

FERMAX

biokey



Thermal Biometric
fingerprint reader
for outdoors



Real dimensions reader image.

ACCESS CONTROL



In compliance with current Data Protection Law Regulations, the information stored in the reader does not correspond to any shots, photos or scanned images of the fingerprint of any user but of a series of 2000 unique temperature samples per person. These measures contain no information and so cannot be manipulated directly for possible fraudulent uses such as impersonating staff. Moreover, with the memorized information of the temperatures of the fingerprint valleys and crests, the initial reproduction of the images or drawings of the user's fingerprint is not possible.

affordable
reliable safe
r e s i s t a n t
nontransferable simple intuitive

The thermal fingerprint reader is the most advanced, safe and affordable way to monitor an access.

This is why Fermax have made this technology their own, manufacturing **the most effective, robust and elegant biometric reader on the market.** A product providing comfort and reliability in business premises and offices, homes and industries, taking care of your specific needs at an affordable price.

A product that places **all access control in your fingertips.**

The perfect key

Technology thermal for exteriors

The fingerprint thermal reading technology, included in the new Fermax Biokey reader, works on the basis of two facts: the first is that every person has a unique pattern on the skin of their fingers; the second is that there is a constant temperature difference between the crests and valleys of this unique and personal fingerprint pattern.

This means that by taking readings of this differential at multiple points of each print it is possible to confirm if the person asking for access is authorized to do so.

Comparison:



Finger skin lines form islands, whorls or forks that are never repeated. Each fingerprint is unique, even in identical twins.

Optical reading

Traditional fingerprint readers work by scanning the image of the fingerprint attempting to open an access.

To capture the image, the device uses crystals and mirrors, which involves the creation of relatively bulky devices.

Optical readers are very susceptible of making mistakes if there is damp, dust or particles adhering to the reader, which is why their use in exteriors is not recommended.

False negative results can occur if the user has suffered small accidents on their fingerprint surface (cuts, wounds). False images might supplant an authorized person.

Thermal reading

Thermal fingerprint reading is done by sliding the finger over a small strip located in the device.

Thermal reading allows great savings on volume and price. At the same time, we gain in reliability: the equipment can compare up to 2000 points in each fingerprint.

The sensor that captures the body temperature is highly resistant, so is suitable for use both indoors and outdoors.

Thermal reading is completely reliable even though outside conditions (cold or heat) or personal details (fever, cuts in the skin) may change.



Outdoor resistance

The sensor and information display forming the visible part of the print reader are built into an anodized aluminium profile finished off with frames in zamak. This is the same profile that FERMAX uses in the CITYLINE audio and video door entry panels, designed to perfectly withstand climate change and the passage of time outdoors.

Water resistant.

The sensor carries out thermal fingerprint reading. Its technology means that the reading is not affected by the water, dust or other agents, guaranteeing the equipments reliability in exteriors.

The power of simplicity

Easy to use, easy to program, easy to install



slide



check



pass



slide



check



no trespassing

Intuitive use

The sensor reads the fingerprint. To do so, simply slide the fingertip through this space. If it is a recorded fingerprint, the green LED lights up and the screen displays the user number. If the user is not registered, the red LED comes on and the access refusal message is seen: Err (error),

External programming

The system administrator (owner of the business, director, administrator of the property, etc) can easily authorize and cancel different users. To this end, they use their own finger (the master finger) and a remote infrared keyboard that functions as a small remote control. The equipment guides them through the display until the programming is completed.





Two fingers: two functions

Advantage multiplied by two

The fingerprint reader manages up to 950 users (1 print per user) authorized to open a door.

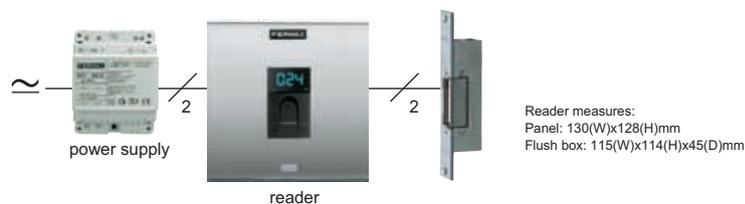
But the system can multiply its functionality by two. A second fingerprint of each user can be used to open a motorized blind or gate, arm/disarm the alarm system or switch on the lights, start the air conditioning, lower awnings, etc. In this operating mode the system could manage up to 630 users (2 prints per user).



Biokey system features

- **Users.** The equipment can register 1 single print from 950 different people or 2 different fingerprints from 630 users.
- **Auxiliar output use:** Use of the second automatism (to control lights, alarms, etc) is done by a second fingerprint.
- **Setting timings:** times can be configured for both the electric lock and door sensor.
- **System security level:** the more fingerprint points compared by the system, the higher the security will be and the more time will be needed for verification.

Basic installation



All sectors



Efficiency in businesses and industry

The effectiveness and reliability of the fingerprint reader make day-to-day life easier in all sectors: bars and restaurants, offices and business premises, industries or factories. Because there is nothing simpler and safer than opening the door.



... and in homes

Using fingerprint readers in accesses, the keys of the home, garage entrance or main entry to a building become one and the same. They cannot be lost or forgotten and are non-transferable.



The only reliable time and attendance control system

This same reader can be used as time and attendance to record staff entry and exit schedules and factories, offices and registering the working schedules the hours worked, etc



Can be used as a key as well as a presence record: without duplicates, without losses and completely untransferable



1W BIOVISION KIT
A perfect choice in many industries and businesses. And in private homes.

Outside communication with video door entry function.

Controlling an access by means of fingerprints can be enough in some cases. However, many users prefer to combine this function with those of classic electronic or video entry systems.

This is the option chosen for residential facilities, whether in detached family homes or apartment blocks.

In industry and commerce many businesses prefer to rely on this more complete option. Especially if they have different working hours from public service outlets (bakeries, restaurants, factories).



Extra Details

Auxiliary input for **exit button**. Lets you open the door from inside with a pushbutton.

Input for **open door sensor**. Placing a sensor in the door, the equipment will detect if it has not closed within the time anticipated. In that case, an acoustic alarm can be activated through an auxiliary output.

and also for...

Large projects

Buildings, office complexes, residential areas, tourist facilities... Any large installation can be handled with this fingerprint reader if centrally installed. This way, multiple entrances can be managed. Inner and outer accesses can coexist along with equipment from different technologies (keypad, proximity card, RF or fingerprint).

The set is managed from a PC with specific software and can even be handled remotely (IP).



In a centralized installation it is necessary to have one more element: the Central Unit.

In total, the system has capacity to coordinate 32 different access.

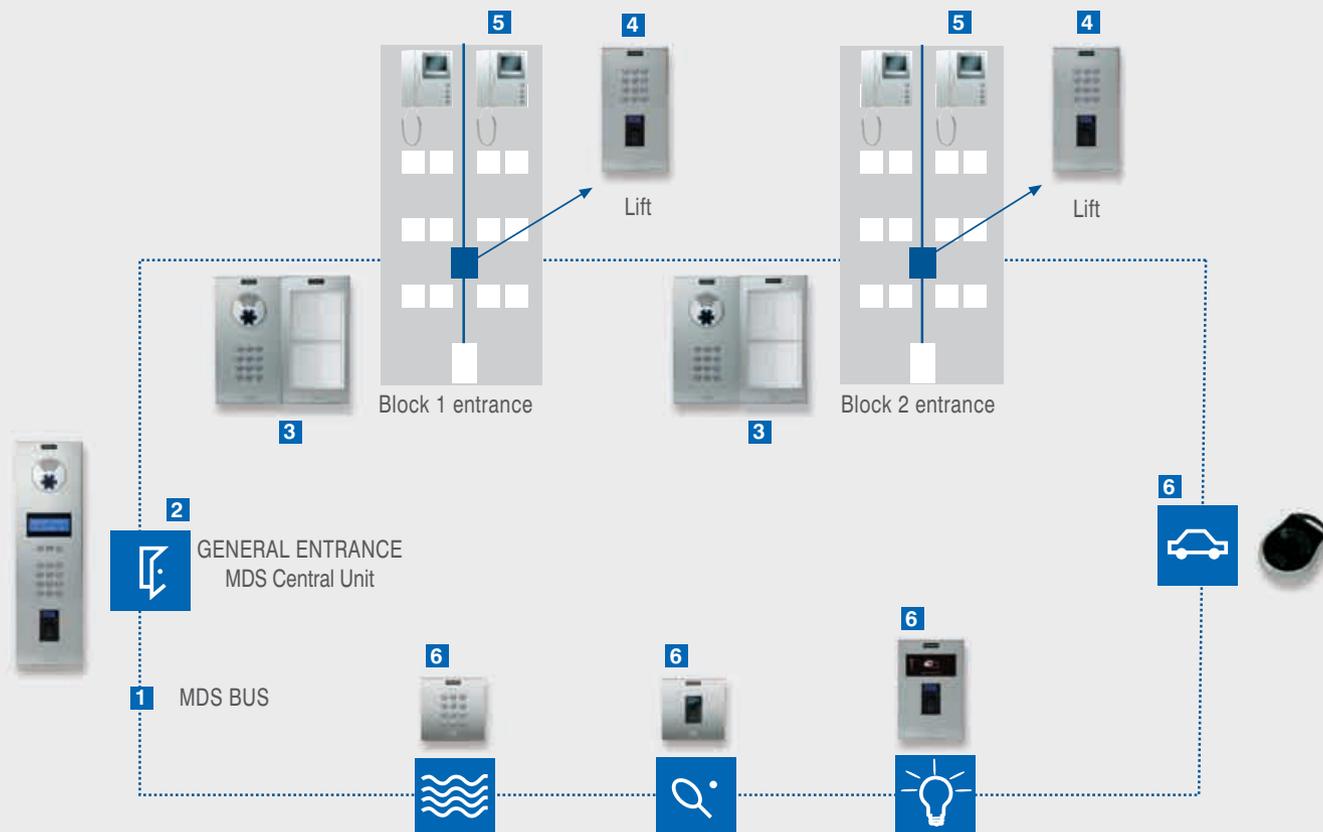
The reader includes a programming jumper in the back to select the way of functioning: stand alone (1 access) or centralised (several accesses with central unit).



Video door entry integration in residential surroundings

MDS is the high performance digital video door entry system from FERMAX. Requires a Central Unit to manage and control the whole system, both video entry accesses and control readers.

The following diagram shows an example of an installation in a residential complex.



- 1** All the elements are bus connected (MDS bus)
- 2** At the general entrance, a digital MDS video entry panel allows communication with and access to all the homes. Additionally, a biokey reader can be installed to access the residential facility and be registered.
The MDS Central Unit is installed here, storing all the setup parameters of the installation as well as the user and permit information entries-exits registrations. A PC can be connected for remote control.
- 3** In the entrance to apartment blocks a Direct or Digital (MDS/VDS/BUS2) panel is installed to communicate (audio+video) only with the homes in this building.

- 4** A reader installed in the lifts allows access only to the floor authorized.
There are dual readers that function as a security mechanism. In this case, a biokey+keypad reader has been installed.
- 5** Video entry monitors are located in the homes to enable audio-video communication with the access panels.
- 6** To access the different common areas of the residential facility, there are readers with different technologies: radio-frequency for garages, biokey+proximity reader for the meter area where maximum security is required, and biokey reader for access to the tennis courts or gym and keypad for swimming pool access, for example.

EXCLUSIVE FOR ACCESS CONTROL



Ref.6990 BIOKEY READER

Includes programming key, software and flush box.
Optional surface box ref.7061
Power Supply 12Vdc ref.4813 (recommended)

Dual security system:

- Ref.6997 PROXIMITY+BIOKEY READER**
- Ref.6996 KEYPAD+BIOKEY READER**

IN KIT FOR FAMILY HOMES, INTEGRATED WITH DOOR ENTRY OR VIDEO ENTRY SYSTEM



- Ref.4892 1W COLOUR BIOVISION KIT**
- Ref.4893 2W COLOUR BIOVISION KIT**

- Ref.4890 1W BIOPHONE KIT**
- Ref.4891 2W BIOPHONE KIT**

VDS Technology.

Includes all the material needed for a complete installation in a single family home.

IN BUILDINGS, INTEGRATED WITH DOOR ENTRY OR VIDEO ENTRY SYSTEM



- Ref.7291 VIDEO VDS DIGITAL PANEL W/BIOKEY**
- Ref.7292 VIDEO BUS2 DIGITAL PANEL W/BIOKEY**
- Ref.7296 VIDEO MDS DIGITAL PANEL W/BIOKEY**

The panel includes colour camera.

- Ref.7288 AUDIO VDS DIGITAL PANEL W/BIOKEY**
- Ref.7289 AUDIO BUS2 DIGITAL PANEL W/BIOKEY**
- Ref.7290 AUDIO MDS DIGITAL PANEL W/BIOKEY**



Audio and Video Door Entry Systems

www.fermax.com