprint stored in badge 3.56 MHz 2/ Comparison with fingerprint placed on sensor Mifare badge 13.56 MHz</td>
</tr>
</tbody>
</table>
Visitor access to the controlled car park via a video entry system.

To ensure traffic flows freely through the car park entrance at peak times, a period of free access can be programmed while maintaining control at the exit.
To secure access to the building (if unrestricted access to the building from the car park) and to ensure there are parking spaces for authorised people, to prevent theft of vehicles.

Offices hours (weekdays, excluding weekends and public holidays) and numerous time periods for access and possible periods of unrestricted access.

To prevent theft of vehicles.

Management of complex access control: management of time periods, groups, users and supervision.

Door controller

Legrand Access System - Software

Where?

1. Car park
   • To secure access to the building (if unrestricted access to the building from the car park)
   • To ensure there are parking spaces for authorised people
   • To prevent theft of vehicles

2. Building entrance
   • To secure access to the building
   • To display the system and its events in real time

3. Open space
   • To limit access to a department or section
   • Protection of sensitive data/documents
   • Energy management at the workstation (presence)

4. Meeting room
   • Protection of equipment
   • To plan usage
   • Energy management

5. Office
   • Protection of sensitive data/documents
   • Energy management

6. Equipment room
   • Protection of sensitive data/equipment (computer room, or room housing security system)
   • Protection of people (electrical room)

When?

• Office hours (weekdays, excluding weekends and public holidays)
• Numerous time periods for access
• Possible periods of unrestricted access

• Period of validity (access authorised from ... to ...)

How?

1. Authorised employees
2. External staff (security company, cleaning, etc.)

2. All employees
3. External staff (security company, cleaning, etc.)
4. Up to 5 supervision stations

5. Employees concerned
6. External staff (security company, cleaning, etc.)

6. Authorised employees
7. Or person who has booked the room
8. Occupant of the office
9. Authorised staff (security, cleaning, etc.)
10. In-house departments: IT, technical, maintenance
11. Regular external staff (security company, cleaning, etc.)
12. Occasional external staff (badge available at reception)
Car park building (if unrestricted access to the building from the car park)

Parking spaces for authorised people vehicles

Building entrance building

Unrestricted access - building

Access to upper floors/departments - floor or department (eg: sensitive residents)

Rooms/flats - floor or department

Administrative offices

Storage Room/Pharmacy - sensitive documents, drugs (electrical room)

APPLICATION

Healthcare

Effective management of access rights prevents external workers accessing the building once they have completed their work.

Centralised management is recommended for large hospitals.

Creating groups of users enables access rights to be granted, and if necessary modified, for a defined set of people in a company or a particular department.

TIP

TIP

TIP
### STANDALONE MANAGEMENT

<table>
<thead>
<tr>
<th><strong>Car park</strong></th>
<th><strong>Management of standalone access control:</strong>&lt;br&gt;management of groups and users</th>
<th><strong>TIP</strong>&lt;br&gt;Creating groups of users enables access rights to be granted, and if necessary modified, for a defined set of people in a company or a particular department.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To secure access to the building (if unrestricted access to the building from the car park)</strong>&lt;br&gt;<strong>To ensure there are parking spaces for authorised people</strong>&lt;br&gt;<strong>To prevent theft of vehicles</strong></td>
<td><strong>Permanent control</strong>&lt;br&gt;<strong>Staff</strong>&lt;br&gt;<strong>External staff (security, cleaning, etc.)</strong></td>
<td><strong>Effective management of access rights prevents external workers accessing the building once they have completed their work.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Building entrance</strong></th>
<th><strong>Encoder</strong></th>
<th><strong>TIP</strong>&lt;br&gt;Centralised management is recommended for large hospitals.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To secure access to the building</strong></td>
<td><strong>778 72 / 778 77</strong></td>
<td><strong>TIP</strong>&lt;br&gt;Centralised management is recommended for large hospitals.</td>
</tr>
<tr>
<td><strong>Possible periods of unrestricted access</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Access to upper floors/departments</strong></th>
<th><strong>Legrand Access System Badge Manager</strong>&lt;br&gt;<strong>767 02 / 767 28 572 251 / 572 751</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To limit access to the floor or department</strong>&lt;br&gt;<strong>Control on exiting (e.g. sensitive residents)</strong></td>
<td><strong>767 01 / 572 252 / 572 752</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Permanent control</strong>&lt;br&gt;<strong>“Residents”</strong>&lt;br&gt;<strong>Authorised staff</strong></td>
<td><strong>767 01 / 572 252 / 572 752</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Rooms/flats</strong></th>
<th><strong>778 72 / 778 77</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to “private” area</strong></td>
<td><strong>767 02 / 767 28 572 251 / 572 751</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Permanent control</strong>&lt;br&gt;<strong>“Resident”</strong>&lt;br&gt;<strong>Authorised staff</strong></td>
<td><strong>767 01 / 572 252 / 572 752</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Administrative offices</strong></th>
<th><strong>778 72 / 778 77</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection of equipment</strong>&lt;br&gt;<strong>Protection of sensitive data/documents</strong></td>
<td><strong>767 02 / 767 28 572 251 / 572 751</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Permanent control</strong>&lt;br&gt;<strong>Occupant of the office</strong>&lt;br&gt;<strong>Staff</strong></td>
<td><strong>767 01 / 572 252 / 572 752</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Storage Room/Pharmacy</strong></th>
<th><strong>778 72 / 778 77</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection of data, sensitive documents, drugs</strong>&lt;br&gt;<strong>Protection of people (electrical room)</strong></td>
<td><strong>767 02 / 767 28 572 251 / 572 751</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Permanent control</strong>&lt;br&gt;<strong>Authorised staff</strong></td>
<td><strong>767 01 / 572 252 / 572 752</strong></td>
<td></td>
</tr>
</tbody>
</table>
Standalone management is preferable for small-scale structures with small numbers of staff and students with no protection of property.
Management of complex access control: management of time periods, groups, users and supervision

**Car park**
- To secure access to the building
- To ensure there are parking spaces for employees or authorised people
- To prevent theft of vehicles

**Building entrance**
- To secure access to the building
- School dates and times
- Possible periods of unrestricted access

**Classroom**
- Protection of equipment
- Energy management
- Protection of people (workshop, chemistry lab, etc.)
- Permanent control
- School dates and times
- ‘Unrestricted access’ mode initiated by command (in presence of a responsible individual)

**Resource centre/Library Self-service computer room**
- Protection of equipment
- Protection of sensitive data/documents
- To display events in real time on a supervision station
- Office hours (e.g. weekdays, excluding weekends and public holidays)
- Other access periods

**Administrative offices**
- Protection of sensitive data/equipment (central computer system or security system)
- Protection of people (area with chemical or electrical hazard)
- Permanent control
- Internal departments: IT, technical, maintenance
- Regular external staff (security company, cleaning, etc.)
- Occasional external staff (badge available at reception)

**Equipment room**
- Protection of sensitive data/equipment (central computer system or security system)
- Protection of people (area with chemical or electrical hazard)
- Permanent control

**Employees & teachers**
- Teachers and similar staff
- Administrative and technical staff
- External staff (security company, cleaning, etc.)

**Students**
- Teachers and similar staff
- Administrative and technical staff
- External staff (security company, cleaning, etc.)

**Management of complex access control:**
- Employees & teachers
- External staff (company security, cleaning, etc.)
- Administrative and technical staff
- Teachers and similar staff
- Company, cleaning, etc.

**Centralised management**
- Standalone management is preferable for small-scale structures with small numbers of staff and students with no protection of property.

**Why?**
- To secure access to the building
- To prevent theft of vehicles

**When?**
- Office hours (e.g. weekdays, excluding weekends and public holidays)
- Period of validity (access authorised from ... to ...)

**Where?**
- School dates and times
- Possible periods of unrestricted access

**How much?**
- ‘Unrestricted access’ mode initiated by command (in presence of a responsible individual)

**How?**
- Permanent control
- Office hours (e.g. weekdays, excluding weekends and public holidays)
- Other access periods

**Who?**
- Teachers, Administrative and technical staff
- External staff (security company, cleaning, etc.)

**Where?**
- School dates and times
- Possible periods of unrestricted access

**When?**
- ‘Unrestricted access’ mode initiated by command (in presence of a responsible individual)

**How much?**
- Permanent control
- Office hours (e.g. weekdays, excluding weekends and public holidays)
- Other access periods

**How?**
- Permanent control
- Office hours (e.g. weekdays, excluding weekends and public holidays)
- Other access periods

**Who?**
- Teachers, Administrative and technical staff
- External staff (security company, cleaning, etc.)

**Centralised management**
- Standalone management is preferable for small-scale structures with small numbers of staff and students with no protection of property.
Centralised management is recommended for hypermarkets and supermarkets.
Management of standalone access control:

Main function: Management of groups of users

2 solutions:
- Using keypads
- Using badge reader + encoder

Encoder

Legrand Access System
Badge manager

Centralised management is recommended for hypermarkets and supermarkets.
The anti-passback function controls access at the entrances and exits of a location. This is used for example in car parks to ensure the maximum number of spaces are available.
<table>
<thead>
<tr>
<th>where?</th>
<th>why?</th>
<th>when?</th>
<th>how many?</th>
<th>how?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car park</td>
<td>To secure access to the building (if unrestricted access to the building from the car park)</td>
<td>Office hours (e.g. weekdays, excluding weekends and public holidays)</td>
<td>All employees</td>
<td>Management of complex access control: management of time periods, groups, users and supervision</td>
</tr>
<tr>
<td>Building entrance</td>
<td>To secure access to the building</td>
<td>Permanent control “Unrestricted access” mode initiated by command (in presence of a responsible individual)</td>
<td>Authorised employees</td>
<td>Door controller</td>
</tr>
<tr>
<td>Delivery access</td>
<td>To secure access to the entrance</td>
<td>Office hours (optionally defined by group of people)</td>
<td>Employees concerned</td>
<td>Legrand Access System – Software</td>
</tr>
<tr>
<td>Store room</td>
<td>Protection against pilfering</td>
<td>Work hours (optionally defined by group of people)</td>
<td>Authorised employees</td>
<td>+</td>
</tr>
<tr>
<td>Meeting room</td>
<td>Protection of equipment</td>
<td>Permanent access (with control)</td>
<td>Authorised employees</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>To plan usage</td>
<td>Or access on booking only</td>
<td>Or person who has booked the room</td>
<td></td>
</tr>
<tr>
<td>Equipment room</td>
<td>Protection of sensitive data/documents</td>
<td>Office hours (weekdays, excluding weekends and public holidays)</td>
<td>Occupant of the office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy management</td>
<td>Permanent control</td>
<td>Authorised staff (line manager, cleaning)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Centralised Management**

- 767 32
- 778 77 / 767 16
- 778 77 / 767 16
- 778 77 / 767 16
- 767 02 and 767 28 / 572 251 / 572 751
- 767 02 et 767 28 / 572 251 / 572 751 ou 767 01
- 767 02 / 572 251 / 572 751 or 767 01

---

**Legrand Access System – Software**
APPLICATION

Hotel

1. Main entrance to hotel
2. Equipment room (electrical room)
3. Car park
4. Hotel building (if unrestricted access to the building from the car park)
5. Luggage room
6. Bedrooms
7. Spa/gym, etc.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Car park</strong></td>
<td>To secure access to the building (if unrestricted access to the building from the car park)</td>
<td>Permanent control</td>
<td>Number of “Customer” spaces</td>
<td>Number of “Staff” spaces</td>
</tr>
<tr>
<td><strong>Main entrance</strong></td>
<td>To secure access to the hotel</td>
<td>Permanent control</td>
<td>Unrestricted access initiated by manual command (opening times)</td>
<td>Customers</td>
</tr>
<tr>
<td><strong>Access to upper floors/lifts</strong></td>
<td>To limit access to one or more floors, to limit theft</td>
<td>Permanent control</td>
<td>Customers entitled to use this service</td>
<td>Customers</td>
</tr>
<tr>
<td><strong>Spa/gym, etc.</strong></td>
<td>To limit access to customers entitled to use this service</td>
<td>Permanent control</td>
<td>Customers entitled to use this service</td>
<td>Customers</td>
</tr>
<tr>
<td><strong>Bedrooms</strong></td>
<td>To simplify and save money on management of keys (loss/theft of keys, etc.)</td>
<td>Permanent control</td>
<td>Customer occupying the room</td>
<td>Authorised staff (cleaning)</td>
</tr>
<tr>
<td><strong>Luggage room</strong></td>
<td>To prevent theft of luggage</td>
<td>Permanent control</td>
<td></td>
<td>Authorised staff</td>
</tr>
<tr>
<td><strong>Equipment room</strong></td>
<td>Protection of people (electrical room)</td>
<td>Permanent control</td>
<td>Authorised staff</td>
<td>Occasional external staff (special badge available at reception)</td>
</tr>
</tbody>
</table>

**STANDALONE MANAGEMENT**

Management of standalone access control: management of groups and users

**Encoder**

+ Legrand Access System
 Badge manager

---

**Contact Numbers**

- 778 78 / 778 72 or 778 77
- 767 02 / 572 251 / 572 751
- 767 02 / 572 252 / 572 752
- 767 01 / 572 252 / 572 752
- 767 01 / 572 251 / 572 751
Pack | Cat.Nos | Bundles
---|---|---
1 | 767 33 | Indoor bundle
| | | Kit comprising:
| | | - 1 Mosaic internal coded keypad Cat.No 767 01
| | | - 1 Mosaic pushbutton Cat.No 770 40 supplied complete
| | | - 1 protected power supply Cat.No 767 18 and battery Cat.No 407 49
|1 | 767 34 | Outdoor bundle
| | | Kit comprising:
| | | - 1 Soliroc external coded keypad Cat.No 778 76
| | | - 1 Mosaic pushbutton Cat.No 770 40 supplied complete
| | | - 1 protected power supply Cat.No 767 18 and battery Cat.No 407 49

Installation principle

Indoor bundle, Cat.No 767 33

- Protected power supply
- Backup battery included

Outdoor bundle, Cat.No 767 34

- Protected power supply
- Backup battery included
## Installation principle
Pushbutton
Electromagnetic lock
or electric door release
(to be ordered separately)

## Internal coded keypads
<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.Nos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>767 01</td>
<td>Mosaic internal coded keypad for mounting in flush-mounting box or surface mounting (5 modules) Can be used in standalone or centralised mode 100 user codes in standalone mode 1 pushbutton input for internal unlocking 1 relay output for door release or electromagnetic lock 10,000 codes in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol) Consumption 100 mA - 12 V= IP 40 - IK 04</td>
</tr>
<tr>
<td>1</td>
<td>572 252</td>
<td>Arteor white internal coded keypad Supplied with support and finishing plate</td>
</tr>
<tr>
<td>1</td>
<td>572 752</td>
<td>Arteor Black Mirror internal coded keypad Supplied with support and finishing plate</td>
</tr>
<tr>
<td>1</td>
<td>767 00</td>
<td>Centralised internal black coded keypad for door frame Surface mounted, slim 10,000 codes in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol) Supplied with dedicated 12 V power supply (enabling operation in standalone mode if required) Consumption 100 mA - 12 V IP 54 - IK 07</td>
</tr>
</tbody>
</table>

## External coded keypads
<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.Nos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>778 76</td>
<td>Soliroc external coded keypad Backlit buttons Surface mounted 100 user codes in standalone mode 1 self-protection contact (pullout + opening) 1 pushbutton input for internal unlocking 1 relay output for door release or electromagnetic lock Power supply 12/24 V= Consumption 80 mA at 12 V= IP 55 - IK 10</td>
</tr>
<tr>
<td>1</td>
<td>778 78</td>
<td>Soliroc external coded keypad with call button Backlit buttons Surface mounting, cable outlet 100 user codes in centralised mode 1 self-protection contact (pullout + opening) 1 pushbutton input for internal unlocking 1 relay output for door release or electromagnetic lock 1 N/O pushbutton on front Power supply 12/24 V= Consumption 80 mA at 12 V= IP 55 - IK 10</td>
</tr>
<tr>
<td>1</td>
<td>767 17</td>
<td>Exteral coded keypad for door frame Surface mounting, cable outlet 10,000 codes in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol) 1 self-protection contact (pullout + opening) Power supply 12 V Consumption 80 mA at 12 V= IP 55 - IK 10</td>
</tr>
</tbody>
</table>

## Coded keypad + badge reader
<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.Nos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>778 73</td>
<td>Soliroc external coded keypad + badge reader Backlit buttons Surface mounting, cable outlet 10,000 users in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol) Reads code only, badge only, or badge associated with a code 1 self-protection contact (pullout + opening) Power supply 12/24 V= Consumption 80 mA at 12 V= IP 55 - IK 10</td>
</tr>
</tbody>
</table>

All readers have indicators and a buzzer to indicate the door status.

Protected power supply
Backup battery included

---

*All readers have indicators and a buzzer to indicate the door status.*
## Internal badge readers

<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>767 02</td>
<td>Mosaic internal badge reader</td>
</tr>
<tr>
<td>1</td>
<td>572 251</td>
<td>Arteor white internal badge reader</td>
</tr>
<tr>
<td>1</td>
<td>572 751</td>
<td>Arteor Black Mirror internal badge reader</td>
</tr>
</tbody>
</table>

For mounting in flush-mounting box or surface mounting (5 modules). Can be used in standalone or centralised mode, 500 user badges in standalone mode. 1 pushbutton input for internal unlocking, 1 relay output for door release or electromagnetic lock. 10,000 codes in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol). Consumption 118 mA - 12 V - IP 54 - IK 08

## External badge readers

<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>778 77</td>
<td>Soliro flush-mounted external badge reader</td>
</tr>
<tr>
<td>1</td>
<td>778 72</td>
<td>Soliro surface-mounted external badge reader</td>
</tr>
<tr>
<td>1</td>
<td>767 16</td>
<td>External badge reader</td>
</tr>
<tr>
<td>1</td>
<td>767 32</td>
<td>Badge reader for car park</td>
</tr>
</tbody>
</table>

For mounting in flush-mounting box or surface mounting (5 modules). Can be used in standalone or centralised mode, 500 user badges in standalone mode. 1 pushbutton input for internal unlocking, 1 relay output for door release or electromagnetic lock. 10,000 codes in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol). Consumption 118 mA - 12 V - IP 55 - IK 10

## Biometric readers

<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>767 03</td>
<td>Mosaic biometric fingerprint reader</td>
</tr>
<tr>
<td>1</td>
<td>572 250</td>
<td>Arteor white biometric fingerprint reader</td>
</tr>
<tr>
<td>1</td>
<td>572 750</td>
<td>Arteor Black Mirror biometric fingerprint reader</td>
</tr>
<tr>
<td>1</td>
<td>767 30</td>
<td>Biometric fingerprint + badge reader</td>
</tr>
</tbody>
</table>

For mounting in flush-mounting box or surface mounting (5 modules). Can be used in standalone or centralised mode. 999 user fingerprints in standalone mode. 1 pushbutton input for internal unlocking, 1 relay output for door release or electromagnetic lock. 999 fingerprints in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol). Consumption 145 mA - 12 V - IP 43 - IK 04

Vein pattern biometric reader Surface mounting (protection kit on request). Operates in standalone mode with the door opening device connected directly to the reader, or in centralised mode, connected to door controller, Cat.No 767 04. 1000 vein patterns stored, in both standalone and centralised mode. Reads vein pattern only, or badge associated with a vein pattern. 1 self-protection contact (pullout + opening). Power supply 12 V. Consumption 300 mA

For more than one controller, use management software Cat.No 767 06. For centralised management of access control. 10,000 users in centralised mode with door controller Cat.No 767 04 (Compatible with Wiegand protocol). Reads fingerprint only (max. 250 fingerprints), or badge associated with a fingerprint. 1 self-protection contact (pullout + opening). Power supply 12 V. Consumption 300 mA - IP 44 - IK 04
access control
standalone and centralised solutions
controller, software, accessories

Pack  Cat.Nos  
1  767 04  Door controller
DIN rail mounting (6 modules)
For centralised management of access control
readers from a PC (IP protocol)
Up to 2 readers can be connected per controller,
and up to 128 controllers per installation
(1000 users)
Size: 6 modules (on DIN rail)
Power supply: 12 Vdc - 175 mA max.
1 x RJ 45 input for connection to VDI network
Can control 2 complete door assemblies
For more than one controller, use management
software Cat.No 767 06

1  767 06  LAS management software
Required for more than one door controller, for
supervision of the following from a PC:
- Access (integration of CAD drawings): 256 doors
- Readers, badges: 64 user groups
- Events (entries, exits): 10,000 most recent events
- Time periods: 64 time periods

Accessories

Pack  Cat.Nos  
1  767 05  Badge encoder
For easy management of badges (creation,
loss, cancellation, theft, etc.)
Operates either with standalone badge
readers, with software which is included,
or together with the management software
Cat. No. 767 06 for encoding badges
(eg: receptionist, etc.)
Connects directly to a PC via USB connection
LAS Badge Manager software included for
managing standalone readers

Badges

Pack  Cat.Nos  
5  767 10  Mifare contactless badge key fob
13.56 MHz
With customisable tab included

10  767 11  Mifare contactless badge card
ISO format (50 x 80 mm)
Chip: 13.56 MHz
Standard 1 KB memory

1  767 12  Mifare contactless dual technology badge card
ISO format (50 x 80 mm)
Chip: 125 KHz
Required for operating an installation with car
park reader (customised) Cat.No 767 32

1  767 13  Mifare contactless badge card with extended
memory
ISO format (50 x 80 mm)
Chip: 13.56 MHz
4 KB extended memory

energy saver units

Pack  Cat.Nos  
1  767 28  Mosaic
1  572 253  Arteor white
Supplied with support and finishing plate
1  572 753  Arteor Black Mirror
Supplied with support and finishing plate
1  675 64  Céliane

For switching on a circuit, for example in a meeting
room, office, hotel room, etc.
Only operate with Mifare ISO contactless badges
Cat. Nos. 767 11/12/13
30 s time delay after removal of the badge
Low capacity contact: 230 V power 30 VA
Luminous strip on the front so you can see it when
you enter the room
## Closing accessories

<table>
<thead>
<tr>
<th>Pack</th>
<th>Cat.Nos</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1    | 767 07  | Electromagnetic lock 300 kg  
Indicates the position of the door by 2-colour LED and forwarding possible by changeover contact  
Control of the door position by Hall effect  
Consumption: 24 V - 300 mA - 7.2 W, 12 V - 600 mA - 7.2 W |
| 1    | 767 08  | Electromagnetic lock 500 kg  
Indicates the position of the door by 2-colour LED and forwarding possible by changeover contact  
Control of the door position by Hall effect  
Consumption: 24 V - 250 mA - 7.2 W, 12 V - 500 mA - 7.2 W |
| 1    | 767 09  | Motorised bolt  
With manual internal unlocking  
Built-in position contact  
12 V = - 470 mA  
For surface mounting installation |
| 1    | 408 96  | 2-stage door release  
Very short shunt trip door release (2-stage)  
12 V = - 200 mA  
For operation in double-entrance security doors  
Dimensions: 158 x 26 x 32 mm |
| 1    | 408 95  | Undervoltage door release  
12 V = - 600 mA  
For operation in emergency exits  
Dimensions: 158 x 26 x 32 mm |
| 1    | 408 98  | Shunt trip door release  
12 V = 6 W - 500 mA  
Dimensions: 158 x 26 x 32 mm |

## Power supplies

### Stabilised 12 V power supply

- Equipped with:
  - Electronic protection (against overloads and short-circuits)
  - Integral fuse protection on input
  - A green voltage present indicator on output
- Power supply 115 - 230 V ~ 12 V =

<table>
<thead>
<tr>
<th>Primary</th>
<th>Power (W)</th>
<th>Current (A)</th>
<th>Number of 17.5 mm modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>047 92</td>
<td>30</td>
<td>2.5</td>
<td>6</td>
</tr>
</tbody>
</table>

### Filtered rectified power supply

Comprising:
- A safety transformer with interference filtering
- A filter capacitor
- Protection by PTC integrated in the primary
- Double operating terminals
- PTC: Positive temperature coefficient. In the event of an automatic cut-off due to an overload or short circuit, switch off the power supply and allow it to cool down before switching on again.

**12 V =**

<table>
<thead>
<tr>
<th>Power (W)</th>
<th>Current (A)</th>
<th>Terminal capacity flexible cables (mm²)</th>
<th>No. of modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1.3</td>
<td>input - output</td>
<td>6</td>
</tr>
</tbody>
</table>

### Protected power supply

- 12 V = - 4 A power supply
- Backed up by 12 V - 7 Ah battery Cat.No 407 49 (not supplied)
### Installation principle in standalone mode

- **Power supply**
  - Stabilised 12 V power supply
  - Equipped with:
    - Electronic protection (against overloads and short-circuits)
    - Integral fuse protection on input
    - A green voltage present indicator on output

- **12 V = Primary power**
- **1047 92 30 2.5 6**

### Filtered rectified power supply

- Comprising:
  - A safety transformer with interference filtering
  - A filter capacitor
  - Protection by PTC integrated in the primary
  - Double operating terminals

- **PTC: Positive temperature coefficient**
  - In the event of an automatic cut-off due to an overload or short-circuit, switch off the power supply and allow it to cool down before switching on again.

### Selection guide

<table>
<thead>
<tr>
<th>Risk level</th>
<th>Door opening to:</th>
<th>Readers</th>
<th>Closing accessories</th>
<th>Accessory</th>
<th>Power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inside</td>
<td>Coded keypad</td>
<td>Door release (flush mounting)</td>
<td>047 95/96/98</td>
<td>047 95/96/98</td>
</tr>
<tr>
<td></td>
<td>Outside</td>
<td>Badge reader</td>
<td>Door release (flush mounting)</td>
<td>047 252/752</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Fingerprint reader</td>
<td>Door release (flush mounting)</td>
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</tr>
</tbody>
</table>

#### Risk level

- **A** Readers
- **B** Power supply

1. The choice of the type of power supply, with or without battery, determines whether the door will open when there is a mains failure.

### Wiring principle

#### Way Out
- **Push-button**
- **230 V~**
- **12 V cc**
- **Power supply (ex: 047 95, ...)**
- **Access control readers 767 01/02/03 / 778 77, ...**
- **Door release 374 900 or magnetic lock 767 07**

---

### Installation principle in centralised mode

- **Supervision software Cat.No 767 06**
- **VDI cabinet**
- **Power supply**
- **Door controller (Cat.No 767 04)**

### Wiring principle

#### Local area network
- **230 V~**
- **12 V ~**
- **Power supply (ex: 047 95, ...)**
- **Access control readers 767 01/02/03 / 778 77, ...**
- **Door release 374 900 or magnetic lock 767 07**

#### VDI network
- **230 V~**
- **12 V ~**
- **Power supply (ex: 047 95, ...)**
- **Access control readers 767 01/02/03 / 778 77, ...**
- **Door release 374 900 or magnetic lock 767 07**

### Selection guide

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#### Risk level

- **A** Readers
- **B** Power supply

1. The choice of the type of power supply, with or without battery, determines whether the door will open when there is a mains failure.
Management software
The management software Cat.No 767 06 is used for complete supervision of the access control system, including:
- Time management of access points and users
- Real-time supervision of events with display of information on CAD drawing

Summary of consumptions for selecting the number of power supplies

<table>
<thead>
<tr>
<th>Readers</th>
<th>Cat.Nos</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>767 91 / 572 252/752</td>
<td>47 mA</td>
</tr>
<tr>
<td></td>
<td>767 92 / 572 251/751</td>
<td>118 mA</td>
</tr>
<tr>
<td></td>
<td>767 93 / 572 250/750</td>
<td>145 mA</td>
</tr>
<tr>
<td></td>
<td>767 16</td>
<td>80 mA</td>
</tr>
<tr>
<td></td>
<td>767 30</td>
<td>300 mA</td>
</tr>
<tr>
<td></td>
<td>767 31</td>
<td>300 mA</td>
</tr>
<tr>
<td></td>
<td>767 32</td>
<td>350 mA</td>
</tr>
<tr>
<td></td>
<td>778 72</td>
<td>80 mA</td>
</tr>
<tr>
<td></td>
<td>778 76</td>
<td>100 mA</td>
</tr>
<tr>
<td></td>
<td>778 78</td>
<td>100 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keypads</th>
<th>Cat.Nos</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>767 00</td>
<td>100 mA</td>
</tr>
<tr>
<td></td>
<td>767 17</td>
<td>80 mA</td>
</tr>
<tr>
<td></td>
<td>778 73</td>
<td>80 mA</td>
</tr>
<tr>
<td>Keypad + reader</td>
<td>767 04</td>
<td>175 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Door releases</th>
<th>Cat.Nos</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>408 98</td>
<td>500 mA</td>
</tr>
<tr>
<td></td>
<td>408 96</td>
<td>200 mA</td>
</tr>
<tr>
<td></td>
<td>408 95</td>
<td>600 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electromagnetic locks</th>
<th>Cat.Nos</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>767 07</td>
<td>600 mA</td>
</tr>
<tr>
<td></td>
<td>767 08</td>
<td>500 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motorised bolt</th>
<th>Cat.Nos</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>767 09</td>
<td>470 mA</td>
</tr>
</tbody>
</table>

Total consumption:
- Readers: Total = mA
- Keypads:
- Keypad + reader: Total = mA
- Door releases:
- Electromagnetic locks:
- Motorised bolt: Total = mA

Total = mA to be compared with power supplies

<table>
<thead>
<tr>
<th>Cat.Nos</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unprotected</td>
<td></td>
</tr>
<tr>
<td>047 95</td>
<td>1.3 A</td>
</tr>
<tr>
<td>047 92</td>
<td>2.5 A</td>
</tr>
<tr>
<td>Protected</td>
<td></td>
</tr>
<tr>
<td>767 18</td>
<td>4 A</td>
</tr>
<tr>
<td>battery 407 49</td>
<td></td>
</tr>
</tbody>
</table>
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In accordance with its policy of continuous improvement, the Company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in this catalogue are for guidance and cannot be held binding on the Company.