



Aperio[®] Technology



Wireless possibilities for
online access control



Aperio (Latin) / a'pe.ri.o / to uncover, open

ADAMS RITE

DL100 Deadlatch

For use with aluminum
stile entrances

CORBIN RUSSWIN

IN100 Lock

For use in commercial and
institutional applications

HES

ES100 Electric Strike

For use in commercial
and institutional
applications with
existing locksets

K100 Cabinet Lock

For use with swinging
and sliding cabinet
doors and drawers

KS100 Server Cabinet Lock

For use with cam-
activated swing handle
server cabinet doors

SARGENT

IN100 Lock

For use in commercial and
institutional applications

SECURITRON

R100 Card Reader

For use on glass, stone
or metal surfaces

DR100 Card Reader with Relay

For single and double
swinging and sliding
doors

Designed for easy integration into existing access control systems, the wide range of Aperio-enabled devices allows facilities to add access control to more applications than ever before.



An *innovative* new approach to online access control

Aperio® technology is a global wireless platform that reduces the cost and inconvenience of traditional access control, with the flexibility to address any application.

Aperio utilizes local wireless communication between the lock and a communications hub to connect to an electronic access control (EAC). You can easily expand the reach of existing access control systems and secure openings that would otherwise go unprotected.

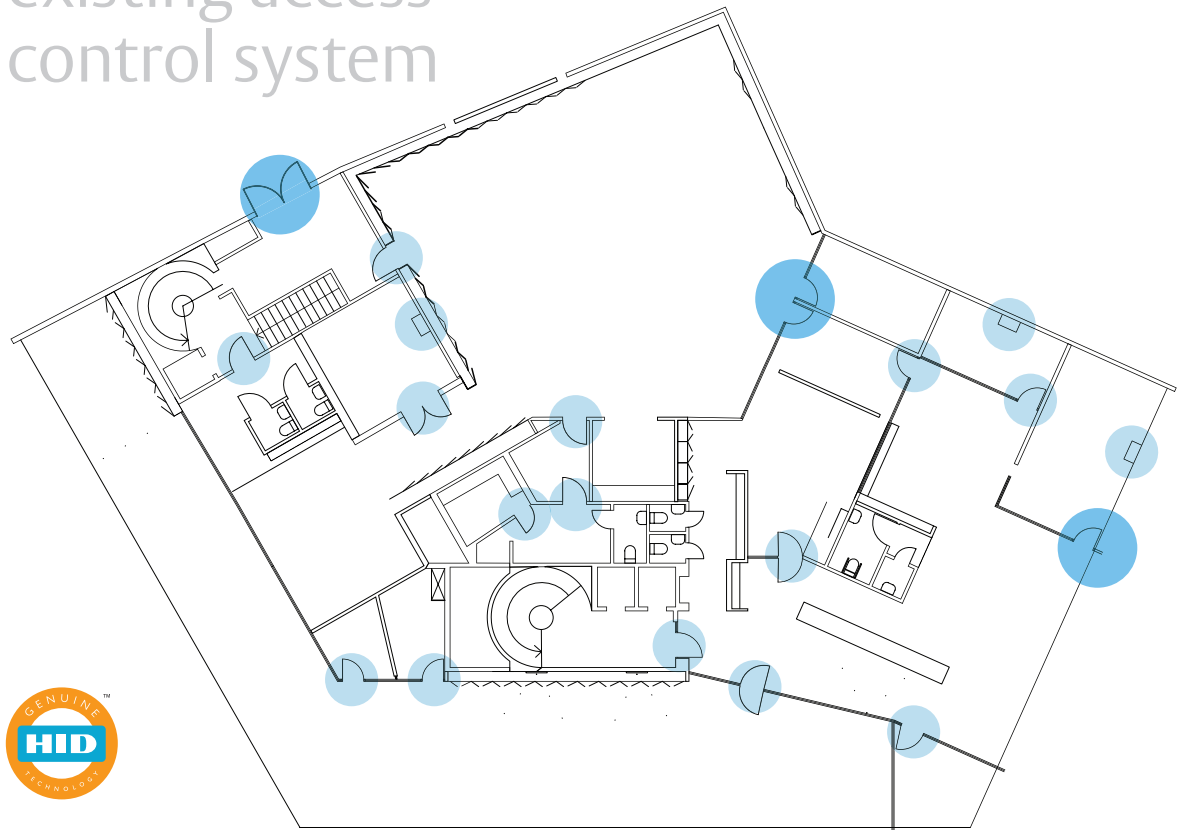
With the global range of Aperio-enabled locks from ASSA ABLOY, online access control can be easy and cost-effective at any opening, with standardization across locations worldwide.

ADVANCED CAPABILITIES

- No complex site surveys
- Minimal field configuration
- Simplified installation at the opening
- Fully-encrypted AES 128 wireless communication (IEEE 802.15.4)
- Real-time authentication and alarms
- Lockdown capability allows lock to respond to EAC system lock/unlock commands in less than 10 seconds
- Patent-pending credential cache ensures access when the lock is offline from the EAC system

Easily *expand* the reach of your existing access control system

- Wired Access Control Door
- Aperio-Enabled Door



Aperio® at a Glance

DEVICES

	Product	For use with	Location (interior doors, exterior doors, outdoors)	Surface Mount	Multi-Tech Card Reader	Mechanical Key Override	DPS (Door Position Status)	Locked State Monitoring	REX (Request-To-Exit)	Tamper	Battery Health	Power Source	No. of Batteries Required	Batteries Included	Est Battery Life	Emergency Battery Backup	Hard Power Option	Unique Features
Aluminum Stile Locks	Adams Rite DL100 Deadlatch	Swinging, single or double with fixed leaf aluminum stile openings	Interior, exterior (14° to 140° F)		•	•	•	•	•	•	•	1.5V LR6AA Lithium	2	•	40K	•		Universal MS* prep compatibility
ANSI Mortise or Cylindrical Locks, and Rim Exit Devices	IN100 Locks and Exit Devices (CORBIN RUSSWIN or SARGENT)	Swinging, single or double door hollow metal or wood openings with a fixed leaf	Interior		•	•	•		•	•	•	1.5V LR6 AA Alkaline	6	•	50K		•	Privacy button (local lockdown) Deadbolt monitoring
	HES ES100 Electric Strike	Swinging, single or double door hollow metal or wood openings with a fixed leaf	Interior, Exterior (14° to 140° F)		•		•†	•		•	•	1.5V LR6 AA Lithium	2	•	45K	•	•	Convenience (non-monitored) Security (M, monitored)
Cabinet Doors & Drawers	HES K100 Cabinet Lock	Swinging and sliding cabinet doors and drawers with up to 2-1/4" thickness	Interior		•	•	•	•		•	•	1.5V LR6 AA Lithium	2	•	50K	•	•	Lock jamb monitoring
	HES KS100 Server Cabinet Lock	Cam activated swing handle server cabinet doors with a 150 x 25 mm cutout	Interior		•	•	•†	•		•	•	1.5V LR6 AA Lithium	2	•	50K	•	•	Cam rotation monitoring
Universal Applications	SECURITRON R100 Card Reader	Universal mounting applications for glass, stone or metal surfaces	Interior, exterior (14° to 140° F)	•	•					•	•	1.5V LR6 AA Lithium	2	•	50K	•	•	Multiple installation options
	SECURITRON DR100 Card Reader with Relay	Most industry standard electrified hardware up to 2A @ 24VDC	Interior, exterior (14° to 140° F)	•	•		•			•		12-24VDC					•	Configurable relay control for real-time online access control

† Optional accessory purchased separately



Wireless *possibilities* for online access control

For additional information on Aperio products, please visit www.intelligentopenings.com/aperio.

Technical documentation is available in the Partner Area on IntelligentOpenings.com.

To ensure our customers receive best-in-class service and support, Aperio solutions are sold through ASSA ABLOY Authorized Channel Partners and must be installed by Certified Integrators.



Interested in becoming part of these programs? Visit www.intelligentopenings.com/Aperio-certification to start the process.



Quick, easy *wireless* deployments

R100 CARD READER

Retrofit access control for glass, metal or stone surfaces

The Securitron R100 surface mounted wireless card reader offers a cost-effective, aesthetically pleasing way to extend access control to glass, metal or stone surfaces without the need for cutting or drilling. It provides flexible, robust retrofit options for entryways unlike any the industry has seen before.



DR100 CARD READER WITH RELAY

*Surface mounted reader with
configurable relay for real-time
online access control*

The Securitron DR100 is the industry's first wireless reader with relay control providing simplified access control for single and double swinging and sliding doors.

This unique product is designed to activate traditional electrified hardware, providing the flexibility to secure the most challenging openings. Applications may include turnstiles, man doors, overhead doors, loading dock doors, and roof access where an integrated wireless lock cannot be used.

The DR100 supports HID multiCLASS SE and NFC/BLE mobile access credential technologies, easily interfacing with existing access control systems to extend real-time, cost-effective security to more openings.



FEATURES & BENEFITS

	DR100	R100
Works With:	Most industry-standard electrified hardware with power requirements up to 2A @ 24VDC. The DR100 provides 3 Configurable DPDT relays to either wet or dry contacts.	Most smooth glass, metal or stone surfaces without the need of additional third party adhesives
Installation:	Surface mounted	Surface mounted, no drilling required for easy installation
Special Features:	<ul style="list-style-type: none">Real-time monitoring: tamperUniversal compatibility with traditional electromechanical locking devicesDual installation modes based on security needs: Standard (relay and reader together) or Secure (separate sides of door)Configurable relay optionsWet and Dry DPDT RelaysIP65 RatedUL294 Listed	Real time tamper and battery health monitoring
Design:	Tamper and weather resistant protected by integrated monitoring	Tamper and weather resistant protected by integrated monitoring
Power:	12-24VDC	2 x AA 1.5V Lithium; 5V Micro USB Port Battery Backup
Options:	<ul style="list-style-type: none">SIK-100 (Secure Installation Kit); HSA-HE (Heater Element for standard installation only); HSA-CWK Cold Weather Kit for secure installation only)Wholesale kit with pre-paired 1:1 AH20 Wiegand hub	Adhesive aluminum dress cover plate (R100-DPK)
Credential Support:	<p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO®-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESFire® EV1 SE, MIFARE CLASSIC, DESFire® EV1, DESFire® EV2 (legacy mode)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Access Credentials: NFC, HID BLE Mobile Access, SEOS iOS Apple Wallet</p>	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO®-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESFire® EV1 SE, MIFARE Classic, DESFire EV1, PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>

Redefining wireless access control



K100

CABINET LOCK

Add security and accountability to cabinets, lockers and drawers

The HES K100 wireless cabinet lock with Aperio® technology expands access control to lockers, drawers or cabinet doors. Control and track access to pharmaceuticals, prototypes, restricted documents, evidence, tools and high value materials through the use of existing ID badges.



KS100 SERVER CABINET LOCK

Protect sensitive data and equipment against malicious attacks or tampering while ensuring compliance

The HES KS100 provides rack level security for data centers and emergency operations centers looking to bring real-time monitoring and managed access to server cabinet doors. It is available standard with locked state monitoring and utilizes an SFIC (Small Format Interchangeable Core) mechanical key override. For high security applications, an optional extended DPS monitoring sensor can be connected to ensure that the cabinet is closed, locked and secure.



FEATURES & BENEFITS

	K100	KS100
Works With:	Swinging or sliding cabinet doors and drawers up to 2-1/4" thickness	For use with cam-activated swing handle server cabinet applications with a 150 x 25 mm lock prep
Installation:	Surface mounted lock and trim with concealed fasteners	No-cutting required when installed in an existing 150 x 25 mm lock prep
Special Features:	Real time DPS (locked state), tamper and battery health monitoring	Real time integrated locked state (handle), cam rotation, tamper and battery health monitoring
Design:	Weather resistant non-handed with Pinch or Lever knob options and 3 shaft lengths to accommodate up to 2-1/4" door thickness	Tamper resistant protected by integrated monitoring and SFIC mechanical or intelligent key override
Key Override:	Optional cam activated cylinder (sold separately)	Optional 6 or 7-pin SFIC (sold separately)
Options:	Open back strike plate (OBS-622) for drawer applications	Optional external door status monitoring (KS-DPS)
Credential Support:	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1, PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1, PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>



A wireless *solution*
that is truly easy



IN100 LOCK

*Expand your access control
system easily and affordably*

Available from ASSA ABLOY Group brands Corbin Russwin and Sargent, the IN100 lock with Aperio® Technology makes access control easy and affordable. This next generation lock offers the convenience and flexibility of Aperio wireless technology with the real-time communication of online access control. As part of the Aperio family of wireless locks, the IN100 offers easy expansion of existing access control systems to bring a new level of control to your facility.



FEATURES & BENEFITS

	IN100
Works with:	Hollow metal or wood doors
Installation:	Quick and easy — integrated reader, monitoring and short range wireless radio simplifies installation and reduces material costs
Monitoring:	Real-time door status monitoring with REX, DPS, tamper and low battery signals
Special features:	<ul style="list-style-type: none">• ANSI/BHMA Grade 1 hardware for the highest degree of physical security available in access control locks• Lockdown capability allows the IN100 to respond to lock/unlock commands from a host EAC system in less than 10 seconds• Instant local lockdown using privacy button or deadbolt• Support for passage mode scheduling offers convenience for office environments
Available in:	Cylindrical lock, mortise lock, and exit device configurations, offering the flexibility to support a variety of openings
Credential support:	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1, PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>

ES100

ELECTRIC STRIKE

The most versatile way to retrofit an opening with real-time wireless access control

The HES ES100 Series Wireless Electric Strikes make retrofitting an opening with online access control simple and affordable.

For the first time, the industry leading features of the HES 1500 and 1600 series electric strikes have been paired with Aperio® wireless technology to provide even more affordable access control retrofit options for remote control and monitoring. Available in both Convenient (non-monitored) and Secure (monitored) model options. Compatible with most models of cylindrical and mortise latchbolt locksets, including 1" deadbolts.

Simply put, the ES100 Series Electric Strike is the affordable universal retrofit solution that offers flexible configuration options and dynamic adjustability without the need to run wires to every door.



FEATURES & BENEFITS

	R100	DL100
Works With:	Most smooth glass, metal or stone surfaces without the need of additional third party adhesives	Aluminum stile doors
Installation:	Surface mounted, no drilling required for easy installation	Universal compatibility with existing standard MS* door prep
Special Features:	Real time tamper and battery health monitoring	<ul style="list-style-type: none">Real time monitoring: DPS, tamper, REX, locked state and latch status, battery healthFeatures low energy EcoLatch* motorized actuator technology for ultra-quiet operationMultiple backset options for aluminum stile openingsModular construction for easy no-cut, no-drill installation
Design:	Tamper and weather resistant protected by integrated monitoring	Tamper resistant; faceplate and finish options to match opening.
Power:	2 x AA 1.5V Lithium; 5V Micro USB Port Battery Backup	microUSB port for emergency power
Options:	Adhesive aluminum dress cover plate (R100-DPK)	<ul style="list-style-type: none">DL100-DRK Door Repair/Retrofit PlateWholesale kit with pre-paired 1:1 AH20 Wiegand hub
Credential Support:	<p>HID® multiCLASS SE™ technology offers support for the following credentials:</p> <p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESfire® EV1 SE, MIFARE Classic, DESfire EV1, PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>	<p>High Frequency (13.56 MHz): HID iCLASS®, HID iCLASS SE® (SIO-enabled), HID iCLASS® Seos®, HID MIFARE® SE, HID DESFire® EV1 SE, MIFARE CLASSIC, DESFire® EV1, DESFire® EV2 (legacy mode), PIV/PIV-1 (40-bit BCD, 64-bit BCD, 75-bit, 128-bit or 200-bit outputs)</p> <p>Low Frequency (125 kHz): HID Prox®, AWID, EM4102</p> <p>Mobile Phones: NFC & BLE</p>



DL100 DEADLATCH

The most advanced electrified deadlatch, ideal for retrofit applications

The Adams Rite DL100 is the most advanced next generation of Adams Rite deadlatch that extends real-time online access control to more openings using Aperio® wireless technology.

The DL100 is the most affordable retrofit solution for any aluminum stile door with an existing MS® door prep, offering multiple backset options and compatibility with Adams Rite paddle and lever trim. DL100 uses the low energy motorized EcoLatch® actuator technology for ultra-quiet operation and offers flexible field-configurable Request-to-Exit (REX) and Door Status (DPS) monitoring options. As part of the Aperio product range, the DL100 integrates with most existing access control systems and credentials and supports HID multiCLASS SE and NFC/BLE mobile access card technologies.



Aperio® Hubs

Designed for easy integration into existing access control systems, Aperio-enabled locks communicate wirelessly to an Aperio hub, which connects to the access control system using Ethernet, RS-485 or Wiegand wiring.

Refer to
<https://www.intelligentopenings.com/en/resources/access-control-partners/>
for a complete list of compatible access control systems.

Series	Description	Max. # Devices Supported by Hubs*	Conductors Required	Communication Interface
AH-40**	IP Hub	64	Cat 5 or higher	IP
AH-30**	RS-485 Hub	16	5	RS-485
AH-20	Wiegand Hub	1	12	Wiegand

* Must be supported by EAC system

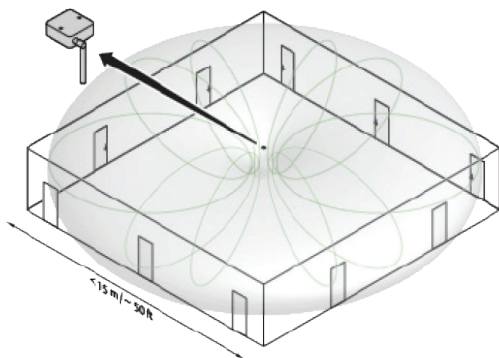
** Available in standard and Mercury versions

APERIO® HUB SPECIFICATIONS

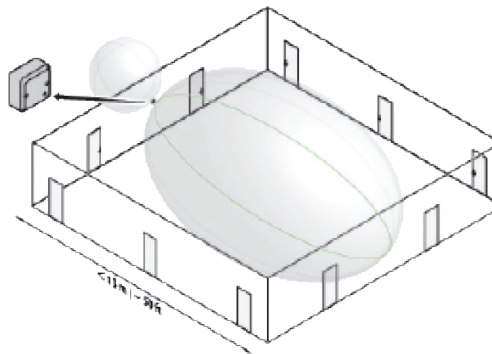
Aperio Hub

Wireless Coverage Range:	Up to 80 feet between the Aperio locking device and communication hub depending on building environments
IP Hub:	Supports PoE, IEEE 802.3af compliant Class 1 powered device (PD)
Power Requirements	8-24 VDC, 1.2W
Operating Temperature	41 to 95° F (5 to 35° C)
Operating Humidity:	0 to 95% relative humidity non-condensing
Monitoring:	AH20 includes 4 form C relays for door status monitoring (DPS, REX, battery, tamper)
Options:	An optional external antenna (part no. EXT-10-ANT) with max antenna gain of 3.9 dBi (SMA connector) is available for use with AH20, AH30 and AH40 Aperio hubs. This is a 2.4 GHz dipole, omnidirectional antenna that may be used to obtain a more uniform coverage pattern (in the form of a dough nut) around the hub. Please note that this does not extend the maximum range of the hub and is limited to no more that 25 feet between the locking device and hub (reference illustrations below).

WIRELESS COVERAGE



With external antenna

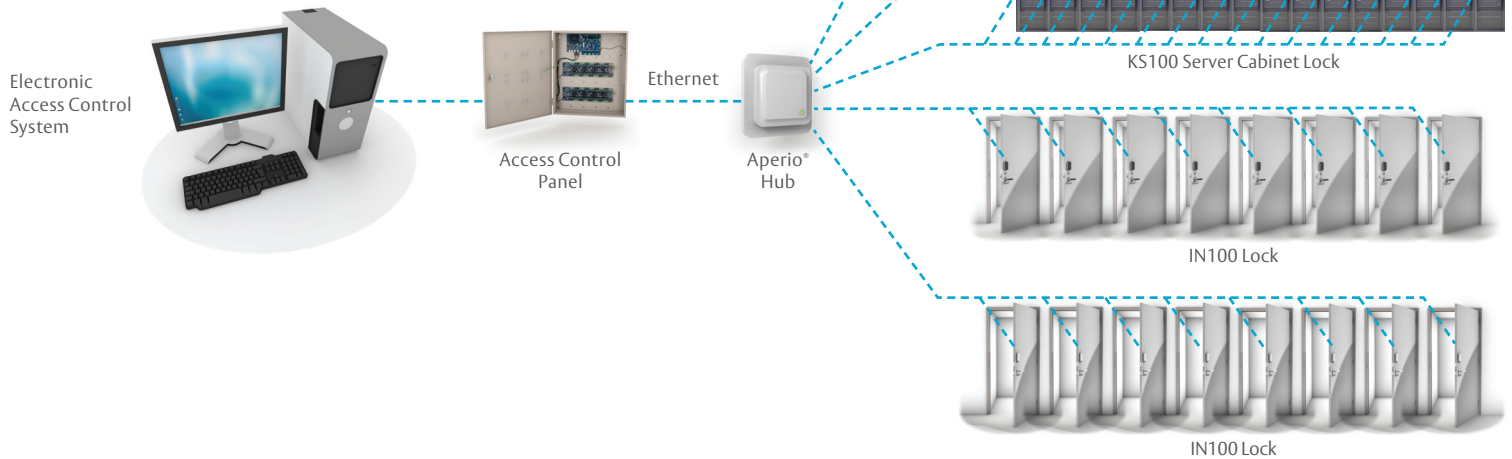


Without external antenna

IP Hub

(AH40)

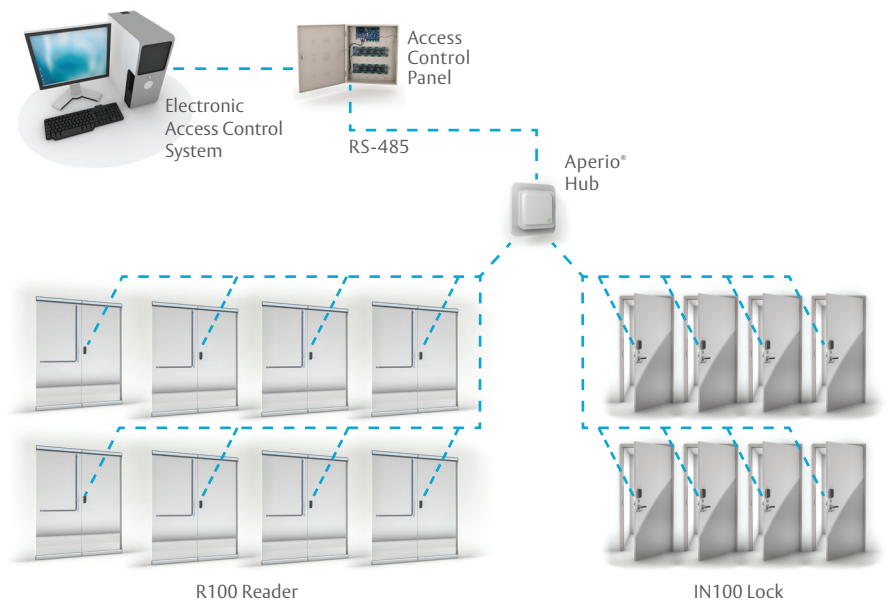
The IP Aperio hub uses standard Ethernet cabling to connect to IP-based access control systems and supports up to 64 devices per hub*.



RS-485 Hub

(AH30)

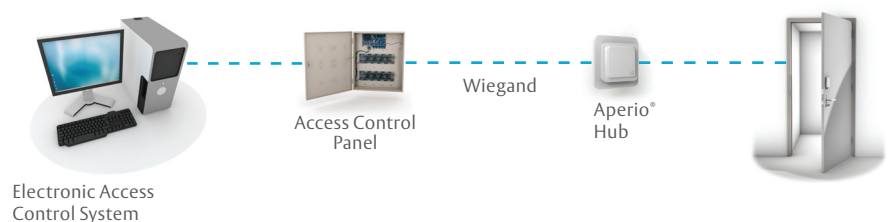
The RS-485 version of the Aperio hub offers the flexibility and scalability to support up to 16 devices per hub*.



Wiegand Hub

(AH20)

Offering easy integration with many popular access control systems, the Wiegand hub supports 1 device per hub and provides I/O for an external REX and DPS input.



* Must be supported by EAC system.

The ASSA ABLOY Group is the global leader in access solutions.
Every day, we help billions of people experience a more open world.

ASSA ABLOY
Opening Solutions

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, mechanical and smart locks, access control and service.

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