ISEO® Zero1

ELECTRONIC SOLUTIONS

ARGO SYSTEM

ENGLISH

THE NEW WAY TO MANAGE YOUR DOOR

Argo is the ideal solution for managing access rights in residential or light commercial contexts, like bed & breakfasts, shops, small offices, small businesses and professional studios. By simply installing Argo app on an iOS or Android smartphone, the user can manage, control and open all the doors on which ISEO devices of the Smart series are installed, with no need for any additional software or internet connection: all this thanks to Bluetooth Smart technology, which allows the smartphone to communicate with the devices.

Using the app installed on the smartphone, the user can organise the access permissions for up to 300 users, and view the last 1000 events detected on each door (entries, attempts at unauthorised entry, etc.).

In addition to smartphones, the doors can also be opened using Apple Watch (from Series 3), ISEO User cards and pre-existing generic RFID cards (contactless credit cards, public transport tickets, access control cards, etc.), PIN codes and fingerprint readers.

Access management has never been so user-friendly: convenience and security have been combined in a completely new way to shape the future of access control.

ARGO means simplicity, access control and peace of mind Argo is the result of ISEO Group's intensive R&D and commitment to innovation.

ISEO **ARGO**

MAIN FEATURES

- ☐ EASY UPGRADE to an electronic access control system: the devices fo the Smart series are interchangeable with existing mechanical locks and cylinders.

- ☐ WIDE RANGE OF SMART DEVICES for any door type.

- ☐ BROAD RANGE OF CREDENTIALS: smartphone, Apple Watch, PIN code, fingerprint, card.

- ☐ EASY MANAGEMENT of the list of users with access rights.

- ☐ QUICK CHANGE OF ACCESS RIGHTS if credentials are lost or stolen.

- ☐ QUICK REPORTING OF EVENTS to check who opened the door, and when.

- ☐ FREE ARGO APP and lock software (firmware) upgrades.

- ☐ MULTILANGUAGE app

- ☐ NO ADDITIONAL SOFTWARE to install.

- ☐ NO INTERNET CONNECTION or cloud service registration needed for Argo app.

- ☐ LOCK SOFTWARE (firmware) can be upgraded on site, without any need to disassemble devices installed on the door.

- ☐ POSSIBILITY OF REMOTE KEY DELIVERY with the free optional apps Argo Host and Argo Guest, and the remote key delivery Argo cloud service.

MAIN FUNCTIONS

- ☐ MEMORIZE UP TO 300 USERS CREDENTIALS (cards, phones, Apple watch, PIN, fingerprint).

- ☐ STORES THE LAST 1000 EVENTS.

- ☐ OPERATES WITH ISEO USER CARD OR LEGACY GENERIC CARDS (contactless credit cards, public transportation tickets, time attendance cards, etc.).

- ☐ ADMINISTRATION WITH 3 LEVELS MASTER CARDS SET, keeping a safe system management even in case of lost of MASTER cards.

- ☐ LOGIN WITH AUTHORIZED SMARTPHONE to manage the devices.

- ☐ MANAGEMENT START AND END VALIDITY DATE for each user.

- ☐ TIME TABLES ACCESS MANAGEMENT COMBINED WITH THE DAYS OF THE WEEK for each user management (up to 2 time tables per user).

- ☐ DOOR SCHEDULES (up to 2 time tables per door).

- ☐ INVITATIONS AND REMOTE KEY DELIVERY.

- ☐ REMOTE OPENING and communication with Bluetooth Smart ready phone up to 10 meters.

- ☐ QUICK VISUALIZATION OF BATTERY STATUS of the devices installed on the door.

- ☐ SOFTWARE UPGRADABLE on site via the Bluetooth Smart Ready phone.
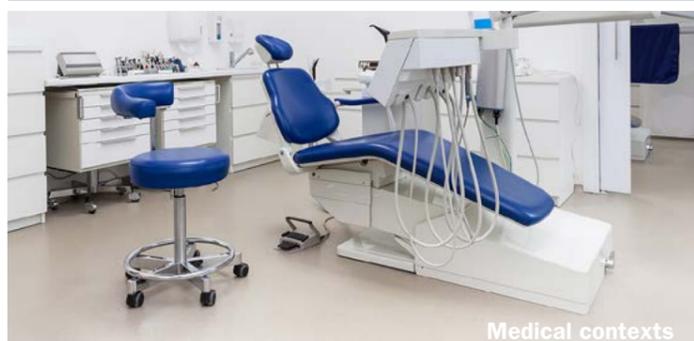
Medical contexts   **Offices**   **Shops**   **Bed & Breakfast**

Libra SMART
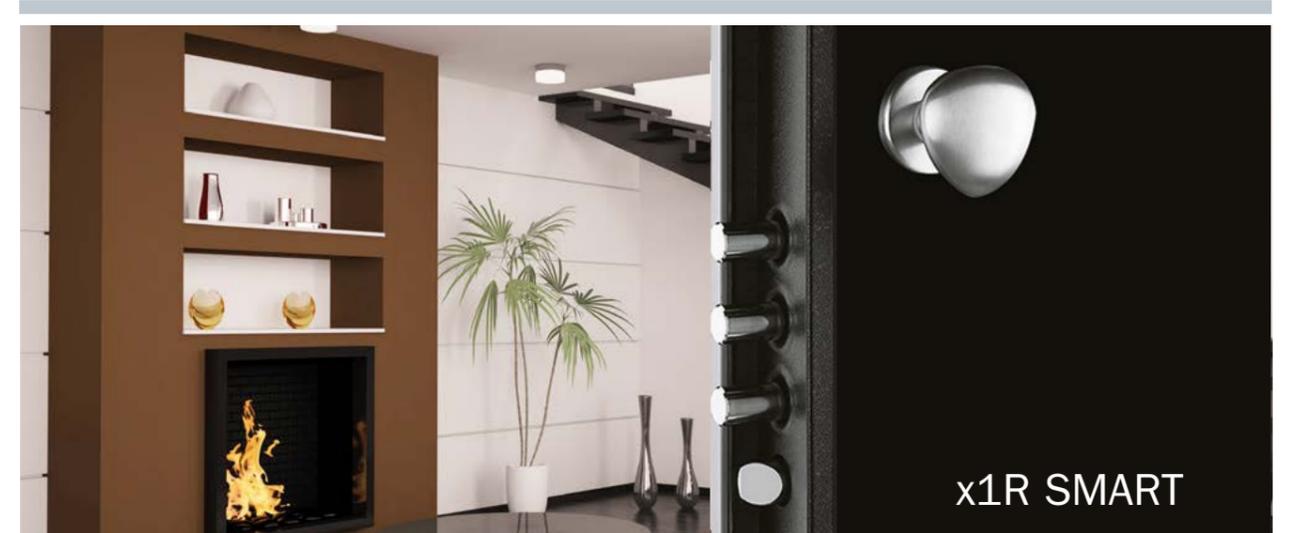
x1R SMART

Aries SMART
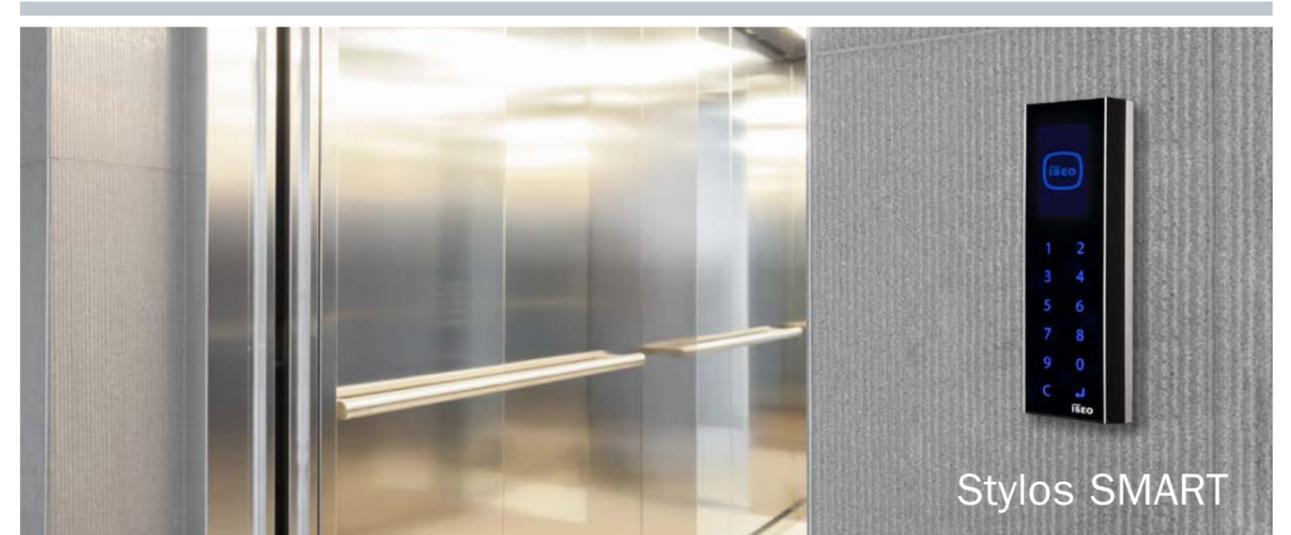
Stylos SMART
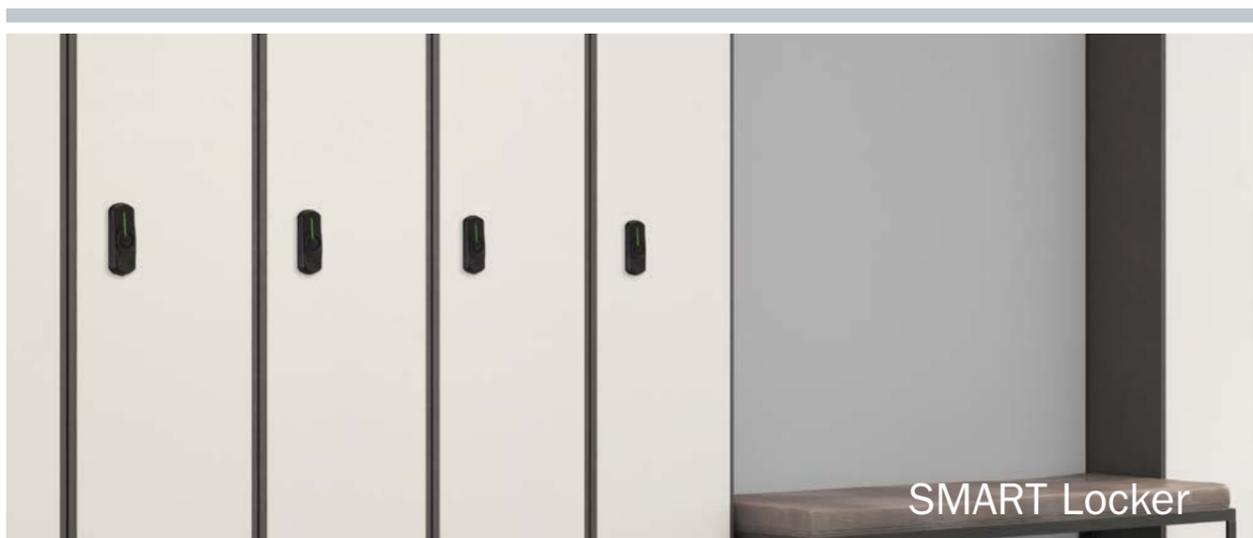
SMART Locker

SMART Relay

ISEO **ARGO**

Open
as you like

You can open ISEO devices of the Smart series with several credentials, setting functions, time control and even time schedules.

SMARTPHONE

Thanks to the Bluetooth Smart technology, you can open the door with your smartphone. The free Argo App enables any Bluetooth Smart Ready phone (iOS, Android) to unlock the door equipped with Smart devices. The Bluetooth Smart technology allows remote unlocking of the door up to a distance of 10 meters. So you can use your phone also as remote control to unlock your door.

APPLE WATCH

Argo App is available also for Apple Watch (from Series 3), which you can use to unlock any devices of the Smart series installed on your doors.

RFID CREDENTIALS

The devices of the Smart series have a Multistandard contactless reader that works with 13,56Mhz RFID technology (ISO 14443 A/B). You can open with:

USER CLASSIC

UID (Unique Identifier) ·················· 2.619

CLASSIC cards or keyfobs are specifically developed with a UID protected inside a sector of a Mifare Classic. The authentication between the card and the lock is protected by the Mifare Classic Crypto-1 (NXP Proprietary Encryption).

USER DESFIRE

USER DESFire cards are specifically developed with a UID protected inside a file of Mifare DESFire EV2. The authentication between the card and the lock is protected by the standard AES 128 Encryption.
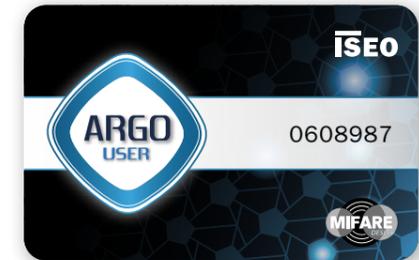
GENERIC CARDS OR TAGS

Generic cards are pre-existing contactless credit cards, public transportation tickets, time attendance cards and so on, of various technologies such as MIFARE, MIFARE PLUS, MIFARE DESFire, ISO14443 A or B. The silicon chip UID (Unique IDentifier) of the generic cards and tags isn't protected and encrypted. For this reason the ISEO USER cards are more secure than generic cards.

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PIN CODES

Stylos Smart Display credential readers and x1R Smart (as option) locks are equipped with a keyboard RFID reader that allows to add PIN codes as credentials to open the door. PIN codes can be easily managed by Argo App like any other credential. PIN code can be from 4 to 14 digits.

PASSAGE MODE WITH PIN CODE

You can both enable and disable the office mode (passage mode) also by typing a PIN code.

FINGERPRINT

x1R Smart is integrating fingerprint biometric authentication. The biometric template is a very secure and convenient authentication credential: it can't be borrowed, stolen, or forgotten, and forging one is practically impossible.

Smart Devices
and Credentials
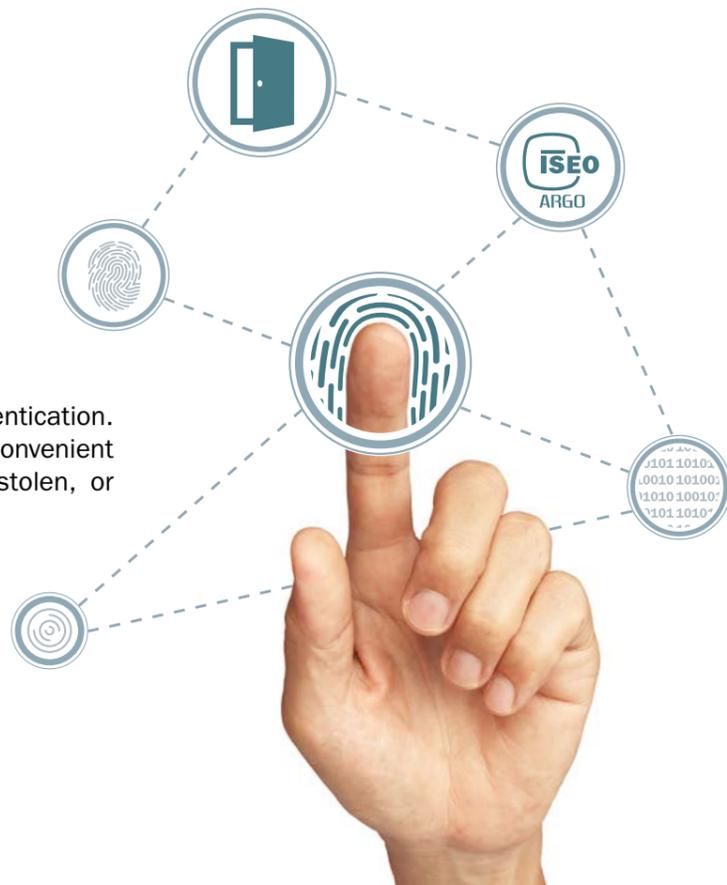
SMART DEVICES	SMARTPHONES	APPLE WATCH	CARDS OR TAGS	PIN CODES	FINGERPRINT
Libra SMART	✓	✓	✓		
Aries SMART	✓	✓	✓		
SMART **Locker**	✓	✓	✓		
Stylos SMART LED	✓	✓	✓		
Stylos SMART DISPLAY	✓	✓	✓	✓	
x1R SMART	✓	✓	✓	✓ *	✓ *
SMART **Relay**	✓	✓			

*optional

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11

ISEO **ARGO**
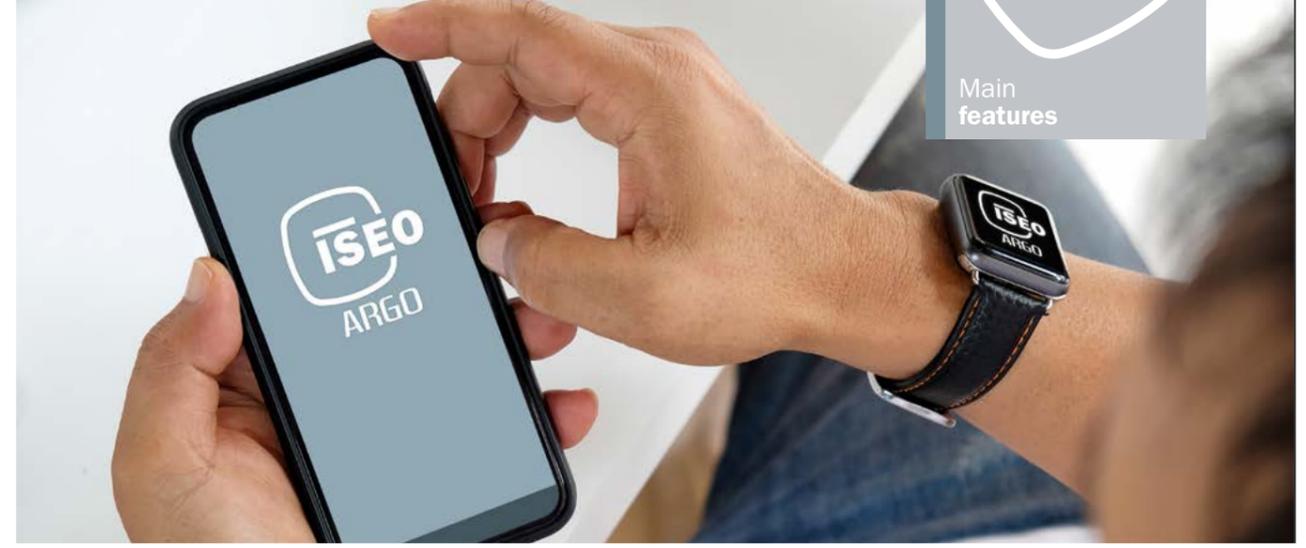
Argo App

Argo App is free and it can be downloaded from Apple Store or Google Play. It communicates with the opening devices installed on your door via Bluetooth Smart (also called Bluetooth 4.0 or Bluetooth Low Energy), ensuring efficient battery consumption management and secure communication.

Argo is compatible with the following Operating Systems:
- iOS 10 and above (iPhone 5 is the oldest iPhone model that supports iOS 10 on September 21, 2012).
- Android 5 and above (released on November 3, 2014).

Main
features

ISEO ARGO platform targets residential and light commercial contexts with a limited number of access users and doors.

Argo is a **Lock Centric platform** where access rights are stored in the lock white list (Data on Lock).

Each access user is allowed to enter if his/her credential is stored in the door list.

The lock manages the access by comparing the credential acquired by the reader (RFID card, PIN code, fingerprints, mobile credential) with the lock database (white list) of users credentials.

The access user white list can be easily programmed in the door with smartphones or similar devices over the Bluetooth Smart interface.

AVAILABLE IN 25 LANGUAGES

ARGO SYSTEM

My number is 1234

Is 1234 in my memory?

ISEO ARGO

Main
features

MANAGE THE USER LIST

The administrator can intuitively manage access rights for users with just Argo app, without any need for additional software or internet connection.
Up to 300 users can be added or deleted, and their rights conditions modified. The list of users can also be transferred from one door to another.
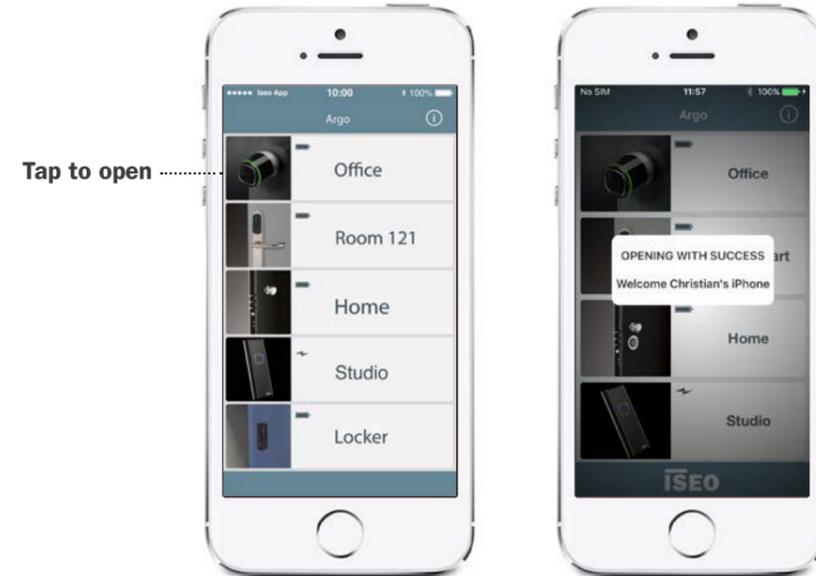
VIEW THE EVENTS LOG

Administrators can view the log of the last 1000 events detected on a door, and send the report via e-mail. Denied access attempts are highlighted in red.

FREE SOFTWARE UPGRADES

Free software updates on the access control devices ensure you get the best results from your door. You'll receive a notification when an update is available, and the new software will be installed on the device directly from your smartphone. This means you can constantly take full advantage of all the new features, protecting your investment in ISEO electronic locks.

OPEN WITH SMARTPHONE

When you open Argo app, you'll see the list of the doors nearby where ISEO devices of the Smart series are installed. Just touch the button icon corresponding to your door to open the lock.

Tap to open

OPENING WITH SUCCESS
Welcome Christian's iPhone

BATTERY STATUS

The battery level icon is always displayed on the Argo app button corresponding to the specific opening device. The battery status is shown when you open the door with the card too, with specific light signals on the device of the Smart series. There are 4 battery charge levels, so you can see in advance when the battery needs replacing. Battery replacement doesn't delete the user list or the events log.
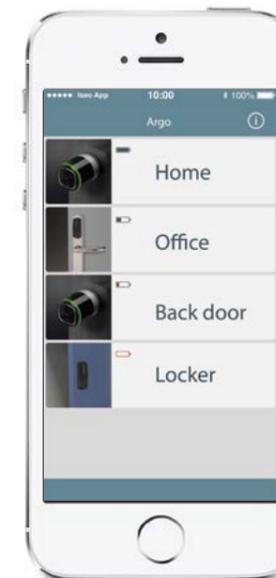
Full

Low
(about 1000 openings still remaining)

Very low
(about 100 openings still remaining)

Empty

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ADDITIONAL ADVANCED FUNCTION

If additional functions are enabled for your smartphone, just tap and hold the button icon corresponding to the opening device to see all the possible options:
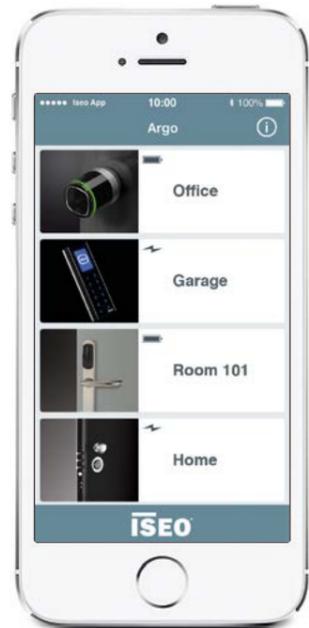
Tap and hold to view
the additional functions
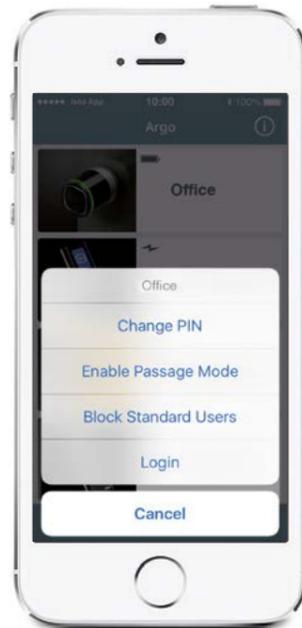
Select the option

WIDGETS

The Argo widget allows you to unlock directly your door without launching Argo App. Just tap the Argo widget and your preferred door will immediately unlock providing a great opening experience with your smartphone. Using a widget you will automatically launch Argo App and open a predefined door lock. Widgets are an essential aspect of your smartphone customization as they provide "at-a-glance" the most important functionalities of the apps.

Widgets are accessible right from any position in the smartphone screen in Android or in "Today View" in iOS. You can add and use widgets with 3D Touch from iPhone 6s and above.

iOS

In iOS after adding the widget go to the "Today View": you will see the last 4 door locks you have opened (or 8 door locks with extended view).

In Android when you add a widget you can define the door lock you want to open and position the widget in any place in your smartphone screen as shortcut.

APPLE WATCH

Since Argo app is available for Apple Watch (from Series 3), you can unlock your device of the Smart series with it too. If you have an Apple Watch from Series 3, you don't even need to have your iPhone with you. Just launch Argo App for Apple Watch and press the button corresponding to the opening device.

APPLE WATCH　　　　**ARGO COMPLICATION**　　　　**ARGO IN APPLE WATCH**

If you want easy access you can even add Argo as complication* in the Apple Watch allowing a shortcut from your default smartwatch screen. Since the Apple Watch can be paired uniquely with one iPhone, the iPhone and the Apple Watch are the same key to your door. To enable your Apple Watch in your door, you just need to put your iPhone in the users list.

Since your Apple Watch is associated only with your iPhone, it will be able to unlock the door. To disable an Apple Watch from the door just remove the associated iPhone and also the Apple Watch will be disabled.

* In horology, a complication refers to any feature beyond the simple display of time.

SECURE COMMUNICATION

Argo app works without any internet connection as it connects to the opening device directly via Bluetooth Smart, ensuring the highest security with encrypted communication. Argo guarantees data confidentiality and authentication thanks to proven cryptography techniques based on:

□ Crypto AES 128

□ AES session keys generated with DHEC (Diffie Hellman Elliptic Curves)

□ Random Number generator complying with NIST (National Institute of Standards and Technology) specifications.

ATTACK PROTECTION

The adopted cryptographic technologies protect from the following type of attacks:

PASSIVE ATTACKS

A passive attack attempts to obtain information that is being transmitted (Man in the Middle attack).

MAN IN THE MIDDLE
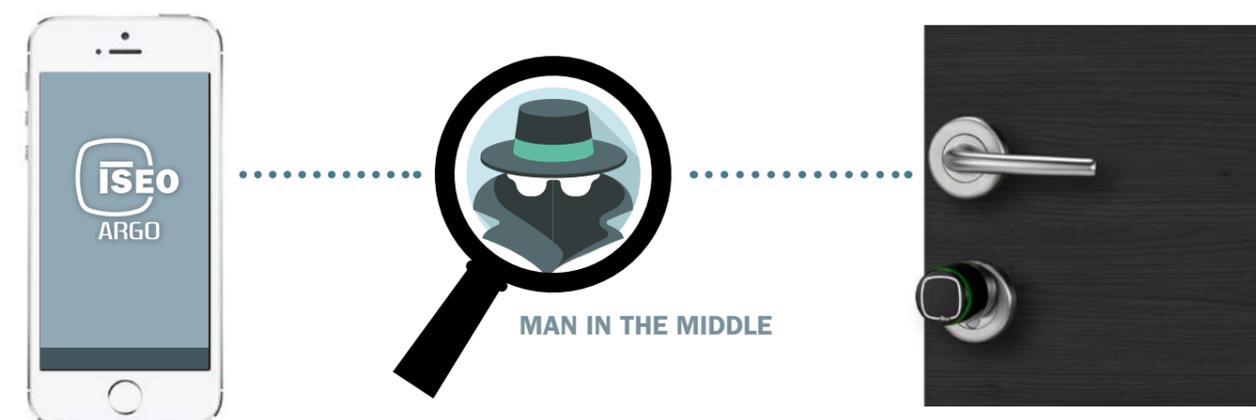
ACTIVE ATTACKS

An active attack attempts to recreate or modify the data stream transmitted (Replay attack).

REPLAY

PROGRAMMING THE DEVICES OF THE SMART SERIES

MASTER CARDS are used to programme the devices of the Smart range in order to assign access rights to the users. Each Master Card set has a unique system code and consists of 3 cards in sequence, ensuring that the system remains secure even if a Master Card is lost.

In the event of loss, the Master Card with the highest number invalidates the previous ones. It's always possible to start again from Master Card number 1 of a new Master Card set, but only if you still have Master Card number 3 of the previous Master Card set.

Master Cards are based on MIFARE DESFire EV2 technology.


Card number

System code
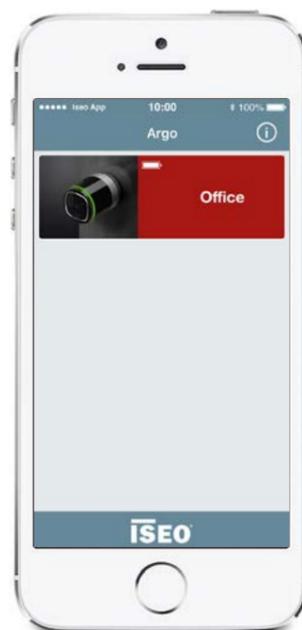
LOGIN

You can enable the Login function to enter the programming mode with your smartphone even without any Master Cards. You can protect the Login function also with a PIN code.
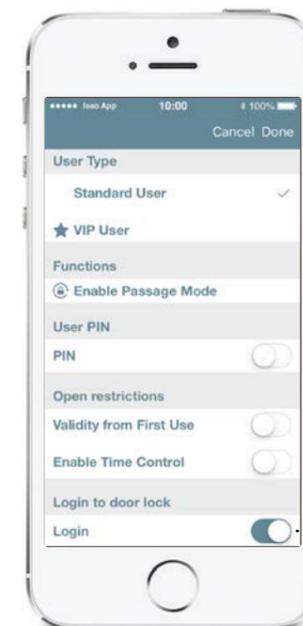
Enable Login function .... Tap Login
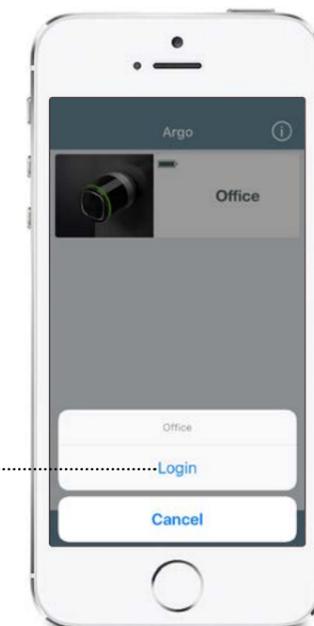
PROGRAMMING THE DEVICES OF THE SMART SERIES

In programming mode, the display shows the user list as the main page. You can access other menus using the icons on the bar at the bottom.
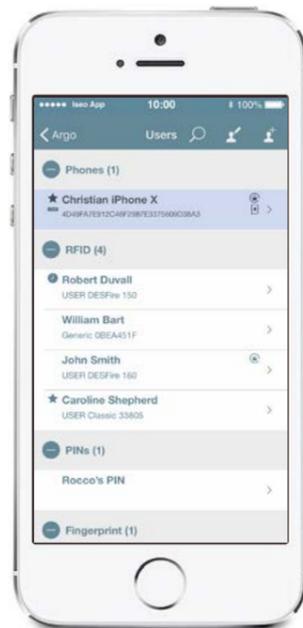
USERS	**DOOR INFO**	**EVENTS**	**UTILITIES**

☐ View the user list	☐ Change the door name	☐ View the last 1000 events	☐ Transfer the user list
☐ Add users	☐ Change the opening time	☐ Send the events via e-mail	☐ Update the software
☐ Delete users	☐ View information about the device and the software version		☐ Dump information
	☐ Configure programme office mode		
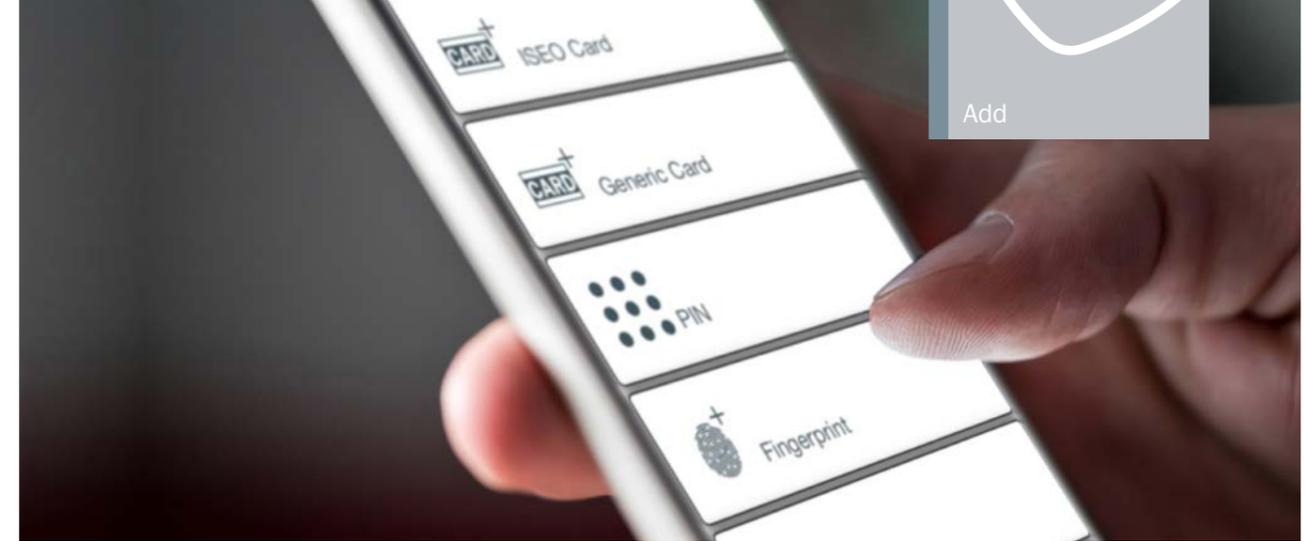
ADD USERS

In programming mode, the function ADD USER allows to add several type of Users:


ADD CARDS

Cards can be added just by putting them near the RFID reader or typing the Card UID in Argo App directly.

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Users

For each individual user, you can specify the name, user type and relative functions:
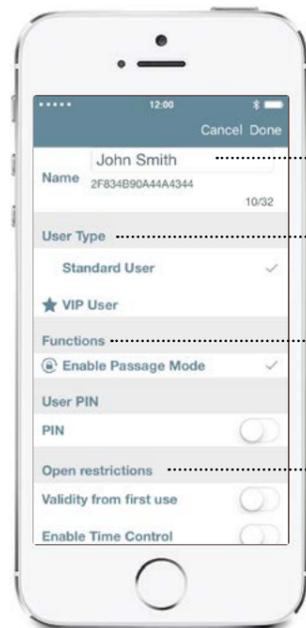
NAME

Each user can be assigned a name so he/she can be easily identified if the credential is lost.

USER TYPE

Standard user: this is the default user, for whom access can be denied if the Standard User Block function is active.

VIP user: this type of user can access the door even if the Standard User Block function is active.

FUNCTIONS AND OPENING RESTRICTIONS

Apart from authorising access for users, additional functions can also be assigned along with a time check for validity and time schedules.

FUNCTIONS AND OPENING RESTRICTIONS
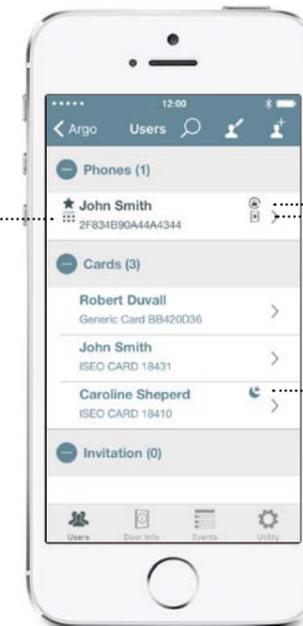
OFFICE MODE ENABLING

A user can put a door in Office Mode. In this state, the door will be remain open for any user who wishes to pass through, without any need for authorised credentials.

STANDARD USER BLOCK

This function can only be enabled by a VIP user. With this function, a VIP user can impede access for all Standard users.

PRIVACY OVERRIDE

When this function is enabled, a user can access the door even if the Privacy function has been activated from the inside (with Aries Smart only).

USER PIN

A single PIN code can be set and used to either open the door via the telephone or log in and programme the lock without the need for the Master Card (or for both cases). This icon indicates that the PIN has been assigned to a user, but it hasn't yet been associated with either the opening function or the login function.

OPENING PIN

For greater safety, you are asked to enter the PIN after an opening command.

LOGIN PIN

Your smartphone can be enabled to manage the lock. To enter programming mode, log in by entering the PIN code.

LOGIN AND OPENING PIN

The user can use the same PIN code both to open the door and to log in and programme the lock without using the Master Card.

LOGIN

The user can log in to programme the lock even without the PIN code.

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Time **control**

This function is used to set the validity of the assigned credential (date and time of activation and expiry) for each user, as well as two time schedules that can be selected for each day of the week.

A grey clock means the user is authorised to open the door, and the Time Contol function is active.

A red clock means the user credential validity has expired so the user is no longer authorised to open the door.
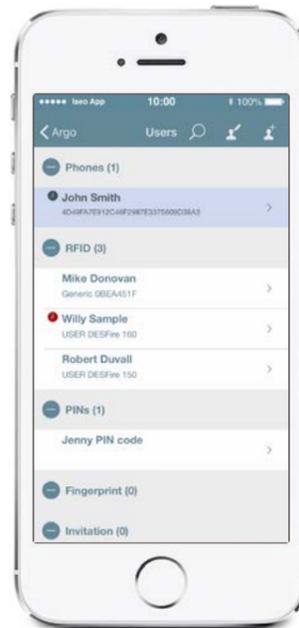
VALIDITY

Select the date and time for credential activation and expiry.

valid from 08.00

valid until 17.00

TIME SCHEDULES

You can programme up to two time schedules (selected for each day of the week).

| | Mon | Tue | Wed | Thu | Fri | Sat | Sun |

08:00 →
Time schedule 1
12:00 →

15:00 →
Time schedule 2
20:00 →
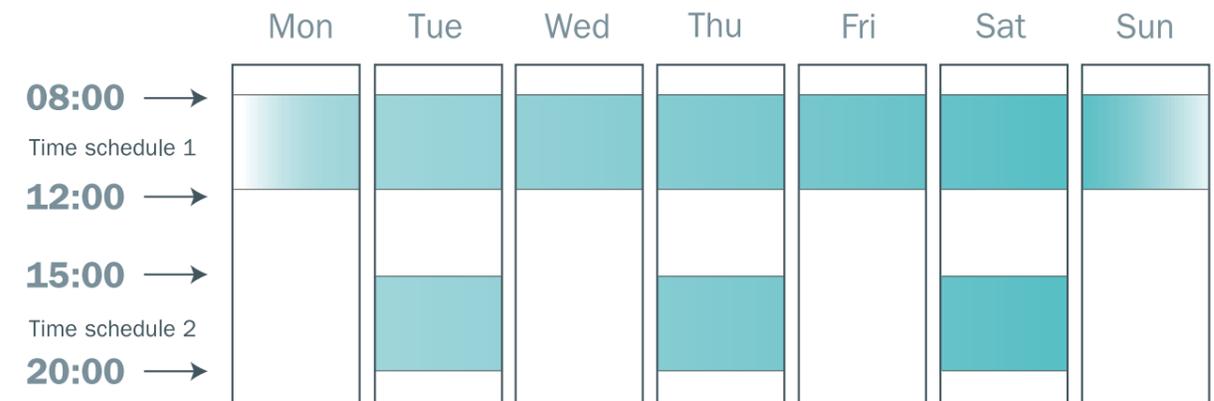
VALIDITY FROM FIRST USE

It's also possible to set merely the validity from the moment of the first use of the credential (in days, hours or minutes). Validity from first use can be combined with the activation and expiry date, and with the time schedules of the credential.

| ACTIVATION date/time | Validity from first use (e.g. 1 day) | End of validity from first use | EXPIRY date/time |

03 November
08.00

ACCESS CONSENT
1 day

28 November
17.00

CREDENTIAL VALIDITY

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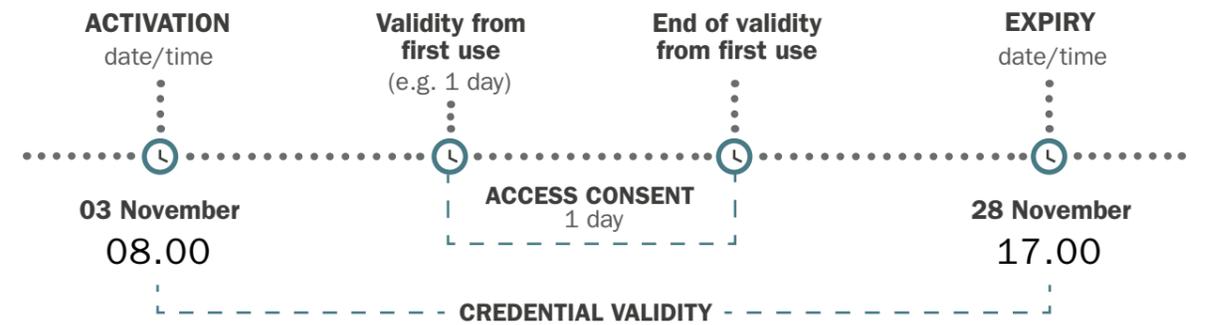
ISEO **ARGO**

Add phone with
Argo UID
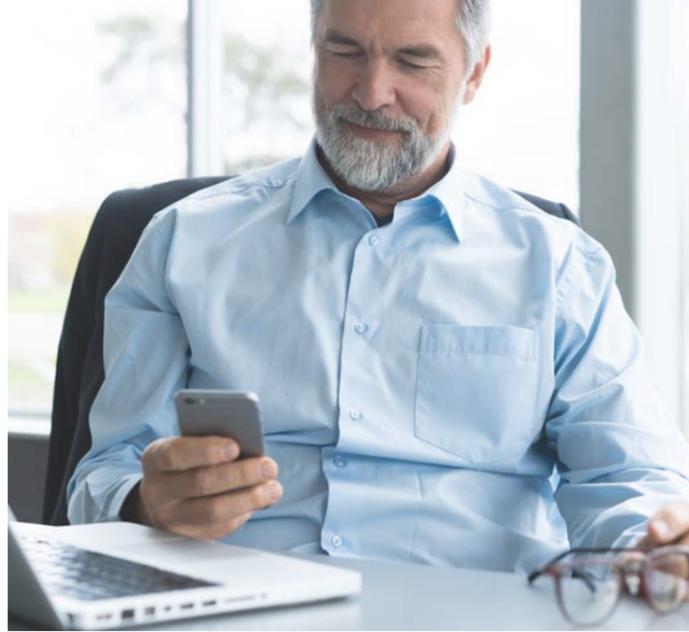
The Phone Argo UID is the Unique IDentifier of the Argo App installed in your smartphone. The Phone Argo UID is a 16 bytes (32 hexadecimal characters) globally unique number which identifies your smartphone in the Smart series devices.

As administrator you can add a smartphone in the Access User list by typing the Phone Argo UID.

GET THE PHONE ARGO UID FROM A USER'S SMARTPHONE
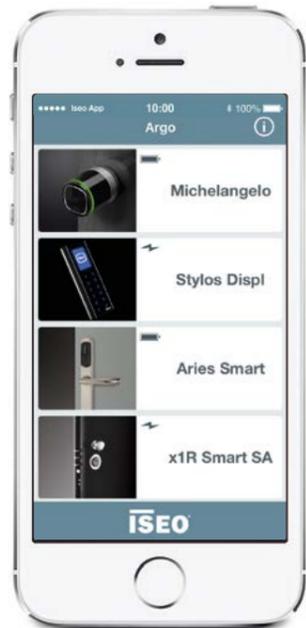
PRESS THE ICON ⓘ

SELECT "VIEW ARGO UID"

SHARE PHONE ARGO UID

ADD THE PHONE WITH ARGO UID IN THE ACCESS USER LIST
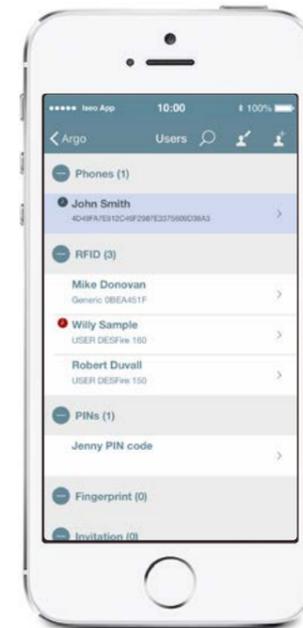
ENTER IN PROGRAMMING MODE
AND SELECT "ADD USER"

SELECT "PHONE WITH
ARGO UID"
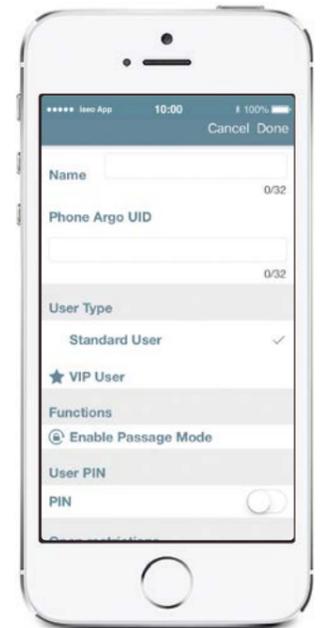
INSERT "ARGO UID"

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Add **Invitations**
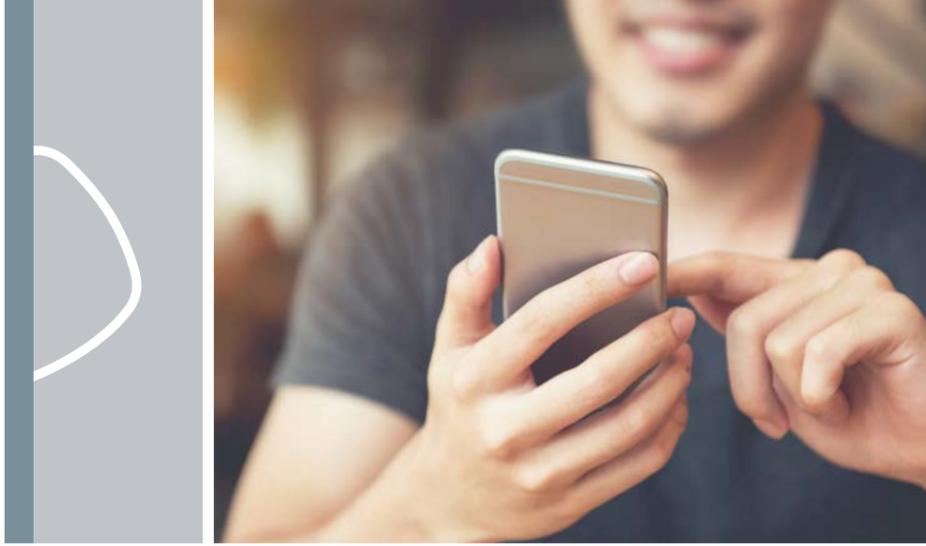
Invitations allow telephones to self-register in the opening device as users. In a company context, for instance, the invitation function allows colleagues to add their smartphone to the user list thanks to the invitation code they are sent, without needing to physically take their smartphone near to the door for data storage purposes.

The administrator must first of all programme the invitation code on the lock as one of the 300 users. When the user arrives in front of the door, he/she selects it and types in the invitation code. The door is opened via the smartphone.

At the same time, the telephone self-registers in the user list for the period of time specified in the invitation. The invitation code can be used once only.

ADD INVITATION

The administrator selects "add user" and adds an invitation code to the user list for that door.
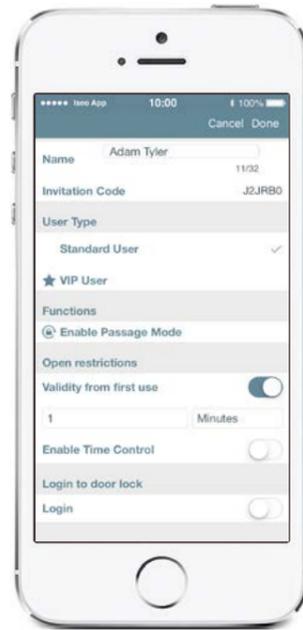
FILL IN INVITATION PARAMETERS

The administrator programmes the invitation parameters as for a user. In addition to validity and time schedules, the validity can also be specified in minutes/hours/days from the first use of the invitation code.
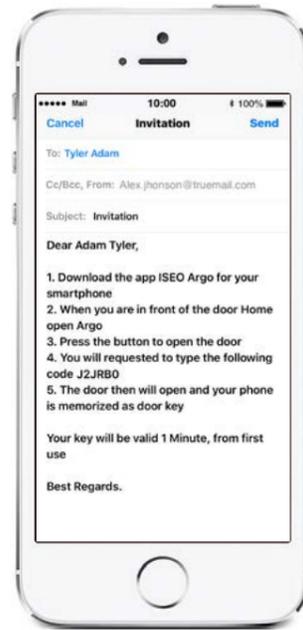
SEND INVITATION

The administrator sends the invitation code via e-mail to the user who isn't yet registered on the door.

RECEIVE INVITATION

The user receives the invitation code on his/her telephone.
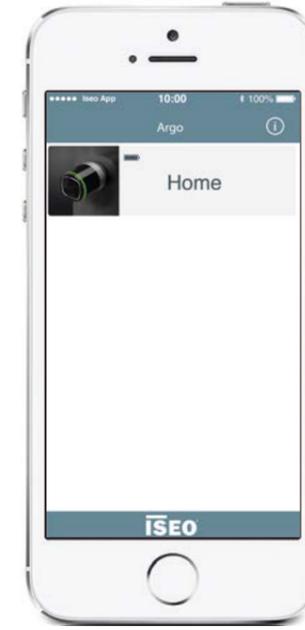
SELECT DOOR

The user opens the Argo app and presses the door opening button. The invitation code is requested.
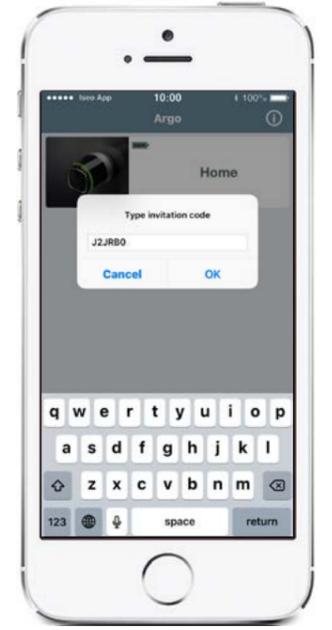
ENTER INVITATION CODE

When the valid (pre-stored) invitation code is typed in, the door opens and registers the telephone in the user list. The invitation code can be used once only.

INVITATIONS SHARING

Argo Invitations can be shared with different communication applications.

SEND INVITATION CODE

RECEIVE INVITATION CODE

Just prepare the invitation code at the door then touch "Send Invitation". You can now choose the application for sharing.

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Add
Fingerprints

This procedure allows to add a fingerprint of a user in the opening device. It is always recommended to add more fingerprints for the same person.

Enter in "programming mode" and select "Add User".

Select "Fingerprint".
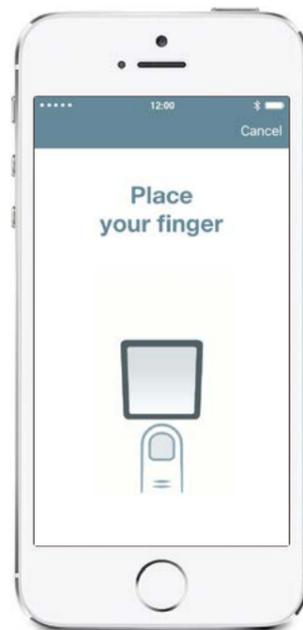
Place and remove the finger repeatedly on the reader.

At each reading of the finger, the image quality score is displayed.

This message will appear when the registration is complete.
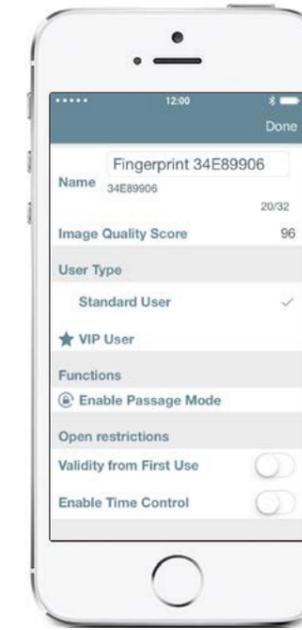
Complete the registration adding the Access User data.

The finger is stored in the Fingerprint list.

COPY OF USERS TO OTHER DOOR LOCKS

The users stored in a door lock can be transferred to other door locks without the need to add again the user in all the doors.

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Fingerprint Biometric **Template**

A fingerprint is made of a series of ridges and grooves. The fingerprint reader uses an advanced image sensor to capture high resolution fingerprint images. Once a fingerprint is captured, the system locates the minutiae points. These minutiae points occur where the lines of the ridges begin, end, branch off and merge with other ridge lines.

These points create the minutiae map. The map is then stored in the door lock as digital data. It is called **biometric template** and it is used for future comparison with other biometri templates of fingerprints presented at the reader.

| 1. FINGERPRINT | 2. MINUTIAE POINTS | 3. MINUTIAE MAP | 4. BIOMETRIC TEMPLATE |
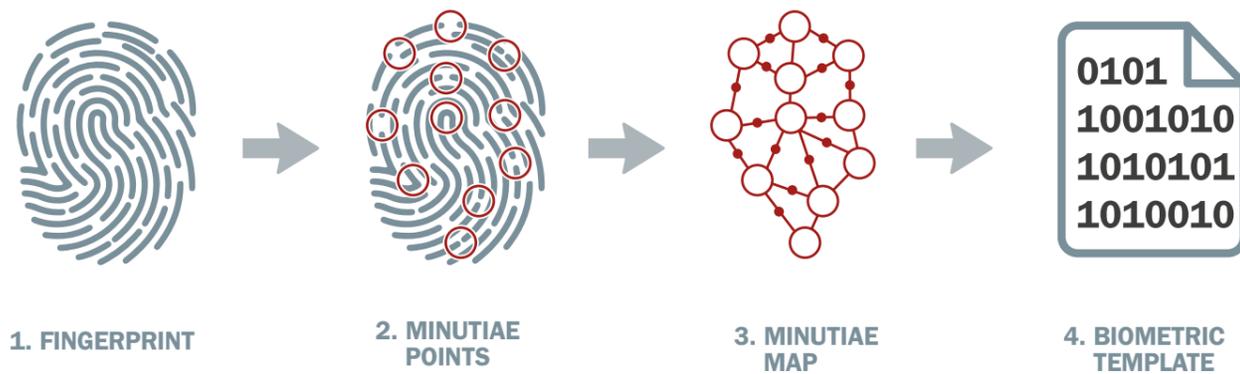
It is important to note that during the entire process **no fingerprint images are stored on the door lock** and that a **fingerprint image cannot be recreated from the biometric template**.

The fingerprint reader has a built-in optical auto sensing function with live finger detection, which automatically detects when real fingers are placed on the window sensor. The fingerprint reader has the following features:

AUTO SENSING
The auto sensing function awakes the door lock only when a finger is placed on the sensor, saving energy and allowing **battery power supply**.

OPTICAL SENSOR
The optical technology is widely adopted as it is far superior to other fingerprint images capture technologies.

FAKE FINGERPRINT DETECTION
A fake fingerprint is an artificial fingerprint made from silicone, rubber, paper, gel, or film. It is used to defeat common biometric readers. The optical fingerprint sensor detects both LIVE and FAKE finger using a combination of a human capacitance sensor and infrared light reflection technology.

ENCRYPTED COMMUNICATION
The communication between the fingerprint reader and the x1R Smart lock is protected by secure encryption.

### ON-SITE SOFTWARE UPGRADABLE
The fingerprint reader is future-proof and the software can be upgraded to eventually improve its performances without dismounting the reader from the door.

ISEO **ARGO**

Identification

Identification is the process of comparing a fingerprint biometric template to all the biometric templates previously stored in the door lock.

| FINGERPRINT CAPTURE | BIOMETRIC TEMPLATE EXTRACTION | INPUT BIOMETRIC TEMPLATE | MATCHING ALGORITHM | DOOR LOCK BIOMETRIC TEMPLATES DATABASE |

MATCH   **NO MATCH**

OPEN DOOR   **ACCESS DENIED**
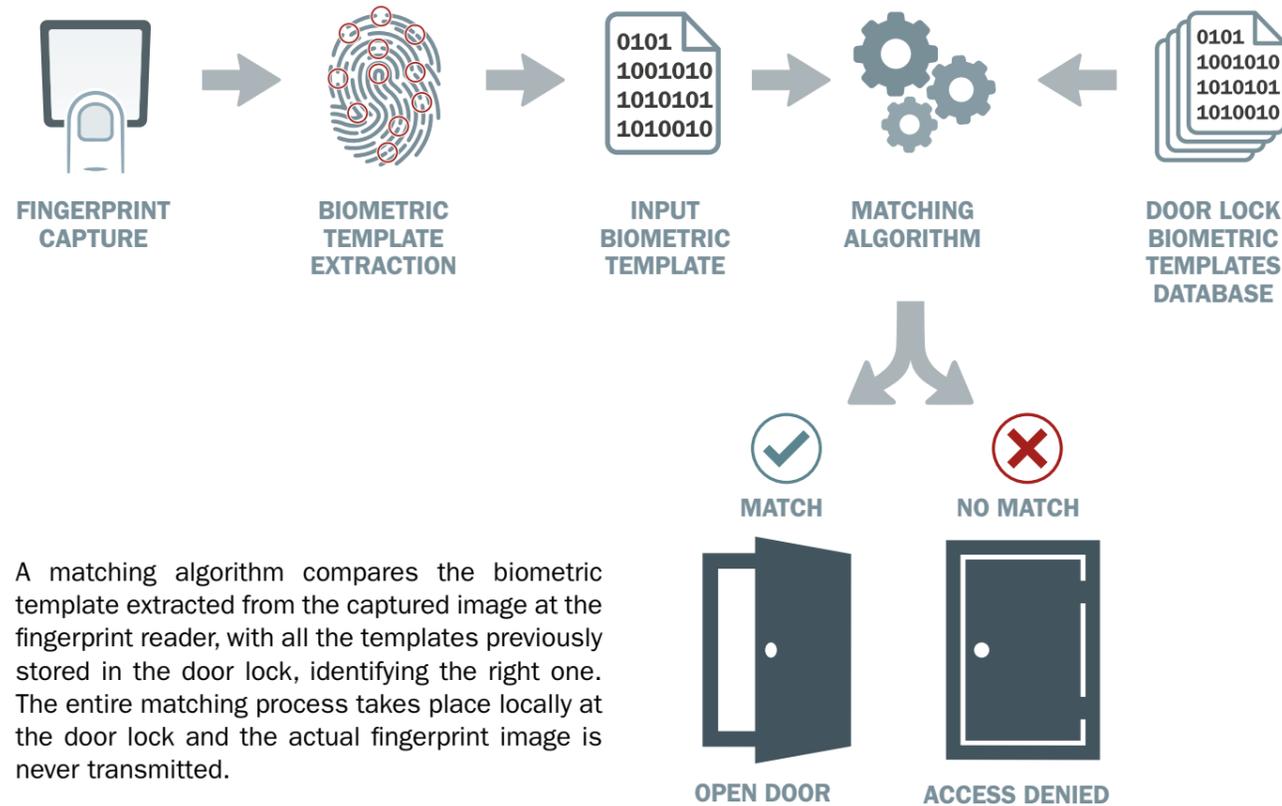
A matching algorithm compares the biometric template extracted from the captured image at the fingerprint reader, with all the templates previously stored in the door lock, identifying the right one. The entire matching process takes place locally at the door lock and the actual fingerprint image is never transmitted.

Fingerprint technology

DOOR OPENING

Simply place your finger on the reader window. The finger reader **optical sensor** with its built-in **auto sensing** function automatically detects and identifies the fingerprint stored in the user list.
With Argo you can store up to 300 users in total, therefore you can store up to 300 fingerprints.
The **identification time among 300 users** is around **1 second**.

FAR AND FRR: SECURITY LEVEL VERSUS USER CONVENIENCE
The performance of biometric systems is expressed on the basis of the following error rates:

FALSE ACCEPTANCE RATE
The FAR (False Acceptance Rate) is the measure of the likelihood that the biometric security system will incorrectly accept an access attempt by an unauthorized user. In simple words, it's the number of times people get identified when they should not be identified and consequently authorized to open the door.

FALSE REJECTION RATE
The FRR (False Rejection Rate) is the measure of the likelihood that the biometric security system will incorrectly reject an access attempt by an authorized user. In simple words, it's the number of times people do not get identified when they should be identified and authorized to open the door.
As the number of false acceptances (FAR) goes down, the number of false rejections (FRR) goes up and vice versa. In other words, the more secure your access control, the less convenient it will be, as users are falsely rejected by the system. The FAR and FRR can be configured by the door lock administrator with Argo App by adjusting the desired security level as follows:

| SECURITY LEVEL	FAR (False Acceptance Rate)	FRR (False Rejection Rate)
1	1 OUT OF 200.000	1 OUT OF 10.000
2	1 OUT OF 1.000.000	1 OUT OF 6.000
3	1 OUT OF 10.000.000	1 OUT OF 4.000

Unlike many commercial fingerprint readers, where the administrator has no detailed information on how the software is configured, Argo allows you to set the level of security and ease of use.

ISEO ARGO

Fingerprint technology

WHEN FINGERPRINT TECHNOLOGY DOESN'T WORK

In general, biometric authentications depend on people, environmental conditions or incorrect use: for example, when using dirty fingers on a fingerprint reader. Fingerprints can also wear away if you do a particular kind of work. Exposure to abrasive surfaces, glues, solvents, powders, cement, excessive moisture and cut/damaged fingers constitute environmental issues which are detrimental to the success of a fingerprint installation.
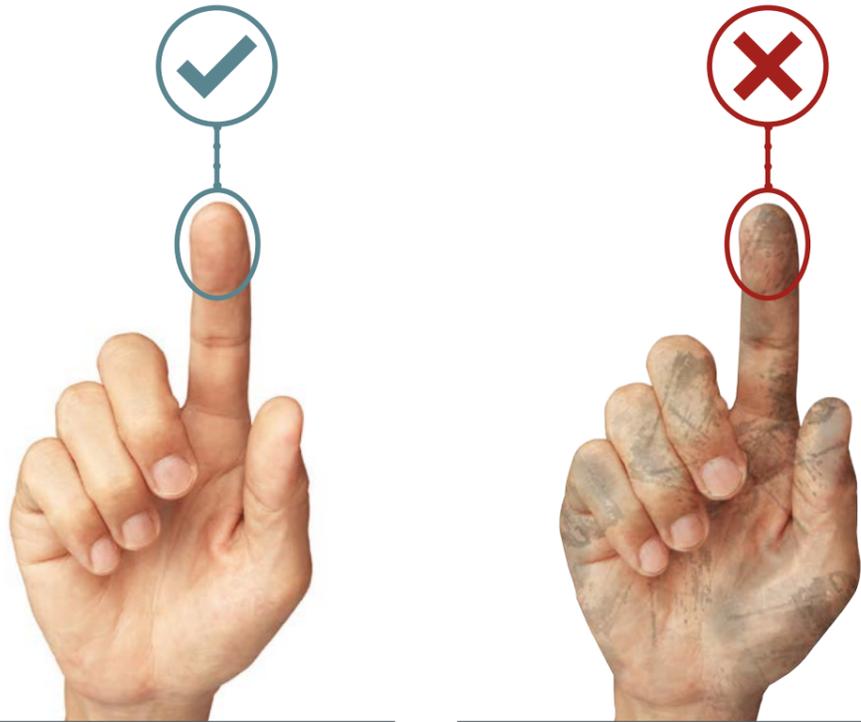

Some people genetically have difficulty to get their fingerprints detected: particular conditions, such as extremely dry or extremely moist fingers, small fingers or previous exposure to harsh chemicals, affect the enrollment and future success of transactions. As a result, some people may find that their fingerprints cannot be recognized or even recorded. There is even a hereditary disorder (Adermatoglyphia) that results in people being born without fingerprints.

It is recommended to memorize for each user not only the fingerprint but also other credentials like PIN, cards, smartphones, to be used in case the fingerprint technology does not work.

SCHEDULED PASSAGE MODE

This function is used to set 2 different programs for automatically enabling and disabling Office Mode on the lock.

Enable Programmed Office Mode from the Door Info menu.

You can activate up to 2 programs.

Activate Program 1.

Enable automatic activation.

Select the days and time.

ISEO

ISEO Zero1

ISEO **ARGO**

First **person in**

Office Mode is only truly activated when the first user enters with an authorised credential.

AUTOMATIC ACTIVATION	FIRST ACCESS by a user with an authorised credential	AUTOMATIC RELOCKING
08.00	08.45	17.00
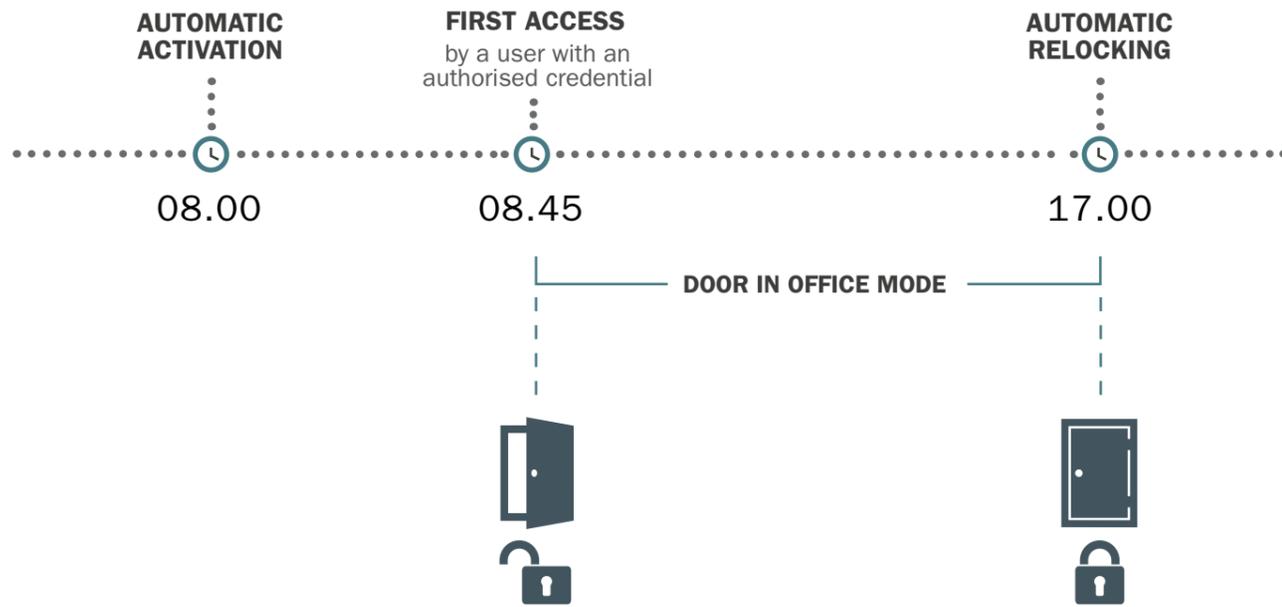
━━━━━ **DOOR IN OFFICE MODE** ━━━━━

LIGHT OFFICE MODE FOR x1R SMART

For armoured doors (used for example in offices), the door doesn't always stay open in Office Mode; it closes with the latch only. This is called Light Office Mode because, by avoiding the movement of the deadbolts every time the door closes, it allows greater energy savings, less mechanical wear and enhanced use in terms of noise reduction and speed.

Door **Status**

DOOR STATUS

The Doors Status allows to see directly on the button of your smartphone if the door is left OPEN or CLOSED and SECURE.

The Door Status is available in doorlocks having the door status sensor (x1R Smart and Smart Relay).
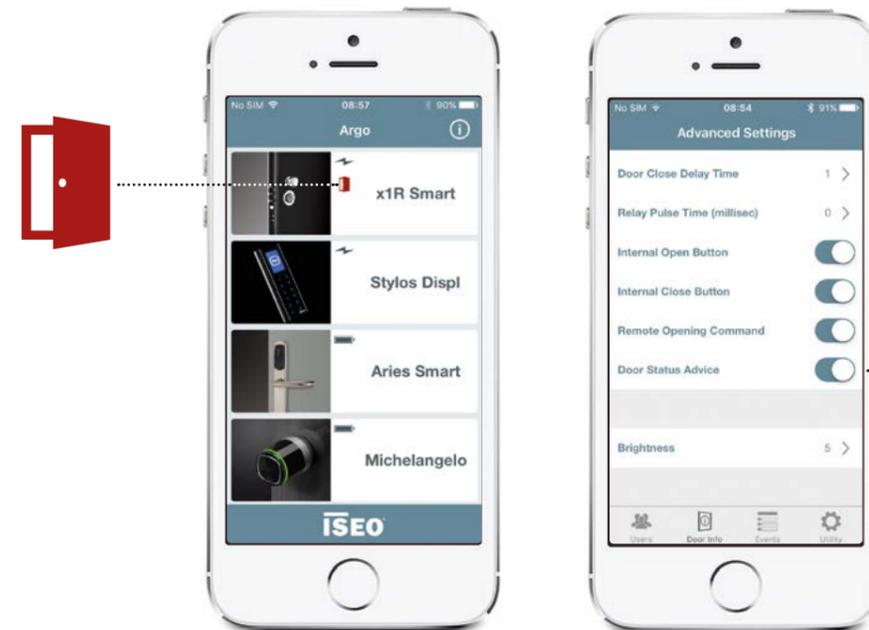
To display the door status, the Door Status Advice should be enabled in Door Info - Advanced settings.

ISEO **ARGO**

ARGO **SDK**
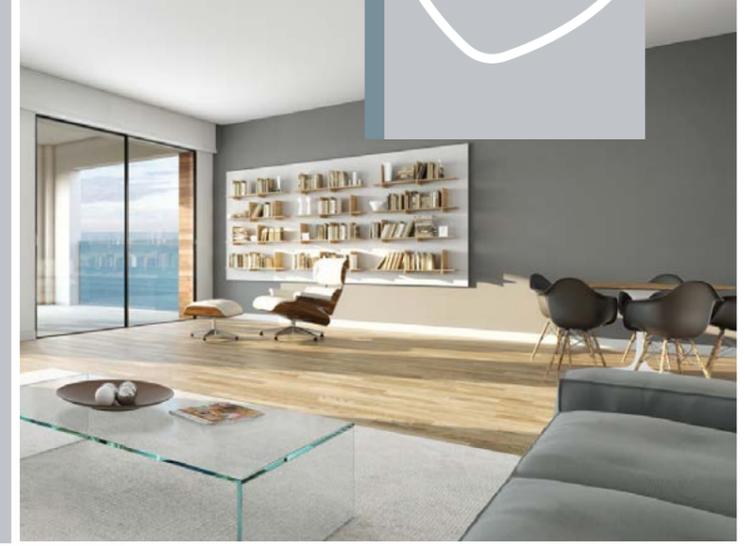
Argo SDK targets developers willing to integrate SMART series devices compatible with ARGO in their systems like home automations or similar type of applications in residential or light commercial.

Argo SDK allows the integration by connecting directly to the device installed on the door.

ARGO SDK IS AVAILABLE FOR:

☐ iOS as native library

☐ Android as native library

☐ Linux Argo web service (JSON – RPC 2.0)

Argo SDK for iOS and Android allows to develop smartphone applications to open the SMART series devices by ISEO compatible with ARGO and to manage the access user list.

Argo SDK for Linux allows an embedded controller to communicate with SMART series devices over the Bluetooth Smart using Argo security layers (AES 128 , Diffie Hellman Elliptic Curves and NIST Random generator).

Argo SDK library interface is able to perform all the Argo app functionalities.
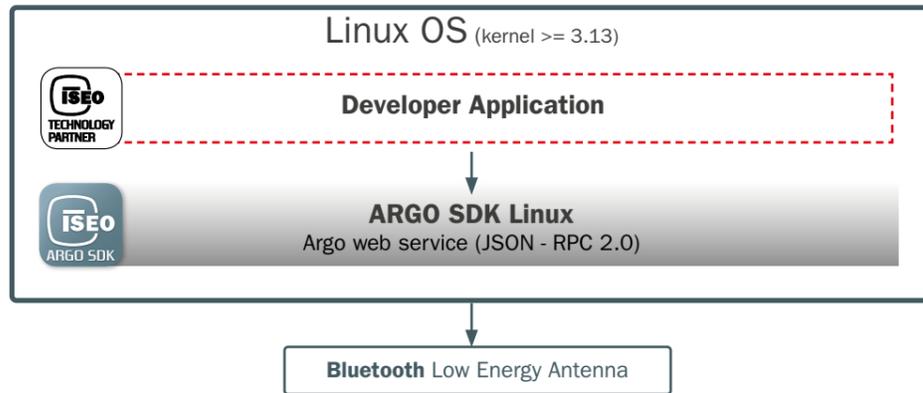
EDGE COMPUTING

Since the local database of users is on the device installed on the door, it can operate even if temporarily disconnected from the Linux Gateway controller.

ARGO **SDK**

## Applications

WIRELESS ACCESS CONTROL
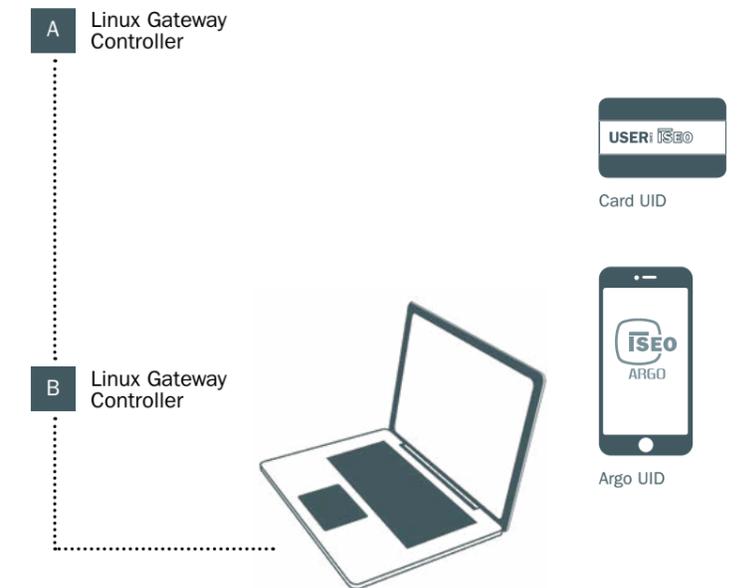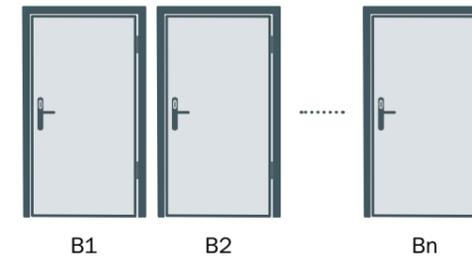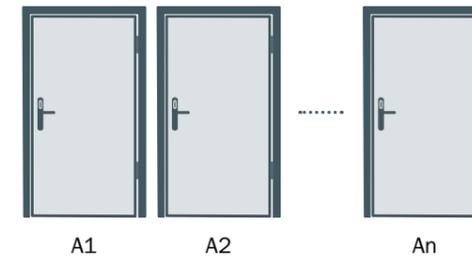
ISEO ARGO

Remote key delivery

If you manage an accommodation business such as a small hotel or a B&B, or you rent out an apartment, your guests can check in at any time. You can use the Remote Key Delivery function on locks of the Smart range to:

- □ give your guests the possibility of remote access
- □ manage your hospitality business remotely and while on the move
- □ offer your guests an unforgettable experience based on comfort and innovation.

The host creates a virtual key

The guest receives the virtual key and open the door

PAY PER USE

Remote key delivery is a Pay per Use service that you can add at any time using the two additional free apps Argo Host and Argo Guest, and the Argo Cloud platform (only available for the Argo remote virtual key delivery service). It's an additional, optional service on top of the standard Argo system, with a price charged only when it's effectively used. Every time Argo Host generates a virtual key, the key credit on the account is reduced by one unit. A single virtual key can, however, be shared by all the guests of the same room, in the same period of stay, and for all the public doors on the path to the room.

The remote key delivery function can be used for guests, whereas staff and all permanent users can use the free invitations function to register their telephones on the lock.

* Argo Host and Argo Guest require an Internet connection to the Cloud platform of the Argo remote key delivery service.

KEY CREDIT

A virtual key count is associated with each system, to store the key credits. Each virtual key issued reduces the credit by one unit. The host can "reload" virtual key credits by activating the Argo credit reload codes.

The Argo reload codes are hidden on reload scratch cards that have a 12-month validity: you need to reload your account at least every 12 months, otherwise your credit will be frozen.

When you reload, previously frozen credits will also be reactivated. The account will be permanently deleted if 24 months have gone by since the last reload.

VIRTUAL KEYS

Argo Host sends the virtual keys to Argo Guest via e-mail, text message or any other communication app.
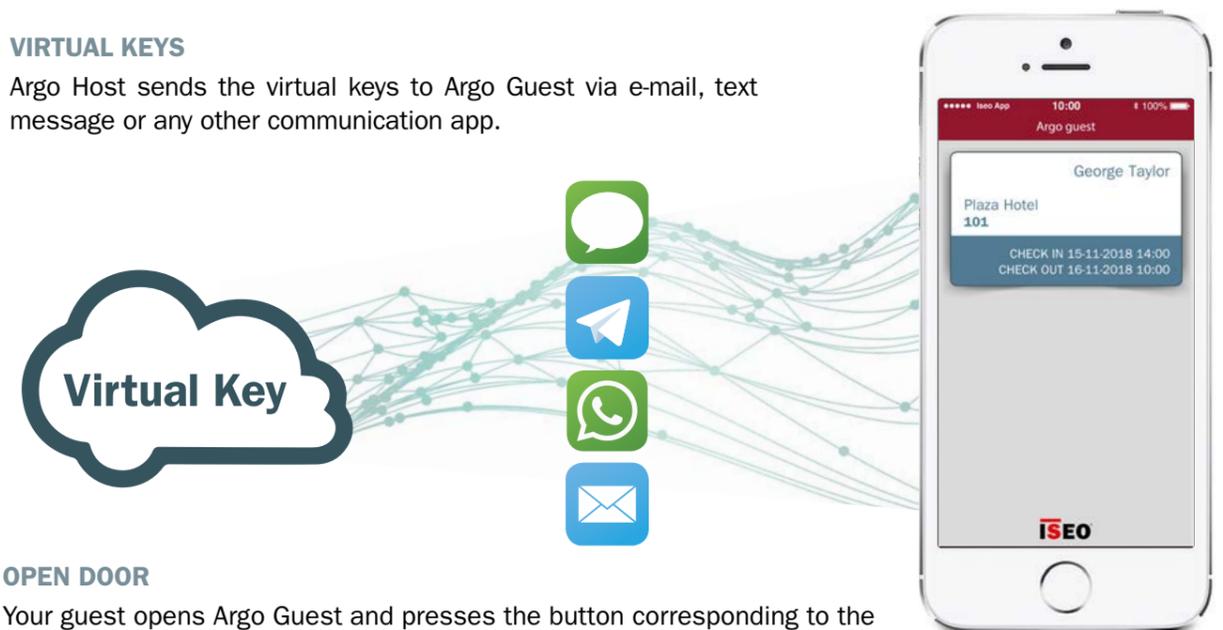
OPEN DOOR

Your guest opens Argo Guest and presses the button corresponding to the door that he/she is authorised to open.

With Argo Host, a virtual key can be revoked at any time and a new one can be issued in the event of a room change or an extension to the guest's stay.

ISEO **ARGO**

Comparison
Invitations and
Remote key
delivery

	INVITATIONS	REMOTE KEY SENDING
Aim	Self-registration	Sending of a virtual key
User	Employees	Guests
Apps needed		
Internet connection and cloud service registration	NO	YES
Administrator's tasks	Prepare invitation on the door	Send virtual key at any time and from anywhere
Cost	Free	Pay per Use
Maximum credential validity	Unlimited	30 days
Maximum number of users	300	Unlimited

**THE NEW WAY
TO MANAGE
YOUR DOOR**

ISEO Zero1

ISEO **ARGO**

Aries SMART

Thanks to its simplicity and flexible installation, the **Aries Smart** electronic trim set can be installed on almost any door currently available on the market, and it's designed to work with most mechanical locks.

It's battery operated, so doesn't require any wiring. This makes it the ideal solution for managing access, ensuring optimum flexibility and low installation costs for both new installations and application on existing doors.

ARIES SMART COMES IN TWO VERSIONS:
- **IP54** for "protected" installations (internal doors)
- **IP55** for "outside" installations (external doors)

MAIN FEATURES

□ FREE HANDLE MOVEMENT
With the door closed, the handle can rotate freely without engaging the lock. When a valid credential is detected, the handle set engages the lock so the handle can be moved to draw back the latch and deadbolt.

□ OFFICE FUNCTION
With the hold-open (office) function, the set can be kept engaged without consuming the batteries.

□ PRIVACY FUNCTION
The optional privacy detection device has an ergonomic form for easier use. It makes Aries Smart ideal for use in hospitality facilities like hotels or B&B structures.

□ MECHANICAL EMERGENCY CYLINDER
The mechanical emergency cylinder (optional), hidden underneath the external plate or visible (for a centre distance of 85mm), allows the door to be opened in any situation by means of the mechanical key (for instance when the batteries have run down). The opening operation is recorded in the events log of the lock. It's a high-security ISEO R90 Factory half-cylinder with a key that can be mechanically recoded up to 3 times, and it's supplied in KA on the same system.

□ EXTERNAL EMERGENCY POWER SUPPLY
For installations without a mechanical emergency cylinder, there's a connector located under the external plate for powering Aries Smart with a standard 9V battery.

□ SIMPLE TO INSTALL
Assembly requires just three holes in the door - one for the handle set and two for the fixing screws - for quick, easy installation on existing doors.

□ NO ELECTRICAL CONNECTIONS
Battery operation and the absence of electrical connections mean excellent flexibility and low installation costs, both on new doors and existing ones.

Aries SMART

□ OPTIMUM COMPATIBILITY WITH MECHANICAL LOCKS
Aries Smart is compatible with most mechanical locks that have:
- a handle set of 7, 8 or 9mm (9mm with adapter)
- a follower/cylinder centre distance of 70, 72, 85 or 92mm
- a minimum case size of 25mm
- a max handle rotation angle = 40°
- a hole for European profile cylinders
- a latch only, or automatic deadbolt

□ RFID MULTI-STANDARD SCANNER
The 13.56 MHz ISO 14443 A/B scanner is compatible with cards or tags - Mifare Classic, Mifare Plus and Mifare DesFire.

□ HANDLE MOVEMENT DETECTION
Thanks to the movement sensor on the internal handle, openings made from the inner side of the door can also be recorded in the lock events log.

□ CUSTOM HANDLES
Aries Smart can be installed with custom or personalized handles fixed with a screw.

□ ENERGY SAVINGS ON THE BATTERIES
The patented system for activating the lock via credentials (using the RFID scanner) means efficient energy management of the batteries.

□ BATTERIES
Aries Smart is powered by 2 lithium batteries - model ER14505M (3.6V AA). The batteries are located on the internal side of the door, to avoid any risk of tampering or vandalism.

□ DESIGN AND FINISH
The elegant, streamlined shape and the finishes in stainless steel, polished stainless steel, satin brass (PVD), polished brass (PVD) and AntiGerm (upon request) means the ARIES handle plate fits perfectly into any context, whether classic or modern.

□ SUITABLE FOR EMERGENCY EXITS
Aries Smart can be installed in emergency exits, with:
- EN179 certification available with certain locks
- EN1125 certification available with the ISEO panic devices of the Pro EXIT, IDEA, Push and Pad ranges.

□ SUITABLE FOR DIN LOCKS
Aries Smart can be installed with DIN locks

□ ENVIRONMENTAL FEATURES
- Operating temperature: -20°C to +60°C
- Storage temperature: -25°C to +75°C

ISEO **ARGO**

Libra SMART

The **Libra Smart** electronic cylinder can be easily installed on both new and existing doors. It can be used with any type of mechanical lock compatible with the European cylinder, and doesn't require any wiring so it's simple to switch from a mechanical cylinder to an electronic one.

Libra Smart is also available in a Heavy Duty version, suitable for use in any environmental conditions and complete with a protective anti-drilling device (on the cylinder body) and an anti-tear function.

This product has obtained the highest levels of international security certification. It's the only cylinder in the world with a protection rating of IP66, IP67, IP69.

The Libra Smart electronic cylinder was selected for the 2013 ADI Design Index, and was given a Mention of Honour at the 23rd edition of the Compasso d'Oro award. It was also among the finalists at the 2014 IFSEC Security & Fire Excellence Awards, and was nominated for the 2015 German Design Awards.

MAIN FEATURES

□ FREE KNOB MOVEMENT

With the door closed, the knob handle can rotate freely without engaging the lock. When a valid credential is detected, the cylinder engages the lock so the knob can be moved to draw back the latch and deadbolt, just like with a mechanical cylinder.

□ OFFICE FUNCTION

With the hold-open (office) function, the cylinder can be kept engaged with the lock without consuming the batteries.

□ SIMPLE TO INSTALL

Assembly on existing doors requires just the quick replacement of the existing mechanical cylinder, without any work on the door itself.

□ COMPATIBLE WITH ALL MECHANICAL LOCKS

Libra Smart is compatible with all mechanical locks with a European profile cylinder hole (EN 1303, DIN 18252). The Libra Smart electronic cylinder is the same size as a traditional mechanical cylinder.

□ NO ELECTRICAL CONNECTIONS

Battery operation and the absence of electrical connections mean excellent flexibility and low installation costs, both on new doors and existing ones.

□ CONFIGURATIONS

Libra Smart offers a multitude of configurations:
- External electronic knob (with free rotation) and internal mechanical knob (standard or premium type)
- External electronic knob (with free rotation) and internal electronic knob (with free rotation)
- Half cylinder with external electronic knob (with free rotation)
- Version for panic locks (with free rotation), with cam that returns to the vertical position autonomously
- Version compatible with Defender protection device
- Version for indoor use (IP54)
- Version for high-security outdoor contexts (Heavy Duty IP66)

□ SPECIAL VERSIONS:
- oval Scandinavian body
- oval Australian body
- round ANSI body

□ WIDE RANGE OF DOOR THICKNESS

Libra Smart can be installed on a wide range of door shims:
- up to 120mm (standard version)
- up to 140mm (version available upon request)

□ RFID MULTI-STANDARD SCANNER

The 13.56 MHz ISO 14443 A/B scanner is compatible with cards or tags - Mifare Classic, Mifare Plus and Mifare DesFire.

□ ENERGY SAVINGS ON THE BATTERIES

The patented system for activating the lock via credentials (using the RFID scanner) means efficient energy management of the batteries.

□ BATTERIES

Libra Smart is powered by a lithium battery - model ER17335M (3.6V 2/3A) - accessed from the outside so it can be replaced even when the door is closed.

□ DESIGN AND FINISH

The elegant, streamlined shape, and the finishes for the metal parts and the parts in compound materials, mean the Libra Smart electronic cylinder fits perfectly into any context, whether classic or modern.
- Finishes for metal parts: stainless steel, polished stainless steel, satin brass, polished brass.
- Colours of the compound material: glossy black, glossy white

For the compound material, special colours are also available upon request, and a personalised logo can also be imprinted.

□ CERTIFICATIONS

Libra Smart is certified as EN15684:2013-01, with the following classifications:
- IP54 versions for indoors: classification 1604AF30
- IP66 Heavy Duty version for outdoors: classification 1604AF32

□ ENVIRONMENTAL FEATURES
- Operating temperature: -20°C to +70°C
- Storage temperature: -25°C to +75°C

ISEO **ARGO**

x1R SMART

x1R Smart is a motorised electronic lock purposely designed for use on steel reinforced doors. The opening and closing functions are controlled by a motor and an electronic card with a state-of-the-art microprocessor. Even in the event of a power failure, the door can still be opened using the mechanical key which, thanks to a security system, can disconnect the motor during the activation of the mechanical cylinder.

MAIN FEATURES

□ **OPENING AND AUTOMATIC RECLOSURE**

With the door closed, an opening command (via card, tag, telephone, PIN or remote button) causes the lock to draw back the deadbolts and latch so that the person can enter the room. In standard mode, the lock automatically recloses the deadbolts when the door is closed, thereby restoring the optimum security condition.

□ **FINGERPRINT**

x1R Smart is integrating fingerprint biometric authentication. The biometric template is a very secure and convenient authentication credential: it can't be borrowed, stolen, or forgotten, and forging one is practically impossible.

□ **SINGLE ACTION (ANTI-PANIC)**

x1R Smart is also available in the Single Action version: the internal handle draws back the latch and deadbolts in one smooth movement. This means the user can always open the door quickly and easily from the inside by simply pressing down on the handle, even if the deadbolts are extended (door in maximum security condition). This function is also called "anti-panic" because it can be combined with emergency exit devices.

□ **COMPATIBLE WITH THE LEADING MECHANICAL LOCKS FOR STEEL REINFORCED DOORS**

x1R Smart can be interchanged with the most commonly used mechanical locks for steel reinforced doors, and the simple electrical connections ensure easy installation. The total stroke of the deadbolts when the door is closed in security conditions is 30mm. The latch diameter is 20mm.

□ **REVERSIBLE HAND**

All the versions of x1R Smart are reversible, and come with different deadbolt protrusion and centre distance values to meet every possible production and installation requisite of the door manufacturers.

□ **CERTIFIED FOR OPTIMUM SECURITY**

x1R Smart is certified in accordance with EN 14846:2008, with classification 3X9E0P713. The Single Action version is also certified EN 179:2008, with classification 377B1452AB (device for emergency exits, activated with a lever bar handle).

□ **LIGHT OR FREE OFFICE MODE CONFIGURATION**

With x1R Smart, the Argo app can be used to configure the "hold-open" (office) function in Light or Free mode, without any extra battery consumption:

Light: the lock only closes with the latch. This mode ensures higher energy savings, less mechanical wear and enhanced use in terms of noise reduction and speed.

Free: the lock keeps the latch and deadbolt drawn back to ensure free access.

The Light and Free functions can be activated via the telephone, card or remote opening button, or they can be automatically programmed for specific days and times.

□ **BACKLIT KEYPAD**

The backlit keypad can be used to open the door even in the dark, by entering a PIN of 4-14 characters.

□ **POWER SUPPLY AND ENERGY MANAGEMENT**

x1R Smart offers different power supply configurations to suit the different types of installation and meet energy management requisites. There are three main configurations:

1. Powered by alkaline batteries
2. Powered by electricity
3. Powered by electricity (via door contact sensors) and alkaline batteries

□ **OPENING WITH MECHANICAL KEY**

If the batteries are run down or there's an electricity failure, the door can still be opened with the mechanical key.

□ **HOME AUTOMATION**

Thanks to the door status relay integrated in the electronic card, and the optoinsulated input for the remote opening command, x1R Smart can easily be integrated in a domestic domotic system or burglar alarm.

□ **DOOR STATUS**

x1R Smart uses a sensor, and a relay integrated in the electronic card, to supply a "door status" signal that can be used in the domotic system of the home. With the aid of Argo app, the relay can also be configured as a single impulse for activating, for example, a motorised door opener/closer. The "door status" signal from the relay output is only available with the "powered by electricity" configuration.

□ **REMOTE OPENING COMMAND**

x1R Smart has an optoinsulated input in the electronic card (8-30V DC / V AC), which can be used for a remote opening command such as the entryphone button or an opening button in the enclosure or at the porter's desk.

ISEO **ARGO**

Stylos LED &
Display SMART

When used alongside the electric lock actuator, the **Stylos Smart** credentials reader allows you to control any electric device. Stylos Smart comes in 2 models:

- Stylos Smart Display with keypad
- Stylos Smart LED

Stylos Smart LED has 2 versions - for indoors or outdoors (IP66).

MAIN FEATURES

□ CONTROL OF ANY ELECTRICALLY COMMANDED DEVICE

Three wires (power supply, earth and data) connect the Stylos Smart credentials reader to the electronic actuator for electric locks via Lockbus. When a valid credential is detected, the actuator relay is closed to allow any electrical device (electric locks, bars, gates, sliding doors, lifts, turnstiles etc.) to be commanded.

□ CONTROL OF ISEO LOCKS VIA LOCKBUS

ISEO locks with the Lockbus communication interface (e.g. the Thesis 2.0 electric piston) can be directly connected with Stylos Smart, without any need for external actuators.

□ MANAGEMENT OF INTERLOCKED PASSAGES

Stylos Smart can also be used to autonomously manage twin passage situations, with interlock and signalling semaphore functions.

□ WIDE RANGE OF SUPPLY VOLTAGE LEVELS

The Stylos Smart reader and the actuator can be powered with a wide range of supply voltage levels: from 8V DC to 30V DC, using the existing power supply in most cases.

□ LOCKBUS: SIMPLE INSTALLATION, AND SECURITY

The Lockbus encrypted communication protocol (ISEO-owned) offers the following advantages:

- Data and power supply on the same 3-wire connection (up to 100m in total)
- Self-regulating power supply from 8V DC to 30V DC
- Safe authentication of the devices (between scanners and actuators), and cryptographic data transmission, guaranteeing high protection against tampering.

□ OFFICE FUNCTION

The "hold-open" (office) function allows the relay to be kept closed (engaged).

□ WALL INSTALLATION

Assembly is by surface mounting: on a wall or a profile in metal (or another material). A spacer is available as an accessory, to facilitate assembly in certain cases: with exposed trunking, on uneven surfaces, to increase the distance from the wall, to reduce the diameter of the hole needed for the cable connector.

□ RFID MULTI-STANDARD SCANNER

The 13.56 MHz ISO 14443 A/B scanner is compatible with cards or tags - Mifare Classic, Mifare Plus and Mifare DesFire.

□ OPENING WITH PIN

The Stylos Smart Display model, with a capacitive keypad with 12 backlit keys, can also be used to open the door with a PIN code (apart from with card or telephone).

□ DISPLAY

Stylos Smart Display has a graphic display of the O-LED type (128x64 pixels), for enhanced signalling and greater user comfort.

□ ENVIRONMENTAL FEATURES

- Operating temperature: -20°C to +60°C
- Storage temperature: -25°C to +75°C

ISEO **ARGO**

SMART **Relay**

The **Smart Relay** allows to open electric locks, motorized gate or any electrical actuator which can be activated closing a contact. The Smart Relay close a contact if a smartphone is registered in the device.

POWER IN
VAC 12-24
VDC 10-30
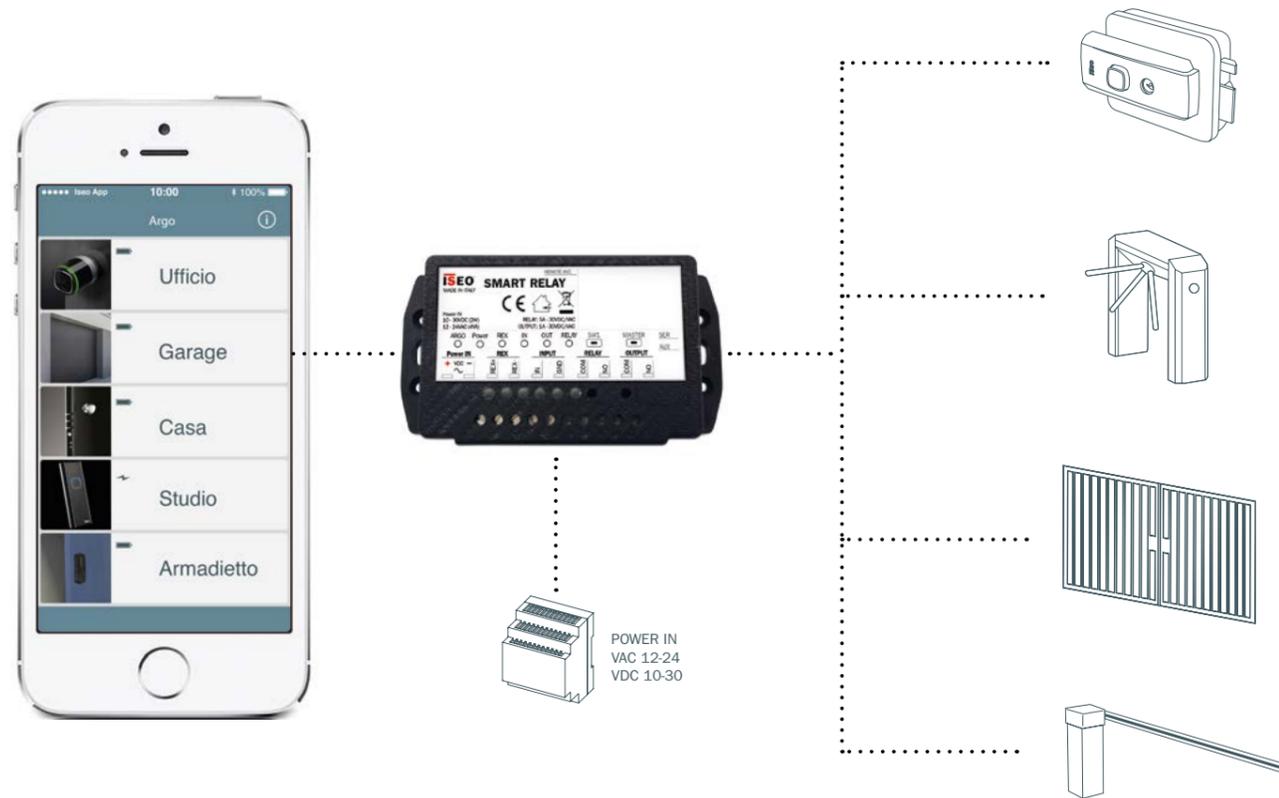
The Smart Relay comes in 2 different models to select depending on installations requirements:

1. Smart Relay with built in BLE antenna: the Bluetooth smart antenna is embedded in the Smart relay box.

2. Smart Relay with Remote BLE antenna: the BLE can be positioned at a distance of 3 meters from the unit.

FUNCTIONS

□ RELAY

The Relay allows to control electric devices. It is a NO (Normally Open) contact up to 5 Ampere current.

□ MASTER

The MASTER switch allows to enter in Programming mode. This is required the first time when Smart Relay is in factory mode. The MASTER microswitch can be disabled after enrolling, with login enabled, the first smartphone in the users list. Then the smartphone can login without MASTER and prepare some invitations to login with additional smartphones.

□ REX (REQUEST TO EXIT)

REX (REquest to eXit) is and opto-insulated input to open the relay with a button distant up to 100 meters.

□ INPUT

It can be configured with Argo App with one of the following functions:
- Door Status.
- Second REX (REquest to eXit).
- Privacy ON.
- Disabled.
Max cable length 25 meters.

□ OUTPUT

(RELAY 1A)
It can be configured with Argo App with one of the following functions:
- Privacy.
- Standard users blocked.
- Passage mode active (office mode).
- Door status.
- Lithium battery for Real Time clock Low.
- Alarm for Power Supply low.
- Activates in sequece after RELAY opens eventually controlling the INPUT configured as door status.
- Disabled.

The OUTPUT relay is a signal relay (1A) and can be also configured as NO (default) or NC by a jumper under the cover enclosure.

ISEO Zero1

ISEO **ARGO**

SMART **Locker**

Smart Locker is a lock that can be installed on a wide range of lockers and cupboards to keep people's property safe while they're in the office, the gym, swimming pool, or any other situation where personal belongings need to be temporarily safeguarded.

MAIN FEATURES

□ JUST CLOSE TO LOCK

The cupboard door is locked merely by closing it. When a valid credential is detected, the lock is released and the cupboard can be opened.

□ SIMPLE TO INSTALL

The reader is quick and easy to install, requiring just two holes for the two screws that hold it in place, plus a slot for the wires to pass through.

□ NO ELECTRICAL CONNECTIONS

It's battery operated, ensuring optimum flexibility and low installation costs for both new lockers and application on existing lockers that work with mechanical keys.

□ RFID MULTI-STANDARD SCANNER

The 13.56 MHz ISO 14443 A/B reader is compatible with cards or tags - Mifare Classic, Mifare Plus and Mifare DesFire.

□ ENERGY SAVINGS ON THE BATTERIES

The patented system for activating the lock via credentials (using the RFID reader) means efficient energy management of the batteries.

□ BATTERIES

Smart Locker is powered by 2 lithium batteries - model ER14505M (3.6V AA). The batteries are located on the internal side of the door, to avoid any risk of tampering or vandalism.

Argo app opens and programs all the devices of ISEO Smart series.

ARGO APP
□ Works with in iOS and Android Bluetooth Smart Ready phones
□ Operating Systems:
- Android from version 5 (released on November 3,2014)
- iOS from version 10 (iPhone 5 is the oldest model supporting iOS 10, released on September 21, 2012)
□ Communication via Bluetooth Smart (also called Bluetooth Low Energy or Bluetooth 4.0)
□ Secure Communication protected with:
- AES 128 encryption;
- AES Session keys AES generated with a DHEC (Diffie Hellman Elliptic Curves) algorithm
- Random Number Generator NIST (National Institute of Standard) compliant
□ No additional software to install
□ No internet connection required
□ Multilanguage
- available in 25 languages

OPEN DOORS
□ Opening of doors via:
- Smartphone (distance up to 10 meters)
- Smartphone protected with PIN code
- Apple Watch from Series 3
□ Widget creation to open doors directly
□ Special function setting:
- Enable (or disable) Passage mode function (office functions)
- Change PIN Code
- Block the Standard Users allowing access only to VIP users
□ Visualization of:
- Smart devices battery status
- Blocked user (access allowed only to VIP Users)
- Passage mode (office mode) enabled or disabled or Light - Door Status
- Privacy Status
- Smartphone Argo UID
- User guides, manuals, video tutorials
- Argo App Version
□ Notification of:
- Low battery
- Software upgrades available

ISEO Zero1

FUNCTIONS LOCK PROGRAMMING AND ACCESS AUTHORIZATION MANAGEMENT

□ Access in programming mode with:
- Master card
- Login with smartphone protected by PIN code - Login with smartphone (without PIN code)
□ Add New Users:
- Cards or tags (USER DESFire USER Classic or generic) by direct reading on RFID reader
- Cards or keyfobs USER Classic or USER DESFire by typing card number
- Generic cards or tags by typing silicon chip UID
- PIN codes from 4 to 14 digits
- Smartphones directly with MASTER card
- Smartphone by typing Argo UID
- Fingerprint
□ Add Invitation codes for self-registration of a smartphone
□ Assign time validity to Users
- with Start (date/time) and End (date/time) or number of days - validity from first use (in minutes, hours, days)
□ Assign 2 weekly time schedules for each user, on defined days of the week
□ Assign Standard or VIP type for every user
□ Assign Office function capability for users
□ Assign the Block Standard user function for VIP users (to allow access only to VIP users)
□ Program Default User settings for enrolling
□ Search for Users
□ Delete Users:
- selecting multiple users - selecting all expired users
- selecting user without Login - single user with swipe
□ Transfer selected users to other doors (Copy and Paste)
□ Read the events on the lock and send the log file of the last 1000 events via e-mail
□ Configure scheduled passage mode
- 2 weekly time schedules, on defined days of the week - Activation of passage mode on first person in
□ Program door lock name
□ View the lock information:
- Lock type
- Battery Status
- Current date and time and Time Zone
- Current master card set and Level in use
- Users enrolled by type (Smartphone, Cards, PIN, Fingerprint , Invitations) - Hardware and Firmware versions
□ Program advanced settings: - Opening time
- Sounds enable or disable
- Bluetooth parameters
- Reset to factory or default
- Different specific settings for each opening device
□ Read the events on the lock and send the log file of the last 1000 events via e-mail
□ Dump the lock information to send it to ISEO technical support for additional check
□ Notification of software upgrades available at login
□ Add new features with software (Firmware) upgrade
□ ARGO SDK available under Non Disclosure Agreement for iOS, Android and Linux

It allows to send virtual keys and enable the initial system configuration.

□ Works with Bluetooth Smart Ready smartphones
□ Operating system:
  - Android (from version 5)
  - iOS (from version 10)
□ Communication via Bluetooth Smart (also called Bluetooth Low Energy or Bluetooth 4.0)
□ Communication with the Argo Cloud service (remote key sending) projected by:
  - TLS 1.2 asymmetrical coding
  - System authentication managed via OAuth2 Grant Type (Resource Owner Password Credentials)

MANAGEMENT FUNCTIONS

□ Communication via Bluetooth Smart (also called Bluetooth Low Energy or Bluetooth 4.0)
□ Creation and sending of virtual keys via e-mail, text message or any other communication app
□ Revoking of virtual keys
□ Visualisation and search for virtual key credits
□ Visualisation of opening events using virtual keys
□ Visualisation of operations carried out by the administrator
□ Reset of account password if it's forgotten: the passwords are saved in cryptographed form (Bcrypt hashing) in the Argo remote key sending cloud, so ISEO doesn't know the administrators' passwords

CONFIGURATION FUNCTIONS

□ Register with the Argo remote key delivery cloud service, and create an account for managing the system
□ Register system locks on the account
□ Create lock groups
□ Configure the welcome message and instructions for the customer via "key words"
□ Configure the check-in time, check-out time and default duration parameters
□ Delete a lock from an account
□ Change the name of a lock

ISEO® Zero1

A wide range of solutions
to be managed with your devices
(smartphone, Apple Watch etc.).

Argo Guest is used to receive and view the virtual key, and open the door. Argo Guest requires an internet connection as it has to connect to the Argo remote key delivery Cloud.

□ Works with Bluetooth Smart Ready smartphones
□ Operating systems:
  - Android (from version 5)
  - iOS (from version 10)
□ Communication via Bluetooth Smart (also called Bluetooth Low Energy or Bluetooth 4.0)
□ Safe communication with the lock, protected via:
    - AES 128 asymmetrical coding
    - AES session key generated with a DHEC (Diffie Hellman Elliptic Curves) algorithm
    - Random Number generator complying with NIST (National Institute of Standards and Technology) specifications
□ Communication with the Argo Cloud service (remote key sending) protected by:
    - TLS 1.2 asymmetrical coding
    - System authentication managed via OAuth2 Grant Type (Resource Owner Password Credentials)

FUNCTIONS

□ Visualisation of the virtual key with user name, system name, door (or group of doors) and start/ end validity
□ Visualisation only of those locks with access rights
□ Opening by pressing the icon corresponding to the door in question (distance of up to 10 metres)

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ISEO **ARGO**

Applications

OWNER

The owner manages access via the Argo app installed on his/her smartphone, and can view the events on the lock. The MASTER Card for programming Smart locks is kept in a safe place by the owner.

USERS

Users are the family members, dental surgery employees or service staff that use their smartphone, card or PIN to access the doors of the building for which they are authorised.

SERVICE STAFF

Service staff (gardeners, housekeepers, etc.) can occasionally access the property using a PIN code, but only during their specific time schedule.

EMPLOYEES

Employees can access the doors for which they are authorised during their specific work times only.

RESIDENTS

Residents can use the drive-through gate by opening it from inside their car with the aid of the Argo app, without any need for a remote control device.

GUESTS

B&B guests can arrive at any time. The Argo HOST app can be used to send the virtual keys to the guests at any time, and from anywhere. With the Argo GUEST app, they can receive the virtual keys and open the doors for an unforgettable stay.

NIGHT-TIME SECURITY GUARD

Night-time security guards can only access the boundary doors for which they are authorised, and during their night shift only (after midnight).

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1 PEDESTRIAN GATE
Stylos Smart Display

2 DRIVE-THROUGH GATE
Stylos Smart LED

3 INTERNAL ARMOURED DOOR
Libra Smart with protection for armoured doors

4 MAIN ARMOURED DOOR
x1R Smart

5 DENTAL SURGERY ENTRANCE DOOR
Stylos LED with Multiblindo eMotion motorised lock

6 INTERNAL DENTAL SURGERY DOOR
Libra Smart

7 EMERGENCY EXIT
Libra Smart, Libra All Weather + Trim with bar handle

8 GARAGE DOOR
Smart Relay

HOME WITH **DENTAL SURGERY** AND ANNEX USED AS A **B&B**

ISEO®   **ISEO**® Zero1
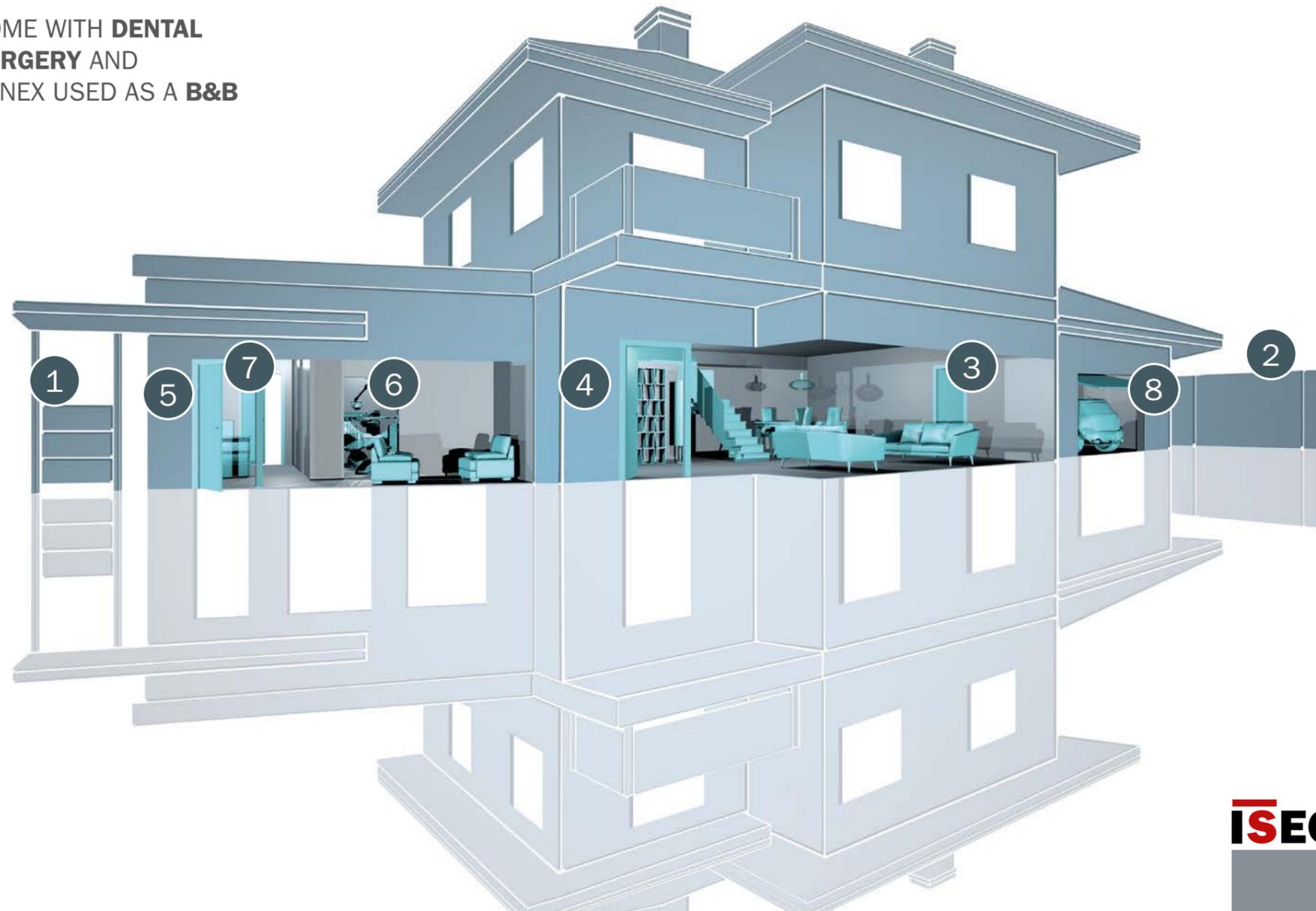
CHANGING ACCESS CONSENT

An employee needs to access a different group of doors. The owner deletes the employee from those doors no longer used, and adds him/her to the new doors.

EXTENDING THE CLOSURE PLAN

A new door is installed on the property. The user list is transferred to this new door.

VIEWING EVENTS

The owner can view the access log for a specific door at any time, and send it via e-mail to his/her account in order to read it more easily.

LOST CARD

An employee has lost the card used to open certain doors on the property, and informs the owner.
The owner goes to the doors in question and deletes the lost card, programming a new one.

CHANGE OF SMARTPHONE

An employee gets a new smartphone model. The owner sends an invitation code to the employee so the new telephone can be self-registered the first time he/she opens the door. The owner disables the old telephone by accessing the user list.

TERMINATION OF EMPLOYMENT

An employee stops working for the company before his/her credential (card, smartphone or PIN) has expired. The owner deletes the credential from all the doors on which it was authorised.

RENEWING THE CREDENTIAL

A credential validity has expired. The owner extends the validity period on the individual doors.

UPDATING THE ARGO APP

ISEO updates the Argo app on its store, adding new functions. When users open a door with their smartphone, they're informed about the latest update and the owner can update the lock software with his/her smartphone.

9 ANNEX ROOMS
Aries Smart

10 SWIMMING POOL
Smart Locker

11 SHARED ANNEX AREA
Aries Smart with bar handle for emergency exit

ISEO

ISEO Zero1

ISEO Zero1
ELECTRONIC SOLUTIONS
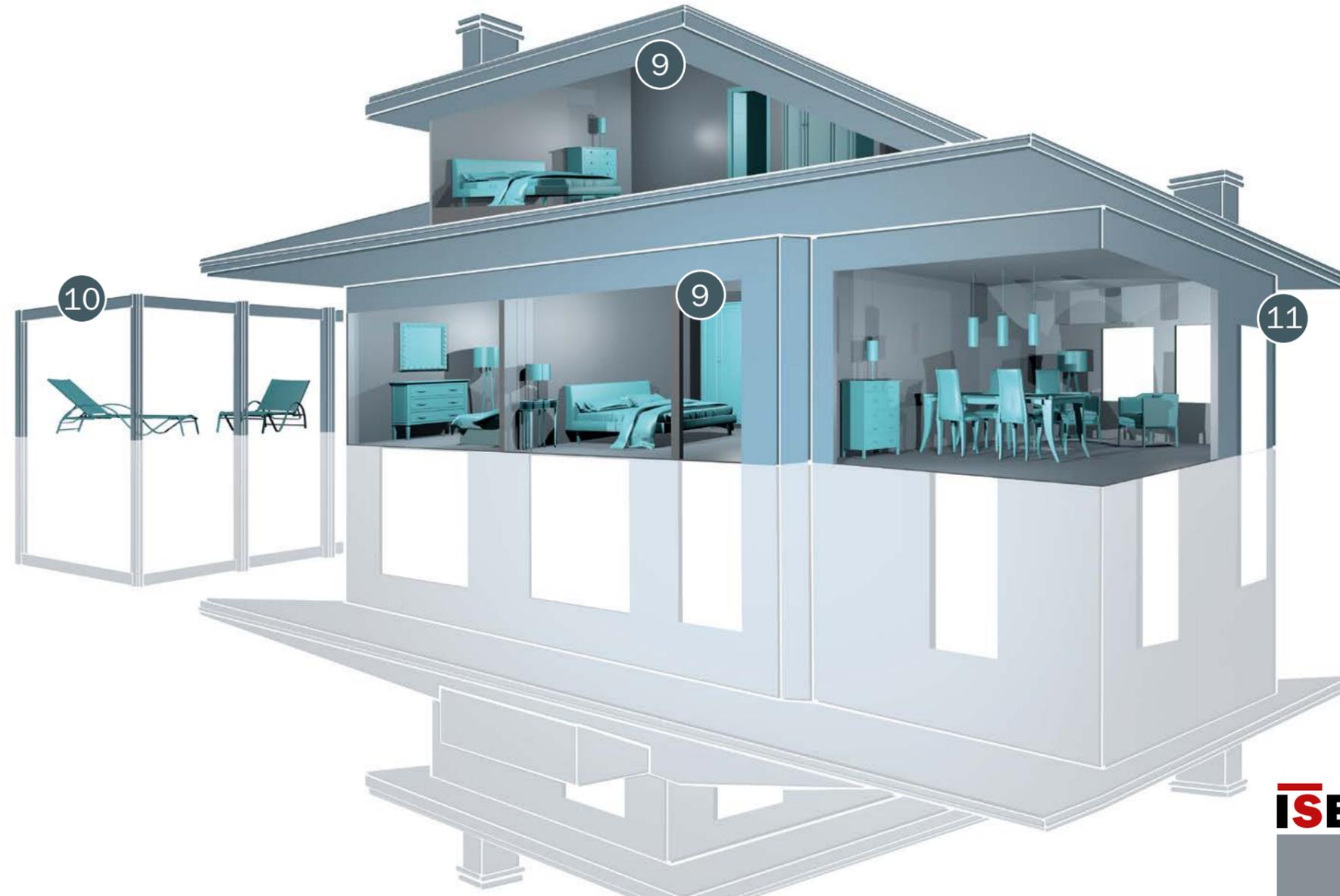
ISEO Zero1 Electronic solutions includes a wide range of electronic access control devices easy to install in order to meet every application requirement. You can choose different devices according to the door type and security level required:

- cable free off-line battery operated devices, such as Aries electronic trim set and Libra electronic cylinder;
- mechatronic cylinders with power source on the key only, such as F9000;
- wired devices such as Stylos credential readers, Atlas controllers and smart locks.

All the ISEO Zero1 Electronic devices can be combined to create the following access control system solutions:

ARGO

Argo is the ideal solution for residential or light commercial contexts (B&B, small companies, offices, shops, professional studios etc). You can use your smartphone as well as other devices, such as Apple Watch, fingerprints, PIN codes, keyfobs, cards for opening your doors.

All you need is installing on your door, even without replacing them, an opening device of the Smart series (electronic locks, cylinders, trim sets, etc.).

Thanks to Argo App, you decide who can enter your home, your office or the room of your accommodation facility. You can even set a time slot for each access.

With Argo, even from remote you can authorize people to enter. That's why this is the perfect solution for private homes, B&B and small hotels. For example, you can allow your guests to open their room's door with their smartphone on a specific day and time, even if you are at home or at work.

V364

V364 is an advanced access control software for commercial applications allowing to manage both on-line and off-line doors for small and medium sized facilities.

It is based on web server technology which allows the system up and running in minutes as it is not necessary to install any software.

V364 features a user-friendly interface allowing the management of your electronic access control system from computer with browser.

V364 supports RFID technology and the mechatronic key F9000. V364 is designed to easily scale and will be the core of your next level of facility integration by the system integrators of the ISEO Technology Partner program.

ISEO Zero1

ELECTRONIC
SOLUTIONS

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