

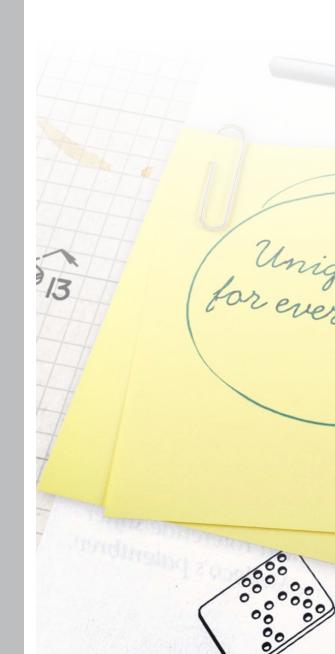
HealthcareSecurity and Access Solutions

ASSA ABLOY Hospitality

ASSA ABLOY

The global leader in door opening solutions

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The Company

ASSA ABLOY Hospitality

Our story began in 1974, when lock maker Tor Sørnes heard that an intruder had attacked his favorite singer in her hotel room.

Inspired to help, he resolved to invent a security system that would provide a unique key for every guest. His invention changed the whole lock industry.

As industry pioneers we've always led the way – employing innovative technology to make people feel safe and sleep easier wherever they are.

ASSA ABLOY Hospitality has products installed in more than 42,000 properties worldwide, securing in excess of 7 million hotel rooms. We continue to use advanced technology to offer security and peace of mind to both hospitality providers and their guests. ASSA ABLOY Hospitality's extensive international network covers more than 166 countries.



The Company

Why ASSA ABLOY Hospitality Solutions?

Our purpose is not simply to lock and unlock more doors-it is to unlock the feeling of safety, security and belonging for more people, wherever they want to go.

We know what it takes to unlock a feeling of security, for hotels and their guests. Our Scandinavian design is well-known throughout the world for the quality, functionality and durability it represents. Since we invented the first card lock system in 1979, we have continued to innovate and deliver high quality electronic locks and safes to the hospitality industry.

We bring experience, knowledge, modern technology and the finest materials to the task. By focusing on industry trends, modern manufacturing facilities, internal resources and a close dialogue with our customers, ASSA ABLOY Hospitality has been able to continuously develop solutions to match customer needs. Our vast array of solutions and services are created with full compatibility in mind in order to meet the unique demands of any property.

Designed according to the most demanding standards, VingCard's electronic locks and Elsafe safes are tested to more than 1 million openings. Based on a heavy duty mortise lockcase and a solid escutcheon, the lock is as solid as it is secure. Solid brass handles fastened on the inside of the escutcheon with self-lubricating long-life bearings ensure maximum security and a true quality touch and feel.

In setting a new standard in electronic safe security design, ASSA ABLOY Hospitality currently produces the industry's only UL-1037 certified safe, providing guests and their valuables with the highest level in property security.

We are dedicated to offering advanced security solutions and peace of mind for both facility providers and their patients.







2. Mobile Access

Always setting the pace in hospitality innovation, ASSA ABLOY Hospitality has played an integral part in developing and implementing mobile access technology throughout hospitality markets around the globe. A highly advanced mobile phone-based keyless entry solution, ASSA ABLOY Hospitality Mobile Access has already been installed in tens of thousands of rooms worldwide

Powered by Seos®, the first ever multi-platform ecosystem for issuing, delivering or revoking digital keys, properties equipped with Mobile Access can provide residents with the ultimate check-in convenience by allowing them to use personal devices as a room key and bypass the reception entirely.

As a result, this proven technology solution can provide the added benefits of more streamlined front desk operations and reduced costs to the facility owners.

Mobile Access

Three Different Solutions

You can choose between three variations of the solution depending upon your needs.



Customer Integration

This solution is created for facilities with their own app initiatives that want to integrate mobile access into their own apps and back end systems. ASSA ABLOY Hospitality provides a Mobile Access Software Development kit (SDK) together with dedicated onboarding services to facilitate seamless integration.



Third-Party (Certified Partners)

This solution suits facilities that want mobile app functionality beyond access control alone, but don't yet have their own in-house app initiatives. They can choose a solution from one of our selected app specialist partners, who through our Certified Partner Program have already integrated our mobile access functionality into their products.

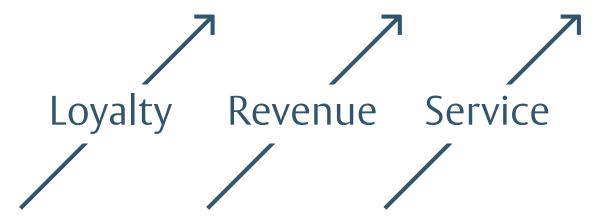


ASSA ABLOY Hospitality Mobile Access App

This is our own developed off-the-shelf solution, which is ready to use. It suits facilities that want to provide basic mobile access solutions to their residents in an easy way. There are no integration or third-party dependencies and two variations of this solution are available.

A generic app that is published by ASSA ABLOY Hospitality on App Store and Google Play. Through an administration portal, the facility can customize their digital key graphics that will then show in a "Passbook" inspired style.

ASSA ABLOY Hospitality provides the basic app structure with a Software Develop-ment Kit in order for the customer to easily finalize the app with their own look and feel and publish it on App Store/Google Play as their own branded version.



Mobile Access

Benefits



Unique user experience

Mobile Access offers residents a whole new experience. Depending on the solution deployed they can access their rooms using their mobile phone or devise. This includes assisted check in and check out to maintain security and wellbeing.

Skip front desk - No queues

When residents arrive, they can go straight to their room and use their own smartphone to open the door. No need for keys or keycards. No need to wait in a queue at the front desk. This seamless experience is secure, convenient and saves everyone time.





Better guest experience

In improving service levels and resident experience, Mobile Access builds customer loyalty as well as the facility image and brand. Such a central feature adds value to facilities mobile strategies, making them more relevant to guests and residents.

Operational efficiencies and resident service

On the operational side, Mobile Access streamlines front desk operations, reducing costs and freeing up the front desk team to focus on other important aspects of resident service. This is also enhanced as access can be audited through the system to ensure delivery of patient services and automated alerts for better resident attention.

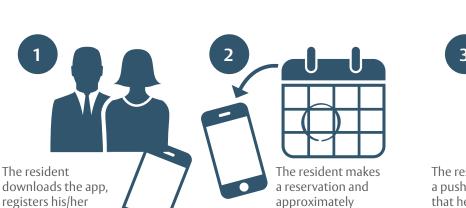
Increased loyalty & profitability

Mobile Access facilitates one-to-one communication with the residents, ultimately driving customer loyalty and revenue. Together benefits of Mobile Access lead to enhanced facility image and resident loyalty, more efficient operations that reduce cost and drive revenue, improved profitability and increased competitiveness.

Mobile Access

How it Works

Regardless of the solution deployed, the same core mobile access will give residents and staff an experience that is convenient, secure and timesaving.



approximately smartphone through 24 hours before arrival, the app and allows he/she is invited through push notifications. a push notification to use Mobile Access and start the check-in process.



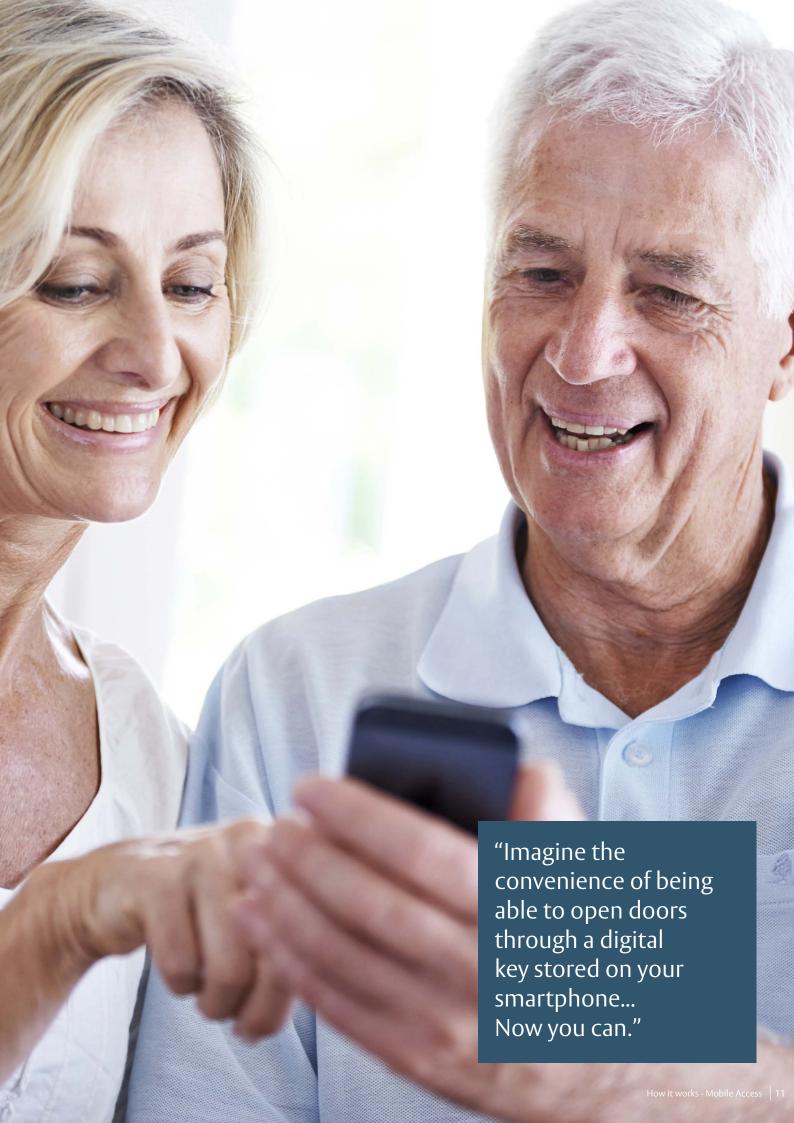
The resident receives a push notification noting that he/she is checked in and the app will update with the room number and the digital key when the room is ready.



Upon arrival the resident can bypass the front desk and go directly to his/her room.



After ensuring that the Bluetooth is enabled, the resident simply holds the smartphone to the door lock, waits for the solid green light and enters the room.







3.VingCard Electronic Locks

Designed according to the most demanding ANSI grade 1 standards, VingCard's electronic locks are tested to more than 1 million openings. Based on a heavy-duty mortise lockcase and a solid escutcheon, the lock is as solid as it is secure. Stainless steel handles fastened on the inside of the escutcheon with self-lubricating long life bearings ensure maximum security and a true quality touch and feel.

Since 1979, research and development has been a key element for us in finding new solutions for the future. By working together as a team, using our learning experience from the market and combining it with our know-how, we are able to develop tomorrow's solutions.

The modular construction makes it easy to change and service parts without changing the complete lockset. Due to our future-proof philosophy the lock software can be upgraded in the field at any time when needs change without changing or removing any hardware.

VingCard Allure

VingCard Allure is a designers' dream. Unique design and exceptional features make Allure more than you would imagine it to be. It can act like a lock, but surely does not look like one. With its sophisticated glass looking fronts and elegant touch, Allure is a jewel in disguise. More flexible than ever before, you can now choose the appearance and functionality based on your desires.

Features:

- The industry's most advanced and secure RFID technology.
- Wall-mounted panel with LED light information indicators.
- Wall reader with customizable intelligence and functionality.
- Stylish glass looking panels with flexible design options.
- Illuminated room number option with 16 selectable LED light color themes
- Inside panel for setting "Do Not Disturb" (DND) and "Make Up Room" (MUR) status.
- Standalone solution for DND/MUR setting and status display.
- Wireless communication between wall and door unit.
- Online connectivity with Visionline Wireless (ZigBee) or Visionline Wired (PoE).
- Integration with GRMS.



ACCESS PANEL

The most advanced VingCard Allure panel has all available functions included.

You get an RFID lock, based on VingCard's well-known RFID locking solution and quality, "Make Up Room" (MUR) and "Do Not Disturb" (DND) status indicators, a doorbell button and room number display.



IN-ROOM PANELS

To activate the MUR and/or DND room status, it is necessary to have an in-room switch panel. This panel can be installed wherever it is suitable or convenient.

VingCard's room bus system also allows multiple panels within one room or suite.

VingCard Essence

VingCard Essence revolutionizes the electronic lock industry by housing all lock components, including the reader, inside the door and therefore, reaching the maximum minimalistic expression, the true essence of an electronic lock.



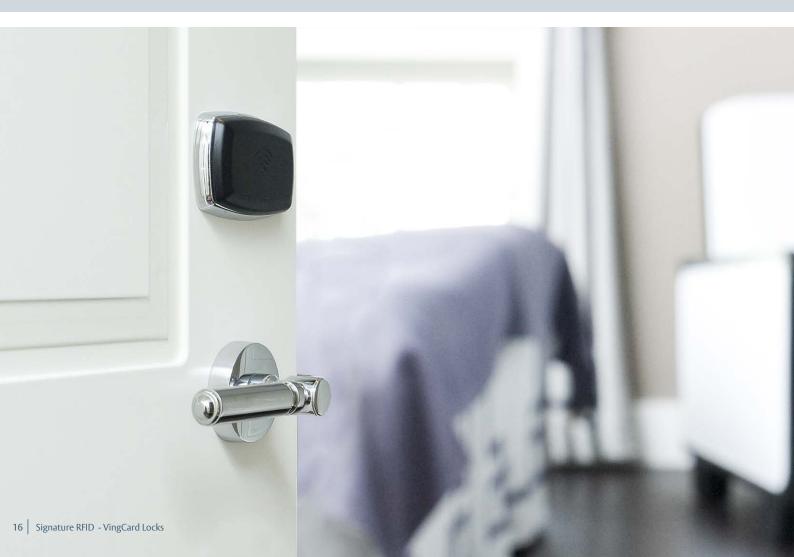
VingCard Signature RFID

With Signature RFID you are provided with a stylish and modern lock that appeals to the modern facility environment. Signature RFID is less on the door and more for you and your residents in terms of functionality and user friendliness.

Upgrade to RFID Technology

- 3-5 minute operation.
- No need to replace the lockcase or handles.
- No drilling required.
- No downtime in room availability.
- No disturbance for your guests.



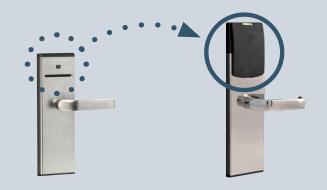


VingCard Classic RFID

Classic RFID derives from the standard Classic lock and allows you to go contactless in a few short steps if you already have standard Classic installed. With its sleek and elegant design, available in all VingCard lock finishes, you now have a second method of upgrading to RFID functionality depending on your choice of style.

Upgrade to RFID Technology

- 3-5 minute operation.
- No need to replace the lockcase or handles.
- No drilling required.
- No downtime in room availability.
- No disturbance for your guests.





Finishes and Handles

Handle options

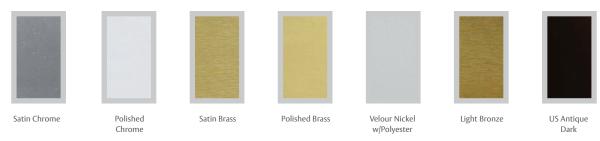
To truly match the style requirements at your property, we also offer a wide range of handle options.

| VingCard locks handles | | | | | |
|------------------------|----------------|-----------------------------------|------------------------|--|--|
| | | | | | |
| Ship Handle | US Ship Handle | Standard Handle | Functional ANSI Handle | | |
| | | | | | |
| Gothic Handle | Wing Handle | Special Handle (45 degrees slant) | Straight Handle | | |

Finishes

Offering one of the industry's widest choices of finishes, VingCard electronic locks can be configured to truly match the design of any property.

VingCard locks finishes:





Optional PVD finish (Physical Vapor Deposition) - for extreme conditions:

VingCard offers an exclusive PVD coated finish that protects the lock finish from corrosion, UV rays, salt, extreme weather conditions, aggressive cleaning products and more. PVD not only maintains the finish of the lock for longer, it is also covered by a 10-year warranty.

The PVD finish is available as an optional feature for Signature locks in the following finishes only: Satin -Chrome or Brass and Polished - Chrome or Brass.



Mobile Access

The latest generation of VingCard's RFID locks Classic, Signature and Essence are all compatible with Mobile Access. The only thing needed is to add a small Bluetooth Low Energy board to the lock.



Cylinder options

VingCard locks may also be supplied with an optional mechanical key override cylinder, widely recognized as the finest in the industry.

- Use of mechanical key override is registered in the lock memory for audit trail.
- Mechanical cylinder can be either visible or not visible with a cylinder concealer (Signature only, finish may vary from lock finish).
- Superior pick resistance through its 7 pin high security profiles and narrow channel paracentric keyway and anti-pick drivers.
- Unique cylinder fixing for added security.
- 5 times recodable cylinder.
- Cylinder is available in all lock finishes.



Automatic deadbolt option

The automatic deadbolt lockcase has been produced to provide our customers and their guests with an added measure of security. Automatically extending the deadbolt upon door closure ensures that the security of the deadbolt is present without the guest having to remember to extend it via the thumb turn.

Comparison Table





ALLURE

ESSENCE

| Lockcase | ANSI, EURO, US ANSI, JPN and AUS | ANSI, EURO, US ANSI, JPN and AUS |
|---|---|--|
| Panic release | Yes | Yes |
| Auto deadbolt | Optional | Optional |
| Mechanical override | Optional (recorded in audit trail) | Optional (recorded in audit trail) |
| Solid metal (stainless steel or brass) | Yes | Yes |
| Cylinder tampering alarm | Yes | Yes |
| Reader technology | RFID | RFID |
| Flash RAM technology | Yes | Yes |
| Upgradeable reader technology | N/A | N/A |
| RFID upgradeable | N/A | N/A |
| RF-online upgradeable | Yes (2) | Yes (2) |
| Anti-Cloning technology for RFID cards | Yes | Yes |
| On-Line software technology | Visionline | Visionline |
| Off-Line software technology | Visionline | Vision or Visionline |
| Power supply | 3 AA batteries + external 12-24V DC power | 3 AA batteries |
| Automatic unlock/lock | Yes | Yes |
| Passage mode | Yes | Yes |
| Audit trail (lock events stored in lock memory) | Visionline: 2000 events | Visionline: 2000 events. Vision: 600 events |
| Resident privacy function | Yes | Yes |
| Finishes | 8 | 8 |
| Reader/Panel colors | Black/White standard or customized on | Black/White |
| Standard handles | 4 + optional designer handles | 4 + optional designer handles |
| UL fire listed | Yes | Yes |







CLASSIC RFID

| Lockcase | ANSI, EURO, US ANSI, JPN and AUS | ANSI, EURO, US ANSI, JPN and AUS |
|---|---|---|
| Panic release | Yes | Yes |
| Auto deadbolt | Optional | Optional |
| Mechanical override | Optional (recorded in audit trail) | Optional (recorded in audit trail) |
| Solid metal (stainless steel or brass) | Yes | Yes |
| Cylinder tampering alarm | Yes | Yes |
| Reader technology | RFID | RFID |
| Flash RAM technology | Yes | Yes |
| Upgradeable reader technology | N/A | N/A |
| RFID upgradeable | N/A | N/A |
| RF-online upgradeable | Yes (2) | Yes (2) |
| Anti-Cloning technology for RFID cards | Yes | Yes |
| On-Line software technology | Visionline | Visionline |
| Off-Line software technology | Vision or Visionline offline | Vision or Visionline offline |
| Power supply | N/A | 3 AA batteries |
| Automatic unlock/lock | Yes | Yes |
| Passage mode | Yes | Yes |
| Audit trail (lock events stored in lock memory) | Visionline: 2000 events. Vision: 600 | Visionline: 2000 events. Vision: 600 |
| Resident privacy function | Yes | Yes |
| Finishes | 8 + PVD with extended warranty | 8 |
| Reader/Panel colors | Black | Black |
| Standard handles | 4 + optional designer handles | 4 |
| UL fire listed | Yes | Yes |





4. Elsafe in-room Safes

Electronic in-room safes contribute to raising the security level in your facility, increasing your residents' peace of mind.

Not all in-room safes are equal! Only Elsafe offers a true in-room security solution with a sophisticated blend of advanced security features, technology, convenience and style.

Our in-room safes are tested by the world's most recognized and respected product testing organization Underwriters Laboratories. Elsafe Infinity is the first UL-listed in-room safe in the 1037 category for anti-theft devices. This prestigious UL listing is now awarded to both the Infinity and Sentinel models, including physical break-in tests, endurance tests and jarring tests.

The exclusive UL-1037 listing achieved by Elsafe's in-room safes gives you added assurance that your resident' valuables are receiving the maximum level of protection possible. Not only does this protect your residents' property, it also protects your property's valuable reputation. With Elsafe, your residents can rest easy and so can you.

Infinity II

Elsafe goes beyond the ordinary with its new Sentinel II in-room safe series. We have taken in-room security to a new level and combined it with a functional and trendy design. Sentinel II electronic in-room safe is more than just an in-room safe. It has become an important style element that blends into any environment! This new safe series operates with digital keypad.

Elsafe Sentinel II Digital in-room safe gives you the highest standard in facility in-room security with the UL-1037 certification. Our safes set the pace with the most unique features offered in electronic safes.

Standard features:

- UL-1037 Certified for physical security.
- Industry-leading audit trail.
- Easy outside battery change.
- Spring-loaded door.
- Unique modular construction for easy upgradeability.



Security - UL Listed

This prestigious UL listing is now awarded to both the Infinity and Sentinel models, including physical break-in tests, endurance tests and jarring tests.

How does UL-listing benefit you?

The exclusive UL-1037 listing achieved by Elsafe's in-room safes gives you added assurance that your guests' valuables are receiving the maximum level of protection possible. Not only does this protect your guests' property, it also protects your property's valuable reputation.

Zenith

The choice of in-room electronic safes becomes easy when you can choose Elsafe Zenith to secure your residents' belongings. Zenith is advanced and economical security, with the industry's leading audit trail system that allows you to print out comprehensive reports on all safe activities.

- Industry-leading audit trail.
- Backlit keypad.
- Internal light.
- Spring-loaded door.
- Anti-tamper labyrinth.
- Unique triangular locking bolt reinforcement.

Zenith Drawer

Zenith Drawer provides superior design flexibility, allowing for placement inside drawers, cupboards... or anywhere in the room that it is most accessible and easy for residents to use.

Zenith Standard

The standard Zenith (ZD27/ZD43/ZDWI) can accommodates up to 17" laptop and meets any room space limitation and location requirement.





Zenith Floor

Zenith Floor is a large size safe mounted to the floor that provides ample storage space for exclusive suites and back offices.



Comparison Table

| | Infinity II Series | Zenith Series |
|----------------------------------|------------------------------------|---|
| UL-Listed | UL 1037 | No |
| Audit log | Yes | Yes |
| Flash memory | Yes | Yes |
| Reprogrammable config. | Yes | Yes |
| ADA complaint keybord | Yes | Yes |
| User operation | 4 or 6 digit | 4 digits |
| LED display | Yes | Yes |
| Backlit keypad | Blue | Green |
| Internal light | Yes | Yes |
| Power supply | 5 AA batteries | 5 AA batteries |
| Low battery warning | Yes | Yes |
| Easy external battery change | Yes | Yes |
| Spring-loaded door | Yes | Yes |
| Laptop compatible | Yes, up to 17" laptop Infinity 49 | Yes, up to 17" laptop with Wide, in Wall and Floor |
| Service unit | Safelink & Pinkey | Safelink & Pinkey |
| Supports IR communication | Yes | Yes |
| Anti-tamper labyrinth | Yes | Yes |
| Anti-tamper switch | Yes | Optional |
| Audio feedback | Yes | Yes |
| Internal carpet | Yes | Yes |
| Locking method | Shut & lock push button | Lock push button |
| Locking mechanism | Interlocking deadbolt mechanism | 18 mm solid bolt |
| Door Construction | One piece cold pressed curved door | Flat steel door |
| Wireless RF online communication | Optional | Optional |
| Rental mode | Optional | Optional |
| Internal power outlet | Optional | Optional |
| RFID interface | Optional | No |

Additional Information

Colors

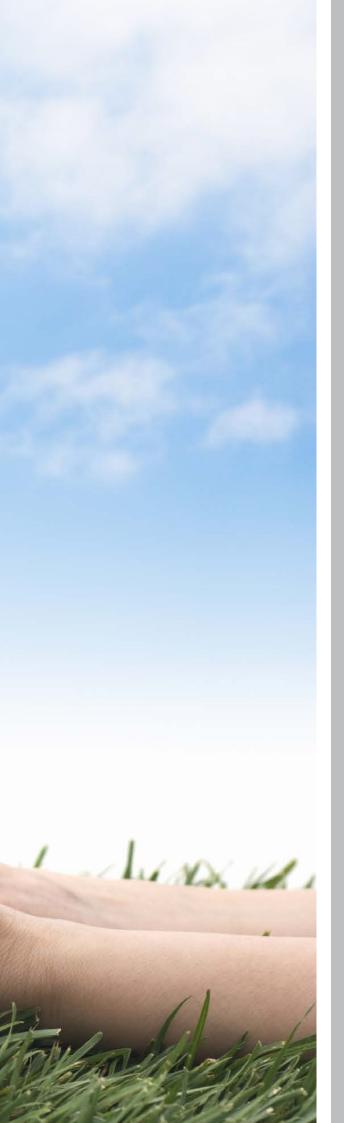
| | Sentinel II | Zenith Drawer/Floor/In Wall | Zenith 27/43/Wide |
|----------------|-------------|--------------------------------|----------------------|
| Body color: | Black | Black/Beige | Black/Beige |
| Frame: | Grey | N/A | Black/Beige |
| Front: | Silver | Grey/Beige | Black/Beige |
| Color preview: | | 101 | |

Dimensions

| | | Sentinel II 25 | Sentinel II 41 | Sentinel II 49 |
|--|--------|--|---------------------------------------|-------------------|
| External dimensions (h/w/d) incl. keypad | mm | 206/437/260 | 206/437/421 | 206/437/502 |
| | inches | 818/17316/10316 | 818/173/16/16518 | 81/8/17/1191216 |
| Internal dimensions (h/w/d) | mm | 196/428/168 | 196/428/330 | 196/428/411 |
| | inches | 7 ^{11/16} /16 ^{13/16} /6 ^{9/16} | 711/16/1613/16/13 | 711/16/1613/16/16 |
| Door dimensions (h/w) | mm | 148/320 | 148/320 | 148/320 |
| | inches | 5 ^{13/16} /12 ^{5/8} | 5 ^{13/16} /12 ^{5/8} | 513/16/125/8 |
| Internal volume | liters | 14,1 | 27,7 | 34,5 |
| | cu ft | 0,50 | 0,98 | 1,22 |
| Weight | kg | 11,6 | 15,1 | 17,4 |
| | Ib | 23,8 | 33,3 | 38,4 |

| | | Zenith Standard ZD 27 | Zenith Standard ZD 43 | Zenith Wide ZD WI | Zenith Drawer ZD 15 | Zenith Drawer ZD 17 | Zentih Floor ZD FL | Zentih In Wall ZD IW |
|--|--------|--|--|--|---|--|---|--|
| External dimensions (h/w/d) incl. keypad | mm | 191/354/270 | 191/354/432 | 191/460/417 | 131/400/350 | 131/460 /350 | 536/355/457 | 469/418/170 |
| | inches | 7 ^{33/64} /13 ^{15/16} /10 ^{41/64} | 7 ^{33/64} /13 ^{15/16} /17 | 7 ³³⁾⁶⁴ /18 ¹⁾⁸ /16 ²⁷⁾⁶⁴ | 5 ^{3/16} /15 ^{3/4} /13 ^{3/4} | 5 ^{3/16} /18 ^{1/8} /13 ^{3/4} | 21 ^{1/8} /14/18 | 18 ^{1/2} /16 ^{1/2} /6 ^{5/8} |
| Internal dimensions (h/w/d) | mm | 188/351/200 | 188/351/361 | 188/457/345 | 62-124/ 397/347 | 62-124/457/347 | 500/349/371 | 400 /350/95 |
| | inches | 7 ^{3/8} /13 ^{13/16} /7 ^{7/8} | 7 ³⁸ /13 ^{13/16} /14 ^{7/32} | 7 ^{3/8} /18/13 ^{19/32} | 2 ⁷¹⁶ - 4 ⁷⁸ /15 ⁵⁸ /13 ^{11/16} | 2 ⁷¹⁶ - 4 ⁷⁸ /18/13 ^{11/16} | 19 ^{11/16} /13 ^{3/4} /14 ^{5/8} | 15 ^{3/4} /13 ^{3/4} /3 ^{3/4} |
| Door dimensions (h/w) | mm | 140/295 | 140/295 | 140/400 | 382/292 | 442 /292 | 460/226 | 390/300 |
| | inches | 5 ^{1/2} /11 ^{5/8} | 5 ¹² /11 ⁵⁸ | 5 ^{3/2} /15 ^{3/4} | 15 ^{1/16} /11 ^{1/2} | 17 ³⁸ / 11 ^{1/2} | 18 ^{1/8} /8 | 15 ¹³ /11 ^{4 5} |
| Internal volume | liters | 13 | 24 | 31,5 | 13,5 | 16,1 | 66 | 17,5 |
| | cu ft | 0,46 | 0,84 | 1,11 | 0,48 | 0,57 | 2,33 | 0,61 |
| Weight | kg | 7,8 | 10 | 12 | 8,27 | 9,4 | 36,2 | 20 |
| | Ib | 16,8 | 21,6 | 26,5 | 18,23 | 20,72 | 79,8 | 44 |





5. Orion Energy Management System

Today, energy is the second highest cost for the industry. Most of this cost is wasted keeping rooms A/C at full speed, even though the resident is not in the room for most of the day.

An intelligent Energy Management Solution will allow you to increase the efficiency of your A/C system and therefore dramatically reduce your energy bill and improve your bottom line.

Orion Energy Management System

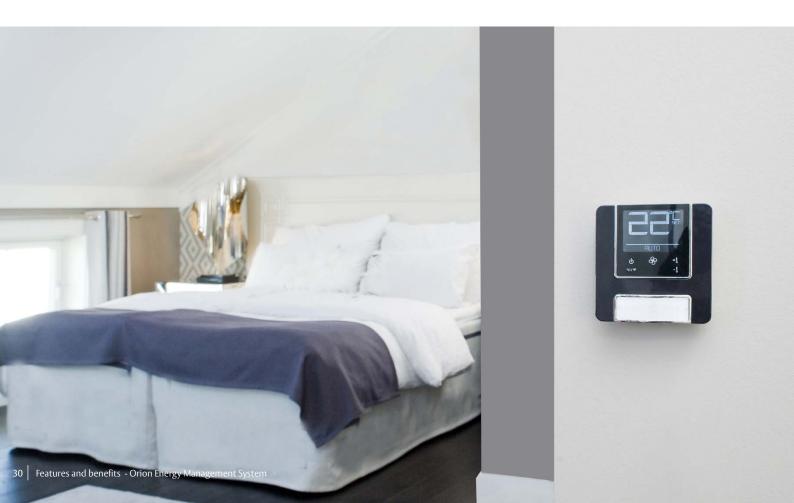
Features and Benefits

Reducing energy cost should not compromise your clients' comfort. You can't allow clients to find their rooms either too warm or too cold when they return. By completely switching off all in-room electricity, facility owners will increase savings but can can also impact the satisfaction of their residents.

An intelligent Energy Management Solution will take control of the room temperature when the rooms are not occupied, never allowing the room to become too warm or too cold. As soon as residents return to their rooms, the system automatically returns to the resident's temperature settings.

Benefits of Orion

- Lower your energy costs.
- Take control of property energy consumption
- Generate system reports to keep control of property's savings, occupancy, summaries and more.
- Improve your green initiatives and contribute to reducing global warming impact.
- Flexible settings to fit all types of properties and climates
- Adaptive to your needs with flexible installation alternatives.
- Integration option towards Visionline allowing one system to control everything from EMS to access control.
- Easy and user-friendly for residents to control room temperature.
- Ensuring residents comfort by maintaining a stable temperature when the residents is absent.
 This ensures that the room is neither too warm or too cold when return to their rooms.



Orion Energy Management System

System Components

Orion assists with energy savings, thus improving your green initiatives while ensuring resident comfort. Depending on your properties HVAC requirements, there are several components that may be necessary.

Orion thermostat

Wall-mounted intuitive digital room temperature controllers for ease of use. The thermostat controls the A/C and communicates with the motion sensor and door switch to set the room temperature.

Orion Thermostat - LV is only compatible with low voltage Orion Thermostat - HV is only compatible with high voltage

Orion motion sensor

With Orion's motion sensor, the resident presence is detected and signals are sent to the thermostat which controls the A/C. During occupancy the A/C will run on resident temperature preferences. As the resident leaves the room, the facility preferences will take over and turn the room into standby mode. As the room will always have a stable temperature, energy consumption and costs are reduced.

Orion already includes an integrated motion sensor.

Orion door switch

With an additional door switch, the Orion solution in communication with motion sensor and thermostat determine room status change and whether or not the resident is in the room.



Orion Thermostat - HV



Orion Thermostat - Original - LV



Orion Motion Sensor





Orion Door Switch

Orion Energy Management System

Installation Alternatives

Depending on what your property is in need of, Orion offers several installation alternatives:

1. Offline installation

A standalone Orion solution where the thermostat, motion sensor and door switch communicates only inside the room. The thermostat, together with the motion sensor and door switch, determine the resident occupancy and take control of room temperature based on the presence of the resident.



2. Wireless online EMS with Visionline

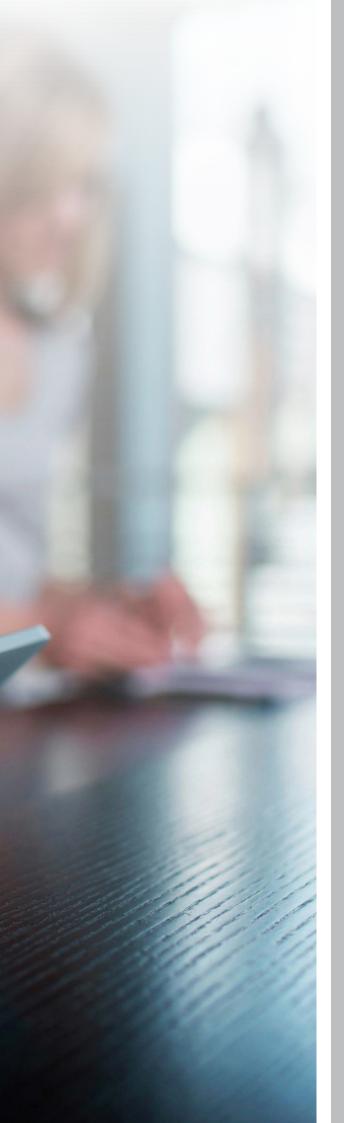
Online installation where Orion software is integrated with Visionline. You get total control of EMS, VingCard locks and Elsafe safes in one single system. Motion sensor and lock communicates with thermostat to ZigBee network, via gateways and to the Visionline server.





| | Standalone System | Visionline Online |
|--|----------------------|----------------------|
| Accurate digital room temperature control | ✓ | ✓ |
| Controls most types of A/C systems "PTAC, FCU, etc." | ✓ | ✓ |
| Built-in humidity sensor | ✓ | ✓ |
| Intuitive design | ✓ | ✓ |
| Simple installation | ✓ | ✓ |
| Determines resident presence | ✓ | ✓ |
| Dynamic or static setbacks | ✓ | ✓ |
| Lowers A/C runtime by determining occupancy | ✓ | ✓ |
| Designed for new construction and retrofit applications | ✓ | ✓ |
| Integration with door switches | ✓ | No need |
| Real time remote status of: | | ✓ |
| »» A/C Runtime | | ✓ |
| »» Room occupancy | | ✓ |
| »» Orion thermostat | | ✓ |
| Remote control of room temperature | | ✓ |
| Preventative maintenance schedules and reports | | ✓ |
| Occupancy change notifications | | ✓ |
| Savings reports | | ✓ |
| Event notifications | | ✓ |
| Maintenance alarms | | ✓ |
| Low battery warnings | | ✓ |
| Remote room temperature adjustment for welcome room set-ups | | ✓ |
| Integration with Visionline electronic locks | | ✓ |
| Utilizes robust secure Visionline network | | ✓ |
| Uses integrated lock communication to accurately determine occupancy status, no need for door switch | | √ |
| Manages resident/staff entry to monitor HVAC accordingly | | ✓ |





6. System & Software

Originally developed to maximize the networking capabilities of VingCard's industry leading electronic locking systems, Visionline allows your locks to communicate with the server via online radio frequency (RF), eliminating the need to manually encode keycards, cancel staff cards and check battery life.

Visionline is the only wireless, highly-secured and open standards-based platform to address the unique needs of low-power monitoring and access-control network applications. Operating on a reliable and secure platform like ZigBee provides increased reliability and performance at an affordable cost. In addition, the wireless network enables smooth interface and integration opportunities for other online devices, including safes, energy management systems and minibars.

System & Software

Visionline

Visionline is built on the ZigBee Standard ISO 802.15.4 high-security open platform, the only wireless, highlysecured and open standards-based platform to address the unique needs of low-power monitoring and accesscontrol network applications. Operating on a reliable and secure platform like ZigBee provides increased reliability and performance at an affordable cost. In addition, the wireless network enables smooth interface and integration opportunities for other online devices, including safes, energy management systems and minibars.

- : More Security and Control
- : More Services to your Residents
- : More Efficient and Cost Effective Operations
- : More Efficient Front Desk Operations
- : More Efficient Engineering and Maintenance

Visionline Options

Visionline is a highly flexible system that can consist of a combination of offline and online doors. Both wireless ZigBee and wired Ethernet can be used to create the most efficient system for your individual property needs. For Visionline wired online, PoE can be used as well.

Software Packages

Standard Online Module

- : Central card cancellation
- : Remote audit trail
- : Low battery report
- : Extended stay
- : Room move
- : Auto check-out of resident card

Orion EMS Module

- : Remote status of A/C usage, room occupancy, Orion thermostat
- : Preventative maintenance schedules and reports/ Event notification
- : Occupancy change notification, trends and reports
- : Saving reports

Advanced Online Module

- : Door ajar alarm
- : Inside opening audit trail
- : Wandering intruder alert
- : Sequential intruder alert
- : Block cards per user group and section
- : Live tracking of cards
- : Insert maintenance report card
- : Online passage mode activation

Communication Module

- : SMS/E-mail alert
- : On screen alarm panels

Loyalty Program Module

- : Remote check-in/check-out
- : Bypassing reception queues
- : Using RFID loyalty card

Online in-room safe Module

- : Warning if safe is locked upon check-out
- : Low battery warning
- : Mechanically opened alert
- : Clear safe memory warning
- : Automatic synchronization of date/time
- : Remote audit trail
- : Remote service reports

Safety Module

: Open doors from a central location¹

ASSA ABLOY Mobile Access Module

: Manages ASSA ABLOY Mobile Access credentials

System & Software

Features and Benefits

Visionline is available in both offline and online mode. In offline mode your property will benefit from a customized and flexible security solution without compromising security or convenience. The offline version allows you to upgrade at any time.

| | Features | Benefits | Offline | Online |
|--------------------------|------------------------------------|---|------------|----------|
| | Automatic access | Keycard automatically activated upon check-in. | ✓ | ✓ |
| | Room assignment | SMS/E-mail can be sent to resident in advance with room number. | | √ |
| FRONTDESK | Change room | Remotely re-assign a room to a resident. | | ✓ |
| OPERATIONS | Validation period | Keycards are automatically de-activated upon check-out. | ✓ | ✓ |
| | Extended stay | Residents may stend their stay remotely from the reception. | | ✓ |
| | Card update station | In offline scenarios the residents can use the Automatic Card Update Station to update the card and get a room number. | √ | √ |
| CENTEDAT | Various alarms | Reduce manual monitoring of the property. | ✓ | ✓ |
| GENERAL OPERATIONS | Online room management | Block users, cancel access, reassign rooms, etc. | | ✓ |
| | System integration | Add on to the system to include other product solutions | ✓ | ✓ |
| | Customized reports | Define criteria to create in report. | ✓ | ✓ |
| MANAGEMENT OPERATIONS | Automatic reports | Reports automatically sent by e-mail SMS to pre-defined users/groups. | | √ |
| | Unlimited options | No limit in number of reports. | ✓ | |
| | Wandering intruder alerts | Automatically detect if someone is trying to use a card in multiple doors, this automatically cancels the keycard. | | √ |
| SECURITY | Sequential intruder alert | Automatically detect if there are at least 5 failed access atempts with the same card in the same door. E.g. if a resident is on the wrong floor, the manager can send someone to assist. | | √ |
| OPERATIONS | Automatic cancellation of keycards | By a press of a key the card will be cancelled in all online doors (both resident and master cards). | | ✓ |
| | Block access to specific areas | Due to security issues, maintenance, etc. | √ 1 | √ |
| | Track users | See the user's last registered location. | | ✓ |
| | Door ajar alert | A message is sent to the server that a door is unclosed. | | ✓ |
| | Reporting cards | Use a customized card to report maintenance needed, e.g. "electrician needed". | | √ |
| MAINTENANCE | Audit trail | Audit trails for the locks or safes can be downloaded from the Visionline server without going to the room. | √2 | √ |
| OPERATIONS | Maintenance report | Automatically generate maintenance reports and perform preventative maintenance, e.g. low battery. | | √ |
| | Maintenance counters | Automatically detect in which rooms or areas maintenance is needed. | | √ |
| CASHLESS | Payment card | Use same keycard as payment method. | ✓ | ✓ |
| ENVIRONMENT | Counter | Use counters to limit the number of times residents can access certain areas, e.g. 10 visits to the pool. | √ | √ |



IABILIT

7. Accessories

ASSA ABLOY Hospitality offers an extensive range of accessories and security hardware options to complement your facility locking system and provide enhanced security.

These include such items as keycards and RFID carriers, as well as complementary hardware for cohesive room design, such as bathroom locks, door retainers, door viewers. Back-of-house and facility access hardware, such as elevator controllers, exit devices and more are also included in our product range, and are designed to meet various standards. An overview of our comprehensive offerings is provided on the following pages.

Accessories

Radio Frequency **Identification Technology**

Radio Frequency Identification, contactless technology

VingCard RFID electronic locks share the same technology together with the RFID safes from Elsafe. Our RFID locks offer the latest Radio Frequency Identification (RFID) technology with the most flexible platform for future applications:

- 13,56MHz technology.
- Compatible with following standards:
 - : ISO 14.443 A (MIFARE)
 - : ISO 14.443 B : ISO 15.693
- Compatible with NFC (Near Field Communication) and BLE (Bluetooth Low Energy) Technology. NFC and BLE technology enable contactless communication between our electronic locks and cell phones equipped with NFC and/or BLE.

Benefits with RFID technology:

- More Resident Satisfaction: Unmatched ease of use for residents of all ages. No need to insert the keycard.
- More Security: Anti-cloning technology for all resident and staff cards. Unlike magnetic strip whose keycards can be cloned, RFID technology allows powerful anti-cloning solution
- More Adaptability: RFID keycards and carriers adapt to any facility style. You can choose from low cost cards, long lasting staff cards, wristbands and keyfobs to perfectly match different facility types such as gyms, rehabilitation centers, medical rooms, etc.
- More Information and Control: VingCard RFID electronic lock can write back information on staff RFID keycards for better information and management such as staff card audit trail, low battery status, cylinder tamper alarm.
- More Integration: You can integrate and interface VingCard RFID keycards with other applications at your facility (loyalty programs, vendor payment,
- More Exclusivity: Provide a new experience for your customers and enhance the image of your facility.
- More Durability: VingCard RFID electronic lock components are sealed and provide better performance for outdoor use.
- More Selection: Provides access today to next generation technologies such as BLE Bluetooth Low Energy and NFC (Near Field Communication).
- Less guess-work out of selecting the right technology. VingCard RFID electronic locks offer 4 technology standards in 1 electronic lock.

RFID Carriers

ASSA ABLOY Hospitality offers a wide range of RFID carriers that are especially designed for different applications (for residens, staff or vistors) and give you the opportunity to enhance your residents' experience at your facility.



Keycard



Smartphone



Wristband



Keyfob



Accessories

Wide Variety of Accessories to Enhance your System

RFID Readers

RFID Remote Controller

This independent unit provides access control to common doors, such as parking, health clubs, staff entrances or resident night entrances. VingCard Remote Controllers are fully compatible with all of VingCard's card locking systems.



RFID Elevator Controller

VingCard's Elevator Controller is designed to be built into the elevator panel and operates offline. The security level of the facility will increase, as only residents with a valid keycard will have access to the elevators/floors.

The Elevator Controller is compatible with all of VingCard's card locking systems.



RFID Exit Device

Our Exit Device works with your VingCard electronic card locking system. This makes it possible to use encoded cards to control all residents and staff access to the building, while providing a panic exit device to satisfy all safety considerations for emergency exit. Opening the door from the inside is achieved by simply pushing the push bar.



Mechanical Locks

Bathroom Locks

VingCard's Bathroom Lock has an occupancy indicator and a thumb turn, and it is easy to change the lock case handing from left to right. The Bathroom Lock is delivered in Satin Chrome, Satin Brass, Polished Chrome and Polished Brass.



Mechanical Locks for Back of House

The VingCard 1000-series cylinder locks are designed to complement VingCard's electronic locks, ensuring uniform appearance in guestrooms and corridors.

- Available in ANSI and EURO.
- Staff key will fit into cylinder keyways.
- UL-fire listed.
- Finish Materials: Satin Chrome, Satin Brass, Polished Chrome, Polished Brass.



Additional Items

Door Viewer

ASSA ABLOY Hospitality high quality Door Viewer with glass lens has a super wide 200° all round clear angle of view. The to enhance your system is delivered in Satin Chrome or -Brass and Polished Chrome or -Brass.



Door Retainer

ASSA ABLOY Hospitality Door Retainer prevents entry of intruders and increases the guest's safety. Is delivered in satin chrome or -brass and polished chrome or -brass.



Energy Control Unit

ASSA ABLOY Hospitality offers a complete range of in-room Energy Control Units, the perfect combination to provide in-room comfort to your guests while, saving energy and money when they are away from their rooms.



Locker lock

The RFID Locker Lock is a contactless operated lock the ideal for spa and wellness centers, rehabilitation centers, golf clubs, sport and gym centers and is fully compatible with VingCard RFID locking system.



Polarbar Minibars

ASSA ABLOY Hospitality offers a wide range of minibars. For more information about Polarbar, please visit: www.assaabloyhospitality.com



ASSA ABLOY is the global leader in door opening solutions dedicated to satisfying end-users needs for security,

ASSA ABLOY

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