ISEO®

V364 System

E N G L I S H

V364 System

ISEO

INDEX

ACCESS ON DEMAND ON TIME ON LINE

ISEO V364

ISEO V364 is an easy-to-use web-based access control system for commercial applications allowing to manage both on-line and off-line doors for small and medium sized facilities.

ISEO V364 allows multiple credentials for an access user supporting RFID technology, mechatronic key F9000 and mobile credentials at the same time. Therefore the access points can be pure mechanical cylinders, mechatronic cylinder or RFID locks enabled with Bluetooth Smart for mobile credentials.

ISEO V364 Access Management System provides ease of use and time saving for the administrators wherever high security standards apply and prompt access rights need to be issued for employees and mobile workforce.

ISEO V364 gives you the freedom to access, manage and control your facility's points of entry from anywhere with a browser and in mobility.

ISEO V364 is a cost competitive solution for your electronic access control and is by design easy to use and easy to install and set up without requiring software installation.

ISEO V364 combines the benefits of mechanics, electronics and mobile connectivity ensuring maximum security and flexibility for organizations spread across various locations.

ISEO 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 V364 is the result of ISEO group's intensive R&D and commitment to innovation.

ISEO V364
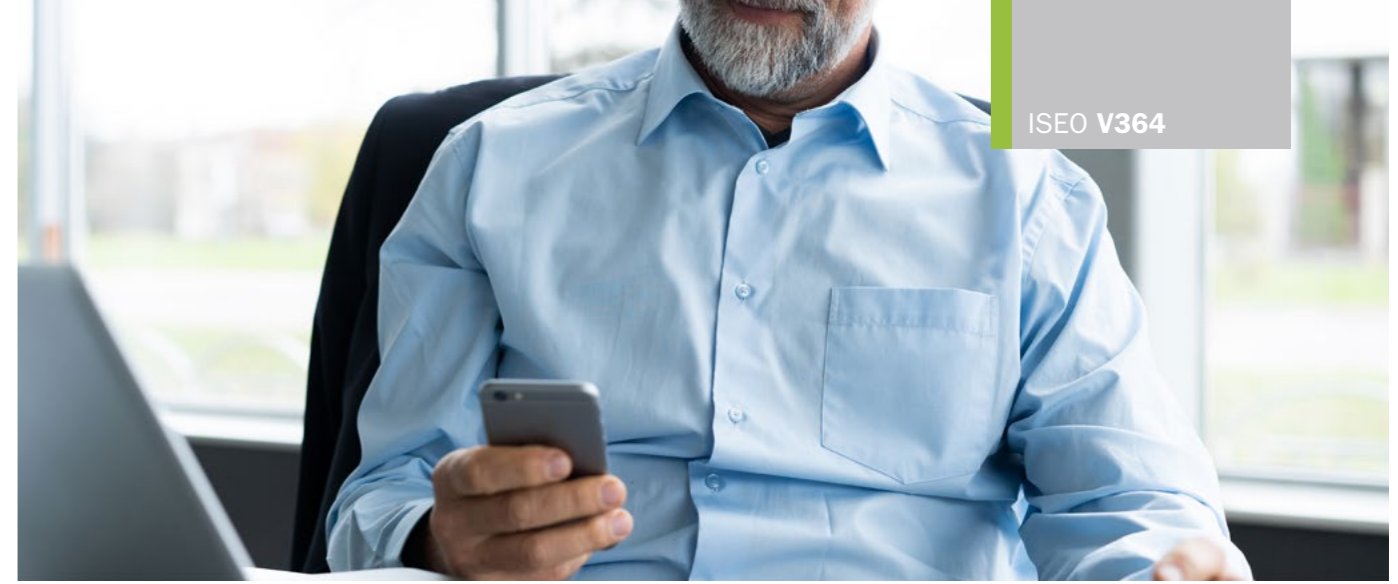
System
Overview

MAIN FEATURES

- ☐ WEB BASED ACCESS CONTROL SYSTEM.
- ☐ MANAGED WITH MOBILE V364 APP AND BROWSERS.
- ☐ SECURING PERIMETRICAL AND INTERNAL DOORS OF YOUR FACILITY.
- ☐ EASY TO INSTALL WITH CABLE FREE AND LOW MAINTENANCE DEVICES.
- ☐ SUPPORTING MULTIPLE CREDENTIALS FOR ACCESS USERS:
  - ■ Mechatronic keys with contactless inductive technology;
  - ■ Mobile keys;
  - ■ RFID credentials.
- ☐ ALLOWING ACCESS IN MOBILITY ON DEMAND ON LINE ON TIME FOR:
  - ■ flexible management of access rights;
  - ■ Remote enabling and disabling of keys.
- ☐ CONTROLLING THE CREDENTIAL LIFECYCLE:
  - ■ with automatic collection of events and validation;
  - ■ limiting the risk of exposure with lost keys.
- ☐ FEATURING TRADITIONAL AND ROLE BASED ACCESS CONTROL.
- ☐ FUTURE PROOF: SCALABLE AND EASY TO INTEGRATE.

MAIN FUNCTIONS

- ☐ SCALABLE SYSTEM ARCHITECTURE:
  - ■ V364 Classic.
  - ■ V364 on air (Software as a Service: SaaS).
  - ■ V364 Customer hosted.
- ☐ MULTI LANGUAGE.
- ☐ DATA ON CREDENTIAL SYSTEM.
- ☐ FLEXIBLE CREDENTIAL DATA LAYOUT TO ACCOMMODATE INTO LEGACY CREDENTIAL SPACE.
- ☐ PLANT PARTITIONS.
- ☐ SECURITY TLS 1.3 AND AES 128.
- ☐ UNIQUE SYSTEM COMBINING MECHANICAL, MECHATRONIC, RFID AND MOBILE CREDENTIAL.
- ☐ CONTACTLESS COMMUNICATION BETWEEN CREDENTIAL AND LOCK TO COMPLY WITH ANY HARD ENVIRONMENT:
  - ■ RFID (Radio Frequency IDentification at 13.56 Mhz accordingly ISO 14443A/B).
  - ■ F9000 induction.
  - ■ Mobile key (Bluetooth Smart also known as Bluetooth Low Energy).
- ☐ VALIDATOR SEPARATED FORM CONTROLLER FOR HIGHER SECURITY.
- ☐ SYSTEM ADMINISTRATORS WITH DIFFERENT LOGIN ACCESS LEVELS:
  - ■ Multiple administrators concurrent sessions;
  - ■ Manage from anywhere without the need to be in a dedicated workstation;
  - ■ User friendly interface: Modern look and feel, minimal training, simple to use and configure.
  - ■ Validation limits the risk of exposure with lost keys.
  - ■ Remote disabling of keys.
  - ■ Cylinder memorizes authorized and unauthorized opening attempts.
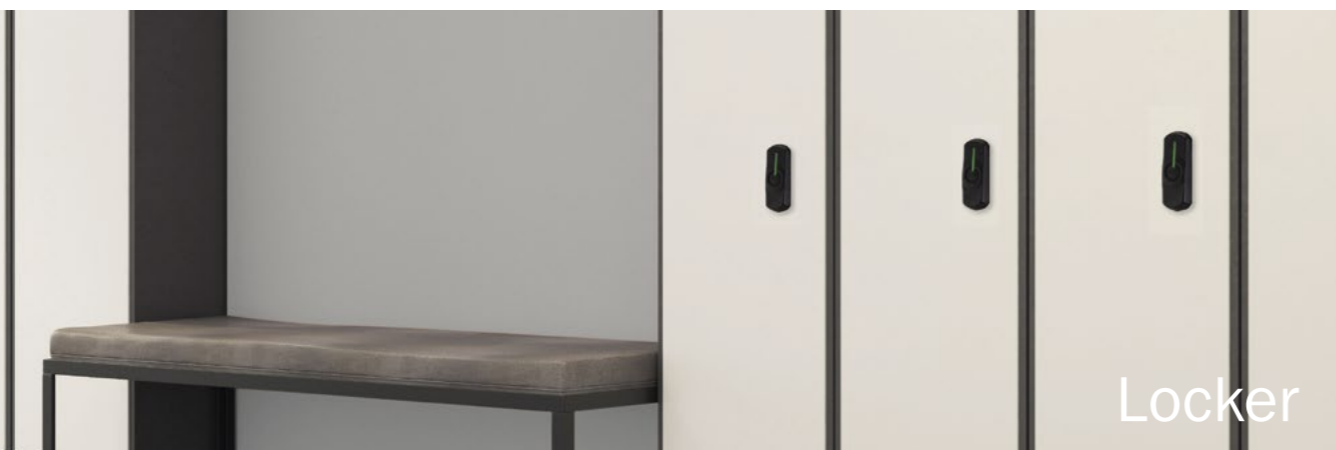 - ■ Key memorizes authorized and unauthorized opening attempts.

Remote and unmanned Locations

Airports

Industrial environments

Commercial offices
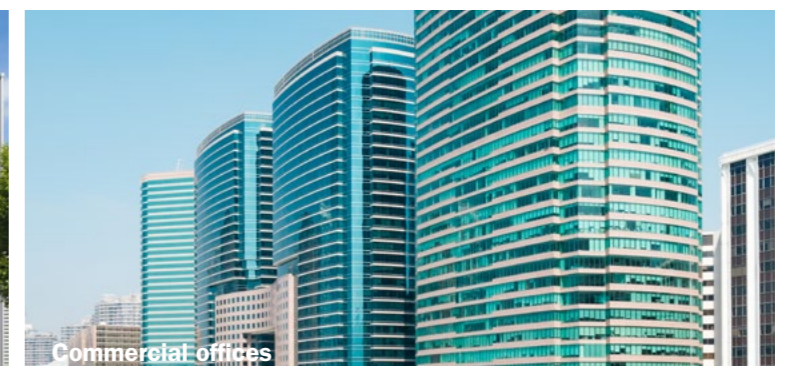
Libra

Aries

Stylos

Locker

F9000

F9000 with Padlock

F9000 Validator

Credentials

ISEO

ISEO **V364**

Working
Principle

The vast majority of the available commercial physical access control systems, are connected to a central computer system by wires. The system is normally managed by a computer server to which several clients connects and from where all the administration can be done.

This online client server architecture poses two main challenges:

1. Installation cost of wiring all the doors
2. Installation and maintenance cost of the client server computerized system based on personal computers

V364 brings an innovative solution to this two challenges:

THE ISEO DATA ON CREDENTIAL

Due to the installation cost, online or hardwired systems are significantly more expensive per door and most organizations can only afford to manage a small subset of their doors electronically, relying on door locks utilizing common mechanical keys entry for the rest. The Iseo Data On Credential technology allows for the integration of offline electronic locks into the online access control system, allowing more doors to be controlled for the available budget.

Data On Credential enabled offline electronic locks are battery operated and no electrical knowledge is required for installation.

System installation is much simpler than fully 'wired' alternatives, reducing installation costs and time.

The user access rights are held securely on the credential, and the offline electronic verifies the access credential against its current status.

The access rights are updated and reloaded on the user's credential every time he or she accesses an online reader, such as a main facility door.

The online readers are used to automatically alter the user access rights data on the credential allowing cards to be deleted, re-programmed and/or "validated" for a limited time.

Audit trails can also be downloaded from the locks and credentials to provide information on who was where and when.

As the system is essentially stand alone, security is still maintained and locks can still operate even in the event of a network failure.

The Iseo Data On Credential brings together the offline world of electronic locking with the traditional hard-wired online world.

OPENING THE ON LINE DOOR (STEP 1)
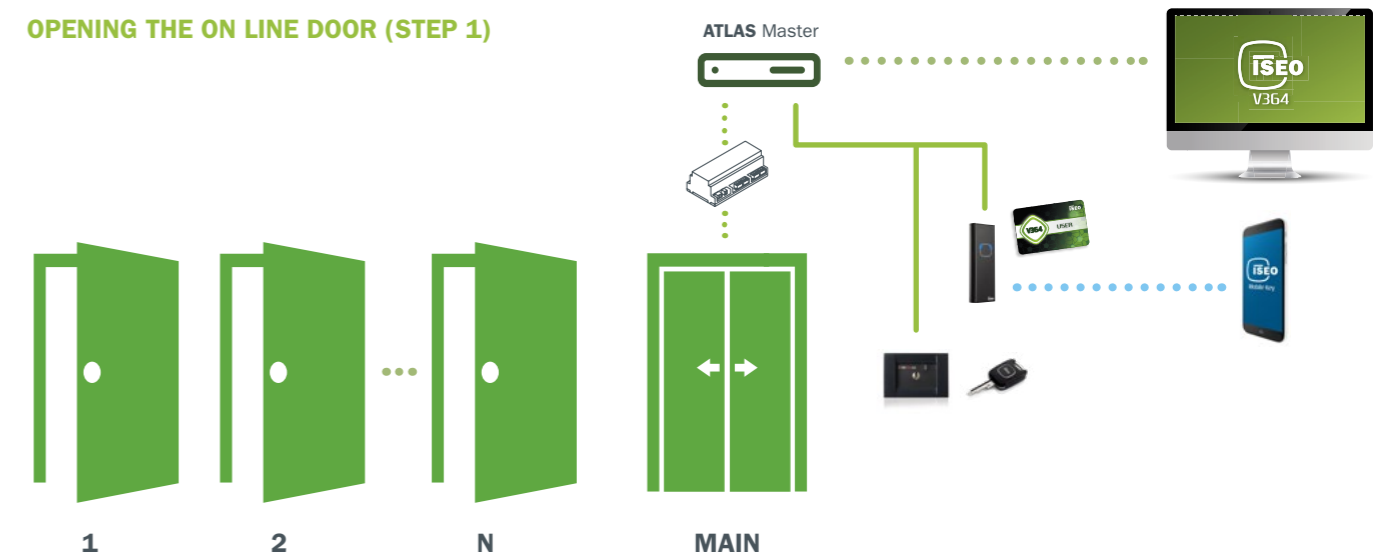
□ The main door reader programs the RFID and F9000 credentials with the access rights.
□ The mobile keys are downloaded directly in the smartphone from the centralized system (Atlas Master).
□ The users can enter to the internal doors for a limited period.

OPENING THE OFF LINE DOORS
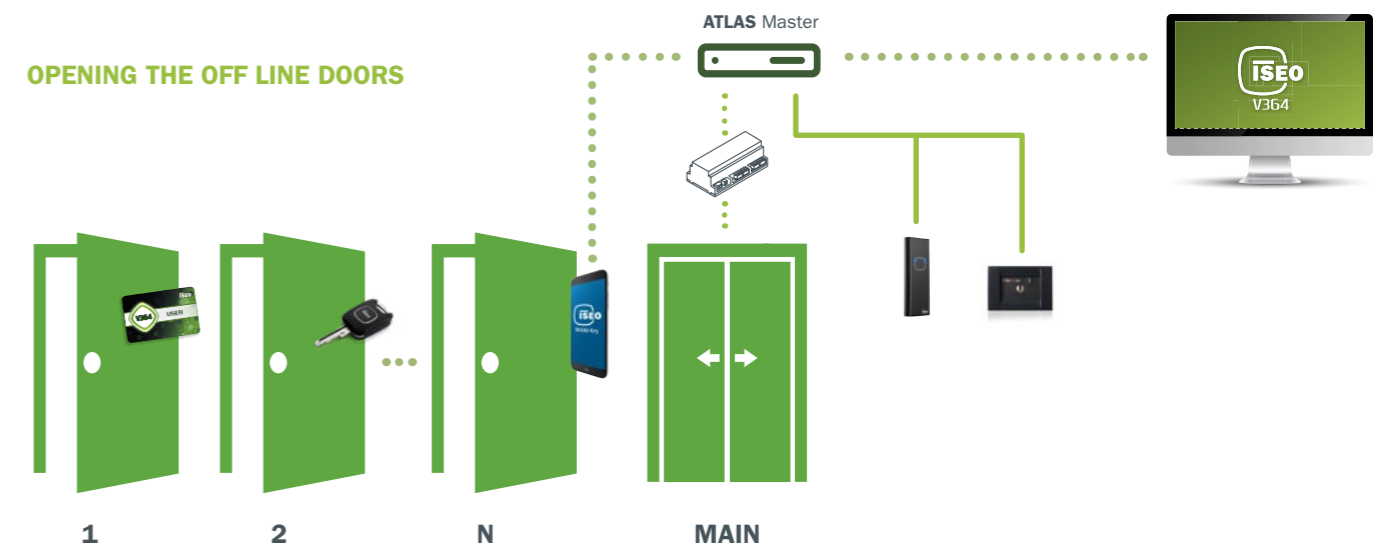
□ The lock checks the access rights and the validation.
□ The lock writes the access log into the credentials.
□ The smartphone uploads immediately the access log to the Atlas Master (if data connected).
□ The smartphone can open the door even if it is not connected to the Atlas Master, and will update the access log and access rights when it connects again.

OPENING THE ON LINE DOOR (STEP 2)

ATLAS Master

1   2   N   MAIN

- ☐ The main door reader downloads the entries made earlier from RFID and F9000 credentials.
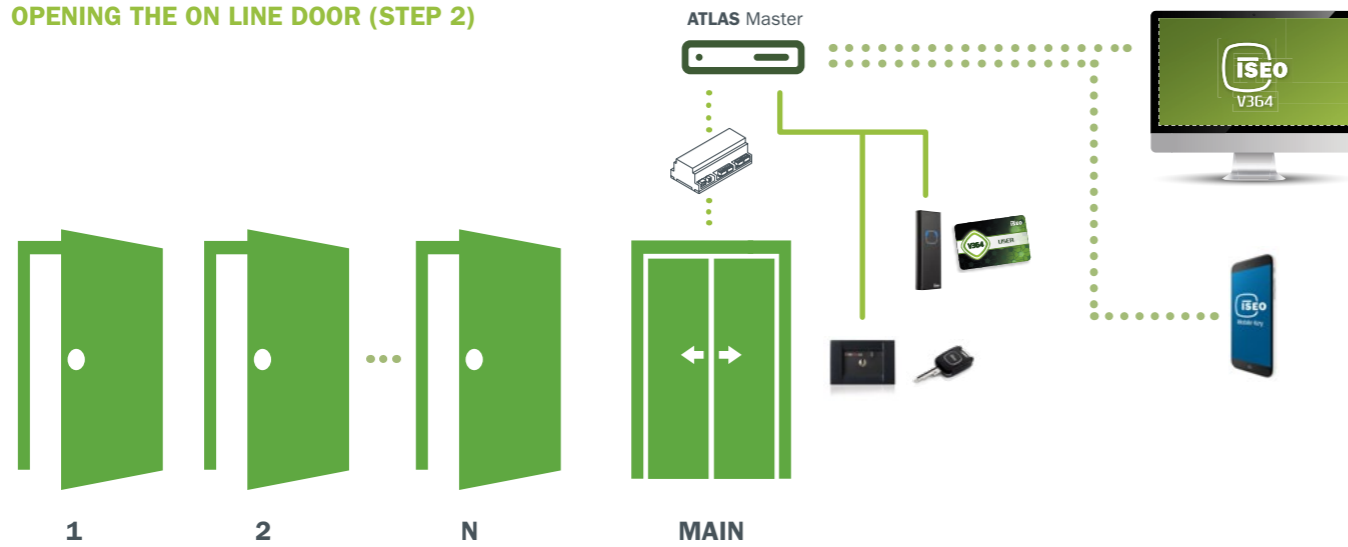- ☐ The main door reader validates and updates the access rights in the F9000 and RFID while the mobile keys are always updated (if data connected).
- ☐ The users can enter to the internal doors for a limited period.

DATA ON CREDENTIAL TECHNOLOGY

The technological drivers of the Data On Credential solution are the F9000 mechatronic keys, the RFID credentials or smartphone mobile key, in a simple word "smart credentials", with read and write capabilities, which become the link back to the central system (Atlas Master) via the online infrastructure:

- *through the strategically placed on line devices "validators",*
- *or directly over the air with smartphones.*

THE SMART CREDENTIALS:

- ☐ Transport access rights from Atlas Master to offline devices.
- ☐ Transport transactions from offline devices to Atlas Master.
- ☐ Are refreshed on line to maintain higher security.

Therefore on the smart credential are stored:
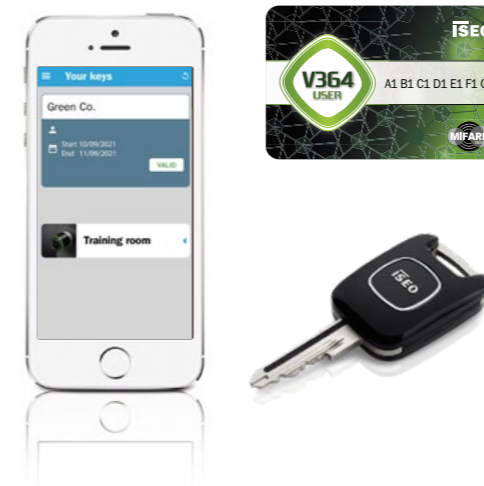
ASSIGNED DOORS
Where I can enter

VALIDITY & TIME SCHEDULES
When I can enter

VALIDATION PERIOD
Validity period for offline doors after validating the credential at online doors

HISTORY FILE
Where I have been and when

ADVANTAGES

The Data On Credential system:

- ☐ Reduces installation times and costs.
- ☐ Collects audit trails from credentials at on-line readers automatically.
- ☐ Allows to make changes to a user's access profile "on the fly" without having to individually update the standalone locks.
- ☐ Limits with key revalidation time, the amount of risk of exposure with lost user credentials on offline locks and blacklisting further compliments this.
- ☐ Avoids the need to visit the lock to delete lost cards by forcing smart card validation.
- ☐ Brings battery information back to the central system (feature under development).
- ☐ Replaces the need for mechanical key systems: a lost key never becomes a financial burden/major financial cost again.
- ☐ Equips areas that were never possible before or deemed too expensive to consider (gates, staff lockers, server racks etc.)

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Main Features

WEB BASED ACCESS CONTROL

The core of the system ISEO V364 is the Atlas Master embedding a web server which provides a fully functional access control server solution in a fraction of the time of conventional software. With no software to install, setup is quick and simple. Just connect the system components and then open a web browser to launch the intuitive interface which guides you to through the process of configuring and managing your system. Any computer running a WebKit enabled browser (like Apple Safari, Google Chrome, Microsoft Edge) can be used to manage the V364 system.

THE ATLAS MASTER IS AVAILABLE AS:

☐ Atlas Appliance Controller (V364 Classic)
☐ Virtual Atlas ISEO hosted (V364 on air SaaS)
☐ Virtual Atlas Customer Hosted (V364 Customer Hosted)

V364 COMBINES ROBUSTNESS WITH SIMPLICITY.
V364 is secure due to Linux operating system assuring stability and greater security from external threats or virus attacks. V364 provides system administrator login access levels allowing control of what each person is authorized to manage or view.

MANAGED WITH MOBILE V364 APP AND BROWSERS

The V364 Atlas Master web server gives you the freedom to manage and control your facility's access doors from anywhere and anytime without being tied to a dedicated client workstation. V364 features a user friendly interface to manage your electronic access control system: configuration and changes such as assign or modify access rights, add users, door groups or retrieve reports can be made from any tablet device or desktop computer with browser.
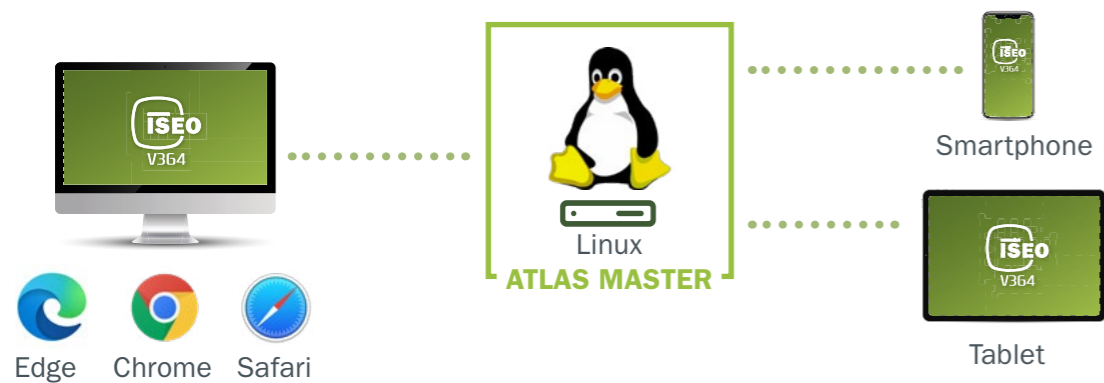
SECURING PERIMETRICAL AND INTERNAL DOORS OF YOUR FACILITY

V364 secures perimetrical online readers and internal doors equipped with offline, easy to install devices. Access rights are updated with the online validators or with the smartphone for the mobile workforce. The online validators, while opening the main facility door, automatically alter the user access rights data on the electronic credential. Audit trails will be downloaded from the offline locks while opening the internal doors and then uploaded into the Atlas during validation.

The Atlas Master combined with the offline electronic locks Aries, the electronic cylinder Libra and the mechatronic cylinder F9000 delivers a cost-effective access control solution ideal for small to medium sized facilities.

EASY TO INSTALL

The cable free and low maintenance V364 devices are easy to install:
extending or updating an existing mechanical system is convenient and cost effective. The F9000 key powers directly the F9000 cylinder allowing installation and ensuring great reliability in whatever your environment is. The modular solution of the F9000 cylinder allows maximum flexibility for any installation. The F9000 mechatronic keys are suitable for explosion danger environments as they comply with the ATEX directive and can be mixed with the F90 and F900 mechanical Master Key Systems providing the highest level of security only on selected doors.

The battery operated RFID Libra electronic cylinder and Aries electronic lever set are easy to install with providing access with RFID or mobile keys as they are optionally Bluetooth enabled.

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Multiple
Credentials

SUPPORTING MULTIPLE CREDENTIALS FOR ACCESS USERS

The V364 system by ISEO is the ideal solution for organizations that require multiple credential types with high security standards and ease of use. What makes the system so unique is also that V364 combines F9000 mechatronic cylinders and RFID security locks with mobile credentials into one flexible cable free access control solution easy to install and configure.
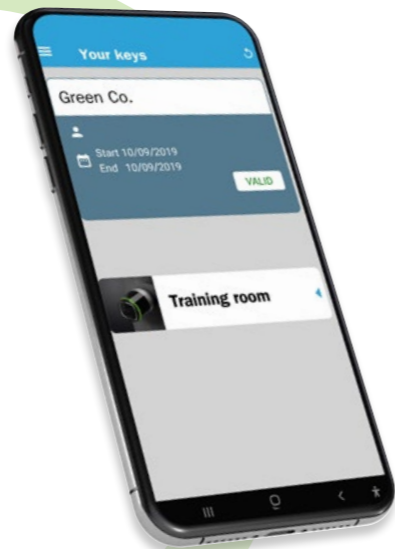
F9000 MECHATRONIC KEY

Mechanical and electronic technologies intertwine in seamless way ensuring dual security while connecting to mobile devices.
The electronic technology provides the flexible control of keys, access rights and audit trails as an access control system. The mechanic technology, being compatible with the mechanical cylinders of the ISEO CSF System, allows to create mixed plants with different security levels.
As any mechanical Master Key System, to combine F9000 together with mechanical into a plan, it must be designed since beginning in order to select the appropriated profiles and the mechanical coding for the keys and cylinders.

DUAL SECURITY
Mechatronic key opens also mechanical locks, but not viceversa.

Mechatronic Key

Mobile Key

RFID

F9000
Mechatronic key

F9 key

F9000
Mechatronic
cylinder

F9
cylinder

F9000
Mechatronic
cylinder
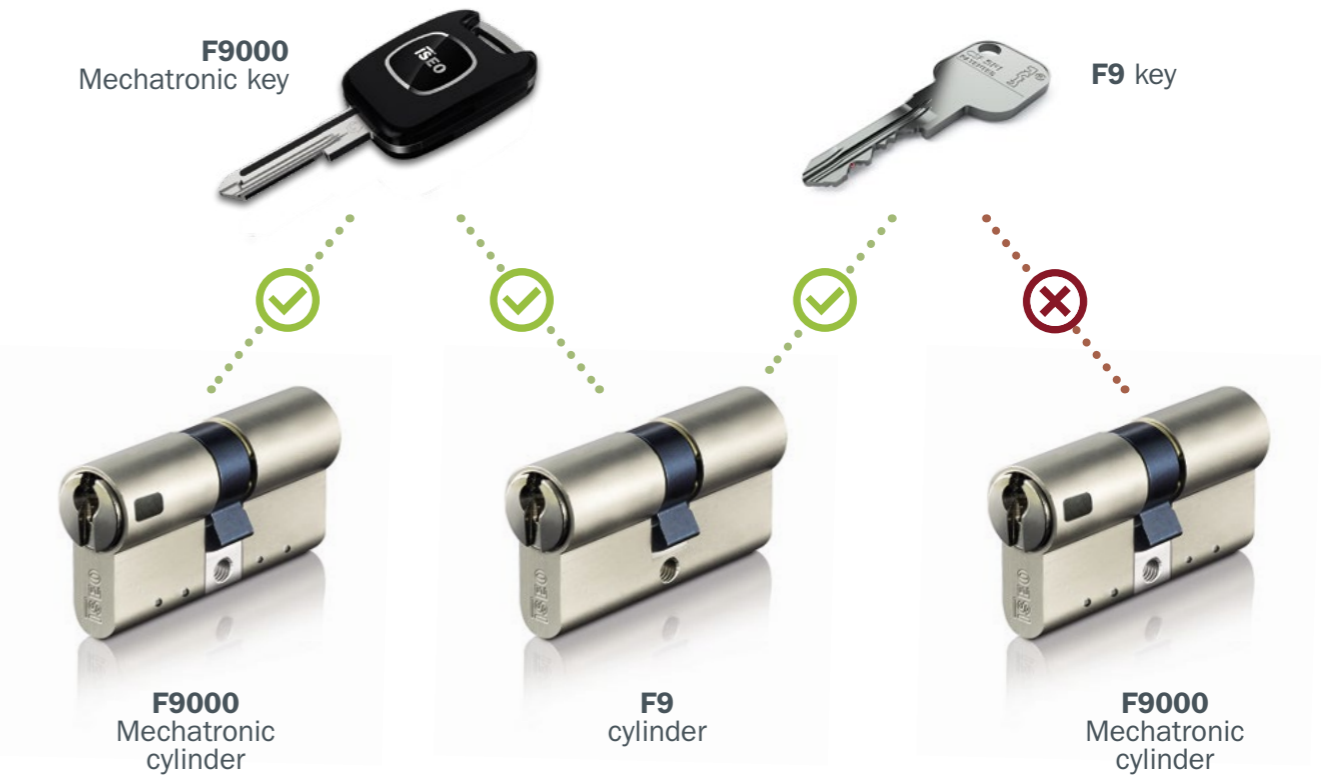
Electronic Access rights + Key permutations to ensure higher security.

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F9000
Contactless
Technology
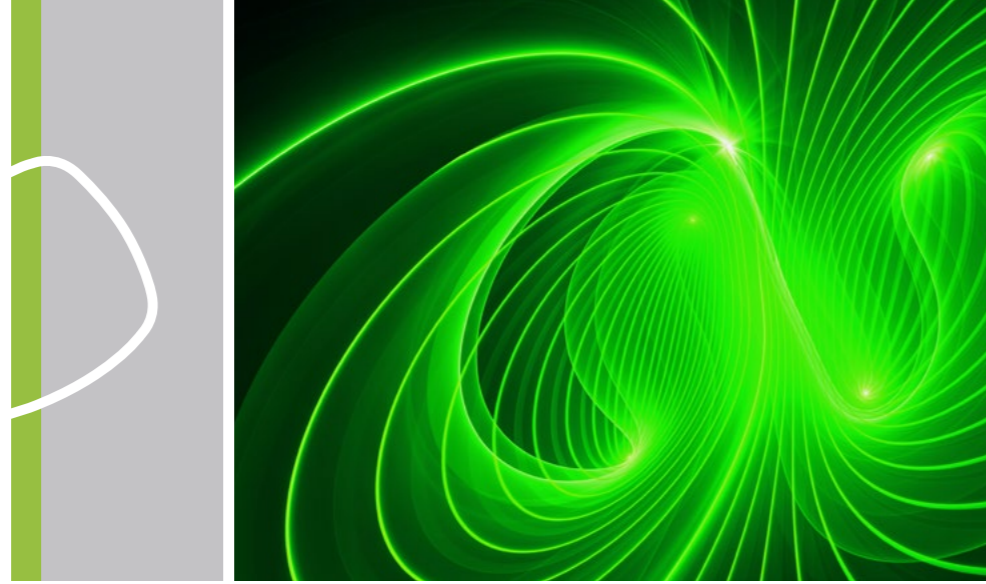
The F9000 electronic key is the first to use induction technology as part of an access control system. Combining the advantages of a traditional mechanical lock with a state-of- the-art electronic solution, the result is ultimate reliability.

The key and cylinder exchange information through magnetic induction rather than electrical contact. Proven yet revolutionary in the access control sector, this technology offers the advantage of unrivaled durability with contactless communication between the electronic key and cylinder, making it immune to dust, wear and tear and oxidation caused by humidity or salt.

The cylinder energy is supplied from the mechatronic key battery ensuring all weather protection for the F9000 cylinder which is protected against ingress of dust and powerful water jets. The Patented contactless system of data and energy transfer without electric contacts (induction technology) ensures durability and exceptional ruggedness since there is no contact, therefore no corrosion neither dust, neither electrostatic discharges which are typical problems of contact-based key systems. The induction technology allows the transfer of data and power in harsh operational environments.
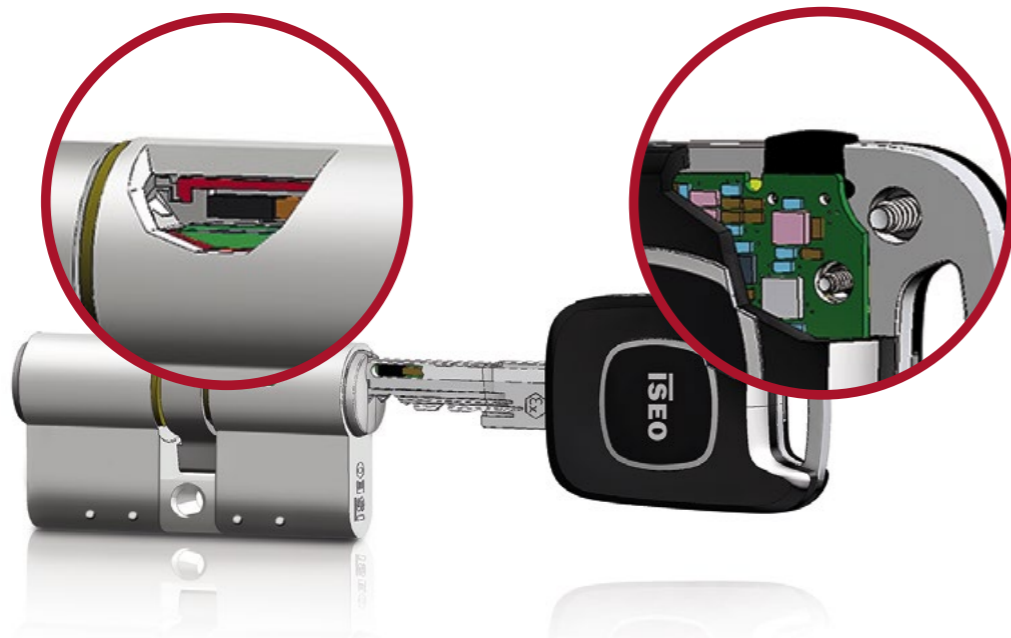
FUNCTIONAL IN HARSH OPERATIONAL ENVIRONMENT

Corrosion, dust moist or electrostatic discharges cannot stop the transfer of power and data between the key and the cylinder (typical problem with contact-based key systems).

THE ELECTROMAGNETIC INDUCTION

The current variation on the key circuit loop generates a variation of the magnetic fields that inducts current in the cylinder circuit loop. The cylinder circuit loop, harvesting energy, powers its electronics and motor. Data are transmitted modulating the current on the key circuit loop.

MAGNETIC FIELD

current → inducted current →

key circuit loop   cylinder circuit
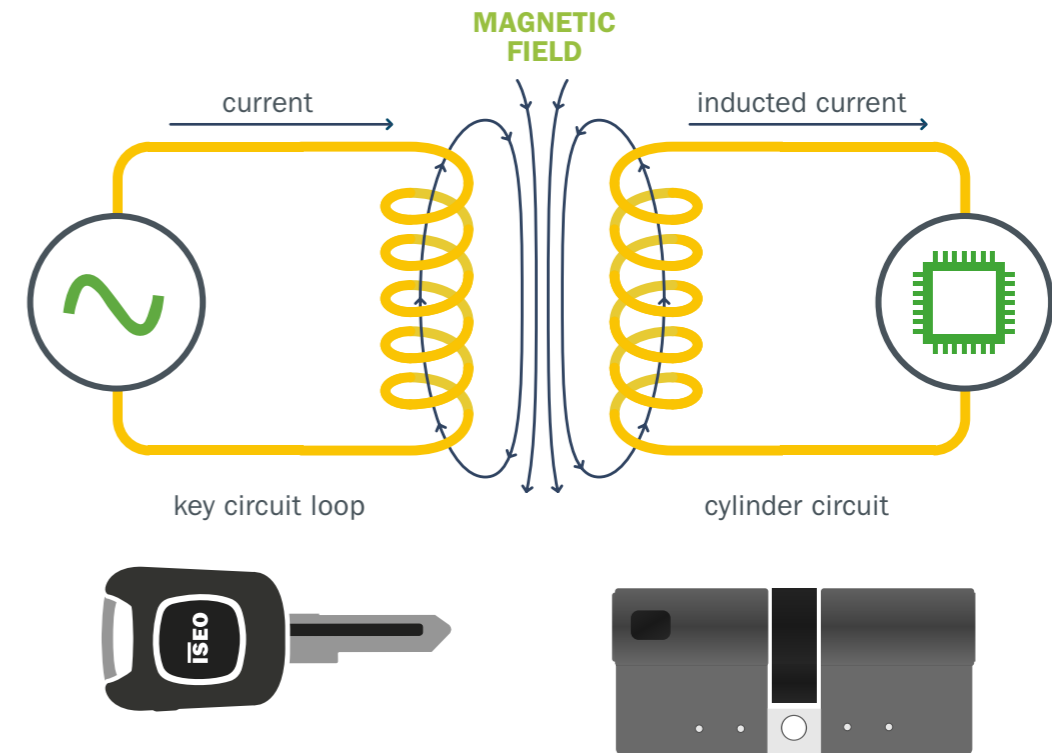
CONVENIENT TO USE

The F9000 key provides a "Mechanical key like user experience": electronics control works without compromising the "opening experience" of a pure mechanical key.
Just insert, turn and get straight away access: the authentication happens in few milliseconds.

The F9000 key makes life easier by opening doors almost instantaneously, with information exchanged between the key and electronic cylinder in less than 80 milliseconds which is similar to the time it takes for a regular key to recognize a mechanical cylinder.

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RFID and **Mobile** Credentials
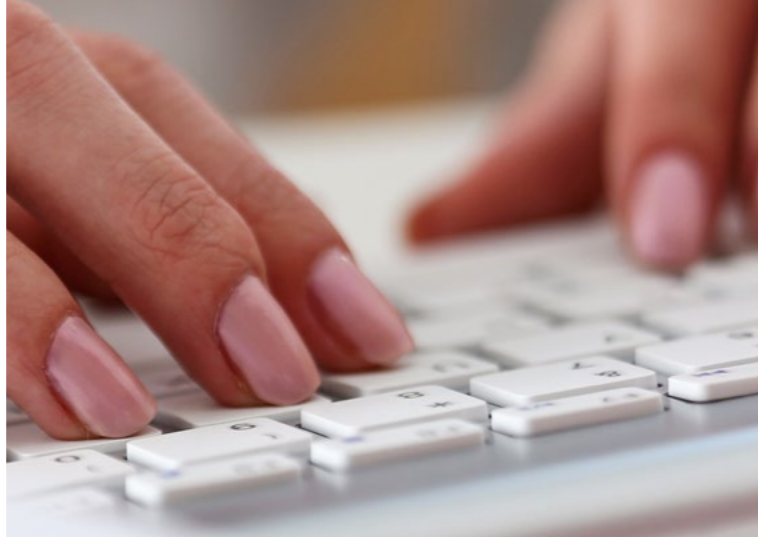
RFID CREDENTIALS

V364 supports secure Mifare DESFire EV2 and Mifare Classic RFID technology with a customizable credential layout to easily accommodate into legacy credentials.

Mifare DESFire EV2   Mifare Classic

F9000 WITH RFID

The standard F9000 key cover can accommodate an RFID tag with diameter dimension of 22 mm for integration into applications that requires a RFID tag like access control, alarms, vending machines, payments and similar.

IC-K4P

IC-K4P is a key cap available for all mechanical keys of the series CSR, CSF, Gera 3000 and Gera WS by ISEO. It holds a 25 mm diameter RFID tag (Mifare Classic, Mifare DESFire EV2) which makes the mechanical key working also with RFID electronic opening devices of V364.

THE COVER IS AVAILABLE IN:

BLACK
RAL9005

RED
RAL3001

BLUE
RAL5013

GREEN
RAL6017

Tag holder ·········

Key holder ·········

Mechanical key ·····

········ RFID Tag

········ Screws

········ Ferrite foils

········ Cover
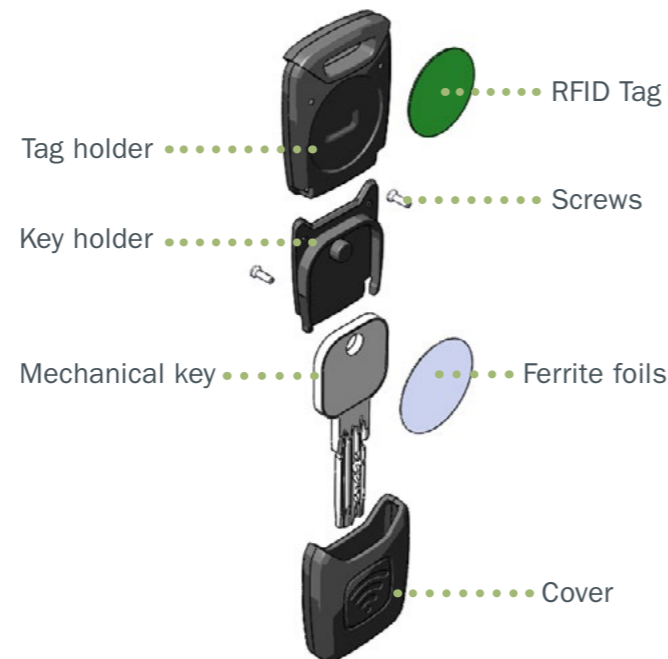
MOBILE KEYS

Mobile credentials can be delivered over the air to the ISEO Mobile Key app available for iOS and Android. The access users can receive their access rights instantly and remotely with a data link connection with the Atlas Master. The Mobile Key app communicates securely with data connection and permits users to receive their keys online, anytime and anywhere.

Thanks to the Bluetooth Smart technology, you can open the door with your smartphone. The free ISEO Mobile Key enables any Bluetooth Smart ready phone (iOS, Android) to unlock the door equipped with RFID locks enabled with BLE. 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.

Atlas MASTER

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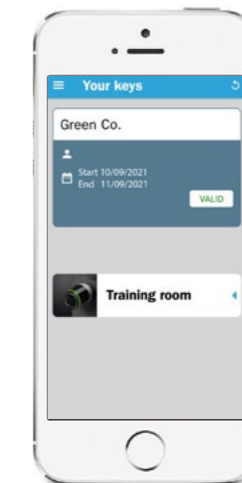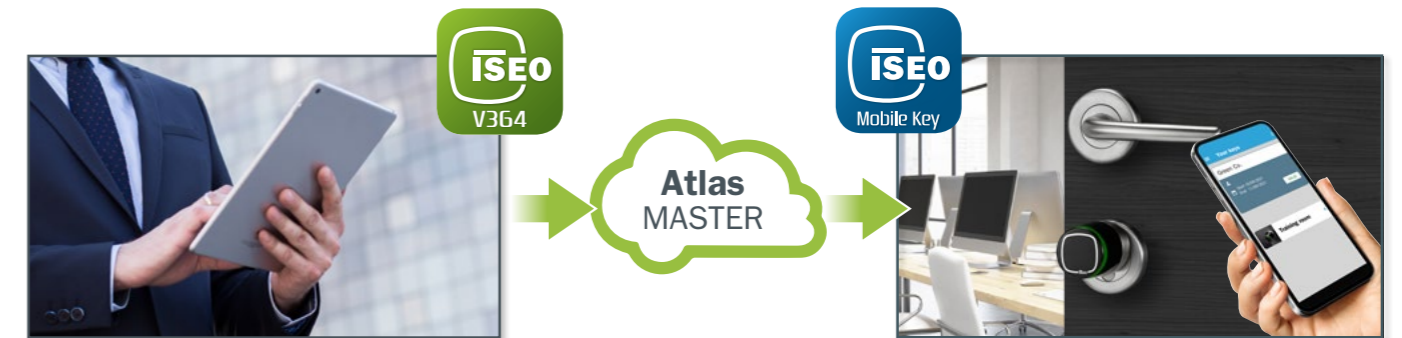
ALLOWING ACCESS IN MOBILITY

V364 allows to send access permissions in mobility.

Mobility has changed, and continues to change, the way that organizations operate, and as a consequence, how their employees work.

Organizations must adopt innovative technologies to support this evolution, especially regarding access to physical assets.

Mobile and portable devices deliver vastly improved productivity and yield drastically reduced total cost of ownership as reduces security risk and eliminates the potential huge cost and inconvenience of replacing all locks and keys.

The total cost of ownership includes total cost of acquisition and operating costs and represent the total lifecycle cost.

THANKS TO THE V364 2.0 IT IS MUCH EASIER TO SEND ACCESS PERMISSIONS IN MOBILITY:

Atlas
MASTER
(virtual)

F9000 Key
Mechatronic
Key

F9000
Mechatronic
Cylinder

Libra LE60
Electronic
Cylinder

Aries
Electronic
Trim Set

Stylos
Credential
Reader

Locker
Lock for
Lockers

1 Administrators assign or modify access rights for the access users from anywhere at any time with web kit enabled browsers or with V364 mobile app.

2 Access rights are stored in the Atlas Master, the ISEO V364 server.

3 The access user downloads the mobile key into Mobile Key app or programs the F9000 ON key with the F9000 ON mobile app.

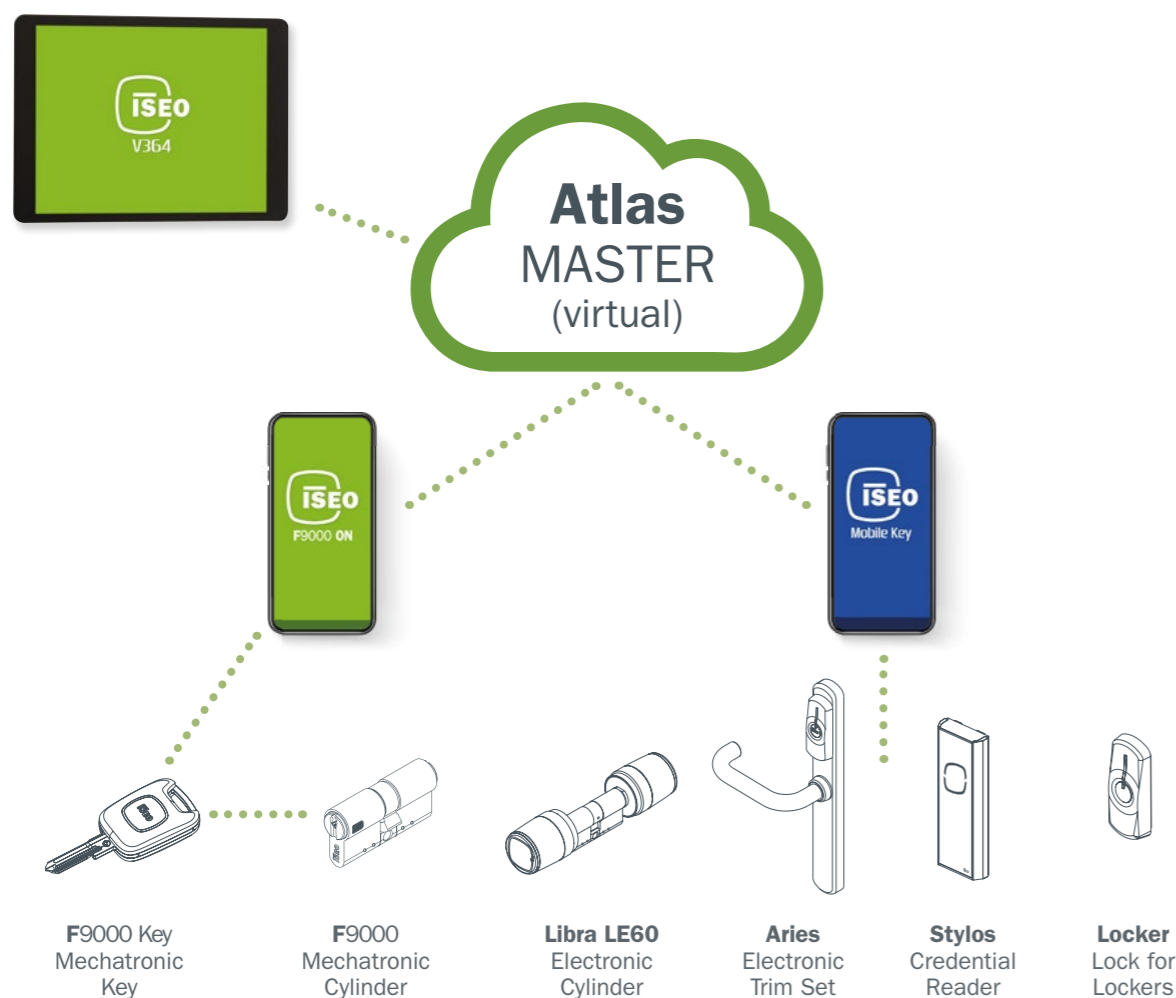**4** The access users open the door and events are uploaded into the key and keept also in the doorlock.

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ON LINE UPDATE

The administrators can update the access rights remotely and the employees can use their own smartphone to update directly the access right on the F9000 ON key thanks to the latest Bluetooth Smart technology embedded in the F9000 ON key.

The user can get authorizations immediately before entering the lock for even just 1 minute and then the key is automatically disabled reducing the risk of lost keys.
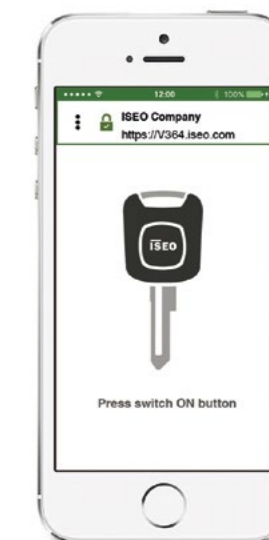
ON DEMAND SWITCH ON

The switch ON button of the F9000 ON key allows extended battery life up to 5 years as the Bluetooth Smart is activated only ON demand for max 12 seconds. The communication is encrypted with AES 128 and the switch ON button provides additional security since the communication is active only when necessary.

Switch On Button

SECURE CONNECTIVITY

Information security is of paramount importance in order to maintain the safety and security of your facilities. ISEO has applied proven techniques based on industry best practices from existing Cryptography and Network Security technologies.

ON TIME ACCESS CONTROL

Access rights are restricted in validity by time and date. Furthermore the access rights can be set with different validation periods for each key ensuring that at certain time intervals the keys must be validated with the smartphone or with the online reader/writer devices (Validators) to remain active. Once validated the key stays active for the specified validation period and then becomes inactive. Lost keys are no longer a security risk after the validation period expires. The key records an event at every opening with date and time. During the validation operation the events are collected to the V364 software database.

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CONTROLLING THE CREDENTIAL LIFE CYCLE

During the access user lifecycle, the physical credential data should follow any modification made by the system administrator in the V364 database.

However the credential cannot be immediately updated, because it cannot be always reached from the system immediately.

The V364 system is able to provide information about the physical credential status by 2 different attributes:

☐ Credential Lifecycle Status: the validity of the access permissions on the physical credential
☐ Credential Data Synchronization: between the credential physical support and the logical credential data inside the V364 system in the Atlas Master

This feature allows to manage residual risk for valid credential which are lost or stolen.
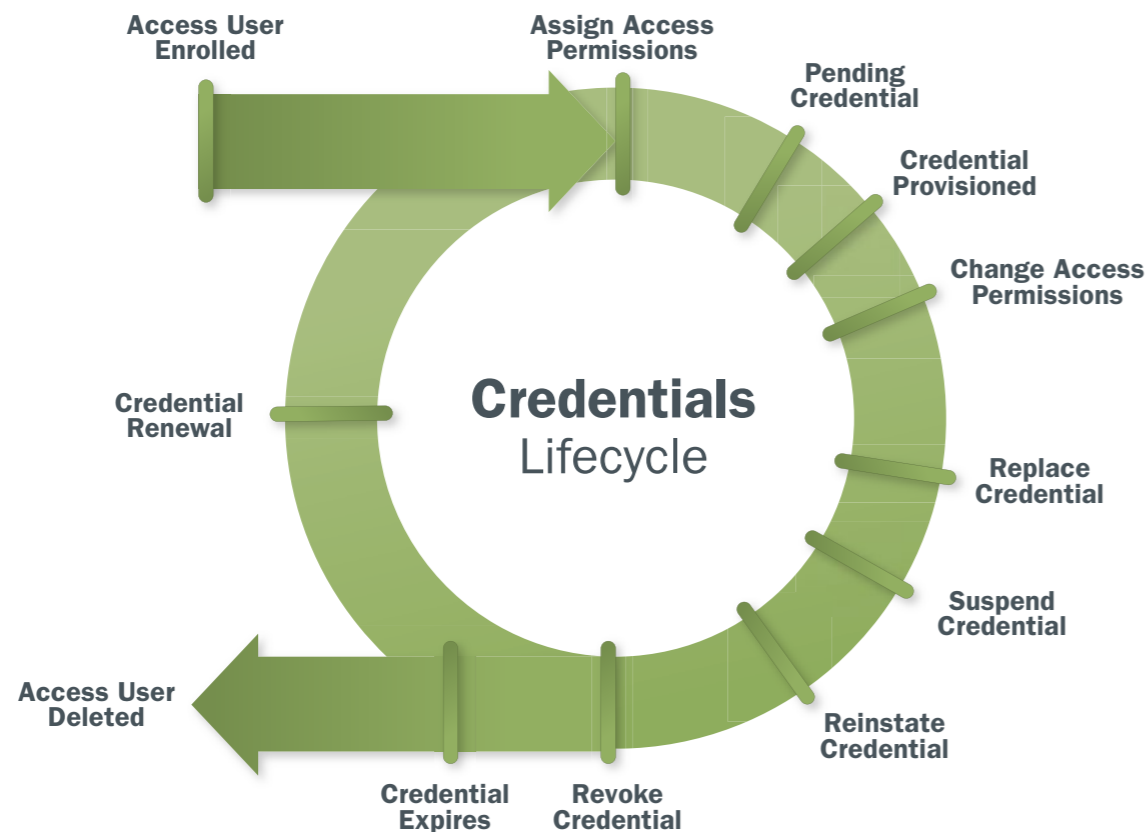
FEATURING TRADITIONAL AND ROLE-BASED ACCESS CONTROL

In traditional access control, the access authorizations are directly assigned to the access user. With role-based access control, permissions are based on the roles that individual users have as a part of an organization. Roles are closely related to the concept of user groups, simplifying complex access control policies and converging physical access control with logical IT security.

TRADITIONAL ACCESS CONTROL

Access authorizations assigned to the access user.

ROLE BASED ACCESS CONTROL

A user can have one role which defines his door access privileges.
Several users can have the same role in the organization determining a group of people (a set of users) with the same access privileges to a facility.
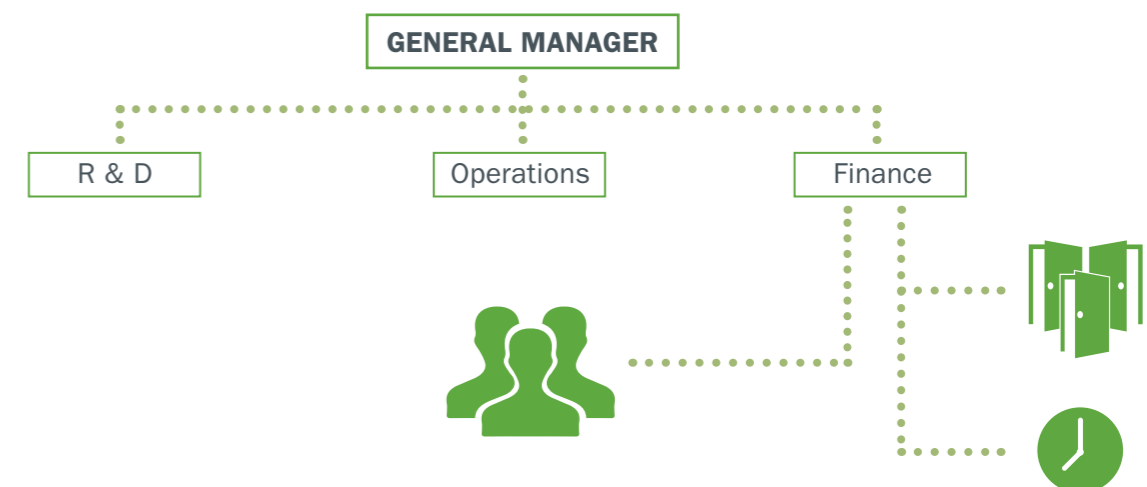
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Future
Proof

SCALABLE AND EASY TO INTEGRATE INTO A BUILDING MANAGEMENT SYSTEM

V364 is designed to easily scale with your need and your budget. As your business grows, V364 will grow with you. You can add doors, Atlas (Slave) controllers for multi-site applications and users to the system at any time.

V364 connects multiple facilities and will be the core of your next level of facility integration accordingly to the ISEO Technology partner program VAR (Value Adder Reseller).

ONE SYSTEM OF SYSTEMS

An Integrated Security System can deliver major benefits across multiple Building Management Systems. The integration with Building Management Systems improves the management and enhances the user experience.

Disparate systems working together allows administrators to:

☐ USE A SINGLE CONTROL PLATFORM
☐ INTERACT WITH A UNIFIED SECURITY INTERFACE
☐ REDUCE THE AMOUNT OF DATA ENTRY
☐ MAXIMIZE ADMINISTRATION EFFICIENCY
☐ MONITOR THE COMPLETE STATE OF A FACILITY
☐ OBTAIN CONSOLIDATED REAL-TIME MONITORING AND REPORTING
☐ CORRELATE EVENTS FROM SEVERAL SECURITY APPLICATIONS
☐ CONSOLIDATE DATA FROM MULTIPLE SYSTEMS IN A SINGLE DATABASE
☐ IMPROVE DECISION MAKING DURING EMERGENCY AND CRITICAL SITUATIONS
☐ REDUCE OVERALL COST

ONE SYSTEM OF SYSTEMS

FIRE ALARM

ISEO ACCESS CONTROL

ISEO TECHNOLOGY PARTNER

BURGLAR ALARM

HEATING VENTILATION AIR CONDITIONING

TIME & ATTENDANCE

LOGICAL ACCESS & IDENTITY MANAGEMENT

ONLINE RESERVATIONS

EXTERNAL DATABASE CONNECTION

EMPLOYEES MANAGEMENT

HUMAN RESOURCES MANAGEMENT

VIDEO SURVEILLANCE

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System
Architecture

The V364 Architecture is based on an IP Network of Atlas Controllers with:

- ☐ Atlas Master
- ☐ Atlas Slave Controllers

Desktop RFID
Reader/Writer

Computer
with Webkit Browser

ATLAS Master

V364 Client Programmer
PC Windows

Tablet

Atlas slave

Atlas slave

Smartphone

F9000 Validator

RFID Validator

Smartphone

CARD
Mifare Classic
Mifare DESFire EV2

F9000 **ON** Key

F9000 **UP** Key

RFID
Modem

Hermes
PC Windows

F9000
Mechatronic
Cylinder

Libra LE60
Electronic
Cylinder

Aries
Electronic
Trim Set

Stylos
Credential
Reader

Locker
Lock for
Lockers

COMMUNICATION TYPE

Internet - Intranet Data   Bluetooh Low Energy   RFID   F9000   Wired

Master/Slave is a model of communication where one device has unidirectional control over one or more devices. The master database is regarded as the authoritative source, and the Slave databases are synchronized to it.

In case of IP network failure the Slave can continue working with the last information received from the Master.

Each Atlas Slave controller has an IP network address and therefore there is no limit on the number of Slave controllers.

Each Atlas controller might have connected devices such as readers and actuators connected to the Atlas channels (Field Bus).

In this way the Atlas controller can deliver online doors:

- ☐ the Atlas Plus DIN (and PoE) model has 2 built in relays
- ☐ the Atlas Plus model requires an electric lock actuator

V364 CLIENTS

Connect to the V364 Master Atlas to manage the access control system.
The V364 clients provide the graphical user interface to the Iseo V364 Access Control System. V364 clients can be any computer running a webkit browser or a tablet (iOS or Android) running the ISEO V364 app.

V364 APP

The ISEO V364 app is mainly used by V364 system administrators working with iOS or Android tablets. The V364 App allows to login to V364 in order to manage the V364 system or to validate directly the F9000 ON keys.

F9000 ON APP

The ISEO F9000 ON APP app is mainly used by a mobile work force using an iOS or Android Smartphone to update or validate the F9000 ON key access rights. This operation allows to provide access authorization to remote unmanned sites to a mobile workforce always on the move connected to the office with smartphones.

WINDOWS PC CLIENT WITH USB CREDENTIAL PROGRAMMER

A windows PC can manage a local Desktop RFID reader/writer connected via USB (ACR 122 RFID Reader/Writer) to program locally the RFID credentials. In oder to drive the Desktop RFID reader and writer, the V364 client programmer software must be installed and configured.

WINDOWS PC CLIENT WITH HERMES SOFTWARE AND RFID MODEM

A Windows PC can connect to the offline RFID devices in order to program, readout events and upgrade softwares. The communication between the PC and the offline RFID device is made via the RFID modem which connects to the PC via USB.
In oder to drive the RFID Modem, the Hermes software must be installed and configured.

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System **Configurations**

Several V364 system configurations are available depending on the ATLAS Master.

V364 ON AIR (SaaS)

The Virtual Atlas Master hosted in ISEO data center, is easy to reach over the internet, anytime and from anywhere. It is not necessary for customers to have in-house Atlas Master appliance. Customers might have Atlas Slaves as online doors (even behind firewalls).
SaaS (Software as a Service) means that installation and maintenance of the V364 environment is provided as a service by ISEO. Software upgrades and backups of databases are done automatically by ISEO.
The customer only needs to setup network connections to CustomerName.iseov364.com with browsers or V364 mobile Apps.

V364 CUSTOMER HOSTED

Virtual Atlas Master can be installed in customer's own data centers on Linux virtual machines. Customer is responsible of setting up, installing and maintaining the environment for V364, taking regular backups of databases and other maintenance tasks such as updates to new software version.

V364 CLASSIC

The Atlas Master is a Solid State Atlas Controller with Built-In Web Server Platform.
There is no need to install any software or to buy a dedicated computer server: it's all in the Atlas Box which comes as solid state pre-configured appliance allowing, the system up and running in minutes.

V364 SYSTEMS COMPARISON

Units (Access User + Doors)	V364 on air		V364 Customer Hosted	V364 Classic	
	Monthly Fee		**V364 Software License (one-off)**	**Atlas MASTER as appliance + V364 License (one-off)**	
	RFID	**F9000 + RFID**	**F9000 + RFID**	**RFID**	**F9000 + RFID**
100			not available		
300					
500					
1000					
2000				not available	
5000					
Features (* configured upon request)	Mobile Validation of F9000 ON keys		Mobile Validation of F9000 ON keys	not available	
	Mobile keys *		Mobile keys *		
	Plant Partitions *		Plant Partitions *		
	Customer UID management in Mifare Classic *		Customer UID management in Mifare Classic *		
Software Installation	Software is pre-installated in the Virtual Atlas Master hosted in the ISEO center.		License does not include any installation service to be quoted separately and depending from customer environment.	Software pre-installated in the ATLAS appliance.	
Support and Software Maintenance	Monthly fee includes Remote Software Maintenance and Support.		V364 Customer Hosted can be supplied only together with a mandatory Maintenance Contract and allowing connection for remote support.	V364 Classic license includes the first year of Remote Support and Software maintenance by signing the Maintenance Contract for a minimum of 3 years and allowing connection for remote support.	

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Locking
Applications

RFID SYSTEM

1 MAIN DOOR
Stylos online reader

2 INTERNAL DOOR
Aries electronic trim

3 INTERNAL DOOR
Libra electronic cylinder

4 LOCKERS
Locker lock

F9000 SYSTEM

5 MAIN DOOR
Wall mount reader/writer

6 MAIL BOXES
F9000 round threaded
with locking lever

7 KEY DEPOSIT
F9000 cylinder for
safe tube

8 HIGH SECURITY DOORS
F9000 european profile
with 2 sides electronics

9 CONTAINERS
Rectangular padlock Boxer
with F9000 cylinder

10 EMERGENCY EXIT
F9000 european
single profile

11 ARCHIVE
CSF
mechanical cylinder

12 OFFICE DOORS
F9000 european
double profile

13 ELEVATOR
F9000 Threaded
M26 microswitch

14 GATE
Padlock Universal with
F9000 cylinder

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Use **cases**

SYSTEM ADMINISTRATOR
Manages the V364 system using standard webkit web browser (Chrome, Safari, Edge), at any time and from any place via a standard internet/intranet connection to the V364 Atlas Master.

EMPLOYEE
Validates every day the key while opening the main door of the building and then enters the office. Any change on the access rights are programmed in the key during validation.

RECEPTION MANAGER
Issues key with the desktop programmer for visitors, contractors or short term employees, managing the hand out and in of keys by printing the personalized credential receipt form.

SERVICE TECHNICIAN
Receives time limited access rights updating the key via smartphone during field work.

SECURITY MANAGER
Can readout events or deny authorization to lost keys with the Programmer Key.

VISITORS AND CONTRACTORS
Receive the key valid for the hours of the visit signing the credential receipt form.

SECURITY NIGHT SHIFT
Receive the key valid only for their time shift over midnight.

ROLE CHANGE
An employee changes role in the organization and needs access to different set of doors. The administrator changes role in the V364 System. The access user keys are updated while entering the building at the validator or with the smartphone.

KEYPLAN EXTENSION
A new door is being installed in the marketing department. The role of the marketing team can be quickly and easily updated with extended access rights. The keys will be updated to open also the new door during validation.

MOVE
The operations department is moving into new offices and the existing offices are taken from the sales department. No extra costs are incurred as the existing locking cylinders are not replaced, but are simply renamed. The administrator just reprogram the keys access rights.

LOST KEY
An employee has lost the key and informs the administrator. The administrator issues a replacement key that revokes immediately the lost key either on the validator (on-line doors) or in the cylinders.

ACCESS TO EXPLOSION DANGER ENVIRONMENTS
Access to potential explosive areas can be granted to Access User carrying the ATEX version key.

TERMINATION OF EMPLOYMENT
An employee terminates the employment before the key expiration. The administrator revokes the key from the system permanently disabling the key.

LEAVE OF ABSENCE
An employee goes on maternity leave. The administrator suspends the key and consequently no validation will occur during suspension: the key is temporarily disabled.
When the employee will be back to work the administrator reinstate the key and after validation the key will be enabled again.

KEY RENEWAL
A key validity expires. The administrator extends the validity period and the employee reprograms the key at the validator or with the smartphone.

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System
Description
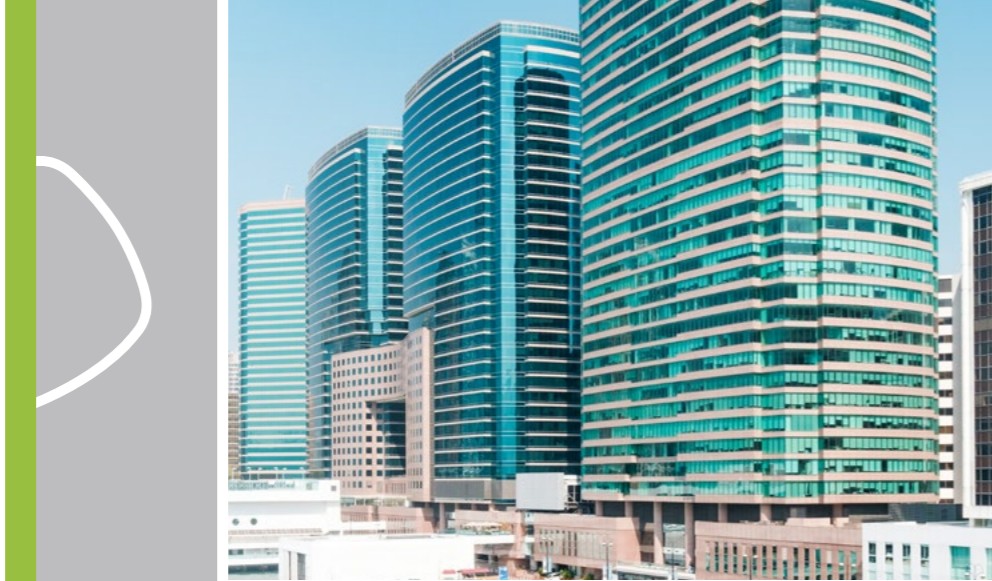
V364 is a user-friendly software for managing physical and digital keys for professional commercial applications, such as small and medium manufacturing companies, banks, datacentres, healthcare, stores, airports, shopping malls etc.
Mobile keys, F9000 and RFID credentials are all managed through all in one V364 application.

SYSTEM ARCHITECTURE

BUILT-IN WEB SERVER PLATFORM INTO:

1 - Virtual Atlas Master hosted in ISEO data center operated as Software as Service (V364 on air).
2 - Virtual Atlas Master Customer Hosted.
3 - Appliance solid state Atlas Master controller (V364 Classic).

LINUX OPERATING SYSTEM assuring stability and greater security from external threats or virus attacks.
Using an open-source Linux platform provides an extra-layer of security against network vulnerabilities.
The LINUX operating system supports are:
1 - V364 on air (Virtual Atlas Master hosted in ISEO data center): **UBUNTU 20.04**.
2 - Virtual Atlas Master Customer Hosted: we have a growing list of already supported LINUX OS - however are flexible to adapt to any customer requirement.
3 - Appliance Atlas (controller): **IOCTO** embedded Linux.

PRE-CONFIGURED SYSTEM (V364 Classic & V364 on air) allows the system to be up and running in minutes.

MANAGED ACROSS MULTIPLE OPERATING SYSTEMS SUPPORTING WEBKIT POWERED BROWSERS
(Google Chrome, Apple Safari, Microsoft Edge) and with V364 mobile application (for iOS and Android).

USER-FRIENDLY INTERFACE:

☐ modern look and feel;
☐ minimal training required to operate the system;
☐ system configuration easy for installers as Atlas Master is preconfigured and IP network ready;
☐ very simple functions to set access rights.

MULTIPLE CONFIGURATIONS supporting several memory partitions:

☐ up to 5.000 Units (Units = Access users + Doors) on Virtual Atlas Master;
☐ for bigger dimensions the configurations will be designed upon customer requirements on V364 Virtual Atlas Master.

HIGHLY SCALABLE ARCHITECTURE supports Single or Multi-site installations connected over standard IP technology with several Atlas Slaves.

NO LIMITS ON THE NUMBER OF SLAVE CONTROLLERS as each Atlas controller has an IP network address.

TOLERANT TO IP NETWORK FAILURE: the Atlas Slave can continue to work with the last information received from the Master.

ONLINE AND OFFLINE LOCK MANAGEMENT allows:

☐ Remote disabling of credentials (with validation or black list);
☐ Remote collection of audit trails and battery status (under development).

CUSTOMIZABLE CREDENTIAL data layout allows to accommodate into legacy RFID credential available memory space.

DEVICES SOFTWARE UPGRADABLE on the field.

DISASTER RECOVERY FOR V364 ON AIR: the database of Atlas Master is held in the ISEO data center with server redundancy.

INTEGRATION into Building Management Systems via web services with SOAP (Simple Object Access Protocol) over HTTP technology for VAR ISEO Technology Partners.

LOGIN

☐ Login with administrator ID and password.
☐ Multiple administrators concurrent login sessions: up to 64 system administrators at same time.
☐ Multi-language support selected by individual system administrator login.
☐ Automatic session logout after a configurable period of inactivity.

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ACCESS USERS

☐ Add, edit, import access users.

☐ Add, edit, import access user personal information up to 10 customizable fields.

☐ Search, view and export access users.

☐ Enroll access users with credential UID: define access permissions and type the credential UID.
The access user will program the credential at the validator.

☐ Assign to access user multiple credentials: F9000, RFID and Mobile Key.

☐ Print receipt form for credential hand out and hand in.

☐ View credentials status: credential lifecycle status and credential data synchronization.

☐ Display the "potential risk" associated with lost keys allowing the security manger
to take appropriate decisions.

☐ View credentials history.

☐ View access history.

☐ Manage credential lifecycle (revoke, replace, suspend, reinstate, rescind, delete).

ROLES

ROLES-BASED ACCESS PERMISSIONS: access permissions are based on the roles that individual users have as a part of an organization without having to configure each access user key individually. Roles includes the concept of door groups and access user groups. Roles are defined in the software, defining for each of them the associated doors. If changes are made on roles, the system will generate tasks "to update" for each key automatically.

ACCESS EXTENSIONS TO ROLES: It is possible to add extra doors to a role when assigning it to a user and the extra doors can also have a limitation in time. It is also possible to remove some doors from a role when assigning it to a user. This can be useful to limit the number of roles to create a better understanding of the access rights looking at the access permissions.

TIME SCHEDULES

TIME SCHEDULES: each access user or role can have up to 6 time schedules each with 6 weekly selectable time intervals.

DOOR ZONES

DOOR ZONES are an aggregation of doors belonging to a geographical area used to simplify the administration in locking systems with many doors. Access can be given to a door zone in the same way as to a single door.

Door zones are an optional feature and can be defined during planning of the system.

EVENTS

DOOR EVENTS: Collect, view and export credentials and doors latest events showing when individual doors were accessed and by whom. Events can be automatically collected from user credentials during validation.

SYSTEM ADMINISTRATORS TRANSACTIONS: shows all the operation made by the system administrators.

SYSTEM ADMINISTRATORS AUTHORIZATIONS

☐ System administrator authorizations define the functions system each administrator is allowed to perform. Each system administrator sees only the functions needed.

☐ System Administrator Authorizations can be customized defining administrators roles.

VALIDATION: KEY UPDATE AND EVENTS UPLOAD

☐ The validation operation ensures that keys are refreshed at certain time intervals with the smartphone or with the online validator to remain active. Once validated, the key stays active for the specified validation period configurable for each key in days, hours, or minutes and then after becomes inactive and needs to be revalidated. For sensitive doors it is possible to restrict the validation period in order to keep an higher security.

☐ During validation operation it is possible to update the access authorizations, the time schedules, extend or reduce the validity and change the validation period.

☐ The credentials record an event at every opening with date and time. During the validation operation the events are collected to the V364 Atlas Master software database.

PLANT PARTITIONS

☐ TA Plant Partition is a logical group of doors within a plant managed by the administrators entitled for that specific part of the locking system. Partition administrators see only a specific part of the plant with the associated entities (Doors, Roles, Time Schedules, Access Users, Door Zones).

☐ Sharing users and doors among partitions: V364 allows to share users and doors among partitions allowing for example to have a door visible in 2 or more partitions or a user visiting several partitions.

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REPORT LIST

☐ Export pre-configured reports into a .CSV file (Access User List, Event List, Door List, Administrator transactions, Holidays, Access User by door).

UTILITIES

☐ Utilities function like open online doors, download backup, set system preferences, define holidays, system information, issue special credentials and format RFID and F9000 credentials.

☐ Customize credential receipt and mobile key invitation modules.

☐ Configure door schedules: automatic operations for specific doors that will occur at predefined time schedules like automatic passage mode, passage mode with credential and auto-relock, automatic relock.

SECURITY AND DATA PROTECTION

☐ Information security is of paramount importance in order to maintain the safety and security and the privacy of your data. ISEO has considered by design since beginning information security. ISEO has applied proven techniques based on industry best practices from existing cryptography and network security technologies.

☐ Data protection policies can be configured for password policy, backup policy, log event policy.

For more info about:

1 - V364 on air security consult the white paper "V364 Security by Design".
2 - V364 on air INFRASTRUCTURE AND SERVICE LEVEL AGREEMENT consult "V364 on air SLA" data sheet.

Both documents are available on app.iseo.com\V364

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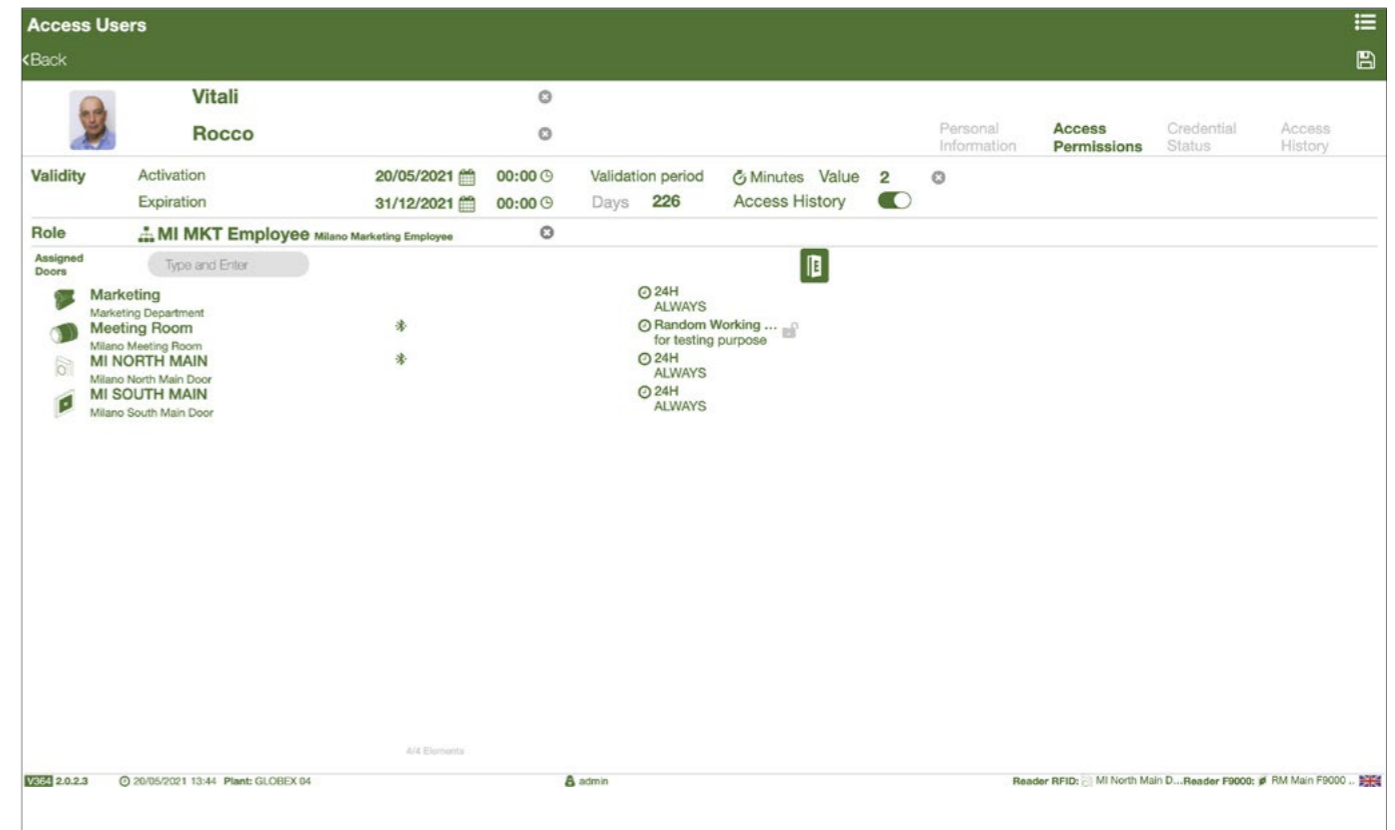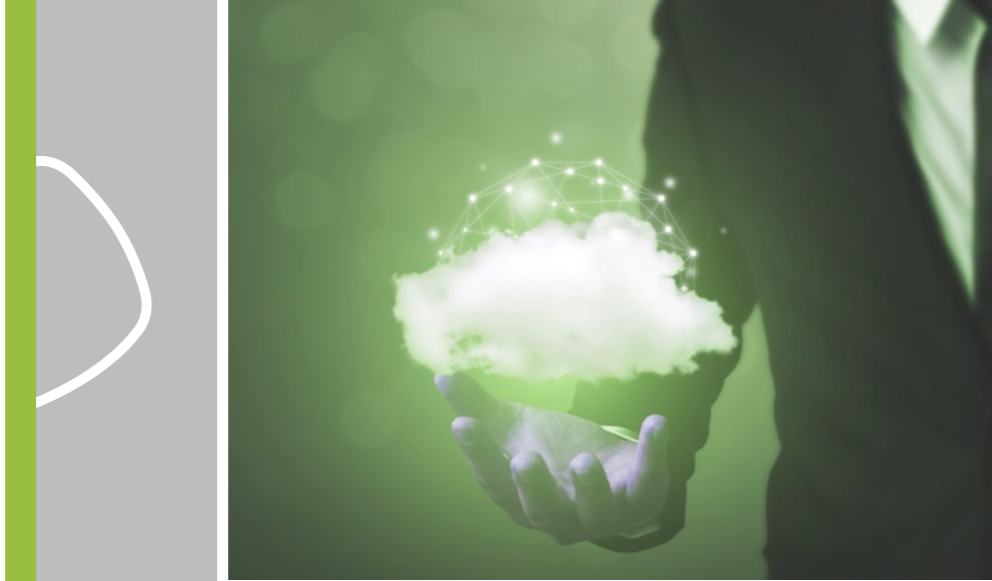
Keyless
Solutions

V364 ON AIR AS KEYLESS CLOUD BASED SOLUTION

V364 on air with mobile key offers a keyless cloud based solution. With mobile key credentials V364 on air provides full digital access management and efficient operations into one cloud-based application.

MANAGE MOBILE KEYS AND ACCESS RIGHTS ON THE GO

System administrator can easily manage mobile key access right using mobile devices or web browsers installed on desktop computer, from any location and in an intuitive way, via the portal V364 on air. There is no software to install and the administrators can manage access rights with the devices they use everyday also in mobility.

Libra LE60
Electronic Cylinder

Aries
Electronic Trim Set

Stylos
Credential Reader

Locker
Lock for Lockers

MOBILE KEY ENROLLMENT

With V364 on air, the administrator can enroll a phone, generating a virtual credential called mobile key or mobile credential.

The administrator needs an active email address of the access user to whom send the mobile key.

Then the access with the smartphone and the mobile key app, will be able to open the authorized locks via Bluetooth technology.

Write a valid email address to which to send the mobile key, then click send icon:
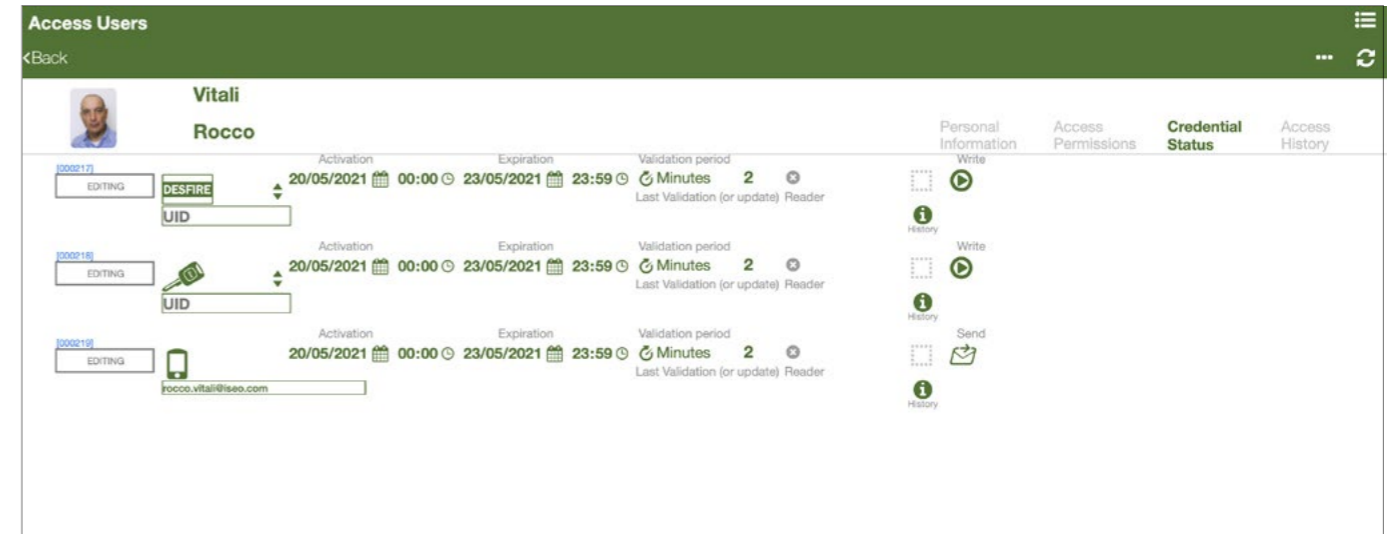
An invitation message with all the instructions, is automatically generated. This message can be immediately customized and sent to the selected email address.
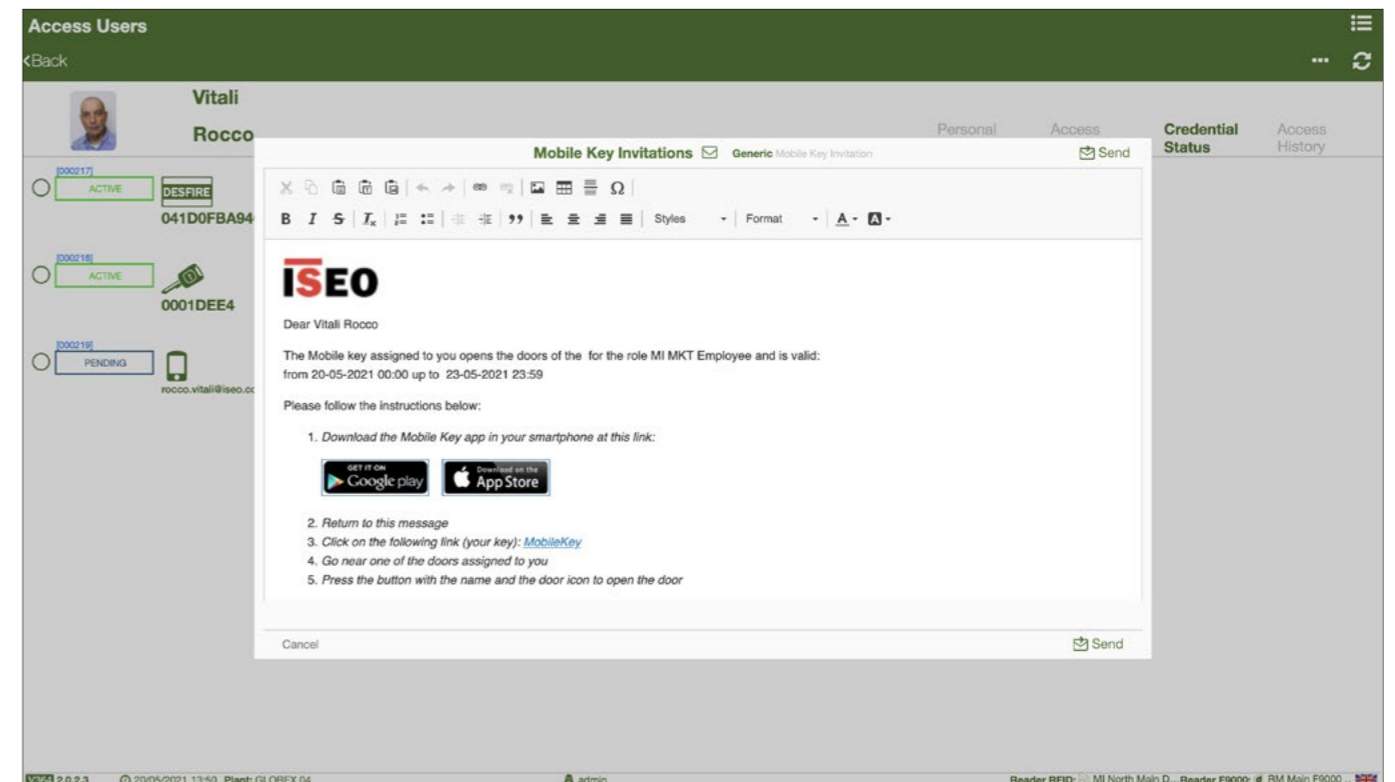
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MOBILE KEY ON BOARDING

The user receives the invitation message on the phone: the message informs that he has a mobile key and for which doors he has access rights. Then following the instructions, the user downloads the mobile key app and finally touches MOBILEKEY.
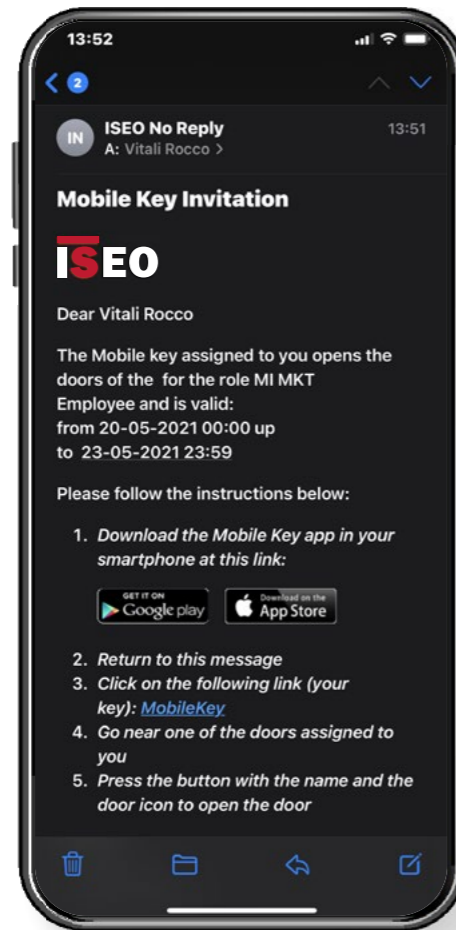
By touching "MOBILE KEY" the "invitation is consumed", meaning that you can use it only once installing on the first smartphone the mobile key. The person which uses the invitation will get the mobile key and only this access user, NOBODY ELSE. Therefore once the invitation is consumed, it is no longer possible to send it to another person for further installations. If you forward the invitation before touching the MOBILE KEY, YOU will be RESPONSIBLE of the use of that mobile key, because this is registered under the name of the one that receives the mail from the V364 system.

OPENING WITH MOBILE KEY

After pressing MOBILE KEY, the mobile key app automatically opens and only the locks to which you are authorized will be shown in a list. Touch the door name and icon to open the lock.
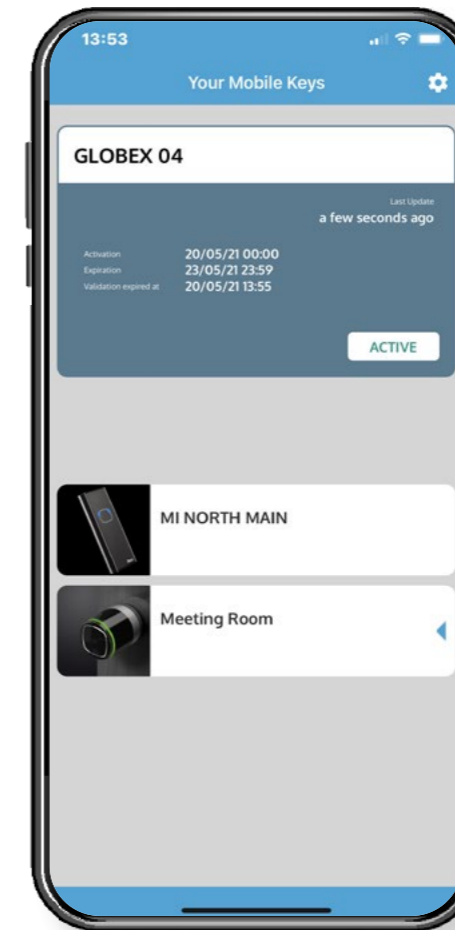
ISEO V364

Mobile Key
App

The mobile key app, free available for Android and iOS, enables the access users of the ISEO V364 access control system to open the assigned doors with the smartphone utilizing the Bluetooth Smart technology.

ISEO V364 access control can deliver virtual keys over the air to the mobile key app with the following features:

MULTIKEY
The Mmobile key app can hold all your mobile keys even from different sites.

DOOR AUTODETECT
The mobile key App automatically detects and shows only the door to which you can access in the range of the Bluetooth low energy (approximately 10 meters).

MOBILE KEY UPDATE AND VALIDATION
The access users can receive mobile keys anytime and anywhere.

The authorizations are updated in real time online if the smartphone is capable to connect to internet and therefore to the V364 on air.

In case the phone is in offline mode (no data connection available) you can use the last data you have in the smartphone and the concept of VALIDATION applies. So if you remain offline for more than the period of validation, these data are not validated - You will see all these information on the smartphone screen including when the last update (from "a few seconds ago "= ONLINE to something like "one day ago" = OFFLINE).

SMARTPHONE OFF LINE
The mobile key app allows to open doors also in case there is no data link with the ISEO V364 Atlas Master as the virtual key credential data are stored securely in the smartphone. The mobile key works also offline with the data you have in the phone and the validation method. So depending on the validation period you have set you might also see the message NOT VALIDATED.

SMARTPHONE ON LINE
If the data link between the Mobile Key app and the ISEO V364 Atlas Master is available, the lock turns online and transmits directly the events back to the ISEO V364 Atlas Master.

The update online is done automatically if the phone turns online when the user opens the mobile key app - if the phone is OFF LINE you see the last update which will be different from "a few seconds ago".

Mobile key

SECURE ENCRYPTED COMMUNICATION
All data transmission and the mobile key itself are encrypted and secured against cloning.

The mobile key app communicates in a secure way with ISEO V364 on air Atlas Master. The communication with Atlas Master is protected by:
- ☐ TLS 1.3 asymmetrical coding
- ☐ System authentication managed via OAuth2 Grant Type (Resource Owner Password Credentials)

  The communication with door lock uses:

  AES 128 session key generated with Diffie Hellman Elliptic Curve and random number generator certified by NIST.

  The access authorizations are stored in the secure area in the smartphone and are encrypted. The mobile keys are stored for:
- ☐ iOS in the keychain
- ☐ Android in the keystore

MOBILE KEY CREDENTIAL STATUS
The V364 administrator can check if a mobile key has been updated or not using the credential status function. The administrator can see the status of the mobile credential at any time and also when it was updated the last time.

MOBILE KEY REVOKING
With ISEO V364, a mobile key can be revoked at any time and a new one can be issued in the event of a role change or an extension of validity.

EASY TO USE TO OPEN DOOR
The intuitive app design makes it convenient and easy to use.

The access user opens the mobile key app and presses the button corresponding to the door that he/she is authorized to open.

It is necessary to take out the phone from the pocket, unlock the smartphone, open the mobile key and press the lock you want to open.

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PASSAGE MODE

If you are enabled, by swiping from right to left on the door button you can set in passage mode the door lock. To disable the passage mode function, repeat the same procedure.

OVERRIDE PRIVACY

Aries locks which are in privacy set show their status on the mobile key APP. Only the authorized credentials with the override privacy function enabled can access the door.
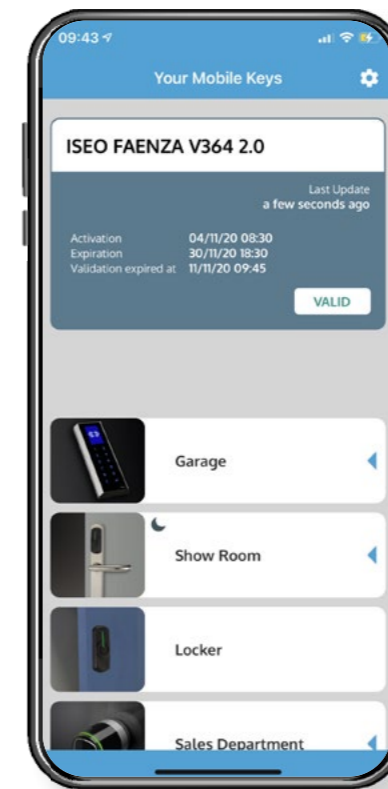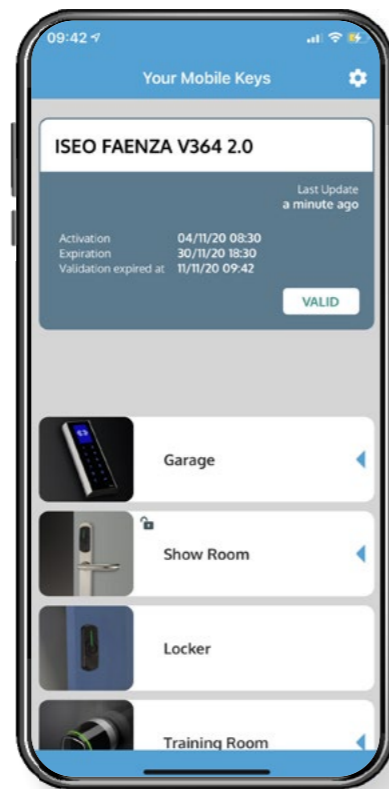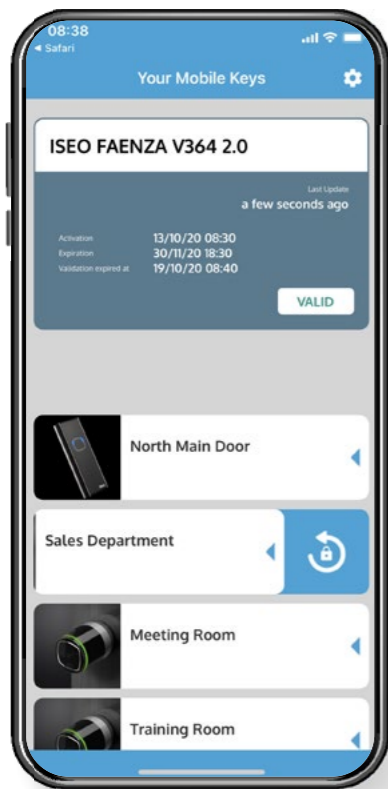
PRIVACY SET ON:
The phone shows the privacy icon.

Swipe and touch the passage mode icon to set the lock in passage mode.

ISEO **V364**

Atlas
Controllers

CONTROLLERS FOR RFID AND F9000 READERS CREDENTIALS

The V364 system access control related information (access authorizations, access users, credentials, events,...) are stored in the ATLAS controller.

Depending on the V364 system architecture the ATLAS controller can be configured as MASTER or SLAVE.
The ATLAS allows the credential creation, update and validation by means of the credential validators/readers:
☐ the STYLOS for the RFID card
☐ the F9000 validators for the F9000 keys

The ATLAS controller is connected and powers the:
☐ Stylos RFID validators through the Lockbus connection;
☐ F9000 validators through the RS485 connections;
☐ Electric lock actuators through the Lockbus connection

If the ATLAS is configured as SLAVE, it connects back to the ATLAS Master through an ethernet data connection in order to get the modifications of access permissions that had previously been granted to one or more access users, just a few seconds after the system administrator has saved the update.

Several ATLAS SLAVE can be used in the same installation to manage more validators geographically distributed at remote sites allowing the access users to synchronize (update and validate) their credentials (RFID or F9000 key) at the nearest validator, wherever they are, whenever they want.
The Atlas Slave locally stores relevant access related information (access authorizations, access user activity logs) of the credentials which it has to interact with.

Access authorizations are stored into the ATLAS controller, allowing them to be downloaded into the credentials. The events registered in the credentials are stored in the ATLAS SLAVE before being uploaded into the ATLAS MASTER database system. This embedded cache memory makes any ATLAS SLAVE a backup device in case of contingency: an ATLAS SLAVE can still operate in a standalone mode to massively program and synchronize credentials even in case of ATLAS MASTER or network outage. The ATLAS can also control an online door with a built in relay or/and additional electric lock actuator. The door will continue to work even in case of network failure with the local information previously stored.
Since the Atlas Slave connects to Atlas Master, it can receive firmware updates from remote.
The Atlas controller features an embedded web server with an on board ethernet communication port.

ATLAS CONTROLLER MODELS

The ATLAS controller is available in the following models, all suitable for RFID and F9000 validators:

DESKTOP
With a small footprint to place on a desk or similar situations of tight space:

ATLAS PLUS
(configurable as Master or Slave)

ATLAS STANDARD
(configurable as Slave)

DIN
Suitable for installation on DIN35 bars:

ATLAS PLUS DIN
(configurable as Master or Slave)

ATLAS PLUS DIN WITH POWER OVER ETHERNET
(configurable as Master or Slave)

Atlas DIN POE

Stylos LED

POE Switch
IEEE 802 3af up to 15.4 W

Door 1 IN

Door 1 OUT

Door 2 IN

Door 2 OUT

up to 2 **Stylos RFID** validators

POE ADVANTAGES

- ☐ PoE eliminates the need for a local source of power supply.
- ☐ Delivery of data AND power over one Cat5e/Cat6 ethernet cable.
- ☐ With single POE cable being used, the installation is easier and takes less time.
- ☐ Ethernet cable with PoE switches is often already installed in buildings.
- ☐ To use PoE you need to have a PoE switch.

Atlas DIN POE

Atlas DIN POE

F9000 Validator
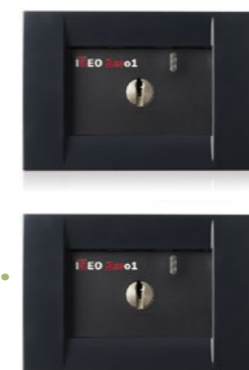
F9000 Validator

Door 1 IN

Door 1 IN

POE Switch
IEEE 802 3af up to 15.4 W

Door 2 IN

Door 2 IN

POE Switch
IEEE 802 3af up to 15.4 W
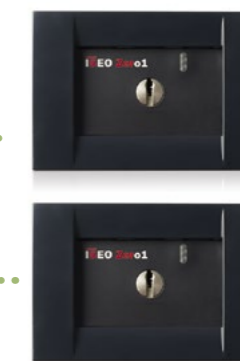
up to 2 **F9000** validators

up to 2 **F9000** validators

up to 2 **Stylos RFID** validators

ISEO

CHARACTERISTICS	ATLAS PLUS (Desktop)	ATLAS STANDARD (Desktop)
Size	LxDxH 167x110x53 mm	LxDxH 167x110x53 mm
Operating Conditions	Operating temperature: 0°C ÷ +50°C Storage temperature: -25°C ÷ +75°C	Operating temperature: 0°C ÷ +50°C Storage temperature: -25°C ÷ +75°C
Installation	Desktop Housing	Desktop Housing
Power supply	12÷24Vdc Maximum power consumption **15W** (with no connected devices) - Power supply included: 230V to 24V DC with 2 poles plug Backup batteries: - 1500mAh battery pack - estimated duration 30 minutes backup	12÷24Vdc Maximum power consumption **15W** (with no connected devices) - Power supply included: 230V to 24V DC with 2 poles plug Backup batteries: - 1500mAh battery pack - estimated duration 30 minutes backup
Connection ports	- 1Ethernet interfaceTCP/IP10/100baseT - 1 LOCKBUS channel (CH0) to connect online Stylos RFID readers and Actuators (max 8+8) - 2 RS485channels (CH1 + CH2) to connect F9000 readers (max 2 = 1 for each channel) - 2 USB connector - 1 serial interface (debug)	- 1Ethernet interfaceTCP/IP10/100baseT - 1 LOCKBUS channel (CH0) to connect online Stylos RFID readers and Actuators (max 8+8) - 2 RS485channels (CH1 + CH2) to connect F9000 readers (max 2 = 1 for each channel) - 2 USB connector - 1 serial interface (debug)

Visual indicator	- Signalling: LEDs
	- Power IN active (green)
	- Backup battery pack operating (orange)
	- Ethernet activity (orange)
	- SerialTx/RxCH0/CH1/CH2 (two orange)
	  User 1 (Red)
	  User 2 (Green)
		- Signalling: LEDs
		- Power IN active (green)
		- Backup battery pack operating (orange)
		- Ethernet activity (orange)
		- Serial Tx/Rx CH0 (2 orange)
		- Serial Tx/Rx CH1 (2 orange)
		- Serial Tx/Rx CH2 (2 orange)
		  User 1 (Red)
		  User 2 (Green)

CPU & Memory	- ARM9 based CPUmodule - 800 MHz CPU clock - 512MB Flash memory - 64MB SDRAM - 8GBMicro-SD - Real Time Clock - Operatiing system: embedded Linux	- ARM9 based CPUmodule - 200 MHz CPU clock - 256MB Flash memory - 64MB SDRAM - 8GBMicro-SD - Real Time Clock - Operatiing system: embedded Linux
Onboard Relay	Electronic Lock Actuator external	Electronic Lock Actuator external
Push buttons	- "Reset"(to manually reboot the ATLAS) - "Wake-up"(to manually start the ATLAS when OFF) - "Switch off"(to manually switch off the ATLAS) LxDxH 167x110x53 mm	- "Reset"(to manually reboot the ATLAS) - "Wake-up"(to manually start the ATLAS when OFF) - "Switch off"(to manually switch off the ATLAS) LxDxH 167x110x53 mm
Configurable as	MASTER or SLAVE	SLAVE

CHARACTERISTICS	ATLAS DIN	ATLAS DIN PoE
Size	LxDxH 167x110x53 mm	LxDxH 167x110x53 mm
Operating Conditions	Operating temperature: 0°C ÷ +50°C Storage temperature: -25°C ÷ +75°C	Operating temperature: 0°C ÷ +50°C Storage temperature: -25°C ÷ +75°C
Installation	DIN35 rail installation housing (white color)	DIN35 rail installation housing (white color)
Power supply	12÷24Vdc Maximum power consumption **15W** (with no connected devices) - Power supply NOT included Backup batteries: - 1500mAh battery pack - estimated duration 30 minutes backup	- Requires PoE Switch IEEE 802.3af up to 15,4W - Delivery of data and power over CAT5e/CAT6 Ethernet cable Maximum power consumption **12W** (with no connected devices) - Power supply NOT icluded Backup batteries: - 1500mAh battery pack - estimated duration 30 minutes backup
Connection ports	- 1Ethernet interfaceTCP/IP10/100baseT - 1 LOCKBUS channel (CH0) to connect online Stylos RFID readers and Actuators (max 8+8) - 2 RS485channels (CH1 + CH2) to connect F9000 readers (max 2 = 1 for each channel) - 1 USB connector - 1 serial interface (debug)	- 1Ethernet interfaceTCP/IP10/100baseT - 1 LOCKBUS channel (CH0) to connect online Stylos RFID readers and Actuators (max 8+8) - 2 RS485channels (CH1 + CH2) to connect F9000 readers (max 2 = 1 for each channel) - 1 USB connector - 1 serial interface (debug)
Visual indicator	- Signalling: LEDs - Power IN active (green) - Switch ON/OFF (red) - Backup battery pack operating (orange) - Ethernet activity (orange) - Seria lTx/RxCH0/CH1/CH2 (two orange)	- Signalling: LEDs - Power IN active (green) - Switch ON/OFF (red) - Backup battery pack operating (orange) - Ethernet activity (orange) - Seria lTx/RxCH0/CH1/CH2 (two orange)
CPU & Memory	- ARM9 based CPUmodule - 800 MHz CPU clock - 512MB Flash memory - 64MB SDRAM - 8GBMicro-SD - Real Time Clock - Operating system: embedded Linux	- ARM9 based CPUmodule - 800 MHz CPU clock - 512MB Flash memory - 64MB SDRAM - 8GBMicro-SD - Real Time Clock - Operating system: embedded Linux
Onboard Relay	- Relay 1 = normally open (NO) - Relay 2 = normally open(NO)	- Relay 1 = normally open (NO) - Relay 2 = normally open(NO)
Push buttons	- "Reset"(to manually reboot the ATLAS) - "Wake-up"(to manually start the ATLAS when OFF) - "Switch off"(to manually switch off the ATLAS)	- "Reset"(to manually reboot the ATLAS) - "Wake-up"(to manually start the ATLAS when OFF) - "Switch off"(to manually switch off the ATLAS)
Configurable as	MASTER or SLAVE	SLAVE

POWER SUPPLY UNIT 24VDC 36W	
input	100-240Vac
output	24Vdc 1.5A
Type	Desktop version, 2 pin standard plug

ISEO

ISEO V364

Validator
Readers

V364 Validators/Readers are connected to the Atlas controller in order to validate and update the credentials. When it is necessary to control a door, the Atlas controller is separated from the validator for higher security: the Atlas Controller is placed in the secure side of the door while the validator is outside. There is not possibility to access from outside to the ethernet cable that connects the Atlas to the Atlas Master.

THE VALIDATORS ARE

☐ **STYLOS 2 RFID**
☐ **F9000 VALIDATORS**

STYLOS 2 RFID READERS

Stylos 2 RFID readers allow a flexible configuration:

☐ **credential reader/validator:**
Stylos 2 Line readers connect to Atlas controller with lockbus interface allowing to read and write credentials and update access rights (validator functionality). Using the Atlas built in relay or connecting an electric lock actuator it is possible to control an on-line door.

☐ **Stand Alone gate:**
Stylos 2 Line reader connects to electric lock actuator with lockbus interface, allowing through the built-in relay of the actuator the direct control of electromechanical locks and electric strikes or any other access control device such as car park bars, sliding doors, electric locks motorized gates and similar devices. Furthermore Iseo locks with lockbus interface such as Thesis 2.0 dropbolt can be directly connected to Stylos 2 Line credential readers without the need of additional actuators.
The stylos 2 Line readers are provided with self-adjusting power supply from 8V DC to 30V DC ensuring top flexibility and allowing in most cases to use an existing power supply even when there is fluctuation in the power supply voltage.

Stylos 2 Line readers can be provided in two configurations:
☐ for indoor installation
☐ for outdoor installation (IP66)

CHARACTERISTICS	STYLOS 2 READER (FOR INDOOR INSTALLATION)	STYLOS 2 READER (FOR OUTDOOR INSTALLATION)
Components	Credential reader with LED	All-weather credential reader module (IP66) Control unit connection cable included (L=5mt) and Control unit for all-weather reader module.
Reader Module Size	Dimensions (HxLxD): 130 x 47,5 x 17,5 mm.	Dimensions (HxLxD): 130 x 47,5 x 17,5 mm.
Operating Conditions	Operating temperature: -20°C÷ +60°C Storage temperature: -25°C ÷ +75°C.	Operating temperature: -20°C÷ +60°C Storage temperature: -25°C ÷ +75°C.
Reader Installation	- Wall mounting - Spacer available	- Wall mounting - Spacer available
Power supply	from 8Vdc to 30Vdc Powered from Atlas	from 8Vdc to 30Vdc Powered from Atlas
Connection	Lockbus interface	Lockbus interface
Visual and audible indicator	- three-colour Led (green, red, blue) - Acoustic buzzer	- three-colour Led (green, red, blue) - Acoustic buzzer
Credentials supported RFID	Multistandard contactless RFID readers ISO14443/A, ISO14443/B - 13,56 Mhz. (compatible with Mifare Classic and Mifare DESFire).	Multistandard contactless RFID readers ISO14443/A, ISO14443/B - 13,56 Mhz. (compatible with Mifare Classic and Mifare DESFire).
Bluetooth interface	BLE Smart 4.0	BLE Smart 4.0
Software (firmware)	on site upgrade capability	on site upgrade capability

**ISEO**

ISEO V364

F9000
Readers

The F9000 validators/readers are connected to the ATLAS controller in order to validate and update the F9000 keys. Using the Atlas built in relay or connecting an electric lock actuator, it is possible to control on line doors. The validators/readers are available in different form factor in oder to answer to the adaptation on different installation needs.

CHARACTERISTICS	DESKTOP READER/WRITER	FRAME MOUNTING READER/WRITER COMPATIBLE WITH 503 BOX	FRAME MOUNTING READER/WRITER COMPATIBLE WITH GIRA BOX
Dimensions	LxDxH 120x111x82 mm	LxDxH 120x82x55 mm	LxDxH 80x80x50 mm
Operating Conditions	- Operating temperature:-10°C÷+50°C (internal version); - Storage temperature:-25°C÷+75°C	- Operating temperature:-10°C÷+50°C (internal version); - Storage temperature:-25°C÷+75°C	- Operating temperature:-10°C÷+50°C (internal version); - Storage temperature:-25°C÷+75° C. - Humidity max 93% without condensation
Reader Installation	Desktop	503 Box	Gira Box
Power supply	10 – 24Vdc. powered from Atlas	10 – 24Vdc. powered from Atlas	10 – 24Vdc. powered from Atlas
Connection	RS485 length up to 500 m	RS485 length up to 500 m	RS485 length up to 500 m
Visual and audible indicator	- 3 colour Led (green, red, blue) - Acoustic buzzer	- 3 colour Led (green, red, blue) - Acoustic buzzer	- 3 colour Led (green, red, blue) - Acoustic buzzer

CHARACTERISTICS	WALL MOUNTING	WALL MOUNTING IP55	ANTIVANDAL HEAVY DUTY
Dimensions	LxDxH 123X88X55 mm Vimar Idea plastic box	LxDxH 100x83x65 mm Vimar Idea IP55 plastic box	LxDxH 150 x 90 x 53 mm no sharp edges (all rounded edges)
Operating Conditions	- Operating temperature:-10°C÷+50°C (internal version); - Storage temperature:-25°C÷+75°C	- Operating temperature:-25°C ÷ +50°C (external IP55 version); - Storage temperature:-25°C÷+75°C	Operating temperature: -40°C ÷ +80°C (internal version); Storage temperature: -40°C ÷ +80°C. humidity 93% without condensation - Solid metal antivandal housing (impact protection degree IK10) - Security fixing screws - All-weather outdoor usage (IP66, IP67 and IP69 protection grading). - High corrosion resistance (tested for 480 hours in NSS Neutral Salt Spray – chamber).
Reader Installation	Wall mounting	Wall mounting	Wall mounting
Power supply	10 – 24Vdc. powered from Atlas	10 – 24Vdc. powered from Atlas	10 – 24Vdc. powered from Atlas
Connection	RS485 length up to 500 m	RS485 length up to 500 m	RS485 length up to 500 m
Visual and audible indicator	- three-colour (green, red, blue) - Acoustic buzzer	- three-colour (green, red, blue) - Acoustic buzzer	- three-colour (green, red, blue) - Acoustic buzzer
Certifications			EN 60068-2-1 EN 60068-2-2 EN 60068-2-3 IEC 60529 IEC 62262

ISEO

ISEO **V364**

Electronic lock
Actuator
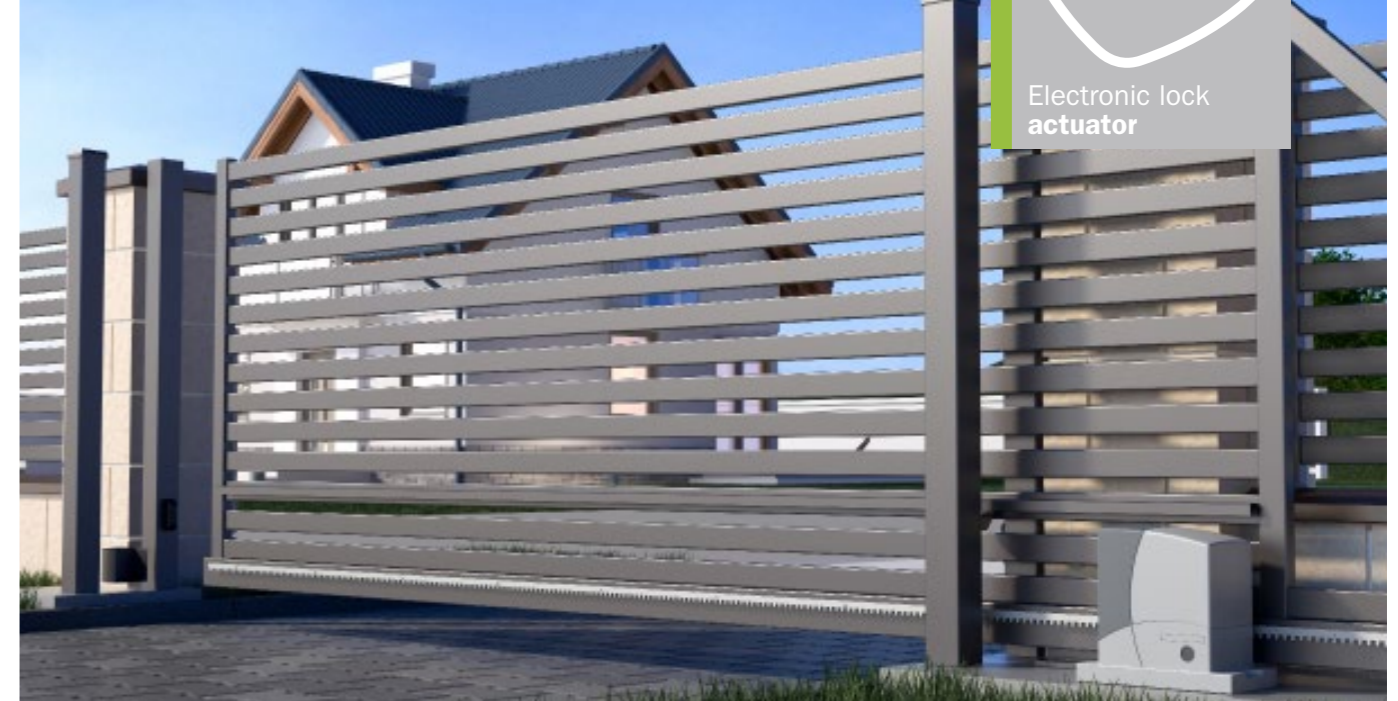
The electronic lock actuator allows the actuation of electric locks with its built-in relay or booster.

Characteristics	Electric strike actuator with 3 inputs and 2 outputs.
Size	Dimensions (LxDxH): 90 x 36 x 58 mm
Operating Conditions	- Operating temperature: -10/+60°C (internal version); - Storage temperature: -25°C÷+75°C
Installation	DIN35 rail
Power supply	from 8Vdc to 30Vdc
Connection ports	Lockbus interface
Inputs	3 inputs (1 digital, 1 analogic and 1 digital or analogic)
Outputs	1 relay (24V 1A) + 1 booster (for direct electric lock)

LOCKBUS LOCAL BUS

Lockbus is a powerful multipoint bus sharing data transmission and power supply on the same 3-wire connection for utmost flexibility, easy installation and, consequently, cost optimization.
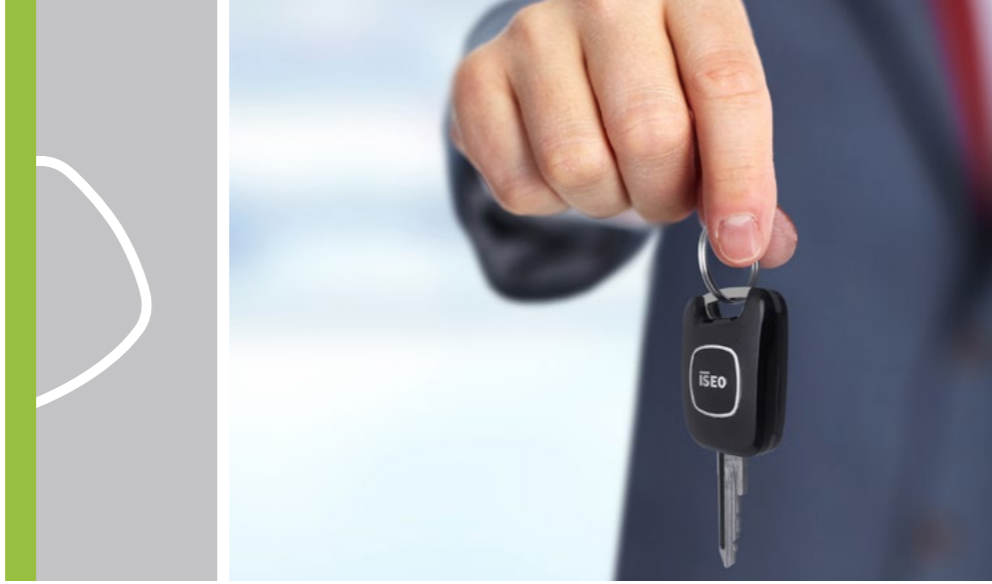Data transmission and power supply on the same 3-wire connection up to 100 m; Self-adjusting power supply from 8Vdc to 30Vdc;
Secure device authentication (among readers and actuators) and encrypted data transmission for high security against manipulation.
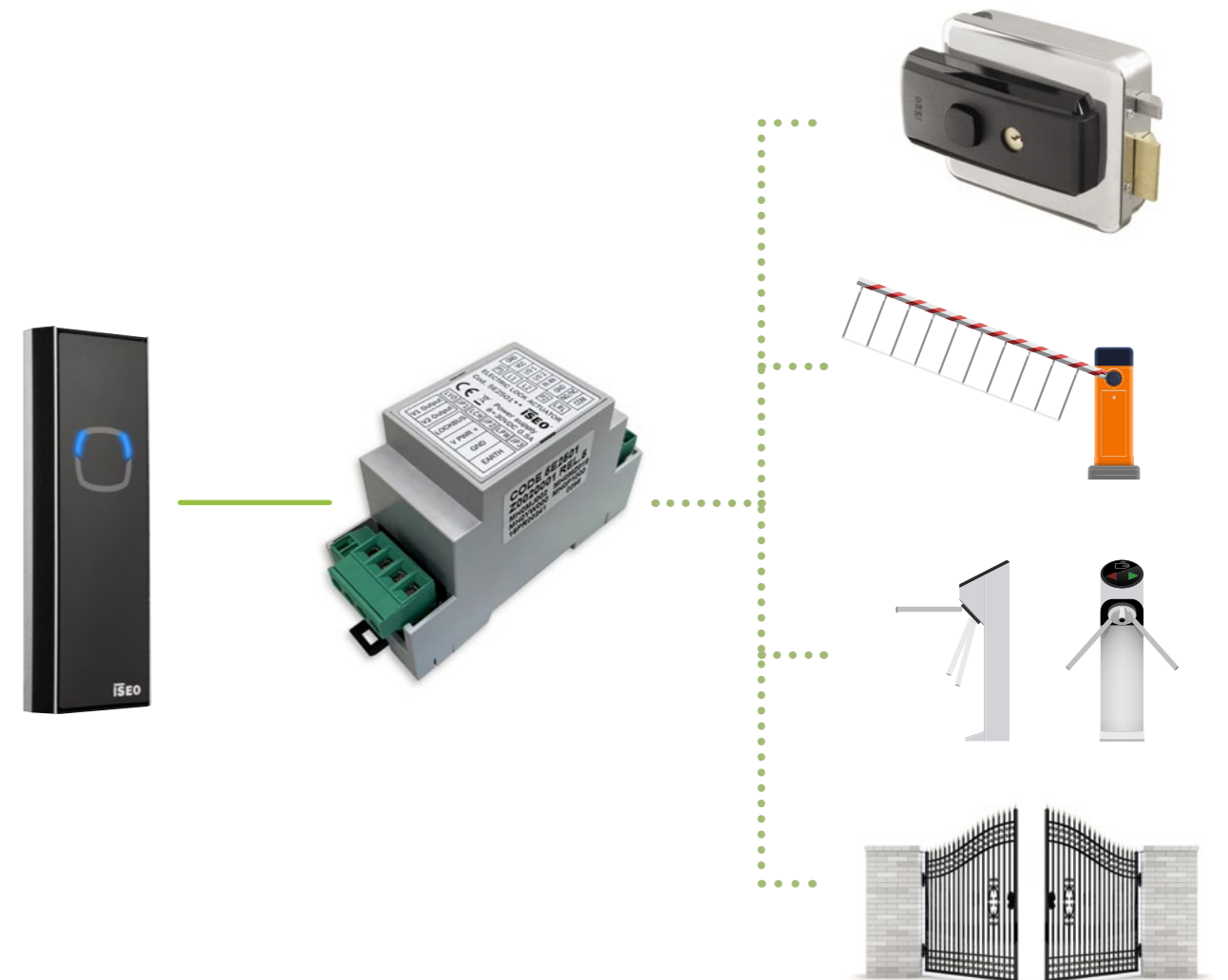
ISEO

ISEO **V364**

F9000
Credentials

A credential is a physical or logical object used at a reader to prove one's identity. The V364 F9000 system manages:

- ☐ **F9000 Mechatronic key.**
- ☐ **RFID**.
- ☐ **Mobile Key.**

To each person in the V364 system can be assigned more credentials at a time. A credential can be added to the system by either editing an existing access user or creating a new access user. The credential status information for a person can be displayed by clicking on the credentials status tab.

F9000 MECHATRONIC KEY

The F9000 keys have a watertight high impact-resistance polycarbonate housing which holds the electronics with battery and a metal shaft in nickel silver suitable for cylinders with protector. The paracentric profile metal shaft embeds an antenna which allows the contactless transfer of data and energy to the F9000 mechatronic cylinder.

The F9000 keys are suitable for all weather applications and comply with:

- ☐ **IP65** (International Protection Marking) = no ingress of dust and protection against water jets from any direction.
- ☐ **IK08** (Impact Protection) = 5 Joule Impact = 1.7 Kg spherical mass dropped from 30 cm.

BATTERY

All the keys are powered by a standard CR2450 lithium battery. During the battery change, the key is able to keep synchronized with real time clock for up to 5 minutes and in any case there will never be a loss of any credential data or recorded event from the key. The battery status is visible on the key by keeping the ON button pressed for 3 seconds.

RFID Tag

LED & **Buzzer**

Battery
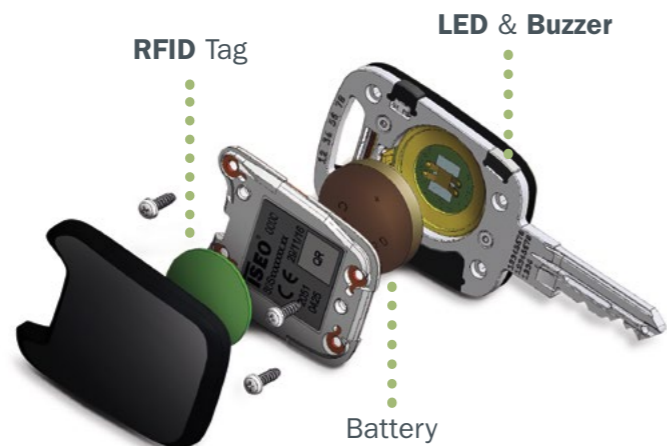
LED AND BUZZER
All keys are equipped with LED red and green visible indicator and optional buzzer, particularly useful to inform the user whether the key has access or not.

PROTECTED KEY
The F9000 key, with Patented contactless system of data and energy transfer, has also a registered profile (Trademark) for lifetime.

SECURITY CARD
The CSF Master Key Plan Card is supplied with every locking system indicating the system number, necessary to authorize the reordering of all cylinders and keys. This security card is used for verification purposes when re-ordering keys and locking cylinders from ISEO.

IDENTIFICATION MARKING
The keys are supplied with 3 lines laser engraved identification marking consisting of:

- ☐ Plant Identification.
- ☐ Customer defined 8 characters.
- ☐ Key Function (ON,UP, PR,EM,LO,RL).

UID

Identification marking

ĪSEO®

ISEO **V364**

UID UNIQUE IDENTIFIER

The F9000 key has a UID (Unique IDentifier) globally unique identifier laser engraved allowing to enroll in the V364 software the access user key with the access permissions without immediately programming the key. With the UID enroll function, at anytime with the smartphone or the validators, the user can write the access permissions, allowing, in a system startup phase, to open only the ISEO CSF mechanical cylinder.

ATEX VERSION

The F9000 keys (ON, UP, PR, EM) and the F9000 cylinders are available as option for explosion prone areas where explosive or flammable gases may be present. The ATEX version of keys and the cylinder are certified ATEX EX 2 G Ex ib IIB T4 (zone 1).

ATEX marking

ACCESS USER KEYS

The access user key provided with the right mechanical coding and electronic credential opens the F9000 mechatronic cylinder as well as the mechanical cylinders of the ISEO CSF System, which have been properly mechanically coded. The access user key has a built-in clock synchronized at any validation. Every time a user's key is inserted in an electronic cylinder the key records the date, the time and the cylinder name.

F9000 ON

The Bluetooth Smart embedded connectivity provides the possibility to remotely update and validate authorizations with smartphones at anytime and anywhere.

F9000 UP

The F9000 UP can be programmed with the stationary F9000 reader/writer devices (validator).

ISEO **V364**

SPECIAL FUNCTION KEYS

PROGRAMMER KEY

The programmer key (PR) is used to download events from the cylinder and to re-program the cylinders. The key has Bluetooth Smart connectivity for direct programming with the ISEO V364 smartphone. The programmer key CANNOT OPEN the cylinder: in fact, it does not have a F9000 mechanical coding.

EMERGENCY KEY

The emergency key (EM) opens all cylinders at any time in case of situations that poses an immediate risk to health, life, property or environment. This key is specifically designed to enable the fire brigade to access the facility in case of an emergency.

The key has a very high durability with battery life over 5 years and is all-weather resistant IP65. The emergency key has the override functionality, opening double profile cylinder fitted with double function even where there is another key inserted in a lock position on the other side.

LOCKOUT KEY

In case of a terroristic attack there should be the possibility to block the access to all the access users even if they have an active F9000 key to open the door.

The lockout key (LO) when is inserted into the F9000 cylinder will block all the access users and also will open the cylinder.

The emergency key cannot be blocked. The lockout key works at any time. The key has a very high durability with battery life over 5 years and is all-weather resistant IP65.

The lockout key has the override functionality opening double profile cylinder fitted with double function even where there is another key inserted in a lock position on the other side.

REVERSAL LOCKOUT KEY

The reversal lockout (RL) key will bring back the door to normal operation ("key to clear") and also will perform the open operation. The reversal lockout key works at any time.

The key has a very high durability with battery life over 5 years and is all weather resistant IP65.

The lockout key has the override functionality, opening double profile cylinder fitted with double function even where there is another key inserted in a lock position on the other side.

FEATURES	F9000 ON	F9000 UP	PROGRAM-MER KEY	EMERGENCY KEY	LOCKOUT KEY	REVERSAL LOCKOUT KEY
Mechatronic Unique not duplicable with programmable access rights compatible with ISEO CSF mechanical cylinder F9, or (with a different product code) compatible with F900	Y	Y	Y	Y	Y	Y
Contactless Data and energy transmission without electric contacts	Y	Y	Y	Y	Y	Y
Bluetooth Smart connectivity User can update access rights with own smartphone	Y		Y			
Mechanical key like user experience Opening time similar to a pure mechanical key cylinder: key authentication in < 80mS (no delay due to electronics)	Y	Y		Y	Y	Y
Battery life at 20°C with 10 openings per day	up to 5 years	up to 10 years	up to 5 years	over 5 years	up to 5 years	up to 5 years
Battery type	CR2450 Lithium	CR2450 Lithium	CR2450 Lithium	CR2450 Lithium	CR2450 Lithium	CR2450 Lithium
Battery status visible on the key	Y	Y	Y	Y	Y	Y
Real Time Clock inside the key continue to work up to 5 minutes while battery change	Y	Y	Y	N	N	Y
LED Red and Green for quick identification for access	Y	Y	Y	Y	Y	Y
Acoustic buzzer	option	option	N	N	N	N
All-weather Protection IP Code, International Protection Marking, IEC standard 60529	IP65	IP65	IP65	IP65	IP65	IP65
Impact Protection IK Code, Protection against external mechanical impacts, IEC standard 62262	IK08	IK08	IK08	IK08	IK08	IK08
Explosion prone areas usage Key version in compliance with ATEX 2014/34/UE directive (Classification Ex II 2 G Ex ib IIB T4)	option	option	option	option	option	option
Combination with RFID technology Space for RFID tag with diameter of 22 mm embedded in the key cover	Y	Y	Y	Y	Y	Y
Mechanical features Nickel Silver key with Paracentric key profile and 12 mm long neck suitable for cylinder protectors	Y	Y	Y	Y	Y	Y
Operating temperature range	-20°C +70°C / -20°C +50°C ATEX					
Storage temperature range	-20°C +70°C / -20°C +50°C ATEX					
Humidity	max 93% without condensation					
EN 15684:2012 "16B4FF32" Classification	Y	Y		Y		
Customer defined time validity	Y	Y		unlimited		
Maximum number of keys in the V364 system	120000					
Maximum number of cylinders in the system	4000 (for V364) - 65536 (for V364 VAR)					
V364 Standard keys Data Layout N Events stored the key N Cylinders stored in the key N Time Schedules stored in the key (Customized key data layout can be designed upon request)	1000 4000 6 with 6 time intervals each	1000 4000 6 with 6 time intervals each	1000 – –	– – –	4000 –	4000 –
Maximum number of keys black listed in the cylinder	120000					

ISEO **V364**

Mobile **Key**

The mobile key app, free available for Android and iOS, enables the access users to open the doors with Bluetooth Smart BLE. The mobile key app allows the delivery of virtual keys over the air.

MULTIKEY
The mobile key app can hold all your mobile keys even from different sites.

DOOR AUTODETECT
The mobile key app automatically detects and shows only the door to which you can access.

SMARTPHONE IN OFF LINE MODE
The mobile key app allows to open doors also in case there is no data link with the Atlas Master as the credential data are stored securely in the smartphone.

SMARTPHONE IN ON LINE MODE
If the data link between the mobile key app and the Atlas Master is available, then the lock turns online and transmits directly the events back to the Atlas Master.

The mobile key app transmits also the opening events buffered while the smartphone was in offline mode.

SECURE ENCRYPTED COMMUNICATION
The mobile key app communicates in a secure way with Atlas Master and the door lock. The communication with Atlas Master is protected by:

- ☐ TLS 1.2 asymmetrical coding.
- ☐ System authentication managed via OAuth2 Grant Type (Resource Owner Password Credentials).

EASY TO USE FOR DOOR OPENING
The intuitive app design makes it convenient and easy to use. The access user opens the mobile key app and presses the button corresponding to the door that he/she is authorised to open.

With V364, a mobile key can be revoked at any time and a new one can be issued in the event of a role change or an extension of validity.

ISEO **V364**

RFID
Credentials

The RFID credential is a physical credential which can have several forms as for example: card, key-fob, bracelet. The RFID credential is completely passive; it does not contain any battery. The operating energy is supplied by the RFID reader when the RFID credential is put few centimeters from the reader.

Every time a RFID credential is inserted in an electronic door lock, it is recorded in the door lock and also in the credential records with the date, the time and the door lock in which it has been inserted.

The credential provided by Iseo has a number printed on its surface called the RFID credential UID (Unique IDentifier).

UID

The RFID credential supported in V364 are the Mifare Classic 4K and the Mifare Desfire 8K. The RFID credentials can be programmed as:

☐ Access User Card
☐ Readout events card
☐ Programming card
☐ Emergency card

USE OF LEGACY CARDS

If you have already a RFID card, V364 can be adapted as it features a configurable credential data space available.

V364 LOCKING DEVICES

F9000 CYLINDERS

The F9000 cylinder is completely passive: the operating energy is supplied by the key when it is introduced in the cylinder. The electronic cylinder opens when the mechanical code (represented by the pins) and electronic code correspond to the inserted key. Every time a F9000 key is inserted for opening, the cylinder records the date, the time and the key name. The F9000 cylinder stores the last 1000 opening events, including denied access.

EASY INSTALLATION

The F9000 cylinder is cable free and without any battery. Therefore the F9000 cylinder is dimensionally totally compatible with any mechanical cylinder and can easily upgrade a pure mechanical key system.

THE ISEO CSF RANGE

With the ISEO CSF range different products can be keyed into the same master key system and all products can be operated with just one single key simplifying key management. The wide mechanical range provides the possibility to create the following master key system with different levels of security for any budget requirement: **F9 + F9000, F90 + F9000** or **F900 + F9000.**

In addition, the CSF range now includes patented mechanical cylinders (F9 SPI and F90 SPI), which are also compatible with F9000 cylinders (F9000 SPI). In this way Iseo can supply a complete patented mechatronic mixed system.

FLEXIBLE MODULAR CYLINDER

The F9000 cylinder is available in modular versions as euro profile cylinder in length starting from 30 mm per side. The standard length of 60 mm can be extended in 5 mm increments up to a total length of 145 mm (95 mm maximum per side).

For a double euro profile cylinder it is possible to make up to 74 possible dimensions with only 19 connecting bars already prepared with 4 holes per side.

Special length can be made with the universal rod up to a total length of 260 mm for standard versions (130 mm per side or up to 80 mm on one side and up to 180 mm on the other side).

ISEO

ISEO **V364**

F9000
Devices

SECURITY

The F9000 mechatronic cylinder reaches an unprecedented security level. F9000 meets all security and flexibility requirements for complex Master Key systems as it has the highest resistance against drilling, pulling, picking and bumping.

The cylinder is certified according to: **EN 15684:2012** "16B4FF32" Classification.
The cylinder is also available in compliance to **ATEX directive**: EX 2 G Ex ib IIB T4 (zone 1).

F9000 RELIABILITY

The F9000 are reliable in severe environments with dust and water.

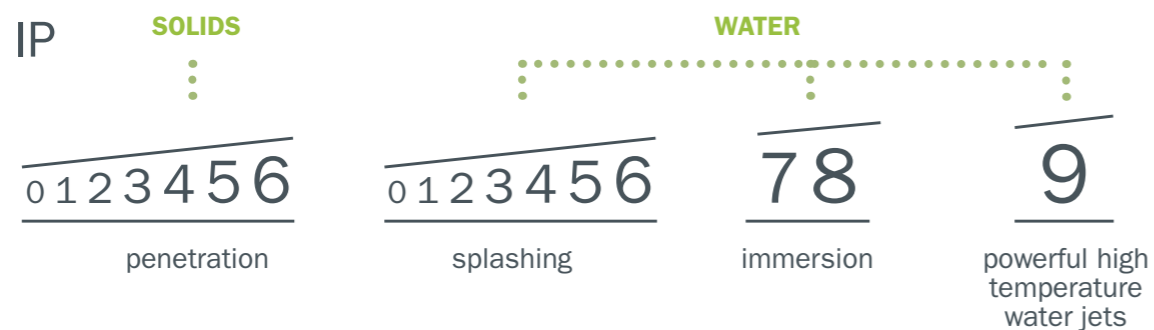**The complete F9000 cylinder range is classified IP66 IP67 IP68 IP69**

IP CODE CLASSIFICATION

The International Protection Marking (IP Code), IEC standard 60529, classifies and rates the degree of protection provided by enclosures against intrusion of solids and water. After the symbol IP, the first digit represents ingress of solids and the second ingress of water.

☐ Solids: IP 6x is the maximum level for solids.
☐ Water: IP x6 is the maximum for water splash.

IPx7 and x8 are tests on immersion and IPx9 is a test with powerful high temperature jets.

IP   SOLIDS   WATER

0 1 2 3 4 5 6   0 1 2 3 4 5 6   7 8   9

penetration   splashing   immersion   powerful high temperature water jets

TEST NAME	REQUIREMENT VERIFICATION	
PROTECTION AGAINST SOLIDS		
IP 6x Dust Tight	After 8 hours in a chamber with depression of 20 mbar applied on the samples, there is no dust penetration and the samples are working after the test.	20 mbar 8 hours
PROTECTION AGAINST WATER		
IP x6 Powerful water jets	After 3 minutes splashing from 3 meters distance, water volume 100 l/h, water pressure 100 kPa, there is no water penetration and the samples are working after the test.	3 minutes 100 l/h 100 kPa 3 meters
IP x7 Temporary immersion in water	After immersion in water for 30 minutes with a depth of 1 meter, there is no water penetration and the samples are working after the test.	30 minutes 1 meter
IP x8 Continuous immersion in water under conditions specified by the manufacturer (more severe than IP x7)	After immersion in water for 60 minutes with a depth of 5 meters, there is no water penetration and the samples are working after the test.	60 minutes 5 meters
IP x9 Powerful high temperature water jets	After 3 minutes splashing from 150 mm distance, water volume 16 l/min., water pressure 10 MPa, water temperature +80°C, there is no water penetration and the samples are working after the test.	3 minutes 16 l/min 10 MPa +80 °C 150 mm

ISEO

ISEO V364

RFID LOCKS
Aries

Thanks to its simplicity and flexible installation, the **Aries** 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 IS AVAILABLE 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 the 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 the 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 patented ISEO R90 Factory half-cylinder with a key that can be mechanically recoded up to 3 times, and it's supplied in key alike 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.

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 READER
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 reader) 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), 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 **V364**

RFID LOCKS
Libra LE60

The Libra LE60 electronic modular 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 (EN1303, DIN 18252), and doesn't require any wiring so it's simple to switch from a mechanical cylinder to an electronic one.

Libra LE60 allows:

FAST INSTALLATION
Libra LE60 easily adapts to any door thickness and lock position with no need of preliminary door inspection. You don't need to know the required cylinder dimensions in advance

JUST IN TIME SOLUTION
Libra LE60 reduces the time and costs of service to customers providing an instant solution to customer's needs

MORE BUSINESS LESS STOCK
Libra LE60 enables many business opportunities with minimal stock.

LIBRA LE60 COMPONENTS
Libra LE60 is based on the LE60 platform by ISEO allowing the use of the same assembling methodology and tools of the mechanical modular systems by ISEO. Since Libra LE60 has a different core mechanism from mechanical cylinder modular systems, most of the mechanical components are specific to Libra LE60.
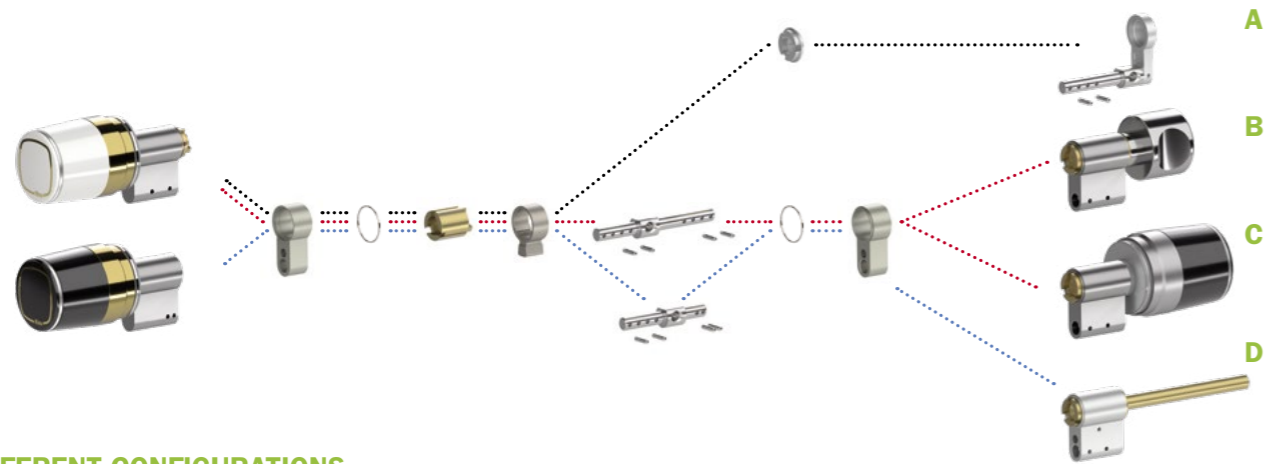
DIFFERENT CONFIGURATIONS

| A	B	C	D
Single profile	Internal mechanical knob	Double electronic knob	Shortenable shaft

The high modularity of the cylinder, obtained thanks to its patented design, drastically reduces the number of components required to build all the versions and measures necessary to cover the wide range of potential installations, with consequent reduction of components stocks, better flexibility and fast reaction to customer requests.

The unique and innovative design, combined with the finishes and colors available, allows the smooth integration in any architectural contexts.

☐ Libra LE60 features IP protection rating of IP66, IP67, IP68, IP69.
☐ Libra LE60 is also available in a Heavy Duty version, with a protective anti- drilling device on the cylinder body.
☐ Libra LE60 is supplied always with Radio BT4.0.
☐ Libra LE60 is powered by a STANDARD commercial BATTERY CR123 3V.
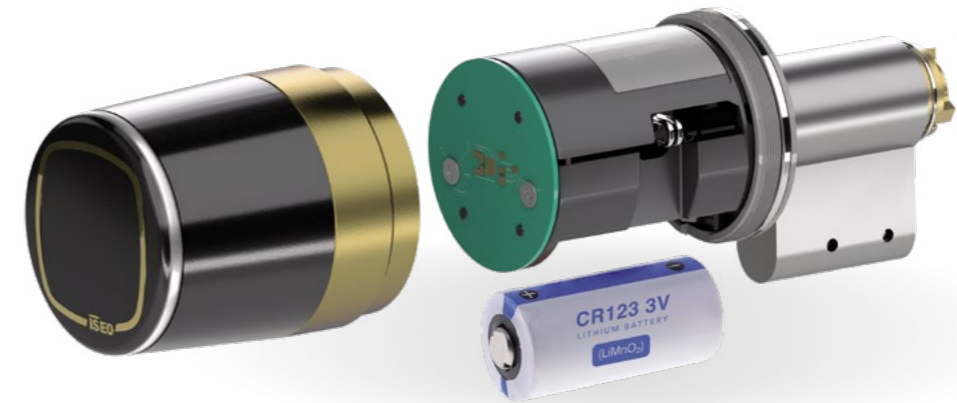
STANDARD BATTERY CR123 3V ($LiMnO_2$)

Libra LE60 is shipped with FDK CR17335EF battery. FDK CR17335EF battery is also available as spare part in the ISEO Argo and V364 access control systems catalogues. *FDK CR17335EF allows Libra LE60 working in the temperature range: -20°C to +70°C.*

RECOMMENDED COMMERCIAL BATTERIES CR123 3V:

VARTA CR123A
ENERGIZER 123
PANASONIC POWER PHOTO CR123A
DURACELL CR123
With these batteries LIBRA LE60 works in the temperature range: 0°C to +70°C.

BATTERY LIFE (for all batteries)
at 20°C with 20 openings per day up to 2 years.

ISEO V364

The Libra 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.

ADI Design

XXIII Compasso d'Oro — HONOURABLE MENTION

German Design Award

IFSEC'S Security & Fire

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 LE60 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)
- Half cylinder with external electronic knob (with free rotation) and internal cylinder without key hole (dummy-knob)
- Heavy Duty version for high security doors.

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

□ WIDE RANGE OF DOOR THICKNESS

Libra LE60 can be installed on a wide range of door shims

Cylinder double knob version dimensions:
- Minimum 30-30 mm
- Steps 5 mm
- Maximum total length: 260 mm (standard version)
- 180 mm (special version)

Cylinder single knob version dimensions:
- Minimum 30-10 mm
- Steps 5 mm
- Maximum 180-10 mm

□ COMMUNICATION INTERFACE
- RFID
- Radio BT 4.0

□ KNOB DIMENSIONS
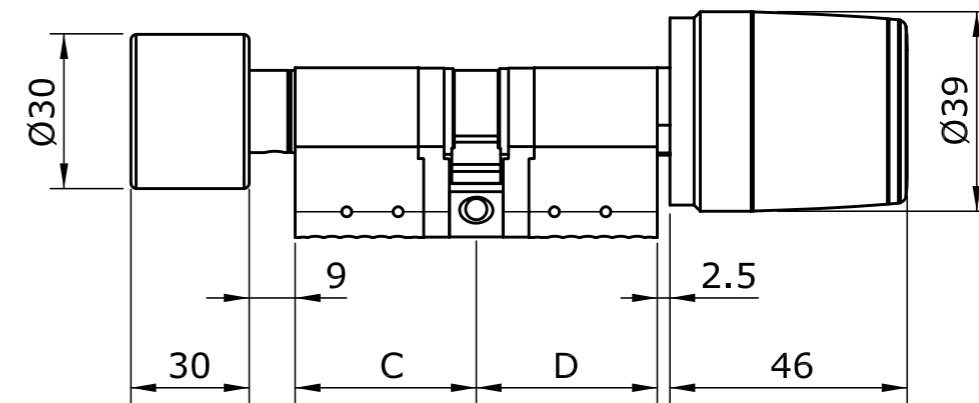
Electronic knob dimensions:
- External diameter from 36mm to 39mm
- Length: 46mm

Mechanical knob "standard" dimensions:
- External diameter 30mm
- Length: 31mm

Mechanical knob "premium" dimensions:
- External diameter from 36mm to 39mm

C= 30/35/40/45/50/55/60/65/70/75/80/85/90/95/100/110/115/120/125/130
D= 10/30/35/40/45/50/55/60/65/70/75/80/85/90/95/100/110/115/120/125/130

ISEO

ISEO **V364**

RFID LOCKS
Locker

☐ **RFID MULTI-STANDARD READER**

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 reader) means efficient energy management of the batteries.

☐ **BATTERIES**

Libra LE60 is powered by a lithium battery - CR123 3V - accessed from the outside so it can be replaced even when the door is closed. Battery life depends on usage and environment up to 2 years and up to 20000 opening.

3 level battery charge detection.

☐ **VISUAL AND AUDIBLE INDICATOR**

- 2 Led (green, red) visible on 360° ring.

- Acoustic buzzer.

☐ **DESIGN AND FINISH**

The elegant, streamlined shape, and the finishes for the metal parts and the parts in compound materials, mean the Libra LE60 electronic cylinder fits perfectly into any context, whether classic or modern.

- Finishes for metal parts: stainless steel, polished stainless steel, satin brass, polished brass (brass version not suitable for outdoor installations).

- 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:

- Standard version: 1604AF30

- Heavy Duty version: 1604AF32 and SKG***

☐ **ENVIRONMENTAL FEATURES**

- Operating temperature: -20°C to +70°C

- Storage temperature: -25°C to +75°C

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, 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.

ISEO V364

RFID LOCKS
Stylos

When used alongside the electric lock actuator, the **Stylos** credentials reader allows you to control any electric device. Stylos 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 credential 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 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 Electronic devices can be combined to create the following access control system solutions:

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.

V364 supports RFID technology, mechatronic key F9000 and mobile keys. 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.

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 to open your door.

All you need is installing on your door an opening device of the Smart series such as Aries Smart, Libra Smart, x1R Smart, Smart Relay , Smart Locker and Stylos Smart.

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.

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