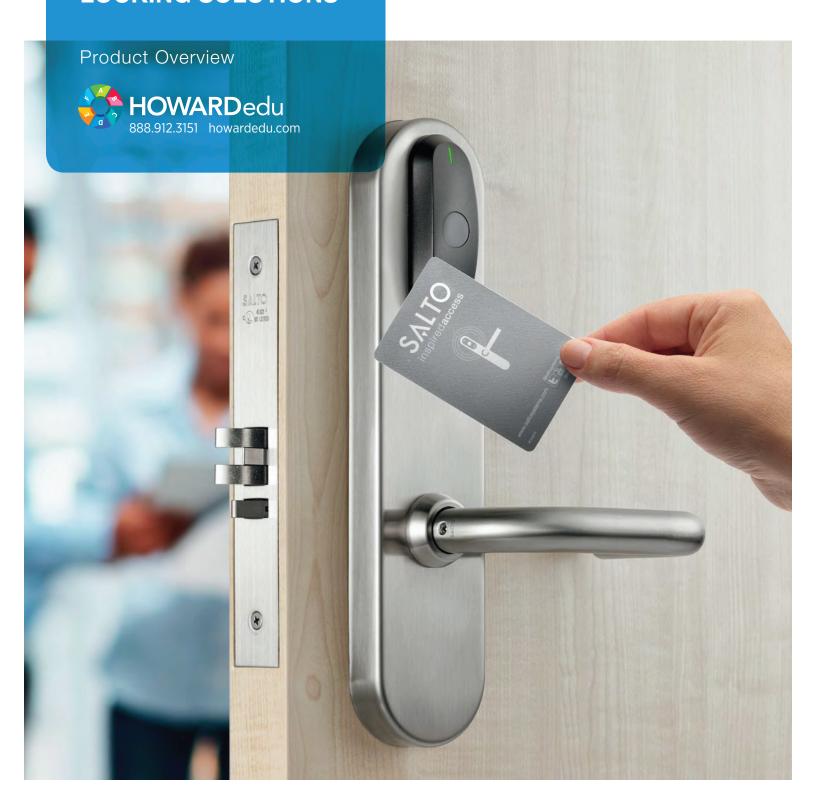


WIRE-FREE ELECTRONIC LOCKING SOLUTIONS



SALTO SYSTEMS - ONE JUMP AHEAD

Since 2001 SALTO has been delivering the most technologically advanced electronic access control solutions in the market - wirefree and keyless. By creating the data-on-card based SALTO Virtual Network (SVN), SALTO has revolutionized access control around the world and set new standards in security, comfort and cost-effectiveness which will remain future proof.

The SALTO XS4 platform offers a wide range of the most comprehensive and versatile products, which allows SALTO to provide access control for the most diverse sectors - from office and government buildings to healthcare, public institutions, education, hospitality and airports.



SALTO VIRTUAL NETWORK (SVN) WIRE-FREE NETWORKED

ACCESS CONTROL

The SALTO Virtual Network (SVN) is a data-on-card system based on a patented read/write technology. In SVN all user-related access information is stored on ID credentials which act as credentials. The access rights are updated at hard-wired online IP access points. Optionally, any update can be recorded on the credentials directly at the system manager without any hard-wiring. All other access control products, like electronic escutcheons and cylinders are battery-operated, nonwired offline elements and virtually networked through the credentials. The exchange of information between the credentials and the offline elements is in a two-way communication. For example, a lost or stolen credential is written on credentials and so transmitted in no time to

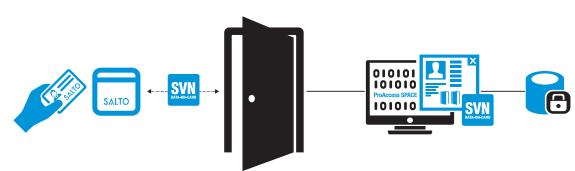
the offline elements. A credential that is listed as lost or stolen is deleted immediately when it is presented at an offline reader which has been informed about the loss. Low battery status of an offline escutcheon/cylinder is written on the valid credentials and transmitted to the system manager through update points.

The exchange of information via RFID credentials is secured and encrypted. SALTO offers all mainstream RFID technologies and allows multi-applications. One single credential can be the access credential and also be used in time and attendance or cashless payment systems.

If required, SALTO SVN can be fitted easily and economically if customers already use an RFID application.



ACCESS AT ONLINE POINT



Card transmits to the system via wall reader:

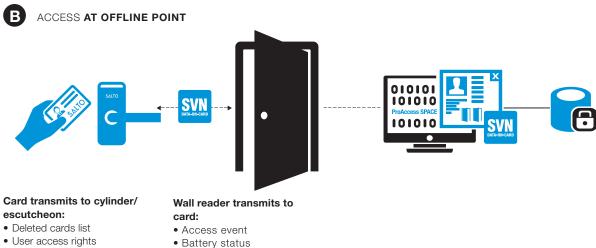
- User access event
- · Visited door battery status

Wall reader transmits to card:

- · Deleted card list
- Updated user access
- Expiry date renovation

Functions:

- Add or delete users remotely
- User profiles updated easily (calendars, shifts ...)
- Dynamic event audit trail
- Remote stand-alone device battery status report
- Expiry date renovation



Main benefits of SALTO Virtual Network (SVN)

- Cost-effective, quick and easy installation as only update points require hard-wiring.
- Control and management of all access points remotely from one or more work stations.
- Available for all mainstream RFID technologies, also multi-applications.
- Extremely secure investment as SALTO SVN can be extended up to 64,000 doors, even on different sites in different countries, if required.
- In the case of a power failure the access control system keeps functioning because of its battery-operated escutcheons and cylinders.

RFID technologies, examples:

MIFARE DESFire Ultralight C





Zurich University of Teacher Education
Image:

Mark Röthlisberger, Hochbauamt Kt. Zürich

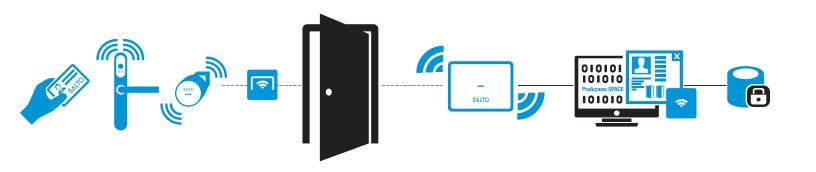
SALTO WIRELESS ACCESS CONTROL THROUGH RADIO FREQUENCY

SALTO Wireless has been developed to meet the highest demands related to security and comfort. This access control system is networked through radio frequency and especially designed for doors where real-time control is required. SALTO Wireless can be installed as an independent system or can complement SALTO Virtual Network (SVN) in areas of a building where real-time control is required. SALTO Wireless connects battery-powered electronic escutcheons and cylinders by means of radio transceivers with gateways which are connected by Ethernet/WiFi to the central management computer. If the distance between the escutcheons and cylinders and the gateways is too large, repeaters

extend the range of the radio frequency. SALTO Wireless is configured, controlled and managed in real-time with just the click of the mouse. Changing or deleting access rights, downloading audit trail information from the escutcheons and cylinders, collecting the battery status and much more is done in real-time in a very efficient way. Even if the radio link is interrupted or breaks down, the system will continue to work, as the virtual network of the battery-operated escutcheons and cylinders remains operative through SALTO SVN.



IN REAL TIME: ACCESS AT WIRELESS POINT



Cylinder/escutcheons transmits to gateway:

- Access event
- Battery status

Gateway transmits to cylinder/ escutcheon:

- Deleted card list
- Updated user access rights

Real-time functions:

- Access event
- Key cancellation
- Door monitoring
- Graphical mapping
- Battery status
- Remote emergency opening
- Remote emergency locking



SALTO MOBILE SOLUTIONS

SMARTPHONE-BASED ACCESS CONTROL

With SALTO's JustIN technology smartphones can be integrated conveniently and beneficially into access control solutions. JustIN Mobile allows doors to be opened with a smartphone. With JustIN mSVN the smartphone turns into an update terminal for credentials.

JustIN Mobile

JustIN Mobile employs Bluetooth Low Energy (BLE) for communicating between the smartphone and electronic locks. The mobile key is sent "Over the Air" (OTA) from the ProAccess SPACE management software to an installed JustIN Mobile app at a registered and verified smartphone. The user receives a message that he has a new key and for which doors he has access rights. Then, they only need to present the smartphone to the lock and start communication via the JustIN Mobile app. All data transmission and the mobile key itself are encrypted and secured against cloning.

Users can receive mobile keys anytime and anywhere. By this, access control solutions gain even more flexibility for issuing and receiving access rights, without sacrificing security.

JustIN Mobile can be used along with or as a replacement of RFID credentials.

JustIN mSVN

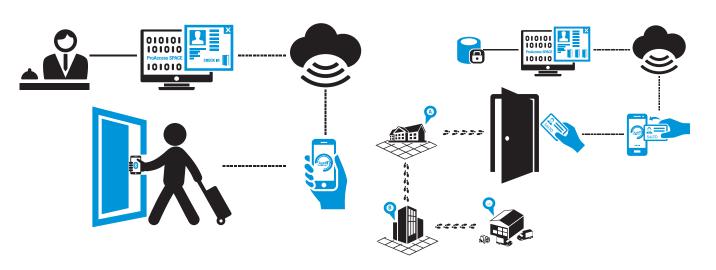
JustIN mSVN (mobile SALTO Virtual Network) is a technology developed by SALTO for updating access rights for credentials employing mobile communications, the JustIN mSVN app and the NFC (Near Field Communications) interface of smartphones. By these means, the SVN can be expanded to locations where no online wall reader is available. With JustIN mSVN, access rights can be updated via direct communication between the smartphone and the credential exactly where and when these are needed.

New access rights and black list information are sent to authorized and registered users from ProAccess SPACE to the mSVN app. The NFC-enabled smartphone then serves as an update point for credentials that an XS4 online reader usually does. The end-user updates the credential by presenting it to the smartphone using the JustIN mSVN app.

All data transfer is encrypted and secured using Mifare DESFire EV1 technology.

JUSTIN MOBILE: HOW IT WORKS

JUSTIN mSVN: HOW IT WORKS





SALTO INTEGRATIONS

SEAMLESS COMBINATION OF DIFFERENT SECURITY SYSTEMS

In many security installations there is a need for combining systems by different vendors. SALTO offers several ways to integrate with third-party products. This includes interfaces and APIs for connecting SALTO to third-party wired access control systems as well as integration with video surveillance, parking management, number plate recognition, biometrics, time & attendance, escape door control systems, Physical Security Information Management Systems (PSIM), even training systems for safety instructions and many more.

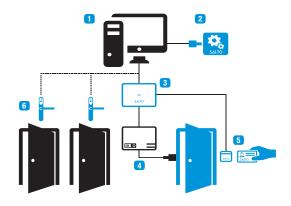
SHIP

SHIP is a proprietary communication protocol based on a software dialogue that allows third party access control providers to manage and control SALTO offline and wireless locking devices by way of their own software GUI. Even though the SALTO locks are governed by the SALTO service, the operations are triggered from the integrator's GUI.

SALLIS

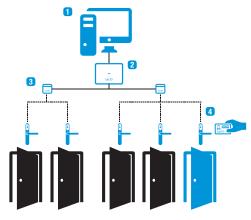
SALLIS technology enables you to link your access control system to the SALTO SALLIS wireless platform through your company's access control panel or door controllers. It provides access control system capabilities to virtually any kind of door through a simple integration and without the need for any complex and expensive wiring.

SHIP: HOW IT WORKS



- 1. Integrator software control panel database
- 2. SALTO software service
- 3. SALTO uBox
- 4. Integrator door controller
- 5. SALTO wall reader
- 6. SALTO offline networked escutcheons and cylinders

SALLIS: HOW IT WORKS



- 1. Host & database
- 2. Router
- 3. Node
- 4. SALTO SALLIS escutcheons and cylinders



XS4 ESCUTCHEONS FLEXIBLE AND WIRE-FREE

With a large variety of models, XS4 electronic escutcheons fit virtually any door, including wooden and PVC doors as well as those with narrow metal frames. All are totally wire-free and networked through SALTO Virtual Network and SALTO Wireless network for access control in real time.

High security protection via high resistance, hardened anti-drill plates to protect wiring and reader area.

Main features

- Simple installation by changing handle set.
- SALTO SVN and SALTO Wireless network capable.
- Covering the mainstream RFID technologies.
- All communication between the credential and the electronic lock is encrypted and secured.
- Low battery status information is obtained from credentials.
- For inside and outside use, IP55 rating.
- Wide range of finishes: satin stainless steel, polished stainless steel, antique brass, satin brass (PVD), polished brass (PVD) black.
- Available with antimicrobial BioCote® coating.

Product range

• Complementary escutcheons without reader to maintain the aesthetics of doors that do not need to be controlled.

XS4 wide body escutcheon

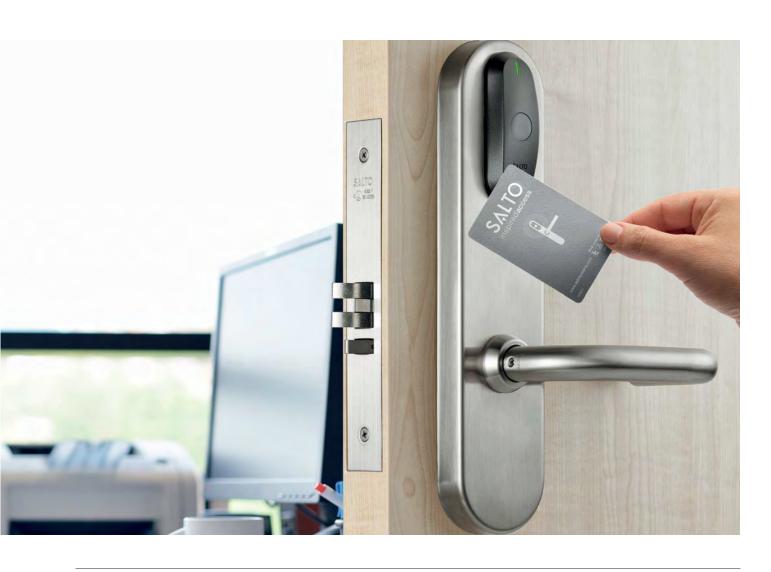
Specially designed for use on busy, high traffic doors that need additional strength.



XS4 Key pad escutcheon

Increases security and control as it offers three forms of authentication to grant access: credential, PIN or credential + PIN.





XS4 Mini escutcheon

XS4 Mini comes in Mifare and BLE (Bluetooth Low Energy) versions so it can be operated by conventional smartcards and/or via SALTO's JustIN Mobile app.



XS4 DIN glass door escutcheon

For use with DIN 18101 standard glass doors. Its unique 'sandwich body' construction makes it easy to install.



XS4 GEO CYLINDER WIRE-FREE AND VERSATILE

Extensive range of wire-free, stand-alone electronic cylinders designed for doors where fitting an electronic escutcheon is not possible or required (e.g. antique doors).

In addition to use on doors, other applications including post boxes, server-racks, cupboards or boxes can be controlled via SALTO SVN access control and protected by GEO electronic camlocks and padlocks against theft or unauthorized use.

Main features

- Simple installation by changing the mechanical cylinder.
- Wide range of models: mortise cylinder, RIM cylinder, etc.
- SALTO SVN and SALTO Wireless network capable.
- Covering the mainstream RFID technologies.
- All communication between the credential and the electronic lock is encrypted and secured.
- Low battery status information is obtained from credentials.
- For inside and outside use, IP55 or IP66 rating.
- Wide range of finishes: satin chrome, polished chrome, polished bright brass type (PVD), satin brass type (PVD), black satin.
- Available with antimicrobial BioCote® coating.

SALTO GEO cylinders

Mortise cylinder



RIM cylinder



Deadbolt cylinder



Cylinder for server racks



Special XS4 GEO cylinders



The XS4 GEO cam lock is specially designed to fit post boxes, cabinets, cupboards or lockers.



The XS4 GEO padlocks are versatile locking solutions to secure toolboxes, machines and much more.



XS4 WALL READERS CONTROLLING AND UPDATING

Wide range of hard-wired wall readers for a huge variety of needs and uses. For controlling access rights and as an update terminal in SALTO SVN to write updated access rights information onto the credential.

In combination with the XS4 controller suitable for doors where escutcheons/cylinders cannot be fitted, e.g. automatic doors, barriers, elevators, shutters or speed gates.

Main features

- Covers the mainstream RFID technologies.
- All communication between the credential and the wall reader is encrypted and secured.
- For inside and outside use, IP 66 protection against ingress of water.
- For surface or flush mounting.
- Wide range of accessories, e.g. special bases for flush mounting, stainless steel external case for use in harsh weather conditions or stylish pedestal for places where readers and controllers normally cannot be fitted.

XS4 2.0 Wall reader

Modern design with clear LED signaling, includes latest electronics and is completely sealed and designed for heavyduty outdoor use (IP 66). Available in Black or White.



XS4 2.0 Wall reader with keypad

Permits maximum flexibility without sacrificing security with three authentication modes available. Its system of intelligent keypad lighting activates automatically when needed.



XS4 Wall reader with keypad

Increased security as dual identification is needed: credential and PIN.



XS4 Wall reader, narrow profile

Specially designed for doors with a narrow profile frame.



XS4 DOOR CONTROLLER INTEGRATING SPECIAL APPLICATIONS

SALTO offers a wide range of offline and online door controllers that enable the expansion of SALTO access control benefits to all those doors where a stand-alone electronic escutcheon or cylinder cannot be fitted, e.g. electric strikes, barriers, elevators, shutters, automatic door openers or speed gates. In addition, the XS4 2.0 door controller has substantial technological advances and can be configured as 2 different doors or one door reader in and reader out locking, that allows management of up to 10 doors from 1 IP address.

All door controllers enable the integration of SALTO access control with building management systems, e.g. for triggering lifts or post boxes.

The door controllers transmit data stored on the credential to the access control software and allow for updating of the credential via the wall reader making it possible to cancel lost or stolen cards.

Model: CU42E0

CE A

Romarkon: 129c-1A

127cc Input Cola

127cc In



AELEMENT RFID LOCKS ELEGANT AND NETWORKED

AElement is an RFID lock that allows you to integrate all your physical security needs into one stylish, energy efficient, reliable, wire-free system. The minimalistic design of its RFID reader looks chic and discreet on any door and can be combined with a wide range of SALTO and designer handles.

Incorporating SALTO's DNA technology, AElement allows users to choose between the online and offline world as all locks are designed to be wireless ready right out of the box. Users simply choose the mode of operation they want, "Wireless online" or "Wireless ready."

"Wireless online" locks are online and communicate in real-time providing real-time control over an entire property.

"Wireless ready" locks can be "switched" to real-time mode at any time. Just plug in the USB-sized RF communication antenna and you are ready to go.

Main features

- Wire free stand-alone networked system through SVN technology; SALTO Wireless convertible.
- Covering a wide range of mainstream RFID brands allowing multi-application with third party systems using one card (e.g. cashless payment and T&A systems).
- AElement contactless range is compatible with NFC (Near Field Communication) technology which allows NFC enabled cell phones to act as contactless data credentials to open and control SALTO access cont rolled doors.
- Mechanical privacy function option through thumb turn on the inside (for hotel industry).
- The lock can always be opened from the inside (a single action panic feature works in conjunction with the relevant mortise lock).
- Extreme security through advanced hardened high resistance anti-drill plates to protect wires and reader area.
- Attractive range of standard handle designs and finishes.





AElement versions

AElement readers are offered in ice white and pearl black colors. The finishes of the mounting frames are adjusted to the handle finishes and available in brass (polished, satin and antique) and chrome (satin and polished). AElement offers a wide choice of classic-style, modern, minimalistic or functional handles and roses.



XS4 MORTISE LOCKS RELIABLE LOCKING

Access control requires a good, reliable door locking system. SALTO offers a wide range of mortise locks in order to ensure that the door is correctly locked. Whether you need ANSI mortise locks, cylindrical cartridge latches or automatic locks with privacy and panic functions, SALTO has the locking system you need. Our complete range of mortise locks enable you to install SALTO electronic escutcheons and cylinders correctly without compromising security.

XS4 ANSI mortise lock / with deadbolt

Specially designed for those doors that need an ANSI mortise lock ANSI A 156.13 Grade 1 and a privacy function with a deadbolt.

XS4 Cartridge cylindrical latch

With the SALTO XS4 cylindrical latch you can replace existing traditional knob sets, and upgrade them with a state of the art electronic access control system.

SALTO Cartridge cylindrical latches are ANSI A156.2 Grade1 or 2, depending on the model and enable users to replace old cylindrical or tubular latches for new high quality ones compatible with SALTO electronic escutcheons.

XS4 Mortise lock with deadbolt LA1T15

XS4 Mortise lock with deadbolt LA1T05

XS4 Cartridge cylindrical latch







XS4 LOCKERS VERSATILE

The electronic XS4 locker lock offers protection against theft to a wide range of lockers, cupboards, display cabinets, boxes, etc. by integrating it into the SALTO wire-free electronic access solution. Most OEM lockers are supplied with very basic mechanical locks that offer little in the way of protection. SALTO electronic locker locks solve this problem by offering the latest in state-of-the-art electronic access control technology in a simple retro-fit format.

The SALTO XS4 locker solution features an ergonomically designed twist operated locking handle that makes for easy use, even with wet hands. Their durable wipe clean construction makes them highly resistant to chemicals, UV radiation and physical wear and tear ensuring a long lasting, smart appearance. The battery pack, electronic components and locking mechanism are all located on the inside of the door, safe from potential vandalism or sabotage.

XS4 ESD ENERGY SAVING DEVICES EFFICIENT

The SALTO in room energy saving device (ESD) helps to save up to 65%* of a hotel room or student dorm's electricity consumption. Unlike standard (magnetic stripe) energy savers, only authorized SALTO key cards will switch on the lights. Any other card (frequent flyer, business card, etc.) or other SALTO cards belonging to other rooms will not activate the lights.

It is also available in a connected online version, which as well as energy saving indicates in real-time the presence of guests or staff in a room, logging the information directly into the hotel PC. When a guest enters the room and inserts their card into the ESD it switches on all electrical equipment. When staff enter the room for cleaning or maintenance, the ESD recognizes their staff card and switches on only the electrical equipment they need to do their work.

*Estimation based on SALTO surveys on energy management.





XS4 PANIC BAR SOLUTIONS SECURE AND CONTROLLED

SALTO Advanced panic bar solutions enable emergency exit doors equipped with panic bars to be controlled with an innovative stand-alone electronic locking system.

SALTO stand-alone electronic locks can be fitted, in combination with adaptor kits, to more than 40 leading panic bars from the most popular manufacturers.

XS4 PBF1100

This RIM panic bar meets the highest security standards, is UL listed for Panic Hardware and Fire Exit Hardware, and is certified according to ANSI A156.3, 2001, Grade 1.

XS4 PBF1100



XS4 SOFTWARE: SPACE, PROACCESS AND HAMS EFFICIENTLY ORGANIZING, CONTROLLING AND MANAGING

ProAccess SPACE is SALTO's web-based management software. The system consists of six modules with different functionalities. Several Add-ons allow for tailormade extensions, even subsequently.

The software delivers a powerful and easy-to-use access control management that is suitable for use in all kinds of environments and can manage up to 4 million users and 64,000 doors. With ProAccess SPACE it is possible to seamlessly integrate smartphones into access control environments (SALTO Mobile Solutions).

Thanks to an interface that helps users find and operate the functions they want the software is used quickly and intuitively. The web-based architecture reduces installation and maintanence costs as well as IT hardware requirements significantly.

Hospitality Add-ons

For the Hospitality market, SALTO has developed specific add-ons which allow hotel clients to easily control all their access and guest management needs with one easy-to-use system. It suits hotels of all types and sizes.

SPACE's hotel add-ons include functionalities such as mobile keys (BLE), group check-in, real-time re-rooming and real-time extended stay. These plus other key hotel features make it easy to control all the offline and online guest rooms and back-of-house doors from one central location. ProAccess SPACE is compatible with leading property management software (PMS) such as Micros FIDELIO, New Hotel, Protel, Infor etc. and can also be used to manage SALTO Intelligent Energy Saving Devices (ESD).

ProAccess SPACE



XS4 MANAGEMENT TOOLS EFFICIENTLY INITIALIZING AND ENCODING

The SALTO XS4 management tools are the link between the software and the credentials as well as between the software and the locks on the door.

XS4 PPD (Portable Programmer Device)

The SALTO Portable Programmer Device is the messenger between the computer and the locks such as escutcheons or cylinders. It is used to initialize doors, update locks or collect audit trails, etc.

XS4 Encoder

The SALTO XS4 encoder is a compact device which reads, encodes and updates credentials. It is available in different versions depending on the PC connection (USB or Ethernet).





XS4 CREDENTIALS OPTIONS FOR EVERY NEED

SALTO credentials are available in a wide range of versions to suit user's individual needs. Contactless and intuitive to use, you just have to present the credential at the reader. All credentials are battery free, waterproof, copyproof and suitable also for multi-applications with other systems like T&A

terminals or cashless payment systems. Also available: customized watch issuing or customized credentials.



XS4 Contactless key fobs



XS4 Contactless key bracelets



XS4 Contactless cards



XS4 Contactless bracelets

